

6. DATA REPORT: HIGH-RESOLUTION CARBONATE AND OXYGEN ISOTOPE DATA FROM SITE 810: COMPARISON TO GRAPE BULK DENSITY AND MAGNETIC SUSCEPTIBILITY DATA¹

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INTRODUCTION

Site 810 was drilled atop Shatsky Rise during Ocean Drilling Program (ODP) Leg 132. The principal objective at Site 810 was to drill interbedded cherts and chalks of Mesozoic age using the diamond coring system (DCS). The objective was not achieved because of difficulties in setting up the reentry cone on the seafloor; however, a shortened section of Cretaceous-Cenozoic nannofossil ooze was recovered with the advanced piston corer (APC). Although the section is interrupted by hiatuses, the upper 50 m carry detailed information relating to biogenic productivity, water chemistry, and eolian input during the Pliocene and Pleistocene.

Four holes were drilled at Site 810. Hole 810A consists of a single mud-line core for an ongoing ODP geriatric study. The second hole (Hole 810B) was washed to 60 mbsf (without core recovery) to provide information required for setting the 16-in. casing attached to the reentry cone. Hole 810C penetrated 136.1 mbsf, mostly with the APC, with a total recovery of 143.81 m of nannofossil ooze. A reentry cone was placed over Hole 810D but no casing was successfully suspended in the hole and no sediment was cored.

This data report presents the results of shore-based high-resolution analyses of carbonate and oxygen isotopic variations in the upper 50 m of the section at Site 810 and compares these variations with the shipboard determinations of magnetic susceptibility and GRAPE bulk density from the multisensor track.

SEDIMENTARY RECORD

Five lithologic units were distinguished in Hole 810C (Storms, Natland, et al., 1991); this data report concentrates on the upper two. Unit I (0–4.2 mbsf) consists of Pleistocene brown to dark gray nannofossil ooze. Siliceous microfossils, including radiolarians, diatoms and sponge spicules are common to abundant. Cut and fill structures (color interfaces at high inclinations) suggest significant erosional and/or sediment transport processes occurred. Bioturbation structures occur throughout the unit.

Lithologic Unit II (4.2–76.0 mbsf) consists of lower Pliocene to Pleistocene light gray to white nannofossil ooze. In the lower half of the unit, the light gray and white beds alternate at 40- to 80-cm intervals. Several thin and one thick (14 cm) silt- to sand-sized ash beds and rounded pumiceous dropstones are present, probably derived from the arc systems to the west. Foraminifer data suggest that dissolution effects increase with depth downhole. The unit is bioturbated throughout but contains 2- to 5-cm-thick packages of green parallel bands.

Biostratigraphic (Storms, Natland, et al., 1991, and Premoli Silva et al., this volume) and magnetostratigraphic (Sager et al., this vol-

ume) data show that the sediments from Hole 810C range in age from Maastrichtian to Pleistocene. Magnetic polarity zones are clearly defined down to 76.8 mbsf, through the base of the Gilbert Chron. Between 76.8 and 100 mbsf (middle to upper Miocene) the magnetic polarity match to the time scale is less certain because of slow sedimentation rates and the presence of hiatuses. Below 100 mbsf it was mostly impossible to define clear polarities (Sager et al., this volume).

METHODS

Carbonate Analyses

Concentrations of inorganic carbon (IC) were determined for over 950 samples from Hole 810C. These values were then used to calculate the weight percent of carbonate (CaCO_3) in the bulk sediment. The inorganic carbon concentration was measured with a Coulometric 5011 CO_2 coulometer equipped with a System 140 carbonate carbon analyzer. A 10- to 60-mg sample was reacted in a solution of 2N HCl while being heated at 65°C. The evolved CO_2 was transferred to the CO_2 coulometer by means of a helium stream, and the quantity of CO_2 liberated was measured by titration in a monoethanolamine solution with a proprietary colorimetric indicator. The change in light transmittance was monitored by a photodetection cell. Reagent-grade calcite was used as a standard. Concentrations of CaCO_3 were calculated from the inorganic carbon concentrations, assuming that all carbonate occurs as CaCO_3 , by the following equation:

$$\% \text{CaCO}_3 = \% \text{IC} \cdot 8.334. \quad (1)$$

Duplicate analyses of 100 samples indicate a reproducibility of 0.7% with this method.

Isotopic Analyses

The oxygen isotopic composition of the bulk sample was determined for 200 samples across selected time slices using an automated dissolution technique at 90°C (Swart et al., 1991). The isotopic ratios were determined using a Finnegan-MAT 251 in the Stable Isotope Laboratory at the Rosenstiel School of Marine and Atmospheric Science, University of Miami. All data have been corrected for the usual interferences and are quoted relative to PDB.

RESULTS

Measurements of bulk density and magnetic susceptibility were collected at Site 810 using the GRAPE sensor and the Bartington susceptibility meter mounted on the multisensor track aboard the *JOIDES Resolution*. These data are displayed in Figures 1 and 2, respectively, for the intervals from 0 to 25 mbsf and from 25 to 50 mbsf. Also displayed in these figures are the results of nearly 1000 determinations of the percentage of calcium carbonate in samples collected at approximately 5-cm spacing to the base of Section 132-810C-6H-1. The percentage of noncarbonate material is calculated for each sample by subtracting the percentage of carbonate from 100% total sediment composition (Figs. 1 and 2). The data illustrated in Figures 1 and 2 are also tabulated in Table 1. In addition, data are

¹ Natland, J.H., Storms, M.A., et al., 1993. *Proc. ODP. Sci. Results*, 132: College Station, TX (Ocean Drilling Program).

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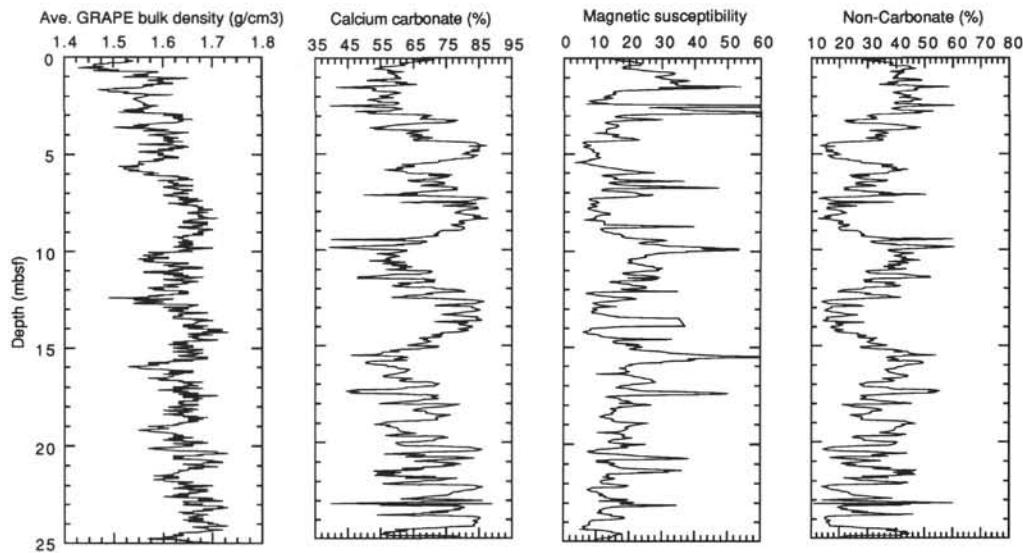


Figure 1. Profiles of GRAPE bulk density (g/cm^3), calcium carbonate percentage, magnetic susceptibility (csg units), and noncarbonate percentage (100% – carbonate%) for the interval from 0 to 25 mbsf in Hole 810C.

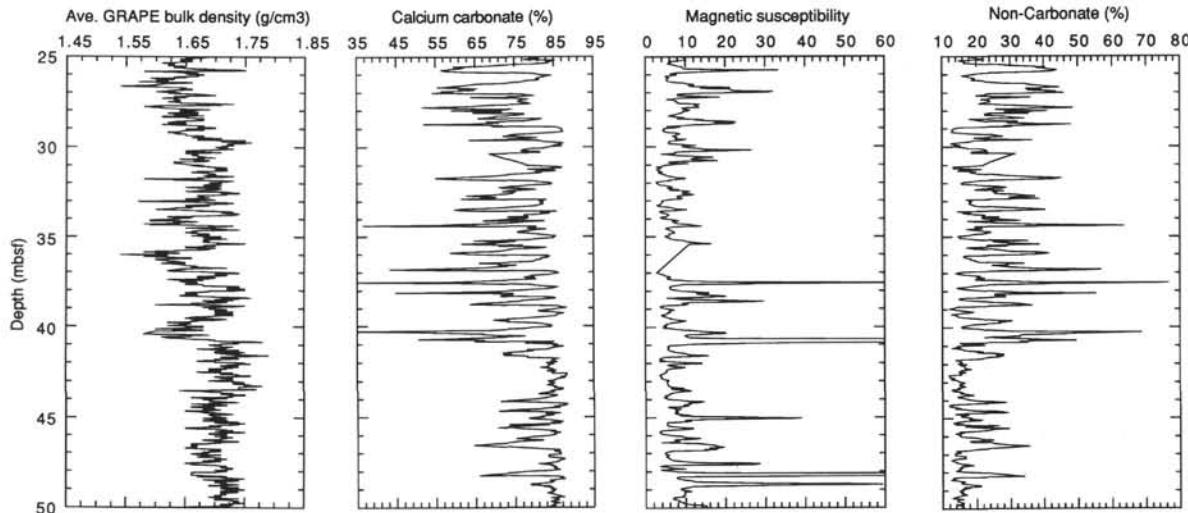


Figure 2. Profiles of GRAPE bulk density (g/cm^3), calcium carbonate percentage, magnetic susceptibility (csg units), and noncarbonate percentage (100% – carbonate%) for the interval from 25 to 50 mbsf in Hole 810C.

presented in Table 1 from the selected intervals where samples were collected for oxygen and carbon stable isotope determinations. These intervals were selected to investigate the isotopic variability associated with distinct changes in magnetic susceptibility and bulk density.

In the upper 25 mbsf in Hole 810C, the bulk density, in general, increases from slightly less than 1.5 g/cm³ to more than 1.7 g/cm³. There are many smaller scale variations in bulk density that are overprinted on this overall increasing trend. In general, as the bulk density and the calcium carbonate percentage in the sediment increases, the magnetic susceptibility decreases. The determinations of calcium carbonate illustrate the magnitude of the lithologic variability, as seen in Figure 1, where calcium carbonate percentage values range from 36% to 87%, with an increasing amount of variation observed downhole. The sharper and more frequent oscillations in carbonate content between 20 and 40 mbsf are clearly shown in Figures 1 and 2. The amplitude of susceptibility variations over the same interval seem to decrease downhole, but high susceptibility values are observed again below 37 mbsf in Figure 2. Several of the

peaks in magnetic susceptibility are associated with ash layers (see Storms, Natland, et al., 1991; Natland, this volume), although many other susceptibility peaks have no such association. Studies of the source of the magnetic susceptibility have been conducted by Polgreen et al. (this volume), although the results of these studies are still being analyzed.

