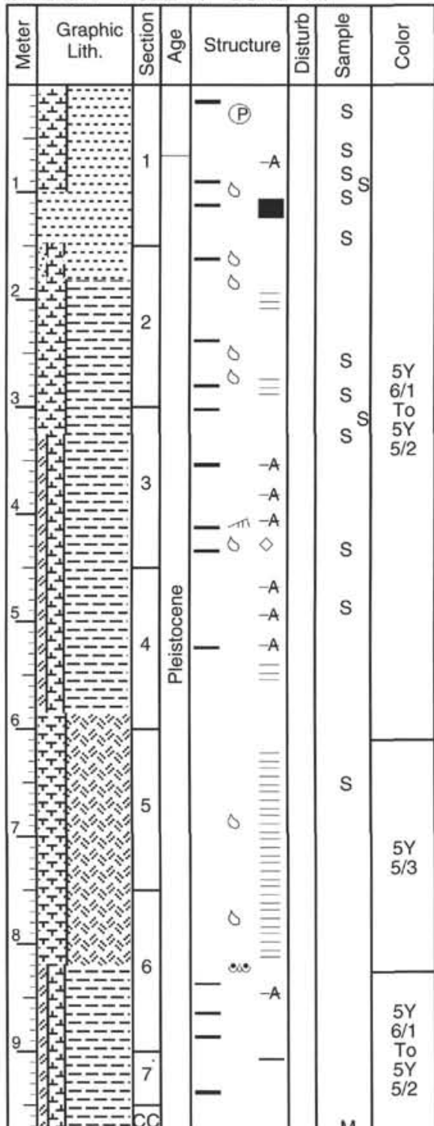
974A 0H NO RECOVERY

SITE 974 HOLE A CORE 1H CORED 5.0 - 14.5 mbsf

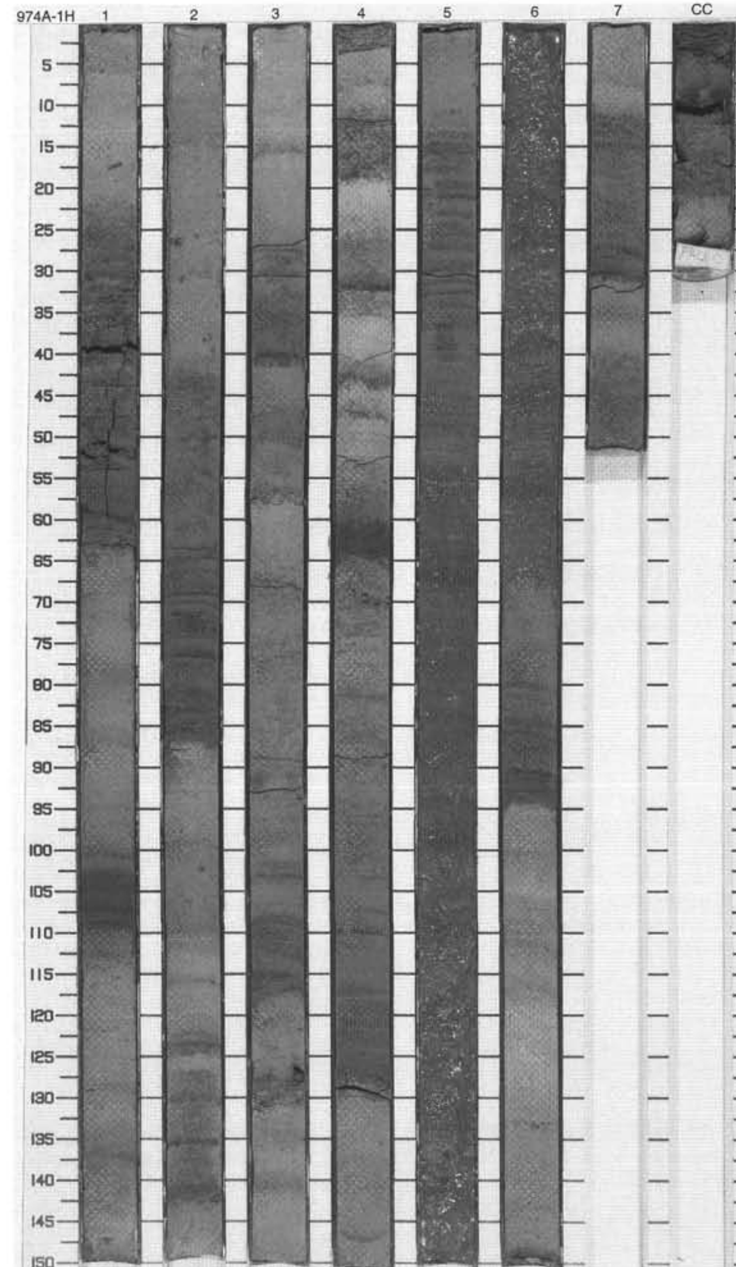


Description

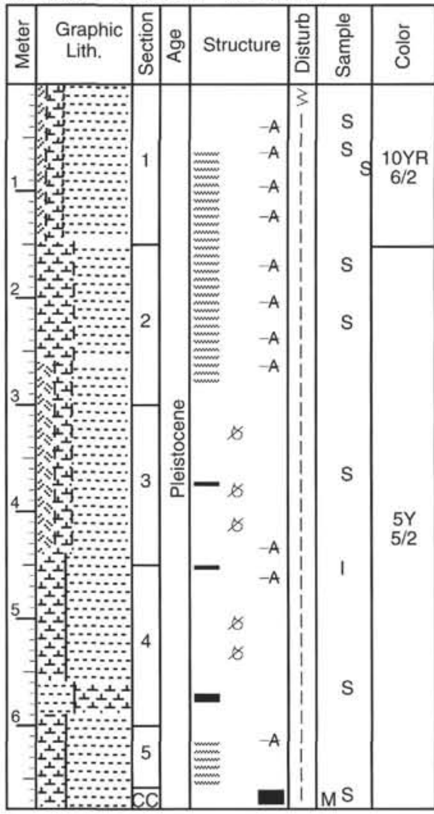
NANNOFOSSIL CLAY TO SILTY CLAY

Major Lithology:
The predominant lithology is NANNOFOSSIL CLAY TO SILTY CLAY that is variably color banded.

Minor Lithologies:
Color bands range from dusky yellow green (5GY 5/2) to dark greenish gray (5GY 4/1). These correspond to subtle changes in composition and/or grain size. Several medium to dark gray (N5 to N3) ash layers are present. Ash layers contain reworked bioclastic debris and range in thickness from <1 cm to over 170 cm; the thickest interval is normally graded and laminated. One thin interval of olive black (5Y 2/1) organic-rich clay is present at 100–108 cm in Section 1.



SITE 974 HOLE B CORE 1H CORED 0.0 - 6.5 mbsf

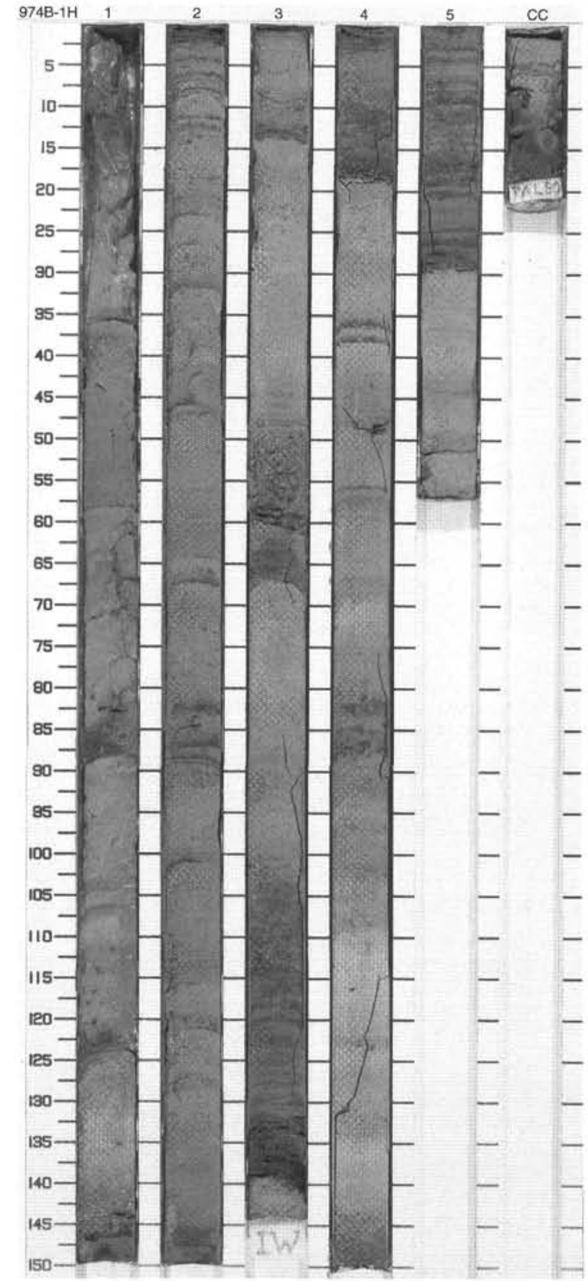


Description

NANNOFOSSIL CLAY TO NANNOFOSSIL-RICH CLAY

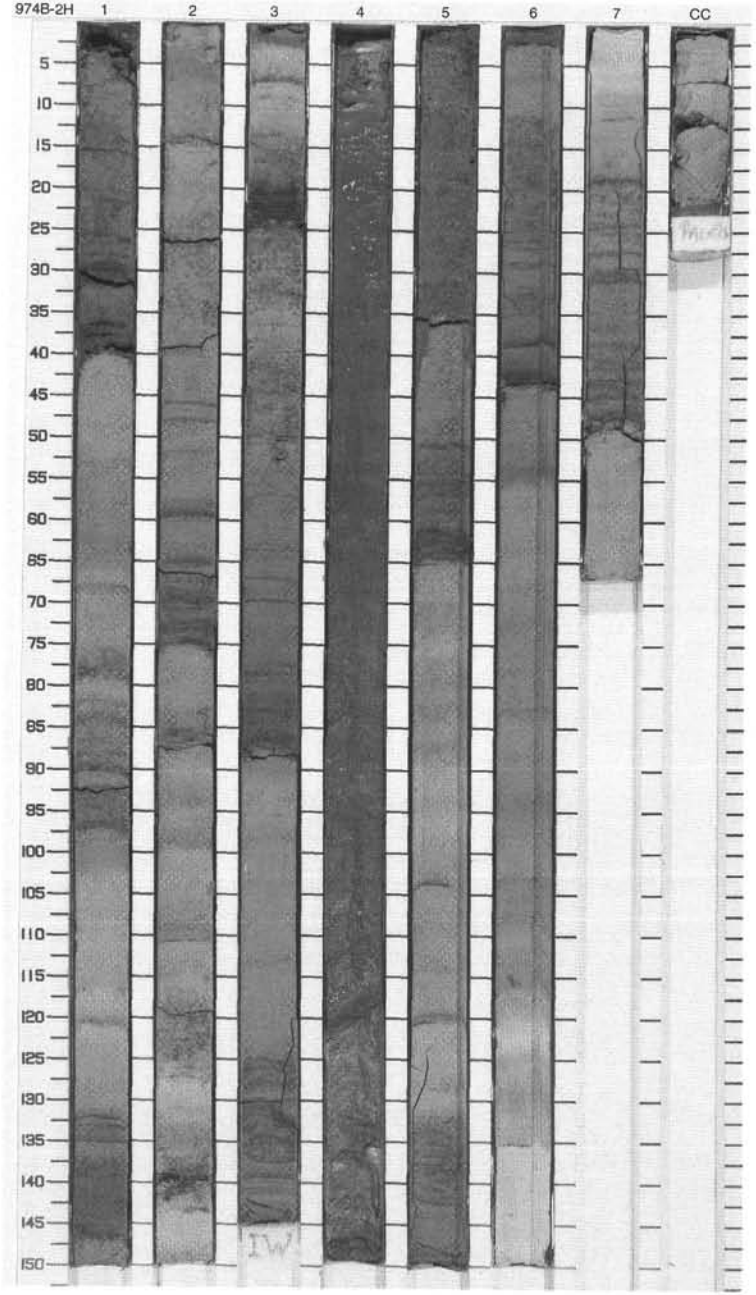
Major Lithology:
The predominant lithology is light olive gray (5Y 5/2) to pale olive (10Y 6/2) NANNOFOSSIL CLAY to NANNOFOSSIL-RICH CLAY that is thinly to thickly color banded and contains trace amounts of volcanic glass.

Minor Lithology:
Thinly-bedded massive to graded ash beds ranging in color from light olive gray (5Y 6/1) to olive gray (5Y 4/1) are regularly interstratified at spacings of 10–50 cm. Thicker grayish olive (10Y 4/2) ash beds are located in Section 3, 47–60 cm, and 130–40 cm. Color bands range from dark yellow brown (10YR 4/2) to greenish gray (5G 6/1) and are thin. One thin organic-rich layer is present in the Core Catcher from 15–18 cm.



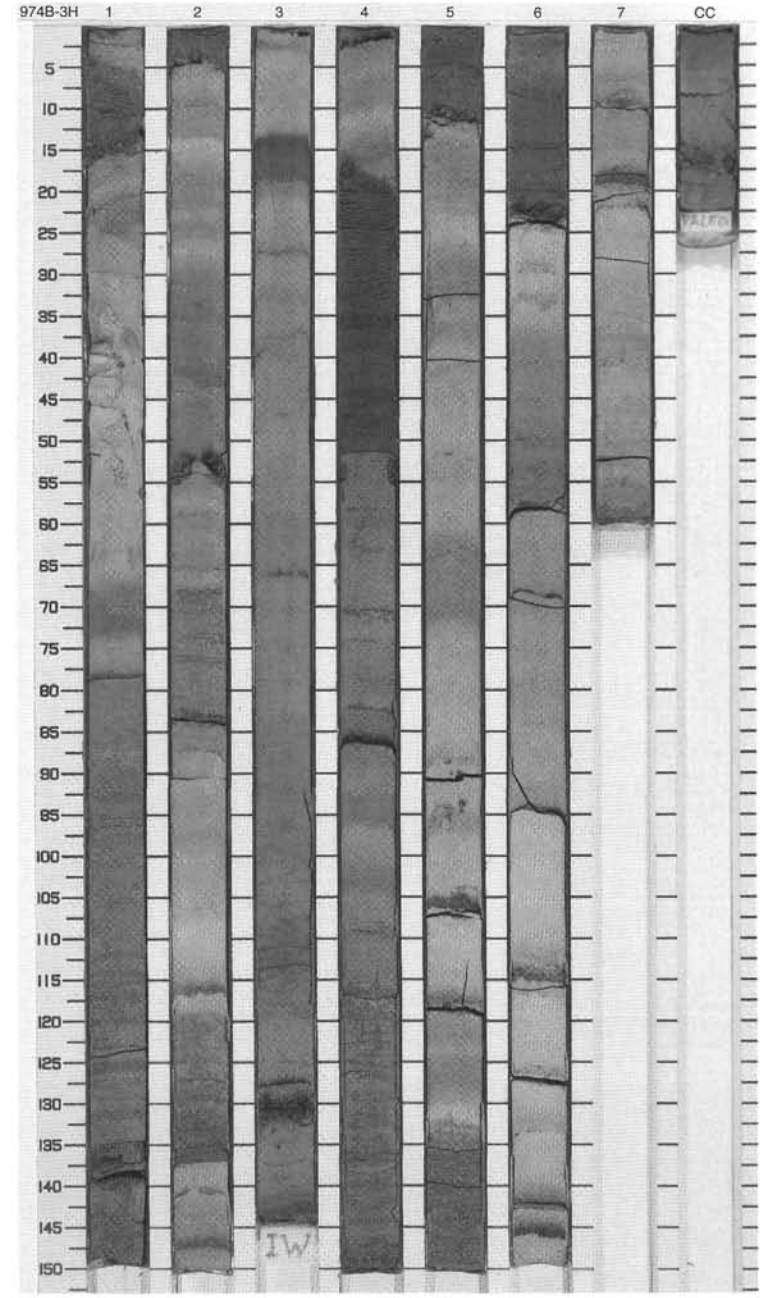
SITE 974 HOLE B CORE 2H CORED 6.5 - 16.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7, CC	Pleistocene	–A, Δ		S, I, M	5Y 5/2; 5Y 6/1; 10Y 4/2; 5Y 5/2 To 5Y 6/1	NANNOFOSSIL-RICH CLAY TO NANNOFOSSIL-RICH VITRIC SANDY CLAY Major Lithology: The predominant lithology is a light olive gray (5Y 5/2 and 5Y 6/1) NANNOFOSSIL-RICH CLAY to NANNOFOSSIL-RICH VITRIC SANDY CLAY with variable amounts of fine sand-sized volcanic glass. Thin to medium color bands and shell fragments are common. Minor Lithologies: An interval of grayish olive (10Y 4/2) graded sandy clay is present from Secton 4, 0 cm, to Section 5, 35 cm. This unit contains abundant shell fragments, mica flakes, and sand-sized volcanic crystals and glass. Fine laminations are present in the upper 9 cm of the interval. Thinly- bedded and graded grayish olive (10Y 4/2) ash layers are present throughout Sections 1 through 3 and 5 through 7. An interval of light greenish gray (5GY 8/1) clay-rich nannofossil-rich ooze is present from Section 6, 135 cm, to Section 7, 8 cm. General Description: Color bands range from cm-scale (olive gray, 5Y 3/2; light olive gray, 5Y 6/1; and pale olive, 10Y 6/2) to mm-scale (grayish green, 10G 4/2 and very dusky red purple, 5RP 2/2).



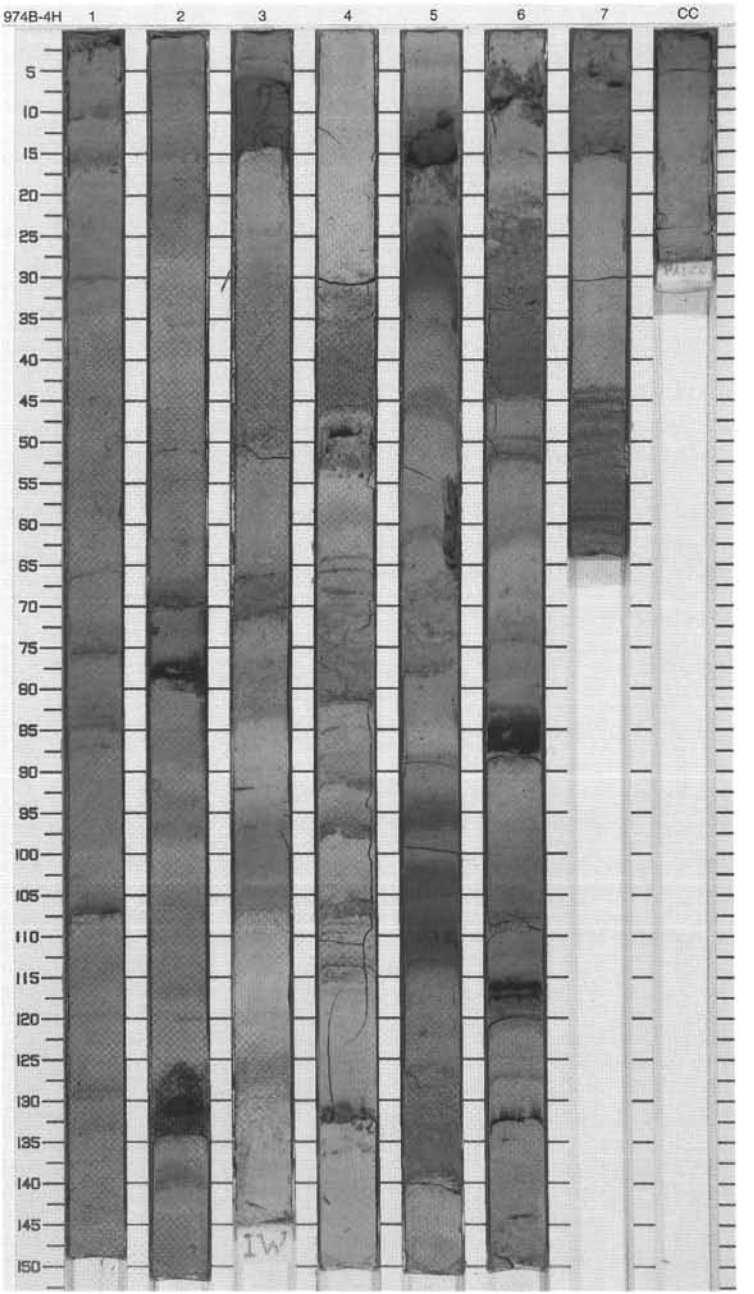
SITE 974 HOLE B CORE 3H CORED 16.0 - 25.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1	Pleistocene			S S	10Y 6/2 To 5Y 5/2	NANNOFOSSIL CLAY Major Lithology: The predominant lithology is a NANNOFOSSIL CLAY with trace amounts of bioclast fragments. Color bands of pale olive (10Y 6/2) to light olive gray (5Y 5/2 and 5Y 6/1) alternate throughout the core. General Description: * NOTE: This is an oriented core, and the working half instead of the archive half was described and used for paleomagnetic measurements. One organic-rich layer is present in Section 3 at 13.5–18.5 cm.
		2				S		
		3				S	5Y 6/1	
		4				I S	5Y 5/2 To 10Y 6/2	
		5						
		6				S	5Y 5/2 To 5Y 6/1	
		7				S		
		CC				M		



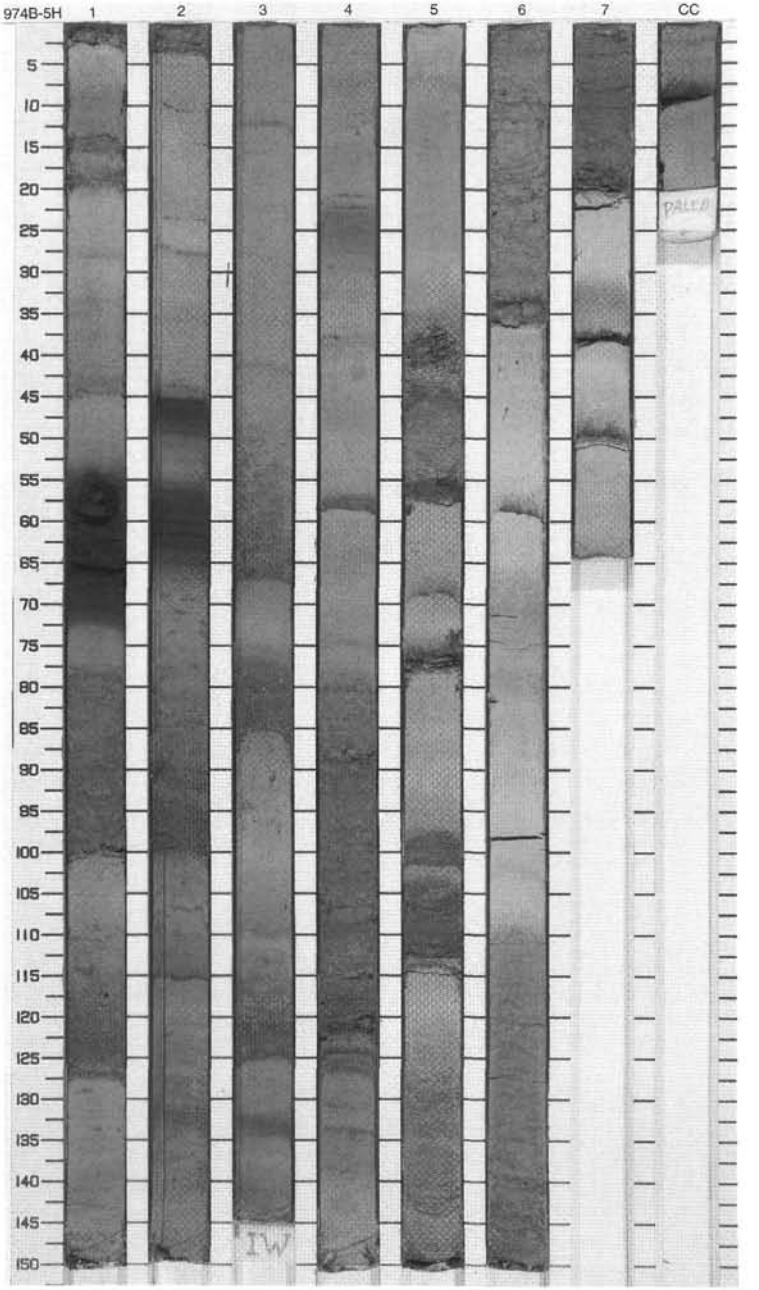
SITE 974 HOLE B CORE 4H CORED 25.5 - 35.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1	Pleistocene	–A	W	T	5Y 6/1	NANNOFOSSIL-RICH SILTY CLAY and NANNOFOSSIL CLAY Major Lithologies: The core consists of laminated to thinly bedded NANNOFOSSIL-RICH SILTY CLAY and NANNOFOSSIL CLAY with local color banding. Minor Lithology: Thin, fine- to coarse-grained ash beds range in color from greenish black (5GY 2/1) to dark gray (N3), and locally contain pumice fragments and foraminifers. General Description: Silt-sized zeolite crystals are disseminated throughout the core. More silty (zeolitic?) intervals of the core are laminated. Moderate to intense bioturbation has locally "homogenized" intervals. Two dark organic-rich layers are present at 21–32 and 94–114 cm in Section 5.
		2					5Y 5/2	
							10Y 6/2	
		3				S		
						I		
						SS		
		4		–A		S	5Y 6/1	
						ST		
		5						
		6		–A			5Y 5/2 To 10Y 6/2	
		7						
		CC				M		



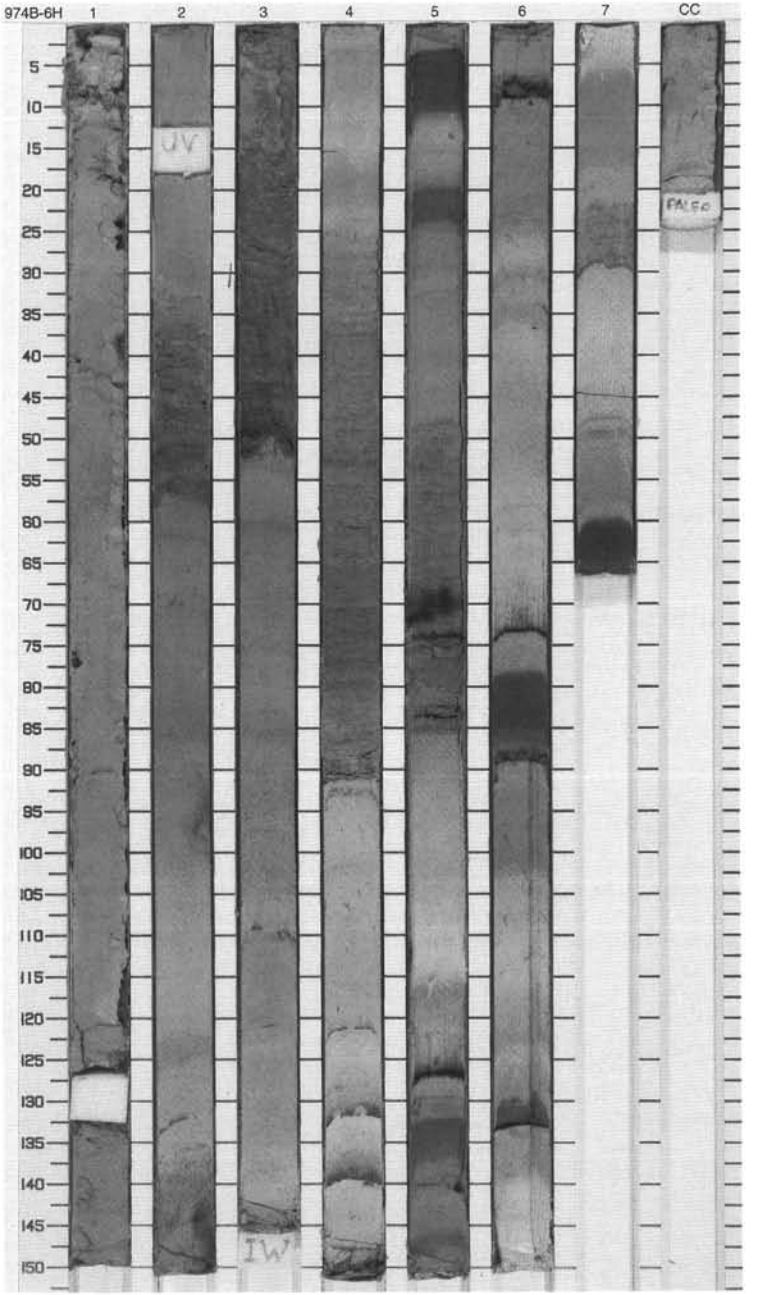
SITE 974 HOLE B CORE 5H CORED 35.0 - 44.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1	Pleistocene	Z		S	5Y 7/2	NANNOFOSSIL-RICH SILTY CLAY AND CLAY Major Lithology: The core consists of NANNOFOSSIL-RICH SILTY CLAY AND CLAY including zeolite, with local color banded structure ranging in color from dark greenish gray (5G 4/1) to greenish gray (5GY 6/1) and minor to moderate bioturbation. Minor Lithologies: Thin, fine- to coarse-grained ash beds ranging from olive black (5Y 2/1) to olive gray (5Y 4/1) in color, and zeolite-rich clay beds are present throughout the core. General Description: Nannofossil-rich beds contain foraminifers. Silt- to sand-sized zeolite crystals are disseminated throughout the core. Dark (5GY 2/1 to 5G 2/1) organic-rich layers occur in three horizons: 54–72 cm in Section 1; 45.5–65.5 cm in Section 2; 133–135 cm in Section 3.
						S		
						S	5GY 6/1	
		2		–A		S		
							5GY 4/1	
				Z				
				–A				
		3		–A			5GY 6/1	
				–A			10Y 6/2	
				–A				
				–A		I	5Y 6/1	
		4		–A		S		
						S	5GY 6/1	
		5					5Y 6/1	
				Z			5GY 6/1	
		6		–A				
				–A		S		
		7		Z		S	5Y 5/2	
		CC		–A		M	10Y 6/2	



