AQ-11 Chlorophyll and Phaeopigments in Seawater	
Year: 2024	Participants: 45 laboratories expected
Number of rounds: 2 per year	Start exercise: 1 April, 1 October
Number of materials: 2 per round	Sample size: filter

Participation form | Timetable | PT Scheme | Costs

This study covers the determination of chlorophyll and phaeopigments in seawater and estuarine water. Normally, filtered residues are prepared from seawater or estuarine water. Occasionally, filtered residues are prepared from freshwater.

Test Materials

Test materials are prepared from seawater or estuarine water and sub-sampled onto Whatman GF/F, 47 mm filter papers each test material is immediately 'flash frozen' in liquid nitrogen. Selected filters at regular intervals are chosen for homogeneity testing. The test materials are homogeneous for the purposes of the LP study.

Determinands and Concentration Ranges

The pigments to be determined are given in the table below. The table also shows:
- The expected concentration range for the determinands in the test materials.
- The constant and proportional error that will be used for assessment of the results.

Determinand*	Unit	Concentration Range	Error	
		Filtered Residues	Const	Prop
Chlorophyll-a	µg/L	0.1-50	0.2	17.5%
Chlorophyll-b	µg/L	0.01-10	0.15	20.0%
Chlorophyll-c	µg/L	0.02-5	0.3	20.0%
Phaeopigments	µg/L	0.02-2.5	0.10	25.0%
Chlorophyll-a (HPLC)	µg/L	0.1-50	0.01	25.0%
Chlorophyll-b (HPLC)	µg/L	0.01-10		
Chlorophyll-c (HPLC)	µg/L	0.02-5		
Chlorophyll-a (corrected)	µg/L	0.1-50	0.15	17.5%

*Determinands which are not in bold are not in the scope of accreditation.