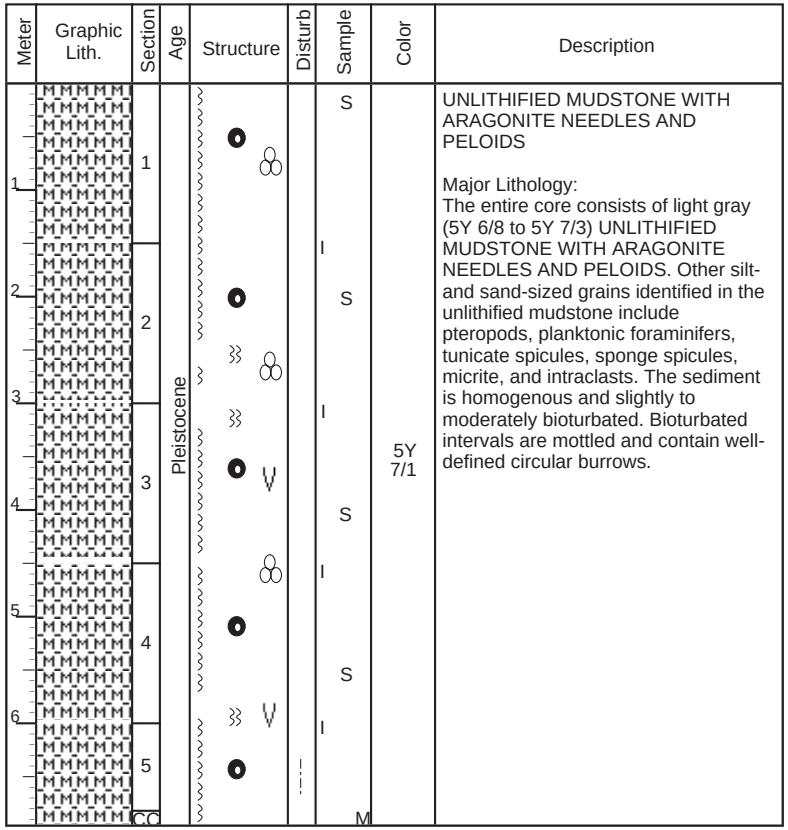
SITE 1003 HOLE A CORE 1H CORED 0.0 - 7.0 mbsf



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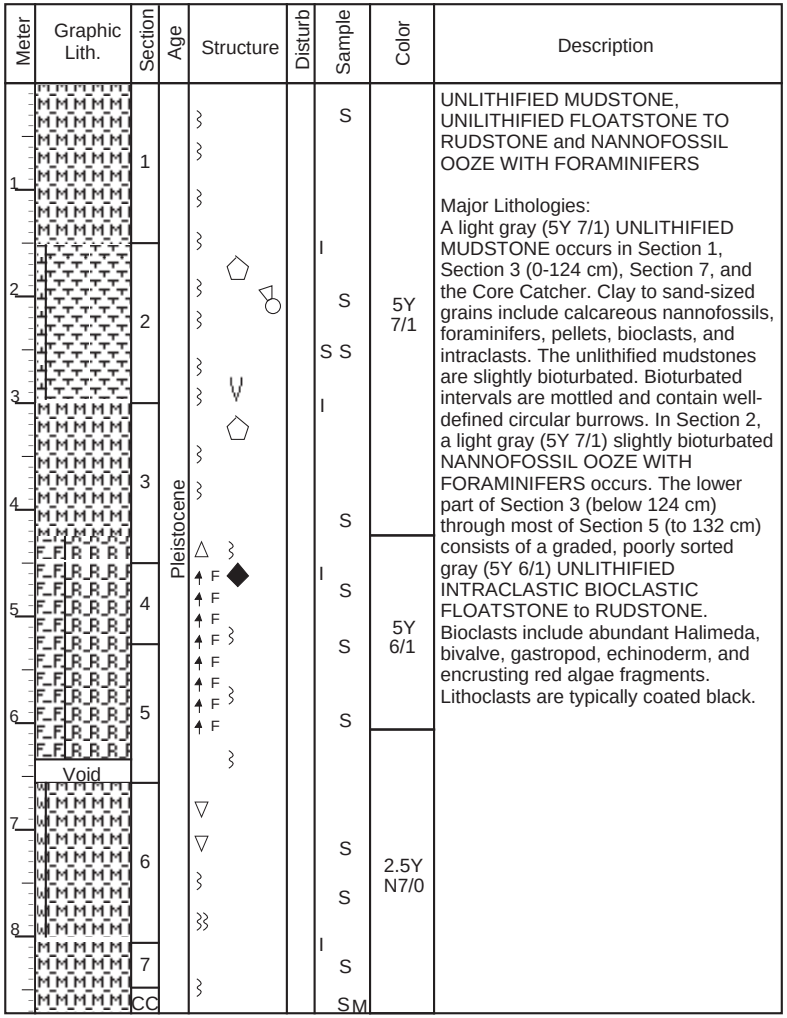
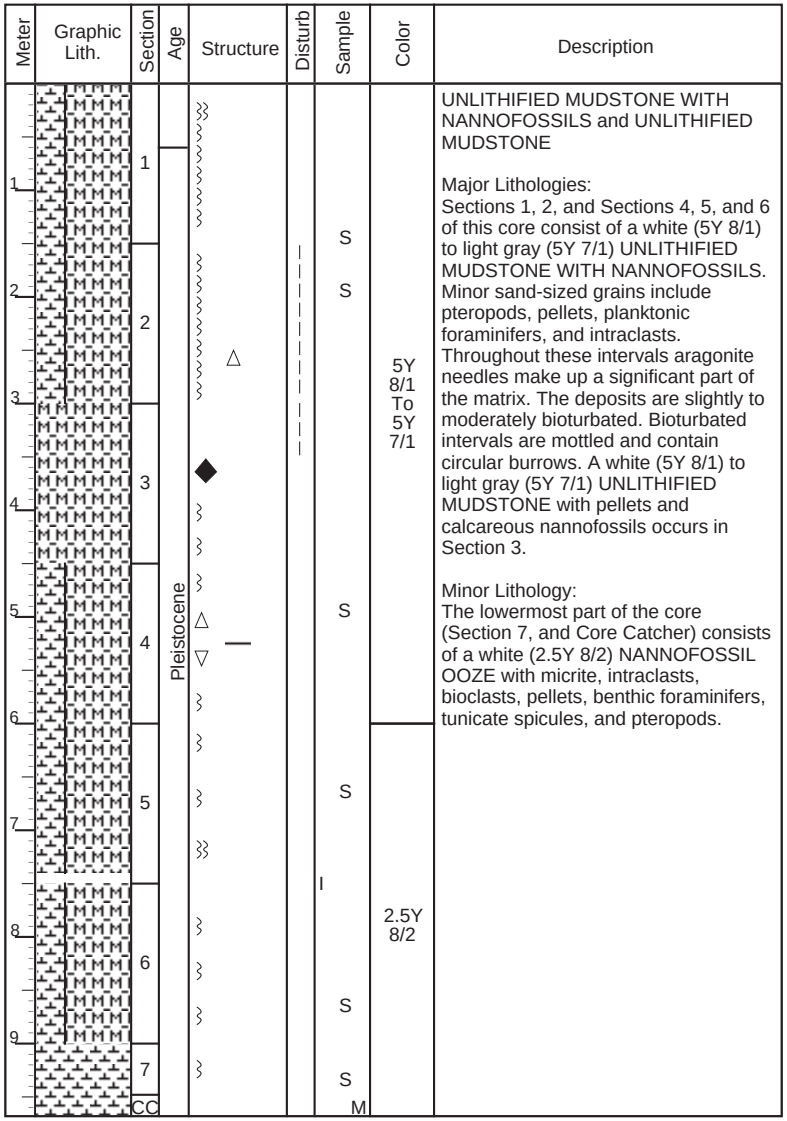
SITE 1003 HOLE A CORE 2H CORED 7.0 - 16.5 mbsf



SITE 1003 HOLE A CORE 3H CORED 16.5 - 26.0 mbsf



UNLITHIFIED MUDSTONE WITH NANNOFOSSILS and UNLITHIFIED MUDSTONE

Major Lithologies:
Sections 1, 2, and Sections 4, 5, and 6 of this core consist of a white (5Y 8/1) to light gray (5Y 7/1) UNLITHIFIED MUDSTONE WITH NANNOFOSSILS. Minor sand-sized grains include pteropods, pellets, planktonic foraminifers, and intraclasts. Throughout these intervals aragonite needles make up a significant part of the matrix. The deposits are slightly to moderately bioturbated. Bioturbated intervals are mottled and contain circular burrows. A white (5Y 8/1) to light gray (5Y 7/1) UNLITHIFIED MUDSTONE with pellets and calcareous nannofossils occurs in Section 3.

Minor Lithology:
The lowermost part of the core (Section 7, and Core Catcher) consists of a white (2.5Y 8/2) NANNOFOSSIL OOZE with micrite, intraclasts, bioclasts, pellets, benthic foraminifers, tunicate spicules, and pteropods.

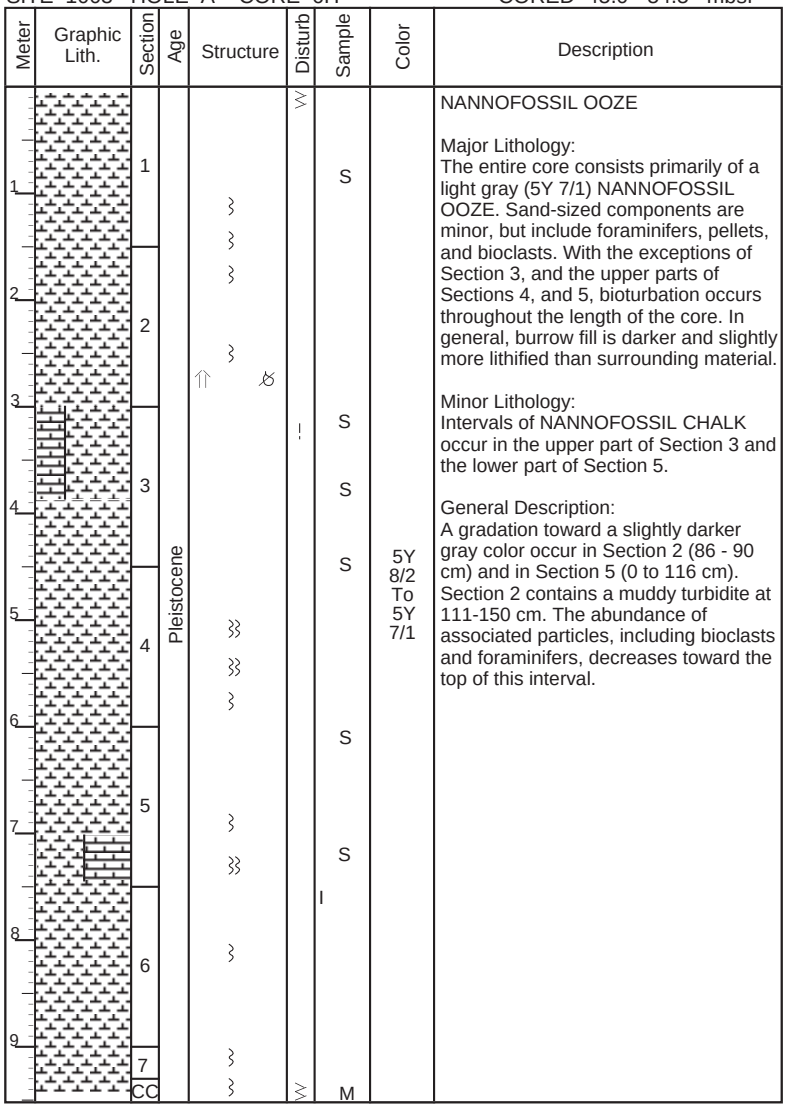
SITE 1003 HOLE A CORE 4H CORED 26.0 - 35.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	Pleistocene			S	5Y 8/1	NANNOFOSSIL OOZE, WACKESTONE, and PARTIALLY LITHIFIED WACKESTONE Major Lithologies: Section 1 consists of a white (5Y 8/1) NANNOFOSSIL OOZE TO NANNOFOSSIL CHALK. In the lower part of this Section, a 37 cm thick graded interval containing lithoclasts and shell fragments occurs. The remainder of the core (Sections 2 and 3) consists of a PARTIALLY LITHIFIED TO LITHIFIED PELOIDAL WACKESTONE with intraclasts, bioclasts, and peloids. In general, partially lithified areas are olive (5Y 5/6), while lithified areas are pale yellow (2.5Y 7/4).
2		2					2.5Y N7/0 To 5Y 6/1	
3		3				I S M		

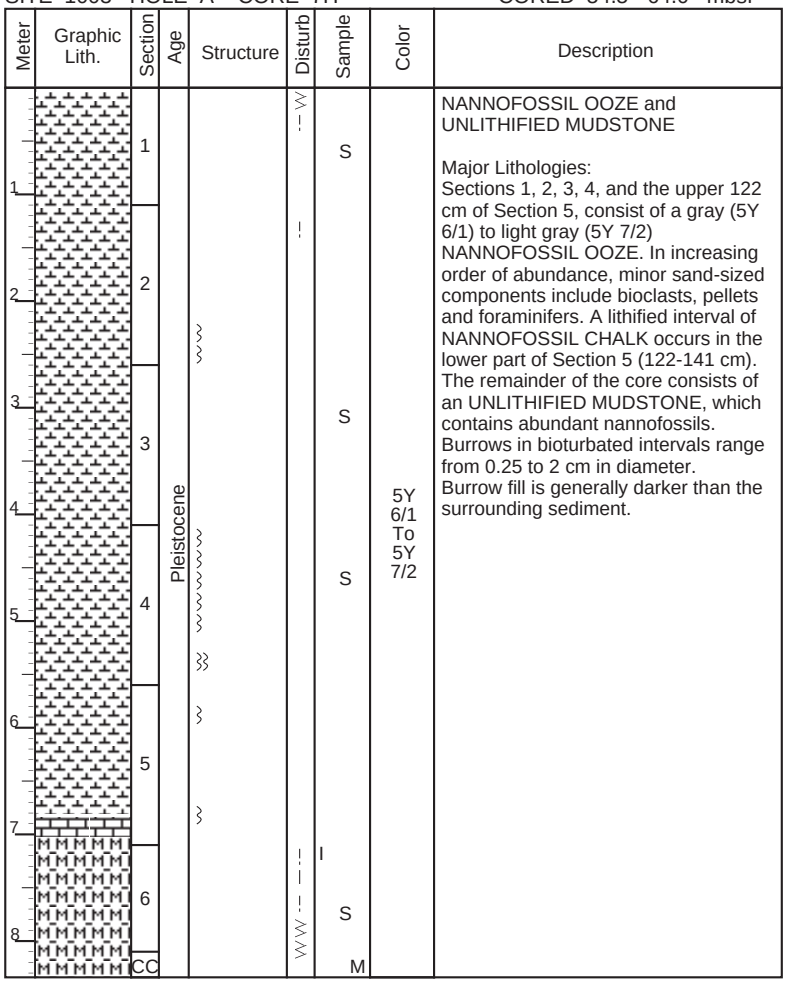
SITE 1003 HOLE A CORE 5H CORED 35.5 - 45.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	Pleistocene			S	5Y 7/2	UNLITHIFIED TO PARTIALLY LITHIFIED WACKESTONE, UNLITHIFIED WACKESTONE and UNLITHIFIED MUDSTONE Major Lithologies: Sections 1, 2, and the upper 40 cm of Section 3 consist of a light gray (5Y 7/2) UNLITHIFIED TO PARTIALLY LITHIFIED FORAMINIFER PELOIDAL WACKESTONE. In general, partially lithified intervals are thinner than unlithified intervals, and variability in firmness is irregular. The lower 65 cm of Section 3, and Sections 4, and 5 consist of a light gray (5Y 7/2) to a white (5Y 8/2) UNLITHIFIED BIOCLASTIC FORAMINIFER PELOIDAL WACKESTONE. The remainder of the core, including Sections 6, 7, and the Core Catcher, consists of a white (5Y 8/2) UNLITHIFIED MUDSTONE. Minor Lithologies: In Section 4, sediment color grades gradually from light gray to white toward the bottom of the Section. Section 5 contains a turbidite at 95 - 104 cm. Coarse material associated with this turbidite includes Halimeda fragments. Sediments are slightly to moderately bioturbated below 65 cm in Section 3. Burrows are approximately 1 cm in diameter. Burrow fill is generally coarser and darker gray than the surrounding sediment. Throughout Core 5, nannofossils are present in matrix material.
2		2				S		
3		3				S P		
4						S		
5		4				S		
6						S		
7		5				S		
8		6			I		5Y 8/2	
9		7						
10		CC				M		

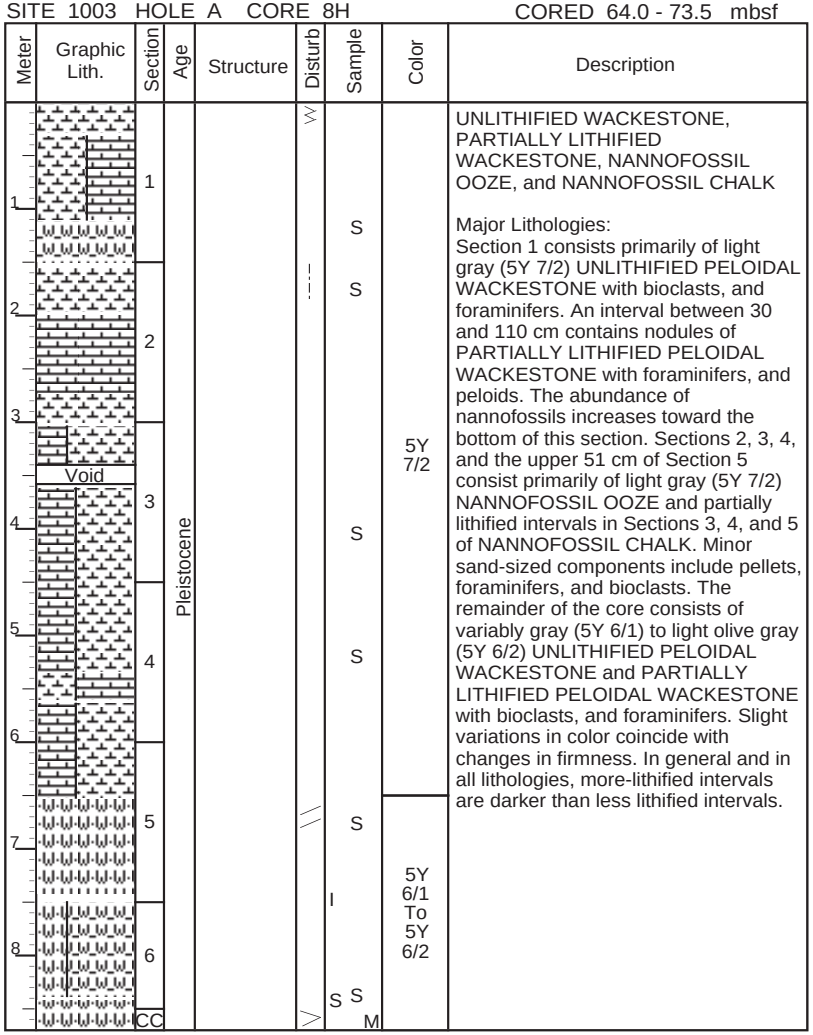
SITE 1003 HOLE A CORE 6H CORED 45.0 - 54.5 mbsf



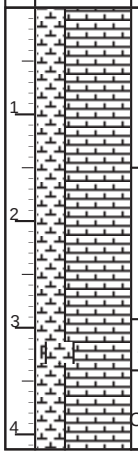
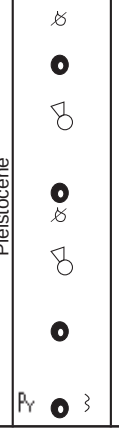
SITE 1003 HOLE A CORE 7H CORED 54.5 - 64.0 mbsf



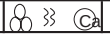
SITE 1003 HOLE A CORE 8H CORED 64.0 - 73.5 mbsf



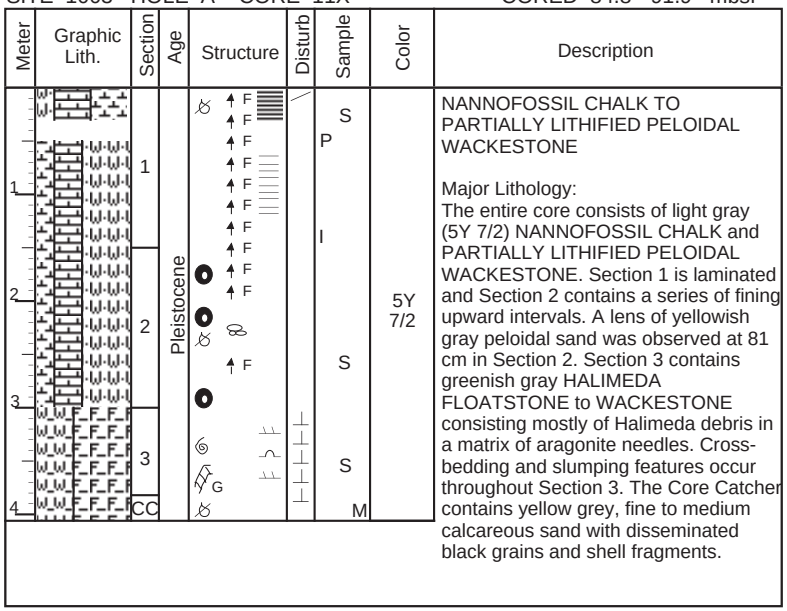
SITE 1003 HOLE A CORE 9H CORED 73.5 - 77.7 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 2 3 4		1 2 3 CC	Pleistocene			S I S S M	5Y 6/2	NANNOFOSSIL CHALK WITH PELOIDS Major Lithology: The entire core consists of light olive gray (5Y 6/2) NANNOFOSSIL CHALK WITH PELOIDS. Some shell fragments (bivalves) are observed throughout. Matrix consists of 5 to 10 % aragonite needles. Minor Lithologies: A thin PELOIDAL PACKSTONE layer occurs at 23cm in Section 3. Some burows are filled with pyritized lithoclasts at 25 cm in the Core Catcher.

SITE 1003 HOLE A CORE 10X CORED 77.7 - 84.8 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		CC				M S S		NANNOFOSSIL CHALK TO NANNOFOSSIL OOZE Major Lithology: The entire core consists of gray (5Y 6/1) NANNOFOSSIL CHALK and NANNOFOSSIL OOZE. Fine sand and mud from 0 to 8 cm contains lithified intraclasts. The interval from 8 to 24 cm is mottled and contains calcareous nodules with foraminifers.

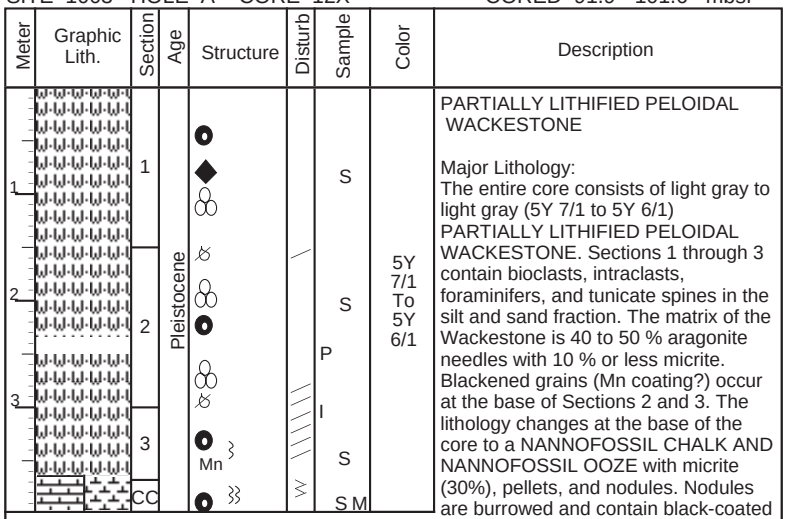
SITE 1003 HOLE A CORE 11X CORED 84.8 - 91.9 mbsf



NANNOFOSSIL CHALK TO PARTIALLY LITHIFIED PELOIDAL WACKESTONE

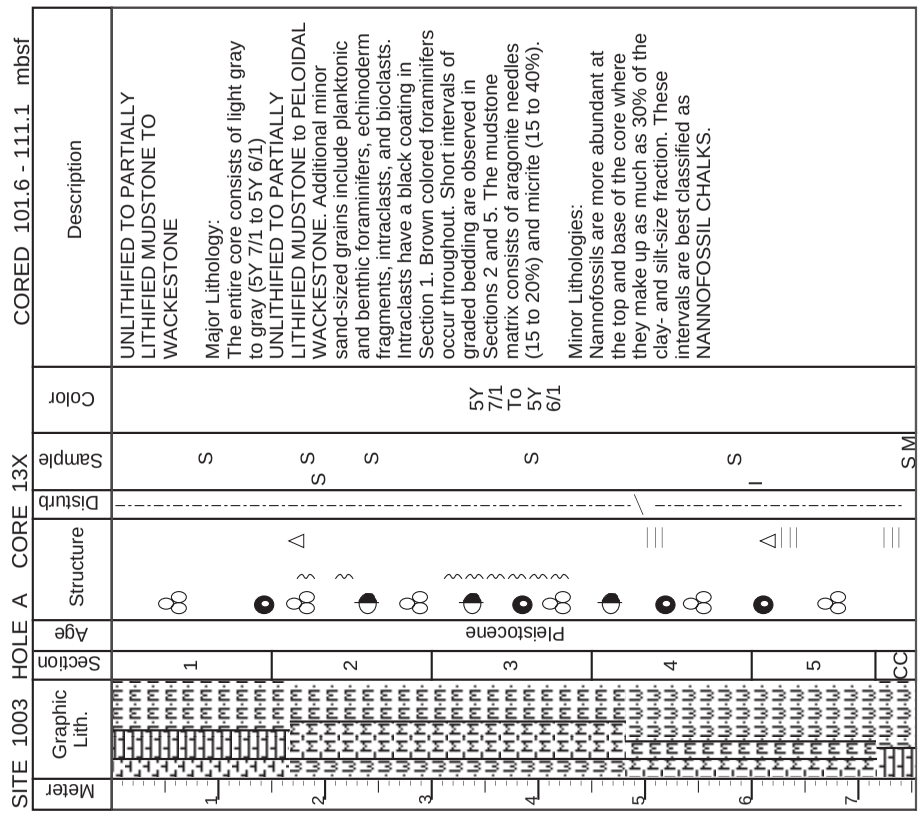
Major Lithology:
The entire core consists of light gray (5Y 7/2) NANNOFOSSIL CHALK and PARTIALLY LITHIFIED PELOIDAL WACKESTONE. Section 1 is laminated and Section 2 contains a series of fining upward intervals. A lens of yellowish gray peloidal sand was observed at 81 cm in Section 2. Section 3 contains greenish gray HALIMEDA FLOATSTONE to WACKESTONE consisting mostly of Halimeda debris in a matrix of aragonite needles. Cross-bedding and slumping features occur throughout Section 3. The Core Catcher contains yellow grey, fine to medium calcareous sand with disseminated black grains and shell fragments.

SITE 1003 HOLE A CORE 12X CORED 91.9 - 101.6 mbsf



PARTIALLY LITHIFIED PELOIDAL WACKESTONE

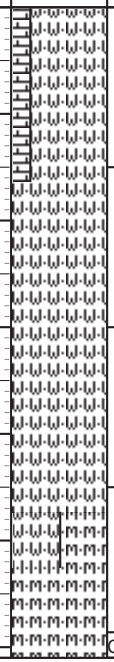
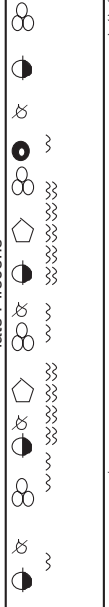
Major Lithology:
The entire core consists of light gray to light gray (5Y 7/1 to 5Y 6/1) PARTIALLY LITHIFIED PELOIDAL WACKESTONE. Sections 1 through 3 contain bioclasts, intraclasts, foraminifers, and tunicate spines in the silt and sand fraction. The matrix of the Wackestone is 40 to 50 % aragonite needles with 10 % or less micrite. Blackened grains (Mn coating?) occur at the base of Sections 2 and 3. The lithology changes at the base of the core to a NANNOFOSSIL CHALK AND NANNOFOSSIL OOZE with micrite (30%), pellets, and nodules. Nodules are burrowed and contain black-coated lithoclasts.


SITE 1003 HOLE A CORE 13X CORED 101.6 - 111.1 mbsf
Meter
Graphic Lith.
Section
Age
Structure
Disturb
Sample
Color
Description
1
2
3
4
5
6
7
CC
Pleistocene
S
S
S
S
S
S
S M
5Y 7/1 To 5Y 6/1
UNLITHIFIED TO PARTIALLY LITHIFIED MUDSTONE TO WACKESTONE
Major Lithology:
The entire core consists of light gray to gray (5Y 7/1 to 5Y 6/1) UNLITHIFIED TO PARTIALLY LITHIFIED MUDSTONE to PELOIDAL WACKESTONE. Additional minor sand-sized grains include planktonic and benthic foraminifers, echinoderm fragments, intraclasts, and bioclasts. Intraclasts have a black coating in Section 1. Brown colored foraminifers occur throughout. Short intervals of graded bedding are observed in Sections 2 and 5. The mudstone matrix consists of aragonite needles (15 to 20%) and micrite (15 to 40%).
Minor Lithologies:
Nannofossils are more abundant at the top and base of the core where they make up as much as 30% of the clay- and silt-size fraction. These intervals are best classified as NANNOFOSSIL CHALKS.

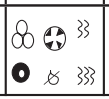
SITE 1003 HOLE A CORE 14X CORED 111.1 - 120.7 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	late Pliocene			S	5Y 6/1 To 5Y 7/1	PARTIALLY LITHIFIED WACKESTONE TO MUDSTONE Major Lithology: The entire core consists of gray to light gray (5Y 6/1 to 5Y 7/1) PARTIALLY LITHIFIED BIOCLASTIC FORAMINIFER WACKESTONE TO MUDSTONE. Other minor sand-sized grains include pteropod casts, benthic foraminifers, echinoid fragments, tunicate spicules, and intraclasts. Most grains are cemented and/or overgrown. The matrix ranges from 25 to 65% micrite. Nannofossils are relatively abundant ranging from 20 to 30% of the clay- to silt-size fraction. Bioturbation is minor to moderate throughout the core. A firm ground occurs in Section 3 at 100 cm. Nodules up to 5 cm and some dark-colored grains occur in Section 6. Wackestones and packstones show moldic porosity, particularly in Section 6.
2		2				S		
3		3						
4		4				S		
5								
6		5				S		
7						S		
8		6			I			
9		7				S		
		CC				S M		

SITE 1003 HOLE A CORE 15X CORED 120.7 - 130.3 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–6		1, 2, 3, 4, CC	late Pliocene			S; P; I S; M	2.5Y 6/2 To 5Y 6/2	PARTIALLY LITHIFIED BIOCLASTIC WACKESTONE Major Lithology: The entire core consists of gray to light olive gray (2.5Y 6/1 to 5Y 6/2) PARTIALLY LITHIFIED BIOCLASTIC WACKESTONE. Other sand-sized grains include foraminifers, peloids, echinoderm spines, and intraclasts. Brown-colored grains occur throughout the core and all grains are heavily cemented and/or overgrown. The matrix consists of 25 to 50% micrite. Nannofossils are abundant and make up 25 to 50% of the clay- to silt-sized fraction. Minor Lithologies: Section 1 contains intervals which are classified as NANNOFOSSIL CHALK. Bioturbation is minor to moderate throughout the core. Moldic porosity is pervasive. General Description: Coring disturbance has divided the core into “drilling biscuits” and drilling breccia which alternate regularly at ~5 cm intervals.