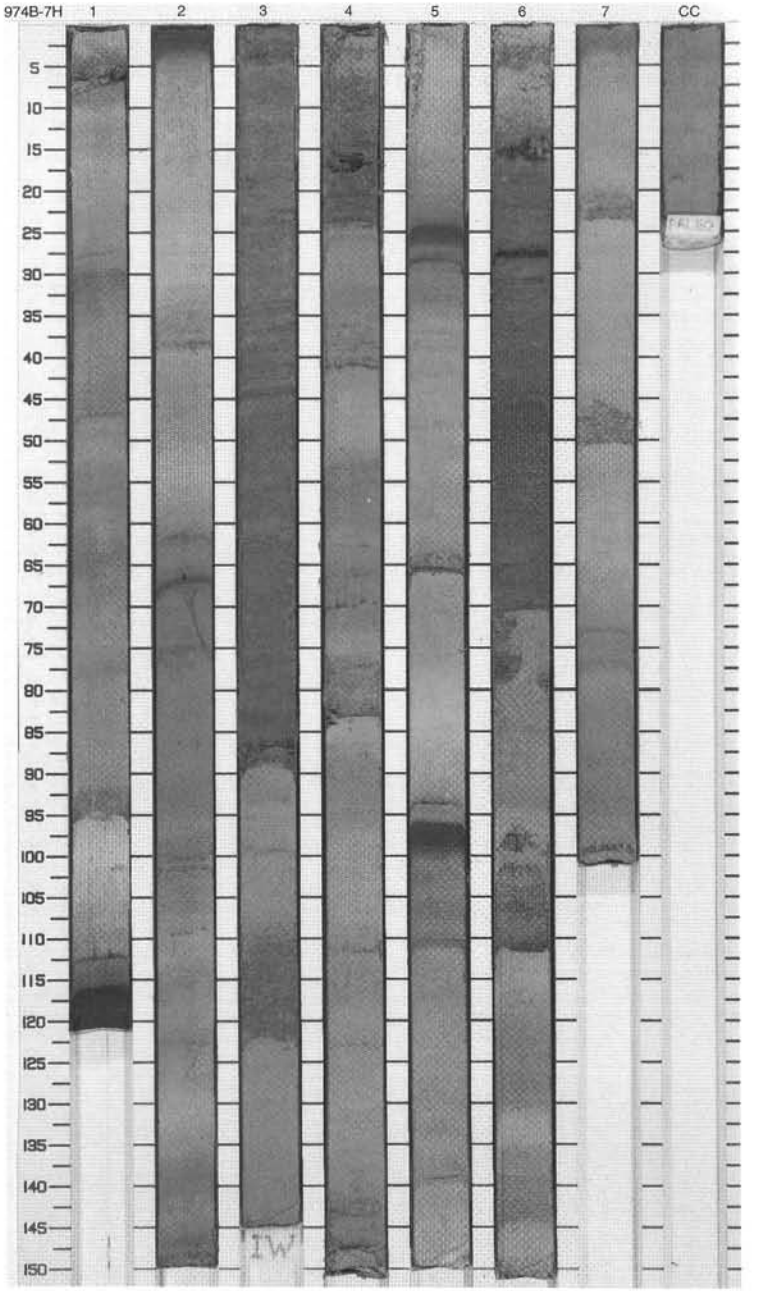
SITE 974 HOLE B CORE 6H CORED 44.5 - 54.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1	Pleistocene			S	5Y 5/2	NANNOFOSSIL-RICH CLAY AND NANNOFOSSIL OOZE Major Lithology: The core consists of NANNOFOSSIL-RICH CLAY AND NANNOFOSSIL OOZE with local color banding ranging in color from pale olive (10Y 6/2) to light olive gray (5Y 5/2). Minor Lithology: Thin, fine- to coarse-grained ash beds ranging from grayish black (N2) to medium gray (N5) in color are present throughout the core. General Description: Nannofossil-rich beds contain forminifers. Silt-sized zeolite crystals are disseminated in four horizons: 32–55 cm in Section 2, 0–49.5 cm in Section 3, 25–91 cm in Section 4, and 47–82.5 cm in Section 5. Slump fold is present in the lowermost part of Section 2 and the uppermost part of Section 3. Thin, dark organic-rich layers are present at 3–10.5, 19.5–23.5, 132.5–137.5, and 146–147.5 cm in Section 5, 78.5–87 cm in Section 6, and 59.5–66 cm in Section 7.
		2		Z, A		S	5Y 6/1	
		3		A, Z		S	5Y 5/2	
		4		Z, A, A, A		I	10Y 5/2 To 5Y 5/2	
		5		Z		S S	5Y 6/1	
		6		A, A		S	5Y 2/1	
		7				S	5Y 4/1	
		CC				M	10YR 6/2 To 5Y 5/2	



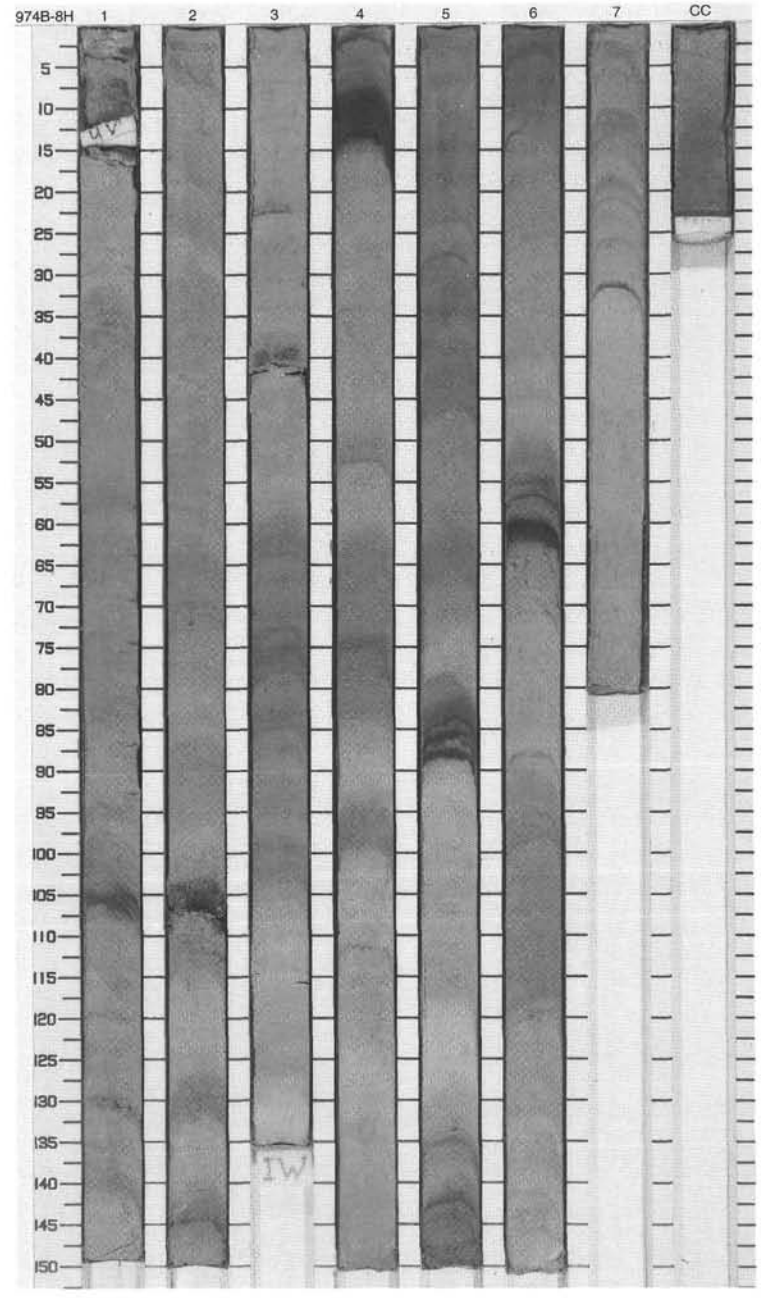
SITE 974 HOLE B CORE 7H CORED 54.0 - 63.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1	Pleistocene				5Y 5/2 To 10Y 6/2	NANNOFOSSIL CLAY Major Lithology: The major lithology is light olive gray (5Y 5/2 and 5Y 6/1) and pale olive (10Y 6/2) NANNOFOSSIL CLAY. Intervals above vitric ash layers have minor amounts of silt-sized volcanic glass. Color banding is common. Minor Lithology: Light olive gray (5Y 5/2 and 5Y 6/1) vitric ash layers are present in Section 3, 0–89 cm, and Section 6, 15–70 cm. Ash layers are sandy at the base and grade upward to silt. General Description: Organic-rich layers are present in Section 1 at 116–121 cm, Section 2 at 0–3 cm and 66.5–67.5 cm, and Section 5 at 24.5–26.5 cm and 96–99.5 cm.
		2				S	5Y 5/2	
		3		F		S	5GY 5/2	
							5Y 5/2	
		4				S	10Y 6/2	
						I	5Y 5/2 To 5Y 6/1	
		5		A		S	10Y 6/2	
		6		F F			5Y 5/2 To 5Y 6/1	
		7		A			10Y 6/2	
		CC		A		M		



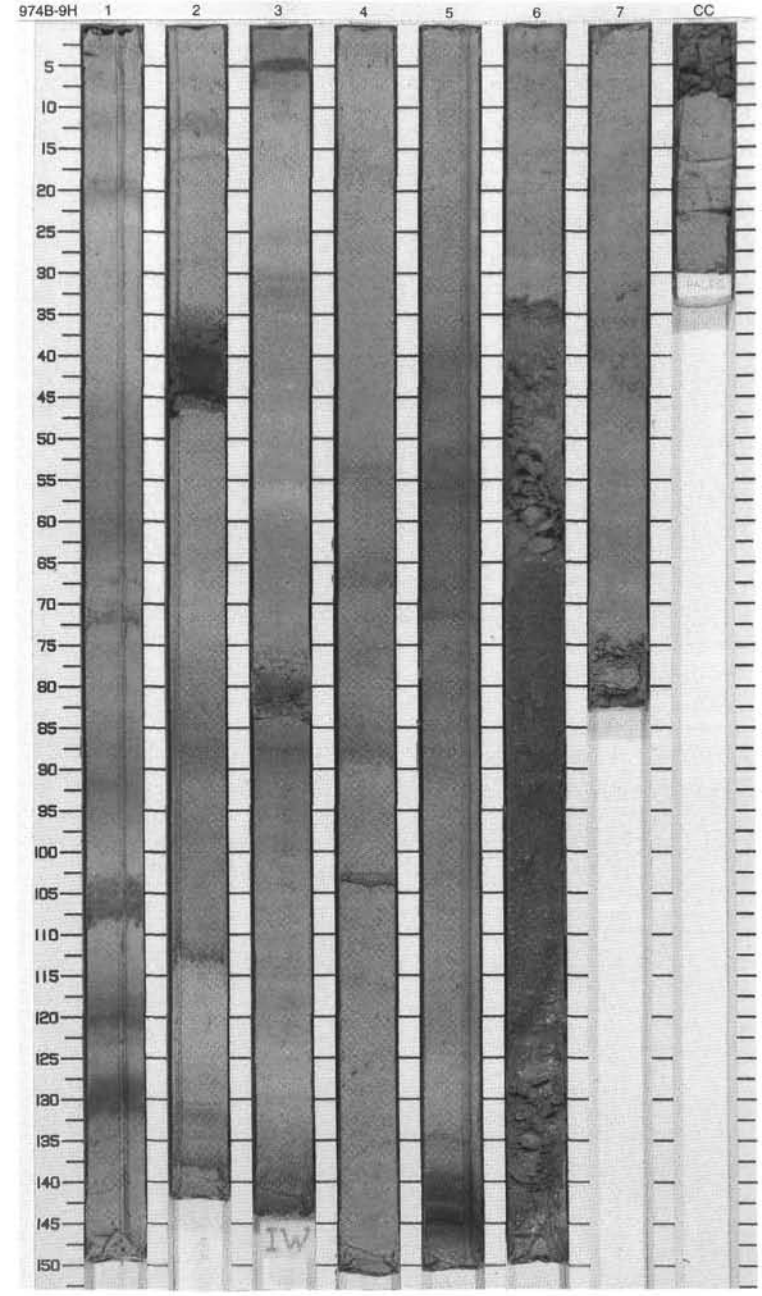
SITE 974 HOLE B CORE 8H CORED 63.5 - 73.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7, CC	Pleistocene	F, A, A, A, A, A		S, I, S, S, M	5Y 6/1; 10Y 6/2 To 5GY 4/1; 5Y 7/2	NANNOFOSSIL CLAY Major Lithology: The major lithology is a light olive gray (5Y 6/1) to yellowish gray (5Y 7/2) NANNOFOSSIL CLAY that is intensely color banded with intervals of olive gray (5Y 4/1), moderate olive brown (5Y 4/4), light olive gray (5Y 5/2), light olive brown (5Y 5/6), dusky yellow (5Y 6/4), yellowish gray (5Y 7/2), brownish black (5YR 2/1), dark greenish gray (5GY 4/1, 5G 4/1), greenish gray (5GY 6/1), and pale olive (10Y 4/2 and 10Y 6/2). Trace amounts to a few percent of sand-sized foraminifers are dispersed throughout the core. Thin ash layers are present in Sections 1, 2, 3, and 7. General Description: Organic-rich layers are present in Section 1 at 105–107 cm, Section 4 at 8–14 cm, Section 5 at 85–89 cm and 142–142.5 cm, and Section 6 at 59–62 cm.



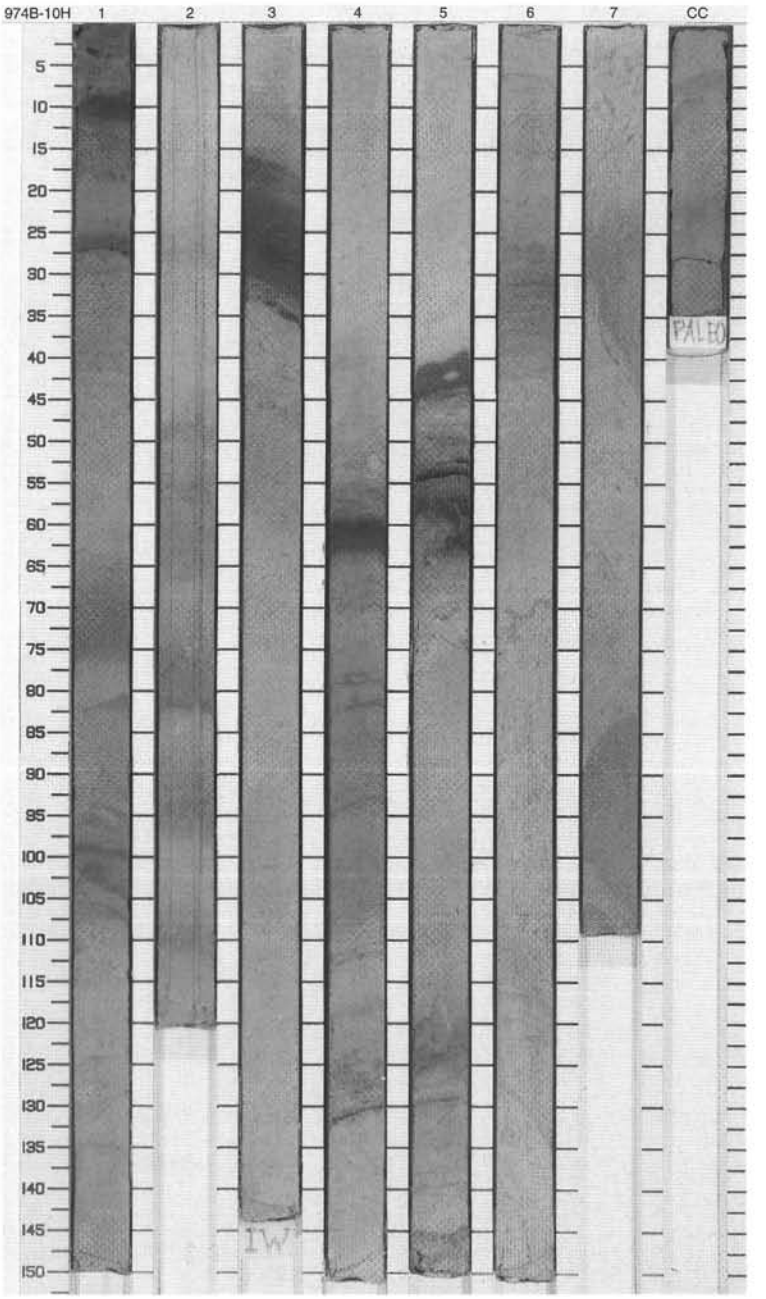
SITE 974 HOLE B CORE 9H CORED 73.0 - 82.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–10		1	Pleistocene	F			10Y 6/2	CALCAREOUS CLAY Major Lithology: The predominant lithology is light olive gray (5Y 5/2, 5Y 6/1) and pale olive (10Y 6/2) CALCAREOUS CLAY that is intensely color banded with intervals of olive gray (5Y 3/2), moderate olive brown (5Y 4/4), light olive brown (5Y 5/6), dusky yellow (5Y 6/4), yellowish gray (5Y 7/2), dark greenish gray (5GY 4/1), grayish olive (10Y 4/2), and dark gray (N3). Trace amounts to a few percent of sand-sized foraminifers are dispersed throughout the core. Thin (<10 cm) intervals of calcareous silty clay are present in Sections 1 through 4. Minor Lithology: Light olive gray (5Y 5/2) zeolitic silty sand, clayey silt, and vitric ash are present in two intervals in Sections 6 and 7. Zeolites are silt to sand-sized and comprise 75%–95% of the silty sands and clayey silts. The zeolitic vitric ash contains 70% glass, 25% zeolites, and 5% clay. General Description: Organic-rich layers are present in Section 1 at 128–131 cm, Section 3 at 4–6 cm, and Section 5 at 140.5–146 cm.
		2					5Y 6/1	
		3		F		I	5Y 5/2	
		4					5Y 6/1	
		5	Pliocene–Pleistocene			S	5Y 5/2	
		6	Pliocene	Z Z Z Z Z		S S S		
		7		Z		S		
		CC		F		S M T		



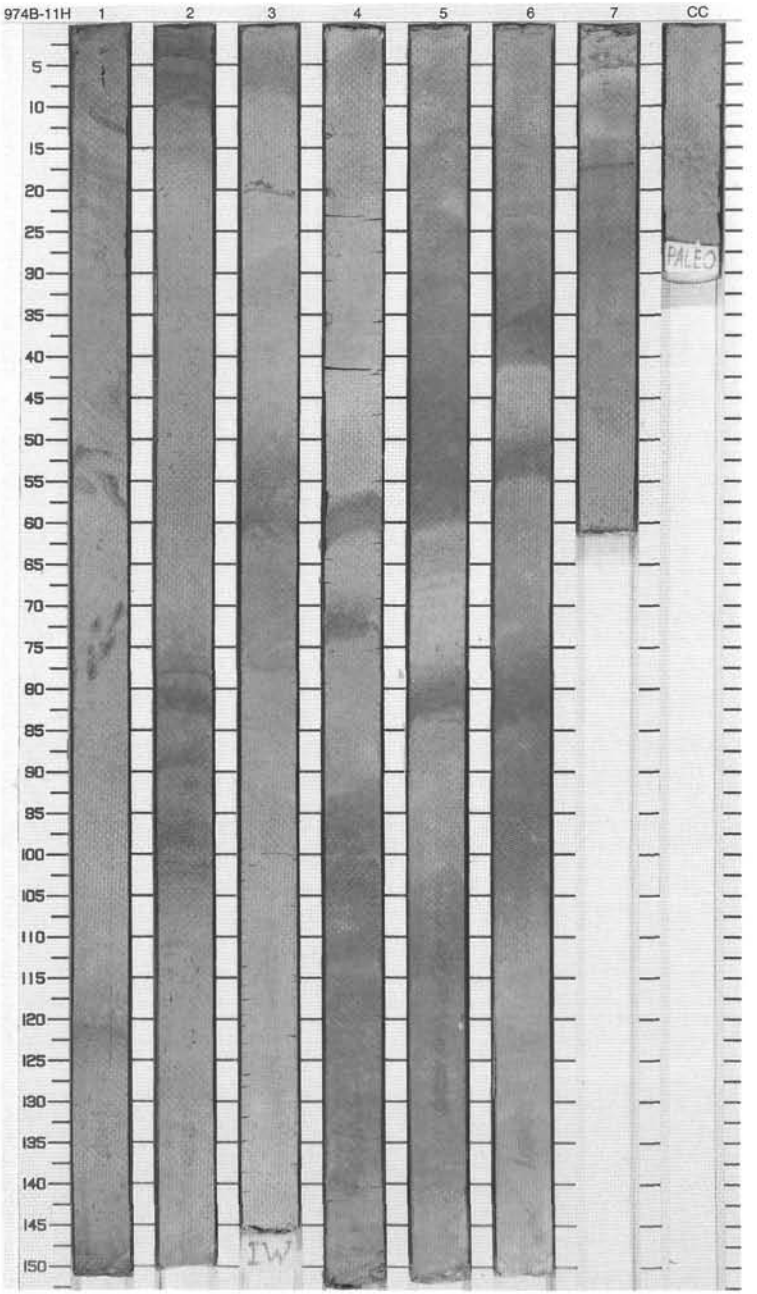
SITE 974 HOLE B CORE 10H CORED 82.5 - 92.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–10		1–7, CC	late Pliocene	–A		S, S, S, I, S, S, S, M	5Y 6/1 To 5Y 5/2; 10Y 6/2; 5Y 6/1 To 5Y 5/2; 5Y 6/2 To 5Y 5/2; 10Y 6/2; 5Y 6/1; 5Y 4/1 To 5Y 5/2	NANNOFOSSIL-RICH SILTY CLAY AND CLAY Major Lithology: The predominant lithologies are NANNOFOSSIL-RICH SILTY CLAY AND CLAY with local medium color banding. Minor Lithologies: The color of the nannofossil clay ranges from light olive gray (5Y 6/1 and 5Y 5/2) to pale olive (10Y 6/2), corresponding to subtle changes in nannofossil content. General Description: Dark organic-rich layers are present at 9–12 cm in Section 1, at 17–35 cm in Section 3, at 59–62.5 cm in Section 4, and at 56–61 cm in Section 5. The base of the core is disturbed by slump folding.



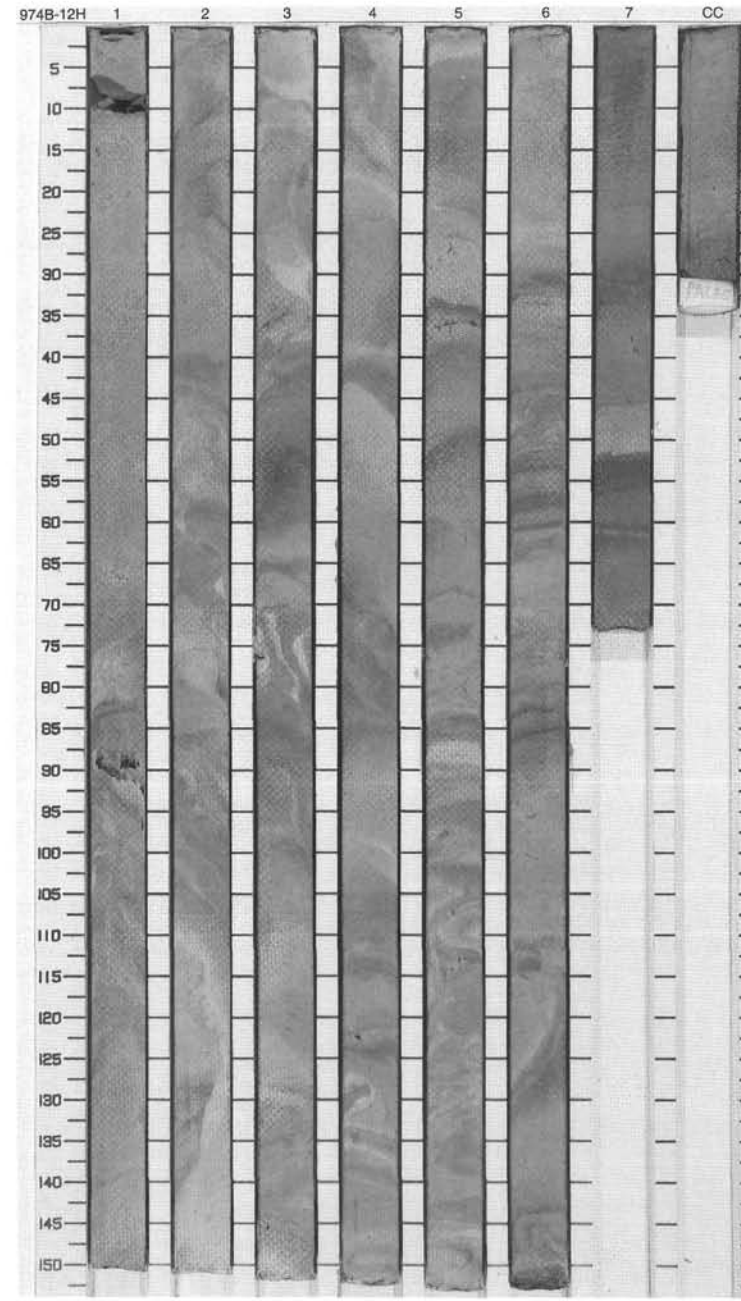
SITE 974 HOLE B CORE 11H CORED 92.0 - 101.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–10		1	late Pliocene			S	10Y 6/2 To 5Y 6/1	NANNOFOSSIL OOZE AND NANNOFOSSIL CLAY Major Lithology: The predominant lithologies are NANNOFOSSIL OOZE AND NANNOFOSSIL CLAY that are variably color banded. These bands range from pale yellowish brown (10YR 6/2) to moderate yellowish brown (19YR 5/4) in color. Minor Lithology: Pods of ash are present in bioturbated nannofossil clay layers and deformed layers. General Description: Intervals within Sections 1 and 3 show soft-sediment deformation probably associated with slumping. Some sections of the core are semi-coherent with horizontal color bands, and others are "homogenized" either by deformation or by bioturbation. Reverse-grading symbols in Section 6 refer to two intervals exhibiting upward increases in sand-sized foraminifer tests.
		2		A- A- A-			10Y 6/2 To 5Y 5/2	
							5Y 6/1	
		3		A-		S I	10YR 6/2	
				A- A-			5Y 5/2	
				A- A-			5Y 7/2	
		4					10YR 5/4	
		5				S	5YR 5/6 To 5YR 4/4	
		6					5Y 6/1 To 5Y 5/2	
		7		A A- A- A-		S M	5Y 6/1	
		CC						



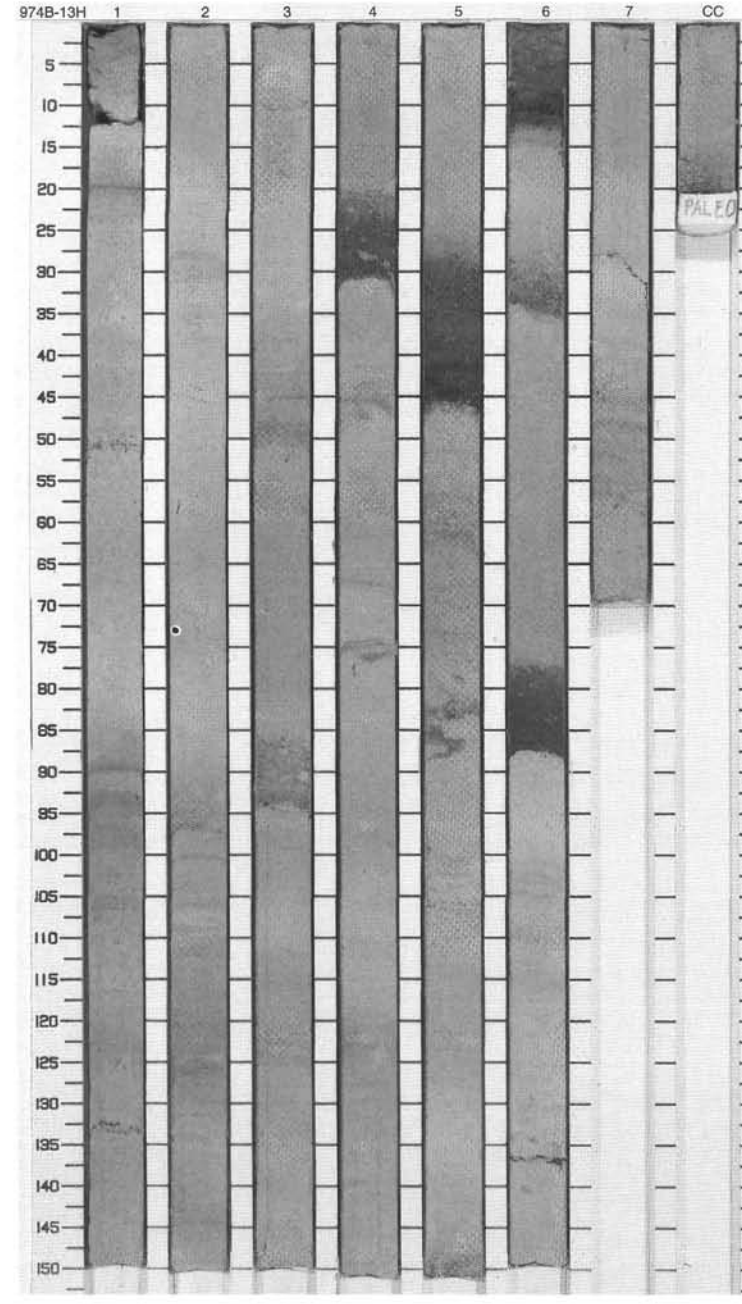
SITE 974 HOLE B CORE 12H CORED 101.5 - 111.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–10		1	late Pliocene	–A			5Y 6/1	NANNOFOSSIL CLAY Major Lithology: The core consists of a deformed mixture of variably color banded NANNOFOSSIL CLAY. Minor Lithology: Pods of ash and thin ash layers are present.
		2				S		
		3		A•		S	5Y 6/1 To 5Y 5/2	
		4				S		
		5		–A A•				
		6					5Y 6/1	
							5Y 5/6 To 5Y 5/2	
		7					5Y 5/2 To 10YR 4/2	
		CC		A•		M		



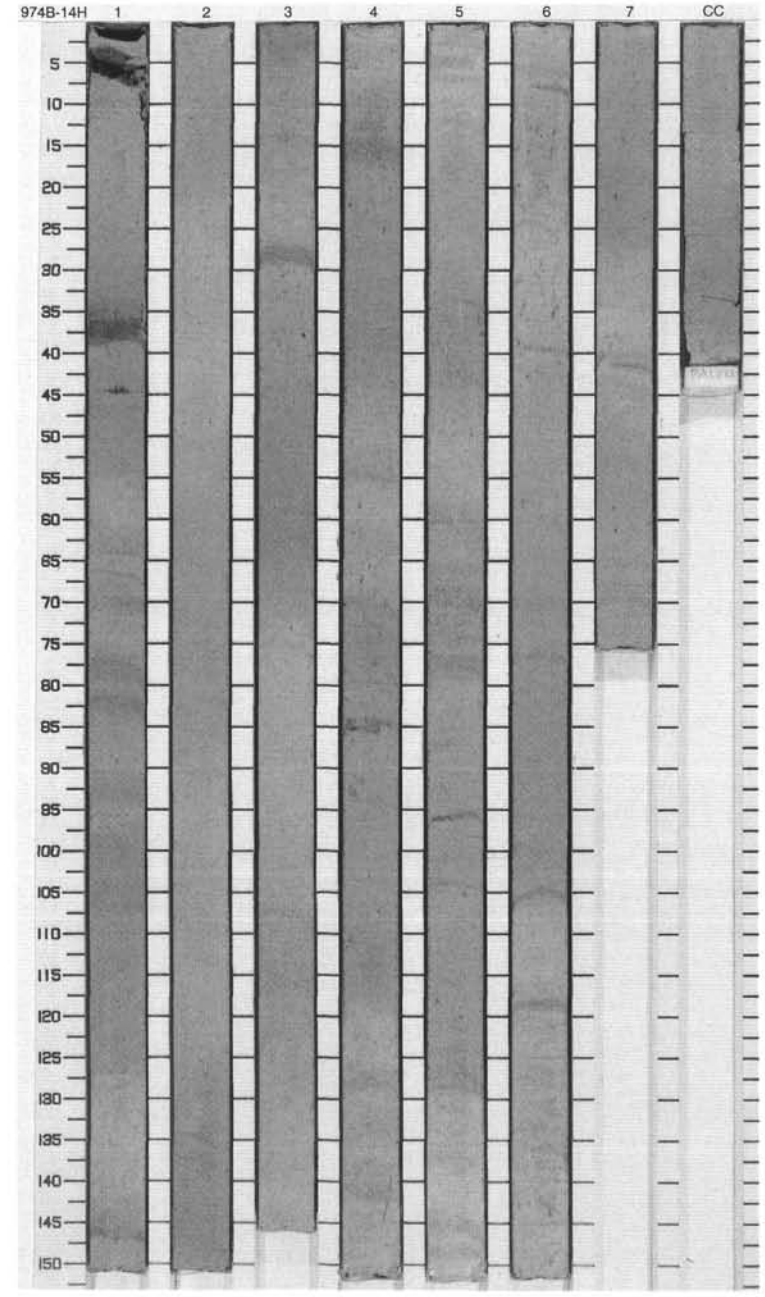
SITE 974 HOLE B CORE 13H CORED 111.0 - 120.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7, CC	late Pliocene	–A		S	5Y 6/4 To 10Y 6/2; 5Y 6/1 To 5Y 6/4; 5Y 7/2 To 5Y 4/1; 5Y 6/1	NANNOFOSSIL CLAY and NANNOFOSSIL-RICH CLAY Major Lithologies: The dominant lithology is variably color banded and biotubated NANNOFOSSIL CLAY with oxidized dusky yellow bands (5Y 6/4) of NANNOFOSSIL-RICH CLAY. Minor Lithology: Medium dark gray to dark gray (N3 to N5) ash occurs in discrete layers and also as burrow fillings. This ash is altered to clay minerals and zeolites.



