



# NMBAQC

NE Atlantic Marine Biological Analytical Quality Control Scheme

## Own Sample Module Summary Report

Benthic Invertebrate Component - 2016/17

OS62, 63 and 64

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## **MODULE / EXERCISE DETAILS**

|                                     |                 |
|-------------------------------------|-----------------|
| Module:                             | Own Sample (OS) |
| Exercises:                          | OS62, 63 and 64 |
| Data/Sample Request Circulated:     | 25 May 2016     |
| Sample Submission Deadline:         | 29 July 2016    |
| Number of Subscribing Laboratories: | 33              |
| Number of Own Samples Received:     | 84              |

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Table 1. Summary of the performance of participating laboratories in the Own Sample (OS) exercises with respect to the NMBAQC standards.

| 1            | 2  | 3                  | 4            | 5           | 6        | 7               | 8         | 9                | 10              | 11     | 12              | 13     | 14              | 15          | 16       | 17              | 18                    | 19      | 20      | 21                    | 22               | 23     | 24          | 25                 | 26                |
|--------------|----|--------------------|--------------|-------------|----------|-----------------|-----------|------------------|-----------------|--------|-----------------|--------|-----------------|-------------|----------|-----------------|-----------------------|---------|---------|-----------------------|------------------|--------|-------------|--------------------|-------------------|
| OD           | AD | Estimation of Taxa |              |             |          |                 |           | Taxonomic errors |                 |        | No. Individuals |        |                 |             |          |                 | Estimation of Biomass |         |         |                       | Similarity Index |        |             | Sample Flag        |                   |
|              |    | Target             | Pass / Fail  | Missed Taxa | % Missed | Remedial Action | OD        | %                | Remedial Action | OD     | AD              | Target | Pass / Fail     | Missed Ind. | % Missed | Remedial Action | OD                    | AD      | Target  | Pass / Fail           | BCSI %           | Target | Pass / Fail | NMBAQC Sample Flag |                   |
| BI_2302 OS62 | 49 | 53                 | 47.7 - 58.3  | PASS        | 4        | 7.55            | -         | 1                | 1.89            | -      | 169             | 179    | 161.1 - 196.9   | PASS        | 9        | 5.03            | -                     | -       | -       | -                     | -                | 95.977 | 90          | PASS               | PASS - GOOD       |
| BI_2302 OS63 | 52 | 52                 | 46.8 - 57.2  | PASS        | 0        | 0.00            | -         | 1                | 1.92            | -      | 272             | 274    | 246.6 - 301.4   | PASS        | 2        | 0.73            | -                     | -       | -       | -                     | -                | 98.901 | 90          | PASS               | PASS - GOOD       |
| BI_2302 OS64 | 59 | 59                 | 53.1 - 64.9  | PASS        | 0        | 0.00            | -         | 1                | 1.69            | -      | 408             | 409    | 368.1 - 449.9   | PASS        | 1        | 0.24            | -                     | -       | -       | -                     | -                | 98.409 | 90          | PASS               | PASS - GOOD       |
| BI_2304 OS62 | 10 | 14                 | 12.6 - 15.4  | FAIL        | 4        | 28.57           | Reprocess | 0                | 0.00            | -      | 25              | 39     | 35.1 - 42.9     | FAIL        | 14       | 35.90           | Reprocess             | 0.4115  | 0.4184  | 0.33472 - 0.50208     | PASS             | 77.612 | 90          | FAIL               | FAIL - BAD        |
| BI_2304 OS63 | 55 | 68                 | 61.2 - 74.8  | FAIL        | 11       | 16.18           | Reprocess | 3                | 4.41            | -      | 192             | 253    | 227.7 - 278.3   | FAIL        | 33       | 13.04           | Reprocess             | 3.3255  | 3.483   | 2.7864 - 4.1796       | PASS             | 84.797 | 90          | FAIL               | FAIL - BAD        |
| BI_2304 OS64 | 5  | 5                  | 4.5 - 5.5    | PASS        | 0        | 0.00            | -         | 0                | 0.00            | -      | 3               | 3      | 2.7 - 3.3       | PASS        | 0        | 0.00            | -                     | 0.9819  | 1.095   | 0.876 - 1.314         | PASS             | 100    | 90          | PASS               | PASS - EXCELLENT  |
| BI_2307 OS62 | 30 | 30                 | 27 - 33      | PASS        | 0        | 0.00            | -         | 2                | 6.67            | Review | 320             | 316    | 284.4 - 347.6   | PASS        | 0        | 0.00            | -                     | -       | -       | -                     | -                | 43.014 | 90          | FAIL               | FAIL - BAD        |
| BI_2307 OS63 | 16 | 16                 | 14.4 - 17.6  | PASS        | 0        | 0.00            | -         | 1                | 6.25            | -      | 35              | 35     | 31.5 - 38.5     | PASS        | 0        | 0.00            | -                     | -       | -       | -                     | -                | 97.222 | 90          | PASS               | PASS - GOOD       |
| BI_2307 OS64 | 36 | 37                 | 33.3 - 40.7  | PASS        | 0        | 0.00            | -         | 1                | 2.70            | -      | 1216            | 1210   | 1089 - 1331     | PASS        | 2        | 0.17            | -                     | -       | -       | -                     | -                | 98.681 | 90          | PASS               | PASS - GOOD       |
| BI_2309 OS62 | 27 | 30                 | 27 - 33      | PASS        | 3        | 10.00           | -         | 1                | 3.33            | -      | 144             | 144    | 129.6 - 158.4   | PASS        | 0        | 0.00            | -                     | -       | -       | -                     | -                | 98.282 | 90          | PASS               | PASS - GOOD       |
| BI_2309 OS63 | 6  | 6                  | 5.4 - 6.6    | PASS        | 0        | 0.00            | -         | 0                | 0.00            | -      | 33              | 33     | 29.7 - 36.3     | PASS        | 0        | 0.00            | -                     | -       | -       | -                     | -                | 100    | 90          | PASS               | PASS - EXCELLENT  |
| BI_2309 OS64 | 23 | 24                 | 21.6 - 26.4  | PASS        | 0        | 0.00            | -         | 2                | 8.33            | -      | 144             | 144    | 129.6 - 158.4   | PASS        | 0        | 0.00            | -                     | -       | -       | -                     | -                | 97.917 | 90          | PASS               | PASS - GOOD       |
| BI_2311 OS62 | 4  | 4                  | 3.6 - 4.4    | PASS        | 0        | 0.00            | -         | 0                | 0.00            | -      | 4               | 4      | 3.6 - 4.4       | PASS        | 0        | 0.00            | -                     | -       | -       | -                     | -                | 100    | 90          | PASS               | PASS - EXCELLENT  |
| BI_2311 OS63 | 15 | 15                 | 13.5 - 16.5  | PASS        | 0        | 0.00            | -         | 2                | 13.33           | -      | 601             | 604    | 543.6 - 664.4   | PASS        | 0        | 0.00            | -                     | -       | -       | -                     | -                | 98.923 | 90          | PASS               | PASS - GOOD       |
| BI_2311 OS64 | 4  | 4                  | 3.6 - 4.4    | PASS        | 0        | 0.00            | -         | 0                | 0.00            | -      | 4               | 4      | 3.6 - 4.4       | PASS        | 0        | 0.00            | -                     | -       | -       | -                     | -                | 100    | 90          | PASS               | PASS - EXCELLENT  |
| BI_2312 OS62 | 13 | 13                 | 11.7 - 14.3  | PASS        | 0        | 0.00            | -         | 1                | 7.69            | -      | 39              | 39     | 35.1 - 42.9     | PASS        | 0        | 0.00            | -                     | -       | -       | -                     | -                | 94.872 | 90          | PASS               | PASS - ACCEPTABLE |
| BI_2312 OS63 | 13 | 16                 | 14.4 - 17.6  | FAIL        | 3        | 18.75           | -         | 0                | 0.00            | -      | 26              | 27     | 24.3 - 29.7     | PASS        | 1        | 3.70            | -                     | -       | -       | -                     | -                | 94.737 | 90          | PASS               | PASS - ACCEPTABLE |
| BI_2312 OS64 | 17 | 19                 | 17.1 - 20.9  | FAIL        | 2        | 10.53           | -         | 0                | 0.00            | -      | 37              | 38     | 34.2 - 41.8     | PASS        | 0        | 0.00            | -                     | -       | -       | -                     | -                | 97.619 | 90          | PASS               | PASS - GOOD       |
| BI_2313 OS62 | 23 | 25                 | 22.5 - 27.5  | PASS        | 2        | 8.00            | -         | 0                | 0.00            | -      | 271             | 272    | 244.8 - 299.2   | PASS        | 0        | 0.00            | -                     | 15.8232 | 13.9418 | 11.1534 - 16.7301     | PASS             | 99.452 | 90          | PASS               | PASS - GOOD       |
| BI_2313 OS63 | 17 | 18                 | 16.2 - 19.8  | PASS        | 1        | 5.56            | -         | 1                | 5.56            | -      | 161             | 192    | 172.8 - 211.2   | FAIL        | 1        | 0.52            | -                     | 1.25297 | 0.7785  | 0.6228 - 0.9342       | FAIL             | 99.083 | 90          | PASS               | PASS - GOOD       |
| BI_2313 OS64 | 17 | 18                 | 16.2 - 19.8  | PASS        | 0        | 0.00            | -         | 0                | 0.00            | -      | 123             | 124    | 111.6 - 136.4   | PASS        | 1        | 0.81            | -                     | 165.98  | 136.036 | 108.82912 - 163.24368 | FAIL             | 97.992 | 90          | PASS               | PASS - GOOD       |
