QUASIMEME

Quality assurance of information for marine environmental monitoring

Certificate of Analysis

Nutrients in Estuarine and low salinity Seawater

REFERENCE MATERIAL

AQ2 sample 219

WAGENINGEN
UNIVERSITY & RESEARCH

Certificate of Analysis AQ2 219

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.

Please note: Most WEPAL-QUASIMEME reference materials are found to be stable over the long term (>10 years) for most determinand/matrix combinations. There are a few exceptions known to us as being less stable over the long term. These are organotins in sediment (MS6), ASP in shellfish (BT7), some PAHs and PCBs in sediment (SETOC) and N-NH_4 (as N) in clay soils (ISE).

Sample information

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

This AQ2 sample 219 of Low salinity seawater spiked with nutrients from Atlantic seawater diluted 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
2025.1	AQ2	QNU421EW

Consensus Values AQ2

Method: Nutrients - AQ2

Element	Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	Rel.Uncert. %
Nitrite	µmol/l	5.25	0.274	5.2	26	5.25	0.160	0.067	1.28
Ammonia	µmol/l	7.91	0.964	12.2	27	7.91	0.609	0.232	2.93
TOxN	µmol/l	41.8	1.32	3.2	24	42.1	0.662	0.337	0.805
TOTAL-N	µmol/l	52.0	2.68	5.1	19	52.0	1.90	0.767	1.47
TOTAL-P	µmol/l	3.28	0.107	3.3	17	3.25	0.069	0.032	0.990
Silicate	µmol/l	24.7	1.01	4.1	25	24.7	0.603	0.253	1.02
Phosphate	µmol/l	3.24	0.057	1.8	28	3.23	0.035	0.014	0.418
Nitrate	µmol/l	36.4	1.90	5.2	14	36.7	1.03	0.633	1.74