

**Appendix C**

**Grain Size analysis (table) from Marine Sediment Sampling Program (MSSP)**  
**Report for Ballantyne's Cove (AMEC, March 2015)**

**Table B.11 TIC, TOC and Grain Size Results for Marine Sediments - Ballantynes Cove DFO-SCH, Antigonish County, Nova Scotia**

| Parameter                    | RDL         | Units | Sample Identification and Date |      |       |       |       |       |       |       |                  |       |
|------------------------------|-------------|-------|--------------------------------|------|-------|-------|-------|-------|-------|-------|------------------|-------|
|                              |             |       | BC-7                           | BC-9 | BC-12 | BC-22 | BC-24 | BC-37 | BC-WA | BC-WB | 8 December, 2014 |       |
| <b>Grain Size Results</b>    |             |       |                                |      |       |       |       |       |       |       |                  |       |
| < PHI -4 (12.5 mm)           | 0.1         |       | 100                            | 100  | 100   | 100   | 100   | 100   | 100   | 100   | 100              | 100   |
| < PHI -3 (9.5 mm)            | 0.1         |       | 100                            | 100  | 100   | 100   | 100   | 100   | 100   | 100   | 100              | 86    |
| < PHI -2 (4.75 mm)           | 0.1         |       | 100                            | 100  | 100   | 100   | 100   | 100   | 100   | 100   | 100              | 80.1  |
| < PHI -1 (2 mm)              | 0.1         |       | 100                            | 100  | 100   | 100   | 100   | 100   | 100   | 100   | 87.2             | 61.5  |
| < PHI 0 (1 mm)               | 0.1         |       | 100                            | 100  | 100   | 100   | 87.3  | 100   | 85.4  | 100   | 85.4             | 49.9  |
| < PHI +1 (1/2 mm)            | 0.1         |       | 99.1                           | 99.5 | 96.2  | 96.5  | 68.1  | 96.5  | 82.9  | 96.5  | 82.9             | 41.8  |
| < PHI +2 (1/4 mm)            | 0.1         |       | 97.6                           | 98.9 | 91.9  | 91    | 56.1  | 87.6  | 73.4  | 87.6  | 73.4             | 34.7  |
| < PHI +3 (1/8 mm)            | 0.1         |       | 95.1                           | 96.5 | 77.1  | 74.6  | 46.7  | 68.1  | 68.8  | 68.1  | 68.8             | 31    |
| < PHI +4 (1/16 mm)           | 0.1         |       | 90.4                           | 91.8 | 62.8  | 59.2  | 34.4  | 61.2  | 62.5  | 61.2  | 62.5             | 28.4  |
| < PHI +5 (1/32 mm)           | 0.1         |       | 62.6                           | 60.2 | 50.8  | 46.3  | 29.8  | 35.9  | 55.8  | 35.9  | 55.8             | 22    |
| < PHI +6 (1/64 mm)           | 0.1         |       | 30.9                           | 31.7 | 29.7  | 29.1  | 22.7  | 23.5  | 33.2  | 23.5  | 33.2             | 15.3  |
| < PHI +7 (1/128 mm)          | 0.1         |       | 18.6                           | 19.8 | 18.5  | 17.7  | 15.5  | 14.7  | 20.7  | 14.7  | 20.7             | 10    |
| < PHI +8 (1/256 mm)          | 0.1         |       | 15.5                           | 16.5 | 15.1  | 14.4  | 12.5  | 12.2  | 15.6  | 12.2  | 15.6             | 7.7   |
| < PHI +9 (1/512 mm)          | 0.1         |       | 11.9                           | 12.6 | 11.6  | 10.6  | 9     | 9.3   | 11.6  | 9.3   | 11.6             | 5.3   |
| Gravel                       | 1           |       | <1                             | <1   | <1    | <1    | <1    | <1    | 13    | <1    | 13               | 39    |
| Sand                         | 1           |       | 10                             | 8    | 37    | 41    | 66    | 39    | 25    | 39    | 25               | 33    |
| Silt                         | 1           |       | 75                             | 75   | 48    | 45    | 22    | 49    | 47    | 49    | 47               | 21    |
| Clay                         | 1           |       | 16                             | 17   | 15    | 14    | 13    | 12    | 16    | 12    | 16               | 8     |
| <b>Other</b>                 |             |       |                                |      |       |       |       |       |       |       |                  |       |
| Total Organic Carbon (TOC)   | 0.15        | g/kg  | 2.95                           | 1.56 | 2.16  | 2.00  | 2.24  | 1.88  | 2.52  | 1.88  | 2.52             | 1.03  |
| Total Inorganic Carbon (TIC) | 0.15        | g/kg  | <0.15                          | 0.6  | <0.15 | <0.15 | 0.29  | 0.94  | <0.15 | 0.94  | <0.15            | <0.15 |
| Total Carbon (TC)            | Calculation | g/kg  | 3.03                           | 2.16 | 2.24  | 2.08  | 2.53  | 2.82  | 2.60  | 2.82  | 2.60             | 1.11  |

NOTE(S):

All results below the laboratory detection limit were divided by 2 prior to further calculations.

Light values indicate results below detection limit.