| BI_2315 OS62 | 36 | 36                 | 32.4 - 39.6  | PASS        | 0        | 0.00            | -         | 0                | 0.00            | -      | 265             | 266    | 239.4 - 292.6   | PASS        | 1        | 0.38            | -                     | 2.9217  | 3.41    | 2.728 - 4.092         | PASS             | 99.814 | 90          | PASS               | PASS - GOOD       |
| BI_2315 OS63 | 24 | 24                 | 21.6 - 26.4  | PASS        | 0        | 0.00            | -         | 0                | 0.00            | -      | 40              | 40     | 36 - 44         | PASS        | 0        | 0.00            | -                     | 0.6927  | 0.8047  | 0.64376 - 0.965639    | PASS             | 100    | 90          | PASS               | PASS - EXCELLENT  |
| BI_2315 OS64 | 31 | 32                 | 28.8 - 35.2  | PASS        | 1        | 3.13            | -         | 0                | 0.00            | -      | 126             | 126    | 113.4 - 138.6   | PASS        | 2        | 1.59            | -                     | 0.6784  | 0.6956  | 0.55648 - 0.83472     | PASS             | 99.213 | 90          | PASS               | PASS - GOOD       |
| BI_2316 OS62 | 37 | 41                 | 36.9 - 45.1  | PASS        | 5        | 12.20           | -         | 0                | 0.00            | -      | 197             | 210    | 189 - 231       | PASS        | 14       | 6.67            | -                     | -       | -       | -                     | -                | 95.465 | 90          | PASS               | PASS - GOOD       |
| BI_2316 OS63 | 94 | 105                | 94.5 - 115.5 | FAIL        | 10       | 9.52            | -         | 5                | 4.76            | -      | 2267            | 2466   | 2219.4 - 2712.6 | PASS        | 206      | 8.35            | -                     | -       | -       | -                     | -                | 93.426 | 90          | PASS               | PASS - ACCEPTABLE |
| BI_2316 OS64 | 66 | 67                 | 60.3 - 73.7  | PASS        | 1        | 1.49            | -         | 1                | 1.49            | -      | 1632            | 1670   | 1503 - 1837     | PASS        | 37       | 2.22            | -                     | -       | -       | -                     | -                | 98.034 | 90          | PASS               | PASS - GOOD       |
| BI_2317 OS62 | 8  | 9                  | 8.1 - 9.9    | FAIL        | 0        | 0.00            | -         | 1                | 11.11           | -      | 42              | 42     | 37.8 - 46.2     | PASS        | 0        | 0.00            | -                     | -       | -       | -                     | -                | 97.619 | 90          | PASS               | PASS - GOOD       |
| BI_2317 OS63 | 4  | 4                  | 3.6 - 4.4    | PASS        | 0        | 0.00            | -         | 0                | 0.00            | -      | 7               | 7      | 6.3 - 7.7       | PASS        | 0        | 0.00            | -                     | -       | -       | -                     | -                | 100    | 90          | PASS               | PASS - EXCELLENT  |
| BI_2317 OS64 | 4  | 7                  | 6.3 - 7.7    | FAIL        | 3        | 42.86           | Reprocess | 0                | 0.00            | -      | 11              | 13     | 11.7 - 14.3     | FAIL        | 2        | 15.38           | Review                | -       | -       | -                     | -                | 84.615 | 90          | FAIL               | FAIL - BAD        |
| BI_2320 OS62 | 12 | 15                 | 13.5 - 16.5  | FAIL        | 1        | 6.67            | Review    | 1                | 6.67            | Review | 21              | 26     | 23.4 - 28.6     | FAIL        | 4        | 15.38           | Reprocess             | 1.0464  | 1.0511  | 0.84088 - 1.26132     | PASS             | 83.333 | 90          | FAIL               | FAIL - BAD        |
| BI_2320 OS63 | 7  | 9                  | 8.1 - 9.9    | FAIL        | 1        | 11.11           | Review    | 1                | 11.11           | Review | 7               | 8      | 7.2 - 8.8       | FAIL        | 1        | 12.50           | Review                | 0.7114  | 0.6368  | 0.50944 - 0.76416     | PASS             | 75     | 90          | FAIL               | FAIL - BAD        |
| BI_2320 OS64 | 19 | 19                 | 17.1 - 20.9  | PASS        | 0        | 0.00            | -         | 1                | 5.26            | Review | 32              | 36     | 32.4 - 39.6     | FAIL        | 3        | 8.33            | Review                | 1.5308  | 1.2431  | 0.99448 - 1.49172     | FAIL             | 87.324 | 90          | FAIL               | FAIL - POOR       |
| BI_2321 OS62 | 5  | 6                  | 5.4 - 6.6    | FAIL        | 1        | 16.67           | -         | 0                | 0.00            | -      | 433             | 433    | 389.7 - 476.3   | PASS        | 0        | 0.00            | -                     | -       | -       | -                     | -                | 99.885 | 90          | PASS               | PASS - GOOD       |
| BI_2321 OS63 | 14 | 18                 | 16.2 - 19.8  | FAIL        | 4        | 22.22           | -         | 0                | 0.00            | -      | 202             | 209    | 188.1 - 229.9   | PASS        | 7        | 3.35            | -                     | -       | -       | -                     | -                | 97.842 | 90          | PASS               | PASS - GOOD       |
| BI_2321 OS64 | 4  | 6                  | 5.4 - 6.6    | FAIL        | 2        | 33.33           | -         | 0                | 0.00            | -      | 264             | 272    | 244.8 - 299.2   | PASS        | 8        | 2.94            | -                     | -       | -       | -                     | -                | 98.519 | 90          | PASS               | PASS - GOOD       |
| BI_2328 OS62 | 7  | 7                  | 6.3 - 7.7    | PASS        | 0        | 0.00            | -         | 0                | 0.00            | -      | 62              | 62     | 55.8 - 68.2     | PASS        | 0        | 0.00            | -                     | -       | -       | -                     | -                | 100    | 90          | PASS               | PASS - EXCELLENT  |
| BI_2328 OS63 | 87 | 89                 | 80.1 - 97.9  | PASS        | 3        | 3.37            | -         | 5                | 5.62            | -      | 401             | 423    | 380.7 - 465.3   | PASS        | 24       | 5.67            | -                     | -       | -       | -                     | -                | 95.768 | 90          | PASS               | PASS - GOOD       |
| BI_2328 OS64 | 65 | 69                 | 62.1 - 75.9  | PASS        | 4        | 5.80            | -         | 5                | 7.25            | -      | 330             | 348    | 313.2 - 382.8   | PASS        | 20       | 5.75            | -                     | -       | -       | -                     | -                | 92.647 | 90          | PASS               | PASS - ACCEPTABLE |
| BI_2329 OS62 | 16 | 18                 | 16.2 - 19.8  | FAIL        | 2        | 11.11           | -         | 0                | 0.00            | -      | 140             | 140    | 126 - 154       | PASS        | 0        | 0.00            | -                     | -       | -       | -                     | -                | 99.291 | 90          | PASS               | PASS - GOOD       |
| BI_2329 OS63 | 13 | 14                 | 12.6 - 15.4  | PASS        | 1        | 7.14            | -         | 0                | 0.00            | -      | 341             | 341    | 306.9 - 375.1   | PASS        | 0        | 0.00            | -                     | -       | -       | -                     | -                | 99.854 | 90          | PASS               | PASS - GOOD       |
| BI_2329 OS64 | 23 | 26                 | 23.4 - 28.6  | FAIL        | 3        | 11.54           | -         | 0                | 0.00            | -      | 194             | 195    | 175.5 - 214.5   | PASS        | 2        | 1.03            | -                     | -       | -       | -                     | -                | 98.469 | 90          | PASS               | PASS - GOOD       |
| BI_2331 OS62 | 23 | 31                 | 27.9 - 34.1  | FAIL        | 1        | 3.23            | -         | 0                | 0.00            | -      | 32              | 33     | 29.7 - 36.3     | PASS        | 0        | 0.00            | -                     | 2.0097  | 1.8547  | 1.48376 - 2.22564     | PASS             | 90.698 | 90          | PASS               | PASS - ACCEPTABLE |
| BI_2331 OS63 | 32 | 41                 | 36.9 - 45.1  | FAIL        | 4        | 9.76            | Review    | 0                | 0.00            | -      | 89              | 123    | 110.7 - 135.3   | FAIL        | 32       | 26.02           | Reprocess             | 1.4547  | 1.3117  | 1.04936 - 1.57404     | PASS             | 82.819 | 90          | FAIL               | FAIL - BAD        |
| BI_2331 OS64 | 33 | 41                 | 36.9 - 45.1  | FAIL        | 6        | 14.63           | Reprocess | 1                | 2.44            | -      | 32              | 44     | 39.6 - 48.4     | FAIL        | 12       | 27.27           | Reprocess             | 1.2345  | 1.1407  | 0.91256 - 1.36884     | PASS             | 83.186 | 90          | FAIL               | FAIL - BAD        |
| BI_2332 OS62 | 13 | 14                 | 12.6 - 15.4  | PASS        | 1        | 7.14            | -         | 1                | 7.14            | -      | 42              | 43     | 38.7 - 47.3     | PASS        | 1        | 2.33            | -                     | -       | -       | -                     | -                | 91.954 | 90          | PASS               | PASS - ACCEPTABLE |
| BI_2332 OS63 | 41 | 42                 | 37.8 - 46.2  | PASS        | 0        | 0.00            | -         | 1                | 2.38            | -      | 534             | 536    | 482.4 - 589.6   | PASS        | 2        | 0.37            | -                     | -       | -       | -                     | -                | 99.628 | 90          | PASS               | PASS - GOOD       |
| BI_2332 OS64 | 36 | 37                 | 33.3 - 40.7  | PASS        | 0        | 0.00            | -         | 0                | 0.00            | -      | 199             | 200    | 180 - 220       | PASS        | 0        | 0.00            | -                     | -       | -       | -                     | -                | 98.263 | 90          | PASS               | PASS - GOOD       |