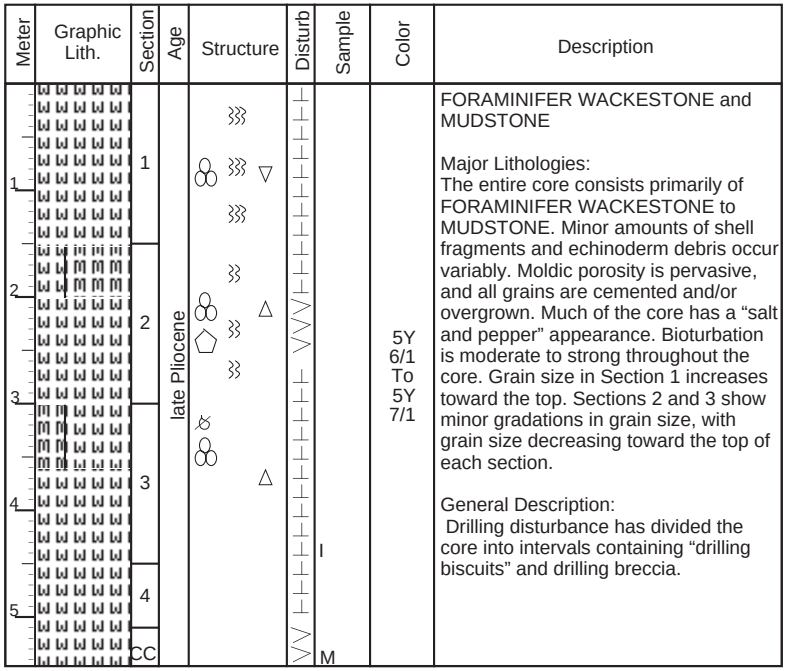
SITE 1003 HOLE A CORE 16X CORED 130.3 - 139.9 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1, CC	late Pliocene			S; M	5Y 6/1	UNLITHIFIED TO PARTIALLY LITHIFIED FORAMINIFER WACKESTONE Major Lithology: The entire core consists of gray (5Y 6/1) UNLITHIFIED TO PARTIALLY LITHIFIED FORAMINIFERAL WACKESTONE. Minor sand-sized grains include bioclasts, peloids, echinoderm fragments, and intraclasts. A solitary coral occurs in Section 1 at 25 cm. All grains are heavily cemented and/or overgrown. The matrix consists of 40% micrite and 10% aragonite needles. Nannofossils make up 20% of the clay- to silt-sized fraction. Throughout the core, bioturbation is moderate to strong, and moldic porosity is pervasive.

SITE 1003 HOLE A CORE 17X CORED 139.9 - 149.6 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–7		1–5, CC	late Pliocene			S, I, M	5Y 6/1 To 5Y 7/1	PARTIALLY LITHIFIED FORAMINIFER WACKESTONE Major Lithology: The entire core consists of gray to light gray (5Y 6/1 to 5Y 7/1) PARTIALLY LITHIFIED FORAMINIFERAL WACKESTONE. Minor sand-sized allochems include bioclasts, peloids, echinoderm fragments, pteropods, sponge spicules, and intraclasts. All grains are heavily cemented and/or overgrown. The matrix consists of 50% micrite and up to 30% aragonite needles. Nannofossils make up 5% of the clay- to silt-sized fraction. Bioturbation is moderate to strong and moldic porosity is pervasive throughout the core. Minor Lithologies: A firmground occurs at the top of Section 5 within an interval of PARTIALLY LITHIFIED WACKESTONE TO PACKSTONE with “salt and pepper” grains extending from 100 cm in Section 4 to 124 cm in Section 5.

SITE 1003 HOLE A CORE 18X CORED 149.6 - 159.2 mbsf

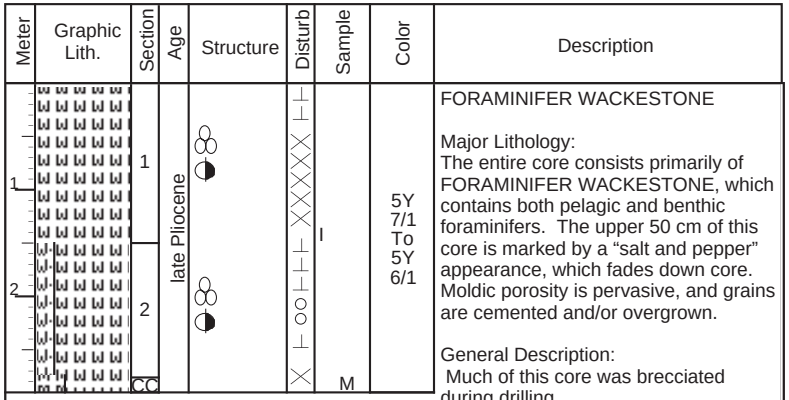


FORAMINIFER WACKESTONE and MUDSTONE

Major Lithologies:
The entire core consists primarily of FORAMINIFER WACKESTONE to MUDSTONE. Minor amounts of shell fragments and echinoderm debris occur variably. Moldic porosity is pervasive, and all grains are cemented and/or overgrown. Much of the core has a “salt and pepper” appearance. Bioturbation is moderate to strong throughout the core. Grain size in Section 1 increases toward the top. Sections 2 and 3 show minor gradations in grain size, with grain size decreasing toward the top of each section.

General Description:
Drilling disturbance has divided the core into intervals containing “drilling biscuits” and drilling breccia.

SITE 1003 HOLE A CORE 19X CORED 159.2 - 168.9 mbsf



FORAMINIFER WACKESTONE

Major Lithology:
The entire core consists primarily of FORAMINIFER WACKESTONE, which contains both pelagic and benthic foraminifers. The upper 50 cm of this core is marked by a “salt and pepper” appearance, which fades down core. Moldic porosity is pervasive, and grains are cemented and/or overgrown.

General Description:
Much of this core was brecciated during drilling.

1003A-20X NO RECOVERY

1003A-21X NO RECOVERY

SITE 1003 HOLE A CORE 22H CORED 188.1 - 197.6 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7, CC	early Pliocene			I, S, M	5Y 6/1	UNLITHIFIED TO PARTIALLY LITHIFIED FORAMINIFER WACKESTONE and UNLITHIFIED TO PARTIALLY LITHIFIED MUDSTONE Major Lithologies: The entire core consists primarily of gray (5Y 6/1) UNLITHIFIED TO PARTIALLY LITHIFIED FORAMINIFER WACKESTONE AND UNLITHIFIED TO PARTIALLY LITHIFIED MUDSTONE. Both benthic and pelagic foraminifers are abundant throughout the core. Minor amounts of echinoderm debris, sponge spicules and pteropod fragments is also observed. Grains are generally cemented and/or overgrown. Dolomite makes up a minor (5%) part of the matrix material. General Description: Much of this core was highly disturbed during drilling. Material is missing from the tops of several Sections, including Sections 2, 3, and 4.

SITE 1003 HOLE A CORE 23X CORED 197.6 - 207.2 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		1	early Pliocene			S M	5Y 5/1	FORAMINIFER WACKESTONE Major Lithology: The entire core consists of a gray (5Y 5/1) FORAMINIFER WACKESTONE. Both planktonic and benthic foraminifers were observed. Minor allochems include ostracodes, echinoderm spines, sponge spicules, and other bioclasts. Moldic porosity is pervasive, and grains are cemented and/or overgrown. Dolomite makes up a minor (5%) part of the matrix material.

SITE 1003 HOLE A CORE 24X CORED 207.2 - 216.8 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		CC						FORAMINIFER WACKESTONE Major Lithology: The entire core consists of a gray (5Y 5/1) FORAMINIFER WACKESTONE. Both planktonic and benthic foraminifers were observed. Minor allochems include echinoderm spines, ostracodes, pteropods and unidentifiable brownish grains. All grains are weakly cemented and/or overgrown. Moldic porosity is pervasive. General Description: A paleontology sample was taken at the base of this core.

1003A-25X NO RECOVERY

SITE 1003 HOLE A CORE 26X CORED 226.4 - 236.1 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		CC						INTRACLASTIC WACKESTONE Major Lithology: The entire core consists of a light gray (2.5Y 7/2) INTRACLASTIC WACKESTONE. Minor allochems include planktonic foraminifers (some are stained brown) and unidentifyable gray grains. Moldic porosity is pervasive, and grains are highly cemented and/or overgrown.

SITE 1003 HOLE A CORE 27X CORED 236.1 - 245.7 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		1				M		DOLOMITIZED FORAMINIFER WACKESTONE Major Lithology: The entire core consists of light gray (2.5Y 7/2) DOLOMITIZED FORAMINIFER WACKESTONE. The entire core is highly porous and moderately bioturbated.
		CC						

SITE 1003 HOLE B CORE 1H CORED 0.0 - 3.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	Pleistocene			S	5Y 6/1	UNLITHIFIED MUDSTONE Major Lithology: Gray (5Y 6/1) UNLITHIFIED MUDSTONE. Silt- and sand-sized grains include peloids, pteropods, planktonic and benthic foraminifers, tunicate spicules, echinoderms spines, sponge spicules, and ostracodes. Throughout the entire core, sediments are generally homogenous and slightly bioturbated. Intensity of mottling due to bioturbation increases towards the lower part of Section 2.
2		2						
		CC						

SITE 1003 HOLE B CORE 2H CORED 3.0 - 12.5 mbsf

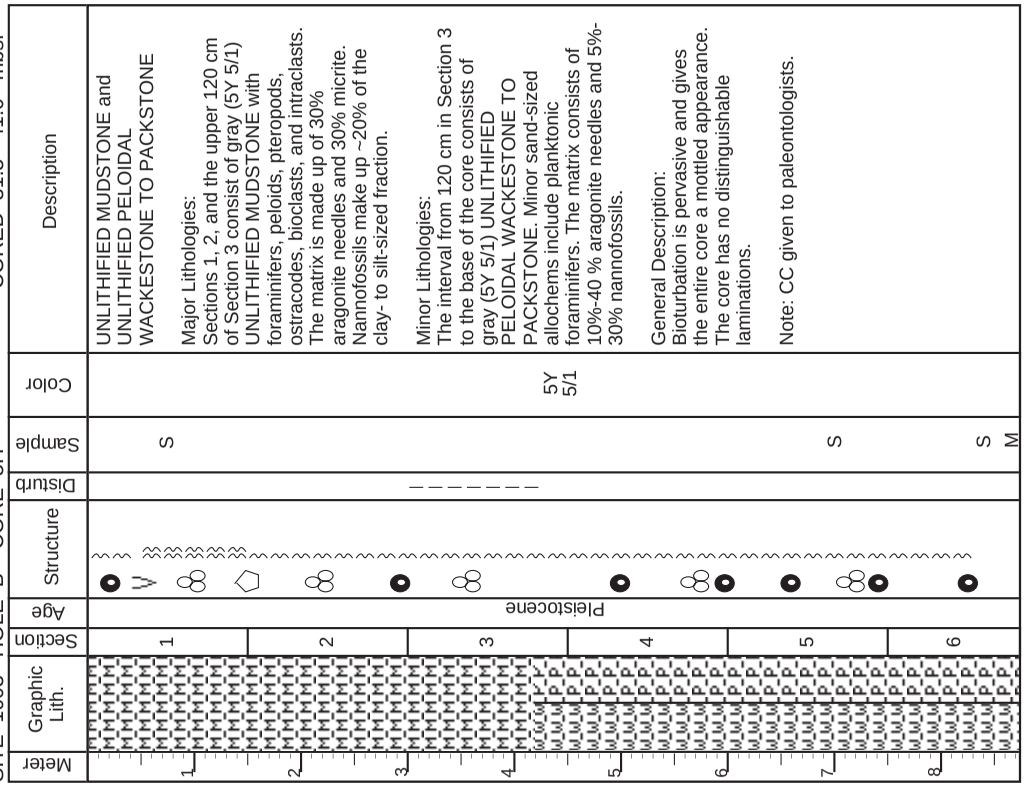
SITE 1003 HOLE B CORE 3H CORED 12.5 - 22.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		CC	Pleistocene					UNLITHIFIED BIOCLASTIC PACKSTONE Major Lithology: Gray (2.5 Y 5/1) UNLITHIFIED BIOCLASTIC PACKSTONE. Sand-sized allochems include Halimeda, pteropods, gastropods, echinoderms, and bivalves.

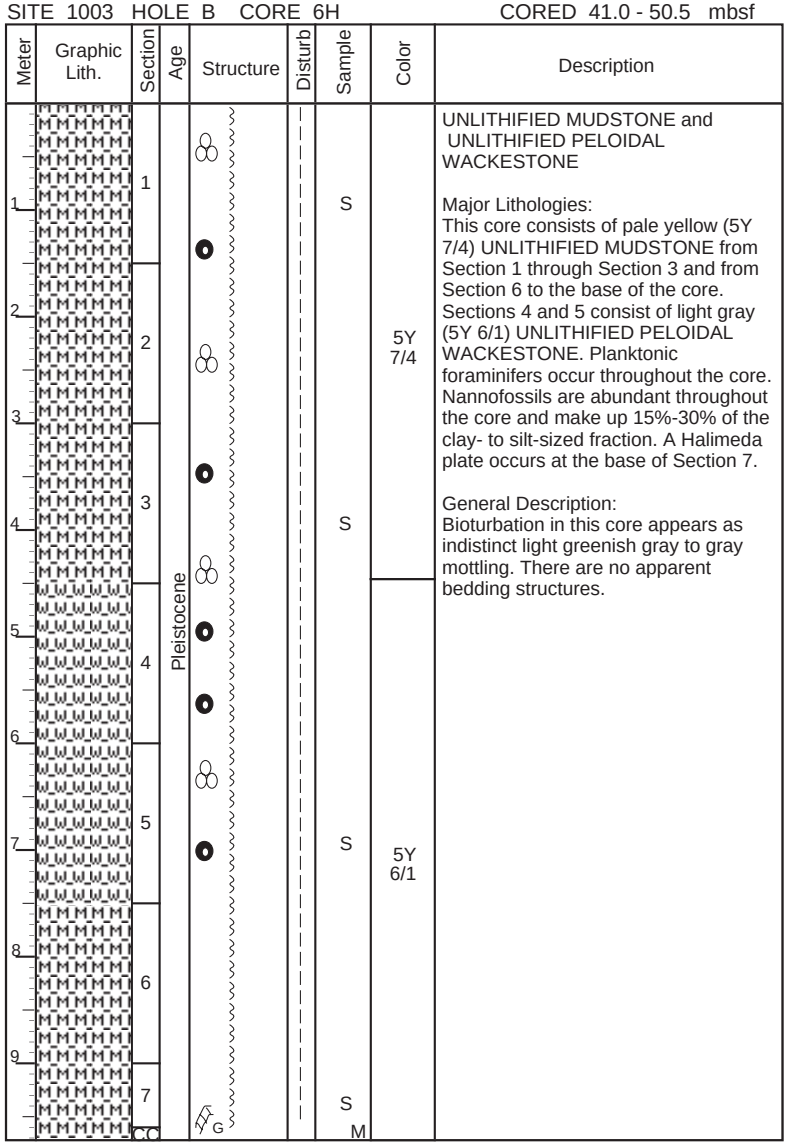
SITE 1003 HOLE B CORE 4H CORED 22.0 - 31.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 2 3 4		1 2 3	Pleistocene			M	2.5Y 6/1 5Y 7/1	UNLITHIFIED MUDSTONE and UNLITHIFIED TO PARTIALLY LITHIFIED BIOCLASTIC WACKESTONE Major Lithologies: Section 1 and the upper 105 cm of Section 2 consist of gray (2.5Y 6/1) UNLITHIFIED MUDSTONE with planktonic and benthic foraminifers, pteropod fragments, peloids, and tunicate spicules. The matrix contains 50% micrite and 30% aragonite needles. Nannofossils make up ~10% of the silt- to clay-sized fraction. In Section 2 (90-105 cm), burrows are infilled with gray sand grains. Minor Lithologies: A gray (5Y 6/1) UNLITHIFIED TO PARTIALLY LITHIFIED BIOCLASTIC WACKESTONE occurs in the lower 45 cm of Section 2 and the upper 74 cm of Section 3. Sand-sized grains include pteropod casts, planktonic foraminifers, peloids, gastropods, and bioclasts. “Salt and pepper texture” occurs throughout this normally graded interval. Note: CC given to paleontologists.

SITE 1003 HOLE B CORE 5H CORED 31.5 - 41.0 mbsf



SITE 1003 HOLE B CORE 6H CORED 41.0 - 50.5 mbsf



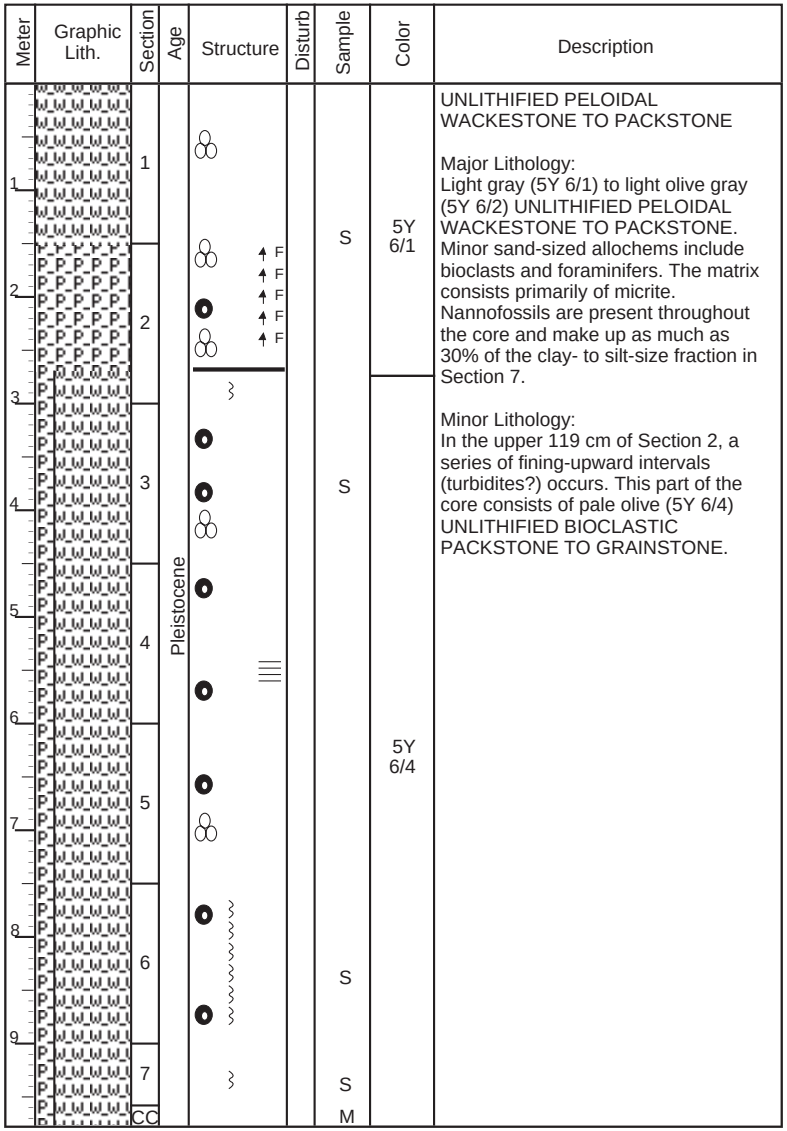
SITE 1003 HOLE B CORE 7H CORED 50.5 - 60.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7, CC	Pleistocene			S, S, S, S, S, M	5Y 7/1	NANNOFOSSIL OOZE Major Lithology: Light gray (5Y 7/1) monotonous NANNOFOSSIL OOZE WITH FORAMINIFERS AND PELOIDS. Micrite and aragonite needles make up a significant proportion of the matrix (up to 30%). Minor bioturbation is pervasive. Burrow fill is generally darker than the surrounding sediment.

SITE 1003 HOLE B CORE 8H CORED 60.0 - 69.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7, CC	Pleistocene	C		S, S, I, M	5Y 6/1	PARTIALLY LITHIFIED PELOIDAL WACKESTONE Major Lithology: Light gray (5Y 6/1) PARTIALLY LITHIFIED PELOIDAL WACKESTONE. Minor sand-sized allochems include foraminifers and intraclasts. The matrix is made up primarily of subequal proportions of micrite and aragonite needles. Nannofossils make up as much as 30% of the clay- to silt-size fraction in the upper portion of the core. Nannofossil abundance decreases downcore.

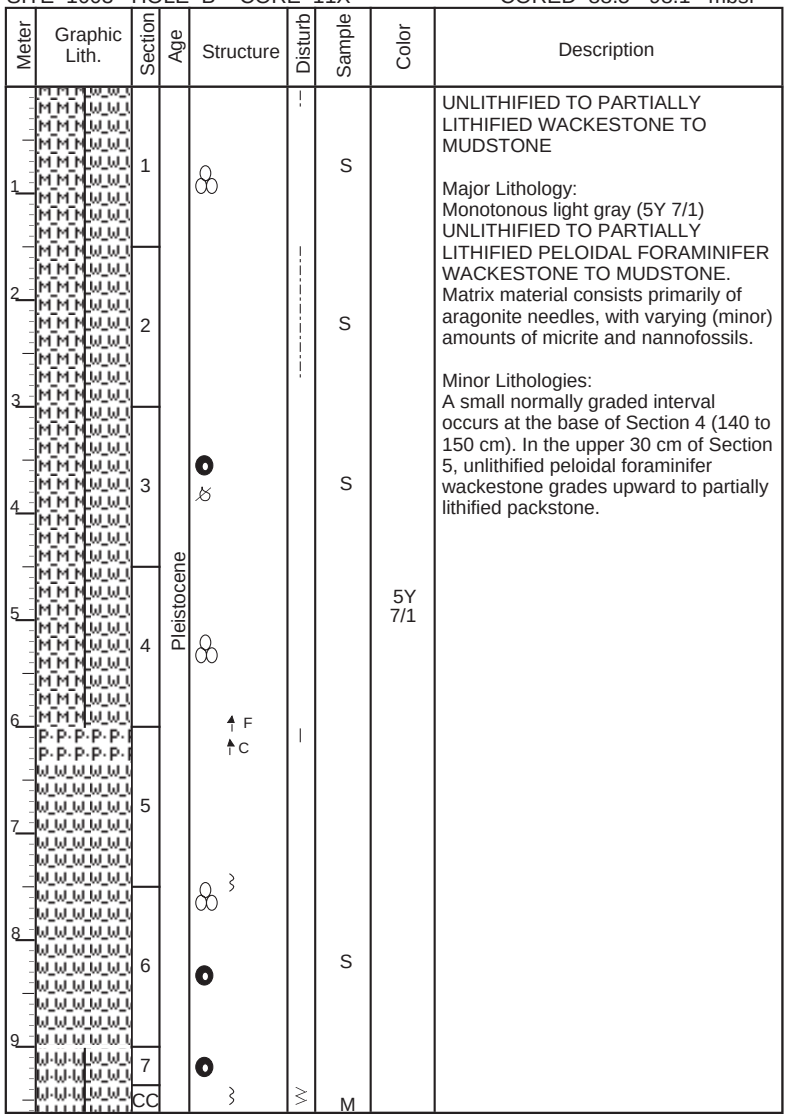
SITE 1003 HOLE B CORE 9H CORED 69.5 - 79.0 mbsf



SITE 1003 HOLE B CORE 10X CORED 79.0 - 88.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–5		1, 2, 3, 4, CC	Pleistocene			M	5Y 6/2	PARTIALLY LITHIFIED PELOIDAL WACKESTONE TO PACKSTONE Major Lithology: This core consists of light olive gray (5Y 6/2) PARTIALLY LITHIFIED PELOIDAL WACKESTONE TO PACKSTONE. Other sand grains include pteropods, shell fragments, and bioclasts. Minor bioturbation is observed throughout the core, which is otherwise structureless. Sediment filling the burrows is yellowish in color and contains shell fragments.

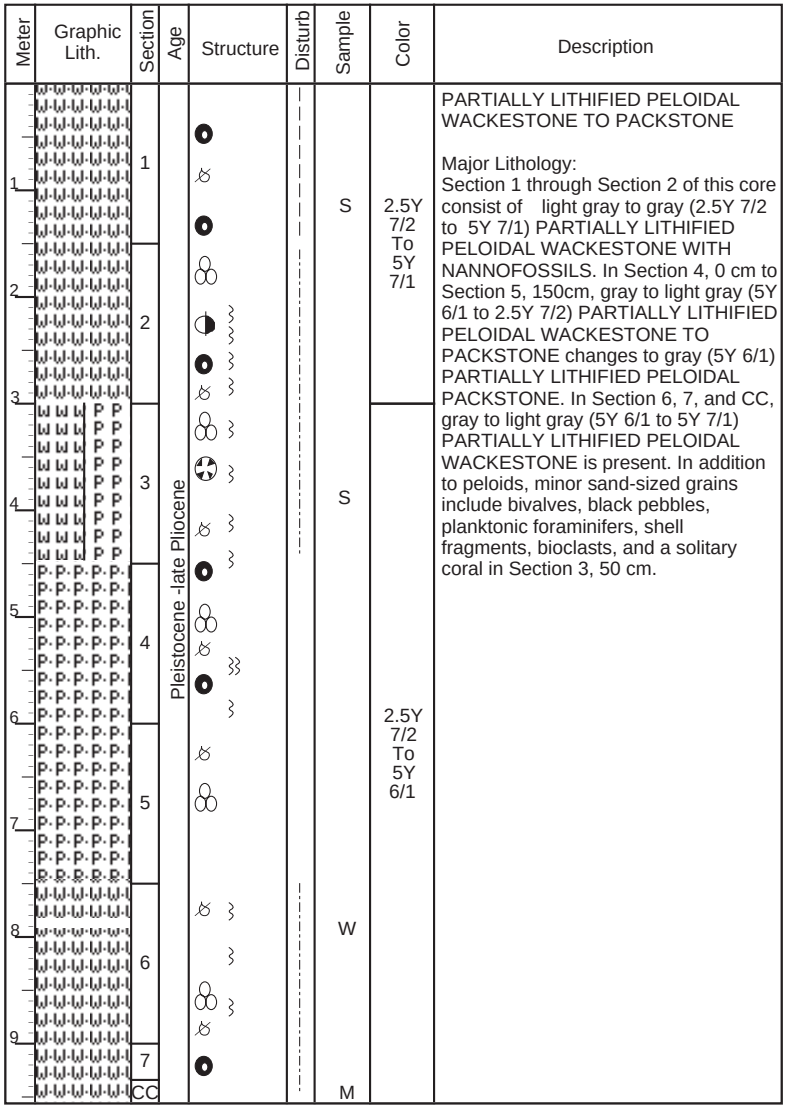
SITE 1003 HOLE B CORE 11X CORED 88.5 - 98.1 mbsf



SITE 1003 HOLE B CORE 12X CORED 98.1 - 107.7 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	Pleistocene			S	2.5Y 7/2	PELOIDAL PACKSTONE, FORAMINIFER PELOIDAL WACKESTONE and FORAMINIFER WACKESTONE TO PACKSTONE Major Lithologies: The upper 65 cm of Section 1 consist of light gray (2.5Y 7/2) PELOIDAL PACKSTONE. The lower 85 cm of Section 1 and Section 2 consists of light yellowish brown (2.5Y 6/4) to light gray (5Y 7/2) LITHIFIED TO PARTIALLY LITHIFIED FORAMINIFER PELOIDAL WACKESTONE. The lower 35 cm of the Core Catcher consists of gray (5Y 5/1) FORAMINIFER WACKESTONE TO PACKSTONE. Minor sand-sized allochems include black pebbles and echinoderm spines. General Description: The upper part of Section 1 is bioturbated. Cross-lamination occurs between 60 and 65 cm in Section 1. In Section 2, 60-83 cm, an interval containing convoluted bedding overlies millimeter-scale planar laminations.
							2.5Y 7/2 To 5Y 7/1	
2		2				S		
		CC				M	5Y 5/1	

SITE 1003 HOLE B CORE 13X CORED 107.7 - 117.4 mbsf



SITE 1003 HOLE B CORE 14X CORED 117.4 - 127.1 mbsf

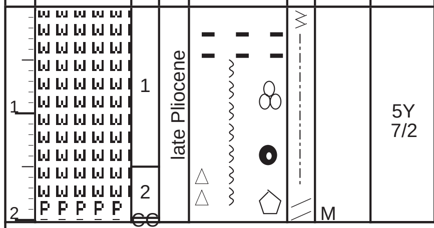
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1 CC	late Pliocene			M	5Y 7/2	PARTIALLY LITHIFIED FORAMINIFER PACKSTONE Major Lithology: Light gray (5Y 7/2) PARTIALLY LITHIFIED FORAMINIFER PACKSTONE. Minor sand-sized grains include peloids and unidentifiable grains that are coated black. Minor bioturbation occurs throughout the entire core.

SITE 1003 HOLE B CORE 15X CORED 127.1 - 136.8 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 2 3 4 5 6 7		1 2 3 4 5 CC	late Pliocene			M	5Y 7/2 To 5Y 5/1	PARTIALLY LITHIFIED FORAMINIFER PACKSTONE Major Lithology: Light gray (5Y 7/2) to gray (5Y 6/2) PARTIALLY LITHIFIED FORAMINIFER PACKSTONE. Planktonic and benthic foraminifers are present. Minor sand-sized grains include peloids, echinoderm spines, bivalves, and unidentifiable black-coated grains. General Description: Planar lamination occurs in Section 2,100-115 cm. Cross lamination occurs at the base of Section 3. Minor bioturbation occurs throughout the entire core.

SITE 1003 HOLE B CORE 16X CORED 136.8 - 146.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description



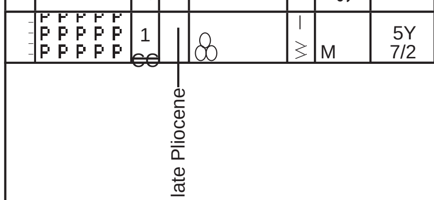
PELOIDAL FORAMINIFER WACKESTONE

Major Lithology:
Light gray (5Y 7/2) PELOIDAL FORAMINIFER WACKESTONE. Minor sand-sized lithoclasts occur throughout the entire core. The clay fraction consists primarily of micrite (50%) and nannofossils (25%).

General Description:
In Section 1, color grades gradually from gray (5Y 6/1) to light gray (5Y 7/2) downsection. Grain size in Section 2 decreases from bottom to top.

SITE 1003 HOLE B CORE 17X CORED 146.5 - 156.2 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description



FORAMINIFER PACKSTONE

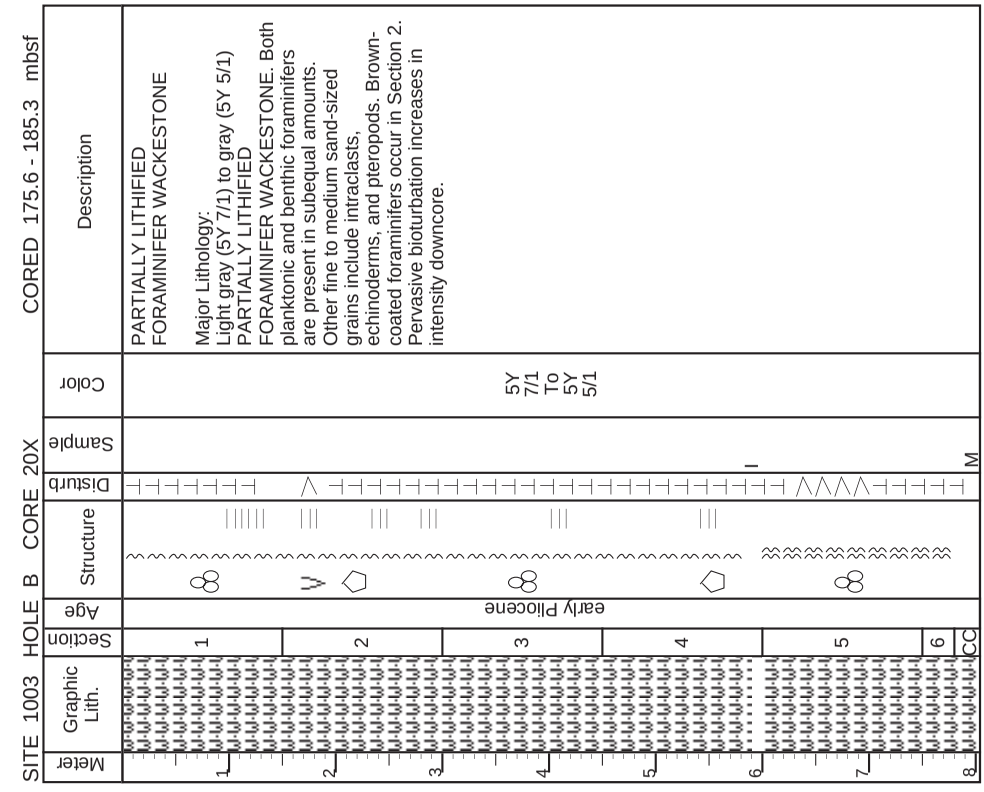
Major Lithology:
Light gray (5Y 7/2) FORAMINIFER PACKSTONE. Planktonic foraminifers are more abundant than benthic foraminifers. Minor fine to medium sand-sized grains include echinoderm spines and black pebbles.

