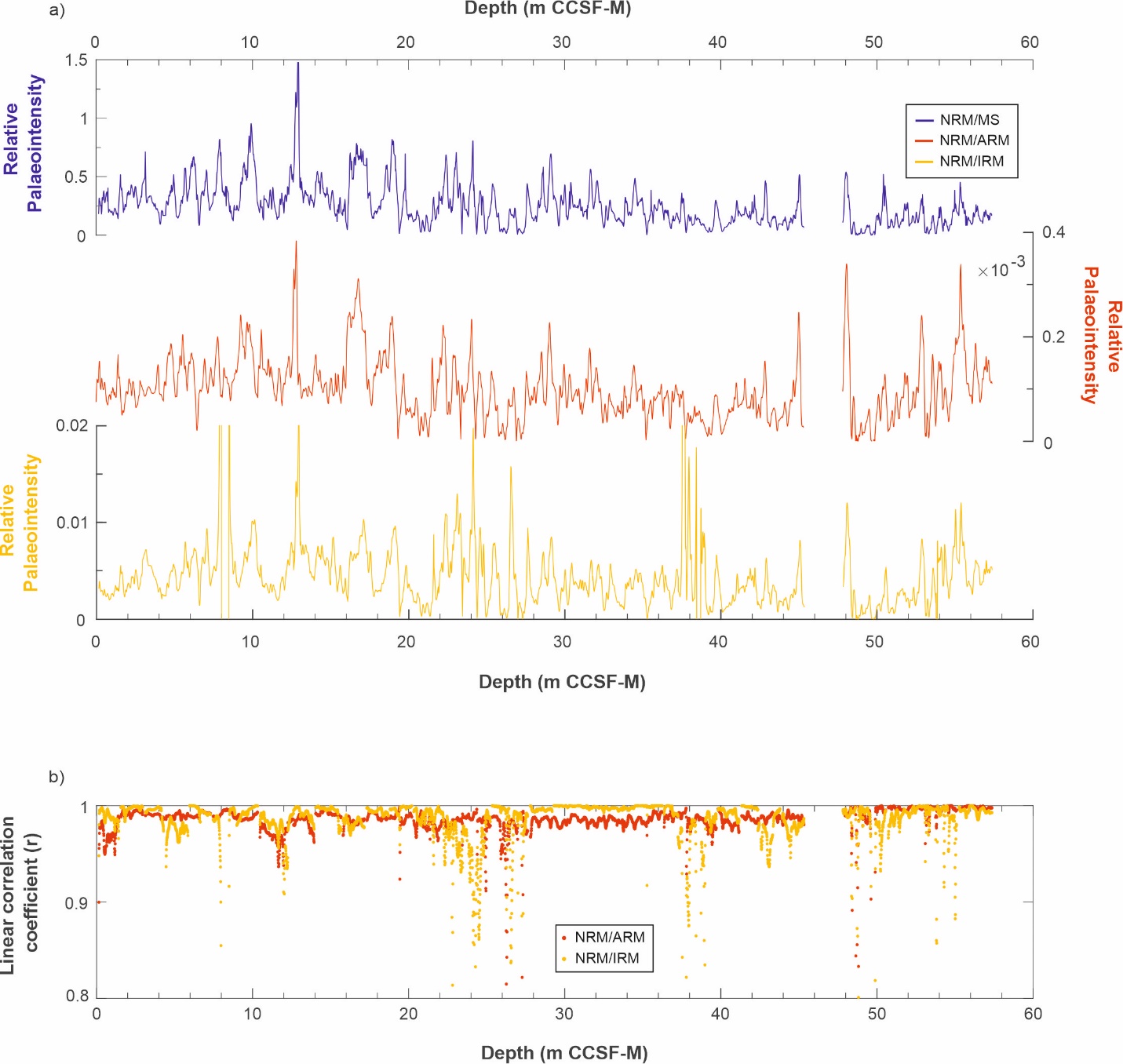
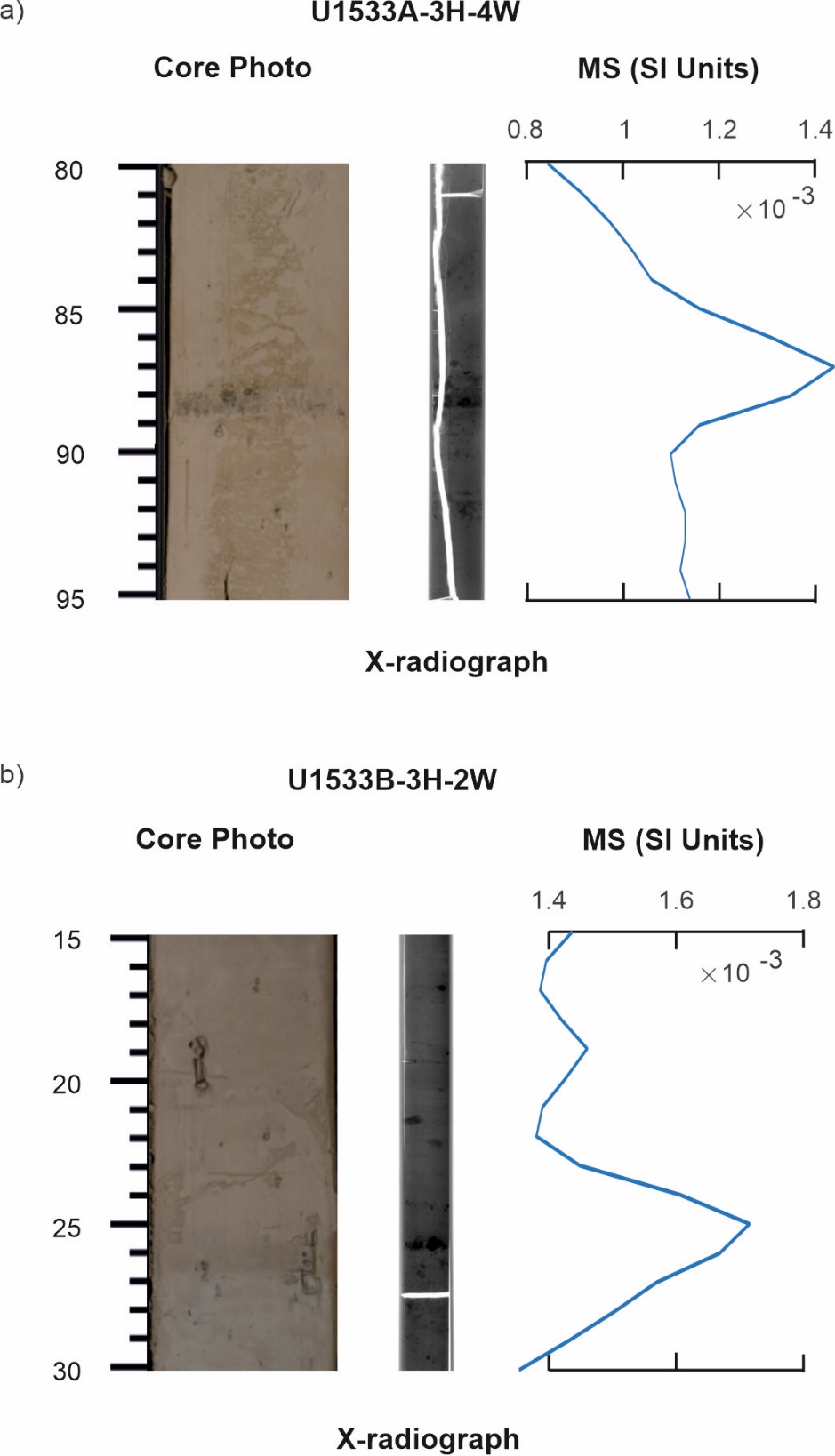
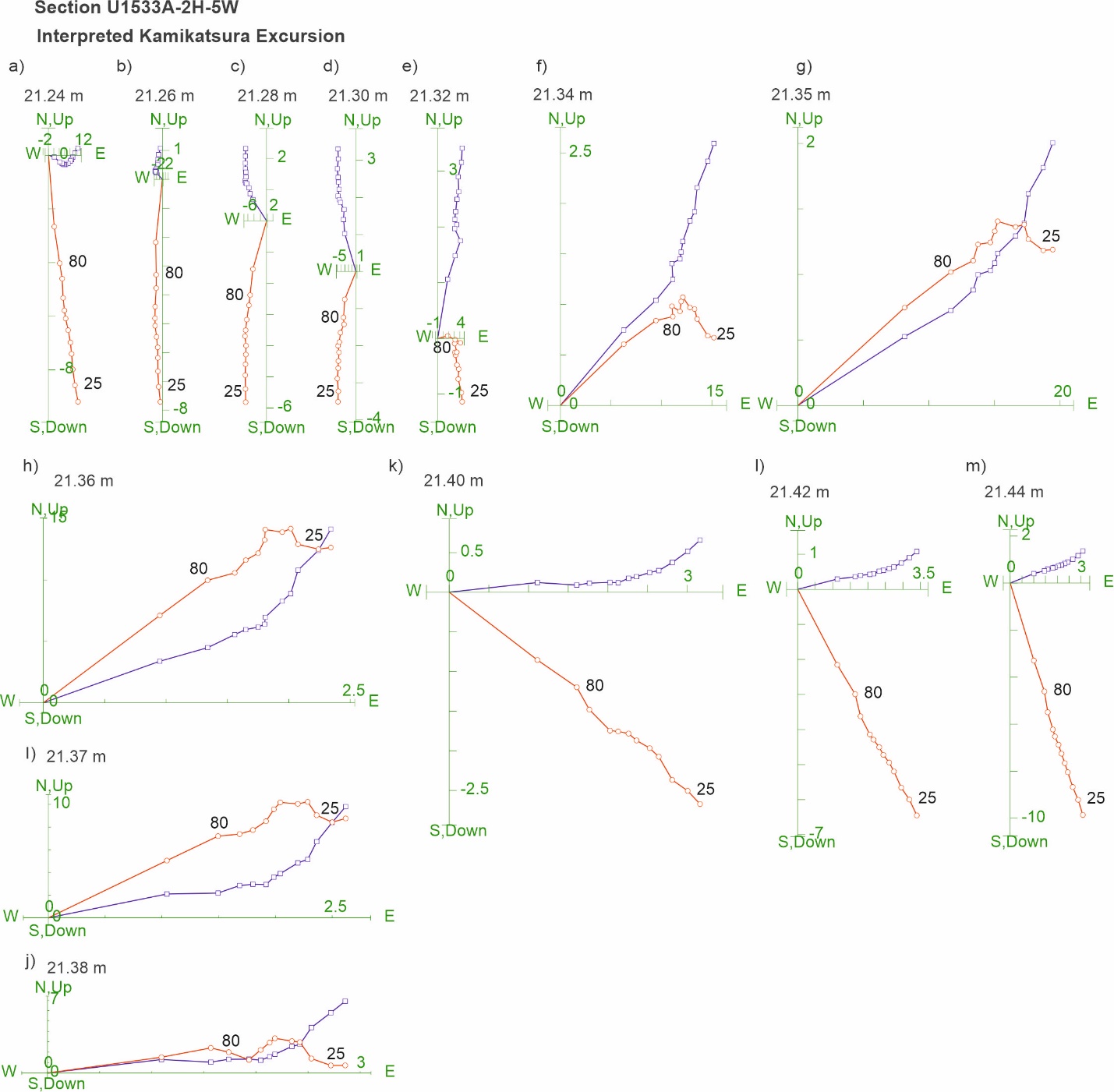
**Supplementary Figures and Tables**



