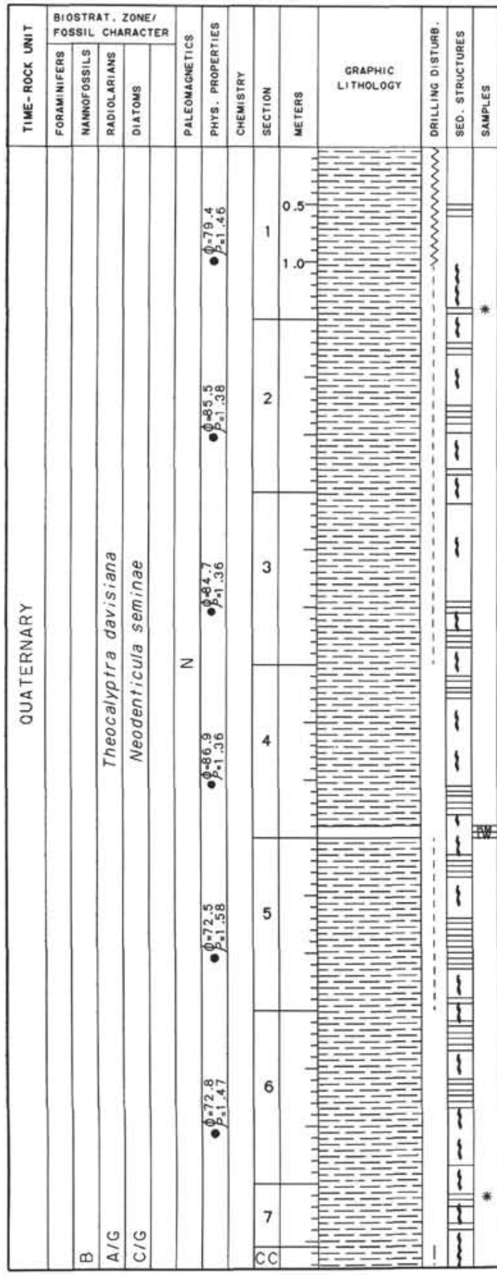
SITE 797 HOLE A CORE 1H CORED INTERVAL 2865.6-2875.1 mbsl; 3.4-12.9 mbsf



LITHOLOGIC DESCRIPTION

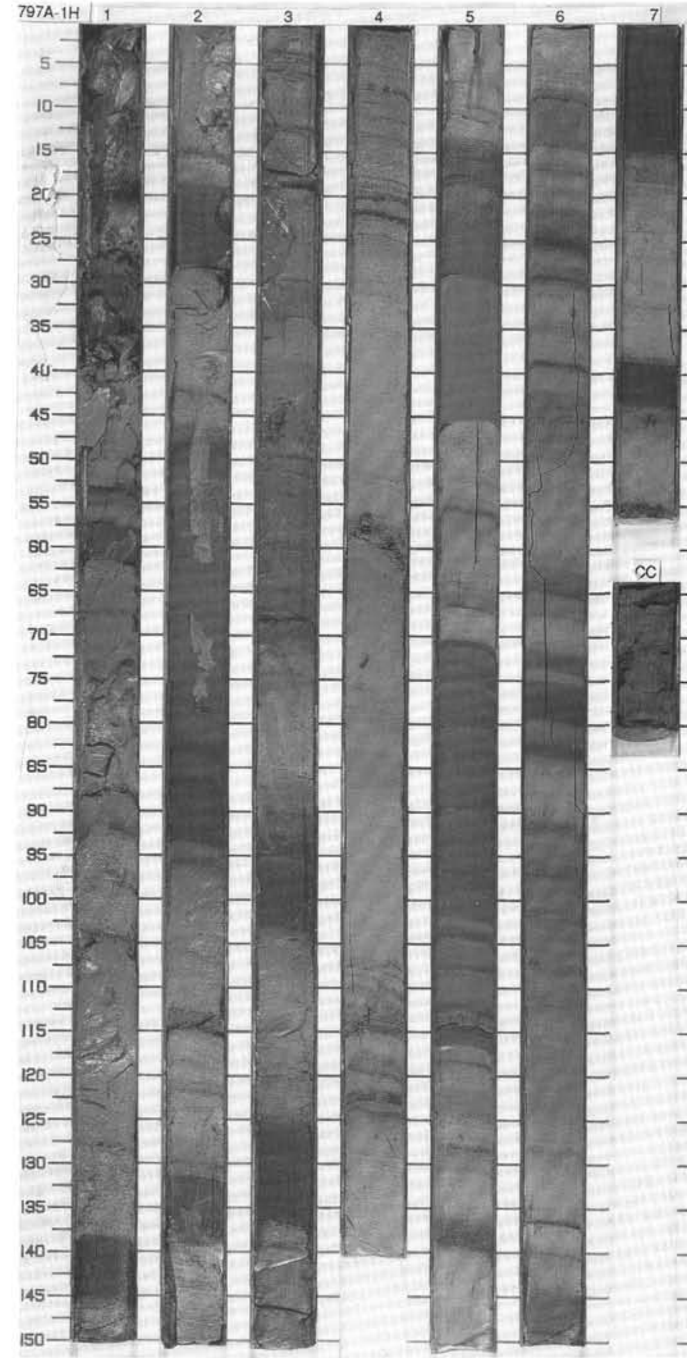
SILTY CLAY

Major lithology: SILTY CLAY, medium gray (N5), greenish gray (5G 6/1), and olive gray (5Y 4/1); darker colored layers are interbedded with highly bioturbated lighter colored layers.

Minor lithology: None.

SMEAR SLIDE SUMMARY (%):

	1, 141 D	3, 38 D	7, 12 D
TEXTURE:			
Silt	10	10	10
Clay	90	90	90
COMPOSITION:			
Accessory minerals	Tr	Tr	Tr
Clay	90	90	90
Diatoms	3	3	5
Feldspar	5	5	3
Glass	2	2	2
Organic matter	Tr	—	Tr
Pyrite	Tr	—	Tr
Quartz	Tr	Tr	Tr



SITE 797 HOLE B CORE 1H CORED INTERVAL 2862.2-2868.1 mbsl: 0.0-5.9 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
QUATERNARY		B	C/M *Theocalyptra davisiana*	C/G *Neodenticula seminae*	N	●-81.6 ●-1.40 ●-85.7 ●-1.35	● ●● ● ●	1 2 3 4 CC	0.5 1.0			OG FM TW F	* *

LITHOLOGIC DESCRIPTION

SILTY CLAY

Major lithology: SILTY CLAY, moderate brown (5YR 3/4), dark gray (N3), and medium light gray (N6); thin to medium (0.5-25 cm) darker colored units interbedded within lighter gray (N7) clayey silts; many darker colored units have sharp basal color boundaries and gradational upper boundaries.

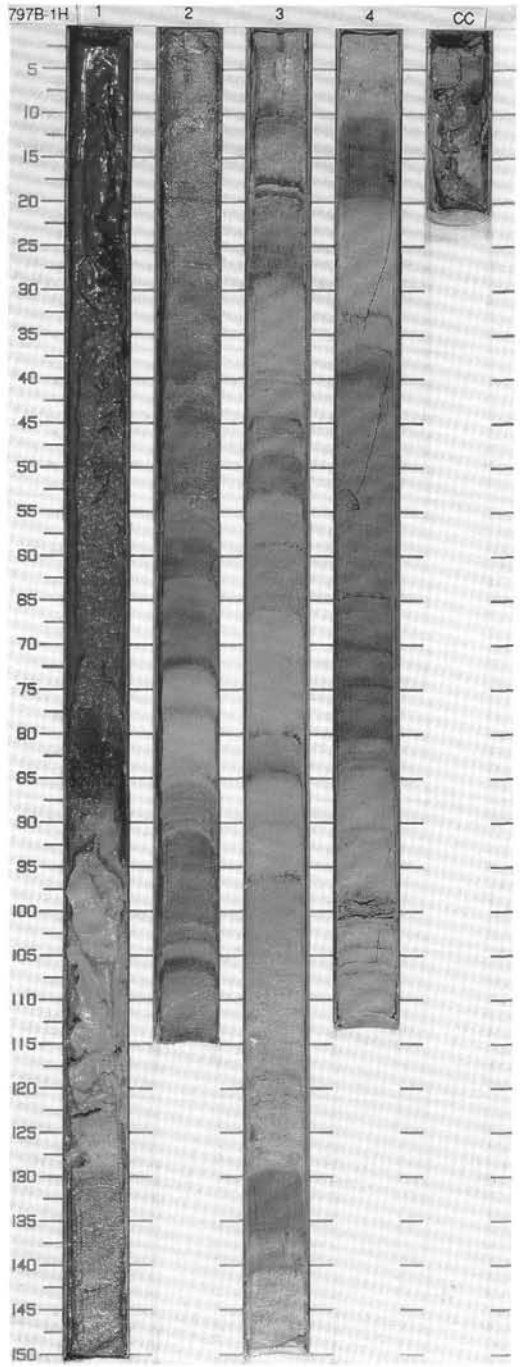
Minor lithology: Ash, grayish blue green (5BG 5/2), and light gray (N7), in Section 3, 18 cm and, Section 4, 98 to 101 cm.

SMEAR SLIDE SUMMARY (%):

	1, 84 D	4, 87 D
TEXTURE:		
Silt	5	8
Clay	95	92
COMPOSITION:		
Clay	90	90
Diatoms	7	2
Feldspar	2	3
Glass	1	2
Organic matter	Tr	Tr
Quartz	Tr	Tr

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
1, 34	0.53	0.3
1, 133	1.58	2.7
1, 143	0.51	1.2
2, 100	1.87	3.2
3, 2	1.33	1.4
4, 79	3.34	1.4



SITE 797 HOLE B CORE 2H CORED INTERVAL 2868.1-2877.6 mbsl; 5.90-15.4 mbsf

TIME-ROCK UNIT: QUATERNARY

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS; NANNOFOSSILS: B; RADIOLARIANS: *Theocalyptra davisiana*; DIATOMS: R/M; R/P

PALEOMAGNETICS: N

PHYS. PROPERTIES; CHEMISTRY; SECTION; METERS; GRAPHIC LITHOLOGY; DRILLING DISTURB.; SED. STRUCTURES; SAMPLES

LITHOLOGIC DESCRIPTION

SILTY CLAY

Major lithology: SILTY CLAY, olive gray (5Y 4/1), medium gray (N5), pale olive (10Y 6/2), and olive gray (5Y 4/1); darker layers alternate with lighter colored, bioturbated, and faintly laminated layers; some darker colored layers are well laminated and contain fining upward sequences.

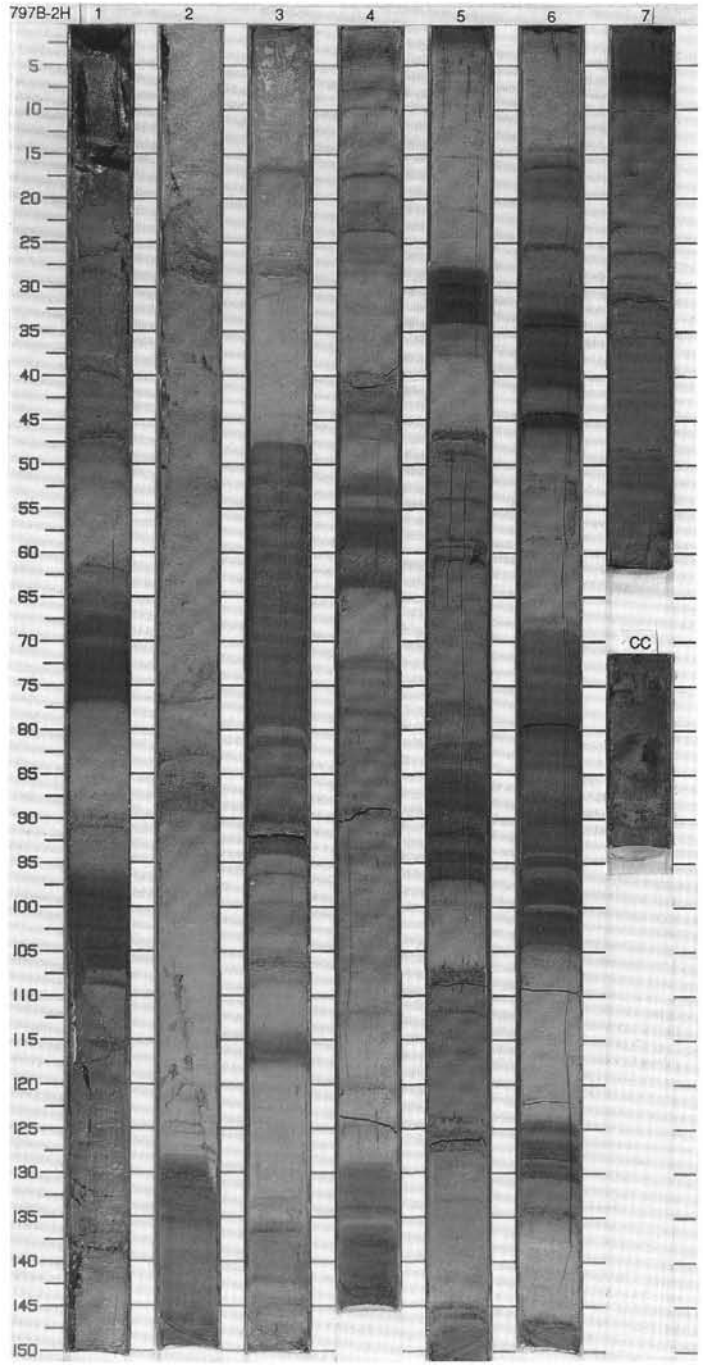
Minor lithology: Thin (0.5-2 cm) ash, light gray (N7) in Section 1, 137 to 138 cm; Section 2, 27 to 29 cm; Section 3, 91 to 92 cm; Section 7, 48 cm and Core Catcher, 4 cm.

SMEAR SLIDE SUMMARY (%):

	1, 44 D	5, 73 D
TEXTURE:		
Silt	5	5
Clay	95	95
COMPOSITION:		
Clay	95	95
Diatoms	Tr	2
Feldspar	Tr	Tr
Glass	Tr	Tr
Organic debris	Tr	Tr
Pyrite	---	Tr
Quartz	Tr	Tr

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
1, 74	4.75	4.2
1, 80	0.59	2.2
2, 101	0.35	2.0
3, 112	0.30	1.2
3, 116	2.48	1.5
3, 119	0.44	1.2
5, 3	3.63	1.1



SITE 797 HOLE B CORE 3H CORED INTERVAL 2877.6-2887.1 mbsl: 15.4-24.9 mbsf

TIME-ROCK UNIT: QUATERNARY

BIOSTRAT. ZONE/FOSSIL CHARACTER
- FORAMINIFERS: C/M
- NANNOFOSSILS: *Umbilicosphaera sibogae*
- RADIOLARIANS: R/G
- DIATOMS: *Theocalyptra davisiana*
- PALEOMAGNETICS: A/G; *Rhizosolenia curvirostris*; N
- PHYS. PROPERTIES: ϕ=74.8, ρ=1.58; ϕ=75.9, ρ=1.54; ϕ=86.2, ρ=1.35; ϕ=83.5, ρ=1.41; ϕ=75.4, ρ=1.54; ϕ=80.2, ρ=1.46; ϕ=84.9, ρ=1.35
- CHEMISTRY

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: OG, RM, W

LITHOLOGIC DESCRIPTION

SILTY CLAY

Major lithology: SILTY CLAY, medium gray (N5), greenish gray (5G 6/1), and olive gray (5Y 4/1); dark colored layers alternate with light colored, homogeneous, and heavily bioturbated layers. Hue laminations in many dark colored units.

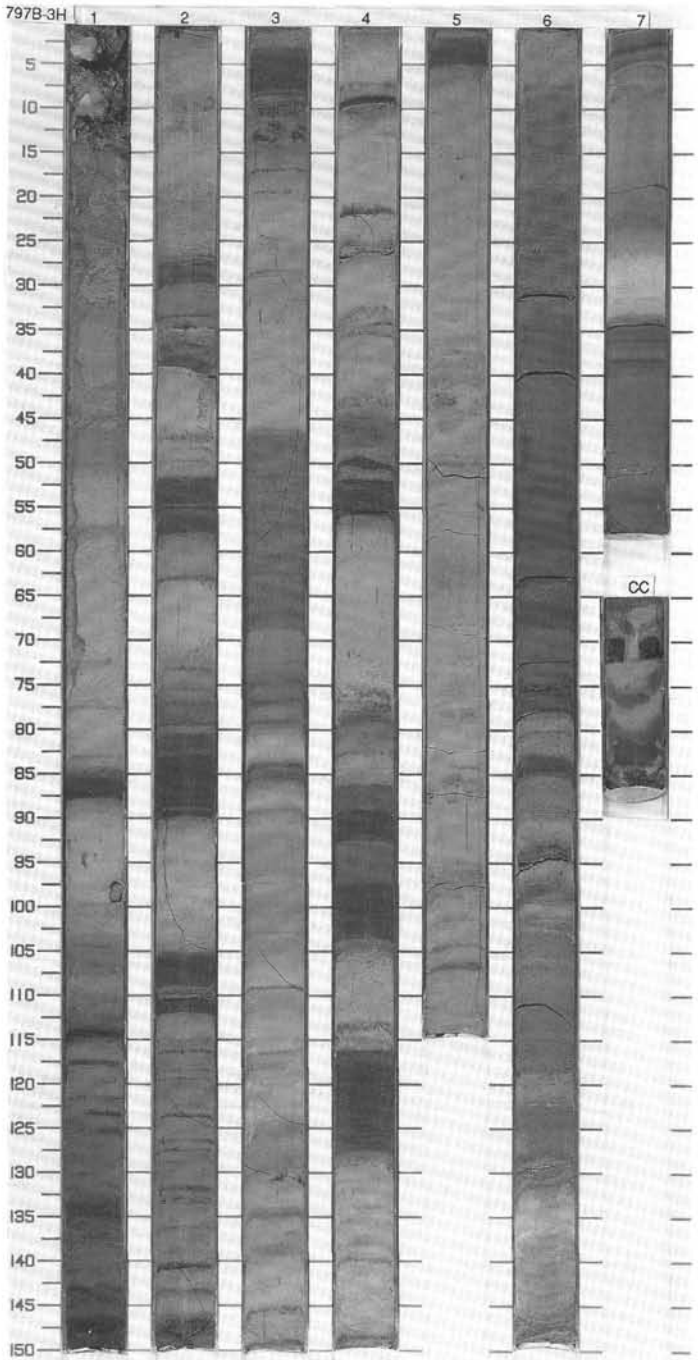
Minor lithology: Ash, light gray (N7) in Section 1, 27 to 28 cm; Section 2, 111 cm; Section 4, 104 to 108 cm; Section 5, 55 cm; Section 6, 40, 75, 93, and 129 cm, and Section 7, 49 to 50 cm. Microfault in Section 3, 120 cm.

SMEAR SLIDE SUMMARY (%):

	1, 37	5, 60
	D	D
TEXTURE:		
Sand	—	10
Silt	10	89
Clay	90	—
COMPOSITION		
Bioclast	Tr	—
Clay	90	90
Diatoms	Tr	1
Feldspar	2	2
Glass	5	3
Quartz	Tr	Tr

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 100	0.42	5.1
4, 54	4.90	8.1
4, 57	1.29	2.8
4, 60	0.32	1.6
4, 84	0.62	0.6
4, 87	2.98	0.6
4, 91	4.97	0.6
4, 95	2.64	1.2
4, 100	5.28	2.2
4, 110	0.33	0.9
4, 125	4.79	6.6
4, 130	0.61	0.8
6, 3	0.45	0.2



SITE 797 HOLE B CORE 4H CORED INTERVAL 2887.1-2896.6 mbsl; 24.9-34.4 mbsf

TIME-ROCK UNIT: QUATERNARY

BIOSTRAT. ZONE/FOSSIL CHARACTER:
- FORAMINIFERS
- NANNOFOSSILS: A/G *Umbilicosphaera sibogae*
- RADIOLARIANS: R/M *Theocalyptra davisiana*
- DIATOMS: R/P *Rhizosolenia curvirostris*

PALEOMAGNETICS: N

PHYS. PROPERTIES: ϕ=78.6 P=1.49; ϕ=76.7 P=1.55; ϕ=86.8 P=1.44; ϕ=78.3 P=1.49; ϕ=79.9 P=1.44; ϕ=81.1 P=1.41; ϕ=86.2 P=1.35

CHEMISTRY

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: SM

LITHOLOGIC DESCRIPTION

SILTY CLAY

Major lithology: SILTY CLAY, greenish gray (5G 6/1), dark greenish gray (5GY 4/1), medium bluish gray (5B 4/1), and pale olive (10Y 6/2); color banded throughout, alternating darker laminated clay with pale olive bioturbated clay; dark colored units have sharp upper and lower contacts; some lighter colored layers (Sections 3, 4, and 5) are lighter colored than cores upsection. Microfractures in Section 1. Abundant foraminifers.

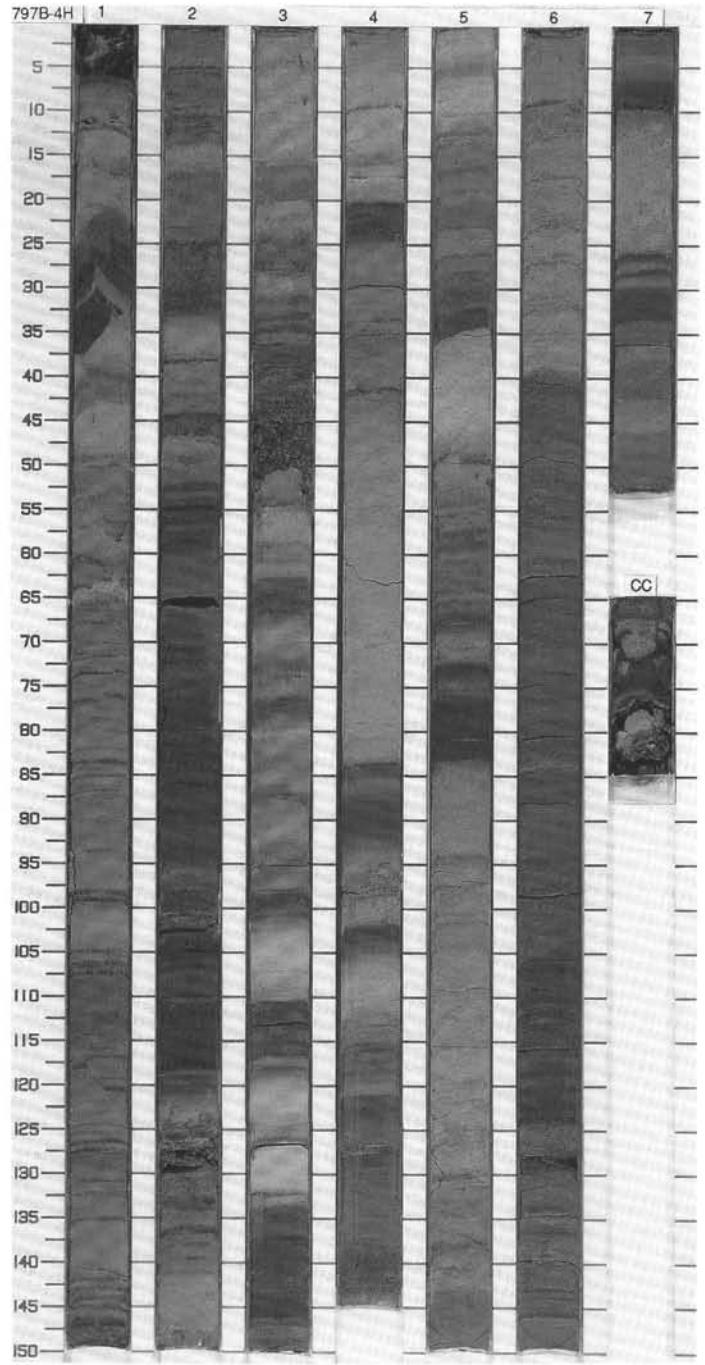
Minor lithology: Ash, medium light gray (N6) in Section 3, 34 to 35, 54, 73, 94 to 95, 126, and 132 cm; Section 4, 96 to 99 and 143 cm; Section 5, 81 cm; Section 6, 47, 56 and 135 cm, and Section 7, 43 cm.

SMEAR SLIDE SUMMARY (%):

	1, 99 M	5, 8 D
TEXTURE:		
Silt	5	20
Clay	95	80
COMPOSITION:		
Accessory minerals	—	Tr
Clay	95	85
Diatoms	Tr	5
Feldspar	Tr	—
Foraminifers	—	1
Glass	3	7
Pyrite	—	Tr
Silicoflagellates	Tr	—

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 11	1.35	0.7
2, 16	0.40	0.6
2, 19	1.36	3.2
2, 101	1.10	0.3
4, 127	4.36	22.7
5, 3	0.26	11.5
6, 87	1.27	1.1
6, 110	2.59	18.5
6, 132	1.90	18.7



SITE 797 HOLE B CORE 5H CORED INTERVAL 2896.6-2906.1 mbsl; 34.4-43.9 mbsf

TIME-ROCK UNIT: QUATERNARY

BIOSTRAT. ZONE/FOSSIL CHARACTER
- FORAMINIFERS
- NANNOFOSSILS: A/G *Umbilicosphaera sibogae*
- RADIOLARIANS: C/G *Theocalyptra davisiana*
- DIATOMS: F/M *Rhizosolenia curvirostris*

PALEOMAGNETICS: N

PHYS. PROPERTIES: ϕ=77.8 ρ=1.43; ϕ=71.6 ρ=1.53; ϕ=83.3 ρ=1.41; ϕ=62.0 ρ=1.96; ϕ=75.2 ρ=1.51; ϕ=83.2 ρ=1.42; ϕ=76.9 ρ=1.50; ϕ=72.8 ρ=1.62

CHEMISTRY

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: AM, BM

LITHOLOGIC DESCRIPTION

SILTY CLAY

Major lithology: SILTY CLAY, medium light gray (N6), pale green (10G 6/2), and light bluish gray (5B 7/1); homogeneous, slightly ashy, light-colored layers alternate with dusky yellow green (5GY 5/2) and olive gray (5Y 3/2), laminated, organic-rich, dark-colored layers. Some dark-colored layers are diatomaceous and/or foraminifer-bearing.

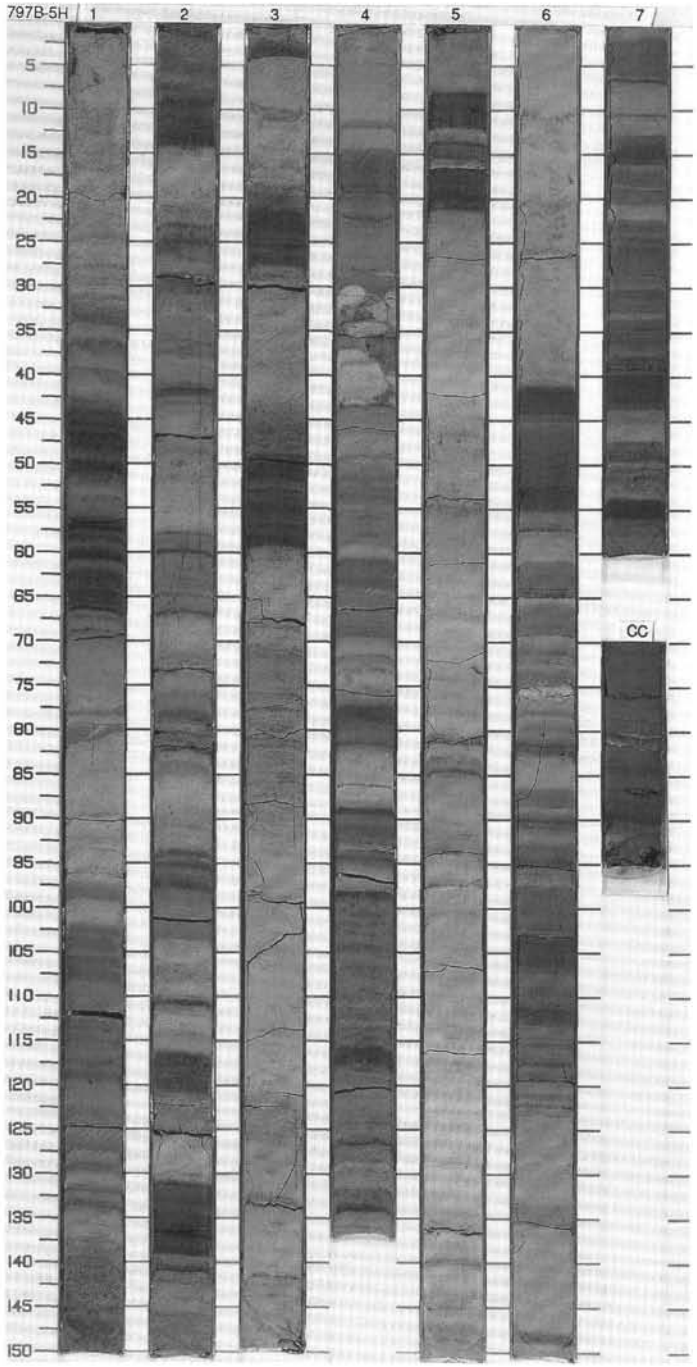
Minor lithology: Ash, light gray (N7) to medium dark gray (N4), normally graded in Section 1, 88, 94 and 125 cm; Section 2, 30, 72, 80, 81, and 120 to 125 cm; Section 3, 3 to 5 and 27 to 29 cm; Section 4, 93 cm; Section 5 16, and 98 cm; Section 6, 57, 65, 73, 77, and 95 cm; Section 7, 29, 31, and 39 cm.

SMEAR SLIDE SUMMARY (%):

	1, 144 D	2, 134 M	3, 102 D	3, 131 D	4, 18 D	4, 54 D
TEXTURE:						
Sand	—	5	—	—	—	—
Silt	40	40	30	20	30	40
Clay	60	55	70	80	70	60
COMPOSITION:						
Clay	45	35	50	75	50	50
Diatoms	5	10	25	8	—	—
Feldspar	—	—	—	—	5	—
Foraminifers	—	5	—	—	—	20
Glass	10	Tr	10	10	1	2
Inorganic calcite	3	10	—	—	10	10
Organic matter	5	15	Tr	2	Tr	—
Pyrite	2	10	—	—	15	3
Quartz	25	15	15	5	15	10
Silicoflagellates	—	Tr	—	—	—	—

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 5	1.86	1.3
2, 11	2.87	15.7
2, 15	0.56	1.5
2, 101	1.38	0.4
2, 110	1.62	1.5
5, 3	1.01	1.5
6, 88	1.24	1.7



SITE 797 HOLE B CORE 6H CORED INTERVAL 2906.1-2915.6 mbsl; 43.9-53.4 mbsf

TIME-ROCK UNIT: QUATERNARY

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS; NANNOFOSSILS: B; RADIOLARIANS: A/G; DIATOMS: F/M

Sphaeropyle robusta

Actinocyclus oculatus

PALEOMAGNETICS: R (?); N

PHYS. PROPERTIES: Φ=76.3 ρ=1.52; Φ=75.2 ρ=1.53; Φ=81.2 ρ=1.44; Φ=79.4 ρ=1.47; Φ=81.4 ρ=1.44; Φ=83.5 ρ=1.44

CHEMISTRY

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: OG, FM, FW

LITHOLOGIC DESCRIPTION

SILTY CLAY

Major lithology: SILTY CLAY, medium light gray (N6), pale green (10G 6/2), and light bluish gray (5B 7/1); homogeneous, with rare, thick dusky green (5G 3/2), laminae; ashy light-colored layers alternate with laminated, organic-rich darker colored layers. The dark-colored layers are commonly diatomaceous and/or foraminifer-bearing.

Minor lithology: Ash, light gray (N7) to medium dark gray (N4), normally graded in Section 1, 125 cm; Section 3, 43, 74, and 77 cm; Section 4, 55, and 76 cm; Section 5, 6, 18, 55, 75, 90, and 96 cm; Section 6, 25, 80, and 113 cm; Section 7, 20, 34, 39, and 52 cm.

SMEAR SLIDE SUMMARY (%):

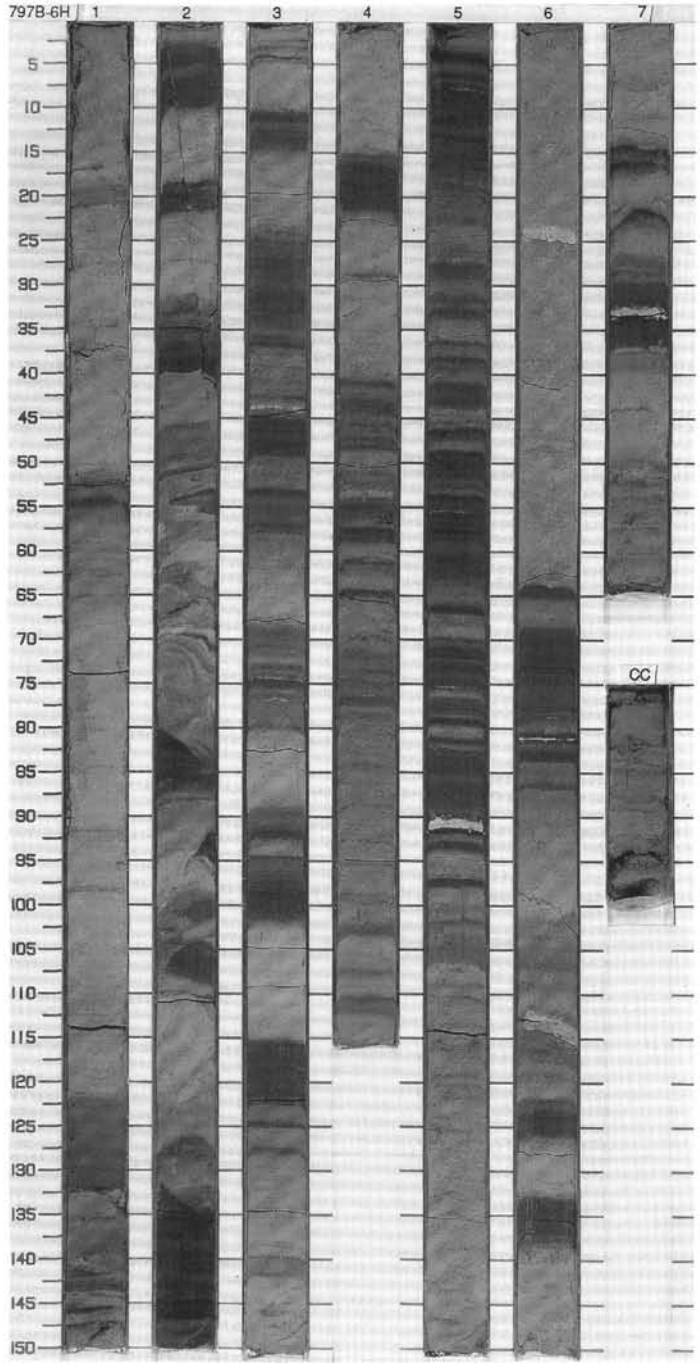
	1, 123 D	1, 127 D	1, 130 D	2, 43 D	2, 140 D	4, 18 D	6, 30 D
TEXTURE:							
Sand	—	—	—	—	—	—	20
Silt	20	50	70	50	5	25	30
Clay	80	50	30	50	95	75	50
COMPOSITION:							
Clay	70	60	40	50	90	50	45
Diatoms	10	2	2	5	Tr	10	30
Feldspar	—	10	5	10	—	—	2
Foraminifers	—	—	2	—	—	—	—
Glass	—	—	—	1	Tr	5	Tr
Inorganic calcite	1	5	20	5	—	5	—
Mica	—	Tr	—	—	—	—	—
Organic matter	—	—	—	—	—	10	Tr
Plant	Tr	—	2	—	—	—	—
Pollen	—	—	—	—	2	—	—
Pyrite	2	2	3	5	2	10	Tr
Quartz	10	20	20	20	3	10	15
Radiolarians	—	—	—	—	—	—	5
Silicoflagellates	Tr	—	—	Tr	Tr	—	2
Spicules	5	1	2	2	1	—	1
Spores	Tr	—	—	—	—	—	—

SMEAR SLIDE SUMMARY (%):

	6, 70 D
TEXTURE:	
Sand	10
Silt	30
Clay	60
COMPOSITION:	
Clay	60
Diatoms	20
Feldspar	2
Glass	Tr
Organic matter	3
Pyrite	5
Quartz	10
Radiolarians	Tr
Spicules	Tr

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
1, 11	0.46	1.4
1, 124	2.01	2.2
2, 101	1.14	2.7
5, 3	2.07	3.5



SITE 797 HOLE B CORE 7H CORED INTERVAL 2915.6-2925.1 mbsl; 53.4-62.9 mbsf

TIME-ROCK UNIT: QUATERNARY

BIOSTRAT. ZONE/FOSSIL CHARACTER
- FORAMINIFERS: B
- NANNOFOSSILS: A/G
- RADIOLARIANS: *Sphaeropyle robusta*
- DIATOMS: F/M *Actinocyclus oculatus*

PALEOMAGNETICS: R (?) N R (?)

PHYS. PROPERTIES: ϕ=81.9, ρb=1.39; ϕ=72.6, ρb=1.62; ϕ=80.2, ρb=1.41; ϕ=81.3, ρb=1.47; ϕ=83.6, ρb=1.37; ϕ=84.5, ρb=1.36; ϕ=72.0, ρb=1.63

CHEMISTRY

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

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: HM

LITHOLOGIC DESCRIPTION

SILTY CLAY

Major lithology: SILTY CLAY, *medium light gray (N6), pale green (10G 6/2), and light* bluish gray (5B 7/1); homogeneous, with rare, thick dusky green (5G 3/2) laminae; slightly ashy light-colored layers alternate with laminated, organic-rich dark-colored layers. The dark-colored layers are commonly diatomaceous and/or foraminifer-bearing, slightly bioturbated and mottled in the lower portion of the core.

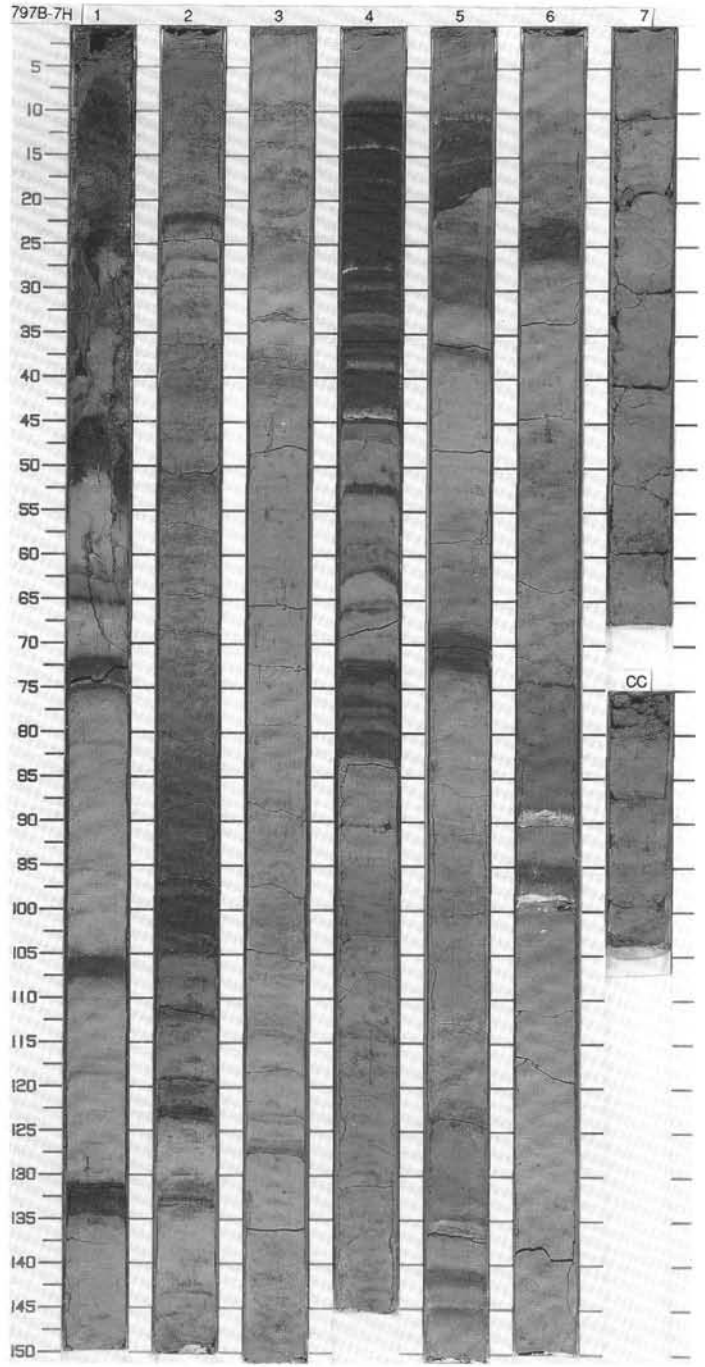
Minor lithology: Ash, light gray (N7) to medium dark gray (N4), normally graded in Section 1, 74 cm; Section 4, 15, 28, and 45 cm; Section 5, 10, 136, and 145 cm; Section 6, 72, 90, and 100 cm. Diatom ooze, olive gray (5Y 4/2) faintly laminated.

SMEAR SLIDE SUMMARY (%):

	1, 100 D	2, 100 D	4, 17 D	4, 100 D
TEXTURE:				
Silt	50	25	20	30
Clay	50	75	80	70
COMPOSITION:				
Clay	40	60	30	65
Diatoms	—	—	—	—
Glass	10	5	—	5
Inorganic calcite	20	—	—	5
Organic matter	—	10	—	—
Pyrite	—	10	2	3
Quartz	20	15	5	10
Silicoflagellates	—	—	Tr	1
Spicules	—	—	10	2

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 100	7.40	1.1
5, 3	0.72	0.9



SITE 797 HOLE B CORE 8H CORED INTERVAL 2925.1-2934.6 mbsl; 62.9-72.4 mbsf

TIME-ROCK UNIT: QUATERNARY

BIOSTRAT. ZONE/FOSSIL CHARACTER:
- FORAMINIFERS: F/G — *Calcidiscus leptoporus / Gephyrocapsa caribbeanica - Calcidiscus macintyrei*
- NANNOFOSSILS: C/G — *Sphaeropyle robusta*
- RADIOLARIANS: A/G — *Actinocyclus oculatus*
- DIATOMS

PALEOMAGNETICS: R

PHYS. PROPERTIES: ϕ=77.3 ρ=1.52; ϕ=84.2 ρ=1.38; ϕ=84.4 ρ=1.36; ϕ=84.1 ρ=1.38; ϕ=76.2 ρ=1.54; ϕ=72.0 ρ=1.57; ϕ=83.2 ρ=1.39

CHEMISTRY

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: BM

LITHOLOGIC DESCRIPTION

DIATOM SILTY CLAY

Major lithology: DIATOM SILTY CLAY, greenish gray (5G 6/1) and light bluish gray (5B 7/1) with thick dusky green (5G 3/2) laminae; homogeneous to faintly laminated with common, slight bioturbation.

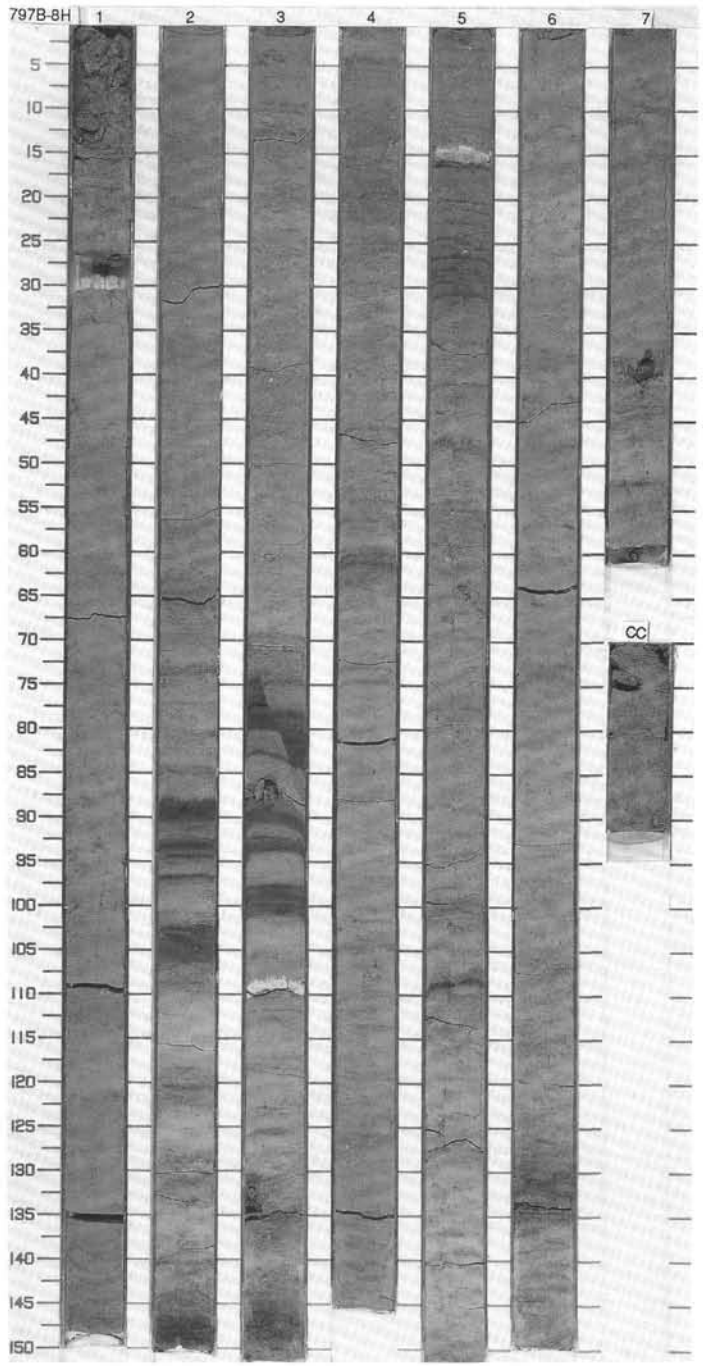
Minor lithology: Organic debris-bearing silty clay, olive gray (5Y 3/2), faintly laminated; dolomicrite, dusky yellow (5Y 6/4); ash layers at Section 3, 70 and 110 cm; Section 5, 16 cm Section 7, 50 cm.

SMEAR SLIDE SUMMARY (%):

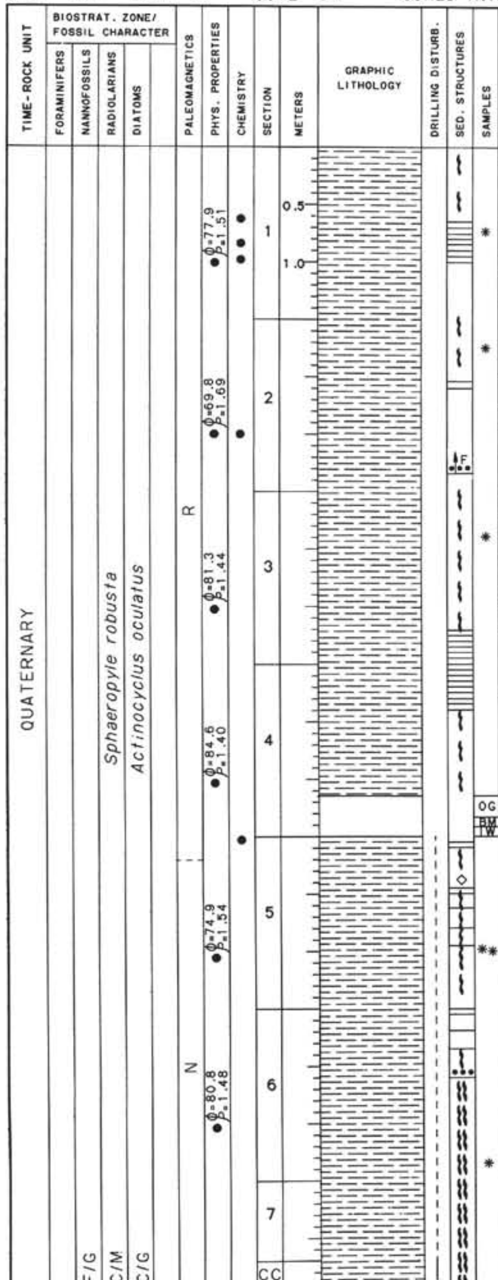
	1, 102 D	2, 45 D	3, 98 M	4, 102 D	6, 100 D	6, 134 M
TEXTURE:						
Sand	—	—	—	—	5	—
Silt	10	50	20	15	20	50
Clay	90	50	80	85	75	50
COMPOSITION:						
Clay	55	40	60	40	50	—
Diatoms	20	45	Tr	40	30	—
Feldspar	—	—	5	—	—	—
Inorganic calcite	—	3	5	5	3	95
Organic matter	—	—	15	—	—	—
Plant	2	—	—	—	—	—
Pyrite	3	5	Tr	1	3	2
Quartz	10	5	10	10	10	—
Radiolarians	—	—	—	—	1	—
Silicoflagellates	2	Tr	—	1	1	—
Spicules	5	Tr	Tr	2	2	Tr

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 100	0.33	1.6
5, 3	0.63	1.2
6, 134	2.31	57.6



SITE 797 HOLE B CORE 9H CORED INTERVAL 2934.6-2944.1 mbsl; 72.4-81.9 mbsf



LITHOLOGIC DESCRIPTION

SILTY CLAY AND DIATOM ASHY SILTY CLAY

Major lithology: SILTY CLAY and DIATOM ASHY SILTY CLAY, light bluish gray (5B 7/1), and greenish gray (5G 6/1); few faintly to well laminated dark colored layers within light colored bioturbated silty clay; some sections mottled.

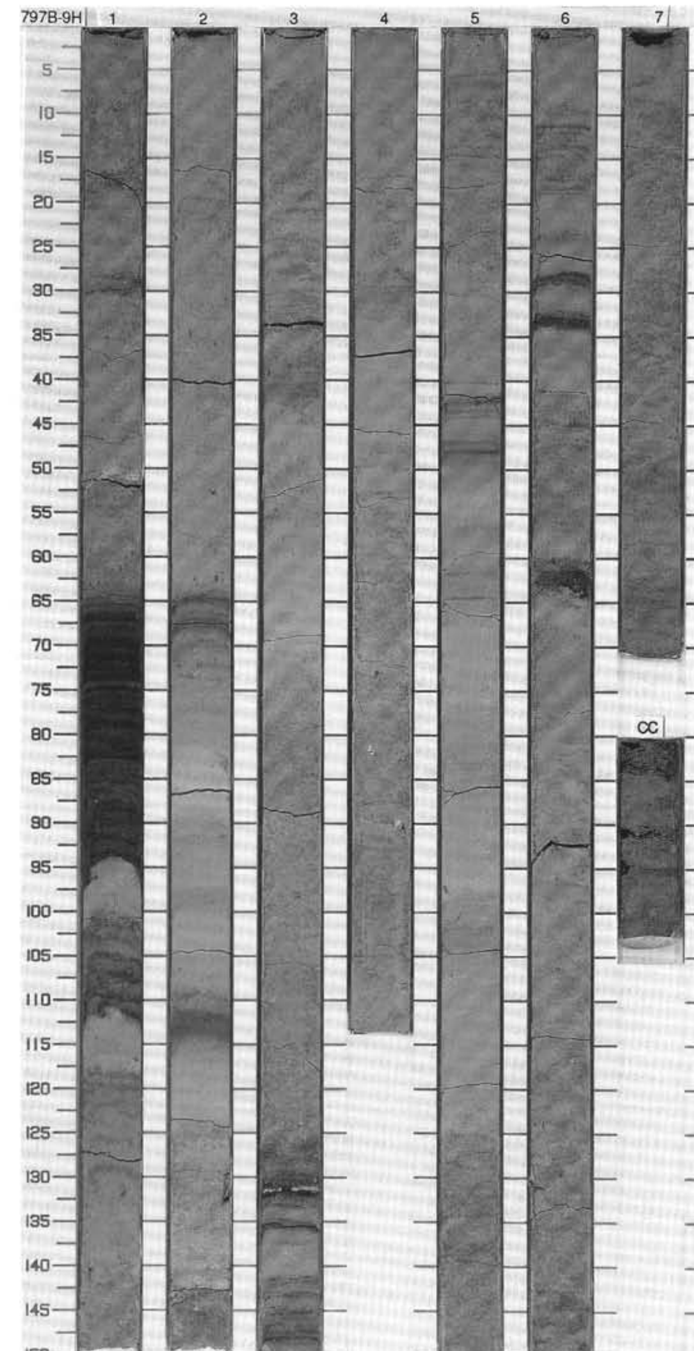
Minor lithology: Carbonate-rich zone, yellowish gray (5Y 7/2) in Section 5 at 52-54 cm. Ash beds, dark gray (N3) in Section 2, 141 to 143 cm; Section 6, 62 to 63 cm.

SMEAR SLIDE SUMMARY (%):

	1, 73 D	2, 24 D	3, 39 M	5, 98 M	5, 100 D	6, 136 D
TEXTURE:						
Silt	30	40	40	10	40	15
Clay	70	60	60	90	60	85
COMPOSITION:						
Clay	65	40	70	45	55	70
Diatoms	—	30	5	—	—	10
Feldspar	—	3	5	—	—	2
Glass	—	15	10	15	—	5
Inorganic calcite	2	—	—	30	20	—
Nannofossils	—	---	—	5	—	---
Plant	5	—	—	—	—	Tr
Pyrite	5	2	—	—	—	Tr
Quartz	20	5	10	5	20	10
Spicules	1	5	—	—	1	3

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
1, 62	0.37	0.2
1, 83	3.74	8.0
1, 98	0.37	1.5
2. 100	0.39	7.7
5, 3	0.68	0.2



SITE 797 HOLE B CORE 10H CORED INTERVAL 2944.1-2953.6 mbsl; 81.9-91.4 mbsf

TIME-ROCK UNIT: UPPER PLIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER
- FORAMINIFERS: B
- NANNOFOSSILS: F/M
- RADIOLARIANS: *Sphaeropyle robusta*
- DIATOMS: F/P *Neodenticula koizumii*

PALEOMAGNETICS: N / R

PHYS. PROPERTIES: ϕ=84.3, ρ=1.41; ϕ=78.8, ρ=1.48; ϕ=81.4, ρ=1.43; ϕ=83.1, ρ=1.39; ϕ=75.9, ρ=1.55; ϕ=77.5, ρ=1.51

CHEMISTRY

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: BM

LITHOLOGIC DESCRIPTION

ASHY DIATOM SILTY CLAY

Major lithology: ASHY DIATOM SILTY CLAY, light bluish gray (5B 7/1) to light olive gray (5Y 6/1); highly bioturbated and distinctly mottled locally; few thin (1-4 cm) dark colored, olive gray (5Y 4/1) laminae.

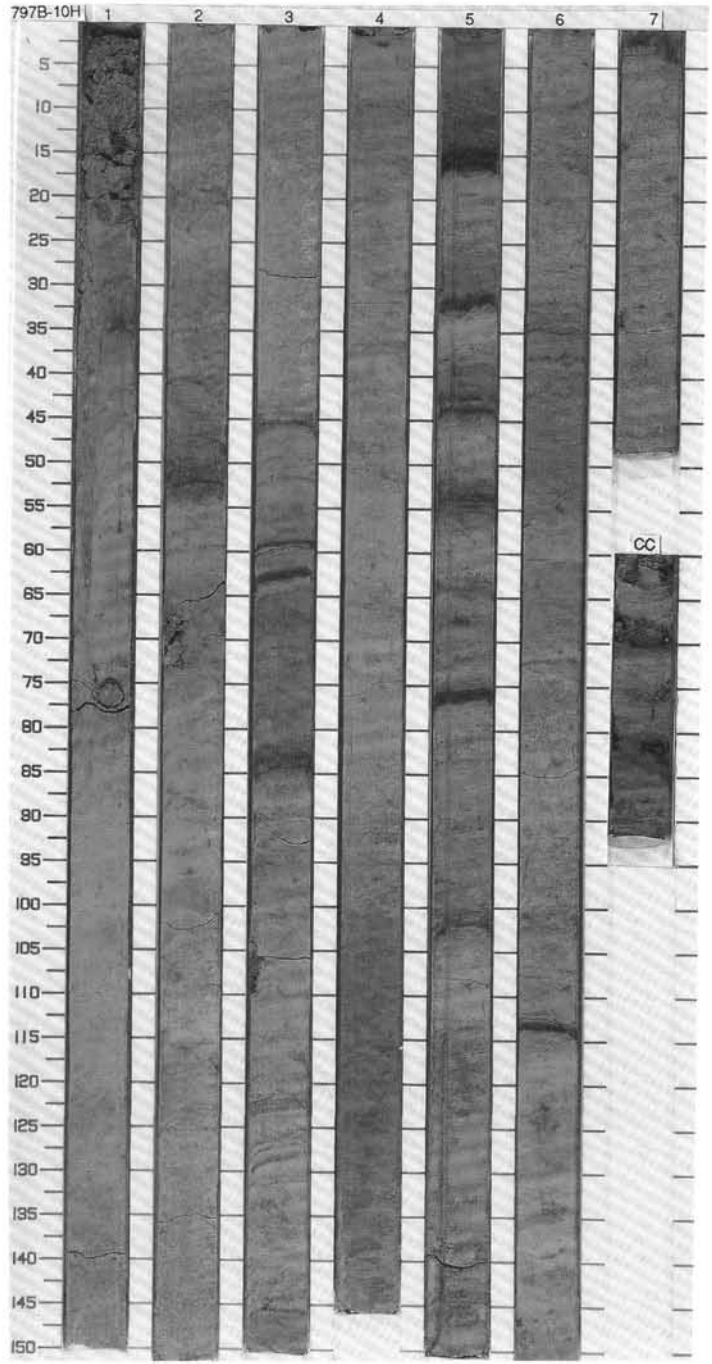
Minor lithology: Dolomite concretions at Section 1, 75 cm; Section 2, 65 cm, and Section 3, 105 cm. Ash, dark gray (N3) at Section 7, 0 to 2 cm.

SMEAR SLIDE SUMMARY (%):

	1, 91 D	3, 37 D	7, 23 D
TEXTURE:			
Silt	20	10	15
Clay	80	90	85
COMPOSITION:			
Accessory minera	—	—	Tr
Bioclast	—	Tr	—
Clay	90	90	90
Diatoms	5	1	2
Feldspar	—	Tr	—
Foraminifers	Tr	—	—
Glass	2	6	3
Radiolarians	Tr	—	—
Silicoflagellates	Tr	—	—
Spicules	—	Tr	—

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 100	0.61	0.5
5, 3	0.39	0.5
5, 129	0.42	1.4
5, 137	1.02	19.3



SITE 797 HOLE B CORE 11H CORED INTERVAL 2953.6-2963.1 mbsl; 91.4-100.9 mbsf

TIME-ROCK UNIT: UPPER PLIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER
- FORAMINIFERS: B
- NANNOFOSSILS: C/M
- RADIOLARIANS: *Sphaeropyle robusta*
- DIATOMS: C/G *Neodenticula koizumii*

PALEOMAGNETICS: R

PHYS. PROPERTIES: ϕ=73.9, ρ=1.59; ϕ=81.4, ρ=1.42; ϕ=67.9, ρ=1.28; ϕ=80.9, ρ=1.42; ϕ=79.1, ρ=1.57; ϕ=80.4, ρ=1.47; ϕ=82.9, ρ=1.41

CHEMISTRY

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: AN

LITHOLOGIC DESCRIPTION

DIATOM-BEARING SILTY CLAY AND SILTY CLAY

Major lithology: DIATOM-BEARING SILTY CLAY and SILTY CLAY, greenish gray (5G 6/1), pale olive (10Y 5/2), light bluish gray (5B 6/1), and medium olive gray (5Y 4/1); bioturbated and mottled throughout.

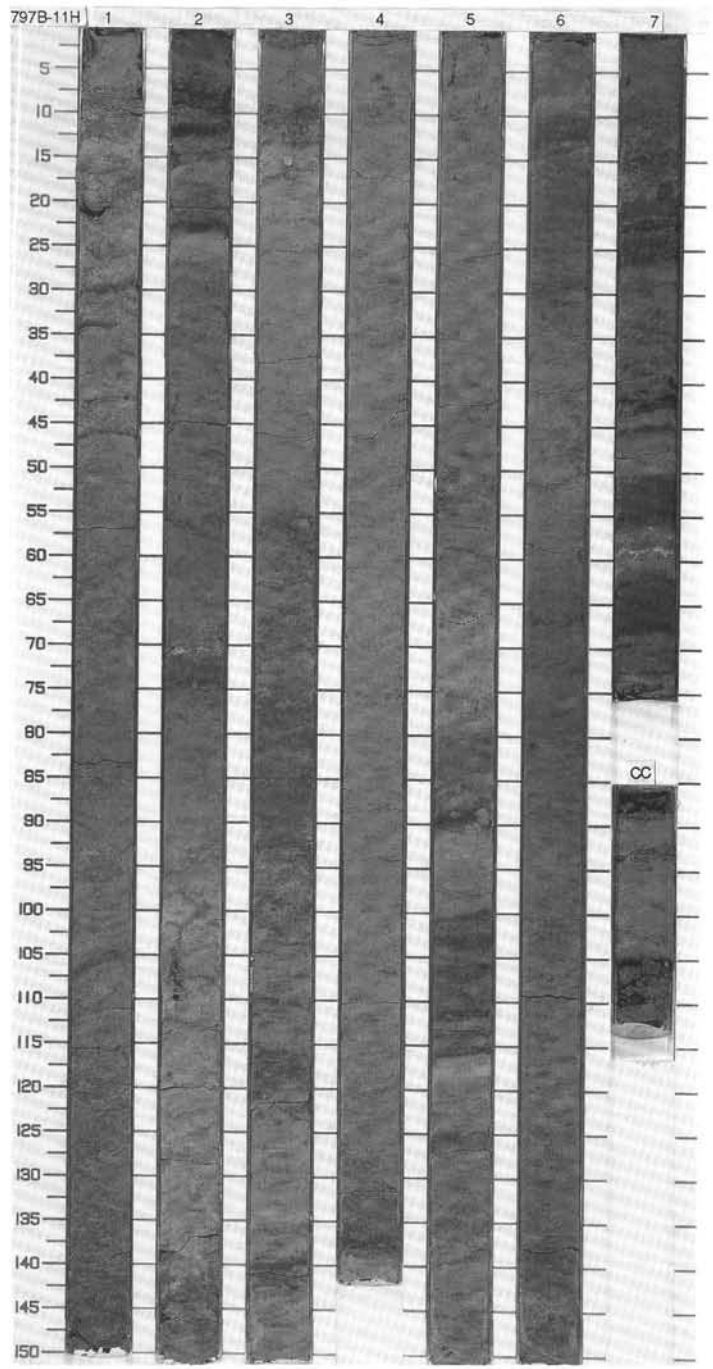
Minor lithology: Ash, dark gray (N3), medium dark gray (N4) and light gray (N7) in Section 2, 69-70 cm; Section 5, 125-127 cm, and Section 7, 19-21 and 58-59 cm. Dolomite concretions, grayish orange (10YR 7/4) in Section 1, 17-20 cm; Section 5, 48 cm, and Section 6, 107-108 cm.

SMEAR SLIDE SUMMARY (%):

	1, 76 D	4, 56 M	7, 36 D
TEXTURE:			
Silt	3	1	2
Clay	97	99	98
COMPOSITION:			
Bioclast	Tr	Tr	—
Clay	75	80	97
Diatoms	Tr	1	Tr
Feldspar	Tr	—	—
Glass	1	Tr	2
Nannofossils	20	15	Tr
Spicules	Tr	—	—

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
1, 134	0.53	0.7
2, 101	0.33	0.4
5, 3	0.02	0.7
7, 54	1.89	2.2
7, 147	1.79	2.3



SITE 797 HOLE B CORE 12H CORED INTERVAL 2963.1-2972.6 mbsl; 100.9-110.4 mbsf

TIME-ROCK UNIT: UPPER PLIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER
- FORAMINIFERS: B; C/G; A/G
- NANNOFOSSILS: *Sphaeropyle langii*
- RADIOLARIANS
- DIATOMS: *Neodenticula koizumii*

PALEOMAGNETICS: R

PHYS. PROPERTIES: ϕ=79.2, ρ=1.42; ϕ=82.7, ρ=1.36; ϕ=82.9, ρ=1.39

CHEMISTRY: ϕ=83.6, ρ=1.38; ϕ=66.8, ρ=1.71; ϕ=84.1, ρ=1.37; ϕ=83.8, ρ=1.40

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: OG, RW, W

LITHOLOGIC DESCRIPTION

SILTY CLAY AND NANNOFOSSIL-BEARING SILTY CLAY

Major lithology: SILTY CLAY and NANNOFOSSIL-BEARING SILTY CLAY, greenish gray (5G 6/1), medium bluish gray (5B 5/1), olive gray (5Y 4/1) and moderate yellowish brown (5YR 5/4); *bioturbated and mottled throughout; sediment deformation features* in Section 3 between 3 and 33 cm; Section 6 at 45 cm.

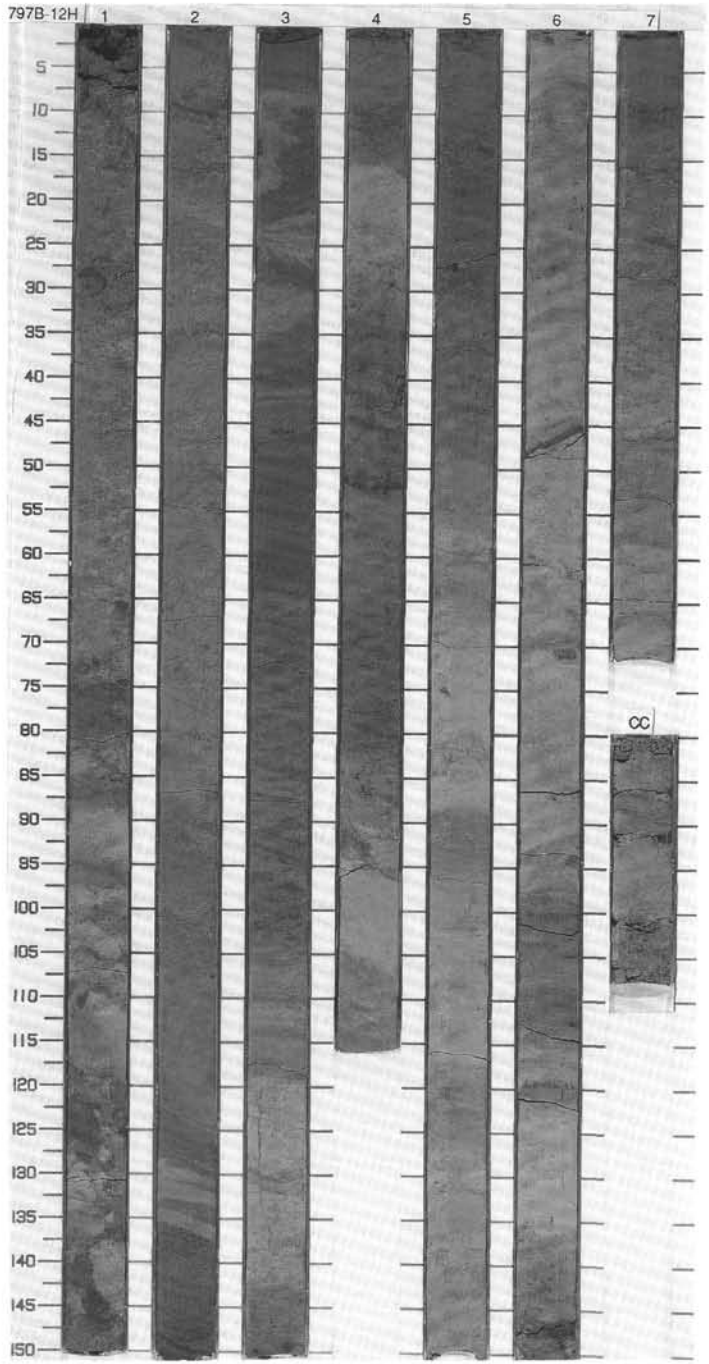
Minor lithology: Ash, dark gray (N3) in Section 4 between 50 and 51 cm and 93 cm; Section 5 at 82 and 92 cm and Section 6 at 142 cm. Dolomite concretions in Section 1 at 0, 27 and 125-127 cm and Section 6 at 61 cm. Carbonate: dark yellowish brown (10YR 4/2) in Section 6 between 146-148 cm.

SMEAR SLIDE SUMMARY (%):

	1, 51 D	4, 65 D	7, 15 D
TEXTURE:			
Sand	1	1	—
Silt	5	2	2
Clay	94	97	98
COMPOSITION:			
Clay	90	90	85
Diatoms	2	2	1
Feldspar	Tr	—	—
Glass	3	1	2
Nannofossils	—	5	10
Radiolarians	—	Tr	—
Spicules	Tr	—	Tr

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 100	0.23	0.1
5, 2	1.11	6.9



SITE 797 HOLE B CORE 13H CORED INTERVAL 2972.6-2982.1 mbsl; 110.4-119.9 mbsf

TIME-ROCK UNIT: UPPER PLIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS; NANNOFOSSILS: B; RADIOLARIANS: *Sphaeropyle langii*: C/G; DIATOMS: *Neodenticula koizumii*: A/G

PALEOMAGNETICS: Undetermined; N

PHYS. PROPERTIES: ●Φ=86.2 ρ=1.34; ●Φ=76.5 ρ=1.52; ●Φ=83.4 ρ=1.35; ●Φ=82.2 ρ=1.35; ●Φ=82.8 ρ=1.36; ●Φ=80.4 ρ=1.41

CHEMISTRY

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES: ⊙, ◇

SAMPLES: *

LITHOLOGIC DESCRIPTION

CLAY AND SILTY DIATOM CLAY

Major lithology: CLAY and SILTY DIATOM CLAY, olive gray (5Y 4/1), greenish gray (5G 6/1) to dark greenish gray (5G 4/1), and moderate yellowish brown (10YR 5/4): bioturbated and mottled throughout; some faint hue banding.

