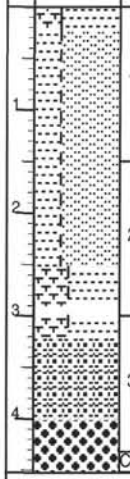
SITE 913 HOLE A CORE 1H CORED 0.0 - 4.4 mbsf

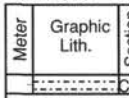


FORAMINIFER CLAY, BIOCARBONATE-BEARING CLAY, INTERBEDDED CLAY, SILT AND SAND and GRAVEL

Major Lithologies:
FORAMINIFER and BIOCARBONATE-BEARING CLAYS, dark grayish brown (10YR 4/2, 2.5Y 4/2) and olive gray (5Y 4/2), occur as massive, structureless intervals with a few diffuse Fe-sulfide patches. The rough surface of split core is irregularly scattered with foraminifers. Coarse detrital material may also be present. INTERBEDDED CLAY, SILT, AND SAND are characterized by very soft and often very disturbed CLAY, dark brown (7.5Y 4/2, 10YR 4/3) to dark gray (10YR 4/1), and several continuous or disrupted thin layers of pure silt and a few thicker beds (up to 4 cm) of fine sand. A graded sequence of GRAVEL (up to 5 cm Ø) to SANDY MUD occurs in Section 3, 21 cm, to CC, 20 cm. As the sediment is very soupy and the core liner is half empty, grading may have occurred during recovery. Gravel-sized clasts are predominantly angular, mafic igneous rocks.

General Description:
Dropstone:
Section 1, 96 cm, Ø 1.2 cm, rounded red sandstone.

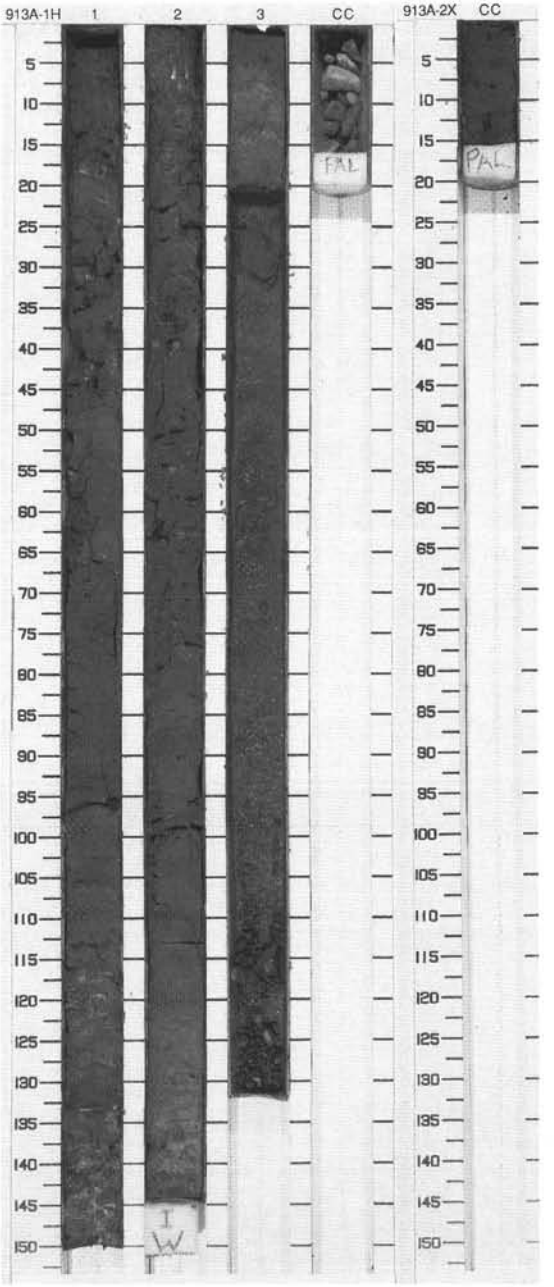
SITE 913 HOLE A CORE 2X CORED 4.4 - 9.3 mbsf



CLAYEY MUD

Major Lithology:
Very dark gray (5Y 3/1), soft and homogeneous CLAYEY MUD. The uppermost 1 cm is coarser grained and more brown in color.

General Description:
Dropstone:
Section CC, 13 cm, Ø 1.5 cm, granite.



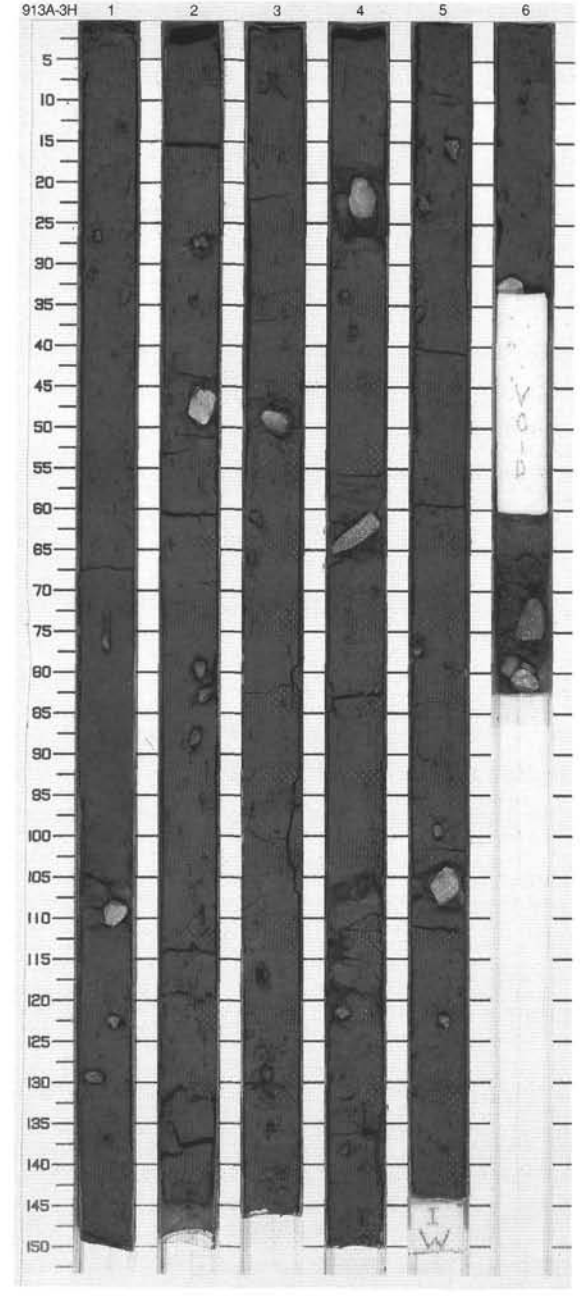
SITE 913 HOLE A CORE 3H CORED 9.3 - 17.6 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color
1		1	Quaternary	◇ ◇		P	10YR 3/1
				◇			
				◇ ◇		P	
2				◇			
		2		◇ ◇ ◇		P	
				◇		S	
				◇ ◇ ◇		P	
3		3		◇		P	
				◇ ◇ ◇			
4						P	
		4		◇		P	
				◇ ◇			
5						S P	
				◇ ◇			
				◇		P	
6		5		◇ ◇			
				◇ ◇ ◇		P	
				◇		I	
7						S	
8	Void	6		◇ ◇ ◇	○	M	

CLAYEY MUD

Major Lithology:
Brownish very dark gray (10YR 3/1) CLAYEY MUD, no discernible variations in color or texture. Numerous small (<1.0-cm) dropstones.

General Description:
Dropstones:
Section 1, 27 cm, Ø 1.9 cm, angular red quartzite; 31 cm, Ø 1.3 cm, subangular quartz sandstone; 75 cm, Ø 2.0 cm, rounded gray limestone; 110 cm, Ø 4.0 cm, rounded metaquartzite; 123 cm, Ø 2.0 cm, angular orange sandstone; 130 cm, Ø 2.3 cm, subrounded gneiss. Section 2, 26 cm, Ø 1.8 cm and Ø 1.2 cm, subangular gray sandstone; 33 cm, Ø 1.2 cm, angular granite; 46 cm, Ø 4.4 cm, rounded light red quartzite; 79 cm, Ø 2.2 cm, rounded gabbro; 81 cm, Ø 2.7 cm, rounded amphibolite; 87 cm, Ø 2.2 cm, subangular gabbro. Section 3, 48 cm, Ø 3.7 cm, rounded metaquartzite; 60 cm, Ø 1.8 cm, subangular red quartzite; 66 cm, Ø 1.5 cm, subangular gray quartz sandstone; 117 cm, Ø 1.8 cm, subangular crystalline rock. Section 4, 18–23 cm, Ø 5.3 cm, subrounded gray limestone; 32 cm, Ø 1.2 cm, subangular gneiss; 38 cm, Ø 1.2 cm, angular sandstone; 59–66 cm, Ø 7.0 cm, angular metagabbro; 122 cm, Ø 1.8 cm, subangular light orange sandstone; 138 cm, Ø 1.2 cm, angular light red sandstone. Section 5, 15 cm, Ø 2.5 cm, angular biotite schist; 22 cm, Ø 1.9 cm, subangular black limestone; 36 cm, Ø 1.6 cm, rounded black siltstone; 77 cm, Ø 2.6 cm, subrounded granite; 100 cm, Ø 2.2 cm, subrounded quartz sandstone; 105–108 cm, Ø 3.5 cm, subrounded quartzite; 122 cm, Ø 1.8 cm, angular gabbro. Section 6, 71 cm, Ø 5 cm, subrounded mica schist; 79 cm, Ø 2.9 cm, rounded mica schist, Ø 2.0 cm subangular quartzite; 81 cm, Ø 3.5 cm, rounded marble.



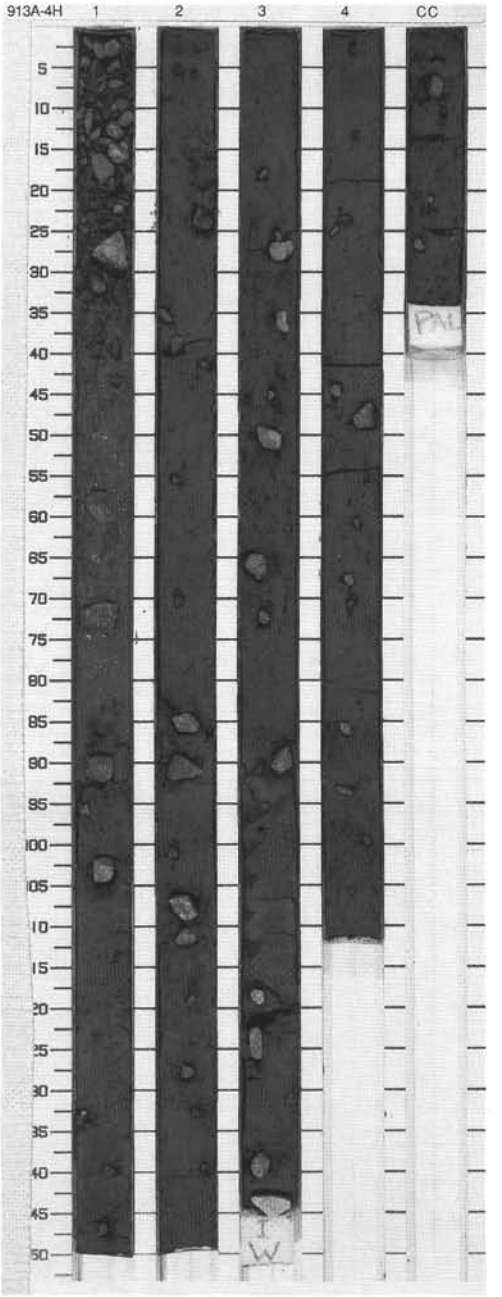
SITE 913 HOLE A CORE 4H CORED 17.6 - 23.6 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color
1–6		1, 2, 3, 4, CC	Quaternary			P, S P, P, I, S P, M	5Y 3/1

CLAYEY MUD

Major Lithology:
Homogeneous, very dark gray (5Y 3/1) CLAYEY MUD. Numerous small (<1-cm) dropstones occur. All dropstones are subangular to subrounded. Mollusk fragments occur in Section CC, 20–25 cm. GRAVEL and MUDDY GRAVEL in Section 1, 0–95 cm were probably washed down during drilling.

General Description:
Dropstones 1 cm:
Section 1, 103 cm, Ø 3.0 cm, limestone; 134 cm, Ø 2.0 cm, limestone; 140 cm, Ø 1.7 cm, granite; 147 cm, Ø 1.4, gneiss;
Section 2, 23 cm, Ø 3.5 cm, limestone; 35 cm, Ø 2.6 cm, amphibolite; 39 cm, Ø 2.2 cm, amphibolite; 41 cm, Ø 1.5 cm, sandstone; 55 cm, Ø 1.4 cm, sandstone; 70 cm, Ø 1.2 cm, shale?; 85 cm, Ø 3.3 cm, quartzite; 91 cm, Ø 5.3 cm, plutonic?; 100 cm, Ø 1.2 cm, amphibolite?; 107 cm, Ø 3.7 cm, gneiss; 111 cm, Ø 3.2 cm, sandstone; 119 cm, Ø 1.2, granite; 128 cm, Ø 2.0 cm, sandstone; 133 cm, Ø 1.3 cm, quartzite; 140 cm, Ø 1.2 cm, schist?;
Section 3, 18 cm, Ø 1.2 cm, siltstone; 25 cm, Ø 1.4 cm, siltstone; 28 cm, Ø 3.0 cm, sandstone; 36 cm, Ø 2.5 cm, sandstone; 51 cm, Ø 3.5 cm, limestone; 66 cm, Ø 2.8 cm, felsic?; 72 cm, Ø 1.5 cm, siltstone; 90 cm, Ø 3.5 cm, carb.-cemented sandstone; 119 cm, Ø 2.0 cm, sandstone; 123 cm, Ø 3.7 cm, amphibolite/biotite schist; 139 cm, Ø 2.7 cm, sandstone; 144 cm, Ø 4.3 cm, carb.-cemented sandstone;
Section 4, 23 cm, Ø 1.5 cm, siltstone; 24 cm, Ø 1.2 cm, schist; 44 cm, Ø 1.6 cm, granite; 48 cm, Ø 3.5 cm, amphibolite; 60 cm, Ø 1.2 cm, red sandstone; 67 cm, Ø 1.5 cm, granite; 70 cm, Ø 1.2 cm, schist; 86 cm, Ø 2.0 cm, bryozoan limestone; 93 cm, Ø 2.0 cm, amphibolite; 99 cm, Ø 1.5 cm, sandstone;
Section CC, 7 cm, Ø 3.5 cm, gray sandstone; 26 cm, Ø 1.3 cm, granite.



SITE 913 HOLE A CORE 5H CORED 23.6 - 26.4 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color
1	Void	1	Quaternary	◇ ◇ ◇ ◇ ◇ ◇ ◆ ◆ ◇ ◇ ◇ ◇ ◇ ◇ ◇		S P P S I P S P M	10YR 3/2
2		2					
		3					
		CC					

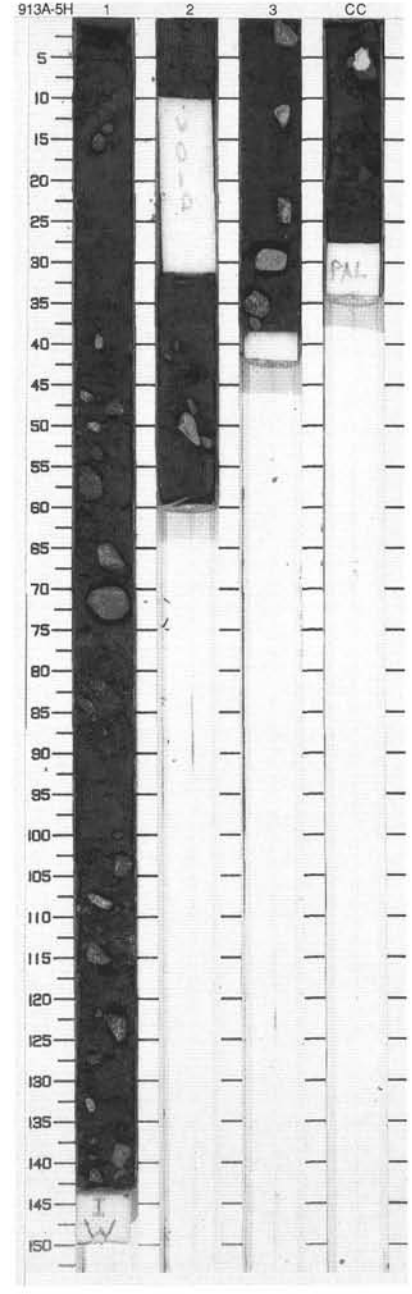
CLAYEY MUD

Major Lithology:
Very dark gray (10YR 3/1) to very dark gray brown (10YR 3/2) CLAYEY MUD. Some intervals are nearly silty or even sandy muds. Quartz (~25%) is the major non-clay mineral. Feldspar content varies (5%–17%).

Minor Lithologies:
GRAVEL-BEARING CLAYEY MUD and MUDDY GRAVEL are present in Section 1, 100–141 cm and Section 2, 3–10 cm. Dark greenish gray (5G 4/1) CLAY occurs as clasts and irregular patches in Section 1, 75–129 cm.

General Description:
Dropstones:
Section 1, 13 cm, Ø 1.6 cm, amphibolite; 15 cm, Ø 2.6 cm, amphibolite; 39 cm, Ø 2.0 cm, sheared quartzite; 45 cm, Ø 2.0 cm, quartzite; 47 cm, Ø 2.3 cm, schist; 49 cm, Ø 1.9 cm, quartzite; 53 cm, Ø 1.8 cm, red sandstone; 55 cm, Ø 4.2 cm, amphibolite; 64 cm, Ø 4.0 cm, amphibolite; 70 cm, Ø 5.0 cm, granodio.; 83 cm, Ø 2.7 cm, gneiss; 100 cm, Ø 1.3 cm, red sandstone; 103 cm, Ø 2.7 cm, amphibolite; 107 cm, Ø 4.0 cm, quartzite; 114 cm, Ø 3.4 cm, gneiss; 121 cm, Ø 3.9 cm, amphibolite; 126 cm, Ø 2.2 cm, amphibolite; 131 cm, Ø 1.9 cm, quartzite; 134 cm, Ø 3.0 cm, siltstone; 141 cm, Ø 2.0 cm, mafic plutonic;
Section 2, 41 cm, Ø 1.9 cm, granite pegm.; 48 cm, Ø 2.0 cm, metamor.; 50 cm, Ø 1.6 cm, quartzite; 51 cm, Ø 1.2 cm, sandstone; 52 cm, Ø 4.3 cm, quartzite; 53 cm, Ø 2.2 cm, gabbro;
Section 3, 1 cm, Ø 1.9 cm, granite pegmatite; 11 cm, Ø 2.6 cm, quartzite; 21 cm, Ø 3.7 cm, quartzite; 28 cm, Ø 4.8 cm, sand?; 35 cm, Ø 4.0 cm, metamorph.; 36 cm, Ø 2.0 cm, quartzite;
Section CC, 2 cm, Ø 1.4 cm, sandstone; 4 cm, Ø 4.0 cm, quartzite; 18 cm, Ø 2.5 cm, andesite.

913A 6X Entire core given to paleontologists.