NB. This table details the findings of the audit only. For details of Own Sample remedial action please refer to NMBAQCS Year 23 Annual report, section 2.4.

Table 1. Summary of the performance of participating laboratories in the Own Sample (OS) exercises with respect to the NMBAQC standards.

| 1                  | 2  | 3      | 4           | 5           | 6        | 7               | 8      | 9                | 10              | 11        | 12              | 13     | 14              | 15          | 16       | 17              | 18     | 19 | 20                    | 21          | 22     | 23     | 24               | 25                 | 26                |             |
|--------------------|----|--------|-------------|-------------|----------|-----------------|--------|------------------|-----------------|-----------|-----------------|--------|-----------------|-------------|----------|-----------------|--------|----|-----------------------|-------------|--------|--------|------------------|--------------------|-------------------|-------------|
| Estimation of Taxa |    |        |             |             |          |                 |        | Taxonomic errors |                 |           | No. Individuals |        |                 |             |          |                 |        |    | Estimation of Biomass |             |        |        | Similarity Index |                    |                   | Sample Flag |
| OD                 | AD | Target | Pass / Fail | Missed Taxa | % Missed | Remedial Action | OD     | %                | Remedial Action | OD        | AD              | Target | Pass / Fail     | Missed Ind. | % Missed | Remedial Action | OD     | AD | Target                | Pass / Fail | BCSI % | Target | Pass / Fail      | NMBAQC Sample Flag |                   |             |
| BI_2333 OS62       | 26 | 28     | 25.2 - 30.8 | PASS        | 2        | 7.14            | -      | 1                | 3.57            | -         | 99              | 100    | 90 - 110        | PASS        | 1        | 1.00            | -      | -  | -                     | -           | -      | 98.02  | 90               | PASS               | PASS - GOOD       |             |
| BI_2333 OS63       | 9  | 9      | 8.1 - 9.9   | PASS        | 0        | 0.00            | -      | 0                | 0.00            | -         | 16              | 16     | 14.4 - 17.6     | PASS        | 0        | 0.00            | -      | -  | -                     | -           | -      | 100    | 90               | PASS               | PASS - EXCELLENT  |             |
| BI_2333 OS64       | 43 | 43     | 38.7 - 47.3 | PASS        | 0        | 0.00            | -      | 2                | 4.65            | -         | 122             | 122    | 109.8 - 134.2   | PASS        | 0        | 0.00            | -      | -  | -                     | -           | -      | 98.36  | 90               | PASS               | PASS - GOOD       |             |
| BI_2335 OS62       | 7  | 7      | 6.3 - 7.7   | PASS        | 0        | 0.00            | -      | 0                | 0.00            | -         | 4               | 5      | 4.5 - 5.5       | FAIL        | 1        | 20.00           | -      | -  | -                     | -           | -      | 94.118 | 90               | PASS               | PASS - ACCEPTABLE |             |
| BI_2335 OS63       | 4  | 4      | 3.6 - 4.4   | PASS        | 0        | 0.00            | -      | 0                | 0.00            | -         | 10              | 10     | 9 - 11          | PASS        | 0        | 0.00            | -      | -  | -                     | -           | -      | 100    | 90               | PASS               | PASS - EXCELLENT  |             |
| BI_2335 OS64       | 10 | 10     | 9 - 11      | PASS        | 0        | 0.00            | -      | 0                | 0.00            | -         | 507             | 528    | 475.2 - 580.8   | PASS        | 0        | 0.00            | -      | -  | -                     | -           | -      | 97.978 | 90               | PASS               | PASS - GOOD       |             |
| BI_2336 OS62       | 1  | 1      | 0.9 - 1.1   | PASS        | 0        | 0.00            | -      | 0                | 0.00            | -         | 1               | 1      | 0.9 - 1.1       | PASS        | 0        | 0.00            | -      | -  | -                     | -           | -      | 100    | 90               | PASS               | PASS - EXCELLENT  |             |
| BI_2336 OS63       | 1  | 1      | 0.9 - 1.1   | PASS        | 0        | 0.00            | -      | 0                | 0.00            | -         | 1               | 1      | 0.9 - 1.1       | PASS        | 0        | 0.00            | -      | -  | -                     | -           | -      | 100    | 90               | PASS               | PASS - EXCELLENT  |             |
| BI_2336 OS64       | 9  | 9      | 8.1 - 9.9   | PASS        | 0        | 0.00            | -      | 0                | 0.00            | -         | 23              | 23     | 20.7 - 25.3     | PASS        | 0        | 0.00            | -      | -  | -                     | -           | -      | 100    | 90               | PASS               | PASS - EXCELLENT  |             |
| BI_2337 OS62       | 5  | 5      | 4.5 - 5.5   | PASS        | 0        | 0.00            | -      | 0                | 0.00            | -         | 4               | 4      | 3.6 - 4.4       | PASS        | 0        | 0.00            | -      | -  | -                     | -           | -      | 100    | 90               | PASS               | PASS - EXCELLENT  |             |
| BI_2337 OS63       | 0  | 0      | 0 - 0       | PASS        | 0        | 0.00            | -      | 0                | 0.00            | -         | 0               | 0      | 0 - 0           | PASS        | 0        | 0.00            | -      | -  | -                     | -           | -      | 100    | 90               | PASS               | PASS - EXCELLENT  |             |
| BI_2337 OS64       | 3  | 3      | 2.7 - 3.3   | PASS        | 0        | 0.00            | -      | 0                | 0.00            | -         | 2               | 2      | 1.8 - 2.2       | PASS        | 0        | 0.00            | -      | -  | -                     | -           | -      | 100    | 90               | PASS               | PASS - EXCELLENT  |             |
| BI_2338 OS62       | 32 | 32     | 28.8 - 35.2 | PASS        | 0        | 0.00            | -      | 0                | 0.00            | -         | 1071            | 1074   | 966.6 - 1181.4  | PASS        | 1        | 0.09            | -      | -  | -                     | -           | -      | 99.21  | 90               | PASS               | PASS - GOOD       |             |
| BI_2338 OS63       | 23 | 23     | 20.7 - 25.3 | PASS        | 0        | 0.00            | -      | 0                | 0.00            | -         | 2049            | 2005   | 1804.5 - 2205.5 | PASS        | 2        | 0.10            | -      | -  | -                     | -           | -      | 98.916 | 90               | PASS               | PASS - GOOD       |             |
| BI_2338 OS64       | 2  | 2      | 1.8 - 2.2   | PASS        | 0        | 0.00            | -      | 0                | 0.00            | -         | 3               | 3      | 2.7 - 3.3       | PASS        | 0        | 0.00            | -      | -  | -                     | -           | -      | 100    | 90               | PASS               | PASS - EXCELLENT  |             |
| BI_2339 OS62       | 55 | 59     | 53.1 - 64.9 | PASS        | 2        | 3.39            | -      | 5                | 8.47            | -         | 1113            | 1126   | 1013.4 - 1238.6 | PASS        | 15       | 1.33            | -      | -  | -                     | -           | -      | 98.221 | 90               | PASS               | PASS - GOOD       |             |
| BI_2339 OS63       | 17 | 17     | 15.3 - 18.7 | PASS        | 0        | 0.00            | -      | 1                | 5.88            | -         | 195             | 195    | 175.5 - 214.5   | PASS        | 0        | 0.00            | -      | -  | -                     | -           | -      | 98.974 | 90               | PASS               | PASS - GOOD       |             |
| BI_2339 OS64       | 19 | 20     | 18 - 22     | PASS        | 1        | 5.00            | -      | 0                | 0.00            | -         | 215             | 217    | 195.3 - 238.7   | PASS        | 2        | 0.92            | -      | -  | -                     | -           | -      | 99.537 | 90               | PASS               | PASS - GOOD       |             |
| BI_2340 OS62       | 1  | 2      | 1.8 - 2.2   | FAIL        | 1        | 50.00           | Review | 0                | 0.00            | -         | 3               | 4      | 3.6 - 4.4       | FAIL        | 1        | 25.00           | Review | -  | -                     | -           | -      | 85.714 | 90               | FAIL               | FAIL - POOR       |             |
| BI_2340 OS63       | 27 | 27     | 24.3 - 29.7 | PASS        | 0        | 0.00            | -      | 2                | 7.41            | -         | 280             | 312    | 280.8 - 343.2   | FAIL        | 0        | 0.00            | -      | -  | -                     | -           | -      | 94.098 | 90               | PASS               | PASS - ACCEPTABLE |             |
| BI_2340 OS64       | 10 | 10     | 9 - 11      | PASS        | 0        | 0.00            | -      | 0                | 0.00            | -         | 19              | 19     | 17.1 - 20.9     | PASS        | 0        | 0.00            | -      | -  | -                     | -           | -      | 100    | 90               | PASS               | PASS - EXCELLENT  |             |
| BI_2341 OS62       | 10 | 10     | 9 - 11      | PASS        | 0        | 0.00            | -      | 0                | 0.00            | -         | 506             | 513    | 461.7 - 564.3   | PASS        | 2        | 0.39            | -      | -  | -                     | -           | -      | 99.313 | 90               | PASS               | PASS - GOOD       |             |
| BI_2341 OS63       | 19 | 19     | 17.1 - 20.9 | PASS        | 0        | 0.00            | -      | 1                | 5.26            | -         | 574             | 574    | 516.6 - 631.4   | PASS        | 3        | 0.52            | -      | -  | -                     | -           | -      | 99.566 | 90               | PASS               | PASS - GOOD       |             |
| BI_2341 OS64       | 17 | 19     | 17.1 - 20.9 | FAIL        | 1        | 5.26            | -      | 1                | 5.26            | -         | 1469            | 1476   | 1328.4 - 1623.6 | PASS        | 9        | 0.61            | -      | -  | -                     | -           | -      | 99.593 | 90               | PASS               | PASS - GOOD       |             |
| BI_2342 OS62       | 52 | 53     | 47.7 - 58.3 | PASS        | 0        | 0.00            | -      | 3                | 5.66            | -         | 511             | 515    | 463.5 - 566.5   | PASS        | 3        | 0.58            | -      | -  | -                     | -           | -      | 98.835 | 90               | PASS               | PASS - GOOD       |             |
| BI_2342 OS63       | 4  | 4      | 3.6 - 4.4   | PASS        | 0        | 0.00            | -      | 0                | 0.00            | -         | 19              | 19     | 17.1 - 20.9     | PASS        | 0        | 0.00            | -      | -  | -                     | -           | -      | 100    | 90               | PASS               | PASS - EXCELLENT  |             |
| BI_2342 OS64       | 9  | 8      | 7.2 - 8.8   | FAIL        | 0        | 0.00            | -      | 0                | 0.00            | -         | 26              | 26     | 23.4 - 28.6     | PASS        | 0        | 0.00            | -      | -  | -                     | -           | -      | 98.113 | 90               | PASS               | PASS - GOOD       |             |
| BI_2343 OS62       | 13 | 13     | 11.7 - 14.3 | PASS        | 0        | 0.00            | -      | 0                | 0.00            | -         | 277             | 272    | 244.8 - 299.2   | PASS        | 1        | 0.37            | -      | -  | -                     | -           | -      | 98.725 | 90               | PASS               | PASS - GOOD       |             |
| BI_2343 OS63       | 8  | 8      | 7.2 - 8.8   | PASS        | 0        | 0.00            | -      | 0                | 0.00            | -         | 13              | 13     | 11.7 - 14.3     | PASS        | 0        | 0.00            | -      | -  | -                     | -           | -      | 100    | 90               | PASS               | PASS - EXCELLENT  |             |
| BI_2343 OS64       | 19 | 21     | 18.9 - 23.1 | PASS        | 1        | 4.76            | -      | 3                | 14.29           | Reprocess | 31              | 32     | 28.8 - 35.2     | PASS        | 1        | 3.13            | -      | -  | -                     | -           | -      | 88.889 | 90               | FAIL               | FAIL - POOR       |             |
| BI_2345 OS62       | 69 | 75     | 67.5 - 82.5 | PASS        | 5        | 6.67            | -      | 5                | 6.67            | -         | 862             | 970    | 873 - 1067      | FAIL        | 86       | 8.87            | -      | -  | -                     | -           | -      | 93.043 | 90               | PASS               | PASS - ACCEPTABLE |             |
| BI_2345 OS63       | 54 | 63     | 56.7 - 69.3 | FAIL        | 9        | 14.29           | -      | 5                | 7.94            | -         | 484             | 550    | 495 - 605       | FAIL        | 63       | 11.45           | -      | -  | -                     | -           | -      | 91.555 | 90               | PASS               | PASS - ACCEPTABLE |             |
| BI_2345 OS64       | 18 | 19     | 17.1 - 20.9 | PASS        | 2        | 10.53           | -      | 0                | 0.00            | -         | 38              | 40     | 36 - 44         | PASS        | 3        | 7.50            | -      | -  | -                     | -           | -      | 96.296 | 90               | PASS               | PASS - GOOD       |             |
| BI_2346 OS62       | 29 | 33     | 29.7 - 36.3 | FAIL        | 3        | 9.09            | Review | 5                | 15.15           | Reprocess | 50              | 55     | 49.5 - 60.5     | PASS        | 5        | 9.09            | Review | -  | -                     | -           | -      | 78.095 | 90               | FAIL               | FAIL - BAD        |             |
| BI_2346 OS63       | 38 | 39     | 35.1 - 42.9 | PASS        | 1        | 2.56            | -      | 1                | 2.56            | -         | 226             | 227    | 204.3 - 249.7   | PASS        | 3        | 1.32            | -      | -  | -                     | -           | -      | 98.901 | 90               | PASS               | PASS - GOOD       |             |
| BI_2346 OS64       | 21 | 24     | 21.6 - 26.4 | FAIL        | 3        | 12.50           | -      | 0                | 0.00            | -         | 55              | 58     | 52.2 - 63.8     | PASS        | 3        | 5.17            | -      | -  | -                     | -           | -      | 97.345 | 90               | PASS               | PASS - GOOD       |             |

Key:

OD = Original Data (participant), AD = Auditor Data, Target for Estimation of Taxa and No. Individuals is +/- 10% AD, Target for Estimation of Biomass is +/- 20% AD, BCSI = Bray Curtis Similarity Index.