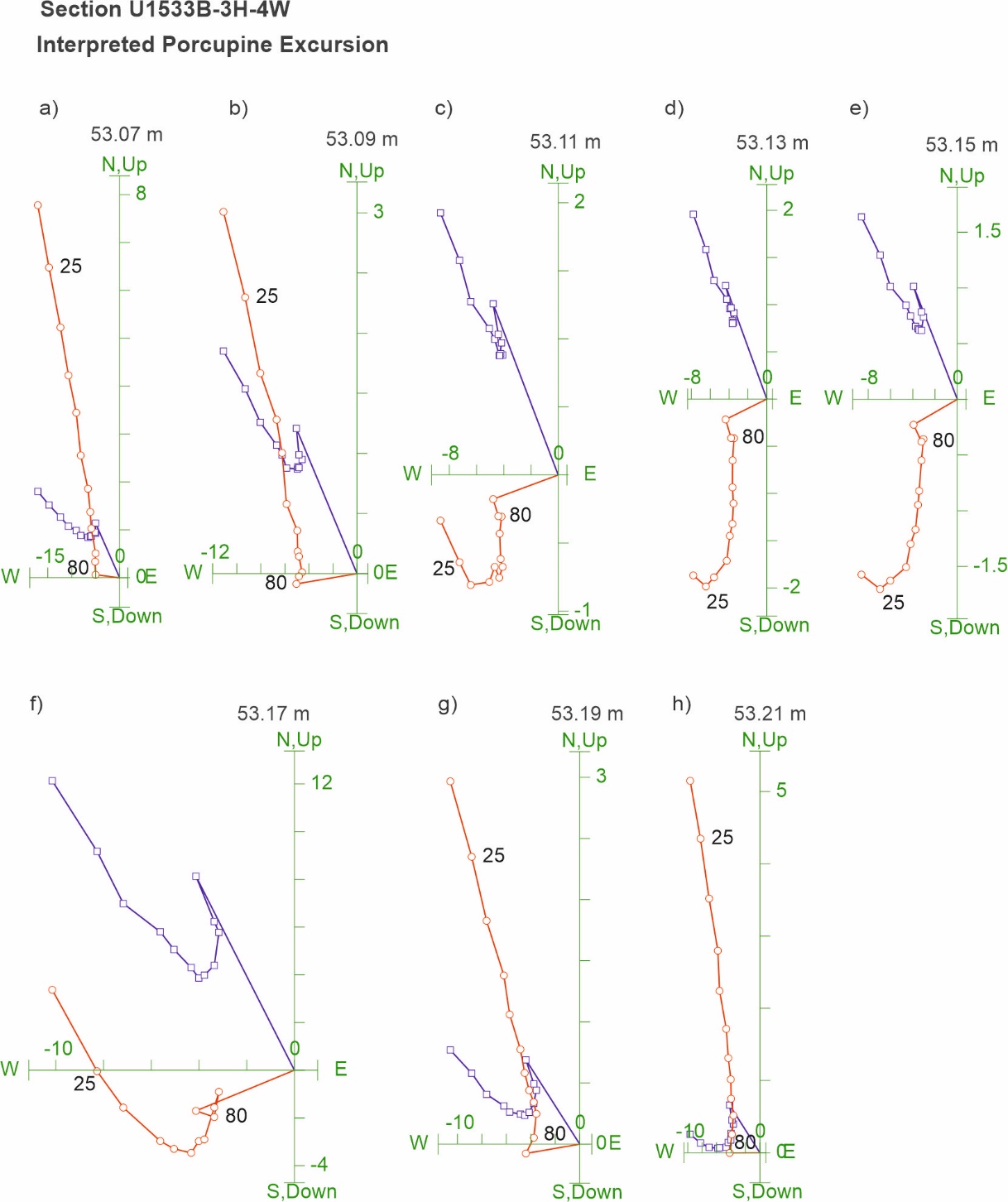
Supplementary Figure S. Comparison of Site U1533 geomagnetic relative palaeointensity (RPI) estimates using different normalisers: a) Natural remanent magnetisation (NRM) normalised by magnetic susceptibility (MS, blue), anhysteretic remanent magnetisation (ARM, red), and isothermal remanent magnetisation (IRM, yellow); b) Linear correlation coefficient r associated with the RPI estimates calculated using the UPmag software (Xuan & Channell, 2009) for NRM/ARM (red) and NRM/IRM (yellow).



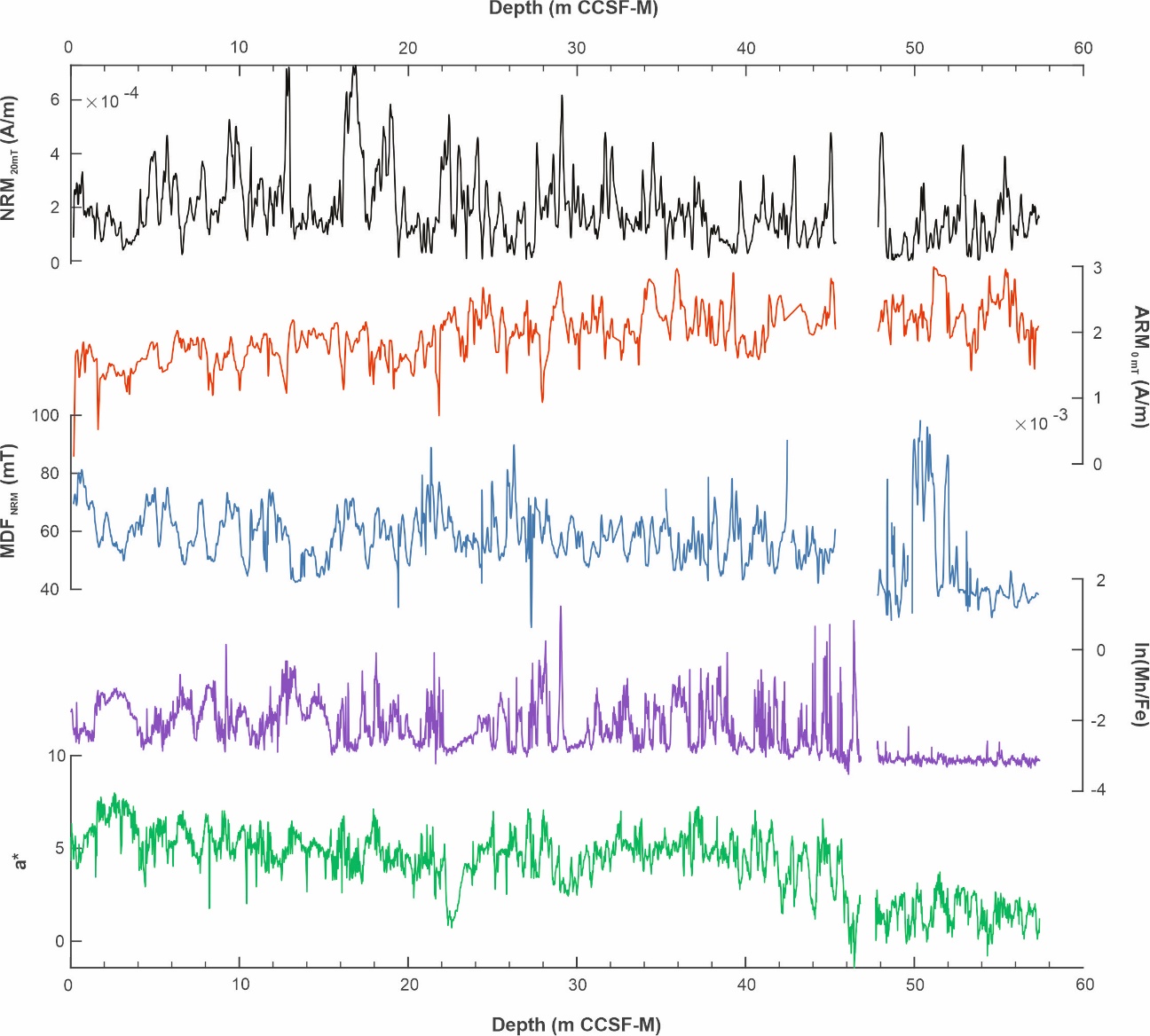
Supplementary Figure S. Examples of quality control on the palaeomagnetic data from Site U1533 using core photos taken during IODP Exp. 379, x-ray images (darker colours indicate dense material), and magnetic susceptibility (MS) data. a) U1533A-3H-4W 80–95 cm; and b) U1533B-3H-2W 15–30 cm. The x-ray images reveal the presence of clasts and coarse-grained layers in both intervals that often coincide with maxima in MS (e.g., at ~88 cm and ~26 cm in a and b respectively).



