

Fig. S1

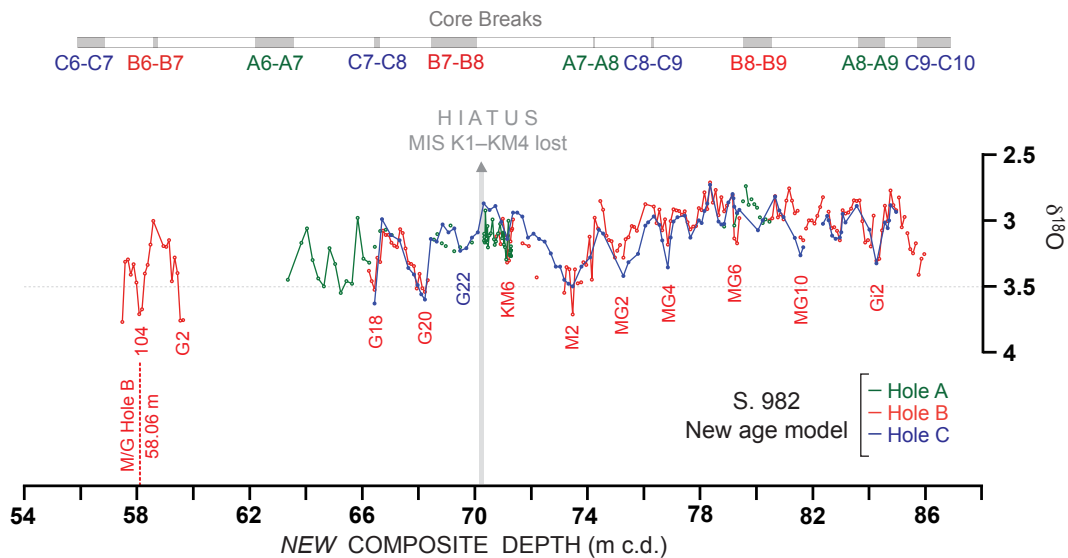


Fig. S2

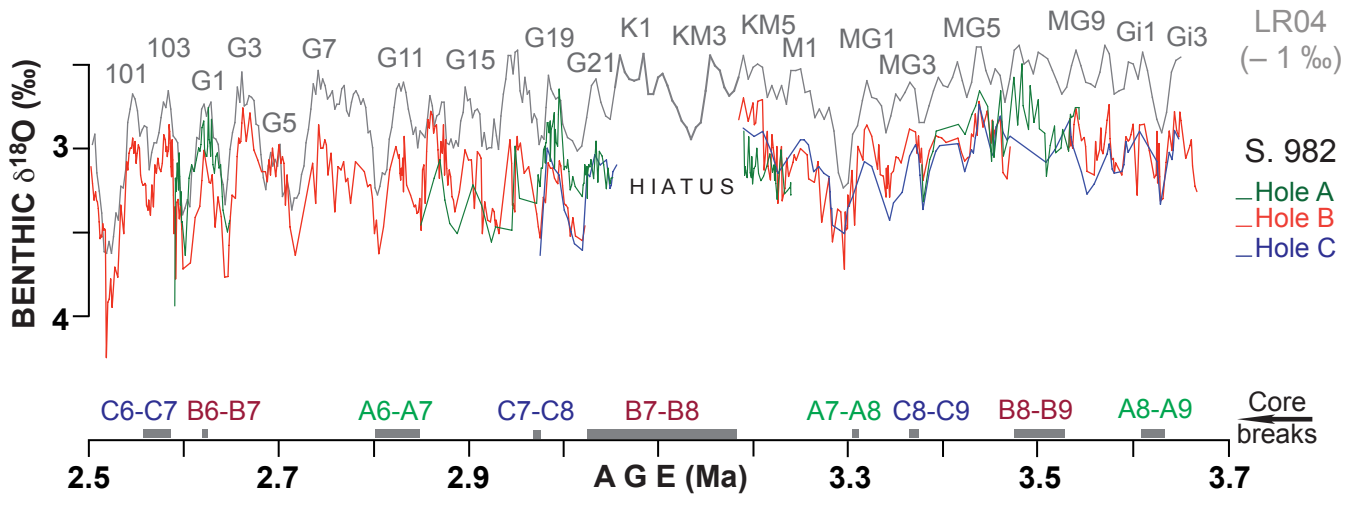


Fig. S3

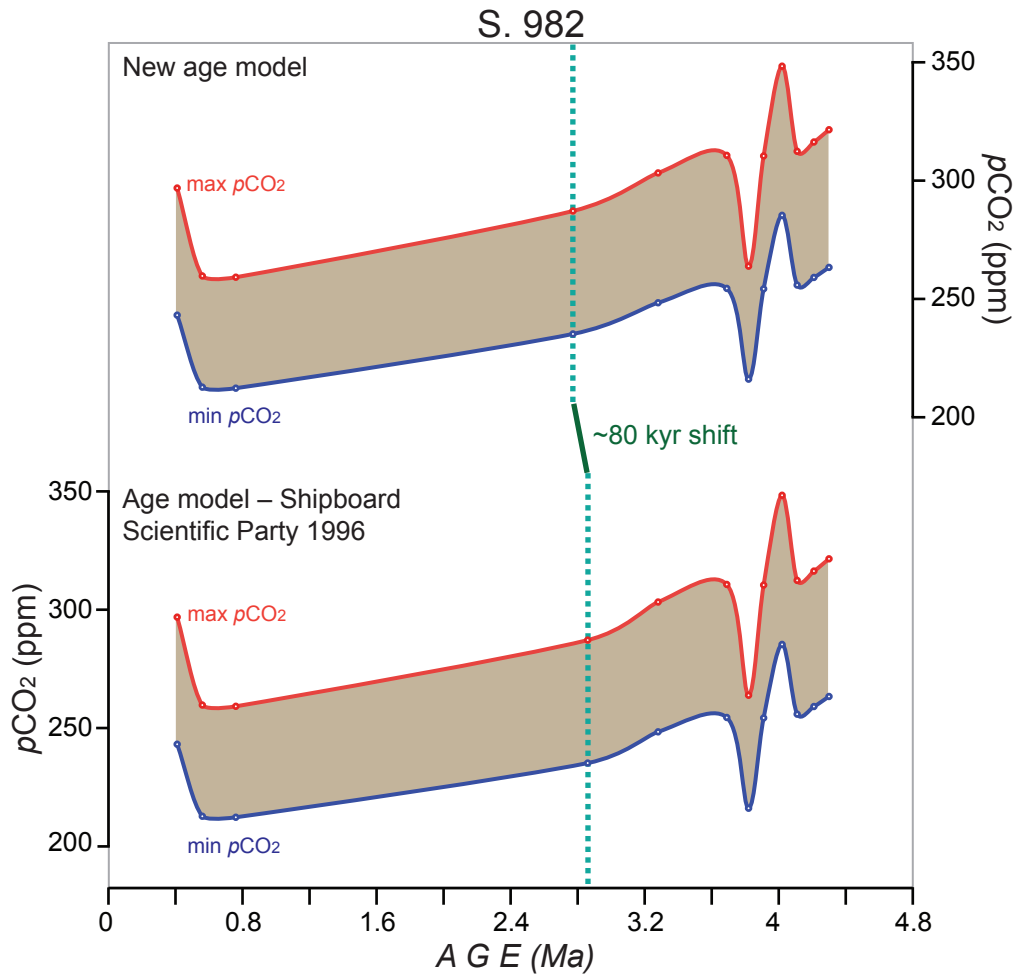


Table S1. Summary of stable isotope data measured in this study at ODP Site 982.