Table 2. Comparison of the extraction efficiency by the participating laboratories for the major taxonomic groups present in Own Samples (OS62-64).

| LabCode |      | Nemertea | Polychaeta | Oligochaeta | Chelicerata | Crustacea | Mollusca | Echinodermata | Other | Overall |      |
|---------|------|----------|------------|-------------|-------------|-----------|----------|---------------|-------|---------|------|
| BI_2302 | OS62 | AD count | -          | 112         | -           | -         | 32       | 25            | 7     | 3       | 179  |
|         |      | Missed   | -          | 0           | -           | -         | 0        | 9             | 0     | 0       | 9    |
|         |      | %missed  | -          | 0.0         | -           | -         | 0.0      | 36.0          | 0.0   | 0.0     | 5.0  |
|         | OS63 | AD count | 6          | 170         | -           | -         | 48       | 19            | 26    | 5       | 274  |
|         |      | Missed   | 0          | 1           | -           | -         | 0        | 1             | 0     | 0       | 2    |
|         |      | %missed  | 0.0        | 0.6         | -           | -         | 0.0      | 5.3           | 0.0   | 0.0     | 0.7  |
|         | OS64 | AD count | 7          | 298         | -           | -         | 35       | 52            | 15    | 2       | 409  |
|         |      | Missed   | 0          | 0           | -           | -         | 0        | 1             | 0     | 0       | 1    |
|         |      | %missed  | 0.0        | 0.0         | -           | -         | 0.0      | 1.9           | 0.0   | 0.0     | 0.2  |
| BI_2304 | OS62 | AD count | -          | 28          | -           | -         | -        | 9             | -     | 2       | 39   |
|         |      | Missed   | -          | 10          | -           | -         | -        | 2             | -     | 2       | 14   |
|         |      | %missed  | -          | 35.7        | -           | -         | -        | 22.2          | -     | 100.0   | 35.9 |
|         | OS63 | AD count | 3          | 59          | 1           | 1         | 6        | 7             | 20    | 156     | 253  |
|         |      | Missed   | 2          | 13          | 1           | 1         | 0        | 4             | 2     | 10      | 33   |
|         |      | %missed  | 66.7       | 22.0        | 100.0       | 100.0     | 0.0      | 57.1          | 10.0  | 6.4     | 13.0 |
|         | OS64 | AD count | -          | 2           | -           | -         | 1        | -             | -     | -       | 3    |
|         |      | Missed   | -          | 0           | -           | -         | 0        | -             | -     | -       | 0    |
|         |      | %missed  | -          | 0.0         | -           | -         | 0.0      | -             | -     | -       | 0.0  |
| BI_2307 | OS62 | AD count | 5          | 79          | -           | -         | 4        | 220           | 4     | 4       | 316  |
|         |      | Missed   | 0          | 0           | -           | -         | 0        | 0             | 0     | 0       | 0    |
|         |      | %missed  | 0.0        | 0.0         | -           | -         | 0.0      | 0.0           | 0.0   | 0.0     | 0.0  |
|         | OS63 | AD count | -          | 27          | -           | -         | 6        | 2             | -     | -       | 35   |
|         |      | Missed   | -          | 0           | -           | -         | 0        | 0             | -     | -       | 0    |
|         |      | %missed  | -          | 0.0         | -           | -         | 0.0      | 0.0           | -     | -       | 0.0  |
|         | OS64 | AD count | 2          | 707         | -           | -         | 4        | 338           | 104   | 55      | 1210 |
|         |      | Missed   | 0          | 0           | -           | -         | 0        | 2             | 0     | 0       | 2    |
|         |      | %missed  | 0.0        | 0.0         | -           | -         | 0.0      | 0.6           | 0.0   | 0.0     | 0.2  |
| BI_2309 | OS62 | AD count | 1          | 104         | -           | -         | 4        | 22            | 13    | -       | 144  |
|         |      | Missed   | 0          | 0           | -           | -         | 0        | 0             | 0     | -       | 0    |
|         |      | %missed  | 0.0        | 0.0         | -           | -         | 0.0      | 0.0           | 0.0   | -       | 0.0  |
|         | OS63 | AD count | -          | -           | -           | -         | 4        | 5             | 24    | -       | 33   |
|         |      | Missed   | -          | -           | -           | -         | 0        | 0             | 0     | -       | 0    |
|         |      | %missed  | -          | -           | -           | -         | 0.0      | 0.0           | 0.0   | -       | 0.0  |
|         | OS64 | AD count | -          | 88          | -           | -         | 15       | 35            | 6     | -       | 144  |
|         |      | Missed   | -          | 0           | -           | -         | 0        | 0             | 0     | -       | 0    |
|         |      | %missed  | -          | 0.0         | -           | -         | 0.0      | 0.0           | 0.0   | -       | 0.0  |
| BI_2311 | OS62 | AD count | -          | 3           | -           | -         | -        | 1             | -     | -       | 4    |
|         |      | Missed   | -          | 0           | -           | -         | -        | 0             | -     | -       | 0    |
|         |      | %missed  | -          | 0.0         | -           | -         | -        | 0.0           | -     | -       | 0.0  |
|         | OS63 | AD count | 1          | 388         | -           | -         | -        | 150           | 1     | 64      | 604  |
|         |      | Missed   | 0          | 0           | -           | -         | -        | 0             | 0     | 0       | 0    |
|         |      | %missed  | 0.0        | 0.0         | -           | -         | -        | 0.0           | 0.0   | 0.0     | 0.0  |
|         | OS64 | AD count | -          | 2           | -           | -         | -        | 1             | -     | 1       | 4    |
|         |      | Missed   | -          | 0           | -           | -         | -        | 0             | -     | 0       | 0    |
|         |      | %missed  | -          | 0.0         | -           | -         | -        | 0.0           | -     | 0.0     | 0.0  |
| BI_2312 | OS62 | AD count | 1          | 22          | -           | -         | 3        | 13            | -     | -       | 39   |
|         |      | Missed   | 0          | 0           | -           | -         | 0        | 0             | -     | -       | 0    |
|         |      | %missed  | 0.0        | 0.0         | -           | -         | 0.0      | 0.0           | -     | -       | 0.0  |
|         | OS63 | AD count | 2          | 16          | -           | -         | 8        | -             | -     | 1       | 27   |
|         |      | Missed   | 0          | 0           | -           | -         | 0        | -             | -     | 1       | 1    |
|         |      | %missed  | 0.0        | 0.0         | -           | -         | 0.0      | -             | -     | 100.0   | 3.7  |
|         | OS64 | AD count | -          | 8           | -           | -         | 4        | 26            | -     | -       | 38   |
|         |      | Missed   | -          | 0           | -           | -         | 0        | 0             | -     | -       | 0    |
|         |      | %missed  | -          | 0.0         | -           | -         | 0.0      | 0.0           | -     | -       | 0.0  |

Table 2. Comparison of the extraction efficiency by the participating laboratories for the major taxonomic groups present in Own Samples (OS62-64).

| LabCode |      |          | Nemertea | Polychaeta | Oligochaeta | Chelicerata | Crustacea | Mollusca | Echinodermata | Other | Overall |     |
|---------|------|----------|----------|------------|-------------|-------------|-----------|----------|---------------|-------|---------|-----|
| BI_2313 | OS62 | AD count | -        | 233        | 23          | -           | 5         | 10       | -             | 1     | 272     |     |
|         |      | Missed   | -        | 0          | 0           | -           | 0         | 0        | -             | 0     | 0       |     |
|         |      | %missed  | -        | 0.0        | 0.0         | -           | 0.0       | 0.0      | -             | 0.0   | 0.0     |     |
|         | OS63 | AD count | 30       | 111        | -           | -           | 45        | 3        | 3             | -     | -       | 192 |
|         |      | Missed   | 0        | 1          | -           | -           | 0         | 0        | 0             | -     | -       | 1   |
|         |      | %missed  | 0.0      | 0.9        | -           | -           | 0.0       | 0.0      | 0.0           | -     | -       | 0.5 |
|         | OS64 | AD count | -        | 30         | 3           | -           | 2         | 89       | -             | -     | -       | 124 |
|         |      | Missed   | -        | 0          | 0           | -           | 0         | 1        | -             | -     | -       | 1   |
|         |      | %missed  | -        | 0.0        | 0.0         | -           | 0.0       | 1.1      | -             | -     | -       | 0.8 |
| BI_2315 | OS62 | AD count | 1        | 25         | -           | -           | 4         | 139      | 96            | 1     | 266     |     |
|         |      | Missed   | 0        | 0          | -           | -           | 0         | 1        | 0             | 0     | 1       |     |
|         |      | %missed  | 0.0      | 0.0        | -           | -           | 0.0       | 0.7      | 0.0           | 0.0   | 0.4     |     |
|         | OS63 | AD count | 1        | 29         | -           | -           | 2         | 3        | 4             | 1     | 40      |     |
|         |      | Missed   | 0        | 0          | -           | -           | 0         | 0        | 0             | 0     | 0       |     |
|         |      | %missed  | 0.0      | 0.0        | -           | -           | 0.0       | 0.0      | 0.0           | 0.0   | 0.0     |     |
|         | OS64 | AD count | 2        | 56         | -           | -           | 6         | 38       | 22            | 2     | 126     |     |
|         |      | Missed   | 0        | 1          | -           | -           | 0         | 1        | 0             | 0     | 2       |     |
|         |      | %missed  | 0.0      | 1.8        | -           | -           | 0.0       | 2.6      | 0.0           | 0.0   | 1.6     |     |
| BI_2316 | OS62 | AD count | -        | 54         | -           | -           | 35        | 115      | -             | 6     | 210     |     |
|         |      | Missed   | -        | 7          | -           | -           | 1         | 3        | -             | 3     | 14      |     |
|         |      | %missed  | -        | 13.0       | -           | -           | 2.9       | 2.6      | -             | 50.0  | 6.7     |     |
|         | OS63 | AD count | 24       | 1691       | 167         | -           | 153       | 354      | 5             | 72    | 2466    |     |
|         |      | Missed   | 1        | 162        | 5           | -           | 11        | 12       | 1             | 14    | 206     |     |
|         |      | %missed  | 4.2      | 9.6        | 3.0         | -           | 7.2       | 3.4      | 20.0          | 19.4  | 8.4     |     |
|         | OS64 | AD count | 3        | 1172       | 109         | 13          | 139       | 175      | -             | 59    | 1670    |     |
|         |      | Missed   | 0        | 12         | 4           | 0           | 6         | 13       | -             | 2     | 37      |     |
|         |      | %missed  | 0.0      | 1.0        | 3.7         | 0.0         | 4.3       | 7.4      | -             | 3.4   | 2.2     |     |
| BI_2317 | OS62 | AD count | -        | 2          | -           | -           | 36        | 3        | -             | 1     | 42      |     |
|         |      | Missed   | -        | 0          | -           | -           | 0         | 0        | -             | 0     | 0       |     |
|         |      | %missed  | -        | 0.0        | -           | -           | 0.0       | 0.0      | -             | 0.0   | 0.0     |     |
|         | OS63 | AD count | -        | 5          | -           | -           | 2         | -        | -             | -     | 7       |     |
|         |      | Missed   | -        | 0          | -           | -           | 0         | -        | -             | -     | 0       |     |
|         |      | %missed  | -        | 0.0        | -           | -           | 0.0       | -        | -             | -     | 0.0     |     |
|         | OS64 | AD count | -        | 9          | -           | -           | -         | 4        | -             | -     | 13      |     |
|         |      | Missed   | -        | 0          | -           | -           | -         | 2        | -             | -     | 2       |     |
|         |      | %missed  | -        | 0.0        | -           | -           | -         | 50.0     | -             | -     | 15.4    |     |
| BI_2320 | OS62 | AD count | 1        | 12         | -           | -           | 1         | 12       | -             | -     | 26      |     |
|         |      | Missed   | 0        | 0          | -           | -           | 0         | 4        | -             | -     | 4       |     |
|         |      | %missed  | 0.0      | 0.0        | -           | -           | 0.0       | 33.3     | -             | -     | 15.4    |     |
|         | OS63 | AD count | -        | 3          | -           | -           | 1         | 2        | 2             | -     | 8       |     |
|         |      | Missed   | -        | 1          | -           | -           | 0         | 0        | 0             | -     | 1       |     |
|         |      | %missed  | -        | 33.3       | -           | -           | 0.0       | 0.0      | 0.0           | -     | 12.5    |     |
|         | OS64 | AD count | 3        | 26         | -           | -           | 1         | 3        | 3             | -     | 36      |     |
|         |      | Missed   | 0        | 3          | -           | -           | 0         | 0        | 0             | -     | 3       |     |
|         |      | %missed  | 0.0      | 11.5       | -           | -           | 0.0       | 0.0      | 0.0           | -     | 8.3     |     |
| BI_2321 | OS62 | AD count | -        | 429        | -           | -           | -         | -        | -             | 4     | 433     |     |
|         |      | Missed   | -        | 0          | -           | -           | -         | -        | -             | 0     | 0       |     |
|         |      | %missed  | -        | 0.0        | -           | -           | -         | -        | -             | 0.0   | 0.0     |     |
|         | OS63 | AD count | 1        | 131        | -           | -           | 1         | 76       | -             | -     | 209     |     |
|         |      | Missed   | 0        | 0          | -           | -           | 0         | 7        | -             | -     | 7       |     |
|         |      | %missed  | 0.0      | 0.0        | -           | -           | 0.0       | 9.2      | -             | -     | 3.3     |     |
|         | OS64 | AD count | -        | 268        | -           | -           | -         | 4        | -             | -     | 272     |     |
|         |      | Missed   | -        | 4          | -           | -           | -         | 4        | -             | -     | 8       |     |
|         |      | %missed  | -        | 1.5        | -           | -           | -         | 100.0    | -             | -     | 2.9     |     |
| BI_2328 | OS62 | AD count | -        | 12         | -           | -           | -         | 16       | 34            | -     | 62      |     |
|         |      | Missed   | -        | 0          | -           | -           | -         | 0        | 0             | -     | 0       |     |
|         |      | %missed  | -        | 0.0        | -           | -           | -         | 0.0      | 0.0           | -     | 0.0     |     |
|         | OS63 | AD count | 5        | 105        | -           | -           | 5         | 154      | 82            | 72    | 423     |     |
|         |      | Missed   | 0        | 14         | -           | -           | 0         | 5        | 0             | 5     | 24      |     |
|         |      | %missed  | 0.0      | 13.3       | -           | -           | 0.0       | 3.2      | 0.0           | 6.9   | 5.7     |     |
|         | OS64 | AD count | 3        | 73         | -           | 2           | 182       | 25       | 13            | 50    | 348     |     |
|         |      | Missed   | 1        | 4          | -           | 0           | 9         | 0        | 0             | 6     | 20      |     |
|         |      | %missed  | 33.3     | 5.5        | -           | 0.0         | 4.9       | 0.0      | 0.0           | 12.0  | 5.7     |     |

