

ANALYTICAL REPORT

PREPARED FOR

Attn: Marty Durkin
City of Morton Grove
7840 Nagle Avenue
Morton Grove, Illinois 60053

Generated 8/17/2023 8:41:55 AM

JOB DESCRIPTION

UCMR5-IL0311950-MortonGrove

JOB NUMBER

810-70574-1

Eurofins Eaton Analytical South Bend

Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Eaton Analytical, LLC Project Manager.

Authorization



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8/17/2023 8:41:55 AM

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Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Lab Chronicle	8
Certification Summary	9
Method Summary	10
Sample Summary	11
Chain of Custody	12
Receipt Checklists	13



Definitions/Glossary

Client: City of Morton Grove
Project/Site: UCMR5-IL0311950-MortonGrove

Job ID: 810-70574-1

Glossary

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

Case Narrative

Client: City of Morton Grove
Project/Site: UCMR5-IL0311950-MortonGrove

Job ID: 810-70574-1

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Laboratory: Eurofins Eaton Analytical South Bend

Narrative

Job Narrative 810-70574-1

Receipt

The sample was received on 7/20/2023 8:45 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice.

PFAS

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

Metals

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

Client Sample Results

Client: City of Morton Grove
Project/Site: UCMR5-IL0311950-MortonGrove

Job ID: 810-70574-1

Client Sample ID: 6702 Oakton/00001

Lab Sample ID: 810-70574-1

Date Collected: 07/19/23 08:30

Matrix: Drinking Water

Date Received: 07/20/23 08:45

PWSID Number: IL0311950

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<0.0050		0.0050	ug/L		08/09/23 06:29	08/11/23 07:51	1
Perfluoropentanoic acid (PFPeA)	<0.0030		0.0030	ug/L		08/09/23 06:29	08/11/23 07:51	1
Perfluorohexanoic acid (PFHxA)	<0.0030		0.0030	ug/L		08/09/23 06:29	08/11/23 07:51	1
Perfluoroheptanoic acid (PFHpA)	<0.0030		0.0030	ug/L		08/09/23 06:29	08/11/23 07:51	1
Perfluorooctanoic acid (PFOA)	<0.0040		0.0040	ug/L		08/09/23 06:29	08/11/23 07:51	1
Perfluorononanoic acid (PFNA)	<0.0040		0.0040	ug/L		08/09/23 06:29	08/11/23 07:51	1
Perfluorodecanoic acid (PFDA)	<0.0030		0.0030	ug/L		08/09/23 06:29	08/11/23 07:51	1
Perfluoroundecanoic acid (PFUnA)	<0.0020		0.0020	ug/L		08/09/23 06:29	08/11/23 07:51	1
Perfluorododecanoic acid (PFDoA)	<0.0030		0.0030	ug/L		08/09/23 06:29	08/11/23 07:51	1
4,8-Dioxo-3H-perfluorononanoic acid (ADONA)	<0.0030		0.0030	ug/L		08/09/23 06:29	08/11/23 07:51	1
Perfluorobutanesulfonic acid (PFBS)	<0.0030		0.0030	ug/L		08/09/23 06:29	08/11/23 07:51	1
Perfluorohexanesulfonic acid (PFHxS)	<0.0030		0.0030	ug/L		08/09/23 06:29	08/11/23 07:51	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.0030		0.0030	ug/L		08/09/23 06:29	08/11/23 07:51	1
Perfluorooctanesulfonic acid (PFOS)	<0.0040		0.0040	ug/L		08/09/23 06:29	08/11/23 07:51	1
Perfluoropentanesulfonic acid (PFPeS)	<0.0040		0.0040	ug/L		08/09/23 06:29	08/11/23 07:51	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<0.0050		0.0050	ug/L		08/09/23 06:29	08/11/23 07:51	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid	<0.0020		0.0020	ug/L		08/09/23 06:29	08/11/23 07:51	1
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid	<0.0050		0.0050	ug/L		08/09/23 06:29	08/11/23 07:51	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.0030		0.0030	ug/L		08/09/23 06:29	08/11/23 07:51	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.0050		0.0050	ug/L		08/09/23 06:29	08/11/23 07:51	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.0050		0.0050	ug/L		08/09/23 06:29	08/11/23 07:51	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.0200		0.0200	ug/L		08/09/23 06:29	08/11/23 07:51	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.0040		0.0040	ug/L		08/09/23 06:29	08/11/23 07:51	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.0030		0.0030	ug/L		08/09/23 06:29	08/11/23 07:51	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<0.0030		0.0030	ug/L		08/09/23 06:29	08/11/23 07:51	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	88		50 - 200	08/09/23 06:29	08/11/23 07:51	1
13C4 PFBA	91		50 - 200	08/09/23 06:29	08/11/23 07:51	1
13C3 PFBS	92		50 - 200	08/09/23 06:29	08/11/23 07:51	1
13C5 PFPeA	90		50 - 200	08/09/23 06:29	08/11/23 07:51	1
13C5 PFHxA	92		50 - 200	08/09/23 06:29	08/11/23 07:51	1
13C4 PFHpA	92		50 - 200	08/09/23 06:29	08/11/23 07:51	1
13C8 PFOA	92		50 - 200	08/09/23 06:29	08/11/23 07:51	1
13C9 PFNA	103		50 - 200	08/09/23 06:29	08/11/23 07:51	1
13C6 PFDA	95		50 - 200	08/09/23 06:29	08/11/23 07:51	1
13C7 PFUnA	92		50 - 200	08/09/23 06:29	08/11/23 07:51	1
13C2 PFDoA	94		50 - 200	08/09/23 06:29	08/11/23 07:51	1
13C8 PFOS	91		50 - 200	08/09/23 06:29	08/11/23 07:51	1
13C3 PFHxS	91		50 - 200	08/09/23 06:29	08/11/23 07:51	1

