

SITE 1011 HOLE B CORE 4H

CORED 27.4 - 36.9 mbsf

GRAPE density (g/cm ³)	Reflectance (%) (650-700 nm)	Magnetic suscept. (10 ⁻⁶ SI)	Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
			1		1	Quaternary	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	S	10Y 4/2	SILTY CLAY and CLAYEY NANNOFOSSIL OOZE WITH SILT
			S		10Y 6/2				Major Lithologies: This core is composed of olive gray (10Y 4/2 to 10Y 5/2) SILTY CLAY and light olive gray (10Y 6/2) to light gray (10Y 7/2) CLAYEY NANNOFOSSIL OOZE WITH SILT. The two major lithologies are interbedded on a decimeter scale especially in the upper and lower part of the core. The boundaries are generally gradual.		
			S		10Y 5/2						
			S		5Y 4/2						
			S		10Y 5/2						
			S		10Y 4/2					Minor Lithology: White (N 9) VITRIC VOLCANIC ASH occurs in Section 1, 21 cm. Medium dark gray (N 4) pyritic VITRIC VOLCANIC ASH pockets occur at Section 3, 80 cm, and Section 4, 70 cm.	
			S		10Y 7/2						
			I								General Description: The core is slightly to moderately bioturbated throughout.
			S		10Y 5/2						
			S								
			S		10Y 6/2						
			S		10Y 4/2						
S	10Y 5/2										
S	10Y 4/2										
S	10Y 6/2										
S	10Y 5/2										
M	10Y 6/2										

1 1.5 0 10 0 20 40

SITE 1011 HOLE B CORE 5H CORED 36.9 - 46.4 mbsf

GRAPE density (g/cm ³)	Reflectance (%) (650-700 nm)	Magnetic suscept. (10 ⁻⁶ SI)	Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description		
			1	[Pattern]	1			OO	S	5Y 4/2	SILTY CLAY WITH NANNOFOSSILS, SILTY NANNOFOSSIL OOZE and NANNOFOSSIL OOZE		
			2	[Pattern]	2						5Y 5/2	Major Lithologies: This core consists of alternations between olive gray to dark gray (5Y 4/2 to 5Y 4/1) SILTY CLAY WITH NANNOFOSSILS, SILTY NANNOFOSSIL OOZE, and NANNOFOSSIL OOZE. Subtle changes occur throughout the core as lithologies gradually interbed with each other. NANNOFOSSIL OOZE consists of 60-75% nannofossils with volcanic glass, feldspar, and quartz comprising the silt component. SILTY CLAY WITH NANNOFOSSILS consists of 45% clay, 15% nannofossils, and variable amounts of silt grains.	
			3	[Pattern]	3							5Y 4/2	
			4	[Pattern]	3							5Y 5/2 To 5Y 4/2	
			5	[Pattern]	4	Quaternary						5Y 4/1	Minor Lithologies: Section 5, 70-75 cm, and Section 6, 90-105 cm, contain very dark gray (5Y 3/1) coarse sand turbidites. A coarse layer also occurs in Section 3, 72-81 cm, though no basal contact is apparent.
			6	[Pattern]	4							5Y 4/2	
			7	[Pattern]	5							5Y 5/2	
			8	[Pattern]	5							5Y 4/2	General Description: The sediments are homogeneous or slightly bioturbated.
			9	[Pattern]	5							5Y 5/1	
			10	[Pattern]	6							5Y 4/1	
			11	[Pattern]	6							5Y 5/1	
			12	[Pattern]	7							5Y 4/1 To 5Y 4/2	

1 1.5 0 10 0 20 40

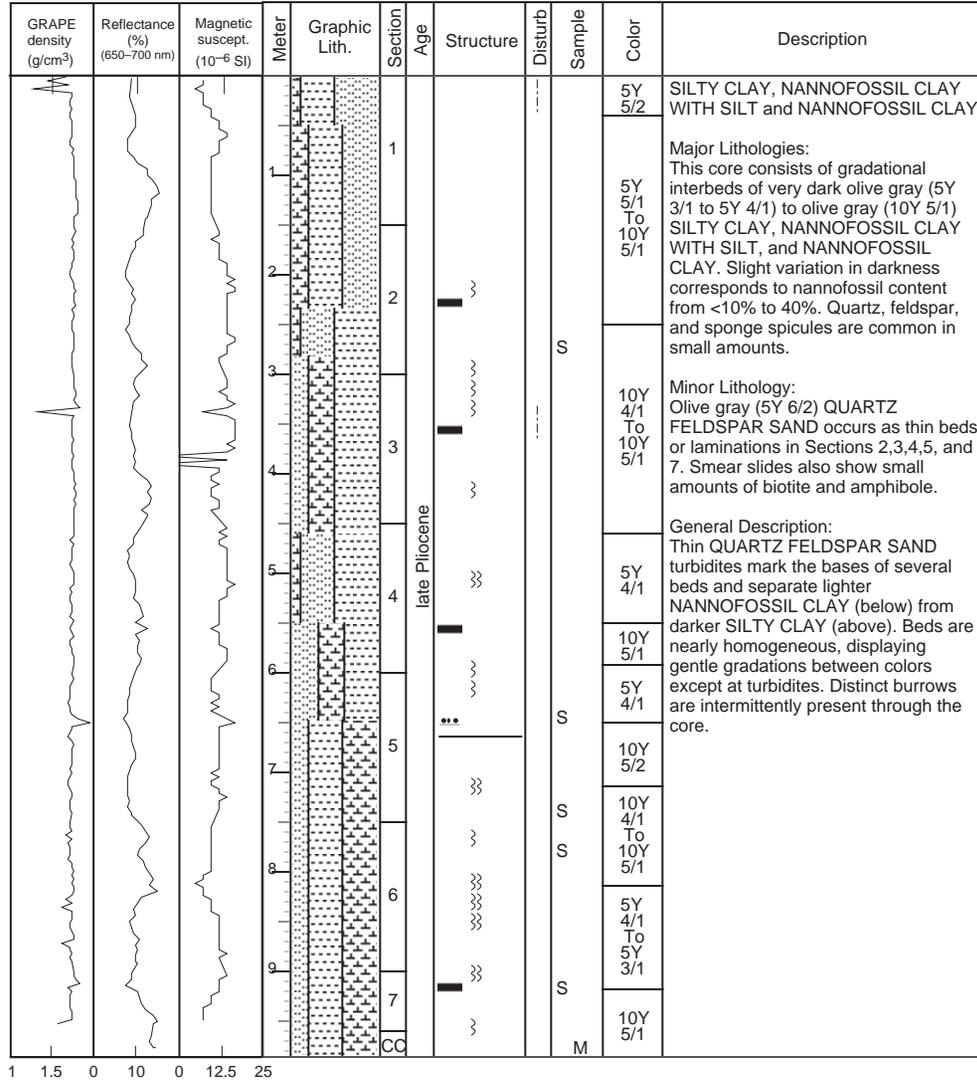
SITE 1011 HOLE B CORE 6H

CORED 46.4 - 55.9 mbsf

GRAPE density (g/cm ³)	Reflectance (%) (650-700 nm)	Magnetic suscept. (10 ⁻⁶ SI)	Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
			1		1						NANNOFOSSIL OOZE WITH SILT and SILTY CLAY
			1							5Y 4/1	Major Lithologies: This core consists of olive gray (5Y 4/2 to 10Y 4/1) SILTY CLAY and light olive gray (5Y 6/2) NANNOFOSSIL OOZE WITH SILT, subtly and gradationally interbedded at 30-150 cm scale. The silt-size fraction of both lithologies contain amphibole and the NANNOFOSSIL OOZE WITH SILT contains nearly 10% foraminifers.
			2		2		A*			5Y 6/2	
			2							5Y 4/2	
			3		3					10Y 5/1	
			3							5Y 4/2	Minor Lithologies: A sharply based, graded, 1.5 cm-thick, light olive gray (5Y 6/2) SAND occurs at Section 4, 53 cm. It is very fine-grained and moderately well sorted. Black (N2), glassy, sub cm-scale pods of VOLCANIC ASH are scattered through the core.
			4		4		A*			5Y 6/2	
			5							5Y 3/2	General Description: Beds are nearly homogeneous, with burrows distinct only at color changes. Small (sub-mm scale) white pods and tubes of pure sponge spicules are scattered throughout the core.
			6		6					5Y 5/2	
			7		7					10Y 4/1	
			8		8					10Y 5/1	
			9								General Description: Beds are nearly homogeneous, with burrows distinct only at color changes. Small (sub-mm scale) white pods and tubes of pure sponge spicules are scattered throughout the core.
			10		10		A*			10Y 4/1	
			10		CC						M

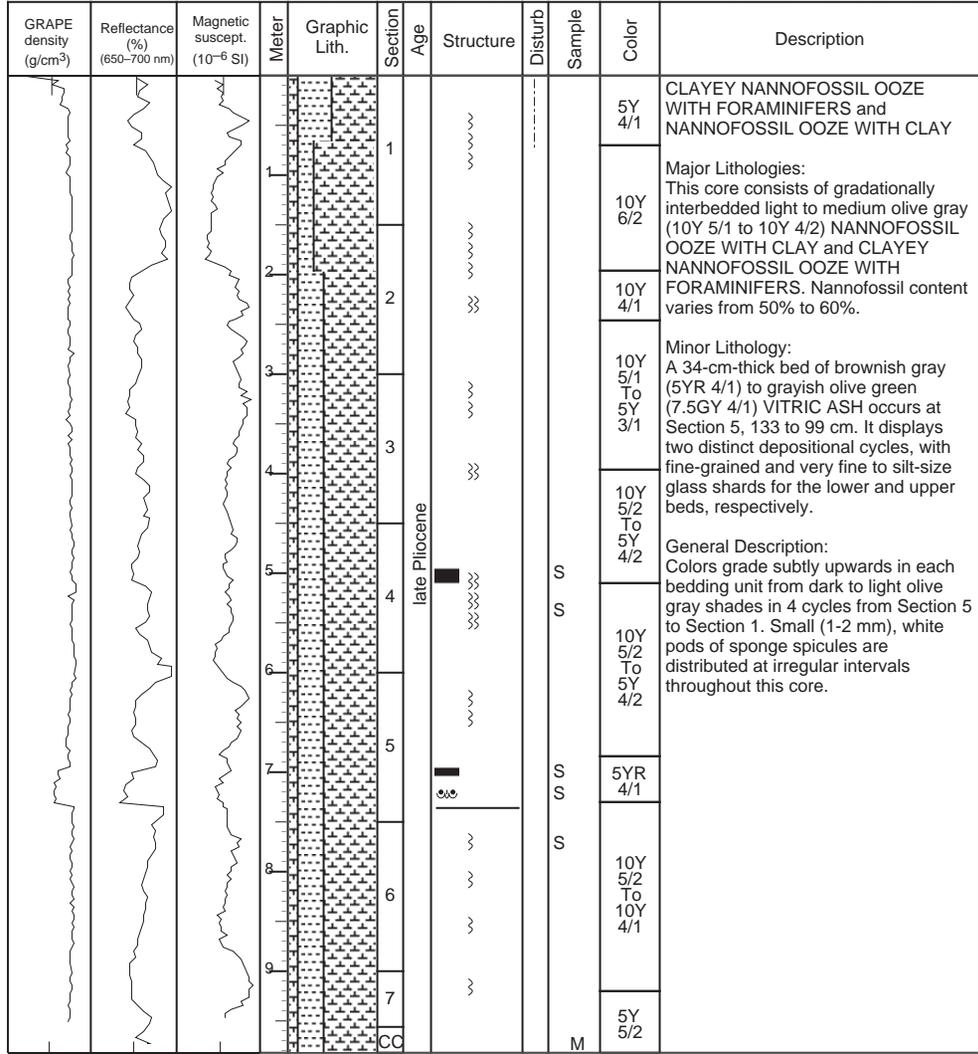
1.5 2 0 10 10 20 30

SITE 1011 HOLE B CORE 7H CORED 55.9 - 65.4 mbsf



SITE 1011 HOLE B CORE 8H

CORED 65.4 - 74.9 mbsf



1 1.5 0 10 0 10 20

SITE 1011 HOLE B CORE 9H CORED 74.9 - 84.4 mbsf

GRAPE density (g/cm ³)	Reflectance (%) (650-700 nm)	Magnetic suscept. (10 ⁻⁶ SI)	Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 1.5 0 -20 0 20			1		1		}}		S	10Y 6/2	NANNOFOSSIL OOZE WITH CLAY, CLAYEY NANNOFOSSIL OOZE and NANNOFOSSIL CLAY
			10Y 5/2 To 5Y 3/2		Major Lithologies: This core consists of thickly interbedded and gradational light olive gray (10Y 5/2) to olive gray (5Y 3/1) NANNOFOSSIL OOZE WITH CLAY, CLAYEY NANNOFOSSIL OOZE, and NANNOFOSSIL CLAY. All bedding contacts are indicated by subtle color changes indicating minor changes in the principal components. Nannofossils vary from 30% to 70%; clay varies from 15% to 50%.						
			2		2	}}		5Y 4/2			
			3		3	}}		10Y 4/2 To 10Y 4/1		Minor Lithologies: A few thin laminations of olive gray (5Y 4/2) QUARTZ FELDSPAR SILT WITH VOLCANIC GLASS occur through the core. A thin bed of olive gray (5Y 5/2) VITRIC ASH is present in Section 6, 50 cm.	
			4		4	}}		5Y 4/1 To 10Y 4/1			
			5		4	}}		5Y 4/1 To 5Y 4/2		General Description: Burrows are only visible near color gradients, but core is mostly homogenized.	
			6		5	}}		10Y 5/1 To 5Y 5/2			
			7		5	}}		5Y 4/1			
			8		6	}}		5Y 5/2			
			9		7	}}		10Y 5/1			
10	CC							M	5Y 3/1 To 5Y 4/1		

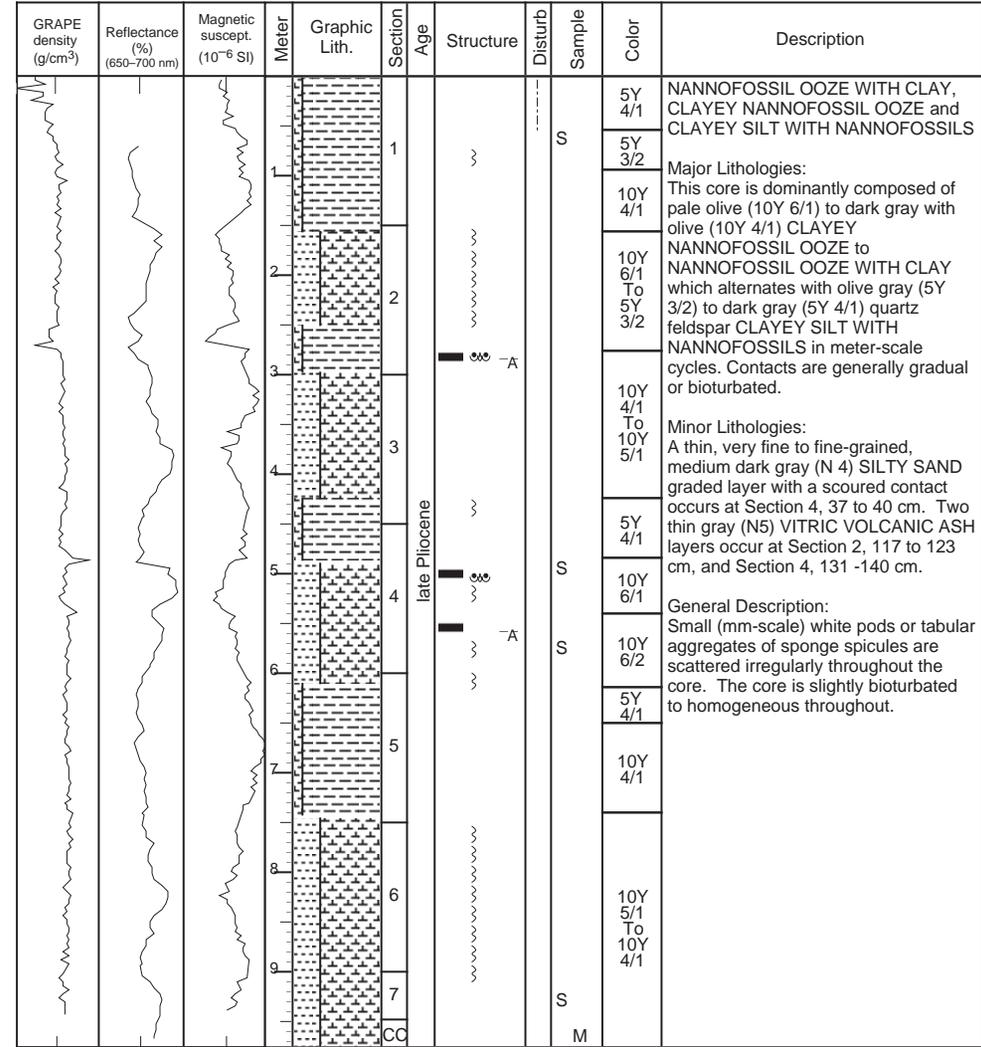
SITE 1011 HOLE B CORE 10H

CORED 84.4 - 93.9 mbsf

GRAPE density (g/cm ³)	Reflectance (%) (650-700 nm)	Magnetic suscept. (10 ⁻⁶ SI)	Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description			
			1		1		~			5Y 4/1	<p>NANNOFOSSIL OOZE WITH CLAY and NANNOFOSSIL CLAY MIXED SEDIMENT</p> <p>Major Lithologies: This core consists of gradational, meter-scale interbedding between light olive gray (5Y 6/2) NANNOFOSSIL OOZE WITH CLAY and very dark olive gray (5Y 3/1) NANNOFOSSIL CLAY MIXED SEDIMENT, spanning all intermediate compositions. Nannofossils vary from 30% to 65%, clay from 15% to 40%, with small amounts of sponge spicules, quartz and feldspar silt, opaque grains (pyrite?) and volcanic glass.</p> <p>General Description: Small (mm-scale), white pods or tubular aggregates of sponge spicules scattered irregularly throughout the core. Chondrites burrows in Section 5, 80-110 cm. Moderate drilling disturbance throughout.</p>			
			1									5Y 6/1		
			2										5Y 4/1	
			3										10Y 5/2	
			4						late Pliocene	■				10Y 5/1
			5											5Y 3/1
			6											10Y 4/1
			7											5Y 4/2
			8											5Y 5/2
			9											5Y 6/2
			CC											

