

## **7. DATA REPORT: TEXTURE AND COMPOSITION OF QUATERNARY UPPER-SLOPE SEDIMENTS IN THE GREAT AUSTRALIAN BIGHT: SITES 1130 AND 1132<sup>1</sup>**

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### **ABSTRACT**

At Sites 1130 and 1132 of Ocean Drilling Program Leg 182 in the Great Australian Bight, we recovered an expanded Pleistocene section dominated by packstone and wackestone, deposited at unusually high rates of >20 cm/k.y. Shipboard observations detected an intermittent meter-scale alternation of light gray intervals with olive-gray intervals. Meter-scale samples were collected from the upper 250 m at both sites and decimeter-scale samples from four selected 2.5- to 4.0-m intervals in order to determine the texture and composition of sediments deposited along the upper slope throughout the Quaternary.

Detailed textural and compositional data are presented from a total of 540 samples collected from both sites. Results indicate a general coarsening upward at both sites, with an accompanying upcore increase in high-Mg calcite (HMC) and aragonite and a decrease in low-Mg calcite (LMC). Samples collected at decimeter-scale intervals substantiate that the alternating light gray and olive-gray units detected on board ship are lithologically distinct. Light gray units consist of an LMC-rich silt, whereas olive-gray units consist of an aragonite and HMC-rich sand and silt. Sediment sources as well as timing and controls of this cyclic depositional pattern will be the subject of further investigations.

<sup>1</sup>Brooks, G.R., Hine, A.C., Mallinson, D., and Drexler, T.M., 2003. Data report: Texture and composition of Quaternary upper-slope sediments in the Great Australian Bight: Sites 1130 and 1132. *In* Hine, A.C., Feary, D.A., and Malone, M.J. (Eds.), *Proc. ODP, Sci. Results*, 182, 1–21 [Online]. Available from World Wide Web: <[http://www-odp.tamu.edu/publications/182\\_SR/VOLUME/CHAPTERS/003.PDF](http://www-odp.tamu.edu/publications/182_SR/VOLUME/CHAPTERS/003.PDF)>. [Cited YYYY-MM-DD]

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## INTRODUCTION

Sites 1130 and 1132 are located along the upper slope of the Great Australian Bight and comprise the two shallowest sites of the western transect (Fig. F1). At Site 1130 (33°25.2114'S, 127°36.1398'E) water depth is 486.7 m, and at Site 1132 (33°18.9714'S, 127°36.1320'E), water depth is 218.5 m. Both cores penetrated an extensive set of offshelf-trending prograding clinofolds (Feary and James, 1998).

Results of shipboard magnetostratigraphic and biostratigraphic analyses indicate that the upper 200–250 m of sediment at both sites contains an expanded Pleistocene section deposited rapidly, averaging >20 cm/k.y., and the existence of few discontinuity surfaces suggests that deposition was continuous (Feary, Hine, Malone, et al., 2000). Shipboard observations also reveal lithologies consisting of wackestone, packstone, and grainstone punctuated by foraminiferal or nannofossil ooze. The upper 65 m at Site 1132 contains bryozoan-rich intervals of floatstone and rudstone alternating with wackestone, packstone, and grainstone layers similar to those that lie below. All sediments contain a significant neritic component, which is consistent with the input of material from the shallow shelf that lies to the north. Subtle variations in sediment texture, color, and ichnofossils suggest a meter-scale cyclic pattern in deposition. The lithologic boundaries of these cycles are generally diffuse and poorly defined but are in some cases represented by distinct and extensive burrowing (Feary, Hine, Malone, et al., 2000). During Leg 182, specific lithologic characteristics of individual cycles were unable to be clearly defined due to limitations of shipboard analyses.

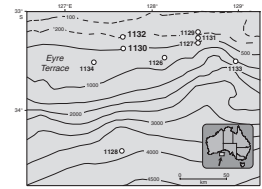
The rapid and continuous rate of accumulation provides us with an excellent opportunity to study, at high resolution, the record of shelf sediment export in a cool-water carbonate ramp setting. The texture and composition of sediments from these sites are reported here. Data interpretations and discussions will be presented in future publications.

## METHODS

Sediment samples were collected from the upper 250 m at Sites 1130 and 1132 at ~75-cm intervals, except for the wackestone, packstone, and grainstone layers separating the bryozoan-rich units occupying the uppermost 65 m at Site 1132, which were sampled sporadically. The bryozoan-rich units are being studied by other investigators. In addition, four sections ranging from 2.5 to 4.0 m in thickness were sampled at 10-cm intervals in order to investigate decimeter-scale variations within the meter-scale cycles. These four sections (Site 1130: 77.50–79.95 and 114.60–117.20 meters below seafloor [mbsf]; Site 1132: 66.90–69.70 and 151.00–154.90 mbsf) were chosen where the meter-scale cyclic pattern is most distinct. A total of 562 samples were collected and analyzed for sediment texture, carbonate content, and carbonate mineralogy.

Standard sedimentological procedures were used in all analyses. Grain size was determined for the coarse (<4  $\phi$ ; >63  $\mu\text{m}$ ) fraction using the settling tube method (Gibbs, 1974) and for the fine (>4  $\phi$ ; <63  $\mu\text{m}$ ) fraction using the pipette method (Folk, 1965). Calcium carbonate content was determined for each sample by the acid leaching method (Miliman, 1974). Carbonate mineralogy was determined through powder X-ray diffraction (XRD) using a Scintag XDS 2000 theta/theta goniome-

F1. Locations of sites drilled, p. 6.



ter with a 2.2-kW sealed copper X-ray source. Bulk carbonate analyses were performed on all samples, which were ground and prepared using the glass slide method dried at room temperature (Moore and Reynolds, 1997). Quantitative carbonate mineralogies were determined using a calibration of the ratio of aragonite, dolomite, and high-Mg calcite (HMC) to the sum of low-Mg calcite (LMC) and HMC.

## RESULTS

### Samples from Meter-Scale Intervals

Results of analyses are presented in Tables T1 and T2 and Figures F2, F3, F4, F5, F6, and F7. Data for all parameters are highly variable at the meter-scale, but exhibit subtle upcore patterns at both sites.

Mean grain sizes range from 2.2  $\phi$  (220  $\mu\text{m}$ ; fine sand) to 8.03  $\phi$  (3.9  $\mu\text{m}$ ; clay) at Site 1130, and 0.2  $\phi$  (890  $\mu\text{m}$ ; coarse sand) to 7.9  $\phi$  (4.2  $\mu\text{m}$ ; very fine silt) at Site 1132. Both sites exhibit a coarsening-upward sequence (Figs. F2, F3). Site 1130 sediments are dominantly silt and clay size below 50 mbsf and sand size above 50 mbsf (Fig. F2). Site 1132 sediments are dominantly silt size below 150 mbsf and sand and silt size above 150 mbsf to the base of the bryozoan-rich units at 65 mbsf (Fig. F3). Except for the bryozoan-rich units above 65 mbsf at Site 1132, gravel-size sediments are rarely present at either site.

Carbonate content ranges from 86.6 to 99.2 wt% at Site 1130 and 79.2 to 99.1 wt% at Site 1132 (Tables T1, T2). Values are consistently >90 wt% for both sites but tend to be slightly higher at Site 1130. Both sites exhibit a subtle upcore increase in carbonate content (Figs. F2, F3).

Results of XRD analyses are expressed as the relative percentages of aragonite, HMC, LMC, and dolomite. Site 1130 contains 11.5%–28.6% aragonite, 4.4%–68% HMC, 14.9%–79.3% LMC, and 0%–4.4% dolomite (Table T1). Site 1132 contains 0%–37.1% aragonite, 0%–73.5% HMC, 0.1%–100% LMC, and 0%–14.2% dolomite (Table T2). Both sites exhibit upcore increases in HMC and accompanying decreases in LMC (Figs. F2, F3). Aragonite exhibits a more subtle upcore increase that is most pronounced at Site 1132 (Fig. F3). Dolomite is always subordinate, only present consistently below 65 mbsf at Site 1132 (Fig. F3). Dolomite is rarely present at Site 1130 (Fig. F2).

### Samples from Decimeter-Scale Intervals

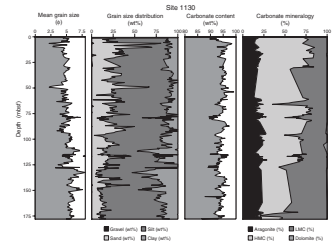
Samples from decimeter-scale intervals also show highly variable values for all parameters but exhibit distinct characteristics for each of the two different lithologies making up one complete cycle. Figures F4, F5, F6, and F7 show the decimeter-scale data for sediment texture, carbonate content, and carbonate mineralogy for each of the four intervals sampled. All four intervals show a consistent pattern of aragonite- and/or HMC-rich, very fine sand and coarse silt, alternating with LMC-rich, fine to medium silt. The former corresponds to olive-gray units observed on board ship, and the latter corresponds to the light gray units observed on board ship. The combination of the two make up one complete lithologic cycle (see “Core Descriptions” contents list in Feary, Hine, Malone, et al., 2000).

Site 1130, 77.50–79.95 mbsf (Fig. F4), contains a 40-cm-thick interval between 78.40 and 78.80 mbsf that consists of silt- and clay-sized sediment reaching up to 50% LMC. This grades both above and below into

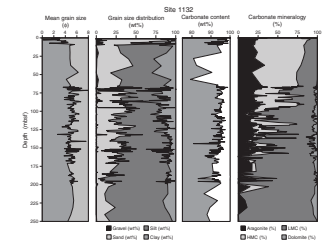
T1. Sediment texture and carbonate content and mineralogy, Site 1130, p. 13.

T2. Sediment texture and carbonate content and mineralogy, Site 1132, p. 18.

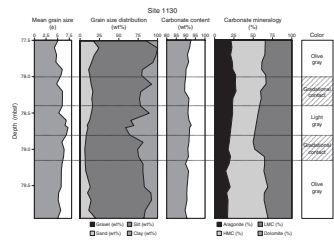
F2. Sediment texture and carbonate content and mineralogy, Site 1130, p. 7.



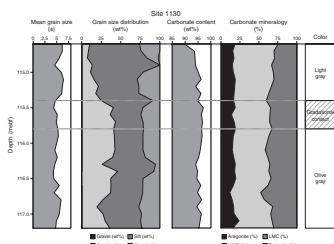
F3. Sediment texture and carbonate content and mineralogy, Site 1132, p. 8.



F4. Sediment texture and carbonate content and mineralogy, Site 1130, 77.50–79.95 mbsf, p. 9.



F5. Sediment texture and carbonate content and mineralogy, Site 1130, 114.60–117.20 mbsf, p. 10.



silt- and sand-sized sediments consisting dominantly of HMC, which reaches up to 45% of the sediment. The 40-cm-thick interval between 78.40 and 78.80 mbsf corresponds to light gray units, whereas the units above and below correspond to olive-gray units. Contacts between units are gradational over ~40-cm intervals (see “Site 1130 Core Descriptions” in Feary, Hine, Malone, et al., 2000).

Site 1130, 114.60–117.20 mbsf (Fig. F5), consists of an HMC- and LMC-rich, medium-coarse silt overlying an HMC- and LMC-rich silt and sand, separated by a gradational contact at ~115.4 to 115.8 mbsf. The top fine-grained layer corresponds to light gray units, whereas the bottom coarse-grained layer corresponds to olive-gray units (see “Site 1130 Core Descriptions” in Feary, Hine, Malone, et al., 2000). HMC and LMC each make up 30%–60% of the sediment in both layers, making this the only decimeter-scale sampling interval that shows no evidence of fractionation in carbonate mineralogy between the two lithologies.

Site 1132, 66.90 to 69.70 mbsf (Fig. F6), is characterized by silt and sand containing roughly equal amounts of aragonite, HMC, and LMC overlying an LMC-rich silt. The top layer corresponds to olive-gray units, and the bottom layer corresponds to light gray units. The contact between the two layers is sharp and well defined at 67.70 mbsf (see “Site 1132 Core Descriptions” in Feary, Hine, Malone, et al., 2000).

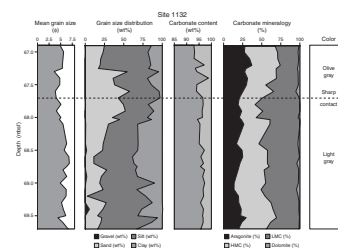
Site 1132, 151.00–154.90 mbsf (Fig. F7), consists of sand and silt with 43%–49% LMC overlying an LMC-dominant silt. The upper layer consists of roughly equal amounts of sand and silt with little clay, consistently >5% dolomite, and corresponds to olive-gray units. The lower layer consists almost entirely of fine-coarse silt, consistently >70% LMC, and <2% dolomite and corresponds to light gray units. This is the only decimeter-scale interval where dolomite is consistently found. The contact between the two layers is sharp and well defined at 151.40 mbsf. The basal part of the interval from 154.30 to 154.90 mbsf represents a transition back into an olive-gray unit lying below (see “Site 1132 Core Descriptions” in Feary, Hine, Malone, et al., 2000).

## ACKNOWLEDGMENTS

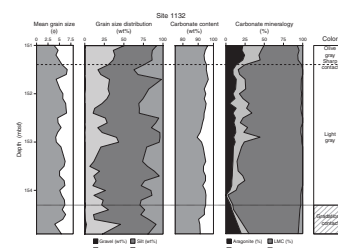
We thank the shipboard party, Co-Chief Scientists David Feary and Al Hine, and Staff Scientist Mitchell Malone of Leg 182. We also thank the staff of the ODP Core Repository at Texas A&M University for their assistance and hospitality during subsampling. We also thank the students at the Eckerd College Marine Sedimentology laboratory for their help in carrying out analyses.

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**F6.** Sediment texture and carbonate content and mineralogy, Site 1132, 66.90–69.70 mbsf, p. 11.



