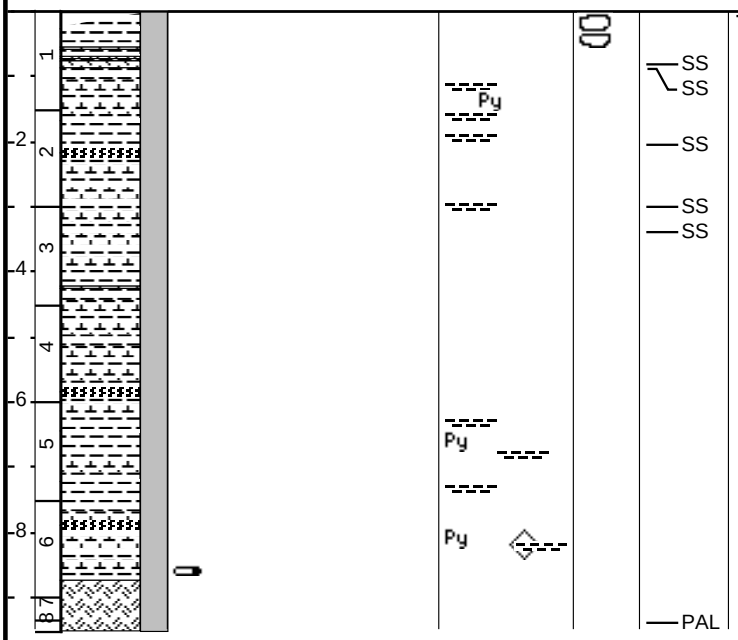
Core Photo

1124A-1H 0-9.5 mbsf

Leg 181 Site 1124 Hole A Core 1H



NANNOFOSSIL SILTY CLAY and TEPHRA

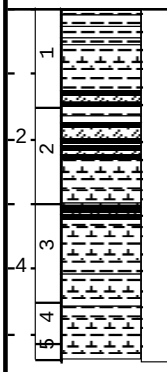
Lithology
This core contains light greenish gray (5GY 7/1) NANNOFOSSIL SILTY CLAY which grades downcore to a light greenish gray (5BG 7/1) color and contains interbeds of greenish gray (5GY 6/1) NANNOFOSSIL SILTY CLAY (Section 1, 30 to 70 cm, Section 2, 20 to 70 cm, Section 3, 135 to 150 cm, Section 4, 0 to 50 cm, 110 to 150 cm, Section 5, 0 to 40 cm, 121 to 150 cm, and Section 6, 0 to 40). Typically pinkish gray (5YR 7/1) TEPHRA layers are also present throughout the core.

General Description
The light greenish gray layers are massive, contain pyritic stains and burrows, as well as a few green laminae. The green laminae are present in Section 2, 10, 42, and 146 cm, Section 5, 27, 70, 86, 118, 131, 143, 144 cm, and Section 6, 67 cm. The darker, greenish gray layers are color banded. TEPHRA layers are present in Section 1, 58 to 59 cm, 72 to 73 cm, 77.5 to 87.5 cm, Section 3, 125 to 127 cm, Section 4, 12 to 13 cm (bleb), and Section 6, 124 cm, to the base of the core (>80 cm thick). The large TEPHRA layer at the base of the core has a pinkish gray base (5YR 7/1).

Core Photo

1124B-1H 0-5.4 mbsf

Leg 181 Site 1124 Hole B Core 1H



NANNOFOSSIL SILTY CLAY and TEPHRA

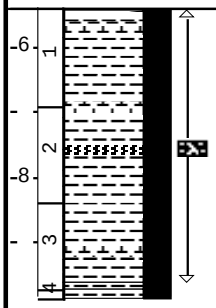
Lithology
This core contains various colors of NANNOFOSSIL SILTY CLAY and some TEPHRA layers (see below).

General Description
The NANNOFOSSIL SILTY CLAY present at the top of Section 1 is: light yellowish brown (10YR 6/4) from 0 to 10 cm; light brownish gray (10YR 6/2) from 10 to 20 cm; light gray (10YR 7/2) from 20 to 34 cm; and pale brown (10YR 6/3) to very pale brown (10YR 7/3) from 34 to 57 cm. Below this, the NANNOFOSSIL SILTY CLAY becomes greenish gray (5GY 6/1) through Section 2, 28 cm, and in Section 3, 110 cm, to Section 4, 10 cm, and alternates with light greenish gray (5GY 7/1 and 5BG 7/1) colors; 5GY 7/1 is present in the remainder of Section 2. The light greenish gray layers are massive, while the greenish gray layers have color banding. There are several TEPHRA layers present throughout the core which are generally pinkish gray (5YR 7/1), sharp-based, and normally graded. They are present in Section 1, 127 to 144 cm, Section 2, 28 to 50 cm, 61 to 75 cm, Section 3, 0 to 5 cm, 6.5 to 18 cm. The TEPHRA in Section 2, 28 to 50 cm, is white at the base (5YR 8/1) to gray (5YR 6/1) to pinkish gray at the top (5YR 7/2). TEPHRA blebs are present in Section 2, at 115 cm. There are 4 green laminae in Sections 3 (at 97, 104, and 127 cm) and 4 (at 6 cm). Bioturbation is difficult to discern and there are moderate pyrite smears downcore.

Core Photo

1124B-2H 5.4-9.9 mbsf

Leg 181 Site 1124 Hole B Core 2H



NANNOFOSSIL SILTY CLAY and TEPHRA

Lithology
This core contains various hues of greenish gray NANNOFOSSIL SILTY CLAY. Greenish gray (5G 6/1) occurs in Section 1, 45 to 95 cm; Section 2, 20 to 65 cm, 100 to 125 cm; Section 3, 90 to 125 cm. Greenish gray (5G 5/1) occurs in Section 3, 20 to 90. All other areas of the core are greenish gray (5GY 6/1).

General Description
This core contains alternating greenish gray NANNOFOSSIL SILTY CLAY. Bioturbation is heavy, with Chondrites throughout. Mottling is present as is color banding in pale greens. Green laminae are present in the 5G 5/1 layer of Section 3. The core is soupy in the top 20 cm of Section 1 and is disturbed below Section 3, 110 cm. The latter consists of a TEPHRA layer with an intact top (4 cm) and a disturbed bottom; possibly a mud/ash turbidite. Pyrite stains are present throughout and highlight the Chondrites burrows.

Core Photo

1124C-1X 8.0-17.6 mbsf

Leg 181 Site 1124 Hole C Core 1X

METERS	SECTION	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ICHNO.	FOSSILS	ACCESSORIES	DISTURB.	SAMPLE	DESCRIPTION
	1								SS SS PAL	NANNOFOSSIL-BEARING SILTY CLAY, NANNOFOSSIL SILTY CLAY, and TEPHRA

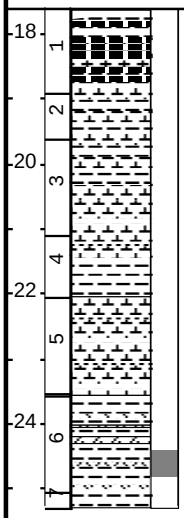
Lithology
This core contains alternating layers of light greenish gray (5Y 7/1) NANNOFOSSIL SILTY CLAY with greenish gray (5GY 6/1) NANNOFOSSIL-BEARING SILTY CLAY. TEPHRA layers are present in Section 1, 28 to 31 cm, and 65 to 70 cm. Irregular beds of pinkish gray TEPHRA (5YR 6/1 to 5YR 7/1) are also present in Section 1.

General Description
This core is highly disturbed by coring causing uncertainty about the stratigraphic position of the sediment. TEPHRA is broken up into lenses and irregular blocks by XCB coring. Low recovery may in part reflect the washout of TEPHRA layers by drilling.

Core Photo

1124C-2X 17.6-27.2 mbsf

Leg 181 Site 1124 Hole C Core 2X



CLAY-BEARING NANNOFOSSIL OOZE, NANNOFOSSIL SILTY CLAY, NANNOFOSSIL- and TEPHRA-BEARING SILTY CLAY, and TEPHRA

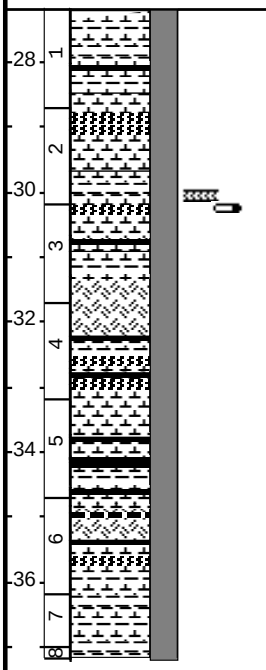
Lithology
Layers of white (5Y 8/1) CLAY-BEARING NANNOFOSSIL OOZE alternate with greenish gray (5GY 6/1) NANNOFOSSIL- and TEPHRA-BEARING SILTY CLAY, and with light greenish gray (5Y 7/1) NANNOFOSSIL SILTY CLAY which contains reddish brown bands (5R 6/1).

General Description
The core is disturbed by drilling, which has caused significant local flow-in structures which are primarily visible in the white layers. However, the gross stratigraphy is probably intact. Two (one broken and moved?) TEPHRA layers occur in Section 6, 48 to 53 cm, and 64.5 to 74.5 cm.

Core Photo

1124C-3H 27.2-36.7 mbsf

Leg 181 Site 1124 Hole C Core 3H



DESCRIPTION

NANNOFOSSIL OOZE, CLAY-BEARING NANNOFOSSIL OOZE, and SILTY CLAY

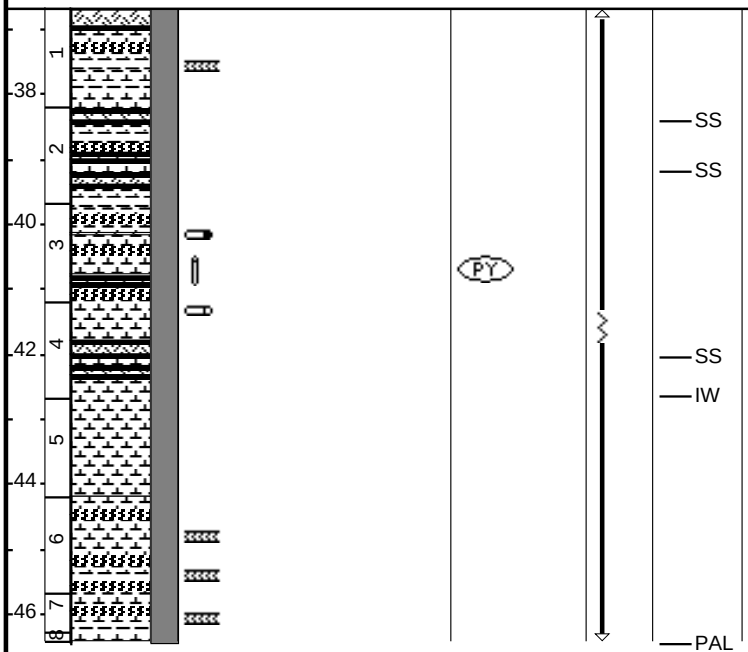
Lithology
This core contains white (5Y 8/1) to light greenish gray (5GY 7/1) NANNOFOSSIL OOZE to CLAY-BEARING NANNOFOSSIL OOZE with interbeds of greenish gray (5GY 5/1 to 5GY 6/1) SILTY CLAY.

General Description
This core is comprised of interbeds of light (NANNOFOSSIL OOZE to CLAY-BEARING NANNOFOSSIL OOZE) and dark (SILTY CLAY) colors which have either gradational or bioturbational contacts. White NANNOFOSSIL OOZE is present in Section 2, 40 to 100 cm, and the bottom of Section 4 to Section 5, 57 cm. Light greenish gray (5G 7/1) NANNOFOSSIL OOZE to CLAY-BEARING NANNOFOSSIL OOZE is present at the bottom of Section 1 to Section 2, 20 cm, Section 3, 10 to 50 cm, and Section 6, 65 to 100 cm. Greenish gray SILTY CLAY (5GY 6/1) is present in Section 5, 60 to 139 cm, and 5G 6/1 is present at the top of Section 1, and in Section 2, 20 to 40 cm. The remainder of the core is TEPHRA or greenish gray (5GY 5/1) SILTY CLAY, except for Section 1, 89 to 130 cm, which is 5G 5/1. Color bands typically have gradational and/or bioturbational contacts. Bioturbation is moderate throughout the core and Zoophycos and Planolites are present. The core has been moderately disturbed and contains flow-in at the base. The TEPHRA layers have sharp bases and are normally graded with gradational tops. The large TEPHRA layers exhibit color banding. There is one dark gray TEPHRA layer. TEPHRA layers are present in Section 1, 84 to 89 cm (2.5Y 6/1), Section 3, 50 to 57 cm (2.5YR 6/1), Section 3, 114 cm, to Section 4, 56 cm (top and base 2.5YR 6/1, middle 7.5YR 7/2), Section 4, 105 to 110 cm, Section 5, 57 to 60 cm (N 5), 91 to 92 cm (7.5YR 8/2), 139 to 142 cm, and in Section 6, 16 to 67 cm (top 7.5 YR 7/2, base 2.5YR 6/1). Green laminae appear in Section 1, at 108, 120, and 146 cm, and Section 3, 66 and 91 cm.

Core Photo

1124C-4H 36.7-46.2 mbsf

Leg 181 Site 1124 Hole C Core 4H



CLAY-BEARING NANNOFOSSIL OOZE, NANNOFOSSIL OOZE, SILTY CLAY, and TEPHRA

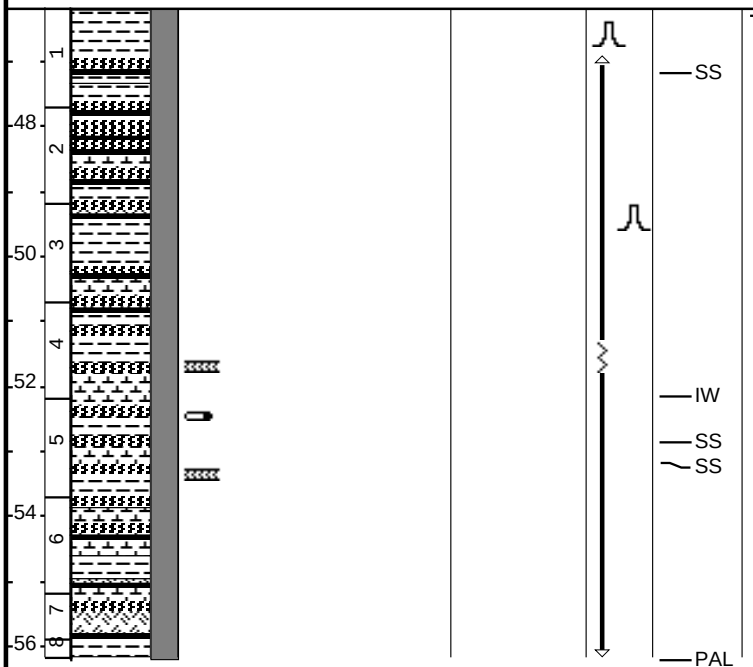
Lithology
This core contains an alternating sequence of light greenish gray (5GY 7/1) to white (5Y 8/1) CLAY-BEARING NANNOFOSSIL OOZE to NANNOFOSSIL OOZE with greenish gray (5GY 5/1 to 5GY 6/1) SILTY CLAY. Gray to light gray (5YR 5/1 to 5YR 7/1) TEPHRA layers are present throughout.

General Description
This core is composed of CLAY-BEARING NANNOFOSSIL OOZE, NANNOFOSSIL OOZE, and SILTY CLAY which are often color banded (especially the NANNOFOSSIL OOZE) and pyrite stained. Light greenish gray (5GY 7/1) sediment is present below the TEPHRA layer in Section 1 and in Section 3, 75 to 114 cm. White (5Y 8/1) color is present in Section 2, 84 to 103 cm, Section 3, 20 to 75 cm, Section 3, 130 cm, to Section 4, 62 cm (color banded), in Section 5 (color banded), in Section 6, 30 to 110 cm, and at the top of Section 7. Greenish gray (5GY 5/1) color is present at the bottom of the layer that extends from Section 1, 60 to 150 cm, while the remainder of the core is greenish gray (5GY 6/1) SILTY CLAY or TEPHRA. Some of the dark layers darken even more towards the base. There is moderate bioturbation with Zoophycos in the dark layers with Planolites also present in the light layers. The TEPHRA layers have sharp bases, normal grading, color banding, and typically darken towards the base. In contrast to the thick layers, the thin layers (<1 cm) have bioturbated bases. TEPHRA layers are present in Section 1, 0 to 29 cm, Section 2, 5 to 22 cm, 74 to 84 cm, 103 to 123 cm, Section 3, 48 to 49 cm, 114 to 122 cm, 141 to 143 cm, Section 4, 62 to 84 cm, and 99 to 113 cm. Green laminae occur in Section 1, 70, 100, 102, 110, 111 cm, and Section 6, at 103, 106, and 118 cm.

Core Photo

1124C-5H 46.2-55.7 mbsf

Leg 181 Site 1124 Hole C Core 5H



NANNOFOSSIL OOZE, NANNOFOSSIL-BEARING SILTY CLAY, and TEPHRA

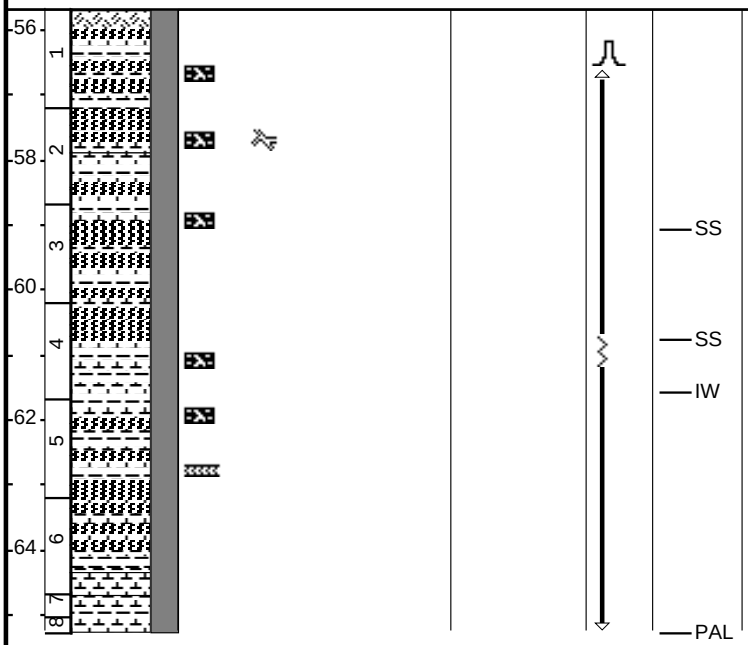
Lithology
This core contains white (5Y 8/1) NANNOFOSSIL OOZE which alternates with light greenish gray (5GY 7/1) and greenish gray (5GY 6/1) NANNOFOSSIL-BEARING SILTY CLAY. There are frequent gray (5YR 5/1) to light gray (5YR 7/1) TEPHRA layers which have occasional white (5YR 8/1) and dark gray layers.

General Description
White (5Y 8/1) NANNOFOSSIL OOZE is present (excluding intervening TEPHRA, listed below) in Section 1, 0 to 115 cm (with 5Y 7/1), Section 2, 48 cm, to Section 3, 3 cm, Section 3, 100 cm, to Section 4, 45 cm, Section 4, 105 cm, to Section 5, 15 cm, Section 5, 70 to 110 cm, Section 6, 10 to 95 cm, and from Section 6, 134 cm, to the base of the core. The sediment is moderately bioturbated with Zoophycos in the darker beds and Planolites in the lighter beds. The TEPHRA layers have sharp bases, gradational tops, and are color banded and normally graded. TEPHRA layers are present in Section 1, 86 to 95 cm, Section 2, 3 to 8.5 cm, 40 to 48 cm, 63 to 68 cm, 103 to 113 cm, Section 3, 3 to 16 cm, 104 to 110 cm, Section 4, 3 to 12 cm, Section 6, 50.5 to 60.5 cm, 93 to 94 cm, 128 to 134 cm, and Section 7, 21 to 63 cm. Green laminae are present in Section 1, 80 cm, Section 2, 142 cm, Section 3, 18 cm, 31 cm, and Section 4, 60 cm, 70 cm, and 82 cm.

Core Photo

1124C-6H 55.7-65.2 mbsf

Leg 181 Site 1124 Hole C Core 6H

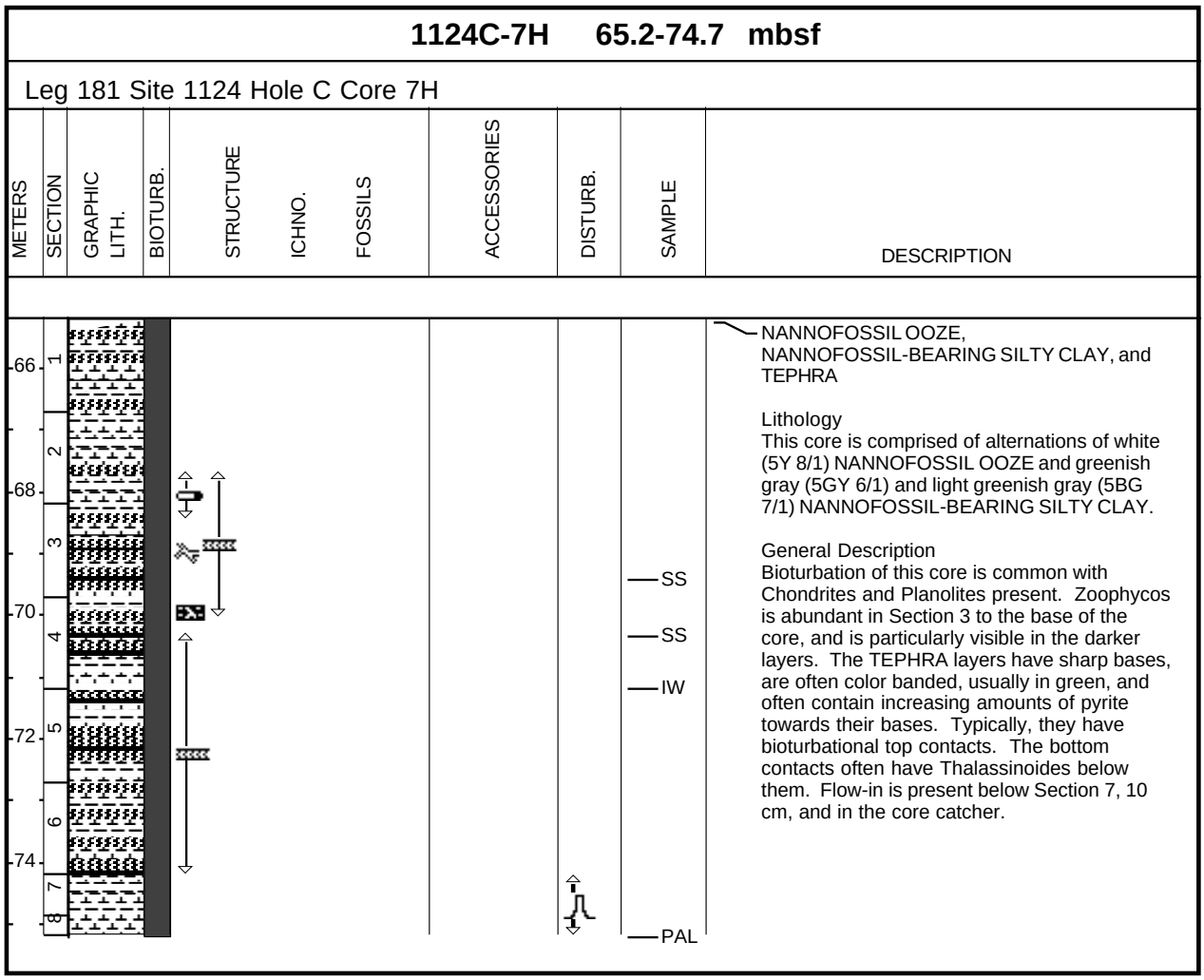


CLAY-BEARING NANNOFOSSIL OOZE, NANNOFOSSIL OOZE, NANNOFOSSIL-BEARING SILTY CLAY, and TEPHRA

Lithology
This core contains light greenish gray (5G 7/1) to white (5Y 8/1) CLAY-BEARING NANNOFOSSIL OOZE to NANNOFOSSIL OOZE which alternates with greenish gray (5G 6/1) NANNOFOSSIL-BEARING SILTY CLAY. These lithologies are interbedded with eight TEPHRA layers.

General Description
Bioturbation of the thin TEPHRA layers by Chondrites and Zoophycos is apparent in the dark layers. Thalassinoides is also present within the sediment. TEPHRA layers are commonly color banded and the top TEPHRA layer has repeat grading.

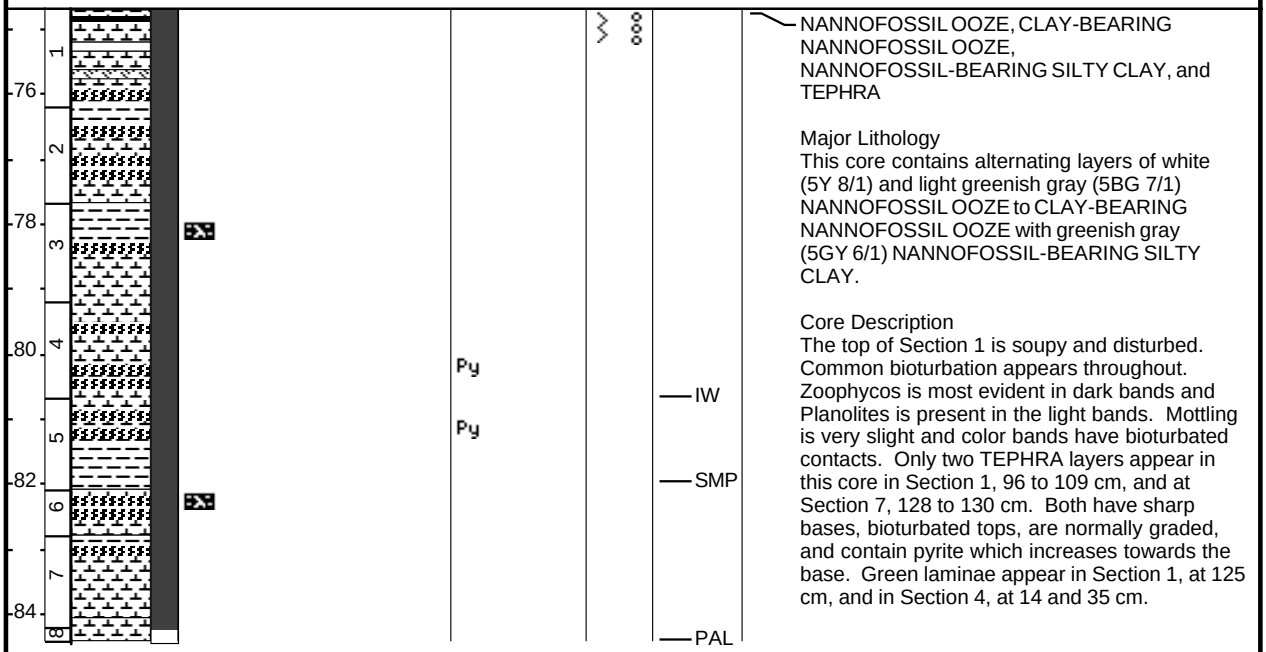
Core Photo


1124C-7H 65.2-74.7 mbsf
Leg 181 Site 1124 Hole C Core 7H
METERS
SECTION
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ICHNO.
FOSSILS
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
66
68
70
72
74
1
2
3
4
5
6
7
8
SS
SS
IW
PAL
NANNOFOSSIL OOZE, NANNOFOSSIL-BEARING SILTY CLAY, and TEPHRA
Lithology
This core is comprised of alternations of white (5Y 8/1) NANNOFOSSIL OOZE and greenish gray (5GY 6/1) and light greenish gray (5BG 7/1) NANNOFOSSIL-BEARING SILTY CLAY.
General Description
Bioturbation of this core is common with Chondrites and Planolites present. Zoophycos is abundant in Section 3 to the base of the core, and is particularly visible in the darker layers. The TEPHRA layers have sharp bases, are often color banded, usually in green, and often contain increasing amounts of pyrite towards their bases. Typically, they have bioturbational top contacts. The bottom contacts often have Thalassinoides below them. Flow-in is present below Section 7, 10 cm, and in the core catcher.

Core Photo

1124C-8H 74.7-84.2 mbsf

Leg 181 Site 1124 Hole C Core 8H



NANNOFOSSIL OOZE, CLAY-BEARING NANNOFOSSIL OOZE, NANNOFOSSIL-BEARING SILTY CLAY, and TEPHRA

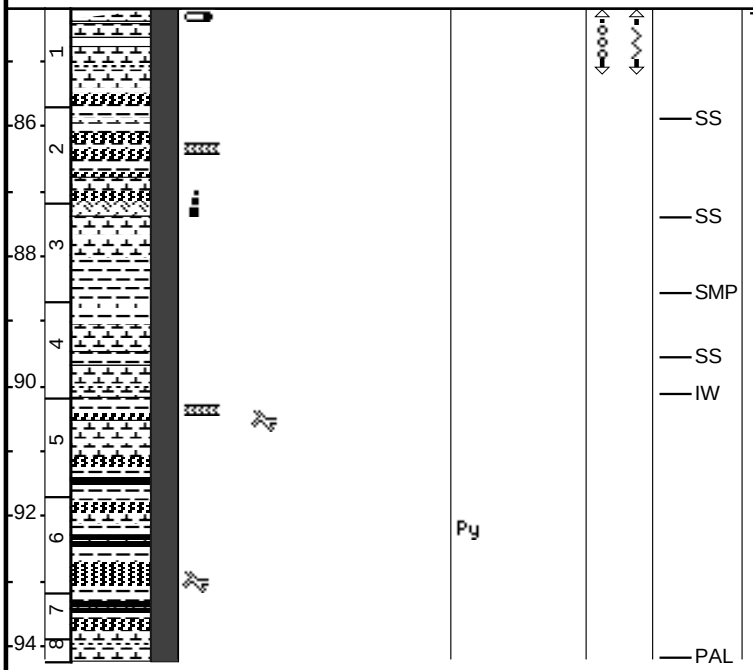
Major Lithology
This core contains alternating layers of white (5Y 8/1) and light greenish gray (5BG 7/1) NANNOFOSSIL OOZE to CLAY-BEARING NANNOFOSSIL OOZE with greenish gray (5GY 6/1) NANNOFOSSIL-BEARING SILTY CLAY.