sample #	Sample ID	MBSF	(previous) MCD	new MCD	AGE (kyr)	Cib. $\delta^{18}\text{O}$	Corr. Cib. $\delta^{18}\text{O}$	Cib. $\delta^{13}\text{C}$
1	162-982-B-6H-6, 100	52,00	57,51	57,51	2591,981	3,13	3,77	0,74
2	162-982-B-6H-6, 110	52,10	57,61	57,61	2593,279	2,67	3,31	0,55
3	162-982-B-6H-6, 120	52,20	57,71	57,71	2594,577	2,66	3,30	0,84
4	162-982-B-6H-6, 130	52,30	57,81	57,81	2595,875	2,77	3,41	1,00
5	162-982-B-6H-6, 140	52,40	57,91	57,91	2597,172	2,69	3,33	0,88
6	162-982-B-6H-7, 0	52,50	58,01	58,01	2598,470	2,83	3,47	1,02
7	162-982-B-6H-7, 10	52,60	58,11	58,11	2599,768	3,07	3,71	1,07
8	162-982-B-6H-7, 20	52,70	58,21	58,21	2607,614	3,03	3,67	1,08
9	162-982-B-6H-7, 30	52,80	58,31	58,31	2612,606	2,76	3,40	1,02
10	162-982-B-6H-7, 40	52,90	58,41	58,41	2617,461	2,70	3,34	0,81
11	162-982-B-6H-CC, 0	53,00	58,51	58,51	2619,596	2,54	3,18	1,28
12	162-982-B-6H-CC, 10	53,10	58,61	58,61	2621,730	2,36	3,00	1,19
13	162-982-B-7H-1, 20	53,20	58,97	58,97	2627,370	2,55	3,19	1,05
14	162-982-B-7H-1, 30	53,30	59,07	59,07	2628,824	2,56	3,20	0,96
15	162-982-B-7H-1, 40	53,40	59,17	59,17	2630,505	2,51	3,15	1,05
16	162-982-B-7H-1, 50	53,50	59,27	59,27	2633,571	2,82	3,46	0,96
17	162-982-B-7H-1, 60	53,60	59,37	59,37	2636,636	2,64	3,28	0,88
18	162-982-B-7H-1, 70	53,70	59,47	59,47	2640,052	2,76	3,40	1,13
19	162-982-B-7H-1, 80	53,80	59,57	59,57	2643,598	3,12	3,76	0,91
20	162-982-B-7H-1, 90	53,90	59,67	59,67	2647,155	3,12	3,76	0,81
21	162-982-A-7H-1, 0,5	55,71	63,68	63,39	2850,550	2,81	3,45	0,86
22	162-982-A-7H-1, 20	55,90	63,87	63,87	2864,600	2,53	3,17	1,04
23	162-982-A-7H-1, 40	56,10	64,07	64,07	2870,694	2,42	3,06	0,96
24	162-982-A-7H-1, 60	56,30	64,27	64,27	2875,892	2,66	3,30	0,76
25	162-982-A-7H-1, 80	56,50	64,47	64,47	2881,018	2,80	3,44	1,04
26	162-982-A-7H-1, 100	56,70	64,67	64,67	2888,904	2,86	3,50	0,77

27	162-982-A-7H-1, 120	56,90	64,87	64,87	2905,377	2,57	3,21	0,96
28	162-982-A-7H-1, 140	57,10	65,07	65,07	2914,473	2,69	3,33	1,13
29	162-982-A-7H-2, 10	57,30	65,27	65,27	2924,801	2,91	3,55	0,75
30	162-982-A-7H-2, 30	57,50	65,47	65,47	2929,221	2,82	3,46	0,68
31	162-982-A-7H-2, 50	57,70	65,67	65,67	2946,355	2,84	3,48	0,96
32	162-982-A-7H-2, 70	57,90	65,87	65,87	2949,731	2,34	2,98	0,40
33	162-982-A-7H-2, 90,5	58,11	66,08	66,08	2954,355	2,65	3,29	0,66
34	162-982-B-7H-6, 0	60,50	66,27	66,27	2972,227	2,74	3,38	0,51
35	162-982-A-7H-2, 111	58,31	66,28	66,28	2972,399	2,68	3,32	0,34
36	162-982-B-7H-6, 10	60,60	66,37	66,37	2973,941	2,82	3,46	0,36
37	162-982-B-7H-6, 20	60,70	66,47	66,47	2975,857	2,89	3,53	0,94
38	162-982-C-8H-1, 3	60,83	66,62	66,62	2975,857	2,99	3,63	0,65
39	162-982-A-7H-2, 131	58,51	66,48	66,48	2976,194	2,56	3,20	0,76
40	162-982-B-7H-6, 32	60,82	66,59	66,57	2979,233	2,64	3,28	1,03
41	162-982-A-7H-3, 0	58,70	66,67	66,67	2981,484	2,44	3,08	0,86
42	162-982-B-7H-6, 40	60,90	66,67	66,67	2981,484	2,68	3,32	0,97
43	162-982-C-8H-1, 20	61,00	66,79	66,73	2983,310	2,35	2,99	0,96
44	162-982-B-7H-6, 50	61,00	66,77	66,77	2984,297	2,44	3,08	0,92
45	162-982-A-7H-3, 20	58,90	66,87	66,87	2986,684	2,43	3,07	0,82
46	162-982-B-7H-6, 60	61,10	66,87	66,87	2986,684	2,47	3,11	0,55
47	162-982-B-7H-6, 70	61,20	66,97	66,97	2988,817	2,47	3,11	0,83
48	162-982-C-8H-1, 40	61,20	66,99	67,05	2990,452	2,47	3,11	0,92
49	162-982-B-7H-6, 80	61,30	67,07	67,07	2990,951	2,53	3,17	0,78
50	162-982-A-7H-3, 41	59,11	67,08	67,08	2991,160	2,47	3,11	0,83
51	162-982-B-7H-6, 90	61,40	67,17	67,17	2993,035	2,55	3,19	0,87
52	162-982-B-7H-6, 100	61,50	67,27	67,27	2994,468	2,56	3,20	0,87
53	162-982-C-8H-1, 60	61,40	67,19	67,36	2995,734	2,51	3,15	0,73
54	162-982-B-7H-6, 111	61,61	67,38	67,38	2996,045	2,43	3,07	0,78
55	162-982-B-7H-6, 120	61,70	67,47	67,47	2997,606	2,46	3,10	0,91
56	162-982-B-7H-6, 130	61,80	67,57	67,57	2999,445	2,57	3,21	0,74

57	162-982-B-7H-6, 140	61,90	67,67			2,68	3,32	1,04
58	162-982-C-8H-1, 80	61,60	67,39	67,67	3001,283	2,72	3,36	0,69
59	162-982-B-7H-7, 0	62,00	67,77	67,77	3003,122	2,69	3,33	1,05
60	162-982-B-7H-7, 10	62,10	67,87			2,71	3,35	0,95
61	162-982-C-8H-1, 100	61,80	67,59	67,87	3004,961	2,77	3,41	0,76
62	162-982-B-7H-7, 20	62,20	67,97	67,97	3007,630	2,88	3,52	0,89
63	162-982-C-8H-1, 120	62,00	67,79	68,00	3008,444	2,85	3,49	1,08
64	162-982-B-7H-7, 30	62,30	68,07	68,07	3010,343	2,77	3,41	0,43
65	162-982-C-8H-1, 140	62,20	67,99	68,13	3011,970	2,92	3,56	0,67
66	162-982-B-7H-7, 40	62,40	68,17	68,17	3013,055	2,87	3,51	0,76
67	162-982-B-7H-CC, 0	62,49	68,26			2,90	3,54	0,78
68	162-982-C-8H-2, 10	62,40	68,19	68,26	3020,410	2,96	3,60	0,6
69	162-982-B-7H-CC, 10	62,59	68,36	68,36	3023,056	2,81	3,45	0,74
70	162-982-C-8H-2, 30	62,60	68,39	68,47	3025,264	2,50	3,14	0,69
71	162-982-A-7H-4, 26	60,46	68,43	68,58	3026,000	2,51	3,15	0,60
72	162-982-C-8H-2, 50	62,80	68,59	68,68	3028,098	2,52	3,16	0,8
73	162-982-A-7H-4, 38	60,58	68,55	68,70	3028,427	2,46	3,10	0,90
74	162-982-A-7H-4, 54	60,74	68,71	68,86	3032,321	2,53	3,17	0,94
75	162-982-C-8H-2, 70	63,00	68,79	68,89	3033,466	2,39	3,03	0,64
76	162-982-A-7H-4, 68	60,88	68,85	69,00	3036,759	2,55	3,19	0,76
77	162-982-C-8H-2, 90	63,20	68,99	69,10	3039,039	2,45	3,09	0,68
78	162-982-A-7H-4, 85	61,05	69,02	69,17	3041,189	2,40	3,04	0,68
79	162-982-A-7H-4, 98	61,18	69,15			2,59	3,23	0,86
80	162-982-C-8H-2, 110	63,40	69,19	69,30	3045,676	2,42	3,06	0,72
81	162-982-A-7H-4, 114	61,34	69,31			2,56	3,20	0,56
82	162-982-C-8H-2, 130	63,60	69,39	69,51	3049,459	2,59	3,23	0,6
83	162-982-C-8H-3, 1	63,81	69,60	69,73	3050,800	2,57	3,21	0,68
84	162-982-A-7H-4, 128	61,48	69,45			2,53	3,17	0,65
85	162-982-C-8H-3, 20	64,00	69,79	69,93	3052,524	2,49	3,13	0,51
86	162-982-C-8H-3, 40	64,20	69,99	70,14	3056,537	2,45	3,09	0,79