The noncarbonate fraction of the bulk sediment composition is thought to be primarily composed of volcanic glass, biogenic opal, and various clay minerals (see Storms, Natland, et al., 1991). A significant amount of dissolution of the microfossil tests is observed within the upper 50 m of the section at Site 810, according to smear slide descriptions by the shipboard sedimentologists and biostratigraphers (Storms, Natland, et al., 1991). The age models that are applied to the data from Hole 810C are derived from both magnetostratigraphic and biostratigraphic studies by Sager et al. (this volume) and Premoli Silva et al. (this volume), respectively. There are several possible hiatuses in sediment accumulation within the Pliocene to Pleistocene interval of this hole.

The results of stable isotope determinations at three intervals in Hole 810C are given in Figures 3 through 5, representing the time intervals from 0.30 to 0.45 Ma, 0.60 to 0.75 Ma, and 1.2 to 1.9 Ma, respectively. The isotope data are compared with the corresponding profiles of calcium carbonate percentage, magnetic susceptibility, and noncarbonate percentage in these figures. Higher susceptibility values are correlated with heavier $\delta^{18}\text{O}$ values, while lower susceptibility values correspond to lighter oxygen isotopic values in Figure 3. The correspondence is somewhat unclear for the interval from 0.6 to 0.75 Ma (Fig. 4), and also for the interval from 1.2 to 1.9 Ma (Fig. 5). More samples have been taken for isotopic analysis throughout the upper 50 mbsf in Hole 810C, but these data are not available at this time.

Although there are many similarities in the trends of the magnetic susceptibility and noncarbonate percentage curves, or the inverse trend with the calcium carbonate percentage curves, the signal seems to be more complex than was originally hoped. Further analyses, including extractions of the eolian components of bulk sediment, grain-size analyses of the fine fraction of the samples, and X-ray diffraction analyses to determine the clay mineralogy of specific intervals, are ongoing. The results of these ongoing studies, and a more comprehensive analyses of the entire suite of data from Site 810 will be presented in a future contribution.

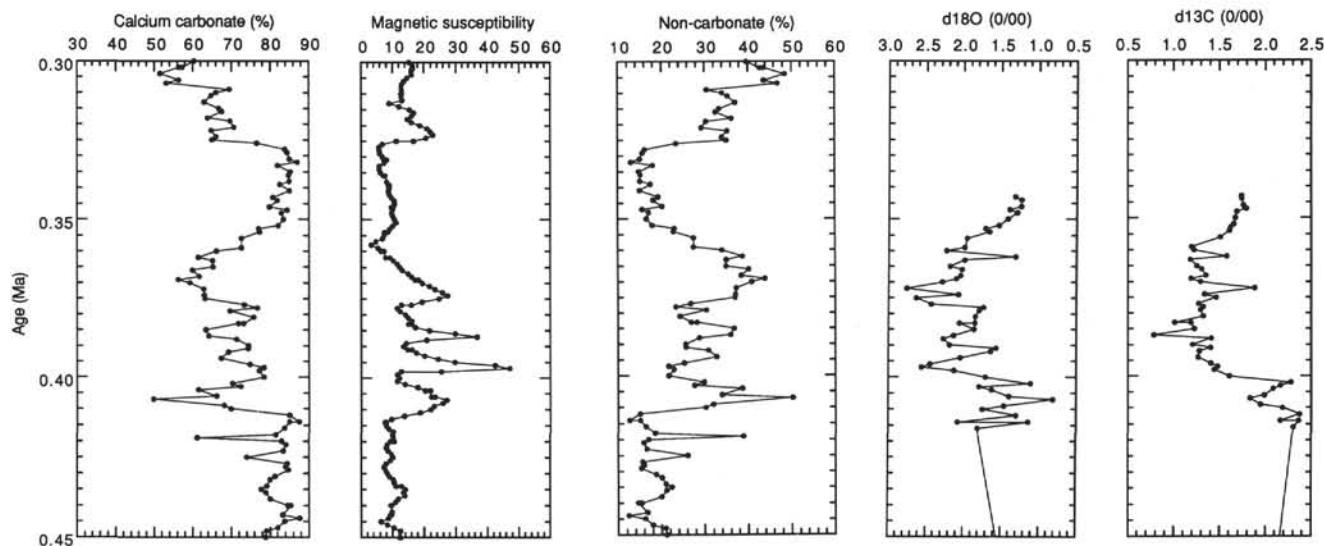


Figure 3. Profiles of calcium carbonate percentage, magnetic susceptibility (csg units), noncarbonate percentage, $\delta^{18}\text{O}$ (‰), and $\delta^{13}\text{C}$ (‰) for the estimated time interval from 0.30 to 0.45 Ma, in Hole 810C. Age estimates are from Premoli Silva et al. (this volume) and Sager et al. (this volume).

ACKNOWLEDGMENTS

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REFERENCES*

- Storms, M.A., Natland, J.H., et al., 1991. *Proc. ODP Init. Repts.*, 132: College Station, TX (Ocean Drilling Program).
Swart, P.K., Burns, S.J., and Leder, J.J., 1991. Fractionation of the stable isotopes of O and C in CO_2 during the reaction of calcite with phosphoric acid as a function of temperature and technique. *Chem. Geol.*, 86:89–96.

* Abbreviations for names of organizations and publications in ODP reference lists follow the style given in *Chemical Abstracts Service Source Index* (published by American Chemical Society).

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Table 1. Magnetic susceptibility, lithologic composition, and stable isotopic data from Hole 810C.

Core, section	Top of interval (cm)	Depth (mbfs)	Magnetic susceptibility (W/m · K])	Carbonate (wt%)	Age (Ma)	$\delta^{13}\text{C}$	$\delta^{18}\text{O}$	Noncarbonate material (%)	Core, section	Top of interval (cm)	Depth (mbfs)	Magnetic susceptibility (W/m · K])	Carbonate (wt%)	Age (Ma)	$\delta^{13}\text{C}$	$\delta^{18}\text{O}$	Noncarbonate material (%)
132-810C-																	
1H-1	2.50	0.03	13.50						2H-1	59.60	3.00	15.90	70.51	0.287			29.49
1H-1	5.50	0.05	14.80	64.68	0.200			35.32	2H-1	62.60	3.03	15.40	0.287				
1H-1	8.50	0.09	16.20						2H-1	65.50	3.06	15.90	67.24	0.288			32.76
1H-1	11.50	0.12	16.70	71.34	0.202			28.66	2H-1	68.50	3.09	18.00	69.06	0.289			30.94
1H-1	14.50	0.14	17.50						2H-1	71.50	3.12	20.20					0.290
1H-1	17.50	0.17	21.10	65.68	0.203			34.32	2H-1	74.50	3.15	25.30	66.95	0.291			33.05
1H-1	20.50	0.20	20.70						2H-1	77.50	3.18	29.90					0.292
1H-1	23.50	0.23	22.00	61.14	0.205			38.86	2H-1	80.50	3.21	25.00	78.45	0.293			21.55
1H-1	26.50	0.26	23.10						2H-1	83.50	3.24	19.20	74.96	0.294			25.04
1H-1	29.50	0.29	23.50	61.98	0.207			38.02	2H-1	86.50	3.27	17.00					0.294
1H-1	32.50	0.32	23.50						2H-1	89.50	3.30	14.20	77.80	0.295			22.20
1H-1	35.70	0.36	23.20	62.34	0.209			37.66	2H-1	92.50	3.33	12.60					0.296
1H-1	38.50	0.38	20.00						2H-1	95.60	3.36	12.40	74.48	0.297			25.52
1H-1	41.60	0.42	18.40	56.85	0.211			43.15	2H-1	98.50	3.39	12.80	65.67	0.298			34.33
1H-1	44.50	0.44	18.90	55.14	0.211			44.86	2H-1	101.60	3.42	14.20					0.299
1H-1	47.50	0.47	17.70						2H-1	104.50	3.45	15.20	60.33	0.300			39.67
1H-1	50.50	0.50	18.80	55.33	0.213				2H-1	107.70	3.48	16.40					0.301
1H-1	53.50	0.54	17.90	53.22	0.214			46.78	2H-1	110.70	3.51	16.50	57.27	0.302			42.73
1H-1	56.50	0.56	20.90						2H-1	113.70	3.54	16.20	56.40	0.302			43.60
1H-1	59.50	0.60	23.00	58.16	0.216			41.84	2H-1	116.50	3.57	15.90					0.303
1H-1	62.60	0.63	24.50						2H-1	119.50	3.60	16.00	51.50	0.304			48.50
1H-1	65.50	0.65	25.70	57.15	0.218			42.85	2H-1	122.60	3.63	14.60					0.305
1H-1	68.60	0.69	28.60	62.11	0.219			37.89	2H-1	125.50	3.66	13.60	56.32	0.306			43.68
1H-1	71.50	0.71	32.40						2H-1	128.50	3.69	12.90	53.18	0.307			46.82
1H-1	74.50	0.75	33.30	57.22	0.221			42.78	2H-1	131.50	3.72	12.80					0.308
1H-1	77.60	0.78	33.90						2H-1	134.50	3.75	12.90	69.51	0.309			30.49
1H-1	80.50	0.81	33.60	58.72	0.222			41.28	2H-1	137.50	3.78	12.90					0.310
1H-1	83.50	0.83	33.20	59.29	0.223			40.71	2H-1	140.60	3.81	12.70	65.97	0.310			34.03
1H-1	86.60	0.87	32.20						2H-1	143.50	3.84	12.80	64.67	0.311			35.33
1H-1	89.50	0.89	31.30	60.29	0.225			39.71	2H-1	146.50	3.87	13.00					0.312
1H-1	92.50	0.93	29.40						2H-1	149.50	3.90	9.00	62.90	0.313			37.10
1H-1	95.50	0.95	27.60	59.42	0.226			40.58	2H-2	2.50	3.93	12.10					0.314
1H-1	98.50	0.99	29.40	60.95	0.228			39.05	2H-2	5.50	3.96	15.40	66.66	0.315			33.34
1H-1	101.50	1.01	29.60						2H-2	8.50	3.99	16.70	67.50	0.316			32.50
1H-1	104.70	1.05	29.70	61.16	0.229			38.84	2H-2	11.70	4.02	16.00					0.317
1H-1	107.70	1.08	31.90						2H-2	14.50	4.05	15.00	63.78	0.318			36.22
1H-1	110.60	1.11	32.60	51.82	0.231			48.18	2H-2	17.50	4.08	14.70					0.318
1H-1	113.50	1.13	36.00						2H-2	20.50	4.11	16.00	69.67	0.319			30.33
1H-1	116.60	1.17	38.30	50.92	0.233			49.08	2H-2	23.50	4.14	18.70					0.320
1H-1	119.50	1.20	36.00	59.44	0.234			40.56	2H-2	26.50	4.16	20.90	70.70	0.321			29.30
1H-1	122.50	1.23	32.90						2H-2	29.50	4.20	21.90	64.78	0.322			35.22
1H-1	125.50	1.25	32.30	62.97	0.235			37.03	2H-2	32.60	4.23	22.80					0.323
1H-1	128.50	1.28	33.30	59.41	0.236			40.59	2H-2	35.50	4.26	20.60	66.04	0.324			33.96
1H-1	131.50	1.32	34.60						2H-2	38.50	4.29	16.70	64.97	0.325			35.03
1H-1	134.50	1.35	34.20	65.84	0.238			34.16	2H-2	41.70	4.32	11.20					0.325
1H-1	137.60	1.38	34.10						2H-2	44.50	4.35	6.80	76.57	0.326			23.43
1H-1	140.50	1.40	36.30	60.47	0.240			39.53	2H-2	47.50	4.38	5.70					0.327
1H-1	143.50	1.43	42.70						2H-2	50.60	4.41	5.80	83.83	0.328			16.17
1H-1	146.50	1.47	53.90	50.28	0.242			49.72	2H-2	53.60	4.44	6.00	84.36	0.329			15.64
1H-1	149.50	1.50	29.10	41.35	0.243			58.65	2H-2	56.50	4.47	6.80					0.330
1H-2	2.50	1.52	45.90						2H-2	59.50	4.50	7.30	84.96	0.331			15.04
1H-2	5.50	1.55	47.60	51.66	0.244			48.34	2H-2	62.50	4.53	8.10					0.331
1H-2	8.50	1.59	33.80	53.59	0.245			46.41	2H-2	65.50	4.56	7.30	87.04	0.332			12.96
1H-2	11.50	1.62	25.10						2H-2	68.60	4.59	5.80	81.95	0.333			18.05
1H-2	14.50	1.64	22.40						2H-2	71.50	4.62	5.80					0.334
1H-2	17.50	1.67	17.90	52.61	0.248			47.39	2H-2	74.50	4.64	6.10	85.18	0.335			14.82
1H-2	20.50	1.71	15.60	54.09	0.249			45.91	2H-2	77.50	4.68	7.10					0.336
1H-2	23.50	1.74	15.20	58.74	0.250			41.26	2H-2	80.50	4.70	7.70	84.82	0.336			15.18
1H-2	26.50	1.76	15.10						2H-2	83.50	4.74	8.20	84.94	0.338			15.06
1H-2	29.50	1.79	14.90	61.16	0.251			38.84	2H-2	86.50	4.77	9.00					0.339
1H-2	32.50	1.83	15.70						2H-2	89.50	4.80	8.70	82.49	0.339			17.51
1H-2	35.50	1.86	15.80	57.89	0.253			42.11	2H-2	92.50	4.83	9.00					0.340
1H-2	38.50	1.88	14.50						2H-2	95.50	4.86	8.70	85.02	0.341			14.98
1H-2	41.50	1.91	13.90	57.56	0.255			42.44	2H-2	98.50	4.89	9.00					0.342
1H-2	44.50	1.95	13.10	54.76	0.256			45.24	2H-2	101.60	4.92	9.70	80.73	0.343	1.740	1.320	19.27
1H-2	47.50	1.98	12.80						2H-2	104.50	4.95	10.50	81.91	0.344	1.741	1.236	18.09
1H-2	50.50	2.01	12.10	56.49	0.258			43.51	2H-2	107.60	4.98	10.60					0.345
1H-2	53.50	2.04	13.80	58.88	0.258			41.12	2H-2	110.50	5.01	10.30	79.79	0.346	1.760	1.241	20.21
1H-2	56.50	2.07	14.90						2H-2	113.50	5.04	9.60					0.346
1H-2	59.50	2.10	13.30	53.21	0.260			46.79	2H-2	116.60	5.07	9.90	84.46	0.347	1.791	1.394	15.54
1H-2	62.60	2.13	12.80						2H-2	119.70	5.10	9.70	82.93	0.348	1.687	1.291	17.07
1H-2	65.50	2.15	11.60	51.10	0.262			48.90	2H-2	122.50	5.13	10.10					0.349
1H-2	68.50	2.18	10.10						2H-2	125.50	5.16	10.60	83.43	0.350	1.670	1.417	