SITE 1003 HOLE B CORE 18X CORED 156.2 - 165.9 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		1	late Pliocene			S M		PARTIALLY LITHIFIED FORAMINIFER PACKSTONE Major Lithology: Light gray (5Y 7/2) PARTIALLY LITHIFIED FORAMINIFER PACKSTONE. The fine-sand fraction consists of subequal amounts of bioclasts and foraminifers. The clay fraction is made up primarily of micrite (60%) and nannofossils (10%).
		CC						

SITE 1003 HOLE B CORE 19X CORED 165.9 - 175.6 mbsf

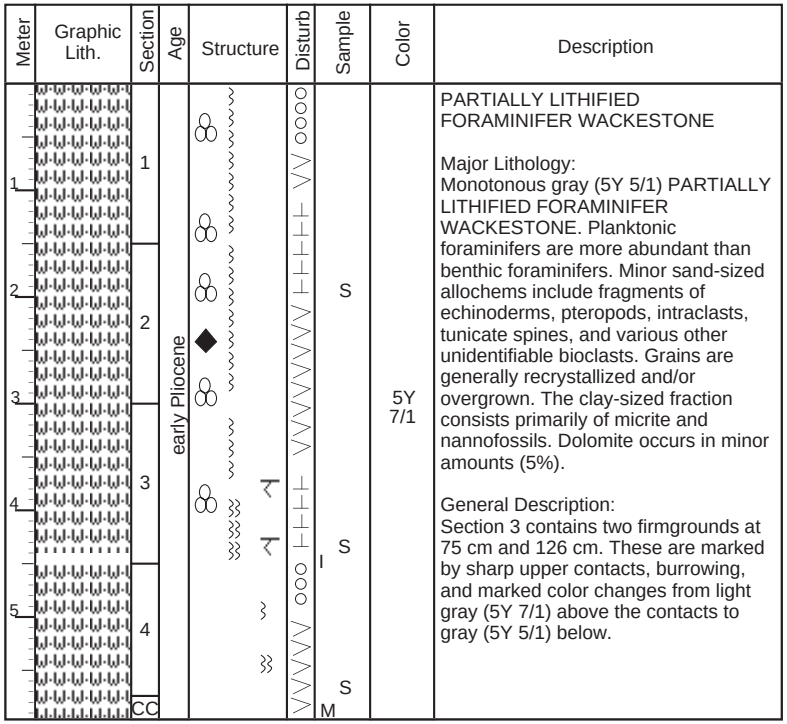
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 2 3 4 5		1 2 3 4 CC	early Pliocene			S M	5Y 7/2	PARTIALLY LITHIFIED PLANKTONIC FORAMINIFER WACKESTONE Major Lithology: Light gray (5Y 7/2) PARTIALLY LITHIFIED PLANKTONIC FORAMINIFER WACKESTONE. Minor fine sand-sized components include benthic foraminifers, sponge spicules, unidentifiable “blackened” grains, and peloids. The matrix consists primarily of micrite (55%), with minor amounts of nannofossils (30%) and aragonite needles (5%). Moderate bioturbation occurs throughout the entire core.


SITE 1003 HOLE B CORE 20X CORED 175.6 - 185.3 mbsf
Meter
Graphic Lith.
Section
Age
Structure
Disturb
Sample
Color
Description
early Pliocene
5Y 7/1 To 5Y 5/1
PARTIALLY LITHIFIED FORAMINIFER WACKESTONE
Major Lithology:
Light gray (5Y 7/1) to gray (5Y 5/1) PARTIALLY LITHIFIED FORAMINIFER WACKESTONE. Both planktonic and benthic foraminifers are present in subequal amounts. Other fine to medium sand-sized grains include intraclasts, echinoderms, and pteropods. Brown-coated foraminifers occur in Section 2. Pervasive bioturbation increases in intensity downcore.

SITE 1003 HOLE B CORE 21X CORED 185.3 - 195.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7, CC	early Pliocene			S, I, S, M	5Y 6/1 To 5Y 7/1	PARTIALLY LITHIFIED FORAMINIFER WACKESTONE Major Lithology: Monotonous gray (5Y 6/1) to light gray (5Y 7/1) PARTIALLY LITHIFIED FORAMINIFER WACKESTONE. Both benthic and planktonic foraminifers are observed. Most grains are recrystallized and/or overgrown. Nannofossils make up a significant part of the clay fraction throughout the core.

SITE 1003 HOLE B CORE 22X CORED 195.0 - 204.7 mbsf

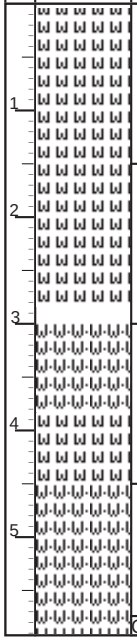


PARTIALLY LITHIFIED FORAMINIFER WACKESTONE

Major Lithology:
Monotonous gray (5Y 5/1) PARTIALLY LITHIFIED FORAMINIFER WACKESTONE. Planktonic foraminifers are more abundant than benthic foraminifers. Minor sand-sized allochems include fragments of echinoderms, pteropods, intraclasts, tunicate spines, and various other unidentifiable bioclasts. Grains are generally recrystallized and/or overgrown. The clay-sized fraction consists primarily of micrite and nannofossils. Dolomite occurs in minor amounts (5%).

General Description:
Section 3 contains two firmgrounds at 75 cm and 126 cm. These are marked by sharp upper contacts, burrowing, and marked color changes from light gray (5Y 7/1) above the contacts to gray (5Y 5/1) below.

SITE 1003 HOLE B CORE 23X CORED 204.7 - 214.3 mbsf

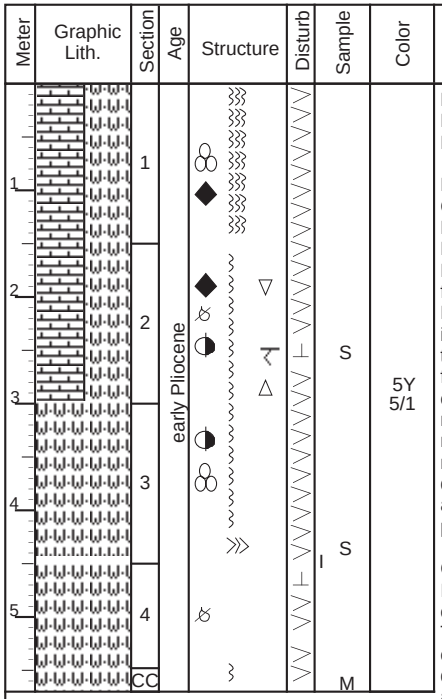


FORAMINIFER WACKESTONE and PARTIALLY LITHIFIED FORAMINIFER WACKESTONE

Major Lithologies:
Gray (5Y 5/1) FORAMINIFER WACKESTONE TO PARTIALLY LITHIFIED WACKESTONE. Both benthic and planktonic foraminifers are observed. Minor amounts of echinoderm fragments occur throughout the core. The clay-sized fraction consists primarily of micrite, nannofossils and minor amounts of aragonite needles. Moderate to heavy bioturbation is pervasive, giving the core a mottled appearance.

General Description:
A possible firmground occurs at the top of Section 2.

SITE 1003 HOLE B CORE 24X CORED 214.3 - 224.0 mbsf

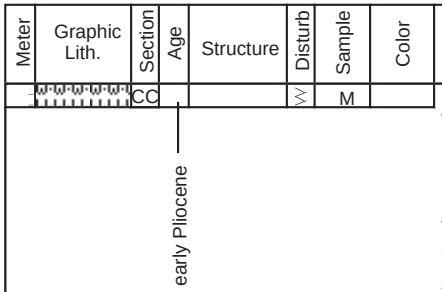


PARTIALLY LITHIFIED FORAMINIFER WACKESTONE and NANNOFOSSIL OOZE TO CHALK

Major Lithologies:
Gray (5Y 5/1) PARTIALLY LITHIFIED FORAMINIFER WACKESTONE and NANNOFOSSIL OOZE TO CHALK. Both benthic and planktonic foraminifers occur throughout the core. Minor sand-sized allochems include intraclasts, peloids, shell fragments and tunicate spicules. The clay-sized fraction in the upper half of the core consists of subequal amounts of micrite/aragonite needles and nannofossils. The abundances of micrite and aragonite needles increase down core. Minor amounts of dolomite are present in smear slides. Moldic porosity and bioturbation are pervasive.

General Description:
In the upper 100 cm of Section 2, a coarsening upward sequence occurs. The lower 50 cm of Section 2 comprises a fining-upward sequence. A discrete Zoophycus trace fossil occurs at 126 cm in Section 3.

SITE 1003 HOLE B CORE 25X CORED 224.0 - 233.7 mbsf



PLANKTONIC FORAMINIFER WACKESTONE

Major Lithology:
Monotonous light gray (5Y 7/2) PLANKTONIC FORAMINIFER WACKESTONE. Minor sand-sized grains include bioclasts and intraclasts. The silt- and clay-size fraction consists of micrite and minor amounts of nannofossils and aragonite needles. The entire core is partially dolomitized. Minor bioturbation is pervasive.

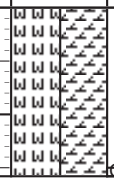
SITE 1003 HOLE B CORE 26X CORED 233.7 - 243.3 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		1 CC	early Pliocene			S M	2.5Y 7/2	BIOCLASTIC WACKESTONE Major Lithology: Light gray (2.5Y 7/2) BIOCLASTIC WACKESTONE. Sand-sized allochems include intraclasts, bioclasts, foraminifers, and unidentifiable brown "peloids". The silt- and clay-sized fraction consists primarily of micrite with minor amounts of nannofossils and aragonite needles. Grain size generally decreases downcore. The entire core is moderately bioturbated. Moldic porosity is pervasive. The entire core is extensively recrystallized and partially dolomitized.

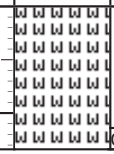
SITE 1003 HOLE B CORE 27X CORED 243.3 - 252.9 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		1	early Pliocene			S M	2.5Y 7/2	FORAMINIFER WACKESTONE Major Lithology: Light gray (2.5Y 7/2) FORAMINIFER WACKESTONE. Silt- and sand-sized grains include planktonic foraminifers (20%), intraclasts (5%), benthic foraminifers (5%) and unidentifiable brown-colored grains (1%). All grains are recrystallized and/or overgrown with cement. The silt- to clay-sized fraction consists primarily of micrite with minor amounts of nannofossils (20%) and aragonite needles (10%). The entire core is partially dolomitized. Note: CC given to paleontologists.

SITE 1003 HOLE B CORE 28X CORED 252.9 - 262.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1 CC	early Pliocene			S M	2.5Y 7/2	PLANKTONIC FORAMINIFER WACKESTONE Major Lithology: Light brownish gray (2.5Y 7/2) PLANKTONIC FORAMINIFER WACKESTONE. Minor silt- and sand-sized grains include benthic foraminifers, peloids, and intraclasts. The clay-sized fraction consists primarily of micrite with minor amounts of nannofossils. Minor bioturbation is pervasive. The entire core is partially dolomitized.

SITE 1003 HOLE B CORE 29X CORED 262.5 - 272.2 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1 CC	early Pliocene			S M	5Y 7/2	PLANKTONIC FORAMINIFER WACKESTONE Major Lithology: Light gray (5Y 7/2) PLANKTONIC FORAMINIFER WACKESTONE. Minor sand-sized grains include intraclasts, bioclasts, benthic foraminifera, and unidentifiable brown coated grains. The clay fraction consists primarily of micrite, significant amounts of nannofossils (20-30%), and minor amounts of aragonite needles and dolomite. Moldic porosity is pervasive.

1003B-30X NO RECOVERY

SITE 1003 HOLE B CORE 31X CORED 281.8 - 291.4 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 2 3		1 2 CC	early Pliocene			I S M	5Y 7/1	PARTIALLY LITHIFIED INTRACLASTIC WACKESTONE Major Lithology: Light gray (5Y 7/1) PARTIALLY LITHIFIED INTRACLASTIC WACKESTONE. Minor sand-sized allochems include planktonic foraminifers, peloids, and echinoderm spines. The clay-sized fraction consists primarily of micrite and nannofossils, and contains minor amounts of aragonite needles. Moldic porosity is pervasive. The entire core is partially dolomitized. A firmground occurs in Section 2 at 60 cm.

SITE 1003 HOLE B CORE 32X CORED 291.4 - 301.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 2 3		1 2 CC	early Pliocene			S S I M	5Y 7/1	MUDSTONE Major Lithology: Light gray (5Y 7/1) MUDSTONE. Sand-sized grains include benthic foraminifers, planktonic foraminifers, and intraclasts. The clay-sized fraction consists primarily of micrite with minor amounts of nannofossils. Moldic porosity is pervasive, and the entire core is partially dolomitized. Minor Lithologies: A firmground is present in Section 1 at 27 cm.

SITE 1003 HOLE B CORE 33X CORED 301.0 - 310.6 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		CC				M S		MUDSTONE Major Lithology: Light gray (5Y 7/1) MUDSTONE. Sand-sized grains include planktonic and benthic foraminifers, intraclasts, and peloids. Planar laminae occur at the base of the core. The matrix consists primarily of micrite with minor amounts of nannofossils. Dolomite makes up a minor part (5%) of the matrix.

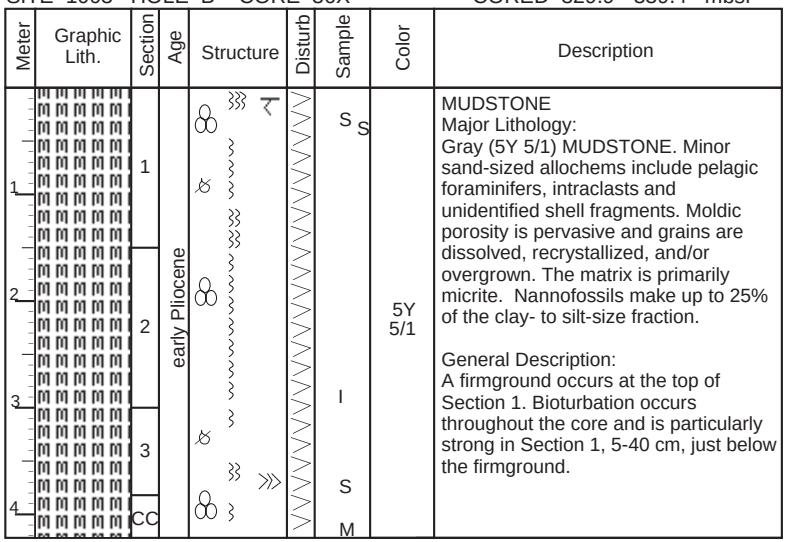
SITE 1003 HOLE B CORE 34X CORED 310.6 - 320.2 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1 CC	early Pliocene			S M	5Y 7/1	MUDSTONE Major Lithology: Light gray (5Y 7/1) MUDSTONE. Sand-sized components include benthic and planktonic foraminifers, bioclasts, intraclasts, tunicate spicules, and peloids. The clay- to silt-sized fraction consists primarily of micrite with minor amounts of nannofossils. Moldic porosity is pervasive, and the entire core is partially dolomitized. Minor Lithology: FORAMINIFER WACKESTONE to PARTIALLY LITHIFIED MUDSTONE occurs in the Core Catcher.

SITE 1003 HOLE B CORE 35X CORED 320.2 - 329.9 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 2		1 2 CC	early Pliocene			S I S M		MUDSTONE TO WACKESTONE Major Lithology: Light gray to gray (3.2Y6.1/1.7 to 3Y5.3/1.3) MUDSTONE TO WACKESTONE with foraminifers, ehinoid spines, tunicate spicules, bioclasts, and intraclasts. The matrix consists of micrite (40%) and dolomite (25%). Nannofossils make up 25% of the clay- to silt-size fraction. Moldic porosity is dominant in all three Sections. Bioturbation is moderate to strong in Sections 1 and 2 and minor in the Core Catcher.

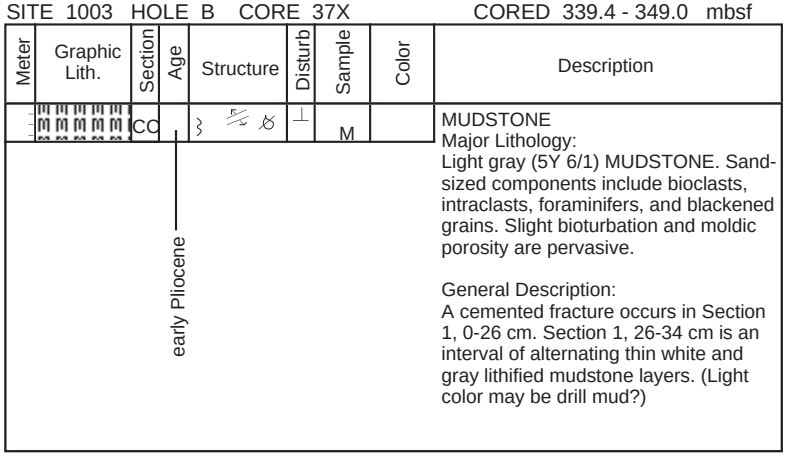
SITE 1003 HOLE B CORE 36X CORED 329.9 - 339.4 mbsf



MUDSTONE
Major Lithology:
Gray (5Y 5/1) MUDSTONE. Minor sand-sized allochems include pelagic foraminifers, intraclasts and unidentified shell fragments. Moldic porosity is pervasive and grains are dissolved, recrystallized, and/or overgrown. The matrix is primarily micrite. Nannofossils make up to 25% of the clay- to silt-size fraction.

General Description:
A firmground occurs at the top of Section 1. Bioturbation occurs throughout the core and is particularly strong in Section 1, 5-40 cm, just below the firmground.

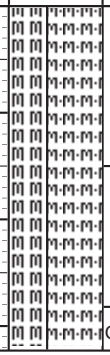
SITE 1003 HOLE B CORE 37X CORED 339.4 - 349.0 mbsf



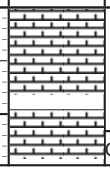
MUDSTONE
Major Lithology:
Light gray (5Y 6/1) MUDSTONE. Sand-sized components include bioclasts, intraclasts, foraminifers, and blackened grains. Slight bioturbation and moldic porosity are pervasive.

General Description:
A cemented fracture occurs in Section 1, 0-26 cm. Section 1, 26-34 cm is an interval of alternating thin white and gray lithified mudstone layers. (Light color may be drill mud?)

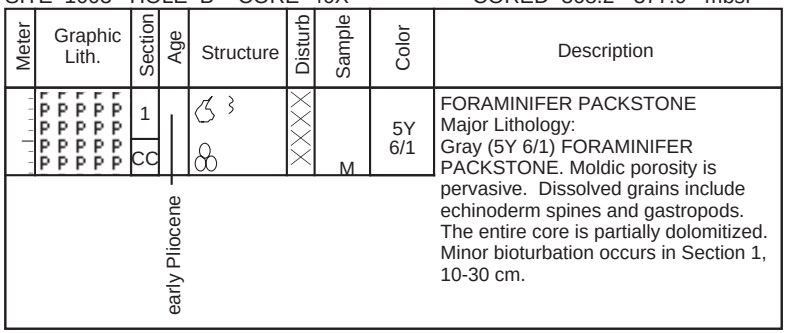
SITE 1003 HOLE B CORE 38X CORED 349.0 - 358.6 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 2 3		1 2 CC	early Pliocene			S S M	2.5Y N4/0 To 2.5Y N5/0	MUDSTONE TO PARTIALLY LITHIFIED MUDSTONE WITH PELOIDS Major Lithology: Gray (2.5Y N4/0) to dark gray to (2.5Y N5/0) MUDSTONE TO PARTIALLY LITHIFIED MUDSTONE WITH PELOIDS. Moldic porosity occurs throughout the entire core. General Description: Section 1, 24-45 cm and the Core Catcher, 30-37 cm have intervals of alternating thin white and gray lithified layers. This core was extensively brecciated during drilling.

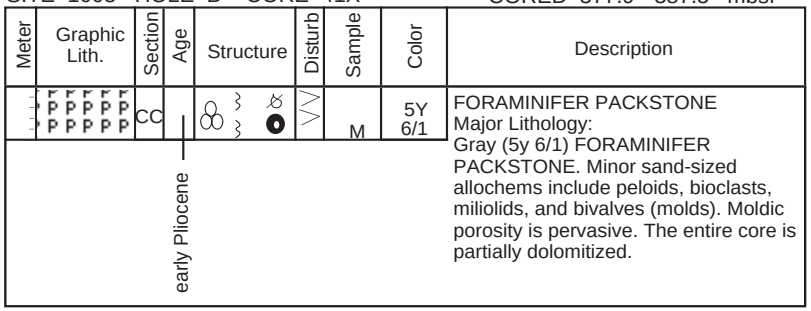
SITE 1003 HOLE B CORE 39X CORED 358.6 - 368.2 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1 CC	early Pliocene	F F		S I M	5Y 6/1 To 2.5Y N4/0	NANNOFOSSIL CHALK Major Lithology: Gray (5Y 5/1) to dark gray to (2.5Y 4./0) NANNOFOSSIL CHALK. Sand-sized components include foraminifers, tunicate spicules, ooids, echinoderm spines, and gastropods. The matrix consists primarily of nannofossils with minor amounts of micrite and aragonite needles. General Description: Two fining-upward intervals (turbidites?) with faint planar laminations occur in Section 1 between 30 and 65 cm.

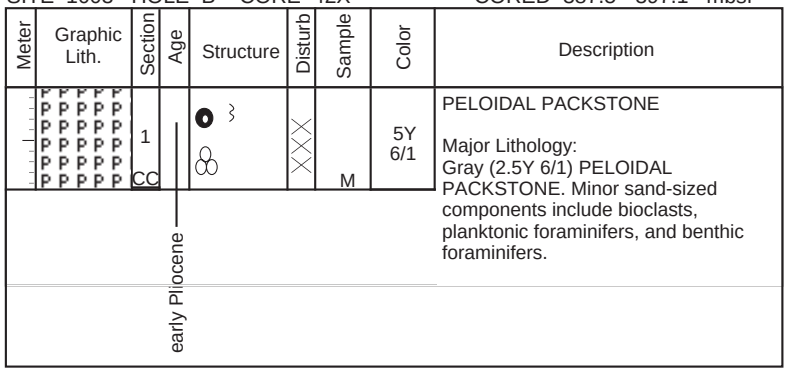
SITE 1003 HOLE B CORE 40X CORED 368.2 - 377.9 mbsf



SITE 1003 HOLE B CORE 41X CORED 377.9 - 387.5 mbsf



SITE 1003 HOLE B CORE 42X CORED 387.5 - 397.1 mbsf



SITE 1003 HOLE B CORE 43X CORED 397.1 - 406.8 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		CC	early Pliocene			M		FORAMINIFER PACKSTONE Major Lithology: Gray (5Y 6/1) fine-grained FORAMINIFER PACKSTONE. Both planktonic and benthic foraminifers are present. Minor sand-sized grains include bioclasts, bivalves, and peloids. The entire core is slightly bioturbated and partially dolomitized.

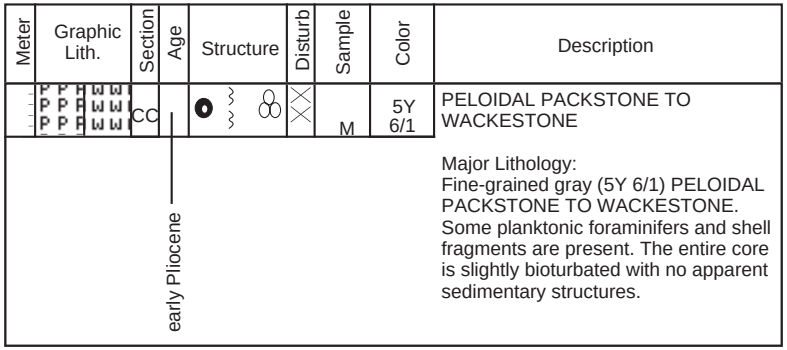
SITE 1003 HOLE B CORE 44X CORED 406.8 - 416.4 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		1	early Pliocene			M	2.5Y 6/1	FORAMINIFER PACKSTONE Major Lithology: Fine-grained gray (2.5Y 6/1) FORAMINIFER PACKSTONE. Both benthic and planktonic foraminifers are present. The entire core is slightly bioturbated and partially dolomitized.

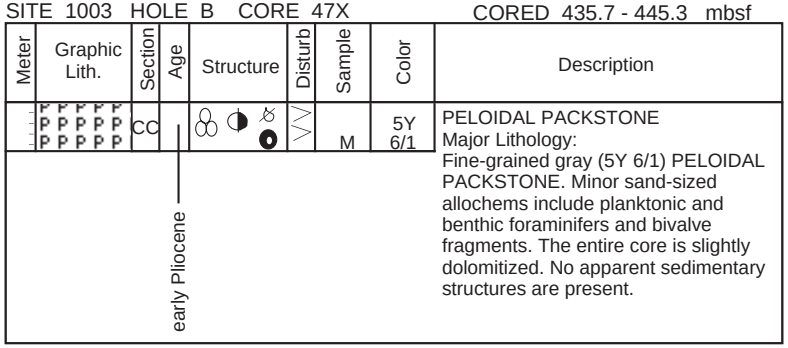
SITE 1003 HOLE B CORE 45X CORED 416.4 - 426.1 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		1	early Pliocene			P M	2.5Y N6/0	FORAMINIFER PACKSTONE Major Lithology: Fine-grained gray (2.5Y N6/1) FORAMINIFER PACKSTONE. Both benthic and planktonic foraminifers are present. Other sand-sized grains include brown-coated "pebbles" and bioclasts. The entire core is partially dolomitized. General Description: Millimeter-scale laminations occur in Section 1, 25-35 cm. Minor bioturbation occurs throughout the core.

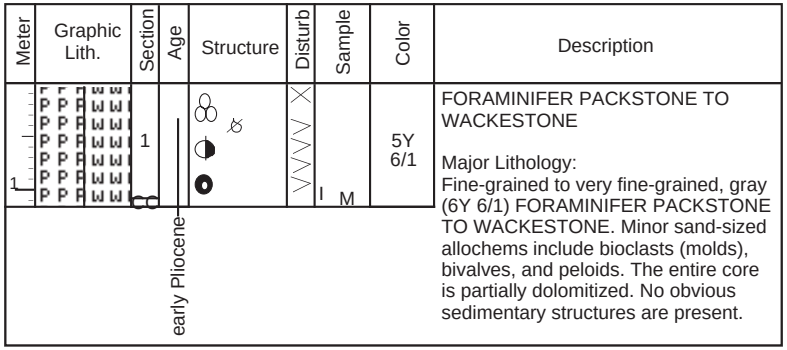
SITE 1003 HOLE B CORE 46X CORED 426.1 - 435.7 mbsf



SITE 1003 HOLE B CORE 47X CORED 435.7 - 445.3 mbsf



SITE 1003 HOLE B CORE 48X CORED 445.3 - 454.9 mbsf



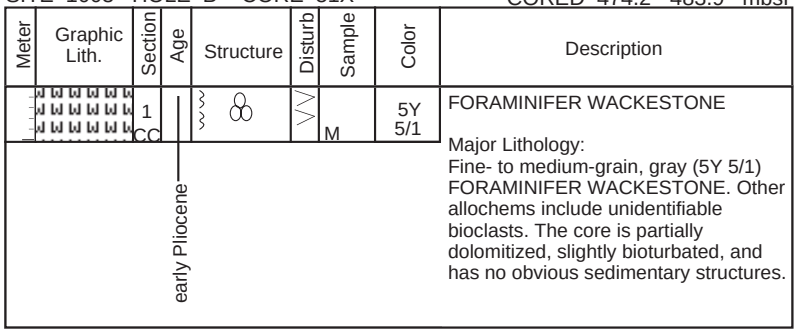
SITE 1003 HOLE B CORE 49X CORED 454.9 - 464.6 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	early Pliocene			I M	5Y 6/1	PARTIALLY LITHIFIED FORAMINIFER WACKESTONE and PARTIALLY LITHIFIED FORAMINIFER PACKSTONE Major Lithologies: The upper 40 cm of this core consists of PARTIALLY LITHIFIED FORAMINIFER WACKESTONE. The rest of the core consists of gray (5Y 6/1) PARTIALLY LITHIFIED FORAMINIFER PACKSTONE. Sand-sized allochems also include echinoderm fragments, peloids, bivalves, and rare benthic foraminifers. The intensity of bioturbation decreases from moderate to slight downcore. The entire core is partially dolomitized. Note: CC given to paleontologists.

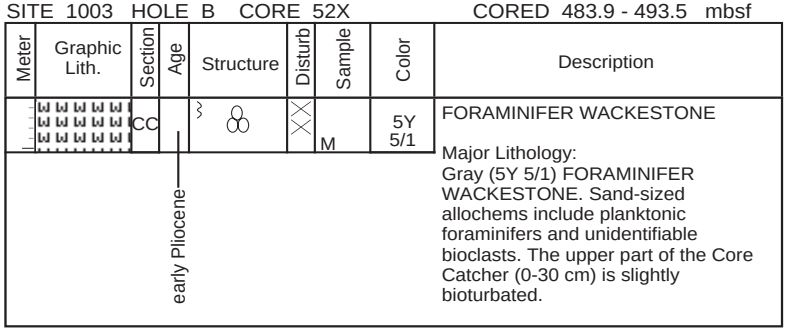
SITE 1003 HOLE B CORE 50X CORED 464.6 - 474.2 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 2		1 2 CC	early Pliocene			I M	5Y 6/1	FORAMINIFER PACKSTONE TO WACKESTONE Major Lithology: Gray (5Y 5/1) FORAMINIFER PACKSTONE TO WACKESTONE with peloids. The entire core is slightly dolomitized. No distinct sedimentary structures are present. General Description: The entire core was brecciated during drilling. Drill-mud occurs in between drilling biscuits creating an artificial banded appearance.

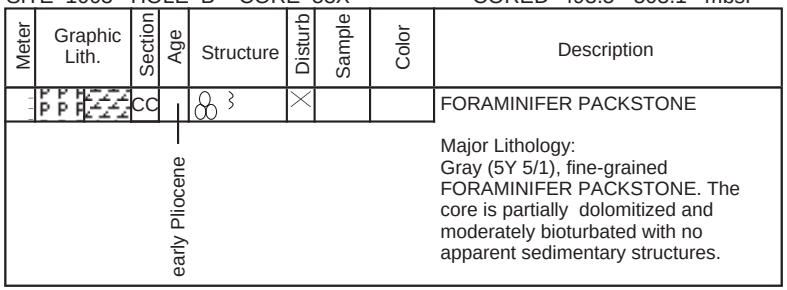
SITE 1003 HOLE B CORE 51X CORED 474.2 - 483.9 mbsf



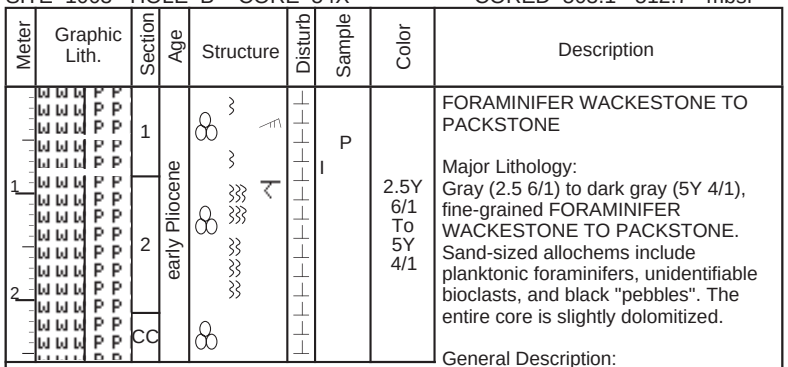
SITE 1003 HOLE B CORE 52X CORED 483.9 - 493.5 mbsf



SITE 1003 HOLE B CORE 53X CORED 493.5 - 503.1 mbsf



SITE 1003 HOLE B CORE 54X CORED 503.1 - 512.7 mbsf

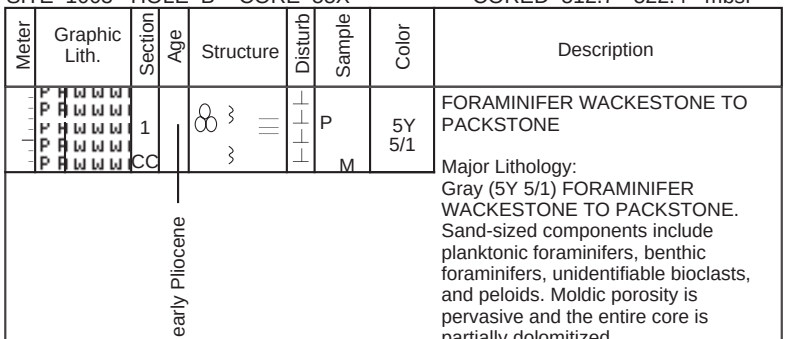


FORAMINIFER WACKESTONE TO PACKSTONE

Major Lithology:
Gray (2.5 6/1) to dark gray (5Y 4/1), fine-grained FORAMINIFER WACKESTONE TO PACKSTONE. Sand-sized allochems include planktonic foraminifers, unidentifiable bioclasts, and black "pebbles". The entire core is slightly dolomitized.

