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July 15, 2021

Christopher Black
U.S. Environmental Protection Agency Region 5
Land, Chemicals & Redevelopment Division
77 West Jackson Blvd, LR-16J
Chicago, IL 60604-3590

Subject: ***Quarterly Progress Report (April through June 2021)***
Administrative Order on Consent (February 26, 2009)
Tyco Fire Products LP, Stanton Street Facility, Marinette, Wisconsin
WID 006 125 215

Dear Mr. Black:

In accordance with Section VI, 21, b (page 10) of the Administrative Order on Consent (AOC), dated February 26, 2009,[1] Tyco Fire Products LP (Tyco) has prepared this quarterly progress report for the U.S. Environmental Protection Agency (EPA) Region 5 and Wisconsin Department of Natural Resources (WDNR) (collectively referred to herein as the Agencies). Progress reports are required to document activities conducted as part of the Resource Conservation and Recovery Act corrective actions at the Tyco facility on Stanton Street in Marinette, Wisconsin. This report covers the period from April 1 through June 30, 2021, and presents a brief description of the work performed, data collected, problems encountered, and schedule of activities as required by the February 2009 AOC and subsequent agreements.

Work Completed during This Reporting Period

Attachment 1 summarizes the operational data for the groundwater collection and treatment system (GWCTS) during the second quarter 2021, and Attachment 2 contains the monthly Discharge Monitoring Reports. Operations continue to include bypassing the first two reaction tanks and the lamella with direct connection of the equalization tank to Reaction Tank 3, then Reaction Tank 4, and then the microfilter. The GWCTS generally operated continuously except for short-term maintenance, some weekends and holidays, and one extended maintenance shutdown that occurred from June 3 to 9, 2021. The extended shutdown was a result of a broken feed line to the filter press that was subsequently repaired. The overall volume of groundwater extracted during the reporting period was 656,085 gallons.

Pump down operations with the temporary system continued through second quarter 2021 in the former Salt Vault and former 8th Street Slip areas. Operations continued under management of Endpoint Solutions of Franklin, Wisconsin. From March 27 to July 2, 2021, an additional 324,450 gallons of

[1] U.S. Environmental Protection Agency. 2009. *Resource Conservation and Recovery Act Administrative Order on Consent, Ansul, Incorporated.* EPA Docket No. RCRA-05-2009-0007542-S-02-001. February 26.

groundwater was extracted and disposed of offsite as part of the pump down program (PDP). Details of the pump down operations are reported to the Agencies in biweekly summary reports.

Phyto-plot inspections were completed on June 23, 2021 (Figure 1). There were no issues or findings to address, except in the Wetlands Area (Zone 4) and in the new area planted in 2020 (Zone 7). The Wetlands Area phyto-plot has had river levels overtopping the barrier wall starting spring 2019, and continuing into spring 2021. During that time, most of the trees were in areas of standing water, a condition that can decrease tree survivability. Approximately 60 percent of the poplars and 65 percent of the willows continued to survive in these areas. The dead trees were concentrated in the central area, approximately 50 feet from the west edge of the Wetlands Area, where the standing water occurred. Tyco will continue to monitor this area for additional standing water. Willows would be the best trees to replant in the future, if necessary. In Zone 7, Sand Creek Consultants replanted trees on June 25, 2021, as part of the warranty. Approximately 59 percent of the poplars and 22 percent of the willows were replanted in this area.

Cover area inspections were completed on June 23, 2021 (Figure 2). There were no issues or findings to address, except in Cover Areas E and F, where there was a small hole (approximately 4 inches in diameter) in the asphalt.

The spring barrier wall groundwater monitoring and sampling event started on June 24, 2021, and was completed on July 8, 2021, by Endpoint Solutions. The sampling was conducted in accordance with the *Revised Barrier Wall Groundwater Monitoring Plan Update* (BWGMPU)[2] and the 2019 Addendum to the 2015 BWGMPU.[3]

Pressure transducer–related activities were completed on May 4, 2021. These activities included downloading data from each transducer and collecting manual water levels at the time of transducer downloads.

The vertical barrier wall (VBW; Figure 3) inspection (landside and waterside above the waterline) and sheet pile VBW survey were completed on June 23 and 24, 2021, by Endpoint Solutions. No major issues were identified. The following observations were made:

- Minor erosion on the landside from the high river levels—this will be addressed as part of the stormwater and/or conveyance installation work which are anticipated to start in 2021.
- Missing VBW markers along the slurry wall portion—Missing markers will be installed following the completion of the stormwater work in these areas in 2021.

The VBW inspection details will be provided in the annual report.

Two well nests (MW047 and MW100) were surveyed on June 23, 2021. Because of access issues, these wells were not surveyed as part of the 2020 sitewide monitoring well survey (required every 5 years as part of the barrier wall groundwater monitoring plan). The updated survey coordinates and elevation data will be provided in the annual report.

[2] CH2M HILL, Inc. 2015. *Revised Barrier Wall Groundwater Monitoring Plan Update*. September 3.

[3] Jacobs. 2019. *Addendum to 2015 Barrier Wall Groundwater Monitoring Plan Update*. June.

Additional Activities

Follow-on activities as part of the final Wisconsin Pollutant Discharge Elimination System (WPDES) Permit WI-0001040-08-0 (effective January 1, 2021, through December 31, 2025) continued in second quarter 2021 and included the following:

- Pump house construction continued at the former Salt Vault. The pump house is part of the permanent PDP conveyance system that will collect and transfer groundwater from the former Salt Vault and former 8th Street Slip extraction wells, including the two new horizontal extraction wells constructed in December 2020. The pump house and extraction well connection to the pump house are anticipated to be completed in third quarter 2021.
- Testing of the two new horizontal wells started on April 6, 2021. The testing will assess the ability of the horizontal wells to achieve the target dewatering elevation across the former Salt Vault and estimate the approximate extraction rate required to maintain the target elevation. Samples of groundwater from each of the horizontal extraction wells were also collected on April 8 and April 24, 2021 (Attachment 3), to evaluate concentrations of arsenic and other key parameters in extracted groundwater to inform the groundwater treatment system upgrade design. The four existing vertical extraction wells have remained off during the testing.
- The design of the remainder of the permanent PDP conveyance system (conveyance lines from the pump house to the GWCTS) was completed and approved by WDNR on May 26, 2021. Construction work will begin in 2021.
- The associated design efforts for the GWCTS improvements were initiated in second quarter 2021.
- Stormwater improvement design and planning that will abandon the subsurface stormwater lines and manage stormwater through aboveground surface flow, as needed, continued. Construction work will begin in 2021.

Data Collected

Extraction and treatment volumes, analytical testing, and discharge data are required as part of the WPDES permits obtained from WDNR for operating the GWCTS, which operates under WPDES Permit WI-0001040-08-0. Attachment 2 includes the GWCTS monthly WPDES Discharge Monitoring Reports for March through May 2021. Attachment 1 contains additional data on GWCTS operations.

Weekly groundwater elevation data were collected from monitoring wells in the former 8th Street Slip and former Salt Vault areas in accordance with the PDP requirements and have been reported to the Agencies in the biweekly summary reports. Laboratory analytical reports for the samples of groundwater from each of the former Salt Vault horizontal extraction wells collected on April 8 and 24, 2021, are included as Attachment 3.

Spring barrier wall groundwater monitoring event data are not yet available and will be included in the annual report. Groundwater elevation data recorded by transducers are being compiled and evaluated. The transducer data will be provided in the annual report.

Survey data collected in June 2021 for the monitoring well nests and VBW surveys are being compiled by the surveyor. The survey data will be provided in the annual report.

Problems Encountered

Menominee River Levels

Menominee River water levels continued to decline but remained above typical levels through second quarter 2021. During portions of the reporting period, the river level remained above the top of the VBW in the Wetlands Area of the site. River levels did not exceed the weir elevations in the Main Plant area throughout the quarter.

Spring Barrier Wall Groundwater Sampling

During the second quarter 2021 barrier wall groundwater sampling event, the following were encountered:

- Flush mount monitoring well MW107M was filled with water before sampling. Water was removed from the well box with the well cap still in-place, and the monitoring well was subsequently sampled on July 7, 2021.
- Flush mount monitoring well MW040S was filled with water before the site-wide water level measurements on June 24, 2021. Water was removed from the well box with the well cap was still in-place, and the water level was subsequently collected before the well was sampled on June 30, 2021.
- MW100S and MW100M monitoring wells water level measurements were collected on July 1, 2021.

Schedule of Upcoming Activities

The following summarizes the activities to be conducted during the next reporting period:

- Submit the quarterly progress report
- Continue PDP operations in the former Salt Vault and former 8th Street Slip areas
- Continue operating the GWCTS
- Start conveyance improvements construction
- Complete construction on the horizontal wells and the pump house at the former Salt Vault
- Continue GWCTS improvements design
- Continue stormwater improvement design and planning activities
- Conduct transducer data download activities
- Complete the spring barrier wall groundwater monitoring sampling event
- Address inspection findings for the VBW

List of Key Correspondence and Document Submittals

Project-related documents submitted to and received from the Agencies during second quarter 2021 are summarized in Tables 1 and 2, respectively.

Table 1. Documents Submitted

Quarterly Progress Report (April through June 2021), Tyco Fire Products LP Facility, Marinette, WI

Description of Submittal	Submitted To	Date Submitted
Biweekly Summary Report for Pump Down Program	EPA	April 2, 2021
Biweekly Summary Report for Pump Down Program	EPA	April 13, 2021
Quarterly Progress Report (Fourth Quarter 2020)	EPA	April 15, 2021

Table 1. Documents Submitted

Quarterly Progress Report (April through June 2021), Tyco Fire Products LP Facility, Marinette, WI

Description of Submittal	Submitted To	Date Submitted
Biweekly Summary Report for Pump Down Program	EPA	April 27, 2021
Biweekly Summary Report for Pump Down Program	EPA	May 13, 2021
Biweekly Summary Report for Pump Down Program	EPA	May 26, 2021
Email Notification—Field Work Notification for Annual Groundwater Sampling, VBW Survey, and VBW Inspection	EPA	June 3, 2021
Biweekly Summary Report for Pump Down Program	EPA	June 9, 2021
Biweekly Summary Report for Pump Down Program	EPA	June 24, 2021
WPDES Outfall Summary Report	WDNR	June 30, 2021

Table 2. Correspondence from Agency

Quarterly Progress Report (April through June 2021), Tyco Fire Products LP Facility, Marinette, WI

Description of Correspondence	Submitted By	Date Submitted
None for second quarter 2021		

If you have any questions or require additional information, please contact me at 262-644-6167 or Jeffrey Danko at 262-349-2528.

Respectfully Yours,

Jacobs

Heather Ziegelbauer
Project Manager

cc: Angela Carey, WDNR
Ryan Suennen, Tyco Fire Products
Jeffrey Danko, Johnson Controls
Mariel Carter, Stephenson Public Library

Figures

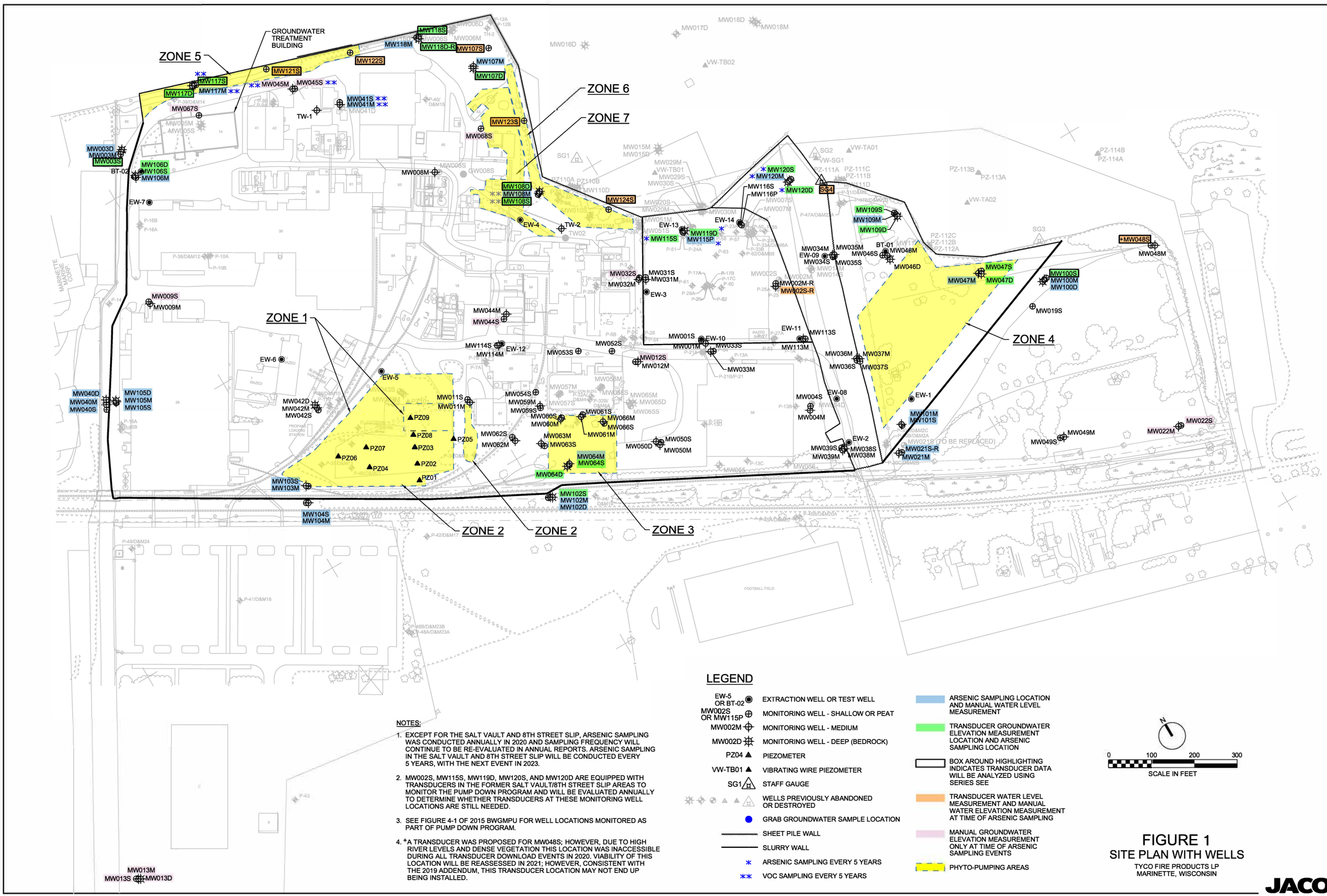
1 Phyto-plot Areas
2 Cover Areas
3 VBW Details

Attachments

1 Groundwater Collection and Treatment System Operation Summary
2 Discharge Monitoring Reports for the Groundwater Collection and Treatment System
3 Horizontal Well Groundwater Laboratory Analytical Reports

Document Control No.: D3478800.284

Figures



NOTES:

1. EXCEPT FOR THE SALT VAULT AND 8TH STREET SLIP, ARSENIC SAMPLING WAS CONDUCTED ANNUALLY IN 2020 AND SAMPLING FREQUENCY WILL CONTINUE TO BE RE-EVALUATED IN ANNUAL REPORTS. ARSENIC SAMPLING IN THE SALT VAULT AND 8TH STREET SLIP WILL BE CONDUCTED EVERY 5 YEARS, WITH THE NEXT EVENT IN 2023.
2. MW002S, MW115S, MW119D, MW120S, AND MW120D ARE EQUIPPED WITH TRANSDUCERS IN THE FORMER SALT VAULT/8TH STREET SLIP AREAS TO MONITOR THE PUMP DOWN PROGRAM AND WILL BE EVALUATED ANNUALLY TO DETERMINE WHETHER TRANSDUCERS AT THESE MONITORING WELL LOCATIONS ARE STILL NEEDED.
3. SEE FIGURE 4-1 OF 2015 BWGMPU FOR WELL LOCATIONS MONITORED AS PART OF PUMP DOWN PROGRAM.
4. +A TRANSDUCER WAS PROPOSED FOR MW048S; HOWEVER, DUE TO HIGH RIVER LEVELS AND DENSE VEGETATION THIS LOCATION WAS INACCESSIBLE DURING ALL TRANSDUCER DOWNLOAD EVENTS IN 2020. VIABILITY OF THIS LOCATION WILL BE REASSESSED IN 2021; HOWEVER, CONSISTENT WITH THE 2019 ADDENDUM, THIS TRANSDUCER LOCATION MAY NOT END UP BEING INSTALLED.

LEGEND

- EW-5 OR BT-02 — EXTRACTION WELL OR TEST WELL
- MW002S OR MW115P — MONITORING WELL - SHALLOW OR PEAT
- MW002M — MONITORING WELL - MEDIUM
- MW002D — MONITORING WELL - DEEP (BEDROCK)
- PZ04 — PIEZOMETER
- VW-TB01 — VIBRATING WIRE PIEZOMETER
- SG1 — STAFF GAUGE
- WELLS PREVIOUSLY ABANDONED OR DESTROYED
- GRAB GROUNDWATER SAMPLE LOCATION
- SHEET PILE WALL
- SLURRY WALL
- * — ARSENIC SAMPLING EVERY 5 YEARS
- ** — VOC SAMPLING EVERY 5 YEARS
- ARSENIC SAMPLING LOCATION AND MANUAL WATER LEVEL MEASUREMENT
- TRANSDUCER GROUNDWATER ELEVATION MEASUREMENT LOCATION AND ARSENIC SAMPLING LOCATION
- BOX AROUND HIGHLIGHTING INDICATES TRANSDUCER DATA WILL BE ANALYZED USING SERIES SEE
- TRANSDUCER WATER LEVEL MEASUREMENT AND MANUAL WATER ELEVATION MEASUREMENT AT TIME OF ARSENIC SAMPLING
- MANUAL GROUNDWATER ELEVATION MEASUREMENT ONLY AT TIME OF ARSENIC SAMPLING EVENTS
- PHYTO-PUMPING AREAS

N

0 100 200 300

SCALE IN FEET

FIGURE 1
SITE PLAN WITH WELLS

TYCO FIRE PRODUCTS LP
MARINETTE, WISCONSIN

JACOBS

FILENAME: PGETAMW3_D3394600.dgn PLOT DATE: 12/1/2020 PLOT TIME: 3:35:24 AM

AREA C
(ASPHALT REPAIR)

AREA D
(ASPHALT REPAIR)

AREA E
(ASPHALT)

AREA B
(ASPHALT &
CONCRETE)

AREA F
(ASPHALT)

AREA A
(ASPHALT,
STONE &
CONCRETE)

MENOMINEE RIVER

SB211

AREA G
(SOIL & ASPHALT)

GROUNDWATER
TREATMENT BUILDING

MENOMINEE RIVER

AREA H
(ASPHALT)

AREA I
(ASPHALT)

MARINETTE
MARINE

EIGHTH ST. SLIP

SIXTH ST. SLIP

AREA K
(SOIL,
ASPHALT &
CONCRETE)

AREA J
(SOIL, CRUSHED
STONE & CONCRETE)

AREA L
(EXCAVATED)

AREA M
(EXCAVATED)

AREA N
(EXCAVATED)

NOTES:

1. DUE TO CONSTRUCTION OF THE GROUNDWATER TREATMENT BUILDING, THE ASPHALT COVERS PLACED IN AREAS A AND B WERE REMOVED, MATERIAL EXCAVATED AND STOCK-PILED FOR OFFSITE DISPOSAL, AND THE BUILDING CONSTRUCTED OVER THE AREAS.
2. A PORTION OF AREAS C AND D WERE RE-ASPHALTED IN 2010 AS PART OF RESTORATION ACTIVITIES RELATED TO SHEETPILE BARRIER WALL INSTALLATION.
3. AREAS A, B, C, D, H, I, J, K, L, M, AND N WERE COMPLETED IN 2009. AREAS E, F, AND G WERE COMPLETED IN 2010.
4. AREAS L AND M WERE RE-EXCAVATED IN 2010 TO REMOVE ADDITIONAL MATERIAL.
5. AREA I WAS PREVIOUSLY REPLACED ALL WITH ASPHALT DURING SEDIMENT WORK.
6. AREAS G, H AND K HAD AREAS REPLACED WITH ASPHALT IN 2017 DURING STORMWATER OUTFALL UPDATES.

LEGEND

- STONE COVER
- ASPHALT OR CONCRETE COVER
- SOIL COVER
- 2017 CONVERTED TO ASPHALT

N

0 100 200 300
Scale In Feet

DSGN T. CHAPMAN
DR G. BOWLES
CHK J. DANKO
APVD H. ZIEGELBAUER

PRELIMINARY

JACOBS

TYCO FIRE PRODUCTS LP
Cover Maintenance Plan for
Onsite and Offsite Soil Areas at
the Tyco Fire Products LP Facility
Marinette, Wisconsin

FIGURE 2
AREA LOCATION MAP

SCALE: 1" = 200'
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"
DATE DECEMBER 2018
PROJ 704683
REVISION 1

FILENAME: O&M-Fig11_Overall.dgn PLOT DATE: 2018\12\17 PLOT TIME: 11:59:25 AM

FIGURE 3
VERTICAL BARRIER WALL DETAILS
TYCO FIRE PRODUCTS LP
MARINETTE, WISCONSIN

JACOBS

FILENAME: Figure_3_D3394600.dgn PLOT DATE: 2020\07\13 PLOT TIME: 3:50:23 AM

Attachment 1
Groundwater Collection and Treatment System Operation Summary

Groundwater Collection and Treatment System Operations for Tyco Fire Products LP, Marinette, Wisconsin, April 1 through June 30, 2021

The following summarizes groundwater collection and treatment system (GWCTS) operations from April 1 through June 30, 2021, at the Tyco Fire Products LP facility on Stanton Street in Marinette, Wisconsin:

- The GWCTS operated for 24 days in April 2021, 23 days in May 2021, and 20 days in June 2021, for a total of 67 days.
- For the reporting period, the precipitation recorded from the weather station in Marinette, Wisconsin, was 7.59 inches of rain (http://www.ncdc.noaa.gov/cdo-web/datasets/GHCND/stations/GHCND:USC00475091/detail).
- An estimated 656,085 gallons of groundwater was extracted (not including volumes extracted as part of the pump down program [PDP]) from the site during the reporting period. Table 1-1 lists the water volumes extracted from each area of the site for this quarter based on the recorded data.
- During the reporting period, an estimated 482,888 gallons of water was discharged to the Menominee River as effluent under the Wisconsin Pollutant Discharge Elimination System permit.
- Approximately 459,000 gallons of reject water was produced this reporting period during system operations and subsequently disposed of offsite.

Table 1-1. Extraction Well Data Summary (April through June 2021)
GWCTS Operations, Tyco Fire Products LP Facility, Marinette, WI

Extraction Well	Gallons Run, Second Quarter 2021 (April 1 through June 30, 2021)
EW-1	58,489
EW-2	Not operated in lieu of ongoing PDP
EW-3	Not operated in lieu of ongoing PDP
EW-4	10,516
EW-5	175,753
EW-6	195,367
EW-7	215,960
Total	**656,085**

Attachment 2
Discharge Monitoring Reports for the Groundwater Collection and Treatment System

Wastewater Discharge Monitoring Long Report

For DNR Use Only

Facility Name: TYCO FIRE PRODUCTS LP
Contact Address: One Stanton St
Marinette, WI 54143
Facility Contact: Mike Elliott, EHS Manager
Phone Number: 715-735-7415
Reporting Period: 03/01/2021 - 03/31/2021
Form Due Date: 04/21/2021
Permit Number: 0001040

Date Received:	
DOC:	466356
FIN:	7245
FID:	438039470
Region:	Northeast Region
Permit Drafter:	Trevor J Moen
Reviewer:	Laura A Gerold
Office:	Green Bay

	Sample Point	703	001	001	703	001
	Description	Menominee River Intake	Combined WW to Menominee River	Combined WW to Menominee River	Menominee River Intake	Combined WW to Menominee River
	Parameter	211	211	373	35	374
	Description	Flow Rate	Flow Rate	pH (Maximum)	Arsenic, Total Recoverable	pH (Minimum)
	Units	gpd	MGD	su	ug/L	su
	Sample Type	TOT DAILY	CONTINUOUS	CONTINUOUS	GRAB	CONTINUOUS
	Frequency	DAILY	DAILY	DAILY	MONTHLY	DAILY
Sample Results	Day 1		0.15829	7.4		7.0
	2		0.15203	7.2		6.8
	3		0.15657	7.0		6.8
	4		0.14896	7.1		6.8
	5		0.13153	7.3		6.8
	6		0.08764	7.4		7.2
	7		0.08720	7.5		7.3
	8		0.14463	7.4		7.0
	9		0.18207	7.3		6.8
	10		0.26277	7.4		6.7
	11		0.13890	7.0	<2.1	6.8
	12		0.12427	7.3		7.0
	13		0.09197	7.2		7.1
	14		0.10848	7.2		6.9
	15		0.15710	7.5		7.1
	16		0.15698	7.3		7.1
	17		0.16280	7.2		6.9
	18		0.16346	7.2		7.0
	19		0.14994	7.2		6.9
	20		0.11645	7.2		7.0
	21		0.13242	7.2		6.9
	22		0.17250	7.3		6.9
	23		0.20719	7.2		6.8
	24		0.15138	7.2		6.6
	25		0.15654	7.5		7.1
	26		0.13276	7.6		7.2
	27		0.16421	7.8		7.2
	28		0.15312	7.4		7.1
	29		0.14863	7.3		7.1
	30		0.14369	7.5		7.1
	31		0.13079	7.4		7.1

	Sample Point	703	001	001	703	001
	Description	Menominee River Intake	Combined WW to Menominee River	Combined WW to Menominee River	Menominee River Intake	Combined WW to Menominee River
	Parameter	211	211	373	35	374
	Description	Flow Rate	Flow Rate	pH (Maximum)	Arsenic, Total Recoverable	pH (Minimum)
	Units	gpd	MGD	su	ug/L	su
Summary Values	**Monthly Avg**		0.147589355	7.312903226	0	6.970967742
	Monthly Total					
	Daily Max		0.26277	7.8	<2.1	7.3
	Daily Min		0.0872	7	<2.1	6.6
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max			9 0		
	Daily Min					6 0
QA/QC Information	**LOD**				2.1	
	LOQ				5	
	QC Exceedance	N	N	N	N	N
	Lab Certification				999580010	

	Sample Point	001	001	001	001	001
	Description	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River
	Parameter	480	231	35	35	87
	Description	Temperature Maximum	Hardness, Total as CaCO3	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Cadmium, Total Recoverable
	Units	degF	mg/L	ug/L	lbs/day	ug/L
	Sample Type	MEASURE	24 HR FLOW PROP	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP
	Frequency	WEEKLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**	57				
	2	66				
	3	68				
	4	69				
	5	67				
	6	63				
	7	65				
	8	66	350	82	0.09922	<0.49
	9	63				
	10	61				
	11	62				
	12	63				
	13	61				
	14	59				
	15	60				
	16	64				
	17	62				
	18	68				
	19	66				
	20	65				
	21	70				
	22	68				
	23	67				
	24	67				
	25	66				
	26	61				
	27	60				
	28	58				
	29	63				
	30	64				
	31	65				

	Sample Point	001	001	001	001	001
	Description	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River
	Parameter	480	231	35	35	87
	Description	Temperature Maximum	Hardness, Total as CaCO3	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Cadmium, Total Recoverable
	Units	degF	mg/L	ug/L	lbs/day	ug/L
Summary Values	Monthly Avg	64	350	82	0.09922	0
	Monthly Total					
	Daily Max	70	350	82	0.09922	<0.49
	Daily Min	57	350	82	0.09922	<0.49
Limit(s) in Effect	Monthly Avg					57 | 0
	Monthly Total					
	Daily Max			170 | 0	0.81 | 0	57 | 0
	Daily Min					
QA/QC Information	LOD			2.1		0.49
	LOQ			5		1
	QC Exceedance	N	N	N	N	N
	Lab Certification		999580010	999580010		999580010

	Sample Point	001	001	001	001	001
	Description	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River
	Parameter	87	147	147	152	152
	Description	Cadmium, Total Recoverable	Copper, Total Recoverable	Copper, Total Recoverable	Cyanide, Amenable	Cyanide, Amenable
	Units	lbs/day	ug/L	lbs/day	ug/L	lbs/day
	Sample Type	CALCULATED	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	CALCULATED
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8	0.0005929	32	0.03872	<2.5	0.003025
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	001		001		001		001		001	
	Description	Combined WW to Menominee River		Combined WW to Menominee River		Combined WW to Menominee River		Combined WW to Menominee River		Combined WW to Menominee River	
	Parameter	87		147		147		152		152	
	Description	Cadmium, Total Recoverable		Copper, Total Recoverable		Copper, Total Recoverable		Cyanide, Amenable		Cyanide, Amenable	
	Units	lbs/day		ug/L		lbs/day		ug/L		lbs/day	
Summary Values	**Monthly Avg**	0.0005929		32		0.03872		0		0.003025	
	Monthly Total										
	Daily Max	0.0005929		32		0.03872		<2.5		0.003025	
	Daily Min	0.0005929		32		0.03872		<2.5		0.003025	
Limit(s) in Effect	**Monthly Avg**			69	0			92	0		
	Monthly Total										
	Daily Max	0.27	0	69	0	0.98	0	92	0	0.44	0
	Daily Min										
QA/QC Information	**LOD**			1.7				2.5			
	LOQ			5				50			
	QC Exceedance	N		N		N		N		N	
	Lab Certification			999580010				999580010			

	Sample Point	001	001	001	001	001
	Description	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River
	Parameter	112	280	1352	1353	1353
	Description	Chlorine, Total Residual	Mercury, Total Recoverable	PFOA	PFOS	PFOS
	Units	ug/L	ng/L	ng/L	ng/L	mg/day
	Sample Type	GRAB	GRAB	24 HR FLOW PROP	24 HR FLOW PROP	CALCULATED
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	Day 1					
	2					
	3					
	4					
	5					
	6					
	7					
	8			190	30	0.0000363
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22		0.94			
	23	20				
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	001	001	001	001	001
	Description	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River
	Parameter	112	280	1352	1353	1353
	Description	Chlorine, Total Residual	Mercury, Total Recoverable	PFOA	PFOS	PFOS
	Units	ug/L	ng/L	ng/L	ng/L	mg/day
Summary Values	Monthly Avg	20	0.94	190	30	3.63E-05
	Monthly Total					
	Daily Max	20	0.94	190	30	3.63E-05
	Daily Min	20	0.94	190	30	3.63E-05
Limit(s) in Effect	Monthly Avg	38 0				
	Monthly Total					
	Daily Max	38 0	29 0			
	Daily Min					
QA/QC Information	LOD	30	0.16	7.5	4.8	
	LOQ	100	0.5	18	18	
	QC Exceedance	N	N	N	N	N
	Lab Certification		999580010			

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	211	373	374	379	376
	Description	Flow Rate	pH (Maximum)	pH (Minimum)	pH Total Exceedance Time Minutes	pH Exceedances Greater Than 60 Minutes
	Units	MGD	su	su	minutes	Number
	Sample Type	CONTINUOUS	CONTINUOUS	CONTINUOUS	CONTINUOUS	CONTINUOUS
	Frequency	DAILY	DAILY	DAILY	DAILY	DAILY
Sample Results	Day 1	0.03086	7.6	7.0		
	2	0.02562	7.8	6.5		
	3	0.02111	7.2	6.8		
	4	0.01607	7.1	6.8		
	5	0.00778	7.0	6.6		
	6	0				
	7	0				
	8	0.02565	8.0	6.6		
	9	0.02194	7.7	6.6		
	10	0.01936	7.3	6.5		
	11	0.01158	7.2	6.7		
	12	0.00548	7.2	6.6		
	13	0				
	14	0				
	15	0.02412	7.4	6.8		
	16	0.01670	7.3	6.7		
	17	0.01776	7.6	6.4		
	18	0.01762	7.3	6.4		
	19	0.00575	7.2	6.4		
	20	0				
	21	0				
	22	0.03150	8.1	6.9		
	23	0.01618	7.8	7.0		
	24	0.01807	8.1	6.9		
	25	0.01548	7.9	6.8		
	26	0.00808	7.6	6.7		
	27	0.00930	7.4	6.7		
	28	0				
	29	0.02468	7.8	6.9		
	30	0.01479	7.8	6.9		
	31	0.01608	7.6	6.6		

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	211		373		374		379		376	
	Description	Flow Rate		pH (Maximum)		pH (Minimum)		pH Total Exceedance Time Minutes		pH Exceedances Greater Than 60 Minutes	
	Units	MGD		su		su		minutes		Number	
Summary Values	**Monthly Avg**	0.01359871		7.541666667		6.7					
	Monthly Total										
	Daily Max	0.0315		8.1		7					
	Daily Min	0		7		6.4					
Limit(s) in Effect	**Monthly Avg**										
	Monthly Total							446	0	0	0
	Daily Max			9	0						
	Daily Min					6	0				
QA/QC Information	**LOD**										
	LOQ										
	QC Exceedance	N		N		N		N		N	
	Lab Certification										

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	457	651	87	147	315
	Description	Suspended Solids, Total	Oil & Grease (Hexane)	Cadmium, Total Recoverable	Copper, Total Recoverable	Nickel, Total Recoverable
	Units	mg/L	mg/L	ug/L	ug/L	ug/L
	Sample Type	24 HR FLOW PROP	GRAB	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP
	Frequency	3/WEEK	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	Day 1	14.0				
	2	8.5				
	3	6.0				
	4					
	5					
	6					
	7					
	8	47.0		<0.49	12	30
	9	11.0	<1.4			
	10	4.0				
	11					
	12					
	13					
	14					
	15	2.5				
	16	2.5				
	17	4.5				
	18					
	19					
	20					
	21					
	22	2.5				
	23	2.5				
	24	2.5				
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	457		651		87		147		315	
	Description	Suspended Solids, Total		Oil & Grease (Hexane)		Cadmium, Total Recoverable		Copper, Total Recoverable		Nickel, Total Recoverable	
	Units	mg/L		mg/L		ug/L		ug/L		ug/L	
Summary Values	**Monthly Avg**	8.958333333		0		0		12		30	
	Monthly Total										
	Daily Max	47		<1.4		<0.49		12		30	
	Daily Min	2.5		<1.4		<0.49		12		30	
Limit(s) in Effect	**Monthly Avg**	31	0	26	0	260	0	2070	0	2380	0
	Monthly Total										
	Daily Max	60	0	52	0	690	0	3380	0	3980	0
	Daily Min										
QA/QC Information	**LOD**			1.4		0.49		1.7		1.5	
	LOQ			5.4		1		5		5	
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010		999580010		999580010		999580010		999580010	

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	553	507	280	280	35
	Description	Zinc, Total Recoverable	Total Toxic Organics	Mercury, Total Recoverable	Mercury, Total Recoverable	Arsenic, Total Recoverable
	Units	ug/L	ug/L	ng/L	mg/day	ug/L
	Sample Type	24 HR FLOW PROP	24 HR FLOW PROP	GRAB	CALCULATED	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8	200				<2.1
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22			<0.16	0.0000001	
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	101		101		101		101		101					
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent					
	Parameter	553		507		280		280		35					
	Description	Zinc, Total Recoverable		Total Toxic Organics		Mercury, Total Recoverable		Mercury, Total Recoverable		Arsenic, Total Recoverable					
	Units	ug/L		ug/L		ng/L		mg/day		ug/L					
Summary Values	**Monthly Avg**	200				0		1E-07		0					
	Monthly Total														
	Daily Max	200				<0.16		1E-07		<2.1					
	Daily Min	200				<0.16		1E-07		<2.1					
Limit(s) in Effect	**Monthly Avg**	1480	0												
	Monthly Total														
	Daily Max	2610	0	2130											
	Daily Min														
QA/QC Information	**LOD**	3.6				0.16				2.1					
	LOQ	10				0.5				5					
	QC Exceedance	N		N		N		N		N					
	Lab Certification	999580010				999580010				999580010					

	Sample Point	101	704	704	704	704
	Description	Metal Finishing Effluent	GWCTS Influent	GWCTS Influent	GWCTS Influent	GWCTS Influent
	Parameter	35	211	35	457	280
	Description	Arsenic, Total Recoverable	Flow Rate	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable
	Units	lbs/day	gpd	ug/L	mg/L	ng/L
	Sample Type	CALCULATED	CONTINUOUS	24 HR FLOW PROP	24 HR FLOW PROP	GRAB
	Frequency	MONTHLY	DAILY	WEEKLY	WEEKLY	MONTHLY
Sample Results	Day 1					
	2					
	3					
	4					
	5					
	6					
	7					
	8	0.000441				
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24		11941	4700	59	53.6
	25		16490			
	26		17476			
	27		9996			
	28		5466			
	29		10027			
	30		18818			
	31		11771			

	Sample Point	101	704	704	704	704
	Description	Metal Finishing Effluent	GWCTS Influent	GWCTS Influent	GWCTS Influent	GWCTS Influent
	Parameter	35	211	35	457	280
	Description	Arsenic, Total Recoverable	Flow Rate	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable
	Units	lbs/day	gpd	ug/L	mg/L	ng/L
Summary Values	**Monthly Avg**	0.000441	12748.125	4700	59	53.6
	Monthly Total					
	Daily Max	0.000441	18818	4700	59	53.6
	Daily Min	0.000441	5466	4700	59	53.6
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
QA/QC Information	**LOD**			42		0.8
	LOQ			100		2.5
	QC Exceedance	N	N	N	N	N
	Lab Certification			999580010	999580010	999580010

	Sample Point	107	003	003	003	003
	Description	Mercury Field Blank Results	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	280	211	373	374	35
	Description	Mercury, Total Recoverable	Flow Rate	pH (Maximum)	pH (Minimum)	Arsenic, Total Recoverable
	Units	ng/L	MGD	su	su	ug/L
	Sample Type	BLANK	CONTINUOUS	CONTINUOUS	CONTINUOUS	24 HR FLOW PROP
	Frequency	MONTHLY	DAILY	DAILY	DAILY	WEEKLY
Sample Results	Day 1		0			
	2		0			
	3		0			
	4		0			
	5		0			
	6		0			
	7		0			
	8		0			
	9		0			
	10		0			
	11		0			
	12		0			
	13		0			
	14		0			
	15		0			
	16		0			
	17		0			
	18		0			
	19		0			
	20		0			
	21		0			
	22	<0.16	0			
	23		0			
	24		0.016110	7.1	6.1	52
	25		0.017898	8.9	6.1	
	26		0.018393	8.8	6.3	
	27		0.010206	8.9	6.2	
	28		0.005746	6.9	6.2	
	29		0.014760	6.8	6.2	
	30		0.015111	6.8	6.2	
	31		0.014884	8.4	6.1	

	Sample Point	107	003	003	003	003
	Description	Mercury Field Blank Results	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	280	211	373	374	35
	Description	Mercury, Total Recoverable	Flow Rate	pH (Maximum)	pH (Minimum)	Arsenic, Total Recoverable
	Units	ng/L	MGD	su	su	ug/L
Summary Values	Monthly Avg	0	0.003648645	7.825	6.175	52
	Monthly Total					
	Daily Max	<0.16	0.018393	8.9	6.3	52
	Daily Min	<0.16	0	6.8	6.1	52
Limit(s) in Effect	Monthly Avg					
	Monthly Total					
	Daily Max			9 0		680 0
	Daily Min				6 0	
QA/QC Information	LOD	0.16				2.1
	LOQ	0.5				5
	QC Exceedance	N	N	N	N	N
	Lab Certification	999580010				999580010

	Sample Point	003	003	003	003	003
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	35	457	280	231	112
	Description	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable	Hardness, Total as CaCO3	Chlorine, Total Residual
	Units	lbs/day	mg/L	ng/L	mg/L	ug/L
	Sample Type	CALCULATED	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP	GRAB
	Frequency	WEEKLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	Day 1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24	0.00676	2.0	0.33	3.3	<10
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	003		003		003		003		003	
	Description	GWCTS Effluent		GWCTS Effluent		GWCTS Effluent		GWCTS Effluent		GWCTS Effluent	
	Parameter	35		457		280		231		112	
	Description	Arsenic, Total Recoverable		Suspended Solids, Total		Mercury, Total Recoverable		Hardness, Total as CaCO3		Chlorine, Total Residual	
	Units	lbs/day		mg/L		ng/L		mg/L		ug/L	
Summary Values	**Monthly Avg**	0.00676		2		0.33		3.3		0	
	Monthly Total										
	Daily Max	0.00676		2		0.33		3.3		<10	
	Daily Min	0.00676		2		0.33		3.3		<10	
Limit(s) in Effect	**Monthly Avg**									38	0
	Monthly Total										
	Daily Max	0.23	0			24	0			38	0
	Daily Min										
QA/QC Information	**LOD**					0.16				30	
	LOQ					0.5				100	
	QC Exceedance	N		N		N		N		N	
	Lab Certification			999580010		999580010		999580010			

	Sample Point	003	003	003	004	004
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	Combined Process WW & GW	Combined Process WW & GW
	Parameter	1352	1353	1353	211	373
	Description	PFOA	PFOS	PFOS	Flow Rate	pH (Maximum)
	Units	ng/L	ng/L	mg/day	MGD	su
	Sample Type	24 HR FLOW PROP	24 HR FLOW PROP	CALCULATED	CONTINUOUS	CONTINUOUS
	Frequency	WEEKLY	WEEKLY	WEEKLY	DAILY	DAILY
Sample Results	Day 1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24	24	1.2	0.000024		
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	003	003	003	004	004
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	Combined Process WW & GW	Combined Process WW & GW
	Parameter	1352	1353	1353	211	373
	Description	PFOA	PFOS	PFOS	Flow Rate	pH (Maximum)
	Units	ng/L	ng/L	mg/day	MGD	su
Summary Values	**Monthly Avg**	24	1.2	2.4E-05		
	Monthly Total					
	Daily Max	24	1.2	2.4E-05		
	Daily Min	24	1.2	2.4E-05		
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					9
	Daily Min					
QA/QC Information	**LOD**	0.75	0.47			
	LOQ	1.8	1.8			
	QC Exceedance	N	N	N	N	N
	Lab Certification					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	374	112	35	35	280
	Description	pH (Minimum)	Chlorine, Total Residual	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Mercury, Total Recoverable
	Units	su	ug/L	ug/L	lbs/day	ng/L
	Sample Type	CONTINUOUS	GRAB	24 HR FLOW PROP	CALCULATED	GRAB
	Frequency	DAILY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	374	112	35	35	280
	Description	pH (Minimum)	Chlorine, Total Residual	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Mercury, Total Recoverable
	Units	su	ug/L	ug/L	lbs/day	ng/L
Summary Values	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
Limit(s) in Effect	**Monthly Avg**		38			
	Monthly Total					
	Daily Max		38	194	0.22	18
	Daily Min	6				
QA/QC Information	**LOD**					
	LOQ					
	QC Exceedance					
	Lab Certification					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	280	87	87	147	147
	Description	Mercury, Total Recoverable	Cadmium, Total Recoverable	Cadmium, Total Recoverable	Copper, Total Recoverable	Copper, Total Recoverable
	Units	mg/day	ug/L	lbs/day	ug/L	lbs/day
	Sample Type	CALCULATED	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	CALCULATED
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	280	87	87	147	147
	Description	Mercury, Total Recoverable	Cadmium, Total Recoverable	Cadmium, Total Recoverable	Copper, Total Recoverable	Copper, Total Recoverable
	Units	mg/day	ug/L	lbs/day	ug/L	lbs/day
Summary Values	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
Limit(s) in Effect	**Monthly Avg**		57		69	
	Monthly Total					
	Daily Max		57	0.23	69	0.28
	Daily Min					
QA/QC Information	**LOD**					
	LOQ					
	QC Exceedance					
	Lab Certification					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	315	315	553	553	152
	Description	Nickel, Total Recoverable	Nickel, Total Recoverable	Zinc, Total Recoverable	Zinc, Total Recoverable	Cyanide, Amenable
	Units	ug/L	lbs/day	ug/L	lbs/day	ug/L
	Sample Type	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004		004		004		004		004	
	Description	Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW	
	Parameter	315		315		553		553		152	
	Description	Nickel, Total Recoverable		Nickel, Total Recoverable		Zinc, Total Recoverable		Zinc, Total Recoverable		Cyanide, Amenable	
	Units	ug/L		lbs/day		ug/L		lbs/day		ug/L	
Summary Values	**Monthly Avg**										
	Monthly Total										
	Daily Max										
	Daily Min										
Limit(s) in Effect	**Monthly Avg**	2000				520				92	
	Monthly Total										
	Daily Max	2000		8.10		520		2.10		92	
	Daily Min										
QA/QC Information	**LOD**										
	LOQ										
	QC Exceedance										
	Lab Certification										

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	152	231	480	1352	1353
	Description	Cyanide, Amenable	Hardness, Total as CaCO3	Temperature Maximum	PFOA	PFOS
	Units	lbs/day	mg/L	degF	ng/L	ng/L
	Sample Type	CALCULATED	24 HR FLOW PROP	MEASURE	24 HR FLOW PROP	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	WEEKLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	152	231	480	1352	1353
	Description	Cyanide, Amenable	Hardness, Total as CaCO3	Temperature Maximum	PFOA	PFOS
	Units	lbs/day	mg/L	degF	ng/L	ng/L
Summary Values	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
Limit(s) in Effect	**Monthly Avg**					11
	Monthly Total					
	Daily Max	0.37				11
	Daily Min					
QA/QC Information	**LOD**					
	LOQ					
	QC Exceedance					
	Lab Certification					

	Sample Point	004	108	108	108	108
	Description	Combined Process WW & GW	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	1353	211	457	35	35
	Description	PFOS	Flow Rate	Suspended Solids, Total	Arsenic, Total Recoverable	Arsenic, Total Recoverable
	Units	mg/day	MGD	mg/L	ug/L	lbs/day
	Sample Type	CALCULATED	CONTINUOUS	24 HR FLOW PROP	24 HR FLOW PROP	CALCULATED
	Frequency	MONTHLY	DAILY	WEEKLY	WEEKLY	WEEKLY
Sample Results	Day 1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004	108	108	108	108
	Description	Combined Process WW & GW	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	1353	211	457	35	35
	Description	PFOS	Flow Rate	Suspended Solids, Total	Arsenic, Total Recoverable	Arsenic, Total Recoverable
	Units	mg/day	MGD	mg/L	ug/L	lbs/day
Summary Values	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
Limit(s) in Effect	**Monthly Avg**	2.10				
	Monthly Total					
	Daily Max				500	0.17
	Daily Min					
QA/QC Information	**LOD**					
	LOQ					
	QC Exceedance					
	Lab Certification					

	Sample Point	108	108	108	108
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	280	280	1352	1353
	Description	Mercury, Total Recoverable	Mercury, Total Recoverable	PFOA	PFOS
	Units	ng/L	mg/day	ng/L	ng/L
	Sample Type	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**				
	2				
	3				
	4				
	5				
	6				
	7				
	8				
	9				
	10				
	11				
	12				
	13				
	14				
	15				
	16				
	17				
	18				
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				

	Sample Point	108	108	108	108
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	280	280	1352	1353
	Description	Mercury, Total Recoverable	Mercury, Total Recoverable	PFOA	PFOS
	Units	ng/L	mg/day	ng/L	ng/L
Summary Values	**Monthly Avg**				
	Monthly Total				
	Daily Max				
	Daily Min				
Limit(s) in Effect	**Monthly Avg**				
	Monthly Total				
	Daily Max	24			
	Daily Min				
QA/QC Information	**LOD**				
	LOQ				
	QC Exceedance				
	Lab Certification				

Footnotes (DNR Use Only; Instructions for completing this form that are unique for your facility may be displayed here.)

General Remarks

The groundwater system only ran the last week of the month because of Mechanical / Electrical issues so, there were no samples taken but the 4th week of sampling. The system is up and running now.

Laboratory Quality Control Comments

Submitted by Anne Fleury(afleury16) on 4/14/2021 1:37:16 PM

Wastewater Discharge Monitoring Long Report

For DNR Use Only

Facility Name: TYCO FIRE PRODUCTS LP
Contact Address: One Stanton St
Marinette, WI 54143
Facility Contact: Mike Elliott, EHS Manager
Phone Number: 715-735-7415
Reporting Period: 04/01/2021 - 04/30/2021
Form Due Date: 05/21/2021
Permit Number: 0001040

Date Received:	
DOC:	468586
FIN:	7245
FID:	438039470
Region:	Northeast Region
Permit Drafter:	Trevor J Moen
Reviewer:	Laura A Gerold
Office:	Green Bay

	Sample Point	703	001	001	703	001
	Description	Menominee River Intake	Combined WW to Menominee River	Combined WW to Menominee River	Menominee River Intake	Combined WW to Menominee River
	Parameter	211	211	373	35	374
	Description	Flow Rate	Flow Rate	pH (Maximum)	Arsenic, Total Recoverable	pH (Minimum)
	Units	gpd	MGD	su	ug/L	su
	Sample Type	TOT DAILY	CONTINUOUS	CONTINUOUS	GRAB	CONTINUOUS
	Frequency	DAILY	DAILY	DAILY	MONTHLY	DAILY
Sample Results	Day 1		0.133040	7.4		7.2
	2		0.093180	7.6		7.3
	3		0.070250	7.7		7.7
	4		0.092590	7.7		7.4
	5		0.140660	7.4		7.2
	6		0.141280	7.3		6.6
	7		0.154650	7.0		6.6
	8		0.143600	7.0		6.7
	9		0.119450	7.1		6.8
	10		0.147200	7.2		6.5
	11		0.111240	6.9		6.7
	12		0.158610	7.0		6.4
	13		0.121000	7.1	<2.1	6.8
	14		0.132040	7.2		6.7
	15		0.118470	7.0		6.8
	16		0.114170	7.2		7.0
	17		0.080060	7.6		7.0
	18		0.083550	7.3		7.0
	19		0.121620	7.3		7.1
	20		0.118960	7.5		6.9
	21		0.125130	7.2		6.7
	22		0.125460	7.0		6.6
	23		0.112700	7.1		6.6
	24		0.073330	7.4		6.7
	25		0.099330	7.4		7.2
	26		0.240790	7.2		6.6
	27		0.306610	7.2		6.4
	28		0.131820	7.0		6.7
	29		0.123410	7.1		6.8
	30		0.097700	7.1		6.8
	31					

	Sample Point	703	001	001	703	001
	Description	Menominee River Intake	Combined WW to Menominee River	Combined WW to Menominee River	Menominee River Intake	Combined WW to Menominee River
	Parameter	211	211	373	35	374
	Description	Flow Rate	Flow Rate	pH (Maximum)	Arsenic, Total Recoverable	pH (Minimum)
	Units	gpd	MGD	su	ug/L	su
Summary Values	Monthly Avg		0.12773	7.24	0	6.85
	Monthly Total					
	Daily Max		0.30661	7.7	<2.1	7.7
	Daily Min		0.07025	6.9	<2.1	6.4
Limit(s) in Effect	Monthly Avg					
	Monthly Total					
	Daily Max			9 0		
	Daily Min					6 0
QA/QC Information	LOD				2.1	
	LOQ				5	
	QC Exceedance	N	N	N	N	N
	Lab Certification				999580010	

	Sample Point	001	001	001	001	001
	Description	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River
	Parameter	480	231	35	35	87
	Description	Temperature Maximum	Hardness, Total as CaCO3	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Cadmium, Total Recoverable
	Units	degF	mg/L	ug/L	lbs/day	ug/L
	Sample Type	MEASURE	24 HR FLOW PROP	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP
	Frequency	WEEKLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**	75				
	2	65				
	3	70				
	4	66				
	5	65	270	100	0.117	<0.49
	6	66				
	7	67				
	8	65				
	9	69				
	10	65				
	11	67				
	12	65				
	13	65				
	14	68				
	15	65				
	16	64				
	17	67				
	18	69				
	19	64				
	20	66				
	21	65				
	22	63				
	23	67				
	24	66				
	25	68				
	26	64				
	27	64				
	28	65				
	29	68				
	30	68				
	31					

	Sample Point	001		001		001		001		001	
	Description	Combined WW to Menominee River		Combined WW to Menominee River		Combined WW to Menominee River		Combined WW to Menominee River		Combined WW to Menominee River	
	Parameter	480		231		35		35		87	
	Description	Temperature Maximum		Hardness, Total as CaCO3		Arsenic, Total Recoverable		Arsenic, Total Recoverable		Cadmium, Total Recoverable	
	Units	degF		mg/L		ug/L		lbs/day		ug/L	
Summary Values	**Monthly Avg**	66.366666667		270		100		0.117		0	
	Monthly Total										
	Daily Max	75		270		100		0.117		<0.49	
	Daily Min	63		270		100		0.117		<0.49	
Limit(s) in Effect	**Monthly Avg**									57	0
	Monthly Total										
	Daily Max					170	0	0.81	0	57	0
	Daily Min										
QA/QC Information	**LOD**					2.1				0.49	
	LOQ					5				1	
	QC Exceedance	N		N		N		N		N	
	Lab Certification			999580010		999580010				999580010	

	Sample Point	001	001	001	001	001
	Description	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River
	Parameter	87	147	147	152	152
	Description	Cadmium, Total Recoverable	Copper, Total Recoverable	Copper, Total Recoverable	Cyanide, Amenable	Cyanide, Amenable
	Units	lbs/day	ug/L	lbs/day	ug/L	lbs/day
	Sample Type	CALCULATED	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	CALCULATED
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	Day 1					
	2					
	3					
	4					
	5	0.0005733	27	0.03159	<2.5	0.002925
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	001		001		001		001		001	
	Description	Combined WW to Menominee River		Combined WW to Menominee River		Combined WW to Menominee River		Combined WW to Menominee River		Combined WW to Menominee River	
	Parameter	87		147		147		152		152	
	Description	Cadmium, Total Recoverable		Copper, Total Recoverable		Copper, Total Recoverable		Cyanide, Amenable		Cyanide, Amenable	
	Units	lbs/day		ug/L		lbs/day		ug/L		lbs/day	
Summary Values	**Monthly Avg**	0.0005733		27		0.03159		0		0.002925	
	Monthly Total										
	Daily Max	0.0005733		27		0.03159		<2.5		0.002925	
	Daily Min	0.0005733		27		0.03159		<2.5		0.002925	
Limit(s) in Effect	**Monthly Avg**			69	0			92	0		
	Monthly Total										
	Daily Max	0.27	0	69	0	0.98	0	92	0	0.44	0
	Daily Min										
QA/QC Information	**LOD**			1.7				2.5			
	LOQ			5				5			
	QC Exceedance	N		N		N		N		N	
	Lab Certification			999580010				999580010			

	Sample Point	001	001	001	001	001
	Description	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River
	Parameter	112	280	1352	1353	1353
	Description	Chlorine, Total Residual	Mercury, Total Recoverable	PFOA	PFOS	PFOS
	Units	ug/L	ng/L	ng/L	ng/L	mg/day
	Sample Type	GRAB	GRAB	24 HR FLOW PROP	24 HR FLOW PROP	CALCULATED
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	Day 1					
	2					
	3					
	4					
	5			140	19	1.0128926
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28	20	4.83			
	29					
	30					
	31					

	Sample Point	001	001	001	001	001
	Description	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River
	Parameter	112	280	1352	1353	1353
	Description	Chlorine, Total Residual	Mercury, Total Recoverable	PFOA	PFOS	PFOS
	Units	ug/L	ng/L	ng/L	ng/L	mg/day
Summary Values	Monthly Avg	20	4.83	140	19	1.0128926
	Monthly Total					
	Daily Max	20	4.83	140	19	1.0128926
	Daily Min	20	4.83	140	19	1.0128926
Limit(s) in Effect	Monthly Avg	38 | 0				
	Monthly Total					
	Daily Max	38 | 0	29 | 0			
	Daily Min					
QA/QC Information	LOD	30	0.16	0.73	0.47	
	LOQ	100	0.5	1.7	1.7	
	QC Exceedance	N	N	N	N	N
	Lab Certification		999580010			