Table 1 (continued).

Core, section	Top of interval (cm)	Depth (mbsf)	Magnetic susceptibility (W/[m · K])	Carbonate (wt%)	Age (Ma)	$\delta^{13}\text{C}$	$\delta^{18}\text{O}$	Noncarbonate material (%)	Core, section	Top of interval (cm)	Depth (mbsf)	Magnetic susceptibility (W/[m · K])	Carbonate (wt%)	Age (Ma)	$\delta^{13}\text{C}$	$\delta^{18}\text{O}$	Noncarbonate material (%)
132-810C-																	
2H-3	53.60	5.94	25.80	0.373					2H-5	50.50	8.90	11.40	80.37	0.460			19.63
2H-3	56.50	5.97	27.40	62.93	0.374	1.337	2.071	37.07	2H-5	53.50	8.93	11.60	0.461				
2H-3	59.50	6.00	24.70	63.04	0.375	1.462	2.629	36.96	2H-5	56.60	8.97	11.90	79.37	0.462			20.63
2H-3	62.50	6.03	19.30		0.376				2H-5	59.60	9.00	12.30	73.97	0.463			26.03
2H-3	65.50	6.06	15.90	73.27	0.377	1.273	2.432	26.73	2H-5	62.60	9.03	13.30		0.464			
2H-3	68.50	6.09	12.80		0.377				2H-5	65.50	9.05	14.40	72.94	0.464			27.06
2H-3	71.50	6.12	11.40	76.68	0.378	1.323	1.733	23.32	2H-5	68.50	9.09	14.80		0.465			
2H-3	74.60	6.15	12.40	69.63	0.379	1.291	1.794	30.37	2H-5	71.60	9.12	16.50	72.19	0.466			27.81
2H-3	77.50	6.18	14.00		0.380				2H-5	74.50	9.14	17.30	72.71	0.467			27.29
2H-3	80.50	6.20	14.90	75.74	0.381	1.324	1.846	24.26	2H-5	77.50	9.17	17.60		0.468			
2H-3	83.50	6.24	16.10		0.382				2H-5	80.60	9.21	18.20	71.26	0.469			28.74
2H-3	86.50	6.27	16.00	73.14	0.383	1.010	1.851	26.86	2H-5	83.50	9.23	18.10		0.470			
2H-3	89.60	6.30	15.00	71.82	0.383	1.187	2.058	28.18	2H-5	86.50	9.26	17.60	72.58	0.470			27.42
2H-3	92.50	6.33	17.20		0.384				2H-5	89.50	9.30	19.00	70.82	0.472			29.18
2H-3	95.50	6.36	21.70	63.30	0.385	1.225	1.862	36.70	2H-5	92.60	9.33	20.20		0.472			
2H-3	98.60	6.39	29.80		0.386				2H-5	95.60	9.36	22.00	64.76	0.473			35.24
2H-3	101.60	6.42	36.70	64.10	0.387	0.784	2.134	35.90	2H-5	98.50	9.38	26.30		0.474			
2H-3	104.60	6.45	20.80	71.30	0.388	1.411	2.272	28.70	2H-5	101.50	9.41	29.50	62.63	0.475			37.37
2H-3	107.50	6.48	14.30		0.389				2H-5	104.60	9.45	31.40	39.94	0.476			60.06
2H-3	110.60	6.51	13.50	74.41	0.390	1.206	2.188	25.59	2H-5	107.50	9.47	29.60		0.477			
2H-3	113.50	6.54	14.80		0.391				2H-5	110.50	9.51	27.70	61.61	0.478			38.39
2H-3	116.50	6.57	16.10	74.32	0.391	1.403	1.568	25.68	2H-5	113.50	9.53	25.20		0.478			
2H-3	119.50	6.60	17.50	69.19	0.392	1.280	1.642	30.81	2H-5	116.50	9.56	23.60	68.92	0.479			31.08
2H-3	122.50	6.63	20.10		0.393				2H-5	119.50	9.59	22.80	69.11	0.480			30.89
2H-3	125.70	6.66	24.40	67.29	0.394	1.264	2.044	32.71	2H-5	122.50	9.63	24.80		0.481			
2H-3	128.60	6.69	29.70		0.395				2H-5	125.60	9.66	29.20	67.06	0.482			32.94
2H-3	131.60	6.72	42.40	74.75	0.396	1.404	2.447	25.25	2H-5	128.60	9.69	29.40		0.483			
2H-3	134.60	6.75	47.10	78.37	0.397	1.480	2.560	21.63	2H-5	131.50	9.72	30.80	59.87	0.484			40.13
2H-3	137.60	6.78	25.40		0.398				2H-5	134.50	9.74	32.60	62.05	0.484			37.95
2H-3	140.70	6.81	12.70	77.14	0.398	1.442	2.130	22.86	2H-5	137.50	9.77	37.40		0.485			
2H-3	143.60	6.84	11.50		0.399				2H-5	140.50	9.80	43.90	50.61	0.486			49.39
2H-3	146.50	6.87	12.10	78.38	0.400	1.607	1.708	21.62	2H-5	143.50	9.84	47.40		0.487			
2H-3	149.60	6.90	11.40		0.401				2H-5	146.50	9.86	53.50	39.38	0.488			60.62
2H-4	2.50	6.93	13.90	70.18	0.402	2.279	1.108	29.82	2H-5	149.50	9.89	42.30	44.26	0.489			55.74
2H-4	5.50	6.95	17.90	72.41	0.403	2.165	1.791	27.59	2H-6	2.50	9.92		52.50				
2H-4	8.60	6.99	20.30		0.404				2H-6	5.50	9.95		53.30	0.491			47.02
2H-4	11.50	7.01	21.90	61.38	0.404	2.084	1.624	38.62	2H-6	8.50	9.98	41.60		0.492			37.05
2H-4	14.60	7.05	22.20	66.06	0.406	1.987	1.394	33.94	2H-6	11.50	10.01	37.30	62.95	0.492			41.58
2H-4	17.50	7.08	23.50		0.406				2H-6	14.50	10.05	37.50	62.85	0.494			37.15
2H-4	20.50	7.11	27.10	49.77	0.407	1.831	0.812	50.23	2H-6	17.50	10.07	31.70		0.494			
2H-4	23.50	7.14	25.90		0.408				2H-6	20.50	10.10	29.20	60.84	0.495			39.16
2H-4	26.50	7.16	23.10	68.03	0.409	1.945	1.464	31.97	2H-6	23.50	10.13	27.90		0.496			
2H-4	29.50	7.20	22.00	69.84	0.410	2.188	1.749	30.16	2H-6	26.60	10.17	26.80	57.56	0.497			42.44
2H-4	32.50	7.22	18.70		0.411				2H-6	29.50	10.19	25.60	53.90	0.498			46.10
2H-4	35.50	7.26	13.70	84.97	0.412	2.373	1.301	15.03	2H-6	32.50	10.22	24.60		0.499			
2H-4	38.60	7.29	9.60		0.413				2H-6	35.60	10.26	24.60	59.32	0.500			40.68
2H-4	41.50	7.32	7.90	87.43	0.414	2.162	2.080	12.57	2H-6	38.50	10.28	25.10		0.500			
2H-4	44.60	7.35	7.60	84.95	0.414	2.364	1.141	15.05	2H-6	41.60	10.32	24.60	60.87	0.502			39.13
2H-4	47.60	7.38	7.90		0.415				2H-6	44.50	10.34	23.80	59.55	0.502			40.45
2H-4	50.60	7.41	8.70	83.61	0.416	2.303	1.814	16.39	2H-6	47.50	10.38	22.30		0.503			
2H-4	53.50	7.43	10.10		0.417				2H-6	50.50	10.40	20.60	56.61	0.504			43.39
2H-4	56.50	7.47	10.10	81.44	0.418				2H-6	53.60	10.44	19.60		0.505			
2H-4	59.50	7.50	10.30	61.10	0.419				2H-6	56.60	10.47	20.10	56.58	0.506			43.42
2H-4	62.50	7.53	10.50		0.420				2H-6	59.50	10.49	20.40	58.17	0.506			41.83
2H-4	65.50	7.56	9.40	82.96	0.420				2H-6	62.50	10.52	20.70		0.507			
2H-4	68.50	7.59	8.30	84.07	0.421				2H-6	65.50	10.55	20.50	51.67	0.508			48.33
2H-4	71.50	7.62	8.00		0.422				2H-6	68.60	10.59	19.40		0.510			
2H-4	74.50	7.64	8.60	83.37	0.423				2H-6	71.50	10.61	20.60	62.62	0.510			37.38
2H-4	77.50	7.68	9.70		0.424				2H-6	74.50	10.64	22.20	59.76	0.511			40.24
2H-4	80.60	7.71	10.10	73.96	0.425				2H-6	77.70	10.68	22.60		0.512			
2H-4	83.60	7.74	9.30		0.426				2H-6	80.50	10.70	24.30	55.66	0.513			44.34
2H-4	86.60	7.77	8.00	84.39	0.427				2H-6	83.60	10.74	24.50		0.514			
2H-4	89.60	7.80	7.20	84.00	0.428				2H-6	86.50	10.76	25.50	62.84	0.515			37.16
2H-4	92.50	7.83	7.20		0.428				2H-6	89.50	10.80	27.50	58.42	0.516			41.58
2H-4	95.60	7.86	7.80	84.67	0.429				2H-6	92.50	10.82	27.30		0.516			
2H-4	98.50	7.89	8.30		0.430				2H-6	95.60	10.86	28.00	64.45	0.517			35.55
2H-4	101.50	7.91	9.00	81.23	0.431				2H-6	98.60	10.89	30.10		0.518			
2H-4	104.50	7.95	10.20	79.94	0.432				2H-6	101.60	10.92	29.30	60.67	0.519			39.33
2H-4	107.50	7.98	10.50		0.433				2H-6	104.60	10.95	28.20	62.63	0.520			37.37
2H-4	110.70	8.01	11.10	79.06	0.434				2H-6	107.50							