Table 2. Comparison of the extraction efficiency by the participating laboratories for the major taxonomic groups present in Own Samples (OS62-64).

| LabCode |      |          | Nemertea | Polychaeta | Oligochaeta | Chelicerata | Crustacea | Mollusca | Echinodermata | Other | Overall |
|---------|------|----------|----------|------------|-------------|-------------|-----------|----------|---------------|-------|---------|
| BI_2329 | OS62 | AD count | -        | 136        | -           | -           | -         | 3        | -             | 1     | 140     |
|         |      | Missed   | -        | 0          | -           | -           | -         | 0        | -             | 0     | 0       |
|         |      | %missed  | -        | 0.0        | -           | -           | -         | 0.0      | -             | 0.0   | 0.0     |
|         | OS63 | AD count | -        | 314        | 21          | -           | 3         | 3        | -             | -     | 341     |
|         |      | Missed   | -        | 0          | 0           | -           | 0         | 0        | -             | -     | 0       |
|         |      | %missed  | -        | 0.0        | 0.0         | -           | 0.0       | 0.0      | -             | -     | 0.0     |
|         | OS64 | AD count | 7        | 170        | 4           | -           | 8         | 5        | 1             | -     | 195     |
|         |      | Missed   | 0        | 2          | 0           | -           | 0         | 0        | 0             | -     | 2       |
|         |      | %missed  | 0.0      | 1.2        | 0.0         | -           | 0.0       | 0.0      | 0.0           | -     | 1.0     |
| BI_2331 | OS62 | AD count | 2        | 15         | -           | 1           | 5         | 1        | 3             | 6     | 33      |
|         |      | Missed   | 0        | 0          | -           | 0           | 0         | 0        | 0             | 0     | 0       |
|         |      | %missed  | 0.0      | 0.0        | -           | 0.0         | 0.0       | 0.0      | 0.0           | 0.0   | 0.0     |
|         | OS63 | AD count | 5        | 100        | -           | 1           | 5         | 10       | 1             | 1     | 123     |
|         |      | Missed   | 1        | 27         | -           | 0           | 0         | 4        | 0             | 0     | 32      |
|         |      | %missed  | 20.0     | 27.0       | -           | 0.0         | 0.0       | 40.0     | 0.0           | 0.0   | 26.0    |
|         | OS64 | AD count | -        | 35         | 1           | 1           | 2         | 1        | -             | -     | 44      |
|         |      | Missed   | -        | 9          | 0           | 1           | 0         | 0        | -             | 2     | 12      |
|         |      | %missed  | -        | 25.7       | 0.0         | 100.0       | 0.0       | 0.0      | -             | 50.0  | 27.3    |
| BI_2332 | OS62 | AD count | -        | 11         | -           | -           | 1         | 25       | 6             | -     | 43      |
|         |      | Missed   | -        | 1          | -           | -           | 0         | 0        | 0             | -     | 1       |
|         |      | %missed  | -        | 9.1        | -           | -           | 0.0       | 0.0      | 0.0           | -     | 2.3     |
|         | OS63 | AD count | 25       | 171        | 9           | -           | -         | 285      | 38            | 8     | 536     |
|         |      | Missed   | 0        | 1          | 0           | -           | -         | 1        | 0             | 0     | 2       |
|         |      | %missed  | 0.0      | 0.6        | 0.0         | -           | -         | 0.4      | 0.0           | 0.0   | 0.4     |
|         | OS64 | AD count | 2        | 70         | -           | -           | 1         | 85       | 36            | 6     | 200     |
|         |      | Missed   | 0        | 0          | -           | -           | 0         | 0        | 0             | 0     | 0       |
|         |      | %missed  | 0.0      | 0.0        | -           | -           | 0.0       | 0.0      | 0.0           | 0.0   | 0.0     |
| BI_2333 | OS62 | AD count | -        | 91         | -           | -           | 5         | 1        | -             | 3     | 100     |
|         |      | Missed   | -        | 1          | -           | -           | 0         | 0        | -             | 0     | 1       |
|         |      | %missed  | -        | 1.1        | -           | -           | 0.0       | 0.0      | -             | 0.0   | 1.0     |
|         | OS63 | AD count | -        | 7          | -           | -           | 6         | 3        | -             | -     | 16      |
|         |      | Missed   | -        | 0          | -           | -           | 0         | 0        | -             | -     | 0       |
|         |      | %missed  | -        | 0.0        | -           | -           | 0.0       | 0.0      | -             | -     | 0.0     |
|         | OS64 | AD count | -        | 89         | 1           | -           | 4         | 8        | 8             | 12    | 122     |
|         |      | Missed   | -        | 0          | 0           | -           | 0         | 0        | 0             | 0     | 0       |
|         |      | %missed  | -        | 0.0        | 0.0         | -           | 0.0       | 0.0      | 0.0           | 0.0   | 0.0     |
| BI_2335 | OS62 | AD count | -        | -          | -           | -           | 5         | -        | -             | -     | 5       |
|         |      | Missed   | -        | -          | -           | -           | 1         | -        | -             | -     | 1       |
|         |      | %missed  | -        | -          | -           | -           | 20.0      | -        | -             | -     | 20.0    |
|         | OS63 | AD count | -        | 4          | -           | -           | 5         | 1        | -             | -     | 10      |
|         |      | Missed   | -        | 0          | -           | -           | 0         | 0        | -             | -     | 0       |
|         |      | %missed  | -        | 0.0        | -           | -           | 0.0       | 0.0      | -             | -     | 0.0     |
|         | OS64 | AD count | -        | 520        | 6           | -           | 1         | 1        | -             | -     | 528     |
|         |      | Missed   | -        | 0          | 0           | -           | 0         | 0        | -             | -     | 0       |
|         |      | %missed  | -        | 0.0        | 0.0         | -           | 0.0       | 0.0      | -             | -     | 0.0     |
| BI_2336 | OS62 | AD count | -        | -          | -           | -           | -         | -        | -             | 1     | 1       |
|         |      | Missed   | -        | -          | -           | -           | -         | -        | -             | 0     | 0       |
|         |      | %missed  | -        | -          | -           | -           | -         | -        | -             | 0.0   | 0.0     |
|         | OS63 | AD count | -        | -          | -           | -           | 1         | -        | -             | -     | 1       |
|         |      | Missed   | -        | -          | -           | -           | 0         | -        | -             | -     | 0       |
|         |      | %missed  | -        | -          | -           | -           | 0.0       | -        | -             | -     | 0.0     |
|         | OS64 | AD count | -        | 8          | 10          | -           | 3         | 2        | -             | -     | 23      |
|         |      | Missed   | -        | 0          | 0           | -           | 0         | 0        | -             | -     | 0       |
|         |      | %missed  | -        | 0.0        | 0.0         | -           | 0.0       | 0.0      | -             | -     | 0.0     |
| BI_2337 | OS62 | AD count | -        | -          | 2           | -           | -         | 1        | -             | 1     | 4       |
|         |      | Missed   | -        | -          | 0           | -           | -         | 0        | -             | 0     | 0       |
|         |      | %missed  | -        | -          | 0.0         | -           | -         | 0.0      | -             | 0.0   | 0.0     |
|         | OS63 | AD count | 0        | 0          | 0           | 0           | 0         | 0        | 0             | 0     | 0       |
|         |      | Missed   | 0        | 0          | 0           | 0           | 0         | 0        | 0             | 0     | 0       |
|         |      | %missed  | 0.0      | 0.0        | 0.0         | 0.0         | 0.0       | 0.0      | 0.0           | 0.0   | 0.0     |
|         | OS64 | AD count | -        | 2          | -           | -           | -         | -        | -             | -     | 2       |
|         |      | Missed   | -        | 0          | -           | -           | -         | -        | -             | -     | 0       |
|         |      | %missed  | -        | 0.0        | -           | -           | -         | -        | -             | -     | 0.0     |

Table 2. Comparison of the extraction efficiency by the participating laboratories for the major taxonomic groups present in Own Samples (OS62-64).