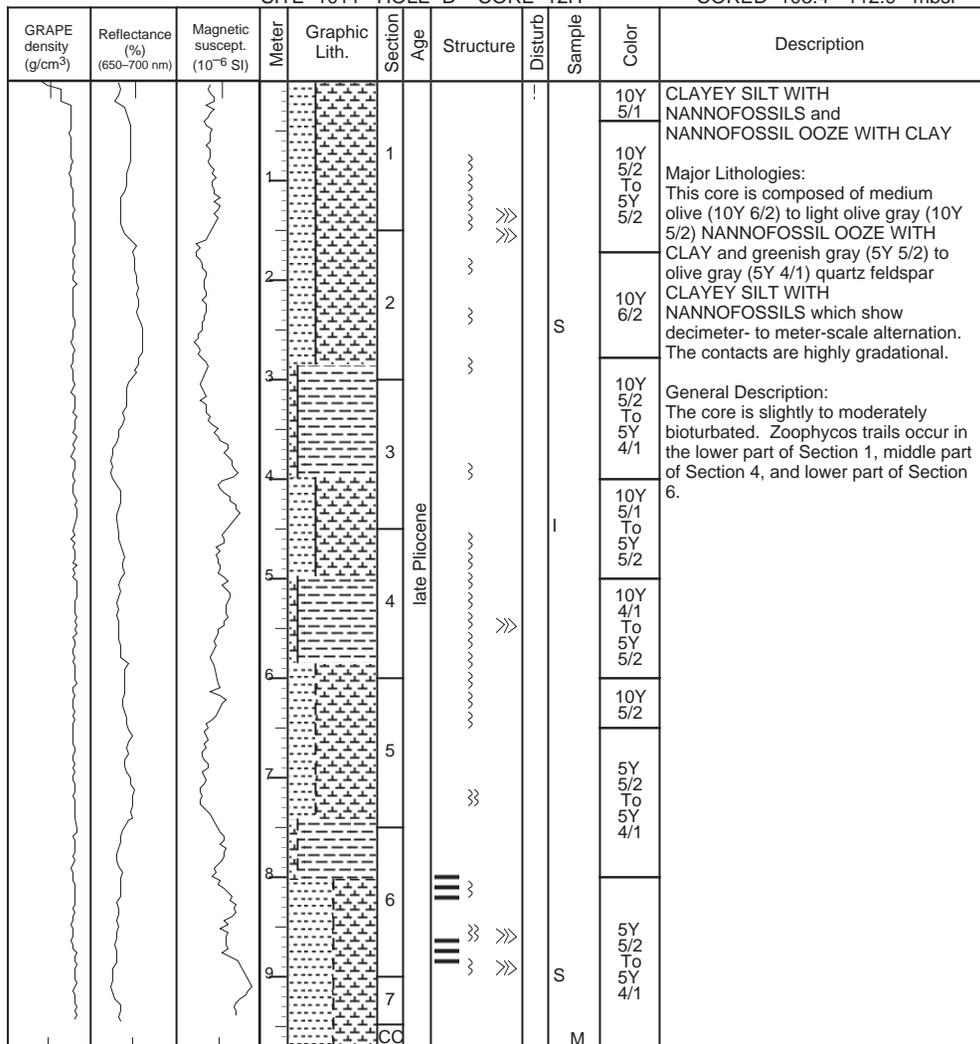
1.5 1.75 0 20 0 10 20

SITE 1011 HOLE B CORE 11H CORED 93.9 - 103.4 mbsf



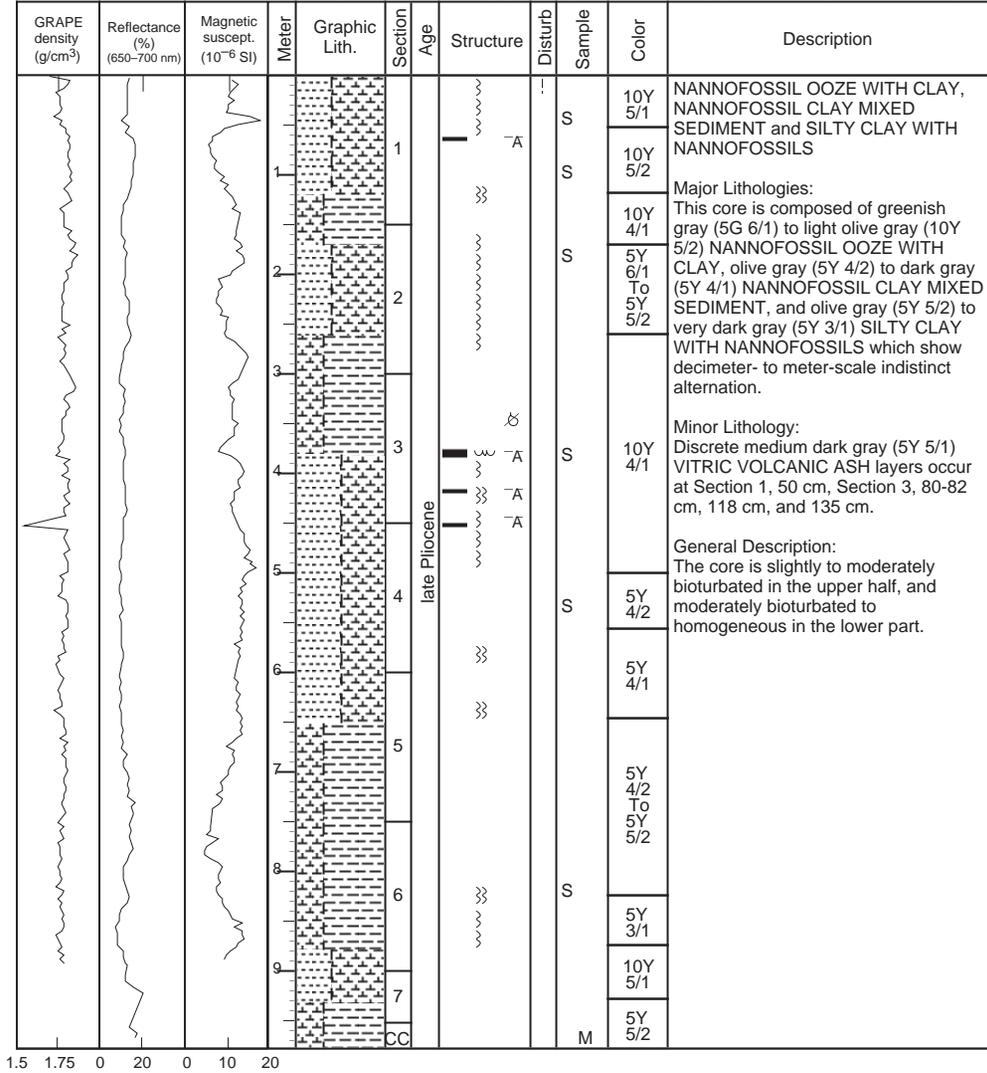
1.5 1.75 0 10 0 10 20

SITE 1011 HOLE B CORE 12H CORED 103.4 - 112.9 mbsf

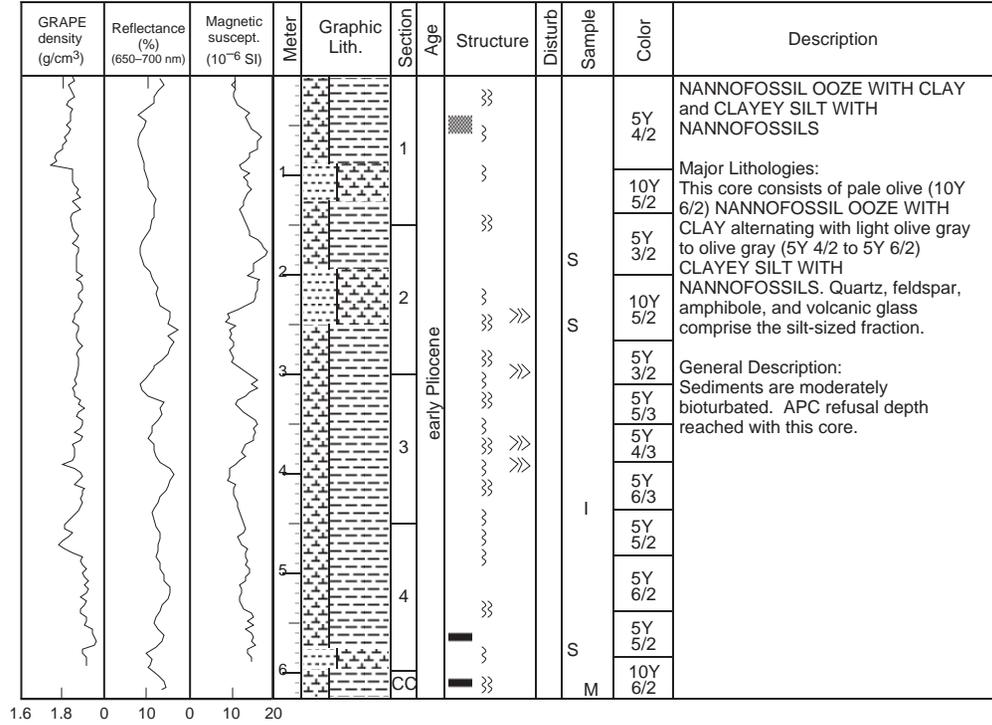


1 1.5 0 20 0 10 20

SITE 1011 HOLE B CORE 13H CORED 112.9 - 122.4 mbsf

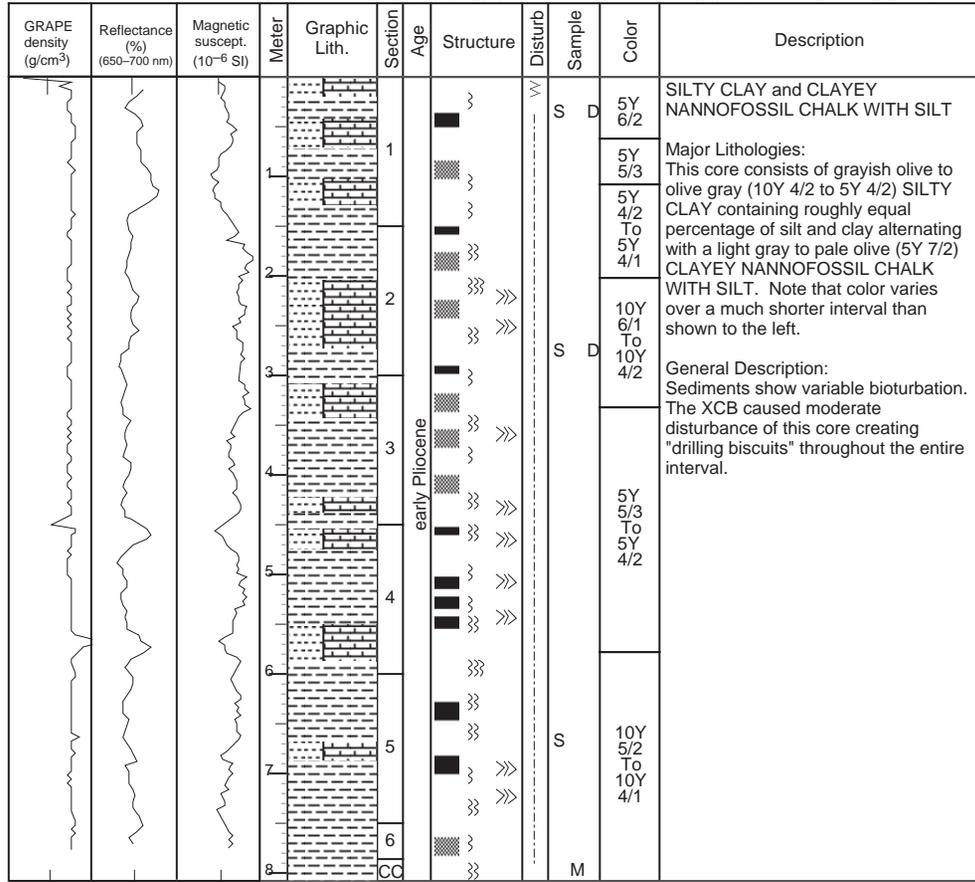


SITE 1011 HOLE B CORE 15H CORED 131.9 - 137.9 mbsf



SITE 1011 HOLE B CORE 16X

CORED 137.9 - 146.5 mbsf



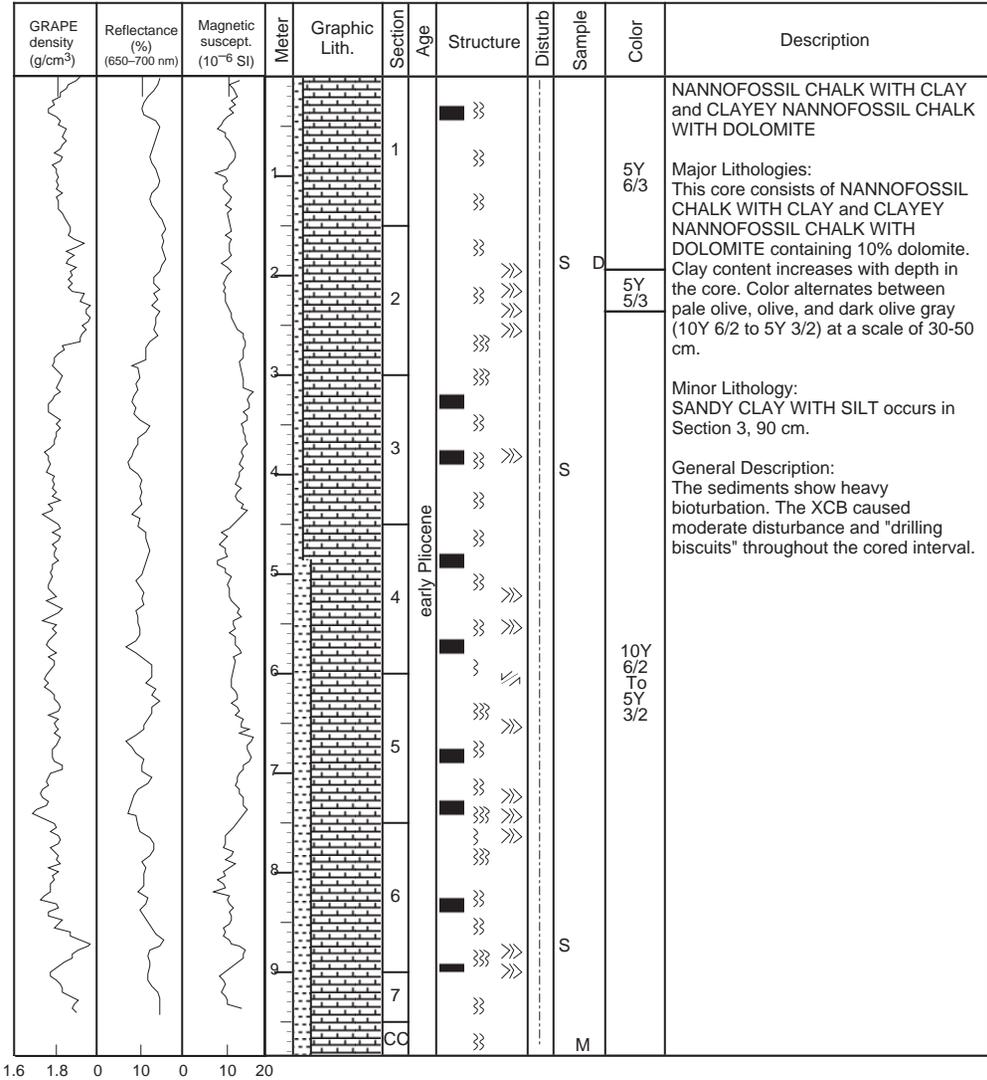
1 1.5 0 10 0 10 20

SILTY CLAY and CLAYEY NANNOFOSSIL CHALK WITH SILT

Major Lithologies:
This core consists of grayish olive to olive gray (10Y 4/2 to 5Y 4/2) SILTY CLAY containing roughly equal percentage of silt and clay alternating with a light gray to pale olive (5Y 7/2) CLAYEY NANNOFOSSIL CHALK WITH SILT. Note that color varies over a much shorter interval than shown to the left.

