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Nitrate_plus_Nitrite:Bottle

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

The pooled standard deviation for Nitrate_plus_Nitrite:Bottle for the range 7.9 to 45.8 $\mu\text{mol/l}$ was 0.17,
k = 31 (0 outlier removed) where k is the number of pairs of duplicates.

The pooled standard deviation of pairs of samples (S_p) 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.

Nitrate data from 1000 to 4000 m agree with results averaged over 16 profiles at P26 from 1995 to 2001 to within 0.81 %.

Duplicate samples from a single Niskin bottle

Event Number	Sample Number	Station	Pressure dbar	Nitrate 1 $\mu\text{mol/l}$	Nitrate 2 $\mu\text{mol/l}$	Rejected yes / no	Comment
1	8	Si03	50.3	28.8	28.7		
4	42	P2	24.6	17.7	17.6		
7	53	P4	401.5	39.0	39.0		
9	72	P4	28.5	10.6	10.6		
19	100	P8	25.6	7.9	7.9		
30	121	P12	2497.9	41.6	41.5		
36	149	P16	75.7	11.8	11.6		
41	171	P16	400.5	42.0	42.2		
46	191	P20	49.3	11.7	11.8		
51	209	P20	1000.7	43.9	43.9		
67	236	P26	73.9	15.1	15.1		
68	261	P26	176.0	30.9	30.9		
69	281	P26	24.7	14.9	15.0		
72	297	P26	15.2	15.0	15.0		
79	308	Eddy	400.3	42.7	43.2		
83	339	P33	27.6	14.0	15.1		
88	348	R17	1001.0	45.2	45.4		
90	371	R12	600.7	44.0	43.9		
93	415	Eddy 2	600.1	43.7	43.6		
101	433	R9	1250.3	45.6	45.8		
104	458	SS5	26.3	15.9	15.9		
107	465	SS7	50.9	21.1	21.1		
108	471	Ri1	250.7	31.1	31.0		
114	493	Ri4	50.2	21.3	21.4		
120	508	M2	10.4	21.5	21.7		
121	520	M3	10.6	21.3	21.2		
122	528	M4	150.4	25.4	25.5		
125	540	SS3	198.4	30.3	30.4		
128	555	SS1	200.5	33.0	33.0		
129	568	27	201.1	29.3	29.4		
133	578	39	200.9	29.3	29.3		

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Phosphate:Bottle

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

The pooled standard deviation for Phosphate:Bottle for the range 0.94 to 3.31 $\mu\text{mol/l}$ was 0.004,
k = 31 (0 outlier removed) where k is the number of pairs of duplicates.

The pooled standard deviation of pairs of samples (S_p) 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.

Phosphate data from 1000 to 4000 m agree with results averaged over 16 profiles at P26 from 1995 to 2001
to within 1.72 %.

Duplicate samples from a single Niskin bottle

Event Number	Sample Number	Station	Pressure dbar	Phosphate 1 $\mu\text{mol/l}$	Phosphate 2 $\mu\text{mol/l}$	Rejected yes / no	Comment
1	8	Si03	50.3	2.54	2.53		
4	42	P2	24.6	1.53	1.53		
7	53	P4	401.5	2.92	2.91		
9	72	P4	28.5	1.06	1.06		
19	100	P8	25.6	0.94	0.94		
30	121	P12	2497.9	2.98	2.97		
36	149	P16	75.7	1.19	1.19		
41	171	P16	400.5	3.02	3.02		
46	191	P20	49.3	1.20	1.20		
51	209	P20	1000.7	3.30	3.31		
67	236	P26	73.9	1.42	1.41		
68	261	P26	176.0	2.27	2.28		
69	281	P26	24.7	1.39	1.39		
72	297	P26	15.2	1.41	1.40		
79	308	Eddy	400.3	3.16	3.17		
83	339	P33	27.6	1.43	1.43		
88	348	R17	1001.0	3.30	3.29		
90	371	R12	600.7	3.20	3.20		
93	415	Eddy 2	600.1	3.19	3.20		
101	433	R9	1250.3	3.29	3.28		
104	458	SS5	26.3	1.40	1.41		
107	465	SS7	50.9	1.82	1.82		
108	471	Ri1	250.7	2.72	2.73		
114	493	Ri4	50.2	1.83	1.83		
120	508	M2	10.4	1.76	1.77		
121	520	M3	10.6	1.76	1.76		
122	528	M4	150.4	2.13	2.13		
125	540	SS3	198.4	2.31	2.31		
128	555	SS1	200.5	2.47	2.48		
129	568	27	201.1	2.57	2.57		
133	578	39	200.9	2.67	2.68		

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Silicate:Bottle

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

The pooled standard deviation for Silicate:Bottle for the range 7.3 to 177.1 $\mu\text{mol/l}$ was 0.20,
k = 31 (0 outlier removed) where k is the number of pairs of duplicates.

The pooled standard deviation of pairs of samples (S_p) 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.

Silicate data from 1000 to 4000 m agree with results averaged over 16 profiles at P26 from 1995 to 2001 to within 0.04 %

Duplicate samples from a single Niskin bottle

Event Number	Sample Number	Station	Pressure dbar	Silicate 1 $\mu\text{mol/l}$	Silicate 2 $\mu\text{mol/l}$	Rejected yes / no	Comment
1	8	Si03	50.3	56.5	56.0		
4	42	P2	24.6	29.3	29.4		
7	53	P4	401.5	69.8	70.6		
9	72	P4	28.5	13.8	13.8		
19	100	P8	25.6	7.3	7.5		
30	121	P12	2497.9	177.1	177.1		
36	149	P16	75.7	12.2	12.0		
41	171	P16	400.5	86.1	85.7		
46	191	P20	49.3	13.0	12.8		
51	209	P20	1000.7	146.4	146.2		
67	236	P26	73.9	20.7	20.3		
68	261	P26	176.0	52.7	52.3		
69	281	P26	24.7	20.3	20.2		
72	297	P26	15.2	20.5	20.3		
79	308	Eddy	400.3	99.4	99.4		
83	339	P33	27.6	21.5	21.7		
88	348	R17	1001.0	146.4	145.9		
90	371	R12	600.7	111.1	111.5		
93	415	Eddy 2	600.1	103.4	103.6		
101	433	R9	1250.3	153.1	153.5		
104	458	SS5	26.3	25.5	25.6		
107	465	SS7	50.9	37.0	37.2		
108	471	Ri1	250.7	64.7	64.6		
114	493	Ri4	50.2	36.9	36.9		
120	508	M2	10.4	41.1	41.1		
121	520	M3	10.6	40.1	39.8		
122	528	M4	150.4	45.8	46.2		
125	540	SS3	198.4	40.5	40.3		
128	555	SS1	200.5	47.0	47.0		
129	568	27	201.1	57.2	57.4		
133	578	39	200.9	60.1	60.3		