

Nyack Water Department

Report of Progress through 2021 Quarter 1

The Nyack Village Water Supply's primary source of water, the Nyack Water Treatment Plant, has been impacted by PFOA and PFOS contamination. Unfortunately, the treatment systems that the Water Department has in-place are ineffective in removing these contaminants.

Actions Undertaken by the Department

The process for implementing treatment for per- and polyfluorinated compounds is not simple. We have been working closely with our health regulators to ensure that the treatment system selected will perform reliably and produce consistent results. Reflected below are the actions that have been taken since our last quarterly report:

- February 2021 (2020 Q1): Testing indicates that the concentrations are below the Maximum Contaminant Level (MCL) for PFOA and PFOS.
- February 2021: Engineering Report submitted to the New York State Department of Health for review and comments.
- March 2021: Nyack Board of Water Commissioners authorized the Engineer to begin with Phase II of the project which includes full scale design and permitting of the treatment system.

Testing Results

Quarter 1 2021 testing indicated that the concentrations are below the MCL for PFOA and PFOS.

Nyack Village Water Treatment Plant Maximum Detections					
Contaminant	03/02/2020	09/14/2020	10/13/2020	10/30/2020	2/17/2021
PFOA (ng/L)	9.98	9.95	13.00 ⁽¹⁾	9.4	7.2
PFOS (ng/L)	5.38	6.49	8.10	7.8	5.1

(1) Testing conducted on October 13, 2020 indicated that the Nyack Village Water Supply may have an MCL exceedance.

Next Steps

The Engineer will continue to work with the New York State and Rockland County Health Departments on finalizing approval of the reference Engineering Report. Upon this approval, the Engineer will proceed with full scale design in accordance with the project schedule. There are no anticipated changes or delays to the schedule at this time.

Nyack Water Department

2020 QUARTER 2 SAMPLING REPORT



ANALYTICAL REPORT

Lab Number:	L2009619
Client:	Envirotest Laboratories Inc. 315 Fullerton Avenue Newburgh, NY 12550
ATTN:	Debra Bayer
Phone:	(845) 562-0890
Project Name:	Not Specified
Project Number:	42001382
Report Date:	03/16/20

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

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Project Name: Not Specified
Project Number: 42001382

Lab Number: L2009619
Report Date: 03/16/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2009619-01	INTAKE (420-168400-1)	DW	VILLAGE OF NYACK WATER DEPT.	03/02/20 10:00	03/04/20
L2009619-02	INTAKE FIELD BLANK (420-168400-2)	DW	VILLAGE OF NYACK WATER DEPT.	03/02/20 10:00	03/04/20
L2009619-03	TREATMENT PLANT (420-168400-3)	DW	VILLAGE OF NYACK WATER DEPT.	03/02/20 10:00	03/04/20
L2009619-04	TREATMENT PLANT FIELD BLANK (420-168400-4)	DW	VILLAGE OF NYACK WATER DEPT.	03/02/20 10:00	03/04/20

Project Name: Not Specified
Project Number: 42001382

Lab Number: L2009619
Report Date: 03/16/20

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Alycia Mogayzel

Title: Technical Director/Representative

Date: 03/16/20

ORGANICS

SEMIVOLATILES

Project Name: Not Specified

Lab Number: L2009619

Project Number: 42001382

Report Date: 03/16/20

SAMPLE RESULTS

Lab ID: L2009619-01
 Client ID: INTAKE (420-168400-1)
 Sample Location: VILLAGE OF NYACK WATER DEPT.

Date Collected: 03/02/20 10:00
 Date Received: 03/04/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Dw
 Analytical Method: 122,537
 Analytical Date: 03/11/20 23:37
 Analyst: RS

Extraction Method: EPA 537
 Extraction Date: 03/06/20 07:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 537 - Mansfield Lab						
Perfluorooctanoic Acid (PFOA)	9.98		ng/l	1.74	--	1
Perfluorooctanesulfonic Acid (PFOS)	5.38		ng/l	1.74	--	1
PFOA/PFOS, Total	15.4		ng/l	1.74	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA)	99		70-130
Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA)	125		70-130
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	93		70-130



Project Name: Not Specified
Project Number: 42001382

Lab Number: L2009619
Report Date: 03/16/20

SAMPLE RESULTS

Lab ID: L2009619-02
Client ID: INTAKE FIELD BLANK (420-168400-2)
Sample Location: VILLAGE OF NYACK WATER DEPT.

Date Collected: 03/02/20 10:00
Date Received: 03/04/20
Field Prep: Not Specified

Sample Depth:
Matrix: Dw
Analytical Method: 122,537
Analytical Date: 03/12/20 00:11
Analyst: RS

Extraction Method: EPA 537
Extraction Date: 03/06/20 07:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 537 - Mansfield Lab						
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.80	--	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.80	--	1
PFOA/PFOS, Total	ND		ng/l	1.80	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA)	104		70-130
Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA)	102		70-130
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	74		70-130

Project Name: Not Specified
Project Number: 42001382

Lab Number: L2009619
Report Date: 03/16/20

SAMPLE RESULTS

Lab ID: L2009619-03
 Client ID: TREATMENT PLANT (420-168400-3)
 Sample Location: VILLAGE OF NYACK WATER DEPT.

Date Collected: 03/02/20 10:00
 Date Received: 03/04/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Dw
 Analytical Method: 122,537
 Analytical Date: 03/12/20 00:28
 Analyst: RS

Extraction Method: EPA 537
 Extraction Date: 03/06/20 07:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 537 - Mansfield Lab						
Perfluorooctanoic Acid (PFOA)	9.57		ng/l	1.78	--	1
Perfluorooctanesulfonic Acid (PFOS)	5.39		ng/l	1.78	--	1
PFOA/PFOS, Total	15.0		ng/l	1.78	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA)	91		70-130
Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA)	107		70-130
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	76		70-130



Project Name: Not Specified
Project Number: 42001382

Lab Number: L2009619
Report Date: 03/16/20

SAMPLE RESULTS

Lab ID: L2009619-04
Client ID: TREATMENT PLANT FIELD BLANK (420-168400-4)
Sample Location: VILLAGE OF NYACK WATER DEPT.

Date Collected: 03/02/20 10:00
Date Received: 03/04/20
Field Prep: Not Specified

Sample Depth:

Matrix: Dw
Analytical Method: 122,537
Analytical Date: 03/12/20 01:02
Analyst: RS

Extraction Method: EPA 537
Extraction Date: 03/06/20 07:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Perfluorinated Alkyl Acids by EPA 537 - Mansfield Lab

Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.85	--	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.85	--	1
PFOA/PFOS, Total	ND		ng/l	1.85	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA)	100		70-130
Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA)	103		70-130
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	79		70-130

Project Name: Not Specified
Project Number: 42001382

Lab Number: L2009619
Report Date: 03/16/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 122,537
Analytical Date: 03/11/20 22:46
Analyst: RS

Extraction Method: EPA 537
Extraction Date: 03/06/20 07:15

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by EPA 537 - Mansfield Lab for sample(s): 01-04 Batch: WG1347915-1					
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.00	--
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.00	--
PFOA/PFOS, Total	ND		ng/l	2.00	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA)	99		70-130
Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA)	101		70-130
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEIFOSAA)	85		70-130

Lab Control Sample Analysis Batch Quality Control

Project Name: Not Specified
Project Number: 42001382

Lab Number: L2009619
Report Date: 03/16/20

Parameter	LCS		LCSD		RPD	Qual	RPD	Qual	RPD	Qual
	%Recovery	Qual	%Recovery	Qual						

Perfluorinated Alkyl Acids by EPA 537 - Mansfield Lab Associated sample(s): 01-04 Batch: WG1347915-2 WG1347915-3										
Perfluorooctanoic Acid (PFOA)	94		100							
Perfluorooctanesulfonic Acid (PFOS)	75		76							

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA)	100		103		70-130
Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA)	103		106		70-130
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEFOSAA)	79		84		70-130