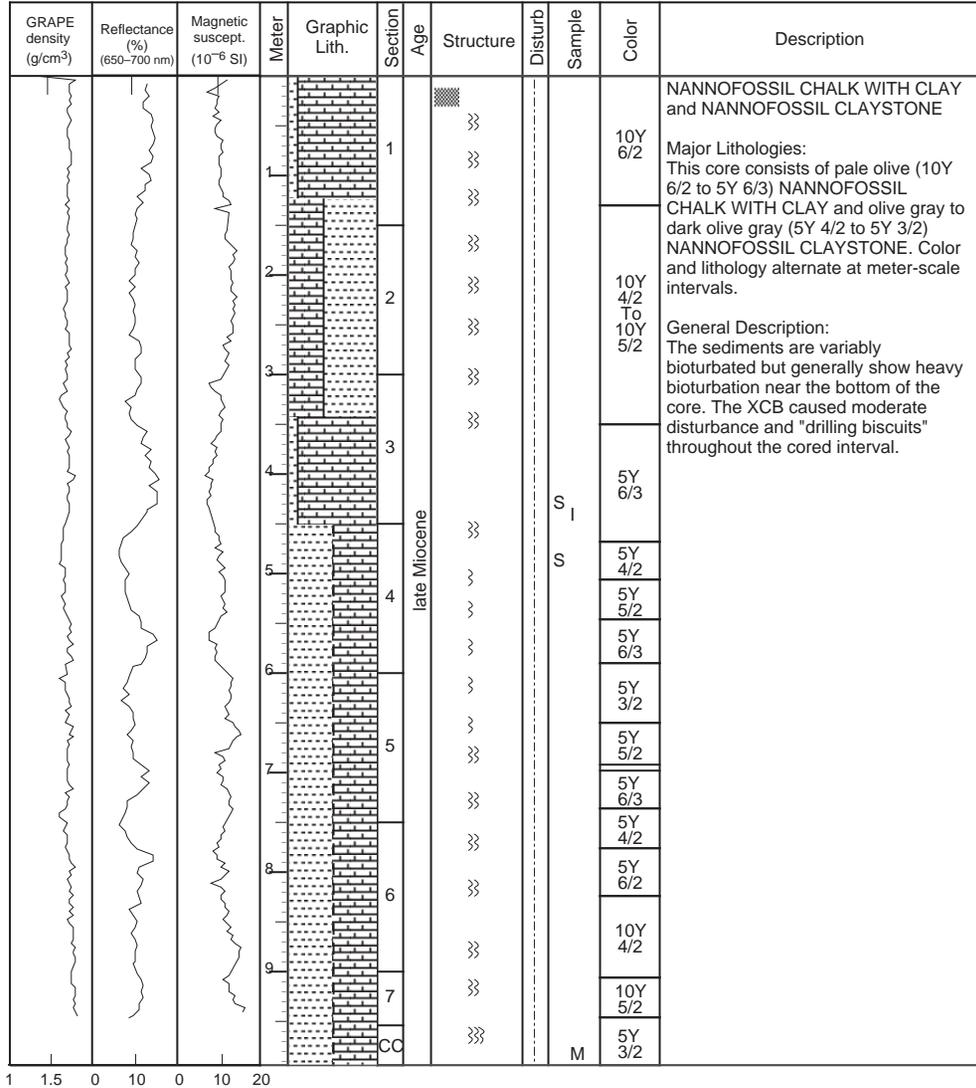
General Description:
Sediments show variable bioturbation. The XCB caused moderate disturbance of this core creating "drilling biscuits" throughout the entire interval.

SITE 1011 HOLE B CORE 17X CORED 146.5 - 156.2 mbsf

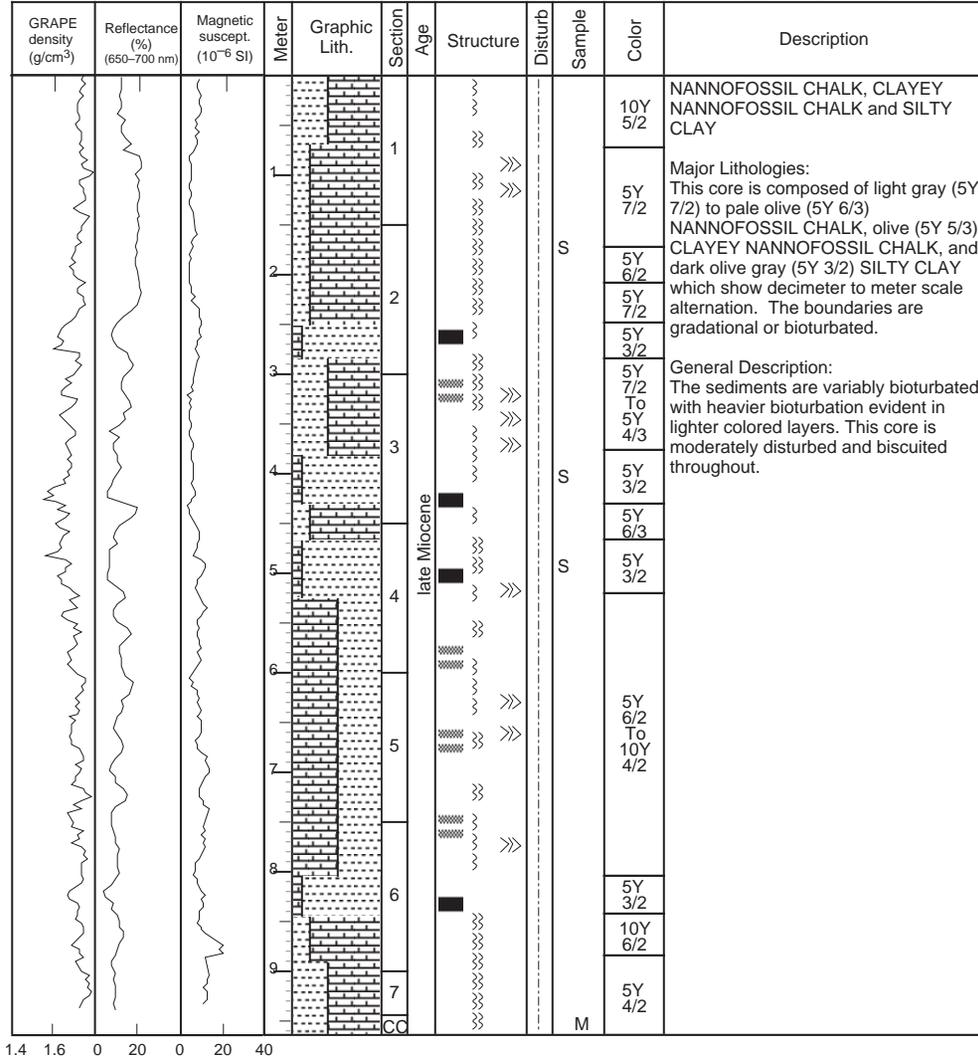


SITE 1011 HOLE B CORE 18X

CORED 156.2 - 165.7 mbsf

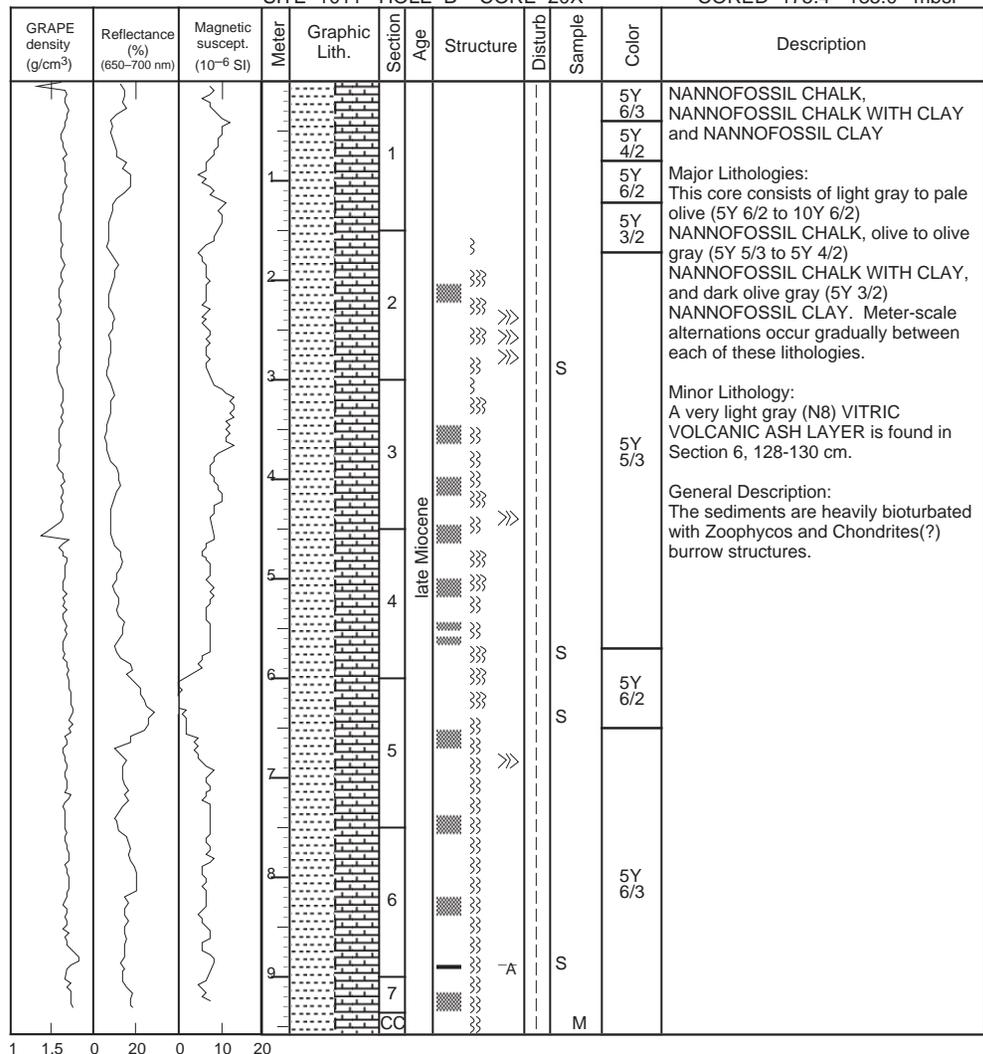


SITE 1011 HOLE B CORE 19X CORED 165.7 - 175.4 mbsf



SITE 1011 HOLE B CORE 20X

CORED 175.4 - 185.0 mbsf



SITE 1011 HOLE B CORE 21X CORED 185.0 - 194.6 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1						<p>SILTY CLAY WITH NANNOFOSSILS and NANNOFOSSIL CHALK</p> <p>Major Lithologies: This core consists of interbedded dark olive gray (5Y 3/3) SILTY CLAY WITH NANNOFOSSILS and light gray (5Y 6/2) NANNOFOSSIL CHALK. Interbedding contacts are indistinct and gradational, and occur on a scale of 10-50 cm. Color bands shown at the left represent darker colored clay-rich intervals.</p> <p>Minor Lithology: Medium light gray to medium gray (N6 to N5) VITRIC VOLCANIC ASH layers are found in Section 5, 83-86 cm, and CC, 5-8 cm.</p> <p>General Description: The sediments show heavy bioturbation. Chondrites and Planolites are abundant but Zoophycos are also present.</p>
2		2						
3		3						
4		4				S		
5		5	late Miocene			I	5Y 3/3 To 5Y 6/2	
6		6				S		
7		7				S		
8		8						
9		9						
CC		CC			-A	M		

SITE 1011 HOLE B CORE 22X

CORED 194.6 - 204.3 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1				S		SILTY NANNOFOSSIL CHALK WITH CLAY, NANNOFOSSIL CHALK and NANNOFOSSIL CHALK WITH CLAY
2		2					10Y 4/2 To 10Y 6/2	Major Lithologies: This core consists of interbedded dark olive gray (10Y 3/2) to grayish olive (10Y 4/2) SILTY NANNOFOSSIL CHALK WITH CLAY and yellowish gray (5Y 7/2) to light olive gray (5Y 6/2) NANNOFOSSIL CHALK, with most of the core being of intermediate composition - light gray olive (10Y 5/2) NANNOFOSSIL CHALK WITH CLAY. Beds range from 10-50 cm in thickness with gradational contacts. Color bands in the Structure column represent the position of the darker, siliciclastic-rich intervals.
3		3						
4		4				S		Minor Lithology: A dark gray (N4), very fine-grained VOLCANICLASTIC SAND occurs at Section 5, 79-81 cm, and is highly disrupted.
5		4	late Miocene				10Y 4/2 To 5Y 6/2	General Description: The core is highly bioturbated throughout. Zoophycos and Chondrites trace fossils are present in most sections. A 1.5-2 cm thick, vertical burrow (Thalassinoides?) is segmented into 2-cm high pieces by drilling biscuits. The core is biscuited and moderately fractured throughout.
6		5				S		
7		5				S	5Y 7/2	
8		6				S	10Y 5/2	
9		6					5GY 5/2	
		7					10Y 4/2	
		CC				M		

SITE 1011 HOLE B CORE 23X CORED 204.3 - 213.9 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1		~>>>			5Y 3/2 To 10Y 5/2	<p>DIATOMITE WITH CLAY AND SILT</p> <p>Major Lithology: This core consists of 20- to 50-cm thick alternations between very dark gray (2.5Y 3/2) and olive gray (10Y 5/2) DIATOMITE WITH CLAY AND SILT, representing minor variations in the abundance of the siliciclastic and diatom components. Color changes are gradational. The darker intervals are indicated by color bands in the Structure column.</p>
2		2		~>>>		S		
3		3		~>>>		S		<p>Minor Lithologies: A grayish brown (2.5Y 5/2) DIATOM CHALK WITH NANNOFOSSILS is present at Section 6, 90-110 cm. A dark gray (N4) VITRIC ASH at Section 2, 145 cm is composed of very fine to silt-size glassy shards.</p>
4		3		~>>>				
5		4	late Miocene	~>>>			2.5Y 3/2 To 10Y 4/1	<p>General Description: Extensive bioturbation is evident wherever color contrasts occur. Chondrites and Zoophycos occur at several locations through the core. Almost the entire core is moderately fractured and forms stacked drilling biscuits.</p>
6		5		~>>>				
7		6		~>>>		S		
8		6		~>>>		S		
9		7		~>>>		M		
		CC		~>>>				

SITE 1011 HOLE B CORE 24X CORED 213.9 - 223.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1		◇		S		DIATOMITE WITH CLAY
1		1		~		S	2.5Y 3/1 To 5Y 5/2	<p>Major Lithology: This core consists of decimeter to meter-scale alternations between very dark gray (2.5Y 3/1) and light olive gray (5Y 5/2) DIATOMITE WITH CLAY. Diatoms compose 50% to 75% of the major lithology and clay composes 10% to 20% of the major lithology. Only small amounts of nannofossils are present. Bedding contacts are generally gradational, but locally are abrupt. Darker bands are indicated in the Structure column.</p> <p>Minor Lithologies: Two layers of very dark gray (2.5Y 3/1), fine- to very fine-grained VITRIC ASH occur between Section 5, 142 cm, and Section 6, 7 cm. Dark olive gray (10Y 4/1) SILTY DIATOM MIXED SEDIMENT WITH CLAY is present in the core catcher. A 4-cm diameter black (N1) BASALT COBBLE isolated in DIATOMITE WITH CLAY occurs near the top of Section 1.</p> <p>General Description: The core is moderately to intensely fractured and biscuited by XCB coring. Bioturbation occurs throughout. Chondrites and possibly Teichichnus are present.</p>
2		2		~				
3		3		~				
4		3		~		I	10Y 4/2 To 5Y 5/2	
5		4	late Miocene	~				
6		4		~				
7		5		~				
8		5		~		S	2.5Y 6/2 To 5Y 5/2	
8		6		~	A	S		
9		6		~		S	10Y 5/2 To 5Y 5/2	
9		7		~		S		
		CC		~		S M		

SITE 1011 HOLE B CORE 25X CORED 223.5 - 233.2 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1		-A ~A		S		<p>DIATOMITE WITH SILTY CLAY and DIATOMITE WITH NANNOFOSSILS AND CLAY</p> <p>Major Lithologies: This core consists of dark olive gray (10Y 4/1) to dark grayish brown (2.5Y N3/0) DIATOMITE WITH SILTY CLAY and very dark gray (2.5Y N2/0 to 5Y 3/1) DIATOMITE WITH NANNOFOSSILS AND CLAY, chiefly interbedded at scales of 10 to 30 cm. Diatoms consistently make up 60% to 70% of the major lithologies, nannofossils range from 0% to 15%, and clay 10% to 20%. The dark DIATOMITE WITH NANNOFOSSILS AND CLAY in Section 1 contains about 5% amorphous organic matter.</p> <p>Minor Lithology: Very dark gray (5Y 3/1) VITRIC ASH layers occur in Section 1, 2, and 7. From Section 2, 87 to 127 cm, there are 3 distinct deposits, the middle one containing quartzofeldspathic sand and sandstone sedimentary rock fragments.</p> <p>General Description: Visible burrows are common. Vein structures occur at approximately 1 m intervals in the upper half of the core. The core is moderately fractured by drilling and biscuited at 2 to 3 cm intervals throughout.</p>
2		2		-A ~A		S	2.5Y N2/0 To 5Y 3/1	
3		3		-A ~A		S		
4		4		~A ~A		S		
5		5	late Miocene	~A ~A		S	10Y 4/1 To 5Y 4/1	
6		6		~A ~A		S		
7		7		-A ~A		S		
8		8		~A ~A		S	2.5Y N3/0 To 5Y 4/2	
9		9		-A ~A		S		
		CC				M		

