

Fig. S1

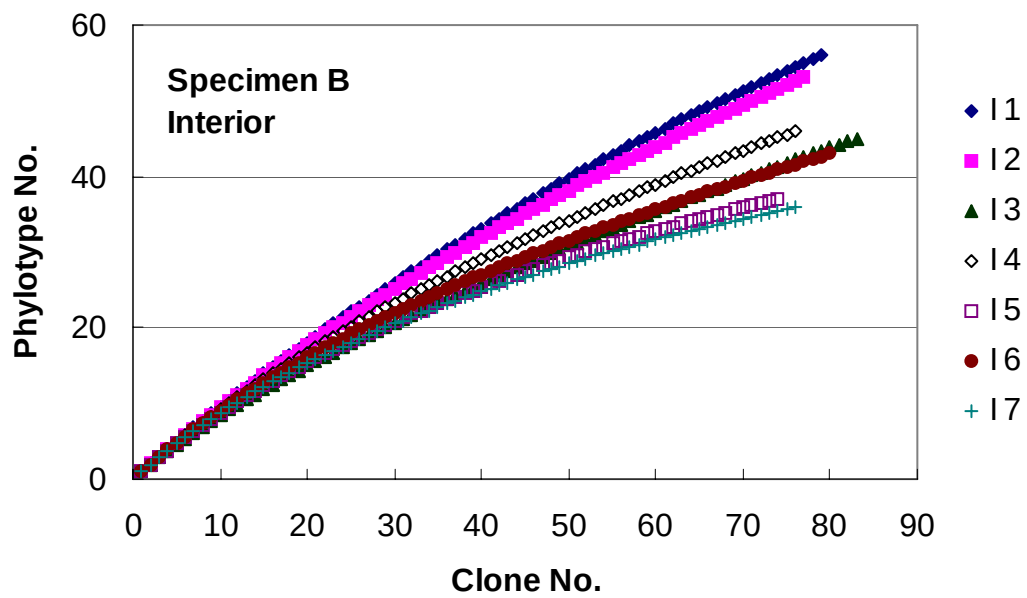
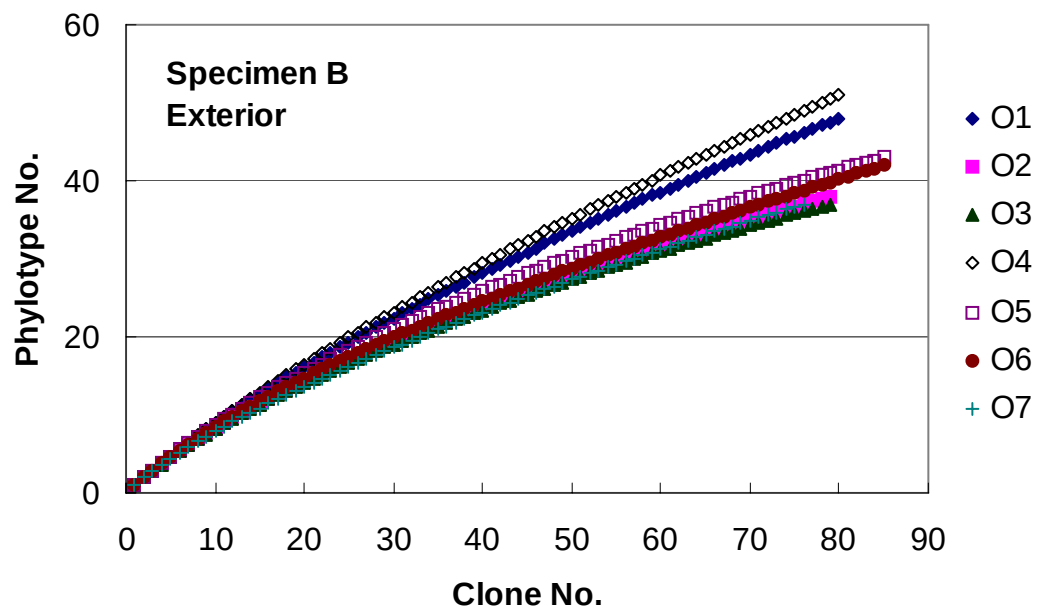


Table S1. Composition (%) of phospholipid and neutral lipid fatty acids from sampled sections of the moss pillar specimen A. Note that “0.0” indicates “not detected”.

| Fatty acids            | Phospholipid fatty acids |      |      |      |      |      |      |                  |      |      |      |      |      |      | Neutral lipid fatty acids |      |      |      |      |      |      |                  |      |      |      |      |      |      |
|------------------------|--------------------------|------|------|------|------|------|------|------------------|------|------|------|------|------|------|---------------------------|------|------|------|------|------|------|------------------|------|------|------|------|------|------|
|                        | Interior section         |      |      |      |      |      |      | Exterior section |      |      |      |      |      |      | Interior section          |      |      |      |      |      |      | Exterior section |      |      |      |      |      |      |
|                        | I1                       | I2   | I3   | I4   | I5   | I6   | I7   | O1               | O2   | O3   | O4   | O5   | O6   | O7   | I1N                       | I2N  | I3N  | I4N  | I5N  | I6N  | I7N  | O1N              | O2N  | O3N  | O4N  | O5N  | O6N  | O7N  |
| 8:00                   | 0.0                      | 0.0  | 0.0  | 0.0  | 0.2  | 0.0  | 0.0  | 0.0              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0                       | 0.1  | 0.1  | 0.1  | 0.0  | 0.0  | 0.0  | 0.0              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 9:00                   | 0.0                      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0                       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 10:00                  | 0.0                      | 0.0  | 0.0  | 0.0  | 0.1  | 0.0  | 0.0  | 0.0              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0                       | 0.1  | 0.1  | 0.1  | 0.1  | 0.1  | 0.1  | 0.0              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 11:00                  | 0.0                      | 0.0  | 0.0  | 0.0  | 0.1  | 0.0  | 0.0  | 0.1              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0                       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 11:1 $\Delta$ 10c      | 0.0                      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0                       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0              | 0.0  | 0.0  | 0.0  | 0.2  | 0.2  | 0.0  |
| 12:00                  | 0.0                      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.1  | 0.0              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0                       | 0.0  | 0.5  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 12:1 $\Delta$ 11c      | 0.0                      | 0.0  | 0.0  | 0.0  | 0.1  | 0.0  | 0.0  | 0.0              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0                       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 13:00                  | 0.0                      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.2  | 0.0              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0                       | 0.0  | 0.1  | 0.1  | 0.0  | 0.0  | 0.3  | 0.2              | 0.1  | 0.0  | 0.2  | 0.2  | 0.2  | 0.2  |
| i14:0                  | 0.0                      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0                       | 0.0  | 0.0  | 0.1  | 0.0  | 0.0  | 0.0  | 0.0              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 14:00                  | 0.0                      | 0.0  | 0.0  | 0.0  | 0.2  | 0.0  | 0.1  | 0.0              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.2                       | 0.5  | 0.5  | 0.3  | 0.1  | 0.1  | 0.5  | 1.1              | 0.7  | 0.9  | 1.3  | 0.0  | 0.0  | 0.0  |
| 13:1 $\Delta$ 12c      | 0.0                      | 0.0  | 0.2  | 0.2  | 2.5  | 1.2  | 2.5  | 0.0              | 0.7  | 0.5  | 0.7  | 1.9  | 2.0  | 1.7  | 0.0                       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0              | 0.0  | 0.0  | 0.0  | 3.4  | 3.0  | 1.2  |
| i15:0                  | 0.1                      | 0.0  | 0.1  | 0.0  | 16.7 | 14.4 | 14.2 | 1.2              | 0.7  | 0.9  | 0.7  | 0.2  | 0.5  | 0.6  | 0.0                       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.1              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 14:1 $\Delta$ 9t       | 0.0                      | 0.0  | 0.0  | 0.2  | 0.0  | 0.0  | 0.0  | 0.0              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0                       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| a15:0                  | 0.0                      | 0.1  | 0.3  | 0.0  | 10.0 | 9.5  | 5.8  | 3.1              | 0.9  | 1.2  | 0.9  | 0.3  | 0.6  | 1.1  | 0.1                       | 0.2  | 0.2  | 0.3  | 0.1  | 0.0  | 0.3  | 0.2              | 0.0  | 0.1  | 0.1  | 0.0  | 0.0  | 0.0  |
| 14:1 $\Delta$ 9c       | 0.0                      | 0.0  | 0.1  | 0.5  | 0.2  | 0.0  | 0.5  | 0.0              | 0.2  | 0.6  | 0.5  | 0.1  | 0.0  | 0.0  | 0.0                       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 15:00                  | 0.0                      | 0.0  | 0.1  | 0.0  | 1.6  | 0.4  | 1.1  | 0.4              | 0.5  | 0.4  | 0.5  | 0.6  | 0.7  | 0.6  | 0.1                       | 0.3  | 0.3  | 0.2  | 0.3  | 0.4  | 0.5  | 0.4              | 0.3  | 0.2  | 0.4  | 0.5  | 0.7  | 0.5  |
| i16:0                  | 0.2                      | 0.0  | 0.4  | 0.3  | 5.2  | 3.7  | 3.6  | 0.9              | 0.4  | 0.6  | 0.4  | 0.1  | 0.3  | 0.3  | 0.3                       | 0.6  | 0.6  | 0.5  | 0.9  | 1.1  | 1.3  | 0.9              | 0.4  | 0.4  | 0.9  | 0.9  | 1.3  | 1.0  |
| 15:1 $\Delta$ 10t      | 1.0                      | 0.8  | 2.3  | 2.2  | 1.8  | 1.0  | 2.8  | 2.7              | 2.0  | 1.4  | 1.3  | 1.0  | 0.0  | 2.1  | 0.0                       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 6.9              | 0.0  | 0.0  | 0.2  | 0.0  | 0.0  | 0.0  |
| 15:1 $\Delta$ 10c      | 0.1                      | 0.0  | 0.0  | 0.0  | 0.1  | 1.9  | 0.0  | 0.0              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0                       | 0.0  | 0.0  | 0.4  | 0.0  | 0.0  | 0.0  | 0.0              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 16:00                  | 4.7                      | 3.6  | 10.4 | 9.7  | 4.6  | 2.1  | 3.3  | 18.0             | 22.1 | 18.1 | 18.7 | 14.5 | 26.3 | 23.0 | 8.1                       | 8.4  | 8.2  | 7.9  | 7.7  | 7.2  | 7.2  | 9.0              | 0.0  | 6.8  | 7.2  | 10.5 | 10.1 | 8.3  |
| a17:0/                 | 0.0                      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0                       | 0.0  | 0.2  | 0.2  | 0.0  | 0.0  | 0.3  | 0.7              | 0.1  | 0.1  | 0.2  | 0.2  | 0.1  | 0.2  |
| 16:1 $\Delta$ 9c       | 1.7                      | 1.1  | 4.0  | 3.0  | 6.3  | 7.7  | 7.8  | 9.3              | 5.5  | 7.4  | 6.2  | 2.5  | 3.7  | 4.1  | 0.3                       | 0.5  | 1.0  | 0.5  | 0.4  | 0.4  | 0.7  | 2.2              | 1.8  | 1.1  | 1.1  | 2.5  | 2.0  | 1.3  |
| 17:00                  | 0.4                      | 0.3  | 0.8  | 0.9  | 1.2  | 0.5  | 1.1  | 0.7              | 0.6  | 0.7  | 0.7  | 0.7  | 0.6  | 0.6  | 0.0                       | 0.0  | 0.0  | 0.4  | 0.0  | 0.0  | 0.0  | 0.1              | 0.0  | 0.0  | 0.0  | 0.3  | 0.2  | 0.1  |
| i18:0                  | 0.3                      | 0.2  | 0.7  | 0.6  | 0.8  | 4.2  | 0.7  | 0.3              | 0.0  | 0.4  | 0.2  | 0.4  | 0.4  | 0.6  | 0.0                       | 0.0  | 0.2  | 0.0  | 0.0  | 0.0  | 0.0  | 0.1              | 0.0  | 0.0  | 0.0  | 0.1  | 0.2  | 0.2  |
| 17:1 $\Delta$ 10c      | 0.0                      | 0.0  | 0.5  | 0.4  | 0.5  | 0.0  | 0.0  | 0.6              | 0.4  | 0.6  | 0.0  | 0.1  | 0.2  | 0.0  | 0.0                       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.5              | 0.1  | 0.1  | 0.1  | 0.1  | 0.0  | 0.0  |
| 18:00                  | 6.4                      | 5.3  | 7.7  | 7.4  | 7.2  | 8.1  | 10.9 | 5.7              | 5.1  | 9.7  | 9.6  | 5.3  | 3.7  | 3.9  | 4.5                       | 3.2  | 3.1  | 3.7  | 3.6  | 3.5  | 3.3  | 4.0              | 1.6  | 2.4  | 2.4  | 2.3  | 2.1  | 2.0  |
| 18:1 $\Delta$ 6t       | 0.1                      | 0.2  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0                       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 18:1 $\Delta$ 9t       | 0.7                      | 0.1  | 1.2  | 1.0  | 1.0  | 0.0  | 1.3  | 0.9              | 0.6  | 0.9  | 0.7  | 0.2  | 0.4  | 0.5  | 0.0                       | 0.0  | 0.1  | 2.6  | 0.0  | 0.0  | 0.0  | 0.0              | 0.1  | 0.0  | 0.1  | 0.1  | 0.0  | 0.1  |
| 18:1 $\Delta$ 11t      | 5.8                      | 3.1  | 2.0  | 2.0  | 0.0  | 3.1  | 3.4  | 1.5              | 0.2  | 0.0  | 0.0  | 0.4  | 0.0  | 0.0  | 7.3                       | 9.5  | 8.7  | 5.7  | 8.2  | 8.1  | 8.3  | 8.7              | 8.6  | 8.5  | 8.1  | 10.0 | 8.7  | 10.0 |
| 18:1 $\Delta$ 9c       | 0.0                      | 0.0  | 13.8 | 18.3 | 0.2  | 7.1  | 4.0  | 9.1              | 7.4  | 6.6  | 6.0  | 6.5  | 5.1  | 5.4  | 0.0                       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 18:1 $\Delta$ 11c      | 0.0                      | 4.6  | 14.2 | 13.4 | 0.0  | 0.0  | 0.0  | 0.0              | 0.6  | 0.7  | 0.6  | 5.4  | 5.9  | 5.5  | 0.2                       | 0.4  | 0.5  | 0.3  | 0.1  | 0.3  | 0.6  | 0.7              | 0.4  | 0.5  | 0.5  | 0.8  | 0.7  | 0.7  |
| a19:0                  | 0.0                      | 0.3  | 0.0  | 0.0  | 9.3  | 9.8  | 12.8 | 13.1             | 0.0  | 11.9 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0                       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 19:00                  | 0.0                      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 4.2              | 3.2  | 8.2  | 6.1  | 3.1  | 2.1  | 2.2  | 6.9                       | 4.1  | 3.7  | 5.6  | 7.7  | 8.3  | 6.2  | 2.3              | 0.7  | 1.8  | 1.9  | 1.3  | 1.4  | 0.9  |
| 18:2 $\Delta$ 9-12c    | 2.0                      | 4.3  | 6.9  | 6.6  | 7.9  | 6.6  | 4.2  | 11.9             | 20.2 | 11.4 | 17.3 | 24.0 | 17.4 | 17.8 | 23.9                      | 20.7 | 20.4 | 20.2 | 20.4 | 19.6 | 19.4 | 17.4             | 15.2 | 20.3 | 19.4 | 14.2 | 15.4 | 17.6 |
| 19:0cyc                | 75.3                     | 66.3 | 6.3  | 8.6  | 5.9  | 5.9  | 4.3  | 0.0              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 3.6                       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| i20:0                  | 0.0                      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0                       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 19:1 $\Delta$ 10c      | 0.0                      | 1.2  | 4.3  | 4.2  | 0.9  | 0.0  | 2.4  | 0.0              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0                       | 0.0  | 0.0  | 0.3  | 0.0  | 0.0  | 0.0  | 0.2              | 0.1  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 20:00                  | 0.0                      | 0.7  | 1.7  | 1.9  | 1.1  | 0.0  | 0.6  | 0.8              | 0.6  | 0.9  | 0.8  | 0.6  | 0.5  | 0.4  | 0.3                       | 0.7  | 0.6  | 0.6  | 0.6  | 0.7  | 0.6  | 0.6              | 0.4  | 0.6  | 0.6  | 0.8  | 0.8  | 0.7  |
| 18:3 $\Delta$ 6-9-12c  | 0.0                      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0              | 0.3  | 0.0  | 0.0  | 0.4  | 0.3  | 0.3  | 0.0                       | 0.0  | 0.0  | 0.2  | 0.0  | 0.0  | 0.0  | 0.0              | 0.0  | 0.1  | 0.0  | 0.1  | 0.0  | 0.0  |
| 20:1 $\Delta$ 11t      | 0.0                      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0              | 0.0  | 0.0  | 0.0  | 0.0  | 0.2  | 0.2  | 0.1                       | 0.1  | 0.2  | 0.0  | 0.0  | 0.0  | 0.0  | 0.1              | 0.2  | 0.0  | 0.2  | 0.2  | 0.2  | 0.3  |
| 20:1 $\Delta$ 11c      | 0.0                      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.2                       | 0.4  | 0.4  | 5.5  | 0.1  | 0.1  | 0.3  | 0.4              | 0.3  | 0.3  | 0.3  | 0.3  | 0.3  | 0.3  |
| 18:3 $\Delta$ 9-12-15c | 0.0                      | 5.0  | 8.4  | 8.5  | 7.8  | 7.2  | 5.6  | 10.6             | 17.8 | 7.4  | 12.5 | 20.0 | 20.8 | 19.7 | 24.5                      | 27.8 | 27.2 | 21.9 | 28.6 | 28.8 | 27.0 | 26.7             | 25.1 | 32.1 | 31.1 | 25.9 | 27.0 | 27.4 |
| 21:00                  | 0.0                      |      |      |      |      |      |      |                  |      |      |      |      |      |      |                           |      |      |      |      |      |      |                  |      |      |      |      |      |      |

Table S2 Detailed list of phylotypes generated from PCR clones of 16S rRNA gene in the sectioned moss pillar specimen A.