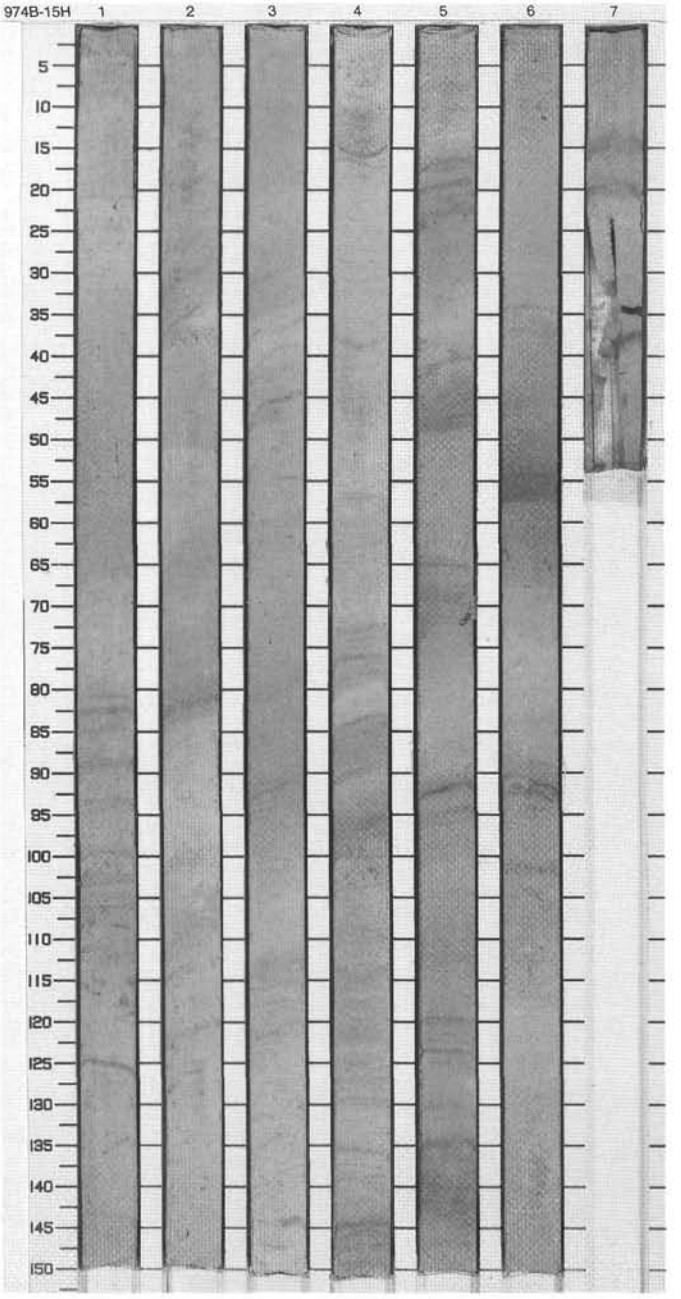
SITE 974 HOLE B CORE 14H CORED 120.5 - 130.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–10		1–7, CC	late Pliocene			S, S, S, I, S, S, M	5Y 6/1; 5Y 6/4; 5Y 6/2; 5Y 5/2; 5YR 6/2; 5R 6/1 To 5Y 5/2	NANNOFOSSIL CLAY Major Lithology: The dominant lithology is NANNOFOSSIL CLAY with local oxidation banding and minor bioturbation. Minor Lithologies: Minor lithologies (NANNOFOSSIL OOZE and NANNOFOSSIL-RICH SILTY CLAY) are interbedded with the major lithology forming moderate color banding. Isolated ash layers and burrow fills are found throughout the core.



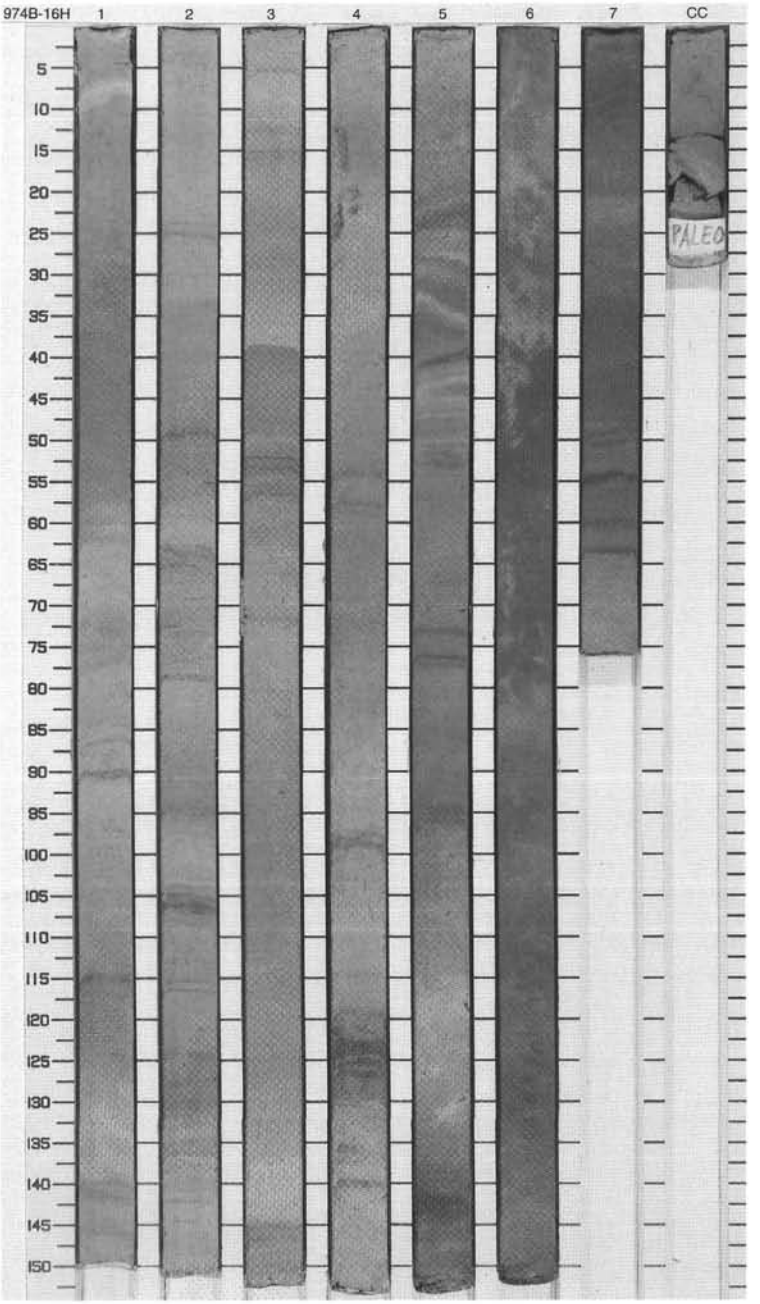
SITE 974 HOLE B CORE 15H CORED 130.0 - 139.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7	late Pliocene			S, S, S, S, S, M	5Y 6/1 To 5Y 6/4; 5Y 6/1 To 10Y 6/2; 10Y 6/2	NANNOFOSSIL CLAY Major Lithology: The predominant lithology is light olive gray (5Y 6/1, 5Y 5/2), pale olive (10Y 6/2), and dusky yellow (5Y 6/4) NANNOFOSSIL CLAY. Common alternations between these colors create color banding. Minor Lithology: Intervals of nannofossil silty clay are present in Sections 3 and 4. Silt components are carbonate bioclasts (broken foraminifers?) or volcanic glass. General Description: Organic-rich layer in Section 6 at 54–58 cm.



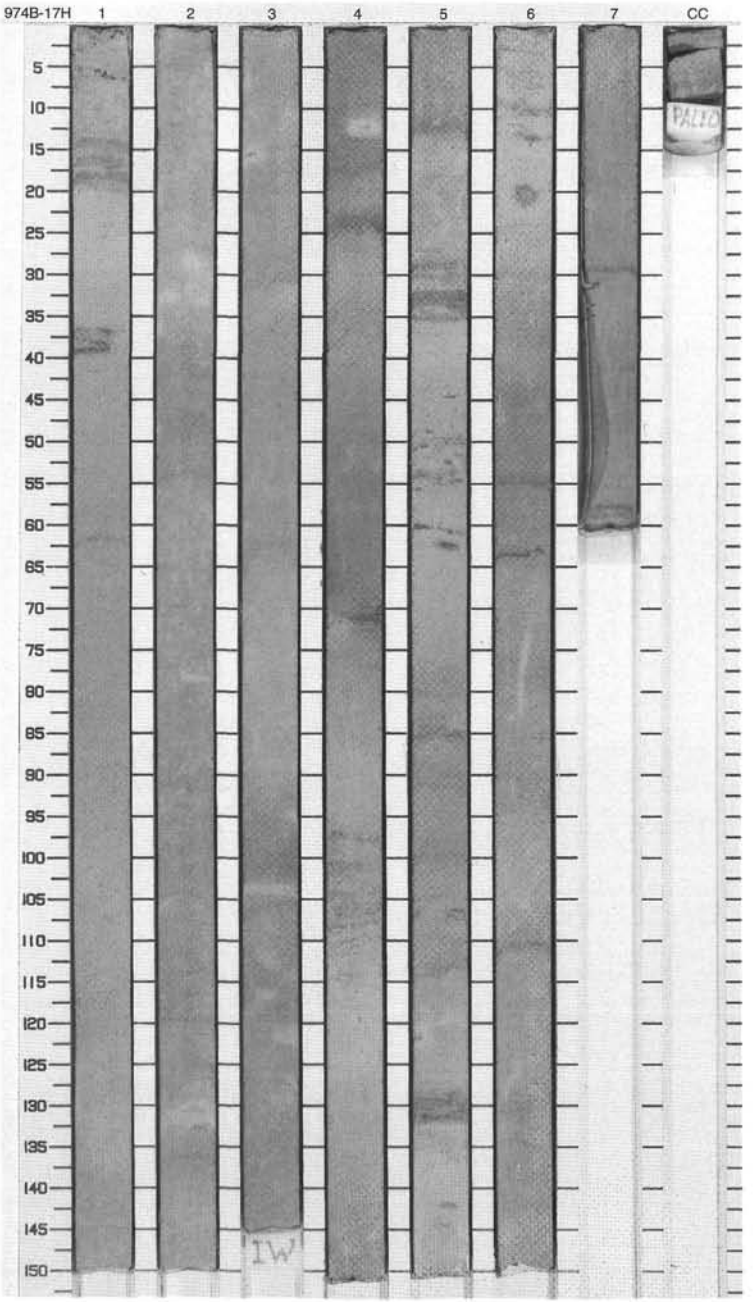
SITE 974 HOLE B CORE 16H CORED 139.5 - 149.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–10		1–7, CC	late Pliocene; early Pliocene			S; S; S; S; M	5Y 5/2 To 10Y 6/2; 5Y 5/2; 5Y 4/4	NANNOFOSSIL CLAY Major Lithology: The predominant lithology is light olive gray (5Y 5/2), pale olive (10Y 6/2), and moderate olive brown (5Y 4/4) NANNOFOSSIL CLAY. Color bands of dusky yellow (5Y 6/4), light olive brown (5Y 5/6), grayish olive (10Y 4/2), and grayish blue (5PB 5/2) are common. Silt- and sand-sized foraminifers are disseminated throughout the core and are commonly concentrated in flattened pods that are surrounded by reduction halos. General Description: One possible grayish olive (10Y 4/2) organic-rich layer is present in Section 4 at 117–128 cm.



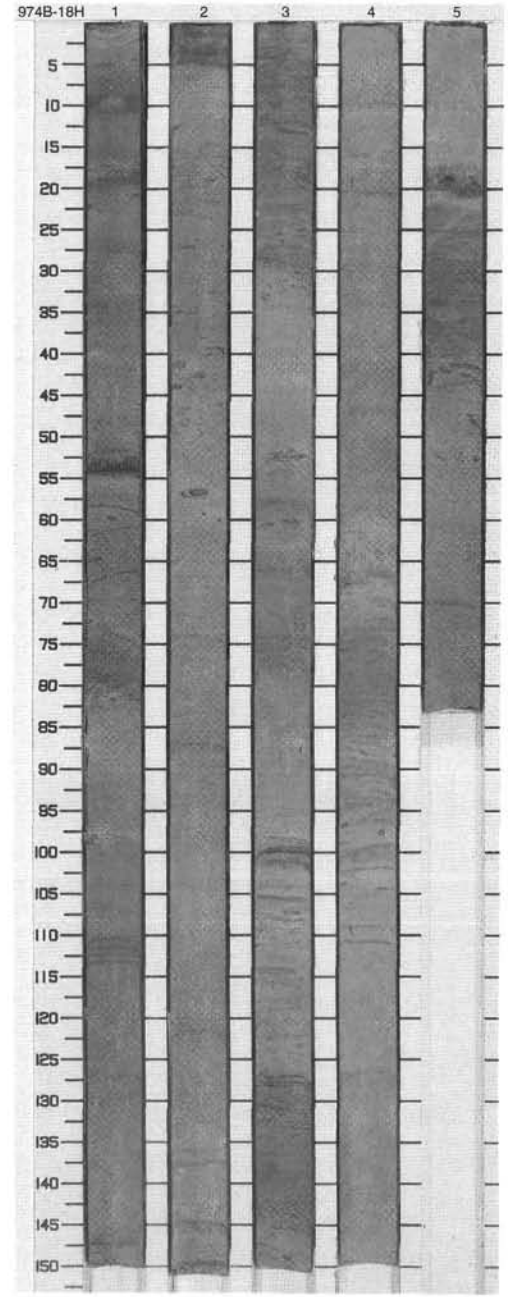
SITE 974 HOLE B CORE 17H CORED 149.0 - 158.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1	early Pliocene			S	10Y 6/2	NANNOFOSSIL CLAY Major Lithology: The predominant lithology is NANNOFOSSIL CLAY in alternating bands of pale olive (10Y 6/2), light olive gray (5Y 5/2), dusky yellow (5Y 6/4), and light olive brown (5Y 5/6). Silt- and sand-sized foraminifers are disseminated throughout the core and are commonly concentrated in flattened pods that are surrounded by reduction halos. General Description: One medium dark gray (N4) organic-rich layer is present in Section 1 at 14–19 cm.
		2					5Y 6/4	
		3					10Y 6/2	
		4				I	5Y 5/6	
		5					5Y 5/2 To 5Y 6/4	
		6				S		
		7						
		CC				M		



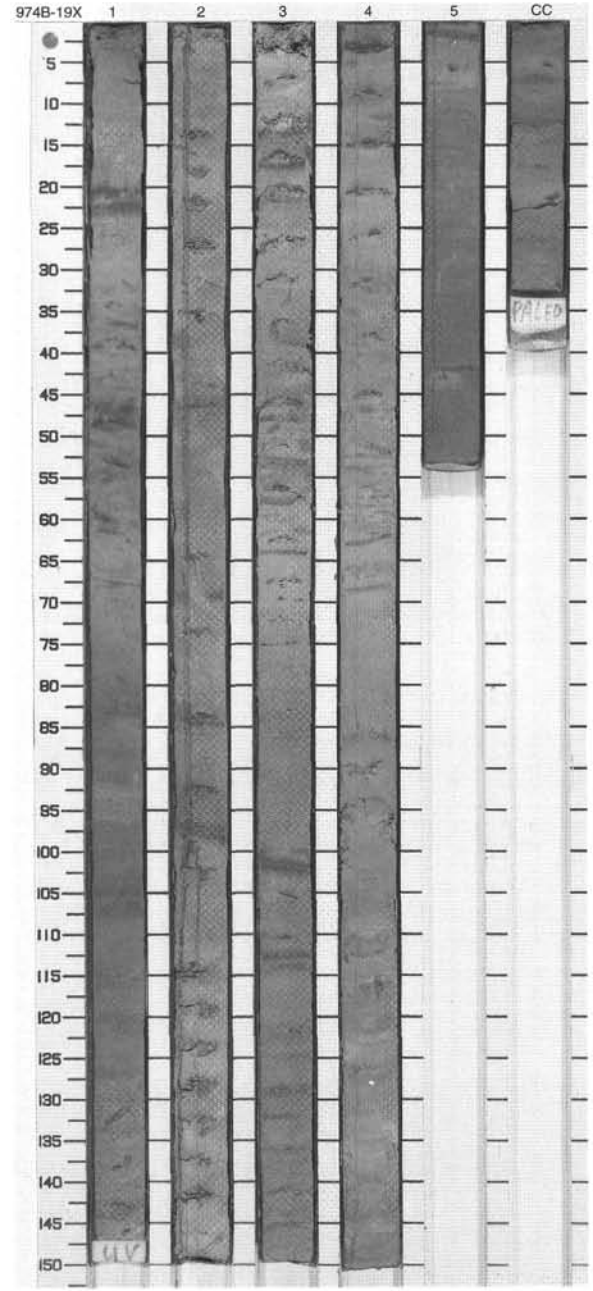
SITE 974 HOLE B CORE 18H CORED 158.5 - 165.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–6		1, 2, 3, 4, 5, CC	early Pliocene			S, S, S, M	5Y 5/2	NANNOFOSSIL CLAY TO NANNOFOSSIL OOZE Major Lithology: The predominant lithology is a light olive gray (5Y 5/2) NANNOFOSSIL CLAY to NANNOFOSSIL OOZE. Extensive bioturbation is indicated by common presence of burrows and by color mottling in some intervals. Color bands ranging from pale olive (10Y 6/2) to medium dark gray (N4) are common throughout the core.



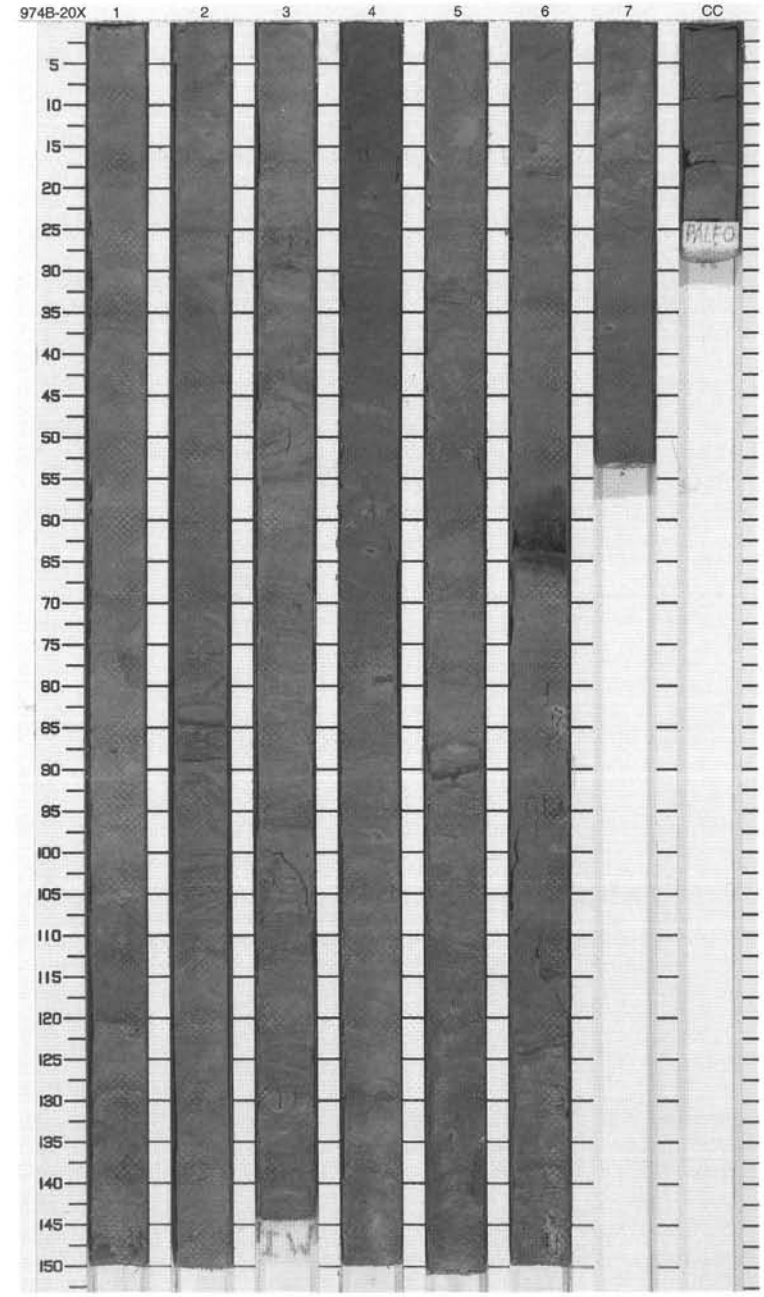
SITE 974 HOLE B CORE 19X CORED 165.0 - 174.9 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–6		1	early Pliocene				10Y 6/2 To 5Y 5/2	NANNOFOSSIL CLAY Major Lithology: The predominant lithology is pale olive (10Y 6/2) to light olive gray (5y 5/2) NANNOFOSSIL CLAY with disseminated silt-sized foraminifers that form silt pods in Sections 4, 5, and CC. Color bands of moderate olive brown (5Y 4/4) to dusky yellow (5Y 6/4) are common.
		2					10Y 6/2	
		3				S	10Y 6/2 To 5Y 5/2	
		4						
		5				S	5Y 5/6	
		CC				M		



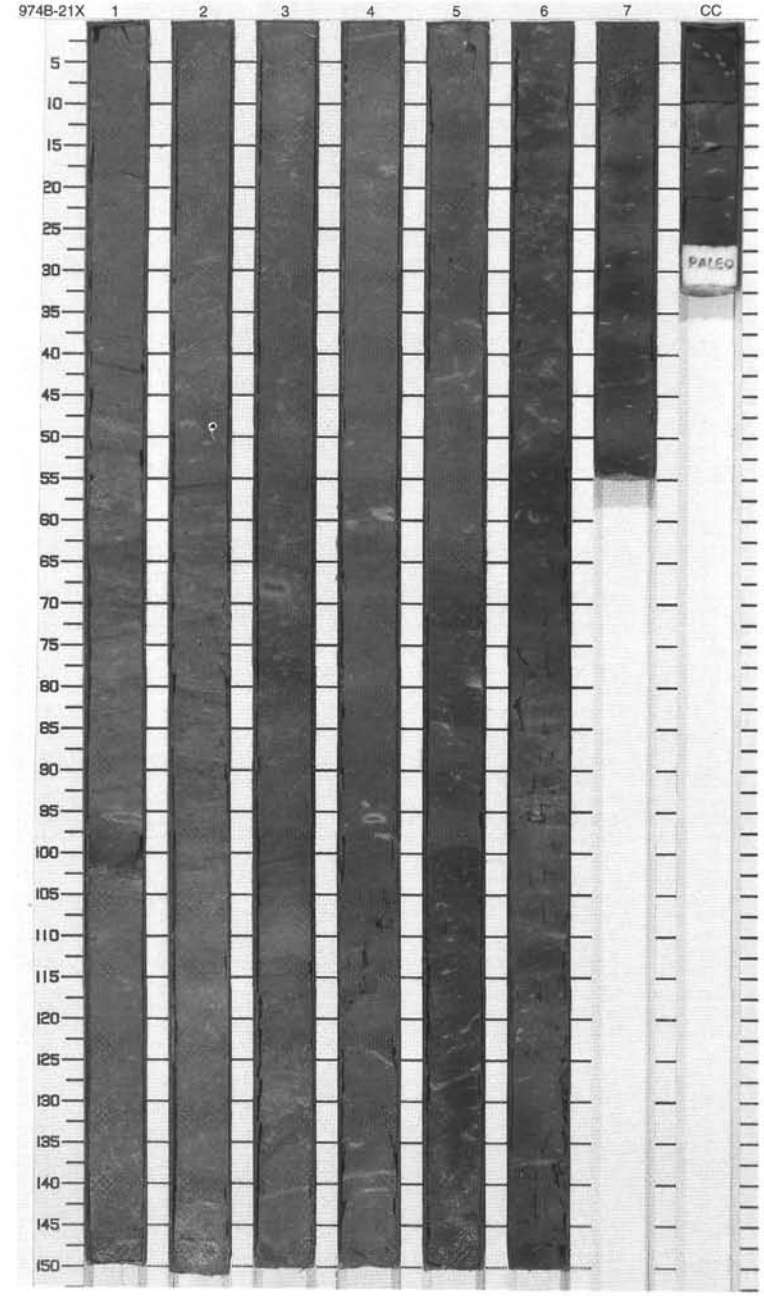
SITE 974 HOLE B CORE 20X CORED 174.9 - 184.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7, CC	early Pliocene			S, I, S, M	5Y 5/2	NANNOFOSSIL CLAY Major Lithology: The predominant lithology is a light olive gray (5Y 5/2) NANNOFOSSIL CLAY. The sediments have been extensively bioturbated as indicated by burrows and color mottling. Color bands of dusky yellow (5Y 6/4) through moderate olive brown (5Y 4/4) are common throughout the core. Some drilling-induced deformaton is present.



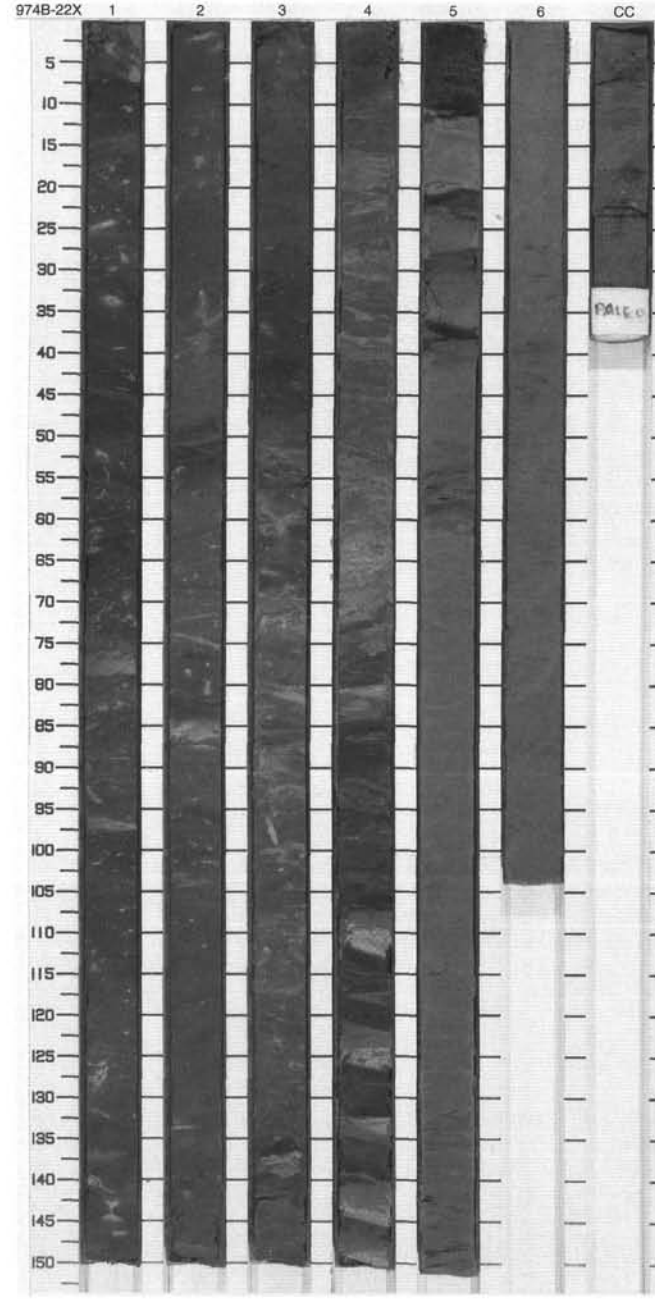
SITE 974 HOLE B CORE 21X CORED 184.5 - 194.1 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1	early Pliocene			S	5Y 4/4 To 5Y 4/1	NANNOFOSSIL CLAY and IRON-RICH NANNOFOSSIL CLAY Major Lithologies: The core consists of moderately bioturbated and mottled (reduction spots) NANNOFOSSIL CLAY and IRON-RICH NANNOFOSSIL CLAY. Local color banding is a result of increased silt content.
		2				S	5Y 4/4 To 5Y 5/2	
		3				S	10Y 6/2 To 10Y 4/2	
		4				S		
		5					10Y 5/4 To 5Y 4/4	
		6					10YR 5/2 To 5YR 3/4	
		7				S		
		CC				M		



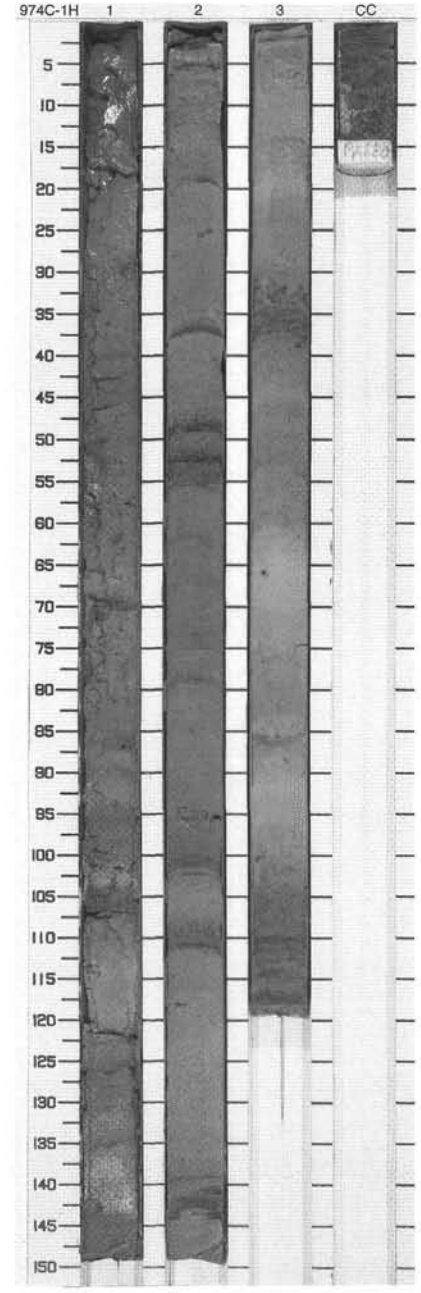
SITE 974 HOLE B CORE 22X CORED 194.1 - 203.7 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–8		1–6, CC	early Pliocene–Miocene			S, S, S, S, S, M	10YR 5/2 To 5YR 2/1; 5YR 4/1 To 5YR 2/2; 5GY 4/1	IRON-RICH NANNOFOSSIL CLAY and CALCAREOUS SILTY CLAY TO CALCAREOUS SAND Major Lithologies: The core consists of IRON-RICH NANNOFOSSIL CLAY that is bioturbated and mottled (reduction spots). The base of the section consists of a single upward-fining sandy to silty calcareous unit (CALCAREOUS SILTY CLAY TO CALCAREOUS SAND), that passes upward into interbedded and laminated silty clay and silt.