SITE 1011 HOLE B CORE 26X CORED 233.2 - 242.8 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1		⊖	⊖	S	2.5Y 3/2	DIATOMITE WITH CLAY AND NANNOFOSSILS
2		2		⊖	⊖	S	2.5Y 5/2 To 5Y 7/2	Major Lithology: This core consists entirely of very dark gray (5Y 3/1) to light brownish gray (2.5Y 6/2) DIATOMITE WITH CLAY AND NANNOFOSSILS. Diatoms compose 70% to 80% of the sediment, with 10% to 15% each of clay and nannofossils. Silicoflagellates, opaques, and amorphous organic matter are typically present in small amounts. Decimeter- to meter-scale color gradation reflects extremely minor variation in the content of trace components, such as pyrite and organic matter. Color boundaries are gradational over several centimeters.
3		3		⊖	⊖	S	5Y 3/1 To 2.5Y 6/2	
4		4	late Miocene	⊖	⊖	S	5Y 3/2	General Description: This core is bioturbated throughout most of its length. However, an interval of mm-scale laminations is preserved at the base of Section 4 and the top of Section 5. Chondrites and Zoophycos trace fossils are distributed through the core. A spectacular interval of Zoophycos spreiten is present at Section 5, 115 to 145 cm.
5		5		⊖	⊖	S	5Y 3/2	
6		6		⊖	⊖	S		
7		7		⊖	⊖	S	2.5Y 3/2 To 2.5Y 6/2	
8		8		⊖	⊖	S		
9		9		⊖	⊖	S		
		CC		⊖	⊖	M		

SITE 1011 HOLE B CORE 27X CORED 242.8 - 252.4 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1		~>>>		S	5Y 5/3	<p>NANNOFOSSIL DIATOMITE WITH CLAY, DIATOMITE WITH CLAY and DIATOMITE WITH SILTY CLAY</p> <p>Major Lithologies: This core consists of interbedded olive (5Y 5/3) NANNOFOSSIL DIATOMITE WITH CLAY, very dark grayish brown (2.5Y 3/2) DIATOMITE WITH CLAY, and very dark grayish brown (2.5Y 3/2) DIATOMITE WITH SILTY CLAY. Diatoms vary from 40% to 65%, nannofossils from 0% to 20%, and clay from 15% to 20%. Color banding is typically 20 to 50 cm thick. Dark bands are indicated in the Structure column.</p>
2		2		~>>>		S	5Y 5/3 To 2.5Y 3/2	
3		3		~>>>		S	5Y 5/3 To 2.5Y 3/2	<p>Minor Lithologies: A thin bed of very dark gray (N3) VITRIC ASH occurs at Section 3, 30 cm. It is composed entirely of glass shards. Two thin beds of very dark gray (5Y 3/1) occur in Section 7 and the Core Catcher.</p>
4		4		~>>>		I	2.5Y 4/2 To 2.5Y 3/2	
5		5	late Miocene	~>>>		S	2.5Y 4/2 To 2.5Y 3/2	<p>General Description: Small (mm-scale) tubes of aggregated sponge spicules (Sagarites?) are common in Sections 3 and 4. Zoophycos and Chondrites trace fossils and vein structures are distributed throughout the core.</p>
6		6		~>>>		S	10Y 4/1	
7		7		~>>>		S	2.5Y 3/2	
8		8		~>>>		S	5Y 3/2	
9		9		~>>>		M		
		CC		~>>>		M		

SITE 1011 HOLE B CORE 28X CORED 252.4 - 262.1 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	late Miocene			S	10Y 4/1	DIATOMITE WITH CLAY and DIATOMITE
1		2.5Y 3/2					Major Lithologies: This core is composed of decimeter scale alternation of grayish brown (2.5Y 5/2) DIATOMITE WITH CLAY and very dark grayish brown (2.5Y 3/2) DIATOMITE. The boundaries are generally gradational.	
2		2.5Y 4/2						
2		2.5Y 3/2					Minor Lithology: An approximately 20 cm thick quartz feldspar SILTY VITRIC VOLCANIC ASH layer occurs in the upper part of Section 5. The bed shows normal grading with sharp basal contact.	
3		2.5Y 5/2						
4		10Y 4/1					General Description: This core is severely disturbed and biscuited by drilling. Bioturbation seems to be common.	
4		2.5Y 3/2						
5		2.5Y 5/2						
5		10Y 5/1						
6	2.5Y 3/2							
6	10Y 4/1							
7	2.5Y 3/2							
7	10Y 4/1							
8	10Y 4/2							
8	2.5Y 5/2 To 10Y 4/1							
9	2.5Y 3/2	CC	M					

SITE 1011 HOLE B CORE 29X CORED 262.1 - 271.7 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		1			∇∇	S M D	5Y 2.5/1	SILTY CLAY WITH DOLOMITE, SILTSTONE and BRECCIA
			late Miocene					<p>Major Lithologies: This core has only 3% recovery and is highly fractured. The core is composed of black (5Y 2.5/1) SILTSTONE and olive gray (5Y 4/2) SILTY CLAY WITH DOLOMITE with very dark gray (2.5Y 3/0) oligomictic BRECCIA of siliceous shale intercalated in the middle. The BRECCIA is cemented with silica.</p>

SITE 1011 HOLE B CORE 30X CORED 271.7 - 276.4 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		1			∇∇∇∇	S S	N1 N4	SILICEOUS SHALE and SANDSTONE
			late Miocene					<p>Major Lithologies: Recovery of this core is only 13% and the sediments are highly fragmented. This core is composed of black (N1) SILICEOUS SHALE in the upper to middle parts and medium dark gray (N4) coarse grained quartz feldspar SANDSTONE in the lower part.</p> <p>General Description: The SILICEOUS SHALE is slightly bioturbated.</p>

SITE 1011 HOLE C CORE 1H CORED 0.0 - 3.3 mbsf

GRAPE density (g/cm ³)	Reflectance (%) (650-700 nm)	Magnetic suscept. (10 ⁻⁶ SI)	Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
			1		1		∞	0			SILTY CLAY
			1								Major Lithology: This core is composed of grayish olive (10Y 4/2) SILTY CLAY.
			2		2	Quaternary	∞		S	10Y 4/2	General Description: Most part of the core is homogeneous with rare burrows in a few horizons.
			3		3		∞				
			3		CC		∞		M		

1.4 1.6 0 10 20 40 60

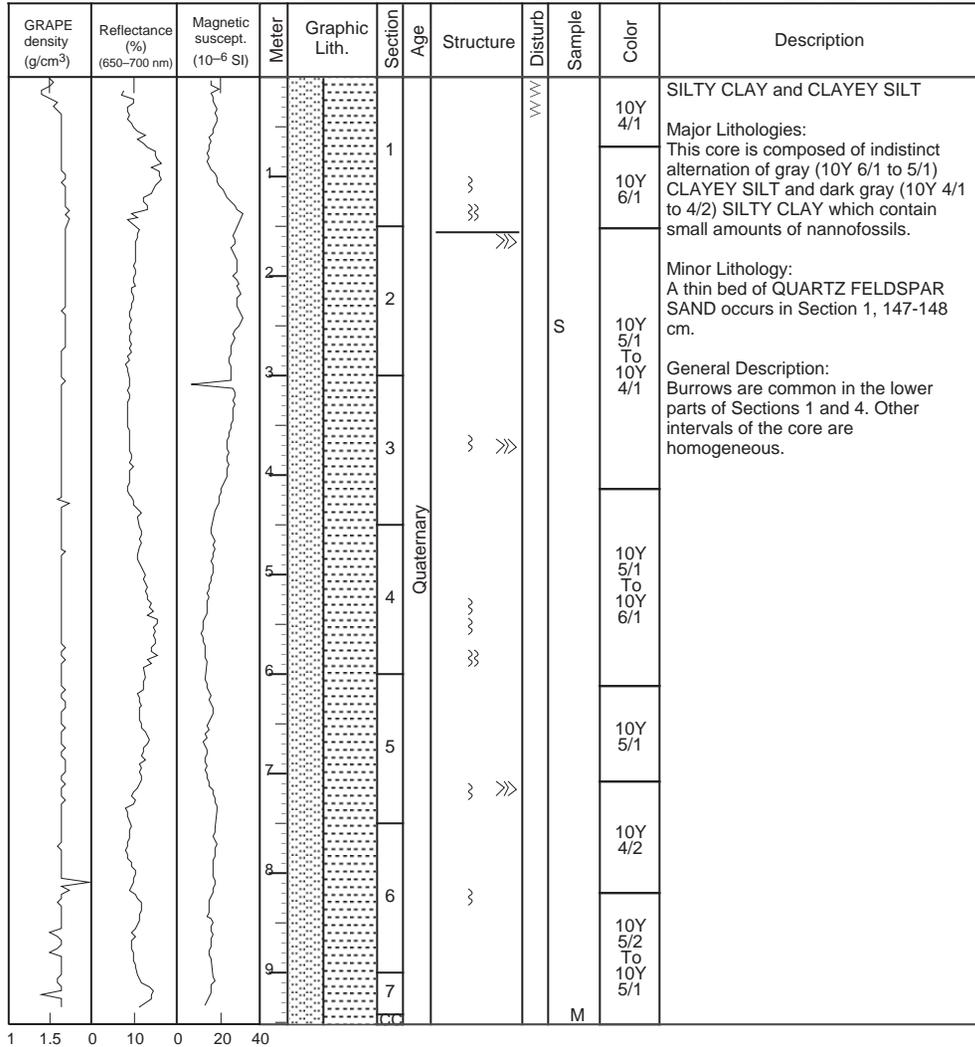
SITE 1011 HOLE C CORE 2H

CORED 3.3 - 12.8 mbsf

GRAPE density (g/cm ³)	Reflectance (%) (650-700 nm)	Magnetic suscept. (10 ⁻⁶ SI)	Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
			1		1					10Y 5/2	<p>SILTY CLAY and NANNOFOSSIL CLAY WITH SILT</p> <p>Major Lithologies: This core is composed of indistinct m-scale alternation of pale olive (10Y 4/2) NANNOFOSSIL CLAY WITH SILT and grayish olive (10Y 4/1) to live gray (5Y 4/2) SILTY CLAY. The boundaries are gradational.</p> <p>Minor Lithology: Layers of fine brownish gray (5YR 4/1) FELDSPAR QUARTZ SAND with normal grading and sharp basal contact occur in Section 2, 21-22 cm, and Section 5, 58-70 cm.</p> <p>General Description: Bioturbation is rather rare and is most distinct in lighter intervals. Other parts of the core show homogeneous appearance.</p>
			2		2	Quaternary	••			5Y 4/2	
			3		3		~			10Y 4/2	
			4		3		~			10Y 5/2	
			5		3		~			5Y 4/2	
			6		4		~			10Y 5/1	
			7		5		••	S		5Y 4/1 To 10Y 6/2	
			8		6		~	S			
			9		7		~			10Y 4/1 To 10Y 5/2	
			10		CC		~		M		

1 1.5 5 10 -50 0 50

SITE 1011 HOLE C CORE 3H CORED 12.8 - 22.3 mbsf



SITE 1011 HOLE C CORE 5H CORED 31.8 - 41.3 mbsf

GRAPE density (g/cm ³)	Reflectance (%) (650-700 nm)	Magnetic suscept. (10 ⁻⁶ SI)	Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
			1		1		A	W			<p>NANNOFOSSIL OOZE WITH CLAY and SILTY CLAY WITH NANNOFOSSILS</p> <p>Major Lithologies: This core consists of alternations between dark greenish gray (10Y 4/1 to 5Y 5/2) SILTY CLAY WITH NANNOFOSSILS and light greenish gray to light olive gray (10Y 6/1 to 5Y 5/1) NANNOFOSSIL OOZE WITH CLAY. Lithologies and compositional changes are gradual.</p> <p>Minor Lithologies: A white (N9) VITRIC ASH layer occurs in Section 1, 55-60 cm.</p> <p>General Description: The sediments are slightly bioturbated.</p>
			2		2		A*			10Y 4/1	
			3		3		}}		S	10Y 6/1	
			4		3		}}			10Y 4/1	
			5		4		}}		S	10Y 6/2	
			6		4	Quaternary	}}			5Y 5/2	
			7		5		}}			10Y 6/1	
			8		6		}}			10Y 5/1	
			9		6		}}			10Y 6/1	
			10		7		}}			10Y 4/1	
			11		7		}}			10Y 5/1	
			12		7		}}			10Y 4/1	
			13		7		}}			5Y 5/2	
			14		7		}}			10Y 3/1	
			15		CC		}}		M	10Y 4/2	

1 1.5 0 10 0 20 40

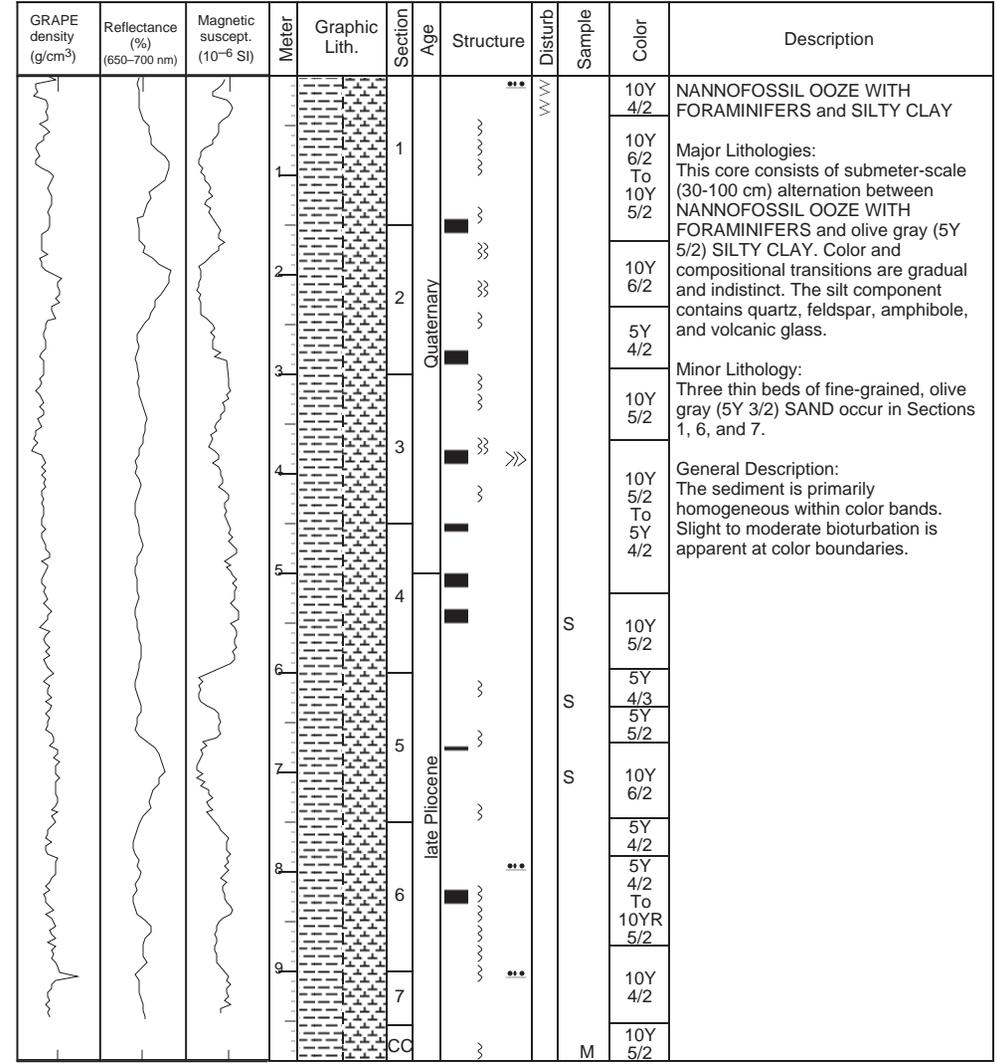
SITE 1011 HOLE C CORE 6H

CORED 41.3 - 50.8 mbsf

GRAPE density (g/cm ³)	Reflectance (%) (650-700 nm)	Magnetic suscept. (10 ⁻⁶ SI)	Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
			1	[Cross-hatch pattern]	1					10Y 5/1	<p>CLAYEY SILT and NANNOFOSSIL OOZE WITH FORAMINIFERS</p> <p>Major Lithologies: This core consists of interbedded dark gray to light olive gray (10Y 4/1 to 5Y 5/2) CLAYEY SILT and light gray (10Y 5/1) NANNOFOSSIL OOZE WITH FORAMINIFERS. Contacts are indistinct and gradational, and occur over 1-10 cm.</p> <p>Minor Lithology: Two thin intervals of graded(?) QUARTZ FELDSPAR SAND occur in Section 2, 107-112 cm, and Section 4, 7-12 cm.</p>
			2	[Horizontal line pattern]	2		} **			10Y 5/2	
			3	[Cross-hatch pattern]	3		} A*			5Y 5/1	
			4	[Horizontal line pattern]	4		} **			5Y 5/2	
			5	[Cross-hatch pattern]	5	Quaternary	} **			5Y 4/1	
			6	[Horizontal line pattern]	6		} **			5Y 5/1	
			7	[Cross-hatch pattern]	7		} **			10Y 4/1	
			8	[Horizontal line pattern]	8		} **	S		10Y 5/1	
			9	[Cross-hatch pattern]	9		} **	S		5Y 5/2	
			10	[Horizontal line pattern]	10	CC			M	10Y 5/1	

