

FW-4      General parameters in freshwater (algemene parameters in oppervlaktewater)	
Year: 2023	Participants: 20 laboratories expected
Number of rounds: 1 per year	Period exercise: 24 April – 22 May
Number of materials: 3 per round	Sample size: 500-1150 ml

[Timetable](#)
[PT Scheme](#)
[Costs](#)

This study covers the determination of general parameters in freshwater test materials. Participation of acidified samples is open for world-wide laboratories. Participation of determinands where conservation is 'completely filled' is only applicable for local laboratories as analysis needs to be performed on fresh samples. A request to participate can be made by sending an e-mail to [wepalquasimeme@wur.nl](mailto:wepalquasimeme@wur.nl).

## Test Materials

The test materials are prepared in bulk from filtered (1 mm) freshwater. Homogeneity of the test materials is assumed, as they were prepared in bulk and thoroughly mixed, before being dispensed into glass or plastic bottles for distribution.

Acidified samples with conservation 'HCl pH<2' or 'H<sub>2</sub>SO<sub>4</sub> pH<2' are stable for the purpose of the exercise and can be send worldwide. Samples with conservation 'completely filled' are freshly prepared a day in advance to the pre-determined date and sent cooled by courier with same-day delivery. Samples need to be kept cooled until analysis. **The pre-determined date of analysis of the 'completely filled' samples is 26<sup>th</sup> of April 2023.** Therefore, these samples cannot be distributed worldwide.

## Determinands and Concentration Ranges

Determinand*	Unit	Concentration Range	Conservation	Sample size	Error	
					Const	Prop
Mineral oil (minerale olie)	mg/l	1-5	HCl pH<2	800 ml		
BOD-5 (BZV-5)	mg/l	5-50	Completely filled	~1150 ml		
TOC	mg/l	1-20				
DOC	mg/l	1-20				
Cl - Chloride	mg/l	100-300				
EC (EGV) (25 °C)	mS/m	-	Completely filled	~1150 ml		
NO <sub>2</sub> (nitrite)	mg/l	0.1-1				
NO <sub>3</sub> (nitrate)	mg/l	1-5				
PO <sub>4</sub> (phosphate)	mg/l	0.1-1				
SiO <sub>2</sub> (silicon oxide)	mg/l	5-20				
SO <sub>4</sub> (sulfate)	mg/l	100-300				
pH	-	-				
F (fluoride)	mg/l	1-50				
Br (bromide)	mg/l	1-50				
KjN (kjeldahl nitrogen)	mg/l	1-5			H <sub>2</sub> SO <sub>4</sub> pH<2	500 ml
NH <sub>4</sub> (ammonium)	mg/l	1-5				
tN (total nitrogen)	mg/l	1-5				

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Determinand*	Unit	Concentration Range	Conservation	Sample size	Error	
					Const	Prop
tP (total phosphorus)	mg/l	0.1-2				
COD (CZV)	mg/l	3-30				

\* This exercise is not in the scope of accreditation.