

TESTING OF SURFACE AND DRINKING/SURFACE WATER

PROCESSING INSTRUCTIONS

PROGRAMME 2026

PT ID: QDJV-4

1. GENERAL REQUIREMENTS

1.1. Storage of samples

Samples should be stored in a **dark place, unopened, refrigerated ($4 \pm 2^{\circ}\text{C}$)** until processing.

Regarding the handling of samples, please follow the safety rules for laboratory chemicals and handle proficiency test samples in the same way as the majority of routinely tested samples.

1.2. Processing of samples

The samples were preserved in accordance with **MSZ EN ISO 5667-3:2018**, taking into account the properties of the analytes to be tested. Preservation of samples for **phenol index** determination was carried out in accordance with **MSZ 1484-1:2009**. In addition, for **total nitrogen (N)** and **oxidized nitrogen** samples, hydrochloric acid was used instead of sulfuric acid for sample acidification (Annex 1 of the Programme description).

The parameters to be determined are present in the dissolved phase; therefore, **the samples do not require filtration**.

Please note that, as a result of sample preservation, the **pH value may differ from the range normally observed in samples**. We kindly request that the pH be checked before starting the analyses and that the samples should be handled in accordance with the requirements of the analytical method applied.

2. SAMPLES

2.1. Surface water parameters

Sample ID	Dilution	Parameters to be tested	Planned range ($\pm 15\%$)
FSZ-M-1 FSZ-M-2	-	Hg	Real surface water (spiked if necessary)

Comments:

- The test sample matrix is natural surface water, which was filtered through a **0.45 μm pore-size filter prior to spiking**.
- The samples shall be analyzed **without dilution**.
- The samples have been preserved with **nitric acid and potassium dichromate**.
- The measurement results shall be reported with **reference to the original sample**.
- In addition to the measurement results, please also provide the **expanded measurement uncertainty ($k = 2$)**, expressed in the **same unit as the reported result**.

Sample ID	Dilution	Parameters to be tested	Planned range ($\pm 10\%$)
FSZ-N-1 FSZ-N-2	-	total N, TON	Real surface water (spiked if necessary)

Comments:

- The test sample matrix is natural surface water, which was filtered through a **0.45 μm pore-size filter prior to spiking, and was sterilized by autoclaving at 121 °C for 15 minutes.**
- The samples shall be analyzed **without dilution.**
- The samples have been preserved with **hydrochloric acid.**
- The measurement results shall be reported with **reference to the original sample.**
- In addition to the measurement results, please also provide the **expanded measurement uncertainty ($k = 2$), expressed in the same unit as the reported result.**

2.2. Drinking/Surface water parameters

Sample ID	Dilution	Parameters to be tested	Planned range ($\pm 10\%$)
IV/FSZ-M-1 IV/FSZ-M-2	100x	Sb Se Sn	1.0 – 10 $\mu\text{g}/\text{dm}^3$ 2.0 – 20 $\mu\text{g}/\text{dm}^3$ 1.0 – 20 $\mu\text{g}/\text{dm}^3$

Comments:

- **The test sample is an artificial solution.**
- The samples have been preserved with **hydrochloric acid.**
- The samples should be analyzed at a **100 $\times$ dilution.**
- The measurement results shall be reported with **reference to the diluted sample.**
- In addition to the measurement results, please also provide the **expanded measurement uncertainty ($k = 2$), expressed in the same unit as the reported result.**

Sample ID	Dilution	Parameters to be tested	Planned range ($\pm 10\%$)
IV/FSZ-Org-1 IV/FSZ-Org-2	10 000x	Phenol index	5 – 40 $\mu\text{g}/\text{dm}^3$

Comments:

- The test sample is an **artificial solution.**
- The samples have been preserved with **copper sulphate and phosphoric acid.**
- The samples are recommended to be processed as soon as possible after receipt.
- The samples should be analyzed at a **10 000 $\times$ dilution.**
- The measurement results shall be reported with **reference to the diluted sample.**
- In addition to the measurement results, please also provide the **expanded measurement uncertainty ($k = 2$), expressed in the same unit as the reported result.**

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Sample ID	Dilution	Parameters to be tested	Planned range ($\pm 10\%$)
IV/FSZ-NS-1 IV/FSZ-NS-2	100x	CN ⁻ (total)	20-120 $\mu\text{g}/\text{dm}^3$

Comments:

- The test sample is an **artificial solution**.
- The determination of total CN⁻ should be carried out using a **direct photometric** method. During the analysis of the proficiency testing samples, **no distillation procedure** is required.
- The samples have been preserved with **sodium hydroxide solution**.
- The samples should be analyzed at a **100× dilution**.
- The measurement results shall be reported with **reference to the diluted sample**.
- In addition to the measurement results, please also provide the **expanded measurement uncertainty** ($k = 2$), expressed in the **same unit as the reported result**.

3. SUBMISSION OF RESULTS

Participants are asked to provide their **extended measurement uncertainty** in addition to the measured values (the extension factor: $k = 2$), and the extended measurement uncertainty values **should be in the same unit** as the measurement results.

The measurement results can be recorded electronically via the www.qualcoduna.hu website.

The **process of recording** is as follows:

- Open the www.qualcoduna.hu/en website and click on the *Login to online services* menu item.
- After entering the login name and password, the participants' personal electronic page will be opened.
- By clicking on the *Reporting of results* menu item, the data sheet announcing the results is available.
- After the successful submission of the measurement data, the system sends a confirmation that the recording has been made, which can be saved and printed.
- Keep the confirmation and check its data content.
- **Important:** If you don't see a confirmation, the **recording has not been made**. If the electronic communication of data is temporarily hindered, please contact us.

SUBMISSION DEADLINE: 11TH SEPTEMBER 2026. (FRIDAY)

Values **marked "<" and ">"** submitted after the deadline cannot be taken into account in the evaluation, and the results given in units other than those on the data sheet **will not be recalculated**. (Reference: ISO 13528:2022. Statistical methods for use in proficiency testing by interlaboratory comparisons).

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Please note that if the Participant enters **zero ("0")** as the test result , the value **will be considered** a physically incorrect result **and will be evaluated**.

Budapest, 27th July, 2026.

A handwritten signature in blue ink, appearing to read "Dr. Mátrai Norbert".

Dr. Mátrai Norbert
Head of Department