87	162-982-C-8H-3, 60	64,40	70,19	70,35	3189,643	2,23	2,87	0,8
88	162-982-A-7H-4, 145	61,65	69,62	70,36	3191,094	2,51	3,15	0,78
89	162-982-A-7H-5, 2,5	61,73	69,70	70,4	3191,680	2,46	3,10	0,78
90	162-982-A-7H-5, 10	61,80	69,77	70,372	3192,266	2,49	3,13	0,86
91	162-982-C-8H-3, 80	64,60	70,39	70,56	3201,269	2,28	2,92	0,71
92	162-982-A-7H-5, 20	61,90	69,87	70,39	3193,750	2,53	3,17	0,88
93	162-982-A-7H-5, 30	62,00	69,97	70,41	3195,450	2,28	2,92	0,91
94	162-982-A-7H-5, 40	62,10	70,07	70,44	3196,950	2,50	3,14	0,89
95	162-982-A-7H-5, 50	62,20	70,17	70,47	3198,150	2,53	3,17	0,63
96	162-982-A-7H-5, 60	62,30	70,27	70,481	3198,65	2,40	3,04	0,68
97	162-982-C-8H-3, 100	64,80	70,59	70,76	3210,180	2,25	2,89	0,48
98	162-982-A-7H-5, 70	62,40	70,37	70,50	3199,450	2,56	3,20	0,82
99	162-982-B-8H-2, 20	64,20	71,03	70,80	3211,714	2,48	3,12	0,76
100	162-982-A-7H-5, 80	62,50	70,47	70,54	3200,950	2,47	3,11	0,84
101	162-982-B-8H-2, 32	64,32	71,15	70,89	3215,789	2,46	3,10	0,84
102	162-982-B-8H-2, 40	64,40	71,23	70,95	3218,381	2,54	3,18	0,77
103	162-982-C-8H-3, 120	65,00	70,79	70,97	3219,311	2,37	3,01	0,69
104	162-982-A-7H-5, 90	62,60	70,57	70,60	3202,450	2,46	3,10	0,88
105	162-982-A-7H-5, 100	62,70	70,67	70,661	3203,950	2,35	2,99	0,68
106	162-982-B-8H-2, 50	64,50	71,33	71,03	3221,300	2,35	2,99	0,58
107	162-982-B-8H-2, 62	64,62	71,45	71,12	3224,395	2,49	3,13	0,76
108	162-982-A-7H-5, 110	62,80	70,77	70,71	3205,750	2,50	3,14	0,78
109	162-982-A-7H-5, 120	62,90	70,87	70,74	3208,250	2,55	3,19	0,77
110	162-982-B-8H-2, 70	64,70	71,53	71,18	3226,161	2,68	3,32	1,10
111	162-982-C-8H-3, 140	65,20	70,99	71,181	3226,252	2,50	3,14	0,66
112	162-982-B-8H-2, 80	64,80	71,63	71,21	3228,080	2,47	3,11	0,85
113	162-982-B-8H-2, 92	64,92	71,75	71,246	3230,738	2,66	3,30	0,63
114	162-982-A-7H-5, 130	63,00	70,97	70,78	3211,000	2,52	3,16	0,85
115	162-982-B-8H-2, 100	65,00	71,83	71,27	3233,692	2,59	3,23	0,65
116	162-982-B-8H-2, 110	65,10	71,93	71,30	3237,476	2,52	3,16	0,89

117	162-982-A-7H-5, 140	63,10	71,07	70,86	3214,333	2,46	3,10	0,64
118	162-982-B-8H-2, 122	65,22	72,05	71,34	3242,166	2,43	3,07	0,80
119	162-982-B-8H-2, 130	65,30	72,13	71,36	3245,525	2,42	3,06	0,89
120	162-982-A-7H-6, 0	63,20	71,17	70,93	3217,6	2,39	3,03	0,67
121	162-982-B-8H-2, 140	65,40	72,23	71,39	3250,000	2,35	2,99	0,67
122	162-982-C-8H-4, 10	65,40	71,19			2,30	2,94	0,86
123	162-982-A-7H-6, 10	63,30	71,27	71,00	3220,400	2,49	3,13	0,85
124	162-982-A-7H-6, 20	63,40	71,37	71,05	3222,100	2,45	3,09	0,40
125	162-982-C-8H-4, 30	65,60	71,39	71,54	3253,787	2,30	2,94	0,78
126	162-982-A-7H-6, 30	63,50	71,47	71,07	3222,600	2,54	3,18	0,64
127	162-982-A-7H-6, 40	63,60	71,57	71,08	3223,150	2,46	3,10	0,95
128	162-982-C-8H-4, 50	65,80	71,59	71,72	3258,431	2,33	2,97	0,71
129	162-982-B-8H-3, 2	65,52	72,35	71,73	3258,595	2,53	3,17	0,81
130	162-982-A-7H-6, 50	63,70	71,67	71,10	3223,900	2,56	3,20	0,58
131	162-982-A-7H-6, 60	63,80	71,77	71,15	3225,3	2,66	3,30	0,88
132	162-982-C-8H-4, 70	66,00	71,79	71,92	3263,877	2,49	3,13	0,9
133	162-982-B-8H-3, 10	65,60	72,43	71,95	3264,694	2,55	3,19	0,78
134	162-982-A-7H-6, 70	63,90	71,87	71,23	3229,300	2,36	3,00	0,85
135	162-982-C-8H-4, 90	66,20	71,99	72,118	3269,272	2,46	3,10	0,82
136	162-982-A-7H-6, 80	64,00	71,97	71,27	3233,100	2,62	3,26	0,92
137	162-982-A-7H-6, 90	64,10	72,07	71,29	3236,100	2,60	3,24	0,84
138	162-982-B-8H-3, 20	65,70	72,53	72,23	3272,337	2,79	3,43	0,54
139	162-982-C-8H-4, 110	66,40	72,19	72,316	3274,691	2,50	3,14	0,86
140	162-982-A-7H-6, 100	64,20	72,17	71,309	3238,600	2,59	3,23	0,97
141	162-982-A-7H-6, 110	64,30	72,27	71,312	3239,100	2,59	3,23	0,82
142	162-982-C-8H-4, 130	66,60	72,39	72,51	3280,021	2,52	3,16	0,88
143	162-982-A-7H-6, 120	64,40	72,37	71,32	3239,530	2,56	3,20	0,83
144	162-982-A-7H-6, 130	64,50	72,47	71,32	3239,680	2,63	3,27	0,84
145	162-982-C-8H-5, 2	66,82	72,61	72,73	3281,163	2,61	3,25	0,72
146	162-982-A-7H-6, 140	64,60	72,57	71,32	3239,922	2,63	3,27	0,41