Eurofins Eaton Analytical South Bend

Client Sample Results

Client: City of Morton Grove
Project/Site: UCMR5-IL0311950-MortonGrove

Job ID: 810-70574-1

Client Sample ID: 6702 Oakton/00001

Lab Sample ID: 810-70574-1

Date Collected: 07/19/23 08:30

Matrix: Drinking Water

Date Received: 07/20/23 08:45

PWSID Number: IL0311950

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2-4:2-FTS	90		50 - 200	08/09/23 06:29	08/11/23 07:51	1
13C2-6:2-FTS	102		50 - 200	08/09/23 06:29	08/11/23 07:51	1
13C2-8:2-FTS	109		50 - 200	08/09/23 06:29	08/11/23 07:51	1

Method: EPA 537.1 UCMR5 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.0048		0.0048	ug/L		07/28/23 08:39	08/02/23 07:03	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.0057		0.0057	ug/L		07/28/23 08:39	08/02/23 07:03	1
Perfluorotetradecanoic acid (PFTA)	<0.0077		0.0077	ug/L		07/28/23 08:39	08/02/23 07:03	1
Perfluorotridecanoic acid (PFTrDA)	<0.0067		0.0067	ug/L		07/28/23 08:39	08/02/23 07:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	121		70 - 130	07/28/23 08:39	08/02/23 07:03	1
13C2 PFHxA	126		70 - 130	07/28/23 08:39	08/02/23 07:03	1
13C2 PFDA	118		70 - 130	07/28/23 08:39	08/02/23 07:03	1
13C3 HFPO-DA	114		70 - 130	07/28/23 08:39	08/02/23 07:03	1

Method: EPA 200.7 UCMR5 - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<9.00		9.00	ug/L		07/25/23 14:41	07/26/23 21:45	1

Lab Chronicle

Client: City of Morton Grove
Project/Site: UCMR5-IL0311950-MortonGrove

Job ID: 810-70574-1

Client Sample ID: 6702 Oakton/00001

Lab Sample ID: 810-70574-1

Date Collected: 07/19/23 08:30

Matrix: Drinking Water

Date Received: 07/20/23 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			68887	KL	EA SB	08/09/23 06:29
Total/NA	Analysis	533		1	68996	KB	EA SB	08/11/23 07:51
Total/NA	Prep	537.1 DW			67407	EH	EA SB	07/28/23 08:39
Total/NA	Analysis	537.1 UCMR5		1	67668	PP	EA SB	08/02/23 07:03
Total/NA	Prep	200.7 UCMR5			66893	NB	EA SB	07/25/23 14:41
Total/NA	Analysis	200.7 UCMR5		1	67168	AC	EA SB	07/26/23 21:45

Laboratory References:
EA SB = Eurofins Eaton Analytical South Bend, 110 S Hill Street, South Bend, IN 46617, TEL (574)233-4777