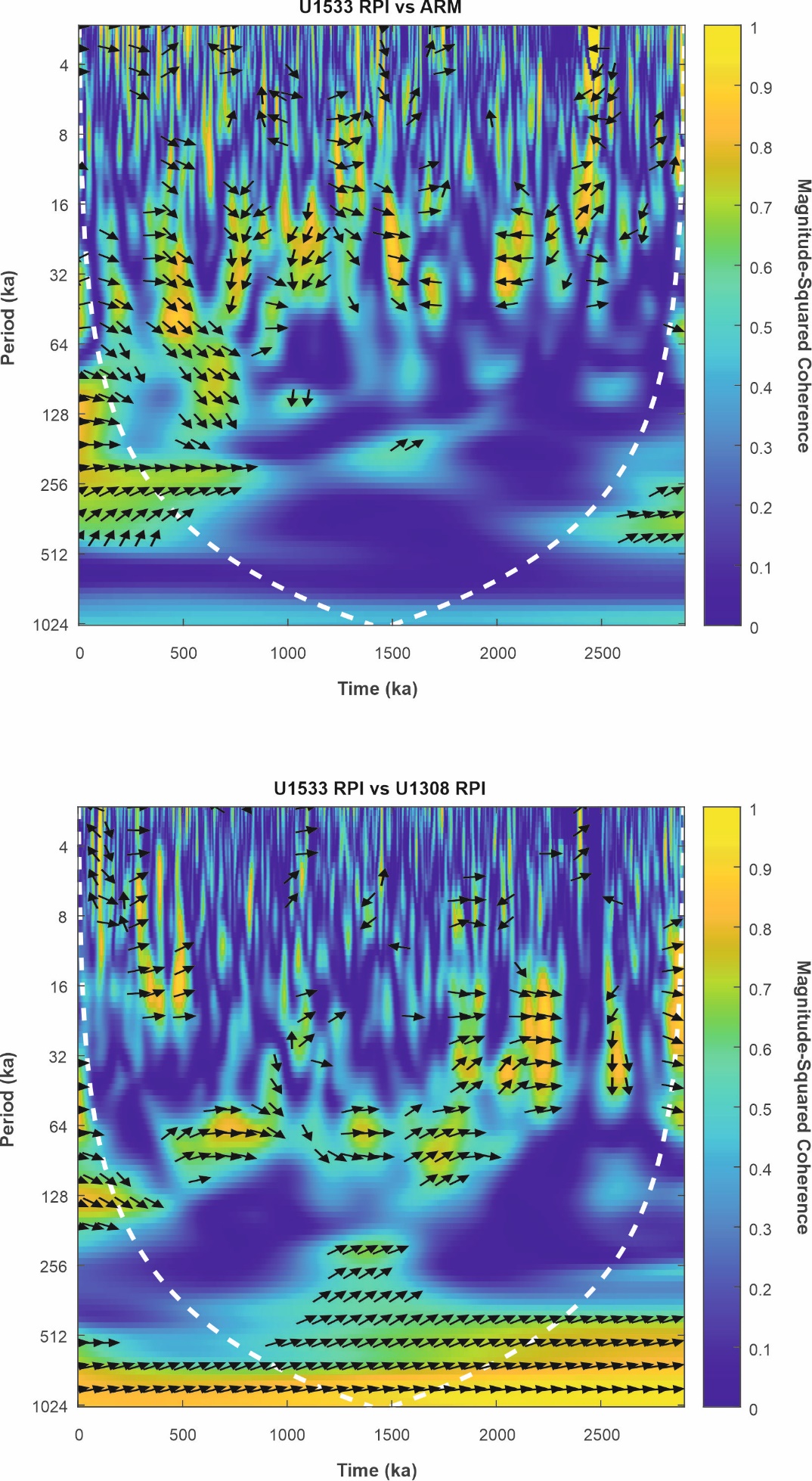
Supplementary Figure S. Zijderveld diagrams of NRM demagnetisation data for the interpreted Kamikatsura excursion in section U1533A-2H-5W 98–118 cm, with figures a)-m) showing results from varying depths within the core splice. NRM data from the 20–100 mT demagnetisation steps are shown. Red circles indicate projection endpoints on the vertical plane, blue squares indicate projection endpoints on horizontal plane.



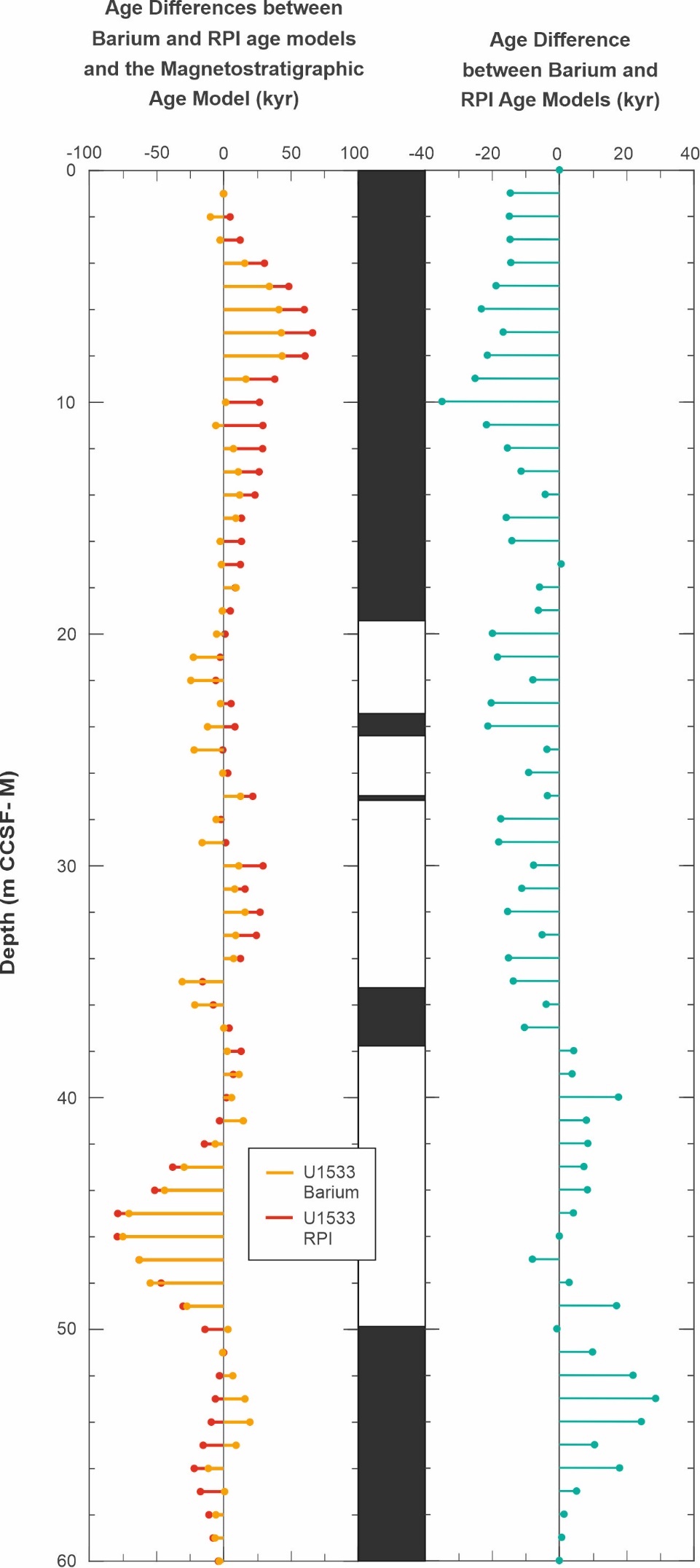
Supplementary Figure S. Zijderveld diagrams of NRM demagnetisation data for the interpreted Porcupine excursion in section U1533B-3H-4W 87–101 cm, with figures a)-h) showing results from varying depths within the core splice. NRM data from the 20–100 mT demagnetisation steps are shown. Red circles indicate projection endpoints on the vertical plane, blue squares indicate projection endpoints on horizontal plane.