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	211	373	374	379	376
	Description	Flow Rate	pH (Maximum)	pH (Minimum)	pH Total Exceedance Time Minutes	pH Exceedances Greater Than 60 Minutes
	Units	MGD	su	su	minutes	Number
	Sample Type	CONTINUOUS	CONTINUOUS	CONTINUOUS	CONTINUOUS	CONTINUOUS
	Frequency	DAILY	DAILY	DAILY	DAILY	DAILY
Sample Results	Day 1	0.0108	8.4	6.7		
	2	0.0036	8.0	6.8		
	3	0				
	4	0				
	5	0.0198	7.6	6.9		
	6	0.0191	7.8	6.6		
	7	0.0209	7.9	6.6		
	8	0.0134	7.3	6.6		
	9	0.0035	7.2	6.8		
	10	0.0039	7.3	6.9		
	11	0				
	12	0.0214	7.4	6.8		
	13	0.0159	7.4	6.6		
	14	0.0114	7.2	6.6		
	15	0.0114	6.9	6.4		
	16	0.0093	7.0	6.4		
	17	0.0029	7.2	6.4		
	18	0				
	19	0.0204	7.2	6.4		
	20	0.0253	7.8	6.2		
	21	0.0272	7.4	6.4		
	22	0.0305	7.4	6.5		
	23	0.0193	7.3	6.5		
	24	0.0130	7.2	6.4		
	25	0				
	26	0.0325	7.6	7.0		
	27	0.0363	7.4	6.9		
	28	0.0313	7.4	6.9		
	29	0.0311	7.4	6.9		
	30	0.0046	7.2	6.8		
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	211		373		374		379		376	
	Description	Flow Rate		pH (Maximum)		pH (Minimum)		pH Total Exceedance Time Minutes		pH Exceedances Greater Than 60 Minutes	
	Units	MGD		su		su		minutes		Number	
Summary Values	**Monthly Avg**	0.014626667		7.436		6.64					
	Monthly Total										
	Daily Max	0.0363		8.4		7					
	Daily Min	0		6.9		6.2					
Limit(s) in Effect	**Monthly Avg**										
	Monthly Total							446	0	0	0
	Daily Max			9	0						
	Daily Min					6	0				
QA/QC Information	**LOD**										
	LOQ										
	QC Exceedance	N		N		N		N		N	
	Lab Certification										

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	457	651	87	147	315
	Description	Suspended Solids, Total	Oil & Grease (Hexane)	Cadmium, Total Recoverable	Copper, Total Recoverable	Nickel, Total Recoverable
	Units	mg/L	mg/L	ug/L	ug/L	ug/L
	Sample Type	24 HR FLOW PROP	GRAB	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP
	Frequency	3/WEEK	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5	3.5		<0.49	18	18
	6	2.0	<1.4			
	7	2.0				
	8					
	9					
	10					
	11					
	12	3.0				
	13	3.0				
	14	2.0				
	15					
	16					
	17					
	18					
	19	<1.9				
	20	<1.9				
	21	<1.9				
	22					
	23					
	24					
	25					
	26	6.0				
	27	<1.9				
	28	<1.9				
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	457		651		87		147		315	
	Description	Suspended Solids, Total		Oil & Grease (Hexane)		Cadmium, Total Recoverable		Copper, Total Recoverable		Nickel, Total Recoverable	
	Units	mg/L		mg/L		ug/L		ug/L		ug/L	
Summary Values	**Monthly Avg**	1.791666667		0		0		18		18	
	Monthly Total										
	Daily Max	6		<1.4		<0.49		18		18	
	Daily Min	<1.9		<1.4		<0.49		18		18	
Limit(s) in Effect	**Monthly Avg**	31	0	26	0	260	0	2070	0	2380	0
	Monthly Total										
	Daily Max	60	0	52	0	690	0	3380	0	3980	0
	Daily Min										
QA/QC Information	**LOD**			1.4		0.49		1.7		1.5	
	LOQ			5.1		1		5		5	
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010		999580010		999580010		999580010		999580010	

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	553	507	280	280	35
	Description	Zinc, Total Recoverable	Total Toxic Organics	Mercury, Total Recoverable	Mercury, Total Recoverable	Arsenic, Total Recoverable
	Units	ug/L	ug/L	ng/L	mg/day	ug/L
	Sample Type	24 HR FLOW PROP	24 HR FLOW PROP	GRAB	CALCULATED	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5	250				<2.1
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28			0.32	0.0356	
	29					
	30					
	31					

	Sample Point	101		101		101		101		101					
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent					
	Parameter	553		507		280		280		35					
	Description	Zinc, Total Recoverable		Total Toxic Organics		Mercury, Total Recoverable		Mercury, Total Recoverable		Arsenic, Total Recoverable					
	Units	ug/L		ug/L		ng/L		mg/day		ug/L					
Summary Values	**Monthly Avg**	250				0.32		0.0356		0					
	Monthly Total														
	Daily Max	250				0.32		0.0356		<2.1					
	Daily Min	250				0.32		0.0356		<2.1					
Limit(s) in Effect	**Monthly Avg**	1480	0												
	Monthly Total														
	Daily Max	2610	0	2130											
	Daily Min														
QA/QC Information	**LOD**	3.6				0.16				2.1					
	LOQ	10				0.5				5					
	QC Exceedance	N		N		N		N		N					
	Lab Certification	999580010				999580010				999580010					

	Sample Point	101	704	704	704	704
	Description	Metal Finishing Effluent	GWCTS Influent	GWCTS Influent	GWCTS Influent	GWCTS Influent
	Parameter	35	211	35	457	280
	Description	Arsenic, Total Recoverable	Flow Rate	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable
	Units	lbs/day	gpd	ug/L	mg/L	ng/L
	Sample Type	CALCULATED	CONTINUOUS	24 HR FLOW PROP	24 HR FLOW PROP	GRAB
	Frequency	MONTHLY	DAILY	WEEKLY	WEEKLY	MONTHLY
Sample Results	Day 1		18278			
	2		3039			
	3		0			
	4		0			
	5	0.000336	16081	12000	250	
	6		9690			
	7		7806			
	8		7168			
	9		8347			
	10		0			
	11		0			
	12		6407	3400	260	
	13		6223			
	14		9497			
	15		7189			
	16		7522			
	17		1978			
	18		0			
	19		8607			
	20		7485	5100	200	
	21		7967			
	22		8847			
	23		4994			
	24		2219			
	25		0			
	26		5488			
	27		6827	7400	330	
	28		4779			59.4
	29		8463			
	30		3417			
	31					

	Sample Point	101	704	704	704	704
	Description	Metal Finishing Effluent	GWCTS Influent	GWCTS Influent	GWCTS Influent	GWCTS Influent
	Parameter	35	211	35	457	280
	Description	Arsenic, Total Recoverable	Flow Rate	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable
	Units	lbs/day	gpd	ug/L	mg/L	ng/L
Summary Values	**Monthly Avg**	0.000336	5943.933333333	6975	260	59.4
	Monthly Total					
	Daily Max	0.000336	18278	12000	330	59.4
	Daily Min	0.000336	0	3400	200	59.4
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
QA/QC Information	**LOD**			21		1.6
	LOQ			250		5
	QC Exceedance	N	N	N	N	N
	Lab Certification			999580010	999580010	999580010

	Sample Point	107	003	003	003	003
	Description	Mercury Field Blank Results	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	280	211	373	374	35
	Description	Mercury, Total Recoverable	Flow Rate	pH (Maximum)	pH (Minimum)	Arsenic, Total Recoverable
	Units	ng/L	MGD	su	su	ug/L
	Sample Type	BLANK	CONTINUOUS	CONTINUOUS	CONTINUOUS	24 HR FLOW PROP
	Frequency	MONTHLY	DAILY	DAILY	DAILY	WEEKLY
Sample Results	Day 1		0.016199	7.0	6.1	
	2		0.005920	8.3	6.1	
	3		0			
	4		0			
	5		0.015396	8.9	6.5	44
	6		0.005384	6.7	6.3	
	7		0.003976	6.4	6.1	
	8		0.002906	6.5	6.2	
	9		0.001735	6.6	6.3	
	10		0			
	11		0			
	12		0.001496	8.3	6.3	17
	13		0.001613	8.8	7.6	
	14		0.001626	8.7	7.3	
	15		0.001761	7.5	6.8	
	16		0.001341	7.6	7.0	
	17		0.000675	7.1	6.7	
	18		0			
	19		0.001758	7.3	6.5	
	20		0.001643	7.6	6.6	9
	21		0.002043	6.8	6.4	
	22		0.001778	6.7	6.2	
	23		0.001346	8.9	6.4	
	24		0.001097	8.6	6.6	
	25		0			
	26		0.001103	8.9	6.4	
	27		0.000753	8.9	6.4	15
	28	<0.16	0.001084	8.9	6.4	
	29		0.001103	7.4	6.1	
	30		0.001118	6.5	6.3	
	31					

	Sample Point	107	003	003	003	003
	Description	Mercury Field Blank Results	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	280	211	373	374	35
	Description	Mercury, Total Recoverable	Flow Rate	pH (Maximum)	pH (Minimum)	Arsenic, Total Recoverable
	Units	ng/L	MGD	su	su	ug/L
Summary Values	Monthly Avg	0	0.002495133	7.704166667	6.483333333	21.25
	Monthly Total					
	Daily Max	<0.16	0.016199	8.9	7.6	44
	Daily Min	<0.16	0	6.4	6.1	9
Limit(s) in Effect	Monthly Avg					
	Monthly Total					
	Daily Max			9 0		680 0
	Daily Min				6 0	
QA/QC Information	LOD	0.16				2.1
	LOQ	0.5				5
	QC Exceedance	N	N	N	N	N
	Lab Certification	999580010				999580010

	Sample Point	003	003	003	003	003
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	35	457	280	231	112
	Description	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable	Hardness, Total as CaCO3	Chlorine, Total Residual
	Units	lbs/day	mg/L	ng/L	mg/L	ug/L
	Sample Type	CALCULATED	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP	GRAB
	Frequency	WEEKLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	Day 1					
	2					
	3					
	4					
	5	0.00572	<1.9		1.6	<1.0
	6					
	7					
	8					
	9					
	10					
	11					
	12	0.00017				
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20	0.00009				
	21					
	22					
	23					
	24					
	25					
	26					
	27	0.00015				
	28			0.22		
	29					
	30					
	31					

	Sample Point	003		003		003		003		003	
	Description	GWCTS Effluent		GWCTS Effluent		GWCTS Effluent		GWCTS Effluent		GWCTS Effluent	
	Parameter	35		457		280		231		112	
	Description	Arsenic, Total Recoverable		Suspended Solids, Total		Mercury, Total Recoverable		Hardness, Total as CaCO3		Chlorine, Total Residual	
	Units	lbs/day		mg/L		ng/L		mg/L		ug/L	
Summary Values	**Monthly Avg**	0.0015325		0		0.22		1.6		0	
	Monthly Total										
	Daily Max	0.00572		<1.9		0.22		1.6		<1	
	Daily Min	9E-05		<1.9		0.22		1.6		<1	
Limit(s) in Effect	**Monthly Avg**									38	0
	Monthly Total										
	Daily Max	0.23	0			24	0			38	0
	Daily Min										
QA/QC Information	**LOD**					0.16				30	
	LOQ					0.5				100	
	QC Exceedance	N		N		N		N		N	
	Lab Certification			999580010		999580010		999580010			

	Sample Point	003	003	003	004	004
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	Combined Process WW & GW	Combined Process WW & GW
	Parameter	1352	1353	1353	211	373
	Description	PFOA	PFOS	PFOS	Flow Rate	pH (Maximum)
	Units	ng/L	ng/L	mg/day	MGD	su
	Sample Type	24 HR FLOW PROP	24 HR FLOW PROP	CALCULATED	CONTINUOUS	CONTINUOUS
	Frequency	WEEKLY	WEEKLY	WEEKLY	DAILY	DAILY
Sample Results	Day 1					
	2					
	3					
	4					
	5	22	1.4	0.0816914		
	6					
	7					
	8					
	9					
	10					
	11					
	12	4.4	<0.50	0.002835		
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20	3.0	<0.50	0.0024908		
	21					
	22					
	23					
	24					
	25					
	26					
	27	3.0	<0.47	0.0014269		
	28					
	29					
	30					
	31					

	Sample Point	003	003	003	004	004
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	Combined Process WW & GW	Combined Process WW & GW
	Parameter	1352	1353	1353	211	373
	Description	PFOA	PFOS	PFOS	Flow Rate	pH (Maximum)
	Units	ng/L	ng/L	mg/day	MGD	su
Summary Values	**Monthly Avg**	8.1	0.35	0.022111025		
	Monthly Total					
	Daily Max	22	1.4	0.0816914		
	Daily Min	3	<0.47	0.0014269		
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					9
	Daily Min					
QA/QC Information	**LOD**	0.74	0.47			
	LOQ	1.9	1.9			
	QC Exceedance	N	N	N	N	N
	Lab Certification					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	374	112	35	35	280
	Description	pH (Minimum)	Chlorine, Total Residual	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Mercury, Total Recoverable
	Units	su	ug/L	ug/L	lbs/day	ng/L
	Sample Type	CONTINUOUS	GRAB	24 HR FLOW PROP	CALCULATED	GRAB
	Frequency	DAILY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	374	112	35	35	280
	Description	pH (Minimum)	Chlorine, Total Residual	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Mercury, Total Recoverable
	Units	su	ug/L	ug/L	lbs/day	ng/L
Summary Values	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
Limit(s) in Effect	**Monthly Avg**		38			
	Monthly Total					
	Daily Max		38	194	0.22	18
	Daily Min	6				
QA/QC Information	**LOD**					
	LOQ					
	QC Exceedance					
	Lab Certification					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	280	87	87	147	147
	Description	Mercury, Total Recoverable	Cadmium, Total Recoverable	Cadmium, Total Recoverable	Copper, Total Recoverable	Copper, Total Recoverable
	Units	mg/day	ug/L	lbs/day	ug/L	lbs/day
	Sample Type	CALCULATED	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	CALCULATED
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	280	87	87	147	147
	Description	Mercury, Total Recoverable	Cadmium, Total Recoverable	Cadmium, Total Recoverable	Copper, Total Recoverable	Copper, Total Recoverable
	Units	mg/day	ug/L	lbs/day	ug/L	lbs/day
Summary Values	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
Limit(s) in Effect	**Monthly Avg**		57		69	
	Monthly Total					
	Daily Max		57	0.23	69	0.28
	Daily Min					
QA/QC Information	**LOD**					
	LOQ					
	QC Exceedance					
	Lab Certification					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	315	315	553	553	152
	Description	Nickel, Total Recoverable	Nickel, Total Recoverable	Zinc, Total Recoverable	Zinc, Total Recoverable	Cyanide, Amenable
	Units	ug/L	lbs/day	ug/L	lbs/day	ug/L
	Sample Type	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004		004		004		004		004	
	Description	Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW	
	Parameter	315		315		553		553		152	
	Description	Nickel, Total Recoverable		Nickel, Total Recoverable		Zinc, Total Recoverable		Zinc, Total Recoverable		Cyanide, Amenable	
	Units	ug/L		lbs/day		ug/L		lbs/day		ug/L	
Summary Values	**Monthly Avg**										
	Monthly Total										
	Daily Max										
	Daily Min										
Limit(s) in Effect	**Monthly Avg**	2000				520				92	
	Monthly Total										
	Daily Max	2000		8.10		520		2.10		92	
	Daily Min										
QA/QC Information	**LOD**										
	LOQ										
	QC Exceedance										
	Lab Certification										

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	152	231	480	1352	1353
	Description	Cyanide, Amenable	Hardness, Total as CaCO3	Temperature Maximum	PFOA	PFOS
	Units	lbs/day	mg/L	degF	ng/L	ng/L
	Sample Type	CALCULATED	24 HR FLOW PROP	MEASURE	24 HR FLOW PROP	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	WEEKLY	MONTHLY	MONTHLY
Sample Results	Day 1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	152	231	480	1352	1353
	Description	Cyanide, Amenable	Hardness, Total as CaCO3	Temperature Maximum	PFOA	PFOS
	Units	lbs/day	mg/L	degF	ng/L	ng/L
Summary Values	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
Limit(s) in Effect	**Monthly Avg**					11
	Monthly Total					
	Daily Max	0.37				11
	Daily Min					
QA/QC Information	**LOD**					
	LOQ					
	QC Exceedance					
	Lab Certification					

	Sample Point	004	108	108	108	108
	Description	Combined Process WW & GW	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	1353	211	457	35	35
	Description	PFOS	Flow Rate	Suspended Solids, Total	Arsenic, Total Recoverable	Arsenic, Total Recoverable
	Units	mg/day	MGD	mg/L	ug/L	lbs/day
	Sample Type	CALCULATED	CONTINUOUS	24 HR FLOW PROP	24 HR FLOW PROP	CALCULATED
	Frequency	MONTHLY	DAILY	WEEKLY	WEEKLY	WEEKLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004	108	108	108	108
	Description	Combined Process WW & GW	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	1353	211	457	35	35
	Description	PFOS	Flow Rate	Suspended Solids, Total	Arsenic, Total Recoverable	Arsenic, Total Recoverable
	Units	mg/day	MGD	mg/L	ug/L	lbs/day
Summary Values	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
Limit(s) in Effect	**Monthly Avg**	2.10				
	Monthly Total					
	Daily Max				500	0.17
	Daily Min					
QA/QC Information	**LOD**					
	LOQ					
	QC Exceedance					
	Lab Certification					

	Sample Point	108	108	108	108
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	280	280	1352	1353
	Description	Mercury, Total Recoverable	Mercury, Total Recoverable	PFOA	PFOS
	Units	ng/L	mg/day	ng/L	ng/L
	Sample Type	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	Day 1				
	2				
	3				
	4				
	5				
	6				
	7				
	8				
	9				
	10				
	11				
	12				
	13				
	14				
	15				
	16				
	17				
	18				
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				

	Sample Point	108	108	108	108
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	280	280	1352	1353
	Description	Mercury, Total Recoverable	Mercury, Total Recoverable	PFOA	PFOS
	Units	ng/L	mg/day	ng/L	ng/L
Summary Values	**Monthly Avg**				
	Monthly Total				
	Daily Max				
	Daily Min				
Limit(s) in Effect	**Monthly Avg**				
	Monthly Total				
	Daily Max	24			
	Daily Min				
QA/QC Information	**LOD**				
	LOQ				
	QC Exceedance	N	N	N	N
	Lab Certification				

Footnotes (DNR Use Only; Instructions for completing this form that are unique for your facility may be displayed here.)

General Remarks

Laboratory Quality Control Comments

Submitted by Anne Fleury(afleury16) on 5/19/2021 3:11:39 PM

Wastewater Discharge Monitoring Long Report

For DNR Use Only

Facility Name: TYCO FIRE PRODUCTS LP
Contact Address: One Stanton St
Marinette, WI 54143
Facility Contact: Mike Elliott, EHS Manager
Phone Number: 715-735-7415
Reporting Period: 05/01/2021 - 05/31/2021
Form Due Date: 06/21/2021
Permit Number: 0001040

Date Received:	
DOC:	468587
FIN:	7245
FID:	438039470
Region:	Northeast Region
Permit Drafter:	Trevor J Moen
Reviewer:	Laura A Gerold
Office:	Green Bay

	Sample Point	703	001	001	703	001
	Description	Menominee River Intake	Combined WW to Menominee River	Combined WW to Menominee River	Menominee River Intake	Combined WW to Menominee River
	Parameter	211	211	373	35	374
	Description	Flow Rate	Flow Rate	pH (Maximum)	Arsenic, Total Recoverable	pH (Minimum)
	Units	gpd	MGD	su	ug/L	su
	Sample Type	TOT DAILY	CONTINUOUS	CONTINUOUS	GRAB	CONTINUOUS
	Frequency	DAILY	DAILY	DAILY	MONTHLY	DAILY
Sample Results	Day 1		0.06699	7.3		7.1
	2		0.13236	7.3		6.6
	3		0.17452	7.0		6.6
	4		0.12880	7.3		6.7
	5		0.12460	7.2		7.0
	6		0.14176	7.1		7.0
	7		0.12828	7.2		6.9
	8		0.08201	7.3		7.1
	9		0.07589	7.4		7.2
	10		0.11602	7.2		6.9
	11		0.12891	7.5	<2.1	7.1
	12		0.12380	7.4		7.2
	13		0.13011	7.5		7.2
	14		0.12369	7.4		7.1
	15		0.08146	7.9		7.4
	16		0.06624	7.9		7.4
	17		0.12555	7.6		7.4
	18		0.17480	7.4		6.6
	19		0.13516	6.9		6.4
	20		0.13312	7.0		6.7
	21		0.11633	7.0		6.7
	22		0.10320	7.2		6.8
	23		0.11344	7.2		6.7
	24		0.15033	7.0		6.6
	25		0.13920	7.0		6.6
	26		0.14122	7.0		6.6
	27		0.14677	6.9		6.6
	28		0.10404	6.8		6.7
	29		0.07039	6.9		6.8
	30		0.07677	7.0		6.9
	31		0.16704	7.0		6.3

	Sample Point	703	001	001	703	001
	Description	Menominee River Intake	Combined WW to Menominee River	Combined WW to Menominee River	Menominee River Intake	Combined WW to Menominee River
	Parameter	211	211	373	35	374
	Description	Flow Rate	Flow Rate	pH (Maximum)	Arsenic, Total Recoverable	pH (Minimum)
	Units	gpd	MGD	su	ug/L	su
Summary Values	**Monthly Avg**		0.120090323	7.219354839	0	6.867741935
	Monthly Total					
	Daily Max		0.1748	7.9	<2.1	7.4
	Daily Min		0.06624	6.8	<2.1	6.3
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max			9 0		
	Daily Min					6 0
QA/QC Information	**LOD**				2.1	
	LOQ				5	
	QC Exceedance	N	N	N	N	N
	Lab Certification				999580010	

	Sample Point	001	001	001	001	001
	Description	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River
	Parameter	480	231	35	35	87
	Description	Temperature Maximum	Hardness, Total as CaCO3	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Cadmium, Total Recoverable
	Units	degF	mg/L	ug/L	lbs/day	ug/L
	Sample Type	MEASURE	24 HR FLOW PROP	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP
	Frequency	WEEKLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**	71				
	2	67				
	3	66				
	4	67				
	5	67				
	6	67				
	7					
	8					
	9					
	10		290	120	0.1164	<0.49
	11					
	12	65				
	13	71				
	14	67				
	15	65				
	16	72				
	17	70				
	18	71				
	19	71				
	20	73				
	21	69				
	22	70				
	23	66				
	24	69				
	25	69				
	26	71				
	27	72				
	28	65				
	29	69				
	30	69				
	31	70				

	Sample Point	001	001	001	001	001
	Description	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River
	Parameter	480	231	35	35	87
	Description	Temperature Maximum	Hardness, Total as CaCO3	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Cadmium, Total Recoverable
	Units	degF	mg/L	ug/L	lbs/day	ug/L
Summary Values	**Monthly Avg**	68.807692308	290	120	0.1164	0
	Monthly Total					
	Daily Max	73	290	120	0.1164	<0.49
	Daily Min	65	290	120	0.1164	<0.49
Limit(s) in Effect	**Monthly Avg**					57 0
	Monthly Total					
	Daily Max			170 0	0.81 0	57 0
	Daily Min					
QA/QC Information	**LOD**			2.1		0.49
	LOQ			5		1
	QC Exceedance	N	N	N	N	N
	Lab Certification		999580010	999580010		999580010

	Sample Point	001	001	001	001	001
	Description	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River
	Parameter	87	147	147	152	152
	Description	Cadmium, Total Recoverable	Copper, Total Recoverable	Copper, Total Recoverable	Cyanide, Amenable	Cyanide, Amenable
	Units	lbs/day	ug/L	lbs/day	ug/L	lbs/day
	Sample Type	CALCULATED	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	CALCULATED
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10	0.0004753	24	0.02328	<2.5	0.002425
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	001		001		001		001		001	
	Description	Combined WW to Menominee River		Combined WW to Menominee River		Combined WW to Menominee River		Combined WW to Menominee River		Combined WW to Menominee River	
	Parameter	87		147		147		152		152	
	Description	Cadmium, Total Recoverable		Copper, Total Recoverable		Copper, Total Recoverable		Cyanide, Amenable		Cyanide, Amenable	
	Units	lbs/day		ug/L		lbs/day		ug/L		lbs/day	
Summary Values	**Monthly Avg**	0.0004753		24		0.02328		0		0.002425	
	Monthly Total										
	Daily Max	0.0004753		24		0.02328		<2.5		0.002425	
	Daily Min	0.0004753		24		0.02328		<2.5		0.002425	
Limit(s) in Effect	**Monthly Avg**			69	0			92	0		
	Monthly Total										
	Daily Max	0.27	0	69	0	0.98	0	92	0	0.44	0
	Daily Min										
QA/QC Information	**LOD**			1.7				2.5			
	LOQ			5				5			
	QC Exceedance	N		N		N		N		N	
	Lab Certification			999580010				999580010			

	Sample Point	001	001	001	001	001
	Description	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River
	Parameter	112	280	1352	1353	1353
	Description	Chlorine, Total Residual	Mercury, Total Recoverable	PFOA	PFOS	PFOS
	Units	ug/L	ng/L	ng/L	ng/L	mg/day
	Sample Type	GRAB	GRAB	24 HR FLOW PROP	24 HR FLOW PROP	CALCULATED
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	Day 1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10			160	19	0.835468
	11					
	12	30				
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25		0.72			
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	001	001	001	001	001
	Description	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River
	Parameter	112	280	1352	1353	1353
	Description	Chlorine, Total Residual	Mercury, Total Recoverable	PFOA	PFOS	PFOS
	Units	ug/L	ng/L	ng/L	ng/L	mg/day
Summary Values	**Monthly Avg**	30	0.72	160	19	0.835468
	Monthly Total					
	Daily Max	30	0.72	160	19	0.835468
	Daily Min	30	0.72	160	19	0.835468
Limit(s) in Effect	**Monthly Avg**	38 | 0				
	Monthly Total					
	Daily Max	38 | 0	29 | 0			
	Daily Min					
QA/QC Information	**LOD**	30	0.16	0.72	0.46	
	LOQ	100	0.5	1.7	1.7	
	QC Exceedance	N	N	N	N	N
	Lab Certification		999580010			

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	211	373	374	379	376
	Description	Flow Rate	pH (Maximum)	pH (Minimum)	pH Total Exceedance Time Minutes	pH Exceedances Greater Than 60 Minutes
	Units	MGD	su	su	minutes	Number
	Sample Type	CONTINUOUS	CONTINUOUS	CONTINUOUS	CONTINUOUS	CONTINUOUS
	Frequency	DAILY	DAILY	DAILY	DAILY	DAILY
Sample Results	**Day 1**	0				
	2	0				
	3	0.05184	7.4	6.8		
	4	0.03257	7.2	6.4		
	5	0.03130	7.0	6.2		
	6	0.03200	6.8	6.2		
	7	0.02716	6.7	6.3		
	8	0.01137	6.7	6.4		
	9					
	10	0.03807	7.1	6.7		
	11	0.03524	7.2	6.9		
	12	0.03368	7.4	6.7		
	13	0.03664	7.6	6.7		
	14	0.02928	7.5	6.6		
	15	0.01489	7.5	6.4		
	16					
	17	0.04260	7.5	7.0		
	18	0.03206	7.6	6.8		
	19	0.03221	7.6	6.6		
	20	0.03714	7.4	6.2		
	21	0.02309	8.9	6.4		
	22	0.01127	6.8	6.2		
	23	0.01841	6.9	6.7		
	24	0.04662	7.2	6.4		
	25	0.03697	7.2	6.4		
	26	0.03786	7.0	6.2		
	27	0.02821	7.4	6.2		
	28	0.01279	7.4	6.2		
	29	0				
	30	0				
	31	0				

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	211		373		374		379		376	
	Description	Flow Rate		pH (Maximum)		pH (Minimum)		pH Total Exceedance Time Minutes		pH Exceedances Greater Than 60 Minutes	
	Units	MGD		su		su		minutes		Number	
Summary Values	**Monthly Avg**	0.025285172		7.291666667		6.483333333					
	Monthly Total										
	Daily Max	0.05184		8.9		7					
	Daily Min	0		6.7		6.2					
Limit(s) in Effect	**Monthly Avg**										
	Monthly Total							446	0	0	0
	Daily Max			9	0						
	Daily Min					6	0				
QA/QC Information	**LOD**										
	LOQ										
	QC Exceedance	N		N		N		N		N	
	Lab Certification										

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	457	651	87	147	315
	Description	Suspended Solids, Total	Oil & Grease (Hexane)	Cadmium, Total Recoverable	Copper, Total Recoverable	Nickel, Total Recoverable
	Units	mg/L	mg/L	ug/L	ug/L	ug/L
	Sample Type	24 HR FLOW PROP	GRAB	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP
	Frequency	3/WEEK	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3	3.0				
	4	2.0				
	5	<1.9				
	6					
	7					
	8					
	9					
	10	<1.9				
	11	2.0	<1.4	<0.49	4.0	9.5
	12	2.0				
	13					
	14					
	15					
	16					
	17	2.5				
	18	<1.9				
	19	<1.9				
	20					
	21					
	22					
	23					
	24	2.5				
	25	<1.9				
	26	<1.9				
	27					
	28					
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	457		651		87		147		315	
	Description	Suspended Solids, Total		Oil & Grease (Hexane)		Cadmium, Total Recoverable		Copper, Total Recoverable		Nickel, Total Recoverable	
	Units	mg/L		mg/L		ug/L		ug/L		ug/L	
Summary Values	**Monthly Avg**	1.166666667		0		0		4		9.5	
	Monthly Total										
	Daily Max	3		<1.4		<0.49		4		9.5	
	Daily Min	<1.9		<1.4		<0.49		4		9.5	
Limit(s) in Effect	**Monthly Avg**	31	0	26	0	260	0	2070	0	2380	0
	Monthly Total										
	Daily Max	60	0	52	0	690	0	3380	0	3980	0
	Daily Min										
QA/QC Information	**LOD**			1.4		0.49		1.7		1.5	
	LOQ			5.3		1		5		5	
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010		999580010		999580010		999580010		999580010	

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	553	507	280	280	35
	Description	Zinc, Total Recoverable	Total Toxic Organics	Mercury, Total Recoverable	Mercury, Total Recoverable	Arsenic, Total Recoverable
	Units	ug/L	ug/L	ng/L	mg/day	ug/L
	Sample Type	24 HR FLOW PROP	24 HR FLOW PROP	GRAB	CALCULATED	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11	70				<2.1
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25			0.16	0.0140116	
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	553		507		280		280		35	
	Description	Zinc, Total Recoverable		Total Toxic Organics		Mercury, Total Recoverable		Mercury, Total Recoverable		Arsenic, Total Recoverable	
	Units	ug/L		ug/L		ng/L		mg/day		ug/L	
Summary Values	**Monthly Avg**	70				0.16		0.0140116		0	
	Monthly Total										
	Daily Max	70				0.16		0.0140116		<2.1	
	Daily Min	70				0.16		0.0140116		<2.1	
Limit(s) in Effect	**Monthly Avg**	1480	0								
	Monthly Total										
	Daily Max	2610	0	2130							
	Daily Min										
QA/QC Information	**LOD**	3.6				0.16				2.1	
	LOQ	10				0.5				5	
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010				999580010				999580010	

	Sample Point	101	704	704	704	704
	Description	Metal Finishing Effluent	GWCTS Influent	GWCTS Influent	GWCTS Influent	GWCTS Influent
	Parameter	35	211	35	457	280
	Description	Arsenic, Total Recoverable	Flow Rate	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable
	Units	lbs/day	gpd	ug/L	mg/L	ng/L
	Sample Type	CALCULATED	CONTINUOUS	24 HR FLOW PROP	24 HR FLOW PROP	GRAB
	Frequency	MONTHLY	DAILY	WEEKLY	WEEKLY	MONTHLY
Sample Results	Day 1		5606			
	2		0			
	3		6917			
	4		6021	5600	260	
	5		6689			
	6		9706			
	7		7869			
	8		6104			
	9		0			
	10		7593	5600	220	
	11	0.000609	7989			
	12		8243			
	13		6993			
	14		5504			
	15		5107			
	16		0			
	17		5454	5300	240	
	18		7527			
	19		8317			
	20		9928			
	21		12023			
	22		0			
	23		0			
	24		11807	3100	200	14.6
	25		15066			
	26		13722			
	27		2803			
	28		17277			
	29		0			
	30		0			
	31		0			

	Sample Point	101	704	704	704	704
	Description	Metal Finishing Effluent	GWCTS Influent	GWCTS Influent	GWCTS Influent	GWCTS Influent
	Parameter	35	211	35	457	280
	Description	Arsenic, Total Recoverable	Flow Rate	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable
	Units	lbs/day	gpd	ug/L	mg/L	ng/L
Summary Values	**Monthly Avg**	0.000609	6266.612903226	4900	230	14.6
	Monthly Total					
	Daily Max	0.000609	17277	5600	260	14.6
	Daily Min	0.000609	0	3100	200	14.6
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
QA/QC Information	**LOD**			21		1.6
	LOQ			100		5
	QC Exceedance	N	N	N	N	N
	Lab Certification			999580010	999580010	999580010

	Sample Point	107	003	003	003	003
	Description	Mercury Field Blank Results	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	280	211	373	374	35
	Description	Mercury, Total Recoverable	Flow Rate	pH (Maximum)	pH (Minimum)	Arsenic, Total Recoverable
	Units	ng/L	MGD	su	su	ug/L
	Sample Type	BLANK	CONTINUOUS	CONTINUOUS	CONTINUOUS	24 HR FLOW PROP
	Frequency	MONTHLY	DAILY	DAILY	DAILY	WEEKLY
Sample Results	Day 1		0.001241	6.4	6.1	
	2		0			
	3		0.000006	6.2	6.1	
	4		0.001816	6.4	6.1	15
	5		0.001909	6.6	6.1	
	6		0.001936	6.4	6.1	
	7		0.001904	6.4	6.1	
	8		0.001083	8.3	6.2	
	9		0			
	10		0.002703	8.9	6.6	11
	11		0.001925	6.5	6.1	
	12		0.002101	8.9	6.2	
	13		0.001677	8.3	6.9	
	14		0.001367	6.7	6.3	
	15		0.001256	7.4	6.6	
	16		0			
	17		0.001277	7.2	6.9	9.1
	18		0.001661	8.9	6.8	
	19		0.001480	8.9	6.3	
	20		0.010469	7.2	6.1	
	21		0.013428	7.1	6.8	
	22		0			
	23		0			
	24		0.004035	6.7	6.1	53
	25	<0.16	0.008475	7.6	6.7	
	26		0.020647	8.9	6.2	
	27		0.004030	7.5	6.1	
	28		0.018185	8.5	7.1	
	29		0			
	30		0			
	31		0			

	Sample Point	107		003		003		003		003	
	Description	Mercury Field Blank Results		GWCTS Effluent		GWCTS Effluent		GWCTS Effluent		GWCTS Effluent	
	Parameter	280		211		373		374		35	
	Description	Mercury, Total Recoverable		Flow Rate		pH (Maximum)		pH (Minimum)		Arsenic, Total Recoverable	
	Units	ng/L		MGD		su		su		ug/L	
Summary Values	**Monthly Avg**	0		0.003374548		7.473913043		6.373913043		22.025	
	Monthly Total										
	Daily Max	<0.16		0.020647		8.9		7.1		53	
	Daily Min	<0.16		0		6.2		6.1		9.1	
Limit(s) in Effect	**Monthly Avg**										
	Monthly Total										
	Daily Max					9	0			680	0
	Daily Min							6	0		
QA/QC Information	**LOD**	0.16								2.1	
	LOQ	0.5								5	
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010								999580010	

	Sample Point	003	003	003	003	003
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	35	457	280	231	112
	Description	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable	Hardness, Total as CaCO3	Chlorine, Total Residual
	Units	lbs/day	mg/L	ng/L	mg/L	ug/L
	Sample Type	CALCULATED	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP	GRAB
	Frequency	WEEKLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4	0.0002271	<1.9		1.4	
	5					
	6					
	7					
	8					
	9					
	10					
	11	0.0001765				
	12					10
	13					
	14					
	15					
	16					
	17	0.00069				
	18					
	19					
	20					
	21					
	22					
	23					
	24	0.0017835		0.32		
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	003		003		003		003		003	
	Description	GWCTS Effluent		GWCTS Effluent		GWCTS Effluent		GWCTS Effluent		GWCTS Effluent	
	Parameter	35		457		280		231		112	
	Description	Arsenic, Total Recoverable		Suspended Solids, Total		Mercury, Total Recoverable		Hardness, Total as CaCO3		Chlorine, Total Residual	
	Units	lbs/day		mg/L		ng/L		mg/L		ug/L	
Summary Values	**Monthly Avg**	0.000719275		0		0.32		1.4		10	
	Monthly Total										
	Daily Max	0.0017835		<1.9		0.32		1.4		10	
	Daily Min	0.0001765		<1.9		0.32		1.4		10	
Limit(s) in Effect	**Monthly Avg**									38	0
	Monthly Total										
	Daily Max	0.23	0			24	0			38	0
	Daily Min										
QA/QC Information	**LOD**					0.16				30	
	LOQ					0.5				100	
	QC Exceedance	N		N		N		N		N	
	Lab Certification			999580010		999580010		999580010			

	Sample Point	003	003	003	004	004
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	Combined Process WW & GW	Combined Process WW & GW
	Parameter	1352	1353	1353	211	373
	Description	PFOA	PFOS	PFOS	Flow Rate	pH (Maximum)
	Units	ng/L	ng/L	mg/day	MGD	su
	Sample Type	24 HR FLOW PROP	24 HR FLOW PROP	CALCULATED	CONTINUOUS	CONTINUOUS
	Frequency	WEEKLY	WEEKLY	WEEKLY	DAILY	DAILY
Sample Results	Day 1					
	2					
	3					
	4	3.2	0.49	0.0027532		
	5					
	6					
	7					
	8					
	9					
	10	3.1	<0.47	0.0040976		
	11					
	12					
	13					
	14					
	15					
	16					
	17	3.5	<0.48	0.001936		
	18					
	19					
	20					
	21					
	22					
	23					
	24	45	2.9	0.0443497		
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	003	003	003	004	004
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	Combined Process WW & GW	Combined Process WW & GW
	Parameter	1352	1353	1353	211	373
	Description	PFOA	PFOS	PFOS	Flow Rate	pH (Maximum)
	Units	ng/L	ng/L	mg/day	MGD	su
Summary Values	Monthly Avg	13.7	0.8475	0.013284125		
	Monthly Total					
	Daily Max	45	2.9	0.0443497		
	Daily Min	3.1	<0.47	0.001936		
Limit(s) in Effect	Monthly Avg					
	Monthly Total					
	Daily Max					9
	Daily Min					
QA/QC Information	LOD	0.74	0.47			
	LOQ	1.9	1.9			
	QC Exceedance	N	N	N	N	N
	Lab Certification					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	374	112	35	35	280
	Description	pH (Minimum)	Chlorine, Total Residual	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Mercury, Total Recoverable
	Units	su	ug/L	ug/L	lbs/day	ng/L
	Sample Type	CONTINUOUS	GRAB	24 HR FLOW PROP	CALCULATED	GRAB
	Frequency	DAILY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	374	112	35	35	280
	Description	pH (Minimum)	Chlorine, Total Residual	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Mercury, Total Recoverable
	Units	su	ug/L	ug/L	lbs/day	ng/L
Summary Values	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
Limit(s) in Effect	**Monthly Avg**		38			
	Monthly Total					
	Daily Max		38	194	0.22	18
	Daily Min	6				
QA/QC Information	**LOD**					
	LOQ					
	QC Exceedance					
	Lab Certification					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	280	87	87	147	147
	Description	Mercury, Total Recoverable	Cadmium, Total Recoverable	Cadmium, Total Recoverable	Copper, Total Recoverable	Copper, Total Recoverable
	Units	mg/day	ug/L	lbs/day	ug/L	lbs/day
	Sample Type	CALCULATED	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	CALCULATED
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
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	28					
	29					
	30					
	31					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	280	87	87	147	147
	Description	Mercury, Total Recoverable	Cadmium, Total Recoverable	Cadmium, Total Recoverable	Copper, Total Recoverable	Copper, Total Recoverable
	Units	mg/day	ug/L	lbs/day	ug/L	lbs/day
Summary Values	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
Limit(s) in Effect	**Monthly Avg**		57		69	
	Monthly Total					
	Daily Max		57	0.23	69	0.28
	Daily Min					
QA/QC Information	**LOD**					
	LOQ					
	QC Exceedance					
	Lab Certification					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	315	315	553	553	152
	Description	Nickel, Total Recoverable	Nickel, Total Recoverable	Zinc, Total Recoverable	Zinc, Total Recoverable	Cyanide, Amenable
	Units	ug/L	lbs/day	ug/L	lbs/day	ug/L
	Sample Type	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
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	28					
	29					
	30					
	31					

	Sample Point	004		004		004		004		004	
	Description	Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW	
	Parameter	315		315		553		553		152	
	Description	Nickel, Total Recoverable		Nickel, Total Recoverable		Zinc, Total Recoverable		Zinc, Total Recoverable		Cyanide, Amenable	
	Units	ug/L		lbs/day		ug/L		lbs/day		ug/L	
Summary Values	**Monthly Avg**										
	Monthly Total										
	Daily Max										
	Daily Min										
Limit(s) in Effect	**Monthly Avg**	2000				520				92	
	Monthly Total										
	Daily Max	2000		8.10		520		2.10		92	
	Daily Min										
QA/QC Information	**LOD**										
	LOQ										
	QC Exceedance										
	Lab Certification										

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	152	231	480	1352	1353
	Description	Cyanide, Amenable	Hardness, Total as CaCO3	Temperature Maximum	PFOA	PFOS
	Units	lbs/day	mg/L	degF	ng/L	ng/L
	Sample Type	CALCULATED	24 HR FLOW PROP	MEASURE	24 HR FLOW PROP	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	WEEKLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
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	29					
	30					
	31					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	152	231	480	1352	1353
	Description	Cyanide, Amenable	Hardness, Total as CaCO3	Temperature Maximum	PFOA	PFOS
	Units	lbs/day	mg/L	degF	ng/L	ng/L
Summary Values	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
Limit(s) in Effect	**Monthly Avg**					11
	Monthly Total					
	Daily Max	0.37				11
	Daily Min					
QA/QC Information	**LOD**					
	LOQ					
	QC Exceedance					
	Lab Certification					

	Sample Point	004	108	108	108	108
	Description	Combined Process WW & GW	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	1353	211	457	35	35
	Description	PFOS	Flow Rate	Suspended Solids, Total	Arsenic, Total Recoverable	Arsenic, Total Recoverable
	Units	mg/day	MGD	mg/L	ug/L	lbs/day
	Sample Type	CALCULATED	CONTINUOUS	24 HR FLOW PROP	24 HR FLOW PROP	CALCULATED
	Frequency	MONTHLY	DAILY	WEEKLY	WEEKLY	WEEKLY
Sample Results	Day 1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
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	29					
	30					
	31					

	Sample Point	004	108	108	108	108
	Description	Combined Process WW & GW	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	1353	211	457	35	35
	Description	PFOS	Flow Rate	Suspended Solids, Total	Arsenic, Total Recoverable	Arsenic, Total Recoverable
	Units	mg/day	MGD	mg/L	ug/L	lbs/day
Summary Values	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
Limit(s) in Effect	**Monthly Avg**	2.10				
	Monthly Total					
	Daily Max				500	0.17
	Daily Min					
QA/QC Information	**LOD**					
	LOQ					
	QC Exceedance					
	Lab Certification					

	Sample Point	108	108	108	108
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	280	280	1352	1353
	Description	Mercury, Total Recoverable	Mercury, Total Recoverable	PFOA	PFOS
	Units	ng/L	mg/day	ng/L	ng/L
	Sample Type	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**				
	2				
	3				
	4				
	5				
	6				
	7				
	8				
	9				
	10				
	11				
	12				
	13				
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	30				
	31				

	Sample Point	108	108	108	108
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	280	280	1352	1353
	Description	Mercury, Total Recoverable	Mercury, Total Recoverable	PFOA	PFOS
	Units	ng/L	mg/day	ng/L	ng/L
Summary Values	**Monthly Avg**				
	Monthly Total				
	Daily Max				
	Daily Min				
Limit(s) in Effect	**Monthly Avg**				
	Monthly Total				
	Daily Max	24			
	Daily Min				
QA/QC Information	**LOD**				
	LOQ				
	QC Exceedance	N	N	N	N
	Lab Certification				

Footnotes (DNR Use Only; Instructions for completing this form that are unique for your facility may be displayed here.)

General Remarks

Temperature chart had a malfunction so, there were no temperatures from May 7- 11.

Laboratory Quality Control Comments

Submitted by Anne Fleury(afleury16) on 6/17/2021 9:02:23 AM

Attachment 3
Horizontal Well Laboratory Analytical Reports

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-197355-1
Client Project/Site: PDP HW Well Sampling 415-001-009

For:
Endpoint Solutions Corp
6871 S. Lover's Lane
Franklin, Wisconsin 53132

Attn: Mr. Tim Petrick

Sandra Fredrick

Authorized for release by:
5/6/2021 10:19:00 AM

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

Table of Contents

Job ID: 500-197355-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative
500-197355-1

Comments
No additional comments.

Receipt
The samples were received on 4/9/2021 9:30 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.4º C.

Receipt Exceptions
The following samples were submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): HW-1 Field Blank (500-197355-3) and HW-2 Field Blank (500-197355-4) The samples were added by TestAmerica.

Samples#1 and 2 PFC's received with discoloration. Photo has been added into Doc's. HW-1 (500-197355-1) and HW-2 (500-197355-2)

Metals
Method 3010A: Due to the matrix, the initial volume(s) used for the following sample deviated from the standard procedure: HW-1 (500-197355-1). The reporting limits (RLs) have been adjusted proportionately.

Method 6010B: The initial calibration verification (ICV) was outside of the method control limits for Silicon associated with the samples HW-1 (500-197355-1) and HW-2 (500-197355-2). The continuing calibration verifications (CCV), laboratory control sample (LCS), and other QC was within the control limits, therefore the data has been reported. HW-1 (500-197355-1) and HW-2 (500-197355-2)

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

LCMS
Method 537 (modified): The “I” qualifier means the transition mass ratio for the indicated analyte was outside of the established ratio limits. The qualitative identification of the analyte has some degree of uncertainty. However, analyst judgment was used to positively identify the analyte: (CCB 320-480974/2).

Method 537 (modified): The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 320-478519 and analytical batch 320-480263 recovered outside control limits for the following analytes: 6:2 FTS and 8:2 FTS. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 537 (modified): The transition mass ratio for the indicated analyte was outside of the established ratio limits. The qualitative identification of the analyte has some degree of uncertainty, and the reported value may have some high bias. However, analyst judgment was used to positively identify the analyte. (CCB 320-480263/15)

Method 537 (modified): Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for M2-4:2 FTS the following sample: HW-2 (500-197355-2). Sample was re-analyzed with concurring results; therefore, data have been reported. Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): Results for sample HW-2 (500-197355-2) 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

Method 537 (modified): The "I" qualifier means the transition mass ratio for the indicated analyte(s) was/ were outside of the established ratio limit(s). The qualitative identification of the analyte(s) has/ have some degree of uncertainty, and the reported value(s) may have some high bias. However, analyst judgment was used to positively identify the analytes. (CCB 320-480705/2)

Method 537 (modified): Results for samples HW-1 (500-197355-1) 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.

Job ID: 500-197355-1 (Continued)

Laboratory: Eurofins TestAmerica, Chicago (Continued)

Method 537 (modified): The Isotope Dilution Analyte (IDA) recoveries for 13C2 PFDoA and 13C2 PFTeDA associated with the following samples is below the method recommended limit: HW-1 (500-197355-1). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the samples.

Method 537 (modified): Results for sample HW-1 (500-197355-1) were reported from the analysis of a diluted extract due to matrix interference 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.

Method 537 (modified): The Isotope Dilution Analyte (IDA) recovery for 13C2 PFHxDA associated with the following sample is below the method recommended limit: HW-1 (500-197355-1). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample. The sample was re-analyzed with concurring results.

Method 537 (modified): Results for samples HW-1 (500-197355-1) 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.

Method 537 (modified): The Isotope Dilution Analyte (IDA) recovery associated with the following sample is below the method recommended limit for 13C2 PFTeDA: HW-1 (500-197355-1). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample.

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

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

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

Subcontract non-Sister
See attached subcontract report.

Organic Prep
Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-478519.

Method 3535: The following sample was brown color prior to extraction: HW-2 (500-197355-2). preparation batch 320-478519 Method: 3535 PFC-W Matrix: Water

Method 3535: The following sample was observed to be yellow at final volume: HW-2 (500-197355-2). Method: PFC_IDA Matrix: Water preparation batch 320-478519

Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-478540. 320-478540 Method: 3535 PFC-W

Method 3535: The following sample was black and foamy prior to the solid-phase extraction: HW-1 (500-197355-1). The foam stabilized within 1 minute. 320-478540 Method: 3535 PFC-W

Method 3535: The following sample was yellow after extraction/final volume: HW-1 (500-197355-1). 320-478540 Method: 3535 PFC-W

Method 3535: The following sample contained floating particulates in the sample bottle prior to extraction: HW-2 (500-197355-2). 3535_PFC Aqueous preparation batch 320-480651

Method 3535: The following sample was brown prior to extraction: HW-2 (500-197355-2). 3535_PFC Aqueous preparation batch 320-480651

Job ID: 500-197355-1 (Continued)

Laboratory: Eurofins TestAmerica, Chicago (Continued)

Method 3535: During the solid phase extraction process, the following samples contain non-settable particulates which clogged the solid phase extraction column: HW-2 (500-197355-2). 3535_PFC Aqueous preparation batch 320-480651

Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-480651. 3535_PFC Aqueous

Method 3535: The following sample was black and foamy prior to extraction: HW-1 (500-197355-1). 3535_PFC Aqueous preparation batch 320-481293

Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-481293. 3535_PFC Aqueous

Method 3535: During the solid phase extraction process, the following sample contain non-settable particulates which clogged the solid phase extraction column: HW-1 (500-197355-1). 3535_PFC Aqueous preparation batch 320-481293

Method 3535: The following sample was yellow after extraction/final volume: HW-1 (500-197355-1). 3535_PFC Aqueous preparation batch 320-481293

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

Subcontract Work
Methods 1631E Total Low Level Hg, Inorganic As, As III & As V, Semiquantitation of MMAs & DMAs by 1632, Total, Inorganic & Organic Arsenic: These methods were subcontracted to Eurofins Frontier Global Sciences LLC. The subcontract laboratory certifications are different from that of the facility issuing the final report.

Detection Summary

Client: Endpoint Solutions Corp
Job ID: 500-197355-1
Project/Site: PDP HW Well Sampling 415-001-009

Client Sample ID: HW-1
Lab Sample ID: 500-197355-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	630		47	23	ng/L	10		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	2800		19	4.7	ng/L	10		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1500		19	5.5	ng/L	10		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	730		19	2.4	ng/L	10		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	830		19	8.1	ng/L	10		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	19		19	2.6	ng/L	10		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	16	J	19	5.4	ng/L	10		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	24		19	5.1	ng/L	10		537 (modified)	Total/NA
4:2 FTS - REDL	160	J	170	20	ng/L	100		537 (modified)	Total/NA
6:2 FTS - REDL	5600		420	210	ng/L	100		537 (modified)	Total/NA
8:2 FTS - REDL	74	J	170	38	ng/L	100		537 (modified)	Total/NA
Aluminum	3.1		2.0	0.45	mg/L	1		6010B	Total/NA
Arsenic	410		5.0	1.8	mg/L	50		6010B	Total/NA
Calcium	200	B	2.0	0.53	mg/L	1		6010B	Total/NA
Iron	89		2.0	0.82	mg/L	1		6010B	Total/NA
Magnesium	49		1.0	0.49	mg/L	1		6010B	Total/NA
Manganese	3.0		0.10	0.023	mg/L	1		6010B	Total/NA
Potassium	13	B	5.0	0.66	mg/L	1		6010B	Total/NA
Silicon	25	^1+	2.0	0.51	mg/L	1		6010B	Total/NA
SiO2, Silica	54		4.3	1.1	mg/L	1		6010B	Total/NA
Sodium	1100	B	10	0.97	mg/L	1		6010B	Total/NA
Aluminum	1.8	J	2.0	0.45	mg/L	1		6010B	Dissolved
Arsenic	420		5.0	1.8	mg/L	50		6010B	Dissolved
Calcium	190	B	2.0	0.53	mg/L	1		6010B	Dissolved
Iron	79		2.0	0.82	mg/L	1		6010B	Dissolved
Magnesium	48		1.0	0.49	mg/L	1		6010B	Dissolved
Manganese	2.9		0.10	0.023	mg/L	1		6010B	Dissolved
Potassium	13	B	5.0	0.66	mg/L	1		6010B	Dissolved
Silicon	25	^1+	2.0	0.51	mg/L	1		6010B	Dissolved
SiO2, Silica	53		4.3	1.1	mg/L	1		6010B	Dissolved
Sodium	1100	B	10	0.97	mg/L	1		6010B	Dissolved
Hardness as calcium carbonate	690		0.91	0.46	mg/L	0.1		SM 2340B	Total/NA
pH	6.3	HF	0.2	0.2	SU	1		9040B	Total/NA
Chloride	820		40	34	mg/L	200		9056A	Total/NA
Alkalinity	730		5.0	3.7	mg/L	1		SM 2320B	Total/NA
Mercury	849		25		ng/L	50		1631E Total Low Level Hg	Total/NA
Arsenic	336000		50		µg/L	500		Total, Inorganic & Organic Arsenic	Total/NA
Arsenite (as Arsenic)	19200		4000		µg/L	200000		Total, Inorganic & Organic Arsenic	Total/NA
Inorganic Arsenic	13900		4000		µg/L	200000		Total, Inorganic & Organic Arsenic	Total/NA
Organic Arsenic	322000		4050		µg/L	200000		Total, Inorganic & Organic Arsenic	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Endpoint Solutions Corp
Job ID: 500-197355-1
Project/Site: PDP HW Well Sampling 415-001-009

Client Sample ID: HW-2
Lab Sample ID: 500-197355-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	580		220	100	ng/L	50		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	2500		87	21	ng/L	50		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1600		87	25	ng/L	50		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	740		87	11	ng/L	50		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	470		87	37	ng/L	50		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	32	J	87	12	ng/L	50		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	26	J	87	25	ng/L	50		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	48	J	87	23	ng/L	50		537 (modified)	Total/NA
4:2 FTS	71	J	87	10	ng/L	50		537 (modified)	Total/NA
6:2 FTS - RE	6200		210	100	ng/L	50		537 (modified)	Total/NA
8:2 FTS - RE	230		83	19	ng/L	50		537 (modified)	Total/NA
Aluminum	0.19	J	0.20	0.045	mg/L	1		6010B	Total/NA
Arsenic	62		1.0	0.37	mg/L	100		6010B	Total/NA
Calcium	230	B	0.20	0.053	mg/L	1		6010B	Total/NA
Iron	48		0.20	0.082	mg/L	1		6010B	Total/NA
Magnesium	86		0.10	0.049	mg/L	1		6010B	Total/NA
Manganese	3.3		0.010	0.0023	mg/L	1		6010B	Total/NA
Potassium	24	B	0.50	0.066	mg/L	1		6010B	Total/NA
Silicon	14	^1+	0.20	0.051	mg/L	1		6010B	Total/NA
SiO2, Silica	31		0.43	0.11	mg/L	1		6010B	Total/NA
Sodium	880	B	1.0	0.097	mg/L	1		6010B	Total/NA
Aluminum	0.067	J	0.20	0.045	mg/L	1		6010B	Dissolved
Arsenic	60		1.0	0.37	mg/L	100		6010B	Dissolved
Calcium	230	B	0.20	0.053	mg/L	1		6010B	Dissolved
Iron	47		0.20	0.082	mg/L	1		6010B	Dissolved
Magnesium	86		0.10	0.049	mg/L	1		6010B	Dissolved
Manganese	3.3		0.010	0.0023	mg/L	1		6010B	Dissolved
Potassium	23	B	0.50	0.066	mg/L	1		6010B	Dissolved
Silicon	14	^1+	0.20	0.051	mg/L	1		6010B	Dissolved
SiO2, Silica	31		0.43	0.11	mg/L	1		6010B	Dissolved
Sodium	880	B	1.0	0.097	mg/L	1		6010B	Dissolved
Hardness as calcium carbonate	940		0.91	0.46	mg/L	1		SM 2340B	Total/NA
pH	6.7	HF	0.2	0.2	SU	1		9040B	Total/NA
Chloride	1300		50	43	mg/L	250		9056A	Total/NA
Alkalinity	800		5.0	3.7	mg/L	1		SM 2320B	Total/NA
Mercury	32.1		5		ng/L	10		1631E Total Low Level Hg	Total/NA
Arsenate (as Arsenic)	6970		2000	1380	µg/L	100000		Total, Inorganic & Organic Arsenic	Total/NA
Arsenic	62100		50		µg/L	500		Total, Inorganic & Organic Arsenic	Total/NA
Arsenite (as Arsenic)	26300		2000		µg/L	100000		Total, Inorganic & Organic Arsenic	Total/NA
Inorganic Arsenic	33300		2000		µg/L	100000		Total, Inorganic & Organic Arsenic	Total/NA
Organic Arsenic	28800		2050		µg/L	100000		Total, Inorganic & Organic Arsenic	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Endpoint Solutions Corp
Job ID: 500-197355-1
Project/Site: PDP HW Well Sampling 415-001-009

Client Sample ID: HW-1 Field Blank
Lab Sample ID: 500-197355-3

No Detections.

