

AQ-11 Chlorophyll and Pheopigments in Seawater					
Year	2021	Number of Rounds / Year	2	Number of Materials	2
Distribution	April, October (45 laboratories expected)				
Participation fee	€700,=				

### Introduction

This study covers the determination of chlorophyll and pheopigments in seawater and estuarine water. Normally, filtered residues are prepared from seawater or estuarine water. Occasionally, filtered residues are prepared from freshwater or algae cultures of e.g. Chaetocheros and Pyramimonas.

### 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. The sequence in which the test materials are filtered is recorded. 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		AA-EQS
		Filtered Residues	Const	Prop	
<b>Chlorophyll-a</b>	µg/L	0.1–20	0.05	12.5%	
Chlorophyll-b	µg/L	0.01–5	0.01	12.5%	
Chlorophyll-c	µg/L	0.02–2.5	0.01	12.5%	
Pheopigments	µg/L	0.02–2.5	0.01	12.5%	
Chlorophyll-a (HPLC)	µg/L	0.1–20	0.05	12.5%	
Chlorophyll-b (HPLC)	µg/L	0.01–5	0.01	12.5%	
Chlorophyll-c (HPLC)	µg/L	0.02–2.5	0.01	12.5%	
Chlorophyll-a (corrected)	µg/L	0.1–20	0.05	12.5%	

Only the determinand in **bold** is in the scope of the accreditation.