147	162-982-C-8H-5, 20	67,00	72,79	72,91	3282,097	2,71	3,35	0,6
148	162-982-C-8H-5, 40	67,20	72,99	73,06	3282,883	2,71	3,35	0,57
149	162-982-B-8H-3, 32	65,82	72,65			2,91	3,55	0,64
150	162-982-C-8H-5, 60	67,40	73,19	73,21	3283,670	2,81	3,45	0,55
151	162-982-B-8H-3, 40	65,90	72,73	73,29	3289,135	2,71	3,35	0,57
152	162-982-C-8H-5, 80	67,60	73,39	73,36	3291,464	2,84	3,48	0,75
153	162-982-B-8H-3, 50	66,00	72,83	73,39	3292,462	2,73	3,37	0,52
154	162-982-B-8H-3, 62	66,12	72,95			3,07	3,71	0,52
155	162-982-C-8H-5, 100	67,80	73,59	73,51	3296,295	2,86	3,50	0,56
156	162-982-B-8H-3, 70	66,20	73,03	73,59	3297,162	2,73	3,37	0,37
157	162-982-B-8H-3, 80	66,30	73,13	73,69	3298,246	2,84	3,48	0,59
158	162-982-B-8H-3, 92	66,42	73,25	73,81	3299,546	2,83	3,47	0,71
159	162-982-C-8H-5, 120	68,00	73,79	73,82	3299,654	2,71	3,35	0,71
160	162-982-B-8H-3, 100	66,50	73,33	73,89	3300,413	2,68	3,32	0,63
161	162-982-B-8H-3, 110	66,60	73,43	73,99	3301,496	2,70	3,34	0,64
162	162-982-B-8H-3, 122	66,72	73,55	74,11	3304,210	2,48	3,12	0,91
163	162-982-C-8H-5, 140	68,20	73,99	74,13	3304,910	2,64	3,28	0,88
164	162-982-B-8H-3, 130	66,80	73,63	74,19	3307,012	2,81	3,45	0,57
165	162-982-B-8H-3, 140	66,90	73,73	74,29	3310,514	2,34	2,98	0,78
166	162-982-B-8H-4, 2	67,02	73,85	74,41	3315,803	2,42	3,06	0,66
167	162-982-C-8H-6, 10	68,40	74,19	74,44	3317,342	2,43	3,07	0,74
168	162-982-B-8H-4, 10	67,10	73,93	74,49	3319,907	2,21	2,85	0,60
169	162-982-B-8H-4, 20	67,20	74,03			2,28	2,92	0,58
170	162-982-C-8H-6, 30	68,60	74,39	74,59	3325,039	2,46	3,10	0,51
171	162-982-B-8H-4, 32	67,32	74,15	74,71	3331,197	2,48	3,12	0,65
172	162-982-B-8H-4, 40	67,40	74,23	74,79	3334,076	2,51	3,15	0,54
173	162-982-B-8H-4, 50	67,50	74,33	74,89	3337,302	2,52	3,16	0,43
174	162-982-B-8H-4, 62	67,62	74,45	75,01	3340,125	2,64	3,28	0,68
175	162-982-B-8H-4, 70	67,70	74,53	75,09	3341,012	2,59	3,23	0,76
176	162-982-B-8H-4, 80	67,80	74,63	75,19	3342,120	2,55	3,19	0,64

177	162-982-B-8H-4, 92	67,92	74,75			2,64	3,28	0,58
178	162-982-C-8H-6, 50	68,80	74,59	75,31	3343,881	2,78	3,42	0,43
179	162-982-B-8H-4, 100	68,00	74,83	75,39	3345,675	2,50	3,14	0,19
180	162-982-B-8H-4, 110	68,10	74,93			2,49	3,13	0,43
181	162-982-C-8H-6, 70	69,00	74,79	75,49	3347,918	2,68	3,32	0,70
182	162-982-B-8H-4, 122	68,22	75,05	75,61	3350,659	2,40	3,04	0,62
183	162-982-B-8H-4, 130	68,30	75,13	75,69	3353,031	2,41	3,05	0,51
184	162-982-B-8H-4, 140	68,40	75,23	75,79	3355,997	2,44	3,08	0,59
185	162-982-C-8H-6, 90	69,20	74,99	75,83	3357,176	2,61	3,25	0,96
186	162-982-B-8H-5, 20	68,70	75,53			2,24	2,88	0,71
187	162-982-C-8H-6, 110	69,40	75,19	76,09	3364,838	2,40	3,04	0,64
188	162-982-C-8H-6, 130	69,60	75,39	76,19	3366,969	2,37	3,01	0,49
189	162-982-B-8H-5, 50	69,00	75,83			2,25	2,89	0,58
190	162-982-C-8H-7, 0	69,80	75,59	76,39	3371,233	2,33	2,97	0,59
191	162-982-B-8H-5, 60	69,10	75,93	76,49	3372,785	2,38	3,02	0,68
192	162-982-B-8H-5, 70	69,20	76,03			2,28	2,92	0,63
193	162-982-C-8H-7, 20	70,00	75,79	76,59	3374,337	2,39	3,03	0,65
194	162-982-B-8H-5, 80	69,30	76,13			2,43	3,07	0,58
195	162-982-C-8H-7, 40	70,20	75,99	76,69	3375,889	2,51	3,15	0,66
196	162-982-B-8H-5, 90	69,40	76,23	76,79	3377,441	2,35	2,99	0,51
197	162-982-B-8H-5, 100	69,50	76,33			2,54	3,18	0,46
198	162-982-C-8H-8, 0	70,34	76,13	76,89	3378,993	2,72	3,36	0,48
199	162-982-B-8H-5, 110	69,60	76,43			2,36	3,00	0,54
200	162-982-C-9H-1, 10	70,40	76,22	76,99	3385,777	2,49	3,13	0,59
201	162-982-B-8H-5, 120	69,70	76,53			2,28	2,92	0,54
202	162-982-C-8H-8, 18	70,52	76,31	77,09	3392,562	2,37	3,01	0,50
203	162-982-B-8H-5, 130	69,80	76,63	77,19	3395,104	2,28	2,92	0,71
204	162-982-C-9H-1, 30	70,60	76,42	77,23	3396,589	2,34	2,98	0,67
205	162-982-B-8H-5, 140	69,90	76,73	77,29	3398,645	2,29	2,93	0,47
206	162-982-B-8H-6, 0	70,00	76,83	77,39	3403,370	2,32	2,96	0,59