Matrix Spike Analysis Batch Quality Control

Project Name: Not Specified
Project Number: 42001382

Lab Number: L2009619
Report Date: 03/16/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD Qual Limits	
											MS %Recovery
Perfluorinated Alkyl Acids by EPA 537 - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1347915-4 QC Sample: L2009619-01 Client ID: INTAKE (420-168400-1)											
Perfluorooctanoic Acid (PFOA)	9.98	1.74	12.0	116	-	-	-	-	70-130	30	
Perfluorooctanesulfonic Acid (PFOS)	5.38	1.74	7.12	100	-	-	-	-	70-130	30	

Surrogate	MS % Recovery	Qualifier	MSD % Recovery	Qualifier	Acceptance Criteria
N-Deuterioethylperfluoro-1-octanesulfonamidooacetic Acid (d5-NEtFOSAA)	91				70-130
Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA)	118				70-130
Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHXA)	96				70-130



Lab Duplicate Analysis

Batch Quality Control

Project Name: Not Specified
Project Number: 42001382

Lab Number: L2009619
Report Date: 03/16/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
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Perfluorinated Alkyl Acids by EPA 537 - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1347915-5 QC Sample: L2009619-03 Client ID: TREATMENT PLANT (420-168400-3)						
Perfluorooctanoic Acid (PFOA)	9.57	9.26	ng/l	3		30
Perfluorooctanesulfonic Acid (PFOS)	5.39	5.04	ng/l	7		30
PFOA/PFOS, Total	15.0	14.3	ng/l	5		30

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHXA)	91		93		70-130
Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA)	107		109		70-130
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEHFOSAA)	76		87		70-130



Project Name: Not Specified
Project Number: 42001382

Serial No: 03162011.25
Lab Number: L2009619
Report Date: 03/16/20

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information
Cooler A
Custody Seal Absent

Container Information		Initial	Final	Temp	Pres	Seal	Frozen	Analysis(*)
Container ID	Container Type	pH	pH	deg C	Seal	Seal	Date/Time	
L2009619-01A	2 Plastic Trizma/1 Plastic/1 H2O+Trizma	A	NA	4.0	Y	Absent		A2-537-PFOA/PFOS(14)
L2009619-01B	2 Plastic Trizma/1 Plastic/1 H2O+Trizma	A	NA	4.0	Y	Absent		A2-537-PFOA/PFOS(14)
L2009619-02A	2 Plastic Trizma/1 Plastic/1 H2O+Trizma	A	NA	4.0	Y	Absent		A2-537-PFOA/PFOS(14)
L2009619-03A	2 Plastic Trizma/1 Plastic/1 H2O+Trizma	A	NA	4.0	Y	Absent		A2-537-PFOA/PFOS(14)
L2009619-03B	2 Plastic Trizma/1 Plastic/1 H2O+Trizma	A	NA	4.0	Y	Absent		A2-537-PFOA/PFOS(14)
L2009619-04A	2 Plastic Trizma/1 Plastic/1 H2O+Trizma	A	NA	4.0	Y	Absent		A2-537-PFOA/PFOS(14)

*Values in parentheses indicate holding time in days



Project Name: Not Specified
Project Number: 42001382

Serial_No:03162011:25
Lab Number: L2009619
Report Date: 03/16/20

PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
PERFLUOROALKYL CARBOXYLIC ACIDS (PFCAs)		
Perfluorooctadecanoic Acid	PFODA	16517-11-6
Perfluorohexadecanoic Acid	PFHxDA	67905-19-5
Perfluorotetradecanoic Acid	PFTA	376-06-7
Perfluorotridecanoic Acid	PFTriDA	72629-94-8
Perfluorododecanoic Acid	PFDoA	307-55-1
Perfluoroundecanoic Acid	PFUnA	2058-94-8
Perfluorodecanoic Acid	PFDA	335-76-2
Perfluorononanoic Acid	PFNA	375-95-1
Perfluorooctanoic Acid	PFOA	335-67-1
Perfluoroheptanoic Acid	PFHpA	375-85-9
Perfluorohexanoic Acid	PFHxA	307-24-4
Perfluoropentanoic Acid	PFPeA	2706-90-3
Perfluorobutanoic Acid	PFBA	375-22-4
PERFLUOROALKYL SULFONIC ACIDS (PFSAs)		
Perfluorododecanesulfonic Acid	PFDoDS	79780-39-5
Perfluorodecanesulfonic Acid	PFDS	335-77-3
Perfluorononanesulfonic Acid	PFNS	68259-12-1
Perfluorooctanesulfonic Acid	PFOS	1763-23-1
Perfluoroheptanesulfonic Acid	PFHpS	375-92-8
Perfluorohexanesulfonic Acid	PFHxS	355-46-4
Perfluoropentanesulfonic Acid	PFPeS	2706-91-4
Perfluorobutanesulfonic Acid	PFBS	375-73-5
FLUOROTELOMERS		
1H,1H,2H,2H-Perfluorododecanesulfonic Acid	10:2FTS	120226-60-0
1H,1H,2H,2H-Perfluorodecanesulfonic Acid	8:2FTS	39108-34-4
1H,1H,2H,2H-Perfluorooctanesulfonic Acid	6:2FTS	27619-97-2
1H,1H,2H,2H-Perfluorohexanesulfonic Acid	4:2FTS	757124-72-4
PERFLUOROALKANE SULFONAMIDES (FASAs)		
Perfluorooctanesulfonamide	FOSA	754-91-6
N-Ethyl Perfluorooctane Sulfonamide	NEtFOSA	4151-50-2
N-Methyl Perfluorooctane Sulfonamide	NMeFOSA	31506-32-8
PERFLUOROALKANE SULFONYL SUBSTANCES		
N-Ethyl Perfluorooctanesulfonamido Ethanol	NEtFOSE	1691-99-2
N-Methyl Perfluorooctanesulfonamido Ethanol	NMeFOSE	24448-09-7
N-Ethyl Perfluorooctanesulfonamidoacetic Acid	NEtFOSAA	2991-50-6
N-Methyl Perfluorooctanesulfonamidoacetic Acid	NMeFOSAA	2355-31-9
PER- and POLYFLUOROALKYL ETHER CARBOXYLIC ACIDS		
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid	HFPO-DA	13252-13-6
4,8-Dioxa-3h-Perfluorononanoic Acid	ADONA	919005-14-4
CHLORO-PERFLUOROALKYL SULFONIC ACIDS		
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid	11Cl-PF3OUdS	763051-92-9
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid	9Cl-PF3ONS	756426-58-1

Project Name: Not Specified
Project Number: 42001382

Lab Number: L2009619
Report Date: 03/16/20

GLOSSARY

Acronyms

- DL** - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
- EDL** - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
- EMPC** - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
- EPA** - Environmental Protection Agency.
- LCS** - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
- LCS D** - Laboratory Control Sample Duplicate: Refer to LCS.
- LFB** - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
- LOD** - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
- LOQ** - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
- MDL** - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
- MS** - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
- MSD** - Matrix Spike Sample Duplicate: Refer to MS.
- NA** - Not Applicable.
- NC** - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
- NDPA/DPA** - N-Nitrosodiphenylamine/Diphenylamine.
- NI** - Not Ignitable.
- NP** - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
- RL** - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
- RPD** - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
- SRM** - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
- STLP** - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
- TEF** - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
- TEQ** - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
- TIC** - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: Data Usability Report



Project Name: Not Specified

Lab Number: L2009619

Project Number: 42001382

Report Date: 03/16/20

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less

Report Format: Data Usability Report



Project Name: Not Specified
Project Number: 42001382

Lab Number: L2009619
Report Date: 03/16/20

Data Qualifiers

than 5x the RL. (Metals only.)

- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Project Name: Not Specified
Project Number: 42001382

Lab Number: L2009619
Report Date: 03/16/20

REFERENCES

- 122 Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS). EPA Method 537, EPA/600/R-08/092. Version 1.1, September 2009.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene
 EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
 EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
 SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS
 EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
 EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
 EPA TO-12 Non-methane organics
 EPA 3C Fixed gases
 Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; EPA 353.2: Nitrate-N, Nitrite-N; SM4500NO3-F: Nitrate-N, Nitrite-N; SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B
 EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP.
 Microbiology: SM9215B; SM9223-PIA, SM9223B-Collert-QT,SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, EPA 351.1, SM4500NO3-F, EPA 353.2: Nitrate-N, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.
 EPA 624.1: Volatile Halocarbons & Aromatics,
 EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
 EPA 625.1: SVOC (Acid/Base/Neutral Extractables), EPA 600/4-81-045: PCB-Oil.
 Microbiology: SM9223B-Collert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. EPA 200.8: Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. EPA 245.1 Hg.
 EPA 522.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
 EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
 EPA 245.1 Hg.
 SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Nyack Water Department

2020 QUARTER 3 SAMPLING REPORT

2020 QUARTER 4 SAMPLING REPORT

(1 OF 2)



ANALYTICAL REPORT

Lab Number:	L2038494
Client:	Envirotest Laboratories Inc. 315 Fullerton Avenue Newburgh, NY 12550
ATTN:	Debra Bayer
Phone:	(845) 562-0890
Project Name:	VILLAGE OF NYACK WATER DEPT.
Project Number:	42001382
Report Date:	09/29/20

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: VILLAGE OF NYACK WATER DEPT.
Project Number: 42001382

Lab Number: L2038494
Report Date: 09/29/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2038494-01	RAW INTAKE (420-180665-1)	DW	VILLAGE OF NYACK WATER DEPT.	09/14/20 08:30	09/15/20
L2038494-02	RAW INTAKE TRIP BLANK (420-180665-2)	DW	VILLAGE OF NYACK WATER DEPT.	09/14/20 08:30	09/15/20
L2038494-03	LAB SINK (420-180665-3)	DW	VILLAGE OF NYACK WATER DEPT.	09/14/20 08:30	09/15/20
L2038494-04	LAB SINK TRIP BLANK (420- 180665-4)	DW	VILLAGE OF NYACK WATER DEPT.	09/14/20 08:30	09/15/20

Project Name: VILLAGE OF NYACK WATER DEPT.
Project Number: 42001382

Lab Number: L2038494
Report Date: 09/29/20

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: VILLAGE OF NYACK WATER DEPT.
Project Number: 42001382

Lab Number: L2038494
Report Date: 09/29/20

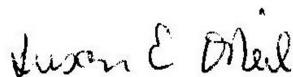
Case Narrative (continued)

Sample Receipt

L2038494-02 and -04: The sample was received in an inappropriate container for the PFOA/PFOS via EPA 537 analysis. The sample is considered a trip blank rather than a field blank. Per client request the sample is reported as a trip blank.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Susan O'Neil

Title: Technical Director/Representative

Date: 09/29/20

ORGANICS

SEMIVOLATILES

Project Name: VILLAGE OF NYACK WATER DEPT.
Project Number: 42001382

Lab Number: L2038494
Report Date: 09/29/20

SAMPLE RESULTS

Lab ID: L2038494-01
 Client ID: RAW INTAKE (420-180665-1)
 Sample Location: VILLAGE OF NYACK WATER DEPT.

Date Collected: 09/14/20 08:30
 Date Received: 09/15/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Dw
 Analytical Method: 122,537
 Analytical Date: 09/24/20 19:35
 Analyst: SH

Extraction Method: EPA 537
 Extraction Date: 09/22/20 07:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 537 - Mansfield Lab						
Perfluorooctanoic Acid (PFOA)	9.95		ng/l	1.76	--	1
Perfluorooctanesulfonic Acid (PFOS)	6.49		ng/l	1.76	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA)	70		70-130
Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA)	71		70-130
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	90		70-130

Project Name: VILLAGE OF NYACK WATER DEPT.
Project Number: 42001382

Lab Number: L2038494
Report Date: 09/29/20

SAMPLE RESULTS

Lab ID: L2038494-02
 Client ID: RAW INTAKE TRIP BLANK (420-180665-2)
 Sample Location: VILLAGE OF NYACK WATER DEPT.

Date Collected: 09/14/20 08:30
 Date Received: 09/15/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Dw
 Analytical Method: 122,537
 Analytical Date: 09/24/20 19:44
 Analyst: SH

Extraction Method: EPA 537
 Extraction Date: 09/22/20 07:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 537 - Mansfield Lab						
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.84	--	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.84	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA)	79		70-130
Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA)	73		70-130
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	85		70-130

Project Name: VILLAGE OF NYACK WATER DEPT.
Project Number: 42001382

Lab Number: L2038494
Report Date: 09/29/20

SAMPLE RESULTS

Lab ID: L2038494-03
 Client ID: LAB SINK (420-180665-3)
 Sample Location: VILLAGE OF NYACK WATER DEPT.

Date Collected: 09/14/20 08:30
 Date Received: 09/15/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Dw
 Analytical Method: 122,537
 Analytical Date: 09/24/20 19:53
 Analyst: SH

Extraction Method: EPA 537
 Extraction Date: 09/22/20 07:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 537 - Mansfield Lab						
Perfluorooctanoic Acid (PFOA)	8.20		ng/l	1.79	--	1
Perfluorooctanesulfonic Acid (PFOS)	5.08		ng/l	1.79	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA)	70		70-130
Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA)	71		70-130
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	82		70-130

Project Name: VILLAGE OF NYACK WATER DEPT.
Project Number: 42001382

Lab Number: L2038494
Report Date: 09/29/20

SAMPLE RESULTS

Lab ID: L2038494-04 R
 Client ID: LAB SINK TRIP BLANK (420-180665-4)
 Sample Location: VILLAGE OF NYACK WATER DEPT.

Date Collected: 09/14/20 08:30
 Date Received: 09/15/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Dw
 Analytical Method: 122,537
 Analytical Date: 09/25/20 08:33
 Analyst: SH

Extraction Method: EPA 537
 Extraction Date: 09/22/20 07:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 537 - Mansfield Lab						
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.80	--	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.80	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA)	84		70-130
Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA)	77		70-130
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	84		70-130

Project Name: VILLAGE OF NYACK WATER DEPT.
Project Number: 42001382

Lab Number: L2038494
Report Date: 09/29/20

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 122,537
Analytical Date: 09/24/20 18:17
Analyst: SH

Extraction Method: EPA 537
Extraction Date: 09/22/20 07:00

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by EPA 537 - Mansfield Lab for sample(s): 01-04 Batch: WG1412759-1					
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.00	--
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.00	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA)	76		70-130
Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA)	76		70-130
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	95		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: VILLAGE OF NYACK WATER DEPT.

