SITE 815 HOLE A CORE 1H CORED INTERVAL 0.0-6.8 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
PLEISTOCENE	A/G	A/G			N 60.0% 1.71	84.5%		5					
	N22 - N23	CN14a			N 57.7% 1.75	92.4%		4					
					N 59.7% 1.75	86.0%		3					
					N 59.4% 1.64	89.7%		2					
					N 63.7% 1.64	91.0%		1	0.5 / 1.0				
								CC					PAL

LITHOLOGIC DESCRIPTION

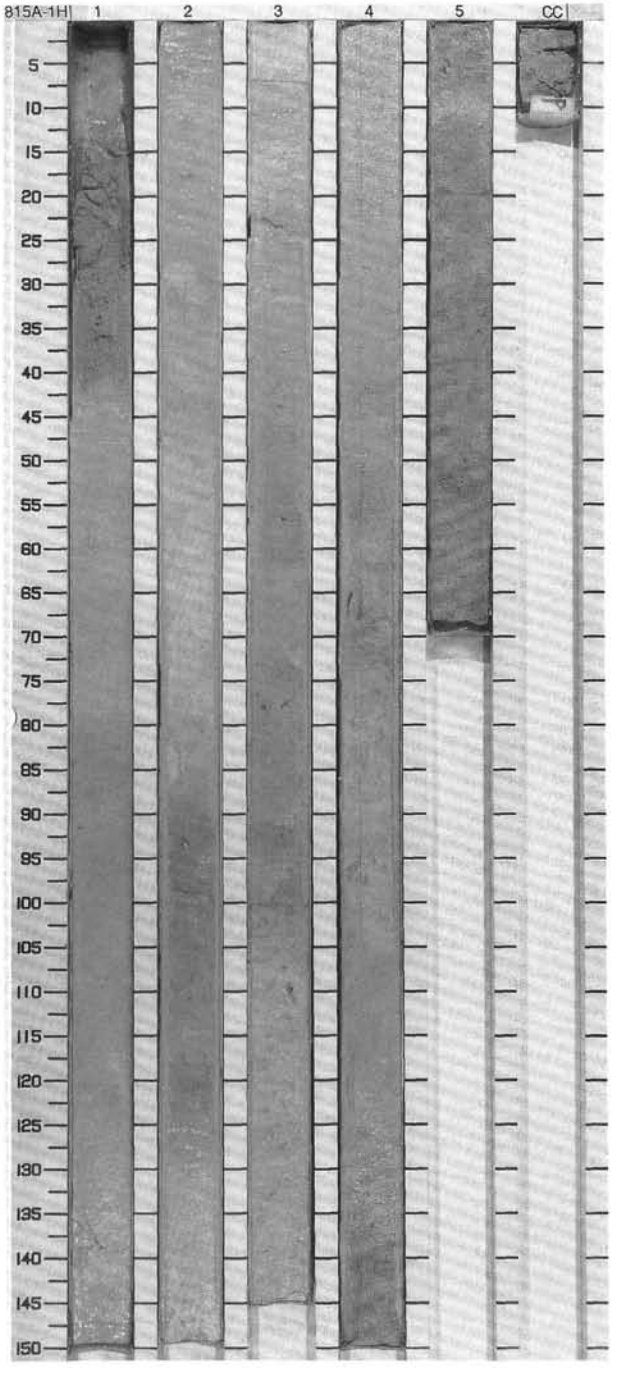
NANNOFOSSIL FORAMINIFER OOZE.

Major lithology: White (10YR 8/2 to 10YR 8/3) NANNOFOSSIL FORAMINIFER OOZE.

Minor lithology: White (10YR 8/1) FORAMINIFER OOZE.

SMEAR SLIDE SUMMARY (%):

	1, 35 D	1, 139 D	3, 58 D
TEXTURE:			
Sand	60	35	30
Silt	40	65	70
COMPOSITION:			
Bioclast	10	15	10
Foraminifers	60	20	25
Igneous rock fragments	---	---	2
Micrite	3	2	---
Nannofossils	16	56	57
Pteropod	5	---	---
Quartz	3	---	5
Spicules	3	2	1



SITE 815 HOLE A CORE 2H CORED INTERVAL 6.8-16.3 mbsf

UPPER PLIOCENE

A/G N22 - N23

A/G CN14a

uncertain polarity

61.8% 1.76 88.9% | 59.1% 1.67 68.9% | 62.0% 1.76 87.2% | 60.3% 1.74 88.6% | 60.4% 1.75 90.3% | 58.9% 1.67 78.8%

CC 7 6 5 4 3 2 1

TIME-ROCK UNIT

BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS; NANNOFOSSILS; RADIOLARIANS; DIATOMS

PALEOMAGNETICS

PHYS. PROPERTIES

CHEMISTRY

SECTION

METERS

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES

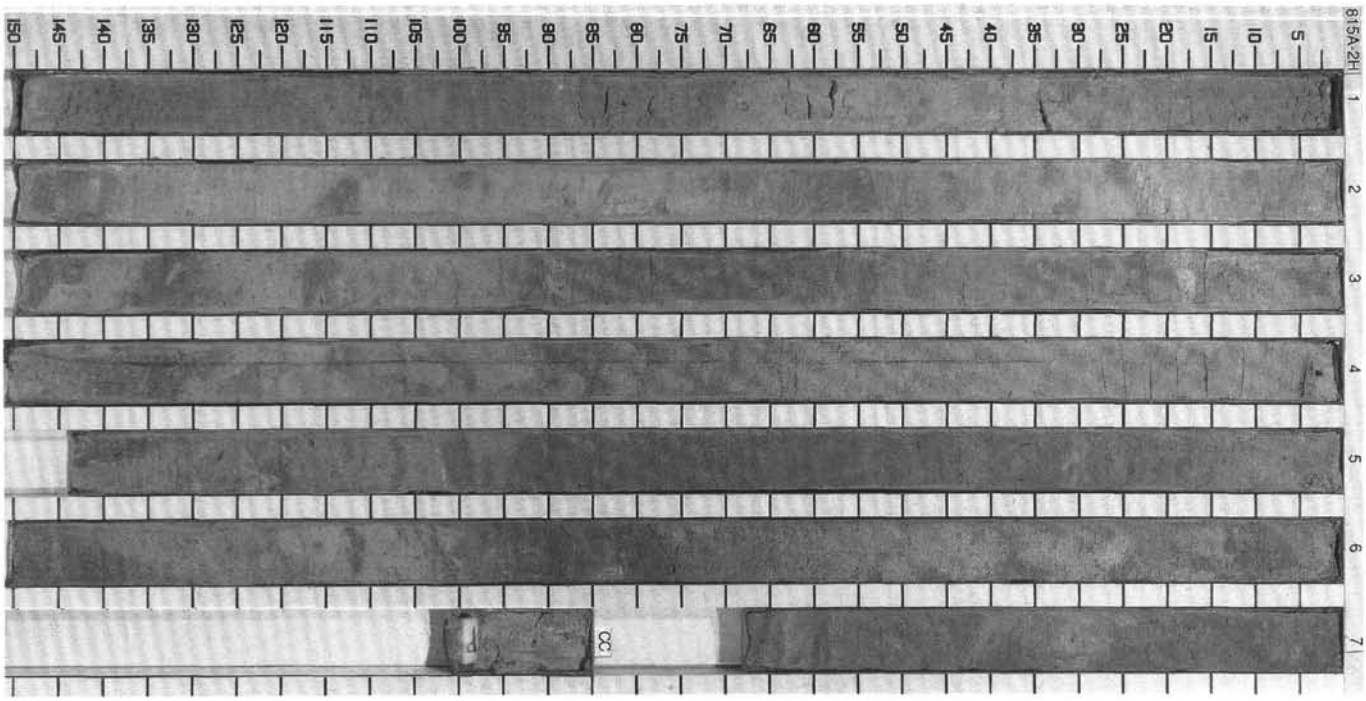
LITHOLOGIC DESCRIPTION

NANNOFOSSIL FORAMINIFER OOZE

Major lithology: White (5Y 7/1) bioturbated, mottled NANNOFOSSIL FORAMINIFER OOZE with BIOCLASTS.

SMEAR SLIDE SUMMARY (%):

	1, 28 D	3, 80 D	4, 3 M	5, 29 D	6, 108 D
TEXTURE:					
Sand	32	28	...	20	...
Silt	68	72	...	80	...
COMPOSITION:					
Bioclast	12	8	...	12	6
Calcite	...	...	7	...	7
Foraminifers	20	20	40	15	32
Igneous rock fragments	...	2	...	...	...
Micrite	3	2	...	10	...
Nannofossils	59	62	30	58	50
Oxide	...	...	20	...	...
Quartz	3	4	1	2	1
Spicules	2	2	1	3	4



SITE 815 HOLE A CORE 3H CORED INTERVAL 16.3-25.8 mbsf

TIME-ROCK UNIT: UPPER PLIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS A/G N22 - N23; NANNOFOSSILS A/G CN12d; RADIOLARIANS; DIATOMS

PALEOMAGNETICS: R; N

PHYS. PROPERTIES: ● 62.8% 1.65; ● 60.7% 1.70; ● 59.3% 1.69; ● 59.8% 1.64; ● 65.4% 1.83; ● 59.8% 1.61; ● 60.8% 1.69

CHEMISTRY: ● 81.2%; ● 81.8%; ● 76.5%; ● 79.6%; ● 80.7%; ● 79.5%

SECTION: 1, 2, 3, 4, 5, 6, 7, CC

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: *, *, OG, TW, PAL

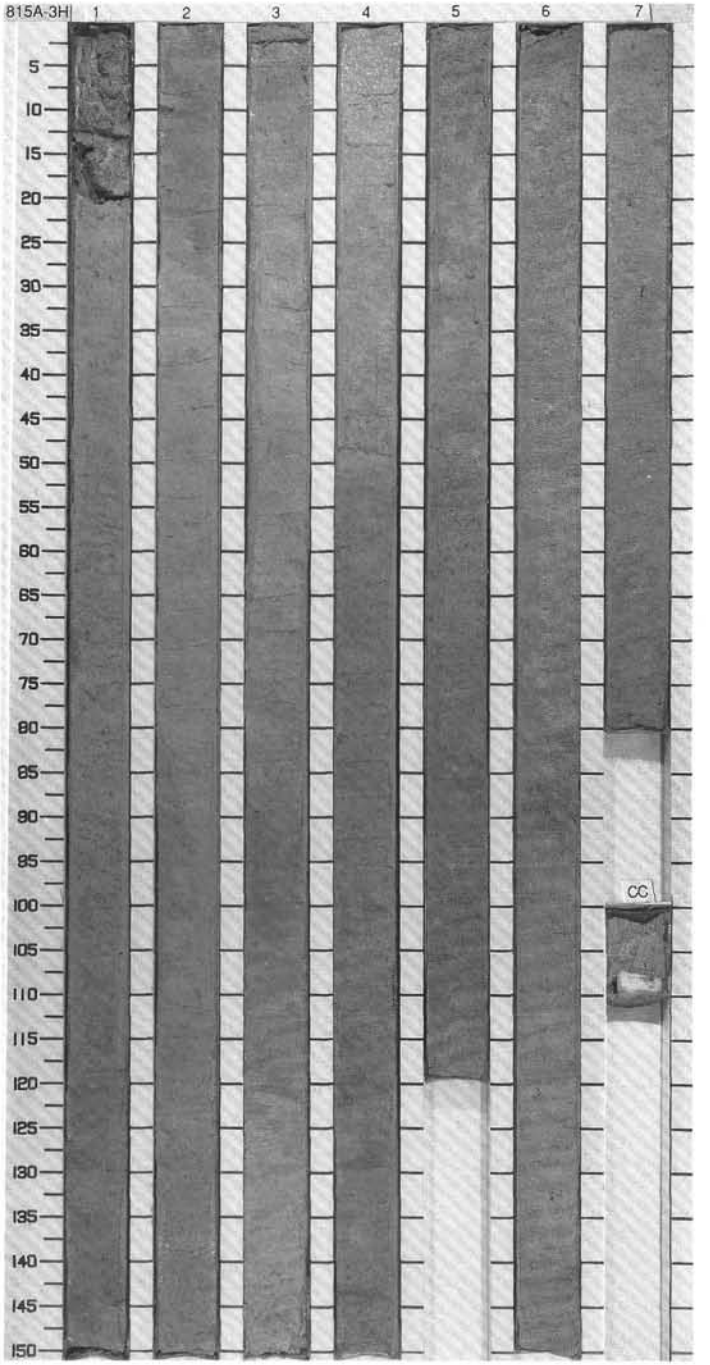
LITHOLOGIC DESCRIPTION

BIOCLASTIC FORAMINIFER NANNOFOSSIL OOZE with CLAY

Major lithology: Gray (5Y 7/1) bioturbated BIOCLASTIC FORAMINIFER NANNOFOSSIL OOZE with CLAY.

SMEAR SLIDE SUMMARY (%):

	1, 105 D	4, 44 D
TEXTURE:		
Sand	30	18
Silt	70	82
COMPOSITION:		
Bioclast	20	10
Foraminifers	15	12
Igneous rock fragments	1	1
Micrite	5	5
Nannofossils	52	65
Quartz	3	5
Spicules	---	2



SITE 815 HOLE A CORE 4H CORED INTERVAL 25.8-35.3 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
UPPER PLIOCENE	A/G N22 - N23	A/G CN12b			N R 60.8% 1.70 69.6%	R 60.7% 1.62 81.8%	R 61.2% 1.71 67.8%	6					
					R 69.6% 1.71 88.9%			3					
					R 61.5% 1.70 83.5%			2					
					R 60.1% 1.67 78.4%			1	0.5 1.0				
								7 CC					PAL

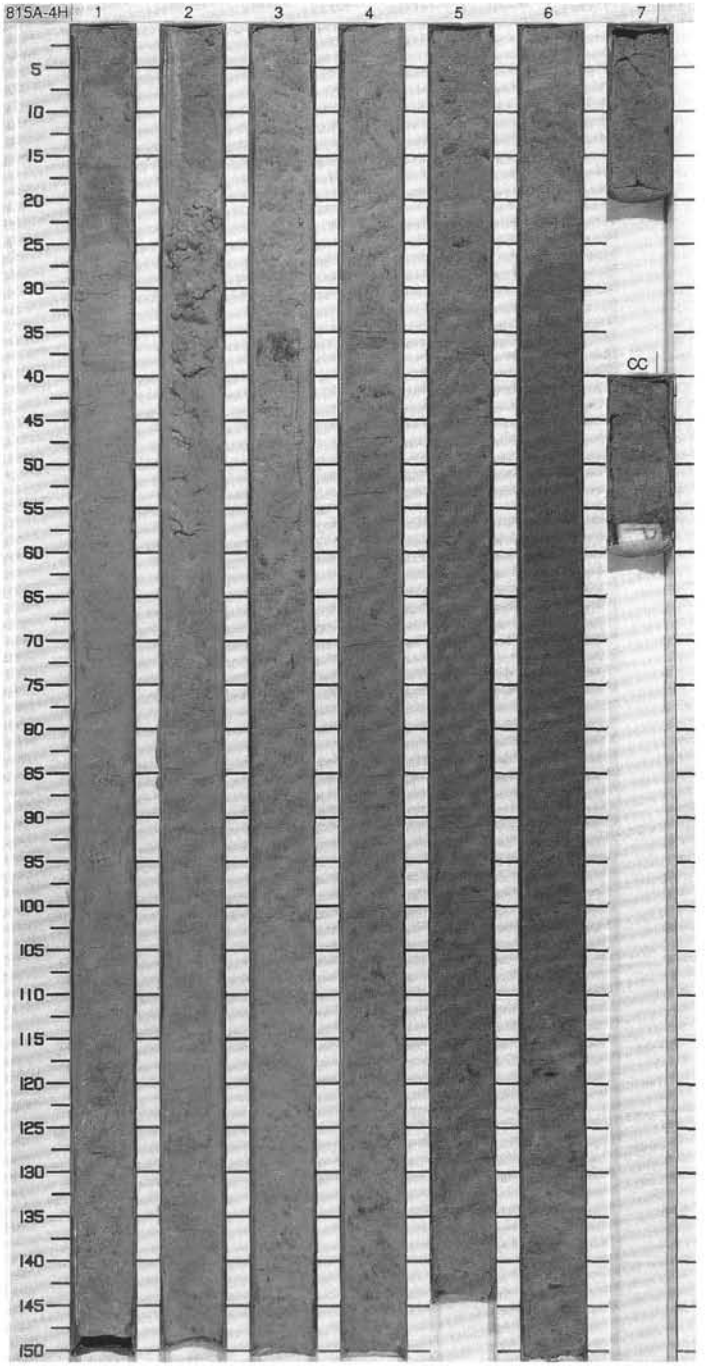
LITHOLOGIC DESCRIPTION

FORAMINIFER NANNOFOSSIL OOZE with CLAY

Major lithology: White (5Y 7/1) bioturbated FORAMINIFER NANNOFOSSIL OOZE with CLAY.

SMEAR SLIDE SUMMARY (%):

	1, 120 D	6, 55 D
COMPOSITION:		
Bioclast	15	20
Foraminifers	25	15
Igneous rock fragments	1	2
Micrite	10	---
Nannofossils	43	55
Quartz	3	5
Spicules	3	3



SITE 815 HOLE A CORE 5H CORED INTERVAL 35.3-44.8 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
UPPER PLIOCENE	A/G	A/G			N ? N	● 59.2% 1.62	● 75.6%	1	0.5 1.0				*
	N21	CN12a			N	● 58.8% 1.65	● 69.9%	2					
					N	● 62.5% 1.69	● 77.9%	3					
					N	● 60.0% 1.62	● 78.4%	4					
					N	● 62.1% 1.67	● 81.1%	5					*
					N	● 58.2% 1.68	● 71.4%	6					SW
								7					
								CC					PAL

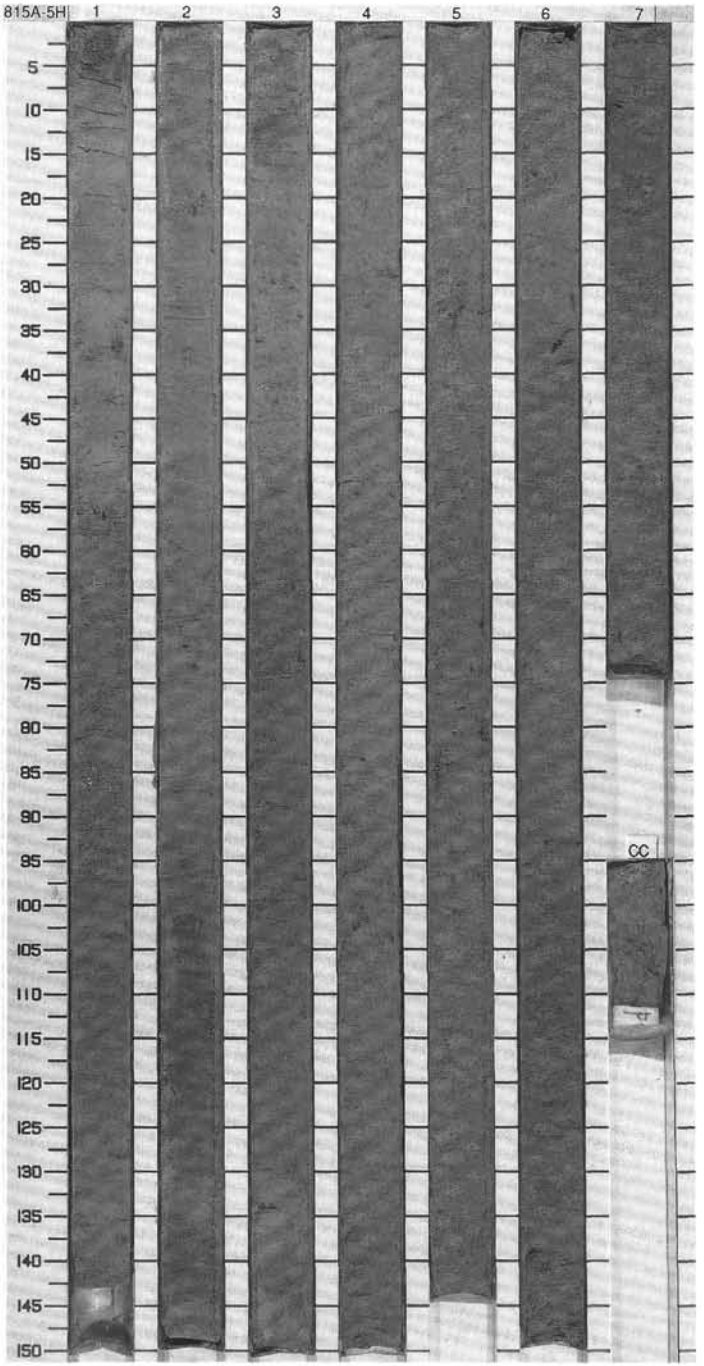
LITHOLOGIC DESCRIPTION

NANNOFOSSIL FORAMINIFER OOZE with BIOCLASTS and CLAY

Major lithology: Light gray (5Y 6/2) FORAMINIFER NANNOFOSSIL OOZE with BIOCLASTS and CLAY

SMEAR SLIDE SUMMARY (%):

	1, 55 D	5, 78 D
COMPOSITION:		
Bioclast	15	5
Foraminifers	15	30
Igneous rock fragments	1	3
Micrite	5	---
Nannofossils	58	53
Quartz	3	5
Spicules	3	3



SITE 815 HOLE A CORE 6H CORED INTERVAL 44.8-54.3 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
UPPER PLIOCENE	A/G	A/G			uncertain polarity N	60.1% 1.74	77.5%	1	0.5 1.0				
	N21	CN12a				57.8% 1.78	70.6%	2					
						58.0% 1.75	73.7%	3					*
						55.5% 1.72	73.1%	4					*
						59.4% 1.73	76.1%	5					OG IW
						59.0% 1.75	78.6%	6					
								7					
								CC					PAL

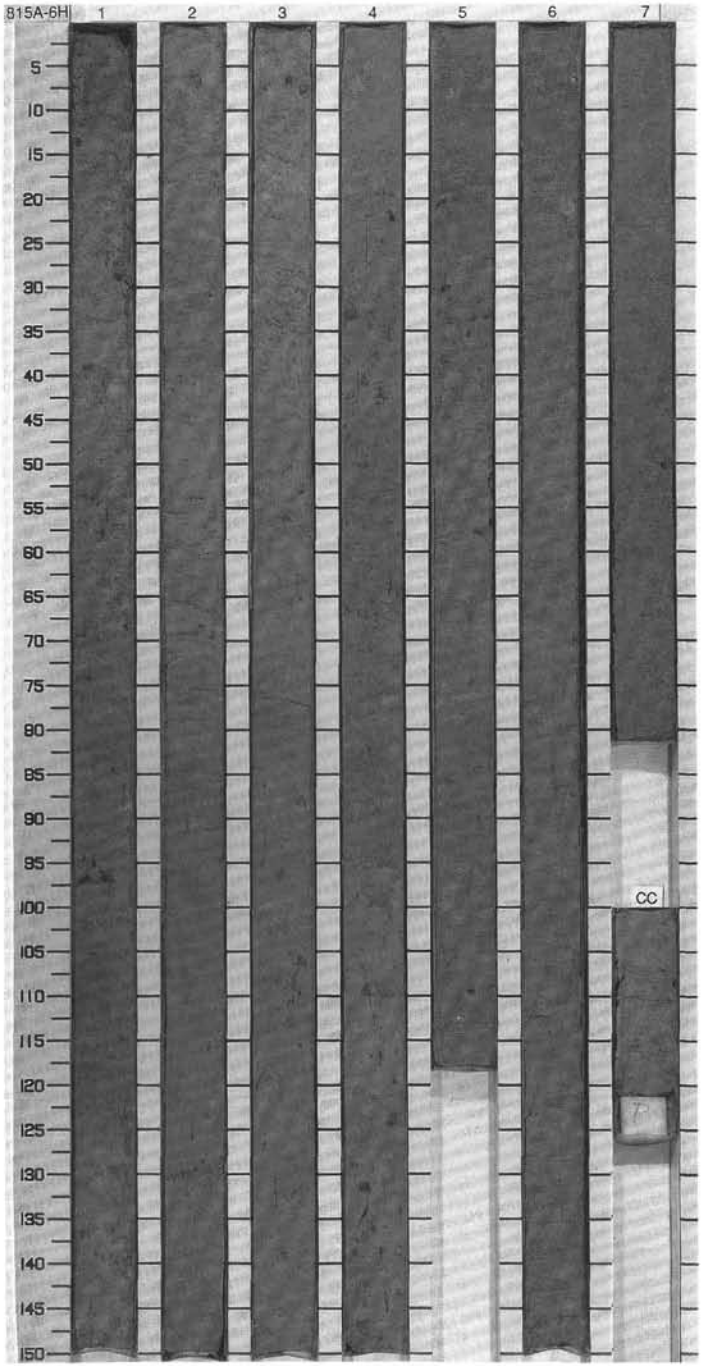
LITHOLOGIC DESCRIPTION

FORAMINIFER NANNOFOSSIL OOZE

Major lithology: Gray (5Y 6/2) bioturbated FORAMINIFER NANNOFOSSIL OOZE with CLAY.