207	162-982-B-8H-6, 10	70,10	76,93			2,29	2,93	0,29
208	162-982-C-9H-1, 50	70,80	76,62	77,49	3415,875	2,32	2,96	0,47
209	162-982-B-8H-6, 20	70,20	77,03	77,59	3419,402	2,37	3,01	0,17
210	162-982-B-8H-6, 30	70,30	77,13			2,43	3,07	0,24
211	162-982-C-9H-1, 90	71,20	76,82	77,69	3422,930	2,49	3,13	0,35
212	162-982-B-8H-6, 40	70,40	77,23	77,79	3426,143	2,41	3,05	0,32
213	162-982-B-8H-6, 50	70,50	77,33	77,89	3428,140	2,40	3,04	0,22
214	162-982-B-8H-6, 60	70,60	77,43			2,27	2,91	0,37
215	162-982-C-9H-1, 110	71,40	77,02	77,99	3430,137	2,36	3,00	0,64
216	162-982-B-8H-6, 70	70,70	77,53			2,28	2,92	0,51
217	162-982-C-9H-1, 130	71,60	77,22	78,09	3432,133	2,38	3,02	0,57
218	162-982-B-8H-6, 80	70,80	77,63			2,15	2,79	0,46
219	162-982-C-9H-2, 0	71,80	77,62	78,19	3434,130	2,29	2,93	0,69
220	162-982-B-8H-6, 90	70,90	77,73			2,27	2,91	0,67
221	162-982-C-9H-2, 20	72,00	77,82	78,29	3436,127	2,23	2,87	0,56
222	162-982-B-8H-6, 100	71,00	77,83			2,07	2,71	0,64
223	162-982-C-9H-2, 40	72,20	78,02	78,39	3438,124	2,09	2,73	0,60
224	162-982-B-8H-6, 110	71,10	77,93	78,49	3442,212	2,22	2,86	0,67
225	162-982-B-8H-6, 120	71,20	78,03	78,59	3446,699	2,13	2,77	0,75
226	162-982-B-8H-6, 130	71,30	78,13			2,32	2,96	0,59
227	162-982-C-9H-2, 60	72,40	78,22	78,69	3450,802	2,37	3,01	0,58
228	162-982-B-8H-6, 140	71,40	78,23			2,18	2,82	0,50
229	162-982-C-9H-2, 80	72,60	78,42	78,79	3452,069	2,39	3,03	0,61
230	162-982-A-8H-4, 22	69,92	78,70			2,41	3,05	0,62
231	162-982-B-8H-7, 0	71,50	78,33	78,89	3453,336	2,29	2,93	0,42
232	162-982-C-9H-2, 100	72,80	78,62			2,39	3,03	0,27
233	162-982-B-8H-7, 10	71,60	78,43	78,99	3454,604	2,25	2,89	0,66
234	162-982-C-9H-2, 120	73,00	78,82	79,04	3456,063	2,22	2,86	0,88
235	162-982-B-8H-7, 30	71,80	78,63			2,17	2,81	0,59
236	162-982-C-9H-2, 140	73,20	79,02	79,19	3460,440	2,16	2,80	0,86

237	162-982-C-9H-3, 10	73,40	79,22	79,22	3461,855	2,19	2,83	0,78
238	162-982-A-8H-4, 32	70,02	78,80			2,40	3,04	0,89
239	162-982-B-8H-CC, 0	71,86	78,69	79,25	3463,269	2,50	3,14	0,45
240	162-982-C-9H-3, 30	73,60	79,42			2,26	2,90	0,93
241	162-982-A-8H-4, 42	70,12	78,90			2,31	2,95	0,96
242	162-982-B-8H-CC, 10	71,96	78,79	79,35	3467,566	2,53	3,17	0,62
243	162-982-C-9H-3, 50	73,80	79,62			2,30	2,94	0,82
244	162-982-B-8H-CC, 18	72,04	78,87	79,43	3470,859	2,34	2,98	0,55
245	162-982-C-9H-3, 70	74,00	79,82			2,28	2,92	0,79
246	162-982-A-8H-4, 52	70,22	79,00	79,56	3478,266	2,21	2,85	0,82
247	162-982-A-8H-4, 62	70,32	79,10	79,66	3483,964	2,10	2,74	0,80
248	162-982-A-8H-4, 72	70,42	79,20	79,76	3489,662	2,24	2,88	0,92
249	162-982-A-8H-4, 82	70,52	79,30	79,86	3495,360	2,20	2,84	0,90
250	162-982-A-8H-4, 92	70,62	79,40	79,96	3501,057	2,24	2,88	0,83
251	162-982-A-8H-4, 102	70,72	79,50	80,06	3506,755	2,26	2,90	0,79
252	162-982-C-9H-3, 90	74,20	80,02	80,09	3508,464	2,43	3,07	0,77
253	162-982-A-8H-4, 112	70,82	79,60	80,16	3512,453	2,34	2,98	0,85
254	162-982-A-8H-4, 122	70,92	79,70	80,26	3518,151	2,38	3,02	0,79
255	162-982-C-9H-3, 110	74,40	80,22			2,36	3,00	0,84
256	162-982-A-8H-4, 132	71,02	79,80	80,36	3523,848	2,35	2,99	0,75
257	162-982-A-8H-4, 142	71,12	79,90	80,50	3531,825	2,37	3,01	0,93
258	162-982-B-9H-1, 0	72,00	79,94			2,36	3,00	0,89
259	162-982-B-9H-1, 10	72,10	80,04	80,60	3532,763	2,34	2,98	0,82
260	162-982-B-9H-1, 20	72,20	80,14	80,70	3533,735	2,18	2,82	0,87
261	162-982-C-9H-3, 130	74,60	80,42			2,18	2,82	0,89
262	162-982-B-9H-1, 30	72,30	80,24	80,80	3534,706	2,34	2,98	0,83
263	162-982-C-9H-4, 0	74,80	80,62	80,85	3543,342	2,28	2,92	0,78
264	162-982-B-9H-1, 40	72,40	80,34	80,90	3535,677	2,31	2,95	0,82
265	162-982-B-9H-1, 50	72,50	80,44	81,00	3536,649	2,35	2,99	0,83
266	162-982-C-9H-4, 20	75,00	80,82			2,33	2,97	0,70

267	162-982-B-9H-1, 60	72,60	80,54	81,10	3538,040	2,21	2,85	0,84
268	162-982-B-9H-1, 70	72,70	80,64	81,20	3540,240	2,12	2,76	0,76
269	162-982-B-9H-1, 80	72,80	80,74	81,30	3542,987	2,21	2,85	0,91
270	162-982-B-9H-1, 90	72,90	80,84	81,40	3545,903	2,31	2,95	0,62
271	162-982-C-9H-4, 40	75,20	81,02			2,49	3,13	0,39
272	162-982-B-9H-1, 100	73,00	80,94	81,50	3548,818	2,29	2,93	0,47
273	162-982-B-9H-1, 110	73,10	81,04	81,60	3551,733	2,49	3,13	0,60
274	162-982-C-9H-4, 60	75,40	81,22			2,62	3,26	0,99
275	162-982-B-9H-1, 120	73,20	81,14	81,70	3559,404	2,51	3,15	1,06
276	162-982-C-9H-4, 80	75,60	81,42			2,56	3,20	0,92
277	162-982-B-9H-1, 130	73,30	81,24	81,80	3562,237	2,42	3,06	0,91
278	162-982-B-9H-1, 140	73,40	81,34	81,90	3565,070	2,36	3,00	1,01
279	162-982-B-9H-2, 0	73,50	81,44	82,00	3567,120	2,36	3,00	1,02
280	162-982-B-9H-2, 10	73,60	81,54	82,10	3568,560	2,38	3,02	0,99
281	162-982-B-9H-2, 20	73,70	81,64	82,20	3570,001	2,33	2,97	0,75
282	162-982-B-9H-2, 30	73,80	81,74	82,30	3571,441	2,26	2,90	0,84
283	162-982-B-9H-2, 40	73,90	81,84	82,40	3572,882	2,18	2,82	0,92
284	162-982-C-9H-4, 100	75,80	81,62			2,39	3,03	0,86
285	162-982-C-9H-4, 120	76,00	81,82	82,55	3575,107	2,33	2,97	0,76
286	162-982-B-9H-2, 60	74,10	82,04	82,60	3576,004	2,29	2,93	0,95
287	162-982-C-9H-4, 140	76,20	82,02			2,36	3,00	0,93
288	162-982-B-9H-2, 70	74,20	82,14	82,70	3577,798	2,42	3,06	1,05
289	162-982-C-9H-5, 0	76,30	82,12	82,73	3578,246	2,48	3,12	0,94
290	162-982-B-9H-2, 80	74,30	82,24	82,80	3579,592	2,41	3,05	1,04
291	162-982-C-9H-5, 10	76,40	82,22	82,85	3580,488	2,50	3,14	0,92
292	162-982-B-9H-2, 90	74,40	82,34	82,90	3581,954	2,44	3,08	0,92
293	162-982-B-9H-2, 100	74,50	82,44	83,00	3588,424	2,51	3,15	0,94
294	162-982-C-9H-5, 30	76,60	82,42			2,49	3,13	1,01
295	162-982-C-9H-5, 50	76,80	82,62	83,05	3590,610	2,45	3,09	0,84

