

ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-58476-1
Client Project/Site: Newberry System
Sampling Event: Newberry System

For:
SUEZ Water Environmental Services Inc
6310 Allentown Blvd
Suite 104
Harrisburg, Pennsylvania 17112

Attn: Penny Bumbarger

Elizabeth M. Zanar

Authorized for release by:
10/19/2021 9:52:32 AM

Elizabeth Zanar, Project Manager
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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 results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
 - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
 - Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
- Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Elizabeth Zanar
Project Manager
10/19/2021 9:52:32 AM



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Definitions/Glossary

Client: SUEZ Water Environmental Services Inc
Project/Site: Newberry System

Job ID: 410-58476-1

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

Case Narrative

Client: SUEZ Water Environmental Services Inc
Project/Site: Newberry System

Job ID: 410-58476-1

Job ID: 410-58476-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

**Job Narrative
410-58476-1**

Receipt

The samples were received on 10/8/2021 5:31 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 2.9°C

PFAS

Method 537_DW: The reference method requires samples to be preserved to a pH of 6.5-7.5. The following sample(s) were received with insufficient preservation at a pH of 7.2: 011 Paddletown Well (410-58476-1) and FB - Paddletown Well (410-58476-2).

Method 537_DW: The reference method requires samples to be preserved to a pH of 6.5-7.5. The following sample(s) were received with insufficient preservation at a pH of 7.0: 011 Paddletown Well (410-58476-1).

Method 537_DW: The reference method requires samples to be preserved to a pH of 6.5-7.5. The following sample(s) were received with insufficient preservation at a pH of 7.2: 011 Paddletown Well (410-58476-1) and FB - Paddletown Well (410-58476-2).

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



Detection Summary

Client: SUEZ Water Environmental Services Inc
Project/Site: Newberry System

Job ID: 410-58476-1

Client Sample ID: 011 Paddletown Well

Lab Sample ID: 410-58476-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid	1.7		1.7	0.43	ng/L	1		EPA 537 Ver 1.1	Total/NA
Perfluorooctanesulfonic acid	1.8		1.7	0.43	ng/L	1		EPA 537 Ver 1.1	Total/NA

Client Sample ID: FB - Paddletown Well

Lab Sample ID: 410-58476-2

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC



Client Sample Results

Client: SUEZ Water Environmental Services Inc
Project/Site: Newberry System

Job ID: 410-58476-1

Client Sample ID: 011 Paddletown Well

Lab Sample ID: 410-58476-1

Date Collected: 10/07/21 10:40

Matrix: Drinking Water

Date Received: 10/08/21 17:31

Method: EPA 537 Ver 1.1 - EPA 537 Version 1.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	<1.7		1.7	0.43	ng/L		10/12/21 17:56	10/18/21 12:04	1
Perfluoroheptanoic acid	<1.7		1.7	0.43	ng/L		10/12/21 17:56	10/18/21 12:04	1
Perfluorooctanoic acid	1.7		1.7	0.43	ng/L		10/12/21 17:56	10/18/21 12:04	1
Perfluorononanoic acid	<1.7		1.7	0.43	ng/L		10/12/21 17:56	10/18/21 12:04	1
Perfluorodecanoic acid	<1.7		1.7	0.43	ng/L		10/12/21 17:56	10/18/21 12:04	1
Perfluorotridecanoic acid	<1.7		1.7	0.43	ng/L		10/12/21 17:56	10/18/21 12:04	1
Perfluorotetradecanoic acid	<1.7		1.7	0.43	ng/L		10/12/21 17:56	10/18/21 12:04	1
Perfluorobutanesulfonic acid	<1.7		1.7	0.43	ng/L		10/12/21 17:56	10/18/21 12:04	1
Perfluorohexanesulfonic acid	<1.7		1.7	0.43	ng/L		10/12/21 17:56	10/18/21 12:04	1
Perfluorooctanesulfonic acid	1.8		1.7	0.43	ng/L		10/12/21 17:56	10/18/21 12:04	1
NEtFOSAA	<1.7		1.7	0.43	ng/L		10/12/21 17:56	10/18/21 12:04	1
NMeFOSAA	<1.7		1.7	0.43	ng/L		10/12/21 17:56	10/18/21 12:04	1
Perfluoroundecanoic acid	<1.7		1.7	0.43	ng/L		10/12/21 17:56	10/18/21 12:04	1
Perfluorododecanoic acid	<1.7		1.7	0.43	ng/L		10/12/21 17:56	10/18/21 12:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	100		70 - 130				10/12/21 17:56	10/18/21 12:04	1
13C2 PFDA	107		70 - 130				10/12/21 17:56	10/18/21 12:04	1
13C2 PFHxA	109		70 - 130				10/12/21 17:56	10/18/21 12:04	1