| LabCode |      |          | Nemertea | Polychaeta | Oligochaeta | Chelicerata | Crustacea | Mollusca | Echinodermata | Other | Overall |
|---------|------|----------|----------|------------|-------------|-------------|-----------|----------|---------------|-------|---------|
| BI_2338 | OS62 | AD count | -        | 708        | 348         | -           | 2         | 12       | 1             | 3     | 1074    |
|         |      | Missed   | -        | 1          | 0           | -           | 0         | 0        | 0             | 0     | 1       |
|         |      | %missed  | -        | 0.1        | 0.0         | -           | 0.0       | 0.0      | 0.0           | 0.0   | 0.1     |
|         | OS63 | AD count | 1        | 387        | 481         | -           | 1         | 936      | -             | 199   | 2005    |
|         |      | Missed   | 0        | 0          | 2           | -           | 0         | 0        | -             | 0     | 2       |
|         |      | %missed  | 0.0      | 0.0        | 0.4         | -           | 0.0       | 0.0      | -             | 0.0   | 0.1     |
|         | OS64 | AD count | -        | -          | -           | -           | -         | 2        | -             | 1     | 3       |
|         |      | Missed   | -        | -          | -           | -           | -         | 0        | -             | 0     | 0       |
|         |      | %missed  | -        | -          | -           | -           | -         | 0.0      | -             | 0.0   | 0.0     |
| BI_2339 | OS62 | AD count | 2        | 1048       | 1           | -           | 18        | 52       | -             | 5     | 1126    |
|         |      | Missed   | 0        | 13         | 0           | -           | 0         | 2        | -             | 0     | 15      |
|         |      | %missed  | 0.0      | 1.2        | 0.0         | -           | 0.0       | 3.8      | -             | 0.0   | 1.3     |
|         | OS63 | AD count | -        | 73         | 1           | -           | 4         | 117      | -             | -     | 195     |
|         |      | Missed   | -        | 0          | 0           | -           | 0         | 0        | -             | -     | 0       |
|         |      | %missed  | -        | 0.0        | 0.0         | -           | 0.0       | 0.0      | -             | -     | 0.0     |
|         | OS64 | AD count | -        | 46         | 87          | -           | 4         | 53       | -             | 27    | 217     |
|         |      | Missed   | -        | 0          | 1           | -           | 1         | 0        | -             | 0     | 2       |
|         |      | %missed  | -        | 0.0        | 1.1         | -           | 25.0      | 0.0      | -             | 0.0   | 0.9     |
| BI_2340 | OS62 | AD count | -        | 4          | -           | -           | -         | -        | -             | -     | 4       |
|         |      | Missed   | -        | 1          | -           | -           | -         | -        | -             | -     | 1       |
|         |      | %missed  | -        | 25.0       | -           | -           | -         | -        | -             | -     | 25.0    |
|         | OS63 | AD count | -        | 115        | -           | -           | 39        | 152      | 6             | -     | 312     |
|         |      | Missed   | -        | 0          | -           | -           | 0         | 0        | 0             | -     | 0       |
|         |      | %missed  | -        | 0.0        | -           | -           | 0.0       | 0.0      | 0.0           | -     | 0.0     |
|         | OS64 | AD count | 1        | 11         | -           | -           | 1         | 6        | -             | -     | 19      |
|         |      | Missed   | 0        | 0          | -           | -           | 0         | 0        | -             | -     | 0       |
|         |      | %missed  | 0.0      | 0.0        | -           | -           | 0.0       | 0.0      | -             | -     | 0.0     |
| BI_2341 | OS62 | AD count | -        | 188        | 297         | -           | 23        | -        | -             | 5     | 513     |
|         |      | Missed   | -        | 1          | 0           | -           | 1         | -        | -             | 0     | 2       |
|         |      | %missed  | -        | 0.5        | 0.0         | -           | 4.3       | -        | -             | 0.0   | 0.4     |
|         | OS63 | AD count | -        | 74         | 10          | -           | -         | 271      | -             | 219   | 574     |
|         |      | Missed   | -        | 0          | 0           | -           | -         | 1        | -             | 2     | 3       |
|         |      | %missed  | -        | 0.0        | 0.0         | -           | -         | 0.4      | -             | 0.9   | 0.5     |
|         | OS64 | AD count | -        | 612        | 216         | -           | 1         | 309      | -             | 336   | 1474    |
|         |      | Missed   | -        | 0          | 0           | -           | 0         | 0        | -             | 1     | 1       |
|         |      | %missed  | -        | 0.0        | 0.0         | -           | 0.0       | 0.0      | -             | 0.3   | 0.1     |
| BI_2342 | OS62 | AD count | 10       | 248        | 17          | -           | 27        | 205      | 8             | -     | 515     |
|         |      | Missed   | 0        | 1          | 0           | -           | 0         | 2        | 0             | -     | 3       |
|         |      | %missed  | 0.0      | 0.4        | 0.0         | -           | 0.0       | 1.0      | 0.0           | -     | 0.6     |
|         | OS63 | AD count | -        | 3          | 16          | -           | -         | -        | -             | -     | 19      |
|         |      | Missed   | -        | 0          | 0           | -           | -         | -        | -             | -     | 0       |
|         |      | %missed  | -        | 0.0        | 0.0         | -           | -         | -        | -             | -     | 0.0     |
|         | OS64 | AD count | -        | 9          | 15          | -           | 2         | -        | -             | -     | 26      |
|         |      | Missed   | -        | 0          | 0           | -           | 0         | -        | -             | -     | 0       |
|         |      | %missed  | -        | 0.0        | 0.0         | -           | 0.0       | -        | -             | -     | 0.0     |
| BI_2343 | OS62 | AD count | -        | 212        | 44          | -           | 4         | 11       | -             | 1     | 272     |
|         |      | Missed   | -        | 0          | 0           | -           | 0         | 1        | -             | 0     | 1       |
|         |      | %missed  | -        | 0.0        | 0.0         | -           | 0.0       | 9.1      | -             | 0.0   | 0.4     |
|         | OS63 | AD count | -        | 6          | 1           | -           | 4         | 1        | -             | 1     | 13      |
|         |      | Missed   | -        | 0          | 0           | -           | 0         | 0        | -             | 0     | 0       |
|         |      | %missed  | -        | 0.0        | 0.0         | -           | 0.0       | 0.0      | -             | 0.0   | 0.0     |
|         | OS64 | AD count | 1        | 10         | -           | -           | 10        | 8        | 3             | -     | 32      |
|         |      | Missed   | 0        | 0          | -           | -           | 0         | 1        | 0             | -     | 1       |
|         |      | %missed  | 0.0      | 0.0        | -           | -           | 0.0       | 12.5     | 0.0           | -     | 3.1     |
| BI_2345 | OS62 | AD count | 10       | 845        | -           | -           | 39        | 45       | 25            | 5     | 969     |
|         |      | Missed   | 2        | 72         | -           | -           | 1         | 8        | 1             | 2     | 86      |
|         |      | %missed  | 20.0     | 8.5        | -           | -           | 2.6       | 17.8     | 4.0           | 40.0  | 8.9     |
|         | OS63 | AD count | 4        | 448        | -           | -           | 37        | 32       | 18            | 11    | 550     |
|         |      | Missed   | 0        | 43         | -           | -           | 1         | 7        | 2             | 10    | 63      |
|         |      | %missed  | 0.0      | 9.6        | -           | -           | 2.7       | 21.9     | 11.1          | 90.9  | 11.5    |
|         | OS64 | AD count | -        | 13         | -           | -           | 16        | 10       | 1             | -     | 40      |
|         |      | Missed   | -        | 0          | -           | -           | 0         | 3        | 0             | -     | 3       |
|         |      | %missed  | -        | 0.0        | -           | -           | 0.0       | 30.0     | 0.0           | -     | 7.5     |



Table 2. Comparison of the extraction efficiency by the participating laboratories for the major taxonomic groups present in Own Samples (OS62-64).

| LabCode |      | Nemertea | Polychaeta | Oligochaeta | Chelicerata | Crustacea | Mollusca | Echinodermata | Other | Overall |     |
|---------|------|----------|------------|-------------|-------------|-----------|----------|---------------|-------|---------|-----|
| BI_2346 | OS62 | AD count | 4          | 30          | -           | -         | 10       | 7             | 3     | 1       | 55  |
|         |      | Missed   | 0          | 2           | -           | -         | 2        | 0             | 0     | 1       | 5   |
|         |      | %missed  | 0.0        | 6.7         | -           | -         | 20.0     | 0.0           | 0.0   | 100.0   | 9.1 |
|         | OS63 | AD count | 8          | 78          | -           | -         | 2        | 121           | 9     | 9       | 227 |
|         |      | Missed   | 1          | 1           | -           | -         | 0        | 1             | 0     | 0       | 3   |
|         |      | %missed  | 12.5       | 1.3         | -           | -         | 0.0      | 0.8           | 0.0   | 0.0     | 1.3 |
|         | OS64 | AD count | 1          | 38          | -           | -         | -        | 15            | 2     | 2       | 58  |
|         |      | Missed   | 0          | 2           | -           | -         | -        | 1             | 0     | 0       | 3   |
|         |      | %missed  | 0.0        | 5.3         | -           | -         | -        | 6.7           | 0.0   | 0.0     | 5.2 |

Key: AD = Audit Data

Missed = numbers of individuals missed in residue sorting

% Missed = Percentage missed in residue sorting

Table 3. Summary of mis-identified taxa in the Own Sample Module (OS62 - 64) (erroneous identifications in brackets).