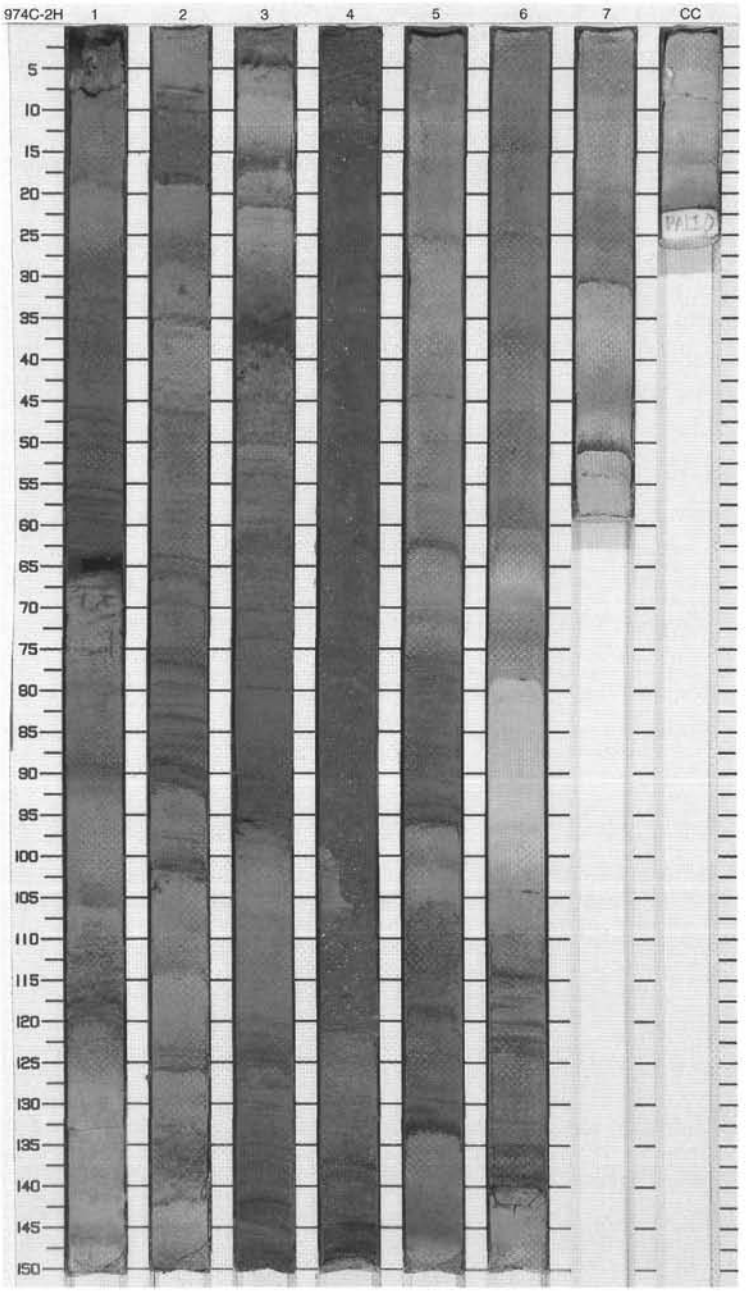
SITE 974 HOLE C CORE 1H CORED 0.0 - 4.3 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–4		1, 2, 3, CC	Pleistocene	A, A, A, A, A, A, A, A, A, A		S, S, S, S, M	10YR 5/4; 5Y 6/1 To 5Y 6/1	NANNOFOSSIL CLAY TO NANNOFOSSIL-RICH CLAY Major Lithology: The core consists of homogeneous to thinly color banded NANNOFOSSIL CLAY TO NANNOFOSSIL-RICH CLAY, with locally dispersed foraminifers. Minor Lithology: Thin layers of olive gray (5Y 4/1) ash are distributed throughout the core.



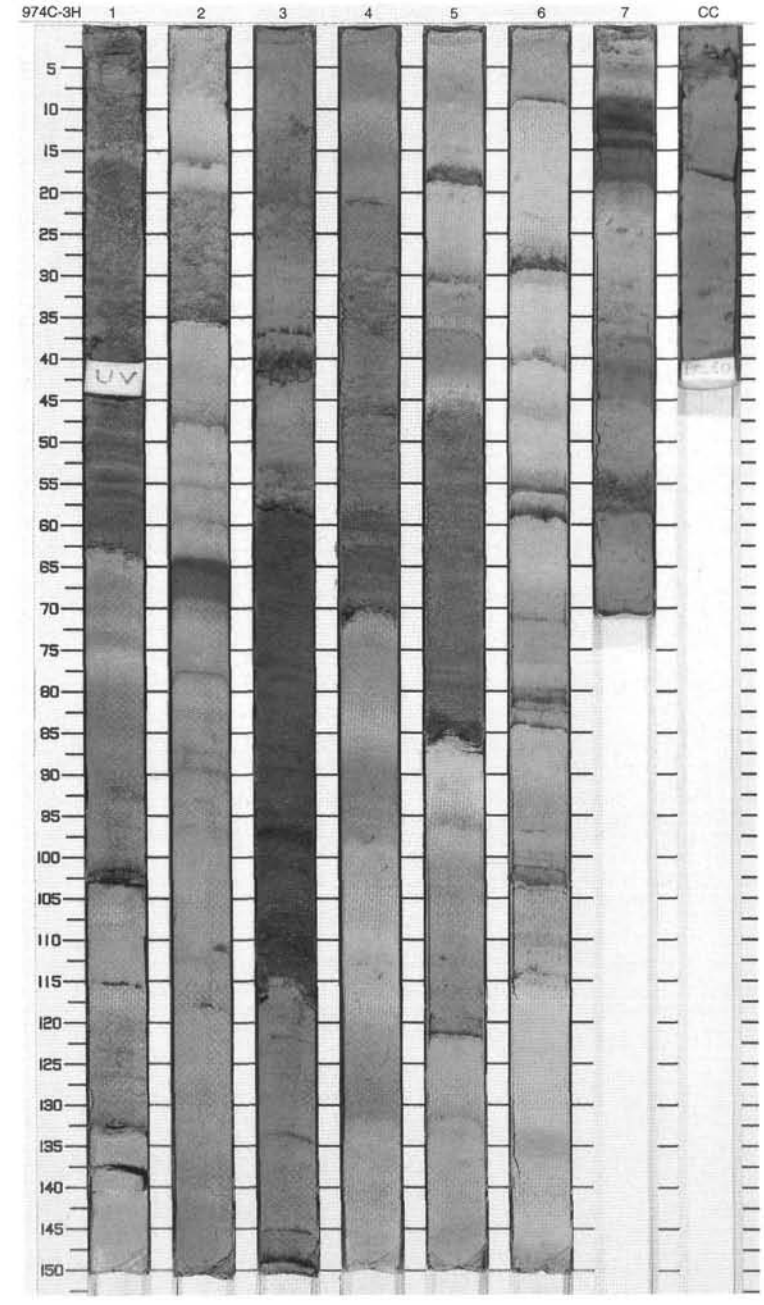
SITE 974 HOLE C CORE 2H CORED 4.3 - 13.8 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1	Pleistocene	A				NANNOFOSSIL-RICH CLAY Major Lithology: Color banding within NANNOFOSSIL-RICH CLAY includes subtle variations from light olive gray (5Y 6/1) to olive gray (5Y 4/1) . Minor Lithologies: Ash layers range in color from dark gray (N4) to olive gray (5Y 4/1) and are locally altered to zeolites. One bed of nannofossil ooze is present in Section 6. General Description: Nannofossil-rich clay and ash layers are interbedded throughout the core.
		2		A A A A A		S S	5Y 5/2 To 5Y 4/1	
		3		A		S		
		4		◆	○○○○○○○		5Y 4/1	
		5		A A A			5Y 4/1 To 5Y 5/2	
		6				S	5Y 7/1	
		7		A A A			5Y 5/2 To 5Y 6/2	
		CC				M		



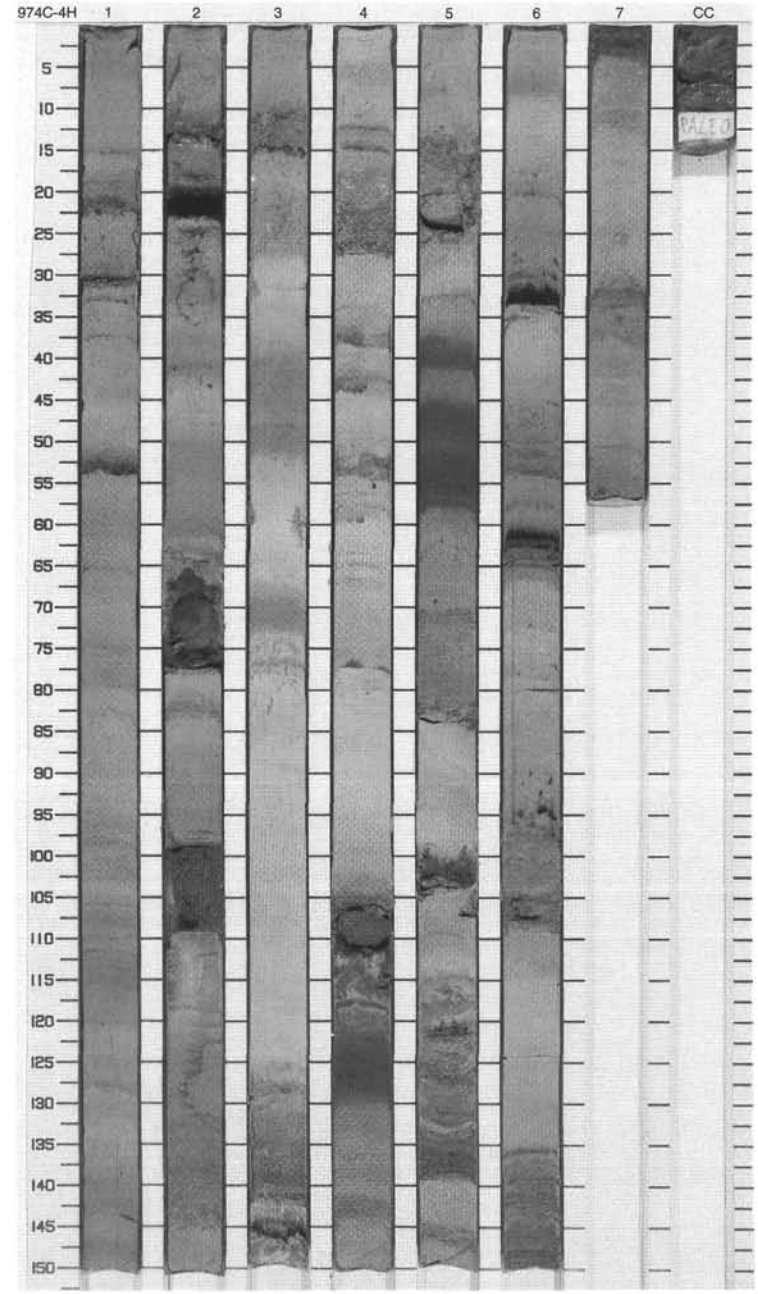
SITE 974 HOLE C CORE 3H CORED 13.8 - 23.3 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–10		1	Pleistocene	–A, –A		S	5Y 5/2	NANNOFOSSIL CLAY AND NANNOFOSSIL OOZE
							5Y 5/2 To 5Y 6/1	Major Lithology: The core consists of NANNOFOSSIL CLAY AND NANNOFOSSIL OOZE.
		2				S	5Y 6/1	Minor Lithology: The ash layers range in color from grayish black (N2) to light olive gray (5Y 3/2) and are locally altered to zeolites.
		3		–A, A-, A-			5YR 4/1	General Description: Color banding within the nannofossil clay and nannofossil ooze ranges from light olive gray (5Y 5/2) to light olive gray (5Y 6/1).
		4					5Y 6/1	
							5Y 5/2	
							5Y 6/1	
		5		–A, –A, –A		S	5Y 5/2 To 5Y 6/1	
		6		–A, –A, –A		S	5Y 6/1	
		7		–A		S	5Y 6/1 To 5Y 5/2	
		CC				M		



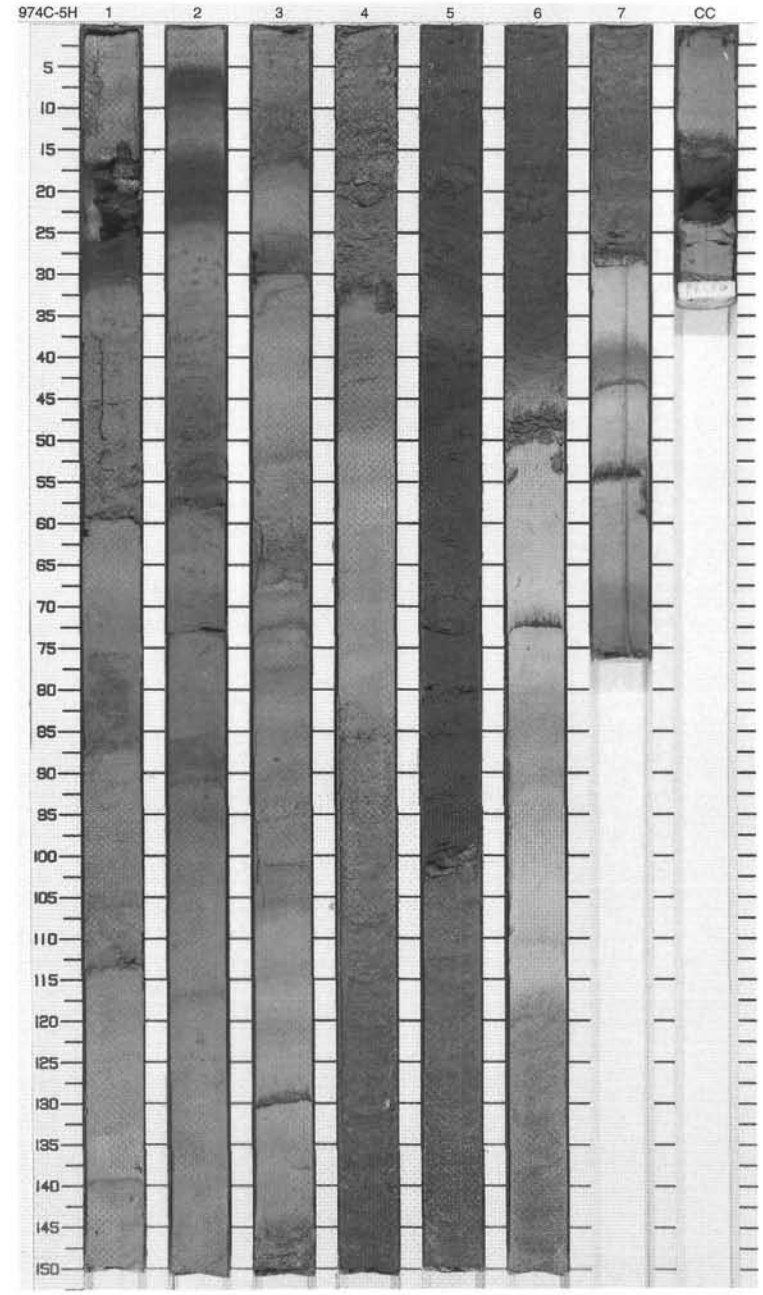
SITE 974 HOLE C CORE 4H CORED 23.3 - 32.8 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7, CC	Pleistocene	–A		S, M	5Y 5/2 To 5Y 6/1; 5Y 5/2 To 10Y 6/2; 10Y 6/2; 10Y 6/2 To 5Y 4/4; 5Y 5/2 To 5GY 5/2	NANNOFOSSIL CLAY TO NANNOFOSSIL-RICH CLAY Major Lithology: NANNOFOSSIL CLAY TO NANNOFOSSIL-RICH CLAY exhibits moderate color banding ranging from light olive gray (5Y 5/2) to pale olive gray (10Y 6/2) to moderate olive brown (5Y 4/4). Minor Lithologies: Ash layers range from brownish black (5YR 2/1) to medium gray (N5) and are locally altered to zeolites. Minor lithologies include nannofossil ooze and nannofossil-rich silty clay. General Description: There are two organic-rich layers at 124–130 cm in Section 4, and at 37–59 cm in Section 5.

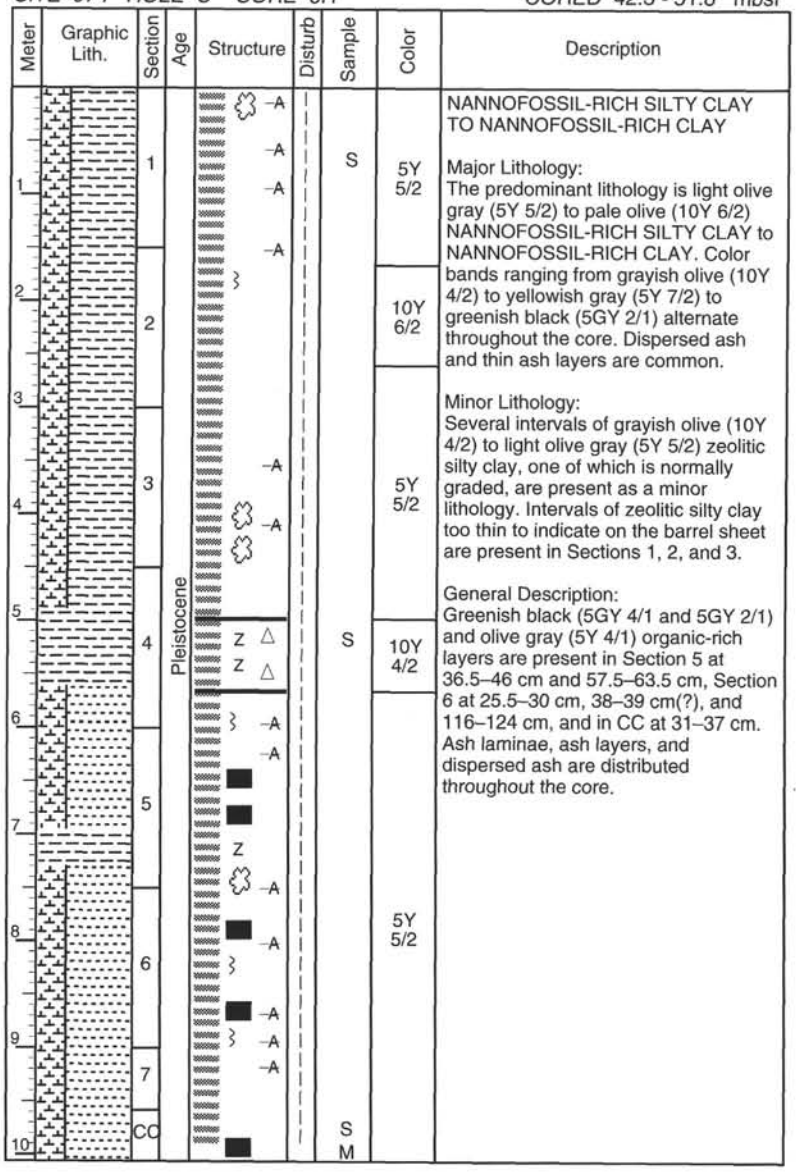


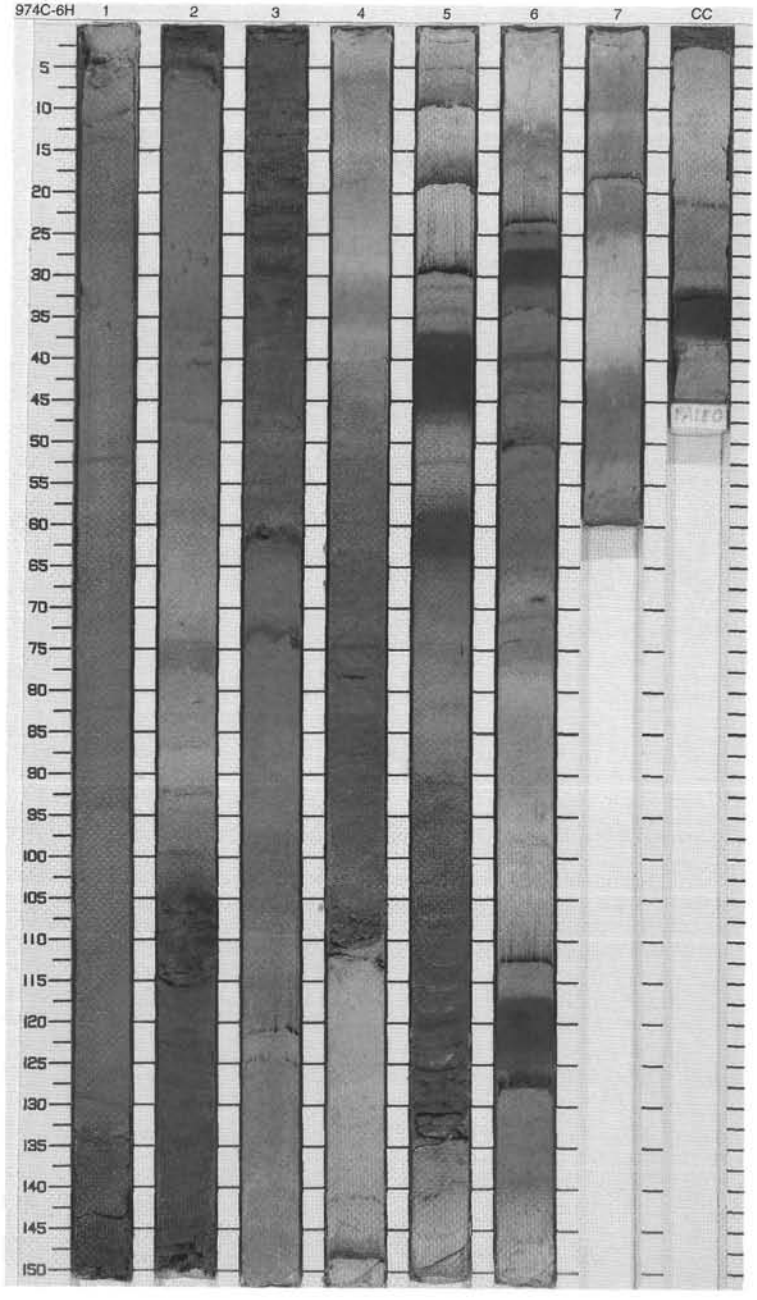
SITE 974 HOLE C CORE 5H CORED 32.8 - 42.3 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–10		1–7, CC	Pleistocene	–A, Z, △		S, S, S, S, S, S, M	5Y 5/2; 10Y 4/2 To 5Y 5/2; 10Y 4/2; 5Y 5/2	NANNOFOSSIL-RICH CLAY TO NANNOFOSSIL CLAY AND ZEOLITIC SILTY Major Lithology: The predominant lithologies are interbedded light olive gray (5Y 5/2) and grayish olive (10Y 4/2) NANNOFOSSIL-RICH CLAY to NANNOFOSSIL CLAY and ZEOLITIC SILTY CLAY. Color bands of dark greenish gray (5G 4/1) to olive gray (5Y 3/2) are common. Intervals of zeolitic silty clay, sometimes graded, contain at most a few percent volcanic glass. General Description: Laminae and layers of ash are common throughout the core. Organic-rich layers are present in Section 1 at 20–31.5 cm, Section 2 at 5.5–24 cm and 86–90 cm, and Section 3 at 72–73 cm.



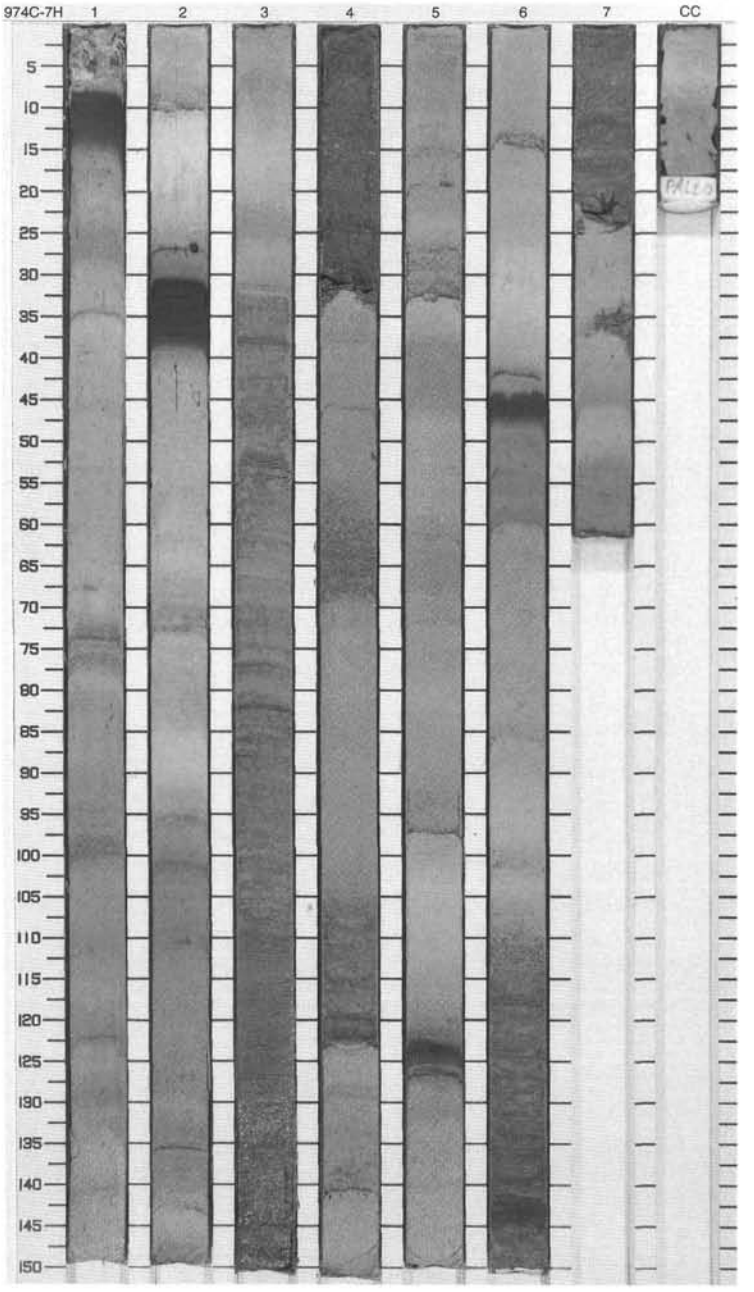
SITE 974 HOLE C CORE 6H CORED 42.3 - 51.8 *mbsf*





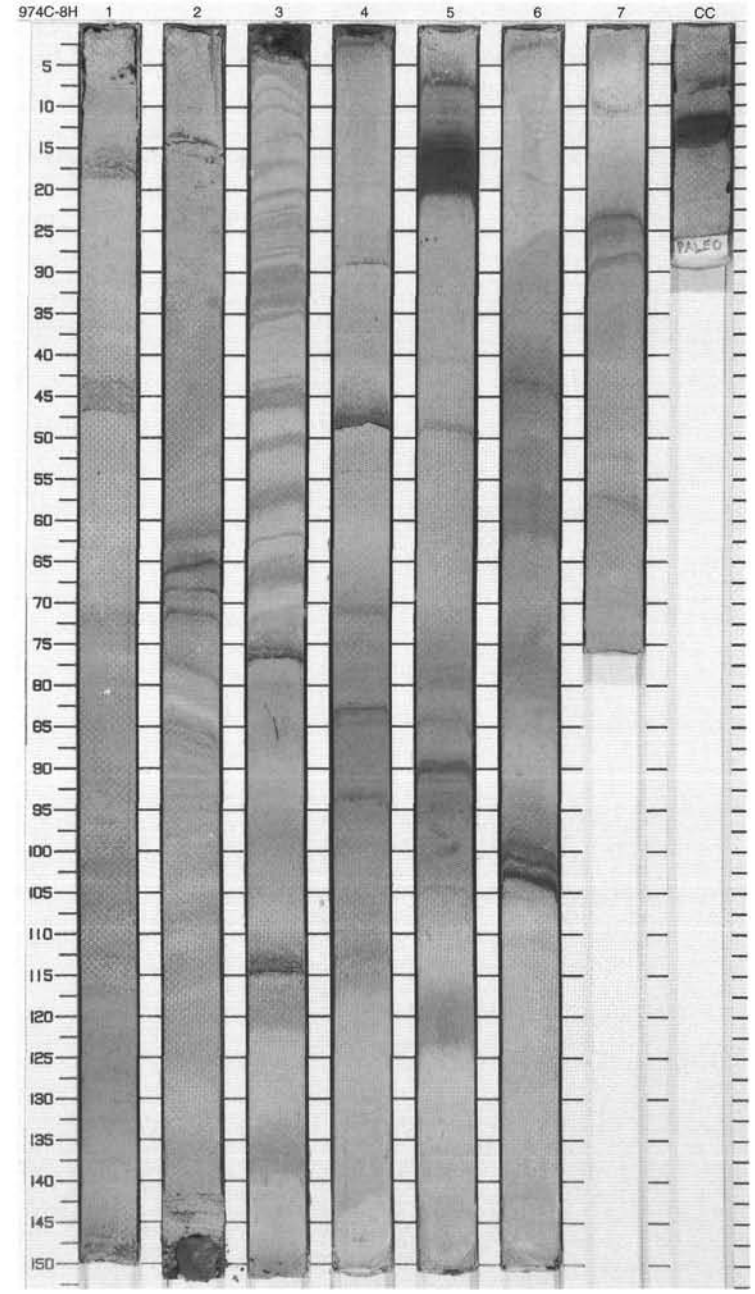
SITE 974 HOLE C CORE 7H CORED 51.8 - 61.3 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7, CC	Pleistocene	A, △		S, M	5Y 6/1; 5Y 5/2 To 10Y 6/2; 10Y 6/2 To 5Y 4/1; 5Y 6/1 To 5Y 5/2; 10Y 6/2 To 5Y 5/2	NANNOFOSSIL CLAY Major Lithology: The predominant lithology is light olive gray (5Y 6/1, 5Y 5/2) to pale olive (10Y 6/2) NANNOFOSSIL CLAY with common color bands of olive gray (5Y 3/2) to dusky yellow (5Y 6/4). A few percent of silt-sized foraminifers and zeolites are disseminated throughout the core. Minor Lithology: Graded zeolitic vitric ash layers range from glass-rich silty sands at their bases to zeolite-rich silty clays at their tops. General Description: Thin silty zeolitized ash layers are common throughout the core. Thin, olive gray (10Y 4/2) organic-rich layers are present in Section 1 at 8–14.5 cm, Section 2 at 30.5–38.5 cm and 101–102 cm, Section 5 at 122–125 cm, and Section 6 at 44–47 cm.