Project Number: 42001382

Lab Number: L2038494

Report Date: 09/29/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 537 - Mansfield Lab Associated sample(s): 01-04 Batch: WG1412759-2 WG1412759-3								
Perfluorooctanoic Acid (PFOA)	104		114		70-130	9		30
Perfluorooctanesulfonic Acid (PFOS)	100		85		70-130	16		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA)	90		102		70-130
Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA)	90		98		70-130
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	89		88		70-130

Project Name: VILLAGE OF NYACK WATER DEPT.**Lab Number:** L2038494**Project Number:** 42001382**Report Date:** 09/29/20**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information**Cooler** **Custody Seal**

A Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2038494-01A	2 Plastic Trizma/1 Plastic/1 H2O+Trizma	A	NA		5.1	Y	Absent		A2-537-PFOA/PFOS(14)
L2038494-01B	2 Plastic Trizma/1 Plastic/1 H2O+Trizma	A	NA		5.1	Y	Absent		A2-537-PFOA/PFOS(14)
L2038494-02A	2 Plastic Trizma/1 Plastic/1 H2O+Trizma	A	NA		5.1	Y	Absent		A2-537-PFOA/PFOS(14)
L2038494-03A	2 Plastic Trizma/1 Plastic/1 H2O+Trizma	A	NA		5.1	Y	Absent		A2-537-PFOA/PFOS(14)
L2038494-03B	2 Plastic Trizma/1 Plastic/1 H2O+Trizma	A	NA		5.1	Y	Absent		A2-537-PFOA/PFOS(14)
L2038494-04A	2 Plastic Trizma/1 Plastic/1 H2O+Trizma	A	NA		5.1	Y	Absent		A2-537-PFOA/PFOS(14)

Project Name: VILLAGE OF NYACK WATER DEPT.
Project Number: 42001382

Serial_No:09292010:25
Lab Number: L2038494
Report Date: 09/29/20

PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
PERFLUOROALKYL CARBOXYLIC ACIDS (PFCAs)		
Perfluorooctadecanoic Acid	PFODA	16517-11-6
Perfluorohexadecanoic Acid	PFHxDA	67905-19-5
Perfluorotetradecanoic Acid	PFTA	376-06-7
Perfluorotridecanoic Acid	PFTrDA	72629-94-8
Perfluorododecanoic Acid	PFDoA	307-55-1
Perfluoroundecanoic Acid	PFUnA	2058-94-8
Perfluorodecanoic Acid	PFDA	335-76-2
Perfluorononanoic Acid	PFNA	375-95-1
Perfluorooctanoic Acid	PFOA	335-67-1
Perfluoroheptanoic Acid	PFHpA	375-85-9
Perfluorohexanoic Acid	PFHxA	307-24-4
Perfluoropentanoic Acid	PFPeA	2706-90-3
Perfluorobutanoic Acid	PFBA	375-22-4
PERFLUOROALKYL SULFONIC ACIDS (PFSAs)		
Perfluorododecanesulfonic Acid	PFDoDS	79780-39-5
Perfluorodecanesulfonic Acid	PFDS	335-77-3
Perfluorononanesulfonic Acid	PFNS	68259-12-1
Perfluorooctanesulfonic Acid	PFOS	1763-23-1
Perfluoroheptanesulfonic Acid	PFHpS	375-92-8
Perfluorohexanesulfonic Acid	PFHxS	355-46-4
Perfluoropentanesulfonic Acid	PFPeS	2706-91-4
Perfluorobutanesulfonic Acid	PFBS	375-73-5
FLUOROTELOMERS		
1H,1H,2H,2H-Perfluorododecanesulfonic Acid	10:2FTS	120226-60-0
1H,1H,2H,2H-Perfluorodecanesulfonic Acid	8:2FTS	39108-34-4
1H,1H,2H,2H-Perfluorooctanesulfonic Acid	6:2FTS	27619-97-2
1H,1H,2H,2H-Perfluorohexanesulfonic Acid	4:2FTS	757124-72-4
PERFLUOROALKANE SULFONAMIDES (FASAs)		
Perfluorooctanesulfonamide	FOSA	754-91-6
N-Ethyl Perfluorooctane Sulfonamide	NEtFOSA	4151-50-2
N-Methyl Perfluorooctane Sulfonamide	NMeFOSA	31506-32-8
PERFLUOROALKANE SULFONYL SUBSTANCES		
N-Ethyl Perfluorooctanesulfonamido Ethanol	NEtFOSE	1691-99-2
N-Methyl Perfluorooctanesulfonamido Ethanol	NMeFOSE	24448-09-7
N-Ethyl Perfluorooctanesulfonamidoacetic Acid	NEtFOSAA	2991-50-6
N-Methyl Perfluorooctanesulfonamidoacetic Acid	NMeFOSAA	2355-31-9
PER- and POLYFLUOROALKYL ETHER CARBOXYLIC ACIDS		
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid	HFPO-DA	13252-13-6
4,8-Dioxa-3h-Perfluorononanoic Acid	ADONA	919005-14-4
CHLORO-PERFLUOROALKYL SULFONIC ACIDS		
11-Chloroeicosafuoro-3-Oxaundecane-1-Sulfonic Acid	11Cl-PF3OUdS	763051-92-9
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid	9Cl-PF3ONS	756426-58-1
PERFLUOROETHER SULFONIC ACIDS (PFESAs)		
Perfluoro(2-Ethoxyethane)Sulfonic Acid	PFEEESA	113507-82-7
PERFLUOROETHER/POLYETHER CARBOXYLIC ACIDS (PFPCAs)		
Perfluoro-3-Methoxypropanoic Acid	PFMPA	377-73-1
Perfluoro-4-Methoxybutanoic Acid	PFMBA	863090-89-5
Nonafluoro-3,6-Dioxaheptanoic Acid	NFDHA	151772-58-6

Project Name: VILLAGE OF NYACK WATER DEPT.
Project Number: 42001382

Lab Number: L2038494
Report Date: 09/29/20

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: Data Usability Report



Project Name: VILLAGE OF NYACK WATER DEPT.
Project Number: 42001382

Lab Number: L2038494
Report Date: 09/29/20

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration

Report Format: Data Usability Report



Project Name: VILLAGE OF NYACK WATER DEPT.
Project Number: 42001382

Lab Number: L2038494
Report Date: 09/29/20

Data Qualifiers

Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Project Name: VILLAGE OF NYACK WATER DEPT.
Project Number: 42001382

Lab Number: L2038494
Report Date: 09/29/20

REFERENCES

- 122 Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS). EPA Method 537, EPA/600/R-08/092. Version 1.1, September 2009.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

EPA TO-12 Non-methane organics

EPA 3C Fixed gases

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.

EPA 522.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

EnviroTest Laboratories

315 Fullerton Avenue
Newburgh, NY 12550
Phone (845) 562-0890 Fax (845) 562-0841

9/16/20

Chain of Custody Record

L2038494

Serial_No:09292010:25

EnviroTest Laboratories Inc.

Client Information (Sub Contract Lab)		Sampler: Bayer, Debra		Lab PM: Bayer, Debra		Carrier Tracking No(s):		COC No: 420-12261.1	
Client Contact: Shipping/Receiving		Phone:		E-Mail: dbayer@envirotestlaboratories.com				Page: Page 1 of 1	
Company: Alpha Analytical		Due Date Requested: 9/24/2020		Analysis Requested Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) SUBCONTRACT: PFOA/PFOs 9/15/20 03		Total Number of containers 2 1 2 1		STL Job #: 420-180665-1	
Address: 8 Walkup Drive, Westborough		TAT Requested (days): <i>Stat TAT 9/15/2020</i>							
City: Westborough									
State, Zip: MA, 01581		PO #:							
Phone:		WO #:							
Email:		Project #: 42001382						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 - Na2S2SO3 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 - EDTA Z - other (specify)	
Project Name: Village of Nyack Water Department		SSOW#:						Other: <i>NYS des 9/15/2020</i>	
Site:								Special Instructions/Note:	
Sample Identification	Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=soil, BT=Soil, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUBCONTRACT	Total Number of containers
Raw Intake (420-180665-1)		9/14/20	8:30	<i>DEW</i>	Water			X	2
Raw Intake Field Blank (420-180665-2)		9/14/20	8:30		Water			X	1
Lab Sink (420-180665-3)		9/14/20	8:30	<i>DEW</i>	Water			X	2
Lab Sink Field Blank (420-180665-4)		9/14/20	8:30		Water			X	1
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)			
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> 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:	<i>Nature...</i>	Date/Time: 9/15/20 15:45	Company: ETC	Received by:	<i>...</i>	Date/Time: 9-15-20 10:45	Company: AAC		
Relinquished by:	<i>...</i>	Date/Time: 9-15-20 12:00	Company: AAC	Received by:	<i>...</i>	Date/Time: 9/15/20 20:45	Company: AAC		
Relinquished by:	<i>...</i>	Date/Time: 9/15/20 23:55	Company: AAC	Received by:	<i>...</i>	Date/Time: 9/15/20 23:55	Company: AAC		
Cooler Temperature(s) °C and Other Remarks:									
Custody Seal No.:									

Micromeritics 9/16/20 0400

T. Huddle 9/16/20 0400

T. Huddle 9/16/20 0570

AAC - AAC 9/16/20

2020 QUARTER 4 SAMPLING REPORT

(2 OF 2)

November 12, 2020

Gilbert Francois
Village of Nyack WTP
Re: PFNA/PFOS/PFOA

Dear Mr. Francois,

Per your request, this letter is being written as a follow up to the samples EQC collected at the Village of Nyack Water Treatment Plant on 13-Oct-2020 and again on 30-Oct-2020, both for the analysis of PFNA, PFOS, and PFOA.