Client Sample ID: HW-2 Field Blank
Lab Sample ID: 500-197355-4

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Endpoint Solutions Corp
Job ID: 500-197355-1
Project/Site: PDP HW Well Sampling 415-001-009

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC
6010B	Metals (ICP)	SW846	TAL CHI
SM 2340B	Total Hardness (as CaCO3) by calculation	SM	TAL CHI
9040B	pH	SW846	TAL CHI
9056A	Anions, Ion Chromatography	SW846	TAL CHI
SM 2320B	Alkalinity	SM	TAL CHI
Subcontract	1631E Total Low Level Hg	None	Frontier
Subcontract	Inorganic As, As III & As V	None	Frontier
Subcontract	Semiquantitation of MMAs & DMAs by 1632	None	Frontier
Subcontract	Total, Inorganic & Organic Arsenic	None	Frontier
3010A	Preparation, Total Metals	SW846	TAL CHI
3535	Solid-Phase Extraction (SPE)	SW846	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency
None = None
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:

Frontier = Eurofins Frontier Global Sciences LLC, 5755 8th Street E, Tacoma, WA 98424
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: Endpoint Solutions Corp
Job ID: 500-197355-1
Project/Site: PDP HW Well Sampling 415-001-009

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-197355-1	HW-1	Water	04/08/21 07:44	04/09/21 09:30	
500-197355-2	HW-2	Water	04/08/21 08:30	04/09/21 09:30	
500-197355-3	HW-1 Field Blank	Water	04/08/21 00:00	04/09/21 09:30	
500-197355-4	HW-2 Field Blank	Water	04/08/21 00:00	04/09/21 09:30	

Client: Endpoint Solutions Corp
Project/Site: PDP HW Well Sampling 415-001-009

Job ID: 500-197355-1

Client Sample ID: HW-1

Date Collected: 04/08/21 07:44
Date Received: 04/09/21 09:30

Lab Sample ID: 500-197355-1

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**630**		47	23	ng/L		04/12/21 04:27	04/29/21 13:35	10
Perfluoropentanoic acid (PFPeA)	**2800**		19	4.7	ng/L		04/12/21 04:27	04/29/21 13:35	10
Perfluorohexanoic acid (PFHxA)	**1500**		19	5.5	ng/L		04/12/21 04:27	04/29/21 13:35	10
Perfluoroheptanoic acid (PFHpA)	**730**		19	2.4	ng/L		04/12/21 04:27	04/29/21 13:35	10
Perfluorooctanoic acid (PFOA)	**830**		19	8.1	ng/L		04/12/21 04:27	04/29/21 13:35	10
Perfluorononanoic acid (PFNA)	**19**		19	2.6	ng/L		04/12/21 04:27	04/29/21 13:35	10
Perfluorodecanoic acid (PFDA)	<2.9		19	2.9	ng/L		04/12/21 04:27	04/29/21 13:35	10
Perfluoroundecanoic acid (PFUnA)	<10		19	10	ng/L		04/12/21 04:27	04/29/21 13:35	10
Perfluorododecanoic acid (PFDoA)	<5.2		19	5.2	ng/L		04/12/21 04:27	04/29/21 13:35	10
Perfluorotridecanoic acid (PFTriA)	<12		19	12	ng/L		04/12/21 04:27	04/29/21 13:35	10
Perfluorotetradecanoic acid (PFTeA)	<6.9		19	6.9	ng/L		04/12/21 04:27	04/29/21 13:35	10
Perfluorobutanesulfonic acid (PFBS)	<1.9		19	1.9	ng/L		04/12/21 04:27	04/29/21 13:35	10
Perfluoropentanesulfonic acid (PFPeS)	<2.8		19	2.8	ng/L		04/12/21 04:27	04/29/21 13:35	10
Perfluorohexanesulfonic acid (PFHxS)	**16**	**J**	19	5.4	ng/L		04/12/21 04:27	04/29/21 13:35	10
Perfluoroheptanesulfonic Acid (PFHpS)	<1.8		19	1.8	ng/L		04/12/21 04:27	04/29/21 13:35	10
Perfluorooctanesulfonic acid (PFOS)	**24**		19	5.1	ng/L		04/12/21 04:27	04/29/21 13:35	10
Perfluorononanesulfonic acid (PFNS)	<3.5		19	3.5	ng/L		04/12/21 04:27	04/29/21 13:35	10
Perfluorodecanesulfonic acid (PFDS)	<3.0		19	3.0	ng/L		04/12/21 04:27	04/29/21 13:35	10
Perfluorododecanesulfonic acid (PFDoS)	<9.2		19	9.2	ng/L		04/12/21 04:27	04/29/21 13:35	10
Perfluorooctanesulfonamide (FOSA)	<9.3		19	9.3	ng/L		04/12/21 04:27	04/29/21 13:35	10
NEtFOSA	<8.3		19	8.3	ng/L		04/12/21 04:27	04/29/21 13:35	10
NMeFOSA	<4.1		19	4.1	ng/L		04/12/21 04:27	04/29/21 13:35	10
NMeFOSAA	<11		47	11	ng/L		04/12/21 04:27	04/29/21 13:35	10
NEtFOSAA	<12		47	12	ng/L		04/12/21 04:27	04/29/21 13:35	10
NMeFOSE	<13		38	13	ng/L		04/12/21 04:27	04/29/21 13:35	10
NEtFOSE	<8.1		19	8.1	ng/L		04/12/21 04:27	04/29/21 13:35	10
10:2 FTS	<6.4		19	6.4	ng/L		04/12/21 04:27	04/29/21 13:35	10
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<3.8		19	3.8	ng/L		04/12/21 04:27	04/29/21 13:35	10
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<14		38	14	ng/L		04/12/21 04:27	04/29/21 13:35	10
F-53B Major	<2.3		19	2.3	ng/L		04/12/21 04:27	04/29/21 13:35	10
F-53B Minor	<3.0		19	3.0	ng/L		04/12/21 04:27	04/29/21 13:35	10

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*53*		*25 - 150*	*04/12/21 04:27*	*04/29/21 13:35*	*10*
13C5 PFPeA	*76*		*25 - 150*	*04/12/21 04:27*	*04/29/21 13:35*	*10*
13C2 PFHxA	*95*		*25 - 150*	*04/12/21 04:27*	*04/29/21 13:35*	*10*
13C4 PFHpA	*102*		*25 - 150*	*04/12/21 04:27*	*04/29/21 13:35*	*10*
13C4 PFOA	*90*		*25 - 150*	*04/12/21 04:27*	*04/29/21 13:35*	*10*
13C5 PFNA	*103*		*25 - 150*	*04/12/21 04:27*	*04/29/21 13:35*	*10*
13C2 PFDA	*93*		*25 - 150*	*04/12/21 04:27*	*04/29/21 13:35*	*10*
13C2 PFUnA	*57*		*25 - 150*	*04/12/21 04:27*	*04/29/21 13:35*	*10*
13C2 PFDoA	*27*		*25 - 150*	*04/12/21 04:27*	*04/29/21 13:35*	*10*
13C2 PFTeDA	*19*	*5-	*25 - 150*	*04/12/21 04:27*	*04/29/21 13:35*	*10*
13C3 PFBS	*101*		*25 - 150*	*04/12/21 04:27*	*04/29/21 13:35*	*10*
18O2 PFHxS	*102*		*25 - 150*	*04/12/21 04:27*	*04/29/21 13:35*	*10*

Client Sample ID: HW-1

Date Collected: 04/08/21 07:44
Date Received: 04/09/21 09:30

Lab Sample ID: 500-197355-1

Matrix: Water

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

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOS	*94*		*25 - 150*	*04/12/21 04:27*	*04/29/21 13:35*	*10*
13C8 FOSA	*62*		*10 - 150*	*04/12/21 04:27*	*04/29/21 13:35*	*10*
d3-NMeFOSAA	*61*		*25 - 150*	*04/12/21 04:27*	*04/29/21 13:35*	*10*
d5-NEtFOSAA	*63*		*25 - 150*	*04/12/21 04:27*	*04/29/21 13:35*	*10*
d-N-MeFOSA-M	*26*		*10 - 150*	*04/12/21 04:27*	*04/29/21 13:35*	*10*
d-N-EtFOSA-M	*34*		*10 - 150*	*04/12/21 04:27*	*04/29/21 13:35*	*10*
d7-N-MeFOSE-M	*27*		*10 - 150*	*04/12/21 04:27*	*04/29/21 13:35*	*10*
d9-N-EtFOSE-M	*36*		*10 - 150*	*04/12/21 04:27*	*04/29/21 13:35*	*10*
13C3 HFPO-DA	*89*		*25 - 150*	*04/12/21 04:27*	*04/29/21 13:35*	*10*
13C2 10:2 FTS	*64*		*25 - 150*	*04/12/21 04:27*	*04/29/21 13:35*	*10*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-n-hexadecanoic acid (PFHxDA)	<85		190	85	ng/L		04/12/21 04:27	04/20/21 23:46	100
Perfluoro-n-octadecanoic acid (PFODA)	<89		190	89	ng/L		04/12/21 04:27	04/20/21 23:46	100

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxDA	*23*	*5-*	*25 - 150*	*04/12/21 04:27*	*04/20/21 23:46*	*100*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4:2 FTS	**160**	**J**	170	20	ng/L		04/20/21 11:59	04/22/21 02:58	100
6:2 FTS	**5600**		420	210	ng/L		04/20/21 11:59	04/22/21 02:58	100
8:2 FTS	**74**	**J**	170	38	ng/L		04/20/21 11:59	04/22/21 02:58	100

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*35*		*25 - 150*	*04/20/21 11:59*	*04/22/21 02:58*	*100*
M2-6:2 FTS	*136*		*25 - 150*	*04/20/21 11:59*	*04/22/21 02:58*	*100*
M2-8:2 FTS	*59*		*25 - 150*	*04/20/21 11:59*	*04/22/21 02:58*	*100*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**3.1**		2.0	0.45	mg/L		04/12/21 17:37	04/13/21 20:20	1
Arsenic	**410**		5.0	1.8	mg/L		04/12/21 17:37	04/15/21 17:42	50
Calcium	**200**	**B**	2.0	0.53	mg/L		04/12/21 17:37	04/13/21 20:20	1
Iron	**89**		2.0	0.82	mg/L		04/12/21 17:37	04/13/21 20:20	1
Magnesium	**49**		1.0	0.49	mg/L		04/12/21 17:37	04/13/21 20:20	1
Manganese	**3.0**		0.10	0.023	mg/L		04/12/21 17:37	04/13/21 20:20	1
Potassium	**13**	**B**	5.0	0.66	mg/L		04/12/21 17:37	04/13/21 20:20	1
Silicon	**25**	**^1+**	2.0	0.51	mg/L		04/12/21 17:37	04/23/21 12:42	1
SiO2, Silica	**54**		4.3	1.1	mg/L		04/12/21 17:37	04/23/21 12:42	1
Sodium	**1100**	**B**	10	0.97	mg/L		04/12/21 17:37	04/13/21 20:20	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**1.8**	**J**	2.0	0.45	mg/L		04/12/21 17:37	04/13/21 20:24	1
Arsenic	**420**		5.0	1.8	mg/L		04/12/21 17:37	04/15/21 17:49	50
Calcium	**190**	**B**	2.0	0.53	mg/L		04/12/21 17:37	04/13/21 20:24	1
Iron	**79**		2.0	0.82	mg/L		04/12/21 17:37	04/13/21 20:24	1
Magnesium	**48**		1.0	0.49	mg/L		04/12/21 17:37	04/13/21 20:24	1

Client: Endpoint Solutions Corp
Job ID: 500-197355-1
Project/Site: PDP HW Well Sampling 415-001-009

Client Sample ID: HW-1
Lab Sample ID: 500-197355-1
Date Collected: 04/08/21 07:44
Matrix: Water
Date Received: 04/09/21 09:30

Method: 6010B - Metals (ICP) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	2.9		0.10	0.023	mg/L		04/12/21 17:37	04/13/21 20:24	1
Potassium	13	B	5.0	0.66	mg/L		04/12/21 17:37	04/13/21 20:24	1
Silicon	25	^1+	2.0	0.51	mg/L		04/12/21 17:37	04/23/21 12:45	1
SiO2, Silica	53		4.3	1.1	mg/L		04/12/21 17:37	04/23/21 12:45	1
Sodium	1100	B	10	0.97	mg/L		04/12/21 17:37	04/13/21 20:24	1

Method: SM 2340B - Total Hardness (as CaCO3) by calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	690		0.91	0.46	mg/L		04/12/21 17:37	04/14/21 08:59	0.1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.3	HF	0.2	0.2	SU			04/27/21 15:29	1
Chloride	820		40	34	mg/L			04/28/21 10:31	200
Alkalinity	730		5.0	3.7	mg/L			04/20/21 12:04	1

Method: 1631E Total Low Level Hg - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	849		25		ng/L		04/22/21 00:00	04/22/21 17:27	50

Method: Total, Inorganic & Organic Arsenic - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenate (as Arsenic)	<2760	U	4000	2760	µg/L		05/03/21 00:00	05/03/21 14:07	200000
Arsenic	336000		50		µg/L		04/30/21 07:57	05/01/21 11:27	500
Arsenite (as Arsenic)	19200		4000		µg/L		05/03/21 00:00	05/03/21 14:07	200000
Inorganic Arsenic	13900		4000		µg/L		04/30/21 00:00	04/30/21 13:57	200000
Organic Arsenic	322000		4050		µg/L		04/30/21 07:57	05/01/21 11:27	200000

Client Sample ID: HW-2
Date Collected: 04/08/21 08:30
Date Received: 04/09/21 09:30

Lab Sample ID: 500-197355-2
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**580**		220	100	ng/L		04/11/21 09:18	04/17/21 15:36	50
Perfluoropentanoic acid (PFPeA)	**2500**		87	21	ng/L		04/11/21 09:18	04/17/21 15:36	50
Perfluorohexanoic acid (PFHxA)	**1600**		87	25	ng/L		04/11/21 09:18	04/17/21 15:36	50
Perfluoroheptanoic acid (PFHpA)	**740**		87	11	ng/L		04/11/21 09:18	04/17/21 15:36	50
Perfluorooctanoic acid (PFOA)	**470**		87	37	ng/L		04/11/21 09:18	04/17/21 15:36	50
Perfluorononanoic acid (PFNA)	**32**	**J**	87	12	ng/L		04/11/21 09:18	04/17/21 15:36	50
Perfluorodecanoic acid (PFDA)	<13		87	13	ng/L		04/11/21 09:18	04/17/21 15:36	50
Perfluoroundecanoic acid (PFUnA)	<48		87	48	ng/L		04/11/21 09:18	04/17/21 15:36	50
Perfluorododecanoic acid (PFDoA)	<24		87	24	ng/L		04/11/21 09:18	04/17/21 15:36	50
Perfluorotridecanoic acid (PFTriA)	<56		87	56	ng/L		04/11/21 09:18	04/17/21 15:36	50
Perfluorotetradecanoic acid (PFTeA)	<32		87	32	ng/L		04/11/21 09:18	04/17/21 15:36	50
Perfluoro-n-hexadecanoic acid (PFHxDA)	<39		87	39	ng/L		04/11/21 09:18	04/17/21 15:36	50
Perfluoro-n-octadecanoic acid (PFODA)	<41		87	41	ng/L		04/11/21 09:18	04/17/21 15:36	50
Perfluorobutanesulfonic acid (PFBS)	<8.7		87	8.7	ng/L		04/11/21 09:18	04/17/21 15:36	50
Perfluoropentanesulfonic acid (PFPeS)	<13		87	13	ng/L		04/11/21 09:18	04/17/21 15:36	50
Perfluorohexanesulfonic acid (PFHxS)	**26**	**J**	87	25	ng/L		04/11/21 09:18	04/17/21 15:36	50
Perfluoroheptanesulfonic Acid (PFHpS)	<8.2		87	8.2	ng/L		04/11/21 09:18	04/17/21 15:36	50
Perfluorooctanesulfonic acid (PFOS)	**48**	**J**	87	23	ng/L		04/11/21 09:18	04/17/21 15:36	50
Perfluorononanesulfonic acid (PFNS)	<16		87	16	ng/L		04/11/21 09:18	04/17/21 15:36	50
Perfluorodecanesulfonic acid (PFDS)	<14		87	14	ng/L		04/11/21 09:18	04/17/21 15:36	50
Perfluorododecanesulfonic acid (PFDoS)	<42		87	42	ng/L		04/11/21 09:18	04/17/21 15:36	50
Perfluorooctanesulfonamide (FOSA)	<42		87	42	ng/L		04/11/21 09:18	04/17/21 15:36	50
NEtFOSA	<38		87	38	ng/L		04/11/21 09:18	04/17/21 15:36	50
NMeFOSA	<19		87	19	ng/L		04/11/21 09:18	04/17/21 15:36	50
NMeFOSAA	<52		220	52	ng/L		04/11/21 09:18	04/17/21 15:36	50
NEtFOSAA	<56		220	56	ng/L		04/11/21 09:18	04/17/21 15:36	50
NMeFOSE	<61		170	61	ng/L		04/11/21 09:18	04/17/21 15:36	50
NEtFOSE	<37		87	37	ng/L		04/11/21 09:18	04/17/21 15:36	50
4:2 FTS	**71**	**J**	87	10	ng/L		04/11/21 09:18	04/17/21 15:36	50
10:2 FTS	<29		87	29	ng/L		04/11/21 09:18	04/17/21 15:36	50
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<17		87	17	ng/L		04/11/21 09:18	04/17/21 15:36	50
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<65		170	65	ng/L		04/11/21 09:18	04/17/21 15:36	50
F-53B Major	<10		87	10	ng/L		04/11/21 09:18	04/17/21 15:36	50
F-53B Minor	<14		87	14	ng/L		04/11/21 09:18	04/17/21 15:36	50

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*76*		*25 - 150*	*04/11/21 09:18*	*04/17/21 15:36*	*50*
13C5 PFPeA	*82*		*25 - 150*	*04/11/21 09:18*	*04/17/21 15:36*	*50*
13C2 PFHxA	*89*		*25 - 150*	*04/11/21 09:18*	*04/17/21 15:36*	*50*
13C4 PFHpA	*89*		*25 - 150*	*04/11/21 09:18*	*04/17/21 15:36*	*50*
13C4 PFOA	*93*		*25 - 150*	*04/11/21 09:18*	*04/17/21 15:36*	*50*
13C5 PFNA	*94*		*25 - 150*	*04/11/21 09:18*	*04/17/21 15:36*	*50*
13C2 PFDA	*89*		*25 - 150*	*04/11/21 09:18*	*04/17/21 15:36*	*50*

Client Sample ID: HW-2
Date Collected: 04/08/21 08:30
Date Received: 04/09/21 09:30

Lab Sample ID: 500-197355-2
Matrix: Water

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFUnA	89		25 - 150	04/11/21 09:18	04/17/21 15:36	50
13C2 PFDoA	61		25 - 150	04/11/21 09:18	04/17/21 15:36	50
13C2 PFTeDA	39		25 - 150	04/11/21 09:18	04/17/21 15:36	50
13C2 PFHxDA	26		25 - 150	04/11/21 09:18	04/17/21 15:36	50
13C3 PFBS	87		25 - 150	04/11/21 09:18	04/17/21 15:36	50
18O2 PFHxS	92		25 - 150	04/11/21 09:18	04/17/21 15:36	50
13C4 PFOS	81		25 - 150	04/11/21 09:18	04/17/21 15:36	50
13C8 FOSA	89		10 - 150	04/11/21 09:18	04/17/21 15:36	50
d3-NMeFOSAA	94		25 - 150	04/11/21 09:18	04/17/21 15:36	50
d5-NEtFOSAA	109		25 - 150	04/11/21 09:18	04/17/21 15:36	50
d-N-MeFOSA-M	55		10 - 150	04/11/21 09:18	04/17/21 15:36	50
d-N-EtFOSA-M	48		10 - 150	04/11/21 09:18	04/17/21 15:36	50
d7-N-MeFOSE-M	63		10 - 150	04/11/21 09:18	04/17/21 15:36	50
d9-N-EtFOSE-M	63		10 - 150	04/11/21 09:18	04/17/21 15:36	50
M2-4:2 FTS	171	*5+	25 - 150	04/11/21 09:18	04/17/21 15:36	50
13C3 HFPO-DA	70		25 - 150	04/11/21 09:18	04/17/21 15:36	50
13C2 10:2 FTS	84		25 - 150	04/11/21 09:18	04/17/21 15:36	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
6:2 FTS	6200		210	100	ng/L		04/18/21 10:57	04/19/21 06:45	50
8:2 FTS	230		83	19	ng/L		04/18/21 10:57	04/19/21 06:45	50

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	92		25 - 150	04/18/21 10:57	04/19/21 06:45	50
M2-8:2 FTS	41		25 - 150	04/18/21 10:57	04/19/21 06:45	50

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.19	J	0.20	0.045	mg/L		04/12/21 17:37	04/13/21 20:27	1
Arsenic	62		1.0	0.37	mg/L		04/12/21 17:37	04/15/21 17:56	100
Calcium	230	B	0.20	0.053	mg/L		04/12/21 17:37	04/13/21 20:27	1
Iron	48		0.20	0.082	mg/L		04/12/21 17:37	04/13/21 20:27	1
Magnesium	86		0.10	0.049	mg/L		04/12/21 17:37	04/13/21 20:27	1
Manganese	3.3		0.010	0.0023	mg/L		04/12/21 17:37	04/13/21 20:27	1
Potassium	24	B	0.50	0.066	mg/L		04/12/21 17:37	04/13/21 20:27	1
Silicon	14	^1+	0.20	0.051	mg/L		04/12/21 17:37	04/23/21 12:49	1
SiO2, Silica	31		0.43	0.11	mg/L		04/12/21 17:37	04/23/21 12:49	1
Sodium	880	B	1.0	0.097	mg/L		04/12/21 17:37	04/13/21 20:27	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.067	J	0.20	0.045	mg/L		04/12/21 17:37	04/13/21 20:31	1
Arsenic	60		1.0	0.37	mg/L		04/12/21 17:37	04/15/21 18:03	100
Calcium	230	B	0.20	0.053	mg/L		04/12/21 17:37	04/13/21 20:31	1
Iron	47		0.20	0.082	mg/L		04/12/21 17:37	04/13/21 20:31	1
Magnesium	86		0.10	0.049	mg/L		04/12/21 17:37	04/13/21 20:31	1
Manganese	3.3		0.010	0.0023	mg/L		04/12/21 17:37	04/13/21 20:31	1
Potassium	23	B	0.50	0.066	mg/L		04/12/21 17:37	04/13/21 20:31	1
Silicon	14	^1+	0.20	0.051	mg/L		04/12/21 17:37	04/23/21 12:52	1
SiO2, Silica	31		0.43	0.11	mg/L		04/12/21 17:37	04/23/21 12:52	1

Client: Endpoint Solutions Corp
Job ID: 500-197355-1
Project/Site: PDP HW Well Sampling 415-001-009

Client Sample ID: HW-2
Lab Sample ID: 500-197355-2
Date Collected: 04/08/21 08:30
Matrix: Water
Date Received: 04/09/21 09:30

Method: 6010B - Metals (ICP) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	880	B	1.0	0.097	mg/L		04/12/21 17:37	04/13/21 20:31	1

Method: SM 2340B - Total Hardness (as CaCO3) by calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	940		0.91	0.46	mg/L		04/12/21 17:37	04/14/21 08:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.7	HF	0.2	0.2	SU			04/27/21 15:41	1
Chloride	1300		50	43	mg/L			04/28/21 10:44	250
Alkalinity	800		5.0	3.7	mg/L			04/20/21 11:53	1

Method: 1631E Total Low Level Hg - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	32.1		5		ng/L		04/22/21 00:00	04/22/21 19:04	10

Method: Total, Inorganic & Organic Arsenic - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenate (as Arsenic)	6970		2000	1380	µg/L		05/03/21 00:00	05/03/21 14:12	100000
Arsenic	62100		50		µg/L		04/30/21 07:57	05/01/21 11:31	500
Arsenite (as Arsenic)	26300		2000		µg/L		05/03/21 00:00	05/03/21 14:12	100000
Inorganic Arsenic	33300		2000		µg/L		04/30/21 00:00	04/30/21 13:43	100000
Organic Arsenic	28800		2050		µg/L		04/30/21 07:57	05/01/21 11:31	100000

Client: Endpoint Solutions Corp
Job ID: 500-197355-1
Project/Site: PDP HW Well Sampling 415-001-009

Client Sample ID: HW-1 Field Blank
Lab Sample ID: 500-197355-3
Date Collected: 04/08/21 00:00
Matrix: Water
Date Received: 04/09/21 09:30

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<2.1		4.4	2.1	ng/L		04/11/21 09:18	04/16/21 15:47	1
Perfluoropentanoic acid (PFPeA)	<0.43		1.8	0.43	ng/L		04/11/21 09:18	04/16/21 15:47	1
Perfluorohexanoic acid (PFHxA)	<0.51		1.8	0.51	ng/L		04/11/21 09:18	04/16/21 15:47	1
Perfluoroheptanoic acid (PFHpA)	<0.22		1.8	0.22	ng/L		04/11/21 09:18	04/16/21 15:47	1
Perfluorooctanoic acid (PFOA)	<0.74		1.8	0.74	ng/L		04/11/21 09:18	04/16/21 15:47	1
Perfluorononanoic acid (PFNA)	<0.24		1.8	0.24	ng/L		04/11/21 09:18	04/16/21 15:47	1
Perfluorodecanoic acid (PFDA)	<0.27		1.8	0.27	ng/L		04/11/21 09:18	04/16/21 15:47	1
Perfluoroundecanoic acid (PFUnA)	<0.96		1.8	0.96	ng/L		04/11/21 09:18	04/16/21 15:47	1
Perfluorododecanoic acid (PFDoA)	<0.48		1.8	0.48	ng/L		04/11/21 09:18	04/16/21 15:47	1
Perfluorotridecanoic acid (PFTriA)	<1.1		1.8	1.1	ng/L		04/11/21 09:18	04/16/21 15:47	1
Perfluorotetradecanoic acid (PFTeA)	<0.64		1.8	0.64	ng/L		04/11/21 09:18	04/16/21 15:47	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.78		1.8	0.78	ng/L		04/11/21 09:18	04/16/21 15:47	1
Perfluoro-n-octadecanoic acid (PFODA)	<0.82		1.8	0.82	ng/L		04/11/21 09:18	04/16/21 15:47	1
Perfluorobutanesulfonic acid (PFBS)	<0.18		1.8	0.18	ng/L		04/11/21 09:18	04/16/21 15:47	1
Perfluoropentanesulfonic acid (PFPeS)	<0.26		1.8	0.26	ng/L		04/11/21 09:18	04/16/21 15:47	1
Perfluorohexanesulfonic acid (PFHxS)	<0.50		1.8	0.50	ng/L		04/11/21 09:18	04/16/21 15:47	1
Perfluoroheptanesulfonic Acid (PFHpS)	<0.17		1.8	0.17	ng/L		04/11/21 09:18	04/16/21 15:47	1
Perfluorooctanesulfonic acid (PFOS)	<0.47		1.8	0.47	ng/L		04/11/21 09:18	04/16/21 15:47	1
Perfluorononanesulfonic acid (PFNS)	<0.32		1.8	0.32	ng/L		04/11/21 09:18	04/16/21 15:47	1
Perfluorodecanesulfonic acid (PFDS)	<0.28		1.8	0.28	ng/L		04/11/21 09:18	04/16/21 15:47	1
Perfluorododecanesulfonic acid (PFDoS)	<0.85		1.8	0.85	ng/L		04/11/21 09:18	04/16/21 15:47	1
Perfluorooctanesulfonamide (FOSA)	<0.86		1.8	0.86	ng/L		04/11/21 09:18	04/16/21 15:47	1
NEtFOSA	<0.76		1.8	0.76	ng/L		04/11/21 09:18	04/16/21 15:47	1
NMeFOSA	<0.38		1.8	0.38	ng/L		04/11/21 09:18	04/16/21 15:47	1
NMeFOSAA	<1.1		4.4	1.1	ng/L		04/11/21 09:18	04/16/21 15:47	1
NEtFOSAA	<1.1		4.4	1.1	ng/L		04/11/21 09:18	04/16/21 15:47	1
NMeFOSE	<1.2		3.5	1.2	ng/L		04/11/21 09:18	04/16/21 15:47	1
NEtFOSE	<0.74		1.8	0.74	ng/L		04/11/21 09:18	04/16/21 15:47	1
4:2 FTS	<0.21		1.8	0.21	ng/L		04/11/21 09:18	04/16/21 15:47	1
6:2 FTS	<2.2	*+	4.4	2.2	ng/L		04/11/21 09:18	04/16/21 15:47	1
8:2 FTS	<0.40	*+	1.8	0.40	ng/L		04/11/21 09:18	04/16/21 15:47	1
10:2 FTS	<0.59		1.8	0.59	ng/L		04/11/21 09:18	04/16/21 15:47	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.35		1.8	0.35	ng/L		04/11/21 09:18	04/16/21 15:47	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.3		3.5	1.3	ng/L		04/11/21 09:18	04/16/21 15:47	1
F-53B Major	<0.21		1.8	0.21	ng/L		04/11/21 09:18	04/16/21 15:47	1
F-53B Minor	<0.28		1.8	0.28	ng/L		04/11/21 09:18	04/16/21 15:47	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*71*		*25 - 150*	*04/11/21 09:18*	*04/16/21 15:47*	*1*
13C5 PFPeA	*77*		*25 - 150*	*04/11/21 09:18*	*04/16/21 15:47*	*1*
13C2 PFHxA	*92*		*25 - 150*	*04/11/21 09:18*	*04/16/21 15:47*	*1*
13C4 PFHpA	*83*		*25 - 150*	*04/11/21 09:18*	*04/16/21 15:47*	*1*
13C4 PFOA	*81*		*25 - 150*	*04/11/21 09:18*	*04/16/21 15:47*	*1*
13C5 PFNA	*89*		*25 - 150*	*04/11/21 09:18*	*04/16/21 15:47*	*1*
13C2 PFDA	*86*		*25 - 150*	*04/11/21 09:18*	*04/16/21 15:47*	*1*

Client: Endpoint Solutions Corp
Job ID: 500-197355-1
Project/Site: PDP HW Well Sampling 415-001-009

Client Sample ID: HW-1 Field Blank
Lab Sample ID: 500-197355-3
Date Collected: 04/08/21 00:00
Matrix: Water
Date Received: 04/09/21 09:30

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFUnA	92		25 - 150	04/11/21 09:18	04/16/21 15:47	1
13C2 PFDoA	90		25 - 150	04/11/21 09:18	04/16/21 15:47	1
13C2 PFTeDA	93		25 - 150	04/11/21 09:18	04/16/21 15:47	1
13C2 PFHxDA	88		25 - 150	04/11/21 09:18	04/16/21 15:47	1
13C3 PFBS	78		25 - 150	04/11/21 09:18	04/16/21 15:47	1
18O2 PFHxS	88		25 - 150	04/11/21 09:18	04/16/21 15:47	1
13C4 PFOS	90		25 - 150	04/11/21 09:18	04/16/21 15:47	1
13C8 FOSA	90		10 - 150	04/11/21 09:18	04/16/21 15:47	1
d3-NMeFOSAA	106		25 - 150	04/11/21 09:18	04/16/21 15:47	1
d5-NEtFOSAA	104		25 - 150	04/11/21 09:18	04/16/21 15:47	1
d-N-MeFOSA-M	77		10 - 150	04/11/21 09:18	04/16/21 15:47	1
d-N-EtFOSA-M	75		10 - 150	04/11/21 09:18	04/16/21 15:47	1
d7-N-MeFOSE-M	84		10 - 150	04/11/21 09:18	04/16/21 15:47	1
d9-N-EtFOSE-M	83		10 - 150	04/11/21 09:18	04/16/21 15:47	1
M2-4:2 FTS	91		25 - 150	04/11/21 09:18	04/16/21 15:47	1
M2-6:2 FTS	69		25 - 150	04/11/21 09:18	04/16/21 15:47	1
M2-8:2 FTS	66		25 - 150	04/11/21 09:18	04/16/21 15:47	1
13C3 HFPO-DA	78		25 - 150	04/11/21 09:18	04/16/21 15:47	1
13C2 10:2 FTS	94		25 - 150	04/11/21 09:18	04/16/21 15:47	1

Client: Endpoint Solutions Corp
Job ID: 500-197355-1
Project/Site: PDP HW Well Sampling 415-001-009

Client Sample ID: HW-2 Field Blank
Lab Sample ID: 500-197355-4
Date Collected: 04/08/21 00:00
Matrix: Water
Date Received: 04/09/21 09:30

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<2.3		4.8	2.3	ng/L		04/11/21 09:18	04/16/21 15:56	1
Perfluoropentanoic acid (PFPeA)	<0.47		1.9	0.47	ng/L		04/11/21 09:18	04/16/21 15:56	1
Perfluorohexanoic acid (PFHxA)	<0.56		1.9	0.56	ng/L		04/11/21 09:18	04/16/21 15:56	1
Perfluoroheptanoic acid (PFHpA)	<0.24		1.9	0.24	ng/L		04/11/21 09:18	04/16/21 15:56	1
Perfluorooctanoic acid (PFOA)	<0.82		1.9	0.82	ng/L		04/11/21 09:18	04/16/21 15:56	1
Perfluorononanoic acid (PFNA)	<0.26		1.9	0.26	ng/L		04/11/21 09:18	04/16/21 15:56	1
Perfluorodecanoic acid (PFDA)	<0.30		1.9	0.30	ng/L		04/11/21 09:18	04/16/21 15:56	1
Perfluoroundecanoic acid (PFUnA)	<1.1		1.9	1.1	ng/L		04/11/21 09:18	04/16/21 15:56	1
Perfluorododecanoic acid (PFDoA)	<0.53		1.9	0.53	ng/L		04/11/21 09:18	04/16/21 15:56	1
Perfluorotridecanoic acid (PFTriA)	<1.2		1.9	1.2	ng/L		04/11/21 09:18	04/16/21 15:56	1
Perfluorotetradecanoic acid (PFTeA)	<0.70		1.9	0.70	ng/L		04/11/21 09:18	04/16/21 15:56	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.85		1.9	0.85	ng/L		04/11/21 09:18	04/16/21 15:56	1
Perfluoro-n-octadecanoic acid (PFODA)	<0.90		1.9	0.90	ng/L		04/11/21 09:18	04/16/21 15:56	1
Perfluorobutanesulfonic acid (PFBS)	<0.19		1.9	0.19	ng/L		04/11/21 09:18	04/16/21 15:56	1
Perfluoropentanesulfonic acid (PFPeS)	<0.29		1.9	0.29	ng/L		04/11/21 09:18	04/16/21 15:56	1
Perfluorohexanesulfonic acid (PFHxS)	<0.55		1.9	0.55	ng/L		04/11/21 09:18	04/16/21 15:56	1
Perfluoroheptanesulfonic Acid (PFHpS)	<0.18		1.9	0.18	ng/L		04/11/21 09:18	04/16/21 15:56	1
Perfluorooctanesulfonic acid (PFOS)	<0.52		1.9	0.52	ng/L		04/11/21 09:18	04/16/21 15:56	1
Perfluorononanesulfonic acid (PFNS)	<0.35		1.9	0.35	ng/L		04/11/21 09:18	04/16/21 15:56	1
Perfluorodecanesulfonic acid (PFDS)	<0.31		1.9	0.31	ng/L		04/11/21 09:18	04/16/21 15:56	1
Perfluorododecanesulfonic acid (PFDoS)	<0.93		1.9	0.93	ng/L		04/11/21 09:18	04/16/21 15:56	1
Perfluorooctanesulfonamide (FOSA)	<0.94		1.9	0.94	ng/L		04/11/21 09:18	04/16/21 15:56	1
NEtFOSA	<0.83		1.9	0.83	ng/L		04/11/21 09:18	04/16/21 15:56	1
NMeFOSA	<0.41		1.9	0.41	ng/L		04/11/21 09:18	04/16/21 15:56	1
NMeFOSAA	<1.2		4.8	1.2	ng/L		04/11/21 09:18	04/16/21 15:56	1
NEtFOSAA	<1.2		4.8	1.2	ng/L		04/11/21 09:18	04/16/21 15:56	1
NMeFOSE	<1.3		3.8	1.3	ng/L		04/11/21 09:18	04/16/21 15:56	1
NEtFOSE	<0.82		1.9	0.82	ng/L		04/11/21 09:18	04/16/21 15:56	1
4:2 FTS	<0.23		1.9	0.23	ng/L		04/11/21 09:18	04/16/21 15:56	1
6:2 FTS	<2.4	*+	4.8	2.4	ng/L		04/11/21 09:18	04/16/21 15:56	1
8:2 FTS	<0.44	*+	1.9	0.44	ng/L		04/11/21 09:18	04/16/21 15:56	1
10:2 FTS	<0.64		1.9	0.64	ng/L		04/11/21 09:18	04/16/21 15:56	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.38		1.9	0.38	ng/L		04/11/21 09:18	04/16/21 15:56	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.4		3.8	1.4	ng/L		04/11/21 09:18	04/16/21 15:56	1
F-53B Major	<0.23		1.9	0.23	ng/L		04/11/21 09:18	04/16/21 15:56	1
F-53B Minor	<0.31		1.9	0.31	ng/L		04/11/21 09:18	04/16/21 15:56	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*77*		*25 - 150*	*04/11/21 09:18*	*04/16/21 15:56*	*1*
13C5 PFPeA	*82*		*25 - 150*	*04/11/21 09:18*	*04/16/21 15:56*	*1*
13C2 PFHxA	*93*		*25 - 150*	*04/11/21 09:18*	*04/16/21 15:56*	*1*
13C4 PFHpA	*92*		*25 - 150*	*04/11/21 09:18*	*04/16/21 15:56*	*1*
13C4 PFOA	*84*		*25 - 150*	*04/11/21 09:18*	*04/16/21 15:56*	*1*
13C5 PFNA	*91*		*25 - 150*	*04/11/21 09:18*	*04/16/21 15:56*	*1*
13C2 PFDA	*88*		*25 - 150*	*04/11/21 09:18*	*04/16/21 15:56*	*1*

Client: Endpoint Solutions Corp
Job ID: 500-197355-1
Project/Site: PDP HW Well Sampling 415-001-009

Client Sample ID: HW-2 Field Blank
Lab Sample ID: 500-197355-4
Date Collected: 04/08/21 00:00
Matrix: Water
Date Received: 04/09/21 09:30

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFUnA	93		25 - 150	04/11/21 09:18	04/16/21 15:56	1
13C2 PFDoA	90		25 - 150	04/11/21 09:18	04/16/21 15:56	1
13C2 PFTeDA	92		25 - 150	04/11/21 09:18	04/16/21 15:56	1
13C2 PFHxDA	84		25 - 150	04/11/21 09:18	04/16/21 15:56	1
13C3 PFBS	83		25 - 150	04/11/21 09:18	04/16/21 15:56	1
18O2 PFHxS	92		25 - 150	04/11/21 09:18	04/16/21 15:56	1
13C4 PFOS	95		25 - 150	04/11/21 09:18	04/16/21 15:56	1
13C8 FOSA	92		10 - 150	04/11/21 09:18	04/16/21 15:56	1
d3-NMeFOSAA	110		25 - 150	04/11/21 09:18	04/16/21 15:56	1
d5-NEtFOSAA	104		25 - 150	04/11/21 09:18	04/16/21 15:56	1
d-N-MeFOSA-M	76		10 - 150	04/11/21 09:18	04/16/21 15:56	1
d-N-EtFOSA-M	84		10 - 150	04/11/21 09:18	04/16/21 15:56	1
d7-N-MeFOSE-M	82		10 - 150	04/11/21 09:18	04/16/21 15:56	1
d9-N-EtFOSE-M	88		10 - 150	04/11/21 09:18	04/16/21 15:56	1
M2-4:2 FTS	98		25 - 150	04/11/21 09:18	04/16/21 15:56	1
M2-6:2 FTS	69		25 - 150	04/11/21 09:18	04/16/21 15:56	1
M2-8:2 FTS	62		25 - 150	04/11/21 09:18	04/16/21 15:56	1
13C3 HFPO-DA	89		25 - 150	04/11/21 09:18	04/16/21 15:56	1
13C2 10:2 FTS	91		25 - 150	04/11/21 09:18	04/16/21 15:56	1

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5755 8th Street East
Tacoma, WA 98424
Phone: (253) 922-2310

05 May 2021

Sandie Fredrick
Eurofins Test America - University Park Illinois
2417 Bond Street
University Park, ILLINOIS 60484

RE: As Speciation

Enclosed are the analytical results for samples received by Eurofins Frontier Global Sciences. All quality control measurements are within established control limits and there were no analytical difficulties encountered with the exception of those listed in the case narrative section of this report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Patrick Garcia-Strickland
Business Unit Manager

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5755 8th Street East
Tacoma, WA 98424
Phone: (253) 922-2310

Eurofins Test America - University Park Illinois	Project: As Speciation	
2417 Bond Street	Project Number: 500-197355-1	**Reported:**
University Park ILLINOIS, 60484	Project Manager: Sandie Fredrick	05-May-21 16:10

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HW-1 (500-197355-1)	1D00065-01	Water	08-Apr-21 07:44	13-Apr-21 09:30
HW-2 (500-197355-2)	1D00065-02	Water	08-Apr-21 08:30	13-Apr-21 09:30

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Tacoma, WA 98424
Phone: (253) 922-2310

Eurofins Test America - University Park Illinois	Project: As Speciation	
2417 Bond Street	Project Number: 500-197355-1	**Reported:**
University Park ILLINOIS, 60484	Project Manager: Sandie Fredrick	05-May-21 16:10

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 13-Apr-21 09:30. The samples were received intact, on-ice within a sealed cooler at

Cooler	Temp C°
Default Cooler	-0.8

SAMPLE PREPARATION AND ANALYSIS

Samples were prepared and analyzed for total mercury by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631E.

Samples were prepared and analyzed for inorganic arsenic speciation by hydride generation cryogenic trapping gas chromatography atomic absorption spectrometry (HG-CT-GC-AAS) in accordance with EPA 1632.

Momomethylarsonic acid (MMAs) and dimethylarsinic acid (DMAs) was estimated by calulating instrument response relative to inorgqanic arsenic and by known retention times of the species. The results are:
1D00065-01
MMAs - 38,600 ug/L
DMAs - less than 8,000 ug/L
1D00065-02
MMAs - 44,800 ug/L
DMAs - less than 4,000 ug/L

Samples were prepared and analyzed for total recoverable metals by inductively coupled plasma mass spectrometry (ICP-MS) in accordance with EPA 1638 (EFGS-054).

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

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Phone: (253) 922-2310

Eurofins Test America - University Park Illinois	Project: As Speciation	
2417 Bond Street	Project Number: 500-197355-1	**Reported:**
University Park ILLINOIS, 60484	Project Manager: Sandie Fredrick	05-May-21 16:10

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences fell within established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

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Sample Receipt Checklist

Client: TA - U Park Date & Time Received: 4/13/21 Date Labeled: 4/13/21 Labeled By: [illegible]

Matrix: Water Received By: [illegible] Label Verified By: [illegible] 4/12/21

# of Coolers Received: ____ Samples Arrived By: ____ Shipping Service ____ Courier ____ Hand ____ Other (Specify:________________)

Coolant: ☐ None/Ambient ☐ Loose Ice ☐ Gel Ice ☐ Dry Ice Coolant Required: Y / N Temp Blank Used: Y/N for Cooler(s):________

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Samples from Wisconsin have special requirements. Shipment received includes samples from Wisconsin: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	Y	
Custody Seals are present and intact:	Y	
Custody seals signed:	Y	

TID: [illegible]	CF: -0.3 °C	Date/time: 4/13/21	[illegible] By: [illegible]
Cooler 1: NA °C	w/ CF: NA °C	Cooler 4: NA °C	w/ CF: NA °C
Cooler 2: -0.5 °C	w/ CF: -0.8 °C	Cooler 5: °C	w/ CF: °C
Cooler 3: °C	w/ CF: °C	Cooler 6: °C	w/ CF: °C

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	Y	
Date and time of collection:	Y	
Sampled by:	N	
Preservation type:	Y	
Requested analyses:	Y	
Required signatures:	Y	
Internal COC required:	NA	

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	Y	
Sample labels are present and legible:	Y	
Sample ID on container/bag matches COC:	Y	
Correct sample containers used:	Y	
Samples received within holding times:	Y	
Sample volume sufficient for requested analyses:	Y	
Correct preservative used for requested analyses:	Y	

Anomalies/Non-conformances (attach additional pages if needed):

1D00065

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Fredrick, Sandie	Carrier Tracking No(s):	COC No: 500-147285.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: sandra.fredrick@eurofinset.com	State of Origin: Wisconsin	Page: Page 1 of 1
Company: Eurofins Frontier Global Sciences LLC		Accreditations Required (See note): State - Wisconsin		Job #: 500-197355-1
Address: 5755 8th Street E, ,	Due Date Requested: 4/30/2021			
City: Tacoma	TAT Requested (days):			
State, Zip: WA, 98424	PO #:			
Phone:	WO #:			
Email:	Project #: 50018723			
Project Name: PDP HW Well Sampling 415-001-009	SSOW#:			
Site:				

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)	SUB (1631E Total Low Level Hg)/ 1631E Total Low Level Hg	SUB (Inorganic As, As III & As V)/ Inorganic As, As III & As V	SUB (Total, Inorganic & Organic Arsenic)/ Total, Inorganic & Organic Arsenic	SUB (Semiquantitation of MMAs & DMAs by 1632)/ Semiquantitation of MMAs & DMAs by 1632	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
HW-1 (500-197355-1)	4/8/21	07:44 Central		Water			X	X	X	X	2	EFGS $65, EFGS $200, EFGS $40, EFGS $125
HW-2 (500-197355-2)	4/8/21	08:30 Central		Water			X	X	X	X	2	EFGS $65, EFGS $200, EFGS $40, EFGS $125

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: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ 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: IR93 4451 5089

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by:	Date/Time: 4/12/21 1500	Company: ETA	Received by:	Date/Time: 4/13/21 9:30	Company: EFGS
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.: No	Cooler Temperature(s) °C and Other Remarks: -0.8°C

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Fredrick, Sandie	Carrier Tracking No(s):	COC No: 500-147285.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: sandra.fredrick@eurofinset.com	State of Origin: Wisconsin	Page: Page 1 of 1
Company: Eurofins Frontier Global Sciences LLC		Accreditations Required (See note): State - Wisconsin		Job #: 500-197355-1
Address: 5755 8th Street E, ,	Due Date Requested: 4/30/2021			
City: Tacoma	TAT Requested (days):			
State, Zip: WA, 98424				
Phone:	PO #:			
Email:	WO #:			
Project Name: PDP HW Well Sampling 415-001-009	Project #: 50018723			
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)	SUB (1631E Total Low Level Hg)/ 1631E Total Low Level Hg	SUB (Inorganic As, As III & As V)/ Inorganic As, As III & As V	SUB (Total, Inorganic & Organic Arsenic)/ Total, Inorganic & Organic Arsenic	SUB (Semiquantitation of MMAs & DMAs by 1632)/ Semiquantitation of MMAs & DMAs by 1632	Total Number of containers	Special Instructions/Note:
Preservation Code:												
HW-1 (500-197355-1)	4/8/21	07:44 Central		Water			X	X	X	X	2	EFGS $65, EFGS $200, EFGS $40, EFGS $125
HW-2 (500-197355-2)	4/8/21	08:30 Central		Water			X	X	X	X	2	EFGS $65, EFGS $200, EFGS $40, EFGS $125

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: 1493 4451 5089

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	[signature]	4/12/21 1500	ETA	[signature]	4/13/21	ESS
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.: NO	Cooler Temperature(s) °C and Other Remarks: -0.5 CF -0.8 SAMP 705

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5755 8th Street East
Tacoma, WA 98424
Phone: (253) 922-2310

Eurofins Test America - University Park Illinois	Project: As Speciation	
2417 Bond Street	Project Number: 500-197355-1	**Reported:**
University Park ILLINOIS, 60484	Project Manager: Sandie Fredrick	05-May-21 16:10

HW-1 (500-197355-1)

1D00065-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Arsenate (as Arsenic)	ND	2760	4000	µg/L	200000	[CALC]	03-May-21		03-May-21	EPA 1632	U
Organic Arsenic	**322000**	-	4050	µg/L	200000	[CALC]	30-Apr-21		01-May-21	EPA 1632	
Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation											
Mercury	**849**	-	25.0	ng/L	50	F104384	22-Apr-21	1D23005	22-Apr-21	EPA 1631E	
Sample Preparation: EFGS SOP2836 Closed Vessel Water Oven Digestion											
Arsenic	**336000**	-	50.0	µg/L	500	F104403	30-Apr-21	1D29014	01-May-21	EPA 1638	
Sample Preparation: EFGS SOP2987 EPA 1632 Speciation of Waters											
Arsenite (as Arsenic)	**19200**	-	4000	µg/L	200000	F104427	03-May-21	1E03013	03-May-21	EPA 1632	
Inorganic Arsenic	**13900**	-	4000	µg/L	200000	F104423	30-Apr-21	1D30006	30-Apr-21	EPA 1632	

Patrick Garcia-Strickland, Business Unit Manager

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Eurofins Test America - University Park Illinois	Project: As Speciation	
2417 Bond Street	Project Number: 500-197355-1	**Reported:**
University Park ILLINOIS, 60484	Project Manager: Sandie Fredrick	05-May-21 16:10

HW-2 (500-197355-2)

1D00065-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Arsenate (as Arsenic)	**6970**	1380	2000	µg/L	100000	[CALC]	03-May-21		03-May-21	EPA 1632	
Organic Arsenic	**28800**	-	2050	µg/L	100000	[CALC]	30-Apr-21		01-May-21	EPA 1632	
Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation											
Mercury	**32.1**	-	5.00	ng/L	10	F104384	22-Apr-21	1D23005	22-Apr-21	EPA 1631E	
Sample Preparation: EFGS SOP2836 Closed Vessel Water Oven Digestion											
Arsenic	**62100**	-	50.0	µg/L	500	F104403	30-Apr-21	1D29014	01-May-21	EPA 1638	
Sample Preparation: EFGS SOP2987 EPA 1632 Speciation of Waters											
Arsenite (as Arsenic)	**26300**	-	2000	µg/L	100000	F104427	03-May-21	1E03013	03-May-21	EPA 1632	
Inorganic Arsenic	**33300**	-	2000	µg/L	100000	F104423	30-Apr-21	1D30006	30-Apr-21	EPA 1632	

Eurofins Frontier Global Sciences, LLC

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Patrick Garcia-Strickland, Business Unit Manager

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Eurofins Test America - University Park Illinois	Project: As Speciation	
2417 Bond Street	Project Number: 500-197355-1	**Reported:**
University Park ILLINOIS, 60484	Project Manager: Sandie Fredrick	05-May-21 16:10

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1D23005 - F104384											
Cal Standard (1D23005-CAL1)					Prepared & Analyzed: 22-Apr-21						
Mercury	0.51	-		ng/L	0.50000		101				
Cal Standard (1D23005-CAL2)					Prepared & Analyzed: 22-Apr-21						
Mercury	0.96	-		ng/L	1.0000		95.9				
Cal Standard (1D23005-CAL3)					Prepared & Analyzed: 22-Apr-21						
Mercury	5.03	-		ng/L	5.0000		101				
Cal Standard (1D23005-CAL4)					Prepared & Analyzed: 22-Apr-21						
Mercury	19.75	-		ng/L	20.000		98.8				
Cal Standard (1D23005-CAL5)					Prepared & Analyzed: 22-Apr-21						
Mercury	41.40	-		ng/L	40.000		104				
Calibration Blank (1D23005-CCB1)					Prepared & Analyzed: 22-Apr-21						
Mercury	-0.06	-		ng/L							U
Calibration Blank (1D23005-CCB2)					Prepared & Analyzed: 22-Apr-21						
Mercury	-0.06	-		ng/L							U
Calibration Blank (1D23005-CCB3)					Prepared & Analyzed: 22-Apr-21						
Mercury	-0.02	-		ng/L							U
Calibration Blank (1D23005-CCB4)					Prepared & Analyzed: 22-Apr-21						
Mercury	-0.08	-		ng/L							U
Calibration Blank (1D23005-CCB5)					Prepared & Analyzed: 22-Apr-21						
Mercury	-0.05	-		ng/L							U

Eurofins Frontier Global Sciences, LLC

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Patrick Garcia-Strickland, Business Unit Manager

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5755 8th Street East
Tacoma, WA 98424
Phone: (253) 922-2310

Eurofins Test America - University Park Illinois	Project: As Speciation	
2417 Bond Street	Project Number: 500-197355-1	**Reported:**
University Park ILLINOIS, 60484	Project Manager: Sandie Fredrick	05-May-21 16:10

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1D23005 - F104384											
Calibration Blank (1D23005-CCB6)					Prepared & Analyzed: 22-Apr-21						
Mercury	-0.07	-		ng/L							U
Calibration Blank (1D23005-CCB7)					Prepared & Analyzed: 22-Apr-21						
Mercury	-0.08	-		ng/L							U
Calibration Blank (1D23005-CCB8)					Prepared & Analyzed: 22-Apr-21						
Mercury	-0.04	-		ng/L							U
Calibration Blank (1D23005-CCB9)					Prepared & Analyzed: 22-Apr-21						
Mercury	-0.08	-		ng/L							U
Calibration Check (1D23005-CCV1)					Prepared & Analyzed: 22-Apr-21						
Mercury	4.68	-		ng/L	4.9950		93.7	77-123			
Calibration Check (1D23005-CCV2)					Prepared & Analyzed: 22-Apr-21						
Mercury	4.87	-		ng/L	4.9950		97.6	77-123			
Calibration Check (1D23005-CCV3)					Prepared & Analyzed: 22-Apr-21						
Mercury	4.69	-		ng/L	4.9950		94.0	77-123			
Calibration Check (1D23005-CCV4)					Prepared & Analyzed: 22-Apr-21						
Mercury	4.92	-		ng/L	4.9950		98.5	77-123			
Calibration Check (1D23005-CCV5)					Prepared & Analyzed: 22-Apr-21						
Mercury	4.89	-		ng/L	4.9950		98.0	77-123			
Calibration Check (1D23005-CCV6)					Prepared & Analyzed: 22-Apr-21						
Mercury	4.72	-		ng/L	4.9950		94.5	77-123			

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Tacoma, WA 98424
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Eurofins Test America - University Park Illinois	Project: As Speciation	
2417 Bond Street	Project Number: 500-197355-1	**Reported:**
University Park ILLINOIS, 60484	Project Manager: Sandie Fredrick	05-May-21 16:10

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1D23005 - F104384											
Calibration Check (1D23005-CCV7)					Prepared & Analyzed: 22-Apr-21						
Mercury	4.59	-		ng/L	4.9950		92.0	77-123			
Calibration Check (1D23005-CCV8)					Prepared & Analyzed: 22-Apr-21						
Mercury	4.60	-		ng/L	4.9950		92.0	77-123			
Calibration Check (1D23005-CCV9)					Prepared & Analyzed: 22-Apr-21						
Mercury	4.45	-		ng/L	4.9950		89.2	77-123			
Instrument Blank (1D23005-IBL1)					Prepared & Analyzed: 22-Apr-21						
Mercury	0.10	-	0.50	ng/L							U
Instrument Blank (1D23005-IBL2)					Prepared & Analyzed: 22-Apr-21						
Mercury	ND	-	0.50	ng/L							U
Instrument Blank (1D23005-IBL3)					Prepared & Analyzed: 22-Apr-21						
Mercury	ND	-	0.50	ng/L							U
Initial Cal Blank (1D23005-ICB1)					Prepared & Analyzed: 22-Apr-21						
Mercury	0.09	-		ng/L							
Initial Cal Check (1D23005-ICV1)					Prepared & Analyzed: 22-Apr-21						
Mercury	5.19	-		ng/L	4.9950		104	79-121			
Batch 1D29014 - F104406											
Cal Standard (1D29014-CAL1)					Prepared: 28-Apr-21 Analyzed: 30-Apr-21						
Arsenic	0.005	-		µg/L	0.0075000		67.6				