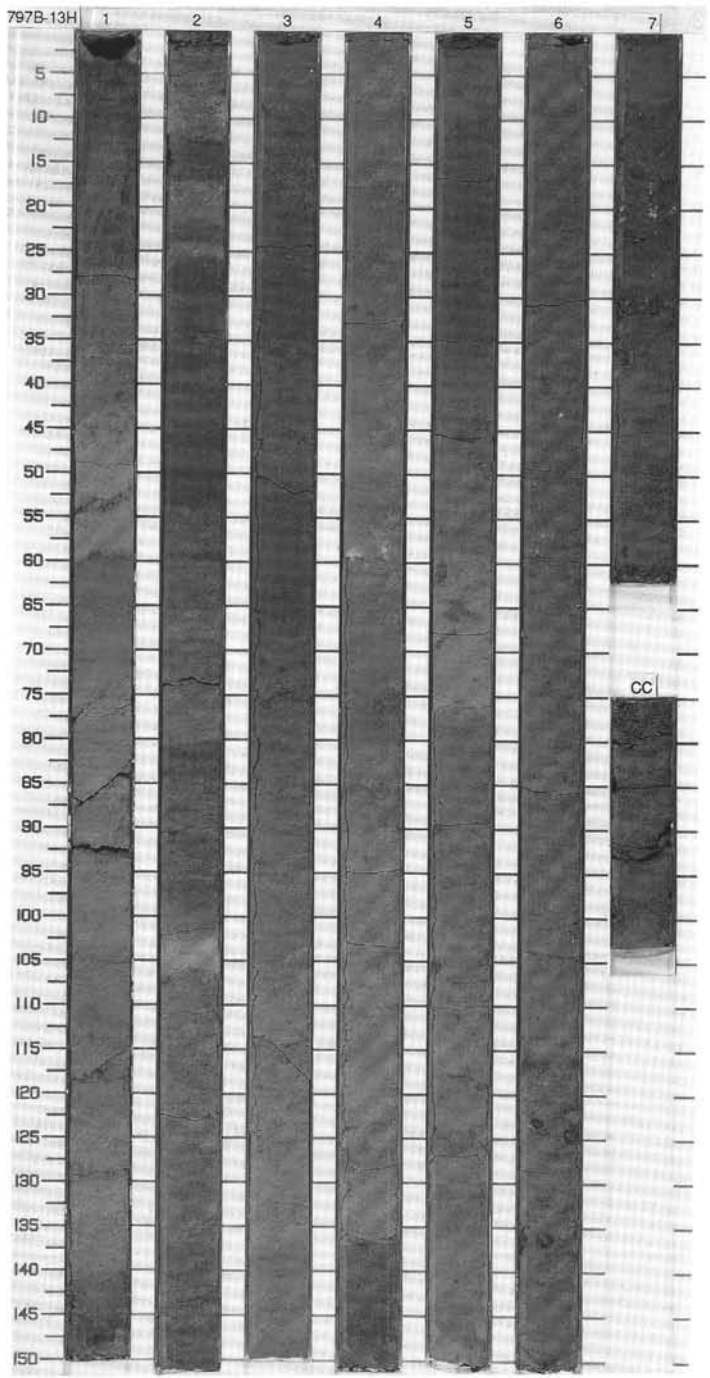
Minor lithology: Clayey diatom ooze, dark greenish gray (5GY 4/1); bioturbated and indistinctly mottled in Section 6. Ash, olive black (5Y 2/1) in Section 2, 14 to 16 cm, medium light gray (N6) in Section 5, 126 to 127 cm, and medium dark gray (N7) in Section 6, 116 to 117 cm. Dolomite concretions in Section 3, 72 cm and Section 4, 75 cm.

SMEAR SLIDE SUMMARY (%):

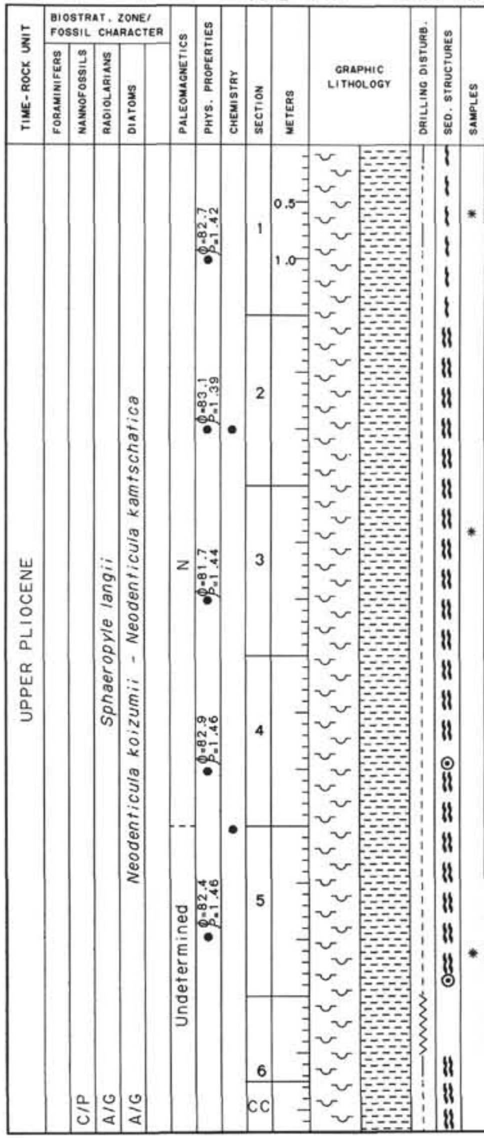
	1, 37 D	3, 100 D	6, 70 D
TEXTURE:			
Sand	1	5	—
Silt	2	8	30
Clay	97	87	70
COMPOSITION:			
Accessory minerals	—	—	Tr
Clay	95	85	25
Diatoms	3	10	70
Feldspar	—	Tr	—
Glass	Tr	2	—
Nannofossils	—	Tr	—
Pyrite	—	—	Tr
Radiolarians	Tr	—	—
Silicoflagellates	Tr	—	Tr

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 101	0.76	0.6
5, 3	1.06	0.7



SITE 797 HOLE B CORE 14H CORED INTERVAL 2982.1-2991.6 mbsl; 119.9-129.4 mbsf



LITHOLOGIC DESCRIPTION

CLAYEY DIATOM OOZE

Major lithology: CLAYEY DIATOM OOZE, greenish gray (5G 6/1) to dark greenish gray (5G 4/1), and light bluish gray (5B 7/1); bioturbated and mottled throughout.

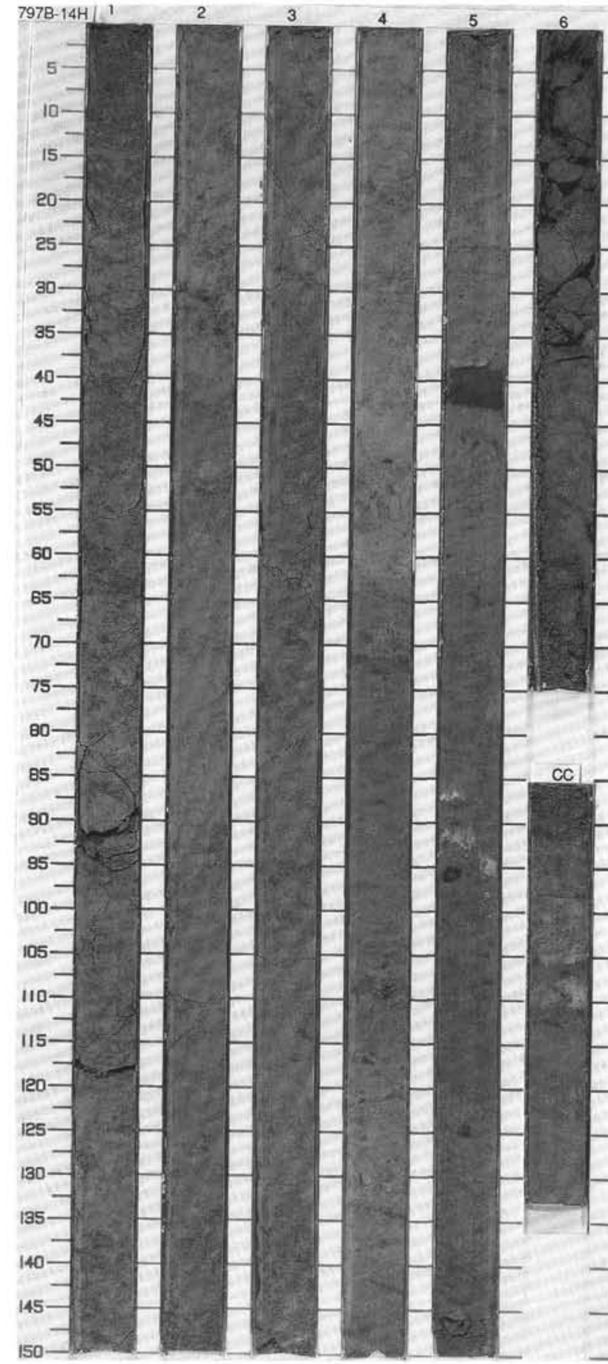
Minor lithology: Diatom clay, greenish gray (5G 6/1); bioturbated and mottled throughout. Ash, dark gray (N3) in Section 5, 38 to 43 cm. Dolomite concretions in Section 4 at 105 cm and Section 145 cm.

SMEAR SLIDE SUMMARY (%):

	1, 60 D	3, 40 D	5, 112 D
TEXTURE:			
Sand	30	20	—
Silt	40	20	20
Clay	30	60	80
COMPOSITION:			
Clay	30	60	65
Diatoms	65	35	30
Feldspar	—	Tr	—
Glass	Tr	Tr	1
Pyrite	—	Tr	1
Radiolarians	Tr	—	Tr
Spicules	—	—	Tr

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 100	0.20	0.1
5, 2	0.60	0.3



SITE 797 HOLE B CORE 15H CORED INTERVAL 2991.6-3001.1 mbsl; 129.4-138.9 mbsf

TIME-ROCK UNIT: UPPER PLIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER
- FORAMINIFERS: B; A/G; C/G
- NANNOFOSSILS: *Sphaeropyle langii*
- RADIOLARIANS: *Neodenticula koizumii - Neodenticula kamtschatica*
- DIATOMS

PALEOMAGNETICS: N

PHYS. PROPERTIES: Undetermined

CHEMISTRY

SECTION / METERS

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: OG; RW; TW

LITHOLOGIC DESCRIPTION

DIATOM OOZE AND DIATOM CLAY

Major lithology: DIATOM OOZE and DIATOM CLAY, greenish gray (5G 6/1), light bluish gray (5B 7/1) to dark greenish gray (5G 4/1); bioturbated and mottled throughout.

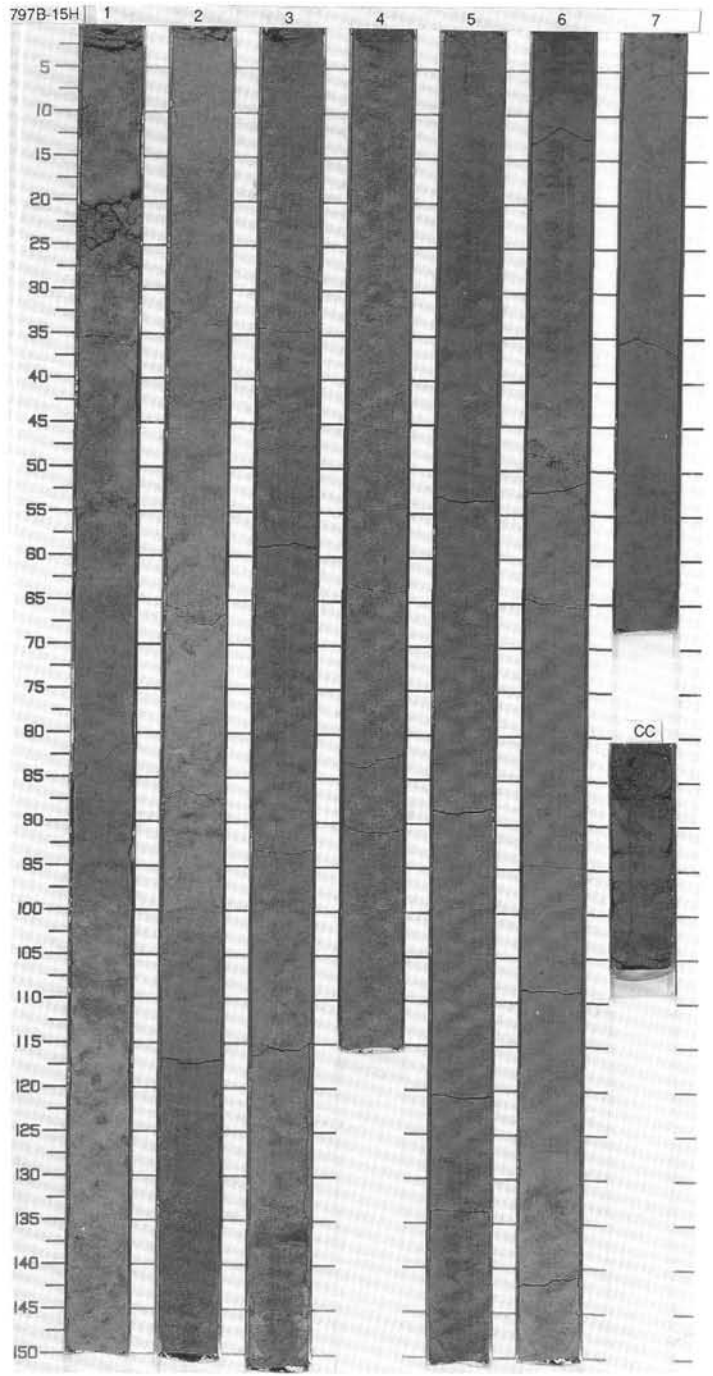
Minor lithology: Ash, medium dark gray (N4) in Section 3, 135-137 cm. Scattered blebs of carbonate throughout.

SMEAR SLIDE SUMMARY (%):

	1, 73 D	3, 30 D
TEXTURE:		
Sand	10	—
Silt	10	50
Clay	80	50
COMPOSITION:		
Accessory minerals	—	Tr
Clay	80	25
Diatoms	15	75
Feldspar	Tr	—
Glass	2	—
Pyrite	—	Tr

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 100	0.25	0.2
5, 2	0.66	0.4



SITE 797 HOLE B CORE 16H CORED INTERVAL 3001.1-3010.6 mbsl; 138.9-148.4 mbsf

UPPER PLIOCENE

B
C/M — *Sphaeropyle langii*
C/M — *Neodenticula koizumii – Neodenticula kamtschatica*
Undetermined — R — N

Φ=86.9 ρ=1.39 · Φ=86.0 ρ=1.47 · Φ=78.2 ρ=1.46 · Φ=84.9 ρ=1.41 · Φ=82.5 ρ=1.56 · Φ=84.8 ρ=1.46 · Φ=88.7 ρ=1.40

CC 7 6 5 4 3 2 1

1.0 0.5

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

DIATOM CLAY AND CLAYEY DIATOM OOZE

Major lithology: DIATOM CLAY and CLAYEY DIATOM OOZE, both greenish gray (5G 6/1), dusky yellow green (5GY 5/2), and medium gray (N 5) with dark gray (N 3) and dark greenish gray (5G 4/1) mottles; heavily bioturbated and mottled

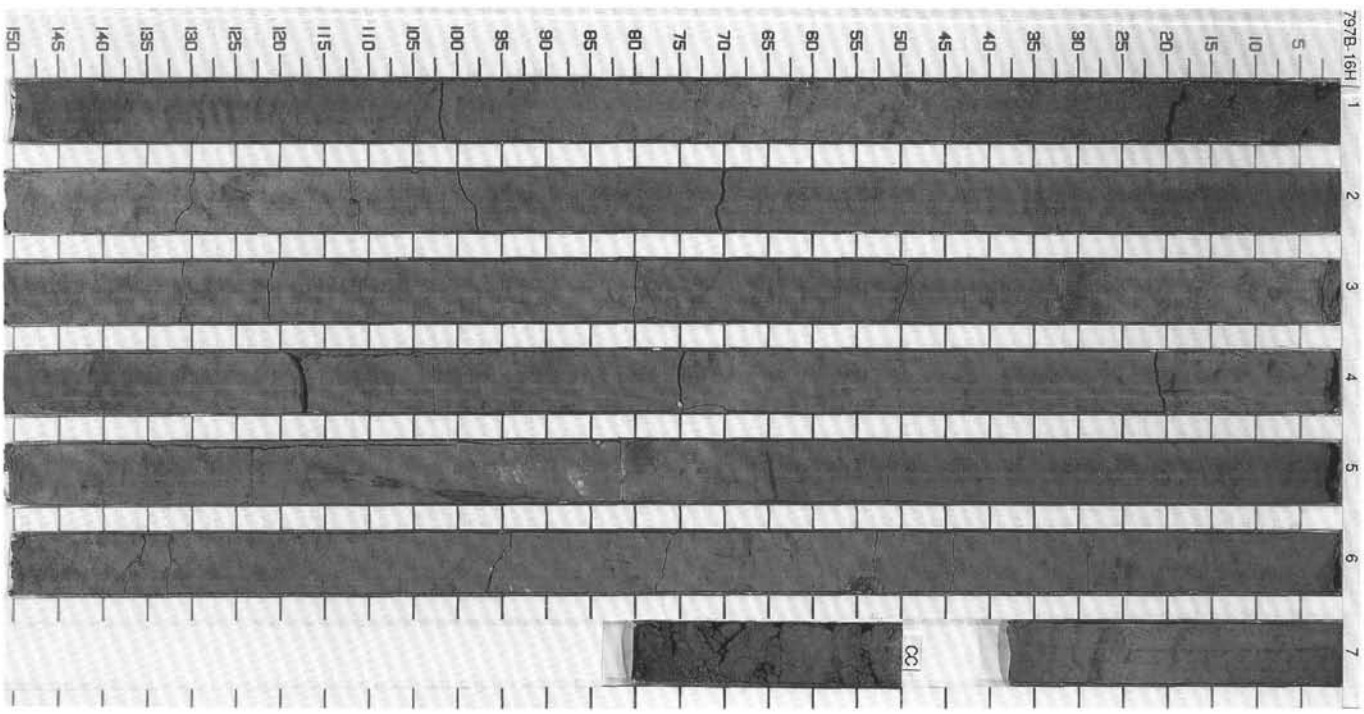
Minor lithology: Micrite layers and carbonate nodules, moderate yellow brown (10YR 5/4) to light olive brown (5Y 5/6). Fine-grained volcanic sand, medium dark gray (N 3) at the bottom of CC. A thin ash layer at Section 5, 82 cm.

SMEAR SLIDE SUMMARY (%):

	1, 59 M	1, 100 D	2, 100 D	5, 100 D	7, 20 D	CC, 10 D
TEXTURE:						
Sand	—	—	—	20	10	15
Silt	40	20	25	10	15	15
Clay	60	80	75	70	75	70
COMPOSITION:						
Clay	60	20	30	35	60	50
Diatoms	35	70	20	50	20	40
Glass	—	—	—	2	3	—
Inorganic calcite	—	—	10	3	Tr	—
Opal	—	—	30	—	—	—
Pyrite	Tr	Tr	—	2	2	3
Quartz	5	5	5	5	10	7
Radiolarians	—	—	—	1	Tr	—
Spicules	Tr	5	2	2	Tr	Tr

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 57	0.65	0.7
2, 100	0.81	1.0
5, 2	0.70	2.8



SITE 797 HOLE B CORE 17H CORED INTERVAL 3010.6-3020.1 mbsl; 148.4-157.9 mbsf

TIME-ROCK UNIT: UPPER PLIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: B; C/M; C/G

Thecosphaera japonica

Neodenticula koizumii - Neodenticula kamtschatica

Undetermined

PALEOMAGNETICS: ϕ=85.4, ρ=1.42; ϕ=80.7, ρ=1.42; ϕ=85.7, ρ=1.45; ϕ=84.5, ρ=1.43; ϕ=87.4, ρ=1.40; ϕ=84.8, ρ=1.38

PHYS. PROPERTIES: ϕ=85.4, ρ=1.42; ϕ=80.7, ρ=1.42; ϕ=85.7, ρ=1.45; ϕ=84.5, ρ=1.43; ϕ=87.4, ρ=1.40; ϕ=84.8, ρ=1.38

CHEMISTRY

SECTION: 1 2 3 4 5 6 7 8

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: CAN

LITHOLOGIC DESCRIPTION

DIATOM CLAY, CLAYEY DIATOM OOZE AND DIATOMACEOUS CLAY

Major lithology: DIATOM CLAY, CLAYEY DIATOM OOZE and DIATOMACEOUS CLAY, grayish olive (10Y 4/2), greenish gray (5G 6/1), and grayish green (10G; 5/2), homogeneous, slightly to moderately bioturbated with mottles.

Minor lithology: Calcareous clay and calcareous diatom clay, grayish orange (10YR 7/4). Ash at Section 7, 77 and 132-138 cm.

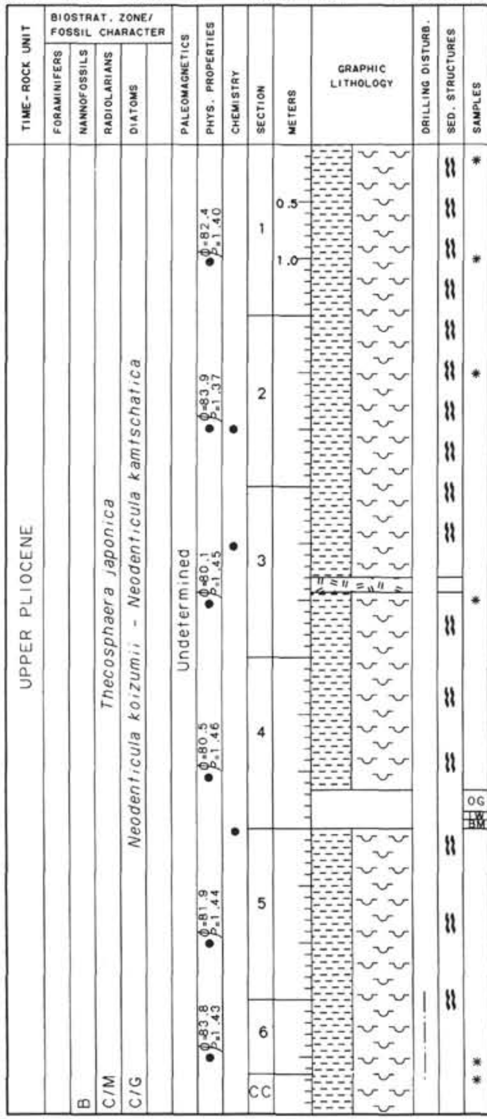
SMEAR SLIDE SUMMARY (%):

	1, 100 D	3, 3 M	4, 100 D	6, 55 D	6, 100 D	7, 100 D
TEXTURE:						
Sand	—	—	—	5	—	5
Silt	20	50	20	10	20	15
Clay	80	50	80	85	80	80
COMPOSITION:						
Carbonate	—	50	—	—	—	—
Clay	60	45	60	70	40	60
Diatoms	30	Tr	30	15	50	20
Glass	—	5	—	—	1	2
Pyrite	1	—	2	3	2	4
Quartz	5	—	2	10	2	7
Radiolarians	Tr	—	1	Tr	2	2
Silicoflagellates	—	—	—	—	—	1
Spicules	1	—	1	2	3	4
Spores	—	—	—	—	Tr	—

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 21	0.61	0.4
5, 2	0.53	0.5

SITE 797 HOLE B CORE 18H CORED INTERVAL 3020.1-3028.6 mbsl; 117.9-166.4 mbsf



LITHOLOGIC DESCRIPTION

CLAY DIATOM OOZE AND CALCAREOUS CLAY DIATOM OOZE

Major lithology: CLAY DIATOM OOZE and CALCAREOUS CLAY DIATOM OOZE, dusky yellow green (5GY 5/2), grayish olive (10Y 4/2), and light olive brown (5Y 5/6); homogeneous, moderately to heavily bioturbated and mottled.

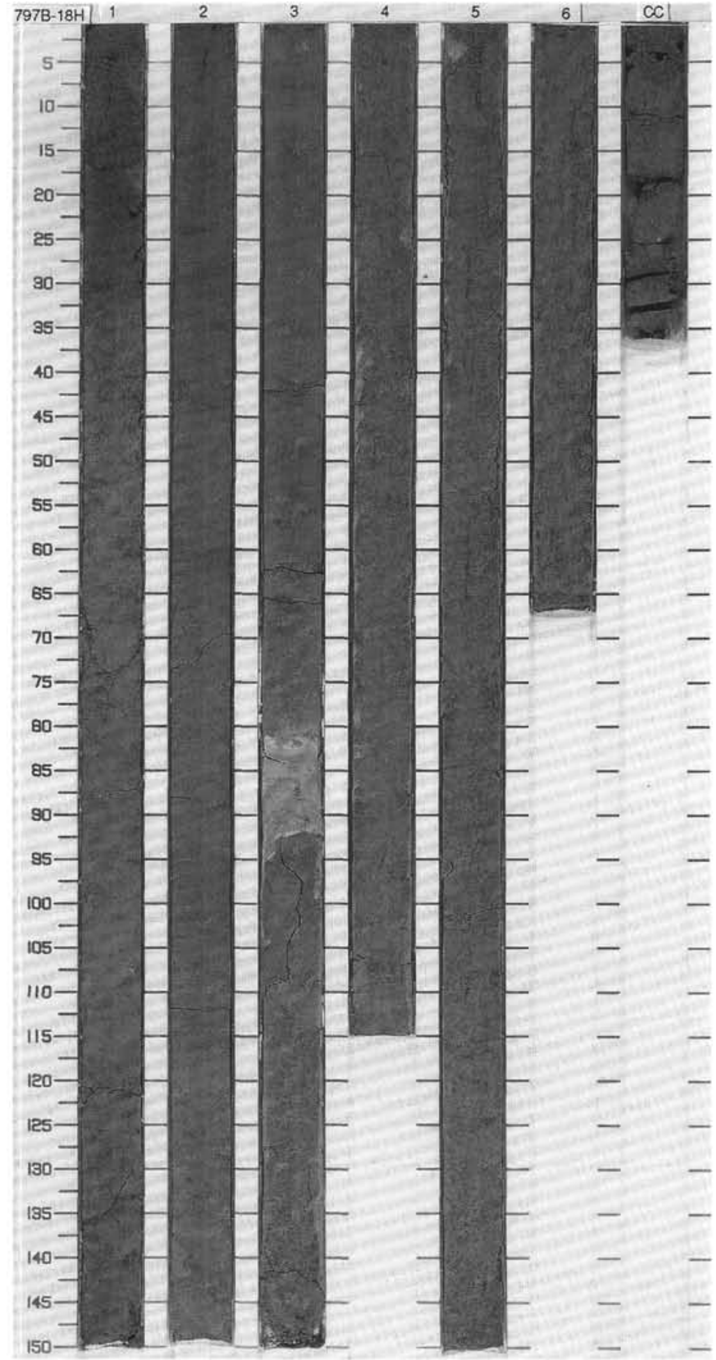
Minor lithology: Ash in Section 1, 13 cm and Section 3, 80-92 cm.

SMEAR SLIDE SUMMARY (%):

	1, 13 M	1, 100 D	2, 51 D	3, 100 D	6, 55 D	CC, 14 D
TEXTURE:						
Sand	40	—	—	—	—	—
Silt	40	40	45	50	50	50
Clay	20	60	55	50	50	50
COMPOSITION:						
Biotite	15	—	—	—	—	—
Carbonate	—	—	20	—	—	—
Clay	20	30	25	25	15	30
Diatoms	30	65	50	50	60	50
Feldspar	5	—	—	—	—	—
Glass	15	Tr	—	—	—	—
Inorganic calcite	—	—	—	20	20	15
Pyrite	5	5	Tr	1	—	—
Quartz	10	—	—	3	3	2
Radiolarians	Tr	—	—	—	—	1
Spicules	Tr	—	—	1	—	1

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 100	0.53	0.2
3, 52	0.75	0.5
5, 2	0.27	14.2



SITE 797 HOLE B CORE 19H CORED INTERVAL 3028.6-3038.1 mbsl; 166.4-175.9 mbsf

TIME-ROCK UNIT: LOWER PLIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER
- FORAMINIFERS: B
- NANNOFOSSILS: C/M
- RADIOLARIANS: *Thecosphaera japonica*
- DIATOMS: *Thalassiosira oestrupii*

PALEOMAGNETICS: N? / Undetermined / R

PHYS. PROPERTIES: ϕ-75.4 ρ=1.40; ϕ-85.3 ρ=1.38; ϕ-83.1 ρ=1.36; ϕ-87.4 ρ=1.36; ϕ-81.5 ρ=1.34; ϕ-85.2 ρ=1.38; ϕ-84.5 ρ=1.34

CHEMISTRY

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES

LITHOLOGIC DESCRIPTION

CLAYEY DIATOM OOZE

Major lithology: CLAYEY DIATOM OOZE, light olive gray (5Y 5/2), grayish olive (10Y 4/2), and greenish gray (5G 6/1); heavily bioturbated, slightly to distinctly mottled.

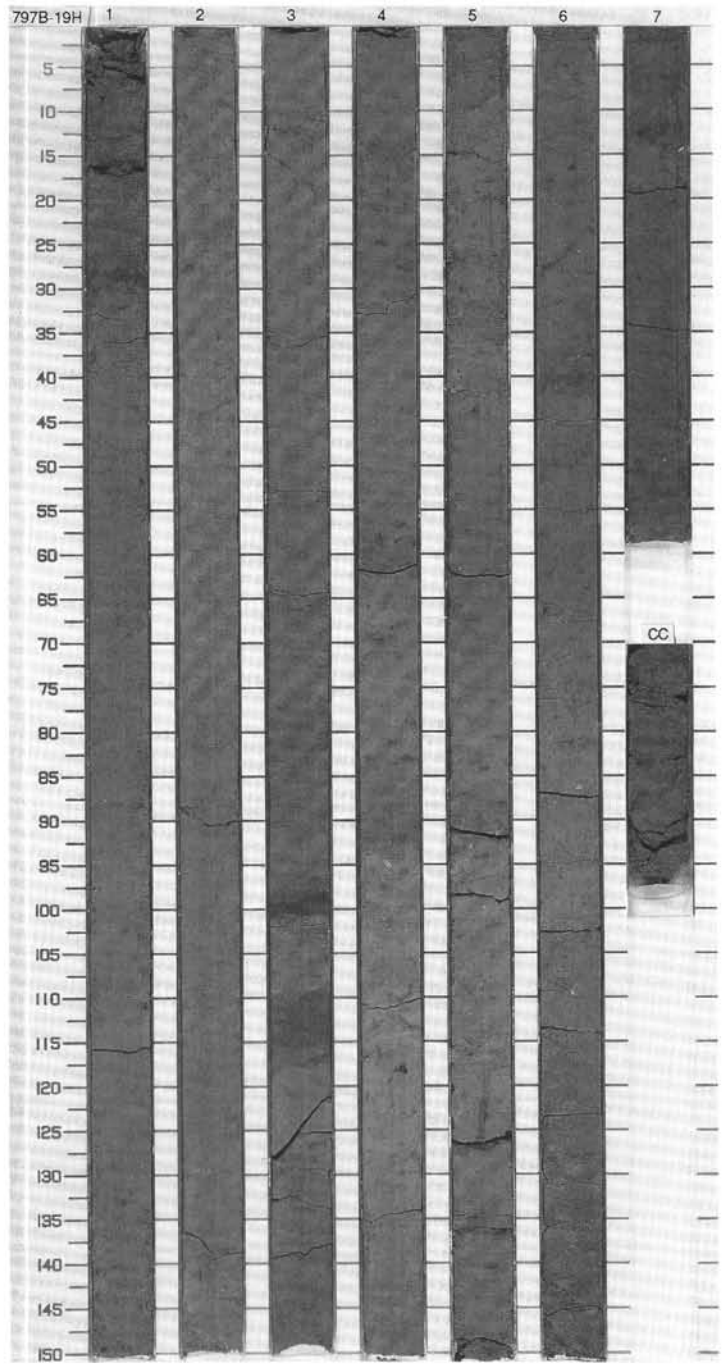
Minor lithology: None.

SMEAR SLIDE SUMMARY (%):

	1, 100 D	3, 100 M	4, 117 D	6, 100 D	7, 33 D
TEXTURE:					
Sand	—	30	—	—	—
Silt	60	20	10	50	20
Clay	40	50	90	50	80
COMPOSITION:					
Clay	20	20	15	20	35
Diatoms	70	60	70	70	50
Feldspar	—	1	—	—	—
Inorganic calcite	2	2	—	—	—
Pyrite	2	5	—	2	1
Quartz	Tr	7	10	5	5
Radiolarians	2	Tr	1	1	1
Silicoflagellates	—	—	Tr	—	—
Spicules	2	5	1	2	3

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 101	0.47	0.2
5, 2	0.35	0.2



SITE 797 HOLE B CORE 20X CORED INTERVAL 3038.1-3047.7 mbsl: 175.9-185.5 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		B	C/M	A/G	Undetermined	ϕ=87.7 ρ=1.35 ϕ=82.7 ρ=1.33	•	1	0.5				
									1.0				
								2					*
			Thecosphaera japonica	*Thalassiosira oestrupii*			•	3				⊙	
												⊙⊙	*
							•	4				⊙	
								5					
								6					
								CC					

LITHOLOGIC DESCRIPTION

DIATOM OOZE AND CLAYEY DIATOM OOZE

Major lithology: DIATOM OOZE and CLAYEY DIATOM OOZE, grayish olive (10Y 4/2), dark greenish gray (5GY 4/1), and dusky yellow green (5GY 5/2); partly calcareous, heavily bioturbated.

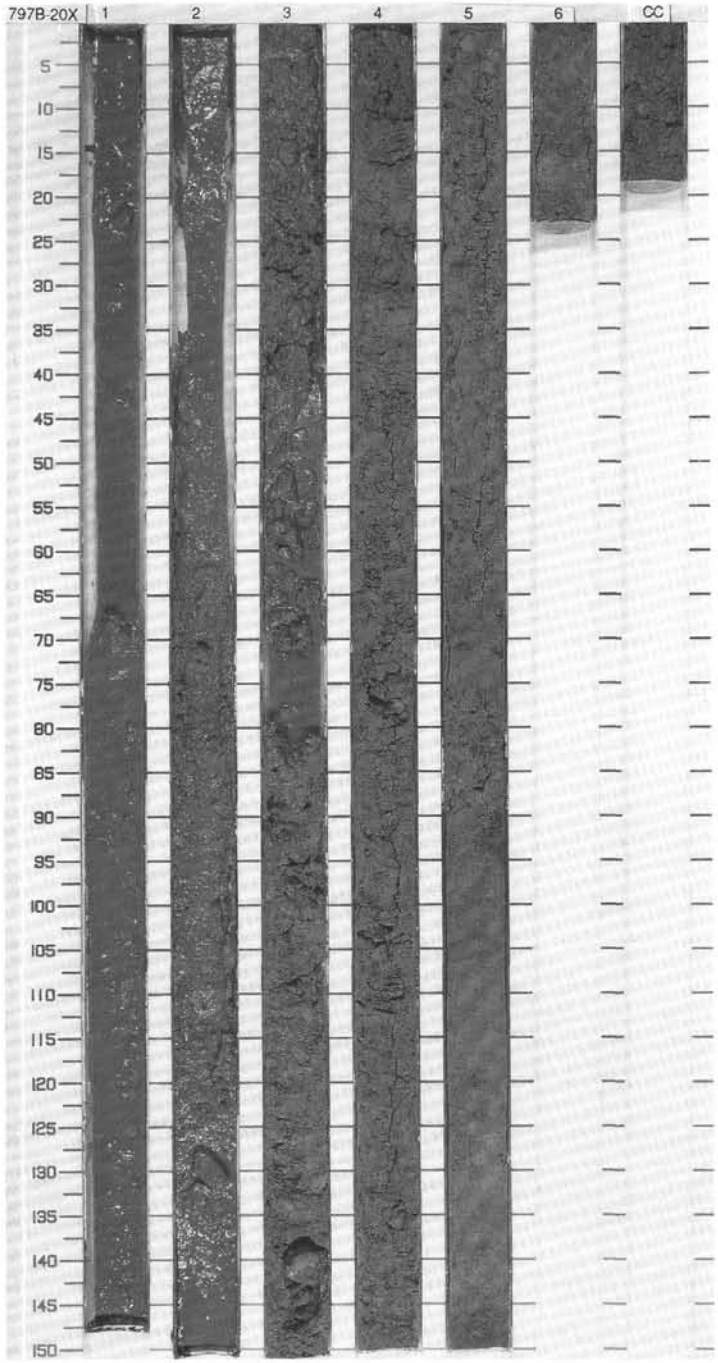
Minor lithology: Calcareous nodules (dolomite?).

SMEAR SLIDE SUMMARY (%):

	2, 100 D	3, 110 D
TEXTURE:		
Sand	30	—
Silt	20	10
Clay	50	90
COMPOSITION:		
Clay	30	5
Diatoms	60	85
Dolomite	2	—
Pyrite	2	Tr
Quartz	5	5
Radiolarians	Tr	1
Spicules	1	2

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
4, 2	0.47	1.0
4, 100	0.41	5.5



SITE 797 HOLE B CORE 21X CORED INTERVAL 3047.7-3057.4 mbsl; 185.5-195.2 mbsf

TIME-ROCK UNIT: LOWER PLIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER
- FORAMINIFERS: B
- NANNOFOSSILS: F/M
- RADIOLARIANS: A/G
- DIATOMS: *Thecosphaera japonica* / *Thalassiosira oestrupii*

PALEOMAGNETICS: Undetermined

PHYS. PROPERTIES: ϕ=84.9, ρ_s=1.39; ϕ=88.1, ρ_s=1.39; ϕ=84.4, ρ_s=1.32; ϕ=88.8, ρ_s=1.36; ϕ=87.1, ρ_s=1.35

CHEMISTRY

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.: X

SED. STRUCTURES

SAMPLES: OC; HW

LITHOLOGIC DESCRIPTION

DIATOM OOZE AND CLAYEY DIATOM OOZE

Major lithology: DIATOM OOZE and CLAYEY DIATOM OOZE, dusky yellow green (5GY 5/2), dark greenish gray (5GY 4/1), and olive gray (5Y 4/1); moderately to heavily bioturbated with faint color banding, otherwise homogeneous.

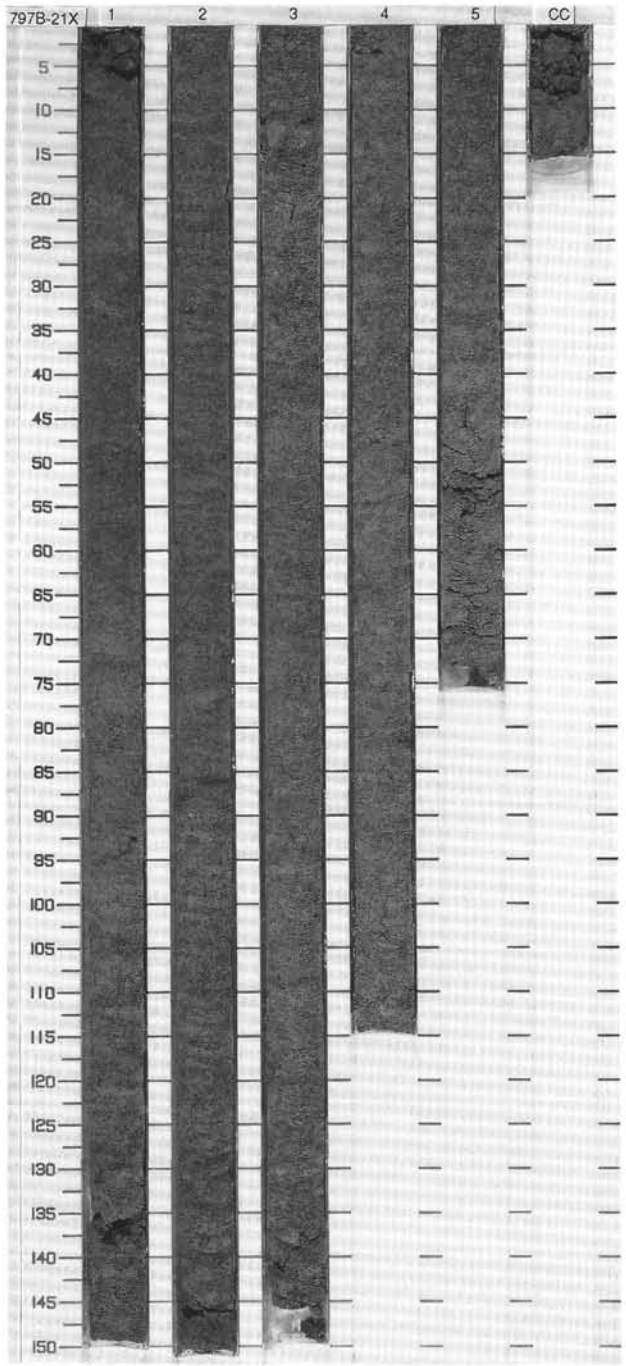
Minor lithology: Dolomitic layers, dark yellowish orange (10YR 6/6).

SMEAR SLIDE SUMMARY (%):

	1, 100 D	2, 39 D	3, 100 D	5, 68 D
TEXTURE:				
Sand	—	30	—	—
Silt	10	30	10	60
Clay	90	40	90	40
COMPOSITION:				
Clay	10	25	10	15
Diatoms	80	60	80	70
Glass	—	—	Tr	—
Inorganic calcite	—	1	—	5
Pyrite	1	5	—	2
Quartz	2	5	5	Tr
Radiolarians	Tr	2	Tr	Tr
Silicoflagellates	—	Tr	1	1
Spicules	3	2	—	5

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
1, 62	0.62	3.0
2, 100	0.46	0.2
5, 3	0.41	0.4



SITE 797 HOLE B CORE 22X CORED INTERVAL 3057.4-3067.0 mbsl; 195.2-204.8 mbsf

TIME-ROCK UNIT: LOWER PLIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS; NANNOFOSSILS: B; RADIOLARIANS: C/G; DIATOMS: A/G

Thecosphaera japonica

Thalassiosira oestrupii

PALEOMAGNETICS; PHYS. PROPERTIES; CHEMISTRY

SECTION; METERS; GRAPHIC LITHOLOGY; DRILLING DISTURB.; SED. STRUCTURES; SAMPLES

Undetermined

LITHOLOGIC DESCRIPTION

DIATOM OOZE AND CLAYEY DIATOM OOZE

Major lithology: DIATOM OOZE and CLAYEY DIATOM OOZE, light olive gray (5Y 5/2), dark greenish gray (5G 4/1), and greenish gray (5G 6/1); homogeneous to slightly mottled and heavily bioturbated, faint color banding.

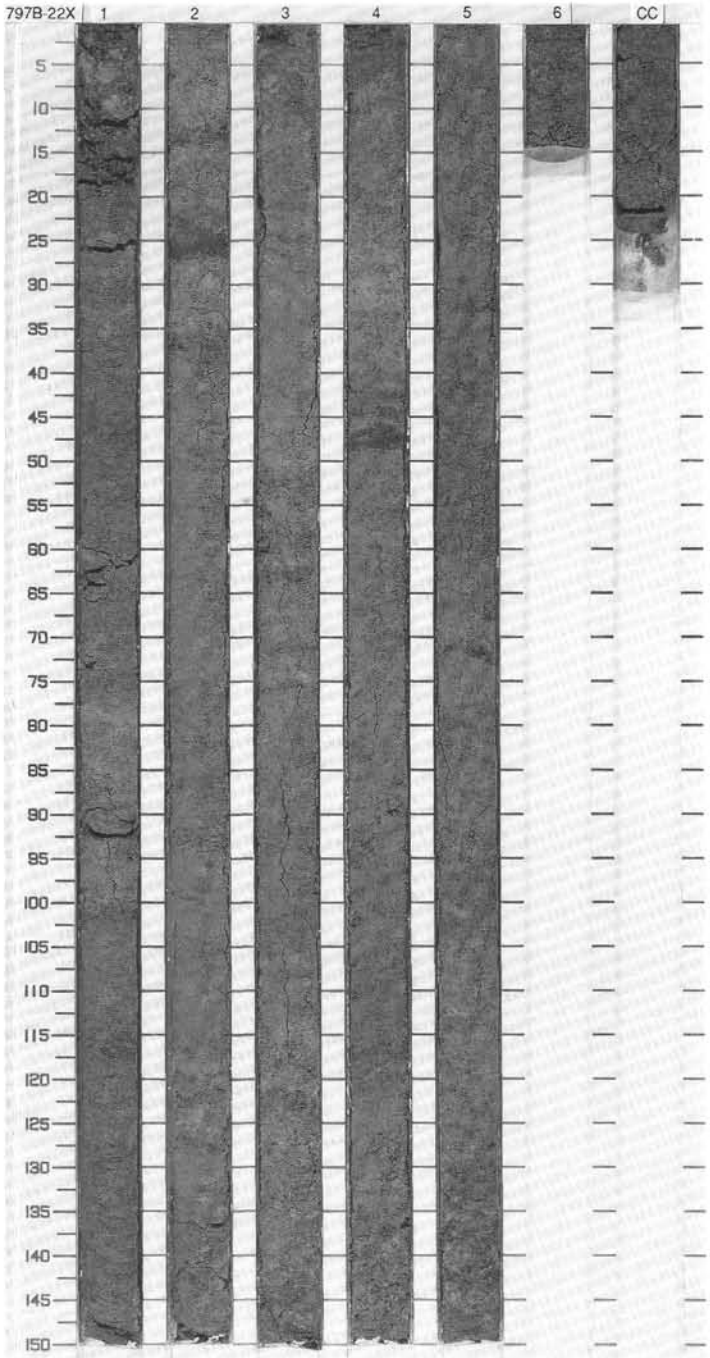
Minor lithology: Calcareous (dolomitic?) layers, dark yellowish orange (10YR 6/6) to moderate yellowish brown (10YR 5/4).

SMEAR SLIDE SUMMARY (%):

	1, 53 D	1, 100 D	2, 22 M	3, 55 M	4, 100 D
TEXTURE:					
Sand	—	—	—	—	15
Silt	5	5	60	30	15
Clay	95	95	40	70	70
COMPOSITION:					
Clay	20	10	20	70	18
Diatoms	60	80	60	25	70
Inorganic calcite	5	—	3	—	—
Organic matter	—	—	Tr	—	—
Pyrite	—	2	1	Tr	3
Quartz	2	3	10	—	7
Radiolarians	Tr	Tr	—	—	Tr
Silicoflagellates	3	1	—	—	Tr
Spicules	5	3	6	2	2

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 100	0.23	0.3
3, 3	0.18	0.2



SITE 797 HOLE B CORE 23X CORED INTERVAL 3067.0-3076.5 mbsl; 204.8-214.3 mbsf

TIME-ROCK UNIT: LOWER PLIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS; NANNOFOSSILS: B; RADIOLARIANS: C/M *Thecosphaera japonica*; DIATOMS: A/M *Thalassiosira oestrupii*

PALEOMAGNETICS: Undetermined

PHYS. PROPERTIES: Φ=78.7 ρb 1.49; Φ=86.6 ρb 1.35; Φ=84.9 ρb 1.36; Φ=84.9 ρb 1.37; Φ=85.7 ρb 1.40; Φ=87.3 ρb 1.36

CHEMISTRY

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.: X

SED. STRUCTURES

SAMPLES: *

LITHOLOGIC DESCRIPTION

CLAYEY DIATOM OOZE AND SILTY CLAYEY DIATOM OOZE

Major lithology: CLAYEY DIATOM OOZE and SILTY CLAYEY DIATOM OOZE, dusky yellow green (5GY 5/2), light olive gray (5Y 5/2), and dark greenish gray (5G 4/1); homogeneous, moderately to highly bioturbated, mottled, and faintly color-banded.

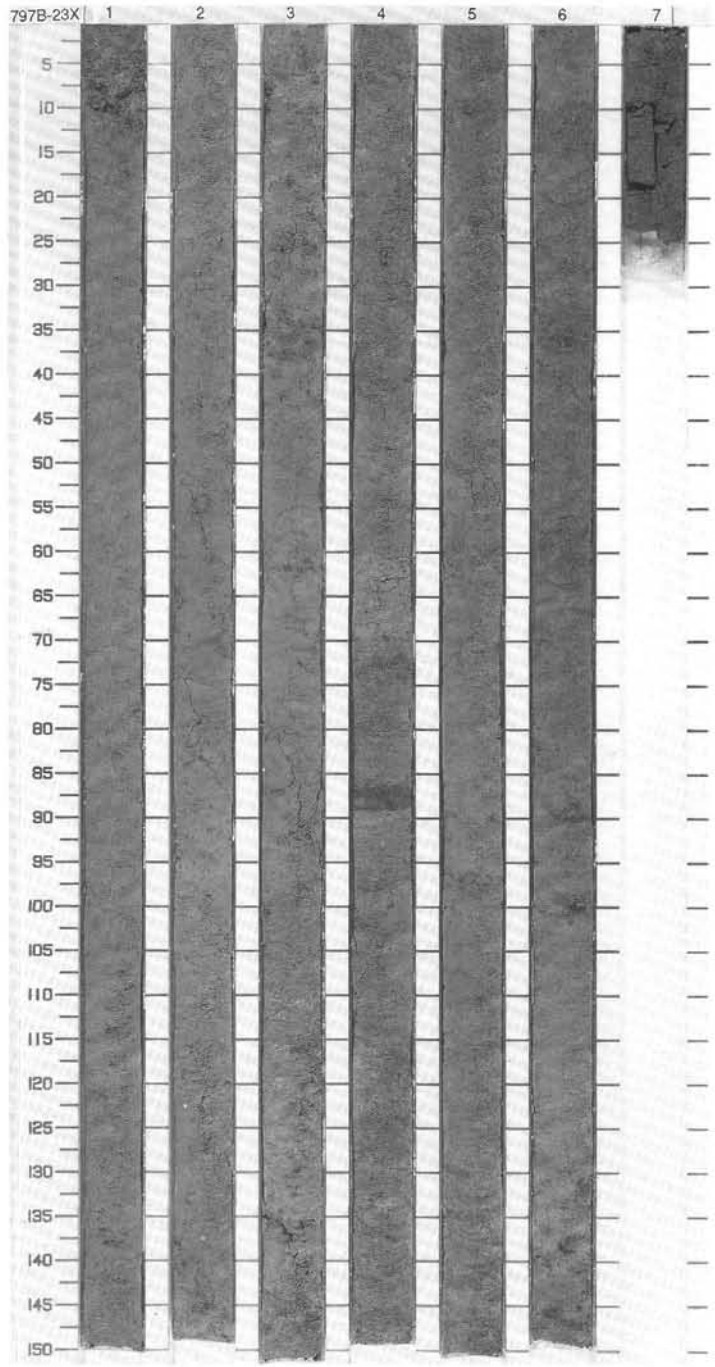
Minor lithology: None.

SMEAR SLIDE SUMMARY (%):

	1, 70 D	3, 37 D	3, 100 D	5, 100 D	7, 12 D
TEXTURE:					
Sand	—	—	—	25	20
Silt	10	30	40	35	30
Clay	90	70	60	40	50
COMPOSITION:					
Clay	30	25	30	15	15
Diatoms	60	50	60	75	70
Glass	—	1	3	—	—
Inorganic calcite	—	—	—	—	2
Pyrite	2	—	1	2	1
Quartz	5	15	2	5	10
Radiolarians	Tr	Tr	Tr	1	Tr
Silicoflagellates	Tr	1	Tr	Tr	Tr
Spicules	2	5	2	2	2

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 100	0.49	0.3



SITE 797 HOLE B CORE 24X CORED INTERVAL 3076.5-3086.2 mbsl; 214.3-224.0 mbsf

TIME-ROCK UNIT: LOWER PLIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS; NANNOFOSSILS: B; RADIOLARIANS: A/G; DIATOMS: C/M

PALEOMAGNETICS; PHYS. PROPERTIES; CHEMISTRY; SECTION; METERS; GRAPHIC LITHOLOGY; DRILLING DISTURB.; SED. STRUCTURES; SAMPLES

Undetermined

Thecosphaera japonica

Thalassiosira oestrupii

LITHOLOGIC DESCRIPTION

CLAYEY DIATOM OOZE AND DIATOM OOZE

Major lithology: CLAYEY DIATOM OOZE and DIATOM OOZE, greenish gray (5G 5/1) and light olive gray (5Y 5/2); bioturbated and mottled throughout.

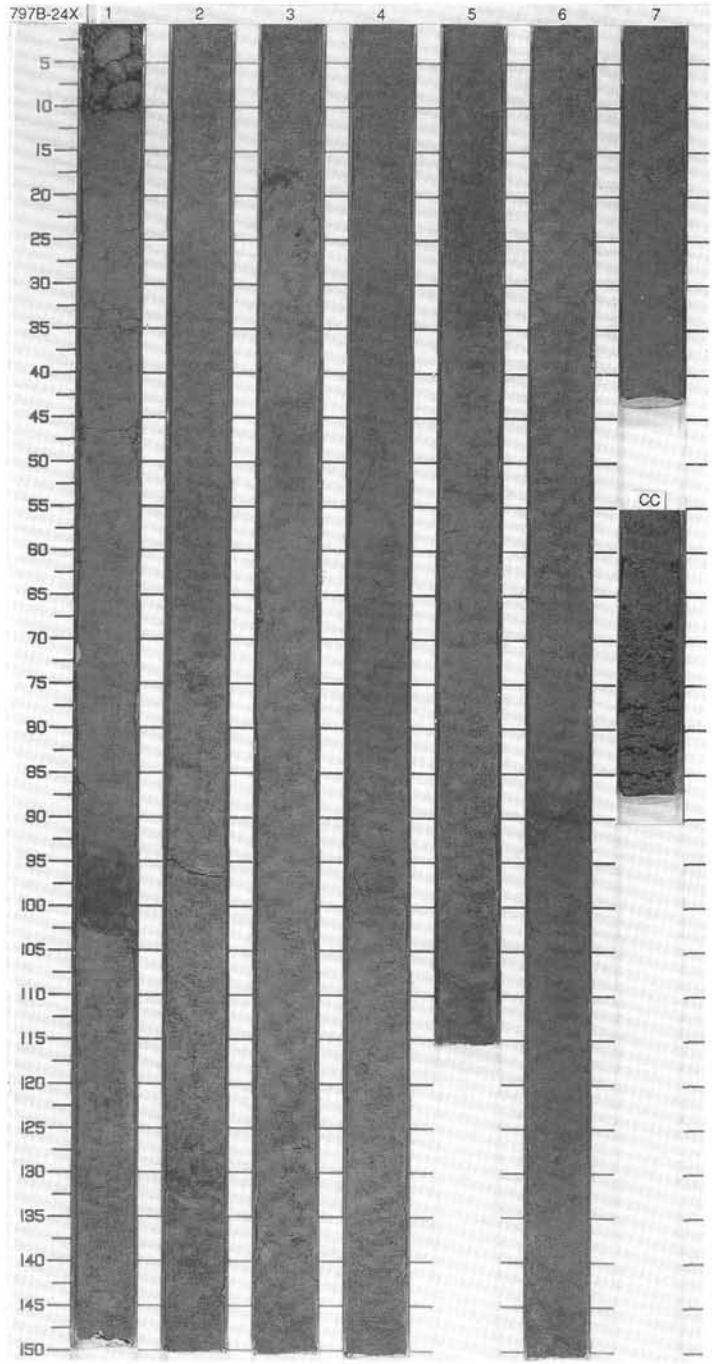
Minor lithology: None.

SMEAR SLIDE SUMMARY (%):

	1, 39 D	4, 17 D	7, 20 D
TEXTURE:			
Sand	5	—	—
Silt	60	40	10
Clay	35	60	90
COMPOSITION:			
Accessory minerals	Tr	Tr	Tr
Clay	15	15	55
Diatoms	80	80	40
Radiolarians	—	Tr	—

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 100	0.42	0.2
6, 2	3.88	0.2



SITE 797 HOLE B CORE 25X CORED INTERVAL 3086.2-3095.9 mbsl; 224.0-233.7 mbsf

TIME-ROCK UNIT: LOWER PLIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS — B; NANNOFOSSILS — A/M; RADIOLARIANS — *Thecosphaera japonica*; DIATOMS — F/M *Thalassiosira oestrupii*

PALEOMAGNETICS: Undetermined

PHYS. PROPERTIES: ●Φ=82.0 ρ=1.43; ●Φ=84.9 ρ=1.41; ●Φ=84.6 ρ=1.47; ●Φ=86.5 ρ=1.39; ●Φ=84.9 ρ=1.35; ●Φ=84.3 ρ=1.39; ●Φ=84.3 ρ=1.47

CHEMISTRY: ●

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES

LITHOLOGIC DESCRIPTION

DIATOM OOZE AND DIATOM CLAY

Major lithology: DIATOM OOZE and DIATOM CLAY, greenish gray (5G 6/1) to dark greenish gray (5GY 4/1); bioturbated and mottled throughout.

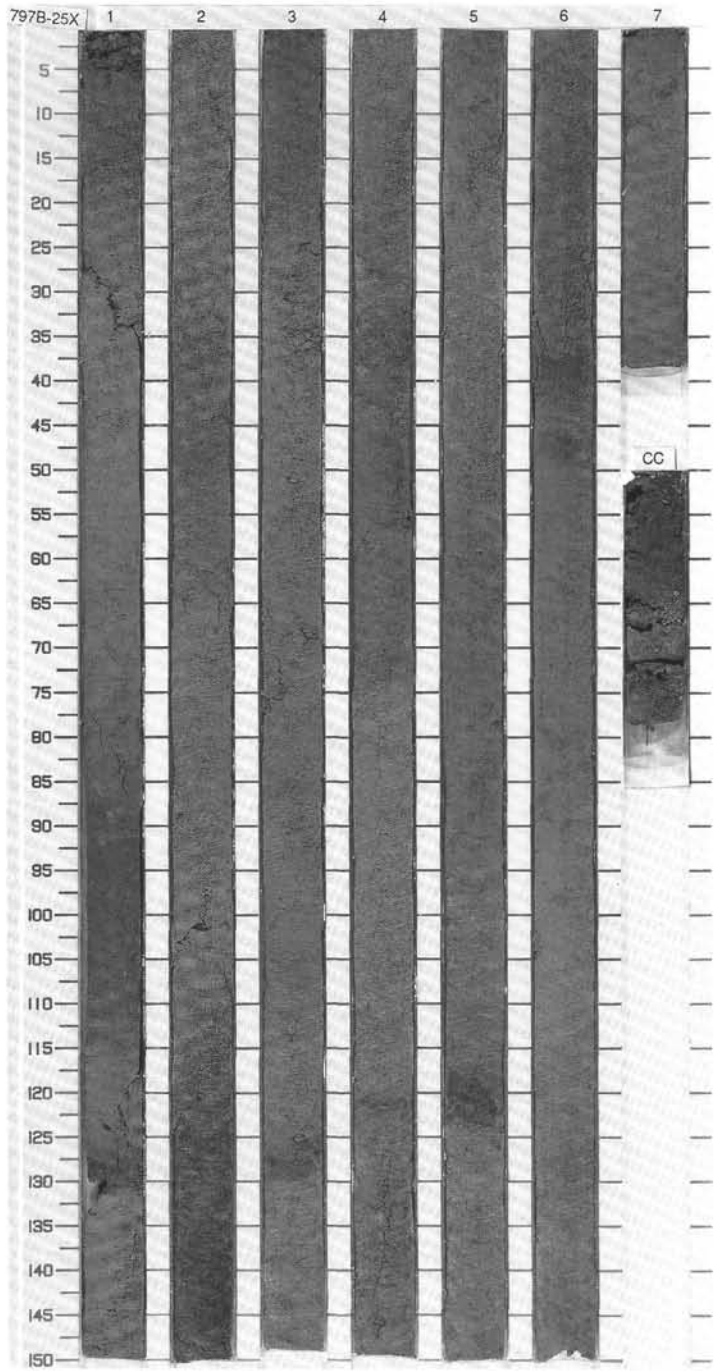
Minor lithology: Dolomite pebbles at top of core. Laminae (<0.5 cm) of bioclastic sand in Section 1, 130 cm and Section 5, 122 cm.

SMEAR SLIDE SUMMARY (%):

	1, 130 M	2, 74 D	4, 64 M	5, 123 M	7, 19 D
TEXTURE:					
Sand	90	15	—	90	5
Silt	10	20	50	10	10
Clay	—	65	50	—	85
COMPOSITION:					
Accessory minerals	—	—	—	Tr	—
Bioclast	Tr	—	—	2	—
Carbonate	10	—	60	5	—
Clay	—	65	30	—	80
Diatoms	Tr	30	5	3	15
Feldspar	Tr	Tr	—	5	Tr
Foraminifers	60	—	Tr	20	—
Glass	Tr	Tr	Tr	1	Tr
Hornblende	—	—	—	Tr	—
Pyrite	—	Tr	Tr	Tr	—
Quartz	2	Tr	—	40	—
Rock fragment	10	—	—	10	—
Silicoflagellates	—	—	—	—	Tr
Spicules	15	Tr	Tr	5	Tr

Organic carbon and carbonate (%)

Sample	Org. C	$CaCO_3$
2, 2	0.37	5.8
2, 100	0.36	0.2



SITE 797 HOLE B CORE 26X CORED INTERVAL 3095.9-3105.6 mbsl; 233.7-243.4 mbsf

TIME-ROCK UNIT	FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
LOWR PLIOCENE		B	A/G	A/G	Undetermined	Φ=83.7 ρ=1.38 Φ=87.9 ρ=1.75 Φ=86.6 ρ=1.37 Φ=86.1 ρ=1.38 Φ=81.5 ρ=1.40 Φ=87.3 ρ=1.37		1 2 3 4 5 6 7 CC	0.5 1.0		X	◇	* * *

Lychnocanium nipponicum

Thalassiosira oestrupii

LITHOLOGIC DESCRIPTION

DIATOM CLAY

Major lithology: DIATOM CLAY, light olive gray (5Y 5/2) and greenish gray (5G 5/1); bioturbated and mottled throughout; increasing consolidation

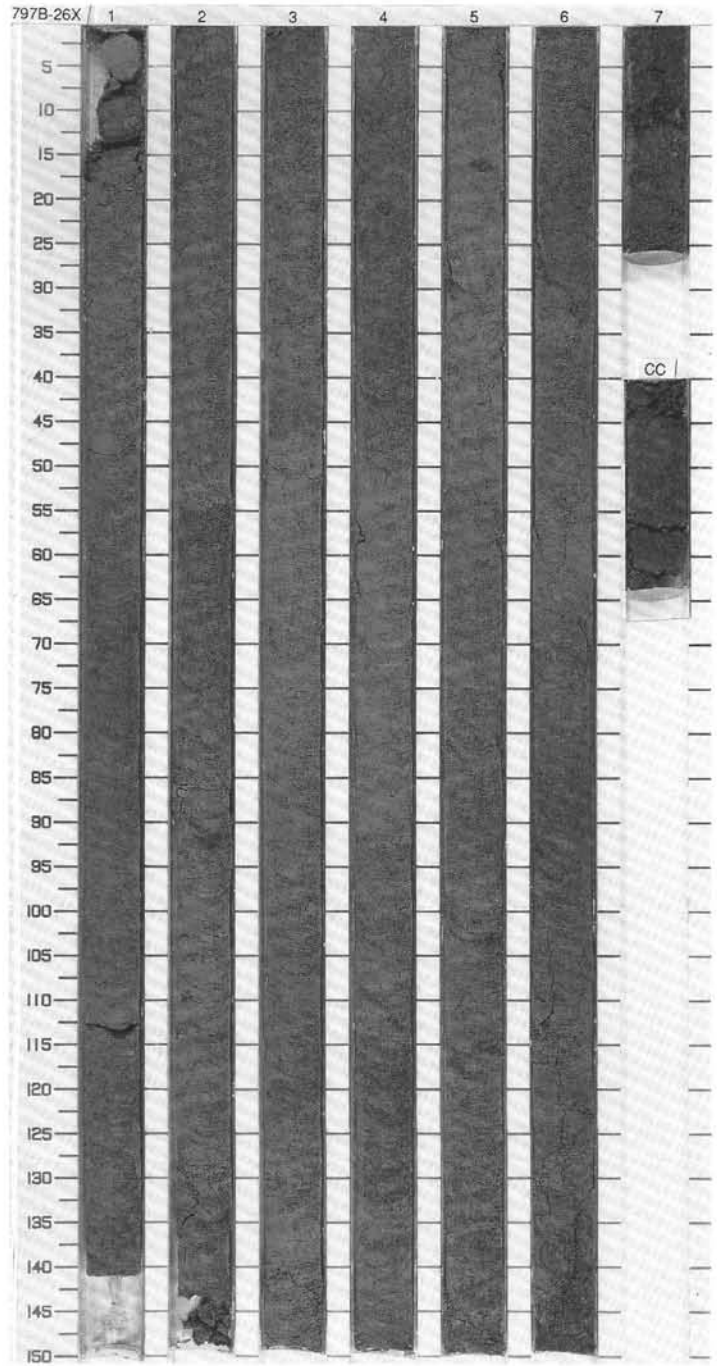
Minor lithology: None.

SMEAR SLIDE SUMMARY (%):

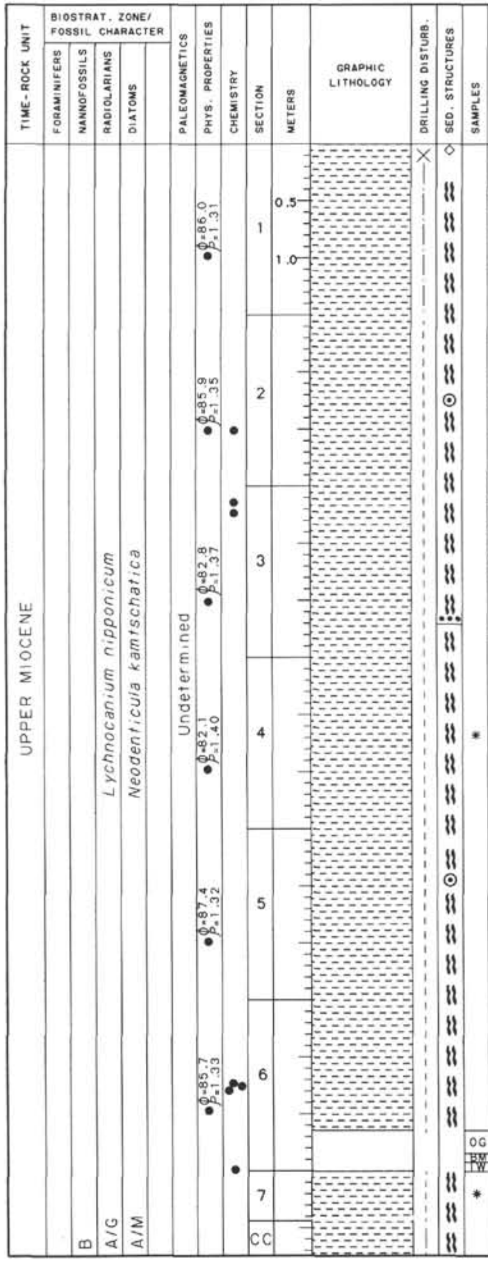
	1, 65 D	4, 26 D	7, 5 D
TEXTURE:			
Sand	10	5	5
Silt	10	10	10
Clay	80	85	85
COMPOSITION:			
Accessory minerals	—	Tr	—
Clay	75	85	85
Diatoms	20	10	10
Feldspar	Tr	Tr	Tr
Glass	Tr	—	Tr
Pyrite	Tr	—	Tr
Quartz	—	Tr	Tr
Radiolarians	—	Tr	—
Spicules	—	1	3

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 100	0.51	0.2
2, 124	0.96	0.4
3, 128	1.85	0.3
4, 96	0.63	0.2
5, 2	0.45	0.5
7, 11	1.64	0.3



SITE 797 HOLE B CORE 27X CORED INTERVAL 3105.6-3115.3 mbsl; 243.4-253.1 mbsf



LITHOLOGIC DESCRIPTION

DIATOM-BEARING CLAYSTONE

Major lithology: DIATOM-BEARING CLAYSTONE, *olive gray (5Y 4/1) and dark greenish gray (5GY 4/1)*; bioturbated and indistinctly mottled throughout.

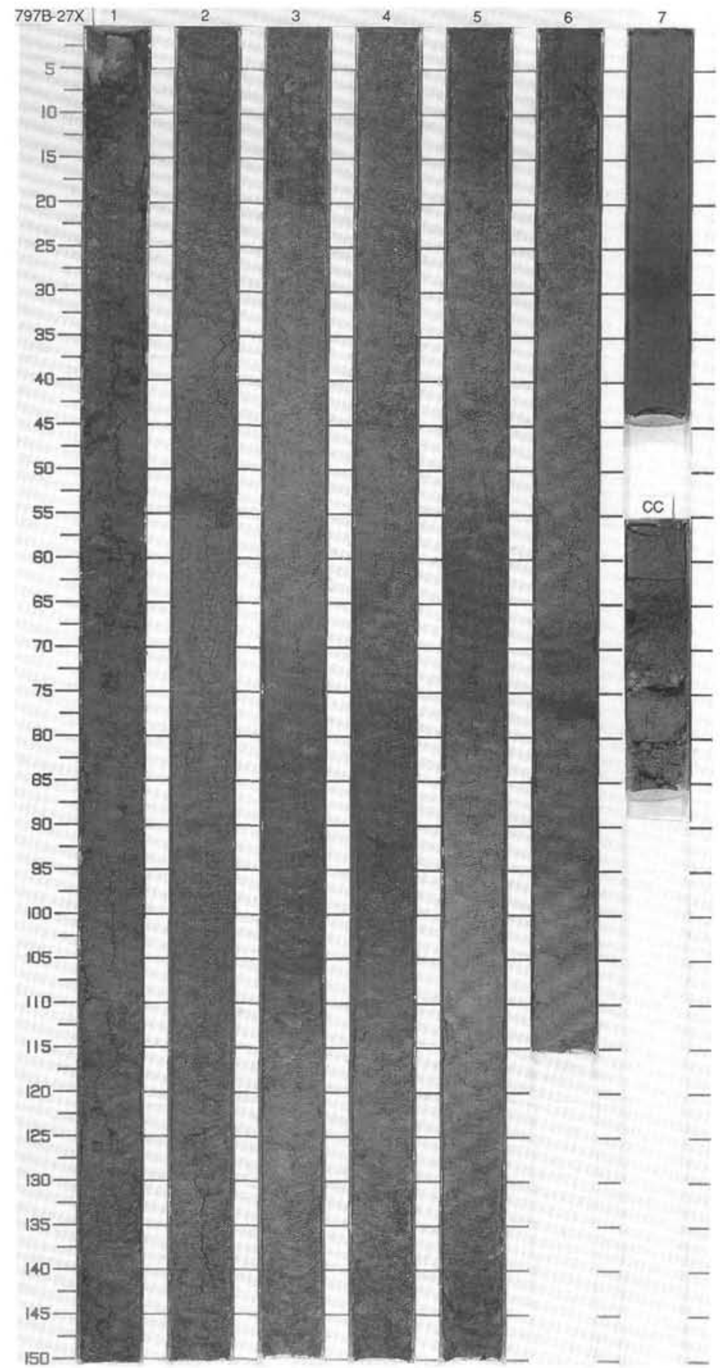
Minor lithology: Dolomite pebbles at top of core.

SMEAR SLIDE SUMMARY (%):

	1, 26 D	4, 78 D	7, 20 D
TEXTURE:			
Sand	3	—	—
Silt	10	10	10
Clay	87	90	90
COMPOSITION:			
Bioclast	—	Tr	—
Clay	86	90	90
Diatoms	8	2	5
Feldspar	Tr	2	Tr
Glass	—	Tr	Tr
Pyrite	Tr	—	Tr
Quartz	Tr	2	Tr
Spicules	1	—	Tr

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 101	1.67	1.0
3, 17	2.47	1.7
3, 23	0.98	4.9
6, 74	1.04	1.8
6, 77	1.99	0.5
6, 80	1.13	6.0
6, 149	1.07	0.2



SITE 797 HOLE B CORE 28X CORED INTERVAL 3115.3-3125.0 mbsl; 253.1-262.8 mbsf

TIME-ROCK UNIT: UPPER MIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS: B; NANNOFOSSILS: A/G; RADIOLARIANS: C/M; DIATOMS: *Lychnocanium nipponicum*, *Neodenticula kamtschatica*

PALEOMAGNETICS: Undetermined

PHYS. PROPERTIES: ϕ=85.6, ρ_s=1.30; ϕ=87.8, ρ_s=1.29; ϕ=87.8, ρ_s=1.34; ϕ=89.2, ρ_s=1.36

CHEMISTRY

SECTION: 1, 2, 3, 4, CC

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: BM

LITHOLOGIC DESCRIPTION

SILTY CLAYSTONE

Major lithology: SILTY CLAYSTONE; greenish gray (5G 5/1); dark greenish gray (5GY 4/1); and olive gray (5Y 5/2); bioturbated and mottled throughout.