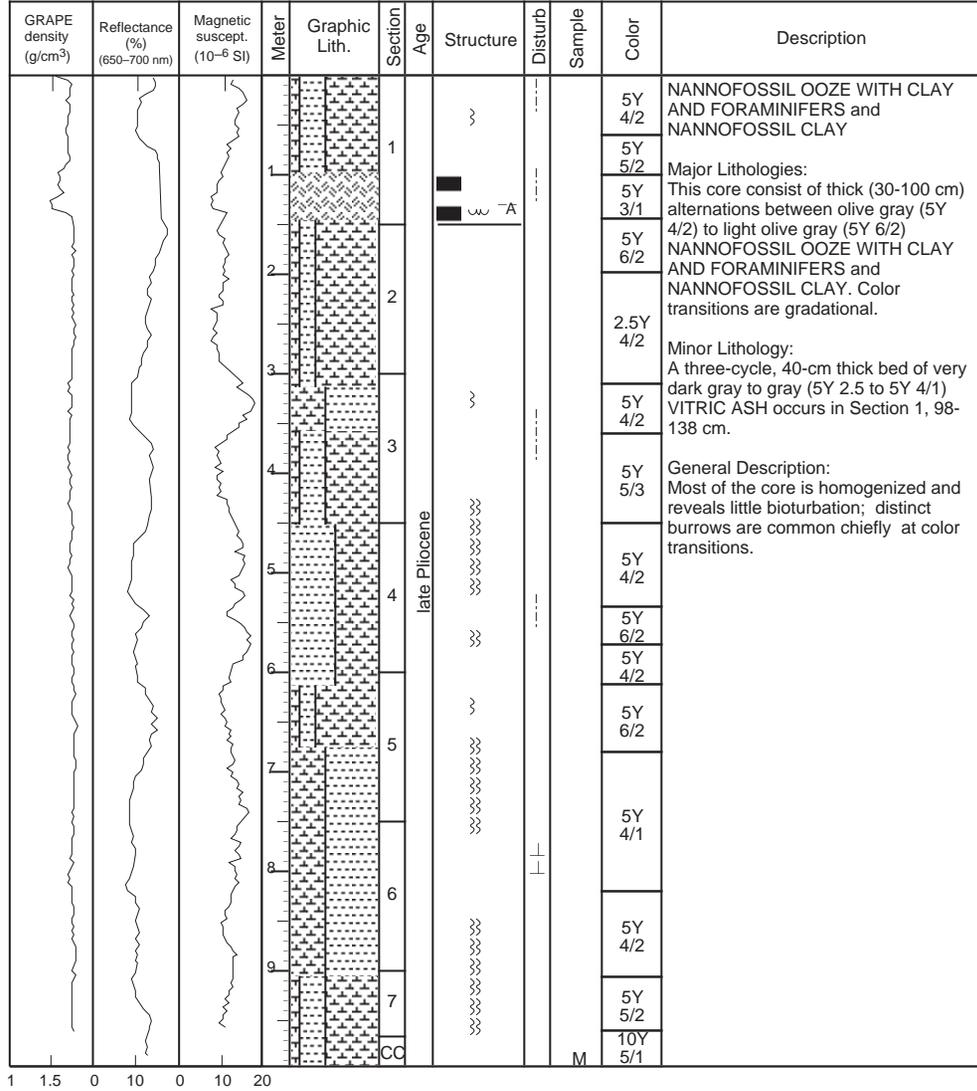
1.5 2 0 10 10 20 30

SITE 1011 HOLE C CORE 7H CORED 50.8 - 60.3 mbsf



1.6 1.8 0 10 20 30

SITE 1011 HOLE C CORE 9H CORED 69.8 - 79.3 mbsf

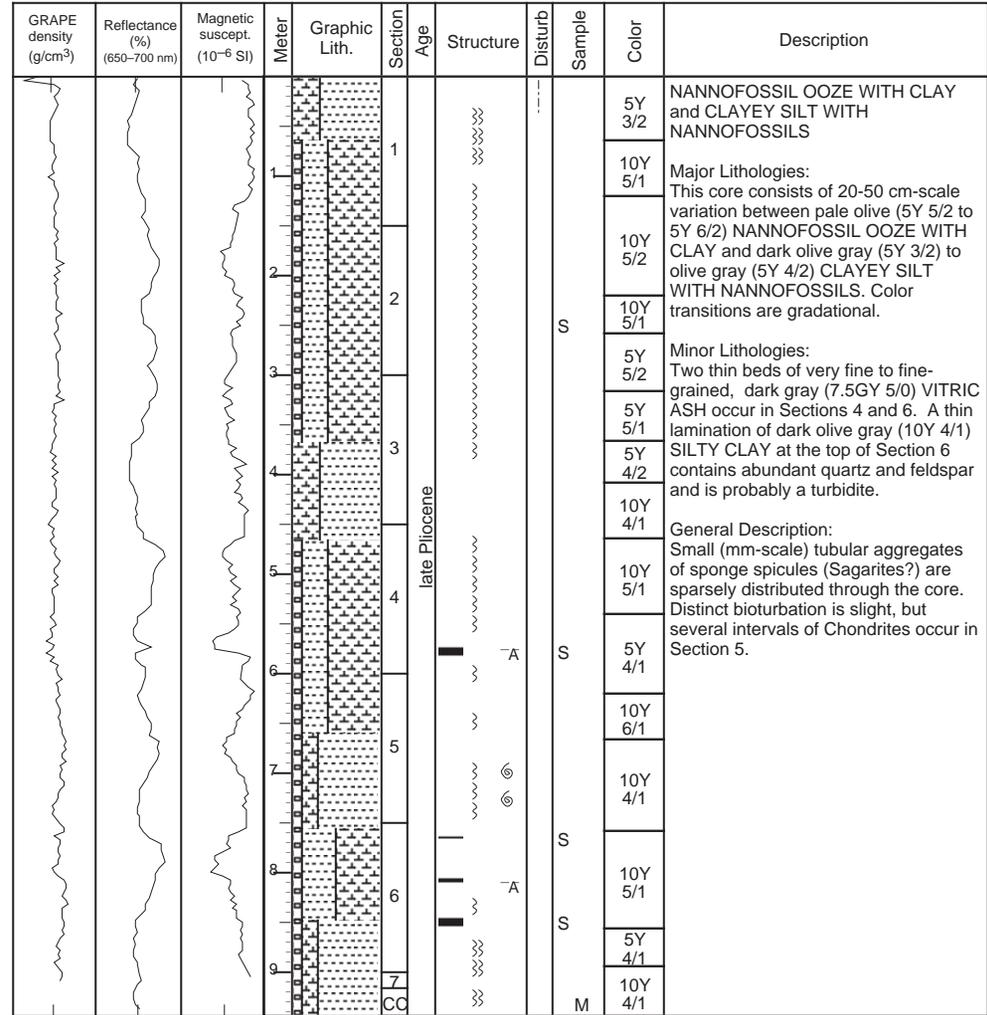


SITE 1011 HOLE C CORE 10H CORED 79.3 - 88.8 mbsf

GRAPE density (g/cm ³)	Reflectance (%) (650-700 nm)	Magnetic suscept. (10 ⁻⁶ SI)	Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
			1		1					10Y 4/1	CLAY NANNOFOSSIL MIXED SEDIMENT and CLAYEY SILT WITH CALCITE
			1				█	⊙		5Y 5/2	Major Lithologies: This core consists of thick alternations between dark olive gray (5Y 3/2) to dark gray (5Y 4/1) CLAYEY SILT WITH CALCITE and medium to light olive gray (5Y 4/2 to 5Y 5/2) CLAY NANNOFOSSIL MIXED SEDIMENT. Unidentified, monocrystalline calcite grains compose 10% to 20% of the samples. Color transitions are gradational. Dark color bands not shown in the Color column are indicated in the Structure column. Minor Lithology: A thin bed of fine-grained, olive gray (5Y 5/2) VITRIC ASH occurs at Section 2, 18 cm. General Description: Small Sagaraites sponge spicule aggregates occur throughout the core.
			2		2		~		S	10Y 5/2	
			3				~			5Y 4/1	
			4				~			5Y 4/2	
			5				~		S	5Y 4/1	
			6				~			5Y 4/2	
			7				~			10Y 4/1	
			8				~			5Y 4/3	
			9				~			10Y 5/1	
			10				~			5Y 4/2	
							~			10Y 5/1	
							~			10Y 5/2	

