WEPAL-QUASIMEME

Certificate of Analysis

Volatile Organics in seawater

REFERENCE MATERIAL

AQ6 sample 80

2026-Aug-13

WAGENINGEN
UNIVERSITY & RESEARCH

Certificate of Analysis AQ6 80

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 measurand, 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 measurand/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) & N-NO_3 (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 AQ6 sample 80 of Seawater spiked with volatiles from North Sea, the Netherlands is prepared for the QUASIMEME proficiency programs. The results on which the values in this report are based were taken from the rounds given in the following table.

Year.Round	Program	Sample Round Id
2026.1	AQ6	QVC079SW

Consensus Values AQ6

Method: VOCs - AQ6

Element	Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	Rel.Uncert. %
Ethylbenzene	µg/L	2.60	0.361	13.9	9	2.52	0.196	0.151	5.78

Indicative Values AQ6

Method: VOCs - AQ6

Element	Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	Rel.Uncert. %
Carbon-tetrachloride	µg/L	4.23	1.57	37.1	8	4.35	1.19	0.693	16.4
1-1-1-trichloroethane	µg/L	2.73	0.959	35.2	9	2.60	0.530	0.399	14.6
1-2-dichloroethane	µg/L	3.12	0.952	30.5	9	3.20	0.502	0.397	12.7
Tetrachloroethene	µg/L	3.44	1.27	36.9	9	3.40	0.534	0.528	15.4
Trichlorethene	µg/L	2.31	0.732	31.7	9	2.40	0.310	0.305	13.2
Chloroform	µg/L	2.79	0.883	31.6	9	2.80	0.490	0.368	13.2
1-1-2-trichloroethane	µg/L	3.72	0.556	14.9	8	3.72	0.363	0.246	6.61
Dichloromethane	µg/L	6.18	1.47	23.8	8	6.50	0.931	0.650	10.5
Benzene	µg/L	3.28	0.531	16.2	9	3.30	0.400	0.221	6.76
Styrene	µg/L	1.37	0.737	53.7	7	1.40	0.400	0.348	25.3
2-chlorotoluene	µg/L	4.91	2.04	41.5	7	5.30	1.18	0.963	19.6
4-chlorotoluene	µg/L	4.35	1.12	25.8	7	4.40	0.586	0.531	12.2
1,1-dichloroethane	µg/L	3.87	0.871	22.5	8	3.95	0.640	0.385	9.93
1,1-dichloroethene	µg/L	36.5	13.9	38.2	8	34.0	7.05	6.16	16.9
1,2-dichloropropane	µg/L	4.93	1.54	31.2	8	5.10	0.975	0.679	13.8
1,2-dichlorobenzene	µg/L	3.98	1.19	30.0	7	4.01	0.687	0.563	14.2
1,3-dichlorobenzene	µg/L	2.34	0.633	27.1	7	2.34	0.363	0.299	12.8
1,4-dichlorobenzene	µg/L	5.19	1.42	27.4	7	5.23	0.575	0.672	12.9
1,3,5-trimethylbenzene	µg/L	28.9	8.69	30.1	5	29.0	5.00	4.86	16.8
1,1,1,2-tetrachlorethane	µg/L	5.11	1.83	35.7	7	5.20	1.70	0.863	16.9
Chlorobenzene	µg/L	2.06	0.535	26.0	7	2.00	0.270	0.253	12.3
cis-1,2-dichloroethene	µg/L	36.5	13.1	35.9	9	36.5	7.51	5.46	14.9
trans-1,2-dichloroethene	µg/L	4.07	1.01	24.9	9	4.10	0.500	0.422	10.4
Toluene	µg/L	4.58	1.06	23.1	8	4.45	0.635	0.466	10.2
o-Xylene	µg/L	5.55	1.44	26.0	9	5.50	0.800	0.601	10.8
m+p-Xylene	µg/L	3.61	0.883	24.5	9	3.80	0.600	0.368	10.2
Isopropylbenzene	µg/L	2.51	0.806	32.0	8	2.50	0.454	0.356	14.2
n-Propylbenzene	µg/L	4.29	1.43	33.3	6	4.20	0.548	0.730	17.0
tert-bytylbenzene	µg/L	3.56	0.976	27.4	6	3.57	0.704	0.498	14.0