Table 1 (continued).

Core, section	Top of interval (cm)	Depth (mbsf)	Magnetic susceptibility (W/m · K])	Carbonate (wt%)	Age (Ma)	$\delta^{13}\text{C}$	$\delta^{18}\text{O}$	Noncarbonate material (%)	Core, section	Top of interval (cm)	Depth (mbsf)	Magnetic susceptibility (W/m · K])	Carbonate (wt%)	Age (Ma)	$\delta^{13}\text{C}$	$\delta^{18}\text{O}$	Noncarbonate material (%)
132-810C-									132-810C-								
2H-7	47.50	11.88	25.00		0.547				3H-2	143.50	14.84	22.00		0.634			
2H-7	50.50	11.90	24.00	59.91	0.548			40.09	3H-2	146.50	14.86	23.00	68.90	0.635	0.821	1.121	31.10
3H-1	2.50	11.92	25.10		0.548				3H-2	149.50	14.89	19.00		0.636	0.534	0.498	
3H-1	5.50	11.95	17.50	70.83	0.549			29.17	3H-3	2.50	14.92	22.00		0.637			
3H-1	8.50	11.98	18.30		0.550				3H-3	5.70	14.96	23.00	63.22	0.638	0.719	0.942	36.78
3H-1	11.50	12.01	21.20	71.85	0.551			28.15	3H-3	8.50	14.98	24.00		0.638			
3H-1	14.50	12.05	26.70	76.75	0.552			23.25	3H-3	11.50	15.01	22.00	65.32	0.639	0.791	0.810	34.68
3H-1	17.50	12.07	34.70		0.553				3H-3	14.60	15.05	21.00	72.67	0.640	0.758	0.987	27.33
3H-1	20.50	12.10	17.70	79.81	0.554			20.19	3H-3	17.50	15.07	20.00		0.641			
3H-1	23.50	12.13	9.40		0.555				3H-3	20.50	15.10	21.00	72.36	0.642	-0.039	1.049	27.64
3H-1	26.50	12.16	7.70	80.70	0.556			19.30	3H-3	23.50	15.13	21.00		0.643			
3H-1	29.50	12.19	6.80	75.71	0.557			24.29	3H-3	26.50	15.16	24.00	66.20	0.644	0.450	0.940	33.80
3H-1	32.50	12.22	7.80		0.557				3H-3	29.50	15.19	28.00	61.85	0.645	0.833	1.252	38.15
3H-1	35.50	12.25	9.20	69.04	0.558			30.96	3H-3	32.50	15.22	29.00		0.645			
3H-1	38.60	12.29	10.60		0.559				3H-3	35.50	15.25	30.00	58.04	0.646	0.046	1.377	41.96
3H-1	41.50	12.31	11.80	70.84	0.560			29.16	3H-3	38.50	15.28	32.00		0.647			
3H-1	44.50	12.34	13.40	63.10	0.561			36.90	3H-3	41.60	15.32	33.00	60.68	0.648	0.928	1.197	39.32
3H-1	47.50	12.38	15.80		0.562				3H-3	44.50	15.34	36.00	55.64	0.649	0.503	0.701	44.36
3H-1	50.60	12.41	19.60	61.90	0.563			38.10	3H-3	47.60	15.38	41.00		0.650			
3H-1	53.50	12.43	20.70		0.563				3H-3	50.60	15.41	43.00	55.40	0.651	0.521	0.635	44.60
3H-1	56.50	12.46	22.10	58.30	0.564			41.70	3H-3	53.60	15.44	48.00		0.652			
3H-1	59.60	12.50		69.93	0.566			30.07	3H-3	56.50	15.46	57.00	52.78	0.652	0.567	0.482	47.22
3H-1	62.50	12.52	18.50		0.566				3H-3	59.50	15.49	62.00		0.653	0.650	0.564	54.01
3H-1	65.50	12.55	17.30	75.95	0.567			24.05	3H-3	62.60	15.53	62.00		0.655			
3H-1	68.50	12.59	15.40		0.568				3H-3	65.50	15.55	51.00	61.47	0.655	0.422	0.551	38.53
3H-1	71.50	12.61	14.30	83.55	0.569			16.45	3H-3	68.50	15.59	41.00		0.656			
3H-1	74.60	12.65	10.80	85.57	0.570			14.43	3H-3	71.50	15.61	38.00	63.31	0.657	0.358	0.563	36.69
3H-1	77.60	12.68	9.40		0.571				3H-3	74.60	15.65	38.00	60.59	0.658	0.124	0.445	39.41
3H-1	80.50	12.70	8.90	86.37	0.571			13.63	3H-3	77.50	15.67	40.00		0.659			
3H-1	83.50	12.73	9.30		0.572				3H-3	80.60	15.71	38.00	59.12	0.660	0.029	0.541	40.88
3H-1	86.50	12.76	10.00	84.39	0.573			15.61	3H-3	83.50	15.73	33.00	62.95	0.662	0.230	0.787	37.05
3H-1	89.60	12.80	11.20	83.46	0.574			16.54	3H-3	86.60	15.77	30.00	53.80	0.662	-0.054	1.227	46.20
3H-1	92.50	12.82	12.40		0.575				3H-3	89.50	15.80	30.00					
3H-1	95.60	12.86	16.10	73.70	0.576			26.30	3H-3	92.60	15.83	26.00		0.663			
3H-1	98.50	12.88	14.00		0.577				3H-3	95.50	15.85	23.00	50.74	0.664	-0.102	1.257	49.26
3H-1	101.60	12.92	10.20	71.57	0.578			28.43	3H-3	98.60	15.89	21.00		0.665			
3H-1	104.70	12.95	8.80	83.02	0.579			16.98	3H-3	101.50	15.91	20.00	50.41	0.666	0.130	1.573	49.59
3H-1	107.50	12.97	9.10		0.579				3H-3	104.60	15.95	21.00	51.73	0.667	0.602	2.560	48.27
3H-1	110.60	13.01	9.40	82.76	0.580			17.24	3H-3	107.60	15.98	19.00		0.668			
3H-1	113.70	13.04	10.20		0.581				3H-3	110.50	16.00	19.00	56.87	0.668	0.229	1.550	43.13
3H-1	116.60	13.07	9.40	84.09	0.582			15.91	3H-3	113.70	16.04	19.00		0.670			
3H-1	119.50	13.09	9.00	84.39	0.583			15.61	3H-3	116.60	16.07	19.00	57.00	0.670	0.271	1.633	43.00
3H-1	122.50	13.13	8.40		0.584				3H-3	119.50	16.09	17.00	59.67	0.671	0.030	1.356	40.33
3H-1	125.50	13.15	8.60	85.33	0.585				3H-3	122.60	16.13	18.00		0.672			
3H-1	128.60	13.19	8.80		0.586				3H-3	125.60	16.16	19.00	60.11	0.673	-0.053	1.285	39.89
3H-1	131.70	13.22	9.50	82.55	0.587			17.45	3H-3	128.60	16.19	19.00		0.674			
3H-1	134.50	13.24	10.70	80.24	0.587			19.76	3H-3	131.60	16.22	19.00	63.95	0.675	-0.313	1.351	36.05
3H-1	137.70	13.28	12.30		0.589				3H-3	134.50	16.24	19.00	63.66	0.675	0.323	1.620	36.34
3H-1	140.50	13.30	12.70	78.75	0.589			21.25	3H-3	137.60	16.28	20.00		0.677			
3H-1	143.70	13.34	13.50		0.590				3H-3	140.50	16.31	19.00	62.72	0.677	0.143	1.509	37.28
3H-1	146.60	13.37	16.00	73.69	0.591			26.31	3H-3	143.60	16.34	18.00		0.678			
3H-1	149.60	13.40	16.50		0.592				3H-3	146.50	16.36	17.00	62.82	0.679	-0.065	1.294	37.18
3H-2	2.50	13.42	16.00		0.593				3H-3	149.50	16.40	10.00		0.680	0.055	1.230	
3H-2	5.70	13.46	27.00	79.77	0.594			20.23	3H-4	2.50	16.42	18.00		0.681			
3H-2	8.50	13.48	35.00		0.594				3H-4	5.50	16.45	20.00	59.80	0.682	0.102	1.463	40.20
3H-2	11.70	13.52		84.63	0.595			15.37	3H-4	8.50	16.48	21.00		0.682			
3H-2	14.50	13.55		84.13	0.596			15.87	3H-4	11.50	16.51	21.00	57.76	0.683	0.692	2.379	42.24
3H-2	17.50	13.57			0.597				3H-4	14.50	16.55	23.00	55.83	0.684	0.530	1.624	44.17
3H-2	20.50	13.60		84.04	0.598			15.96	3H-4	17.50	16.57	24.00		0.685			
3H-2	23.50	13.63			0.599				3H-4	20.60	16.61	24.00	55.94	0.686	0.355	1.318	44.06
3H-2	26.50	13.66		85.78	0.600				3H-4	23.50	16.64	25.00		0.687			
3H-2	29.70	13.70		85.39	0.601			14.61	3H-4	26.50	16.66	26.00	59.98	0.688	0.030	1.150	40.02
3H-2	32.50	13.72			0.601				3H-4	29.50	16.69	27.00	64.69	0.689			35.31
3H-2	35.50	13.75		71.40	0.602			28.60	3H-4	32.50	16.73	27.00		0.690			
3H-2	38.50	13.78			0.603				3H-4	35.50	16.75	27.00	62.23	0.690			37.77
3H-2	41.50	13.81		81.39	0.604			18.61	3H-4	38.60	16.79	28.00		0.692			
3H-2	44.50	13.84		80.92	0.605			19.08	3H-4	41.50	16.82	28.00	60.55	0.692	0.651	1.295	39.45
3H-2	47.50	13.88	37.00		0.606				3H-4	44.60	16.85	27.00	61.59	0.693	0.711	0.797	38.41
3H-2	50.50	13.90	22.00	78.77	0.607	1.492	0.379	21.23	3H-4	47.50	16.88	24.00		0.694			
3H-2	53.50	13.															