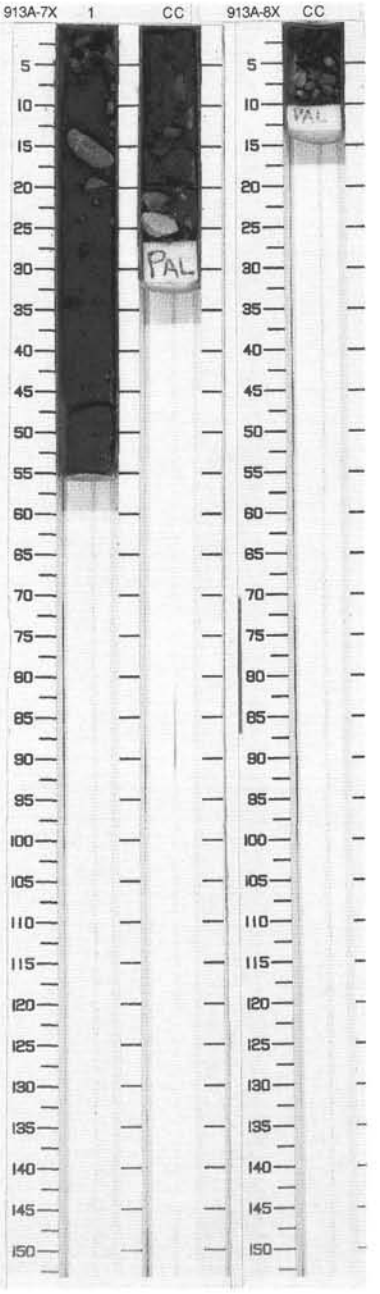


SITE 913 HOLE A CORE 7X CORED 36.1 - 45.8 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		1 CC	Quat.	◇ ◇ ◇ ◇	!	P S P M P	10YR 3/1	GRAVELLY SILTY MUD and SILTY MUD Major Lithologies: Structureless GRAVELLY SILTY MUD is present in Section 1, 0–21 cm and Section CC, 0–20 cm. The remainder is poorly sorted SILTY MUD, with minor small (Ø <1-cm) dropstones. Both lithologies are very dark gray (10YR 3/1). General Description: Dropstones: Section 1, 4 cm, Ø 2.5 cm, subrounded amphibolite; 5 cm, Ø 2 cm, subangular amphibolite; 5 cm, Ø 2 cm, angular amphibolite; 6 cm, Ø 2.5 cm, subangular schist; 13 cm, Ø >7 cm, rounded sandstone; 19 cm, Ø 3 cm, amphibolite. Section CC, 12 cm, Ø 2.5 cm, subangular sandstone; 21 cm, Ø 4.5 cm, subrounded quartzite; 23 cm, Ø 5 cm, subrounded quartzite; 23 cm, Ø 1.5 cm, amphibolite.

SITE 913 HOLE A CORE 8X CORED 45.8 - 55.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		CC				M		GRAVEL Major Lithology: GRAVEL, composed of dropstones. Finer sediment was washed out by drilling. Although most dropstones range from 0.5 to 1.5 cm in diameter, the maximum size is 3 cm. They are angular to subangular and composed of sandstone, quartzite, shale, amphibolite, schist, carbonate and metamorphic rocks. General Description: The dropstones may be drilling contamination from uphole.

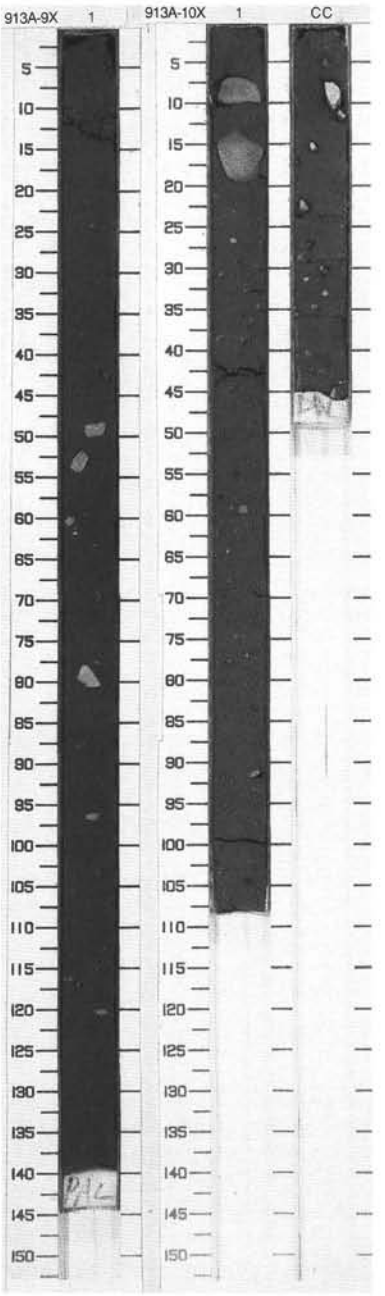


SITE 913 HOLE A CORE 9X CORED 55.5 - 65.1 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		1	Quaternary	◇ ◇ ◇ ◇ ◇ ◇		S P P M	5Y 2/1	GRAVEL-BEARING CLAYEY MUD Major Lithology: GRAVEL-BEARING CLAYEY MUD, black (5Y 2/1), with many small (Ø <1-cm) dropstones. General Description: Dropstones: 9 cm, Ø 4 cm, dark pink subrounded sedimentary (working half); 40 cm, Ø 1 cm, subangular igneous; 48 cm, Ø 2.8 cm, pink subrounded sedimentary; 52 cm, Ø 2.6 cm, subrounded igneous; 60 cm, Ø 1.6 cm, subrounded igneous; 78 cm, Ø 3.3 cm, subangular igneous; 97 cm, Ø 1.9 cm, yellow-brown subangular sedimentary; 121 cm, Ø 1.7 cm, light and dark green, angular igneous.

SITE 913 HOLE A CORE 10X CORED 65.1 - 74.7 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		1 CC	Quat.	◇ ◇ ◇ ◇ ◇ ◇		S P P M	5Y 3/1	SILTY MUD Major Lithology: SILTY MUD, firm, very dark gray (5Y 3/1). General Description: Dropstones: Section 1, 7 cm, Ø 4.5 cm, red sandstone; 15 cm, Ø 6.0 cm, red sandstone; 26 cm, Ø 1.0 cm, white siltstone; 32 cm, Ø 1.0 cm, black siltstone; 35 cm, Ø 1.0 cm, black siltstone; 38 cm, Ø 1.5 cm, red sandstone; 38 cm, Ø 1.0 cm, red sandstone; 59 cm, Ø 1.5 cm, metamorphic; 83 cm, Ø 1.0 cm, black slate; 92 cm, Ø 1.5 cm, siltstone; 108 cm, Ø 2.0 cm, quartzitic. Section CC, 4 cm, Ø 1.0 cm, red sandstone; 8 cm, Ø 4.5 cm, black siltstone; 9 cm, Ø 1.5 cm, black siltstone; 15 cm, Ø 1.5 cm, sandstone; 22 cm, Ø 1.5 cm, metamorphic; 30 cm, Ø 1.0 cm, schist; 33 cm, Ø 1.0 cm, sandstone; 41 cm, Ø 1.5 cm, metamorphic; 45 cm, Ø 2.5 cm, metamorphic.



SITE 913 HOLE A CORE 11X CORED 74.7 - 84.4 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		CC				M		GRAVELLY SILTY MUD

Major Lithology:
GRAVELLY SILTY MUD, very dark gray (10YR 3/1), commonly composed of ~10% pebble-sized grains (dropstones) supported by silty mud matrix. Coarse grains are sandstone, quartzite, and metamorphic rock fragments. Major components of the matrix are clay (~40%), quartz (~45%), and feldspar (~12%).

General Description:
Dropstones:
Section CC, 7 cm, Ø 7.5 cm, granitic rock (migmatite?)

SITE 913 HOLE A CORE 12X CORED 84.4 - 94.0 mbsf

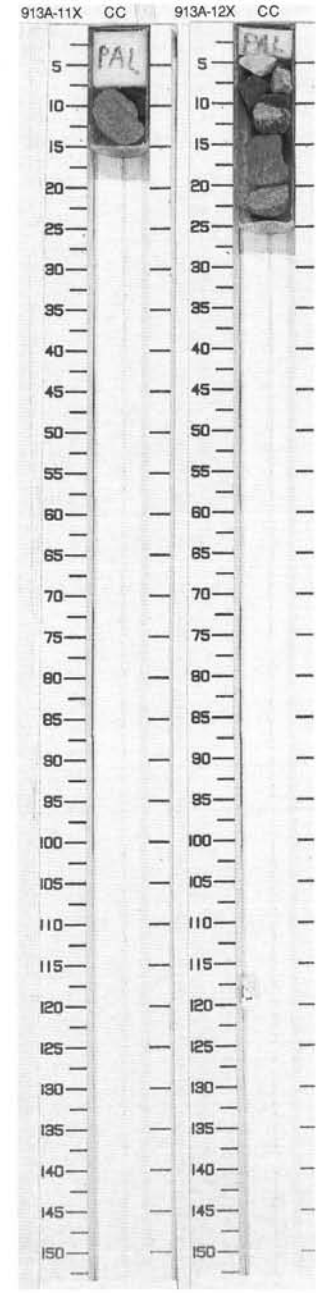
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		CC			W	M		GRAVEL

Major Lithology:
GRAVEL, composed of dropstones. A few clasts appear to have been cut by coring and were probably >6 cm in diameter originally. Finer sediment was washed out by coring.

General Description:
Dropstones (major only):
Section CC, 4 cm, Ø 5 cm, subangular quartzite; 7 cm, Ø 3.5 cm, subangular quartzite; 7 cm, Ø 4.5 cm, shale; 9 cm, Ø 4 cm, rounded siltstone; 11 cm, Ø 4.5 cm, subrounded gneiss; 15 cm, Ø >6 cm, sandstone; 20 cm, Ø >6 cm, gneiss.

The dropstones may be drilling contamination from uphole.

913A 13X NO RECOVERY



SITE 913 HOLE B CORE 1R CORED 86.0 - 95.6 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		CC						GRAVEL Major Lithology: Recovered one dropstone, rounded quartzite (Ø 4.5 cm). Finer sediment was washed out by drilling.

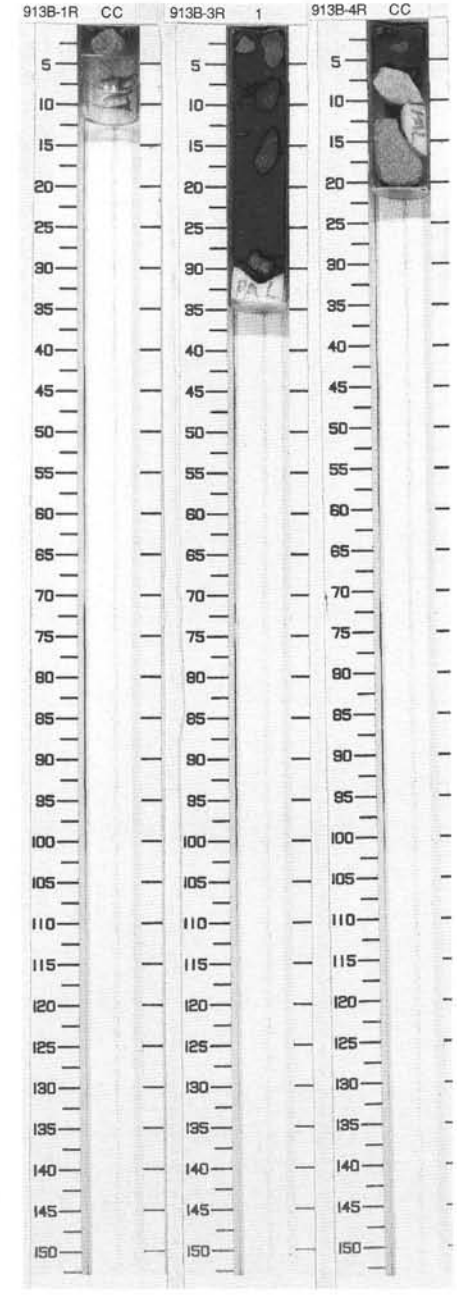
913B 2R HARD ROCK

SITE 913 HOLE B CORE 3R CORED 105.2 - 114.9 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		1		◇		S M		SILTY MUD Major Lithology: Structureless, poorly sorted SILTY MUD, very dark gray (10YR 3/1), supports dropstones. The long axises of dropstones reach up to 6 cm in maximum. General Description: Dropstones: Section 1, 0 cm Ø 5 cm, gneissic schist, subangular; 1 cm Ø 2.5 cm, quartzite, subangular; 6.5 cm Ø 4 cm, green sandstone, subangular; 13 cm Ø 1 cm, siltstone, plate-like; 13 cm Ø 6 cm, mica schist, subrounded; 27.5 cm Ø 3 cm, amphibolite.

SITE 913 HOLE B CORE 4R CORED 114.9 - 124.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		CC		◇		S M		CLAYEY MUD and GRAVEL Major Lithologies: Structureless CLAYEY MUD, very dark gray (10YR 3/1), supports GRAVEL composed of large dropstones. Major components of the matrix are quartz (30%), feldspar (15%), and clay (45%), minor ones are inorganic calcite (5%), accessory minerals (mainly pyroxene and amphibole groups, 3%) and opaques (2%). General Description: Dropstones: Section CC, 0 cm Ø 1 cm, quartzite, rounded; 2 cm, Ø 2 cm, granitic rock, subangular; 6 cm, Ø 6.5 cm, quartzite, subangular; 12 cm, Ø 9 cm, diorite?



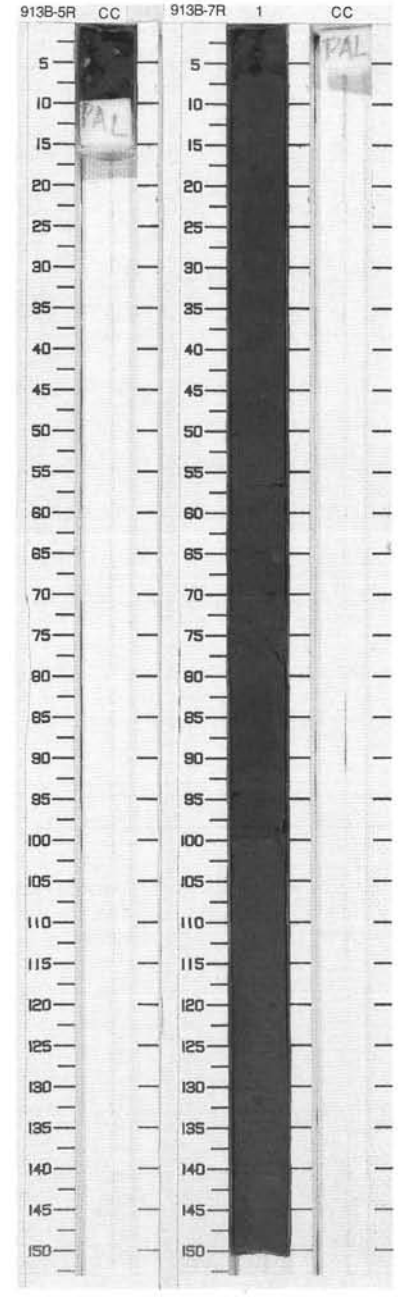
SITE 913 HOLE B CORE 5R CORED 124.5 - 134.1 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		CC				M		CLAYEY MUD Major Lithology: Olive (10Y 5/4) CLAYEY MUD. Non-clay minerals include quartz (35%) and feldspar (19%). General Description: Dropstones: Section CC, 2 cm, Ø 1.0 cm, igneous pegmatite; 3 cm, Ø 1.5 cm, white quartzite; 5 cm, Ø 1.5 cm, pink quartzite; 6 cm, Ø 1.2 cm, sandstone.

913B 6R NO RECOVERY

SITE 913 HOLE B CORE 7R CORED 143.8 - 153.4 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		1		F		P S P S S S P S M	5GY 4/1 To 5Y 3/1 5Y 3/1	SILTY CLAY Major Lithology: SILTY CLAY with numerous small dropstones (1–5 mm), exhibiting thin color bands (cm scale) composed of slightly coarser-grained dark greenish gray (5GY 4/1) layers and slightly finer grained very dark gray (5Y 3/1) layers from top of core to Section 1, 101 cm. Massive very dark gray (5Y 3/1) SILTY CLAY occurs from Section 1, 101 cm, to bottom of core. Minor Lithology: Very dark gray to dark olive gray (5Y 3/1 to 5GY 4/2) SANDY MUD occurs in Section 1, 56–74 cm, and contains the sharp base of a fining-upward sequence and a mud clast at 66 cm; perhaps represents a turbidite.
		CC						

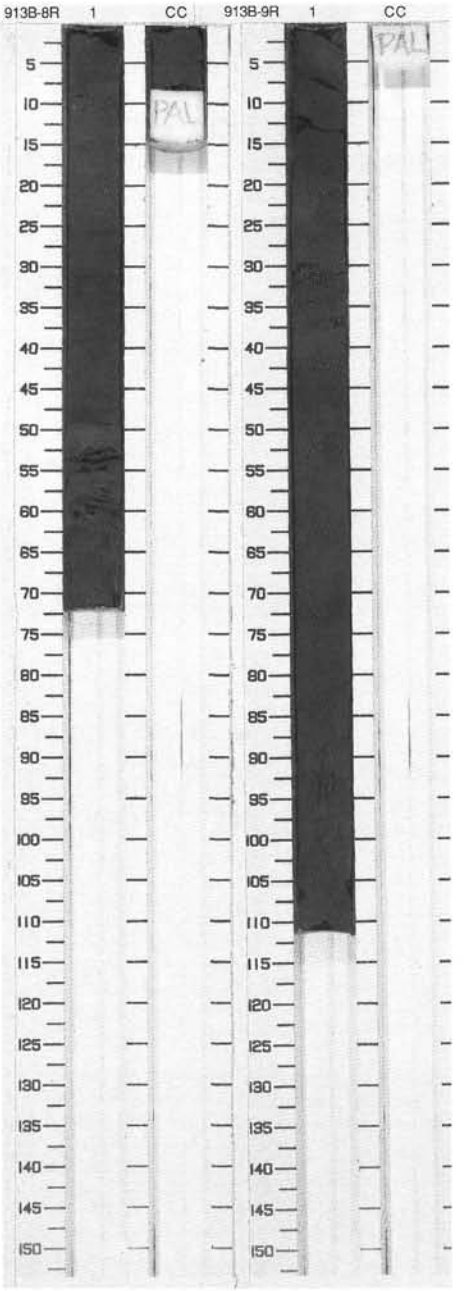


SITE 913 HOLE B CORE 8R CORED 153.4 - 163.1 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		1 CC				S P S M S P	5Y 3/1	SILTY MUD and SANDY SILT Major Lithologies: SILTY MUD, very dark gray (5Y 3/1), structureless, contains a relatively high amount of coarse sand-sized grains but no granules. Color bands occur at 33 (brown) and 49 cm (black). The lower part of the core (50–72 cm) consists of SANDY SILT, dark grayish brown (2.5Y 3/2), interbedded with thinner layers of dark greenish gray (5GY 4/1) SILTY CLAY. A 1-cm-long amphibolite was found in the coarsest sandy interval.

SITE 913 HOLE B CORE 9R CORED 163.1 - 172.7 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		1 CC			I	S P P S M	5Y 3/1	SILTY MUD and SILTY CLAY Major Lithologies: SILTY MUD and SILTY CLAY, very dark gray and homogeneous. Major silt- and sand-sized grains are quartz and feldspar; accessory minerals, opaques, and micas are minor components. Minor Lithology: GRAVEL-BEARING SILTY MUD, very dark gray (5Y 3/1), occurs in 30–38 cm. It contains poorly sorted, granule- and pebble-sized grains, up to 9 mm Ø. Grains are subangular to rounded and composed of a variety of lithologies.