Client Sample ID: FB - Paddletown Well

Lab Sample ID: 410-58476-2

Date Collected: 10/07/21 10:40

Matrix: Potable Water

Date Received: 10/08/21 17:31

Method: EPA 537 Ver 1.1 - EPA 537 Version 1.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	<1.7		1.7	0.43	ng/L		10/12/21 17:56	10/18/21 12:15	1
Perfluoroheptanoic acid	<1.7		1.7	0.43	ng/L		10/12/21 17:56	10/18/21 12:15	1
Perfluorooctanoic acid	<1.7		1.7	0.43	ng/L		10/12/21 17:56	10/18/21 12:15	1
Perfluorononanoic acid	<1.7		1.7	0.43	ng/L		10/12/21 17:56	10/18/21 12:15	1
Perfluorodecanoic acid	<1.7		1.7	0.43	ng/L		10/12/21 17:56	10/18/21 12:15	1
Perfluorotridecanoic acid	<1.7		1.7	0.43	ng/L		10/12/21 17:56	10/18/21 12:15	1
Perfluorotetradecanoic acid	<1.7		1.7	0.43	ng/L		10/12/21 17:56	10/18/21 12:15	1
Perfluorobutanesulfonic acid	<1.7		1.7	0.43	ng/L		10/12/21 17:56	10/18/21 12:15	1
Perfluorohexanesulfonic acid	<1.7		1.7	0.43	ng/L		10/12/21 17:56	10/18/21 12:15	1
Perfluorooctanesulfonic acid	<1.7		1.7	0.43	ng/L		10/12/21 17:56	10/18/21 12:15	1
NEtFOSAA	<1.7		1.7	0.43	ng/L		10/12/21 17:56	10/18/21 12:15	1
NMeFOSAA	<1.7		1.7	0.43	ng/L		10/12/21 17:56	10/18/21 12:15	1
Perfluoroundecanoic acid	<1.7		1.7	0.43	ng/L		10/12/21 17:56	10/18/21 12:15	1
Perfluorododecanoic acid	<1.7		1.7	0.43	ng/L		10/12/21 17:56	10/18/21 12:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	99		70 - 130				10/12/21 17:56	10/18/21 12:15	1
13C2 PFDA	106		70 - 130				10/12/21 17:56	10/18/21 12:15	1
13C2 PFHxA	113		70 - 130				10/12/21 17:56	10/18/21 12:15	1

Surrogate Summary

Client: SUEZ Water Environmental Services Inc
Project/Site: Newberry System

Job ID: 410-58476-1

Method: EPA 537 Ver 1.1 - EPA 537 Version 1.1

Matrix: Drinking Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	d5NEFOS (70-130)	PFDA (70-130)	PFHxA (70-130)
410-58476-1	011 Paddletown Well	100	107	109

Surrogate Legend

d5NEFOS = d5-NEtFOSAA

PFDA = 13C2 PFDA

PFHxA = 13C2 PFHxA

Method: EPA 537 Ver 1.1 - EPA 537 Version 1.1

Matrix: Potable Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	d5NEFOS (70-130)	PFDA (70-130)	PFHxA (70-130)
410-58476-2	FB - Paddletown Well	99	106	113

Surrogate Legend

d5NEFOS = d5-NEtFOSAA

PFDA = 13C2 PFDA

PFHxA = 13C2 PFHxA

QC Association Summary

Client: SUEZ Water Environmental Services Inc
Project/Site: Newberry System

Job ID: 410-58476-1

LCMS

Prep Batch: 181922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58476-1	011 Paddletown Well	Total/NA	Drinking Water	EPA 537 Ver 1.1	
410-58476-2	FB - Paddletown Well	Total/NA	Potable Water	EPA 537 Ver 1.1	

Analysis Batch: 183921

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58476-1	011 Paddletown Well	Total/NA	Drinking Water	EPA 537 Ver 1.1	181922
410-58476-2	FB - Paddletown Well	Total/NA	Potable Water	EPA 537 Ver 1.1	181922

Lab Chronicle

Client: SUEZ Water Environmental Services Inc
 Project/Site: Newberry System

Job ID: 410-58476-1

Client Sample ID: 011 Paddletown Well

Lab Sample ID: 410-58476-1

Date Collected: 10/07/21 10:40

Matrix: Drinking Water

Date Received: 10/08/21 17:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	EPA 537 Ver 1.1			181922	10/12/21 17:56	AX9M	ELLE
Total/NA	Analysis	EPA 537 Ver 1.1		1	183921	10/18/21 12:04	VK3G	ELLE