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Eurofins Test America - University Park Illinois	Project: As Speciation	
2417 Bond Street	Project Number: 500-197355-1	**Reported:**
University Park ILLINOIS, 60484	Project Manager: Sandie Fredrick	05-May-21 16:10

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1D29014 - F104406											
Cal Standard (1D29014-CAL2)					Prepared: 28-Apr-21 Analyzed: 30-Apr-21						
Arsenic	0.03	-		µg/L	0.030000		99.4				
Cal Standard (1D29014-CAL3)					Prepared: 28-Apr-21 Analyzed: 30-Apr-21						
Arsenic	0.15	-		µg/L	0.15000		99.2				
Cal Standard (1D29014-CAL4)					Prepared: 28-Apr-21 Analyzed: 30-Apr-21						
Arsenic	0.30	-		µg/L	0.30000		98.5				
Cal Standard (1D29014-CAL5)					Prepared: 28-Apr-21 Analyzed: 30-Apr-21						
Arsenic	2.88	-		µg/L	2.5000		115				
Cal Standard (1D29014-CAL6)					Prepared: 28-Apr-21 Analyzed: 30-Apr-21						
Arsenic	4.99	-		µg/L	5.0000		99.9				
Cal Standard (1D29014-CAL7)					Prepared: 28-Apr-21 Analyzed: 30-Apr-21						
Arsenic	9.70	-		µg/L	20.000		48.5				
Cal Standard (1D29014-CAL8)					Prepared: 28-Apr-21 Analyzed: 30-Apr-21						
Arsenic	20.19	-		µg/L	20.000		101				
Cal Standard (1D29014-CAL9)					Prepared: 28-Apr-21 Analyzed: 30-Apr-21						
Arsenic	49.60	-		µg/L	50.000		99.2				
Cal Standard (1D29014-CALA)					Prepared: 28-Apr-21 Analyzed: 30-Apr-21						
Arsenic	98.48	-		µg/L	100.00		98.5				
Cal Standard (1D29014-CALB)					Prepared: 28-Apr-21 Analyzed: 30-Apr-21						
Arsenic	200.9	-		µg/L	200.00		100				

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2417 Bond Street	Project Number: 500-197355-1	**Reported:**
University Park ILLINOIS, 60484	Project Manager: Sandie Fredrick	05-May-21 16:10

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1D29014 - F104406											
Calibration Blank (1D29014-CCB1)					Prepared: 28-Apr-21 Analyzed: 30-Apr-21						
Arsenic	0.0003	-		µg/L							
Calibration Blank (1D29014-CCB2)					Prepared: 28-Apr-21 Analyzed: 30-Apr-21						
Arsenic	0.01	-		µg/L							
Calibration Blank (1D29014-CCB3)					Prepared: 28-Apr-21 Analyzed: 30-Apr-21						
Arsenic	0.02	-		µg/L							
Calibration Blank (1D29014-CCB4)					Prepared: 28-Apr-21 Analyzed: 30-Apr-21						
Arsenic	0.01	-		µg/L							
Calibration Blank (1D29014-CCB5)					Prepared: 28-Apr-21 Analyzed: 30-Apr-21						
Arsenic	0.02	-		µg/L							
Calibration Blank (1D29014-CCB6)					Prepared: 28-Apr-21 Analyzed: 01-May-21						
Arsenic	0.02	-		µg/L							
Calibration Blank (1D29014-CCB7)					Prepared: 28-Apr-21 Analyzed: 01-May-21						
Arsenic	0.007	-		µg/L							
Calibration Blank (1D29014-CCB8)					Prepared: 28-Apr-21 Analyzed: 01-May-21						
Arsenic	0.02	-		µg/L							
Calibration Blank (1D29014-CCB9)					Prepared: 28-Apr-21 Analyzed: 01-May-21						
Arsenic	0.02	-		µg/L							
Calibration Blank (1D29014-CCBA)					Prepared: 28-Apr-21 Analyzed: 01-May-21						
Arsenic	0.02	-		µg/L							

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University Park ILLINOIS, 60484	Project Manager: Sandie Fredrick	05-May-21 16:10

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1D29014 - F104406											
Calibration Blank (1D29014-CCBB)					Prepared: 28-Apr-21 Analyzed: 01-May-21						
Arsenic	0.01	-		µg/L							
Calibration Blank (1D29014-CCBC)					Prepared: 28-Apr-21 Analyzed: 01-May-21						
Arsenic	0.01	-		µg/L							
Calibration Blank (1D29014-CCBD)					Prepared: 28-Apr-21 Analyzed: 01-May-21						
Arsenic	0.02	-		µg/L							
Calibration Blank (1D29014-CCBE)					Prepared: 28-Apr-21 Analyzed: 01-May-21						
Arsenic	0.01	-		µg/L							
Calibration Blank (1D29014-CCBF)					Prepared: 28-Apr-21 Analyzed: 01-May-21						
Arsenic	0.009	-		µg/L							
Calibration Blank (1D29014-CCBG)					Prepared: 28-Apr-21 Analyzed: 01-May-21						
Arsenic	0.009	-		µg/L							
Calibration Blank (1D29014-CCBH)					Prepared: 28-Apr-21 Analyzed: 01-May-21						
Arsenic	0.01	-		µg/L							
Calibration Blank (1D29014-CCBI)					Prepared: 28-Apr-21 Analyzed: 01-May-21						
Arsenic	0.02	-		µg/L							
Calibration Blank (1D29014-CCBJ)					Prepared: 28-Apr-21 Analyzed: 01-May-21						
Arsenic	0.01	-		µg/L							
Calibration Blank (1D29014-CCBK)					Prepared: 28-Apr-21 Analyzed: 01-May-21						
Arsenic	0.02	-		µg/L							

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1D29014 - F104406											
Calibration Blank (1D29014-CCBL)					Prepared: 28-Apr-21 Analyzed: 01-May-21						
Arsenic	0.10	-		µg/L							QB-10
Calibration Check (1D29014-CCV1)					Prepared: 28-Apr-21 Analyzed: 30-Apr-21						
Arsenic	51.67	-		µg/L	50.020		103	85-115			
Calibration Check (1D29014-CCV2)					Prepared: 28-Apr-21 Analyzed: 30-Apr-21						
Arsenic	51.73	-		µg/L	50.020		103	85-115			
Calibration Check (1D29014-CCV3)					Prepared: 28-Apr-21 Analyzed: 30-Apr-21						
Arsenic	51.99	-		µg/L	50.020		104	85-115			
Calibration Check (1D29014-CCV4)					Prepared: 28-Apr-21 Analyzed: 30-Apr-21						
Arsenic	50.97	-		µg/L	50.020		102	85-115			
Calibration Check (1D29014-CCV5)					Prepared: 28-Apr-21 Analyzed: 30-Apr-21						
Arsenic	46.44	-		µg/L	50.020		92.8	85-115			
Calibration Check (1D29014-CCV6)					Prepared: 28-Apr-21 Analyzed: 01-May-21						
Arsenic	50.26	-		µg/L	50.020		100	85-115			
Calibration Check (1D29014-CCV7)					Prepared: 28-Apr-21 Analyzed: 01-May-21						
Arsenic	50.00	-		µg/L	50.020		100	85-115			
Calibration Check (1D29014-CCV8)					Prepared: 28-Apr-21 Analyzed: 01-May-21						
Arsenic	50.38	-		µg/L	50.020		101	85-115			
Calibration Check (1D29014-CCV9)					Prepared: 28-Apr-21 Analyzed: 01-May-21						
Arsenic	49.84	-		µg/L	50.020		99.6	85-115			

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1D29014 - F104406											
Calibration Check (1D29014-CCVA)					Prepared: 28-Apr-21 Analyzed: 01-May-21						
Arsenic	50.07	-		µg/L	50.020		100	85-115			
Calibration Check (1D29014-CCVB)					Prepared: 28-Apr-21 Analyzed: 01-May-21						
Arsenic	50.39	-		µg/L	50.020		101	85-115			
Calibration Check (1D29014-CCVC)					Prepared: 28-Apr-21 Analyzed: 01-May-21						
Arsenic	53.24	-		µg/L	50.020		106	85-115			
Calibration Check (1D29014-CCVD)					Prepared: 28-Apr-21 Analyzed: 01-May-21						
Arsenic	51.04	-		µg/L	50.020		102	85-115			
Calibration Check (1D29014-CCVE)					Prepared: 28-Apr-21 Analyzed: 01-May-21						
Arsenic	51.25	-		µg/L	50.020		102	85-115			
Calibration Check (1D29014-CCVF)					Prepared: 28-Apr-21 Analyzed: 01-May-21						
Arsenic	52.01	-		µg/L	50.020		104	85-115			
Calibration Check (1D29014-CCVG)					Prepared: 28-Apr-21 Analyzed: 01-May-21						
Arsenic	51.92	-		µg/L	50.020		104	85-115			
Calibration Check (1D29014-CCVH)					Prepared: 28-Apr-21 Analyzed: 01-May-21						
Arsenic	52.52	-		µg/L	50.020		105	85-115			
Calibration Check (1D29014-CCVI)					Prepared: 28-Apr-21 Analyzed: 01-May-21						
Arsenic	50.80	-		µg/L	50.020		102	85-115			
Calibration Check (1D29014-CCVJ)					Prepared: 28-Apr-21 Analyzed: 01-May-21						
Arsenic	51.88	-		µg/L	50.020		104	85-115			

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1D29014 - F104406											
Calibration Check (1D29014-CCVK)					Prepared: 28-Apr-21 Analyzed: 01-May-21						
Arsenic	52.13	-		µg/L	50.020		104	85-115			
High Cal Check (1D29014-HCV1)					Prepared: 28-Apr-21 Analyzed: 01-May-21						
Arsenic	412.6	-		µg/L	400.00		103	0-200			
High Cal Check (1D29014-HCV2)					Prepared: 28-Apr-21 Analyzed: 01-May-21						
Arsenic	807.2	-		µg/L	800.00		101	0-200			
Initial Cal Blank (1D29014-ICB1)					Prepared: 28-Apr-21 Analyzed: 30-Apr-21						
Arsenic	0.02	-		µg/L							
Initial Cal Check (1D29014-ICV1)					Prepared: 28-Apr-21 Analyzed: 30-Apr-21						
Arsenic	52.04	-		µg/L	50.020		104	85-115			
Low Cal Check (1D29014-LCV2)					Prepared: 28-Apr-21 Analyzed: 30-Apr-21						
Arsenic	0.05	-		µg/L	0.050000		102	0-200			
Low Cal Check (1D29014-LCV3)					Prepared: 28-Apr-21 Analyzed: 30-Apr-21						
Arsenic	0.12	-		µg/L	0.10000		116	0-200			
Low Cal Check (1D29014-LCV4)					Prepared: 28-Apr-21 Analyzed: 30-Apr-21						
Arsenic	0.22	-		µg/L	0.20000		108	0-200			
Low Cal Check (1D29014-LCV5)					Prepared: 28-Apr-21 Analyzed: 30-Apr-21						
Arsenic	0.42	-		µg/L	0.40000		104	0-200			
Low Cal Check (1D29014-LCV6)					Prepared: 28-Apr-21 Analyzed: 30-Apr-21						
Arsenic	1.20	-		µg/L	1.2500		96.3	0-200			

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1D29014 - F104406											
Low Cal Check (1D29014-LCV7)					Prepared: 28-Apr-21 Analyzed: 30-Apr-21						
Arsenic	3.36	-		µg/L	2.5000		134	0-200			
Batch 1D30006 - F104423											
Cal Standard (1D30006-CAL1)					Prepared & Analyzed: 30-Apr-21						
Inorganic Arsenic	0.018	-		µg/L	0.010020		182				
Cal Standard (1D30006-CAL2)					Prepared & Analyzed: 30-Apr-21						
Inorganic Arsenic	0.026	-		µg/L	0.020040		131				
Cal Standard (1D30006-CAL3)					Prepared & Analyzed: 30-Apr-21						
Inorganic Arsenic	0.057	-		µg/L	0.050100		114				
Cal Standard (1D30006-CAL4)					Prepared & Analyzed: 30-Apr-21						
Inorganic Arsenic	0.078	-		µg/L	0.10020		77.5				
Cal Standard (1D30006-CAL5)					Prepared & Analyzed: 30-Apr-21						
Inorganic Arsenic	0.245	-		µg/L	0.25050		97.7				
Cal Standard (1D30006-CAL6)					Prepared & Analyzed: 30-Apr-21						
Inorganic Arsenic	0.506	-		µg/L	0.50100		101				
Calibration Blank (1D30006-CCB1)					Prepared & Analyzed: 30-Apr-21						
Inorganic Arsenic	0.003	-		µg/L							
Calibration Blank (1D30006-CCB2)					Prepared & Analyzed: 30-Apr-21						
Inorganic Arsenic	0.010	-		µg/L							

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1D30006 - F104423											
Calibration Blank (1D30006-CCB3)					Prepared & Analyzed: 30-Apr-21						
Inorganic Arsenic	0.009	-		µg/L							
Calibration Blank (1D30006-CCB4)					Prepared & Analyzed: 30-Apr-21						
Inorganic Arsenic	0.008	-		µg/L							
Calibration Check (1D30006-CCV1)					Prepared & Analyzed: 30-Apr-21						
Inorganic Arsenic	0.081	-		µg/L	0.10000		81.3	80-120			
Calibration Check (1D30006-CCV2)					Prepared & Analyzed: 30-Apr-21						
Inorganic Arsenic	0.099	-		µg/L	0.10000		99.2	80-120			
Calibration Check (1D30006-CCV3)					Prepared & Analyzed: 30-Apr-21						
Inorganic Arsenic	0.103	-		µg/L	0.10000		103	80-120			
Calibration Check (1D30006-CCV4)					Prepared & Analyzed: 30-Apr-21						
Inorganic Arsenic	0.106	-		µg/L	0.10000		106	80-120			
Initial Cal Blank (1D30006-ICB1)					Prepared & Analyzed: 30-Apr-21						
Inorganic Arsenic	0.012	-		µg/L							
Initial Cal Check (1D30006-ICV1)					Prepared & Analyzed: 30-Apr-21						
Inorganic Arsenic	0.086	-		µg/L	0.10000		86.3	80-120			
Batch 1E03013 - F104427											
Cal Standard (1E03013-CAL1)					Prepared & Analyzed: 03-May-21						
Arsenite (as Arsenic)	0.016	-		µg/L	0.010010		164				

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1E03013 - F104427											
Cal Standard (1E03013-CAL2)					Prepared & Analyzed: 03-May-21						
Arsenite (as Arsenic)	0.017	-		µg/L	0.020020		87.1				
Cal Standard (1E03013-CAL3)					Prepared & Analyzed: 03-May-21						
Arsenite (as Arsenic)	0.054	-		µg/L	0.050050		109				
Cal Standard (1E03013-CAL4)					Prepared & Analyzed: 03-May-21						
Arsenite (as Arsenic)	0.091	-		µg/L	0.10010		90.9				
Cal Standard (1E03013-CAL5)					Prepared & Analyzed: 03-May-21						
Arsenite (as Arsenic)	0.249	-		µg/L	0.25025		99.4				
Cal Standard (1E03013-CAL6)					Prepared & Analyzed: 03-May-21						
Arsenite (as Arsenic)	0.502	-		µg/L	0.50050		100				
Calibration Blank (1E03013-CCB1)					Prepared & Analyzed: 03-May-21						
Arsenite (as Arsenic)	-0.008	-		µg/L							U
Calibration Blank (1E03013-CCB2)					Prepared & Analyzed: 03-May-21						
Arsenite (as Arsenic)	-0.008	-		µg/L							U
Calibration Blank (1E03013-CCB3)					Prepared & Analyzed: 03-May-21						
Arsenite (as Arsenic)	-0.008	-		µg/L							U
Calibration Blank (1E03013-CCB4)					Prepared & Analyzed: 03-May-21						
Arsenite (as Arsenic)	-0.008	-		µg/L							U
Calibration Check (1E03013-CCV1)					Prepared & Analyzed: 03-May-21						
Arsenite (as Arsenic)	0.109	-		µg/L	0.10000		109	70-130			

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Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1E03013 - F104427											
Calibration Check (1E03013-CCV2)					Prepared & Analyzed: 03-May-21						
Arsenite (as Arsenic)	0.098	-		µg/L	0.10000		97.9	70-130			
Calibration Check (1E03013-CCV3)					Prepared & Analyzed: 03-May-21						
Arsenite (as Arsenic)	0.109	-		µg/L	0.10000		109	70-130			
Calibration Check (1E03013-CCV4)					Prepared & Analyzed: 03-May-21						
Arsenite (as Arsenic)	0.128	-		µg/L	0.10000		128	70-130			
Initial Cal Blank (1E03013-ICB1)					Prepared & Analyzed: 03-May-21						
Arsenite (as Arsenic)	-0.002	-		µg/L							U
Initial Cal Check (1E03013-ICV1)					Prepared & Analyzed: 03-May-21						
Arsenite (as Arsenic)	0.089	-		µg/L	0.10000		88.9	70-130			
Batch F104384 - EFGS SOP2796 EPA 1631 Oxidation											
Blank (F104384-BLK1)					Prepared & Analyzed: 22-Apr-21						
Mercury	ND	-	0.50	ng/L							U
Blank (F104384-BLK2)					Prepared & Analyzed: 22-Apr-21						
Mercury	ND	-	0.50	ng/L							U
Blank (F104384-BLK3)					Prepared & Analyzed: 22-Apr-21						
Mercury	ND	-	0.50	ng/L							U
Blank (F104384-BLK5)					Prepared & Analyzed: 22-Apr-21						
Mercury	ND	-	0.50	ng/L							U

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F104384 - EFGS SOP2796 EPA 1631 Oxidation											
Blank (F104384-BLK6)					Prepared & Analyzed: 22-Apr-21						
Mercury	ND	-	0.50	ng/L							U
LCS (F104384-BS1)					Prepared & Analyzed: 22-Apr-21						
Mercury	5.22	-	0.50	ng/L	5.0000		104	77-123			
LCS Dup (F104384-BSD1)					Prepared & Analyzed: 22-Apr-21						
Mercury	5.45	-	0.50	ng/L	5.0000		109	77-123	4.33	24	
Matrix Spike (F104384-MS1)		**Source: 1D00105-01**			Prepared & Analyzed: 22-Apr-21						
Mercury	6.06	-	0.50	ng/L	5.0000	0.89	103	71-125			
Matrix Spike (F104384-MS2)		**Source: 1D00105-02**			Prepared & Analyzed: 22-Apr-21						
Mercury	4.84	-	0.50	ng/L	5.0000	ND	96.7	71-125			
Matrix Spike Dup (F104384-MSD1)		**Source: 1D00105-01**			Prepared & Analyzed: 22-Apr-21						
Mercury	5.35	-	0.50	ng/L	5.0000	0.89	89.3	71-125	12.3	24	
Matrix Spike Dup (F104384-MSD2)		**Source: 1D00105-02**			Prepared & Analyzed: 22-Apr-21						
Mercury	4.98	-	0.50	ng/L	5.0000	ND	99.5	71-125	2.86	24	
Batch F104403 - EFGS SOP2836 Closed Vessel Water Oven Digestion											
Blank (F104403-BLK1)					Prepared & Analyzed: 30-Apr-21						
Arsenic	ND	-	0.10	µg/L							U
Blank (F104403-BLK2)					Prepared & Analyzed: 30-Apr-21						
Arsenic	ND	-	0.10	µg/L							U

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Phone: (253) 922-2310

Eurofins Test America - University Park Illinois	Project: As Speciation	
2417 Bond Street	Project Number: 500-197355-1	**Reported:**
University Park ILLINOIS, 60484	Project Manager: Sandie Fredrick	05-May-21 16:10

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F104403 - EFGS SOP2836 Closed Vessel Water Oven Digestion											
LCS (F104403-BS1)					Prepared & Analyzed: 30-Apr-21						
Arsenic	109.5	-	0.10	µg/L	100.00		110	80-120			
LCS Dup (F104403-BSD1)					Prepared & Analyzed: 30-Apr-21						
Arsenic	108.0	-	0.10	µg/L	100.00		108	80-120	1.40	20	
Matrix Spike (F104403-MS1)		**Source: 1C00174-01**			Prepared & Analyzed: 30-Apr-21						
Arsenic	108.5	-	0.10	µg/L	100.00	2.58	106	80-120			
Matrix Spike (F104403-MS2)		**Source: 1D00154-13**			Prepared: 30-Apr-21 Analyzed: 01-May-21						
Arsenic	132.1	-	0.10	µg/L	100.00	28.29	104	80-120			
Matrix Spike Dup (F104403-MSD1)		**Source: 1C00174-01**			Prepared & Analyzed: 30-Apr-21						
Arsenic	107.2	-	0.10	µg/L	100.00	2.58	105	80-120	1.24	20	
Matrix Spike Dup (F104403-MSD2)		**Source: 1D00154-13**			Prepared: 30-Apr-21 Analyzed: 01-May-21						
Arsenic	131.2	-	0.10	µg/L	100.00	28.29	103	80-120	0.633	20	
Batch F104423 - EFGS SOP2987 EPA 1632 Speciation of Waters											
Blank (F104423-BLK1)					Prepared & Analyzed: 30-Apr-21						
Inorganic Arsenic	ND	-	0.020	µg/L							U
Blank (F104423-BLK2)					Prepared & Analyzed: 30-Apr-21						
Inorganic Arsenic	ND	-	0.020	µg/L							U
LCS (F104423-BS1)					Prepared & Analyzed: 30-Apr-21						
Inorganic Arsenic	0.089	-	0.020	µg/L	0.10000		88.8	50-150			

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The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Patrick Garcia-Strickland, Business Unit Manager

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Eurofins Test America - University Park Illinois	Project: As Speciation	
2417 Bond Street	Project Number: 500-197355-1	**Reported:**
University Park ILLINOIS, 60484	Project Manager: Sandie Fredrick	05-May-21 16:10

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F104423 - EFGS SOP2987 EPA 1632 Speciation of Waters											
LCS Dup (F104423-BSD1)					Prepared & Analyzed: 30-Apr-21						
Inorganic Arsenic	0.087	-	0.020	µg/L	0.10000		87.0	50-150	2.05	35	
Matrix Spike (F104423-MS1)		**Source: 1D00089-03**			Prepared & Analyzed: 30-Apr-21						
Inorganic Arsenic	22.47	-	3.00	µg/L	15.000	9.958	83.4	50-150			
Matrix Spike (F104423-MS2)		**Source: 1D00089-06**			Prepared & Analyzed: 30-Apr-21						
Inorganic Arsenic	1202	-	120	µg/L	600.00	933.1	44.8	50-150			QM-05
Matrix Spike Dup (F104423-MSD1)		**Source: 1D00089-03**			Prepared & Analyzed: 30-Apr-21						
Inorganic Arsenic	21.87	-	3.00	µg/L	15.000	9.958	79.4	50-150	2.73	35	
Matrix Spike Dup (F104423-MSD2)		**Source: 1D00089-06**			Prepared & Analyzed: 30-Apr-21						
Inorganic Arsenic	1282	-	120	µg/L	600.00	933.1	58.2	50-150	6.50	35	
Batch F104427 - EFGS SOP2987 EPA 1632 Speciation of Waters											
Blank (F104427-BLK1)					Prepared & Analyzed: 03-May-21						
Arsenite (as Arsenic)	ND	-	0.020	µg/L							U
Blank (F104427-BLK2)					Prepared & Analyzed: 03-May-21						
Arsenite (as Arsenic)	ND	-	0.020	µg/L							U
LCS (F104427-BS1)					Prepared & Analyzed: 03-May-21						
Arsenite (as Arsenic)	0.098	-	0.020	µg/L	0.10000		98.0	30-170			
LCS Dup (F104427-BSD1)					Prepared & Analyzed: 03-May-21						
Arsenite (as Arsenic)	0.102	-	0.020	µg/L	0.10000		102	30-170	3.59	35	

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2417 Bond Street	Project Number: 500-197355-1	**Reported:**
University Park ILLINOIS, 60484	Project Manager: Sandie Fredrick	05-May-21 16:10

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F104427 - EFGS SOP2987 EPA 1632 Speciation of Waters											
Matrix Spike (F104427-MS1)		**Source: 1D00089-03RE1**			Prepared & Analyzed: 03-May-21						
Arsenite (as Arsenic)	8.378	-	1.50	µg/L	7.5000	1.415	92.8	30-170			
Matrix Spike (F104427-MS2)		**Source: 1D00089-06**			Prepared & Analyzed: 03-May-21						
Arsenite (as Arsenic)	873.8	-	120	µg/L	600.00	398.0	79.3	30-170			
Matrix Spike Dup (F104427-MSD1)		**Source: 1D00089-03RE1**			Prepared & Analyzed: 03-May-21						
Arsenite (as Arsenic)	9.181	-	1.50	µg/L	7.5000	1.415	104	30-170	9.14	35	
Matrix Spike Dup (F104427-MSD2)		**Source: 1D00089-06**			Prepared & Analyzed: 03-May-21						
Arsenite (as Arsenic)	911.6	-	120	µg/L	600.00	398.0	85.6	30-170	4.24	35	

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Eurofins Test America - University Park Illinois	Project: As Speciation	
2417 Bond Street	Project Number: 500-197355-1	**Reported:**
University Park ILLINOIS, 60484	Project Manager: Sandie Fredrick	05-May-21 16:10

Notes and Definitions

U	Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
QM-05	The spike recovery was outside acceptance limits for the MS/MSD and or AS/ASD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
QB-10	The method blank and/or initial/continuing calibration blank contains analyte at a concentration above the MRL. Only report sample results greater than 10 times the contamination value (QB-01), or samples less than the MRL (QB-02).
E-01	Sample was preceded by a sample exceeding the calibration curve and was reanalyzed for confirmation.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the method detection limit if reported to the MDL or above the reporting limit if reported to the MRL.
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Definitions/Glossary

Client: Endpoint Solutions Corp
Job ID: 500-197355-1
Project/Site: PDP HW Well Sampling 415-001-009

Qualifiers

LCMS

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*5-	Isotope dilution analyte is outside acceptance limits, low biased.
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
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
E	Result exceeded calibration range.
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

Subcontract

Qualifier	Qualifier Description
QB-10	
U	

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)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

LCMS

Prep Batch: 478519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-197355-2	HW-2	Total/NA	Water	3535	
500-197355-3	HW-1 Field Blank	Total/NA	Water	3535	
500-197355-4	HW-2 Field Blank	Total/NA	Water	3535	
MB 320-478519/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-478519/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-478519/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Prep Batch: 478540

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-197355-1 - DL	HW-1	Total/NA	Water	3535	
500-197355-1	HW-1	Total/NA	Water	3535	
MB 320-478540/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-478540/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-478540/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 480035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 320-478540/1-A	Method Blank	Total/NA	Water	537 (modified)	478540
LCS 320-478540/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	478540
LCSD 320-478540/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	478540

Analysis Batch: 480263

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-197355-3	HW-1 Field Blank	Total/NA	Water	537 (modified)	478519
500-197355-4	HW-2 Field Blank	Total/NA	Water	537 (modified)	478519
MB 320-478519/1-A	Method Blank	Total/NA	Water	537 (modified)	478519
LCS 320-478519/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	478519
LCSD 320-478519/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	478519

Analysis Batch: 480594

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-197355-2	HW-2	Total/NA	Water	537 (modified)	478519

Prep Batch: 480651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-197355-2 - RE	HW-2	Total/NA	Water	3535	
MB 320-480651/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-480651/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-480651/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 480705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-197355-2 - RE	HW-2	Total/NA	Water	537 (modified)	480651
MB 320-480651/1-A	Method Blank	Total/NA	Water	537 (modified)	480651
LCS 320-480651/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	480651
LCSD 320-480651/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	480651

Prep Batch: 481293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-197355-1 - REDL	HW-1	Total/NA	Water	3535	
MB 320-481293/1-A	Method Blank	Total/NA	Water	3535	

LCMS (Continued)

Prep Batch: 481293 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 320-481293/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-481293/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 481509

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-197355-1 - DL	HW-1	Total/NA	Water	537 (modified)	478540

Analysis Batch: 481917

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-197355-1 - REDL	HW-1	Total/NA	Water	537 (modified)	481293
MB 320-481293/1-A	Method Blank	Total/NA	Water	537 (modified)	481293
LCS 320-481293/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	481293
LCSD 320-481293/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	481293

Analysis Batch: 484248

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-197355-1	HW-1	Total/NA	Water	537 (modified)	478540

Metals

Prep Batch: 592858

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-197355-1	HW-1	Dissolved	Water	3010A	
500-197355-1	HW-1	Total/NA	Water	3010A	
500-197355-2	HW-2	Dissolved	Water	3010A	
500-197355-2	HW-2	Total/NA	Water	3010A	
MB 500-592858/1-A	Method Blank	Total/NA	Water	3010A	
LCS 500-592858/2-A	Lab Control Sample	Total/NA	Water	3010A	

Analysis Batch: 593148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-197355-1	HW-1	Dissolved	Water	6010B	592858
500-197355-1	HW-1	Total/NA	Water	6010B	592858
500-197355-2	HW-2	Dissolved	Water	6010B	592858
500-197355-2	HW-2	Total/NA	Water	6010B	592858
MB 500-592858/1-A	Method Blank	Total/NA	Water	6010B	592858
LCS 500-592858/2-A	Lab Control Sample	Total/NA	Water	6010B	592858

Analysis Batch: 593219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-197355-1	HW-1	Total/NA	Water	SM 2340B	592858
500-197355-2	HW-2	Total/NA	Water	SM 2340B	592858

Analysis Batch: 593569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-197355-1	HW-1	Dissolved	Water	6010B	592858
500-197355-1	HW-1	Total/NA	Water	6010B	592858
500-197355-2	HW-2	Dissolved	Water	6010B	592858
500-197355-2	HW-2	Total/NA	Water	6010B	592858

Metals

Analysis Batch: 594872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-197355-1	HW-1	Dissolved	Water	6010B	592858
500-197355-1	HW-1	Total/NA	Water	6010B	592858
500-197355-2	HW-2	Dissolved	Water	6010B	592858
500-197355-2	HW-2	Total/NA	Water	6010B	592858
MB 500-592858/1-A	Method Blank	Total/NA	Water	6010B	592858
LCS 500-592858/2-A	Lab Control Sample	Total/NA	Water	6010B	592858

General Chemistry

Analysis Batch: 594284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-197355-1	HW-1	Total/NA	Water	SM 2320B	
500-197355-2	HW-2	Total/NA	Water	SM 2320B	
MB 500-594284/3	Method Blank	Total/NA	Water	SM 2320B	
LCS 500-594284/4	Lab Control Sample	Total/NA	Water	SM 2320B	

Analysis Batch: 595444

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-197355-1	HW-1	Total/NA	Water	9040B	
500-197355-2	HW-2	Total/NA	Water	9040B	
LCS 500-595444/5	Lab Control Sample	Total/NA	Water	9040B	
LCSD 500-595444/6	Lab Control Sample Dup	Total/NA	Water	9040B	
500-197355-1 DU	HW-1	Total/NA	Water	9040B	
500-197355-2 DU	HW-2	Total/NA	Water	9040B	

Analysis Batch: 595547

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-197355-1	HW-1	Total/NA	Water	9056A	
500-197355-2	HW-2	Total/NA	Water	9056A	
MB 500-595547/3	Method Blank	Total/NA	Water	9056A	
HLCS 500-595547/5	Lab Control Sample	Total/NA	Water	9056A	
LCS 500-595547/4	Lab Control Sample	Total/NA	Water	9056A	

Subcontract

Analysis Batch: F104384

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-197355-1	HW-1	Total/NA	Water	1631E Total Low Level Hg	F104384_P
500-197355-2	HW-2	Total/NA	Water	1631E Total Low Level Hg	F104384_P
F104384-BLK1	Method Blank	Total/NA	Water	1631E Total Low Level Hg	F104384_P
F104384-BLK2	Method Blank	Total/NA	Water	1631E Total Low Level Hg	F104384_P
F104384-BLK3	Method Blank	Total/NA	Water	1631E Total Low Level Hg	F104384_P
F104384-BLK5	Method Blank	Total/NA	Water	1631E Total Low Level Hg	F104384_P
F104384-BLK6	Method Blank	Total/NA	Water	1631E Total Low Level Hg	F104384_P
F104384-BS1	Lab Control Sample	Total/NA	Water	1631E Total Low Level Hg	F104384_P

Subcontract (Continued)

Analysis Batch: F104384 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
F104384-BSD1	Lab Control Sample Dup	Total/NA	Water	1631E Total Low Level Hg	F104384_P

Analysis Batch: F104403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-197355-1	HW-1	Total/NA	Water	Total, Inorganic & Organic Arsenic	F104403_P
500-197355-2	HW-2	Total/NA	Water	Total, Inorganic & Organic Arsenic	F104403_P
F104403-BLK1	Method Blank	Total/NA	Water	Total, Inorganic & Organic Arsenic	F104403_P
F104403-BLK2	Method Blank	Total/NA	Water	Total, Inorganic & Organic Arsenic	F104403_P
F104403-BS1	Lab Control Sample	Total/NA	Water	Total, Inorganic & Organic Arsenic	F104403_P
F104403-BSD1	Lab Control Sample Dup	Total/NA	Water	Total, Inorganic & Organic Arsenic	F104403_P

Analysis Batch: F104423

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-197355-1	HW-1	Total/NA	Water	Total, Inorganic & Organic Arsenic	F104423_P
500-197355-2	HW-2	Total/NA	Water	Total, Inorganic & Organic Arsenic	F104423_P
F104423-BLK1	Method Blank	Total/NA	Water	Total, Inorganic & Organic Arsenic	F104423_P
F104423-BLK2	Method Blank	Total/NA	Water	Total, Inorganic & Organic Arsenic	F104423_P
F104423-BS1	Lab Control Sample	Total/NA	Water	Total, Inorganic & Organic Arsenic	F104423_P
F104423-BSD1	Lab Control Sample Dup	Total/NA	Water	Total, Inorganic & Organic Arsenic	F104423_P

Analysis Batch: F104427

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-197355-1	HW-1	Total/NA	Water	Total, Inorganic & Organic Arsenic	F104427_P
500-197355-2	HW-2	Total/NA	Water	Total, Inorganic & Organic Arsenic	F104427_P
F104427-BLK1	Method Blank	Total/NA	Water	Total, Inorganic & Organic Arsenic	F104427_P

Subcontract (Continued)

Analysis Batch: F104427 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
F104427-BLK2	Method Blank	Total/NA	Water	Total, Inorganic & Organic Arsenic	F104427_P
F104427-BS1	Lab Control Sample	Total/NA	Water	Total, Inorganic & Organic Arsenic	F104427_P
F104427-BSD1	Lab Control Sample Dup	Total/NA	Water	Total, Inorganic & Organic Arsenic	F104427_P

Prep Batch: F104384_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-197355-1	HW-1	Total/NA	Water	EFGS SOP2796 EPA 1631 Oxidation	
500-197355-2	HW-2	Total/NA	Water	EFGS SOP2796 EPA 1631 Oxidation	
F104384-BLK1	Method Blank	Total/NA	Water	EFGS SOP2796 EPA 1631 Oxidation	
F104384-BLK2	Method Blank	Total/NA	Water	EFGS SOP2796 EPA 1631 Oxidation	
F104384-BLK3	Method Blank	Total/NA	Water	EFGS SOP2796 EPA 1631 Oxidation	
F104384-BLK5	Method Blank	Total/NA	Water	EFGS SOP2796 EPA 1631 Oxidation	
F104384-BLK6	Method Blank	Total/NA	Water	EFGS SOP2796 EPA 1631 Oxidation	
F104384-BS1	Lab Control Sample	Total/NA	Water	EFGS SOP2796 EPA 1631 Oxidation	
F104384-BSD1	Lab Control Sample Dup	Total/NA	Water	EFGS SOP2796 EPA 1631 Oxidation	

Prep Batch: F104403_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-197355-1	HW-1	Total/NA	Water	EFGS SOP2836 Closed Vessel Water Oven Digestion	
500-197355-2	HW-2	Total/NA	Water	EFGS SOP2836 Closed Vessel Water Oven Digestion	
F104403-BLK1	Method Blank	Total/NA	Water	EFGS SOP2836 Closed Vessel Water Oven Digestion	
F104403-BLK2	Method Blank	Total/NA	Water	EFGS SOP2836 Closed Vessel Water Oven Digestion	

Subcontract (Continued)

Prep Batch: F104403_P (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
F104403-BS1	Lab Control Sample	Total/NA	Water	EFGS SOP2836 Closed Vessel Water Oven Digestion	
F104403-BSD1	Lab Control Sample Dup	Total/NA	Water	EFGS SOP2836 Closed Vessel Water Oven Digestion	

Prep Batch: F104423_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-197355-1	HW-1	Total/NA	Water	EFGS SOP2987 EPA 1632 Speciation of Waters	
500-197355-2	HW-2	Total/NA	Water	EFGS SOP2987 EPA 1632 Speciation of Waters	
F104423-BLK1	Method Blank	Total/NA	Water	EFGS SOP2987 EPA 1632 Speciation of Waters	
F104423-BLK2	Method Blank	Total/NA	Water	EFGS SOP2987 EPA 1632 Speciation of Waters	
F104423-BS1	Lab Control Sample	Total/NA	Water	EFGS SOP2987 EPA 1632 Speciation of Waters	
F104423-BSD1	Lab Control Sample Dup	Total/NA	Water	EFGS SOP2987 EPA 1632 Speciation of Waters	

Prep Batch: F104427_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-197355-1	HW-1	Total/NA	Water	EFGS SOP2987 EPA 1632 Speciation of Waters	
500-197355-2	HW-2	Total/NA	Water	EFGS SOP2987 EPA 1632 Speciation of Waters	
F104427-BLK1	Method Blank	Total/NA	Water	EFGS SOP2987 EPA 1632 Speciation of Waters	
F104427-BLK2	Method Blank	Total/NA	Water	EFGS SOP2987 EPA 1632 Speciation of Waters	
F104427-BS1	Lab Control Sample	Total/NA	Water	EFGS SOP2987 EPA 1632 Speciation of Waters	

Subcontract (Continued)

Prep Batch: F104427_P (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
F104427-BSD1	Lab Control Sample Dup	Total/NA	Water	EFGS SOP2987 EPA 1632 Speciation of Waters	

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-478519/1-A
Matrix: Water
Analysis Batch: 480263

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 478519

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<2.4		5.0	2.4	ng/L		04/11/21 09:18	04/16/21 13:35	1
Perfluoropentanoic acid (PFPeA)	<0.49		2.0	0.49	ng/L		04/11/21 09:18	04/16/21 13:35	1
Perfluorohexanoic acid (PFHxA)	<0.58		2.0	0.58	ng/L		04/11/21 09:18	04/16/21 13:35	1
Perfluoroheptanoic acid (PFHpA)	<0.25		2.0	0.25	ng/L		04/11/21 09:18	04/16/21 13:35	1
Perfluorooctanoic acid (PFOA)	<0.85		2.0	0.85	ng/L		04/11/21 09:18	04/16/21 13:35	1
Perfluorononanoic acid (PFNA)	<0.27		2.0	0.27	ng/L		04/11/21 09:18	04/16/21 13:35	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	0.31	ng/L		04/11/21 09:18	04/16/21 13:35	1
Perfluoroundecanoic acid (PFUnA)	<1.1		2.0	1.1	ng/L		04/11/21 09:18	04/16/21 13:35	1
Perfluorododecanoic acid (PFDoA)	<0.55		2.0	0.55	ng/L		04/11/21 09:18	04/16/21 13:35	1
Perfluorotridecanoic acid (PFTriA)	<1.3		2.0	1.3	ng/L		04/11/21 09:18	04/16/21 13:35	1
Perfluorotetradecanoic acid (PFTeA)	<0.73		2.0	0.73	ng/L		04/11/21 09:18	04/16/21 13:35	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.89		2.0	0.89	ng/L		04/11/21 09:18	04/16/21 13:35	1
Perfluoro-n-octadecanoic acid (PFODA)	<0.94		2.0	0.94	ng/L		04/11/21 09:18	04/16/21 13:35	1
Perfluorobutanesulfonic acid (PFBS)	<0.20		2.0	0.20	ng/L		04/11/21 09:18	04/16/21 13:35	1
Perfluoropentanesulfonic acid (PFPeS)	<0.30		2.0	0.30	ng/L		04/11/21 09:18	04/16/21 13:35	1
Perfluorohexanesulfonic acid (PFHxS)	<0.57		2.0	0.57	ng/L		04/11/21 09:18	04/16/21 13:35	1
Perfluoroheptanesulfonic Acid (PFHpS)	<0.19		2.0	0.19	ng/L		04/11/21 09:18	04/16/21 13:35	1
Perfluorooctanesulfonic acid (PFOS)	<0.54		2.0	0.54	ng/L		04/11/21 09:18	04/16/21 13:35	1
Perfluorononanesulfonic acid (PFNS)	<0.37		2.0	0.37	ng/L		04/11/21 09:18	04/16/21 13:35	1
Perfluorodecanesulfonic acid (PFDS)	<0.32		2.0	0.32	ng/L		04/11/21 09:18	04/16/21 13:35	1
Perfluorododecanesulfonic acid (PFDoS)	<0.97		2.0	0.97	ng/L		04/11/21 09:18	04/16/21 13:35	1
Perfluorooctanesulfonamide (FOSA)	<0.98		2.0	0.98	ng/L		04/11/21 09:18	04/16/21 13:35	1
NEtFOSA	<0.87		2.0	0.87	ng/L		04/11/21 09:18	04/16/21 13:35	1
NMeFOSA	<0.43		2.0	0.43	ng/L		04/11/21 09:18	04/16/21 13:35	1
NMeFOSAA	<1.2		5.0	1.2	ng/L		04/11/21 09:18	04/16/21 13:35	1
NEtFOSAA	<1.3		5.0	1.3	ng/L		04/11/21 09:18	04/16/21 13:35	1
NMeFOSE	<1.4		4.0	1.4	ng/L		04/11/21 09:18	04/16/21 13:35	1
NEtFOSE	<0.85		2.0	0.85	ng/L		04/11/21 09:18	04/16/21 13:35	1
4:2 FTS	<0.24		2.0	0.24	ng/L		04/11/21 09:18	04/16/21 13:35	1
6:2 FTS	<2.5		5.0	2.5	ng/L		04/11/21 09:18	04/16/21 13:35	1
8:2 FTS	<0.46		2.0	0.46	ng/L		04/11/21 09:18	04/16/21 13:35	1
10:2 FTS	<0.67		2.0	0.67	ng/L		04/11/21 09:18	04/16/21 13:35	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.40		2.0	0.40	ng/L		04/11/21 09:18	04/16/21 13:35	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.5		4.0	1.5	ng/L		04/11/21 09:18	04/16/21 13:35	1
F-53B Major	<0.24		2.0	0.24	ng/L		04/11/21 09:18	04/16/21 13:35	1
F-53B Minor	<0.32		2.0	0.32	ng/L		04/11/21 09:18	04/16/21 13:35	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*73*		*25 - 150*	*04/11/21 09:18*	*04/16/21 13:35*	*1*
13C5 PFPeA	*84*		*25 - 150*	*04/11/21 09:18*	*04/16/21 13:35*	*1*
13C2 PFHxA	*85*		*25 - 150*	*04/11/21 09:18*	*04/16/21 13:35*	*1*
13C4 PFHpA	*86*		*25 - 150*	*04/11/21 09:18*	*04/16/21 13:35*	*1*
13C4 PFOA	*88*		*25 - 150*	*04/11/21 09:18*	*04/16/21 13:35*	*1*

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

Lab Sample ID: MB 320-478519/1-A
Matrix: Water
Analysis Batch: 480263

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 478519

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFNA	90		25 - 150	04/11/21 09:18	04/16/21 13:35	1
13C2 PFDA	89		25 - 150	04/11/21 09:18	04/16/21 13:35	1
13C2 PFUnA	88		25 - 150	04/11/21 09:18	04/16/21 13:35	1
13C2 PFDoA	89		25 - 150	04/11/21 09:18	04/16/21 13:35	1
13C2 PFTeDA	95		25 - 150	04/11/21 09:18	04/16/21 13:35	1
13C2 PFHxDA	91		25 - 150	04/11/21 09:18	04/16/21 13:35	1
13C3 PFBS	82		25 - 150	04/11/21 09:18	04/16/21 13:35	1
18O2 PFHxS	92		25 - 150	04/11/21 09:18	04/16/21 13:35	1
13C4 PFOS	88		25 - 150	04/11/21 09:18	04/16/21 13:35	1
13C8 FOSA	92		10 - 150	04/11/21 09:18	04/16/21 13:35	1
d3-NMeFOSAA	113		25 - 150	04/11/21 09:18	04/16/21 13:35	1
d5-NEtFOSAA	104		25 - 150	04/11/21 09:18	04/16/21 13:35	1
d-N-MeFOSA-M	69		10 - 150	04/11/21 09:18	04/16/21 13:35	1
d-N-EtFOSA-M	77		10 - 150	04/11/21 09:18	04/16/21 13:35	1
d7-N-MeFOSE-M	84		10 - 150	04/11/21 09:18	04/16/21 13:35	1
d9-N-EtFOSE-M	89		10 - 150	04/11/21 09:18	04/16/21 13:35	1
M2-4:2 FTS	87		25 - 150	04/11/21 09:18	04/16/21 13:35	1
M2-6:2 FTS	69		25 - 150	04/11/21 09:18	04/16/21 13:35	1
M2-8:2 FTS	61		25 - 150	04/11/21 09:18	04/16/21 13:35	1
13C3 HFPO-DA	78		25 - 150	04/11/21 09:18	04/16/21 13:35	1
13C2 10:2 FTS	89		25 - 150	04/11/21 09:18	04/16/21 13:35	1

Lab Sample ID: LCS 320-478519/2-A
Matrix: Water
Analysis Batch: 480263

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 478519

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	49.3		ng/L		123	60 - 135
Perfluoropentanoic acid (PFPeA)	40.0	43.7		ng/L		109	60 - 135
Perfluorohexanoic acid (PFHxA)	40.0	40.1		ng/L		100	60 - 135
Perfluoroheptanoic acid (PFHpA)	40.0	42.2		ng/L		106	60 - 135
Perfluorooctanoic acid (PFOA)	40.0	44.4		ng/L		111	60 - 135
Perfluorononanoic acid (PFNA)	40.0	42.3		ng/L		106	60 - 135
Perfluorodecanoic acid (PFDA)	40.0	40.9		ng/L		102	60 - 135
Perfluoroundecanoic acid (PFUnA)	40.0	42.6		ng/L		106	60 - 135
Perfluorododecanoic acid (PFDoA)	40.0	42.5		ng/L		106	60 - 135
Perfluorotridecanoic acid (PFTriA)	40.0	43.2		ng/L		108	60 - 135
Perfluorotetradecanoic acid (PFTeA)	40.0	41.0		ng/L		103	60 - 135
Perfluoro-n-hexadecanoic acid (PFHxDA)	40.0	47.4		ng/L		119	60 - 135
Perfluoro-n-octadecanoic acid (PFODA)	40.0	37.3		ng/L		93	60 - 135
Perfluorobutanesulfonic acid (PFBS)	35.4	36.9		ng/L		104	60 - 135
Perfluoropentanesulfonic acid (PFPeS)	37.5	42.9		ng/L		114	60 - 135

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

Lab Sample ID: LCS 320-478519/2-A
Matrix: Water
Analysis Batch: 480263

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 478519

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorohexanesulfonic acid (PFHxS)	36.4	43.6		ng/L		120	60 - 135
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	38.3		ng/L		101	60 - 135
Perfluorooctanesulfonic acid (PFOS)	37.1	37.8		ng/L		102	60 - 135
Perfluorononanesulfonic acid (PFNS)	38.4	43.4		ng/L		113	60 - 135
Perfluorodecanesulfonic acid (PFDS)	38.6	41.5		ng/L		108	60 - 135
Perfluorododecanesulfonic acid (PFDoS)	38.7	37.6		ng/L		97	60 - 135
Perfluorooctanesulfonamide (FOSA)	40.0	42.1		ng/L		105	60 - 135
NEtFOSA	40.0	41.4		ng/L		104	60 - 135
NMeFOSA	40.0	44.8		ng/L		112	60 - 135
NMeFOSAA	40.0	40.2		ng/L		101	60 - 135
NEtFOSAA	40.0	37.2		ng/L		93	60 - 135
NMeFOSE	40.0	43.0		ng/L		107	60 - 135
NEtFOSE	40.0	43.7		ng/L		109	60 - 135
4:2 FTS	37.4	42.1		ng/L		113	60 - 135
6:2 FTS	37.9	44.7		ng/L		118	60 - 135
8:2 FTS	38.3	57.3	*+	ng/L		149	60 - 135
10:2 FTS	38.6	39.6		ng/L		103	60 - 135
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.7	39.8		ng/L		106	60 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	40.0	42.4		ng/L		106	60 - 135
F-53B Major	37.3	37.6		ng/L		101	60 - 135
F-53B Minor	37.7	38.0		ng/L		101	60 - 135

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*79*		*25 - 150*
13C5 PFPeA	*87*		*25 - 150*
13C2 PFHxA	*97*		*25 - 150*
13C4 PFHpA	*93*		*25 - 150*
13C4 PFOA	*85*		*25 - 150*
13C5 PFNA	*91*		*25 - 150*
13C2 PFDA	*88*		*25 - 150*
13C2 PFUnA	*94*		*25 - 150*
13C2 PFDoA	*89*		*25 - 150*
13C2 PFTeDA	*92*		*25 - 150*
13C2 PFHxDA	*88*		*25 - 150*
13C3 PFBS	*87*		*25 - 150*
18O2 PFHxS	*91*		*25 - 150*
13C4 PFOS	*93*		*25 - 150*
13C8 FOSA	*89*		*10 - 150*
d3-NMeFOSAA	*106*		*25 - 150*
d5-NEtFOSAA	*108*		*25 - 150*
d-N-MeFOSA-M	*71*		*10 - 150*
d-N-EtFOSA-M	*80*		*10 - 150*

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

Lab Sample ID: LCS 320-478519/2-A
Matrix: Water
Analysis Batch: 480263

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 478519

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
d7-N-MeFOSE-M	81		10 - 150
d9-N-EtFOSE-M	84		10 - 150
M2-4:2 FTS	92		25 - 150
M2-6:2 FTS	78		25 - 150
M2-8:2 FTS	64		25 - 150
13C3 HFPO-DA	85		25 - 150
13C2 10:2 FTS	86		25 - 150

Lab Sample ID: LCSD 320-478519/3-A
Matrix: Water
Analysis Batch: 480263

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 478519

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			40.0	47.8		ng/L		119	60 - 135	3	30
Perfluoropentanoic acid (PFPeA)			40.0	43.9		ng/L		110	60 - 135	0	30
Perfluorohexanoic acid (PFHxA)			40.0	45.2		ng/L		113	60 - 135	12	30
Perfluoroheptanoic acid (PFHpA)			40.0	45.0		ng/L		112	60 - 135	6	30
Perfluorooctanoic acid (PFOA)			40.0	45.2		ng/L		113	60 - 135	2	30
Perfluorononanoic acid (PFNA)			40.0	45.2		ng/L		113	60 - 135	7	30
Perfluorodecanoic acid (PFDA)			40.0	44.0		ng/L		110	60 - 135	7	30
Perfluoroundecanoic acid (PFUnA)			40.0	48.6		ng/L		122	60 - 135	13	30
Perfluorododecanoic acid (PFDoA)			40.0	47.2		ng/L		118	60 - 135	10	30
Perfluorotridecanoic acid (PFTriA)			40.0	47.2		ng/L		118	60 - 135	9	30
Perfluorotetradecanoic acid (PFTeA)			40.0	42.6		ng/L		106	60 - 135	4	30
Perfluoro-n-hexadecanoic acid (PFHxDA)			40.0	50.6		ng/L		126	60 - 135	6	30
Perfluoro-n-octadecanoic acid (PFODA)			40.0	46.8		ng/L		117	60 - 135	23	30
Perfluorobutanesulfonic acid (PFBS)			35.4	38.9		ng/L		110	60 - 135	5	30
Perfluoropentanesulfonic acid (PFPeS)			37.5	46.0		ng/L		123	60 - 135	7	30
Perfluorohexanesulfonic acid (PFHxS)			36.4	43.6		ng/L		120	60 - 135	0	30
Perfluoroheptanesulfonic Acid (PFHpS)			38.1	40.7		ng/L		107	60 - 135	6	30
Perfluorooctanesulfonic acid (PFOS)			37.1	40.8		ng/L		110	60 - 135	7	30
Perfluorononanesulfonic acid (PFNS)			38.4	43.5		ng/L		113	60 - 135	0	30
Perfluorodecanesulfonic acid (PFDS)			38.6	44.9		ng/L		116	60 - 135	8	30
Perfluorododecanesulfonic acid (PFDoS)			38.7	41.8		ng/L		108	60 - 135	11	30
Perfluorooctanesulfonamide (FOSA)			40.0	43.0		ng/L		108	60 - 135	2	30
NEtFOSA			40.0	48.2		ng/L		120	60 - 135	15	30
NMeFOSA			40.0	44.9		ng/L		112	60 - 135	0	30
NMeFOSAA			40.0	44.0		ng/L		110	60 - 135	9	30

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

Lab Sample ID: LCSD 320-478519/3-A
Matrix: Water
Analysis Batch: 480263

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 478519

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
NEtFOSAA			40.0	43.0		ng/L		107	60 - 135	14	30
NMeFOSE			40.0	45.8		ng/L		114	60 - 135	6	30
NEtFOSE			40.0	45.1		ng/L		113	60 - 135	3	30
4:2 FTS			37.4	43.3		ng/L		116	60 - 135	3	30
6:2 FTS			37.9	51.8	*+	ng/L		137	60 - 135	15	30
8:2 FTS			38.3	60.7	*+	ng/L		158	60 - 135	6	30
10:2 FTS			38.6	44.6		ng/L		116	60 - 135	12	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)			37.7	41.0		ng/L		109	60 - 135	3	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)			40.0	43.0		ng/L		108	60 - 135	1	30
F-53B Major			37.3	38.8		ng/L		104	60 - 135	3	30
F-53B Minor			37.7	41.8		ng/L		111	60 - 135	10	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*73*		*25 - 150*
13C5 PFPeA	*81*		*25 - 150*
13C2 PFHxA	*91*		*25 - 150*
13C4 PFHpA	*84*		*25 - 150*
13C4 PFOA	*87*		*25 - 150*
13C5 PFNA	*90*		*25 - 150*
13C2 PFDA	*83*		*25 - 150*
13C2 PFUnA	*89*		*25 - 150*
13C2 PFDoA	*88*		*25 - 150*
13C2 PFTeDA	*94*		*25 - 150*
13C2 PFHxDA	*85*		*25 - 150*
13C3 PFBS	*86*		*25 - 150*
18O2 PFHxS	*86*		*25 - 150*
13C4 PFOS	*90*		*25 - 150*
13C8 FOSA	*91*		*10 - 150*
d3-NMeFOSAA	*106*		*25 - 150*
d5-NEtFOSAA	*102*		*25 - 150*
d-N-MeFOSA-M	*70*		*10 - 150*
d-N-EtFOSA-M	*74*		*10 - 150*
d7-N-MeFOSE-M	*83*		*10 - 150*
d9-N-EtFOSE-M	*86*		*10 - 150*
M2-4:2 FTS	*88*		*25 - 150*
M2-6:2 FTS	*69*		*25 - 150*
M2-8:2 FTS	*64*		*25 - 150*
13C3 HFPO-DA	*78*		*25 - 150*
13C2 10:2 FTS	*85*		*25 - 150*