For each sample collected, there was an associated Field Blank submitted as well. Based on the results of the samples collected on 13-Oct-2020, EQC requested that the lab review the labels on the bottles. It appears that the sample labels were reversed between the sample and the blank bottles.

Based on this apparent label issue, a resample was requested. Additional samples were collected on 30-Oct-2020 by EQC.

The results of the resamples appear to confirm the bottle labeling issue that occurred on 13-Oct-2020.

Please let me know if you have any further questions or issues.

Thank you,

Erin Dougherty
Project Manager
Eurofins QC, LLC
215-355-3900, extension 3357
Erin.Dougherty@Eurofinset.com

ANALYTICAL REPORT

Eurofins QC, LLC – Horsham, PA
702 Electronic Drive
Horsham, PA 19044-0962
Tel: (215)355-3900

Laboratory Job ID: 630-8485-1
Client Project/Site: Village of Nyack - PFC
Revision: 2

For:
Village of Nyack Water Treatment Plant
9 North Broadway
Nyack, New York 10960

Attn: Gilbert Francois



Authorized for release by:
3/1/2021 10:50:59 AM

Erin Dougherty, Project Administrator
(215)355-3900
Erin.Dougherty@eurofinset.com



LINKS

Review your project
results through
TotalAccess

Have a Question?

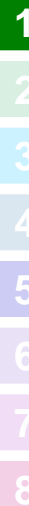


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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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



Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments. QC data that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result. Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Coliform MCLs

· Based on the EPA primary drinking water standard MCL for total coliforms, a water supply is considered bacteriologically "SAFE" if no coliform bacteria are detected. To be considered "SAFE" your report should indicate "<1 cfu/100mL" or "NEG" for the coliform test. If you report indicates a positive result "POS" or a value greater than or equal to one, then your supply is "UNSAFE FOR DRINKING" contact your local health department.

Warranties, Terms, and Conditions

· Analyses for Field Parameters are performed by EQC field staff. Locations and certifications are identified on the Chain of Custody as follows:

ERF = field staff performs tests under NJ State certification #02015

VL = field staff performs tests under NJ State certification #06005

WG = field staff performs tests under NJ State certification #PA001

H = field staff performs tests under NJ NELAP certification #PA093, PA NELAP certification # 46-

05499

· Test results meet all TNI or other applicable regulatory agency requirements, including holding times and preservation, unless otherwise indicated.

· The report shall not be reproduced, except in full, without the written consent of the laboratory

· All samples are collected as "grab" samples unless otherwise identified.

· Reported results related only to the samples as tested. EQC is not responsible for sample integrity unless sampling has been performed by a member of our staff.

· EQC is not responsible for sampling and/or testing omissions. Note that regulatory authorities may assess substantial fines for testing omissions. Please track your sample collection schedules and results on a regular basis (e.g. weekly, monthly, or quarterly) to ensure compliance.

· Eurofins' online data portal "TotalAccess" will provide you with real-time access to collection dates and testing results. Please contact Client Services for further information.

· The following personnel or their deputies have approved the results of the tests performed by EQC: Nicki Smith (Environmental Chemistry) and Zachary Smith (Water Microbiology).

Erin Dougherty
Project Administrator
3/1/2021 10:50:59 AM

Case Narrative

Client: Village of Nyack Water Treatment Plant
Project/Site: Village of Nyack - PFC

Job ID: 630-8485-1

Job ID: 630-8485-1

Laboratory: Eurofins QC, LLC – Horsham, PA

Narrative

Job Narrative 630-8485-1

REVISION

The report being provided is a revision of the original report sent on 10/22/2020. The report (revision 2) is being revised due to Action Limits changed from NJ to NY..

Report revision history

The report being provided is a revision of the original report sent on 10/22/2020. The report (revision 2) is being revised due to Action Limits changed from NJ to NY..

Revision 1 - 3/1/2021 - Reason - Certification updated to New York..

Receipt

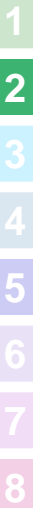
The samples were received on 10/13/2020 2:45 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.7°C

LCMS

Method 537.1_DW: The following sample(s) were found to contain residual chlorine: POE (630-8485-1).

Method 537.1_DW: The recovery for the internal(s) and surrogate(s) in the following sample: BLANK (630-8485-2) is outside QC acceptance limits. Sufficient sample is not available to re-extract this sample.

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



Sample Summary

Client: Village of Nyack Water Treatment Plant
Project/Site: Village of Nyack - PFC

Job ID: 630-8485-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
630-8485-1	POE	Drinking Water	10/13/20 11:37	10/13/20 14:45	
630-8485-2	BLANK	Drinking Water	10/13/20 11:37	10/13/20 14:45	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

Client Sample Results

Client: Village of Nyack Water Treatment Plant
 Project/Site: Village of Nyack - PFC

Job ID: 630-8485-1

Client Sample ID: POE

Date Collected: 10/13/20 11:37

Date Received: 10/13/20 14:45

Lab Sample ID: 630-8485-1

Matrix: Drinking Water

Method: EPA 537.1 - EPA 537.1, Ver 1.0 Nov 2018

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Perfluorooctanoic acid	ND		1.8	0.44	ng/L		10/22/20 08:37	1	DCS9
Perfluorononanoic acid	ND		1.8	0.44	ng/L		10/22/20 08:37	1	DCS9
Perfluorooctanesulfonic acid	ND		1.8	0.44	ng/L		10/22/20 08:37	1	DCS9
Perfluorohexanesulfonic acid	ND		1.8	0.44	ng/L		10/22/20 08:37	1	DCS9
Perfluoroundecanoic acid	ND		1.8	0.44	ng/L		10/22/20 08:37	1	DCS9
Perfluorotetradecanoic acid	ND		1.8	0.44	ng/L		10/22/20 08:37	1	DCS9
Perfluorodecanoic acid	ND		1.8	0.44	ng/L		10/22/20 08:37	1	DCS9
Perfluorotridecanoic acid	ND		1.8	0.44	ng/L		10/22/20 08:37	1	DCS9
Perfluoroheptanoic acid	ND		1.8	0.44	ng/L		10/22/20 08:37	1	DCS9
Perfluorododecanoic acid	ND		1.8	0.44	ng/L		10/22/20 08:37	1	DCS9
Perfluorohexanoic acid	ND		1.8	0.44	ng/L		10/22/20 08:37	1	DCS9
Perfluorobutanesulfonic acid	ND		1.8	0.44	ng/L		10/22/20 08:37	1	DCS9
Surrogate	%Recovery	Qualifier	Limits				Analyzed	Dil Fac	Analyst
13C2 PFDA	101		70 - 130				10/22/20 08:37	1	DCS9
13C2 PFHxA	93		70 - 130				10/22/20 08:37	1	DCS9
13C3 HFPO-DA	91		70 - 130				10/22/20 08:37	1	DCS9
d5-NEtFOSAA	94		70 - 130				10/22/20 08:37	1	DCS9

