This supplemental file contains a description of the intercalibration process used to integrate the X-ray fluorescence (XRF) datasets collected at different times. It also includes Supplementary Figures S1-S11 and Table S6. All Supplementary Tables S1-S7 (including Table S6) are available as individual excel files within the supplementary zip file. All Supplementary Tables (S1-S7) are also stored on the open access PANGAEA database (https://doi.pangaea.de/10.1594/PANGAEA.919489). All composite line scan and core box core and splice are available as supplementary information on PANGAEA, and on www.codd-home.net. All Supplementary Figures (S1-S11) and Supplementary Tables (S1-S7) are referred to in the main manuscript. All references cited here are included in the main manuscript's reference list.

Overview of Supplementary Tables, Figures and Core Images ***(*archived on PANGAEA)***

Supplementary figures:

SI Figures S1) XRF intercalibration of the four measurement campaigns

SI Figures S2) Downcore intercalibrated XRF data from Site 1264: ln(Ca/Fe), Si, Fe, K, Ti, and Mn

SI Figures S3) Splice panels for entire interval showing revisions.

SI Figures S4) Revisions to the offsplice mapping pairs of Core 1264A-29H

SI Figures S5) Generation of the composite core image of ODP Sites 1264 and 1265.

SI Figures S6) Calibration of ln(Ca/Fe) to shipboard $CaCO_3$

SI Figures S7) Calculation of bulk and $CaCO_3$ MARs

SI Figures S8) Polynomial fit through selected (i.e. high-quality) Site 1264 bio/magnetostratigraphic events

SI Figures S9) Spectral analysis of %$CaCO_3$ on the polynomial age model

SI Figures S10) Oversized panels showing depth to age tie points and age model generation

SI Figures S11) Antiphase relationship between benthic $\delta^{18}O$ and %$CaCO_3$

Supplementary tables:

SI Table S1) Site 1264 XRF and Site 1264-1265 $CaCO_3$ data, including sedimentation rates and all MARs. The uncalibrated 1264 datasets and full Site 1265 $CaCO_3$ data are also included*

SI Table S2) Offsets/affine tables for 1264*

SI Table S3) Splice tie table for 1264*

SI Table S4) Mapping tables for 1264*

SI Table S5) 1264-1265 correlation to accommodate splice revisions*

SI Table S6) Selected (i.e. high-quality) bio- and magnetostratigraphic events for Site 1264*

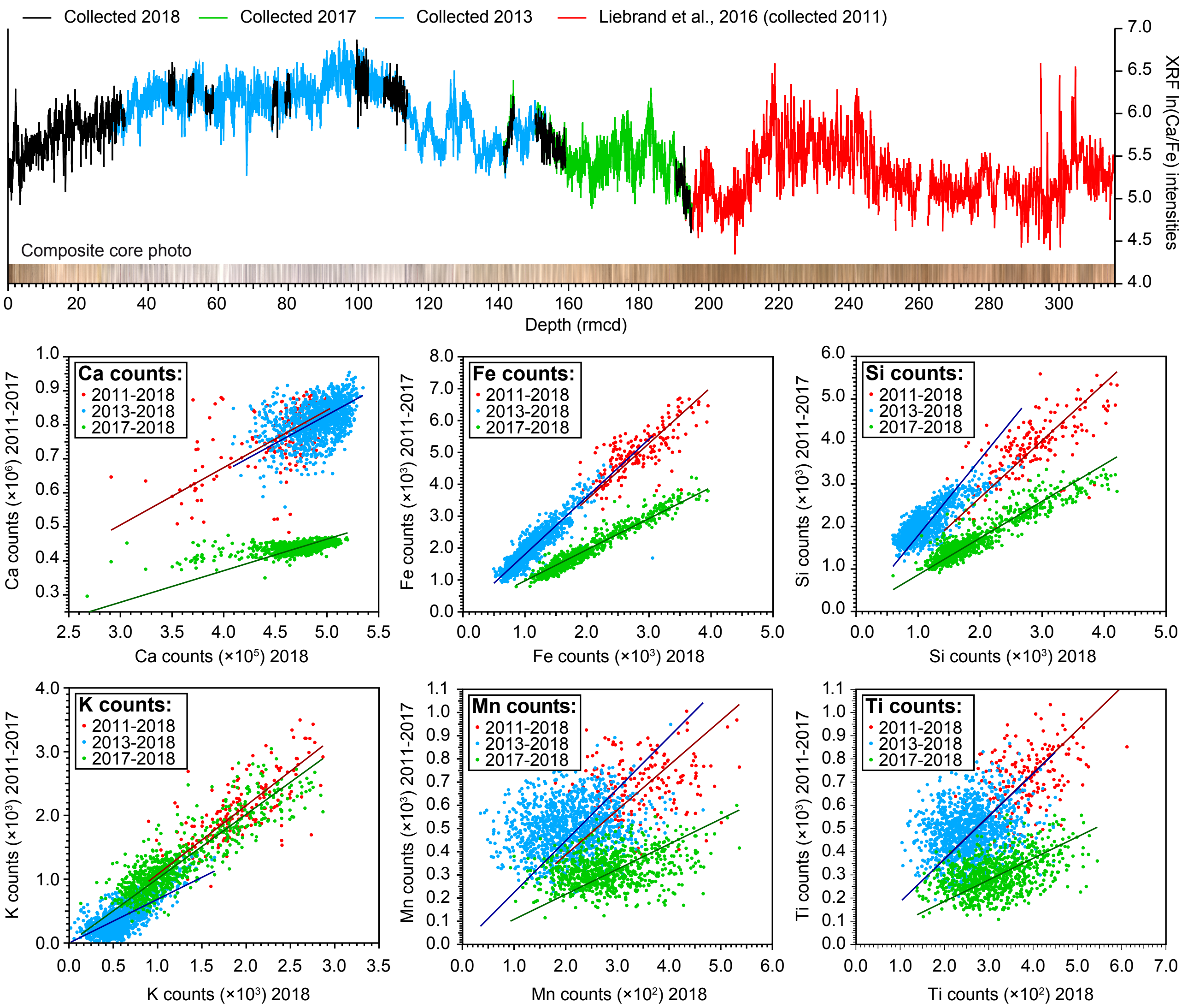
SI Table S7) New astrochronology (with sedimentation rates) for Site 1264*

Other Supplementary information (on PANGAEA and www.CODD-home.net):

Other SI S1) Site 1264 composite line scan core and splice images compiled from line scan images*

Other SI S2) Site 1264 composite line scan core and splice images compiled from core box images*

1.1. Intercalibration of XRF Core Scanning Data



Supplementary Figure S1: *XRF intercalibration to account for measurement differences over time.*

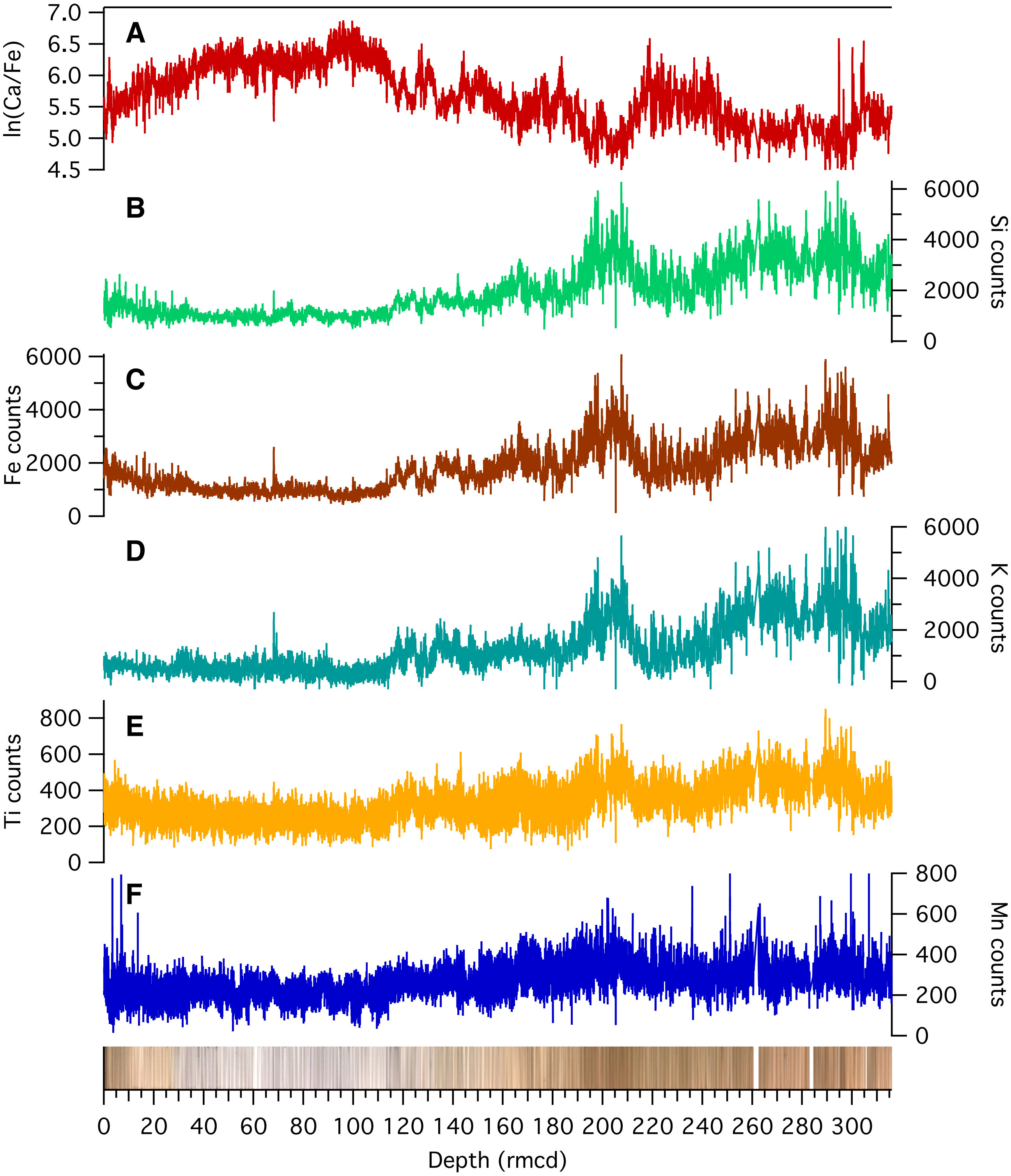
The X-Ray Fluorescence (XRF) core scanning data was collected in 2011 (195.12-205 rmcd), 2013 (29.21-153.28 rmcd), 2017 (141.49-195.12 rmcd) and 2018 (0-33.35 rmcd). This data was integrated with published Oligocene-early Miocene XRF data (205-315.96 rmcd; Liebrand et al., 2016), which was also collected in 2011. The data from 2011, 2013 and 2018 was collected on the MARUM XRF III machine, whilst the data from 2017 was collected on the MARUM XRF II machine. To account for differences in measurement intensity, a number of sections scanned in 2011-2017 were re-measured in 2018. Linear regressions between the 2018 data and the 2011-2017 datasets (Supplementary Figure 1) were used to calibrate the XRF data (Ca, Fe, Si, K, Mn, Ti) and enable comparison across the entire dataset (Supplementary Figure 2). The linear regressions were fit through the origin and follow the format:

$$XRF_{2018} = \frac{XRF_{2011/2013/2017}}{Correction\ Factor_{2011/2013/2017}}$$

The individual correction factors for the 2011, 2013 and 2017 datasets are listed below for each element:

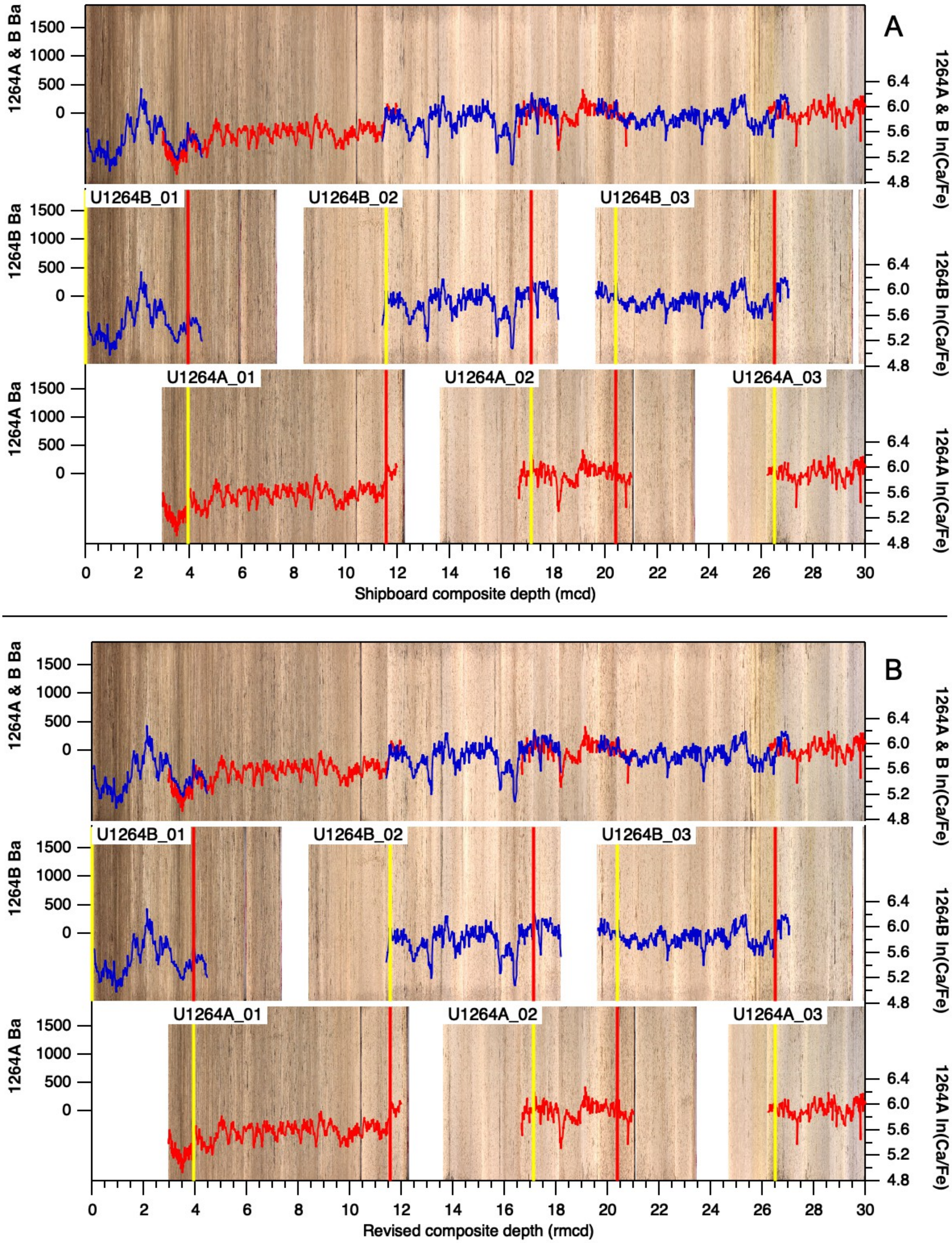
Element	Correction Factor$_{2011}$	Correction Factor$_{2013}$	Correction Factor$_{2017}$
Ca	1.68546	1.65725	0.928056
Fe	1.76194	1.80627	0.975945
K	1.07795	0.686765	1.00915
Mn	1.93137	2.23708	1.08198
Si	1.34063	1.79127	0.864784
Ti	1.84882	1.84107	0.927985