| LabCode |      | Taxonomic | Major Taxonomic Group   |             |           |  |  |  |
|---------|------|-----------|---|-------------|-----------|--|--|--|
|         |      | Errors    | Polychaeta  | Oligochaeta | Crustacea | Mollusca   | Echinodermata  | Other  |
| BI_2302 | OS62 | 1         | -   | -           | -         | <i>Cochlodesma praetenu</i> juv. ( <i>Thracia</i> (juv.))  | -  | -  |
|         | OS63 | 1         | <i>Chaetozone christiei</i> ( <i>Chaetozone setosa</i> )  | -           | -         | -  | -  | -  |
|         | OS64 | 1         | -   | -           | -         | <i>Vitreolina antiflexa</i> ( <i>Vitreolina philippi</i> )   | -  | -  |
| BI_2304 | OS62 | 0         | -   | -           | -         | -  | -  | -  |
|         | OS63 | 3         | -   | -           | -         | <i>Mya truncata</i> juv. ( <i>Sphenia binghami</i> )<br><i>Alderina imbellis</i> ( <i>Parellisina curvirostris</i> ) | -  | <i>Golfingia elongata</i> ( <i>Nephasoma minutum</i> ) |
|         | OS64 | 0         | -   | -           | -         | -  | -  | -  |
| BI_2307 | OS62 | 2         | -   | -           | -         | <i>Turbanilla acuta</i> ( <i>Turbanilla lactea</i> )<br><i>Ensis</i> juv. ( <i>Phaxas pellucidus</i> )               | -  | -  |
|         | OS63 | 1         | <i>Spio gonocephala</i> ( <i>Spio armata</i> )  | -           | -         | -  | -  | -  |
|         | OS64 | 1         | -   | -           | -         | <i>Ensis</i> juv. ( <i>Phaxas pellucidus</i> )   | -  | -  |
| BI_2309 | OS62 | 1         | -   | -           | -         | <i>Spisula</i> sp. juv. ( <i>Spisula subtruncata</i> )   | -  | -  |
|         | OS63 | 0         | -   | -           | -         | -  | -  | -  |
|         | OS64 | 2         | <i>Lanice conchilega</i> ( <i>Ampharete</i> juv.)   | -           | -         | <i>Ensis</i> sp. juv. ( <i>Phaxas pellucidus</i> )   | -  | -  |
| BI_2311 | OS62 | 0         | -   | -           | -         | -  | -  | -  |
|         | OS63 | 2         | -   | -           | -         | <i>Venerupis corrugata</i> ( <i>Polittapes rhomboides</i> )  | <i>Ophiura alba</i> ( <i>Ophiocten affinis</i> )       | -  |
|         | OS64 | 0         | -   | -           | -         | -  | -  | -  |
| BI_2312 | OS62 | 1         | <i>Magelona johnstoni</i> ( <i>Magelona mirabilis</i> )   | -           | -         | -  | -  | -  |
|         | OS63 | 0         | -   | -           | -         | -  | -  | -  |
|         | OS64 | 0         | -   | -           | -         | -  | -  | -  |
| BI_2313 | OS62 | 0         | -   | -           | -         | -  | -  | -  |
|         | OS63 | 1         | -   | -           | -         | -  | -  | Nemertea (Platyhelminthes)                             |
|         | OS64 | 0         | -   | -           | -         | -  | -  | -  |
| BI_2315 | OS62 | 0         | -   | -           | -         | -  | -  | -  |
|         | OS63 | 0         | -   | -           | -         | -  | -  | -  |
|         | OS64 | 0         | -   | -           | -         | -  | -  | -  |
| BI_2316 | OS62 | 0         | -   | -           | -         | -  | -  | -  |
|         | OS63 | 5         | <i>Eumida sanguinea</i> agg. ( <i>Eumida bahusiensis</i> )<br><i>Sphaerosyllis</i> aff. <i>taylori</i> ( <i>Sphaerosyllis hystrix</i> )<br><i>Aonides oxycephala</i> ( <i>Aonides paucibranchiata</i> )<br><i>Aphelochaeta</i> species A ( <i>Monticellina dorsobranchialis</i> ) | -           | -         | <i>Kellia suborbicularis</i> & <i>Abra alba</i> ( <i>Kurtiella bidentata</i> )                                       | -  | -  |
|         | OS64 | 1         | <i>Sphaerosyllis</i> aff. <i>taylori</i> ( <i>Sphaerosyllis hystrix</i> )   | -           | -         | -  | -  | -  |
| BI_2317 | OS62 | 1         | -   | -           | -         | <i>Abra alba</i> ( <i>Fabulina fabula</i> )  | -  | -  |
|         | OS63 | 0         | -   | -           | -         | -  | -  | -  |
|         | OS64 | 0         | -   | -           | -         | -  | -  | -  |
| BI_2320 | OS62 | 1         | <i>Amaeana trilobata</i> ( <i>Polycirrus norvegicus</i> )   | -           | -         | -  | -  | -  |
|         | OS63 | 1         | <i>Aricidea</i> ( <i>Paradoneis lyra</i> )  | -           | -         | -  | -  | -  |
|         | OS64 | 1         | -   | -           | -         | -  | <i>Amphiura filiformis</i> ( <i>Amphiura chiajei</i> ) | -  |
| BI_2321 | OS62 | 0         | -   | -           | -         | -  | -  | -  |
|         | OS63 | 0         | -   | -           | -         | -  | -  | -  |
|         | OS64 | 0         | -   | -           | -         | -  | -  | -  |

Table 3. Summary of mis-identified taxa in the Own Sample Module (OS62 - 64) (erroneous identifications in brackets).

| LabCode | Taxonomic Errors | Major Taxonomic Group |   |           |   |   |  |   |
|---------|------------------|-----------------------|---|-----------|---|---|--|---|
|         |                  | Polychaeta            | Oligochaeta   | Crustacea | Mollusca  | Echinodermata   | Other  |   |
| BI_2328 | OS62             | 0                     | -   | -         | -   | -   | -  |   |
|         | OS63             | 5                     | <i>Malmgrenia arenicolae</i> ( <i>Malmgrenia andreapolis</i> )<br><i>Paradoneis lyra</i> ( <i>Levinsenia gracilis</i> )<br><i>Aricidea cerruti</i> ( <i>Paradoneis lyra</i> )<br><i>Aurospio banyulensis</i> ( <i>Laonice</i> (juv.)) | -         | -   | -   | <i>Labidoplax buskii</i> ( <i>Labidoplax media</i> ) | - |
|         | OS64             | 5                     | <i>Chaetozone</i> species D ( <i>Chaetozone</i> sp. A)  | -         | -   | <i>Velutina velutina</i> ( <i>Crepidula fornicata</i> )<br><i>Melanella polita</i> ( <i>Vitreolina philippi</i> )<br><i>Axinulus croalinensis</i> ( <i>Thyasira</i> (juv.)) | <i>Labidoplax buskii</i> ( <i>Labidoplax media</i> ) | - |
| BI_2329 | OS62             | 0                     | -   | -         | -   | -   | -  |   |
|         | OS63             | 0                     | -   | -         | -   | -   | -  |   |
|         | OS64             | 0                     | -   | -         | -   | -   | -  |   |
| BI_2331 | OS62             | 0                     | -   | -         | -   | -   | -  |   |
|         | OS63             | 0                     | -   | -         | -   | -   | -  |   |
|         | OS64             | 1                     | <i>Malmgrenia arenicolae</i> ? ( <i>Malmgrenia darbouxi</i> )   | -         | -   | -   | -  |   |
| BI_2332 | OS62             | 1                     | -   | -         | -   | <i>Brachystomia eulmoides</i> ( <i>Odotamia lukisii</i> )   | -  |   |
|         | OS63             | 1                     | <i>Eumida bahusensis</i> ( <i>Eumida sanguinea</i> )  | -         | -   | -   | -  |   |
|         | OS64             | 0                     | -   | -         | -   | -   | -  |   |
| BI_2333 | OS62             | 1                     | <i>Glycera fallax</i> ( <i>Glycera oxycephala</i> )   | -         | -   | -   | -  |   |
|         | OS63             | 0                     | -   | -         | -   | -   | -  |   |
|         | OS64             | 2                     | <i>Aponuphis bilineata</i> ( <i>Hyalinoecia tubicola</i> )  | -         | <i>Pontocrates</i> cf. <i>arenarius</i> ( <i>Pontocrates arcticus</i> Type A) | -   | -  |   |
| BI_2335 | OS62             | 0                     | -   | -         | -   | -   | -  |   |
|         | OS63             | 0                     | -   | -         | -   | -   | -  |   |
|         | OS64             | 0                     | -   | -         | -   | -   | -  |   |
| BI_2336 | OS62             | 0                     | -   | -         | -   | -   | -  |   |
|         | OS63             | 0                     | -   | -         | -   | -   | -  |   |
|         | OS64             | 0                     | -   | -         | -   | -   | -  |   |
| BI_2337 | OS62             | 0                     | -   | -         | -   | -   | -  |   |
|         | OS63             | 0                     | -   | -         | -   | -   | -  |   |
|         | OS64             | 0                     | -   | -         | -   | -   | -  |   |
| BI_2338 | OS62             | 0                     | -   | -         | -   | -   | -  |   |
|         | OS63             | 0                     | -   | -         | -   | -   | -  |   |
|         | OS64             | 0                     | -   | -         | -   | -   | -  |   |
| BI_2339 | OS62             | 5                     | <i>Tharyx</i> "species A" & <i>Aphelocheata marioni</i> ( <i>Tharyx killariensis</i> ?)   | -         | <i>Nototropis guttatus</i> ( <i>Nototropis swammerdamei</i> )                 | <i>Philine</i> ( <i>Diaphana minuta</i> )<br><i>Anomia ephippium</i> ( <i>Monia patelliformis</i> )<br><i>Ruditapes philippinarum</i> juv. ( <i>Ruditapes decussatus</i> )  | -  |   |
|         | OS63             | 1                     | -   | -         | -   | <i>Ruditapes philippinarum</i> juv. ( <i>Ruditapes decussatus</i> )   | -  |   |
|         | OS64             | 0                     | -   | -         | -   | -   | -  |   |
| BI_2340 | OS62             | 0                     | -   | -         | -   | -   | -  |   |
|         | OS63             | 2                     | <i>Praxillella affinis</i> ( <i>Euclymene oerstedii</i> )   | -         | -   | <i>Philine quadripartita</i> ( <i>Philine aperta</i> )  | -  |   |
|         | OS64             | 0                     | -   | -         | -   | -   | -  |   |
| BI_2341 | OS62             | 0                     | -   | -         | -   | -   | -  |   |
|         | OS63             | 1                     | <i>Nephtys proboscis</i> ( <i>Arenicola marina</i> )  | -         | -   | -   | -  |   |
|         | OS64             | 1                     | <i>Streblospio</i> ( <i>Pygospio elegans</i> )  | -         | -   | -   | -  |   |

Table 3. Summary of mis-identified taxa in the Own Sample Module (OS62 - 64) (erroneous identifications in brackets).

| LabCode        | Taxonomic Errors | Major Taxonomic Group |   |           |   |  |   |   |
|----------------|------------------|-----------------------|---|-----------|---|--|---|---|
|                |                  | Polychaeta            | Oligochaeta   | Crustacea | Mollusca  | Echinodermata  | Other   |   |
| BL_2342        | OS62             | 3                     | -   | -         | <i>Bodotria scorpioides</i> ( <i>Bodotria pulchella</i> )<br><i>Pseudocuma longicorne</i> ( <i>Monopseudocuma gilsoni</i> ) | <i>Philine</i> ( <i>Diaphana minuta</i> )  | -   | - |
|                | OS63             | 0                     | -   | -         | -   | -  | -   | - |
|                | OS64             | 0                     | -   | -         | -   | -  | -   | - |
| BL_2343        | OS62             | 0                     | -   | -         | -   | -  | -   | - |
|                | OS63             | 0                     | -   | -         | -   | -  | -   | - |
|                | OS64             | 3                     | <i>Glycinde nordmanni</i> ( <i>Goniadella gracilis</i> )<br><i>Nephtys assimilis</i> ( <i>Nephtys hombergii</i> )   | -         | <i>Bathyporeia guilliamsoniana</i> ( <i>Bathyporeia elegans</i> )   | -  | -   | - |
| BL_2345        | OS62             | 5                     | <i>Scolelepis korsuni</i> ( <i>Scolelepis tridentata</i> )<br><i>Dialychone</i> ( <i>Chone</i> )  | -         | -   | <i>Vitreolina antifixea</i> & <i>Melanella polita</i> ( <i>Vitreolina philippi</i> )<br><i>Retusa umbilicata</i> ( <i>Retusa obtusa</i> (agg.))<br><i>Parathyasira equalis</i> ( <i>Thyasira sarsi</i> )         | -   | - |
|                | OS63             | 5                     | <i>Scolelepis korsuni</i> ( <i>Scolelepis tridentata</i> )  | -         | -   | <i>Melanella polita</i> ( <i>Vitreolina philippi</i> )<br><i>Retusa umbilicata</i> ( <i>Retusa obtusa</i> (agg.))<br><i>Hermania</i> ( <i>Philine</i> )<br><i>Parathyasira equalis</i> ( <i>Thyasira sarsi</i> ) | -   | - |
|                | OS64             | 0                     | -   | -         | -   | -  | -   | - |
| BL_2346        | OS62             | 5                     | <i>Eumida sanguinea</i> agg. ( <i>Eumida bahusiensis</i> )<br><i>Lumbrineris aniana</i> / <i>cingulata</i> ( <i>Hilbigneris gracilis</i> )<br><i>Anobothrus gracilis</i> ( <i>Ampharete lindstroemi</i> ) | -         | -   | <i>Nucula nucleus</i> ( <i>Nucula nitidosa</i> )   | <i>Amphipholis squamata</i> ( <i>Amphiura chiajei</i> ) | - |
|                | OS63             | 1                     | -   | -         | -   | <i>Thracia convexa</i> juv. ( <i>Thracia phaseolina</i> )  | -   | - |
|                | OS64             | 0                     | -   | -         | -   | -  | -   | - |
| <b>TOTAL</b>   | <b>75</b>        | 32                    | 0   | 5         | 31  | 5  | 2   |   |
| <b>% Error</b> |                  | 43                    | 0   | 7         | 41  | 7  | 3   |   |