Lab Sample ID: MB 320-478540/1-A
Matrix: Water
Analysis Batch: 480035

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 478540

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<2.4		5.0	2.4	ng/L		04/12/21 04:27	04/15/21 05:23	1
Perfluoropentanoic acid (PFPeA)	<0.49		2.0	0.49	ng/L		04/12/21 04:27	04/15/21 05:23	1

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

Lab Sample ID: MB 320-478540/1-A
Matrix: Water
Analysis Batch: 480035

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 478540

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid (PFHxA)	<0.58		2.0	0.58	ng/L		04/12/21 04:27	04/15/21 05:23	1
Perfluoroheptanoic acid (PFHpA)	<0.25		2.0	0.25	ng/L		04/12/21 04:27	04/15/21 05:23	1
Perfluorooctanoic acid (PFOA)	<0.85		2.0	0.85	ng/L		04/12/21 04:27	04/15/21 05:23	1
Perfluorononanoic acid (PFNA)	<0.27		2.0	0.27	ng/L		04/12/21 04:27	04/15/21 05:23	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	0.31	ng/L		04/12/21 04:27	04/15/21 05:23	1
Perfluoroundecanoic acid (PFUnA)	<1.1		2.0	1.1	ng/L		04/12/21 04:27	04/15/21 05:23	1
Perfluorododecanoic acid (PFDoA)	<0.55		2.0	0.55	ng/L		04/12/21 04:27	04/15/21 05:23	1
Perfluorotridecanoic acid (PFTriA)	<1.3		2.0	1.3	ng/L		04/12/21 04:27	04/15/21 05:23	1
Perfluorotetradecanoic acid (PFTeA)	<0.73		2.0	0.73	ng/L		04/12/21 04:27	04/15/21 05:23	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.89		2.0	0.89	ng/L		04/12/21 04:27	04/15/21 05:23	1
Perfluoro-n-octadecanoic acid (PFODA)	<0.94		2.0	0.94	ng/L		04/12/21 04:27	04/15/21 05:23	1
Perfluorobutanesulfonic acid (PFBS)	<0.20		2.0	0.20	ng/L		04/12/21 04:27	04/15/21 05:23	1
Perfluoropentanesulfonic acid (PFPeS)	<0.30		2.0	0.30	ng/L		04/12/21 04:27	04/15/21 05:23	1
Perfluorohexanesulfonic acid (PFHxS)	<0.57		2.0	0.57	ng/L		04/12/21 04:27	04/15/21 05:23	1
Perfluoroheptanesulfonic Acid (PFHpS)	<0.19		2.0	0.19	ng/L		04/12/21 04:27	04/15/21 05:23	1
Perfluorooctanesulfonic acid (PFOS)	<0.54		2.0	0.54	ng/L		04/12/21 04:27	04/15/21 05:23	1
Perfluorononanesulfonic acid (PFNS)	<0.37		2.0	0.37	ng/L		04/12/21 04:27	04/15/21 05:23	1
Perfluorodecanesulfonic acid (PFDS)	<0.32		2.0	0.32	ng/L		04/12/21 04:27	04/15/21 05:23	1
Perfluorododecanesulfonic acid (PFDoS)	<0.97		2.0	0.97	ng/L		04/12/21 04:27	04/15/21 05:23	1
Perfluorooctanesulfonamide (FOSA)	<0.98		2.0	0.98	ng/L		04/12/21 04:27	04/15/21 05:23	1
NEtFOSA	<0.87		2.0	0.87	ng/L		04/12/21 04:27	04/15/21 05:23	1
NMeFOSA	<0.43		2.0	0.43	ng/L		04/12/21 04:27	04/15/21 05:23	1
NMeFOSAA	<1.2		5.0	1.2	ng/L		04/12/21 04:27	04/15/21 05:23	1
NEtFOSAA	<1.3		5.0	1.3	ng/L		04/12/21 04:27	04/15/21 05:23	1
NMeFOSE	<1.4		4.0	1.4	ng/L		04/12/21 04:27	04/15/21 05:23	1
NEtFOSE	<0.85		2.0	0.85	ng/L		04/12/21 04:27	04/15/21 05:23	1
10:2 FTS	<0.67		2.0	0.67	ng/L		04/12/21 04:27	04/15/21 05:23	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.40		2.0	0.40	ng/L		04/12/21 04:27	04/15/21 05:23	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.5		4.0	1.5	ng/L		04/12/21 04:27	04/15/21 05:23	1
F-53B Major	<0.24		2.0	0.24	ng/L		04/12/21 04:27	04/15/21 05:23	1
F-53B Minor	<0.32		2.0	0.32	ng/L		04/12/21 04:27	04/15/21 05:23	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*75*		*25 - 150*	*04/12/21 04:27*	*04/15/21 05:23*	*1*
13C5 PFPeA	*84*		*25 - 150*	*04/12/21 04:27*	*04/15/21 05:23*	*1*
13C2 PFHxA	*89*		*25 - 150*	*04/12/21 04:27*	*04/15/21 05:23*	*1*
13C4 PFHpA	*88*		*25 - 150*	*04/12/21 04:27*	*04/15/21 05:23*	*1*
13C4 PFOA	*86*		*25 - 150*	*04/12/21 04:27*	*04/15/21 05:23*	*1*
13C5 PFNA	*94*		*25 - 150*	*04/12/21 04:27*	*04/15/21 05:23*	*1*
13C2 PFDA	*89*		*25 - 150*	*04/12/21 04:27*	*04/15/21 05:23*	*1*
13C2 PFUnA	*90*		*25 - 150*	*04/12/21 04:27*	*04/15/21 05:23*	*1*
13C2 PFDoA	*95*		*25 - 150*	*04/12/21 04:27*	*04/15/21 05:23*	*1*
13C2 PFTeDA	*93*		*25 - 150*	*04/12/21 04:27*	*04/15/21 05:23*	*1*

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

Lab Sample ID: MB 320-478540/1-A
Matrix: Water
Analysis Batch: 480035

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 478540

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxDA	90		25 - 150	04/12/21 04:27	04/15/21 05:23	1
13C3 PFBS	88		25 - 150	04/12/21 04:27	04/15/21 05:23	1
18O2 PFHxS	93		25 - 150	04/12/21 04:27	04/15/21 05:23	1
13C4 PFOS	95		25 - 150	04/12/21 04:27	04/15/21 05:23	1
13C8 FOSA	96		10 - 150	04/12/21 04:27	04/15/21 05:23	1
d3-NMeFOSAA	106		25 - 150	04/12/21 04:27	04/15/21 05:23	1
d5-NEtFOSAA	105		25 - 150	04/12/21 04:27	04/15/21 05:23	1
d-N-MeFOSA-M	68		10 - 150	04/12/21 04:27	04/15/21 05:23	1
d-N-EtFOSA-M	80		10 - 150	04/12/21 04:27	04/15/21 05:23	1
d7-N-MeFOSE-M	94		10 - 150	04/12/21 04:27	04/15/21 05:23	1
d9-N-EtFOSE-M	88		10 - 150	04/12/21 04:27	04/15/21 05:23	1
13C3 HFPO-DA	80		25 - 150	04/12/21 04:27	04/15/21 05:23	1
13C2 10:2 FTS	85		25 - 150	04/12/21 04:27	04/15/21 05:23	1

Lab Sample ID: LCS 320-478540/2-A
Matrix: Water
Analysis Batch: 480035

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 478540

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	52.3		ng/L		131	60 - 135
Perfluoropentanoic acid (PFPeA)	40.0	44.0		ng/L		110	60 - 135
Perfluorohexanoic acid (PFHxA)	40.0	47.1		ng/L		118	60 - 135
Perfluoroheptanoic acid (PFHpA)	40.0	45.5		ng/L		114	60 - 135
Perfluorooctanoic acid (PFOA)	40.0	50.7		ng/L		127	60 - 135
Perfluorononanoic acid (PFNA)	40.0	46.2		ng/L		116	60 - 135
Perfluorodecanoic acid (PFDA)	40.0	46.6		ng/L		116	60 - 135
Perfluoroundecanoic acid (PFUnA)	40.0	48.1		ng/L		120	60 - 135
Perfluorododecanoic acid (PFDoA)	40.0	50.6		ng/L		127	60 - 135
Perfluorotridecanoic acid (PFTriA)	40.0	48.8		ng/L		122	60 - 135
Perfluorotetradecanoic acid (PFTeA)	40.0	46.5		ng/L		116	60 - 135
Perfluoro-n-hexadecanoic acid (PFHxDA)	40.0	51.8		ng/L		129	60 - 135
Perfluoro-n-octadecanoic acid (PFODA)	40.0	52.5		ng/L		131	60 - 135
Perfluorobutanesulfonic acid (PFBS)	35.4	41.8		ng/L		118	60 - 135
Perfluoropentanesulfonic acid (PFPeS)	37.5	45.1		ng/L		120	60 - 135
Perfluorohexanesulfonic acid (PFHxS)	36.4	44.4		ng/L		122	60 - 135
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	43.2		ng/L		113	60 - 135
Perfluorooctanesulfonic acid (PFOS)	37.1	43.0		ng/L		116	60 - 135
Perfluorononanesulfonic acid (PFNS)	38.4	46.9		ng/L		122	60 - 135
Perfluorodecanesulfonic acid (PFDS)	38.6	44.5		ng/L		115	60 - 135

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

Lab Sample ID: LCS 320-478540/2-A
Matrix: Water
Analysis Batch: 480035

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 478540

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorododecanesulfonic acid (PFDoS)	38.7	41.5		ng/L		107	60 - 135
Perfluorooctanesulfonamide (FOSA)	40.0	45.4		ng/L		113	60 - 135
NEtFOSA	40.0	46.3		ng/L		116	60 - 135
NMeFOSA	40.0	48.4		ng/L		121	60 - 135
NMeFOSAA	40.0	41.7		ng/L		104	60 - 135
NEtFOSAA	40.0	40.6		ng/L		102	60 - 135
NMeFOSE	40.0	48.7		ng/L		122	60 - 135
NEtFOSE	40.0	41.4		ng/L		104	60 - 135
10:2 FTS	38.6	43.6		ng/L		113	60 - 135
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.7	42.4		ng/L		113	60 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	40.0	40.2		ng/L		100	60 - 135
F-53B Major	37.3	40.1		ng/L		108	60 - 135
F-53B Minor	37.7	40.6		ng/L		108	60 - 135

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*84*		*25 - 150*
13C5 PFPeA	*89*		*25 - 150*
13C2 PFHxA	*99*		*25 - 150*
13C4 PFHpA	*99*		*25 - 150*
13C4 PFOA	*96*		*25 - 150*
13C5 PFNA	*101*		*25 - 150*
13C2 PFDA	*96*		*25 - 150*
13C2 PFUnA	*101*		*25 - 150*
13C2 PFDoA	*95*		*25 - 150*
13C2 PFTeDA	*103*		*25 - 150*
13C2 PFHxDA	*94*		*25 - 150*
13C3 PFBS	*93*		*25 - 150*
18O2 PFHxS	*101*		*25 - 150*
13C4 PFOS	*103*		*25 - 150*
13C8 FOSA	*94*		*10 - 150*
d3-NMeFOSAA	*111*		*25 - 150*
d5-NEtFOSAA	*111*		*25 - 150*
d-N-MeFOSA-M	*75*		*10 - 150*
d-N-EtFOSA-M	*82*		*10 - 150*
d7-N-MeFOSE-M	*88*		*10 - 150*
d9-N-EtFOSE-M	*96*		*10 - 150*
13C3 HFPO-DA	*100*		*25 - 150*
13C2 10:2 FTS	*92*		*25 - 150*

Lab Sample ID: LCSD 320-478540/3-A
Matrix: Water
Analysis Batch: 480035

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 478540

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	40.0	53.8		ng/L		135	60 - 135	3	30
Perfluoropentanoic acid (PFPeA)	40.0	43.7		ng/L		109	60 - 135	1	30

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

Lab Sample ID: LCSD 320-478540/3-A
Matrix: Water
Analysis Batch: 480035

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 478540

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorohexanoic acid (PFHxA)			40.0	48.1		ng/L		120	60 - 135	2	30
Perfluoroheptanoic acid (PFHpA)			40.0	46.7		ng/L		117	60 - 135	3	30
Perfluorooctanoic acid (PFOA)			40.0	48.6		ng/L		122	60 - 135	4	30
Perfluorononanoic acid (PFNA)			40.0	46.8		ng/L		117	60 - 135	1	30
Perfluorodecanoic acid (PFDA)			40.0	46.6		ng/L		116	60 - 135	0	30
Perfluoroundecanoic acid (PFUnA)			40.0	48.1		ng/L		120	60 - 135	0	30
Perfluorododecanoic acid (PFDoA)			40.0	48.4		ng/L		121	60 - 135	4	30
Perfluorotridecanoic acid (PFTriA)			40.0	50.2		ng/L		125	60 - 135	3	30
Perfluorotetradecanoic acid (PFTeA)			40.0	45.5		ng/L		114	60 - 135	2	30
Perfluoro-n-hexadecanoic acid (PFHxDA)			40.0	53.0		ng/L		132	60 - 135	2	30
Perfluoro-n-octadecanoic acid (PFODA)			40.0	51.6		ng/L		129	60 - 135	2	30
Perfluorobutanesulfonic acid (PFBS)			35.4	42.4		ng/L		120	60 - 135	2	30
Perfluoropentanesulfonic acid (PFPeS)			37.5	45.8		ng/L		122	60 - 135	2	30
Perfluorohexanesulfonic acid (PFHxS)			36.4	45.5		ng/L		125	60 - 135	2	30
Perfluoroheptanesulfonic Acid (PFHpS)			38.1	45.5		ng/L		120	60 - 135	5	30
Perfluorooctanesulfonic acid (PFOS)			37.1	44.1		ng/L		119	60 - 135	2	30
Perfluorononanesulfonic acid (PFNS)			38.4	47.3		ng/L		123	60 - 135	1	30
Perfluorodecanesulfonic acid (PFDS)			38.6	50.6		ng/L		131	60 - 135	13	30
Perfluorododecanesulfonic acid (PFDoS)			38.7	43.6		ng/L		113	60 - 135	5	30
Perfluorooctanesulfonamide (FOSA)			40.0	44.0		ng/L		110	60 - 135	3	30
NEtFOSA			40.0	46.9		ng/L		117	60 - 135	1	30
NMeFOSA			40.0	52.9		ng/L		132	60 - 135	9	30
NMeFOSAA			40.0	41.3		ng/L		103	60 - 135	1	30
NEtFOSAA			40.0	39.8		ng/L		99	60 - 135	2	30
NMeFOSE			40.0	44.1		ng/L		110	60 - 135	10	30
NEtFOSE			40.0	44.8		ng/L		112	60 - 135	8	30
10:2 FTS			38.6	42.8		ng/L		111	60 - 135	2	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)			37.7	43.9		ng/L		117	60 - 135	4	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)			40.0	44.0		ng/L		110	60 - 135	9	30
F-53B Major			37.3	41.9		ng/L		112	60 - 135	4	30
F-53B Minor			37.7	42.7		ng/L		113	60 - 135	5	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*78*		*25 - 150*
13C5 PFPeA	*89*		*25 - 150*
13C2 PFHxA	*93*		*25 - 150*

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

Lab Sample ID: LCSD 320-478540/3-A
Matrix: Water
Analysis Batch: 480035

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 478540

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C4 PFHpA	90		25 - 150
13C4 PFOA	93		25 - 150
13C5 PFNA	99		25 - 150
13C2 PFDA	92		25 - 150
13C2 PFUnA	96		25 - 150
13C2 PFDoA	97		25 - 150
13C2 PFTeDA	101		25 - 150
13C2 PFHxDA	94		25 - 150
13C3 PFBS	92		25 - 150
18O2 PFHxS	95		25 - 150
13C4 PFOS	98		25 - 150
13C8 FOSA	105		10 - 150
d3-NMeFOSAA	113		25 - 150
d5-NEtFOSAA	113		25 - 150
d-N-MeFOSA-M	68		10 - 150
d-N-EtFOSA-M	80		10 - 150
d7-N-MeFOSE-M	93		10 - 150
d9-N-EtFOSE-M	93		10 - 150
13C3 HFPO-DA	84		25 - 150
13C2 10:2 FTS	94		25 - 150

Lab Sample ID: MB 320-480651/1-A
Matrix: Water
Analysis Batch: 480705

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 480651

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<2.4		5.0	2.4	ng/L		04/18/21 10:57	04/19/21 05:21	1
Perfluoropentanoic acid (PFPeA)	<0.49		2.0	0.49	ng/L		04/18/21 10:57	04/19/21 05:21	1
Perfluorohexanoic acid (PFHxA)	<0.58		2.0	0.58	ng/L		04/18/21 10:57	04/19/21 05:21	1
Perfluoroheptanoic acid (PFHpA)	<0.25		2.0	0.25	ng/L		04/18/21 10:57	04/19/21 05:21	1
Perfluorooctanoic acid (PFOA)	<0.85		2.0	0.85	ng/L		04/18/21 10:57	04/19/21 05:21	1
Perfluorononanoic acid (PFNA)	<0.27		2.0	0.27	ng/L		04/18/21 10:57	04/19/21 05:21	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	0.31	ng/L		04/18/21 10:57	04/19/21 05:21	1
Perfluoroundecanoic acid (PFUnA)	<1.1		2.0	1.1	ng/L		04/18/21 10:57	04/19/21 05:21	1
Perfluorododecanoic acid (PFDoA)	<0.55		2.0	0.55	ng/L		04/18/21 10:57	04/19/21 05:21	1
Perfluorotridecanoic acid (PFTriA)	<1.3		2.0	1.3	ng/L		04/18/21 10:57	04/19/21 05:21	1
Perfluorotetradecanoic acid (PFTeA)	<0.73		2.0	0.73	ng/L		04/18/21 10:57	04/19/21 05:21	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.89		2.0	0.89	ng/L		04/18/21 10:57	04/19/21 05:21	1
Perfluoro-n-octadecanoic acid (PFODA)	<0.94		2.0	0.94	ng/L		04/18/21 10:57	04/19/21 05:21	1
Perfluorobutanesulfonic acid (PFBS)	<0.20		2.0	0.20	ng/L		04/18/21 10:57	04/19/21 05:21	1
Perfluoropentanesulfonic acid (PFPeS)	<0.30		2.0	0.30	ng/L		04/18/21 10:57	04/19/21 05:21	1
Perfluorohexanesulfonic acid (PFHxS)	<0.57		2.0	0.57	ng/L		04/18/21 10:57	04/19/21 05:21	1
Perfluoroheptanesulfonic Acid (PFHpS)	<0.19		2.0	0.19	ng/L		04/18/21 10:57	04/19/21 05:21	1
Perfluorooctanesulfonic acid (PFOS)	<0.54		2.0	0.54	ng/L		04/18/21 10:57	04/19/21 05:21	1
Perfluorononanesulfonic acid (PFNS)	<0.37		2.0	0.37	ng/L		04/18/21 10:57	04/19/21 05:21	1
Perfluorodecanesulfonic acid (PFDS)	<0.32		2.0	0.32	ng/L		04/18/21 10:57	04/19/21 05:21	1

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

Lab Sample ID: MB 320-480651/1-A
Matrix: Water
Analysis Batch: 480705

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 480651

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorododecanesulfonic acid (PFDoS)	<0.97		2.0	0.97	ng/L		04/18/21 10:57	04/19/21 05:21	1
Perfluorooctanesulfonamide (FOSA)	<0.98		2.0	0.98	ng/L		04/18/21 10:57	04/19/21 05:21	1
NEtFOSA	<0.87		2.0	0.87	ng/L		04/18/21 10:57	04/19/21 05:21	1
NMeFOSA	<0.43		2.0	0.43	ng/L		04/18/21 10:57	04/19/21 05:21	1
NMeFOSAA	<1.2		5.0	1.2	ng/L		04/18/21 10:57	04/19/21 05:21	1
NEtFOSAA	<1.3		5.0	1.3	ng/L		04/18/21 10:57	04/19/21 05:21	1
NMeFOSE	<1.4		4.0	1.4	ng/L		04/18/21 10:57	04/19/21 05:21	1
NEtFOSE	<0.85		2.0	0.85	ng/L		04/18/21 10:57	04/19/21 05:21	1
4:2 FTS	<0.24		2.0	0.24	ng/L		04/18/21 10:57	04/19/21 05:21	1
6:2 FTS	<2.5		5.0	2.5	ng/L		04/18/21 10:57	04/19/21 05:21	1
8:2 FTS	<0.46		2.0	0.46	ng/L		04/18/21 10:57	04/19/21 05:21	1
10:2 FTS	<0.67		2.0	0.67	ng/L		04/18/21 10:57	04/19/21 05:21	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.40		2.0	0.40	ng/L		04/18/21 10:57	04/19/21 05:21	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.5		4.0	1.5	ng/L		04/18/21 10:57	04/19/21 05:21	1
F-53B Major	<0.24		2.0	0.24	ng/L		04/18/21 10:57	04/19/21 05:21	1
F-53B Minor	<0.32		2.0	0.32	ng/L		04/18/21 10:57	04/19/21 05:21	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*65*		*25 - 150*	*04/18/21 10:57*	*04/19/21 05:21*	*1*
13C5 PFPeA	*66*		*25 - 150*	*04/18/21 10:57*	*04/19/21 05:21*	*1*
13C2 PFHxA	*67*		*25 - 150*	*04/18/21 10:57*	*04/19/21 05:21*	*1*
13C4 PFHpA	*61*		*25 - 150*	*04/18/21 10:57*	*04/19/21 05:21*	*1*
13C4 PFOA	*72*		*25 - 150*	*04/18/21 10:57*	*04/19/21 05:21*	*1*
13C5 PFNA	*74*		*25 - 150*	*04/18/21 10:57*	*04/19/21 05:21*	*1*
13C2 PFDA	*69*		*25 - 150*	*04/18/21 10:57*	*04/19/21 05:21*	*1*
13C2 PFUnA	*60*		*25 - 150*	*04/18/21 10:57*	*04/19/21 05:21*	*1*
13C2 PFDoA	*58*		*25 - 150*	*04/18/21 10:57*	*04/19/21 05:21*	*1*
13C2 PFTeDA	*66*		*25 - 150*	*04/18/21 10:57*	*04/19/21 05:21*	*1*
13C2 PFHxDA	*69*		*25 - 150*	*04/18/21 10:57*	*04/19/21 05:21*	*1*
13C3 PFBS	*53*		*25 - 150*	*04/18/21 10:57*	*04/19/21 05:21*	*1*
18O2 PFHxS	*67*		*25 - 150*	*04/18/21 10:57*	*04/19/21 05:21*	*1*
13C4 PFOS	*67*		*25 - 150*	*04/18/21 10:57*	*04/19/21 05:21*	*1*
13C8 FOSA	*67*		*10 - 150*	*04/18/21 10:57*	*04/19/21 05:21*	*1*
d3-NMeFOSAA	*65*		*25 - 150*	*04/18/21 10:57*	*04/19/21 05:21*	*1*
d5-NEtFOSAA	*64*		*25 - 150*	*04/18/21 10:57*	*04/19/21 05:21*	*1*
d-N-MeFOSA-M	*51*		*10 - 150*	*04/18/21 10:57*	*04/19/21 05:21*	*1*
d-N-EtFOSA-M	*49*		*10 - 150*	*04/18/21 10:57*	*04/19/21 05:21*	*1*
d7-N-MeFOSE-M	*53*		*10 - 150*	*04/18/21 10:57*	*04/19/21 05:21*	*1*
d9-N-EtFOSE-M	*58*		*10 - 150*	*04/18/21 10:57*	*04/19/21 05:21*	*1*
M2-4:2 FTS	*45*		*25 - 150*	*04/18/21 10:57*	*04/19/21 05:21*	*1*
M2-6:2 FTS	*52*		*25 - 150*	*04/18/21 10:57*	*04/19/21 05:21*	*1*
M2-8:2 FTS	*63*		*25 - 150*	*04/18/21 10:57*	*04/19/21 05:21*	*1*
13C3 HFPO-DA	*58*		*25 - 150*	*04/18/21 10:57*	*04/19/21 05:21*	*1*
13C2 10:2 FTS	*62*		*25 - 150*	*04/18/21 10:57*	*04/19/21 05:21*	*1*

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

Lab Sample ID: LCS 320-480651/2-A
Matrix: Water
Analysis Batch: 480705

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 480651

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	42.5		ng/L		106	60 - 135
Perfluoropentanoic acid (PFPeA)	40.0	46.1		ng/L		115	60 - 135
Perfluorohexanoic acid (PFHxA)	40.0	44.9		ng/L		112	60 - 135
Perfluoroheptanoic acid (PFHpA)	40.0	47.4		ng/L		119	60 - 135
Perfluorooctanoic acid (PFOA)	40.0	44.8		ng/L		112	60 - 135
Perfluorononanoic acid (PFNA)	40.0	45.1		ng/L		113	60 - 135
Perfluorodecanoic acid (PFDA)	40.0	43.1		ng/L		108	60 - 135
Perfluoroundecanoic acid (PFUnA)	40.0	44.6		ng/L		112	60 - 135
Perfluorododecanoic acid (PFDoA)	40.0	47.3		ng/L		118	60 - 135
Perfluorotridecanoic acid (PFTriA)	40.0	47.6		ng/L		119	60 - 135
Perfluorotetradecanoic acid (PFTeA)	40.0	39.3		ng/L		98	60 - 135
Perfluoro-n-hexadecanoic acid (PFHxDA)	40.0	44.9		ng/L		112	60 - 135
Perfluoro-n-octadecanoic acid (PFODA)	40.0	42.3		ng/L		106	60 - 135
Perfluorobutanesulfonic acid (PFBS)	35.4	45.5		ng/L		129	60 - 135
Perfluoropentanesulfonic acid (PFPeS)	37.5	48.6		ng/L		129	60 - 135
Perfluorohexanesulfonic acid (PFHxS)	36.4	39.0		ng/L		107	60 - 135
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	42.4		ng/L		111	60 - 135
Perfluorooctanesulfonic acid (PFOS)	37.1	37.8		ng/L		102	60 - 135
Perfluorononanesulfonic acid (PFNS)	38.4	39.6		ng/L		103	60 - 135
Perfluorodecanesulfonic acid (PFDS)	38.6	40.5		ng/L		105	60 - 135
Perfluorododecanesulfonic acid (PFDoS)	38.7	42.6		ng/L		110	60 - 135
Perfluorooctanesulfonamide (FOSA)	40.0	47.6		ng/L		119	60 - 135
NEtFOSA	40.0	37.3		ng/L		93	60 - 135
NMeFOSA	40.0	44.5		ng/L		111	60 - 135
NMeFOSAA	40.0	38.7		ng/L		97	60 - 135
NEtFOSAA	40.0	39.7		ng/L		99	60 - 135
NMeFOSE	40.0	44.3		ng/L		111	60 - 135
NEtFOSE	40.0	42.1		ng/L		105	60 - 135
4:2 FTS	37.4	47.6		ng/L		127	60 - 135
6:2 FTS	37.9	44.0		ng/L		116	60 - 135
8:2 FTS	38.3	43.4		ng/L		113	60 - 135
10:2 FTS	38.6	43.0		ng/L		112	60 - 135
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.7	38.7		ng/L		103	60 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	40.0	44.2		ng/L		111	60 - 135
F-53B Major	37.3	41.4		ng/L		111	60 - 135
F-53B Minor	37.7	44.0		ng/L		117	60 - 135

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

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C4 PFBA	82		25 - 150
13C5 PFPeA	76		25 - 150
13C2 PFHxA	79		25 - 150
13C4 PFHpA	77		25 - 150
13C4 PFOA	82		25 - 150
13C5 PFNA	90		25 - 150
13C2 PFDA	83		25 - 150
13C2 PFUnA	74		25 - 150
13C2 PFDoA	75		25 - 150
13C2 PFTeDA	83		25 - 150
13C2 PFHxDA	79		25 - 150
13C3 PFBS	63		25 - 150
18O2 PFHxS	88		25 - 150
13C4 PFOS	84		25 - 150
13C8 FOSA	77		10 - 150
d3-NMeFOSAA	89		25 - 150
d5-NEtFOSAA	78		25 - 150
d-N-MeFOSA-M	60		10 - 150
d-N-EtFOSA-M	59		10 - 150
d7-N-MeFOSE-M	64		10 - 150
d9-N-EtFOSE-M	61		10 - 150
M2-4:2 FTS	54		25 - 150
M2-6:2 FTS	71		25 - 150
M2-8:2 FTS	93		25 - 150
13C3 HFPO-DA	74		25 - 150
13C2 10:2 FTS	67		25 - 150

Lab Sample ID: LCSD 320-480651/3-A
Matrix: Water
Analysis Batch: 480705

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 480651

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			40.0	41.9		ng/L		105	60 - 135	2	30
Perfluoropentanoic acid (PFPeA)			40.0	48.8		ng/L		122	60 - 135	6	30
Perfluorohexanoic acid (PFHxA)			40.0	39.7		ng/L		99	60 - 135	12	30
Perfluoroheptanoic acid (PFHpA)			40.0	42.5		ng/L		106	60 - 135	11	30
Perfluorooctanoic acid (PFOA)			40.0	46.7		ng/L		117	60 - 135	4	30
Perfluorononanoic acid (PFNA)			40.0	42.5		ng/L		106	60 - 135	6	30
Perfluorodecanoic acid (PFDA)			40.0	40.7		ng/L		102	60 - 135	6	30
Perfluoroundecanoic acid (PFUnA)			40.0	45.2		ng/L		113	60 - 135	1	30
Perfluorododecanoic acid (PFDoA)			40.0	47.8		ng/L		119	60 - 135	1	30
Perfluorotridecanoic acid (PFTriA)			40.0	45.3		ng/L		113	60 - 135	5	30
Perfluorotetradecanoic acid (PFTeA)			40.0	41.2		ng/L		103	60 - 135	5	30
Perfluoro-n-hexadecanoic acid (PFHxDA)			40.0	44.7		ng/L		112	60 - 135	1	30
Perfluoro-n-octadecanoic acid (PFODA)			40.0	36.9		ng/L		92	60 - 135	14	30
Perfluorobutanesulfonic acid (PFBS)			35.4	43.3		ng/L		122	60 - 135	5	30

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

Lab Sample ID: LCSD 320-480651/3-A
Matrix: Water
Analysis Batch: 480705

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 480651

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluoropentanesulfonic acid (PFPeS)			37.5	44.2		ng/L		118	60 - 135	10	30
Perfluorohexanesulfonic acid (PFHxS)			36.4	39.2		ng/L		108	60 - 135	1	30
Perfluoroheptanesulfonic Acid (PFHpS)			38.1	45.9		ng/L		121	60 - 135	8	30
Perfluorooctanesulfonic acid (PFOS)			37.1	39.2		ng/L		106	60 - 135	4	30
Perfluorononanesulfonic acid (PFNS)			38.4	43.6		ng/L		114	60 - 135	10	30
Perfluorodecanesulfonic acid (PFDS)			38.6	40.3		ng/L		105	60 - 135	0	30
Perfluorododecanesulfonic acid (PFDoS)			38.7	41.7		ng/L		108	60 - 135	2	30
Perfluorooctanesulfonamide (FOSA)			40.0	45.4		ng/L		113	60 - 135	5	30
NEtFOSA			40.0	37.7		ng/L		94	60 - 135	1	30
NMeFOSA			40.0	41.6		ng/L		104	60 - 135	7	30
NMeFOSAA			40.0	38.4		ng/L		96	60 - 135	1	30
NEtFOSAA			40.0	38.1		ng/L		95	60 - 135	4	30
NMeFOSE			40.0	45.7		ng/L		114	60 - 135	3	30
NEtFOSE			40.0	42.3		ng/L		106	60 - 135	1	30
4:2 FTS			37.4	42.7		ng/L		114	60 - 135	11	30
6:2 FTS			37.9	43.8		ng/L		116	60 - 135	0	30
8:2 FTS			38.3	42.5		ng/L		111	60 - 135	2	30
10:2 FTS			38.6	37.6		ng/L		98	60 - 135	13	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)			37.7	42.1		ng/L		112	60 - 135	9	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)			40.0	44.8		ng/L		112	60 - 135	1	30
F-53B Major			37.3	44.0		ng/L		118	60 - 135	6	30
F-53B Minor			37.7	39.7		ng/L		105	60 - 135	10	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*75*		*25 - 150*
13C5 PFPeA	*69*		*25 - 150*
13C2 PFHxA	*74*		*25 - 150*
13C4 PFHpA	*71*		*25 - 150*
13C4 PFOA	*76*		*25 - 150*
13C5 PFNA	*78*		*25 - 150*
13C2 PFDA	*70*		*25 - 150*
13C2 PFUnA	*62*		*25 - 150*
13C2 PFDoA	*64*		*25 - 150*
13C2 PFTeDA	*76*		*25 - 150*
13C2 PFHxDA	*73*		*25 - 150*
13C3 PFBS	*62*		*25 - 150*
18O2 PFHxS	*74*		*25 - 150*
13C4 PFOS	*72*		*25 - 150*
13C8 FOSA	*72*		*10 - 150*
d3-NMeFOSAA	*72*		*25 - 150*
d5-NEtFOSAA	*71*		*25 - 150*

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

Lab Sample ID: LCSD 320-480651/3-A
Matrix: Water
Analysis Batch: 480705

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 480651

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
d-N-MeFOSA-M	*59*		*10 - 150*
d-N-EtFOSA-M	*59*		*10 - 150*
d7-N-MeFOSE-M	*57*		*10 - 150*
d9-N-EtFOSE-M	*57*		*10 - 150*
M2-4:2 FTS	*50*		*25 - 150*
M2-6:2 FTS	*62*		*25 - 150*
M2-8:2 FTS	*59*		*25 - 150*
13C3 HFPO-DA	*64*		*25 - 150*
13C2 10:2 FTS	*61*		*25 - 150*

Lab Sample ID: MB 320-481293/1-A
Matrix: Water
Analysis Batch: 481917

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 481293

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<2.4		5.0	2.4	ng/L		04/20/21 11:59	04/22/21 00:14	1
Perfluoropentanoic acid (PFPeA)	<0.49		2.0	0.49	ng/L		04/20/21 11:59	04/22/21 00:14	1
Perfluorohexanoic acid (PFHxA)	<0.58		2.0	0.58	ng/L		04/20/21 11:59	04/22/21 00:14	1
Perfluoroheptanoic acid (PFHpA)	<0.25		2.0	0.25	ng/L		04/20/21 11:59	04/22/21 00:14	1
Perfluorooctanoic acid (PFOA)	<0.85		2.0	0.85	ng/L		04/20/21 11:59	04/22/21 00:14	1
Perfluorononanoic acid (PFNA)	<0.27		2.0	0.27	ng/L		04/20/21 11:59	04/22/21 00:14	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	0.31	ng/L		04/20/21 11:59	04/22/21 00:14	1
Perfluoroundecanoic acid (PFUnA)	<1.1		2.0	1.1	ng/L		04/20/21 11:59	04/22/21 00:14	1
Perfluorododecanoic acid (PFDoA)	<0.55		2.0	0.55	ng/L		04/20/21 11:59	04/22/21 00:14	1
Perfluorotridecanoic acid (PFTriA)	<1.3		2.0	1.3	ng/L		04/20/21 11:59	04/22/21 00:14	1
Perfluorotetradecanoic acid (PFTeA)	<0.73		2.0	0.73	ng/L		04/20/21 11:59	04/22/21 00:14	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.89		2.0	0.89	ng/L		04/20/21 11:59	04/22/21 00:14	1
Perfluoro-n-octadecanoic acid (PFODA)	<0.94		2.0	0.94	ng/L		04/20/21 11:59	04/22/21 00:14	1
Perfluorobutanesulfonic acid (PFBS)	<0.20		2.0	0.20	ng/L		04/20/21 11:59	04/22/21 00:14	1
Perfluoropentanesulfonic acid (PFPeS)	<0.30		2.0	0.30	ng/L		04/20/21 11:59	04/22/21 00:14	1
Perfluorohexanesulfonic acid (PFHxS)	<0.57		2.0	0.57	ng/L		04/20/21 11:59	04/22/21 00:14	1
Perfluoroheptanesulfonic Acid (PFHpS)	<0.19		2.0	0.19	ng/L		04/20/21 11:59	04/22/21 00:14	1
Perfluorooctanesulfonic acid (PFOS)	<0.54		2.0	0.54	ng/L		04/20/21 11:59	04/22/21 00:14	1
Perfluorononanesulfonic acid (PFNS)	<0.37		2.0	0.37	ng/L		04/20/21 11:59	04/22/21 00:14	1
Perfluorodecanesulfonic acid (PFDS)	<0.32		2.0	0.32	ng/L		04/20/21 11:59	04/22/21 00:14	1
Perfluorododecanesulfonic acid (PFDoS)	<0.97		2.0	0.97	ng/L		04/20/21 11:59	04/22/21 00:14	1
Perfluorooctanesulfonamide (FOSA)	<0.98		2.0	0.98	ng/L		04/20/21 11:59	04/22/21 00:14	1
NEtFOSA	<0.87		2.0	0.87	ng/L		04/20/21 11:59	04/22/21 00:14	1
NMeFOSA	<0.43		2.0	0.43	ng/L		04/20/21 11:59	04/22/21 00:14	1
NMeFOSAA	<1.2		5.0	1.2	ng/L		04/20/21 11:59	04/22/21 00:14	1
NEtFOSAA	<1.3		5.0	1.3	ng/L		04/20/21 11:59	04/22/21 00:14	1
NMeFOSE	<1.4		4.0	1.4	ng/L		04/20/21 11:59	04/22/21 00:14	1
NEtFOSE	<0.85		2.0	0.85	ng/L		04/20/21 11:59	04/22/21 00:14	1
4:2 FTS	<0.24		2.0	0.24	ng/L		04/20/21 11:59	04/22/21 00:14	1
6:2 FTS	<2.5		5.0	2.5	ng/L		04/20/21 11:59	04/22/21 00:14	1

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

Lab Sample ID: MB 320-481293/1-A
Matrix: Water
Analysis Batch: 481917

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 481293

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
8:2 FTS	<0.46		2.0	0.46	ng/L		04/20/21 11:59	04/22/21 00:14	1
10:2 FTS	<0.67		2.0	0.67	ng/L		04/20/21 11:59	04/22/21 00:14	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.40		2.0	0.40	ng/L		04/20/21 11:59	04/22/21 00:14	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.5		4.0	1.5	ng/L		04/20/21 11:59	04/22/21 00:14	1
F-53B Major	<0.24		2.0	0.24	ng/L		04/20/21 11:59	04/22/21 00:14	1
F-53B Minor	<0.32		2.0	0.32	ng/L		04/20/21 11:59	04/22/21 00:14	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*84*		*25 - 150*	*04/20/21 11:59*	*04/22/21 00:14*	*1*
13C5 PFPeA	*92*		*25 - 150*	*04/20/21 11:59*	*04/22/21 00:14*	*1*
13C2 PFHxA	*87*		*25 - 150*	*04/20/21 11:59*	*04/22/21 00:14*	*1*
13C4 PFHpA	*98*		*25 - 150*	*04/20/21 11:59*	*04/22/21 00:14*	*1*
13C4 PFOA	*97*		*25 - 150*	*04/20/21 11:59*	*04/22/21 00:14*	*1*
13C5 PFNA	*109*		*25 - 150*	*04/20/21 11:59*	*04/22/21 00:14*	*1*
13C2 PFDA	*101*		*25 - 150*	*04/20/21 11:59*	*04/22/21 00:14*	*1*
13C2 PFUnA	*109*		*25 - 150*	*04/20/21 11:59*	*04/22/21 00:14*	*1*
13C2 PFDoA	*114*		*25 - 150*	*04/20/21 11:59*	*04/22/21 00:14*	*1*
13C2 PFTeDA	*108*		*25 - 150*	*04/20/21 11:59*	*04/22/21 00:14*	*1*
13C2 PFHxDA	*102*		*25 - 150*	*04/20/21 11:59*	*04/22/21 00:14*	*1*
13C3 PFBS	*78*		*25 - 150*	*04/20/21 11:59*	*04/22/21 00:14*	*1*
18O2 PFHxS	*97*		*25 - 150*	*04/20/21 11:59*	*04/22/21 00:14*	*1*
13C4 PFOS	*97*		*25 - 150*	*04/20/21 11:59*	*04/22/21 00:14*	*1*
13C8 FOSA	*99*		*10 - 150*	*04/20/21 11:59*	*04/22/21 00:14*	*1*
d3-NMeFOSAA	*109*		*25 - 150*	*04/20/21 11:59*	*04/22/21 00:14*	*1*
d5-NEtFOSAA	*104*		*25 - 150*	*04/20/21 11:59*	*04/22/21 00:14*	*1*
d-N-MeFOSA-M	*70*		*10 - 150*	*04/20/21 11:59*	*04/22/21 00:14*	*1*
d-N-EtFOSA-M	*70*		*10 - 150*	*04/20/21 11:59*	*04/22/21 00:14*	*1*
d7-N-MeFOSE-M	*98*		*10 - 150*	*04/20/21 11:59*	*04/22/21 00:14*	*1*
d9-N-EtFOSE-M	*98*		*10 - 150*	*04/20/21 11:59*	*04/22/21 00:14*	*1*
M2-4:2 FTS	*91*		*25 - 150*	*04/20/21 11:59*	*04/22/21 00:14*	*1*
M2-6:2 FTS	*103*		*25 - 150*	*04/20/21 11:59*	*04/22/21 00:14*	*1*
M2-8:2 FTS	*114*		*25 - 150*	*04/20/21 11:59*	*04/22/21 00:14*	*1*
13C3 HFPO-DA	*77*		*25 - 150*	*04/20/21 11:59*	*04/22/21 00:14*	*1*
13C2 10:2 FTS	*105*		*25 - 150*	*04/20/21 11:59*	*04/22/21 00:14*	*1*

Lab Sample ID: LCS 320-481293/2-A
Matrix: Water
Analysis Batch: 481917

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 481293

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	43.3		ng/L		108	60 - 135
Perfluoropentanoic acid (PFPeA)	40.0	42.9		ng/L		107	60 - 135
Perfluorohexanoic acid (PFHxA)	40.0	44.7		ng/L		112	60 - 135
Perfluoroheptanoic acid (PFHpA)	40.0	44.3		ng/L		111	60 - 135
Perfluorooctanoic acid (PFOA)	40.0	42.8		ng/L		107	60 - 135
Perfluorononanoic acid (PFNA)	40.0	44.0		ng/L		110	60 - 135
Perfluorodecanoic acid (PFDA)	40.0	37.7		ng/L		94	60 - 135

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

Lab Sample ID: LCS 320-481293/2-A
Matrix: Water
Analysis Batch: 481917

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 481293

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluoroundecanoic acid (PFUnA)	40.0	36.7		ng/L		92	60 - 135
Perfluorododecanoic acid (PFDoA)	40.0	44.0		ng/L		110	60 - 135
Perfluorotridecanoic acid (PFTriA)	40.0	46.0		ng/L		115	60 - 135
Perfluorotetradecanoic acid (PFTeA)	40.0	43.1		ng/L		108	60 - 135
Perfluoro-n-hexadecanoic acid (PFHxDA)	40.0	45.2		ng/L		113	60 - 135
Perfluoro-n-octadecanoic acid (PFODA)	40.0	37.1		ng/L		93	60 - 135
Perfluorobutanesulfonic acid (PFBS)	35.4	41.1		ng/L		116	60 - 135
Perfluoropentanesulfonic acid (PFPeS)	37.5	50.4		ng/L		134	60 - 135
Perfluorohexanesulfonic acid (PFHxS)	36.4	33.9		ng/L		93	60 - 135
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	43.1		ng/L		113	60 - 135
Perfluorooctanesulfonic acid (PFOS)	37.1	41.9		ng/L		113	60 - 135
Perfluorononanesulfonic acid (PFNS)	38.4	41.1		ng/L		107	60 - 135
Perfluorodecanesulfonic acid (PFDS)	38.6	41.0		ng/L		106	60 - 135
Perfluorododecanesulfonic acid (PFDoS)	38.7	36.7		ng/L		95	60 - 135
Perfluorooctanesulfonamide (FOSA)	40.0	43.8		ng/L		110	60 - 135
NEtFOSA	40.0	41.8		ng/L		104	60 - 135
NMeFOSA	40.0	46.7		ng/L		117	60 - 135
NMeFOSAA	40.0	39.7		ng/L		99	60 - 135
NEtFOSAA	40.0	35.4		ng/L		88	60 - 135
NMeFOSE	40.0	43.3		ng/L		108	60 - 135
NEtFOSE	40.0	44.2		ng/L		110	60 - 135
4:2 FTS	37.4	38.5		ng/L		103	60 - 135
6:2 FTS	37.9	39.1		ng/L		103	60 - 135
8:2 FTS	38.3	33.2		ng/L		87	60 - 135
10:2 FTS	38.6	37.3		ng/L		97	60 - 135
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.7	40.7		ng/L		108	60 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	40.0	40.6		ng/L		102	60 - 135
F-53B Major	37.3	43.3		ng/L		116	60 - 135
F-53B Minor	37.7	35.8		ng/L		95	60 - 135

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*85*		*25 - 150*
13C5 PFPeA	*88*		*25 - 150*
13C2 PFHxA	*87*		*25 - 150*
13C4 PFHpA	*95*		*25 - 150*
13C4 PFOA	*99*		*25 - 150*

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

Lab Sample ID: LCS 320-481293/2-A
Matrix: Water
Analysis Batch: 481917

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 481293

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C5 PFNA	105		25 - 150
13C2 PFDA	100		25 - 150
13C2 PFUnA	108		25 - 150
13C2 PFDoA	104		25 - 150
13C2 PFTeDA	101		25 - 150
13C2 PFHxDA	98		25 - 150
13C3 PFBS	80		25 - 150
18O2 PFHxS	102		25 - 150
13C4 PFOS	93		25 - 150
13C8 FOSA	96		10 - 150
d3-NMeFOSAA	103		25 - 150
d5-NEtFOSAA	100		25 - 150
d-N-MeFOSA-M	77		10 - 150
d-N-EtFOSA-M	74		10 - 150
d7-N-MeFOSE-M	91		10 - 150
d9-N-EtFOSE-M	104		10 - 150
M2-4:2 FTS	96		25 - 150
M2-6:2 FTS	100		25 - 150
M2-8:2 FTS	114		25 - 150
13C3 HFPO-DA	85		25 - 150
13C2 10:2 FTS	93		25 - 150

Lab Sample ID: LCSD 320-481293/3-A
Matrix: Water
Analysis Batch: 481917

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 481293

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			40.0	45.1		ng/L		113	60 - 135	4	30
Perfluoropentanoic acid (PFPeA)			40.0	42.8		ng/L		107	60 - 135	0	30
Perfluorohexanoic acid (PFHxA)			40.0	46.6		ng/L		117	60 - 135	4	30
Perfluoroheptanoic acid (PFHpA)			40.0	46.7		ng/L		117	60 - 135	5	30
Perfluorooctanoic acid (PFOA)			40.0	45.3		ng/L		113	60 - 135	6	30
Perfluorononanoic acid (PFNA)			40.0	44.6		ng/L		111	60 - 135	1	30
Perfluorodecanoic acid (PFDA)			40.0	36.6		ng/L		91	60 - 135	3	30
Perfluoroundecanoic acid (PFUnA)			40.0	40.3		ng/L		101	60 - 135	9	30
Perfluorododecanoic acid (PFDoA)			40.0	47.1		ng/L		118	60 - 135	7	30
Perfluorotridecanoic acid (PFTriA)			40.0	46.2		ng/L		115	60 - 135	0	30
Perfluorotetradecanoic acid (PFTeA)			40.0	40.3		ng/L		101	60 - 135	7	30
Perfluoro-n-hexadecanoic acid (PFHxDA)			40.0	46.2		ng/L		115	60 - 135	2	30
Perfluoro-n-octadecanoic acid (PFODA)			40.0	42.6		ng/L		107	60 - 135	14	30
Perfluorobutanesulfonic acid (PFBS)			35.4	41.8		ng/L		118	60 - 135	1	30
Perfluoropentanesulfonic acid (PFPeS)			37.5	50.7		ng/L		135	60 - 135	1	30

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

Lab Sample ID: LCSD 320-481293/3-A
Matrix: Water
Analysis Batch: 481917

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 481293

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorohexanesulfonic acid (PFHxS)			36.4	36.4		ng/L		100	60 - 135	7	30
Perfluoroheptanesulfonic Acid (PFHpS)			38.1	42.4		ng/L		111	60 - 135	2	30
Perfluorooctanesulfonic acid (PFOS)			37.1	43.0		ng/L		116	60 - 135	3	30
Perfluorononanesulfonic acid (PFNS)			38.4	41.5		ng/L		108	60 - 135	1	30
Perfluorodecanesulfonic acid (PFDS)			38.6	40.3		ng/L		104	60 - 135	2	30
Perfluorododecanesulfonic acid (PFDoS)			38.7	38.2		ng/L		99	60 - 135	4	30
Perfluorooctanesulfonamide (FOSA)			40.0	44.6		ng/L		112	60 - 135	2	30
NEtFOSA			40.0	42.8		ng/L		107	60 - 135	2	30
NMeFOSA			40.0	47.3		ng/L		118	60 - 135	1	30
NMeFOSAA			40.0	37.9		ng/L		95	60 - 135	5	30
NEtFOSAA			40.0	33.9		ng/L		85	60 - 135	4	30
NMeFOSE			40.0	43.6		ng/L		109	60 - 135	1	30
NEtFOSE			40.0	43.4		ng/L		109	60 - 135	2	30
4:2 FTS			37.4	40.1		ng/L		107	60 - 135	4	30
6:2 FTS			37.9	43.0		ng/L		113	60 - 135	10	30
8:2 FTS			38.3	33.2		ng/L		87	60 - 135	0	30
10:2 FTS			38.6	34.6		ng/L		90	60 - 135	7	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)			37.7	40.3		ng/L		107	60 - 135	1	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)			40.0	43.9		ng/L		110	60 - 135	8	30
F-53B Major			37.3	42.1		ng/L		113	60 - 135	3	30
F-53B Minor			37.7	36.7		ng/L		97	60 - 135	2	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*91*		*25 - 150*
13C5 PFPeA	*94*		*25 - 150*
13C2 PFHxA	*90*		*25 - 150*
13C4 PFHpA	*101*		*25 - 150*
13C4 PFOA	*101*		*25 - 150*
13C5 PFNA	*113*		*25 - 150*
13C2 PFDA	*112*		*25 - 150*
13C2 PFUnA	*110*		*25 - 150*
13C2 PFDoA	*107*		*25 - 150*
13C2 PFTeDA	*116*		*25 - 150*
13C2 PFHxDA	*107*		*25 - 150*
13C3 PFBS	*85*		*25 - 150*
18O2 PFHxS	*105*		*25 - 150*
13C4 PFOS	*103*		*25 - 150*
13C8 FOSA	*105*		*10 - 150*
d3-NMeFOSAA	*111*		*25 - 150*
d5-NEtFOSAA	*110*		*25 - 150*
d-N-MeFOSA-M	*81*		*10 - 150*
d-N-EtFOSA-M	*82*		*10 - 150*

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

Lab Sample ID: LCSD 320-481293/3-A
Matrix: Water
Analysis Batch: 481917

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 481293

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
d7-N-MeFOSE-M	*95*		*10 - 150*
d9-N-EtFOSE-M	*113*		*10 - 150*
M2-4:2 FTS	*103*		*25 - 150*
M2-6:2 FTS	*103*		*25 - 150*
M2-8:2 FTS	*126*		*25 - 150*
13C3 HFPO-DA	*83*		*25 - 150*
13C2 10:2 FTS	*102*		*25 - 150*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 500-592858/1-A
Matrix: Water
Analysis Batch: 593148

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 592858

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.045		0.20	0.045	mg/L		04/12/21 17:37	04/13/21 18:51	1
Arsenic	<0.0037		0.010	0.0037	mg/L		04/12/21 17:37	04/13/21 18:51	1
Calcium	0.0644	J	0.20	0.053	mg/L		04/12/21 17:37	04/13/21 18:51	1
Iron	<0.082		0.20	0.082	mg/L		04/12/21 17:37	04/13/21 18:51	1
Magnesium	<0.049		0.10	0.049	mg/L		04/12/21 17:37	04/13/21 18:51	1
Manganese	<0.0023		0.010	0.0023	mg/L		04/12/21 17:37	04/13/21 18:51	1
Potassium	0.0690	J	0.50	0.066	mg/L		04/12/21 17:37	04/13/21 18:51	1
Sodium	0.137	J	1.0	0.097	mg/L		04/12/21 17:37	04/13/21 18:51	1

Lab Sample ID: MB 500-592858/1-A
Matrix: Water
Analysis Batch: 594872

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 592858

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silicon	<0.051	^1+	0.20	0.051	mg/L		04/12/21 17:37	04/23/21 12:28	1
SiO2, Silica	<0.11		0.43	0.11	mg/L		04/12/21 17:37	04/23/21 12:28	1

Lab Sample ID: LCS 500-592858/2-A
Matrix: Water
Analysis Batch: 593148

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 592858

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	2.00	1.91		mg/L		95	80 - 120
Arsenic	0.100	0.0986		mg/L		99	80 - 120
Calcium	10.0	9.59		mg/L		96	80 - 120
Iron	1.00	0.951		mg/L		95	80 - 120
Magnesium	10.0	9.33		mg/L		93	80 - 120
Manganese	0.500	0.474		mg/L		95	80 - 120
Potassium	10.0	9.49		mg/L		95	80 - 120
Sodium	10.0	9.75		mg/L		97	80 - 120

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 500-592858/2-A
Matrix: Water
Analysis Batch: 594872

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 592858

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Silicon			5.00	5.26	^1+	mg/L		105	80 - 120		

Method: 9040B - pH

Lab Sample ID: 500-197355-1 DU
Matrix: Water
Analysis Batch: 595444

Client Sample ID: HW-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	6.3	HF		6.3		SU				0.5	

Lab Sample ID: 500-197355-2 DU
Matrix: Water
Analysis Batch: 595444

Client Sample ID: HW-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	6.7	HF		6.7		SU				0.4	

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 500-595547/3
Matrix: Water
Analysis Batch: 595547

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.17		0.20	0.17	mg/L			04/28/21 08:50	1

Lab Sample ID: HLCS 500-595547/5
Matrix: Water
Analysis Batch: 595547

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

Analyte			Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			7.50	7.83	E	mg/L		104	90 - 110		

Lab Sample ID: LCS 500-595547/4
Matrix: Water
Analysis Batch: 595547

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			3.00	3.05		mg/L		102	80 - 120		

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 500-594284/3
Matrix: Water
Analysis Batch: 594284

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	<3.7		5.0	3.7	mg/L			04/20/21 11:22	1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCS 500-594284/4
Matrix: Water
Analysis Batch: 594284

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	100	98.1		mg/L		98	90 - 110

Method: 1631E Total Low Level Hg - General Subcontract Method

Lab Sample ID: F104384-BLK1
Matrix: Water
Analysis Batch: F104384

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: F104384_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.5	U	0.5		ng/L		04/22/21 00:00	04/22/21 14:11	1

Lab Sample ID: F104384-BLK2
Matrix: Water
Analysis Batch: F104384

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: F104384_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.5	U	0.5		ng/L		04/22/21 00:00	04/22/21 14:16	1

Lab Sample ID: F104384-BLK3
Matrix: Water
Analysis Batch: F104384

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: F104384_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.5	U	0.5		ng/L		04/22/21 00:00	04/22/21 14:20	1

Lab Sample ID: F104384-BLK5
Matrix: Water
Analysis Batch: F104384

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: F104384_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.5	U	0.5		ng/L		04/22/21 00:00	04/22/21 14:36	1

Lab Sample ID: F104384-BLK6
Matrix: Water
Analysis Batch: F104384

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: F104384_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.5	U	0.5		ng/L		04/22/21 00:00	04/22/21 15:10	1

Lab Sample ID: F104384-BS1
Matrix: Water
Analysis Batch: F104384

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: F104384_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	5	5.22		ng/L		104	77 - 123

Method: 1631E Total Low Level Hg - General Subcontract Method (Continued)

Lab Sample ID: F104384-BSD1
Matrix: Water
Analysis Batch: F104384

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: F104384_P

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury			5	5.45		ng/L		109	77 - 123	4.33	24

Method: Total, Inorganic & Organic Arsenic - General Subcontract Method

Lab Sample ID: F104403-BLK1
Matrix: Water
Analysis Batch: F104403

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: F104403_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.1	U	0.1		µg/L		04/30/21 07:57	04/30/21 20:03	1