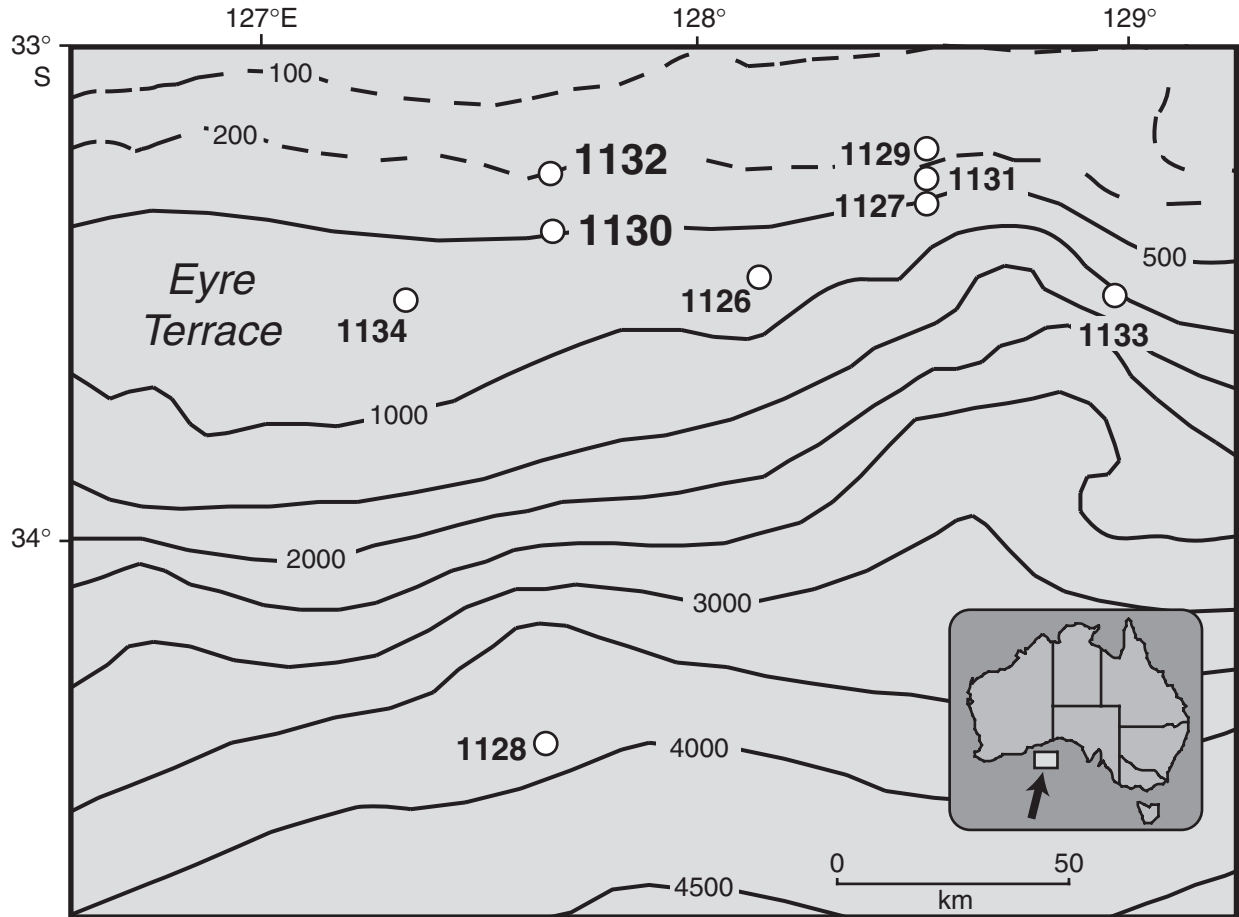
**F7.** Sediment texture and carbonate content and mineralogy, Site 1132, 151.00–154.90 mbsf, p. 12.



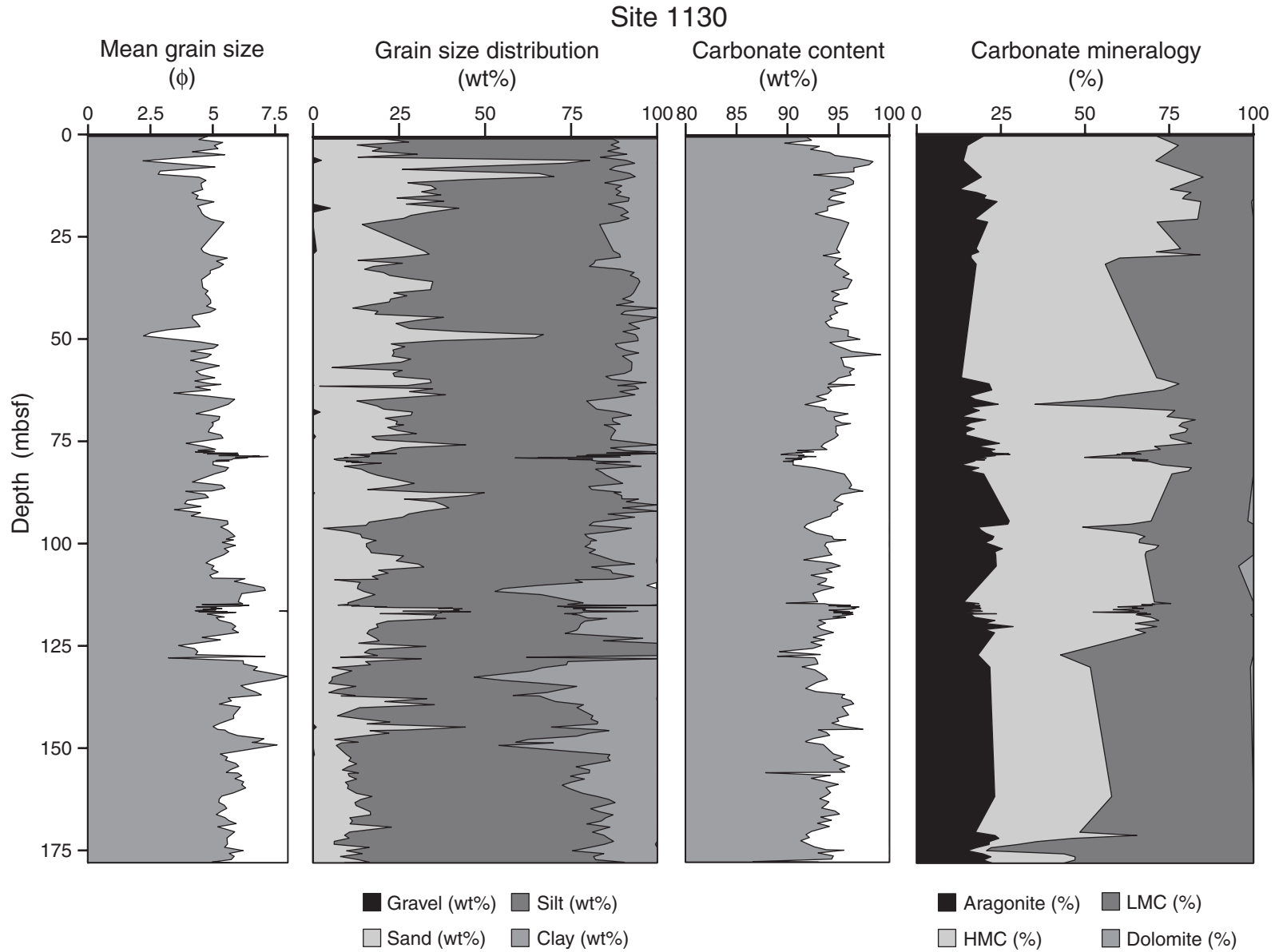
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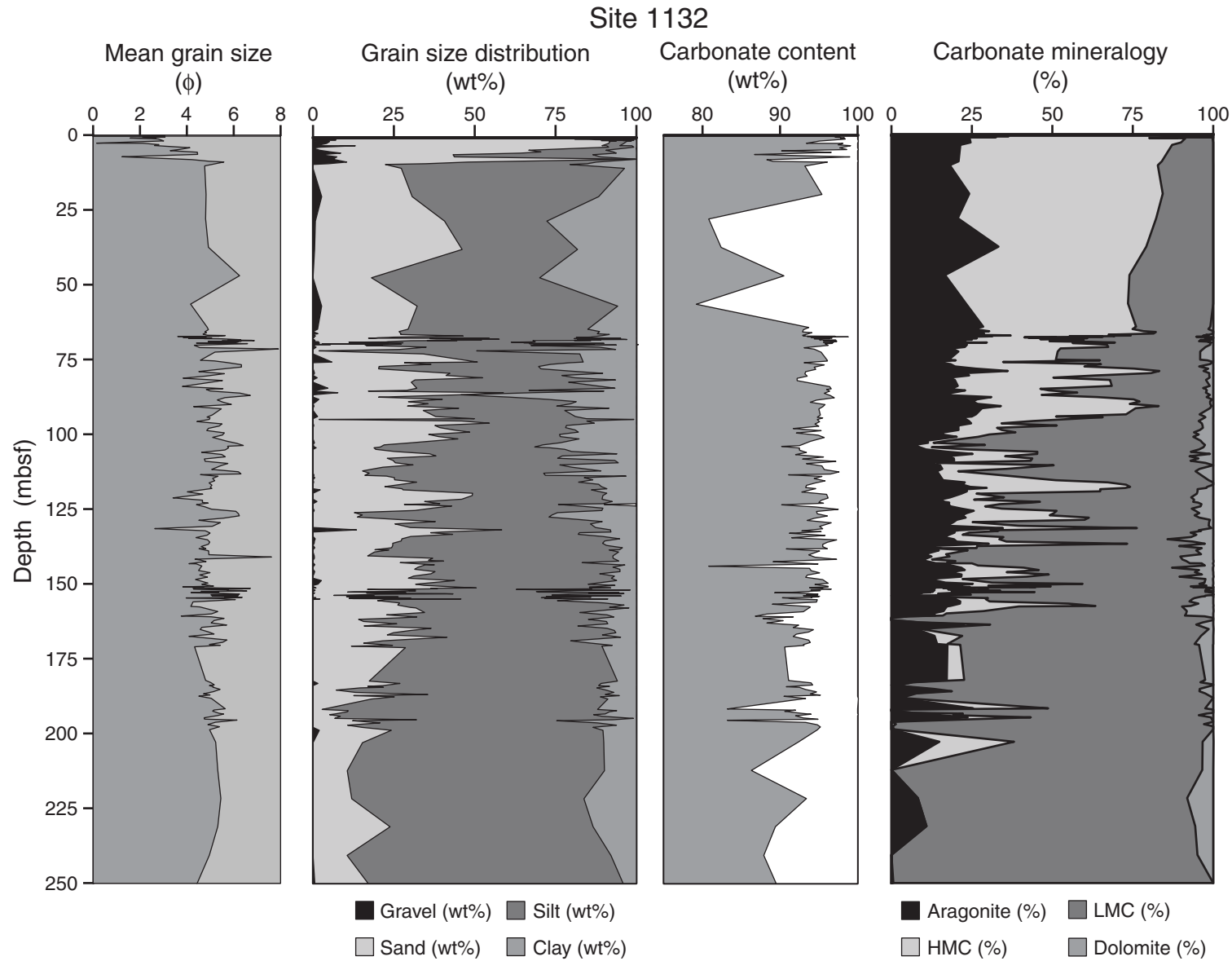
Figure F1. Locations of sites drilled during Leg 182 in the Great Australian Bight, including Sites 1130 and 1132, which are the focus of this study. Depth contours are given in meters (modified from Feary, Hine, Malone, et al., 2000).



**Figure F2.** Sediment texture, carbonate content, and carbonate mineralogy vs. depth for the Quaternary section at Site 1130. LMC = low-Mg calcite, HMC = high-Mg calcite.

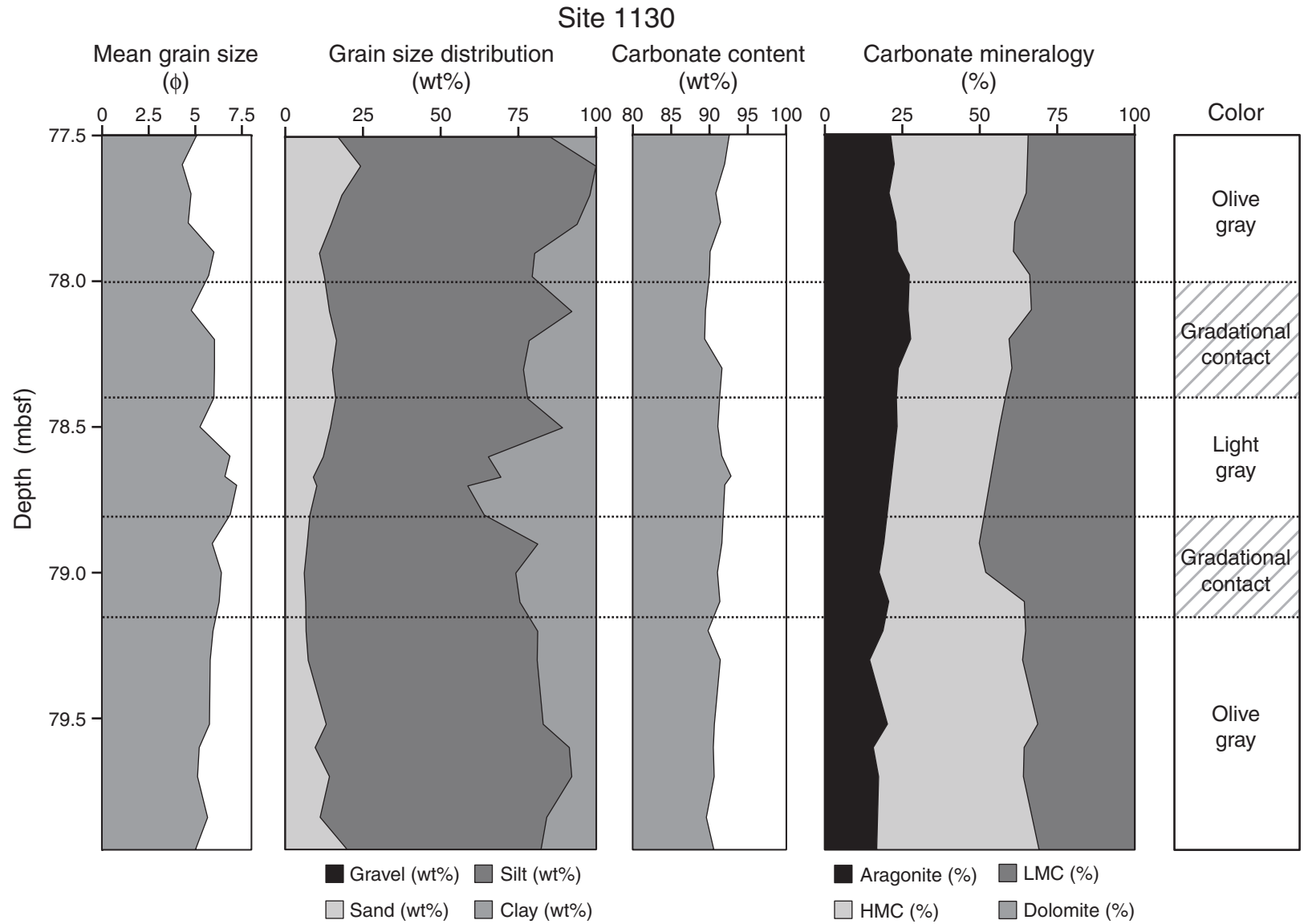


**Figure F3.** Sediment texture, carbonate content, and carbonate mineralogy vs. depth for the Quaternary section at Site 1132. LMC = low-Mg calcite, HMC = high-Mg calcite.