Minor lithology: Carbonate-rich horizon, grayish orange (10YR 7/4) in Section 4, 0-10 cm.

SMEAR SLIDE SUMMARY (%):

	1, 51 D	3, 75 D	4, 5 M
TEXTURE:			
Silt	10	10	65
Clay	90	90	35
COMPOSITION:			
Accessory minerals	Tr	—	—
Bioclast	—	—	Tr
Carbonate	—	—	60
Clay	90	82	35
Diatoms	3	10	Tr
Feldspar	Tr	Tr	—
Glass	Tr	Tr	Tr
Pyrite	Tr	—	—
Quartz	Tr	Tr	—
Radiolarians	Tr	Tr	—
Spicules	2	3	Tr

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
1, 150	1.37	0.3
2, 101	1.57	0.3
3, 90		0.2
4, 16	1.26	18.2

SITE 797 HOLE B CORE 29X CORED INTERVAL 3125.0-3134.7 mbsl; 262.8-272.5 mbsf

TIME-ROCK UNIT

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

PALEOMAGNETICS

PHYS. PROPERTIES

CHEMISTRY

SECTION: 1

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

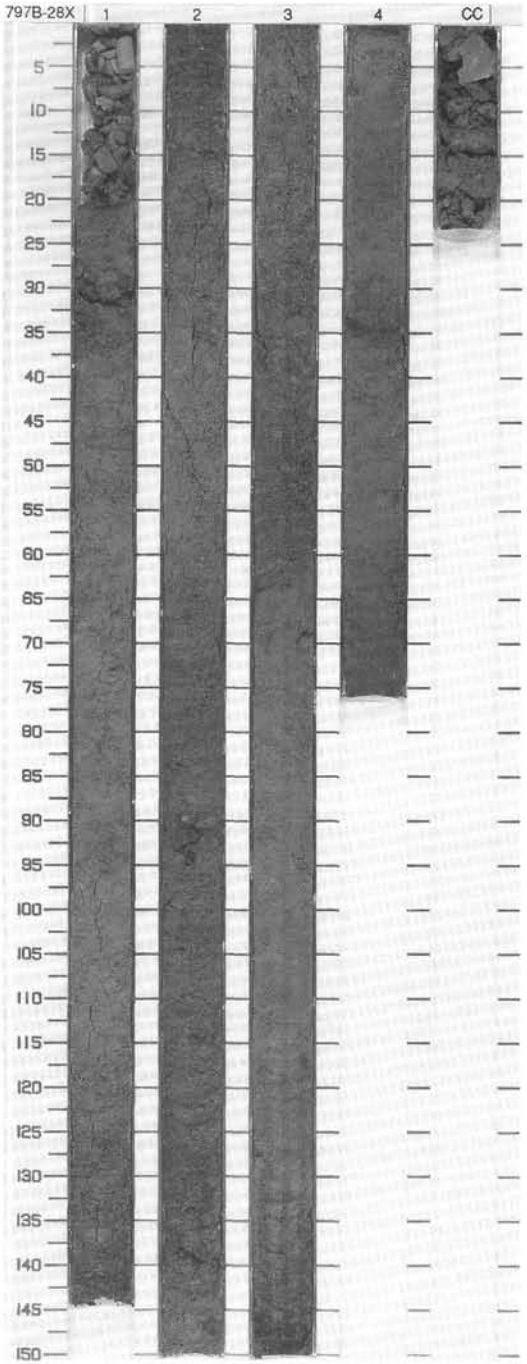
SED. STRUCTURES

SAMPLES

LITHOLOGIC DESCRIPTION

2 cm recovered in Core Catcher; given all to paleontologists.

Major lithology: DOLOMITE, yellowish gray (5Y 8/1); drilling breccia in core catcher.



SITE 797 HOLE B CORE 30X CORED INTERVAL 3134.7-3144.4 mbsl; 272.5-282.2 mbsf

TIME-ROCK UNIT: UPPER MIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER:
- FORAMINIFERS: B
- NANNOFOSSILS: A/M
- RADIOLARIANS: *Lychnocanium nipponicum*
- DIATOMS: C/M *Neodenticula kamtschatica*

PALEOMAGNETICS: Undetermined

PHYS. PROPERTIES: ●0-85.1 P=1.37; ●0-86.5 P=1.36; ●0-82.8 P=1.39; ●0-75.0 P=1.58; ●0-86.9 P=1.38; ●0-84.1 P=1.39

CHEMISTRY

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: OG, RM

LITHOLOGIC DESCRIPTION

DIATOM-BEARING SILTY CLAYSTONE

Major lithology: DIATOM-BEARING SILTY CLAYSTONE, brownish gray (5YR 4/1) and greenish gray (5G 5/1); bioturbated and moderately mottle dm throughout; some indistinctive color banding.

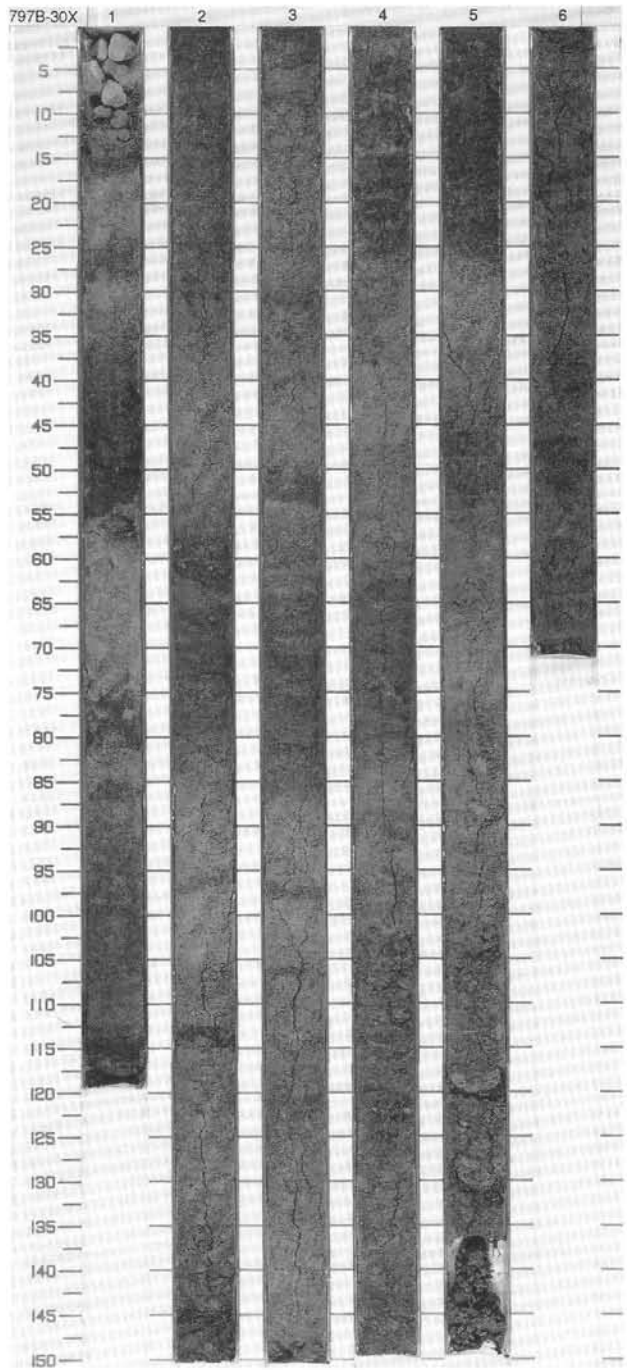
Minor lithology: Bioclastic sand in Section 2, 104-105 cm, and 148 and 149 cm; Section 3, 97-98 cm, and Section 5, 121-123 cm.

SMEAR SLIDE SUMMARY (%):

	1, 68 D	3, 20 D	5, 16 D
TEXTURE:			
Sand	1	—	1
Silt	5	15	10
Clay	94	85	89
COMPOSITION:			
Bioclast	Tr	Tr	Tr
Clay	94	85	88
Diatoms	3	5	3
Feldspar	—	Tr	Tr
Glass	Tr	Tr	Tr
Glauconite	Tr	—	—
Organic matter	—	—	Tr
Pyrite	—	Tr	—
Quartz	Tr	2	5
Silicoflagellates	—	Tr	Tr
Spicules	1	3	1

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 115	2.22	3.3
2, 118	1.61	1.5
2, 148	0.40	8.8



SITE 797 HOLE B CORE 31X CORED INTERVAL 3144.4-3154.1 mbsl; 282.2-291.9 mbsf

UPPER MIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER
FORAMINIFERS: B
NANNOFOSSILS: A/G
RADIOLARIANS: *Lychnocanium nipponicum*
DIATOMS: C/M *Neodenticula kamtschatica*

TIME-ROCK UNIT
PALEOMAGNETICS
PHYS. PROPERTIES: ϕ=77.6 ρ=1.45; ϕ=79.7 ρ=1.48; ϕ=77.4 ρ=1.52; ϕ=85.6 ρ=1.37; ϕ=81.5 ρ=1.42; ϕ=81.5 ρ=1.42; ϕ=85.5 ρ=1.44
CHEMISTRY
SECTION: CC, 7, 6, 5, 4, 3, 2, 1
METERS: 1.0, 0.5
GRAPHIC LITHOLOGY
DRILLING DISTURB.
SED. STRUCTURES
SAMPLES

LITHOLOGIC DESCRIPTION

SILTY CLAYSTONE

Major lithology: SILTY CLAYSTONE: brownish gray (5YR 4/1), greenish gray (5G 5/1), and olive gray (5Y 4/1); bioturbated and mottled throughout.

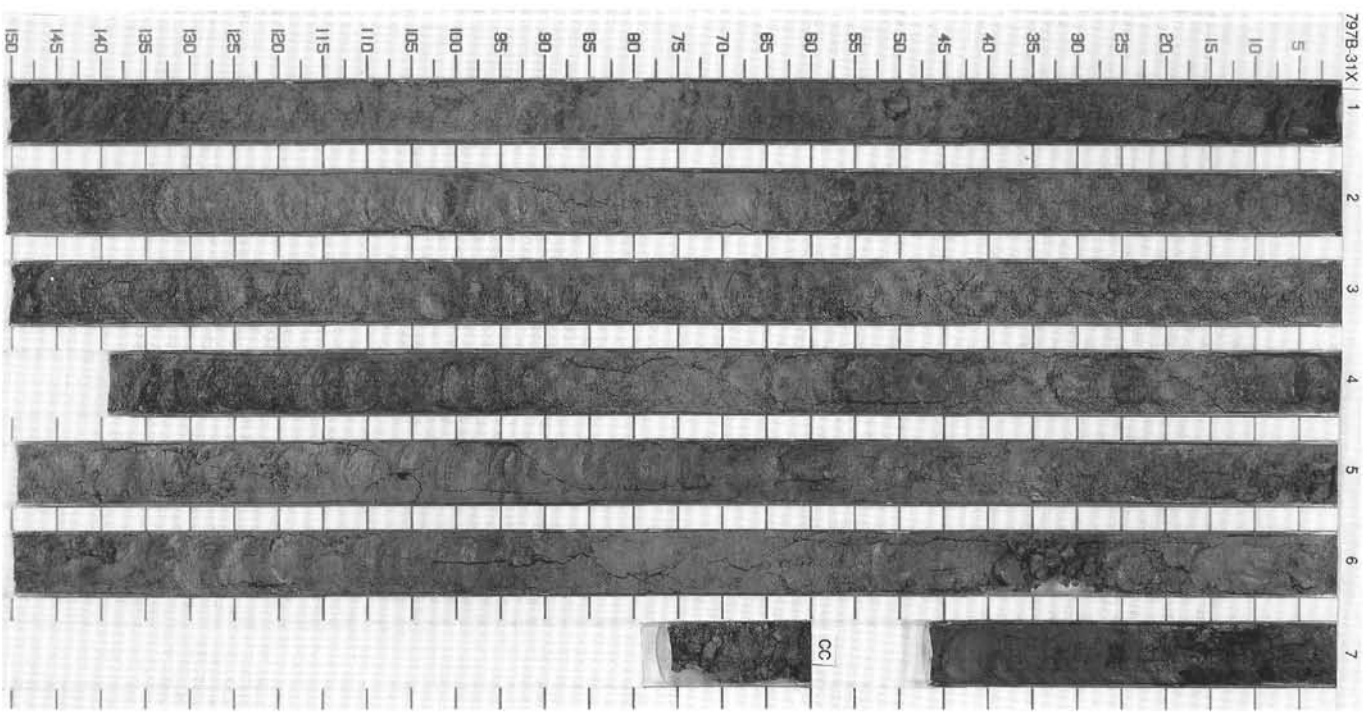
Minor lithology: None.

SMEAR SLIDE SUMMARY (%):

	1, 37 D	3, 49 D
TEXTURE:		
Silt	10	5
Clay	90	95
COMPOSITION:		
Clay	90	92
Diatoms	2	2
Feldspar	Tr	—
Glass	Tr	Tr
Pyrite	Tr	Tr
Quartz	Tr	Tr
Radiolarians	—	—
Silicoflagellates	—	Tr
Spicules	4	2

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 15	2.79	0.6
5, 2	2.08	0.5
5, 19	2.14	0.4
7, 35	7.54	0.6



SITE 797 HOLE B CORE 32X CORED INTERVAL 3154.1-3163.7 mbsl; 291.9-301.5 mbsf

TIME-ROCK UNIT: UPPER MIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS; NANNOFOSSILS: B; RADIOLARIANS: F/M *Lychnocanium nipponicum*; DIATOMS: F/M *Neodenticula kamtschatica*

PALEOMAGNETICS; PHYS. PROPERTIES; CHEMISTRY

SECTION; METERS; GRAPHIC LITHOLOGY; DRILLING DISTURB.; SED. STRUCTURES; SAMPLES

LITHOLOGIC DESCRIPTION

SPICULAR SILTY CLAY

Major lithology: SPICULAR SILTY CLAY, greenish gray (5GY 6/1) and dusky yellow green (5GY 5/2); heavily bioturbated lighter-colored layers alternate with olive gray (5Y 3/2) and olive black (5Y 2/1), slightly to moderately bioturbated layers. The base of darker layers are commonly sandy.

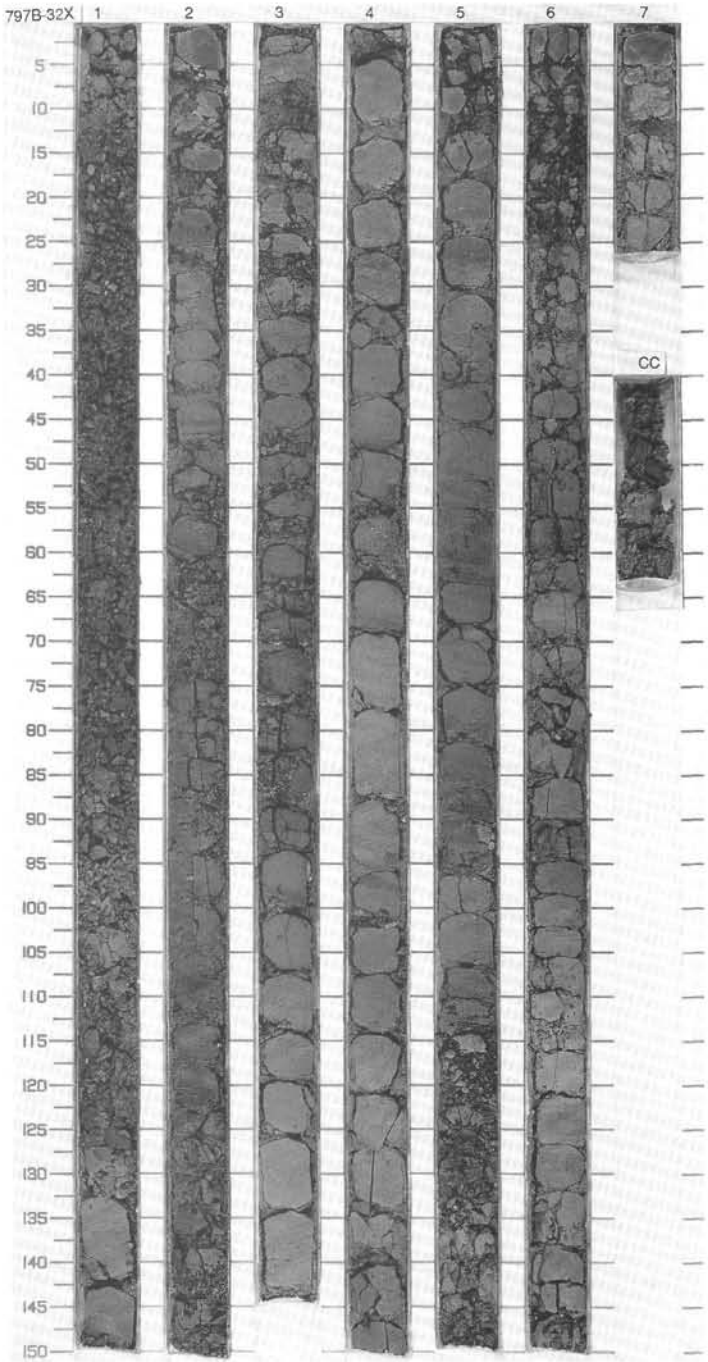
Minor lithology: Chert, black (N1) occurs in Section 5, 115-120 cm. Bioclastic sand laminae in Section 3, 3 cm; Section 4, 69 cm, and Section 5, 55 cm.

SMEAR SLIDE SUMMARY (%):

	1, 136 D	2, 24 D	3, 140 D	4, 85 M	5, 110 D
TEXTURE:					
Sand	—	10	10	—	—
Silt	20	15	15	10	30
Clay	80	75	75	90	70
COMPOSITION:					
Clay	80	60	70	75	60
Diatoms	2	2	2	10	15
Feldspar	—	2	—	—	—
Glass	—	Tr	Tr	5	10
Organic matter	—	2	—	—	3
Pyrite	1	3	3	—	2
Quartz	7	15	10	—	5
Radiolarians	—	1	Tr	—	—
Spicules	10	15	15	10	5

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
5, 2	4.11	0.6
5, 22	0.01	0.6



SITE 797 HOLE B CORE 33X CORED INTERVAL 3163.7-3173.4 mbsl; 311.2-320.9 mbsf

TIME-ROCK UNIT: UPPER MIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: FORAMINIFERS: B; NANNOFOSSILS: F/P; RADIOLARIANS: *Lychnocanium nipponicum*; DIATOMS: R/P

PALEOMAGNETICS: Undetermined

PHYS. PROPERTIES: ● Φ=77.0 ρ=1.52; ● Φ=72.7 ρ=1.61; ● Φ=68.2 ρ=1.67; ● V-1991; ● Φ=65.1 ρ=1.72

CHEMISTRY

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: OG; AW; AW

LITHOLOGIC DESCRIPTION

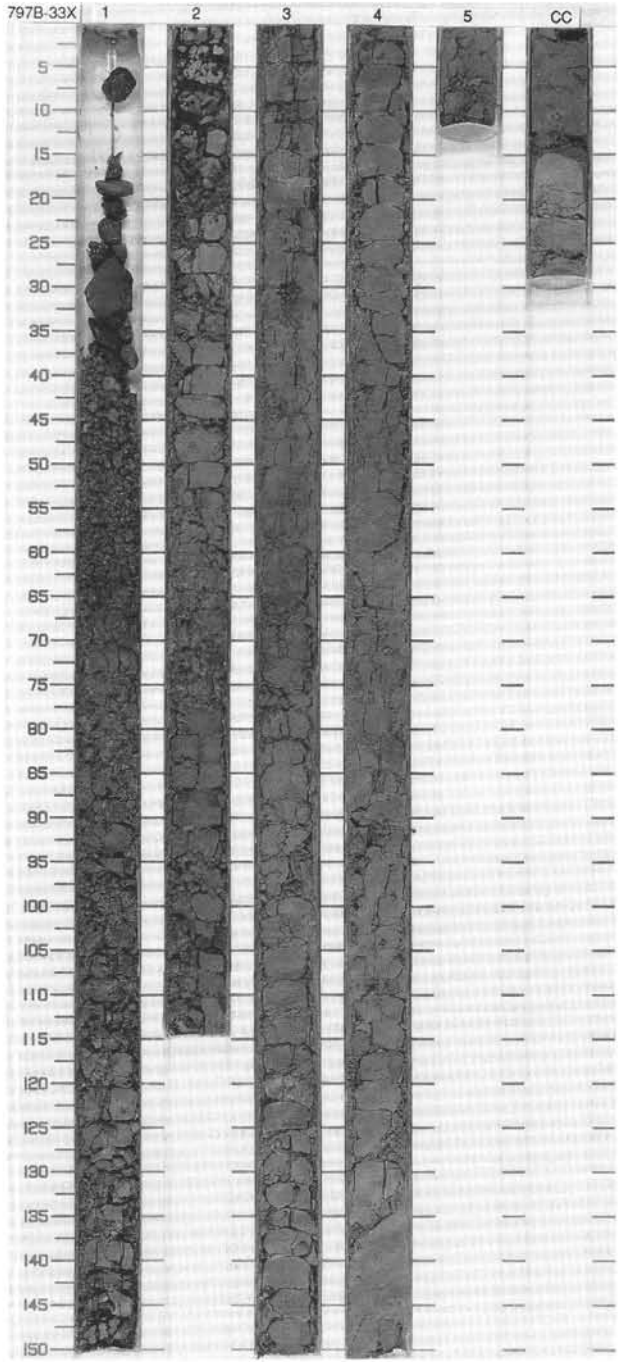
SILTY CLAYSTONE

Major lithology: SILTY CLAYSTONE, grayish olive (10Y 4/2) and dark greenish gray (5GY 4/1); heavily bioturbated and mottled lighter-colored layers alternate with olive gray (5Y 3/2) and greenish black (5G 2/1), moderately bioturbated layers.

Minor lithology: Limestone, light olive brown (5Y 5/6), heavily bioturbated at CC; 14-22 cm. Calcareous claystone, light olive gray (5Y5/2) at Section 3, 84-86 cm and Section 4, 82-86 cm and 130-133 cm.

SMEAR SLIDE SUMMARY (%):

	1, 126 D	2, 10 D	4, 100 D	CC, 22 M
TEXTURE:				
Silt	30	20	30	50
Clay	70	80	70	50
COMPOSITION:				
Clay	75	85	80	—
Diatoms	2	Tr	—	—
Glass	Tr	Tr	—	—
Inorganic calcite	—	3	5	95
Pyrite	5	5	5	—
Quartz	15	5	10	2
Radiolarians	Tr	—	Tr	—
Spicules	2	Tr	Tr	—



SITE 797 HOLE B CORE 34X CORED INTERVAL 3173.4-3183.1 mbsl; 311.2-320.9 mbsf

TIME-ROCK UNIT: UPPER MIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER:
- FORAMINIFERS: B
- NANNOFOSSILS: R/M
- RADIOLARIANS: *Lychnocanium nipponicum*
- DIATOMS: B

PALEOMAGNETICS: Undetermined

PHYS. PROPERTIES: ϕ-65.3, ρ=1.76; ϕ-66.7, ρ=1.82; ϕ-62.5, ρ=1.76; ϕ-63.9, ρ=1.81; ϕ-63.6, ρ=1.85; ϕ-64.6, ρ=1.82

CHEMISTRY: V-1634; V-1633

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: SMEAR

LITHOLOGIC DESCRIPTION

CLAYSTONE AND SILTY CLAYSTONE

Major lithology: CLAYSTONE, olive gray (5Y4/1) and dusky yellow green (5G 5/2); heavily bioturbated. SILTY CLAYSTONE, olive black (5Y 2/1) and brownish black (5YR 2/1); thinly laminated to slightly bioturbated.

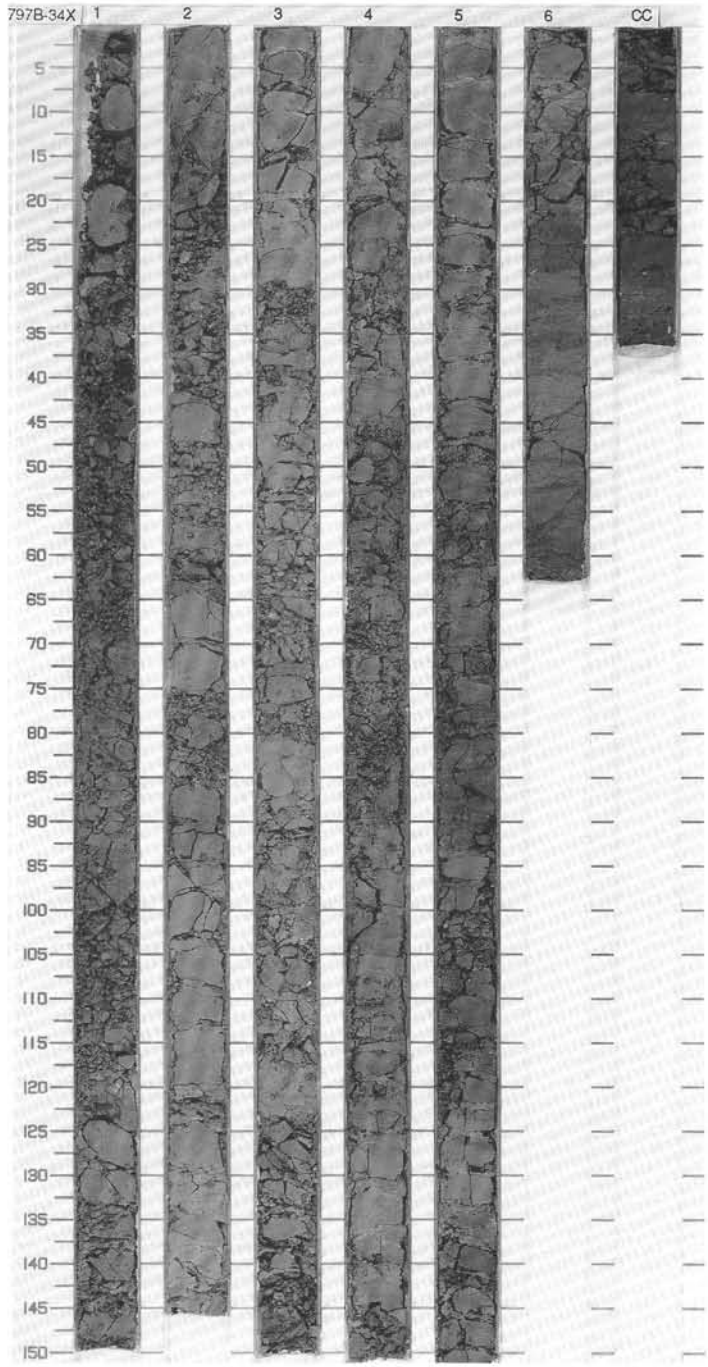
Minor lithology: Calcareous claystone, light olive brown (5Y 5/6), heavily bioturbated, occurs in Section 6, 28-30 cm. Phosphatic (?) laminae in Section 5, 146-148 cm.

SMEAR SLIDE SUMMARY (%):

	1, 85 D	4, 102 M	5, 113 D	5, 130 D
TEXTURE:				
Silt	5	5	20	5
Clay	95	95	80	95
COMPOSITION:				
Clay	93	90	50	90
Glass	Tr	Tr	—	—
Organic matter	—	4	20	2
Pyrite	2	4	5	3
Quartz	5	2	20	5
Spores	—	—	5	Tr

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
5, 2	1.84	0.6
5, 17	2.00	0.4
5, 71	4.10	0.3
5, 117	8.53	0.6



SITE 797 HOLE B CORE 35X CORED INTERVAL 3183.1-3192.8 mbsl; 320.9-330.6 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		B	F/P	B	Undetermined			1	0.5				
									1.0				
								2					*
								3					
								4					
								5					*
								6					
								CC					

Lychnocanium nipponicum

Undetermined

Φ=65.3 p=1.64

Φ=63.8 p=1.89

Φ=68.6 p=1.68

Φ=68.8 p=1.64

Φ=67.3 p=1.69

LITHOLOGIC DESCRIPTION

SILTY CLAYSTONE AND CLAYSTONE

Major lithology: SILTY CLAYSTONE, olive black (5Y 2/1), olive gray (5Y 3/2), and grayish olive green (5GY 3/2); moderately bioturbated. CLAYSTONE, grayish olive (10Y 4/2) and olive gray (5Y 4/1); heavily bioturbated and slightly mottled.

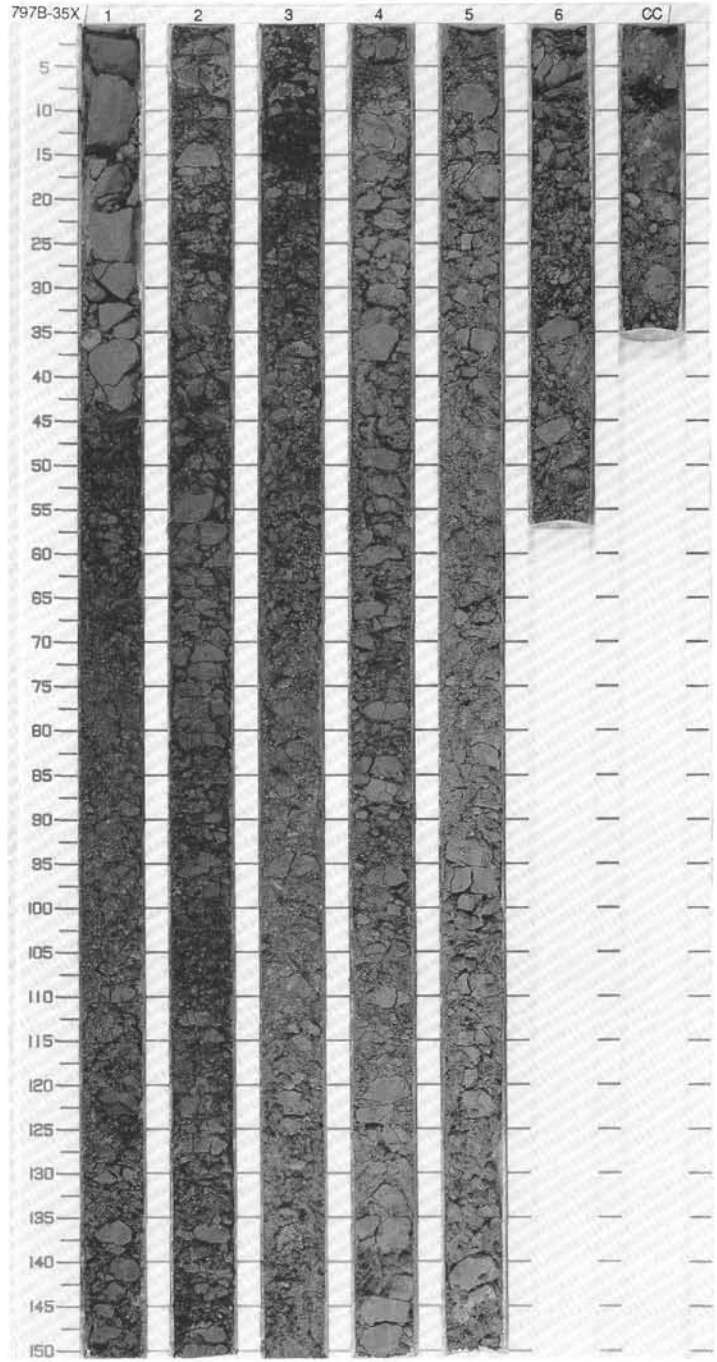
Minor lithology: Chert, brownish black (5YR 2/1), in Section 3, 12-18 cm. Calcareous claystone, light olive gray (5Y 5/2), in Section 4, 84-88 cm.

SMEAR SLIDE SUMMARY (%):

	2, 80 D	5, 97 D
TEXTURE:		
Silt	10	20
Clay	90	80
COMPOSITION:		
Clay	80	65
Feldspar	—	5
Glass	Tr	—
Inorganic calcite	—	10
Organic matter	5	—
Pyrite	5	5
Quartz	10	15

Organic carbon and carbonate (%)

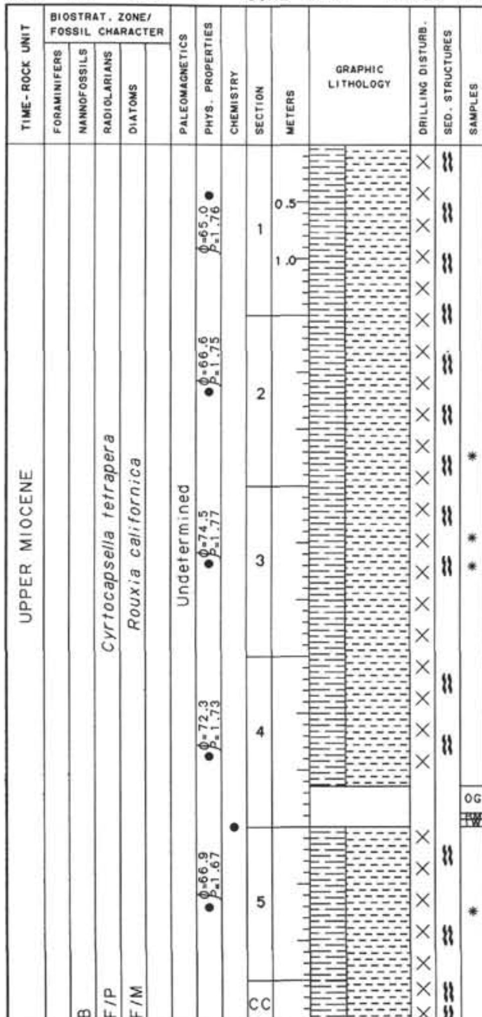
Sample	Org. C.	$CaCO_3$
4, 148	1.00	0.7



SITE 797 HOLE B CORE 36X CORED INTERVAL 3192.8-3202.5 mbsl; 330.6-340.3 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	LITHOLOGIC DESCRIPTION
UPPER MIOCENE		B	F/P *Lychnocanium nipponicum*	B				1	0.5 1.0					5 cm recovered in Core Catcher; all given to paleontologists. Major lithology: SILICEOUS CLAYSTONE, dark greenish gray (5G 6/1); drilling breccia in CC. Organic carbon and carbonate (%) Sample — Org. C. — $CaCO_3$ CC, 2 — 1.35 — 0.9
								2						

SITE 797 HOLE B CORE 37X CORED INTERVAL 3202.5-3212.2 mbsl; 340.3-350.0 mbsf



LITHOLOGIC DESCRIPTION

CLAYSTONE and SILTY CLAYSTONE

Major lithology: CLAYSTONE AND SILTY CLAYSTONE, grayish olive green (5G 3/2), olive gray (5Y 4/1), dusky yellow green (5GY 5/2), and grayish olive (10Y 4/2); moderately to heavily bioturbated.

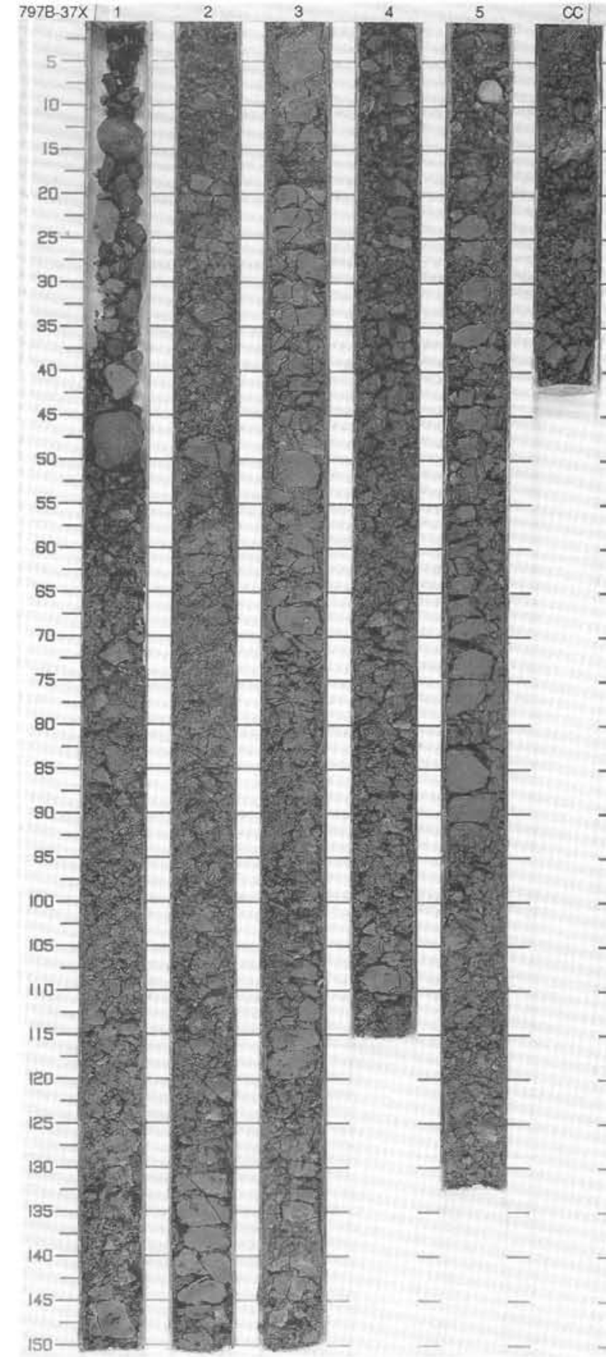
Minor lithology: Micrite, yellow gray (5Y 7/2) and limestone, light olive gray (5Y 5/2).

SMEAR SLIDE SUMMARY (%):

	2, 122	3, 47	3, 70	5, 75
	D	D	D	M
TEXTURE:				
Silt	20	50	5	10
Clay	80	50	95	90
COMPOSITION:				
Clay	75	15	90	90
Glass	Tr	—	2	—
Inorganic calcite	3	80	2	1
Organic matter	—	—	Tr	2
Pyrite	3	—	2	2
Quartz	15	5	4	5

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
4, 149	1.52	1.1



SITE 797 HOLE B CORE 38X CORED INTERVAL 3212.2-3221.9 mbsl; 350.0-359.7 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		B	R/P *Cyrtocapsella tetrapera*	B	Undetermined	V=2964 Φ=35.5 Φ=68.0 ρ=2.10 ρ=1.63	●	1	0.5 1.0		X	≈	*
								2			X	≈	
								CC			X	≈	

LITHOLOGIC DESCRIPTION

CLAYSTONE

Major lithology: CLAYSTONE, dark greenish gray (5GY 4/1) and grayish olive green (5GY 3/2); moderately bioturbated, slightly siliceous.

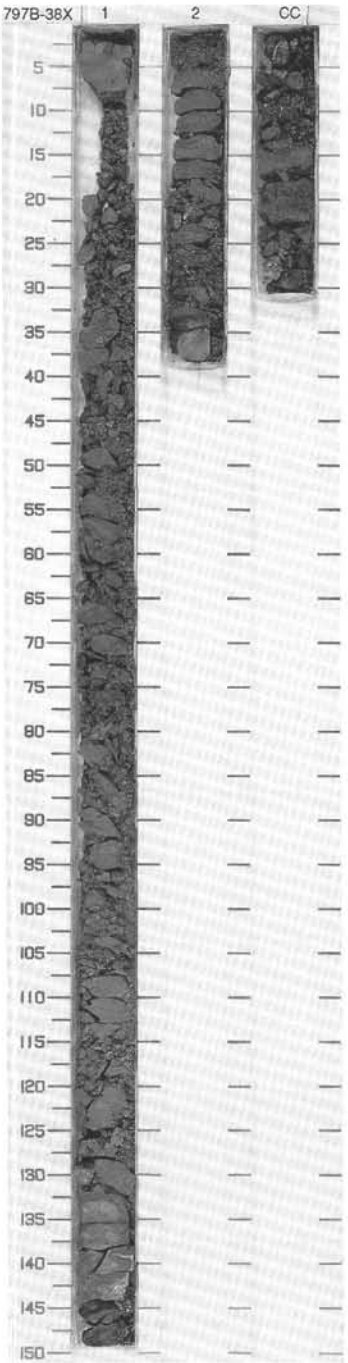
Minor lithology: Porcellanite, olive gray (5Y 3/2), moderately bioturbated. Chert, olive black (5Y 2/1), moderately bioturbated.

SMEAR SLIDE SUMMARY (%):

	1, 111 D
TEXTURE:	
Silt	5
Clay	95
COMPOSITION:	
Clay	95
Glass	Tr
Pyrite	3
Quartz	2
Radiolarians	Tr

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
1, 92	1.12	0.3



SITE 797 HOLE B CORE 39X CORED INTERVAL 3221.9-3231.5 mbsl; 359.7-369.3 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		B	*Cyrtocapsella tetrapera* F/P	B		Undetermined	●φ=50.7 ρ=1.89		1, CC					*

LITHOLOGIC DESCRIPTION

SILICEOUS CLAYSTONE AND CLAYSTONE

Major lithology: SILICEOUS CLAYSTONE, grayish olive green (5GY 3/2); bioturbated. CLAYSTONE, olive gray (5Y 3/2), bioturbated.

Minor lithology: Chert, olive black (5Y 2/1).

SMEAR SLIDE SUMMARY (%):

	CC, 35 D
TEXTURE:	
Silt	5
Clay	95
COMPOSITION:	
Clay	90
Glass	Tr
Inorganic calcite	1
Pyrite	2
Quartz	5

SITE 797 HOLE B CORE 40X CORED INTERVAL 3231.5-3241.2 mbsl; 369.3-379.0 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
UPPER MIOCENE	F/M *Discoaster kugleri - Discoaster extensus / Discoaster exilis*		R/P *Cyrtocapsella tetrapera*		Undetermined	ρ=1.656 ρ=61.6 ρ=71.4 ρ=1.83 ρ=1.84		1 2 3	0.5 1.0				

CLAYSTONE AND SILICEOUS CLAYSTONE

Major lithology: CLAYSTONE, and SILICEOUS CLAYSTONE, grayish olive (10YR 4/2), to dark greenish gray (5GY 4/1); moderately to heavily bioturbated.

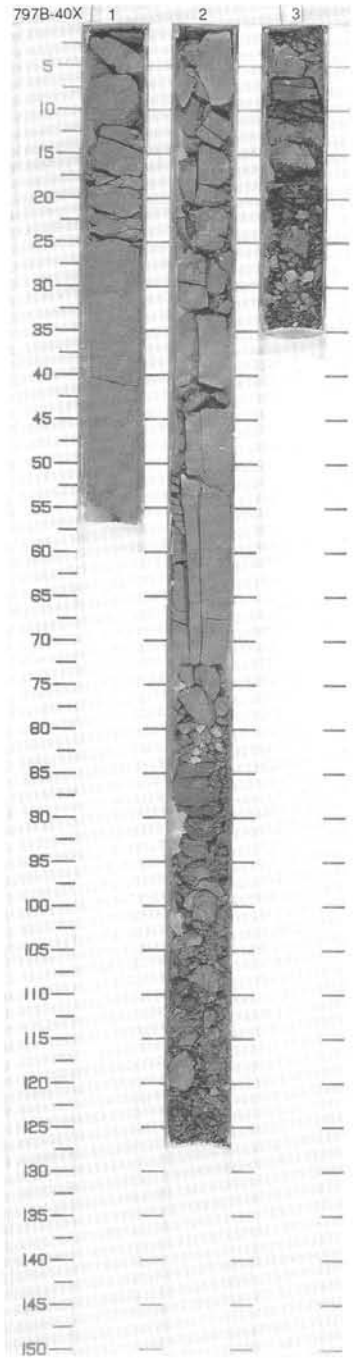
Minor lithology: Dolomite at Section 1, 20 cm and Section 2, 1 and 56 cm.

SMEAR SLIDE SUMMARY (%):

	2, 66 D
TEXTURE:	
Sand	10
Silt	20
Clay	70
COMPOSITION:	
Clay	80
Diatoms	Tr
Glass	10
Inorganic calcite	1
Pyrite	1
Quartz	5

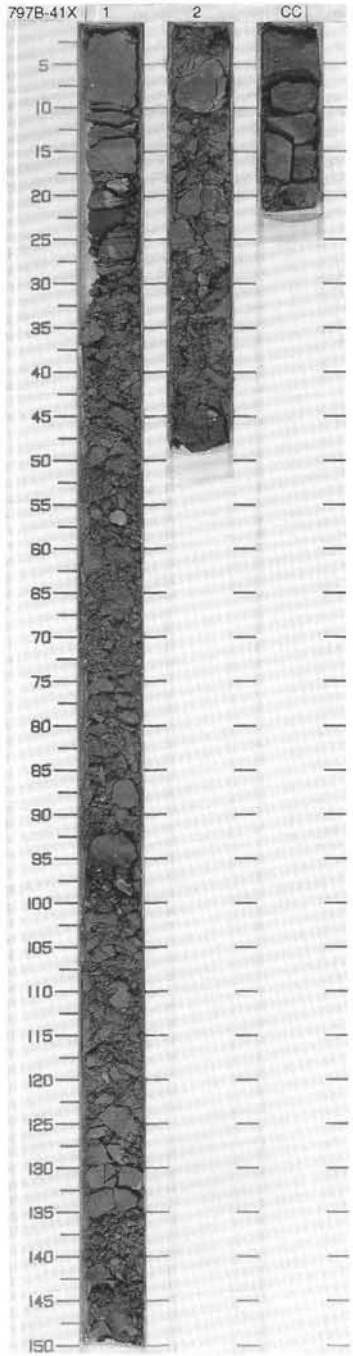
Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 2	0.74	2.2



SITE 797 HOLE B CORE 41X CORED INTERVAL 3241.2-3250.1 mbsl: 379.0-387.9 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		R/P *Discoaster kugleri* - *Discoaster extensus* / *Discoaster exilis*	F/P *Cyrtocapsella tetrapera*		Undetermined	γ=1650 ϕ=44.8 ρ=1.77	•	1	0.5					SILICEOUS CLAYSTONE Major lithology: SILICEOUS CLAYSTONE, grayish olive (10Y 4/2) and grayish olive green (5GY 5/2) to olive gray (5Y 3/2); bioturbated and mottled with horizontal flattened burrows, darker layers are more siliceous. Minor lithology: None. Organic carbon and carbonate (%) Sample Org. C. $CaCO_3$ 1, 117 0.54 2.5
									1.0					
								2						
								CC						



SITE 797 HOLE B CORE 42X CORED INTERVAL 3250.1-3259.8 mbsl; 387.9-397.6 mbsf

TIME-ROCK UNIT	FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
MIDDLE MIOCENE		B	R/P *Cyrtocapsella tetrapera*		Undetermined	ϕ=47.4 ρ=1.90	● ●	1 CC			X X X	≈ ≈ ≈	

LITHOLOGIC DESCRIPTION

CLAYSTONE AND SILICEOUS CLAYSTONE

Major lithology: CLAYSTONE and SILICEOUS CLAYSTONE, olive gray (5Y 3/2) to olive black (5Y 2/1); slightly to moderately bioturbated.

Minor lithology: Chert, olive black (5Y 2/1).

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
1, 2	0.77	1.2
1, 17	1.04	1.0

SITE 797 HOLE B CORE 43X CORED INTERVAL 3259.8-3269.5 mbsl; 397.6-407.3 mbsf

TIME-ROCK UNIT	FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES
MIDDLE MIOCENE ?		B	R/P		Undetermined	ϕ=32.4 ρ=2.38 V=2750	●	1				≈ ≈ ≈	** *

LITHOLOGIC DESCRIPTION

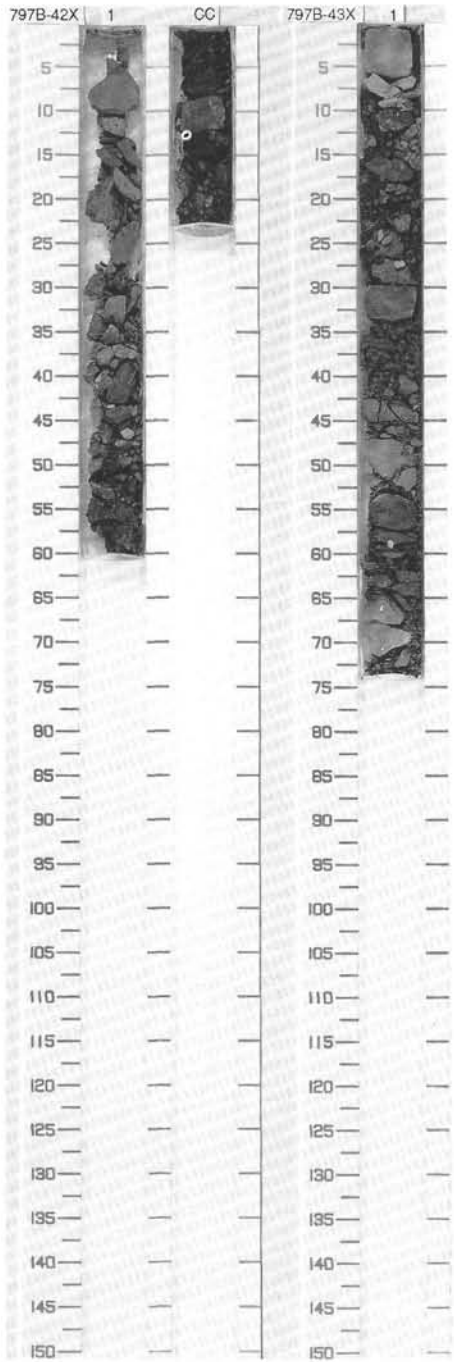
SILICEOUS CLAYSTONE

Major lithology: SILICEOUS CLAYSTONE, dark greenish gray (5GY 4/1) to greenish black (5GY 2/1); horizontally flattened burrows throughout.

Minor lithology: Sandstone, normally graded, medium- to fine-grained in Section 1, 0-5 cm.

SMEAR SLIDE SUMMARY (%):

	1, 2 M	1, 5 M	1, 32 D
TEXTURE:			
Sand	—	85	—
Silt	30	15	5
Clay	70	—	95
COMPOSITION:			
Accessory minerals	—	Tr	Tr
Clay	40	—	95
Dolomite	60	10	—
Feldspar	—	Tr	—
Quartz	—	5	Tr
Rock fragment	—	80	—



SITE 797 HOLE B CORE 44X CORED INTERVAL 3269.5-3279.2 mbsl; 407.3-417.0 mbsf

TIME-ROCK UNIT	FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
MIDDLE MIOCENE ?		B	R/P		Undetermined	V-2708 ϕ37.5 ● γ=1.96	●	1 CC					*	SILICEOUS CLAYSTONE

SILICEOUS CLAYSTONE

Major lithology: SILICEOUS CLAYSTONE, greenish black (5GY 2/1); slightly to faintly laminated throughout.

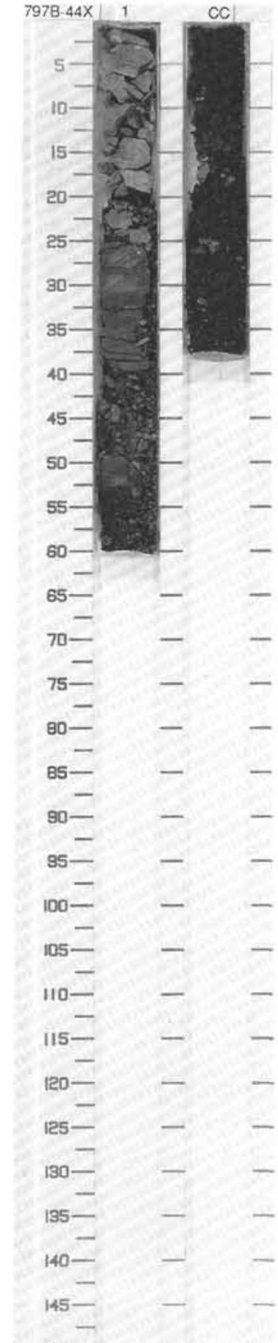
Minor lithology: None.

SMEAR SLIDE SUMMARY (%):

	1, 31 D
TEXTURE:	
Silt	3
Clay	97
COMPOSITION:	
Clay	95
Quartz	Tr
Silcia	Tr

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
1, 2	0.60	0.2



SITE 797 HOLE B CORE 45X CORED INTERVAL 3279.2-3288.8 mbsl; 417.0-426.6 mbsf

TIME-ROCK UNIT	FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
MIDDLE MIOCENE ?		B	R/P		Undetermined			1			X			CHERT AND PORCELLANITE Major lithology: CHERT and PORCELLANITE, olive black (5Y 2/1). Minor lithology: None.

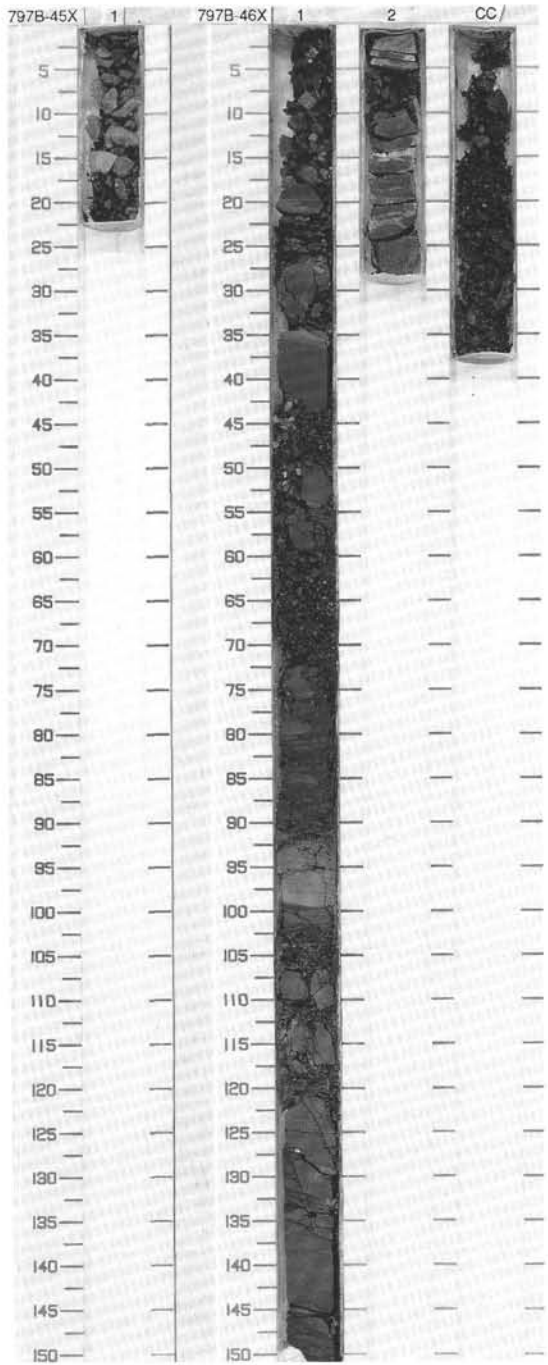
SITE 797 HOLE B CORE 46X CORED INTERVAL 3288.8-3298.4 mbsl; 426.6-436.2 mbsf

TIME-ROCK UNIT	FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
MIDDLE MIOCENE	R/P	*Discoaster kugleri - Discoaster extensus / Discoaster exilis*	R/P		Undetermined	V=2046 Φ=59.3 ρ=1.88 V=1962 Φ=61.9 ρ=1.91		1 2 CC	0.5 1.0		X X X		*	SILICEOUS CLAYSTONE Major lithology: SILICEOUS CLAYSTONE, greenish black (5GY 2/1) interbedded with greenish gray (5GY 6/1); moderately laminated; few burrows. Minor lithology: Scattered pyrite. SMEAR SLIDE SUMMARY (%):

	1, 40 D	1, 97 D
TEXTURE:		
Silt	2	3
Clay	98	97
COMPOSITION:		
Clay	95	95
Glass	Tr	—
Pyrite	Tr	Tr
Quartz	Tr	Tr
Silcia	Tr	—

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
1, 2	2.46	0.2
1, 98	0.32	0.1



SITE 797 HOLE B CORE 47X CORED INTERVAL 3298.4-3308.1 mbsl; 436.2-445.9 mbsf

TIME-ROCK UNIT: MIDDLE MIOCENE

BIOSTRAT. ZONE/FOSSIL CHARACTER: *Sphenolithus heteromorphus*; F/M; R/P

FORAMINIFERS | NANNOFOSSILS | RADIOLARIANS | DIATOMS

PALEOMAGNETICS: Undetermined; ϕ=78.4 ρ=1.66; V=1812; ϕ=46.2 ρ=2.02; V=2301; ϕ=61.8 ρ=1.83; V=1707 ϕ=61.6 ρ=1.81

PHYS. PROPERTIES: ϕ=59.7 ρ=1.87; V=1732 ϕ=61.6 ρ=1.87

CHEMISTRY

SECTION | METERS | GRAPHIC LITHOLOGY | DRILLING DISTURB. | SED. STRUCTURES | SAMPLES

SECTION 1: 0.5, 1.0; SECTION 2; SECTION 3; SECTION 4; SECTION 5; SECTION 6; CC

OG; LW; RM

LITHOLOGIC DESCRIPTION

SILICEOUS CLAYSTONE

Major lithology: SILICEOUS CLAYSTONE, dark greenish gray (5GY 4/1) and olive gray (5Y 4/1); faintly laminated throughout; intervals with small flattened burrows interbedded with more thoroughly bioturbated layers.

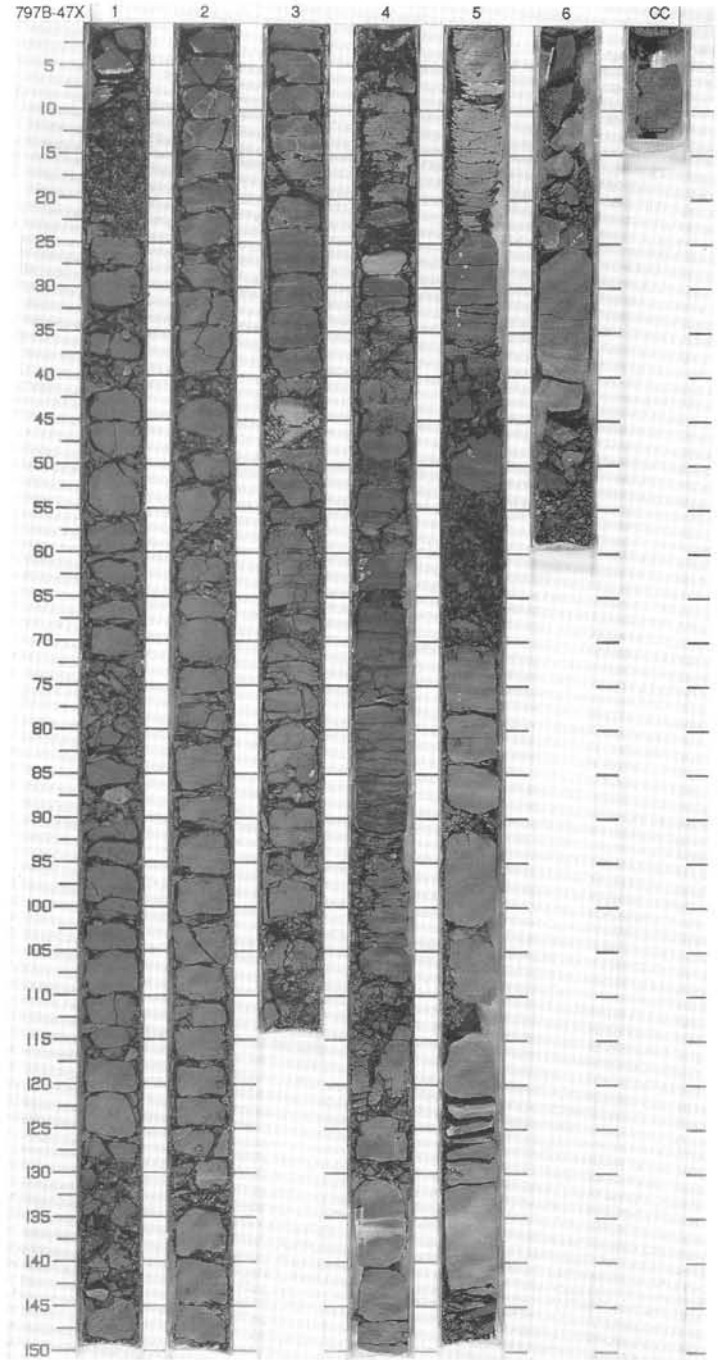
Minor lithology: Tuff, light bluish gray (5B 7/1) and medium bluish gray (5B 5/1) in Section 4, 25-28 cm and 129-131 cm; Section 5, 131-140 cm. Glauconite and pyrite scattered in Sections 1 and 2.

SMEAR SLIDE SUMMARY (%):

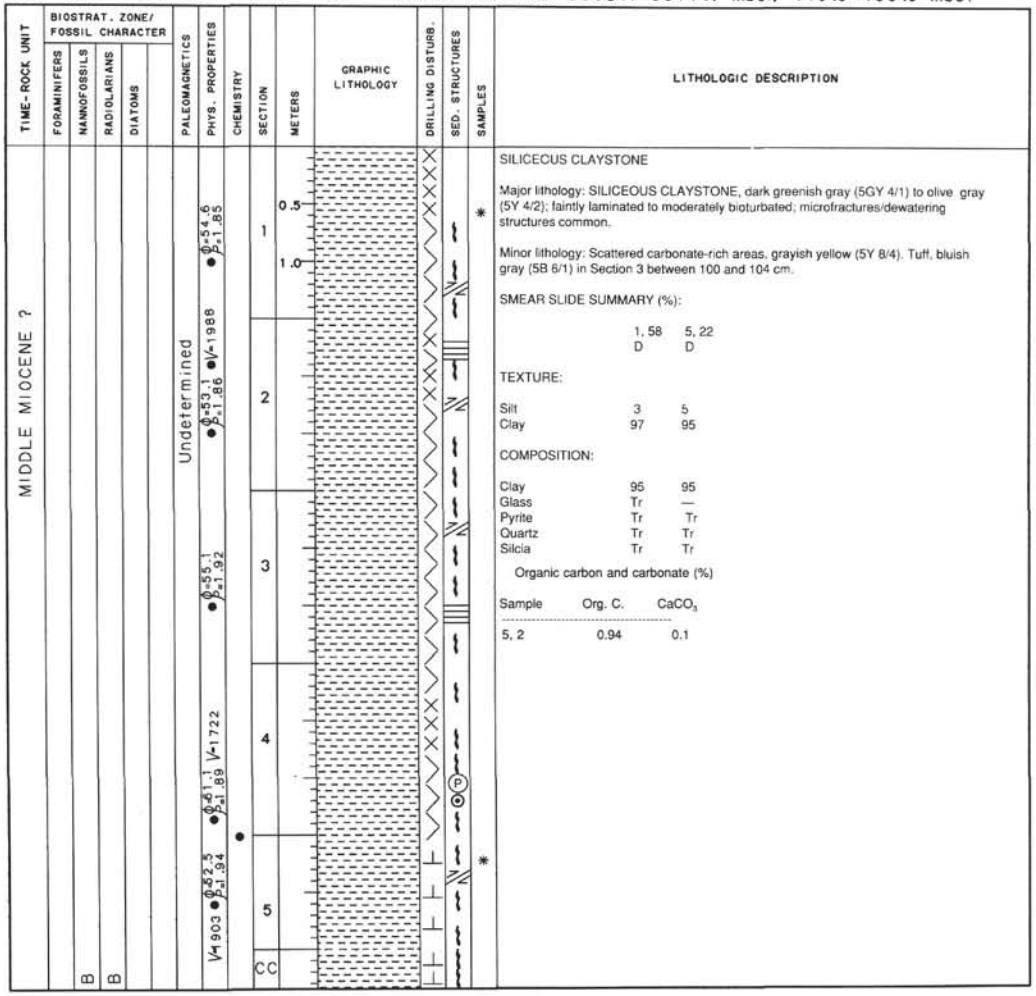
	1, 53 D	1, 116 D	5, 73 D
TEXTURE:			
Silt	5	5	5
Clay	95	95	95
COMPOSITION:			
Clay	95	95	95
Feldspar	Tr	—	Tr
Glass	—	—	Tr
Pyrite	Tr	Tr	Tr
Quartz	Tr	Tr	Tr
Silcia	Tr	Tr	Tr

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
3, 2	1.75	0.5



SITE 797 HOLE B CORE 48X CORED INTERVAL 3308.1-3317.7 mbsl; 445.9-455.5 mbsf



LITHOLOGIC DESCRIPTION

SILICECUS CLAYSTONE

Major lithology: SILICEOUS CLAYSTONE, dark greenish gray (5GY 4/1) to olive gray (5Y 4/2); faintly laminated to moderately bioturbated; microfractures/dewatering structures common.

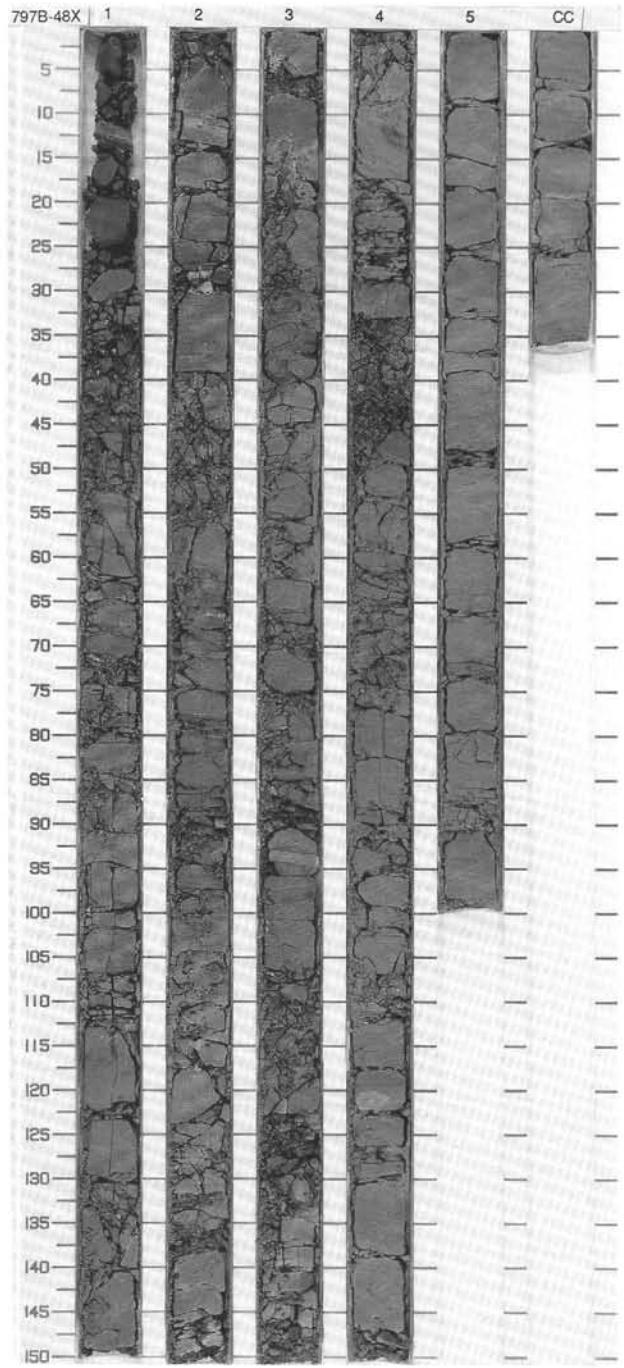
Minor lithology: Scattered carbonate-rich areas, grayish yellow (5Y 8/4). Tuff, bluish gray (5B 6/1) in Section 3 between 100 and 104 cm.

SMEAR SLIDE SUMMARY (%):

	1, 58 D	5, 22 D
TEXTURE:		
Silt	3	5
Clay	97	95
COMPOSITION:		
Clay	95	95
Glass	Tr	—
Pyrite	Tr	Tr
Quartz	Tr	Tr
Silcia	Tr	Tr

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
5, 2	0.94	0.1



SITE 797 HOLE B CORE 49X CORED INTERVAL 3317.7-3327.4 mbsl; 455.5-465.2 mbsf

TIME-ROCK UNIT: MIDDLE MIOCENE ?

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

PALEOMAGNETICS: Undetermined

PHYS. PROPERTIES: V=2016 ● Φ=52.0 ρ=2.05; V=1840 ● Φ=56.8 ρ=2.00; V=1725 ● Φ=61.5 ρ=1.89; V=4215 ● Φ=16.8 ρ=2.74

CHEMISTRY

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES: (P)

SAMPLES: BM

LITHOLOGIC DESCRIPTION

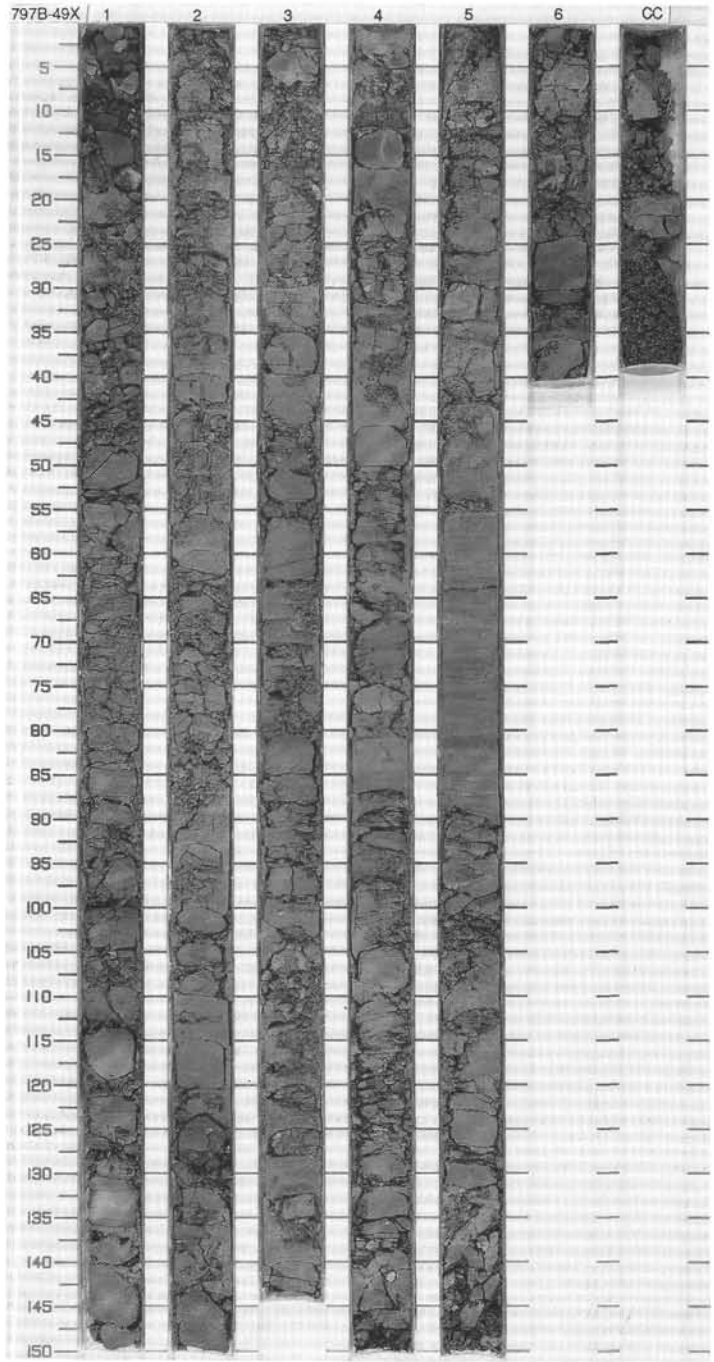
SILICEOUS CLAYSTONE

Major lithology: SILICEOUS CLAYSTONE, light olive gray (5Y 5/2) to olive gray (5Y 3/2); slightly to moderately bioturbated with abundant flattened horizontal burrows, faintly laminated locally; microfractures/dewatering structures throughout.

