

2010-01 Dissolved Inorganic Carbon

Duplicate analysis for samples drawn from a single Niskin bottle:

Event Number	Sample Number	Station	Pressure dbar	DIC 1 $\mu\text{mol/kg}$	DIC 2 $\mu\text{mol/kg}$	DIC 3 $\mu\text{mol/kg}$	Difference $\mu\text{mol/kg}$	Absolute Difference	Standard deviation	Comments
5	26	P2	76.0	2018.94	2018.24		-0.70	0.70		
10	48	P4	1263.4	2387.61	2387.87		0.26	0.26		
48	108	P12	3002.1	2368.49	2369.21		0.72	0.72		
25	221	P16	3496.8	2361.52	2361.28		-0.23	0.23		
32	285	P18	2000.4	2389.98	2390.79	2390.15			0.43	
32	286	P18	1999.4	2392.34	2392.62	2392.26			0.19	
32	287	P18	1999.1	2391.14	2390.48	2390.49			0.38	
32	288	P18	2001.9	2390.08	2390.65	2391.43			0.68	
32	289	P18	2000.8	2390.82	2391.83	2390.93			0.55	
34	311	P20	3501.9	2353.70	2353.43		-0.27	0.27		
average variability:							-0.04	0.44	0.44	
standard deviation of variability:							0.55	0.25	0.21	

Duplicate Niskins at the same pressure

Event Number	Sample Number	Station	Nominal Pressure dbar	DIC A $\mu\text{mol/kg}$	DIC B $\mu\text{mol/kg}$	DIC C $\mu\text{mol/kg}$	DIC D $\mu\text{mol/kg}$	DIC E $\mu\text{mol/kg}$	Difference $\mu\text{mol/kg}$	Absolute Difference	Standard deviation	Comments
5	26 / 27	P2	75	2018.59	2018.74				0.14	0.14		
10	47 / 48	P4	1250	2388.13	2387.74				-0.39	0.39		
48	108 / 109	P12	3000	2368.85	2367.83				-1.02	1.02		
25	221 / 222	P16	3500	2361.28	2362.58				1.30	1.30		
32	285 - 289	P18	2000	2390.31	2392.41	2390.71	2390.72	2391.19			0.81	
34	311 / 312	P20	3500	2353.56	2354.97				1.41	1.41		
average variability:									0.29	0.85	0.85	
standard deviation of variability:									1.06	0.56	0.50	

Precision estimate: 0.85 $\mu\text{mol/kg}$