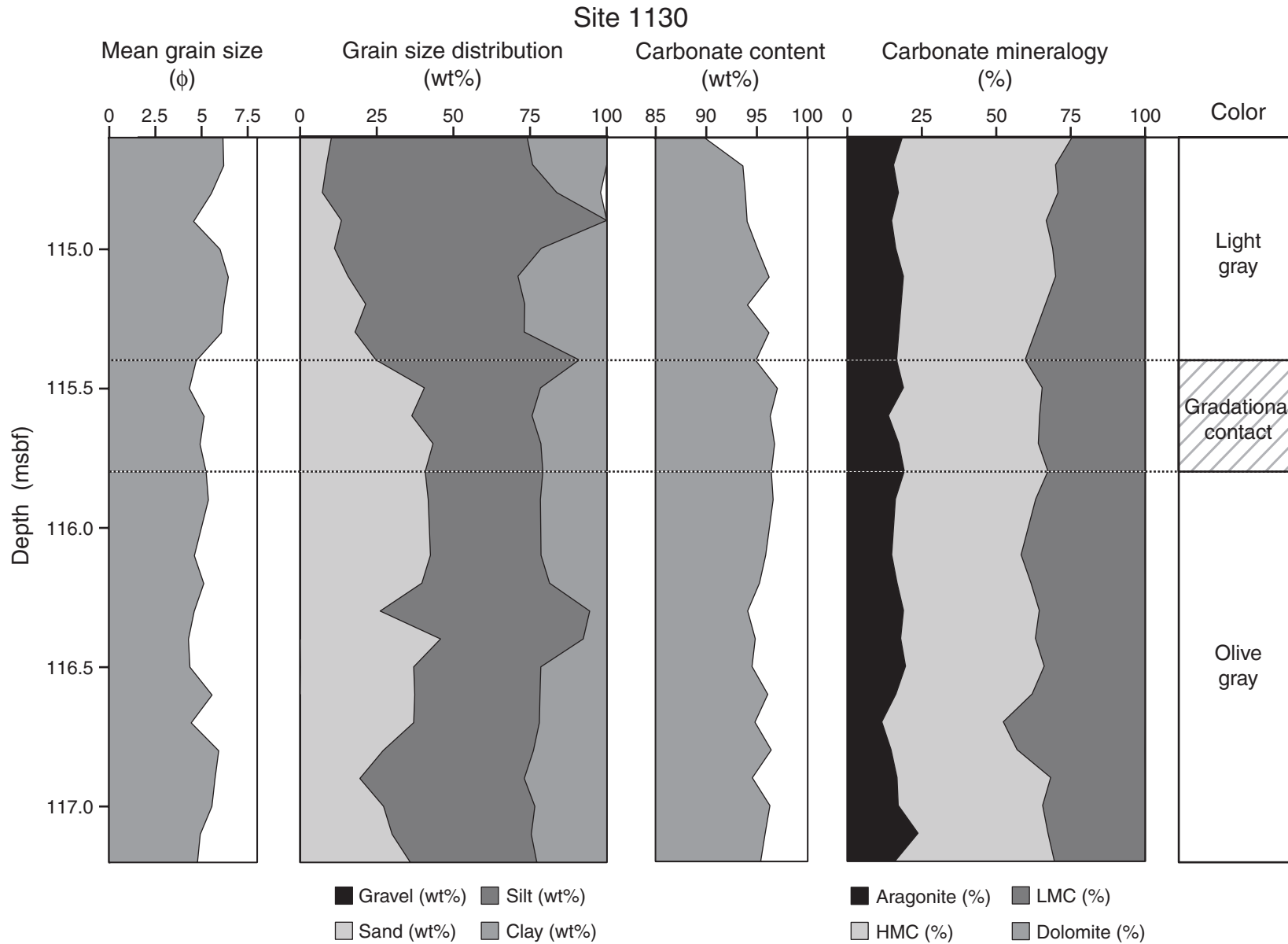




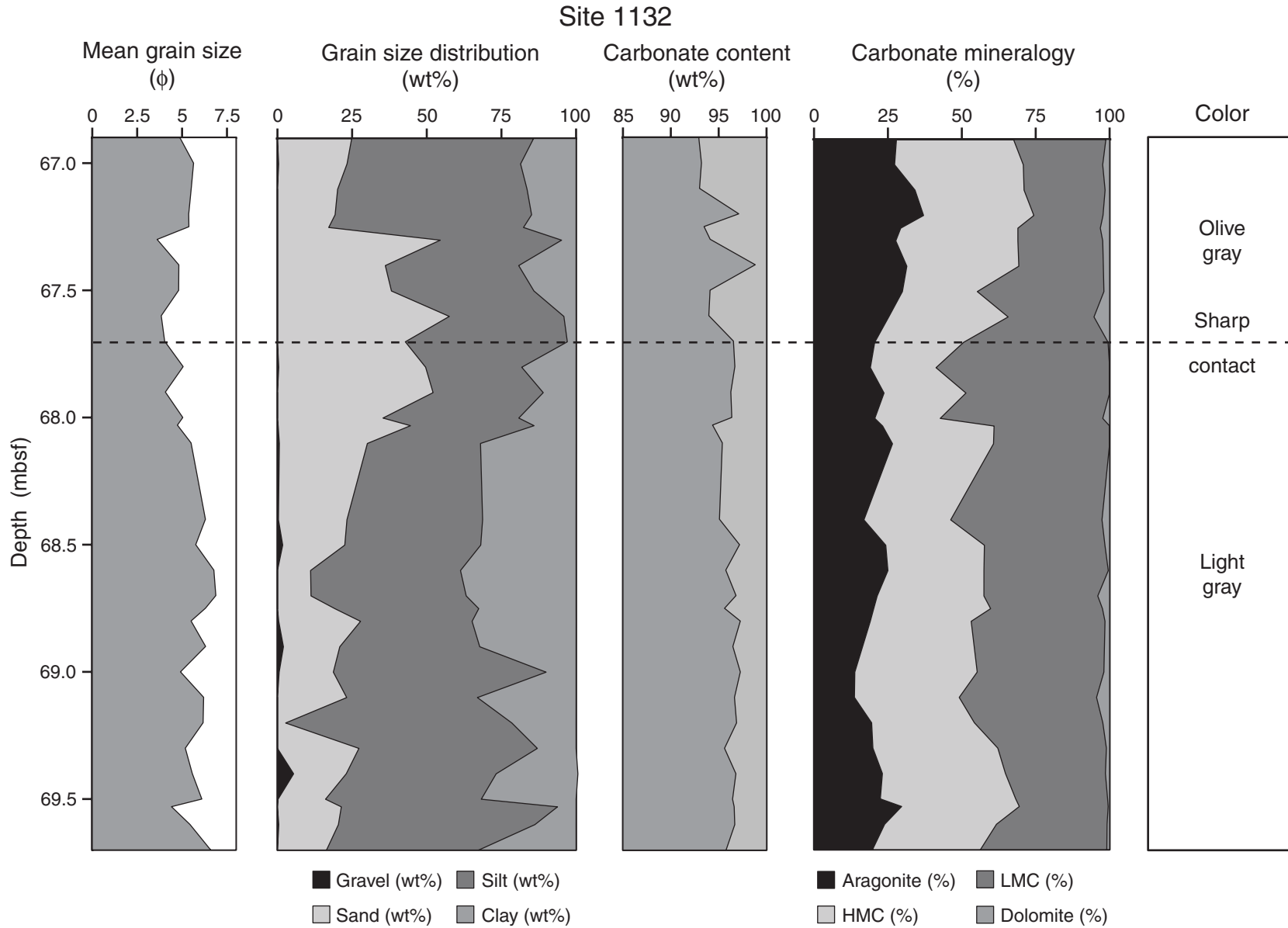
**Figure F4.** Sediment texture, carbonate content, and carbonate mineralogy vs. depth for interval 77.50–79.95 mbsf at Site 1130. LMC = low-Mg calcite, HMC = high-Mg calcite.



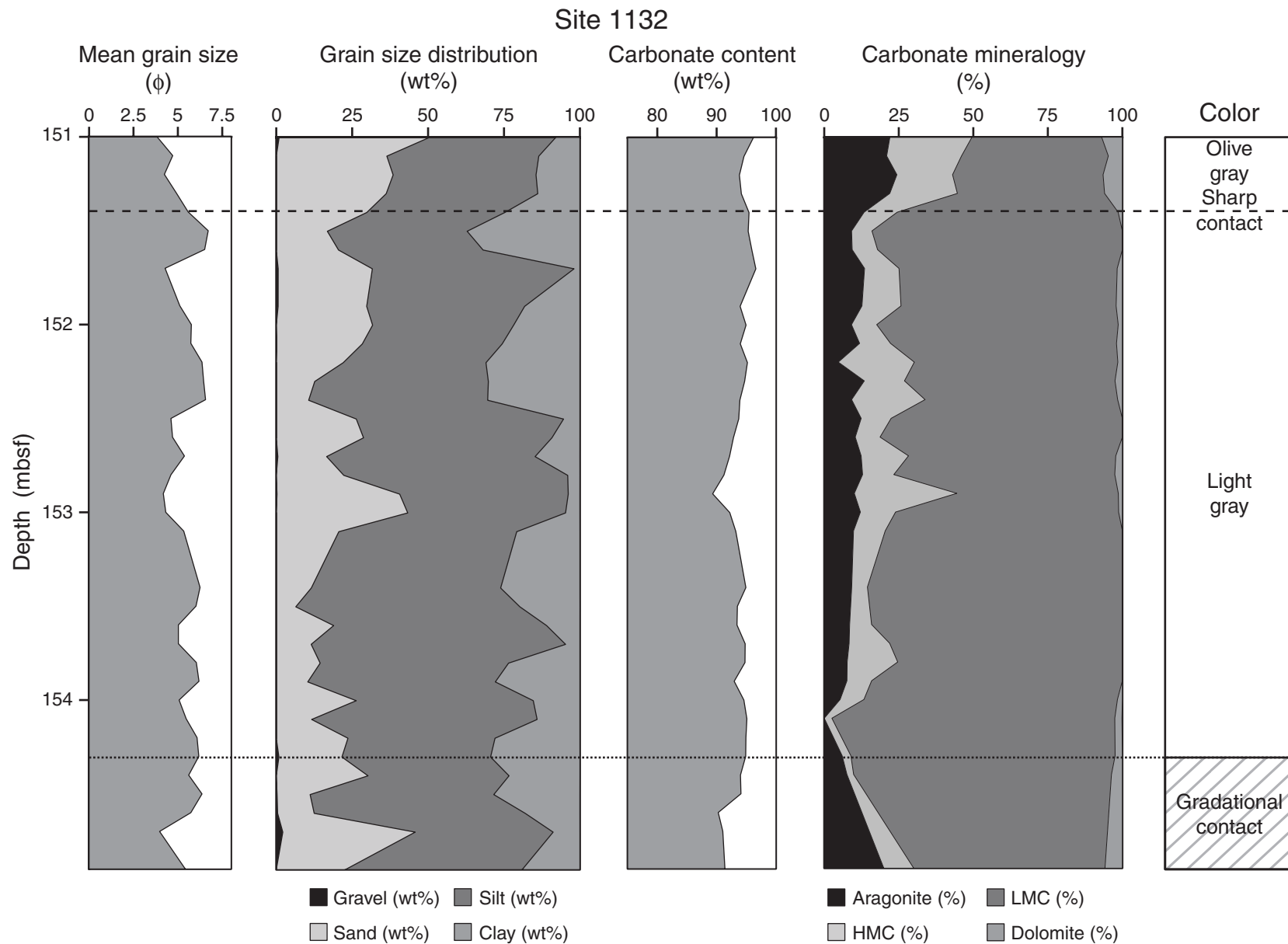
**Figure F5.** Sediment texture, carbonate content, and carbonate mineralogy vs. depth for interval 114.60–117.20 mbsf at Site 1130. LMC = low-Mg calcite, HMC = high-Mg calcite.



**Figure F6.** Sediment texture, carbonate content, and carbonate mineralogy vs. depth for interval 66.90–69.70 mbsf at Site 1132. LMC = low-Mg calcite, HMC = high-Mg calcite.



**Figure F7.** Sediment texture, carbonate content, and carbonate mineralogy vs. depth for interval 151.00–154.90 mbsf at Site 1132. LMC = low-Mg calcite, HMC = high-Mg calcite.



**Table T1.** Sediment texture, carbonate content, and carbonate mineralogical data for the Quaternary section, Site 1130. (See table note. Continued on next four pages.)