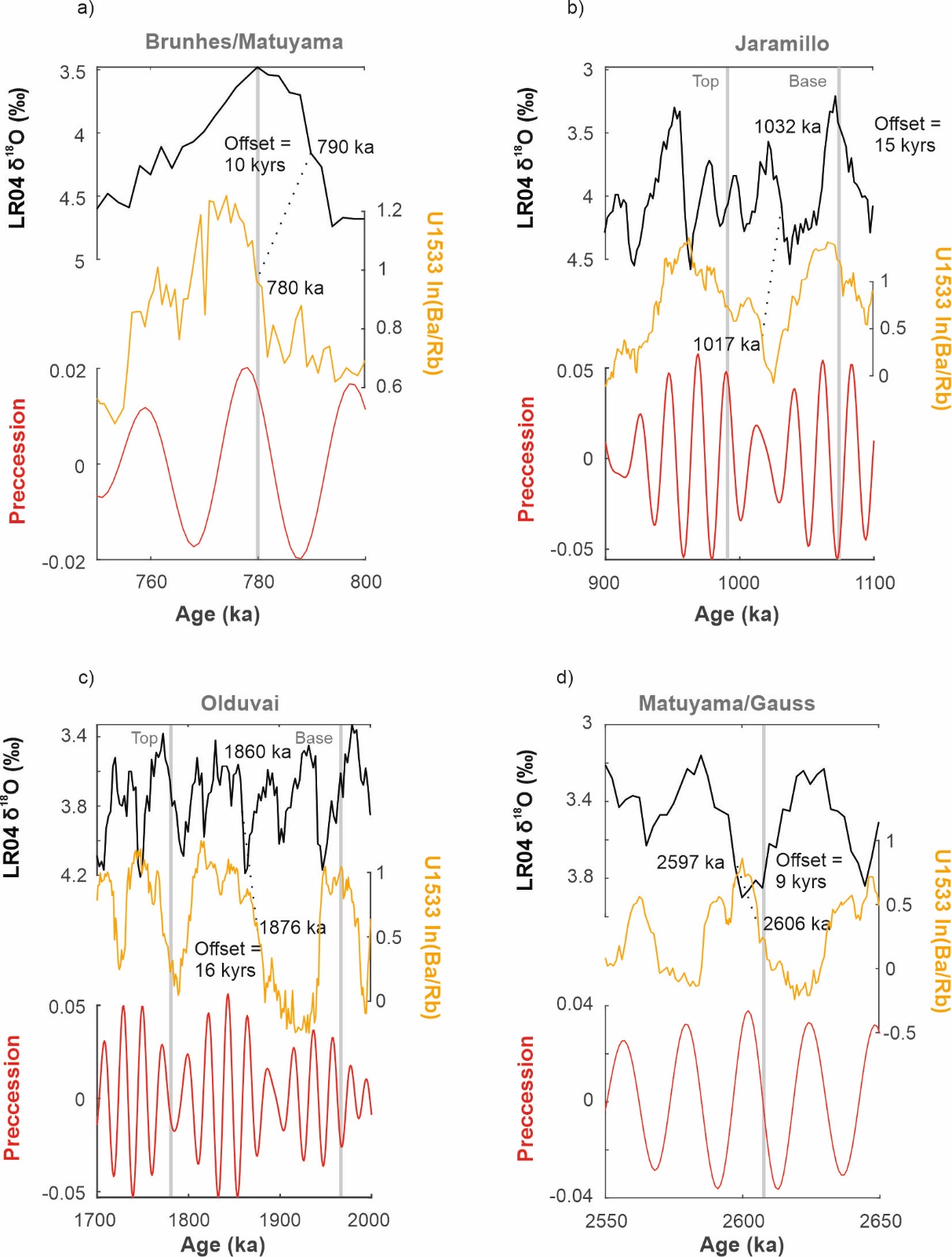
Supplementary Figure S. Site U1533 magnetic data compared with redox proxy and sediment colour data. Natural remanent magnetisation intensity (NRM; after 20 mT demagnetisation, in black) and anhysteretic remanent magnetisation intensity (ARM; red); median destructive field (MDF)NRM for the range 20-100 mT; the redox proxy ln(Mn/Fe) (pink); and a\* colour reflectance (green). Note the major changes in the redox proxy and colour at 45.82 m mapped composite depth (CCSF-M) and the lack of significant change in NRM or ARM around this depth. a\* colour reflectance data are from Wellner *et al.,* (2021).



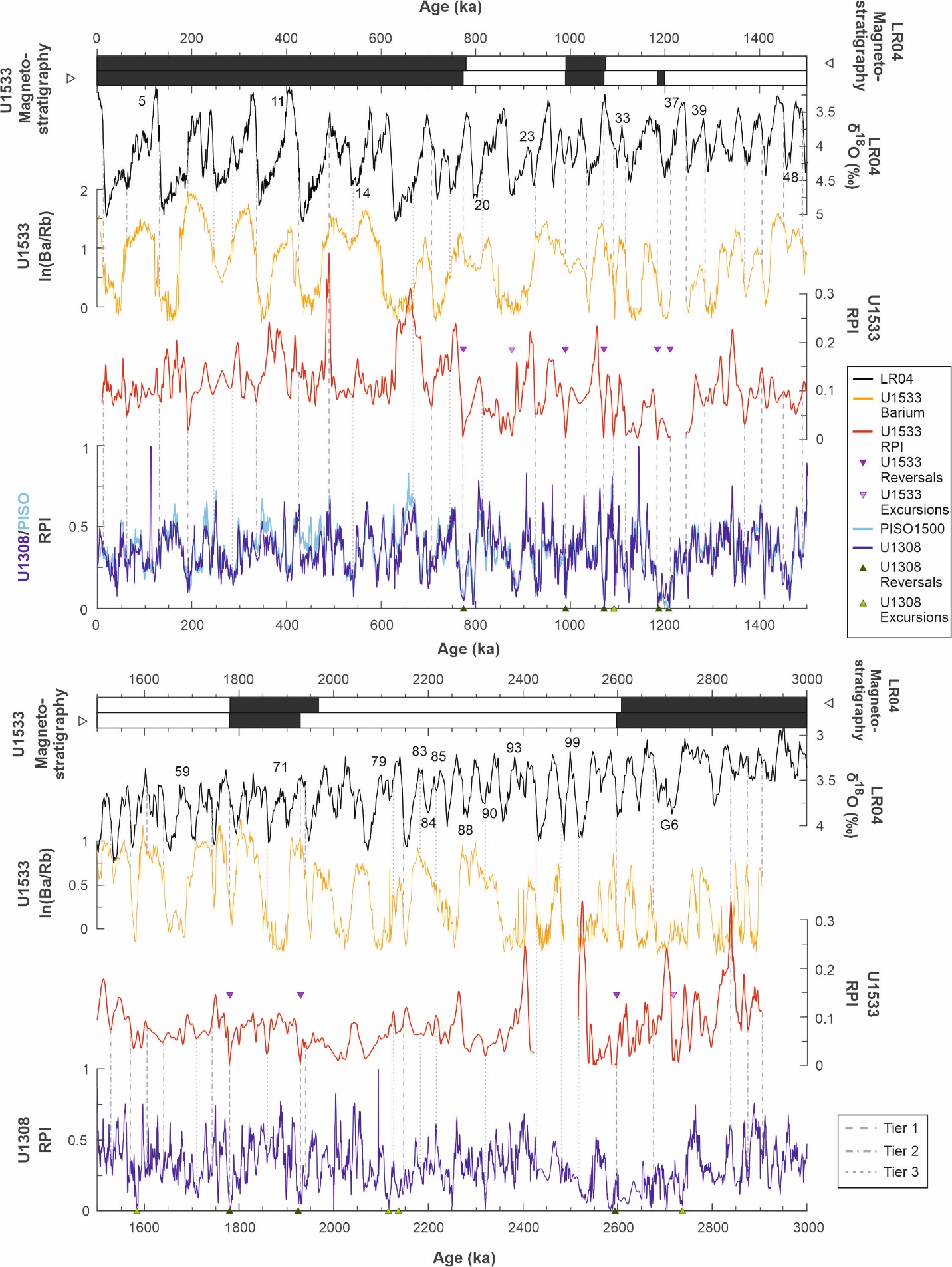
Supplementary Figure S6. Squared wavelet coherence between Site U1533 RPI and ARM intensity (used as a normaliser for RPI estimates) in time-frequency domain for 0­–2.9 Ma. Brighter (yellow) colours indicate stronger coherence. Arrows indicate phase relationship between the two records (in-phase pointing right). White dashed line indicates the cone of influence results are slightly influenced by edge effects.