| Phylotype           | No. of clones | Closest sequence/organism                                  | Accession No. | Identity | Alignment lengths | Closest organism                                  | Accession No. | Identity | Alignment lengths | Distribution of clones |    |    |    |    |    |    |                  |    |    |    |    |    |    |   |  |
|---------------------|---------------|------------------------------------------------------------|---------------|----------|-------------------|---------------------------------------------------|---------------|----------|-------------------|------------------------|----|----|----|----|----|----|------------------|----|----|----|----|----|----|---|--|
|                     |               |                                                            |               |          |                   |                                                   |               |          |                   | Exterior section       |    |    |    |    |    |    | Interior section |    |    |    |    |    |    |   |  |
|                     |               |                                                            |               |          |                   |                                                   |               |          |                   | O1                     | O2 | O3 | O4 | O5 | O6 | O7 | I1               | I2 | I3 | I4 | I5 | I6 | I7 |   |  |
| Cyanobacteria       |               |                                                            |               |          |                   |                                                   |               |          |                   |                        |    |    |    |    |    |    |                  |    |    |    |    |    |    |   |  |
| MPB1-1              | 1             | Uncultured bacterium clone FCPP565                         | EF515965      | 99.4     | 1419              | Chloroplast <i>Climacium dendroides</i>           | DQ493874      | 87.2     | 1425              |                        | 1  |    |    |    |    |    |                  |    |    |    |    |    |    |   |  |
| MPB1-2              | 1             | Uncultured cyanobacterium clone RJ094                      | DQ181682      | 99.3     | 1413              | <i>Leptolyngbya frigida</i> ANT.LH52.2            | AY493575      | 94.2     | 1413              |                        | 1  |    |    |    |    |    |                  |    |    |    |    |    |    |   |  |
| MPB1-3              | 30            | Uncultured cyanobacterium clone RJ088                      | DQ181681      | 100      | 1412              | <i>Leptolyngbya frigida</i> ANT.LH64B.1           | AY493577      | 98.3     | 1412              | 8                      | 4  | 4  | 1  | 3  | 5  | 5  |                  |    |    |    |    |    |    |   |  |
| MPB1-4              | 1             | Uncultured cyanobacterium clone RD065                      | DQ181701      | 96.4     | 1399              | <i>Phormidium autumnale</i> Arct-Ph5              | DQ493873      | 95.8     | 1415              |                        | 1  |    |    |    |    |    |                  |    |    |    |    |    |    |   |  |
| MPB1-5              | 9             | Uncultured bacterium clone ANTLV1_H06                      | DQ521499      | 99.9     | 1410              | <i>Leptolyngbya</i> sp. Greenland_9               | DQ431004      | 94.8     | 1413              |                        | 5  |    |    | 3  | 1  |    |                  |    |    |    |    |    |    |   |  |
| MPB1-6              | 1             | <i>Phormidium autumnale</i> SAG 78.79                      | EF654084      | 99.0     | 1411              | <i>Phormidium autumnale</i> Ant-Ph68              | DQ493874      | 99.0     | 1413              |                        | 1  |    |    |    |    |    |                  |    |    |    |    |    |    |   |  |
| MPB1-7              | 2             | Uncultured bacterium clone FCPS666                         | EF516746      | 98.5     | 1411              | <i>Nostoc</i> sp.                                 | EF174228      | 98.4     | 1411              |                        |    |    |    |    | 2  |    |                  |    |    |    |    |    |    |   |  |
| MPB1-8              | 18            | Uncultured cyanobacterium clone RJ102                      | DQ181684      | 99.9     | 1408              | <i>Leptolyngbya antarctica</i> ANT.LH67.1         | AY493572      | 99.8     | 1409              | 5                      | 5  |    |    | 2  |    | 6  |                  |    |    |    |    |    |    |   |  |
| MPB1-9              | 2             | Uncultured cyanobacterium clone H-A07                      | DQ181740      | 98.8     | 1329              | <i>Synechococcus</i> sp. PCC 7502                 | AF448080      | 96.6     | 1408              | 1                      | 1  |    |    |    |    |    |                  |    |    |    |    |    |    |   |  |
| Alphaproteobacteria |               |                                                            |               |          |                   |                                                   |               |          |                   |                        |    |    |    |    |    |    |                  |    |    |    |    |    |    |   |  |
| MPB1-10             | 2             | Uncultured gamma proteobacterium clone AS13                | EU283353      | 94.0     | 1434              | alpha proteobacterium A0839                       | AF236002      | 87.9     | 1437              |                        |    |    |    |    |    |    | 2                |    |    |    |    |    |    |   |  |
| MPB1-11             | 1             | Uncultured alpha proteobacterium clone AKYH1214            | AY921890      | 94.0     | 1347              | <i>Methylocystis</i> sp. m1511                    | DQ852349      | 89.6     | 1443              | 1                      |    |    |    |    |    |    |                  |    |    |    |    |    |    |   |  |
| MPB1-12             | 9             | Uncultured alpha proteobacterium clone AKYH1214            | AY921890      | 98.3     | 1338              | <i>Labrys wisconsinensis</i>                      | EF382666      | 92.4     | 1427              | 1                      |    | 1  |    | 3  |    |    |                  |    | 3  |    |    |    |    | 1 |  |
| MPB1-13             | 1             | Uncultured alpha proteobacterium clone ADK-MOh02-80        | EF520418      | 93.9     | 1419              | alpha proteobacterium CRIB-04                     | DQ123621      | 92.1     | 1421              |                        |    | 1  |    |    |    |    |                  |    |    |    |    |    |    |   |  |
| MPB1-14             | 1             | Uncultured alpha proteobacterium clone AKYH1214            | AY921890      | 97.5     | 1338              | <i>Labrys wisconsinensis</i>                      | EF382666      | 91.5     | 1391              |                        |    |    | 1  |    |    |    |                  |    |    |    |    |    |    |   |  |
| MPB1-15             | 2             | Uncultured bacterium clone C14                             | DQ304805      | 93.9     | 1416              | alpha proteobacterium PX3.14                      | AY337602      | 93.8     | 1416              |                        | 1  |    |    | 1  |    |    |                  |    |    |    |    |    |    |   |  |
| MPB1-16             | 1             | Uncultured bacterium clone X33                             | DQ083106      | 97.7     | 1416              | <i>Labrys wisconsinensis</i>                      | EF382666      | 92.9     | 1419              |                        |    |    |    |    |    |    |                  |    | 1  |    |    |    |    |   |  |
| MPB1-17             | 1             | Uncultured bacterium clone BacC-s_056                      | EU335215      | 92.4     | 1416              | alpha proteobacterium P-20                        | AM411930      | 91.3     | 1320              |                        |    |    |    |    |    |    |                  |    |    |    |    |    |    | 1 |  |
| MPB1-18             | 1             | Uncultured bacterium clone MSB-2H8                         | EF125464      | 89.9     | 1419              | mucus bacterium 96                                | AY654833      | 87.3     | 1405              |                        |    |    |    |    |    |    |                  |    |    |    |    |    |    | 1 |  |
| MPB1-19             | 4             | Uncultured alpha proteobacterium clone K6-C56              | EF612395      | 99.7     | 1413              | <i>Rhodobium orientis</i>                         | D30792        | 91.9     | 1419              | 1                      |    |    |    |    |    |    |                  | 1  | 1  | 1  |    |    |    |   |  |
| MPB1-20             | 2             | Uncultured soil bacterium clone 43C_MJK                    | EF540365      | 97.5     | 1414              | Candidatus <i>Reyranella massiliensis</i>         | EF394922      | 89.5     | 1414              |                        |    |    |    |    |    |    |                  |    |    |    |    | 2  |    |   |  |
| MPB1-21             | 1             | Uncultured bacterium clone M14C28                          | EU331401      | 93.9     | 1415              | <i>Labrys wisconsinensis</i>                      | EF382666      | 91.5     | 1419              | 1                      |    |    |    |    |    |    |                  |    |    |    |    |    |    |   |  |
| MPB1-22             | 3             | Uncultured <i>Hyphomicrobiaceae</i> bacterium clone D25_45 | EU266918      | 96.1     | 1410              | <i>Pedomicrobium australicum</i>                  | X97693        | 96.0     | 1410              |                        |    |    |    |    |    |    |                  | 1  |    |    |    | 1  | 1  |   |  |
| MPB1-23             | 2             | Uncultured bacterium clone S-Jos_56                        | DQ017933      | 95.9     | 1413              | <i>Phyllobacterium</i> sp. ORS 1419               | AJ968695      | 91.9     | 1413              |                        |    |    |    |    |    |    |                  |    |    |    |    |    | 2  |   |  |
| MPB1-24             | 2             | Uncultured bacterium clone MSB-2H8                         | EF125464      | 94.6     | 1418              | endosymbiont 2 of <i>Inanidrilus makropetalos</i> | AJ890096      | 89.5     | 1428              | 1                      |    |    |    |    | 1  |    |                  |    |    |    |    |    |    |   |  |
| MPB1-25             | 2             | Uncultured bacterium clone RT_57                           | EU644207      | 99.5     | 1407              | alpha proteobacterium CRIB-04                     | DQ123621      | 95.8     | 1413              |                        |    |    | 2  |    |    |    |                  |    |    |    |    |    |    |   |  |
| MPB1-26             | 1             | Uncultured gamma proteobacterium clone AS13                | EU283353      | 87.4     | 1413              | alpha proteobacterium A0839                       | AF236002      | 84.7     | 1416              |                        |    |    |    | 1  |    |    |                  |    |    |    |    |    |    |   |  |
| MPB1-27             | 24            | Uncultured bacterium clone 655092                          | DQ404752      | 96.6     | 1413              | <i>Bradyrhizobium</i> genosp. Z                   | AJ785292      | 92.1     | 1411              | 1                      | 1  | 1  | 2  | 3  | 4  | 1  | 1                | 1  | 1  | 2  | 3  | 2  | 1  |   |  |
| MPB1-28             | 11            | Uncultured <i>Hyphomicrobiaceae</i> bacterium clone        | EU266801      | 99.4     | 1412              | <i>Nordella oligomobilis</i>                      | AF370880      | 92.9     | 1415              |                        |    |    |    | 4  |    |    |                  | 2  | 1  | 2  |    | 1  |    | 1 |  |
| MPB1-29             | 10            | Uncultured bacterium clone AKAU3590                        | DQ125591      | 98.2     | 1412              | <i>Rhizobiales</i> genosp. AB                     | AJ810382      | 96.5     | 1411              |                        | 2  | 1  |    |    |    |    |                  | 1  | 2  | 1  |    | 3  |    |   |  |
| MPB1-30             | 6             | Uncultured bacterium clone AKAU3867                        | DQ125754      | 99.1     | 1412              | alpha proteobacterium CRIB-04                     | DQ123621      | 94.4     | 1413              |                        |    |    |    |    |    |    |                  |    |    | 4  |    | 2  |    |   |  |
| MPB1-31             | 3             | Uncultured soil bacterium clone 43C_MJK                    | EF540365      | 99.9     | 1412              | Candidatus <i>Reyranella massiliensis</i>         | EF394922      | 90.9     | 1411              |                        |    | 1  |    |    |    |    |                  | 1  |    |    |    |    | 1  |   |  |
| MPB1-32             | 1             | Uncultured bacterium clone RO53                            | EF219021      | 98.3     | 1412              | alpha proteobacterium Shinshu-th1                 | AB121772      | 98.2     | 1412              | 1                      |    |    |    |    |    |    |                  |    |    |    |    |    |    |   |  |
| MPB1-33             | 157           | Uncultured gamma proteobacterium clone AS13                | EU283353      | 99.4     | 1410              | alpha proteobacterium A0839                       | AF236002      | 89.4     | 1417              | 3                      | 15 | 10 | 16 | 16 | 14 | 19 | 7                | 3  | 6  | 13 | 12 | 11 | 12 |   |  |
| MPB1-34             | 1             | Uncultured gamma proteobacterium clone AS13                | EU283353      | 94.4     | 1416              | <i>Kaistia</i> sp. B1-1                           | AM409363      | 89.2     | 1412              |                        |    |    |    |    |    |    |                  |    |    |    |    |    |    | 1 |  |
| MPB1-35             | 5             | Uncultured soil bacterium clone 33C_MJK                    | EF540361      | 99.7     | 1409              | alpha proteobacterium CRIB-02                     | DQ123619      | 98.2     | 1409              |                        |    |    | 2  |    |    | 2  |                  |    |    |    |    |    |    | 1 |  |
| MPB1-36             | 1             | Uncultured bacterium clone AKAU3867                        | DQ125754      | 95.7     | 1410              | alpha proteobacterium CRIB-04                     | DQ123621      | 92.1     | 1411              | 1                      |    |    |    |    |    |    |                  |    |    |    |    |    |    |   |  |
| MPB1-37             | 1             | Uncultured gamma proteobacterium clone AS13                | EU283353      | 99.0     | 1352              | alpha proteobacterium A0839                       | AF236002      | 88.8     | 1349              |                        |    |    |    |    |    |    |                  |    |    |    |    | 1  |    |   |  |
| MPB1-38             | 2             | Uncultured gamma proteobacterium clone AS13                | EU283353      | 94.2     | 1410              | <i>Hyphomicrobium aestuarii</i>                   | Y14304        | 90.2     | 1413              |                        |    |    |    |    | 2  |    |                  |    |    |    |    |    |    |   |  |
| MPB1-39             | 1             | Uncultured alpha proteobacterium clone ADK-MOh02-80        | EF520418      | 96.1     | 1410              | <i>Afipia</i> genosp. 12                          | U87783        | 93.5     | 1409              |                        |    |    |    |    |    |    |                  | 1  |    |    |    |    |    |   |  |
| MPB1-40             | 5             | Uncultured alpha proteobacterium clone: Dolo_04            | AB257630      | 96.4     | 1426              | <i>Methylocystis</i> sp. m261                     | DQ852351      | 92.4     | 1410              | 1                      |    |    |    |    |    |    |                  | 2  | 2  |    |    |    |    |   |  |
| MPB1-41             | 1             | Uncultured bacterium clone FCPT613                         | EF516292      | 94.9     | 1405              | <i>Rhizobium</i> sp. Lv6.1Se                      | DQ422964      | 93.5     | 1409              |                        |    |    |    |    |    |    |                  |    |    |    |    | 1  |    |   |  |
| MPB1-42             | 9             | Uncultured <i>Hyphomicrobiaceae</i> bacterium clone D10_43 | EU266807      | 99.2     | 1411              | <i>Rhizobiales</i> genosp. AB                     | AJ810382      | 95.7     | 1408              |                        | 1  |    |    |    |    |    |                  | 1  | 3  |    | 1  | 1  | 1  | 1 |  |
| MPB1-43             | 1             | Uncultured bacterium clone AKAU3950                        | DQ125807      | 93.7     | 1424              | endosymbiont of <i>Acanthamoeba</i> sp. AC305     | AY549548      | 88.9     | 1422              |                        |    |    | 1  |    |    |    |                  |    |    |    |    |    |    |   |  |
| MPB1-44             | 2             | Uncultured forest soil bacterium clone DUNssu168           | AY913375      | 93.8     | 1409              | <i>Blastochloris sulfoviridis</i>                 | D86514        | 92.8     | 1410              |                        |    |    |    | 2  |    |    |                  |    |    |    |    |    |    |   |  |
| MPB1-45             | 1             | Uncultured gamma proteobacterium clone AS13                | EU283353      | 94.0     | 1413              | <i>Phenylobacterium</i> sp. 4T06                  | EF486316      | 89.3     | 1405              |                        |    |    |    |    | 1  |    |                  |    |    |    |    |    |    |   |  |
| MPB1-46             | 1             | Uncultured marine bacterium clone SJC1.32                  | DQ071107      | 98.3     | 1409              | <i>Afipia</i> genosp. 12                          | U87783        | 98.2     | 1410              |                        | 1  |    |    |    |    |    |                  |    |    |    |    |    |    |   |  |
| MPB1-47             | 2             | Uncultured gamma proteobacterium clone AS13                | EU283353      | 95.3     | 1410              | <i>Xanthobacter</i> sp. COX                       | AY307925      | 88.6     | 1412              |                        |    |    |    | 2  |    |    |                  |    |    |    |    |    |    |   |  |
| MPB1-48             | 1             | Uncultured gamma proteobacterium clone AS13                | EU283353      | 98.8     | 1375              | alpha proteobacterium A0839                       | AF236002      | 89.1     | 1349              |                        |    |    |    |    |    |    |                  | 1  |    |    |    |    |    |   |  |
| MPB1-49             | 5             | Uncultured bacterium clone AKAU3592                        | DQ125593      | 97.9     | 1408              | <i>Hyphomicrobium</i> sp. PMC                     | AF279787      | 96.7     | 1388              |                        |    |    |    |    | 2  |    |                  |    | 1  | 2  |    |    |    |   |  |

