## 2007-15 Total Alkalinity

**Duplicate analysis for samples drawn from a single Niskin bottle:**

| Event Number | Sample Number | Station | Pressure dbar | ALK 1 µmol/kg | ALK 2 µmol/kg | ALK 3 µmol/kg | Difference µmol/kg | Absolute Difference | Standard Deviation | Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| 19 | 124 | P12 | 3001.0 | 2430.02 | 2430.61 | | -0.59 | 0.59 | | |
| 27 | 183 | P16 | 2500.0 | 2426.04 | 2427.61 | | -1.56 | 1.56 | | |
| 37 | 270 | P20 | 2500.2 | 2424.87 | 2425.67 | | -0.80 | 0.80 | | |
| 48 | 329 | P26 | 3498.0 | 2425.70 | 2424.76 | | 0.94 | 0.94 | | |
| 58 | 412 | P49 | 3000.3 | 2421.60 | 2422.94 | 2422.50 | | | 0.68 | |
| 58 | 413 | P49 | 2999.7 | 2426.75 | 2425.83 | 2425.77 | | | 0.55 | |
| 58 | 414 | P49 | 2998.9 | 2423.35 | 2421.83 | 2421.70 | | | 0.91 | |
| 58 | 415 | P49 | 2998.7 | 2424.32 | 2424.16 | 2426.03 | | | 1.04 | |
| 58 | 416 | P49 | 2999.1 | 2424.07 | 2423.46 | 2422.34 | | | 0.88 | |
| average variability: | | | | | | | -0.50 | | | 0.88 |
| standard deviation of variability: | | | | | | | 1.05 | | | 0.30 |

**Duplicate Niskins at the same pressure**

| Event Number | Sample Number | Station | Nominal Pressure dbar | ALK A µmol/kg | ALK B µmol/kg | ALK C µmol/kg | ALK D µmol/kg | ALK E µmol/kg | Difference µmol/kg | Absolute Difference | Standard Deviation | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10 | 76 / 77 | P4 | 1000 | 2364.61 | 2361.42 | | | | -3.19 | 3.19 | | |
| 19 | 124 / 125 | P12 | 3000 | 2430.32 | 2429.46 | | | | -0.86 | 0.86 | | |
| 27 | 182 / 183 | P16 | 2500 | 2427.88 | 2426.83 | | | | -1.06 | 1.06 | | |
| 37 | 270 / 271 | P20 | 2500 | 2425.27 | 2420.51 | | | | | | | poor titration curve |
| 58 | 412 - 416 | P49 | 3000 | 2422.35 | 2426.11 | 2422.29 | 2424.84 | 2423.29 | | | 1.66 | |
| average variability: | | | | | | | | | -1.7 | | | 1.7 |
| standard deviation of variability: | | | | | | | | | 1.3 | | | 1.1 |

**Precision estimate:** 1.7 µmol/kg