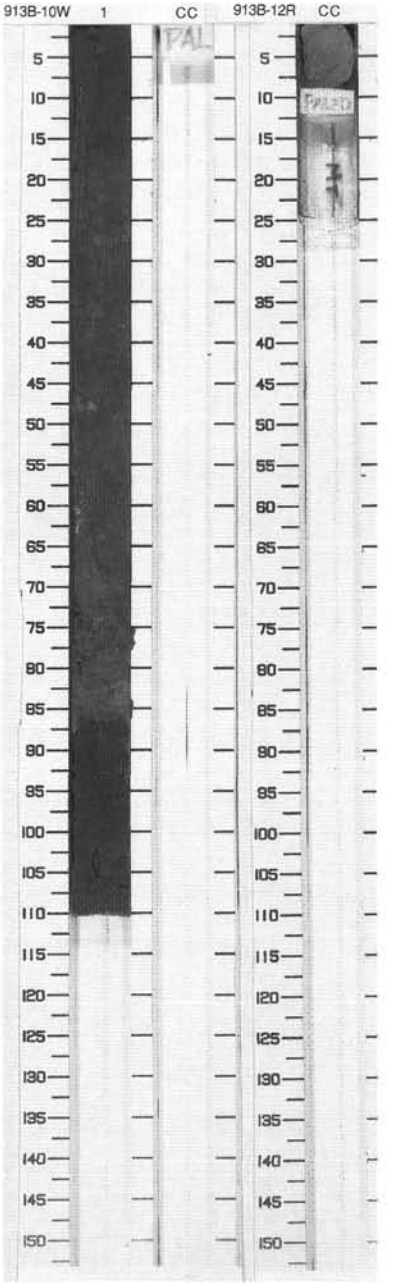
SITE 913 HOLE B CORE 10W CORED 172.7 - 220.8 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1 CC				S SM	10YR 4/1 To 5Y 3/1	SAND, SILTY CLAY and CLAYEY SILT Major Lithologies: Dark gray (10YR 4/1) and homogeneous SAND. SILTY CLAY and CLAYEY SILT occur below 85 cm, exhibiting dark gray (5Y 4/1), black (10YR 2/1) and dark olive gray (5Y 3/2) color bands.

913B 11R Entire core given to paleontologists.

SITE 913 HOLE B CORE 12R CORED 230.4 - 240.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		CC				M		General Description: One dropstone, a subrounded, black, sheared metamorphic rock, Ø 8.2 cm, was recovered.

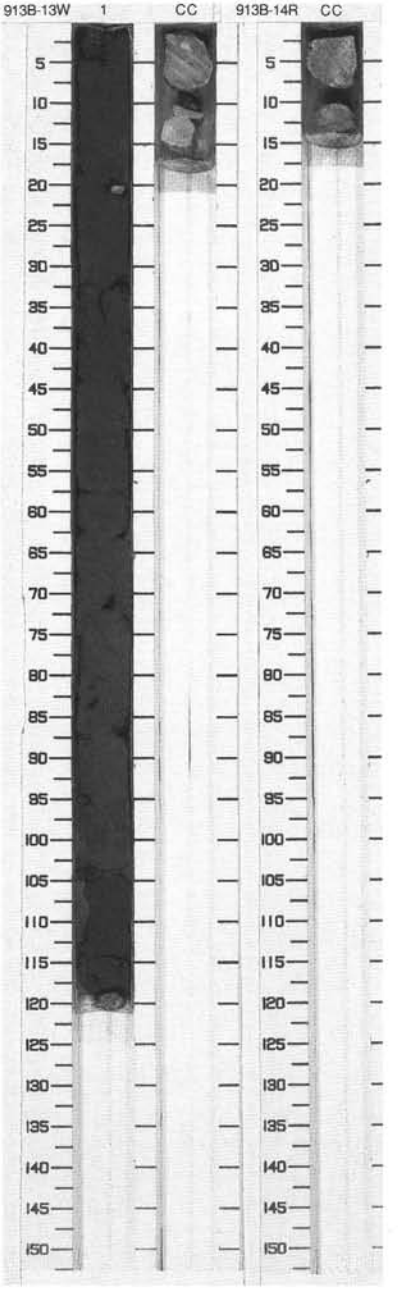


SITE 913 HOLE B CORE 13W CORED 240.0 - 288.4 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1 CC		◇ ◇ ◆ ◇ ◇ ◇		P P S P M	5Y 3/1 To 5GY 4/1	CLAYEY MUD Major Lithology: Very dark gray (5Y 3/1) CLAYEY MUD occurs from top of core to Section 1, 42 cm, and from 106–121 cm. Very dark gray to dark greenish gray (5Y 3/1 to 5GY 4/1) CLAYEY MUD occurs from 42–58 cm, and dark greenish gray (5GY 4/1) CLAYEY MUD from 58–104 cm. These colored layers are bounded by sharp contacts, probably related to drilling disturbance. Minor Lithology: Very dark gray (5Y 3/1) CLAY layer occurs in Section 1, 104–105 cm. General Description: Dropstones: Section 1, 20 cm, Ø 1.3 cm, subangular quartz; 83 cm, Ø 1.5 cm, angular-layered sandstone; 115 cm, Ø 1.0 cm, angular gneiss; 121 cm, Ø 4.1 cm, rounded gabbro, Section CC, 0–17 cm, Ø 8.1 cm, rounded gray gneiss; Ø 5.2 cm, rounded green metagabbro; Ø 4.1 cm, rounded green metagabbro; Ø 3.8 cm, angular black amphibolite; Ø 1.8 cm, angular pink gneiss; Ø 1.4 cm, angular pink gneiss.

SITE 913 HOLE B CORE 14R CORED 288.4 - 298.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		CC				M		GRAVEL Major Lithology: GRAVEL composed of large dropstones, which might be larger than diameter of core-liner originally. Finer sediment was washed out by drilling. General Description: Dropstones: 0 cm Ø 8.0 cm, gneiss (characterized by garnet); 10 cm, Ø 6.0 cm, gneiss



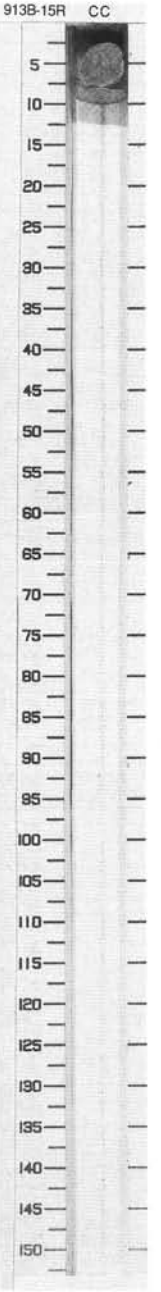
SITE 913 HOLE B CORE 15R CORED 298.0 - 307.7 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
								GRAVEL Major Lithology: Only one large dropstone was recovered. The size might be greater than the core diameter, originally. Finer sediment was washed out by drilling. General Description: Dropstone: Section CC, 0 cm, Ø 6.5 cm, granitic gneiss.

913B 16W WASH CORE

913B 17R NO RECOVERY

913B 18R NO RECOVERY



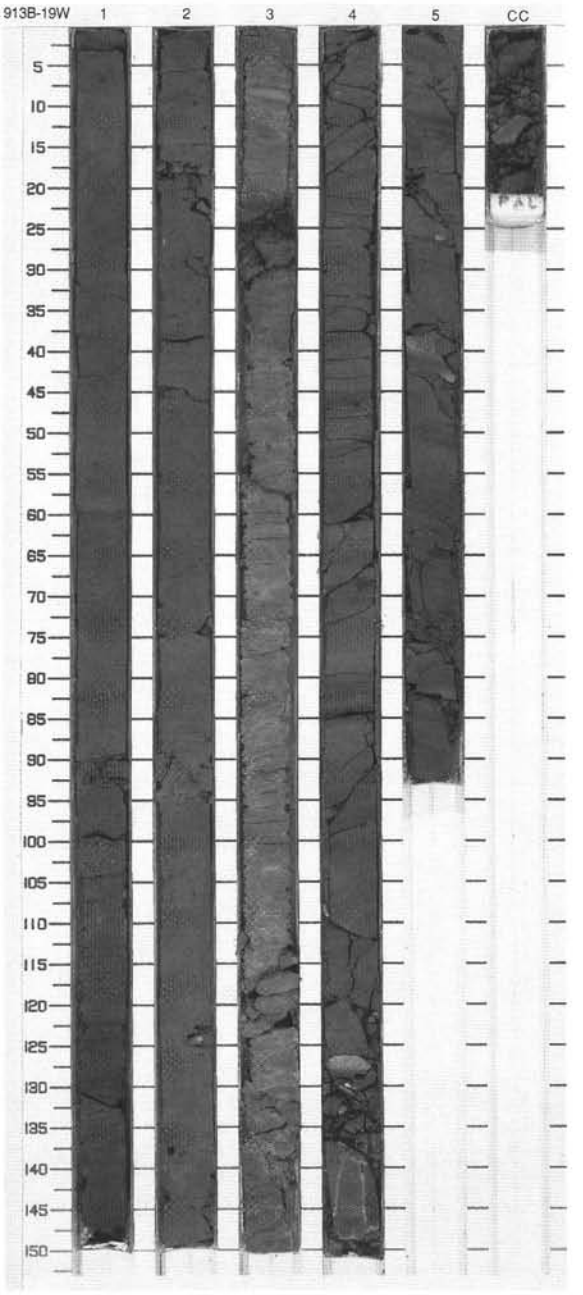
SITE 913 HOLE B CORE 19W CORED 375.2 - 423.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–7		1–5, CC	Holocene-Miocene	C, F		S, P, M	5Y 4/1 To 5Y 4/3; 2.5Y 3/2; 2.5Y 4/4 To 5Y 4/2; 7.5YR 3/2; 2.5Y 5/2; 5Y 4/1 To 5GY 4/1	CLAYEY TO SANDY MUDS and CLAY

Major Lithologies:
CLAYEY TO SANDY MUDS occur as 10- to 30-cm-thick intervals, which, structureless or showing an indistinct layering, include coarse grain up to granule size. These layers are separated by thinner clayey intervals which show distinct continuous thin laminae. Commonly, sharp contacts occur at the bottom of the clayey layers while their upper contacts are more gradational. Several coarsening-upward sequences, from clay to sandy mud occur in Sections 1 to 3. CLAY, very dark grayish brown (2.5Y 3/2), occurs Section 1, 105 cm; Section 2, 15 cm, it is structureless except numerous color bands, very dark brown (10YR 2/2), very fine and continous which are not disturbed by a the slight burrowing shown by little and diffuse lighter areas. CLAY, olive gray to olive (2.5Y 4/2, 2.5Y5/3), occurs Section 3, 60–115 cm. It presents an indistinct gray and yellow 1–2-cm-thick bands. It grades downward in a dark gray (5Y 4/1) CLAY on a millimetric to centimetric scale, getting more diffuse dark greenish gray (5GY 4/1) bands. Bioturbation features, dark patches and white specks, irregularly occur but increase downcore.

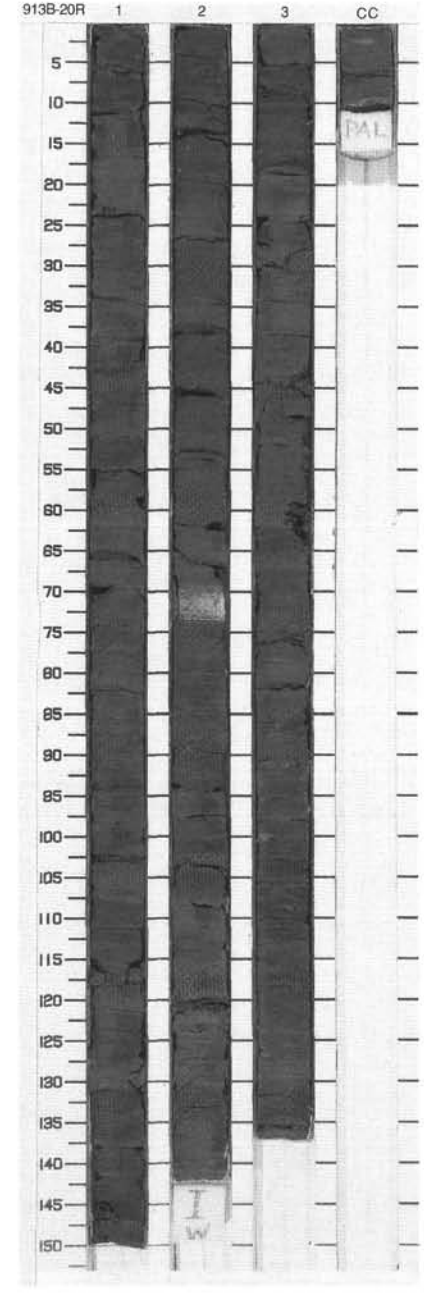
Minor Lithologies:
A Mn-Fe-oxide accumulation horizon occurs in Section 3, 20 to 30 cm. Its upper part is dark brown (7.5Y 3/2) indurated and shows several concentric features. It progressively grades downward in a yellowish brown clayey mud. At the opposite, its upper contact, with a clay, is very sharp.

General Description:
Dropstones:
Section 2, 20 cm, Ø 1.5 cm, sandstone.



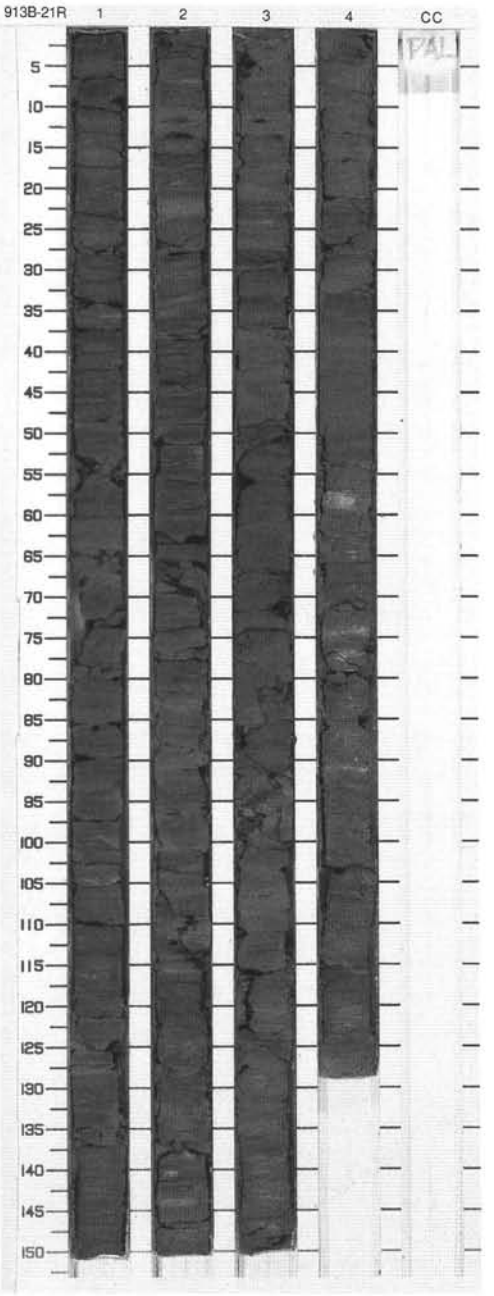
SITE 913 HOLE B CORE 20R CORED 423.5 - 433.1 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–4		1, 2, 3, CC	Eocene to Miocene			P, S P, S P, S P, I P, S P M	5Y 3/1 To 5GY 4/1	SILTY CLAY AND CLAY Major Lithology: Interbedded SILTY CLAY and CLAY, very dark gray to dark greenish gray (5Y 3/1 to 5GY 4/1). Olive gray to brownish very dark gray (5Y 4/1 to 5Y 3/1) laminations occur commonly throughout core. More massive, mottled layer with only faint color banding in Section 2, 0–54 cm. Minor Lithologies: Very dark gray to dark greenish gray (5Y 3/1 to 5GY 4/1) SANDY MUD occurs as very thin layers (1–5 mm) interbedded with SILTY CLAY and CLAY in Section 2, 18–82 cm and sporadically throughout remainder of core. General Description: Incipient drilling biscuits.



SITE 913 HOLE B CORE 21R CORED 433.1 - 442.8 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–5		1, 2, 3, 4, CC	Eocene-Miocene			P, S, P, S, S, P, P, M	5GY 4/1 To 5Y 3/1; 5Y 3/1; 5GY 4/1 To 5Y 3/1	SILTY CLAY and CLAY Major Lithologies: Alternating, up to 3-cm-thick beds of dark greenish gray (5GY 4/1) SILTY CLAY, dark gray (5Y 4/1) SILTY CLAY and very dark gray (5Y 3/1) CLAY. The thickness of individual beds vary, with the thickest beds in Section 2, 75–105 cm and Section 4, 60–129 cm. Dark greenish gray/dark gray lamination is present in Section 2, 48–52 cm. Agglutinated foraminifers are common in Sections 3 and 4. Up to cm-sized, lense-shaped pods (burrows?) filled with light gray or white coarser grained sediment are present throughout. Greenish gray (5GY 6/1) and black color bands are scattered throughout. The black bands have very sharp contacts and internal mottled structures, which suggest burrows. Intervals dominated by very dark gray (5Y 3/1) CLAY are found in Section 3, 50–83 cm and Section 4, 36–53 cm. These intervals are without burrows and only a few dark greenish gray color bands are present.

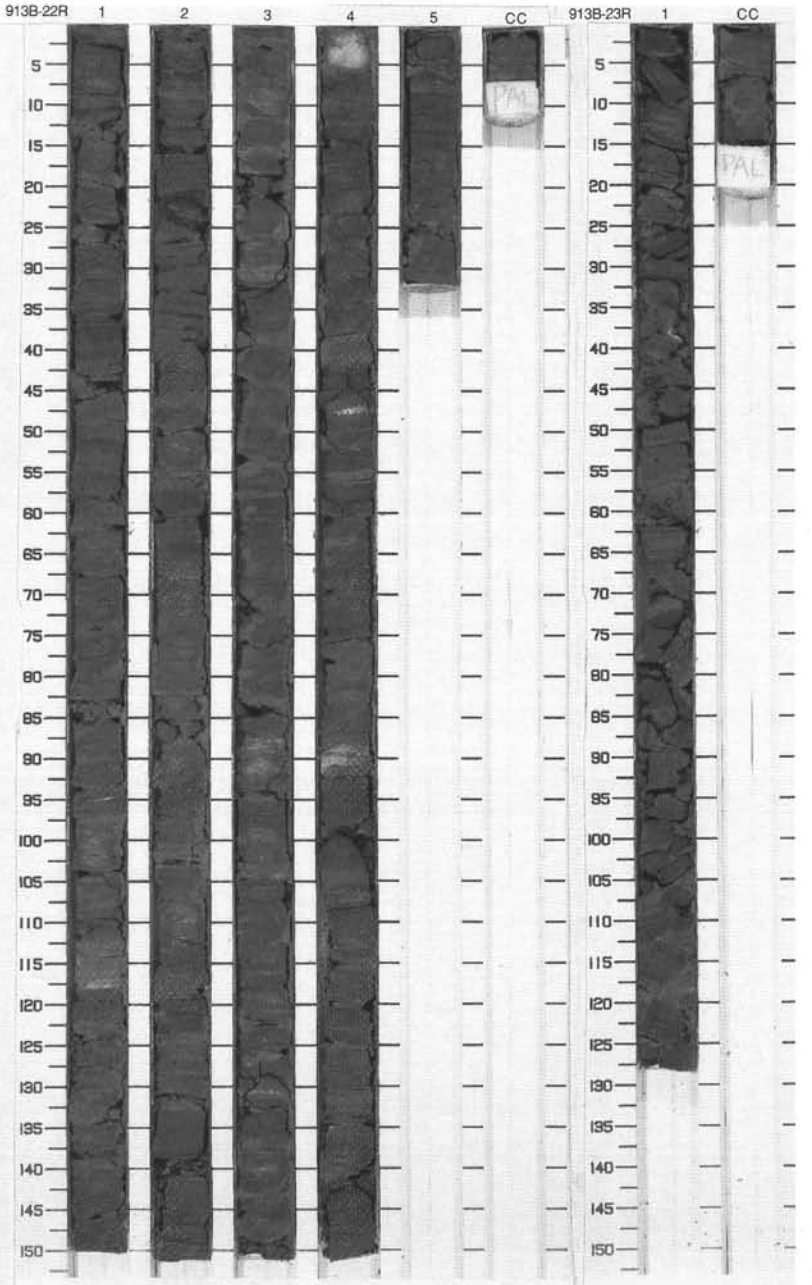


SITE 913 HOLE B CORE 22R CORED 442.8 - 452.4 mbsf

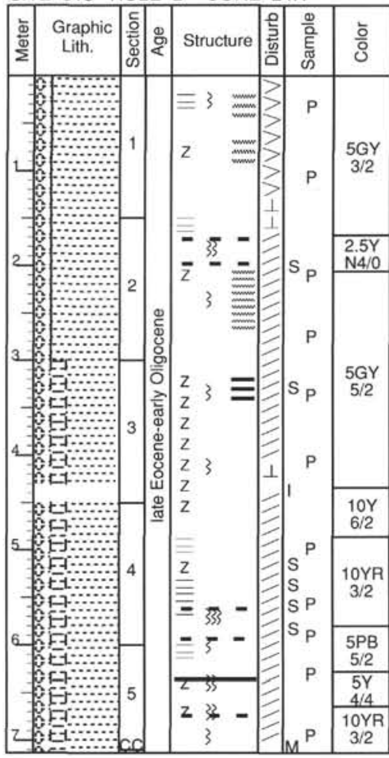
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 2 3 4 5 6		1 2 3 4 5 CC	Eocene-Miocene			S S S S	5GY 4/1 To 5Y 4/1 2.5Y 4/2 To 10Y 3/1 5GY 4/1 To 10Y 4/1 10Y 4/1	SILTY CLAY AND CLAY Major Lithology: The core consists of SILTY CLAY AND CLAY interbedded at a centimetric to decimetric scale with either gradational or sharp contacts. The SILTY CLAY, dark greenish gray (5GY 4/1) to dark gray (5Y 4/1) are commonly massive and show a slight to moderate bioturbation enlighted by white specks and small-scaled heterogenity in texture. The CLAY layers, of less importance, have various color, olive gray (10Y 4/2), very dark gray (1OYR 3/1), dark grayish brown (2.5Y 4/2), or dark greenish gray (5GY 4/1). They show thin color banding and distinct thin silt laminae. A Fe-Mn(?) concretional layer occurs Section 2, 21 cm, with a sharp upper contact and dark grayish brown (10YR 4/3) and dark greenish gray (5G 4/1) rimbs developed downward.