General Description:
In Section 1, color changes gradually from dark gray at 11 cm to gray at 128 cm. Cross laminae are present in Section 1, 35-43 cm. A firmground (?) occurs in Section 2, 11 cm. Bioturbation is strong below the firmground and decreases downward in the core.

SITE 1003 HOLE B CORE 55X CORED 512.7 - 522.4 mbsf

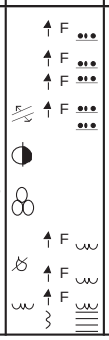


FORAMINIFER WACKESTONE TO PACKSTONE

Major Lithology:
Gray (5Y 5/1) FORAMINIFER WACKESTONE TO PACKSTONE. Sand-sized components include planktonic foraminifers, benthic foraminifers, unidentifiable bioclasts, and peloids. Moldic porosity is pervasive and the entire core is partially dolomitized.

General Description:
Planar laminae occur in Section 1, 39-41, and 49-51 cm, and in the Core Catcher, 20-22 cm. Molds of former bioclasts are present throughout the entire core. Planktonic foraminifers are more abundant at the top of the core.

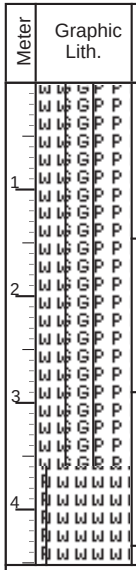
SITE 1003 HOLE B CORE 56X CORED 522.4 - 532.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 2 3		1 2 CC	early Pliocene		I	P D P M	2.5Y 6/2	PACKSTONE OR GRAINSTONE GRADING TO WACKESTONE Major Lithology: Light brownish gray (2.5Y 6/2) BIOCLASTIC PACKSTONE OR GRAINSTONE GRADING TO WACKESTONE. The entire core is partially dolomitized. Most biogenic components have been dissolved and/or recrystallized. Moldic porosity is pervasive. Sand-sized allochems (preserved as molds) include benthic foraminifers, bivalve fragments, planktonic foraminifers, and Halimeda. General Description: Section 1, 0-139 cm consists of a series of 10 cm-scale fining-upward intervals in which coarse-grained floatstone grades upward to packstone. Benthic foraminifers, planktonic foraminifers, and bivalve fragments occur throughout these sequences. Halimeda fragments are present in the coarsest parts of these fining-upward intervals. Section 2 consists of 3 turbidite intervals at 0 to 74 cm, 74 to 110 cm, and 110 to 134 cm. Each interval shows distinct scour and load surfaces at the base, and normal grading from grainstone at the base to wackestone at the upper contact. Burrowing occurs in the fine-grained parts of these intervals. The Core Catcher consists of a bioclastic packstone and shows faint planar laminations at the base. A sulphur-filled fracture occurs in Section 1 at 122 cm.

SITE 1003 HOLE B CORE 57X CORED 532.0 - 541.6 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1 2 CC	early Pliocene	F C		P P M	2.5Y N6/0	BIOCLASTIC PACKSTONE and FORAMINIFER GRAINSTONE Major Lithologies: Gray (2.5Y 6/0) fine-grained BIOCLASTIC PACKSTONE AND FORAMINIFER GRAINSTONE. Major sand-sized components in the grainstone include foraminifers, pteropods, and unidentifiable bioclastic grains. Sand-sized components in packstones include miliolids, Amphistegina and other benthic foraminifers, rip-up clasts, bivalves, and intraclasts. General Description: Two fining-upward intevals occur in Section 1 at 0-8 cm and 8 -30 cm. A coarsening-upward interval occurs in Section 1, 90-109 cm. Planar and wavy laminae are present between in Section 1, 45-109 cm. Rip-up clasts occur in Section 1 below 113 cm.

SITE 1003 HOLE C CORE 1R CORED 406.0 - 415.6 mbsf



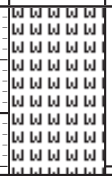
Description

BIOCLASTIC GRAINSTONE TO WACKESTONE

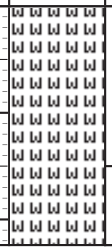
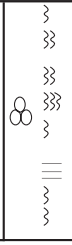
Major Lithology:
This entire core consists of grayish brown (2.5Y 5/2) BIOCLASTIC GRAINSTONE TO WACKESTONE with planktonic foraminifers. The entire core is partially dolomitized. Moldic porosity is pervasive and there is extensive recrystallization of grains and matrix.

General Description:
The core is made up of a series of fining upward intervals which are planar laminated at the base and grade upward into moderately to heavily bioturbated intervals (turbidites). The planar laminated portion of each interval consists of yellowish and gray laminae. Yellowish laminae are coarser grained than gray laminae. Planktonic foraminifers are particularly common in the gray, bioturbated portions at the top of the fining-upward intervals. Average thickness of these fining-upward intervals is 10 cm. Fining-upward intervals include : Section 1, 0-8, 19-27, 44-61, 61-70, 76-83, 83-104, 104-110, and 110-133 cm. Planar laminae in Section 1, 141-146 cm; Section 2, 53-71, 71-76, 77-118, and 118-145 cm; Section 3, 0-11, 16-24, 24-32, 32-42, 42-58, 58-68, 68-78, and 78-89 cm.

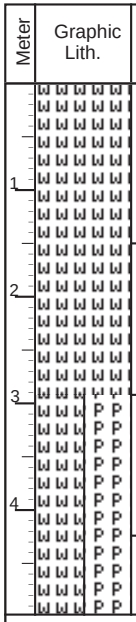
SITE 1003 HOLE C CORE 2R CORED 415.6 - 425.3 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1 2	early Pliocene				5Y 4/1	FORAMINIFER WACKESTONE Major Lithology: This entire core consists of dark gray (5Y 4/1) FORAMINIFER WACKESTONE. A narrow interval of millimeter scale lamination occurs in Section 1, 39-45 cm. This interval is also slightly coarser grained than the rest of the core. The degree of bioturbation varies through the core with moderate to major bioturbation at the top and slight bioturbation at the base. The entire core is partially dolomitized. Moldic porosity is pervasive.

SITE 1003 HOLE C CORE 3R CORED 473.5 - 483.1 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 2		1 2	early Pliocene				5Y 6/1	FORAMINIFER WACKESTONE Major Lithology: This entire core consists of gray (5Y 6/1) FORAMINIFER WACKESTONE. Both planktonic and benthic foraminifers are present. The entire core is partially dolomitized. Moldic porosity is pervasive. General Description: This core contains millimeter-scale lamination in Section 1, 100-105 cm and in Section 2, 15-20 cm. Section 1 has slight bioturbation from 0-10 cm, moderate bioturbation from 10-85 cm, major bioturbation from 85 100 cm, minor bioturbation from 105-115 cm, and minor bioturbation from 115-150 cm. Section 2 has minor bioturbation from 0-20 cm, major bioturbation from 20-25 cm, and minor bioturbation from 20-74 cm. No sharp contacts were noted. Benthic and planktonic foraminifers are most abundant within the heavily bioturbated interval in Section 1, 85-100 cm.

SITE 1003 HOLE C CORE 4R CORED 483.1 - 492.7 mbsf

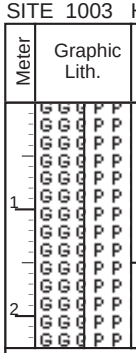


FORAMINIFER WACKESTONE

Major Lithology:
The entire core consists of light gray (2.5Y 7/2) to light brownish gray (2.5Y 6/2) FORAMINIFER WACKESTONE TO PACKSTONE. Sand-sized allochems include planktonic foraminifers, benthic foraminifers, echinoderm spines, bivalve shells, and unidentifiable bioclasts. Slight to moderate bioturbation occurs in Sections 1 and 2. The core is partially dolomitized. Moldic porosity is pervasive. Grains and matrix are recrystallized.

General Description:
Sections 3 and 4 are made up of a series of fining-upward intervals (turbidites) which are planar laminated at the base and grade upward into moderately to heavily bioturbated intervals. The planar laminated portion of each interval consists of yellowish and gray laminae. Yellowish laminae are coarser grained than gray laminae. Planktonic foraminifers are particularly common in the gray, bioturbated intervals at the top of the fining-upward intervals. Average thickness of these fining-upward intervals is 10 cm. Fining-upward intervals include: Section 2, 120-143 cm; Section 3, 37-40, 42-50, 60-75, 79-85, 97-103; Section 4, 5-15, 27-40, and 64-73 cm.

SITE 1003 HOLE C CORE 5R CORED 492.7 - 502.3 mbsf

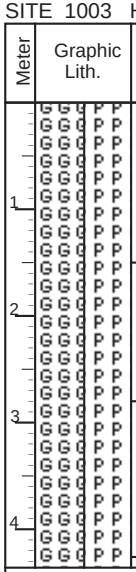


FORAMINIFER PACKSTONE TO GRAINSTONE

Major Lithology:
Light gray (5Y 7/1) PLANKTONIC FORAMINIFER PACKSTONE TO GRAINSTONE. Moldic porosity is pervasive, and the entire core is partially dolomitized. Most of the grains have been dissolved and voids are cemented.

General Description:
Sediments are moderately to highly bioturbated throughout the entire core creating a mottled appearance. Intensity of bioturbation decreases toward the bottom of Section 2. Section 1, 38-44 cm contains millimeter-scale laminae. Between 100 and 120 cm, pieces contain fractures which do not cut the scoured surface and are infilled with brownish material (Celestite?).

SITE 1003 HOLE C CORE 6R CORED 502.3 - 511.9 mbsf



BIOCLASTIC PACKSTONE TO GRAINSTONE

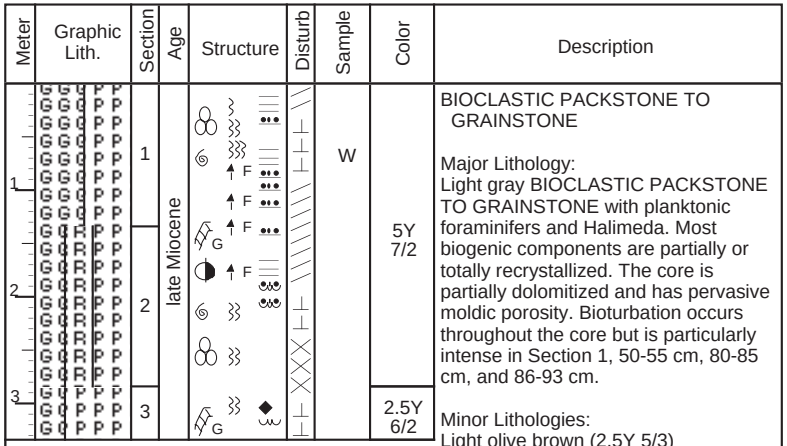
Major Lithology:
The entire core consists of gray (5Y 6/1) to light gray (5Y 7/1) BIOCLASTIC PACKSTONE TO GRAINSTONE. Foraminifers are easily recognized but all other grains have been dissolved. All Sections are moderately to highly bioturbated giving the core a mottled appearance. Moldic porosity is pervasive and the entire core is partially dolomitized. Voids are cemented with isopachous calcite.

General Description:
Two fining-upward intervals occur in the lower part of Section 1, 65-100 cm, and 100-151 cm. Color darkens and the degree of burrow compaction increases toward the top of each interval. The upper part of Section 3, 21-75 cm consists of a darker interval (very dark gray, 5Y 3/1) with more compacted burrows. Color lightens (light gray, 5Y 7/2) down the Section and burrows become less compacted.

SITE 1003 HOLE C CORE 7R CORED 511.9 - 521.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1 2	late Miocene	F F		W M	5Y 7/2	BIOCLASTIC PACKSTONE TO GRAINSTONE Major Lithology: Light gray (5Y 7/2) BIOCLASTIC PACKSTONE TO GRAINSTONE. Sand-sized allochems include planktonic foraminifers. Most biogenic components are dissolved and/or recrystallized. The core is partially dolomitized. Sections 1, and 2, are moderately to highly bioturbated giving the core a mottled appearance. Moldic porosity is pervasive. General Description: Three fining-upward intervals (turbidites) occur in Section 1, 120-150 cm. These intervals have scoured contacts at the base and are approximately 10 cm thick. They are destroyed partially by pervasive bioturbation. Two fining-upward intervals occur Section 2 below 10 cm. Color darkens toward the top of these intervals.

SITE 1003 HOLE C CORE 8R CORED 521.5 - 530.5 mbsf



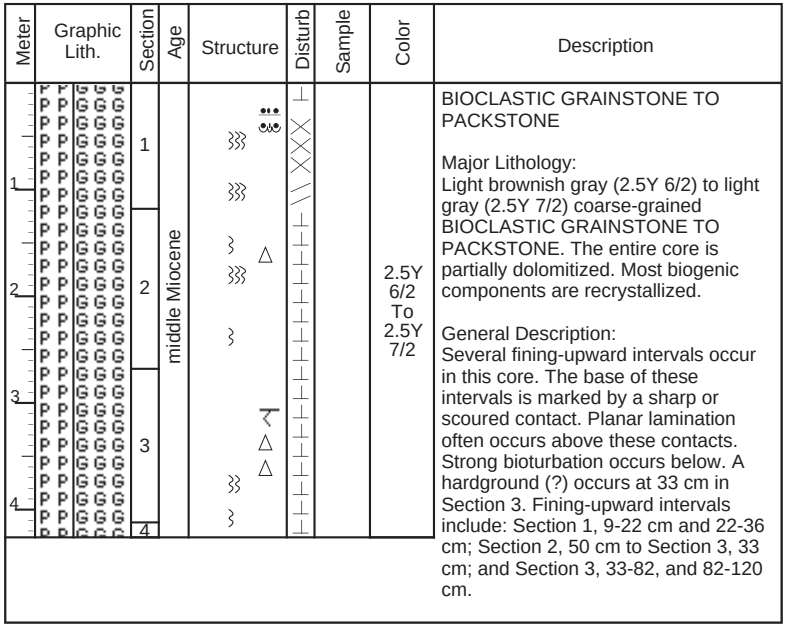
BIOCLASTIC PACKSTONE TO GRAINSTONE

Major Lithology:
Light gray BIOCLASTIC PACKSTONE TO GRAINSTONE with planktonic foraminifers and Halimeda. Most biogenic components are partially or totally recrystallized. The core is partially dolomitized and has pervasive moldic porosity. Bioturbation occurs throughout the core but is particularly intense in Section 1, 50-55 cm, 80-85 cm, and 86-93 cm.

Minor Lithologies:
Light olive brown (2.5Y 5/3) BIOCLASTIC GRAINSTONE TO RUDSTONE with coarse grained laminations and recrystallized bioclasts occurs in Section 2, 86-93 cm.

General Description:
Section 1: Most of the Section shows millimeter-scale laminations interrupted by bioturbation. Fining-upward intervals occur from: 11-30 cm, 77-81 cm,105 108 cm, and 111-136 cm. Section 2: This Section contains two fining-upward intervals on a 10 cm scale from 43-49 cm and 53-64 cm. Color becomes darker toward the top of these intervals. Section 3: This Section contains a sharp, scoured contact at 32 cm with coarse-grained GRAINSTONE containing rip-up clasts above and fine-grained PACKSTONE below.

SITE 1003 HOLE C CORE 9R CORED 530.5 - 540.1 mbsf

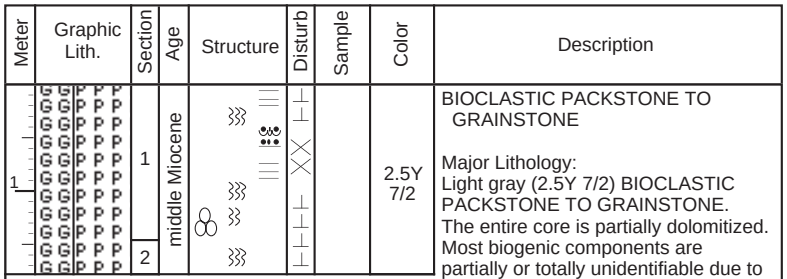


BIOCLASTIC GRAINSTONE TO PACKSTONE

Major Lithology:
Light brownish gray (2.5Y 6/2) to light gray (2.5Y 7/2) coarse-grained BIOCLASTIC GRAINSTONE TO PACKSTONE. The entire core is partially dolomitized. Most biogenic components are recrystallized.

General Description:
Several fining-upward intervals occur in this core. The base of these intervals is marked by a sharp or scoured contact. Planar lamination often occurs above these contacts. Strong bioturbation occurs below. A hardground (?) occurs at 33 cm in Section 3. Fining-upward intervals include: Section 1, 9-22 cm and 22-36 cm; Section 2, 50 cm to Section 3, 33 cm; and Section 3, 33-82, and 82-120 cm.

SITE 1003 HOLE C CORE 10R CORED 540.1 - 549.7 mbsf



BIOCLASTIC PACKSTONE TO GRAINSTONE

Major Lithology:
Light gray (2.5Y 7/2) BIOCLASTIC PACKSTONE TO GRAINSTONE. The entire core is partially dolomitized. Most biogenic components are partially or totally unidentifiable due to extensive recrystallization. The entire core consists of coarse-grained material. Some pores are infilled with equant spar.

General Description:
Two thin (less than 10 cm) fining-upward intervals occur in Section 1, 37-43 cm. Bioturbation decreases downward in Section 1, 15-35, and 100-120 cm.

SITE 1003 HOLE C CORE 11R CORED 549.7 - 559.3 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	middle Miocene	F F		W	2.5Y 7/2	BIOCLASTIC PACKSTONE TO GRAINSTONE Major Lithology: Light gray (2.5Y 7/2) BIOCLASTIC PACKSTONE TO GRAINSTONE. The entire core is partially dolomitized. Biogenic components are mostly unidentifiable due to extensive recrystallization. Planktonic foraminifers are identifiable in finer-grained intervals. Grain size varies from fine sand (56-63 cm) to coarse sand (63-81 cm). Scoured contacts at the base of fining-upward intervals occur at 20, 32, and 87 cm.

SITE 1003 HOLE C CORE 12R CORED 559.3 - 568.9 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1 2	middle Miocene				2.5Y 7/2 To 2.5Y 6/2	BIOCLASTIC PACKSTONE TO GRAINSTONE Major Lithology: Light gray (2.5Y 7/2) to light brownish gray (2.5Y 6/2) BIOCLASTIC PACKSTONE TO GRAINSTONE. Coarsed-grained intervals occur in Section 1, 1-3, 25-36, and 55-70 cm. The entire core is partially dolomitized. Biogenic components are partially unidentifiable due to extensive recrystallization. Planktonic foraminifers are identifiable in finer-grained intervals. Planar laminae occur at 20cm in Section 2.

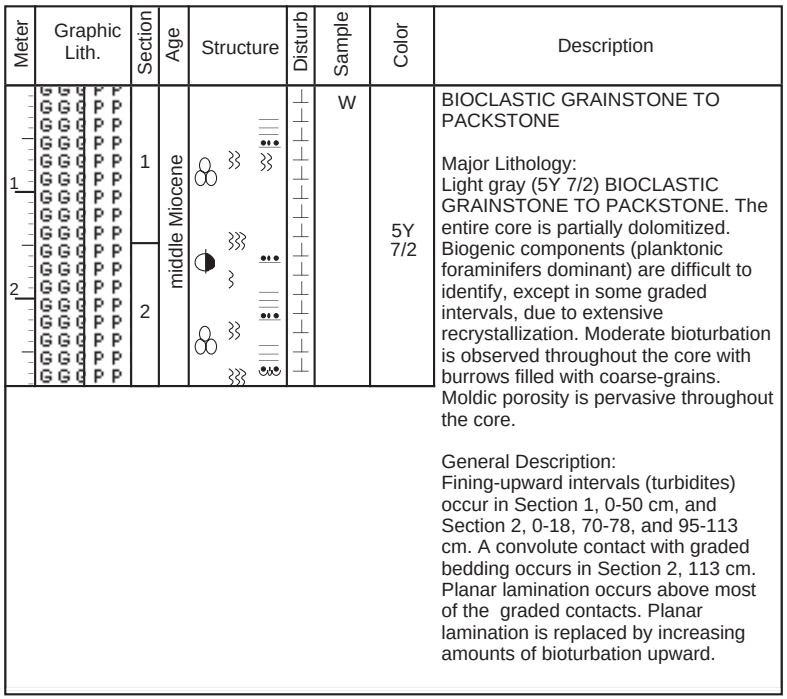
SITE 1003 HOLE C CORE 13R CORED 568.9 - 578.6 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	middle Miocene	F		W	5Y 7/2	BIOCLASTIC GRAINSTONE TO PACKSTONE Major Lithology: Light gray (5Y 7/2) BIOCLASTIC GRAINSTONE TO PACKSTONE. The entire core is partially dolomitized. Moldic porosity is pervasive and there is extensive recrystallization of grains and matrix. General Description: Six fining-upward intervals are present in Section 1, 0-20, 20-50, 50-70, 70-80, 80-130, and 130-150 cm. Typically these intervals are characterized by sharp, graded contacts at the base, a 10 cm interval of planar laminae (millimeter scale) above, and then an interval of increasing bioturbation upward toward the next contact.
2		2						

SITE 1003 HOLE C CORE 14R CORED 578.6 - 588.3 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	middle Miocene	F		W	5Y 5/2 To 5Y 7/2	BIOCLASTIC GRAINSTONE TO PACKSTONE Major Lithology: Light gray (5Y 7/2) to white (5Y 8/1) BIOCLASTIC GRAINSTONE TO PACKSTONE. Biogenic components are mostly unidentifiable due to extensive recrystallization and dissolution. Planktonic foraminifer molds occur throughout the core. The core is partially dolomitized. General Description: This core consists of dark intervals (organic rich) with flattened burrows separated by thicker, light-colored intervals with large (< 4 cm), open burrows. Flattened-burrow intervals are softer and less recrystalized than the light-colored intervals. Flattened-burrow intervals occur in Section 1, 25-30, 47-61, and 134-141 cm; and in Section 2, 35-50 cm. A normal graded interval occurs in Section 3, 70-75 cm.
2		2					5Y 8/1	
3		3					5Y 7/1	
4								

SITE 1003 HOLE C CORE 15R CORED 588.3 - 597.9 mbsf

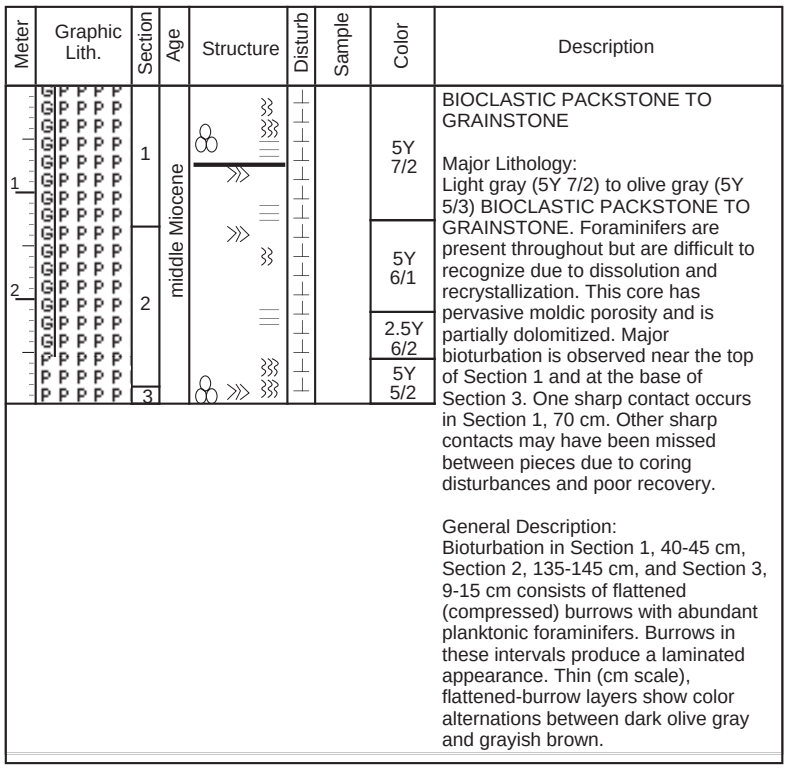


BIOCLASTIC GRAINSTONE TO PACKSTONE

Major Lithology:
Light gray (5Y 7/2) BIOCLASTIC GRAINSTONE TO PACKSTONE. The entire core is partially dolomitized. Biogenic components (planktonic foraminifers dominant) are difficult to identify, except in some graded intervals, due to extensive recrystallization. Moderate bioturbation is observed throughout the core with burrows filled with coarse-grains. Moldic porosity is pervasive throughout the core.

General Description:
Fining-upward intervals (turbidites) occur in Section 1, 0-50 cm, and Section 2, 0-18, 70-78, and 95-113 cm. A convolute contact with graded bedding occurs in Section 2, 113 cm. Planar lamination occurs above most of the graded contacts. Planar lamination is replaced by increasing amounts of bioturbation upward.

SITE 1003 HOLE C CORE 16R CORED 597.9 - 607.5 mbsf

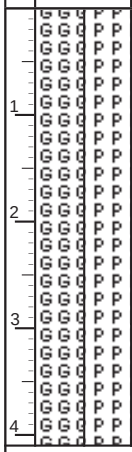


BIOCLASTIC PACKSTONE TO GRAINSTONE

Major Lithology:
Light gray (5Y 7/2) to olive gray (5Y 5/3) BIOCLASTIC PACKSTONE TO GRAINSTONE. Foraminifers are present throughout but are difficult to recognize due to dissolution and recrystallization. This core has pervasive moldic porosity and is partially dolomitized. Major bioturbation is observed near the top of Section 1 and at the base of Section 3. One sharp contact occurs in Section 1, 70 cm. Other sharp contacts may have been missed between pieces due to coring disturbances and poor recovery.

General Description:
Bioturbation in Section 1, 40-45 cm, Section 2, 135-145 cm, and Section 3, 9-15 cm consists of flattened (compressed) burrows with abundant planktonic foraminifers. Burrows in these intervals produce a laminated appearance. Thin (cm scale), flattened-burrow layers show color alternations between dark olive gray and grayish brown.

SITE 1003 HOLE C CORE 17R CORED 607.5 - 617.1 mbsf



BIOCLASTIC GRAINSTONE TO PACKSTONE

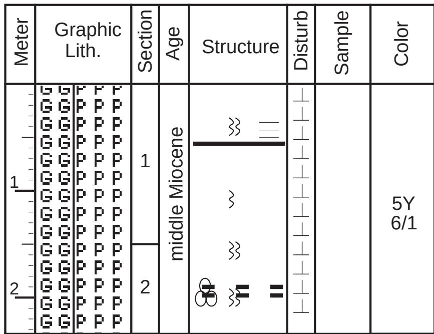
Major Lithology:
Light gray (2.5Y 6/2) to gray (5Y 6/1) BIOCLASTIC PACKSTONE TO GRAINSTONE. Foraminifers are present throughout but are difficult to recognize due to dissolution and recrystallization. Benthic foraminifers and a gastropod mold occur in Section 3, 26-37 cm. This core has pervasive moldic porosity and is partially dolomitized.

General Description:
Moderate to major bioturbation occurs throughout the core. Dark, laminated intervals are present in Section 1, 140-145 cm, and Section 2, 105-120 cm. Laminations are produced by organic material and compressed burrows. Intervening intervals contain both large vertical burrows (Skolithos?) and smaller burrows (Chondrites?).

SITE 1003 HOLE C CORE 18R CORED 617.1 - 626.7 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 2 3 4		1 2 3 4	middle Miocene				5Y 6/1 2.5Y 5/2 5Y 6/1 5Y 6/2	BIOCLASTIC PACKSTONE TO GRAINSTONE Major Lithology: Light gray (5Y 6/2) to dark olive gray (2.5Y 5/2) BIOCLASTIC PACKSTONE TO GRAINSTONE. Planktonic and benthic foraminifers are present throughout the entire core. Planktonic foraminifers are more abundant within dark olive gray interval in Section 2, 0-45 cm. Grain size is very fine to fine-grained sand. This core has pervasive moldic porosity and is partially dolomitized. Minor Lithologies: Elemental sulphur ocurs in Section 2, 127 to 130 cm. General Description: Moderate to major bioturabtion occurs throughout the core. The dark olive gray interval in Section 2, 0-45 cm has a laminated appearance between 25 and 45 cm. Laminations are produced by organic material and compressed burrows. Intervening light gray intervals have larger, more distinct burrows.

SITE 1003 HOLE C CORE 19R CORED 626.7 - 636.3 mbsf



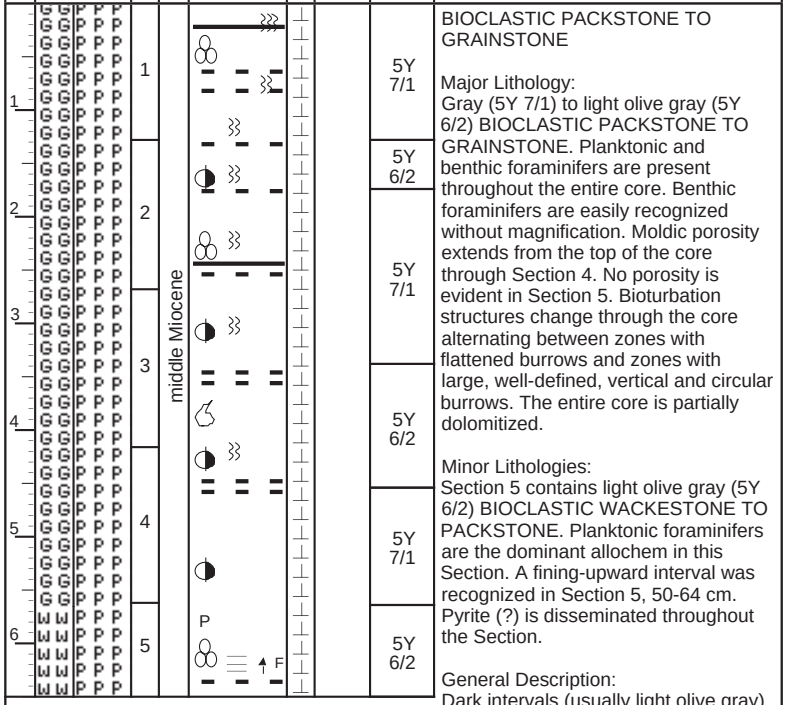
Description

BIOCLASTIC PACKSTONE TO GRAINSTONE

Major Lithology:
Gray (5Y 6/2) BIOCLASTIC PACKSTONE TO GRAINSTONE. Planktonic and benthic foraminifers are present throughout the entire core. Planktonic foraminifers are more abundant within dark interval in Section 2, 34-40 cm. Grain size is fine-grained sand. This core has pervasive moldic porosity and is partially dolomitized.

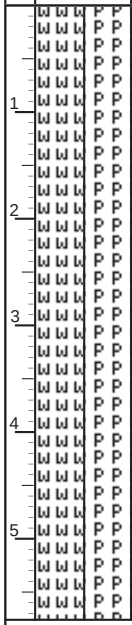
General Description:
Planar lamination occurs above a sharp contact in Section 1, 30-50 cm. (This may be the base of a distal turbidite, Bouma D ?). This planar-laminated interval is bioturbated. Moderate to major bioturabtion occurs throughout the core. The dark interval in Section 2, 34-40 cm has a laminated appearance. Laminations are produced by organic material and compressed burrows. Intervening light gray intervals have larger, more distinct burrows.

SITE 1003 HOLE C CORE 20R CORED 636.3 - 646.0 mbsf



Color	Description
5Y 7/1	BIOCLASTIC PACKSTONE TO GRAINSTONE Major Lithology: Gray (5Y 7/1) to light olive gray (5Y 6/2) BIOCLASTIC PACKSTONE TO GRAINSTONE. Planktonic and benthic foraminifers are present throughout the entire core. Benthic foraminifers are easily recognized without magnification. Moldic porosity extends from the top of the core through Section 4. No porosity is evident in Section 5. Bioturbation structures change through the core alternating between zones with flattened burrows and zones with large, well-defined, vertical and circular burrows. The entire core is partially dolomitized. Minor Lithologies: Section 5 contains light olive gray (5Y 6/2) BIOCLASTIC WACKESTONE TO PACKSTONE. Planktonic foraminifers are the dominant allochem in this Section. A fining-upward interval was recognized in Section 5, 50-64 cm. Pyrite (?) is disseminated throughout the Section. General Description: Dark intervals (usually light olive gray) with compressed or flattened burrows and high organics are present in the following intervals: Section 1, 60-74 cm; Section 2, 0-43 and 109-119 cm; Section 3, 70-79 cm, and Section 4, 23-34 cm.
5Y 6/2	
5Y 7/1	
5Y 6/2	
5Y 7/1	
5Y 6/2	

SITE 1003 HOLE C CORE 21R CORED 646.0 - 655.7 mbsf



Description

BIOCLASTIC WACKESTONE PACKSTONE

Major Lithology:
This entire core consists of light gray (5Y 7/2 to 2.5Y 7/2) BIOCLASTIC WACKESTONE TO PACKSTONE. The entire core is partially dolomitized. The core is made up of a series of fining-upward intervals which are planar laminated at the base and grade upward into moderately to heavily bioturbated intervals (Bouma D and E turbidites?). Planktonic foraminifers are particularly common in the gray (2.5Y 5/2), bioturbated portions at the top of the fining-upward intervals. Average thickness of these fining-upward intervals is 20 cm.