SMEAR SLIDE SUMMARY (%):

	3, 78 D	4, 66 D
COMPOSITION:		
Bioclast	10	10
Foraminifers	35	35
Igneous rock fragments	2	2
Nannofossils	45	45
Quartz	5	5
Spicules	3	3



SITE 815 HOLE A CORE 7H CORED INTERVAL 54.3-63.8 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
UPPER PLIOCENE	C/M	N18 - N19			uncertain polarity	● 57.2% 1.74	● 78.4%	1	0.5 / 1.0				
	A/G	CN12a				● 45.4% 1.70	● 79.6%	2					
						● 56.3% 1.87	● 79.6%	3					*
						● 55.6% 1.78	● 75.6%	4					
						● 54.8% 1.73	● 80.7%	5					PM
						● 53.7% 1.75	● 78.7%	6					
								7					
								CC					PAL

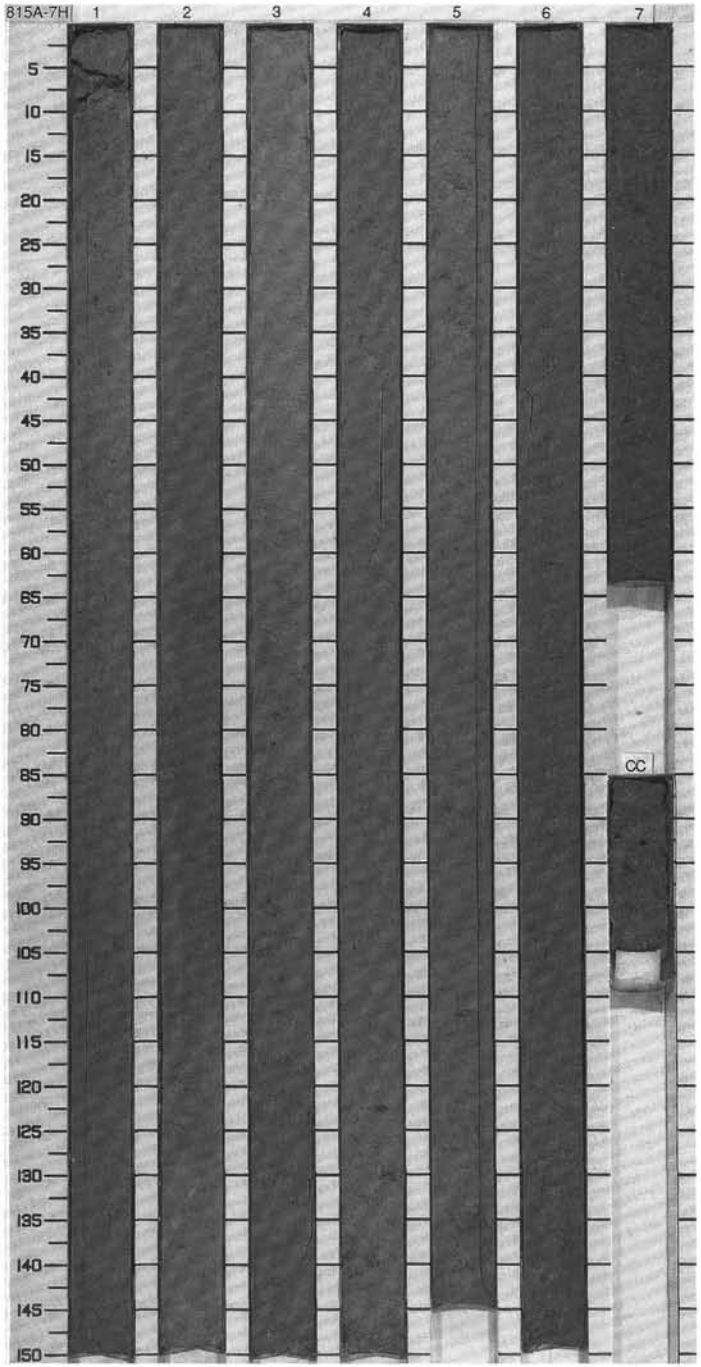
LITHOLOGIC DESCRIPTION

NANNOFOSSIL OOZE

Major lithology: Gray (5Y 6/2) bioturbated NANNOFOSSIL OOZE with CLAY.

SMEAR SLIDE SUMMARY (%):

	3, 80 D
TEXTURE:	
Sand	5
Silt	15
Clay	80
COMPOSITION:	
Clay	40
Dolomite	20
Micrite	10
Nannofossils	25



SITE 815 HOLE A CORE 8H CORED INTERVAL 63.8-73.3 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
LOWER PLIOCENE	C/M	CN11			uncertain polarity	● 57.6% 1.77	● 82.9%	1	0.5 1.0				*
	A/G	N18 - N19				● 58.2% 1.76	● 67.7%	2					
						● 55.7% 1.78	● 71.7%	3					*
						● 52.1% 1.79	● 75.4%	4					
						● 56.7% 1.82	● 80.2%	5					
						● 58.2% 1.85	● 80.8%	6					IW * *
								7					
								CC					PAL

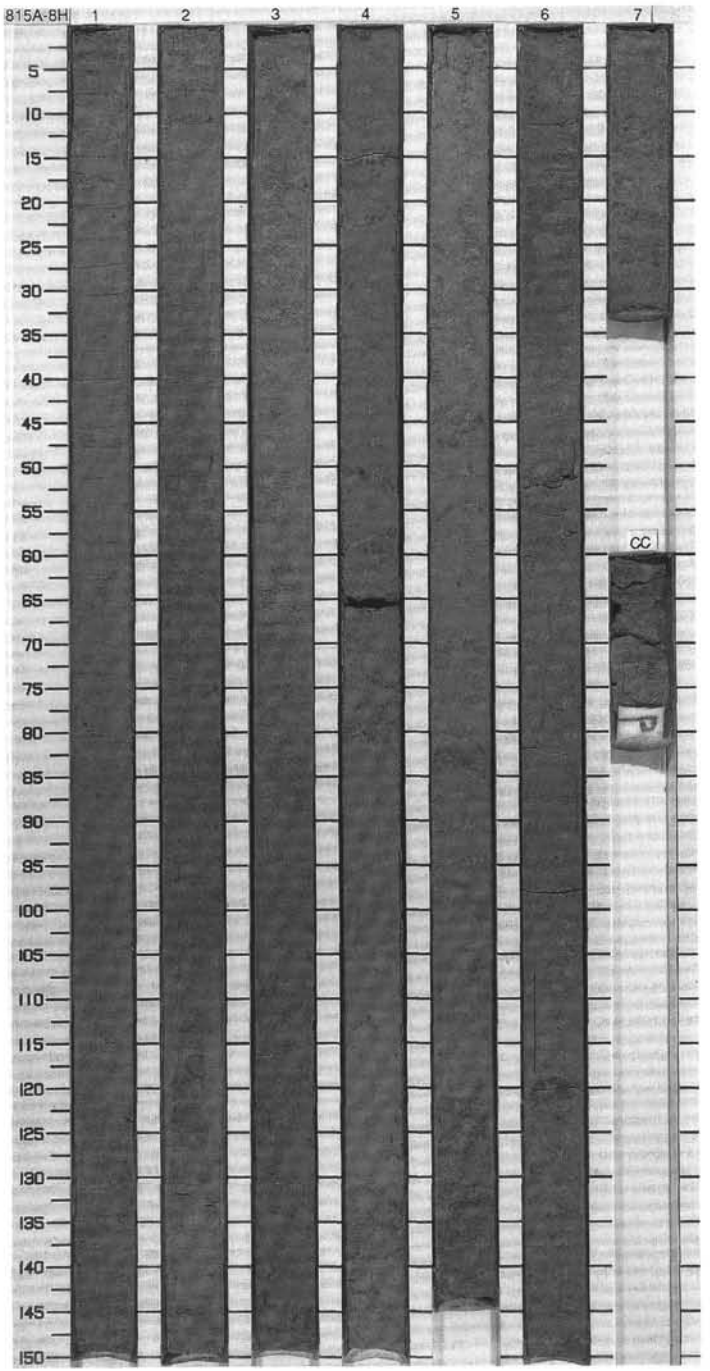
LITHOLOGIC DESCRIPTION

FORAMINIFER NANNOFOSSIL OOZE with CLAY

Major lithology: Gray (5Y 6/2) bioturbated FORAMINIFER NANNOFOSSIL OOZE with CLAY and rare DOLOMITE.

SMEAR SLIDE SUMMARY (%):

	1, 88 D	3, 80 D	6, 47 D	6, 80 D
COMPOSITION:				
Calcite	5	9	20	15
Clay	20	26	20	35
Dolomite	15	5	15	5
Foraminifers	25	25	15	5
Nannofossils	30	35	30	40
Pteropod	3	---	---	---
Quartz	1	---	---	---



SITE 815 HOLE A CORE 9H CORED INTERVAL 73.3-82.8 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
LOWER PLIOCENE	A/G	A/G			uncertain polarity	• 53.4% 1.80	• 78.3%	1	0.5				
	N18 - N19	CN11							1.0				
						• 53.8% 1.75	• 78.2%	2					
						• 54.5% 1.88	• 75.4%	3					
						• 53.2% 1.74	• 66.6%	4					*
					• 56.3% 1.77		• 70.4%	5					
					• 52.1% 1.77		• 51.3%	6					OG TW
								7					
								CC					PAL

LITHOLOGIC DESCRIPTION

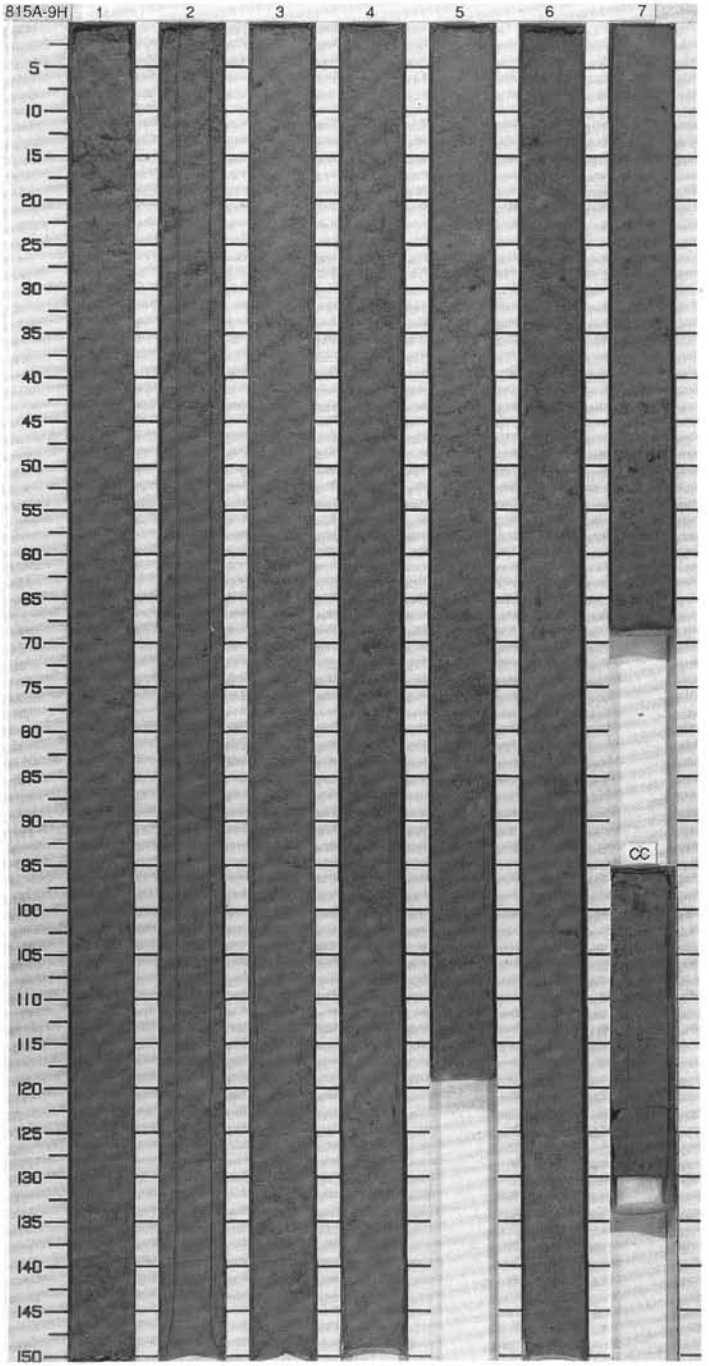
CLAYEY FORAMINIFER NANNOFOSSIL OOZE

Major lithology: Dark gray (5Y 4/2) bioturbated CLAYEY FORAMINIFER NANNOFOSSIL OOZE.

Minor lithology: Dark gray (5Y 4/2) bioturbated CLAYEY FORAMINIFER NANNOFOSSIL MIXED SEDIMENT in Section 6 to CC.

SMEAR SLIDE SUMMARY (%):

	4, 80 D
TEXTURE:	
Sand	20
Silt	20
Clay	60
COMPOSITION:	
Calcite	5
Clay	30
Foraminifers	25
Nannofossils	40



SITE 815 HOLE A CORE 10H CORED INTERVAL 82.8-92.3 mbsf

TIME-ROCK UNIT: LOWER PLIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS A/G N18 - N19; NANNOFOSSILS A/G CN11; RADIOLARIANS; DIATOMS

PALEOMAGNETICS: uncertain polarity

PHYS. PROPERTIES: 59.7% 1.37; 52.3% 1.79; 50.2% 1.81; 56.3% 1.80; 57.4% 1.79; 57.9% 1.82

CHEMISTRY: 78.0%; 48.1%; 77.2%; 77.6%; 78.6%; 85.0%; 55.6%

SECTION: 1 2 3 4 5 6 7 CC

METERS: 0.5; 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: IW; PAL

LITHOLOGIC DESCRIPTION

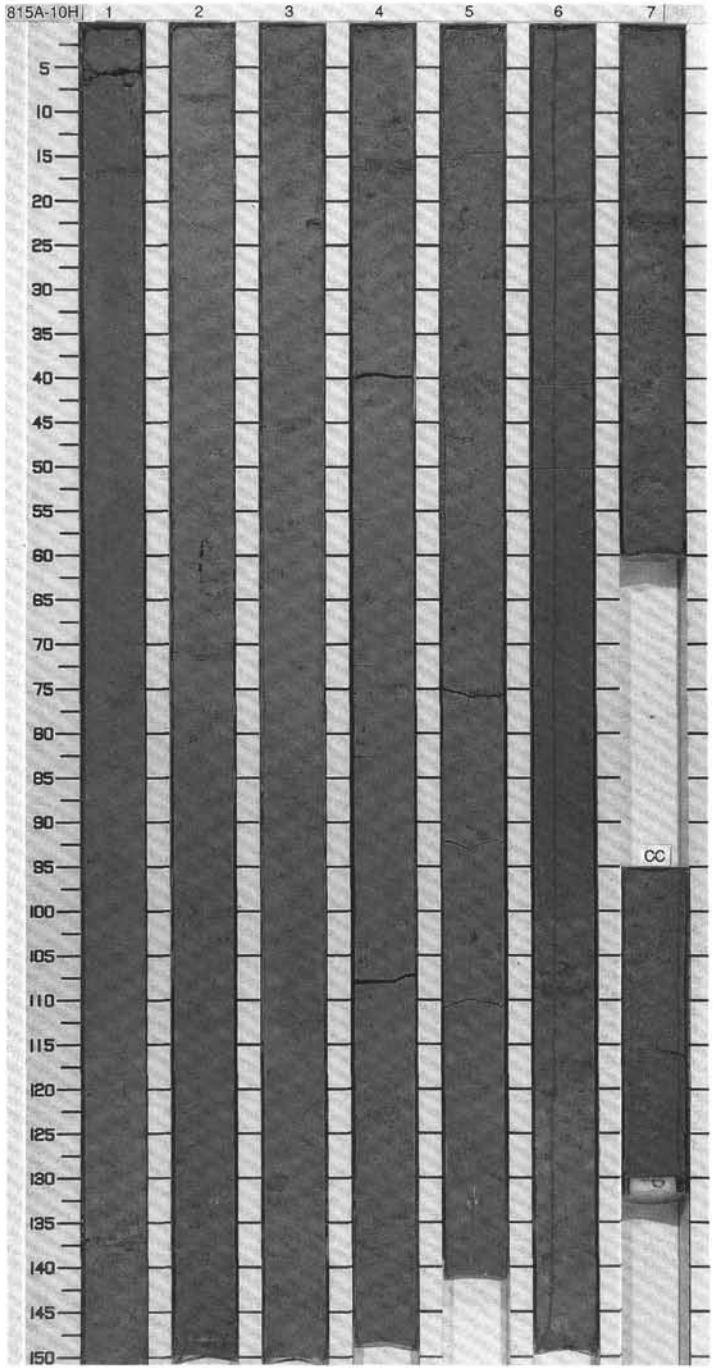
NANNOFOSSIL CLAYEY OOZE with FORAMINIFERS

Major lithology: Gray (5Y 4/1) NANNOFOSSIL CLAYEY OOZE with FORAMINIFERS.

Minor lithology: Gray (5Y 4/2) bioturbated CLAYEY FORAMINIFER NANNOFOSSIL MIXED SEDIMENT at top of Section 1; gray (5Y 4/1) NANNOFOSSIL CLAYEY MIXED SEDIMENT with FORAMINIFERS at top of Section 6.

SMEAR SLIDE SUMMARY (%):

	1, 8 D	1, 35 D	1, 100 D	2, 31 D	6, 30 D
COMPOSITION:					
Bioclast	5	10	4	8	10
Calcite	---	---	---	2	3
Dolomite	5	5	1	5	1
Foraminifers	25	5	10	15	5
Nannofossils	45	70	84	65	70
Pyrite	12	---	---	---	---
Quartz	5	10	---	3	10
Spicules	3	---	1	2	1



SITE 815 HOLE A CORE 11H CORED INTERVAL 92.3-101.8 mbsf

TIME-ROCK UNIT: LOWER PLIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS A/G N18 - N19; NANNOFOSSILS A/G CN11; RADIOLARIANS; DIATOMS

PALEOMAGNETICS: uncertain polarity

PHYS. PROPERTIES: ● 50.9% 1.78; ● 52.7% 1.85; ● 52.8% 1.88; ● 54.1% 1.89; ● 51.8% 1.79; ● 54.1% 1.81

CHEMISTRY: ● 81.0%; ● 75.8%; ● 75.1%; ● 75.6%; ● 64.8%; ● 80.8%

SECTION: 1 2 3 4 5 6 7 CC

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES: *

SAMPLES: PAL

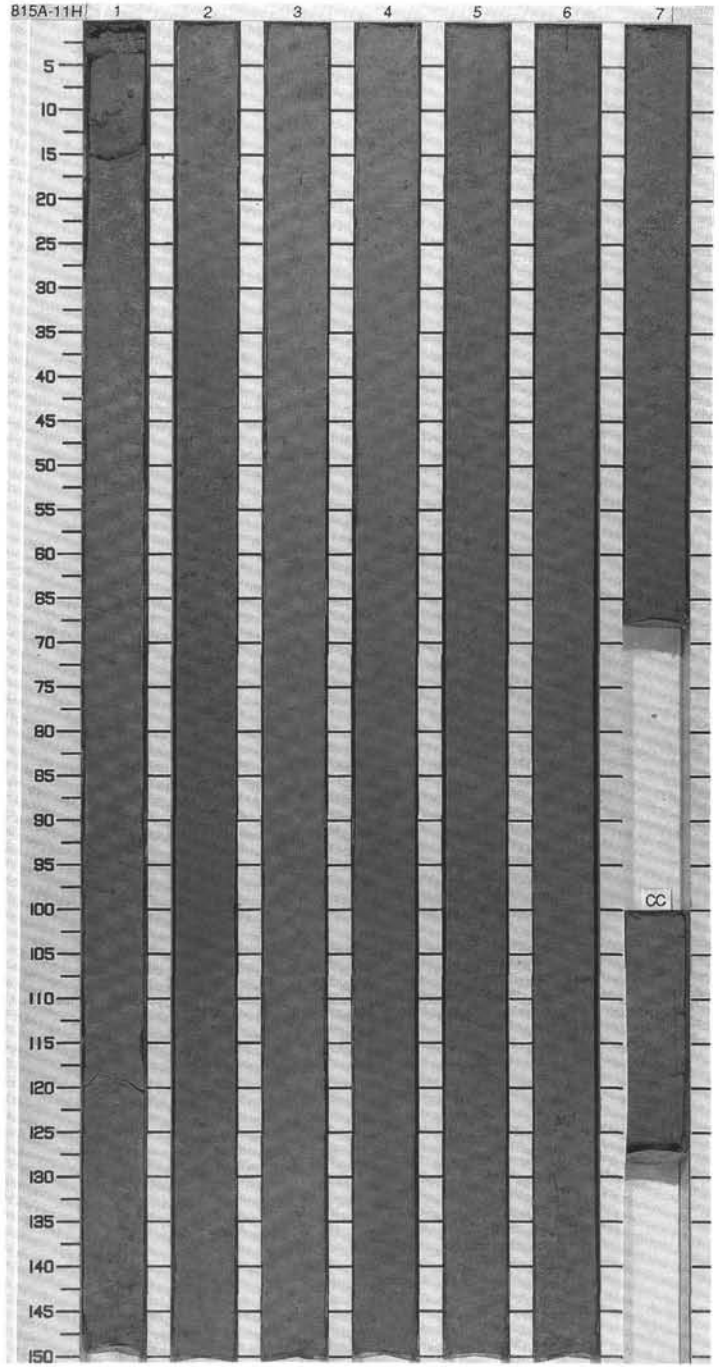
LITHOLOGIC DESCRIPTION

NANNOFOSSIL FORAMINIFER CLAYEY OOZE and CHALK

Major lithology: Gray (5Y 5/1 to 6/1) bioturbated NANNOFOSSIL FORAMINIFER CLAYEY OOZE and CHALK with BIOCLASTS and rare DOLOMITE.

SMEAR SLIDE SUMMARY (%):

	1, 100 D	6, 50 D	7, 40 D
COMPOSITION:			
Bioclast	15	10	17
Dolomite	3	2	3
Foraminifers	25	10	25
Lithoclast	---	---	5
Nannofossils	50	75	45
Pyrite	2	---	---
Quartz	3	3	2
Spicules	2	---	3



SITE 815 HOLE A CORE 12H CORED INTERVAL 101.8-111.3 mbsf

TIME-ROCK UNIT	FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	SAMPLES
LOWER PLIOCENE	N18 - N19	CN11			uncertain polarity	● 56.3% 1.88	● 69.6%	1	*
						● 52.1% 1.89	● 79.6%	2	
						● 52.6% 1.82	● 78.8%	3	
						● 48.9% 1.75	● 82.2%	4	*
						● 54.1% 1.89	● 58.9%	5	*, OG
						● 50.4% 1.92	● 78.3%	6	
								7	
	C/M	A/G						CC	PAL

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

LITHOLOGIC DESCRIPTION

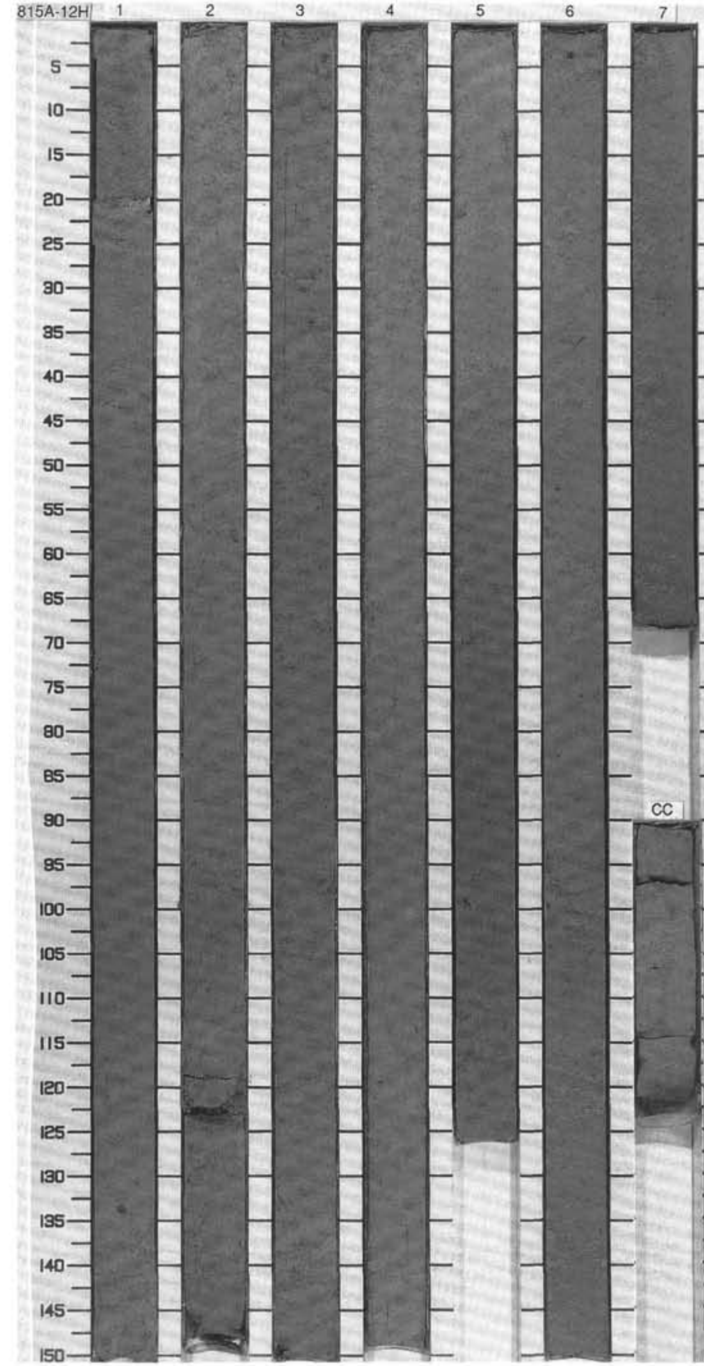
NANNOFOSSIL to NANNOFOSSIL FORAMINIFER OOZE

Major lithology: Gray (5Y 5/1) bioturbated NANNOFOSSIL to NANNOFOSSIL FORAMINIFER OOZE with CLAY.