Minor lithology: Carbonate-rich intervals, grayish yellow (5Y 8/4) throughout; a few visible foraminifers in Section 6 between 22 and 28 cm.

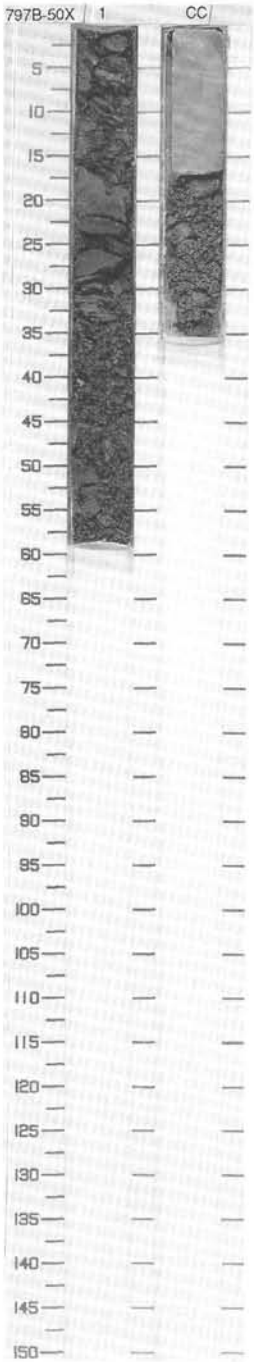
SMEAR SLIDE SUMMARY (%):

	4, 139 D	5, 67 D
TEXTURE:		
Silt	4	2
Clay	96	98
COMPOSITION:		
Accessory minerals	—	Tr
Clay	95	95
Glass	Tr	—
Pyrite	5	Tr

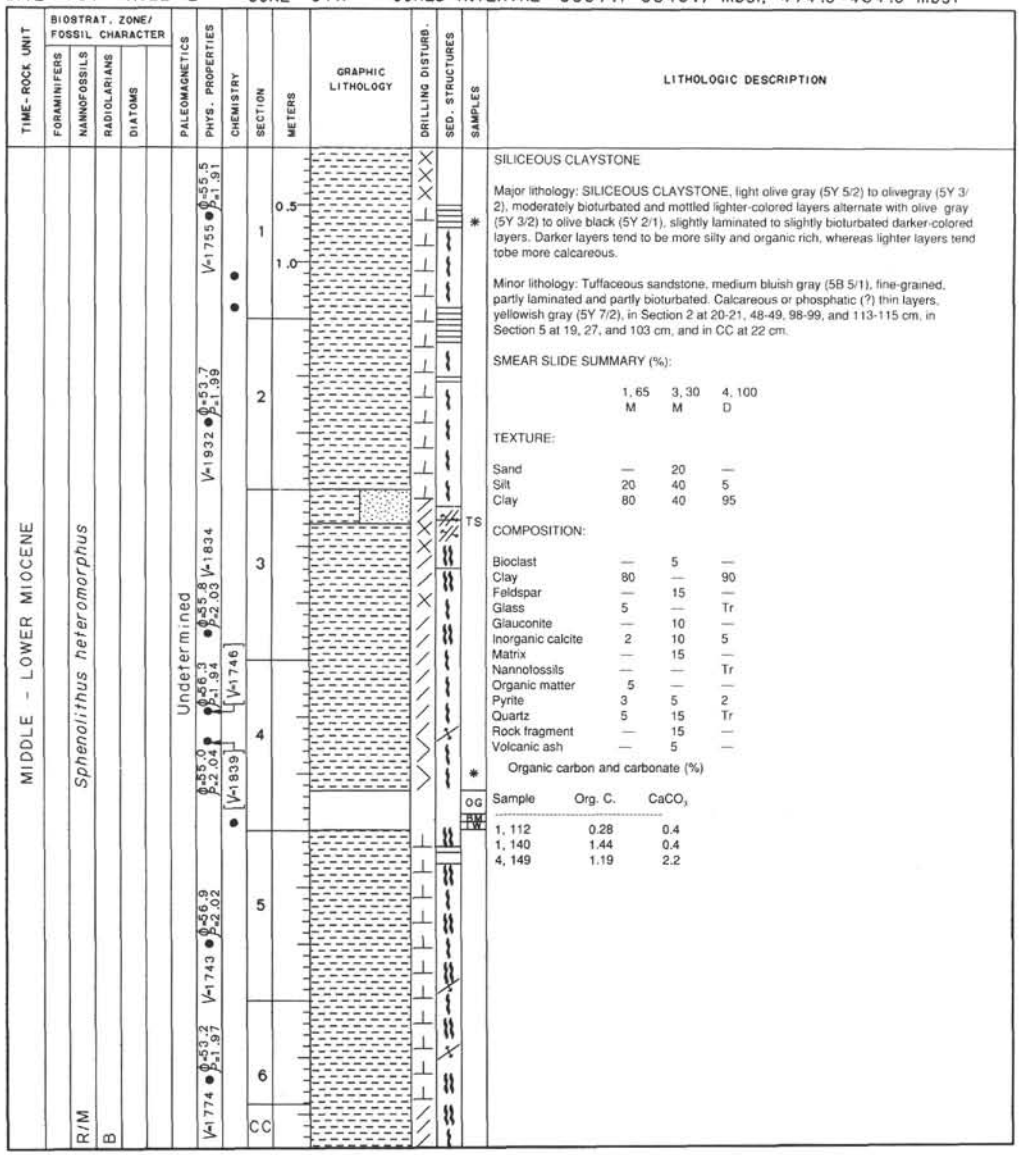


SITE 797 HOLE B CORE 50X CORED INTERVAL 3327.4-3337.1 mbsl; 465.2-474.9 mbsf

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
MIDDLE MIOCENE ?		B	B		Undetermined	ϕ=12.9 ρ=2.81 ▽4697		1 0.5 CC						SILICEOUS CLAYSTONE Major lithology: SILICEOUS CLAYSTONE, olive gray (5Y 3/2) to light olive gray (5Y 5/2). Minor lithology: None.



SITE 797 HOLE B CORE 51X CORED INTERVAL 3337.1-3346.7 mbsl; 474.9-484.5 mbsf



LITHOLOGIC DESCRIPTION

SILICEOUS CLAYSTONE

Major lithology: SILICEOUS CLAYSTONE, light olive gray (5Y 5/2) to olivegray (5Y 3/2), moderately bioturbated and mottled lighter-colored layers alternate with olive gray (5Y 3/2) to olive black (5Y 2/1), slightly laminated to slightly bioturbated darker-colored layers. Darker layers tend to be more silty and organic rich, whereas lighter layers tend tobe more calcareous.

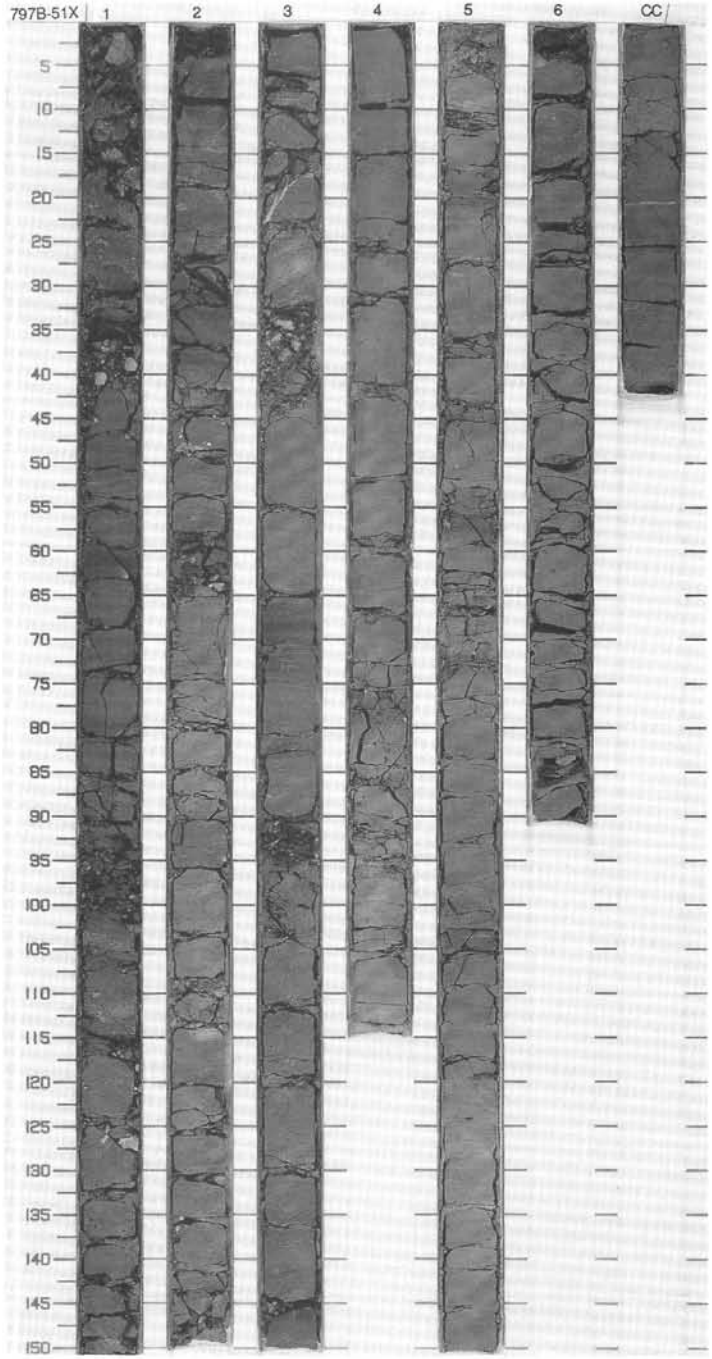
Minor lithology: Tuffaceous sandstone, medium bluish gray (5B 5/1), fine-grained, partly laminated and partly bioturbated. Calcareous or phosphatic (?) thin layers, yellowish gray (5Y 7/2), in Section 2 at 20-21, 48-49, 98-99, and 113-115 cm, in Section 5 at 19, 27, and 103 cm, and in CC at 22 cm.

SMEAR SLIDE SUMMARY (%):

	1, 65 M	3, 30 M	4, 100 D
TEXTURE:			
Sand	—	20	—
Silt	20	40	5
Clay	80	40	95
COMPOSITION:			
Bioclast	—	5	—
Clay	80	—	90
Feldspar	—	15	—
Glass	5	—	Tr
Glauconite	—	10	—
Inorganic calcite	2	10	5
Matrix	—	15	—
Nannofossils	—	—	Tr
Organic matter	5	—	—
Pyrite	3	5	2
Quartz	5	15	Tr
Rock fragment	—	15	—
Volcanic ash	—	5	—

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
1, 112	0.28	0.4
1, 140	1.44	0.4
4, 149	1.19	2.2



SITE 797 HOLE B CORE 52X CORED INTERVAL 3346.7-3356.4 mbsl; 484.5-494.2 mbsf

TIME-ROCK UNIT: MIDDLE - LOWER MIOCENE ?

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

PALEOMAGNETICS: Undetermined

PHYS. PROPERTIES: ● 0-58.9 ρ=1.91; ● 0-58.7 ρ=1.95; ● 0-60.7 ρ=1.88; ● 0-54.9 ρ=1.92; ● 0-57.2 ρ=1.95; ● 0-55.1 ρ=2.04

CHEMISTRY: V-1703; V-1711; ●

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES

LITHOLOGIC DESCRIPTION

CLAYSTONE

Major lithology: CLAYSTONE, grayish olive (10Y 4/2) to light olive gray (5Y 5/2) and olive gray (5Y 3/2), heavily bioturbated and slightly bioturbated to indistinctly laminated.

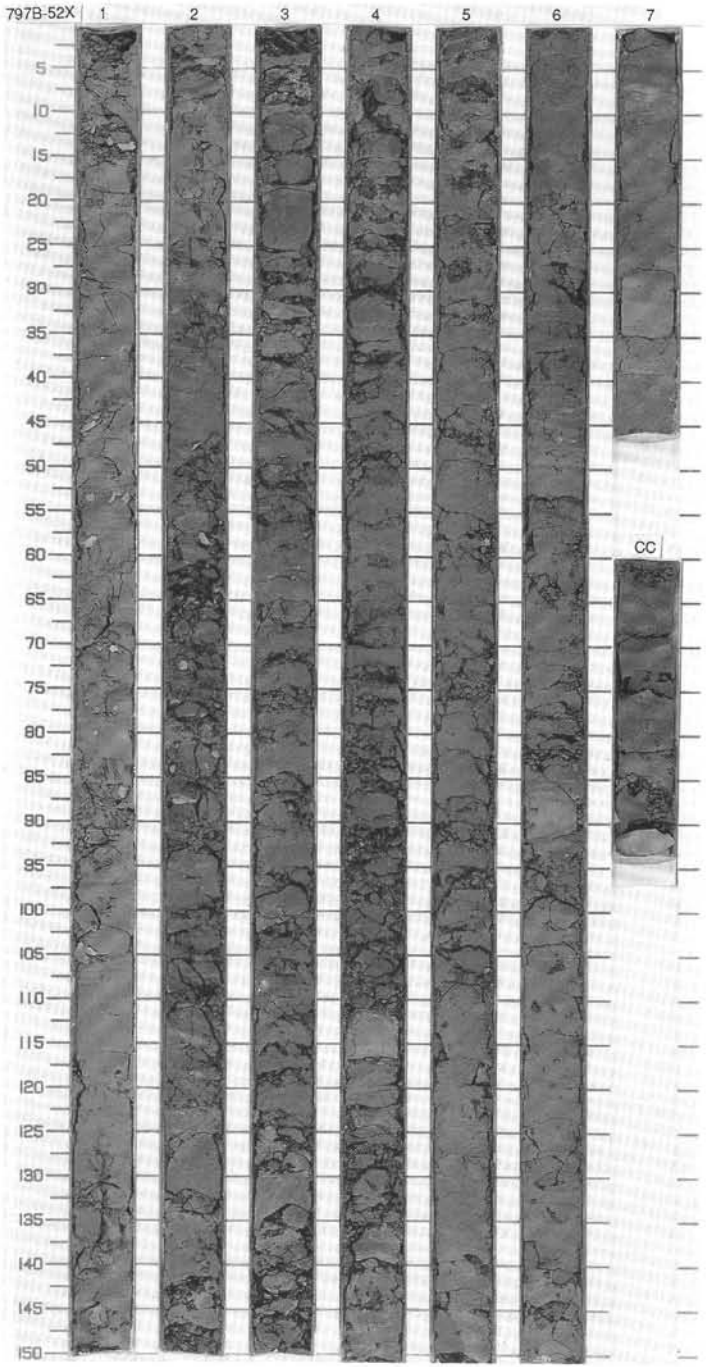
Minor lithology: Altered fine tuff, medium bluish gray (5B 5/1) and olive gray (5Y 4/1) in Section 1 at 46-51 cm; Section 3 at 31-38, and 141 cm; Section 4 at 112-117 cm; Section 6 at 89 to 94 cm, and Section 7 at 6 and 28-39 cm. Calcareous layers and nodules, yellowish gray (5Y 7/2) are common throughout.

SMEAR SLIDE SUMMARY (%):

	1, 55 M	2, 80 M	4, 95 D
TEXTURE:			
Sand	15	—	—
Silt	15	50	15
Clay	70	50	85
COMPOSITION:			
Altered grains	5	—	—
Clay	60	—	80
Feldspar	3	—	—
Glass	—	—	4
Inorganic calcite	10	90	2
Organic matter	2	3	4
Pyrite	5	2	3
Quartz	15	2	5

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
4, 2	2.58	2.5



SITE 797 HOLE B CORE 53X CORED INTERVAL 3356.4-3357.9 mbsl; 494.2-495.7 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
MIDDLE - LOWER MIOCENE ?		B				Undetermined	V=1707 ϕ=57.1 ρ=1.97 ●		1 CC					TS

LITHOLOGIC DESCRIPTION

CALCAREOUS CLAYSTONE AND CLAYSTONE

Major lithology: CALCAREOUS CLAYSTONE, grayish olive (5Y 3/2), slightly to moderately bioturbated, very hard. CLAYSTONE, grayish olive (5Y 4/2), slightly bioturbated.

Minor lithology: Scattered pyrite.

SMEAR SLIDE SUMMARY (%):

	CC, 35
	M
TEXTURE:	
Silt	75
Clay	25
COMPOSITION:	
Clay	5
Inorganic calcite	85
Pyrite	7
Quartz	1

SITE 797 HOLE C CORE 1R CORED INTERVAL 3348.6-3358.1 mbsl; 486.0-493.5 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
MIDDLE MIOCENE	B	R/M *Sphenolithus heteromorphus*	B		Undetermined			CC			X		

LITHOLOGIC DESCRIPTION

CLAYSTONE AND CARBONATE-CEMENTED DOLOMITIC CLAYSTONE

Major lithology: CLAYSTONE, olive gray (5Y 4/1) and CARBONATE-CEMENTED DOLOMITIC CLAYSTONE, olive gray (5Y 3/2), bioturbated.

Minor lithology: None.

SITE 797 HOLE C CORE 2R CORED INTERVAL 3358.1-3367.6 mbsl; 493.0-503.0 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
MIDDLE MIOCENE ?	R/P	B	B		N	V-1884 ● Φ=70.2 ρ=1.75 V-4729 ● Φ=59.7 ρ=1.95 ●		1	0.5		X		*
									1.0				
								2					*
								CC				TS	

LITHOLOGIC DESCRIPTION

CLAYSTONE AND CALCAREOUS CLAYSTONE

Major lithology: CLAYSTONE and CALCAREOUS CLAYSTONE, olive gray (5Y 3/2) to light olive gray (5Y 5/2), bioturbated with horizontal flattened burrows, large foraminifers disseminated throughout, pyrite concretions; with phosphatic nodules dusky yellow (5Y 6/4)

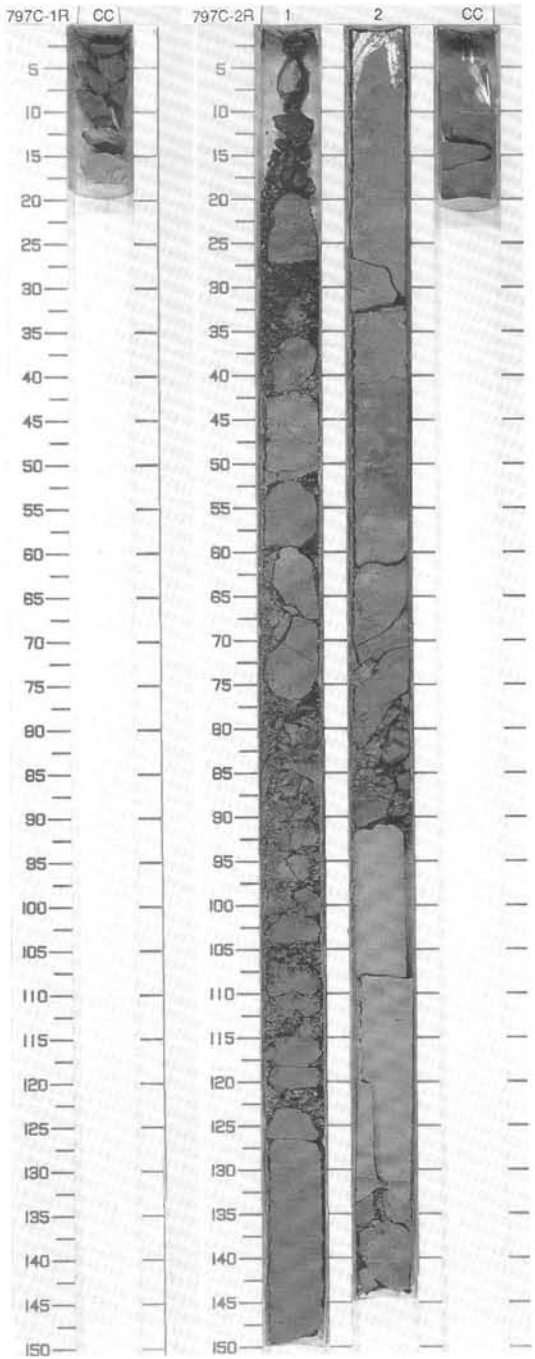
Minor lithology: Tuffs, medium bluish gray (5B 5/1) to greenish gray (5G 6/1), sharp based, with planar and cross laminations and bedding, bioturbated at top, at Section 1, 40, and 60 cm and Section 2, 90-131 cm.

SMEAR SLIDE SUMMARY (%):

	1, 100 D	2, 57 M	2, 126 M
TEXTURE:			
Sand	—	—	40
Silt	25	50	40
Clay	75	50	20
COMPOSITION:			
Clay	70	—	95
Glass	Tr	—	—
Inorganic calcite	15	98	—
Organic matter	5	—	—
Pyrite	5	—	—
Quartz	5	2	1

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 2	0.75	2.0



SITE 797 HOLE C CORE 3R CORED INTERVAL 3367.6-3377.1 mbsl; 503.0-512.5 mbsf

TIME-ROCK UNIT	FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
LOWER MIOCENE ?	R/G	B	B		N	V=1710 ϕ=59.9 ● ρ=1.96; V=1737 ● ϕ=60.0 ρ=1.96	●	1, 2, 3, CC	0.5, 1.0				*	see below

SILT-BEARING CLAYSTONE

Major lithology: SILT-BEARING CLAYSTONE, olive gray (5Y 4/1) and dark greenish gray (5GY 4/1); heavily bioturbated and mottled throughout; extensive microfractures (possible dewatering structures).

Minor lithology: Calcareous claystone, grayish yellow (5Y 8/4) in Section 2 at 65 to 70 and 136 to 137 cm.

SMEAR SLIDE SUMMARY (%):

	2, 83
	D
TEXTURE:	
Silt	2
Clay	98
COMPOSITION:	
Accessory minerals	Tr
Clay	95
Glass	Tr
Pyrite	Tr
Quartz	Tr

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 2	0.69	0.2

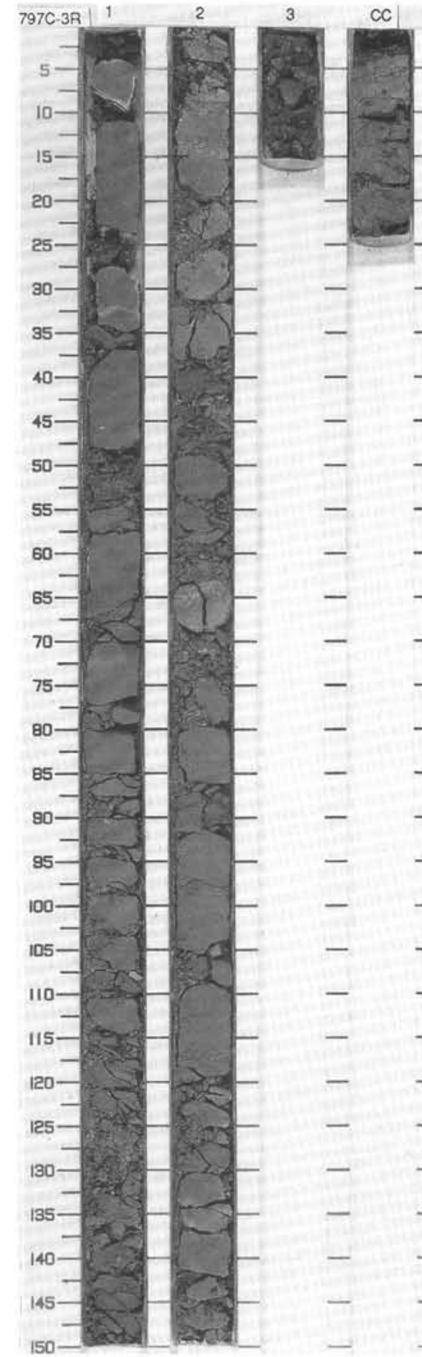
SITE 797 HOLE C CORE 4R CORED INTERVAL 3377.1-3386.6 mbsl; 512.5-522.0 mbsf

TIME-ROCK UNIT	FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
Undetermined	B		B		Undetermined			1	0.5, 1.0					see below

SILT-BEARING CLAYSTONE

Major lithology: SILT-BEARING CLAYSTONE, dark greenish gray (5GY 4/1). Core Catcher sample only.

Minor lithology: None.



SITE 797 HOLE C CORE 5R CORED INTERVAL 3386.6-3396.2 mbsl; 522.0-531.6 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
Undetermined		B	B		R N	ϕ=58.0 ρ=1.93 ϕ=62.1 ρ=1.97 V=1772 V=1714 ϕ=55.5 ρ=1.89 V=1743	•	1 2 3 4 CC	0.5 1.0		X		OG P F	* *

LITHOLOGIC DESCRIPTION

SILT-BEARING CLAYSTONE AND CALCAREOUS CLAYSTONE

Major lithology: SILT-BEARING CLAYSTONE, olive gray (5Y 3/2), dark greenish gray (5G 4/1) and medium bluish gray (5B 5/1); heavily bioturbated with horizontally flattened burrows throughout. CALCAREOUS CLAYSTONE, grayish yellow (5Y 8/4) in Section 3 at 17-19, 39-40, 66-67, 73-74, and 94-96 cm, and Section 4 at 10-16, and 38-39 cm.

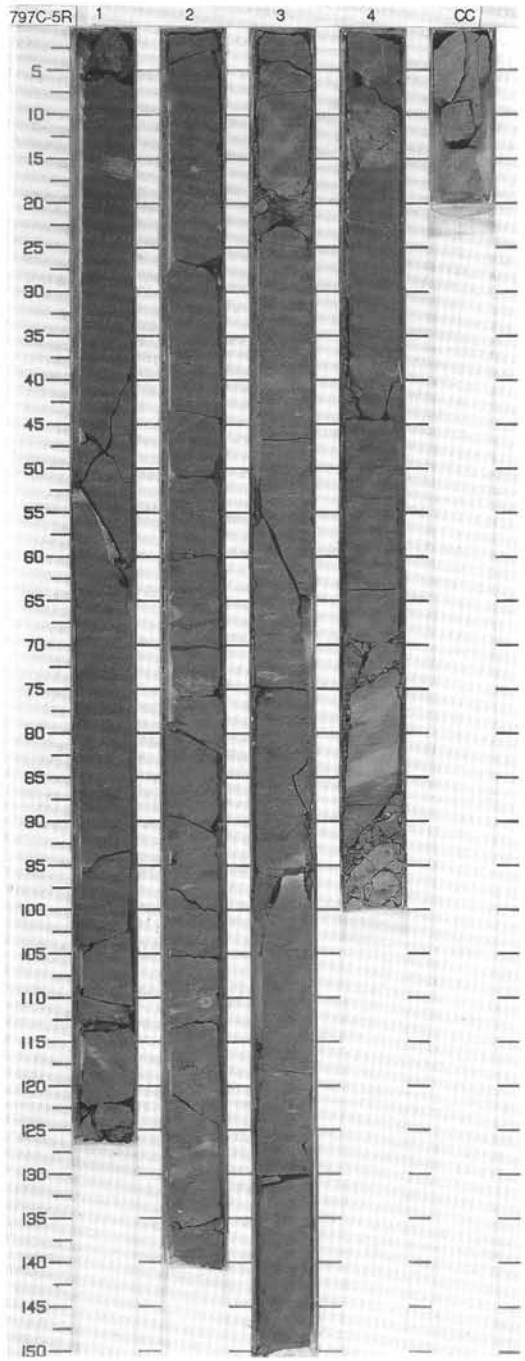
Minor lithology: Tuff, medium bluish gray (5B 5/1) and light bluish gray (5B 7/1); normally graded, planar laminations near base, bioturbated at top.

SMEAR SLIDE SUMMARY (%):

	1, 30 D	3, 110 D
TEXTURE:		
Silt	5	5
Clay	95	95
COMPOSITION:		
Accessory minerals	Tr	—
Clay	95	95
Glass	Tr	—
Pyrite	Tr	Tr
Quartz	Tr	Tr
Silcia	—	Tr

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 149	0.40	1.7



SITE 797 HOLE C CORE 6R CORED INTERVAL 3396.7-3405.9 mbsl; 531.6-541.3 mbsf

TIME-ROCK UNIT: Undetermined

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

PALEOMAGNETICS: R; N

PHYS. PROPERTIES: Φ=75.2 V=1744 ρ=1.73; Φ=53.5 ρ=1.95; V=1784; V=1748; V=1740; Φ=58.4 ρ=1.94; V=1734

CHEMISTRY: V=1807; V=1756; Φ=58.2 ρ=1.96

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES: F; F; F

SAMPLES: *; *

LITHOLOGIC DESCRIPTION

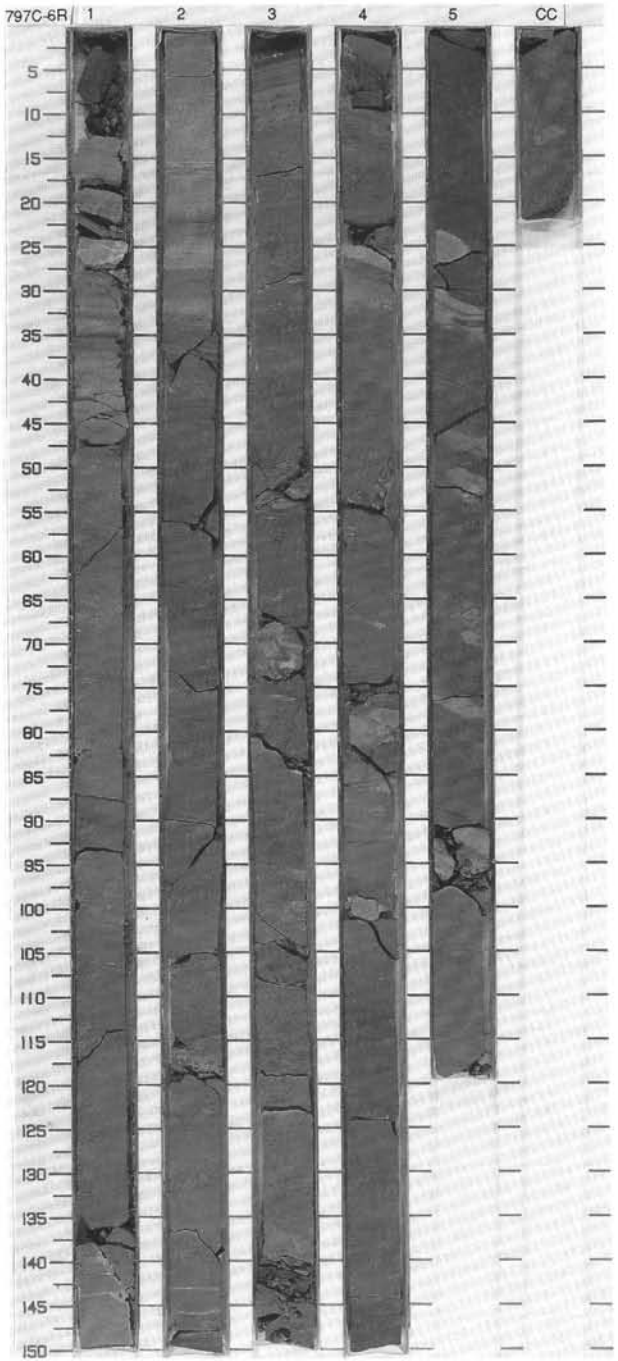
SILT-BEARING CLAYSTONE AND CALCAREOUS CLAYSTONE

Major lithology: SILT-BEARING CLAYSTONE, light olive gray (5Y 6/1) and olive gray (5Y 4/1); bioturbated with horizontally flattened burrows throughout. CALCAREOUS CLAYSTONE, grayish yellow (5Y 8/4); filled burrows throughout.

Minor lithology: Tuff, light to medium bluish gray (5B 7/1 to 5/1); fine-grained vitric material, graded with faint laminations at base, bioturbated at top; Section 1 between 13 and 47 cm and 139 and 150 cm, and Section 4 at 25-26 cm and 85-87 cm. Ash, light bluish gray (5B 7/1) in Section 4 between 7 and 8 cm. Siltstone, dark yellow brown (5Y 4/1); normally graded with laminations in Section 3 between 0 and 6 cm.

SMEAR SLIDE SUMMARY (%):

	1, 70 D	3, 89 D
TEXTURE:		
Silt	5	5
Clay	95	95
COMPOSITION:		
Accessory minerals	Tr	Tr
Clay	95	95
Glass	Tr	Tr
Pyrite	Tr	Tr



SITE 797 HOLE C CORE 7R CORED INTERVAL 3405.9-3415.5 mbsl; 541.3-550.9 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
Undetermined	B	B	B					1			X X		*	SILT-BEARING CLAYSTONE
								CC			X			Major lithology: SILT-BEARING CLAYSTONE, dark greenish gray (5GY 4/1). Drilling breccia.

Minor lithology: None.

SMEAR SLIDE SUMMARY (%):

	1, 40 D
TEXTURE:	
Silt	5
Clay	95
COMPOSITION:	
Accessory minerals	Tr
Clay	95
Glass	Tr
Pyrite	Tr
Quartz	Tr

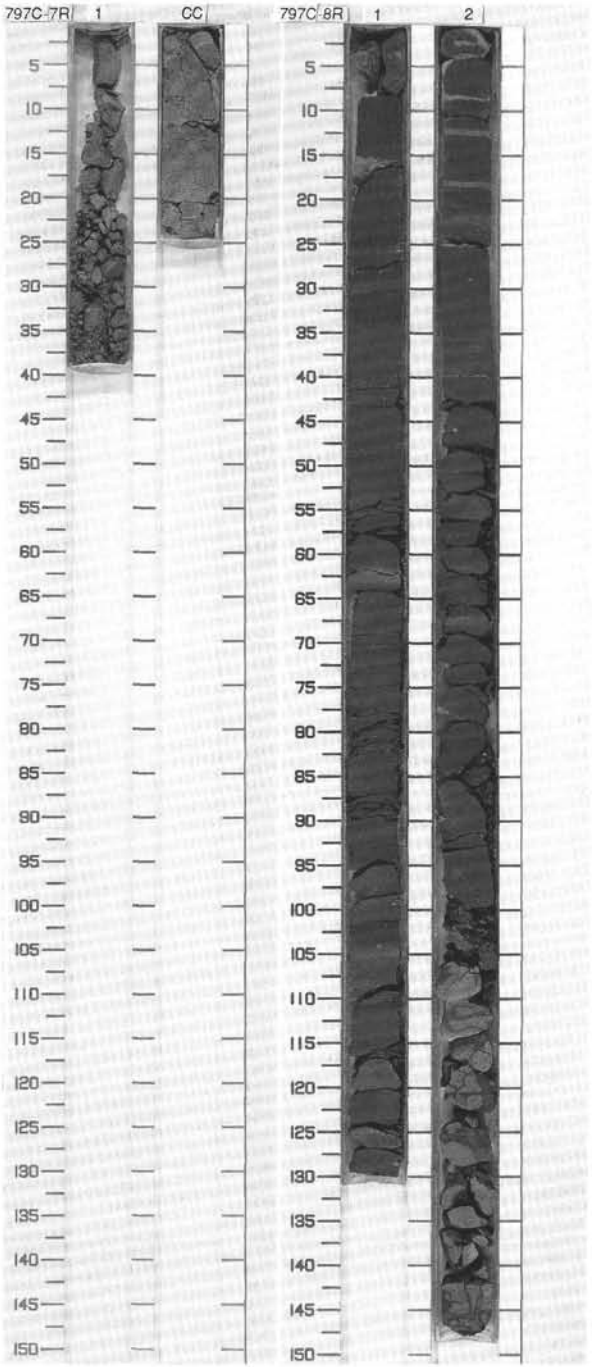
SITE 797 HOLE C CORE 8R CORED INTERVAL 3415.5-3425.2 mbsl; 550.9-560.6 mbsf

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
Undetermined	B	B			N	V=1816 Φ=53.9 ρ=2.05 V=1785 Φ=52.1 ρ=2.06		1	0.5 1.0		X	⊙ ~	*	CLAYSTONE AND CALCAREOUS CLAYSTONE
								2			X	Ⓟ ~		Major lithology: CLAYSTONE, olive gray (5Y 4/1) and olive black (5Y 2/1); slightly bioturbated to faintly laminated. CALCAREOUS CLAYSTONE, yellowish gray (5Y 8/1), scattered throughout.

Minor lithology: Scattered pyrite.

SMEAR SLIDE SUMMARY (%):

	1, 40 D
TEXTURE:	
Silt	5
Clay	95
COMPOSITION:	
Accessory minerals	Tr
Clay	95
Glass	Tr
Pyrite	Tr
Quartz	Tr



SITE 797 HOLE C CORE 9R CORED INTERVAL 3425.2-3434.6 mbsl; 560.6-570.0 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
Undetermined		B			N	●V4526; ●φ16.0 ρ2.68; V4486		1, 2	0.5, 1.0		X		TS, TS

LITHOLOGIC DESCRIPTION

CONGLOMERATE

Major lithology: CLAYSTONE, olive gray (5Y 4/1); fine-grained siliceous (?) fragments and possible shards.

Minor lithology: None.

SMEAR SLIDE SUMMARY (%):

	1, 73	1, 122
	M	M
TEXTURE:		
Sand	70	70
Silt	20	10
Clay	10	20
COMPOSITION:		
Cement	5	—
Glass	Tr	—
Matrix	15	20
Rock fragment	80	80

797C 10R NO RECOVERY

SITE 797 HOLE C CORE 11R CORED INTERVAL 3444.2-3453.9 mbsl; 579.6-589.3 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
Undetermined		B			N	V2126 φ43.2● ρ2.20	●	1			X X X X		TS

LITHOLOGIC DESCRIPTION

TUFFACEOUS CLAYSTONE

Major lithology: TUFFACEOUS CLAYSTONE, olive gray (5Y 4/1) to olive black (5Y 2/1); drilling pebbles (?); light gray (N8) spherical pumice (?) fragments in planar laminated claystone or highly altered tuffaceous claystone matrix. Some fragments partially composed of calcite. Probable soft sediment deformation and micro-faults. Probable small-scale hydrothermal (?) alteration and bleaching adjacent to fractures. Abundant slickensides. Generally dark in color towards base.

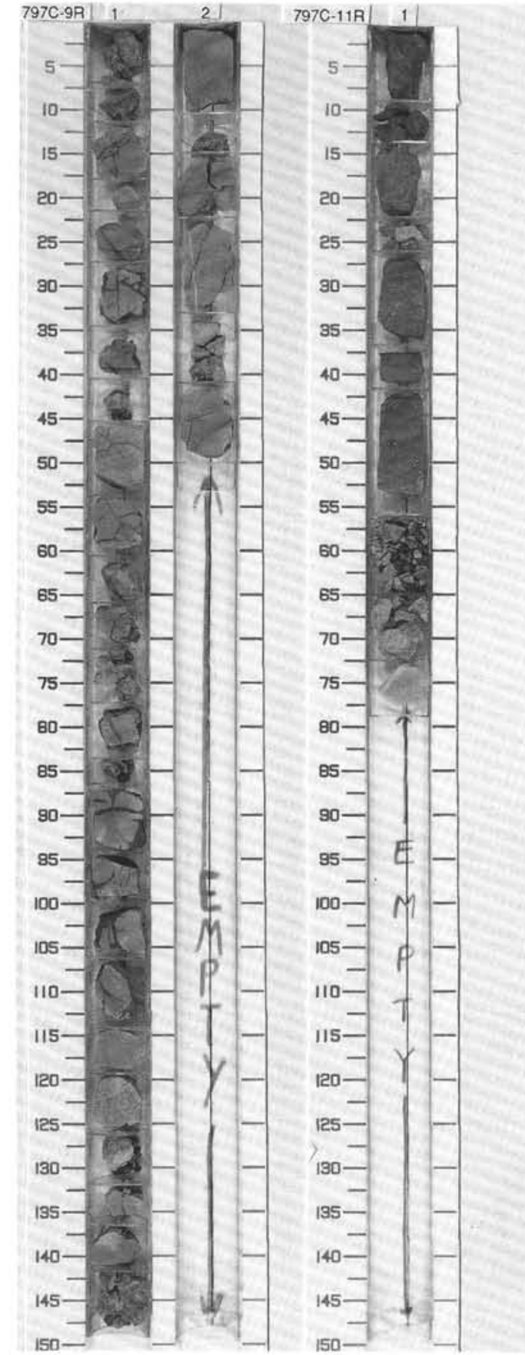
Minor lithology: None.

SMEAR SLIDE SUMMARY (%):

	1, 31
	D
TEXTURE:	
Silt	40
Clay	60
COMPOSITION:	
Clay	60
Organic matter	10
Pyrite	10
Rock fragment	20

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
1, 2	0.94	1.2



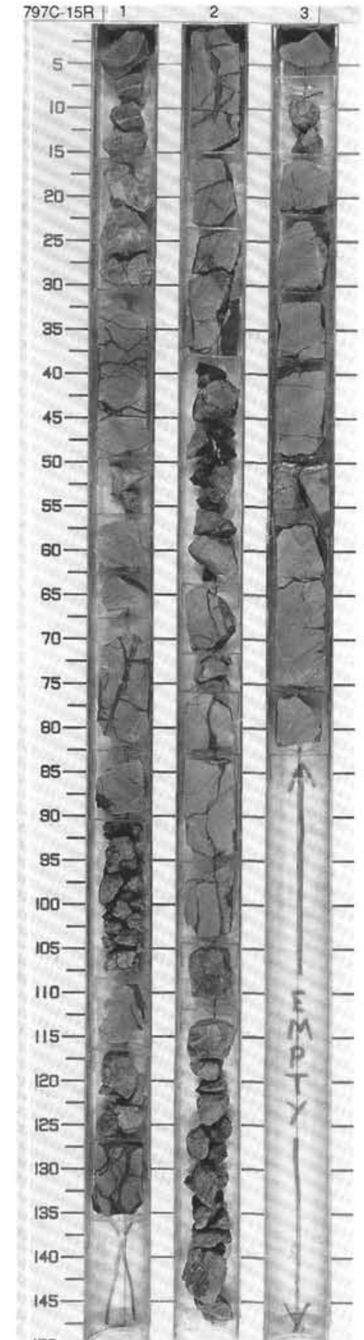
797C 12R NO RECOVERY

797C 13R NO RECOVERY

797C 14R NO RECOVERY

SITE 797 HOLE C CORE 15R CORED INTERVAL 3482.4-3491.9 mbsl; 617.8-627.3 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	LITHOLOGIC DESCRIPTION
Undetermined		B				N	V-4366 ● Φ=16.5 ρ=2.53		1	0.5, 1.0		X			SILT-BEARING CLAYSTONE Major lithology: SILT-BEARING CLAYSTONE, olive gray (5Y 4/1); drilling pebbles streaked with medium dark gray (N6) clay. Light gray (N7) blebs of dolomite on surface of some pebbles. Minor lithology: None.
							V-5143 ● Φ=6.30 ρ=2.80		2						
									3						



797C 16R NO RECOVERY

797C 17R NO RECOVERY

SITE 797 HOLE C CORE 18R CORED INTERVAL 3511.1-3520.7 mbsl; 646.5-656.1 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
Undetermined		B			N	V=5564 ϕ=3.90 ρ=2.85 / V=4507 ϕ=12.9 ρ=2.69 / V=4195 ϕ=48.3 ρ=2.11	• •	1 2 3	0.5 1.0			TS TS	

LITHOLOGIC DESCRIPTION

CARBONACEOUS SILTSTONE AND TUFFACEOUS SANDSTONE

Major lithology: CARBONACEOUS SILTSTONE, and TUFFACEOUS SANDSTONE: dark olive gray (5Y 3/1) to light olive gray (5Y 6/1), normally graded thick laminae to thin beds consisting of sharp and scoured basal contacts commonly deformed by flame and water escape structures, below tuffaceous sandstone with micro-cross, flaser, lenticular, and planar lamination. Sandstone is commonly overlain, gradationally, by laminated, carbonaceous (to 40-50% wood fragments, "coffee grounds") siltstone and bioturbated (flattened, spherical burrows with little vertical relief) claystone. Persistent repetition of these idealized sequences along with less obvious, partial sequences in layers of 1 to 5 cm. Probable sand-size pumice fragments occur floating in bioturbated mudstone. Rocks immediately above the basal contact on crystalline rocks are harder, more consolidated and lighter in color, probably a baked contact (< 10 cm).

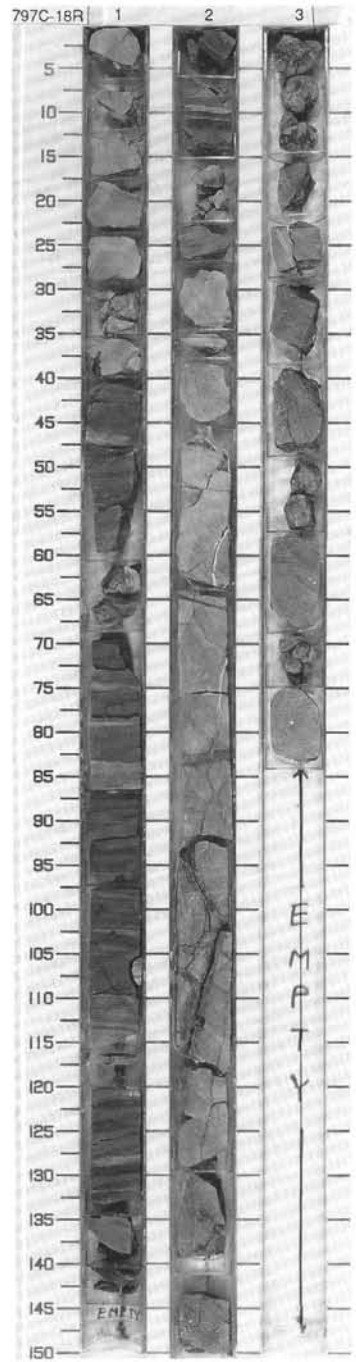
Minor lithology: Claystone, dusky yellowish brown (5YR 2/2); laminated.

SMEAR SLIDE SUMMARY (%):

	1, 118 D	2, 24 D
TEXTURE:		
Sand	90	—
Silt	10	40
Clay	—	60
COMPOSITION:		
Clay	—	55
Feldspar	15	10
Glass	25	10
Matrix	15	—
Mica	Tr	2
Organic matter	—	10
Quartz	5	10
Volcanic ash	40	—

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
1, 95	0.76	--
1, 138	0.62	--



SITE 797 HOLE C CORE 19R CORED INTERVAL 3520.7-3530.5 mbsl; 656.1-665.9 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
Undetermined		B			N	V-1921 Φ=41.3 ρ=1.89 V-2027 Φ=43.3 ρ=2.08 Φ=37.6 ρ=2.29 V-3213 Φ=8.40 ρ=2.72 Φ=20.4 ρ=2.37 V-3281 V-6377 Φ=0.0 ρ=2.91 V-5841 Φ=2.30 ρ=2.61		1 2 3 4 5 6 CC	0.5 1.0				TS	

LITHOLOGIC DESCRIPTION

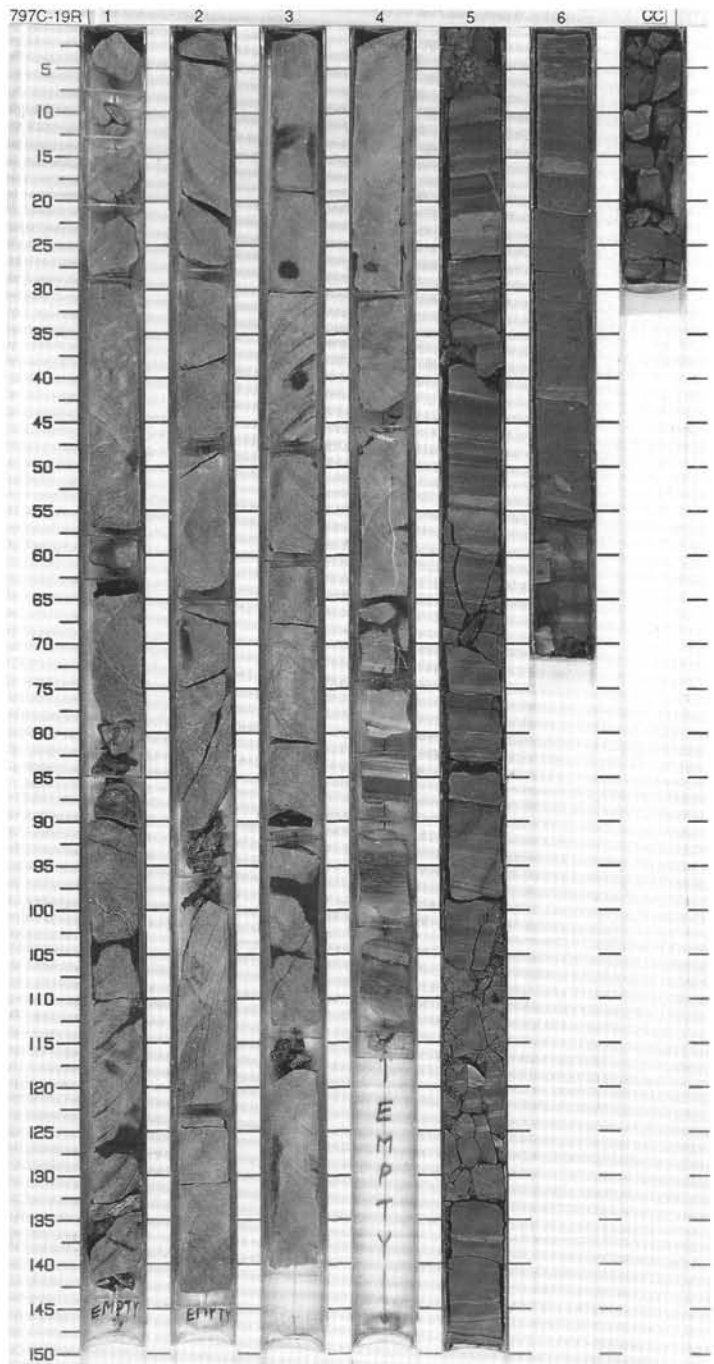
SILTSTONE, CARBONACEOUS SILTSTONE, CLAYSTONE, AND SANDSTONE

Major lithology: SILTSTONE, CARBONACEOUS SILTSTONE, CLAYSTONE, and SANDSTONE, greenish gray (5G 6/1), medium dark gray (N4), and light gray (N7): normally graded thin beds of tuffaceous fine to very fine grained sandstone with sharp and scoured basal contacts commonly deformed by flame and water escape structures, with micro-cross, flaser, lenticular, and planar lamination, gradationally overlain by siltstone and carbonaceous siltstone gradational upwards to claystone. Slight bioturbation or rip up clasts (?); most burrows horizontal, rare burrows with vertical relief to 4-10 mm. Sharp upper contact between altered, glassy igneous rock with dense, greenish gray (5G 6/1) altered siltstone and claystone; baked contact.

Minor lithology: None.

SMEAR SLIDE SUMMARY (%):

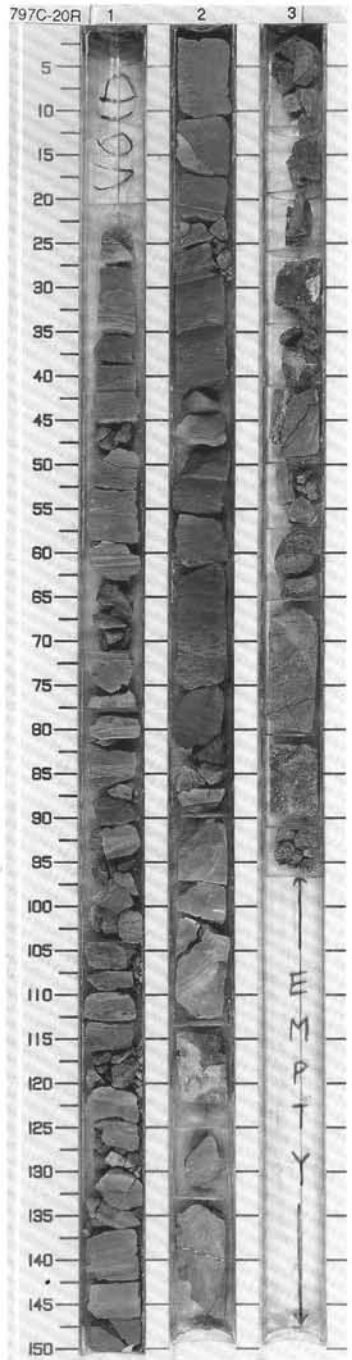
	5, 98 D
TEXTURE:	
Sand	90
Silt	10
COMPOSITION:	
Cement	30
Feldspar	20
Glass	15
Inorganic calcite	5
Mica	2
Quartz	5
Volcanic ash	20



SITE 797 HOLE C CORE 20R CORED INTERVAL 3530.5-3540.2 mbsl; 665.9-675.6 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
Undetermined		B			N	●Φ=35.0 V=2464 ρ=2.23 ●Φ=6.90 ρ=2.72		1 2 3	0.5 1.0			TS		SILTSTONE, CARBONACEOUS SILTSTONE, TUFFACEOUS SANDSTONE Major lithology: SILTSTONE, CARBONACEOUS SILTSTONE, medium light gray (N6), sharp basal contacts, normal graded bedding from very fine grained sandstone to siltstone and claystone, moderately to heavily bioturbated, slight increase of the tuffaceous component at the base of sequences, and TUFFACEOUS SANDSTONE, medium light gray (N6), sharp basal contact with normal graded bedding and cross laminations. Minor lithology: None. SMEAR SLIDE SUMMARY (%): 2, 11 D TEXTURE: Sand 20 Silt 30 Clay 50 COMPOSITION: Amphibole Tr Feldspar 5 Matrix 50 Mica 2 Organic matter 5 Quartz 5 Rock fragment 30

797C 21R NO RECOVERY



SITE 797 HOLE C CORE 22R CORED INTERVAL 3549.7-3559.2 mbsl; 685.1-694.6 mbsf

TIME-ROCK UNIT: Undetermined

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

PALEOMAGNETICS: N

PHYS. PROPERTIES: V-2469 ●Φ=41.7 ρ=2.20; V-2135 ●Φ=38.3 ρ=2.13; V-2156 ●Φ=42.3 ρ=2.10; V-2244 ●Φ=38.6 ρ=2.18; V-2140 ●Φ=40.4 ρ=2.18

CHEMISTRY

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES: TS, LW, F, P

SAMPLES

LITHOLOGIC DESCRIPTION

SILTSTONE, CLAYSTONE AND SANDSTONE

Major lithology: SILTSTONE and CLAYSTONE, light olive gray (5Y 6/1) to dark gray (N3): bioturbated with horizontally flattened burrows, interbedded with SANDSTONE, light gray (N7); volcaniclastic lithic-rich; normally graded units 3-10 cm thick; sharp basal contacts, bioturbated at top; some scoured; planar lamination at base; some micro-cross laminated; few ripple-cross laminated; many laminations contain abundant carbonaceous material. Baked contact at 40 cm?

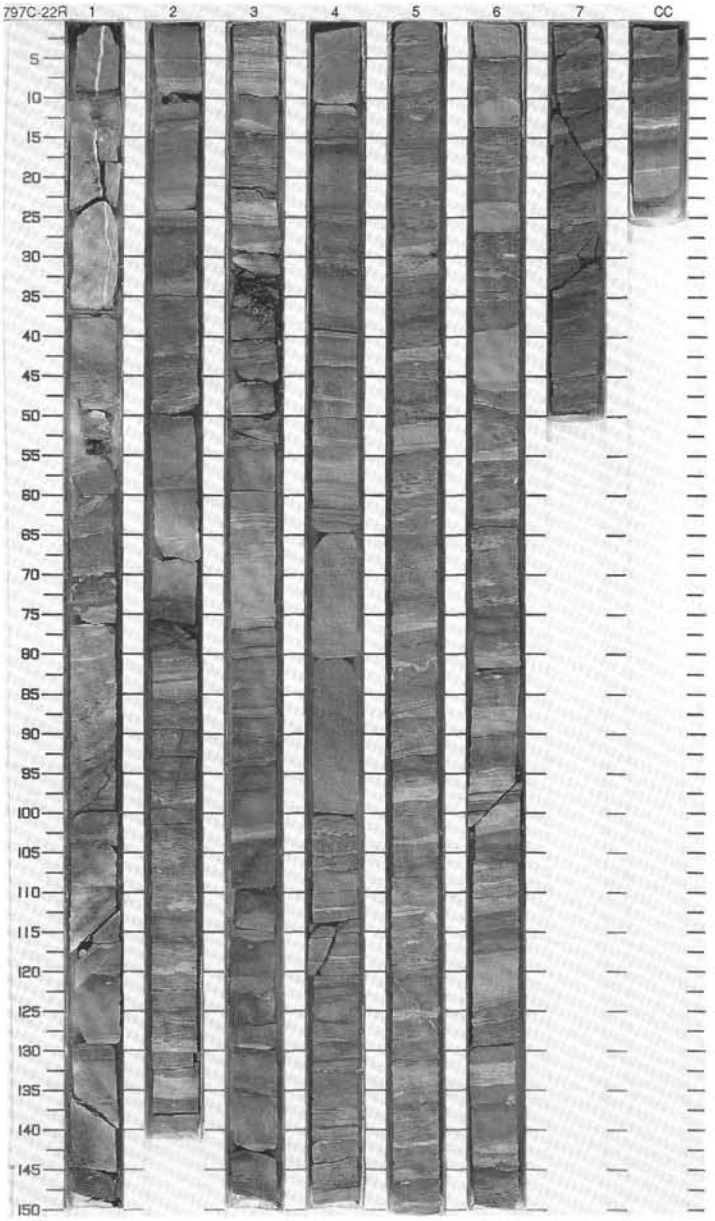
Minor lithology: None.

SMEAR SLIDE SUMMARY (%):

	1, 76 D	1, 106 D	1, 125 D	3, 79 D
TEXTURE:				
Sand	80	85	1	90
Silt	15	5	10	---
Clay	5	10	89	10
COMPOSITION:				
Accessory minerals	—	Tr	Tr	Tr
Biotite	—	2	—	Tr
Calcite	—	1	—	2
Cement	—	5	—	Tr
Chert	—	Tr	—	—
Chlorite	—	Tr	—	Tr
Clay	—	10	92	10
Feldspar	10	3	Tr	5
Glass	20	Tr	Tr	2
Hematite	—	—	—	Tr
Organic matter	—	Tr	—	—
Pyrite	—	Tr	—	1
Quartz	5	12	2	10
Rock fragment	65	65	16	5
Silicia	—	—	Tr	—

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
2, 145	0.52	0.3
3, 2	0.48	0.8
3, 114	0.76	0.2



SITE 797 HOLE C CORE 23R CORED INTERVAL 3559.2-3568.7 mbsl; 694.6-704.1 mbsf

TIME-ROCK UNIT: Undetermined

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

PALEOMAGNETICS: N

PHYS. PROPERTIES: V=2562 ● Φ=40.3 ρ=2.17; V=2208 ● Φ=41.4 ρ=2.22; V=2195 Φ=38.8 ρ=2.16 ●

CHEMISTRY: ●

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

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: OG; *

LITHOLOGIC DESCRIPTION

SILTSTONE, CLAYSTONE AND SANDSTONE

Major lithology: SILTSTONE and CLAYSTONE, medium dark gray (N3); bioturbated with horizontally flattened burrows interbedded with SANDSTONE, medium light gray (N6); 1-12 cm thick normally graded units; sharp basal contacts, bioturbated tops; ripple-cross lamination in many units; soft sediment deformation features.

Minor lithology: None.

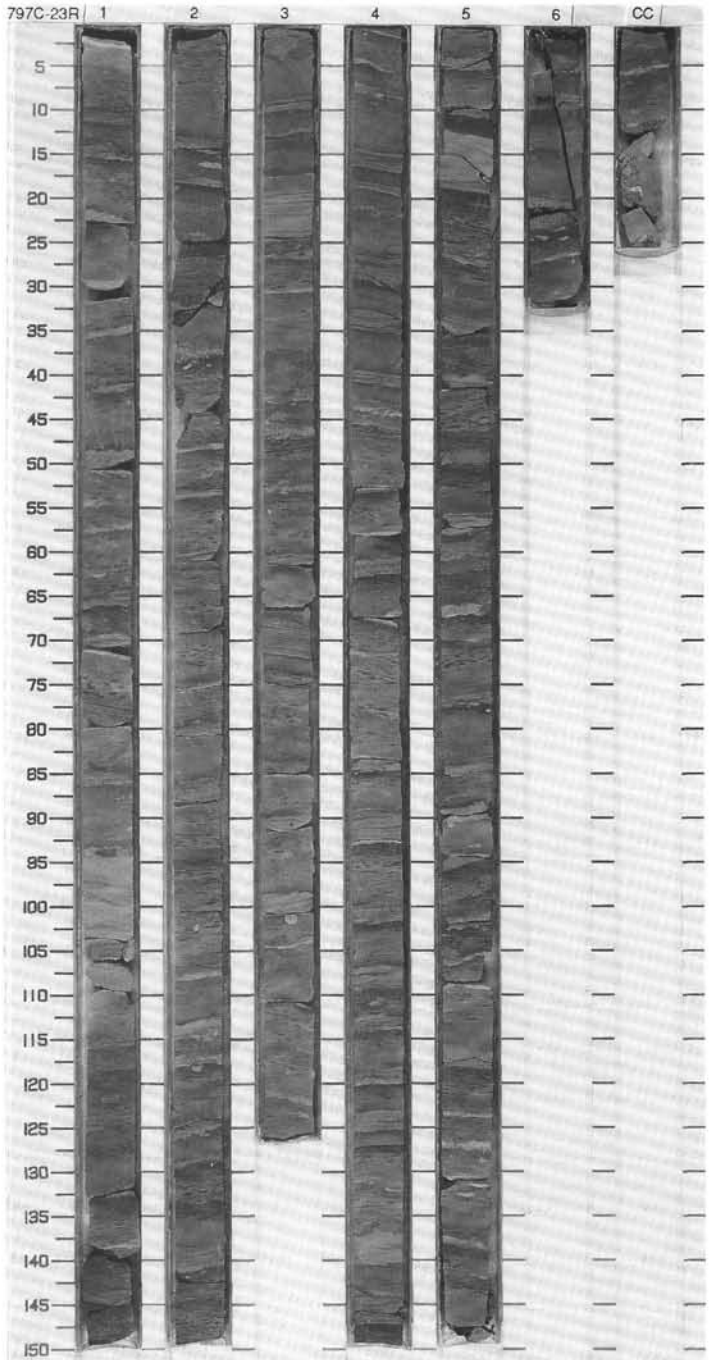
SMEAR SLIDE SUMMARY (%):

	4, 38 D
TEXTURE:	
Silt	10
Clay	90
COMPOSITION:	
Accessory minerals	Tr
Clay	90
Feldspar	Tr
Glass	5
Quartz	2
Rock fragment	Tr

Organic carbon and carbonate (%)

Sample	Org. C.	$CaCO_3$
3, 2	0.63	0.4

797C 24R NO RECOVERY



SITE 797 HOLE C CORE 25R CORED INTERVAL 3578.2-3587.8 mbsl; 713.6-723.2 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
Undetermined					N	V-2194 ● Φ=41.0 ρ=2.24 V-2116 ● V-2148 ● Φ=41.9 ρ=2.25 V-2217 ● Φ=42.2 ρ=2.17 V-2266 ● Φ=43.8 ρ=2.22		1 2 3 4 5 6 CC	0.5 1.0				TS	

LITHOLOGIC DESCRIPTION

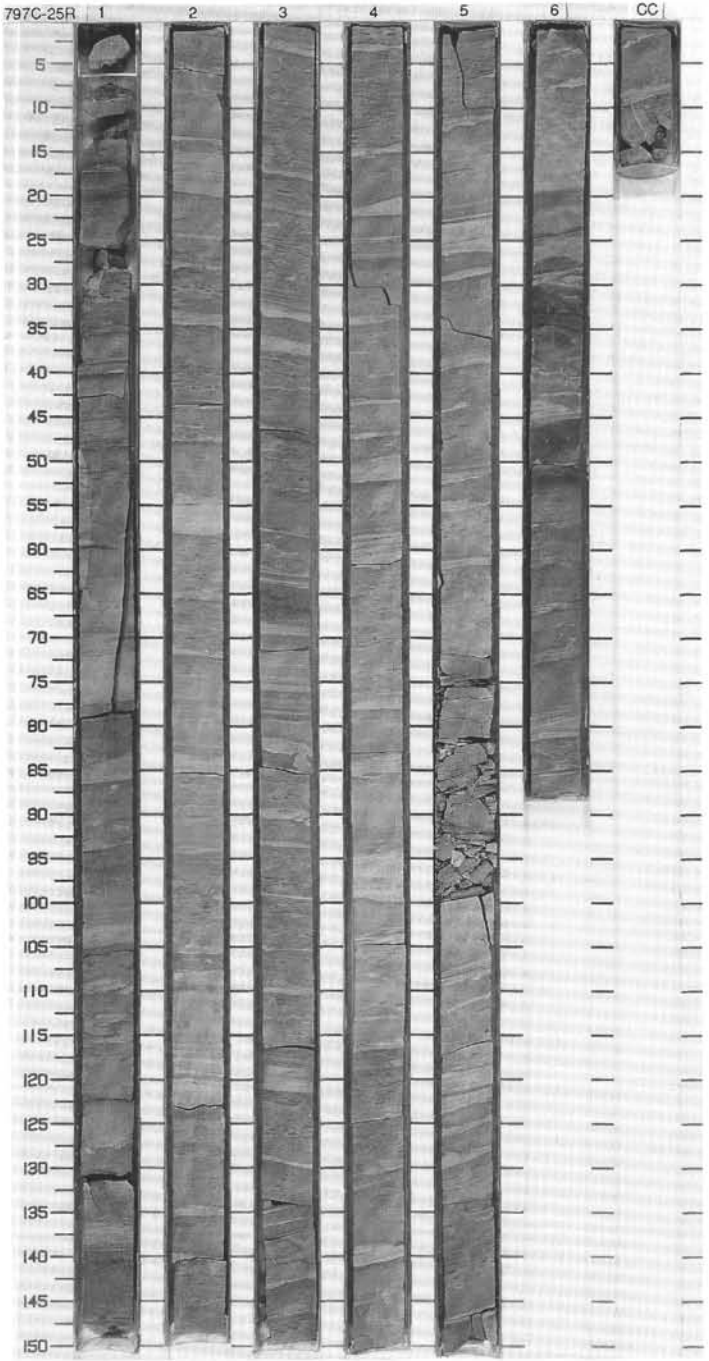
SILTSTONE, CARBONACEOUS SILTSTONE, CLAYSTONE AND SANDSTONE

Major lithology: SILTSTONE, CARBONACEOUS SILTSTONE, CLAYSTONE, medium gray (N5), and SANDSTONE, greenish gray (5GY 6/1), sharp based layers with normal graded bedding from sandstone to siltstone and claystone, conspicuous parallel and crossed laminations, load casts and injection structures at base of sandstone beds and common soft sediment deformation at top, rip-up mud clasts common in the finer grained layers.

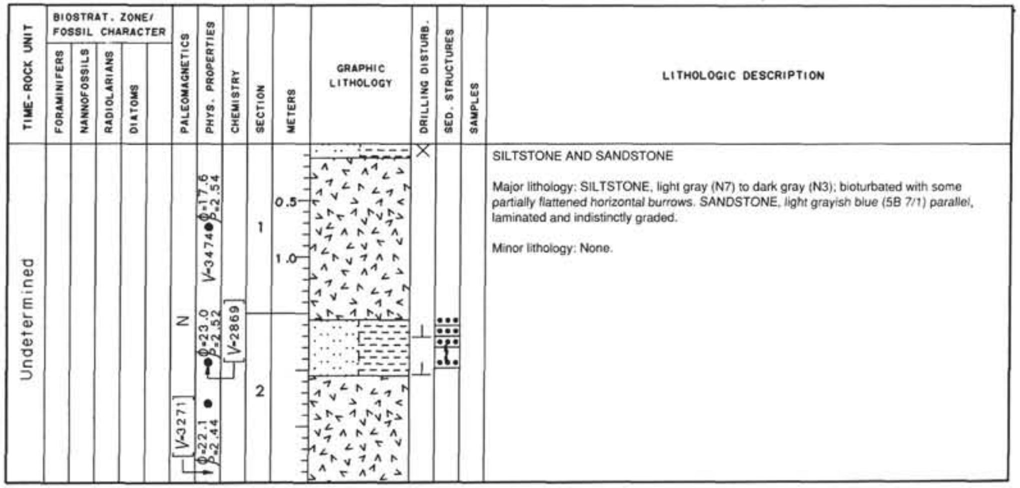
Minor lithology: Tuffaceous sandstone and siltstone, medium gray (N5), with parallel lamination in Section 5, 75-100 cm.

SMEAR SLIDE SUMMARY (%):

	2, 123 D
TEXTURE:	
Sand	95
Clay	5
COMPOSITION:	
Accessory minerals	Tr
Biotite	2
Calcite	1
Chlorite	10
Clay	Tr
Feldspar	5
Glass	Tr
Hematite	Tr
Pyrite	Tr
Quartz	10
Rock fragment	70



SITE 797 HOLE C CORE 26R CORED INTERVAL 3587.8-3596.8 mbsl; 723.2-732.9 mbsf

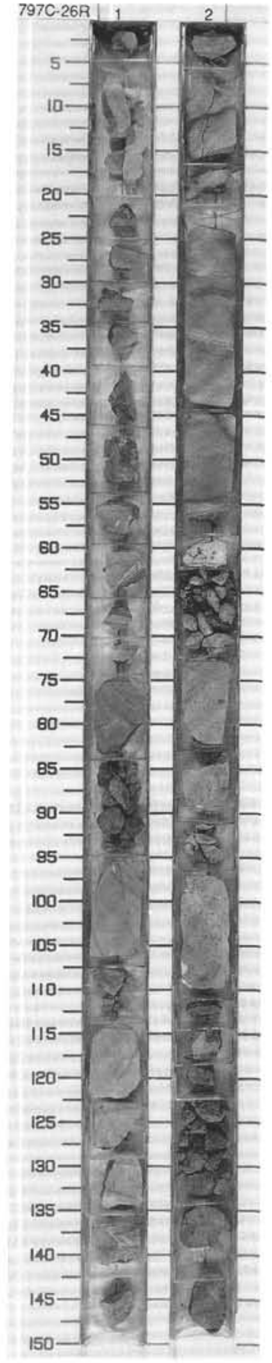


TIME-ROCK UNIT
BIOSTRAT. ZONE/ FOSSIL CHARACTER
FORAMINIFERS
NANNOFOSSILS
RADIOLARIANS
DIATOMS
PALEOMAGNETICS
PHYS. PROPERTIES
CHEMISTRY
SECTION
METERS
GRAPHIC LITHOLOGY
DRILLING DISTURB.
SED. STRUCTURES
SAMPLES
LITHOLOGIC DESCRIPTION
Undetermined
N
V-3474 ●ϕ=17.6 ρ=2.54
ϕ=23.0 ρ=2.52
V-2869
V-3271
ϕ=22.1 ρ=2.44
0.5
1.0
1
2
SILTSTONE AND SANDSTONE
Major lithology: SILTSTONE, light gray (N7) to dark gray (N3); bioturbated with some partially flattened horizontal burrows. SANDSTONE, light grayish blue (5B 7/1) parallel, laminated and indistinctly graded.
Minor lithology: None.