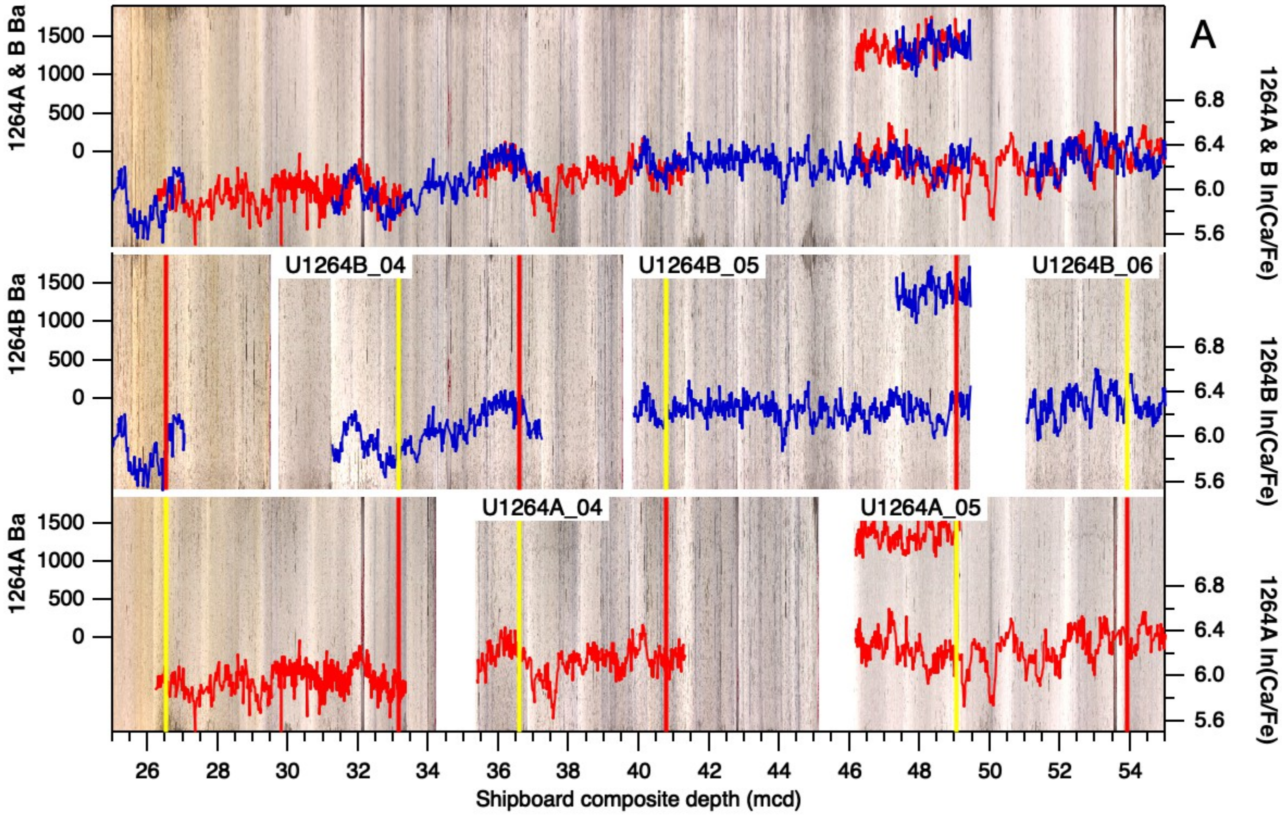
Supplementary Figure S2: *Downcore XRF data from Site 1264 calibrated to the 2018 dataset, including (A) ln(Ca/Fe), (B) Si counts, (C) Fe counts, (D) K counts, (E) Ti counts, and (F) Mn counts.*



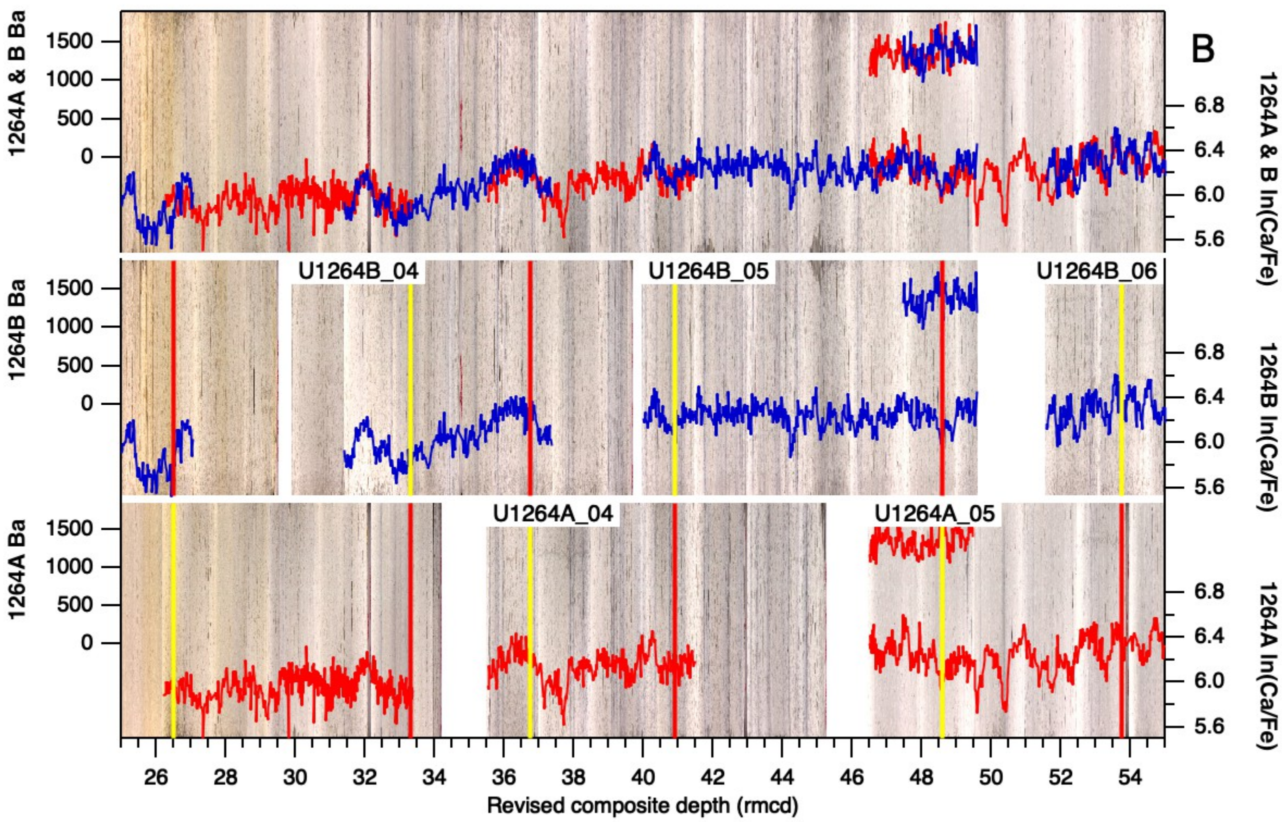
1.2. Composite Depth Scale and Splice Revisions

Supplementary Figure S3: *The Site 1264 A) shipboard and B) revised composite splices between 0 and ~316 m revised composite depth (rmcd) in ~30 m intervals. Each panel consists of the individual hole and splice line scan composite core images, with the XRF ln(Ca/K) and Ba ratios. Tie point locations are shown by yellow (upper tie point within a core) and red (lower tie point within a core) lines.*

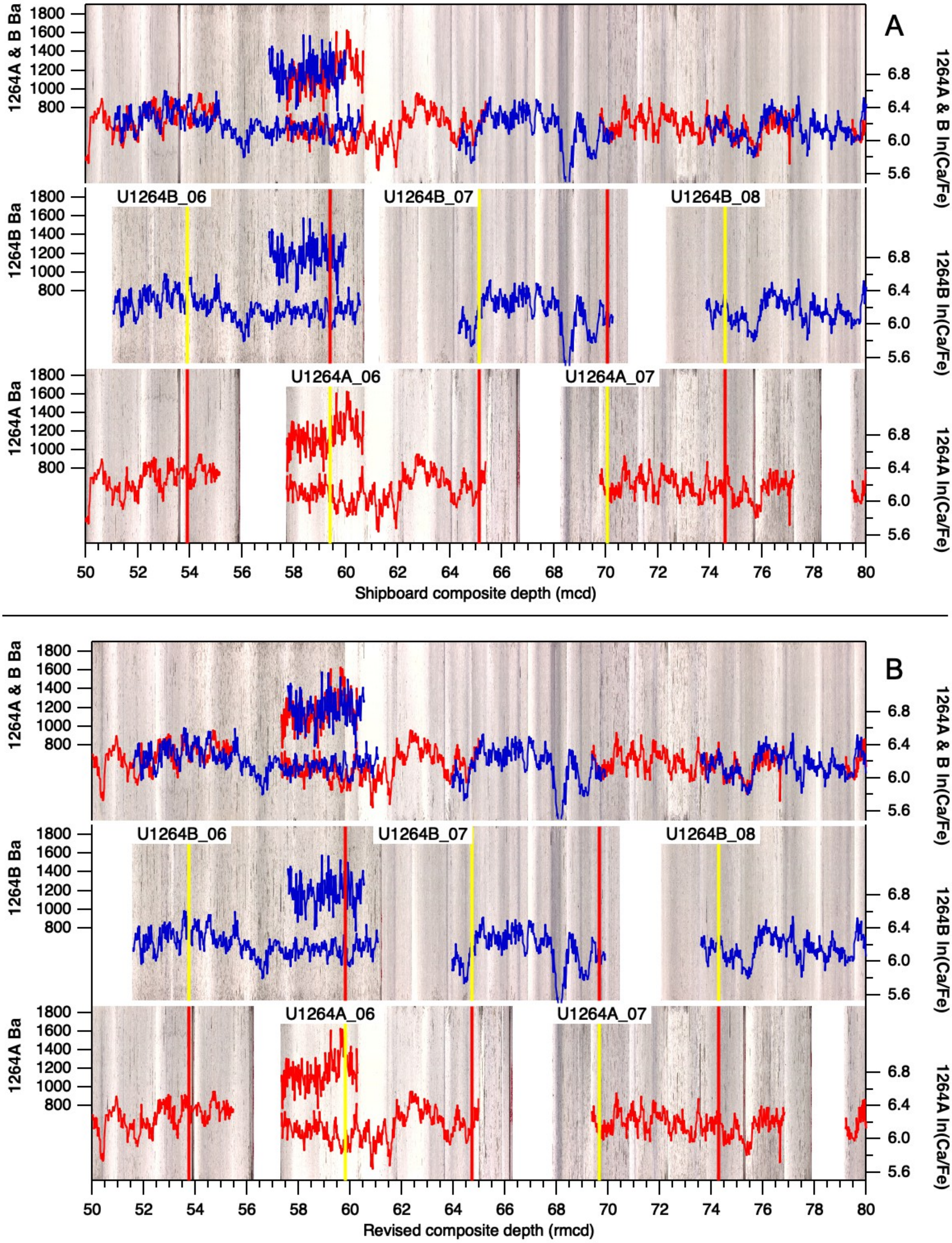




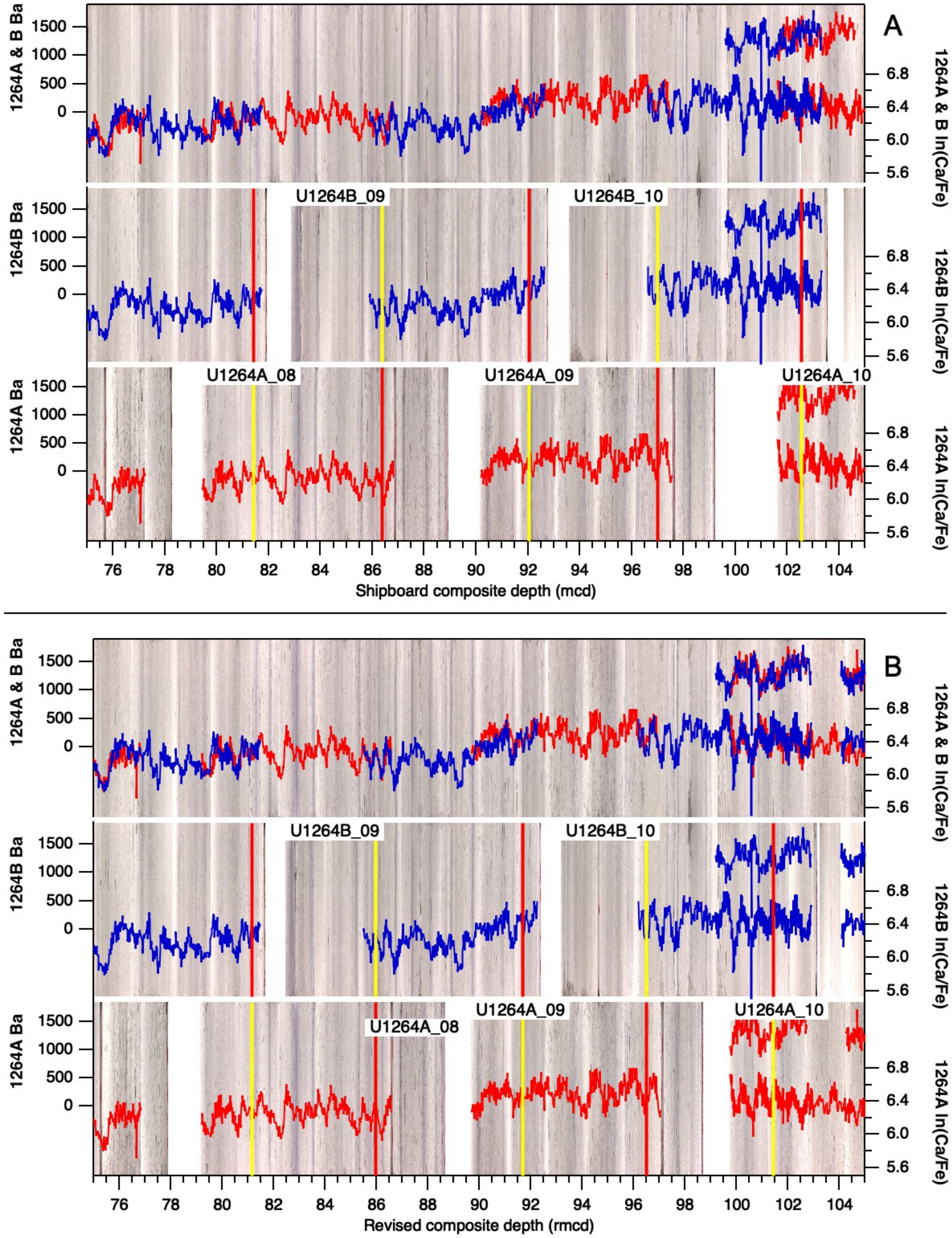
A
1264A & B Ba
1264A & B ln(Ca/Fe)
1264B Ba
1264B ln(Ca/Fe)
1264A Ba
1264A ln(Ca/Fe)
U1264B_04
U1264B_05
U1264B_06
U1264A_04
U1264A_05
Shipboard composite depth (mcd)