SITE 913 HOLE B CORE 23R CORED 452.4 - 462.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1 CC				S S M	5GY 4/1 To 5Y 3/1	SILTY CLAY and CLAY Major Lithologies: Interbedded dark gray to dark greenish gray (5Y 4/1 to 5GY 4/1) SILTY CLAY and very dark gray (5Y 3/1) CLAY. CLAY beds are rare below Section 1, 80 cm. Lenses of coarser grained white sediment, probably representing burrows, and agglutinated foraminifers are present throughout. General Description: Dropstone?: Section 1, 79 cm, Ø 1.2 cm, angular quartz.



SITE 913 HOLE B CORE 24R CORED 462.0 - 471.6 mbsf

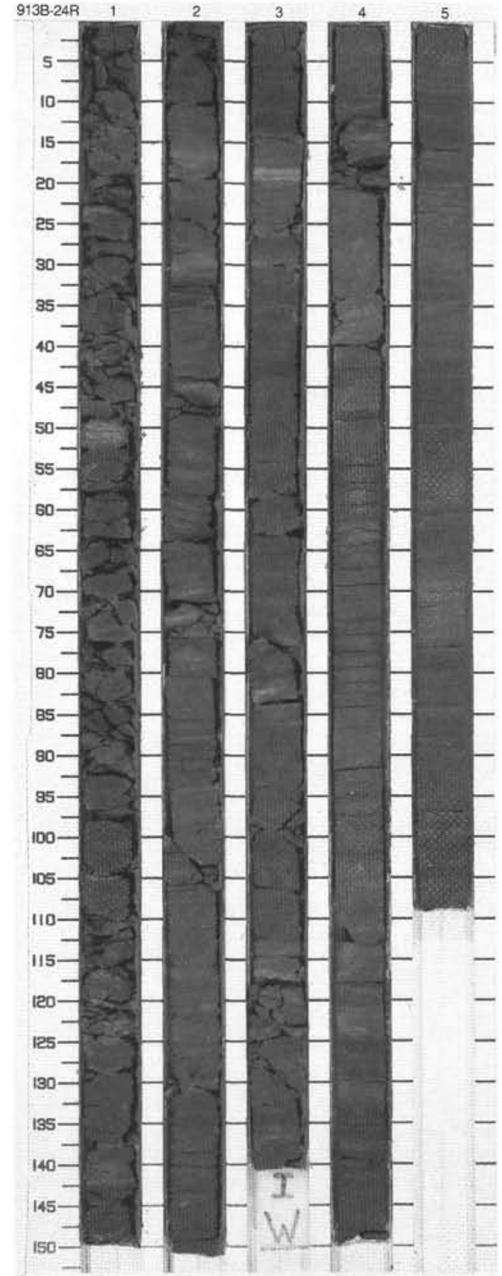


BIOSILICA-BEARING CLAY

Major Lithology:
Grayish olive green (5GY 3/2) BIOSILICA-BEARING CLAY. Diatoms (10%) and radiolarians (6%) are the biogenic components. Quartz silt grains are a minor component.

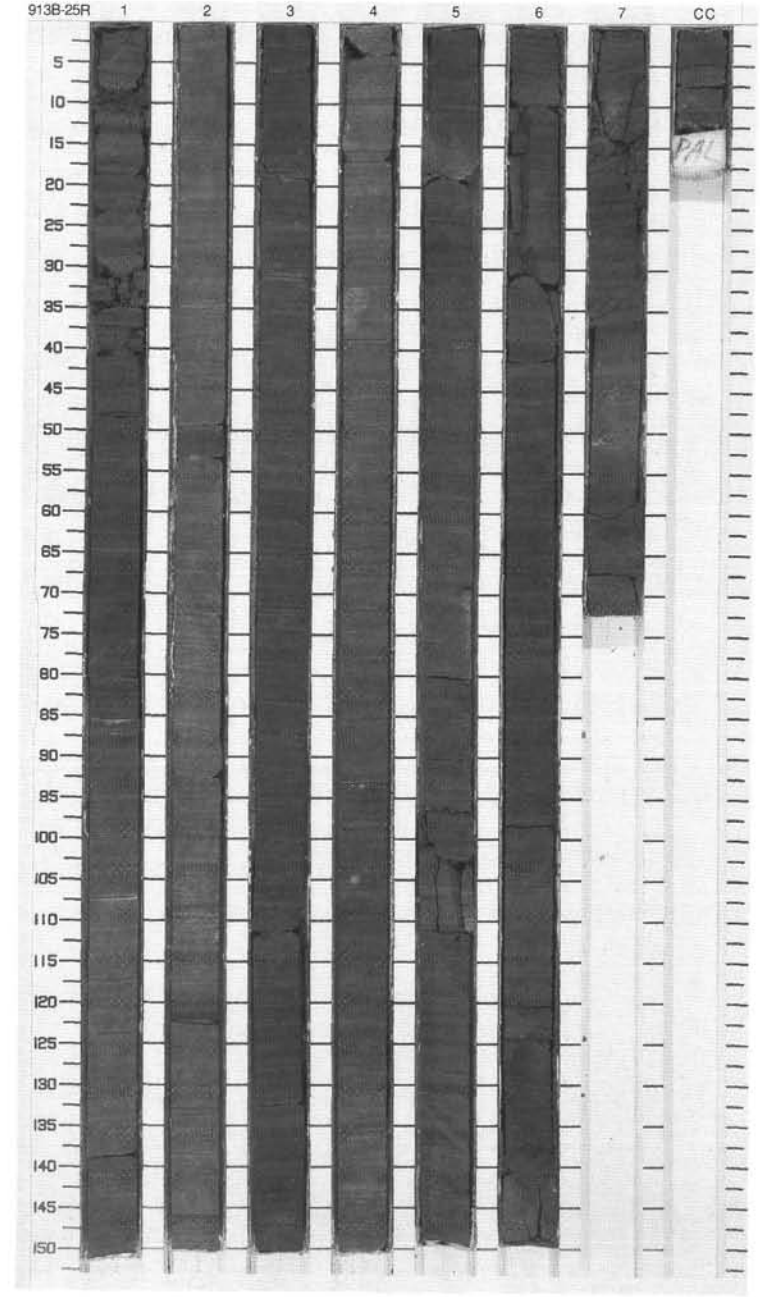
Minor Lithologies:
BIOSILICEOUS CLAY contains 20% diatoms and 20% radiolarians. BIOSILICA-BEARING SILTY CLAY contains 5%–10% each diatoms and radiolarians. The zeolite content is ~60%. A silt-sized VOLCANIC ASH layer occurs in Section 2, 43 cm.

General Description:
Major lithology occurs throughout Sections 1 and 2. It also constitutes much of remaining sections. Sections 3, 4, and 5 contain interbedded, in some places laminated, minor lithologies. Minor lithologies are characterized by vivid color contrasts. Bioturbation is absent to moderate.



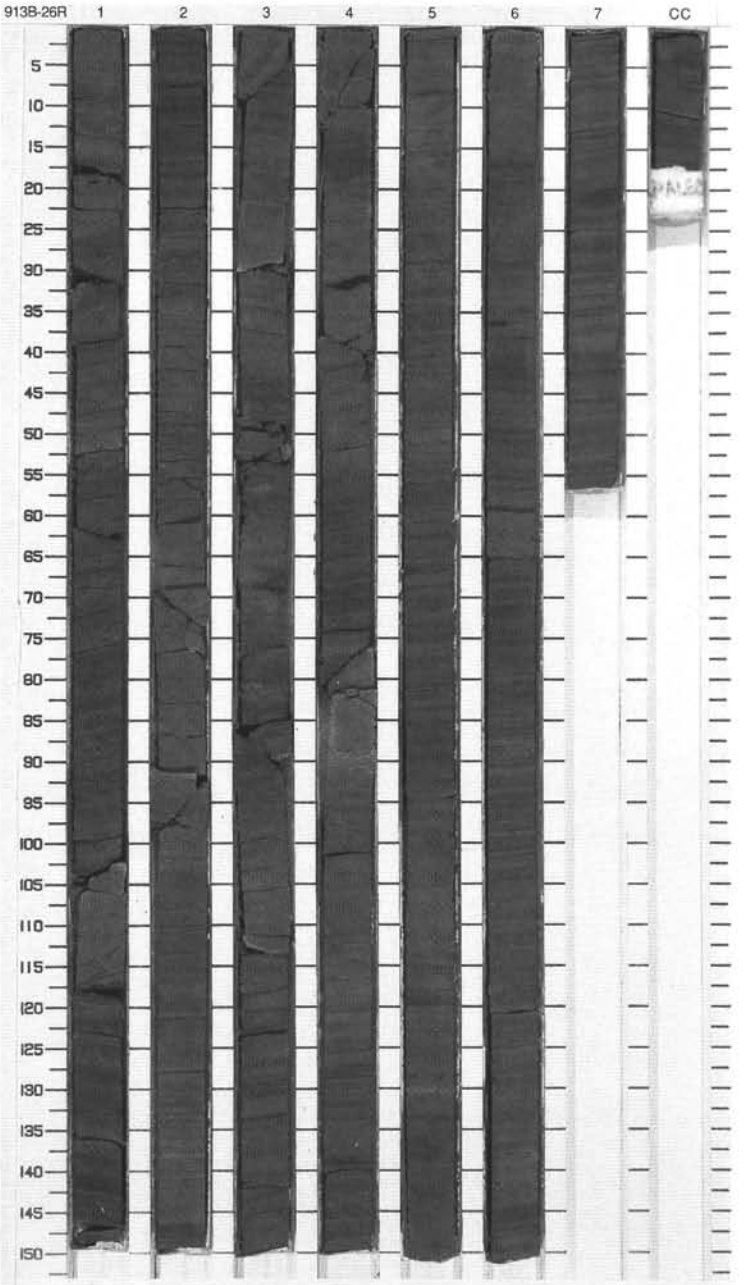
SITE 913 HOLE B CORE 25R CORED 471.6 - 481.1 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	early Oligocene				10YR 3/2 To 2.5Y 4/2	CLAYEY SILICEOUS OOZE, SILTY SILICEOUS OOZE and BIOSILICEOUS SILTY CLAY Major Lithologies: CLAYEY SILICEOUS OOZE, SILTY SILICEOUS OOZE, BIOSILICEOUS SILTY CLAY, laminated (laminae 1.0 mm to 2.0 mm thick) and firm, rapid color change of very dark grayish brown (10YR 3/2), dark grayish brown (2.5Y 4/2), olive gray (5Y 5/2), pale olive (10Y 6/4), grayish blue (5PB 5/2), pale purple (5p 6/2), grayish purple (5p 4/2) due to lamination, slightly to moderately bioturbated throughout, contacts commonly mottled. Minor Lithologies: BIOSILICEOUS VOLCANIC ASH, black (5Y 2.5/1), <1.0-cm-thick, gradational contact, occur at Section 2, 98–97 cm.
2		2				S	5Y 5/2 To 10Y 6/4	
3		3				S	5PB 5/2 To 5P 6/2	
4		4						
5		5				S	10YR 3/2 To 2.5Y 4/2	
6		6					10Y 6/4 To 5Y 5/2	
7		7				S		
		CC				M		



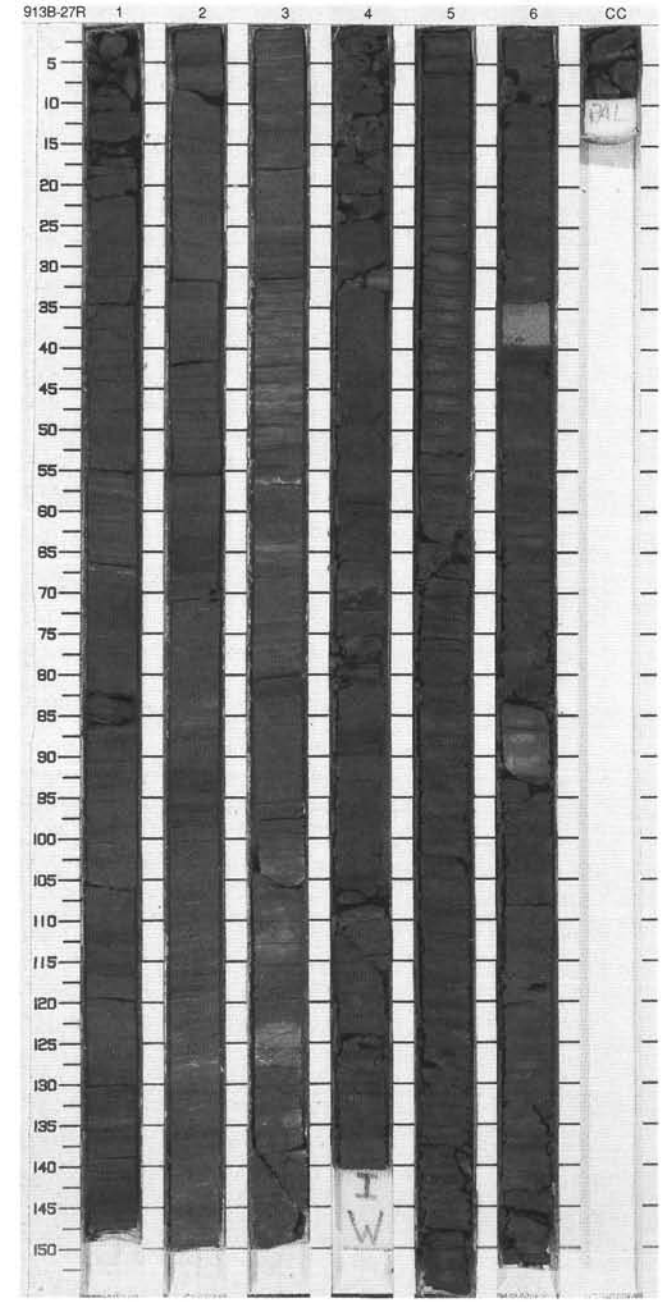
SITE 913 HOLE B CORE 26R CORED 481.1 - 490.7 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–7, CC	late Eocene–early Oligocene			P, S, M	5G 3/2 To 10GY 4/2; 5G 3/2 To 5G 4/1; 5G 3/2 To 5G 4/2; 5G 4/1; 5G 4/2; 5G 4/2 To 5G 4/1; 5G 5/1 To 5G 4/1	CLAYEY SILICEOUS OOZE and BIOSILICA-BEARING CLAY Major Lithologies: CLAYEY SILICEOUS OOZE, forms most of the laminated intervals, as dark greenish gray (5GY 4/1, 5G 4/1), greenish gray (5GY 5/1, 5G 5/1), grayish green (5G 4/2), dark gray (5Y 4/1, N4), dusky green (5G 3/2), (10GY 4/2), (7.5GY 4/2), black (5GY 2.5/1), and in Section 2, 126 cm to Section 3, 3 cm, a few thin bands of dusky purple (5PB 3/2) and bright azure blue (5B 5/4). BIOSILICA-BEARING CLAY, forms most of the nonlaminated intervals, and has less color variety, being primarily dark gray (5Y 4/1, N4), dark greenish gray (5GY 4/1, 5G 4/1), and greenish gray (5GY 5/1, 5G 5/1). Minor Lithologies: SILT, is present as <3-mm-thick layers throughout the core, Section 1, 119 cm; Section 4, 31 cm; Section 5, 30 cm, 110 cm; Section 6, 36 cm, 55 cm, 124 cm. With the exception Section 1, 119 cm, dusky green (5G 3/2) and the irregular layer in Section 4, black (N2), these layers tend to be slightly lighter than the surrounding sediment. Ash particles are present in Section 3 at 69 cm. It is not visually different from the surrounding sediment. General Description: Laminated and biotrubated sediments, with shades of green colors. The laminated intervals with the brightest green colors and any shade of blue are not bioturbated. Other laminae are bioturbated. White spheres (radiolaria?) are present, especially in the non-laminated intervals. Most burrows are dark and parallel bedding.



