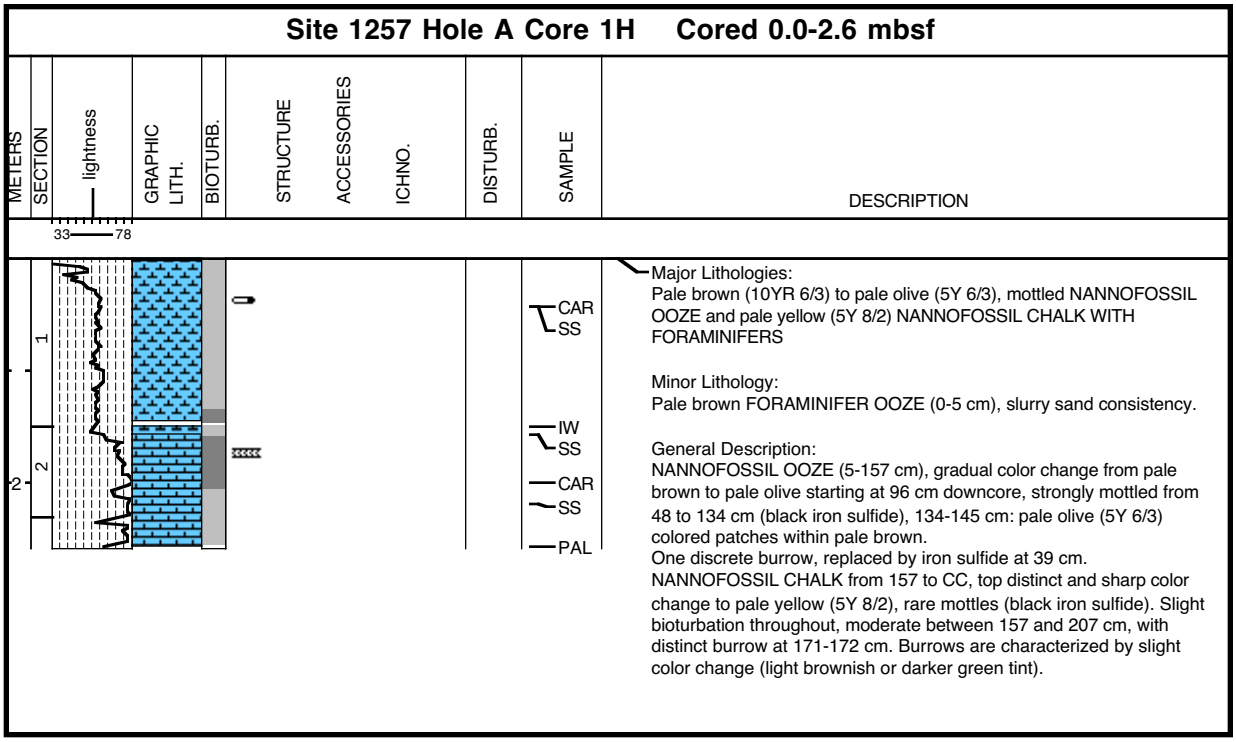
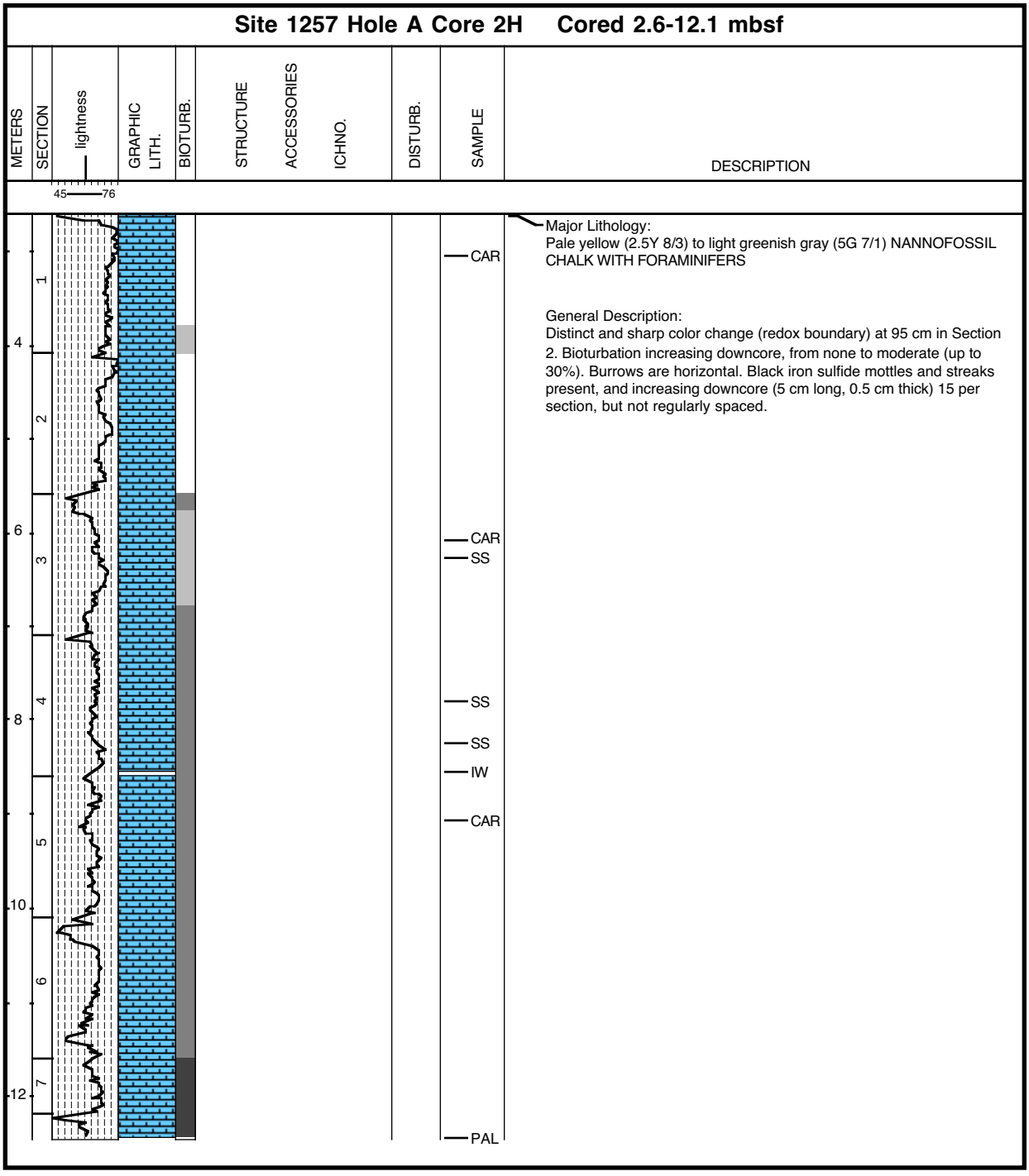
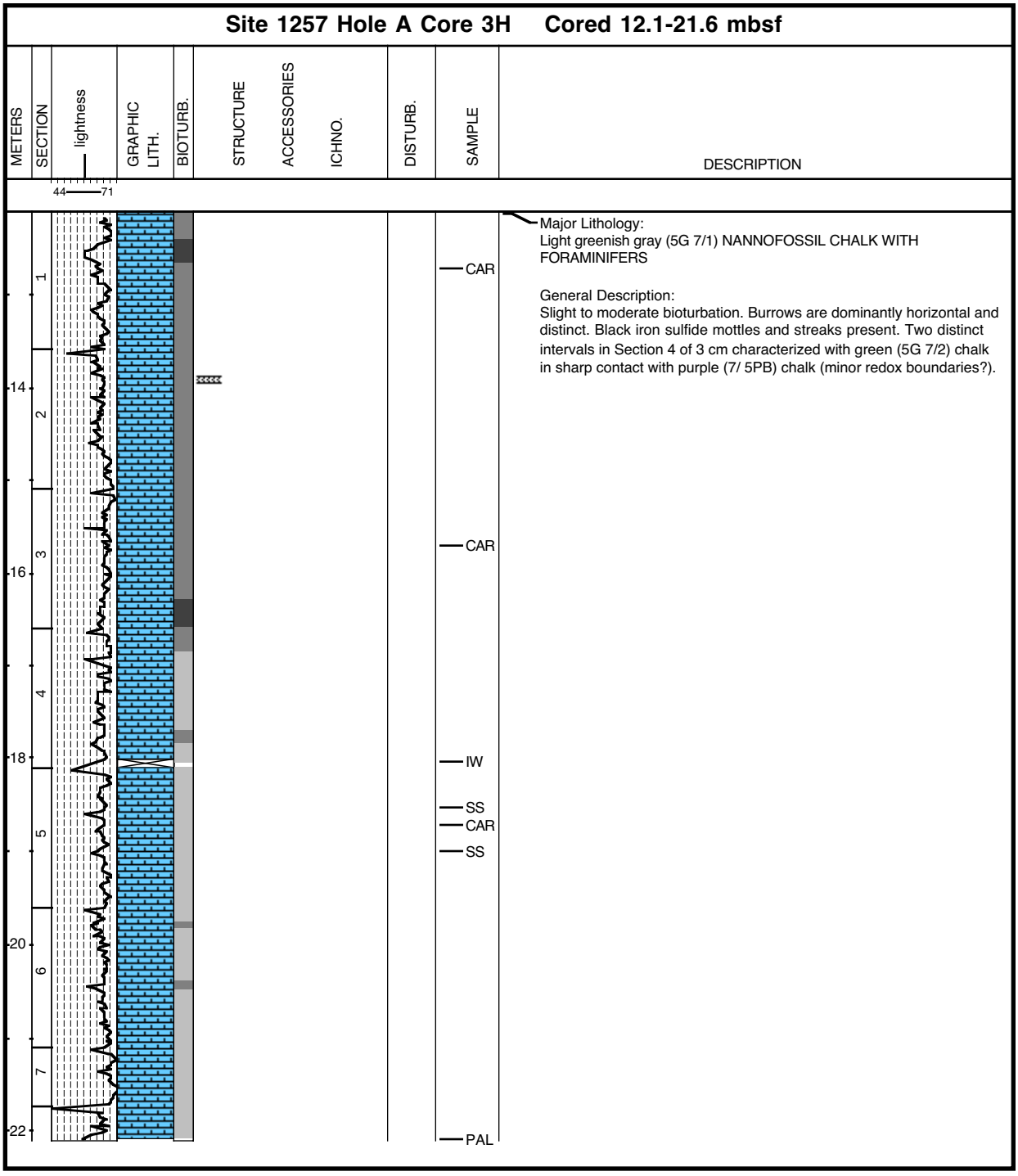
Core Photo


Site 1257 Hole A Core 1H Cored 0.0-2.6 mbsf
METERS
SECTION
lightness
33
78
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
1
2
CAR
SS
IW
SS
CAR
SS
PAL
Major Lithologies:
Pale brown (10YR 6/3) to pale olive (5Y 6/3), mottled NANNOFOSSIL OOZE and pale yellow (5Y 8/2) NANNOFOSSIL CHALK WITH FORAMINIFERS
Minor Lithology:
Pale brown FORAMINIFER OOZE (0-5 cm), slurry sand consistency.
General Description:
NANNOFOSSIL OOZE (5-157 cm), gradual color change from pale brown to pale olive starting at 96 cm downcore, strongly mottled from 48 to 134 cm (black iron sulfide), 134-145 cm: pale olive (5Y 6/3) colored patches within pale brown.
One discrete burrow, replaced by iron sulfide at 39 cm.
NANNOFOSSIL CHALK from 157 to CC, top distinct and sharp color change to pale yellow (5Y 8/2), rare mottles (black iron sulfide). Slight bioturbation throughout, moderate between 157 and 207 cm, with distinct burrow at 171-172 cm. Burrows are characterized by slight color change (light brownish or darker green tint).