General Description:
A chert nodule is present in Section 2, 72-76 cm. Black foraminifers, echinoid spines, bivalves, bioclasts, and pebbles occur below 100 cm in Section 4. Black pebbles are most common in Section 4, 120-140 cm. The entire core is partially dolomitized. Moldic porosity is pervasive and there is extensive recrystallization of grains and matrix. Fining-upward intervals include: Section 1, 0-20, 30-35, 69-80, 80-94, and 94-117; Section 2, 0-23, 23-33, 33-57, 57-70, and 115-135 cm; Section 3, 20-37, 45-63, 75-105, and 115-140 cm; Section 4: 20-57, and 85-100 cm.

SITE 1003 HOLE C CORE 22R CORED 655.7 - 665.3 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 2 3 4		1 2 3 4	middle Miocene			W I	2.5Y 6/2 To 5Y 7/2 2.5Y 7/2	BIOCLASTIC WACKESTONE TO PACKSTONE Major Lithology: This entire core consists of light gray (5Y 7/2 to 2.5Y 7/2) BIOCLASTIC WACKESTONE TO PACKSTONE. Fine sand is the dominant grain size. The core is partially dolomitized. Moldic porosity is less pervasive than in Core 21R and is restricted to discrete intervals. Allochems observed include planktonic foraminifers, benthic foraminifers, and echinoid spines. General Description: Important intervals in this core include a compacted burrow interval in Section 1, 12-17 cm, an interval of planar and wedge-planar lamination in Section 2, 110-130 cm, and a soft light olive brown interval in Section 3, 128-135 cm. Blackened planktonic and benthic foraminifers, whole and fragmented bivalves, black pebbles, echinoid spines, and bioclasts are concentrated in the compacted burrow interval in Section 1.

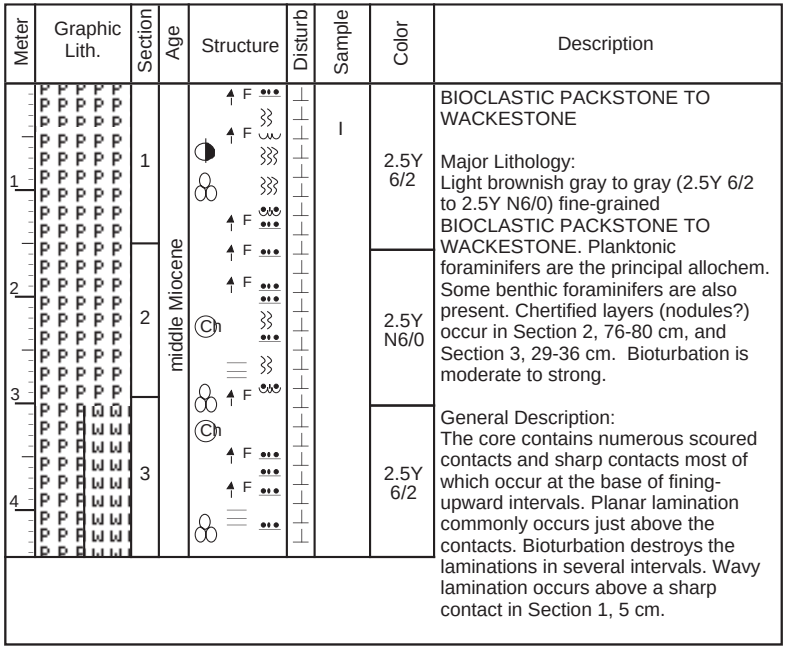
SITE 1003 HOLE C CORE 23R CORED 665.3 - 674.9 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	middle Miocene	Ch			2.5Y 5/2 To 5Y 6/2	BIOCLASTIC WACKESTONE TO PACKSTONE Major Lithology: This entire core consists of grayish brown to light grayish brown (2.5Y 5/2 to 2.5Y 6/2) BIOCLASTIC WACKESTONE TO PACKSTONE. Dominant allochems include planktonic and benthic foraminifers. No bedding or laminations are present. The degree of bioturbation varies between minor to moderate. Color grades from grayish brown at the top of the core to light grayish brown at the base. A chertified layer (nodule?) occurs at 120 cm.

SITE 1003 HOLE C CORE 24R CORED 674.9 - 684.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 2 3 4		1 2 3 4	middle Miocene				5Y 7/2 To 5Y 7/3 5Y 6/3 To 5Y 7/2	BIOCLASTIC PACKSTONE TO FORAMINIFER PACKSTONE Major Lithology: This entire core consists of light gray to pale olive (5Y 7/2 to 5Y 6/3) BIOCLASTIC PACKSTONE TO FORAMINIFER PACKSTONE. Planktonic foraminifers are the principal allochem. Some benthic foraminifers are also present. Section 1 though Section 3, 30 cm is fine-grained and contains no laminations or bedding and only minor bioturbation. Section 2, 30 cm through the base of the core consists of numerous scoured surfaces, many of which have cross-lamination which grade upward into intervals of parallel lamination (turbidites?). General Description: Possible hardground in Section 2, 107 cm. Cross-lamination is observed above this surface and strong bioturbation occurs below. Bioturbation at the top of turbidite intervals increases downward in Section 2.

SITE 1003 HOLE C CORE 25R CORED 684.5 - 694.1 mbsf



BIOCLASTIC PACKSTONE TO WACKESTONE

Major Lithology:
Light brownish gray to gray (2.5Y 6/2 to 2.5Y N6/0) fine-grained BIOCLASTIC PACKSTONE TO WACKESTONE. Planktonic foraminifers are the principal allochem. Some benthic foraminifers are also present. Chertified layers (nodules?) occur in Section 2, 76-80 cm, and Section 3, 29-36 cm. Bioturbation is moderate to strong.

General Description:
The core contains numerous scoured contacts and sharp contacts most of which occur at the base of fining-upward intervals. Planar lamination commonly occurs just above the contacts. Bioturbation destroys the laminations in several intervals. Wavy lamination occurs above a sharp contact in Section 1, 5 cm.

SITE 1003 HOLE C CORE 26R CORED 694.1 - 703.6 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 2 3 4 5		1 2 3 4	middle Miocene	F F C F F F F Ch C F F F			2.5Y 6/2	BIOCLASTIC WACKESTONE TO PACKSTONE Major Lithology: Light brownish gray (2.5Y 6/2) very fine- to medium-grained BIOCLASTIC WACKESTONE TO PACKSTONE. Planktonic foraminifers are the principal allochem. A chertified layer (nodule?) occurs in Section 4, 27-28 cm. Grains throughout the entire core have a sucrosic appearance (dolomite?) and the rock has moldic and intracrystaline porosity. General Description: The entire core consists of a repetition of scoured or sharp contacts capped by fining-upward intervals. Bioturbation increases upward in each interval. Planktonic foraminifers are usually more abundant at the top of these intervals. At least 13 fining-upward intervals (turbidites?) were recognized. A soft, grayish brown (2.5Y 5/2), organic-rich interval of flattened burrows occurs in Section 1, 76-80 cm.

SITE 1003 HOLE C CORE 27R CORED 703.6 - 713.2 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 2 3		1 2 3	middle Miocene				2.5Y 6/2	FORAMINIFER WACKESTONE Major Lithology: Light brownish gray (2.5Y 6/2) very fine- to medium-grained FORAMINIFER WACKESTONE. Rock has a sucrosic appearance (dolomite?). Foraminifers are most abundant in thin, dark (5Y 6/2) intervals. General Description: Fining-upward intervals (turbidites) occur in Sections 1 and 2, but are more common in Section 2. Turbidites are medium sand at the base and grade to very fine sand at the top. Color also grades in these intervals from light brownish gray (2.5Y 6/2) to light olive gray (5Y 6/2). Laminated intervals in this core contain light brownish gray and light gray millimeter-scale laminae. Minor to moderate bioturbation commonly occurs at the top of the fining-upward intervals.

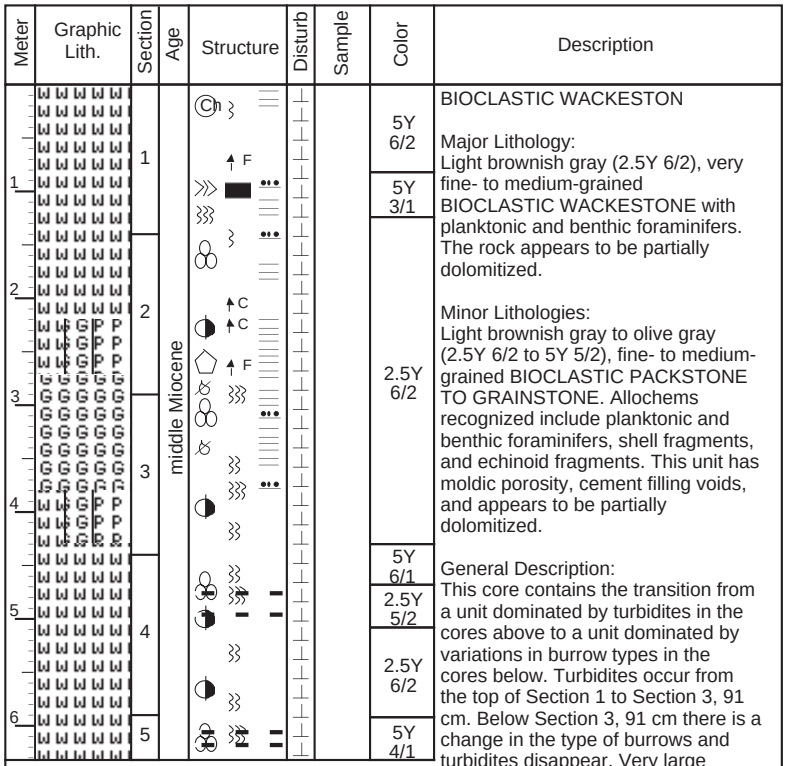
SITE 1003 HOLE C CORE 28R CORED 713.2 - 722.8 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		1	middle Miocene	F			5Y 6/1	FORAMINIFER WACKESTONE Major Lithology: Light gray (5Y 6/1) very fine- to medium-grained FORAMINIFER WACKESTONE. The rock is partially dolomitized. General Description: This core has millimeter-scale laminations, particularly between 15 and 50 cm. Dark-colored laminations are thinner than light-colored ones. Foraminifers are blackened at 20 cm and below 30 cm. Black foraminifers are associated with other black, unidentified grains. A minor fining-upward interval occurs between 30 and 40 cm.

SITE 1003 HOLE C CORE 29R CORED 722.8 - 732.4 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 2 3 4		1 2 3 4	middle Miocene	Ch C Ch F F C F F			2.5Y 6/2	FORAMINIFER WACKESTONE Major Lithology: Light brownish gray (2.5Y 6/2), very fine- to medium-grained FORAMINIFER WACKESTONE. Both planktonic and benthic (milliolid) foraminifers are abundant. The rock is partially dolomitized. Chert layers (nodules?) occur in Section 1, 52-54 cm, and 110-112 cm. General Description: Fining-upward intervals (turbidites) occur from the base of Section 1 to the base of the core. Some of these fining-upward intervals are capped by coarsening upward intervals. Both coarsening and fining-upward intervals are laminated on a millimeter scale. Laminations are generally well-defined directly above the contacts. Bioturbation is usually strongest at the top of fining-upward intervals.

SITE 1003 HOLE C CORE 30R CORED 732.4 - 742.0 mbsf



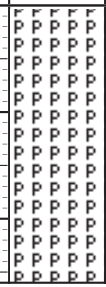
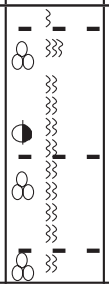
BIOCLASTIC WACKESTON

Major Lithology:
Light brownish gray (2.5Y 6/2), very fine- to medium-grained BIOCLASTIC WACKESTONE with planktonic and benthic foraminifers. The rock appears to be partially dolomitized.

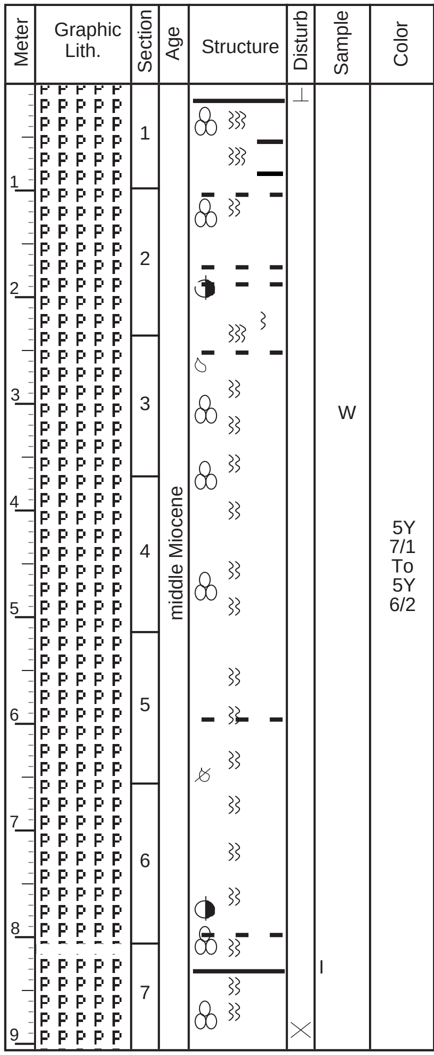
Minor Lithologies:
Light brownish gray to olive gray (2.5Y 6/2 to 5Y 5/2), fine- to medium-grained BIOCLASTIC PACKSTONE TO GRAINSTONE. Allochems recognized include planktonic and benthic foraminifers, shell fragments, and echinoid fragments. This unit has moldic porosity, cement filling voids, and appears to be partially dolomitized.

General Description:
This core contains the transition from a unit dominated by turbidites in the cores above to a unit dominated by variations in burrow types in the cores below. Turbidites occur from the top of Section 1 to Section 3, 91 cm. Below Section 3, 91 cm there is a change in the type of burrows and turbidites disappear. Very large burrows (up to 4 cm) occur in Section 1, 80-140 cm, Section 2, 86-150 cm, Section 3, 91-135 cm, Section 4, 50-120 cm. Two grayish brown to dark gray (2.5Y 5/2 to 5Y 4/1) intervals of flattened burrows were recognized. These intervals are relatively soft and contain abundant planktonic and benthic foraminifers. A black Zoophycos burrow occurs adjacent to a charcoal-black layer in Section 1, 79-81 cm.

SITE 1003 HOLE C CORE 31R CORED 742.0 - 751.6 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 2		1 2	middle Miocene			W	2.5Y N6/0 To 2.5Y 6/2 5Y 6/2	BIOCLASTIC PACKSTONE Major Lithology: Light olive (5Y 6/2) and light brownish gray (2.5Y 6/2) to light gray (5Y 7/2) BIOCLASTIC PACKSTONE. Planktonic foraminifers (Orbulina- and Globigerina-type) are common throughout the entire core. Other components observed are large miliolids, small bioclasts, and “dark grains”. General Description: This entire core is marked by pervasive bioturbation, which varies in intensity from moderate to strong. The diameter of burrows ranges up to 2.5 cm. Below 136 cm in Section 1 and continuing to 82 cm in Section 2, rocks are darker and burrows are compacted or flattened. The upper and lower contacts of this interval are gradational, such that degree of burrow compaction and color intensity change gradually into and out of this interval. The base of Section 2 (112 - 120 cm) is marked by a color change to light gray (5Y 7/2) and a slight increase in burrow size.

SITE 1003 HOLE C CORE 32R CORED 751.6 - 761.2 mbsf



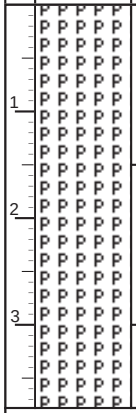
Description

BIOCLASTIC PACKSTONE

Major Lithology:
BIOCLASTIC PACKSTONE, which shows color gradations from light gray (5Y 7/1) to light olive gray (5Y 6/2). The major allochems are planktonic foraminifers and benthic foraminifers (miliolids), with occasional bivalves and unidentifiable shell fragments. The entire core is slightly dolomitized.

General Description:
This entire core is marked by pervasive bioturbation (moderate to strong). Burrow diameter ranges from 1 to 2 cm. This core contains several intervals in which color darkens (from light gray to light olive gray) and burrows are compacted or flattened. The upper and lower contacts of such intervals are gradational, such that degree of burrow compaction and color intensity change gradually into and out of these intervals; eg. Section 1, 2, 5, and 6. Thin (0.25 cm), light colored layers and lensoids containing coarser grains and less mud occur sporadically: in Section 1 (54, 55.5, 56, and between 80 and 92 cm), Section 2 (38, 50, 88, and 107 cm), Section 4 (118 and 120 cm), Section 5 (32, 51, 56.5, and 71 cm), and Section 6 (116 cm). Disseminated organic matter, visible as 0.5 cm-long “black stringers”, occurs in lighter intervals of this core where burrows are not compacted.

SITE 1003 HOLE C CORE 33R CORED 761.2 - 770.8 mbsf



Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
	1	middle Miocene				5Y 6/2 To 5Y 6/3	BIOCLASTIC PACKSTONE Major Lithology: Fine-grained BIOCLASTIC PACKSTONE, which shows color gradations from light olive gray (5Y 6/2) to pale olive (5Y 6/3), light brownish gray (2.5Y 6/2), and light gray (5Y 7/2). The major allochems are planktonic foraminifers with miliolids, bivalve fragments, and unidentifiable bioclasts. Miliolids are most abundant in darker intervals. General Description: Moderate bioturbation is pervasive. Most burrows are large, with diameters ranging from 1-2 cm. In Section 2 (70-90 cm), these contain backfill features (Zoophycos). Small burrows with diameters less than 0.25 cm occur between 144 and 145 cm in Section 1. This core contains three intervals in which color darkens (from light gray to light olive gray) and burrows are compacted or flattened. The upper and lower contacts of such intervals are gradational, such that degree of burrow compaction and color intensity change gradually into and out of these intervals. Such intervals occur in Section 1 (0-26 cm), Section 2 (116-122 cm), and Section 3 (60-72 cm). Fractures are present in the upper part of Section 1, at 9-10 cm and 61 cm. These fractures are filled with a clear, non-carbonate mineral. Disseminated organic matter, visible as >0.5 cm-long “black stringers”, occurs in lighter intervals of this core where burrows are not compacted.
	2					2.5Y 6/2	
	3					5Y 7/2	

SITE 1003 HOLE C CORE 34R CORED 770.8 - 780.4 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	middle Miocene				5Y 7/2 To 5Y 6/2	BIOCLASTIC PACKSTONE Major Lithology: Monotonous, light gray (5Y 7/2) to light olive gray (5Y 6/2) fine-grained BIOCLASTIC PACKSTONE. Allochems include planktonic foraminifers (e.g., orbulinas) with minor benthic foraminifers (e.g., miliolids), and unidentifiable (recrystallized) grains. General Description: Bioturbation is pervasive, and ranges in intensity from moderate to strong. Burrows are large, with diameters ranging up to 2 cm. Burrow size increases slightly toward the top of Section 1. Burrows are slightly compacted at the base of Sections 1 (below 87 cm) and 2 (below 94 cm). These intervals are olive gray in color and slightly darker than the rest of the core. Thin (0.25 cm), light-colored layers containing coarser grains and less mud occur in Section 1 between 91 and 92 cm. Disseminated organic matter, visible as >1 mm-long “black stringers,” is present throughout the entire core.
2		2				W	5Y 5/1 To 5Y 5/2	
3		3				I	5Y 7/2	

SITE 1003 HOLE C CORE 35R CORED 780.4 - 790.1 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–8	P	1–7	middle Miocene		⊥	I	5Y 6/1 To 5Y 5/1; 2.5Y 6/2; 5Y 7/1 To 5Y 6/2; 2.5Y 6/2 To 5Y 6/2	BIOCLASTIC PACKSTONE Major Lithology: Fine-grained BIOCLASTIC PACKSTONE, which shows color variations from light brownish gray (2.5Y 6/2) to grayish brown (2.5Y 5/2), light olive gray (5Y 6/2), and olive gray (5Y 5/2). Major allochems are planktonic foraminifers with benthic foraminifers (e.g., miliolids) and unidentifiable (recrystallized/replaced) grains. The entire core is slightly dolomitized. General Description: This entire core is moderately bioturbated. Burrow diameter ranges from 1 to 2 cm. Some bioturbation is visible only as an indistinct mottling. This core contains several intervals in which color darkens (from grayish to greenish) and burrows are compacted or flattened. The upper and lower contacts of such intervals are gradational, such that degree of burrow compaction and color intensity change gradually into and out of these intervals. Such intervals occur in Section 1 (23-26 cm), Section 2 (50-110 cm), Section 4 (below 85 cm), Section 5 (0-4 cm), Section 6 (120-125 cm), and Section 7 (0-2 cm and 11-36 cm). Thin (0.25 cm), light-colored layers containing coarser grains and less mud occur in Section 2, 63-81 cm, and Section 7, 20 cm. Disseminated organic matter, visible as <1 mm-long “black stringers,” is present in lighter intervals, where burrows aren’t flattened.

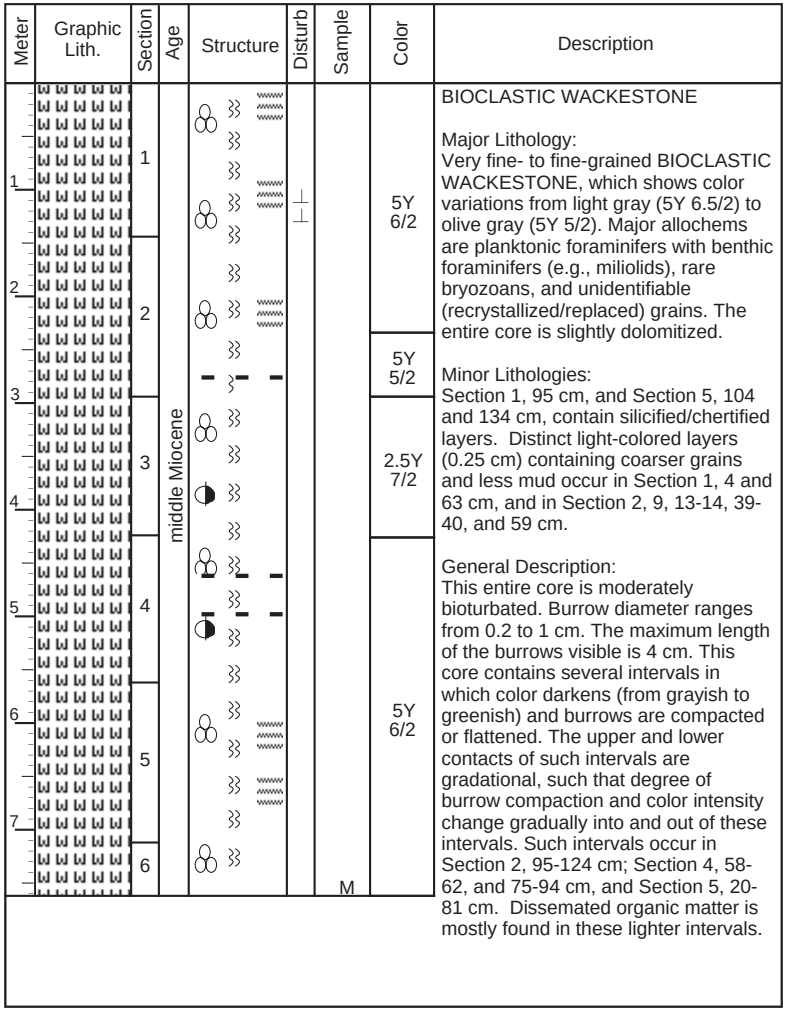
SITE 1003 HOLE C CORE 36R CORED 790.1 - 799.8 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–8	G G P P P	1	middle Miocene		⊢	W	5Y 7/2	BIOCLASTIC PACKSTONE TO GRAINSTONE Major Lithology: Fine-grained BIOCLASTIC PACKSTONE TO GRAINSTONE, which shows color variations from light gray (5Y 7/2) to light brownish gray (2.5Y 6/2). Major allochems are planktonic foraminifers (up to 2 mm) with benthic foraminifers (e.g., miliolids) and unidentifiable (recrystallized/replaced) grains. The entire core is slightly dolomitized. General Description: This entire core is moderately bioturbated. In comparison to Core 35 the grain size in this core has increased and is somewhat “cleaner”. Burrow diameter ranges from 1 to 3 cm. This core contains several intervals in which color darkens (from grayish to greenish) and burrows are compacted or flattened. The upper and lower contacts of such intervals are gradational, such that degree of burrow compaction and color intensity change gradually into and out of these intervals. Such intervals occur in Section 1, 5-15 cm; Section 2, 69-80 cm; Section 3, 16-30 cm; Section 4 (beginning at136 cm) to Section 5 (ending at 10 cm), and Section 6, 100-120 cm. Disseminated organic matter is mostly found in these lighter intervals. Distinct light-colored layers (0.25 cm) containing coarser grains and less mud occur in Section 2, 70-77 cm, and Section 4, 136-150 cm.
		2					2.5Y 5/2 To 2.5Y 6/2	
		3					2.5Y 6/2	
		4			⊢		2.5Y 7/2	
		5						
		6					5Y 5/3	

SITE 1003 HOLE C CORE 37R CORED 799.8 - 809.4 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	middle Miocene				5Y 5/2	BIOCLASTIC WACKESTONE Major Lithology: Fine- to very fine-grained BIOCLASTIC WACKESTONE, which shows color variations from light olive gray (5Y 6/2) to olive gray (5Y 5/2). Major allochems are planktonic foraminifers, Heterostegina, Operculina, miliolids, and unidentifiable (recrystallized/replaced) grains. The entire core is slightly dolomitized. General Description: This entire core is moderately bioturbated. Two types of burrow diameters can be identified in the entire section: relative large ones (from 1 and 1.5 cm), and a small not very well defined type. This core contains several intervals in which color darkens (from grayish to greenish), burrows are compacted or flattened, and moldic porosity is present. The upper and lower contacts of such intervals are gradational, such that degree of burrow compaction and color intensity change gradually into and out of these intervals. Such intervals occur in Section 1, 0-10 cm; Section 2, 60-75 cm; and Section 4, 121-134 cm. Disseminated organic matter is mostly found in these lighter intervals.
							5Y 6/2	
							5Y 5/2	
2		2					5Y 6/1	
							2.5Y 5/2	
3							2.5Y 6/2	
		3					5Y 6/2	
4							5Y 7/2	
							5Y 6/2	
5		4					2.5Y 6/2	
							5Y 5/2	
6		5				M	2.5Y 6/2	

SITE 1003 HOLE C CORE 38R CORED 809.4 - 819.0 mbsf



BIOCLASTIC WACKESTONE

Major Lithology:
Very fine- to fine-grained BIOCLASTIC WACKESTONE, which shows color variations from light gray (5Y 6.5/2) to olive gray (5Y 5/2). Major allochems are planktonic foraminifers with benthic foraminifers (e.g., miliolids), rare bryozoans, and unidentifiable (recrystallized/replaced) grains. The entire core is slightly dolomitized.

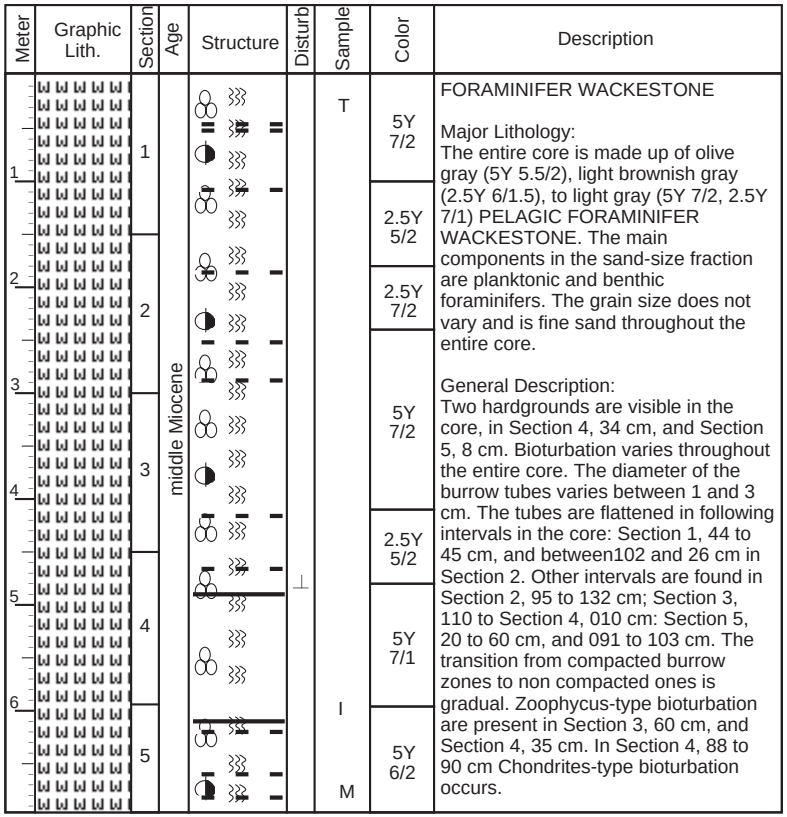
Minor Lithologies:
Section 1, 95 cm, and Section 5, 104 and 134 cm, contain silicified/chertified layers. Distinct light-colored layers (0.25 cm) containing coarser grains and less mud occur in Section 1, 4 and 63 cm, and in Section 2, 9, 13-14, 39-40, and 59 cm.

General Description:
This entire core is moderately bioturbated. Burrow diameter ranges from 0.2 to 1 cm. The maximum length of the burrows visible is 4 cm. This core contains several intervals in which color darkens (from grayish to greenish) and burrows are compacted or flattened. The upper and lower contacts of such intervals are gradational, such that degree of burrow compaction and color intensity change gradually into and out of these intervals. Such intervals occur in Section 2, 95-124 cm; Section 4, 58-62, and 75-94 cm, and Section 5, 20-81 cm. Dissemated organic matter is mostly found in these lighter intervals.