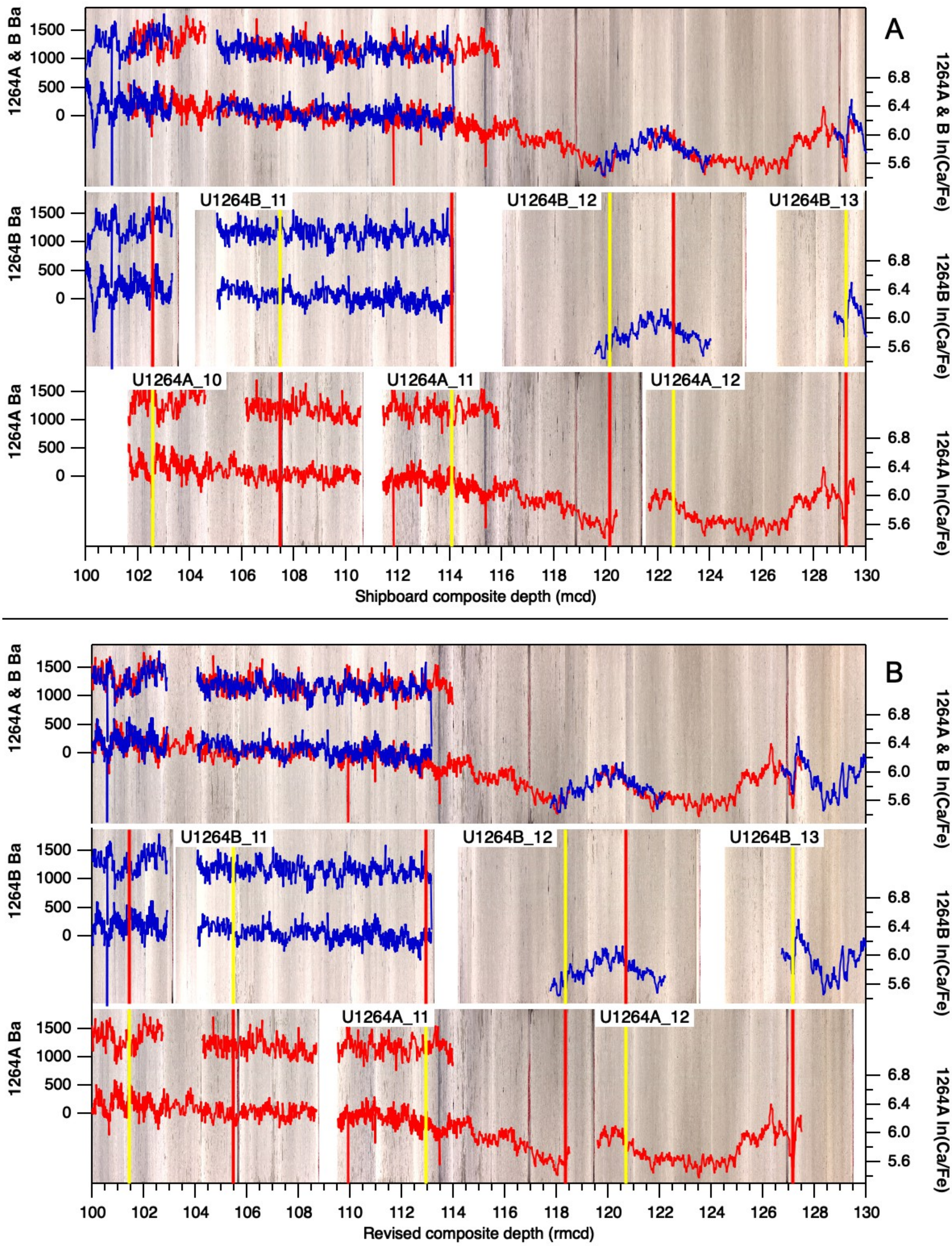


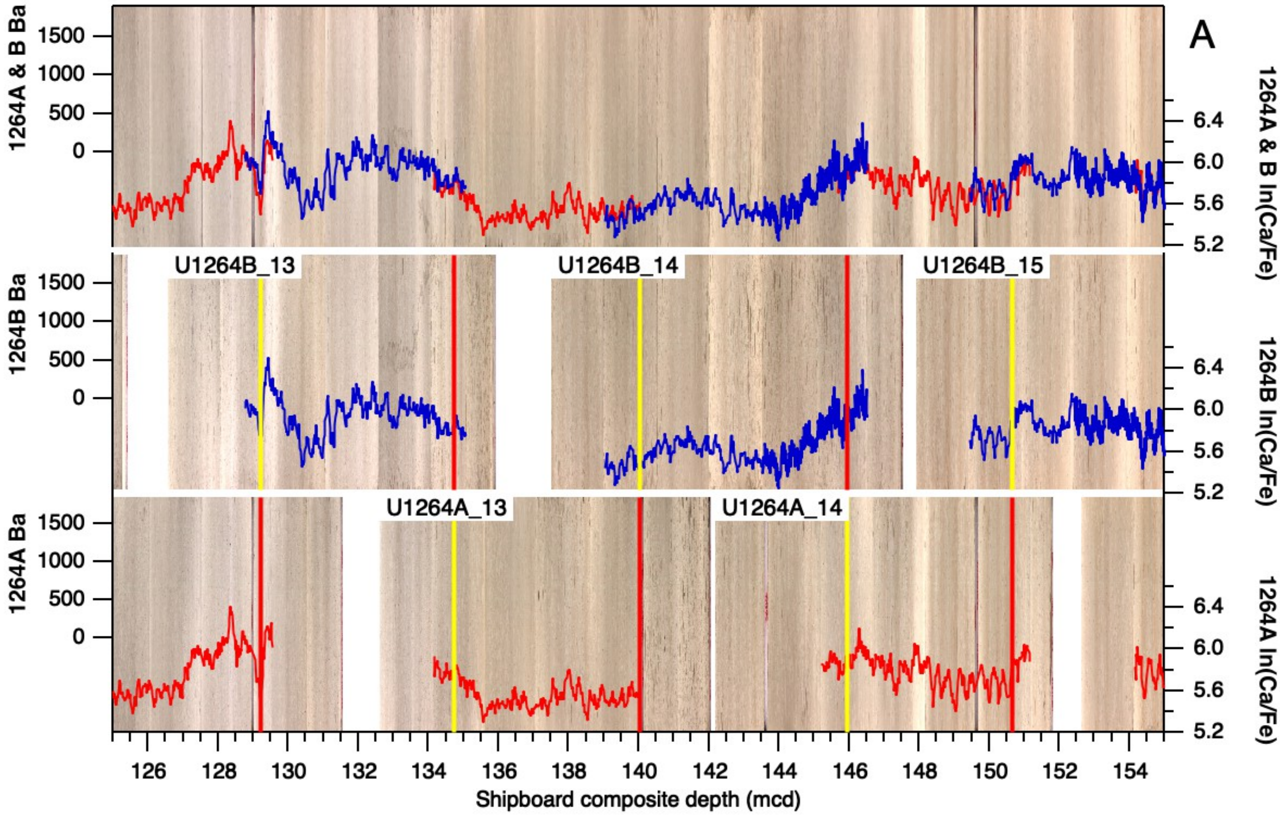
B
1264A & B Ba
1264A & B ln(Ca/Fe)
1264B Ba
1264B ln(Ca/Fe)
1264A Ba
1264A ln(Ca/Fe)
U1264B_04
U1264B_05
U1264B_06
U1264A_04
U1264A_05
Revised composite depth (rmcd)

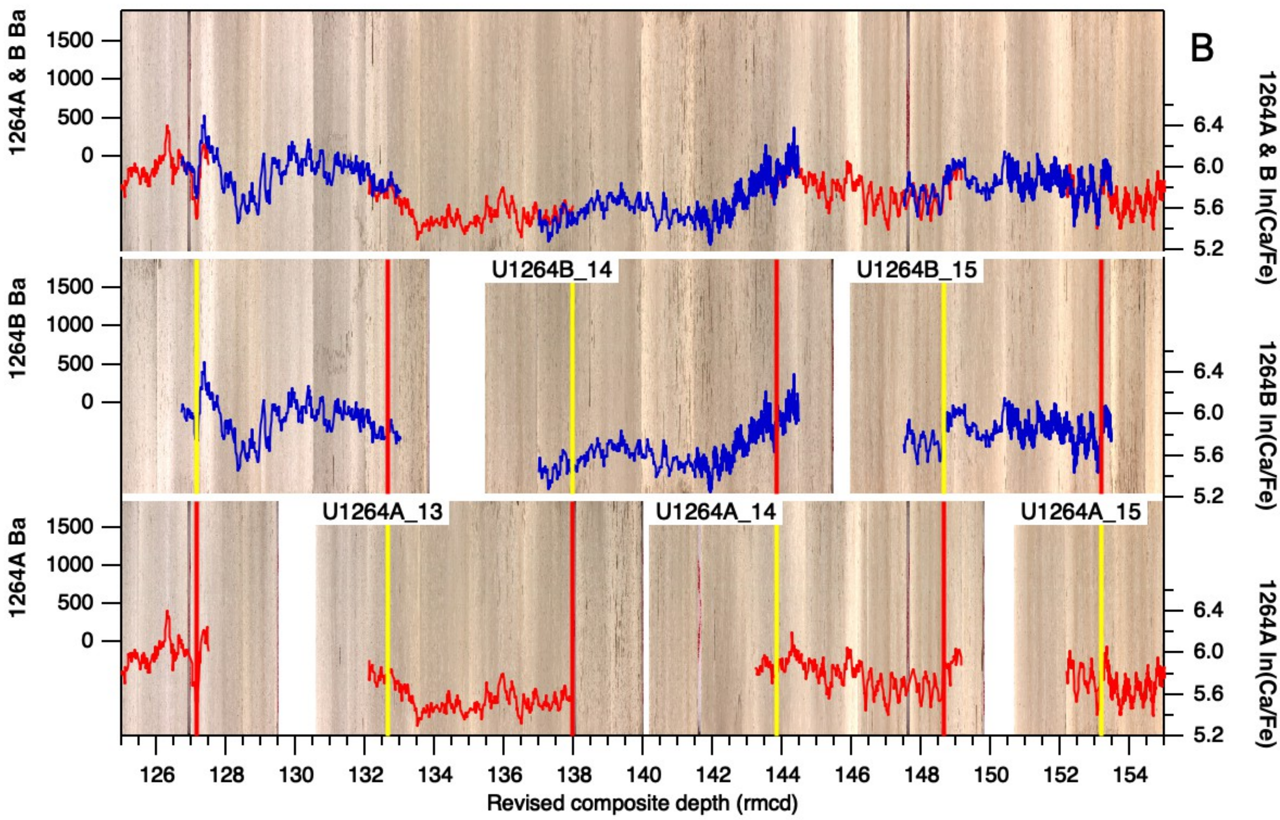


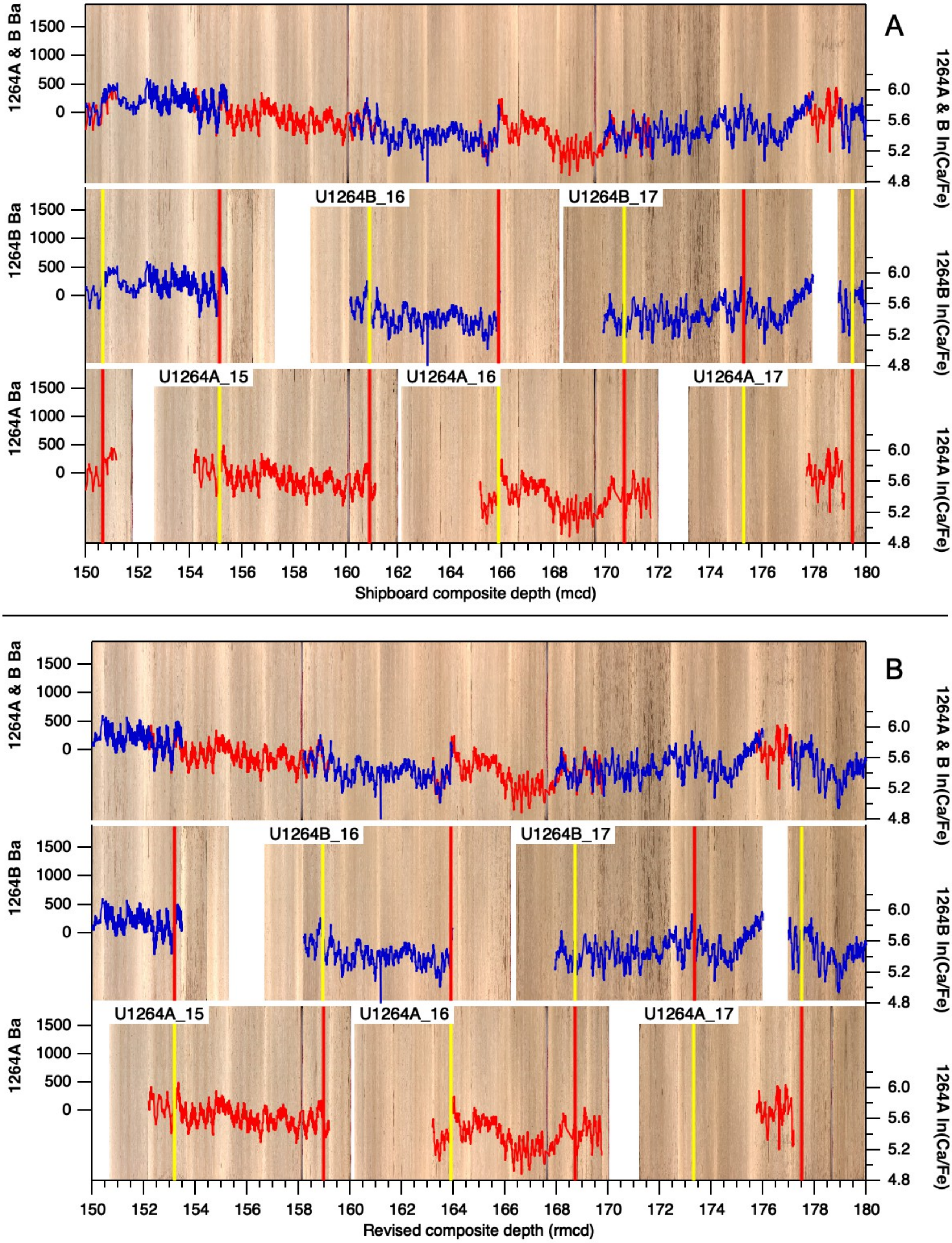
A
1264A & B Ba
1264A & B ln(Ca/Fe)
1264B Ba
1264B ln(Ca/Fe)
1264A Ba
1264A ln(Ca/Fe)
U1264B_06
U1264B_07
U1264B_08
U1264A_06
U1264A_07
Shipboard composite depth (mcd)
B
Revised composite depth (rmcd)

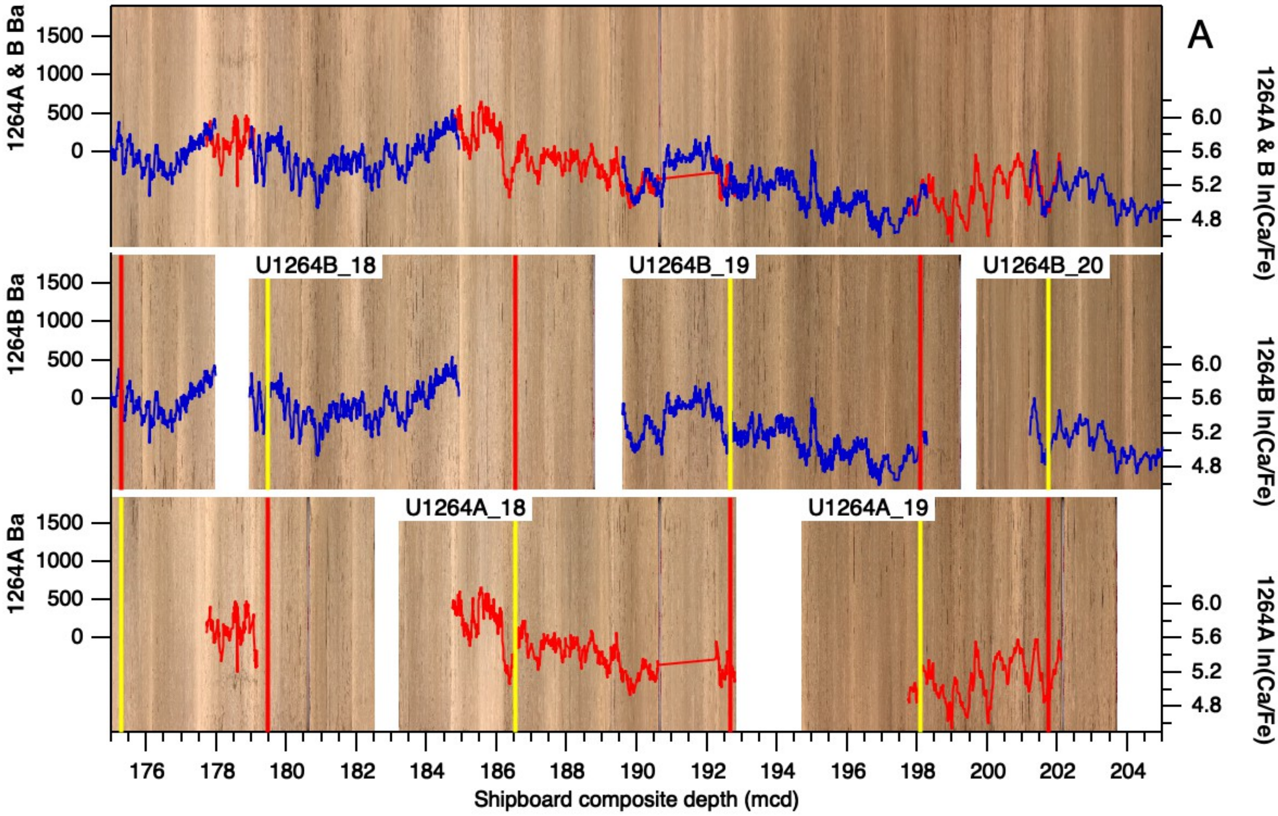

A
1264A & B Ba
1264A & B ln(Ca/Fe)
1264B Ba
1264B ln(Ca/Fe)
1264A Ba
1264A ln(Ca/Fe)
U1264B_09
U1264B_10
U1264A_08
U1264A_09
U1264A_10
Shipboard composite depth (mcd)
B
1264A & B Ba
1264A & B ln(Ca/Fe)
1264B Ba
1264B ln(Ca/Fe)
1264A Ba
1264A ln(Ca/Fe)
U1264B_09
U1264B_10
U1264A_08
U1264A_09
U1264A_10
Revised composite depth (rmcd)