Core, section, interval (cm)	Depth (mbsf)	Mean grain size ( $\phi$ )	Gravel (wt%)	Sand (wt%)	Silt (wt%)	Clay (wt%)	Carbonate (wt%)	Aragonite (%)	HMC (%)	LMC (%)	Dolomite (%)
182-1130A-											
1H-1, 45-47	0.45	4.8	0.0	20.4	66.6	13.0	91.9	19.9	51.4	28.8	0.0
1H-1, 123-125	1.23	4.4	0.0	27.8	61.1	11.1	92.4	ND	ND	ND	ND
1H-2, 45-47	1.95	5.4	0.0	12.8	73.8	13.4	89.7	ND	ND	ND	ND
1H-2, 123-125	2.73	5.1	0.0	19.9	69.3	10.8	93.1	15.1	62.7	22.2	0.0
1H-3, 45-47	3.45	5.2	0.0	17.2	68.4	14.4	92.3	ND	ND	ND	ND
1H-3, 123-125	4.23	4.2	0.0	30.3	60.9	8.8	94.2	ND	ND	ND	ND
1H-4, 45-47	4.95	5.5	0.0	13.1	70.5	16.5	94.7	ND	ND	ND	ND
1H-4, 123-125	5.73	3.6	2.4	78.0	10.6	9.0	97.0	ND	ND	ND	ND
1H-5, 45-47	6.45	2.2	0.0	73.0	20.5	6.5	98.4	13.9	57.2	29.0	0.0
1H-5, 123-125	7.23	3.7	0.0	46.0	41.8	12.2	98.0	ND	ND	ND	ND
1H-6, 45-47	7.95	5.1	0.0	25.9	60.3	13.8	96.5	ND	ND	ND	ND
2H-1, 45-47	8.95	2.9	0.0	65.7	26.4	7.9	96.5	ND	ND	ND	ND
2H-1, 123-125	9.73	2.8	0.0	70.0	23.6	6.3	92.6	ND	ND	ND	ND
2H-2, 45-47	10.45	4.5	0.0	44.3	45.7	10.0	96.0	19.2	65.9	14.9	0.0
2H-2, 123-125	11.23	4.7	0.0	27.6	57.2	15.2	96.5	ND	ND	ND	ND
2H-3, 45-47	11.95	4.5	0.0	34.3	55.4	10.3	96.5	ND	ND	ND	ND
2H-3, 123-125	12.73	4.5	0.0	35.8	52.0	12.1	95.6	ND	ND	ND	ND
2H-4, 45-47	13.45	4.6	0.0	31.5	58.0	10.5	94.2	12.8	62.6	24.6	0.0
2H-4, 123-125	14.23	4.2	0.0	37.2	51.0	11.9	95.7	17.9	63.6	18.5	0.0
2H-5, 45-47	14.95	4.4	0.0	24.4	67.5	8.1	94.4	20.6	59.2	20.2	0.0
2H-5, 123-125	15.73	4.3	0.0	38.0	53.6	8.4	94.0	19.9	59.1	21.0	0.0
2H-6, 45-47	16.45	5.0	0.0	27.1	58.7	14.2	95.6	23.9	60.5	15.0	0.6
2H-7, 45-47	17.45	4.4	5.1	37.4	47.7	9.9	93.9	ND	ND	ND	ND
3H-1, 45-47	18.45	4.5	0.0	33.9	57.7	8.4	94.0	ND	ND	ND	ND
3H-1, 123-125	19.23	4.6	0.0	28.5	60.9	10.6	92.7	ND	ND	ND	ND
3H-2, 45-47	19.95	4.7	0.0	26.4	65.4	8.2	93.7	ND	ND	ND	ND
3H-2, 123-125	20.73	4.9	0.0	19.7	69.2	11.2	95.2	17.2	66.3	16.5	0.0
3H-3, 45-47	21.45	5.5	0.0	14.3	69.0	16.7	96.0	21.1	50.3	28.6	0.0
4H-1, 45-47	27.95	4.5	1.0	31.3	55.0	12.7	94.8	17.7	60.7	21.6	0.0
4H-1, 123-125	28.73	4.6	0.0	33.8	55.3	10.9	95.1	18.5	52.7	28.9	0.0
4H-2, 45-47	29.45	4.9	0.0	25.9	63.4	10.6	93.5	16.2	68.0	15.8	0.0
4H-2, 123-125	30.23	5.6	0.0	13.0	69.1	17.9	95.3	16.2	44.1	39.7	0.0
4H-3, 45-47	30.95	5.1	0.0	26.0	55.7	18.3	94.9	ND	ND	ND	ND
4H-3, 123-125	31.73	5.4	0.0	17.6	62.7	19.7	94.6	17.7	38.3	44.0	0.0
4H-4, 45-47	32.45	5.3	0.0	15.0	74.6	10.4	95.1	ND	ND	ND	ND
4H-4, 123-125	33.23	4.9	0.0	20.5	72.9	6.7	95.7	ND	ND	ND	ND
4H-5, 45-47	33.95	4.9	0.0	22.2	69.9	7.8	96.1	ND	ND	ND	ND
4H-5, 123-125	34.73	4.7	0.0	28.3	66.2	5.5	95.5	ND	ND	ND	ND
4H-6, 45-47	35.45	4.6	0.0	34.8	60.2	5.0	96.3	ND	ND	ND	ND
5H-1, 45-47	37.45	4.6	0.0	34.1	59.5	6.3	95.9	ND	ND	ND	ND
5H-1, 123-125	38.23	4.8	0.0	23.4	69.7	6.9	94.3	ND	ND	ND	ND
5H-2, 45-47	38.95	4.7	0.0	27.3	65.0	7.8	95.1	ND	ND	ND	ND
5H-2, 123-125	39.73	4.8	0.0	22.5	67.4	10.1	94.5	ND	ND	ND	ND
5H-3, 45-47	40.45	4.9	0.0	22.2	71.0	6.8	94.4	ND	ND	ND	ND
5H-3, 123-125	41.23	4.9	0.0	16.2	71.9	11.9	95.9	ND	ND	ND	ND
5H-4, 45-47	41.95	4.7	0.0	11.6	88.4	0.0	94.7	ND	ND	ND	ND
5H-4, 123-125	42.73	5.1	0.0	18.9	71.8	9.3	94.6	ND	ND	ND	ND
5H-5, 45-47	43.45	4.9	0.0	18.0	71.5	10.5	95.0	ND	ND	ND	ND
5H-5, 123-125	44.23	4.2	0.0	37.9	62.1	0.0	94.2	ND	ND	ND	ND
5H-6, 45-47	44.95	4.2	0.0	30.2	66.2	3.6	94.4	ND	ND	ND	ND
5H-6, 123-125	45.73	4.3	0.0	24.1	67.7	8.2	93.7	ND	ND	ND	ND
6H-1, 45-47	46.95	4.5	0.0	28.0	66.9	5.1	94.1	ND	ND	ND	ND
6H-1, 123-125	47.73	3.2	0.0	43.2	46.9	9.9	96.0	ND	ND	ND	ND
6H-2, 45-47	48.45	2.5	0.0	66.9	26.7	6.3	96.0	ND	ND	ND	ND
6H-2, 123-125	49.23	2.2	0.0	64.5	29.8	5.6	95.9	ND	ND	ND	ND
6H-3, 45-47	49.95	3.3	0.0	36.3	58.2	5.5	97.1	ND	ND	ND	ND
6H-3, 123-125	50.73	4.5	0.0	22.7	65.1	12.2	94.2	ND	ND	ND	ND
6H-4, 45-47	51.45	5.2	0.0	26.7	61.8	11.5	94.7	ND	ND	ND	ND
6H-4, 123-125	52.23	5.0	0.0	23.2	67.6	9.2	95.6	ND	ND	ND	ND
6H-5, 45-47	52.95	4.1	0.0	23.5	71.1	5.4	96.3	ND	ND	ND	ND
6H-5, 123-125	53.73	4.9	0.0	23.0	66.9	10.1	99.2	ND	ND	ND	ND
6H-6, 45-47	54.45	4.8	0.0	28.4	62.8	8.8	95.3	ND	ND	ND	ND
6H-6, 123-125	55.23	4.1	0.0	25.6	67.1	7.3	95.4	ND	ND	ND	ND
7H-1, 45-47	56.55	5.3	0.0	5.5	87.1	7.4	95.6	ND	ND	ND	ND
7H-1, 123-125	57.23	4.7	0.0	25.9	66.6	7.5	96.6	ND	ND	ND	ND
7H-2, 45-47	57.95	4.3	0.0	23.2	67.4	9.4	96.1	ND	ND	ND	ND
7H-2, 123-125	58.73	4.5	0.0	23.7	61.3	15.0	96.3	ND	ND	ND	ND

**Table T1 (continued).**

Core, section, interval (cm)	Depth (mbsf)	Mean grain size (φ)	Gravel (wt%)	Sand (wt%)	Silt (wt%)	Clay (wt%)	Carbonate (wt%)	Aragonite (%)	HMC (%)	LMC (%)	Dolomite (%)
7H-3, 45-47	59.45	5.1	0.0	34.0	52.8	13.2	95.0	13.3	58.0	28.7	0.0
7H-3, 123-125	60.23	4.3	0.0	34.3	62.5	3.1	94.7	ND	ND	ND	ND
7H-4, 45-47	60.95	4.9	0.2	27.1	61.2	11.4	94.0	21.5	56.4	22.1	0.0
7H-4, 60-62	61.10	5.3	0.0	1.9	91.7	6.4	96.6	ND	ND	ND	ND
7H-4, 123-125	61.73	4.3	0.0	34.8	59.8	5.4	93.9	ND	ND	ND	ND
7H-5, 45-47	62.45	4.9	0.1	27.9	61.2	10.8	94.3	22.3	50.9	26.8	0.0
7H-5, 123-125	63.23	3.4	0.0	38.5	55.0	6.4	94.0	ND	ND	ND	ND
7H-6, 45-47	63.95	4.8	0.0	25.6	62.1	12.4	92.9	15.6	43.6	40.8	0.0
7H-6, 123-125	64.73	5.9	0.0	12.7	66.8	20.5	93.8	17.4	37.3	45.3	0.0
8H-1, 45-47	65.95	5.6	0.0	18.6	62.6	18.8	91.7	24.3	10.8	64.9	0.0
8H-1, 123-125	66.73	5.2	0.0	20.5	61.9	17.6	93.7	15.8	45.1	39.1	0.0
8H-2, 45-47	67.45	4.9	2.1	26.8	59.9	11.2	93.9	18.6	58.0	23.3	0.0
8H-2, 123-125	68.23	4.3	0.0	28.5	64.1	7.5	96.0	ND	ND	ND	ND
8H-3, 45-47	68.95	5.3	0.0	21.0	66.0	13.0	94.6	13.3	61.1	25.6	0.0
8H-3, 123-125	69.73	5.2	0.0	24.5	62.7	12.8	94.7	20.5	62.2	17.3	0.0
8H-4, 45-47	70.45	5.0	0.0	24.1	65.2	10.7	95.4	16.1	62.9	21.1	0.0
8H-4, 60-62	70.60	5.0	0.0	26.3	58.3	15.4	96.2	ND	ND	ND	ND
8H-4, 123-125	71.23	5.0	0.0	21.7	65.2	13.1	94.8	14.1	63.8	22.1	0.0
8H-5, 45-47	71.95	4.9	0.0	24.5	63.5	12.1	94.8	17.1	63.4	19.5	0.0
8H-5, 123-125	72.73	4.8	0.0	30.0	57.3	12.7	94.8	14.7	65.2	20.2	0.0
8H-6, 45-47	73.45	5.3	0.8	16.4	69.6	13.3	95.0	14.6	60.6	24.8	0.0
8H-6, 123-125	74.23	5.4	0.0	18.6	67.9	13.5	94.6	18.5	57.1	24.4	0.0
9H-1, 50-52	75.50	3.9	0.0	44.4	55.6	0.0	93.6	24.6	57.0	18.4	0.0
9H-1, 123-125	76.23	4.6	0.0	25.8	60.7	13.5	93.3	17.9	52.8	29.3	0.0
9H-2, 45-47	76.95	5.1	0.0	22.1	69.0	8.9	93.9	23.2	49.1	27.6	0.0
9H-2, 69-71	77.19	4.4	0.0	20.9	78.5	0.6	91.0	ND	ND	ND	ND
9H-2, 100-102	77.50	5.1	0.0	17.0	68.3	14.7	92.6	21.2	44.4	34.4	0.0
9H-2, 110-112	77.60	4.3	0.0	24.2	75.8	0.0	92.0	22.4	42.9	34.7	0.0
9H-2, 120-122	77.70	4.8	0.0	18.2	79.8	2.0	90.8	20.7	44.3	35.0	0.0
9H-2, 130-132	77.80	4.6	0.0	14.8	79.1	6.1	91.5	22.9	38.4	38.7	0.0
9H-2, 140-142	77.90	6.0	0.0	11.0	69.3	19.7	90.1	23.5	37.3	39.1	0.0
9H-2, 148-150	77.98	5.7	0.0	12.6	66.9	20.5	90.0	27.3	38.9	33.9	0.0
9H-3, 10-12	78.10	4.8	0.0	14.2	78.0	7.8	89.5	26.9	39.8	33.3	0.0
9H-3, 20-22	78.20	6.0	0.0	16.5	62.0	21.5	89.4	27.7	31.7	40.6	0.0
9H-3, 30-32	78.30	6.0	0.0	15.2	61.5	23.3	91.6	23.7	36.7	39.6	0.0
9H-3, 40-42	78.40	6.0	0.0	16.2	61.8	22.0	91.3	23.1	35.2	41.7	0.0
9H-3, 50-52	78.50	5.2	0.0	14.5	74.7	10.8	91.1	23.3	33.1	43.6	0.0
9H-3, 60-62	78.60	6.9	0.0	12.2	53.1	34.6	91.6	ND	ND	ND	ND
9H-3, 67-69	78.67	6.6	0.0	9.0	60.4	30.6	92.8	ND	ND	ND	ND
9H-3, 70-72	78.70	7.2	0.0	10.1	48.6	41.3	92.0	ND	ND	ND	ND
9H-3, 80-82	78.80	6.9	0.0	7.9	56.1	36.0	91.8	ND	ND	ND	ND
9H-3, 90-92	78.90	5.9	0.0	7.1	74.2	18.7	91.6	19.0	30.8	50.2	0.0
9H-3, 100-102	79.00	6.4	0.0	6.1	68.1	25.8	91.0	17.5	34.4	48.1	0.0
9H-3, 110-112	79.10	6.3	0.0	6.6	68.9	24.5	91.4	20.6	43.8	35.6	0.0
9H-3, 120-122	79.20	5.9	0.0	6.7	74.5	18.8	89.8	18.8	46.0	35.2	0.0
9H-3, 130-132	79.30	5.8	0.0	7.4	73.7	18.9	91.4	14.4	49.4	36.2	0.0
9H-4, 2-4	79.52	5.8	0.0	13.2	69.8	17.0	90.6	20.2	48.5	31.3	0.0
9H-4, 10-12	79.60	5.2	0.0	9.6	81.8	8.6	90.5	15.6	48.7	35.7	0.0
9H-4, 20-22	79.70	5.1	0.0	14.2	78.0	7.8	90.6	17.4	46.7	35.9	0.0
9H-4, 34-36	79.84	5.7	0.0	11.2	72.9	15.9	89.6	ND	ND	ND	ND
9H-4, 45-47	79.95	5.0	0.0	19.9	62.5	17.7	90.6	16.7	52.4	30.9	0.0
9H-4, 123-125	80.73	5.0	0.0	9.1	86.2	4.7	90.6	13.2	59.6	27.3	0.0
9H-5, 45-47	81.45	5.6	0.0	14.0	68.1	17.9	92.8	18.5	63.2	18.4	0.0
9H-5, 123-125	82.23	5.5	0.0	16.0	68.0	16.0	94.3	15.7	65.0	19.3	0.0
9H-6, 45-47	82.95	5.1	0.0	18.7	66.5	14.8	95.6	19.9	55.9	24.2	0.0
10H-1, 45-47	84.95	4.2	0.0	29.4	60.6	10.0	96.2	ND	ND	ND	ND
10H-1, 123-125	85.73	5.4	0.0	24.2	55.9	19.9	96.3	ND	ND	ND	ND
10H-2, 45-47	86.45	5.5	0.0	15.9	65.2	19.0	96.1	ND	ND	ND	ND
10H-2, 123-125	87.13	5.0	0.0	33.7	55.8	10.5	97.4	ND	ND	ND	ND
10H-2, 130-132	87.23	3.9	0.4	49.4	37.7	12.5	96.9	ND	ND	ND	ND
10H-3, 45-47	87.95	4.7	0.0	45.1	44.7	10.3	95.3	ND	ND	ND	ND
10H-3, 123-125	88.73	4.8	0.0	33.1	56.7	10.3	94.9	ND	ND	ND	ND
10H-3, 129-131	88.79	4.8	0.0	26.5	68.1	5.4	ND	ND	ND	ND	ND
10H-4, 45-47	89.45	4.0	0.0	35.3	55.7	9.0	94.6	ND	ND	ND	ND
10H-4, 123-125	90.23	3.9	0.0	37.8	62.2	0.0	95.5	ND	ND	ND	ND
10H-5, 45-47	90.95	4.5	0.0	39.5	50.5	10.0	94.9	ND	ND	ND	ND
10H-5, 123-125	91.73	3.5	0.0	32.7	67.3	0.0	95.0	ND	ND	ND	ND
10H-6, 45-47	92.45	4.5	0.0	27.8	57.9	14.3	94.4	ND	ND	ND	ND
10H-6, 123-125	93.23	4.1	0.0	26.0	67.4	6.5	94.2	ND	ND	ND	ND