SITE 1003 HOLE C CORE 39R CORED 819.0 - 828.6 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	middle Miocene			I	5Y 6/2	BIOCLASTIC WACKESTONE Major Lithology: The entire core consists of light olive brown (2.5Y 5/3), light olive gray (5Y 6/2), and light gray (5Y 7/2) BIOCLASTIC WACKESTONE. The major components in the fine sand-size fraction are planktonic foraminifers, benthic foraminifers (miliolids), and unidentifiable (recrystallized/replaced) bioclasts. General Description: This entire core is moderately bioturbated. The tubes of the individual burrows show clear compaction or flattening in the vertical direction. In Section 1, 72 and 110-114 cm, discontinuous, wavy to planar laminae are present. These are somewhat lighter colored.
2		2				M	2.5Y 5/2 5Y 7/2	

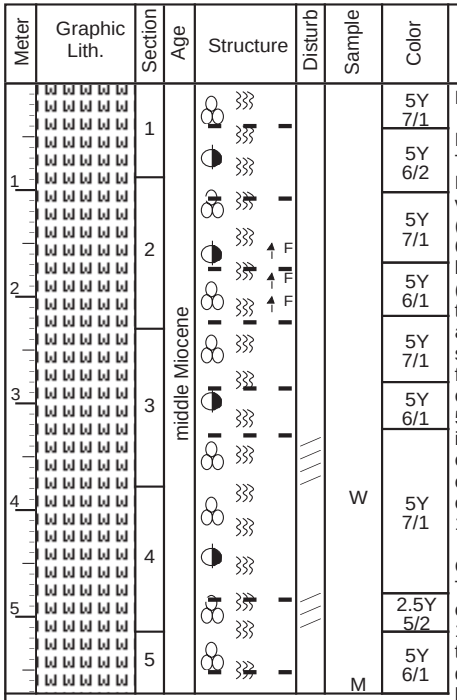
SITE 1003 HOLE C CORE 40R CORED 828.6 - 838.2 mbsf



SITE 1003 HOLE C CORE 41R CORED 838.2 - 847.9 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	middle Miocene				5Y 6/1	PELAGIC FORAMINIFER WACKESTONE Major Lithology: The entire core is made up of PELAGIC FORAMINIFER WACKESTONE, which varies in color from dark olive gray (5Y 4.5/1.5), grayish brown (2.5Y 6/1.5), light gray (5Y 7/2, 2.5Y 7/1), to gray (5Y 5.5/1). The main components in the sand size fraction are planktonic and benthic foraminifers. The grain size is predominantly fine sand with one medium sized interval (Section 1, 0-18 cm). General Description: In Section 1, 30-32 cm, parallel lamination is present. A coarsening upward bed is found in Section 1, 0-18 cm, a fining upward bed in the interval between Section 1, 18 to 30 cm. Bioturbation varies throughout the entire core. The diameter of the burrow tubes varies between 0.1 and 3 cm. The tubes are flattened in following intervals in the core: Section 1, 71-93, and 19-125 cm; Section 2, 40-55 cm; Section 3, 4-66 cm, and 133-137 cm. The transition from compacted burrow zones to non-compacted ones is gradual. Zoophycus type bioturbation are present in Section 3, 116-122 cm. Chondrites type is found in Section 1, 93-119 cm, and Section 3, 133-139 cm.
2		2					5Y 5/2	
							5Y 7/1	
3		3					5Y 6/1	
							5Y 7/1	
4		4				M	2.5Y 7/2	

SITE 1003 HOLE C CORE 42R CORED 847.9 - 857.5 mbsf

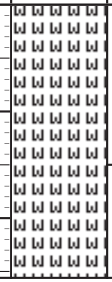


BIOCLASTIC WACKESTONE

Major Lithology:
The entire core is made up of BIOCLASTIC WACKESTONE, which varies in color from gray like olive gray (5Y 4.5/1.5), grayish brown (2.5Y 6/1.5), light grayish brown (2.5Y 5.5/2), light gray (5Y 7/2, 2.5Y 7/1), to gray (5Y 5.5/1). The main components in the sand-size fraction are planktonic and benthic foraminifers. Three grain sizes are present. The fine sand fraction predominates Section 1, 0-150 cm; Section 3, 0-150 cm; and Section 5, 0-57 cm. Fine to medium sand intervals are found in Section 2, 0-80 cm; Section 4, 0-137 cm. Medium sand occurs in Section 2, 80-116 cm, while coarse grains dominate Section 2, 116-127 cm.

General Description:
Two fining-upward beds can be observed in Section 2, 13-116 cm, and 116-127. Bioturbation varies throughout the entire core. The diameter of the burrow tubes varies between 0.2 and 1.6 cm. The tubes are flattened in following intervals in the core: Section 1, 40-88 cm; Section 2, 0-13, and 80-116 cm; Section 3, 52-94 cm: Section 4, 100-137 cm; and Section 5, 0-28 cm. The transition from compacted burrow zones to non-compacted ones is gradual. One sharp contact is present in Section 4, 33 cm.

SITE 1003 HOLE C CORE 43R CORED 857.5 - 867.1 mbsf

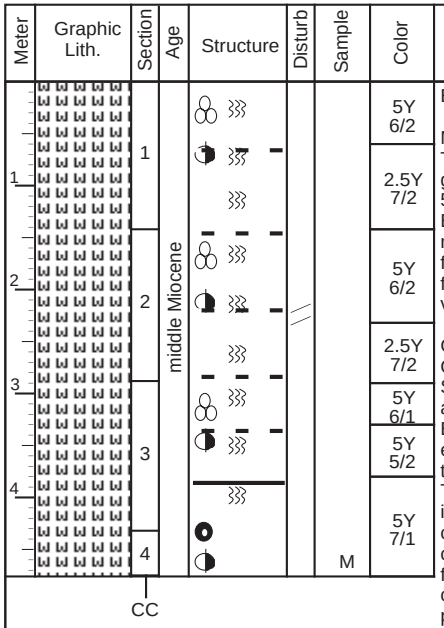


Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
	1	middle Miocene	F F F C		M	5Y 5/1 2.5Y 7/2 5Y 5/1	BIOCLASTIC WACKESTONE Major Lithology: The entire core is made up of light gray (2.5Y 7/2) to gray (5Y 5.5/1) BIOCLASTIC WACKESTONE. The main components in the sand-size fraction are planktonic and benthic foraminifers, and unidentifiable bioclasts. The grain size in the sand-sized fraction varies between fine and medium sand. General Description: Two fining-upward beds occur in the core, in Section 1, 40-150 cm, and Section 2, 72-103 cm. A coarsening upward sequence is shown in Section 2, 0-72 cm. The amount of bioturbation varies throughout the entire core. Two generations of bioturbation structures are present. Large tubes with a diameter between 0.2 and 2 cm, which are crossed by small 2 mm size tubes. The tubes are flattened in following intervals in the core: Section 1, 24-40 cm; and Section 2, 40-75 cm. The transition from compacted burrow zones to non-compacted ones is sharp. One Zoophycos type burrow in Section 2, 19 cm. Moldic porosity is present throughout the entire core Note: CC given to paleontologists.
	2						

SITE 1003 HOLE C CORE 44R CORED 867.1 - 876.7 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 2 3 4 5		1 2 3 4 CC	middle Miocene	F C F F F		M	5Y 6/1 2.5Y 7/2 5Y 5/1 2.5Y 7/2 5Y 7/1	BIOCLASTIC WACKESTONE Major Lithology: The dominant lithology in this core is light gray (2.5Y 7/1) to grayish brown (2.5Y 5/1.5) BIOCLASTIC WACKESTONE. The main components in the sand-size fraction are planktonic and benthic foraminifers, and unidentifiable bioclasts. The grain size in the sand-sized fraction varies between fine and medium sand. Minor Lithologies: The minor lithology is white to light gray (5Y 7.5/1) PLANKTONIC FORAMINIFER MUDSTONE that occurs in Section 4.

SITE 1003 HOLE C CORE 45R CORED 876.7 - 886.3 mbsf



Color	Description
5Y 6/2	BIOCLASTIC WACKESTONE Major Lithology: The entire core is made up of olive gray (5Y 5/2), grayish brown (2.5Y 5/2), to light gray (5Y 7.5/1, 2.5Y 7/1) BIOCLASTIC WACKESTONE. The main components in the sand-size fraction are planktonic and benthic foraminifers. The grain size varies from very fine sand to fine sand. General Description: One distinct hardground is visible in Section 3, 87-91 cm. This interval has a dark gray color (2.5Y 4/1). Bioturbation varies throughout the entire core. The diameter of the burrow tubes varies between 0.5 and 1.5 cm. The tubes are flattened in following intervals in the core: Section 1, 5-60 cm; Section 2, 0-70 cm, and 136-147 cm; Section 3, 43-87 cm. The transition from compacted burrow zones to non-compacted ones is gradual. Moldic porosity is present throughout the entire core. Disseminated organic matter occurs throughout the entire core.
2.5Y 7/2	
5Y 6/2	
2.5Y 7/2	
5Y 6/1	
5Y 5/2	
5Y 7/1	

SITE 1003 HOLE C CORE 46R CORED 886.3 - 896.0 mbsf

BIOCLASTIC WACKESTONE

Major Lithology:
The entire core is made up of light olive gray (5Y 5.5/2), grayish brown (2.5Y 5.5/2), to light gray (5Y 7.5/1, 2.5Y 7/1), or gray (2.5 6/1) BIOCLASTIC WACKESTONE. The components observed in the sand-size fraction are pelagic- and benthic foraminifers, and unidentifiable biotic grains and clasts. The grain size varies from very fine sand to medium sand.

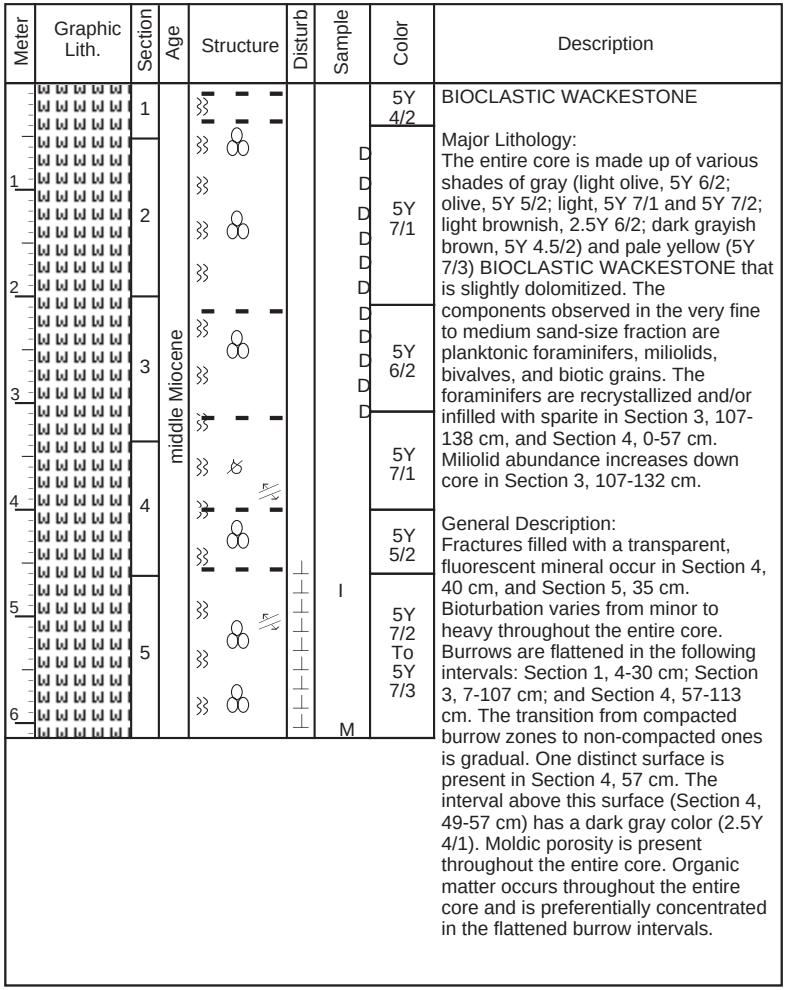
Minor Lithologies:
The minor lithology is gray to light gray (5Y 6.5/1) BIOCLASTIC PACKSTONE TO GRAINSTONE. The main components are very fine grained planktonic foraminifers, benthic foraminifers like Operculina and Amphistegina, miliolids, and unidentifiable biotic grains. Medium to coarse grains characterize these intervals.

General Description:
Fining-upward cycles and coarsening-upward sequences occur in Sections 1 and 5. Parallel lamination is present in Section 5. Bioturbation varies throughout the entire core. The diameter of the burrow tubes goes up to 2 cm with a maximum visible length of 7 cm. The tubes are flattened in Sections 2, 3, and 4. The transition from compacted burrow zones to non-compacted ones is gradual. One distinct surface is present in Section 2, 22 cm. The interval above this surface (Section 2, 0-22 cm) has a dark gray color (2.5Y 4/1). High moldic porosity occurs throughout the entire core. Disseminated organic matter is present throughout the entire core, and is concentrated in the flattened burrow intervals. Planktonic foraminifers are filled with white calcite cement.

SITE 1003 HOLE C CORE 47R CORED 896.0 - 905.6 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	middle Miocene				5Y 7/1	BIOCLASTIC WACKESTONE TO MUDSTONE Major Lithology: The entire core is made up of light to dark gray (2.5Y 7/1 to 5Y 4/1) BIOCLASTIC WACKESTONE TO MUDSTONE. The components observed in the very fine to medium sand-size fraction are planktonic foraminifers and unidentifiable grains. General Description: The sediment is moderately to strongly bioturbated. A dark layer rich in organic matter is present in Section 1, 58-60 cm.

SITE 1003 HOLE C CORE 48R CORED 905.6 - 915.2 mbsf

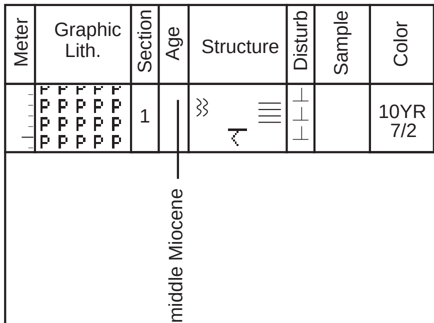


BIOCLASTIC WACKESTONE

Major Lithology:
The entire core is made up of various shades of gray (light olive, 5Y 6/2; olive, 5Y 5/2; light, 5Y 7/1 and 5Y 7/2; light brownish, 2.5Y 6/2; dark grayish brown, 5Y 4.5/2) and pale yellow (5Y 7/3) BIOCLASTIC WACKESTONE that is slightly dolomitized. The components observed in the very fine to medium sand-size fraction are planktonic foraminifers, miliolids, bivalves, and biotic grains. The foraminifers are recrystallized and/or infilled with sparite in Section 3, 107-138 cm, and Section 4, 0-57 cm. Miliolid abundance increases down core in Section 3, 107-132 cm.

General Description:
Fractures filled with a transparent, fluorescent mineral occur in Section 4, 40 cm, and Section 5, 35 cm. Bioturbation varies from minor to heavy throughout the entire core. Burrows are flattened in the following intervals: Section 1, 4-30 cm; Section 3, 7-107 cm; and Section 4, 57-113 cm. The transition from compacted burrow zones to non-compacted ones is gradual. One distinct surface is present in Section 4, 57 cm. The interval above this surface (Section 4, 49-57 cm) has a dark gray color (2.5Y 4/1). Moldic porosity is present throughout the entire core. Organic matter occurs throughout the entire core and is preferentially concentrated in the flattened burrow intervals.

SITE 1003 HOLE C CORE 49R CORED 915.2 - 924.8 mbsf



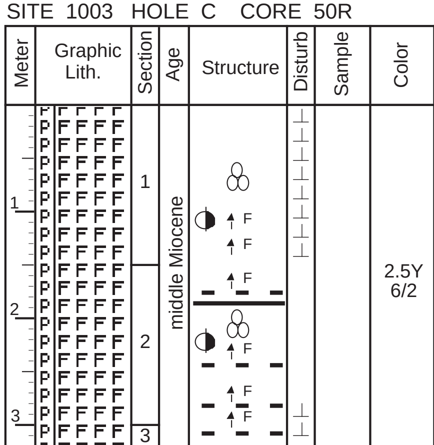
Description

BIOCLASTIC PACKSTONE

Major Lithology:
The major lithology is gray to light gray (10YR 7/2) BIOCLASTIC PACKSTONE, slightly dolomitized. The main components are fine grained planktonic foraminifers, benthic foraminifers, miliolids, and other skeletal grains.

General Description:
The sediments are slightly laminated in Section 1, 18-21 cm. A prominent hardground to firmground is present in Section 1, 60-65 cm. The surface shows distinct borings and oxidized grains.

SITE 1003 HOLE C CORE 50R CORED 924.8 - 934.5 mbsf



Description

FLOATSTONE TO PACKSTONE

Major Lithology:
The major lithology in this core is light yellowish brown (2.5Y 6/3) FLOATSTONE TO PACKSTONE. The components observed in the very fine to medium sand-size fraction are planktonic foraminifers, benthic foraminifers (e.g., miliolids and Amphistegina), bivalves, lithoclasts, and unidentifiable grains. The planktonic foraminifers are blackened in Section 3, 0-23 cm

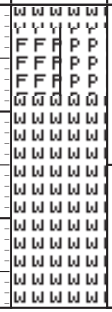
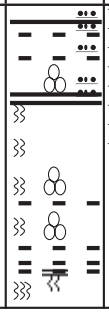
Minor Lithologies:
Gray to grayish brown (2.5Y 5/2 to 2.5Y 5/1.5) and olive (5Y 5/3), slightly dolomitized BIOCLASTIC WACKESTONE containing planktonic and benthic foraminifers, echinoderm spines, and bioclasts.

General Description:
Fining-upward intervals occur in Section 1, 93-115, 142-150; Section 2, 0-19, 19-30, 30-87, 87-120, and 120-145 cm. At the base of these intervals parallel lamination is visible. Planktonic foraminifers are recrystallized and/or cemented throughout the entire core.

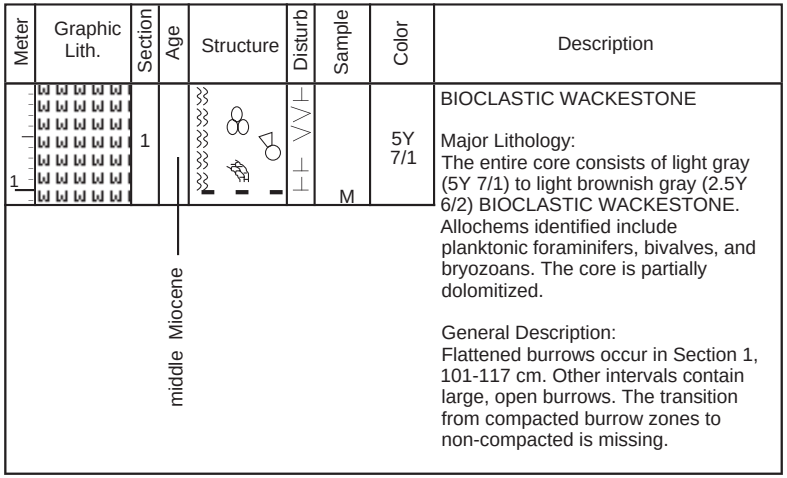
SITE 1003 HOLE C CORE 51R CORED 934.5 - 944.1 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		1	middle Miocene			M	2.5YR 5/2	BIOCLASTIC WACKESTONE Major Lithology: The entire core consists of fine-grained grayish brown (2.5Y 5/2) to light gray/gray (2.5Y 6.5/1) BIOCLASTIC WACKESTONE, slightly dolomitized. The components consist of planktonic foraminifers (Orbulina), and benthic foraminifers (miliolids). General Description: Moderate bioturbation is only present in Section 1, 32-39. Planktonic and benthic foraminifers are recrystallized and/or cemented throughout the core.

SITE 1003 HOLE C CORE 52R CORED 944.1 - 953.7 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	middle Miocene				5Y 6/2 To 5Y 6/2	BIOCLASTIC WACKESTONE Major Lithology: The major lithology in the entire core is fine-grained, grayish brown (2.5Y 5/2), light olive gray (5Y 5.5/2), to light gray (5Y 5/1) BIOCLASTIC WACKESTONE. The core is slightly dolomitized. Grains observed include planktonic foraminifers (Orbulina) and bioclasts. Planktonic foraminifers are blackened in Section 1, 86-150 cm. Bioturbation is moderate to strong throughout the core. Minor Lithologies: Light brownish gray (2.5Y 6/2) FLOATSTONE TO PACKSTONE is present in Section 1, 22-86 cm. Medium to coarse grains observed include intraclasts, pellets/pebbles some of which have all the features to interpret them as “rip-up clasts”, planktonic foraminifers, and bioclasts. Bioturbation is absent from this interval. General Description: Fining-upward intervals occur in Section 1, 0-10, 10-22, 22-43, 43-77 (with an erosive lower boundary), and 77-86 cm. Parallel lamination is also visible in these beds. A dark interval with flattened burrows occurs in Section 2, 30-83 cm. Planktonic foraminifers are recrystallized in Section 2, 0-30, and 83-133 cm. Recrystallized bioclasts up to 2 mm in size occur in Section 2, 105-133. A hardground (?) is present in Section 2, 95 cm.
2		2					2.5Y 5/2	
							5Y 5/1	

SITE 1003 HOLE C CORE 53R CORED 953.7 - 963.4 mbsf

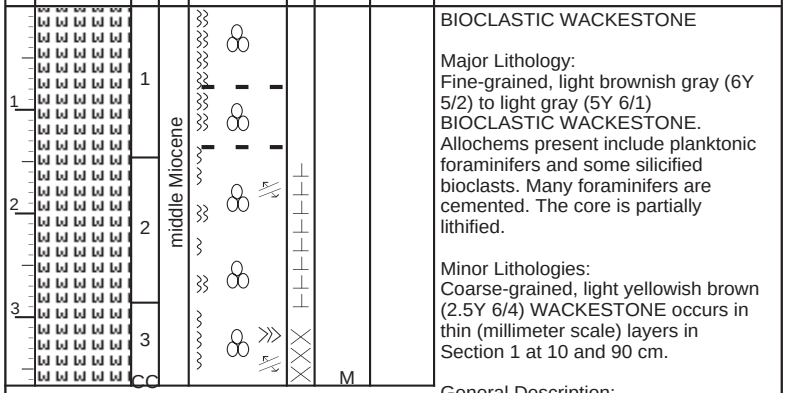


BIOCLASTIC WACKESTONE

Major Lithology:
The entire core consists of light gray (5Y 7/1) to light brownish gray (2.5Y 6/2) BIOCLASTIC WACKESTONE. Allochems identified include planktonic foraminifers, bivalves, and bryozoans. The core is partially dolomitized.

General Description:
Flattened burrows occur in Section 1, 101-117 cm. Other intervals contain large, open burrows. The transition from compacted burrow zones to non-compacted is missing.

SITE 1003 HOLE C CORE 54R CORED 963.4 - 973.0 mbsf



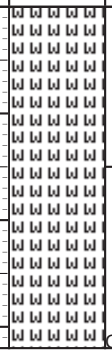
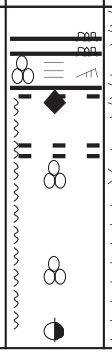
BIOCLASTIC WACKESTONE

Major Lithology:
Fine-grained, light brownish gray (6Y 5/2) to light gray (5Y 6/1) BIOCLASTIC WACKESTONE. Allochems present include planktonic foraminifers and some silicified bioclasts. Many foraminifers are cemented. The core is partially lithified.

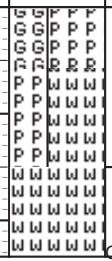
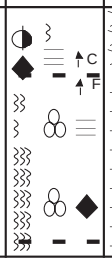
Minor Lithologies:
Coarse-grained, light yellowish brown (2.5Y 6/4) WACKESTONE occurs in thin (millimeter scale) layers in Section 1 at 10 and 90 cm.

General Description:
Burrows are flattened in Section 1, 73-131 cm. Disseminated organic matter occurs throughout Section 1. A mineral-filled fracture occurs in Section 3, 50-52 cm.

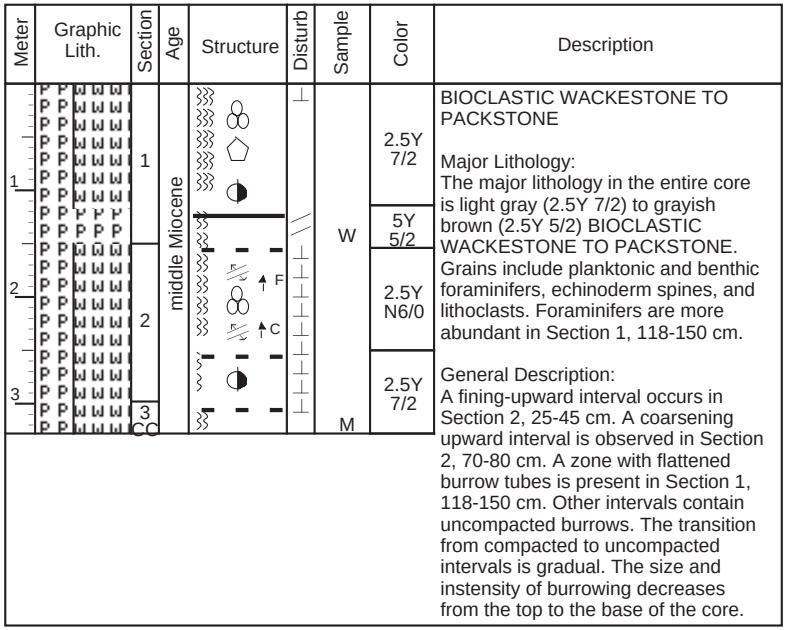
SITE 1003 HOLE C CORE 55R CORED 973.0 - 982.6 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 2 3		1 2 3 CC	middle Miocene			W M	2.5Y 6/2 To 2.5Y 7/2 5Y 7/1 To 2.5Y 5/2	BIOCLASTIC WACKESTONE Major Lithology: Brownish gray (2.5Y 5.5/2) to light gray (5Y 7/1) fine-grained FORAMINIFER WACKESTONE. Foraminifers are heavily cemented and the entire core is partially dolomitized. Minor Lithologies: A light brownish gray (2.5Y 6/2) to light gray (5Y 7/2) BIOCLASTIC PACKSTONE TO GRAINSTONE alternates with the major lithology in Section 1, 38-60 cm . The alternation consists of darker and lighter planar laminations. A chertified interval with a convolute lower boundary occurs in Section 1, 22-24 cm. General Description: A zone with flattened burrow tubes is present in Section 1, 124-133 cm. The transition from compacted burrow zones to non-compacted ones is gradual. Organic matter is disseminated throughout Section 2.

SITE 1003 HOLE C CORE 56R CORED 982.6 - 992.2 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 2		1 2 CC	middle Miocene			M	2.5Y 6/4 2.5Y 6/2 5Y 5/1 5Y 6/1	BIOCLASTIC GRAINSTONE, PACKSTONE and WACKESTONE Major Lithologies: The major lithology in the core is a large light yellowish brown (2.5Y 6/4), light brownish gray (2.5Y 6/2) to gray (5Y 6/1) coarsening upward sequence of BIOCLASTIC GRAINSTONE, PACKSTONE and WACKESTONE. Grains consist of planktonic and benthic foraminifers, lithoclasts, and mud clasts. Bioturbation is minor to strong in this sequence and burrows are large. General Description: A coarsening upward sequence occurs in Section 1, 20-58 cm, and a fining upward interval occurs in Section 1, 58-98 cm. Planar laminations are visible in Section 1, 40-44 cm.

SITE 1003 HOLE C CORE 57R CORED 992.2 - 1001.8 mbsf

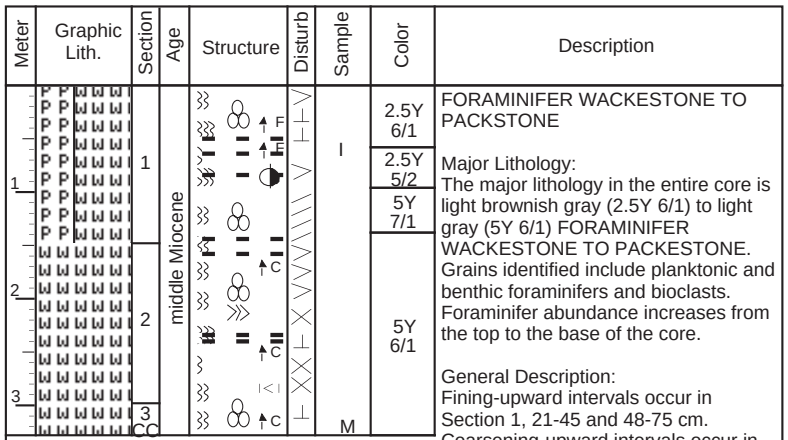


BIOCLASTIC WACKESTONE TO PACKSTONE

Major Lithology:
The major lithology in the entire core is light gray (2.5Y 7/2) to grayish brown (2.5Y 5/2) BIOCLASTIC WACKESTONE TO PACKSTONE. Grains include planktonic and benthic foraminifers, echinoderm spines, and lithoclasts. Foraminifers are more abundant in Section 1, 118-150 cm.

General Description:
A fining-upward interval occurs in Section 2, 25-45 cm. A coarsening upward interval is observed in Section 2, 70-80 cm. A zone with flattened burrow tubes is present in Section 1, 118-150 cm. Other intervals contain uncompacted burrows. The transition from compacted to uncompacted intervals is gradual. The size and instensity of burrowing decreases from the top to the base of the core.

SITE 1003 HOLE C CORE 58R CORED 1001.8 - 1011.4 mbsf

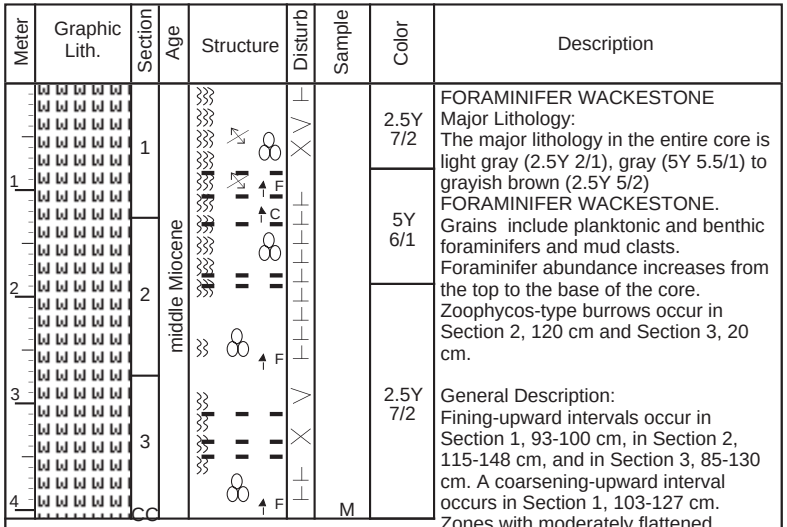


FORAMINIFER WACKESTONE TO PACKSTONE

Major Lithology:
The major lithology in the entire core is light brownish gray (2.5Y 6/1) to light gray (5Y 6/1) FORAMINIFER WACKESTONE TO PACKESTONE. Grains identified include planktonic and benthic foraminifers and bioclasts. Foraminifer abundance increases from the top to the base of the core.

General Description:
Fining-upward intervals occur in Section 1, 21-45 and 48-75 cm. Coarsening-upward intervals occur in Section 2, 3-40, 100-130 cm, and in Section 3, 0-26 cm. Intervals with flattened burrows are present in Section 1, 58-77 and 138-148 cm, and in Section 2, 80-85 cm. The transition from compacted burrow zones to non-compacted ones is gradual.

SITE 1003 HOLE C CORE 59R CORED 1011.4 - 1021.1 mbsf



Description

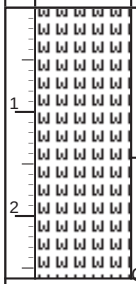
FORAMINIFER WACKESTONE
Major Lithology:
The major lithology in the entire core is light gray (2.5Y 2/1), gray (5Y 5.5/1) to grayish brown (2.5Y 5/2) FORAMINIFER WACKESTONE. Grains include planktonic and benthic foraminifers and mud clasts. Foraminifer abundance increases from the top to the base of the core. Zoophycos-type burrows occur in Section 2, 120 cm and Section 3, 20 cm.

General Description:
Fining-upward intervals occur in Section 1, 93-100 cm, in Section 2, 115-148 cm, and in Section 3, 85-130 cm. A coarsening-upward interval occurs in Section 1, 103-127 cm. Zones with moderately flattened burrows are present in Section 1, 78-100 cm, in Section 2, 47-57 cm and in Section 3, 0-30, and 58 to 70 cm. Transitions from moderately compacted to non-compacted burrow zones are gradual. Fractures occur in Section 1, 40 and 95 cm. A sharp contact occurs in Section 3, 30 cm. Moldic porosity is present throughout the entire core.

SITE 1003 HOLE C CORE 60R CORED 1021.1 - 1030.7 mbsf

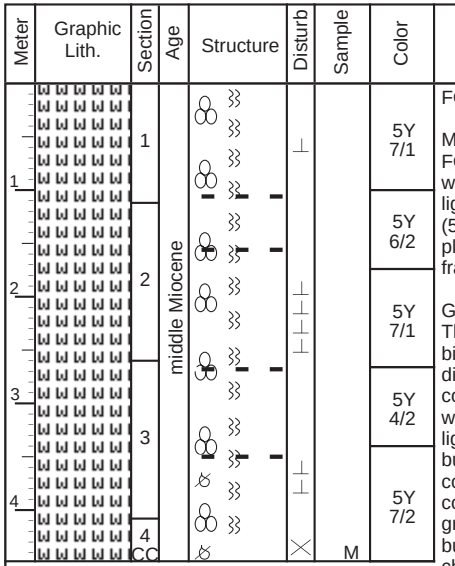
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 2 3 4 5		1 2 3 4 CC	middle Miocene	F F F		I M	5Y 6/2 To 5Y 4/2 2.5Y 6/2 5Y 6/2 To 5Y 5/1	FORAMINIFER WACKESTONE Major Lithology: Light gray (5Y 6/2), gray (5Y 5/1) to light grayish brown (2.5Y 6/2) FORAMINIFER WACKESTONE. Grains include planktonic and benthic foraminifers and mudstone clasts. Benthic foraminifers increase in abundance in the darker intervals. General Description: Fining-upward intervals occur in Section 1, 11-62 cm, in Section 2, 59-80, and 102-106 cm; in Section 3, 50-71 cm, and in Section 4, 15 to 27 cm. Zones with flattened burrows are present in Section 1, 78-100 cm, in Section 2, 47-57 cm and in Section 3, 0-30 and 58-70 cm. The transitions from moderately compacted to non-compacted burrow zones is gradual. A sharp contact occurs in Section 4, 27 cm.