[illegible]



|                |    |                                                         |          |      |      |                                        |          |      |      |   |   |   |   |   |   |   |   |   |
|----------------|----|---------------------------------------------------------|----------|------|------|----------------------------------------|----------|------|------|---|---|---|---|---|---|---|---|---|
| MPB1-150       | 1  | Uncultured bacterium clone D12_04                       | EU266814 | 98.3 | 1449 | unidentified eubacterium clone BSV31   | AJ229193 | 83.4 | 1418 |   |   |   |   |   |   |   |   | 1 |
| MPB1-151       | 1  | Uncultured bacterium clone AKAU3845                     | DQ125736 | 86.8 | 1455 | <i>Pelotomaculum isophthalicum</i>     | AB232785 | 85.4 | 1462 |   |   |   |   |   |   |   |   | 1 |
| MPB1-152       | 5  | Uncultured bacterium clone AP10U.293                    | AM278620 | 90.1 | 1460 | <i>Clostridium alkalicellum</i>        | AY959944 | 90.0 | 1449 |   |   |   |   |   |   |   | 3 | 2 |
| MPB1-153       | 3  | Uncultured bacterium clone: BS131                       | AB240269 | 97.8 | 1376 | <i>Acetivibrio cellulolyticus</i>      | L35516   | 92.9 | 1377 |   |   |   |   |   |   |   |   | 3 |
| MPB1-154       | 11 | <i>Clostridium bowmanii</i>                             | AJ506119 | 98.4 | 1449 | <i>Clostridium bowmanii</i>            | AJ506119 | 98.4 | 1449 |   |   |   | 6 | 4 | 1 |   |   |   |
| MPB1-155       | 2  | <i>Acetivibrio cellulolyticus</i>                       | L35516   | 94.6 | 1437 | <i>Acetivibrio cellulolyticus</i>      | L35516   | 94.6 | 1437 |   |   | 1 | 1 |   |   |   |   |   |
| MPB1-156       | 2  | <i>Clostridium piliforme</i>                            | DQ352806 | 87.9 | 1447 | <i>Clostridium piliforme</i>           | DQ352806 | 87.9 | 1447 |   |   |   |   |   |   |   | 2 |   |
| MPB1-157       | 2  | Uncultured bacterium clone 17RHF8                       | AJ863357 | 95.6 | 1437 | unidentified eubacterium clone BSV72   | AJ229216 | 95.1 | 1421 |   |   |   |   |   |   |   |   | 2 |
| Chloroflexi    |    |                                                         |          |      |      |                                        |          |      |      |   |   |   |   |   |   |   |   |   |
| MPB1-158       | 2  | Uncultured soil bacterium clone 2_C1                    | EU589291 | 90.3 | 1395 | green non-sulfur bacterium AK-6        | AB079644 | 88.5 | 1403 |   | 2 |   |   |   |   |   |   |   |
| MPB1-159       | 10 | Uncultured <i>Chloroflexi</i> bacterium clone MSB-4D11  | DQ811875 | 88.5 | 1455 | <i>Caldiilinea aerophila</i>           | AB067647 | 88.0 | 1437 | 1 |   | 1 | 4 |   |   |   | 2 | 1 |
| MPB1-160       | 1  | Uncultured <i>Chloroflexi</i> bacterium clone A251      | EU283571 | 96.6 | 1333 | <i>Belliilinea caldifistulae</i>       | AB243672 | 87.2 | 1361 |   |   |   |   |   | 1 |   |   |   |
| MPB1-161       | 1  | Uncultured bacterium clone pLW-96                       | DQ067035 | 97.6 | 1348 | <i>Belliilinea caldifistulae</i>       | AB243672 | 88.8 | 1371 |   |   |   |   |   | 1 |   |   |   |
| MPB1-162       | 7  | Uncultured bacterium clone pLW-96                       | DQ067035 | 98.8 | 1348 | <i>Belliilinea caldifistulae</i>       | AB243672 | 89.9 | 1441 |   |   |   | 1 |   |   | 2 | 1 | 2 |
| MPB1-163       | 2  | Uncultured bacterium clone: FD21                        | AB354630 | 93.0 | 1347 | <i>Caldiilinea aerophila</i>           | AB067647 | 86.2 | 1434 |   |   |   |   |   | 1 | 1 |   |   |
| MPB1-164       | 2  | Uncultured sludge bacterium H39                         | AF234690 | 97.8 | 1432 | <i>Belliilinea caldifistulae</i>       | AB243672 | 85.4 | 1435 |   | 2 |   |   |   |   |   |   |   |
| MPB1-165       | 5  | Uncultured organism clone MAT-CR-H1-D06                 | EU245068 | 90.7 | 1430 | <i>Dehalococcoides</i> sp. BHI80-15    | AJ431246 | 83.6 | 1441 |   | 5 |   |   |   |   |   |   |   |
| MPB1-166       | 1  | Uncultured bacterium clone: RB390                       | AB240366 | 94.7 | 1427 | <i>Belliilinea caldifistulae</i>       | AB243672 | 85.7 | 1437 |   |   | 1 |   |   |   |   |   |   |
| MPB1-167       | 3  | Uncultured organism clone MAT-CR-H1-D06                 | EU245068 | 87.2 | 1425 | <i>Anaerolinea thermophila</i>         | AB046413 | 81.0 | 1431 |   | 3 |   |   |   |   |   |   |   |
| MPB1-168       | 1  | Uncultured <i>Chloroflexi</i> bacterium clone MSB-4D11  | DQ811875 | 87.7 | 1444 | <i>Caldiilinea aerophila</i>           | AB067647 | 87.1 | 1426 |   |   |   | 1 |   |   |   |   |   |
| MPB1-169       | 1  | Uncultured organism clone MAT-CR-H1-D06                 | EU245068 | 91.5 | 1427 | <i>Dehalococcoides</i> sp. BHI80-52    | AJ431247 | 81.1 | 1442 |   |   |   |   | 1 |   |   |   |   |
| MPB1-170       | 3  | Anaerobic filamentous bacterium IMO-1                   | AB109437 | 93.4 | 1428 | anaerobic filamentous bacterium IMO-1  | AB109437 | 93.4 | 1428 |   |   |   |   |   | 1 | 1 | 1 |   |
| MPB1-171       | 1  | Anaerobic filamentous bacterium IMO-1                   | AB109437 | 91.7 | 1424 | anaerobic filamentous bacterium IMO-1  | AB109437 | 91.7 | 1424 |   |   |   |   |   |   | 1 |   |   |
| MPB1-172       | 1  | Uncultured bacterium clone FFCH5499                     | EU134006 | 93.8 | 1322 | <i>Dehalococcoides</i> sp. BHI80-15    | AJ431246 | 85.2 | 1450 |   |   |   |   |   |   |   | 1 |   |
| MPB1-173       | 3  | Anaerobic filamentous bacterium IMO-1                   | AB109437 | 93.5 | 1427 | anaerobic filamentous bacterium IMO-1  | AB109437 | 93.5 | 1427 |   |   |   |   | 2 |   |   | 1 |   |
| MPB1-174       | 3  | Uncultured soil bacterium clone C043                    | AF507690 | 95.8 | 1426 | <i>Caldiilinea aerophila</i>           | AB067647 | 90.3 | 1427 |   |   |   |   |   |   |   | 1 | 1 |
| MPB1-175       | 1  | Uncultured <i>Chloroflexi</i> bacterium clone Skagenf38 | DQ640704 | 92.5 | 1390 | <i>Caldiilinea aerophila</i>           | AB067647 | 89.5 | 1427 |   |   |   |   |   |   |   | 1 |   |
| MPB1-176       | 1  | Uncultured bacterium clone pLW-96                       | DQ067035 | 94.8 | 1352 | <i>Belliilinea caldifistulae</i>       | AB243672 | 88.2 | 1434 |   |   |   |   |   | 1 |   |   |   |
| MPB1-177       | 1  | Uncultured <i>Chloroflexi</i> bacterium clone Skagenf38 | DQ640704 | 95.5 | 1390 | <i>Caldiilinea aerophila</i>           | AB067647 | 89.9 | 1427 |   |   |   |   |   |   |   |   | 1 |
| MPB1-178       | 1  | Anaerobic filamentous bacterium IMO-1                   | AB109437 | 92.2 | 1428 | anaerobic filamentous bacterium IMO-1  | AB109437 | 92.2 | 1428 |   |   | 1 |   |   |   |   |   |   |
| MPB1-179       | 1  | Uncultured soil bacterium clone C043                    | AF507690 | 90.6 | 1426 | <i>Caldiilinea aerophila</i>           | AB067647 | 90.4 | 1428 |   |   |   |   |   |   |   | 1 |   |
| MPB1-180       | 2  | Uncultured bacterium SJA-35 clone SJA-35                | AJ009460 | 96.7 | 1423 | anaerobic filamentous bacterium KIBI-1 | AB109439 | 82.1 | 1430 |   |   |   |   |   | 1 |   | 1 |   |
| MPB1-181       | 1  | Uncultured <i>Chloroflexi</i> bacterium clone TK-SH17   | DQ463698 | 93.4 | 1424 | <i>Dehalococcoides</i> sp. BHI80-15    | AJ431246 | 86.0 | 1441 |   |   |   |   |   |   |   | 1 |   |
| MPB1-182       | 12 | Uncultured bacteriumclone: FD011                        | AB354620 | 95.2 | 1408 | <i>Caldiilinea aerophila</i>           | AB067647 | 88.6 | 1428 |   |   | 1 | 1 |   | 2 | 2 |   | 2 |
| MPB1-183       | 1  | Uncultured bacterium clone KIST-JJY023                  | EF594055 | 91.8 | 1433 | <i>Belliilinea caldifistulae</i>       | AB243672 | 91.0 | 1246 |   |   |   |   |   | 1 |   |   | 1 |
| MPB1-184       | 1  | Uncultured <i>Chloroflexi</i> bacterium clone HT06Ba12  | EU016438 | 95.2 | 1425 | <i>Dehalococcoides</i> sp. BHI80-15    | AJ431246 | 86.5 | 1439 |   |   |   | 1 |   |   |   |   |   |
| MPB1-185       | 1  | Uncultured eubacterium clone SM1D10                     | AF445676 | 91.5 | 1420 | <i>Anaerolinea thermophila</i>         | AB046413 | 81.3 | 1430 |   | 1 |   |   |   |   |   |   |   |
| MPB1-186       | 6  | Uncultured sludge bacterium S14                         | AF234733 | 96.7 | 1419 | <i>Anaerolinea thermophila</i>         | AB046413 | 82.6 | 1430 |   | 1 |   |   |   | 3 | 2 |   |   |
| MPB1-187       | 1  | Uncultured soil bacterium clone 97                      | AY493960 | 91.7 | 1423 | <i>Caldiilinea aerophila</i>           | AB067647 | 81.9 | 1439 |   |   |   |   |   |   | 1 |   |   |
| MPB1-188       | 1  | Uncultured organism clone MAT-CR-H1-D06                 | EU245068 | 88.3 | 1429 | <i>Caldiilinea aerophila</i>           | AB067647 | 81.8 | 1435 |   |   | 1 |   |   |   |   |   |   |
| MPB1-189       | 1  | Uncultured bacterium clone B25                          | AF407718 | 87.1 | 1415 | <i>Anaerolinea thermophila</i>         | AB046413 | 79.8 | 1427 |   | 1 |   |   |   |   |   |   |   |
| MPB1-190       | 1  | Uncultured bacterium gene for , clone:NB-10             | AB117714 | 92.2 | 1412 | <i>Dehalococcoides</i> sp. BHI80-15    | AJ431246 | 80.5 | 1444 |   |   |   |   |   |   |   |   | 1 |
| MPB1-191       | 1  | Uncultured sludge bacterium S14                         | AF234733 | 88.2 | 1389 | <i>Longilinea arvoryzae</i>            | AB243673 | 79.6 | 1408 |   |   |   |   |   | 1 |   |   |   |
| MPB1-192       | 1  | Uncultured organism clone MAT-CR-P6-B01                 | EU246269 | 85.2 | 1375 | <i>Caldiilinea aerophila</i>           | AB067647 | 83.0 | 1439 |   |   | 1 |   |   |   |   |   |   |
| MPB1-193       | 1  | Uncultured bacterium gene for , clone:NB-10             | AB117714 | 90.7 | 1412 | <i>Dehalococcoides</i> sp. BHI80-15    | AJ431246 | 79.4 | 1446 |   |   |   | 1 |   |   |   |   |   |
| MPB1-194       | 3  | Uncultured bacterium clone VHS-B3-65                    | DQ394955 | 89.6 | 1445 | <i>Dehalococcoides</i> sp. BHI80-15    | AJ431246 | 83.8 | 1442 | 1 |   |   | 1 |   | 1 |   |   |   |
| MPB1-195       | 1  | Uncultured bacterium clone 101-103                      | EF157231 | 99.4 | 1402 | <i>Caldiilinea aerophila</i>           | AB067647 | 84.1 | 1431 |   | 1 |   |   |   |   |   |   |   |
| MPB1-196       | 6  | Uncultured <i>Chloroflexi</i> bacterium clone AKYH412   | AY921851 | 91.2 | 1333 | anaerobic filamentous bacterium KIBI-1 | AB109439 | 89.3 | 1339 |   |   |   |   |   | 2 | 2 |   | 2 |
| MPB1-197       | 4  | Uncultured bacterium clone B21                          | AY426444 | 90.6 | 1423 | anaerobic filamentous bacterium KIBI-1 | AB109439 | 89.8 | 1424 | 1 |   |   |   |   |   |   | 1 | 2 |
| MPB1-198       | 1  | Uncultured <i>Chloroflexi</i> bacterium clone Skagenf38 | DQ640704 | 90.5 | 1390 | <i>Caldiilinea aerophila</i>           | AB067647 | 87.1 | 1429 |   |   |   | 1 |   |   |   |   |   |
| Actinobacteria |    |                                                         |          |      |      |                                        |          |      |      |   |   |   |   |   |   |   |   |   |
| MPB1-199       | 8  | Uncultured bacterium clone BacC-s_028                   | EU335168 | 93.3 | 1469 | <i>Solirubrobacter</i> sp. Gsoil 921   | AB245336 | 92.5 | 1470 |   | 1 | 1 |   |   |   | 1 |   | 1 |
| MPB1-200       | 2  | Uncultured bacterium clone 59                           | DQ413118 | 97.2 | 1472 | bacterium Ellin504                     | AY960767 | 90.5 | 1470 |   |   |   |   |   |   |   | 2 |   |
| MPB1-201       | 1  | Uncultured bacterium clone AKAU3738                     | DQ125669 | 90.8 | 1472 | bacterium Ellin504                     | AY960767 | 88.3 | 1474 |   |   |   |   |   |   |   | 1 |   |
| MPB1-202       | 1  | Uncultured bacterium clone BacC-s_028                   | EU335168 | 91.6 | 1469 | <i>Solirubrobacter</i> sp. BNXN5-15    | EU332825 | 91.5 | 1436 |   |   |   |   |   |   |   | 1 |   |