Table 1 (continued).

Core, section	Top of interval (cm)	Depth (mbsf)	Magnetic susceptibility (W/m · KJ)	Carbonate (wt%)	Age (Ma)	$\delta^{13}\text{C}$	$\delta^{18}\text{O}$	Noncarbonate material (%)	Core, section	Top of interval (cm)	Depth (mbsf)	Magnetic susceptibility (W/m · KJ)	Carbonate (wt%)	Age (Ma)	$\delta^{13}\text{C}$	$\delta^{18}\text{O}$	Noncarbonate material (%)
132-810C-																	
3H-4	140.50	17.81	19.00	68.13	0.722	0.995	-0.377	31.87	3H-6	137.60	20.78	14.40	0.909				
3H-4	143.60	17.84	19.00		0.722				3H-6	140.70	20.81	10.00	83.47	0.911			16.53
3H-4	146.50	17.86	21.00	65.10	0.723	0.310	1.114	34.90	3H-6	143.50	20.83	10.80		0.914			
3H-4	149.50	17.90	17.00		0.724				3H-6	146.50	20.86	13.80	76.17	0.919			23.83
3H-5	2.50	17.92	20.30		0.725				3H-6	149.50	20.90	10.20		0.925			
3H-5	5.50	17.95	25.20	57.93	0.726			42.07	3H-7	2.50	20.92	12.70		0.927			
3H-5	8.50	17.98	26.70		0.726				3H-7	5.50	20.95	15.40	65.41	0.932			34.59
3H-5	11.50	18.01	24.50	54.61	0.727			45.39	3H-7	8.50	20.98	15.70		0.936			
3H-5	14.50	18.05	19.20	79.04	0.729			20.96	3H-7	11.50	21.01	15.10	72.57	0.940			27.43
3H-5	17.60	18.08	16.60		0.729				3H-7	14.50	21.05	14.00	76.85	0.946			23.15
3H-5	20.50	18.10	18.00	76.47	0.730				3H-7	17.50	21.07	14.50		0.949			
3H-5	23.60	18.14	16.00		0.733				3H-7	20.50	21.10	15.80	79.41	0.953			20.59
3H-5	26.50	18.16	14.70	75.87	0.734				3H-7	23.50	21.14	16.80		0.959			
3H-5	29.50	18.19	14.30	72.25	0.736				3H-7	26.50	21.16	16.60	74.24	0.962			25.76
3H-5	32.60	18.23	15.00		0.739				3H-7	29.50	21.19	17.30	77.57	0.967			22.43
3H-5	35.50	18.25	15.90	67.03	0.740				3H-7	32.50	21.23	20.10		0.972			
3H-5	38.50	18.28	16.00		0.742				3H-7	35.50	21.25	23.30	71.58	0.975			28.42
3H-5	41.50	18.32	15.40	65.29	0.745				3H-7	38.50	21.28	31.90		0.979			
3H-5	44.60	18.35	14.90	64.92	0.747				3H-7	41.50	21.32	36.10	61.51	0.985			38.49
3H-5	47.60	18.38	14.70		0.749				3H-7	44.60	21.35	31.90	68.00	0.990			32.00
3H-5	50.50	18.40	15.10	68.50	0.750				3H-7	47.60	21.38	30.60		0.994			
3H-5	53.50	18.43	15.10		0.752				3H-7	50.50	21.40	32.00	65.68	0.997			34.32
3H-5	56.50	18.47	14.20	69.20	0.755				4H-1	2.50	21.42	22.60		1.000			
3H-5	59.50	18.49	13.10	68.90	0.756				4H-1	5.50	21.45	27.20	52.95	1.004			47.05
3H-5	62.50	18.52	12.10		0.758				4H-1	8.50	21.48	17.30		1.008			
3H-5	65.50	18.56	11.50	71.43	0.761				4H-1	11.50	21.51	13.70	54.41	1.013			45.59
3H-5	68.50	18.58	11.00		0.762				4H-1	14.50	21.55	13.10	61.00	1.019			39.00
3H-5	71.50	18.61	12.20	76.13	0.764				4H-1	17.50	21.57	13.10		1.021			
3H-5	74.50	18.65	12.90	74.82	0.767				4H-1	20.50	21.60	13.90	53.90	1.026			46.10
3H-5	77.60	18.68	14.30		0.769				4H-1	23.50	21.64	13.50		1.032			
3H-5	80.50	18.70	15.00	71.99	0.770				4H-1	26.50	21.66	12.00	59.56	1.034			40.44
3H-5	83.60	18.74	15.30		0.773				4H-1	29.50	21.69	13.40	53.26	1.039			46.74
3H-5	86.60	18.77	14.90	71.86	0.775				4H-1	32.50	21.73	15.60		1.045			
3H-5	89.50	18.80	14.80	72.27	0.777				4H-1	35.60	21.76	15.50	71.79	1.049			28.21
3H-5	92.60	18.83	15.90		0.779				4H-1	38.50	21.78	15.20		1.052			
3H-5	95.50	18.85	17.60	72.44	0.780				4H-1	41.70	21.82	13.10	62.65	1.058			37.35
3H-5	98.50	18.89	22.10		0.783				4H-1	44.70	21.85	11.80	78.38	1.062			21.62
3H-5	101.50	18.91	25.80	59.71	0.784				4H-1	47.60	21.88	11.30		1.066			
3H-5	104.50	18.94	24.20	56.64	0.786				4H-1	50.60	21.91	11.50	74.92	1.071			25.08
3H-5	107.50	18.98	22.70		0.789				4H-1	53.50	21.93	11.50		1.074			
3H-5	110.70	19.01	21.50	55.62	0.791				4H-1	56.50	21.97	11.60	72.79	1.079			27.21
3H-5	113.50	19.03	20.60		0.792				4H-1	59.50	21.99	12.20	68.79	1.082			31.21
3H-5	116.60	19.07	19.80	53.11	0.795				4H-1	62.50	22.02	13.90		1.087			
3H-5	119.50	19.09	19.10	57.92	0.796				4H-1	65.50	22.06	15.70	62.15	1.092			37.85
3H-5	122.50	19.13	18.90		0.799				4H-1	68.50	22.08	18.80		1.095			
3H-5	125.50	19.15	19.50	56.78	0.800				4H-1	71.70	22.12	19.70	55.64	1.101			44.36
3H-5	128.60	19.19	19.50	58.53	0.803				4H-1	74.60	22.15	18.20	57.83	1.105			42.17
3H-5	131.50	19.22	19.30		0.805				4H-1	77.50	22.17	18.90		1.108			
3H-5	134.50	19.24	18.70	60.11	0.806				4H-1	80.60	22.21	11.90	83.55	1.114			16.45
3H-5	137.60	19.28	18.50		0.809				4H-1	83.50	22.23	8.80		1.117			
3H-5	140.50	19.31	18.00		0.811				4H-1	86.60	22.27	8.10	84.57	1.123			15.43
3H-5	143.60	19.34	16.80		0.813				4H-1	89.50	22.30	7.30	86.16	1.127			13.84
3H-5	146.50	19.36	16.10		0.814				4H-1	92.60	22.33	7.40		1.132			
3H-5	149.60	19.40	10.20	60.70	0.817				4H-1	95.50	22.35	7.90	84.58	1.134			15.42
3H-6	2.50	19.42	15.30		0.818				4H-1	98.70	22.39	8.20		1.140			
3H-6	5.50	19.45	17.50	62.77	0.820				4H-1	101.50	22.41	8.60	83.70	1.143			16.30
3H-6	8.50	19.48	17.70		0.822				4H-1	104.60	22.45	10.60	82.35	1.149			17.65
3H-6	11.50	19.51	18.80	65.75	0.824				4H-1	107.60	22.48	10.70		1.153			
3H-6	14.50	19.55	18.20	60.92	0.827				4H-1	110.60	22.51	10.60	80.15	1.158			19.85
3H-6	17.50	19.57	17.90		0.828				4H-1	113.50	22.53	11.50		1.160			
3H-6	20.60	19.61	18.20	56.52	0.831				4H-1	116.50	22.57	12.10	78.97	1.166			21.03
3H-6	23.50	19.64	18.90		0.833				4H-1	119.50	22.59	11.40	76.94	1.169			23.06
3H-6	26.50	19.66	20.80	59.86	0.834				4H-1	122.60	22.63	11.10		1.175			
3H-6	29.50	19.69	20.00	73.58	0.836				4H-1	125.50	22.65	12.90	76.64	1.178			23.36
3H-6	32.50	19.73	17.40		0.839				4H-1	128.50	22.68	12.40		1.182			
3H-6	35.50	19.75	15.50	75.41	0.840				4H-1	131.50	22.72	13.00	75.54	1.188			24.46
3H-6	38.60	19.79	14.70		0.843				4H-1	134.50	22.74	13.50	75.04	1.191			24.96
3H-6	41.70	19.82	14.20	71.80	0.845				4H-1	137.50	22.77	14.20		1.195			
3H-6	44.50	19.84	13.70	71.40	0.846				4H-1	140.50	22.81	16.90	69.73	1.201			30.27
3H-6	47.70	19.88	13.80		0.849				4H-1	143.50	22.83	19.50		1.204			
3H-6	50.50	19.90	14.80	71.65	0.850				4H-1	146.50	22.86	18.10	65.57	1.208			34.43
3H-6	53.50	19.93	16.60		0.852				4H-1	149.50	22.90	11.00	61.23	1.214			38.77
3H-6	56.50	19.97	19.40	64.10	0.855												

Table 1 (continued).