SITE 1003 HOLE C CORE 61R CORED 1030.7 - 1040.3 mbsf



Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
	1	middle Miocene	F		I	5Y 6/2 To 5Y 7/1	FORAMINIFER WACKESTONE Major Lithology: Light gray (5Y 7/1) to dark grayish brown (2.5Y 4/2) FORAMINIFER WACKESTONE. Components include planktonic and benthic foraminifers and mud clasts. Benthic foraminifers are more abundant in the darker intervals. Zoophycos-type burrows occur in Section 2, 60 cm. Minor Lithologies: The minor lithology in this core is light gray (2.5Y 6.5/2) MUDSTONE, in Section 2, 67-97 cm. Components include planktonic foraminifers. General Description: A fining-upward interval occurs in Section 1, 70-96 cm. Zones with moderately flattened burrow tubes are present in Section 1, 0-21 and 65-96 cm, and in Section 2, 0-49 and 97-114 cm. The transition between zones compacted and non-compacted burrows is sharp in Section 1, 21 cm. Other transitions are gradual. Compacted intervals are marked by moldic porosity.
	2		F			2.5Y 4/2	
	CC				M	2.5Y 7/2	

SITE 1003 HOLE C CORE 62R CORED 1040.3 - 1050.0 mbsf

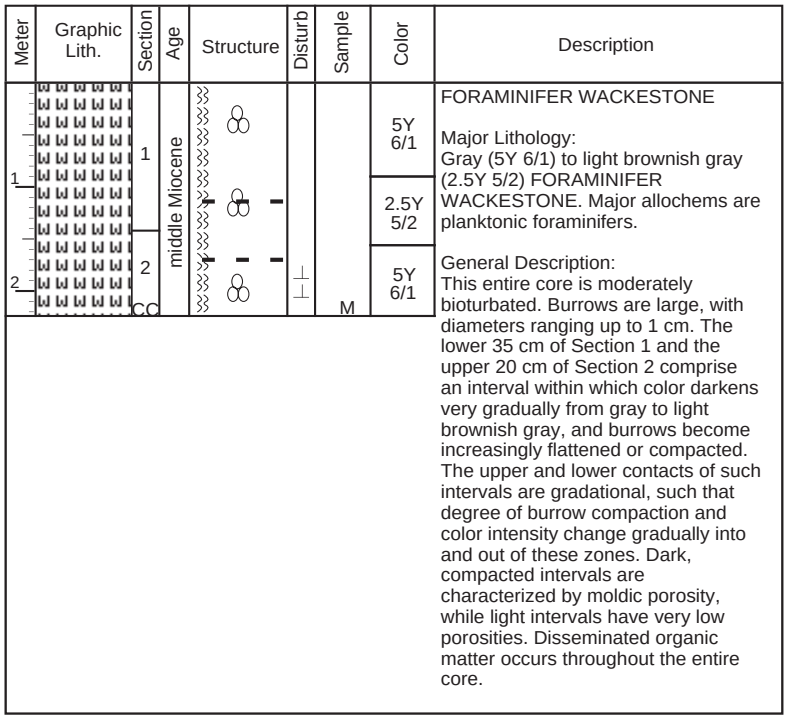


FORAMINIFER WACKESTONE

Major Lithology:
FORAMINIFER WACKESTONE, which shows color gradations from light gray (5Y 7/1) to light olive gray (5Y 6/2). Major allochems are planktonic foraminifers and rare shell fragments.

General Description:
This entire core is moderately bioturbated. Burrows are large, with diameters ranging up to 1 cm. This core contains several intervals within which color darkens gradually from light gray to light olive gray, and burrows become flattened or compacted. The upper and lower contacts of such intervals are gradational, such that degree of burrow compaction and color intensity change gradually into and out of these intervals. Such zones occur below 99 cm in Section 1 and into the upper 38 cm of Section 2, and in the upper 81 cm of Section 3. Dark compacted intervals are characterized by moldic porosity, whereas light zones have very low porosities. Disseminated organic matter occurs throughout the entire core.

SITE 1003 HOLE C CORE 63R CORED 1050.0 - 1059.6 mbsf

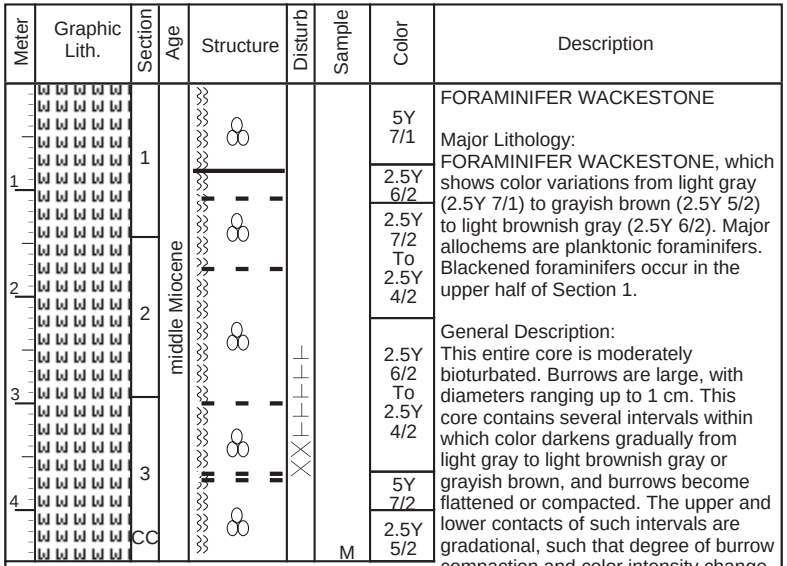


FORAMINIFER WACKESTONE

Major Lithology:
Gray (5Y 6/1) to light brownish gray (2.5Y 5/2) FORAMINIFER WACKESTONE. Major allochems are planktonic foraminifers.

General Description:
This entire core is moderately bioturbated. Burrows are large, with diameters ranging up to 1 cm. The lower 35 cm of Section 1 and the upper 20 cm of Section 2 comprise an interval within which color darkens very gradually from gray to light brownish gray, and burrows become increasingly flattened or compacted. The upper and lower contacts of such intervals are gradational, such that degree of burrow compaction and color intensity change gradually into and out of these zones. Dark, compacted intervals are characterized by moldic porosity, while light intervals have very low porosities. Disseminated organic matter occurs throughout the entire core.

SITE 1003 HOLE C CORE 64R CORED 1059.6 - 1069.2 mbsf

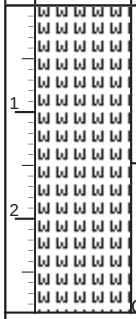


FORAMINIFER WACKESTONE

Major Lithology:
FORAMINIFER WACKESTONE, which shows color variations from light gray (2.5Y 7/1) to grayish brown (2.5Y 5/2) to light brownish gray (2.5Y 6/2). Major allochems are planktonic foraminifers. Blackened foraminifers occur in the upper half of Section 1.

General Description:
This entire core is moderately bioturbated. Burrows are large, with diameters ranging up to 1 cm. This core contains several intervals within which color darkens gradually from light gray to light brownish gray or grayish brown, and burrows become flattened or compacted. The upper and lower contacts of such intervals are gradational, such that degree of burrow compaction and color intensity change gradually into and out of these intervals. Such intervals occur in Section 1, 76-101 cm, Section 2, 22-150 cm, and Section 3, 65-70 cm. Dark compacted intervals are characterized by moldic porosity, while light intervals have very low porosities. Disseminated organic matter occurs throughout the entire core.

SITE 1003 HOLE C CORE 65R CORED 1069.2 - 1078.9 mbsf



Section	Age	Structure	Disturb	Sample	Color
1	middle Miocene				2.5Y 4/2 To 2.5Y 5/2
2			X	M	
CC					

FORAMINIFER WACKESTONE

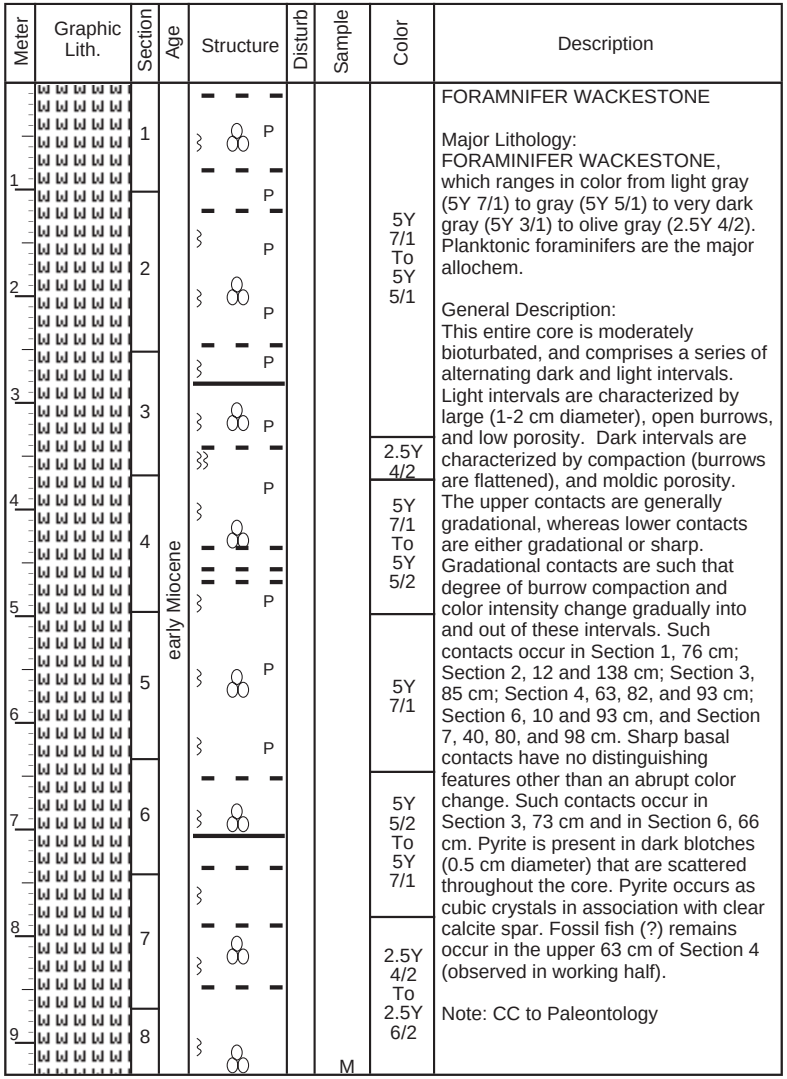
Major Lithology:
FORAMINIFER WACKESTONE, which shows color variations from grayish brown (2.5Y 5/2) to gray (5Y 6/1) to very dark grayish brown (2.5Y 4/2). Major allochems are planktonic foraminifers. Blackened foraminifers occur in Section 3, 30-110 cm.

General Description:
This entire core is moderately bioturbated. Burrows are large, with diameters ranging up to 1 cm. This core contains several intervals within which color darkens gradually from gray to very dark grayish brown, and burrows become flattened or compacted. The upper and lower contacts of such intervals are gradational, such that degree of burrow compaction and color intensity change gradually into and out of these zones. Such intervals occur in the upper 30 cm of Section 1 and in the upper 53 cm of Section 2. Dark compacted intervals are characterized by moldic porosity, whereas light intervals have very low porosities. Disseminated organic matter occurs throughout the entire core. A thin (0.25 cm) yellowish layer containing coarser grains and less mud occurs in Section 2, 16 cm

SITE 1003 HOLE C CORE 66R CORED 1078.9 - 1088.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	middle Miocene	P		W	5Y 4/1 To 5Y 7/1	FORAMINIFER WACKESTONE TO PACKSTONE Major Lithology: FORAMINIFER WACKESTONE TO PACKSTONE, which ranges in color from dark gray (5Y 4/1) to dark grayish brown (2.5Y 4/2) to light gray (5Y 7/1). Planktonic foraminifers are the major allochem. General Description: This entire core is moderately bioturbated, and comprises a series of alternating dark and light intervals. Light intervals are characterized by large (1-2 cm diameter), open burrows, and low porosity. Dark intervals are characterized by compaction (burrows are flattened), and moldic porosity. The upper and lower contacts of such intervals are generally gradational, such that degree of burrow compaction and color intensity change gradually into and out of these zones. Dark intervals occur in Section 1, 10-44 and 58 - 86 cm; Section 2, 14-47, and 47-90 cm; Section 3, 0-15, and 73-100 cm; Section 4, 17-122 cm; Section 5, 0-4 and 107-125 cm, and Section 6, 0-22, 59-78, and 93-114 cm. Pyrite is present in dark blebs (0.5 cm diameter) that are scattered throughout the core. Pyrite occurs as cubic crystals in association with clear calcite spar.
2		2		P				
3		3		P				
4		4		P		I		
5		5		P				
6		6		P				
7		CC				M		

SITE 1003 HOLE C CORE 67R CORED 1088.5 - 1098.1 mbsf



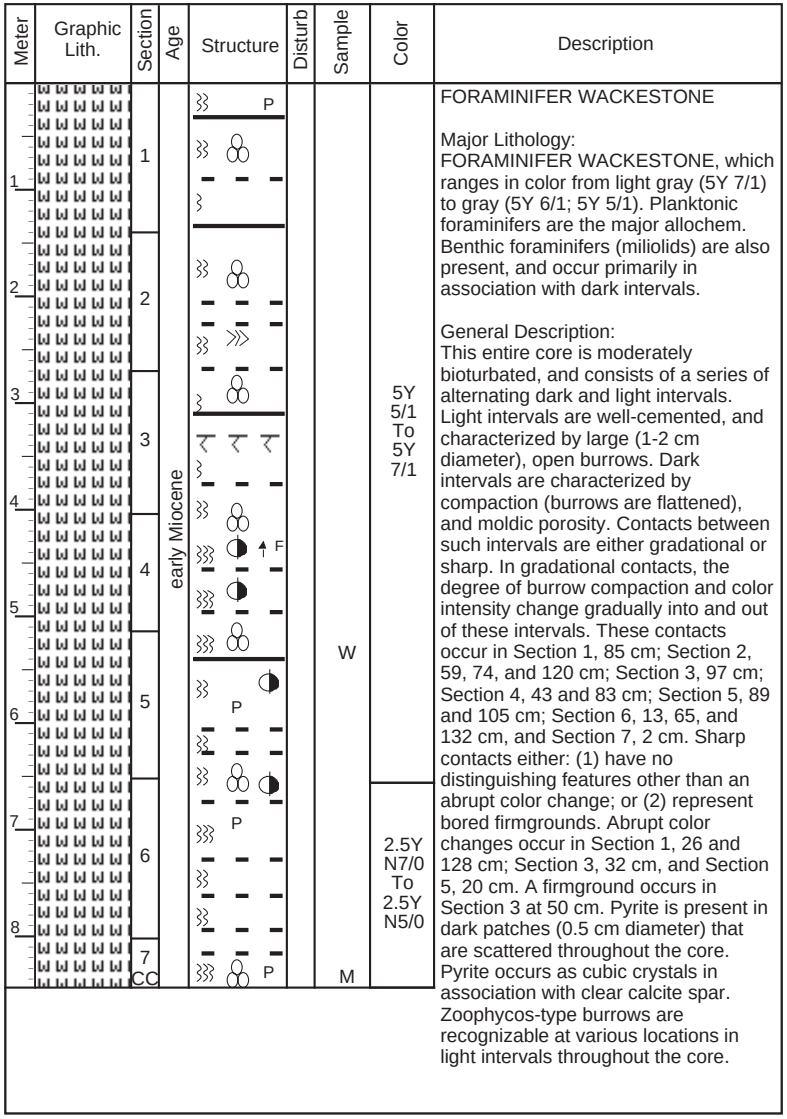
FORAMNIFER WACKESTONE

Major Lithology:
FORAMINIFER WACKESTONE, which ranges in color from light gray (5Y 7/1) to gray (5Y 5/1) to very dark gray (5Y 3/1) to olive gray (2.5Y 4/2). Planktonic foraminifers are the major allochem.

General Description:
This entire core is moderately bioturbated, and comprises a series of alternating dark and light intervals. Light intervals are characterized by large (1-2 cm diameter), open burrows, and low porosity. Dark intervals are characterized by compaction (burrows are flattened), and moldic porosity. The upper contacts are generally gradational, whereas lower contacts are either gradational or sharp. Gradational contacts are such that degree of burrow compaction and color intensity change gradually into and out of these intervals. Such contacts occur in Section 1, 76 cm; Section 2, 12 and 138 cm; Section 3, 85 cm; Section 4, 63, 82, and 93 cm; Section 6, 10 and 93 cm, and Section 7, 40, 80, and 98 cm. Sharp basal contacts have no distinguishing features other than an abrupt color change. Such contacts occur in Section 3, 73 cm and in Section 6, 66 cm. Pyrite is present in dark blotches (0.5 cm diameter) that are scattered throughout the core. Pyrite occurs as cubic crystals in association with clear calcite spar. Fossil fish (?) remains occur in the upper 63 cm of Section 4 (observed in working half).

Note: CC to Paleontology

SITE 1003 HOLE C CORE 68R CORED 1098.1 - 1107.8 mbsf



FORAMINIFER WACKESTONE

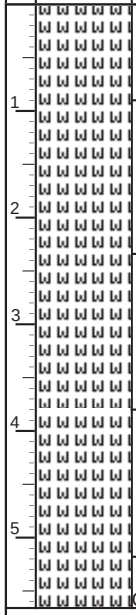
Major Lithology:
FORAMINIFER WACKESTONE, which ranges in color from light gray (5Y 7/1) to gray (5Y 6/1; 5Y 5/1). Planktonic foraminifers are the major allochem. Benthic foraminifers (miliolids) are also present, and occur primarily in association with dark intervals.

General Description:
This entire core is moderately bioturbated, and consists of a series of alternating dark and light intervals. Light intervals are well-cemented, and characterized by large (1-2 cm diameter), open burrows. Dark intervals are characterized by compaction (burrows are flattened), and moldic porosity. Contacts between such intervals are either gradational or sharp. In gradational contacts, the degree of burrow compaction and color intensity change gradually into and out of these intervals. These contacts occur in Section 1, 85 cm; Section 2, 59, 74, and 120 cm; Section 3, 97 cm; Section 4, 43 and 83 cm; Section 5, 89 and 105 cm; Section 6, 13, 65, and 132 cm, and Section 7, 2 cm. Sharp contacts either: (1) have no distinguishing features other than an abrupt color change; or (2) represent bored firmgrounds. Abrupt color changes occur in Section 1, 26 and 128 cm; Section 3, 32 cm, and Section 5, 20 cm. A firmground occurs in Section 3 at 50 cm. Pyrite is present in dark patches (0.5 cm diameter) that are scattered throughout the core. Pyrite occurs as cubic crystals in association with clear calcite spar. Zoophycos-type burrows are recognizable at various locations in light intervals throughout the core.

SITE 1003 HOLE C CORE 69R CORED 1107.8 - 1117.4 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1 2 CC	early Miocene			M	2.5Y 7/2 To 2.5Y 5/2	FORAMINIFER WACKESTONE Major Lithology: FORAMINIFER WACKESTONE, which ranges in color from light gray (5Y 7/1) and gray (2.5Y 5/1) to brownish gray (2.5Y 5/2). Planktonic foraminifers are the major allochem. General Description: This entire core is moderately bioturbated, and comprises a series of alternating dark and light intervals. Light intervals are characterized by large (1-2 cm diameter), open burrows, and low porosity. Dark intervals are characterized by compaction (burrows are flattened), and moldic porosity. The upper and lower contacts of the intervals are generally gradational, and the degree of burrow compaction and color intensity change gradually into and out of these zones. Dark intervals occur in Section 1, 34-69 cm, and Section 2, 0-25 cm. Pyrite occurs as cubic crystals in association with clear calcite spar. Zoophycos-type bioturbation occurs below 25 cm in Section 2.

SITE 1003 HOLE C CORE 70R CORED 1117.4 - 1127.1 mbsf

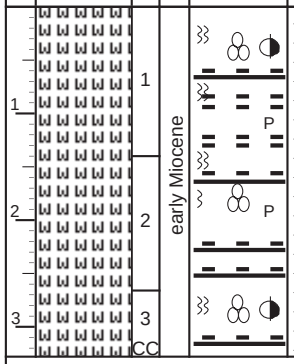


FORAMINIFER WACKESTONE

Major Lithology:
FORAMINIFER WACKESTONE, which ranges in color from light gray (5Y 7/1) to gray (2.5Y 5/1) and olive gray (5Y 5/2). Planktonic foraminifers are the major allochem. Benthic foraminifers (miliolids) are also present, and occur primarily in association with dark intervals. Minor allochems, present in Section 7 only, include echinoderm spines and bioclasts.

General Description:
This entire core is moderately bioturbated, and comprises a series of alternating dark and light intervals. Light intervals are characterized by large (1-2 cm diameter), open burrows, and low porosity. Dark intervals are characterized by compaction (burrows are flattened), and moldic porosity. The upper and lower contacts of the zones are generally gradational and the degree of burrow compaction and color intensity change gradually into and out of these zones. Dark intervals occur in Section 2, 37-54, 71-103, and 115-145 cm; Section 3, 0-5, and 94-103 cm; Section 4, 44-111, and 130-138 cm, and Section 5, 0-30 cm. A firmground occurs in Section 1, 60 cm. Pyrite occurs as cubic crystals in fractures in Section 1, 75 cm; Section 3, 63 cm, and Section 5, 40 cm. Zoophycos-type bioturbation occurs in Section 1, 80-84 cm.

SITE 1003 HOLE C CORE 71R CORED 1127.1 - 1136.7 mbsf



FORAMINIFER WACKESTONE

Major Lithology:
The dominant lithology in this core is light gray (2.5Y 7/1) to dark gray (2.5Y 4/1) FORAMINIFER WACKESTONE. The main components are planktonic and benthic foraminifers, echinoderm spines and unidentifiable bioclasts, disseminated pyrite and black grains. The grain size is fine sand. The bioturbation is minor to moderate in these sediments and some burrows are filled with planktonic foraminifers.

General Description:
Burrows are compacted or flattened in following intervals in the core: Section 1, 55-59, 79-89, 117-122 cm; Section 2, 11-16, 78-82, 100-106, and 111-117; Section 3, 50-59 cm. The transition from compacted burrow zones to non-compacted ones is gradational at the top of the flattened layers and sharp at the base, with a firmground. Organic matter occurs throughout the entire core and is concentrated in the flattened burrow intervals.

SITE 1003 HOLE C CORE 72R CORED 1136.7 - 1146.3 mbsf

FORAMINIFER WACKESTONE

Major Lithology:
Light gray (5Y 7/1), grayish brown (2.5Y 5/2) to very dark gray (2.5Y 3/1) BIOCLASTIC WACKESTONE which alternates with FORAMINIFER WACKESTONE. Grains include both planktonic and benthic foraminifers, echinoderm spines, bioclasts, and black grains. The grain size is fine sand.

General Description:
Bioturbation is minor to strong in these sediments, with an alternation between light gray layers with large open burrows and dark gray layers with flattened burrows. Flattened burrows occur in Section 1, 40-46, 84-90 cm; Section 2, 45-48, 80-91, and 118-135 cm; Section 3, 0-39 and 74-114 cm; Section 4, 76-132 cm; Section 5, 0-74 and 99-137 cm; Section 6, 0-25 cm; Section 7, 46-90 and 107-117 cm and Section 8, 0-12 cm. The transitions from compacted to non-compacted burrow zones are usually gradational at the top of the flattened layers and sharp at the base. Sharp contacts at the base of compacted intervals may be firmgrounds.

SITE 1003 HOLE C CORE 73R CORED 1146.3 - 1156.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 2 3 4 5		1 2 3 4 5 CC	early Miocene			M	5Y 4/1 To 5Y 7/1	FORAMINIFER WACKESTONE Major Lithology: Light gray (5Y 7/1) to dark gray (5Y 4/1), fine-grained FORAMINIFER WACKESTONE. Grains identified include planktonic and benthic foraminifers and echinoderm spines. General Description: Flattened burrows occur in Section 1, 5-65 and 78-125; in Section 2, 0-13 and 45-52 cm; in Section 3, 13-49 and 90-104 cm; in Section 4, 33-83 and 124-147 cm, and in Section 5, 0-20 cm. Transitions between compacted and non-compacted intervals are gradational at the top of the flattened layers and gradational or sharp at the base. A zone containing calcite-filled fractures and stylolites is present in Section 2, 45-52 cm. Pyrite is disseminated throughout the core. A firmground (?) occurs in Section 3, 127 cm.

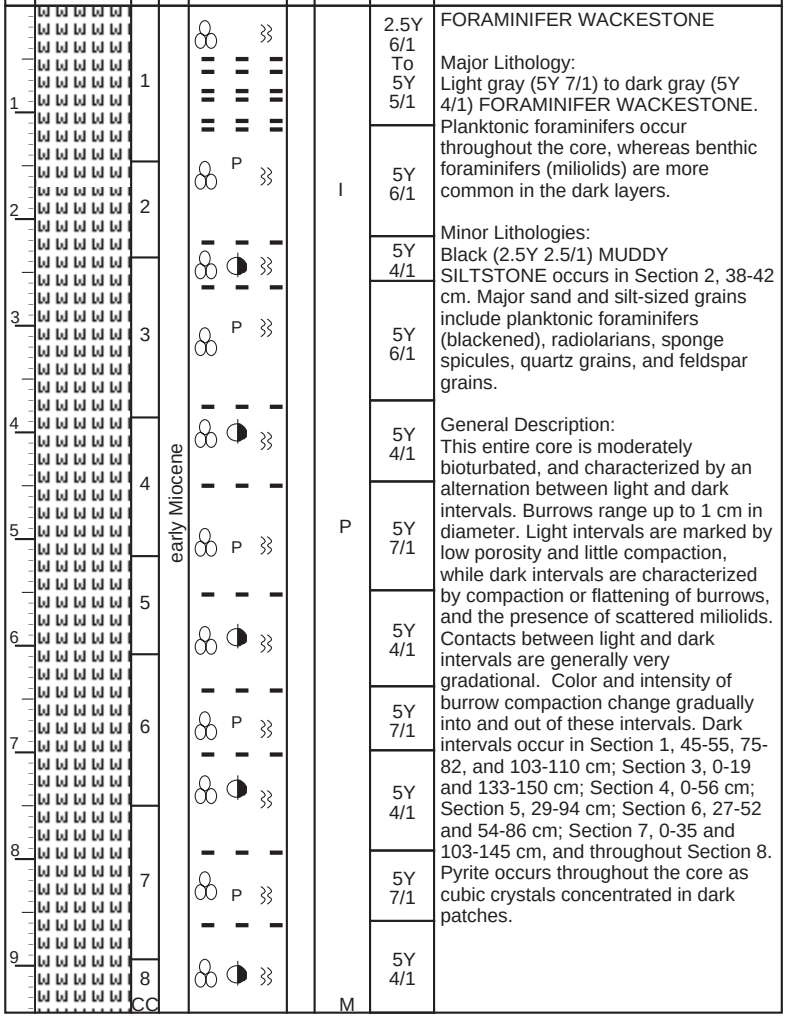
SITE 1003 HOLE C CORE 74R CORED 1156.0 - 1165.6 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 2		1 2 CC	early Miocene			M	2.5Y 6/2 To 5Y 7/1	FORAMINIFER WACKESTONE Major Lithology: The dominant lithology in this core is fine-grained, light gray (5Y 7/1), light brownish gray (2.5Y 6/2) to gray (5Y 5/1) FORAMINIFER WACKESTONE. Both planktonic and benthic foraminifers are present. Bioturbation is minor to moderate in these sediments. General Description: Flattened burrows occur in Section 1, 10-30 and 45-61 cm. A sharp boundary separates the compacted and non-compacted intervals in Section 1, 30 cm. Lighter gray intervals are denser and well-cemented. A thin (0.25 cm) yellowish layer of BIOCLASTIC PACKSTONE occurs in Section 1, 15-20 cm. Section 2 is highly disturbed due to drilling.

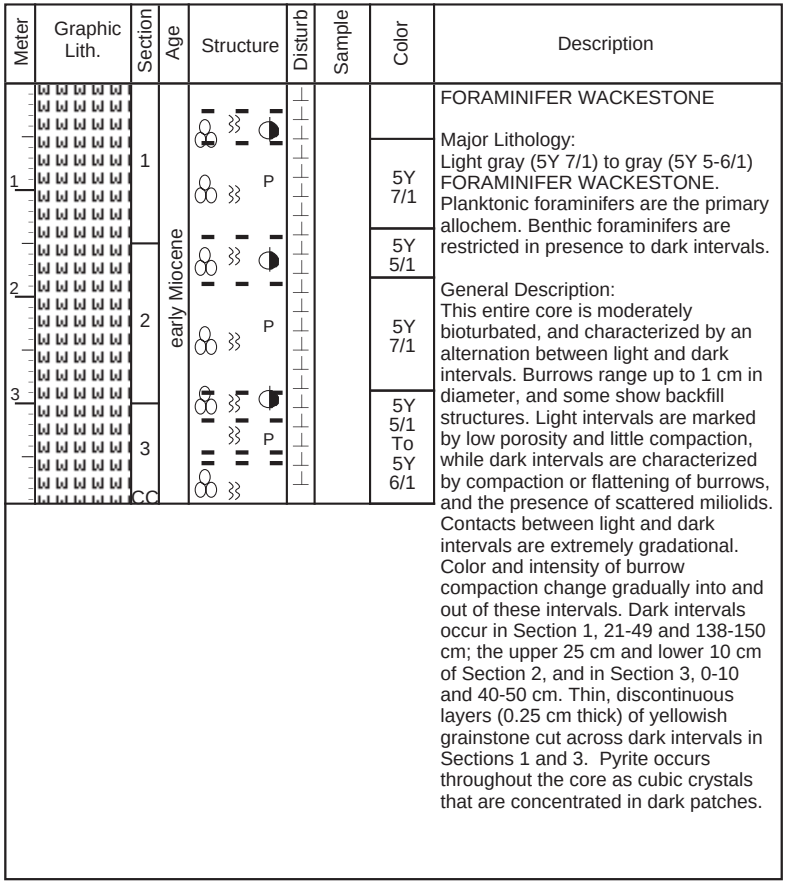
SITE 1003 HOLE C CORE 75R CORED 1165.6 - 1175.2 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1 CC	early Miocene			M	2.5Y 7/2 To 5Y 6/1	FORAMINIFER WACKESTONE Major Lithology: The dominant lithology in this core is light gray (2.5Y 7/2) to gray (5Y 6/1) fine-grained FORAMINIFER WACKESTONE. The main components are planktonic foraminifers with rare bivalve shell fragments. The foraminifers are recrystallized. General Description: Minor bioturbation is pervasive. A gradational contact occurs at 42 cm in Section 1 where color darkens gradually from light gray to gray. This entire core is characterized by low porosity and thin alternating zones of more- and less-recrystallized areas. A PACKSTONE occurs in a piece at the top of Section 1 (borehole contamination?).