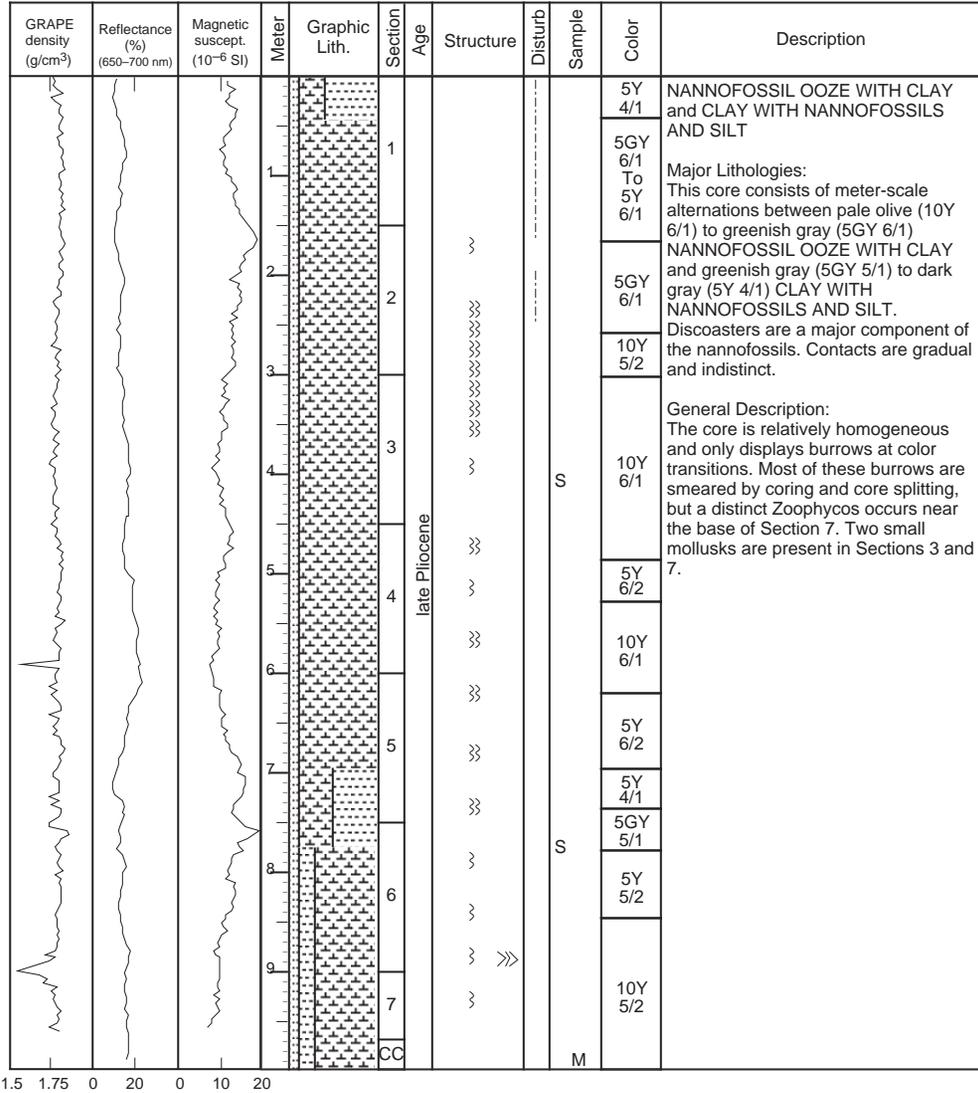
1.6 1.8 0 10 0 10 20

SITE 1011 HOLE C CORE 11H CORED 88.8 - 98.3 mbsf



1.5 1.75 0 10 0 10 20

SITE 1011 HOLE C CORE 12H CORED 98.3 - 107.8 mbsf

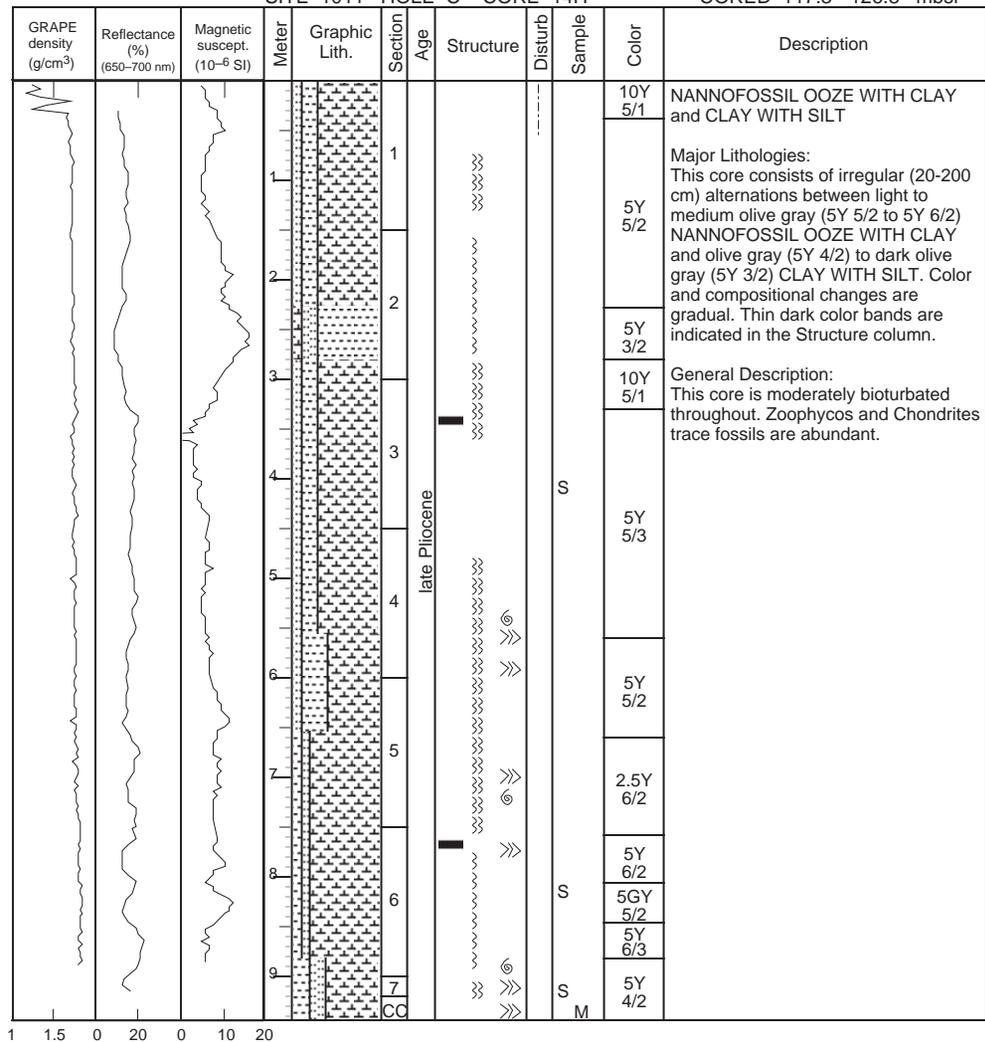


SITE 1011 HOLE C CORE 13H CORED 107.8 - 117.3 mbsf

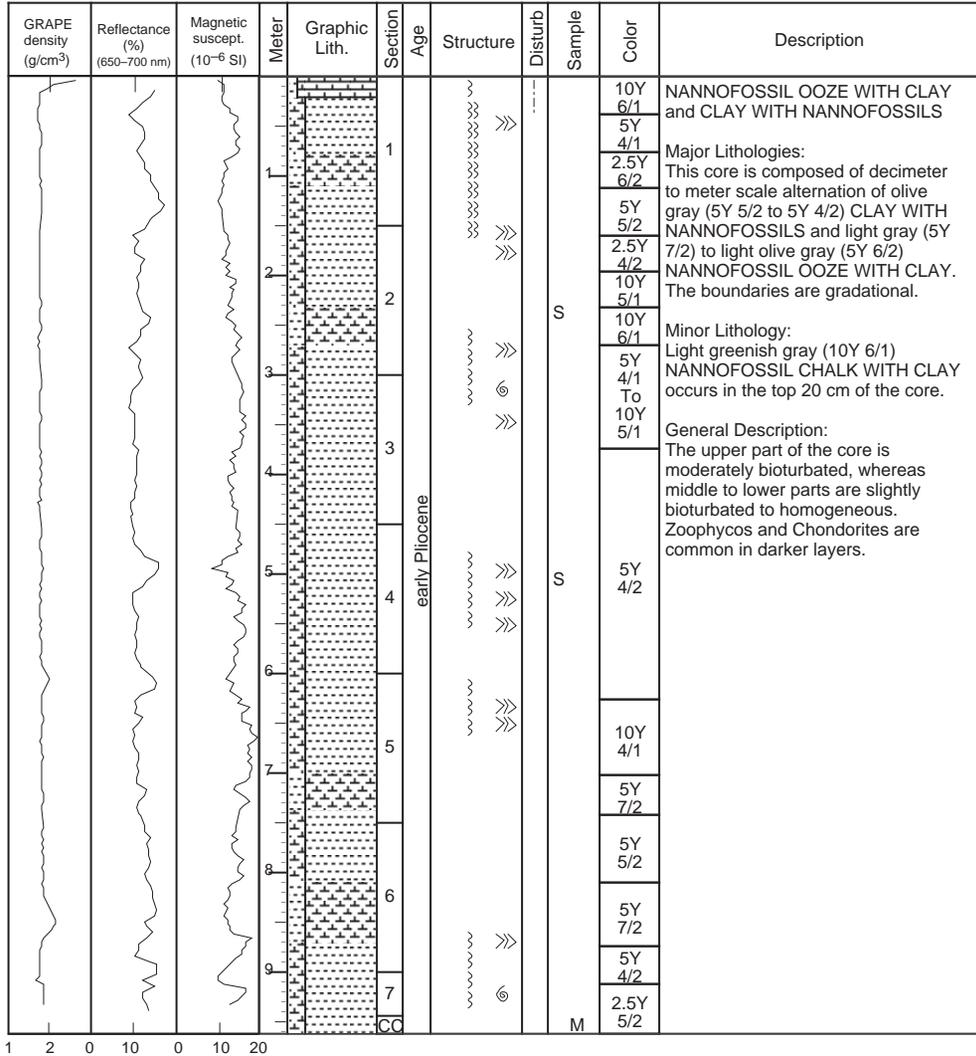
GRAPE density (g/cm ³)	Reflectance (%) (650-700 nm)	Magnetic suscept. (10 ⁻⁶ SI)	Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
			1		1		}}				<p>NANNOFOSSIL OOZE, NANNOFOSSIL SILTY CLAY and SILTY CLAY</p> <p>Major Lithologies: This core consists of pale olive (5Y 6/2) to light olive gray (10Y 5/2) NANNOFOSSIL OOZE, light olive gray (5Y 5/2) NANNOFOSSIL SILTY CLAY, and dark greenish gray (5G 4/1) to olive gray (5Y 4/2) SILTY CLAY, which alternate on a scale of 20-100 cm. Color and compositional transitions are gradational.</p> <p>Minor Lithology: Three thin beds of very fine to fine-grained, dark gray (5Y 4/1) VITRIC ASH occur in the bottom half of the core.</p> <p>General Description: Sagarites (?) sponge spicule aggregates are scattered through the core. The core is generally homogenous, but some intervals show discrete burrows, including Zoophycos and Chondrites.</p>
			2		2	}}	S	10Y 5/2			
			3		3	}}		5G 4/1			
			4		4	}}	S	10Y 5/1			
			5		5	}}		5Y 6/2			
			6		6	}}		5Y 4/2			
			7		7	}}		2.5Y 5/2			
			8		8	}}		10Y 5/1			
			9		9	}}		10Y 4/2			
			10		10	}}		10Y 5/1			
			11		11	}}		10Y 5/2			
			12		12	}}	S	5Y 4/2			
			13		13	}}		5Y 5/2			

1 1.5 0 20 0 12.5 25

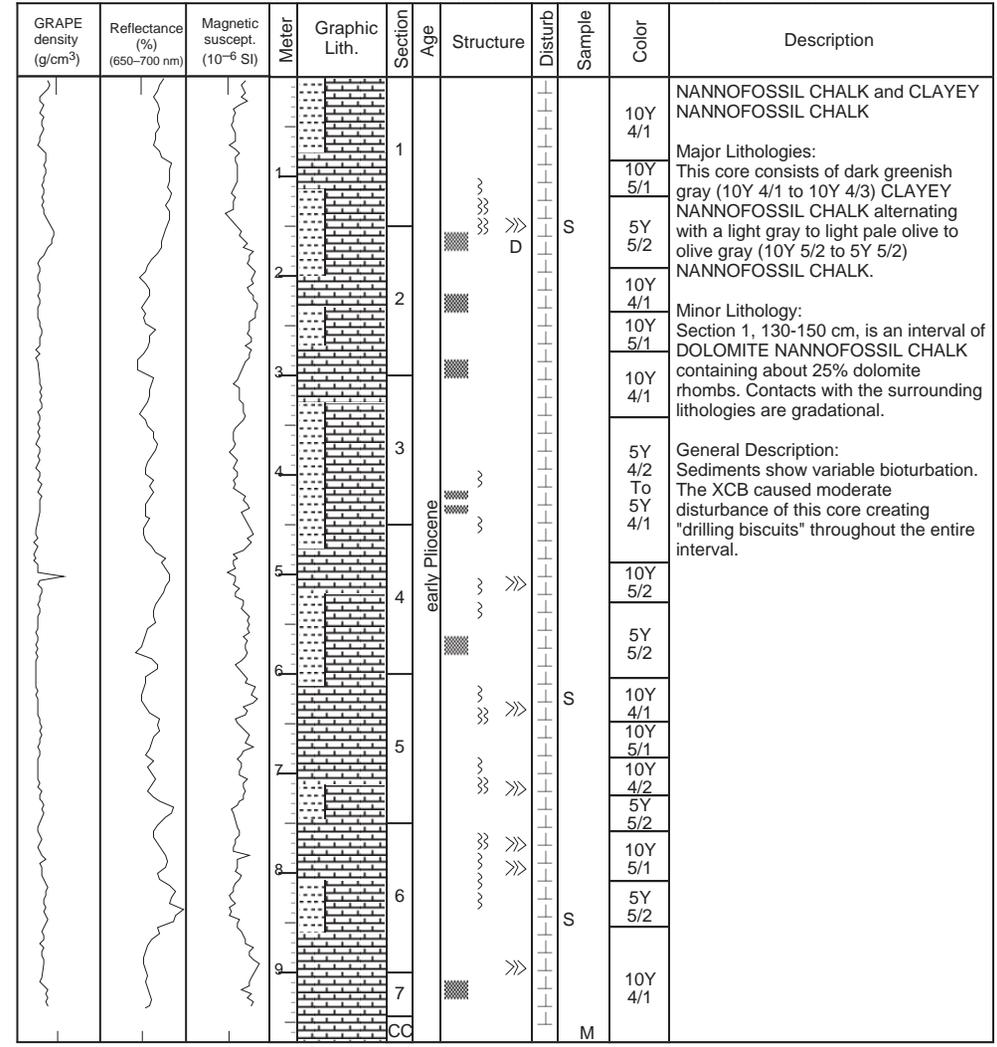
SITE 1011 HOLE C CORE 14H CORED 117.3 - 126.8 mbsf



SITE 1011 HOLE C CORE 16X CORED 136.3 - 145.8 mbsf



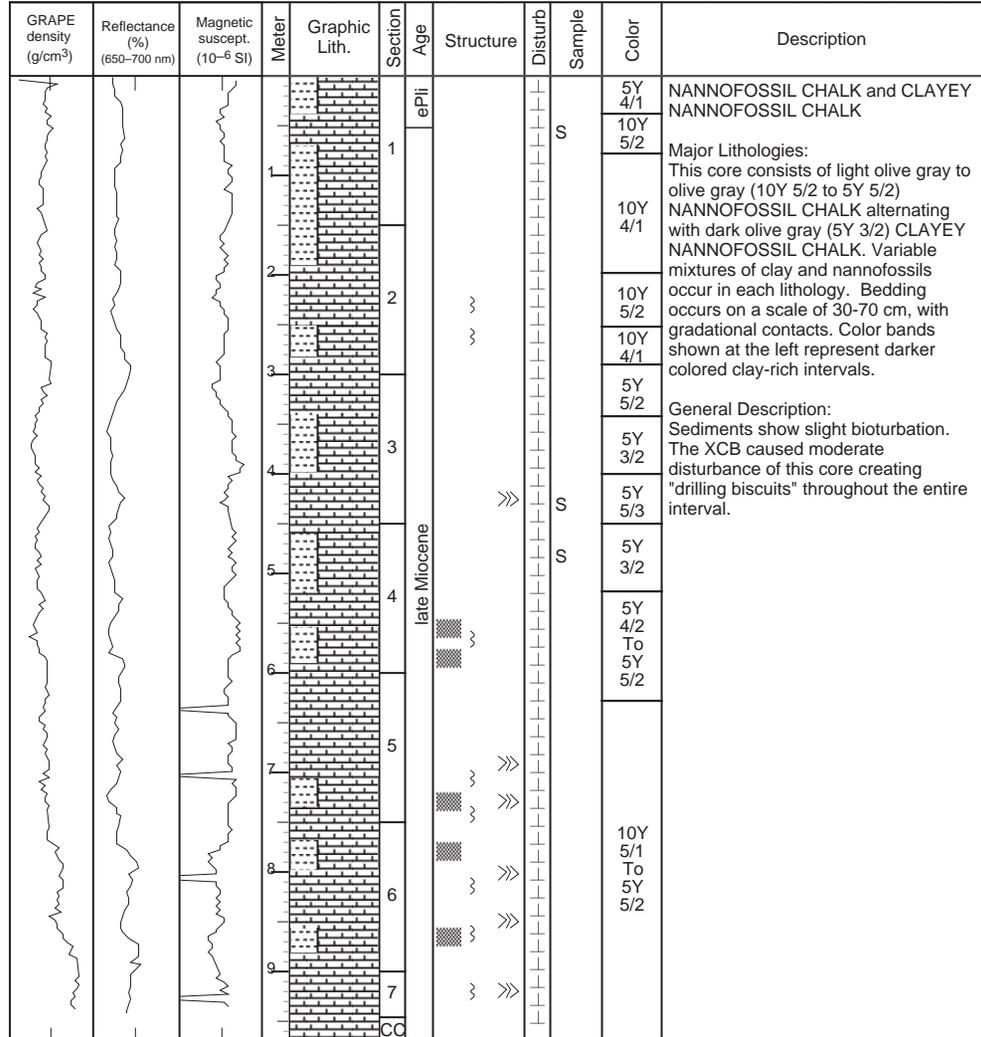
SITE 1011 HOLE C CORE 17X CORED 145.8 - 155.5 mbsf



1.5 2 0 10 0 10 20

SITE 1011 HOLE C CORE 18X

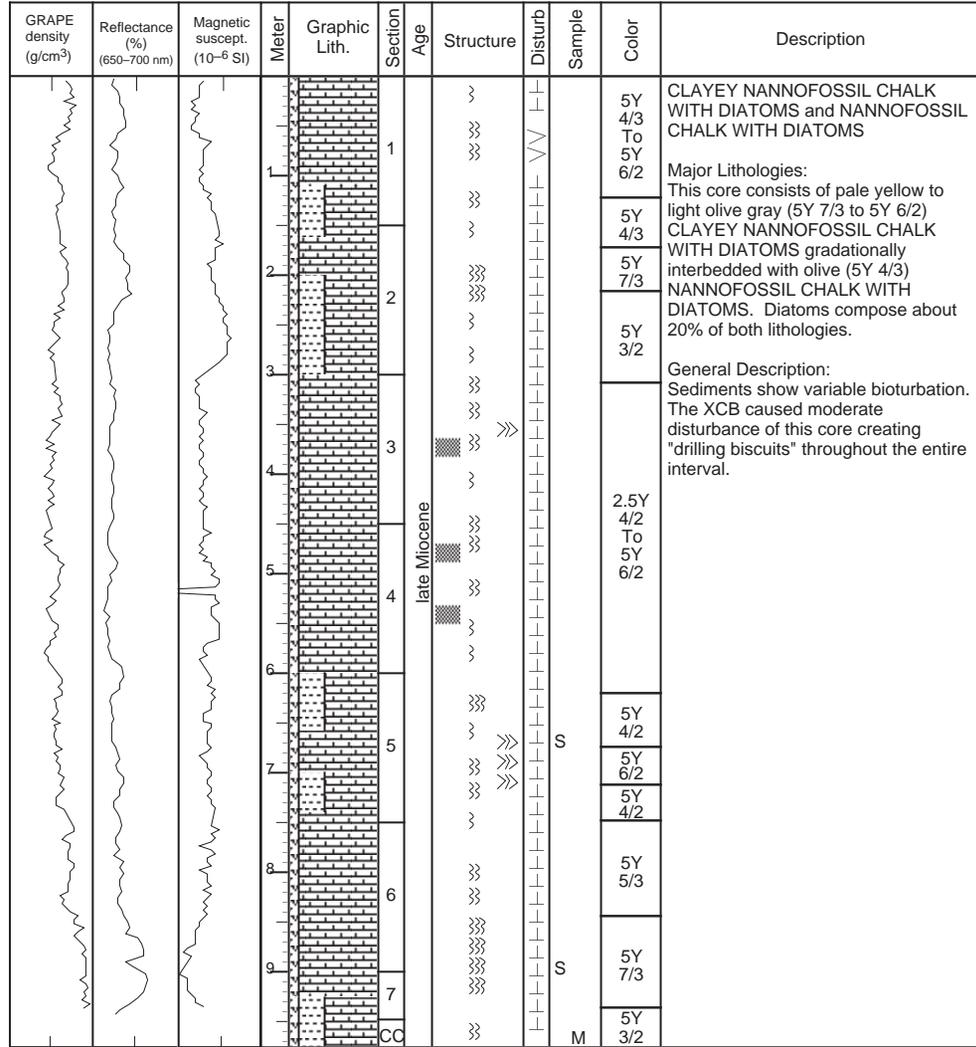
CORED 155.5 - 165.0 mbsf



1.5 1.75 0 20 0 10 20

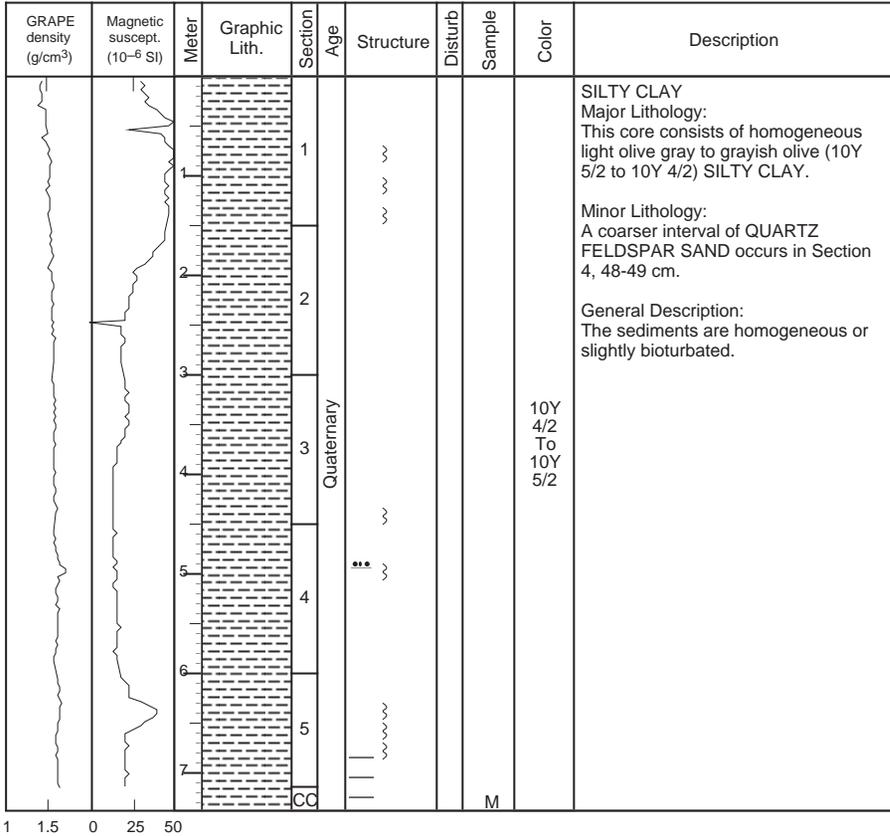
SITE 1011 HOLE C CORE 20X

CORED 174.7 - 184.3 mbsf



1.4 1.6 0 20 0 10 20

SITE 1011 HOLE D CORE 1H CORED 0.0 - 7.4 mbsf



SITE 1011 HOLE E CORE 1H CORED 0.0 - 5.2 mbsf

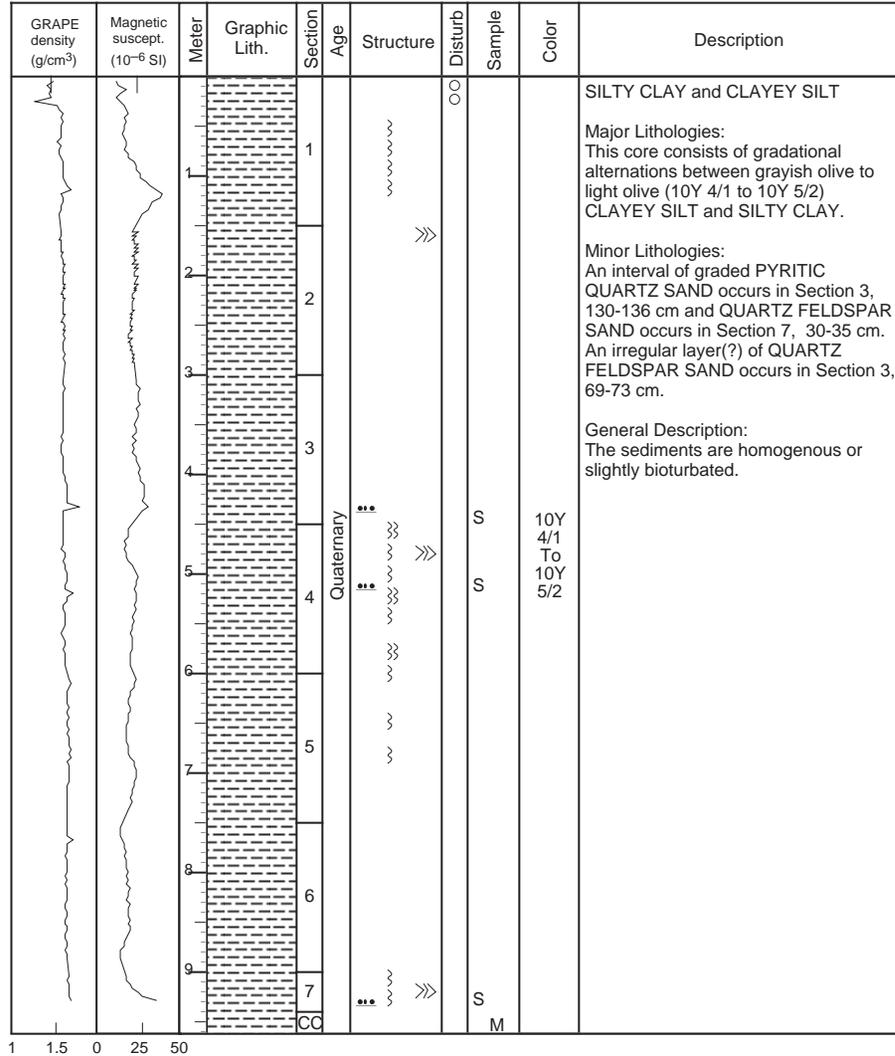
GRAPE density (g/cm ³)	Magnetic suscept. (10 ⁻⁶ SI)	Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		1		1	Quaternary	}	O O	M	10Y 4/2 To 10Y 5/2	<p>SILTY CLAY Major Lithology: This core consists of homogeneous light olive gray to grayish olive (10Y 5/2 to 10Y 4/2) SILTY CLAY.</p> <p>Minor Lithology: A coarser interval of QUARTZ FELDSPAR SAND occurs in Section 4, 20-24 cm. Near the bottom of Section 2 are disseminated sponge spicules.</p> <p>General Description: The sediments are slightly bioturbated.</p>
		2		2						
		3		3						
		4		4						
		5		CC						