A
B
1264A & B Ba
1264B Ba
1264A Ba
1264A & B ln(Ca/Fe)
1264B ln(Ca/Fe)
1264A ln(Ca/Fe)
U1264B_11
U1264B_12
U1264B_13
U1264A_10
U1264A_11
U1264A_12
Shipboard composite depth (mcd)
Revised composite depth (rmcd)

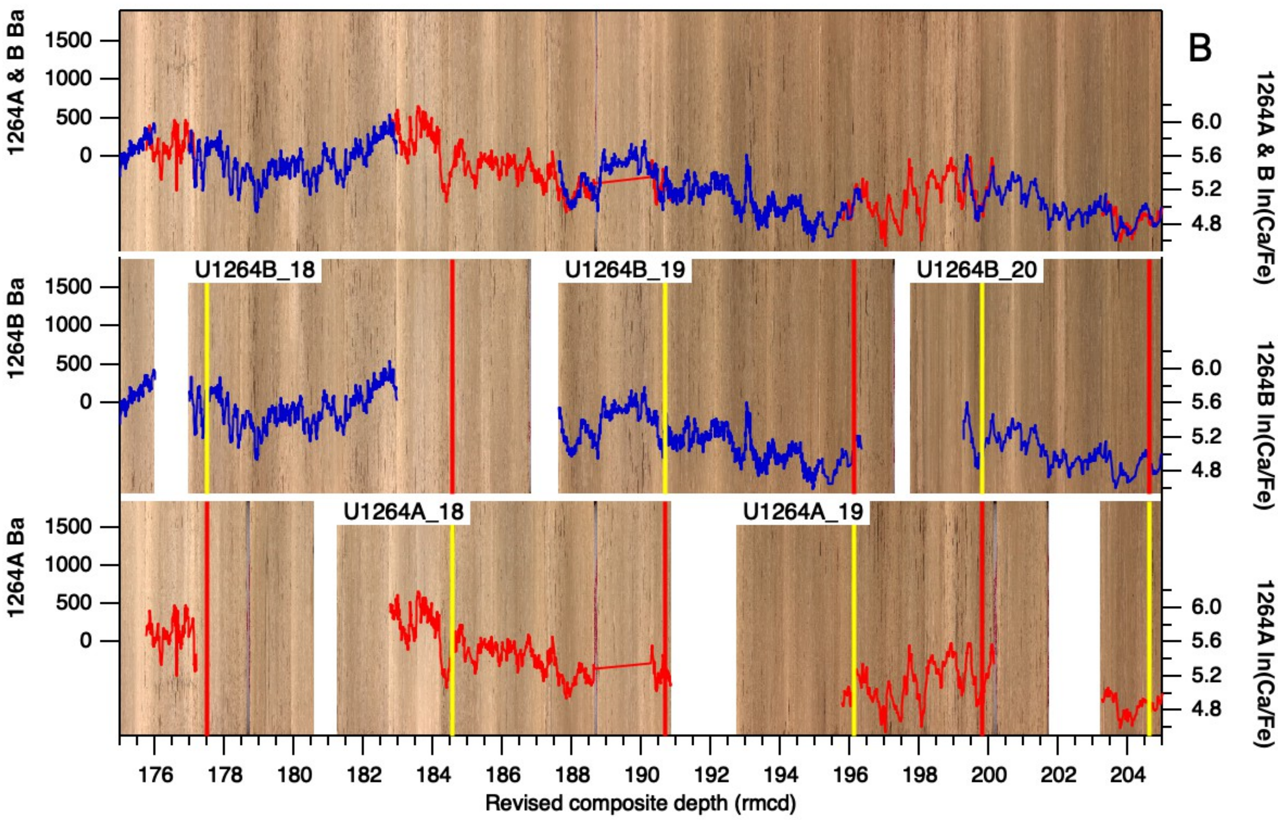

A
1264A & B Ba
1264A & B ln(Ca/Fe)
U1264B_13
U1264B_14
U1264B_15
1264B Ba
1264B ln(Ca/Fe)
U1264A_13
U1264A_14
1264A Ba
1264A ln(Ca/Fe)
Shipboard composite depth (mcd)


B
1264A & B Ba
1264A & B ln(Ca/Fe)
U1264B_14
U1264B_15
1264B Ba
1264B ln(Ca/Fe)
U1264A_13
U1264A_14
U1264A_15
1264A Ba
1264A ln(Ca/Fe)
Revised composite depth (rmcd)

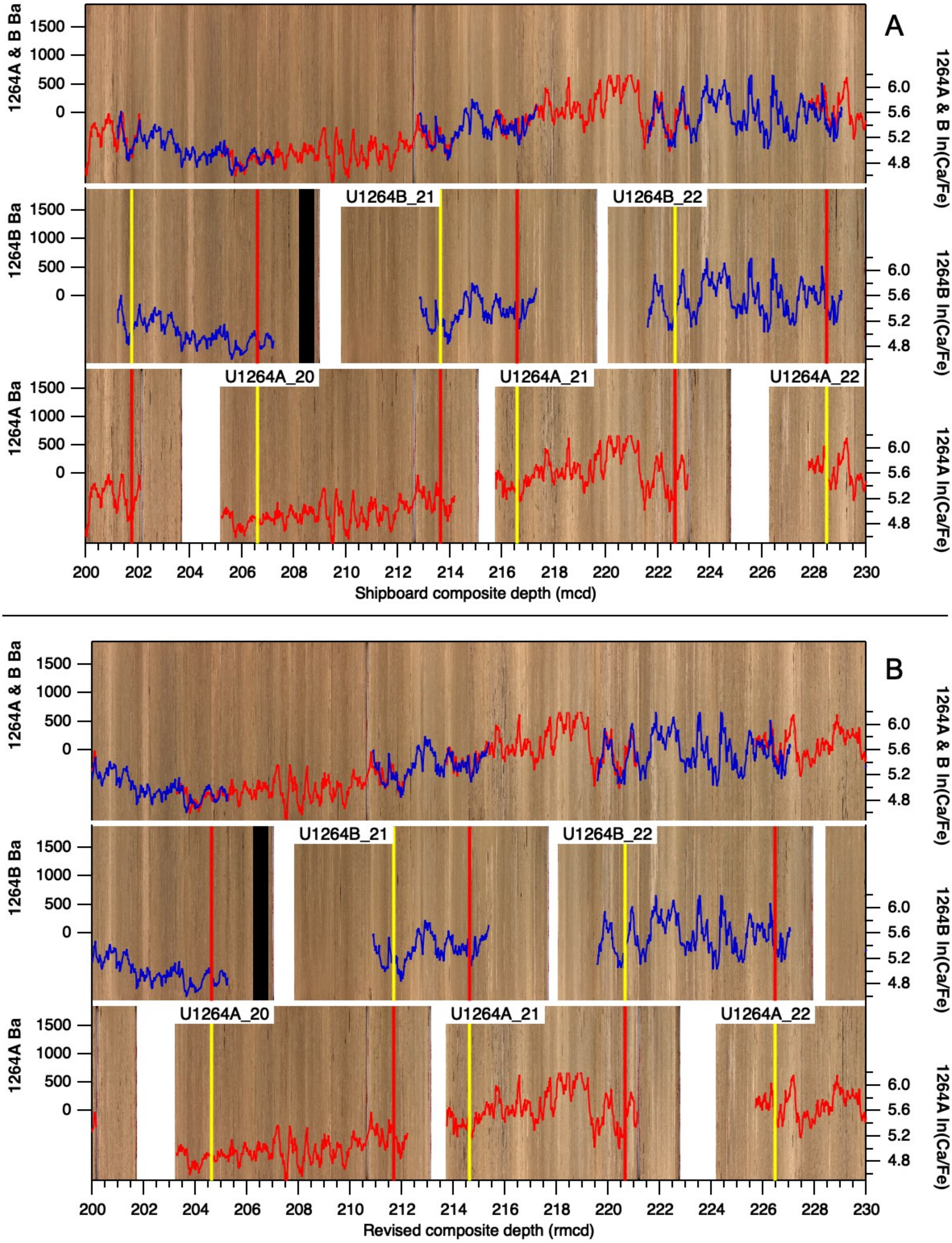

A
1264A & B Ba
1264A & B ln(Ca/Fe)
1264B Ba
1264B ln(Ca/Fe)
1264A Ba
1264A ln(Ca/Fe)
U1264B_16
U1264B_17
U1264A_15
U1264A_16
U1264A_17
Shipboard composite depth (mcd)
B
Revised composite depth (rmcd)

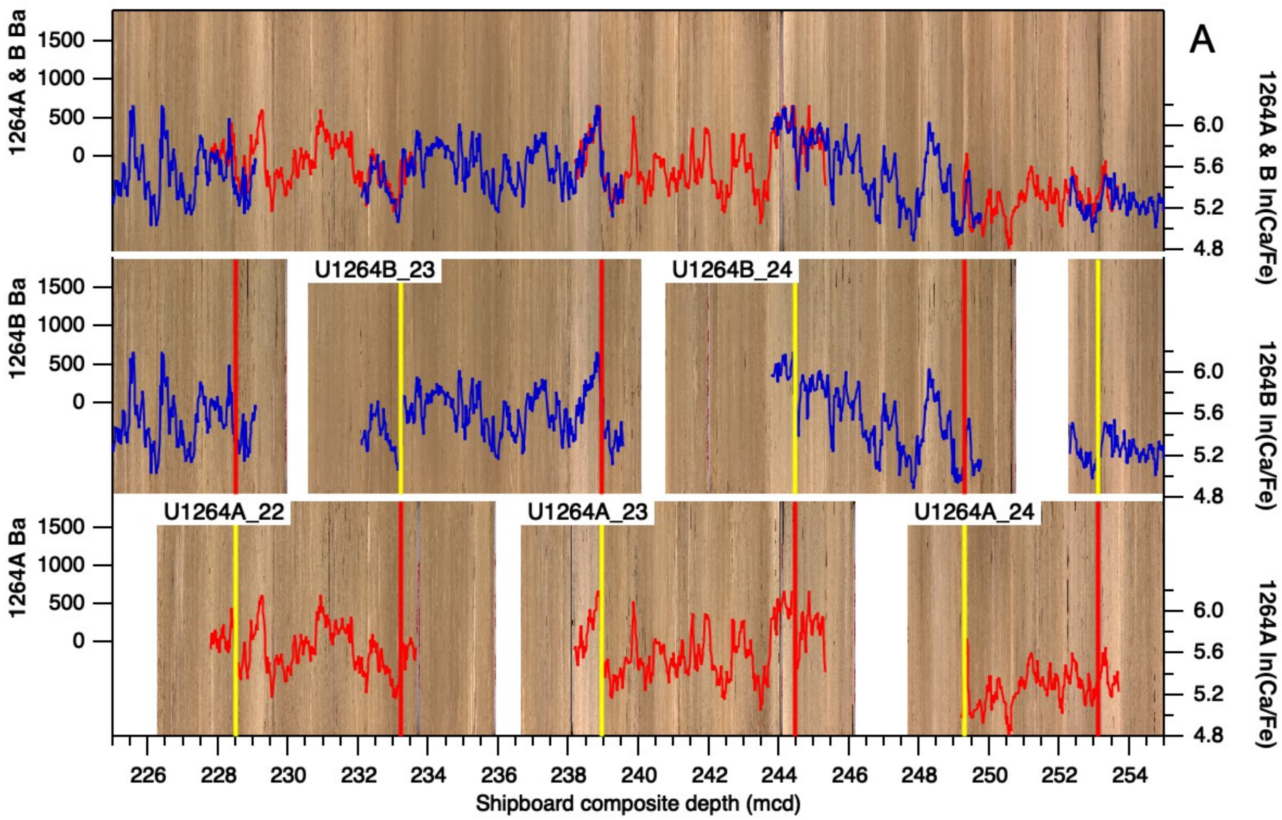


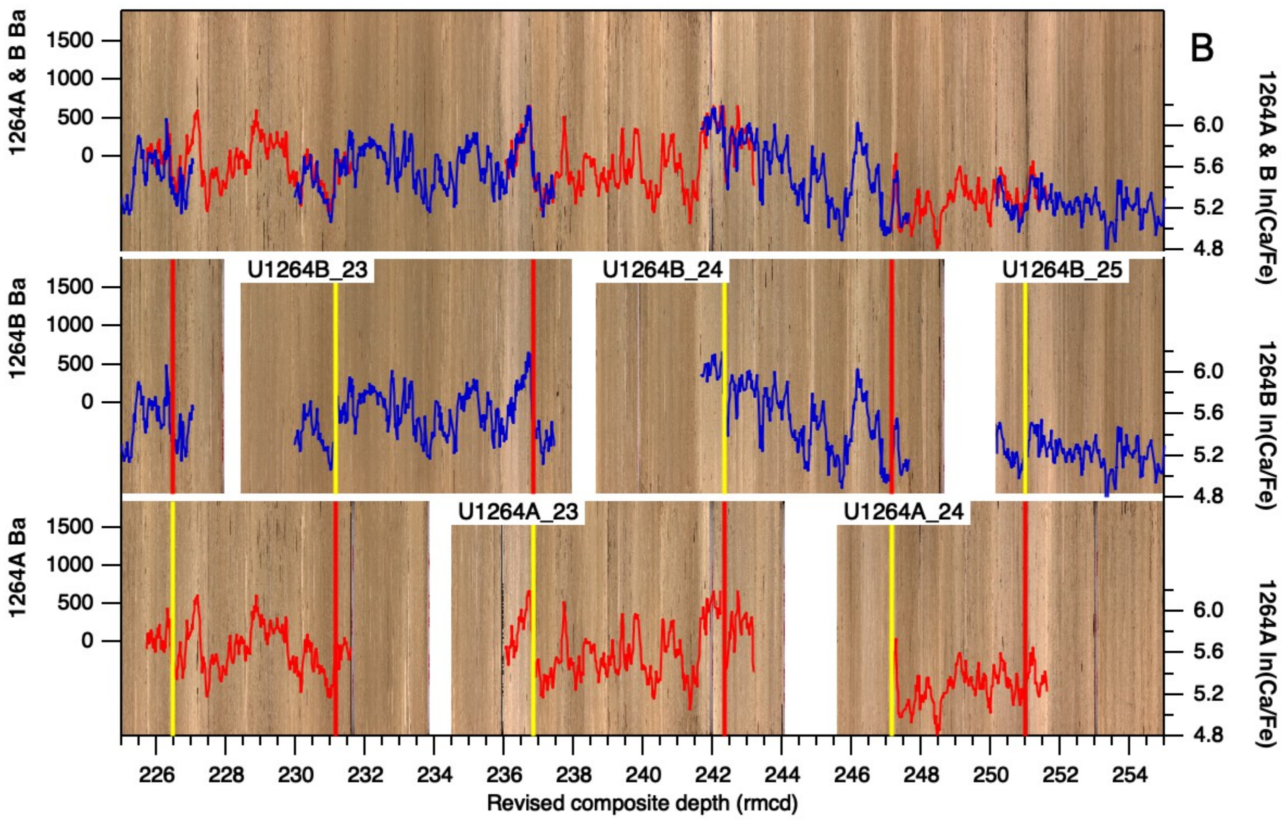
A
1264A & B Ba
1264A & B ln(Ca/Fe)
1264B Ba
1264B ln(Ca/Fe)
U1264B_18
U1264B_19
U1264B_20
1264A Ba
1264A ln(Ca/Fe)
U1264A_18
U1264A_19
Shipboard composite depth (mcd)