Minor Lithology: Gray (5Y 5/1) bioturbated NANNOFOSSIL to NANNOFOSSIL FORAMINIFER CHALK with CLAY. Partially lithified PACKSTONE occurs in Section 1 from 0-20 cm and in Section 2 from 118-125 cm.

SMEAR SLIDE SUMMARY (%):

	1, 74 D	4, 50 D	5, 27 D
COMPOSITION:			
Bioclast	15	5	---
Calcite	5	---	---
Clay	3	---	---
Dolomite	3	5	3
Foraminifers	30	20	14
Lithoclast	---	---	10
Micrite	---	10	10
Nannofossils	35	60	60
Pyrite	2	---	---
Quartz	2	---	1
Spicules	3	---	1



SITE 815 HOLE A CORE 13H CORED INTERVAL 111.3-120.8 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
LOWER PLIOCENE	R/M	N18 - N19			uncertain polarity	● 48.5% 2.03	● 40.4%	1	0.5				*
	A/G	CN11				● 45.8% 1.85	● 80.6%	2	1.0				
						● 51.5% 1.84	● 82.8%	3					
						● 43.7% 1.73	● 84.5%	4					
					● 51.6% 1.87		● 77.6%	5					
					● 45.1% 1.88		● 74.5%	6					IW
								7					
								CC					PAL

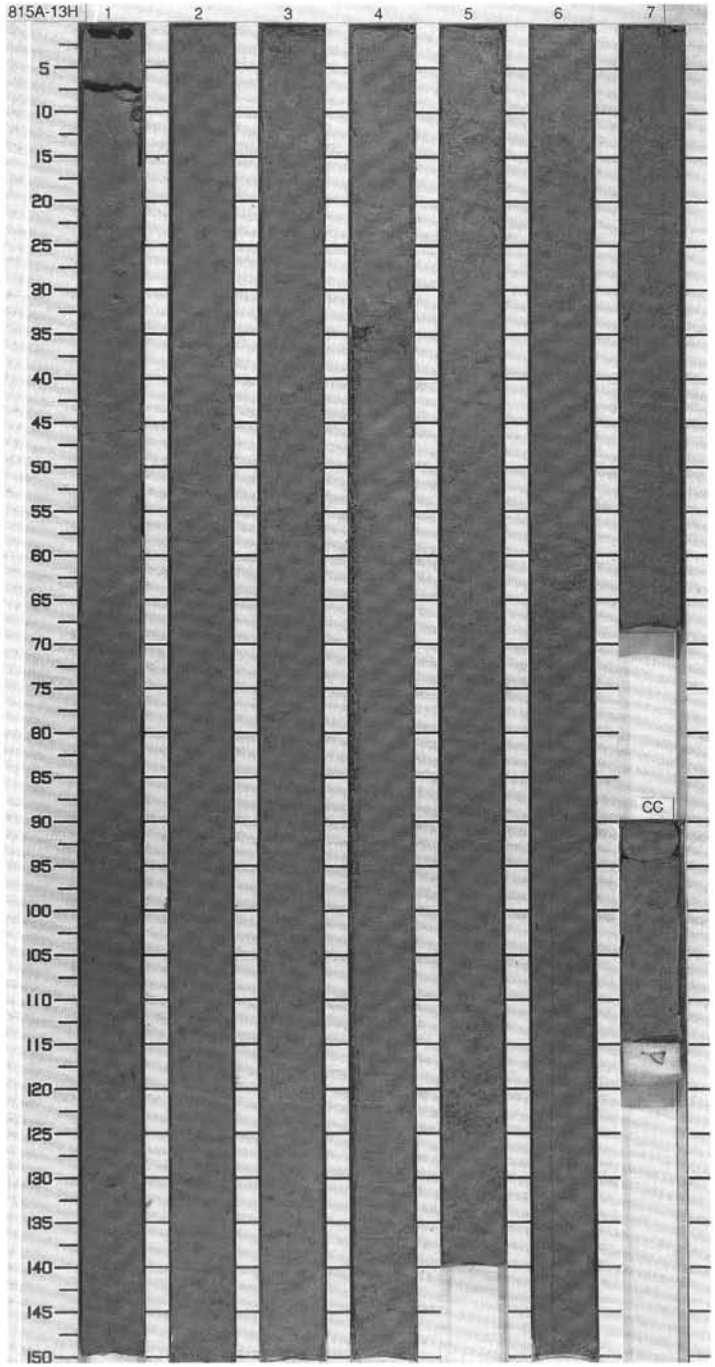
LITHOLOGIC DESCRIPTION

NANNOFOSSIL OOZE and CHALK with CLAY

Major lithology: Gray (5Y 5/1) bioturbated NANNOFOSSIL OOZE and CHALK with CLAY.

SMEAR SLIDE SUMMARY (%):

	1, 100 D
COMPOSITION:	
Bioclast	20
Dolomite	5
Foraminifers	20
Lithoclast	10
Nannofossils	40
Quartz	3
Spicules	2



SITE 815 HOLE A CORE 14H CORED INTERVAL 120.8-130.3 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
LOWER PLIOCENE	R/M	N18 - N19			uncertain polarity	51.8% 1.90	66.6%	1	0.5				
	A/G	CN11				50.0% 1.94	65.8%	2	1.0				
						49.9% 1.94	75.6%	3					
						49.3% 1.88	72.2%	4					*
						52.1% 2.00	64.6%	5					
						49.4% 2.06	61.8%	6					
								7					
								CC					

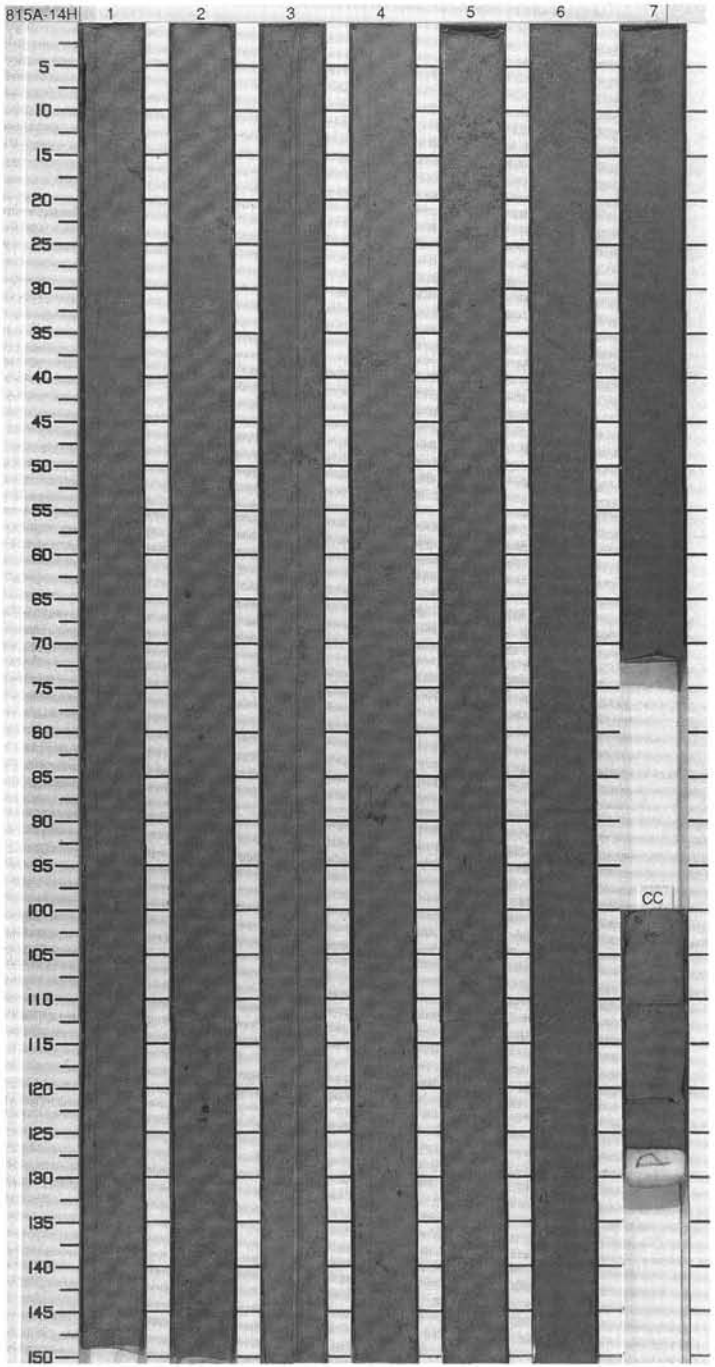
LITHOLOGIC DESCRIPTION

NANNOFOSSIL CLAYEY OOZE and CHALK with FORAMINIFERS

Major lithology: Gray (5Y 5/1) bioturbated NANNOFOSSIL CLAYEY OOZE and CHALK with FORAMINIFERS.

SMEAR SLIDE SUMMARY (%):

	4, 65 D
COMPOSITION:	
Bioclast	10
Clay	5
Dolomite	10
Foraminifers	10
Lithoclast	10
Nannofossils	45
Quartz	5
Spicules	3



SITE 815 HOLE A CORE 15H CORED INTERVAL 130.3-139.8 mbsf

TIME-ROCK UNIT: LOWER PLIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS R/M N18 - N19; NANNOFOSSILS A/M CN11; RADIOLARIANS; DIATOMS

PALEOMAGNETICS: uncertain polarity

PHYS. PROPERTIES: ● 54.2% 1.90; ● 46.2% 2.00; ● 53.5% 2.03; ● 53.5% 2.02; ● 46.2% 2.09

CHEMISTRY: ● 33.6%; ● 70.7%; ● 70.1%; ● 80.1%; ● 72.0%; ● 71.9%

SECTION: 1, 2, 3, 4, 5, 6, 7, CC

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: OC; PAL

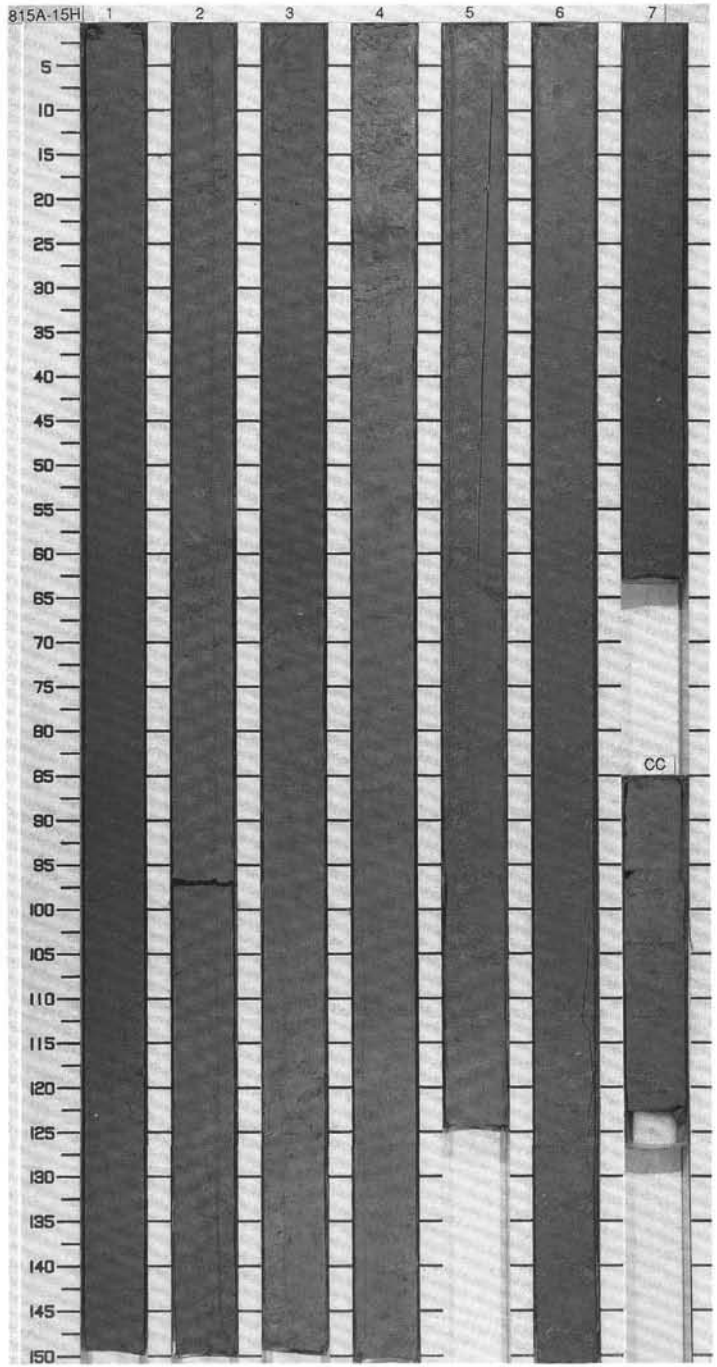
LITHOLOGIC DESCRIPTION

NANNOFOSSIL CLAYEY OOZE AND CHALK.

Major lithology: Gray (5Y 5/1) bioturbated NANNOFOSSIL CLAYEY OOZE AND CHALK with FORAMINIFERS and minor DOLOMITE.

SMEAR SLIDE SUMMARY (%):

	2, 15 D	4, 80 D
COMPOSITION:		
Bioclast	15	10
Dolomite	5	5
Fish	1	---
Foraminifers	20	10
Lithoclast	27	---
Nannofossils	25	70
Quartz	3	5
Spicules	3	---



SITE 815 HOLE A CORE 16H CORED INTERVAL 139.8-149.3 mbsf

LOWER PLIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS N18 - N19; NANNOFOSSILS CN11; RADIOLARIANS R/M; DIATOMS A/G

PALEOMAGNETICS: uncertain polarity

PHYS. PROPERTIES: ● 49.5% 1.83; ● 50.1% 1.95; ● 50.1% 1.92

CHEMISTRY: ● 69.7%; ● 70.6%; ● 59.4%

SECTION: 1, 2, 3, 4, 5, 6, 7, CC

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY: VOID

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: IW

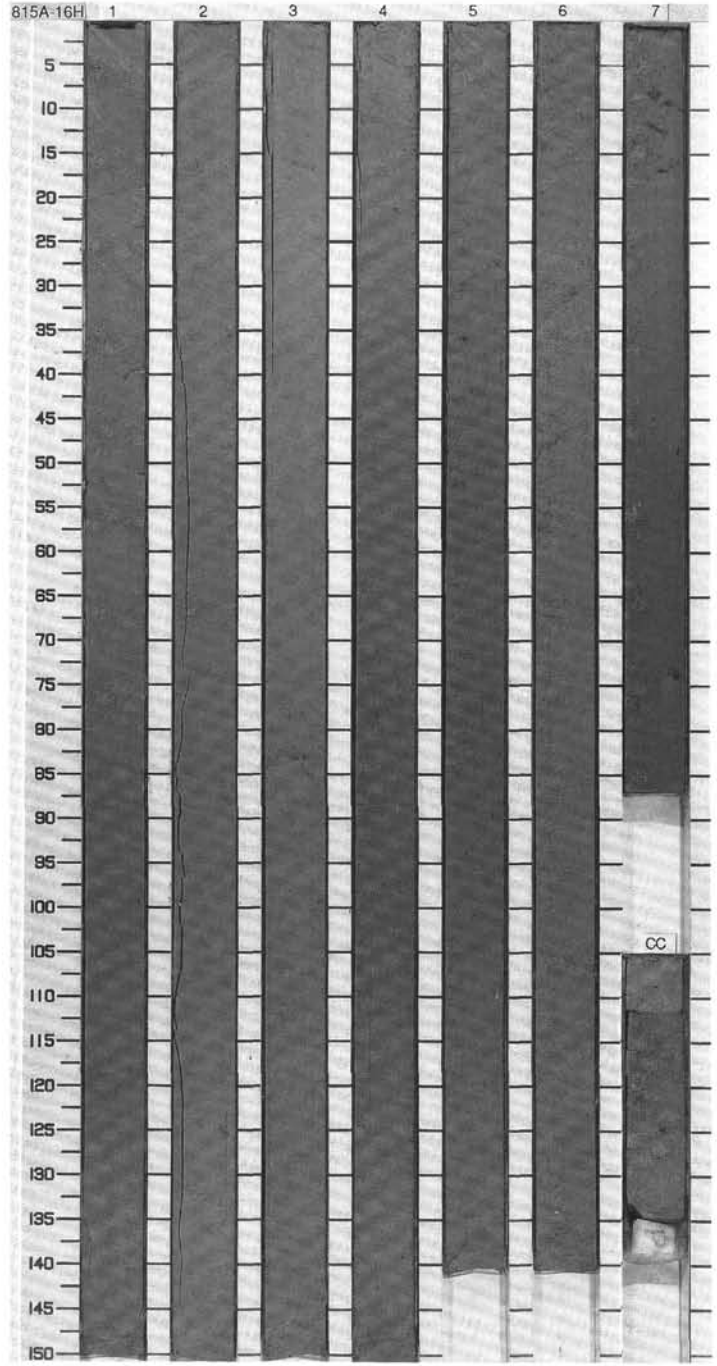
LITHOLOGIC DESCRIPTION

CLAYEY NANNOFOSSIL OOZE

Major lithology: Gray (5Y 5/1) firm bioturbated CLAYEY NANNOFOSSIL OOZE with FORAMINIFERS and minor DOLOMITE.

SMEAR SLIDE SUMMARY (%):

	2, 65 D	5, 57 D	CC, 3 D	CC, 9 D	CC, 22 D
COMPOSITION:					
Bioclast	10	10	10	15	10
Dolomite	5	2	2	---	3
Foraminifers	15	10	10	15	5
Micrite	17	---	---	---	---
Nannofossils	30	74	70	58	79
Pyrite	1	---	---	5	---
Quartz	5	2	3	7	3
Spicules	2	2	---	---	---



SITE 815 HOLE A CORE 17H CORED INTERVAL 149.3-158.8 mbsf

TIME-ROCK UNIT: LOWER PLIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER
- FORAMINIFERS: R/M N18 - N19
- NANNOFOSSILS: A/G CN11
- RADIOLARIANS
- DIATOMS

PALEOMAGNETICS: uncertain polarity

PHYS. PROPERTIES: ● 49.0% 1.95; ● 48.9% 1.84; ● 51.4% 2.04

CHEMISTRY: ● 51.4%; ● 60.8%; ● 56.5%

SECTION / METERS

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES

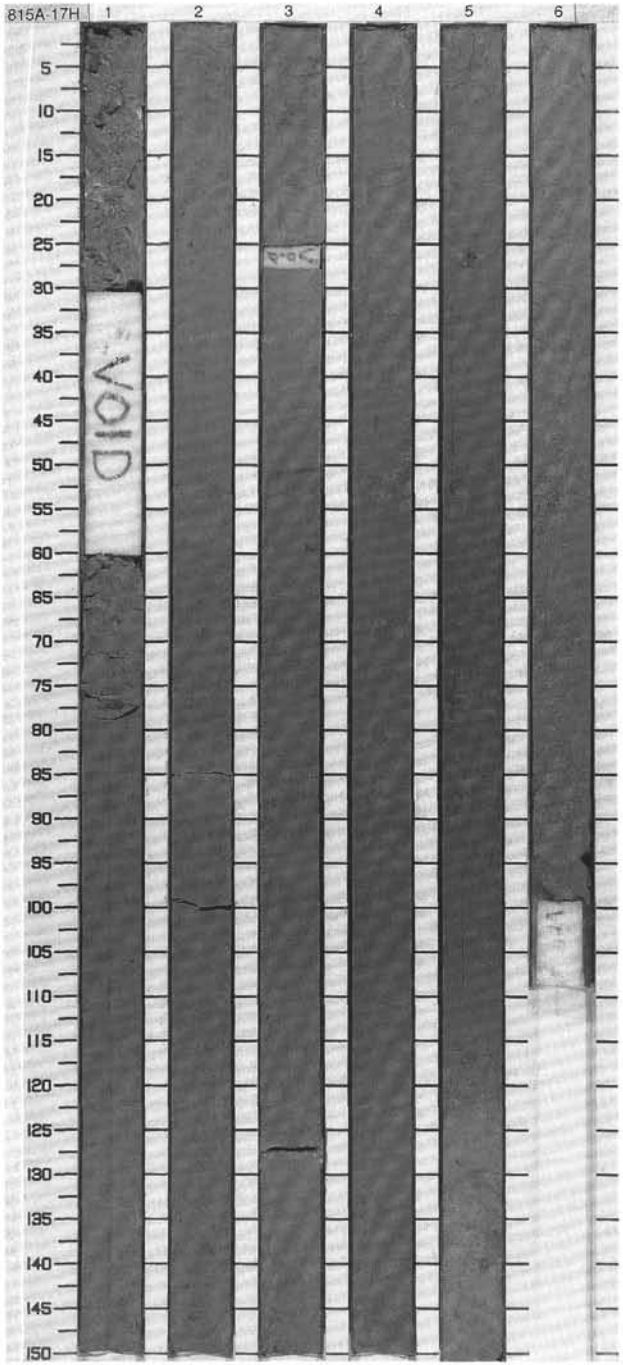
LITHOLOGIC DESCRIPTION

NANNOFOSSIL CLAYEY MIXED SEDIMENT

Major lithology: Gray (5Y 5/1) firm, bioturbated NANNOFOSSIL CLAYEY MIXED SEDIMENT with BIOCLASTS and FORAMINIFERS.

SMEAR SLIDE SUMMARY (%):

	2, 70	5, 104
	D	D
COMPOSITION:		
Bioclast	15	5
Dolomite	5	5
Foraminifers	15	20
Lithoclast	30	35
Nannofossils	30	30
Quartz	2	5
Spicules	2	---



SITE 815 HOLE A CORE 18H CORED INTERVAL 158.8-168.3 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
LOWER PLIOCENE	C/M	N18 - N19	CN11	A/G		uncertain polarity	● 49.0% 1.94 ● 48.8% 1.87 ● 48.1% 2.07 ● 75.6% ● 67.9% ● 70.1% ● 68.5%	1 2 3 4 5 6 7 CC	0.5 1.0				OG PAL

LITHOLOGIC DESCRIPTION

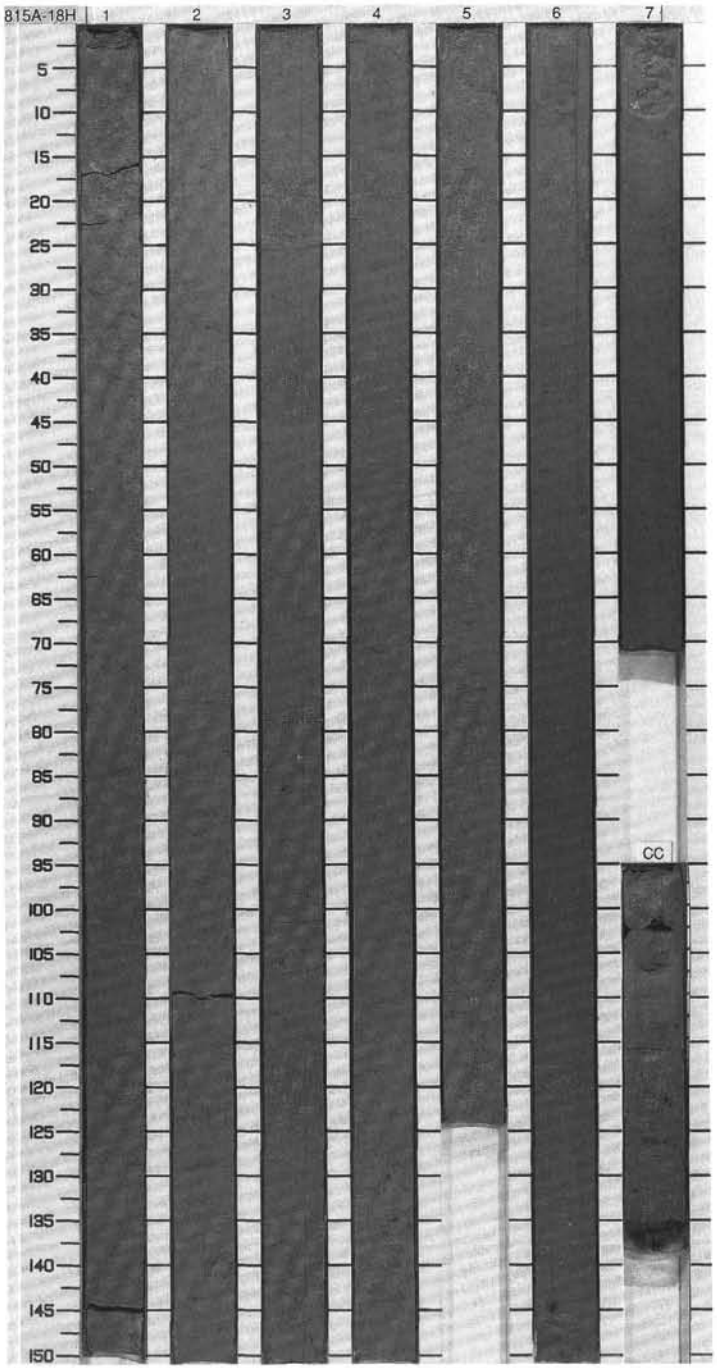
NANNOFOSSIL CLAYEY OOZE

Major lithology: Gray (5Y 5/1) bioturbated, firm NANNOFOSSIL CLAYEY OOZE with LITHOCLASTS.