|                |    |                                                  |          |      |      |                                      |          |      |      |  |   |   |   |   |   |   |   |   |   |   |
|----------------|----|--------------------------------------------------|----------|------|------|--------------------------------------|----------|------|------|--|---|---|---|---|---|---|---|---|---|---|
| MPB1-203       | 1  | Uncultured bacterium clone Par-s-73              | EF632907 | 94.0 | 1470 | bacterium Ellin504                   | AY960767 | 91.0 | 1471 |  |   |   |   |   |   |   |   |   | 1 |   |
| MPB1-204       | 1  | Uncultured bacterium clone Par-s-73              | EF632907 | 91.0 | 1470 | bacterium Ellin504                   | AY960767 | 88.7 | 1471 |  |   |   |   |   |   |   |   |   |   | 1 |
| MPB1-205       | 1  | Uncultured bacterium clone FCPP507               | EF516706 | 94.3 | 1463 | bacterium Ellin6048                  | AY234700 | 87.1 | 1475 |  |   |   |   |   | 1 |   |   |   |   |   |
| MPB1-206       | 4  | Uncultured bacterium clone FFCH11334             | EU132705 | 97.4 | 1326 | bacterium Ellin5273                  | AY234624 | 90.5 | 1455 |  |   |   |   |   | 1 | 1 | 2 |   |   |   |
| MPB1-207       | 1  | Uncultured bacterium clone FCPS579               | EF516519 | 91.5 | 1454 | Acidimicrobiae bacterium Ellin7143   | AY673309 | 88.4 | 1392 |  |   |   |   |   |   |   |   |   |   | 1 |
| MPB1-208       | 1  | Uncultured actinobacterium clone Elev_16S_449    | EF019267 | 92.1 | 1353 | Acidimicrobiae bacterium Ellin7143   | AY673309 | 89.4 | 1373 |  |   |   | 1 |   |   |   |   |   |   |   |
| MPB1-209       | 2  | Uncultured bacterium clone HTDD3                 | AF418956 | 98.8 | 1443 | Mycobacterium sp.                    | U30661   | 97.9 | 1442 |  |   |   |   |   |   |   | 1 |   | 1 |   |
| MPB1-210       | 2  | Uncultured bacterium clone FCPT402               | EF516392 | 87.4 | 1450 | actinobacterium WJ25                 | AY495954 | 85.2 | 1432 |  |   |   | 1 |   |   |   |   |   |   | 1 |
| Planctomycetes |    |                                                  |          |      |      |                                      |          |      |      |  |   |   |   |   |   |   |   |   |   |   |
| MPB1-211       | 1  | planctomycete A-2                                | AM056027 | 96.0 | 1481 | planctomycete A-2                    | AM056027 | 96.0 | 1481 |  |   |   |   |   |   |   |   |   | 1 |   |
| MPB1-212       | 1  | Uncultured soil bacterium clone MK36b            | EF540420 | 96.4 | 1479 | Planctomyces sp. 282                 | AJ231188 | 90.9 | 1402 |  |   |   | 1 |   |   |   |   |   |   |   |
| MPB1-213       | 1  | Uncultured bacterium clone FCPS655               | EF516837 | 93.7 | 1471 | planctomycete A-2                    | AM056027 | 80.1 | 1500 |  |   |   |   |   |   |   |   | 1 |   |   |
| MPB1-214       | 19 | Uncultured bacterium clone RT_46                 | EU644198 | 98.1 | 1455 | Planctomycetales bacterium Ellin7244 | AY673410 | 79.0 | 1417 |  | 1 |   | 2 | 3 | 3 | 2 | 1 | 3 | 1 | 2 |
| MPB1-215       | 3  | Uncultured bacterium clone B83                   | AF407728 | 95.0 | 1428 | planctomycete A-2                    | AM056027 | 81.5 | 1433 |  |   |   |   |   |   | 3 |   |   |   |   |
| MPB1-216       | 1  | Uncultured soil bacterium clone CWT SM02_H07     | DQ129094 | 94.0 | 1360 | Gemmata-like str. JW3-8s0            | AF239694 | 85.8 | 1473 |  |   | 1 |   |   |   |   |   |   |   |   |
| MPB1-217       | 1  | Uncultured bacterium clone: MIZ41                | AB179532 | 97.8 | 1462 | Planctomyces sp.                     | X81951   | 97.5 | 1458 |  |   |   |   |   | 1 |   |   |   |   |   |
| MPB1-218       | 3  | Uncultured bacterium clone FCPUS85               | EF516721 | 92.4 | 1388 | planctomycete str. 292               | AJ231182 | 87.8 | 1470 |  |   |   |   |   |   | 2 | 1 |   |   |   |
| MPB1-219       | 1  | Uncultured bacterium clone 655077                | DQ404737 | 97.0 | 1449 | Pirellula staleyi                    | AF399914 | 86.9 | 1452 |  |   |   |   |   |   |   | 1 |   |   |   |
| MPB1-220       | 1  | Uncultured bacteriumclone: RB522                 | AB240225 | 96.2 | 1450 | Pirellula sp.                        | X81945   | 87.7 | 1390 |  |   |   |   |   |   |   |   |   |   | 1 |
| MPB1-221       | 1  | Uncultured bacterium clone LD_Ba_Top_B17         | EU644231 | 93.7 | 1442 | Pirellula sp.                        | X81947   | 87.4 | 1460 |  |   | 1 |   |   |   |   |   |   |   |   |
| MPB1-222       | 1  | Uncultured bacterium clone: RB522                | AB240225 | 93.6 | 1396 | Pirellula sp.                        | X81945   | 86.9 | 1334 |  | 1 |   |   |   |   |   |   |   |   |   |
| MPB1-223       | 1  | Uncultured bacterium clone MSB-2F2               | EF125449 | 94.5 | 1450 | Pirellula sp.                        | X81942   | 90.1 | 1449 |  |   |   |   |   |   |   |   | 1 |   |   |
| MPB1-224       | 2  | Isophaera sp.                                    | X81960   | 91.4 | 1447 | Isosphaera sp.                       | X81960   | 91.4 | 1447 |  |   | 1 |   |   |   |   |   | 1 |   |   |
| MPB1-225       | 4  | Uncultured bacterium clone 028C11_P_BN_P5        | BX294792 | 98.9 | 1282 | Pirellula sp.                        | X81947   | 87.4 | 1461 |  |   |   |   |   |   |   |   | 1 | 1 | 1 |
| MPB1-226       | 19 | Uncultured bacterium clone FFCH8351              | EU135099 | 97.3 | 1317 | planctomycete str. 292               | AJ231182 | 89.1 | 1390 |  | 2 | 1 | 1 | 3 | 4 | 4 |   | 3 |   |   |
| MPB1-227       | 1  | Uncultured bacterium clone B34                   | EU234160 | 96.8 | 1442 | Planctomyces maris                   | AJ231184 | 85.7 | 1468 |  |   |   |   |   |   |   |   |   |   | 1 |
| MPB1-228       | 1  | Uncultured bacterium clone FCPU701               | EF516278 | 92.0 | 1448 | Pirellula sp.                        | X81945   | 87.7 | 1390 |  | 1 |   |   |   |   |   |   |   |   |   |
| MPB1-229       | 1  | Uncultured bacterium clone Zplanc23              | EF602484 | 97.9 | 1337 | Planctomycetaceae                    | X81948   | 85.5 | 1446 |  |   |   |   |   |   |   |   |   |   | 1 |
| MPB1-230       | 1  | Uncultured bacterium clone MSB-2F5               | EF125452 | 92.0 | 1453 | planctomycete str. 391               | AJ231180 | 87.7 | 1450 |  |   |   |   |   |   |   | 1 |   |   |   |
| MPB1-231       | 1  | Uncultured forest soil bacterium clone DUNssu001 | AY913229 | 91.4 | 1445 | Pirellula sp.                        | X81941   | 86.1 | 1460 |  |   |   |   |   |   |   |   | 1 |   |   |
| MPB1-232       | 1  | Uncultured sludge bacterium H28                  | AF234749 | 98.8 | 1437 | Planctomyces sp.                     | X81953   | 86.4 | 1438 |  |   | 1 |   |   |   |   |   |   |   |   |
| MPB1-233       | 1  | Uncultured bacterium clone E101-2                | DQ001635 | 90.3 | 1446 | Pirellula staleyi                    | AF399914 | 88.1 | 1444 |  |   |   |   |   |   |   |   |   | 1 |   |
| MPB1-234       | 1  | Uncultured bacterium clone CM50                  | EF580983 | 90.5 | 1448 | Gemmata-like str. CJuql4             | AF239693 | 87.3 | 1446 |  |   |   |   |   | 1 |   |   |   |   |   |
| MPB1-235       | 1  | Uncultured planctomycete clone DEL32             | AJ616274 | 98.2 | 1301 | Planctomyces sp.                     | X81953   | 89.7 | 1432 |  |   |   |   |   |   |   | 1 |   |   |   |
| MPB1-236       | 2  | Uncultured soil bacterium clone 1430             | AY493903 | 92.0 | 1429 | Planctomycetales bacterium Ellin7244 | AY673410 | 90.3 | 1429 |  |   |   |   |   |   |   |   |   | 2 |   |
| MPB1-237       | 1  | Pirellula staleyi strain ATCC 35122              | AF399914 | 90.1 | 1447 | Pirellula staleyi                    | AF399914 | 90.1 | 1447 |  |   |   |   |   |   |   |   |   |   | 1 |
| MPB1-238       | 2  | Uncultured soil bacterium clone F6-89            | EF688380 | 93.5 | 1426 | Planctomycetales bacterium Ellin7244 | AY673410 | 91.6 | 1425 |  |   |   |   |   |   |   | 1 |   |   | 1 |
| MPB1-239       | 3  | Uncultured bacterium clone FCPP540               | EF516114 | 94.0 | 1426 | Planctomycetales bacterium Ellin7244 | AY673410 | 89.8 | 1424 |  |   | 1 |   |   |   |   |   | 1 |   | 1 |
| MPB1-240       | 3  | Uncultured bacterium clone FCPT643               | EF516397 | 93.8 | 1422 | Planctomycetales bacterium Ellin6207 | AY673166 | 93.3 | 1426 |  |   |   |   |   |   |   | 1 | 2 |   |   |
| MPB1-241       | 3  | Planctomycetales bacterium Ellin7244             | AY673410 | 94.0 | 1424 | Planctomycetales bacterium Ellin7244 | AY673410 | 94.0 | 1424 |  |   |   |   |   |   |   | 1 | 2 |   |   |
| MPB1-242       | 1  | Uncultured bacterium isolate BM47                | EF126214 | 87.1 | 1363 | Planctomycetales bacterium Ellin7244 | AY673410 | 81.6 | 1197 |  |   |   | 1 |   |   |   |   |   |   |   |
| MPB1-243       | 1  | Uncultured bacterium clone CV104                 | EF530681 | 94.7 | 1433 | Pirellula staleyi                    | AF399914 | 85.8 | 1381 |  |   |   |   |   |   |   |   | 1 |   |   |
| MPB1-244       | 1  | Uncultured bacterium clone HB33                  | EF648043 | 97.6 | 1413 | Planctomycetales bacterium Ellin6207 | AY673166 | 77.7 | 1435 |  |   |   |   |   |   |   |   |   |   | 1 |
| MPB1-245       | 12 | Uncultured bacterium isolate BM47                | EF126214 | 88.8 | 1406 | Planctomycetales bacterium Ellin7244 | AY673410 | 81.2 | 1244 |  | 1 |   |   |   | 1 |   | 1 | 1 | 1 | 2 |
| MPB1-246       | 1  | Uncultured bacterium isolate BM47                | EF126214 | 89.4 | 1405 | Planctomycetales bacterium Ellin7224 | AY673390 | 81.1 | 1231 |  | 1 |   |   |   |   |   |   |   |   |   |
| Acidobacteria  |    |                                                  |          |      |      |                                      |          |      |      |  |   |   |   |   |   |   |   |   |   |   |
| MPB1-247       | 2  | Uncultured bacterium clone S-Rwb_28              | DQ017927 | 98.9 | 1476 | Acidobacteria bacterium Ellin345     | CP000360 | 82.1 | 1483 |  |   |   | 1 |   |   |   |   |   |   | 1 |
| MPB1-248       | 1  | Uncultured Acidobacteria bacterium clone DON5    | DQ829644 | 95.8 | 1476 | delta proteobacterium EtOHpelo       | AY771935 | 83.0 | 1463 |  |   |   |   |   |   |   |   | 1 |   |   |
| MPB1-249       | 2  | Uncultured bacterium clone S-Rwb_47              | DQ017940 | 92.3 | 1476 | Desulfuromonadales bacterium Tc37    | AB260047 | 82.2 | 1503 |  |   |   |   |   | 2 |   |   |   |   |   |
| MPB1-250       | 14 | Uncultured bacterium clone S-Rwb_47              | DQ017940 | 95.6 | 1474 | Desulfuromonadales bacterium Tc37    | AB260047 | 83.2 | 1503 |  | 1 |   | 2 |   | 1 | 1 |   | 1 | 3 | 1 |
| MPB1-251       | 1  | Uncultured sludge bacterium A34                  | AF234731 | 98.0 | 1476 | Holophaga foetida                    | X77215   | 83.5 | 1483 |  |   |   |   |   |   |   |   | 1 |   |   |
| MPB1-252       | 1  | Uncultured soil bacterium clone 39C_MJK          | EF540360 | 98.6 | 1475 | Holophaga foetida                    | X77215   | 83.0 | 1485 |  |   |   |   |   |   |   |   |   |   | 1 |
| MPB1-253       | 1  | Uncultured soil bacterium clone 39C_MJK          | EF540360 | 98.1 | 1411 | Holophaga foetida                    | X77215   | 83.3 | 1416 |  |   |   |   |   |   |   |   |   |   | 1 |
| MPB1-254       | 1  | Uncultured Acidobacteria bacterium clone 41b15   | AY281356 | 97.3 | 1473 | Holophaga foetida                    | X77215   | 82.9 | 1483 |  |   |   |   |   | 1 |   |   |   |   |   |
| MPB1-255       | 2  | Uncultured bacterium clone i10                   | DQ453809 | 95.5 | 1479 | Geobacter sulfurreducens PCA         | AE017180 | 83.0 | 1492 |  |   |   |   |   |   |   |   |   | 1 | 1 |

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| MPB1-256 | 2 | Uncultured bacterium clone CCU21 | AF485788 | 92.4 | 1436 | <i>Desulfuromonadales</i> bacterium Tc37 | AB260047 | 81.2 | 1450 |  |  |  |  |  |  |  |  |  |  | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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Table S3. Detailed list of phylotypes generated from PCR clones of 16S rRNA gene in the sectioned moss pillar specimen B.

| Phylotype           | No. of clones | Closest sequence/organism                             | Accession No. | Identity | Alignment lengths | Closest organism                          | Accession No. | Identity | Alignment lengths | Distribution of clones |    |    |    |    |    |    |                  |    |    |    |    |    |    |   |   |  |
|---------------------|---------------|-------------------------------------------------------|---------------|----------|-------------------|-------------------------------------------|---------------|----------|-------------------|------------------------|----|----|----|----|----|----|------------------|----|----|----|----|----|----|---|---|--|
|                     |               |                                                       |               |          |                   |                                           |               |          |                   | Exterior section       |    |    |    |    |    |    | Interior section |    |    |    |    |    |    |   |   |  |
|                     |               |                                                       |               |          |                   |                                           |               |          |                   | O1                     | O2 | O3 | O4 | O5 | O6 | O7 | I1               | I2 | I3 | I4 | I5 | I6 | I7 |   |   |  |
| Cyanobacteria       |               |                                                       |               |          |                   |                                           |               |          |                   |                        |    |    |    |    |    |    |                  |    |    |    |    |    |    |   |   |  |
| MPB2-1              | 21            | Uncultured cyanobacterium clone RJ102                 | DQ181684.     | 99.1     | 1410              | <i>Leptolyngbya antarctica</i> ANT.LH67.1 | AY493572_     | 98.9     | 1411              | 2                      | 5  | 1  | 2  | 3  | 8  |    |                  |    |    |    |    |    |    |   |   |  |
| MPB2-2              | 56            | Uncultured bacterium clone ANTLV1_H06                 | DQ521499.     | 98.9     | 1414              | <i>Leptolyngbya</i> sp. Greenland_9       | DQ431004_     | 94.0     | 1418              | 4                      | 13 | 12 | 5  | 9  | 7  | 6  |                  |    |    |    |    |    |    |   |   |  |
| MPB2-3              | 9             | Uncultured cyanobacterium clone RJ088                 | DQ181681.     | 98.2     | 1416              | <i>Leptolyngbya frigida</i> ANT.LH64B.1   | AY493577_     | 96.8     | 1416              | 2                      | 5  | 1  | 1  |    |    |    |                  |    |    |    |    |    |    |   |   |  |
| MPB2-4              | 70            | Uncultured cyanobacterium clone RJ088                 | DQ181681.     | 97.5     | 1413              | <i>Leptolyngbya frigida</i> ANT.LH53B.2   | AY493576_     | 96.5     | 1413              | 9                      | 8  | 10 | 4  | 10 | 12 | 17 |                  |    |    |    |    |    |    |   |   |  |
| MPB2-5              | 1             | <i>Synechococcus</i> sp. PCC 7502                     | AF448080.     | 97.6     | 1409              | <i>Synechococcus</i> sp. PCC 7502         | AF448080_1    | 97.6     | 1409              |                        |    |    | 1  |    |    |    |                  |    |    |    |    |    |    |   |   |  |
| MPB2-6              | 1             | <i>Gloeobacter violaceus</i> PCC 7421                 | BA000045.     | 90.4     | 1407              | <i>Gloeobacter violaceus</i> PCC 7421     | BA000045_     | 90.4     | 1407              |                        |    |    | 1  |    |    |    |                  |    |    |    |    |    |    |   |   |  |
| MPB2-7              | 1             | Uncultured cyanobacterium clone RD069                 | DQ181675.     | 96.7     | 1417              | <i>Leptolyngbya frigida</i> ANT.LH53B.2   | AY493576_     | 92.2     | 1418              |                        |    |    | 1  |    |    |    |                  |    |    |    |    |    |    |   |   |  |
| MPB2-8              | 1             | Uncultured cyanobacterium clone RJ094                 | DQ181682.     | 99.4     | 1413              | <i>Leptolyngbya frigida</i> ANT.LH52.2    | AY493575_     | 93.9     | 1413              |                        |    |    |    | 1  |    |    |                  |    |    |    |    |    |    |   |   |  |
| MPB2-9              | 5             | Uncultured bacterium clone FCPS666 1                  | EF516746.1    | 98.2     | 1412              | <i>Nostoc</i> sp.                         | EF174228_1    | 98.1     | 1412              |                        | 1  | 2  | 1  |    |    |    | 1                |    |    |    |    |    |    |   |   |  |
| MPB2-10             | 1             | Uncultured bacterium clone JSC2-A6                    | DQ532167.     | 96.3     | 1415              | <i>Chroococcidiopsis</i> sp. CC1          | DQ914863_     | 93.4     | 1413              |                        |    |    |    |    | 1  |    |                  |    |    |    |    |    |    |   |   |  |
| MPB2-11             | 3             | Uncultured cyanobacterium clone RJ088                 | DQ181681.     | 97.0     | 1413              | <i>Leptolyngbya frigida</i> ANT.LH64B.1   | AY493577_     | 95.4     | 1413              |                        | 2  |    |    |    |    | 1  |                  |    |    |    |    |    |    |   |   |  |
| Alphaproteobacteria |               |                                                       |               |          |                   |                                           |               |          |                   |                        |    |    |    |    |    |    |                  |    |    |    |    |    |    |   |   |  |
| MPB2-12             | 1             | Uncultured alpha proteobacterium clone HAVOmat83      | EF032744.1    | 92.8     | 1422              | bacterium Ellin6089                       | AY234741_     | 91.7     | 1426              |                        |    |    |    |    |    |    |                  | 1  |    |    |    |    |    |   |   |  |
| MPB2-13             | 3             | Uncultured soil bacterium clone HN1-6                 | AY221596.     | 98.7     | 1405              | <i>Prosthecomicrobium pneumaticum</i>     | AB017203_     | 93.4     | 1405              | 1                      |    |    |    |    |    |    |                  | 2  |    |    |    |    |    |   |   |  |
| MPB2-14             | 6             | Uncultured Hyphomicrobiaceae bacterium clone D10_43   | EU266807.     | 99.7     | 1409              | alpha proteobacterium Shinshu-th1         | AB121772_     | 95.6     | 1411              |                        |    |    |    |    |    |    |                  | 2  |    | 1  | 1  | 1  | 1  |   |   |  |
| MPB2-15             | 1             | Uncultured bacterium clone FCPT613                    | EF516292.1    | 94.9     | 1405              | <i>Rhizobium</i> sp. Lv6.1Se              | DQ422964_     | 93.7     | 1407              |                        |    |    |    |    |    |    |                  |    |    | 1  |    |    |    |   |   |  |
| MPB2-16             | 2             | Uncultured bacterium clone M1-34                      | EU015114.     | 95.2     | 1409              | <i>Mesorhizobium</i> sp. N39              | AF282927_1    | 95.2     | 1407              |                        |    |    |    |    |    |    |                  | 2  |    |    |    |    |    |   |   |  |
| MPB2-17             | 9             | Uncultured Hyphomicrobiaceae bacterium clone D10_29   | EU266798.     | 98.5     | 1406              | <i>Hyphomicrobium</i> sp. PMC             | AF279787_1    | 97.5     | 1386              |                        |    |    | 1  | 1  | 1  |    |                  |    |    |    | 3  |    |    | 2 | 1 |  |
| MPB2-18             | 15            | Uncultured alpha proteobacterium clone AKYH1214       | AY921890.     | 98.4     | 1338              | <i>Labrys wisconsinensis</i>              | EF382666_1    | 92.4     | 1427              | 1                      |    |    |    |    |    |    |                  | 2  | 2  | 2  | 1  | 3  | 3  | 1 |   |  |
| MPB2-19             | 1             | <i>Hyphomicrobium zavarzinii</i> strain ZV-580        | Y14306.1      | 98.9     | 1401              | <i>Hyphomicrobium zavarzinii</i>          | Y14306_1      | 98.9     | 1401              |                        |    |    |    |    |    |    |                  |    |    | 1  |    |    |    |   |   |  |
| MPB2-20             | 2             | Uncultured soil bacterium clone 33C_MJK               | EF540361.1    | 99.6     | 1409              | alpha proteobacterium CRIB-02             | DQ123619_     | 98.2     | 1409              |                        |    |    |    |    |    |    |                  |    |    | 1  |    |    |    | 1 |   |  |
| MPB2-21             | 1             | Uncultured bacterium clone aaa30b10                   | DQ814512.     | 94.6     | 1414              | <i>Hyphomicrobium sulfonivorans</i>       | AF538931_1    | 92.9     | 1407              |                        |    |    |    |    |    |    |                  |    |    |    |    | 1  |    |   |   |  |
| MPB2-22             | 2             | Uncultured bacterium isolate BF0001B046               | AM697020      | 98.2     | 1405              | <i>Devosia ginsengisoli</i>               | AB271045_     | 96.9     | 1404              |                        |    |    |    |    |    |    |                  |    |    |    |    | 1  |    |   | 1 |  |
| MPB2-23             | 1             | Uncultured bacterium clone AKAU3805                   | DQ125710.     | 96.9     | 1405              | <i>Devosia</i> sp. 4_C16_46               | EF540511_1    | 95.4     | 1407              |                        |    |    |    |    |    |    |                  |    |    |    |    | 1  |    |   |   |  |
| MPB2-24             | 24            | Uncultured bacterium clone 5-21                       | DQ833466.     | 95.3     | 1387              | <i>Mesorhizobium loti</i>                 | U50165_1      | 89.0     | 1411              | 1                      |    |    |    |    |    | 1  |                  | 2  | 1  |    | 4  | 6  | 2  | 7 |   |  |
| MPB2-25             | 1             | Uncultured bacterium clone 31P4                       | AY845233.     | 95.4     | 1425              | <i>Rhodovibrio</i> sp. 2Mb1               | AY987846_     | 87.8     | 1423              |                        |    |    |    |    |    |    |                  |    |    |    |    | 1  |    |   |   |  |
| MPB2-26             | 1             | Uncultured bacterium clone AKAU3592                   | DQ125593.     | 95.0     | 1417              | <i>Hyphomicrobium</i> sp. Ellin112        | AF408954_1    | 94.2     | 1404              |                        |    |    |    |    |    |    |                  |    |    |    |    | 1  |    |   |   |  |
| MPB2-27             | 17            | Uncultured bacterium clone Pia-s-79                   | EF632942.1    | 98.7     | 1415              | <i>Rhodobium orientis</i>                 | D30792_1      | 91.8     | 1421              |                        |    |    |    |    |    | 1  |                  |    | 1  |    | 6  | 2  | 4  | 3 |   |  |
| MPB2-28             | 2             | Uncultured bacterium clone X33                        | DQ083106.     | 97.7     | 1414              | <i>Labrys wisconsinensis</i>              | EF382666_1    | 92.9     | 1417              |                        |    |    |    |    |    |    |                  |    |    |    |    | 1  | 1  |   |   |  |
| MPB2-29             | 3             | Uncultured bacterium clone 655092                     | DQ404752.     | 96.5     | 1413              | <i>Mesorhizobium</i> sp. SH2851           | AY141983_     | 92.1     | 1411              |                        |    |    |    |    |    |    |                  |    |    |    | 1  | 1  |    | 1 |   |  |
| MPB2-30             | 1             | Uncultured bacterium clone RT_57                      | EU644207.     | 99.4     | 1407              | alpha proteobacterium CRIB-04             | DQ123621_     | 95.8     | 1411              |                        |    |    |    |    |    |    |                  |    |    |    |    | 1  |    |   |   |  |
| MPB2-31             | 2             | <i>Mesorhizobium</i> sp. Ala-5 strain Ala-5           | AM491622      | 99.2     | 1407              | <i>Mesorhizobium plurifarum</i>           | Y14161_1      | 99.2     | 1407              |                        |    |    |    |    |    |    |                  |    | 1  |    |    |    | 1  |   |   |  |
| MPB2-32             | 1             | Uncultured soil bacterium clone 43C_MJK               | EF540365.1    | 99.8     | 1412              | <i>Candidatus Reyranelia massiliensis</i> | EF394922_1    | 90.8     | 1411              |                        |    |    |    |    |    |    |                  |    |    |    |    | 1  |    |   |   |  |
| MPB2-33             | 1             | Uncultured bacterium clone C14                        | DQ304805.     | 93.8     | 1414              | <i>Inquilinus limosus</i>                 | AY043375_     | 93.8     | 1410              |                        |    |    |    |    |    |    |                  |    |    |    |    |    | 1  |   |   |  |
| MPB2-34             | 5             | <i>Prosthecomicrobium pneumaticum</i>                 | AB017203.     | 94.6     | 1403              | <i>Prosthecomicrobium pneumaticum</i>     | AB017203_     | 94.6     | 1403              |                        |    |    |    |    |    | 1  |                  |    | 1  |    | 2  |    |    | 1 |   |  |
| MPB2-35             | 1             | Uncultured bacterium clone BacC-s_013                 | EU335176.     | 96.3     | 1407              | <i>Rhodomicrobium vannielii</i>           | AB250621_     | 93.4     | 1408              |                        |    |    |    |    |    |    |                  |    |    |    |    | 1  |    |   |   |  |
| MPB2-36             | 1             | Uncultured alpha proteobacterium clone HCM3MC78_2B_FL | EU373870.     | 94.1     | 1422              | <i>Rhodobium orientis</i>                 | D30792_1      | 92.7     | 1421              |                        |    |    |    |    |    |    |                  |    |    |    |    |    |    | 1 |   |  |
| MPB2-37             | 4             | Uncultured bacterium clone EV818CFSSAHH3              | DQ336968.     | 97.2     | 1404              | <i>Hyphomicrobium</i> sp. Ellin112        | AF408954_1    | 94.9     | 1392              |                        |    |    |    |    | 2  | 1  |                  |    |    |    |    |    | 1  |   |   |  |
| MPB2-38             | 1             | Uncultured marine bacterium clone SJC1.32             | DQ071107.     | 98.3     | 1407              | <i>Afpia</i> genosp. 12                   | U87783_1      | 98.2     | 1408              |                        |    |    |    |    |    |    |                  |    |    |    |    |    | 1  |   |   |  |
| MPB2-39             | 1             | Uncultured bacterium gene clone: 1617                 | AB286621.     | 97.0     | 1362              | <i>Maricaulis washingtonensis</i>         | AJ227804_1    | 89.1     | 1390              |                        |    |    |    |    |    |    |                  |    |    |    |    |    |    | 1 |   |  |
| MPB2-40             | 3             | Uncultured bacterium clone MSB-2H8                    | EF125464.1    | 94.5     | 1416              | alpha proteobacterium endosymbiont        | AJ890096_1    | 89.4     | 1426              |                        |    |    |    |    |    |    |                  |    | 1  |    |    |    |    | 1 | 1 |  |
| MPB2-41             | 1             | Uncultured bacterium clone Amb_16S_1385               | EF018894.1    | 93.5     | 1319              | <i>Candidatus Reyranelia massiliensis</i> | EF394922_1    | 85.3     | 1418              |                        |    |    |    |    |    |    |                  |    |    |    |    |    |    |   | 1 |  |
| MPB2-42             | 1             | Uncultured bacterium clone S-Jos_48                   | DQ017938.     | 97.7     | 1409              | <i>Rhizobiales</i> genosp. AB             | AJ810382_1    | 95.2     | 1409              |                        |    |    |    |    |    |    |                  |    |    |    |    |    |    |   | 1 |  |
| MPB2-43             | 5             | <i>Agrobacterium sanguineum</i> ATCC 25661            | AB062106.     | 99.0     | 1410              | <i>Agrobacterium sanguineum</i>           | AB062106_     | 99.0     | 1410              | 1                      |    |    |    | 2  | 1  |    | 1                |    |    |    |    |    |    |   |   |  |
| MPB2-44             | 5             | Uncultured alpha proteobacterium clone ss1_B_08_05    | EU050753.     | 96.0     | 1424              | <i>Rhodobium orientis</i>                 | D30792_1      | 92.3     | 1421              | 2                      |    |    |    | 2  | 1  |    |                  |    |    |    |    |    |    |   |   |  |
| MPB2-45             | 2             | Uncultured bacterium clone AKAU3590                   | DQ125591.     | 98.1     | 1412              | <i>Rhizobiales</i> genosp. AB             | AJ810382_1    | 96.4     | 1411              | 1                      |    |    |    |    |    |    |                  |    |    |    |    |    |    | 1 |   |  |
| MPB2-46             | 63            | Uncultured gamma proteobacterium clone AS13           | EU283353.     | 98.5     | 1411              | alpha proteobacterium A0839               | AF236002_1    | 88.9     | 1418              | 7                      | 1  | 2  | 3  | 2  | 4  | 2  | 6                | 3  | 13 | 5  | 5  | 3  | 7  |   |   |  |
| MPB2-47             | 3             | Uncultured alpha proteobacterium clone CB51E03        | EF471665.1    | 97.4     | 1375              | <i>Ketogulonicigenium vulgare</i>         | EU034641_1    | 95.5     | 1385              | 1                      |    |    |    | 1  |    |    |                  |    |    |    |    |    |    |   |   |  |
| MPB2-48             | 13            | Uncultured Hyphomicrobiaceae bacterium clone D10_36   | EU266801.     | 99.2     | 1413              | <i>Nordella oligomobilis</i>              | AF370880_1    | 92.7     | 1416              | 1                      |    |    |    |    |    |    |                  | 2  | 1  | 3  |    | 2  | 4  |   |   |  |
| MPB2-49             | 6             | <i>Rhodomicrobium vannielii</i> strain: TUT3402       | AB250621.     | 92.5     | 1405              | <i>Rhodomicrobium vannielii</i>           | AB250621_     | 92.5     | 1405              |                        | 3  | 1  |    |    |    | 1  | 1                |    |    |    |    |    |    |   |   |  |