**Table T1 (continued).**

Core, section, interval (cm)	Depth (mbsf)	Mean grain size (φ)	Gravel (wt%)	Sand (wt%)	Silt (wt%)	Clay (wt%)	Carbonate (wt%)	Aragonite (%)	HMC (%)	LMC (%)	Dolomite (%)
11H-1, 45-47	94.45	5.6	0.0	16.4	65.2	18.5	92.7	27.5	42.2	28.7	1.7
11H-1, 123-125	95.23	5.6	0.0	15.4	64.9	19.7	91.9	27.1	36.5	36.5	0.0
11H-2, 45-47	95.95	5.3	0.0	3.1	89.4	7.5	91.6	18.3	31.0	50.7	0.0
11H-2, 123-125	96.73	5.6	0.0	10.0	76.8	13.2	92.2	19.2	38.6	42.2	0.0
11H-3, 45-47	97.45	5.8	0.0	13.8	65.2	21.0	92.8	20.6	44.2	35.2	0.0
11H-3, 123-125	98.23	5.9	0.0	14.2	65.8	20.0	94.4	23.0	44.9	32.2	0.0
11H-4, 45-47	98.95	5.5	0.0	18.3	64.1	17.6	94.5	22.5	43.8	33.8	0.0
11H-4, 58-60	99.08	5.8	0.0	17.7	63.0	19.3	95.8	ND	ND	ND	ND
11H-4, 123-125	99.73	5.4	0.0	15.5	65.0	19.5	93.8	20.3	45.8	33.9	0.0
11H-5, 45-47	100.45	5.9	0.0	15.5	63.5	21.0	93.7	22.9	49.0	28.1	0.0
11H-5, 123-125	101.23	5.5	0.0	16.5	65.6	17.9	94.0	25.5	45.5	29.1	0.0
11H-6, 45-47	101.95	5.6	0.0	16.9	63.4	19.7	94.0	23.3	44.9	31.8	0.0
11H-6, 123-125	102.73	5.4	0.0	26.3	57.1	16.6	94.4	23.5	44.4	32.2	0.0
12H-1, 45-47	103.95	4.9	0.0	24.2	63.4	12.2	91.6	ND	ND	ND	ND
12H-1, 123-125	104.73	4.7	0.0	30.6	62.9	6.5	94.3	ND	ND	ND	ND
12H-2, 45-47	105.45	5.0	0.0	32.2	48.8	19.0	95.2	23.7	44.8	27.2	4.4
12H-2, 123-125	106.23	5.0	0.0	19.0	67.4	13.5	93.8	ND	ND	ND	ND
12H-3, 45-47	106.95	5.2	0.0	21.8	65.2	13.0	94.4	ND	ND	ND	ND
12H-3, 123-125	107.73	4.9	0.0	17.2	76.0	6.8	92.3	ND	ND	ND	ND
12H-4, 45-47	108.45	5.0	0.0	18.9	68.2	12.9	93.6	ND	ND	ND	ND
12H-4, 57-59	108.57	6.3	0.0	6.3	69.9	23.8	93.9	ND	ND	ND	ND
12H-4, 123-125	109.23	5.9	0.0	13.7	64.6	21.7	93.8	ND	ND	ND	ND
12H-5, 45-47	109.95	6.4	0.0	13.1	52.5	31.4	93.0	ND	ND	ND	ND
12H-5, 123-125	110.73	7.0	0.0	12.9	42.4	44.7	94.6	ND	ND	ND	ND
12H-6, 45-47	111.45	7.1	0.0	14.8	38.1	47.1	93.4	ND	ND	ND	ND
12H-6, 123-125	112.23	6.2	0.0	18.0	48.3	33.6	92.5	ND	ND	ND	ND
13H-1, 123-125	114.23	6.0	0.0	10.1	68.4	21.5	93.0	14.0	56.6	29.4	0.0
13H-2, 10-12	114.60	6.2	0.0	10.2	63.8	26.0	89.9	18.5	57.0	24.5	0.0
13H-2, 20-22	114.70	6.2	0.0	8.6	67.2	24.2	93.6	15.5	54.4	30.1	0.0
13H-2, 30-32	114.80	5.5	0.0	7.3	76.4	14.3	93.9	17.1	53.6	29.3	0.0
13H-2, 40-42	114.90	4.6	0.0	13.5	86.5	0.0	94.0	14.9	51.9	33.2	0.0
13H-2, 50-52	115.00	6.0	0.0	11.2	67.4	21.4	95.1	16.2	52.7	31.1	0.0
13H-2, 60-62	115.10	6.4	0.0	15.6	55.4	29.0	96.2	18.8	51.1	30.1	0.0
13H-2, 70-72	115.20	6.2	0.0	21.4	51.9	26.8	94.1	ND	ND	ND	ND
13H-2, 80-82	115.30	6.1	0.0	17.9	55.2	26.9	96.2	ND	ND	ND	ND
13H-2, 90-92	115.40	4.7	0.0	24.7	66.3	9.0	94.9	16.5	43.2	40.3	0.0
13H-2, 100-102	115.50	4.3	0.0	40.5	37.9	21.6	97.0	18.8	46.6	34.6	0.0
13H-2, 110-112	115.60	5.1	0.0	36.4	39.2	24.4	96.3	13.8	50.8	35.5	0.0
13H-2, 120-122	115.70	4.9	0.0	43.3	35.2	21.5	96.8	17.2	46.9	35.9	0.0
13H-2, 130-132	115.80	5.3	0.0	40.8	38.4	20.8	96.4	19.1	48.3	32.7	0.0
13H-2, 140-142	115.90	5.4	0.0	41.8	36.6	21.6	96.6	16.1	47.1	36.8	0.0
13H-3, 10-12	116.10	4.6	0.0	42.5	36.1	21.4	95.9	14.9	43.5	41.7	0.0
13H-3, 20-22	116.20	5.1	0.0	39.7	41.6	18.7	95.3	16.7	45.0	38.4	0.0
13H-3, 30-32	116.30	4.6	0.0	26.1	68.3	5.5	94.1	18.8	45.6	35.6	0.0
13H-3, 40-42	116.40	4.3	0.0	45.8	46.5	7.7	94.8	17.9	45.3	36.9	0.0
13H-3, 50-52	116.50	4.4	0.1	37.0	41.5	21.5	94.5	19.5	46.6	33.9	0.0
13H-3, 60-62	116.60	5.6	0.0	37.4	40.8	21.8	96.1	16.3	45.8	38.0	0.0
13H-3, 70-72	116.70	4.4	0.0	37.0	41.0	22.0	94.8	11.6	40.8	47.6	0.0
13H-3, 80-82	116.80	5.9	0.0	27.1	49.0	23.9	96.4	14.7	42.3	43.0	0.0
13H-3, 90-92	116.90	5.7	0.0	19.5	53.6	26.9	94.6	16.7	51.6	31.7	0.0
13H-3, 100-102	117.00	5.6	0.0	27.2	49.3	23.4	96.3	17.1	48.5	34.4	0.0
13H-3, 110-112	117.10	4.9	0.0	30.0	45.4	24.6	95.8	23.7	43.6	32.6	0.0
13H-3, 120-122	117.20	4.8	0.0	35.9	41.3	22.8	95.4	16.0	53.5	30.5	0.0
13H-3, 130-132	117.30	ND	ND	ND	ND	ND	96.5	16.2	49.0	34.0	0.8
13H-4, 45-47	117.95	5.5	0.0	35.0	44.8	20.2	94.5	17.2	52.4	30.4	0.0
13H-4, 58-60	118.08	5.1	0.0	38.6	46.8	14.6	95.7	ND	ND	ND	ND
13H-4, 123-125	118.73	5.3	0.0	21.8	57.2	21.0	93.1	23.2	48.7	28.1	0.0
13H-5, 45-47	119.45	5.7	0.0	18.4	59.3	22.3	93.7	20.2	44.8	35.1	0.0
13H-5, 123-125	120.23	5.9	0.0	18.9	58.5	22.6	92.9	28.6	42.7	28.7	0.0
13H-6, 45-47	120.95	5.8	0.0	16.4	60.2	23.4	93.3	20.2	44.8	35.1	0.0
13H-6, 123-125	121.73	6.0	0.0	15.7	57.6	26.7	94.5	23.1	44.9	32.0	0.0
14H-1, 45-47	122.95	4.6	0.0	18.3	77.5	4.2	92.5	ND	ND	ND	ND
14H-1, 105-107	123.55	5.3	0.0	19.2	65.1	15.7	93.6	ND	ND	ND	ND
14H-2, 45-47	124.15	4.6	0.0	13.2	86.8	0.0	92.3	ND	ND	ND	ND
14H-2, 123-125	124.93	3.6	0.0	32.8	67.2	0.0	93.4	ND	ND	ND	ND
14H-3, 45-47	125.65	4.3	0.0	16.4	83.6	0.0	92.5	ND	ND	ND	ND
14H-3, 123-125	126.43	4.4	0.0	15.0	85.0	0.0	89.2	ND	ND	ND	ND
14H-4, 45-47	127.15	4.3	0.0	18.7	81.3	0.0	93.2	18.2	24.5	57.3	0.0
14H-4, 58-60	127.58	7.1	0.0	8.0	54.0	38.0	89.0	ND	ND	ND	ND

