

## Supplementary material

Table S1. Sampling stations from the oceanographic cruise at SEAL (Sergipe-Alagoas) sedimentary basin, carried out in May 2014 aboard the Research Vessel Seward Johnson.

| St # | Latitude   | Longitude  | Depth (m) | Sampling Depths (m) |                 |                   |                   |             |                    |
|------|------------|------------|-----------|---------------------|-----------------|-------------------|-------------------|-------------|--------------------|
|      |            |            |           | MW <sup>1</sup>     | TW <sup>2</sup> | SACW <sup>3</sup> | AAIW <sup>4</sup> | AAIW/ UNADW | UNADW <sup>5</sup> |
| 1    | 8874909,03 | 826100,24  | 24        | -                   | 5               | -                 | -                 | -           | -                  |
| 2    | 8867122,51 | 836239,63  | 39        | -                   | 5/20            | -                 | -                 | -           | -                  |
| 3    | 8864461,76 | 839915,74  | 446       | -                   | 5/20            | 250               | -                 | -           | -                  |
| 4    | 8861398,47 | 844066,63  | 1220      | -                   | 5/20            | 250               | 750               | -           | -                  |
| 8    | 8829868,7  | 885692,39  | 3344      | -                   | 5/20            | 250               | 700/1250          | 1650        | -                  |
| 10   | 8802782,46 | 921258,18  | 3927      | -                   | 4/20            | 250               | 800               | 1249        | 1649               |
| 14   | 8730230,69 | 1016193,84 | 4595      | -                   | 5/20            | 202               | 698               | 1502        | 1851               |
| 18   | 8657256,33 | 1110670,31 | 4928      | -                   | 6/19            | 252               | 706               | 1260        | 1667               |
| 19   | 8619260,86 | 1048594,62 | 4367      | -                   | 5/20            | 251               | 603               | 1248        | 1699               |
| 23   | 8694160,29 | 955821,47  | 4396      | -                   | 6/20            | 252               | 705               | 1262        | 1666               |
| 27   | 8759407,59 | 874288,21  | 3766      | -                   | 5/20            | 251               | 800               | 1250        | 1598               |
| 29   | 8777973,80 | 850967,11  | 3203      | -                   | 4/20            | 250               | 705               | 1252        | 1899               |
| 33   | 8810626,53 | 810281,39  | 1320      | -                   | 5/19            | 255               | 752               | -           | -                  |
| 35   | 8816900,95 | 796186,12  | 803       | -                   | 4/21            | 249               | -                 | -           | -                  |
| 36   | 8823008,61 | 792725,53  | 556       | 4                   | 20              | -                 | -                 | -           | -                  |
| 37   | 8826463,32 | 790084,23  | 115       | -                   | 4/20            | -                 | -                 | -           | -                  |
| 38   | 8828659,53 | 787261,97  | 43        | -                   | 4               | -                 | -                 | -           | -                  |
| 39   | 8780724,72 | 722876,31  | 25        | -                   | 5               | -                 | -                 | -           | -                  |
| 40   | 8776376,79 | 728803,07  | 33        | -                   | 4/19            | -                 | -                 | -           | -                  |
| 41   | 8769423,32 | 738055,50  | 76        | -                   | 4/20            | -                 | -                 | -           | -                  |
| 42   | 8767430,67 | 740802,04  | 710       | -                   | 6/20            | 250               | 696               | -           | -                  |
| 43   | 8762956,44 | 746727,12  | 1725      | -                   | 5/20            | 250               | 749               | 1400        | -                  |
| 47   | 8736108,21 | 782428,53  | 2944      | -                   | 5/20            | 251               | 748               | 1200        | 1797               |
| 49   | 8718203,16 | 806225,23  | 3434      | -                   | 5/20            | 251               | 601               | 1298        | 1749               |
| 53   | 8646273,52 | 901152,69  | 4294      | -                   | 4/20            | 250               | 801               | 1300        | 1398               |
| 57   | 8573909,61 | 995627,10  | 4412      | -                   | 4/20            | 251               | 598               | 1249        | 1799               |
| 58   | 8515644,70 | 938395,65  | 4445      | -                   | 4/20            | 251               | 650               | 1350        | 1800               |
| 62   | 8590015,84 | 845799,47  | 4274      | -                   | 4/20            | 250               | 651               | 1249        | 1650               |
| 66   | 8663960,94 | 752622,12  | 3283      | -                   | 5/21            | 250               | 648               | 1249        | 1747               |
| 68   | 8682385,25 | 729276,27  | 2890      | -                   | 5/20            | 299               | 648               | 999         | 1747               |
| 72   | 8705411,99 | 700062,15  | 1664      | -                   | 4/20            | 251               | 750               | 1245        | -                  |
| 73   | 8709962,88 | 694189,94  | 575       | -                   | 5/20            | 252               | -                 | -           | -                  |
| 74   | 8712380,80 | 691070,95  | 73        | -                   | 5/19            | -                 | -                 | -           | -                  |
| 75   | 8716849,40 | 685370,07  | 35        | -                   | 4               | -                 | -                 | -           | -                  |

St #: station identification number; Latitude/ Longitude: geographical positions (UTM, Datum - SIRGAS 2000); Depth: location true depths; and Sampling depths per each water mass: <sup>1</sup> Mixture Water; <sup>2</sup> Tropical Water; <sup>3</sup> South Atlantic Central Water; <sup>4</sup> Antarctic Intermediate Water; <sup>5</sup> Upper North Atlantic Deep Water.