|                     |    |                                                          |            |      |      |                                               |            |       |      |   |   |   |   |   |   |   |   |
|---------------------|----|----------------------------------------------------------|------------|------|------|-----------------------------------------------|------------|-------|------|---|---|---|---|---|---|---|---|
| MPB2-50             | 6  | Uncultured alpha proteobacterium clone CB31F04           | EF471652.1 | 96.7 | 1377 | <i>Rhodobacter</i> sp. EMB 174                | DQ413163_  | 96.2  | 1387 | 1 | 1 | 1 | 1 | 1 | 1 |   |   |
| MPB2-51             | 7  | Uncultured Hyphomicrobiaceae bacterium clone D25_45      | EU266918.  | 97.7 | 1409 | <i>Hyphomicrobium sulfonivorans</i>           | AF538931_1 | 96.1  | 1409 | 1 | 1 |   | 1 |   | 2 | 1 | 1 |
| MPB2-52             | 1  | Uncultured bacterium clone MSB-1E6                       | EF125408.1 | 97.5 | 1404 | <i>Pedomicrobium manganicum</i>               | X97691_1   | 93.8  | 1406 | 1 |   |   |   |   |   |   |   |
| MPB2-53             | 2  | Uncultured Hyphomicrobiaceae bacterium clone D25_45      | EU266918.  | 92.6 | 1408 | <i>Hyphomicrobium</i> sp. P2                  | AF148858_1 | 92.3  | 1408 |   | 1 | 1 |   |   |   |   |   |
| MPB2-54             | 13 | Uncultured bacterium clone: SWB02                        | AB294313.  | 97.1 | 1393 | alpha proteobacterium A0904                   | AF236001_1 | 90.5  | 1395 |   | 2 | 2 | 6 | 2 |   | 1 |   |
| MPB2-55             | 2  | Uncultured <i>Brevundimonas</i> clone: 3-90-ArvAB        | AB425055.  | 99.5 | 1383 | <i>Brevundimonas subvibrioides</i>            | AJ227784_1 | 99.2  | 1383 | 1 | 1 |   |   |   |   |   |   |
| MPB2-56             | 4  | <i>Hyphomonas</i> sp. MOLA 55 culture collection MOLA:55 | AM990830   | 98.7 | 1377 | <i>Hyphomonas polymorpha</i>                  | AJ227813_1 | 98.2  | 1377 |   | 1 | 1 |   | 1 | 1 |   |   |
| MPB2-57             | 18 | Uncultured bacterium clone F1W                           | DQ860029.  | 97.1 | 1406 | <i>Hyphomicrobium</i> sp. Ellin112            | AF408954_1 | 95.4  | 1391 | 2 | 5 | 2 | 6 | 3 |   |   |   |
| MPB2-58             | 4  | Uncultured Rhizobiales bacterium clone LPR22             | DQ130045.  | 97.7 | 1396 | alpha proteobacterium Shinshu-th1             | AB121772_  | 97.2  | 1415 |   |   |   |   |   | 2 |   | 1 |
| MPB2-59             | 1  | <i>Ketogulonogenium vulgare</i> strain 266-13B           | AF136846.  | 94.2 | 1386 | <i>Ketogulonicigenium vulgare</i>             | EU034641_1 | 94.1  | 1387 |   | 1 |   |   |   |   |   |   |
| MPB2-60             | 3  | Uncultured bacterium clone HP1B71                        | AF502215.  | 96.5 | 1389 | <i>Rhodobacter</i> sp. EMB 174                | DQ413163_  | 96.5  | 1388 | 2 | 1 |   |   |   |   |   |   |
| MPB2-61             | 2  | <i>Pseudoxanthobacter</i> soli strain CC-CC4             | EF465533.1 | 95.0 | 1410 | <i>Pseudoxanthobacter</i> soli                | EF465533_1 | 95.0  | 1410 |   | 1 |   |   | 1 |   |   |   |
| MPB2-62             | 5  | <i>Rhodomicrobium vannielii</i> strain: TUT3402          | AB250621.  | 91.9 | 1402 | <i>Rhodomicrobium vannielii</i>               | AB250621_  | 91.9  | 1402 |   | 1 | 2 | 2 |   |   |   |   |
| MPB2-63             | 1  | Uncultured alpha proteobacterium clone: Dolo_14          | AB257639.  | 96.0 | 1407 | <i>Sphingomonas asaccharolytica</i>           | Y09639_1   | 95.6  | 1407 |   |   | 1 |   |   |   |   |   |
| MPB2-64             | 1  | <i>Catellibacterium terrae</i>                           | DQ479950.  | 93.6 | 1381 | <i>Catellibacterium terrae</i>                | DQ479950_  | 93.6  | 1381 |   |   | 1 |   |   |   |   |   |
| MPB2-65             | 1  | <i>Ketogulonogenium vulgare</i> strain 266-13B           | AF136846.  | 95.5 | 1384 | <i>Ketogulonicigenium vulgare</i>             | EU034641_1 | 95.4  | 1384 |   |   |   |   | 1 |   |   |   |
| MPB2-66             | 1  | Uncultured bacterium clone AKIW1002                      | DQ129633.  | 93.9 | 1417 | bacterium str. 96446                          | AF227855_1 | 93.6  | 1416 |   |   |   |   | 1 |   |   |   |
| Betaproteobacteria  |    |                                                          |            |      |      |                                               |            |       |      |   |   |   |   |   |   |   |   |
| MPB2-67             | 2  | Uncultured beta proteobacterium clone CF_10              | EF562571.1 | 99.5 | 1455 | <i>Rhodocyclaceae</i> bacterium FTL9          | DQ451825_  | 98.7  | 1455 |   |   |   |   | 1 |   | 1 |   |
| MPB2-68             | 1  | Uncultured beta proteobacterium clone HAVOmat01          | EF032745.1 | 92.6 | 1463 | <i>Denitratisoma oestradiolicum</i>           | AY879297_  | 91.3  | 1459 |   |   |   |   | 1 |   |   |   |
| MPB2-69             | 2  | Uncultured Sterolibacterium sp. clone TM1_20             | DQ279355.  | 98.0 | 1390 | <i>Sterolibacterium denitrificans</i>         | AJ306683_1 | 91.5  | 1466 |   |   |   |   |   |   | 1 | 1 |
| MPB2-70             | 36 | Uncultured bacterium clone WM33                          | DQ415761.  | 98.8 | 1450 | <i>Thiobacillus aquaesulis</i>                | U58019_1   | 91.8  | 1455 |   |   |   |   | 1 | 4 | 7 | 3 |
| MPB2-71             | 1  | <i>Methylibium</i> sp. BAC199                            | EU130974.  | 97.8 | 1446 | <i>Methylibium</i> sp. BAC199                 | EU130974_1 | 97.8  | 1446 |   |   |   |   |   |   |   | 1 |
| MPB2-72             | 1  | Uncultured bacterium clone: MIZ05                        | AB179496.  | 98.4 | 1459 | <i>Denitratisoma oestradiolicum</i>           | AY879297_  | 92.3  | 1460 |   |   |   |   |   |   |   | 1 |
| MPB2-73             | 6  | Uncultured bacterium clone FCPT748                       | EF516313.1 | 99.0 | 1452 | bacterium Ellin6067                           | AY234719_  | 97.6  | 1458 |   | 1 |   |   |   |   | 1 | 1 |
| MPB2-74             | 3  | Uncultured bacterium clone VIR_B4                        | EF565154.1 | 97.8 | 1461 | beta proteobacterium pACH94                   | AY297809_  | 97.9  | 1450 | 1 |   |   |   | 1 |   |   | 2 |
| MPB2-75             | 1  | Uncultured bacterium clone 16                            | DQ413075.  | 91.9 | 1469 | perchlorate-reducing bacterium CR             | AY530552_  | 90.5  | 1466 |   | 1 |   |   |   |   |   |   |
| MPB2-76             | 2  | Uncultured soil bacterium clone 1_8MK_MJK                | EF540368.1 | 98.2 | 1457 | <i>Denitratisoma oestradiolicum</i>           | AY879297_  | 91.4  | 1460 |   |   | 2 |   |   |   |   |   |
| MPB2-77             | 5  | Uncultured bacterium clone 80                            | DQ413138.  | 95.7 | 1478 | bacterium Ellin6095                           | AY234747_  | 91.5  | 1473 | 1 |   | 1 |   | 1 |   | 1 | 1 |
| Gammaproteobacteria |    |                                                          |            |      |      |                                               |            |       |      |   |   |   |   |   |   |   |   |
| MPB2-78             | 2  | <i>Legionella dresdeniensis</i> type strain W03-356      | AM747393   | 94.5 | 1464 | <i>Legionella dresdeniensis</i>               | AM747393_  | 94.54 | 1464 |   |   |   |   | 1 |   | 1 |   |
| MPB2-79             | 3  | Uncultured gamma proteobacterium clone: 496              | AB252883.  | 91.8 | 1459 | iron-oxidizing acidophile m-1                 | AF387301_1 | 90.5  | 1463 |   |   |   |   | 2 | 1 |   |   |
| MPB2-80             | 1  | Uncultured bacterium clone SZB70                         | AM176875   | 99.2 | 1456 | <i>Halochromatium</i> sp. AR2202              | AJ401219_1 | 93.9  | 1459 |   |   |   |   |   |   | 1 |   |
| MPB2-81             | 1  | <i>Legionella yabuuchiae</i> strain:OA1-3                | AB233211.  | 90.8 | 1468 | <i>Legionella yabuuchiae</i>                  | AB233211_  | 90.8  | 1468 | 1 |   |   |   |   |   |   |   |
| MPB2-82             | 1  | Uncultured bacterium clone FCPS501                       | EF516173.1 | 89.4 | 1407 | endosymbiont of <i>Folsomia candida</i>       | AF327558_1 | 87.69 | 1414 | 1 |   |   |   |   |   |   |   |
| MPB2-83             | 1  | <i>Legionella</i> sp. strain LLAP11                      | X97362.1   | 96.3 | 1467 | <i>Legionella</i> sp.                         | X97362_1   | 96.25 | 1467 |   | 1 |   |   |   |   |   |   |
| MPB2-84             | 1  | <i>Legionella</i> sp. strain LLAP11                      | X97362.1   | 97.0 | 1466 | <i>Legionella</i> sp.                         | X97362_1   | 97    | 1466 |   | 1 |   |   |   |   |   |   |
| MPB2-85             | 1  | Uncultured bacterium clone FFCH12674                     | EU134741.  | 95.5 | 1376 | <i>Legionella</i> sp. IA55                    | AB058909_  | 91    | 1466 |   |   | 1 |   |   |   |   |   |
| MPB2-86             | 1  | Uncultured bacterium DSSD75                              | AY328773.  | 98.4 | 1419 | <i>Lucina nassula</i> gill symbiont           | X95229_1   | 90.77 | 1463 |   |   |   | 1 |   |   |   |   |
| MPB2-87             | 1  | Uncultured gamma proteobacterium clone LiUU-3-334        | AY509440.  | 94.8 | 1434 | bacterium Ellin339                            | AF498721_1 | 92.6  | 1459 |   |   |   |   | 1 |   |   |   |
| MPB2-88             | 1  | Uncultured soil bacterium clone 3_22MK                   | EF540407.1 | 94.8 | 1458 | bacterium Ellin339                            | AF498721_1 | 93.69 | 1459 |   |   |   |   |   | 1 |   |   |
| Deltaproteobacteria |    |                                                          |            |      |      |                                               |            |       |      |   |   |   |   |   |   |   |   |
| MPB2-89             | 1  | Uncultured delta proteobacterium clone HAVOmat82         | EF032751.1 | 94.0 | 1486 | <i>Geobacter sulfurreducens</i> PCA           | AE017180_2 | 85.3  | 1491 |   |   |   |   |   |   | 1 |   |
| MPB2-90             | 1  | <i>Desulfobacterium anilini</i> strain AK1               | EU020016.  | 93.8 | 1490 | <i>Desulfobacterium anilini</i>               | EU020016_1 | 93.8  | 1490 |   |   |   |   |   |   | 1 |   |
| MPB2-91             | 10 | <i>Desulfobacterium</i> sp. MB-2005                      | DQ146482.  | 94.8 | 1493 | <i>Desulfatirhabdium butyrativorans</i>       | DQ146482_  | 94.8  | 1493 |   |   |   |   | 1 | 2 | 3 | 1 |
| MPB2-92             | 1  | Uncultured bacterium clone C36                           | EU234271.  | 97.5 | 1478 | <i>Anaeromyxobacter dehalogenans</i>          | EU331405_1 | 85.8  | 1490 |   |   |   |   |   |   |   |   |
| MPB2-93             | 3  | <i>Syntrophobacter</i> sp. strain TsuA1                  | AJ237605.1 | 92.5 | 1482 | <i>Syntrophobacter</i> sp.                    | AJ237605_1 | 92.5  | 1482 |   |   |   |   |   | 3 |   |   |
| MPB2-94             | 5  | Sulfate-reducing bacterium STP23                         | AJ006620.2 | 97.0 | 1471 | sulfate-reducing bacterium STP23              | AJ006620_1 | 97.0  | 1471 |   |   |   |   | 1 | 2 | 1 | 1 |
| MPB2-95             | 2  | Uncultured bacterium clone 655973                        | DQ404843.  | 98.9 | 1482 | <i>Desulfobacca acetoxidans</i>               | AF002671_1 | 90.3  | 1489 |   | 1 |   |   |   | 1 |   |   |
| MPB2-96             | 2  | Uncultured delta proteobacterium clone 44a-B1-10 16S     | AY082457.  | 96.7 | 1443 | <i>Olavius crassitunicatus</i> endosymbiont   | AJ620511_1 | 92.7  | 1483 |   |   |   | 1 |   |   |   |   |
| MPB2-97             | 3  | Uncultured bacterium clone: Hados.Sed.Eubac.13           | AB355082.  | 96.0 | 1483 | <i>Desulfonema magnum</i>                     | U45989_1   | 92.3  | 1461 |   |   |   |   |   | 1 | 1 | 1 |
| MPB2-98             | 28 | Uncultured bacterium clone zEL43                         | DQ415836.  | 98.3 | 1466 | bacterium ROME95Asa                           | AY998140_  | 97.0  | 1469 |   |   |   |   | 2 | 1 | 4 | 6 |
| MPB2-99             | 2  | Uncultured bacterium clone ML-9-74.2                     | DQ520194.  | 89.6 | 1444 | dissimilatory selenate-respiring bacterium KM | DQ991964_  | 81.8  | 1461 |   |   |   |   |   |   |   | 2 |
| MPB2-100            | 4  | Uncultured bacterium clone P9X2b3F03                     | EU491136.  | 95.0 | 1478 | <i>Geobacter</i> sp. CLFeRB                   | DQ086800_  | 86.5  | 1417 |   |   |   |   |   | 1 |   | 3 |