Minor Lithology: Gray (5Y 5/1) bioturbated, NANNOFOSSIL CLAYEY CHALK with LITHOCLASTS.

SMEAR SLIDE SUMMARY (%):

	3, 85 D
COMPOSITION:	
Bioclast	5
Dolomite	5
Foraminifers	10
Lithoclast	25
Micrite	10
Nannofossils	40
Quartz	2
Spicules	2



SITE 815 HOLE A CORE 19H CORED INTERVAL 168.3-177.8 mbsf

SITE 815 HOLE A CORE 20H CORED INTERVAL 177.8-187.3 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
LOWER PLIOCENE	C/M	N18 - N19			uncertain polarity	● 46.8% 1.98	● 77.3%	5					
	A/M	CN11					● 81.9%	4				*	
						● 59.3% 1.98	● 67.2%	3					
						● 50.2% 1.82	● 45.3%	2					
								1	0.5				
									1.0				
								6					
								7					
								CC					PAL

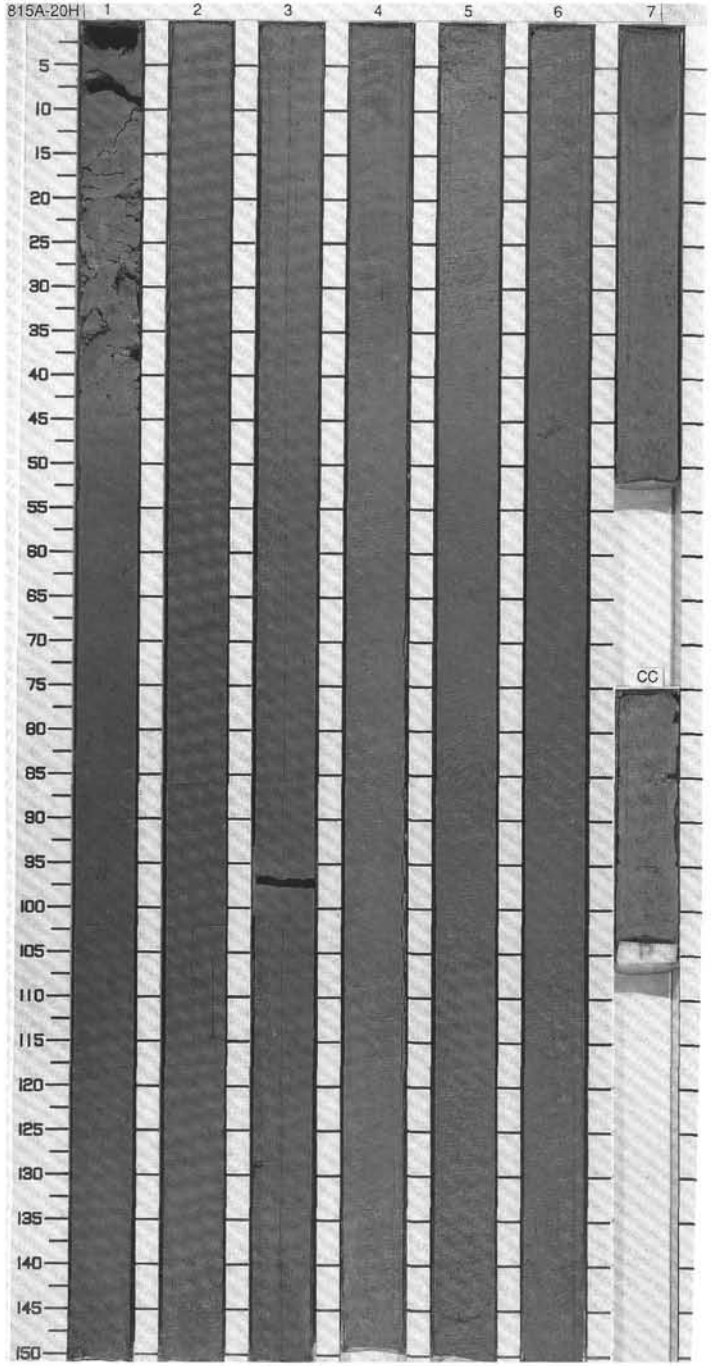
LITHOLOGIC DESCRIPTION

NANNOFOSSIL OOZE with CLAY

Major lithology: Dark gray (5Y 4/2) firm bioturbated NANNOFOSSIL OOZE with CLAY.

SMEAR SLIDE SUMMARY (%):

	4, 70 D
TEXTURE:	
Sand	20
Silt	60
Clay	20
COMPOSITION:	
Dolomite	10
Foraminifers	10
Lithoclast	25
Micrite	20
Nannofossils	30
Quartz	5



SITE 815 HOLE A CORE 21H CORED INTERVAL 187.3-196.8 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
LOWER PLIOCENE	A/M	N18 - N19			uncertain polarity	● 46.9% 2.00 ● 49.3% 1.84 ● 50.2% 1.87	● 49.6% ● 56.6% ● 69.9%	1 2 3 4 5 6 7 CC	0.5 1.0				OG PAL

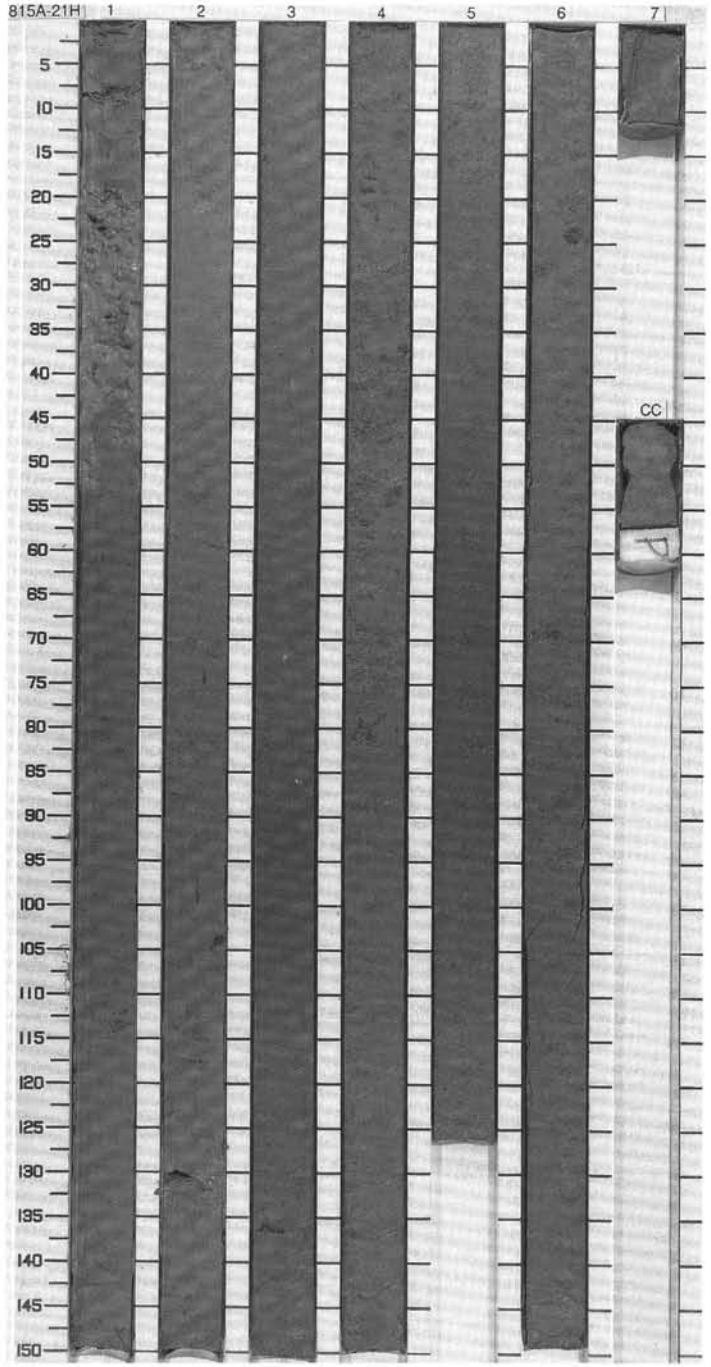
LITHOLOGIC DESCRIPTION

NANNOFOSSIL CLAYEY MIXED SEDIMENT

Major lithology: Gray (5Y 5/1) to dark gray (5Y 4/1) NANNOFOSSIL CLAYEY MIXED SEDIMENT with burrows.

SMEAR SLIDE SUMMARY (%):

	3, 80 D
TEXTURE:	
Sand	15
Silt	60
Clay	25
COMPOSITION:	
Bioclast	5
Dolomite	3
Foraminifers	15
Lithoclast	20
Micrite	9
Nannofossils	40
Quartz	5



SITE 815 HOLE A CORE 22H CORED INTERVAL 196.8-206.3 mbsf

TIME-ROCK UNIT: LOWER PLIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS A/M N18 - N19; NANNOFOSSILS A/G CN11; RADIOLARIANS; DIATOMS

PALEOMAGNETICS: uncertain polarity

PHYS. PROPERTIES: ● 45.8% 1.80; ● 50.0% 2.06; ● 47.6% 1.91; ● 51.9% 1.89

CHEMISTRY: ● 50.6%; ● 73.4%; ● 72.4%; ● 66.0%

SECTION / METERS: 1 (0.5, 1.0), 2, 3, 4, 5, 6, 7, CC

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: LW, PP, PAL

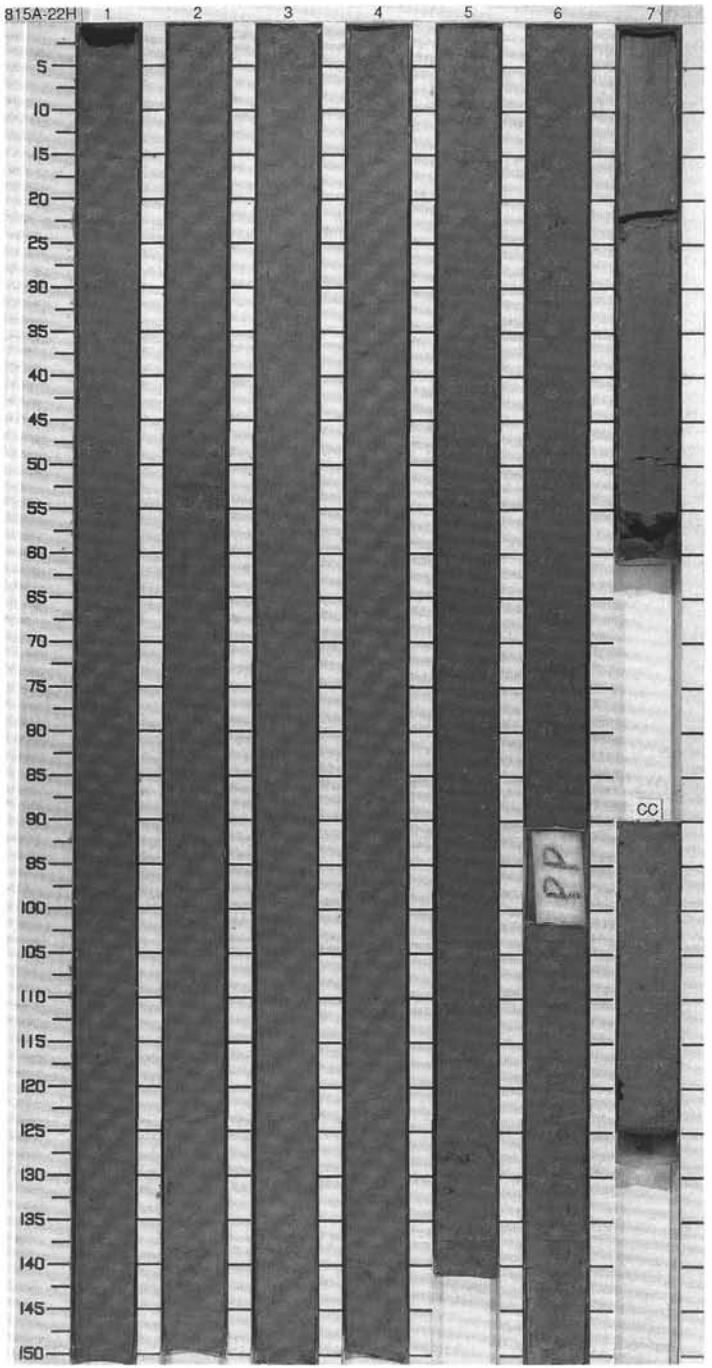
LITHOLOGIC DESCRIPTION

NANNOFOSSIL CLAYEY MIXED SEDIMENT with FORAMINIFERS

Major lithology: Olive gray (5Y 5/2) to dark greenish gray (5GY 4/1) NANNOFOSSIL CLAYEY MIXED SEDIMENT with FORAMINIFERS.

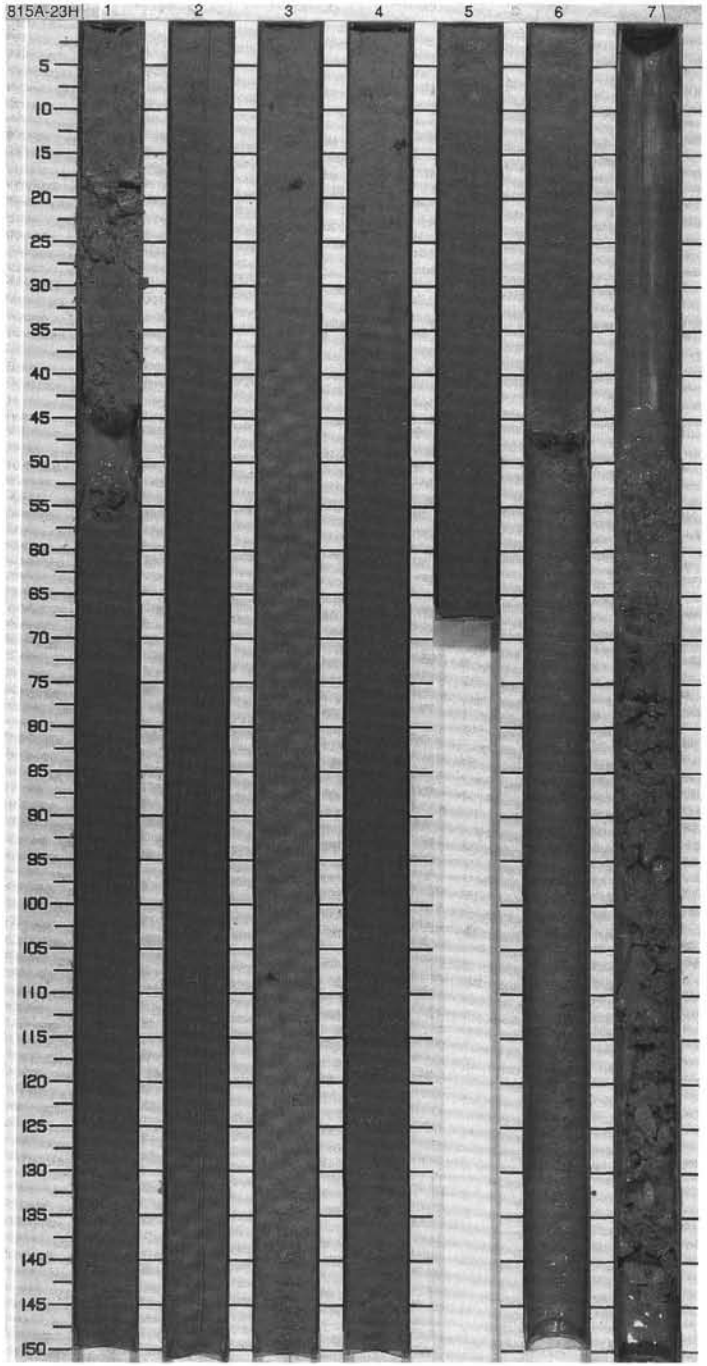
SMEAR SLIDE SUMMARY (%):

	1, 100 D	1, 101 D	2, 52 D	5, 100 D
COMPOSITION:				
Calcite	---	5	7	6
Clay	50	25	35	30
Foraminifers	15	20	10	15
Lithoclast	10	9	1	10
Nannofossils	25	37	35	33
Quartz	---	1	5	1
Spicules	---	3	3	4



SITE 815 HOLE A CORE 23H CORED INTERVAL 206.3-215.8 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
LOWER PLIOCENE	A/M	N18 - N19			uncertain polarity	● 48.3% 1.99	● 49.3%	1	0.5					CLAYEY NANNOFOSSIL MIXED SEDIMENT with FORAMINIFERS
	A/G	CN11				● 49.9% 1.89	● 69.2%	2	1.0					Major lithology: Greenish gray (5GY 5/1) to dark greenish gray (5GY 4/1) CLAYEY NANNOFOSSIL MIXED SEDIMENT with FORAMINIFERS. Slightly bioturbated throughout.
						● 48.6% 1.84	● 48.8%	3						
								4						
								5		VOID				
								6		VOID				
								7						



SITE 815 HOLE A CORE 24H CORED INTERVAL 215.8-225.3 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
LOWER PLIOCENE	A/M	A/G			uncertain polarity	● 50.3% 1.90 ● 49.8% 1.94	● 52.6% ● 71.7% ● 69.1%	1 2 3 4 5 6 7 CC	0.5 1.0	VOID			* PAL

N18 - N19

CN11

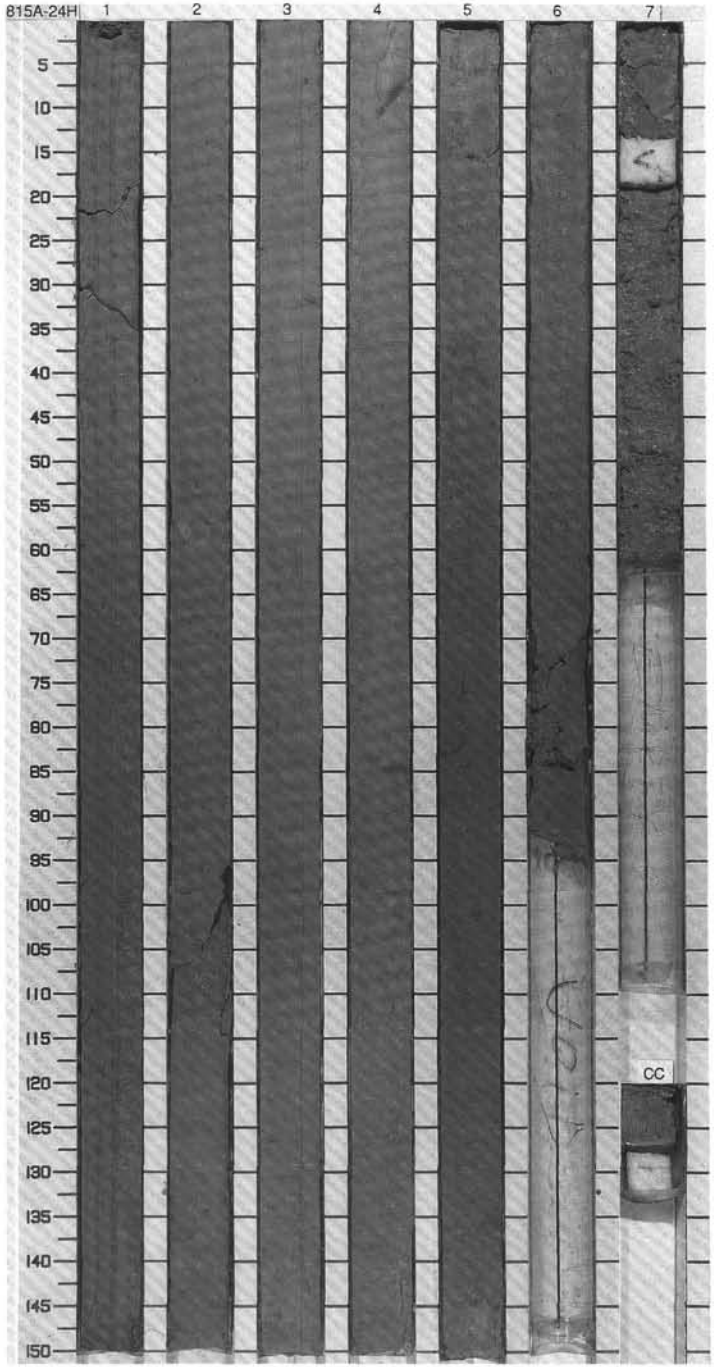
LITHOLOGIC DESCRIPTION

NANNOFOSSIL OOZE with FORAMINIFERS and CLAY.

Major lithology: Gray (5Y 6/1) to greenish gray (5GY 5/1) NANNOFOSSIL OOZE with FORAMINIFERS and CLAY. Slightly bioturbated throughout.

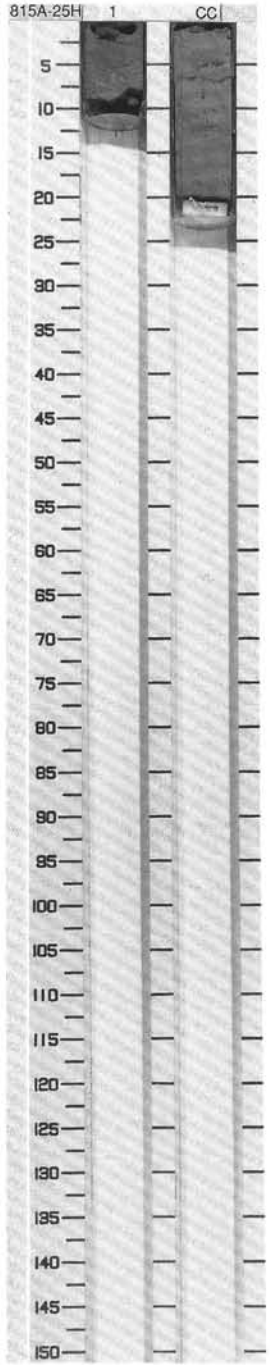
SMEAR SLIDE SUMMARY (%):

	4, 87 D
COMPOSITION:	
Calcite	10
Clay	30
Foraminifers	10
Lithoclast	2
Nannofossils	33
Quartz	8
Spicules	7



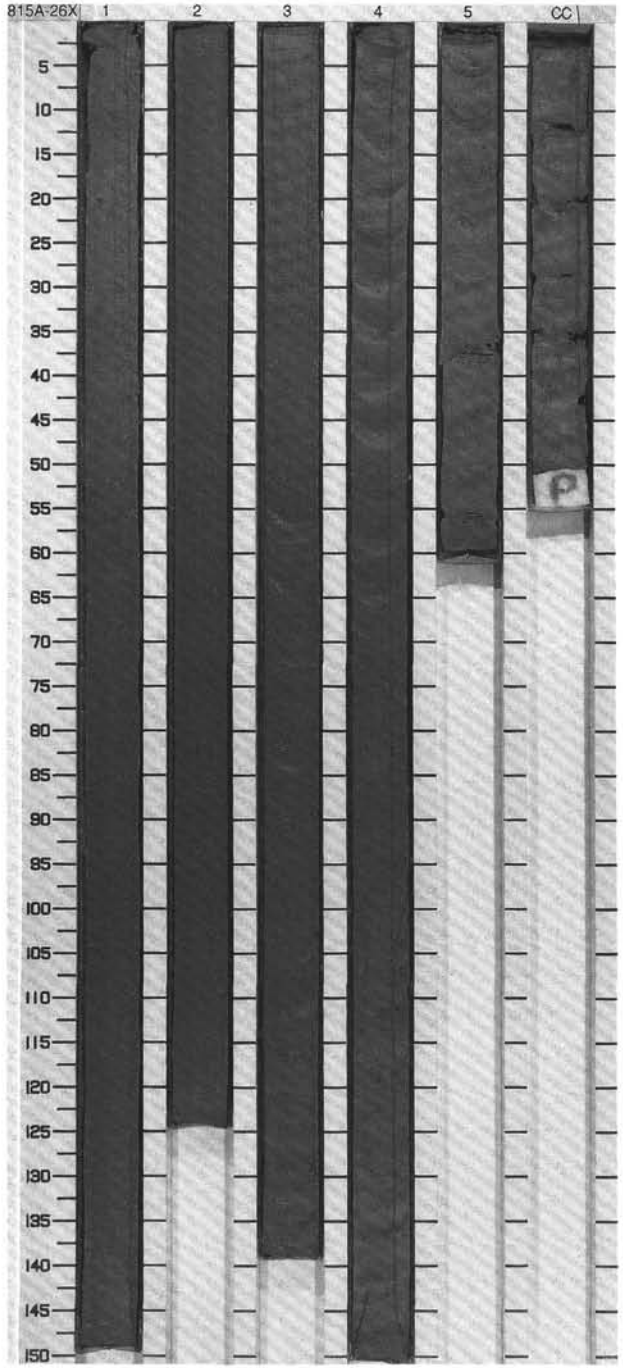
SITE 815 HOLE A CORE 25H CORED INTERVAL 225.3-225.8 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
LOWER PLIOCENE	A/M N18 - N19	A/G CN11			not measured		67.6%	CC						NANNOFOSSIL OOZE Major lithology: Gray (5Y 6/1) to greenish gray (5GY 5/1) NANNOFOSSIL OOZE with burrows.