**Table T1 (continued).**

Core, section, interval (cm)	Depth (mbsf)	Mean grain size ( $\phi$ )	Gravel (wt%)	Sand (wt%)	Silt (wt%)	Clay (wt%)	Carbonate (wt%)	Aragonite (%)	HMC (%)	LMC (%)	Dolomite (%)
14H-4, 123-125	127.93	3.2	0.0	31.5	68.5	0.0	92.7	ND	ND	ND	ND
14H-5, 45-47	128.65	6.2	0.0	15.3	58.8	26.0	92.9	ND	ND	ND	ND
14H-5, 123-125	129.43	6.2	0.0	16.7	56.9	26.4	93.0	ND	ND	ND	ND
14H-6, 45-47	130.15	6.8	0.0	5.6	61.0	33.4	91.4	21.8	29.8	47.6	0.9
14H-6, 123-125	130.93	6.6	0.0	11.2	52.1	36.7	92.7	ND	ND	ND	ND
15H-1, 45-47	132.45	8.0	0.0	5.6	41.2	53.2	93.7	ND	ND	ND	ND
15H-1, 123-125	133.23	7.5	0.0	5.5	49.4	45.1	93.9	ND	ND	ND	ND
15H-2, 45-47	133.95	6.8	0.0	4.6	61.5	33.9	92.9	ND	ND	ND	ND
15H-2, 123-125	134.73	6.1	0.0	12.5	64.2	23.4	92.3	ND	ND	ND	ND
15H-3, 45-47	135.45	6.3	0.0	7.4	65.0	27.6	91.8	ND	ND	ND	ND
15H-3, 123-125	136.23	6.7	0.0	4.6	63.3	32.1	92.8	ND	ND	ND	ND
15H-4, 45-47	136.95	6.9	0.0	12.2	45.9	41.9	95.6	ND	ND	ND	ND
15H-4, 58-60	137.08	6.8	0.0	8.2	57.6	34.2	95.4	ND	ND	ND	ND
15H-4, 123-125	137.73	5.6	0.0	33.1	34.9	32.0	95.3	ND	ND	ND	ND
15H-5, 45-47	138.45	5.7	0.0	20.9	49.6	29.5	96.2	ND	ND	ND	ND
15H-5, 123-125	139.23	5.3	0.0	35.3	43.3	21.4	96.5	ND	ND	ND	ND
15H-6, 45-47	139.95	6.1	0.0	13.5	63.2	23.3	95.4	ND	ND	ND	ND
16H-1, 45-47	141.95	5.8	0.0	7.1	74.3	18.7	96.0	ND	ND	ND	ND
16H-1, 49-51	141.99	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16H-1, 123-125	142.73	5.8	0.0	14.3	66.5	19.2	94.9	ND	ND	ND	ND
16H-2, 45-47	143.45	5.5	0.0	22.3	60.5	17.2	95.1	ND	ND	ND	ND
16H-3, 45-47	143.93	5.3	0.0	15.7	66.9	17.4	94.4	ND	ND	ND	ND
16H-3, 123-125	144.71	5.0	0.9	43.3	25.0	30.7	95.5	ND	ND	ND	ND
16H-4, 45-47	145.43	5.2	0.0	27.0	57.6	15.3	97.4	ND	ND	ND	ND
16H-4, 57-59	145.57	5.5	0.0	16.5	69.5	14.0	93.0	ND	ND	ND	ND
16H-4, 123-125	146.21	5.6	0.0	22.1	58.1	19.9	93.8	ND	ND	ND	ND
16H-5, 45-47	146.93	6.0	0.0	14.2	62.5	23.3	94.2	ND	ND	ND	ND
16H-5, 123-125	147.71	7.0	0.0	6.3	56.3	37.4	92.6	ND	ND	ND	ND
16H-6, 45-47	148.43	6.8	0.0	13.1	45.8	41.1	91.8	ND	ND	ND	ND
16H-6, 59-61	148.59	6.6	0.0	8.3	61.6	30.1	91.9	ND	ND	ND	ND
16H-6, 123-125	149.21	7.6	0.0	6.8	47.2	46.0	93.5	ND	ND	ND	ND
17H-1, 45-47	151.45	5.3	0.4	9.3	76.6	13.7	94.5	ND	ND	ND	ND
17H-1, 123-125	152.23	5.6	0.0	11.1	74.5	14.4	95.5	ND	ND	ND	ND
17H-2, 45-47	152.95	5.5	0.0	10.4	76.0	13.6	94.5	ND	ND	ND	ND
17H-2, 123-125	153.73	5.9	0.0	12.7	68.5	18.8	95.2	ND	ND	ND	ND
17H-3, 45-47	154.45	6.0	0.0	10.2	66.3	23.6	96.1	ND	ND	ND	ND
17H-3, 123-125	155.23	5.7	0.0	8.5	71.9	19.6	95.1	ND	ND	ND	ND
17H-4, 45-47	155.95	5.5	0.0	13.2	67.1	19.7	95.6	ND	ND	ND	ND
17H-4, 58-60	156.08	6.0	0.0	10.2	68.4	21.4	87.9	ND	ND	ND	ND
17H-4, 123-125	156.73	6.2	0.0	10.5	64.3	25.2	94.2	ND	ND	ND	ND
17H-5, 45-47	157.45	5.9	0.0	12.7	66.2	21.1	92.3	ND	ND	ND	ND
17H-5, 123-125	158.23	6.2	0.0	9.4	65.6	25.0	93.7	ND	ND	ND	ND
17H-6, 45-47	158.95	6.2	0.0	10.3	62.1	27.6	95.0	ND	ND	ND	ND
17H-6, 123-125	159.73	6.3	0.0	10.0	64.3	25.7	93.8	ND	ND	ND	ND
18H-1, 45-47	160.95	5.8	0.0	12.6	65.7	21.7	94.2	ND	ND	ND	ND
18H-1, 123-125	161.73	5.4	0.0	17.1	65.5	17.3	93.8	23.2	34.7	42.1	0.0
18H-2, 45-47	162.45	5.3	0.0	13.9	72.1	14.0	93.2	ND	ND	ND	ND
18H-2, 123-125	163.23	5.2	0.0	12.2	75.6	12.2	94.1	ND	ND	ND	ND
18H-3, 45-47	163.95	5.5	0.0	12.5	71.9	15.5	93.8	ND	ND	ND	ND
18H-3, 123-125	164.73	5.6	0.0	14.7	66.0	19.3	93.4	ND	ND	ND	ND
18H-4, 45-47	165.45	5.3	0.0	16.6	66.5	16.8	94.7	ND	ND	ND	ND
18H-4, 123-125	166.23	5.1	0.0	16.7	70.5	12.8	95.1	ND	ND	ND	ND
18H-5, 45-47	166.95	5.5	0.0	10.7	74.4	15.0	93.3	ND	ND	ND	ND
18H-5, 123-125	167.73	5.6	0.0	11.5	72.3	16.2	94.3	ND	ND	ND	ND
18H-6, 45-47	168.45	5.9	0.0	10.7	68.8	20.5	93.0	ND	ND	ND	ND
18H-6, 123-125	169.23	5.2	0.0	22.8	63.5	13.7	94.1	ND	ND	ND	ND
19X-1, 45-47	170.45	5.9	0.0	10.6	70.6	18.8	92.4	17.4	31.0	51.5	0.0
19X-1, 123-125	171.23	5.7	0.0	9.2	75.4	15.5	91.8	23.3	42.1	34.6	0.0
19X-2, 45-47	171.95	5.6	0.0	10.5	75.3	14.2	92.2	24.4	22.0	53.6	0.0
19X-2, 123-125	172.73	5.6	0.0	6.2	81.2	12.6	91.3	21.6	14.1	64.2	0.0
19X-3, 45-47	173.45	5.6	0.0	6.1	78.5	14.8	91.9	21.5	8.5	70.0	0.0
19X-3, 123-125	174.23	5.5	0.0	16.3	63.9	19.7	92.6	17.7	4.4	77.9	0.0
19X-4, 45-47	174.95	ND	ND	ND	ND	ND	93.8	15.0	5.7	79.3	0.0
19X-4, 55-57	175.05	6.2	0.0	9.7	65.6	24.7	95.6	ND	ND	ND	ND
19X-4, 123-125	175.73	5.7	0.0	14.3	70.2	15.5	93.0	19.7	24.0	56.3	0.0
19X-5, 45-47	176.45	5.9	0.0	7.9	73.6	18.5	94.5	22.1	25.0	53.0	0.0
19X-5, 123-125	177.23	5.7	0.0	13.2	68.9	17.9	94.4	19.8	27.2	53.0	0.0
20X-1, 45-47	177.85	5.0	0.0	16.4	74.1	9.6	86.6	ND	ND	ND	ND
19X-6, 45-47	177.95	5.7	0.0	9.2	73.3	17.5	93.0	22.3	21.5	56.2	0.0



**Table T1 (continued).**

Core, section, interval (cm)	Depth (mbsf)	Mean grain size ( $\phi$ )	Gravel (wt%)	Sand (wt%)	Silt (wt%)	Clay (wt%)	Carbonate (wt%)	Aragonite (%)	HMC (%)	LMC (%)	Dolomite (%)
20X-1, 123-125	178.63	5.3	0.0	12.3	77.8	10.0	90.7	ND	ND	ND	ND
20X-1, 145-147	178.85	5.9	0.0	2.4	80.0	17.6	91.1	ND	ND	ND	ND
20X-2, 51-53	179.41	4.2	0.0	40.2	51.5	8.3	94.6	ND	ND	ND	ND
20X-2, 123-125	180.13	4.6	0.0	33.7	58.6	7.7	90.3	ND	ND	ND	ND
20X-2, 130-132	180.30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20X-3, 45-47	180.85	4.7	0.0	33.6	54.7	11.7	97.1	ND	ND	ND	ND
20X-3, 123-125	181.63	5.5	0.0	11.1	75.9	13.0	91.1	ND	ND	ND	ND
20X-4, 45-47	182.35	5.3	0.0	14.3	74.8	10.9	91.7	ND	ND	ND	ND
20X-4, 58-60	182.48	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20X-4, 123-125	183.13	5.5	0.0	6.7	80.9	12.3	93.1	ND	ND	ND	ND
20X-5, 45-47	183.85	5.6	0.0	11.6	73.3	15.1	94.0	ND	ND	ND	ND
22X-2, 129-132	199.39	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22X-4, 58-60	201.68	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
23X-2, 58-60	208.28	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
23X-4, 58-60	211.28	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
23X-6, 136-138	215.06	7.7	0.0	3.2	49.6	47.2	91.9	ND	ND	ND	ND
24X-4, 58-60	220.88	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24X-6, 9-10	223.39	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24X-6, 69-71	223.99	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25X-4, 58-60	230.48	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
26X-3, 14-16	238.14	6.7	0.0	7.4	60.5	32.1	94.5	ND	ND	ND	ND
26X-4, 56-58	240.06	5.3	0.0	31.2	54.5	14.3	90.5	ND	ND	ND	ND

Note: ND = no data, HMC = high-magnesium calcite, LMC = low-magnesium calcite.

**Table T2.** Sediment texture, carbonate content, and carbonate mineralogical data for the Quaternary section, Site 1132. (See table note. Continued on next three pages.)

Core, section, interval (cm)	Depth (mbsf)	Mean grain size ( $\phi$ )	Gravel (wt%)	Sand (wt%)	Silt (wt%)	Clay (wt%)	Carbonate (wt%)	Aragonite (%)	HMC (%)	LMC (%)	Dolomite (%)
182-1132B-											
1H-1, 36-38	0.36	3.1	0.0	88.9	7.3	3.8	96.4	22.9	59.6	17.5	0.0
1H-1, 50-52	0.50	2.1	1.0	79.9	19.2	0.0	97.7	16.9	69.9	13.2	0.0
1H-1, 60-62	0.60	2.3	1.6	83.8	10.5	4.1	97.1	36.5	52.8	10.7	0.0
1H-1, 70-72	0.70	3.1	0.0	87.3	8.9	3.9	97.6	19.1	72.4	8.6	0.0
1H-1, 80-82	0.80	2.3	7.1	87.4	1.4	4.2	97.9	18.3	73.5	8.2	0.0
1H-1, 90-92	0.90	2.7	1.1	94.9	3.2	0.8	98.3	32.6	67.4	0.1	0.0
1H-1, 100-102	1.00	1.6	0.0	89.2	6.7	4.1	98.1	18.0	70.2	11.8	0.0
1H-1, 110-112	1.10	2.0	0.0	93.8	4.7	1.5	97.8	17.7	71.2	11.1	0.0
1H-1, 120-122	1.20	2.5	0.0	91.6	5.9	2.5	98.4	20.7	59.4	19.9	0.0
1H-1, 130-132	1.30	2.8	5.1	86.8	5.1	3.1	98.4	24.3	67.0	8.4	0.2
1H-2, 45-47	1.95	3.0	4.2	87.2	4.7	3.9	95.1	ND	ND	ND	ND
1H-2, 70-72	2.70	0.2	0.9	88.4	5.5	5.1	93.4	24.6	65.4	10.0	0.0
1H-2, 123-125	2.73	2.1	13.1	77.7	7.8	1.4	98.1	ND	ND	ND	ND
1H-3, 20-22	3.20	2.8	2.3	89.1	7.8	0.8	97.5	ND	ND	ND	ND
1H-3, 50-52	3.50	2.6	0.0	83.9	12.9	3.1	99.1	21.4	65.8	12.8	0.0
1H-3, 123-125	4.23	4.1	2.0	64.7	23.9	9.4	97.7	ND	ND	ND	ND
1H-4, 30-32	4.80	3.7	5.6	64.9	22.4	7.1	98.6	ND	ND	ND	ND
1H-4, 70-72	5.20	3.3	8.6	55.6	29.6	6.2	ND	ND	ND	ND	ND
1H-4, 123-125	5.73	4.5	2.3	41.0	43.2	13.5	96.6	ND	ND	ND	ND
1H-5, 45-47	6.45	4.5	7.4	36.3	45.2	11.1	ND	ND	ND	ND	ND
2H-1, 45-47	7.25	1.2	6.2	93.3	0.5	0.0	99.0	ND	ND	ND	ND
2H-1, 140-142	8.20	4.2	10.4	37.6	39.7	12.4	ND	ND	ND	ND	ND
2H-2, 45-47	8.75	5.0	4.8	30.1	49.9	15.2	ND	ND	ND	ND	ND
2H-2, 70-72	9.00	5.6	0.0	22.4	57.1	20.5	96.1	20.9	63.2	16.0	0.0
2H-3, 50-52	10.30	4.8	0.0	27.3	69.0	3.7	93.2	18.1	64.6	17.2	0.0
3H-3, 50-52	19.80	4.8	2.7	28.0	57.6	11.7	95.4	24.2	60.1	15.7	0.0
4H-2, 70-72	28.00	4.8	0.7	40.0	31.6	27.7	80.8	20.6	61.7	17.7	0.0
5H-2, 70-72	37.50	4.9	0.5	45.6	35.7	18.2	82.4	33.3	45.9	20.8	0.0
6H-2, 70-72	47.00	6.2	0.0	18.1	52.0	29.9	90.5	16.7	57.3	26.0	0.0
7H-2, 70-72	56.50	4.2	2.7	29.5	62.0	5.8	79.2	23.1	50.4	26.5	0.0
8H-1, 45-47	64.25	4.9	1.4	28.0	55.6	15.0	93.7	28.5	47.5	23.1	0.9
8H-1, 123-125	65.03	4.9	0.0	26.6	62.0	11.4	93.0	25.2	49.7	23.6	1.5
8H-2, 45-47	65.75	4.8	1.5	25.6	60.7	12.1	92.9	30.4	48.0	21.6	0.0
8H-2, 71-73	66.01	4.8	0.0	27.1	64.5	8.4	94.1	26.0	56.2	17.8	0.0
8H-2, 123-125	66.53	4.7	0.8	45.6	42.1	11.5	93.4	28.8	52.7	18.5	0.0
8H-3, 10-12	66.90	4.9	0.0	24.9	60.9	14.2	92.9	27.9	39.6	31.3	1.3
8H-3, 20-22	67.00	5.6	0.4	22.9	58.1	18.6	93.2	27.3	43.5	26.9	2.3
8H-3, 30-32	67.10	5.5	0.0	20.1	63.4	16.4	93.0	34.2	36.9	27.4	1.5
8H-3, 40-42	67.20	5.4	0.0	19.3	65.8	14.9	97.1	37.1	37.3	23.4	2.2
8H-3, 45-47	67.25	5.4	0.0	17.2	65.2	17.6	93.5	29.3	39.6	27.9	3.2
8H-3, 50-52	67.30	3.6	0.0	54.5	40.6	4.8	94.1	27.7	41.3	28.7	2.3
8H-3, 60-62	67.40	4.8	0.0	36.1	44.7	19.2	98.8	31.4	37.9	28.6	2.1
8H-3, 70-72	67.50	4.8	0.0	38.2	47.7	14.1	94.1	29.9	25.3	42.8	1.9
8H-3, 80-82	67.60	3.8	0.0	57.6	38.3	4.1	94.0	25.3	40.4	29.0	5.3
8H-3, 90-92	67.70	4.0	0.0	42.8	54.2	2.9	96.5	20.5	30.1	48.9	0.5
8H-3, 100-102	67.80	5.1	0.4	49.2	32.2	18.2	96.7	19.1	22.2	58.7	0.0
8H-3, 110-112	67.90	4.1	0.0	52.1	36.9	11.0	96.3	23.7	27.7	48.6	0.0
8H-3, 120-122	68.00	5.0	0.0	35.3	45.5	19.2	96.4	20.6	22.1	55.0	2.3
8H-3, 123-125	68.03	4.7	0.2	44.3	41.4	14.1	94.4	23.2	37.7	39.1	0.0
8H-3, 130-132	68.10	5.5	0.6	29.5	37.9	32.0	95.4	26.5	34.2	39.3	0.0
8H-4, 10-12	68.40	6.3	0.3	23.0	45.4	31.3	95.1	16.9	29.4	51.2	2.6
8H-4, 20-22	68.50	5.8	1.8	20.8	45.5	31.9	97.2	24.3	33.4	40.8	1.6
8H-4, 30-32	68.60	6.8	0.0	11.1	50.2	38.7	95.7	25.0	32.5	42.1	0.4
8H-4, 40-42	68.70	6.9	0.0	11.2	52.0	36.8	96.8	21.4	36.1	38.5	4.0
8H-4, 45-47	68.75	6.3	0.0	19.2	48.2	32.6	95.6	20.2	39.6	37.8	2.4
8H-4, 50-52	68.80	5.5	0.4	27.4	37.3	34.8	97.3	19.0	34.1	45.3	1.6
8H-4, 60-62	68.90	6.3	2.0	18.9	46.9	32.3	96.5	ND	ND	ND	ND
8H-4, 70-72	69.00	4.9	0.6	18.2	71.3	10.0	97.3	13.8	41.4	42.8	1.9
8H-4, 80-82	69.10	6.2	0.0	23.2	43.8	33.0	96.6	13.7	35.4	46.5	4.4
8H-4, 90-92	69.20	6.2	0.0	2.8	75.7	21.5	96.9	19.5	34.8	43.4	2.3
8H-4, 100-102	69.30	5.2	0.0	27.3	59.7	13.0	95.6	19.9	42.3	36.7	1.1
8H-4, 110-112	69.40	5.6	5.4	17.6	50.2	27.4	96.8	23.1	41.6	33.8	1.4
8H-4, 120-122	69.50	6.1	0.2	15.9	52.1	31.8	96.4	22.4	45.8	31.1	0.7
8H-4, 123-125	69.53	4.4	0.0	21.4	72.4	6.2	96.6	29.7	39.8	30.1	0.5
8H-4, 130-132	69.60	5.4	0.5	20.0	65.8	13.8	96.7	23.9	37.8	37.4	0.9
8H-4, 140-142	69.70	6.6	0.0	16.4	51.0	32.6	95.8	19.8	36.5	42.8	0.9
8H-5, 45-47	70.25	4.3	1.0	34.0	53.4	11.6	96.2	23.5	43.5	32.1	0.9