797C 27R NO RECOVERY

797C 28R NO RECOVERY

797C 29R NO RECOVERY



SITE 797 HOLE C CORE 30R CORED INTERVAL 3618.6-3627.6 mbsl; 754.0-763.0 mbsf

TIME-ROCK UNIT: Undetermined

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

PALEOMAGNETICS: R; N

PHYS. PROPERTIES: V=2475 ● 0-34.7 ρ=2.24; V=2356 ● 0-34.9 ρ=2.31; V=2392 ● 0-56.2 ρ=2.28; V=3781 ● 0-17.2 ρ=2.55

CHEMISTRY

SECTION: 1, 2, 3, 4, 5

METERS: 0.5, 1.0

GRAPHIC LITHOLOGY

DRILLING DISTURB.

SED. STRUCTURES

SAMPLES: OG

LITHOLOGIC DESCRIPTION

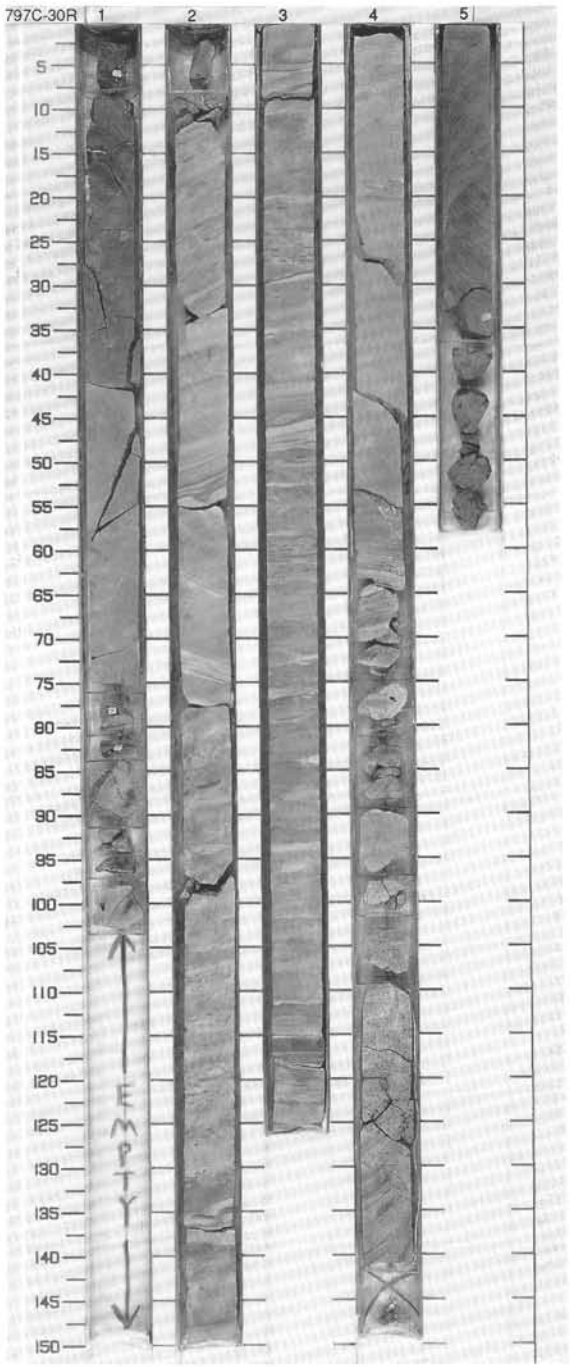
SILTSTONE AND SANDSTONE

Major lithology: SILTSTONE, medium light gray (N6) to light gray (N7); slightly bioturbated with a few small horizontal burrows, a few ovoid in shape, zoophycos? siltstone interbedded with SANDSTONE, light bluish gray (5B 7/1); thin, less than 2cm, and medium, 3-8 cm thick beds; thicker beds, sharp bases, normally graded with micro-cross lamination, planar and wavy organic-rich and carbonaceous laminae; some rip-up clasts (?); soft sediment deformation features in thinner beds; inclined beds 7-80 cm in Section 2.

Minor lithology: Claystone, medium dark gray (N4); bioturbated.

Organic carbon and carbonate (%)

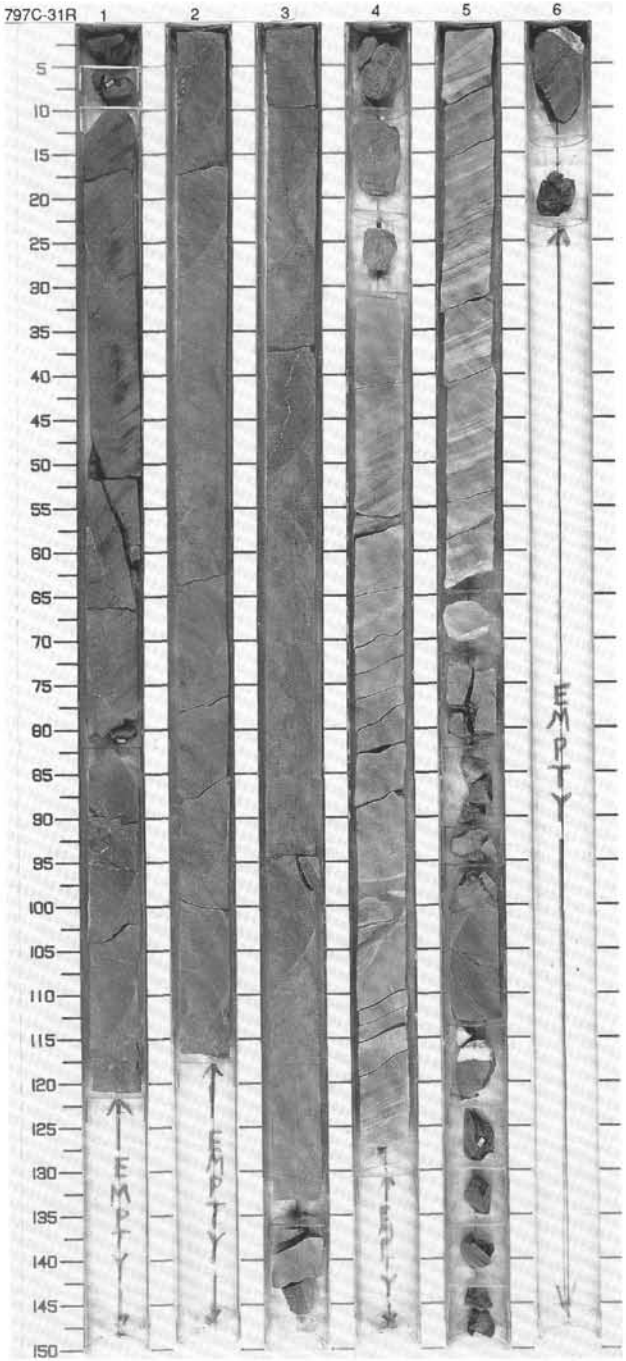
Sample	Org. C.	$CaCO_3$
4, 2	0.35	--



SITE 797 HOLE C CORE 31R CORED INTERVAL 3627.6-3637.0 mbsl: 763.0-772.4 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
Undetermined					R?	V=4735 Φ=9.50 ρ=2.72 V=4538 Φ=5.20 ρ=2.81 V=4660 Φ=9.60 ρ=2.74 V=2856 Φ=24.2 ρ=2.41 V=3195 Φ=24.7 ρ=2.53		1 2 3 4 5 6	0.5 1.0					SILTSTONE AND SANDSTONE Major lithology: SILTSTONE, olive gray (5Y 4/1) to medium dark gray (N4); slightly bioturbated with some horizontal burrows and wispy stringers interbedded with thin (1-4 cm) SANDSTONE, light gray (N7); normally graded with sharp scoured bases and soft sediment deformation features at top; some contain micro-cross laminations. Minor lithology: Claystone, medium dark gray (N5); bioturbated with some thin wispy stringers.

797C 32R NO RECOVERY



SITE 797 HOLE C CORE 33R CORED INTERVAL 3637.0-3646.2 mbsl; 781.6-791.0 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
Undetermined					R?	V=4485 Φ=10.5 ρ=2.80 V=4390 Φ=30.1 ρ=2.27 V=2446 Φ=21.2 ρ=2.50 V=2566 Φ=18.1 ρ=2.60 V=3463		1 2 3 4	0.5 1.0			TS	

LITHOLOGIC DESCRIPTION

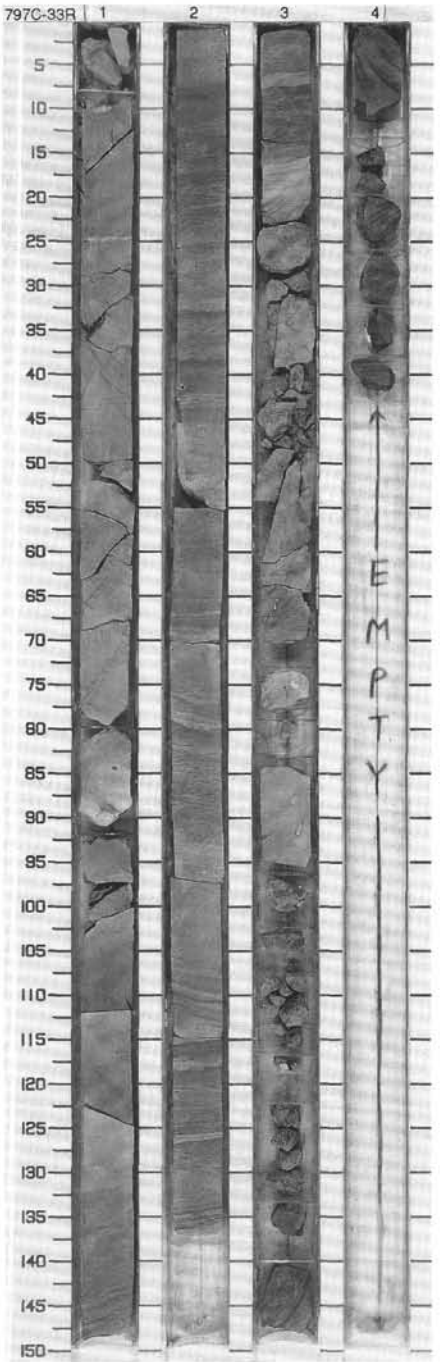
SILTSTONE AND SANDSTONE

Major lithology: SILTSTONE, olive gray (5Y 4/1); slightly to moderately carbonaceous, planar laminated with indistinct normal size grading; flattened, irregular shaped rip-up clasts or burrows; common scoured basal contacts with soft sediment deformation, flame structures. SANDSTONE, medium to very fine grained, light gray (N7); carbonaceous planar and micro-cross laminations above scoured basal contacts with soft sediment deformation. Sandstone bed sets, are commonly gradational to carbonaceous siltstones; abundant scours throughout. Upper 20 cm of sedimentary sequence in Section 1 is lighter in color, more consolidated and probably slightly baked contact with igneous rock.

Minor lithology: Bioturbated pale yellowish brown (10YR 6/2) silty claystone, commonly gradational over siltstone.

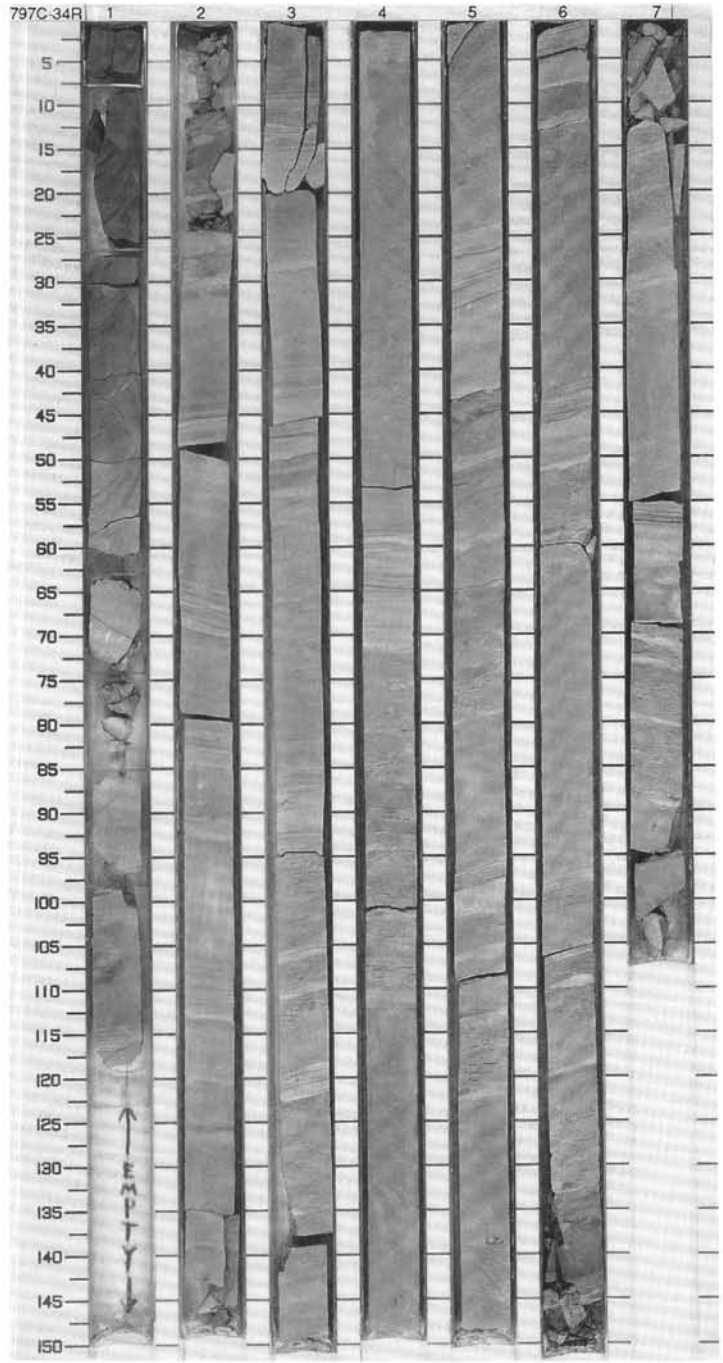
SMEAR SLIDE SUMMARY (%):

	3, 69 D
TEXTURE:	
Sand	40
Silt	50
Clay	10
COMPOSITION:	
Feldspar	10
Glass	30
Matrix	30
Mica	2
Organic matter	5
Quartz	10
Rock fragment	10



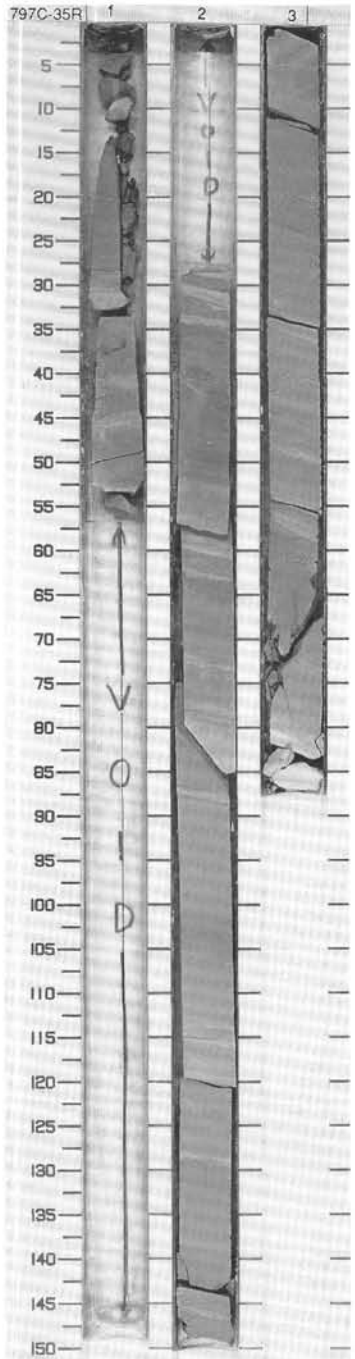
SITE 797 HOLE C CORE 34R CORED INTERVAL 3655.6-3664.9 mbsl; 791.0-800.3 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER: FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
Undetermined	B	F/M	B		R?	V=2433 ● Φ=34.9 P=2.25 V=2373 ● Φ=34.0 P=2.34 V=2432 ● Φ=34.1 P=2.27 V=2470 ● Φ=30.8 P=2.22 V=4442 Φ=8.80 P=2.70		1 2 3 4 5 6 7	0.5 1.0					SILTSTONE AND SANDSTONE Major lithology: SILTSTONE, medium gray (N5), and interbedded SANDSTONE, medium gray (N5); sharp scoured bases throughout; siltstone beds 5-15 cm commonly graded to minor silty claystone above; abundant rip-up clasts or burrows in silty intervals. Distinct fine to very-fine grained sandstone with sharp scoured basal contacts, generally graded to planar laminated siltstone and carbonaceous siltstone. Internal alternations of grain-size and sedimentary structures within bed sets; abundant planar to micro-cross laminations; carbonaceous material defines laminations in all sandstone bedsets. Minor lithology: Silty claystone, pale brown (5YR 5/2), gradational above siltstone; slightly bioturbated.



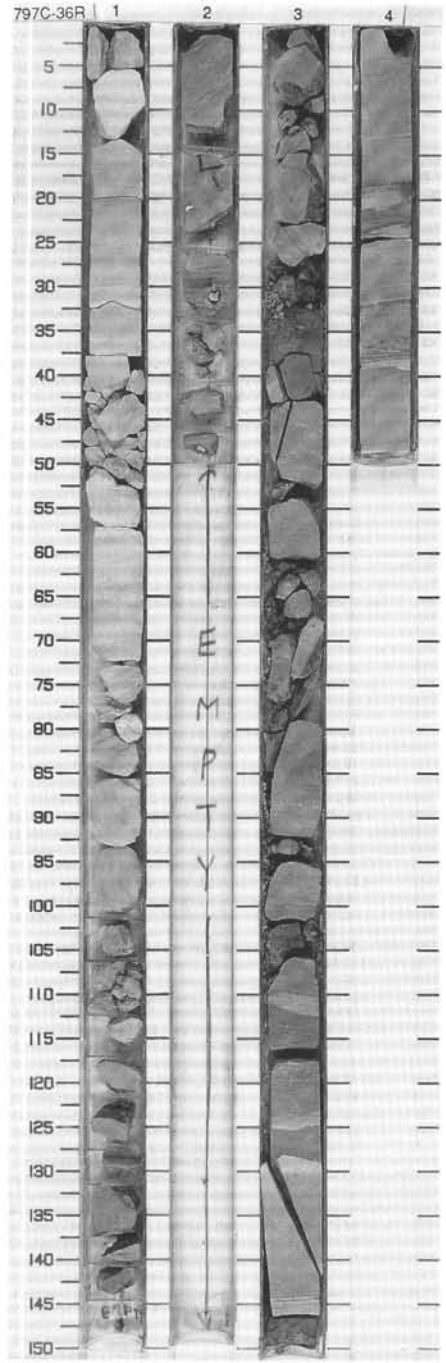
SITE 797 HOLE C CORE 35R CORED INTERVAL 3664.9-3669.4 mbsl; 800.3-804.8 mbsf

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
					R?	V-2211 ● ϕ-36.6 ρ-2.34 V-2285 ● ϕ-34.3 ρ-2.31		1	0.5 1.0					SILTSTONE, SANDSTONE AND TUFFACEOUS SILTSTONE Major lithology: SILTSTONE, SANDSTONE and TUFFACEOUS SILTSTONE, medium light gray (N6) to greenish gray (5G 6/1), in sequences with sharp basal contacts, graded bedding with upward fining from sandstone to siltstone or tuffaceous siltstone, parallel and ripple lamination in the sandstones, parallel lamination in the siltstone, sand-filled burrows below sharp contacts, possible rip-up clasts, carbonaceous silty fragments in the sandstones. Minor lithology: Tuff, very light gray (N8), planar laminated with scour contact.
								2						
								3						



SITE 797 HOLE C CORE 36R CORED INTERVAL 3669.4-3679.0 mbsl; 804.8-814.4 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
					R?	V=2499 ● Φ=33.9 ρ=2.45 V=2236 Φ=40.8 ρ=2.53 ●		1 2 3 4	0.5 1.0					SILTSTONE, SILTY CLAYSTONE, AND SANDSTONE Major lithology: SILTSTONE, SILTY CLAYSTONE, and SANDSTONE; normally graded, sandstone, light blue gray (5B 7/1), siltstone to carbonaceous debris- bearing siltstone, light gray (N8) to medium gray (N/5) to medium dark gray (N/4) and silty claystone with sharp basal contacts, planar and ripple laminations; possible flattened burrows and rare rip-up clasts; small scale soft sediment deformation; primary dip(?) to 10°. Lighter colored and more densely consolidated siltstone overlies finely crystalline mafic igneous rock; probable baked lower contact. Minor lithology: Minor pyrite, disseminated and small nodules



SITE 797 HOLE C CORE 37R CORED INTERVAL 3679.0-3688.6 mbsl; 814.4-824.0 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
					R?	V=2517 ● Φ=31.4 ρ=2.33 V=2823 ● Φ=30.9 ρ=2.35 V=2453 ● Φ=32.7 ρ=2.33 V=2399 ● Φ=33.1 ρ=2.31		1 2 3 4 5 6 CC	0.5 1.0		X	F F F F F F F F F	TS XRD

LITHOLOGIC DESCRIPTION

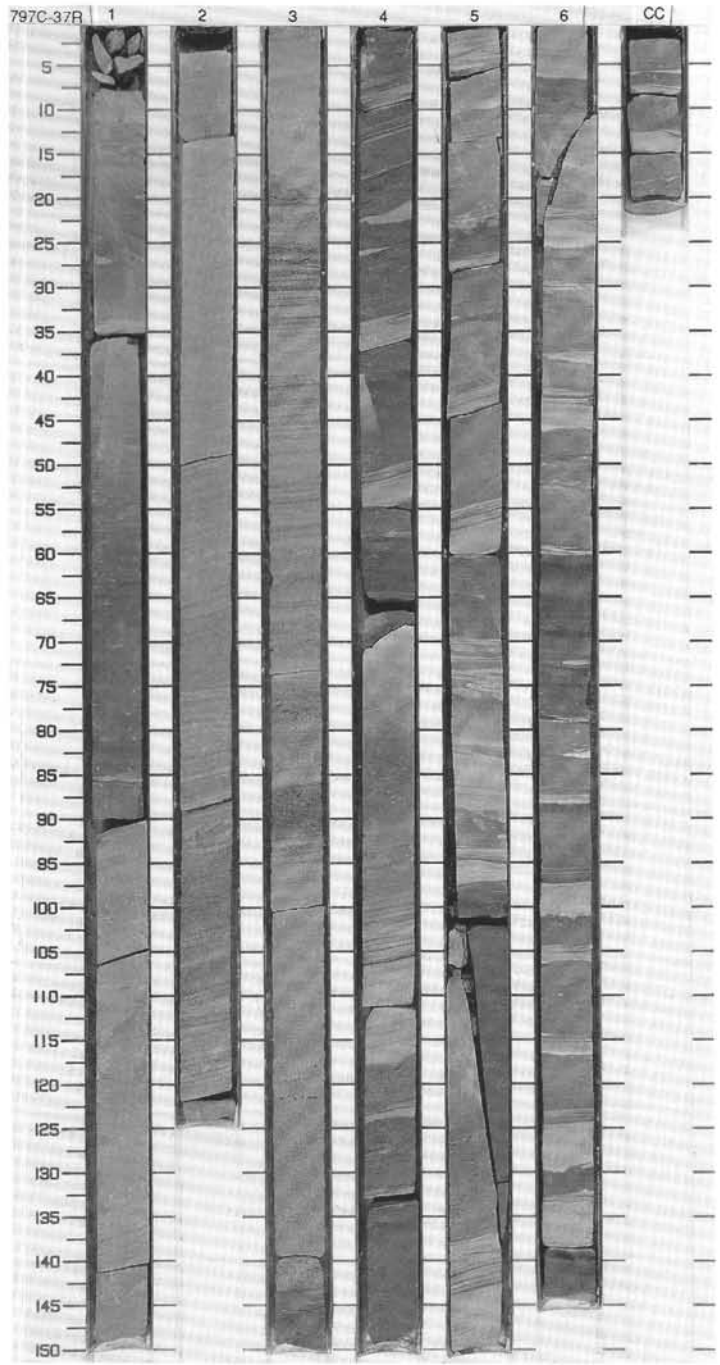
TUFFACEOUS SANDSTONE AND SILTSTONE

Major lithology: TUFFACEOUS SANDSTONE and SILTSTONE, very coarse grained and pebbly to very fine grained, carbonaceous debris bearing, medium light gray (N6) tuffaceous sandstone: very thickly bedded (>350 cm) and internally laminated, to thinly bedded with sharp basal contacts, common planar, wavy and ripple laminations, sandstone is commonly normally graded to medium gray (N5) siltstone and carbonaceous siltstone, siltstone with scour basal contacts gradational to silty claystone, very common load structures: flame structures, ball and pillow. Probable small scale contorted bedding to thinly bedded intraformational rip-up clasts breccia: slump deposits. Minor mainly vertical escape burrows.

Minor lithology: Silty claystone and calcareous claystone, brownish gray (5YR 4/1), slightly bioturbated, upper portions of graded sandstone-siltstone beds.

SMEAR SLIDE SUMMARY (%)

	3, 114 D
TEXTURE:	
Sand	90
Silt	10
COMPOSITION:	
Cement	20
Feldspar	10
Glass	5
Mica	Tr
Organic matter	Tr
Quartz	20
Rock fragment	40

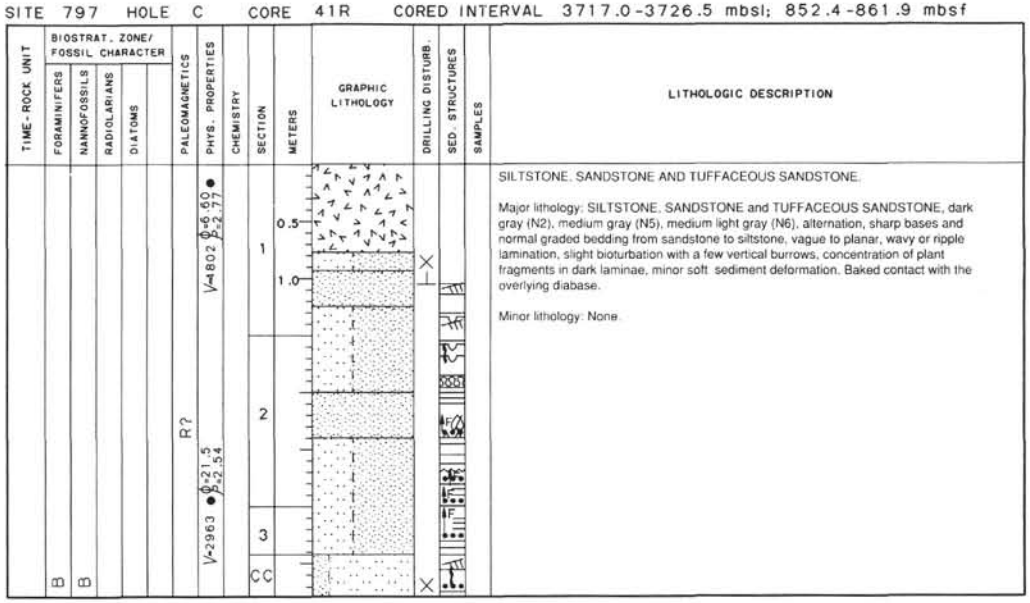


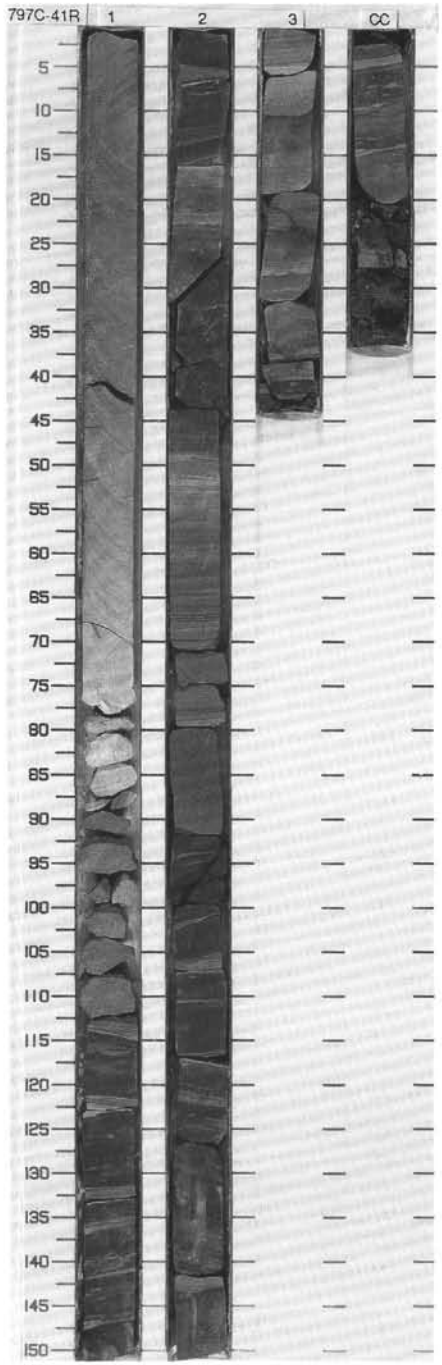
797C 38R NO RECOVERY

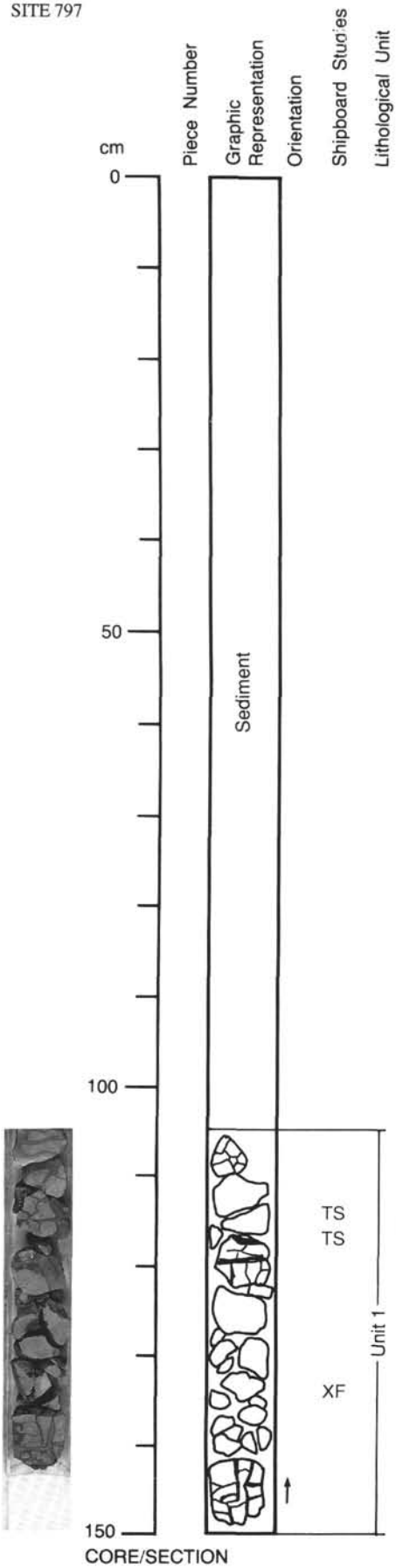
797C 39R NO RECOVERY

797C 40R NO RECOVERY

SITE 797 HOLE C CORE 41R CORED INTERVAL 3717.0-3726.5 mbsl; 852.4-861.9 mbsf





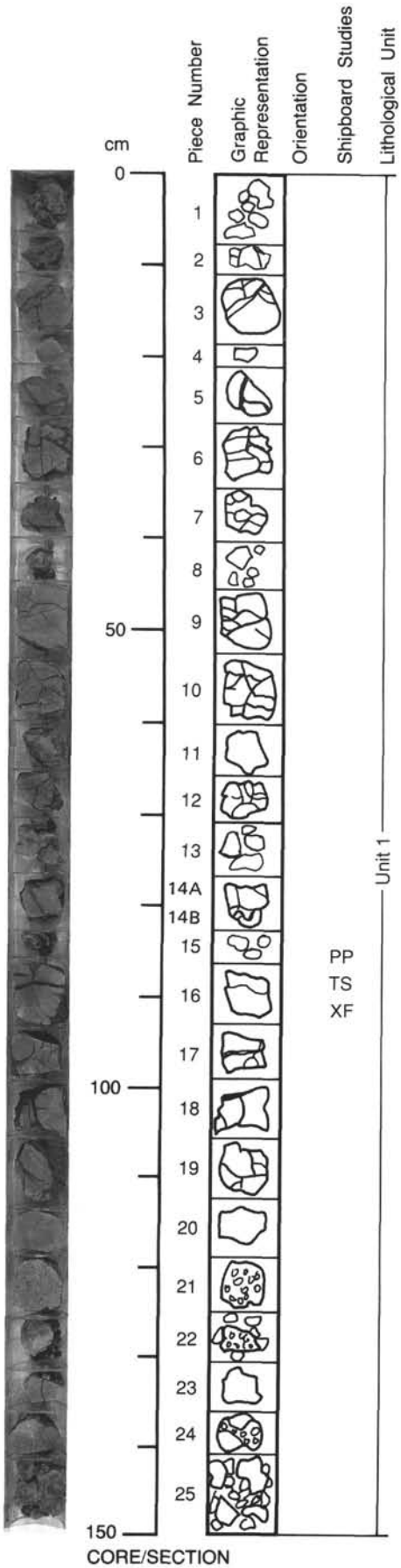


127-797C-8R-2

UNIT 1: SPARSELY PLAGIOCLASE OLIVINE PHYRIC BASALT

Pieces not numbered

CONTACTS: No chilled margin is observed at contact with sediments.
PHENOCRYSTS: Occur sometimes in glomeroporphyritic clusters.
Plagioclase - 1%; 1-2 mm; highly altered.
Olivine - 1%; 1 mm; highly altered.
GROUNDMASS: Fine-grained, microcrystalline, lath-shaped crystals.
VESICLES: Trace.
COLOR: Medium bluish gray (5B 6/1) to medium gray (5N).
STRUCTURE: Fractured.
ALTERATION: Highly altered, sometimes with a mottled appearance.
VEINS/FRACTURES: <5%; <3 mm; irregular; fractures form an interconnected network in most pieces and are filled with green clay, calcite, and subordinate pyrite.
ADDITIONAL COMMENTS: Some pieces show a zonal variation in the alteration intensity. One piece has a partly rounded surface; the alteration of this piece varies from homogeneous near the rounded surface to mottled near the opposite surface.

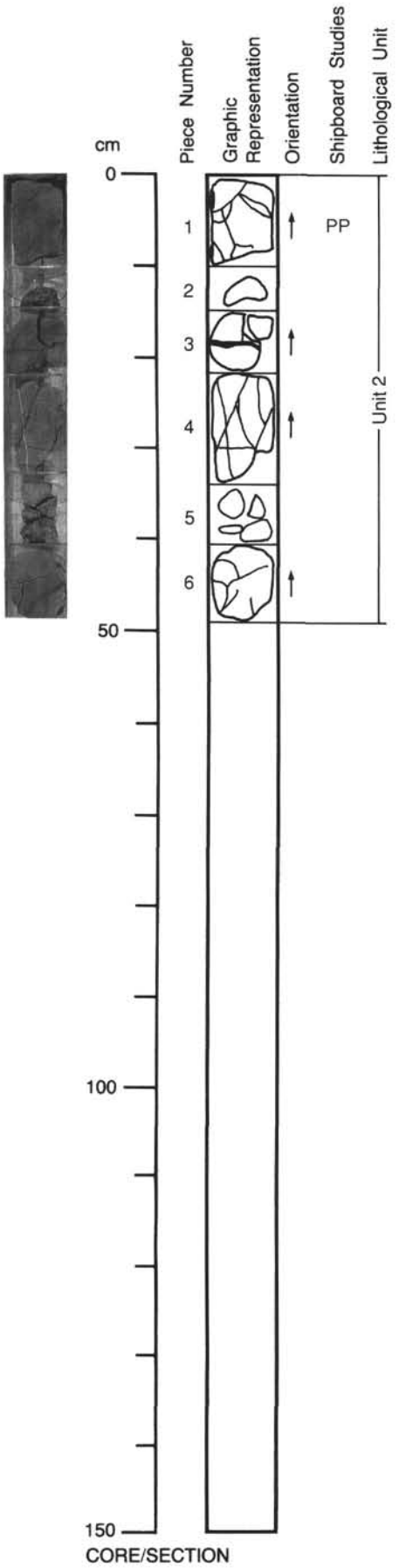


127-797C-9R-1

UNIT 1: SPARSELY PLAGIOCLASE OLIVINE PHYRIC BASALT

Pieces 1-25

CONTACTS: None.
PHENOCRYSTS:
Plagioclase - 1%; <3 mm; euhedral, totally altered to clays.
Olivine - <1%; <2 mm; euhedral to skeletal, totally altered to clays.
GROUNDMASS: Fine-grained.
VESICLES: Trace.
COLOR: Medium gray (N5).
STRUCTURE: Highly fractured massive basalt. Appears as subangular Pieces in core.
ALTERATION: Highly to very highly altered, phenocrysts totally replaced.
VEINS/FRACTURES: <1-5%; <5 mm; random; filled with green, soft clays, and rare pyrite.
ADDITIONAL COMMENTS: Subangular pieces of lithic conglomerate in Pieces 13, 21, 22, 24, and 25 interspersed with basalt pieces. Continued from 127-797C-8R-2.

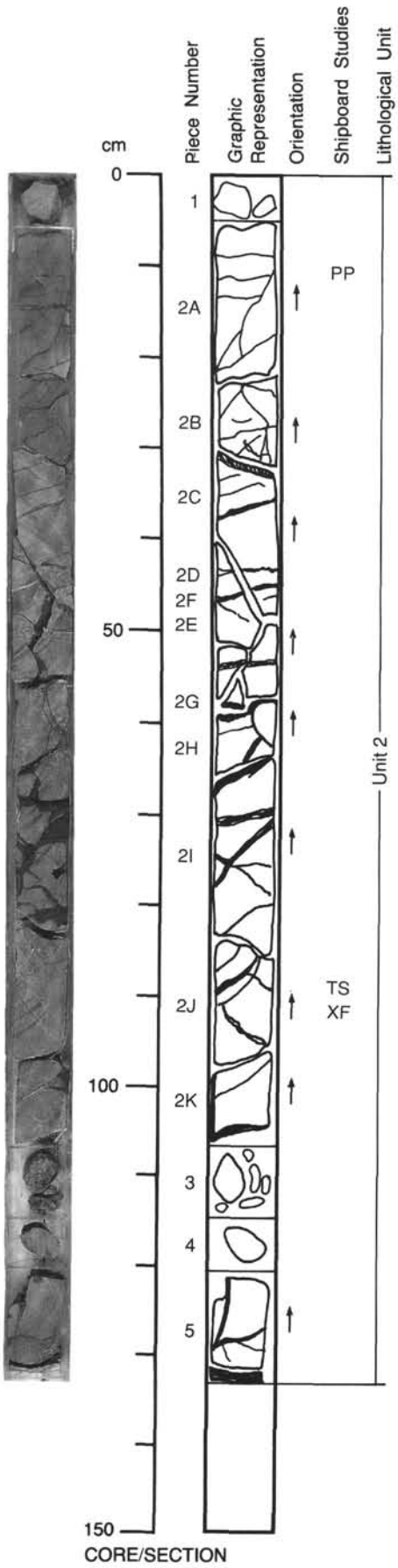


127-797C-9R-2

UNIT 2: SPARSELY OLIVINE PLAGIOCLASE PHYRIC BASALT

Pieces 1-6

CONTACTS: None.
PHENOCRYSTS:
Plagioclase - <1%; <2 mm; euhedral, totally altered to clays.
Olivine - <1%; <1 mm; euhedral to skeletal, totally altered to clays.
GROUNDMASS: Fine-grained.
VESICLES: None.
COLOR: Medium gray (N5).
STRUCTURE: Highly fractured. Appear as loose, subangular pieces in core.
ALTERATION: Highly altered.
VEINS/FRACTURES: 1%; <2 mm; random; filled with soft, green clays.

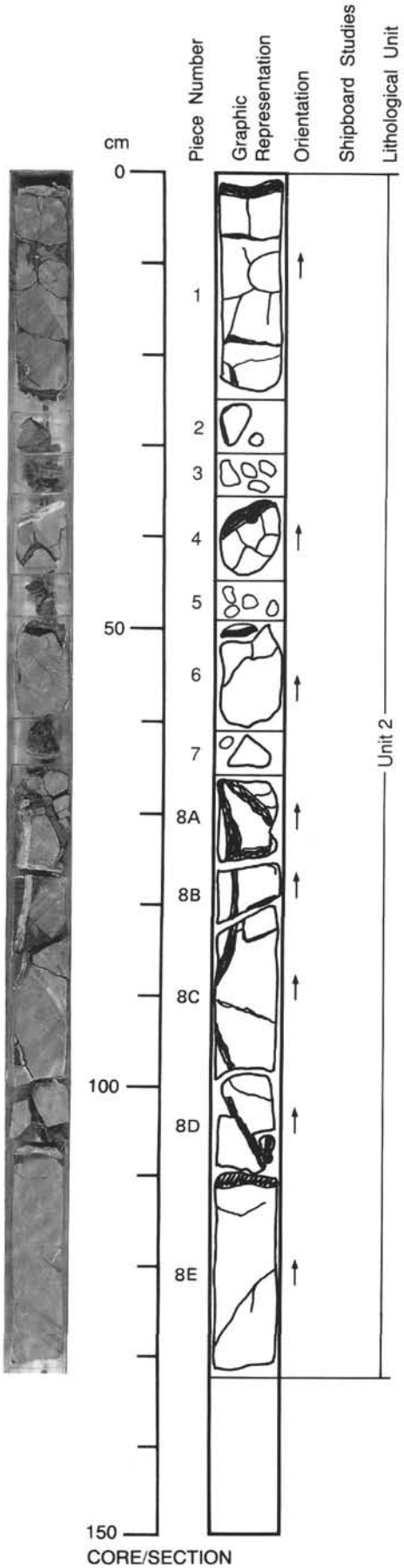


127-797C-10R-1

UNIT 2: SPARSELY PLAGIOCLASE OLIVINE PHYRIC BASALT

Pieces 1-5

CONTACTS: None.
PHENOCRYSTS:
Plagioclase - <1%; <2 mm; euhedral, altered to clays.
Olivine - <1%; <1 mm; euhedral, altered to secondary minerals.
GROUNDMASS: Fine-grained to microcrystalline.
VESICLES: None.
COLOR: Medium dark gray (N4).
STRUCTURE: Highly fractured.
ALTERATION: Highly altered.
VEINS/FRACTURES: 2%; <10 mm; random; fractures often filled by greenish to white (calcite) secondary minerals.
ADDITIONAL COMMENTS: Continued from 127-797C-9R-2.

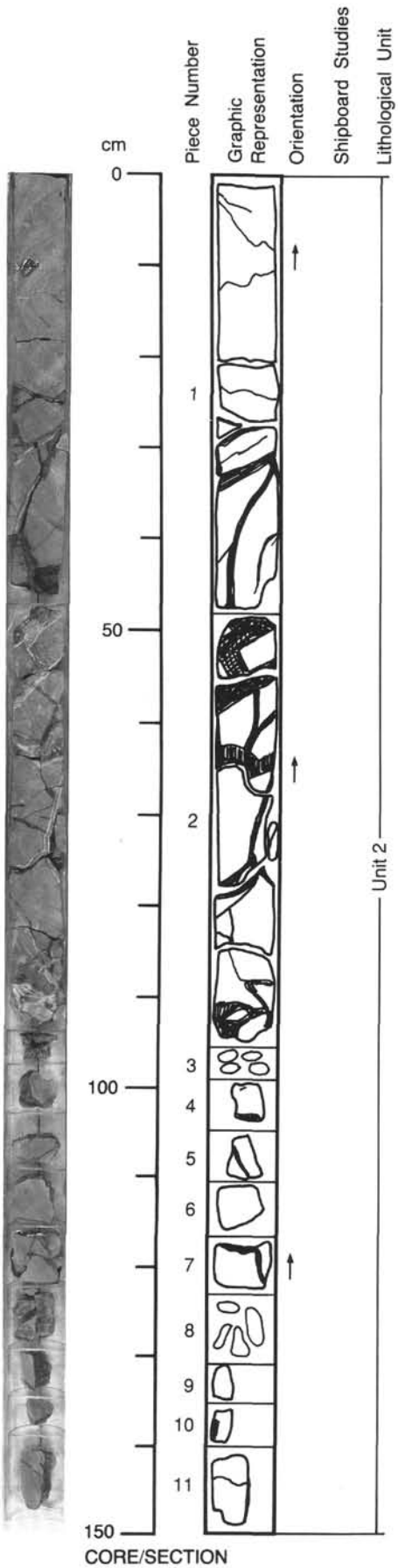


127-797C-10R-2

UNIT 2: SPARSELY PLAGIOCLASE OLIVINE PHYRIC BASALT

Pieces 1-8E

CONTACTS: None.
PHENOCRYSTS:
Plagioclase - <1%; <2 mm; euhedral, altered to clays.
Olivine - <1%; <1 mm; euhedral, altered to clays.
GROUNDMASS: Fine-grained.
VESICLES: None.
COLOR: Medium dark gray (N4).
STRUCTURE: Fractured.
ALTERATION: Highly altered.
VEINS/FRACTURES: 4%; <15 mm; random; fractures filled by either dark green clay minerals or a mixture of light green clay minerals and calcite. Pyrite is present in the center of vein in Piece 8B.
ADDITIONAL COMMENTS: Continued from 127-797C-10R-1.

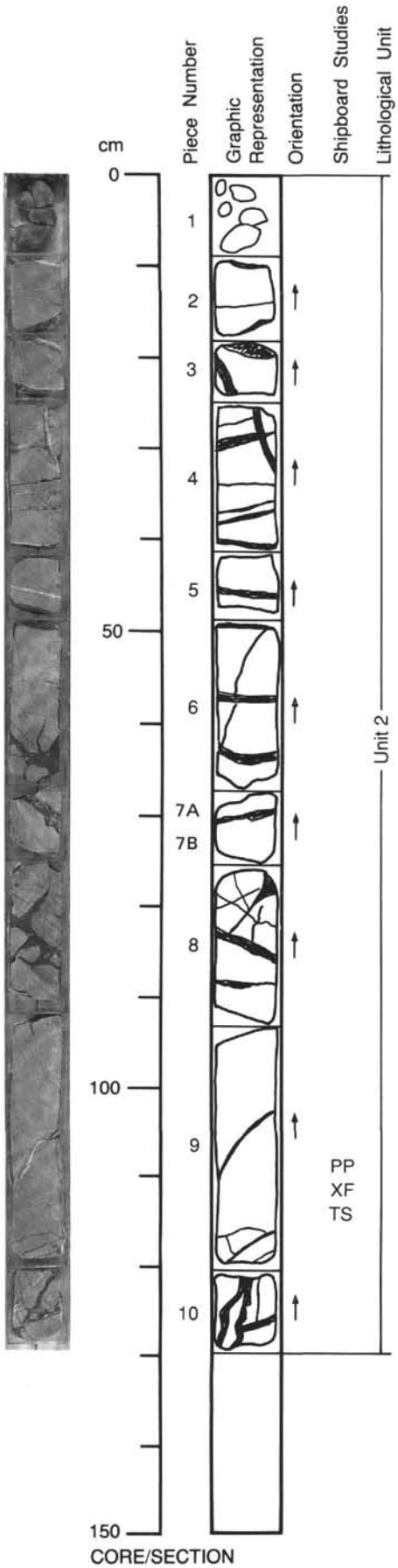


127-797C-10R-3

UNIT 2: SPARSELEY PLAGIOCLASE OLIVINE PHYRIC BASALT

PIECES 1-11

CONTACTS: None.
PHENOCRYSTS:
Plagioclase - <1%; <2 mm; euhedral, totally altered to clays.
Olivine - <1%; <1 mm; euhedral, totally altered to clays.
GROUNDMASS: Fine-grained.
VESICLES: None.
COLOR: Medium dark gray (N4).
STRUCTURE: Fractured.
ALTERATION: Highly altered.
VEINS/FRACTURES: 4%; <15 mm; random; fillings by either dark green clay minerals, calcite, or a mixture of calcite and a light green clay mineral. Continued from 127-797C-10R-2.

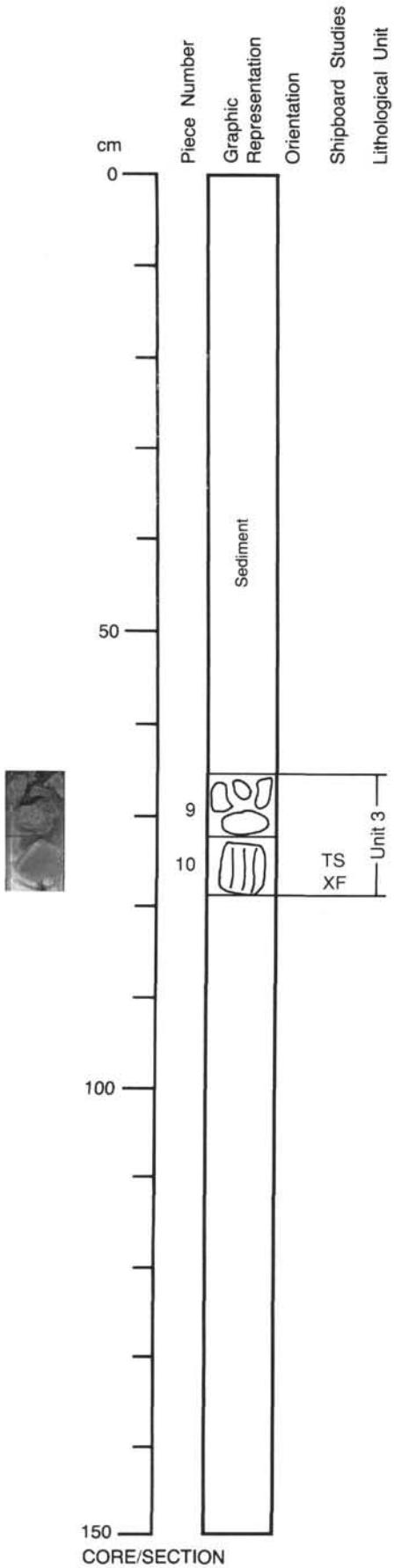


127-797C-10R-4

UNIT 2: SPARSELY PLAGIOCLASE PHYRIC BASALT

Pieces 1-10

CONTACTS: None.
PHENOCRYSTS: Mostly altered to secondary minerals.
Plagioclase - 1%; <2 mm; euhedral.
GROUNDMASS: Fine-grained.
VESICLES: None.
COLOR: Medium dark gray (N4).
STRUCTURE: Fractured.
ALTERATION: Highly altered.
VEINS/FRACTURES: 4%; <10 mm; random; same types of veins as 127-797C-10R-3.
ADDITIONAL COMMENTS: Continued from 127-797C-10R-3.

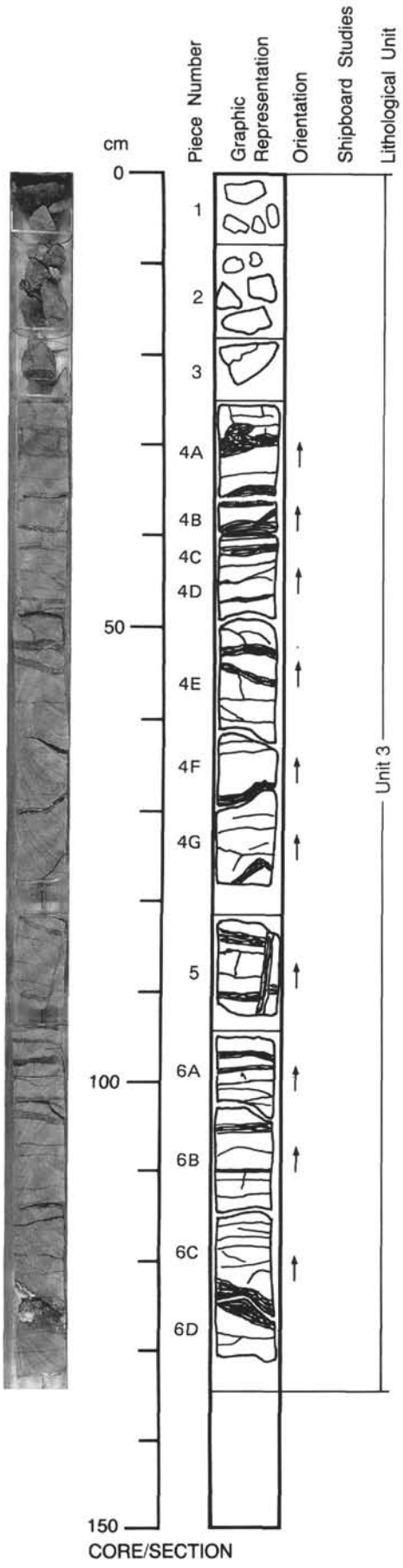


127-797C-11R-1

UNIT 3: SPARSELY PLAGIOCLASE OLIVINE PHYRIC BASALT

Pieces 9-10

CONTACTS: None.
PHENOCRYSTS: Partially altered to secondary minerals.
Plagioclase - trace; <1 mm; euhedral.
Olivine - trace; <1 mm; euhedral.
GROUNDMASS: Fine-grained.
VESICLES: None.
COLOR: Light gray (N7) to medium gray (N5).
STRUCTURE: Basalt fragments in Piece 9 are fractured.
ALTERATION: Medium to highly altered.
VEINS/FRACTURES: Filled with green clay.
ADDITIONAL COMMENTS: Occur as drilling rubble consisting of claystone and basalt fragments. Piece 10 shows concentric color zoning towards lighter at finer grained part of the piece and may be represent a chilled margin.

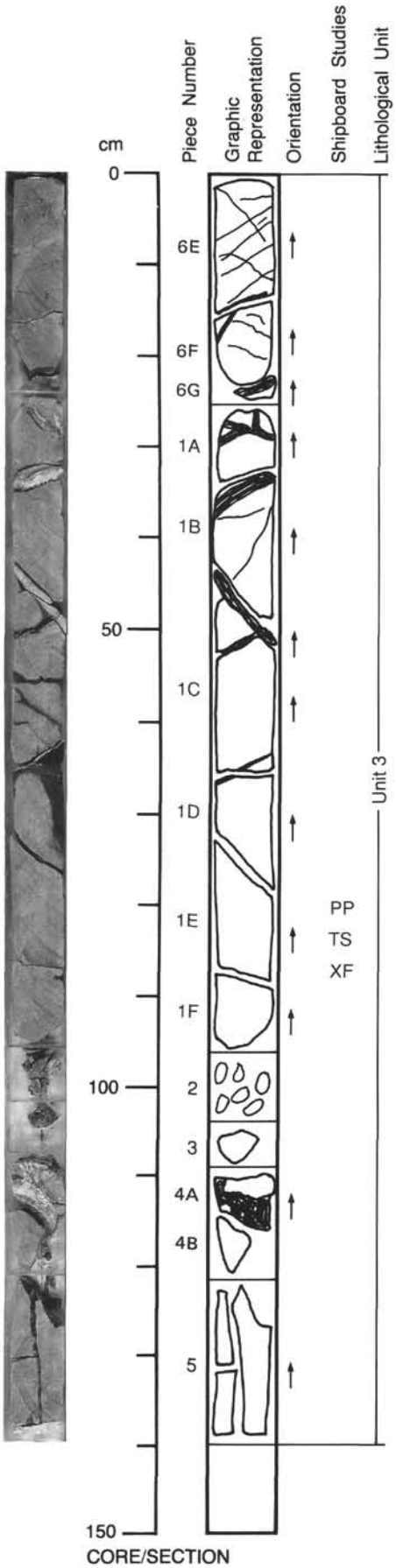


127-797C-12R-1

UNIT 3: APHYRIC BASALT

Pieces 1-6D

CONTACTS: None.
PHENOCRYSTS: Altered.
Plagioclase - <1%; <1 mm; euhedral.
GROUNDMASS: Fine-grained, interstitial.
VESICLES: None.
COLOR: Medium dark gray (N4).
STRUCTURE: Highly fractured.
ALTERATION: Medium-to highly altered.
VEINS/FRACTURES: 5-10%; <30 mm; dominantly perpendicular to core; filled with green clay and carbonate mineral.
ADDITIONAL COMMENTS: Pieces 1 and 2 occur as drilling rubble consisting of claystone and basalt fragments. Continued from 127-797C-11R-1.

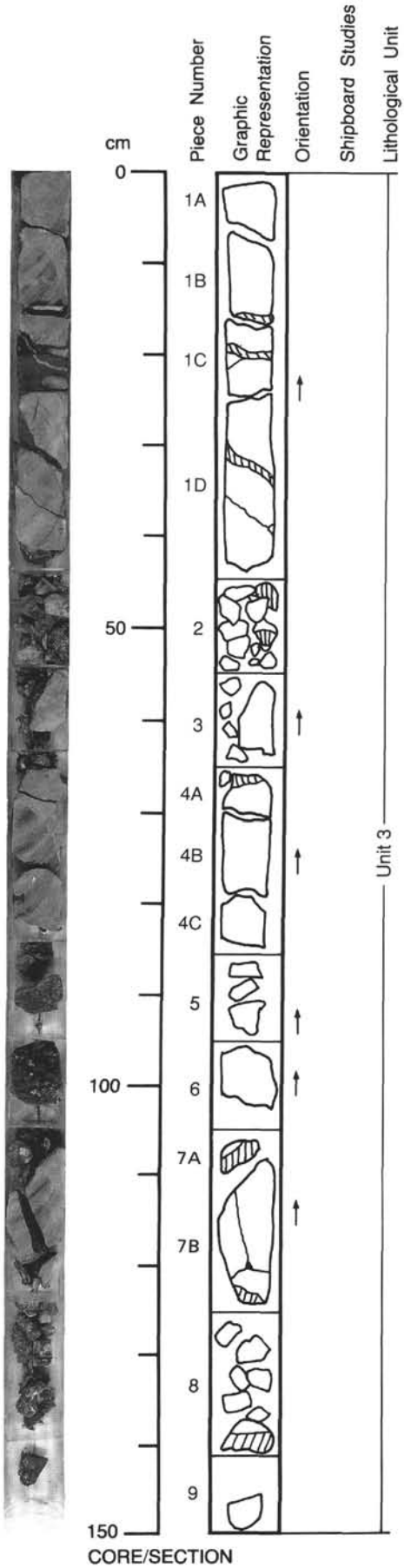


127-797C-12R-2

UNIT 3: APHYRIC BASALT

Pieces 6A-6G, 1-5

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained.
VESICLES: None.
COLOR: Medium dark gray (N4).
STRUCTURE: Fractured.
ALTERATION: Highly altered.
VEINS/FRACTURES: 4%; <30 mm; random; filled by dark green clays, calcite, pyrite, and grayish green clay minerals.
ADDITIONAL COMMENTS: Pebble Pieces 2-3 are mainly composed of fragments of vein material. Continued from 127-797C-12R-1.



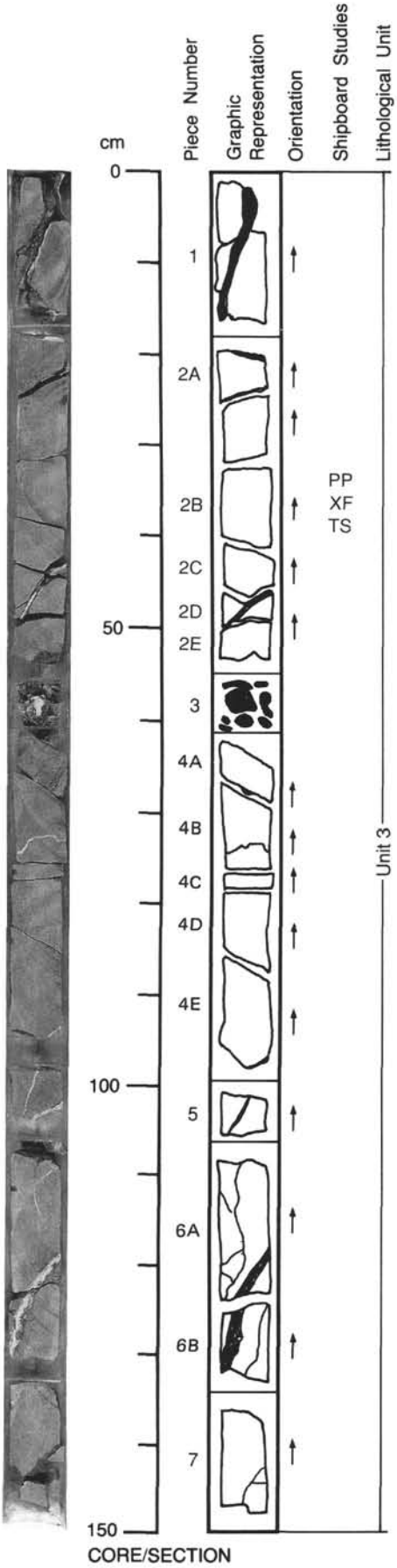
Vein

127-797C-12R-3

UNIT 3: APHYRIC BASALT

Pieces 1A-9

CONTACTS: None.
PHENOCRYSTS: Altered to clay minerals.
Plagioclase - trace; <1 mm; euhedral.
GROUNDMASS: Fine-grained.
VESICLES: None.
COLOR: Medium light gray (N4).
STRUCTURE: Fractured.
ALTERATION: Moderately altered.
VEINS/FRACTURES: <5%; 2-10 mm; random; filled with carbonate and green clay.
ADDITIONAL COMMENTS: Continued from 127-797C-12R-2.

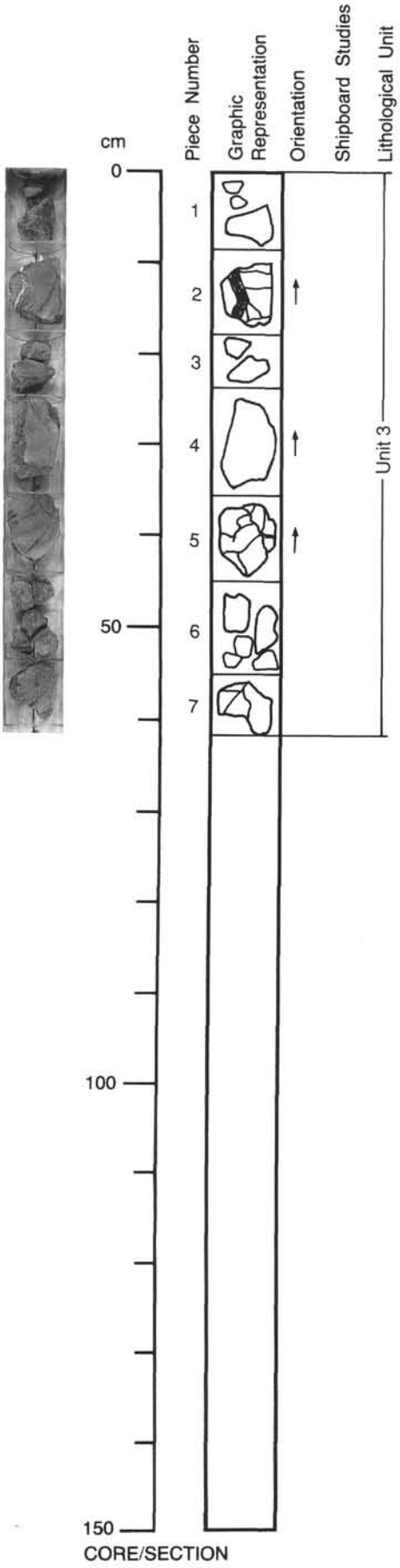


127-797C-12R-4

UNIT 3: APHYRIC BASALT

Pieces 1-7

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained, interstitial.
VESICLES: None.
COLOR: Medium light gray (N6).
STRUCTURE: Fractured.
ALTERATION: Moderately to highly altered.
VEINS/FRACTURES: <5%; <10 mm; random; veins are filled with green clays and fibrous calcite. Some pieces show two generations of veins, the first generation is filled with green clays, the second generation is filled with fibrous calcite.
ADDITIONAL COMMENTS: Piece 3 is pebbles of vein fill material. Continued from 127-797C-12R-3.

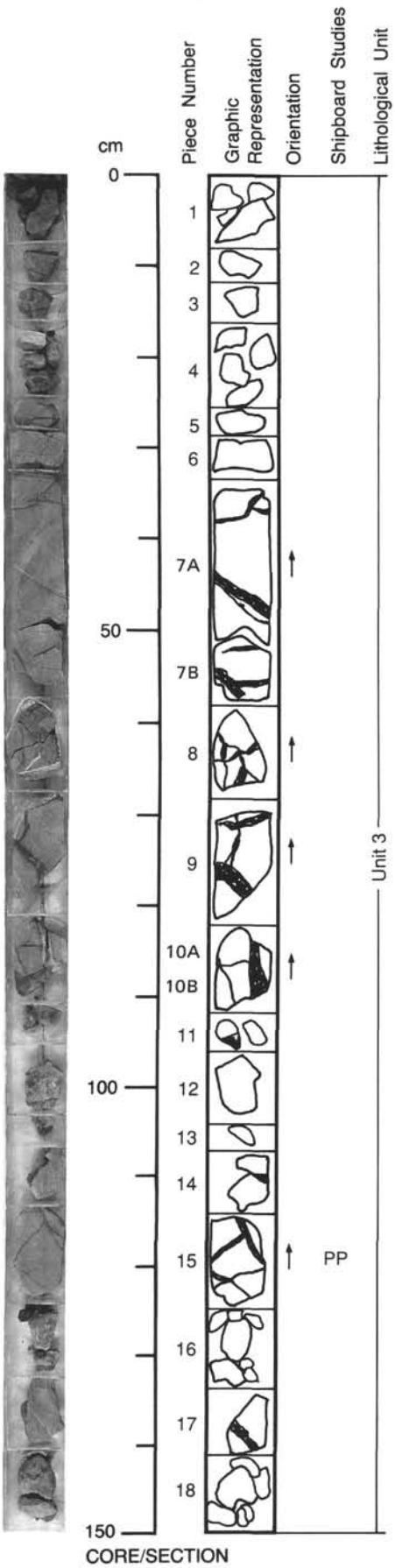


127-797C-12R-5

UNIT 3: APHYRIC BASALT

Pieces 1-7

CONTACTS: None.
PHENOCRYSTS:
Plagioclase - <1%; <2 mm; euhedral - subhedral.
GROUNDMASS: Fine-grained, interstitial.
VESICLES: None.
COLOR: Medium light gray (N6).
STRUCTURE: Fractured.
ALTERATION: Moderately altered.
VEINS/FRACTURES: <2%; <10 mm; random; veins are filled with green clays and fibrous calcite. Two generations of vein filling occur - the first generation is green clays which is crosscut by the second generation fibrous calcite.
ADDITIONAL COMMENTS: Continued from 127-797C-12R-4.



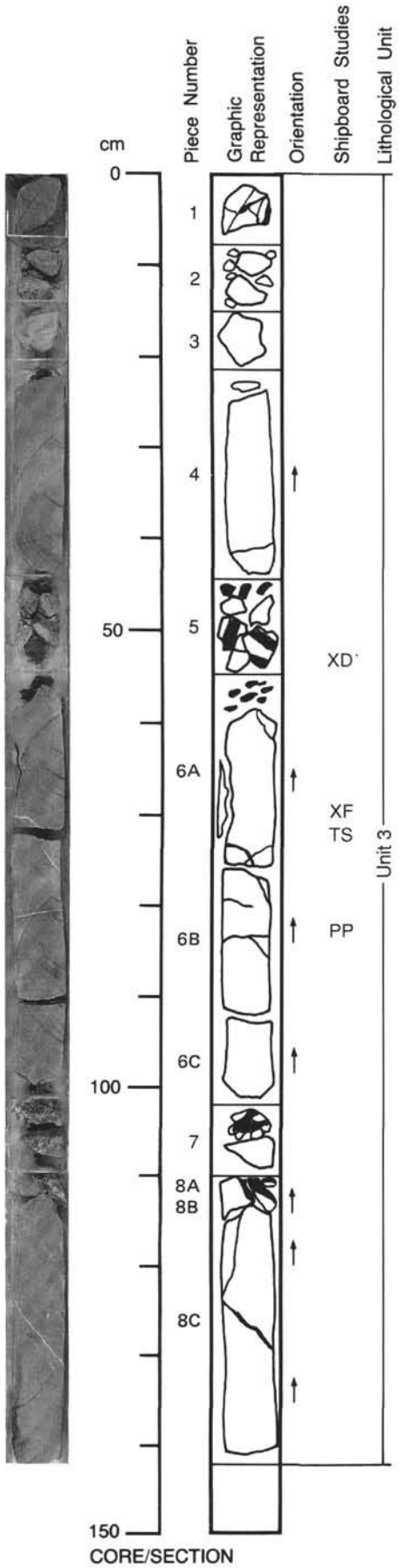
Vein

127-797C-13R-1

UNIT 3: APHYRIC BASALT

Pieces 1-18

CONTACTS: None.
PHENOCRYSTS: Altered.
Plagioclase - trace; <1 mm.
GROUNDMASS: Fine-grained, interstitial.
VESICLES: None.
COLOR: Medium bluish gray (5B 6/1).
STRUCTURE: Massive.
ALTERATION: Highly altered, sometimes mottled appearance.
VEINS/FRACTURES: 5%; <1-10 mm; random; filled with carbonate, green clay, dark green clay. Pyrite is sometimes present.
ADDITIONAL COMMENTS: Continued from 127-797C-12R-5.

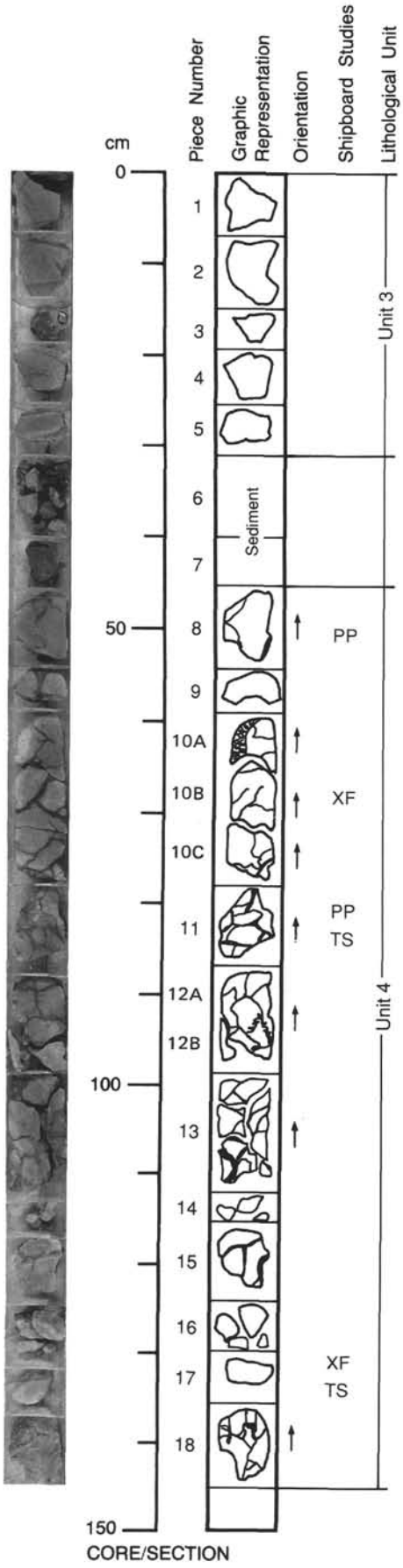


127-797C-13R-2

UNIT 3: APHYRIC BASALT

Pieces 1-8C

CONTACTS: None.
PHENOCRYSTS:
Plagioclase - <1%; <2 mm; euhedral, altered to clay minerals.
GROUNDMASS: Fine-grained, interstitial.
VESICLES: None.
COLOR: Medium light gray (N6).
STRUCTURE: Fractured.
ALTERATION: Highly altered.
VEINS/FRACTURES: <2%; <10 mm; random; veins are filled with green clays, calcite, and minor pyrite.
ADDITIONAL COMMENTS: Continued from 127-797C-13R-1.