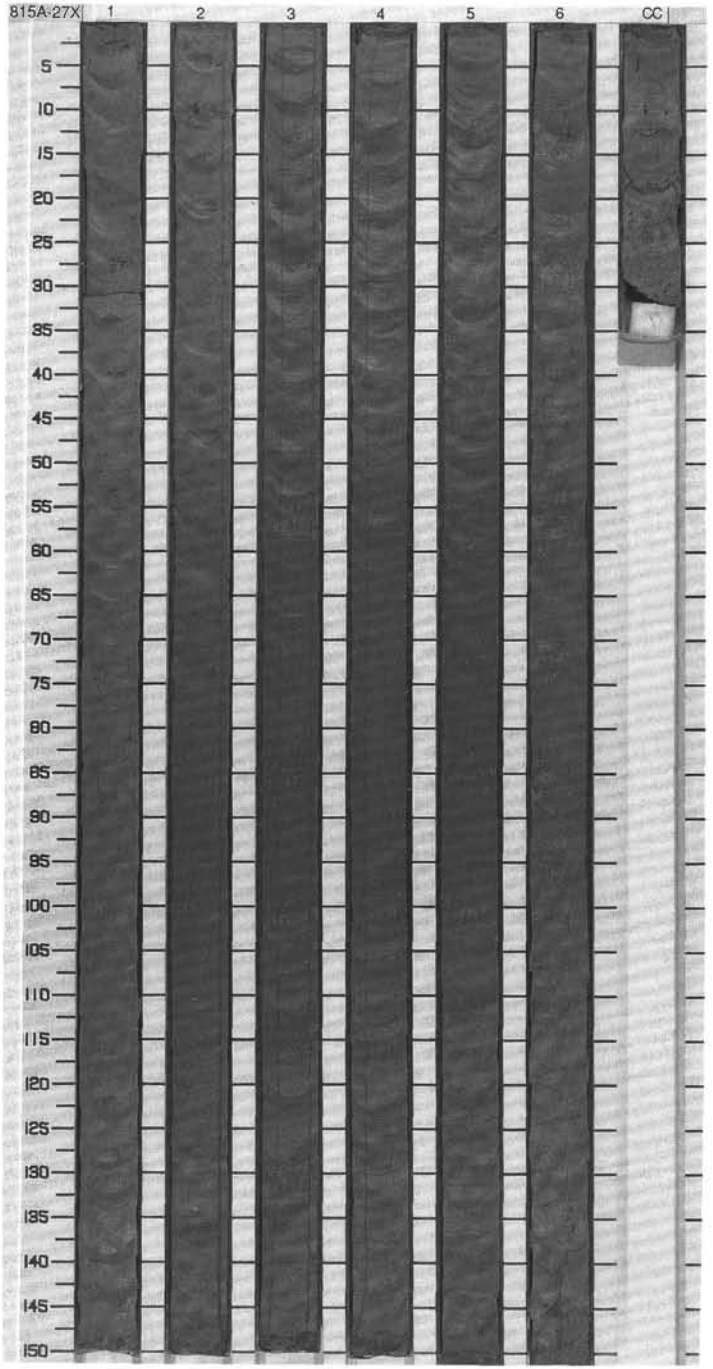
SITE 815 HOLE A CORE 26X CORED INTERVAL 225.8-232.2 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
LOWER PLIOCENE	A/M N18 - N19	A/G CN11			uncertain polarity	● 51.5% 1.93 ● 49.8% 1.81	● 40.5% ● 50.4% ● 62.6%	1 2 3 4 5 CC	0.5 1.0			*	OG TW PAL	NANNOFOSSIL CLAYEY MIXED SEDIMENT with FORAMINIFERS Major lithology: Gray (5Y 6/1) to greenish gray (5GY 5/1) NANNOFOSSIL CLAYEY MIXED SEDIMENT with FORAMINIFERS. SMEAR SLIDE SUMMARY (%): 2, 60 D COMPOSITION: Calcite 4 Clay 48 Foraminifers 5 Lithoclast 2 Nannofossils 30 Quartz 4 Spicules 7



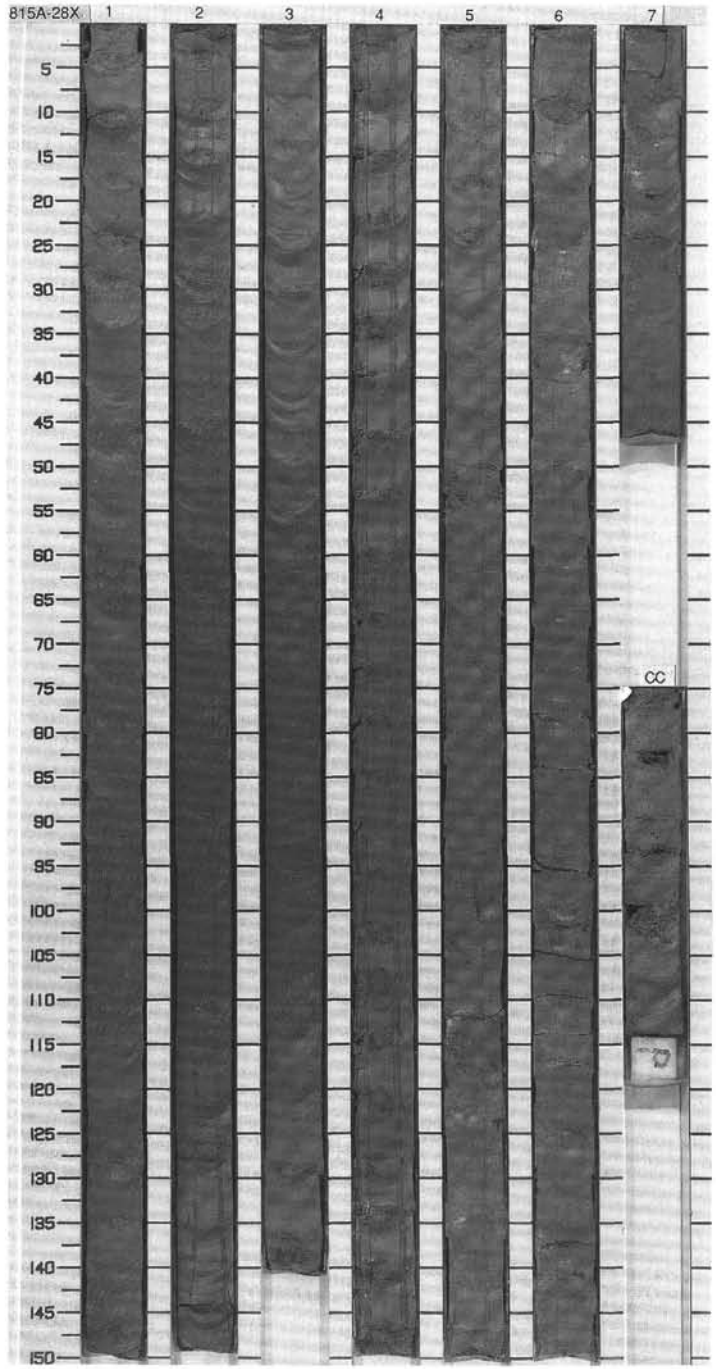
SITE 815 HOLE A CORE 27X CORED INTERVAL 232.2-241.8 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
LOWER PLIOCENE	N18 - N19	CN11			uncertain polarity	45.6% 1.92	43.1%	5						NANNOFOSSIL CLAYEY MIXED SEDIMENT with FORAMINIFERS Major lithology: Gray (5Y 5/1) to dark gray (5Y 4/1) NANNOFOSSIL CLAYEY MIXED SEDIMENT with FORAMINIFERS. Slightly burrowed throughout.
	C/M					49.4% 1.89	48.9%	1	0.5					
	A/G								1.0					
							43.1%	2						
								3						
								4						
								5						
								6						
								CC					PAL	



SITE 815 HOLE A CORE 28X CORED INTERVAL 241.8-251.5 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
LOWER PLIOCENE	C/M N18 - N19	A/G CN11			uncertain polarity	● 51.7% 1.93 ● 50.9% 1.90	● 64.7% ● 53.1% ● 43.1%	1 2 3 4 5 6 7 CC	0.5 1.0				PAL	NANNOFOSSIL CLAYEY MIXED SEDIMENT with FORAMINIFERS Major lithology: Gray (5GY 6/1) NANNOFOSSIL CLAYEY MIXED SEDIMENT with FORAMINIFERS. Slightly burrowed throughout. SMEAR SLIDE SUMMARY (%): 2, 94 D COMPOSITION: Carbonate grains 5 Clay 37 Foraminifers 5 Nannofossils 34 Polyquartz 8 Quartz 5 Spicules 6



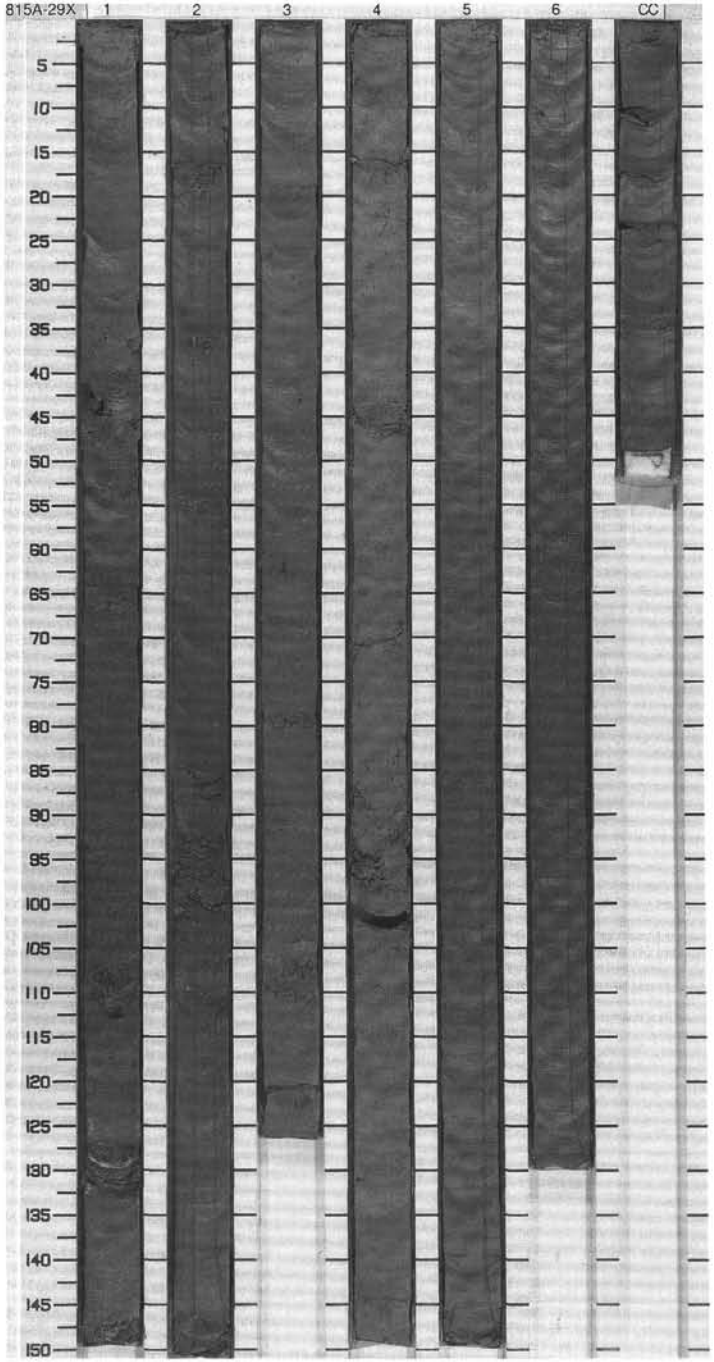
SITE 815 HOLE A CORE 29X CORED INTERVAL 251.5-261.2 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
LOWER PLIOCENE	N18 - N19	CN11			uncertain polarity	• 49.5% 1.91	• 45.6%	1	0.5				
									1.0				
								2					
						• 47.0% 1.84	• 43.4%	3					OG
								4					
								5					
								6					
	C/M	A/G						CC					PAL

LITHOLOGIC DESCRIPTION

NANNOFOSSIL CLAYEY MIXED SEDIMENT with FORAMINIFERS

Major lithology: Gray (5Y 6/1) to dark greenish gray (5GY 4/1) NANNOFOSSIL CLAYEY MIXED SEDIMENT with FORAMINIFERS. Slightly burrowed throughout.



SITE 815 HOLE A CORE 30X CORED INTERVAL 261.2-270.8 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
LOWER PLIOCENE	C/M	N18 - N19	CN11	A/G	uncertain polarity	● 50.9% 1.87 ● 62.5%	● 52.8% 1.82 ● 61.4%	1 2 3 4 5 6 7 CC	0.5 1.0				PAL

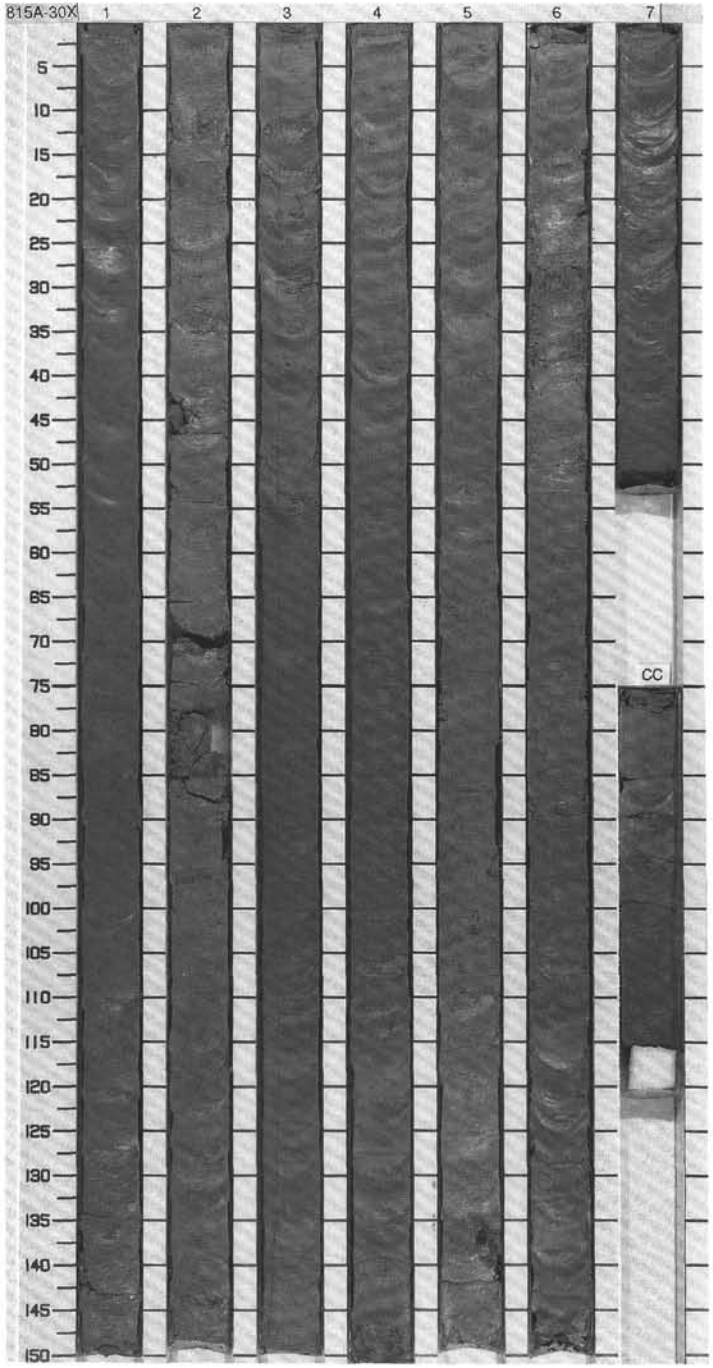
LITHOLOGIC DESCRIPTION

CLAYEY NANNOFOSSIL OOZE

Major lithology: Greenish gray (5GY 5/1) to dark greenish gray (5GY 4/1) CLAYEY NANNOFOSSIL OOZE. Slightly burrowed throughout.

SMEAR SLIDE SUMMARY (%):

	2, 48 D	3, 52 D
COMPOSITION:		
Bioclast	---	2
Carbonate particles	33	2
Clay	27	40
Dolomite	3	---
Foraminifers	3	4
Lithoclast	---	5
Nannofossils	20	40
Polyquartz	14	---
Quartz	---	4
Spicules	---	3



SITE 815 HOLE A CORE 31X CORED INTERVAL 270.8-280.5 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
LOWER PLIOCENE	C/M	N18 - N19			uncertain polarity	● 48.7% 1.93	● 67.6%	1	0.5				*
	A/G	CN11							1.0				
								2					*
						● 49.1% 1.91							
							● 58.2%	3					
								4					
							● 68.1%	5				SW	
								6					
								7					
								CC				PBL	

LITHOLOGIC DESCRIPTION

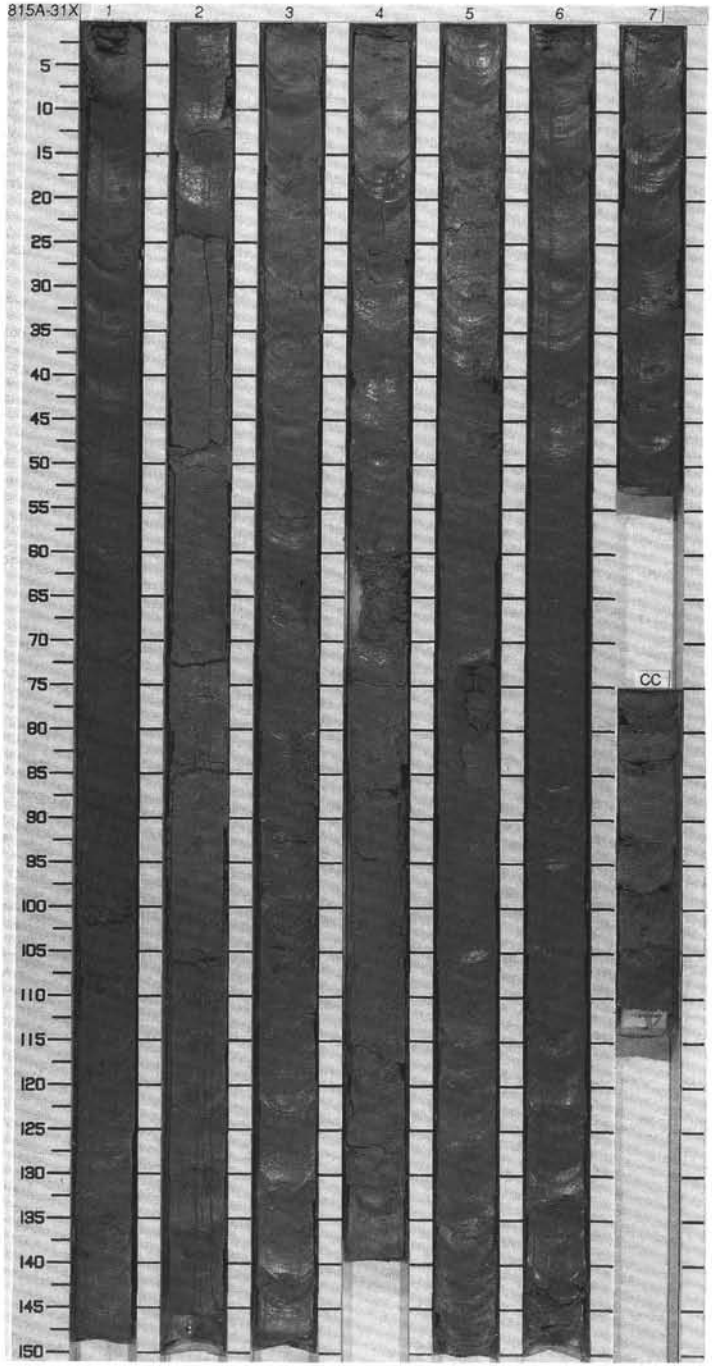
NANNOFOSSIL CLAYEY OOZE

Major lithology: Gray (5Y 6/1) to greenish gray (5GY 5/1) NANNOFOSSIL CLAYEY OOZE. Slightly burrowed throughout.

Minor lithology: Light gray (5Y 6/1) NANNOFOSSIL OOZE with CLAY, FORAMINIFERS and detrital CALCITE.

SMEAR SLIDE SUMMARY (%):

	1, 16 D	2, 16 D
COMPOSITION:		
Carbonate grains	---	23
Clay	35	25
Foraminifers	9	20
Micrite	---	4
Nannofossils	50	25
Polyquartz	3	---
Quartz	3	---
Spicules	---	3



SITE 815 HOLE A CORE 32X CORED INTERVAL 280.5-290.2 mbsf

TIME-ROCK UNIT: LOWER PLIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS: N18 - N19 (C/M); NANNOFOSSILS: CN11 (A/G); RADIOLARIANS; DIATOMS

PALEOMAGNETICS: uncertain polarity

PHYS. PROPERTIES: ● 53.3% 1.91

CHEMISTRY: ● 67.4%; ● 58.1%

SECTION: 1, 2, 3, 4, 5, 6, CC

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: OG; PAL

LITHOLOGIC DESCRIPTION

CORE 133-815A-32X

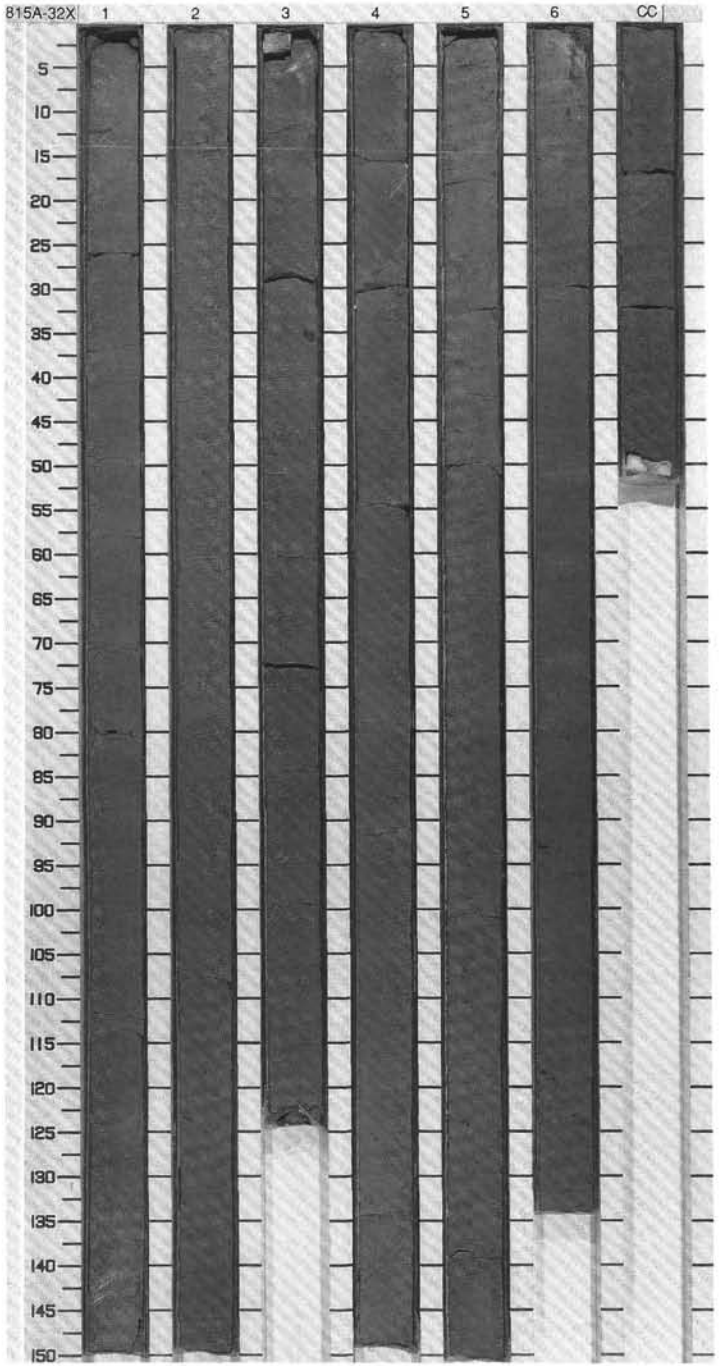
NANNOFOSSIL CLAYEY MIXED SEDIMENT with FORAMINIFERS and LITHOCLASTS

Major lithology: Gray (5Y 5/1) bioturbated and lithified CLAYEY NANNOFOSSIL MIXED SEDIMENT with FORAMINIFERS and LITHOCLASTS. Bioturbation includes *Chondrites*, *?Zoophycos*. The burrows are often filled with foraminifers and pyrite.