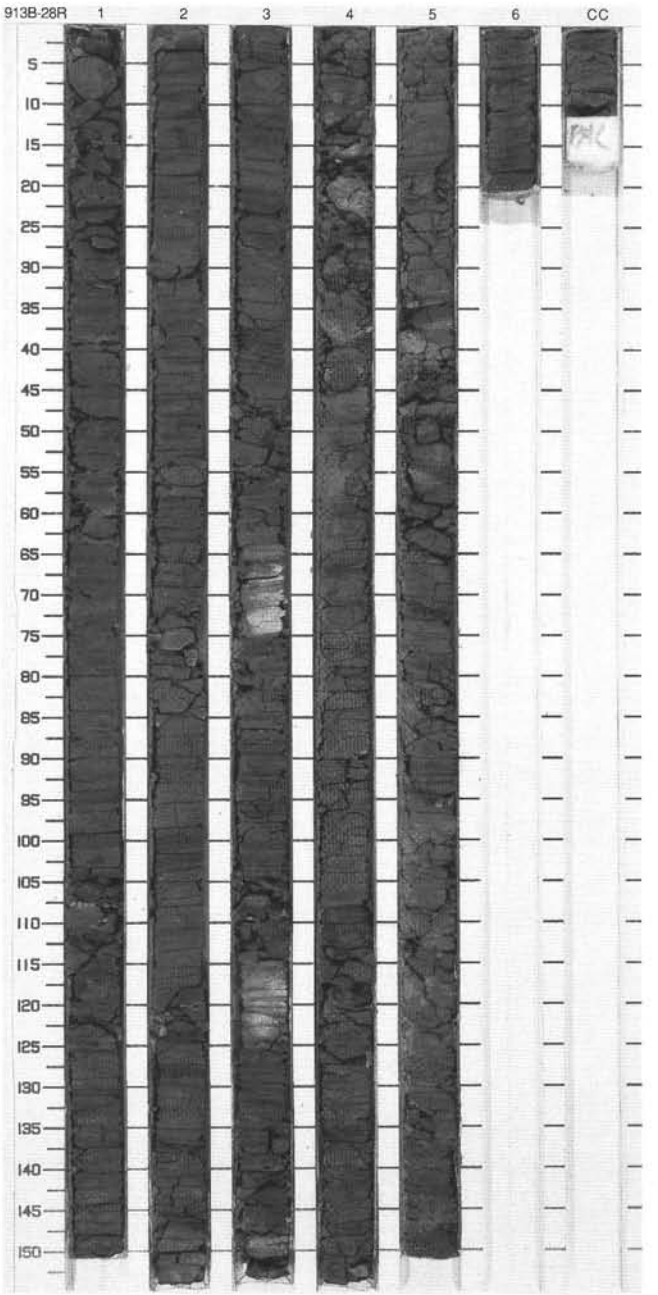
SITE 913 HOLE B CORE 27R CORED 490.7 - 500.3 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1–6, CC	late Eocene-early Oligocene			P, S, I, M	10GY 5/2; 5G 5/2 To 5Y 4/1; 10GY 5/2; 5G 5/2; 5G 4/2; 5G 5/2; 5GY 4/1	BIOSILICEOUS CLAY Major Lithology: Grayish green (10GY 5/2) to dusky green (5G 4/2) BIOSILICEOUS CLAY. Diatoms and radiolarians each constitute ~20%. Sponge spicules are another ~5%. Quartz, mica, feldspar, and accessory minerals occur in trace amounts (1%). Minor Lithology: Dark greenish gray (5G 4/1) CLAY. Biosilica is absent. Quartz (3%) and feldspar (1%) are minor non-clay components. Fine, non-clay minerals occur. General Description: BIOSILICEOUS CLAY is predominant lithology, particularly in Sections 1–3. CLAY occurs throughout Sections 4–6. Both lithologies are locally variable in color, and constitute thin laminae. The colors include dark gray (5Y 4/1), dark greenish gray (5G 4/1), grayish green (10GY 5/2), dusky green (5G 4/2), very pale green (10G 8/2), and brown (10 YR 5/3). Bioturbation is quite variable, from absent to heavy.



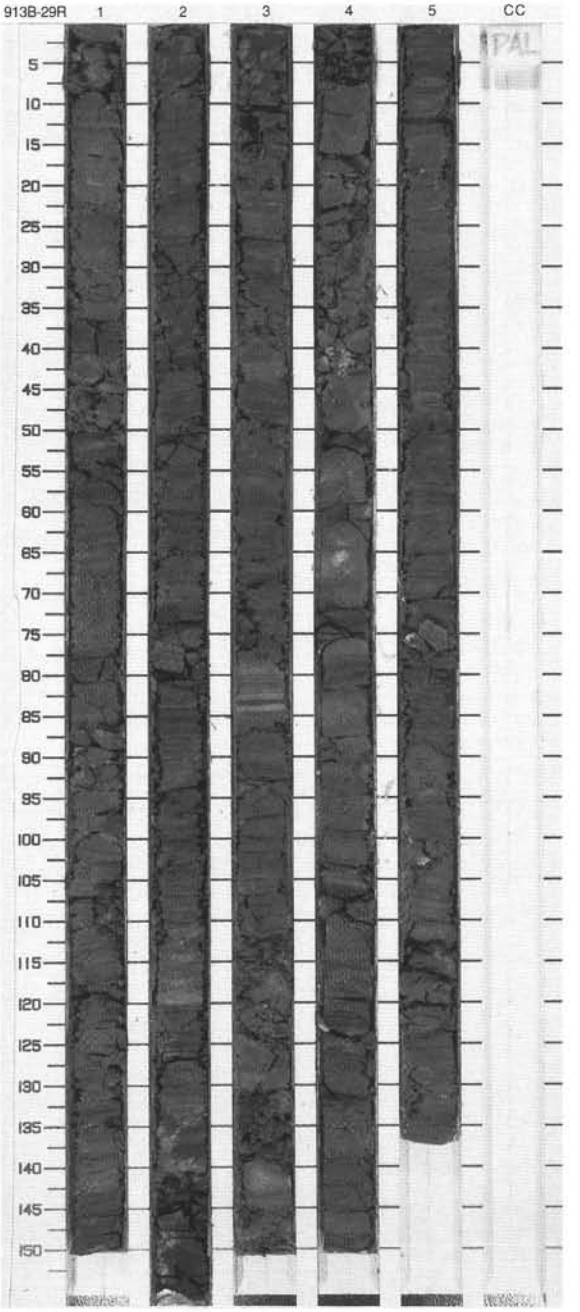
SITE 913 HOLE B CORE 28R CORED 500.3 - 509.9 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–8		1, 2, 3, 4, 5, 6, CC	early Oligocene			P, P, P, S P, P, S, P, S P, P, S P, P, M	5GY 4/1 To 5G 2.5/2	SILTY CLAY and CLAY Major Lithologies: Dark greenish gray to very dusky green (5GY 4/1 to 5G 2.5/2) CLAY and SILTY CLAY occurs from top of core to Section 2, 76 cm and from Section 3, 50 cm to bottom of core. Common discontinuous and uneven subhorizontal black layers probably represent burrows, as wall structures are occasionally preserved. Minor Lithology: Predominantly massive, non-laminated, dark greenish gray to very dusky green (5GY 4/1 to 5G 2.5/2) SILTY CLAY occurs from Section 2, 76 cm to Section 3, 50 cm, interrupted by intervals of very dusky green (5G 2.5/2) laminations (2–5 mm scale). Horizontal black sediment-infilled burrows are largely absent in this interval. General Description: Entire core in drilling biscuits (~2–10 cm), without drilling slurry in between. Sections 2, 3, and 4 are each ~155 cm due to core expansion.



SITE 913 HOLE B CORE 29R CORED 509.9 - 519.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–7		1				P	5GY 4/2 To 5Y 3/1	CLAY Major Lithology: Interbedded or laminated grayish green (5GY 4/2), dark greenish gray (5GY 4/1) and very dark gray (5Y 3/1) CLAY. Individuel beds up to 10 cm in thickness. Distinct lamination occurs only in intervals in Sections 3, 4, and 5. Black bands with sharp contacts are present througout. These are interpreted as burrows, probably Zoophycos. Lense-shaped, black burrows are common in Sections 3, 4, and 5. Two light gray, normally graded color bands occur in Section 2, 115 cm and Section 3, 87 cm. The CLAY primarily consists of silt-sized aggregates of clay-sized material (zeolites), with ~5% sand-sized angular prismatic quartz grains (probably of authigen origin). Minor Lithologies: Homogeneous grayish green (5GY 4/2) CLAY is present from Section 3, 112 cm to Section 4, 54 cm. General Description: Entire core disrupted into drilling biscuits. Sediment expansion after splitting.
		2				P	5Y 3/1 To 5GY 4/2	
		3				S		
						S P		
							5GY 4/2	
		4				S		
						S P	5GY 4/2 To 5GY 4/1	
		5				S		
		CC				P	5Y 3/1 To 5GY 4/2	
						M		

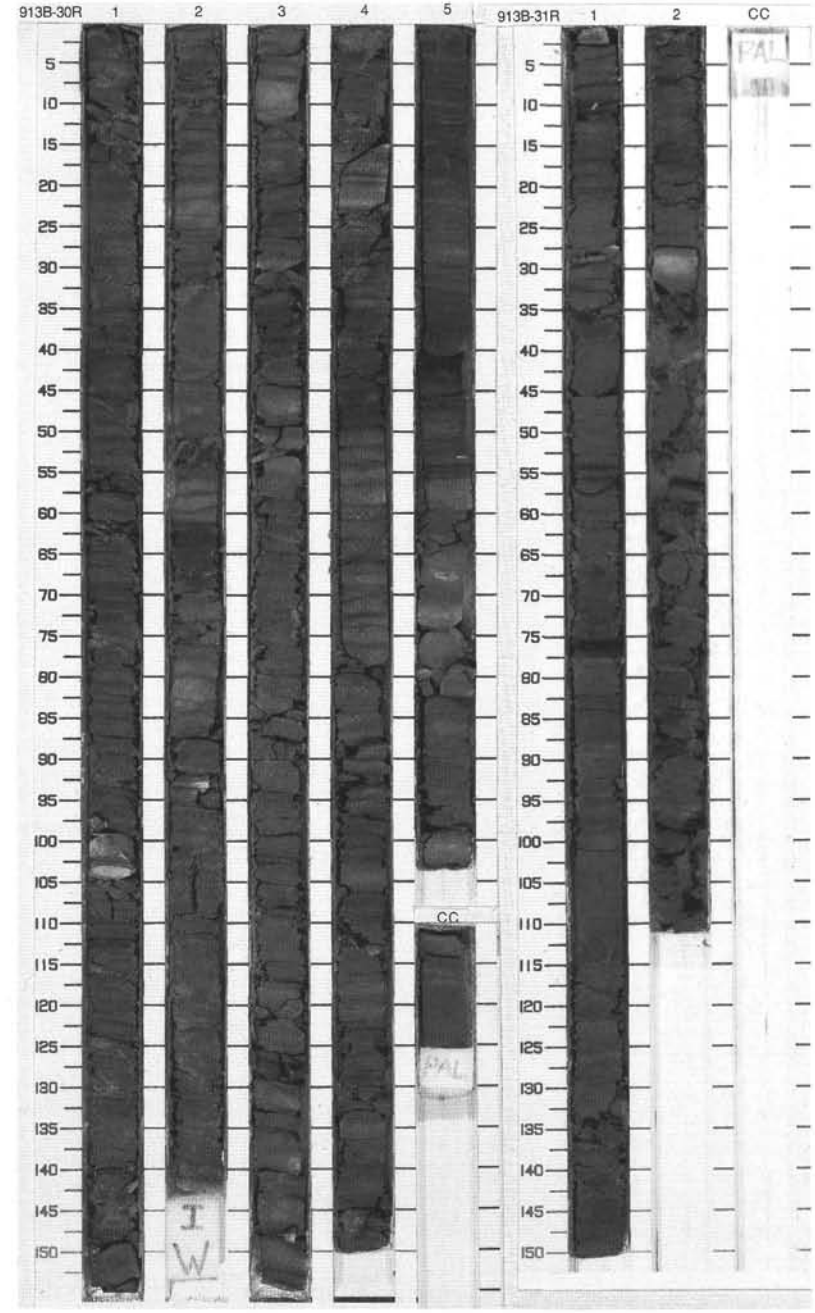


SITE 913 HOLE B CORE 30R CORED 519.5 - 529.2 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–7		1–5, CC				P, S, I, M	5GY 3/2 To 5Y 4/1	CLAY Major Lithology: CLAY, laminated grayish olive green and dark gray (5GY 3/2, 5Y 4/1), firm, fissile, slightly bioturbated. Laminae are typically wavy and discontinuous but planar in Section 5, 40–44 cm. Dusky yellow green and greenish black (10GY 3/2, 5GY 2/1) laminae occur locally throughout the core. Massive or mottled layers with no or few laminae are in Section 1, 130 cm to Section 2, 60 cm; Section 2, 72–86 cm; Section 3, 41–150 cm; Section 4, 51–78 cm; Section CC, 6–15 cm. A laminated claystone occurs in Section 2, 89–93 cm, and a laminated, greenish black clay (organic-rich?) occurs in Section 5, 40–44 cm. Grayish green (10GY 5/2) beds in Section 4, 15–22 cm and Section 5, 100–102 cm are graded; the upper part of each bed is bioturbated and the bottom contact is sharp. Agglutinated foraminifers occur in Section 1. Minor Lithology: CARBONATE CONCRETIONS, light gray to light olive gray (5Y 7/2; 5Y 6/2), occur in Section 1, 101–102 cm; Section 5, 70–74 cm. They contain burrows and have gradational top and bottom contacts.

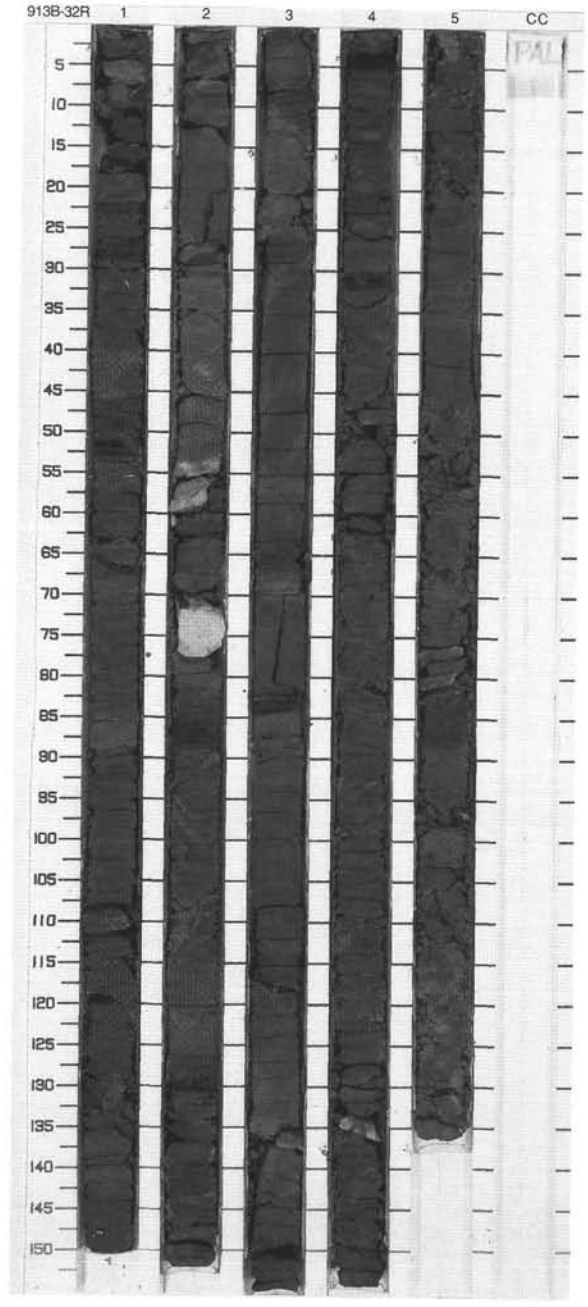
SITE 913 HOLE B CORE 31R CORED 529.2 - 538.8 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–2		1, 2, CC	late Eocene			P, S, M	5GY 2/1 To 5Y 4/1	CLAY Major Lithology: Interbedded, 1- to 5-cm-thick CLAY beds, dark greenish gray (5GY 4/1) to dark gray (5Y 4/1). Beds range from very massive to very thinly laminated (with dusky yellowish green, 5GY 4/1, and brownish black, 5YR 2/1, color bands), through an indistinct or wavy thin color banding. Up to 5% of quartz is observed in a clayey matrix partly lithilified (Zeolites?). Carbonate cemented layer occurs Section 2, 28–31 cm. This layer, pale olive (5Y 6/3) contains 1- to 2-mm-large carbonate spheres with radial structure scattered in a clayey matrix.



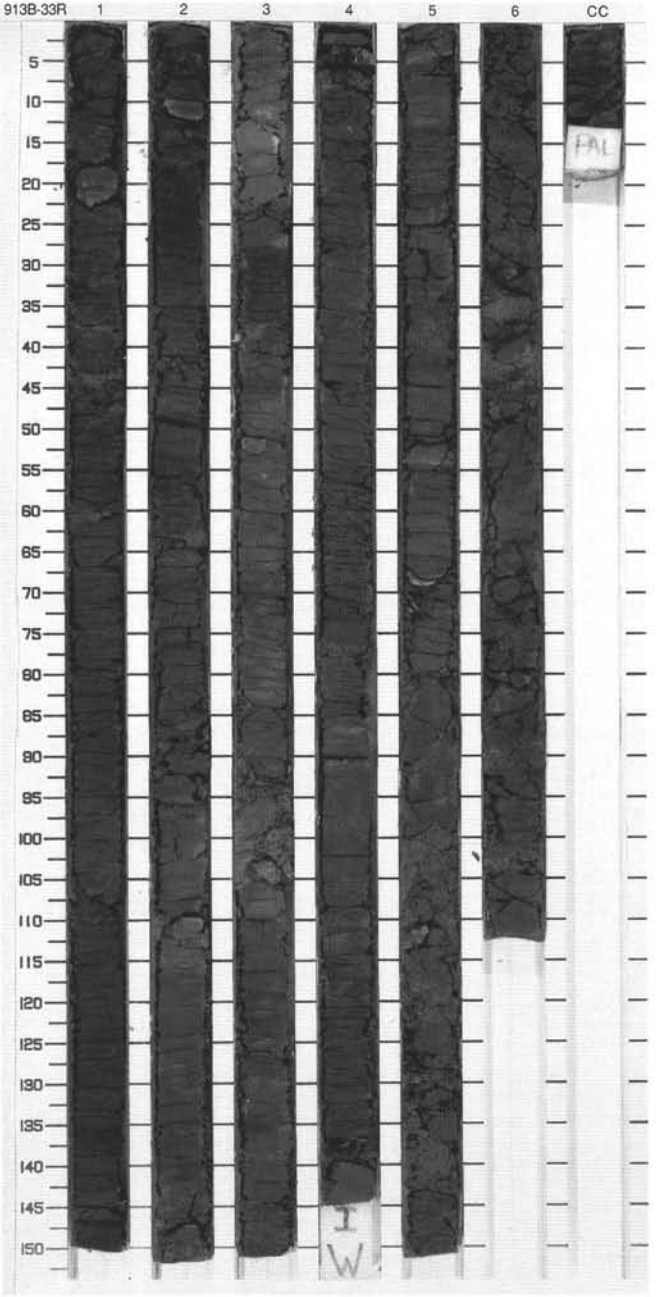
SITE 913 HOLE B CORE 32R CORED 538.8 - 548.4 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–7		1, 2, 3, 4, 5, CC				P, P, S, S P, S, P, P, M	5GY 3/2 To 5GY 2/1	CLAY Major Lithology: CLAY, grayish olive green interbedded with greenish black (5Y 3/2, 5Y 2/1), firm, fissile, and laminated. Grayish olive green, dusky yellowish green, and greenish black laminae are wavy, discontinuous and slightly bioturbated. Planar laminae are rare. Massive, structureless clay occurs in Section 1, 29–50 cm; Section 1, 144 cm to Section 2, 6 cm; Section 3, 30–55 cm; Section 5, 23–50 cm. Silt- and sand-sized quartz is the main non-clay component. Minor Lithology: CARBONATE CONCRETIONS, pale olive and gray (5Y 6/3, 5Y 6/1), occur in Section 2, 53–60 and 70–78 cm.