127-797C-14R-1

UNIT 3: APHYRIC BASALT

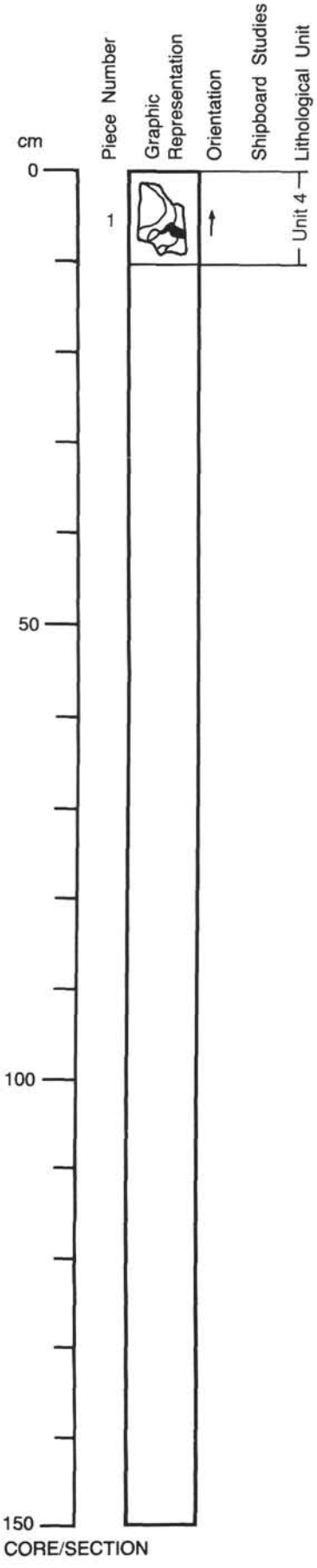
Pieces 1-5

CONTACTS: None.
PHENOCRYSTS:
Plagioclase - <1%; <2 mm; euhedral, altered.
GROUNDMASS: Fine-grained, interstitial.
VESICLES: None.
COLOR: Medium gray (N5).
STRUCTURE: Fractured.
ALTERATION: Highly altered.
VEINS/FRACTURES: <2%; <2 mm; random; veins are filled with green clays, calcite, and minor pyrite.
ADDITIONAL COMMENTS: Piece 5 has a medium light gray (N6) edge which has spherulitic groundmass texture. This edge may be a contact against the underlying claystone. Continued from 127-797C-13R-2.

UNIT 4: BRECCIATED APHYRIC BASALT

Pieces 8-18

CONTACTS: None.
PHENOCRYSTS:
Plagioclase - <1%; <2 mm; euhedral, altered.
GROUNDMASS: Fine-grained, interstitial.
VESICLES: None.
COLOR: Medium gray (N5) to medium light gray (N6).
STRUCTURE: Pieces 8-10 are fractured basalt. Pieces 11-18 are clast supported basalt breccia with clast sizes from 1 mm to 50 mm.
ALTERATION: Highly altered. Breccia clasts have two alteration rims - an inner pinkish rim approximately 5 mm thick and a white outer rim <1 mm thick. Pieces 8 and 9 show mottled alteration.
VEINS/FRACTURES: 2%; <10 mm; random; veins occur in Pieces 8-10 and are filled with green clays and minor pyrite. 10 mm thick vein in Piece 10A may be a zone of fine brecciation now altered to clays.
ADDITIONAL COMMENTS: Breccia matrix is composed of green clays. Piece 6 is composed of basalt and claystone fragments. Piece 7 is silt-bearing claystone, medium dark gray (N4) with slight laminations.

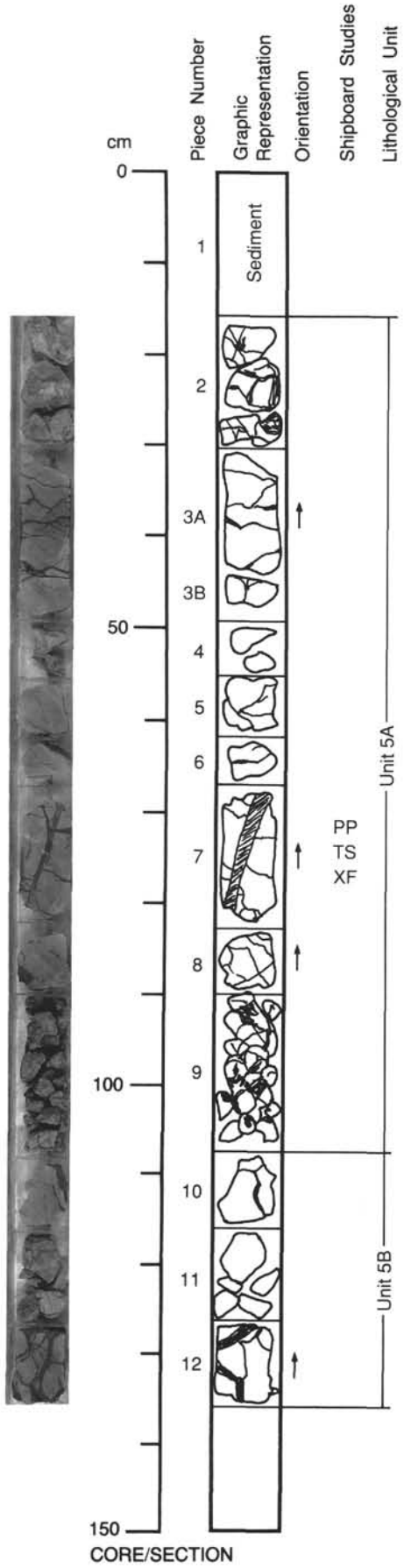


127-797C-14R-2

UNIT 4: APHYRIC BASALT

Piece 1

CONTACTS: None.
PHENOCRYSTS:
Plagioclase - <1%; <1 mm; euhedral, altered.
GROUNDMASS: Fine-grained, interstitial.
VESICLES: None.
COLOR: Medium gray (N5).
STRUCTURE: Fractured.
ALTERATION: Highly altered, mottled alteration. A thin (<1 mm) white zone of alteration occurs immediately adjacent to veins, and a diffuse pinkish zone of alteration occurs for a further 5 mm away from veins.
VEINS/FRACTURES: <1%; <10 mm; random; veins are filled with green clays.
ADDITIONAL COMMENTS: Continued from 127-797C-14R-1.



Vein

127-797C-15R-1

UNIT 5A: APHYRIC BASALT

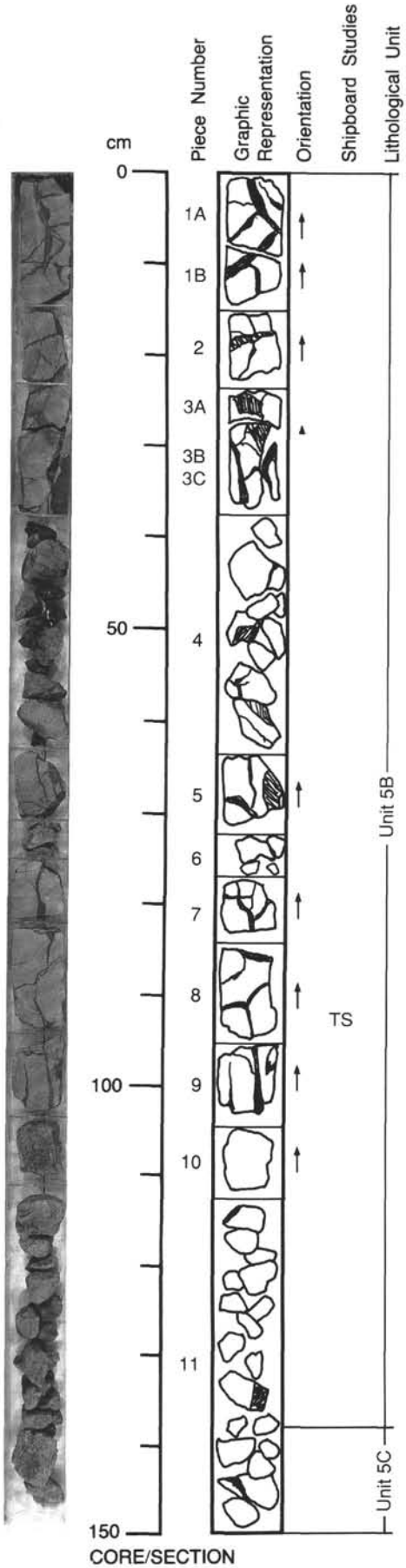
Pieces 2-9

CONTACTS: None.
PHENOCRYSTS:
Plagioclase - trace; <1; altered.
GROUNDMASS: Fine-grained, interstitial.
VESICLES: None.
COLOR: Medium bluish gray (5B 6/1).
STRUCTURE: Fractured. Lowermost and uppermost pieces of the subunit are brecciated.
ALTERATION: Highly altered.
VEINS/FRACTURES: <5%; <1-5 mm; random; filled with green clay, subordinate carbonate, and pyrite.
ADDITIONAL COMMENTS: Subunit 5A is defined by a finer grain-size compared to the lower Subunit 5B.

UNIT 5B: APHYRIC BASALT

Pieces 10-12

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained, interstitial.
VESICLES: None.
COLOR: Medium bluish gray (5B 6/1).
STRUCTURE: Fractured.
ALTERATION: Highly altered.
VEINS/FRACTURES: <5%; <1-10 mm; random; filled with green clay, subordinate carbonate, and pyrite.
ADDITIONAL COMMENTS: Subunit 5B is defined by a coarser grain-size compared to Subunit 5A.



Vein

127-797C-15R-2

UNIT 5B: APHYRIC BASALT

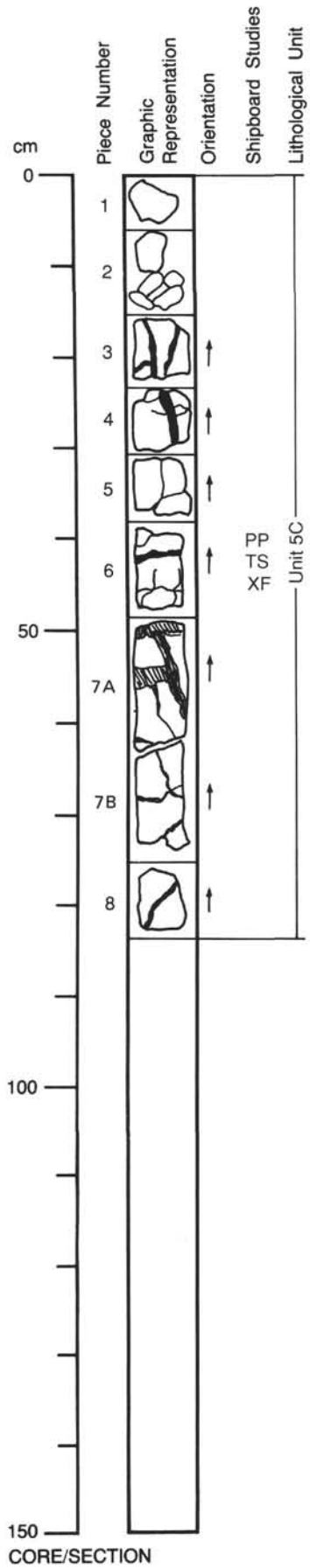
Pieces 1A-11 (to 138 cm)

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained, interstitial.
VESICLES: None.
COLOR: Medium bluish gray (5B 6/1).
STRUCTURE: Fractured.
ALTERATION: Highly altered.
VEINS/FRACTURES: <5%; <1-10 mm; random; filled with greenish clay, subordinate carbonate, and pyrite. Subunit 5B is relatively coarser grained than Subunit 5A. Continued from 127-797C-15R-1.

UNIT 5C: APHYRIC BASALT

Piece 11 (from 138 cm)

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained, interstitial.
VESICLES: None.
COLOR: Medium bluish gray (5B 6/1).
STRUCTURE: Fractured.
ALTERATION: Highly altered.
VEINS/FRACTURES: <5%; <3 mm; unknown; filled with greenish clay.
ADDITIONAL COMMENTS: Subunit 5C is defined by its coarser grain-size of the groundmass compared to Subunit 5B.



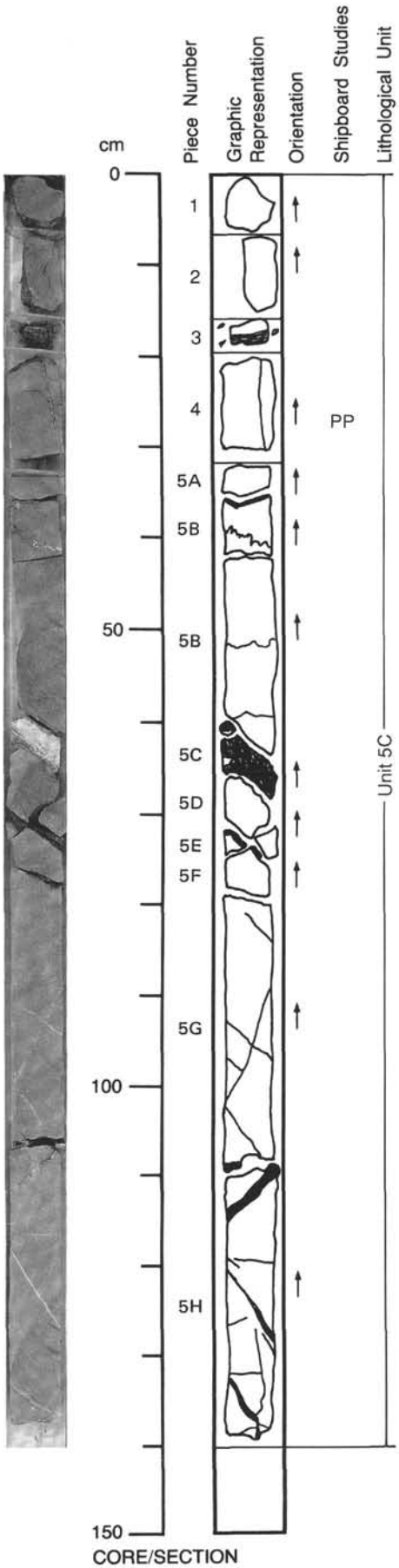
Vein

127-797C-15R-3

UNIT 5C: APHYRIC BASALT

Pieces 1-8

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained, interstitial.
VESICLES: None.
COLOR: Medium bluish gray (5B 6/1).
STRUCTURE: Fractured.
ALTERATION: Highly altered.
VEINS/FRACTURES: 5%; <1-10 mm; random; filled with light and dark green clays, carbonate, and subordinate pyrite. Piece 7A includes thick (10 mm) vein consisting of light green clay, carbonate, and small amount of pyrite.
ADDITIONAL COMMENTS: Continued from 127-797C-15R-2.

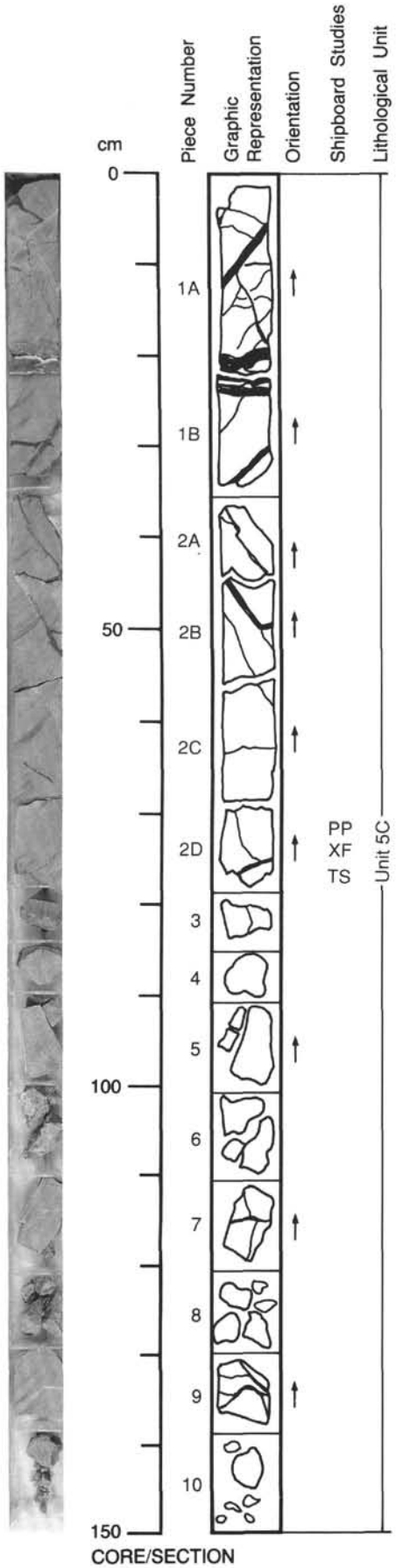


127-797C-16R-1

UNIT 5C: APHYRIC BASALT

Pieces 1-5H

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained, interstitial.
VESICLES: None.
COLOR: Medium gray (N5).
STRUCTURE: Massive.
ALTERATION: Highly altered.
VEINS/FRACTURES: <3%; <30 mm; random; veins are filled with green clays, calcite, and minor pyrite. Multiple generations of vein filling are seen in thicker veins.
ADDITIONAL COMMENTS: Continued from 127-797C-15R-3.

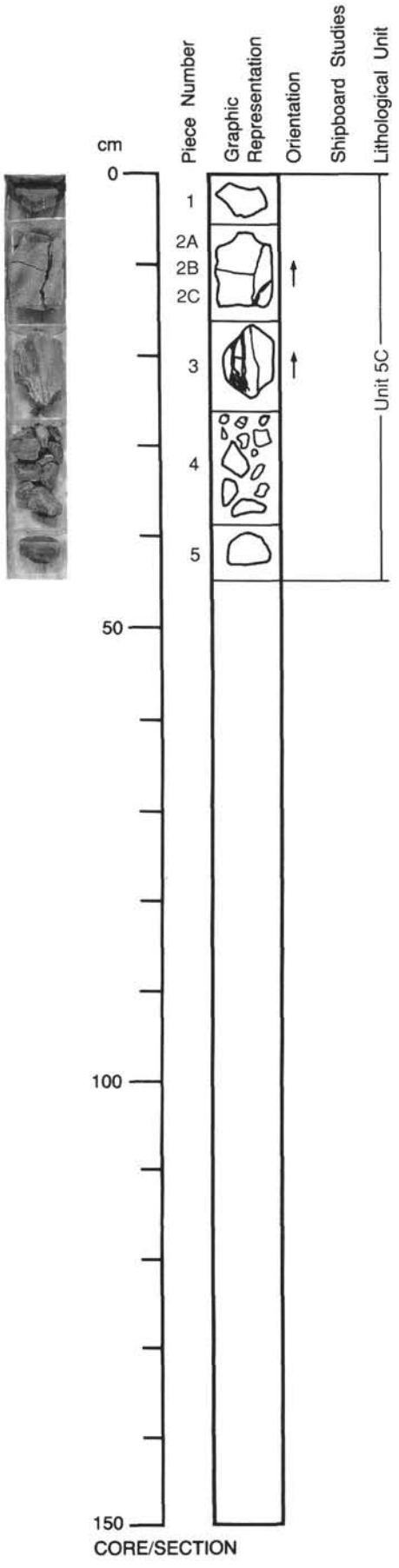


127-797C-16R-2

UNIT 5C: APHYRIC BASALT

Pieces 1-10

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained, interstitial.
VESICLES: None.
COLOR: Medium gray (N5).
STRUCTURE: Massive.
ALTERATION: Highly altered.
VEINS/FRACTURES: <3%; <30 mm; random; veins are filled with green clays, calcite, and minor pyrite.
ADDITIONAL COMMENTS: Continued from 127-797C-16R-1.

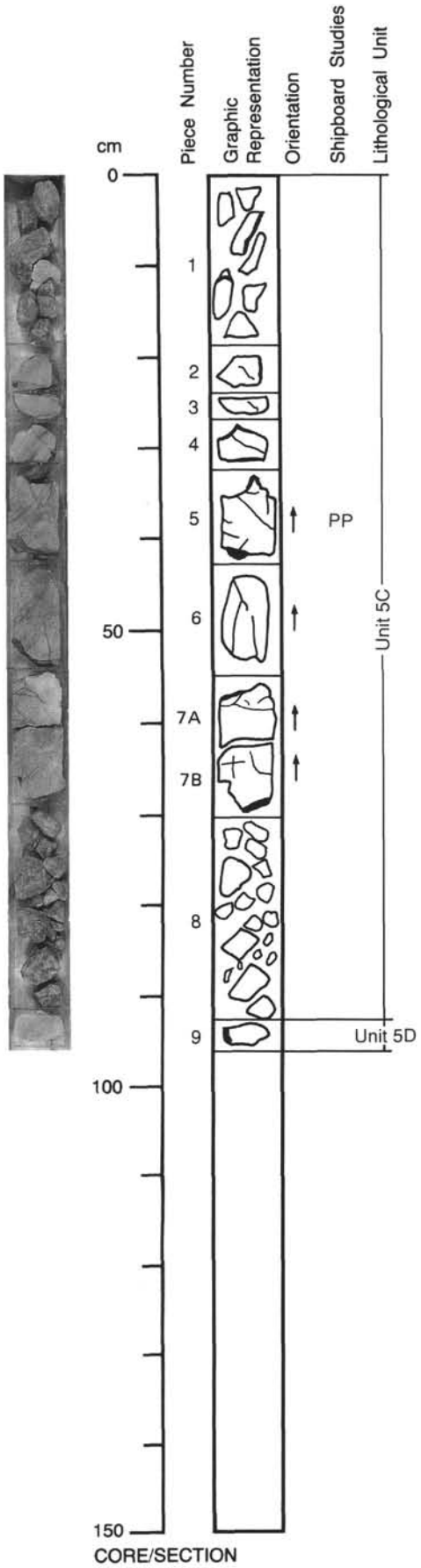


127-797C-16R-3

UNIT 5C: APHYRIC BASALT

Pieces 1-5

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained, interstitial.
VESICLES: None.
COLOR: Medium bluish gray (5B 5/1).
STRUCTURE: Fractured.
ALTERATION: Highly altered.
VEINS/FRACTURES: 5%; <20 mm; random; filled with green clays and subordinate calcite.
ADDITIONAL COMMENTS: Continued from 127-797C-16R-2.



127-797C-17R-1

UNIT 5C: APHYRIC BASALT

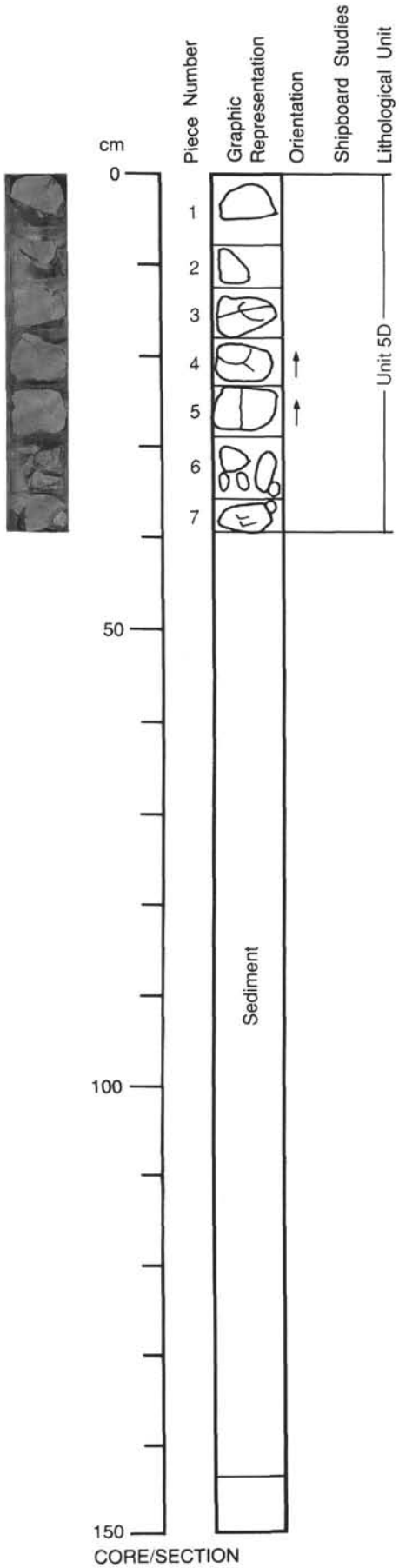
Pieces 1-8

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained, intergranular.
VESICLES: None.
COLOR: Dark greenish gray (5G 4/1).
STRUCTURE: Fractured.
ALTERATION: Highly altered.
VEINS/FRACTURES: 2-4%; <5 mm; random; filled with green clays and subordinate calcite.
ADDITIONAL COMMENTS: Continued from 127-797C-16R-3.

UNIT 5D: APHYRIC BASALT

Piece 9

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained.
VESICLES: None.
COLOR: Dark greenish gray (5B 4/1).
STRUCTURE: Massive.
ALTERATION: Moderate to highly altered.
VEINS/FRACTURES: Trace; <1 mm; unknown.
ADDITIONAL COMMENTS: Subunit 5D is defined by a finer grain-size than Subunit 5C.

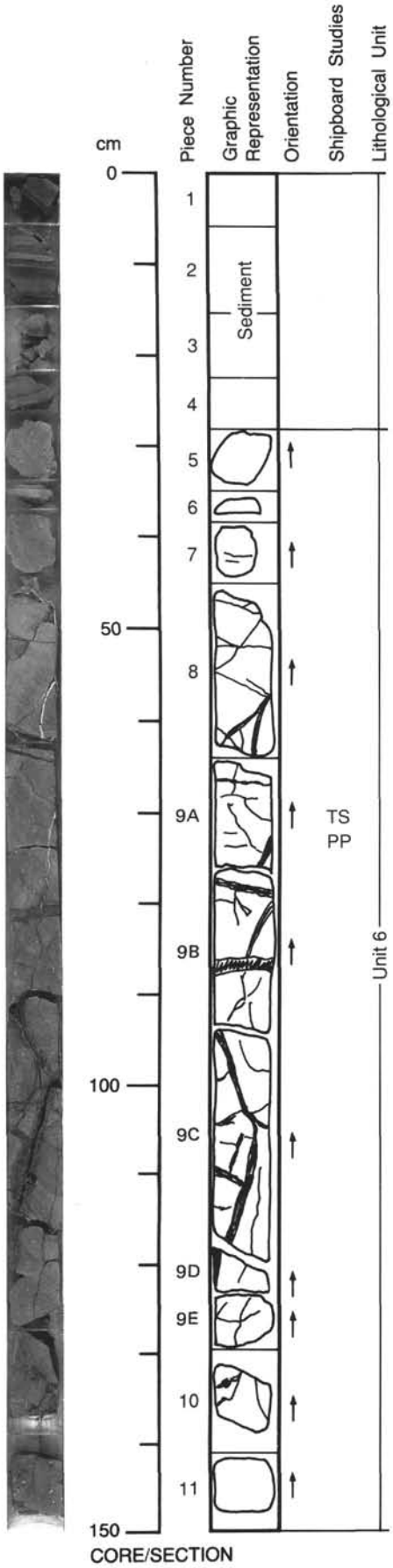


127-797C-18R-1

UNIT 5D: SPARSELY PLAGIOCLASE PHYRIC BASALT

Pieces 1-7

CONTACTS: None.
PHENOCRYSTS:
Plagioclase - 1%; <1 mm; euhedral.
GROUNDMASS: Fine-grained.
VESICLES: None.
COLOR: Dark greenish gray (5B 4/1).
STRUCTURE: Massive.
ALTERATION: Highly altered.
VEINS/FRACTURES: Trace; <1 mm; random; filled by dark clays.
ADDITIONAL COMMENTS: Continued from 127-797C-17R-1. Pieces 8-17 are claystone.

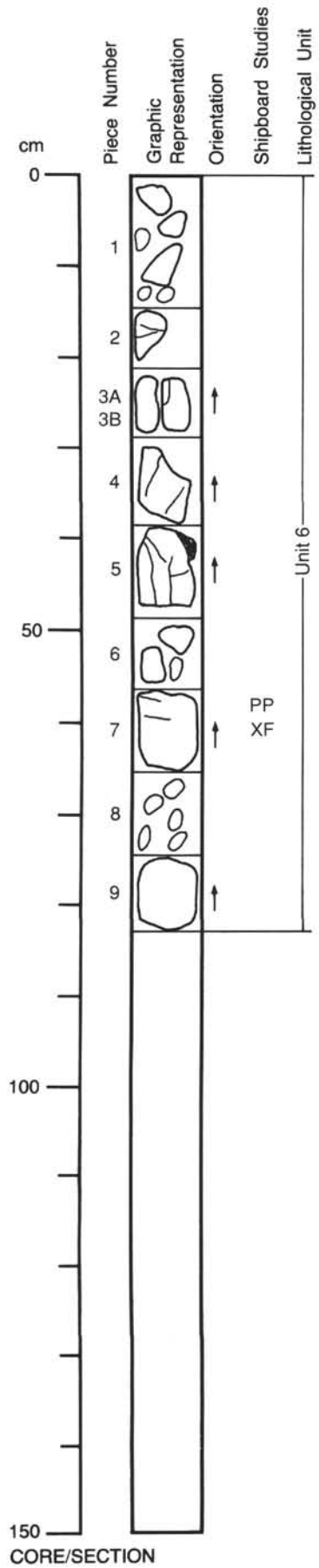


127-797C-18R-2

UNIT 6: SPARSELY PLAGIOCLASE PHYRIC BASALT

Pieces 5-11

CONTACTS: None.
PHENOCRYSTS:
Plagioclase - 1%; <3 mm; euhedral to subhedral.
GROUNDMASS: Fine-grained.
VESICLES: 1%; <2 mm; round; homogeneous; vesicles filled by calcite with an outer rim of green clays.
COLOR: Grayish black (N2).
STRUCTURE: Massive.
ALTERATION: Moderately to highly altered.
VEINS/FRACTURES: <3%; <20 mm; random; filled by calcite and dark to light green clays.
ADDITIONAL COMMENTS: Unit 6 is characterized by the appearance of calcite filled vesicles. Pieces 1-4 are hard claystone.

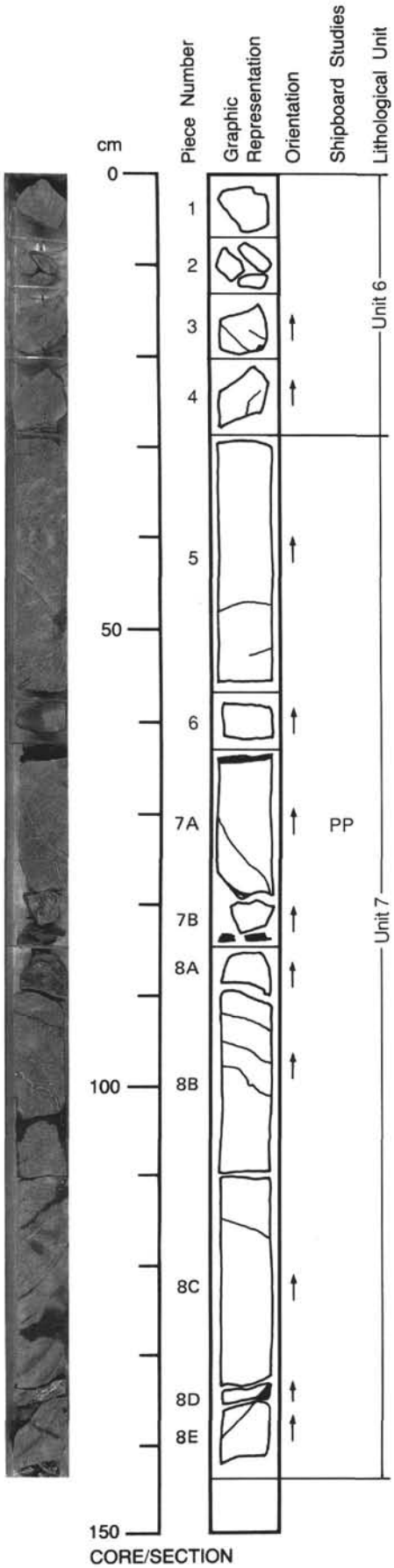


127-797C-18R-3

UNIT 6: SPARSELY PLAGIOCLASE PHYRIC BASALT

Pieces 1-9

CONTACTS: None.
PHENOCRYSTS:
Plagioclase - 1%; <2 mm; euhedral.
GROUNDMASS: Fine-grained.
VESICLES: <1%; <3 mm; round; homogeneous; filled by calcite.
COLOR: Medium dark gray (N4).
STRUCTURE: Massive.
ALTERATION: Medium to highly altered.
VEINS/FRACTURES: <1%; <10 mm; random; filled by calcite, dark and light green clays.
ADDITIONAL COMMENTS: Continued from 127-797C-18R-2.



127-797C-19R-1

UNIT 6: APHYRIC BASALT

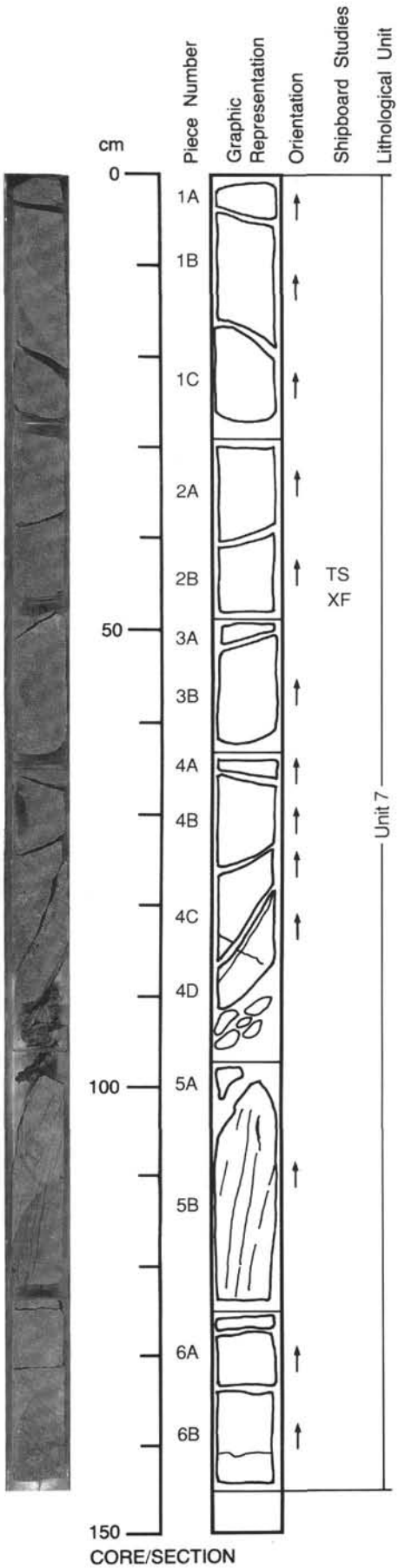
Pieces 1-4

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained, interstitial.
VESICLES: <1%; <1 mm; round; homogeneous; filled by calcite.
COLOR: Greenish gray (5GY 6/1).
STRUCTURE: Massive.
ALTERATION: Highly altered.
VEINS/FRACTURES: <1%; <1 mm; random; filled by green clay and subordinate calcite.
ADDITIONAL COMMENTS: Continued from 127-797C-18R-3.

UNIT 7: APHYRIC DOLERITE

Pieces 5-8E

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Medium-grained, interstitial.
VESICLES: <1%; <3 mm; round; random; filled by calcite and green clays.
COLOR: Medium gray (N5).
STRUCTURE: Massive.
ALTERATION: Highly altered.
VEINS/FRACTURES: 1%; <4 mm; random; filled by calcite and green clays.
ADDITIONAL COMMENTS: Unit 7 defined by its coarser grained nature compared to Unit 6.

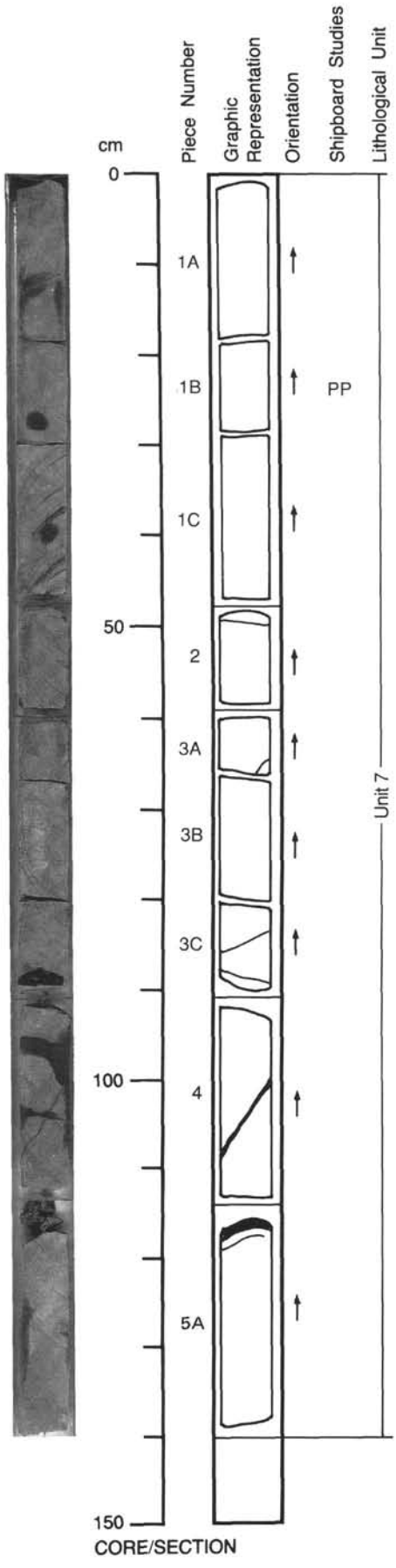


127-797C-19R-2

UNIT 7: SPARSELY PLAGIOCLASE PHYRIC DOLERITE

Pieces 1A-6B

CONTACTS: None.
PHENOCRYSTS:
Plagioclase - <2%; <4 mm; euhedral-anhedral.
GROUNDMASS: Fine-to medium-grained, interstitial.
VESICLES: Trace; <1 mm; round; random; filled by calcite.
COLOR: Medium-gray (N5).
STRUCTURE: Massive.
ALTERATION: Highly altered.
VEINS/FRACTURES: <1-2%; <2 mm; nearly parallel to long axis of core; dark green clays.
ADDITIONAL COMMENTS: Continued from 127-797C-19R-1.

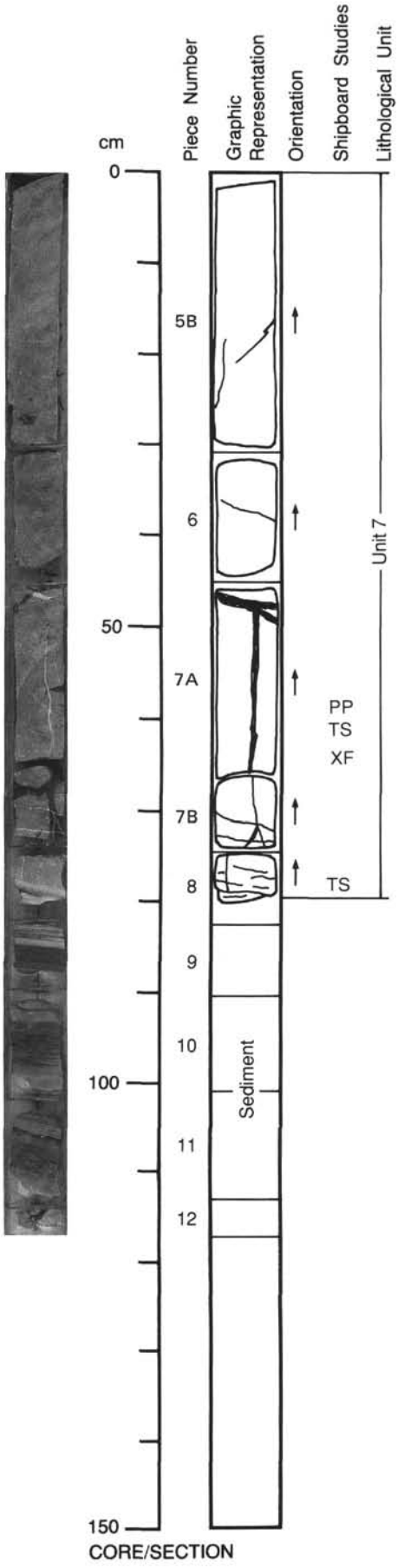


127-797C-19R-3

UNIT 7: SPARSELY PLAGIOCLASE PHYRIC DOLERITE

Pieces 1A-5A

CONTACTS: None.
PHENOCRYSTS:
Plagioclase - <2%; <2 mm; euhedral-subhedral.
GROUNDMASS: Medium-grained, interstitial.
VESICLES: Trace; <1 mm; round; random; filled by calcite.
COLOR: Medium-gray (N4).
STRUCTURE: Massive.
ALTERATION: Highly altered.
VEINS/FRACTURES: <1%; <2 mm; random; filled by greenish clays.
ADDITIONAL COMMENTS: Continued from 127-797C-19R-2.

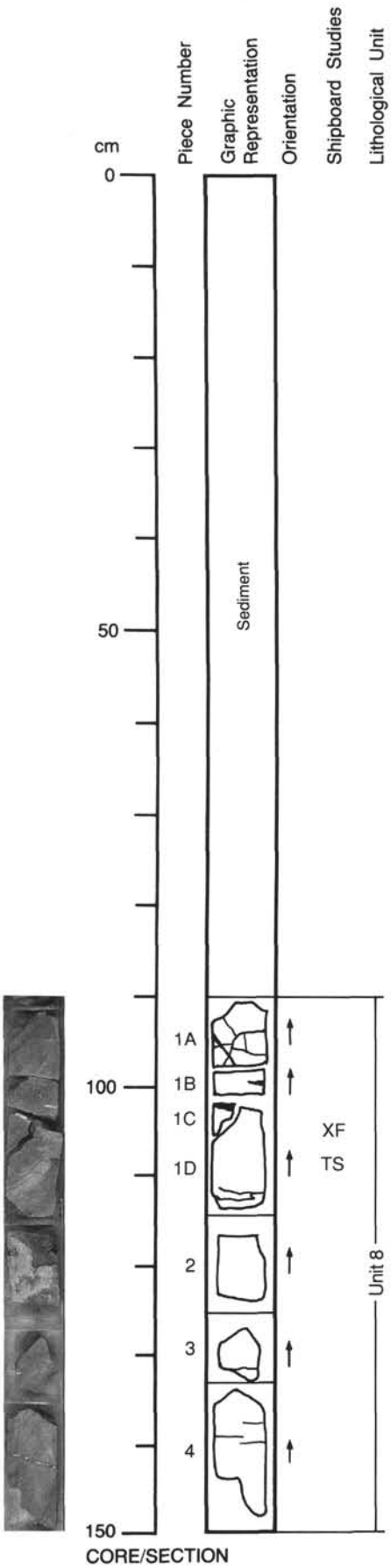


127-797C-19R-4

UNIT 7: SPARSELY PLAGIOCLASE PHYRIC DOLERITE

Pieces 5B-8

CONTACTS: Lower contact chilled against claystone (Piece 8).
PHENOCRYSTS:
Plagioclase - <2%; <3 mm; euhedral.
GROUNDMASS: Medium-to fine-grained, decreasing towards contact.
VESICLES: <1%; <2 mm; round; random; filled by calcite.
COLOR: Medium gray (N5).
STRUCTURE: Massive.
ALTERATION: Medium-to highly altered.
VEINS/FRACTURES: 1%; <2 mm; random; filled by calcite and clays.
ADDITIONAL COMMENTS: The grain-size decreases towards the sediment contact and at the same time the numbers of plagioclase phenocrysts increase. Color bands parallel to intrusive surface may in part reflect alteration. Continued from 127-797-19R-3.

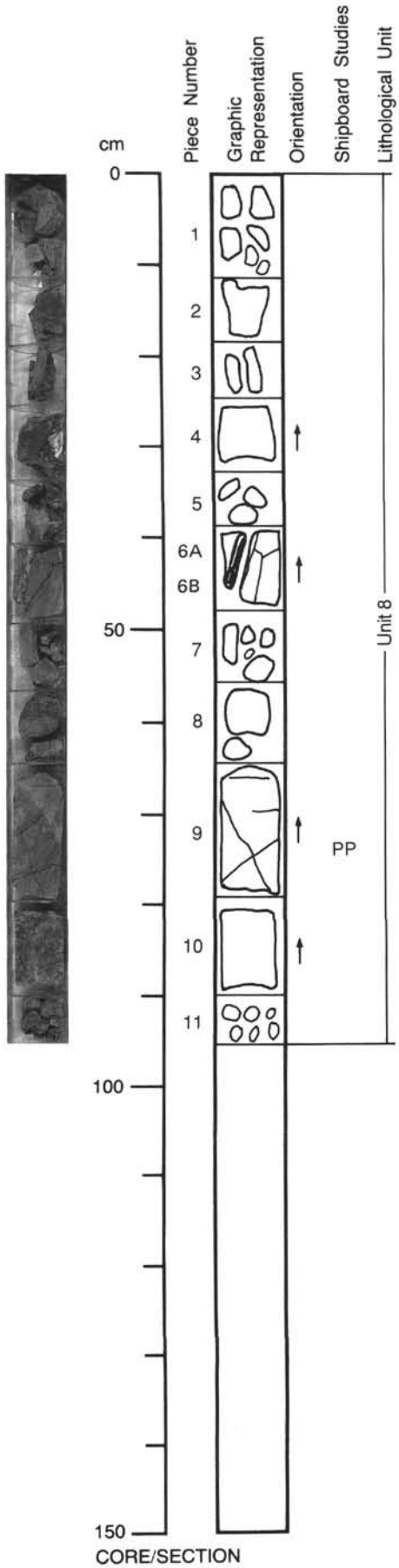


127-797C-20R-2

UNIT 8: APHYRIC BASALT

Pieces 1A-4

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Microcrystalline to fine-grained, intergranular.
VESICLES: <1%; <1 mm; round; near upper margin; the numbers of vesicles decreases towards the sediments. filled with green clay and calcite.
COLOR: Medium dark gray (N4).
STRUCTURE: Fractured and veined.
ALTERATION: Highly altered.
VEINS/FRACTURES: 1%; <3 mm; random; filled with green clay, calcite, and pyrite.
ADDITIONAL COMMENTS: Microcrystalline in Piece 1A which could be a marginal facies. The grain-size increases downward.

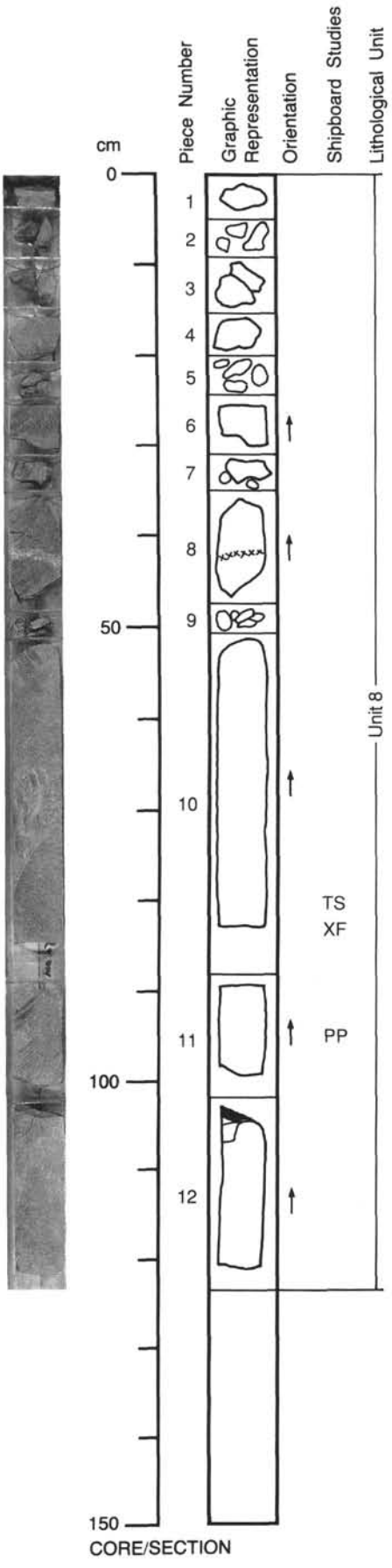


127-797C-20R-3

UNIT 8: SPARSELY PLAGIOCLASE PHYRIC BASALT

Pieces 1-11

CONTACTS: None.
PHENOCRYSTS:
Plagioclase - <2%; <2 mm; euhedral.
GROUNDMASS: Fine-grained.
VESICLES: Trace; <1 mm; round; random; filled by calcite.
COLOR: Medium gray (N5).
STRUCTURE: Massive.
ALTERATION: Highly altered.
VEINS/FRACTURES: 2%; <10 mm; irregular; filled by greenish clay and calcite.
ADDITIONAL COMMENTS: Continued from 127-797C-20R-2.

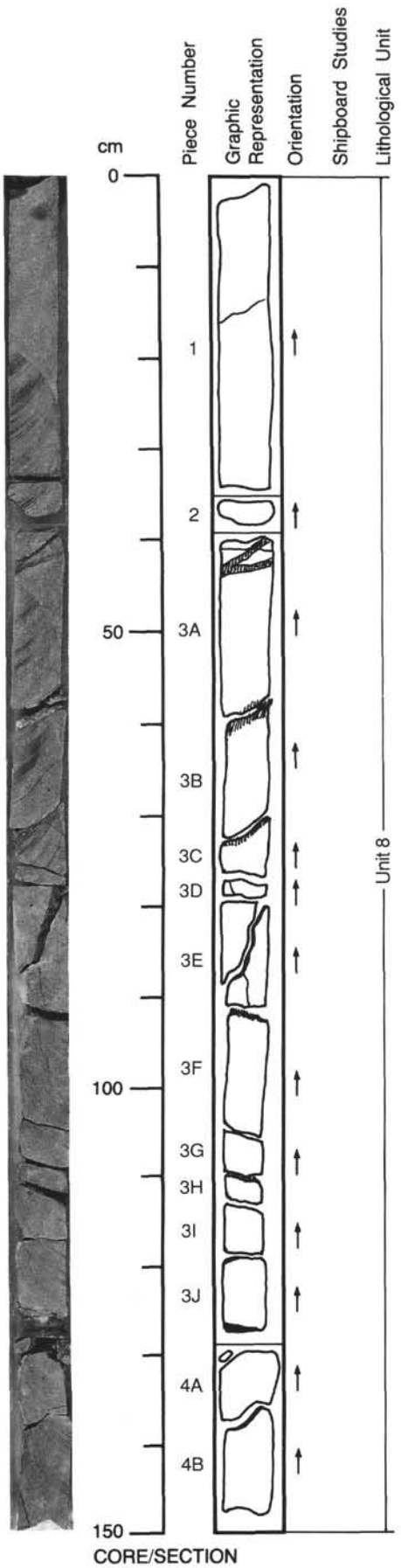


127-797C-21R-1

UNIT 8: SPARSELY PLAGIOCLASE PHYRIC DOLERITE

Pieces 1-12

CONTACTS: None.
PHENOCRYSTS:
Plagioclase - 1-2%; 2-3 mm; subhedral to anhedral.
GROUNDMASS: Medium-grained, interstitial.
VESICLES: None.
COLOR: Medium gray (N5).
STRUCTURE: Massive.
ALTERATION: Highly altered.
VEINS/FRACTURES: <1%; <10 mm thick; mostly perpendicular to core axis; veins are filled with green clays.
ADDITIONAL COMMENTS: Groundmass grain-size is relatively coarser than lowest piece of Core 127-797-20R-3. Continued from 127-797C-20R-3.

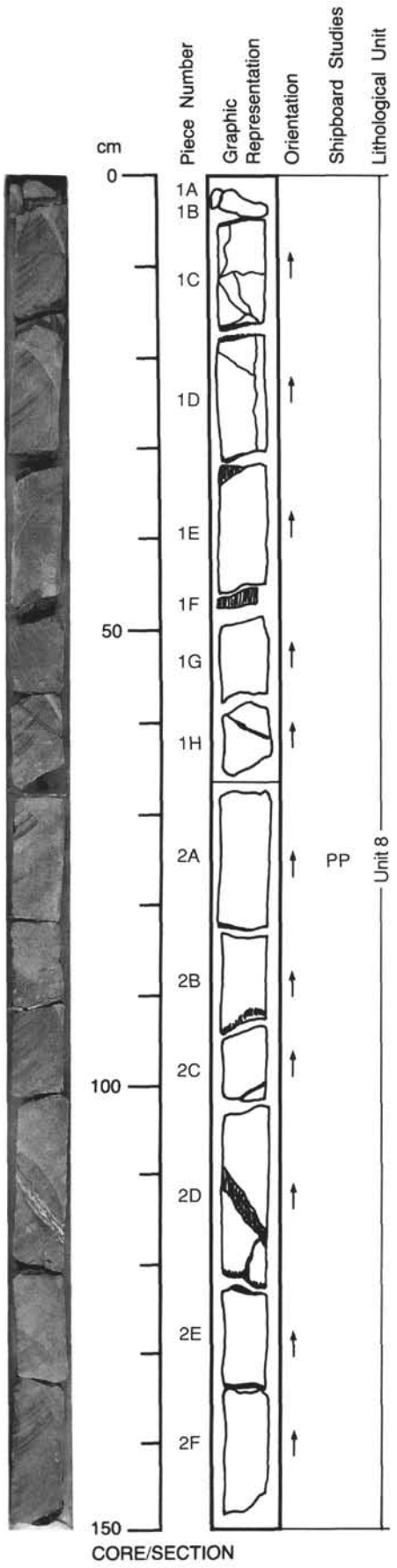


127-797C-21R-2

UNIT 8: SPARSELY PLAGIOCLASE PHYRIC DOLERITE

Pieces 1-4

CONTACTS: None.
PHENOCRYSTS:
Plagioclase - 1-2%; 2-3 mm; subhedral - anhedral.
GROUNDMASS: Medium-grained, interstitial.
VESICLES: None.
COLOR: Medium gray (N5).
STRUCTURE: Massive.
ALTERATION: Highly altered. Most highly altered areas are adjacent to veins.
VEINS/FRACTURES: <1%; <10 mm; random; veins are filled with fibrous green clays.
ADDITIONAL COMMENTS: Continued from 127-797C-21R-1.

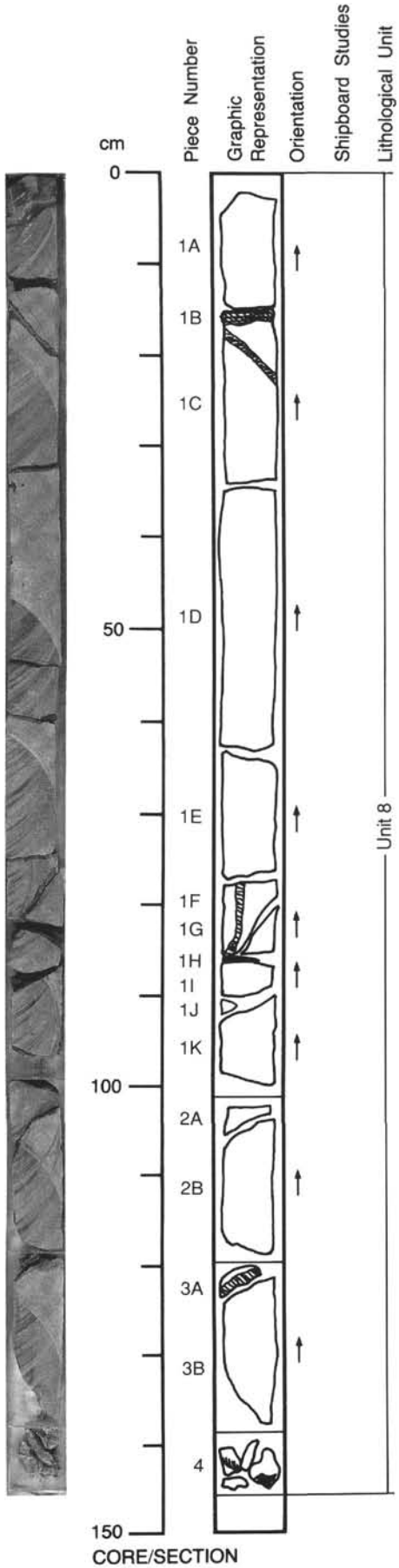


127-797C-21R-3

UNIT 8: APHYRIC DOLERITE

Pieces 1A-2F

CONTACTS: None.
PHENOCRYSTS:
Plagioclase - <<1%; 2-3 mm; euhedral-subhedral.
GROUNDMASS: Medium-grained, interstitial.
VESICLES: None.
COLOR: Medium gray (N5).
STRUCTURE: Massive.
ALTERATION: Highly altered.
VEINS/FRACTURES: <1%; <10 mm; random; veins are filled with pale green clays.
ADDITIONAL COMMENTS: The grain-size decreases down section. Continued from 127-797-21R-2.

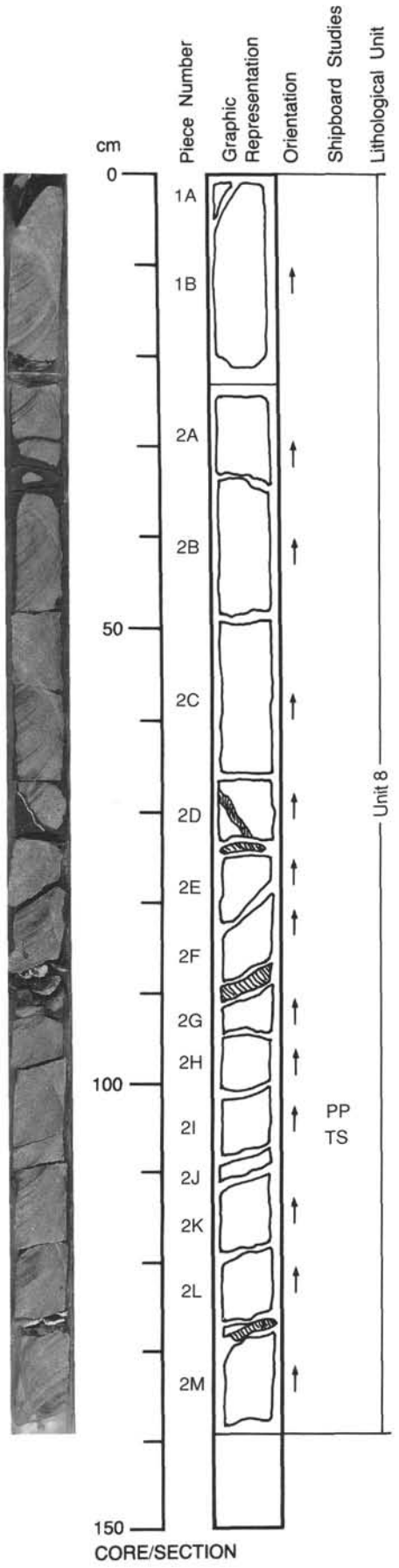


127-797C-21R-4

UNIT 8: APHYRIC DOLERITE

Pieces 1A-4

CONTACTS: None.
PHENOCRYSTS:
Plagioclase - <1%; 1-9 mm.
GROUNDMASS: Medium-grained, interstitial.
VESICLES: None.
COLOR: Medium light gray (N6).
STRUCTURE: Massive.
ALTERATION: Highly altered.
VEINS/FRACTURES: <1%; 1-5 mm; random; filled with greenish clay and carbonate. Pieces 1B and 1H are composed mainly of vein material.
ADDITIONAL COMMENTS: Grain-size is smaller than Sections 127-797-21R-1 and 127-797-22R-2. Continued from 127-797-21R-3.

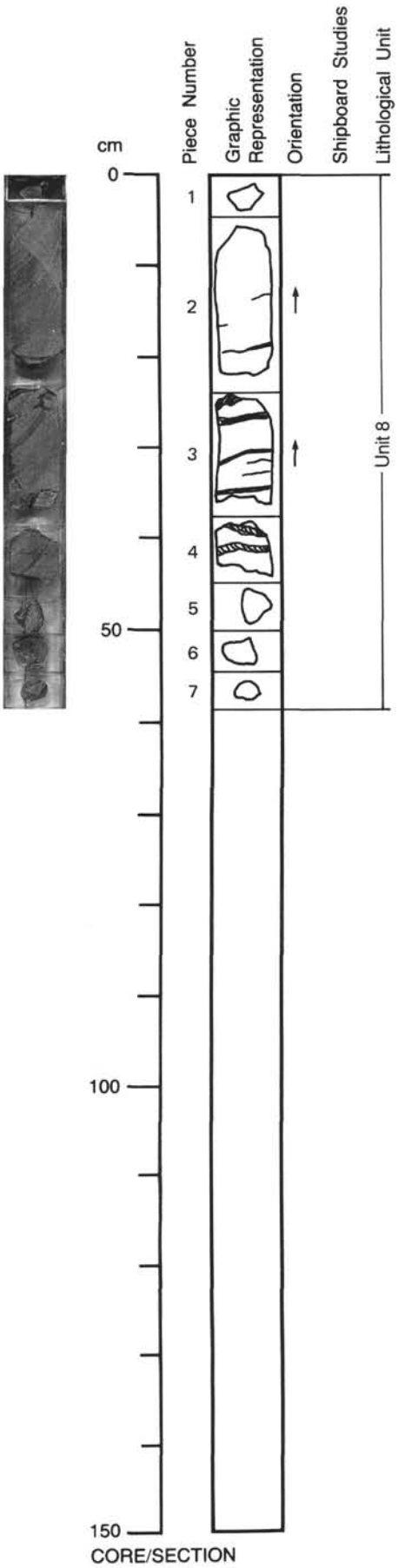


127-797C-21R-5

UNIT 8: APHYRIC DOLERITE

Pieces 1A-2M

CONTACTS: None.
PHENOCRYSTS:
Plagioclase - <1%; 1-5 mm.
GROUNDMASS: Medium-grained, interstitial.
VESICLES: None.
COLOR: Medium light gray (N6).
STRUCTURE: Massive.
ALTERATION: Highly altered.
VEINS/FRACTURES: <5%; <1-10 mm; random; filled with greenish clay and carbonate.
ADDITIONAL COMMENTS: Similar in grain-size to Section 127-797-21R-4. Continued from 127-797-21R-4.



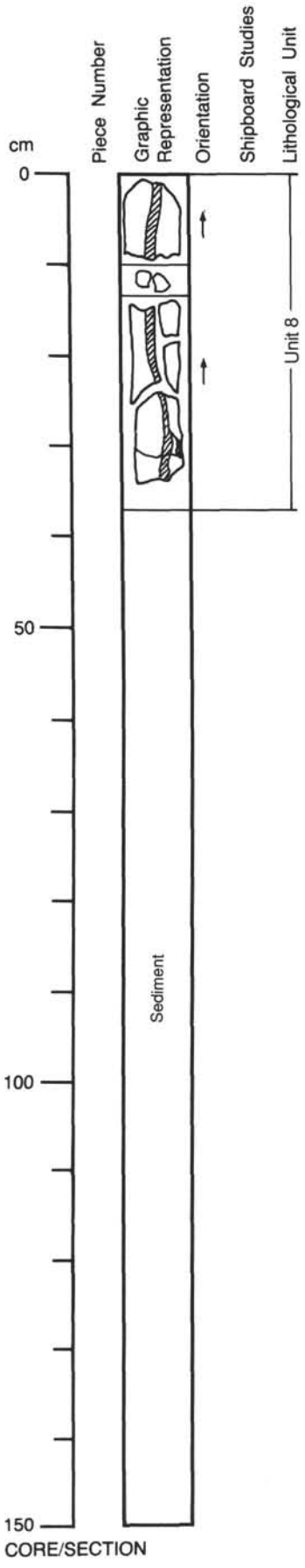
Vein

127-797C-21R-6

UNIT 8: APHYRIC DOLERITE

Pieces 1-7

CONTACTS: None.
PHENOCRYSTS:
Plagioclase - <1%; 1-2 mm.
GROUNDMASS: Medium-grained, interstitial.
VESICLES: None.
COLOR: Medium light gray (N6).
STRUCTURE: Massive.
ALTERATION: Highly altered.
VEINS/FRACTURES: 5%; <1-2 mm; dominantly, perpendicular to core; filled with green clay and carbonate.
ADDITIONAL COMMENTS: Similar in grain-size to 127-797-21R-5. Continued from 127-797-21R-5.

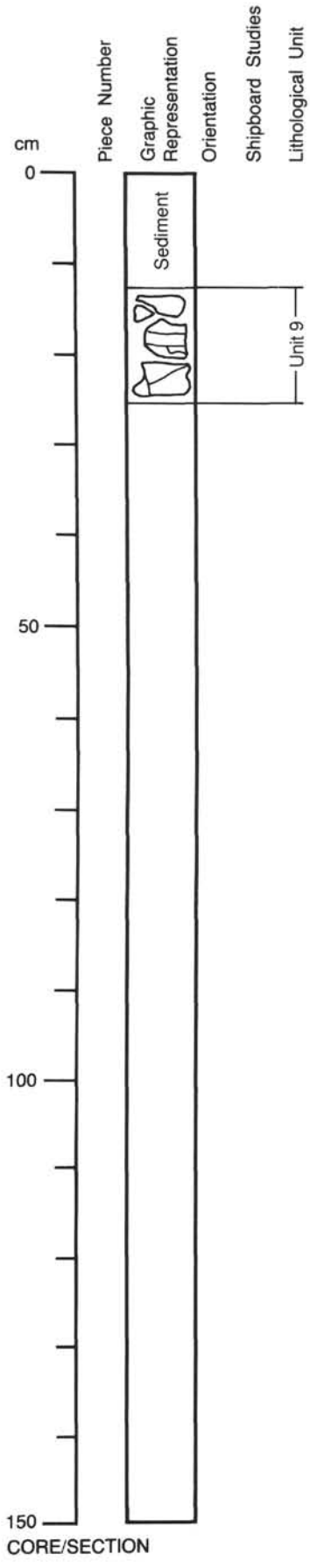


127-797C-22R-1

UNIT 8: SPARSELY PLAGIOCLASE PHYRIC BASALT

Pieces not numbered

CONTACTS: Baked sediments below unit
PHENOCRYSTS:
Plagioclase - 2%; 1-3 mm; altered.
Olivine - <1%; 1 mm; altered.
GROUNDMASS: Fine-grained from 0 to 28 cm; microcrystalline from 28 to 35 cm.
VESICLES: Trace; <1 mm; round; heterogeneous chilled part; appear dominantly in chilled part. Filled with carbonate
COLOR: Medium light bluish gray (5B 6/1).
STRUCTURE: Massive.
ALTERATION: Very highly altered. Small amount of secondary pyrite occur in groundmass.
VEINS/FRACTURES: 5%; <1-3 mm; dominantly along the long axis of core; filled with carbonate and green clay with minor amount of pyrite.
ADDITIONAL COMMENTS: Continued from 127-797C-21R-6.

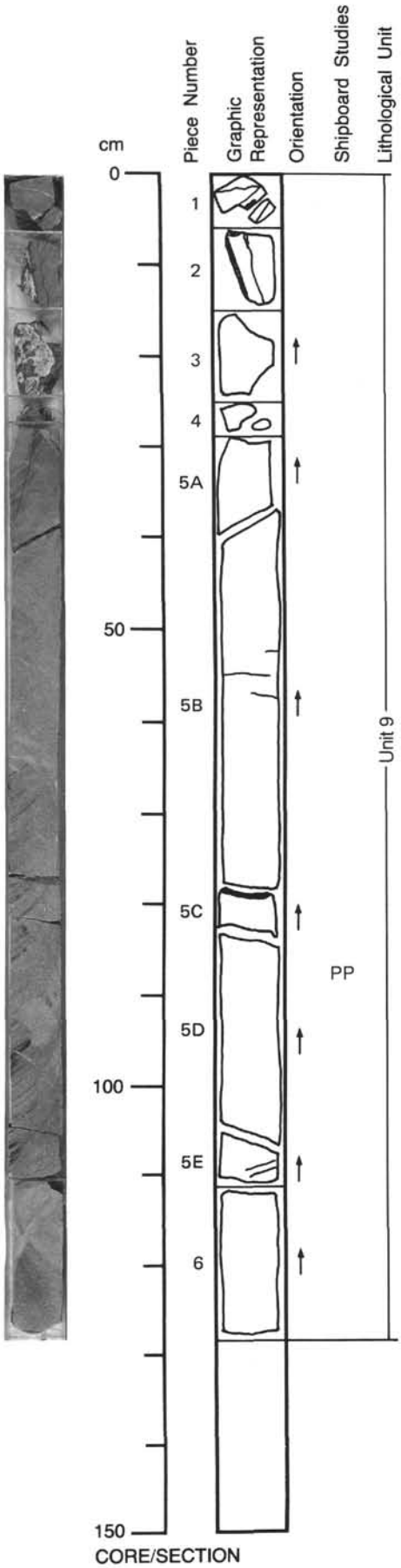


127-797C-23R-CC

UNIT 9: APHYRIC BASALT

Pieces not numbered

CONTACTS: None.
GROUNDMASS: Fine-grained.
VESICLES: None.
COLOR: Medium greenish gray (5BG 5/1).
STRUCTURE: Massive.
ALTERATION: Highly altered.
VEINS/FRACTURES: <1%; <2 mm; random; veins are filled with green clays and calcite.
ADDITIONAL COMMENTS: Grain size coarsens down core, away from overlying sediment. Sediment shows no evidence of baking.