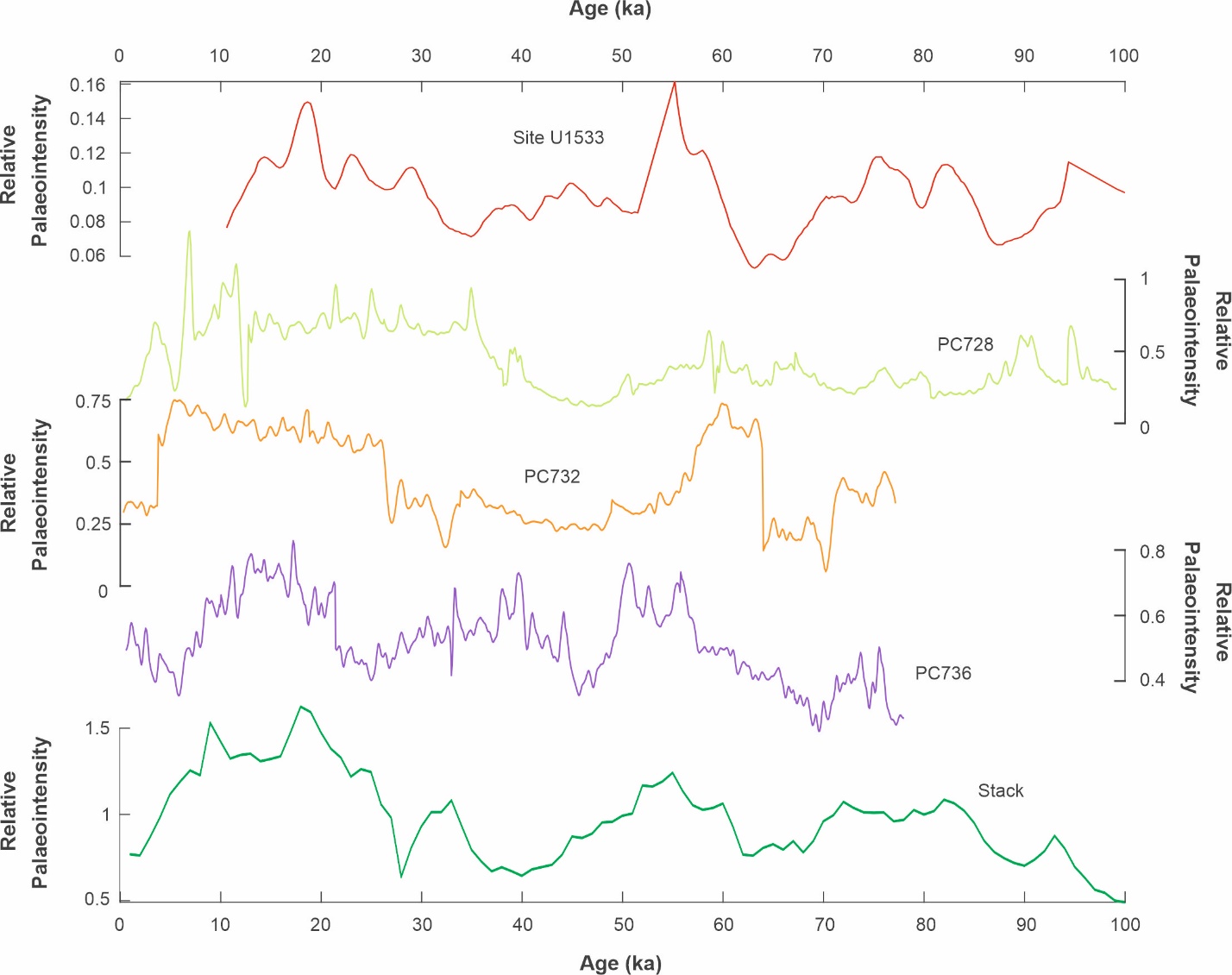
Supplementary Figure S7. Differences (in kyr) between the barium enrichment (Ba) and RPI-derived ages and the updated magnetostratigraphic (M) ages for Site U1533 (left: Ba vs M in yellow; RPI vs M in red), and between the Ba- and RPI-derived ages (right). Note the change in scale for the offset ages between the two panels.



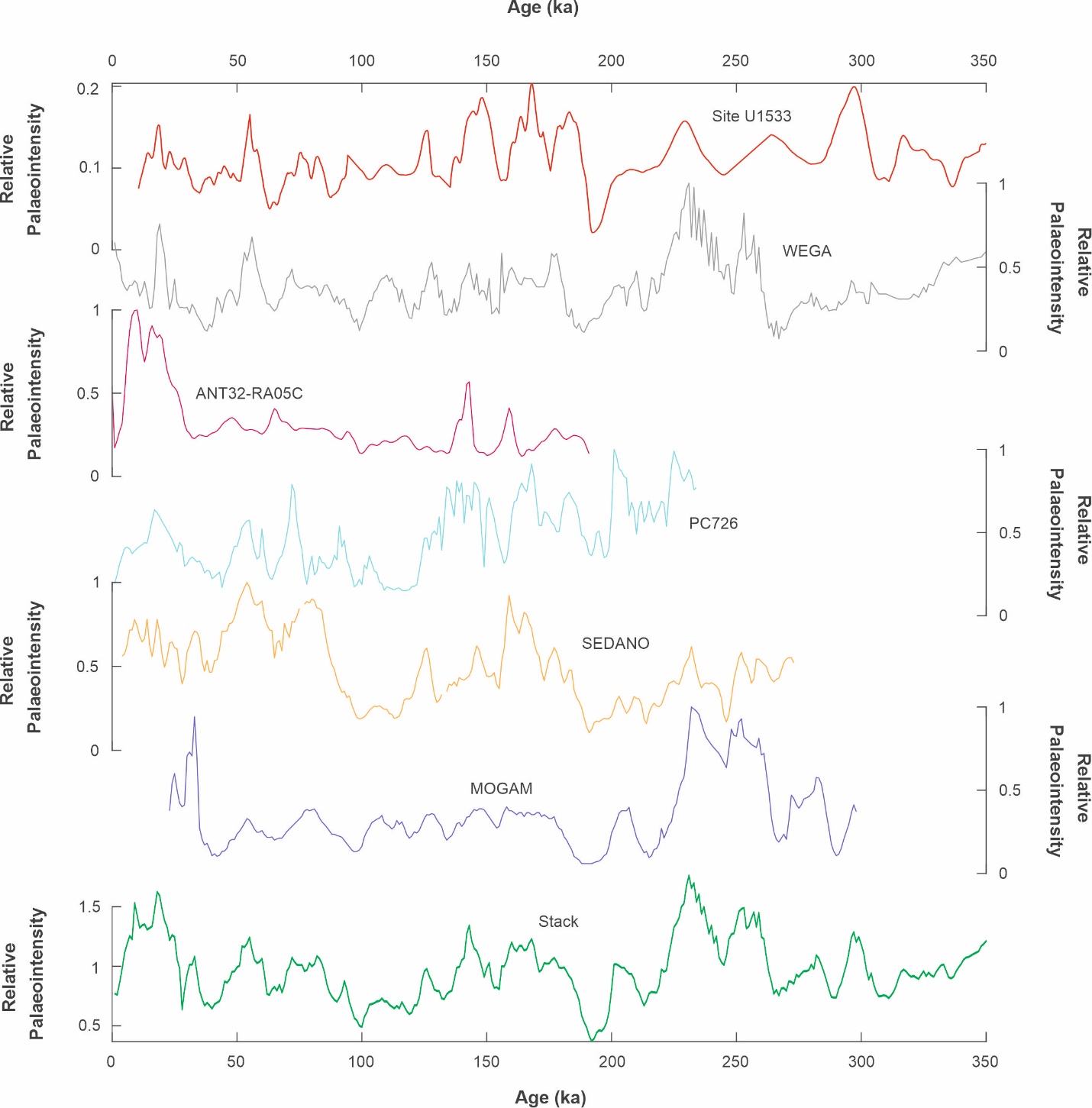
Supplementary Figure S8. Temporal offsets between the barium (ln(Ba/Rb)) record from Site U1533 (yellow) plotted vs. the magnetostratigraphic reversal boundaries using the same magnetic reversal ages as in LR04 (Lisiecki and Raymo, 2005) and the LR04 δ18O stack on its age model (black) across (sub-)chron boundaries. a) The Brunhes-Matuyama boundary; b) the Jaramillo subchron; c) the Olduvai subchron; and d) the Matuyama-Gauss boundary. Also shown are precession cycles for the plotted intervals (red curves; Laskar *et al.,* 2011). Magnetostratigraphic boundaries are shown as grey vertical lines, and the tie lines between increases in barium at Site U1533 and glacial-interglacial transitions in LR04 used for developing the barium enrichment derived age model for Site U1533 are shown as black dashed lines. Ages (based on the magnetostratigraphic age model for U1533 and the LR04 stack, respectively) and their offsets are given as numbers.