Minor lithology: CLAYEY NANNOFOSSIL MICRITE MIXED SEDIMENT with FORAMINIFERS and LITHOCLASTS.

SMEAR SLIDE SUMMARY (%):

	2, 75 D	2, 103 D	6, 79 D
TEXTURE:			
Sand	30	15	15
Silt	50	50	60
Clay	20	35	25
COMPOSITION:			
Bioclast	9	---	5
Clay	10	10	10
Dolomite	Tr	3	Tr
Foraminifers	20	12	15
Intraclasts	---	3	---
Lithoclast	20	8	8
Micrite	12	20	22
Nannofossils	25	33	30
Quartz	2	4	3
Spicules	---	2	2



SITE 815 HOLE A CORE 33X CORED INTERVAL 290.2-299.9 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
LOWER PLIOCENE	C/M	N18 - N19			uncertain polarity	● 49.3% 1.91	● 55.6%	1	0.5				
	R/P	?							1.0				
								2					*
							● 59.6%	3					
								4					
								CC					

LITHOLOGIC DESCRIPTION

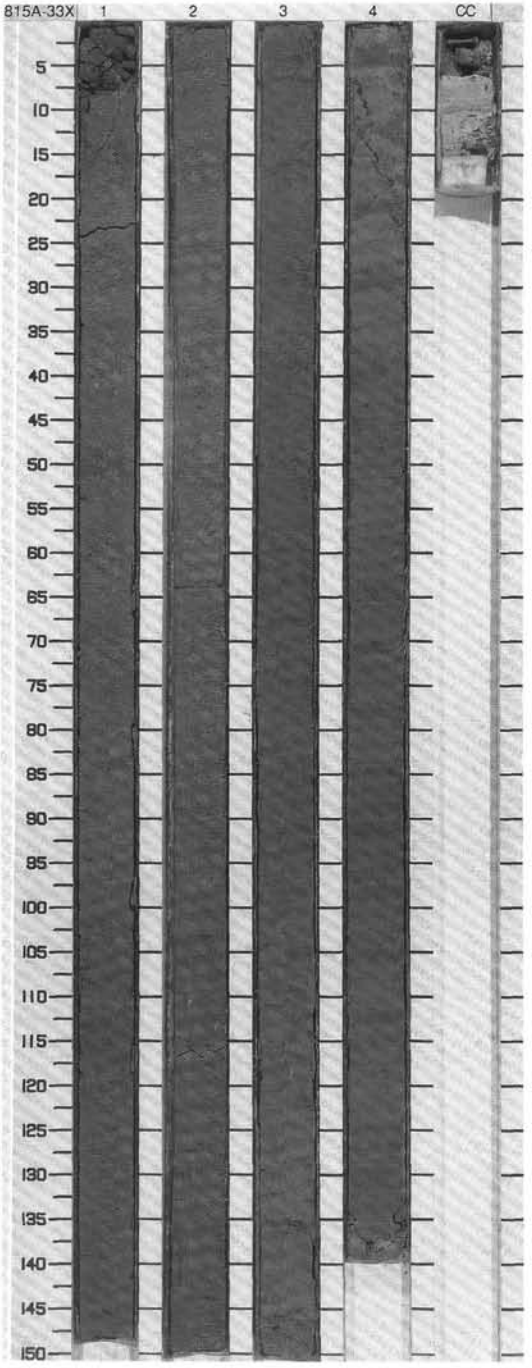
CLAYEY NANNOFOSSIL MIXED SEDIMENT and CLAYEY DOLOMITIC CALCITE MIXED SEDIMENT

Major lithology: Gray (5Y 5/1), lithified CLAYEY NANNOFOSSIL MIXED SEDIMENT. Frequent burrows are filled with foraminifers and pyrite.

Minor lithology: Light gray (5Y 7/1), laminated CLAYEY DOLOMITIC CALCITE MIXED SEDIMENT, which is not lithified.

SMEAR SLIDE SUMMARY (%):

	2, 103 D	4, 139 D	CC, 10 D
TEXTURE:			
Sand	20	30	70
Silt	65	50	20
Clay	15	20	10
COMPOSITION:			
Bioclast	5	10	10
Calcite	---	30	---
Clay	5	---	---
Dolomite	2	45	82
Foraminifers	10	5	5
Lithoclast	10	---	---
Micrite	20	---	3
Nannofossils	39	10	---
Pyrite	1	---	---
Quartz	5	---	---
Spicules	3	---	---



SITE 815 HOLE A CORE 34X CORED INTERVAL 299.9-309.6 mbsf

TIME-ROCK UNIT: LOWER PLIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS A/G N18 - N19; NANNOFOSSILS A/G CN10; RADIOLARIANS; DIATOMS

PALEOMAGNETICS: uncertain polarity

PHYS. PROPERTIES: 55.7% ● 1.82; ● 48.9% 1.90; ● 49.8% 1.87

CHEMISTRY: ● 66.6%; ● 71.9%; ● 55.7%; ● 75.5%

SECTION: 1, 2, 3, 4, 5, 6, 7, CC

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: PAL, PAT

LITHOLOGIC DESCRIPTION

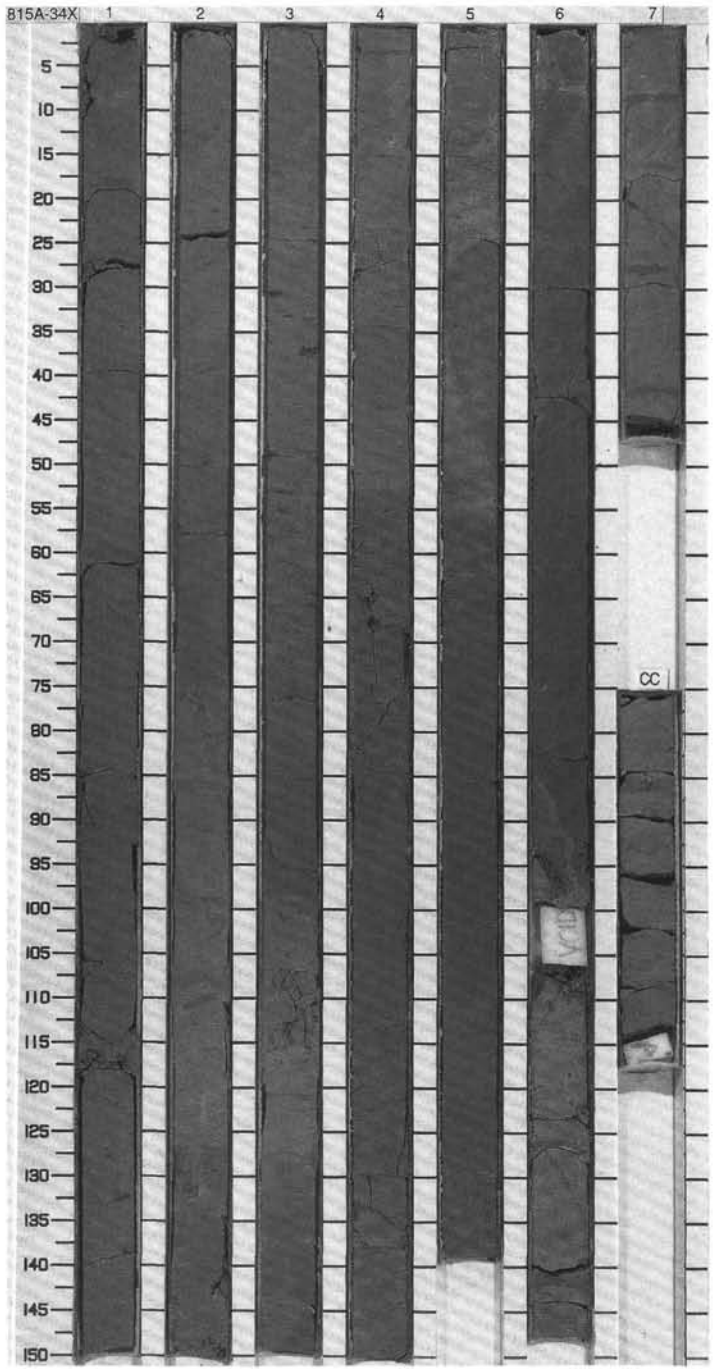
CLAYEY NANNOFOSSIL MIXED SEDIMENT to CLAYEY FORAMINIFER NANNOFOSSIL MIXED SEDIMENT with intercalations of upward fining CLAYEY FORAMINIFER MIXED SEDIMENTS.

Major lithology: Gray (5Y 4/1), lithified CLAYEY NANNOFOSSIL MIXED SEDIMENT and CLAYEY FORAMINIFER NANNOFOSSIL MIXED SEDIMENT at the base of the core. Bioturbation, which is often marked by pyrite and enrichments of foraminifers, occurs throughout the core. Strong contortion of beds in Sections 5-6.

Minor lithology: Beds of gray (5Y 5/1), bioturbated CLAYEY FORAMINIFER MIXED SEDIMENT fining upwards and having sharp contacts at the base. Bioturbation prevails.

SMEAR SLIDE SUMMARY (%):

	2, 113 D	5, 100 D
TEXTURE:		
Sand	20	10
Silt	50	50
Clay	30	40
COMPOSITION:		
Bioclast	5	7
Clay	10	10
Dolomite	---	3
Foraminifers	20	10
Lithoclast	8	6
Micrite	20	25
Nannofossils	35	32
Opaques	2	3
Quartz	---	2



SITE 815 HOLE A CORE 35X CORED INTERVAL 309.6-319.3 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
LOWER PLIOCENE	A/G N18 - N19	A/G CN10			uncertain polarity	● 50.6% 2.01 ● 54.5% 2.05 ● 47.5% 1.87 ● 63.5% 1.93	● 75.8% ● 70.2%	1 2 3 4 5 6 7 CC	0.5 1.0	VOID			PAL*

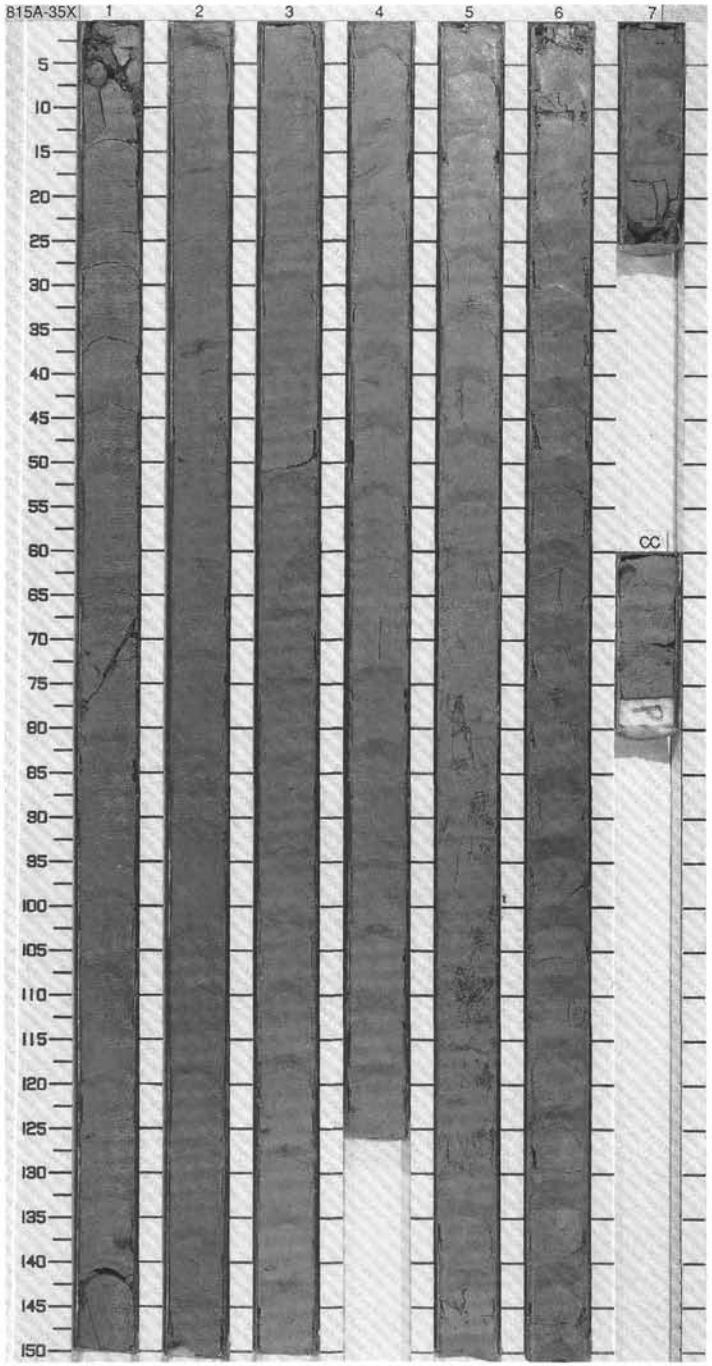
LITHOLOGIC DESCRIPTION

NANNOFOSSIL CHALK with FORAMINIFERS

Major lithology: Highly bioturbated NANNOFOSSIL CHALK with FORAMINIFERS, olive gray (5Y 6/2) in color. Burrows are often filled with foraminifer-rich sand and pyrite or lighter colored muds. Benthic foraminifers are relatively large. Contortion of beds occurs.

SMEAR SLIDE SUMMARY (%):

	3, 95 D
TEXTURE:	
Sand	20
Silt	20
Clay	60
COMPOSITION:	
Clay	30
Discoaster	5
Foraminifers	20
Nannofossils	45
Volcanic ash	Tr



SITE 815 HOLE A CORE 36X CORED INTERVAL 319.3-329.0 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
LOWER PLIOCENE	N18 - N19 (A/G)	CN10 (A/M)			uncertain polarity	41.6% 2.04; 51.4% 1.80	83.4%; 65.0%; 77.5%	1; 2; 3; 4; 5; 6; 7; CC	0.5; 1.0				

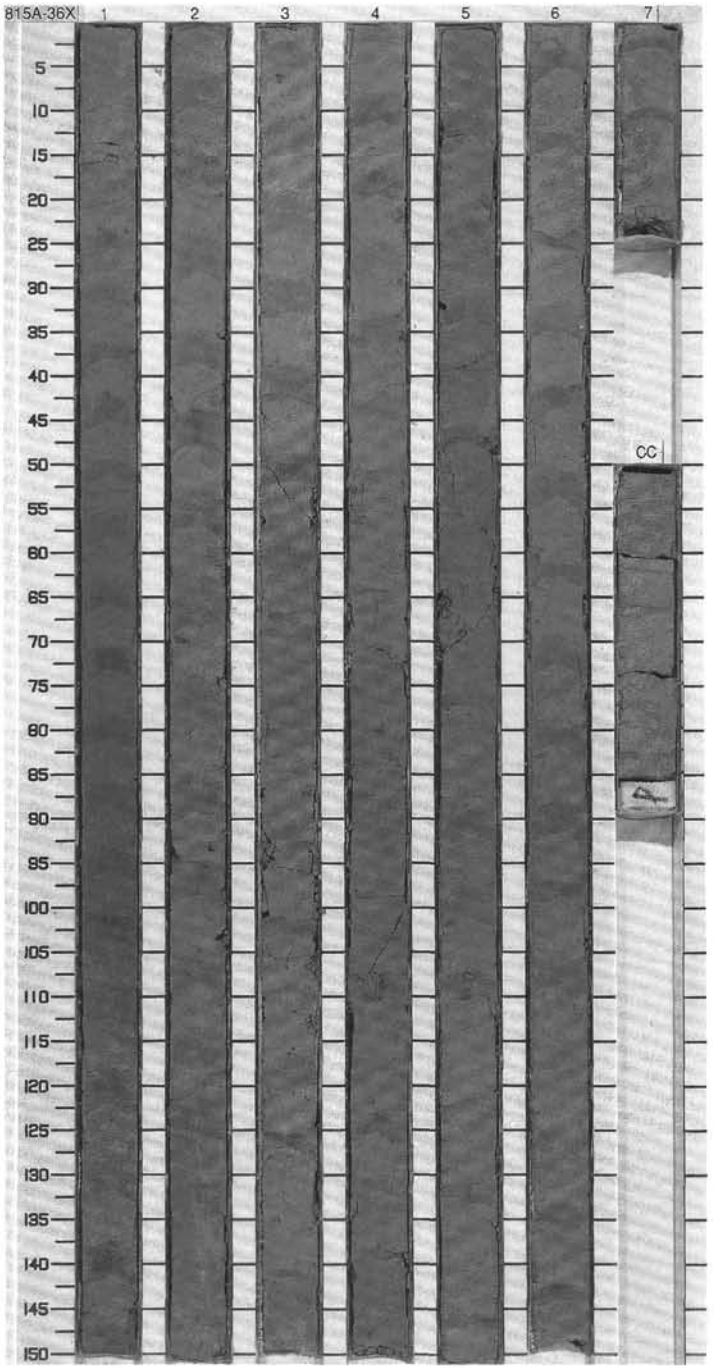
LITHOLOGIC DESCRIPTION

NANNOFOSSIL CHALK with FORAMINIFERS

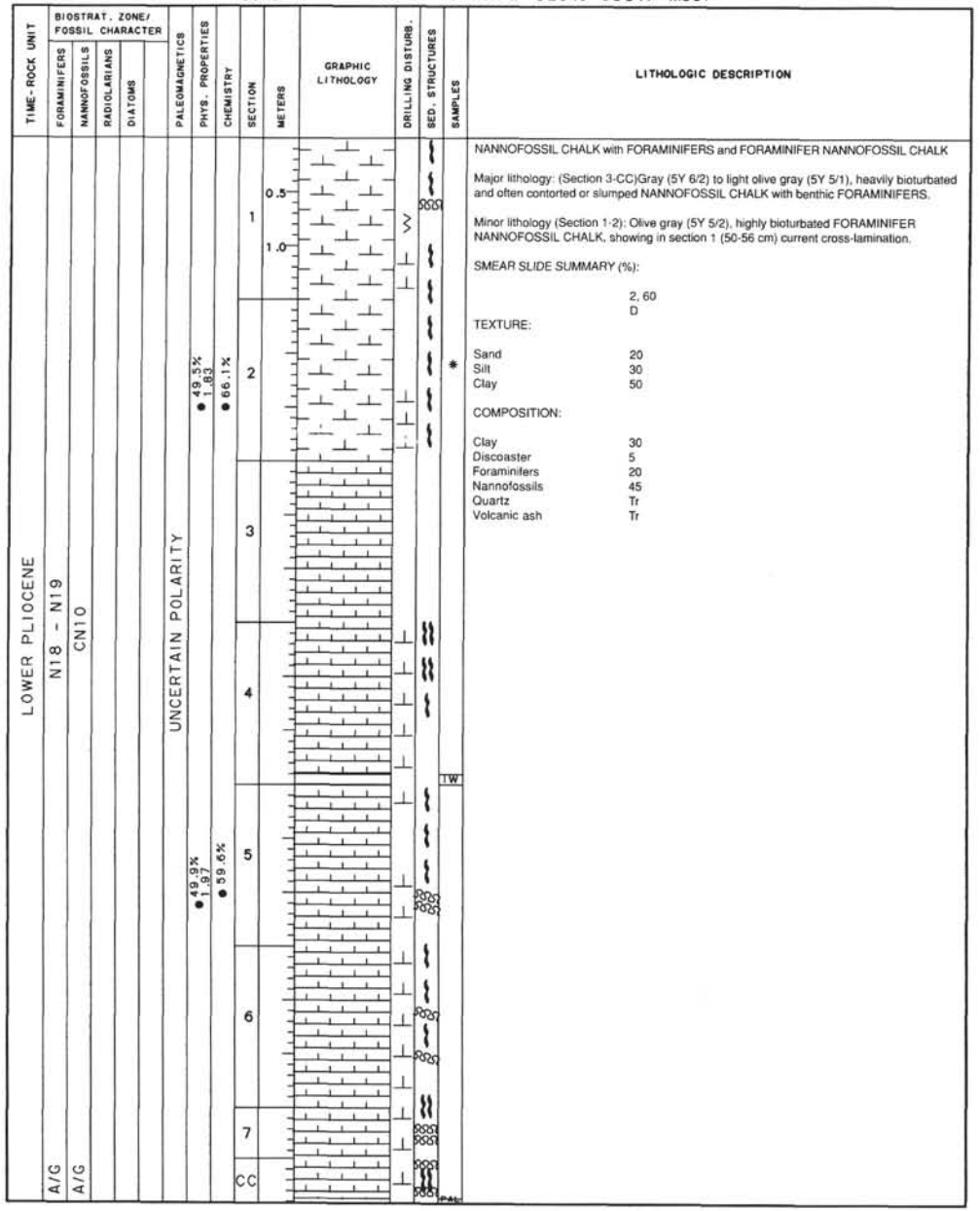
Major lithology: Light olive gray (5Y 6/2) NANNOFOSSILCHALK with FORAMINIFERS (ratio planktonic:benthic = 2:1). The degree of bioturbation is high throughout the core. Some burrows are filled with foraminifer sand, others with light colored muds. Slumping (Section 2, 130 cm to base of Section 3) occurs.