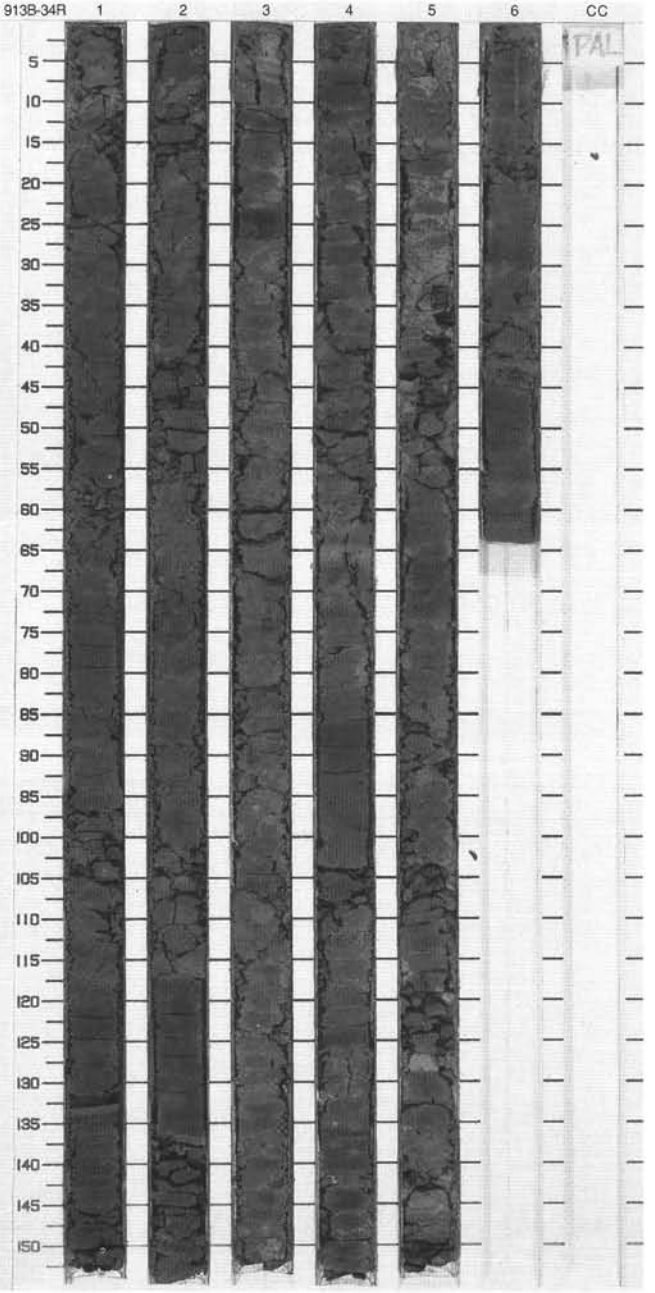
SITE 913 HOLE B CORE 33R CORED 548.4 - 558.1 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	Eocene			P	5G 2/1 To 5Y 2/1	CLAY Major Lithology: CLAY, primarily greenish black (5G 2/1) and dark greenish gray (5GY 4/1), greenish gray (5GY 5/2), grayish green (10GY 5/2), dark grayish green (10GY 4/2), with minor dusky green (5G 3/2), and olive black (5Y 2/1, 5Y 2.5/1), dark olive gray (5Y 3/1), and brownish black (5YR 2/1) burrows and lamination. Minor Lithologies: CARBONATE CLAY, pale yellow (2.5Y 7/4), Section 3, 12–20 cm, with a sharp upper contact, and a gradational lower contact with dusky yellowish green (10GY 3/2) laminae and grayish green (10GY 5/2) base. BOLBOFORMA CLAY, dark yellowish orange (10YR 6/6) as a homogeneous layer in Section 3, 53–57 cm, and in a laminated interval in Section 5, 3–4 cm. General Description: Moderate bioturbation throughout, with extensive laminations and color banding. Nowhere does bioturbation completely disrupt the lamination, but it does give a mottled appearance to much of the core. Small white, silt burrows are present in minor amounts throughout the core. Most of the burrows parallel to bedding and are formed by the darker colors.
						S		
2		2				P		
						S		
3		3				S	5G 2/1 To 5GY 4/1	
						P		
							10GY 4/2	
4		4				S	5G 3/2 To 10GY 5/2	
						P	10GY 5/2	
						I	10GY 5/2 To 5GY 5/2	
5		5				P		
							5Y 3/1	
6		6				P	5Y 4/2 To 5GY 5/2	
		CC				M		



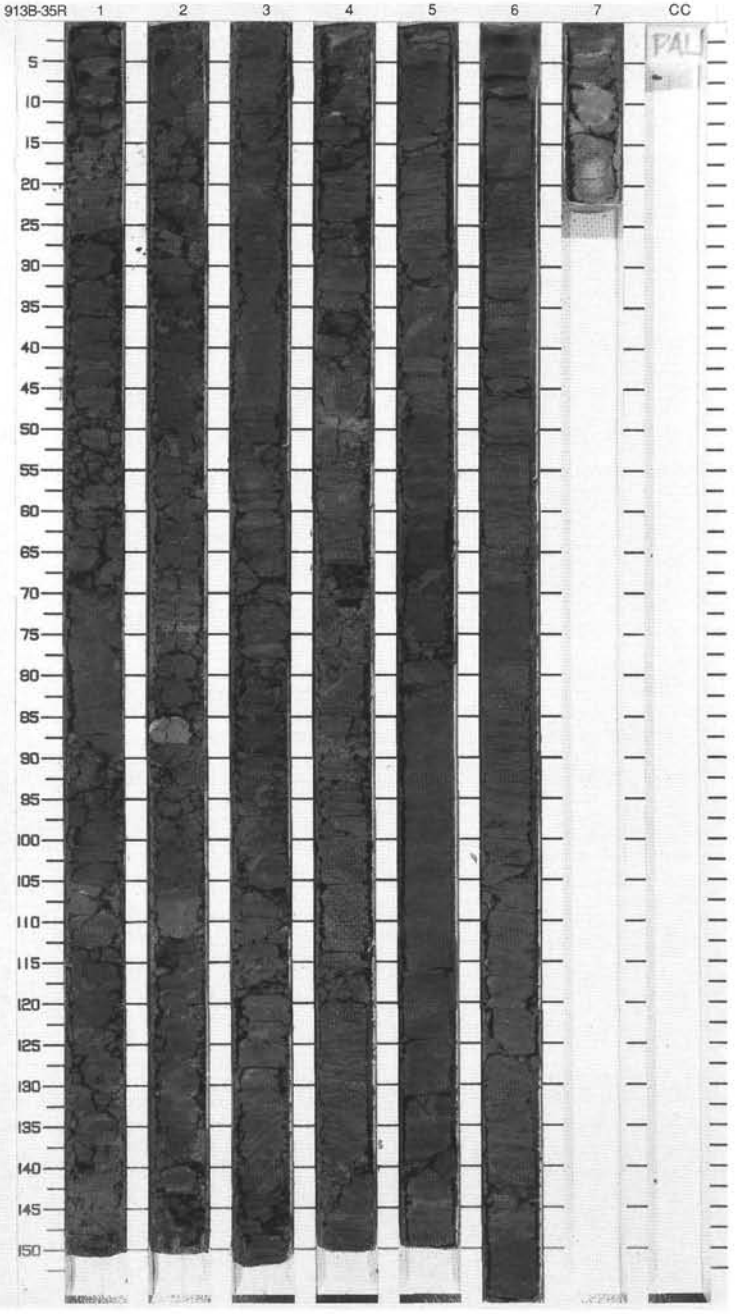
SITE 913 HOLE B CORE 34R CORED 558.1 - 567.7 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–8		1, 2, 3, 4, 5, 6, CC	Eocene			P, S, M	7.5GY 4/1; 7.5GY 3/1; 7.5GY 4/2; 7.5GY 3/1; 7.5GY 4/2; 5GY 4/2; 5Y 3/1	SILTY CLAY Major Lithology: Grayish green (7.5GY 4/2), dark grayish green (7.5GY 4/1), and very dark grayish green (7.5GY 3/1) SILTY CLAY. Accessory minerals (~40%), including opal-CT are the major non-clay constituents. Quartz (2%) and feldspar (1%) are minor constituents. Biosilica, including diatoms, radiolarians, and sponge spicules, occurs in small amounts (~5%). General Description: Major lithology occupies 90% of core. Ash layer occurs in Section 1, 130–132 cm. Other minor lithology occurs in Section 2, 105–135 cm, Section 4, 85–105 cm, and Section 5, 63–73 cm. Bioturbation is slight to extensive.



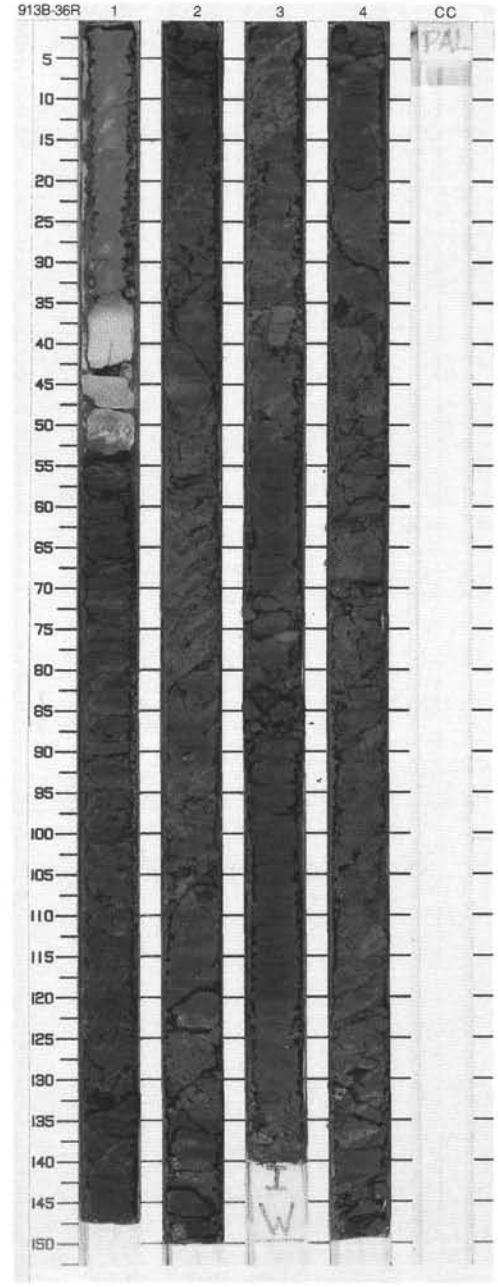
SITE 913 HOLE B CORE 35R CORED 567.7 - 577.4 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–9		1				S	5G 4/1 To 5G 3/1	CLAY Major Lithology: CLAY, dark greenish gray (5G 4/1) to very dark greenish gray (5G 3/1), firm, fissile and laminated. Wavy to lenticular laminations (mm scale), very dark gray (5Y 3/1), occur throughout the section. Planar laminae is rare. Apparently massive CLAY are interbedded in Section 1, 0–5 and 62–88 cm; Section 3, 35–47 cm, Section 5, 29–43 cm; Section 7, 10–22 cm. Diagenetic color bandings occur with commonly sharp contacts. Tube-like molluscan shell fragments (Ø 0.5 mm) are sparcely scattered in Section 6. Minor Lithology: CARBONATE SILTY CLAY, mainly composed of silt-sized dolomite grains (42%) and clay (50%), occurs in burrow fills (Planolites?) in Section 1, 15–19 cm.
						S		
		2		F		S		
				F		S		
		3					5G 4/1	
		4				S		
		5				S	5G 4/1 To 5Y 3/1	
		6					5G 4/1 To 5G 6/1	
		CC				M		



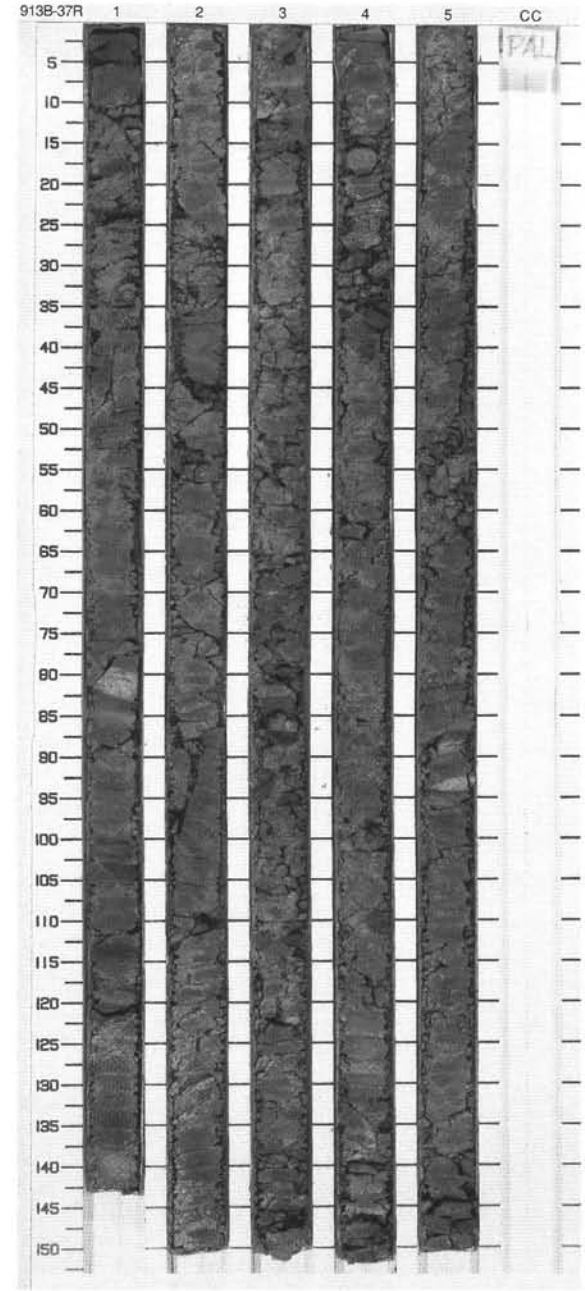
SITE 913 HOLE B CORE 36R CORED 577.4 - 587.1 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–6		1, 2, 3, 4, CC	late Eocene-early Oligocene			S; S; I; S; M	10GY 4/2 To 7.5GY 2.5/1; 10YR 6/2 To 7.5GY 5/2; 10YR 8/3 To 7.5GY 3/1; 10YR 7/4 To 5Y 2.5/1; 5GY 4/2 To 5Y 3/1	BIOSILICEOUS CLAY Major Lithology: BIOSILICEOUS CLAY, laminated, firm, rapid color variation of brown (7.5YR 5/2), very pale brown (10YR 8/3), light brownish gray (10YR 6/2), very pale brown (10YR 7/4), grayish green (10GY 4/2), black (5Y 2.5/1), moderately to heavily bioturbated, gradational contacts commonly mottled, it seems to be that the major part of the clay consist of opal-ct.



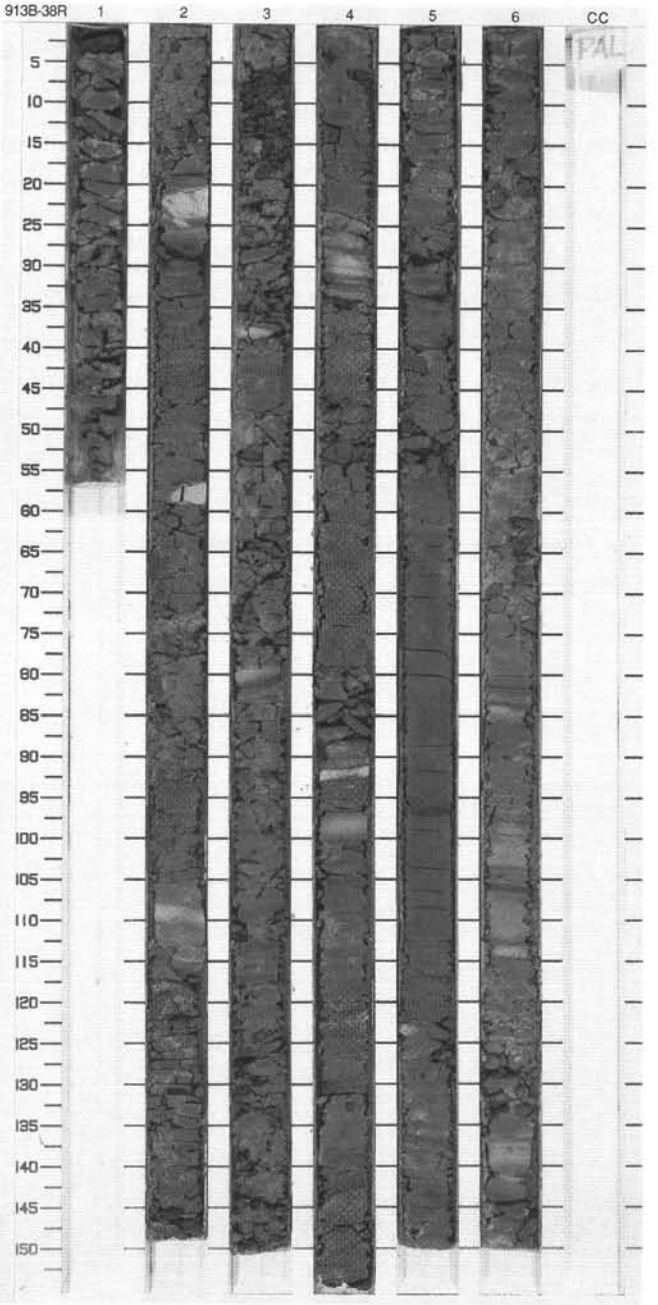
SITE 913 HOLE B CORE 37R CORED 587.1 - 596.7 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–7		1, 2, 3, 4, 5, CC	late Eocene-early Oligocene			S, S, M	7.5YR 5/2 To 10YR 8/3; 10YR 6/2 To 10YR 7/4; 10GY 4/2 To 5Y 2.5/1	SILTY CLAY Major Lithology: SILTY CLAY, firm, laminated, rapid color variation of brown (7.5YR 5/2), very pale brown (10YR 8/3), light brownish gray (10YR 6/2), very pale brown (10YR 7/4), grayish green (10GY 4/2), black (5Y 2.5/1), moderatley to heavily bioturbated, gradational contacts common. Minor Lithologies: CLAY, abundant in Section 1, 120 cm, thickness less than 0.5 cm, grayish purple (5P 4/2).