Core, section	Top of interval (cm)	Depth (mbsf)	Magnetic susceptibility (W/[m · K])	Carbonate (wt%)	Age (Ma)	$\delta^{13}\text{C}$	$\delta^{18}\text{O}$	Noncarbonate material (%)	Core, section	Top of interval (cm)	Depth (mbsf)	Magnetic susceptibility (W/[m · K])	Carbonate (wt%)	Age (Ma)	$\delta^{13}\text{C}$	$\delta^{18}\text{O}$	Noncarbonate material (%)
132-810C-																	
4H-2	83.50	23.73	17.60		1.334				4H-4	80.50	26.70	21.10	55.52	1.764	1.279	0.672	44.48
4H-2	86.50	23.76	18.80	53.98	1.338	1.078	1.082	46.02	4H-4	83.50	26.73	13.60	1.769				
4H-2	89.50	23.80	18.60	70.91	1.344	1.417	0.360	29.09	4H-4	86.50	26.76	15.10	65.49	1.773	1.485	0.924	34.51
4H-2	92.60	23.83	17.00		1.349				4H-4	89.50	26.80	18.50	60.80	1.779	0.825	0.866	39.20
4H-2	95.60	23.86	15.70	83.09	1.353	0.522	0.948	16.91	4H-4	92.50	26.82	21.00					
4H-2	98.50	23.89	13.50		1.357				4H-4	95.70	26.86	21.70	64.88	1.787	1.520	1.682	35.12
4H-2	101.50	23.91	9.50	85.28	1.360	1.565	0.728	14.72	4H-4	98.60	26.89	21.60					
4H-2	104.50	23.94	8.50	85.18	1.365	1.386	0.716	14.82	4H-4	101.60	26.92	28.20	56.50	1.796	2.520	2.653	43.50
4H-2	107.50	23.98	8.10		1.370				4H-4	104.50	26.94	31.90	59.50	1.799	1.226	1.175	40.50
4H-2	110.60	24.01	8.00	84.78	1.375	0.644	0.084	15.22	4H-4	107.60	26.98	30.10					
4H-2	113.60	24.04	7.70		1.379				4H-4	110.50	27.00	22.90	54.25	1.808			45.75
4H-2	116.50	24.07	7.80	83.19	1.383	0.716	0.345	16.81	4H-4	113.50	27.03	13.70					
4H-2	119.50	24.09	8.10	83.26	1.386	0.481	0.909	16.74	4H-4	116.60	27.07	9.00	77.11	1.818	1.715	1.448	22.89
4H-2	122.50	24.13	8.20		1.392				4H-4	119.50	27.09	8.00	76.77	1.821	1.361	1.209	23.23
4H-2	125.50	24.15	7.70	84.62	1.395	0.607	0.388	15.38	4H-4	122.60	27.13	8.00					
4H-2	128.50	24.18	7.40		1.399				4H-4	125.70	27.16	8.00	80.02	1.831	1.401	1.307	19.98
4H-2	131.50	24.22	6.20	83.68	1.405	1.380	0.241	16.32	4H-4	128.50	27.18	9.80					
4H-2	134.50	24.24	5.80	83.72	1.408	1.061	-0.005	16.28	4H-4	131.60	27.22	15.00	74.80	1.840	1.235	1.330	25.20
4H-2	137.50	24.27	6.20		1.412				4H-4	134.50	27.24	18.50	64.03	1.842	0.702	1.028	35.97
4H-2	140.50	24.31	6.10	83.28	1.418	0.981	0.546	16.72	4H-4	137.50	27.27	14.60					
4H-2	143.60	24.34	6.80		1.423				4H-4	140.60	27.31	9.10	75.01	1.853			24.99
4H-2	146.60	24.37	7.60	83.61	1.427	0.927	0.196	16.39	4H-4	143.50	27.33	7.20					
4H-2	149.50	24.40	5.10	76.83	1.431	0.242	0.774	23.17	4H-4	146.50	27.36	6.90	78.52	1.860			21.48
4H-3	2.50	24.42	10.00		1.434				4H-4	149.50	27.40	5.20	76.87	1.865			23.13
4H-3	5.60	24.46	12.20	71.91	1.440	0.123	0.847	28.09	4H-5	2.50	27.42	6.90					
4H-3	8.50	24.48	14.30		1.443				4H-5	5.70	27.46	7.70	75.85	1.874			24.15
4H-3	11.50	24.51	14.90	59.31	1.447	0.111	1.253	40.69	4H-5	8.50	27.48	7.70					
4H-3	14.60	24.55	14.80	62.01	1.453	0.258	1.068	37.99	4H-5	11.50	27.51	7.50	76.00	1.881			24.00
4H-3	17.50	24.57	16.00		1.456				4H-5	14.60	27.55	8.10	78.02	1.883			21.98
4H-3	20.50	24.60	17.40	63.33	1.460	0.236	1.039	36.67	4H-5	17.60	27.58	8.00					
4H-3	23.60	24.64	18.00		1.466				4H-5	20.60	27.61	8.90	79.08	1.887			20.92
4H-3	26.50	24.66	16.90	56.07	1.469	0.586	1.587	43.93	4H-5	23.50	27.64	11.70					
4H-3	29.50	24.69	15.50	58.28	1.473				4H-5	26.50	27.66	13.50	75.18	1.891			24.82
4H-3	32.50	24.73	15.20		1.479				4H-5	29.50	27.69	12.10	68.80	1.893			31.20
4H-3	35.70	24.76	14.80	55.19	1.483	1.619	1.604	44.81	4H-5	32.50	27.73	12.80					
4H-3	38.60	24.79	14.60		1.488				4H-5	35.50	27.75	12.90	63.96	1.897			36.04
4H-3	41.60	24.82	14.70	57.81	1.492	1.548	1.253	42.19	4H-5	38.50	27.78	13.00					
4H-3	44.50	24.84	12.80	71.23	1.495				4H-5	41.50	27.82	13.30	51.55	1.902			48.45
4H-3	47.50	24.88	10.80		1.501				4H-5	44.50	27.84	11.20	53.83	1.903			46.17
4H-3	50.50	24.90	9.70	78.41	1.504	2.281	2.339	21.59	4H-5	47.50	27.88	9.10					
4H-3	53.60	24.94	9.50		1.509				4H-5	50.60	27.91	9.40	74.31	1.908			25.69
4H-3	56.50	24.97	9.80	79.61	1.514	1.367	1.561	20.39	4H-5	53.50	27.93	9.60					
4H-3	59.50	24.99	9.10	81.78	1.517				4H-5	56.60	27.97	10.40	70.51	1.912			29.49
4H-3	62.70	25.03	9.20		1.522				4H-5	59.50	27.99	11.20	59.07	1.914			40.93
4H-3	65.50	25.06	9.60	81.02	1.527	0.726	0.428	18.98	4H-5	62.50	28.02	10.40					
4H-3	68.50	25.08	9.70		1.530				4H-5	65.50	28.06	9.20	71.77	1.918			28.23
4H-3	71.50	25.11	9.80	78.58	1.534	0.762	0.313	21.42	4H-5	68.50	28.08	9.20					
4H-3	74.60	25.15	9.90	77.48	1.540	0.973	0.530	22.52	4H-5	71.60	28.12	9.40	64.57	1.922			35.43
4H-3	77.60	25.18	10.10		1.544				4H-5	74.60	28.15	8.80	77.44	1.925			22.56
4H-3	80.60	25.21	8.70	85.14	1.549	2.189	2.755	14.86	4H-5	77.60	28.18	8.50					
4H-3	83.60	25.24	6.90		1.553				4H-5	80.70	28.21	7.80	77.53	1.929			22.47
4H-3	86.50	25.26	5.80	83.87	1.556				4H-5	83.50	28.23	7.40					
4H-3	89.60	25.30	5.80	83.16	1.562				4H-5	86.60	28.27	6.70	74.83	1.933			25.17
4H-3	92.60	25.33	6.40		1.566				4H-5	89.50	28.30	5.80	70.49	1.935			29.51
4H-3	95.60	25.36	5.70	83.65	1.570	0.782	0.727	16.35	4H-5	92.50	28.32	5.60					
4H-3	98.50	25.39	5.50		1.574				4H-5	95.70	28.36	7.80	69.28	1.939			30.72
4H-3	101.50	25.41	6.10	79.73	1.577	1.072	1.016	20.27	4H-5	98.50	28.39	9.60					
4H-3	104.50	25.44	6.80	72.55	1.582	1.975	2.050	27.45	4H-5	101.60	28.42	8.50	65.85	1.943			34.15
4H-3	107.60	25.48	7.50		1.588				4H-5	104.60	28.45	8.00	81.88	1.945			18.12
4H-3	110.50	25.50	7.60	68.72	1.590	1.064	1.215	31.28	4H-5	107.50	28.48	11.20					
4H-3	113.50	25.53	8.50		1.595				4H-5	110.50	28.50	14.40	80.29	1.948			19.71
4H-3	116.60	25.57	9.10	59.58	1.601	0.899	1.685	40.42	4H-5	113.50	28.53	12.30					
4H-3	119.50	25.59	9.40	62.47	1.604	1.392	1.550	37.53	4H-5	116.50	28.57	15.40	77.23	1.953			22.77
4H-3	122.50	25.63	9.40		1.609				4H-5	119.50	28.59	19.30	67.84	1.955			32.16
4H-3	125.50	25.65	9.40	60.94	1.612	1.432	0.678	39.06	4H-5	122.50	28.63	22.60					
4H-3	128.60	25.69	11.90		1.618				4H-5	125.50	28.65	20.00	71.00	1.959			29.00
4H-3	131.50	25.72	22.20		1.622				4H-5	128.50	28.68	17.20					
4H-3	134.50	25.74	33.20	56.36	1.625			43.64	4H-5	131.50	28.72	20.80	62.44	1.963			37.56
4H-3	137.50	25.77	21.90		1.629				4H-5	134.50	28.74	22.30	52.01	1.			

Table 1 (continued).