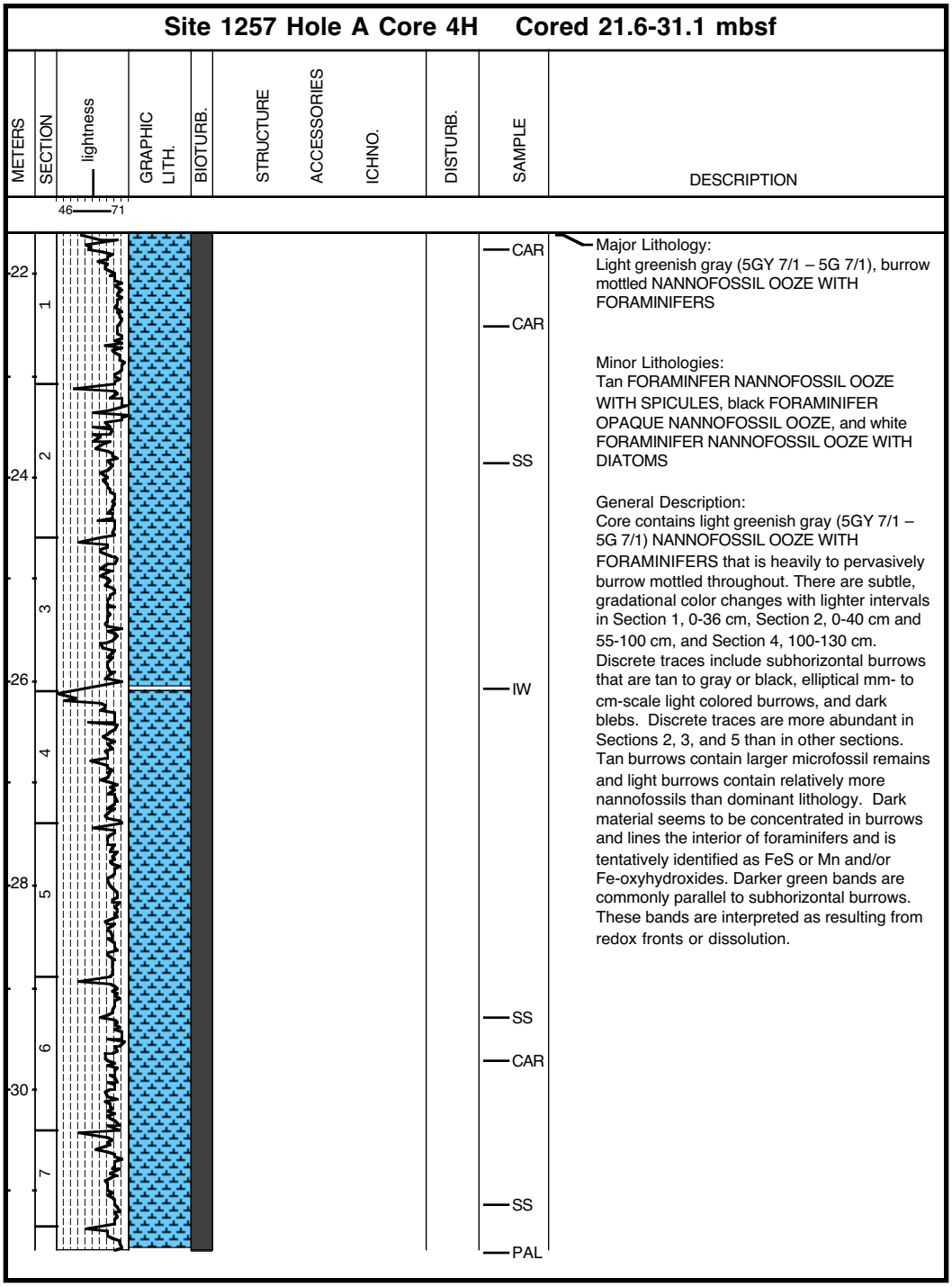
Core Photo


Site 1257 Hole A Core 2H Cored 2.6-12.1 mbsf
METERS
SECTION
lightness
45
76
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
4
6
8
10
12
1
2
3
4
5
6
7
CAR
CAR
SS
SS
SS
IW
CAR
PAL
Major Lithology:
Pale yellow (2.5Y 8/3) to light greenish gray (5G 7/1) NANNOFOSSIL CHALK WITH FORAMINIFERS
General Description:
Distinct and sharp color change (redox boundary) at 95 cm in Section 2. Bioturbation increasing downcore, from none to moderate (up to 30%). Burrows are horizontal. Black iron sulfide mottles and streaks present, and increasing downcore (5 cm long, 0.5 cm thick) 15 per section, but not regularly spaced.