|                             |    |                                                                     |            |      |      |                                            |            |       |      |   |   |   |   |   |   |   |   |   |   |
|-----------------------------|----|---------------------------------------------------------------------|------------|------|------|--------------------------------------------|------------|-------|------|---|---|---|---|---|---|---|---|---|---|
| MPB2-101                    | 1  | Uncultured bacterium clone FCPO510                                  | EF515967.1 | 96.1 | 1474 | <i>Haliangium tepidum</i>                  | AB062751_1 | 87.9  | 1480 |   |   |   |   |   |   |   |   |   | 1 |
| MPB2-102                    | 2  | Uncultured bacterium clone: SRRT32                                  | AB240477.  | 96.2 | 1470 | <i>Haliangium tepidum</i>                  | AB062751_1 | 89.3  | 1477 |   |   |   |   |   |   |   |   |   | 2 |
| MPB2-103                    | 1  | Uncultured bacterium clone PS-Ba100                                 | EU399670.  | 95.0 | 1449 | <i>Olavius algarvensis</i> endosymbiont    | AF328857_1 | 93.1  | 1445 | 1 |   |   |   |   |   |   |   |   |   |
| MPB2-104                    | 1  | Uncultured bacterium clone CCSD_RK730_B19                           | AY820722.  | 95.2 | 1451 | <i>Desulfobacterium anilini</i>            | AJ237601_1 | 81.4  | 1449 | 1 |   |   |   |   |   |   |   |   |   |
| MPB2-105                    | 2  | Uncultured bacterium clone P9X2b7A07                                | EU491164.  | 93.2 | 1479 | <i>Byssovorax cruenta</i>                  | AJ833647_1 | 90.3  | 1482 | 1 | 1 |   |   |   |   |   |   |   |   |
| MPB2-106                    | 20 | Uncultured delta proteobacterium clone HAVOmat82                    | EF032751.1 | 95.4 | 1484 | <i>Geobacter</i> sp. M21                   | EF527232_1 | 85.6  | 1490 | 1 | 1 |   |   | 2 | 2 | 3 | 6 | 3 | 2 |
| Unclassified proteobacteria |    |                                                                     |            |      |      |                                            |            |       |      |   |   |   |   |   |   |   |   |   |   |
| MPB2-107                    | 3  | Uncultured soil bacterium clone CWT SM03_G11                        | DQ129127.  | 96.0 | 1423 | <i>Desulfobacterium anilini</i>            | AJ237601_1 | 77.8  | 1492 |   |   |   |   |   |   | 2 |   |   | 1 |
| MPB2-108                    | 3  | Uncultured bacterium clone aab51g09                                 | DQ815224.  | 96.6 | 1465 | <i>Desulfobacterium anilini</i>            | EU020016_1 | 78.0  | 1473 |   | 1 |   |   |   | 1 |   | 1 |   |   |
| MPB2-109                    | 2  | Uncultured candidate division TM6 bacterium clone LKC_Acid_47       | EU038006.  | 93.4 | 1464 | <i>Desulfobacterium anilini</i>            | EU020016_1 | 78.3  | 1485 |   |   |   |   |   |   |   | 1 | 1 |   |
| MPB2-110                    | 1  | Uncultured bacterium clone WM49                                     | DQ415768.  | 98.5 | 1439 | candidate division OP11                    | AF047569_1 | 92.3  | 1056 | 1 |   |   |   |   |   |   |   |   |   |
| MPB2-111                    | 1  | Uncultured bacterium clone MD2896-B89                               | EU385703.  | 88.0 | 1471 | <i>Rhodanobacter</i> sp. BPC1              | AF494542_1 | 78.1  | 1446 | 1 |   |   |   |   |   |   |   |   |   |
| MPB2-112                    | 1  | Uncultured bacterium clone FFCH2941                                 | EU134553.  | 89.4 | 1376 | <i>Desulforegula conservatrix</i>          | AF243334_1 | 82.1  | 1489 |   | 1 |   |   |   |   |   |   |   |   |
| MPB2-113                    | 1  | Uncultured candidate division TM6 bacterium clone LKC_Acid_47       | EU038006.  | 95.6 | 1466 | <i>Cellvibrio japonicus</i>                | AF452103_1 | 79.4  | 1410 |   | 1 |   |   |   |   |   |   |   |   |
| MPB2-114                    | 1  | Uncultured bacterium clone: 1603                                    | AB286609.  | 87.1 | 1407 | <i>Planktothrix</i> sp. UVFP1              | AJ630646_1 | 78.2  | 1305 |   |   |   |   | 1 |   |   |   |   |   |
| Bacteroidetes               |    |                                                                     |            |      |      |                                            |            |       |      |   |   |   |   |   |   |   |   |   |   |
| MPB2-115                    | 1  | Uncultured bacterium clone LD_RB_27                                 | EU644164.  | 98.0 | 1444 | <i>Prolixibacter bellariivorans</i>        | AY918928_1 | 88.0  | 1438 |   |   |   |   | 1 |   |   |   |   |   |
| MPB2-116                    | 1  | Uncultured bacterium clone zEL21                                    | DQ415815.  | 98.6 | 1444 | bacterium XB45                             | AJ229237_1 | 90.0  | 1440 |   |   |   |   |   | 1 |   |   |   |   |
| MPB2-117                    | 2  | Uncultured bacterium clone c5LKS32                                  | AM086122   | 97.8 | 1449 | <i>Cytophaga fermentans</i>                | M58766_1   | 87.5  | 1443 |   |   |   |   | 1 | 1 |   |   |   |   |
| MPB2-118                    | 5  | Uncultured <i>Bacteroidetes</i> bacterium clone Skagenf55           | DQ640703.  | 95.5 | 1432 | <i>Lewinella nigricans</i>                 | AB301615_1 | 83.4  | 1467 |   |   |   |   |   | 3 |   | 1 | 1 |   |
| MPB2-119                    | 4  | Uncultured bacterium clone: RB423                                   | AB240370.  | 96.9 | 1445 | <i>Alkaliflexus imshenetskii</i>           | AJ784993_1 | 87.1  | 1452 | 1 | 2 |   |   |   |   |   | 1 |   |   |
| MPB2-120                    | 2  | Uncultured bacterium clone: 0726                                    | AB286446.  | 94.9 | 1424 | <i>Flexibacter tractuosus</i>              | AB078072_1 | 84.8  | 1451 |   |   |   |   |   |   |   | 1 |   | 1 |
| MPB2-121                    | 1  | Uncultured <i>Saprospiraceae</i> bacterium clone Epr34              | EU177737.  | 97.8 | 1307 | <i>Lewinella nigricans</i>                 | AB301615_1 | 88.0  | 1455 | 1 |   |   |   |   |   |   |   |   |   |
| MPB2-122                    | 5  | Uncultured bacterium clone LD_RB_72                                 | EU644166.  | 97.6 | 1451 | <i>Alkaliflexus imshenetskii</i>           | AJ784993_1 | 87.4  | 1450 | 1 |   |   |   |   |   | 2 | 1 | 1 |   |
| MPB2-123                    | 12 | Uncultured organism clone MAT-CR-H3-E04                             | EU245170.  | 88.4 | 1444 | <i>Lewinella cohaerens</i>                 | AB301614_1 | 85.6  | 1445 |   | 5 |   | 1 | 2 | 2 | 1 |   |   | 1 |
| MPB2-124                    | 1  | Candidatus <i>Haliscomenobacter calcifugiens</i> clone MS-oKlaff1-G | AJ786327.1 | 87.7 | 1453 | <i>Lewinella nigricans</i>                 | AB301615_1 | 86.9  | 1455 |   |   |   |   |   |   | 1 |   |   |   |
| MPB2-125                    | 1  | Uncultured <i>Bacteroidetes</i> bacterium clone 06-03-61            | DQ153141.  | 90.1 | 1451 | <i>Owenweeksia hongkongensis</i>           | AB125062_1 | 86.9  | 1455 |   | 1 |   |   |   |   |   |   |   |   |
| MPB2-126                    | 2  | Uncultured <i>Bacteroidetes</i> bacterium clone MBAE28              | AJ567587.1 | 86.6 | 1451 | Bacteroidetes bacterium P373               | AM749771_1 | 86.3  | 1353 |   |   |   | 1 | 1 |   |   |   |   |   |
| MPB2-127                    | 2  | <i>Pedobacter</i> sp. VA-17                                         | DQ984208.  | 89.8 | 1446 | <i>Pedobacter</i> sp. VA-17                | DQ984208_1 | 89.8  | 1446 |   | 1 | 1 |   |   |   |   |   |   |   |
| MPB2-128                    | 7  | Uncultured <i>Bacteroidetes</i> bacterium clone F12_6D_FL           | EF683058.1 | 97.4 | 1459 | <i>Flavisolibacter ginsengiterrae</i>      | AB267476_1 | 92.9  | 1456 |   |   | 2 | 1 | 1 |   | 3 |   |   |   |
| MPB2-129                    | 14 | Uncultured <i>Bacteroidetes</i> bacterium clone Skagenf12           | DQ640705.  | 97.1 | 1398 | <i>Haliscomenobacter hydrossis</i>         | AJ784892_1 | 85.1  | 1467 |   | 1 |   | 3 |   | 1 |   | 1 | 2 | 2 |
| MPB2-130                    | 1  | Uncultured <i>Flavobacteria</i> bacterium clone A1856               | EU283529.  | 95.1 | 1353 | <i>Cytophaga</i> sp. MGP-14AN              | AF530158_1 | 91.6  | 1428 |   |   |   |   |   |   | 1 |   |   |   |
| MPB2-131                    | 1  | Uncultured <i>Bacteroidetes</i> bacterium clone IRD18F11            | AY947961.  | 96.3 | 1450 | <i>Flavisolibacter ginsengisoli</i>        | AB267477_1 | 92.4  | 1454 |   |   |   |   |   |   | 1 |   |   |   |
| Nitrospirae                 |    |                                                                     |            |      |      |                                            |            |       |      |   |   |   |   |   |   |   |   |   |   |
| MPB2-132                    | 4  | Uncultured bacterium clone CCU23                                    | AY221079.  | 99.2 | 1463 | <i>Nitrospira</i> sp.                      | Y14644_1   | 96.18 | 1465 |   |   |   |   | 1 |   | 1 |   | 1 | 1 |
| Firmicutes                  |    |                                                                     |            |      |      |                                            |            |       |      |   |   |   |   |   |   |   |   |   |   |
| MPB2-133                    | 1  | Uncultured bacterium clone AP10U.293                                | AM278620   | 90.0 | 1461 | <i>Clostridium alkalicellum</i>            | AY959944_1 | 89.9  | 1449 |   |   |   |   |   |   | 1 |   |   |   |
| MPB2-134                    | 1  | Uncultured bacterium clone AKAU3928                                 | DQ125791.  | 95.7 | 1435 | unidentified eubacterium clone BSV81       | AJ229225_1 | 94.8  | 1319 |   |   |   |   |   |   | 1 |   |   |   |
| MPB2-135                    | 1  | Uncultured bacterium clone AKAU3868                                 | DQ125755.  | 90.9 | 1438 | <i>Clostridium thermocellum</i> ATCC 27405 | CP000568_2 | 89.9  | 1451 |   |   |   |   |   |   | 1 |   |   |   |
| MPB2-136                    | 12 | Uncultured bacterium clone: BS131                                   | AB240269.  | 94.3 | 1375 | <i>Clostridium aldrichii</i>               | X71846_1   | 93.5  | 1373 |   |   |   |   |   |   | 2 | 1 | 1 |   |
| MPB2-137                    | 1  | Uncultured bacterium clone Er-LLAYS-33                              | EU542501.  | 90.7 | 1456 | <i>Clostridium</i> sp. strain P6           | AY949857_1 | 89.3  | 1454 |   |   |   |   |   |   | 1 |   |   |   |
| MPB2-138                    | 6  | Uncultured bacterium isolate BF0001C024                             | AM697183   | 86.0 | 1412 | <i>Clostridiaceae</i> bacterium SH032      | AB377176_1 | 86.0  | 1460 |   |   |   |   |   |   | 1 |   | 1 |   |
| MPB2-139                    | 3  | Uncultured firmicute clone MVP-51                                   | DQ676350.  | 97.6 | 1433 | <i>Fusibacter</i> sp. SA1                  | AF491333_1 | 90.4  | 1463 |   |   |   |   |   |   | 1 |   |   | 2 |
| MPB2-140                    | 16 | <i>Clostridium bowmanii</i> type strain DSM 14206, clone 16         | AJ506120.1 | 97.9 | 1449 | <i>Clostridium bowmanii</i>                | AJ506120_1 | 97.9  | 1449 |   |   |   |   |   |   | 2 | 1 | 1 |   |
| MPB2-141                    | 2  | Uncultured bacterium clone AKIW496                                  | DQ129281.  | 89.7 | 1445 | <i>Clostridium alkalicellum</i>            | AY959944_1 | 89.6  | 1450 |   |   |   |   |   |   | 1 | 1 |   |   |
| MPB2-142                    | 1  | Uncultured bacterium mle1-12                                        | AF280849.  | 92.3 | 1436 | <i>Gloeobacter violaceus</i> PCC 7421      | BA000045_1 | 82.3  | 1432 |   |   |   |   |   |   | 1 |   |   |   |
| MPB2-143                    | 1  | <i>Acidaminococcaceae</i> bacterium FCF9A                           | DQ767881.  | 97.7 | 1479 | <i>Acidaminococcaceae</i> bacterium FCF9A  | DQ767881_1 | 97.7  | 1479 |   |   |   |   |   |   |   |   |   | 1 |
| Chloroflexi                 |    |                                                                     |            |      |      |                                            |            |       |      |   |   |   |   |   |   |   |   |   |   |
| MPB2-144                    | 2  | Uncultured soil bacterium clone C043                                | AF507690.  | 90.5 | 1426 | <i>Caldilinea aerophila</i>                | AB067647_1 | 90.3  | 1429 |   |   |   |   |   |   | 1 |   |   | 1 |
| MPB2-145                    | 1  | Uncultured bacterium clone:TSAC19                                   | AB186887.  | 94.6 | 1357 | <i>Caldilinea aerophila</i>                | AB067647_1 | 82.7  | 1418 |   |   |   |   |   |   | 1 |   |   |   |
| MPB2-146                    | 17 | Uncultured bacterium clone: FD011                                   | AB354620.  | 95.2 | 1407 | <i>Caldilinea aerophila</i>                | AB067647_1 | 88.5  | 1428 |   | 1 |   |   | 1 | 2 | 2 | 3 | 2 | 3 |
| MPB2-147                    | 1  | uncultured bacterium SJA-35 clone SJA-35                            | AJ009460.1 | 96.7 | 1421 | anaerobic filamentous bacterium KIBI-1     | AB109439_1 | 82.0  | 1430 |   |   |   |   |   |   | 1 |   |   | 2 |