Core Description
The top of Section 1 is soupy and disturbed. Common bioturbation appears throughout. Zoophycos is most evident in dark bands and Planolites is present in the light bands. Mottling is very slight and color bands have bioturbated contacts. Only two TEPHRA layers appear in this core in Section 1, 96 to 109 cm, and at Section 7, 128 to 130 cm. Both have sharp bases, bioturbated tops, are normally graded, and contain pyrite which increases towards the base. Green laminae appear in Section 1, at 125 cm, and in Section 4, at 14 and 35 cm.

Core Photo

1124C-9H 84.2-93.7 mbsf

Leg 181 Site 1124 Hole C Core 9H



DESCRIPTION

CLAY-BEARING NANNOFOSSIL OOZE, NANNOFOSSIL-BEARING SILTY CLAY, and TEPHRA

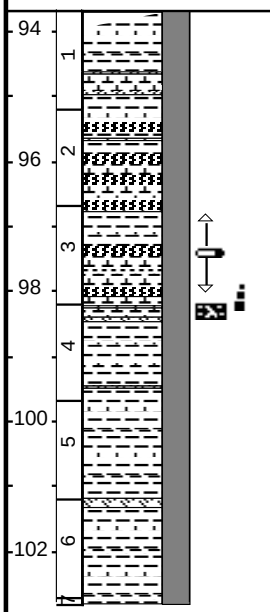
Lithology
This core is comprised of alternating beds of light greenish gray (5BG 7/1) CLAY-BEARING NANNOFOSSIL OOZE and greenish gray (5GY 6/1) NANNOFOSSIL-BEARING SILTY CLAY.

General Description
Common bioturbation of the CLAY-BEARING NANNOFOSSIL OOZE and NANNOFOSSIL-BEARING SILTY CLAY is present throughout the core; Zoophycos and Planolites are noted. The TEPHRA layers have sharp bases, are normally graded, and show occasional green laminae within their sandier sections. They appear in Section 2, 140 cm, to Section 3, 20 cm, Section 4, 67 to 78 cm, Section 5, 124 to 129 cm, Section 6, 60 to 71 cm, and 127 to 133 cm, and Section 7, 15 to 23 cm. TEPHRA blobs are visible in the core catcher. In Sections 5 and 6, TEPHRA layer contains Thalassinoides burrows. A pyritized burrow (~3 cm long) is present in Section 6, at 54 cm. Green laminae appear in Section 2, 15 cm, Section 3, 58 cm, and in Section 7, at 29 cm.

Core Photo

1124C-10H 93.7-103.2 mbsf

Leg 181 Site 1124 Hole C Core 10H

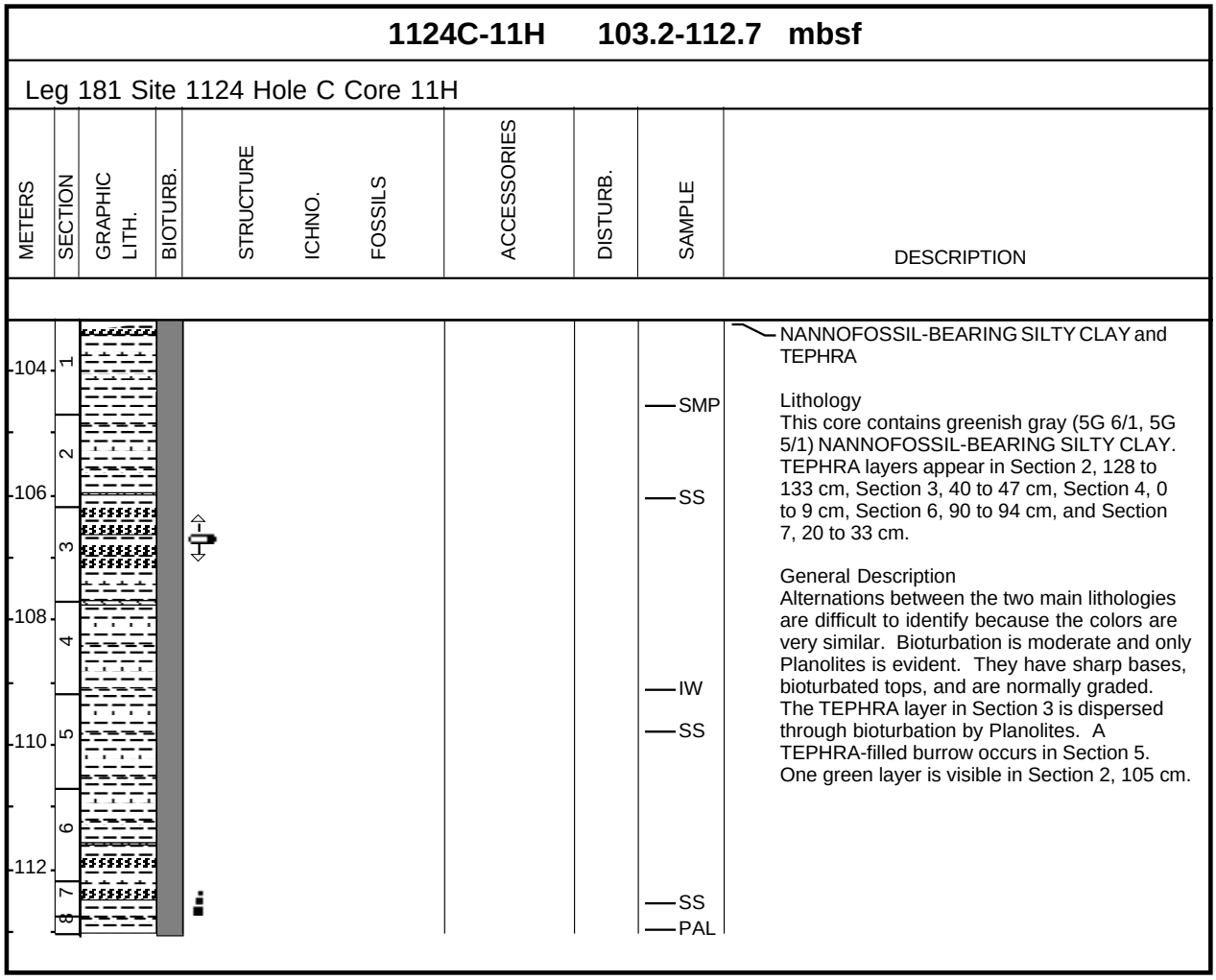


CLAY-BEARING NANNOFOSSIL OOZE, NANNOFOSSIL-BEARING SILTY CLAY, and TEPHRA

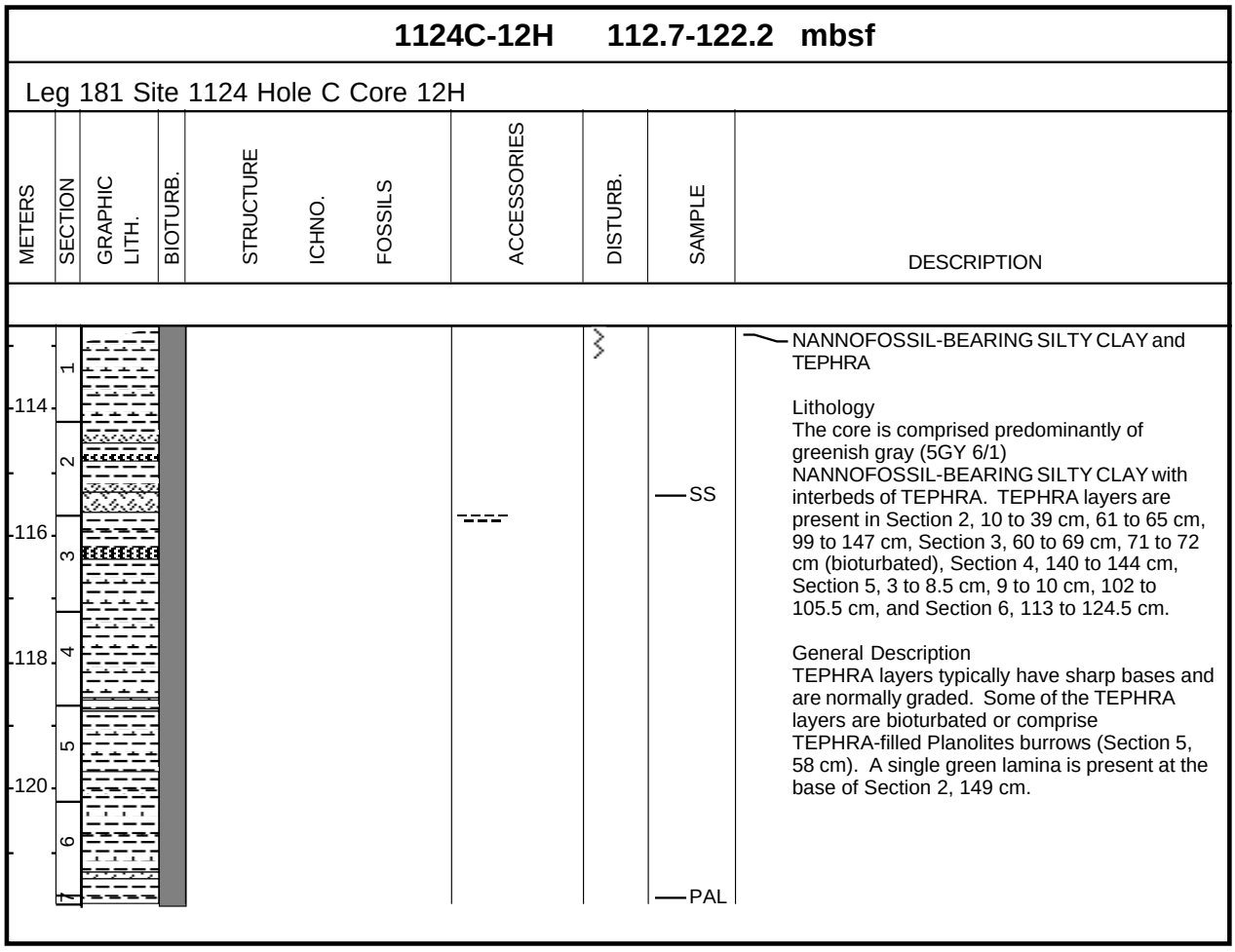
Lithology
The core contains alternating layers of white (5Y 8/1) and light greenish gray (5BG 6/1) CLAY-BEARING NANNOFOSSIL OOZE, with greenish gray (5GY 6/1) NANNOFOSSIL-BEARING SILTY CLAY. TEPHRA layers are present in Section 1, 96 to 99 cm, 120 to 128 cm, Section 2, 48 to 51 cm, Section 3, 1 to 9 cm, 136 to 142 cm, Section 4, 7 to 9 cm, 25 to 29 cm, 129 to 132 cm, and Section 6, 4 to 15 cm.

General Description
CLAY-BEARING NANNOFOSSIL OOZE occurs in Section 1, 99 to 121 cm, Section 2, 80 to 150 cm, Section 3, 70 to 136 cm, and Section 4, 0 to 7 cm, and 9 to 25 cm. Greenish gray (5GY 6/1) NANNOFOSSIL-BEARING SILTY CLAY and TEPHRA comprise the remainder of the core. The contacts between the layers are bioturbational. Trace fossils include Chondrites and Planolites. The TEPHRA layers have sharp bases, gradational tops and are typically normally graded throughout.

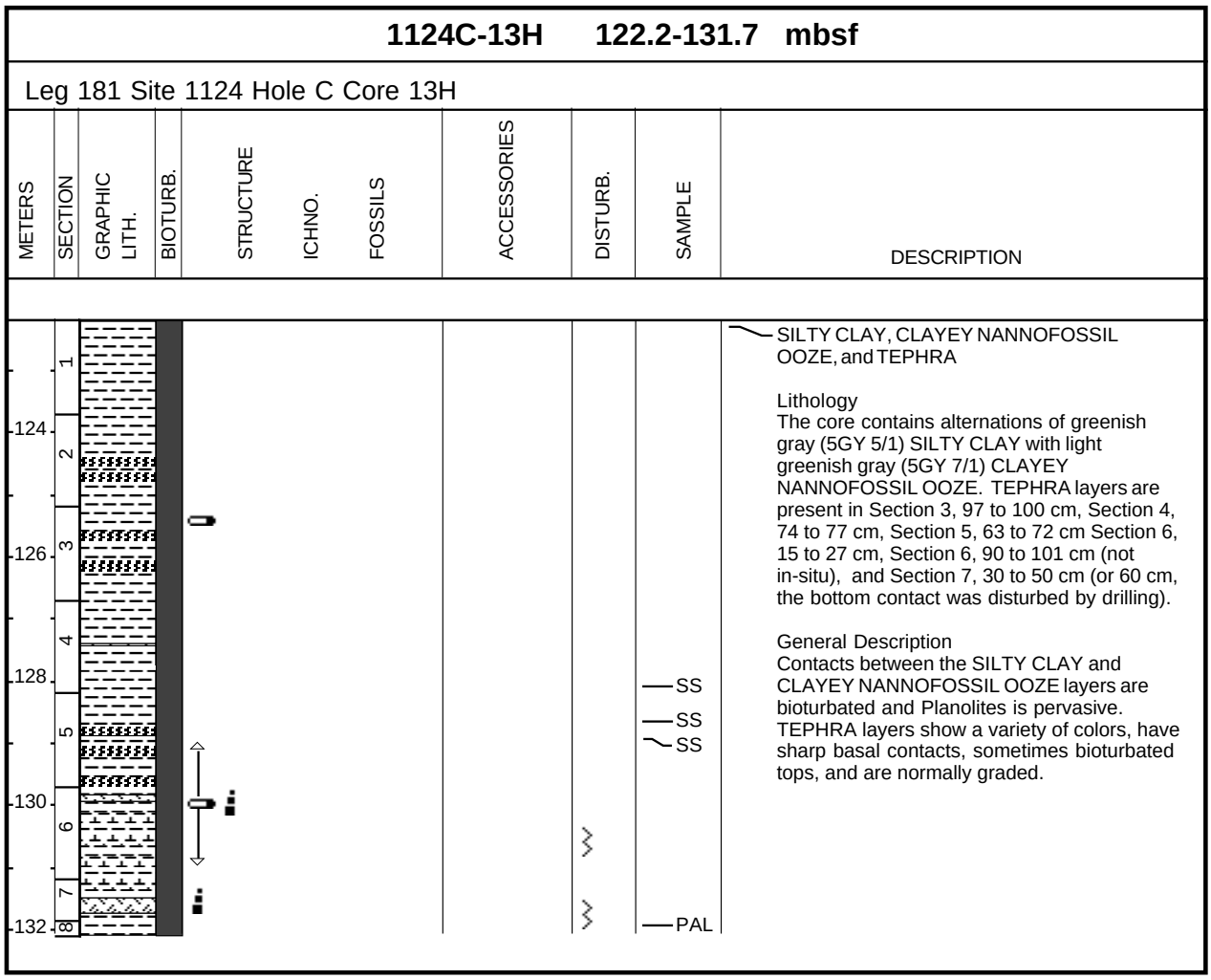
Core Photo


1124C-11H 103.2-112.7 mbsf
Leg 181 Site 1124 Hole C Core 11H
METERS
SECTION
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ICHNO.
FOSSILS
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
104
106
108
110
112
1
2
3
4
5
6
7
SMP
SS
IW
SS
SS
PAL
NANNOFOSSIL-BEARING SILTY CLAY and TEPHRA
Lithology
This core contains greenish gray (5G 6/1, 5G 5/1) NANNOFOSSIL-BEARING SILTY CLAY. TEPHRA layers appear in Section 2, 128 to 133 cm, Section 3, 40 to 47 cm, Section 4, 0 to 9 cm, Section 6, 90 to 94 cm, and Section 7, 20 to 33 cm.
General Description
Alternations between the two main lithologies are difficult to identify because the colors are very similar. Bioturbation is moderate and only Planolites is evident. They have sharp bases, bioturbated tops, and are normally graded. The TEPHRA layer in Section 3 is dispersed through bioturbation by Planolites. A TEPHRA-filled burrow occurs in Section 5. One green layer is visible in Section 2, 105 cm.

Core Photo


1124C-12H 112.7-122.2 mbsf
Leg 181 Site 1124 Hole C Core 12H
METERS
SECTION
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ICHNO.
FOSSILS
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
114
116
118
120
1
2
3
4
5
6
7
SS
PAL
NANNOFOSSIL-BEARING SILTY CLAY and TEPHRA
Lithology
The core is comprised predominantly of greenish gray (5GY 6/1) NANNOFOSSIL-BEARING SILTY CLAY with interbeds of TEPHRA. TEPHRA layers are present in Section 2, 10 to 39 cm, 61 to 65 cm, 99 to 147 cm, Section 3, 60 to 69 cm, 71 to 72 cm (bioturbated), Section 4, 140 to 144 cm, Section 5, 3 to 8.5 cm, 9 to 10 cm, 102 to 105.5 cm, and Section 6, 113 to 124.5 cm.
General Description
TEPHRA layers typically have sharp bases and are normally graded. Some of the TEPHRA layers are bioturbated or comprise TEPHRA-filled Planolites burrows (Section 5, 58 cm). A single green lamina is present at the base of Section 2, 149 cm.

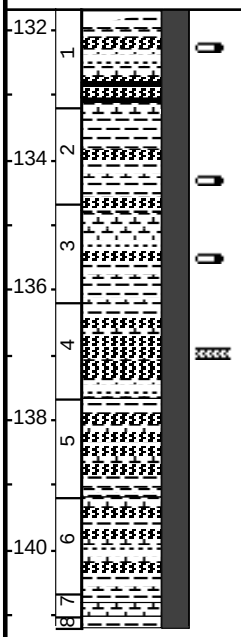
Core Photo


1124C-13H 122.2-131.7 mbsf
Leg 181 Site 1124 Hole C Core 13H
METERS
SECTION
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ICHNO.
FOSSILS
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
124
126
128
130
132
1
2
3
4
5
6
7
8
SS
SS
SS
PAL
SILTY CLAY, CLAYEY NANNOFOSSIL OOZE, and TEPHRA
Lithology
The core contains alternations of greenish gray (5GY 5/1) SILTY CLAY with light greenish gray (5GY 7/1) CLAYEY NANNOFOSSIL OOZE. TEPHRA layers are present in Section 3, 97 to 100 cm, Section 4, 74 to 77 cm, Section 5, 63 to 72 cm Section 6, 15 to 27 cm, Section 6, 90 to 101 cm (not in-situ), and Section 7, 30 to 50 cm (or 60 cm, the bottom contact was disturbed by drilling).
General Description
Contacts between the SILTY CLAY and CLAYEY NANNOFOSSIL OOZE layers are bioturbated and Planolites is pervasive. TEPHRA layers show a variety of colors, have sharp basal contacts, sometimes bioturbated tops, and are normally graded.

Core Photo

1124C-14H 131.7-141.2 mbsf

Leg 181 Site 1124 Hole C Core 14H



CLAYEY NANNOFOSSIL OOZE, NANNOFOSSIL-BEARING SILTY CLAY, and TEPHRA

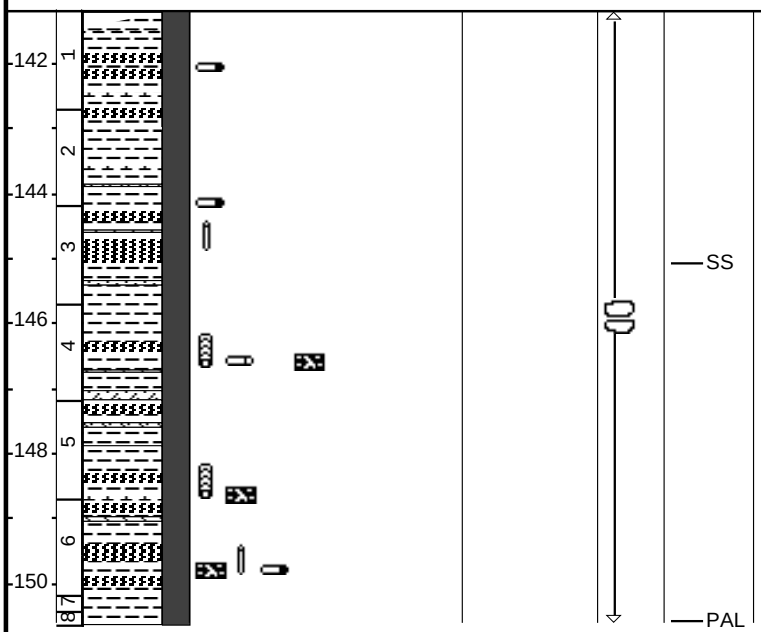
Lithology
The core contains alternations of light greenish gray (5G 7/1) CLAYEY NANNOFOSSIL OOZE with greenish gray (5G 6/1) NANNOFOSSIL-BEARING SILTY CLAY. Interbeds of pinkish gray (5YR 7/2) TEPHRA are present in Section 1, 112 to 113 cm, and 132 to 137 cm.

General Description
Alternating beds of CLAYEY NANNOFOSSIL OOZE and NANNOFOSSIL-BEARING SILTY CLAY are better defined than in previously described sections. Greenish gray NANNOFOSSIL-BEARING SILTY CLAY is found in Section 1, 0 to 55 cm, 113 to 132 cm, Section 2, 5 to 75 cm, 145 to 150 cm; Section 3, 0 to 10 cm, 80 to 150 cm, Section 4, 0 to 25 cm, 60 to 80 cm, 105 to 115 cm, Section 5, 0 to 30 cm, 60 to 80 cm, 105 to 145 cm, Section 6, 25 to 55 cm, 105 to 150 cm, and Section 7, 0 to 20 cm. Light greenish gray (5G 7/1) CLAYEY NANNOFOSSIL OOZE is present in the remainder of the core. Contacts are bioturbated with Planolites and Zoophycos. Mottling, resulting from the heavy bioturbation, and minor pyrite staining is present throughout the core. TEPHRA layers are thin and generally bioturbated by Planolites.

Core Photo

1124C-15H 141.2-150.7 mbsf

Leg 181 Site 1124 Hole C Core 15H

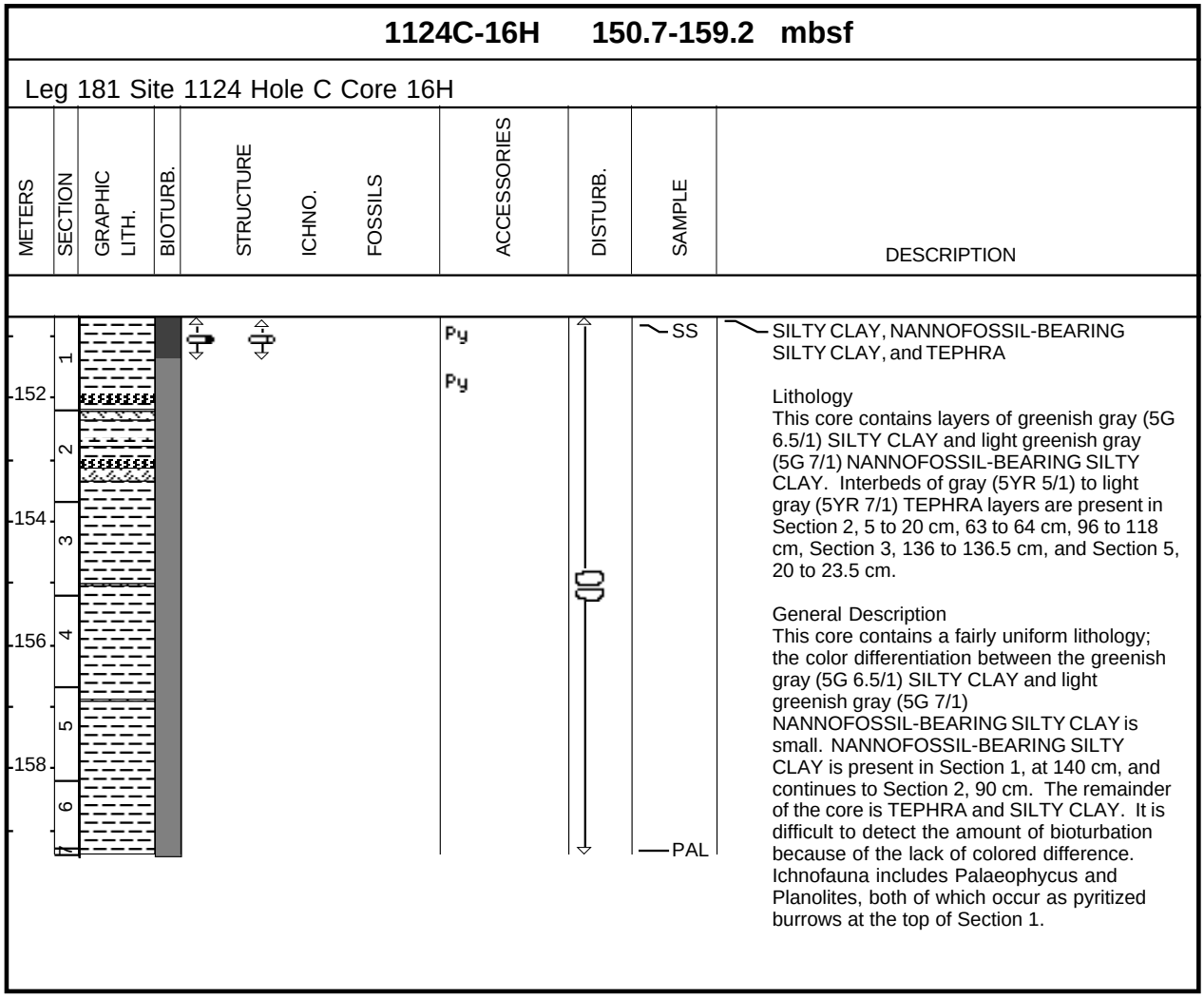


NANNOFOSSIL-BEARING SILTY CLAY, SILTY CLAY, and TEPHRA

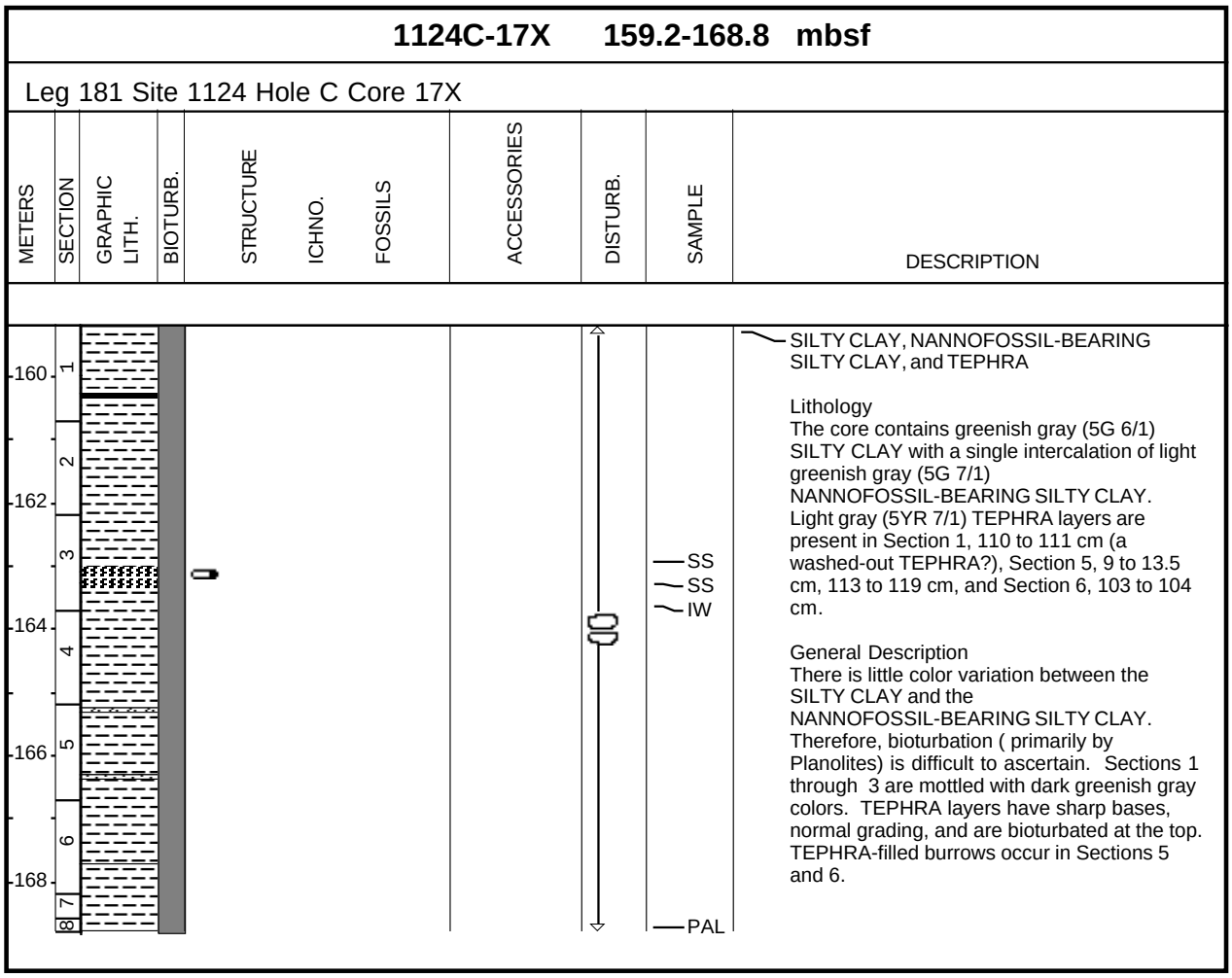
Lithology
This core contains alternating light greenish gray (5G 7/1) NANNOFOSSIL-BEARING SILTY CLAY and greenish gray (5G 6/1) SILTY CLAY. TEPHRA layers are present in Section 2, 118 to 122 cm, Section 3, 38 to 41 cm, Section 116 to 123 cm, Section 4, 103 to 109 cm, 136 to 148 cm, Section 5, 34 to 41 cm, 70 to 71 cm, and Section 6, 29 to 38 cm.