1.4 1.6 0 50 100



SITE 1011 HOLE E CORE 2H

CORED 5.2 - 14.7 mbsf



SITE 1011 HOLE E CORE 3H CORED 14.7 - 24.2 mbsf

GRAPE density (g/cm ³)	Magnetic suscept. (10 ⁻⁶ SI)	Meter	Graphic Lith.	Section Age	Structure	Disturb	Sample	Color	Description	
		1	[Hatched pattern]	Quaternary		[Wavy lines]		10Y 5/2 To 5Y 5/2	<p>SILTY CLAY</p> <p>Major Lithology: This core is composed of indistinct alternation of light olive gray to olive gray (10Y 5/2 to 5Y 5/2) CLAYEY SILT.</p> <p>Minor Lithologies: VITRIC VOLCANIC ASH is dispersed throughout Section CC, 4-22 cm.</p> <p>General Description: The sediments are homogeneous or slightly bioturbated in the upper portion and moderately bioturbated in the lower portion of the core. Several cm-scale pyrite-filled burrows are preserved in this core.</p>	
		2								
		3			}}					
		4			}					
		5			}}					}}
		6			}}					⊙
		7			}}					
		8			}}					
		9			}}					
		10			}}					
			CC		-A	S M				

1.4 1.6 10 20 30

SITE 1011 HOLE E CORE 4H CORED 24.2 - 33.7 mbsf

GRAPE density (g/cm ³)	Magnetic suscept. (10 ⁻⁶ SI)	Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		1		1						<p>NANNOFOSSIL OOZE WITH CLAY and SILTY CLAY WITH NANNOFOSSILS</p> <p>Major Lithologies: This core consists of meter-scale alternations between olive gray (10Y 4/2) and light olive gray (10Y 6/2) NANNOFOSSIL OOZE WITH CLAY and SILTY CLAY WITH NANNOFOSSILS. Color and compositional transitions are gradational.</p> <p>Minor Lithologies: A three-layer bed of light gray (N7) to white (N9) VITRIC ASH occurs in Section 4. A thin lamination (Section 2, 89 cm) and pod (Section 3, 90 cm) of QUARTZ FELDSPAR SAND are present in this core.</p> <p>General Description: The core is mostly homogeneous, with slight to moderate bioturbation evident at color transitions. An 8-cm high pyritized burrow/concretion occurs at Section 5, 61-69 cm. Zoophycos occur throughout. Sagarites are present in the lower part of Section 3.</p>
		2		2		}}				
		3		3		}}>>				
		4		3		}}>>				
		5		4	Quaternary	}}>>			10Y 4/2 To 10Y 6/2	
		6		4		}}>>				
		7		5		}}>>				
		8		6		}}>>				
		9		7		}}>>				
		CC								

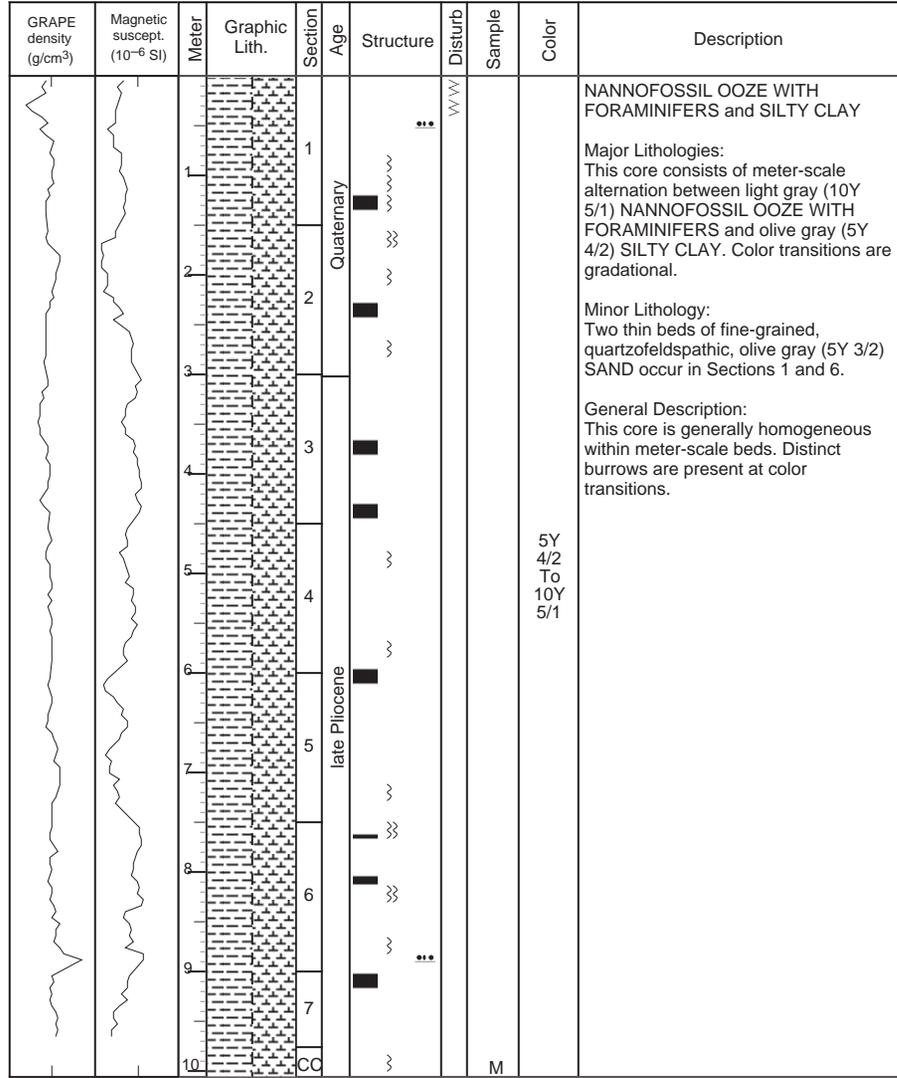
1.5 2 0 20 40

SITE 1011 HOLE E CORE 5H CORED 33.7 - 43.2 mbsf

GRAPE density (g/cm ³)	Magnetic suscept. (10 ⁻⁶ SI)	Meter	Graphic Lith.	Section Age	Structure	Disturb	Sample	Color	Description
		1		Quaternary		W		10Y 4/2	<p>SILTY CLAY WITH NANNOFOSSILS and SILTY NANNOFOSSIL OOZE</p> <p>Major Lithologies: This core consists of interbedded olive gray (10Y 4/2) SILTY CLAY WITH NANNOFOSSILS and light olive (10Y 5/1) SILTY NANNOFOSSIL OOZE. Bedding contacts are indistinct and gradational.</p> <p>General Description: The sediments are slightly bioturbated and contain abundant small (mm-scale) pods of sponge spicules.</p>
		2			}}	W			
		3			}}				
		4			}}				
		5			}}				
		6			A*				
		7			}}				
		8			}}				
		9			}}				
		10	..					10Y 5/1 To 10Y 5/2	
		11						10Y 4/2	
		12							
		13							
		14							
		15							
		16							
		17							
		18							
		19							
		20							
									M

1.4 1.6 10 15 20

SITE 1011 HOLE E CORE 7H CORED 52.7 - 62.2 mbsf



1.5 1.75 10 20 30

SITE 1011 HOLE E CORE 8H

CORED 62.2 - 71.7 mbsf

GRAPE density (g/cm ³)	Magnetic suscept. (10 ⁻⁶ SI)	Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		1		1					5Y 4/1	NANNOFOSSIL OOZE WITH CLAY and SILTY CLAY
		1		1		—	...		10Y 4/1	Major Lithologies: This core consists of alternation between light olive (10Y 5/2) NANNOFOSSIL OOZE WITH CLAY and dark green (10Y 4/1) SILTY CLAY. Color transitions are gradational and cyclic over 20-100 cm intervals.
		2		2		~	...		10Y 3/1	
		2		2		—	...		10Y 4/1	Minor Lithology: Fine-grained, olive gray (5Y 6/2) QUARTZ FELDSPAR SAND occurs in thin beds in Sections 1,2, and 4.
		3		3					10Y 4/1	General Description: Tubular aggregates of Sagarites (?) sponge spicules are scattered through the core. There are few distinct burrows, but most of the core is homogenized.
		4		3		~			10Y 5/1	
		5		4	late Pliocene	—	...		10Y 5/2	
		6		4		~			5Y 6/2	
		7		5		~			10Y 4/1	
		7		5		~			5GY 5/2	
		8		6		~			5Y 4/1	
		9		7		~			5Y 5/2	
		CC		CC				M		

1 1.5 0 10 20

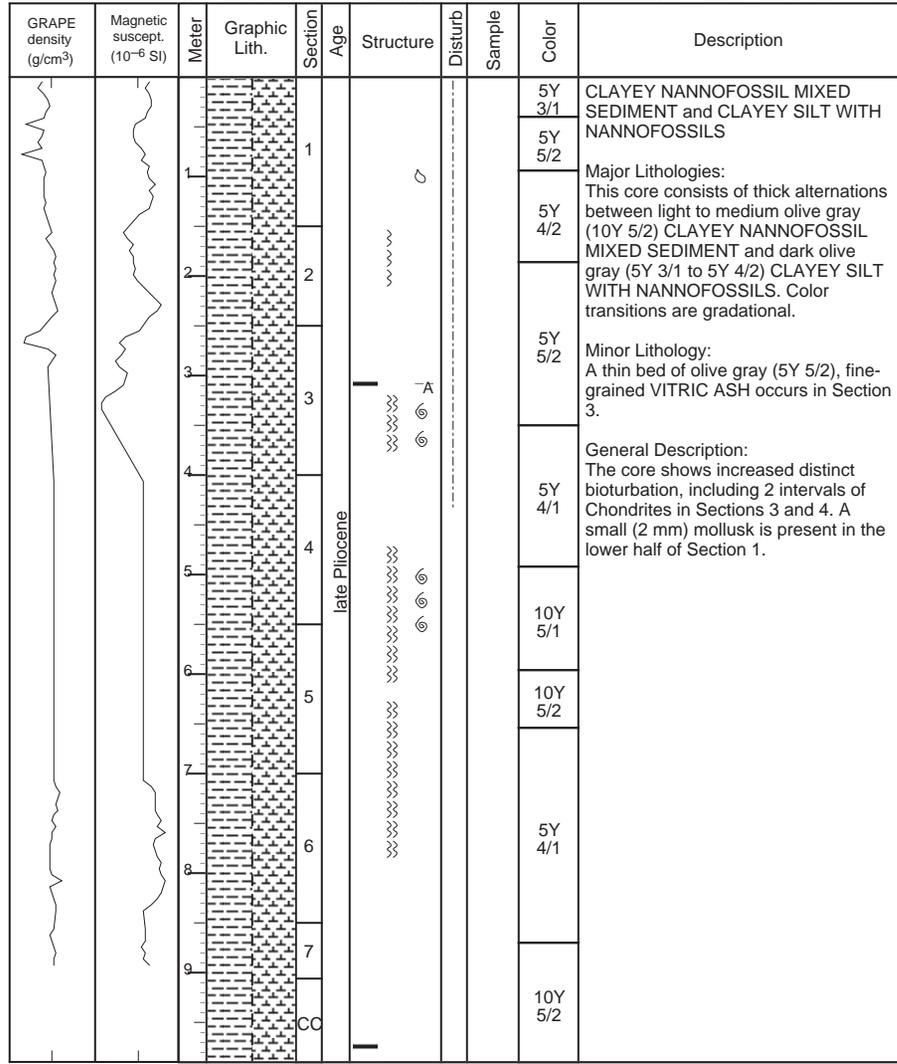
SITE 1011 HOLE E CORE 9H CORED 71.7 - 81.2 mbsf

GRAPE density (g/cm ³)	Magnetic suscept. (10 ⁻⁶ SI)	Meter	Graphic Lith.	Section Age	Structure	Disturb	Sample	Color	Description
		1		1				5Y 4/2	<p>NANNOFOSSIL OOZE WITH CLAY AND FORAMINIFERS and NANNOFOSSIL CLAY</p> <p>Major Lithologies: This core consists of thick alternations between light olive gray (5Y 5/2) NANNOFOSSIL OOZE WITH CLAY AND FORAMINIFERS and olive gray (5Y 4/2) NANNOFOSSIL CLAY. Color transitions are gradual.</p> <p>Minor Lithology: A multi-event, 40-cm graded bed of very dark gray (5Y 4/1) VITRIC ASH with a scoured base occurs in Section 2.</p> <p>General Description: This core is mostly homogenized with distinct burrows only at bedding contacts.</p>
		2		10Y 5/1					
		3		5Y 5/2					
		4		5Y 4/3 To 5Y 4/2					
		5		5Y 5/2 To 5Y 3/2					
		6		5Y 5/2					
		7		5GY 4/1					
		8		10Y 5/2					
		9		10Y 4/1					
		10		2.5Y 4/2					

1.5 1.75 0 10 20

SITE 1011 HOLE E CORE 10H

CORED 81.2 - 90.7 mbsf



1.5 1.75 0 10 20

SITE 1011 HOLE E CORE 11H CORED 90.7 - 100.2 mbsf

GRAPE density (g/cm ³)	Magnetic suscept. (10 ⁻⁶ SI)	Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description	
		1		1					10Y 5/1	<p>NANNOFOSSIL OOZE WITH CLAY and CLAYEY SILT WITH NANNOFOSSILS</p> <p>Major Lithologies: This core consists of 30-50 cm-scale alternations between pale olive (10Y 6/2 to 5GY 6/1) NANNOFOSSIL OOZE WITH CLAY and dark olive gray (5Y 4/1) to olive gray (5Y 5/2) CLAYEY SILT WITH NANNOFOSSILS. Cyclic alternations of color are gradational.</p> <p>Minor Lithology: Two thin beds of dark olive gray (5Y 4/1 to 5Y 4/2) VITRIC ASH occur in Sections 6 and 7.</p> <p>General Description: Small, white tubular aggregates of Sagarites (?) sponge spicules are distributed through the core. The core has slight to moderate distinguishable bioturbation, including Zoophycos and Chondrites trace fossils.</p>	
		2		2							10Y 6/2 5Y 4/1
		3		3							5G 5/1
		4		4							5Y 5/2
		5		5	late Pliocene						10Y 5/2
		6		6							5Y 4/1
		7		7							5GY 6/1
		8		8							5Y 4/2
		9		9							10Y 5/2
		10		10							10Y 6/2

1.5 1.75 0 10 20

SITE 1011 HOLE E CORE 12H CORED 100.2 - 109.7 mbsf

GRAPE density (g/cm ³)	Magnetic suscept. (10 ⁻⁶ SI)	Meter	Graphic Lith.	Section Age	Structure	Disturb	Sample	Color	Description
				<p>late Pliocene</p>			<p>M</p>	10Y 5/1	<p>NANNOFOSSIL OOZE WITH CLAY and CLAY WITH NANNOFOSSILS AND SILT</p> <p>Major Lithologies: This core consists of meter-scale alternations between pale olive (10Y 6/1) NANNOFOSSIL OOZE WITH CLAY and dark greenish gray (5GY 4/1) to dark gray (5Y 4/1) CLAY WITH NANNOFOSSILS AND SILT. Contacts are gradual and indistinct.</p> <p>Minor Lithology: Two cm-scale, black (N2) ASH pods are present in Section 7.</p> <p>General Description: The core contains Zoophycos and Chondrites trace fossils and is moderately burrowed throughout most of its length.</p>
								2.5Y 3/2	
								5GY 4/1	
								5Y 3/2	
								10Y 5/1	
								5Y 4/1	
								5Y 5/2	
								10Y 6/1	
								5Y 5/2	
								5Y 4/1	
10Y 5/2									