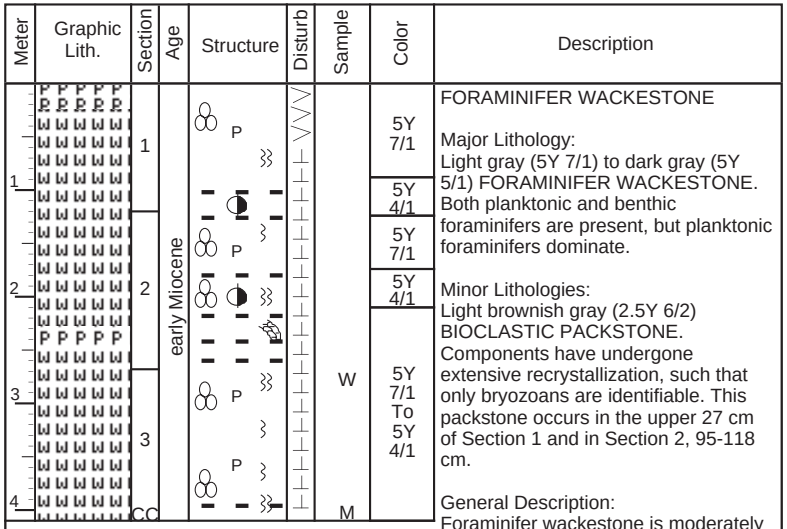
SITE 1003 HOLE C CORE 76R CORED 1175.2 - 1184.9 mbsf



SITE 1003 HOLE C CORE 77R CORED 1184.9 - 1194.5 mbsf



SITE 1003 HOLE C CORE 78R CORED 1194.5 - 1204.1 mbsf



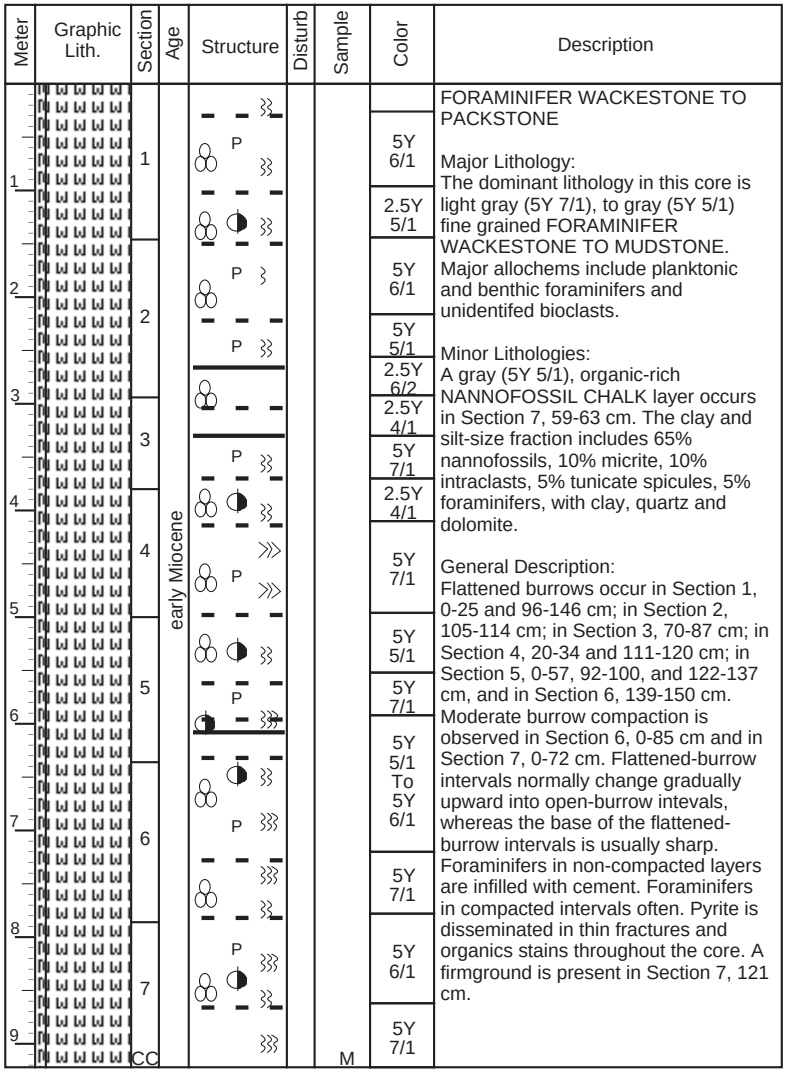
FORAMINIFER WACKESTONE

Major Lithology:
Light gray (5Y 7/1) to dark gray (5Y 5/1) FORAMINIFER WACKESTONE. Both planktonic and benthic foraminifers are present, but planktonic foraminifers dominate.

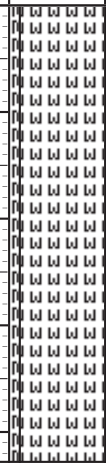
Minor Lithologies:
Light brownish gray (2.5Y 6/2) BIOCLASTIC PACKSTONE. Components have undergone extensive recrystallization, such that only bryozoans are identifiable. This packstone occurs in the upper 27 cm of Section 1 and in Section 2, 95-118 cm.

General Description:
Foraminifer wackestone is moderately bioturbated, and characterized by an alternation between light and dark intervals. Burrows range up to 1 cm in diameter. Light intervals are well-cemented and show little evidence of compaction. Dark intervals are characterized by compaction or flattening of burrows. Contacts between light and dark intervals are gradational. Color and intensity of burrow compaction change gradually into and out of these intervals. Dark intervals occur in Section 1, 95-120 cm; Section 2, 55-95 and 118-135 cm, and below 123 cm in Section 3. Thin, discontinuous layers (0.25 cm thick) of yellowish grainstone cut across dark intervals in Section 2. Bioclastic packstone shows faint laminae, and is otherwise structureless. Pyrite occurs throughout the core as cubic crystals that are concentrated in dark patches.

SITE 1003 HOLE C CORE 79R CORED 1204.1 - 1213.7 mbsf

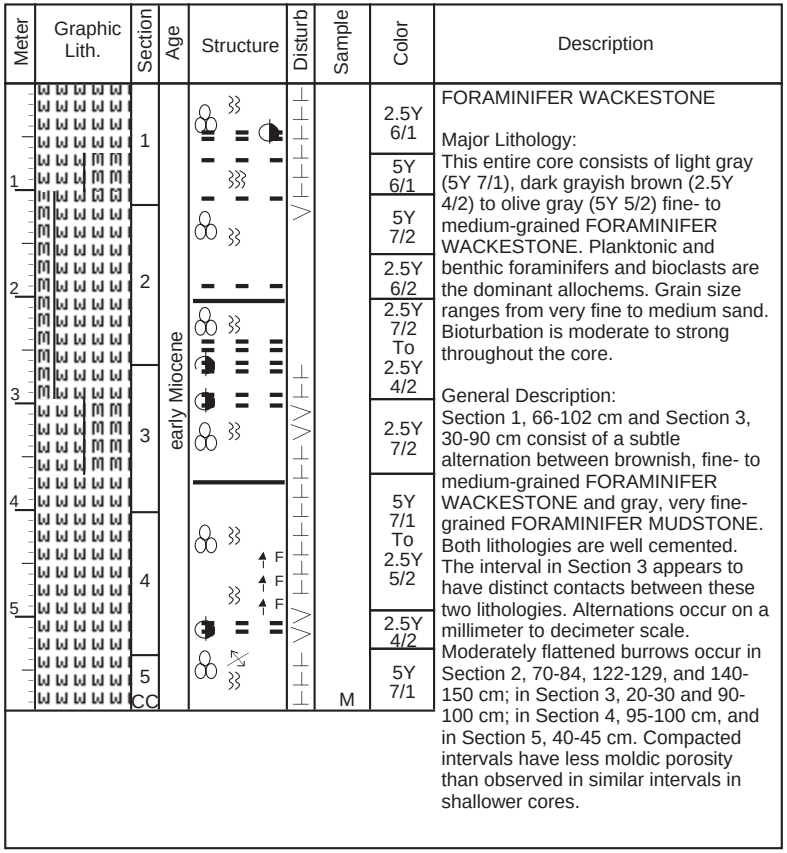


SITE 1003 HOLE C CORE 80R CORED 1213.7 - 1223.3 mbsf



Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
	1	early Miocene				5Y 7/1	FORAMINIFER WACKESTONE TO MUDSTONE
						2.5Y 5/2	Major Lithology: The dominant lithology in this core is light gray (5Y 7/1), dark grayish brown (2.5Y 4.5/2), and olive gray (5Y 4.5/2) fine-grained FORAMINIFER WACKESTONE TO MUDSTONE. Allochems observed include both planktonic and benthic foraminifers and bioclasts. Most of the core is highly cemented.
	2					5Y 7/1 To 2.5Y 4/2	General Description: This core contains gradational alternations between compacted (flattened burrows) and non-compacted (open burrows) intervals. Compacted intervals are dark, moderately cemented, and contain abundant planktonic foraminifers with some benthic foraminifers. Clay is also present in the dark layers. Non-compacted intervals are light colored, well-cemented, and contain planktonic foraminifers with few benthic foraminifers and bioclasts. Burrows show a mixture of yellowish brown, foraminifer-rich wackestone and gray, well-cemented mudstone towards the base of Section 1. Flattened-burrow intervals occur in Section 1, 0-10, 63-95, and 120-130 cm; in Section 2, 0-10, 30-82, and 130-138 cm, and in Section 3, 40-50, and 104-114 cm. Disseminated pyrite and black, organic stain occurs throughout the core.
	3		P		M		
	CC						

SITE 1003 HOLE C CORE 81R CORED 1223.3 - 1233.0 mbsf

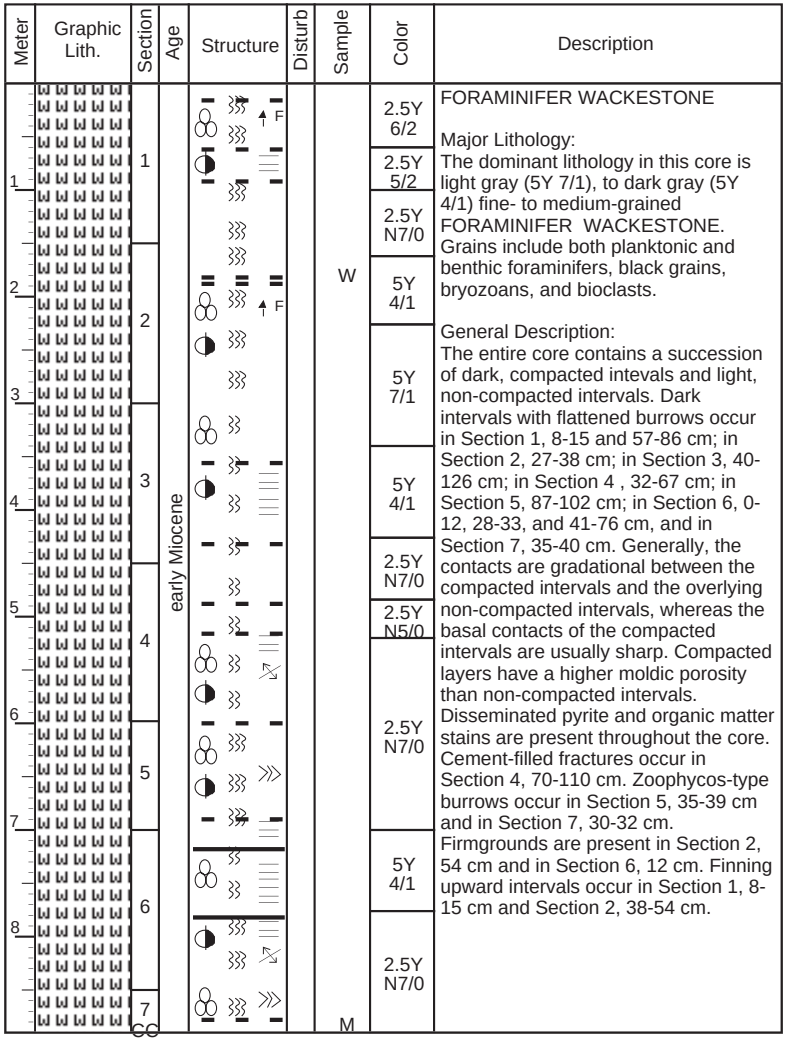


FORAMINIFER WACKESTONE

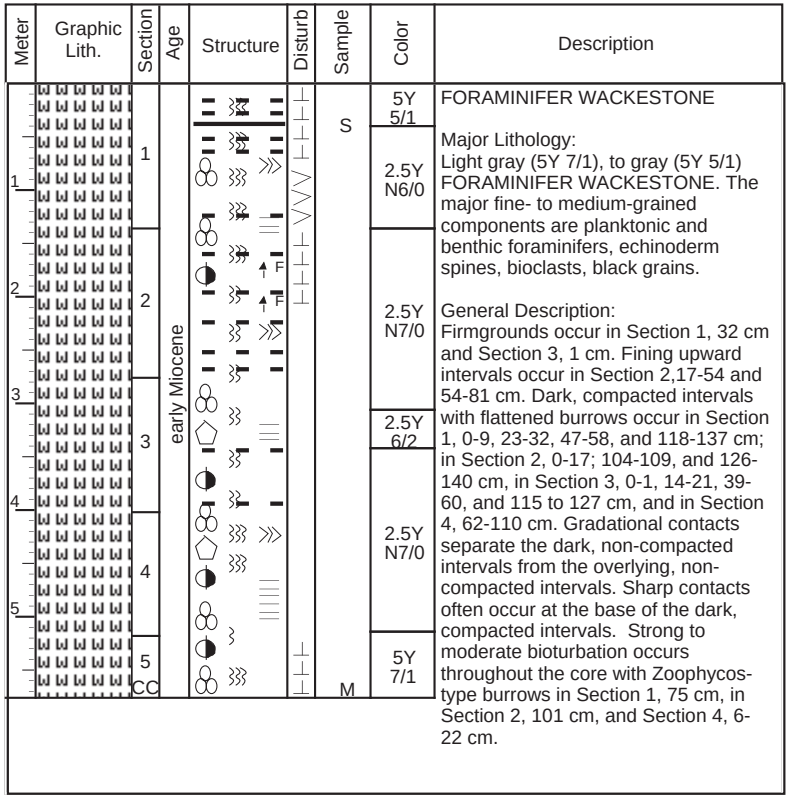
Major Lithology:
This entire core consists of light gray (5Y 7/1), dark grayish brown (2.5Y 4/2) to olive gray (5Y 5/2) fine- to medium-grained FORAMINIFER WACKESTONE. Planktonic and benthic foraminifers and bioclasts are the dominant allochems. Grain size ranges from very fine to medium sand. Bioturbation is moderate to strong throughout the core.

General Description:
Section 1, 66-102 cm and Section 3, 30-90 cm consist of a subtle alternation between brownish, fine- to medium-grained FORAMINIFER WACKESTONE and gray, very fine-grained FORAMINIFER MUDSTONE. Both lithologies are well cemented. The interval in Section 3 appears to have distinct contacts between these two lithologies. Alternations occur on a millimeter to decimeter scale. Moderately flattened burrows occur in Section 2, 70-84, 122-129, and 140-150 cm; in Section 3, 20-30 and 90-100 cm; in Section 4, 95-100 cm, and in Section 5, 40-45 cm. Compacted intervals have less moldic porosity than observed in similar intervals in shallower cores.

SITE 1003 HOLE C CORE 82R CORED 1233.0 - 1242.6 mbsf



SITE 1003 HOLE C CORE 83R CORED 1242.6 - 1252.3 mbsf

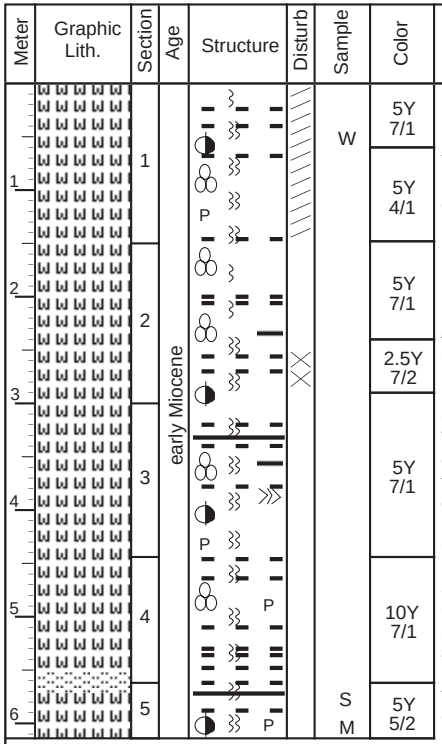


FORAMINIFER WACKESTONE

Major Lithology:
Light gray (5Y 7/1), to gray (5Y 5/1) FORAMINIFER WACKESTONE. The major fine- to medium-grained components are planktonic and benthic foraminifers, echinoderm spines, bioclasts, black grains.

General Description:
Firmgrounds occur in Section 1, 32 cm and Section 3, 1 cm. Fining upward intervals occur in Section 2,17-54 and 54-81 cm. Dark, compacted intervals with flattened burrows occur in Section 1, 0-9, 23-32, 47-58, and 118-137 cm; in Section 2, 0-17; 104-109, and 126-140 cm, in Section 3, 0-1, 14-21, 39-60, and 115 to 127 cm, and in Section 4, 62-110 cm. Gradational contacts separate the dark, non-compacted intervals from the overlying, non-compacted intervals. Sharp contacts often occur at the base of the dark, compacted intervals. Strong to moderate bioturbation occurs throughout the core with Zoophycos-type burrows in Section 1, 75 cm, in Section 2, 101 cm, and Section 4, 6-22 cm.

SITE 1003 HOLE C CORE 84R CORED 1252.3 - 1261.9 mbsf



Description

FORAMINIFER WACKESTONE

Major Lithology:
This entire core consist of light gray (5Y 7/1), olive gray (5Y 5/2) to dark gray (5Y 4/1), fine-grained FORAMINIFER WACKESTONE. Both planktonic and benthic foraminifers are present.

Minor Lithologies:
A dark olive gray (5Y 3/2) MUDDY SILTSTONE occurs in Section 4, 111-118 cm and in Section 5, 0-3 cm.

General Description:
This core contains an alternation of dark gray, compacted intervals with flattened burrows and light gray, non-compacted intervals. Flattened burrows occur in Section 1, 18-35 and 62-140 cm; in Section 2, 45-50 and 90-108 cm; in Section 3, 13-26, 34-72, and 140-144 cm; in Section 4, 0-13, 61-79, 87-97, and 111-118 cm, and in Section 5, 20-52 cm. Contacts are sharp at the base of compacted intevals in Section 3, 26 cm and throughout Section 4. All other contacts are gradational. The flattened layers contain dark lenses and show moldic porosity. Sparite and disseminated pyrite are present in the lighter layers. Moderate bioturbation dominates the entire core. Zoophycos-type burrows occur in Section 3, 73 and 82 cm.

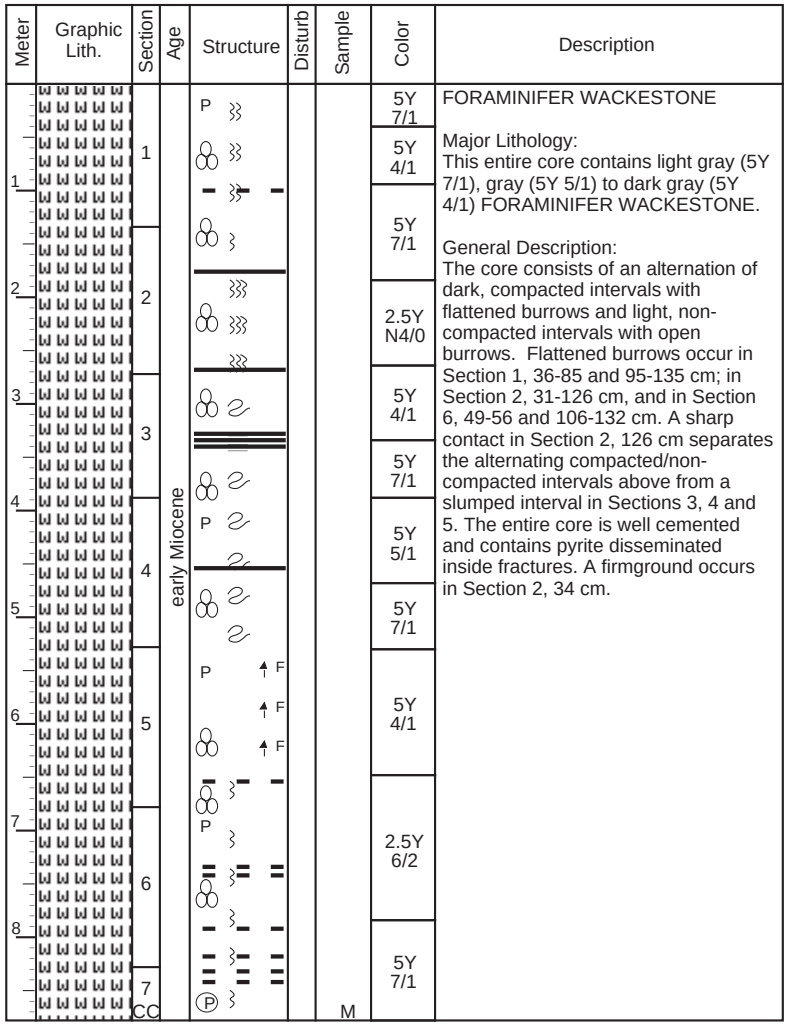
SITE 1003 HOLE C CORE 85R CORED 1261.9 - 1271.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	early Miocene	P			5Y 6/1	FORAMINIFER WACKESTONE Major Lithology: The dominant lithology in this core is light gray (5Y 7/1), gray (5Y 5/1) to dark gray (5Y 4/1) FORAMINIFER WACKESTONE. The main components are planktonic foraminifers and bivalves. Bioturbation is minor to moderate. General Description: Firmgrounds are present in Section 3, 65 cm and Section 3, 1 cm. The core contains an alternation of dark, compacted intervals containing flattened burrows, and light, non-compacted intervals containing open burrows. Flattened burrows occur in Section 1, 25-70 cm; in Section 2, 31-33 and 120-125 cm; in Section 3, 0-65 cm; in Section 4, 20-40 and 97-124 cm; in Section 5, 45-54 and 86-123 cm; in Section 6, 0-10 and 93-125 cm, and in Section 7, 0-2, 67-71, and 84-110 cm. The contacts between intervals containing flattened and open burrows are mostly gradational, but sharp in Section 3, 65 cm, in Section 4, 40 cm, and in Section 5, 13, 45, 54, and 86 cm. The flattened-burrow intervals contain millimeter-scale yellowish and black discontinuous layers. Disseminated pyrite is present in the entire core.
2		2		P			5Y 7/1	
3		3		P				
4		4					5Y 7/2	
5							5Y 5/1	
6		5		P			5Y 7/1	
							5Y 5/1	
7		6		P			5Y 6/1	
8				P			2.5Y N7/0	
		7					2.5Y 5/2	
9		CC				M	5Y 6/1	

SITE 1003 HOLE C CORE 86R CORED 1271.5 - 1281.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	early Miocene	P		W	5Y 7/1	FORAMINIFER WACKESTONE Major Lithology: The dominant lithology in this core is light gray (5Y 7/1), brownish gray (2.5Y 5/2) to dark gray (5Y 4/1) FORAMINIFER WACKESTONE. The main components are planktonic foraminifers and bioclasts. General Description: The core consists of an alternation of dark, compacted intervals with flattened burrows and light, non-compacted intervals with open burrows. Flattened burrows occur in Section 1, 38-49 and 83-150 cm; in Section 2, 0-16 and 72-110 cm; in Section 3, 0-7, 47-76, and 114-150; in Section 4, 0-72 cm; in Section 5, 0-33 and 105-134 cm; in Section 6, 0-72 and 109-150 cm, and in Section 7, 0-55 and 95-98 cm. The contacts between intervals containing flattened and open burrows are gradational, with the exception of Section 1, 49 cm where a sharp contact occurs. The lighter layers are well cemented and contain disseminated pyrite. Sparite is present in the voids in the entire core. A firmground is present in Section 1, 49 cm.
							5Y 4/1	
2		2		P			5Y 7/1	
							5Y 4/1	
3		3		P			5Y 7/1	
4								
		4		P			5Y 4/1	
5							5Y 7/1	
6		5					5Y 4/1	
							5Y 7/1	
7		6					5Y 4/1	
8				P			5Y 7/1	
9		7					5Y 4/1	
		CC				M		

SITE 1003 HOLE C CORE 87R CORED 1281.0 - 1290.7 mbsf



SITE 1003 HOLE C CORE 88R CORED 1290.7 - 1300.0 mbsf

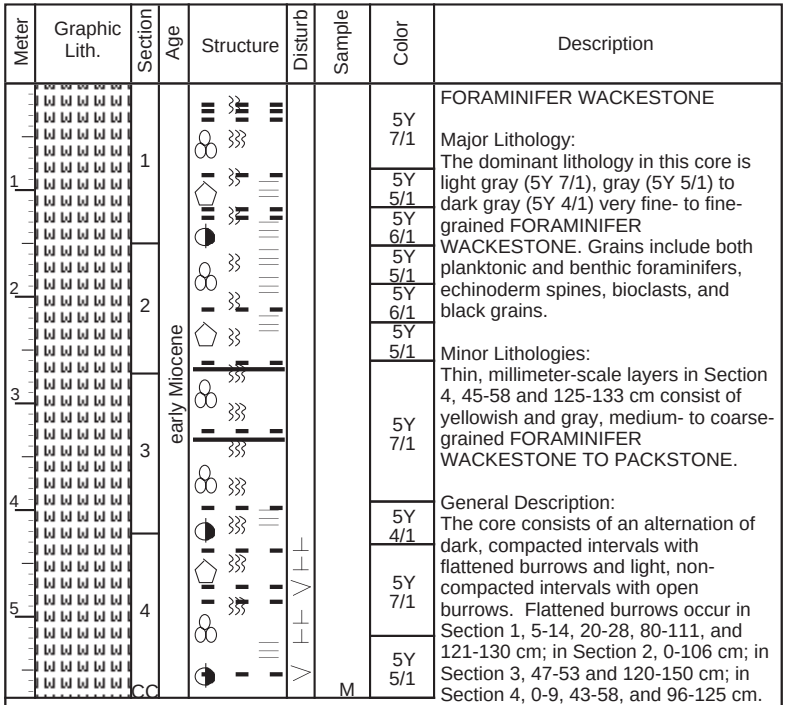


Figure 1 (Chapter 4). Key to lithologic symbols used in graphic lithology column on core description forms.

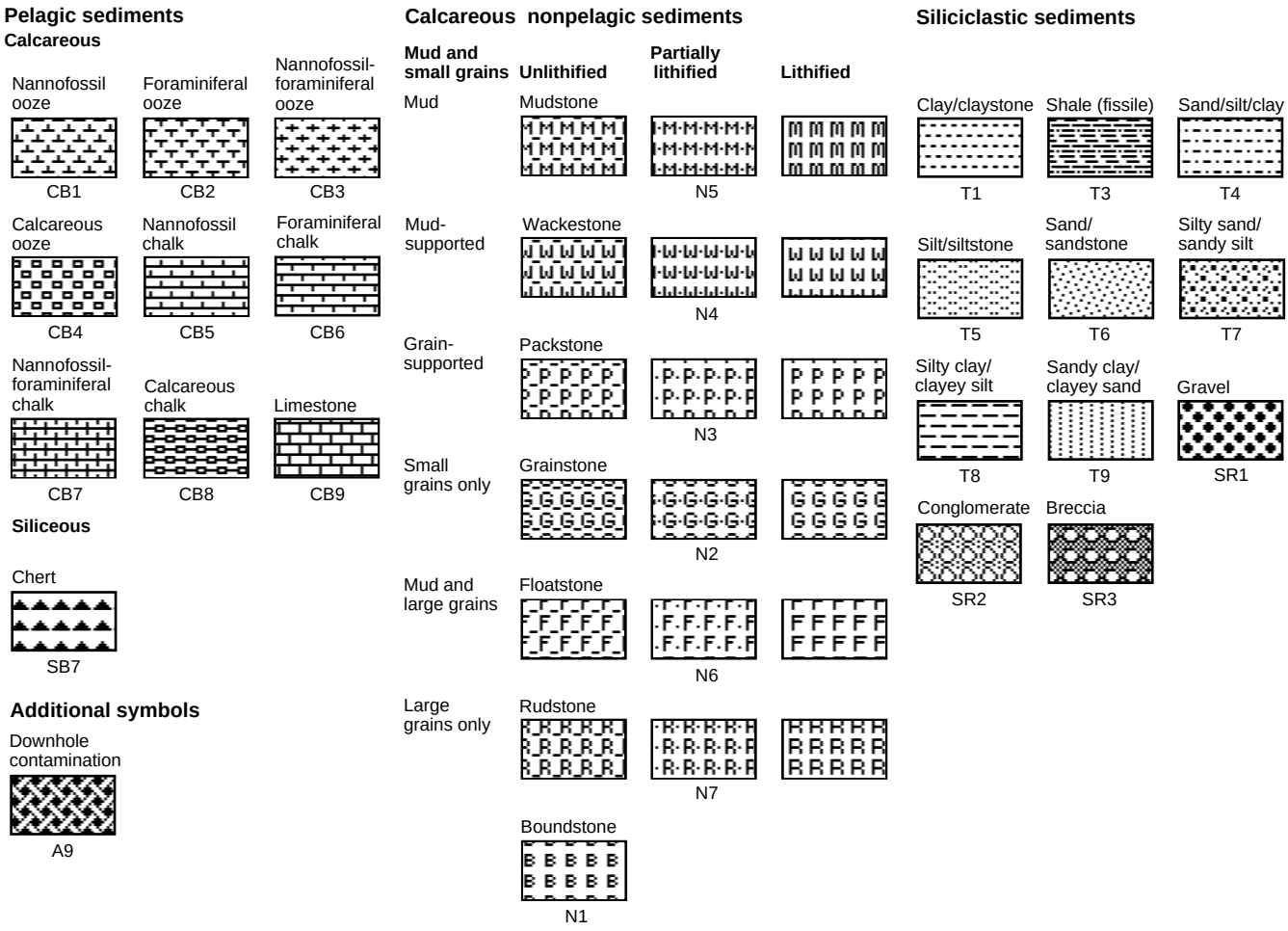
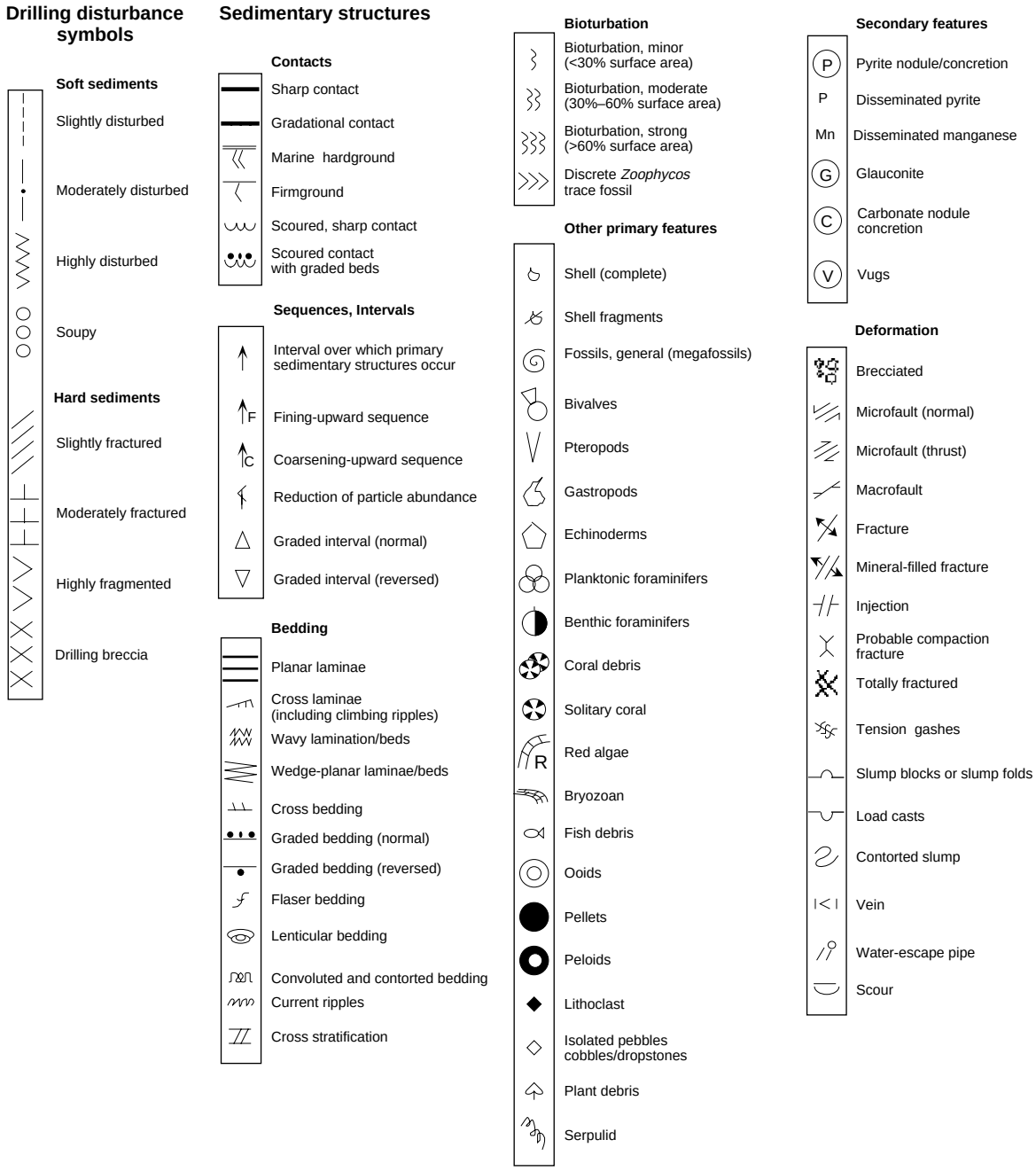


Figure 2 (Chapter 4). Symbols showing drilling disturbance and sedimentary structures used for core descriptions.



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