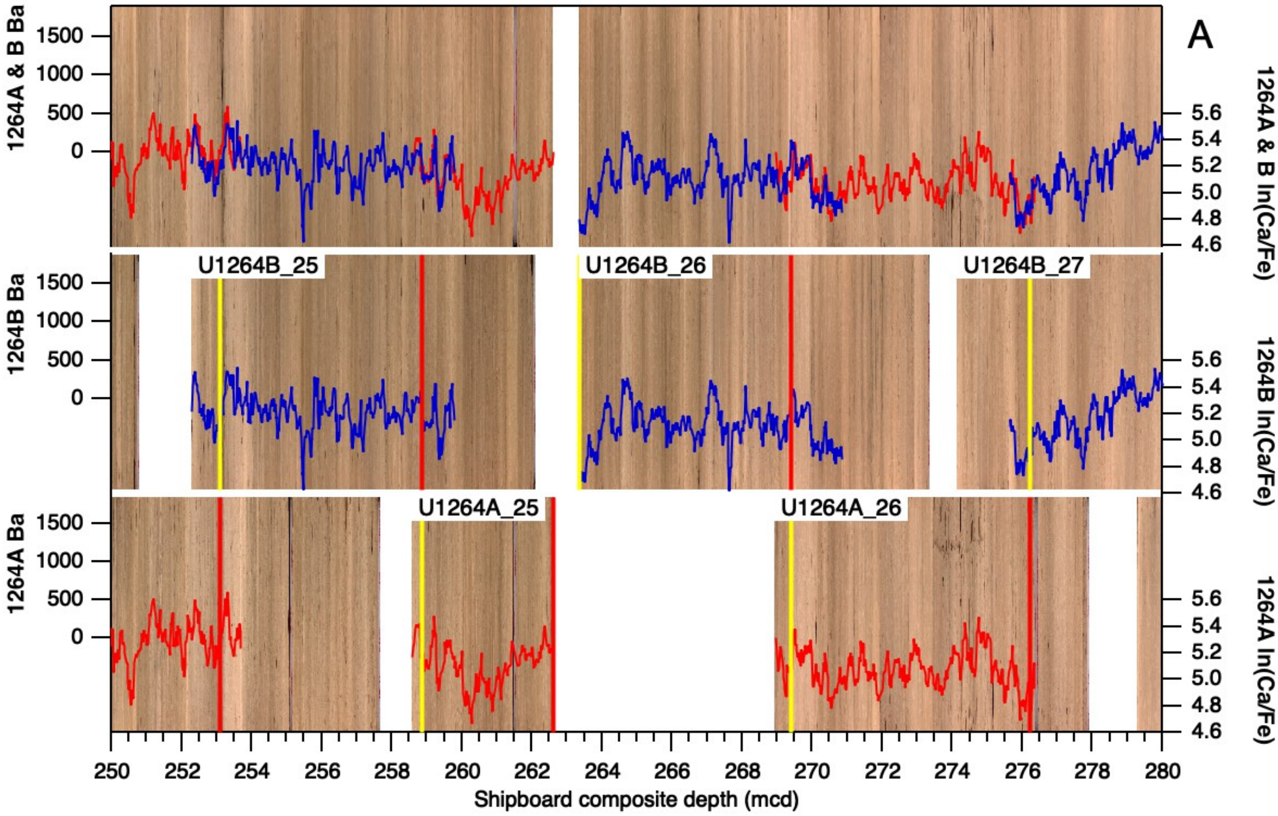


B
1264A & B Ba
1264A & B ln(Ca/Fe)
1264B Ba
1264B ln(Ca/Fe)
U1264B_18
U1264B_19
U1264B_20
1264A Ba
1264A ln(Ca/Fe)
U1264A_18
U1264A_19
Revised composite depth (rmcd)

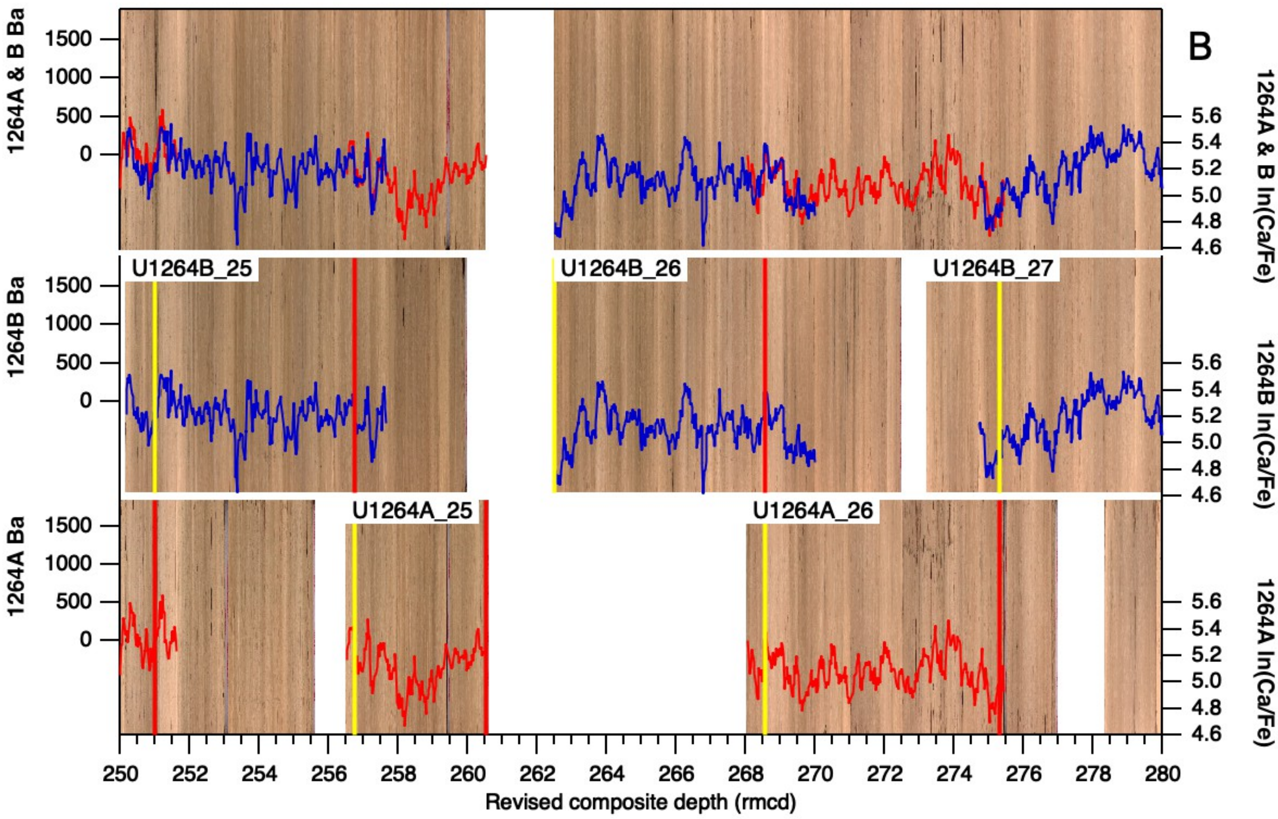

A
1264A & B Ba
1264A & B ln(Ca/Fe)
1264B Ba
1264B ln(Ca/Fe)
U1264B_21
U1264B_22
1264A Ba
1264A ln(Ca/Fe)
U1264A_20
U1264A_21
U1264A_22
Shipboard composite depth (mcd)
B
1264A & B Ba
1264A & B ln(Ca/Fe)
1264B Ba
1264B ln(Ca/Fe)
U1264B_21
U1264B_22
1264A Ba
1264A ln(Ca/Fe)
U1264A_20
U1264A_21
U1264A_22
Revised composite depth (rmcd)


A
1264A & B Ba
1264B Ba
1264A Ba
1264A & B ln(Ca/Fe)
1264B ln(Ca/Fe)
1264A ln(Ca/Fe)
U1264B_23
U1264B_24
U1264A_22
U1264A_23
U1264A_24
Shipboard composite depth (mcd)

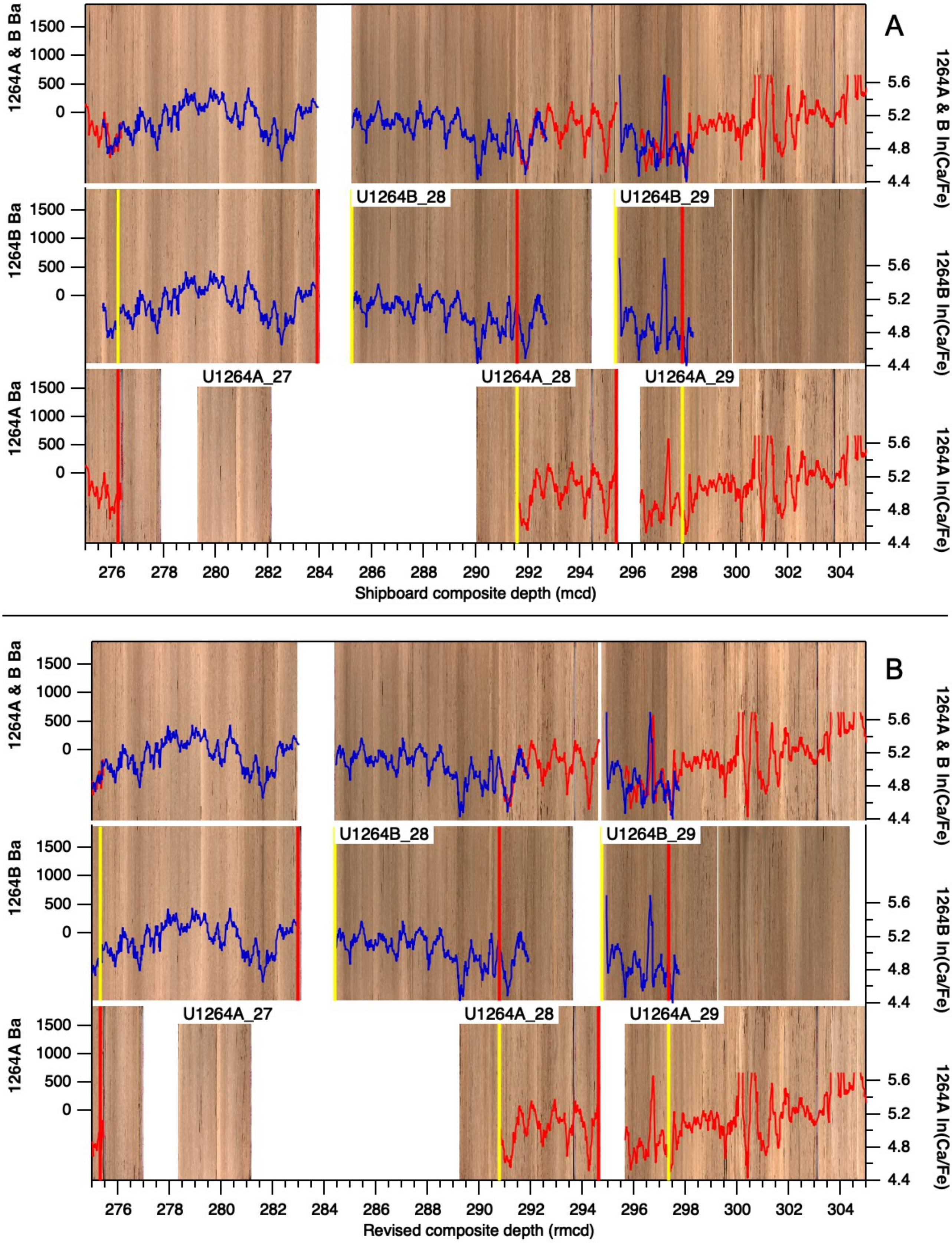

B
1264A & B Ba
1264B Ba
1264A Ba
1264A & B ln(Ca/Fe)
1264B ln(Ca/Fe)
1264A ln(Ca/Fe)
U1264B_23
U1264B_24
U1264B_25
U1264A_23
U1264A_24
Revised composite depth (rmcd)

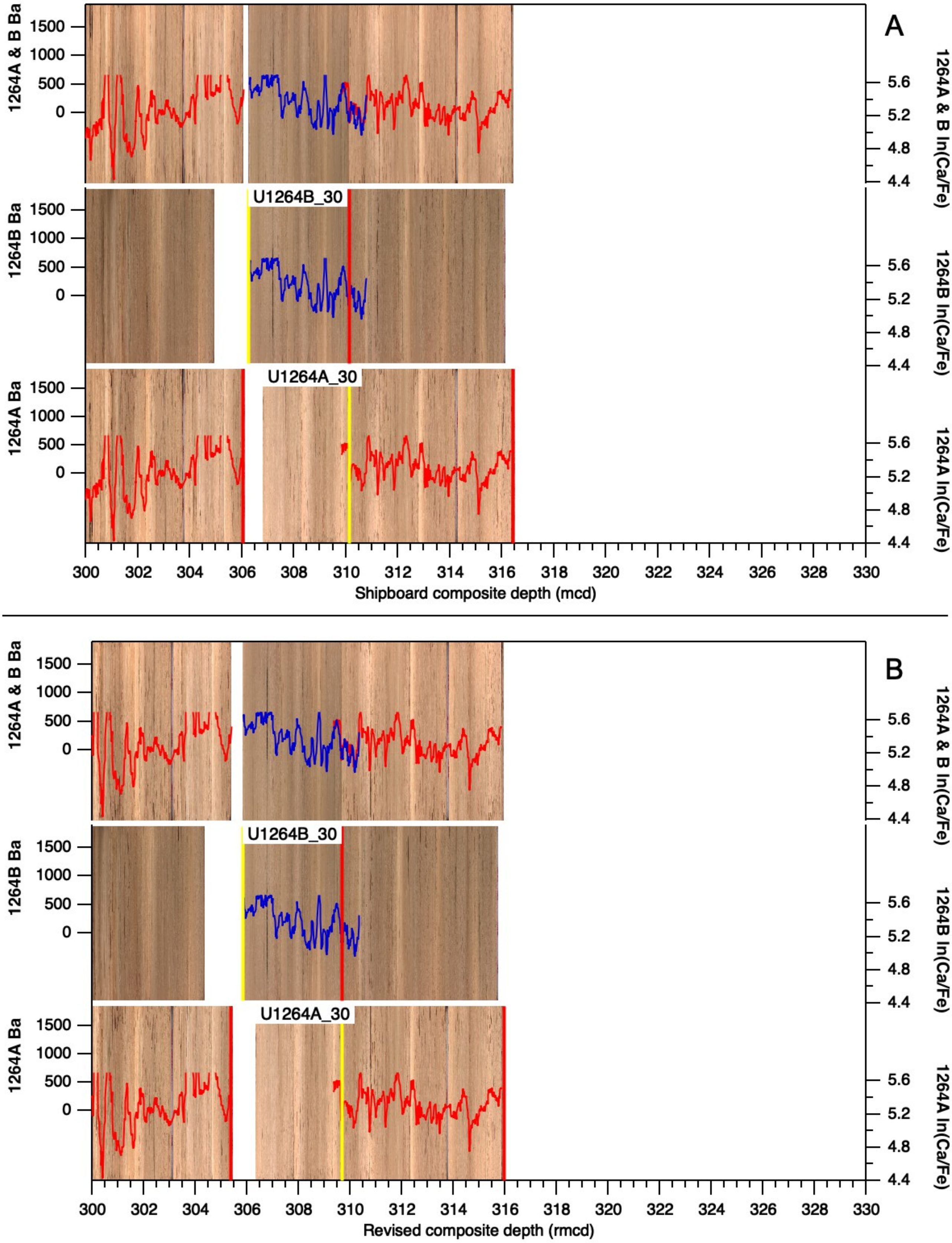


A
1264A & B Ba
1264A & B ln(Ca/Fe)
1264B Ba
1264B ln(Ca/Fe)
1264A Ba
1264A ln(Ca/Fe)
U1264B_25
U1264B_26
U1264B_27
U1264A_25
U1264A_26
Shipboard composite depth (mcd)