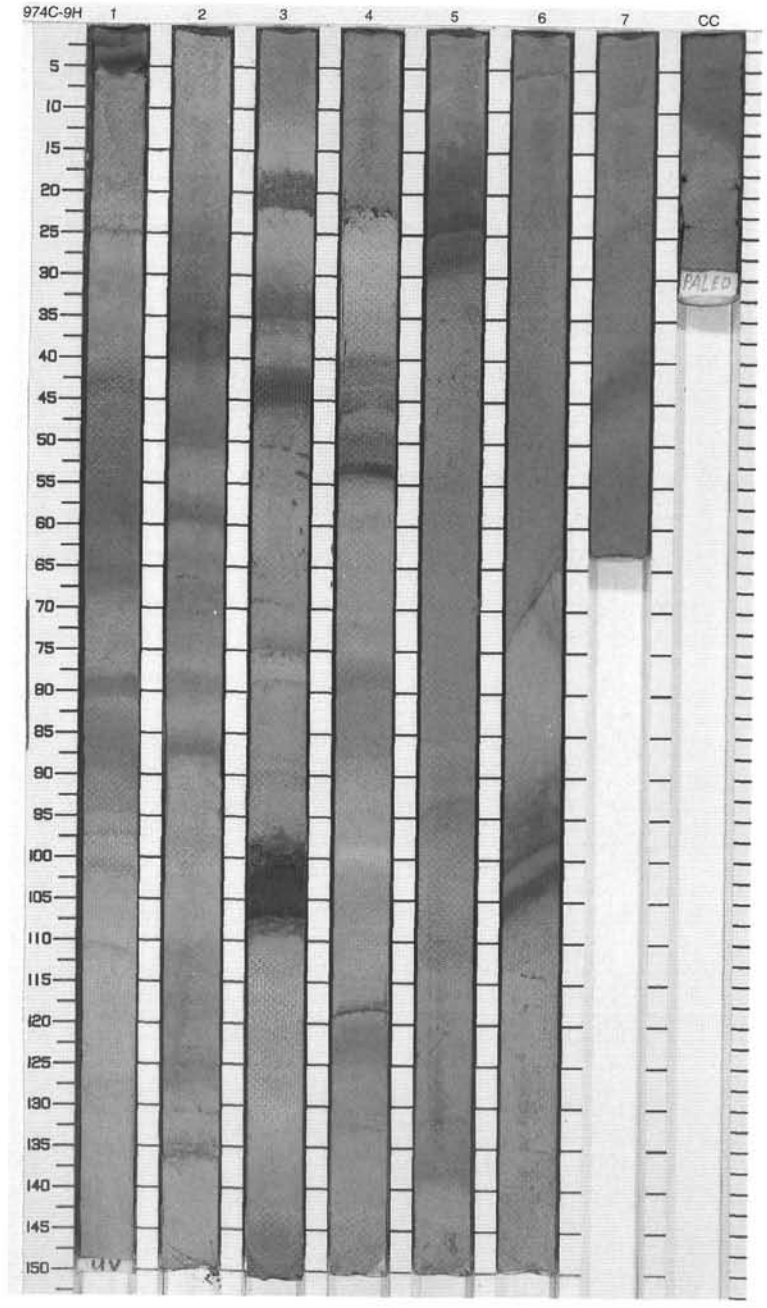
SITE 974 HOLE C CORE 8H CORED 61.3 - 70.8 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–10		1–7, CC	Pleistocene	A		S, M	10Y 6/2 To 5Y 5/2	NANNOFOSSIL CLAY TO NANNOFOSSIL-RICH CLAY Major Lithology: The predominant lithology is pale olive (10Y 6/2) to light olive gray (5Y 5/2) NANNOFOSSIL CLAY to NANNOFOSSIL-RICH CLAY. Color bands of light olive green (5Y 6/1) to medium gray (N5) are common throughout the core. Silt-sized volcanic glass is disseminated throughout. General Description: Thin ash layers are common in Sections1 through 4. The ashes are crystal-rich silty sands and typically contain admixed foraminifers, nannofossils, and carbonate bioclasts. Thin, grayish olive (10Y 4/2) to olive gray (5Y 3/2) organic-rich layers are present in Section 2, 70–71 cm; Section 5, 14–22 cm and 91–92 cm; Section 6, 103–105 cm; and CC, 11–15 cm.



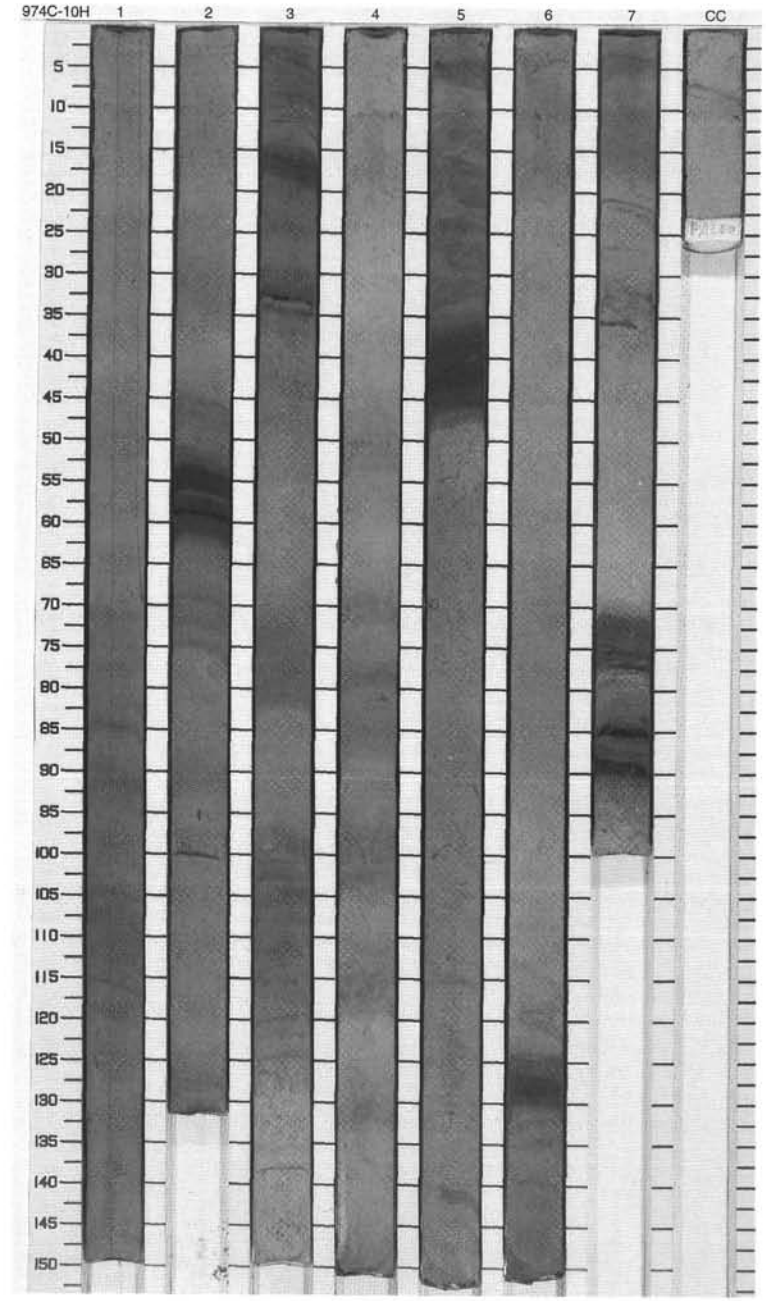
SITE 974 HOLE C CORE 9H CORED 70.8 - 80.3 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7, CC	Pleistocene–late Pliocene	A		S, M	5Y 5/2 To 5Y 6/1; 5Y 5/2 To 10Y 6/2; 5Y 5/2	NANNOFOSSIL CLAY Major Lithology: The predominant lithology is light olive gray (5Y 6/1 and 5Y 5/2) and pale olive (10Y 6/2) NANNOFOSSIL CLAY that contains trace amounts to a few percent of silt-sized foraminifers and zeolites. Color bands of dusky yellow (5Y 6/4) to moderate olive brown (5Y 4/4) are common throughout the core; color mottling is present in Sections 1 and 2. General Description: There is an unexplained void in Section 1, 140–150 cm. Several thin brownish gray (5YR 4/1) clay-rich, vitric ash layers are present in Sections 3 through 6, and blebs of ash are present in Section 2. Grayish olive (10Y 4/2) to brownish black (5YR 2/1) organic-rich layers are present in Section 1, 3.5–5 cm; Section 3, 42.5–43 cm; Section 4, 53–54 cm; Section 5, 27–28 cm; and Section 6, 105–107 cm.



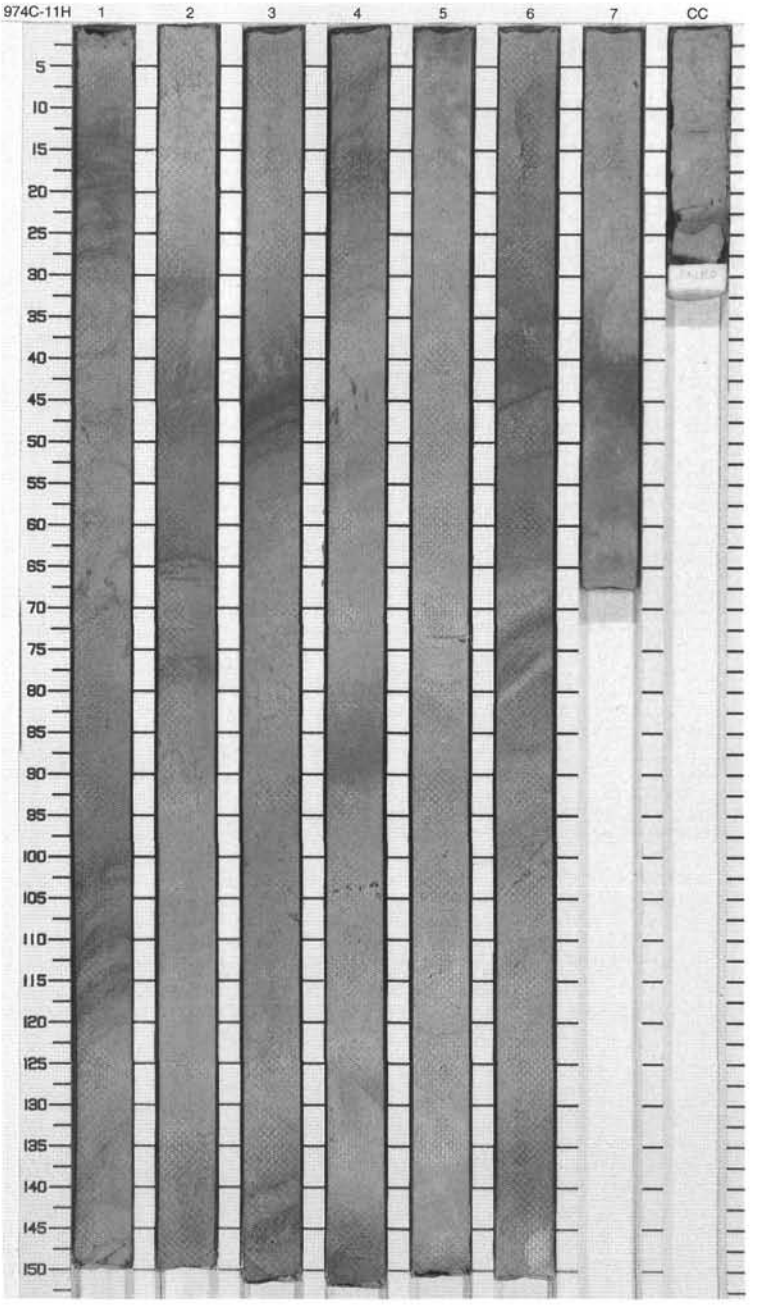
SITE 974 HOLE C CORE 10H CORED 80.3 - 89.8 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–10		1	late Pliocene–Pleistocene			S	5Y 5/2 To 5Y 6/4	NANNOFOSSIL SILTY CLAY Major Lithology: The predominant lithology is light olive gray (5Y 5/2) to dusky yellow (5Y 6/4) and pale olive (10Y 6/2) NANNOFOSSIL SILTY CLAY. The silt-sized component is primarily nannofossils, but silt-sized glass is also disseminated throughout the core. Color bands of olive gray (5Y 4/1 and 5Y 3/2) and grayish olive green (5GY 3/2) are common, especially in association with ash layers and organic-rich layers. General Description: Light olive gray (5Y 5/2) to dark gray (N3) silty ash layers are present in Sections 2, 3, and 7. Those in Section 7 are normally graded. Olive gray (5Y 3/2) to dark gray (N3) organic-rich layers are present in Section 2, 53–57 cm and 57.5–62 cm; Section 3, 17–20 cm; Section 5, 35–45 cm; Section 6, 126–129 cm; and Section 7, 89–90.5 cm.
		2		–A				
		3		–A			5Y 5/2 To 10Y 6/2	
		4				S	5Y 6/1	
		5					10Y 6/2 To 5Y 5/2	
		6						
		7		△ –A △ –A			5Y 6/1 To 5Y 5/2	
		CC				M		



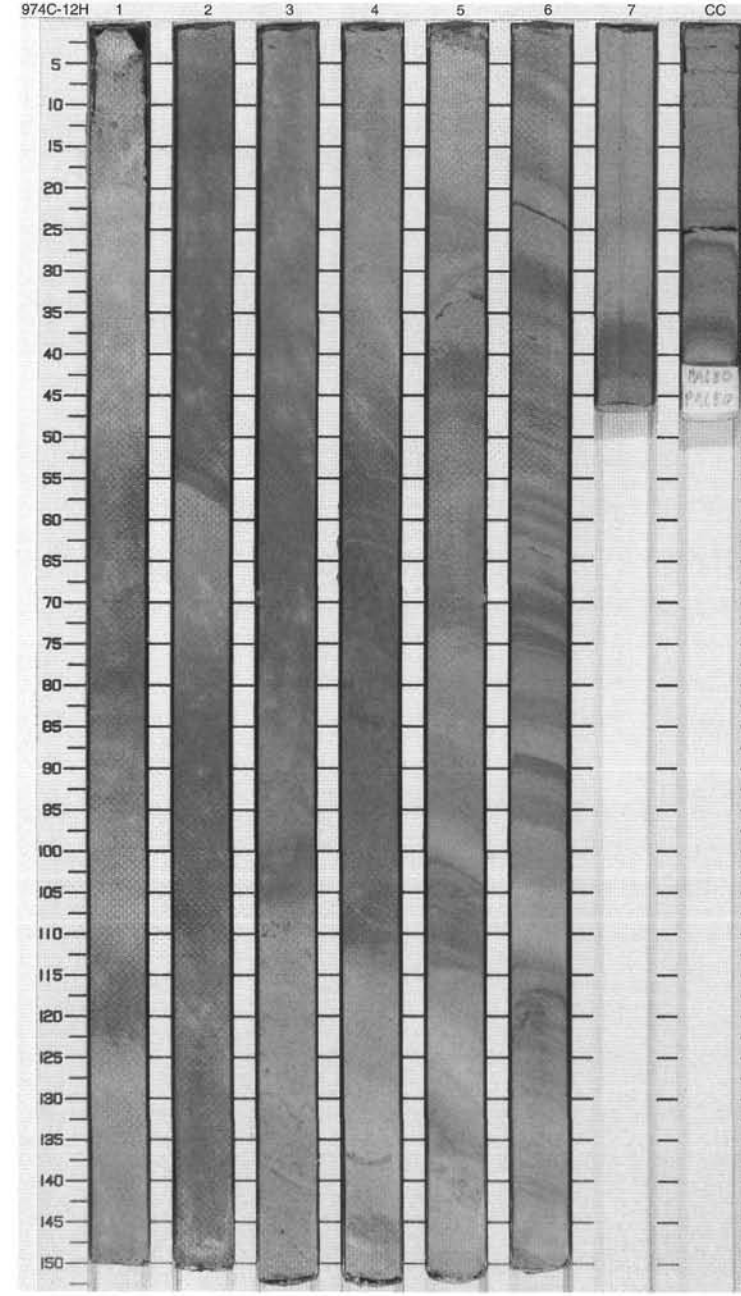
SITE 974 HOLE C CORE 11H CORED 89.8 - 99.3 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1	late Pliocene	–A		S	5Y 4/4 5Y 6/1 5Y 8/4 5GY 6/1 To 5Y 6/1	NANNOFOSSIL CLAY Major Lithology: The core consists of bioturbated NANNOFOSSIL CLAY deformed by slumping. Minor Lithologies: Ash layers and horizons with dispersed ash occur throughout the core.
		2						
		3					5Y 5/2 5Y 5/2 To 5Y 6/1	
		4		–A				
		5		–A			5Y 6/4 To 5Y 6/1	
		6				S		
		7						
		CC				M		



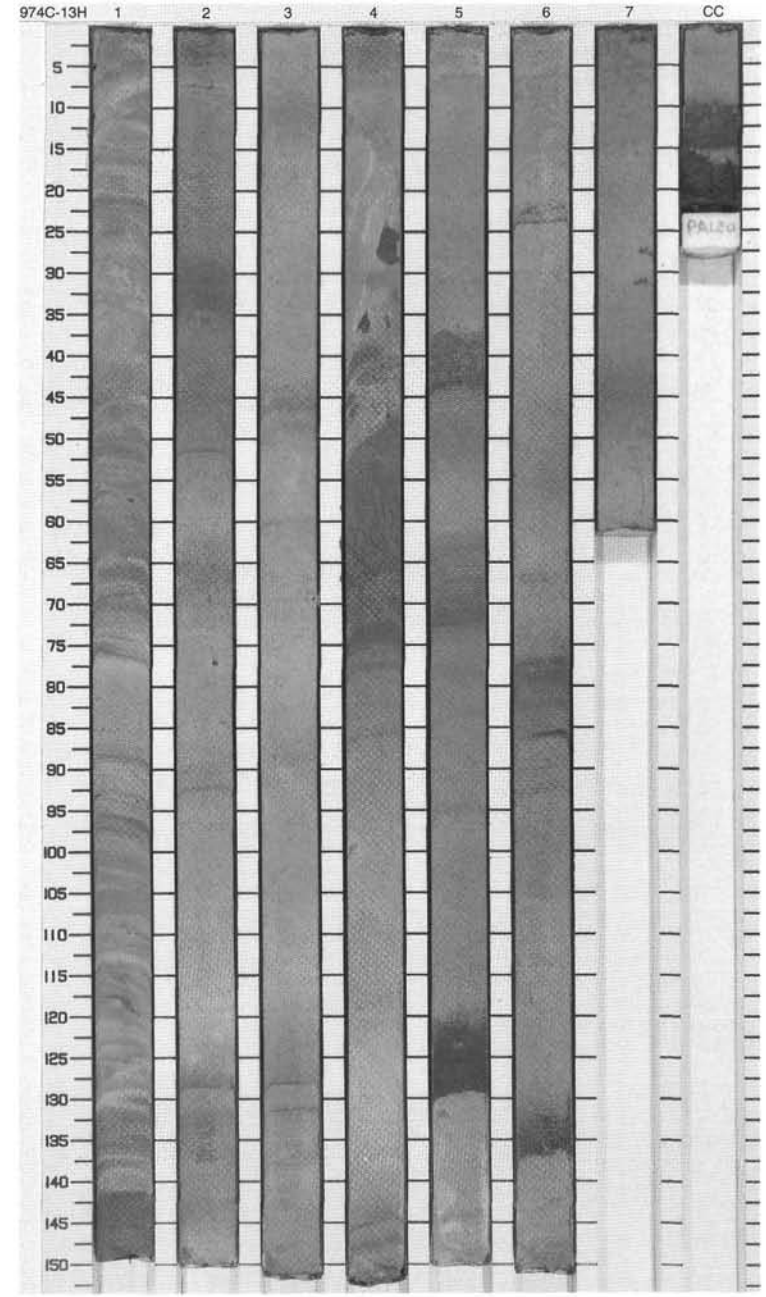
SITE 974 HOLE C CORE 12H CORED 99.3 - 108.8 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7, CC	late Pliocene	–A		S, MS	10YR 5/4 To 5Y 7/2; 10Y 6/2 To 5Y 5/6; 10Y 6/2 To 5Y 5/2; 10Y 6/2 To 5Y 7/2; 5Y 6/1	NANNOFOSSIL CLAY Major Lithology: Core consists of NANNOFOSSIL CLAY that has been bioturbated and deformed by slumping. Subtle color banding from pale yellowish brown (10YR 6/2) to dark yellowish brown (10YR 4/2) is present in a less deformed part of the core. Minor Lithology: Ash is dispersed throughout the core and occurs as medium gray (N5) to light gray (N6) discrete laminae in Sections 4 through 7.



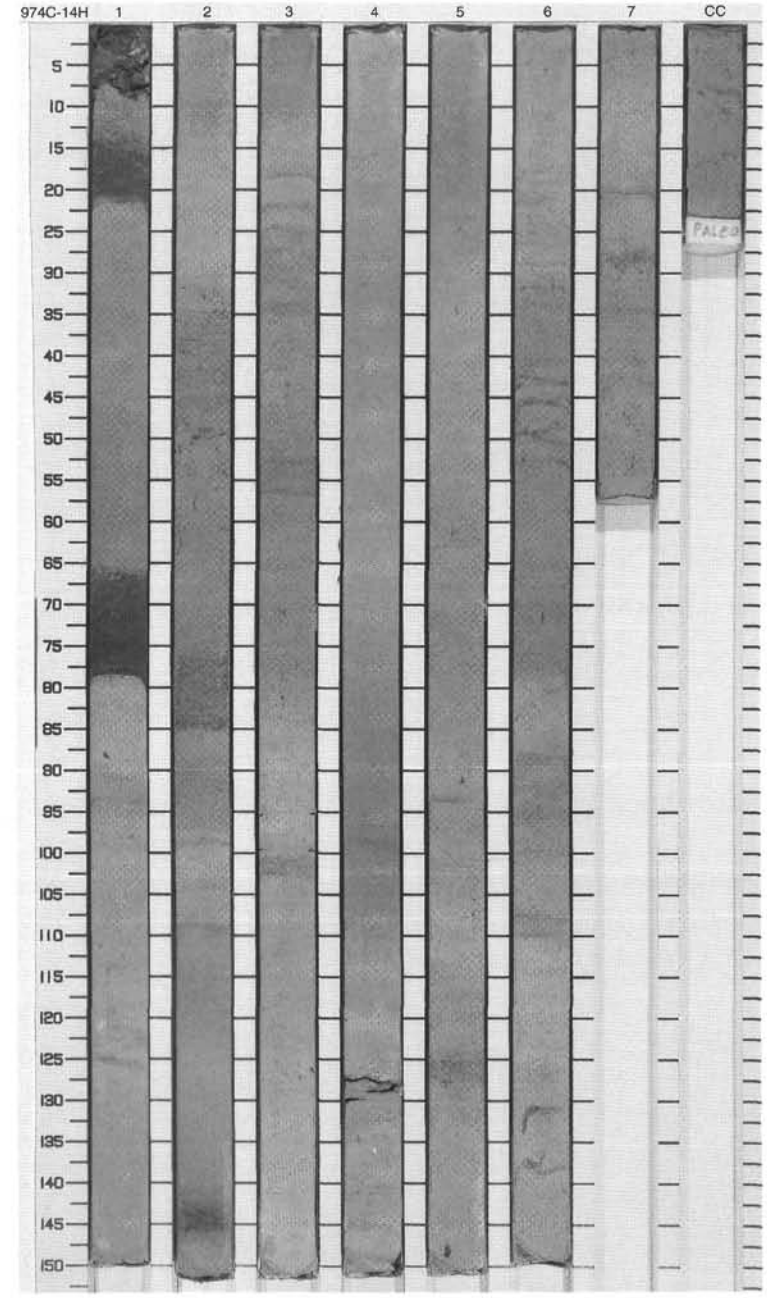
SITE 974 HOLE C CORE 13H CORED 108.8 - 118.3 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1	late Pliocene	–A –A –A			5Y 7/2 To 10YR 5/4	NANNOFOSSIL CLAY Major Lithology: The major lithology is light olive gray (5Y 5/2) to pale yellowish brown (10YR 6/2) NANNOFOSSIL CLAY.
		2					10YR 6/2 To 5Y 5/2	Minor Lithologies: Olive gray (5Y 4/1) ash layers are silty at the base and grade upward to clay. Glass within these layers is locally altered to zeolites and clay minerals.
		3				S	10YR 6/2	General Description: Slump structures occur at 0–90 cm in Section 1. Water-escape structures occur at 50–65 cm in Section 4, below a layer of gravel-sized interclasts of other lithologies in the core, including altered tuff fragments.
		4					10YR 6/2 To 5Y 6/4	
		5		Z –A		S	5Y 5/2 To 5Y 6/1	
		6		–A		S	10Y 6/2	
		7						
		CC		Z –A		M		



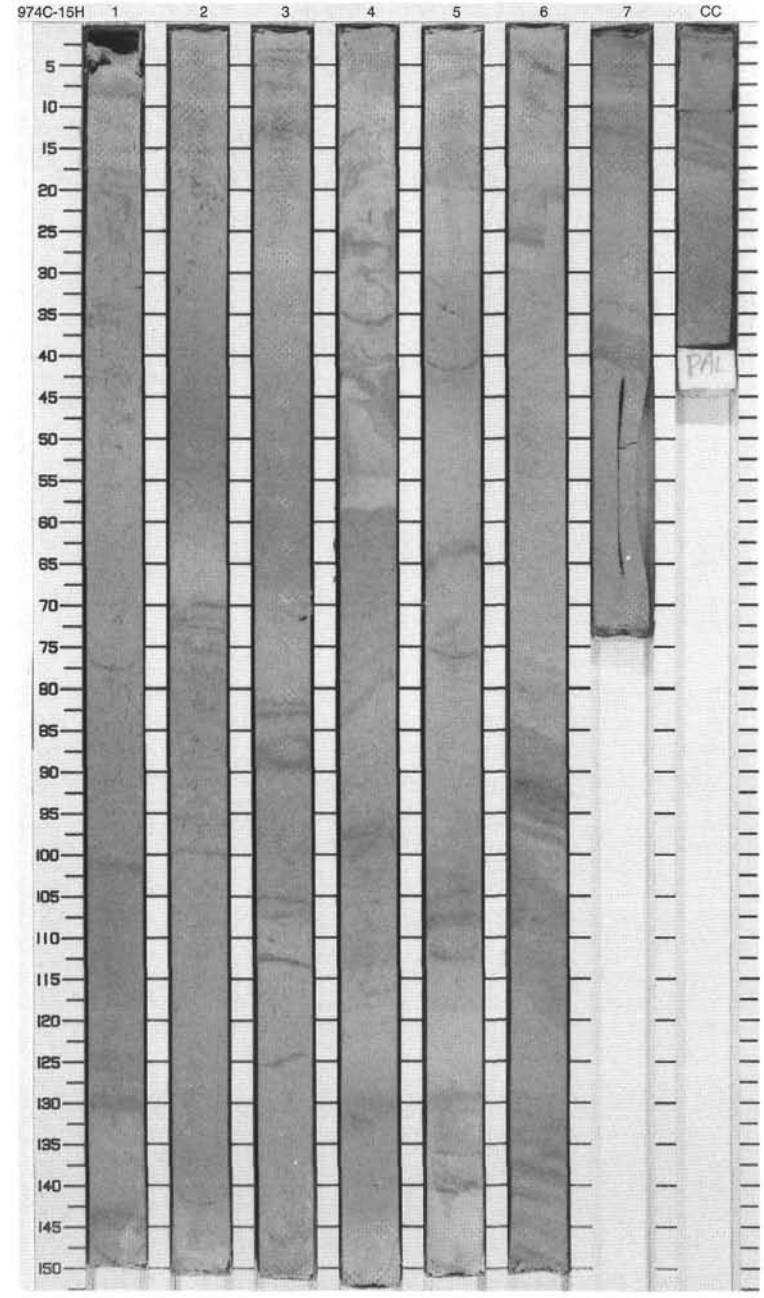
SITE 974 HOLE C CORE 14H CORED 118.3 - 127.8 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1	late Pliocene	–A, –A, A•			5GY 6/1 To 10Y 6/2	NANNOFOSSIL CLAY Major Lithology: Core consists of bioturbated NANNOFOSSIL CLAY that exhibits local color banding. The predominant lithology is greenish gray (5GY 6/1) and light olive gray (5Y 6/1 and 5Y 5/2) with common color bands of pale olive (10Y 6/2) and dusky yellow (5Y 6/4). Minor Lithology: Medium gray (N5) to dark greenish gray (5GY 4/1) ash layers, locally zeolitized, are present in Sections 1 and 2. Minor to moderate dispersed ash is present in Sections 1, 3, 5, 6, and 7.
		2		–A		S	5Y 6/1	
		3						
		4						
		5		A•		S	5Y 5/2 To 5Y 6/4	
		6						
		7					5Y 6/1	
		CC				M		



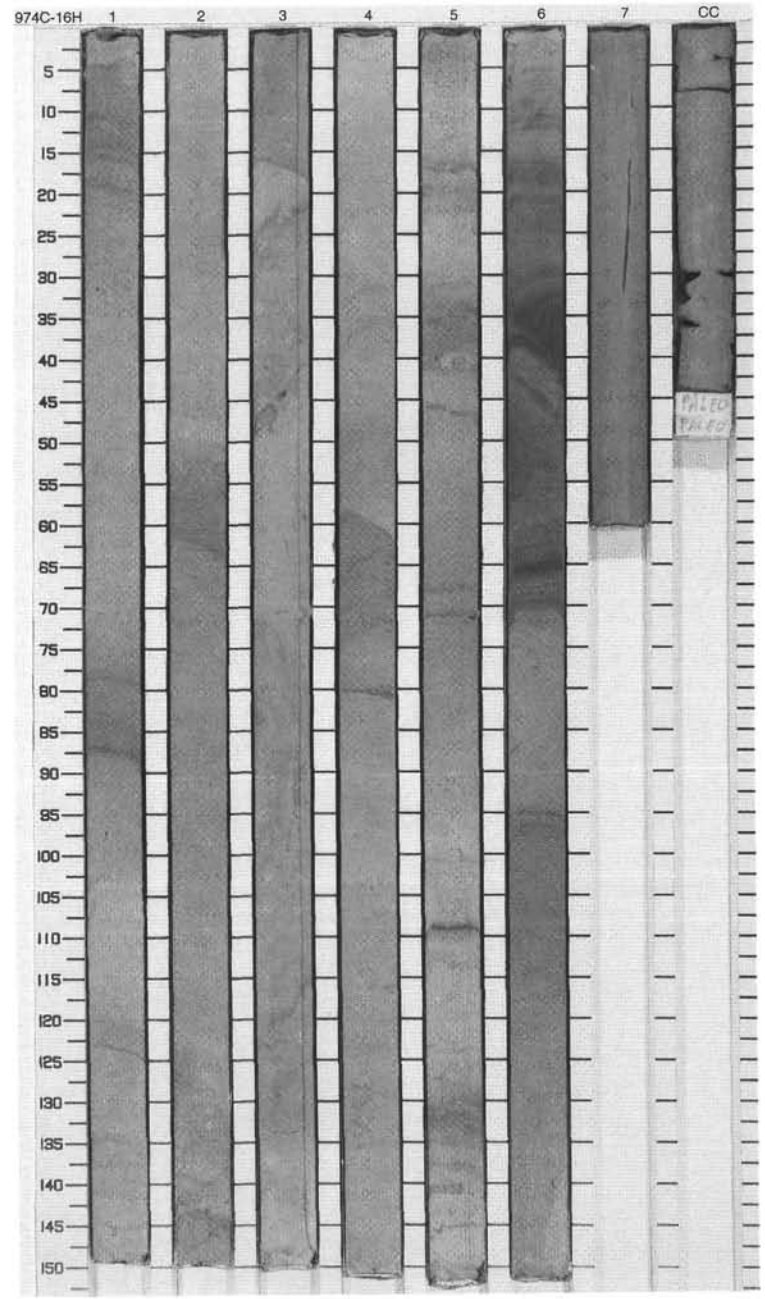
SITE 974 HOLE C CORE 15H CORED 127.8 - 137.3 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–10		1–7, CC	late Pliocene			S, M	5Y 6/1 To 5Y 7/2; 5Y 5/2 To 5Y 6/4; 5Y 5/2 To 5Y 7/2; 5Y 4/1 To 5Y 6/4; 5Y 5/2 To 5Y 6/4; 5Y 7/2; 10YR 4/2; 5Y 5/2 To 5Y 6/1	NANNOFOSSIL CLAY TO NANNOFOSSIL OOZE Major Lithology: Thin color bands with the NANNOFOSSIL CLAY TO NANNOFOSSIL OOZE range from light olive gray (5Y 5/2) to dusky yellow (5Y 6/4). Minor Lithology: Ash is dispersed throughout the core. Ash-rich intervals of NANNOFOSSIL CLAY TO NANNOFOSSIL OOZE are dusky yellow (5Y 6/4) in color. General Description: Contorted bedding at 5–55 cm in Section 4 may be due to slumping.