General Description
The color of the NANNOFOSSIL-BEARING SILTY CLAY and SILTY CLAY are becoming greener than in the previous cores (possibly indicative of an increasing terrigenous input). Light greenish gray (5G 7/1) layers of NANNOFOSSIL-BEARING SILTY CLAY occur in Section 1, 0 to 75 cm, 100 to 150 cm, Section 2, 0 to 10 cm, 40 to 118 cm, Section 3, 20 to 55 cm, 67 to 80 cm, Section 4, 70 to 103 cm, 148 to 150 cm, Section 5, 0 to 12 cm, 120 to 150 cm, Section 6, 0 to 15 cm, and 80 to 90 cm. SILTY CLAY and TEPHRA layers comprise the remainder of the core. Bioturbation is heavy; ichnofauna include Teichichnus, Planolites, Palaeophycus, Skolithos, and Chondrites. The core is disturbed by drilling biscuits. TEPHRA layers have gradational and commonly bioturbated tops; bases are usually sharp but also sometimes bioturbated by Planolites. The TEPHRA layers usually grade from dark to light gray in the 5YR range.

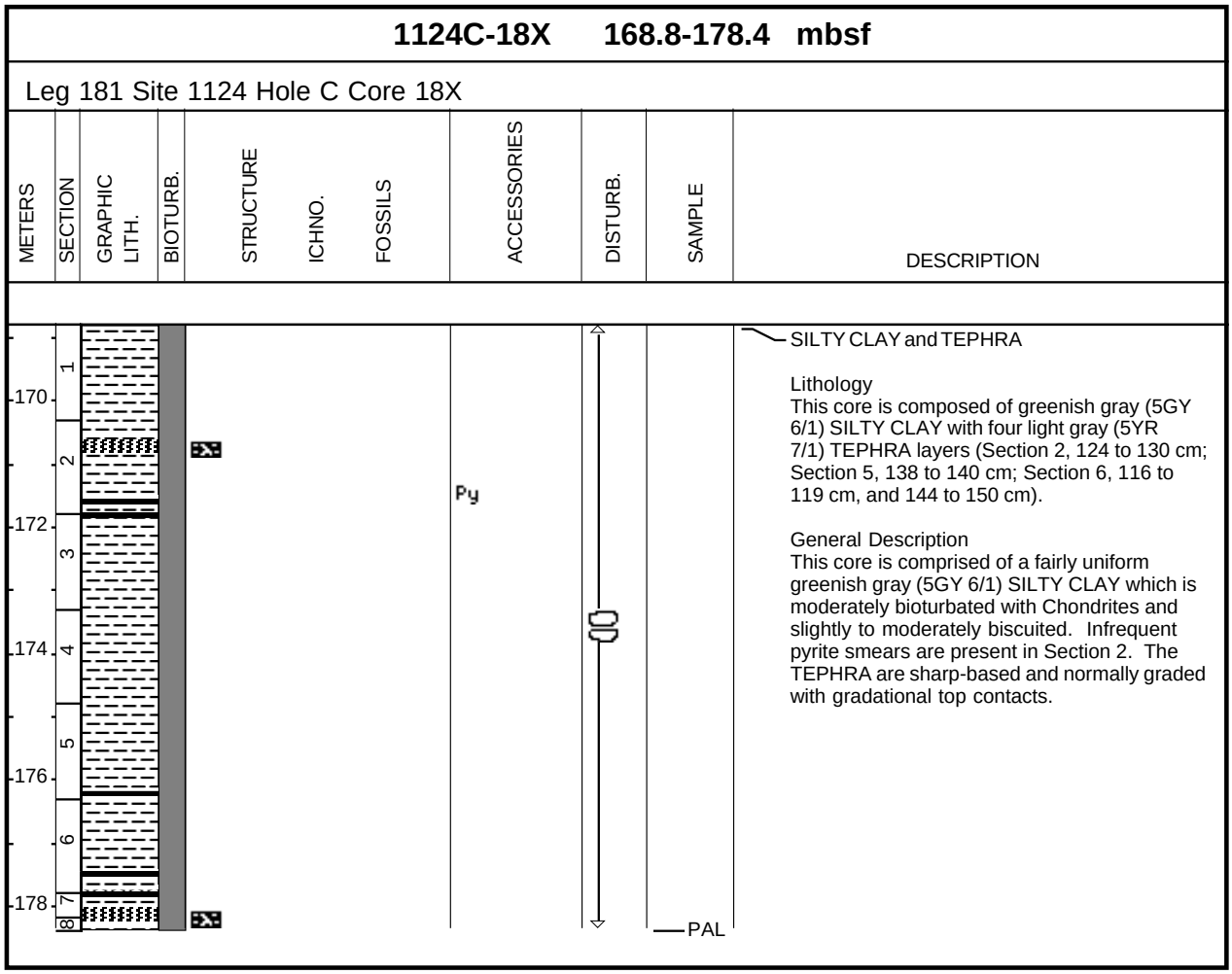
Core Photo


1124C-16H 150.7-159.2 mbsf
Leg 181 Site 1124 Hole C Core 16H
METERS
SECTION
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ICHNO.
FOSSILS
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
152
154
156
158
1
2
3
4
5
6
Py
Py
SS
PAL
SILTY CLAY, NANNOFOSSIL-BEARING SILTY CLAY, and TEPHRA
Lithology
This core contains layers of greenish gray (5G 6.5/1) SILTY CLAY and light greenish gray (5G 7/1) NANNOFOSSIL-BEARING SILTY CLAY. Interbeds of gray (5YR 5/1) to light gray (5YR 7/1) TEPHRA layers are present in Section 2, 5 to 20 cm, 63 to 64 cm, 96 to 118 cm, Section 3, 136 to 136.5 cm, and Section 5, 20 to 23.5 cm.
General Description
This core contains a fairly uniform lithology; the color differentiation between the greenish gray (5G 6.5/1) SILTY CLAY and light greenish gray (5G 7/1) NANNOFOSSIL-BEARING SILTY CLAY is small. NANNOFOSSIL-BEARING SILTY CLAY is present in Section 1, at 140 cm, and continues to Section 2, 90 cm. The remainder of the core is TEPHRA and SILTY CLAY. It is difficult to detect the amount of bioturbation because of the lack of colored difference. Ichnofauna includes Palaeophycus and Planolites, both of which occur as pyritized burrows at the top of Section 1.

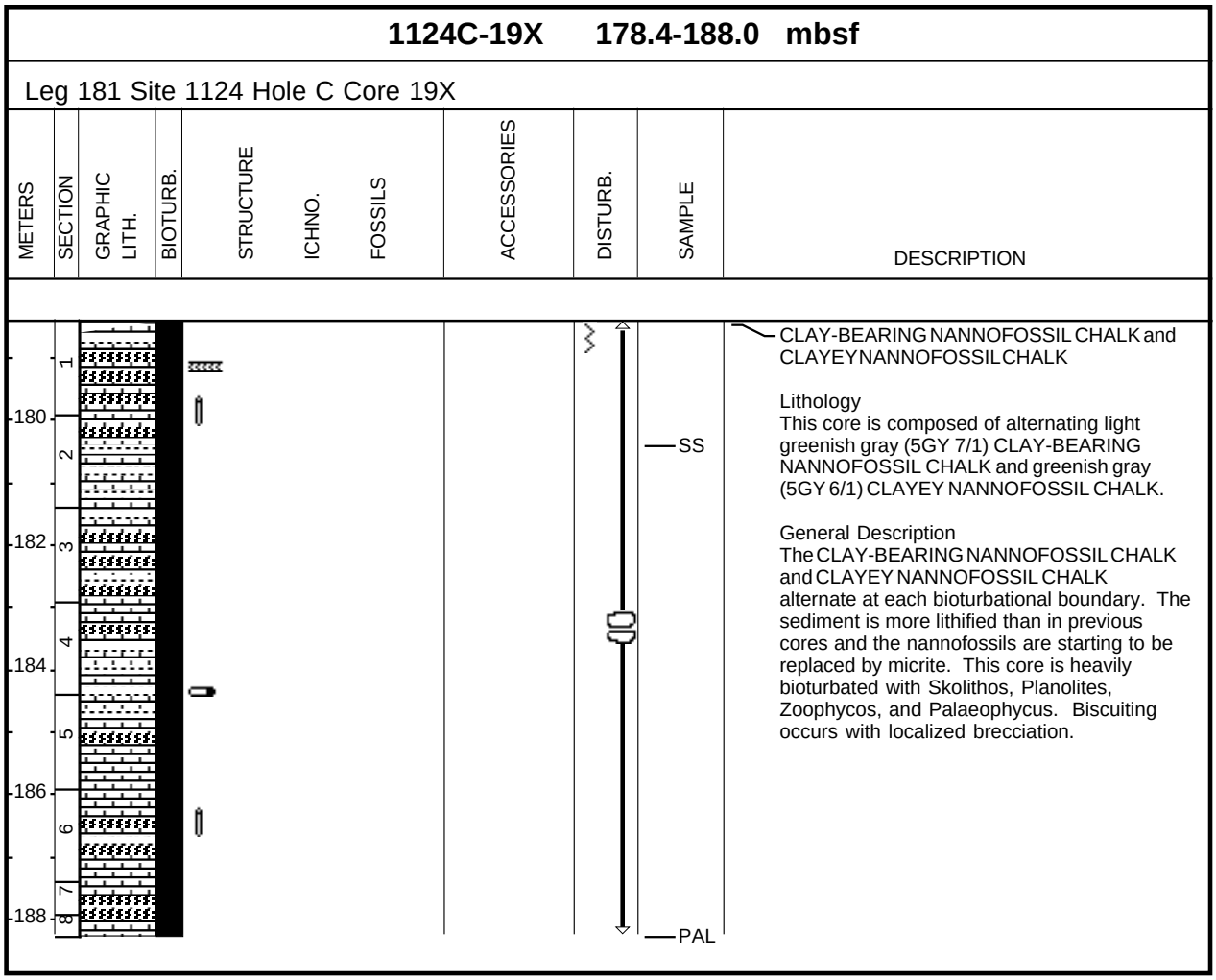
Core Photo


1124C-17X 159.2-168.8 mbsf
Leg 181 Site 1124 Hole C Core 17X
METERS
SECTION
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ICHNO.
FOSSILS
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
160
162
164
166
168
1
2
3
4
5
6
7
8
SS
SS
IW
PAL
SILTY CLAY, NANNOFOSSIL-BEARING SILTY CLAY, and TEPHRA
Lithology
The core contains greenish gray (5G 6/1) SILTY CLAY with a single intercalation of light greenish gray (5G 7/1) NANNOFOSSIL-BEARING SILTY CLAY. Light gray (5YR 7/1) TEPHRA layers are present in Section 1, 110 to 111 cm (a washed-out TEPHRA?), Section 5, 9 to 13.5 cm, 113 to 119 cm, and Section 6, 103 to 104 cm.
General Description
There is little color variation between the SILTY CLAY and the NANNOFOSSIL-BEARING SILTY CLAY. Therefore, bioturbation (primarily by Planolites) is difficult to ascertain. Sections 1 through 3 are mottled with dark greenish gray colors. TEPHRA layers have sharp bases, normal grading, and are bioturbated at the top. TEPHRA-filled burrows occur in Sections 5 and 6.

Core Photo


1124C-18X 168.8-178.4 mbsf
Leg 181 Site 1124 Hole C Core 18X
METERS
SECTION
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ICHNO.
FOSSILS
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
170
172
174
176
178
1
2
3
4
5
6
7
8
Py
PAL
SILTY CLAY and TEPHRA
Lithology
This core is composed of greenish gray (5GY 6/1) SILTY CLAY with four light gray (5YR 7/1) TEPHRA layers (Section 2, 124 to 130 cm; Section 5, 138 to 140 cm; Section 6, 116 to 119 cm, and 144 to 150 cm).
General Description
This core is comprised of a fairly uniform greenish gray (5GY 6/1) SILTY CLAY which is moderately bioturbated with Chondrites and slightly to moderately biscuited. Infrequent pyrite smears are present in Section 2. The TEPHRA are sharp-based and normally graded with gradational top contacts.

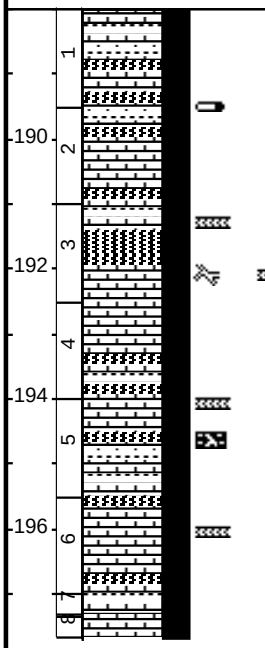
Core Photo


1124C-19X 178.4-188.0 mbsf
Leg 181 Site 1124 Hole C Core 19X
METERS
SECTION
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ICHNO.
FOSSILS
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
180
182
184
186
188
1
2
3
4
5
6
7
CC
SS
PAL
CLAY-BEARING NANNOFOSSIL CHALK and CLAYEY NANNOFOSSIL CHALK
Lithology
This core is composed of alternating light greenish gray (5GY 7/1) CLAY-BEARING NANNOFOSSIL CHALK and greenish gray (5GY 6/1) CLAYEY NANNOFOSSIL CHALK.
General Description
The CLAY-BEARING NANNOFOSSIL CHALK and CLAYEY NANNOFOSSIL CHALK alternate at each bioturbational boundary. The sediment is more lithified than in previous cores and the nannofossils are starting to be replaced by micrite. This core is heavily bioturbated with Skolithos, Planolites, Zoophycos, and Palaeophycus. Biscuiting occurs with localized brecciation.

Core Photo

1124C-20X 188.0-197.7 mbsf

Leg 181 Site 1124 Hole C Core 20X



DESCRIPTION

CLAY-BEARING NANNOFOSSIL CHALK, CLAYEY NANNOFOSSIL CHALK, and TEPHRA

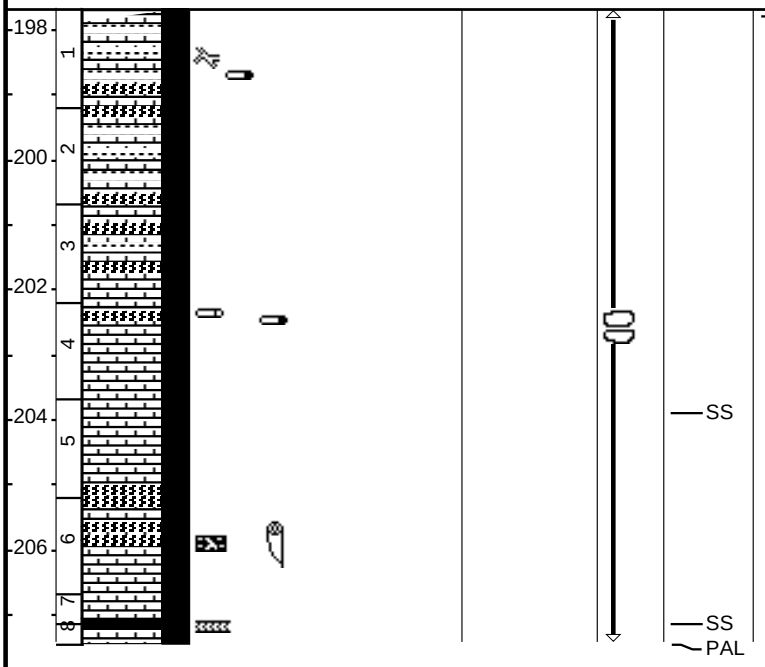
Lithology
This core is composed of alternating light greenish gray (5GY 6/1) CLAY-BEARING NANNOFOSSIL CHALK and greenish gray CLAYEY NANNOFOSSIL CHALK. There are also two white (10YR 8/2) altered TEPHRA layers present in Section 1, 0 to 2.5 cm, and Section 5, 142 to 143 cm.

General Description
The top of this core is light greenish gray (5GY 6/1) CLAY-BEARING NANNOFOSSIL CHALK which alternates with greenish gray CLAYEY NANNOFOSSIL CHALK at each bioturbational boundary. The color differentiation between the layers is not distinct and is based on differences of trace fossil color, i.e., light fossils in dark sediment. The sediment is heavily bioturbated with Planolites, Zoophycos, Palaeophycos, and Thalassinoides. The altered TEPHRA layers are clayey and appear to be montmorillonitic in smear slides. Moderate biscuiting and local brecciation have occurred.

Core Photo

1124C-21X 197.7-207.3 mbsf

Leg 181 Site 1124 Hole C Core 21X



CLAY-BEARING NANNOFOSSIL CHALK, CLAYEY NANNOFOSSIL CHALK, and TEPHRA

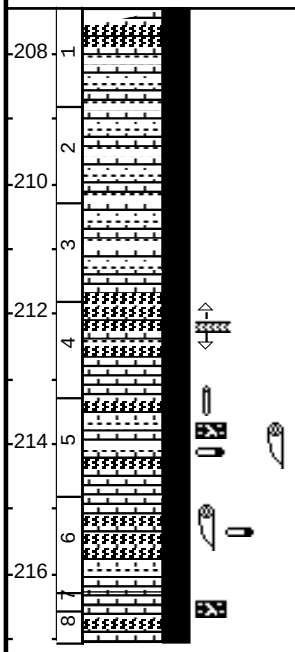
Lithology
This core is composed of alternating light greenish gray (5GY 7/1) CLAY-BEARING NANNOFOSSIL CHALK with greenish gray (5GY 6/1) CLAYEY NANNOFOSSIL CHALK. There are two laminae of altered TEPHRA present (Section 5, 65 to 75 cm (bleb), and Section 7, 37 to 45 cm).

General Description
The core top consists of greenish gray (5GY 6/1) CLAYEY NANNOFOSSIL CHALK which alternates with light greenish gray (5GY 7/1) CLAY-BEARING NANNOFOSSIL CHALK. The color differentiation between layers is weak and the sediment is heavily bioturbated. Trace fossils include Planolites, Palaeophycus, Thalassinoides, Chondrites, Cylindrichnus, and Zoophycos (core base). The thin TEPHRA layers have been heavily altered to smectite and relict glass.

Core Photo

1124C-22X 207.3-216.9 mbsf

Leg 181 Site 1124 Hole C Core 22X



DESCRIPTION

CLAYEY NANNOFOSSIL CHALK, CLAY-BEARING NANNOFOSSIL CHALK, and NANNOFOSSILCHALK

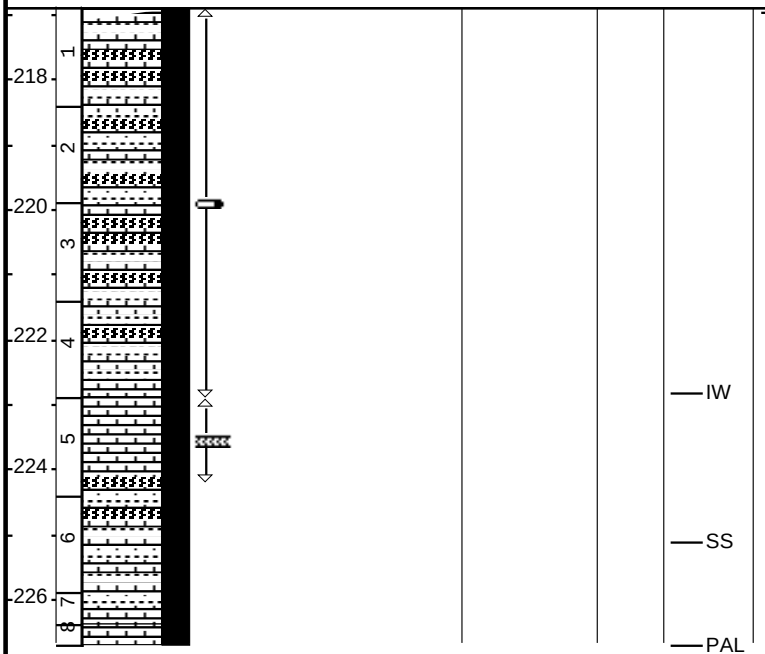
Lithology
Greenish gray (5GY 6/1) CLAYEY NANNOFOSSIL CHALK alternating with light greenish gray (5GY 7/1) CLAY-BEARING NANNOFOSSIL CHALK comprises this core. There is one layer of white (5Y 8/1) NANNOFOSSIL CHALK (Section 5, 100 to 150 cm).

General Description
The core top is greenish gray (5GY 6/1) CLAYEY NANNOFOSSIL CHALK which alternates with light greenish gray (5GY 7/1) CLAY-BEARING NANNOFOSSIL CHALK at each bioturbational or gradational contact downcore. Section 1, 50 cm, through Section 3, 110 cm, is greenish gray (5GY 6/1) with light greenish gray (5BG 7/1) mottles. The color differences become more pronounced downcore, especially in the NANNOFOSSIL CHALK bed. Bioturbation is pervasive with Chondrites, Zoophycos, Planolites, and Cylindrichnus present. Extensive biscuiting has occurred, as well as post-coring expansion of the core.

Core Photo

1124C-23X 216.9-226.5 mbsf

Leg 181 Site 1124 Hole C Core 23X

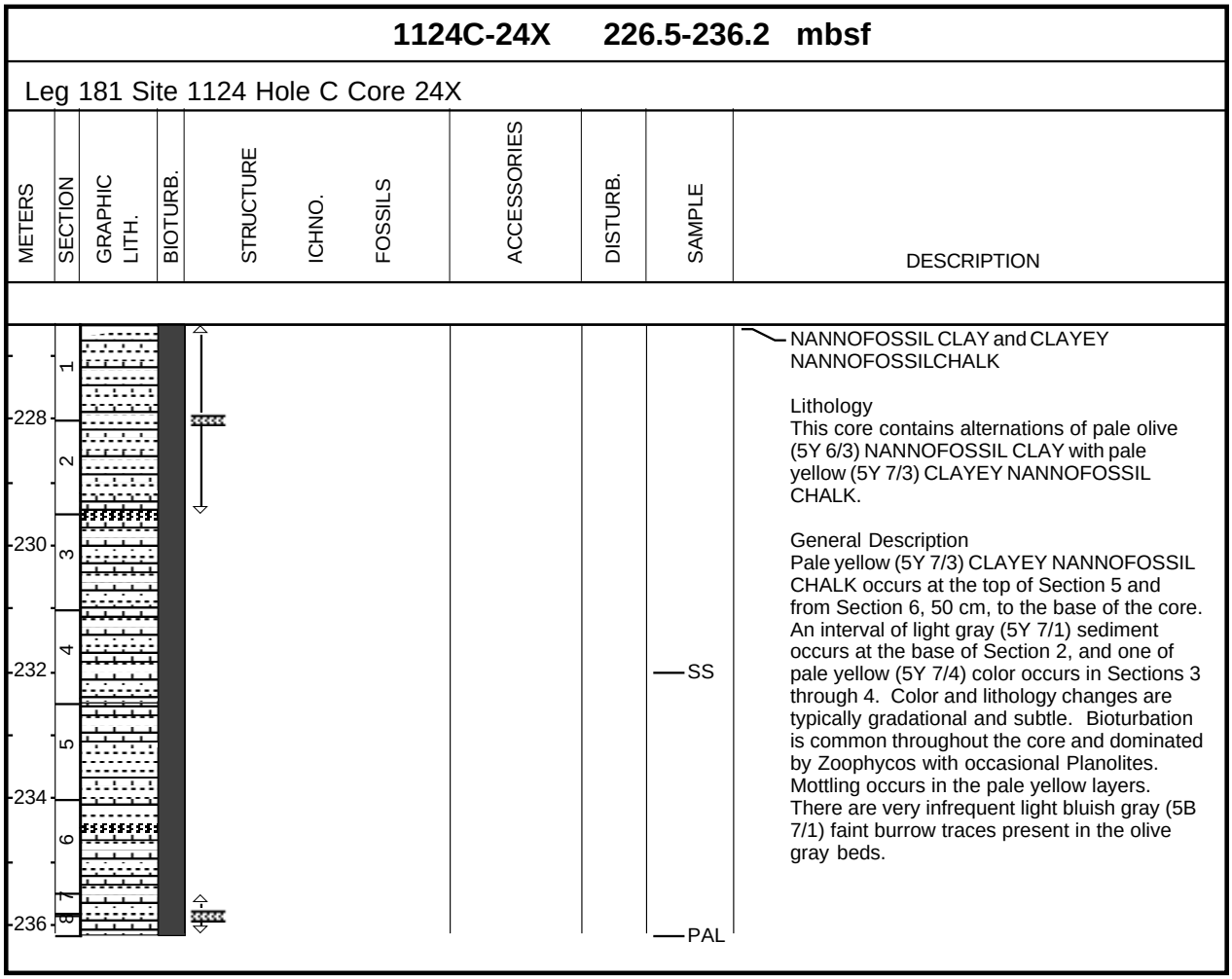


CLAYEY NANNOFOSSIL CHALK and CLAY-BEARING NANNOFOSSIL CHALK

Lithology
This core is composed of alternations of greenish gray (5GY 6/1) to light greenish gray (5GY 7/1) CLAYEY NANNOFOSSIL CHALK with light gray (5Y 7/1) and white (5Y 8/1) CLAY-BEARING NANNOFOSSIL CHALK.

General Description
Greenish gray (5GY 6/1) CLAYEY NANNOFOSSIL CHALK is present in Section 2, 120 cm, to Section 3, 35 cm, Section 3, 125 cm, to Section 4, 55 cm, and in Section 6, 30 cm, to the base of the core. Light gray (5Y 7/1) sediment is present in Section 1, 80 to 110 cm, and white (5Y 8/1) CLAY-BEARING NANNOFOSSIL CHALK is present throughout most of Section 5. Light greenish gray (5GY 7/1) CLAYEY NANNOFOSSIL CHALK is present throughout the remainder of the core. The contacts between lithologies are bioturbational. Bioturbation is heavy throughout the core, with Planolites, Zoophycos, and Terebellina present. Zoophycos is particularly common in the gray and white layers. Mottling is common throughout the core and there is no evidence of significant biscuiting.

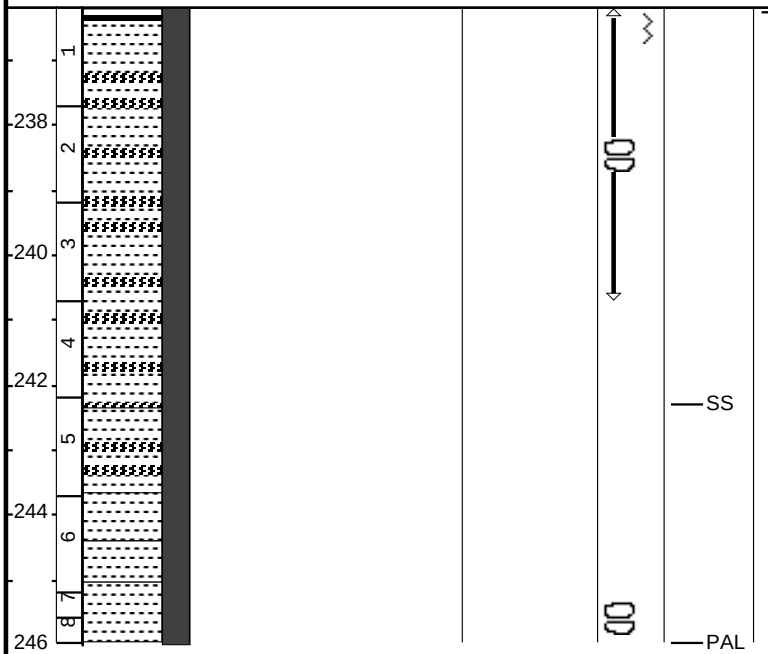
Core Photo


1124C-24X 226.5-236.2 mbsf
Leg 181 Site 1124 Hole C Core 24X
METERS
SECTION
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ICHNO.
FOSSILS
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
228
230
232
234
236
1
2
3
4
5
6
7
CC
SS
PAL
NANNOFOSSIL CLAY and CLAYEY NANNOFOSSILCHALK
Lithology
This core contains alternations of pale olive (5Y 6/3) NANNOFOSSIL CLAY with pale yellow (5Y 7/3) CLAYEY NANNOFOSSIL CHALK.
General Description
Pale yellow (5Y 7/3) CLAYEY NANNOFOSSIL CHALK occurs at the top of Section 5 and from Section 6, 50 cm, to the base of the core. An interval of light gray (5Y 7/1) sediment occurs at the base of Section 2, and one of pale yellow (5Y 7/4) color occurs in Sections 3 through 4. Color and lithology changes are typically gradational and subtle. Bioturbation is common throughout the core and dominated by Zoophycos with occasional Planolites. Mottling occurs in the pale yellow layers. There are very infrequent light bluish gray (5B 7/1) faint burrow traces present in the olive gray beds.

Core Photo

1124C-25X 236.2-245.8 mbsf

Leg 181 Site 1124 Hole C Core 25X



MUDSTONE

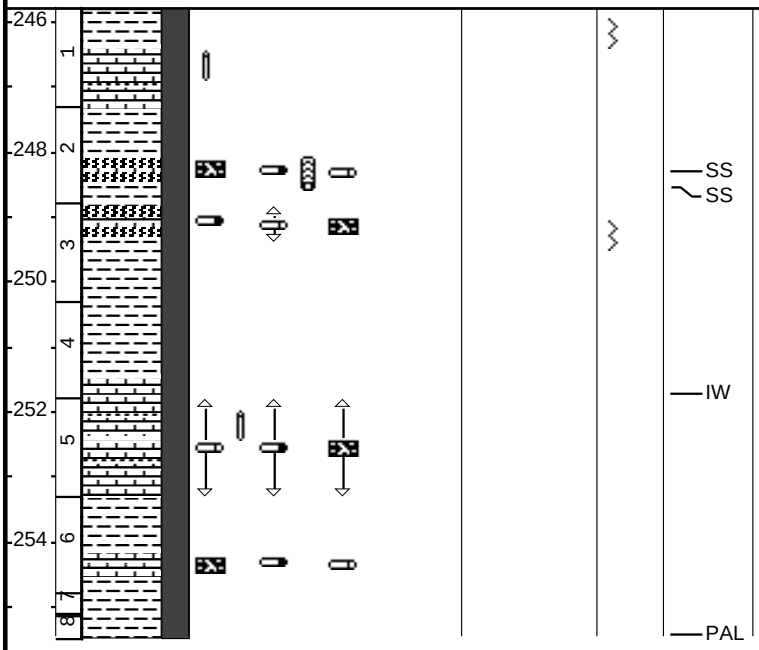
Lithology
This core is composed of alternating pale olive (5Y 6/3) and white (5Y 8/1) to light gray (5Y 7/2) MUDSTONE.