Table 4. Comparison of the estimates of biomass made by the participating laboratories with those made by APEM Ltd. for the major taxonomic groups present in samples OS62-OS64.

|         |        | OS62     |            |             |             |           |          |               |        |         |
|---------|--------|----------|------------|-------------|-------------|-----------|----------|---------------|--------|---------|
| LabCode |        | Nemertea | Polychaeta | Oligochaeta | Chelicerata | Crustacea | Mollusca | Echinodermata | Other  | Overall |
| BI_2304 | OD     | -        | 0.3690     | -           | -           | -         | 0.0425   | -             | -      | 0.4115  |
|         | AD     | -        | 0.3739     | -           | -           | -         | 0.0445   | -             | -      | 0.4184  |
|         | %diff. | -        | -1.33      | -           | -           | -         | -4.71    | -             | -      | -1.68   |
| BI_2313 | OD     | 0.0039   | 0.5986     | 0.0038      | -           | 0.0303    | 15.1866  | -             | 0.0001 | 15.8233 |
|         | AD     | 0.0032   | 0.2676     | 0.0029      | -           | 0.0185    | 13.6495  | -             | 0.0001 | 13.9418 |
|         | %diff. | 17.95    | 55.30      | 23.68       | -           | 38.94     | 10.12    | -             | 0.00   | 11.89   |
| BI_2315 | OD     | 0.0007   | 0.1658     | -           | -           | 0.0286    | 1.0286   | 1.6174        | 0.0806 | 2.9217  |
|         | AD     | 0.0005   | 0.1821     | -           | -           | 0.0269    | 0.9853   | 2.1349        | 0.0803 | 3.4100  |
|         | %diff. | 28.57    | -9.83      | -           | -           | 5.94      | 4.21     | -32.00        | 0.37   | -16.71  |
| BI_2320 | OD     | 0.0183   | 0.0478     | -           | -           | 0.0993    | 0.8810   | -             | -      | 1.0464  |
|         | AD     | 0.0189   | 0.0454     | -           | -           | 0.1033    | 0.8835   | -             | -      | 1.0511  |
|         | %diff. | -3.28    | 5.02       | -           | -           | -4.03     | -0.28    | -             | -      | -0.4492 |
| BI_2331 | OD     | 0.0045   | 0.1773     | -           | 0.0005      | 0.0027    | 0.0001   | 0.2279        | 1.5967 | 2.0097  |
|         | AD     | 0.0040   | 0.1573     | -           | 0.0006      | 0.0030    | 0.0002   | 0.2105        | 1.4791 | 1.8547  |
|         | %diff. | 11.11    | 11.28      | -           | -20.00      | -11.11    | -100.00  | 7.63          | 7.37   | 7.71    |

Key: OD - Own data, participating laboratory  
 AD - Audit data  
 "-" - No data.

Table 4. Comparison of the estimates of biomass made by the participating laboratories with those made by APEM Ltd. for the major taxonomic groups present in samples OS62-OS64.

|         |        | OS63     |            |             |             |           |          |               |        |         |
|---------|--------|----------|------------|-------------|-------------|-----------|----------|---------------|--------|---------|
| LabCode |        | Nemertea | Polychaeta | Oligochaeta | Chelicerata | Crustacea | Mollusca | Echinodermata | Other  | Overall |
| BI_2304 | OD     | 0.0004   | 0.1399     | -           | -           | 0.0177    | 0.2301   | 2.9340        | 0.0034 | 3.3255  |
|         | AD     | 0.0003   | 0.1411     | -           | -           | 0.0192    | 0.2654   | 3.0541        | 0.0029 | 3.4830  |
|         | %diff. | 25.00    | -0.86      | -           | -           | -8.47     | -15.34   | -4.09         | 14.71  | -4.74   |
| BI_2313 | OD     | 0.0876   | 0.9369     | -           | -           | 0.2005    | 0.0152   | 0.0128        | -      | 1.2530  |
|         | AD     | 0.0438   | 0.5740     | -           | -           | 0.1379    | 0.0126   | 0.0102        | -      | 0.7785  |
|         | %diff. | 50.00    | 38.73      | -           | -           | 31.22     | 17.11    | 20.31         | -      | 37.87   |
| BI_2315 | OD     | 0.0070   | 0.4474     | -           | -           | 0.0032    | 0.0077   | 0.2248        | 0.0026 | 0.6927  |
|         | AD     | 0.0079   | 0.5422     | -           | -           | 0.0036    | 0.0073   | 0.2426        | 0.0011 | 0.8047  |
|         | %diff. | -12.86   | -21.19     | -           | -           | -12.50    | 5.19     | -7.92         | 57.69  | -16.17  |
| BI_2320 | OD     | -        | 0.0623     | -           | -           | 0.5650    | 0.0251   | 0.0590        | -      | 0.7114  |
|         | AD     | -        | 0.0612     | -           | -           | 0.4840    | 0.0249   | 0.0667        | -      | 0.6368  |
|         | %diff. | -        | 1.7657     | -           | -           | 14.3363   | 0.7968   | -13.0508      | -      | 10.4864 |
| BI_2331 | OD     | 0.0061   | 1.4113     | -           | 0.0001      | 0.0039    | 0.0329   | 0.0004        | -      | 1.4547  |
|         | AD     | 0.0059   | 1.2682     | -           | 0.0001      | 0.0041    | 0.0331   | 0.0003        | -      | 1.3117  |
|         | %diff. | 3.28     | 10.14      | -           | 0.00        | -5.13     | -0.61    | 25.00         | -      | 9.83    |

Key: OD - Own data, participating laboratory  
AD - Audit data  
"-" - No data.

Table 4. Comparison of the estimates of biomass made by the participating laboratories with those made by APEM Ltd. for the major taxonomic groups present in samples OS62-OS64.

|         |        | OS64     |            |             |             |           |          |               |        |          |
|---------|--------|----------|------------|-------------|-------------|-----------|----------|---------------|--------|----------|
| LabCode |        | Nemertea | Polychaeta | Oligochaeta | Chelicerata | Crustacea | Mollusca | Echinodermata | Other  | Overall  |
| BI_2304 | OD     | -        | 0.6310     | -           | -           | 0.3509    | -        | -             | -      | 0.9819   |
|         | AD     | -        | 0.6764     | -           | -           | 0.4186    | -        | -             | -      | 1.0950   |
|         | %diff. | -        | -7.19      | -           | -           | -19.29    | -        | -             | -      | -11.52   |
| BI_2313 | OD     | -        | 1.7070     | 0.0003      | -           | 0.0030    | 164.2696 | -             | -      | 165.9799 |
|         | AD     | -        | 1.1926     | 0.0001      | -           | 0.0027    | 134.8410 | -             | -      | 136.0364 |
|         | %diff. | -        | 30.13      | 66.67       | -           | 10.00     | 17.91    | -             | -      | 18.04    |
| BI_2315 | OD     | 0.0286   | 0.3044     | -           | -           | 0.0038    | 0.1319   | 0.2083        | 0.0014 | 0.6784   |
|         | AD     | 0.0403   | 0.3641     | -           | -           | 0.0045    | 0.1181   | 0.1676        | 0.0010 | 0.6956   |
|         | %diff. | -40.91   | -19.61     | -           | -           | -18.42    | 10.46    | 19.54         | 28.57  | -2.54    |
| BI_2320 | OD     | 0.0013   | 0.1859     | -           | -           | 1.0485    | 0.1269   | 0.1682        | -      | 1.5308   |
|         | AD     | 0.0015   | 0.1912     | -           | -           | 0.7481    | 0.1283   | 0.1740        | -      | 1.2431   |
|         | %diff. | -15.38   | -2.85      | -           | -           | 28.65     | -1.10    | -3.45         | -      | 18.7941  |
| BI_2331 | OD     | -        | 0.9957     | 0.0001      | -           | 0.0065    | 0.0001   | -             | 0.2321 | 1.2345   |
|         | AD     | -        | 0.9304     | 0.0001      | -           | 0.0078    | 0.0002   | -             | 0.2022 | 1.1407   |
|         | %diff. | -        | 6.56       | 0.00        | -           | -20.00    | -100.00  | -             | 12.88  | 7.60     |

Key: OD - Own data, participating laboratory  
 AD - Audit data  
 "-" - No data.

Table 5. Comparison of the overall performance of laboratories in the Own Sample exercises from 1995/96 to 2016/17.

| Scheme Year     | Exercise     | Number of samples |                  | % Pass         |
|-----------------|--------------|-------------------|------------------|----------------|
|                 |              | Pass (>90% BCSI)  | Fail (<90% BCSI) |                |
| 02 (1995/96)    | 01           | 14                | 0                | 100            |
| 03 (1996/97)    | 02, 03, 04   | 27                | 11               | 71             |
| 04 (1997/98)    | 05, 06, 07   | 33                | 7                | 83             |
| 05 (1998/99)    | 08, 09, 10   | 30                | 12               | 71             |
| 06 (1999/00)    | 11, 12, 13   | 37                | 14               | 73             |
| 07 (2000/01)    | 14, 15, 16   | 30                | 15               | 67             |
| 08 (2001/02)*   | 17, 18, 19   | 35                | 10               | 78             |
| 09 (2002/03)*   | 20, 21, 22   | 33                | 11               | 75             |
| 10 (2003/04)*   | 23, 24, 25   | 43                | 8                | 84             |
| 11 (2004/05)*   | 26, 27, 28   | 51                | 3                | 94             |
| 12 (2005/06)*   | 29, 30, 31   | 50                | 4                | 93             |
| 13 (2006/07)*   | 32, 33, 34   | 63                | 6                | 91             |
| 14 (2007/08)*   | 35, 36, 37   | 69                | 12               | 85             |
| 15 (2008/09)*   | 38, 39, 40   | 67                | 24               | 74             |
| 16 (2009/10)*   | 41, 42, 43   | 75                | 18               | 81             |
| 17 (2010/11)*   | 44, 45, 46   | 85                | 14               | 86             |
| 18 (2011/12)*   | 47, 48, 49   | 95                | 4                | 96             |
| 19 (2012/13)*   | 50, 51, 52   | 102               | 6                | 94             |
| 20 (2013/14)*   | 53, 54, 55   | 73                | 29               | 72             |
| 2014/2015 (21)* | 56, 57, 58   | 71                | 22               | 76             |
| 2015/2016 (22)* | 59, 60, 61   | 81                | 15               | 84             |
| 2016/2017 (23)* | 62, 63, 64   | 72                | 12               | 86             |
|                 | <b>Total</b> | <b>1236</b>       | <b>257</b>       | <b>Mean 79</b> |

\* - Own Samples selected from completed data matrices, i.e. 'blind audits'  
 BCSI - Bray Curtis Similarity Index (untransformed)