SITE 974 HOLE C CORE 16H CORED 137.3 - 146.8 mbsf

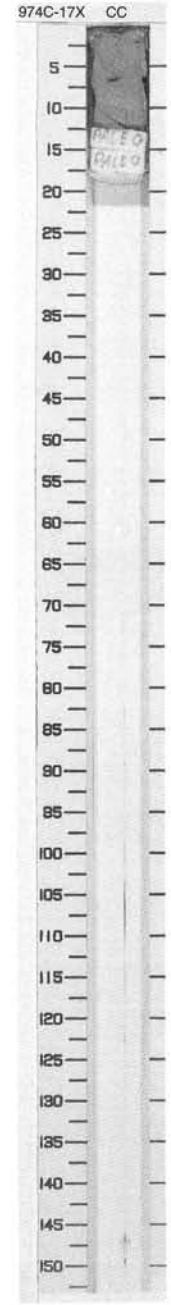
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–10		1	early Pliocene–late Pliocene	A•			5Y 5/2 To 5Y 6/4	NANNOFOSSIL CLAY, NANNOFOSSIL OOZE and NANNOFOSSIL SILTY CLAY Major Lithologies: Beds of NANNOFOSSIL CLAY, NANNOFOSSIL SILTY CLAY, and NANNOFOSSIL OOZE comprise the core. These are locally thinly color banded and/or disturbed by slumping. Minor Lithology: Dispersed ash is present throughout the core.
		2					5YR 6/2 To 5Y 6/4	
		3				S		
		4					5YR 6/1 To 5Y 6/4	
		5				S		
		6				S	5Y 6/1 To 5Y 4/4	
		7					5Y 5/2	
		CC				M		



SITE 974 HOLE C CORE 17X CORED 146.8 - 156.4 mbsf

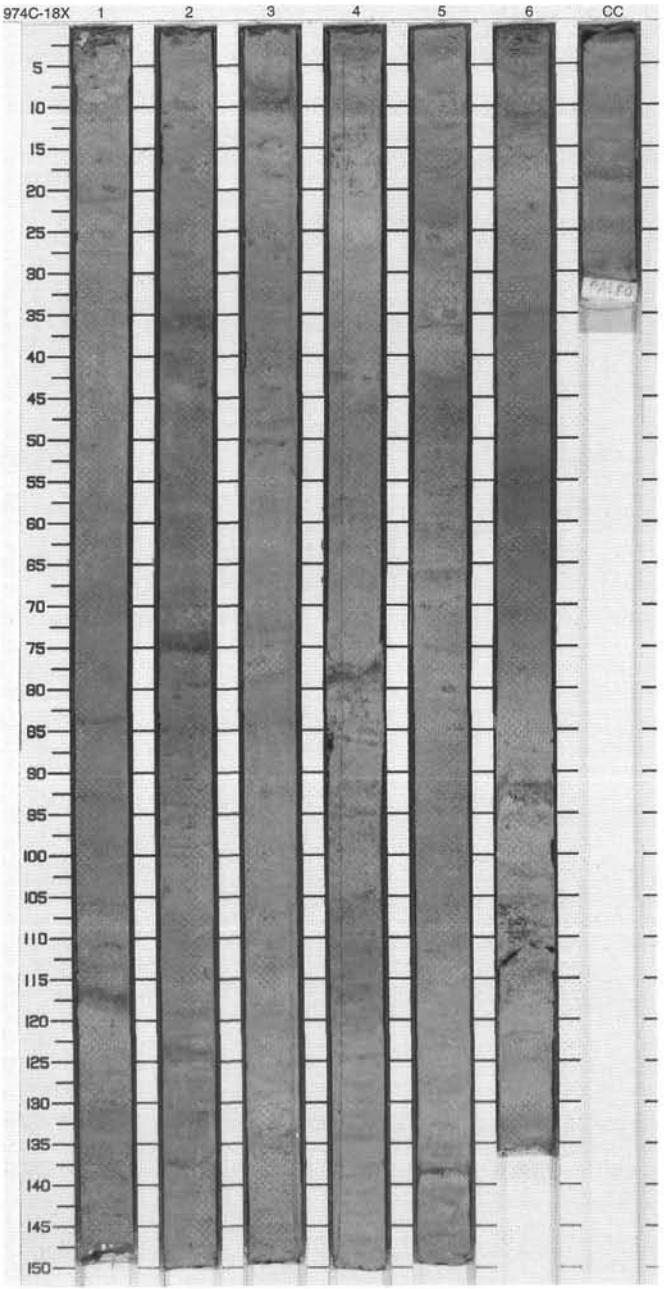
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		CC						NANNOFOSSIL CLAY

Major Lithology:
Only thin interval of homogeneous pale yellowish brown (10YR 6/2) NANNOFOSSIL CLAY recovered; 5 cm given to paleontologists.



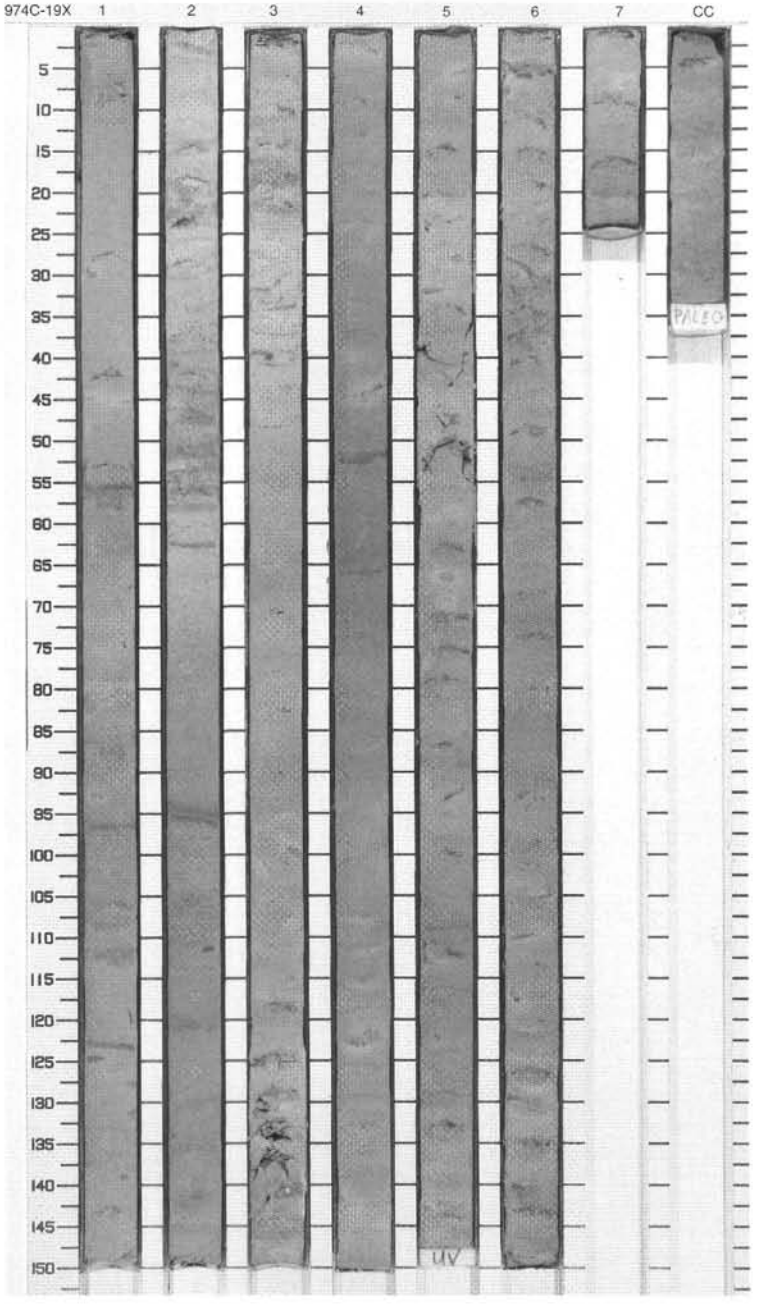
SITE 974 HOLE C CORE 18X CORED 156.4 - 166.1 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–6, CC	early Pliocene	A•		S, M	5Y 5/2 To 5Y 6/2; 5Y 5/2 To 5Y 4/1; 5Y 5/2 To 5Y 6/1	NANNOFOSSIL CLAY Major Lithology: The predominant lithology is light olive gray (5Y 5/2, 5Y 6/1) to pale olive (5Y 6/2) and olive gray (5Y 4/1) NANNOFOSSIL CLAY with local bioturbation and color banding. Minor Lithologies: Dispersed ash is present from Sections 1 to 6.



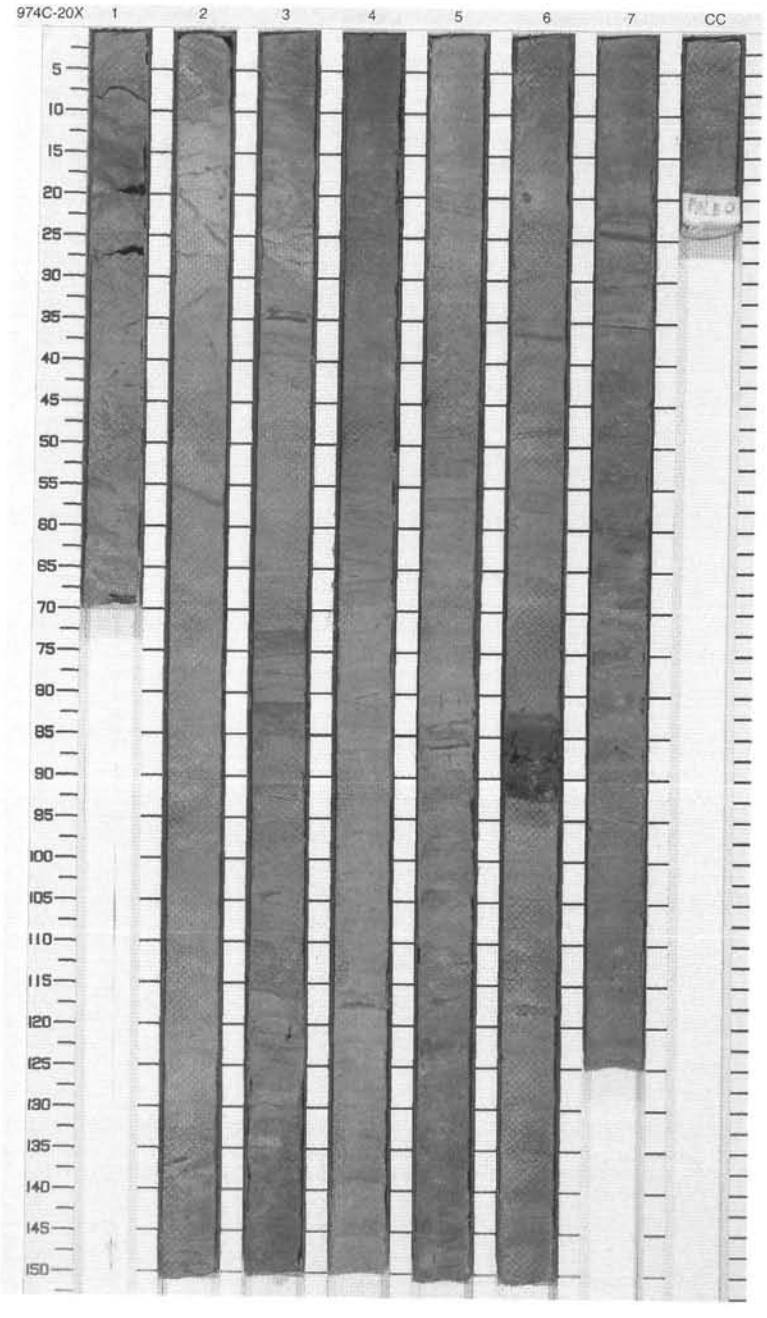
SITE 974 HOLE C CORE 19X CORED 166.1 - 175.7 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1, 2, 3, 4, 5, 6, 7, CC	early Pliocene			S, S, M	5Y 5/2 To 5Y 6/4; 5Y 5/2 To 5Y 6/1; 5Y 5/2	NANNOFOSSIL CLAY Major Lithology: The predominant lithology is light olive gray (5Y 5/2, 5Y 6/1) to dusky yellow (5Y 6/4) NANNOFOSSIL CLAY. Silt-sized nannofossils are commonly concentrated in pods. Alternation of the light olive gray and dusky yellow colors along with occasional intervals of dark gray (N3) create a color-banded appearance. General Description: A possible organic-rich layer is present in Section 2, at 36–57 cm.



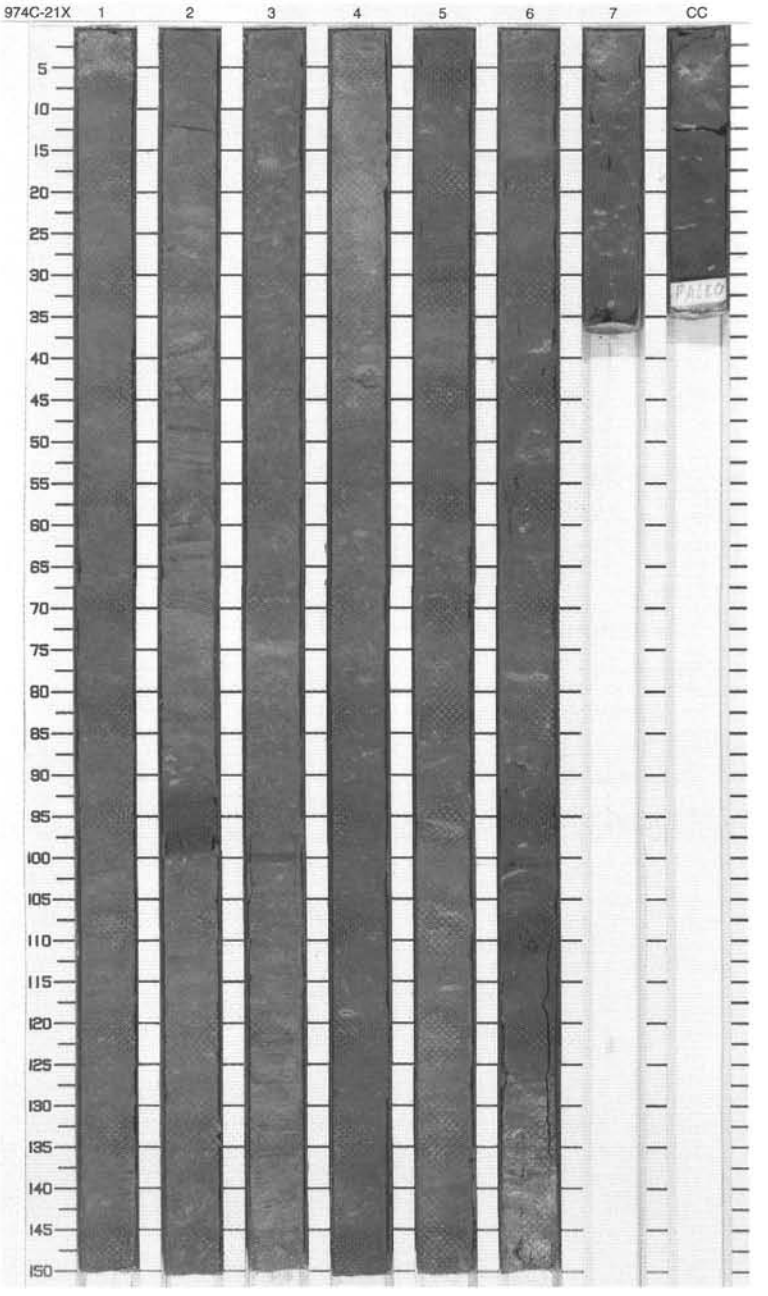
SITE 974 HOLE C CORE 20X CORED 175.7 - 185.3 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7, CC	early Pliocene			S, M	5Y 5/2 To 5Y 4/1; 5Y 5/6 To 5Y 4/4; 5Y 5/2; 5Y 5/2 To 5Y 4/4	NANNOFOSSIL CLAY Major Lithology: The predominant lithology is NANNOFOSSIL CLAY, light olive gray (5Y 5/2) in color with bands of olive gray (5Y 4/1) and moderate olive brown (5Y 4/4). A bluish green (10G 4/2) clay layer is present from 82–92 cm in Section 6. General Description: The core is slightly to heavily bioturbated and color mottled throughout. Drilling disturbance is extensive as indicated by development of biscuits.



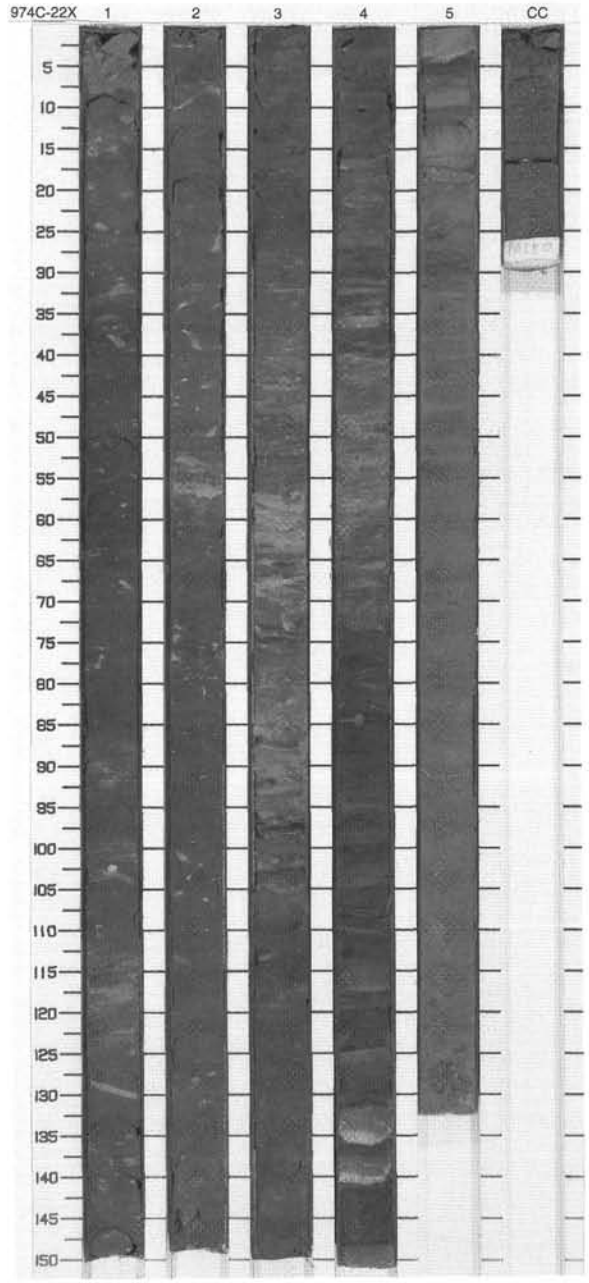
SITE 974 HOLE C CORE 21X CORED 185.3 - 194.9 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1	late Miocene –early Pliocene				5Y 4/4 To 5Y 5/2	NANNOFOSSIL CLAY Major Lithology: The main sediment type is a burrowed/bioturbated NANNOFOSSIL CLAY which is predominantly moderate olive brown (5Y 4/4) in color but also includes light olive brown (5Y 5/6) and light olive gray (5Y 5/2) varieties. Color mottles and burrows are most commonly dark greenish gray (5G 4/1). Rare very faint color bands are moderate olive brown (5Y 4/4) in the upper half of the core, but are moderate brown (5YR 4/4 to 5YR 3/4) below this. Minor Lithologies: Rare local concentrations of foraminifers occur both in layers and in isolated pods; the latter were probably formed by bioturbation of original layers. General Description: Core "biscuiting" occurs commonly throughout. Evidence for biological reworking ranges from indistinct mottling to clearly defined horizontal *Zoophycos* and *Chondrites* traces.
		2						
		3						
		4					5Y 4/4 To 5Y 5/6	
		5				S		
		6					5Y 5/6 To 5YR 4/4	
		7						
		CC				S M		



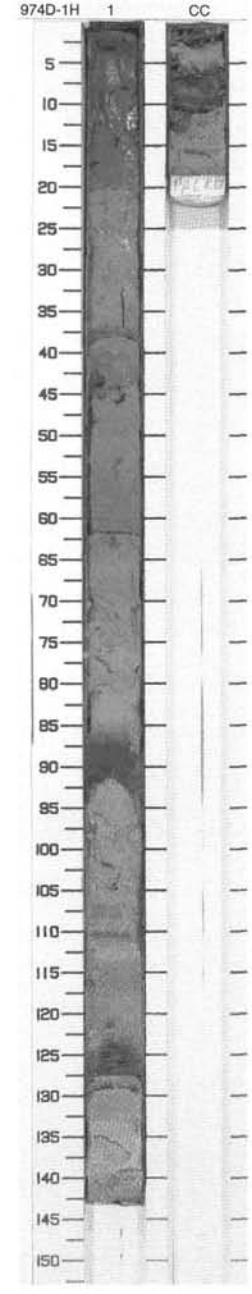
SITE 974 HOLE C CORE 22X CORED 194.9 - 204.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–7		1–5, CC	late Miocene –early Pliocene			S, S, M	5YR 3/4 To 5Y 4/4; 10YR 5/4 To 5Y 4/4; 10Y 4/2 To 5Y 4/1; N5	NANNOFOSSIL CLAY Major Lithology: The predominant lithology is a NANNOFOSSIL CLAY that varies in color from moderate brown (5YR 3/4 and 5YR 4/4) to moderate olive brown (5Y 4/4) and moderate yellowish brown (10YR 5/4). This interval is moderately to highly bioturbated; burrows are commonly filled with gray or white silty clay. Minor Lithologies: An interval of varicolored [very dusky red (10R 2/2), olive gray (5Y 4/1), moderate olive brown (5Y 4/4), and greenish black (5GY 2/1)] clay from Section 4, 85 cm to Section 5, 30 cm, contains a few thin interbeds of very light gray (N8) nannofossil ooze. Grayish olive (10Y 4/2) to olive gray (5Y 4/1) calcareous feldspathic(?) silty clay to clayey silt grades downward to an interval of medium gray (N5) calcareous sand near the bottom of Section 5.

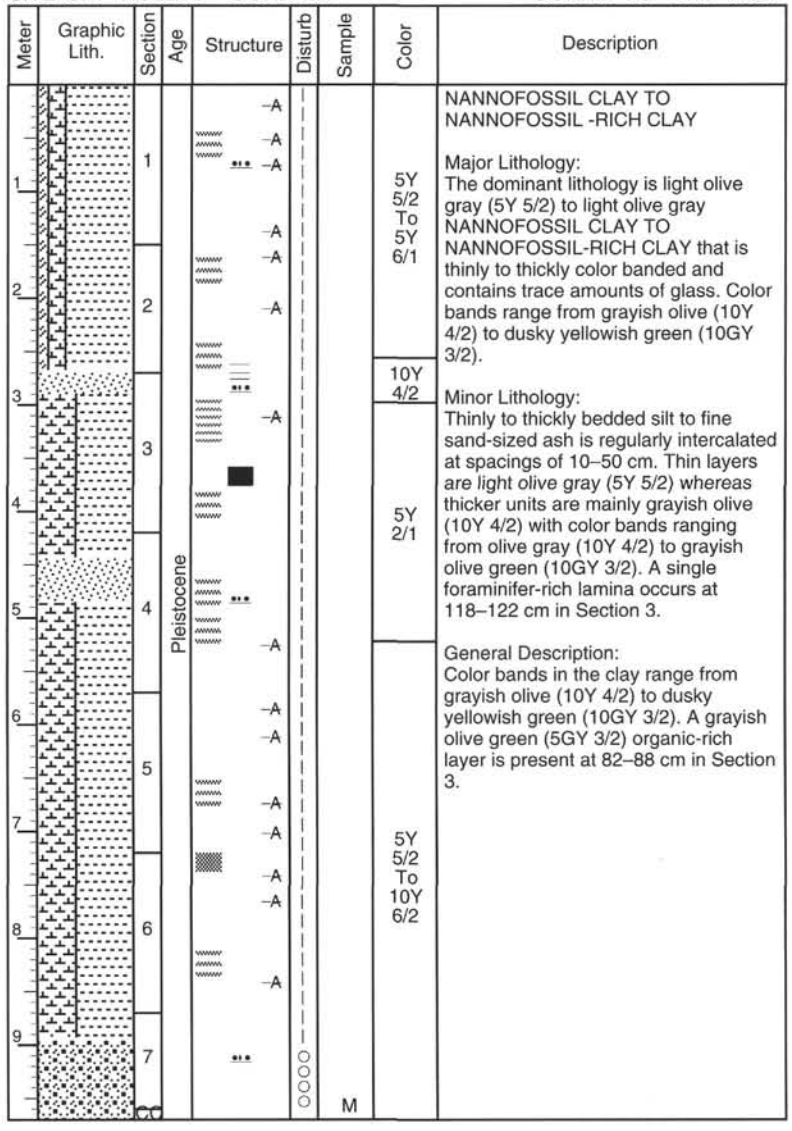


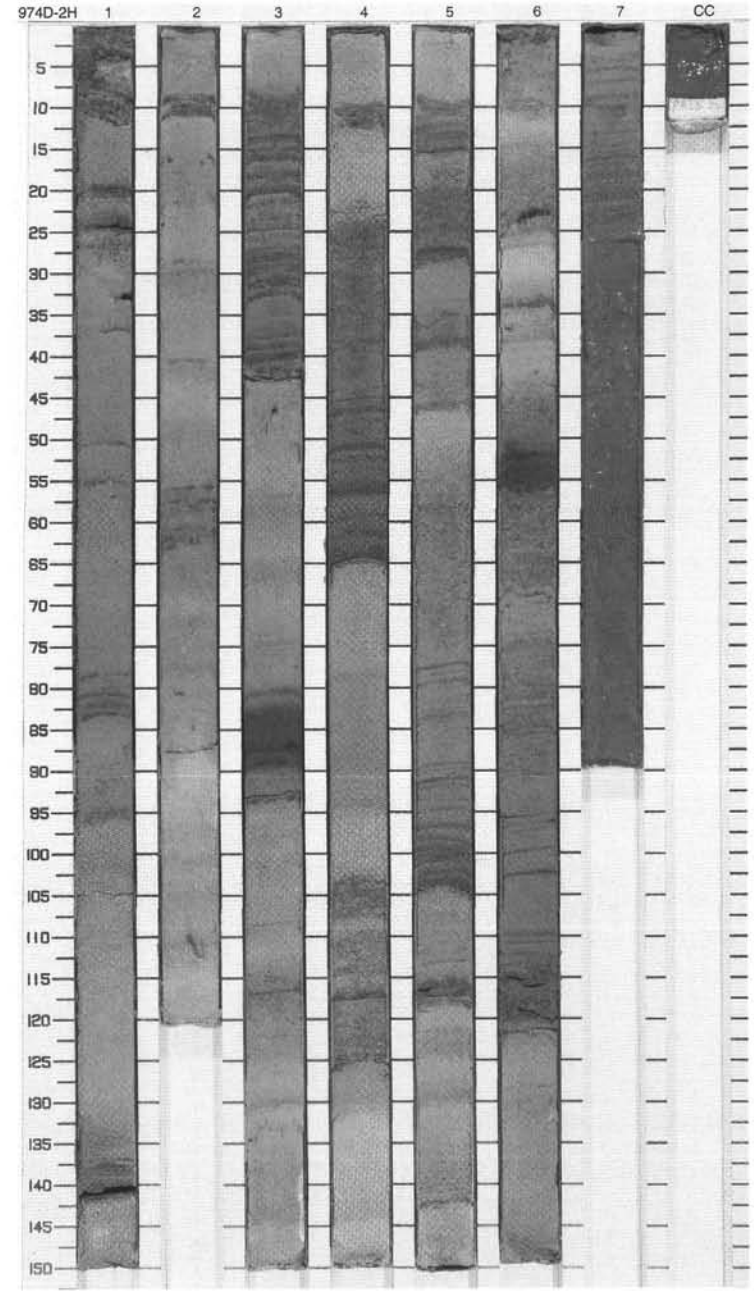
SITE 974 HOLE D CORE 1H CORED 0.0 - 1.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1 CC	Pleistocene	~~~ –A ~~~ –A ~~~ –A	○○	S M	10YR 6/2	NANNOFOSSIL-RICH CLAY Major Lithology: The predominant lithology is massive to faintly color banded NANNOFOSSIL-RICH CLAY which is pale yellow brown (10YR 6/2). Minor Lithology: Thin beds of brownish gray (5YR 4/1) to olive gray (5Y 4/1) fine-grained volcaniclastic sand occur at spacings of 30–90 cm. These layers are composed mainly of volcanic glass with up to 15% bioclasts.