Lab Sample ID: F104403-BLK2
Matrix: Water
Analysis Batch: F104403

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: F104403_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.1	U	0.1		µg/L		04/30/21 07:57	04/30/21 20:07	1

Lab Sample ID: F104403-BS1
Matrix: Water
Analysis Batch: F104403

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: F104403_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Arsenic			100	109.5		µg/L		110	80 - 120		

Lab Sample ID: F104403-BSD1
Matrix: Water
Analysis Batch: F104403

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: F104403_P

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic			100	108		µg/L		108	80 - 120	1.4	20

Lab Sample ID: F104423-BLK1
Matrix: Water
Analysis Batch: F104423

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: F104423_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Inorganic Arsenic	<0.02	U	0.02		µg/L		04/30/21 00:00	04/30/21 11:23	1

Lab Sample ID: F104423-BLK2
Matrix: Water
Analysis Batch: F104423

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: F104423_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Inorganic Arsenic	<0.02	U	0.02		µg/L		04/30/21 00:00	04/30/21 11:28	1

Method: Total, Inorganic & Organic Arsenic - General Subcontract Method (Continued)

Lab Sample ID: F104423-BS1
Matrix: Water
Analysis Batch: F104423

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: F104423_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Inorganic Arsenic	0.1	0.089		µg/L		88.8	50 - 150

Lab Sample ID: F104423-BSD1
Matrix: Water
Analysis Batch: F104423

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: F104423_P

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Inorganic Arsenic	0.1	0.087		µg/L		87	50 - 150	2.05	35

Lab Sample ID: F104427-BLK1
Matrix: Water
Analysis Batch: F104427

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: F104427_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenite (as Arsenic)	<0.02	U	0.02		µg/L		05/03/21 00:00	05/03/21 11:24	1

Lab Sample ID: F104427-BLK2
Matrix: Water
Analysis Batch: F104427

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: F104427_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenite (as Arsenic)	<0.02	U	0.02		µg/L		05/03/21 00:00	05/03/21 11:28	1

Lab Sample ID: F104427-BS1
Matrix: Water
Analysis Batch: F104427

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: F104427_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenite (as Arsenic)	0.1	0.098		µg/L		98	30 - 170

Lab Sample ID: F104427-BSD1
Matrix: Water
Analysis Batch: F104427

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: F104427_P

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenite (as Arsenic)	0.1	0.102		µg/L		102	30 - 170	3.59	35

Lab Chronicle

Client: Endpoint Solutions Corp
Project/Site: PDP HW Well Sampling 415-001-009

Job ID: 500-197355-1

Client Sample ID: HW-1

Date Collected: 04/08/21 07:44
Date Received: 04/09/21 09:30

Lab Sample ID: 500-197355-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535	DL		478540	04/12/21 04:27	EG	TAL SAC
Total/NA	Analysis	537 (modified)	DL	100	481509	04/20/21 23:46	S1M	TAL SAC
Total/NA	Prep	3535	REDL		481293	04/20/21 11:59	LN	TAL SAC
Total/NA	Analysis	537 (modified)	REDL	100	481917	04/22/21 02:58	RS1	TAL SAC
Total/NA	Prep	3535			478540	04/12/21 04:27	EG	TAL SAC
Total/NA	Analysis	537 (modified)		10	484248	04/29/21 13:35	SK	TAL SAC
Dissolved	Prep	3010A			592858	04/12/21 17:37	LMN	TAL CHI
Dissolved	Analysis	6010B		1	593148	04/13/21 20:24	JJB	TAL CHI
Dissolved	Prep	3010A			592858	04/12/21 17:37	LMN	TAL CHI
Dissolved	Analysis	6010B		50	593569	04/15/21 17:49	EEN	TAL CHI
Dissolved	Prep	3010A			592858	04/12/21 17:37	LMN	TAL CHI
Dissolved	Analysis	6010B		1	594872	04/23/21 12:45	JJB	TAL CHI
Total/NA	Prep	3010A			592858	04/12/21 17:37	LMN	TAL CHI
Total/NA	Analysis	6010B		1	593148	04/13/21 20:20	JJB	TAL CHI
Total/NA	Prep	3010A			592858	04/12/21 17:37	LMN	TAL CHI
Total/NA	Analysis	6010B		50	593569	04/15/21 17:42	EEN	TAL CHI
Total/NA	Prep	3010A			592858	04/12/21 17:37	LMN	TAL CHI
Total/NA	Analysis	6010B		1	594872	04/23/21 12:42	JJB	TAL CHI
Total/NA	Prep	3010A			592858	04/12/21 17:37	LMN	TAL CHI
Total/NA	Analysis	SM 2340B		0.1	593219	04/14/21 08:59	EEN	TAL CHI
Total/NA	Analysis	9040B		1	595444		SMO	TAL CHI
					(Start)	04/27/21 15:29		
					(End)	04/27/21 14:00		
Total/NA	Analysis	9056A		200	595547	04/28/21 10:31	EAT	TAL CHI
Total/NA	Analysis	SM 2320B		1	594284	04/20/21 12:04	SMO	TAL CHI
Total/NA	Prep	EFGS SOP2796 EPA 1631 Oxidation		1	F104384_P	04/22/21 00:00		Frontier
Total/NA	Analysis	1631E Total Low Level Hg		50	F104384	04/22/21 17:27	KG	Frontier
Total/NA	Prep	EFGS SOP2987 EPA 1632 Speciation of Waters		1	F104423_P	04/30/21 00:00		Frontier
Total/NA	Analysis	Total, Inorganic & Organic Arsenic		200000	F104423	04/30/21 13:57	MV2	Frontier
Total/NA	Prep	EFGS SOP2836 Closed Vessel Water Oven Digestion		1	F104403_P	04/30/21 07:57		Frontier
Total/NA	Analysis	Total, Inorganic & Organic Arsenic		500	F104403	05/01/21 11:27	MGS	Frontier
Total/NA	Prep	EFGS SOP2987 EPA 1632 Speciation of Waters		1	F104427_P	05/03/21 00:00		Frontier
Total/NA	Analysis	Total, Inorganic & Organic Arsenic		200000	F104427	05/03/21 14:07	MV2	Frontier

Lab Chronicle

Client: Endpoint Solutions Corp
Project/Site: PDP HW Well Sampling 415-001-009

Job ID: 500-197355-1

Client Sample ID: HW-2

Date Collected: 04/08/21 08:30
Date Received: 04/09/21 09:30

Lab Sample ID: 500-197355-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			478519	04/11/21 09:18	HJA	TAL SAC
Total/NA	Analysis	537 (modified)		50	480594	04/17/21 15:36	S1M	TAL SAC
Total/NA	Prep	3535	RE		480651	04/18/21 10:57	LN	TAL SAC
Total/NA	Analysis	537 (modified)	RE	50	480705	04/19/21 06:45	MYV	TAL SAC
Dissolved	Prep	3010A			592858	04/12/21 17:37	LMN	TAL CHI
Dissolved	Analysis	6010B		1	593148	04/13/21 20:31	JJB	TAL CHI
Dissolved	Prep	3010A			592858	04/12/21 17:37	LMN	TAL CHI
Dissolved	Analysis	6010B		100	593569	04/15/21 18:03	EEN	TAL CHI
Dissolved	Prep	3010A			592858	04/12/21 17:37	LMN	TAL CHI
Dissolved	Analysis	6010B		1	594872	04/23/21 12:52	JJB	TAL CHI
Total/NA	Prep	3010A			592858	04/12/21 17:37	LMN	TAL CHI
Total/NA	Analysis	6010B		1	593148	04/13/21 20:27	JJB	TAL CHI
Total/NA	Prep	3010A			592858	04/12/21 17:37	LMN	TAL CHI
Total/NA	Analysis	6010B		100	593569	04/15/21 17:56	EEN	TAL CHI
Total/NA	Prep	3010A			592858	04/12/21 17:37	LMN	TAL CHI
Total/NA	Analysis	6010B		1	594872	04/23/21 12:49	JJB	TAL CHI
Total/NA	Prep	3010A			592858	04/12/21 17:37	LMN	TAL CHI
Total/NA	Analysis	SM 2340B		1	593219	04/14/21 08:59	EEN	TAL CHI
Total/NA	Analysis	9040B		1	595444		SMO	TAL CHI
					(Start)	04/27/21 15:41		
					(End)	04/27/21 15:29		
Total/NA	Analysis	9056A		250	595547	04/28/21 10:44	EAT	TAL CHI
Total/NA	Analysis	SM 2320B		1	594284	04/20/21 11:53	SMO	TAL CHI
Total/NA	Prep	EFGS SOP2796 EPA 1631 Oxidation		1	F104384_P	04/22/21 00:00		Frontier
Total/NA	Analysis	1631E Total Low Level Hg		10	F104384	04/22/21 19:04	KG	Frontier
Total/NA	Prep	EFGS SOP2987 EPA 1632 Speciation of Waters		1	F104423_P	04/30/21 00:00		Frontier
Total/NA	Analysis	Total, Inorganic & Organic Arsenic		100000	F104423	04/30/21 13:43	MV2	Frontier
Total/NA	Prep	EFGS SOP2836 Closed Vessel Water Oven Digestion		1	F104403_P	04/30/21 07:57		Frontier
Total/NA	Analysis	Total, Inorganic & Organic Arsenic		500	F104403	05/01/21 11:31	MGS	Frontier
Total/NA	Prep	EFGS SOP2987 EPA 1632 Speciation of Waters		1	F104427_P	05/03/21 00:00		Frontier
Total/NA	Analysis	Total, Inorganic & Organic Arsenic		100000	F104427	05/03/21 14:12	MV2	Frontier

Lab Chronicle

Client: Endpoint Solutions Corp
Job ID: 500-197355-1
Project/Site: PDP HW Well Sampling 415-001-009

Client Sample ID: HW-1 Field Blank
Lab Sample ID: 500-197355-3
Date Collected: 04/08/21 00:00
Matrix: Water
Date Received: 04/09/21 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			478519	04/11/21 09:18	HJA	TAL SAC
Total/NA	Analysis	537 (modified)		1	480263	04/16/21 15:47	K1S	TAL SAC

Client Sample ID: HW-2 Field Blank
Lab Sample ID: 500-197355-4
Date Collected: 04/08/21 00:00
Matrix: Water
Date Received: 04/09/21 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			478519	04/11/21 09:18	HJA	TAL SAC
Total/NA	Analysis	537 (modified)		1	480263	04/16/21 15:56	K1S	TAL SAC

Laboratory References:

Frontier = Eurofins Frontier Global Sciences LLC, 5755 8th Street E, Tacoma, WA 98424

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: Endpoint Solutions Corp
Job ID: 500-197355-1
Project/Site: PDP HW Well Sampling 415-001-009

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

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

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park IL 60484
Phone 708-534 5200 Fax 708-534-5211

Chain of Custody Record

eurofins

Client Information	Sampler: Tim Hanson	Lab PM: Fredrick Sandie	Carrier Tracking No(s):	COC No: 500-90111-40277 1
Client Contact: Mr Tim Petrick	Phone: 262-527-3247	E-Mail: sandra.fredrick@eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Endpoint Solutions Corp	PWSID:	Analysis Requested		Job #: 500 - 197355
Address: 6871 S Lover's Lane	Due Date Requested:			Preservation Codes: A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorb 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
City: Franklin	TAT Requested (days):			
State, Zip: WI 53132	Compliance Project: Δ Yes Δ No			
Phone: 414-427 1200(Tel)	PO #: Purchase Order not required			
Email: tm@endpointcorporation.com	WO #:			
Project Name: PDP HW well sampling	Project #: 50018723			
Site:	SSOW#:			

500-197355 COC

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)	6010B, SM2340B	6010B Dissolved Metals (ICP) 9 elements (Filtered)	9056A Chloride	2320B, 9040B	PFC_IDA_WI_PFAS Standard List (36 Analytes)	SUBCONTRACT 1631E Total Low Level Hg	SUBCONTRACT 1631E Dissolved Low Level Hg	SUBCONTRACT Inorganic As, As III & As V	SUBCONTRACT Total Inorganic & Organic Arsenic	SUBCONTRACT Semiquantitation of MMAs & DMAs by 1632	Total Number of containers	Special Instructions/Note
			Preservation Code:				D	D	N	N	N	A	A	A	D	N		
1 HW-1	4/8/21	7.44	G	Water			X	X	X	X	X	X		X	X	X		
2 HW-2	4/8/21	8:30	G	Water			X	X	X	X	X	X		X	X	X		
3 HW-1 Field Blank				Water														added by PA
4 HW-2 Field Blank				Water														added by PA

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) call
☐ 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: 4/8/21	Company: Endpoint	Received by: Paula Burkley	Date/Time: 4/9/21 0930	Company: EPA
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) and Other Remarks: 5.8 → 5.4

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ORIGIN ID:RRLA (262) 202-5955
TIM PETRICK
ENDPOINT SOLUTIONS CORP.
6871 S. LOVERS LANE

FRANKLIN, WI 53132
UNITED STATES US

SHIP DATE: 17MAR21
ACTWGT: 25.00 LB MAN
CAD: 525155/CAFE3406

TO

TESTAMERICA CHICAGO
2417 BOND STREET

UNIVERSITY PARK IL 604843101
(708) 534-6200 REF:
INV:
PO: DEPT:

RMA

FedEx Express

FedEx
TRK# 0221 7125 4944 1627

FRI - 09 APR AA
PRIORITY OVERNIGHT

NA JOTA

60484
IL-US
ORD

FIN- 3604346 08Apr2021 GRBA 560G2/5FE2/1B23

500-197355 Wayb

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Fredrick, Sandie	Carrier Tracking No(s):	COC No: 500-147209.1
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		Job #: 500-197355-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 4/29/2021			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: PDP HW Well Sampling 415-001-009	Project #: 50018723			
Site:	SSOW#:			

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:

Analysis Requested

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)	PFC_IDA_WI/3535_PFC_28D PFAS, Standard List (36 Analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
HW-1 (500-197355-1)	4/8/21	07:44 Central		Water			X	2	
HW-2 (500-197355-2)	4/8/21	08:30 Central		Water			X	2	
HW-1 Field Blank (500-197355-3)	4/8/21	Central		Water			X	1	
HW-2 Field Blank (500-197355-4)	4/8/21	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
1	[signature]	4/9/21 1630	ETA	[signature]	4-10-21	ETASAL
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: 1443523	Cooler Temperature(s) °C and Other Remarks: 1.3

* Discoloration PH 4/16/21

Ver: 11/01/2020

Login Sample Receipt Checklist

Client: Endpoint Solutions Corp

Job Number: 500-197355-1

Login Number: 197355
List Number: 1
Creator: Buckley, Paula M

List Source: Eurofins TestAmerica, Chicago

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	5.4
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.	False	Received extra samples not listed on COC.
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	

Login Sample Receipt Checklist

Client: Endpoint Solutions Corp

Job Number: 500-197355-1

Login Number: 197355
List Number: 2
Creator: Her, David A

List Source: Eurofins TestAmerica, Sacramento
List Creation: 04/10/21 12:25 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	1443523
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	1.3c
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?	False	Received project as a subcontract.
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	

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Sacramento
Sample Receiving Notes

500-197355 Field Sheet

Job:

Tracking # : 1893 4451 5017

SO / PO / FO / SAT / 2-Day / Ground / UPS / CDO / Courier
GSO / OnTrac / Goldstreak / USPS / Other

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations.
File in the job folder with the COC.

Therm. ID: L-02 Corr. Factor: (+ / -) N/A °C

Ice ✓ Wet ✓ Gel ____ Other ____

Cooler Custody Seal: 1443523

Cooler ID: —

Temp Observed: 1.3 °C Corrected: 1.3 °C

From: Temp Blank ☐ Sample ☑

Opening/Processing The Shipment	Yes	No	NA
Cooler compromised/tampered with?	☐	☑	☐
Cooler Temperature is acceptable?	☑	☐	☐
Frozen samples show signs of thaw?	☐	☐	☑

Initials: NC Date: 4-10-21

Unpacking/Labeling The Samples	Yes	No	NA
CoC is complete w/o discrepancies?	☑	☐	☐
Samples compromised/tampered with?	☐	☑	☐
Sample containers have legible labels?	☑	☐	☐
Sample custody seal?	☐	☐	☑
Containers are not broken or leaking?	☑	☐	☐
Sample date/times are provided?	☑	☐	☐
Appropriate containers are used?	☑	☐	☐
Sample bottles are completely filled?	☑	☐	☐
Sample preservatives verified?	☑	☐	☐
Samples w/o discrepancies?	☐	☐	☑
Zero headspace?*	☑ 4/10/21	☐	☑
Alkalinity has no headspace?	☐	☐	☑
Perchlorate has headspace? (Methods 314, 331, 6850)	☐	☐	☑
Multiphasic samples are not present?	☑	☐	☐

*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")

Initials: DK Date: 4/10/21

Notes:

Trizma Lot #(s):

Login Completion	Yes	No	NA
Receipt Temperature on COC?	☑	☐	☐
Samples received within hold time?	☑	☐	☐
NCM Filed?	☐	☐	☑
Log Release checked in TALS?	☑	☐	☐

Initials: DK Date: 4/10/21


TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
ORIGIN ID:JOTA (708) 534-5200
SAMPLE LOGIN
TESTAMERICA LABS
2417 BOND ST
UNIVERSITY PARK, IL 60484
UNITED STATES US
SHIP DATE: 09APR21
ACTWGT: 60.00 LB MAN
CAD: 033264/CAFE3409
BILL SENDER
TO SAMPLE RECEIPT
TESTAMERICA
880 RIVERSIDE PKWY
WEST SACRAMENTO CA 95605
(916) 373-6600
REF: PB 340 355 379 389
FedEx
Express
TRK# 0201 1893 4451 5067
SATURDAY 12:00P
PRIORITY OVERNIGHT
XO BLUA
95605
CA-US SMF
eurofins
Environment Testing
TestAmerica
1443523
Custody Seal
SIGNATURE
DATE

Isotope Dilution Summary

Client: Endpoint Solutions Corp
Job ID: 500-197355-1
Project/Site: PDP HW Well Sampling 415-001-009

Method: 537 (modified) - Fluorinated Alkyl Substances

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

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFHxDA (25-150)							
500-197355-1 - DL	HW-1	23 *5-							

Surrogate Legend

PFHxDA = 13C2 PFHxDA

Method: 537 (modified) - Fluorinated Alkyl Substances

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

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)					
500-197355-1 - REDL	HW-1	35	136	59					
500-197355-2 - RE	HW-2		92	41					

Surrogate Legend

M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS

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)
500-197355-1	HW-1	53	76	95	102	90	103	93	57
LCS 320-478540/2-A	Lab Control Sample	84	89	99	99	96	101	96	101
LCSD 320-478540/3-A	Lab Control Sample Dup	78	89	93	90	93	99	92	96
MB 320-478540/1-A	Method Blank	75	84	89	88	86	94	89	90

		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 (10-150)	d3NMFOS (25-150)
500-197355-1	HW-1	27	19 *5-		101	102	94	62	61
LCS 320-478540/2-A	Lab Control Sample	95	103	94	93	101	103	94	111
LCSD 320-478540/3-A	Lab Control Sample Dup	97	101	94	92	95	98	105	113
MB 320-478540/1-A	Method Blank	95	93	90	88	93	95	96	106

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	d5NEFOS (25-150)	dMeFOSA (10-150)	dEtFOSA (10-150)	NMFM (10-150)	NEFM (10-150)	M242FTS (25-150)	HFPODA (25-150)	M102FTS (25-150)
500-197355-1	HW-1	63	26	34	27	36		89	64
LCS 320-478540/2-A	Lab Control Sample	111	75	82	88	96		100	92
LCSD 320-478540/3-A	Lab Control Sample Dup	113	68	80	93	93		84	94
MB 320-478540/1-A	Method Blank	105	68	80	94	88		80	85

Surrogate Legend

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

Isotope Dilution Summary

Client: Endpoint Solutions Corp
Job ID: 500-197355-1
Project/Site: PDP HW Well Sampling 415-001-009

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
HFPODA = 13C3 HFPO-DA
M102FTS = 13C2 10:2 FTS

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)
500-197355-2	HW-2	76	82	89	89	93	94	89	89
500-197355-3	HW-1 Field Blank	71	77	92	83	81	89	86	92
500-197355-4	HW-2 Field Blank	77	82	93	92	84	91	88	93
LCS 320-478519/2-A	Lab Control Sample	79	87	97	93	85	91	88	94
LCS 320-480651/2-A	Lab Control Sample	82	76	79	77	82	90	83	74
LCS 320-481293/2-A	Lab Control Sample	85	88	87	95	99	105	100	108
LCSD 320-478519/3-A	Lab Control Sample Dup	73	81	91	84	87	90	83	89
LCSD 320-480651/3-A	Lab Control Sample Dup	75	69	74	71	76	78	70	62
LCSD 320-481293/3-A	Lab Control Sample Dup	91	94	90	101	101	113	112	110
MB 320-478519/1-A	Method Blank	73	84	85	86	88	90	89	88
MB 320-480651/1-A	Method Blank	65	66	67	61	72	74	69	60
MB 320-481293/1-A	Method Blank	84	92	87	98	97	109	101	109

		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 (10-150)	d3NMFOS (25-150)
500-197355-2	HW-2	61	39	26	87	92	81	89	94
500-197355-3	HW-1 Field Blank	90	93	88	78	88	90	90	106
500-197355-4	HW-2 Field Blank	90	92	84	83	92	95	92	110
LCS 320-478519/2-A	Lab Control Sample	89	92	88	87	91	93	89	106
LCS 320-480651/2-A	Lab Control Sample	75	83	79	63	88	84	77	89
LCS 320-481293/2-A	Lab Control Sample	104	101	98	80	102	93	96	103
LCSD 320-478519/3-A	Lab Control Sample Dup	88	94	85	86	86	90	91	106
LCSD 320-480651/3-A	Lab Control Sample Dup	64	76	73	62	74	72	72	72
LCSD 320-481293/3-A	Lab Control Sample Dup	107	116	107	85	105	103	105	111
MB 320-478519/1-A	Method Blank	89	95	91	82	92	88	92	113
MB 320-480651/1-A	Method Blank	58	66	69	53	67	67	67	65
MB 320-481293/1-A	Method Blank	114	108	102	78	97	97	99	109

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	d5NEFOS (25-150)	dMeFOSA (10-150)	dEtFOSA (10-150)	NMFM (10-150)	NEFM (10-150)	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)
500-197355-2	HW-2	109	55	48	63	63	171 *5+		
500-197355-3	HW-1 Field Blank	104	77	75	84	83	91	69	66

Isotope Dilution Summary

Client: Endpoint Solutions Corp
Job ID: 500-197355-1
Project/Site: PDP HW Well Sampling 415-001-009

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

Matrix: Water
Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	d5NEFOS (25-150)	dMeFOSA (10-150)	dEtFOSA (10-150)	NMFM (10-150)	NEFM (10-150)	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)
500-197355-4	HW-2 Field Blank	104	76	84	82	88	98	69	62
LCS 320-478519/2-A	Lab Control Sample	108	71	80	81	84	92	78	64
LCS 320-480651/2-A	Lab Control Sample	78	60	59	64	61	54	71	93
LCS 320-481293/2-A	Lab Control Sample	100	77	74	91	104	96	100	114
LCSD 320-478519/3-A	Lab Control Sample Dup	102	70	74	83	86	88	69	64
LCSD 320-480651/3-A	Lab Control Sample Dup	71	59	59	57	57	50	62	59
LCSD 320-481293/3-A	Lab Control Sample Dup	110	81	82	95	113	103	103	126
MB 320-478519/1-A	Method Blank	104	69	77	84	89	87	69	61
MB 320-480651/1-A	Method Blank	64	51	49	53	58	45	52	63
MB 320-481293/1-A	Method Blank	104	70	70	98	98	91	103	114

		Percent Isotope Dilution Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	HFPODA (25-150)	M102FTS (25-150)
500-197355-2	HW-2	70	84
500-197355-3	HW-1 Field Blank	78	94
500-197355-4	HW-2 Field Blank	89	91
LCS 320-478519/2-A	Lab Control Sample	85	86
LCS 320-480651/2-A	Lab Control Sample	74	67
LCS 320-481293/2-A	Lab Control Sample	85	93
LCSD 320-478519/3-A	Lab Control Sample Dup	78	85
LCSD 320-480651/3-A	Lab Control Sample Dup	64	61
LCSD 320-481293/3-A	Lab Control Sample Dup	83	102
MB 320-478519/1-A	Method Blank	78	89
MB 320-480651/1-A	Method Blank	58	62
MB 320-481293/1-A	Method Blank	77	105

Surrogate Legend

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

Isotope Dilution Summary

Client: Endpoint Solutions Corp
Job ID: 500-197355-1
Project/Site: PDP HW Well Sampling 415-001-009

M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
M102FTS = 13C2 10:2 FTS

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ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-198381-1
Client Project/Site: PDP HW Well Sampling 415-001-009
Revision: 1

For:
Endpoint Solutions Corp
6871 S. Lover's Lane
Franklin, Wisconsin 53132

Attn: Mr. Tim Petrick

Sandie Fredrick

Authorized for release by:
5/25/2021 8:19:46 PM

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

Table of Contents

Job ID: 500-198381-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative
500-198381-1

Comments
No additional comments.

Receipt
The samples were received on 4/29/2021 10:15 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.1º C.

Receipt Exceptions
Method 537 (modified): The following sample(s) was listed on the Chain of Custody (COC); however, no sample(s) was received- Received two samples with ID HW-1 Field Blank and HW-2 Field Blank. Added to COC as samples 3 and 4 and logged for PFAS per container label.

Samples 198381-A-1 and 198381-B1 show discoloration. HW-1 (500-198381-1)

Metals
Method 6010B: The Initial calibration verification (ICV) in AD 500-596622 was above control limits for Si. The affected samples HW-1 (500-198381-1) and HW-2 (500-198381-2) were all bracketed by continuing calibration verifications (CCV) which were within control limits. Low level QC also ran in this batch and not required by this particular method were also within control limits for Si. All sample data has been qualified and reported.

Method 6010B: The continuing calibration verification (CCV) at line 13 was outside the control limits for Silicon bracketing the method blank (MB) and laboratory control sample (LCS). The MB and LCS was within the method control limits. The associated sample HW-1 (500-198381-1) and HW-2 (500-198381-2) was bracketed with continuing calibration verifications that were within control limits, therefore the data has been reported.

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

LCMS
Method 537 (modified): The "I" qualifier means the transition mass ratio for the indicated analytes was outside of the established ratio limits. The qualitative identification of the analytes has some degree of uncertainty, and the reported values may have some high bias. However, analyst judgment was used to positively identify the analytes. (CCVL 320-487411/2)

Method 537 (modified): The "I" qualifier means the transition mass ratio for the indicated analyte was outside of the established ratio limit. The qualitative identification of the analyte has some degree of uncertainty, and the reported value may have some high bias. However, analyst judgment was used to positively identify the analyte. (CCB 320-487759/1)

Method 537 (modified): Results for samples HW-1 (500-198381-1) and HW-2 (500-198381-2) were reported from the analysis of a diluted extract due to matrix interference 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

Method 537 (modified): The matrix spike / matrix spike duplicate (MS/MSD) recoveries for Perfluorooctanesulfonamide (FOSA) of preparation batch 320-489123 and analytical batch 320-489455 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

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

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

Job ID: 500-198381-1 (Continued)

Laboratory: Eurofins TestAmerica, Chicago (Continued)

Subcontract non-Sister
See attached subcontract report.

Organic Prep
Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-486403. Method: 3535_PFC Matrix: Water

Method 3535: The following samples were observed to be dark brown prior to extraction: HW-1 (500-198381-1). Method: 3535_PFC Matrix: Water preparation batch 320-486403

Method 3535: The following samples were observed to be yellow at final volume: HW-1 (500-198381-1) and HW-2 (500-198381-2). Method: 3535_PFC Matrix: Water preparation batch 320-486403

Method 3535: During the solid phase extraction process, the following samples contain non-settable particulates which clogged the solid phase extraction column: HW-1 (500-198381-1). Method: 3535_PFC Matrix: Water preparation batch 320-486403

Method 3535: The following samples contain a thin layer of sediments at the bottom of the bottles prior to extraction: HW-2 (500-198381-2). Method Code:3535 PFC Matrix:Water preparation batch 320-489123

Method 3535: The following sample was black prior to extraction:HW-1 (500-198381-1). Method Code:3535 PFC Matrix:Water preparation batch 320-489123

Method 3535: Due to the matrix ,the initial volumes used for the following sample deviated from the standard procedure: HW-1 (500-198381-1) and HW-2 (500-198381-2). A 100x dilution was made on the sample, then fortified with IDA and extracted. The reporting limits (RL's) have been adjusted proportionately. Method Code:3535 PFC Matrix:Water preparation batch 320-489123

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

Subcontract Work
Methods 1631E Dissolved Low Level Hg, 1631E Total Low Level Hg, Inorganic As, As III & As V, Semiquantitation of MMAs & DMAs by 1632, Total, Inorganic & Organic Arsenic: These methods were subcontracted to Eurofins Frontier Global Sciences LLC. The subcontract laboratory certifications are different from that of the facility issuing the final report.

Detection Summary

Client: Endpoint Solutions Corp
Job ID: 500-198381-1
Project/Site: PDP HW Well Sampling 415-001-009

Client Sample ID: HW-1
Lab Sample ID: 500-198381-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	450		83	40	ng/L	20		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	2700		33	8.1	ng/L	20		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1800		33	9.6	ng/L	20		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	850		33	4.1	ng/L	20		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	830		33	14	ng/L	20		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	20	J	33	4.5	ng/L	20		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	21	J	33	9.4	ng/L	20		537 (modified)	Total/NA
4:2 FTS - RE	58	J	200	24	ng/L	1		537 (modified)	Total/NA
6:2 FTS - RE	11000		500	250	ng/L	1		537 (modified)	Total/NA
8:2 FTS - RE	300		200	46	ng/L	1		537 (modified)	Total/NA
Aluminum	2.3		0.20	0.045	mg/L	1		6010B	Total/NA
Arsenic	410	V F2	5.0	1.8	mg/L	500		6010B	Total/NA
Calcium	160		0.20	0.053	mg/L	1		6010B	Total/NA
Iron	43		0.20	0.082	mg/L	1		6010B	Total/NA
Magnesium	41		0.10	0.049	mg/L	1		6010B	Total/NA
Manganese	1.7		0.010	0.0023	mg/L	1		6010B	Total/NA
Potassium	14		0.50	0.066	mg/L	1		6010B	Total/NA
Silicon	16		0.20	0.051	mg/L	1		6010B	Total/NA
SiO2, Silica	35		0.43	0.11	mg/L	1		6010B	Total/NA
Sodium	1100	V	5.0	0.49	mg/L	5		6010B	Total/NA
Aluminum	1.2		0.20	0.045	mg/L	1		6010B	Dissolved
Arsenic	290		5.0	1.8	mg/L	500		6010B	Dissolved
Calcium	170		0.20	0.053	mg/L	1		6010B	Dissolved
Iron	32		0.20	0.082	mg/L	1		6010B	Dissolved
Magnesium	58		0.10	0.049	mg/L	1		6010B	Dissolved
Manganese	1.7		0.010	0.0023	mg/L	1		6010B	Dissolved
Potassium	16		0.50	0.066	mg/L	1		6010B	Dissolved
Silicon	14	^1+	0.20	0.051	mg/L	1		6010B	Dissolved
SiO2, Silica	30		0.43	0.11	mg/L	1		6010B	Dissolved
Sodium	1100		5.0	0.49	mg/L	5		6010B	Dissolved
Hardness as calcium carbonate	570		0.91	0.46	mg/L	1		SM 2340B	Total/NA
pH	6.6	HF	0.2	0.2	SU	1		9040B	Total/NA
Chloride	650		40	34	mg/L	200		9056A	Total/NA
Alkalinity	760		5.0	3.7	mg/L	1		SM 2320B	Total/NA
Mercury	1000		25		ng/L	50		1631E Total Low Level Hg	Total/NA
Arsenite (as Arsenic)	104000		40000		µg/L	2000000		Inorganic As, As III & As V	Total/NA
Arsenic	329000		100		µg/L	1000		Total, Inorganic & Organic Arsenic	Total/NA
Inorganic Arsenic	105000		40000		µg/L	2000000		Total, Inorganic & Organic Arsenic	Total/NA
Organic Arsenic	224000		40100		µg/L	2000000		Total, Inorganic & Organic Arsenic	Total/NA

Client Sample ID: HW-2
Lab Sample ID: 500-198381-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	650		100	50	ng/L	20		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	2900		42	10	ng/L	20		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Detection Summary

Client: Endpoint Solutions Corp
Job ID: 500-198381-1
Project/Site: PDP HW Well Sampling 415-001-009

Client Sample ID: HW-2 (Continued)
Lab Sample ID: 500-198381-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA)	2000		42	12	ng/L	20		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	920		42	5.2	ng/L	20		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	520		42	18	ng/L	20		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	33	J	42	5.7	ng/L	20		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	24	J	42	12	ng/L	20		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	62		42	11	ng/L	20		537 (modified)	Total/NA
4:2 FTS	79		42	5.0	ng/L	20		537 (modified)	Total/NA
8:2 FTS	310		42	9.6	ng/L	20		537 (modified)	Total/NA
6:2 FTS - RE	8700		500	250	ng/L	1		537 (modified)	Total/NA
Aluminum	0.27		0.20	0.045	mg/L	1		6010B	Total/NA
Arsenic	49		5.0	1.8	mg/L	500		6010B	Total/NA
Calcium	230		0.20	0.053	mg/L	1		6010B	Total/NA
Iron	19		0.20	0.082	mg/L	1		6010B	Total/NA
Magnesium	110		0.10	0.049	mg/L	1		6010B	Total/NA
Manganese	2.0		0.010	0.0023	mg/L	1		6010B	Total/NA
Potassium	22		0.50	0.066	mg/L	1		6010B	Total/NA
Silicon	11		0.20	0.051	mg/L	1		6010B	Total/NA
SiO2, Silica	24		0.43	0.11	mg/L	1		6010B	Total/NA
Sodium	1000		5.0	0.49	mg/L	5		6010B	Total/NA
Aluminum	0.074	J	0.20	0.045	mg/L	1		6010B	Dissolved
Arsenic	46		0.50	0.18	mg/L	50		6010B	Dissolved
Calcium	220		0.20	0.053	mg/L	1		6010B	Dissolved
Iron	17		0.20	0.082	mg/L	1		6010B	Dissolved
Magnesium	100		0.10	0.049	mg/L	1		6010B	Dissolved
Manganese	2.0		0.010	0.0023	mg/L	1		6010B	Dissolved
Potassium	21		0.50	0.066	mg/L	1		6010B	Dissolved
Silicon	10	^1+	0.20	0.051	mg/L	1		6010B	Dissolved
SiO2, Silica	22		0.43	0.11	mg/L	1		6010B	Dissolved
Sodium	860		1.0	0.097	mg/L	1		6010B	Dissolved
Hardness as calcium carbonate	1000		0.91	0.46	mg/L	1		SM 2340B	Total/NA
pH	6.7	HF	0.2	0.2	SU	1		9040B	Total/NA
Chloride	1100		50	43	mg/L	250		9056A	Total/NA
Alkalinity	790		5.0	3.7	mg/L	1		SM 2320B	Total/NA
Mercury	62.9		25		ng/L	50		1631E Total Low Level Hg	Total/NA
Arsenite (as Arsenic)	9140		2000		µg/L	100000		Inorganic As, As III & As V	Total/NA
Arsenate (as Arsenic)	14900		2000	1380	µg/L	100000		Semiquantitation of MMAs & DMAs by 1632	Total/NA
Arsenic	45000		100		µg/L	1000		Total, Inorganic & Organic Arsenic	Total/NA
Inorganic Arsenic	24100		2000		µg/L	100000		Total, Inorganic & Organic Arsenic	Total/NA
Organic Arsenic	20900		2100		µg/L	100000		Total, Inorganic & Organic Arsenic	Total/NA

Client Sample ID: HW-1 Field Blank
Lab Sample ID: 500-198381-3

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Detection Summary

Client: Endpoint Solutions Corp
Job ID: 500-198381-1
Project/Site: PDP HW Well Sampling 415-001-009

Client Sample ID: HW-2 Field Blank
Lab Sample ID: 500-198381-4

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Endpoint Solutions Corp
Job ID: 500-198381-1
Project/Site: PDP HW Well Sampling 415-001-009

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC
6010B	Metals (ICP)	SW846	TAL CHI
SM 2340B	Total Hardness (as CaCO3) by calculation	SM	TAL CHI
9040B	pH	SW846	TAL CHI
9056A	Anions, Ion Chromatography	SW846	TAL CHI
SM 2320B	Alkalinity	SM	TAL CHI
Subcontract	1631E Dissolved Low Level Hg	None	Frontier
Subcontract	1631E Total Low Level Hg	None	Frontier
Subcontract	Inorganic As, As III & As V	None	Frontier
Subcontract	Semiquantitation of MMAs & DMAs by 1632	None	Frontier
Subcontract	Total, Inorganic & Organic Arsenic	None	Frontier
3010A	Preparation, Total Metals	SW846	TAL CHI
3535	Solid-Phase Extraction (SPE)	SW846	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency
None = None
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:

Frontier = Eurofins Frontier Global Sciences LLC, 5755 8th Street E, Tacoma, WA 98424
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: Endpoint Solutions Corp
Project/Site: PDP HW Well Sampling 415-001-009

Job ID: 500-198381-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-198381-1	HW-1	Water	04/24/21 09:00	04/29/21 10:15	
500-198381-2	HW-2	Water	04/24/21 09:30	04/29/21 10:15	
500-198381-3	HW-1 Field Blank	Water	04/24/21 09:00	04/29/21 10:15	
500-198381-4	HW-2 Field Blank	Water	04/24/21 09:30	04/29/21 10:15	

Client: Endpoint Solutions Corp
Project/Site: PDP HW Well Sampling 415-001-009

Job ID: 500-198381-1

Client Sample ID: HW-1
Date Collected: 04/24/21 09:00
Date Received: 04/29/21 10:15

Lab Sample ID: 500-198381-1
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**450**		83	40	ng/L		05/05/21 19:54	05/11/21 11:07	20
Perfluoropentanoic acid (PFPeA)	**2700**		33	8.1	ng/L		05/05/21 19:54	05/11/21 11:07	20
Perfluorohexanoic acid (PFHxA)	**1800**		33	9.6	ng/L		05/05/21 19:54	05/11/21 11:07	20
Perfluoroheptanoic acid (PFHpA)	**850**		33	4.1	ng/L		05/05/21 19:54	05/11/21 11:07	20
Perfluorooctanoic acid (PFOA)	**830**		33	14	ng/L		05/05/21 19:54	05/11/21 11:07	20
Perfluorononanoic acid (PFNA)	**20**	**J**	33	4.5	ng/L		05/05/21 19:54	05/11/21 11:07	20
Perfluorodecanoic acid (PFDA)	<5.1		33	5.1	ng/L		05/05/21 19:54	05/11/21 11:07	20
Perfluoroundecanoic acid (PFUnA)	<18		33	18	ng/L		05/05/21 19:54	05/11/21 11:07	20
Perfluorododecanoic acid (PFDoA)	<9.1		33	9.1	ng/L		05/05/21 19:54	05/11/21 11:07	20
Perfluorotridecanoic acid (PFTriA)	<22		33	22	ng/L		05/05/21 19:54	05/11/21 11:07	20
Perfluoro-n-octadecanoic acid (PFODA)	<16		33	16	ng/L		05/05/21 19:54	05/11/21 11:07	20
Perfluorobutanesulfonic acid (PFBS)	<3.3		33	3.3	ng/L		05/05/21 19:54	05/11/21 11:07	20
Perfluoropentanesulfonic acid (PFPeS)	<5.0		33	5.0	ng/L		05/05/21 19:54	05/11/21 11:07	20
Perfluorohexanesulfonic acid (PFHxS)	**21**	**J**	33	9.4	ng/L		05/05/21 19:54	05/11/21 11:07	20
Perfluoroheptanesulfonic Acid (PFHpS)	<3.1		33	3.1	ng/L		05/05/21 19:54	05/11/21 11:07	20
Perfluorooctanesulfonic acid (PFOS)	<8.9		33	8.9	ng/L		05/05/21 19:54	05/11/21 11:07	20
Perfluorononanesulfonic acid (PFNS)	<6.1		33	6.1	ng/L		05/05/21 19:54	05/11/21 11:07	20
Perfluorodecanesulfonic acid (PFDS)	<5.3		33	5.3	ng/L		05/05/21 19:54	05/11/21 11:07	20
Perfluorododecanesulfonic acid (PFDoS)	<16		33	16	ng/L		05/05/21 19:54	05/11/21 11:07	20
Perfluorooctanesulfonamide (FOSA)	<16		33	16	ng/L		05/05/21 19:54	05/11/21 11:07	20
NEtFOSA	<14		33	14	ng/L		05/05/21 19:54	05/11/21 11:07	20
NMeFOSA	<7.1		33	7.1	ng/L		05/05/21 19:54	05/11/21 11:07	20
NMeFOSAA	<20		83	20	ng/L		05/05/21 19:54	05/11/21 11:07	20
NEtFOSAA	<22		83	22	ng/L		05/05/21 19:54	05/11/21 11:07	20
NMeFOSE	<23		66	23	ng/L		05/05/21 19:54	05/11/21 11:07	20
NEtFOSE	<14		33	14	ng/L		05/05/21 19:54	05/11/21 11:07	20
10:2 FTS	<11		33	11	ng/L		05/05/21 19:54	05/11/21 11:07	20
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<6.6		33	6.6	ng/L		05/05/21 19:54	05/11/21 11:07	20
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<25		66	25	ng/L		05/05/21 19:54	05/11/21 11:07	20
F-53B Major	<4.0		33	4.0	ng/L		05/05/21 19:54	05/11/21 11:07	20
F-53B Minor	<5.3		33	5.3	ng/L		05/05/21 19:54	05/11/21 11:07	20

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*77*		*25 - 150*	*05/05/21 19:54*	*05/11/21 11:07*	*20*
13C5 PFPeA	*66*		*25 - 150*	*05/05/21 19:54*	*05/11/21 11:07*	*20*
13C2 PFHxA	*71*		*25 - 150*	*05/05/21 19:54*	*05/11/21 11:07*	*20*
13C4 PFHpA	*68*		*25 - 150*	*05/05/21 19:54*	*05/11/21 11:07*	*20*
13C4 PFOA	*79*		*25 - 150*	*05/05/21 19:54*	*05/11/21 11:07*	*20*
13C5 PFNA	*84*		*25 - 150*	*05/05/21 19:54*	*05/11/21 11:07*	*20*
13C2 PFDA	*90*		*25 - 150*	*05/05/21 19:54*	*05/11/21 11:07*	*20*
13C2 PFUnA	*82*		*25 - 150*	*05/05/21 19:54*	*05/11/21 11:07*	*20*
13C2 PFDoA	*56*		*25 - 150*	*05/05/21 19:54*	*05/11/21 11:07*	*20*
13C3 PFBS	*93*		*25 - 150*	*05/05/21 19:54*	*05/11/21 11:07*	*20*
18O2 PFHxS	*71*		*25 - 150*	*05/05/21 19:54*	*05/11/21 11:07*	*20*
13C4 PFOS	*83*		*25 - 150*	*05/05/21 19:54*	*05/11/21 11:07*	*20*

Client Sample ID: HW-1
Lab Sample ID: 500-198381-1

Date Collected: 04/24/21 09:00
Matrix: Water
Date Received: 04/29/21 10:15

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	81		10 - 150	05/05/21 19:54	05/11/21 11:07	20
d3-NMeFOSAA	92		25 - 150	05/05/21 19:54	05/11/21 11:07	20
d5-NEtFOSAA	83		25 - 150	05/05/21 19:54	05/11/21 11:07	20
d-N-MeFOSA-M	65		10 - 150	05/05/21 19:54	05/11/21 11:07	20
d-N-EtFOSA-M	49		10 - 150	05/05/21 19:54	05/11/21 11:07	20
d7-N-MeFOSE-M	68		10 - 150	05/05/21 19:54	05/11/21 11:07	20
d9-N-EtFOSE-M	48		10 - 150	05/05/21 19:54	05/11/21 11:07	20
13C3 HFPO-DA	61		25 - 150	05/05/21 19:54	05/11/21 11:07	20
13C2 10:2 FTS	99		25 - 150	05/05/21 19:54	05/11/21 11:07	20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorotetradecanoic acid (PFTeA)	<73		200	73	ng/L		05/14/21 13:12	05/15/21 21:56	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<89		200	89	ng/L		05/14/21 13:12	05/15/21 21:56	1
4:2 FTS	**58**	**J**	200	24	ng/L		05/14/21 13:12	05/15/21 21:56	1
6:2 FTS	**11000**		500	250	ng/L		05/14/21 13:12	05/15/21 21:56	1
8:2 FTS	**300**		200	46	ng/L		05/14/21 13:12	05/15/21 21:56	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFTeDA	46		25 - 150	05/14/21 13:12	05/15/21 21:56	1
13C2 PFHxDA	33		25 - 150	05/14/21 13:12	05/15/21 21:56	1
M2-4:2 FTS	51		25 - 150	05/14/21 13:12	05/15/21 21:56	1
M2-6:2 FTS	70		25 - 150	05/14/21 13:12	05/15/21 21:56	1
M2-8:2 FTS	60		25 - 150	05/14/21 13:12	05/15/21 21:56	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**2.3**		0.20	0.045	mg/L		05/04/21 08:27	05/05/21 18:29	1
Arsenic	**410**	**V F2**	5.0	1.8	mg/L		05/04/21 08:27	05/10/21 13:53	500
Calcium	**160**		0.20	0.053	mg/L		05/04/21 08:27	05/05/21 18:29	1
Iron	**43**		0.20	0.082	mg/L		05/04/21 08:27	05/05/21 18:29	1
Magnesium	**41**		0.10	0.049	mg/L		05/04/21 08:27	05/05/21 18:29	1
Manganese	**1.7**		0.010	0.0023	mg/L		05/04/21 08:27	05/05/21 18:29	1
Potassium	**14**		0.50	0.066	mg/L		05/04/21 08:27	05/05/21 18:29	1
Silicon	**16**		0.20	0.051	mg/L		05/04/21 08:27	05/14/21 14:23	1
SiO2, Silica	**35**		0.43	0.11	mg/L		05/04/21 08:27	05/14/21 14:23	1
Sodium	**1100**	**V**	5.0	0.49	mg/L		05/04/21 08:27	05/10/21 13:49	5

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**1.2**		0.20	0.045	mg/L		05/04/21 08:27	05/05/21 18:58	1
Arsenic	**290**		5.0	1.8	mg/L		05/04/21 08:27	05/10/21 14:49	500
Calcium	**170**		0.20	0.053	mg/L		05/04/21 08:27	05/05/21 18:58	1
Iron	**32**		0.20	0.082	mg/L		05/04/21 08:27	05/05/21 18:58	1
Magnesium	**58**		0.10	0.049	mg/L		05/04/21 08:27	05/05/21 18:58	1
Manganese	**1.7**		0.010	0.0023	mg/L		05/04/21 08:27	05/05/21 18:58	1
Potassium	**16**		0.50	0.066	mg/L		05/04/21 08:27	05/05/21 18:58	1
Silicon	**14**	**^1+**	0.20	0.051	mg/L		05/04/21 08:27	05/05/21 18:58	1
SiO2, Silica	**30**		0.43	0.11	mg/L		05/04/21 08:27	05/05/21 18:58	1
Sodium	**1100**		5.0	0.49	mg/L		05/04/21 08:27	05/10/21 14:42	5

Client: Endpoint Solutions Corp
Project/Site: PDP HW Well Sampling 415-001-009

Job ID: 500-198381-1

Client Sample ID: HW-1

Date Collected: 04/24/21 09:00
Date Received: 04/29/21 10:15

Lab Sample ID: 500-198381-1

Matrix: Water

Method: SM 2340B - Total Hardness (as CaCO3) by calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	570		0.91	0.46	mg/L		05/04/21 08:27	05/11/21 08:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.6	HF	0.2	0.2	SU			05/05/21 15:59	1
Chloride	650		40	34	mg/L			05/19/21 07:49	200
Alkalinity	760		5.0	3.7	mg/L			05/08/21 12:29	1

Method: 1631E Total Low Level Hg - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1000		25		ng/L		05/17/21 00:00	05/17/21 12:30	50

Method: Inorganic As, As III & As V - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenite (as Arsenic)	104000		40000		µg/L		05/11/21 00:00	05/11/21 13:51	2000000

Method: Semiquantitation of MMAs & DMAs by 1632 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenate (as Arsenic)	<27600	U	40000	27600	µg/L		05/11/21 00:00	05/11/21 13:51	2000000

Method: Total, Inorganic & Organic Arsenic - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	329000		100		µg/L		04/30/21 07:57	05/01/21 04:03	1000
Inorganic Arsenic	105000		40000		µg/L		05/04/21 00:00	05/04/21 14:52	2000000
Organic Arsenic	224000		40100		µg/L		05/04/21 00:00	05/04/21 14:52	2000000

Client: Endpoint Solutions Corp
Project/Site: PDP HW Well Sampling 415-001-009

Job ID: 500-198381-1

Client Sample ID: HW-2

Date Collected: 04/24/21 09:30
Date Received: 04/29/21 10:15

Lab Sample ID: 500-198381-2

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**650**		100	50	ng/L		05/05/21 19:54	05/11/21 11:25	20
Perfluoropentanoic acid (PFPeA)	**2900**		42	10	ng/L		05/05/21 19:54	05/11/21 11:25	20
Perfluorohexanoic acid (PFHxA)	**2000**		42	12	ng/L		05/05/21 19:54	05/11/21 11:25	20
Perfluoroheptanoic acid (PFHpA)	**920**		42	5.2	ng/L		05/05/21 19:54	05/11/21 11:25	20
Perfluorooctanoic acid (PFOA)	**520**		42	18	ng/L		05/05/21 19:54	05/11/21 11:25	20
Perfluorononanoic acid (PFNA)	**33**	**J**	42	5.7	ng/L		05/05/21 19:54	05/11/21 11:25	20
Perfluorodecanoic acid (PFDA)	<6.5		42	6.5	ng/L		05/05/21 19:54	05/11/21 11:25	20
Perfluoroundecanoic acid (PFUnA)	<23		42	23	ng/L		05/05/21 19:54	05/11/21 11:25	20
Perfluorododecanoic acid (PFDoA)	<12		42	12	ng/L		05/05/21 19:54	05/11/21 11:25	20
Perfluorotridecanoic acid (PFTriA)	<27		42	27	ng/L		05/05/21 19:54	05/11/21 11:25	20
Perfluorotetradecanoic acid (PFTeA)	<15		42	15	ng/L		05/05/21 19:54	05/11/21 11:25	20
Perfluoro-n-hexadecanoic acid (PFHxDA)	<19		42	19	ng/L		05/05/21 19:54	05/11/21 11:25	20
Perfluoro-n-octadecanoic acid (PFODA)	<20		42	20	ng/L		05/05/21 19:54	05/11/21 11:25	20
Perfluorobutanesulfonic acid (PFBS)	<4.2		42	4.2	ng/L		05/05/21 19:54	05/11/21 11:25	20
Perfluoropentanesulfonic acid (PFPeS)	<6.3		42	6.3	ng/L		05/05/21 19:54	05/11/21 11:25	20
Perfluorohexanesulfonic acid (PFHxS)	**24**	**J**	42	12	ng/L		05/05/21 19:54	05/11/21 11:25	20
Perfluoroheptanesulfonic Acid (PFHpS)	<4.0		42	4.0	ng/L		05/05/21 19:54	05/11/21 11:25	20
Perfluorooctanesulfonic acid (PFOS)	**62**		42	11	ng/L		05/05/21 19:54	05/11/21 11:25	20
Perfluorononanesulfonic acid (PFNS)	<7.8		42	7.8	ng/L		05/05/21 19:54	05/11/21 11:25	20
Perfluorodecanesulfonic acid (PFDS)	<6.7		42	6.7	ng/L		05/05/21 19:54	05/11/21 11:25	20
Perfluorododecanesulfonic acid (PFDoS)	<20		42	20	ng/L		05/05/21 19:54	05/11/21 11:25	20
Perfluorooctanesulfonamide (FOSA)	<21		42	21	ng/L		05/05/21 19:54	05/11/21 11:25	20
NEtFOSA	<18		42	18	ng/L		05/05/21 19:54	05/11/21 11:25	20
NMeFOSA	<9.0		42	9.0	ng/L		05/05/21 19:54	05/11/21 11:25	20
NMeFOSAA	<25		100	25	ng/L		05/05/21 19:54	05/11/21 11:25	20
NEtFOSAA	<27		100	27	ng/L		05/05/21 19:54	05/11/21 11:25	20
NMeFOSE	<29		84	29	ng/L		05/05/21 19:54	05/11/21 11:25	20
NEtFOSE	<18		42	18	ng/L		05/05/21 19:54	05/11/21 11:25	20
4:2 FTS	**79**		42	5.0	ng/L		05/05/21 19:54	05/11/21 11:25	20
8:2 FTS	**310**		42	9.6	ng/L		05/05/21 19:54	05/11/21 11:25	20
10:2 FTS	<14		42	14	ng/L		05/05/21 19:54	05/11/21 11:25	20
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<8.4		42	8.4	ng/L		05/05/21 19:54	05/11/21 11:25	20
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<31		84	31	ng/L		05/05/21 19:54	05/11/21 11:25	20
F-53B Major	<5.0		42	5.0	ng/L		05/05/21 19:54	05/11/21 11:25	20
F-53B Minor	<6.7		42	6.7	ng/L		05/05/21 19:54	05/11/21 11:25	20

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*86*		*25 - 150*	*05/05/21 19:54*	*05/11/21 11:25*	*20*
13C5 PFPeA	*83*		*25 - 150*	*05/05/21 19:54*	*05/11/21 11:25*	*20*
13C2 PFHxA	*86*		*25 - 150*	*05/05/21 19:54*	*05/11/21 11:25*	*20*
13C4 PFHpA	*88*		*25 - 150*	*05/05/21 19:54*	*05/11/21 11:25*	*20*
13C4 PFOA	*97*		*25 - 150*	*05/05/21 19:54*	*05/11/21 11:25*	*20*
13C5 PFNA	*95*		*25 - 150*	*05/05/21 19:54*	*05/11/21 11:25*	*20*

Client Sample ID: HW-2
Date Collected: 04/24/21 09:30
Date Received: 04/29/21 10:15

Lab Sample ID: 500-198381-2
Matrix: Water

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFDA	96		25 - 150	05/05/21 19:54	05/11/21 11:25	20
13C2 PFUnA	84		25 - 150	05/05/21 19:54	05/11/21 11:25	20
13C2 PFDoA	79		25 - 150	05/05/21 19:54	05/11/21 11:25	20
13C2 PFTeDA	58		25 - 150	05/05/21 19:54	05/11/21 11:25	20
13C2 PFHxDA	53		25 - 150	05/05/21 19:54	05/11/21 11:25	20
13C3 PFBS	78		25 - 150	05/05/21 19:54	05/11/21 11:25	20
18O2 PFHxS	86		25 - 150	05/05/21 19:54	05/11/21 11:25	20
13C4 PFOS	85		25 - 150	05/05/21 19:54	05/11/21 11:25	20
13C8 FOSA	74		10 - 150	05/05/21 19:54	05/11/21 11:25	20
d3-NMeFOSAA	91		25 - 150	05/05/21 19:54	05/11/21 11:25	20
d5-NEtFOSAA	93		25 - 150	05/05/21 19:54	05/11/21 11:25	20
d-N-MeFOSA-M	82		10 - 150	05/05/21 19:54	05/11/21 11:25	20
d-N-EtFOSA-M	54		10 - 150	05/05/21 19:54	05/11/21 11:25	20
d7-N-MeFOSE-M	69		10 - 150	05/05/21 19:54	05/11/21 11:25	20
d9-N-EtFOSE-M	65		10 - 150	05/05/21 19:54	05/11/21 11:25	20
M2-4:2 FTS	142		25 - 150	05/05/21 19:54	05/11/21 11:25	20
M2-8:2 FTS	138		25 - 150	05/05/21 19:54	05/11/21 11:25	20
13C3 HFPO-DA	77		25 - 150	05/05/21 19:54	05/11/21 11:25	20
13C2 10:2 FTS	102		25 - 150	05/05/21 19:54	05/11/21 11:25	20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
6:2 FTS	8700		500	250	ng/L		05/14/21 13:12	05/15/21 22:34	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	52		25 - 150	05/14/21 13:12	05/15/21 22:34	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.27		0.20	0.045	mg/L		05/04/21 08:27	05/05/21 18:47	1
Arsenic	49		5.0	1.8	mg/L		05/04/21 08:27	05/10/21 14:39	500
Calcium	230		0.20	0.053	mg/L		05/04/21 08:27	05/05/21 18:47	1
Iron	19		0.20	0.082	mg/L		05/04/21 08:27	05/05/21 18:47	1
Magnesium	110		0.10	0.049	mg/L		05/04/21 08:27	05/05/21 18:47	1
Manganese	2.0		0.010	0.0023	mg/L		05/04/21 08:27	05/05/21 18:47	1
Potassium	22		0.50	0.066	mg/L		05/04/21 08:27	05/05/21 18:47	1
Silicon	11		0.20	0.051	mg/L		05/04/21 08:27	05/14/21 14:41	1
SiO2, Silica	24		0.43	0.11	mg/L		05/04/21 08:27	05/14/21 14:41	1
Sodium	1000		5.0	0.49	mg/L		05/04/21 08:27	05/10/21 14:35	5