Accreditation/Certification Summary

Client: City of Morton Grove
Project/Site: UCMR5-IL0311950-MortonGrove

Job ID: 810-70574-1

Laboratory: Eurofins Eaton Analytical South Bend

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

Authority	Program	Identification Number	Expiration Date
USEPA UCMR 5	US Federal Programs	IN00035	12-31-25

Method Summary

Client: City of Morton Grove
Project/Site: UCMR5-IL0311950-MortonGrove

Job ID: 810-70574-1

Method	Method Description	Protocol	Laboratory
533	Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water	EPA	EA SB
537.1 UCMR5	Perfluorinated Alkyl Acids (LC/MS)	EPA	EA SB
200.7 UCMR5	Metals (ICP)	EPA	EA SB
200.7 UCMR5	Preparation, Total Recoverable Metals	EPA	EA SB
533	Extraction of Perfluorinated and Polyfluorinated Alkyl Acids	EPA	EA SB
537.1 DW	Extraction of Perfluorinated Alkyl Acids	EPA	EA SB

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EA SB = Eurofins Eaton Analytical South Bend, 110 S Hill Street, South Bend, IN 46617, TEL (574)233-4777

Sample Summary

Client: City of Morton Grove
Project/Site: UCMR5-IL0311950-MortonGrove

Job ID: 810-70574-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	PWSID Number
810-70574-1	6702 Oakton/00001	Drinking Water	07/19/23 08:30	07/20/23 08:45	IL0311950

1

2

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10

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South Bend, IN

110 S Hill Street

South Bend, IN 46617

Phone (574) 233-4777; Phone (574) 233-8207

"UCMR 5 Sampli

(Separate fo



810-70574 Chain of Custody

eurofins

Environment Testing
America

Company Contact: MARTY DURKIN

Company Name: VILLAGE OF MORTON GROVE

Company Address: 7840 NAGLE

MORTON GROVE IL 60053

Phone: 847-470-5235

Email: mdurkin@mortongroveil.org

Purchase Order: _____

Lab PM(name): _____

PM Email: _____

EEA Project: 4658

PWSID: 0311950

FacID: 00001

SPID: SOUTH PUMPING STATION

FacName: _____

SPName: ENTRY POINT

Sampling Event: UCMR 5 SE 3

Water System Name:

VILLAGE OF MORTON GROVE

Collection Location:

6702 OAKTON

Scheduled Collection

Date:

JULY 2023

Sampler Name (Print):

MARTY DURKIN

Date/Time

Sampled:

7-19-2023 0830

PUR BOTTLE

RT 7-20-23

Client Storage temp, if > 2 days from collection: _____

AREA BELOW FOR LAB USE ONLY

For UCMR 5 specific criteria see: REC-WI55108 Guidance Document for UCMR 5 Sample Receiving Requirements and QA-SOP-SOP48964 UCMR 5 QAPP

Method	Type	# Bot	IR Gun#: <u>17</u>	pH* value	Ice: <u>Wet</u> / Blue		Cl (P/A) **	Sample Comments	✓if sample is invalid
			Temp °C (10°C within 2 days of collection, 6°C for > 2 days) Initial / Corrected		✓if receipt pH acceptable	✓if pH needs adjustment			
200.7	FS	1			✓				
<u>RT</u> 200.7	FS	2							
533	FS	1	<u>4.4 / 4.2</u>		✓		<u>A</u>		
533	FS	2	<u>NA /</u>		✓		<u>A</u>		
533	FS	3	<u>NA /</u>		✓		<u>A</u>		
533	FRB	1	<u>4.8 / 4.6</u>		✓		<u>A</u>		
537.1	FS	1	<u>4.8 / 4.6</u>		✓		<u>A</u>		
537.1	FS	2	<u>NA /</u>		✓		<u>A</u>		
537.1	FS	3	<u>NA /</u>		✓		<u>A</u>		
537.1	FRB	1	<u>4.6 / 4.4</u>		✓		<u>A</u>		

* pH < 2 for 200.7. pH 6-8 for 533 & 537.1. Note: 200.7 & 533 pH may be adjusted upon receipt.

** A = Absent if Free Cl < 0.1 mg/L; P = Chlorine is present

Received By

Riley

Date/Time

072023 0845

Login Sample Receipt Checklist

Client: City of Morton Grove

Job Number: 810-70574-1

Login Number: 70574

List Source: Eurofins Eaton Analytical South Bend

List Number: 1

Creator: Trott, Riley

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	