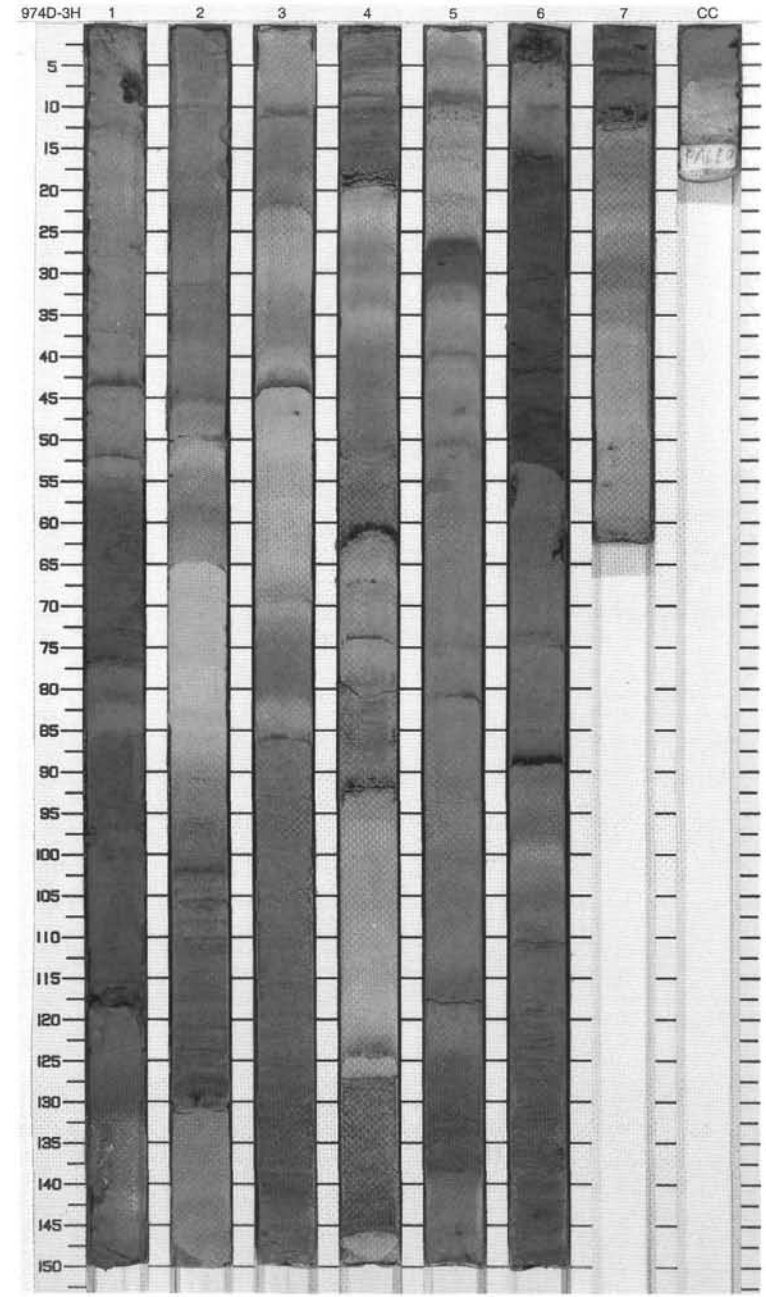
SITE 974 HOLE D CORE 2H CORED 1.5 - 11.0 mbsf





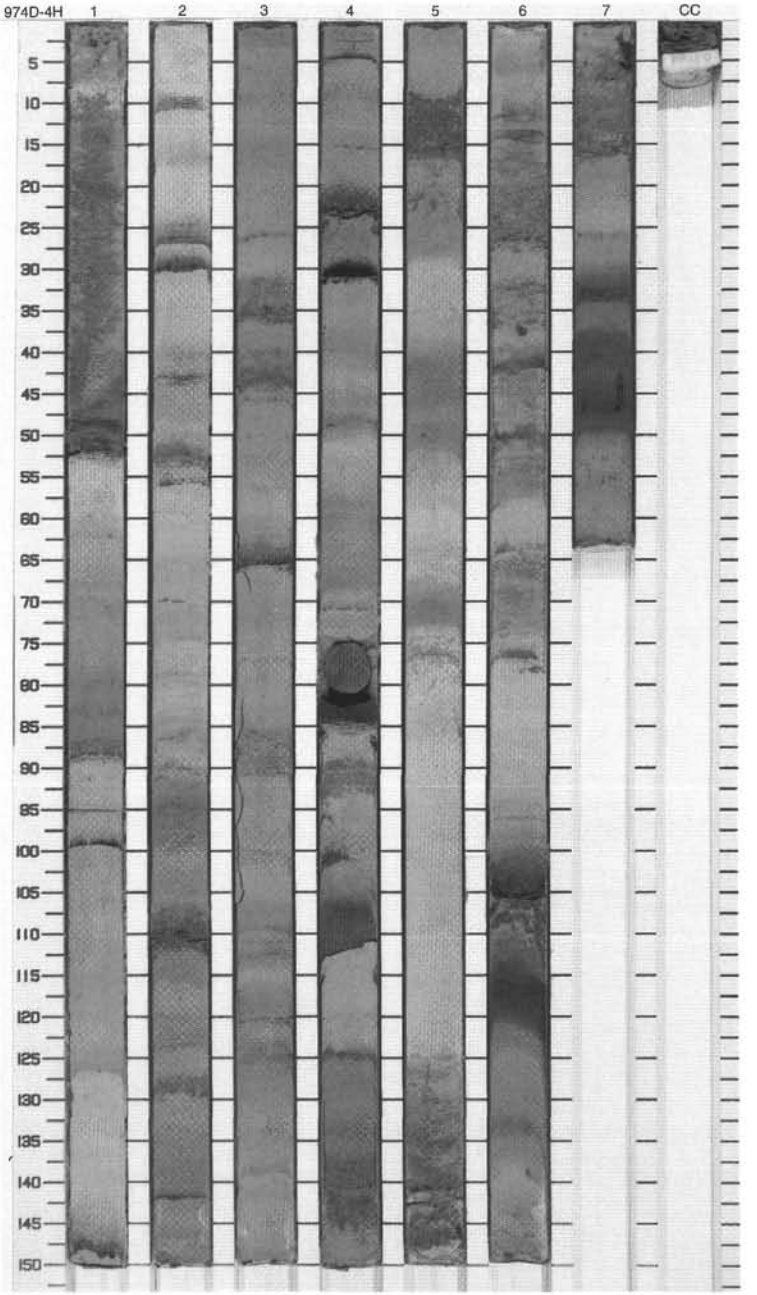
SITE 974 HOLE D CORE 3H CORED 11.0 - 20.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7, CC	Pleistocene	A, –A		S, M	5Y 5/2 To 5Y 6/1; 5Y 5/2	NANNOFOSSIL CLAY TO CLAYEY NANNOFOSSIL OOZE Major Lithology: The predominant lithologies are NANNOFOSSIL CLAY TO CLAYEY NANNOFOSSIL OOZE with visible dispersed foraminifers. Minor Lithology: Two minor sediment types are present. Silty clay occurs mainly above ash layers where units are up to 25 cm thick. Colors range from light olive gray (5Y 5/2) to grayish olive green (5GY 3/2). Ash layers are regularly present throughout the core at spacings from 40–80 cm. Individual ash layers are from <1 to 3 cm thick and from olive black (5Y 2/1) to olive gray (5Y 4/1) in color. Ash layers account for approximately 5% of the total core thickness. General Description: Color bands in the principal lithologies range from thin to medium in thickness. The former are mainly dusky yellow green (5GY 5/2) to grayish olive (10Y 4/2) whereas the latter are light olive gray (5Y 5/2). One organic-rich layer is present from 26–32 cm in Section 5. This layer is olive gray (5Y 4/1) in color.



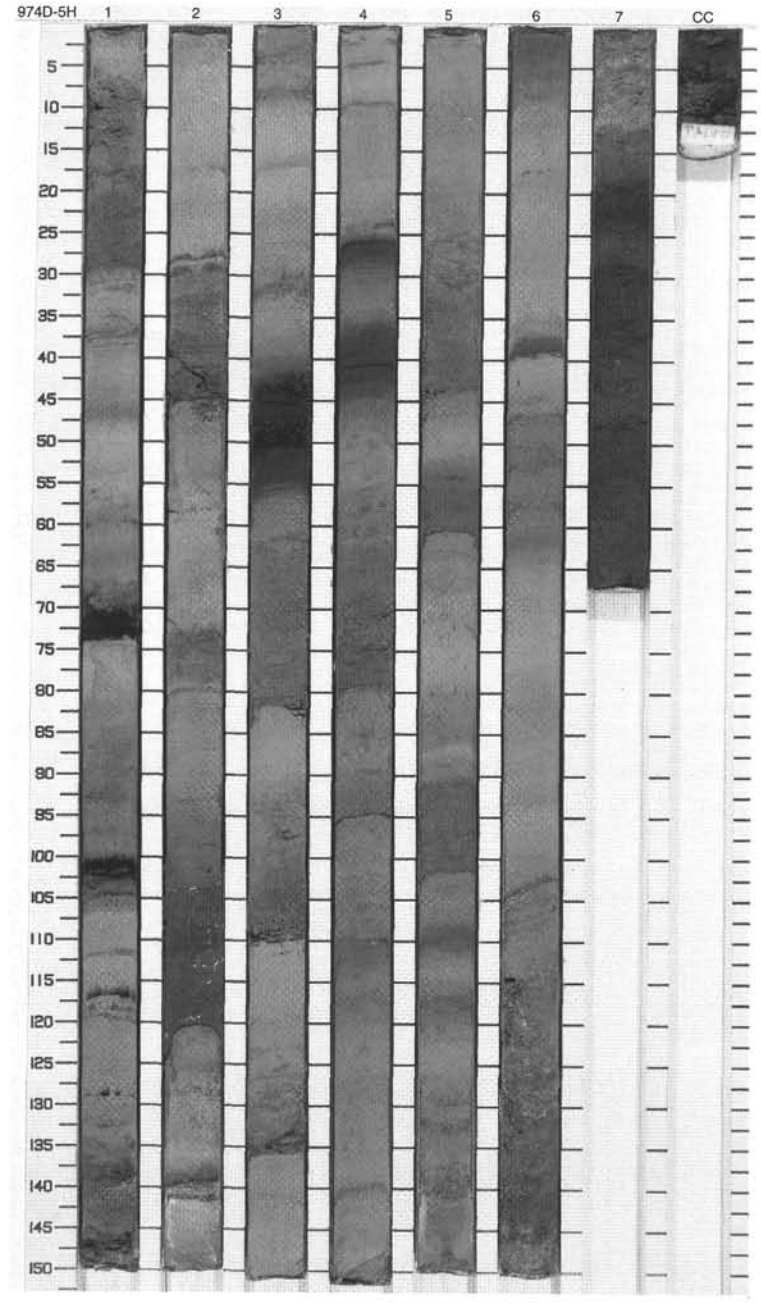
SITE 974 HOLE D CORE 4H CORED 20.5 - 30.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1	Pleistocene			S	5Y 5/2	NANNOFOSSIL CLAY Major Lithology: The main lithology in this core is a NANNOFOSSIL CLAY with some color banding and minor bioturbation. Color bands range from medium dark gray (N3), dark greenish gray (4Y 5/1), and pale olive (10Y 6/2).
							5Y 6/1	
		2						Minor Lithology: Thin mainly fine, but up to coarse ash beds ranging from olive black (5Y 2/1) to olive gray (5Y 4/1) are present throughout the core. Most are <1 mm in thickness. Two distinctive layers containing cemented nodules/concretions are present at 75 cm in Section 4 and 102 cm in Section 6. One normally graded fine-grained sand occurs at the top of the core (10–53 cm in Section 1). This unit is composed mainly of glass fragments.
		3					5Y 6/1 To 5Y 5/2	
		4		A				General Description: Two dark organic-rich layers are present; in Section 6 from 114.5 to 122 cm and in Section 7 from 30.5 to 49.5 cm. The former is greenish black (10GY 2/1) and the latter is composite and grayish olive green (5GY 3/2).
		5					10Y 6/2 To 5Y 5/2	
		6						
		7				M	5Y 5/2	
		CC						



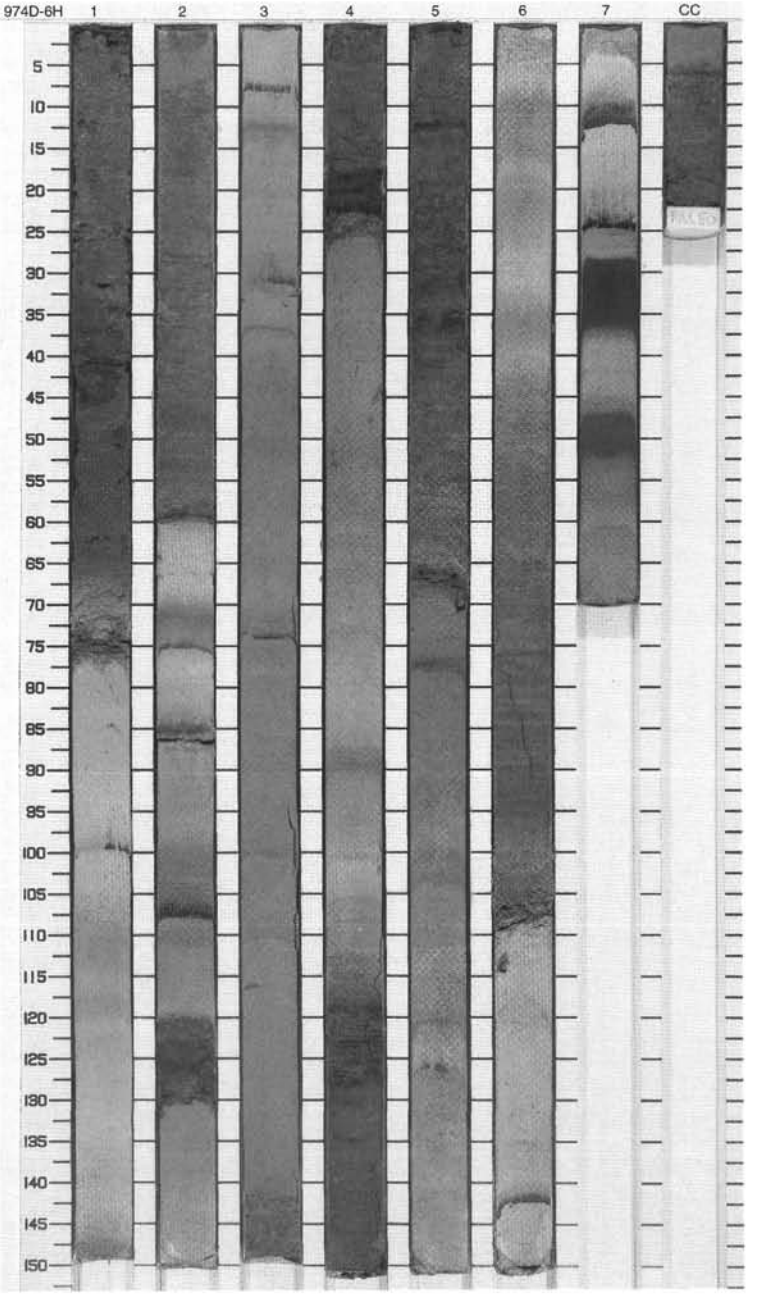
SITE 974 HOLE D CORE 5H — CORED 30.0 - 39.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1	Pleistocene	–A, –A, A•, –A		S	5Y 5/2 To 10YR 6/2	NANNOFOSSIL-RICH CLAY TO SILTY CLAY Major Lithology: The major lithology is NANNOFOSSIL RICH CLAY TO SILTY CLAY with local medium color banding that ranges from light olive gray (5Y 5/2, 5Y 6/1) to pale yellowish brown (10YR 6/2), to dusky yellow green (5GY 5/2), to dark greenish gray (5GY 4/1). Minor Lithology: Ash is present as discrete layers in Section 1 at 70–73 cm, at 99.5–103 cm, and at 104.5–105.5 cm, in Section 3 at 42–40 cm, and in Section 6 at 18–67 cm. Dispersed ash is present throughout the core. General Description: Organic-rich layers within the core are olive gray (5Y 3/2) to greenish black (5Y 2/1). These are present in Section 3 at 41.5–56 cm, in Section 4 at 25.5–29 cm and at 110–112.5 cm, in Section 5 at 107.5–111 cm, and in Section 6 at 0.5–6 cm.
		2		–A	○○		5Y 5/2 To 5GY 5/2	
		3		–A				
		4					5Y 6/1	
		5					5Y 6/1 To 5GY 4/1	
		6				S		
		7		–A			5Y 2/1	
		CC		–A		M		



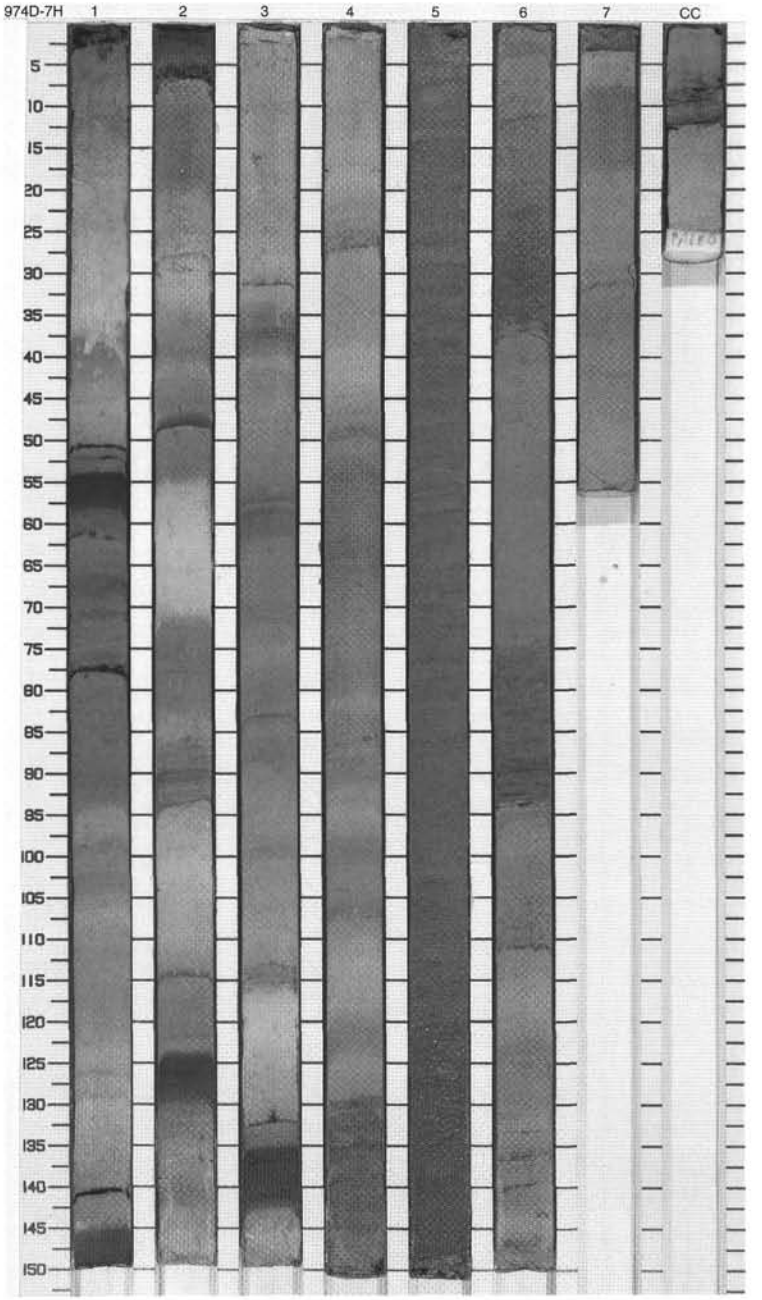
SITE 974 HOLE D CORE 6H CORED 39.5 - 49.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7, CC	Pleistocene	–A, A•, –A, –A, –A, –A, –A, A•, –A, A•, –A		S, S, S, M	5GY 3/2; 5GY 6/1 To 5Y 6/1; 10Y 6/2 To 5Y 4/4; 5Y 6/1 To 5Y 4/1; 5Y 5/2 To 5GY 2/1	NANNOFOSSIL CLAY TO NANNOFOSSIL-RICH CLAY Major Lithology: The principal lithology ranges from NANNOFOSSIL CLAY to NANNOFOSSIL-RICH CLAY, both of which are locally color banded. The main colors in Sections 1, 2, and 3 are greenish gray (5GY 6/1) to light olive gray (5Y 6/1) and pale olive (10Y 6/2) to moderate olive brown (5Y 4/4), whereas Sections 3, 4, and 5 are mainly greenish gray (5GY 6/1) and olive gray (5Y 4/1). Minor Lithology: Ash layers and zeolitized ash layers up to 75 cm in thickness are present in Sections 1, 2, 3, and 6. General Description: Greenish black (5GY 2/1) organic-rich layers are present in light olive gray (5Y 5/2) nannofossil rich clay at 28–37 cm and at 47–53 cm in Section 7 .



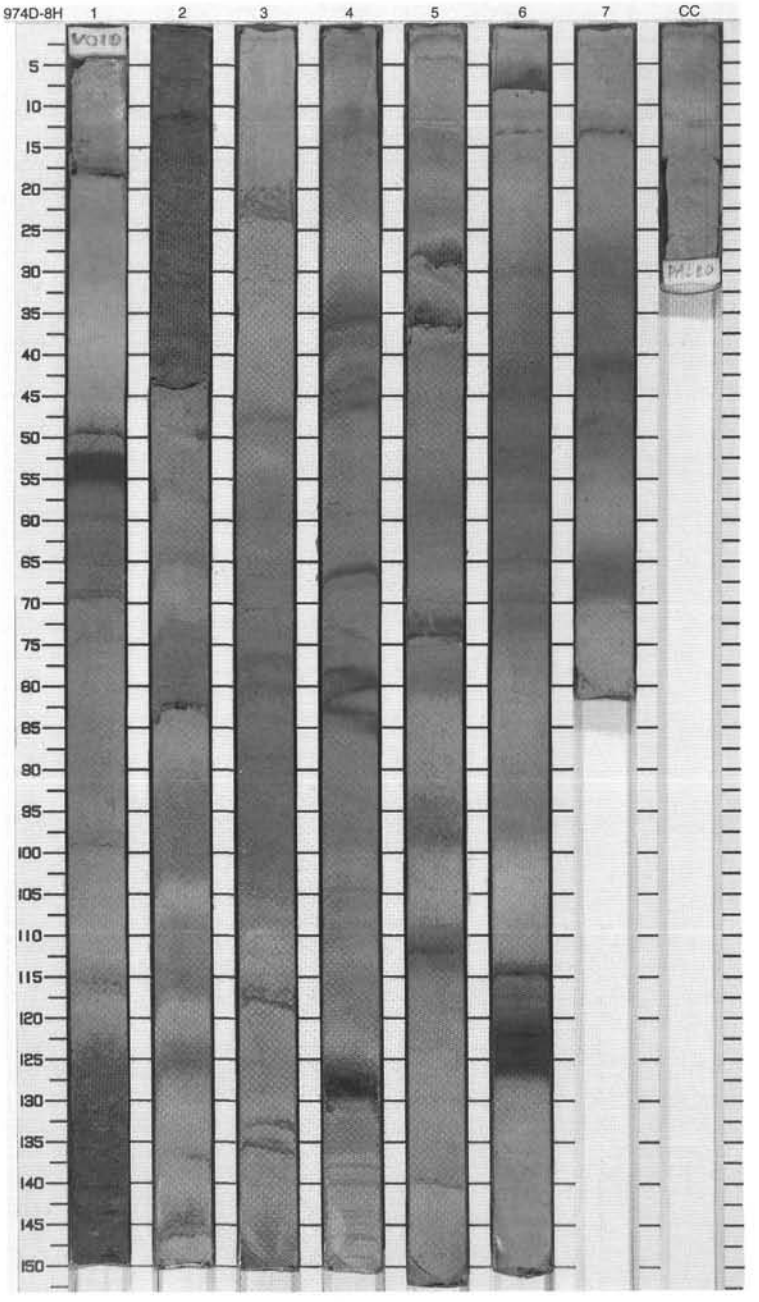
SITE 974 HOLE D CORE 7H CORED 49.0 - 58.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1	Pleistocene	–A			5Y 5/2	NANNOFOSSIL-RICH CLAY and ASH Major Lithologies: The predominant lithology is light olive gray (5Y 5/2) to pale olive (10Y 6/2) NANNOFOSSIL-RICH CLAY. A second dominant lithology is a 170 cm thick greenish gray (5GY 6/1) laminated ASH layer in Sections 4 and 5, that is locally altered to zeolites. Gray (N2–N5) ASH layers and dispersed ASH are present throughout the core. General Description: Olive gray (5Y 3/2) to olive black (5Y 2/1) organic-rich layers are present in Section 1 (54–58 cm, 66–69 cm), across Sections 1 (115–146 cm) and 2 (0–4 cm), in Section 2 (124.5–130 cm), in Section 3 (136–143 cm), and in Section 4 (46–46.5 cm).
				–A				
				–A			10Y 6/2	
				–A				
		2						
				–A			10Y 6/2 To 5Y 5/2	
		3						
		4						
		5		–A		S	5GY 5/2 To 5GY 4/1	
				–A				
				–A				
		6		–A		S	5Y 5/2 To 5GY 5/2	
				–A				
		7		–A				
		CC		–A		M		



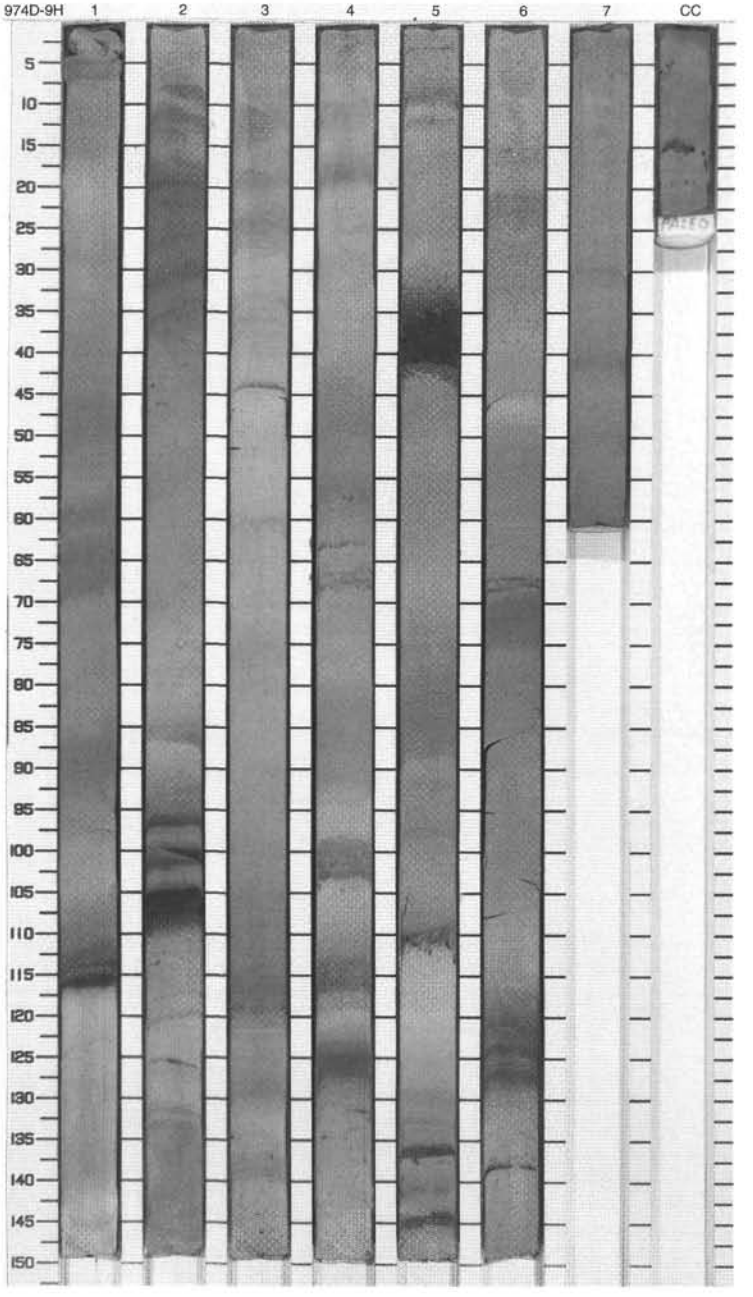
SITE 974 HOLE D CORE 8H CORED 58.5 - 68.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–10		1	Pleistocene	–A			5Y 6/1 To 5Y 7/1	NANNOFOSSIL CLAY and NANNOFOSSIL-RICH CLAY TO SILTY CLAY Major Lithologies: The core consists of alternating layers of NANNOFOSSIL CLAY and NANNOFOSSIL-RICH CLAY TO SILTY CLAY. Some lighter intervals may grade to NANNOFOSSIL OOZE. Minor Lithology: Medium dark gray (N4) to grayish olive (10Y 4/2) ash occurs in discrete thin beds and in dispersed pods. One altered thick ash bed extends from Section 1 to Section 2. General Description: Organic-rich layers occur at the following intervals: Section 1, 51–55 cm; Section 4, 46–46.5 and 67–67.5 cm; Section 6, 122–127 cm; and Section 7, 40–42 cm.
							5Y 5/2	
		2		–A			5GY 6/1	
							10Y 6/2	
		3					5GY 7/2	
							10Y 6/2 To 5Y 5/2	
		4		–A		S	5GY 6/1 To 5Y 5/2	
				–A			5Y 4/4	
		5		–A –A				
				–A –A				
		6		A•			5Y 5/2 To 5Y 6/1	
		7				S		
		CC				M		



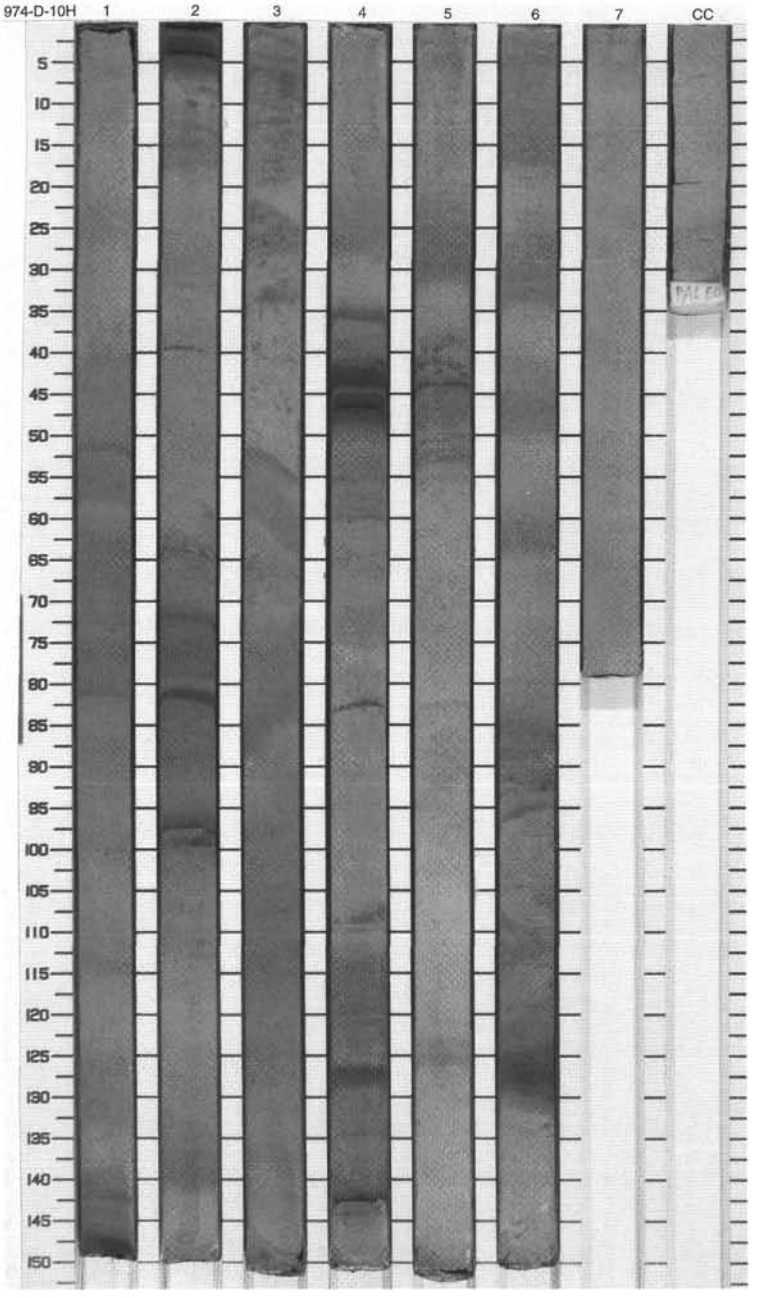
SITE 974 HOLE D CORE 9H CORED 68.0 - 77.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7, CC	Pleistocene–late Pliocene			S, S, M	10Y 6/2 To 5Y 5/2	NANNOFOSSIL CLAY AND NANNOFOSSIL-RICH SILTY CLAY and NANNOFOSSIL OOZE Major Lithologies: The core consists of alternating layers of NANNOFOSSIL CLAY and NANNOFOSSIL-RICH SILTY CLAY with color banding from pale olive gray (10Y 6/2) to light olive gray (5y 5/2). Some yellowish gray (5Y 7/2) intervals may grade to NANNOFOSSIL OOZE. Minor Lithology: Olive gray (5Y 3/2) to dark gray (N3) ash is present in discrete thin layers and in dispersed pods. General Description: Olive black to moderate olive brown (5Y 2/1 to 5Y 4/4) organic-rich layers occur at the following intervals: Section 1, 116–118 cm; Section 2, 99–101 cm and 105–109 cm; Section 4, 124–128 cm; Section 5, 144–145 cm; and Section 6, 126–128 cm.