296	162-982-B-9H-2, 110	74,60	82,54					
297	162-982-C-9H-5, 70	77,00	82,82	83,10	3592,796	2,28	2,92	0,71
298	162-982-B-9H-2, 120	74,70	82,64			2,31	2,95	0,75
299	162-982-C-9H-5, 90	77,20	83,02	83,20	3595,045	2,31	2,95	0,73
300	162-982-B-9H-2, 130	74,80	82,74	83,30	3596,507	2,38	3,02	0,83
301	162-982-B-9H-2, 140	74,90	82,84	83,40	3597,970	2,30	2,94	0,96
302	162-982-B-9H-3, 0	75,00	82,94	83,50	3600,331	2,27	2,91	0,85
303	162-982-B-9H-3, 10	75,10	83,04			2,21	2,85	0,66
304	162-982-C-9H-5, 110	77,40	83,22	83,60	3607,065	2,21	2,85	0,58
305	162-982-B-9H-3, 20	75,20	83,14	83,70	3612,142	2,25	2,89	0,80
306	162-982-B-9H-3, 30	75,30	83,24	83,80	3617,374	2,21	2,85	0,80
307	162-982-B-9H-3, 40	75,40	83,34	83,90	3622,607	2,37	3,01	0,56
308	162-982-B-9H-3, 50	75,50	83,44	84,00	3624,624	2,53	3,17	0,57
309	162-982-C-9H-5, 130	77,60	83,42	84,05	3625,364	2,51	3,15	0,64
310	162-982-B-9H-3, 60	75,60	83,54	84,10	3626,105	2,43	3,07	0,52
311	162-982-B-9H-3, 70	75,70	83,64	84,20	3627,586	2,56	3,20	0,78
312	162-982-B-9H-3, 80	75,80	83,74			2,32	2,96	0,73
313	162-982-C-9H-6, 0	77,80	83,62	84,30	3629,067	2,67	3,31	0,75
314	162-982-B-9H-3, 90	75,90	83,84	84,40	3631,737	2,69	3,33	0,62
315	162-982-B-9H-3, 100	76,00	83,94	84,50	3635,042	2,65	3,29	0,91
316	162-982-B-9H-3, 110	76,10	84,04			2,44	3,08	0,59
317	162-982-C-9H-6, 20	78,00	83,82	84,60	3638,347	2,25	2,89	0,78
318	162-982-B-9H-3, 120	76,20	84,14	84,70	3641,272	2,38	3,02	0,73
319	162-982-C-9H-6, 40	78,20	84,02			2,36	3,00	0,64
320	162-982-C-9H-6, 60	78,40	84,22	84,75	3642,574	2,42	3,06	0,67
321	162-982-B-9H-3, 130	76,30	84,24			2,36	3,00	0,73
322	162-982-C-9H-6, 80	78,60	84,42	84,80	3643,875	2,13	2,77	0,73
323	162-982-B-9H-3, 140	76,40	84,34	84,90	3646,141	2,24	2,88	0,93
324	162-982-B-9H-4, 0	76,50	84,44			2,24	2,88	0,93
325	162-982-C-9H-6, 100	78,80	84,62	85,00	3648,407	2,28	2,92	0,03
						2,30	2,94	0,90

326	162-982-B-9H-4, 10	76,60	84,54	85,10	3650,673	2,19	2,83	0,63
327	162-982-B-9H-4, 20	76,70	84,64	85,20	3655,705	2,41	3,05	0,82
328	162-982-B-9H-4, 30	76,80	84,74	85,30	3660,330	2,33	2,97	0,15
329	162-982-B-9H-4, 40	76,90	84,84	85,40	3662,907	2,46	3,10	0,72
330	162-982-B-9H-4, 50	77,00	84,94	85,50	3665,484	2,58	3,22	0,63
331	162-982-B-9H-4, 60	77,10	85,04	85,60	3667,479	2,61	3,25	0,42
332	162-982-B-9H-4, 70	77,20	85,14	85,70	3668,808	2,53	3,17	0,45
333	162-982-B-9H-4, 80	77,30	85,24	85,80	3670,137	2,77	3,41	0,48
334	162-982-B-9H-4, 90	77,40	85,34	85,90	3671,321	2,65	3,29	0,43
335	162-982-B-9H-4, 100	77,50	85,44	86,00	3672,460	2,62	3,26	0,28
336	162-982-B-9H-4, 110	77,60	85,54	86,10	3673,600	2,52	3,16	0,50
337	162-982-B-9H-4, 120	77,70	85,64	86,20	3675,839	2,53	3,17	0,46
338	162-982-B-9H-4, 130	77,80	85,74	86,30	3683,710	2,26	2,90	0,36
339	162-982-B-9H-4, 140	77,90	85,84	86,40	3685,220	2,23	2,87	0,65
340	162-982-B-9H-5, 0	78,00	85,94	86,50	3688,330	2,35	2,99	0,66
341	162-982-B-9H-5, 10	78,10	86,04	86,60	3691,487	2,62	3,26	0,65
342	162-982-B-9H-5, 20	78,20	86,14	86,70	3694,557	2,36	3,00	0,32
343	162-982-B-9H-5, 30	78,30	86,24	86,80	3697,273	2,30	2,94	0,36
344	162-982-B-9H-5, 40	78,40	86,34	86,90	3699,678	2,29	2,93	0,30
345	162-982-B-9H-5, 50	78,50	86,44	87,00	3702,027	2,17	2,81	0,31

Table S2. Listing of stratigraphic tie points between holes 982-A, -B, and -C and revised composite depths (c.d.) at 59–85 m c.d. deduced on the basis of joint marine isotope $\delta^{18}\text{O}$ oscillations. Previous composite depths are from the Shipboard Scientific Party (1996).

Tie point #	Sample ID	MBSF	(previous) MCD	new MCD
1	162-982-A-6H-5, 37	52.57	59.10	59.17
2	162-982-B-7H-1, 40	53.40	59.17	
3	162-982-B-7H-1, 50	53.50	59.27	59.27
4	162-982-A-6H-5, 47	52.67	59.20	
5	162-982-B-7H-1, 60	53.60	59.37	59.37
6	162-982-A-6H-5, 57	52.77	59.30	
7	162-982-B-7H-1, 70	53.70	59.47	59.47
8	162-982-A-6H-5, 67	52.87	59.40	
9	162-982-B-7H-1, 90	53.90	59.67	59.67
10	162-982-A-6H-5, 87	53.07	59.60	
11	162-982-B-7H-1, 97	53.97	59.74	59.74
12	162-982-A-6H-5, 97	53.17	59.69	
13	162-982-B-7H-4, 12	57.62	63.39	63.39
14	162-982-A-7H-1, 0,5	55.75	63.68	
15	162-982-B-7H-6, 10	60.60	66.37	66.37
16	162-982-A-7H-2, 107	58.27	66.24	
17	162-982-C-8H-1, 3	60.83	66.62	
18	162-982-B-7H-6, 20	60.70	66.47	66.47
19	162-982-A-7H-2, 112	58.32	66.29	
20	162-982-B-7H-6, 40	60.90	66.67	66.67
21	162-982-A-7H-3, 0	58.70	66.67	
22	162-982-B-7H-6, 50	61.00	66.77	66.77
23	162-982-A-7H-3, 7	58.77	66.74	
24	162-982-B-7H-6, 60	61.10	66.87	66.87
25	162-982-A-7H-3, 17	58.87	66.84	
26	162-982-B-7H-6, 70	61.20	66.97	66.97
27	162-982-A-7H-3, 27	58.97	66.94	
28	162-982-B-7H-6, 80	61.30	67.07	67.07
29	162-982-A-7H-3, 37	59.07	67.04	
30	162-982-B-7H-6, 90	61.40	67.17	67.17
31	162-982-A-7H-3, 47	59.17	67.14	
32	162-982-B-7H-6, 100	61.50	67.27	67.27
33	162-982-A-7H-3, 52	59.22	67.19	
34	162-982-C-8H-1, 80	61.60	67.39	
35	162-982-B-7H-6, 140	61.90	67.67	67.67
36	162-982-A-7H-3, 72	59.42	67.39	
37	162-982-B-7H-7, 0	62.00	67.77	67.77
38	162-982-A-7H-3, 82	59.52	67.49	
39	162-982-C-8H-1, 100	61.80	67.59	
40	162-982-B-7H-7, 10	62.10	67.87	67.87
41	162-982-A-7H-3, 92	59.62	67.59	