Client Sample ID: BLANK

Date Collected: 10/13/20 11:37

Date Received: 10/13/20 14:45

Lab Sample ID: 630-8485-2

Matrix: Drinking Water

Method: EPA 537.1 - EPA 537.1, Ver 1.0 Nov 2018

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Perfluorooctanoic acid	13		1.8	0.45	ng/L		10/16/20 13:38	1	VK3G
Perfluorononanoic acid	2.1		1.8	0.45	ng/L		10/16/20 13:38	1	VK3G
Perfluorooctanesulfonic acid	8.1		1.8	0.45	ng/L		10/16/20 13:38	1	VK3G
Perfluorohexanesulfonic acid	4.6		1.8	0.45	ng/L		10/16/20 13:38	1	VK3G
Perfluoroundecanoic acid	ND		1.8	0.45	ng/L		10/16/20 13:38	1	VK3G
Perfluorotetradecanoic acid	ND		1.8	0.45	ng/L		10/16/20 13:38	1	VK3G
Perfluorodecanoic acid	0.48	J	1.8	0.45	ng/L		10/16/20 13:38	1	VK3G
Perfluorotridecanoic acid	ND		1.8	0.45	ng/L		10/16/20 13:38	1	VK3G
Perfluoroheptanoic acid	4.4		1.8	0.45	ng/L		10/16/20 13:38	1	VK3G
Perfluorododecanoic acid	ND		1.8	0.45	ng/L		10/16/20 13:38	1	VK3G
Perfluorohexanoic acid	5.1		1.8	0.45	ng/L		10/16/20 13:38	1	VK3G
Perfluorobutanesulfonic acid	3.2		1.8	0.45	ng/L		10/16/20 13:38	1	VK3G
Surrogate	%Recovery	Qualifier	Limits				Analyzed	Dil Fac	Analyst
13C2 PFDA	92		70 - 130				10/16/20 13:38	1	VK3G
13C2 PFHxA	73		70 - 130				10/16/20 13:38	1	VK3G
13C3 HFPO-DA	67	S1-	70 - 130				10/16/20 13:38	1	VK3G
d5-NEtFOSAA	85	*3	70 - 130				10/16/20 13:38	1	VK3G

Eurofins QC, LLC – Horsham, PA

Action Limit Summary

Client: Village of Nyack Water Treatment Plant
Project/Site: Village of Nyack - PFC

Job ID: 630-8485-1

Client Sample ID: POE

Lab Sample ID: 630-8485-1

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits have been highlighted for your convenience.

Analyte	Result	Qualifier	Unit	NYS-MCL	RL	Method	Prep Type
				Limit			
Perfluorooctanoic acid	ND		ng/L	10	1.8	EPA 537.1	Total/NA
Perfluorooctanesulfonic acid	ND		ng/L	10	1.8	EPA 537.1	Total/NA

Client Sample ID: BLANK

Lab Sample ID: 630-8485-2

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits have been highlighted for your convenience.

Analyte	Result	Qualifier	Unit	NYS-MCL	RL	Method	Prep Type
				Limit			
Perfluorooctanoic acid	13		ng/L	10	1.8	EPA 537.1	Total/NA
Perfluorooctanesulfonic acid	8.1		ng/L	10	1.8	EPA 537.1	Total/NA

Accreditation/Certification and Definitions Summary

Client: Village of Nyack Water Treatment Plant
 Project/Site: Village of Nyack - PFC

Job ID: 630-8485-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

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

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	1.01	11-29-20
Alaska	State	PA00009	06-30-21
Alaska (UST)	State	17-027	01-31-21
Arizona	State	AZ0780	03-12-21
Arkansas DEQ	State	19-053-0	08-09-21
California	State	2792	01-31-21
Colorado	State	PA00009	06-30-21
Connecticut	State	PH-0746	12-26-20
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	10-31-20
Delaware (DW)	State	N/A	01-25-21
Florida	NELAP	E87997	07-01-21
Hawaii	State	N/A	01-31-21
Illinois	NELAP	004559	01-14-21
Iowa	State	361	03-02-22
Kansas	NELAP	E-10151	10-31-20
Kentucky (DW)	State	KY90088	12-31-20
Kentucky (UST)	State	1.01	11-30-20
Kentucky (WW)	State	KY90088	12-23-20
Louisiana	NELAP	02055	06-30-21
Maine	State	2019012	03-12-21
Maryland	State	100	06-30-21
Massachusetts	State	M-PA009	06-30-21
Michigan	State	9930	01-31-21
Minnesota	NELAP	042-999-487	11-02-20
Missouri	State	450	01-31-22
Montana (DW)	State	0098	11-08-20
Montana (UST)	State	0098	01-01-22
Nebraska	State	NE-OS-32-17	01-31-20 *
Nevada	State	PA000092019-3	07-31-21
New Hampshire	NELAP	273019	11-17-20
New Jersey	NELAP	PA011	01-03-21
New York	NELAP	10670	11-05-20
North Carolina (DW)	State	42705	07-31-21
North Carolina (WW/SW)	State	521	10-27-20
North Dakota	State	R-205	01-31-21
Oklahoma	NELAP	R-205	02-01-21
Oregon	NELAP	PA200001-018	09-12-21
PALA	Canada	1978	05-08-21
Pennsylvania	NELAP	36-00037	11-02-20
Rhode Island	State	LAO00338	02-28-21
South Carolina	State	89002002	01-31-21
Tennessee	State	02838	01-28-21
Texas	NELAP	T104704194-20-38	08-31-21
Utah	NELAP	PA000092019-16	02-28-21
Vermont	State	VT - 36037	10-28-20
Virginia	NELAP	10561	06-14-21
Washington	State	C457	04-11-21
West Virginia (DW)	State	9906 C	12-31-20
West Virginia DEP	State	055	10-25-20
Wyoming	State	8TMS-L	01-07-21
Wyoming (UST)	A2LA	1.01	11-29-20

* Accreditation/Certification renewal pending - accreditation/certification considered valid.



Accreditation/Certification and Definitions Summary

Client: Village of Nyack Water Treatment Plant
Project/Site: Village of Nyack - PFC

Job ID: 630-8485-1

Qualifiers

LCMS

Qualifier	Qualifier Description
*3	ISTD response or retention time outside acceptable limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.

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
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Village of Nyack Water Treatment Plant
Project/Site: Village of Nyack - PFC

Job ID: 630-8485-1

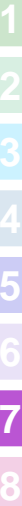
Method	Method Description	Protocol	Laboratory
EPA 537.1	EPA 537.1, Ver 1.0 Nov 2018	EPA	ELLE
EPA 537.1	EPA 537.1, ver. 1.0 Nov. 2018	EPA	ELLE

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300





QC

CHAIN OF CUSTODY

Page ___ of ___

MATRIX CODES

702 Electronic Drive Phone: 215-355-3900
Horsham, PA 19044 Fax: 215-392-0626

Client/Acct. No. W09890
Address 230 RT 59

City/State/Zip W. NYACK NY 10960
Phone/Fax 845 358 3734
Client Contact: Gilbert Francois

Bill to/Report to (if different)
Sampling Site Address (if different) Include State
P.O. No. PWSID #:
Quote #
e-mail:

Lab LIMS No:
LAB USE ONLY:
___ Ascorbic/HCL Vials # ___ HCl Vials
___ Na₂S₂O₃ _____
___ Na OH/Zn acetate pH _____
___ HNO₃ pH _____
___ H₂SO₄ pH _____
___ NaOH pH _____
___ Unpreserved
___ HCl # ___ NH₄Cl # ___ MeOH
___ DI Water

DW: DRINKING WATER
GW: GROUND WATER
WW: WASTEWATER
SO: SOIL
SL: SLUDGE
OIL: OIL
SOL: NON SOIL SOLID
MI: MISCELLANEOUS
X: OTHER

PROJECT	Collection		G R A B	C O M P	Matrix Code	Number of Containers															
	Date	Military Time				Total	H 2 S O 4	H C l	V i a l s	H N O 3	N a O H	Z n A c	U N P R E	B A C T							
FIELD ID																					
<u>P.O.E</u>	<u>10/13/20</u>	<u>1137</u>	<u>X</u>																		

ANALYSIS REQUESTED

PFAS + field Blank

Field pH, Temp (°C),
DO, Cl₂, Cond. etc.