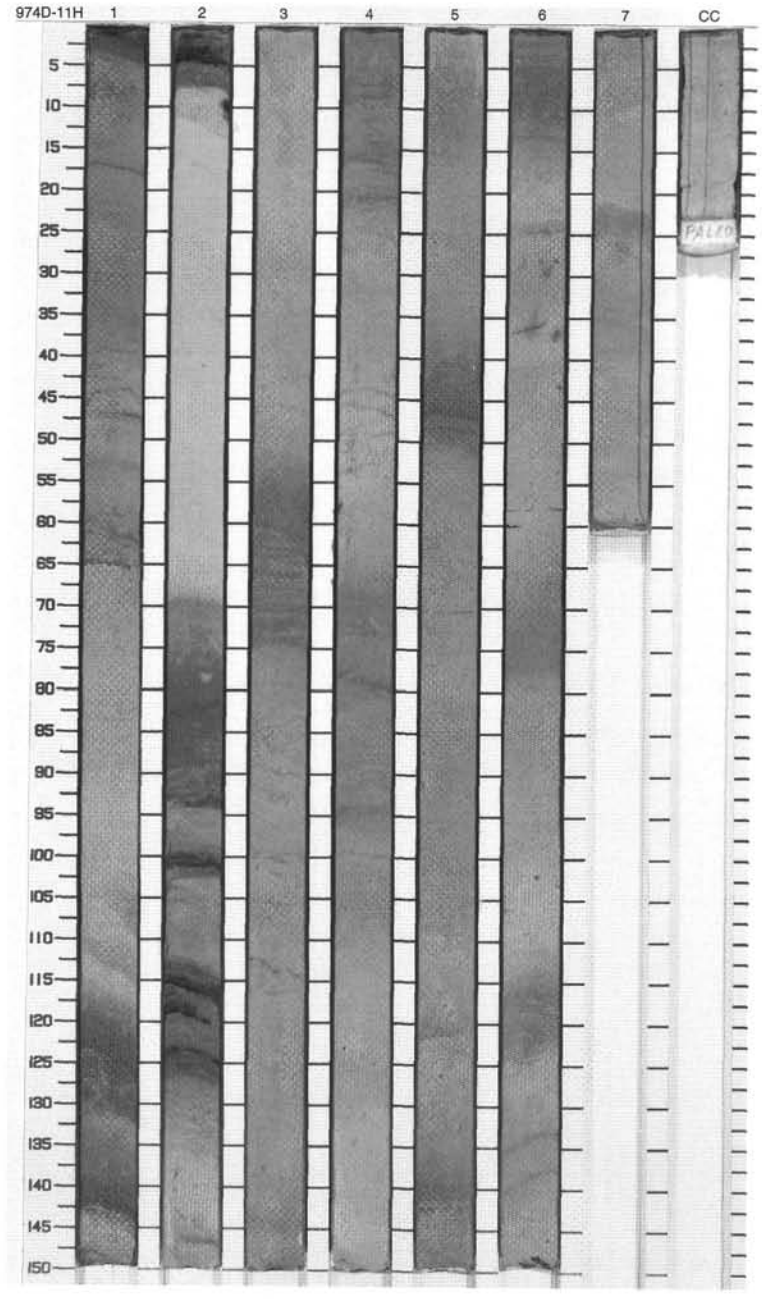
SITE 974 HOLE D CORE 10H CORED 77.5 - 87.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–10		1–7, CC	Pleistocene–late Pliocene	A•, –A, –A, –A, –A, –A, A•		M	5Y 5/2; 5Y 4/4; 5Y 5/2 To 5GY 6/1; 5Y 5/2 To 10YR 4/2	NANNOFOSSIL CLAY TO NANNOFOSSIL- RICH CLAY Major Lithology: The principal lithology ranges from NANNOFOSSIL CLAY to NANNOFOSSIL-RICH CLAY; both are locally color banded and in places contain disseminated foraminifers. Minor Lithology: Olive gray to medium dark gray (5Y 4/1 to N4) ash layers and a moderate content of dispersed ash are present throughout the core. General Description: Olive gray to moderate olive brown (5Y 3/2 to 5Y 4/4) organic-rich layers are present in the following intervals: Section 1, 148–150 cm to Section 2, 0–7 cm; Section 2, 72.5–82.5 cm; Section 3, 6–6.5 cm; Section 4, 41.4–49 cm; Section 6, 42–52 and 123–130 cm.



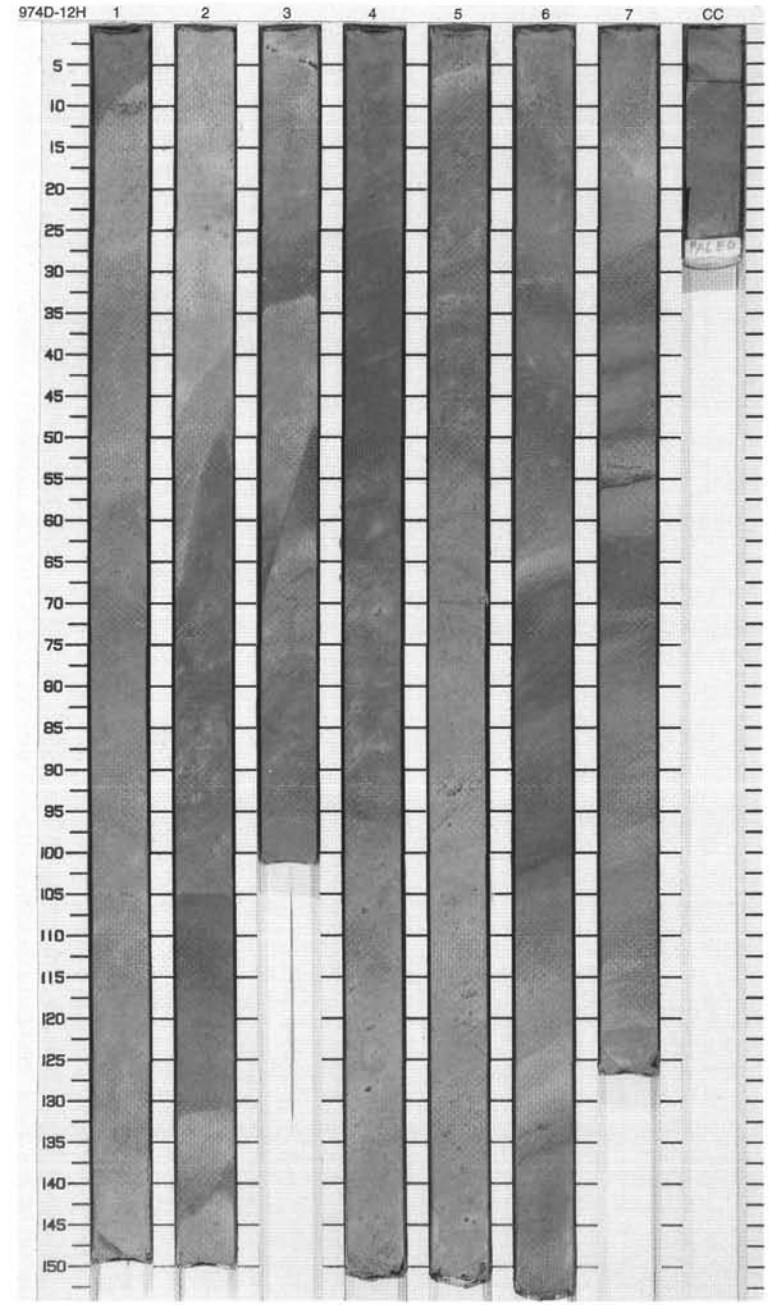
SITE 974 HOLE D CORE 11H CORED 87.0 - 96.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7, CC	late Pliocene			M	5Y 5/2; 5Y 5/6 To 10Y 6/2; 5Y 5/2 To 5Y 6/1; 10Y 6/2 To 5Y 5/2	NANNOFOSSIL CLAY AND NANNOFOSSIL OOZE Major Lithology: The principal lithologies range from NANNOFOSSIL OOZE to NANOFOSSIL CLAY both of which are locally color banded. Disseminated foraminifers are visible throughout the core. The main colors are light olive gray (5Y 5/2) to pale olive (10Y 6/2) with thick bands of moderate olive brown (5Y 4/4) and light olive brown (5Y 5/6) and thin bands mainly moderate olive brown (5Y 4/4) in color. The main lithotypes are subtly interstratified with an overall increasing nannofossil content from the top to the base of the core. Minor Lithology: Thin ash laminae are present from the top of the core to a depth of 125 cm in Section 2. Thereafter they are absent. The ash layers are spaced at intervals from 50 to 100 cm. General Description: A reverse fault located from 110 to 120 cm in Section 2 probably indicates slumping at this level. Strongly inclined color banding at 50 cm in Section 4 may also indicate soft sediment deformation. Organic-rich layers are present in Section 1 from 0 to 3 cm and in Section 2 from 4 to 7 cm. Possible organic-rich layers occur between 101 and 102.5 cm and 122 and 126 cm in Section 2.



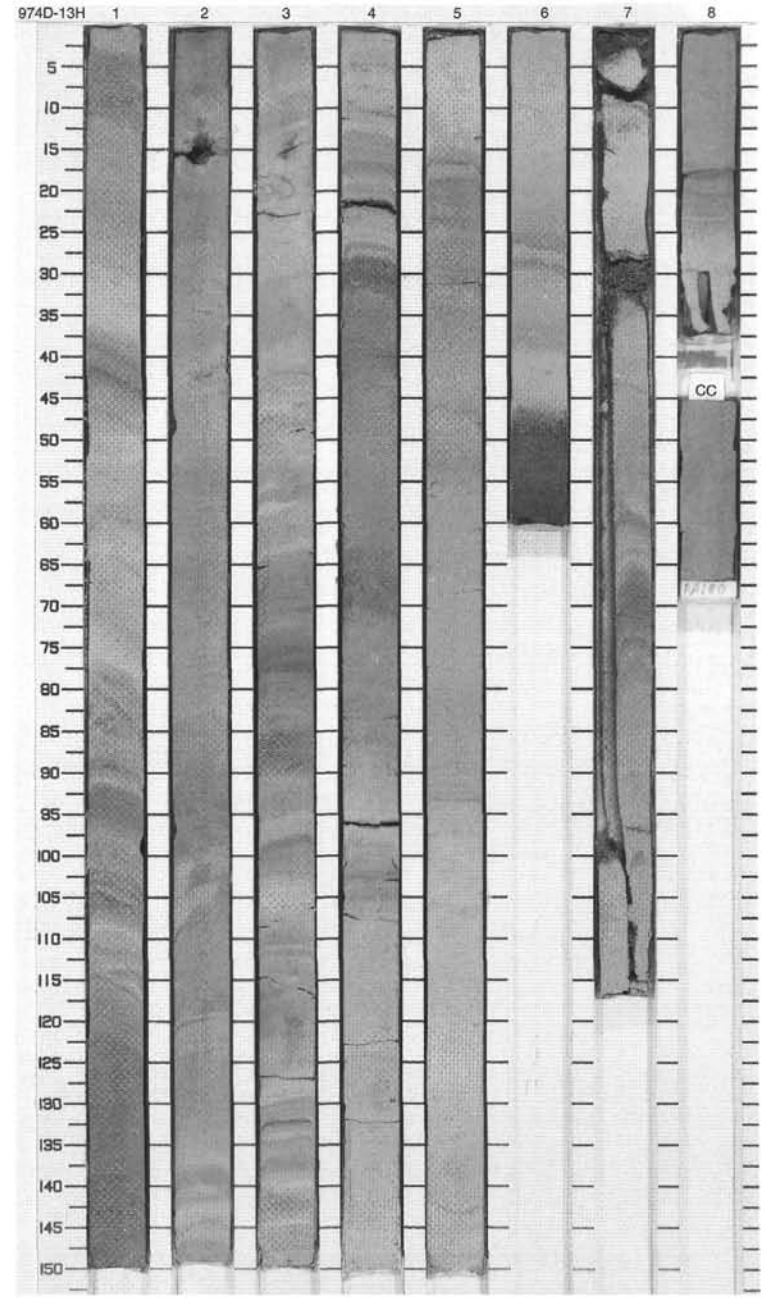
SITE 974 HOLE D CORE 12H CORED 96.5 - 106.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–10		1	late Pliocene				5Y 6/4	NANNOFOSSIL CLAY Major Lithology: The main lithology in this core is bioturbated to color-banded NANNOFOSSIL CLAY with visible disseminated foraminifers. Color banding is steeply inclined in places suggesting soft-sediment deformation. Minor Lithology: The remnants of a few thin ash laminae are present in Sections 3 and 4. A foraminifer lamina occurs at 30 cm in Section 6.
		2					10Y 5/4 To 10Y 6/2	
		3						
		4		A• A•			5Y 6/4	
		5					5Y 5/2 To 10Y 6/2	
		6						
		7					10YR 6/2 To 5Y 5/6	
		CC				M		



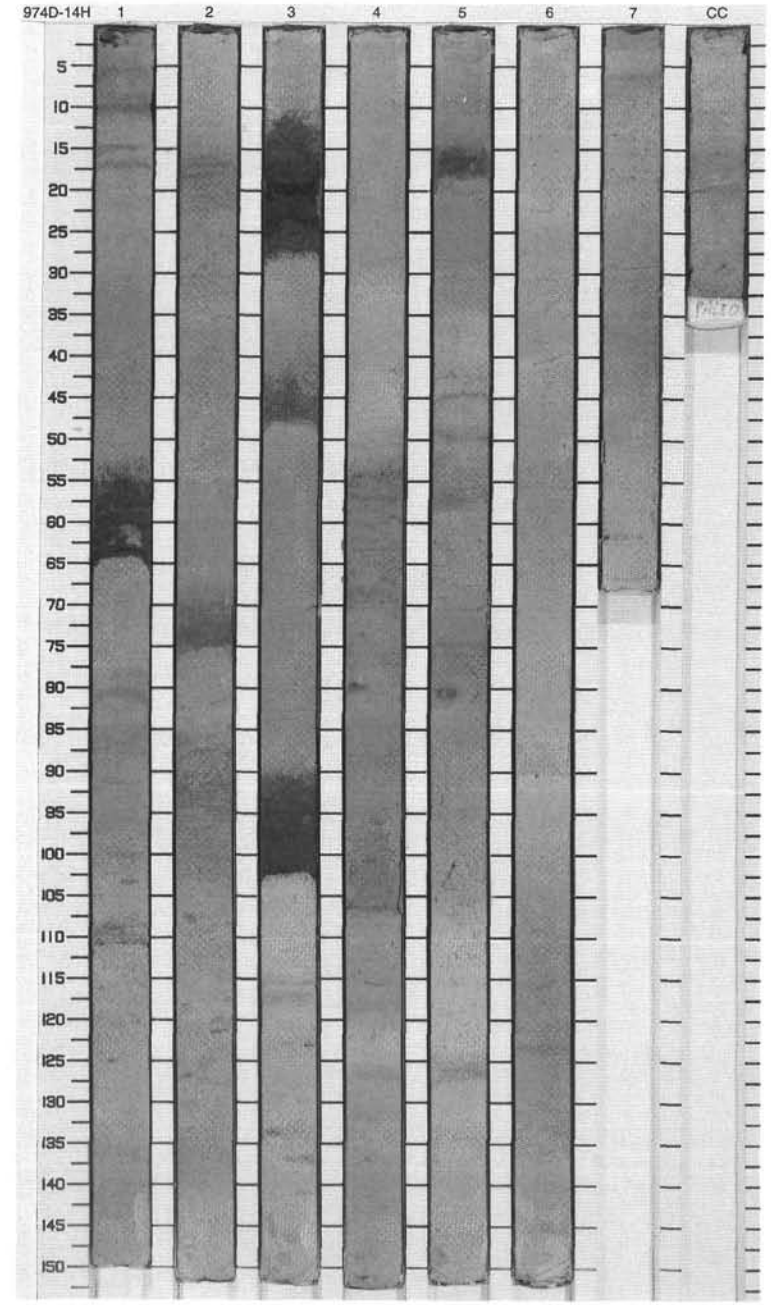
SITE 974 HOLE D CORE 13H CORED 106.0 - 115.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–8, CC	late Pliocene	–A		M	5Y 6/4; 10Y 6/2 To 10YR 5/4; 5Y 5/6; 10YR 5/4; 5Y 5/2; 10Y 6/2; 5Y 5/2 To 10Y 6/2; 5Y 6/1; 5Y 5/2	NANNOFOSSIL CLAY Major Lithology: The main sediment type is NANNOFOSSIL CLAY with abundant visible foraminifers evenly spread throughout. Colors range from light olive gray (5Y 5/2) and pale olive (10Y 6/2) to moderate yellowish brown (10YR 5/4), light olive brown (5Y 5/6), light olive gray (5Y 6/1), and dusky yellow (5Y 6/4). Color distribution is both banded and mottled. Minor Lithologies: Rare grayish olive (10Y 4/2) vitric ash layers grading from silt or very fine sand at the base to clay at the top are present. General Description: Inclined to swirly color banding in Sections 1 and 2 indicates soft-sediment deformation.



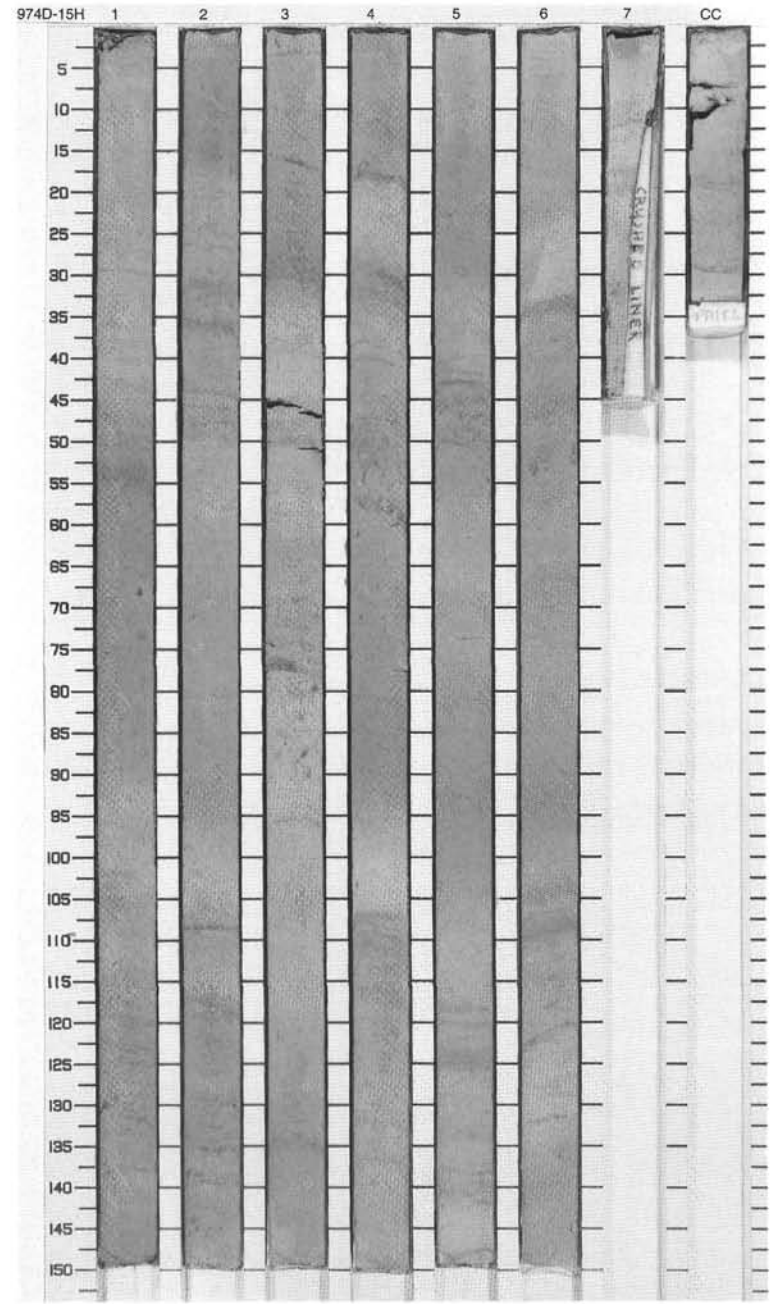
SITE 974 HOLE D CORE 14H CORED 115.5 - 125.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–10		1–7, CC	late Pliocene	–A, –A, F, –A, –A		M	10Y 6/2 To 5Y 5/2; 10Y 4/2; 10Y 6/2 To 5Y 5/2	NANNOFOSSIL CLAY Major Lithology: The principal rock type in this core is a light olive gray (5Y 5/2) to pale olive (10Y 6/2) NANNOFOSSIL CLAY with disseminated visible foraminifers. Color banding ranges from light olive brown (5Y 5/6), medium gray (N5), dusky yellow green (5GY 5/2), and dusky yellow (5Y 6/4). Minor Lithologies: Three medium graded beds of NANNOFOSSIL-RICH CLAY-RICH SILT occur in this core. These range in color from dark greenish gray (5GY 4/1) to olive gray (5Y 4/1) and grayish olive (10Y 4/2). The main component of these units is vitric glass. They comprise about 5% of the section overall. General Description: A 2 cm thick graded foraminifer layer occurs between 107–109 cm in Section 1. Possible organic-rich layer from 90–93 cm in Section 2.



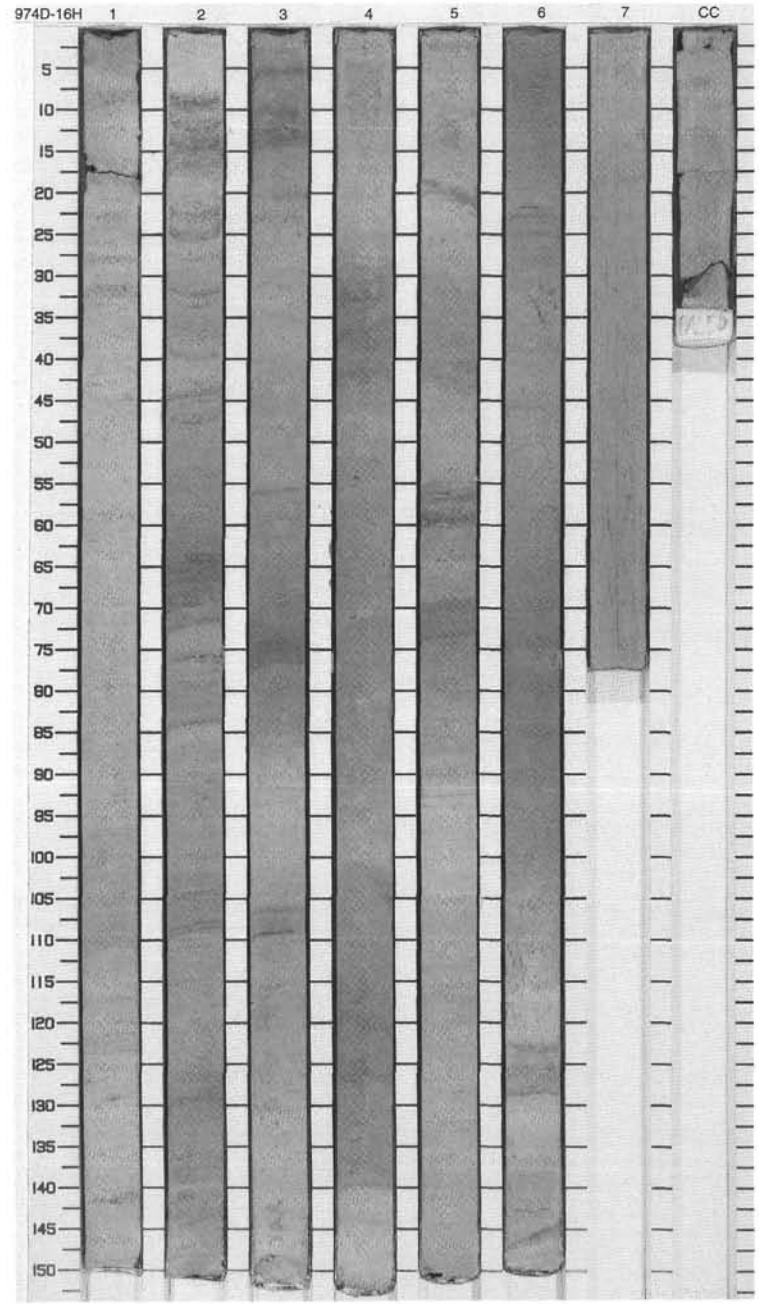
SITE 974 HOLE D CORE 15H CORED 125.0 - 134.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7, CC	late Pliocene	A•		M	10Y 6/2 To 5Y 5/2; 5Y 6/1; 10Y 6/2; 5Y 5/2 To 10Y 6/2	NANNOFOSSIL CLAY Major Lithology: The main sediment type is NANNOFOSSIL CLAY with visible foraminifer tests. It ranges from structureless to color banded to mottled and in places is bioturbated. The main colors are light olive gray (5Y 5/2), pale olive (10Y 6/2), and light olive gray (5Y 6/1). Bands are olive gray (5Y 4/1), dusky yellow (5Y 6/4), medium gray (N5), and light olive brown (5Y 5/6). Minor Lithology: An ash clast at 68 cm in Section 1 and silty clay in the Core Catcher are the only minor lithologies present. The former is medium dark gray (N5) in color. General Description: Extensional microfaults at 35 cm in Section 4 and 140 cm in Section 5 indicate minor soft-sediment disturbance.



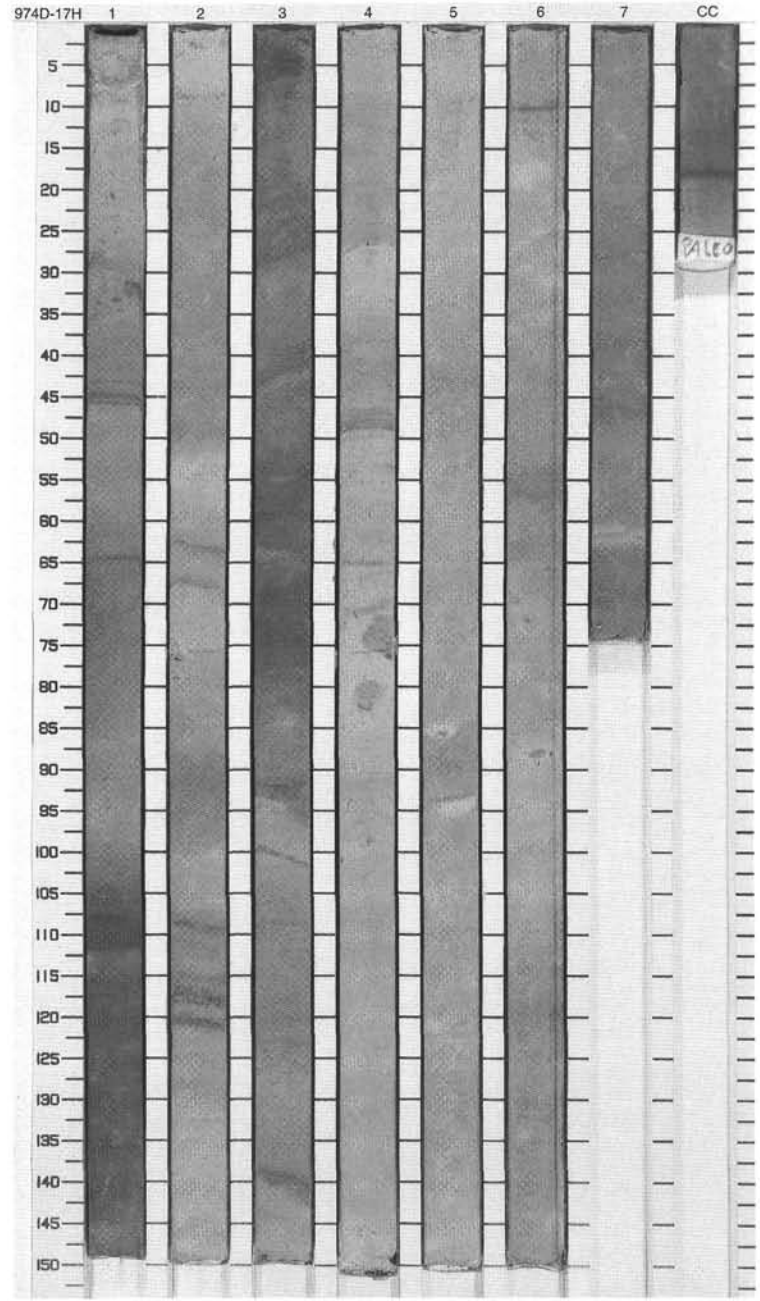
SITE 974 HOLE D CORE 16H CORED 134.5 - 144.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–10		1	late Pliocene				5Y 6/1	NANNOFOSSIL CLAY Major Lithology: The main lithology is a color-banded, bioturbated or structureless NANNOFOSSIL CLAY with visible foraminifers. The main colors are light olive gray (5Y 6/1) and pale olive (10Y 6/2). Color bands and mottles range from dusty yellow (5Y 6/4) to light olive brown (5Y 5/6) and light olive gray (5Y 5/2). Minor Lithologies: Discontinuous clayey silt bands are present in Sections 1, 5, and 7. A discrete ash lamina occurs at 75 cm in Section 2. General Description: A possible organic-rich layer is present in Section 3 between 70 and 76 cm. This layer is dusky yellow green (5GY 5/2) in color.
		2		A			10Y 6/2 To 5Y 6/4	
		3						
		4						
		5					10Y 6/2 To 5Y 5/2	
		6						
		7					5Y 6/1 To 5Y 6/4	
		CC			V	M		



SITE 974 HOLE D CORE 17H CORED 144.0 - 153.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–10		1	early Pliocene–late Pliocene				10Y 6/2 To 5Y 6/4	NANNOFOSSIL CLAY Major Lithology: The major sediment type is a NANNOFOSSIL CLAY which is variably color banded, structureless, or bioturbated/mottled. Colors include predominant pale olive (10Y 6/2) and dusky yellow (5Y 6/4) and lesser olive brown (5Y 4/4), light olive brown (5Y 5/6) and medium gray (N5). General Description: A listric extensional microfault is present in a thin, medium light gray (N6) color band at 60 cm in Section 7.
		2					5Y 5/6 To 5Y 4/4	
		3						
		4					10Y 6/2	
		5					5Y 6/4	
		6					10Y 6/2	
		7					5Y 6/4 To 5Y 5/6	
		CC				M		



SITE 974 HOLE D CORE 18H CORED 153.5 - 163.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–10		1	early Pliocene–late Pliocene				5Y 6/4 To 5Y 6/1	NANNOFOSSIL CLAY Major Lithology: The main sediment type is NANNOFOSSIL CLAY which varies from structureless to color banded and mottled. Silt to very fine sand-sized foraminifers are present throughout. The main colors are dusky yellow (5Y 6/4), pale olive (10Y 6/2), and dusky yellow green (5GY 5/2). Color bands are mainly light olive brown (5Y 5/6). Minor Lithologies: Silty clay pods are present at 10–50 cm, 52–60 cm, and100 cm in Section 4. General Description: A reverse fault is present between 55 and 60 cm in Section 5.
		2					10Y 6/2 To 5Y 6/4	
		3						
		4					10Y 6/2 To 5Y 5/2	
		5						
		6					10Y 6/2 To 5GY 5/2	
		7					10Y 6/2 To 5Y 4/4	
		CC				M