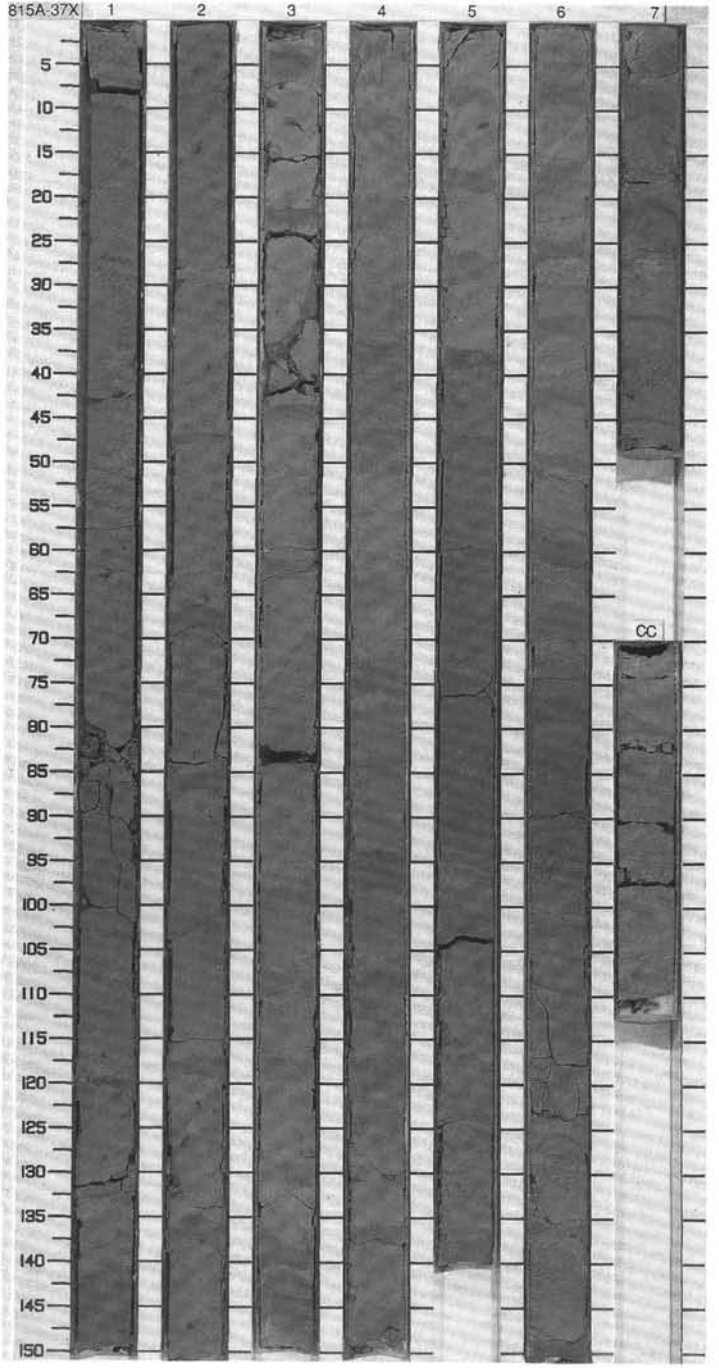
SMEAR SLIDE SUMMARY (%):

	3, 95 D
TEXTURE:	
Sand	15
Silt	25
Clay	60
COMPOSITION:	
Clay	30
Discoaster	5
Foraminifers	20
Nannofossils	45
Volcanic ash	Tr



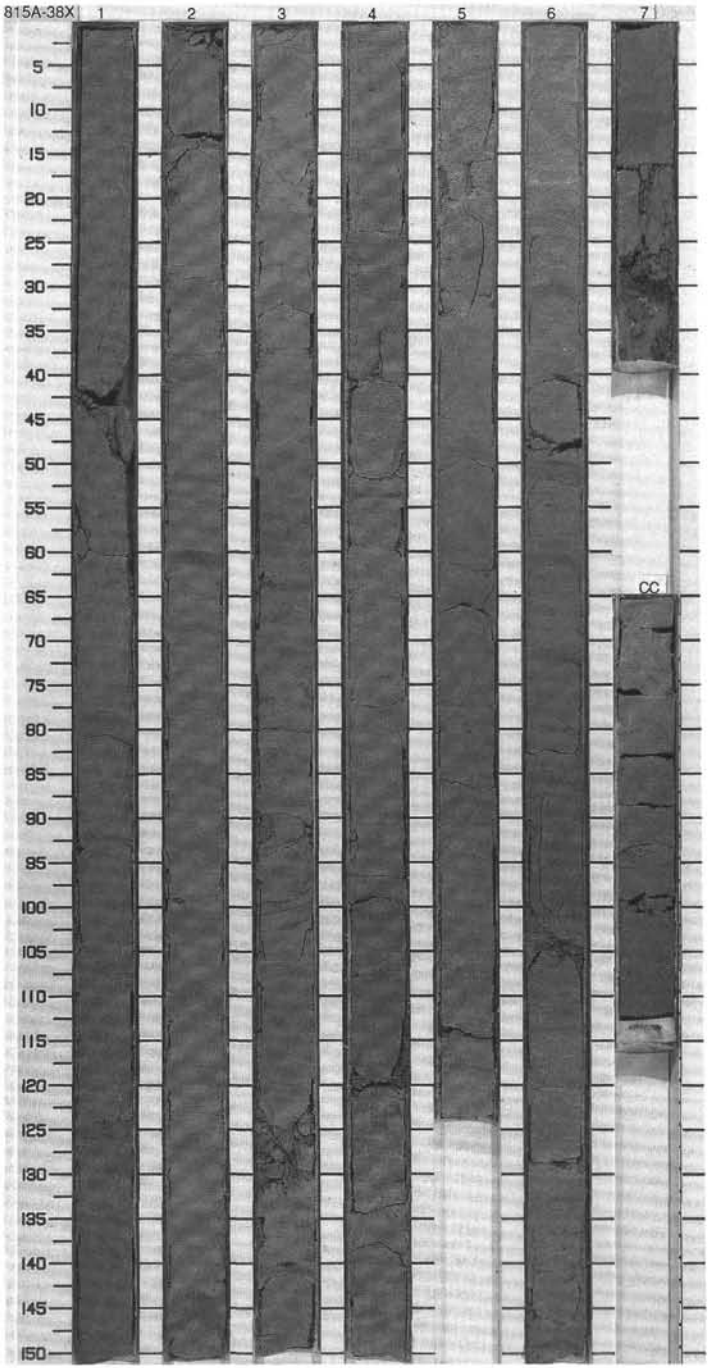
SITE 815 HOLE A CORE 37X CORED INTERVAL 329.0-338.7 mbsf





SITE 815 HOLE A CORE 38X CORED INTERVAL 338.7-348.4 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
LOWER PLIOCENE	A/G	A/G			uncertain polarity	• 51.2% 1.90	• 70.2%	1	0.5					FORAMINIFER NANNOFOSSIL CHALK Major lithology: Olive gray (5Y 5/1), highly bioturbated FORAMINIFER NANNOFOSSIL CHALK. Burrows are usually subhorizontal and show meniscate backfills (*Zoophycos*?). At top of Setion 4 bioturbation patterns belong to *Zoophycos* ichnofacies type. Convolute bedding and ripple cross-lamination occur in Section 3 (100-120 cm).
	N18 - N19	CN10							1.0					
						• 52.4% 1.92	• 60.5%	2						
								3						
								4						
								5						
								6					OG	
								7						
								CC					PAL	



SITE 815 HOLE A CORE 39X CORED INTERVAL 348.4-358.1 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
UPPER MIOCENE	A/G	A/G			uncertain polarity	48.8% 1.89 / 48.6% 1.84	75.5% / 71.7%	1 2 3 4 5 CC	0.5 1.0				PAL

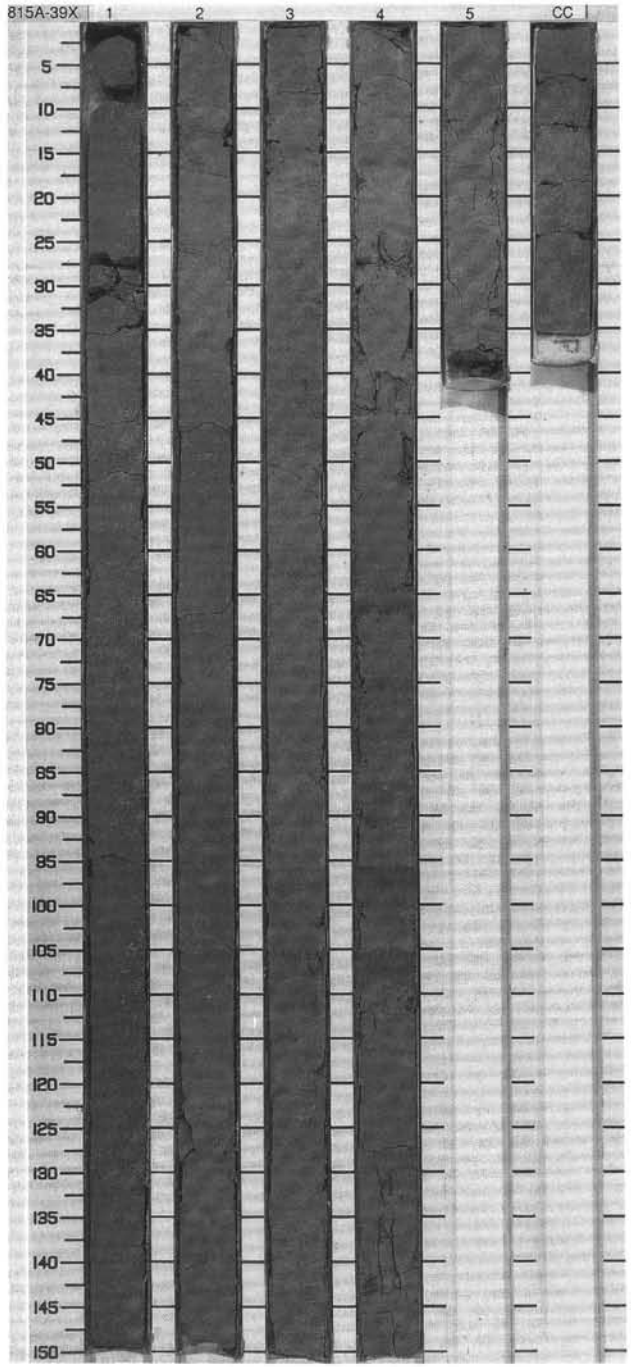
LITHOLOGIC DESCRIPTION

FORAMINIFER NANNOFOSSIL CHALK

Major lithology: Light olive (5Y 6/2), FORAMINIFER NANNOFOSSIL CHALK, which is heavily bioturbated (mainly *Chondrites* and *Zoophycos*). Burrows of the *Chondrites* ichnofacies type mainly occur from the middle part of Section 4.

SMEAR SLIDE SUMMARY (%):

	3, 75 D
TEXTURE:	
Sand	25
Silt	25
Clay	50
COMPOSITION:	
Clay	20
Discoaster	5
Foraminifers	25
Nannofossils	50
Quartz	Tr
Volcanic ash	Tr



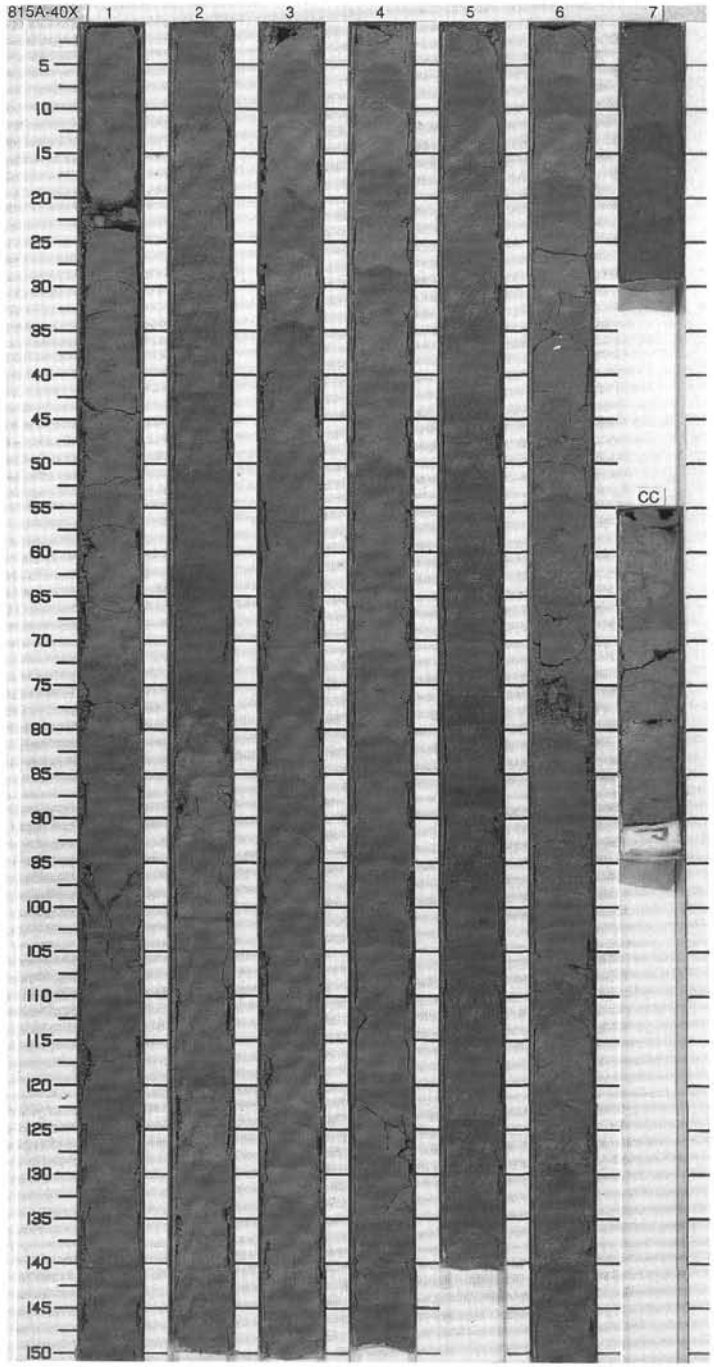
SITE 815 HOLE A CORE 40X CORED INTERVAL 358.1-367.8 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
UPPER MIOCENE	A/G	A/G			uncertain polarity	● 44.3% 1.96 ● 71.3%	● 46.6% 1.91 ● 69.0% ● 61.1%	1 2 3 4 5 6 7 CC	0.5 1.0			*	TW PAL	FORAMINIFER NANNOFOSSIL CHALK

Major lithology: Gray (5Y 5/1) to olive gray (5Y 5/2), highly bioturbated FORAMINIFER NANNOFOSSIL CHALK. Minor amounts of lithoclasts occur. Burrowing is mainly due to *Chondrites* and *Zoophycos* and *Planolites*. In Section 2 (60 cm) considerable amounts of volcanic lithic fragments occur.

SMEAR SLIDE SUMMARY (%):

	2, 60 D
TEXTURE:	
Sand	30
Silt	20
Clay	50
COMPOSITION:	
Clay	25
Discoaster	5
Feldspar	Tr
Foraminifers	30
Nannofossils	40
Opaques	Tr
Quartz	Tr
Volcanic ash	Tr



SITE 815 HOLE A CORE 41X CORED INTERVAL 367.8-377.4 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
UPPER MIOCENE	A/G	A/G			uncertain polarity	● 46.7% 2.00 ● 49.4% 1.90	● 64.3% ● 68.0% ● 75.3%	1 2 3 4 5 6 7 CC	0.5 1.0				OG PAL

N16 - N17
CN9b

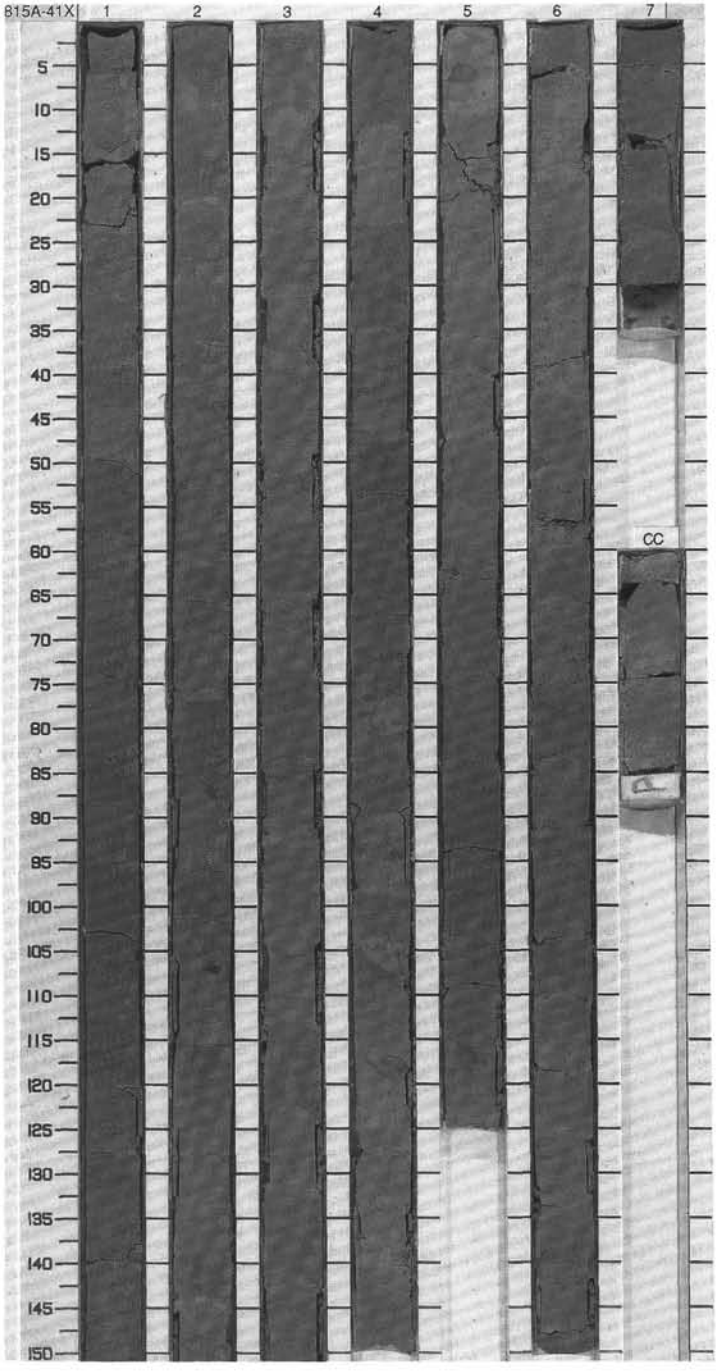
LITHOLOGIC DESCRIPTION

FORAMINIFER NANNOFOSSIL CHALK

Major lithology: Olive gray (5Y 5/2), highly bioturbated FORAMINIFER NANNOFOSSIL CHALK to the point of being nearly homogeneous. Few distinct burrows are filled with foraminifer sand or light colored mud. Bioturbation belongs mainly to *Planolites* and *Chondrites* ichnofacies.

SMEAR SLIDE SUMMARY (%):

	2, 90 D
TEXTURE:	
Sand	30
Silt	20
Clay	50
COMPOSITION:	
Clay	25
Discoaster	5
Feldspar	Tr
Foraminifers	28
Mica	Tr
Nannofossils	39
Opaques	Tr
Quartz	Tr
Volcanic ash	Tr



SITE 815 HOLE A CORE 42X CORED INTERVAL 377.4-387.1 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
UPPER MIOCENE	A/M	A/M			uncertain polarity	● 45.4% 1.96	● 69.9% ● 70.4%	1	0.5 1.0		X	*	
	N16 - N17	CN9b						2			X		
						● 45.4% 1.88					X		
								3					
								4					
								5					
						● 66.7%		6					
							● 69.1%	7					
								CC					PAL

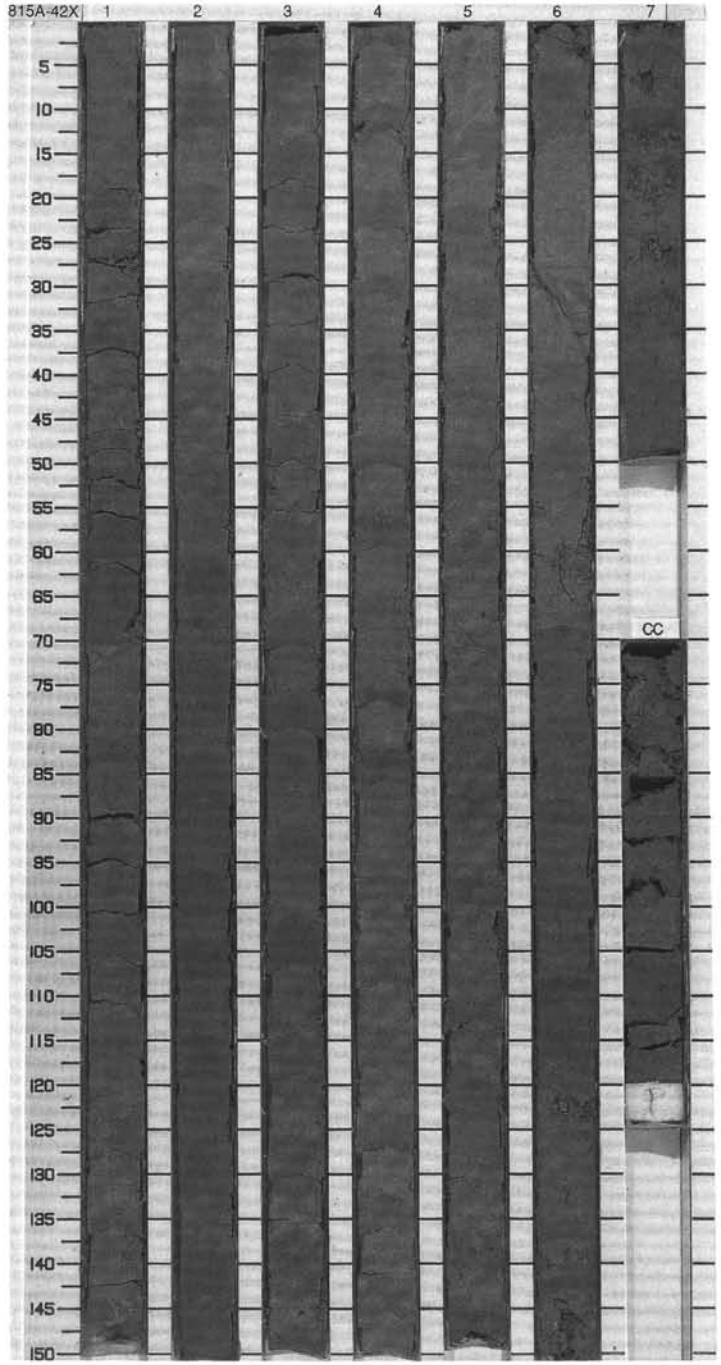
LITHOLOGIC DESCRIPTION

CLAYEY FORAMINIFER NANNOFOSSIL CHALK

Major lithology: Gray (5Y 6/1) bioturbated CLAYEY FORAMINIFER NANNOFOSSIL CHALK.

SMEAR SLIDE SUMMARY (%):

	2, 80 D
TEXTURE:	
Sand	32
Silt	20
Clay	48
COMPOSITION:	
Clay	25
Discoaster	5
Feldspar	Tr
Foraminifers	30
Mica	Tr
Nannofossils	4
Quartz	Tr
Volcanic ash	Tr



SITE 815 HOLE A CORE 43X CORED INTERVAL 387.1-396.4 mbsf

TIME-ROCK UNIT	UPPER MIOCENE
BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	C/P
NANNOFOSSILS	N16/N17
RADIOLARIANS	A/M
DIATOMS	CN9b
PALEOMAGNETICS	uncertain polarity
PHYS. PROPERTIES	● 43.0% 1.91 ● 43.9% 1.98
CHEMISTRY	● 65.6% ● 75.1%
SECTION	CC, 7, 6, 5, 4, 3, 2, 1
METERS	1.0, 0.5
GRAPHIC LITHOLOGY	
DRILLING DISTURB.	
SED. STRUCTURES	
SAMPLES	PAL, LW, *

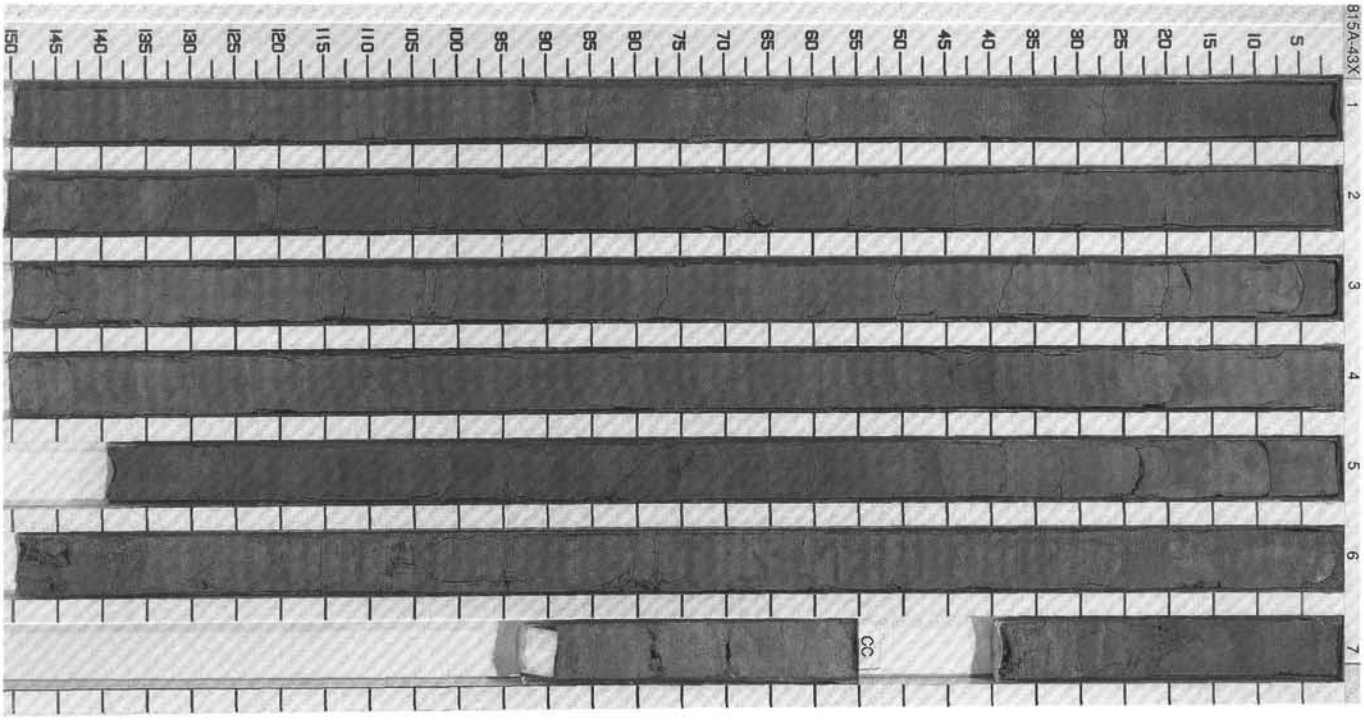
LITHOLOGIC DESCRIPTION

CLAYEY FORAMINIFER NANNOFOSSIL CHALK

Major lithology: Gray (5Y 5/2) bioturbated CLAYEY FORAMINIFER NANNOFOSSIL CHALK

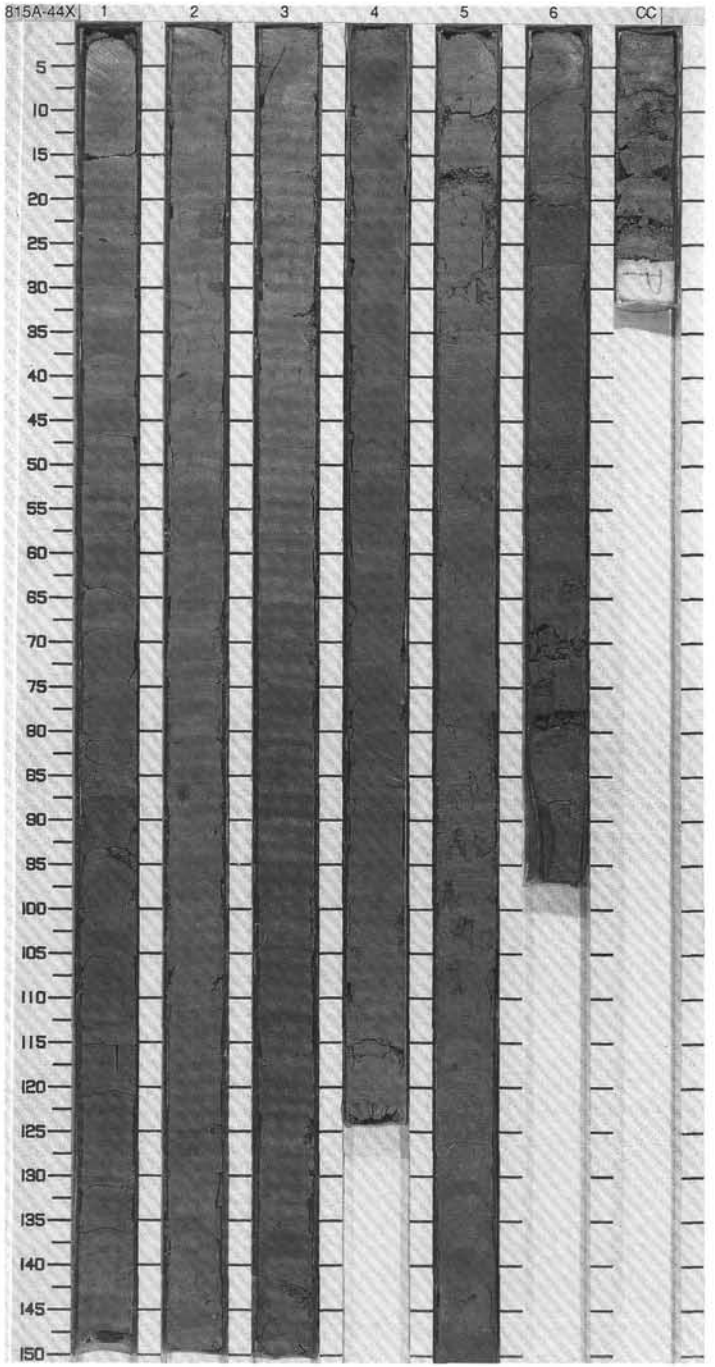
SMEAR SLIDE SUMMARY (%):