630-8485 Chain of Custody

Loc: 630
8485

SAMPLED BY: (Name/Company)

EQC

TAT: STANDARD (10 DAY)

or DUE DATE 10/13/20

Report Format: Standard NJ-RDD SRP-RDD

Standard + QC Forms EDD

Field Parameters Analyzed By:

Initials

SC3/GAF

Date/Time:

SARA CAMACHO

Please call for pricing and availability for rush (<10 day) turnaround and for all but standard reporting format.

SAMPLE CUSTODY EXCHANGES MUST BE DOCUMENTED BELOW. USE FULL LEGAL SIGNATURE, DATE AND MILITARY TIME (24 HOUR CLOCK, I.E. 8AM IS 0800, 4 PM IS 1600)

RELINQUISHED BY SAMPLER	DATE	TIME	RECEIVED BY	DATE	TIME	DELIVERY: <input type="checkbox"/> EQC COURIER <input type="checkbox"/> CLIENT	Custody Seal Number
1. <u>SARA CAMACHO</u>	<u>10/13/20</u>	<u>1445</u>	1. <u>#ER18</u>	<u>10/13/20</u>	<u>1445</u>	<input type="checkbox"/> UPS <input type="checkbox"/> FEDEX <input type="checkbox"/> OTHER	
2.			2.			Rec'd Temp.: <u>4.7°C</u> Initials: <u>SC3</u> Loc: <input checked="" type="checkbox"/> N Location: <u>ER</u>	
3.			3.			COMMENTS:	
4.			4.				
5.			5.			Hazardous: yes / no <u>FS#FS279029</u>	

Eurofins QC, LLC – Horsham, PA

702 Electronic Drive
 Horsham, PA 19044-0962
 Phone: 215-355-3900 Fax: 888-785-8567

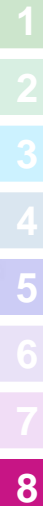
Chain of Custody Record



Environment Testing
 America

Client Information (Sub Contract Lab)		Sampler:		Lab PM: Dougherty, Erin		Carrier Tracking No(s):		COCC No: 630-2677.1																					
Client Contact: Shipping/Receiving		Phone:		E-Mail: erindougherty@eurofinsus.com		State of Origin: New York		Page: Page 1 of 1																					
Company: Eurofins Lancaster Laboratories Env LLC				Accreditations Required (See note): NELAP - New Jersey				Job #: 630-8485-1																					
Address: 2425 New Holland Pike,		Due Date Requested: 10/22/2020		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)																			
City: Lancaster		TAT Requested (days):																											
State, Zip: PA, 17601		PO #:		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		537.1_DW/637.1_DW_Prep (MOD) PFNA, PFOA, PFOS		537.1_DW/637.1_DW_Prep (MOD) PFNA, PFOA, PFOS (Hold)		Total Number of containers																	
Phone: 717-656-2300(Tel)		WO #:																											
Email:		Project #: 63003671		Sample Type (C=comp, G=grab)		Matrix (W=water, B=solid, O=waste/oil, BT=Tissue, A=Air)		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		537.1_DW/637.1_DW_Prep (MOD) PFNA, PFOA, PFOS		537.1_DW/637.1_DW_Prep (MOD) PFNA, PFOA, PFOS (Hold)		Total Number of containers		Special Instructions/Note:											
Project Name: Village of Nyack - PFC		SSOW#:																											
Site:		Sample Date		Sample Time		Preservation Code		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		537.1_DW/637.1_DW_Prep (MOD) PFNA, PFOA, PFOS		537.1_DW/637.1_DW_Prep (MOD) PFNA, PFOA, PFOS (Hold)		Total Number of containers		Special Instructions/Note:											
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time		Preservation Code		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		537.1_DW/637.1_DW_Prep (MOD) PFNA, PFOA, PFOS		537.1_DW/637.1_DW_Prep (MOD) PFNA, PFOA, PFOS (Hold)		Total Number of containers		Special Instructions/Note:											
POE (630-8485-1)		10/13/20		11:37 Eastern				X								2		5 day turnaround approved by the lab											
BLANK (630-8485-2)		10/13/20		11:37 Eastern						X						1		5 day turnaround approved by the lab											
Note: Since laboratory accreditations are subject to change, Eurofins QC, LLC – Horsham, PA 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 QC, LLC – Horsham, PA laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins QC, LLC – Horsham, PA attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins QC, LLC – Horsham, PA.																													
Possible Hazard Identification										Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)																			
Unconfirmed										<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																			
Deliverable Requested: I, II, III, IV, Other (specify)					Primary Deliverable Rank: 1					Special Instructions/QC Requirements:																			
Empty Kit Relinquished by:					Date:					Time:					Method of Shipment:														
Relinquished by: <i>A. Camacho</i>					Date/Time: 10/13/20 1440					Company: EQC					Received by: _____					Date/Time: _____					Company: _____				
Relinquished by: _____					Date/Time: _____					Company: _____					Received by: _____					Date/Time: _____					Company: _____				
Relinquished by: _____					Date/Time: _____					Company: _____					Received by: <i>Edi M...</i>					Date/Time: 10/13/09 2:15					Company: CLCE				
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					Custody Seal No: 59 (pfos)					Cooler Temperature (°C) and Other Remarks: 4.4 EA - 5.5°C/505																			

coll



Nyack Water Department

2021 QUARTER 1 SAMPLING REPORT

ANALYTICAL REPORT

Eurofins QC, LLC – Horsham, PA
702 Electronic Drive
Horsham, PA 19044-0962
Tel: (215)355-3900

Laboratory Job ID: 630-13652-1
Client Project/Site: Village of Nyack - PFC
Revision: 2

For:
Village of Nyack Water Treatment Plant
9 North Broadway
Nyack, New York 10960

Attn: Gilbert Francois



Authorized for release by:
3/1/2021 12:59:05 PM

Erin Dougherty, Project Administrator
(215)355-3900
Erin.Dougherty@eurofinset.com



LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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



Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments. QC data that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result. Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Coliform MCLs

· Based on the EPA primary drinking water standard MCL for total coliforms, a water supply is considered bacteriologically "SAFE" if no coliform bacteria are detected. To be considered "SAFE" your report should indicate "<1 cfu/100mL" or "NEG" for the coliform test. If you report indicates a positive result "POS" or a value greater than or equal to one, then your supply is "UNSAFE FOR DRINKING" contact your local health department.

Warranties, Terms, and Conditions

· Analyses for Field Parameters are performed by EQC field staff. Locations and certifications are identified on the Chain of Custody as follows:

ERF = field staff performs tests under NJ State certification #02015

VL = field staff performs tests under NJ State certification #06005

WG = field staff performs tests under NJ State certification #PA001

H = field staff performs tests under NJ NELAP certification #PA093, PA NELAP certification # 46-

05499

· Test results meet all TNI or other applicable regulatory agency requirements, including holding times and preservation, unless otherwise indicated.

· The report shall not be reproduced, except in full, without the written consent of the laboratory

· All samples are collected as "grab" samples unless otherwise identified.

· Reported results related only to the samples as tested. EQC is not responsible for sample integrity unless sampling has been performed by a member of our staff.

· EQC is not responsible for sampling and/or testing omissions. Note that regulatory authorities may assess substantial fines for testing omissions. Please track your sample collection schedules and results on a regular basis (e.g. weekly, monthly, or quarterly) to ensure compliance.

· Eurofins' online data portal "TotalAccess" will provide you with real-time access to collection dates and testing results. Please contact Client Services for further information.

· The following personnel or their deputies have approved the results of the tests performed by EQC: Nicki Smith (Environmental Chemistry) and Zachary Smith (Water Microbiology).