General Description
Pale olive (5Y 6/3) MUDSTONE is present in Section 1, 15 to 110 cm, and alternates with the other colors of MUDSTONE at each bioturbational or gradational contact. White (5Y 8/1) MUDSTONE is present in Section 3, 40 to 125 cm, and Section 4, 40 to 110 cm. Light gray (5Y 7/2) color is present in the remainder of the core. The contacts are bioturbational in the first five sections and gradational below that. Bioturbation is common throughout the core and demarked by Planolites and Zoophycos. The core is significantly disturbed by biscuiting.

Core Photo

1124C-26X 245.8-255.4 mbsf

Leg 181 Site 1124 Hole C Core 26X



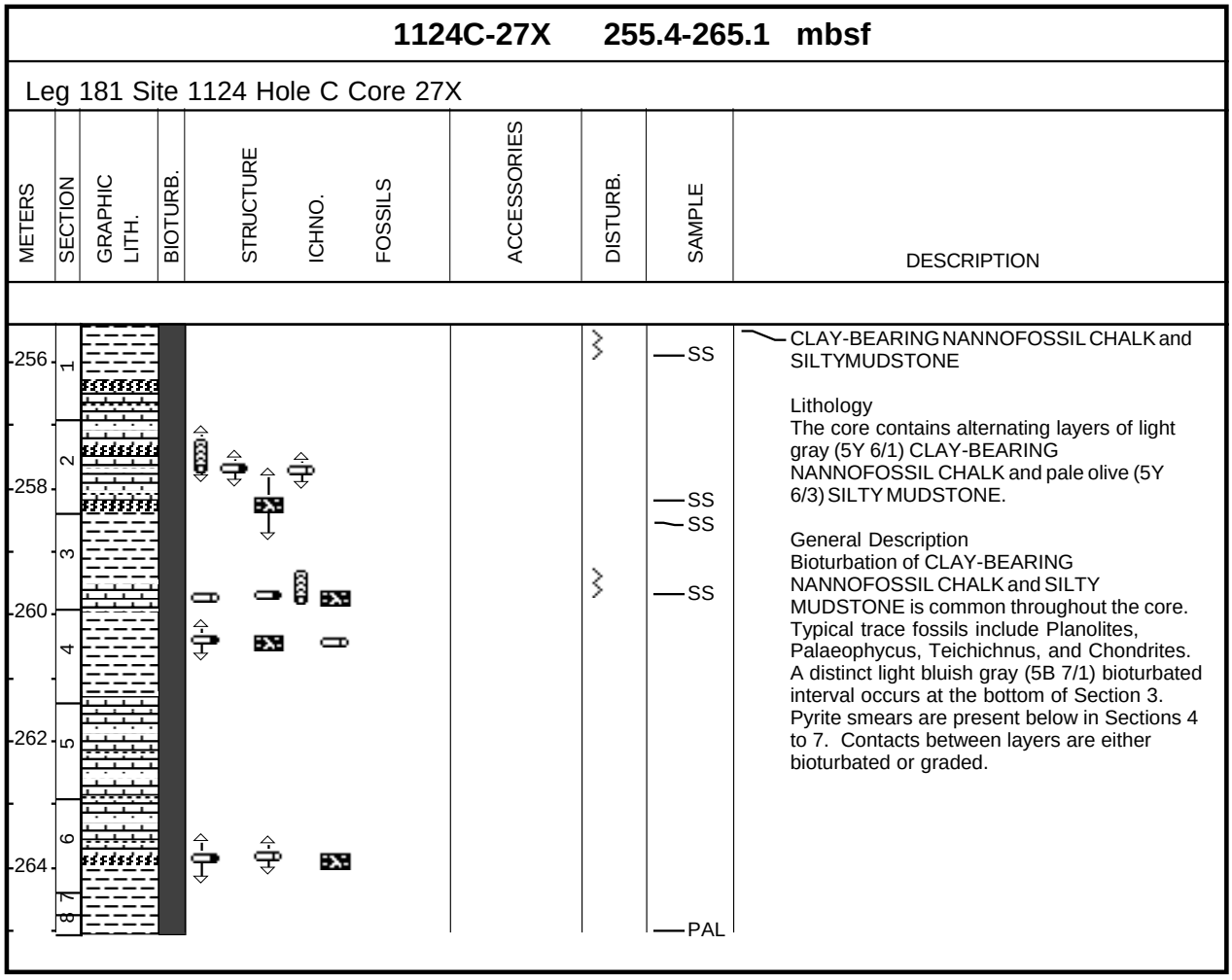
DESCRIPTION

SILTY MUDSTONE and CLAY-BEARING NANNOFOSSILCHALK

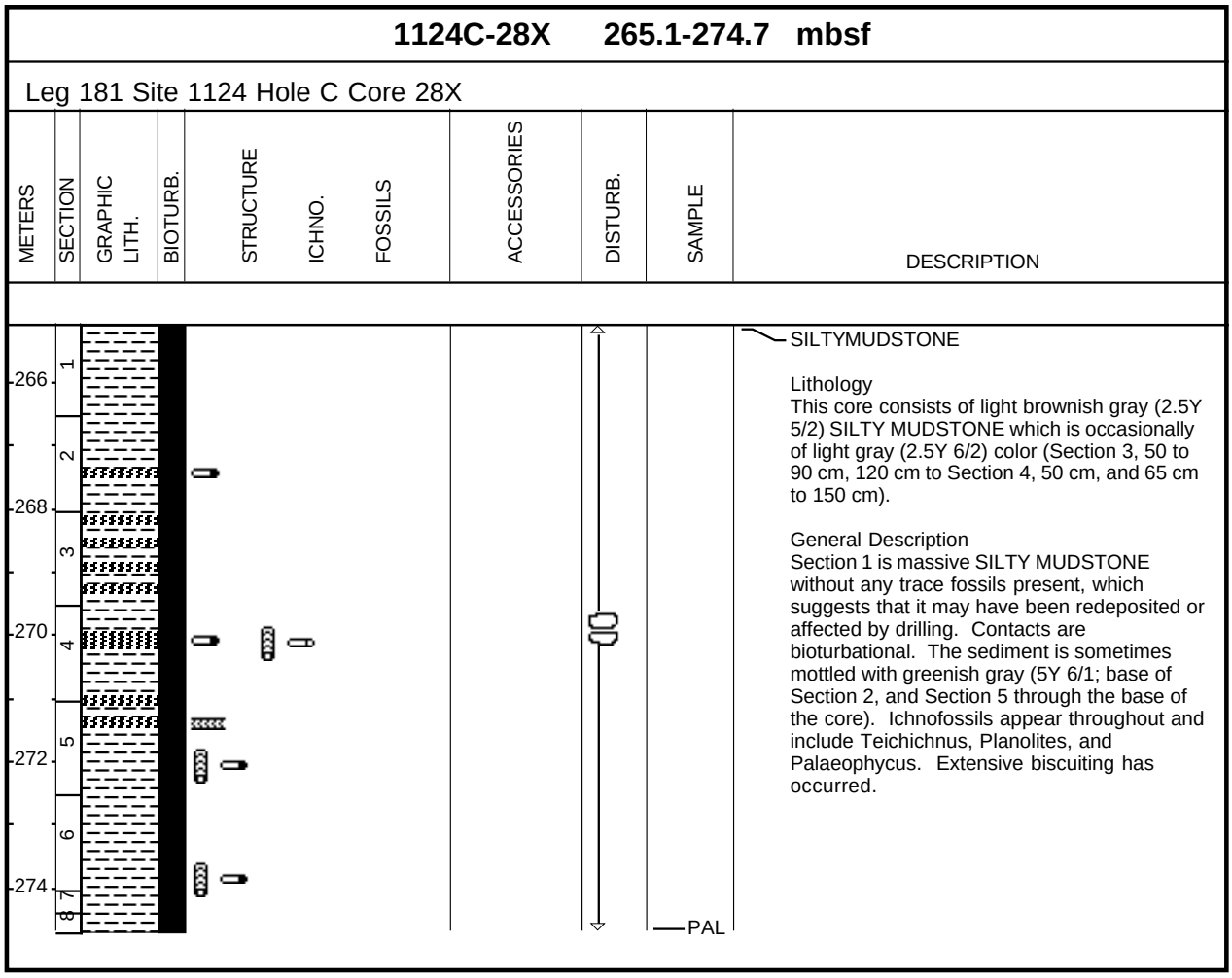
Lithology
The core contains alternations of pale olive (5Y 6/2) SILTY MUDSTONE and pale yellow (5Y 7/3 to 5Y 7/2) CLAY-BEARING NANNOFOSSILCHALK.

General Description
Bioturbation is common throughout both lithologies although the light colors appear to be slightly more bioturbated. Contacts are either bioturbated or gradational. Identified ichnofauna include Planolites, Chondrites, Palaeophycus, Skolithos, and Teichichnus. Smears of light bluish gray are present throughout.

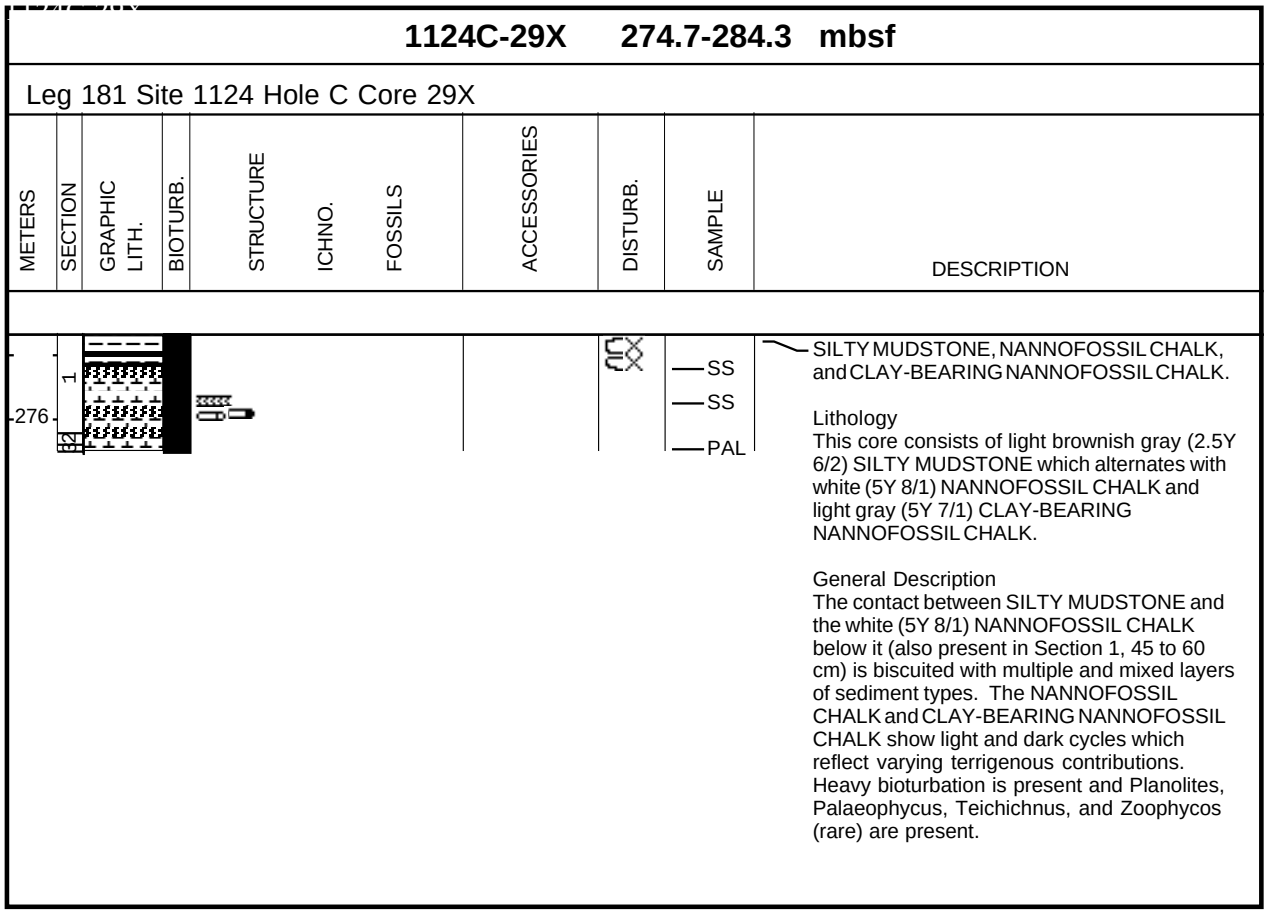
Core Photo


1124C-27X 255.4-265.1 mbsf
Leg 181 Site 1124 Hole C Core 27X
METERS
SECTION
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ICHNO.
FOSSILS
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
256
258
260
262
264
1
2
3
4
5
6
7
SS
SS
SS
SS
PAL
CLAY-BEARING NANNOFOSSIL CHALK and SILTYMUDSTONE
Lithology
The core contains alternating layers of light gray (5Y 6/1) CLAY-BEARING NANNOFOSSIL CHALK and pale olive (5Y 6/3) SILTY MUDSTONE.
General Description
Bioturbation of CLAY-BEARING NANNOFOSSIL CHALK and SILTY MUDSTONE is common throughout the core. Typical trace fossils include Planolites, Palaeophycus, Teichichnus, and Chondrites. A distinct light bluish gray (5B 7/1) bioturbated interval occurs at the bottom of Section 3. Pyrite smears are present below in Sections 4 to 7. Contacts between layers are either bioturbated or graded.

Core Photo

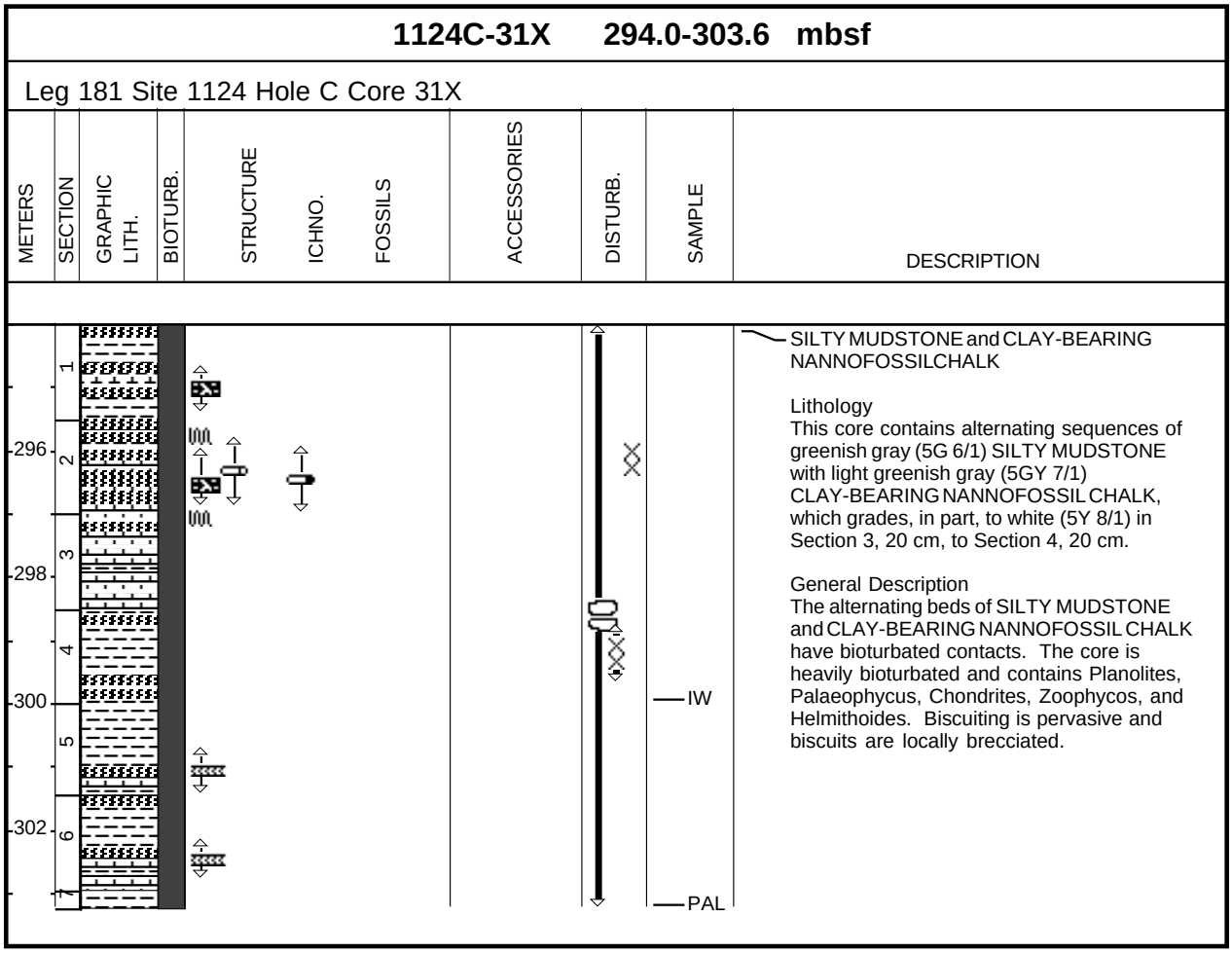

1124C-28X 265.1-274.7 mbsf
Leg 181 Site 1124 Hole C Core 28X
METERS
SECTION
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ICHNO.
FOSSILS
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
266
268
270
272
274
1
2
3
4
5
6
7
PAL
SILTYMUDSTONE
Lithology
This core consists of light brownish gray (2.5Y 5/2) SILTY MUDSTONE which is occasionally of light gray (2.5Y 6/2) color (Section 3, 50 to 90 cm, 120 cm to Section 4, 50 cm, and 65 cm to 150 cm).
General Description
Section 1 is massive SILTY MUDSTONE without any trace fossils present, which suggests that it may have been redeposited or affected by drilling. Contacts are bioturbational. The sediment is sometimes mottled with greenish gray (5Y 6/1; base of Section 2, and Section 5 through the base of the core). Ichnofossils appear throughout and include Teichichnus, Planolites, and Palaeophycus. Extensive biscuiting has occurred.

Core Photo

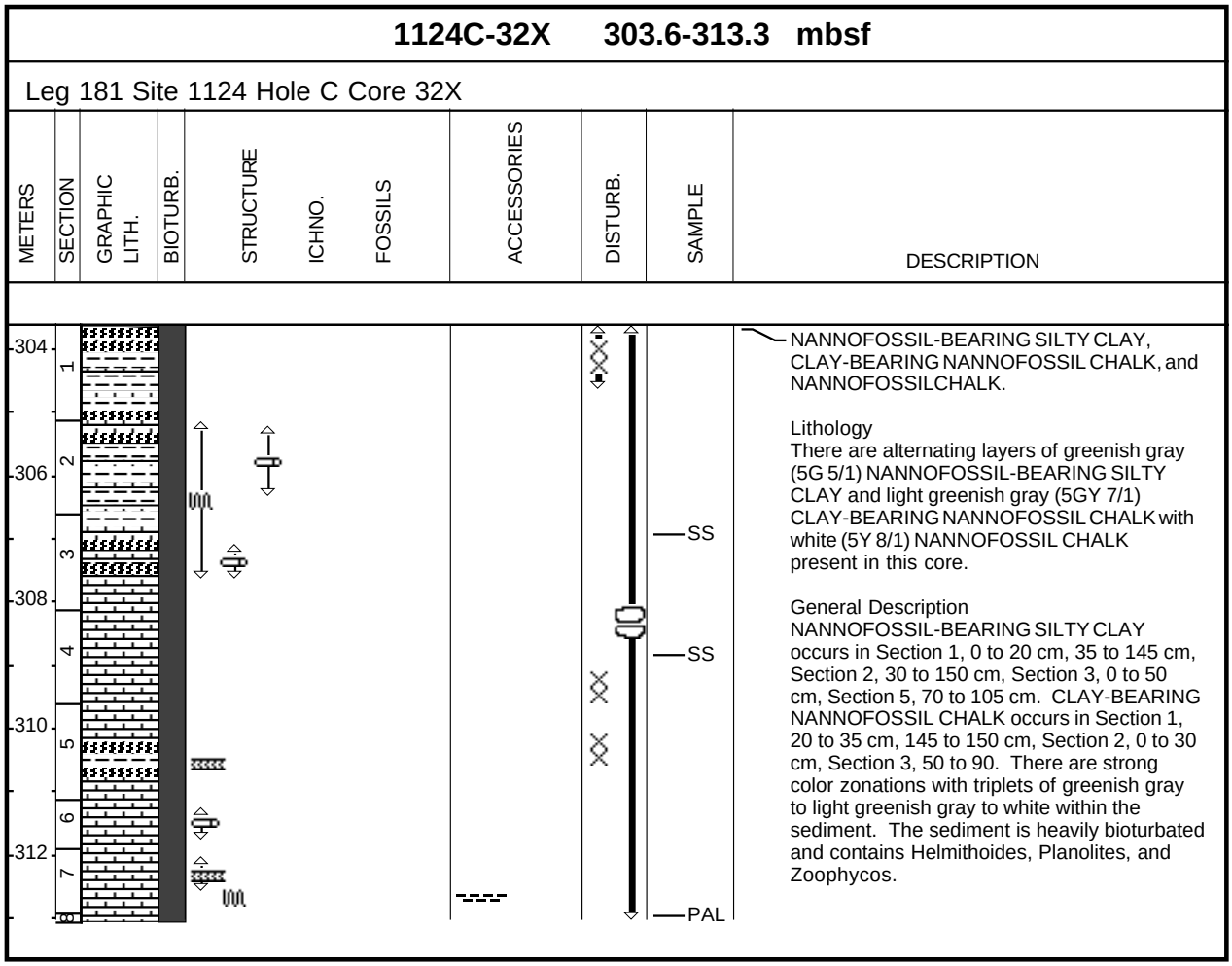


1124C-30X NO RECOVERY

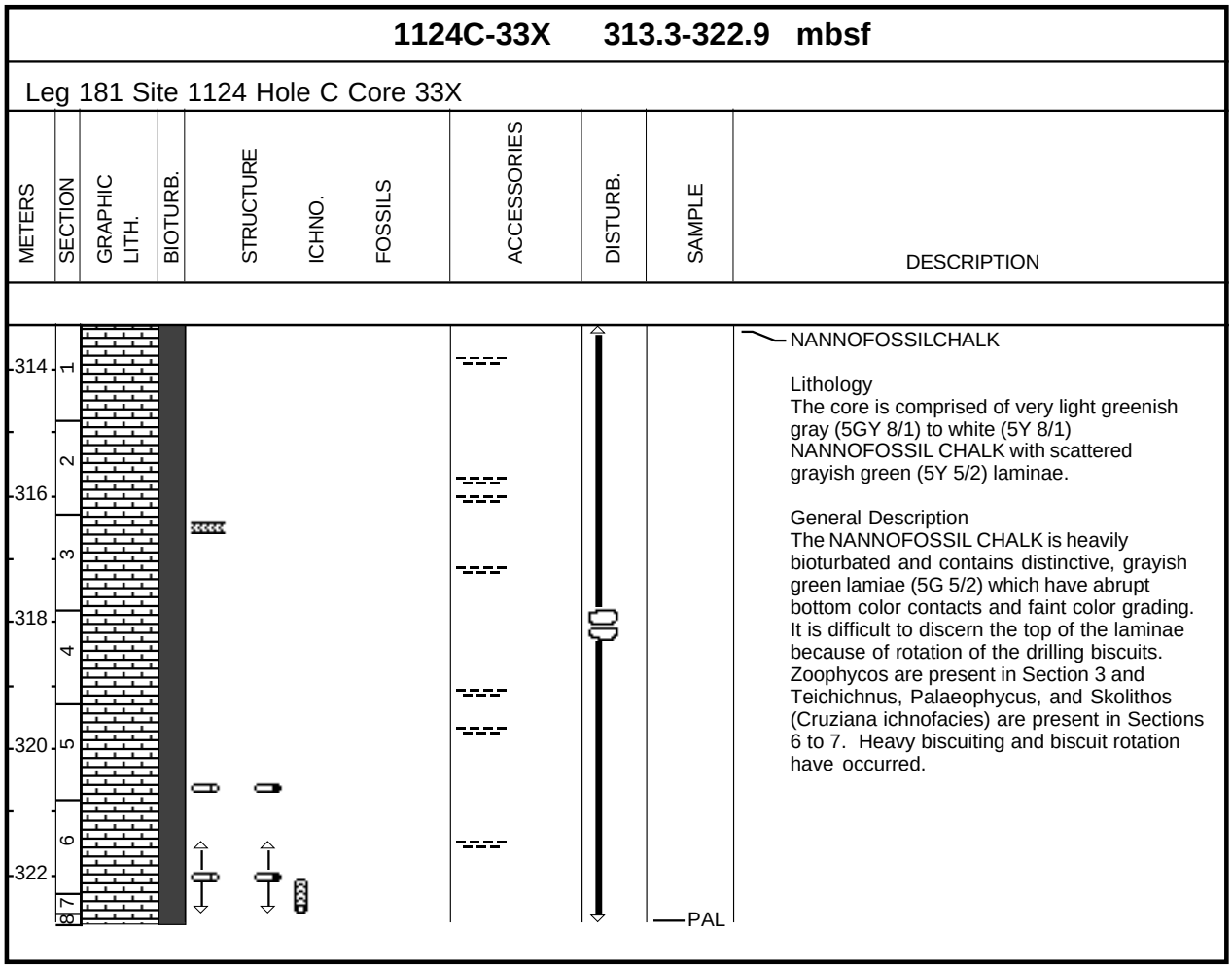
Core Photo


1124C-31X 294.0-303.6 mbsf
Leg 181 Site 1124 Hole C Core 31X
METERS
SECTION
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ICHNO.
FOSSILS
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
296
298
300
302
1
2
3
4
5
6
7
IW
PAL
SILTY MUDSTONE and CLAY-BEARING NANNOFOSSILCHALK
Lithology
This core contains alternating sequences of greenish gray (5G 6/1) SILTY MUDSTONE with light greenish gray (5GY 7/1) CLAY-BEARING NANNOFOSSIL CHALK, which grades, in part, to white (5Y 8/1) in Section 3, 20 cm, to Section 4, 20 cm.
General Description
The alternating beds of SILTY MUDSTONE and CLAY-BEARING NANNOFOSSIL CHALK have bioturbated contacts. The core is heavily bioturbated and contains Planolites, Palaeophycus, Chondrites, Zoophycos, and Helmithoides. Biscuiting is pervasive and biscuits are locally brecciated.

Core Photo


1124C-32X 303.6-313.3 mbsf
Leg 181 Site 1124 Hole C Core 32X
METERS
SECTION
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ICHNO.
FOSSILS
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
304
306
308
310
312
1
2
3
4
5
6
7
SS
SS
PAL
NANNOFOSSIL-BEARING SILTY CLAY, CLAY-BEARING NANNOFOSSIL CHALK, and NANNOFOSSILCHALK.
Lithology
There are alternating layers of greenish gray (5G 5/1) NANNOFOSSIL-BEARING SILTY CLAY and light greenish gray (5GY 7/1) CLAY-BEARING NANNOFOSSIL CHALK with white (5Y 8/1) NANNOFOSSIL CHALK present in this core.
General Description
NANNOFOSSIL-BEARING SILTY CLAY occurs in Section 1, 0 to 20 cm, 35 to 145 cm, Section 2, 30 to 150 cm, Section 3, 0 to 50 cm, Section 5, 70 to 105 cm. CLAY-BEARING NANNOFOSSIL CHALK occurs in Section 1, 20 to 35 cm, 145 to 150 cm, Section 2, 0 to 30 cm, Section 3, 50 to 90. There are strong color zonations with triplets of greenish gray to light greenish gray to white within the sediment. The sediment is heavily bioturbated and contains Helmithoides, Planolites, and Zoophycos.

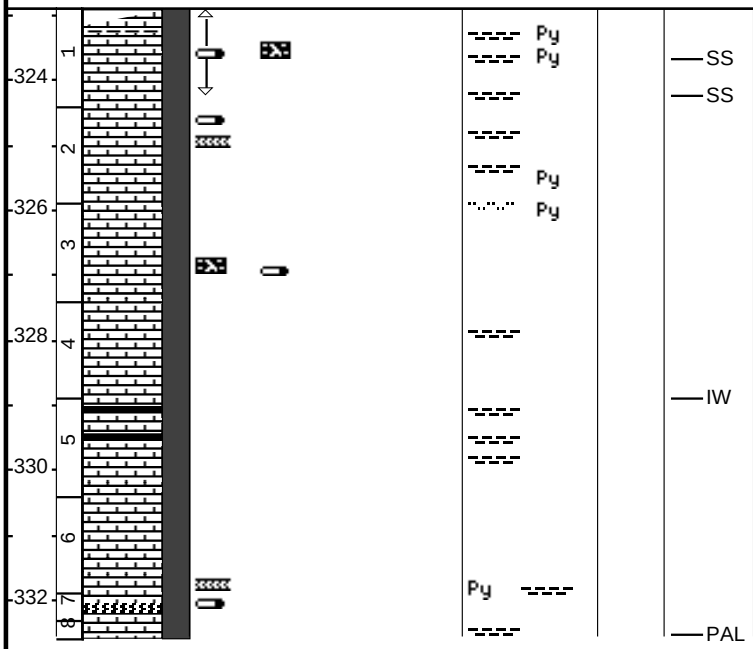
Core Photo


1124C-33X 313.3-322.9 mbsf
Leg 181 Site 1124 Hole C Core 33X
METERS
SECTION
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ICHNO.
FOSSILS
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
314
316
318
320
322
1
2
3
4
5
6
7
PAL
NANNOFOSSILCHALK
Lithology
The core is comprised of very light greenish gray (5GY 8/1) to white (5Y 8/1) NANNOFOSSIL CHALK with scattered grayish green (5Y 5/2) laminae.
General Description
The NANNOFOSSIL CHALK is heavily bioturbated and contains distinctive, grayish green lamiae (5G 5/2) which have abrupt bottom color contacts and faint color grading. It is difficult to discern the top of the laminae because of rotation of the drilling biscuits. Zoophycos are present in Section 3 and Teichichnus, Palaeophycus, and Skolithos (Cruziana ichnofacies) are present in Sections 6 to 7. Heavy biscuiting and biscuit rotation have occurred.