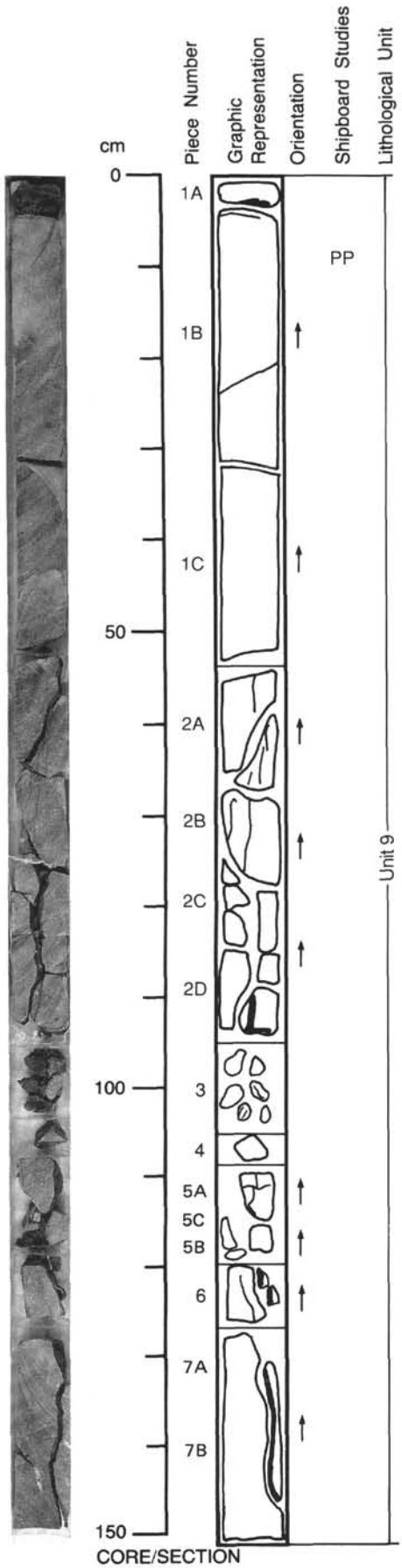


127-797C-24R-1

UNIT 9: SPARSELY PLAGIOCLASE PHYRIC DOLERITE

Pieces 1-6

CONTACTS: None.
PHENOCRYSTS:
Plagioclase - 1%; <2 mm; euhedral.
GROUNDMASS: Medium- to fine-grained; grain-size decreases down core.
VESICLES: Trace; <1 mm; round; random; filled by calcite.
COLOR: Medium gray (N5).
STRUCTURE: Massive.
ALTERATION: Moderately to highly altered.
VEINS/FRACTURES: <1%; <5 mm; random; filled by greenish black, green clays, and calcite.
ADDITIONAL COMMENTS: Continued from 127-797C-23R-CC.

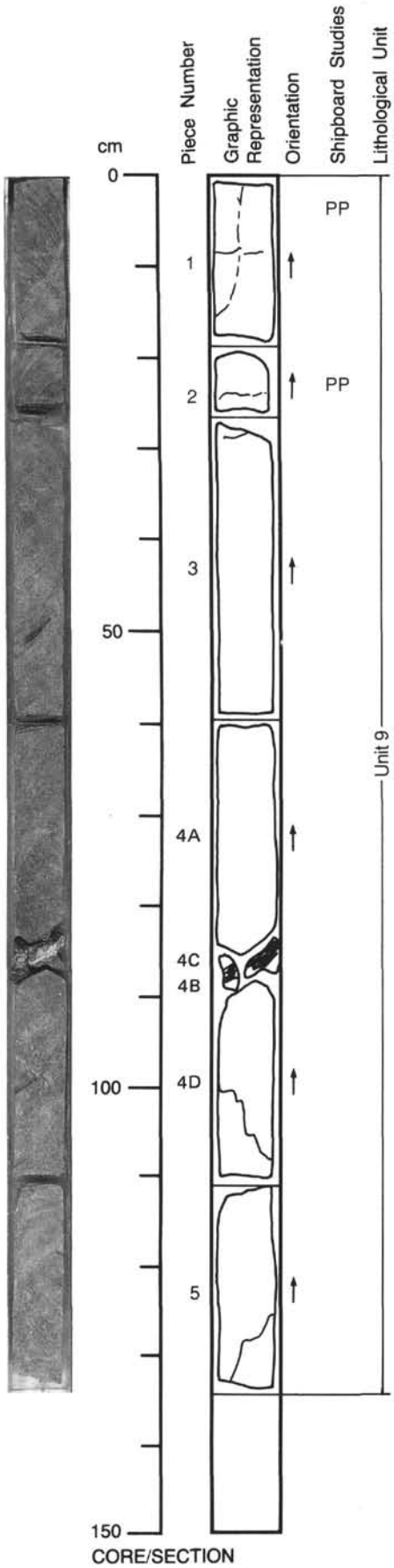


127-797C-24R-2

UNIT 9: SPARSELY PLAGIOCLASE PHYRIC DOLERITE

Pieces 1A-7B

CONTACTS: None.
PHENOCRYSTS:
Plagioclase - 1%; <3 mm; euhedral.
GROUNDMASS: Medium-grained.
VESICLES: None.
COLOR: Medium gray (N5).
STRUCTURE: Massive.
ALTERATION: Moderately altered.
VEINS/FRACTURES: Trace; <2 mm; no preferred orientation; filled by dark green clays and calcite.
ADDITIONAL COMMENTS: Continued from 127-797C-24R-2.

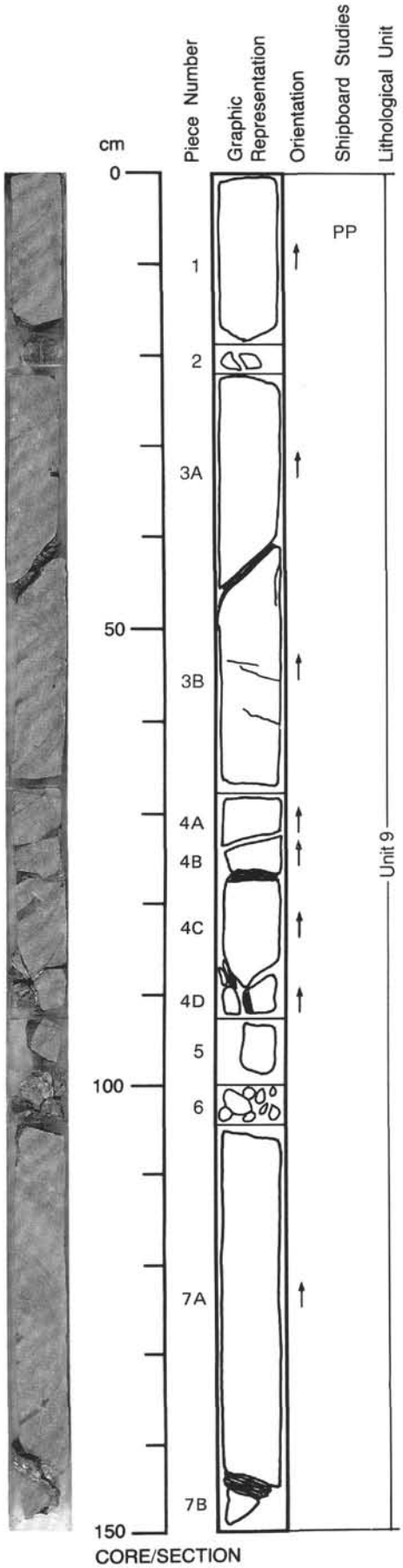


127-797C-24R-3

UNIT 9: SPARSELY PLAGIOCLASE PHYRIC DOLERITE

Pieces 1-5

CONTACTS: None.
PHENOCRYSTS:
Plagioclase - 1%; <3 mm; euhedral.
GROUNDMASS: Medium-grained.
VESICLES: None.
COLOR: Medium gray (N5).
STRUCTURE: Massive.
ALTERATION: Moderately altered.
VEINS/FRACTURES: Trace; <20 mm; no preferred orientation; filled by greenish clays and calcite.
ADDITIONAL COMMENTS: Continued from 127-797C-24R-2.

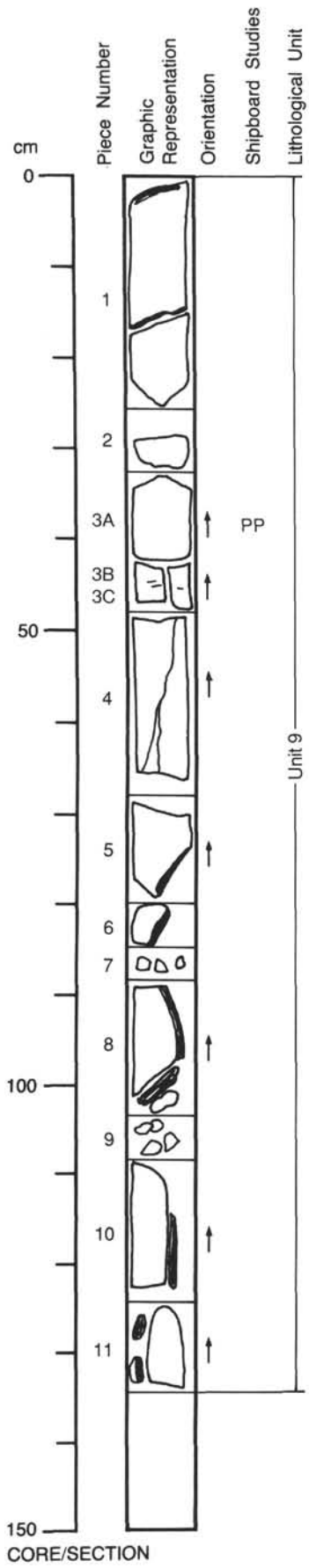


127-797C-24R-4

UNIT 9: SPARSELY PLAGIOCLASE PHYRIC DOLERITE

Pieces 1-7B

CONTACTS: None.
PHENOCRYSTS:
Plagioclase - 1%; <3 mm; euhedral.
GROUNDMASS: Medium-grained.
VESICLES: None.
COLOR: Medium gray (N5).
STRUCTURE: Massive.
ALTERATION: Moderately altered.
VEINS/FRACTURES: Trace; <15 mm; no preferred orientation; filled by clays and calcite.
ADDITIONAL COMMENTS: Continued from 127-797C-24R-3.

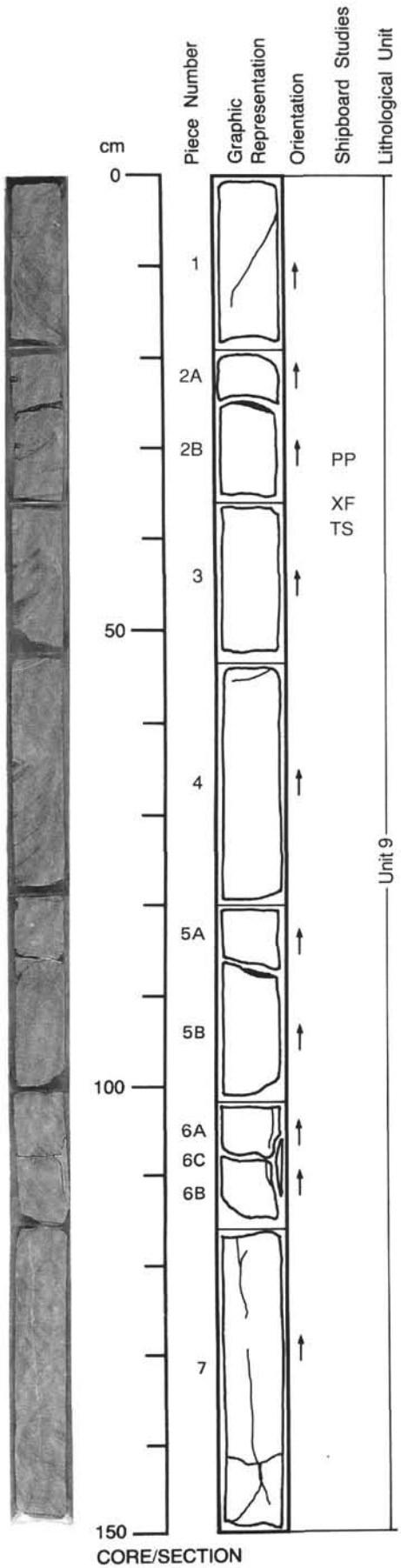


127-797C-24R-5

UNIT 9: SPARSELY PLAGIOCLASE PHYRIC DOLERITE

Pieces 1-11

CONTACTS: None.
PHENOCRYSTS:
Plagioclase - 1%; <3 mm; euhedral.
GROUNDMASS: Medium-grained.
VESICLES: None.
COLOR: Medium gray (N5).
STRUCTURE: Massive.
ALTERATION: Moderately altered.
VEINS/FRACTURES: 1%; <15 mm; no preferred orientation; filled by dark to light green clays and calcite.
ADDITIONAL COMMENTS: Continued from 127-797C-24R-5.

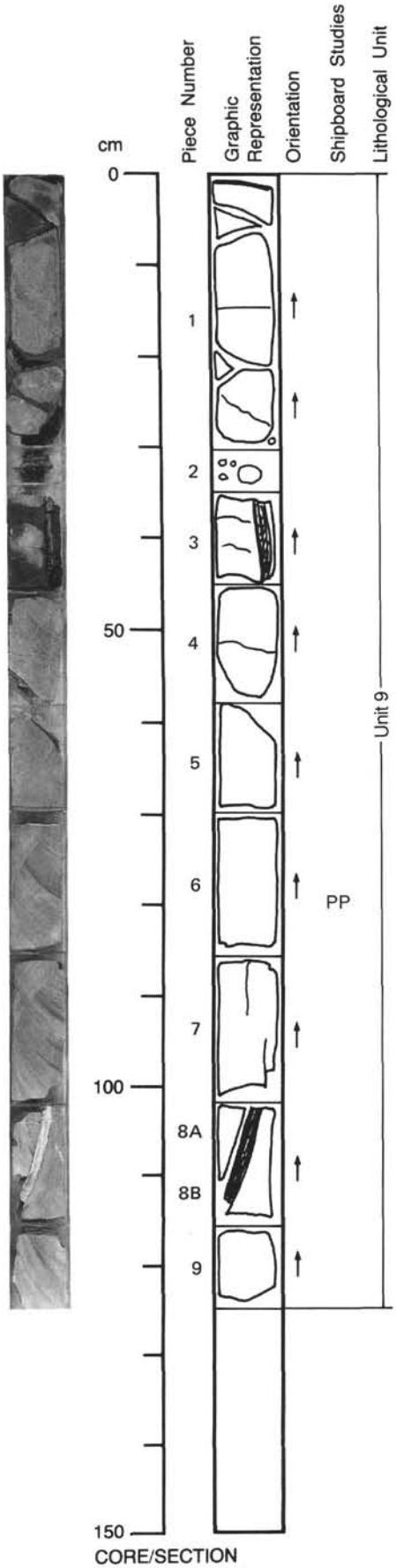


127-797C-24R-6

UNIT 9: SPARSELY PLAGIOCLASE PHYRIC DOLERITE

Pieces 1-7

CONTACTS: None.
PHENOCRYSTS:
Plagioclase - 1%; <3 mm; euhedral.
GROUNDMASS: Medium-grained.
VESICLES: None.
COLOR: Medium gray (N5).
STRUCTURE: Massive.
ALTERATION: Moderately altered.
VEINS/FRACTURES: 1%; <10 mm; no preferred orientation; filled by dark to light green clays and calcite.
ADDITIONAL COMMENTS: Continued from 127-797C-24R-5.

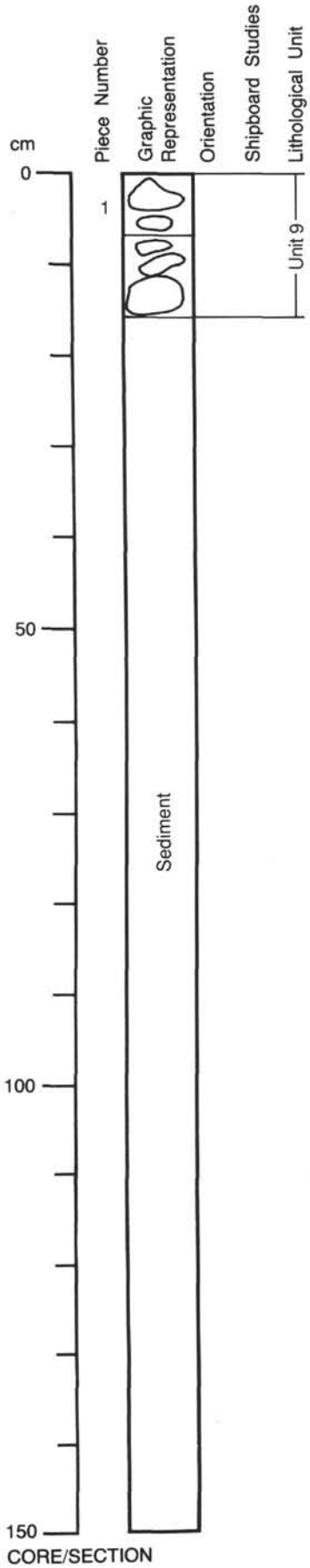


127-797C-24R-7

UNIT 9: SPARSELY PLAGIOCLASE PHYRIC DOLERITE

Pieces 1-9

CONTACTS: None.
PHENOCRYSTS:
Plagioclase - 1%; <2 mm; euhedral.
GROUNDMASS: Medium-grained.
VESICLES: None.
COLOR: Medium gray (N5).
STRUCTURE: Massive.
ALTERATION: Moderately altered.
VEINS/FRACTURES: 1%; <15 mm; no preferred orientation; filled by dark to light green clays and calcite.
ADDITIONAL COMMENTS: Continued from 127-797C-24R-6.

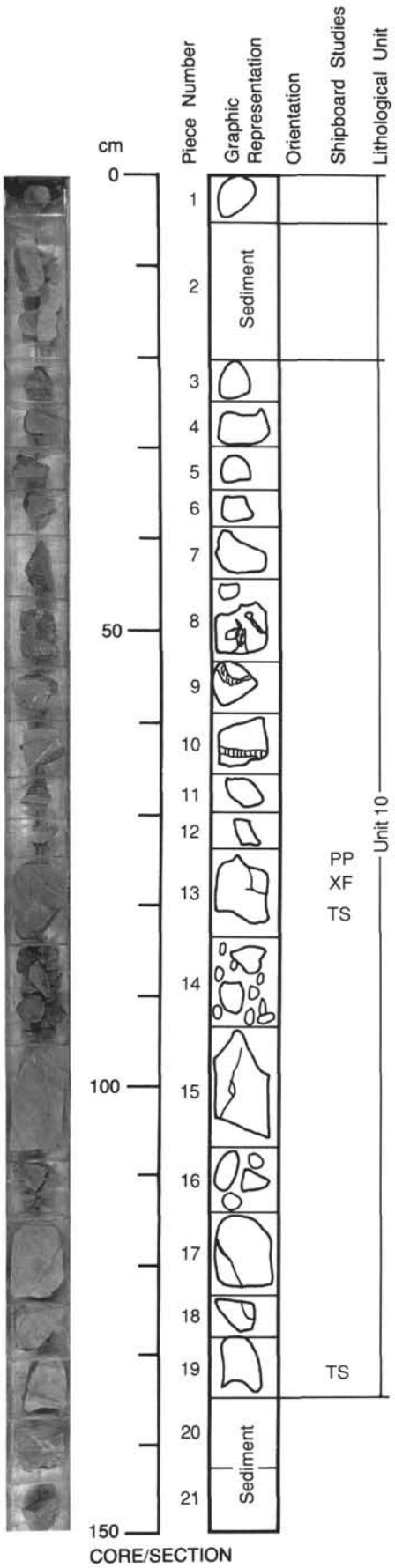


127-797C-25R-1

UNIT 9: SPARSELY PLAGIOCLASE PHYRIC BASALT

Piece 1, plus core to 15 cm

CONTACTS: None.
PHENOCRYSTS:
Plagioclase - 2%; <3 mm; euhedral.
GROUNDMASS: Fine-grained to microcrystalline.
VESICLES: None.
COLOR: Medium gray (N5).
STRUCTURE: Massive.
ALTERATION: Moderately altered.
VEINS/FRACTURES: None.
ADDITIONAL COMMENTS: Continued from 127-797C-24R-7.

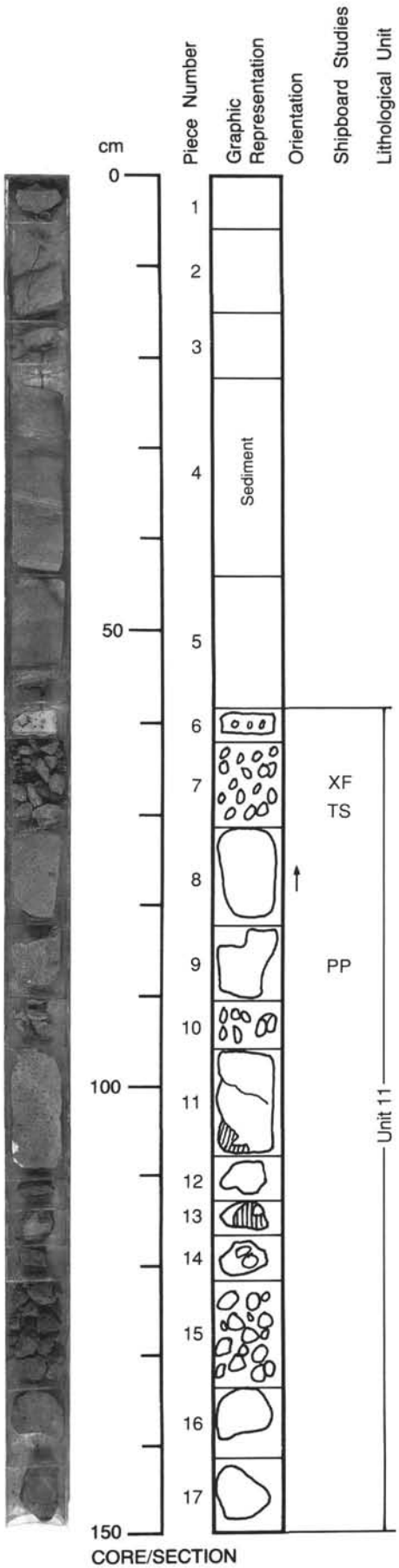


127-797C-26R-1

UNIT 10: APHYRIC BASALT

Pieces 3-19

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained.
VESICLES: 2%; <1.5 mm; round; concentrated towards the center of unit; upper part vesicles are filled by dolomite, lower part vesicles are filled by dark green clays.
COLOR: Medium dark gray (N4).
STRUCTURE: Upper part brecciated with dolomite and pyrite filled veins, lower part relatively massive.
ALTERATION: Moderately to highly altered.
VEINS/FRACTURES: 2%; <5 mm; irregular; filled by dark green clays or dolomite and pyrite.
ADDITIONAL COMMENTS: The central portion is relatively coarser grained than both upper and lower parts. Piece 19 shows a lower spherulitic margin. Piece 1 is basaltic breccia similar to Piece 3F. Pieces 20 and 21 are claystone without marked baking.

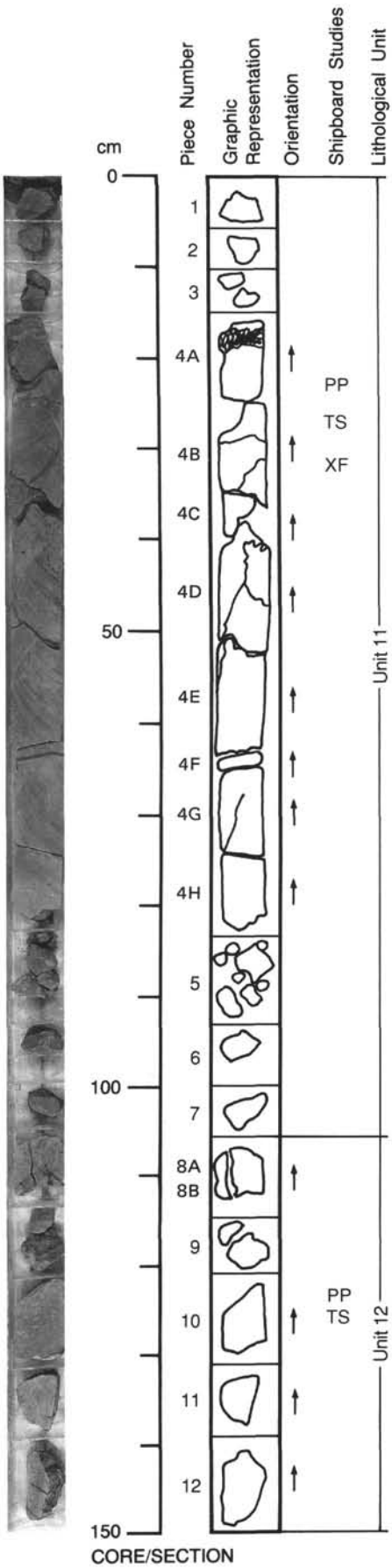


127-797C-26R-2

UNIT 11: APHYRIC BASALT

Pieces 6-17

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained.
VESICLES: 10%; <8 mm; round; concentrated in upper part of unit; filled by dark green clays and pyrite.
COLOR: Medium dark gray (N4).
STRUCTURE: Massive.
ALTERATION: Highly altered.
VEINS/FRACTURES: 2%; <10 mm; irregular; filled by dark green clays, dolomite, and pyrite.
ADDITIONAL COMMENTS: The uppermost Piece (6) may be a chilled marginal facies. This piece is relatively fine grained, contains up to 8 mm large, unfilled vesicles, and have a bleached light gray (N7) color.



127-797C-27R-1

UNIT 11: APHYRIC BASALT

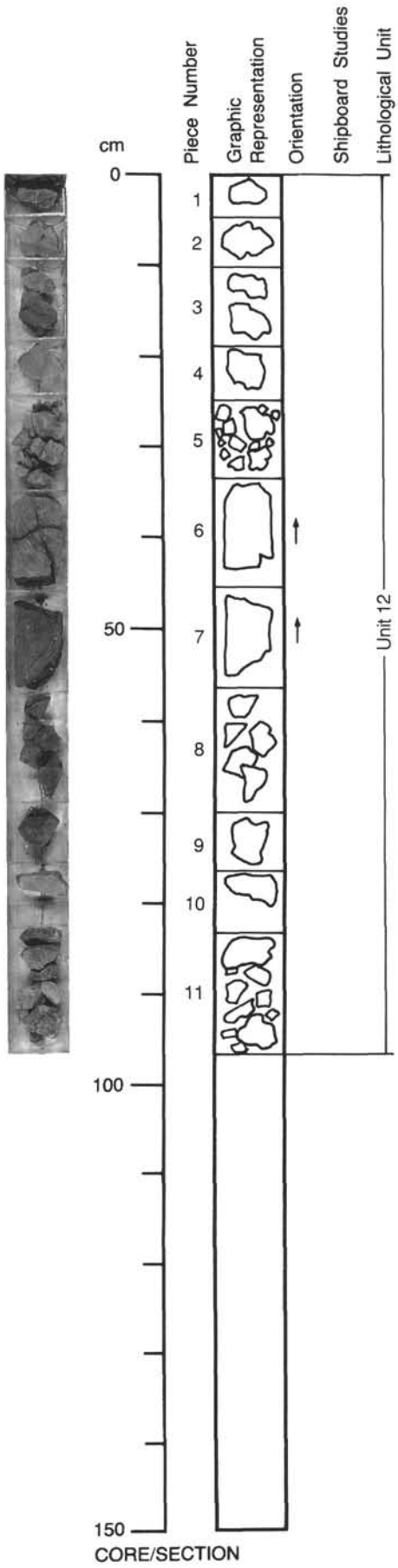
Pieces 1-7

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained.
VESICLES: <1%; <1 mm; round; random; vesicles occur only in lower part of unit, from Piece 4G down. Vesicles are filled with green clays.
COLOR: Medium dark gray (N4) at top of section, grading to greenish gray (5BG 5/1) in lowest part of unit.
STRUCTURE: Massive.
ALTERATION: Highly altered.
VEINS/FRACTURES: <1%; <10 mm; random; veins are filled with dolomite and pyrite.
ADDITIONAL COMMENTS: Grain-size becomes relatively finer down section. Continued from 127-797C-26R-2.

UNIT 12: APHYRIC BASALT

Pieces 8-12

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained, spherulitic.
VESICLES: None.
COLOR: Medium gray (N5).
STRUCTURE: Massive.
ALTERATION: Highly altered. Alteration is mottled in upper pieces.
VEINS/FRACTURES: <2%; <2 mm; random; veins are predominantly thin (<1 mm), wavy and vary in length from <5 mm to the width of the core. They occur in sub-parallel alignment in each piece, but orientation of this alignment varies from piece to piece. The veins are filled with green clays and pyrite.
ADDITIONAL COMMENTS: Elongate, needle-like plagioclase crystals form spherulites up to 10 mm in diameter.

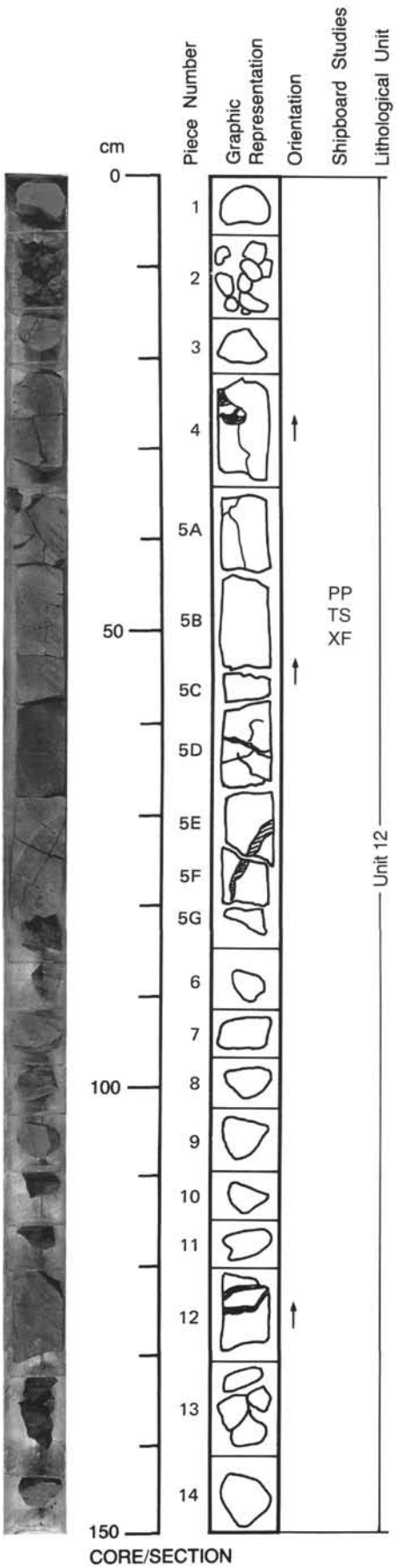


127-797C-27R-2

UNIT 12: APHYRIC BASALT

Pieces 1-11

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained.
VESICLES: None.
COLOR: Medium gray (N5).
STRUCTURE: Massive.
ALTERATION: Highly altered.
VEINS/FRACTURES: <2%; <2 mm; random; veins are filled with green clays and pyrite. Pieces 1 to 5 have many wavy, thin (<1 mm) veins which have a common alignment within each piece
ADDITIONAL COMMENTS: Continued from 127-797C-27R-1.

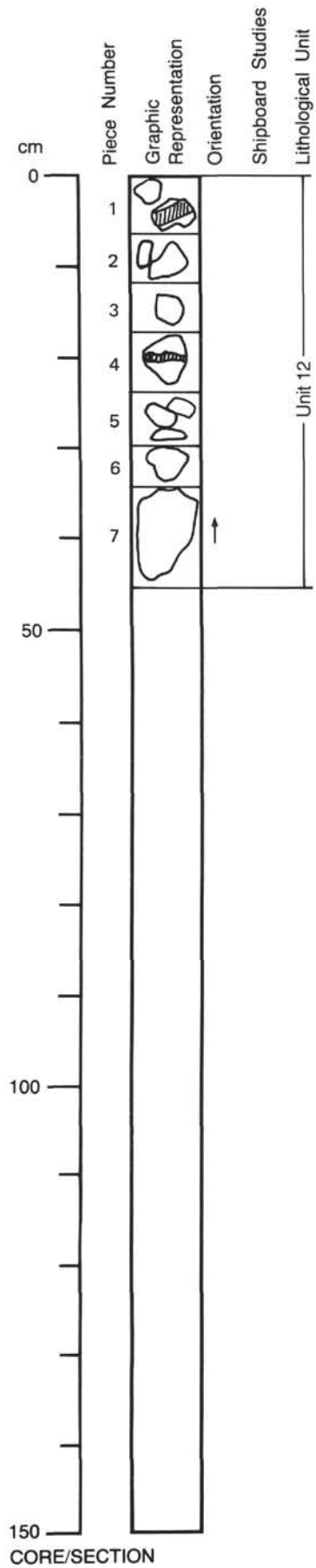


127-797C-28R-1

UNIT 12: APHYRIC BASALT

Pieces 1-14

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained, interstitial.
VESICLES: 1-2%; <1 mm; round to irregular; random; filled with green clay and subordinate pyrite.
COLOR: Medium bluish gray (5B 5/1).
STRUCTURE: Massive.
ALTERATION: Highly altered.
VEINS/FRACTURES: <5%; <1-5 mm; random; filled with green clay, pyrite, zeolite (?), and silica (?).
ADDITIONAL COMMENTS: Continued from 127-797C-27R-2.

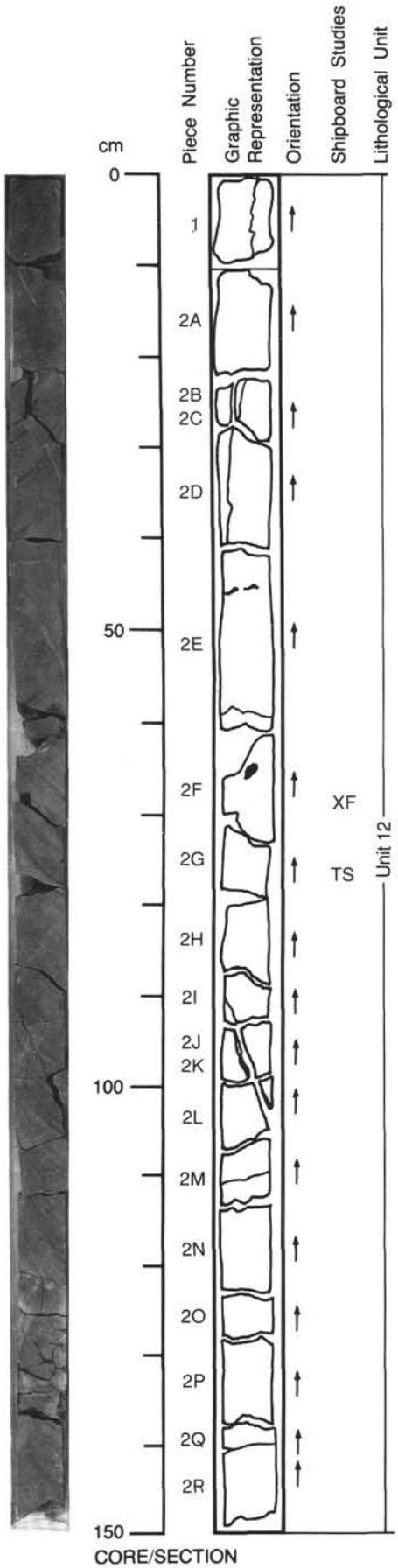


127-797C-28R-2

UNIT 12: APHYRIC BASALT

Pieces 1-7

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained, interstitial.
VESICLES: 1-2%; <1 mm; round to irregular; random; filled with green clay.
COLOR: Medium bluish gray (5B 5/1).
STRUCTURE: Massive.
ALTERATION: Highly altered.
VEINS/FRACTURES: <5%; <1-10 mm; random; filled with green clay, zeolite(?), and pyrite.
ADDITIONAL COMMENTS: Continued from 127-797C-28R-1.

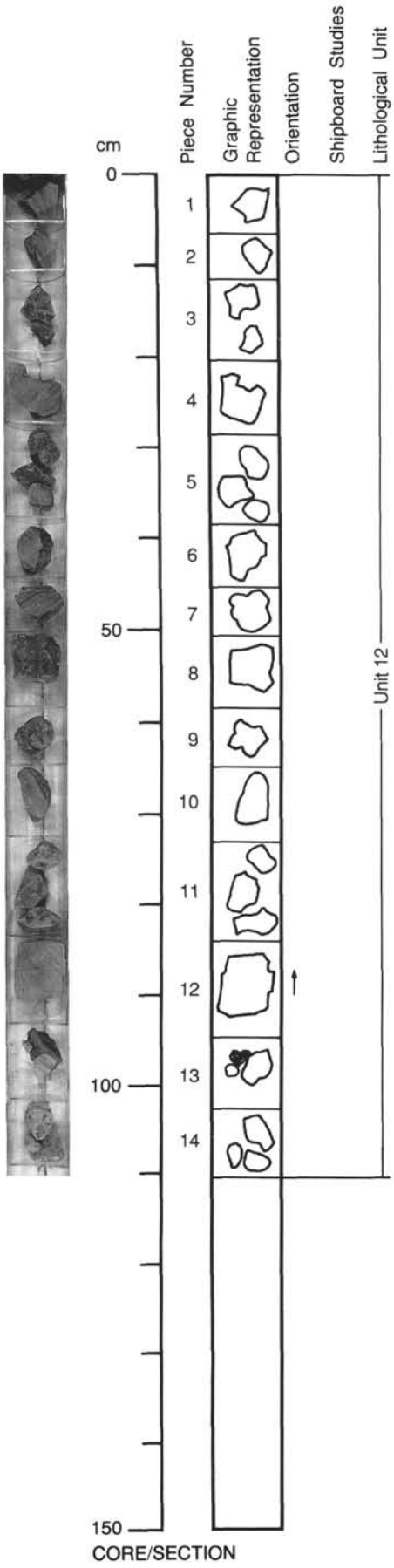


127-797C-29R-1

UNIT 12: APHYRIC BASALT

Pieces 1-2R

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained, seriate, interstitial.
VESICLES: None.
COLOR: Medium gray (N5).
STRUCTURE: Massive.
ALTERATION: Highly altered.
VEINS/FRACTURES: <1%; <3 mm; random; veins are filled with green clays, dolomite, and pyrite. Some veins are rimmed with green clays and filled with dolomite and/or pyrite.
ADDITIONAL COMMENTS: Continued from 127-797C-28R-2.

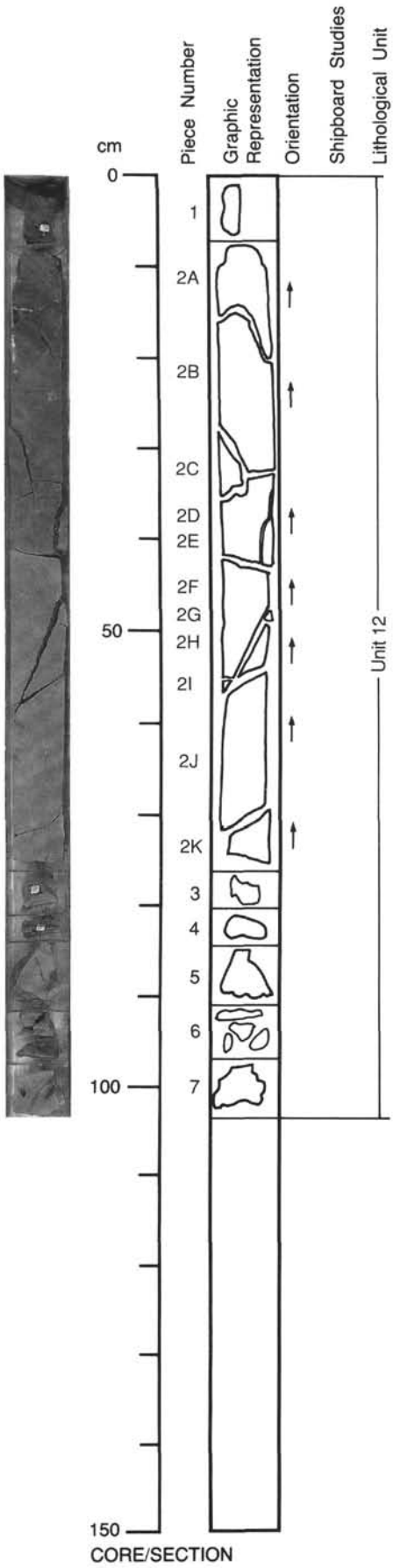


127-797C-29R-2

UNIT 12: APHYRIC BASALT

Pieces 1-14

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained, seriate, interstitial.
VESICLES: None.
COLOR: Medium gray (N5).
STRUCTURE: Massive fractured basalt.
ALTERATION: Highly altered.
VEINS/FRACTURES: <1%; <2 mm; random; veins are filled with green clays, minor pyrite, and dolomite.
ADDITIONAL COMMENTS: Continued from 127-797C-29R-1.

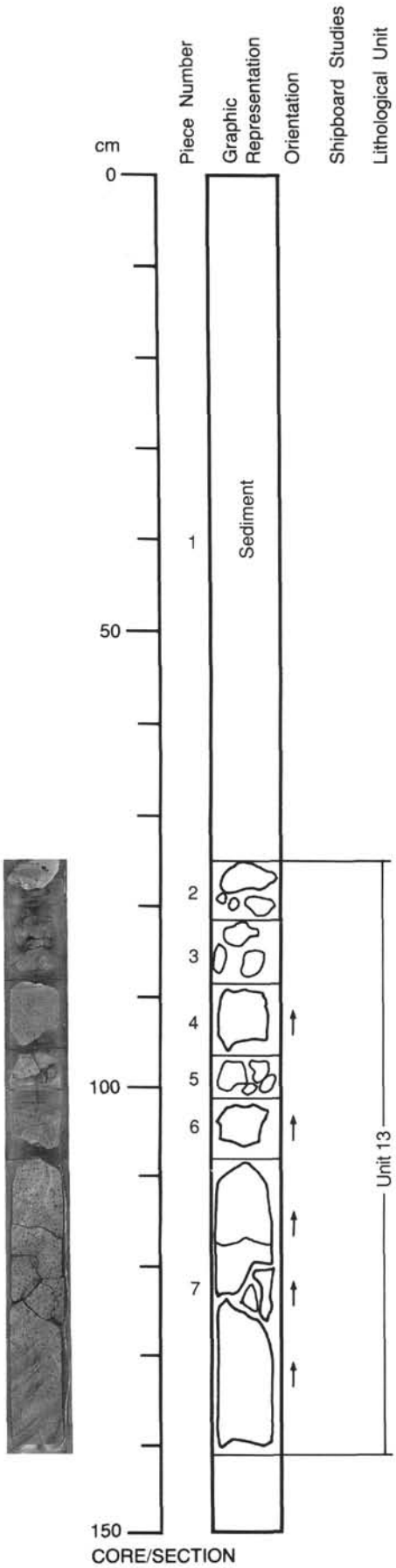


127-797C-30R-1

UNIT 12: APHYRIC BASALT

Pieces 1-7

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained, seriate, interstitial.
VESICLES: <1%; <1 mm; round; heterogeneous; vesicles are only found in Piece 7 and are filled with pale green clays.
COLOR: Color varies from dark gray (N4) at top of section to greenish. Gray (5BG 5/1) in Piece 7.
STRUCTURE: Massive.
ALTERATION: Highly altered.
VEINS/FRACTURES: <1%; <2 mm; random; veins are filled with pyrite and zeolite?
ADDITIONAL COMMENTS: Grain-size decreases down section. Continued from 127-797C-29R-2.

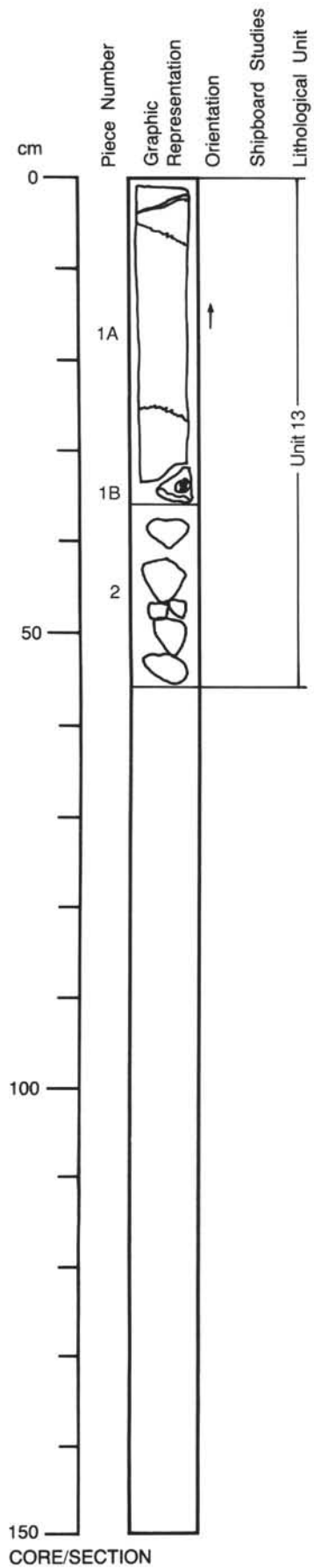


127-797C-30R-4

UNIT 13: APHYRIC BASALT

Pieces 2-7

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained.
VESICLES: 10%; <8 mm; round; heterogeneous; vesicles are filled with green clays, with minor pyrite and zeolite(?). Vesicles are largest and most abundant in the top of Piece 7.
COLOR: Varies from greenish gray (5G 6/1) in Piece 2 to medium gray (N5) in Piece 7.
STRUCTURE: Massive.
ALTERATION: Highly altered.
VEINS/FRACTURES: <1%; <2 mm thick; random; veins are filled by green clays, with minor pyrite and zeolite(?). Vein in upper part of Piece 7 is surrounded by a zone of alteration up to 2 cm wide which contains finely disseminated pyrite.
ADDITIONAL COMMENTS: Grain-size increases down section from glassy(?) to microcrystalline in Piece 2 adjacent to the overlying sediments.



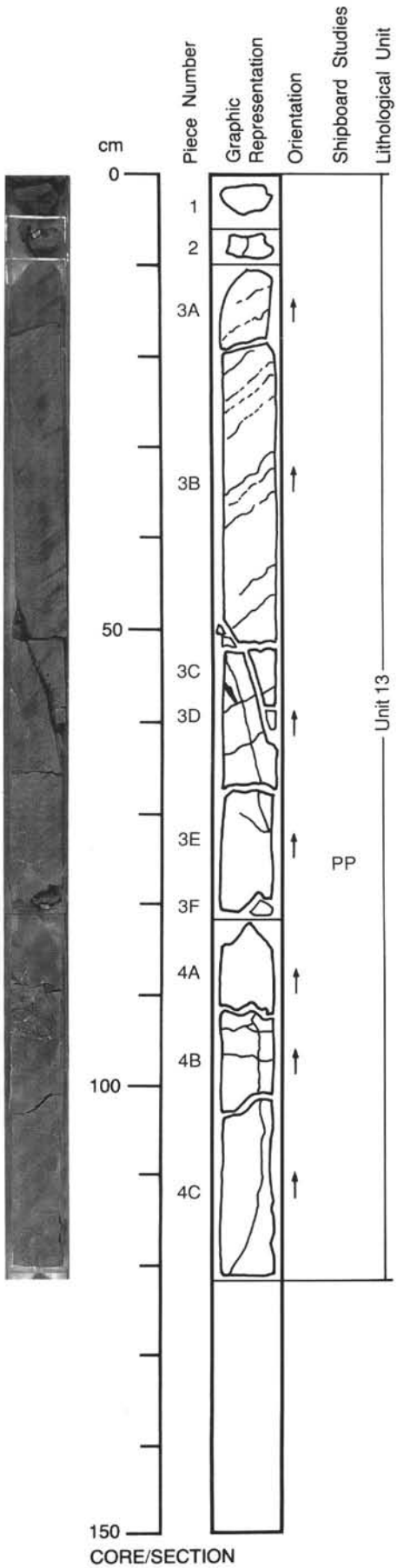
Vein

127-797C-30R-5

UNIT 13: APHYRIC BASALT

Pieces 1A-2

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained.
VESICLES: 2%; <1-10 mm; round to irregular; random; filled with green clay. One large vesicle (10 mm in diameter) is filled by chalcedony.
COLOR: Medium gray (N5).
STRUCTURE: Massive.
ALTERATION: Highly altered.
VEINS/FRACTURES: <1%; <1 mm; random; filled with green clay and pyrite.
ADDITIONAL COMMENTS: Continued from 127-797C-30R-4.

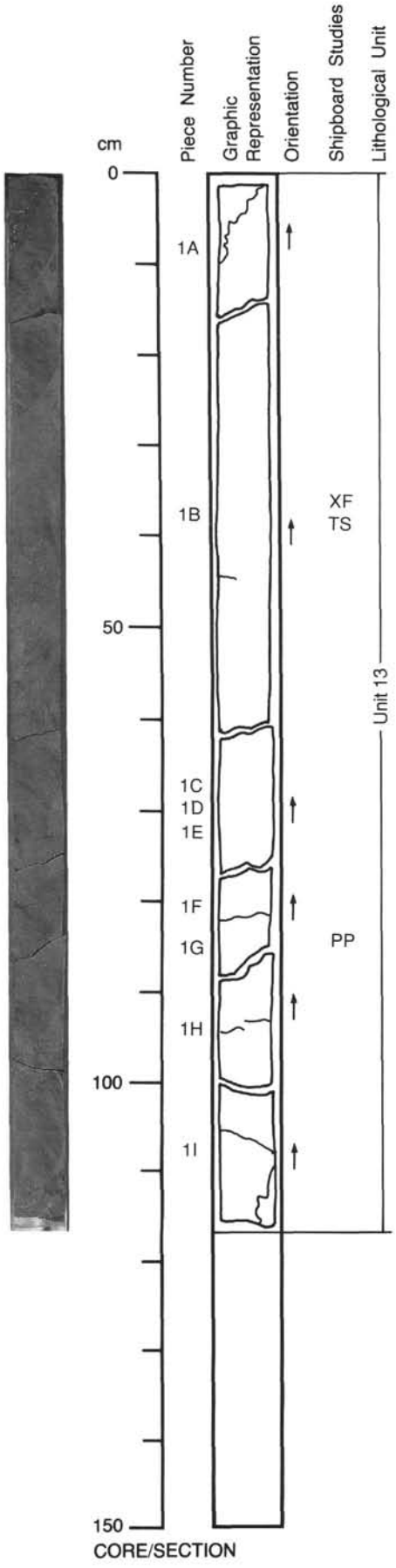


127-797C-31R-1

UNIT 13: APHYRIC BASALT

Pieces 1-4C

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained, seriate, interstitial.
VESICLES: None.
COLOR: Medium gray (N5).
STRUCTURE: Massive.
ALTERATION: Highly altered.
VEINS/FRACTURES: <1%; <2 mm; most are randomly oriented; veins are filled with green clays, pyrite, and silica. Pieces 3A and 3B contain a series of parallel veins of irregular thickness oriented at approximately 45 degrees to the core axis.
ADDITIONAL COMMENTS: Continued from 127-797C-30R-5.

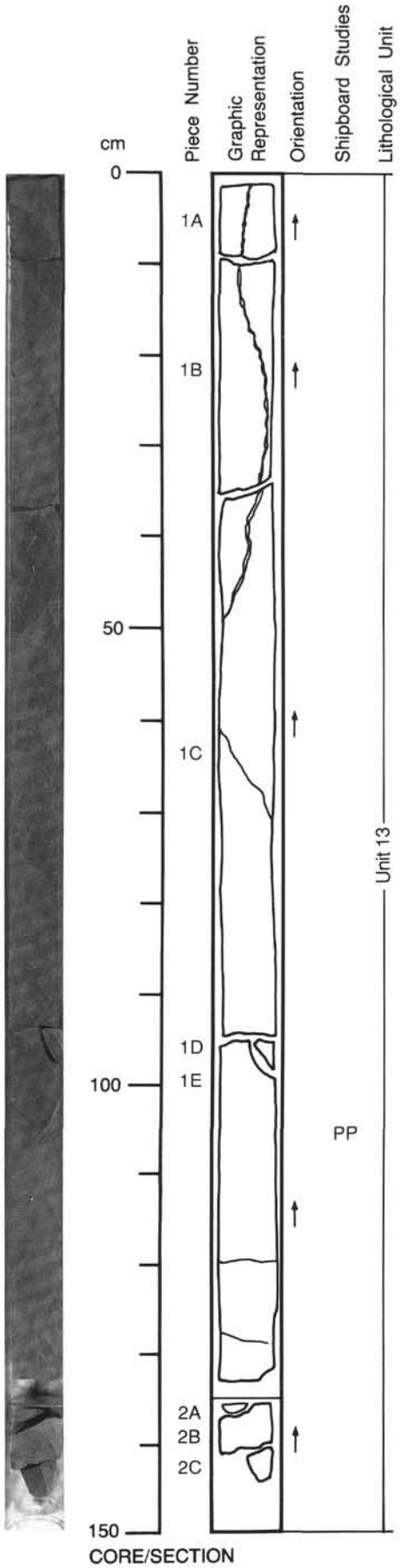


127-797C-31R-2

UNIT 13: APHYRIC BASALT

Pieces 1A-1I

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained, seriate, interstitial.
VESICLES: None.
COLOR: Medium gray (N5).
STRUCTURE: Massive.
ALTERATION: Highly altered.
VEINS/FRACTURES: <<1%; <2 mm; random; veins are filled with green clays, pyrite, and silica.
ADDITIONAL COMMENTS: Continued from 127-797C-31R-1.

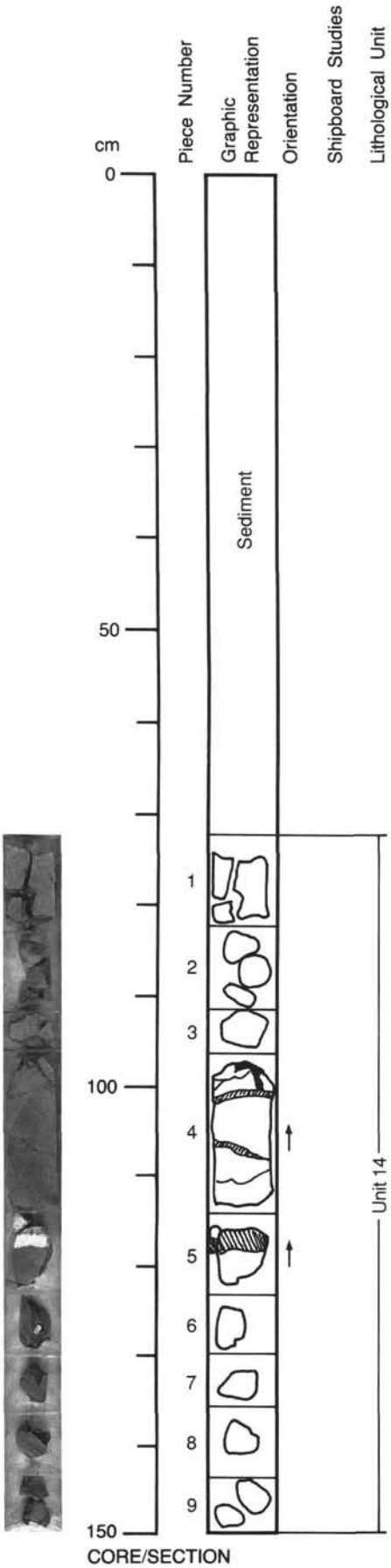


127-797C-31R-3

UNIT 13: APHYRIC BASALT

Pieces 1A-2C

CONTACTS: None
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained, interstitial.
VESICLES: None.
COLOR: Medium gray (N5). Lower half of Piece 2C has a light bluish gray (5B 7/1) color.
STRUCTURE: Massive.
ALTERATION: Highly altered. Secondary pyrite is shattered in the groundmass.
VEINS/FRACTURES: <1%; <1 mm; random; filled with green clay, zeolite(?), and pyrite.
ADDITIONAL COMMENTS: Grain-size gradually decreases from 110 cm downwards. Lowermost part of Piece 2C has microlitic groundmass showing very high alteration. Continued from 127-797C-31R-1.

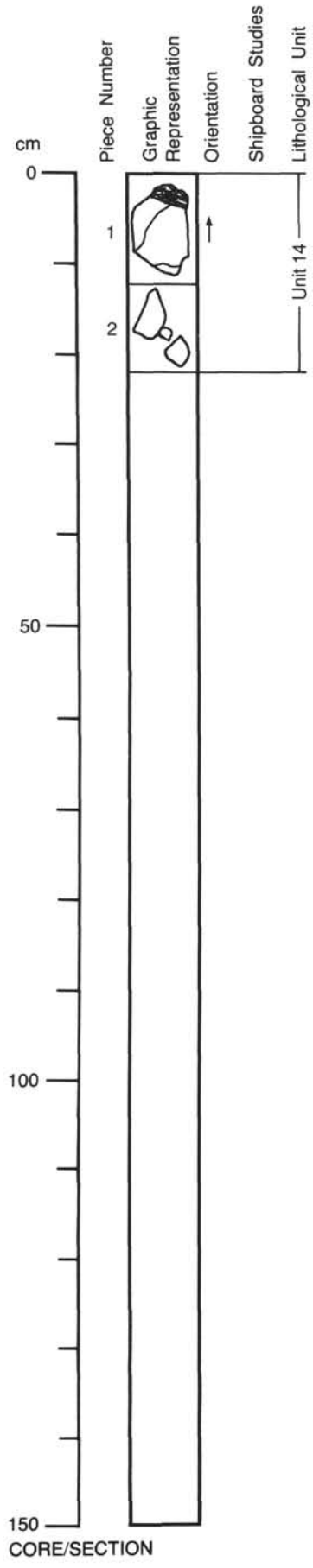


127-797C-31R-5

UNIT 14: APHYRIC BASALT

Pieces 1-9

CONTACTS: None.
PHENOCRYSTS: Uppermost part of the unit (Piece 1) is sparsely plagioclase phyric.
GROUNDMASS: Fine-grained.
VESICLES: Pieces 1, 2, and 3 have 5% vesicles. The amount of vesicles drastically decreases from Pieces 3 to 4.
COLOR: Medium gray (N5). Uppermost part of the unit is medium bluish gray (5B 7/1).
STRUCTURE: Massive.
ALTERATION: Highly altered.
VEINS/FRACTURES: <1%; <1-15 mm; random; filled with green clay, calcite, and minor pyrite.
ADDITIONAL COMMENTS: The grain-size is finer in Piece 1.

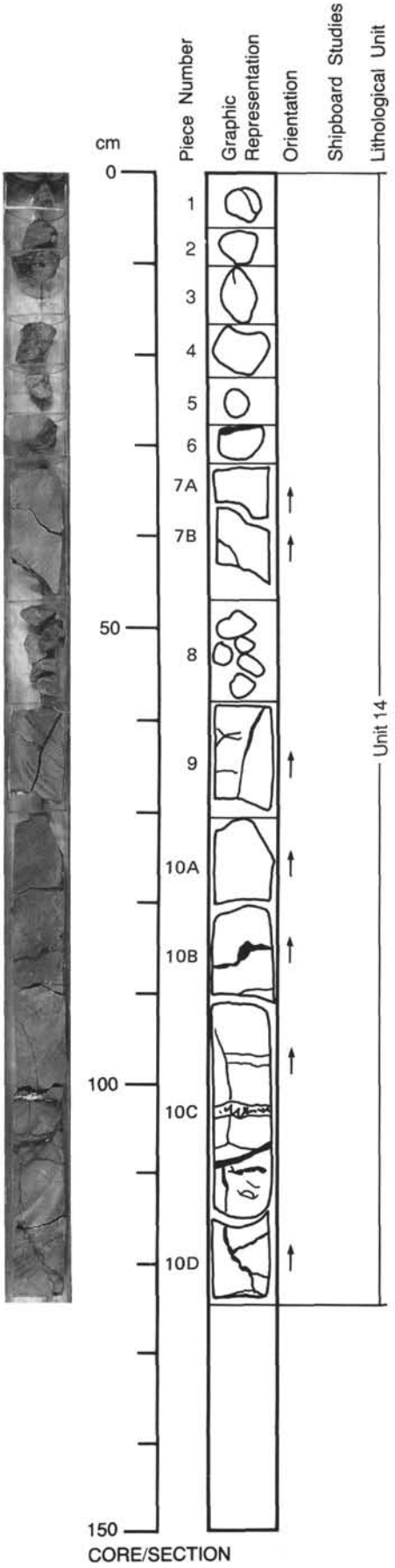


127-797C-31R-6

UNIT 14: APHYRIC BASALT

Pieces 1-2

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained.
VESICLES: None.
COLOR: Medium gray (N5).
STRUCTURE: Massive.
ALTERATION: Highly altered.
VEINS/FRACTURES: <5%; <1-10 mm; random; filled with green clay, calcite, and pyrite.
ADDITIONAL COMMENTS: Continued from 127-797C-31R-5.

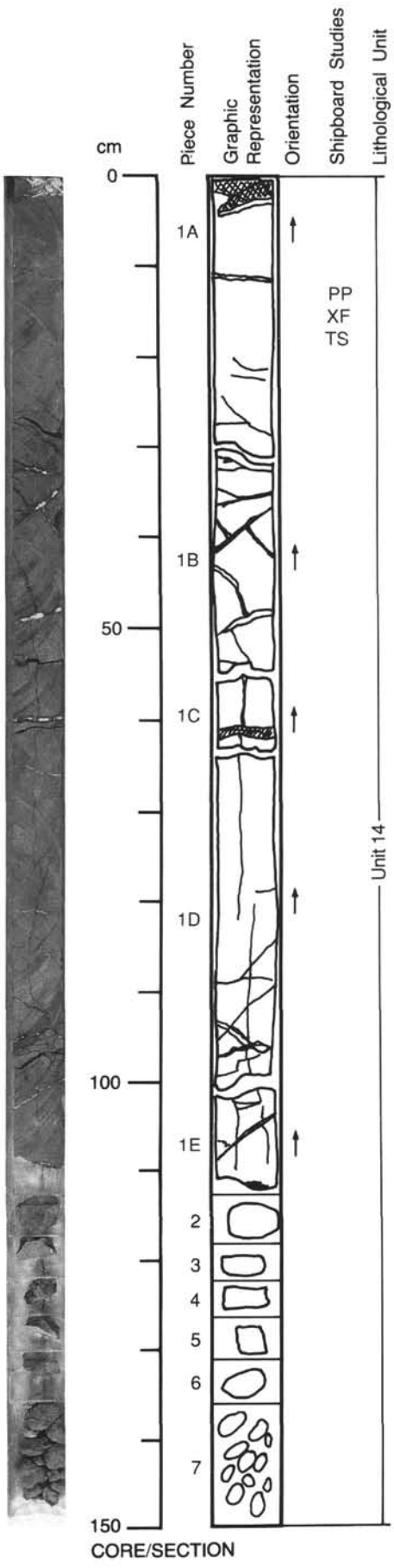


127-797C-32R-1

UNIT 14: APHYRIC BASALT

Pieces 1-10D

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained.
VESICLES: Trace; <1 mm; round; heterogeneous; concentrated in Pieces 1 and 6. Filled by carbonate mineral and dark green clays.
COLOR: Medium dark gray (N4).
STRUCTURE: Massive.
ALTERATION: Moderately altered.
VEINS/FRACTURES: 1%; <8 mm; random; filled by dark green clays and carbonate mineral.
ADDITIONAL COMMENTS: Continued from 127-797C-31R-6.

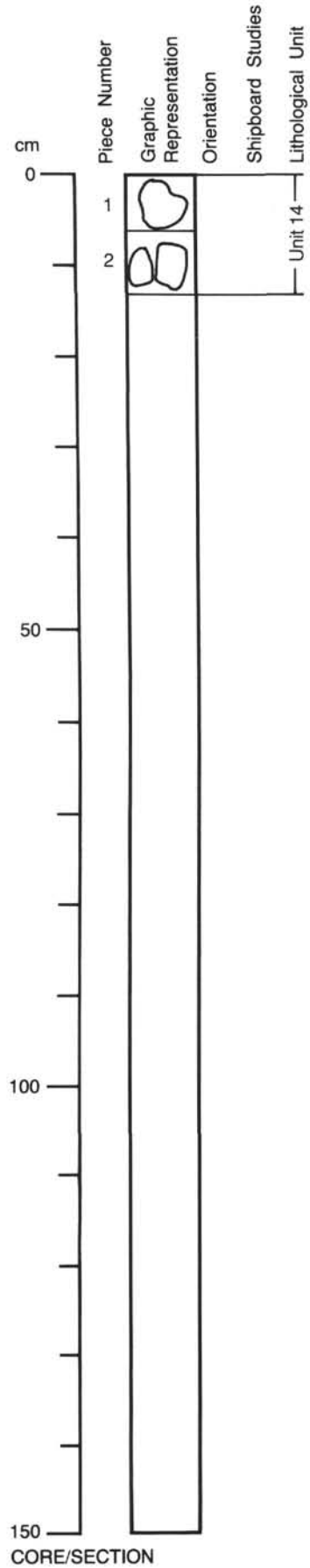


127-797C-32R-2

UNIT 14: APHYRIC BASALT

Pieces 1A-7

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained.
VESICLES: None.
COLOR: Medium dark gray (N4).
STRUCTURE: Massive veined basalt.
ALTERATION: Moderately altered.
VEINS/FRACTURES: 1%; <10 mm; random; filled by dark green clays and carbonate mineral.
ADDITIONAL COMMENTS: Continued from 127-797C-32R-1.

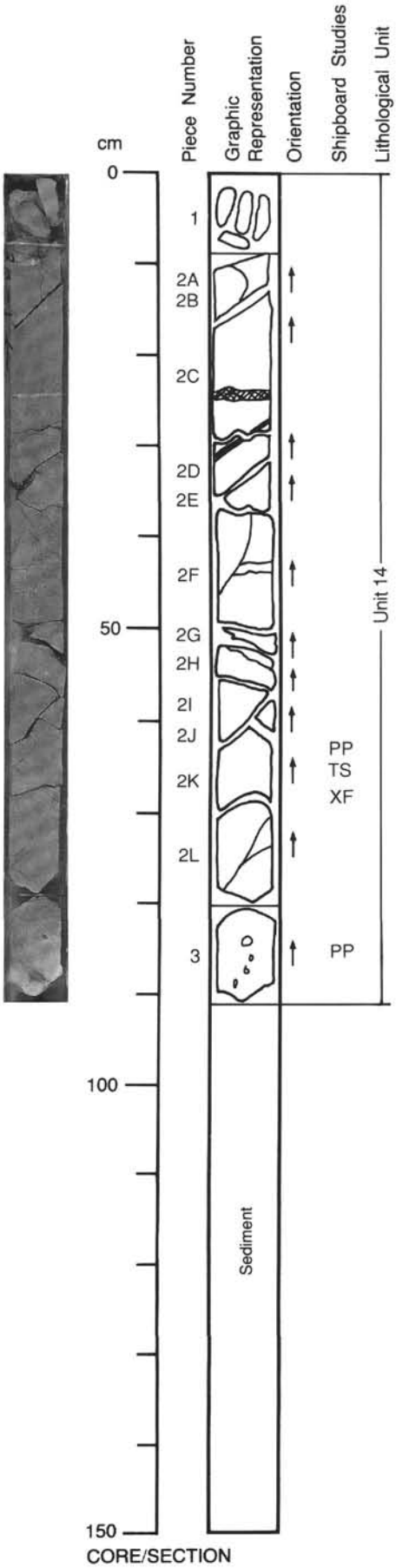


127-797C-32R-3

UNIT 14: APHYRIC BASALT

Pieces 1-2

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained.
VESICLES: None.
COLOR: Medium dark gray (N4).
STRUCTURE: Massive.
ALTERATION: Moderately altered.
VEINS/FRACTURES: None.
ADDITIONAL COMMENTS: Continued from 127-797C-32R-2.

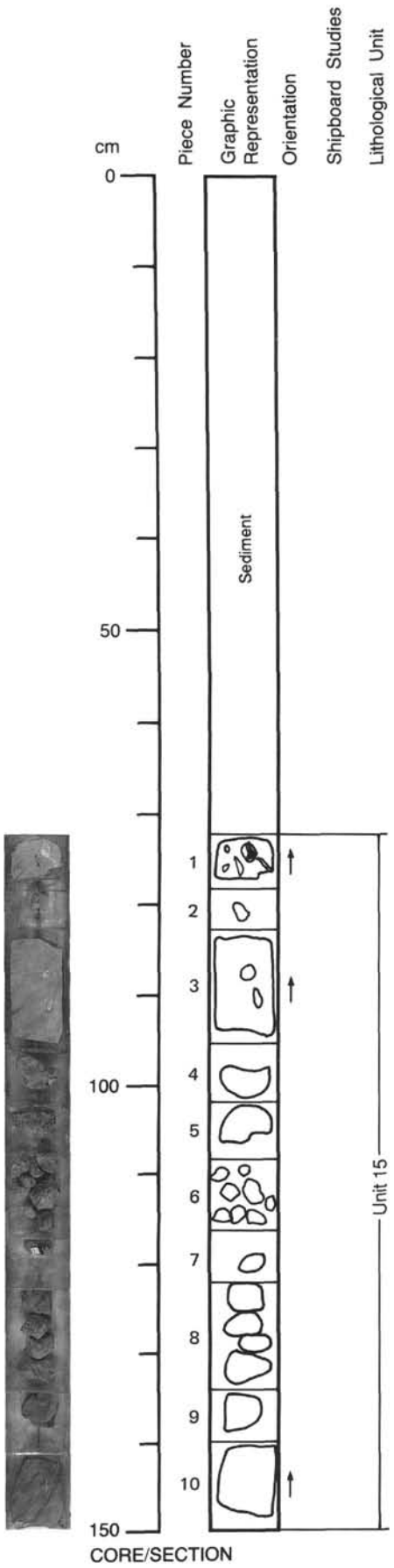


127-797C-33R-1

UNIT 14: APHYRIC BASALT

Pieces 1-3

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained.
VESICLES: 1%; <8 mm; round; heterogeneous; many partially unfilled vesicles are concentrated in Piece 3.
COLOR: Medium dark gray (N4) to medium light gray (N6).
STRUCTURE: Massive.
ALTERATION: Moderately.
VEINS/FRACTURES: 1%; <6 mm; perpendicular to length; filled by dark greenclays, carbonated, and cryptocrystalline quartz.
ADDITIONAL COMMENTS: Piece 1 is drilling rubble of claystone. Piece 3 is bleached, finer grained than main part of section, and contains relatively large, unfilled vesicles. This piece may represent a chilled marginal facies. From 92 cm downward the section is composed of sediment. Continued from 127-797C-31R-6.

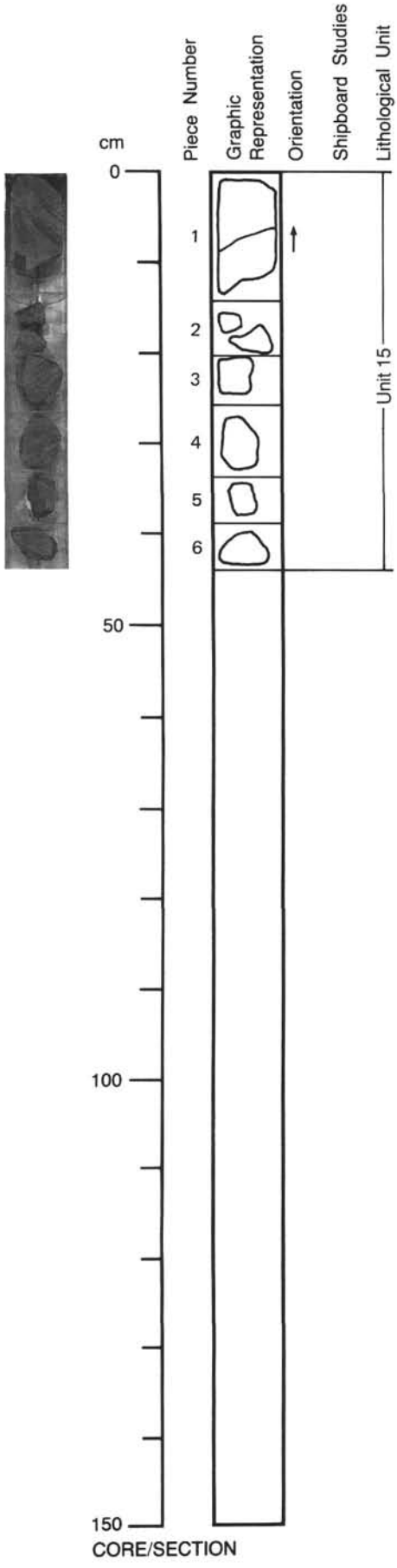


127-797C-33R-3

UNIT 15: APHYRIC BASALT

Pieces 1-10

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained.
VESICLES: 0-10%; <10 mm; round; heterogeneous; unfilled or filled by carbonate and quartz from 72-80 cm; filled by carbonate and quartz from 80-90 cm; dark green clays from 90-135 cm; few vesicles below 135 cm. The larger vesicles are found in the finer grained parts towards the sediments (Pieces 1 and 3).
COLOR: Medium dark gray (N4) to medium light gray (N6).
STRUCTURE: Massive.
ALTERATION: Moderately altered.
VEINS/FRACTURES: None.
ADDITIONAL COMMENTS: The grain-sizes decreases towards the sediments. Piece 1 may represent a chilled marginal facies.