Client Sample ID: FB - Paddletown Well

Lab Sample ID: 410-58476-2

Date Collected: 10/07/21 10:40

Matrix: Potable Water

Date Received: 10/08/21 17:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	EPA 537 Ver 1.1			181922	10/12/21 17:56	AX9M	ELLE
Total/NA	Analysis	EPA 537 Ver 1.1		1	183921	10/18/21 12:15	VK3G	ELLE

Laboratory References:

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



Accreditation/Certification Summary

Client: SUEZ Water Environmental Services Inc
Project/Site: Newberry System

Job ID: 410-58476-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

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

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-22

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: SUEZ Water Environmental Services Inc
Project/Site: Newberry System

Job ID: 410-58476-1

Method	Method Description	Protocol	Laboratory
EPA 537 Ver 1.1	EPA 537 Version 1.1	EPA	ELLE
EPA 537 Ver 1.1	EPA 537 Version 1.1	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



Sample Summary

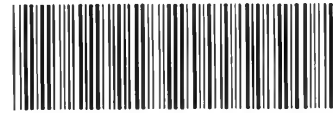
Client: SUEZ Water Environmental Services Inc
Project/Site: Newberry System

Job ID: 410-58476-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-58476-1	011 Paddletown Well	Drinking Water	10/07/21 10:40	10/08/21 17:31
410-58476-2	FB - Paddletown Well	Potable Water	10/07/21 10:40	10/08/21 17:31

- 1
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Environment



410-58476 Chain of Custody

st/Chain of Custody



Lancaster Laboratories
Environmental

Acct. # 44297 Group #

Client: SUEZ WATER PA				Matrix				Analyses Requested								For Lab Use Only						
Project Name: Newberry System				Site ID #:				Preservation and Filtration Codes								SF #: _____						
Project Manager: Elizabeth Zanar				P.O. #:				O								SCR #: _____						
Sampler: Penny Bumbarger				PWSID #: 7670061				PFAS (14) 537 v 1.1								Preservation Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ P = H ₃ PO ₄ F = Field Filtered O = Other						
Phone #: 717-773-0185				Quote #: 219948A																		
State where samples were collected: PA				For Compliance: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																		
Sample Identification		Collection		Grab	Composite	Soil <input type="checkbox"/>	Sediment <input type="checkbox"/>	Tissue <input type="checkbox"/>	Potable Water <input type="checkbox"/>	Ground NPDES <input type="checkbox"/>	Surface <input type="checkbox"/>	Other: GAC Filtered Water <input type="checkbox"/>	Total # of Containers									Remarks
Date	Time													Annual Compliance								
011 Paddletown Well	10/7/21	1040	X						X				2	X								
FB - Paddletown Well	10/7/21	1040											2	X								
Babeli Qe Paddletown Well	10/7/21	1040																				
Turnaround Time Requested (TAT) (please check): Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/> (Rush TAT is subject to laboratory approval and surcharges.)														Relinquished by: <i>Penny Bumbarger</i>		Date: 10/8/21	Time: 1154	Received by: <i>[Signature]</i>		Date: 10/8/21	Time: 1154	
Date results are needed:														Relinquished by: <i>[Signature]</i>		Date: 10/5/21	Time: 1718	Received by:		Date:	Time:	
Rush results requested by (please check): E-Mail <input checked="" type="checkbox"/> Phone <input type="checkbox"/>														Relinquished by:		Date:	Time:	Received by:		Date:	Time:	
E-mail Address: penny.bumbarger@suez.com														Relinquished by:		Date:	Time:	Received by:		Date:	Time:	
Phone: 717-773-0185														Relinquished by:		Date:	Time:	Received by:		Date:	Time:	
Data Package Options (please check if required)														Relinquished by:		Date:	Time:	Received by:		Date:	Time:	
Type I (Validation/non-CLP)	<input type="checkbox"/>	MA MCP	<input type="checkbox"/>											Relinquished by:		Date:	Time:	Received by: <i>[Signature]</i>		Date: 10/8/21	Time: 1731	
Type III (Reduced non-CLP)	<input type="checkbox"/>	CT RCP	<input type="checkbox"/>											Relinquished by: Commercial Carrier:		Temperature upon receipt: 2.9 °C						
Type VI (Raw Data Only)	<input type="checkbox"/>	TX TRRP-13	<input type="checkbox"/>											UPS _____ FedEx _____ Other _____								
NJ DKQP	<input type="checkbox"/>	NYSDEC Category	<input type="checkbox"/>	A or B																		
EDD Required? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, format: _____																						



Login Sample Receipt Checklist

Client: SUEZ Water Environmental Services Inc

Job Number: 410-58476-1

Login Number: 58476

List Source: Eurofins Lancaster Laboratories Env, LLC

List Number: 1

Creator: Lugardo, Tamara

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	