

2008-27 Oxygen duplicates

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

The pooled standard deviation for Oxygen:Dissolved:Bottle for the range 1.976 to 6.636 ml/l was 0.038,
k = 16 (1 outlier removed) where k is the number of pairs of duplicates.

Precision calculation for duplicate samples:

Precision was determined by analyzing replicate samples drawn from one Niskin.

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

$$Sp = \text{SQRT}\{\text{sum}(d*d)/2k\}$$

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

Duplicate analysis for samples drawn from a single Niskin bottle:

Event Number	Sample Number	Station	Pressure dbar	Oxy:Dis 1 ml/l	Oxy:Dis 2 ml/l	Rejected yes / no
5	17	P2	50.2	2.729	2.703	
11	35	P4	200.4	1.979	2.032	
24	130	P8	249.9	3.031	3.028	
38	204	P12	197.2	4.500	4.055	yes
53	323	P16	175.3	3.056	3.119	
63	379	P20	124.7	6.636	6.581	
72	440	P26	249.4	1.976	1.997	
115	603	SS1	125.3	3.619	3.617	
119	628	SS3	30.5	5.750	5.769	
127	644	SS7	19.4	5.377	5.388	
128	652	Ri1	174.5	2.433	2.412	
134	679	Ri4	50.0	4.164	4.099	
141	692	M2	125.1	2.539	2.539	
142	706	M3	125.1	2.560	2.562	
143	720	M4	174.6	2.288	2.321	
147	740	SS5	151.1	2.428	2.417	
149	761	CS02	172.3	2.079	2.252	