|                |    |                                                         |            |      |      |                                                 |            |      |      |   |   |   |    |   |   |   |   |   |   |   |
|----------------|----|---------------------------------------------------------|------------|------|------|-------------------------------------------------|------------|------|------|---|---|---|----|---|---|---|---|---|---|---|
| MPB2-148       | 5  | Uncultured bacterium clone FFCH5499                     | EU134006.  | 94.0 | 1322 | <i>Dehalococcoides</i> sp. BHI80-15             | AJ431246_1 | 85.2 | 1450 |   |   |   |    | 1 | 1 | 1 | 2 |   |   |   |
| MPB2-149       | 2  | Uncultured soil bacterium clone 97                      | AY493960.  | 86.1 | 1424 | <i>Anaerolinea thermophila</i>                  | AB046413_1 | 81.9 | 1428 |   |   |   |    |   | 1 |   | 1 |   |   |   |
| MPB2-150       | 4  | Uncultured <i>Chloroflexi</i> bacterium clone Skagenf38 | DQ640704.  | 95.1 | 1390 | <i>Caldilinea aerophila</i>                     | AB067647_1 | 89.6 | 1427 |   |   |   |    | 2 | 1 |   | 1 |   |   |   |
| MPB2-151       | 1  | Uncultured <i>Chloroflexi</i> bacterium clone TK-SH17   | DQ463698.  | 93.4 | 1424 | <i>Dehalococcoides</i> sp. BHI80-15             | AJ431246_1 | 86.0 | 1441 |   |   |   |    |   |   | 1 |   |   |   |   |
| MPB2-152       | 1  | Anaerobic filamentous bacterium YMTK-2                  | AB109438.  | 97.6 | 1426 | anaerobic filamentous bacterium YMTK-2          | AB109438_1 | 97.6 | 1426 |   |   |   |    |   |   | 1 |   |   |   |   |
| MPB2-153       | 1  | Uncultured bacterium clone SBR2037                      | X84576.2   | 94.6 | 1427 | <i>Dehalococcoides</i> sp. BHI80-15             | AJ431246_1 | 82.1 | 1454 |   |   |   |    |   |   | 1 |   |   |   |   |
| MPB2-154       | 3  | Uncultured bacterium clone VHS-B3-65                    | DQ394955.  | 89.5 | 1445 | <i>Dehalococcoides</i> sp. BHI80-15             | AJ431246_1 | 83.7 | 1442 |   |   | 1 |    |   |   | 2 |   |   |   |   |
| MPB2-155       | 4  | Uncultured sludge bacterium S14                         | AF234733_1 | 96.6 | 1419 | <i>Anaerolinea thermophila</i>                  | AB046413_1 | 82.5 | 1430 | 1 |   | 1 |    |   | 1 | 1 |   |   |   |   |
| MPB2-156       | 4  | Anaerobic filamentous bacterium IMO-1                   | AB109437.  | 93.6 | 1427 | anaerobic filamentous bacterium IMO-1           | AB109437_1 | 93.6 | 1427 |   |   |   |    |   |   | 2 | 2 |   |   |   |
| MPB2-157       | 1  | Uncultured <i>Chloroflexi</i> bacterium clone AKYG434   | AY922012.  | 97.8 | 1332 | <i>Dehalococcoides</i> sp. BHI80-15             | AJ431246_1 | 82.8 | 1441 |   |   |   |    |   |   |   | 1 |   |   |   |
| MPB2-158       | 1  | Uncultured bacterium clone FBP267                       | AY250872.  | 88.5 | 1436 | <i>Sphaerobacter thermophilus</i>               | AJ420142_1 | 84.3 | 1431 |   |   |   |    |   |   |   | 1 |   |   |   |
| MPB2-159       | 6  | Uncultured Antarctic bacterium LB3-100                  | AF173817_1 | 98.5 | 1367 | <i>Anaerolinea thermophila</i>                  | AB046413_1 | 79.7 | 1435 | 2 | 1 | 1 | 1  |   | 1 |   |   |   |   |   |
| MPB2-160       | 25 | Uncultured <i>Chloroflexi</i> bacterium clone MSB-4D11  | DQ811875.  | 87.8 | 1456 | <i>Caldilinea aerophila</i>                     | AB067647_1 | 87.3 | 1438 | 4 | 2 | 1 | 1  | 3 | 3 | 1 | 3 | 3 | 1 |   |
| MPB2-161       | 8  | Uncultured <i>Chloroflexi</i> bacterium clone MPB01     | EF429492_1 | 89.6 | 1412 | <i>Chloronema giganteum</i>                     | AF345825_1 | 89.5 | 1422 | 1 |   | 1 | 4  |   | 2 |   |   |   |   |   |
| MPB2-162       | 2  | Uncultured sludge bacterium S14                         | AF234733_1 | 89.3 | 1420 | <i>Longilinea arvoryzae</i>                     | AB243673_1 | 80.3 | 1438 |   |   | 1 | 1  |   |   |   |   |   |   |   |
| MPB2-163       | 3  | <i>Oscillochloris trichoides</i>                        | AF093427_1 | 90.6 | 1416 | <i>Oscillochloris trichoides</i>                | AF093427_1 | 90.6 | 1416 |   |   |   | 3  |   |   |   |   |   |   |   |
| MPB2-164       | 40 | Uncultured organism clone MAT-CR-H1-D06                 | EU245068.  | 87.3 | 1427 | <i>Anaerolinea thermophila</i>                  | AB046413_1 | 80.9 | 1433 |   | 2 | 7 | 11 | 5 | 4 | 9 | 1 |   | 1 |   |
| MPB2-165       | 4  | Uncultured bacterium clone B25                          | AF407718_1 | 86.7 | 1416 | <i>Anaerolinea thermophila</i>                  | AB046413_1 | 79.2 | 1427 |   | 1 |   | 1  |   | 1 | 1 |   |   |   |   |
| MPB2-166       | 1  | Uncultured bacterium clone FFCH9965                     | EU134152.  | 93.0 | 1310 | <i>Longilinea arvoryzae</i>                     | AB243673_1 | 81.7 | 1428 |   |   |   | 1  |   |   |   |   |   |   |   |
| MPB2-167       | 5  | Uncultured soil bacterium clone 2_C1                    | EU589291.  | 89.6 | 1397 | green non-sulfur bacterium AK-6                 | AB079644_1 | 87.8 | 1405 |   |   |   | 1  | 1 |   | 1 |   | 1 | 1 |   |
| MPB2-168       | 5  | Uncultured soil bacterium clone C043                    | AF507690_1 | 94.4 | 1428 | <i>Caldilinea aerophila</i>                     | AB067647_1 | 88.9 | 1429 |   | 1 |   | 1  | 2 |   | 1 |   |   |   |   |
| MPB2-169       | 2  | Uncultured eubacterium clone SM1D10                     | AF445676_1 | 91.6 | 1420 | <i>Anaerolinea thermophila</i>                  | AB046413_1 | 81.3 | 1430 |   |   | 1 |    | 1 |   |   |   |   |   |   |
| MPB2-170       | 1  | Uncultured bacterium clone FFCH5168                     | EU134013.  | 95.9 | 1327 | <i>Dehalococcoides</i> sp. BHI80-15             | AJ431246_1 | 83.3 | 1439 |   |   |   |    |   | 1 |   |   |   |   |   |
| Actinobacteria |    |                                                         |            |      |      |                                                 |            |      |      |   |   |   |    |   |   |   |   |   |   |   |
| MPB2-171       | 2  | Uncultured bacterium isolate AL clone P5                | EU117171.  | 99.6 | 1372 | bacterium Ellin5273                             | AY234624_1 | 90.5 | 1448 |   |   |   |    | 1 |   |   | 1 |   |   |   |
| MPB2-172       | 1  | Uncultured bacterium clone BacC-s_026                   | EU335147.  | 94.2 | 1441 | <i>Acidimicrobidae</i> bacterium Ellin7143      | AY673309_1 | 93.4 | 1384 |   |   |   |    |   |   |   | 1 |   |   |   |
| MPB2-173       | 1  | Uncultured soil bacterium clone 39C_MJK                 | EF540360_1 | 98.8 | 1473 | <i>Holophaga foetida</i>                        | X77215_1   | 83.0 | 1480 |   |   |   |    |   |   |   | 1 |   |   |   |
| MPB2-174       | 4  | Uncultured actinobacterium clone FBP406                 | AY250882.  | 99.0 | 1331 | <i>Sporichthya polymorpha</i>                   | AB025317_1 | 94.4 | 1440 |   |   | 1 |    | 1 |   | 1 | 1 |   |   |   |
| MPB2-175       | 3  | Uncultured bacterium clone 59                           | DQ413118.  | 96.3 | 1476 | <i>Solirubrobacter</i> sp. BXN5-15              | EU332825_1 | 90.0 | 1473 | 1 |   | 2 |    |   |   |   |   |   |   |   |
| MPB2-176       | 5  | Uncultured bacterium clone ANTLV2_A11                   | DQ521506.  | 98.4 | 1457 | <i>Corynebacterium</i> -like bacterium QSSC9-20 | AF170755_1 | 97.5 | 1454 |   |   |   | 1  | 1 | 3 |   |   |   |   |   |
| MPB2-177       | 1  | Uncultured bacterium clone FCPT456                      | EF516030_1 | 90.1 | 1439 | <i>Acidimicrobidae</i> bacterium Ellin7143      | AY673309_1 | 89.1 | 1382 |   |   |   |    |   | 1 |   |   |   |   |   |
| MPB2-178       | 1  | Uncultured bacterium clone FCPS579                      | EF516519_1 | 95.4 | 1445 | bacterium Ellin5273                             | AY234624_1 | 92.2 | 1447 |   |   |   |    |   | 1 |   |   |   |   |   |
| MPB2-179       | 5  | Uncultured bacterium clone JEG.a3                       | DQ228390.  | 96.8 | 1441 | actinobacterium WJ25                            | AY495954_1 | 86.8 | 1436 |   |   | 2 |    |   | 2 |   | 1 |   |   |   |
| MPB2-180       | 1  | <i>Actinoplanes digitatis</i>                           | AB037000.  | 97.3 | 1442 | <i>Actinoplanes digitatis</i>                   | AB037000_1 | 97.3 | 1442 | 1 |   |   |    |   |   |   |   |   |   |   |
| MPB2-181       | 1  | Uncultured bacterium clone SZB6                         | AM176889   | 98.7 | 1441 | <i>Candidatus Microthrix calida</i>             | DQ147277_1 | 91.5 | 1445 |   |   |   |    |   | 1 |   |   |   |   |   |
| Planctomycetes |    |                                                         |            |      |      |                                                 |            |      |      |   |   |   |    |   |   |   |   |   |   |   |
| MPB2-182       | 12 | Uncultured bacterium clone RT_46                        | EU644198.  | 97.9 | 1455 | <i>Planctomycetales</i> bacterium Ellin7244     | AY673410_1 | 79.0 | 1417 | 1 |   |   |    |   | 2 | 2 | 2 | 2 | 3 |   |
| MPB2-183       | 2  | Uncultured bacterium clone LD_Ba_Top_B17                | EU644231.  | 93.7 | 1442 | <i>Pirellula</i> sp.                            | X81947_1   | 87.4 | 1460 | 1 |   |   |    |   | 1 |   |   |   |   |   |
| MPB2-184       | 1  | Uncultured bacterium clone 028G08_P_BN_P5               | BX294811.  | 96.8 | 1310 | planctomycete A-2                               | AM056027_1 | 80.2 | 1497 |   |   |   |    |   | 1 |   |   |   |   |   |
| MPB2-185       | 21 | Uncultured bacterium clone FFCH8272                     | EU135113.  | 96.2 | 1357 | planctomycete str. 292                          | AJ231182_1 | 88.4 | 1391 |   |   |   |    |   | 1 | 1 | 1 | 4 | 6 | 3 |
| MPB2-186       | 3  | Uncultured bacterium clone 028C11_P_BN_P5               | BX294792.  | 98.9 | 1282 | <i>Pirellula</i> sp.                            | X81947_1   | 87.3 | 1461 |   |   |   |    |   | 1 |   |   | 1 | 1 |   |
| MPB2-187       | 1  | Uncultured organism clone MAT-CR-M8-F07                 | EU245954.  | 87.8 | 1489 | planctomycete A-2                               | AM056027_1 | 78.9 | 1496 |   |   |   |    |   |   | 1 |   |   |   |   |
| MPB2-188       | 1  | Uncultured bacterium clone FCPS655                      | EF516837_1 | 93.6 | 1471 | planctomycete A-2                               | AM056027_1 | 80.1 | 1500 |   |   |   |    |   |   | 1 |   |   |   |   |
| MPB2-189       | 2  | Uncultured bacterium clone FFCH3414                     | EU135292.  | 95.2 | 1362 | <i>Gemmata</i> -like str. JW3-8s0               | AF239694_1 | 86.5 | 1450 |   |   |   |    |   |   | 1 | 1 |   |   |   |
| MPB2-190       | 1  | Uncultured bacterium clone FCPT539                      | EF515994_1 | 92.6 | 1428 | <i>Planctomycetales</i> bacterium Ellin7244     | AY673410_1 | 90.9 | 1430 |   |   |   |    |   |   | 1 |   |   |   |   |
| MPB2-191       | 3  | Uncultured bacterium clone: MIZ28                       | AB179519.  | 98.3 | 1466 | <i>Gemmata</i> -like str. CJuql4                | AF239693_1 | 86.3 | 1416 |   |   |   | 1  |   |   | 1 |   | 1 |   |   |
| MPB2-192       | 1  | Uncultured bacterium clone CV104                        | EF530681_1 | 94.7 | 1433 | <i>Pirellula staley</i>                         | AF399914_1 | 86.0 | 1381 |   |   |   |    |   |   | 1 |   |   |   |   |
| MPB2-193       | 4  | Uncultured planctomycete clone Amb_16S_1870             | EF019196_1 | 94.5 | 1355 | <i>Gemmata</i> -like str. JW3-8s0               | AF239694_1 | 85.1 | 1445 |   |   |   | 2  |   | 1 |   | 1 |   |   |   |
| MPB2-194       | 1  | Uncultured bacterium clone B34                          | EU234160.  | 96.5 | 1442 | <i>Planctomyces maris</i>                       | AJ231184_1 | 85.4 | 1468 |   |   |   |    |   |   |   | 1 |   |   |   |
| MPB2-195       | 1  | Uncultured sludge bacterium A40                         | AF234736_1 | 98.5 | 1436 | <i>Planctomycetaceae</i>                        | X81948_1   | 87.1 | 1444 |   |   |   |    |   |   |   |   | 1 |   |   |
| MPB2-196       | 1  | Uncultured bacterium clone BacB_060                     | EU335333.  | 97.2 | 1457 | <i>Gemmata</i> -like str. Soil9                 | AF239698_1 | 85.6 | 1418 |   |   |   |    |   |   |   |   | 1 |   |   |
| MPB2-197       | 3  | Uncultured bacterium clone 030B10_P_DI_P15              | BX294819.  | 99.1 | 1278 | planctomycete str. 292                          | AJ231182_1 | 90.8 | 1470 | 1 |   |   |    |   |   | 1 |   |   | 1 |   |
| MPB2-198       | 1  | Uncultured bacterium clone CV104                        | EF530681_1 | 95.6 | 1437 | <i>Pirellula staley</i>                         | AF399914_1 | 85.7 | 1450 | 1 |   |   |    |   |   |   |   |   |   |   |
| MPB2-199       | 7  | Uncultured bacterium clone JG35-K2-AG64                 | AM116753   | 97.2 | 1283 | planctomycete str. 292                          | AJ231182_1 | 90.6 | 1470 | 1 |   |   |    |   |   | 1 |   | 2 | 1 | 1 |
| MPB2-200       | 2  | Uncultured planctomycete clone Amb_16S_1870             | EF019196_1 | 94.7 | 1355 | <i>Gemmata</i> -like str. JW3-8s0               | AF239694_1 | 84.9 | 1447 |   | 1 |   |    |   | 1 |   |   |   |   |   |
| MPB2-201       | 3  | Uncultured bacterium clone MSB-2F2                      | EF125449_1 | 94.3 | 1450 | <i>Pirellula</i> sp.                            | X81942_1   | 90.0 | 1449 |   |   |   | 1  |   | 2 |   |   |   |   |   |
| MPB2-202       | 4  | Uncultured bacterium clone FFCH5476                     | EU135159.  | 92.2 | 1367 | <i>Gemmata</i> -like str. CJuql4                | AF239693_1 | 84.4 | 1398 |   |   |   |    | 1 | 1 | 2 |   |   |   |   |