42	162-982-B-7H-7, 20	62.20	67.97	
43	162-982-A-7H-3, 102	59.72	67.69	67.97
44	162-982-B-7H-7, 30	62.30	68.07	
45	162-982-A-7H-3, 112	59.82	67.79	68.07
46	162-982-A-7H-3, 117	59.87	67.84	
47	162-982-B-7H-7, 40	62.40	68.17	68.17
48	162-982-C-8H-2, 10	62.40	68.19	
49	162-982-B-7H-CC, 0	62.49	68.26	68.26
50	162-982-A-7H-3, 122	59.92	67.89	
51	162-982-B-7H-CC, 10	62.59	68.36	
52	162-982-A-7H-3, 137	60.07	68.04	68.36
53	162-982-C-8H-2, 30	62.60	68.39	
54	162-982-A-7H-4, 15	60.35	68.32	68.47
55	162-982-A-7H-4, 98	61.18	69.15	
56	162-982-C-8H-2, 110	63.40	69.19	69.30
57	162-982-A-7H-4, 114	61.34	69.31	
58	162-982-C-8H-2, 130	63.60	69.39	69.51
59	162-982-A-7H-4, 120	61.40	69.37	
60	162-982-C-8H-3, 1	63.81	69.60	69.73
61	162-982-C-8H-3, 20	64.00	69.79	
62	162-982-A-7H-4, 128	61.48	69.45	69.93
63	162-982-C-8H-3, 60	64.40	70.19	
64	162-982-B-8H-1, 45	62.95	69.78	70.35
65	162-982-A-7H-4, 135	61.55	69.52	
66	162-982-C-8H-3, 80	64.60	70.39	
67	162-982-B-8H-1, 110	63.60	70.43	70.56
68	162-982-B-8H-2, 15	64.15	70.98	
69	162-982-C-8H-3, 100	64.80	70.59	70.76
70	162-982-B-8H-2, 70	64.70	71.53	
71	162-982-C-8H-3, 140	65.20	70.99	71.18
72	162-982-C-8H-4, 10	65.40	71.19	
73	162-982-B-8H-2, 140	65.40	72.23	71.39
74	162-982-B-8H-3, 30	65.80	72.63	
75	162-982-C-8H-4, 130	66.60	72.39	72.51
76	162-982-C-8H-5, 60	67.40	73.19	
77	162-982-B-8H-3, 32	65.82	72.65	73.21
78	162-982-C-8H-5, 100	67.80	73.59	
79	162-982-B-8H-3, 62	66.12	72.95	73.51
80	162-982-C-8H-6, 10	68.40	74.19	
81	162-982-B-8H-4, 5	67.05	73.88	74.44
82	162-982-C-8H-6, 30	68.60	74.39	
83	162-982-B-8H-4, 20	67.20	74.03	74.59
84	162-982-C-8H-6, 50	68.80	74.59	
85	162-982-B-8H-4, 92	67.92	74.75	75.31

86	162-982-C-8H-6, 70	69.00	74.79	
87	162-982-B-8H-4, 110	68.10	74.93	75.49
88	162-982-C-8H-6, 110	69.40	75.19	
89	162-982-B-8H-5, 20	68.70	75.53	76.09
90	162-982-C-8H-7, 0	69.80	75.59	
91	162-982-B-8H-5, 50	69.00	75.83	76.39
92	162-982-C-8H-7, 20	70.00	75.79	
93	162-982-B-8H-5, 70	69.20	76.03	76.59
94	162-982-C-8H-7, 40	70.20	75.99	
95	162-982-B-8H-5, 80	69.30	76.13	76.69
96	162-982-B-8H-5, 90	69.40	76.23	
97	162-982-A-8H-1, 145	66.65	75.43	76.79
98	162-982-C-8H-8, 0	70.34	76.13	
99	162-982-B-8H-5, 100	69.50	76.33	76.89
100	162-982-A-8H-2, 10	66.80	75.58	
101	162-982-C-9H-1, 10	70.40	76.22	
102	162-982-B-8H-5, 110	69.60	76.43	76.99
103	162-982-A-8H-2, 25	66.95	75.73	
104	162-982-C-8H-8, 18	70.52	76.31	
105	162-982-B-8H-5, 122	69.72	76.53	77.09
106	162-982-A-8H-2, 70	67.40	76.18	
107	162-982-C-9H-1, 50	70.80	76.62	
108	162-982-B-8H-6, 10	70.10	76.93	77.49
109	162-982-A-8H-2, 100	67.70	76.48	
110	162-982-C-9H-1, 90	71.20	76.82	
111	162-982-B-8H-6, 30	70.30	77.13	77.69
112	162-982-A-8H-2, 130	68.00	76.78	
113	162-982-C-9H-1, 110	71.40	77.02	
114	162-982-B-8H-6, 60	70.60	77.43	77.99
115	162-982-A-8H-3, 10	68.30	77.08	
116	162-982-C-9H-1, 130	71.60	77.22	
117	162-982-B-8H-6, 70	70.70	77.53	78.09
118	162-982-C-9H-2, 0	71.80	77.62	
119	162-982-B-8H-6, 80	70.80	77.63	78.19
120	162-982-A-8H-3, 40	68.60	77.38	
121	162-982-C-9H-2, 20	72.00	77.82	
122	162-982-B-8H-6, 90	70.90	77.73	78.29
123	162-982-C-9H-2, 40	72.20	78.02	
124	162-982-B-8H-6, 100	71.00	77.83	78.39
125	162-982-A-8H-3, 70	68.90	77.68	
126	162-982-B-8H-6, 122	71.22	78.03	
127	162-982-A-8H-3, 100	69.20	77.98	78.59
128	162-982-C-9H-2, 60	72.40	78.22	
129	162-982-B-8H-6, 130	71.30	78.13	78.69
130	162-982-A-8H-3, 130	69.50	78.28	