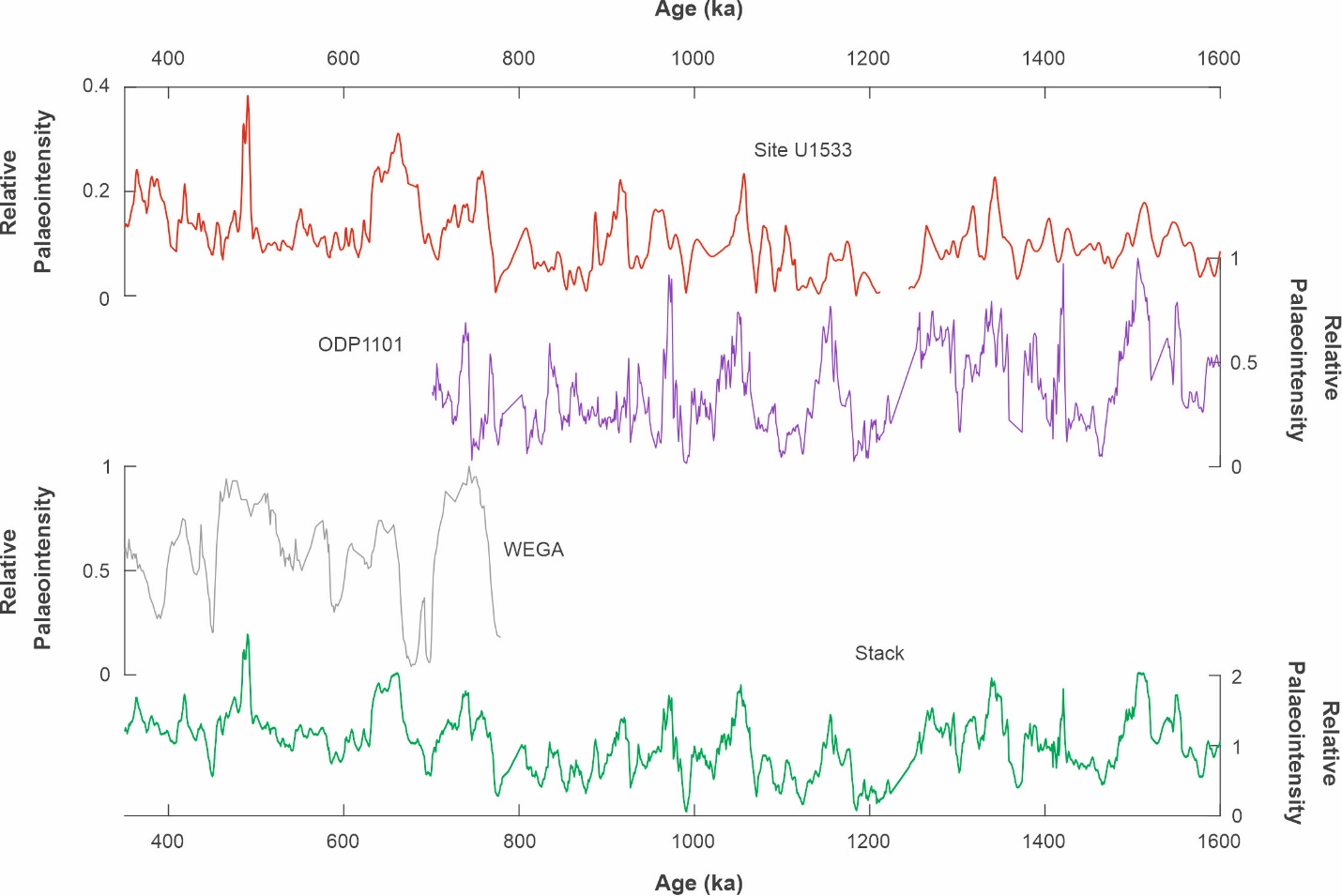
Supplementary Figure S9. Relative geomagnetic palaeointensity (RPI; red) and barium (ln(Ba/Rb), yellow) data from Site U1533 plotted on the hybrid age model, with LR04 (Lisiecki and Raymo, 2005) magnetostratigraphy (top bar) and Site U1533 magnetostratigraphy (bar directly below), the LR04 δ18O stack (black), PISO-1500 RPI stack (upper panel only, light blue; Channell *et al.,* 2009) and the Site U1308 RPI record (dark blue; Channell *et al.,* 2016). Tie point lines used for establishing the hybrid age model for Site U1533 are also shown (grey vertical lines). Tie points are separated by tiers of confidence (see key; Tier 1: most reliable, Tier 3: least reliable). Magnetic reversals and excursions for Sites U1533 (purple) and U1308 (green) are marked by triangles. Marine Isotope Stages (MIS) mentioned in the text are labelled.



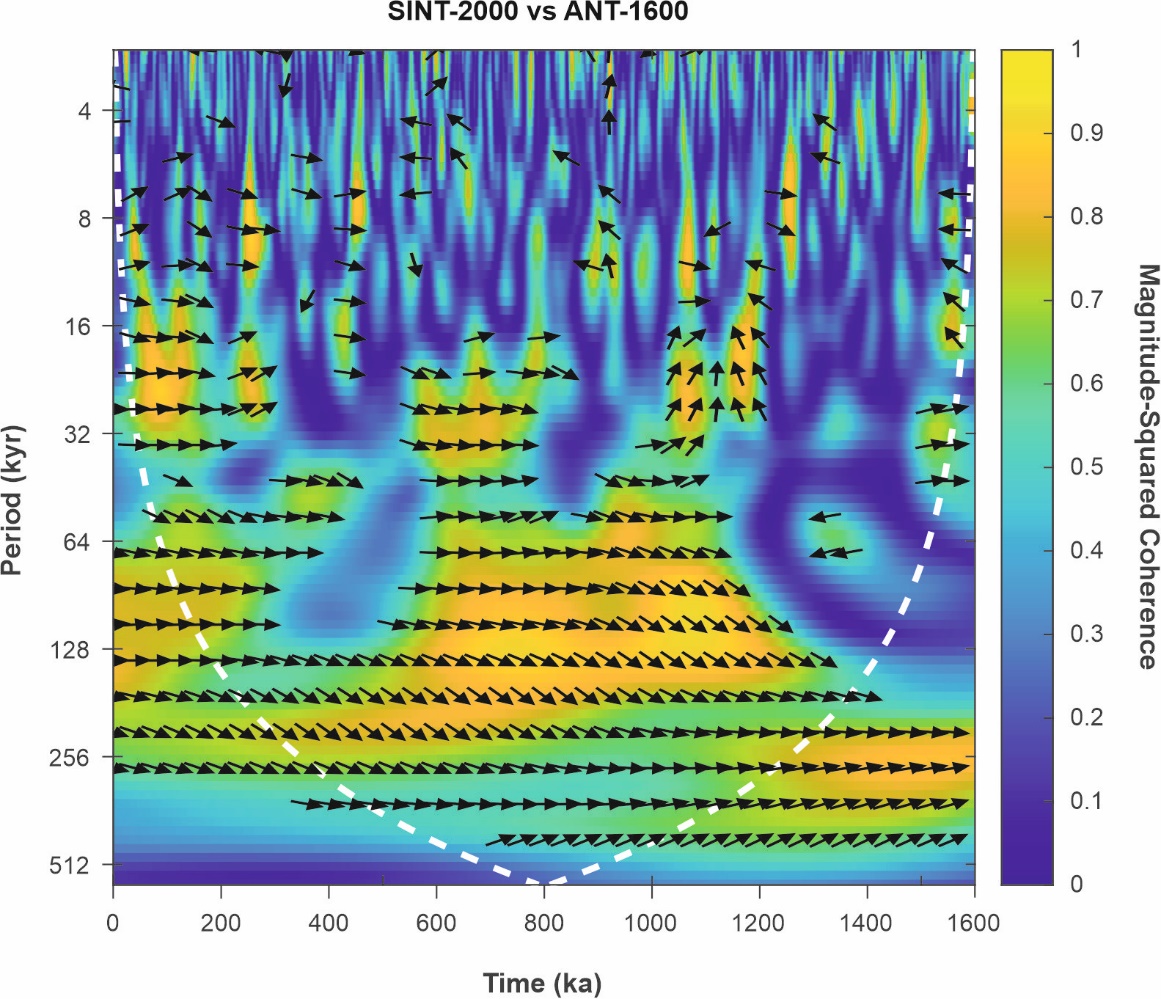
Supplementary Figure S10. Antarctic RPI records used in the ANT-1600 stack compilation for 0–100 ka. RPI records shown include those from Site U1533 (red, this study), cores PC728 (pale green), PC732 (orange) and PC736 (purple) from the western Antarctic Peninsula rise (Channell *et al.,* 2019) and the calculated ANT-1600 stack for this interval (green).



Supplementary Figure S11. Antarctic RPI records used in the ANT-1600 stack compilation for 0–350 ka. RPI records shown include those from Site U1533 (red, this study), WEGA cores PC18–20 and PC25–27 (grey) from the Wilkes Land margin (Macrí *et al.,* 2005), core ANT32-RA05C (pink) from the Ross Sea (Li e*t al.,* 2022), core PC726 (pale blue) from the western Antarctic Peninsula rise (Channell *et al.,* 2019), SEDANO cores SED14–17 (peach) from the western Antarctic Peninsula rise (Macrí *et al.,* 2006), MOGAM cores (blue) from the Wilkes Land margin (Jiménez-Espejo *et al.,* 2020); and the calculated ANT-1600 stack for this interval (green).



Supplementary Figure S2. Antarctic RPI records used in the ANT-1600 stack compilation for 350–1600 ka. RPI records shown include those from Site U1533 (red, this study), ODP Leg 178 Site 1101 (purple) from the western Antarctic Peninsula rise (Guyodo *et al.,* 2001; Channell *et al.,* 2019) and WEGA cores PC18–20 and PC25–27 (pink) from the Wilkes Land margin (Macrí *et al.,* 2005); and the calculated ANT-1600 stack for this interval (green).



Supplementary Figure S13. Squared wavelet coherence between SINT-2000 and ANT-1600 RPI stacks in the time-frequency domain. Brighter (yellow) colours indicate stronger coherence. Arrows indicate phase relationship between the two records (in-phase pointing right). White dashed line indicates the cone of influence results are significantly influenced by edge effects.