	3, 65 D
TEXTURE:	
Sand	30
Silt	20
Clay	50
COMPOSITION:	
Accessory minerals	Tr
Clay	25
Discoaster	5
Dolomite	1
Feldspar	Tr
Foraminifers	28
Mica	Tr
Nannofossils	40
Opaques	Tr
Quartz	1
Volcanic ash	Tr



SITE 815 HOLE A CORE 44X CORED INTERVAL 396.4-406.0 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
UPPER MIOCENE	N16 - N17	CN9b			uncertain polarity	45.4% 1.93	60.6%	1	0.5 1.0					CLAYEY FORAMINIFER NANNOFOSSIL CHALK Major lithology: Olive gray (5Y 5/2) CLAYEY FORAMINIFER NANNOFOSSIL CHALK highly bioturbated. Small pyrite concretions are locally found. Minor lithology: Light gray (5Y 6/1), well-sorted FORAMINIFER GRAINSTONE.
								2						
								3						
						44.5% 1.87	76.9%	4						
							65.6%	5						
								6						
	C/P	A/G						CC					PAL	



SITE 815 HOLE A CORE 45X CORED INTERVAL 406.0-415.7 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
UPPER MIOCENE	C/P N16 - N17	A/M CN9b			uncertain polarity	● 56.4% 1.83	● 76.8% ● 63.2%	1 2 CC	0.5 1.0				* *

LITHOLOGIC DESCRIPTION

NANNOFOSSIL CHALK with FORAMINIFERS

Major lithology: Highly bioturbated NANNOFOSSIL CHALK with FORAMINIFERS ranging in color from dark gray (5Y 4/1) to olive gray (5Y 4/2) and olive (5Y 4/3). Bioturbation features reach from indistinct mottling to well defined burrows of various sizes (2-20 mm). Burrows are filled either with chalk having lighter or darker colors than the host sediment, or with packstones consisting mainly of blackened foraminifers.

SMEAR SLIDE SUMMARY (%):

	1, 34 D	1, 124 D
COMPOSITION:		
Bioclast	15	10
Foraminifers	15	15
Nannofossils	65	70
Quartz	5	5
Spicules	Tr	---

SITE 815 HOLE A CORE 46X CORED INTERVAL 415.7-425.3 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
UPPER MIOCENE	C/P N16-N17	R/P ?			uncertain polarity		● 91.2%	1 CC	0.5 1.0		X		*

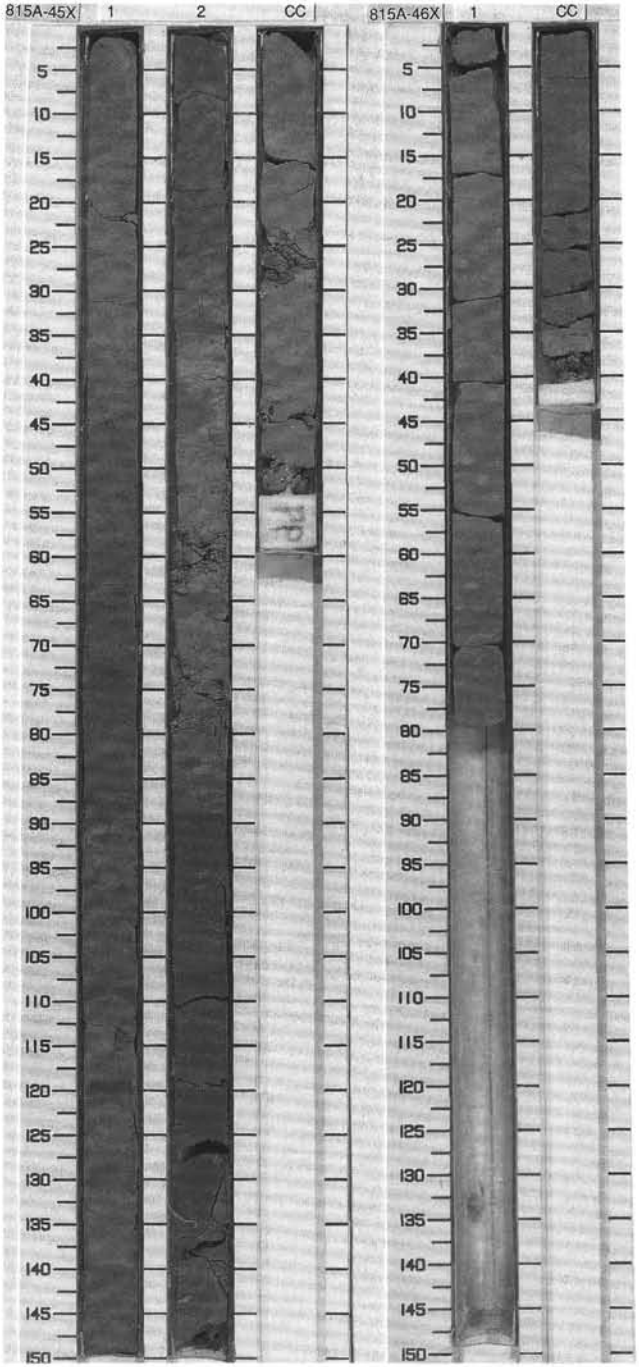
LITHOLOGIC DESCRIPTION

DOLOMOTIZED FORAMINIFER PACKSTONE.

Major lithology: White (5Y 8/1) partially DOLOMOTIZED FORAMINIFER PACKSTONE.

SMEAR SLIDE SUMMARY (%):

	1, 17 D
COMPOSITION:	
Dolomite	70
Foraminifers	30
Quartz	Tr



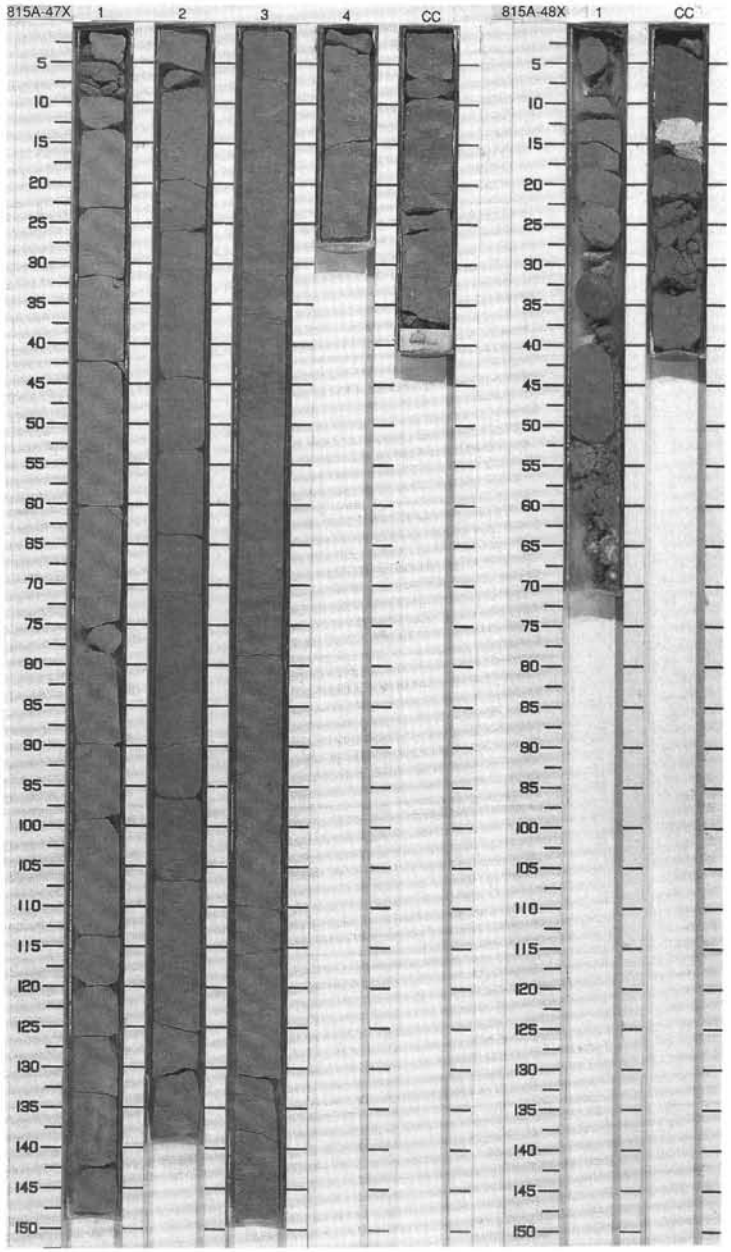
SITE 815 HOLE A CORE 47X CORED INTERVAL 425.3-434.9 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
UPPER MIOCENE	C/P	C/P			uncertain polarity			1	0.5					DOLOMITIZED FORAMINIFER PACKSTONE Major lithology: Light gray (5Y 6/1 to 7/1), bioturbated DOLOMITIZED FORAMINIFER PACKSTONE. Additional bioclastic components include BRYOZOA and CORALLINE ALGAE.
	N16 - N17	CN9a							1.0					
								2						
								3						
								4						
								CC						

SITE 815 HOLE A CORE 48X CORED INTERVAL 434.9-444.5 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
UPPER MIOCENE	B	C/P CN9a			uncertain polarity		98.9% ●	1	0.5					DOLOMOTIZED FORAMINIFER CHALK with CLAY Major lithology: Light gray (5Y 7/2) DOLOMOTIZED FORAMINIFER CHALK with CLAY. Rhodolith (3 cm diameter) occurs at 35 cm. Minor Lithology: Partially lithified, light grey (5Y 7/2), BIOCLASTIC FLOATSTONE possibly reworked from interval below by drilling.
								CC	1.0					

815A 49X NO RECOVERY

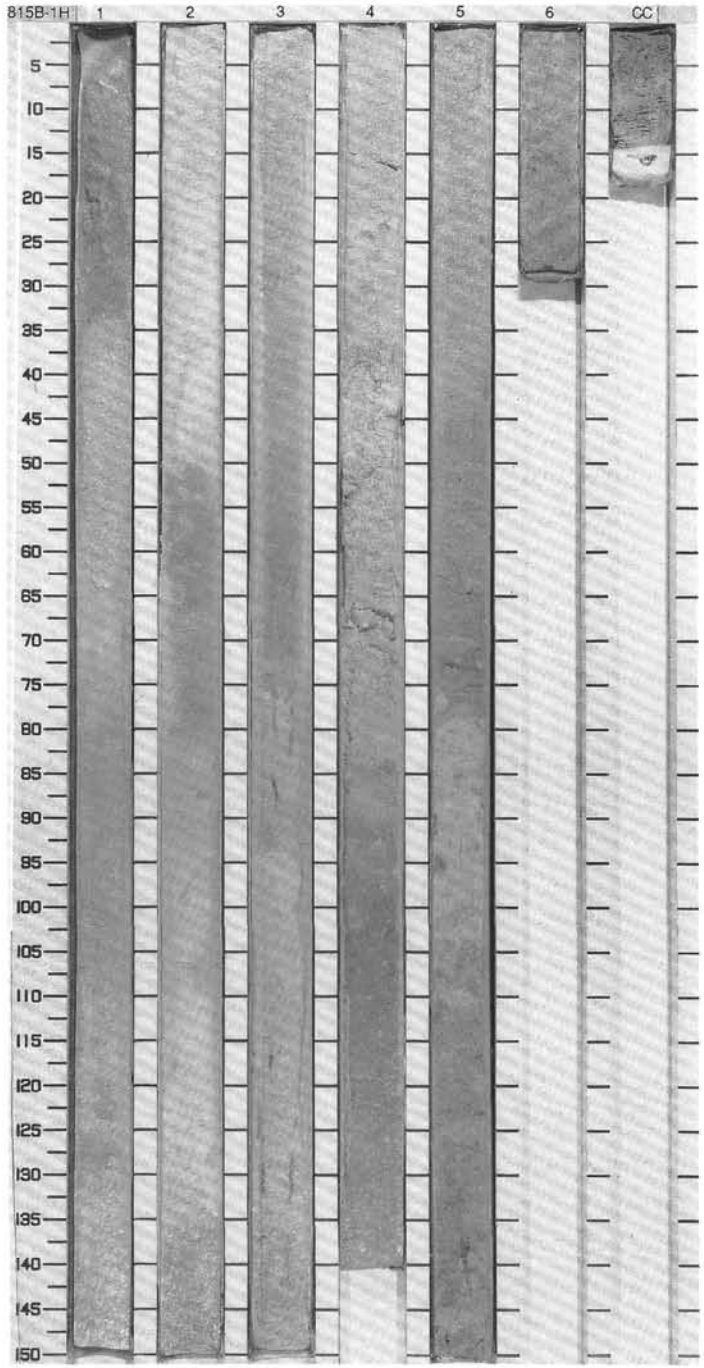


SITE 815 HOLE A CORE 50X CORED INTERVAL 454.2-463.8 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
LOWER/MIDDLE MIOCENE	R/P ?	R/P ?						CC					PAC	DOLOMITIZED FORAMINIFER RUDSTONE Major lithology: Three pieces of white (10YR 8/0), cemented rock containing numerous LARGER FORAMINIFERS. Two Pieces (1 and 3) are FORAMINIFER RUDSTONE; Piece 2 is FORAMINIFER FLOATSTONE. Interstices between FORAMINIFERS are filled with DOLOMITIZED BIOCLASTIC grains.

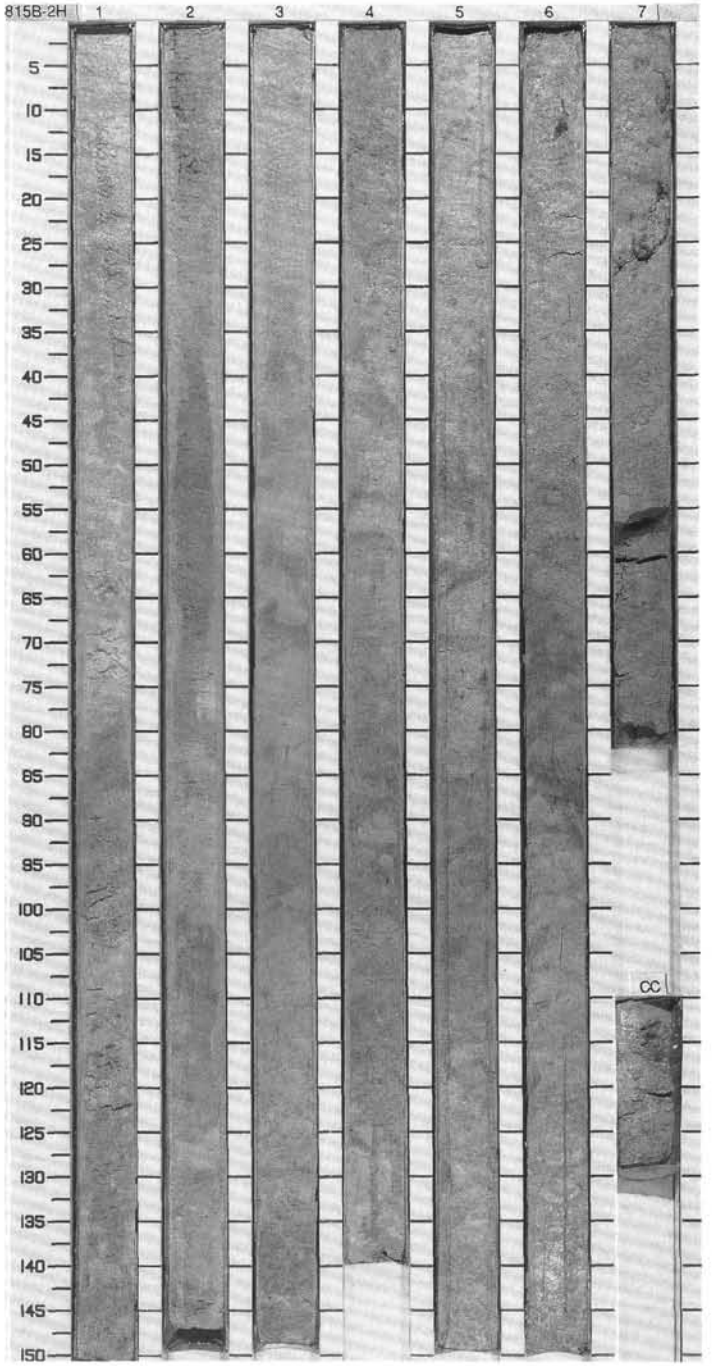
SITE 815 HOLE B CORE 1H CORED INTERVAL 0.0-7.9 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
					N			1	0.5 / 1.0					NANNOFOSSIL FORAMINIFER OOZE. Major lithology: White (10YR 8/2 to 10YR 8/3) NANNOFOSSIL FORAMINIFER OOZE. Minor lithology: White (10YR 8/1) FORAMINIFER OOZE. In upper part (Section 1; 0-35 cm), very pale brown (10YR 7/3) FORAMINIFER OOZE contains PTEROPODS. In middle part (Section 2 and Section 3), CALCAREOUS (FORAMINIFER/MICRITE) OOZE contains ARAGONITE NEEDLES.
					N			2						
					N			3						
					N			4					PP	
					N			5						
					N			6						
								CC					Pal	



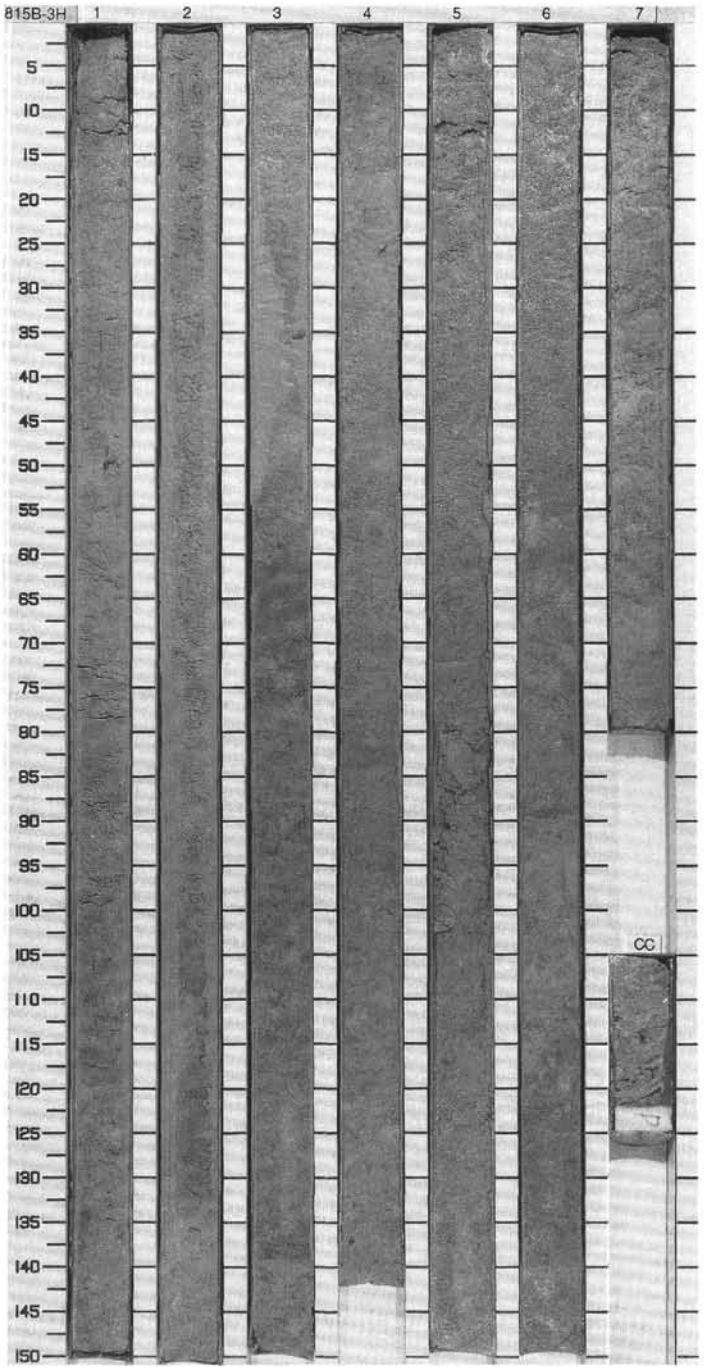
SITE 815 HOLE B CORE 2H CORED INTERVAL 7.9-17.4 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
					N			1	0.5 / 1.0					NANNOFOSSIL FORAMINIFER OOZE Major lithology: White (5Y 7/1), bioturbated, mottled (light gray: 2.5Y 6/2), NANNOFOSSIL FORAMINIFER OOZE with BIOCLASTS.
					N			2						
					N			3						
					N			4					PP	
					R			5						
					N			6						
					N			7						
								CC						



SITE 815 HOLE B CORE 3H CORED INTERVAL 17.4-26.9 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
					R (N)			1	0.5 1.0					BIOCLASTIC FORAMINIFER NANNOFOSSIL OOZE with CLAY Major lithology: Light gray (5Y 7/1) to gray (5Y 6/1), bioturbated BIOCLASTIC FORAMINIFER NANNOFOSSIL OOZE with CLAY and BIOCLASTS. Minor lithology: Light greenish gray (5Y 7/1) to gray (5Y 6/1), mottled, NANNOFOSSIL FORAMINIFER OOZE with BIOCLASTS.
					R			2						
					R			3						
					N			4					PP	
					N			5						
					N			6						
					N			7						
								CC						



SITE 815 HOLE B CORE 4H CORED INTERVAL 26.9-36.4 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
	N	N	R	R	R	R		1	0.5					FORAMINIFER NANNOFOSSIL OOZE with CLAY Major lithology: White (5Y 7/1) with light brownish green (2.5Y 6/2) mottled, bioturbated FORAMINIFER NANNOFOSSIL OOZE with CLAY and BIOCLASTS.
									1.0					
								2						
					R	?		3						
					R			4						
					R			5					PP	
					R			6						
					?			7						
					R			CC