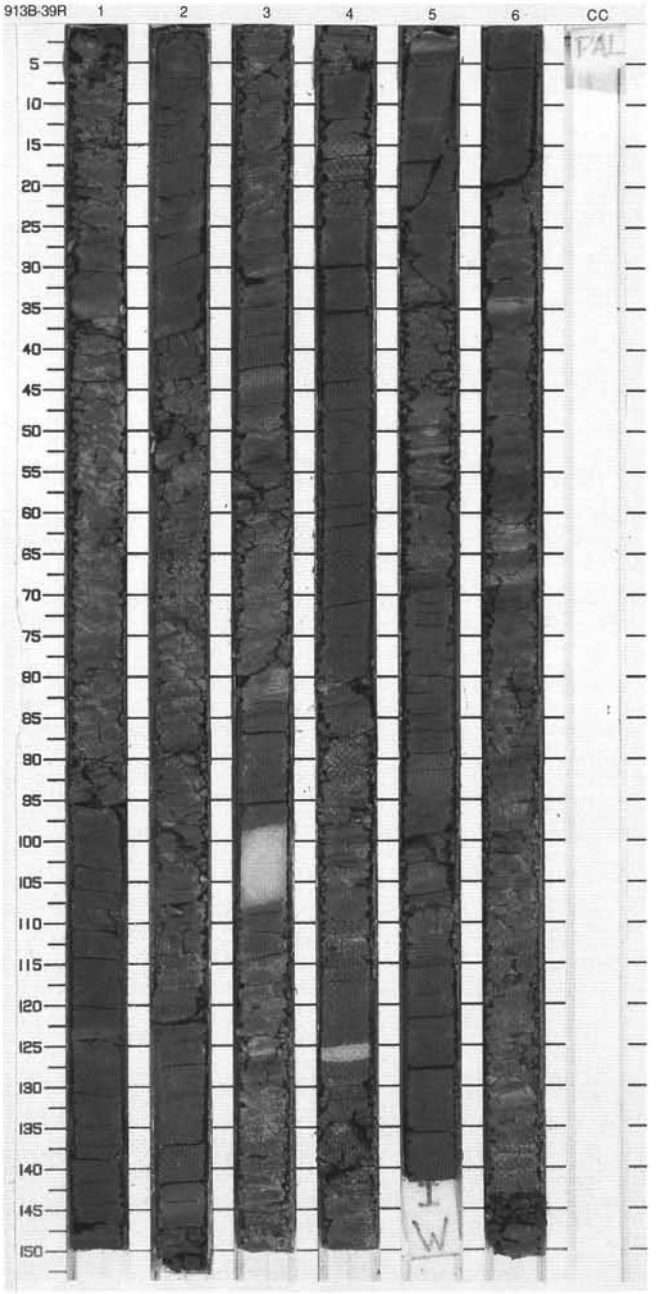
SITE 913 HOLE B CORE 38R CORED 596.7 - 606.4 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–8		1	Eocene			P	5GY 4/1	CLAY Major Lithology: CLAY, primarily dark greenish gray (5GY 4/1), but also very dark gray (5Y 3/1), grayish green (5GY 4/2, 5GY 5/2), and dark grayish green (5GY 3/2). White layer, which are also the same composition are light gray (5Y 7/1) and very pale brown (10YR 7/3). Minor Lithology: BOLBOFORMA CLAY, in thin light gray (5Y 7/1) and gray (5GY 5/1) layers in Section 2, 24–27 and 116–118 cm, and Section 6, 85–86 and 138–144 cm. The BOLBOFORMA CLAY layers are found with other color laminae. In Section 2, 24–27 cm, the BOLBOFORMA CLAY lies just below a faulted layer, probably drilling disturbance. General Description: Firm and highly fractured sediment. Despite the strong color differences, outside of the BOLBOFORMA CLAY layers, no compositional difference is detectable in smear slides.
		2				P	5GY 4/2	
							5GY 5/2	
		3				P	5GY 3/2	
							5GY 4/1	
		4				P	5GY 5/2	
							5GY 4/1	
							5GY 3/2	
							5GY 4/1	
		5				P	5GY 3/1	
							5GY 4/1	
		6				P	5GY 5/2	
		CC				S M	5GY 3/2	



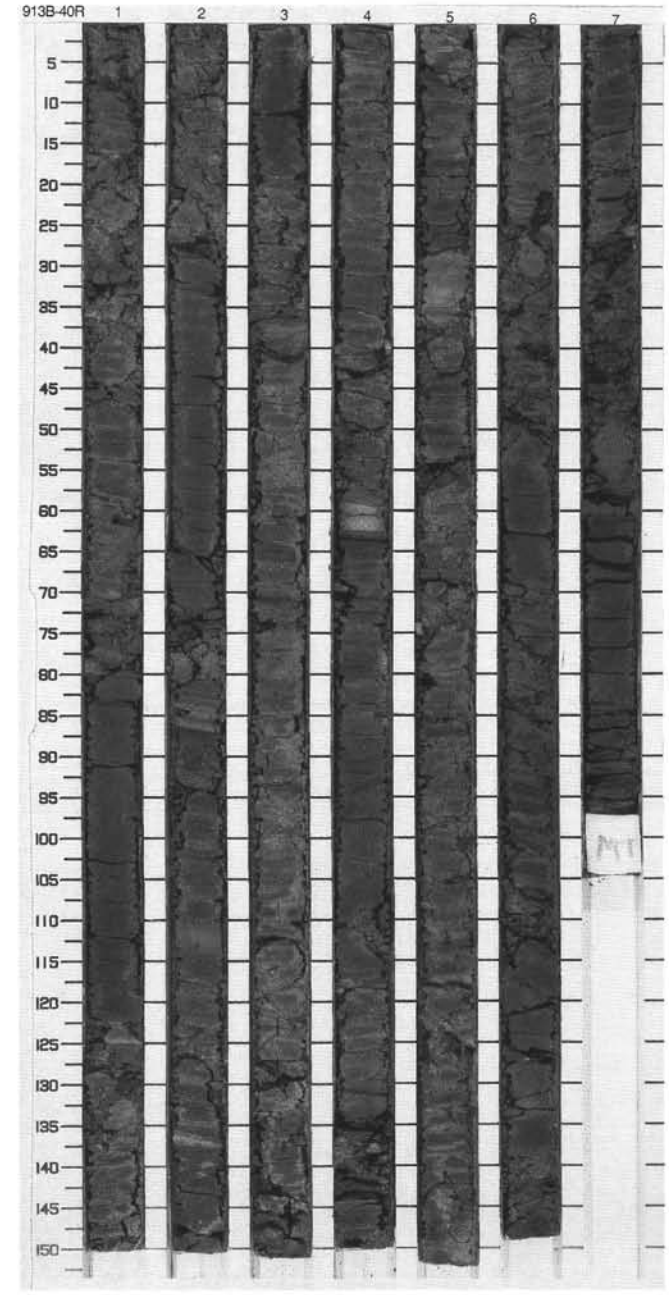
SITE 913 HOLE B CORE 39R CORED 606.4 - 616.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	Eocene			S P	5GY 4/1	CLAY Major Lithology: CLAY, dark greenish gray (5GY 4/1), firm, fissile, alternating laminated and massive layers. Dark gray, dusky yellowish green and greenish black (5Y 4/1, 10GY 3/2, 5GY 2/1) laminae are wavy and discontinuous. Bioturbation is slight. Massive clay is structureless except for planar laminae locally. Quartz, feldspar, and accessory minerals are the main silt- and sand-sized components. Minor Lithology: CARBONATE CLAY layers, light gray (5Y 7/1), occur in Section 3, 98–108 cm; Section 4, 125–127 cm; Section 6, 33–35 cm. Top and bottom contacts are gradational.
2		2				P		
3		3				S P		
4						S		
5		4				P		
6		5				P		
7						I		
8		6				P		
9		CC				M		



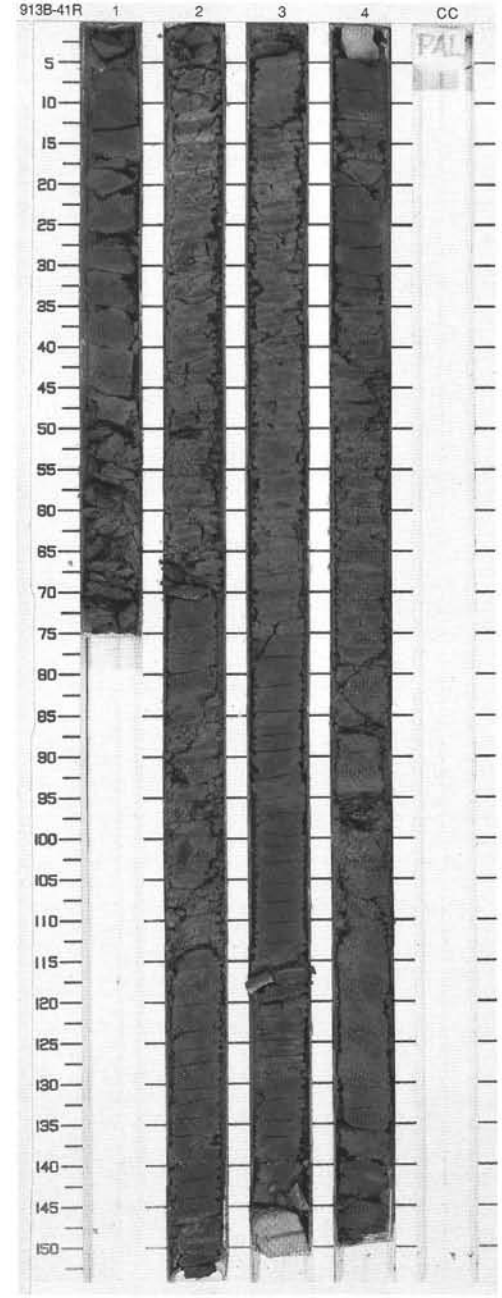
SITE 913 HOLE B CORE 40R CORED 616.0 - 625.7 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–10		1–7	Eocene			P, S, P, S P, P, P, S P, P, M	5GY 4/2; 5GY 4/1; 5Y 3/1 To 5GY 4/1; 5GY 4/1 To 5GY 4/2; 5GY 4/1 To 5Y 3/1	CLAY Major Lithology: Homogeneous to slightly bioturbated CLAY. The color range from grayish olive green (5GY 4/2) to very dark gray (5Y 3/1). Homogeneous intervals are predominantly dark greenish gray (5GY 4/1) or very dark gray. In some intervals throughout interbedding of different colored CLAY occur. Burrows are typically lense-shaped, filled with black sediment, but a pyrite-cemented burrow is present in Section 6, 128 cm and one burrow of cemented pellets occurs in Section 5, 74 cm. In Sections 5, 6, and 7, black bands (probably Zoophycos) are common in some intervals. Light greenish gray or yellowish gray color bands, up to 15 cm in thickness and sometimes laminated, are present throughout. Two color bands with a very dark gray central part and a light gray outer part are found in Section 1, 32–37 and 123–125 cm. No variations in texture and mineral composition can be detected between different lithologies and different colored sediment. The sediment consists almost entirely of silt-sized aggregates of clay-sized material (zeolites?), with a few percent of silt-sized quartz and opaque minerals.



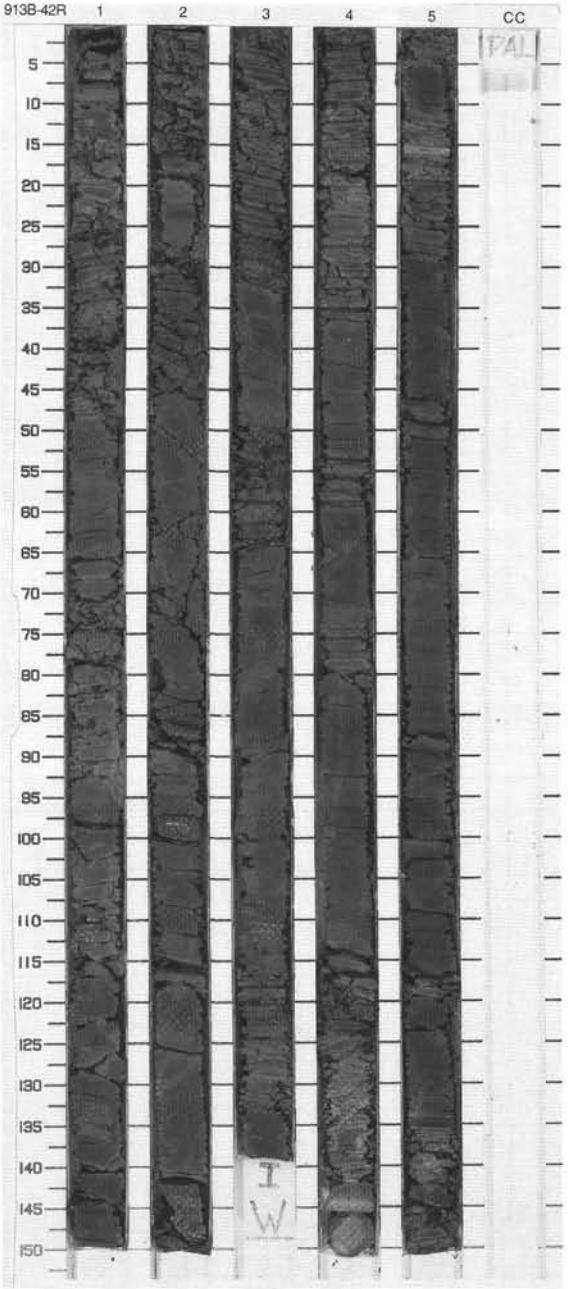
SITE 913 HOLE B CORE 41R CORED 625.7 - 635.4 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–5		1–4, CC	Eocene			P, S, M	5Y 4/1; 5GY 2/1 To 5Y 3/1	CLAY Major Lithology: Interbedded intervals of massive, dark gray (5Y 4/1) CLAY and color-banded more fissile CLAY with a dominant dark greenish gray (5GY 4/1) color and very dark gray (5Y 3/1) bands, 0.5 cm thick. The colors bands have commonly diffuse limits, but, in places, they are very thin and continuous or they are elongated and underline a slight bioturbation. Two dark yellowish brown (10YR 4/4) layers of indurated CLAY, 0.5 cm thick, occurs Section 1, 87 cm, and Section 2, 122 cm. Minor Lithologies: Lithified, grayish brown (2.5Y 5/2) interval showing a coarse-laminated sandstone texture. Zeolites cementation? Section 3, 142 cm to Section 4, 4.5 cm. Light yellowish brown, 2-cm-thick clay interval containing numerous Bolobofarma recrystalized in zeolite, Section 4, 92–94 cm.



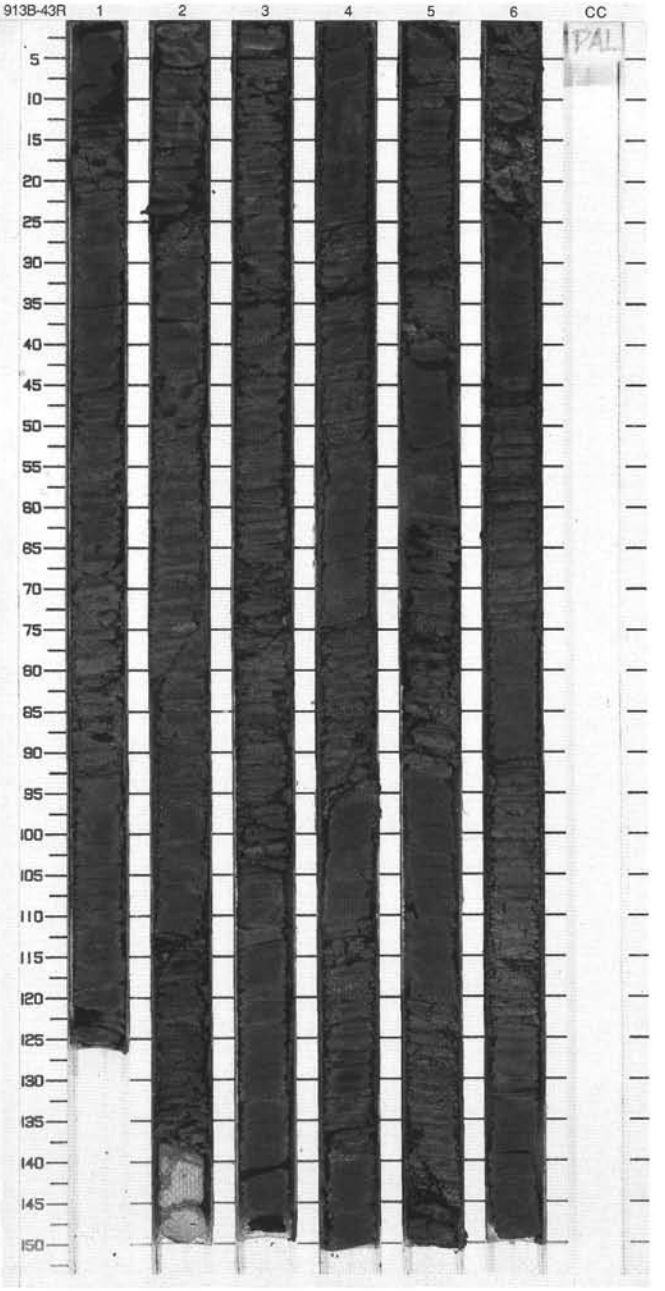
SITE 913 HOLE B CORE 42R CORED 635.4 - 645.1 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–7		1	Eocene			P	5Y 3/1 To 5GY 4/1	CLAY and ZEOLITE CLAY Major Lithologies: Interbedded massive very dark gray (5Y 3/1) ZEOLITE CLAY and laminated very dark gray to dark greenish gray (5Y 3/1 to 5GY 4/1) CLAY, often with a sharp contact at base of massive layer. Planar black discontinuous layers are common in laminated intervals (probably burrows), largely absent in massive intervals. Minor Lithologies: Olive gray (5Y 5/2 to 10Y 5/2) ZEOLITE CLAY occurs as thin layers (1–2 cm) in Section 1, 7–9 and 68–69 cm; Section 2, 115–116 cm; Section 5, 15–17 cm. Well-cemented SANDSTONE, olive gray (5Y 4/2), occurs in Section 4, 142–150 cm. General Description: Drilling biscuits throughout, irregular sizes (1–20 cm). Greater drilling disturbance in laminated intervals. Sections all cut to 140 cm, expanded to 150 cm.
						P	5Y 3/1	
						P	5Y 3/1 To 5GY 4/1	
		2				P	5Y 3/1	
						P		
		3				S P	5Y 3/1 To 5GY 4/1	
						I P		
		4				P		
						S P		
		5				S P	5Y 3/1	
		CC				M		



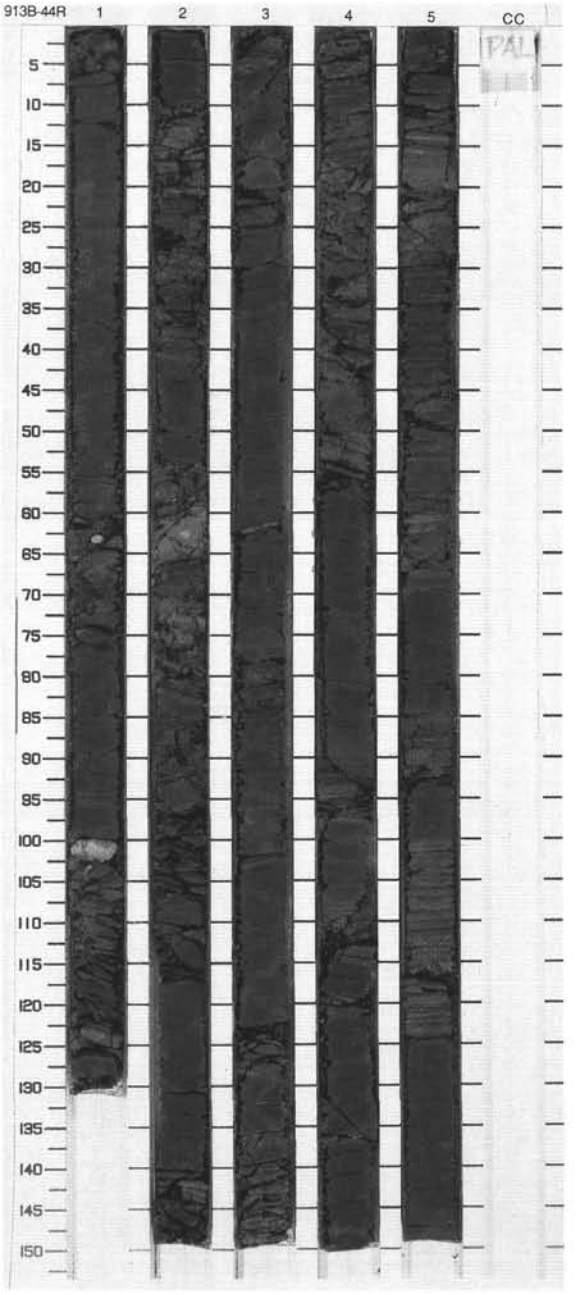
SITE 913 HOLE B CORE 43R CORED 645.1 - 654.7 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–8		1–6, CC	Eocene			P, S, M	5GY 4/1 To 5Y 3/1	CLAY Major Lithology: Homogeneous, thinly bedded or laminated CLAY. Homogeneous intervals are primarily very dark gray (5Y 3/1), whether interbedded and laminated intervals have alternating greenish gray (5GY 4/1) and black (5Y 2.5/1) colors. Homogeneous intervals exhibit sharp contacts. Burrows filled with dark greenish gray sediment occur scarcely throughout in bedded and laminated intervals. A few black, dark gray (5Y 4/1), and yellowish gray (2.5Y 5/4) color bands are found associated with laminated and bedded intervals. Minor Lithology: Light gray (5Y 6/1) to yellowish gray (2.5Y 5/4) SANDSTONE is present in Section 2, 139–150 cm. Cm-sized light gray burrows occur in the lower yellowish gray part.



