

2007-13 Total Alkalinity

Duplicate analysis for samples drawn from a single Niskin bottle:

Event Number	Sample Number	Station	Pressure dbar	ALK 1 $\mu\text{mol/kg}$	ALK 2 $\mu\text{mol/kg}$	ALK 3 $\mu\text{mol/kg}$	Difference $\mu\text{mol/kg}$	Absolute Difference	Standard Deviation	Comments
8	39	P4	1250.7	2382.43	2381.47		0.96	0.96		
25	132	P12	2501.0	2418.53	2418.23		0.30	0.30		
33	179	P16	2003.1	2419.05	2418.55		0.50	0.50		
43	231	P20	3500.8	2424.13	2422.58		1.55	1.55		
70	370	P26	3000.7	2425.10	2426.51		-1.41	1.41		
84	502	S3	3001.6	2420.40	2421.44		-1.04	1.04		
84	503	S3	3001.7	2419.83	2418.18		1.65	1.65		
84	504	S3	3002.1	2421.14	2420.25		0.88	0.88		
84	505	S3	3002.1	2418.87	2419.39		-0.52	0.52		
84	506	S3	3002.7	2420.05	2421.09		-1.05	1.05		
average variability:							0.18	0.99		
standard deviation of variability:							1.12	0.46		

Duplicate Niskins at the same pressure

Event Number	Sample Number	Station	Nominal Pressure dbar	ALK A $\mu\text{mol/kg}$	ALK B $\mu\text{mol/kg}$	ALK C $\mu\text{mol/kg}$	ALK D $\mu\text{mol/kg}$	ALK E $\mu\text{mol/kg}$	Difference $\mu\text{mol/kg}$	Absolute Difference	Standard Deviation	Comments
25	131 / 132	P12	2500	2420.40	2418.38				-2.01	2.01		
33	179 / 180	P16	2000	2418.80	2418.61				-0.18	0.18		
43	230 / 231	P20	3500	2423.86	2423.35				-0.50	0.50		
84	502 - 506	S3	3000	2420.92	2419.00	2420.70	2419.13	2420.57			0.92	
average variability:									-0.90			0.91
standard deviation of variability:									0.98			0.80

Precision estimate: 0.99 $\mu\text{mol/kg}$