

## 2021-006 DMS duplicates

Variability is assessed as the % Relative Difference.

When % relative difference is greater than 20% but less than 49%, quality flag is 3 with associated comment.

When % relative difference is greater than 49%, quality flag is 4 with associated comment.

No duplicates were rejected during this cruise.

See 2021-006\_DMS\_report.pdf for further details.

### Precision statement for replicate samples drawn from a single Niskin bottle:

The pooled standard deviation for Dimethyl\_Sulphide: Bottle for the range 0.56 to 2.4 nmol/l was 0.32  
k = 6 (0 outlier removed) where k is the number of pairs of duplicates.

The pooled standard deviation of pairs of samples (Sp) was calculated by:

$$S_p = \text{SQRT}\{\text{sum}(d^2)/2k\}$$

where k is the number of pairs and d is the difference between pairs.

### Duplicate samples from a single Niskin bottle

Event Number	Sample Number	Station	Pressure dbar	DMS 1 nmol/l	DMS 2 nmol/l	Relative % Difference	Flag
14	26	P2	20.2	0.56	0.56	0.0	
19	50	P4	20.7	1.2	2.3	63	4
41	173	P12	19.8	1.2	1.3	8.0	
54	256	P16	19.5	2.1	2.1	0.0	
60	311	P20	20.4	0.91	0.85	6.8	
79	459	P26	19.9	2.4	2.2	8.7	