Core, section	Top of interval (cm)	Depth (mbsf)	Magnetic susceptibility (W/m · K)	Carbonate (wt%)	Age (Ma)	$\delta^{13}\text{C}$	$\delta^{18}\text{O}$	Noncarbonate material (%)	Core, section	Top of interval (cm)	Depth (mbsf)	Magnetic susceptibility (W/m · K)	Carbonate (wt%)	Age (Ma)	$\delta^{13}\text{C}$	$\delta^{18}\text{O}$	Noncarbonate material (%)
132-810C-																	
4H-6	77.70	29.68	6.60		2.029				5H-2	26.50	32.67	11.30		2.208			
4H-6	80.50	29.70	6.00	82.31	2.030			17.69	5H-2	29.50	32.69	9.20	62.85	2.208			37.15
4H-6	83.50	29.73	5.80		2.033				5H-2	32.50	32.73	7.90		2.210			
4H-6	86.50	29.76	5.80	85.35	2.035			14.65	5H-2	35.50	32.76	7.80	70.37	2.212			29.63
4H-6	89.50	29.80	5.60	87.43	2.037			12.57	5H-2	38.50	32.78	7.90		2.213			
4H-6	92.70	29.83	6.10		2.039				5H-2	41.50	32.82	8.40	68.92	2.215			31.08
4H-6	95.50	29.85	7.80	86.47	2.041				5H-2	44.50	32.85	9.30	61.58	2.216			38.42
4H-6	98.50	29.89	11.00		2.043				5H-2	47.50	32.88	8.80		2.218			
4H-6	101.50	29.91	12.50	84.68	2.045			15.32	5H-2	50.50	32.91	6.30	83.01	2.219			16.99
4H-6	104.50	29.94	10.00	87.01	2.047			12.99	5H-2	53.50	32.94	5.40		2.221			
4H-6	107.60	29.98	9.10		2.050				5H-2	56.50	32.97	4.50	81.20	2.222			18.80
4H-6	110.50	30.00	9.60	83.82	2.051			16.18	5H-2	59.50	33.00	4.00	82.19	2.224			17.81
4H-6	113.60	30.04	10.80		2.054				5H-2	62.50	33.03	4.30		2.225			
4H-6	116.70	30.07	12.10	82.16	2.056			17.84	5H-2	65.50	33.06	4.30	81.49	2.227			18.51
4H-6	119.50	30.09	13.40	78.69	2.057			21.31	5H-2	68.50	33.09	4.00		2.228			
4H-6	122.50	30.13	15.30		2.060				5H-2	71.50	33.12	3.80	82.17	2.230			17.83
4H-6	125.50	30.15	21.20	77.24	2.061			22.76	5H-2	74.50	33.15	3.90	81.89	2.231			18.11
4H-6	128.50	30.18	26.50		2.063				5H-2	77.60	33.18	3.60		2.233			
4H-6	131.50	30.22	19.70	76.66	2.066				5H-2	80.50	33.21	3.20	80.80	2.234			19.20
4H-6	134.50	30.24	11.70	81.27	2.067			18.73	5H-2	83.50	33.24	2.80		2.236			
4H-6	137.70	30.28	7.90		2.070				5H-2	86.70	33.27	3.00	79.93	2.237			20.07
4H-6	140.60	30.31	7.20	81.46	2.072			18.54	5H-2	89.60	33.30	3.60	74.67	2.238			25.33
4H-6	143.50	30.33	7.60		2.074				5H-2	92.70	33.33	5.00		2.240			
4H-6	146.50	30.36	7.00	68.52	2.076			31.48	5H-2	95.50	33.36	6.30	70.27	2.242			29.73
4H-6	149.50	30.40	3.90		2.078				5H-2	98.60	33.39	6.90		2.243			
4H-7	2.50	30.42	5.20		2.080				5H-2	101.70	33.42	7.40	62.40	2.244			37.60
4H-7	5.50	30.45	7.30		2.082				5H-2	104.60	33.45	8.60	59.78	2.246			40.22
4H-7	8.50	30.48	9.00		2.084				5H-2	107.50	33.48	10.40		2.247			
4H-7	11.50	30.51	11.30		2.086				5H-2	110.60	33.51	8.30	64.40	2.249			35.60
4H-7	14.50	30.55	15.40		2.089				5H-2	113.50	33.53	5.20		2.250			
4H-7	17.50	30.57	16.90		2.090				5H-2	116.60	33.57	3.80	85.56	2.252			14.44
4H-7	20.50	30.60	12.40		2.092				5H-2	119.50	33.60	3.40	81.49	2.253			18.51
4H-7	23.50	30.64	11.40		2.095				5H-2	122.50	33.63	3.60		2.255			
4H-7	26.50	30.66	11.60		2.096				5H-2	125.50	33.66	4.30	83.83	2.256			16.17
4H-7	29.50	30.69	12.10		2.098				5H-2	128.60	33.69	5.00		2.258			
4H-7	32.50	30.73	17.40		2.101				5H-2	131.50	33.72	5.40	81.09	2.259			18.91
4H-7	35.50	30.75	18.10		2.102				5H-2	134.50	33.75	5.70	77.38	2.261			22.62
4H-7	38.50	30.78	10.60		2.104				5H-2	137.50	33.78	5.80		2.262			
4H-7	41.50	30.82	6.20		2.107				5H-2	140.60	33.81	5.50		2.264			
4H-7	44.60	30.85	5.70		2.109				5H-2	143.50	33.84	5.20	78.33	2.265			21.67
4H-7	47.50	30.88	6.40		2.111				5H-2	146.50	33.87	5.20		2.267			
4H-7	50.50	30.90	6.60		2.113				5H-2	149.60	33.90	3.60	73.30	2.268			26.70
5H-1	2.50	30.92	10.70		2.114				5H-3	2.50	33.93	3.90	78.48	2.270			21.52
5H-1	5.50	30.95	7.50	77.60	2.116			22.40	5H-3	5.50	33.96	4.30	77.74	2.271			22.26
5H-1	8.50	30.98	5.80		2.118				5H-3	8.50	33.99	5.10		2.272			
5H-1	11.50	31.01	4.60		2.120			22.15	5H-3	11.50	34.02	6.20	71.96	2.274			28.04
5H-1	17.60	31.08	3.60	81.88	2.125			18.12	5H-3	14.50	34.05	7.10	67.08	2.275			32.92
5H-1	20.50	31.10	2.60	86.94	2.126			13.06	5H-3	17.50	34.08	8.20		2.277			
5H-1	23.50	31.14	3.70		2.129				5H-3	20.50	34.11	7.00	82.47	2.278			17.53
5H-1	26.50	31.16	3.80	86.68	2.130			13.32	5H-3	23.50	34.14	6.60		2.280			
5H-1	29.50	31.19	3.30		2.132				5H-3	26.50	34.17	7.10	77.15	2.281			22.85
5H-1	32.50	31.23	3.20	78.36	2.135			21.64	5H-3	29.60	34.20	7.70	73.97	2.283			26.03
5H-1	35.60	31.26	2.60		2.137				5H-3	32.50	34.23	7.30		2.284			
5H-1	38.50	31.28	3.20	84.88	2.139			15.12	5H-3	35.50	34.26	8.40	62.76	2.286			37.24
5H-1	41.50	31.32	3.40	85.35	2.141			14.65	5H-3	38.50	34.28	10.70		2.287			
5H-1	44.50	31.34	3.90	80.23	2.142			19.77	5H-3	41.50	34.32	11.30	57.06	2.289			42.94
5H-1	47.50	31.38	4.10		2.144				5H-3	44.50	34.35	12.10	36.61	2.290			63.39
5H-1	50.60	31.41	3.20	81.74	2.145			18.26	5H-3	47.50	34.38	14.00		2.292			
5H-1	53.50	31.43	3.30		2.146				5H-3	50.50	34.41	9.30	80.44	2.293			19.56
5H-1	56.60	31.47	3.90	79.48	2.148				5H-3	53.50	34.44	6.60		2.295			
5H-1	59.50	31.49	4.40	74.66	2.149			20.52	5H-3	56.50	34.47	5.90	80.27	2.296			19.73
5H-1	62.60	31.53	4.90		2.151				5H-3	59.60	34.50	5.30	78.24	2.298			21.76
5H-1	65.50	31.56	5.00	71.31	2.153			28.69	5H-3	62.50	34.53	5.00		2.299			
5H-1	71.50	31.61	6.00	66.34	2.155			33.66	5H-3	65.50	34.56	5.40	82.91	2.301			17.09
5H-1	74.50	31.65	6.70	62.87	2.157			37.13	5H-3	68.50	34.59	5.60		2.302			
5H-1	77.60	31.68	8.10		2.159				5H-3	71.50	34.62	6.30	80.43	2.304			19.57
5H-1	80.50	31.70	9.60	54.96	2.160			45.04	5H-3	77.50	34.68	6.80		2.307			22.29
5H-1	83.50	31.73	10.00		2.161				5H-3	80.50	34.71	6.90	75.92	2.308			24.08
5H-1	86.50	31.76	9.30	57.96	2.163			42.04	5H-3	83.60	34.74	7.20		2.309			
5H-1	89.60	31.80	7.00	71.77	2.165			28.23	5H-3	86.50	34.77	7.30	75.74	2.311			24.26
5H-1	92.50	31.82	5.80		2.166				5H-3	89.50	34.80	6.60	79.08	2.312			20.92
5H-1	95.60	31.86	6.20	79.84	2.168			20.16	5H-3	92.50	34.83	5.80		2.314			
5H-1	98.50																

Table 1 (continued).

Core, section	Top of interval (cm)	Depth (mbsf)	Magnetic susceptibility (W/[m · K])	Carbonate (wt%)	Age (Ma)	$\delta^{13}\text{C}$	$\delta^{18}\text{O}$	Noncarbonate material (%)	Core, section	Top of interval (cm)	Depth (mbsf)	Magnetic susceptibility (W/[m · K])	Carbonate (wt%)	Age (Ma)	$\delta^{13}\text{C}$	$\delta^{18}\text{O}$	Noncarbonate material (%)
132-810C-																	
SH-4	23.50								SH-6	23.50	38.64	10.90			2.505		
SH-4	26.50			80.12				19.88	SH-6	26.50	38.67	9.10	68.96	2.506		31.04	
SH-4	29.50			74.81				25.19	SH-6	29.50	38.69	10.10	65.56	2.507		34.44	
SH-4	32.50								SH-6	32.50	38.73	10.50			2.510		
SH-4	35.50			72.75				27.25	SH-6	35.50	38.76	9.70	63.64	2.511		36.36	
SH-4	38.50								SH-6	38.50	38.78	7.40			2.512		
SH-4	41.50			69.53				30.47	SH-6	41.50	38.82	4.70	73.53	2.515		26.47	
SH-4	44.50			61.19				38.81	SH-6	44.50	38.85	3.60	85.31	2.516		14.69	
SH-4	47.50								SH-6	47.50	38.88	3.60			2.518		
SH-4	50.50			58.65				41.35	SH-6	50.50	38.91	3.70	86.76	2.519		13.24	
SH-4	53.50								SH-6	53.50	38.94	4.20			2.521		
SH-4	56.50			63.34				16.66	SH-6	56.50	38.97	4.90	87.94	2.523		12.06	
SH-4	59.50			70.73				29.27	SH-6	59.50	39.00	5.80	85.48	2.524		14.52	
SH-4	62.50								SH-6	62.50	39.03	6.60			2.526		
SH-4	65.50			83.34					SH-6	65.50	39.06	7.10	83.73	2.527			
SH-4	68.50								SH-6	68.50	39.09	6.10			2.529		
SH-4	71.60			83.79				16.21	SH-6	71.50	39.12	5.80	80.76	2.531		19.24	
SH-4	74.50			83.18				16.82	SH-6	74.50	39.15	5.80	81.51	2.532		18.49	
SH-4	77.50								SH-6	77.50	39.18	6.10			2.534		
SH-4	80.60			81.49				18.51	SH-6	80.60	39.21	5.30	84.75	2.536		15.25	
SH-4	83.50								SH-6	83.50	39.24	5.40			2.537		
SH-4	86.50			81.66				18.34	SH-6	86.50	39.27	5.30	87.39	2.539		12.61	
SH-4	89.50			80.22				19.78	SH-6	89.60	39.30	4.90	85.96	2.541		14.04	
SH-4	92.50								SH-6	92.50	39.33	4.00			2.542		
SH-4	95.50			80.18				19.82	SH-6	95.50	39.36	3.80	85.66	2.544		14.34	
SH-4	98.60			78.89				21.11	SH-6	98.50	39.39	4.40			2.545		
SH-4	101.50								SH-6	101.50	39.42	4.80	85.13	2.547		14.87	
SH-4	104.50								SH-6	104.60	39.45	5.00			2.549		
SH-4	107.50			66.05				33.95	SH-6	107.50	39.48	5.80	82.46	2.550		17.54	
SH-4	110.50			71.29				28.71	SH-6	110.60	39.51	6.30	79.19	2.552		20.81	
SH-4	113.60								SH-6	113.50	39.53	6.00			2.553		
SH-4	116.50			70.79				29.21	SH-6	116.50	39.57	7.20	75.97	2.555		24.03	
SH-4	119.50			75.38				24.62	SH-6	119.50	39.60	7.90			2.557		
SH-4	122.60								SH-6	122.70	39.63	9.30	69.62	2.558		30.38	
SH-4	125.60			70.76				29.24	SH-6	125.50	39.66	10.10	70.93	2.560		29.07	
SH-4	128.50								SH-6	128.50	39.69	9.00			2.562		
SH-4	131.50			68.16				31.84	SH-6	131.60	39.72	8.20	73.65	2.563		26.35	
SH-4	134.50			60.57				39.43	SH-6	134.50	39.75	7.50	73.08	2.565		26.92	
SH-4	137.50								SH-6	137.60	39.78	6.40			2.566		
SH-4	140.50			43.29				56.71	SH-6	140.70	39.81	5.80	79.32	2.568		20.68	
SH-4	143.50								SH-6	143.60	39.84	5.10			2.570		
SH-4	146.50			49.23				50.77	SH-6	146.60	39.87	5.20	81.63	2.571		18.37	
SH-4	149.50			82.74				17.26	SH-6	149.50	39.90	4.50			2.573		
SH-5	2.50	36.93	3.10		2.417				SH-7	2.50	39.93	4.80	83.58	2.575		16.42	
SH-5	5.50	36.96	2.80	85.16	2.419			14.84	SH-7	5.50	39.96	5.10	84.38	2.576		15.62	
SH-5	8.50	36.99	2.60		2.420				SH-7	8.50	39.99	4.70			2.578		
SH-5	11.50	37.02	3.10	86.10	2.422			13.90	SH-7	11.50	40.02	4.20	84.10	2.580		15.90	
SH-5	14.50	37.05	3.40	85.10	2.423			14.90	SH-7	14.50	40.05	4.80	79.55	2.581		20.45	
SH-5	17.50	37.08	4.00		2.425				SH-7	17.50	40.08	6.20			2.583		
SH-5	20.50	37.11	4.40	83.79	2.426			16.21	SH-7	20.50	40.11	7.30	77.04	2.584		22.96	
SH-5	23.50	37.14	4.70		2.428				SH-7	23.50	40.14	8.70			2.586		
SH-5	26.50	37.17	4.90	78.77	2.429			21.23	SH-7	26.50	40.17	10.40	73.89	2.588		26.11	
SH-5	29.50	37.19	5.40	79.91	2.430			20.09	SH-7	29.50	40.19	11.40	68.75	2.589		31.25	
SH-5	32.50	37.23	6.10		2.432				SH-7	32.50	40.23	13.30			2.591		
SH-5	35.50	37.26	6.20	77.45	2.434			22.55	SH-7	35.50	40.26	16.00	61.39	2.592		38.61	
SH-5	38.50	37.28	5.70		2.435				SH-7	38.50	40.28	18.20			2.594		
SH-5	41.50	37.32	5.30	80.01	2.437			19.99	SH-7	41.50	40.32	19.80	49.95	2.596		50.05	
SH-5	44.50	37.35	5.40	80.20	2.438			19.80	SH-7	44.50	40.35	20.20	52.70	2.597		47.30	
SH-5	47.50	37.38	6.90		2.439				SH-7	47.50	40.38	16.40			2.599		
SH-5	50.50	37.41	8.80	73.73	2.441			26.27	SH-7	50.50	40.41	13.20	67.02	2.601		32.98	
SH-5	53.50	37.44	10.40		2.442				SH-7								
SH-5	56.50	37.47	14.90	67.28	2.444			32.72	SH-7								
SH-5	59.50	37.50	24.60	58.89	2.445			41.11	SH-7								
SH-5	62.50	37.53	43.10	23.43	2.447			76.57	SH-7								
SH-5	65.50	37.56	61.50		2.448				SH-7								
SH-5	68.50	37.59	36.30	63.74	2.450			36.26	SH-7								
SH-5	71.60	37.62	17.40		2.451				SH-7								
SH-5	74.50	37.65	9.50	78.36	2.453			21.64	SH-7								
SH-5	77.50	37.68	8.20		2.454				SH-7								
SH-5	80.60	37.71	7.20	80.35	2.456			19.65	SH-7								
SH-5	83.50	37.74	6.40		2.457				SH-7								
SH-5	86.50	37.77	5.90	83.07	2.459			16.93	SH-7								
SH-5	89.50	37.80	6.10	85.77	2.460			14.23	SH-7								
SH-5	92.50	37.83	6.10		2.462				SH-7								
SH-5	95.50	37.86	6.20	84.85	2.463			15.15	SH-7								
SH-5	98.60	37.89	6.00		2.465				SH-7								
SH-5	101.50	37.92	6.50	82.66	2.466			17.34	SH-7								
SH-5	104.50	37.94	7.50	80.42	2.467			19.58	SH-7								
SH-5	107.50	37.98	8.30		2.469				SH-7								
SH-5	110.50	38.01	9.40	73.15	2.471			26.85	SH-7								
SH-5	113.60	38.04	11.30		2.472				SH-7								
SH-5	116.50	38.07	13.50	67.15	2.474			32.85	SH-7		</td						