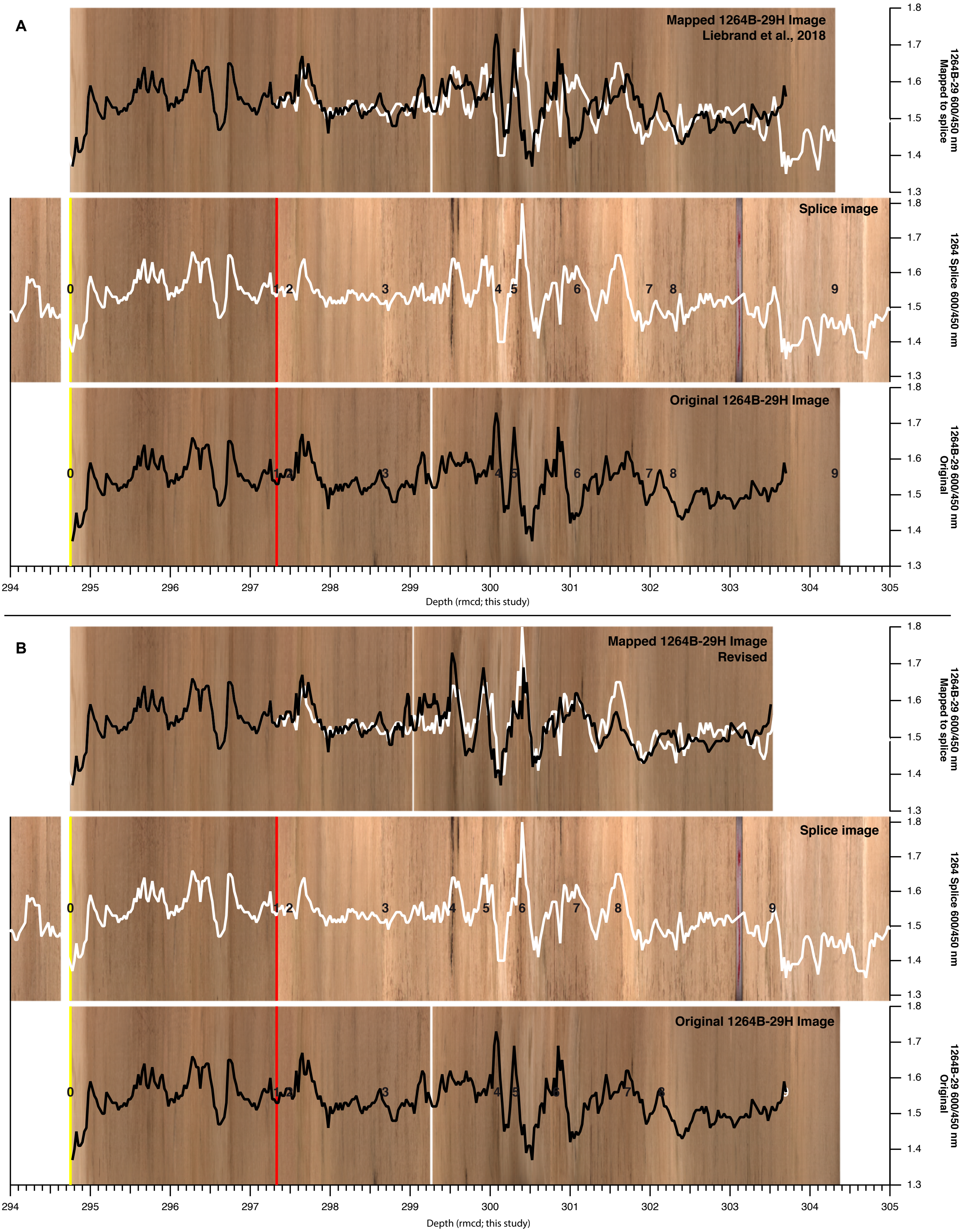
B
1264A & B Ba
1264A & B ln(Ca/Fe)
1264B Ba
1264B ln(Ca/Fe)
1264A Ba
1264A ln(Ca/Fe)
U1264B_25
U1264B_26
U1264B_27
U1264A_25
U1264A_26
Revised composite depth (rmcd)


A
B
1264A & B Ba
1264B Ba
1264A Ba
1264A & B ln(Ca/Fe)
1264B ln(Ca/Fe)
1264A ln(Ca/Fe)
U1264B_28
U1264B_29
U1264A_27
U1264A_28
U1264A_29
Shipboard composite depth (mcd)
Revised composite depth (rmcd)

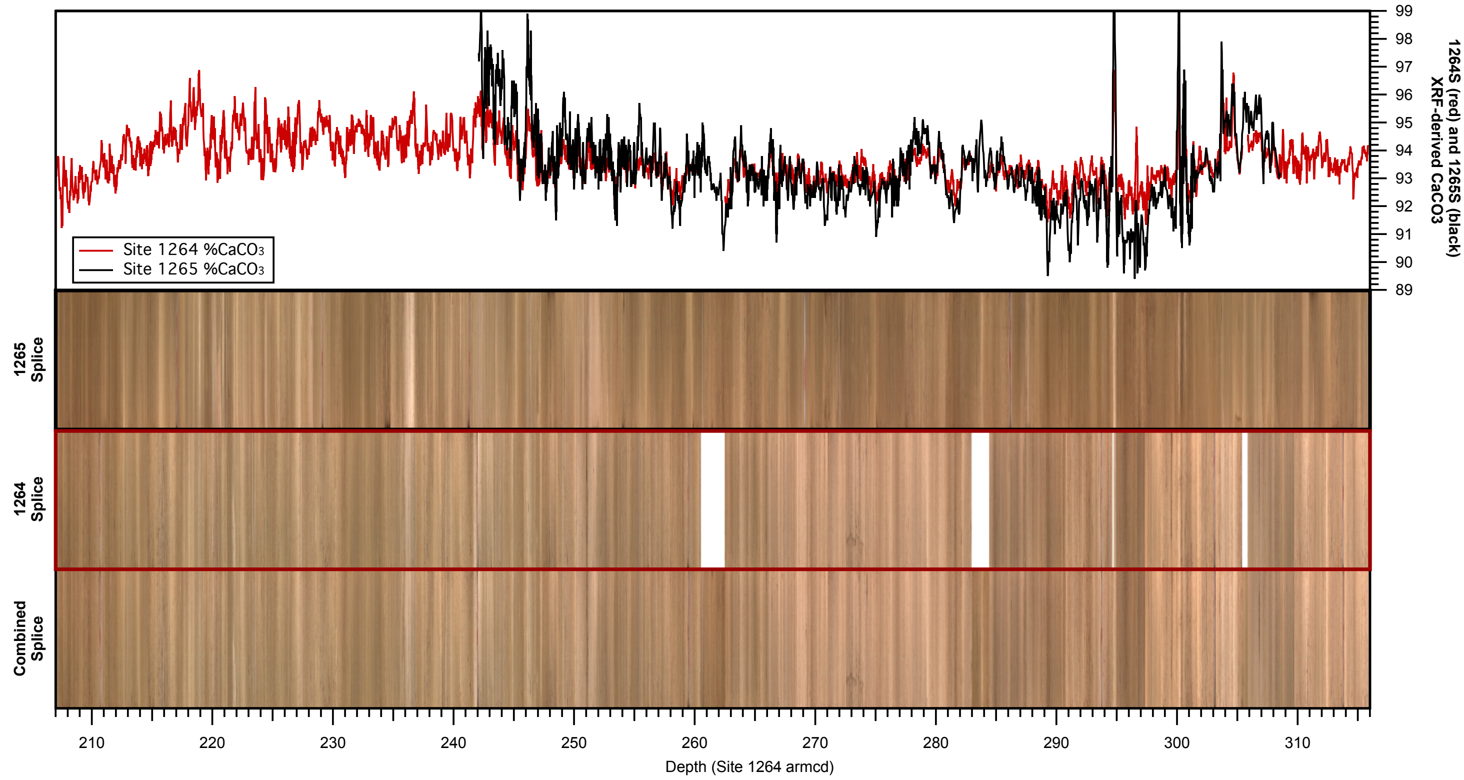

A
1264A & B Ba
1500
1000
500
0
1264A & B ln(Ca/Fe)
5.6
5.2
4.8
4.4
1264B Ba
U1264B_30
1264B ln(Ca/Fe)
1264A Ba
U1264A_30
1264A ln(Ca/Fe)
300 302 304 306 308 310 312 314 316 318 320 322 324 326 328 330
Shipboard composite depth (mcd)
B
1264A & B Ba
1264A & B ln(Ca/Fe)
1264B Ba
U1264B_30
1264B ln(Ca/Fe)
1264A Ba
U1264A_30
1264A ln(Ca/Fe)
300 302 304 306 308 310 312 314 316 318 320 322 324 326 328 330
Revised composite depth (rmcd)

1.3. Offsplice-splice mapping pairs and integration of Sites 1264 and 1265

***Supplementary Figure S4:** The mapping pairs for Core 1264B-29H from Liebrand et al., 2016, 2018 were revised. A) shows the original alignment between the splice and Core 1264B-29H 650/450 nm colour reflectance data; B) shows the revised alignment between the splice and Core 1264B-29H 650/450 nm colour reflectance data.*

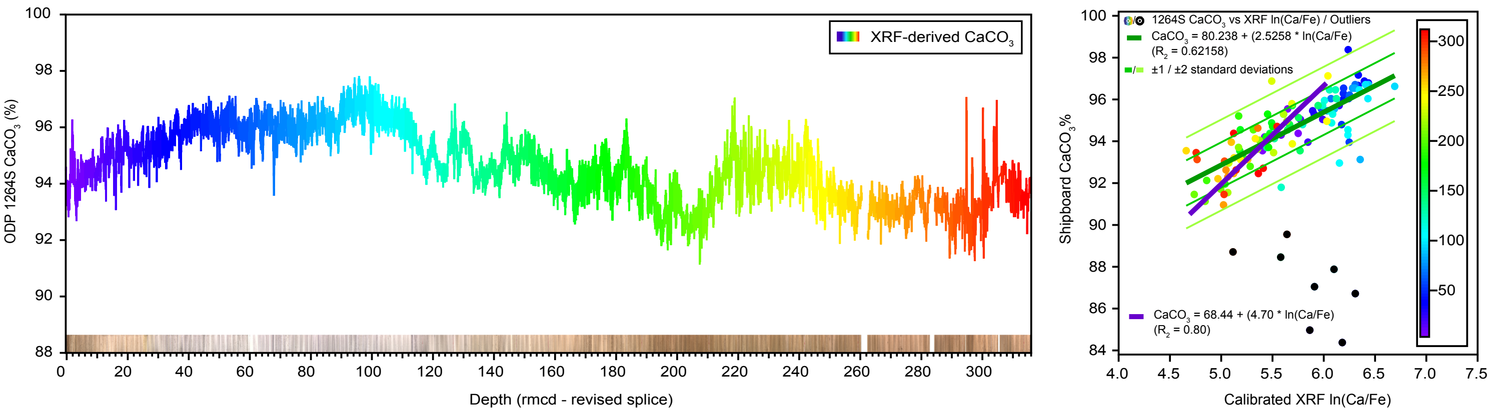


Supplementary Figure S5: *The lower three panels show how the composite core images from Sites 1264 and 1265 (Westerhold et al., 2015) were merged to provide a continuous composite core image. The upper panel shows how well the Site 1264 %CaCO₃ and Site 1265 %CaCO₃ data (Liebrand et al., 2016) agrees in this interval.*

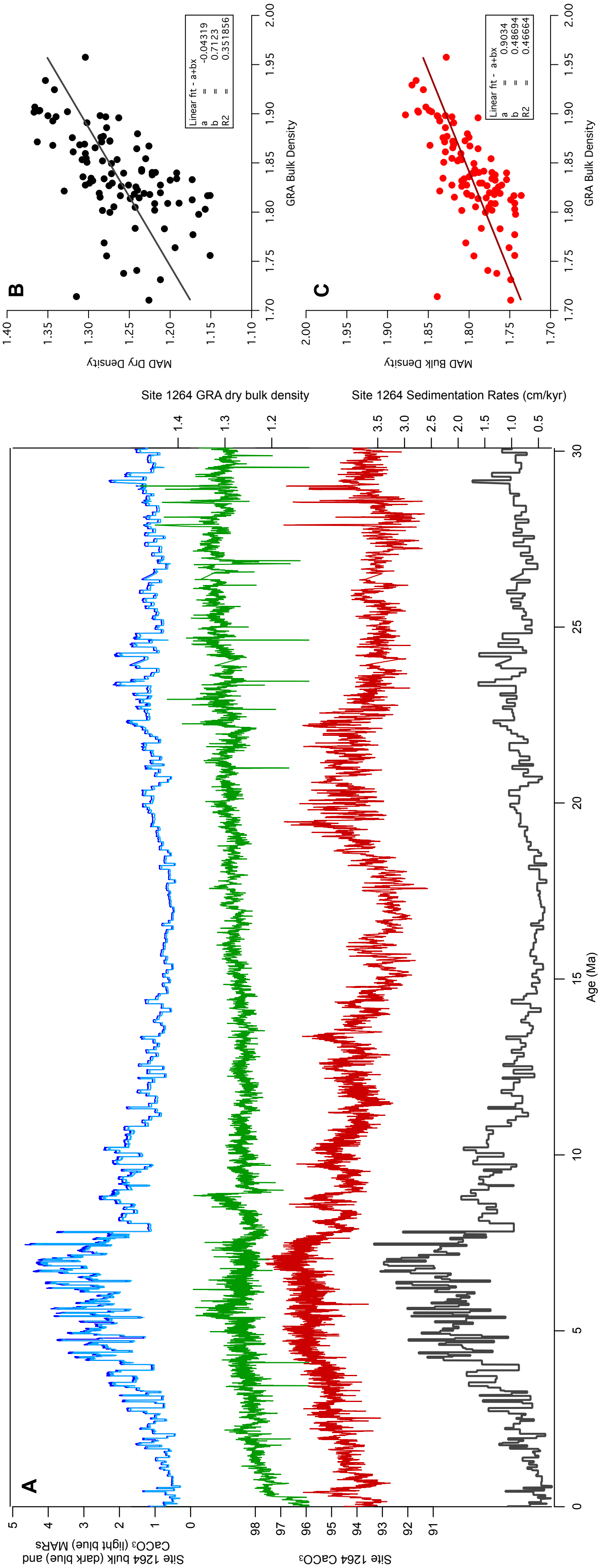


1.4. Calibration ln(Ca/Fe) to %$CaCO_3$ and calculating mass accumulation rates (MARs)

Supplementary Figure S6: *Showing the calibration between the XRF ln(Ca/Fe) data and the shipboard $CaCO_3$ data (right), as well as the XRF ln(Ca/Fe) data after calibration to %$CaCO_3$ (left).*