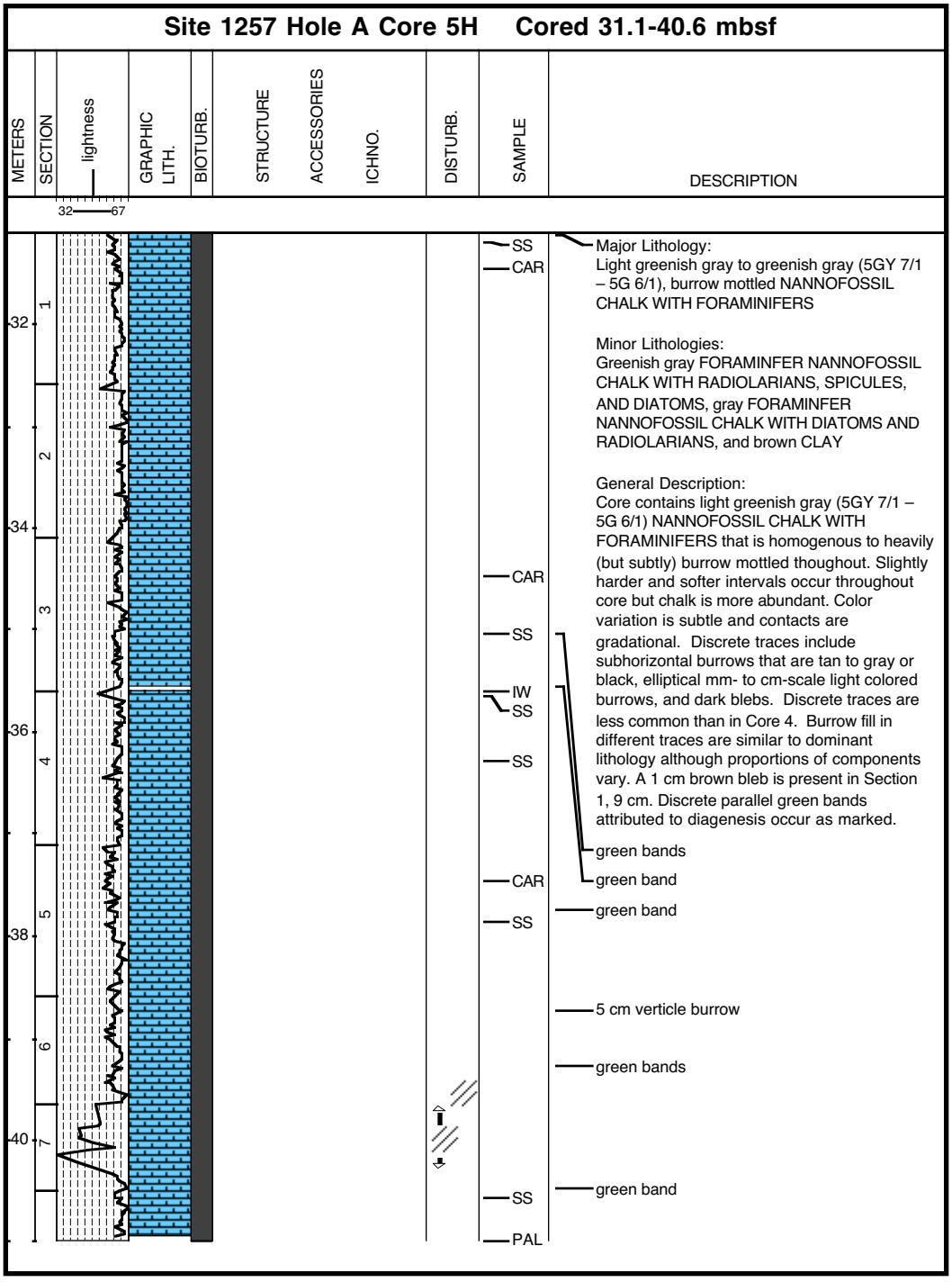
Core Photo


Site 1257 Hole A Core 3H Cored 12.1-21.6 mbsf
METERS
SECTION
lightness
44
71
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
14
16
18
20
22
1
2
3
4
5
6
7
CAR
CAR
IW
SS
CAR
SS
PAL
Major Lithology:
Light greenish gray (5G 7/1) NANNOFOSSIL CHALK WITH FORAMINIFERS
General Description:
Slight to moderate bioturbation. Burrows are dominantly horizontal and distinct. Black iron sulfide mottles and streaks present. Two distinct intervals in Section 4 of 3 cm characterized with green (5G 7/2) chalk in sharp contact with purple (7/ 5PB) chalk (minor redox boundaries?).

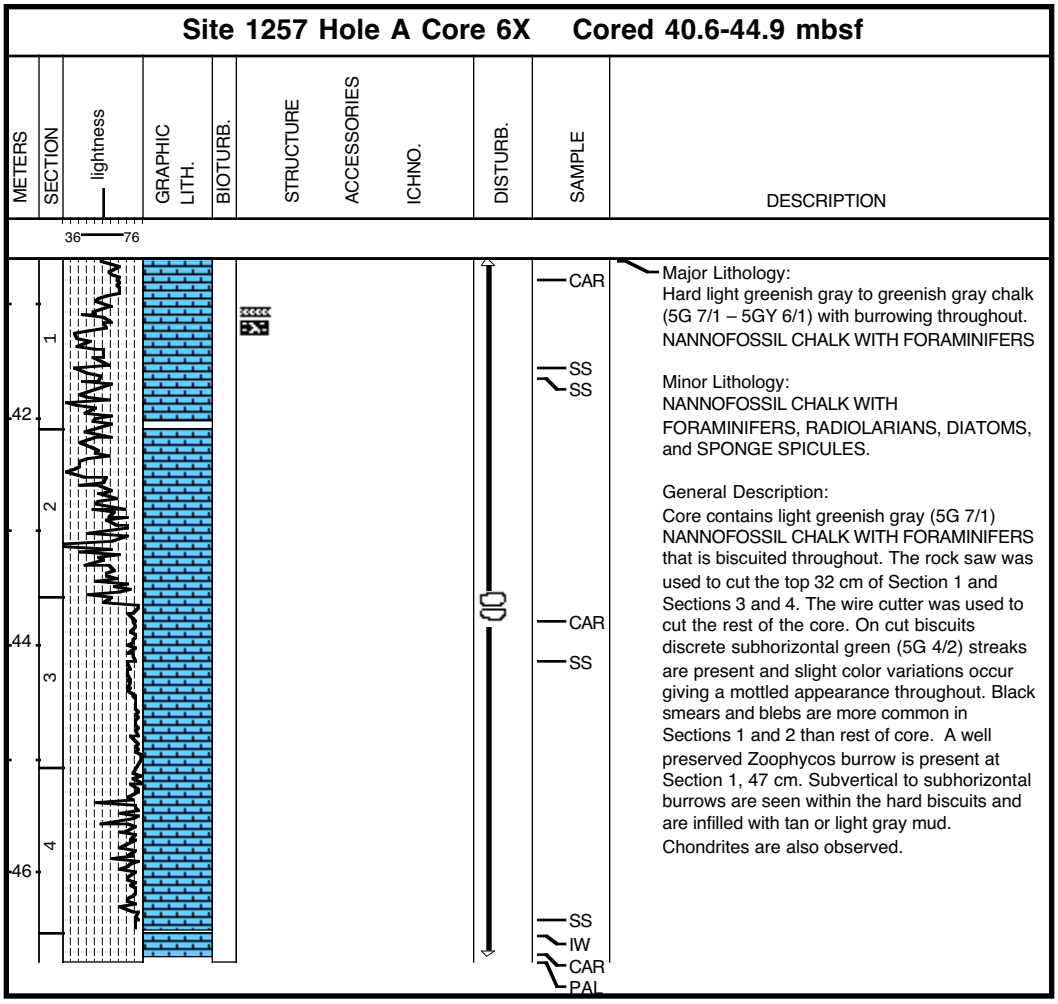
Core Photo


Site 1257 Hole A Core 4H Cored 21.6-31.1 mbsf
METERS
SECTION
lightness
46
71
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
22
24
26
28
30
1
2
3
4
5
6
7
CAR
CAR
SS
IW
SS
CAR
SS
PAL