131	162-982-C-9H-2, 80	72.60	78.42	
132	162-982-B-8H-6, 140	71.40	78.23	78.79
133	162-982-A-4H-4, 0	69.70	78.48	
134	162-982-C-9H-2, 100	72.80	78.62	
135	162-982-B-8H-7, 0	71.50	78.33	78.89
136	162-982-A-8H-4, 22	69.92	78.70	
137	162-982-C-9H-2, 140	73.20	79.02	
138	162-982-B-8H-7, 30	71.80	78.63	79.19
139	162-982-A-8H-4, 30	70.00	78.78	
140	162-982-C-9H-3, 30	73.60	79.42	
141	162-982-B-8H-CC, 0	71.86	78.69	79.25
142	162-982-A-8H-4, 32	70.02	78.80	
143	162-982-C-9H-3, 50	73.80	79.62	
144	162-982-B-8H-CC, 10	71.96	78.79	79.35
145	162-982-A-8H-4, 42	70.12	78.90	
146	162-982-C-9H-3, 70	74.00	79.82	
147	162-982-B-8H-CC, 18	72.04	78.87	79.43
148	162-982-C-9H-3, 90	74.20	80.02	
149	162-982-A-8H-4, 105	70.75	79.53	80.09
150	162-982-C-9H-3, 110	74.40	80.22	
151	162-982-A-8H-4, 122	70.92	79.70	80.26
152	162-982-B-9H-1, 0	72.00	79.94	
153	162-982-A-8H-4, 142	71.12	79.90	80.50
154	162-982-C-9H-3, 130	74.60	80.42	
155	162-982-B-9H-1, 20	72.20	80.14	80.70
156	162-982-A-8H-5, 15	71.35	80.13	
157	162-982-B-9H-1, 30	72.30	80.24	
158	162-982-A-8H-5, 30	71.50	80.28	80.80
159	162-982-C-9H-4, 20	75.00	80.82	
160	162-982-B-9H-1, 50	72.50	80.44	81.00
161	162-982-A-8H-5, 45	71.65	80.43	
162	162-982-B-9H-1, 80	72.80	80.74	
163	162-982-A-8H-5, 90	72.10	80.88	81.30
164	162-982-C-9H-4, 40	75.20	81.02	
165	162-982-B-9H-1, 90	72.90	80.84	81.40
166	162-982-C-9H-4, 60	75.40	81.22	
167	162-982-B-9H-1, 110	73.10	81.04	81.60
168	162-982-C-9H-4, 80	75.60	81.42	
169	162-982-B-9H-1, 122	73.22	81.14	81.70
170	162-982-C-9H-4, 100	75.80	81.62	
171	162-982-B-9H-2, 40	73.90	81.84	82.40
172	162-982-C-9H-4, 120	76.00	81.82	
173	162-982-B-9H-2, 55	74.05	81.99	82.55
174	162-982-C-9H-4, 140	76.20	82.02	
175	162-982-B-9H-2, 60	74.10	82.04	82.60

176	162-982-C-9H-5, 10	76.40	82.22	82.85
177	162-982-B-9H-2, 85	74.35	82.29	
178	162-982-C-9H-5, 30	76.60	82.42	83.00
179	162-982-B-9H-2, 100	74.50	82.44	
180	162-982-C-9H-5, 70	77.00	82.82	83.10
181	162-982-B-9H-2, 110	74.60	82.54	
182	162-982-C-9H-5, 90	77.20	83.02	83.20
183	162-982-B-9H-2, 120	74.70	82.64	
184	162-982-C-9H-5, 110	77.40	83.22	83.60
185	162-982-B-9H-3, 10	75.10	83.04	
186	162-982-C-9H-5, 130	77.60	83.42	84.05
187	162-982-B-9H-3, 55	75.55	83.49	
188	162-982-C-9H-6, 0	77.80	83.62	84.30
189	162-982-B-9H-3, 80	75.80	83.74	
190	162-982-C-9H-6, 20	78.00	83.82	84.60
191	162-982-B-9H-3, 110	76.10	84.04	
192	162-982-C-9H-6, 40	78.20	84.02	84.70
193	162-982-B-9H-3, 120	76.20	84.14	
194	162-982-C-9H-6, 80	78.60	84.42	84.80
195	162-982-B-9H-3, 130	76.30	84.24	
196	162-982-C-9H-6, 100	78.80	84.62	85.00
197	162-982-B-9H-4, 0	76.50	84.44	

Table S3. Summary of alkenone unsaturation index (U_{37}^k) data measured in this study at ODP Site 982A.

Sample #	Sample ID	MBSF	(previous) MCD	new MCD	AGE (kyr)	Alkenones (ng/g)	U_{37}^k T°C (Prah1 1988)
1	162-982-A-7H-3, 25.5	58.955	66.925	66.955	2988.497	67.8	16.0
2	162-982-A-7H-3, 35.5	59.055	67.025	67.055	2990.631	59.6	19.5
3	162-982-A-7H-3, 45.5	59.155	67.125	67.155	2992.723	83.6	17.0
4	162-982-A-7H-3, 55.5	59.255	67.225	67.309	2995.020	129.7	15.1
5	162-982-A-7H-3, 65.5	59.355	67.325	67.562	2999.326	107.7	15.9
6	162-982-A-7H-3, 75.5	59.455	67.425	67.705	3001.927	58.2	16.8
7	162-982-A-7H-3, 85.5	59.555	67.525	67.805	3003.765	549.3	15.0
8	162-982-A-7H-3, 95.5	59.655	67.625	67.905	3005.895	88.5	13.4
9	162-982-A-7H-3, 105.5	59.755	67.725	68.012	3008.769	138.4	13.2
10	162-982-A-7H-3, 115.5	59.855	67.825	68.137	3012.147	189.9	12.2
11	162-982-A-7H-3, 125.5	59.955	67.925	68.283	3021.027	99.8	12.2
12	162-982-A-7H-3, 145.5	60.155	68.125	68.419	3024.242	113.1	12.2
13	162-982-A-7H-4, 2	60.220	68.190	68.497	3025.691	123.4	13.4
14	162-982-A-7H-4, 13	60.330	68.300	68.535	3025.833	85.8	13.1
15	162-982-A-7H-4, 19	60.390	68.360	68.556	3025.910	160.5	14.5
16	162-982-A-7H-4, 28	60.480	68.450	68.600	3026.600	165.9	14.0
17	162-982-A-7H-4, 40	60.600	68.570	68.720	3028.734	162.6	15.2
18	162-982-A-7H-4, 53	60.730	68.700	68.850	3032.007	69.2	14.0
19	162-982-A-7H-4, 60	60.800	68.770	68.920	3034.853	95.9	16.0
20	162-982-A-7H-4, 70	60.900	68.870	69.020	3037.197	99.9	14.3
21	162-982-A-7H-4, 80	61.000	68.970	69.120	3039.742	93.8	15.8
22	162-982-A-7H-4, 88	61.080	69.050	69.200	3042.225	86.5	15.1
23	162-982-A-7H-4, 96.5	61.165	69.135	69.285	3045.158	72.9	15.1
24	162-982-A-7H-4, 108	61.280	69.250	69.417	3048.049	108.5	14.8
25	162-982-A-7H-4, 116	61.360	69.330	69.583	3049.901	84.9	15.0
26	162-982-A-7H-4, 148	61.680	69.650	70.363	3191.328	92.9	15.1
27	162-982-A-7H-5, 12	61.820	69.790	70.375	3192.563	94.4	14.6
28	162-982-A-7H-5, 32	62.020	69.990	70.415	3195.750	85.8	16.4
29	162-982-A-7H-5, 52	62.220	70.190	70.472	3198.250	108.5	17.0

30	162-982-A-7H-5, 72	62.420	70.390	70.508	3199.750	119.2	17.0
31	162-982-A-7H-5, 92	62.620	70.590	70.612	3202.750	106.5	15.3
32	162-982-A-7H-5, 112	62.820	70.790	70.719	3206.250	132.1	15.3
33	162-982-A-7H-5, 133	63.030	71.000	70.805	3212.000	128.0	16.2
34	162-982-A-7H-5, 143	63.130	71.100	70.879	3215.313	117.5	16.4
35	162-982-A-7H-6, 3	63.230	71.200	70.953	3218.440	128.8	16.4
36	162-982-A-7H-6, 23	63.430	71.400	71.055	3222.250	72.4	19.3
37	162-982-A-7H-6, 43	63.630	71.600	71.089	3223.375	76.8	21.4
38	162-982-A-7H-6, 63	63.830	71.800	71.173	3226.500	81.4	17.7
39	162-982-A-7H-6, 83	64.030	72.000	71.272	3234.000	82.6	18.2
40	162-982-A-7H-6, 103	64.230	72.200	71.310	3238.750	63.3	18.7
41	162-982-A-7H-6, 123	64.430	72.400	71.316	3239.575	79.2	18.6