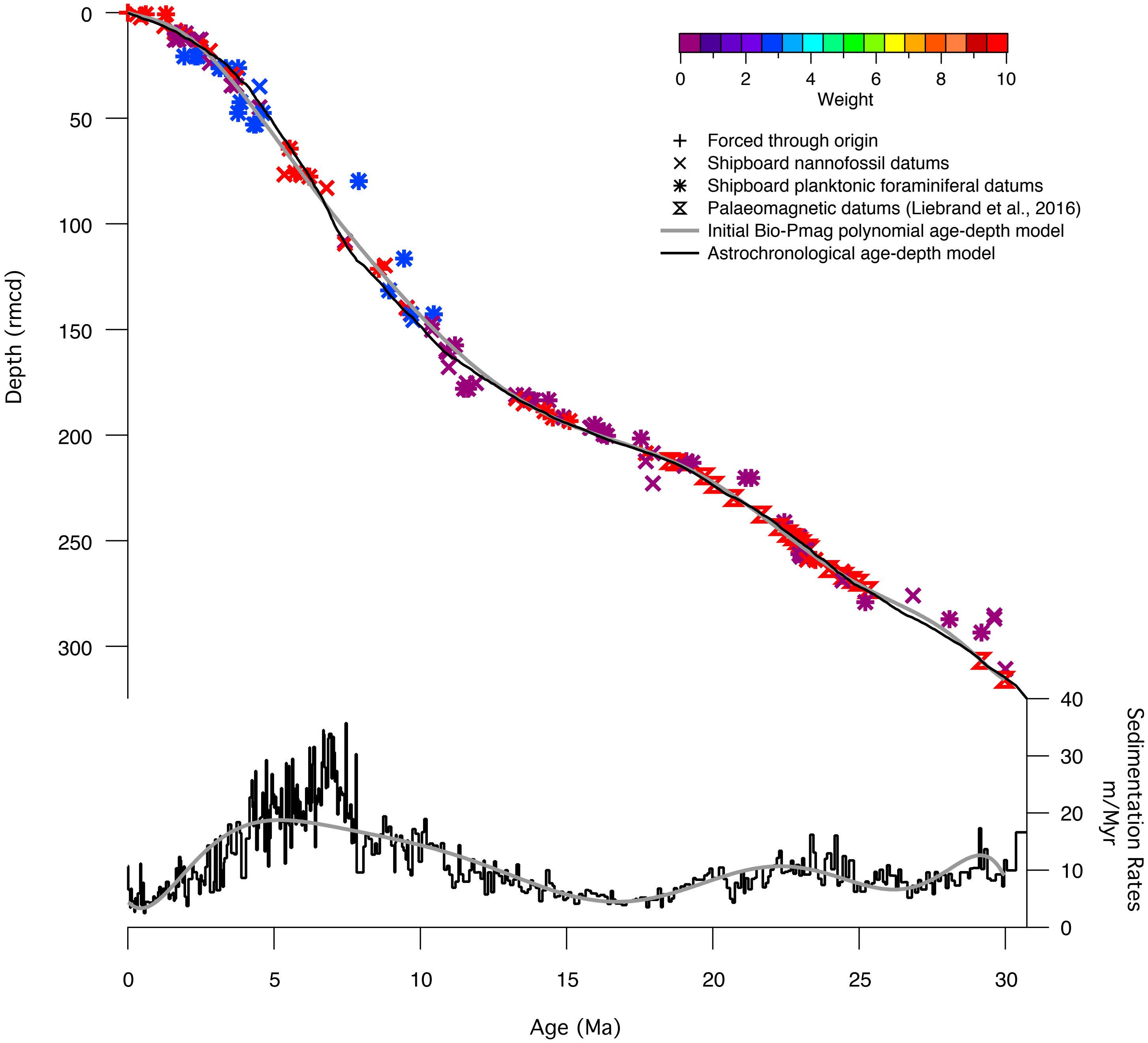


Supplementary Figure S7: *A) shows the different datasets used to calculate mass accumulation rates at Sites 1264 (shown) and 1265. Please note sedimentation rates are reported in cm/kyr as this unit is used in the calculation of MARs. Elsewhere, we report linear sedimentation rates in m/Myr. B) shows the calibration used to convert shipboard GRA bulk density data to dry bulk density using the MAD dry density data, with the correlation between shipboard GRA bulk density data and the MAD bulk density data.*

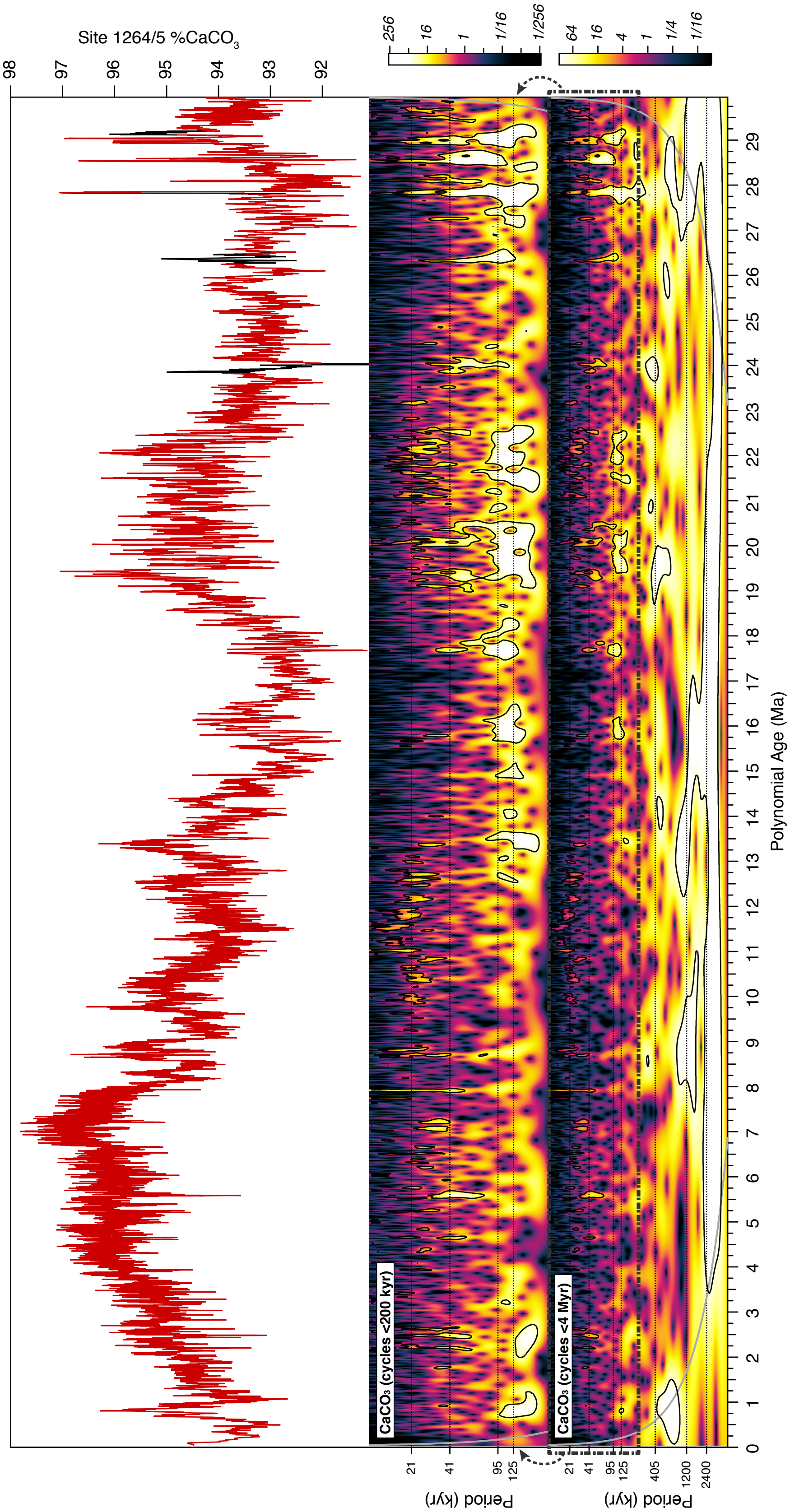


1.5. Additional information about age model development

Supplementary Figure S8: *Showing the shipboard nannofossil and planktonic foraminiferal datums (Shipboard Scientific Party Leg 208, 2004a) and palaeomagnetic datums (Liebrand et al., 2016). A 11th order polynomial was applied to selected (i.e. high-quality) datums to obtain a first-order age model to assist with cyclostratigraphic interpretation. Prior to fitting, the datums were weighted accordingly: from 30-10 Ma, datums selected by Liebrand et al., 2016 were weighted at 10 and all others were weighted at 0; from 10-0 Ma, nannofossil datums with a depth error <1 m, between 1-2 m and >2 m were weighted at 10, 3 and 0 respectively, and planktonic foraminiferal datums with a depth error <2 m, between 2-5 m and >5 m were weighted at 10, 3 and 0 respectively. The polynomial was also fitted through the origin. This process was achieved using the CODD AgeDepthFit functions. Datums are listed in Supplementary Table 6.*



Supplementary Figure S9: *%CaCO₃ data on the polynomial age model, with associated wavelet spectra in the time domain of the %CaCO₃ data detrended to remove cycles over 200 kyr (upper wavelet) and cycles over 4 Myr (lower wavelet).*



On the following pages:

Supplementary Figure S10: *Oversized figures showing the core photo, sedimentation rates (m/Myr) and %CaCO₃ and benthic δ^{18}O (where available) on depth in the lower panels, compared to %CaCO₃, benthic δ^{18}O (where available) and the tuning targets on age in the upper panels. Numbered depth-age tie points are also shown in both panels. Each sub figure covers a separate interval: (A) 30-17 Ma (see also Liebrand et al., 2016); (B) 17-8 Ma; (C) 8-3.3 Ma; and (D) 3.3-0.0 Ma (see also Bell et al., 2014).*

10.A

Age (Ma)
17.0 17.5 18.0 18.5 19.0 19.5 20.0 20.5 21.0 21.5 22.0 22.5 23.0 23.5 24.0 24.5 25.0 25.5 26.0 26.5 27.0 27.5 28.0 28.5 29.0 29.5 30.0
Eccentricity
0.06 0.04 0.02 0.00
1264 δ18O (‰)
2.0 2.4 2.8
1264 %CaCO3
92 93 94 95 96
LSR (m/Myr)
25 0
Depth (rmcd)
205 210 215 220 225 230 235 240 245 250 255 260 265 270 275 280 285 290 295 300 305 310 315

10.B

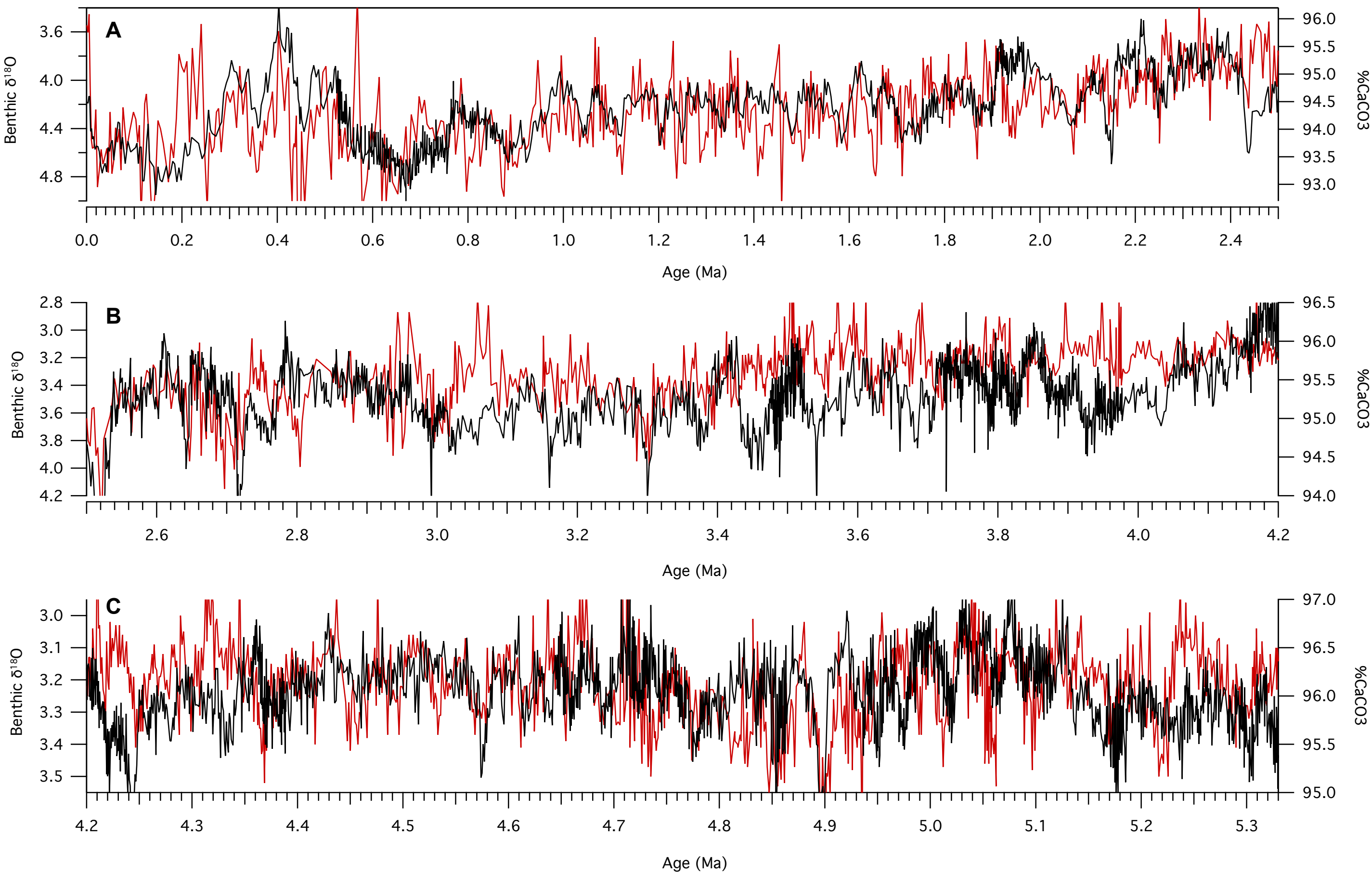
10.C
Age (Ma)
ET(-P)
1264 δ18O (‰)
1264 %CaCO3
LSR (m/Myr)
Depth (rmcd)

10.D

Age (Ma)
LR04/CR17 δ18O (‰)
1264 δ18O (‰)
1264 %CaCO3
LSR (m/Myr)
Depth (rmcd)

1.6. Plio-Pleistocene inverse relationship between benthic δ18O and %CaCO3

Supplementary Figure S11: *Showing the antiphase behaviour between benthic* $\delta^{18}O$ *(from Bell et al., 2014) and %*$CaCO_3$ *A) from 0.0 to 2.5 Ma; B) from 2.5 to 3.3. Ma; C) from 3.3 to 5.33 Ma.*



1.7. Shipboard bio- and magnetostratigraphic datums updated to the revised depth scale

Supplementary Table S6: *Selected (i.e. high-quality) bio- and magnetostratigraphic events for Site 1264, updated to the new composite depth scale from this study. For information about weighting, see Supplementary Figure S8.*

Event/Datum	Hole	Type	D21 Depth (armcd)	D21 uncertainty (armcd)	Age GTS 2012 (Ma)	Weight	Source
Origin	N/A	Forced	0.00	0.00	0.00	10	Shipboard Scientific Party Leg 208, 2004a
B Emiliania huxleyi	C	Nanno	0.76	0.77	0.29	10	Shipboard Scientific Party Leg 208, 2004a
T Globoturborotalita obliquus	C-C	PForam	0.76	0.76	1.30	10	Shipboard Scientific Party Leg 208, 2004a
T Globorotalia tosaensis	C-C	PForam	0.76	0.76	0.61	10	Shipboard Scientific Party Leg 208, 2004a
T Pseudoemiliania lacunosa	C	Nanno	2.30	0.77	0.44	10	Shipboard Scientific Party Leg 208, 2004a
T Large Gephyrocapsa spp.	A	Nanno	6.41	0.25	1.24	10	Shipboard Scientific Party Leg 208, 2004a
B Large Gephyrocapsa spp.	A	Nanno	8.41	0.25	1.62	10	Shipboard Scientific Party Leg 208, 2004a
T Calcidiscus macintyrei	A	Nanno	9.41	0.25	1.60	10	Shipboard Scientific Party Leg 208, 2004a
T Globoturborotalita apertura	B-A	PForam	9.84	2.47	1.64	0	Shipboard Scientific Party Leg 208, 2004a
T Globigerinoides extremus	B-A	PForam	9.84	2.47	1.98	0	Shipboard Scientific Party Leg 208, 2004a
B Medium Gephyrocapsa spp.	A	Nanno	9.91	0.25	1.73	10	Shipboard Scientific Party Leg 208, 2004a
T Discoaster brouweri and D. triradiatus	A	Nanno	11.41	0.25	1.95	10	Shipboard Scientific Party Leg 208, 2004a
T Discoaster pentaradiatus	B	Nanno	12.76	5.40	2.39	0	Shipboard Scientific Party Leg 208, 2004a
B Medium Gephyrocapsa spp.	B	Nanno	12.76	5.40	1.73	0	Shipboard Scientific Party Leg 208, 2004a
B Large Gephyrocapsa spp.	B	Nanno	12.76	5.40	1.62	0	Shipboard Scientific Party Leg 208, 2004a
T Calcidiscus macintyrei	B	Nanno	12.76	5.40	1.60	0	Shipboard Scientific Party Leg 208, 2004a
T Discoaster brouweri and D. triradiatus	B	Nanno	12.76	5.40	1.95	0	Shipboard Scientific Party Leg 208, 2004a
T Discoaster surculus	B	Nanno	12.76	5.40	2.49	0	Shipboard Scientific Party Leg 208, 2004a
T Discoaster pentaradiatus	A	Nanno	15.67	0.36	2.39	10	Shipboard Scientific Party Leg 208, 2004a
T Discoaster surculus	A	Nanno	16.51	0.48	2.49	10	Shipboard Scientific Party Leg 208, 2004a
T Discoaster tamalis	A	Nanno	18.13	0.40	2.80	10	Shipboard Scientific Party Leg 208, 2004a
T Globoturborotalita woodi	B-A	PForam	20.72	2.55	2.30	3	Shipboard Scientific Party Leg 208, 2004a
T Menardella miocenica	B-A	PForam	20.72	2.55	2.39	3	Shipboard Scientific Party Leg 208, 2004a
B Globorotalia truncatulinoides	B-A	PForam	20.72	2.55	1.93	3	Shipboard Scientific Party Leg 208, 2004a
T Discoaster tamalis	B	Nanno	23.70	5.54	2.80	0	Shipboard Scientific Party Leg 208, 2004a
T Sphaeroidinellopsis seminulina	A-B	PForam	26.26	3.00	3.16	3	Shipboard Scientific Party Leg 208, 2004a
B Globorotalia miocenica	A-B	PForam	26.26	3.00	3.77	3	Shipboard Scientific Party Leg 208, 2004a
B Globorotalia tosaensis	A-B	PForam	26.26	3.00	3.35	3	Shipboard Scientific Party Leg 208, 2004a
T Dentoglobigerina altispira	A-B	PForam	26.26	3.00	3.13	3	Shipboard Scientific Party Leg 208, 2004a
T Sphenolithus spp.	B	Nanno	29.24	0.35	3.54	10	Shipboard Scientific Party Leg 208, 2004a
T Reticulofenestra pseudoumbilicus	A	Nanno	30.74	0.35	3.70	10	Shipboard Scientific Party Leg 208, 2004a
T Sphenolithus spp.	A	Nanno	34.46	5.22	3.54	0	Shipboard Scientific Party Leg 208, 2004a
T Reticulofenestra pseudoumbilicus	B	Nanno	34.46	5.22	3.70	0	Shipboard Scientific Party Leg 208, 2004a
T Amaurolithus spp. (Amaurolithus primus NOT tricorniculatus)	A	Nanno	34.89	1.02	4.50	3	Shipboard Scientific Party Leg 208, 2004a
T Globorotalia margariae	A-B	PForam	42.40	2.71	3.85	3	Shipboard Scientific Party Leg 208, 2004a
T Amaurolithus spp. (Amaurolithus primus NOT tricorniculatus)	B	Nanno	44.78	5.10	4.50	0	Shipboard Scientific Party Leg 208, 2004a