1.75 1.8 0 10 20

SITE 1011 HOLE E CORE 13H CORED 109.7 - 119.2 mbsf

GRAPE density (g/cm ³)	Magnetic suscept. (10 ⁻⁶ SI)	Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1.7 1.8 0 20 40		1		1	late Pliocene	A*			10Y 5/1	<p>NANNOFOSSIL OOZE and SILTY CLAY</p> <p>Major Lithologies: This core consists of alternation and compositional variation between pale olive (5Y 6/2) NANNOFOSSIL OOZE and dark greenish gray (5GY 4/2) SILTY CLAY. Bedding transitions are gradational.</p> <p>Minor Lithology: Two thin beds of dark gray (5Y 4/1) VITRIC ASH occur near the bottom of the core.</p> <p>General Description: Zoophycos, Chondrites, and indistinct trace fossils are present in the core. Sagarites (?) sponge spicule aggregates are distributed throughout.</p>
		2		2.5Y 5/2						
		3		5GY 5/2 To 5Y 4/2						
		4		5GY 5/2						
		5		5Y 6/2						
		6		5GY 4/2						
		7		2.5Y 5/2						
		8		5GY 4/2						
		9		5GY 4/2						
		10		2.5Y 4/2						

1.7 1.8 0 20 40

SITE 1011 HOLE E CORE 14H CORED 119.2 - 128.7 mbsf

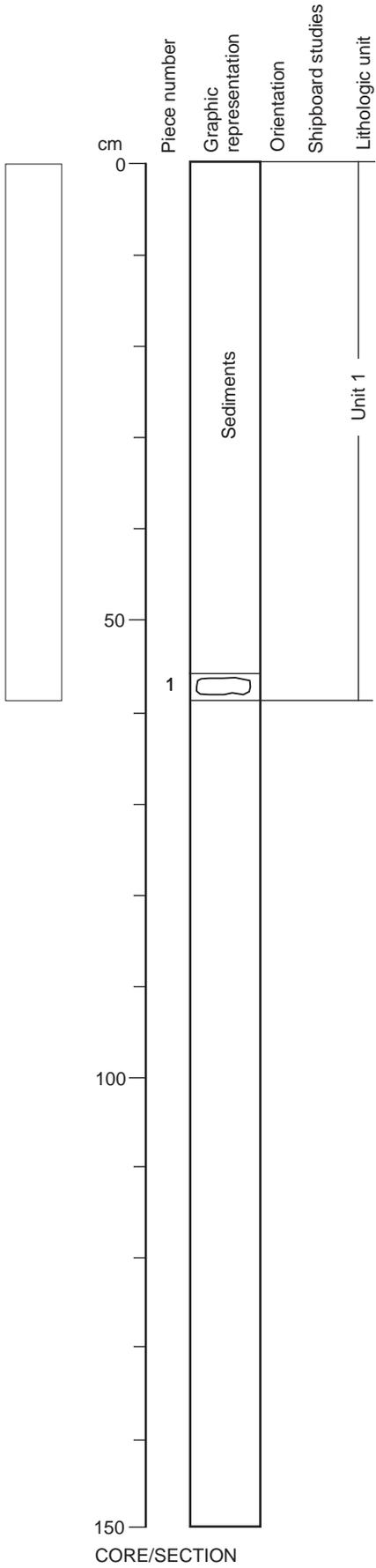
GRAPE density (g/cm ³)	Magnetic suscept. (10 ⁻⁶ SI)	Meter	Graphic Lith.	Section Age	Structure	Disturb	Sample	Color	Description
		1		1	}}			5Y 4/2	<p>NANNOFOSSIL OOZE WITH CLAY and SILTY CLAY</p> <p>Major Lithologies: This core contains alternations between pale olive (5Y 6/2-3) NANNOFOSSIL OOZE WITH CLAY and dark gray (5Y 4/1) to olive gray (5Y 4/2) SILTY CLAY on a decimeter to several-meter scale. Transitions are gradational.</p> <p>Minor Lithology: Dark gray (5Y 4/1), fine-grained VITRIC ASH at the top of Section 2. Black, glassy ASH pods in Section 4.</p> <p>General Description: The core is moderately bioturbated throughout.</p>
		2		}}	A		5Y 5/2		
		3		}}		5Y 4/1			
		4		}}	A*		5Y 5/3		
		5		}}	A*		5Y 4/3		
		6		}}	⊗		5Y 6/3		
		7		}}		5Y 4/2			
		8		}}		10Y 5/2			
		9		}}		5Y 6/2			
		10		CC	M				

1.7 1.8 0 10 20

SITE 1011 HOLE E CORE 15H CORED 128.7 - 138.2 mbsf

GRAPE density (g/cm ³)	Magnetic suscept. (10 ⁻⁶ SI)	Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1.5 1.75 0 10 20		1 2 3 4 5 6 7 8 9 10		1	late Pliocene	~>>> ~>>> ~>>> ~>>> ~>>> ~>>> ~>>> ~>>> ~>>> ~>>>	-	5Y 4/2	SILTY CLAY WITH NANNOFOSSILS and SILTY CLAY Major Lithologies: This core is composed of alternating decimeter to meter scale beds of light olive gray (5Y 6/2) SILTY CLAY WITH NANNOFOSSILS and very dark grayish brown (2.5Y 3/2) to olive gray (5Y 4/2) SILTY CLAY. Color transitions are gradational. Minor Lithology: A very dark gray (N3), cm-scale pod of VOLCANIC ASH occurs near the bottom of Section 4. General Description: The core is bioturbated throughout. Zoophycos and Chondrites are common. A lenticular barite (?) concretion occurs at Section 5, 54 cm.	
								10Y 6/2		
								5Y 6/2		
								5GY 5/2		
								10Y 5/2		
								10Y 6/2		
								5Y 5/2		
								5Y 6/2		
								5Y 4/1		
								2.5Y 4/2		
2.5Y 3/2										
10Y 5/1										
2.5Y 6/2										
2.5Y 3/2										
5Y 4/2										
5Y 5/2										
				2				M		
				3						
				4						
				5						
				6						
				7						
				8						
				9						
				10						
				CC						

1.5 1.75 0 10 20

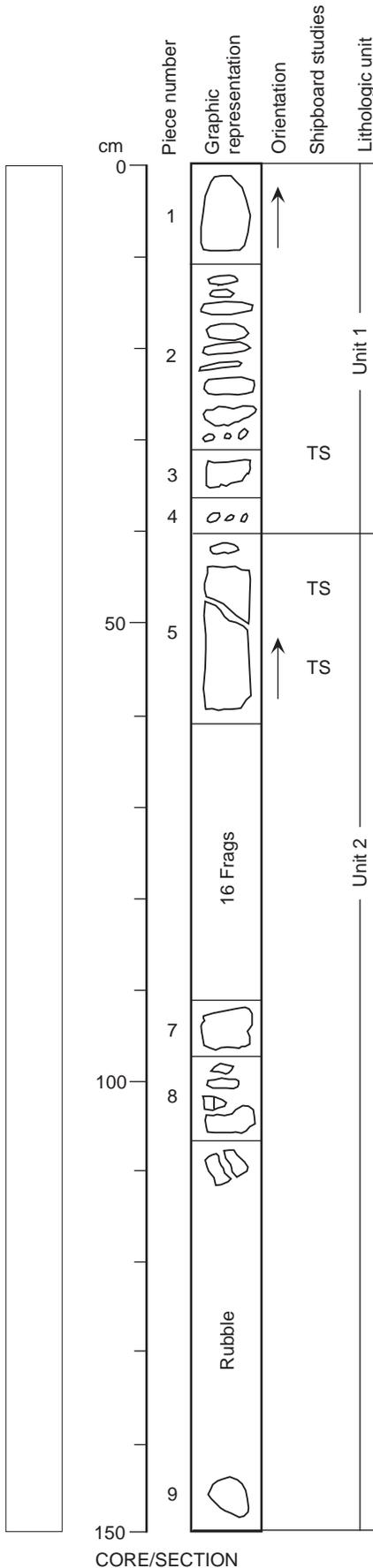


UNIT 1: VESICULAR BASALT

Piece 1

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Subophitic with 2-mm plagioclase grains.
VESICLES: 2%; <3 mm; spherical; random. No filling.
COLOR: Gray black.
STRUCTURE: None.
VEINS/FRACTURES: None.
ADDITIONAL COMMENTS: The piece is very friable.

167-1011B-31X-1



UNIT 1: APHYRIC VESICULAR BASALT.

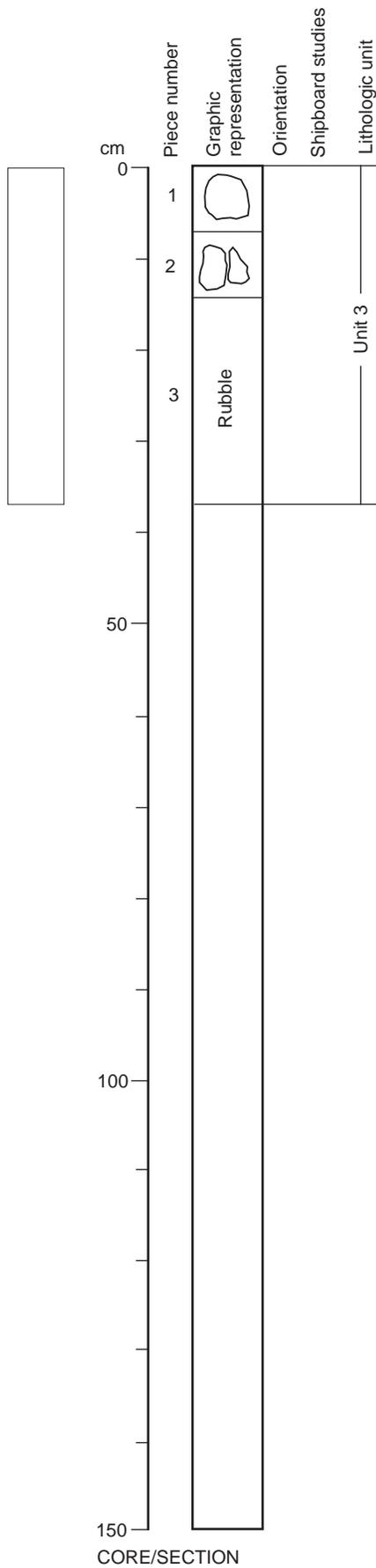
Pieces 1-4

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Subophitic.
VESICLES: 5%; <5 mm; round; random.
COLOR: Light gray.
STRUCTURE: None.
ALTERATION: Slight.
ADDITIONAL COMMENTS: The lower portion of Piece 2 contains about 5% altered xenocrysts, one with alteration halo.

UNIT 2: VESICULAR BASALT.

Pieces 5-9

CONTACTS: None.
PHENOCRYSTS: ~10% pyroxene.
GROUNDMASS: Subophitic.
VESICLES: ~10%; 1-5 mm; elongate; random.
COLOR: Light gray.
STRUCTURE: None.
ALTERATION: Slight.
ADDITIONAL COMMENTS: Observed possible pyroxene xenocrysts (<5%, 2-3 mm, anhedral (resorbed?)) in this unit. Groundmass consists of plagioclase and pyroxene.



UNIT 3: VESICULAR BASALT.

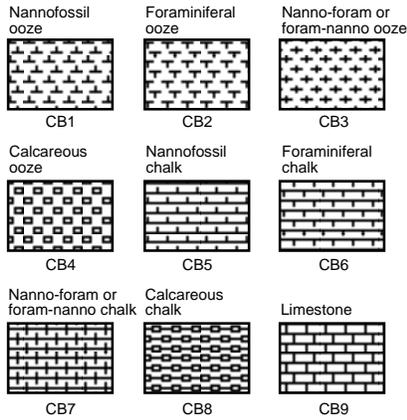
Pieces 1, 2

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Subophitic.
VESICLES: 5%; 0-8 mm; elongate; random.
COLOR: Light gray.
STRUCTURE: None.
ALTERATION: Fresh to slightly altered.

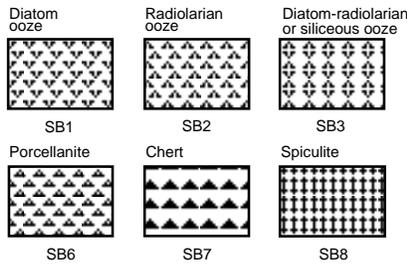
Key to symbols used in the “Graphic Lithology” column on the core description sheets.

Biogenic pelagic sediments

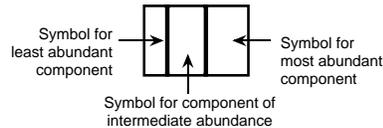
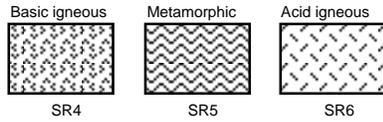
Calcareous



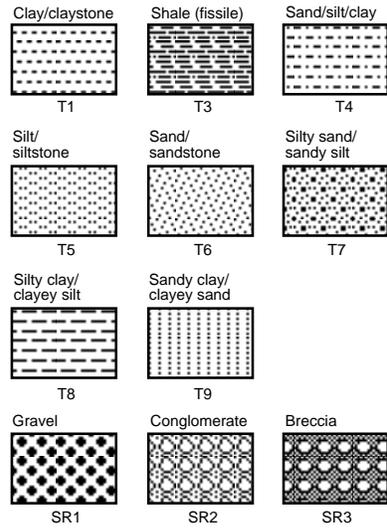
Siliceous



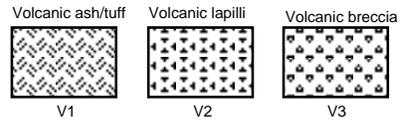
Special rock types



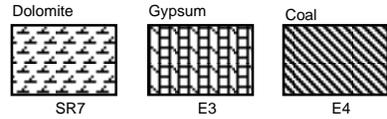
Siliciclastic sediments



Volcaniclastic sediments



Chemical and other sediments



Key to symbols used in the “Structures” column on the core description sheets.

Drilling disturbance symbols	Sedimentary structures cont.	
Soft sediments		
- - - - -	↑ F	Fining-upward sequence
- · - · - · -	↑	Interval over which primary sedimentary structure occur
~ ~ ~ ~ ~		Planar laminae
o o o o o	/ / / / /	Wedge-planar laminae/beds
Hard sediments		
/ / / / /	· · · · ·	Graded bedding (normal)
	· · · · ·	Graded bedding (reversed)
+ + + + +	— — — — —	Sharp contact
~ ~ ~ ~ ~	- - - - -	Gradational contact
+ + + + +	~ ~ ~ ~ ~	Scoured, sharp contact
~ ~ ~ ~ ~	~ ~ ~ ~ ~	Scoured contact with graded bed
x x x x x	■	Thick color bands (sharp contact)
	■	Thick color bands (gradational contact)
	■	Medium color bands (sharp contact)
	■	Medium color bands (gradational contact)
	■	Thin color bands (sharp contact)
	■	Thin color bands (gradational contact)
		Laminations (mm scale)
	■	Individual thick color band
	■	Individual medium color band
	■	Individual thin color band
	— — — — —	Individual lamination
	~ ~ ~ ~ ~	Wavy lamination
	/ / / / /	Cross laminae
	/ / / / /	Cross stratification
	/ / / / /	Cross bedding
	~ ~ ~ ~ ~	Convoluted/contorted bedding
	~ ~ ~ ~ ~	Flaser bedding
	△	Graded interval, normal
	<	Veins
	~ ~ ~ ~ ~	Water escape structure
	∪	Scour
	◇	Isolated pebbles/cobbles
	◆	Isolated mud clasts
	~ ~ ~ ~ ~	Slump blocks or slump folds
	~ ~ ~ ~ ~	Contorted slump
	X X X X X	Probable compaction fracture
	/ / / / /	Microfault (normal)
	/ / / / /	Microfault (thrust)
	/ / / / /	Macrofault
	X X X X X	Fracture
	X X X X X	Totally fractured
	~ ~ ~ ~ ~	Vein structures
	~ ~ ~ ~ ~	Color mottles
	~ ~ ~ ~ ~	Dolomite nodule/concretion
	D	Disseminated dolomite
	(P)	Pyrite nodule/concretion
	P	Disseminated pyrite
	(G)	Glauconite
	●	Concretions/nodules
	(Ba)	Barite nodule/concretion
	Ba	Disseminated barite
	(Ca)	Calcite nodule/concretion
	(C)	Carbonate nodule/concretion
	(Ch)	Chert nodule/concretion
	A•	Ash/pumice pods
	-A	Ash layer

Drilling disturbance symbols

Soft sediments

Slightly disturbed

Moderately disturbed

Highly disturbed

Soupy

Hard sediments

Slightly fractured

Moderately fractured

Highly fragmented

Drilling breccia

Sedimentary structures

Burrows, rare (<30% surface area)

Burrows, common (30%–60% surface area)

Burrows, abundant (>60% surface area)

Discrete *Zoophycos* trace fossil

Discrete *Chondrites* trace fossil

Sagarites sponge

Gastropods

Other bivalves

Shell fragments

Wood fragments

Fish debris