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.074	J	0.20	0.045	mg/L		05/04/21 08:27	05/05/21 19:01	1
Arsenic	46		0.50	0.18	mg/L		05/04/21 08:27	05/10/21 14:52	50
Calcium	220		0.20	0.053	mg/L		05/04/21 08:27	05/05/21 19:01	1
Iron	17		0.20	0.082	mg/L		05/04/21 08:27	05/05/21 19:01	1
Magnesium	100		0.10	0.049	mg/L		05/04/21 08:27	05/05/21 19:01	1
Manganese	2.0		0.010	0.0023	mg/L		05/04/21 08:27	05/05/21 19:01	1
Potassium	21		0.50	0.066	mg/L		05/04/21 08:27	05/05/21 19:01	1
Silicon	10	^1+	0.20	0.051	mg/L		05/04/21 08:27	05/05/21 19:01	1
SiO2, Silica	22		0.43	0.11	mg/L		05/04/21 08:27	05/05/21 19:01	1

Client: Endpoint Solutions Corp
Job ID: 500-198381-1
Project/Site: PDP HW Well Sampling 415-001-009

Client Sample ID: HW-2
Lab Sample ID: 500-198381-2
Date Collected: 04/24/21 09:30
Matrix: Water
Date Received: 04/29/21 10:15

Method: 6010B - Metals (ICP) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	860		1.0	0.097	mg/L		05/04/21 08:27	05/05/21 19:01	1

Method: SM 2340B - Total Hardness (as CaCO3) by calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	1000		0.91	0.46	mg/L		05/04/21 08:27	05/11/21 08:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.7	HF	0.2	0.2	SU			05/05/21 15:59	1
Chloride	1100		50	43	mg/L			05/19/21 08:02	250
Alkalinity	790		5.0	3.7	mg/L			05/08/21 12:40	1

Method: 1631E Total Low Level Hg - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	62.9		25		ng/L		05/17/21 00:00	05/17/21 12:34	50

Method: Inorganic As, As III & As V - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenite (as Arsenic)	9140		2000		µg/L		05/11/21 00:00	05/11/21 13:58	100000

Method: Semiquantitation of MMAs & DMAs by 1632 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenate (as Arsenic)	14900		2000	1380	µg/L		05/11/21 00:00	05/11/21 13:58	100000

Method: Total, Inorganic & Organic Arsenic - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	45000		100		µg/L		04/30/21 07:57	05/01/21 04:08	1000
Inorganic Arsenic	24100		2000		µg/L		05/04/21 00:00	05/04/21 14:41	100000
Organic Arsenic	20900		2100		µg/L		05/04/21 00:00	05/04/21 14:41	100000

Client: Endpoint Solutions Corp
Job ID: 500-198381-1
Project/Site: PDP HW Well Sampling 415-001-009

Client Sample ID: HW-1 Field Blank
Lab Sample ID: 500-198381-3
Date Collected: 04/24/21 09:00
Matrix: Water
Date Received: 04/29/21 10:15

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<2.2		4.6	2.2	ng/L		05/05/21 19:54	05/09/21 01:21	1
Perfluoropentanoic acid (PFPeA)	<0.45		1.8	0.45	ng/L		05/05/21 19:54	05/09/21 01:21	1
Perfluorohexanoic acid (PFHxA)	<0.54		1.8	0.54	ng/L		05/05/21 19:54	05/09/21 01:21	1
Perfluoroheptanoic acid (PFHpA)	<0.23		1.8	0.23	ng/L		05/05/21 19:54	05/09/21 01:21	1
Perfluorooctanoic acid (PFOA)	<0.79		1.8	0.79	ng/L		05/05/21 19:54	05/09/21 01:21	1
Perfluorononanoic acid (PFNA)	<0.25		1.8	0.25	ng/L		05/05/21 19:54	05/09/21 01:21	1
Perfluorodecanoic acid (PFDA)	<0.29		1.8	0.29	ng/L		05/05/21 19:54	05/09/21 01:21	1
Perfluoroundecanoic acid (PFUnA)	<1.0		1.8	1.0	ng/L		05/05/21 19:54	05/09/21 01:21	1
Perfluorododecanoic acid (PFDoA)	<0.51		1.8	0.51	ng/L		05/05/21 19:54	05/09/21 01:21	1
Perfluorotridecanoic acid (PFTriA)	<1.2		1.8	1.2	ng/L		05/05/21 19:54	05/09/21 01:21	1
Perfluorotetradecanoic acid (PFTeA)	<0.67		1.8	0.67	ng/L		05/05/21 19:54	05/09/21 01:21	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.82		1.8	0.82	ng/L		05/05/21 19:54	05/09/21 01:21	1
Perfluoro-n-octadecanoic acid (PFODA)	<0.87		1.8	0.87	ng/L		05/05/21 19:54	05/09/21 01:21	1
Perfluorobutanesulfonic acid (PFBS)	<0.18		1.8	0.18	ng/L		05/05/21 19:54	05/09/21 01:21	1
Perfluoropentanesulfonic acid (PFPeS)	<0.28		1.8	0.28	ng/L		05/05/21 19:54	05/09/21 01:21	1
Perfluorohexanesulfonic acid (PFHxS)	<0.53		1.8	0.53	ng/L		05/05/21 19:54	05/09/21 01:21	1
Perfluoroheptanesulfonic Acid (PFHpS)	<0.18		1.8	0.18	ng/L		05/05/21 19:54	05/09/21 01:21	1
Perfluorooctanesulfonic acid (PFOS)	<0.50		1.8	0.50	ng/L		05/05/21 19:54	05/09/21 01:21	1
Perfluorononanesulfonic acid (PFNS)	<0.34		1.8	0.34	ng/L		05/05/21 19:54	05/09/21 01:21	1
Perfluorodecanesulfonic acid (PFDS)	<0.30		1.8	0.30	ng/L		05/05/21 19:54	05/09/21 01:21	1
Perfluorododecanesulfonic acid (PFDoS)	<0.90		1.8	0.90	ng/L		05/05/21 19:54	05/09/21 01:21	1
Perfluorooctanesulfonamide (FOSA)	<0.91		1.8	0.91	ng/L		05/05/21 19:54	05/09/21 01:21	1
NEtFOSA	<0.80		1.8	0.80	ng/L		05/05/21 19:54	05/09/21 01:21	1
NMeFOSA	<0.40		1.8	0.40	ng/L		05/05/21 19:54	05/09/21 01:21	1
NMeFOSAA	<1.1		4.6	1.1	ng/L		05/05/21 19:54	05/09/21 01:21	1
NEtFOSAA	<1.2		4.6	1.2	ng/L		05/05/21 19:54	05/09/21 01:21	1
NMeFOSE	<1.3		3.7	1.3	ng/L		05/05/21 19:54	05/09/21 01:21	1
NEtFOSE	<0.79		1.8	0.79	ng/L		05/05/21 19:54	05/09/21 01:21	1
4:2 FTS	<0.22		1.8	0.22	ng/L		05/05/21 19:54	05/09/21 01:21	1
6:2 FTS	<2.3		4.6	2.3	ng/L		05/05/21 19:54	05/09/21 01:21	1
8:2 FTS	<0.43		1.8	0.43	ng/L		05/05/21 19:54	05/09/21 01:21	1
10:2 FTS	<0.62		1.8	0.62	ng/L		05/05/21 19:54	05/09/21 01:21	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.37		1.8	0.37	ng/L		05/05/21 19:54	05/09/21 01:21	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.4		3.7	1.4	ng/L		05/05/21 19:54	05/09/21 01:21	1
F-53B Major	<0.22		1.8	0.22	ng/L		05/05/21 19:54	05/09/21 01:21	1
F-53B Minor	<0.30		1.8	0.30	ng/L		05/05/21 19:54	05/09/21 01:21	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*98*		*25 - 150*	*05/05/21 19:54*	*05/09/21 01:21*	*1*
13C5 PFPeA	*100*		*25 - 150*	*05/05/21 19:54*	*05/09/21 01:21*	*1*
13C2 PFHxA	*89*		*25 - 150*	*05/05/21 19:54*	*05/09/21 01:21*	*1*
13C4 PFHpA	*97*		*25 - 150*	*05/05/21 19:54*	*05/09/21 01:21*	*1*
13C4 PFOA	*97*		*25 - 150*	*05/05/21 19:54*	*05/09/21 01:21*	*1*
13C5 PFNA	*93*		*25 - 150*	*05/05/21 19:54*	*05/09/21 01:21*	*1*
13C2 PFDA	*87*		*25 - 150*	*05/05/21 19:54*	*05/09/21 01:21*	*1*

Client: Endpoint Solutions Corp
Job ID: 500-198381-1
Project/Site: PDP HW Well Sampling 415-001-009

Client Sample ID: HW-1 Field Blank
Lab Sample ID: 500-198381-3
Date Collected: 04/24/21 09:00
Matrix: Water
Date Received: 04/29/21 10:15

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFUnA	91		25 - 150	05/05/21 19:54	05/09/21 01:21	1
13C2 PFDoA	87		25 - 150	05/05/21 19:54	05/09/21 01:21	1
13C2 PFTeDA	81		25 - 150	05/05/21 19:54	05/09/21 01:21	1
13C2 PFHxDA	89		25 - 150	05/05/21 19:54	05/09/21 01:21	1
13C3 PFBS	88		25 - 150	05/05/21 19:54	05/09/21 01:21	1
18O2 PFHxS	89		25 - 150	05/05/21 19:54	05/09/21 01:21	1
13C4 PFOS	91		25 - 150	05/05/21 19:54	05/09/21 01:21	1
13C8 FOSA	85		10 - 150	05/05/21 19:54	05/09/21 01:21	1
d3-NMeFOSAA	85		25 - 150	05/05/21 19:54	05/09/21 01:21	1
d5-NEtFOSAA	90		25 - 150	05/05/21 19:54	05/09/21 01:21	1
d-N-MeFOSA-M	82		10 - 150	05/05/21 19:54	05/09/21 01:21	1
d-N-EtFOSA-M	83		10 - 150	05/05/21 19:54	05/09/21 01:21	1
d7-N-MeFOSE-M	80		10 - 150	05/05/21 19:54	05/09/21 01:21	1
d9-N-EtFOSE-M	81		10 - 150	05/05/21 19:54	05/09/21 01:21	1
M2-4:2 FTS	91		25 - 150	05/05/21 19:54	05/09/21 01:21	1
M2-6:2 FTS	103		25 - 150	05/05/21 19:54	05/09/21 01:21	1
M2-8:2 FTS	92		25 - 150	05/05/21 19:54	05/09/21 01:21	1
13C3 HFPO-DA	87		25 - 150	05/05/21 19:54	05/09/21 01:21	1
13C2 10:2 FTS	101		25 - 150	05/05/21 19:54	05/09/21 01:21	1

Client: Endpoint Solutions Corp
Project/Site: PDP HW Well Sampling 415-001-009

Job ID: 500-198381-1

Client Sample ID: HW-2 Field Blank

Date Collected: 04/24/21 09:30
Date Received: 04/29/21 10:15

Lab Sample ID: 500-198381-4

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<2.3		4.7	2.3	ng/L		05/05/21 19:54	05/09/21 01:30	1
Perfluoropentanoic acid (PFPeA)	<0.46		1.9	0.46	ng/L		05/05/21 19:54	05/09/21 01:30	1
Perfluorohexanoic acid (PFHxA)	<0.55		1.9	0.55	ng/L		05/05/21 19:54	05/09/21 01:30	1
Perfluoroheptanoic acid (PFHpA)	<0.23		1.9	0.23	ng/L		05/05/21 19:54	05/09/21 01:30	1
Perfluorooctanoic acid (PFOA)	<0.80		1.9	0.80	ng/L		05/05/21 19:54	05/09/21 01:30	1
Perfluorononanoic acid (PFNA)	<0.25		1.9	0.25	ng/L		05/05/21 19:54	05/09/21 01:30	1
Perfluorodecanoic acid (PFDA)	<0.29		1.9	0.29	ng/L		05/05/21 19:54	05/09/21 01:30	1
Perfluoroundecanoic acid (PFUnA)	<1.0		1.9	1.0	ng/L		05/05/21 19:54	05/09/21 01:30	1
Perfluorododecanoic acid (PFDoA)	<0.52		1.9	0.52	ng/L		05/05/21 19:54	05/09/21 01:30	1
Perfluorotridecanoic acid (PFTriA)	<1.2		1.9	1.2	ng/L		05/05/21 19:54	05/09/21 01:30	1
Perfluorotetradecanoic acid (PFTeA)	<0.69		1.9	0.69	ng/L		05/05/21 19:54	05/09/21 01:30	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.84		1.9	0.84	ng/L		05/05/21 19:54	05/09/21 01:30	1
Perfluoro-n-octadecanoic acid (PFODA)	<0.88		1.9	0.88	ng/L		05/05/21 19:54	05/09/21 01:30	1
Perfluorobutanesulfonic acid (PFBS)	<0.19		1.9	0.19	ng/L		05/05/21 19:54	05/09/21 01:30	1
Perfluoropentanesulfonic acid (PFPeS)	<0.28		1.9	0.28	ng/L		05/05/21 19:54	05/09/21 01:30	1
Perfluorohexanesulfonic acid (PFHxS)	<0.54		1.9	0.54	ng/L		05/05/21 19:54	05/09/21 01:30	1
Perfluoroheptanesulfonic Acid (PFHpS)	<0.18		1.9	0.18	ng/L		05/05/21 19:54	05/09/21 01:30	1
Perfluorooctanesulfonic acid (PFOS)	<0.51		1.9	0.51	ng/L		05/05/21 19:54	05/09/21 01:30	1
Perfluorononanesulfonic acid (PFNS)	<0.35		1.9	0.35	ng/L		05/05/21 19:54	05/09/21 01:30	1
Perfluorodecanesulfonic acid (PFDS)	<0.30		1.9	0.30	ng/L		05/05/21 19:54	05/09/21 01:30	1
Perfluorododecanesulfonic acid (PFDoS)	<0.91		1.9	0.91	ng/L		05/05/21 19:54	05/09/21 01:30	1
Perfluorooctanesulfonamide (FOSA)	<0.92		1.9	0.92	ng/L		05/05/21 19:54	05/09/21 01:30	1
NEtFOSA	<0.82		1.9	0.82	ng/L		05/05/21 19:54	05/09/21 01:30	1
NMeFOSA	<0.40		1.9	0.40	ng/L		05/05/21 19:54	05/09/21 01:30	1
NMeFOSAA	<1.1		4.7	1.1	ng/L		05/05/21 19:54	05/09/21 01:30	1
NEtFOSAA	<1.2		4.7	1.2	ng/L		05/05/21 19:54	05/09/21 01:30	1
NMeFOSE	<1.3		3.8	1.3	ng/L		05/05/21 19:54	05/09/21 01:30	1
NEtFOSE	<0.80		1.9	0.80	ng/L		05/05/21 19:54	05/09/21 01:30	1
4:2 FTS	<0.23		1.9	0.23	ng/L		05/05/21 19:54	05/09/21 01:30	1
6:2 FTS	<2.3		4.7	2.3	ng/L		05/05/21 19:54	05/09/21 01:30	1
8:2 FTS	<0.43		1.9	0.43	ng/L		05/05/21 19:54	05/09/21 01:30	1
10:2 FTS	<0.63		1.9	0.63	ng/L		05/05/21 19:54	05/09/21 01:30	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.38		1.9	0.38	ng/L		05/05/21 19:54	05/09/21 01:30	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.4		3.8	1.4	ng/L		05/05/21 19:54	05/09/21 01:30	1
F-53B Major	<0.23		1.9	0.23	ng/L		05/05/21 19:54	05/09/21 01:30	1
F-53B Minor	<0.30		1.9	0.30	ng/L		05/05/21 19:54	05/09/21 01:30	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*93*		*25 - 150*	*05/05/21 19:54*	*05/09/21 01:30*	*1*
13C5 PFPeA	*97*		*25 - 150*	*05/05/21 19:54*	*05/09/21 01:30*	*1*
13C2 PFHxA	*96*		*25 - 150*	*05/05/21 19:54*	*05/09/21 01:30*	*1*
13C4 PFHpA	*94*		*25 - 150*	*05/05/21 19:54*	*05/09/21 01:30*	*1*
13C4 PFOA	*97*		*25 - 150*	*05/05/21 19:54*	*05/09/21 01:30*	*1*
13C5 PFNA	*101*		*25 - 150*	*05/05/21 19:54*	*05/09/21 01:30*	*1*
13C2 PFDA	*89*		*25 - 150*	*05/05/21 19:54*	*05/09/21 01:30*	*1*

Client: Endpoint Solutions Corp
Job ID: 500-198381-1
Project/Site: PDP HW Well Sampling 415-001-009

Client Sample ID: HW-2 Field Blank
Lab Sample ID: 500-198381-4
Date Collected: 04/24/21 09:30
Matrix: Water
Date Received: 04/29/21 10:15

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFUnA	92		25 - 150	05/05/21 19:54	05/09/21 01:30	1
13C2 PFDoA	92		25 - 150	05/05/21 19:54	05/09/21 01:30	1
13C2 PFTeDA	82		25 - 150	05/05/21 19:54	05/09/21 01:30	1
13C2 PFHxDA	85		25 - 150	05/05/21 19:54	05/09/21 01:30	1
13C3 PFBS	88		25 - 150	05/05/21 19:54	05/09/21 01:30	1
18O2 PFHxS	93		25 - 150	05/05/21 19:54	05/09/21 01:30	1
13C4 PFOS	93		25 - 150	05/05/21 19:54	05/09/21 01:30	1
13C8 FOSA	91		10 - 150	05/05/21 19:54	05/09/21 01:30	1
d3-NMeFOSAA	86		25 - 150	05/05/21 19:54	05/09/21 01:30	1
d5-NEtFOSAA	92		25 - 150	05/05/21 19:54	05/09/21 01:30	1
d-N-MeFOSA-M	74		10 - 150	05/05/21 19:54	05/09/21 01:30	1
d-N-EtFOSA-M	81		10 - 150	05/05/21 19:54	05/09/21 01:30	1
d7-N-MeFOSE-M	79		10 - 150	05/05/21 19:54	05/09/21 01:30	1
d9-N-EtFOSE-M	80		10 - 150	05/05/21 19:54	05/09/21 01:30	1
M2-4:2 FTS	95		25 - 150	05/05/21 19:54	05/09/21 01:30	1
M2-6:2 FTS	101		25 - 150	05/05/21 19:54	05/09/21 01:30	1
M2-8:2 FTS	105		25 - 150	05/05/21 19:54	05/09/21 01:30	1
13C3 HFPO-DA	93		25 - 150	05/05/21 19:54	05/09/21 01:30	1
13C2 10:2 FTS	99		25 - 150	05/05/21 19:54	05/09/21 01:30	1

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Phone: (253) 922-2310

25 May 2021

Sandie Fredrick
Eurofins Test America - University Park Illinois
2417 Bond Street
University Park, ILLINOIS 60484

RE: Arsenic Speciation

Enclosed are the analytical results for samples received by Eurofins Frontier Global Sciences. All quality control measurements are within established control limits and there were no analytical difficulties encountered with the exception of those listed in the case narrative section of this report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Patrick Garcia-Strickland
Business Unit Manager

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Tacoma, WA 98424
Phone: (253) 922-2310

Eurofins Test America - University Park Illinois	Project: Arsenic Speciation	
2417 Bond Street	Project Number: 500-198381-1	**Reported:**
University Park ILLINOIS, 60484	Project Manager: Sandie Fredrick	25-May-21 17:28

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HW-1 (500-198381-1)	1D00186-01	Water	24-Apr-21 09:00	30-Apr-21 09:45
HW-2 (500-198381-2)	1D00186-02	Water	24-Apr-21 09:30	30-Apr-21 09:45

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Eurofins Test America - University Park Illinois	Project: Arsenic Speciation	
2417 Bond Street	Project Number: 500-198381-1	**Reported:**
University Park ILLINOIS, 60484	Project Manager: Sandie Fredrick	25-May-21 17:28

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 30-Apr-21 09:45. The samples were received intact, on-ice within a sealed cooler at

Cooler	Temp C°
Default Cooler	-1.0

SAMPLE PREPARATION AND ANALYSIS

Samples were prepared and analyzed for total mercury by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631E.
Samples were prepared and analyzed for inorganic arsenic speciation by hydride generation cryogenic trapping gas chromatography atomic absorption spectrometry (HG-CT-GC-AAS) in accordance with EPA 1632.

Samples were prepared and analyzed for total recoverable metals by inductively coupled plasma mass spectrometry (ICP-MS) in accordance with EPA 1638 (EFGS-054).

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences fell within established acceptance criteria with the exception of any items flagged and described in

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Eurofins Test America - University Park Illinois	Project: Arsenic Speciation	
2417 Bond Street	Project Number: 500-198381-1	**Reported:**
University Park ILLINOIS, 60484	Project Manager: Sandie Fredrick	25-May-21 17:28

the notes and definitions section of the report.

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Sample Receipt Checklist

Client: TA- U Park   Date & Time Received: 4/30/21 9:45   Date Labeled: 4/30/21   Labeled By: VL

Matrix: water   Received By: VL   Label Verified By: UFL 4-30-21

# of Coolers Received: 1   Samples Arrived By: X Shipping Service ____ Courier ____ Hand ____ Other (Specify: ______________)

Coolant: ☐ None/Ambient ☒ Loose Ice ☐ Gel Ice ☐ Dry Ice   Coolant Required: (Y) / N   Temp Blank Used: Y/(N) for Cooler(s): ________

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/(N)

Samples from Wisconsin have special requirements. Shipment received includes samples from Wisconsin: Y/(N) VL 4/30/21

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	Y	
Custody Seals are present and intact:	Y	
Custody seals signed:	Y	

TID: 80167819	CF: -0.7 °C	Date/time: 4/30/21 5:45	By: VL
Cooler 1: -0.3 °C	w/ CF: -1.0 °C	Cooler 4: °C	w/ CF: °C
Cooler 2: °C	w/ CF: °C	Cooler 5: °C	w/ CF: °C
Cooler 3: °C	w/ CF: °C	Cooler 6: °C	w/ CF: °C

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	Y	
Date and time of collection:	Y	
Sampled by:	N	
Preservation type:	Y	
Requested analyses:	Y	
Required signatures:	Y	
Internal COC required:	NA	

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	Y	
Sample labels are present and legible:	Y	
Sample ID on container/bag matches COC:	Y	
Correct sample containers used:	Y	
Samples received within holding times:	Y	
Sample volume sufficient for requested analyses:	Y	
Correct preservative used for requested analyses:	Y	

Anomalies/Non-conformances (attach additional pages if needed):

1D00

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Fredrick, Sandie	Carrier Tracking No(s):	COC No: 500-148043.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: sandra.fredrick@eurofinset.com	State of Origin: Wisconsin	Page: Page 1 of 1
Company: Eurofins Frontier Global Sciences LLC		Accreditations Required (See note): State - Wisconsin		Job #: 500-198381-1
Address: 5755 8th Street E, ,	Due Date Requested: 5/20/2021			
City: Tacoma	TAT Requested (days):			
State, Zip: WA, 98424				
Phone:	PO #:			
Email:	WO #:			
Project Name: PDP HW Well Sampling	Project #: 50018723			
Site:	SSOW#:			

Analysis Requested

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)	SUB (1631E Dissolved Low Level Hg)/ 1631E Dissolved Low Level Hg	SUB (Inorganic As, As III & As V)/ Inorganic As, As III & As V	SUB (Total, Inorganic & Organic Arsenic)/ Total, Inorganic & Organic Arsenic	SUB (Semiquantitation of MMAs & DMAs by 1632)/ Semiquantitation of MMAs & DMAs by 1632	SUB (1631E Total Low Level Hg)/ 1631E Total Low Level Hg	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
HW-1 (500-198381-1)	4/24/21	09:00 Central		Water			X	X	X	X	X	4	EFGS $65, EFGS $200, EFGS $40, EFGS $125
HW-2 (500-198381-2)	4/24/21	09:30 Central		Water			X	X	X	X	X	4	EFGS $65, EFGS $200, EFGS $40, EFGS $125

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:

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
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *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: 1853 4451 7276

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:
Relinquished by: Stephanie Hernandez	Date/Time: 4/29/21 1640	Company: ETA-CHI	Received by: [signature]	Date/Time: 4/30/21 7:45	Company: EFGS
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: ⊙ Yes Δ No	Custody Seal No.: IHU 3887		Cooler Temperature(s) °C and Other Remarks: -1.0 °C		

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Ver: 11/01/2020

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Eurofins Test America - University Park Illinois	Project: Arsenic Speciation	
2417 Bond Street	Project Number: 500-198381-1	**Reported:**
University Park ILLINOIS, 60484	Project Manager: Sandie Fredrick	25-May-21 17:28

HW-1 (500-198381-1)

1D00186-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Arsenate (as Arsenic)	ND	27600	40000	µg/L	2000000	[CALC]	11-May-21		11-May-21	EPA 1632	U
Organic Arsenic	**224000**	-	40100	µg/L	2000000	[CALC]	04-May-21		04-May-21	EPA 1632	
Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation											
Mercury	**1000**	-	25.0	ng/L	50	F105461	17-May-21	1E18019	17-May-21	EPA 1631E	
Sample Preparation: EFGS SOP2836 Closed Vessel Water Oven Digestion											
Arsenic	**329000**	-	100	µg/L	1000	F104403	30-Apr-21	1D29014	01-May-21	EPA 1638	
Sample Preparation: EFGS SOP2987 EPA 1632 Speciation of Waters											
Arsenite (as Arsenic)	**104000**	-	40000	µg/L	2000000	F105420	11-May-21	1E11014	11-May-21	EPA 1632	
Inorganic Arsenic	**105000**	-	40000	µg/L	2000000	F105419	04-May-21	1E04012	04-May-21	EPA 1632	

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2417 Bond Street	Project Number: 500-198381-1	**Reported:**
University Park ILLINOIS, 60484	Project Manager: Sandie Fredrick	25-May-21 17:28

HW-2 (500-198381-2)

1D00186-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: [CALC]											
Arsenate (as Arsenic)	**14900**	1380	2000	µg/L	100000	[CALC]	11-May-21		11-May-21	EPA 1632	
Organic Arsenic	**20900**	-	2100	µg/L	100000	[CALC]	04-May-21		04-May-21	EPA 1632	
Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation											
Mercury	**62.9**	-	25.0	ng/L	50	F105461	17-May-21	1E18019	17-May-21	EPA 1631E	
Sample Preparation: EFGS SOP2836 Closed Vessel Water Oven Digestion											
Arsenic	**45000**	-	100	µg/L	1000	F104403	30-Apr-21	1D29014	01-May-21	EPA 1638	
Sample Preparation: EFGS SOP2987 EPA 1632 Speciation of Waters											
Arsenite (as Arsenic)	**9140**	-	2000	µg/L	100000	F105420	11-May-21	1E11014	11-May-21	EPA 1632	
Inorganic Arsenic	**24100**	-	2000	µg/L	100000	F105419	04-May-21	1E04012	04-May-21	EPA 1632	

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Patrick Garcia-Strickland, Business Unit Manager

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Eurofins Test America - University Park Illinois	Project: Arsenic Speciation	
2417 Bond Street	Project Number: 500-198381-1	**Reported:**
University Park ILLINOIS, 60484	Project Manager: Sandie Fredrick	25-May-21 17:28

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F104403 - EFGS SOP2836 Closed Vessel Water Oven Digestion											
Blank (F104403-BLK1)					Prepared & Analyzed: 30-Apr-21						
Arsenic	ND	-	0.10	µg/L							U
Blank (F104403-BLK2)					Prepared & Analyzed: 30-Apr-21						
Arsenic	ND	-	0.10	µg/L							U
LCS (F104403-BS1)					Prepared & Analyzed: 30-Apr-21						
Arsenic	109.5	-	0.10	µg/L	100.00		110	80-120			
LCS Dup (F104403-BSD1)					Prepared & Analyzed: 30-Apr-21						
Arsenic	108.0	-	0.10	µg/L	100.00		108	80-120	1.40	20	
Matrix Spike (F104403-MS1)		**Source: 1C00174-01**			Prepared & Analyzed: 30-Apr-21						
Arsenic	108.5	-	0.10	µg/L	100.00	2.58	106	80-120			
Matrix Spike (F104403-MS2)		**Source: 1D00154-13**			Prepared: 30-Apr-21 Analyzed: 01-May-21						
Arsenic	132.1	-	0.10	µg/L	100.00	28.29	104	80-120			
Matrix Spike Dup (F104403-MSD1)		**Source: 1C00174-01**			Prepared & Analyzed: 30-Apr-21						
Arsenic	107.2	-	0.10	µg/L	100.00	2.58	105	80-120	1.24	20	
Matrix Spike Dup (F104403-MSD2)		**Source: 1D00154-13**			Prepared: 30-Apr-21 Analyzed: 01-May-21						
Arsenic	131.2	-	0.10	µg/L	100.00	28.29	103	80-120	0.633	20	
Batch F105419 - EFGS SOP2987 EPA 1632 Speciation of Waters											
Blank (F105419-BLK1)					Prepared & Analyzed: 04-May-21						
Inorganic Arsenic	ND	-	0.020	µg/L							U

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Eurofins Test America - University Park Illinois	Project: Arsenic Speciation	
2417 Bond Street	Project Number: 500-198381-1	**Reported:**
University Park ILLINOIS, 60484	Project Manager: Sandie Fredrick	25-May-21 17:28

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F105419 - EFGS SOP2987 EPA 1632 Speciation of Waters											
Blank (F105419-BLK2)					Prepared & Analyzed: 04-May-21						
Inorganic Arsenic	ND	-	0.020	µg/L							U
LCS (F105419-BS1)					Prepared & Analyzed: 04-May-21						
Inorganic Arsenic	0.091	-	0.020	µg/L	0.10000		91.4	50-150			
LCS Dup (F105419-BSD1)					Prepared & Analyzed: 04-May-21						
Inorganic Arsenic	0.080	-	0.020	µg/L	0.10000		79.7	50-150	13.7	35	
Matrix Spike (F105419-MS1)		**Source: 1D00156-03**			Prepared & Analyzed: 04-May-21						
Inorganic Arsenic	3652	-	500	µg/L	2500.0	502.1	126	50-150			
Matrix Spike (F105419-MS2)		**Source: 1D00156-04**			Prepared & Analyzed: 04-May-21						
Inorganic Arsenic	6352	-	500	µg/L	2500.0	7498	-45.8	50-150			QM-05
Matrix Spike Dup (F105419-MSD1)		**Source: 1D00156-03**			Prepared & Analyzed: 04-May-21						
Inorganic Arsenic	2072	-	500	µg/L	2500.0	502.1	62.8	50-150	55.2	35	QR-07
Matrix Spike Dup (F105419-MSD2)		**Source: 1D00156-04**			Prepared & Analyzed: 04-May-21						
Inorganic Arsenic	6693	-	500	µg/L	2500.0	7498	-32.2	50-150	5.24	35	QM-05
Batch F105420 - EFGS SOP2987 EPA 1632 Speciation of Waters											
Blank (F105420-BLK1)					Prepared & Analyzed: 11-May-21						
Arsenite (as Arsenic)	ND	-	0.020	µg/L							U
Blank (F105420-BLK2)					Prepared & Analyzed: 11-May-21						
Arsenite (as Arsenic)	ND	-	0.020	µg/L							U

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Eurofins Test America - University Park Illinois	Project: Arsenic Speciation	
2417 Bond Street	Project Number: 500-198381-1	**Reported:**
University Park ILLINOIS, 60484	Project Manager: Sandie Fredrick	25-May-21 17:28

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F105420 - EFGS SOP2987 EPA 1632 Speciation of Waters											
LCS (F105420-BS1)					Prepared & Analyzed: 11-May-21						
Arsenite (as Arsenic)	0.113	-	0.020	µg/L	0.10000		113	30-170			
LCS Dup (F105420-BSD1)					Prepared & Analyzed: 11-May-21						
Arsenite (as Arsenic)	0.117	-	0.020	µg/L	0.10000		117	30-170	3.16	35	
Matrix Spike (F105420-MS1)		**Source: 1D00156-03**			Prepared & Analyzed: 11-May-21						
Arsenite (as Arsenic)	820.3	-	500	µg/L	2500.0	1983	-46.5	30-170			QM-05
Matrix Spike (F105420-MS2)		**Source: 1D00156-04**			Prepared & Analyzed: 11-May-21						
Arsenite (as Arsenic)	6610	-	500	µg/L	2500.0	3387	129	30-170			
Matrix Spike Dup (F105420-MSD1)		**Source: 1D00156-03**			Prepared & Analyzed: 11-May-21						
Arsenite (as Arsenic)	2992	-	500	µg/L	2500.0	1983	40.4	30-170	114	35	QM-05
Matrix Spike Dup (F105420-MSD2)		**Source: 1D00156-04**			Prepared & Analyzed: 11-May-21						
Arsenite (as Arsenic)	6006	-	500	µg/L	2500.0	3387	105	30-170	9.57	35	
Batch F105461 - EFGS SOP2796 EPA 1631 Oxidation											
Blank (F105461-BLK1)					Prepared & Analyzed: 17-May-21						
Mercury	ND	-	0.50	ng/L							U
Blank (F105461-BLK2)					Prepared & Analyzed: 17-May-21						
Mercury	ND	-	0.50	ng/L							U
Blank (F105461-BLK3)					Prepared & Analyzed: 17-May-21						
Mercury	ND	-	0.50	ng/L							U

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Patrick Garcia-Strickland, Business Unit Manager

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2417 Bond Street	Project Number: 500-198381-1	**Reported:**
University Park ILLINOIS, 60484	Project Manager: Sandie Fredrick	25-May-21 17:28

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F105461 - EFGS SOP2796 EPA 1631 Oxidation											
Blank (F105461-BLK5)					Prepared & Analyzed: 17-May-21						
Mercury	1.43	-	0.50	ng/L							QB-06
LCS (F105461-BS1)					Prepared & Analyzed: 17-May-21						
Mercury	4.79	-	0.50	ng/L	5.0000		95.8	77-123			
LCS Dup (F105461-BSD1)					Prepared & Analyzed: 17-May-21						
Mercury	4.79	-	0.50	ng/L	5.0000		95.8	77-123	0.0949	24	
Matrix Spike (F105461-MS1)		**Source: 1E00029-01**			Prepared & Analyzed: 17-May-21						
Mercury	3207	-	250	ng/L	2525.0	795.8	95.5	71-125			
Matrix Spike (F105461-MS2)		**Source: 1E00030-01RE1**			Prepared & Analyzed: 17-May-21						
Mercury	7.42	-	0.50	ng/L	5.0000	2.68	94.8	71-125			
Matrix Spike Dup (F105461-MSD1)		**Source: 1E00029-01**			Prepared & Analyzed: 17-May-21						
Mercury	3093	-	250	ng/L	2525.0	795.8	91.0	71-125	3.60	24	
Matrix Spike Dup (F105461-MSD2)		**Source: 1E00030-01RE1**			Prepared & Analyzed: 17-May-21						
Mercury	7.25	-	0.50	ng/L	5.0000	2.68	91.4	71-125	2.31	24	

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2417 Bond Street	Project Number: 500-198381-1	**Reported:**
University Park ILLINOIS, 60484	Project Manager: Sandie Fredrick	25-May-21 17:28

Notes and Definitions

U	Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
QR-07	The RPD/RSD value for the matrix duplicate/triplicate was outside of acceptance limits. Batch QC acceptable based on MS/MSD and/or LCS/LCSD RPD values within control limits.
QM-05	The spike recovery was outside acceptance limits for the MS/MSD and or AS/ASD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
QB-06	The blank was preserved to 5% BrCl rather than 1%. The control limit for blanks preserved to greater than 1% BrCl is the preservation percentage multiplied by the MRL.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the method detection limit if reported to the MDL or above the reporting limit if reported to the MRL.
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

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.

Metals

Qualifier	Qualifier Description
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
V	Serial Dilution exceeds the control limits

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

Subcontract

Qualifier	Qualifier Description
QB-06	
U	

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)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TNTC	Too Numerous To Count

LCMS

Prep Batch: 486403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198381-1	HW-1	Total/NA	Water	3535	
500-198381-2	HW-2	Total/NA	Water	3535	
500-198381-3	HW-1 Field Blank	Total/NA	Water	3535	
500-198381-4	HW-2 Field Blank	Total/NA	Water	3535	
MB 320-486403/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-486403/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-486403/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 487411

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198381-3	HW-1 Field Blank	Total/NA	Water	537 (modified)	486403
500-198381-4	HW-2 Field Blank	Total/NA	Water	537 (modified)	486403
MB 320-486403/1-A	Method Blank	Total/NA	Water	537 (modified)	486403
LCS 320-486403/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	486403
LCSD 320-486403/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	486403

Analysis Batch: 487929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198381-1	HW-1	Total/NA	Water	537 (modified)	486403
500-198381-2	HW-2	Total/NA	Water	537 (modified)	486403

Prep Batch: 489123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198381-1 - RE	HW-1	Total/NA	Water	3535	
500-198381-2 - RE	HW-2	Total/NA	Water	3535	
MB 320-489123/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-489123/2-A	Lab Control Sample	Total/NA	Water	3535	

Analysis Batch: 489455

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198381-1 - RE	HW-1	Total/NA	Water	537 (modified)	489123
500-198381-2 - RE	HW-2	Total/NA	Water	537 (modified)	489123

Analysis Batch: 490278

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 320-489123/1-A	Method Blank	Total/NA	Water	537 (modified)	489123
LCS 320-489123/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	489123

Metals

Prep Batch: 596622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198381-1	HW-1	Dissolved	Water	3010A	
500-198381-1	HW-1	Total/NA	Water	3010A	
500-198381-2	HW-2	Dissolved	Water	3010A	
500-198381-2	HW-2	Total/NA	Water	3010A	
MB 500-596622/1-A	Method Blank	Total/NA	Water	3010A	
LCS 500-596622/2-A	Lab Control Sample	Total/NA	Water	3010A	
500-198381-1 MS	HW-1	Total/NA	Water	3010A	
500-198381-1 MSD	HW-1	Total/NA	Water	3010A	
500-198381-1 DU	HW-1	Total/NA	Water	3010A	

Metals

Analysis Batch: 597098

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198381-1	HW-1	Dissolved	Water	6010B	596622
500-198381-1	HW-1	Total/NA	Water	6010B	596622
500-198381-2	HW-2	Dissolved	Water	6010B	596622
500-198381-2	HW-2	Total/NA	Water	6010B	596622
MB 500-596622/1-A	Method Blank	Total/NA	Water	6010B	596622
LCS 500-596622/2-A	Lab Control Sample	Total/NA	Water	6010B	596622
500-198381-1 MS	HW-1	Total/NA	Water	6010B	596622
500-198381-1 MSD	HW-1	Total/NA	Water	6010B	596622
500-198381-1 DU	HW-1	Total/NA	Water	6010B	596622

Analysis Batch: 598011

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198381-1	HW-1	Dissolved	Water	6010B	596622
500-198381-1	HW-1	Dissolved	Water	6010B	596622
500-198381-1	HW-1	Total/NA	Water	6010B	596622
500-198381-1	HW-1	Total/NA	Water	6010B	596622
500-198381-2	HW-2	Dissolved	Water	6010B	596622
500-198381-2	HW-2	Total/NA	Water	6010B	596622
500-198381-2	HW-2	Total/NA	Water	6010B	596622
500-198381-1 MS	HW-1	Total/NA	Water	6010B	596622
500-198381-1 MS	HW-1	Total/NA	Water	6010B	596622
500-198381-1 MSD	HW-1	Total/NA	Water	6010B	596622
500-198381-1 MSD	HW-1	Total/NA	Water	6010B	596622
500-198381-1 DU	HW-1	Total/NA	Water	6010B	596622
500-198381-1 DU	HW-1	Total/NA	Water	6010B	596622

Analysis Batch: 598023

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198381-1	HW-1	Total/NA	Water	SM 2340B	596622
500-198381-2	HW-2	Total/NA	Water	SM 2340B	596622

Analysis Batch: 598970

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198381-1	HW-1	Total/NA	Water	6010B	596622
500-198381-2	HW-2	Total/NA	Water	6010B	596622
500-198381-1 MS	HW-1	Total/NA	Water	6010B	596622
500-198381-1 MSD	HW-1	Total/NA	Water	6010B	596622
500-198381-1 DU	HW-1	Total/NA	Water	6010B	596622

General Chemistry

Analysis Batch: 596975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198381-1	HW-1	Total/NA	Water	9040B	
500-198381-2	HW-2	Total/NA	Water	9040B	
LCS 500-596975/5	Lab Control Sample	Total/NA	Water	9040B	
LCSD 500-596975/6	Lab Control Sample Dup	Total/NA	Water	9040B	
500-198381-1 DU	HW-1	Total/NA	Water	9040B	
500-198381-2 DU	HW-2	Total/NA	Water	9040B	

General Chemistry

Analysis Batch: 597691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198381-1	HW-1	Total/NA	Water	SM 2320B	
500-198381-2	HW-2	Total/NA	Water	SM 2320B	
MB 500-597691/3	Method Blank	Total/NA	Water	SM 2320B	
LCS 500-597691/4	Lab Control Sample	Total/NA	Water	SM 2320B	

Analysis Batch: 599846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198381-1	HW-1	Total/NA	Water	9056A	
500-198381-2	HW-2	Total/NA	Water	9056A	
MB 500-599846/3	Method Blank	Total/NA	Water	9056A	
LCS 500-599846/4	Lab Control Sample	Total/NA	Water	9056A	

Subcontract

Analysis Batch: F104403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198381-1	HW-1	Total/NA	Water	Total, Inorganic & Organic Arsenic	F104403_P
500-198381-2	HW-2	Total/NA	Water	Total, Inorganic & Organic Arsenic	F104403_P
F104403-BLK1	Method Blank	Total/NA	Water	Total, Inorganic & Organic Arsenic	F104403_P
F104403-BLK2	Method Blank	Total/NA	Water	Total, Inorganic & Organic Arsenic	F104403_P
F104403-BS1	Lab Control Sample	Total/NA	Water	Total, Inorganic & Organic Arsenic	F104403_P
F104403-BSD1	Lab Control Sample Dup	Total/NA	Water	Total, Inorganic & Organic Arsenic	F104403_P

Analysis Batch: F105419

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198381-1	HW-1	Total/NA	Water	Total, Inorganic & Organic Arsenic	F105419_P
500-198381-2	HW-2	Total/NA	Water	Total, Inorganic & Organic Arsenic	F105419_P
F105419-BLK1	Method Blank	Total/NA	Water	Total, Inorganic & Organic Arsenic	F105419_P
F105419-BLK2	Method Blank	Total/NA	Water	Total, Inorganic & Organic Arsenic	F105419_P
F105419-BS1	Lab Control Sample	Total/NA	Water	Total, Inorganic & Organic Arsenic	F105419_P
F105419-BSD1	Lab Control Sample Dup	Total/NA	Water	Total, Inorganic & Organic Arsenic	F105419_P

Subcontract

Analysis Batch: F105420

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198381-1	HW-1	Total/NA	Water	Inorganic As, As III & As V	F105420_P
500-198381-2	HW-2	Total/NA	Water	Inorganic As, As III & As V	F105420_P
F105420-BLK1	Method Blank	Total/NA	Water	Inorganic As, As III & As V	F105420_P
F105420-BLK2	Method Blank	Total/NA	Water	Inorganic As, As III & As V	F105420_P
F105420-BS1	Lab Control Sample	Total/NA	Water	Inorganic As, As III & As V	F105420_P
F105420-BSD1	Lab Control Sample Dup	Total/NA	Water	Inorganic As, As III & As V	F105420_P

Analysis Batch: F105461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198381-1	HW-1	Total/NA	Water	1631E Total Low Level Hg	F105461_P
500-198381-2	HW-2	Total/NA	Water	1631E Total Low Level Hg	F105461_P
F105461-BLK1	Method Blank	Total/NA	Water	1631E Total Low Level Hg	F105461_P
F105461-BLK2	Method Blank	Total/NA	Water	1631E Total Low Level Hg	F105461_P
F105461-BLK3	Method Blank	Total/NA	Water	1631E Total Low Level Hg	F105461_P
F105461-BLK5	Method Blank	Total/NA	Water	1631E Total Low Level Hg	F105461_P
F105461-BS1	Lab Control Sample	Total/NA	Water	1631E Total Low Level Hg	F105461_P
F105461-BSD1	Lab Control Sample Dup	Total/NA	Water	1631E Total Low Level Hg	F105461_P

Prep Batch: F104403_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198381-1	HW-1	Total/NA	Water	EFGS SOP2836 Closed Vessel Water Oven Digestion	
500-198381-2	HW-2	Total/NA	Water	EFGS SOP2836 Closed Vessel Water Oven Digestion	
F104403-BLK1	Method Blank	Total/NA	Water	EFGS SOP2836 Closed Vessel Water Oven Digestion	
F104403-BLK2	Method Blank	Total/NA	Water	EFGS SOP2836 Closed Vessel Water Oven Digestion	
F104403-BS1	Lab Control Sample	Total/NA	Water	EFGS SOP2836 Closed Vessel Water Oven Digestion	
F104403-BSD1	Lab Control Sample Dup	Total/NA	Water	EFGS SOP2836 Closed Vessel Water Oven Digestion	

Subcontract

Prep Batch: F105419_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198381-1	HW-1	Total/NA	Water	EFGS SOP2987 EPA 1632 Speciation of Waters	
500-198381-2	HW-2	Total/NA	Water	EFGS SOP2987 EPA 1632 Speciation of Waters	
F105419-BLK1	Method Blank	Total/NA	Water	EFGS SOP2987 EPA 1632 Speciation of Waters	
F105419-BLK2	Method Blank	Total/NA	Water	EFGS SOP2987 EPA 1632 Speciation of Waters	
F105419-BS1	Lab Control Sample	Total/NA	Water	EFGS SOP2987 EPA 1632 Speciation of Waters	
F105419-BSD1	Lab Control Sample Dup	Total/NA	Water	EFGS SOP2987 EPA 1632 Speciation of Waters	

Prep Batch: F105420_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198381-1	HW-1	Total/NA	Water	EFGS SOP2987 EPA 1632 Speciation of Waters	
500-198381-2	HW-2	Total/NA	Water	EFGS SOP2987 EPA 1632 Speciation of Waters	
F105420-BLK1	Method Blank	Total/NA	Water	EFGS SOP2987 EPA 1632 Speciation of Waters	
F105420-BLK2	Method Blank	Total/NA	Water	EFGS SOP2987 EPA 1632 Speciation of Waters	
F105420-BS1	Lab Control Sample	Total/NA	Water	EFGS SOP2987 EPA 1632 Speciation of Waters	
F105420-BSD1	Lab Control Sample Dup	Total/NA	Water	EFGS SOP2987 EPA 1632 Speciation of Waters	

Prep Batch: F105461_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198381-1	HW-1	Total/NA	Water	EFGS SOP2796 EPA 1631 Oxidation	

Subcontract (Continued)

Prep Batch: F105461_P (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198381-2	HW-2	Total/NA	Water	EFGS SOP2796 EPA 1631 Oxidation	
F105461-BLK1	Method Blank	Total/NA	Water	EFGS SOP2796 EPA 1631 Oxidation	
F105461-BLK2	Method Blank	Total/NA	Water	EFGS SOP2796 EPA 1631 Oxidation	
F105461-BLK3	Method Blank	Total/NA	Water	EFGS SOP2796 EPA 1631 Oxidation	
F105461-BLK5	Method Blank	Total/NA	Water	EFGS SOP2796 EPA 1631 Oxidation	
F105461-BS1	Lab Control Sample	Total/NA	Water	EFGS SOP2796 EPA 1631 Oxidation	
F105461-BSD1	Lab Control Sample Dup	Total/NA	Water	EFGS SOP2796 EPA 1631 Oxidation	

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-486403/1-A
Matrix: Water
Analysis Batch: 487411

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 486403

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<2.4		5.0	2.4	ng/L		05/05/21 19:54	05/08/21 22:41	1
Perfluoropentanoic acid (PFPeA)	<0.49		2.0	0.49	ng/L		05/05/21 19:54	05/08/21 22:41	1
Perfluorohexanoic acid (PFHxA)	<0.58		2.0	0.58	ng/L		05/05/21 19:54	05/08/21 22:41	1
Perfluoroheptanoic acid (PFHpA)	<0.25		2.0	0.25	ng/L		05/05/21 19:54	05/08/21 22:41	1
Perfluorooctanoic acid (PFOA)	<0.85		2.0	0.85	ng/L		05/05/21 19:54	05/08/21 22:41	1
Perfluorononanoic acid (PFNA)	<0.27		2.0	0.27	ng/L		05/05/21 19:54	05/08/21 22:41	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	0.31	ng/L		05/05/21 19:54	05/08/21 22:41	1
Perfluoroundecanoic acid (PFUnA)	<1.1		2.0	1.1	ng/L		05/05/21 19:54	05/08/21 22:41	1
Perfluorododecanoic acid (PFDoA)	<0.55		2.0	0.55	ng/L		05/05/21 19:54	05/08/21 22:41	1
Perfluorotridecanoic acid (PFTriA)	<1.3		2.0	1.3	ng/L		05/05/21 19:54	05/08/21 22:41	1
Perfluorotetradecanoic acid (PFTeA)	<0.73		2.0	0.73	ng/L		05/05/21 19:54	05/08/21 22:41	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.89		2.0	0.89	ng/L		05/05/21 19:54	05/08/21 22:41	1
Perfluoro-n-octadecanoic acid (PFODA)	<0.94		2.0	0.94	ng/L		05/05/21 19:54	05/08/21 22:41	1
Perfluorobutanesulfonic acid (PFBS)	<0.20		2.0	0.20	ng/L		05/05/21 19:54	05/08/21 22:41	1
Perfluoropentanesulfonic acid (PFPeS)	<0.30		2.0	0.30	ng/L		05/05/21 19:54	05/08/21 22:41	1
Perfluorohexanesulfonic acid (PFHxS)	<0.57		2.0	0.57	ng/L		05/05/21 19:54	05/08/21 22:41	1
Perfluoroheptanesulfonic Acid (PFHpS)	<0.19		2.0	0.19	ng/L		05/05/21 19:54	05/08/21 22:41	1
Perfluorooctanesulfonic acid (PFOS)	<0.54		2.0	0.54	ng/L		05/05/21 19:54	05/08/21 22:41	1
Perfluorononanesulfonic acid (PFNS)	<0.37		2.0	0.37	ng/L		05/05/21 19:54	05/08/21 22:41	1
Perfluorodecanesulfonic acid (PFDS)	<0.32		2.0	0.32	ng/L		05/05/21 19:54	05/08/21 22:41	1
Perfluorododecanesulfonic acid (PFDoS)	<0.97		2.0	0.97	ng/L		05/05/21 19:54	05/08/21 22:41	1
Perfluorooctanesulfonamide (FOSA)	<0.98		2.0	0.98	ng/L		05/05/21 19:54	05/08/21 22:41	1
NEtFOSA	<0.87		2.0	0.87	ng/L		05/05/21 19:54	05/08/21 22:41	1
NMeFOSA	<0.43		2.0	0.43	ng/L		05/05/21 19:54	05/08/21 22:41	1
NMeFOSAA	<1.2		5.0	1.2	ng/L		05/05/21 19:54	05/08/21 22:41	1
NEtFOSAA	<1.3		5.0	1.3	ng/L		05/05/21 19:54	05/08/21 22:41	1
NMeFOSE	<1.4		4.0	1.4	ng/L		05/05/21 19:54	05/08/21 22:41	1
NEtFOSE	<0.85		2.0	0.85	ng/L		05/05/21 19:54	05/08/21 22:41	1
4:2 FTS	<0.24		2.0	0.24	ng/L		05/05/21 19:54	05/08/21 22:41	1
6:2 FTS	<2.5		5.0	2.5	ng/L		05/05/21 19:54	05/08/21 22:41	1
8:2 FTS	<0.46		2.0	0.46	ng/L		05/05/21 19:54	05/08/21 22:41	1
10:2 FTS	<0.67		2.0	0.67	ng/L		05/05/21 19:54	05/08/21 22:41	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.40		2.0	0.40	ng/L		05/05/21 19:54	05/08/21 22:41	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.5		4.0	1.5	ng/L		05/05/21 19:54	05/08/21 22:41	1
F-53B Major	<0.24		2.0	0.24	ng/L		05/05/21 19:54	05/08/21 22:41	1
F-53B Minor	<0.32		2.0	0.32	ng/L		05/05/21 19:54	05/08/21 22:41	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*109*		*25 - 150*	*05/05/21 19:54*	*05/08/21 22:41*	*1*
13C5 PFPeA	*103*		*25 - 150*	*05/05/21 19:54*	*05/08/21 22:41*	*1*
13C2 PFHxA	*98*		*25 - 150*	*05/05/21 19:54*	*05/08/21 22:41*	*1*
13C4 PFHpA	*111*		*25 - 150*	*05/05/21 19:54*	*05/08/21 22:41*	*1*
13C4 PFOA	*102*		*25 - 150*	*05/05/21 19:54*	*05/08/21 22:41*	*1*

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

Lab Sample ID: MB 320-486403/1-A
Matrix: Water
Analysis Batch: 487411

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 486403

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFNA	108		25 - 150	05/05/21 19:54	05/08/21 22:41	1
13C2 PFDA	106		25 - 150	05/05/21 19:54	05/08/21 22:41	1
13C2 PFUnA	95		25 - 150	05/05/21 19:54	05/08/21 22:41	1
13C2 PFDoA	108		25 - 150	05/05/21 19:54	05/08/21 22:41	1
13C2 PFTeDA	99		25 - 150	05/05/21 19:54	05/08/21 22:41	1
13C2 PFHxDA	99		25 - 150	05/05/21 19:54	05/08/21 22:41	1
13C3 PFBS	94		25 - 150	05/05/21 19:54	05/08/21 22:41	1
18O2 PFHxS	103		25 - 150	05/05/21 19:54	05/08/21 22:41	1
13C4 PFOS	108		25 - 150	05/05/21 19:54	05/08/21 22:41	1
13C8 FOSA	99		10 - 150	05/05/21 19:54	05/08/21 22:41	1
d3-NMeFOSAA	98		25 - 150	05/05/21 19:54	05/08/21 22:41	1
d5-NEtFOSAA	103		25 - 150	05/05/21 19:54	05/08/21 22:41	1
d-N-MeFOSA-M	81		10 - 150	05/05/21 19:54	05/08/21 22:41	1
d-N-EtFOSA-M	92		10 - 150	05/05/21 19:54	05/08/21 22:41	1
d7-N-MeFOSE-M	96		10 - 150	05/05/21 19:54	05/08/21 22:41	1
d9-N-EtFOSE-M	94		10 - 150	05/05/21 19:54	05/08/21 22:41	1
M2-4:2 FTS	108		25 - 150	05/05/21 19:54	05/08/21 22:41	1
M2-6:2 FTS	109		25 - 150	05/05/21 19:54	05/08/21 22:41	1
M2-8:2 FTS	125		25 - 150	05/05/21 19:54	05/08/21 22:41	1
13C3 HFPO-DA	100		25 - 150	05/05/21 19:54	05/08/21 22:41	1
13C2 10:2 FTS	125		25 - 150	05/05/21 19:54	05/08/21 22:41	1