**Table T2 (continued).**

Core, section, interval (cm)	Depth (mbsf)	Mean grain size (φ)	Gravel (wt%)	Sand (wt%)	Silt (wt%)	Clay (wt%)	Carbonate (wt%)	Aragonite (%)	HMC (%)	LMC (%)	Dolomite (%)
8H-5, 123-125	71.03	4.6	0.0	26.7	66.9	6.4	93.1	22.8	44.6	30.2	2.4
8H-6, 45-47	71.50	7.9	0.0	1.8	48.8	49.4	94.4	18.7	33.8	44.6	2.9
8H-6, 123-125	72.53	5.2	0.0	34.1	48.4	17.5	95.3	20.8	30.8	44.3	4.1
9H-2, 45-47	75.25	4.6	5.8	45.0	32.7	16.4	96.1	17.8	33.3	44.8	4.1
9H-2, 68-70	75.48	5.2	0.0	28.3	51.2	20.5	96.1	20.0	44.8	33.4	1.8
9H-2, 123-125	76.03	5.7	0.0	36.5	37.0	26.5	93.1	13.6	21.1	65.3	0.0
9H-3, 45-47	76.75	6.3	0.0	20.4	49.3	30.3	95.7	18.4	46.7	33.8	1.0
9H-3, 123-125	77.53	6.3	0.0	20.3	50.2	29.5	94.4	19.8	40.2	35.6	4.4
9H-4, 45-47	78.25	5.4	0.3	30.3	48.5	20.9	94.6	26.2	49.2	23.0	1.6
9H-4, 123-125	79.03	4.5	0.5	41.9	47.2	10.4	93.3	36.2	47.1	13.7	3.0
9H-5, 45-47	79.75	5.6	0.0	41.1	35.8	23.0	93.2	22.9	57.8	18.1	1.2
9H-5, 123-125	80.53	4.8	1.3	51.1	28.5	19.0	93.5	24.1	39.3	35.3	1.2
9H-6, 45-47	81.25	3.8	0.0	31.5	62.0	6.5	92.2	18.0	32.3	48.6	1.1
9H-6, 123-125	82.03	5.5	0.0	30.4	48.7	21.0	92.2	19.7	48.2	29.8	2.3
10H-1, 123-125	84.03	3.8	4.6	27.5	61.3	6.6	96.4	20.6	47.9	30.5	1.1
10H-2, 45-47	84.75	5.5	0.9	28.1	37.8	33.2	96.6	19.1	33.8	44.0	3.1
10H-2, 69-71	84.99	4.8	0.0	17.1	72.8	10.1	96.0	17.3	28.9	51.3	2.4
10H-2, 123-125	85.53	5.0	7.7	51.2	8.9	32.2	96.4	22.9	26.0	49.1	2.0
10H-3, 45-47	86.25	6.3	0.0	45.1	0.6	54.3	95.7	19.2	38.6	39.9	2.3
10H-3, 123-125	87.03	6.7	0.0	20.3	40.6	39.1	96.5	16.0	30.7	52.3	1.0
10H-4, 45-47	87.75	5.6	1.8	38.2	32.4	27.7	97.0	31.0	32.8	34.1	2.1
10H-4, 123-125	88.53	5.3	1.0	28.5	51.9	18.6	94.7	26.6	48.7	24.4	0.4
10H-5, 45-47	89.25	5.5	0.0	35.6	44.1	20.3	93.9	25.3	51.9	21.9	1.0
10H-5, 123-125	90.03	5.9	0.3	28.9	46.1	24.6	95.8	26.8	47.3	25.0	0.9
10H-6, 45-47	90.75	4.3	0.0	45.1	46.5	8.5	95.5	34.0	49.0	16.4	0.6
10H-6, 118-120	91.48	5.5	0.0	34.1	43.8	22.2	95.0	28.1	47.7	23.1	1.0
11H-1, 123-125	93.53	5.1	1.4	36.5	43.2	18.9	95.2	26.2	46.7	22.8	4.3
11H-2, 45-47	94.25	4.9	0.0	49.9	34.6	15.5	94.8	25.0	26.2	46.2	2.7
11H-2, 69-71	94.49	5.0	0.0	1.9	97.3	0.8	95.5	22.2	43.4	31.9	2.4
11H-2, 123-125	95.03	5.0	0.0	45.9	38.7	15.3	94.8	ND	ND	ND	ND
11H-3, 45-47	95.75	4.4	0.0	54.5	32.5	13.0	95.1	24.1	19.9	51.5	4.5
11H-3, 123-125	96.53	5.5	0.2	37.4	40.7	21.6	94.5	24.8	9.4	62.3	3.5
11H-4, 45-47	97.25	5.4	0.0	39.2	38.9	21.9	95.0	20.8	30.6	45.3	3.3
11H-4, 123-125	98.03	4.9	0.0	43.4	37.7	18.9	91.7	20.8	12.0	64.0	3.2
11H-5, 45-47	98.75	4.9	0.0	48.5	33.6	18.0	95.3	20.9	13.4	61.6	4.1
11H-5, 123-125	99.53	5.6	0.0	35.8	40.5	23.8	92.1	16.2	22.3	55.5	6.0
11H-6, 45-47	100.25	5.5	0.0	38.8	37.6	23.6	94.9	15.7	14.8	65.1	4.5
11H-6, 123-125	101.03	5.1	0.0	44.8	37.4	17.7	95.7	20.3	6.6	66.9	6.2
12H-1, 52-54	102.32	5.7	0.4	30.1	45.9	23.5	93.9	10.9	6.7	78.5	3.9
12H-1, 123-125	103.03	6.1	0.0	22.0	49.1	28.9	93.2	11.4	1.7	83.6	3.3
12H-2, 45-47	103.75	6.4	0.4	20.4	47.7	31.5	92.5	7.1	22.0	68.4	2.6
12H-2, 70-72	104.00	5.7	1.0	17.9	54.4	26.8	90.2	ND	ND	ND	ND
12H-2, 123-125	104.53	5.8	0.0	19.4	58.5	22.1	92.5	8.8	3.7	84.4	3.1
12H-3, 45-47	105.25	5.6	0.0	25.2	54.8	20.0	92.5	10.7	13.0	71.8	4.4
12H-3, 123-125	106.03	4.6	0.0	36.1	57.9	6.0	93.4	17.4	27.9	47.7	7.0
12H-4, 45-47	106.75	5.5	0.0	38.0	39.0	23.0	92.0	25.2	20.1	53.7	1.0
12H-4, 123-125	107.53	5.6	0.0	23.0	52.7	24.4	95.6	17.0	18.3	57.3	7.4
12H-5, 45-47	108.25	4.8	0.0	24.8	68.5	6.7	92.9	19.4	24.4	51.6	4.6
12H-5, 123-125	109.03	4.8	0.0	25.4	69.0	5.6	97.2	19.5	23.8	49.6	7.1
12H-6, 45-47	109.75	5.8	0.0	30.9	45.4	23.7	93.4	10.9	3.2	83.4	2.4
12H-6, 123-125	110.53	5.4	0.0	21.6	58.5	19.9	95.4	15.1	35.3	49.6	0.0
13H-1, 45-47	111.75	5.1	0.0	15.3	73.7	11.0	95.7	15.8	19.9	60.1	4.2
13H-1, 123-125	112.53	6.2	0.0	17.4	53.9	28.7	97.6	14.1	6.6	73.7	5.5
13H-2, 45-47	113.25	6.3	0.3	15.7	55.8	28.2	96.5	ND	ND	ND	ND
13H-2, 70-72	113.50	4.6	0.0	22.7	74.1	3.2	91.1	ND	ND	ND	ND
13H-2, 123-125	114.03	5.3	0.6	24.6	58.7	16.2	95.4	ND	ND	ND	ND
13H-3, 45-47	114.75	5.1	0.0	25.2	61.3	13.5	94.4	ND	ND	ND	ND
13H-3, 123-125	115.53	5.2	0.2	31.8	50.1	17.9	95.8	16.0	35.0	47.5	1.4
13H-4, 45-47	116.25	4.9	0.0	27.5	60.8	11.7	94.5	22.8	44.5	32.7	0.0
13H-4, 123-125	117.03	5.1	0.0	22.2	66.9	10.8	93.4	22.1	50.8	27.1	0.0
13H-5, 45-47	117.75	5.0	0.0	27.6	63.3	9.1	93.3	24.5	49.7	23.9	1.9
13H-5, 81-83	118.11	5.1	2.2	25.6	58.2	13.9	94.6	29.6	43.0	25.3	2.1
13H-5, 123-125	118.53	ND	ND	ND	ND	ND	ND	23.4	41.4	30.3	4.9
13H-6, 45-47	119.25	4.0	0.0	49.3	41.5	9.2	92.8	23.4	41.4	30.3	4.9
13H-6, 123-125	120.03	4.7	0.0	49.2	40.4	10.4	96.0	21.7	4.7	68.5	5.1
14H-1, 45-47	121.25	3.4	0.0	46.0	43.4	10.6	96.2	18.3	16.7	58.2	6.8
14H-1, 123-125	122.03	4.7	1.2	33.3	58.0	7.5	95.3	15.1	10.6	68.4	5.9
14H-2, 45-47	122.75	4.7	0.0	39.2	50.4	10.4	95.0	16.5	29.6	47.6	6.2
14H-2, 70-72	123.00	4.9	0.0	28.2	47.6	14.1	95.6	18.0	25.6	51.7	4.7