Core Photo

1124C-34X 322.9-332.6 mbsf

Leg 181 Site 1124 Hole C Core 34X

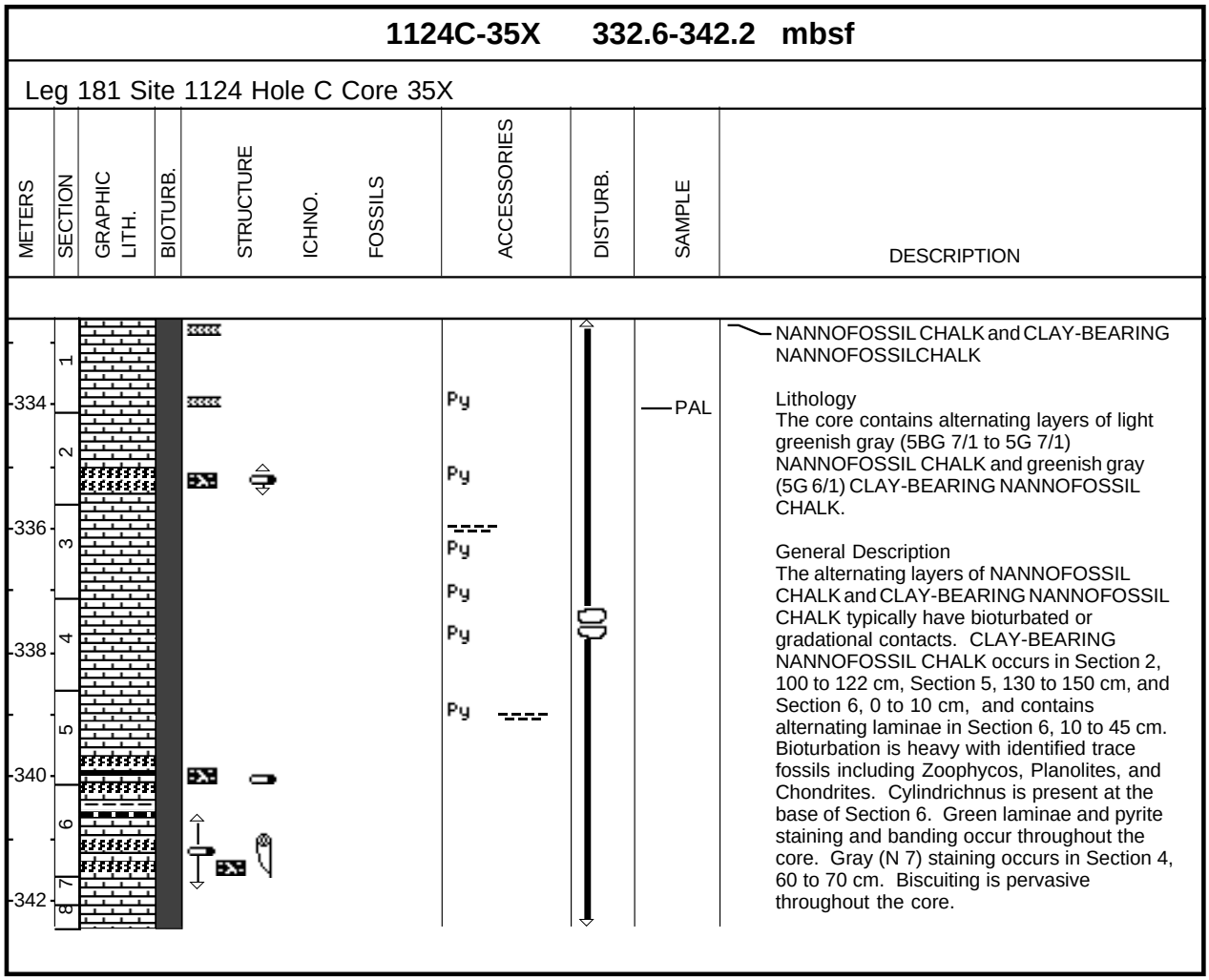


NANNOFOSSIL CHALK and CLAY-BEARING NANNOFOSSILCHALK

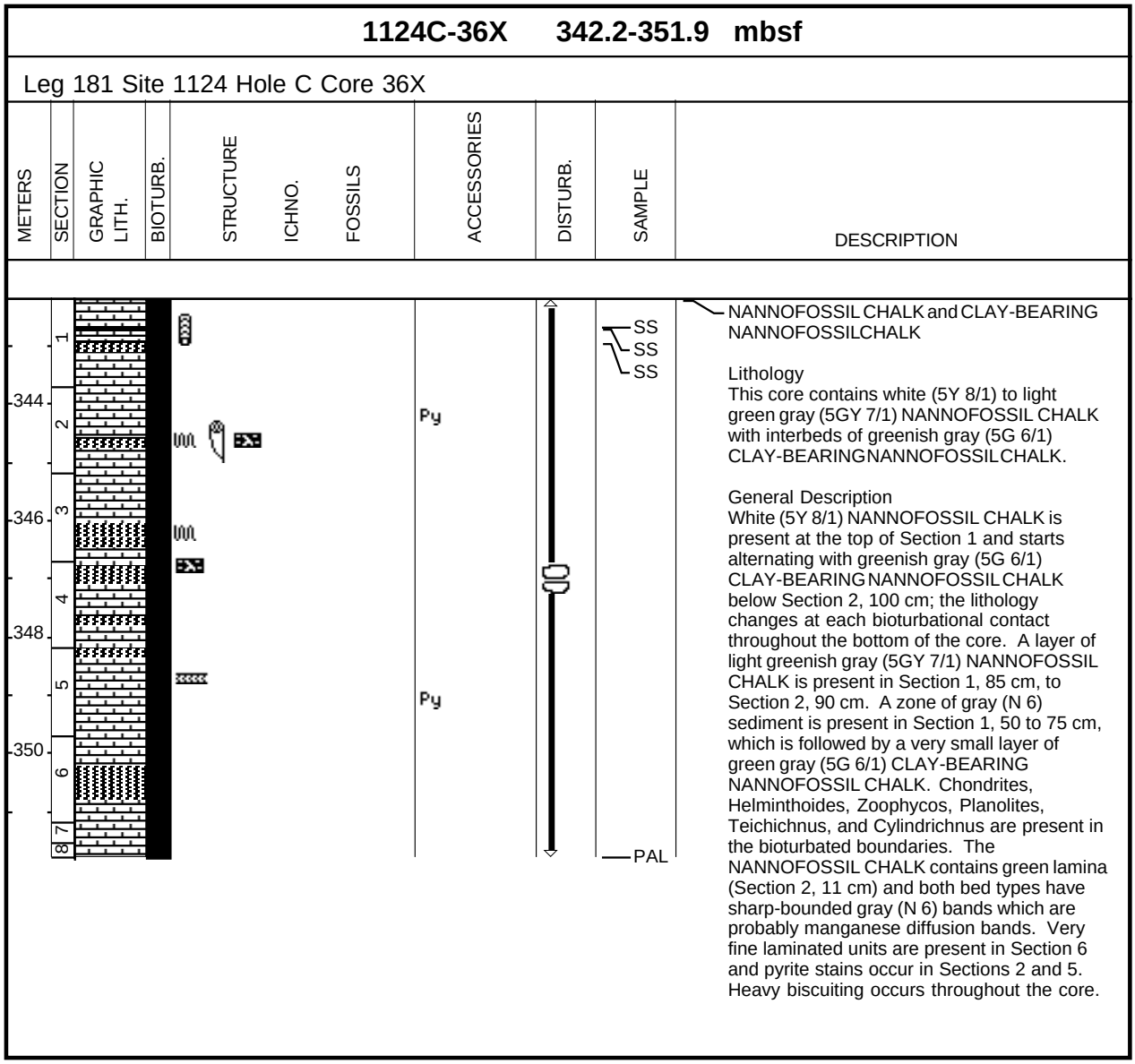
Lithology
The core contains alternating layers of greenish gray (5G 6/1) CLAY-BEARING NANNOFOSSIL CHALK and light greenish gray (5BG 7/1) NANNOFOSSIL CHALK. Laminae of gray (N 6) and green (5G 5/2) color are present throughout the core.

General Description
This core is primarily light greenish gray NANNOFOSSIL CHALK with greenish gray CLAY-BEARING NANNOFOSSIL CHALK at the top (Section 1, 0 to 74 cm) and bottom (Section 6, 100 to 110 cm, Section 7, 5 to 20 cm) of the core. Green laminae contain volcanic glass. Gray (N 6) areas of the NANNOFOSSIL CHALK (Section 3, 10 to 20 cm, 140 to 150 cm, Section 5, 15 to 35 cm, 58 to 70 cm, and 128 to 140 cm) result from a diffuse staining of the regular NANNOFOSSIL CHALK. The core is heavily bioturbated and the identified ichnofauna included Planolites, Zoophycos,and Chondrites. Biscuiting is pervasive and heaviest in Sections 1 to 3. Brecciation of biscuits occurs at the tops of Sections 1 and 5.

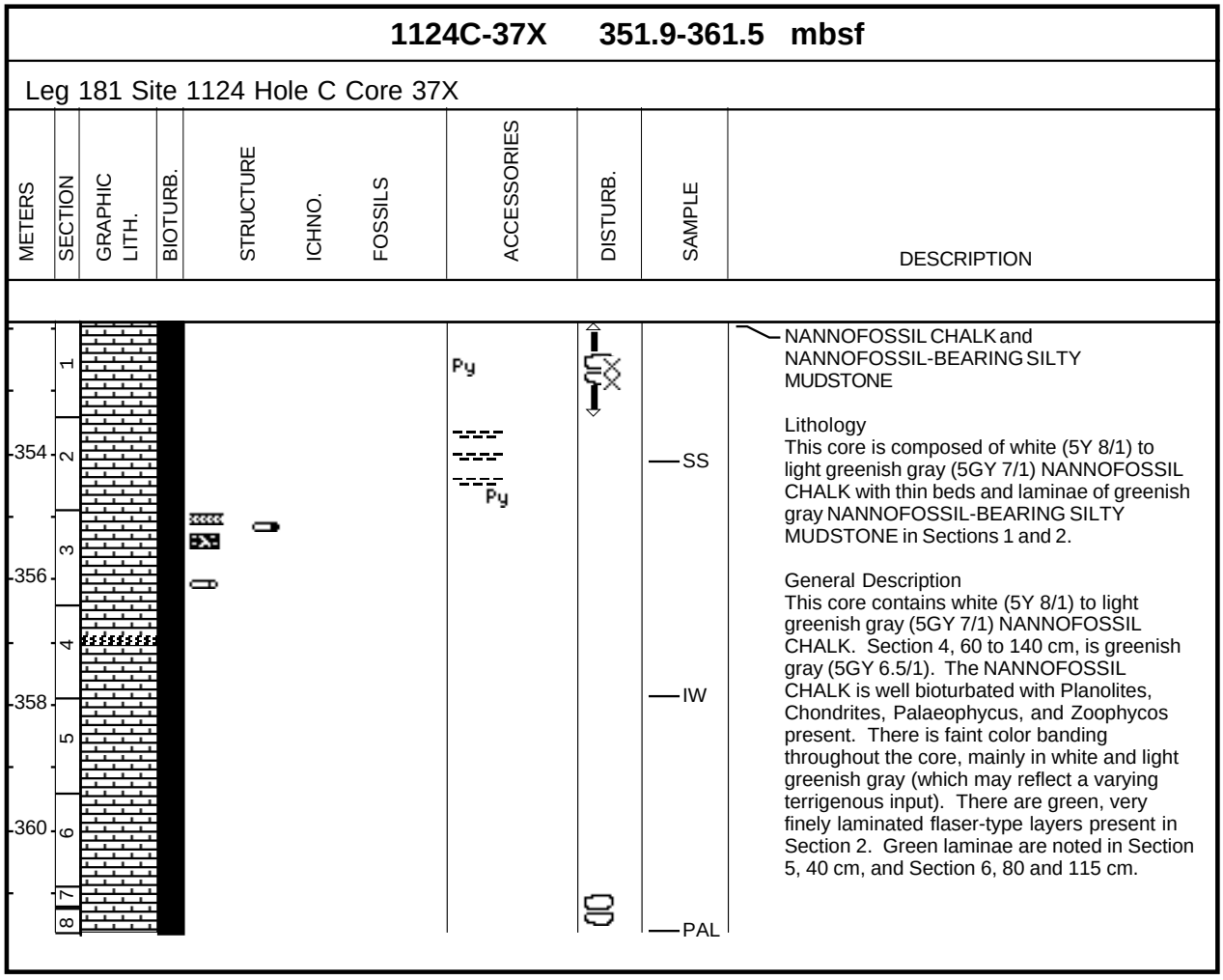
Core Photo


1124C-35X 332.6-342.2 mbsf
Leg 181 Site 1124 Hole C Core 35X
METERS
SECTION
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ICHNO.
FOSSILS
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
334
336
338
340
342
1
2
3
4
5
6
7
8
Py
PAL
NANNOFOSSIL CHALK and CLAY-BEARING NANNOFOSSILCHALK
Lithology
The core contains alternating layers of light greenish gray (5BG 7/1 to 5G 7/1) NANNOFOSSIL CHALK and greenish gray (5G 6/1) CLAY-BEARING NANNOFOSSIL CHALK.
General Description
The alternating layers of NANNOFOSSIL CHALK and CLAY-BEARING NANNOFOSSIL CHALK typically have bioturbated or gradational contacts. CLAY-BEARING NANNOFOSSIL CHALK occurs in Section 2, 100 to 122 cm, Section 5, 130 to 150 cm, and Section 6, 0 to 10 cm, and contains alternating laminae in Section 6, 10 to 45 cm. Bioturbation is heavy with identified trace fossils including Zoophycos, Planolites, and Chondrites. Cylindrichnus is present at the base of Section 6. Green laminae and pyrite staining and banding occur throughout the core. Gray (N 7) staining occurs in Section 4, 60 to 70 cm. Biscuiting is pervasive throughout the core.

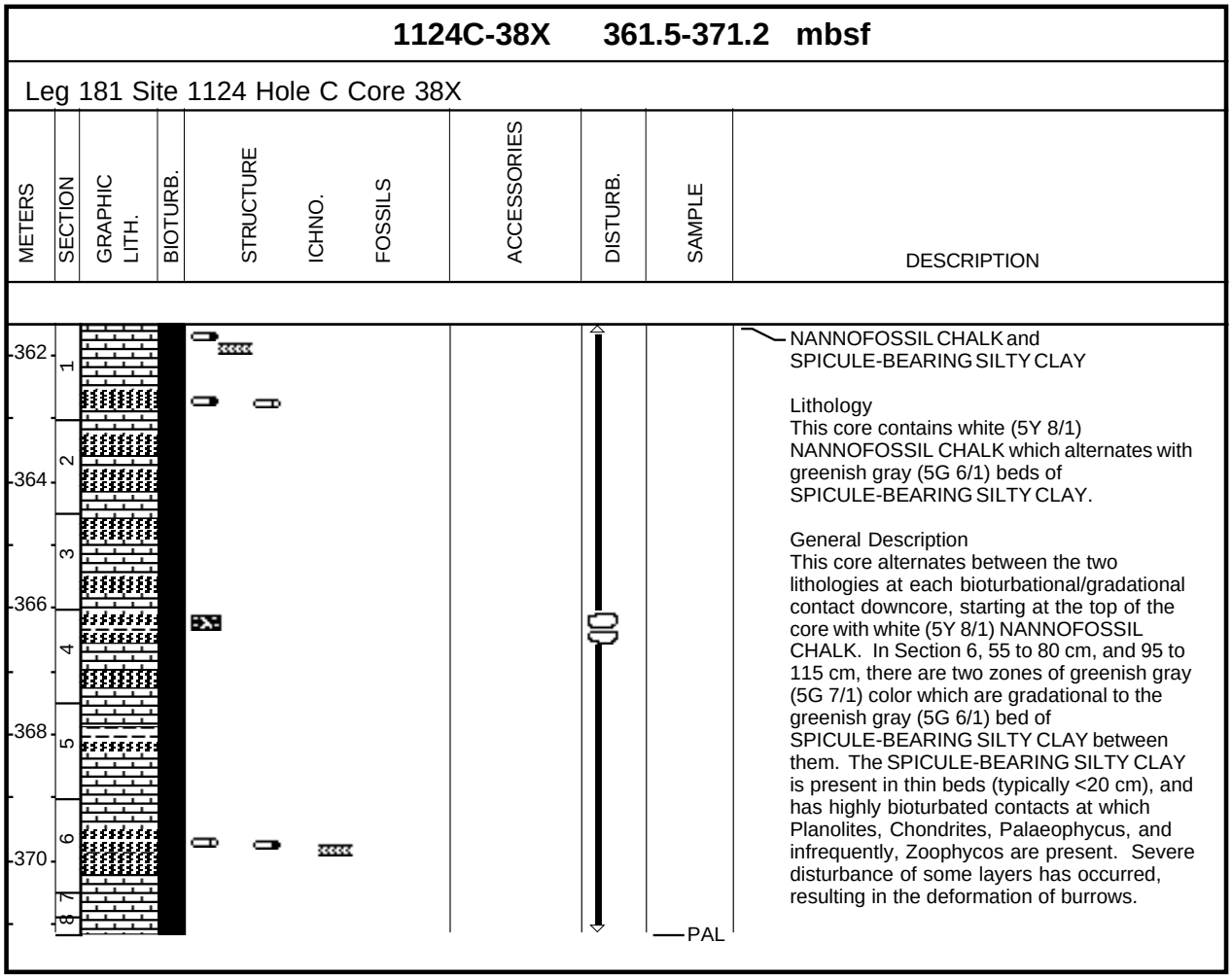
Core Photo


1124C-36X 342.2-351.9 mbsf
Leg 181 Site 1124 Hole C Core 36X
METERS
SECTION
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ICHNO.
FOSSILS
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
344
346
348
350
1
2
3
4
5
6
7
8
Py
Py
SS
SS
SS
PAL
NANNOFOSSIL CHALK and CLAY-BEARING NANNOFOSSILCHALK
Lithology
This core contains white (5Y 8/1) to light green gray (5GY 7/1) NANNOFOSSIL CHALK with interbeds of greenish gray (5G 6/1) CLAY-BEARINGNANNOFOSSILCHALK.
General Description
White (5Y 8/1) NANNOFOSSIL CHALK is present at the top of Section 1 and starts alternating with greenish gray (5G 6/1) CLAY-BEARING NANNOFOSSIL CHALK below Section 2, 100 cm; the lithology changes at each bioturbational contact throughout the bottom of the core. A layer of light greenish gray (5GY 7/1) NANNOFOSSIL CHALK is present in Section 1, 85 cm, to Section 2, 90 cm. A zone of gray (N 6) sediment is present in Section 1, 50 to 75 cm, which is followed by a very small layer of green gray (5G 6/1) CLAY-BEARING NANNOFOSSIL CHALK. Chondrites, Helminthoides, Zoophycos, Planolites, Teichichnus, and Cylindrichnus are present in the bioturbated boundaries. The NANNOFOSSIL CHALK contains green lamina (Section 2, 11 cm) and both bed types have sharp-bounded gray (N 6) bands which are probably manganese diffusion bands. Very fine laminated units are present in Section 6 and pyrite stains occur in Sections 2 and 5. Heavy biscuiting occurs throughout the core.

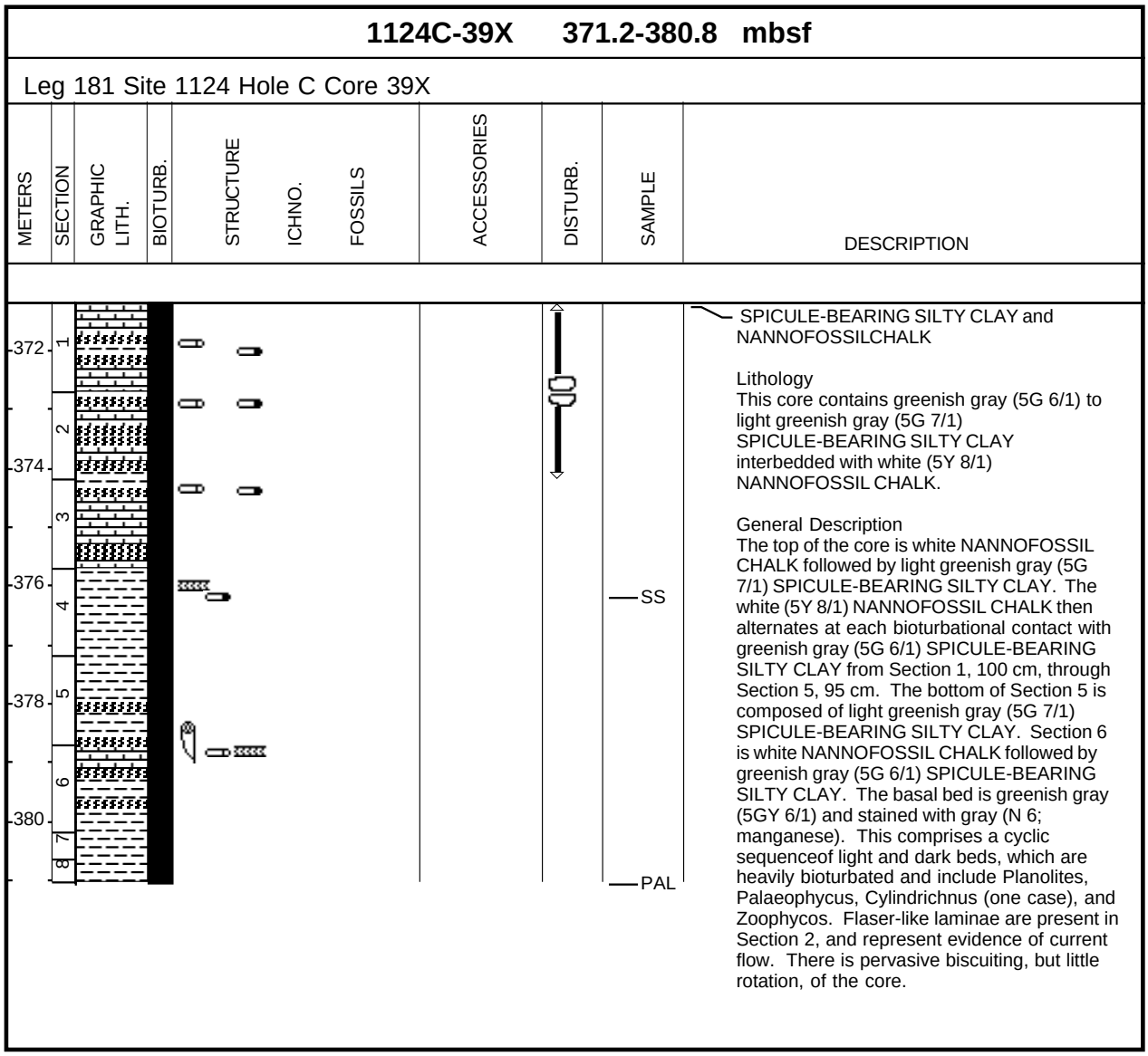
Core Photo


1124C-37X 351.9-361.5 mbsf
Leg 181 Site 1124 Hole C Core 37X
METERS
SECTION
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ICHNO.
FOSSILS
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
354
356
358
360
1
2
3
4
5
6
7
8
Py
Py
SS
IW
PAL
NANNOFOSSIL CHALK and NANNOFOSSIL-BEARING SILTY MUDSTONE
Lithology
This core is composed of white (5Y 8/1) to light greenish gray (5GY 7/1) NANNOFOSSIL CHALK with thin beds and laminae of greenish gray NANNOFOSSIL-BEARING SILTY MUDSTONE in Sections 1 and 2.
General Description
This core contains white (5Y 8/1) to light greenish gray (5GY 7/1) NANNOFOSSIL CHALK. Section 4, 60 to 140 cm, is greenish gray (5GY 6.5/1). The NANNOFOSSIL CHALK is well bioturbated with Planolites, Chondrites, Palaeophycus, and Zoophycos present. There is faint color banding throughout the core, mainly in white and light greenish gray (which may reflect a varying terrigenous input). There are green, very finely laminated flaser-type layers present in Section 2. Green laminae are noted in Section 5, 40 cm, and Section 6, 80 and 115 cm.

Core Photo


1124C-38X 361.5-371.2 mbsf
Leg 181 Site 1124 Hole C Core 38X
METERS
SECTION
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ICHNO.
FOSSILS
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
362
364
366
368
370
1
2
3
4
5
6
7
PAL
NANNOFOSSIL CHALK and SPICULE-BEARING SILTY CLAY
Lithology
This core contains white (5Y 8/1) NANNOFOSSIL CHALK which alternates with greenish gray (5G 6/1) beds of SPICULE-BEARING SILTY CLAY.
General Description
This core alternates between the two lithologies at each bioturbational/gradational contact downcore, starting at the top of the core with white (5Y 8/1) NANNOFOSSIL CHALK. In Section 6, 55 to 80 cm, and 95 to 115 cm, there are two zones of greenish gray (5G 7/1) color which are gradational to the greenish gray (5G 6/1) bed of SPICULE-BEARING SILTY CLAY between them. The SPICULE-BEARING SILTY CLAY is present in thin beds (typically <20 cm), and has highly bioturbated contacts at which Planolites, Chondrites, Palaeophycus, and infrequently, Zoophycos are present. Severe disturbance of some layers has occurred, resulting in the deformation of burrows.

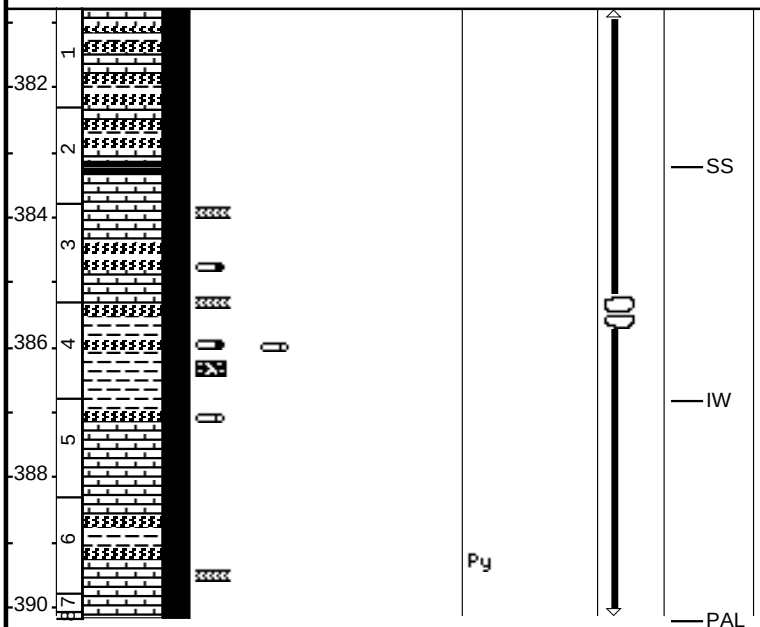
Core Photo


1124C-39X 371.2-380.8 mbsf
Leg 181 Site 1124 Hole C Core 39X
METERS
SECTION
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ICHNO.
FOSSILS
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
372
374
376
378
380
1
2
3
4
5
6
7
8
SS
PAL
SPICULE-BEARING SILTY CLAY and NANNOFOSSILCHALK
Lithology
This core contains greenish gray (5G 6/1) to light greenish gray (5G 7/1) SPICULE-BEARING SILTY CLAY interbedded with white (5Y 8/1) NANNOFOSSIL CHALK.
General Description
The top of the core is white NANNOFOSSIL CHALK followed by light greenish gray (5G 7/1) SPICULE-BEARING SILTY CLAY. The white (5Y 8/1) NANNOFOSSIL CHALK then alternates at each bioturbational contact with greenish gray (5G 6/1) SPICULE-BEARING SILTY CLAY from Section 1, 100 cm, through Section 5, 95 cm. The bottom of Section 5 is composed of light greenish gray (5G 7/1) SPICULE-BEARING SILTY CLAY. Section 6 is white NANNOFOSSIL CHALK followed by greenish gray (5G 6/1) SPICULE-BEARING SILTY CLAY. The basal bed is greenish gray (5GY 6/1) and stained with gray (N 6; manganese). This comprises a cyclic sequenceof light and dark beds, which are heavily bioturbated and include Planolites, Palaeophycus, Cylindrichnus (one case), and Zoophycos. Flaser-like laminae are present in Section 2, and represent evidence of current flow. There is pervasive biscuiting, but little rotation, of the core.