Supplementary Table S. Compilation of published Southern Ocean RPI records (core locations shown in Figure 1).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Time Period** | **Period (ka)** | **Location** | **Reference** |
| ODP Site 1098 | Holocene | 0-9 | W’ Antarctic Peninsula shelf | Brachfeld *et al.,* 2000 |
| WBB | Holocene | 0.7-8.6 | Antarctic Peninsula shelf | Willmott *et al.,* 2006 |
| KC23 | Holocene | 0-10.5 | E’ Antarctic Peninsula shelf | Brachfeld *et al.,* 2003 |
| LN2 | Holocene | 0-7.2 | E’ Antarctic Peninsula shelf | Smith *et al.,* 2021 |
| VC424 | Holocene | 0-14 | Amundsen Sea shelf | Hillenbrand *et al.,* 2010 |
| PS69/274-1 | Holocene | 0-14 | Amundsen Sea shelf | Hillenbrand *et al.,* 2011 |
| PS69/275-1 | Holocene | 0-14 | Amundsen Sea shelf | Hillenbrand *et al.,* 2012 |
| TPC268 | Pleistocene | 10-50 | Scotia Sea | Collins *et al.,* 2012 |
| TPC063 | Pleistocene | 10-50 | Scotia Sea | Collins *et al.,* 2013 |
| PS67/197-1 | Pleistocene | 0–90 | Scotia Sea | Xiao *et al.,* 2016 |
| PS67/219-1 | Pleistocene | 0–300 | Scotia Sea | Xiao *et al.,* 2016 |
| MD07-3134 | Pleistocene |  | Scotia Sea | Weber *et al.,* 2012 |
| PS97/085-3 | Pleistocene | 0-140 | Scotia Sea | Wu *et al.,* 2021 |
| ODP 1096 | Pleistocene | 0-200 | W’ Antarctic Peninsula rise | Carlon *et al.,* 2021 |
| RS15-LC42 | Pleistocene | 0-1350 | Ross Sea margin | Bollen *et al.,* 2022 |
| ANT32-RA05C | Pleistocene | 0-200 | Ross Sea margin | Li *et al.,* 2022 |
| ODP Site 1101 | Pleistocene | 700-1600 | W’ Antarctic Peninsula rise | Guyodo *et al.,* 2001; Channell *et al.,* 2019 |
| SEDANO | Pleistocene | 0-270 | W’ Antarctic Peninsula rise | Sagnotti *et al.,* 2001; Macrí *et al.,* 2006 |
| PC466 | Pleistocene | 0-75 | W’ Antarctic Peninsula rise | Vautravers *et al.,* 2013 |
| PC726 | Pleistocene | 0–250 | W’ Antarctic Peninsula rise | Channell *et al.,* 2019 |
| PC728 | Pleistocene | 0–100 | W’ Antarctic Peninsula rise | Channell *et al.,* 2019 |
| PC732 | Pleistocene | 0–80 | W’ Antarctic Peninsula rise | Channell *et al.,* 2019 |
| PC736 | Pleistocene | 0–80 | W’ Antarctic Peninsula rise | Channell *et al.,* 2019 |
| MOGAM | Pleistocene | 0-400 | Wilkes Land rise | Jimenez-Espejo *et al.,* 2020 |
| WEGA | Pleistocene | 0-780 | Wilkes Land rise | Macrí *et al.,* 2005 |
| CADO | Pleistocene | 0-800 | Wilkes Land rise | Macrí *et al.,* 2010 |

Supplementary Table S. Site U1533 depth intervals showing apparent excursions in characteristic remanent magnetisation (ChRM) directions (Fig. 2) and the criteria to classify them as excursions. Age estimates are based on the Site U1533 RPI age model. Proposed excursion names and ages refer to published excursions that coincide with of the potential excursions at Site U1533.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Depth m CCSF-M** | **Proposed age (ka)** | **No major changes in lithology, absence of cracks or disturbance** | **No major changes in magnetic properties** | **Well defined reversed magnetisation component** | **Potential named excursion** | **Potential excursion age (ka)** | **Reference** |
| 18.22 | 720 | Yes | No | No |  |  |  |
| 21.36 | 884 | Yes | Yes | Yes | Kamikatsura | 886 | Xuan *et al.,* 2016 |
| 24.97 | 1092 | No | Yes | No |  |  |  |
| 25.86 | 1113 | Yes | No | No | Punaruu | 1115 | Channell et al., 2002 |
| 26.32 | 1128 | Yes | No | No |  |  |  |
| 40.65 | 2100 | No | Yes | No | Feni | 2115 | Channell et al., 2003; Singer, 2014 |
| 42.54 | 2249 | No | No | No |  |  |  |
| 48.73 | 2551 | Yes | Yes | No |  |  |  |
| 53.13 | 2734 | Yes | Yes | Unclear | Porcupine | 2737 | Channell *et al.,* 2016 |

Supplementary Table S. Tie points and their tiers for the barium enrichment derived age model developed for Site U1533 (Tier 1: most reliable, Tier 3: least reliable).

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Tier 1.** |  | **Tier 2.** |  | **Tier 3.** |  | **Combined Tiers** |  |
| **Depth (m CCSF-M)** | **Age (ka)** | **Depth (m CCSF-M)** | **Age (ka)** | **Depth (m CCSF-M)** | **Age (ka)** | **Depth (m CCSF-M)** | **Age (ka)** |
|  |  |  |  |  |  | 0 | 0 |
|  |  | 0.19 | 13.415 |  |  | 0.19 | 13.415 |
|  |  |  |  | 1.48 | 71 | 1.48 | 71 |
|  |  | 4.316 | 131.8275 |  |  | 4.316 | 131.8275 |
|  |  |  |  | 5.88 | 191 | 5.88 | 191 |
|  |  |  |  | 7.31 | 247 | 7.31 | 247 |
|  |  |  |  | 7.68 | 286 | 7.68 | 286 |
|  |  | 8.685 | 335 |  |  | 8.685 | 335 |
|  |  |  |  | 9.51 | 391 | 9.51 | 391 |
|  |  | 10.884 | 426 |  |  | 10.884 | 426 |
|  |  |  |  | 12.4061 | 481 | 12.4061 | 481 |
|  |  |  |  | 13.81 | 538 | 13.81 | 538 |
|  |  |  |  | 15.445 | 622 | 15.445 | 622 |
|  |  |  |  | 17.04 | 668 | 17.04 | 668 |
|  |  | 17.74 | 707 |  |  | 17.74 | 707 |
|  |  |  |  | 18.77 | 746 | 18.77 | 746 |
|  |  | 19.435 | 789 |  |  | 19.435 | 789 |
|  |  |  |  | 19.85 | 814 | 19.85 | 814 |
|  |  | 20.495 | 866 |  |  | 20.495 | 866 |
|  |  |  |  | 22.2341 | 922 | 22.2341 | 922 |
|  |  |  |  | 23.309 | 1001 | 23.309 | 1001 |
|  |  | 23.7286 | 1034 |  |  | 23.7286 | 1034 |
|  |  |  |  | 24.0284 | 1062 | 24.0284 | 1062 |
|  |  | 24.388 | 1082 |  |  | 24.388 | 1082 |
|  |  | 25.8565 | 1117 |  |  | 25.8565 | 1117 |
|  |  | 26.8492 | 1178 |  |  | 26.8492 | 1178 |
| 27.31 | 1212 |  |  |  |  | 27.31 | 1212 |
| 27.3100001 | 1244.195 |  |  |  |  | 27.3100001 | 1244.195 |
| 27.92 | 1285 |  |  |  |  | 27.92 | 1285 |
|  |  |  |  | 28.86 | 1320 | 28.86 | 1320 |
|  |  | 29.54 | 1368 |  |  | 29.54 | 1368 |
| 30.04 | 1405 |  |  |  |  | 30.04 | 1405 |
| 30.815 | 1451 |  |  |  |  | 30.815 | 1451 |
|  |  | 31.41 | 1491.195 |  |  | 31.41 | 1491.195 |
|  |  | 31.85735 | 1528.515 |  |  | 31.85735 | 1528.515 |
|  |  | 32.3912 | 1570 |  |  | 32.3912 | 1570 |
|  |  |  |  | 32.65 | 1582.5 | 32.65 | 1582.5 |
|  |  | 33.375 | 1640 |  |  | 33.375 | 1640 |
|  |  |  |  | 33.73 | 1695 | 33.73 | 1695 |
|  |  | 34.3 | 1742.75 |  |  | 34.3 | 1742.75 |
|  |  | 35.22 | 1788.27 |  |  | 35.22 | 1788.27 |
|  |  |  |  | 35.89 | 1813.5 | 35.89 | 1813.5 |
|  |  |  |  | 36.66 | 1863.5 | 36.66 | 1863.5 |
|  |  | 38.115 | 1940 |  |  | 38.115 | 1940 |
|  |  |  |  | 39.06 | 1997.94 | 39.06 | 1997.94 |
|  |  |  |  | 39.68 | 2017.5 | 39.68 | 2017.5 |
|  |  |  |  | 40.32 | 2063 | 40.32 | 2063 |
|  |  |  |  | 40.73 | 2100 | 40.73 | 2100 |
|  |  | 41.53 | 2147 |  |  | 41.53 | 2147 |
|  |  |  |  | 41.83 | 2182.5 | 41.83 | 2182.5 |
|  |  |  |  | 42.9 | 2253.11 | 42.9 | 2253.11 |
|  |  |  |  | 43.4 | 2302.5 | 43.4 | 2302.5 |
|  |  |  |  | 44.12 | 2352.5 | 44.12 | 2352.5 |
|  |  |  |  | 45.425 | 2428 | 45.425 | 2428 |
|  |  |  |  | 46.135 | 2450 | 46.135 | 2450 |
|  |  |  |  | 46.59 | 2481 | 46.59 | 2481 |
|  |  |  |  | 47.89 | 2517.5 | 47.89 | 2517.5 |
|  |  |  |  | 48.93 | 2540 | 48.93 | 2540 |
|  |  |  |  | 49.48 | 2572.5 | 49.48 | 2572.5 |
| 49.88 | 2597 |  |  |  |  | 49.88 | 2597 |
|  |  | 51.13 | 2637.5 |  |  | 51.13 | 2637.5 |
|  |  | 52.35 | 2675 |  |  | 52.35 | 2675 |
|  |  |  |  | 53.75 | 2730 | 53.75 | 2730 |
|  |  |  |  | 54.59 | 2800 | 54.59 | 2800 |
|  |  | 56.025 | 2840 |  |  | 56.025 | 2840 |
|  |  | 56.71 | 2872.5 |  |  | 56.71 | 2872.5 |
|  |  | 57.42 | 2905 |  |  | 57.42 | 2905 |
|  |  |  |  |  |  | 60 | 3000 |

Supplementary Table S. Tie points and their tiers developed for the RPI age model at Site U1533 (Tier 1: most reliable, Tier 3: least reliable).

