20 January 2026

To: Laboratories participating in Proftest Syke proficiency tests

Proficiency test WW 03/2026 – Wastewater analyses I

Proftest Syke will organise a proficiency test (PT) for the analysis of BOD_7, COD_{Cr}, COD_{Mn}, Na, suspended solids, and TOC in wastewaters. In this PT it is also possible to determine BOD_7 and COD_{Mn} in natural water sample.

The purpose of this proficiency test is to ensure the comparability and accuracy of the results of the participants. About 50 laboratories are expected to participate in this proficiency test. The measurands and samples of this proficiency test are included in the Water chemistry scheme of the Proftest Syke accreditation scope (finas.fi/sites/en).

Sample matrices

Synthetic sample, pulp and paper industrial wastewater, and municipal wastewater as well as natural water (river water, only for BOD_7 and COD_{Mn} measurements).

Timetable

Registration	**20 January – 18 February 2026**	
Sample dispatch date	17 March 2026 (see Chapter 4 *Sample delivery)*	
Analysis of the samples	BOD_7, COD_{Mn} and suspended solids	19 March 2026
	COD_{Cr}	at the latest on 20 March 2026
	Na, TOC	at the latest on 7 April 2026
Reporting of the results	**18 March – 8 April 2026**	

Participation fee

The participation fee is **894 €** (+ VAT) including all measurements and samples.
See detailed information in Chapter 9 *Participation fee.*

Mervi Pajula,
Coordinator

Mirja Leivuori,
Group manager

Proftest Syke is proficiency testing provider PT01 (EN ISO/IEC 17043:2010) accredited by FINAS (Finnish Accreditation Service, finas.fi/sites/en).

Proftest Syke guide for participants is available on Proftest Syke website (syke.fi/proftest/en).

ProftestWEB is the electronic client interface for Proftest Syke proficiency tests wwwp5.ymparisto.fi/Labtest/en. Within the pages, instructions are available on every page. A short *Getting started* manual is available on ProftestWEB front page.

Organising the proficiency test

1 Organiser

Proftest Syke, Finnish Environment Institute (Syke)
Address: Mustialankatu 3, FI-00790 Helsinki, Finland
Email: proftest@syke.fi

Contact

Coordinator: Mervi Pajula, tel. +358 295 252 320
Substitute for coordinator: Päivi Grönroos, tel. +358 295 252 174
Email: firstname.lastname@syke.fi

Cooperation partner

KVVY Tutkimus Oy (T064, finas.fi/sites/en)

Analytical experts

BOD_7, COD_{Mn}, COD_{Cr}, suspended solids, TOC	Mika Sarkkinen (Syke), tel. +358 295 251 620
Na	Timo Sara-Aho (Syke), tel. +358 295 251 618

Email: firstname.lastname@syke.fi

Expert laboratory Finnish Environment Institute, Oulu and Helsinki (T003, finas.fi/sites/en)

Subcontracting

KVVY Tutkimus Oy: BOD_7, COD_{Cr} and COD_{Mn} measurements. (T064, finas.fi/sites/en).

2 Samples and measurands

The sample matrices in this proficiency test are: synthetic sample, pulp and paper industrial wastewater, municipal wastewater as well as natural water (river water - only for BOD_7 and COD_{Mn} measurements). Samples, measurands, concentration ranges and sample preservations are presented in Appendix 1.

Note! Check the samples volumes and, in case needed, order additional samples.

Note! The TOC samples can be ordered as preserved in hydrochloric acid or phosphoric acid. Please choose the right type of preservation when placing your order.

3 Registration

The registration for this proficiency test is open until **18 February 2026**.

Registration is done via the electronic client interface, ProftestWEB: wwwp5.ymparisto.fi/Labtest/en. If there are problems when using ProftestWEB or you need username and password, please contact proftest@syke.fi.

4 Sample delivery

The sample dispatch day for national participants is **17 March 2026**. To ensure timely arrival, the samples are dispatched earlier for participants abroad.

If the sample package does not arrive **at the latest on 18 March 2026**, or there are missing and/or broken sample containers, please contact the provider immediately (proftest@syke.fi). More contact details in Chapter 1 *Organiser*.

5 Sample storage and analysis

The samples are stored at 4 °C. Samples are analysed within the laboratory where they are delivered to, and analyses are conducted according to the participant's normal procedures.

For the COD_{Cr} measurements, the analyses are performed as duplicate determinations, and two results are reported. For the other samples and measurements, replicated analyses should not be performed more than what is required by the laboratory's normal practice.

Timetable for sample analysis is on the first page of this letter.