Core Photo

1124C-40X 380.8-390.4 mbsf

Leg 181 Site 1124 Hole C Core 40X

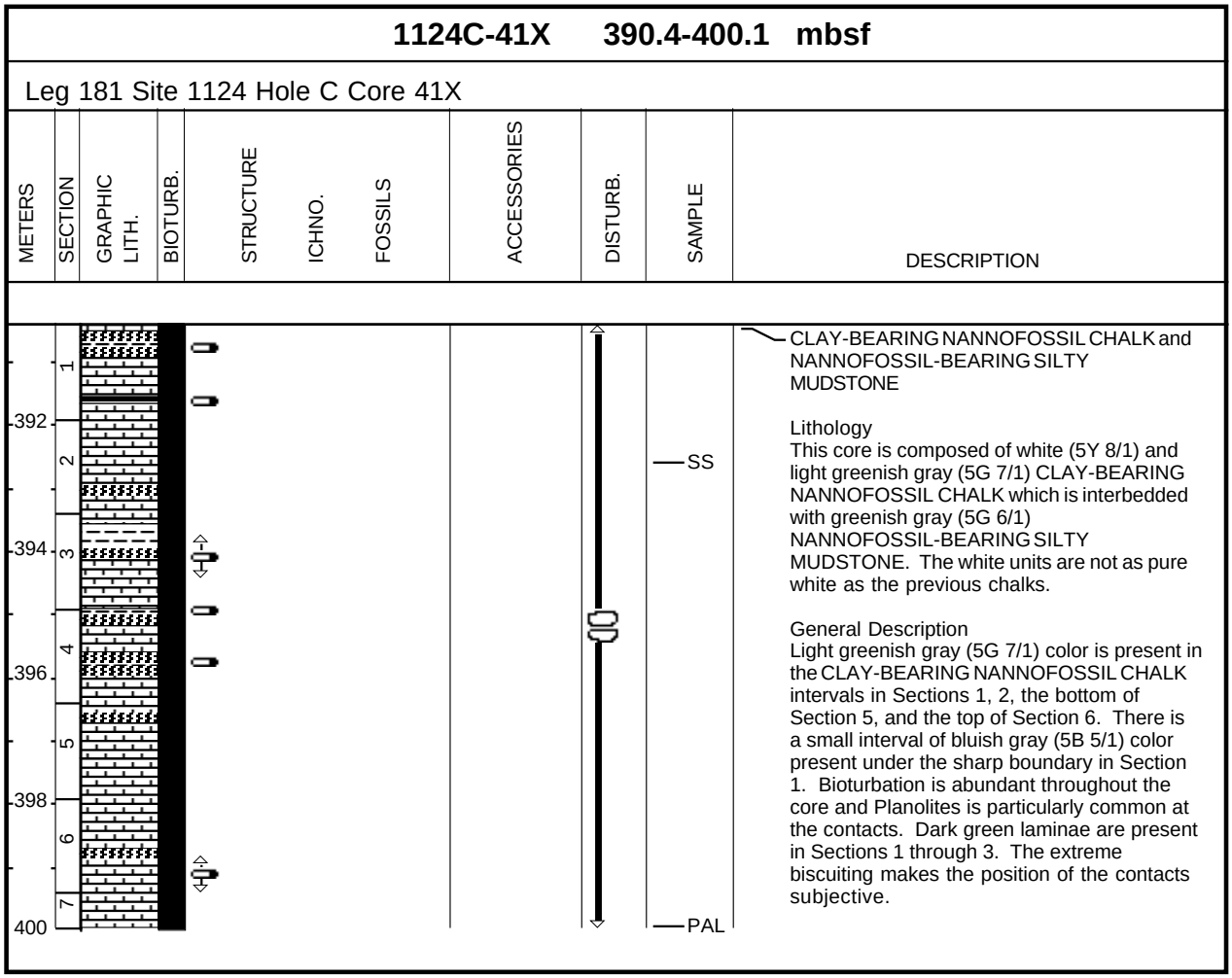


NANNOFOSSIL-BEARING SILTY MUDSTONE, NANNOFOSSIL CHALK, and CHERT

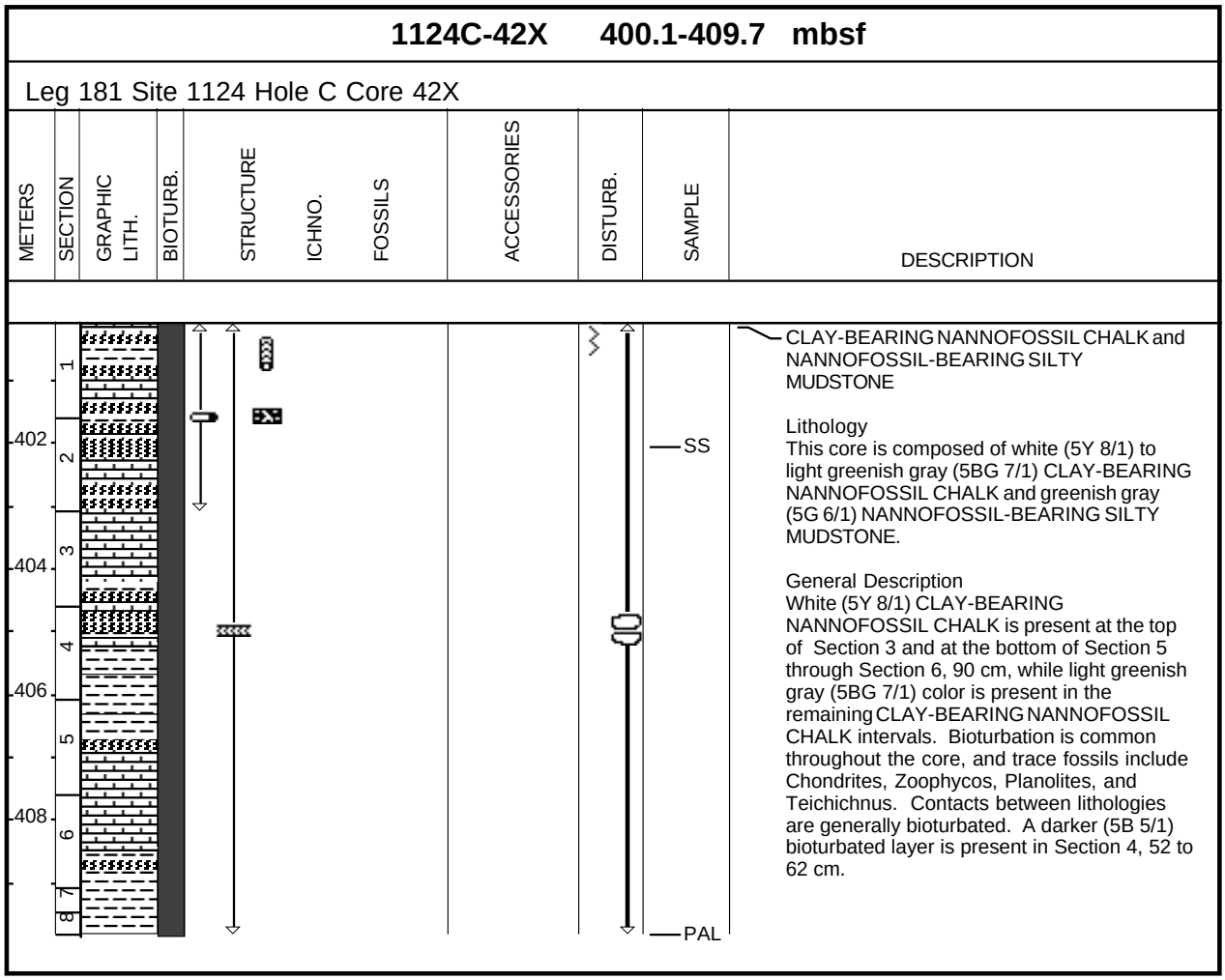
Lithology
This core is composed of greenish gray (5G 6/1) NANNOFOSSIL-BEARING SILTY MUDSTONE which grades downcore to a light greenish gray (5G 7/1) color. This is interbedded with white (5Y 8/1) NANNOFOSSILCHALK.

General Description
White (5Y 8/1) NANNOFOSSIL CHALK is present at the top of the core and alternates with NANNOFOSSIL-BEARING SILTY MUDSTONE at each bioturbational boundary. Greenish gray (5G 6/1) colored NANNOFOSSIL-BEARING SILTY MUDSTONE is present in Section 1, while the light greenish gray color is present throughout the rest of the core. The color alternations are less distinctive than in previous cores, presumably because there is less terrigenous material. Green laminae are present in Section 3, at 43, 122, and 128 cm, and in Section 4, 98 cm. There is a dark green (5G 4/2) CHERT layer present in Section 2, 86 to 94 cm. Section 4, 70 to 140 cm, is composed of reddish gray (5R 6/1) sediment, probably a light stain (instead of the expected NANNOFOSSIL CHALK). Severe biscuiting and comminuation of the matrix in Sections 5 and 6 is to the extent that the matrix is almost dominant.

Core Photo


1124C-41X 390.4-400.1 mbsf
Leg 181 Site 1124 Hole C Core 41X
METERS
SECTION
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ICHNO.
FOSSILS
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
392
394
396
398
400
1
2
3
4
5
6
7
SS
PAL
CLAY-BEARING NANNOFOSSIL CHALK and NANNOFOSSIL-BEARING SILTY MUDSTONE
Lithology
This core is composed of white (5Y 8/1) and light greenish gray (5G 7/1) CLAY-BEARING NANNOFOSSIL CHALK which is interbedded with greenish gray (5G 6/1) NANNOFOSSIL-BEARING SILTY MUDSTONE. The white units are not as pure white as the previous chalks.
General Description
Light greenish gray (5G 7/1) color is present in the CLAY-BEARING NANNOFOSSIL CHALK intervals in Sections 1, 2, the bottom of Section 5, and the top of Section 6. There is a small interval of bluish gray (5B 5/1) color present under the sharp boundary in Section 1. Bioturbation is abundant throughout the core and Planolites is particularly common at the contacts. Dark green laminae are present in Sections 1 through 3. The extreme biscuiting makes the position of the contacts subjective.

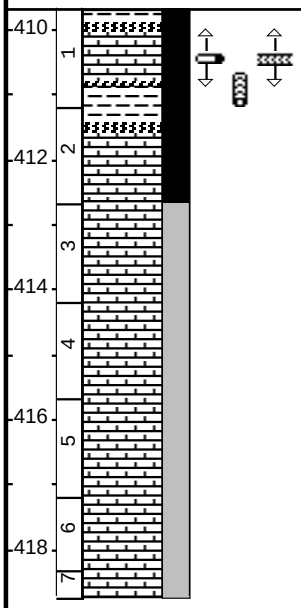
Core Photo


1124C-42X 400.1-409.7 mbsf
Leg 181 Site 1124 Hole C Core 42X
METERS
SECTION
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ICHNO.
FOSSILS
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
402
404
406
408
1
2
3
4
5
6
7
SS
PAL
CLAY-BEARING NANNOFOSSIL CHALK and NANNOFOSSIL-BEARING SILTY MUDSTONE
Lithology
This core is composed of white (5Y 8/1) to light greenish gray (5BG 7/1) CLAY-BEARING NANNOFOSSIL CHALK and greenish gray (5G 6/1) NANNOFOSSIL-BEARING SILTY MUDSTONE.
General Description
White (5Y 8/1) CLAY-BEARING NANNOFOSSIL CHALK is present at the top of Section 3 and at the bottom of Section 5 through Section 6, 90 cm, while light greenish gray (5BG 7/1) color is present in the remaining CLAY-BEARING NANNOFOSSIL CHALK intervals. Bioturbation is common throughout the core, and trace fossils include Chondrites, Zoophycos, Planolites, and Teichichnus. Contacts between lithologies are generally bioturbated. A darker (5B 5/1) bioturbated layer is present in Section 4, 52 to 62 cm.

Core Photo

1124C-43X 409.7-419.3 mbsf

Leg 181 Site 1124 Hole C Core 43X



NANNOFOSSIL CHALK, NANNOFOSSIL-BEARING SILTY MUDSTONE, and CLAY-BEARING NANNOFOSSILCHALK

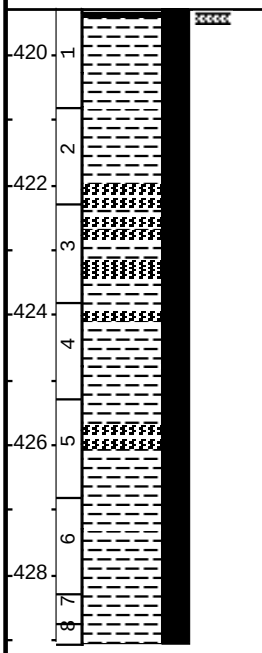
Lithology
This core contains greenish gray (5G 6/1) NANNOFOSSIL-BEARING SILTY MUDSTONE, light greenish gray (5BG 7/1) CLAY-BEARING NANNOFOSSIL CHALK, and white (5Y 8/1) NANNOFOSSIL CHALK.

General Description
The top of Sections 1 and 2 is greenish gray (5G 6/1) NANNOFOSSIL-BEARING SILTY MUDSTONE. Light greenish gray (5BG 7/1) CLAY-BEARING NANNOFOSSIL CHALK is present in Section 1, 30 to 120 cm, and is followed by a bed of greenish gray (5G 5/1) color. The top of Section 3 to the base of the core is composed of white (5Y 8/1) NANNOFOSSIL CHALK. In Sections 1 and 2, 38 cm, the alternations seen in previous cores are present here in greenish gray and light greenish gray. An uncomformity (probably Marshall Paracomformity) is present in Section 2, ~38 cm, as a bioturbated contact containing Planolites and Zoophycos. Below the Paracomformity is uniform white NANNOFOSSIL CHALK with only small signs of bioturbation.

Core Photo

1124C-44X 419.3-429.0 mbsf

Leg 181 Site 1124 Hole C Core 44X



SILTY MUDSTONE and CLAY-BEARING NANNOFOSSILCHALK

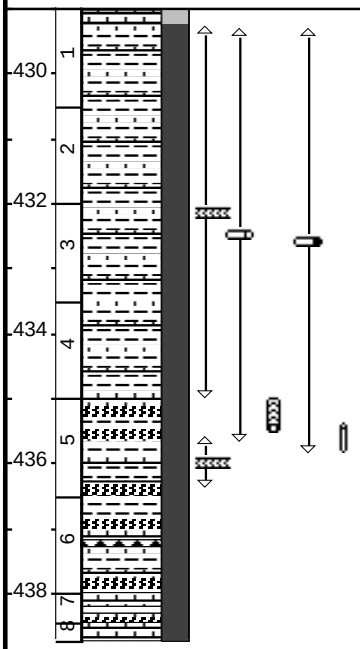
Lithology
This core contains various hues of SILTY MUDSTONE: Section 1, 6 to 100 cm, light yellowish brown (10YR 6/4), 100 to 150 cm, reddish brown (5YR 6/6); Section 2, 0 to 130 cm, reddish yellow-brown (5YR 6/5), 130 to 150 cm, pink (5YR 8/3); Section 3, 0 to 30 cm, light reddish brown (7.5YR 6/3), 30 to 50 cm, pink (5YR 8/3), 50 to 95 cm, light reddish brown (7.5YR 6/3), 95 to 110 cm, pink 5YR 8/3), 110 cm to Section 4, 25 cm, light reddish brown (7.5YR 6/3); Section 4, 25 to 100 cm, pale brown (10YR 6/3), 100 cm to Section 5, 50 cm, brown to dark brown (10YR 4/3); Section 5, 50 to 70 cm, light yellowish brown (10YR 6/4); 70 to Section 6, 45 cm, yellow brown (10YR 5/4); Section 6, 45 cm, to the end of core, very dark grayish brown (10YR 3/2) with brownish yellow (10YR 6/6) oxidation fronts.

General Description
Section 1, 0 to 5 cm, contains light greenish gray (5BG 7/1) CLAY-BEARING NANNOFOSSIL CHALK with Zoophycos from the core above. Below there is a sharp contact (representing an unconformity or drop-down), and the sediment dramatically changes to a gradational unit of SILTY MUDSTONE which is present for the remainder of the core. Bioturbation is abundant and is dominated by Planolites and Palaeophycus. Biscuiting is pervasive. The core is mottled from Sections 1 through 5. Section 7 has a faint smell of petroleum.

Core Photo

1124C-45X 429.0-438.7 mbsf

Leg 181 Site 1124 Hole C Core 45X



NANNOFOSSIL CHALK, NANNOFOSSIL-BEARING SILTY MUDSTONE, CHERT, and SILTY MUDSTONE.

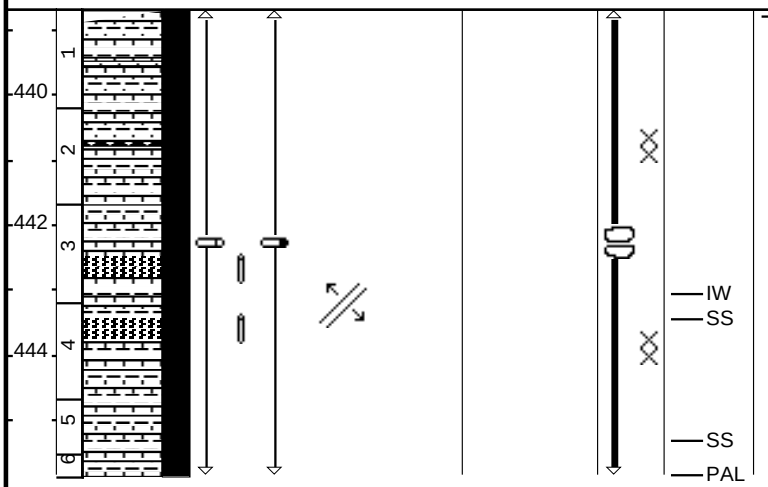
Lithology
This core contains white (5Y 8/1) NANNOFOSSIL CHALK, very pale brown (10YR 7/3) NANNOFOSSIL-BEARING SILTY MUDSTONE, and grayish brown (10YR 5/2) SILTY MUDSTONE. The NANNOFOSSIL CHALK occurs at the top of Section 1, 4 to 26 cm. SILTY MUDSTONE occurs in Section 5, 20 to 55 cm, 140 to 150 cm, and Section 6, 0 to 45 cm. Grayish brown (10YR 5/2) CHERT beds occur in Section 6, 70 to 80 cm, and Section 7, 20 to 30 cm.

General Description
A light greenish gray drop-in occurs at the top of Section 1. The NANNOFOSSIL-BEARING SILTY MUDSTONE is highly bioturbated and mottled; trace fossils include Zoophycos, Planolites, and Palaeophycus. Below Section 5, 15 cm, are alternations of NANNOFOSSIL-BEARING SILTY MUDSTONE with greenish gray SILTY MUDSTONE and CHERT. These beds are highly bioturbated with Zoophycos, Planolites, Teichichnus, and Palaeophycus. The very pale brown layer contains infrequent dark brown smears (manganese?).

Core Photo

1124C-46X 438.7-448.3 mbsf

Leg 181 Site 1124 Hole C Core 46X



FORAMINIFER-BEARING NANNOFOSSIL SILTY MUDSTONE, CHERT, and NANNOFOSSIL CHALK

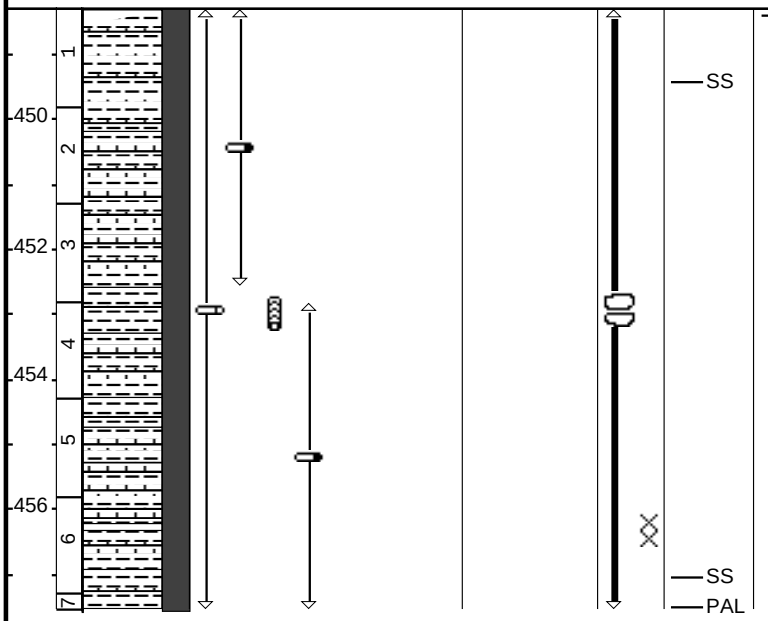
Lithology
The core contains light brownish gray (10YR 6/2) FORAMINIFER-BEARING NANNOFOSSIL SILTY MUDSTONE with interbeds of white (5Y 8/1) NANNOFOSSIL CHALK.

General Description
This core contains a fairly uniform FORAMINIFER-BEARING NANNOFOSSIL SILTY MUDSTONE interbedded with white NANNOFOSSIL CHALK in Sections 3 and 4. The core is abundantly bioturbated and mottled throughout. Identified trace fossils include Palaeophycus, Planolites, and Skolithos. Section 4 is slightly brecciated, as is the CHERT layer present in Section 2. A more intact CHERT layer is present in Section 1. A CHERT-filled fracture is present in Section 4.

Core Photo

1124C-47X 448.3-457.9 mbsf

Leg 181 Site 1124 Hole C Core 47X



NANNOFOSSIL-BEARING SILTY MUDSTONE, NANNOFOSSIL SILTY MUDSTONE, and CHERT.

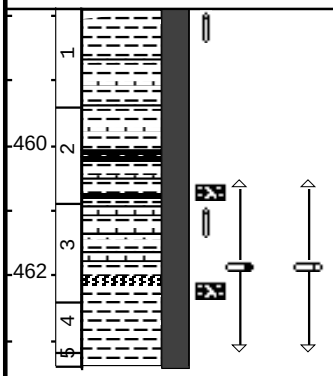
Lithology
The core contains alternations of pale brown (10YR 6/3) NANNOFOSSIL-BEARING SILTY MUDSTONE with very pale brown (10YR 7/3) NANNOFOSSIL SILTY MUDSTONE. The NANNOFOSSIL-BEARING SILTY MUDSTONE is present from the top of Section 1 to Section 2, 40 cm, Section 3, 130 cm, to Section 4, 50 cm, Section 5, 0 to 50 cm, and from Section 6, 65 cm, to the base of the core.

General Description
The contacts between the lithologies are subjective due to the gradational nature and abundant biscuiting of the sediment. Throughout the core are black (N 8) smears and blebs, which often outline Planolites, Palaeophycus, and Teichichnus. Biscuiting is extensive and the core is slightly brecciated. A layer of CHERT breccia is present in Section 6.

Core Photo

1124C-48X 457.9-467.4 mbsf

Leg 181 Site 1124 Hole C Core 48X



DESCRIPTION

NANNOFOSSIL-BEARING SILTY MUDSTONE, NANNOFOSSIL SILTY MUDSTONE, SILTY MUDSTONE, and CHERT.

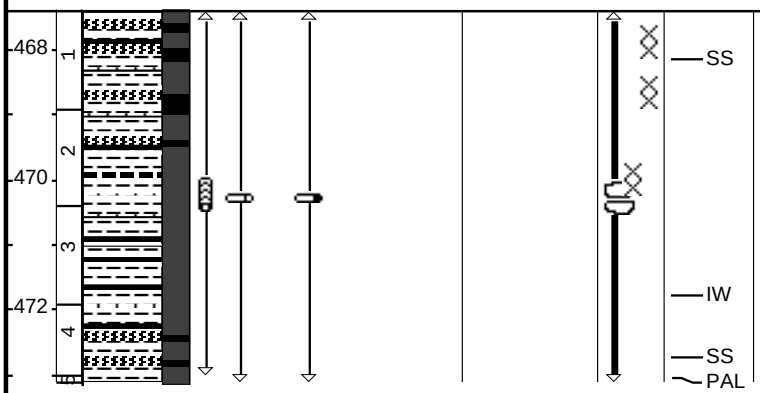
Lithology
The core contains light gray (10YR 7/2) light brownish gray (10YR 6/2) NANNOFOSSIL-BEARING SILTY MUDSTONE with laminae of pinkish white (7.5YR 8/2) NANNOFOSSIL SILTY MUDSTONE in Sections 1 and 2. Pinkish white (7.5YR 8/2) NANNOFOSSIL SILTY MUDSTONE is present at the bottom of Section 2 and comprises most of Section 3. Pink (5YR 7/4) colored SILTY MUDSTONE which grades to a light reddish brown (5YR 6/4) color and contains CHERT layers comprises the rest of the core.

General Description
The contact between light brownish gray and white lithologies is sharp; it may be a chemical front with the brown hue coming from manganese contained in the sediment. The white lamina in Section 2 is such a front. The pinkish white bed contains slightly darker interbeds which highlight ichnofossils (mainly Planolites, Palaeophycus, and Chondrites). A few burrows are red (2.5YR 4/8; incipient chertification?). The basal bed has incipient CHERT in layers and nodules.

Core Photo

1124C-49X 467.4-473.1 mbsf

Leg 181 Site 1124 Hole C Core 49X



NANNOFOSSIL-BEARING SILTY MUDSTONEandCHERT

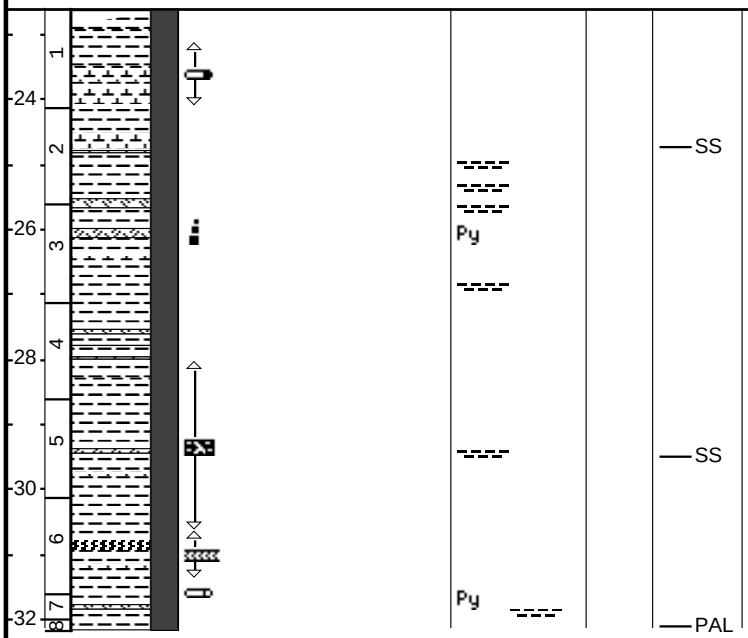
Lithology
The core is comprised of a variety of colors of NANNOFOSSIL-BEARING SILTY MUDSTONE. Section 1 changes from white (7.5YR 8/0), to very pale brown (10YR 7/3), to light gray (10YR 7/2), to yellowish brown (10YR 5/4), to light gray (10YR 7/2), and to pale brown (10YR 6/3). Section 2 changes from pale brown (10YR 6/3), to light gray (10YR 7/2), to white (10YR 8/1), to another hue of white (10YR 8/2), grades to the same hue of white (10YR 8/2) following brecciation, and finally grades to light gray (10YR 7/2). Section 3 changes from light gray (10YR 7/2), to very pale brown (10YR 7/3), to white (10YR 8/2), to pinkish white (7.5YR 8/2), to pink (7.5YR 7/3), and changes to pinkish white (7.5YR 8/2). Section 4 grades from pinkish white (7.5YR 8/2), to very pale brown (10YR 7/3), changes to white (10YR 8/2), to light gray (10YR 7/2), to white (10YR 8/2), and finally to light gray (10YR 7/2).

General Description
This core is heavily biscuited and brecciated in some locations. Bioturbation is common throughout the core, but in some areas (mostly at the contacts), the bioturbation is abundant. Trace fossils are vertically compressed, but can still be identified (Teichichnus, Planolites, and Palaeophycus). Small incipient CHERT nodules are light reddish brown (2.5YR 6/4) in color and primarily form in burrows.

Core Photo

1124D-1H 22.6-32.1 mbsf

Leg 181 Site 1124 Hole D Core 1H



DESCRIPTION

CLAY-BEARING NANNOFOSSIL OOZE, NANNOFOSSIL-BEARING SILTY CLAY, and TEPHRA

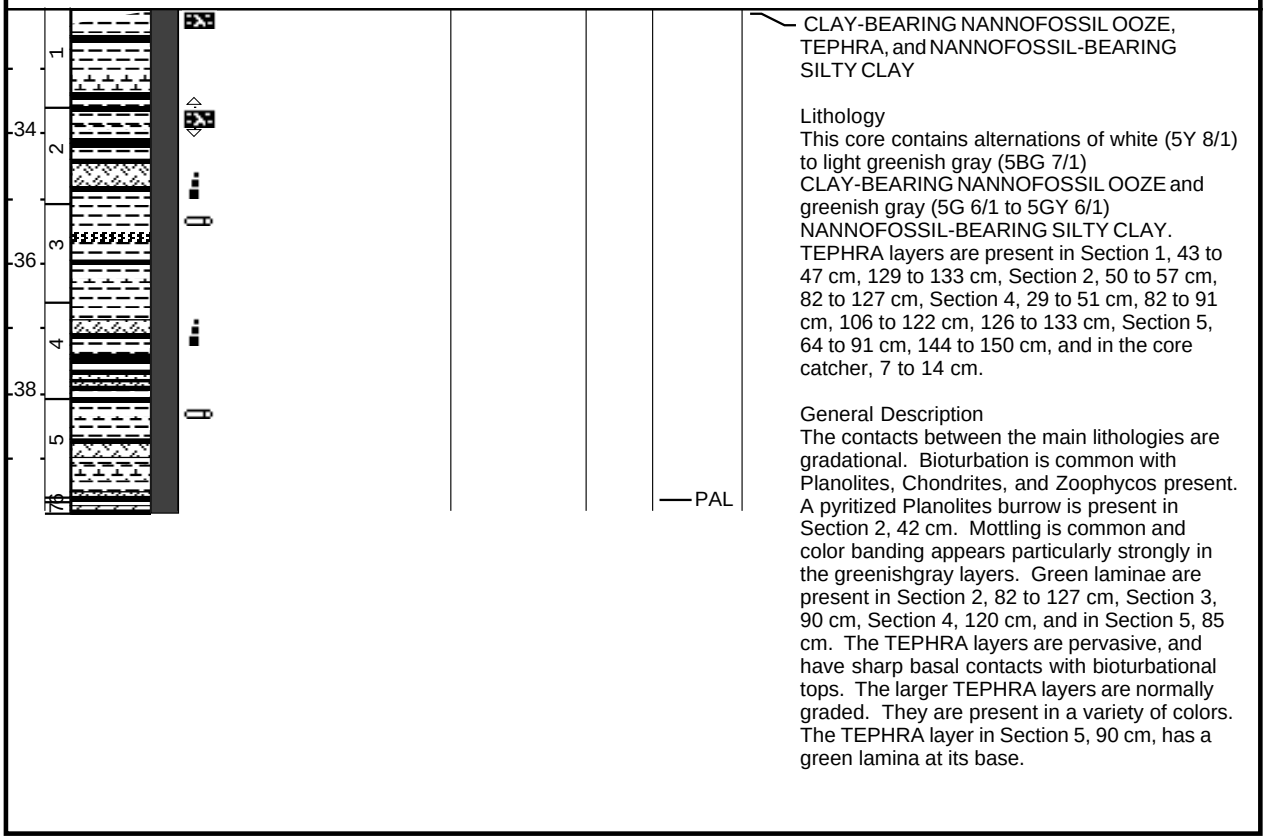
Lithology
This core contains light greenish gray (5BG 7/1) to white (5Y 8/1) CLAY-BEARING NANNOFOSSIL OOZE and greenish gray (5G 6/1 to 5GY 6/1) NANNOFOSSIL-BEARING SILTY CLAY.