Lab Sample ID: LCS 320-486403/2-A
Matrix: Water
Analysis Batch: 487411

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 486403

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	38.0		ng/L		95	60 - 135
Perfluoropentanoic acid (PFPeA)	40.0	38.0		ng/L		95	60 - 135
Perfluorohexanoic acid (PFHxA)	40.0	37.9		ng/L		95	60 - 135
Perfluoroheptanoic acid (PFHpA)	40.0	40.7		ng/L		102	60 - 135
Perfluorooctanoic acid (PFOA)	40.0	40.0		ng/L		100	60 - 135
Perfluorononanoic acid (PFNA)	40.0	41.3		ng/L		103	60 - 135
Perfluorodecanoic acid (PFDA)	40.0	39.6		ng/L		99	60 - 135
Perfluoroundecanoic acid (PFUnA)	40.0	42.0		ng/L		105	60 - 135
Perfluorododecanoic acid (PFDoA)	40.0	35.6		ng/L		89	60 - 135
Perfluorotridecanoic acid (PFTriA)	40.0	38.6		ng/L		97	60 - 135
Perfluorotetradecanoic acid (PFTeA)	40.0	40.2		ng/L		101	60 - 135
Perfluoro-n-hexadecanoic acid (PFHxDA)	40.0	40.1		ng/L		100	60 - 135
Perfluoro-n-octadecanoic acid (PFODA)	40.0	43.8		ng/L		110	60 - 135
Perfluorobutanesulfonic acid (PFBS)	35.4	35.5		ng/L		101	60 - 135
Perfluoropentanesulfonic acid (PFPeS)	37.5	40.3		ng/L		107	60 - 135

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

Lab Sample ID: LCS 320-486403/2-A
Matrix: Water
Analysis Batch: 487411

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 486403

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorohexanesulfonic acid (PFHxS)	36.4	36.4		ng/L		100	60 - 135
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	40.9		ng/L		107	60 - 135
Perfluorooctanesulfonic acid (PFOS)	37.1	40.0		ng/L		108	60 - 135
Perfluorononanesulfonic acid (PFNS)	38.4	38.2		ng/L		99	60 - 135
Perfluorodecanesulfonic acid (PFDS)	38.6	39.0		ng/L		101	60 - 135
Perfluorododecanesulfonic acid (PFDoS)	38.7	36.3		ng/L		94	60 - 135
Perfluorooctanesulfonamide (FOSA)	40.0	38.2		ng/L		96	60 - 135
NEtFOSA	40.0	34.2		ng/L		85	60 - 135
NMeFOSA	40.0	38.8		ng/L		97	60 - 135
NMeFOSAA	40.0	44.4		ng/L		111	60 - 135
NEtFOSAA	40.0	40.7		ng/L		102	60 - 135
NMeFOSE	40.0	41.2		ng/L		103	60 - 135
NEtFOSE	40.0	38.0		ng/L		95	60 - 135
4:2 FTS	37.4	34.9		ng/L		94	60 - 135
6:2 FTS	37.9	37.4		ng/L		99	60 - 135
8:2 FTS	38.3	44.9		ng/L		117	60 - 135
10:2 FTS	38.6	38.1		ng/L		99	60 - 135
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.7	39.1		ng/L		104	60 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	40.0	41.9		ng/L		105	60 - 135
F-53B Major	37.3	40.1		ng/L		108	60 - 135
F-53B Minor	37.7	38.9		ng/L		103	60 - 135

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*102*		*25 - 150*
13C5 PFPeA	*102*		*25 - 150*
13C2 PFHxA	*101*		*25 - 150*
13C4 PFHpA	*103*		*25 - 150*
13C4 PFOA	*101*		*25 - 150*
13C5 PFNA	*104*		*25 - 150*
13C2 PFDA	*94*		*25 - 150*
13C2 PFUnA	*102*		*25 - 150*
13C2 PFDoA	*100*		*25 - 150*
13C2 PFTeDA	*96*		*25 - 150*
13C2 PFHxDA	*96*		*25 - 150*
13C3 PFBS	*93*		*25 - 150*
18O2 PFHxS	*95*		*25 - 150*
13C4 PFOS	*97*		*25 - 150*
13C8 FOSA	*100*		*10 - 150*
d3-NMeFOSAA	*91*		*25 - 150*
d5-NEtFOSAA	*94*		*25 - 150*
d-N-MeFOSA-M	*89*		*10 - 150*
d-N-EtFOSA-M	*97*		*10 - 150*

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

Lab Sample ID: LCS 320-486403/2-A
Matrix: Water
Analysis Batch: 487411

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 486403

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
d7-N-MeFOSE-M	86		10 - 150
d9-N-EtFOSE-M	89		10 - 150
M2-4:2 FTS	103		25 - 150
M2-6:2 FTS	113		25 - 150
M2-8:2 FTS	113		25 - 150
13C3 HFPO-DA	98		25 - 150
13C2 10:2 FTS	107		25 - 150

Lab Sample ID: LCSD 320-486403/3-A
Matrix: Water
Analysis Batch: 487411

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 486403

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			40.0	37.4		ng/L		93	60 - 135	2	30
Perfluoropentanoic acid (PFPeA)			40.0	37.5		ng/L		94	60 - 135	1	30
Perfluorohexanoic acid (PFHxA)			40.0	39.9		ng/L		100	60 - 135	5	30
Perfluoroheptanoic acid (PFHpA)			40.0	38.5		ng/L		96	60 - 135	5	30
Perfluorooctanoic acid (PFOA)			40.0	39.6		ng/L		99	60 - 135	1	30
Perfluorononanoic acid (PFNA)			40.0	40.2		ng/L		100	60 - 135	3	30
Perfluorodecanoic acid (PFDA)			40.0	37.9		ng/L		95	60 - 135	4	30
Perfluoroundecanoic acid (PFUnA)			40.0	39.0		ng/L		97	60 - 135	7	30
Perfluorododecanoic acid (PFDoA)			40.0	37.9		ng/L		95	60 - 135	6	30
Perfluorotridecanoic acid (PFTriA)			40.0	38.7		ng/L		97	60 - 135	0	30
Perfluorotetradecanoic acid (PFTeA)			40.0	42.0		ng/L		105	60 - 135	4	30
Perfluoro-n-hexadecanoic acid (PFHxDA)			40.0	41.0		ng/L		102	60 - 135	2	30
Perfluoro-n-octadecanoic acid (PFODA)			40.0	44.2		ng/L		110	60 - 135	1	30
Perfluorobutanesulfonic acid (PFBS)			35.4	34.8		ng/L		98	60 - 135	2	30
Perfluoropentanesulfonic acid (PFPeS)			37.5	39.0		ng/L		104	60 - 135	3	30
Perfluorohexanesulfonic acid (PFHxS)			36.4	33.8		ng/L		93	60 - 135	8	30
Perfluoroheptanesulfonic Acid (PFHpS)			38.1	37.8		ng/L		99	60 - 135	8	30
Perfluorooctanesulfonic acid (PFOS)			37.1	35.8		ng/L		97	60 - 135	11	30
Perfluorononanesulfonic acid (PFNS)			38.4	33.9		ng/L		88	60 - 135	12	30
Perfluorodecanesulfonic acid (PFDS)			38.6	35.4		ng/L		92	60 - 135	10	30
Perfluorododecanesulfonic acid (PFDoS)			38.7	34.0		ng/L		88	60 - 135	7	30
Perfluorooctanesulfonamide (FOSA)			40.0	37.6		ng/L		94	60 - 135	1	30
NEtFOSA			40.0	39.2		ng/L		98	60 - 135	14	30
NMeFOSA			40.0	43.6		ng/L		109	60 - 135	12	30
NMeFOSAA			40.0	42.6		ng/L		106	60 - 135	4	30

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

Lab Sample ID: LCSD 320-486403/3-A
Matrix: Water
Analysis Batch: 487411

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 486403

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
NEtFOSAA			40.0	39.8		ng/L		100	60 - 135	2	30
NMeFOSE			40.0	39.4		ng/L		99	60 - 135	4	30
NEtFOSE			40.0	34.9		ng/L		87	60 - 135	8	30
4:2 FTS			37.4	32.0		ng/L		86	60 - 135	9	30
6:2 FTS			37.9	37.5		ng/L		99	60 - 135	0	30
8:2 FTS			38.3	42.8		ng/L		112	60 - 135	5	30
10:2 FTS			38.6	39.0		ng/L		101	60 - 135	2	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)			37.7	36.6		ng/L		97	60 - 135	7	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)			40.0	36.6		ng/L		91	60 - 135	14	30
F-53B Major			37.3	36.6		ng/L		98	60 - 135	9	30
F-53B Minor			37.7	35.3		ng/L		94	60 - 135	10	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*104*		*25 - 150*
13C5 PFPeA	*103*		*25 - 150*
13C2 PFHxA	*99*		*25 - 150*
13C4 PFHpA	*102*		*25 - 150*
13C4 PFOA	*99*		*25 - 150*
13C5 PFNA	*105*		*25 - 150*
13C2 PFDA	*100*		*25 - 150*
13C2 PFUnA	*97*		*25 - 150*
13C2 PFDoA	*97*		*25 - 150*
13C2 PFTeDA	*93*		*25 - 150*
13C2 PFHxDA	*92*		*25 - 150*
13C3 PFBS	*92*		*25 - 150*
18O2 PFHxS	*98*		*25 - 150*
13C4 PFOS	*103*		*25 - 150*
13C8 FOSA	*102*		*10 - 150*
d3-NMeFOSAA	*93*		*25 - 150*
d5-NEtFOSAA	*99*		*25 - 150*
d-N-MeFOSA-M	*82*		*10 - 150*
d-N-EtFOSA-M	*80*		*10 - 150*
d7-N-MeFOSE-M	*88*		*10 - 150*
d9-N-EtFOSE-M	*92*		*10 - 150*
M2-4:2 FTS	*104*		*25 - 150*
M2-6:2 FTS	*112*		*25 - 150*
M2-8:2 FTS	*113*		*25 - 150*
13C3 HFPO-DA	*102*		*25 - 150*
13C2 10:2 FTS	*109*		*25 - 150*

Lab Sample ID: MB 320-489123/1-A
Matrix: Water
Analysis Batch: 490278

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 489123

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<2.4		5.0	2.4	ng/L		05/14/21 13:12	05/18/21 15:32	1
Perfluoropentanoic acid (PFPeA)	<0.49		2.0	0.49	ng/L		05/14/21 13:12	05/18/21 15:32	1

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

Lab Sample ID: MB 320-489123/1-A
Matrix: Water
Analysis Batch: 490278

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 489123

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid (PFHxA)	<0.58		2.0	0.58	ng/L		05/14/21 13:12	05/18/21 15:32	1
Perfluoroheptanoic acid (PFHpA)	<0.25		2.0	0.25	ng/L		05/14/21 13:12	05/18/21 15:32	1
Perfluorooctanoic acid (PFOA)	<0.85		2.0	0.85	ng/L		05/14/21 13:12	05/18/21 15:32	1
Perfluorononanoic acid (PFNA)	<0.27		2.0	0.27	ng/L		05/14/21 13:12	05/18/21 15:32	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	0.31	ng/L		05/14/21 13:12	05/18/21 15:32	1
Perfluoroundecanoic acid (PFUnA)	<1.1		2.0	1.1	ng/L		05/14/21 13:12	05/18/21 15:32	1
Perfluorododecanoic acid (PFDoA)	<0.55		2.0	0.55	ng/L		05/14/21 13:12	05/18/21 15:32	1
Perfluorotridecanoic acid (PFTriA)	<1.3		2.0	1.3	ng/L		05/14/21 13:12	05/18/21 15:32	1
Perfluorotetradecanoic acid (PFTeA)	<0.73		2.0	0.73	ng/L		05/14/21 13:12	05/18/21 15:32	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.89		2.0	0.89	ng/L		05/14/21 13:12	05/18/21 15:32	1
Perfluoro-n-octadecanoic acid (PFODA)	<0.94		2.0	0.94	ng/L		05/14/21 13:12	05/18/21 15:32	1
Perfluorobutanesulfonic acid (PFBS)	<0.20		2.0	0.20	ng/L		05/14/21 13:12	05/18/21 15:32	1
Perfluoropentanesulfonic acid (PFPeS)	<0.30		2.0	0.30	ng/L		05/14/21 13:12	05/18/21 15:32	1
Perfluorohexanesulfonic acid (PFHxS)	<0.57		2.0	0.57	ng/L		05/14/21 13:12	05/18/21 15:32	1
Perfluoroheptanesulfonic Acid (PFHpS)	<0.19		2.0	0.19	ng/L		05/14/21 13:12	05/18/21 15:32	1
Perfluorooctanesulfonic acid (PFOS)	<0.54		2.0	0.54	ng/L		05/14/21 13:12	05/18/21 15:32	1
Perfluorononanesulfonic acid (PFNS)	<0.37		2.0	0.37	ng/L		05/14/21 13:12	05/18/21 15:32	1
Perfluorodecanesulfonic acid (PFDS)	<0.32		2.0	0.32	ng/L		05/14/21 13:12	05/18/21 15:32	1
Perfluorododecanesulfonic acid (PFDoS)	<0.97		2.0	0.97	ng/L		05/14/21 13:12	05/18/21 15:32	1
Perfluorooctanesulfonamide (FOSA)	<0.98		2.0	0.98	ng/L		05/14/21 13:12	05/18/21 15:32	1
NEtFOSA	<0.87		2.0	0.87	ng/L		05/14/21 13:12	05/18/21 15:32	1
NMeFOSA	<0.43		2.0	0.43	ng/L		05/14/21 13:12	05/18/21 15:32	1
NMeFOSAA	<1.2		5.0	1.2	ng/L		05/14/21 13:12	05/18/21 15:32	1
NEtFOSAA	<1.3		5.0	1.3	ng/L		05/14/21 13:12	05/18/21 15:32	1
NMeFOSE	<1.4		4.0	1.4	ng/L		05/14/21 13:12	05/18/21 15:32	1
NEtFOSE	<0.85		2.0	0.85	ng/L		05/14/21 13:12	05/18/21 15:32	1
4:2 FTS	<0.24		2.0	0.24	ng/L		05/14/21 13:12	05/18/21 15:32	1
6:2 FTS	<2.5		5.0	2.5	ng/L		05/14/21 13:12	05/18/21 15:32	1
8:2 FTS	<0.46		2.0	0.46	ng/L		05/14/21 13:12	05/18/21 15:32	1
10:2 FTS	<0.67		2.0	0.67	ng/L		05/14/21 13:12	05/18/21 15:32	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.40		2.0	0.40	ng/L		05/14/21 13:12	05/18/21 15:32	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.5		4.0	1.5	ng/L		05/14/21 13:12	05/18/21 15:32	1
F-53B Major	<0.24		2.0	0.24	ng/L		05/14/21 13:12	05/18/21 15:32	1
F-53B Minor	<0.32		2.0	0.32	ng/L		05/14/21 13:12	05/18/21 15:32	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*97*		*25 - 150*	*05/14/21 13:12*	*05/18/21 15:32*	*1*
13C5 PFPeA	*86*		*25 - 150*	*05/14/21 13:12*	*05/18/21 15:32*	*1*
13C2 PFHxA	*96*		*25 - 150*	*05/14/21 13:12*	*05/18/21 15:32*	*1*
13C4 PFHpA	*97*		*25 - 150*	*05/14/21 13:12*	*05/18/21 15:32*	*1*
13C4 PFOA	*99*		*25 - 150*	*05/14/21 13:12*	*05/18/21 15:32*	*1*
13C5 PFNA	*101*		*25 - 150*	*05/14/21 13:12*	*05/18/21 15:32*	*1*
13C2 PFDA	*102*		*25 - 150*	*05/14/21 13:12*	*05/18/21 15:32*	*1*

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

Lab Sample ID: MB 320-489123/1-A
Matrix: Water
Analysis Batch: 490278

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 489123

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFUnA	112		25 - 150	05/14/21 13:12	05/18/21 15:32	1
13C2 PFDoA	99		25 - 150	05/14/21 13:12	05/18/21 15:32	1
13C2 PFTeDA	100		25 - 150	05/14/21 13:12	05/18/21 15:32	1
13C2 PFHxDA	99		25 - 150	05/14/21 13:12	05/18/21 15:32	1
13C3 PFBS	87		25 - 150	05/14/21 13:12	05/18/21 15:32	1
18O2 PFHxS	96		25 - 150	05/14/21 13:12	05/18/21 15:32	1
13C4 PFOS	94		25 - 150	05/14/21 13:12	05/18/21 15:32	1
13C8 FOSA	107		10 - 150	05/14/21 13:12	05/18/21 15:32	1
d3-NMeFOSAA	111		25 - 150	05/14/21 13:12	05/18/21 15:32	1
d5-NEtFOSAA	109		25 - 150	05/14/21 13:12	05/18/21 15:32	1
d-N-MeFOSA-M	74		10 - 150	05/14/21 13:12	05/18/21 15:32	1
d-N-EtFOSA-M	77		10 - 150	05/14/21 13:12	05/18/21 15:32	1
d7-N-MeFOSE-M	97		10 - 150	05/14/21 13:12	05/18/21 15:32	1
d9-N-EtFOSE-M	91		10 - 150	05/14/21 13:12	05/18/21 15:32	1
M2-4:2 FTS	100		25 - 150	05/14/21 13:12	05/18/21 15:32	1
M2-6:2 FTS	120		25 - 150	05/14/21 13:12	05/18/21 15:32	1
M2-8:2 FTS	119		25 - 150	05/14/21 13:12	05/18/21 15:32	1
13C3 HFPO-DA	88		25 - 150	05/14/21 13:12	05/18/21 15:32	1
13C2 10:2 FTS	121		25 - 150	05/14/21 13:12	05/18/21 15:32	1

Lab Sample ID: LCS 320-489123/2-A
Matrix: Water
Analysis Batch: 490278

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 489123

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	37.2		ng/L		93	60 - 135
Perfluoropentanoic acid (PFPeA)	40.0	40.5		ng/L		101	60 - 135
Perfluorohexanoic acid (PFHxA)	40.0	41.3		ng/L		103	60 - 135
Perfluoroheptanoic acid (PFHpA)	40.0	42.3		ng/L		106	60 - 135
Perfluorooctanoic acid (PFOA)	40.0	41.7		ng/L		104	60 - 135
Perfluorononanoic acid (PFNA)	40.0	41.3		ng/L		103	60 - 135
Perfluorodecanoic acid (PFDA)	40.0	40.6		ng/L		101	60 - 135
Perfluoroundecanoic acid (PFUnA)	40.0	38.6		ng/L		96	60 - 135
Perfluorododecanoic acid (PFDoA)	40.0	43.1		ng/L		108	60 - 135
Perfluorotridecanoic acid (PFTriA)	40.0	41.6		ng/L		104	60 - 135
Perfluorotetradecanoic acid (PFTeA)	40.0	44.4		ng/L		111	60 - 135
Perfluoro-n-hexadecanoic acid (PFHxDA)	40.0	43.5		ng/L		109	60 - 135
Perfluoro-n-octadecanoic acid (PFODA)	40.0	40.1		ng/L		100	60 - 135
Perfluorobutanesulfonic acid (PFBS)	35.4	39.4		ng/L		112	60 - 135
Perfluoropentanesulfonic acid (PFPeS)	37.5	42.1		ng/L		112	60 - 135
Perfluorohexanesulfonic acid (PFHxS)	36.4	35.9		ng/L		99	60 - 135

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

Lab Sample ID: LCS 320-489123/2-A
Matrix: Water
Analysis Batch: 490278

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 489123

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	40.1		ng/L		105	60 - 135
Perfluorooctanesulfonic acid (PFOS)	37.1	39.5		ng/L		106	60 - 135
Perfluorononanesulfonic acid (PFNS)	38.4	40.7		ng/L		106	60 - 135
Perfluorodecanesulfonic acid (PFDS)	38.6	37.9		ng/L		98	60 - 135
Perfluorododecanesulfonic acid (PFDoS)	38.7	41.8		ng/L		108	60 - 135
Perfluorooctanesulfonamide (FOSA)	40.0	41.5		ng/L		104	60 - 135
NEtFOSA	40.0	42.5		ng/L		106	60 - 135
NMeFOSA	40.0	41.5		ng/L		104	60 - 135
NMeFOSAA	40.0	39.7		ng/L		99	60 - 135
NEtFOSAA	40.0	45.2		ng/L		113	60 - 135
NMeFOSE	40.0	45.7		ng/L		114	60 - 135
NEtFOSE	40.0	43.8		ng/L		109	60 - 135
4:2 FTS	37.4	41.2		ng/L		110	60 - 135
6:2 FTS	37.9	36.0		ng/L		95	60 - 135
8:2 FTS	38.3	42.3		ng/L		110	60 - 135
10:2 FTS	38.6	37.5		ng/L		97	60 - 135
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.7	42.2		ng/L		112	60 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	40.0	39.7		ng/L		99	60 - 135
F-53B Major	37.3	39.2		ng/L		105	60 - 135
F-53B Minor	37.7	38.4		ng/L		102	60 - 135

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*106*		*25 - 150*
13C5 PFPeA	*94*		*25 - 150*
13C2 PFHxA	*96*		*25 - 150*
13C4 PFHpA	*102*		*25 - 150*
13C4 PFOA	*102*		*25 - 150*
13C5 PFNA	*101*		*25 - 150*
13C2 PFDA	*104*		*25 - 150*
13C2 PFUnA	*109*		*25 - 150*
13C2 PFDoA	*99*		*25 - 150*
13C2 PFTeDA	*88*		*25 - 150*
13C2 PFHxDA	*93*		*25 - 150*
13C3 PFBS	*96*		*25 - 150*
18O2 PFHxS	*102*		*25 - 150*
13C4 PFOS	*97*		*25 - 150*
13C8 FOSA	*97*		*10 - 150*
d3-NMeFOSAA	*103*		*25 - 150*
d5-NEtFOSAA	*102*		*25 - 150*
d-N-MeFOSA-M	*77*		*10 - 150*
d-N-EtFOSA-M	*79*		*10 - 150*
d7-N-MeFOSE-M	*88*		*10 - 150*
d9-N-EtFOSE-M	*93*		*10 - 150*

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

Lab Sample ID: LCS 320-489123/2-A
Matrix: Water
Analysis Batch: 490278

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 489123

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
M2-4:2 FTS	*104*		*25 - 150*
M2-6:2 FTS	*123*		*25 - 150*
M2-8:2 FTS	*108*		*25 - 150*
13C3 HFPO-DA	*91*		*25 - 150*
13C2 10:2 FTS	*109*		*25 - 150*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 500-596622/1-A
Matrix: Water
Analysis Batch: 597098

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 596622

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.045		0.20	0.045	mg/L		05/04/21 08:27	05/05/21 18:15	1
Arsenic	<0.0037		0.010	0.0037	mg/L		05/04/21 08:27	05/05/21 18:15	1
Calcium	<0.053		0.20	0.053	mg/L		05/04/21 08:27	05/05/21 18:15	1
Iron	<0.082		0.20	0.082	mg/L		05/04/21 08:27	05/05/21 18:15	1
Magnesium	<0.049		0.10	0.049	mg/L		05/04/21 08:27	05/05/21 18:15	1
Manganese	<0.0023		0.010	0.0023	mg/L		05/04/21 08:27	05/05/21 18:15	1
Potassium	<0.066		0.50	0.066	mg/L		05/04/21 08:27	05/05/21 18:15	1
Silicon	<0.051		0.20	0.051	mg/L		05/04/21 08:27	05/05/21 18:15	1
SiO2, Silica	<0.11		0.43	0.11	mg/L		05/04/21 08:27	05/05/21 18:15	1
Sodium	<0.097		1.0	0.097	mg/L		05/04/21 08:27	05/05/21 18:15	1

Lab Sample ID: LCS 500-596622/2-A
Matrix: Water
Analysis Batch: 597098

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 596622

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	2.00	2.00		mg/L		100	80 - 120
Arsenic	0.100	0.0989		mg/L		99	80 - 120
Calcium	10.0	10.2		mg/L		102	80 - 120
Iron	1.00	1.01		mg/L		101	80 - 120
Magnesium	10.0	9.74		mg/L		97	80 - 120
Manganese	0.500	0.504		mg/L		101	80 - 120
Potassium	10.0	9.52		mg/L		95	80 - 120
Silicon	5.00	4.63		mg/L		93	80 - 120
Sodium	10.0	9.78		mg/L		98	80 - 120

Lab Sample ID: 500-198381-1 MS
Matrix: Water
Analysis Batch: 597098

Client Sample ID: HW-1
Prep Type: Total/NA
Prep Batch: 596622

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	2.3		2.00	4.38		mg/L		102	75 - 125
Calcium	160		10.0	171	4	mg/L		115	75 - 125
Iron	43		1.00	44.2	4	mg/L		162	75 - 125
Magnesium	41		10.0	51.8	4	mg/L		105	75 - 125
Manganese	1.7		0.500	2.17		mg/L		101	75 - 125
Potassium	14		10.0	25.6		mg/L		115	75 - 125

Method: 6010B - Metals (ICP)

Lab Sample ID: 500-198381-1 MS
Matrix: Water
Analysis Batch: 598011

Client Sample ID: HW-1
Prep Type: Total/NA
Prep Batch: 596622

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sodium	1100	V	10.0	1220	4	mg/L		927	75 - 125

Lab Sample ID: 500-198381-1 MS
Matrix: Water
Analysis Batch: 598011

Client Sample ID: HW-1
Prep Type: Total/NA
Prep Batch: 596622

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	410	V F2	0.100	447	4	mg/L		31743	75 - 125

Lab Sample ID: 500-198381-1 MS
Matrix: Water
Analysis Batch: 598970

Client Sample ID: HW-1
Prep Type: Total/NA
Prep Batch: 596622

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silicon	16		5.00	20.8		mg/L		87	75 - 125

Lab Sample ID: 500-198381-1 MSD
Matrix: Water
Analysis Batch: 597098

Client Sample ID: HW-1
Prep Type: Total/NA
Prep Batch: 596622

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	2.3		2.00	4.10		mg/L		88	75 - 125	7	20
Calcium	160		10.0	163	4	mg/L		34	75 - 125	5	20
Iron	43		1.00	42.1	4	mg/L		-42	75 - 125	5	20
Magnesium	41		10.0	49.1	4	mg/L		78	75 - 125	5	20
Manganese	1.7		0.500	2.06		mg/L		78	75 - 125	5	20
Potassium	14		10.0	24.1		mg/L		100	75 - 125	6	20

Lab Sample ID: 500-198381-1 MSD
Matrix: Water
Analysis Batch: 598011

Client Sample ID: HW-1
Prep Type: Total/NA
Prep Batch: 596622

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sodium	1100	V	10.0	1110	4	mg/L		-158	75 - 125	9	20

Lab Sample ID: 500-198381-1 MSD
Matrix: Water
Analysis Batch: 598011

Client Sample ID: HW-1
Prep Type: Total/NA
Prep Batch: 596622

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	410	V F2	0.100	350	4 F2	mg/L		-6514 3	75 - 125	24	20

Lab Sample ID: 500-198381-1 MSD
Matrix: Water
Analysis Batch: 598970

Client Sample ID: HW-1
Prep Type: Total/NA
Prep Batch: 596622

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silicon	16		5.00	20.4		mg/L		80	75 - 125	2	20

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 500-198381-1 DU
Matrix: Water
Analysis Batch: 597098

Client Sample ID: HW-1
Prep Type: Total/NA
Prep Batch: 596622

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Aluminum	2.3		2.34		mg/L		0.6	20
Calcium	160		161		mg/L		0.9	20
Iron	43		43.0		mg/L		1	20
Magnesium	41		41.7		mg/L		1	20
Manganese	1.7		1.69		mg/L		1	20
Potassium	14		14.5		mg/L		3	20

Lab Sample ID: 500-198381-1 DU
Matrix: Water
Analysis Batch: 598011

Client Sample ID: HW-1
Prep Type: Total/NA
Prep Batch: 596622

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sodium	1100	V	1290		mg/L		14	20

Lab Sample ID: 500-198381-1 DU
Matrix: Water
Analysis Batch: 598011

Client Sample ID: HW-1
Prep Type: Total/NA
Prep Batch: 596622

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	410	V F2	407		mg/L		2	20

Lab Sample ID: 500-198381-1 DU
Matrix: Water
Analysis Batch: 598970

Client Sample ID: HW-1
Prep Type: Total/NA
Prep Batch: 596622

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silicon	16		16.5		mg/L		0.4	20
SiO2, Silica	35		35.2		mg/L		0.4	20

Method: 9040B - pH

Lab Sample ID: 500-198381-1 DU
Matrix: Water
Analysis Batch: 596975

Client Sample ID: HW-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	6.6	HF	6.6		SU		0	

Lab Sample ID: 500-198381-2 DU
Matrix: Water
Analysis Batch: 596975

Client Sample ID: HW-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	6.7	HF	6.8		SU		0.3	

Client: Endpoint Solutions Corp
Project/Site: PDP HW Well Sampling 415-001-009

Job ID: 500-198381-1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 500-599846/3
Matrix: Water
Analysis Batch: 599846

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.17		0.20	0.17	mg/L			05/19/21 07:21	1

Lab Sample ID: LCS 500-599846/4
Matrix: Water
Analysis Batch: 599846

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3.00	3.00		mg/L		100	80 - 120

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 500-597691/3
Matrix: Water
Analysis Batch: 597691

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	<3.7		5.0	3.7	mg/L			05/08/21 11:46	1

Lab Sample ID: LCS 500-597691/4
Matrix: Water
Analysis Batch: 597691

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	100	106		mg/L		106	90 - 110

Method: 1631E Total Low Level Hg - General Subcontract Method

Lab Sample ID: F105461-BLK1
Matrix: Water
Analysis Batch: F105461

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: F105461_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.5	U	0.5		ng/L		05/17/21 00:00	05/17/21 11:32	1

Lab Sample ID: F105461-BLK2
Matrix: Water
Analysis Batch: F105461

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: F105461_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.5	U	0.5		ng/L		05/17/21 00:00	05/17/21 11:36	1

Lab Sample ID: F105461-BLK3
Matrix: Water
Analysis Batch: F105461

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: F105461_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.5	U	0.5		ng/L		05/17/21 00:00	05/17/21 11:40	1

Method: 1631E Total Low Level Hg - General Subcontract Method (Continued)

Lab Sample ID: F105461-BLK5
Matrix: Water
Analysis Batch: F105461

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: F105461_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.43	QB-06	0.5		ng/L		05/17/21 00:00	05/17/21 12:39	1

Lab Sample ID: F105461-BS1
Matrix: Water
Analysis Batch: F105461

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: F105461_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	5	4.79		ng/L		95.8	77 - 123

Lab Sample ID: F105461-BSD1
Matrix: Water
Analysis Batch: F105461

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: F105461_P

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	5	4.79		ng/L		95.8	77 - 123	0.0949	24

Method: Inorganic As, As III & As V - General Subcontract Method

Lab Sample ID: F105420-BLK1
Matrix: Water
Analysis Batch: F105420

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: F105420_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenite (as Arsenic)	<0.02	U	0.02		µg/L		05/11/21 00:00	05/11/21 11:10	1

Lab Sample ID: F105420-BLK2
Matrix: Water
Analysis Batch: F105420

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: F105420_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenite (as Arsenic)	<0.02	U	0.02		µg/L		05/11/21 00:00	05/11/21 11:14	1

Lab Sample ID: F105420-BS1
Matrix: Water
Analysis Batch: F105420

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: F105420_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenite (as Arsenic)	0.1	0.113		µg/L		113	30 - 170

Lab Sample ID: F105420-BSD1
Matrix: Water
Analysis Batch: F105420

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: F105420_P

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenite (as Arsenic)	0.1	0.117		µg/L		117	30 - 170	3.16	35

Method: Total, Inorganic & Organic Arsenic - General Subcontract Method

Lab Sample ID: F104403-BLK1
Matrix: Water
Analysis Batch: F104403

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: F104403_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.1	U	0.1		µg/L		04/30/21 07:57	04/30/21 20:03	1

Lab Sample ID: F104403-BLK2
Matrix: Water
Analysis Batch: F104403

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: F104403_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.1	U	0.1		µg/L		04/30/21 07:57	04/30/21 20:07	1

Lab Sample ID: F104403-BS1
Matrix: Water
Analysis Batch: F104403

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: F104403_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	100	109.5		µg/L		110	80 - 120

Lab Sample ID: F104403-BSD1
Matrix: Water
Analysis Batch: F104403

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: F104403_P

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	100	108		µg/L		108	80 - 120	1.4	20

Lab Sample ID: F105419-BLK1
Matrix: Water
Analysis Batch: F105419

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: F105419_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Inorganic Arsenic	<0.02	U	0.02		µg/L		05/04/21 00:00	05/04/21 11:11	1

Lab Sample ID: F105419-BLK2
Matrix: Water
Analysis Batch: F105419

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: F105419_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Inorganic Arsenic	<0.02	U	0.02		µg/L		05/04/21 00:00	05/04/21 11:15	1

Lab Sample ID: F105419-BS1
Matrix: Water
Analysis Batch: F105419

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: F105419_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Inorganic Arsenic	0.1	0.091		µg/L		91.4	50 - 150

Lab Sample ID: F105419-BSD1
Matrix: Water
Analysis Batch: F105419

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: F105419_P

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Inorganic Arsenic	0.1	0.08		µg/L		79.7	50 - 150	13.7	35

Lab Chronicle

Client: Endpoint Solutions Corp
Project/Site: PDP HW Well Sampling 415-001-009

Job ID: 500-198381-1

Client Sample ID: HW-1

Date Collected: 04/24/21 09:00
Date Received: 04/29/21 10:15

Lab Sample ID: 500-198381-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			486403	05/05/21 19:54	AP	TAL SAC
Total/NA	Analysis	537 (modified)		20	487929	05/11/21 11:07	S1M	TAL SAC
Total/NA	Prep	3535	RE		489123	05/14/21 13:12	LA	TAL SAC
Total/NA	Analysis	537 (modified)	RE	1	489455	05/15/21 21:56	K1S	TAL SAC
Dissolved	Prep	3010A			596622	05/04/21 08:27	BDE	TAL CHI
Dissolved	Analysis	6010B		1	597098	05/05/21 18:58	EEN	TAL CHI
Dissolved	Prep	3010A			596622	05/04/21 08:27	BDE	TAL CHI
Dissolved	Analysis	6010B		5	598011	05/10/21 14:42	EEN	TAL CHI
Dissolved	Prep	3010A			596622	05/04/21 08:27	BDE	TAL CHI
Dissolved	Analysis	6010B		500	598011	05/10/21 14:49	EEN	TAL CHI
Total/NA	Prep	3010A			596622	05/04/21 08:27	BDE	TAL CHI
Total/NA	Analysis	6010B		1	597098	05/05/21 18:29	EEN	TAL CHI
Total/NA	Prep	3010A			596622	05/04/21 08:27	BDE	TAL CHI
Total/NA	Analysis	6010B		5	598011	05/10/21 13:49	EEN	TAL CHI
Total/NA	Prep	3010A			596622	05/04/21 08:27	BDE	TAL CHI
Total/NA	Analysis	6010B		500	598011	05/10/21 13:53	EEN	TAL CHI
Total/NA	Prep	3010A			596622	05/04/21 08:27	BDE	TAL CHI
Total/NA	Analysis	6010B		1	598970	05/14/21 14:23	JJB	TAL CHI
Total/NA	Prep	3010A			596622	05/04/21 08:27	BDE	TAL CHI
Total/NA	Analysis	SM 2340B		1	598023	05/11/21 08:35	EEN	TAL CHI
Total/NA	Analysis	9040B		1	596975		SMO	TAL CHI
					(Start)	05/05/21 15:59		
					(End)	05/05/21 15:54		
Total/NA	Analysis	9056A		200	599846	05/19/21 07:49	EAT	TAL CHI
Total/NA	Analysis	SM 2320B		1	597691	05/08/21 12:29	SMO	TAL CHI
Total/NA	Prep	EFGS SOP2796 EPA 1631 Oxidation		1	F105461_P	05/17/21 00:00		Frontier
Total/NA	Analysis	1631E Total Low Level Hg		50	F105461	05/17/21 12:30	KG	Frontier
Total/NA	Prep	EFGS SOP2987 EPA 1632 Speciation of Waters		1	F105420_P	05/11/21 00:00		Frontier
Total/NA	Analysis	Inorganic As, As III & As V		2000000	F105420	05/11/21 13:51	MV2	Frontier
Total/NA	Prep	EFGS SOP2836 Closed Vessel Water Oven Digestion		1	F104403_P	04/30/21 07:57		Frontier
Total/NA	Analysis	Total, Inorganic & Organic Arsenic		1000	F104403	05/01/21 04:03	MGS	Frontier
Total/NA	Prep	EFGS SOP2987 EPA 1632 Speciation of Waters		1	F105419_P	05/04/21 00:00		Frontier
Total/NA	Analysis	Total, Inorganic & Organic Arsenic		2000000	F105419	05/04/21 14:52	MV2	Frontier

Lab Chronicle

Client: Endpoint Solutions Corp
Project/Site: PDP HW Well Sampling 415-001-009

Job ID: 500-198381-1

Client Sample ID: HW-2

Date Collected: 04/24/21 09:30
Date Received: 04/29/21 10:15

Lab Sample ID: 500-198381-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			486403	05/05/21 19:54	AP	TAL SAC
Total/NA	Analysis	537 (modified)		20	487929	05/11/21 11:25	S1M	TAL SAC
Total/NA	Prep	3535	RE		489123	05/14/21 13:12	LA	TAL SAC
Total/NA	Analysis	537 (modified)	RE	1	489455	05/15/21 22:34	K1S	TAL SAC
Dissolved	Prep	3010A			596622	05/04/21 08:27	BDE	TAL CHI
Dissolved	Analysis	6010B		1	597098	05/05/21 19:01	EEN	TAL CHI
Dissolved	Prep	3010A			596622	05/04/21 08:27	BDE	TAL CHI
Dissolved	Analysis	6010B		50	598011	05/10/21 14:52	EEN	TAL CHI
Total/NA	Prep	3010A			596622	05/04/21 08:27	BDE	TAL CHI
Total/NA	Analysis	6010B		1	597098	05/05/21 18:47	EEN	TAL CHI
Total/NA	Prep	3010A			596622	05/04/21 08:27	BDE	TAL CHI
Total/NA	Analysis	6010B		5	598011	05/10/21 14:35	EEN	TAL CHI
Total/NA	Prep	3010A			596622	05/04/21 08:27	BDE	TAL CHI
Total/NA	Analysis	6010B		500	598011	05/10/21 14:39	EEN	TAL CHI
Total/NA	Prep	3010A			596622	05/04/21 08:27	BDE	TAL CHI
Total/NA	Analysis	6010B		1	598970	05/14/21 14:41	JJB	TAL CHI
Total/NA	Prep	3010A			596622	05/04/21 08:27	BDE	TAL CHI
Total/NA	Analysis	SM 2340B		1	598023	05/11/21 08:35	EEN	TAL CHI
Total/NA	Analysis	9040B		1	596975		SMO	TAL CHI
					(Start)	05/05/21 15:59		
					(End)	05/05/21 15:54		
Total/NA	Analysis	9056A		250	599846	05/19/21 08:02	EAT	TAL CHI
Total/NA	Analysis	SM 2320B		1	597691	05/08/21 12:40	SMO	TAL CHI
Total/NA	Prep	EFGS SOP2796 EPA 1631 Oxidation		1	F105461_P	05/17/21 00:00		Frontier
Total/NA	Analysis	1631E Total Low Level Hg		50	F105461	05/17/21 12:34	KG	Frontier
Total/NA	Prep	EFGS SOP2987 EPA 1632 Speciation of Waters		1	F105420_P	05/11/21 00:00		Frontier
Total/NA	Analysis	Inorganic As, As III & As V		100000	F105420	05/11/21 13:58	MV2	Frontier
Total/NA	Prep	EFGS SOP2836 Closed Vessel Water Oven Digestion		1	F104403_P	04/30/21 07:57		Frontier
Total/NA	Analysis	Total, Inorganic & Organic Arsenic		1000	F104403	05/01/21 04:08	MGS	Frontier
Total/NA	Prep	EFGS SOP2987 EPA 1632 Speciation of Waters		1	F105419_P	05/04/21 00:00		Frontier
Total/NA	Analysis	Total, Inorganic & Organic Arsenic		100000	F105419	05/04/21 14:41	MV2	Frontier

Lab Chronicle

Client: Endpoint Solutions Corp
Job ID: 500-198381-1
Project/Site: PDP HW Well Sampling 415-001-009

Client Sample ID: HW-1 Field Blank
Lab Sample ID: 500-198381-3
Date Collected: 04/24/21 09:00
Matrix: Water
Date Received: 04/29/21 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			486403	05/05/21 19:54	AP	TAL SAC
Total/NA	Analysis	537 (modified)		1	487411	05/09/21 01:21	K1S	TAL SAC

Client Sample ID: HW-2 Field Blank
Lab Sample ID: 500-198381-4
Date Collected: 04/24/21 09:30
Matrix: Water
Date Received: 04/29/21 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			486403	05/05/21 19:54	AP	TAL SAC
Total/NA	Analysis	537 (modified)		1	487411	05/09/21 01:30	K1S	TAL SAC

Laboratory References:

Frontier = Eurofins Frontier Global Sciences LLC, 5755 8th Street E, Tacoma, WA 98424

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: Endpoint Solutions Corp
Job ID: 500-198381-1
Project/Site: PDP HW Well Sampling 415-001-009

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

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

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: Tim Hanson (TH)	Lab PM: Fredrick Sandie	Carrier: 500-198381 COC	COC No: 500-90111-40277 1
Client Contact: Mr Tim Petrick	Phone: 262 527-3247	E-Mail: sandra fredrick@eurofinset.com	State of Origin: WI	Page: Page 1 of 1
Company: Endpoint Solutions Corp	PWSID:			Job #: 500- 198381
Address: 6871 S Lover's Lane	Due Date Requested:			
City: Franklin	TAT Requested (days):			
State Zip: WI 53132	Compliance Project: Δ Yes Δ No			
Phone: 414-427-1200(Tel)	PO #: Purchase Order not required			
Email: tim@endpointcorporation com	WO #:			
Project Name: PDP HW well sampling	Project #: 50018723			
Site:	SSOW#:			

Analysis Requested

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)	6010B Total Metals (9), SM2340B Total Hardness	6010B - Dissolved Metals (ICP) - 9 elements F,I,F	9056A - Chloride	2320B Alkalinity, 9040B pH	PFC_IDA_WI - PFAS Standard List (36 Analytes)	SUBCONTRACT - 1631E Total Low Level Hg	SUBCONTRACT - 1631E Dissolved Low Level Hg	SUBCONTRACT - Inorganic As As III & As V	SUBCONTRACT - Total Inorganic & Organic Arsenic	SUBCONTRACT - Semiquantitation of MMAs & DMAs by 1632	Total Number of containers	Special Instructions/Note
				Preservation Code:				D	D	N	N	N	A	A	A	D	N		
1	HW-1	4/24/21	9.00am	G	Water			X	X	X	X	X	X	X	X	X	X		
2	HW-2	4/24/21	9.30am	G	Water			X	X	X	X	X	X	X	X	X	X		
3	HW-1 Field Blank				Water														Added by ETA 4129121 SH
4	HW-2 Field Blank				Water														

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

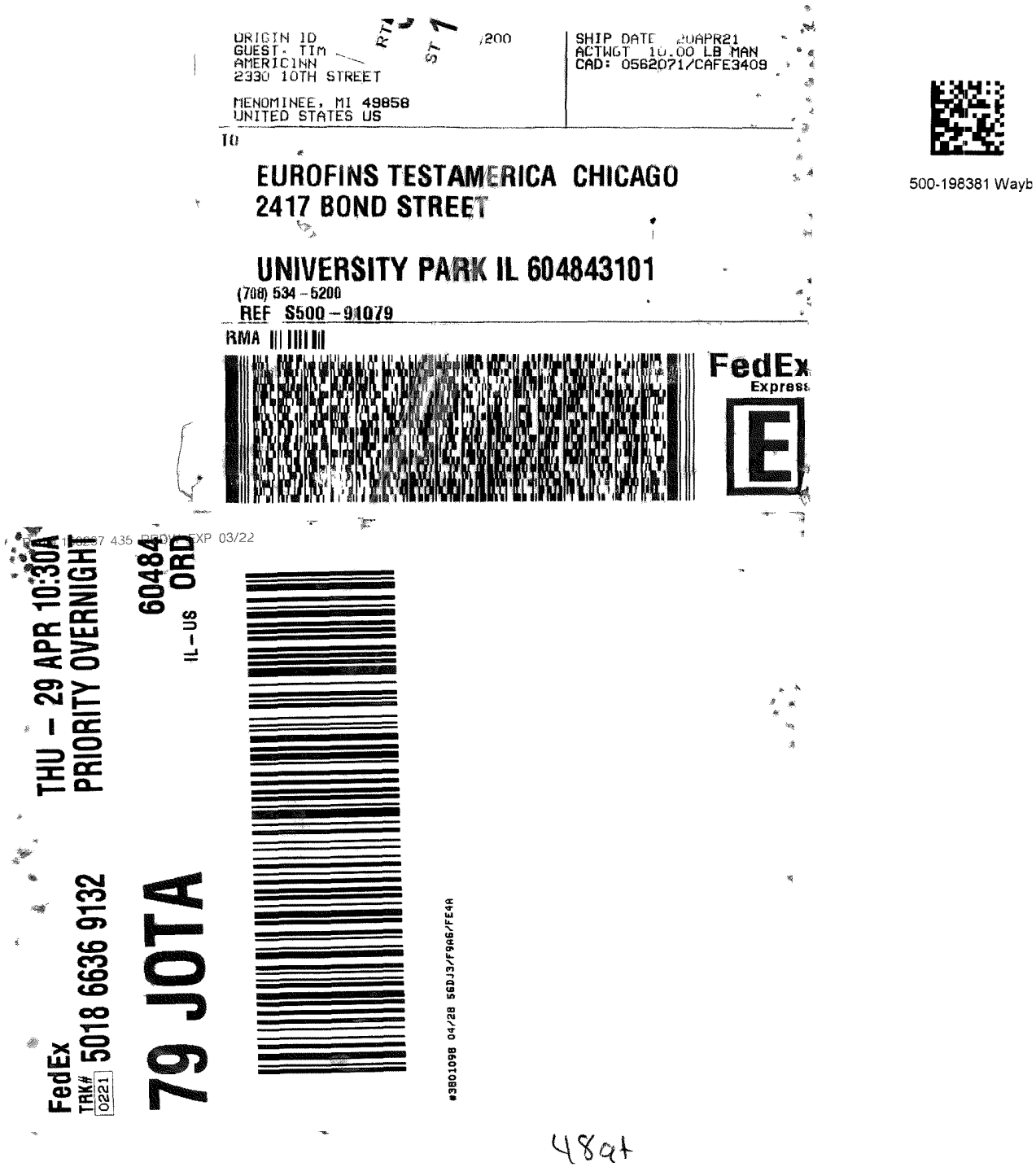
Deliverable Requested I II III IV Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		4/24/21	Endpoint	Stephanie Hernandez	4129121 1015	ETA-CHI
2	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
3	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
		4.5 → 4.1



500-198381 Wayb

48at

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Fredrick, Sandie	Carrier Tracking No(s):	COC No: 500-148040.1
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		Job #: 500-198381-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 5/19/2021			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: PDP HW Well Sampling	Project #: 50018723			
Site:	SSOW#:			

Analysis Requested

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 - 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)	PFC_IDA_WI3535_PFC_28D PFAS, Standard List (36 Analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
HW-1 (500-198381-1)	4/24/21	09:00 Central		Water			X	2	
HW-2 (500-198381-2)	4/24/21	09:30 Central		Water			X	2	
HW-1 Field Blank (500-198381-3)	4/24/21	09:00 Central		Water			X	1	
HW-2 Field Blank (500-198381-4)	4/24/21	09:30 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
1	Stephanie Hernandez	4/29/21 1640	ETA-CHI		04-30-21 09:50	ETASAC
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No | Custody Seal No.: 1443885 | Cooler Temperature(s) °C and Other Remarks: 2.0

Login Sample Receipt Checklist

Client: Endpoint Solutions Corp

Job Number: 500-198381-1

Login Number: 198381
List Number: 1
Creator: Hernandez, Stephanie

List Source: Eurofins TestAmerica, Chicago

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	4.1
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.	False	Refer to Job Narrative for details.
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	

Login Sample Receipt Checklist

Client: Endpoint Solutions Corp

Job Number: 500-198381-1

Login Number: 198381
List Number: 2
Creator: Cahill, Nicholas P

List Source: Eurofins TestAmerica, Sacramento
List Creation: 04/30/21 01:14 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	1443885
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	2.0c
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?	False	Received project as a subcontract.
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	

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Sacramento
Sample Receiving Notes

500-198381 Field Sheet

Job: _____

Tracking # : 1893 4451 7298

SO / PO / FO / SAT / 2-Day / Ground / UPS / CDO / Courier
GSO / OnTrac / Goldstreak / USPS / Other _____

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations.
File in the job folder with the COC.

Therm. ID: L-26 Corr. Factor: (+ / -) N/A °C

Ice ✓ Wet ✓ Gel _____ Other _____

Cooler Custody Seal: 1443885

Cooler ID: —

Temp Observed: 2.0 °C Corrected: _____ °C

From: Temp Blank ☑ Sample ☐

Opening/Processing The Shipment	Yes	No	NA
Cooler compromised/tampered with?	☐	☑	☐
Cooler Temperature is acceptable?	☑	☐	☐
Frozen samples show signs of thaw?	☐	☐	☑

Initials: NC Date: 4-30-21

Unpacking/Labeling The Samples	Yes	No	NA
CoC is complete w/o discrepancies?	☑	☐	☐
Samples compromised/tampered with?	☐	☑	☐
Sample containers have legible labels?	☑	☐	☐
Sample custody seal?	☐	☐	☑
Containers are not broken or leaking?	☑	☐	☐
Sample date/times are provided?	☑	☐	☐
Appropriate containers are used?	☑	☐	☐
Sample bottles are completely filled?	☑	☐	☐
Sample preservatives verified?	☐	☐	☑
Samples w/o discrepancies?	☑	☐	☐
Zero headspace?*	☐	☐	☑
Alkalinity has no headspace?	☐	☐	☑
Perchlorate has headspace? (Methods 314, 331, 6850)	☐	☐	☑
Multiphasic samples are not present?	☑	☐	☐

*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")

Initials: NC Date: 4-30-21

Notes: _____

Trizma Lot #(s): _____

Login Completion	Yes	No	NA
Receipt Temperature on COC?	☑	☐	☐
Samples received within hold time?	☑	☐	☐
NCM Filed? NC 4-30-21	☐	☐	☑
Log Release checked in TALS?	☑	☐	☐

Initials: NC Date: 4-30-21

WR3 10

Isotope Dilution Summary

Client: Endpoint Solutions Corp
Job ID: 500-198381-1
Project/Site: PDP HW Well Sampling 415-001-009

Method: 537 (modified) - Fluorinated Alkyl Substances

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

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	PFHxA	C4PFHA	PFOA	PFNA	PFDA	PFUnA
Lab Sample ID	Client Sample ID	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)
500-198381-1	HW-1	77	66	71	68	79	84	90	82

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFDoA	PFTDA	PFHxDA	C3PFBS	PFHxS	PFOS	PFOSA	d3NMFOS
Lab Sample ID	Client Sample ID	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(10-150)	(25-150)
500-198381-1	HW-1	56			93	71	83	81	92

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		d5NEFOS	dMeFOSA	dEtFOSA	NMFM	NEFM	M242FTS	M282FTS	HFPODA
Lab Sample ID	Client Sample ID	(25-150)	(10-150)	(10-150)	(10-150)	(10-150)	(25-150)	(25-150)	(25-150)
500-198381-1	HW-1	83	65	49	68	48			61

		Percent Isotope Dilution Recovery (Acceptance Limits)
		M102FTS
Lab Sample ID	Client Sample ID	(25-150)
500-198381-1	HW-1	99

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
PFHxA = 13C2 PFHxA
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFNA = 13C5 PFNA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDoA = 13C2 PFDoA
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
HFPODA = 13C3 HFPO-DA
M102FTS = 13C2 10:2 FTS

Method: 537 (modified) - Fluorinated Alkyl Substances

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

		Percent Isotope Dilution Recovery (Acceptance Limits)				
		PFTDA	PFHxDA	M242FTS	M262FTS	M282FTS
Lab Sample ID	Client Sample ID	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)
500-198381-1 - RE	HW-1	46	33	51	70	60

Surrogate Legend

PFTDA = 13C2 PFTeDA
PFHxDA = 13C2 PFHxDA
M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS

Isotope Dilution Summary

Client: Endpoint Solutions Corp
Job ID: 500-198381-1
Project/Site: PDP HW Well Sampling 415-001-009

M282FTS = M2-8:2 FTS

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)
500-198381-2	HW-2	86	83	86	88	97	95	96	84
500-198381-3	HW-1 Field Blank	98	100	89	97	97	93	87	91
500-198381-4	HW-2 Field Blank	93	97	96	94	97	101	89	92
LCS 320-486403/2-A	Lab Control Sample	102	102	101	103	101	104	94	102
LCS 320-489123/2-A	Lab Control Sample	106	94	96	102	102	101	104	109
LCSD 320-486403/3-A	Lab Control Sample Dup	104	103	99	102	99	105	100	97
MB 320-486403/1-A	Method Blank	109	103	98	111	102	108	106	95
MB 320-489123/1-A	Method Blank	97	86	96	97	99	101	102	112

		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 (10-150)	d3NMFOS (25-150)
500-198381-2	HW-2	79	58	53	78	86	85	74	91
500-198381-3	HW-1 Field Blank	87	81	89	88	89	91	85	85
500-198381-4	HW-2 Field Blank	92	82	85	88	93	93	91	86
LCS 320-486403/2-A	Lab Control Sample	100	96	96	93	95	97	100	91
LCS 320-489123/2-A	Lab Control Sample	99	88	93	96	102	97	97	103
LCSD 320-486403/3-A	Lab Control Sample Dup	97	93	92	92	98	103	102	93
MB 320-486403/1-A	Method Blank	108	99	99	94	103	108	99	98
MB 320-489123/1-A	Method Blank	99	100	99	87	96	94	107	111

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	d5NEFOS (25-150)	dMeFOSA (10-150)	dEtFOSA (10-150)	NMFM (10-150)	NEFM (10-150)	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)
500-198381-2	HW-2	93	82	54	69	65	142		138
500-198381-3	HW-1 Field Blank	90	82	83	80	81	91	103	92
500-198381-4	HW-2 Field Blank	92	74	81	79	80	95	101	105
LCS 320-486403/2-A	Lab Control Sample	94	89	97	86	89	103	113	113
LCS 320-489123/2-A	Lab Control Sample	102	77	79	88	93	104	123	108
LCSD 320-486403/3-A	Lab Control Sample Dup	99	82	80	88	92	104	112	113
MB 320-486403/1-A	Method Blank	103	81	92	96	94	108	109	125
MB 320-489123/1-A	Method Blank	109	74	77	97	91	100	120	119

		Percent Isotope Dilution Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	HFPODA (25-150)	M102FTS (25-150)
500-198381-2	HW-2	77	102
500-198381-3	HW-1 Field Blank	87	101
500-198381-4	HW-2 Field Blank	93	99
LCS 320-486403/2-A	Lab Control Sample	98	107
LCS 320-489123/2-A	Lab Control Sample	91	109
LCSD 320-486403/3-A	Lab Control Sample Dup	102	109
MB 320-486403/1-A	Method Blank	100	125
MB 320-489123/1-A	Method Blank	88	121

Surrogate Legend

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

Isotope Dilution Summary

Client: Endpoint Solutions Corp
Job ID: 500-198381-1
Project/Site: PDP HW Well Sampling 415-001-009

PFNA = 13C5 PFNA
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
M102FTS = 13C2 10:2 FTS

Method: 537 (modified) - Fluorinated Alkyl Substances

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

		Percent Isotope Dilution Recovery (Acceptance Limits)								
Lab Sample ID	Client Sample ID	M262FTS (25-150)								
500-198381-2 - RE	HW-2	52								

Surrogate Legend

M262FTS = M2-6:2 FTS