6 Reporting the results

The participant results are reported to Proftest Syke at the latest on **8 April 2026**.

Proftest Syke delivers the preliminary result report to the participants latest in the week 16 (13 – 17 April 2026). The final report will be published at the latest in June 2026 and it is then available on ProftestWEB and on Proftest Syke website (syke.fi/proftest/en). The availability of the report will be informed to the participants.

7 Assigned values and evaluation of the results

Either the calculated concentration (synthetic samples) or the robust mean, the median, or the mean of the results reported by the participants will be used as the assigned value for the measurand. The calculation of the assigned value is based on the results reported according to the given guidelines. Also, when needed, the result of the expert laboratory can be used as the assigned value. The evaluation of the results will be based on z scores. The preliminary standard deviation for proficiency assessment will be given in the cover letter of the sample. In special cases also E_n or D% scores can be used for the performance evaluation.

8 Confidentiality

The results of participants are treated anonymously. The participants' results and the preliminary results report of the round are confidential and should not be shared with third parties during the implementation of the round.

9 Participation fee

The participation fee is **894 €** (+ VAT) including all measurements and samples. The final fee includes the basic charge **460 €** (+VAT) and the measurement and sample-specific fees based on the order placed at registration, as follows:

BOD_7	30 €/sample	(4 samples)
COD_{Cr} and COD_{Mn}	25 €/sample	(5 samples)
Suspended solids	20 €/sample	(3 samples)
Na	20 €/ sample	(3 samples)
TOC	23 €/ sample	(3 samples)

The invoice will be sent after the delivery of the preliminary result report. If the participant orders additional samples, they are charged according to the prices listed above.

Note! In Finland VAT is 25.5 %. Further, if the invoicing address or any other additional information has to be corrected after the invoicing, the extra handling cost will be charged. The participant is also responsible for possible custom clearance or customs fee of the sample.

10 Appendices

Appendix 1 Samples, measurands, concentration ranges and preservations.

Appendix 1. Samples, measurands, concentration ranges and preservations.

Measurands	Sample matrix	Sample code	Sample volume [1] and container	Concentration range and *preservation*
BOD_7	Synthetic sample	**A1B**	appr. 200 ml, glass bottle	A1B: > 50 mg/l N2B: 5-10 mg/l P3B: > 5 mg/l V4B: > 5 mg/l *Synthetic sample A1B is autoclaved. Samples N2B, P3B and V4B should be prepared by the participant according to the guidelines given in sample letter*
	Natural water	**N2B**	1000 ml, plastic bottle	
	Pulp and paper industrial wastewater	**P3B**		
	Municipal wastewater	**V4B**		
COD_{Cr}	Synthetic sample	**A1CR**	250 ml, plastic bottle	A1CR: > 30 mg/l P3C: > 30 mg/l V4C: > 30 mg/l *Samples are preserved: with 2.5 ml 4 mol/l H_2SO_4/250 ml*
	Pulp and paper industrial wastewater	**P3C**		
	Municipal wastewater	**V4C**		
COD_{Mn}	Synthetic sample	**A1CM**	250 ml, plastic bottle	A1CM: > 2 mg/l N2C: > 2 mg/l V4C: > 2 mg/l *Samples are preserved: with 2.5 ml 4 mol/l H_2SO_4/250 ml*
	Natural water	**N2C**		
	Municipal wastewater	**V4C**		
Na	Synthetic sample	**A1N**	500 ml, plastic bottle	A1N: Na > 10 mg/l P3N: Na > 10 mg/l V4N: Na > 10 mg/l
	Pulp and paper industrial wastewater	**P3N**		
	Municipal wastewater	**V4N**		
Suspended solids	Synthetic sample	**A1K**	500 ml, plastic bottle	A1K: > 3 mg/l P3K: > 3 mg/l V4K: > 3 mg/l
	Pulp and paper industrial wastewater	**P3K**	1000 ml, plastic bottle	
	Municipal wastewater	**V4K**		
TOC	Synthetic sample	**A1T**	100 ml, plastic bottle	A1T: > 5 mg/l P3T: > 5 mg/l V4T: > 5 mg/l *Samples are preserved:* *1 ml 2 mol/l HCl/100 ml or* *1 ml 2 mol/l H_3PO_4/100 ml* [2]
	Pulp and paper industrial wastewater	**P3T**		
	Municipal wastewater	**V4T**		

[1] Please check the sample volume and, in case needed, order additional samples.
[2] Please choose the preservation acid when ordering samples.

Sample codes (first letter showing sample matrix):
A = Synthetic sample
N = Natural water (river water)
P = Pulp and paper industrial wastewater
V = Municipal wastewater