General Description
These two main lithologies alternate throughout the core and their contacts are typically graded. Bioturbation is common throughout and identified ichnofaunas include Planolites, Palaeophycus, Zoophycos, and Chondrites. Mottling is present, and is particularly strong in the greenish gray layers. Green laminae are present throughout the core and color banding is particularly intense in Section 5, between 85 and 130 cm. TEPHRA layers are present throughout and typically have sharp bottom contacts, normal grading, and bioturbated tops. Occasional green laminae are present towards the TEPHRA layer bases. Occasional pyrite smears are present throughout and a pyritized Palaeophycus burrow is noted in Section 7.

Core Photo

1124D-2H 32.1-41.6 mbsf

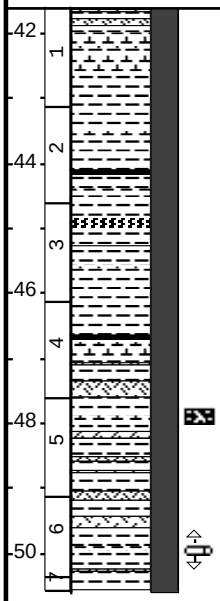
Leg 181 Site 1124 Hole D Core 2H



Core Photo

1124D-3H 41.6-51.1 mbsf

Leg 181 Site 1124 Hole D Core 3H



CLAY-BEARING NANNOFOSSIL OOZE, NANNOFOSSIL-BEARING SILTY CLAY, and TEPHRA

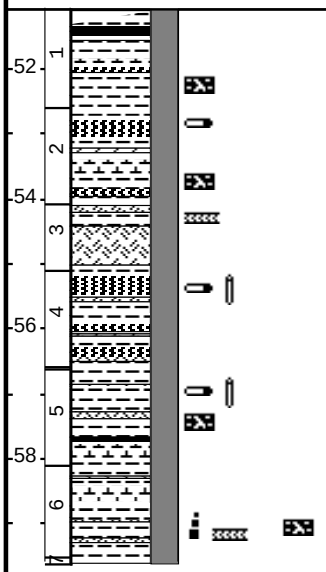
Lithology
This core contains primarily alternations of white (5Y 8/1) and light greenish gray (5BG 6/1) CLAY-BEARING NANNOFOSSIL OOZE and greenish gray (5GY 6/1) NANNOFOSSIL-BEARING SILTY CLAY. TEPHRA layers occur in Section 1, 0 to 6 cm, 17 to 30 cm, Section 4, 96 to 100 cm, 126 to 149 cm, Section 5, 54 to 64 cm, 91 to 99 cm, 113 to 115 cm, 146 cm, to Section 6, 8 cm, Section 6, 33 to 50 cm, and 113 to 119 cm.

General Description
The contacts between the dark and light lithologies are usually gradational but are occasionally sharp. Bioturbation is common throughout the core, with Planolites, Zoophycos, and Chondrites present. Mottling is abundant and color banding is present, especially within the gray layers. Green laminae are present in Section 1, 96 cm, 126 cm, Section 2, 98 cm, 144 cm, Section 3, 59 cm, 80 cm, and Section 4, 122 cm. Pyrite is common throughout and a 3 cm long pyritized Planolites burrow is present in Section 1.

Core Photo

1124D-4H 51.1-60.6 mbsf

Leg 181 Site 1124 Hole D Core 4H

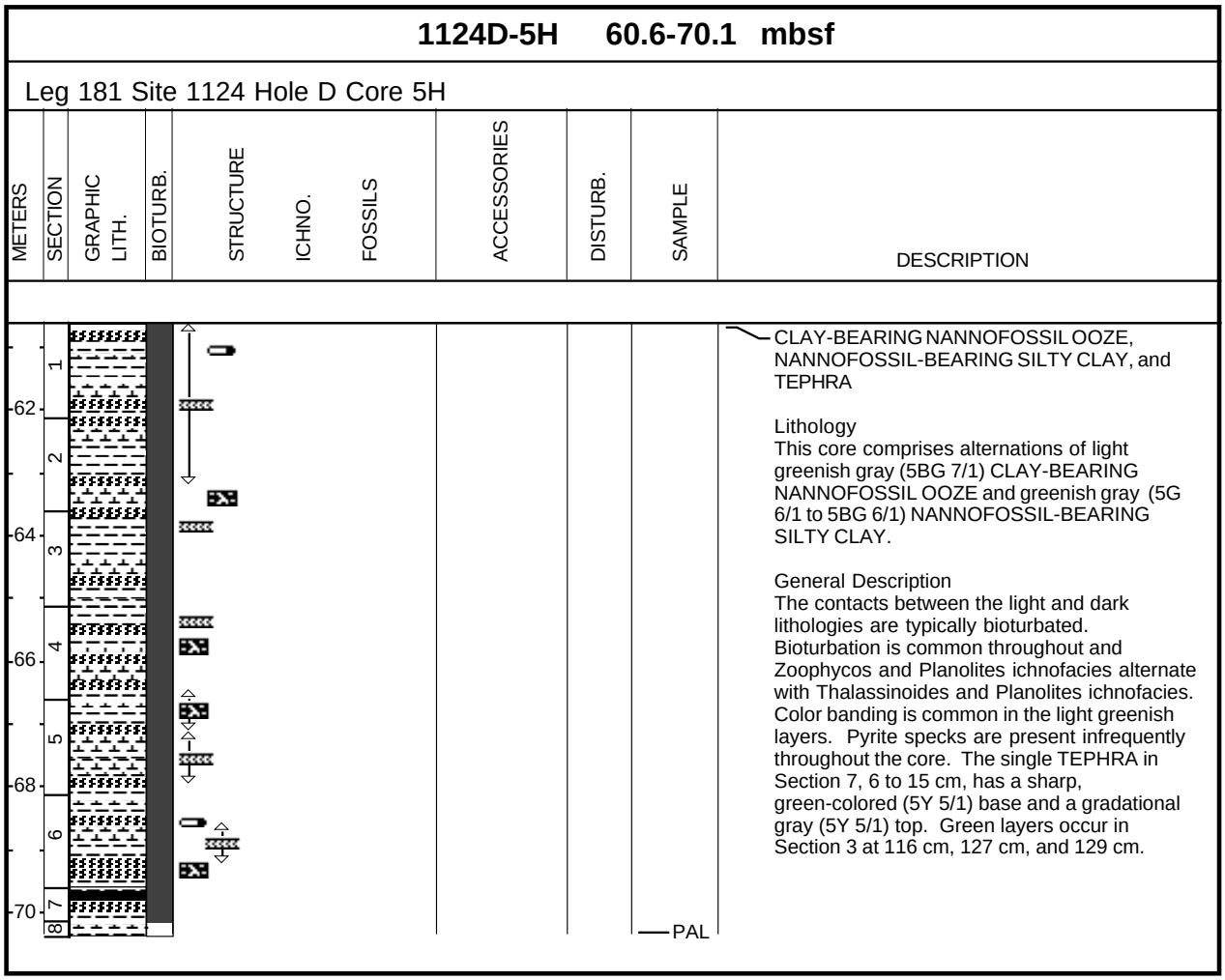


CLAY-BEARING NANNOFOSSIL OOZE, NANNOFOSSIL-BEARING SILTY CLAY, TEPHRA-BEARING NANNOFOSSIL OOZE, and TEPHRA.

Lithology
This core contains alterations of light grayish green (5BG 7/1, 5B 7/1, and 5GY7/1) CLAY-BEARING NANNOFOSSIL OOZE and greenish gray (5G 5/1, 5G 6/1, and 5GY 6/1) NANNOFOSSIL-BEARING SILTY CLAY. TEPHRA-BEARING NANNOFOSSIL OOZE is present in Sections 1, 30 to 33 cm, and in Section 4 114 to 117 cm. TEPHRA layers appear in Section 2, 65 to 73 cm, 135 to 140 cm, Section 5, 5 to 15 cm, 36 to 97 cm, Section 4, 43 to 51 cm, 93 to 96 cm, 100 to 103 cm, 127 to 143 cm, Section 5, 28 to 29 cm, 69 to 80 cm, Section 6, 18 to 20 cm, 80 to 90 cm, and 114 to 120 cm.

General Description
The alternating lithologies and colors typically have bioturbated contacts. Bioturbation is moderate with identified ichnofossils including Thalassinoides, Skolithos, Zoophycos, Planolites, and Chondrites. TEPHRA layers are sharp based, normally graded, and sometimes bioturbated. Color banding is common in the light greenish gray layers. Green layers appear in Section 5, 33 cm, and Section 6, 30 cm.

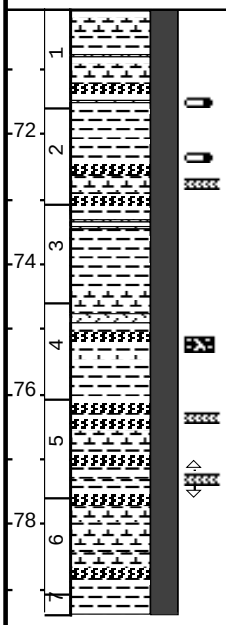
Core Photo


1124D-5H 60.6-70.1 mbsf
Leg 181 Site 1124 Hole D Core 5H
METERS
SECTION
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ICHNO.
FOSSILS
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
62
64
66
68
70
1
2
3
4
5
6
7
8
PAL
CLAY-BEARING NANNOFOSSIL OOZE, NANNOFOSSIL-BEARING SILTY CLAY, and TEPHRA
Lithology
This core comprises alternations of light greenish gray (5BG 7/1) CLAY-BEARING NANNOFOSSIL OOZE and greenish gray (5G 6/1 to 5BG 6/1) NANNOFOSSIL-BEARING SILTY CLAY.
General Description
The contacts between the light and dark lithologies are typically bioturbated. Bioturbation is common throughout and Zoophycos and Planolites ichnofacies alternate with Thalassinoides and Planolites ichnofacies. Color banding is common in the light greenish layers. Pyrite specks are present infrequently throughout the core. The single TEPHRA in Section 7, 6 to 15 cm, has a sharp, green-colored (5Y 5/1) base and a gradational gray (5Y 5/1) top. Green layers occur in Section 3 at 116 cm, 127 cm, and 129 cm.

Core Photo

1124D-6H 70.1-79.6 mbsf

Leg 181 Site 1124 Hole D Core 6H



CLAY-BEARING NANNOFOSSIL OOZE, NANNOFOSSIL-BEARING SILTY CLAY, and TEPHRA

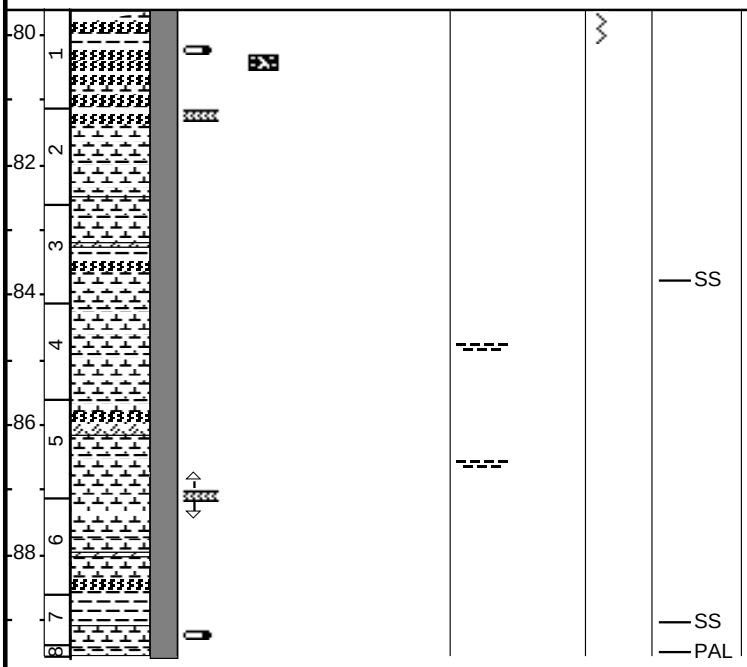
Lithology
This core contains alternating layers of light greenish gray (5BG 7/1) to light bluish gray (5B 7/1) CLAY-BEARING NANNOFOSSIL OOZE with greenish gray (5BG 6/1 to 5G 6/1) NANNOFOSSIL-BEARING SILTY CLAY. TEPHRA layers are present in Section 1, 71 to 74 cm, 140 to 145 cm, Section 3, 26 to 30 cm, 35 to 40 cm, 70 to 73 cm, and Section 4, 21 to 33 cm.

General Description
The contacts between the two lithologies are either graded or bioturbated. Bioturbation is common and identified traces fossils include Zoophycos, Planolites, and Thalassinoides. Greenish gray layers are mottled, while the lighter colored layers are color banded. TEPHRA layers have sharp bases and are normally graded. TEPHRA-filled Planolites are present in Section 3, ~120 cm. Pyrite smears are present in Sections 2 and 6. Green laminae are present in Section 2, at 75 cm, 130 cm, and Section 6, 110 cm.

Core Photo

1124D-7H 79.6-89.1 mbsf

Leg 181 Site 1124 Hole D Core 7H



SILTY CLAY, CLAY-BEARING NANNOFOSSIL OOZE, and TEPHRA

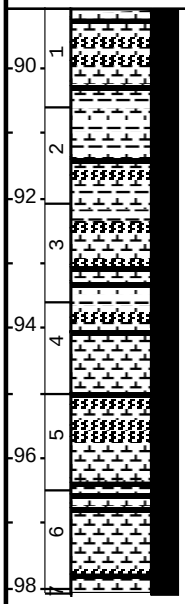
Lithology
This core contains alternating layers of light greenish gray (5G 7/1 to 5BG 7/1), light bluish gray (5B 7/1), and pale green (5G 7/2) CLAY-BEARING NANNOFOSSIL OOZE with greenish gray (5G 6/1 to 5BG 6/1) SILTY CLAY. TEPHRA layers are present in Section 2, 138 to 139 cm, Section 3, 61 to 66 cm, Section 5, 27 to 57 cm, Section 6, 88 to 95 cm, and Section 7, 48 to 50 cm.

General Description
The alternating layers of SILTY CLAY and CLAY-BEARING NANNOFOSSIL OOZE typically have bioturbated contacts. Bioturbation is moderate throughout the core and identified trace fossils include Zoophycos, Chondrites, and Planolites. TEPHRA layers are bioturbated. Green laminae are present in Section 4, 65 cm and in Section 5, 94 cm . The color of the CLAY-BEARING NANNOFOSSIL OOZE becomes "greener" in Section 5, at 110 cm.

Core Photo

1124D-8H 89.1-98.6 mbsf

Leg 181 Site 1124 Hole D Core 8H

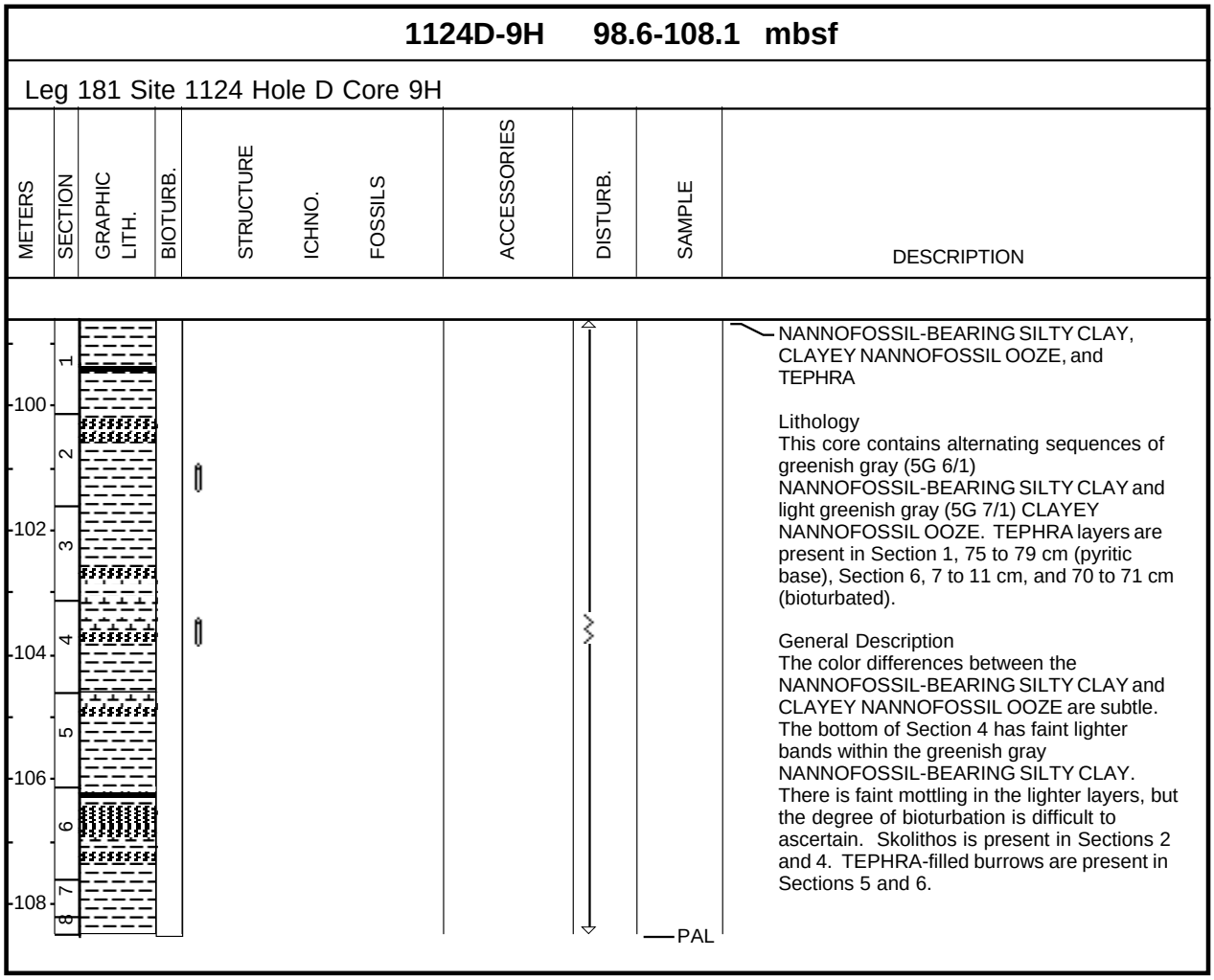


NANNOFOSSIL SILTY CLAY, SILTY CLAY-BEARING NANNOFOSSIL OOZE, and TEPHRA

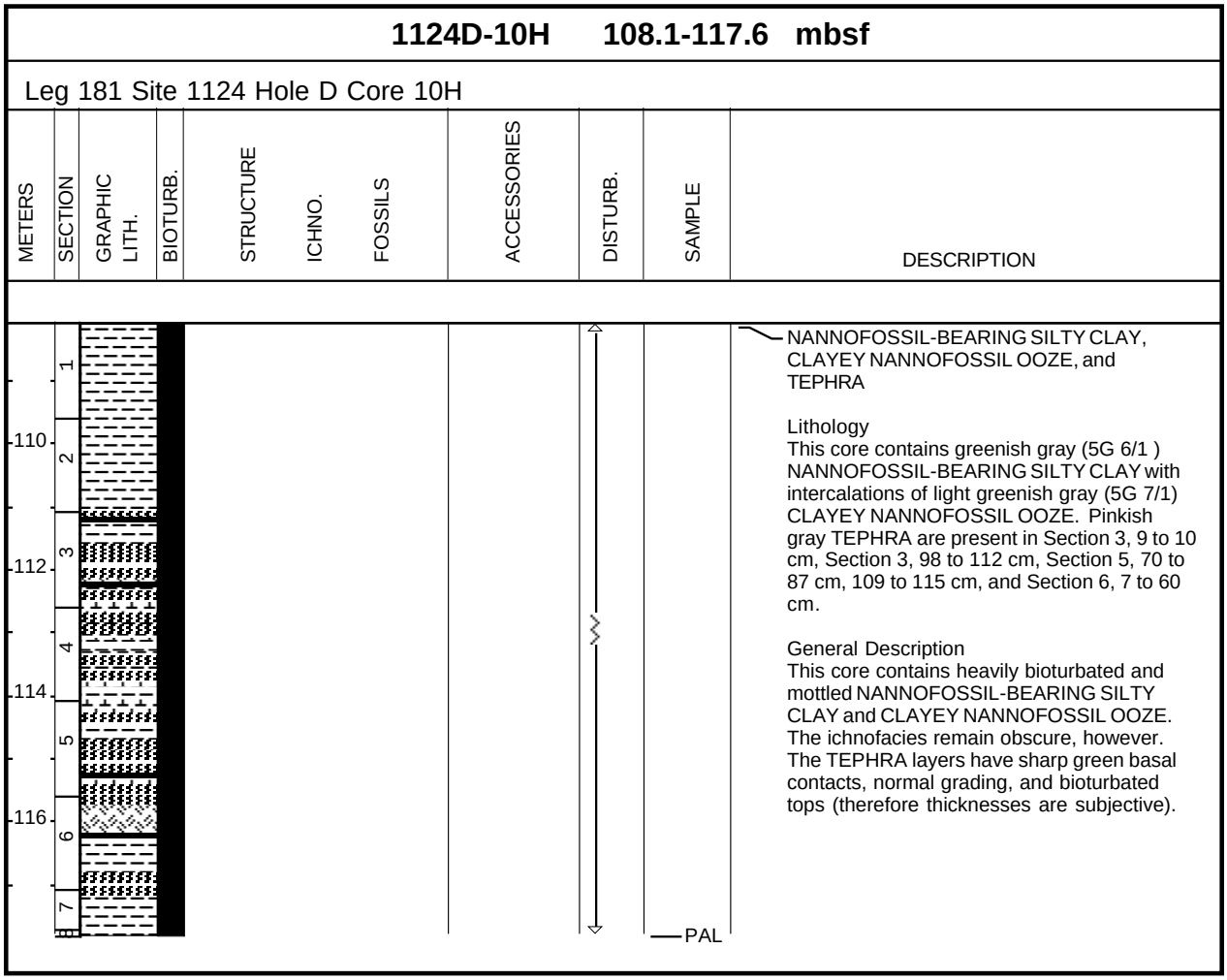
Lithology
This core is composed of greenish gray (5G 6/1) NANNOFOSSIL SILTY CLAY with interbeds of light greenish gray (5G 7/1) SILTY CLAY-BEARING NANNOFOSSIL OOZE. TEPHRA layers are present in Section 1, 14 to 19 cm, 114 to 120 cm, Section 2, 79 to 82 cm, Section 3, 96 to 99 cm, 120 to 125 cm, Section 4, 46 to 46.5 cm, Section 5, 1 to 3 cm, 133 to 139 cm, Section 6 1 to 8 cm, 22 to 28 cm, and 130 to 131 cm.

General Description
This core is contains alternating beds of NANNOFOSSIL SILTY CLAY and SILTY CLAY-BEARING NANNOFOSSIL OOZE which usually have bioturbated contacts. The sediment is highly bioturbated but the ichnofaunal elements are not easily discerned. The TEPHRA are sharp-based and often normally graded. A TEPHRA-filled burrow is present in Section 5, around 60 cm.

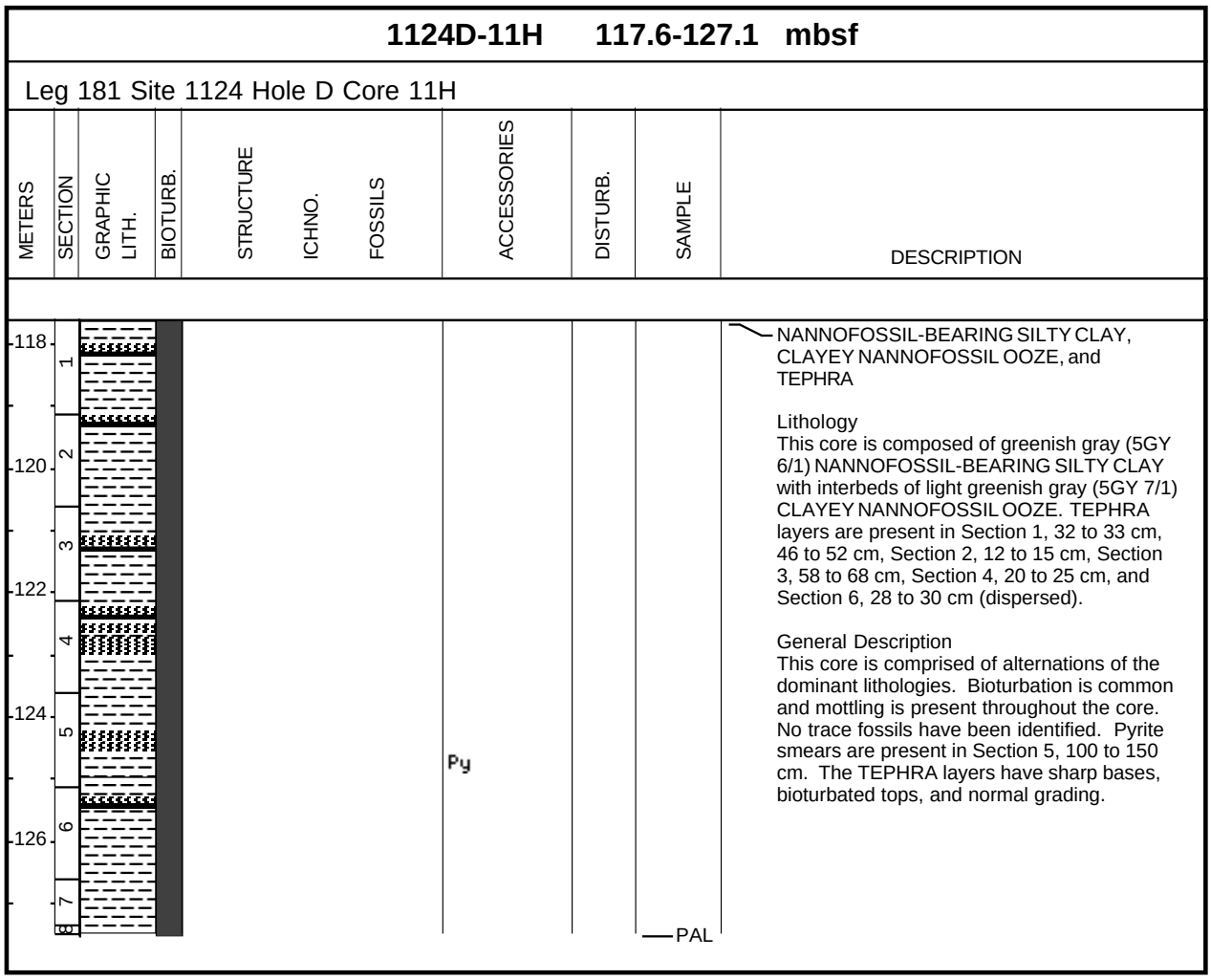
Core Photo


1124D-9H 98.6-108.1 mbsf
Leg 181 Site 1124 Hole D Core 9H
METERS
SECTION
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ICHNO.
FOSSILS
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
100
102
104
106
108
1
2
3
4
5
6
7
8
PAL
NANNOFOSSIL-BEARING SILTY CLAY, CLAYEY NANNOFOSSIL OOZE, and TEPHRA
Lithology
This core contains alternating sequences of greenish gray (5G 6/1) NANNOFOSSIL-BEARING SILTY CLAY and light greenish gray (5G 7/1) CLAYEY NANNOFOSSIL OOZE. TEPHRA layers are present in Section 1, 75 to 79 cm (pyritic base), Section 6, 7 to 11 cm, and 70 to 71 cm (bioturbated).
General Description
The color differences between the NANNOFOSSIL-BEARING SILTY CLAY and CLAYEY NANNOFOSSIL OOZE are subtle. The bottom of Section 4 has faint lighter bands within the greenish gray NANNOFOSSIL-BEARING SILTY CLAY. There is faint mottling in the lighter layers, but the degree of bioturbation is difficult to ascertain. Skolithos is present in Sections 2 and 4. TEPHRA-filled burrows are present in Sections 5 and 6.