T Globorotalia cibaoensis	A-B	PForam	47.50	2.39	4.61	3	Shipboard Scientific Party Leg 208, 2004a
T Globorotalia plesiotumida	A-B	PForam	47.50	2.39	3.77	3	Shipboard Scientific Party Leg 208, 2004a
T Globoturborotalita nepenthes	B-A	PForam	52.96	3.07	4.37	3	Shipboard Scientific Party Leg 208, 2004a
B Globorotalia crassaformis s.l.	B-A	PForam	52.96	3.07	4.31	3	Shipboard Scientific Party Leg 208, 2004a
B Sphaeroidinella dehiscens s.l.	A	PForam	64.34	1.19	5.53	10	Shipboard Scientific Party Leg 208, 2004a
B Globorotalia tumida	A	PForam	75.74	1.57	5.72	10	Shipboard Scientific Party Leg 208, 2004a
B Ceratolithus acutus	A	Nanno	76.60	0.30	5.35	10	Shipboard Scientific Party Leg 208, 2004a
T Nicklithus amplificus	A	Nanno	76.91	0.01	5.94	10	Shipboard Scientific Party Leg 208, 2004a
B Globigerinoides conglobatus	A	PForam	77.57	0.26	6.20	10	Shipboard Scientific Party Leg 208, 2004a
B Globoconella conomiozea	A-B	PForam	79.76	1.92	7.89	3	Shipboard Scientific Party Leg 208, 2004a
B Nicklithus amplificus	B	Nanno	82.97	0.40	6.79	10	Shipboard Scientific Party Leg 208, 2004a
B Amaurolithus primus	B	Nanno	108.17	5.22	7.42	0	Shipboard Scientific Party Leg 208, 2004a
B Amaurolithus primus	A	Nanno	109.34	0.58	7.42	10	Shipboard Scientific Party Leg 208, 2004a
B Globorotalia cibaoensis	B-A	PForam	116.44	3.02	9.44	3	Shipboard Scientific Party Leg 208, 2004a
B Paracme Reticulofenestra pseudoumbilicus	A	Nanno	119.71	0.26	8.79	10	Shipboard Scientific Party Leg 208, 2004a
B Globorotalia plesiotumida	A-B	PForam	121.24	1.78	8.58	10	Shipboard Scientific Party Leg 208, 2004a
B Globigerinoides extremus	A-B	PForam	131.51	2.25	8.93	3	Shipboard Scientific Party Leg 208, 2004a
T Discoaster neohamatus dominance	B	Nanno	139.61	5.85	9.53	0	Shipboard Scientific Party Leg 208, 2004a
T Discoaster neohamatus dominance	A	Nanno	139.90	0.17	9.53	10	Shipboard Scientific Party Leg 208, 2004a
T Catinaster calyculus	A	Nanno	142.61	0.39	9.67	10	Shipboard Scientific Party Leg 208, 2004a
T Paragloborotalia mayeri (subtropical)	A-B	PForam	142.78	2.70	10.46	3	Shipboard Scientific Party Leg 208, 2004a
B Globorotalia juanai	A-B	PForam	142.78	2.70	9.69	3	Shipboard Scientific Party Leg 208, 2004a
T Paragloborotalia mayeri	A-B	PForam	142.78	2.70	10.46	3	Shipboard Scientific Party Leg 208, 2004a
B Discoaster neohamatus	A	Nanno	145.49	1.10	9.76	3	Shipboard Scientific Party Leg 208, 2004a
B Discoaster bellus gr. (= B D. hamatus)	A	Nanno	146.99	0.40	10.40	0	Shipboard Scientific Party Leg 208, 2004a
B Discoaster bellus gr. (= B D. hamatus)	B	Nanno	150.20	4.75	10.40	0	Shipboard Scientific Party Leg 208, 2004a
B Globigerina apertura	B-A	PForam	157.47	2.52	11.18	0	Shipboard Scientific Party Leg 208, 2004a
B Catinaster coalitus	A	Nanno	159.57	0.20	10.89	0	Shipboard Scientific Party Leg 208, 2004a
T Coccolithus miopelagicus	B	Nanno	160.53	5.58	10.97	0	Shipboard Scientific Party Leg 208, 2004a
B Catinaster coalitus	B	Nanno	160.53	5.58	10.89	0	Shipboard Scientific Party Leg 208, 2004a
T Coccolithus miopelagicus	A	Nanno	167.73	0.35	10.97	0	Shipboard Scientific Party Leg 208, 2004a
TC Discoaster kugleri	A	Nanno	175.38	5.18	11.58	0	Shipboard Scientific Party Leg 208, 2004a
BC Discoaster kugleri	A	Nanno	175.38	5.18	11.90	0	Shipboard Scientific Party Leg 208, 2004a
B Globoturborotalita nepenthes	B-A	PForam	178.07	2.50	11.63	0	Shipboard Scientific Party Leg 208, 2004a
B Globigerina decoraperta	B-A	PForam	178.07	2.50	11.49	0	Shipboard Scientific Party Leg 208, 2004a
T Sphenolithus heteromorphus	B	Nanno	181.03	5.48	13.53	0	Shipboard Scientific Party Leg 208, 2004a
B Triquetrorhabdulus rugosus	B	Nanno	181.03	5.48	13.27	0	Shipboard Scientific Party Leg 208, 2004a
B Triquetrorhabdulus rugosus	A	Nanno	182.62	0.45	13.27	10	Shipboard Scientific Party Leg 208, 2004a
B Menardella praemenardii	A-B	PForam	183.54	2.97	14.38	0	Shipboard Scientific Party Leg 208, 2004a
T Menardella archeomenardii	A-B	PForam	183.54	2.97	13.87	0	Shipboard Scientific Party Leg 208, 2004a
T Fohsella peripheroronda	A-B	PForam	183.54	2.97	13.80	0	Shipboard Scientific Party Leg 208, 2004a
T Hirsutella praescitula	A-B	PForam	183.54	2.97	13.73	0	Shipboard Scientific Party Leg 208, 2004a

T Sphenolithus heteromorphus	A	Nanno	185.06	0.40	13.53	10	Shipboard Scientific Party Leg 208, 2004a
B Fohsella peripheroacuta	B-A	PForam	188.67	2.16	14.24	10	Shipboard Scientific Party Leg 208, 2004a
T Praeorbulina sicana	A	PForam	191.62	0.79	14.53	10	Shipboard Scientific Party Leg 208, 2004a
T Praeorbulina circularis	A	PForam	191.62	0.79	14.89	0	Shipboard Scientific Party Leg 208, 2004a
B Orbulina spp.	A	PForam	193.29	0.88		0	Shipboard Scientific Party Leg 208, 2004a
B Orbulina suturalis	A	PForam	193.29	0.88	15.1	10	Shipboard Scientific Party Leg 208, 2004a
B Praeorbulina circularis	A	PForam	195.12	0.94	15.96	0	Shipboard Scientific Party Leg 208, 2004a
B Discoaster signus gr.	A	Nanno	196.55	0.40	15.85	0	Shipboard Scientific Party Leg 208, 2004a
T Acme Discoaster deflandrei	A	Nanno	196.55	0.40	15.8	0	Shipboard Scientific Party Leg 208, 2004a
B Praeorbulina glomerosa	A-B	PForam	198.12	0.54	16.27	0	Shipboard Scientific Party Leg 208, 2004a
B Menardella archeomenardii	A-B	PForam	199.56	0.48	16.26	0	Shipboard Scientific Party Leg 208, 2004a
B Praeorbulina sicana	B-A	PForam	200.31	0.27	16.38	0	Shipboard Scientific Party Leg 208, 2004a
T Catapsydrax dissimilis	B-A	PForam	201.63	0.09	17.54	0	Shipboard Scientific Party Leg 208, 2004a
T Sphenolithus belemnos	A	Nanno	208.53	0.40	17.95	0	Shipboard Scientific Party Leg 208, 2004a
B Sphenolithus heteromorphus	A	Nanno	208.53	0.40	17.71	10	Shipboard Scientific Party Leg 208, 2004a
C5En (o)	N/A	PmagL16	212.26	0.18	18.524	10	Liebrand et al., 2016
B Sphenolithus heteromorphus	B	Nanno	212.34	5.33	17.71	0	Shipboard Scientific Party Leg 208, 2004a
T Globoquadrina binaiensis	B-A	PForam	212.38	0.73	19.09	0	Shipboard Scientific Party Leg 208, 2004a
C6n (y)	N/A	PmagL16	212.91	0.41	18.748	10	Liebrand et al., 2016
B Globoquadrina binaiensis	A-B	PForam	213.13	0.02	19.3	0	Shipboard Scientific Party Leg 208, 2004a
B Sphenolithus belemnos	A	Nanno	214.53	0.40	19.03	0	Shipboard Scientific Party Leg 208, 2004a
C6n (o)	N/A	PmagL16	219.48	1.18	19.722	10	Liebrand et al., 2016
T Paragloborotalia kugleri	B-A	PForam	220.29	2.79	21.12	0	Shipboard Scientific Party Leg 208, 2004a
T Paragloborotalia pseudokugleri	B-A	PForam	220.29	2.79	21.31	0	Shipboard Scientific Party Leg 208, 2004a
T Sphenolithus belemnos	B	Nanno	222.83	5.16	17.95	0	Shipboard Scientific Party Leg 208, 2004a
C6An.1n (y)	N/A	PmagL16	223.53	0.48	20.04	10	Liebrand et al., 2016
C6An.2n (o)	N/A	PmagL16	229.75	0.29	20.709	10	Liebrand et al., 2016
C6AAr.2n (y)	N/A	PmagL16	237.60	0.61	21.659	10	Liebrand et al., 2016
B Globoquadrina dehiscens	B-A	PForam	241.22	3.14	22.44	0	Shipboard Scientific Party Leg 208, 2004a
C6Bn.2n (o)	N/A	PmagL16	243.51	0.35	22.268	10	Liebrand et al., 2016
C6Cn.1n (y)	N/A	PmagL16	246.52	0.58	22.564	10	Liebrand et al., 2016
C6Cn.1n (y)	N/A	PmagL16	246.72	0.22	22.564	10	Liebrand et al., 2016
B Globigerinoides trilobus s.l.	A-B	PForam	248.12	0.68	22.96	0	Shipboard Scientific Party Leg 208, 2004a
C6Cn.1n (o)	N/A	PmagL16	248.30	0.17	22.754	10	Liebrand et al., 2016
C6Cn.2n (y)	N/A	PmagL16	250.19	0.30	22.902	10	Liebrand et al., 2016
C6Cn.2n (o)	N/A	PmagL16	251.18	0.10	23.03	10	Liebrand et al., 2016
C6Cn.3n (y)	N/A	PmagL16	253.17	0.15	23.233	10	Liebrand et al., 2016
C6Cn.3n (o)	N/A	PmagL16	254.01	0.11	23.295	10	Liebrand et al., 2016
B Sphenolithus delphix	B	Nanno	254.45	5.66	23.21	0	Shipboard Scientific Party Leg 208, 2004a
T Sphenolithus delphix	B	Nanno	254.45	5.66	23.11	0	Shipboard Scientific Party Leg 208, 2004a
T Sphenolithus delphix	A	Nanno	256.18	0.42	23.11	10	Shipboard Scientific Party Leg 208, 2004a
B Paragloborotalia kugleri	A	PForam	256.29	0.53	22.96	0	Shipboard Scientific Party Leg 208, 2004a
T Globigerina euapertura	A	PForam	257.58	0.75	23.03	0	Shipboard Scientific Party Leg 208, 2004a
B Sphenolithus delphix	A	Nanno	259.00	0.10	23.21	10	Shipboard Scientific Party Leg 208, 2004a

T Tenuitella gemma	A	PForam	259.08	0.75	23.5	10	Shipboard Scientific Party Leg 208, 2004a
B Globigerinoides primordius (common)	A	PForam	259.08	0.75	23.5	10	Shipboard Scientific Party Leg 208, 2004a
C7n.1n (y)	N/A	PmagL16	263.43	1.75	23.962	10	Liebrand et al., 2016
T Sphenolithus ciperoensis	B	Nanno	264.64	0.15	24.43	10	Shipboard Scientific Party Leg 208, 2004a
C7n.2n (o)	N/A	PmagL16	266.62	0.06	24.474	10	Liebrand et al., 2016
C7An (y)	N/A	PmagL16	268.58	0.09	24.761	10	Liebrand et al., 2016
T Sphenolithus ciperoensis	A	Nanno	268.80	8.24	24.43	0	Shipboard Scientific Party Leg 208, 2004a
C7An (o)	N/A	PmagL16	269.88	0.51	24.984	10	Liebrand et al., 2016
C8n.2n (y)	N/A	PmagL16	273.38	1.26	25.304	10	Liebrand et al., 2016
T Sphenolithus distentus	B	Nanno	275.97	0.20	26.84	0	Shipboard Scientific Party Leg 208, 2004a
B Paragloborotalia pseudokugleri	A	PForam	279.10	2.06	25.21	0	Shipboard Scientific Party Leg 208, 2004a
B Sphenolithus ciperoensis	A	Nanno	285.41	4.26	29.62	0	Shipboard Scientific Party Leg 208, 2004a
B Sphenolithus ciperoensis	B	Nanno	286.91	0.35	29.62	0	Shipboard Scientific Party Leg 208, 2004a
T Chiloguembelina cubensis (common)	B	PForam	287.13	5.10	28.09	0	Shipboard Scientific Party Leg 208, 2004a
B "Globigerina" angulisuturalis	B-A	PForam	293.46	1.23	29.18	0	Shipboard Scientific Party Leg 208, 2004a
C11n.1n (y)	N/A	PmagL16	306.88	0.06	29.183	10	Liebrand et al., 2016
B Sphenolithus distentus	A	Nanno	310.71	5.28	30	0	Shipboard Scientific Party Leg 208, 2004a
C11n.2n (o)	N/A	PmagL16	315.81	2.07	29.97	10	Liebrand et al., 2016