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Tier 1.** |  | **Tier 2.** |  | **Tier 3.** |  | **Combined Tiers** |  |
| **Depth (m CCSF-M)** | **Age (ka)** | **Depth (m CCSF-M)** | **Age (ka)** | **Depth (m CCSF-M)** | **Age (ka)** | **Depth (m CCSF-M)** | **Age (ka)** |
|  |  |  |  |  |  | 0 | 0 |
|  |  | 1.8 | 62.88 |  |  | 1.8 | 62.88 |
|  |  |  |  | 4.45 | 120.31 | 4.45 | 120.31 |
|  |  | 6.59 | 192.25 |  |  | 6.59 | 192.25 |
|  |  | 8.1 | 286.34 |  |  | 8.1 | 286.34 |
|  |  |  |  | 8.74 | 321.55 | 8.74 | 321.55 |
|  |  |  |  | 10.47 | 385.98 | 10.47 | 385.98 |
| 12.94 | 490.66 |  |  |  |  | 12.94 | 490.66 |
|  |  |  |  | 13.94 | 541.14 | 13.94 | 541.14 |
|  |  |  |  | 15.79 | 614.697 | 15.79 | 614.697 |
| 17.75 | 700 |  |  |  |  | 17.75 | 700 |
| 19.435 | 773.6 |  |  |  |  | 19.435 | 773.6 |
|  |  |  |  | 21.36 | 884.43 | 21.36 | 884.43 |
|  |  | 22.5695 | 926.24 |  |  | 22.5695 | 926.24 |
| 23.435 | 990 |  |  |  |  | 23.435 | 990 |
| 24.388 | 1071 |  |  |  |  | 24.388 | 1071 |
|  |  | 24.9577 | 1091.87 |  |  | 24.9577 | 1091.87 |
|  |  |  |  | 26.2667 | 1123 | 26.2667 | 1123 |
| 26.98 | 1184 |  |  |  |  | 26.98 | 1184 |
| 27.29 | 1208 |  |  |  |  | 27.29 | 1208 |
|  |  |  |  | 27.62 | 1257.51 | 27.62 | 1257.51 |
|  |  |  |  | 28.87 | 1300.25 | 28.87 | 1300.25 |
|  |  | 29.64 | 1368.59 |  |  | 29.64 | 1368.59 |
|  |  | 30.22 | 1410.08 |  |  | 30.22 | 1410.08 |
|  |  |  |  | 31.2 | 1463.11 | 31.2 | 1463.11 |
|  |  |  |  | 32.78 | 1583.7 | 32.78 | 1583.7 |
|  |  |  |  | 34.08 | 1710.24 | 34.08 | 1710.24 |
| 35.275 | 1779.6 |  |  |  |  | 35.275 | 1779.6 |
|  |  |  |  | 36.83 | 1859.2 | 36.83 | 1859.2 |
| 37.79 | 1925.67 |  |  |  |  | 37.79 | 1925.67 |
|  |  |  |  | 40.09 | 2063.28 | 40.09 | 2063.28 |
|  |  |  |  | 41.03 | 2125.92 | 41.03 | 2125.92 |
|  |  |  |  | 41.58 | 2172.74 | 41.58 | 2172.74 |
|  |  |  |  | 42.2 | 2216.25 | 42.2 | 2216.25 |
|  |  |  |  | 42.55 | 2250 | 42.55 | 2250 |
|  |  |  |  | 42.87 | 2260.23 | 42.87 | 2260.23 |
|  |  |  |  | 43.64 | 2319.96 | 43.64 | 2319.96 |
|  |  |  |  | 44.32 | 2381.49 | 44.32 | 2381.49 |
| 49.88 | 2595 |  |  |  |  | 49.88 | 2595 |
|  |  |  |  | 53.17 | 2736.57 | 53.17 | 2736.57 |
|  |  | 55.37 | 2839.2 |  |  | 55.37 | 2839.2 |
|  |  | 56.59 | 2874.2 |  |  | 56.59 | 2874.2 |
|  |  |  |  | 57.16 | 2897.44 | 57.16 | 2897.44 |
|  |  |  |  |  |  | 60 | 3000 |

Supplementary Table S. Tie points and their tiers for the hybrid age model developed for Site U1533 (Tier 1: most reliable, Tier 3: least reliable).

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Tier 1.** |  | **Tier 2.** |  | **Tier 3.** |  | **Combined Tiers** |  |
| **Depth (m CCSF-M)** | **Age (ka)** | **Depth (m CCSF-M)** | **Age (ka)** | **Depth (m CCSF-M)** | **Age (ka)** | **Depth (m CCSF-M)** | **Age (ka)** |
| 0 | 0 |  |  |  |  | 0 | 0 |
|  |  | 0.19 | 13.415 |  |  | 0.19 | 13.415 |
|  |  | 1.8 | 62.88 |  |  | 1.8 | 62.88 |
|  |  | 4.316 | 131.8275 |  |  | 4.316 | 131.8275 |
|  |  | 6.59 | 192.25 |  |  | 6.59 | 192.25 |
|  |  |  |  | 7.31 | 247 | 7.31 | 247 |
|  |  |  |  | 7.68 | 286 | 7.68 | 286 |
|  |  | 8.74 | 337.28 |  |  | 8.74 | 337.28 |
|  |  | 10.884 | 426 |  |  | 10.884 | 426 |
| 12.94 | 490.66 |  |  |  |  | 12.94 | 490.66 |
|  |  |  |  | 13.94 | 541.14 | 13.94 | 541.14 |
|  |  |  |  | 17.04 | 668 | 17.04 | 668 |
| 17.74 | 707 |  |  |  |  | 17.74 | 707 |
|  |  |  |  | 18.77 | 746 | 18.77 | 746 |
| 19.435 | 773.6 |  |  |  |  | 19.435 | 773.6 |
|  |  |  |  | 19.85 | 814 | 19.85 | 814 |
|  |  | 22.5695 | 926.24 |  |  | 22.5695 | 926.24 |
| 23.435 | 990 |  |  |  |  | 23.435 | 990 |
|  |  | 23.7286 | 1034 |  |  | 23.7286 | 1034 |
| 24.388 | 1071 |  |  |  |  | 24.388 | 1071 |
|  |  | 24.9577 | 1091.87 |  |  | 24.9577 | 1091.87 |
|  |  | 25.8565 | 1117 |  |  | 25.8565 | 1117 |
| 26.98 | 1184 |  |  |  |  | 26.98 | 1184 |
| 27.31 | 1212 |  |  |  |  | 27.31 | 1212 |
| 27.3100001 | 1244.195 |  |  |  |  | 27.3100001 | 1244.195 |
| 27.92 | 1285 |  |  |  |  | 27.92 | 1285 |
|  |  | 29.64 | 1368.59 |  |  | 29.64 | 1368.59 |
| 30.04 | 1405 |  |  |  |  | 30.04 | 1405 |
| 30.815 | 1451 |  |  |  |  | 30.815 | 1451 |
|  |  | 31.41 | 1491.195 |  |  | 31.41 | 1491.195 |
|  |  | 31.85735 | 1528.515 |  |  | 31.85735 | 1528.515 |
|  |  | 32.3912 | 1570 |  |  | 32.3912 | 1570 |
| 32.97 | 1605 |  |  |  |  | 32.97 | 1605 |
|  |  | 33.375 | 1640 |  |  | 33.375 | 1640 |
|  |  |  |  | 34.08 | 1710.24 | 34.08 | 1710.24 |
|  |  | 34.3 | 1742.75 |  |  | 34.3 | 1742.75 |
| 35.275 | 1779.6 |  |  |  |  | 35.275 | 1779.6 |
|  |  |  |  | 36.83 | 1859.2 | 36.83 | 1859.2 |
| 37.79 | 1929.33 |  |  |  |  | 37.79 | 1929.33 |
|  |  | 38.115 | 1940 |  |  | 38.115 | 1940 |
|  |  |  |  | 41.03 | 2125.92 | 41.03 | 2125.92 |
|  |  | 41.53 | 2147 |  |  | 41.53 | 2147 |
|  |  |  |  | 41.83 | 2182.5 | 41.83 | 2182.5 |
|  |  |  |  | 42.2 | 2216.25 | 42.2 | 2216.25 |
|  |  |  |  | 43.64 | 2319.96 | 43.64 | 2319.96 |
|  |  |  |  | 45.425 | 2428 | 45.425 | 2428 |
|  |  |  |  | 46.59 | 2481 | 46.59 | 2481 |
|  |  |  |  | 47.89 | 2517.5 | 47.89 | 2517.5 |
| 49.88 | 2597 |  |  |  |  | 49.88 | 2597 |
|  |  | 52.35 | 2675 |  |  | 52.35 | 2675 |
|  |  | 55.37 | 2839.2 |  |  | 55.37 | 2839.2 |
|  |  | 56.59 | 2874.2 |  |  | 56.59 | 2874.2 |
|  |  | 57.42 | 2905 |  |  | 57.42 | 2905 |
|  |  |  |  |  |  | 60 | 3000 |

Attached separately:

Supplementary Table S6. ANT-1600 RPI stack and standard error.