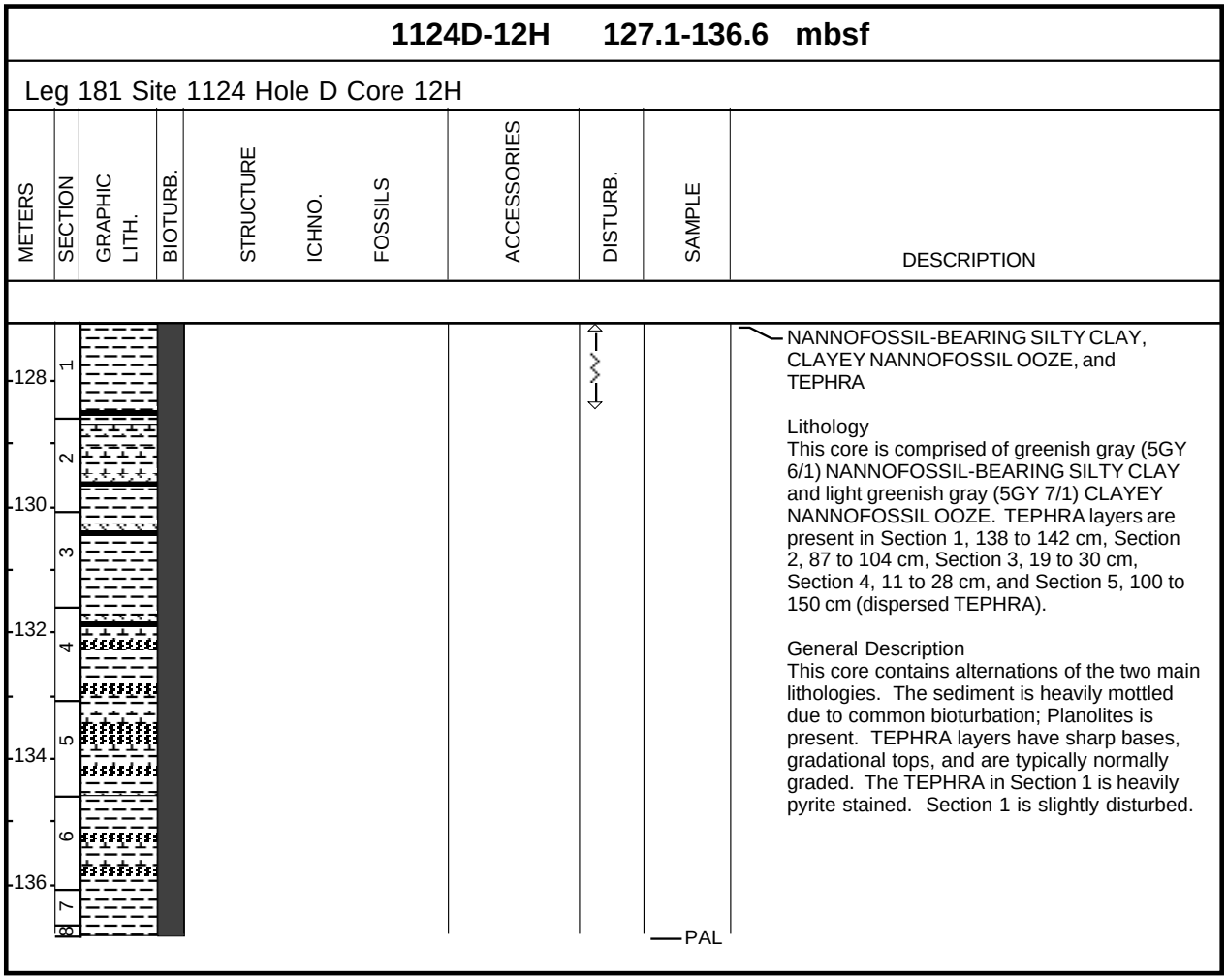
Core Photo


1124D-10H 108.1-117.6 mbsf
Leg 181 Site 1124 Hole D Core 10H
METERS
SECTION
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ICHNO.
FOSSILS
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
110
112
114
116
1
2
3
4
5
6
7
PAL
NANNOFOSSIL-BEARING SILTY CLAY, CLAYEY NANNOFOSSIL OOZE, and TEPHRA
Lithology
This core contains greenish gray (5G 6/1) NANNOFOSSIL-BEARING SILTY CLAY with intercalations of light greenish gray (5G 7/1) CLAYEY NANNOFOSSIL OOZE. Pinkish gray TEPHRA are present in Section 3, 9 to 10 cm, Section 3, 98 to 112 cm, Section 5, 70 to 87 cm, 109 to 115 cm, and Section 6, 7 to 60 cm.
General Description
This core contains heavily bioturbated and mottled NANNOFOSSIL-BEARING SILTY CLAY and CLAYEY NANNOFOSSIL OOZE. The ichnofacies remain obscure, however. The TEPHRA layers have sharp green basal contacts, normal grading, and bioturbated tops (therefore thicknesses are subjective).

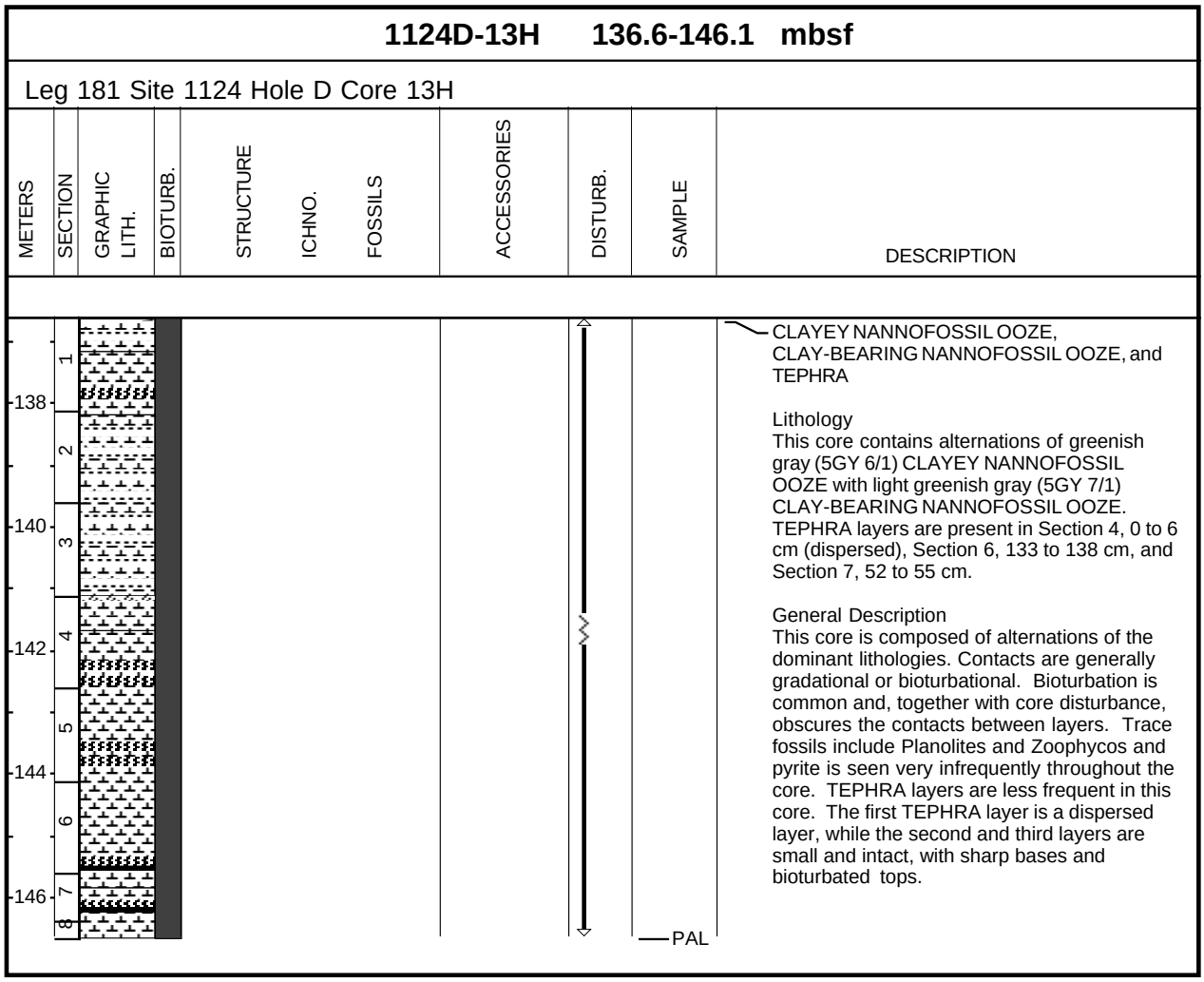
Core Photo


1124D-11H 117.6-127.1 mbsf
Leg 181 Site 1124 Hole D Core 11H
METERS
SECTION
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ICHNO.
FOSSILS
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
118
120
122
124
126
1
2
3
4
5
6
7
CC
Py
PAL
NANNOFOSSIL-BEARING SILTY CLAY, CLAYEY NANNOFOSSIL OOZE, and TEPHRA
Lithology
This core is composed of greenish gray (5GY 6/1) NANNOFOSSIL-BEARING SILTY CLAY with interbeds of light greenish gray (5GY 7/1) CLAYEY NANNOFOSSIL OOZE. TEPHRA layers are present in Section 1, 32 to 33 cm, 46 to 52 cm, Section 2, 12 to 15 cm, Section 3, 58 to 68 cm, Section 4, 20 to 25 cm, and Section 6, 28 to 30 cm (dispersed).
General Description
This core is comprised of alternations of the dominant lithologies. Bioturbation is common and mottling is present throughout the core. No trace fossils have been identified. Pyrite smears are present in Section 5, 100 to 150 cm. The TEPHRA layers have sharp bases, bioturbated tops, and normal grading.

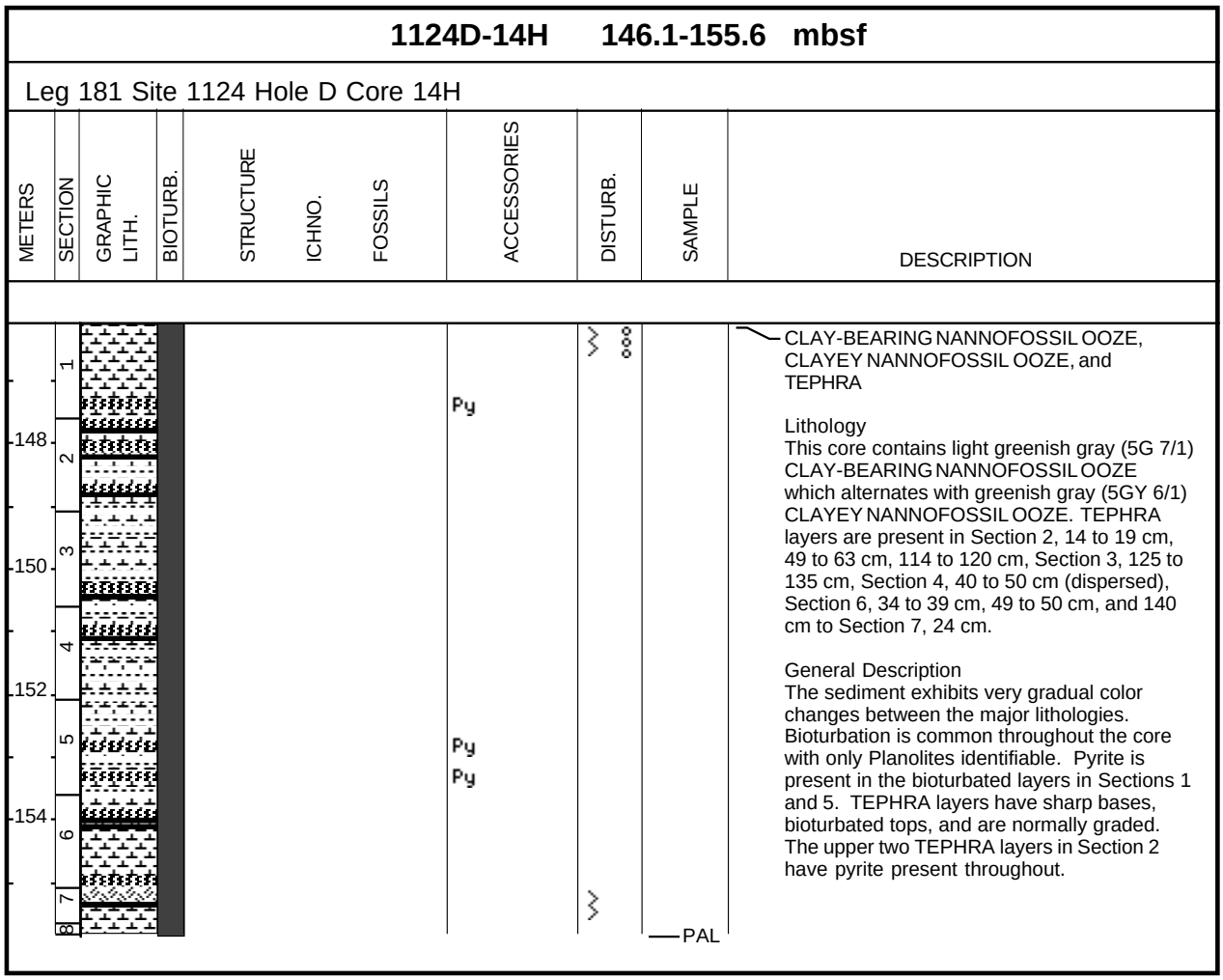
Core Photo


1124D-12H 127.1-136.6 mbsf
Leg 181 Site 1124 Hole D Core 12H
METERS
SECTION
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ICHNO.
FOSSILS
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
128
130
132
134
136
1
2
3
4
5
6
7
8
PAL
NANNOFOSSIL-BEARING SILTY CLAY, CLAYEY NANNOFOSSIL OOZE, and TEPHRA
Lithology
This core is comprised of greenish gray (5GY 6/1) NANNOFOSSIL-BEARING SILTY CLAY and light greenish gray (5GY 7/1) CLAYEY NANNOFOSSIL OOZE. TEPHRA layers are present in Section 1, 138 to 142 cm, Section 2, 87 to 104 cm, Section 3, 19 to 30 cm, Section 4, 11 to 28 cm, and Section 5, 100 to 150 cm (dispersed TEPHRA).
General Description
This core contains alternations of the two main lithologies. The sediment is heavily mottled due to common bioturbation; Planolites is present. TEPHRA layers have sharp bases, gradational tops, and are typically normally graded. The TEPHRA in Section 1 is heavily pyrite stained. Section 1 is slightly disturbed.

Core Photo


1124D-13H 136.6-146.1 mbsf
Leg 181 Site 1124 Hole D Core 13H
METERS
SECTION
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ICHNO.
FOSSILS
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
138
140
142
144
146
1
2
3
4
5
6
7
8
PAL
CLAYEY NANNOFOSSIL OOZE, CLAY-BEARING NANNOFOSSIL OOZE, and TEPHRA
Lithology
This core contains alternations of greenish gray (5GY 6/1) CLAYEY NANNOFOSSIL OOZE with light greenish gray (5GY 7/1) CLAY-BEARING NANNOFOSSIL OOZE. TEPHRA layers are present in Section 4, 0 to 6 cm (dispersed), Section 6, 133 to 138 cm, and Section 7, 52 to 55 cm.
General Description
This core is composed of alternations of the dominant lithologies. Contacts are generally gradational or bioturbational. Bioturbation is common and, together with core disturbance, obscures the contacts between layers. Trace fossils include Planolites and Zoophycos and pyrite is seen very infrequently throughout the core. TEPHRA layers are less frequent in this core. The first TEPHRA layer is a dispersed layer, while the second and third layers are small and intact, with sharp bases and bioturbated tops.

Core Photo


1124D-14H 146.1-155.6 mbsf
Leg 181 Site 1124 Hole D Core 14H
METERS
SECTION
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ICHNO.
FOSSILS
ACCESSORIES
DISTURB.
SAMPLE
DESCRIPTION
148
150
152
154
1
2
3
4
5
6
7
8
Py
Py
Py
PAL
CLAY-BEARING NANNOFOSSIL OOZE, CLAYEY NANNOFOSSIL OOZE, and TEPHRA
Lithology
This core contains light greenish gray (5G 7/1) CLAY-BEARING NANNOFOSSIL OOZE which alternates with greenish gray (5GY 6/1) CLAYEY NANNOFOSSIL OOZE. TEPHRA layers are present in Section 2, 14 to 19 cm, 49 to 63 cm, 114 to 120 cm, Section 3, 125 to 135 cm, Section 4, 40 to 50 cm (dispersed), Section 6, 34 to 39 cm, 49 to 50 cm, and 140 cm to Section 7, 24 cm.
General Description
The sediment exhibits very gradual color changes between the major lithologies. Bioturbation is common throughout the core with only Planolites identifiable. Pyrite is present in the bioturbated layers in Sections 1 and 5. TEPHRA layers have sharp bases, bioturbated tops, and are normally graded. The upper two TEPHRA layers in Section 2 have pyrite present throughout.

Site 1124 Smear Slides									Texture			Mineral												Biogenic							
Leg	Site	Hole	Core	Type	Section	Interval (cm)	Depth (mbsf)	Lithology	Sand	Silt	Clay	Calcite (30)	Carbonate (35)	Clay (47)	Feldspar (71)	Glauconite (82)	Heavy Minerals (89)	Mica (118)	Opaques (140)	Oxides (146)	Pyrite (169)	Quartz (172)	Volcanic Glass (81)	Zeolite (222)	Diatoms (58)	Foraminifers (78)	Nannofossils (132)	Radiolarians (173)	Silicoflagellates (189)	Skeletal Debris (192)	Sponge Spicules (199)	Comments
181	1124	A	1	H	1	78	0.78	M	80	20					P	R	P	*			P	P	D									
181	1124	A	1	H	1	86	0.86	M	80	20					P							P	D									
181	1124	A	1	H	2	52	2.02	D	5	35	60		P	C	P		*						*		P	R	C	*			P	
181	1124	A	1	H	2	145	2.95	M	10	30	60		P	A	R										R	R	C	*		P	P	
181	1124	A	1	H	3	34	3.34	D	5	35	60		P	C	R			*	R				*		P	P	C	R		P	P	
181	1124	B	1	H	1	26	0.26	D	10	30	60			C	R							R	P		P	P	C		R	P	P	
181	1124	B	1	H	1	104	1.04	M	5	25	70		P	A	R	R	R				P	R	*			P	C			P		
181	1124	B	1	H	2	40	1.9	M	70	25	5				P		P	P			C	P	D									ASH (V+S)
181	1124	B	1	H	2	48	1.98	M	10	70	20				P			P			P	P	D									ASH (V+S)
181	1124	B	2	H	1	50	5.9	D	10	20	70		P	P							P				P	C	D	P	P			
181	1124	B	2	H	2	83	7.73	M	5	35	60		P	C	P							P	P		P		D	P	P		C	GREEN LAYER
181	1124	B	2	H	3	113	9.53	M	10	20	70		P	P	P			P				P	C		P		D	P	P		P	ABUNDANT GLASS SHARDS
181	1124	C	1	X	1	14	8.14	D	5	15	80			A	P	P					P	P	P			R	P	*			P	
181	1124	C	1	X	1	42	8.42	D	10	20	70		P	C	R							R	C		P	P	A			P	P	
181	1124	C	2	X	1	54	18.14	D	15	80	5														R	P	D					
181	1124	C	2	X	4	70	21.8	D	10	40	50		P	C	P	R		*				P	C			R	C	R				R	
181	1124	C	3	H	1	96	28.16	D	3	27	70			A	P		*	*				P	P		P		R	*				P	GLACIAL LAYER
181	1124	C	3	H	2	85	29.55	D	5	30	65		P	P	*			*				*	*		P	P	D	P				R	INTERGLACIAL LAYER
181	1124	C	4	H	2	20	38.4	M	80	10	10				P		P	P			C	P	D										COARSE ASH LAYER (V+S)
181	1124	C	4	H	2	97	39.17	D	0	10	90			P				P					P		P	P	D	P				P	WHITE LAYER
181	1124	C	4	H	4	82	42.02	M	80	15	5				C		P				C	C	D				P						COARSE ASH (V+S)
181	1124	C	5	H	1	93	47.13	M	30	60	10				P			P			P	P	D				P						ASH
181	1124	C	5	H	5	62	52.82	D	10	40	50			C	C			*				C	P		P	P	A	P				P	GLACIAL
181	1124	C	5	H	5	95	53.15	D	5	15	80		C	P									*				D					P	INTERGLACIAL
181	1124	C	6	H	1	25	55.95	M	40	40	20				C		C	C			C	C	D				P						BASE OF ASH LAYER (V+S)
181	1124	C	6	H	1	35	56.05	M	30	50	20				C		P	P			C	C	D				P						BASE OF ASH LAYER (V+S)
181	1124	C	6	H	3	35	59.05	D	5	20	75		P	P	P			P				P			P		D	P	P			P	GREEN/WHITE LAYER
181	1124	C	6	H	4	54	60.74	M	30	40	30				P		*	P			P	P	D				P						BASE OF ASH LAYER (S+V)
181	1124	C	7	H	3	120	69.4	M	60	30	10				P		P	P			P	P	D				P						BASE OF ASH LAYER (GREEN) (S+V)
181	1124	C	7	H	4	62	70.32	M	10	80	10			P	C		P	C			*	C	D				P						WHITE ASH (S+V)
181	1124	C	8	H	1	107	75.77	M	40	50	10				C		P	P			C	C	D				*						ASH (V+S)
181	1124	C	8	H	7	129	84.09	M	20	70	10				P		*	P			P	P	D				P						PINKY ASH (V+S)
181	1124	C	9	H	2	15	85.85	M	0	10	90		P	C	C			*				C	C				C					P	HARD DARK GREEN LAYER
181	1124	C	9	H	3	17	87.37	M	70	20	10				C		P	P			C	C	D				C						ASH (V+S)
181	1124	C	9	H	4	84	89.54	D	5	10	85		C	C	P			P				P	P					D					P	GREEN LAYER
181	1124	C	10	H	3	110	97.8	D	10	20	70		P	P	P							P	C			*	D	R					LIGHT LAYER
181	1124	C	10	H	4	50	98.7	D	2	18	80			C	P			*				P	P				P					P	GREEN LAYER
181	1124	C	11	H	2	133	106.03	M	60	30					P		*					P	D										ASH
181	1124	C	11	H	5	58	109.78	D	2	28	70			A	C							C	P									P	
181	1124	C	11	H	7	32	112.52	M	70	30					P	P	P				P	P	D										ASH/ OPAQUE BIG GRAINS
181	1124	C	12	H	2	114	115.34	M	80	20													D										ASH/ DARK GRAINS
181	1124	C	13	H	4	134	128.04	D	5	35	60			A	P			*			P	P	P					*				P	GREEN LAYER
181	1124	C	13	H	5	43	128.63	D	5	35	60			C	R		*					R	P				C					P	LIGHT BED
181	1124	C	13	H	5	70	128.9	M	50	50					P		*				P	P	D										ASH DARK/ BROWNISH GRAINS
181	1124	C	15	H	1	84	142.04	D	2	40	58			C	R							R	P		*		R	R				P	
181	1124	C	15	H	3	83	145.03	D	2	40	58			C	R							R	P		*		P	R	*	P	P		

Site 1124 Smear Slides									Texture			Mineral													Biogenic							
Leg	Site	Hole	Core	Type	Section	Interval (cm)	Depth (mbsf)	Lithology	Sand	Silt	Clay	Calcite (30)	Carbonate (35)	Clay (47)	Feldspar (71)	Glauconite (82)	Heavy Minerals (89)	Mica (118)	Opaques (140)	Oxides (146)	Pyrite (169)	Quartz (172)	Volcanic Glass (81)	Zeolite (222)	Diatoms (58)	Foraminifers (78)	Nannofossils (132)	Radiolarians (173)	Silicoflagellates (189)	Skeletal Debris (192)	Sponge Spicules (199)	Comments
181	1124	C	16	H	1	12	150.82	D	2	40	58			C	R			*				R	P				R				P	
181	1124	C	17	X	3	70	162.9	D	2	40	58			C	P							P					R			P	P	
181	1124	C	17	X	3	105	163.25	M	20	30	50			C	P	P	R						R		P		R	P			P	
181	1124	C	19	X	2	46	180.36	D	5	10	85		C	C	P			P					*				D					NANNOFOSSIL OOZE+CARBONATE CEMENT
181	1124	C	20	X	1	2	188.02	M	5	10	85			D	P			P				P	P									SMECTITE ? (ALTERATION OF ASHES)
181	1124	C	20	X	5	142	195.42	M	5	10	85			D	P			P				P	P									SMECTITE ? (ALTERATION OF ASHES)
181	1124	C	21	X	5	16	203.86	D		10	90		P	P				P				P	*				D					
181	1124	C	21	X	7	42	207.12	M	10	20	70			D	C		P	C				C	P									ALTERED VOLCANIC ASHES (SMECT.)
181	1124	C	22	X	1	91	208.21	D		10	90			A	P			P				P	*				A				P	NANNO BEARING CLAY
181	1124	C	23	X	3	70	220.6	D	5	20	75		P	A	P		P	P			P	P	*				A					GREEN NANNOFOSSIL BEARING SILTY CLAY
181	1124	C	24	X	4	95	231.95	D		10	90		P	D	P							P					C					BROWN
181	1124	C	25	X	5	6	242.26	D		5	95			D	P		P	P				P					*					MUDSTONE
181	1124	C	26	X	2	95	248.25	D	2	28	70		P	P	R						P	R					D			P		LIGHTER LAYER
181	1124	C	26	X	2	123	248.53	D	2	18	80			D	P		P					P					R					DARK GREEN
181	1124	C	27	X	1	46	255.86	M	5	25	70			D	C		*	P				C					R					DARK GREEN
181	1124	C	27	X	2	124	258.14	D		20	80			C	C		R					C	*				R					DARK GREEN
181	1124	C	27	X	3	12	258.52	D		20	80			P	P			P									P					LIGHT LAYER
181	1124	C	27	X	3	124	259.64	M	5	30	65			C	P		R	P				P					C					VIVIANITE?
181	1124	C	28	X	1	110	266.2	D		20	80			D	C		P	R				C	*				*					GREEN LAYER
181	1124	C	29	X	1	50	275.2	D		20	80			P	P		*										A					WHITE LAYER
181	1124	C	29	X	1	100	275.7	D		30	70			C	P		*										C					DARK LAYER
181	1124	C	32	X	3	30	306.9	M	10	20	70			C	P			R				P			*		R	*			C	
181	1124	C	32	X	4	70	308.8	D	2	40	58			P	R							R	R		*		D				P	
181	1124	C	34	X	1	74	323.64	D	5	15	80				R							R			P		A	R			C	GREY BAND
181	1124	C	34	X	1	130	324.2	D	10	20	70						R	R			R		R				A	R			P	GREEN LAMINA
181	1124	C	36	X	1	46	342.66	D		10	90		P	P											P		D	R			P	WHITE
181	1124	C	36	X	1	50	342.7	M	5	20	75		P	P				P					*		P		D				C	BLACK GREEN
181	1124	C	36	X	1	76	342.96	D	5	25	70		P	A	A		P					A			C		C	C			C	DARK GREEN (COLD WATER ?)
181	1124	C	37	X	2	70	354.1	M	10	20	70		P	A	A			P					*		P		C	C			C	GREEN LAMINA
181	1124	C	39	X	4	49	376.19	D		30	70		P	A	A			P				A	*		P		C	C			C	GREEN
181	1124	C	40	X	2	14	382.44	D		20	80		C	C	P							P					A	P			P	CLAYEY NANNOFOSSIL CHALK
181	1124	C	41	X	2	65	392.55	D		10	90		C	A	P			P				P	*				A	C			P	
181	1124	C	42	X	2	43	402.03	D		10	90		P	A	C			P				C	*				C	P			P	DARK GREEN
181	1124	C	43	X	6	43	417.63	D		5	95			A	A			P									D				P	(JUST BELOW PARACONFORMITY)
181	1124	C	44	X	1	4	419.34	D		5	95		C	C													D					LIGHT WHITE
181	1124	C	44	X	1	6	419.36	D		30	70		A	A	C							C					C					BROWN
181	1124	C	44	X	2	44	421.24	D		30	70			A	A					A		A		A			P					BROWNISH
181	1124	C	44	X	6	137	428.17	D	5	25	70			D	P			*		D	A	P		A			*					BLACK
181	1124	C	44	X	CC	6	428.81	D	5	40	55			D	P			*		D				A								
181	1124	C	45	X	1	20	429.2	D		40	60		A	P										A			D					WHITE
181	1124	C	45	X	3	100	433	D		40	60			C	P							P		A			P					DARK BROWNISH
181	1124	C	45	X	5	50	435.5	D		30	70		P	A										A			P					
181	1124	C	46	X	3	104	442.74	M	5	35	60			C	P							P		P		P	C					
181	1124	C	46	X	4	24	443.44	D	10	40	50		P	P										A		C	C					
181	1124	C	46	X	5	59	445.29	M	15	40	45			P						A							C					BLACK SPECKS
181	1124	C	47	X	1	110	449.4	D	5	35	60		P	C										C		P	C					BROWNISH

Site 1124 Smear Slides									Texture			Mineral														Biogenic							
Leg	Site	Hole	Core	Type	Section	Interval (cm)	Depth (mbsf)	Lithology	Sand	Silt	Clay	Calcite (30)	Carbonate (35)	Clay (47)	Feldspar (71)	Glauconite (82)	Heavy Minerals (89)	Mica (118)	Opaques (140)	Oxides (146)	Pyrite (169)	Quartz (172)	Volcanic Glass (81)	Zeolite (222)	Diatoms (58)	Foraminifers (78)	Nannofossils (132)	Radiolarians (173)	Silicoflagellates (189)	Skeletal Debris (192)	Sponge Spicules (199)	Comments
181	1124	C	47	X	6	20	456	D	5	35	60		P	P										C		P	A					LIGHT BROWNISH
181	1124	C	48	X	2	16	459.56	D	5	40	55			C										C		P	C					BROWNISH
181	1124	C	48	X	3	35	461.25	D	5	40	55		P	C										C		P	C					NANNOFOSSIL SILTY CLAY
181	1124	C	48	X	4	68	463.08	D	2	40	58		P	C										C		P	P					SILTY CLAY
181	1124	C	49	X	1	71	468.11	D	2	40	58			C										C			P					FORAMINIFERS?
181	1124	C	49	X	4	80	472.7	D	2	40	58			C										C			P					
181	1124	D	1	H	2	58	24.68	D	20	20	60			P									P			R	P	D	*		P	R	
181	1124	D	1	H	5	86	29.46	D	10	40	50			C	C		*	P			P	C	P			P		R				P	
181	1124	D	4	H	1	31	51.41	M	5	50	45			C	P							P	P					C					
181	1124	D	7	H	3	114	83.74	D	2	33	65			C									R					A	*		P	*	
181	1124	D	7	H	7	40	89	D	25	25	50			C	C			*					C		P			R	R			P	