|                    |   |                                                           |            |      |      |                                             |            |      |      |   |   |   |   |
|--------------------|---|-----------------------------------------------------------|------------|------|------|---------------------------------------------|------------|------|------|---|---|---|---|
| MPB2-203           | 1 | Uncultured bacterium clone HB33                           | EF648043.1 | 97.5 | 1413 | <i>Planctomycetales</i> bacterium Ellin7244 | AY673410_  | 80.6 | 1229 | 1 |   |   |   |
| MPB2-204           | 1 | Uncultured bacterium clone FFCH1185                       | EU135063.  | 91.4 | 1351 | <i>Gemmata</i> -like str. CJuql4            | AF239693_1 | 88.4 | 1434 |   | 1 |   |   |
| MPB2-205           | 2 | Uncultured bacterium clone FFCH11748                      | EU135202.  | 95.9 | 1380 | planctomycete A-2                           | AM056027_  | 79.7 | 1496 |   |   | 2 |   |
| MPB2-206           | 2 | Uncultured planctomycete clone HAVOmat68                  | EF032768.1 | 93.1 | 1428 | <i>Planctomycetales</i> bacterium Ellin7244 | AY673410_  | 91.5 | 1430 |   |   | 2 |   |
| MPB2-207           | 1 | Uncultured bacterium clone Pia-s-83                       | EF632950.1 | 95.1 | 1423 | <i>Planctomycetales</i> bacterium Ellin7244 | AY673410_  | 80.6 | 1393 |   |   |   | 1 |
| MPB2-208           | 1 | uncultured eubacterium clone WD283                        | AJ292685.1 | 93.2 | 1430 | <i>Planctomycetales</i> bacterium Ellin7244 | AY673410_  | 92.0 | 1430 |   |   |   | 1 |
| MPB2-209           | 1 | Uncultured bacterium clone BacC-u_069                     | EU335417.  | 91.8 | 1443 | <i>Gemmata</i> -like str. CJuql4            | AF239693_1 | 90.0 | 1431 |   |   |   | 1 |
| MPB2-210           | 2 | Uncultured bacterium clone LD_Ba_Top_B17                  | EU644231.  | 92.4 | 1441 | <i>Pirellula staleyi</i>                    | AF399914_1 | 88.2 | 1452 |   |   |   | 1 |
| MPB2-211           | 1 | planctomycete str. 337                                    | AJ231171.1 | 95.6 | 1448 | planctomycete str. 337                      | AJ231171_1 | 95.6 | 1448 |   |   |   | 1 |
| MPB2-212           | 1 | Uncultured bacterium clone FCPT539                        | EF515994.1 | 89.1 | 1430 | <i>Planctomycetales</i> bacterium Ellin7244 | AY673410_  | 88.4 | 1427 |   |   |   | 1 |
| MPB2-213           | 1 | Uncultured planctomycete clone DSP19                      | AJ290174.1 | 94.2 | 1330 | planctomycete str. 535                      | AJ231176_1 | 90.7 | 1445 |   |   | 1 |   |
| MPB2-214           | 2 | Uncultured planctomycete clone DSP19                      | AJ290174.1 | 98.3 | 1324 | planctomycete str. 535                      | AJ231176_1 | 93.6 | 1443 |   |   | 1 | 1 |
| MPB2-215           | 1 | Uncultured soil bacterium clone F6-89                     | EF688380.1 | 91.4 | 1428 | <i>Planctomycetales</i> bacterium Ellin7244 | AY673410_  | 89.9 | 1428 |   |   |   | 1 |
| MPB2-216           | 1 | Uncultured planctomycete clone D01_WMSP1                  | DQ450803.  | 92.5 | 1350 | <i>Planctomycetales</i> bacterium Ellin6207 | AY673166_  | 86.1 | 1427 |   |   | 1 |   |
| MPB2-217           | 2 | Uncultured bacterium isolate BM47                         | EF126214.1 | 88.7 | 1406 | <i>Planctomycetales</i> bacterium Ellin7224 | AY673390_  | 81.8 | 1225 |   |   | 1 | 1 |
| MPB2-218           | 1 | Uncultured planctomycete isolate OTU20/APA                | AM902613   | 93.0 | 1456 | <i>Planctomyces maris</i>                   | AJ231184_1 | 82.4 | 1481 |   |   | 1 |   |
| MPB2-219           | 1 | Uncultured bacterium clone E6bH02                         | DQ103659.  | 94.6 | 1450 | <i>Pirellula</i> sp.                        | X81945_1   | 89.8 | 1388 |   |   |   | 1 |
| MPB2-220           | 1 | Uncultured bacterium clone CM50                           | EF580983.1 | 90.6 | 1439 | <i>Gemmata</i> -like str. CJuql4            | AF239693_1 | 87.4 | 1437 |   |   |   | 1 |
| Acidobacteria      |   |                                                           |            |      |      |                                             |            |      |      |   |   |   |   |
| MPB2-221           | 1 | Uncultured bacterium clone Elev_16S_1166                  | EF019821.1 | 94.9 | 1329 | bacterium Ellin371                          | AF498753_1 | 90.9 | 1423 |   |   |   | 1 |
| MPB2-222           | 1 | Uncultured <i>Acidobacteria</i> bacterium clone lhad11    | DQ648910.  | 92.6 | 1477 | <i>Holophaga foetida</i>                    | X77215_1   | 82.5 | 1437 |   |   |   | 1 |
| MPB2-223           | 1 | Uncultured bacterium clone AKAU3491                       | DQ125527.  | 97.2 | 1422 | bacterium Ellin371                          | AF498753_1 | 91.3 | 1425 |   |   |   | 1 |
| MPB2-224           | 3 | Uncultured bacterium clone i10                            | DQ453809.  | 95.4 | 1479 | <i>Geobacter sulfurreducens</i> PCA         | AE017180_2 | 83.0 | 1491 |   |   | 2 | 1 |
| MPB2-225           | 2 | Uncultured bacterium clone 35-19                          | DQ833485.  | 97.2 | 1425 | bacterium Ellin371                          | AF498753_1 | 91.7 | 1425 |   |   |   | 1 |
| MPB2-226           | 2 | Uncultured sludge bacterium A34                           | AF234731.  | 98.0 | 1474 | <i>Holophaga foetida</i>                    | X77215_1   | 83.5 | 1476 |   |   |   | 1 |
| MPB2-227           | 2 | Uncultured bacterium clone P9X2b7A03                      | EU491161.  | 90.4 | 1443 | bacterium Ellin371                          | AF498753_1 | 86.9 | 1449 | 1 |   |   | 1 |
| MPB2-228           | 1 | Uncultured bacterium clone FCPT524                        | EF516577.1 | 93.9 | 1430 | bacterium Ellin371                          | AF498753_1 | 91.9 | 1432 | 1 |   |   |   |
| Verrucomicrobia    |   |                                                           |            |      |      |                                             |            |      |      |   |   |   |   |
| MPB2-229           | 1 | Uncultured bacterium clone: SRRT68                        | AB240494.  | 95.0 | 1478 | bacterium Ellin518                          | AY960781_  | 90.2 | 1482 |   |   |   | 1 |
| MPB2-230           | 2 | Uncultured <i>Verrucomicrobia</i> bacterium clone B-112   | AY622244.  | 98.9 | 1483 | <i>Opitutus</i> sp. VeSm13                  | X99392_1   | 93.3 | 1479 |   |   |   | 1 |
| MPB2-231           | 1 | Uncultured bacterium clone AKAU3960                       | DQ125814.  | 94.0 | 1476 | <i>Opitutus</i> sp. VeSm13                  | X99392_1   | 93.5 | 1475 |   |   |   | 1 |
| MPB2-232           | 1 | Uncultured bacterium clone FCPN572                        | EF516510.1 | 96.7 | 1496 | bacterium Ellin518                          | AY960781_  | 91.9 | 1497 |   |   |   | 1 |
| MPB2-233           | 1 | Uncultured bacterium clone IFD_64                         | DQ984548.  | 93.1 | 1483 | bacterium Ellin508                          | AY960771_  | 91.7 | 1484 |   |   |   | 1 |
| MPB2-234           | 1 | Uncultured bacterium clone FCPN729                        | EF516529.1 | 90.0 | 1496 | bacterium Ellin508                          | AY960771_  | 89.7 | 1488 |   |   |   | 1 |
| MPB2-235           | 1 | Uncultured sludge bacterium H2                            | AF234711.  | 94.5 | 1481 | bacterium Ellin514                          | AY960777_  | 88.1 | 1447 | 1 |   |   |   |
| MPB2-236           | 2 | Uncultured bacterium clone zEL61                          | DQ415853.  | 97.5 | 1450 | <i>Spartobacteria</i> bacterium Gsoil 144   | AB245342_  | 92.4 | 1448 |   | 1 |   | 1 |
| MPB2-237           | 1 | Uncultured <i>Verrucomicrobia</i> bacterium clone:Rs-P07  | AB089122.  | 90.1 | 1324 | <i>Verrucomicrobia</i> bacterium SolV       | EF591088_1 | 85.2 | 1450 |   | 1 |   |   |
| MPB2-238           | 1 | Uncultured bacterium clone:Run-SP94                       | AB247484.  | 95.4 | 1478 | <i>Verrucomicrobia</i> bacterium A4T-83     | AB331895_  | 94.6 | 1478 |   |   | 1 |   |
| MPB2-239           | 1 | Uncultured bacterium clone FCPP479 16S                    | EF516165.1 | 95.5 | 1458 | <i>Spartobacteria</i> bacterium Gsoil 144   | AB245342_  | 89.1 | 1459 |   |   | 1 |   |
| MPB2-240           | 1 | Uncultured bacterium clone: CK06-06_Mud_MAS1B-05          | AB369162.  | 95.2 | 1450 | <i>Spartobacteria</i> bacterium Gsoil 144   | AB245342_  | 94.3 | 1450 |   |   |   | 1 |
| Caldiserica        |   |                                                           |            |      |      |                                             |            |      |      |   |   |   |   |
| MPB2-241           | 1 | Uncultured eubacterium WCHB1-02                           | AF050593.  | 98.4 | 1462 | <i>Ferribacter thermoautotrophicus</i>      | AF282253_1 | 78.2 | 1195 |   |   |   | 1 |
| Gemmatimonadetes   |   |                                                           |            |      |      |                                             |            |      |      |   |   |   |   |
| MPB2-242           | 1 | Uncultured bacterium clone ANT1V1_E09                     | DQ521491.  | 97.4 | 1447 | <i>Gemmatimonas aurantiaca</i>              | AB072735_  | 90.3 | 1448 |   | 1 |   |   |
| MPB2-243           | 1 | Uncultured bacterium clone ANT1V1_E09                     | DQ521491.  | 96.9 | 1447 | bacterium Ellin5220                         | AY234571_  | 89.2 | 1453 |   |   | 1 |   |
| MPB2-244           | 1 | Uncultured <i>Gemmatimonas</i> sp. clone A1816            | EU283564.  | 95.0 | 1330 | <i>Gemmatimonas aurantiaca</i>              | AB072735_  | 83.9 | 1450 |   |   | 1 |   |
| Candidate division |   |                                                           |            |      |      |                                             |            |      |      |   |   |   |   |
| OP10               |   |                                                           |            |      |      |                                             |            |      |      |   |   |   |   |
| MPB2-245           | 1 | Uncultured bacterium clone TP3                            | EF205560.1 | 91.1 | 1453 | <i>Heliobacterium modesticaldum</i> Ice1    | CP000930_6 | 80.0 | 1443 |   |   |   | 1 |
| MPB2-246           | 1 | uncultured bacterium clone SJA-171                        | AJ009501.1 | 94.9 | 1450 | <i>Pelotomaculum</i> sp. JT                 | AB091323_  | 81.0 | 1460 |   |   |   | 1 |
| MPB2-247           | 1 | uncultured bacterium clone 44P1                           | EU676408.  | 96.2 | 1438 | <i>Actinomycetales</i> bacterium Gsoil 1632 | AB245397_  | 80.6 | 1450 |   |   |   | 1 |
| MPB2-248           | 5 | Uncultured candidate division OP10 bacterium clone D15_25 | EU266864.  | 94.9 | 1455 | <i>Thermincola carboxydiphila</i>           | AY603000_  | 80.2 | 1468 | 2 | 1 |   | 1 |
| MPB2-249           | 1 | Uncultured bacterium clone TP3                            | EF205560.1 | 91.8 | 1454 | <i>Clostridium straminisolvans</i>          | AB125279_  | 80.8 | 1449 | 1 |   |   |   |

|                       |    |                                                              |            |      |      |                                                |            |       |      |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----------------------|----|--------------------------------------------------------------|------------|------|------|------------------------------------------------|------------|-------|------|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| MPB2-250              | 9  | Uncultured bacterium clone FFCH11767                         | EU134950.  | 90.1 | 1306 | <i>Corynebacterium callunae</i>                | X84251_1   | 75.0  | 1200 | 6 | 1  |    |    | 2  |    |    |    |    |    |    |    |    |    |    |
| OD1                   |    |                                                              |            |      |      |                                                |            |       |      |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| MPB2-251              | 1  | Uncultured bacterium clone 1013-1-CG39                       | AY532553.  | 92.5 | 1379 | <i>Acidobacteria</i> bacterium Ellin345        | CP000360_1 | 72.92 | 1296 |   |    |    |    | 1  |    |    |    |    |    |    |    |    |    |    |
| TM7                   |    |                                                              |            |      |      |                                                |            |       |      |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| MPB2-252              | 2  | Uncultured bacterium clone 655076                            | DQ404736.  | 96.6 | 1398 | unidentified eubacterium clone BSV24           | AJ229187_1 | 77.9  | 1405 |   |    |    |    | 1  |    |    |    |    | 1  |    |    |    |    |    |
| MPB2-253              | 1  | Uncultured bacterium clone 656073                            | DQ404628.  | 96.8 | 1328 | unidentified eubacterium clone BSV24           | AJ229187_1 | 78.1  | 1330 |   |    |    |    |    |    |    |    |    | 1  |    |    |    |    |    |
| Unclassified bacteria |    |                                                              |            |      |      |                                                |            |       |      |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| MPB2-254              | 1  | Unidentified eubacterium clone vadinBA07                     | U81641.2   | 89.1 | 1462 | psychrophilic sulfate-reducing bacterium LSv23 | AF099059_1 | 77.9  | 1475 |   |    |    |    |    |    |    |    |    | 1  |    |    |    |    |    |
| MPB2-255              | 1  | Uncultured bacterium clone WM1006                            | DQ415748.  | 92.3 | 1474 | <i>Cellulomonas fimi</i>                       | X83803_1   | 72.6  | 1184 |   |    |    |    |    |    |    |    |    | 1  |    |    |    |    |    |
| MPB2-256              | 1  | Uncultured bacterium clone aab51g09                          | DQ815224.  | 95.6 | 1466 | <i>Desulfobacterium anilini</i>                | EU020016_1 | 78.9  | 1473 |   |    |    |    |    |    |    |    |    | 1  |    |    |    |    |    |
| MPB2-257              | 4  | Uncultured soil bacterium clone S1220                        | AF507716.  | 94.2 | 1421 | unidentified eubacterium clone BSV40           | AJ229196_1 | 81.5  | 1416 |   |    |    |    |    |    |    |    |    | 3  | 1  |    |    |    |    |
| MPB2-258              | 2  | Uncultured bacterium clone SLB626                            | DQ787720.  | 88.9 | 1471 | <i>Halochromatium</i> sp. AR2202               | AJ401219_1 | 79.0  | 1407 |   |    |    |    | 1  | 1  |    |    |    |    |    |    |    |    |    |
| MPB2-259              | 2  | Uncultured bacterium clone Pia-s-69                          | EF632929.1 | 97.9 | 1439 | unidentified eubacterium clone BSV40           | AJ229196_1 | 84.1  | 1411 |   |    |    |    |    |    | 2  |    |    |    |    |    |    |    |    |
| MPB2-260              | 2  | Uncultured bacterium clone Kas175B                           | EF203206.1 | 99.2 | 1456 | unidentified eubacterium clone BSV40           | AJ229196_1 | 91.7  | 1438 |   |    |    |    |    |    |    |    | 1  |    | 1  |    |    |    |    |
| MPB2-261              | 1  | Uncultured candidate division OP10 bacterium clone HAVOmat07 | EF032776.1 | 90.3 | 1452 | candidate division OP10 bacterium T49          | AM749780_  | 91.0  | 1239 |   |    |    |    |    |    |    |    |    |    | 1  |    |    |    |    |
| MPB2-262              | 2  | Uncultured bacterium clone R2O30                             | EF219035.1 | 95.8 | 1417 | <i>Desulfococcus oleovorans</i> Hxd3           | Y17698_1   | 76.6  | 1504 | 2 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| MPB2-263              | 12 | Uncultured candidate division OP10 bacterium clone HAVOmat07 | EF032776.1 | 87.9 | 1454 | candidate division OP10 bacterium T49          | AM749780_  | 86.0  | 1417 | 2 | 2  |    |    | 3  | 2  | 1  |    |    |    | 2  |    |    |    |    |
| MPB2-264              | 7  | Uncultured candidate division OP11 bacterium clone 02D2Z37   | DQ329862.  | 87.4 | 1302 | <i>Jonquetella anthropi</i>                    | EF436502_1 | 74.6  | 1316 |   |    | 2  | 3  |    | 1  | 1  |    |    |    |    |    |    |    |    |
| MPB2-265              | 1  | Uncultured organism clone MAT-CR-M4-C03                      | EU245655.  | 87.8 | 1350 | mixed culture isolate koll6                    | AJ224539_1 | 86.3  | 1419 |   |    |    |    | 1  |    |    |    |    |    |    |    |    |    |    |
| MPB2-266              | 3  | Uncultured bacterium clone TANB22                            | AY667254.  | 86.6 | 1415 | <i>Prochloron</i> sp.                          | X63141_1   | 74.4  | 1369 |   |    |    |    |    | 2  | 1  |    |    |    |    |    |    |    |    |
| MPB2-267              | 1  | Uncultured bacterium clone DS020                             | DQ234104.  | 85.8 | 1409 | <i>Anabaena</i> cf. <i>cylindrica</i> PMC9705  | AJ293119_1 | 74.1  | 1393 |   |    |    |    |    | 1  |    |    |    |    |    |    |    |    |    |
| MPB2-268              | 1  | Uncultured bacterium clone FCPS707                           | EF515985.1 | 88.5 | 1380 | <i>Citromicrobium bathyomarinum</i>            | Y16267_1   | 73.6  | 1279 |   |    |    |    |    | 1  |    |    |    |    |    |    |    |    |    |
| MPB2-269              | 1  | Uncultured bacterium clone:TSBX31                            | AB186808.  | 98.6 | 1455 | unidentified eubacterium clone BSV40           | AJ229196_1 | 91.2  | 1439 |   |    |    |    |    |    |    |    | 1  |    |    |    |    |    |    |
| MPB2-270              | 1  | Uncultured bacterium clone HAVOmat13                         | EF032771.1 | 86.4 | 1456 | <i>Dehalococcoides</i> sp. BHI80-52            | AJ431247.1 | 75.9  | 1186 | 1 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|                       |    |                                                              |            |      |      |                                                |            | Total |      |   | 80 | 79 | 79 | 80 | 85 | 85 | 76 | 79 | 77 | 83 | 76 | 74 | 80 | 76 |