Table 1 (continued).

Core, section	Top of interval (cm)	Depth (mbsf)	Magnetic susceptibility (W/[m · K])	Carbonate (wt%)	Age (Ma)	$\delta^{13}\text{C}$	$\delta^{18}\text{O}$	Noncarbonate material (%)
132-810C-								
6H-1	98.60	41.39	7.40	75.97	2.654			
6H-1	101.50	41.42	8.30	71.93	2.655			24.03
6H-1	104.50	41.44	9.20	71.93	2.657			28.07
6H-1	107.50	41.48	10.10	74.14	2.659			
6H-1	110.60	41.51	10.40	78.20	2.660			25.86
6H-1	113.60	41.54	11.40		2.662			
6H-1	116.50	41.57	14.20	72.07	2.664			27.93
6H-1	119.50	41.60	15.60	73.10	2.665			26.90
6H-1	122.60	41.63	9.80		2.667			
6H-1	125.50	41.66	6.30	84.66	2.668			21.80
6H-1	128.50	41.69	4.50		2.670			
6H-1	131.50	41.72	3.90	78.19	2.672			21.81
6H-1	134.50	41.75	3.60	86.13	2.673			13.87
6H-1	137.50	41.78	3.40		2.675			
6H-1	140.50	41.81	3.80	84.66	2.677			15.34
6H-1	143.50	41.84	4.20		2.678			
6H-1	146.50	41.87	4.80	84.91	2.680			15.09
6H-1	149.60	41.90	3.40	84.07	2.681			15.93

Note: Age determinations are derived from the magnetic stratigraphy of Sager et al. (this volume).

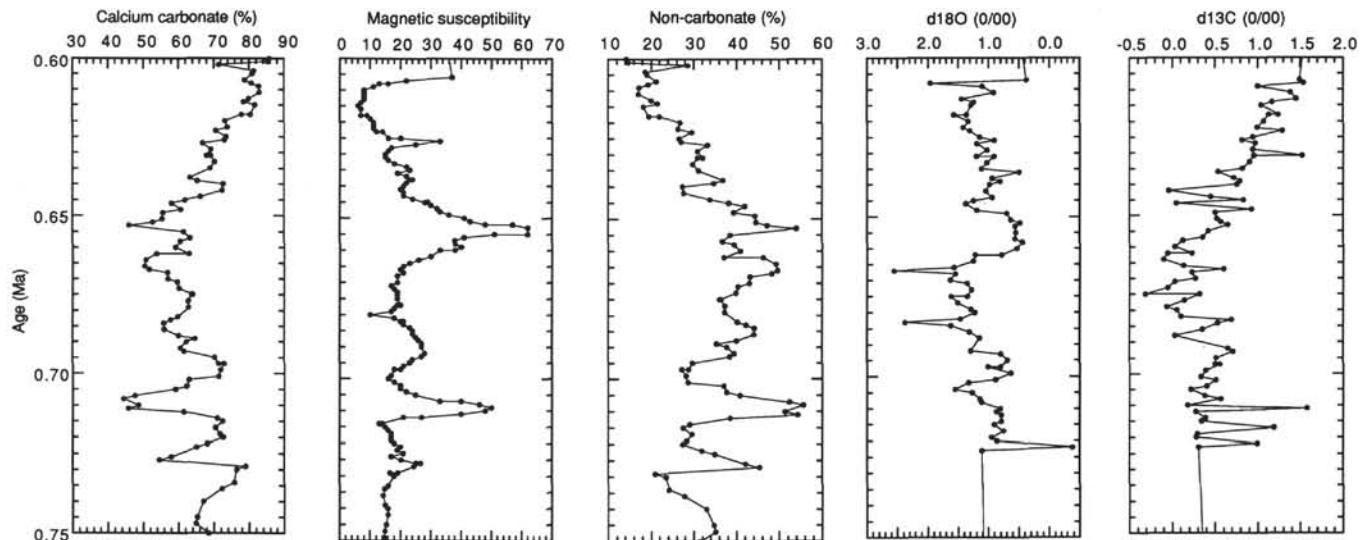


Figure 4. Profiles of calcium carbonate percentage, magnetic susceptibility (cgs units), noncarbonate percentage, $\delta^{18}\text{O}$ (‰), and $\delta^{13}\text{C}$ (‰) for the estimated time interval from 0.60 to 0.75 Ma, in Hole 810C. Age estimates are from Premoli Silva et al. (this volume) and Sager et al. (this volume).

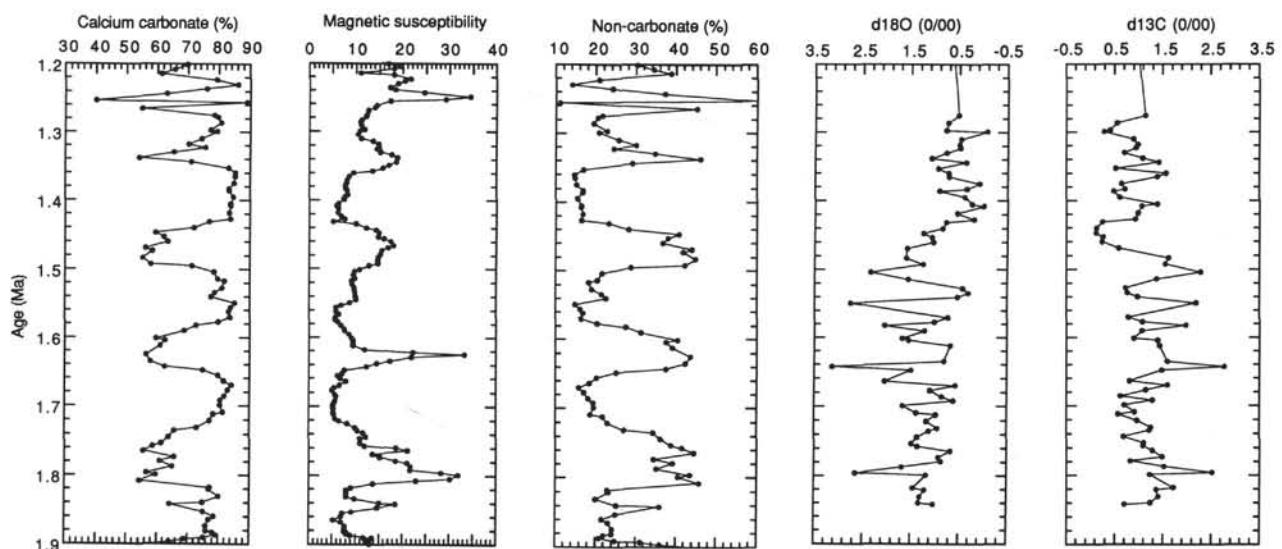


Figure 5. Profiles of calcium carbonate percentage, magnetic susceptibility (cgs units), noncarbonate percentage, $\delta^{18}\text{O}$ (‰), and $\delta^{13}\text{C}$ (‰) for the estimated time interval from 1.2 to 1.9 Ma, in Hole 810C. Age estimates are from Premoli Silva et al. (this volume) and Sager et al. (this volume).