



QUASIMEME

Quality assurance of information
for marine environmental monitoring

Certificate of Analysis



Nutrients in Seawater

REFERENCE MATERIAL

AQ1 sample 186



Certificate of Analysis AQ1 186

General Information

In this report an overview is given of analytical data for this sample collected in our proficiency testing program. The consensus values are calculated using a robust statistical model. With this NDA model, the mean and standard deviation are calculated using all reported data when at least 4 results are left after removal of reported 'lower than' (<) and 0 (= zero) values. No outliers are removed.

This report is divided into two sections: Consensus Values and Indicative Values. The division is made on the reliability of the data. Consensus Values are based on at least 8 results and a maximum relative uncertainty of 6.25%. Indicative Values are based on a maximum relative uncertainty of 35% and a minimum of 4 and maximum of 7 results, or a relative uncertainty greater than 6.25% when there are at least 8 results.

For each determinand the following parameters are given: mean, standard deviation, coefficient of variation, number of results, median, MAD (Median of Absolute Deviation), the uncertainty of the mean (consensus or indicative) value and the relative uncertainty.

Sample information

QUASIMEME reference materials cover a range of natural SeaWater species from contaminated waters from the North Sea and/or Mediterranean.

This AQ1 sample 186 of Seawater unspiked from Atlantic Ocean is prepared for the QUASIMEME proficiency programs. The results on which the values in this report are based were taken from the periods given in the following table.

Year.Round	Program	Sample Round Id
2024.2	AQ1	QNU410SW



Consensus Values AQ1

Method: Nutrients - AQ1

Element	Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	Rel.Uncert. %
Ammonia	μmol/l	0.959	0.163	16.9	43	0.970	0.110	0.031	3.23
TOTAL-N	μmol/l	19.1	1.74	9.1	31	19.3	1.21	0.392	2.05

Method: Salinity - AQ1

Element	Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	Rel.Uncert. %
Salinity	psu	33.6	0.075	0.2	30	33.6	0.028	0.017	0.051
Salinity indicative	psu	33.2	1.83	5.5	8	33.6	1.26	0.807	2.43



Indicative Values AQ1

Method: Nutrients - AQ1

Element	Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	Rel.Uncert. %
Nitrite	μmol/l	0.024	0.015	63.4	27	0.030	0.010	0.004	15.2
TOxN	μmol/l	0.091	0.067	73.1	21	0.100	0.050	0.018	19.9
TOTAL-P	μmol/l	0.115	0.064	55.2	25	0.130	0.044	0.016	13.8
Silicate	μmol/l	0.149	0.181	121.1	27	0.221	0.141	0.043	29.1
Phosphate	μmol/l	0.030	0.038	128.2	28	0.039	0.028	0.009	30.3
Nitrate	μmol/l	0.098	0.110	111.8	19	0.146	0.096	0.032	32.1