



QUASIMEME

Quality assurance of information
for marine environmental monitoring

Certificate of Analysis



Volatile Organics in seawater

REFERENCE MATERIAL

AQ6 sample 79



Certificate of Analysis AQ6 79

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 WEPA-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-NH₄ (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 79 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 periods given in the following table.

Year.Round	Program	Sample Round Id
2025.1	AQ6	QVC078SW



Indicative Values AQ6

Method: VOCs - AQ6

Element	Unit	Mean	Std.Dev.	CV %	N	Median	MAD	Uncertainty	Rel.Uncert. %
Carbon-tetrachloride	µg/L	7.74	2.01	25.9	8	7.89	1.49	0.887	11.5
1-1-1-trichloroethane	µg/L	9.14	3.01	33.0	9	9.49	1.99	1.26	13.7
1-2-dichloroethane	µg/L	7.10	1.31	18.4	9	7.26	0.740	0.545	7.67
Tetrachloroethene	µg/L	5.85	1.29	22.1	9	5.70	1.00	0.538	9.19
Trichloroethene	µg/L	4.77	0.872	18.3	9	4.60	0.460	0.363	7.61
Chloroform	µg/L	15.8	3.03	19.2	9	15.1	1.79	1.26	7.99
1-1-2-trichloroethane	µg/L	11.5	2.79	24.2	8	11.0	1.47	1.23	10.7
Dichloromethane	µg/L	15.3	2.57	16.8	8	15.0	1.06	1.13	7.41
Benzene	µg/L	23.9	3.71	15.5	9	25.0	4.01	1.55	6.47
Styrene	µg/L	3.76	0.764	20.3	7	3.70	0.600	0.361	9.61
2-chlorotoluene	µg/L	7.09	2.71	38.3	5	7.39	1.51	1.52	21.4
4-chlorotoluene	µg/L	5.61	1.84	32.8	5	5.45	1.12	1.03	18.4
1,1-dichloroethane	µg/L	5.21	0.835	16.0	6	5.18	0.720	0.426	8.17
1,1-dichloroethene	µg/L	6.46	0.981	15.2	6	6.37	0.670	0.501	7.75
1,2-dichloropropane	µg/L	8.94	1.83	20.5	6	8.54	0.842	0.935	10.5
1,2-dichlorobenzene	µg/L	4.06	1.15	28.3	5	3.78	0.641	0.642	15.8
1,3-dichlorobenzene	µg/L	2.44	0.696	28.5	5	2.36	0.615	0.389	15.9
1,4-dichlorobenzene	µg/L	7.76	2.69	34.7	5	8.28	1.42	1.50	19.4
1,3,5-trimethylbenzene	µg/L	4.29	1.41	32.8	4	4.13	0.727	0.880	20.5
1,1,1,2-tetrachloroethane	µg/L	3.58	0.886	24.8	5	3.63	0.569	0.495	13.9
Chlorobenzene	µg/L	6.17	2.49	40.5	5	5.92	1.46	1.39	22.6
cis-1,2-dichloroethene	µg/L	2.23	0.534	23.9	7	2.10	0.300	0.252	11.3
trans-1,2-dichloroethene	µg/L	4.59	1.12	24.4	7	4.58	0.619	0.529	11.5
Toluene	µg/L	8.86	1.65	18.6	7	9.20	1.13	0.778	8.78
Ethylbenzene	µg/L	0.843	0.162	19.2	6	0.872	0.087	0.083	9.79
o-Xylene	µg/L	5.66	1.94	34.3	7	5.40	1.20	0.917	16.2
m+p-Xylene	µg/L	1.32	0.450	34.0	6	1.32	0.220	0.229	17.3
Isopropylbenzene	µg/L	1.91	0.616	32.2	6	1.96	0.350	0.314	16.4