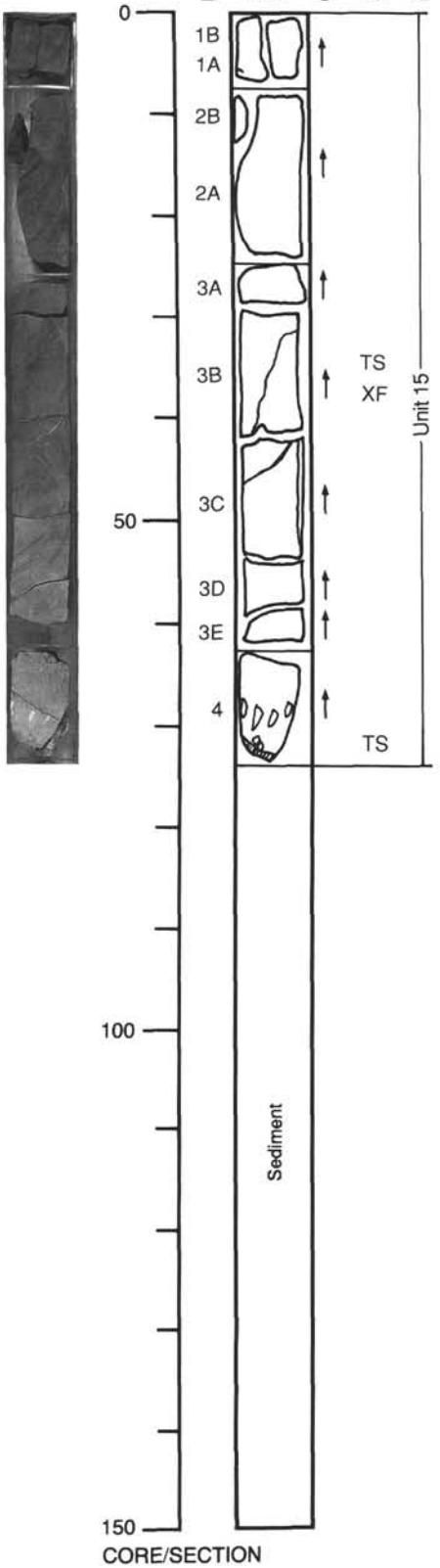


127-797C-33R-4

UNIT 15: APHYRIC BASALT

Pieces 1-6

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained.
VESICLES: None.
COLOR: Medium dark gray (N4).
STRUCTURE: Massive.
ALTERATION: Slightly altered.
VEINS/FRACTURES: None.
ADDITIONAL COMMENTS: Vein filled with quartz crystals (<2 mm) in Piece 5. Continued from 127-797C-33R-3.

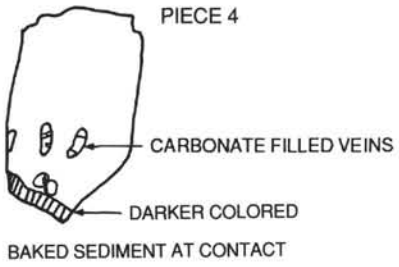


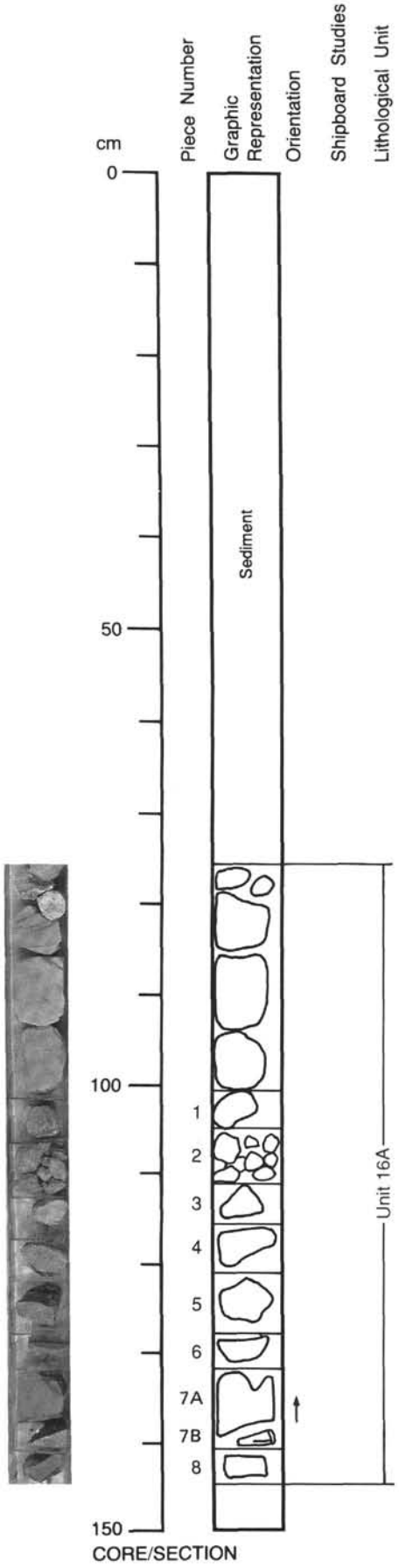
127-797C-34R-1

UNIT 15: APHYRIC BASALT

Pieces 1A-4

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained.
VESICLES: Vesicles filled by calcite found close to the sediments and are elongated parallel to long axis of the core.
COLOR: Medium dark gray (N5) to medium light gray (N6).
STRUCTURE: Massive.
ALTERATION: Moderately altered.
VEINS/FRACTURES: Trace; 1-2 mm; no preferred orientation; filled by dark clays and calcite.
ADDITIONAL COMMENTS: Piece 4 is relatively fine-grained, appear bleached, and contains large (<10 mm) elongated vesicles. This piece may represent a chilled marginal facies. Continued from 127-797C-33R-4.



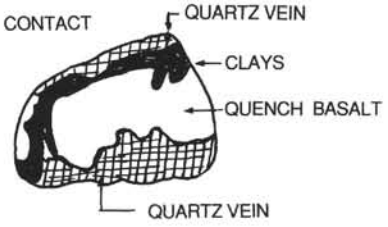


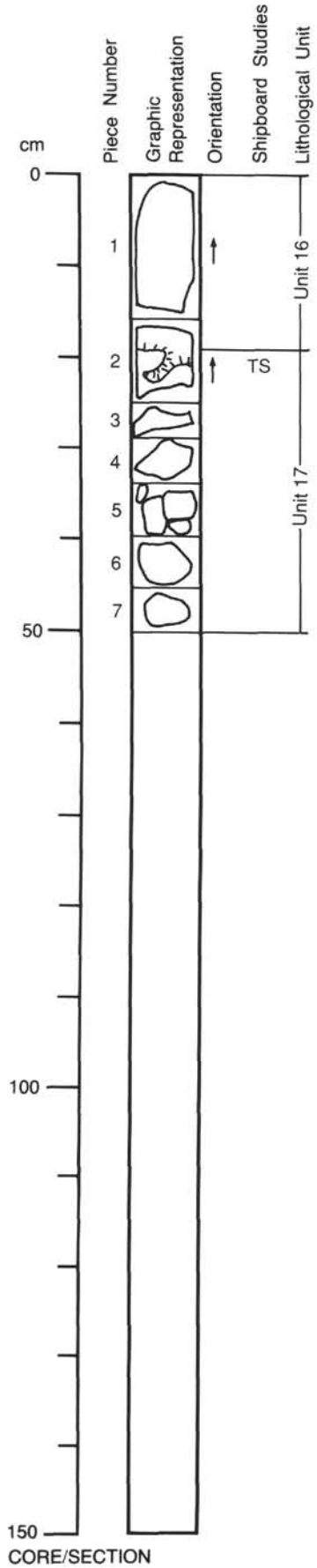
127-797C-36R-1

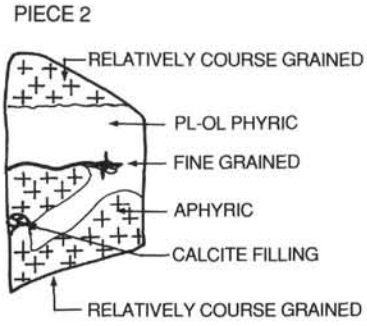
UNIT 16: APHYRIC BASALT

Pieces from 78 cm, 1-9

CONTACTS: Chilled contact against overlying sediments; sediments are baked.
PHENOCRYSTS: None.
GROUNDMASS: Cryptocrystalline to fine-grained.
VESICLES: Trace; <1; round to irregular; heterogeneous; concentrated in upper chilled parts. Filled by dark green clays and calcite.
COLOR: Medium light gray (N5) to medium dark gray (N4).
STRUCTURE: Massive.
ALTERATION: Highly to moderately altered.
VEINS/FRACTURES: <1%; <2 mm; random; filled by dark green clays and calcite. Quartz and pyrite filled veins are intruded along the basalt-sediment interface.
ADDITIONAL COMMENTS: The sediment/basalt contact is defined by a basalt apophyse which intrudes the sediments and is chilled against these. The upper parts (to Piece 4) are very fine-grained and have a light gray color.







127-797C-36R-2

UNIT 16: APHYRIC TO SPARSELY PLAGIOCLASE OLIVINE PHYRIC BASALT

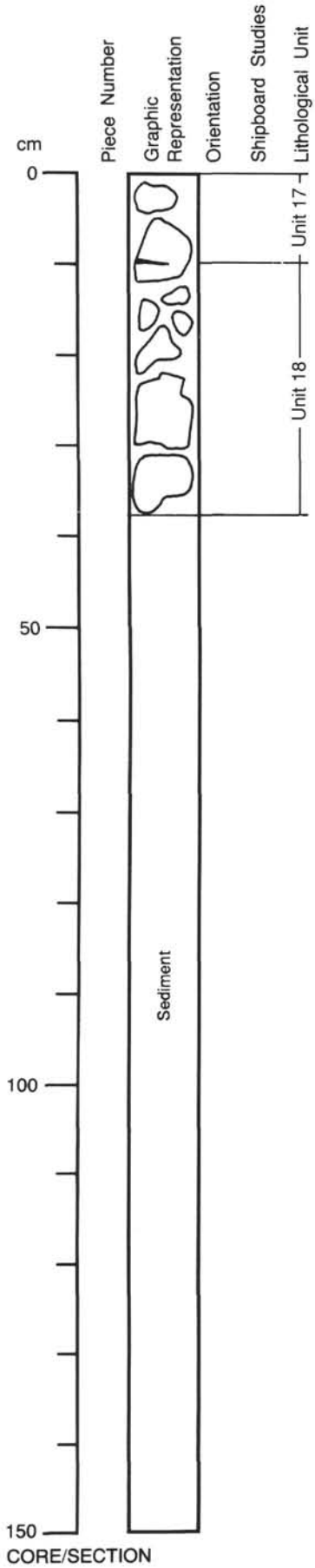
Pieces 1-2 (20 cm)

CONTACTS: Chilled against underlying Unit 16B.
PHENOCRYSTS: Appear only in the chilled margin.
Plagioclase - 1%; <1; euhedral.
Olivine - trace; <1; subhedral.
GROUNDMASS: Fine-grained to cryptocrystalline.
VESICLES: Trace; <1 mm; round; irregular; filled by dark green clays.
COLOR: Medium dark gray (N4).
STRUCTURE: Massive.
ALTERATION: Highly to moderately altered.
VEINS/FRACTURES: None.
ADDITIONAL COMMENTS: Chilled against underlying coarser grained aphyric basalt and intruding this with a 5-10 mm wide apophyse. Continued from 127-797C-36R-1.

UNIT 17: APHYRIC BASALT

Pieces 2 (20 cm)-7

CONTACTS: Upper contract defined by intrusion of Unit 16.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained.
VESICLES: Marioles.
COLOR: Medium dark gray (N5).
STRUCTURE: Unknown.
ALTERATION: Moderately altered.
VEINS/FRACTURES: <<1%; trace; random; few calcite and pyrite filled veins.



127-797C-36R-3

UNIT 17: APHYRIC BASALT

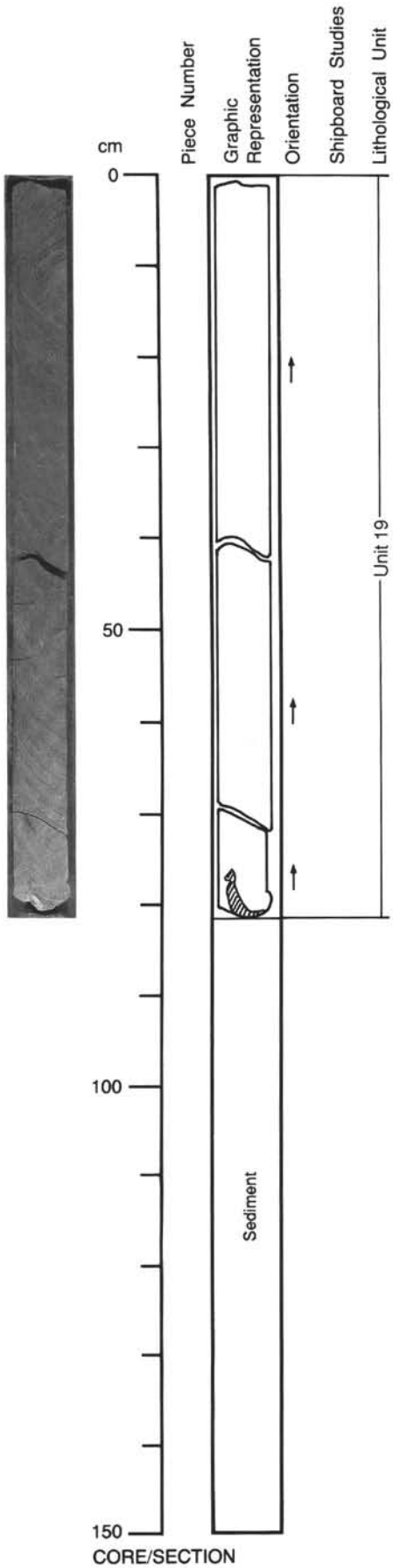
Pieces 0-10 cm

CONTACTS: Lower contact defined by the intrusion of Unit 18.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained.
VESICLES: None.
COLOR: Medium dark gray (N5).
STRUCTURE: Massive.
ALTERATION: Moderately altered.
VEINS/FRACTURES: None.
ADDITIONAL COMMENTS: Continued from 127-797C-36R-2.

UNIT 18: APHYRIC BASALT

Pieces 10-35 cm

CONTACTS: Upper contact chilled against overlying Unit 17.
PHENOCRYSTS: None.
GROUNDMASS: Cryptocrystalline to fine-grained.
VESICLES: None.
COLOR: Medium light gray (N4) to medium dark gray (N5).
STRUCTURE: Massive.
ALTERATION: Moderately altered.

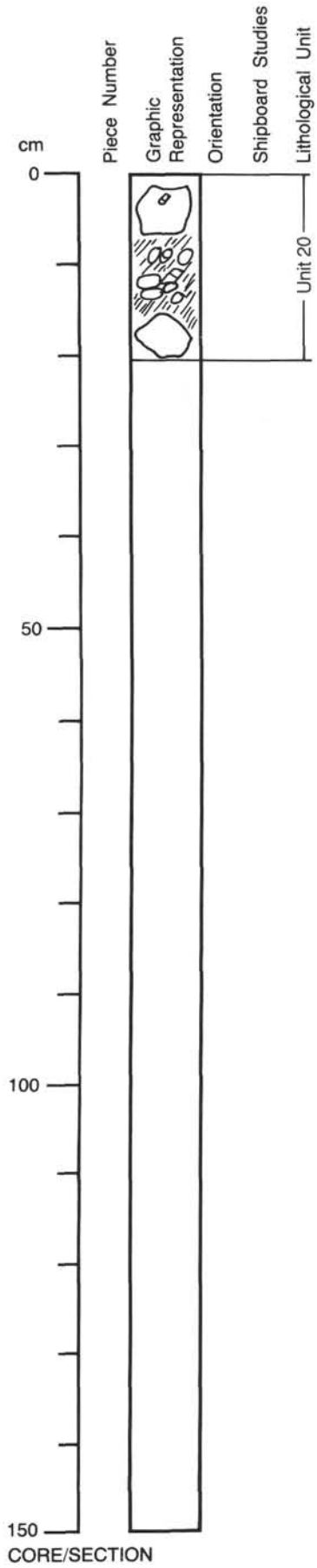


127-797C-41R-1

UNIT 19: APHYRIC TO SPARSELY PLAGIOCLASE PHYRIC BASALT

Pieces not numbered

CONTACTS: Lower contact is chilled against sediments.
PHENOCRYSTS:
Plagioclase - 1%; <1; euhedral.
GROUNDMASS: Fine-grained to cryptocrystalline.
VESICLES: Trace; <2 mm; round; irregular; filled by calcite and pyrite.
COLOR: Medium dark gray (N5) to medium light gray (N6).
STRUCTURE: Massive.
ALTERATION: Medium to highly altered.
VEINS/FRACTURES: <1%; trace; irregular; filled by calcite.
ADDITIONAL COMMENTS: Grain-size and alteration increase towards the contact. The sediments are baked. Pyrite, clay, calcite, and quartz bearing veins are intruded along the contact.

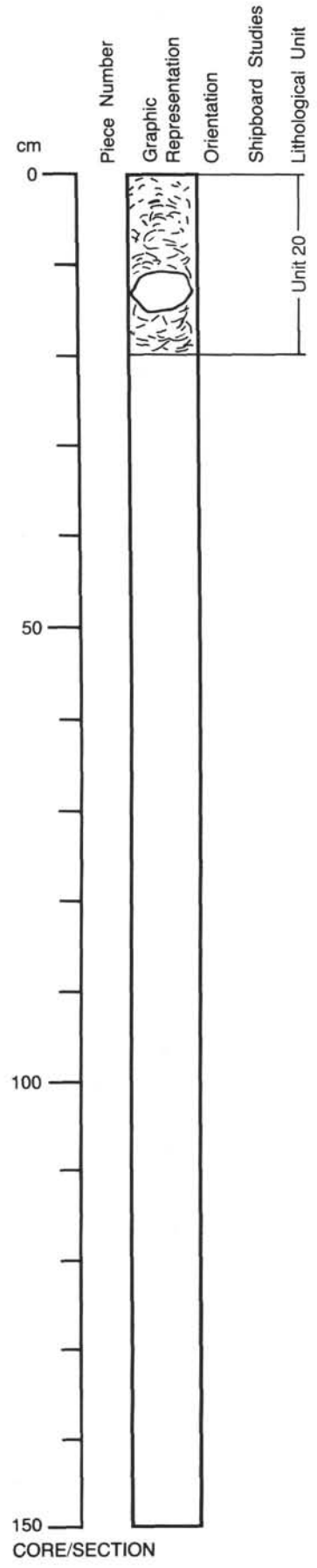


127-797C-42R-CC

UNIT 20: APHYRIC DOLERITE

Pieces not numbered

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Medium-grained, ophitic to subophitic.
VESICLES: 5%; <3 mm; round to irregular; homogeneous; largely unfilled, some filled by pyrite.
COLOR: Dark green gray (5B 4/1).
STRUCTURE: Massive.
ALTERATION: Very highly to totally altered.
VEINS/FRACTURES: None.
ADDITIONAL COMMENTS: Plagioclase laths are radiating (<3 mm) and skeletal and replaced by clays. Clinopyroxene are anhedral to subophitic and ophitic (some have plumose texture), totally altered, and reach a maximum size of 13 mm. Magnetite reaches 1 mm.

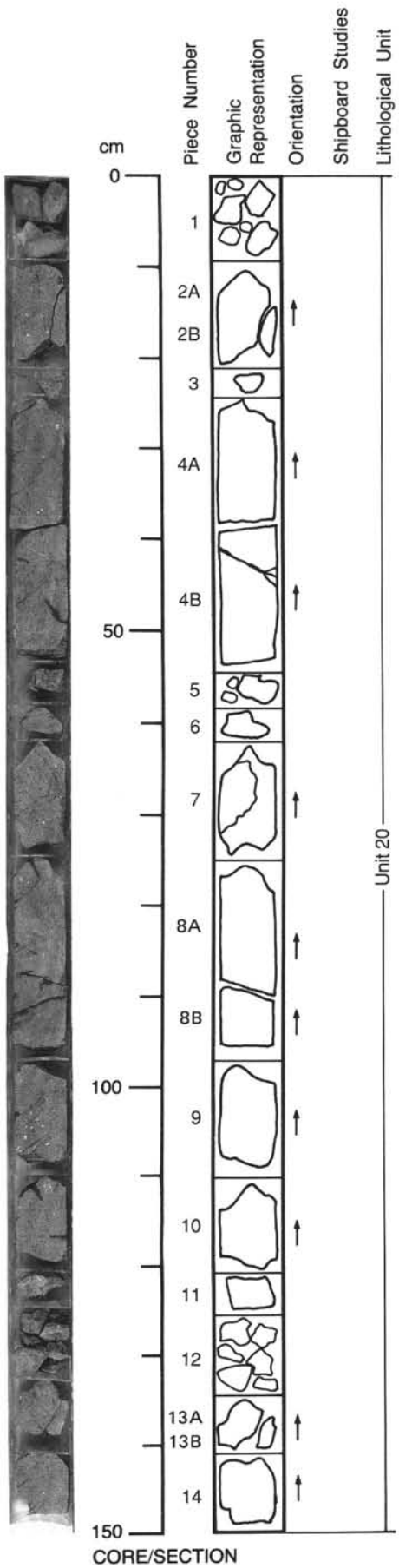


127-797C-43R-CC

UNIT 20: APHYRIC DOLERITE

Pieces not numbered

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Medium-grained, subophitic.
VESICLES: 3%; <2 mm; round to irregular; homogeneous; largely unfilled.
COLOR: Dark green gray (5B 4/1).
STRUCTURE: Massive.
ALTERATION: Highly altered.
VEINS/FRACTURES: None.
ADDITIONAL COMMENTS: Continued from 127-797C-42R-CC.

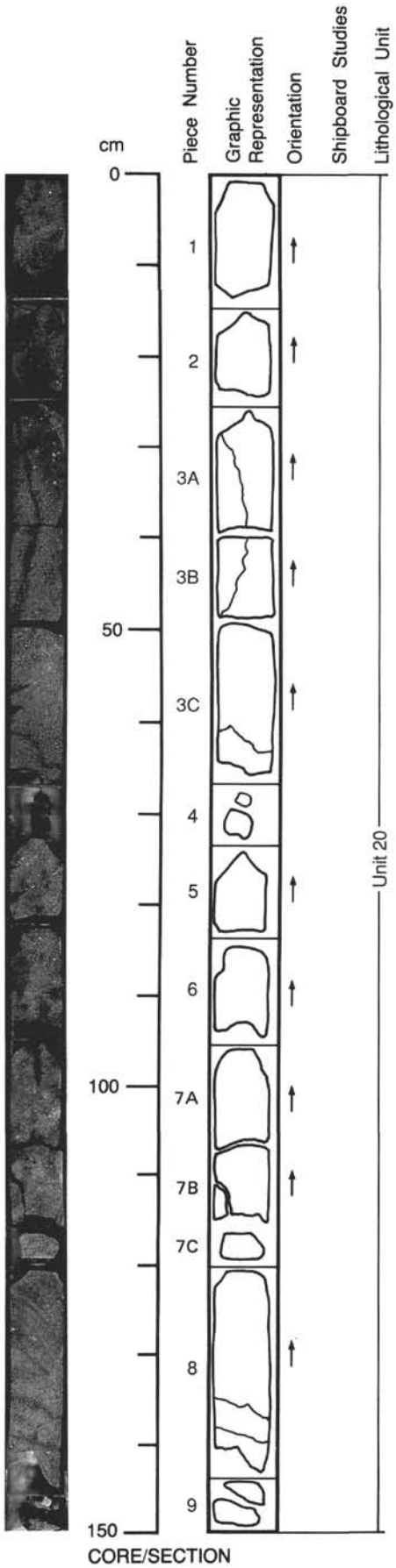


127-797C-44R-1

UNIT 20: APHYRIC DOLERITE

Pieces 2-14

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Medium-grained.
VESICLES: <5%; <6 mm; round to irregular; random; vesicles are either filled with green clays or rimmed with green clays and filled by calcite or pyrite.
COLOR: Medium gray (N5).
STRUCTURE: Massive.
ALTERATION: Highly altered. Pieces 4, 8, and 9 have mottled alteration.
VEINS/FRACTURES: <1%; <1 mm; random; veins are filled with carbonate, pyrite, and green clays.
ADDITIONAL COMMENTS: Piece 1 is rubble of medium-grained dolerite, microcrystalline basalt and minor black clayey siltstone. Continued from 127-797C-43R-CC.

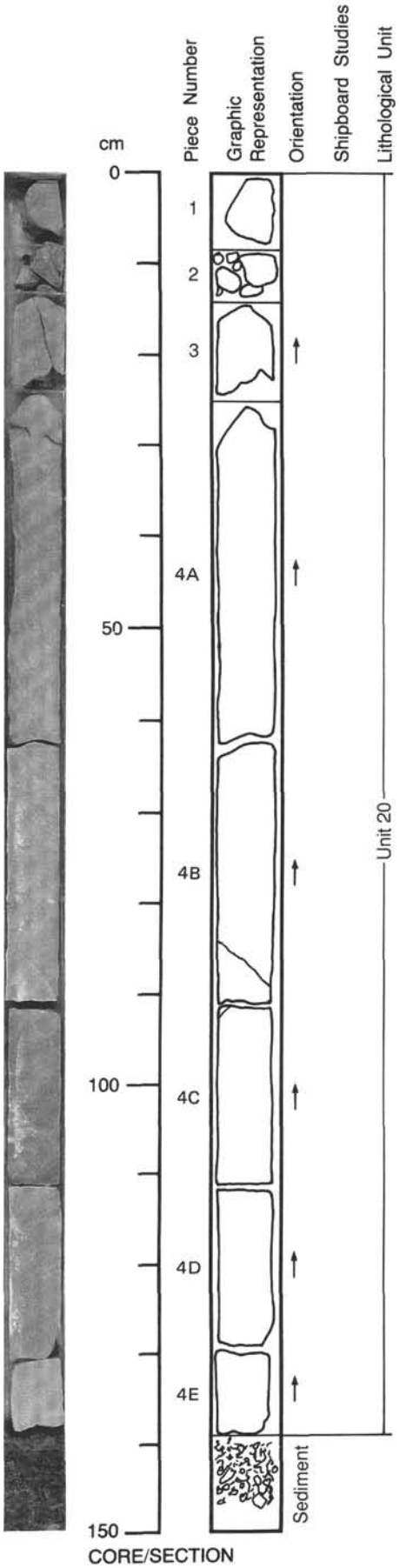


127-797C-44R-2

UNIT 20: APHYRIC DOLERITE

Pieces 1-10

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Medium-grained. Groundmass grain-size decreases slightly down section.
VESICLES: <3%; <5 mm; round to irregular; random; vesicles are filled with green clays or are rimmed with green clays and filled with calcite.
COLOR: Medium gray (N5).
STRUCTURE: Massive.
ALTERATION: Highly altered. A zone of lighter colored alteration extends 10 mm away from the vein in Pieces 3A and 3B.
VEINS/FRACTURES: <1%; <1 mm; random; veins are filled with green clays, carbonate, and pyrite.

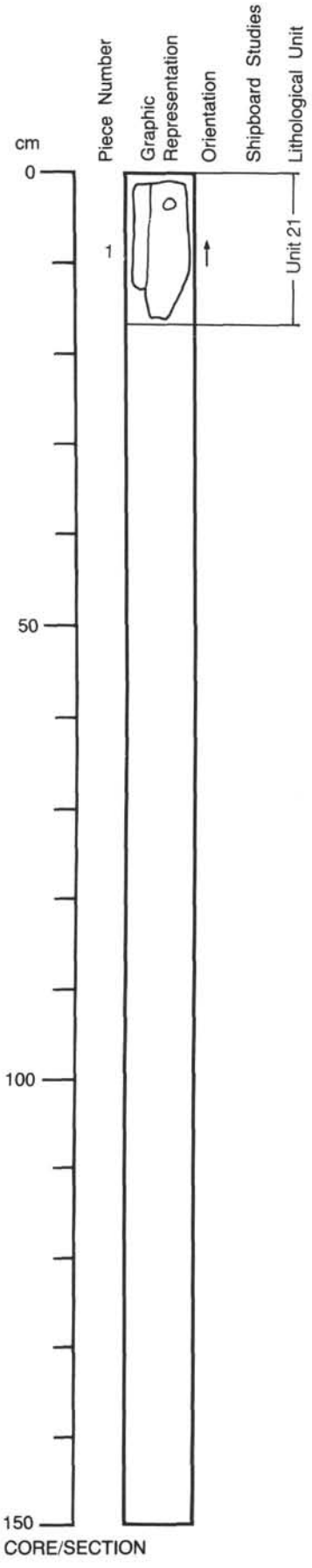


127-797C-44R-3

UNIT 20: APHYRIC DOLERITE

Pieces 1-4E

CONTACTS: A chilled margin against the underlying sediments (represented by drilling breccia from 139 to 148 cm) is indicated by the decrease in grain-size down section.
PHENOCRYSTS: None.
GROUNDMASS: Grades from medium-grained at the top of the section to microcrystalline in Piece 4E (immediately above drilling breccia of sediment).
VESICLES: <1%; <2 mm; round to irregular; random; vesicles in upper part of section are filled with green clays and carbonate. In lower part of section vesicles are predominantly filled with pyrite.
COLOR: Varies from medium gray (N5) in Piece 1 to greenish gray (5G 6/1) in Piece 4E.
STRUCTURE: Massive.
ALTERATION: Highly altered at the top of the section to very highly or totally altered in Piece 4E.
VEINS/FRACTURES: <1%; <1 mm; random; veins are filled with calcite and pyrite.
ADDITIONAL COMMENTS: Drilling rubbble occupies the section between 139 and 148 cm and is composed of fragments of black siltstone and light gray, fine-grained sandstone. Continued from 127-797C-44R-2.

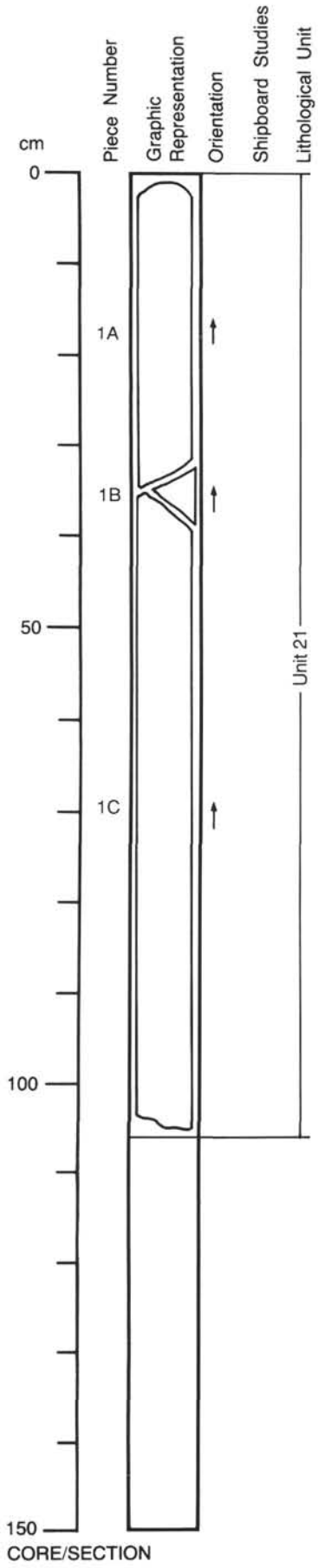


127-797C-44R-4

UNIT 21: APHYRIC BASALT

Piece 1

CONTACTS: None.
PHENOCRYSTS:
Plagioclase - <1%; <2 mm; euhedral, occur in upper portion of Piece 1.
GROUNDMASS: Grain-size varies down Piece 1 from cryptocrystalline to fine-grained.
VESICLES: <1%; <2 mm; round to irregular; random; vesicles are filled with pyrite and calcite. One large vesicle/vug at 3 cm which is 15 mm in diameter, and is rimmed with calcite and filled with zeolite(?).
COLOR: Varies down Piece 1, from greenish gray (5G 6/1) at the top to medium light gray (N6) at the bottom.
STRUCTURE: Massive.
ALTERATION: Highly altered. Groundmass is highly altered with carbonate.
VEINS/FRACTURES: <1%; <2 mm; random; a vertical vein which runs down the entire piece is filled with zeolite. Other very thin veins (<<1 mm thick) are filled with green clays and pyrite.

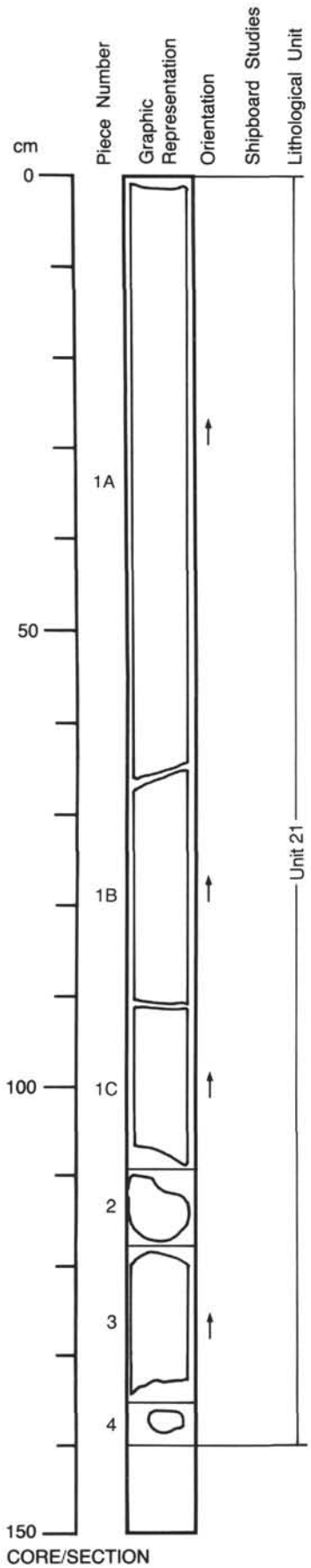


127-797C-45R-1

UNIT 21: APHYRIC DOLERITE

Pieces 1A-1C

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained, interstitial. Grain-size increases down section.
VESICLES: <1%; <5 mm; irregular; random; vesicles are filled by green clays or rimmed with green clays and filled by pyrite or calcite.
COLOR: Medium dark gray (N4).
STRUCTURE: Massive.
ALTERATION: Highly altered.
VEINS/FRACTURES: None.
ADDITIONAL COMMENTS: Continued from 127-797C-44R-4.

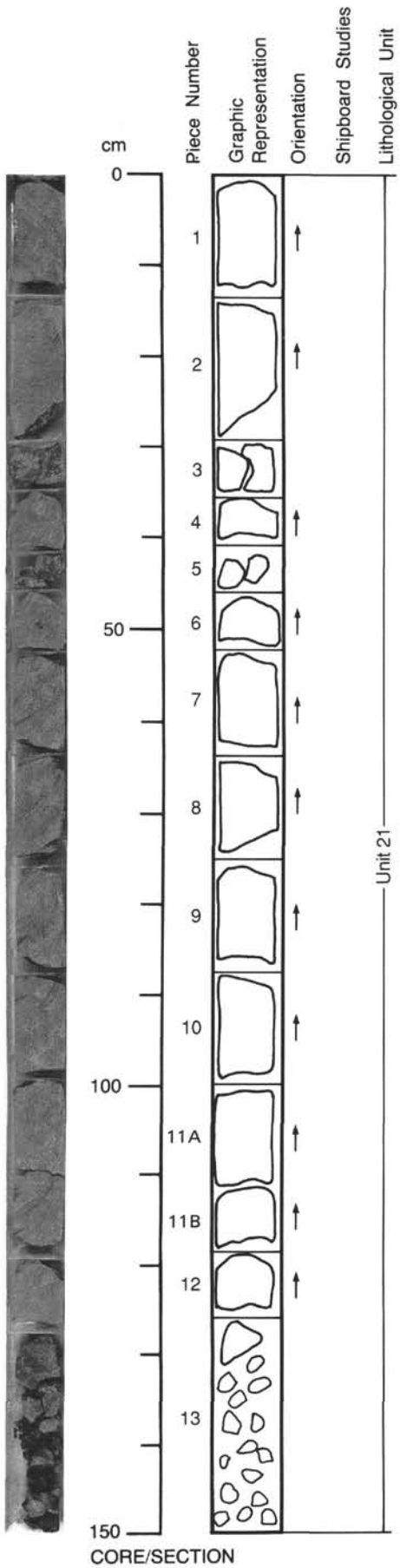


127-797C-45R-2

UNIT 21: APHYRIC BASALT

Pieces 1-4

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained.
VESICLES: <1%; <5 mm; round to irregular; homogeneous; filled by calcite and pyrite.
COLOR: Medium dark gray (N4).
STRUCTURE: Massive.
ALTERATION: Medium altered.
VEINS/FRACTURES: None.
ADDITIONAL COMMENTS: Continued from 127-797C-45R-1.

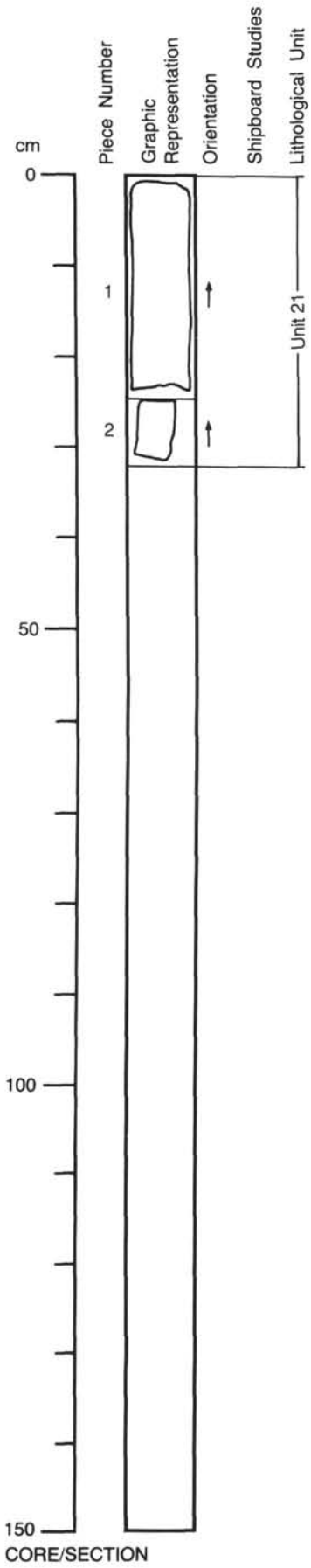


127-797C-45R-3

UNIT 21: APHYRIC BASALT

Pieces 1-13

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained.
VESICLES: <1%; <4 mm; round to irregular; homogeneous; filled with dark green clays, calcite, and pyrite.
COLOR: Medium dark gray (N5).
STRUCTURE: Massive.
ALTERATION: Medium altered.
VEINS/FRACTURES: Trace; <1 mm; irregular; filled by dark green clays and calcite.
ADDITIONAL COMMENTS: Continued from 127-797C-45R-2.



127-797C-45R-4

UNIT 21: APHYRIC BASALT

Pieces 1-2

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Fine-grained.
VESICLES: 1%; <4 mm; round to irregular; homogeneous; filled by pyrite and dark green clays.
COLOR: Medium dark gray (N5).
STRUCTURE: Massive.
ALTERATION: Moderately altered.
VEINS/FRACTURES: None.
ADDITIONAL COMMENTS: Continued from 127-797C-45R-4.

127-797C-8R-02 (Piece 1,116-118 cm) WHERE SAMPLED: Near top of Unit 1

ROCK NAME: SPARSELY PLAGIOCLASE OLIVINE PHYRIC BASALT

GRAIN SIZE: Cryptocrystalline to microcrystalline

TEXTURE: Glomeroporphyritic to spherulitic

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Plagioclase	1	1	0.4-2		euhedral-subhedral	moderately altered to brown clays; glomeroporphyritic clots
Olivine	0	<1	<1.5		euhedral-subhedral	with plagioclase in clots; totally replaced by green-brown clays
GROUNDMASS						
Plagioclase	15-30	15-30	<0.1		lath-shaped	
Magnetite	<1	<1	<0.03		skeletal	
Cr-spinel	trace	trace	<0.002		euhedral	

VESICLES/ CAVITIES	PERCENT	LOCATION	SIZE (mm)	FILLING	SHAPE
Vesicles	<1	near crystal clots	<1.5	brown, saponitic? clays	round

COMMENTS: Groundmass was originally glassy to microlitic. Glass totally replaced by clays; mesostasis partially replaced by clays, but the extent is difficult to estimate. The rock varies from moderately to highly altered. Piece numbers were not assigned to this section. Two thin sections exist

127-797C-9R-01 (Piece 16,90-92 cm) WHERE SAMPLED: Interior of Unit 1

ROCK NAME: SPARSELY PLAGIOCLASE OLIVINE PHYRIC BASALT

GRAIN SIZE: Fine-grained

TEXTURE: Glomeroporphyritic, interstitial

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Plagioclase	<1	1	<1		euhedral	mostly replaced by secondary minerals
Olivine	0	<1	<1		subhedral	completely replaced by brown clays
GROUNDMASS						
Plagioclase	30	50	<0.1		lath-shaed	
Magnetite	<1	<1	<0.05		subhedral	

VESICLES/ CAVITIES	PERCENT	LOCATION	SIZE (mm)	FILLING	SHAPE
Vesicles	trace	random	<0.2	brown clays	round

COMMENTS: Mesostasis is completely replaced by brownish clays

127-797C-10R-01 (Piece 2I,92-93 cm) WHERE SAMPLED: Middle part of Unit 2

ROCK NAME: Aphyric basalt

GRAIN SIZE: Fine-grained

TEXTURE: Porphyritic, seriate, interstitial

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPO-SITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Plagioclase	<1%	<1%	<2		euhedral-subhedral	some grains slightly altered
GROUNDMASS						
Plagioclase	30-40	30-40	<0.5		lath-shaped	slightly altered
Clinopyroxene	<<1	3-8	<0.1		anhedral	almost totally altered to light greenish clays
Olivine	0	3-4	<0.1		anhedral-subhedral	totally altered to light green clays
Magnetite	<<1	<<1	<0.02		anhedral	

VESICLES/ CAVITIES	PERCENT	LOCATION	SIZE (mm)	FILLING	SHAPE
Vesicles	<1		1	none	round

COMMENTS: Mafic phases in the groundmass are nearly totally replaced by light green clays and only a few small traces of pyroxene are left. The original percentage of mafic phases was 5-10%. Rock is moderately to highly altered.

127-797C-10R-04 (Piece 9,109-111 cm) WHERE SAMPLED: Lower part of Unit 2

ROCK NAME: SPARSELY PLAGIOCLASE PHYRIC BASALT

GRAIN SIZE: Fine- to medium-grained

TEXTURE: Coarsely porphyritic, seriate, interstitial

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPO-SITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Plagioclase	1	1	<3		subhedral	slightly altered
GROUNDMASS						
Clinopyroxene	3-5	5-10	<1.5		anhedral	green, often sheaf-like/variolitic; partially replaced by clays
Plagioclase	40	40	<1.5		subhedral-anhedral, elongate	slightly replaced by clays
Magnetite	1	1	<0.1		subhedral-anhedral	
Cr-spinel	trace	trace	<0.02		euhedral	fresh to moderately altered, next to olivine pseudomorphs and plagioclase
Olivine	0	5-10	<0.5		subhedral-anhedral	totally altered to clay minerals

COMMENTS: Some pseudomorphed olivine may reach 1 mm in size. Irregular sulphide grains occur in clay pseudomorphs after olivine and in the altered mesostasis .

127-797C-11R-01 (Piece 10,72-74 cm) WHERE SAMPLED: Near the top of Unit 3; chilled margin

ROCK NAME: SPARSELY PLAGIOCLASE OLIVINE PHYRIC BASALT

GRAIN SIZE: Fine-grained to cryptocrystalline

TEXTURE: Interstitial to spherulitic

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Plagioclase	<1	1	<1		euhedral	partially replaced by clays
Olivine	0	<1	<1		subhedral	completely replaced by clays, occur in glomeroporphyritic clusters with plagioclase
GROUNDMASS						
Plagioclase	30	50	<0.2		lath-shaped	
Magnetite	1	1	<0.05		subhedral	
Cr-spinel	trace	trace	<0.2		euhedral	

COMMENTS: Texturally the thin section ranges from interstitial to spherulitic towards the sediment contact. Banding primarily reflects this textural range, as well as variation in the degree of alteration.

127-797C-12R-02 (Piece 1E,81-83 cm) WHERE SAMPLED: Interior of Unit 3

ROCK NAME: APHYRIC BASALT

GRAIN SIZE: Fine- to medium-grained

TEXTURE: Seriate, interstitial

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
Plagioclase	60	60	<3		lath-shaped	some grains show swallow-tail shape
Olivine	3	5	<0.3		subhedral	some grains show alteration along fractures to clays
Clinopyroxene	20	20	<1.5		anhedral	radiating, sheaf-like to comb-like, often radiating from plagioclase grain
Magnetite	1-2	1-2	<0.3		skeletal	

COMMENTS: Rock is slightly altered.

127-797C-12R-04 (Piece 2B,35-37 cm) WHERE SAMPLED: Interior of Unit 3

ROCK NAME: APHYRIC BASALT

GRAIN SIZE: Fine- to medium-grained

TEXTURE: Seriate, interstitial

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
Plagioclase	60	60	<4		euhedral to subhedral laths	slightly altered to clays; sometimes show acicular shape
Olivine	5	7	<0.5		subhedral	some grains are partially altered to clays along fractures
Clinopyroxene	20	20	<1		anhedral	radiating, sheaf-like to comb-like, radiating from plagioclase grains
Magnetite	1-2	1-2	<0.1		skeletal	

COMMENTS: Rock is moderately altered.

127-797C-13R-02 (Piece 6B,70-72 cm) WHERE SAMPLED: Interior of Unit 3

ROCK NAME: APHYRIC BASALT

GRAIN SIZE: Fine-grained

TEXTURE: Interstitial, seriate

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
Plagioclase	50	50	<1.5		lath-shaped	slightly to moderately altered to clays
Clinopyroxene	10	10	<1		anhedral	sometimes subophitic, slightly to moderately altered
Olivine	0	1-3	<0.4		euhedral	totally replaced by green clays
Magnetite	1-2	1-2	<0.2		skeletal	

COMMENTS: Mesostasis replaced by green clays (saponite or celadonite). Scattered rare pyrite in the groundmass is <0.02 mm in size and irregular in morphology. Rock is moderately altered.

127-797C-14R-01 (Piece 11,85-87 cm) WHERE SAMPLED: Upper part of Unit 4

ROCK NAME: APHYRIC BASALT

GRAIN SIZE: Microcrystalline

TEXTURE: Porphyritic, felty

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Olivine	0	<1	<1		euhedral	totally replaced by clays
Plagioclase	<1	<1	<1.5		euhedral	very highly altered to clays
GROUNDMASS						
Plagioclase	<10?	30-40	<0.2		wispy, elongate	forms felty texture, highly altered to clays
Olivine	0	<1	<0.5		euhedral	
Magnetite	trace	trace	<0.5		euhedral	in groundmass and as inclusions in plagioclase

VESICLES/ CAVITIES	PERCENT	LOCATION	SIZE (mm)	FILLING	SHAPE
Vesicles	trace	random	<1	clays	ovoid

COMMENTS: Groundmass was originally microlitic. Veins to 0.1 mm are filled with clays and pyrite. Rock is highly to very highly or totally altered. Olivine was originally present in the groundmass but has been totally replaced. Pyrite occurs irregular grains (<0.2mm) in veins, and disseminated (<0.05 mm) in the groundmass.

127-797C-14R-01 (Piece 17,134-136 cm) WHERE SAMPLED: Interior of Unit 4

ROCK NAME: APHYRIC BASALT

GRAIN SIZE: Cryptocrystalline

TEXTURE: Porphyritic, spherulitic

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Plagioclase	<1	<1	<3		euhedral	slightly to highly altered to clays
Olivine	0	<1	<1		euhedral	totally altered to clays
GROUNDMASS						
Plagioclase	<1	1	0.1-0.5		lath-shaped	slightly to highly altered to clays
Magnetite	trace	trace	<0.5		euhedral	

VESICLES/ CAVITIES	PERCENT	LOCATION	SIZE (mm)	FILLING	SHAPE
Vesicles	<1		<3	clays	round to ovoid

COMMENTS: Rock texture originally spherulitic. Veins, <0.5 mm thick, are filled with clays. Microlitic plagioclase and mesostasis are totally replaced by clays. Rock is very highly to completely altered. Rare disseminated pyrite (<0.02 mm) is present in groundmass

127-797C-15R-01 (Piece 7,77-79 cm) WHERE SAMPLED: Interior of Unit 5A

ROCK NAME: APHYRIC BASALT

GRAIN SIZE: Fine-grained

TEXTURE: Interstitial

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
Plagioclase	30	30	<1.5		lath-shaped	moderately to highly altered
Magnetite	<<1	<<1	<0.02		subhedral	

COMMENTS: Veins to 2.5 mm thick are filled with brown clays. Rock is highly altered; mesostasis and mafic silicates are totally altered to greenish clays. Rare, disseminated irregular pyrite to 0.05 mm occurs in the groundmass.

127-797C-15R-02 (Piece 8,90-92 cm) WHERE SAMPLED: Interior of Unit 5B

ROCK NAME: APHYRIC BASALT

GRAIN SIZE: Fine- to medium-grained

TEXTURE: Interstitial

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
Plagioclase	30-40	30-40	<3		lath-shaped	slightly to moderately altered to clays, often in radiating clusters
Magnetite	<<1	<<1	<0.02		skeletal	

COMMENTS: Vein, to 0.8 mm thick, filled with clays and carbonate mineral. Mesostasis and mafic silicates totally altered to green clays. Scattered skeletal sulfide (pyrite?) to 0.1 mm occurs in groundmass. Rock is highly altered.

127-797C-15R-03 (Piece 6,43-46 cm) WHERE SAMPLED: Interior of Unit 5C

ROCK NAME: APHYRIC BASALT

GRAIN SIZE: Medium-grained

TEXTURE: Subophitic to interstitial

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
Plagioclase	50	50	<2		lath-shaped	slightly altered to clay
Clinopyroxene	5	7-8	<1		anhedral	moderately altered to clay
Olivine	0	1-3	<0.5		euhedral-subhedral	totally altered to green clays
Magnetite	<1	<1	<0.15		skeletal	

COMMENTS: Mesostasis and olivine are totally altered to green clays (not chlorite). Moderately altered.

127-797C-16R-02 (Piece 2D,70-71 cm) WHERE SAMPLED: Interior of Unit 5C

ROCK NAME: APHYRIC BASALT

GRAIN SIZE: Fine- to medium-grained

TEXTURE: Interstitial

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
Plagioclase	30-40	30-40	<2		lath-shaped	slightly to moderately altered to clays
Clinopyroxene	1-2	3-7	<2		subhedral	highly altered to green clays
Magnetite	1-2	1-2	<0.2		subhedral-skeletal	

VESICLES/ CAVITIES	PERCENT	LOCATION	SIZE (mm)	FILLING	SHAPE
Vesicles	2-3		<5 mm	none	irregular

COMMENTS: Olivine and mesostasis totally altered to green-brown clays, some of which are bright pleochroic bluish green (includes possible chlorite). Veins to 0.1 mm thick are filled with clays, carbonate, and rare irregular pyrite (<0.02 mm). Rock is highly altered

127-797C-18R-02 (Piece 9A,70-72 cm) WHERE SAMPLED: Upper part of Unit 6

ROCK NAME: Sparsely plagioclase phyric basalt

GRAIN SIZE: Fine- to medium-grained

TEXTURE: Coarsely porphyritic, interstitial

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Plagioclase	1	1	<4		euhedral	highly to very highly altered to clays
GROUNDMASS						
Plagioclase	50	50	<2		lath-shaped	moderately altered to clays and partially replaced by carbonate
Magnetite	1	1	<0.2		skeletal	

VESICLES/ CAVITIES	PERCENT	LOCATION	SIZE (mm)	FILLING	SHAPE
Vesicles	1-2		<1.5	zeolites, pyrite, clays, minor carbonate	round

COMMENTS: Abundant veins, to 0.1 mm wide, are filled with dark clays and minor carbonate. Mesostasis and mafic silicates are totally altered to light brown and bright green clays. Rock is highly altered. Irregular pyrite grains, to 0.3 mm in size, are scattered throughout throughout the groundmass and in the vesicles.

127-797C-19R-02 (Piece 2B,42-44 cm) WHERE SAMPLED: Middle of Unit 7

ROCK NAME: SPARSELY PLAGIOCLASE PHYRIC DOLERITE

GRAIN SIZE: Medium-grained

TEXTURE: Coarsely porphyritic, seriate, intergranular to subophitic

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Plagioclase	2	2	<3		euhedral-subhedral	some are slightly altered to clays
GROUNDMASS						
Plagioclase	60	60	<2		lath-shaped	some are slightly altered to clays
Clinopyroxene	15	15	<4		anhedral	slightly altered to clays
Olivine	0	1-3	<0.5		euhedral-subhedral	totally altered to green clay
Magnetite	1	1	<0.5		skeletal	

COMMENTS: Olivine and mesostasis are totally altered to green clays. Rock is moderately altered. Veins to 0.3 mm thick are filled with green clays (chlorite?)

127-797C-19R-04 (Piece 7A,61-64 cm) WHERE SAMPLED: Near base of Unit 7

ROCK NAME: Sparsely plagioclase phyric basalt

GRAIN SIZE: Fine-grained

TEXTURE: Porphyritic, interstitial

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Plagioclase	1	1	1-2		euhedral	slightly to very highly altered to clays
GROUNDMASS						
Plagioclase	20-30	20-30	<1		elongate, microlites	moderately altered
Magnetite	<<1	<<1	<0.1		subhedral to skeletal	

VESICLES/ CAVITIES	PERCENT	LOCATION	SIZE (mm)	FILLING	SHAPE
Vesicles	<<1	random	<4	green and brown clays	round

COMMENTS: Mesostasis and mafic silicate minerals totally replaced by greenish brown clays. Rock is highly altered. Two veins, to 0.7 mm wide, are filled with brown clays. Irregular grains of pyrite, to 0.2 mm in size, are disseminated through the replacement minerals in the groundmass and also occur in cracks.

127-797C-19R-04 (Piece 8,78-81 cm) WHERE SAMPLED: Lower contact of Unit 7

ROCK NAME: MODERATELY PLAGIOCLASE PHYRIC BASALT

GRAIN SIZE: Cryptocrystalline to fine-grained

TEXTURE: Porphyritic, seriate

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Plagioclase	5	5	<5		euhedral	moderately altered
GROUNDMASS						
Plagioclase	5-7	5-7	<0.5		lath-shaped	highly altered (totally altered near contact) to clays, represent crystals larger than microlites
Olivine	0	2	<0.3		euhedral	totally replaced by brown iddingsite and fine, light colored clays
Cr-spinel	<<1	<<1	<0.04		euhedral	in groundmass - most look altered, but some are relatively fresh

VESICLES/ CAVITIES	PERCENT	LOCATION	SIZE (mm)	FILLING	SHAPE
Vesicles	<<1	near contact	<0.4	clays, pyrite, carbonate	irregular

COMMENTS: Thin section shows contact with underlying sediment. Rock groundmass texture was originally spherulitic to microlitic. Entire groundmass is almost totally replaced by brown clays. Veins to 0.7 mm wide are filled with carbonate and subordinate pyrite. Irregular grains of pyrite, to 0.2 mm in size, also occur disseminated in the groundmass and replacing olivine. Rock is very highly altered

127-797C-20R-02 (Piece 1C,108-109 cm) WHERE SAMPLED: Near top of Unit 8

ROCK NAME: SPARSELY PLAGIOCLASE PHYRIC BASALT

GRAIN SIZE: Fine-grained

TEXTURE: Porphyritic, interstitial

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Plagioclase	<<1	1	<3		euhedral	very highly to totally altered to clays
GROUNDMASS						
Plagioclase	3	30	<0.5		lath-shaped	very highly altered to brown clays; small laths are fresh
Magnetite	1	1	<0.1		euhedral-subhedral	

VESICLES/ CAVITIES	PERCENT	LOCATION	SIZE (mm)	FILLING	SHAPE
Vesicles	1	random	4-6	clays, carbonate	round

COMMENTS: The rock is very highly to nearly totally altered. Veins (<2 mm) are filled with fine clays. Mafic silicates and mesostasis are totally replaced by light brown, dark brown, bright blue-green clays, and rare carbonate mineral. Rare, disseminated irregular pyrite (<0.05 mm) occur in the groundmass.

127-797C-21R-01 (Piece 10,82-85 cm) WHERE SAMPLED: Interior of Unit 8

ROCK NAME: APHYRIC DOLERITE

GRAIN SIZE: Medium-grained

TEXTURE: Subophitic, intergranular

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Plagioclase	<1	<1	0.8-3		subhedral	some grains have inclusion-rich cores, some occur as glomerophenocrysts, partially altered to pale brown clays
GROUNDMASS						
Plagioclase	45	60	< 2.3 mm		euhedral laths	partly altered to sericite and green clays
Clinopyroxene	20	25	< 2 mm		subhedral-anhedral	some grains are partially altered to green clays, a few of the larger subhedral grains are zoned,
Olivine	0	7	< 1 mm		euhedral-subhedral	totally altered to green clays
Magnetite	1	1	< 0.7 mm		subhedral	

COMMENTS: Biotite (<1%) is present, replacing? pyroxene and plagioclase. A trace amount of pyrite is present as irregular grains up to 0.2 mm in length.

127-797C-21R-05 (Piece 2I,101-103 cm) WHERE SAMPLED: Interior of Unit 8

ROCK NAME: SPARSELY PLAGIOCLASE OLIVINE PHYRIC DOLERITE

GRAIN SIZE: Medium-grained

TEXTURE: Subophitic

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Plagioclase	1	1	1-4 mm		euhedral, tabular	strongly zoned, commonly have inclusion rich cores, some grains form glomerophenocrysts with olivine
Olivine	0	<1	< 1 mm		subhedral	totally altered to green clays, occur in glomerophenocrysts with plagioclase
GROUNDMASS						
Plagioclase	55	60	< 1 mm		euhedral laths	slightly altered to clays
Clinopyroxene	25	30	< 3 mm		subhedral-anhedral	slightly altered to green-brown clays
Olivine	0	5	< 0.5 mm		euhedral-subhedral	totally altered to green-brown, and minor bright blue-green pleochroic, clays
Magnetite	1	1	< 0.4 mm		subhedral to skeletal	

COMMENTS: The rock is moderately altered. A trace amount of pyrite, as irregular grains <0.2 mm long, is present in the groundmass.

127-797C-24R-06 (Piece 3,40-41 cm) WHERE SAMPLED: Interior of Unit 9

ROCK NAME: SPARSELY PLAGIOCLASE OLIVINE PHYRIC DOLERITE

GRAIN SIZE: Medium-grained

TEXTURE: Coarsely porphyritic, subophitic, intergranular

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Plagioclase	1-2	1-2	1.8-4 mm		euhedral-subhedral	zoned, some grains have inclusion rich cores, some grains form glomerophenocrysts with olivine
Olivine	<1	<1	< 1 mm		euhedral-subhedral	partially altered to green and brown clays along fractures
GROUNDMASS						
Plagioclase	65	65	< 2.2 mm		euhedral-subhedral laths	slightly altered to sericite in some grains
Clinopyroxene	25	25	< 3 mm		subhedral-anhedral	
Olivine	2	5	< 1 mm		subhedral	some grains partially to totally altered to blue-green and green-brown clays and minor carbonate
Magnetite	1	1	< 0.5 mm		subhedral	

COMMENTS: Rock is slightly altered. A trace amounts of pyrite and chalcopyrite are present in the groundmass as irregular grains <0.1 mm long.

127-797C-26R-01 (Piece 13,76-78 cm) WHERE SAMPLED: Interior of Unit 10

ROCK NAME: APHYRIC BASALT

GRAIN SIZE: Fine-grained

TEXTURE: Interstitial

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
Plagioclase	15-20	15-20	<0.5		lath-shaped	Slightly to moderately altered to clays
Magnetite	<1	<1	<0.05		skeletal-euhedral	

VESICLES/ CAVITIES	PERCENT	LOCATION	SIZE (mm)	FILLING	SHAPE	COMMENTS
Vesicles	3-4		0.1-1	green and dark brown clays and pyrite	round to irregular	Difficult to estimate extent of small vesicles

COMMENTS: Mesostasis and all mafic silicate phases are altered to greenish-brown clays. Veins (<1%, <0.3 mm wide) are filled with greenish-brown clays and pyrite. Pyrite also occurs as rare disseminated grains (<0.2 mm) in the groundmass. The rock is very highly altered.

127-797C-26R-01 (Piece 19,132-135 cm) WHERE SAMPLED: Near base of Unit 10

ROCK NAME: Aphyric basalt

GRAIN SIZE: Fine-grained to cryptocrystalline

TEXTURE: Interstitial to spherulitic

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
Plagioclase	4	?	<0.5		lath-shaped	very highly replaced by clays
Magnetite	2	2	<0.2		euhedral	

VESICLES/ CAVITIES	PERCENT	LOCATION	SIZE (mm)	FILLING	SHAPE
Vesicles	3	in interstitial part	<1	clays	round

COMMENTS: Section ranges from interstitial to spherulitic. Groundmass is totally altered to secondary clay minerals. Vesicles and fractures filled by brown to light brown clays.

127-797C-26R-02 (Piece 7,61-62 cm) WHERE SAMPLED: Near top of Unit 11

ROCK NAME: APHYRIC BASALT

GRAIN SIZE: Fine-grained to microcrystalline

TEXTURE: Interstitial

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Plagioclase	0	<1	<1.5		euhedral	totally altered to clays
GROUNDMASS						
Plagioclase	5-10	20	<0.5		lath-shaped	highly altered to clays
Magnetite	<1	<1	<0.2		skeletal-euhedral	often elongated, lath-shaped

VESICLES/ CAVITIES	PERCENT	LOCATION	SIZE (mm)	FILLING	SHAPE	COMMENTS
Vesicular	15		<2	greenish brown, dark brown clays, pyrite	round to irregular	larger (5%), round vesicles are generally above 0.4 mm; rest are irregular, smaller vesicles

COMMENTS: Mesostasis and all mafic silicate minerals are altered to green clays. Rock is very highly altered

127-797C-27R-01 (Piece 4B,26-28 cm) WHERE SAMPLED: Near top of Unit 11

ROCK NAME: APHYRIC BASALT

GRAIN SIZE: Fine-grained

TEXTURE: Porphyritic, interstitial

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Plagioclase	<1	<1	<2		euhedral	moderately altered to clays
Olivine	0	<1	<1		subhedral	completely altered to clays
GROUNDMASS						
Plagioclase	40	50	<0.5		lath-shaped	partially altered to clays
Clinopyroxene	trace	20	<0.5		subhedral	mostly altered to clay
Magnetite	3	3	<0.2		euhedral-subhedral	

VESICLES/ CAVITIES	PERCENT	LOCATION	SIZE (mm)	FILLING	SHAPE	COMMENTS
Vesicles	15		10	unfilled	round	One large vesicle

COMMENTS: The rock is highly altered

127-797C-27R-01 (Piece 10,126-128 cm) WHERE SAMPLED: Top of Unit 12

ROCK NAME: APHYRIC BASALT

GRAIN SIZE: Microcrystalline

TEXTURE: Spherulitic

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
Plagioclase	5	15?	to 0.7 mm		acicular	grains radiate forming spherulites up to 1 mm in diameter

COMMENTS: Mesostasis and mafic silicates are totally altered to brown clays. Thin veins of irregular width (to 0.8 mm wide) are filled with brown clays and pyrite. Rock is very highly altered.

127-797C-28R-01 (Piece 5B,47-49 cm) WHERE SAMPLED: Interior of Unit 12

ROCK NAME: APHYRIC BASALT

GRAIN SIZE: Fine-grained

TEXTURE: Interstitial

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
Plagioclase	50	50	<0.5		euhedral-subhedral laths	slightly altered to clays
Clinopyroxene	<5	25	<0.7		subhedral-anhedral	partially to totally altered to light green clays
Olivine	0	2?	<0.4		euhedral-subhedral	totally altered to light green clays
Magnetite	1-2	1-2	<0.3		skeletal	

VESICLES/ CAVITIES	PERCENT	LOCATION	SIZE (mm)	FILLING	SHAPE
Vesicles	1	random	<1	green clays	round to irregular

COMMENTS: Thin section contains a fragment, 7 x 3 mm in size, of finer grained basalt. Mesostasis and olivine are totally replaced, and pyroxene is mostly altered to pale green clays. Rock is highly altered.

127-797C-29R-01 (Piece 2G,70-72 cm) WHERE SAMPLED: Interior of Unit 12

ROCK NAME: APHYRIC BASALT

GRAIN SIZE: Fine-grained

TEXTURE: Porphyritic, interstitial

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Plagioclase	<1	<1	<2		euhedral-subhedral	slightly altered to clays
GROUNDMASS						
Plagioclase	20-25	20-25	<0.5		lath-shaped	partially altered
Clinopyroxene	1	3-6	<0.4		subhedral	most grains are altered to green clays
Magnetite	1-2	1-2	<0.6		skeletal-euhedral	sometimes elongate lath-like

VESICLES/ CAVITIES	PERCENT	LOCATION	SIZE (mm)	FILLING	SHAPE	COMMENTS
Vesicles	3-7?		<1.5	green and brown clays	round	Difficult to estimate extent of microvesiculation; large vesicles (>1 mm) <1 % abundance

COMMENTS: Mesostasis is completely altered to green clays. Rock is highly altered

127-797C-31R-02 (Piece 1B,36-38 cm) WHERE SAMPLED: Interior of Unit 13

ROCK NAME: APHYRIC BASALT

GRAIN SIZE: Fine- to medium-grained

TEXTURE: Subophitic

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
Plagioclase	30	40	<1		lath-shaped	partially altered to clays
Clinopyroxene	25	30	<1		subhedral	partially altered to clays
Magnetite	1	1	<0.5		euhedral-skeletal	

VESICLES/ CAVITIES	PERCENT	LOCATION	SIZE (mm)	FILLING	SHAPE
Vesicles	10	random	<1	green clays	round to irregular

COMMENTS: Moderately altered.

127-797C-32R-02 (Piece 1B,15-17 cm) WHERE SAMPLED: Unit 14

ROCK NAME: APHYRIC BASALT

GRAIN SIZE: Fine-grained

TEXTURE: Porphyritic, interstitial, subophitic

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Plagioclase	<1	<1	1-2 mm		euhedral, tabular	
GROUNDMASS						
Plagioclase	45	50	< 0.8 mm		euhedral laths	slightly altered to clays
Clinopyroxene	5-7	20?	< 1 mm		subhedral-anhedral, granular-radiating & sheaf-like	highly altered to green clays
Olivine	0	1?	< 0.3 mm		euhedral	totally altered to green clays
Magnetite	1	1	< 0.3 mm		subhedral to skeletal	

COMMENTS: A thin vein (to 0.1 mm wide) is filled by fibrous, green clay. Olivine and mesostasis are totally altered, and pyroxene is highly altered, to green clays.

127-797C-33R-01 (Piece 2K,62-63 cm) WHERE SAMPLED: Near base of Unit 14

ROCK NAME: APHYRIC BASALT

GRAIN SIZE: Fine-grained

TEXTURE: Interstitial

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
Plagioclase	<20	45	< 0.8 mm		Euhedral-subhedral laths	Highly altered to pale green clays
Magnetite	1	1	< 0.2 mm		skeletal	

VESICLES/ CAVITIES	PERCENT	LOCATION	SIZE (mm)	FILLING	SHAPE
Vesicles	2	random	< 0.5 mm	green clays, quartz	round to irregular

COMMENTS: All mafic silicate minerals and mesostasis have been altered to green clays. Irregular width (to 1.5 mm wide), diffuse veins are filled with fine grained clays and quartz grains (to 0.2 mm in diameter). Rock is very highly altered.

127-797C-34R-01 (Piece 3B,33-35 cm) WHERE SAMPLED: Lower part of Unit 15

ROCK NAME: APHYRIC BASALT

GRAIN SIZE: Fine-grained

TEXTURE: Interstitial, subophitic

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
Plagioclase	50	50	< 1 mm		euhedral-subhedral laths	slightly altered to sericite
Clinopyroxene	5	20?	< 0.6 mm		subhedral-anhedral	highly altered to green clays
Magnetite	1	1	< 0.3 mm		skeletal	

COMMENTS: Mesostasis and most mafic silicate mineral(s?) replaced by green clays. Rock is highly altered.

127-797C-34R-01 (Piece 4,69-71 cm) WHERE SAMPLED: Close to base of Unit 15

ROCK NAME: APHYRIC BASALT

GRAIN SIZE: Fine-grained to cryptocrystalline

TEXTURE: Interstitial to spherulitic

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
Plagioclase	10	30	<0.5		skeletal-euhedral	highly replaced

VESICLES/ CAVITIES	PERCENT	LOCATION	SIZE (mm)	FILLING	SHAPE	COMMENTS
Vesicles	5-10		<1.5	very fine-grained clays and carbonate	round to irregular	Concentrated in the interstitial part

COMMENTS: Plagioclase is highly altered to clays and mesostasis totally altered to secondary clays. Texturally the section range from interstitial to spherulitic towards the lower limit of unit. Pyrite occurs disseminated in groundmass and filling vesicles.

127-797C-36R-02 (Piece 2,17-19 cm) WHERE SAMPLED: Contact between Unit 16 and 17

ROCK NAME: Aphyric basalt

GRAIN SIZE: Fine-grained

TEXTURE: Interstitial

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
Plagioclase	2-5	10-30	<0.4		skeletal laths	highly to very highly altered to clays
Magnetite	<1	<1	<0.1		skeletal-subhedral	

SECONDARY MINERALOGY	PERCENT	REPLACING/ FILLING	COMMENTS
Pyrite	<<1	veins	grains to 0.1 mm disseminated in the groundmass

VESICLES/ CAVITIES	PERCENT	LOCATION	SIZE (mm)	FILLING	SHAPE	COMMENTS
Veins	<1	random	< 1 mm wide	green clays, pyrite		
Vesicles	<1	random	<0.5 mm	filled with clays	round	identification of vesicles somewhat uncertain

COMMENTS: Rock is very highly altered. Shows contact between slightly coarser and slightly finer units but due to the fact that orientation is not marked, units cannot be assigned. Mesostasis is totally altered.