A handwritten signature in black ink that reads "Erin Dougherty". The signature is written in a cursive style.

Erin Dougherty
Project Administrator
3/1/2021 12:59:05 PM

Case Narrative

Client: Village of Nyack Water Treatment Plant
Project/Site: Village of Nyack - PFC

Job ID: 630-13652-1

Job ID: 630-13652-1

Laboratory: Eurofins QC, LLC – Horsham, PA

Narrative

**Job Narrative
630-13652-1**

REVISION

The report being provided is a revision of the original report sent on 2/25/2021. The report (revision 2) is being revised due to Action Limits changed from NJ to NY..

Report revision history

The report being provided is a revision of the original report sent on 2/25/2021. The report (revision 2) is being revised due to Action Limits changed from NJ to NY..

Revision 1 - 3/1/2021 - Reason - Certifications updated to include New York..

Receipt

The samples were received on 2/17/2021 3:35 PM. 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 time was 4.1°C

LCMS

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

Sample Summary

Client: Village of Nyack Water Treatment Plant
Project/Site: Village of Nyack - PFC

Job ID: 630-13652-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
630-13652-1	POE	Drinking Water	02/17/21 11:39	02/17/21 15:35	
630-13652-2	BLANK	Drinking Water	02/17/21 11:39	02/17/21 15:35	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

Client Sample Results

Client: Village of Nyack Water Treatment Plant
 Project/Site: Village of Nyack - PFC

Job ID: 630-13652-1

Client Sample ID: POE

Date Collected: 02/17/21 11:39

Date Received: 02/17/21 15:35

Lab Sample ID: 630-13652-1

Matrix: Drinking Water

Method: EPA 537.1 - EPA 537.1, Ver 1.0 Nov 2018

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Perfluorooctanoic acid	7.2		1.8	0.44	ng/L		02/23/21 20:18	1	Y6ZN
Perfluorononanoic acid	1.2	J	1.8	0.44	ng/L		02/23/21 20:18	1	Y6ZN
Perfluorooctanesulfonic acid	5.1		1.8	0.44	ng/L		02/23/21 20:18	1	Y6ZN

Surrogate	%Recovery	Qualifier	Limits	Analyzed	Dil Fac	Analyst
13C2 PFDA	106		70 - 130	02/23/21 20:18	1	Y6ZN
13C2 PFHxA	96		70 - 130	02/23/21 20:18	1	Y6ZN
13C3 HFPO-DA	84		70 - 130	02/23/21 20:18	1	Y6ZN
d5-NEtFOSAA	99		70 - 130	02/23/21 20:18	1	Y6ZN

Client Sample ID: BLANK

Date Collected: 02/17/21 11:39

Date Received: 02/17/21 15:35

Lab Sample ID: 630-13652-2

Matrix: Drinking Water

Method: EPA 537.1 - EPA 537.1, Ver 1.0 Nov 2018

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Perfluorooctanoic acid	ND		1.8	0.45	ng/L		02/23/21 20:29	1	Y6ZN
Perfluorononanoic acid	ND		1.8	0.45	ng/L		02/23/21 20:29	1	Y6ZN
Perfluorooctanesulfonic acid	ND		1.8	0.45	ng/L		02/23/21 20:29	1	Y6ZN

Surrogate	%Recovery	Qualifier	Limits	Analyzed	Dil Fac	Analyst
13C2 PFDA	98		70 - 130	02/23/21 20:29	1	Y6ZN
13C2 PFHxA	103		70 - 130	02/23/21 20:29	1	Y6ZN
13C3 HFPO-DA	99		70 - 130	02/23/21 20:29	1	Y6ZN
d5-NEtFOSAA	98		70 - 130	02/23/21 20:29	1	Y6ZN

Action Limit Summary

Client: Village of Nyack Water Treatment Plant
Project/Site: Village of Nyack - PFC

Job ID: 630-13652-1

Client Sample ID: POE

Lab Sample ID: 630-13652-1

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits have been highlighted for your convenience.

Analyte	Result	Qualifier	Unit	NYS-MCL	RL	Method	Prep Type
				Limit			
Perfluorooctanoic acid	7.2		ng/L	10	1.8	EPA 537.1	Total/NA
Perfluorooctanesulfonic acid	5.1		ng/L	10	1.8	EPA 537.1	Total/NA

Client Sample ID: BLANK

Lab Sample ID: 630-13652-2

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits have been highlighted for your convenience.

Analyte	Result	Qualifier	Unit	NYS-MCL	RL	Method	Prep Type
				Limit			
Perfluorooctanoic acid	ND		ng/L	10	1.8	EPA 537.1	Total/NA
Perfluorooctanesulfonic acid	ND		ng/L	10	1.8	EPA 537.1	Total/NA

Accreditation/Certification and Definitions Summary

Client: Village of Nyack Water Treatment Plant
 Project/Site: Village of Nyack - PFC

Job ID: 630-13652-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

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

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	1.01	11-30-22
Alaska	State	PA00009	06-30-21
Alaska (UST)	State	17-027	01-31-21 *
Arizona	State	AZ0780	03-12-21
Arkansas DEQ	State	19-053-0	08-09-21
California	State	2792	01-31-22
Colorado	State	PA00009	06-30-21
Connecticut	State	PH-0746	06-30-21
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-22
Delaware (DW)	State	N/A	02-01-22
Florida	NELAP	E87997	07-01-21
Hawaii	State	N/A	01-31-22
Illinois	NELAP	004559	01-31-22
Iowa	State	361	03-02-22
Kansas	NELAP	E-10151	10-31-21
Kentucky (DW)	State	KY90088	01-01-22
Kentucky (UST)	State	1.01	11-30-22
Kentucky (WW)	State	KY90088	12-31-21
Louisiana	NELAP	02055	06-30-21
Maine	State	2019012	03-12-21
Maryland	State	100	06-30-21
Massachusetts	State	M-PA009	06-30-21
Michigan	State	9930	01-31-22
Minnesota	NELAP	042-999-487	12-31-21
Missouri	State	450	01-31-22
Montana (DW)	State	0098	01-01-22
Montana (UST)	State	0098	01-01-22
Nebraska	State	NE-OS-32-17	01-31-20 *
Nevada	State	PA000092019-3	07-31-21
New Hampshire	NELAP	273019	01-10-22
New Jersey	NELAP	PA011	06-30-21
New York	NELAP	10670	04-01-21
North Carolina (DW)	State	42705	07-31-21
North Carolina (WW/SW)	State	521	12-31-21
North Dakota	State	R-205	01-31-22
Oklahoma	NELAP	R-205	08-31-21
Oregon	NELAP	PA200001-018	09-12-21
PALA	Canada	1978	05-08-21
Pennsylvania	NELAP	36-00037	01-31-22
Rhode Island	State	LAO00338	02-28-21
South Carolina	State	89002002	01-31-22
Tennessee	State	02838	01-31-22
Texas	NELAP	T104704194-20-38	08-31-21
Utah	NELAP	PA000092019-16	02-28-21
Vermont	State	VT - 36037	10-29-21
Virginia	NELAP	10561	06-14-21
Washington	State	C457	04-11-21
West Virginia (DW)	State	9906 C	12-31-21
West Virginia DEP	State	055	06-30-21
Wyoming	State	8TMS-L	01-31-22
Wyoming (UST)	A2LA	1.01	11-30-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.



Accreditation/Certification and Definitions Summary

Client: Village of Nyack Water Treatment Plant
Project/Site: Village of Nyack - PFC

Job ID: 630-13652-1

Qualifiers

LCMS

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Village of Nyack Water Treatment Plant
Project/Site: Village of Nyack - PFC

Job ID: 630-13652-1

Method	Method Description	Protocol	Laboratory
EPA 537.1	EPA 537.1, Ver 1.0 Nov 2018	EPA	ELLE
EPA 537.1	EPA 537.1, ver. 1.0 Nov. 2018	EPA	ELLE

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