SITE 913 HOLE B CORE 44R CORED 654.7 - 664.4 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–7		1–5, CC	Eocene			S, S, S, S, S, S, S, S, S, S, S, M	5GY 4/1; 5Y 3/1 To 5GY 4/1; 5G 4/1 To 5Y 3/1	CLAY Major Lithology: Thinly laminated CLAY, greenish gray (5G 4/1, 5GY 4/1), alternately bedded with massive CLAY, very dark gray (5Y 3/1), throughout the core. Planer laminae (mm-scale), black (N 2/0), very dark greenish gray (5GY 3/1), are common. Minor Lithology: Thin bed in Section 1, 25.5–25.8 cm, composed of SILTY MUD. Silt to sand-sized grains are mostly quartz (50% in total). General Description: Carbonate-rich layers, often concreted, are interbeded in Section 1, 99–102 cm; Section 2, 60–66 cm, Section 5, 18–19 and 61 cm. Burrow fill in Section 1, 62–63 cm, is cemented by carbonate. Pyritized layer occurs in section 1, 62.0–62.5 cm.

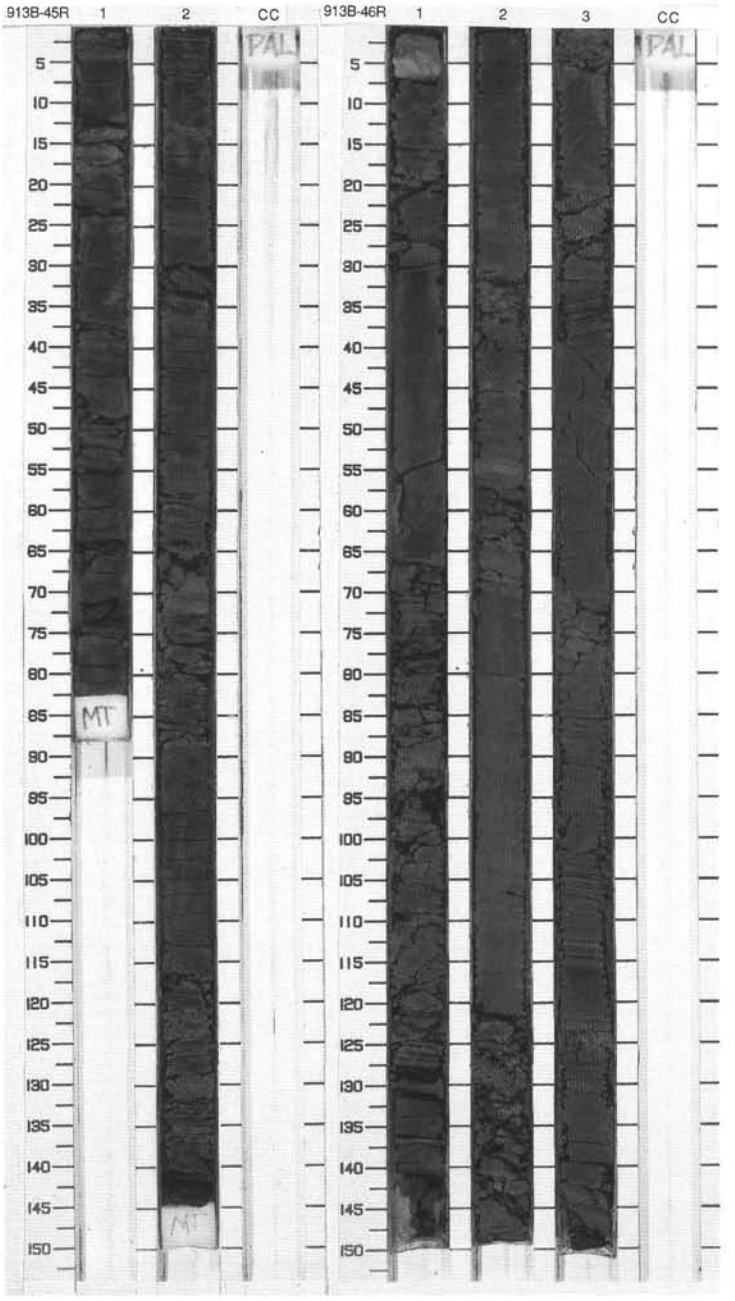


SITE 913 HOLE B CORE 45R CORED 664.4 - 674.1 mbsf

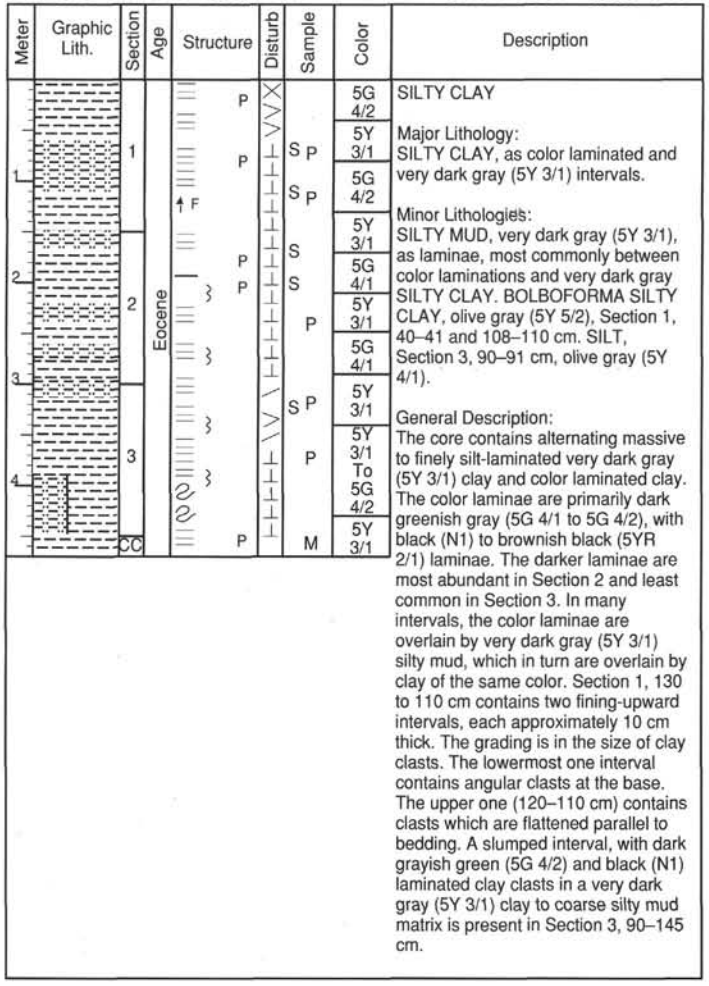
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1, 2, CC		1, 2, CC	Eocene			P, S, I, P, P, M	5Y 3/1 To 5G 5/2	CLAY Major Lithology: CLAY, as color laminated greenish gray (5Y 5/2), with minor brownish black (5Y 2/1) (generally thinner, with sharp upper and gradational lower contacts) and rare dusky green (5G 3/2). In Section 1, 0–2 cm, as a layer of light olive gray (5Y 6/2) to pale olive gray (5Y 6/3) and Section 2, 65–73 and 129–132 cm, gray (5Y 5/1) to olive gray (5Y 5/2). CLAY is also present as unicolor very dark gray (5Y 3/1). Minor Lithology: SILTY CLAY, very dark gray (5Y 3/1), in Section 2, 0–30 and 140–146 cm, possible silt-filled scours are present in Section 2, 5 cm. As the core dried, thin laminae could be seen in this material.

SITE 913 HOLE B CORE 46R CORED 674.1 - 683.7 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1, 2, 3, 4, CC		1, 2, 3, CC	Eocene			S, S, S, M	7.5G 4/2 To 5Y 6/2 7.5G 4/2 To 5Y 3/1 7.5G 4/2 To 5Y 6/3	SILTY CLAY, CLAY Major Lithology: SILTY CLAY, laminated, rapid color change of dark gray (5Y 6/3), grayish brown (7.5G 4/2), very dark gray (5y 3/1), moderate bioturbated, mottled contacts; CLAY, black (5Y 2.5/1), homogeneous.



SITE 913 HOLE B CORE 47R CORED 683.7 - 693.0 mbsf

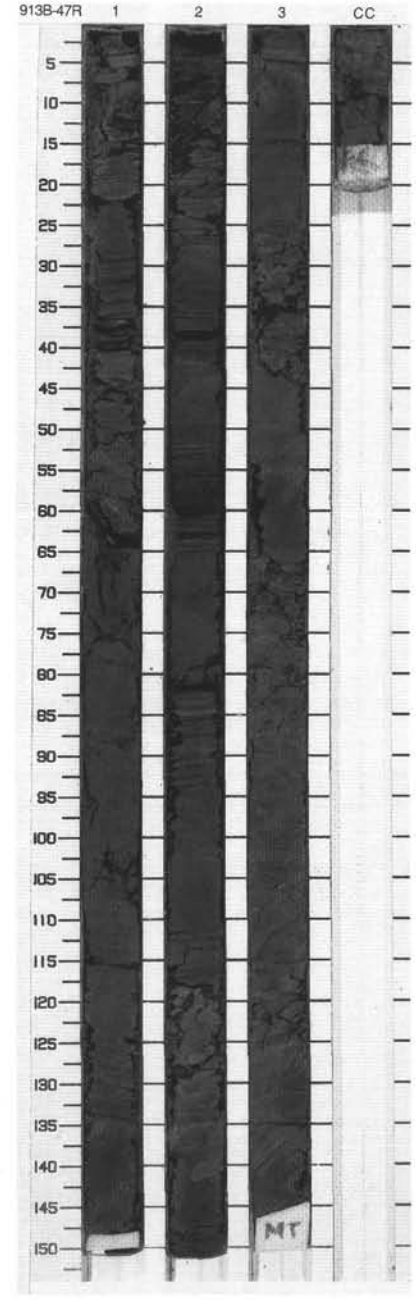


SILTY CLAY

Major Lithology:
SILTY CLAY, as color laminated and very dark gray (5Y 3/1) intervals.

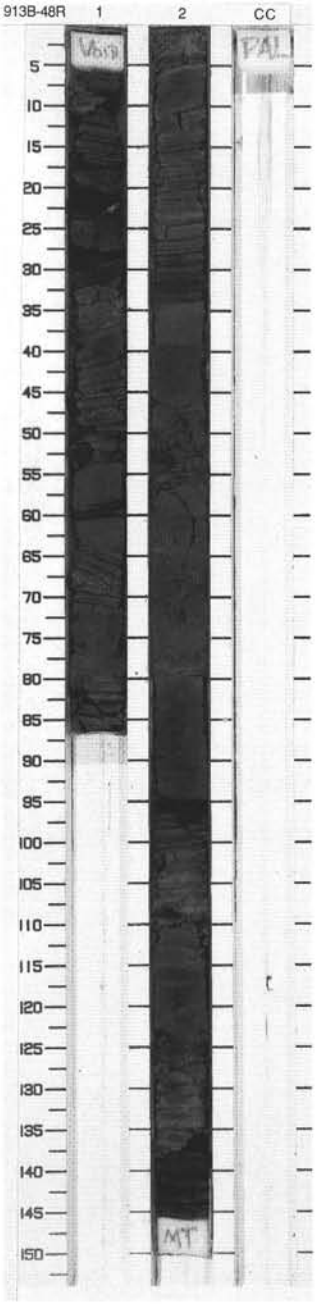
Minor Lithologies:
SILTY MUD, very dark gray (5Y 3/1), as laminae, most commonly between color laminations and very dark gray SILTY CLAY. BOLBOFORMA SILTY CLAY, olive gray (5Y 5/2), Section 1, 40–41 and 108–110 cm. SILT, Section 3, 90–91 cm, olive gray (5Y 4/1).

General Description:
The core contains alternating massive to finely silt-laminated very dark gray (5Y 3/1) clay and color laminated clay. The color laminae are primarily dark greenish gray (5G 4/1 to 5G 4/2), with black (N1) to brownish black (5YR 2/1) laminae. The darker laminae are most abundant in Section 2 and least common in Section 3. In many intervals, the color laminae are overlain by very dark gray (5Y 3/1) silty mud, which in turn are overlain by clay of the same color. Section 1, 130 to 110 cm contains two fining-upward intervals, each approximately 10 cm thick. The grading is in the size of clay clasts. The lowermost one interval contains angular clasts at the base. The upper one (120–110 cm) contains clasts which are flattened parallel to bedding. A slumped interval, with dark grayish green (5G 4/2) and black (N1) laminated clay clasts in a very dark gray (5Y 3/1) clay to coarse silty mud matrix is present in Section 3, 90–145 cm.



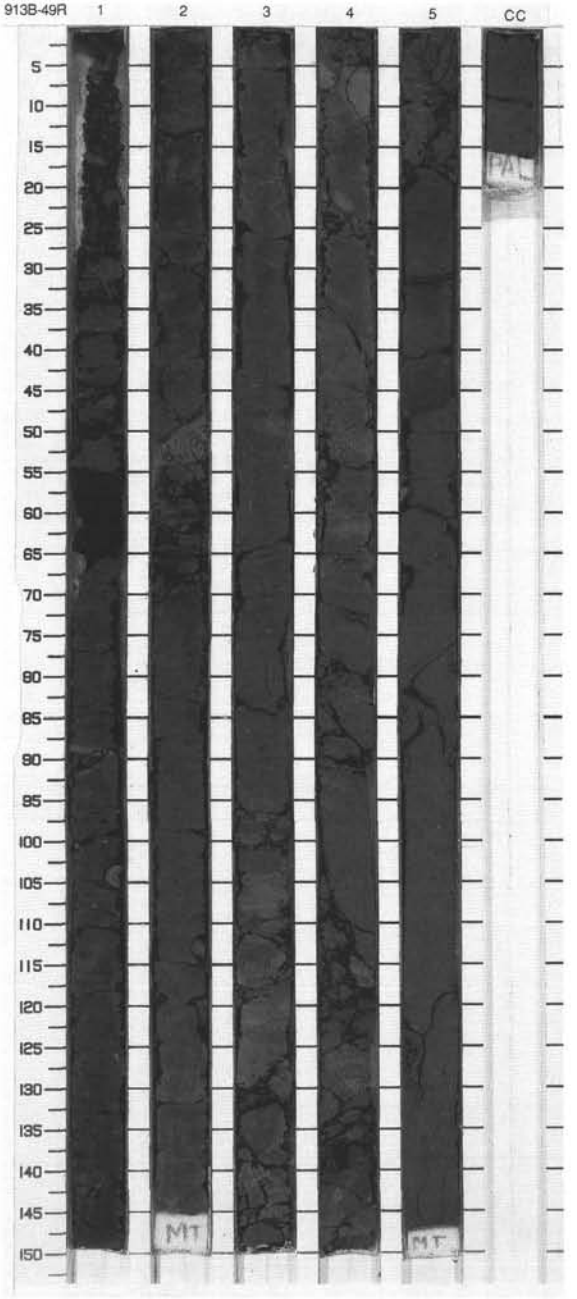
SITE 913 HOLE B CORE 48R CORED 693.0 - 702.7 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1 2		1 2 CC	Eocene			S S S M	10YR 5/1 To 5Y 2.5/1 10YR 5/1 To 5G 4/1	SILTY CLAY Major Lithology: SILTY CLAY, laminated, dark gray (5G 4/1), very dark gray (5Y 3/1), moderate bioturbation, gradational contacts, often mottled.



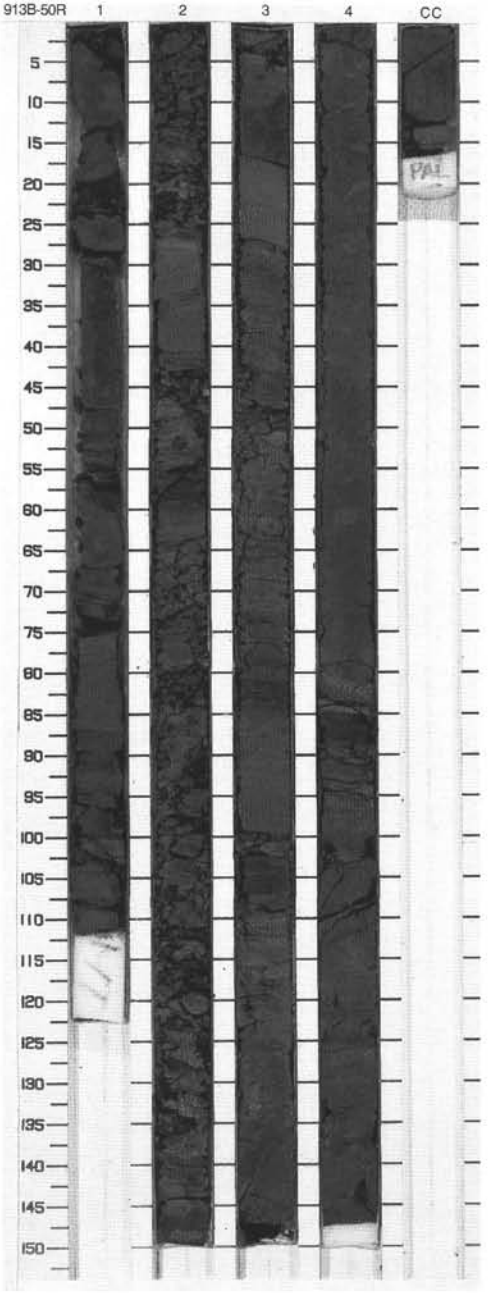
SITE 913 HOLE B CORE 49R CORED 702.7 - 712.3 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–7		1–5, CC	Eocene	P, P, F, F		S, S, S, M	5Y 4/1	SILTY CLAY AND SILTY MUD Major Lithology: Firm to soft, poorly sorted SILTY CLAY and SILTY MUD, dark gray (5Y 4/1), are characterized by scatters of lenticular to irregular CLAY clasts, greenish gray (5G 6/1), and wooden fragments, black (N 2/0). Minor Lithologies: COAL layer, black (5Y 2.5/1), occur in Section 1, 56–65 cm, with pyritized burrows. Thin wavy laminations are present in microscopic level. Contacts between the layer and surrounding lithologies are unclear because of drilling disturbance. CARBONATE SILTY CLAY, light olive gray (5Y 6/2), are interbedded in Section 3, 120–130 cm; Section 4, 4–8, 19–21 cm, and 62–63 cm. Laminated CLAY, dark greenish gray (5GY 3/1), are present in Section 2, 54–70 cm. Alternation of massive to laminated CLAY and poorly sorted SILTY MUD occurs in Section s 3, 95–120 cm (2–10 cm thick).



SITE 913 HOLE B CORE 50R CORED 712.3 - 721.9 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1–5		1, 2, 3, 4, CC	Eocene	F, F		P, S, P, P, P, P, S, P, S, P, M	5Y 3/1; 5Y 3/1 To 5G 3/2; 5Y 3/1	CLAY and SILTY CLAY Major Lithologies: CLAY, occurs as massive homogeneous very dark gray (5Y 3/1) beds,10–30 cm thick, or within beds with indistinct color bands, very dark gray (5Y 3/1), dusky green (5G 3/2), and black (5Y 2.5/1). Massive beds appear more silty than the color-banded beds. In Section 1, they constitute the upper part of normal graded beds with parrallel-laminated clayey silt or clayey mud over a sharp bottom contact. SILTY CLAY very dark gray (5Y 3/1) constitutes two massive units characterized by a rough split surface texture and numerous clay clasts of variable size. A few coarse rounded quartz grains and numerous blacks grains (coal?) are observed. The two units (Section 3, 125 cm to Section 4, 124 cm; Section 4, 96 cm to CC, 17 cm) grade upward into a 5- to10-cm-thick crudely laminated clayey silt, then into a clay with green bands folowed by 5-cm-thick black clay, which is capped by a 1-cm-thick olive gray (5Y 4/2) cemented clay.



SITE 913 HOLE B CORE 51R CORED 721.9 - 731.6 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1				M		SANDSTONE, SILTSTONE
								Major Lithology: SANDSTONE, SILTSTONE, gray (5Y 3/1), upper 8 cm is sorted sandstone, 8 to 18 cm siltstone.

913B 52R NO RECOVERY

913B 53R NO RECOVERY

913B 54R NO RECOVERY

SITE 913 HOLE B CORE 55R CORED 760.7 - 770.3 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		CC						General Description: CC contains Ø 3.0-cm calcareous sandstone.