**Table T2 (continued).**

Core, section, interval (cm)	Depth (mbsf)	Mean grain size ( $\phi$ )	Gravel (wt%)	Sand (wt%)	Silt (wt%)	Clay (wt%)	Carbonate (wt%)	Aragonite (%)	HMC (%)	LMC (%)	Dolomite (%)
14H-2, 123-125	123.53	4.4	0.0	42.9	39.6	17.5	90.2	17.8	15.9	62.7	3.7
14H-3, 45-47	124.25	4.8	0.0	36.9	52.7	10.3	94.6	18.3	10.8	67.0	3.9
14H-3, 123-125	125.03	5.0	0.4	31.1	57.8	10.7	97.5	21.8	12.5	59.0	6.7
14H-4, 45-47	125.75	6.1	0.0	12.8	62.8	24.4	94.7	25.6	25.7	43.2	5.5
14H-4, 123-125	126.53	6.2	0.0	15.2	58.7	26.1	94.8	23.3	27.1	45.2	4.3
14H-5, 45-47	127.25	6.2	0.0	13.7	59.3	27.0	96.1	22.0	27.2	45.0	5.8
14H-5, 123-125	128.03	5.6	0.0	25.9	55.9	18.1	94.4	23.1	38.3	34.3	4.3
14H-6, 45-47	128.75	4.5	0.0	37.8	51.6	10.6	93.5	20.3	39.7	39.0	1.0
14H-6, 123-125	129.53	5.4	0.0	25.3	60.5	14.2	96.6	19.3	5.9	73.5	1.3
15H-1, 45-47	130.75	5.1	0.0	30.1	57.3	12.6	95.1	17.2	22.3	59.1	1.4
15H-1, 123-125	131.53	2.6	13.4	44.9	33.6	8.0	95.5	34.7	41.6	23.1	0.6
15H-2, 45-47	132.25	4.8	0.0	40.1	52.1	7.9	92.8	21.1	9.8	64.6	4.5
15H-2, 69-71	132.49	4.9	0.0	36.4	46.0	17.7	95.3	19.4	13.8	63.0	3.8
15H-2, 123-125	133.03	5.0	0.0	43.2	38.8	18.0	91.2	19.6	4.5	68.8	7.0
15H-3, 45-47	133.75	4.9	0.0	30.2	59.3	10.4	95.8	17.9	4.2	72.7	5.2
15H-3, 123-125	134.53	4.4	0.7	26.8	67.3	5.2	91.5	16.2	18.6	58.3	6.9
15H-4, 45-47	135.25	4.9	0.4	26.8	62.9	9.8	97.3	19.4	14.1	52.3	14.2
15H-4, 123-125	136.03	5.0	0.4	24.3	64.9	10.5	96.1	20.3	15.5	57.9	6.4
15H-5, 45-47	136.75	4.9	0.0	24.6	66.1	9.3	95.5	30.3	43.0	24.1	2.6
15H-5, 123-125	137.53	4.6	0.6	23.8	71.4	4.3	95.5	11.6	15.0	62.8	10.6
15H-6, 40-42	138.20	4.8	0.0	19.1	75.6	5.2	96.1	13.8	12.6	69.9	3.6
15H-6, 45-47	138.25	4.5	0.0	23.4	68.1	8.4	90.8	9.2	3.8	83.4	3.6
15H-6, 116-118	138.96	4.9	0.0	19.0	75.5	5.5	95.1	14.7	9.0	71.0	5.3
16H-1, 45-47	140.25	4.9	0.4	16.5	75.8	7.3	93.7	10.4	6.5	79.3	3.8
16H-1, 123-125	141.03	7.6	0.4	36.6	55.7	7.2	94.5	12.5	5.6	71.7	10.2
16H-2, 45-47	141.75	4.3	0.0	35.7	58.4	5.9	97.3	ND	ND	ND	ND
16H-2, 70-72	142.00	4.5	0.0	40.4	54.2	5.4	94.6	10.0	2.6	77.8	9.6
16H-2, 123-125	142.53	4.8	0.0	26.9	56.3	16.8	89.1	10.7	9.2	71.7	8.5
16H-3, 45-47	143.25	4.1	0.6	37.0	57.5	5.0	94.6	13.8	3.2	75.7	7.3
16H-3, 50-52	143.30	4.4	0.5	34.1	61.8	3.6	94.9	16.6	8.4	71.4	3.5
16H-3, 123-125	144.03	4.6	0.0	32.5	60.2	7.3	80.8	18.7	8.2	70.5	2.7
16H-4, 45-47	144.75	4.6	0.0	31.4	63.5	5.1	93.8	21.7	19.4	46.1	12.7
16H-4, 123-125	145.53	4.5	0.5	37.2	57.2	5.1	94.0	22.8	23.0	49.8	4.3
16H-5, 45-47	146.25	5.0	0.3	36.2	52.2	11.3	95.1	18.1	17.7	58.5	5.7
16H-5, 123-125	147.03	4.6	0.0	31.1	62.1	6.8	93.5	21.8	27.1	47.6	3.5
16H-6, 45-47	147.75	4.9	0.0	29.5	62.8	7.7	93.3	21.7	20.3	47.5	10.6
16H-6, 123-125	148.53	4.4	2.6	41.2	50.1	6.1	95.5	11.6	10.5	75.5	2.3
17H-1, 45-47	149.75	4.9	1.5	30.2	53.4	14.9	96.2	16.8	14.5	66.0	2.7
17H-1, 84-86	150.14	4.6	0.0	34.4	58.9	6.6	94.5	25.3	34.1	36.3	4.3
17H-2, 45-47	150.75	5.1	0.3	44.9	40.3	14.6	96.2	16.9	13.2	67.8	2.0
17H-2, 70-72	151.00	3.8	0.9	49.5	41.6	7.9	96.2	22.0	27.5	43.5	6.9
17H-2, 80-82	151.10	4.7	0.0	36.4	50.0	13.5	94.6	20.9	25.1	49.3	4.7
17H-2, 90-92	151.20	4.2	0.0	38.5	47.1	14.5	93.8	24.4	18.7	50.5	6.5
17H-2, 100-102	151.30	4.9	0.0	36.2	49.9	13.9	94.2	22.0	22.7	49.4	6.0
17H-2, 110-112	151.40	5.6	0.0	29.8	45.5	24.7	95.5	13.4	11.1	74.1	1.4
17H-2, 120-122	151.50	6.7	0.0	16.8	46.0	37.1	95.3	9.2	6.8	84.0	0.0
17H-2, 130-132	151.60	6.5	0.0	20.5	47.6	31.9	95.9	9.4	8.5	82.1	0.0
17H-2, 140-142	151.70	4.3	0.6	31.0	66.4	1.9	96.6	13.5	11.6	73.2	1.7
17H-3, 10-12	151.90	5.1	0.6	29.2	52.0	18.2	94.0	12.6	13.1	72.2	2.1
17H-3, 20-22	152.00	5.8	0.0	31.7	46.4	21.8	95.0	9.1	8.5	81.0	1.4
17H-3, 30-32	152.10	5.7	0.2	28.2	46.1	25.6	94.0	11.9	10.4	75.8	2.0
17H-3, 40-42	152.20	6.4	0.0	22.0	47.0	30.9	95.2	4.7	25.5	68.3	1.5
17H-3, 50-52	152.30	6.5	0.0	12.7	57.2	30.1	94.7	13.4	13.5	70.6	2.5
17H-3, 60-62	152.40	6.6	0.0	10.7	59.0	30.4	93.9	9.2	24.6	64.6	1.6
17H-3, 70-72	152.50	4.6	0.0	26.4	68.3	5.4	93.7	12.4	10.0	77.6	0.0
17H-3, 80-82	152.60	4.7	0.0	28.7	62.0	9.2	92.8	10.4	8.3	81.3	0.0
17H-3, 90-92	152.70	5.4	0.5	16.1	68.7	14.8	92.2	12.4	15.9	69.5	2.2
17H-3, 100-102	152.80	4.6	0.0	22.2	73.7	4.0	91.2	12.9	10.5	74.1	2.5
17H-3, 110-112	152.90	4.2	0.2	40.4	55.5	3.8	89.3	10.1	34.4	54.2	1.4
17H-3, 120-122	153.00	4.3	0.0	43.3	52.0	4.7	92.2	12.1	11.8	74.8	1.3
17H-3, 130-132	153.10	5.3	0.0	20.6	58.6	20.8	93.2	9.8	10.6	79.5	0.0
17H-4, 10-12	153.40	6.2	0.0	11.5	62.4	26.1	94.9	9.2	5.3	85.5	0.0
17H-4, 20-22	153.50	6.0	0.0	6.4	73.8	19.8	93.5	ND	ND	ND	ND
17H-4, 30-32	153.60	5.0	0.0	18.9	70.1	11.0	93.4	8.5	7.4	84.1	0.0
17H-4, 40-42	153.70	5.0	0.0	11.5	83.8	4.7	94.8	8.4	13.6	78.1	0.0
17H-4, 50-52	153.80	6.0	0.0	14.5	62.0	23.5	94.8	7.7	17.0	75.4	0.0
17H-4, 60-62	153.90	6.2	0.0	10.4	61.8	27.9	93.0	7.6	8.3	84.1	0.0
17H-4, 70-72	154.00	5.1	0.0	26.3	58.3	15.4	94.6	5.3	8.0	85.0	1.7
17H-4, 80-82	154.10	5.5	0.0	11.7	74.2	14.1	95.1	0.0	2.6	94.9	2.4

**Table T2 (continued).**

Core, section, interval (cm)	Depth (mbsf)	Mean grain size ( $\phi$ )	Gravel (wt%)	Sand (wt%)	Silt (wt%)	Clay (wt%)	Carbonate (wt%)	Aragonite (%)	HMC (%)	LMC (%)	Dolomite (%)
17H-4, 90-92	154.20	6.1	0.0	23.6	48.4	28.0	94.9	ND	ND	ND	ND
17H-4, 100-102	154.30	6.2	0.9	20.7	49.0	29.4	94.9	6.0	2.9	88.6	2.4
17H-4, 110-112	154.40	5.6	0.0	30.2	46.4	23.3	94.0	7.6	2.3	86.5	3.7
17H-4, 120-122	154.50	6.4	0.3	10.9	60.5	28.4	94.1	ND	ND	ND	ND
17H-4, 130-132	154.60	5.7	0.4	12.1	69.5	18.0	90.3	ND	ND	ND	ND
17H-4, 140-142	154.70	4.0	2.1	43.6	45.4	8.8	91.0	ND	ND	ND	ND
17H-5, 10-12	154.90	5.4	0.0	22.7	58.3	19.0	91.4	20.0	10.0	64.2	5.8
17H-5, 45-47	155.25	6.1	0.0	20.0	55.6	24.4	94.8	19.8	9.5	64.2	6.5
17H-5, 123-125	156.03	4.3	0.0	26.8	63.1	10.1	94.7	21.4	9.1	62.1	7.4
17H-6, 45-47	156.75	4.2	0.0	26.2	70.0	3.8	89.0	21.3	33.7	40.4	4.6
17H-6, 123-125	157.53	4.2	0.0	30.1	61.6	8.3	93.7	18.3	45.1	29.6	7.1
17H-6, 140-142	157.70	4.5	0.0	31.8	65.9	2.3	93.9	17.2	22.4	50.7	9.7
18H-1, 45-47	159.25	5.3	0.0	34.5	48.0	17.5	93.0	16.2	12.4	63.2	8.3
18H-1, 123-125	160.03	5.1	0.0	22.8	68.2	9.1	88.3	12.9	4.2	74.5	8.4
18H-2, 45-47	160.75	3.8	0.0	32.1	60.9	7.0	86.8	13.7	2.3	75.2	8.8
18H-2, 70-72	161.00	5.0	0.0	27.5	62.9	9.6	91.7	5.4	0.0	91.9	2.7
18H-2, 123-125	161.53	5.6	0.0	14.1	71.0	14.9	87.8	0.0	0.0	100.0	0.0
18H-3, 45-47	162.25	5.2	0.0	15.6	75.1	9.3	90.4	0.0	0.0	100.0	0.0
18H-3, 123-125	163.03	5.0	0.0	25.9	65.2	8.8	88.3	8.3	0.7	87.8	3.2
18H-4, 45-47	163.75	5.7	0.0	15.8	66.1	18.1	92.4	22.6	8.1	64.0	5.3
18H-4, 123-125	164.53	4.6	0.0	36.5	54.3	9.1	91.7	ND	ND	ND	ND
18H-5, 45-47	165.25	4.6	0.0	30.3	62.9	6.8	94.3	7.7	1.4	89.5	1.5
18H-5, 123-125	166.03	4.9	0.0	24.9	68.8	6.4	93.7	ND	ND	ND	ND
18H-6, 45-47	166.75	5.2	0.0	23.0	66.5	10.5	92.1	ND	ND	ND	ND
18H-6, 123-125	167.53	4.1	0.0	41.4	53.7	4.9	91.7	13.4	8.6	74.2	3.8
19X-1, 45-47	168.75	5.7	0.0	21.5	58.1	20.3	93.7	ND	ND	ND	ND
19X-1, 123-125	169.53	5.5	0.0	15.7	70.3	14.0	93.9	ND	ND	ND	ND
19X-2, 45-47	170.25	5.0	0.0	24.6	67.9	7.5	93.0	14.2	3.2	76.8	5.8
19X-2, 72-75	170.52	5.4	0.0	11.9	77.5	10.7	93.1	17.4	4.0	74.2	4.3
19X-2, 123-125	171.03	4.3	0.0	28.6	61.0	10.4	90.6	ND	ND	ND	ND
21X-1, 45-47	182.25	4.8	0.0	17.4	76.7	5.9	91.1	17.2	5.4	74.9	2.5
21X-1, 123-125	183.03	5.0	1.5	25.4	62.2	10.9	94.0	6.5	0.2	89.3	4.0
21X-2, 45-47	183.75	5.2	0.0	21.6	66.7	11.7	94.2	3.4	0.0	96.6	0.0
21X-2, 70-72	184.00	5.0	0.0	17.0	74.8	8.3	ND	0.0	0.0	100.0	0.0
21X-2, 102-104	184.32	5.1	0.0	21.8	67.2	11.0	90.8	ND	ND	ND	ND
21X-2, 123-125	184.53	5.1	0.0	14.5	73.3	12.2	92.5	ND	ND	ND	ND
21X-3, 45-47	185.25	5.4	0.0	7.2	83.4	9.4	93.3	11.1	2.1	82.6	4.2
21X-3, 123-125	186.03	5.1	0.0	13.1	79.9	7.0	94.7	16.0	2.8	76.9	4.3
21X-4, 45-47	186.75	4.7	0.0	35.5	54.9	9.6	93.9	6.4	1.4	89.7	2.5
21X-4, 82-84	187.12	5.0	0.0	12.6	82.1	5.3	95.2	ND	ND	ND	ND
21X-4, 123-125	187.53	4.5	0.0	25.1	63.7	11.2	90.5	ND	ND	ND	ND
21X-5, 45-47	188.25	5.0	0.0	18.1	73.1	8.8	93.3	2.2	0.7	97.1	0.0
22X-1, 45-47	191.75	5.6	0.0	2.8	85.2	12.0	83.2	25.4	23.3	48.8	2.5
22X-1, 86-88	192.16	5.2	0.0	10.9	83.0	8.9	92.0	0.0	0.0	100.0	0.0
22X-1, 123-125	192.53	5.1	0.0	10.7	81.0	8.3	90.6	0.0	0.0	100.0	0.0
22X-2, 45-47	193.25	5.4	0.0	6.8	83.5	9.6	92.9	6.8	0.0	93.2	0.0
22X-2, 70-72	193.50	5.6	0.0	5.2	81.6	13.2	94.0	13.0	9.2	75.7	2.1
22X-2, 123-125	194.03	5.3	0.0	8.5	80.8	10.7	92.0	15.4	3.8	76.3	4.5
22X-3, 45-47	194.75	4.7	0.0	6.7	92.4	0.9	93.0	23.7	19.6	56.0	0.7
22X-3, 90-92	195.20	4.8	0.0	32.0	60.7	7.4	94.9	ND	ND	ND	ND
22X-3, 123-125	195.53	6.1	0.0	12.2	63.1	24.7	83.2	ND	ND	ND	ND
22X-4, 45-47	196.25	5.2	0.0	20.7	67.1	12.2	93.3	0.0	0.0	100.0	0.0
22X-4, 123-125	197.03	4.9	0.0	10.7	83.1	6.2	94.8	0.0	1.4	95.7	2.9
22X-5, 45-47	197.75	5.4	0.0	15.1	71.4	13.4	95.2	0.0	0.4	99.6	0.0
22X-6, 45-47	198.75	5.0	1.9	22.3	65.5	10.3	94.8	0.0	0.8	99.2	0.0
23X-2, 70-72	202.90	5.2	0.0	15.3	74.6	10.1	92.3	14.9	23.2	58.6	3.4
24X-2, 70-72	212.30	5.3	0.0	10.6	79.5	9.9	86.3	0.0	0.0	96.6	3.4
25X-2, 70-72	221.70	5.5	0.0	12.0	71.8	16.2	93.4	8.2	0.0	83.7	8.1
26X-2, 70-72	231.10	5.3	0.0	23.8	62.8	13.4	89.4	10.9	0.0	83.5	5.6
27X-2, 70-72	240.70	5.0	0.0	10.5	81.6	7.9	87.9	0.0	0.0	95.1	4.9
28X-2, 70-72	250.10	4.4	0.6	16.5	78.8	4.1	89.5	0.0	0.6	99.4	0.0

Note: ND = no data, HMC = high-magnesium calcite, LMC = low-magnesium calcite.