Major Lithology:
Light greenish gray (5GY 7/1 – 5G 7/1), burrow mottled NANNOFOSSIL OOZE WITH FORAMINIFERS
Minor Lithologies:
Tan FORAMINFER NANNOFOSSIL OOZE WITH SPICULES, black FORAMINIFER OPAQUE NANNOFOSSIL OOZE, and white FORAMINIFER NANNOFOSSIL OOZE WITH DIATOMS
General Description:
Core contains light greenish gray (5GY 7/1 – 5G 7/1) NANNOFOSSIL OOZE WITH FORAMINIFERS that is heavily to pervasively burrow mottled throughout. There are subtle, gradational color changes with lighter intervals in Section 1, 0-36 cm, Section 2, 0-40 cm and 55-100 cm, and Section 4, 100-130 cm. Discrete traces include subhorizontal burrows that are tan to gray or black, elliptical mm- to cm-scale light colored burrows, and dark blebs. Discrete traces are more abundant in Sections 2, 3, and 5 than in other sections. Tan burrows contain larger microfossil remains and light burrows contain relatively more nannofossils than dominant lithology. Dark material seems to be concentrated in burrows and lines the interior of foraminifers and is tentatively identified as FeS or Mn and/or Fe-oxyhydroxides. Darker green bands are commonly parallel to subhorizontal burrows. These bands are interpreted as resulting from redox fronts or dissolution.

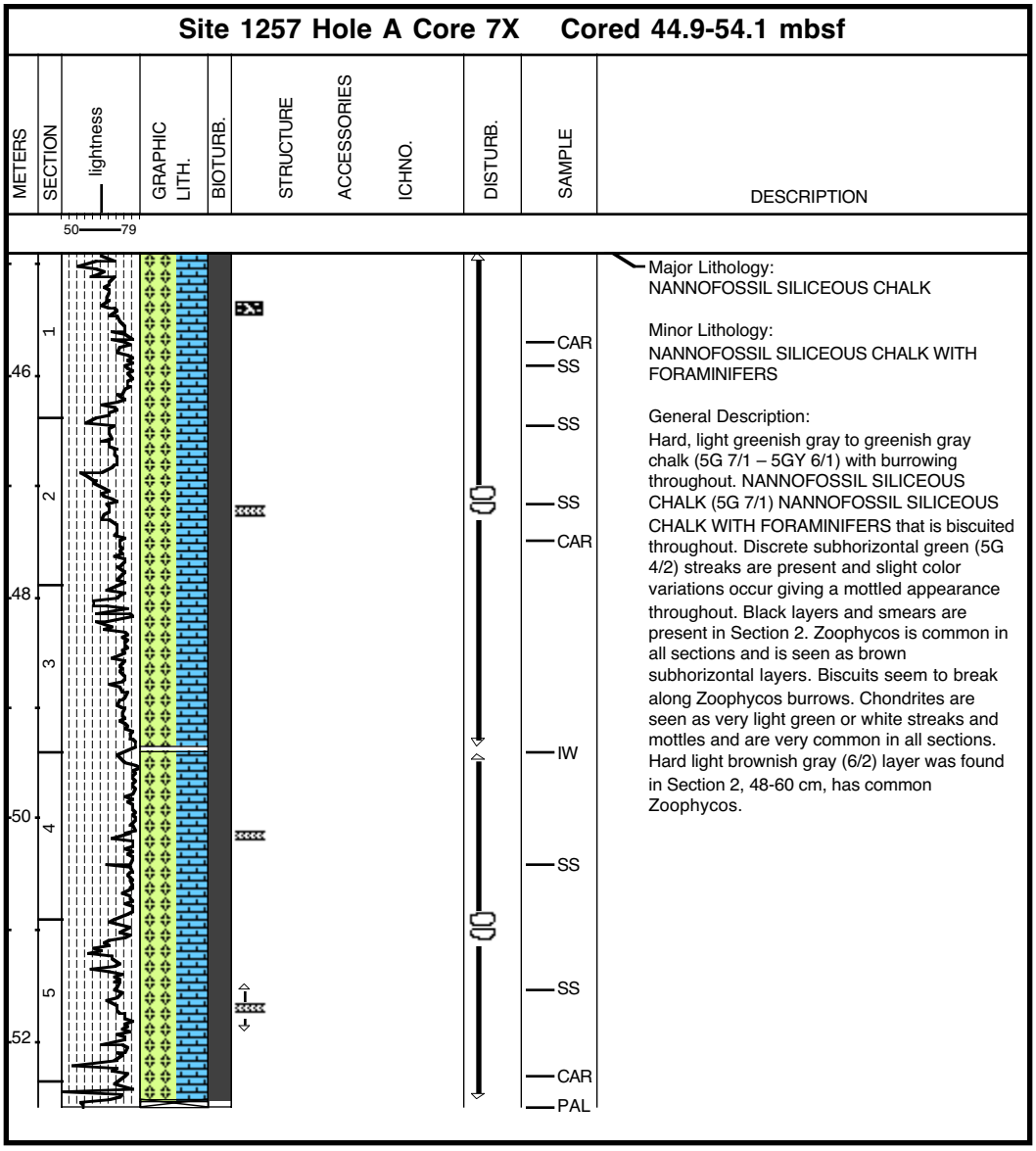
Core Photo


Site 1257 Hole A Core 5H Cored 31.1-40.6 mbsf
METERS
SECTION
lightness
32
67
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
32
34
36
38
40
1
2
3
4
5
6
7
SS
CAR
CAR
SS
IW
SS
SS
CAR
SS
SS
PAL
Major Lithology:
Light greenish gray to greenish gray (5GY 7/1 – 5G 6/1), burrow mottled NANNOFOSSIL CHALK WITH FORAMINIFERS
Minor Lithologies:
Greenish gray FORAMINFER NANNOFOSSIL CHALK WITH RADIOLARIANS, SPICULES, AND DIATOMS, gray FORAMINFER NANNOFOSSIL CHALK WITH DIATOMS AND RADIOLARIANS, and brown CLAY
General Description:
Core contains light greenish gray (5GY 7/1 – 5G 6/1) NANNOFOSSIL CHALK WITH FORAMINIFERS that is homogenous to heavily (but subtly) burrow mottled thoughout. Slightly harder and softer intervals occur throughout core but chalk is more abundant. Color variation is subtle and contacts are gradational. Discrete traces include subhorizontal burrows that are tan to gray or black, elliptical mm- to cm-scale light colored burrows, and dark blebs. Discrete traces are less common than in Core 4. Burrow fill in different traces are similar to dominant lithology although proportions of components vary. A 1 cm brown bleb is present in Section 1, 9 cm. Discrete parallel green bands attributed to diagenesis occur as marked.
green bands
green band
green band
5 cm verticle burrow
green bands
green band

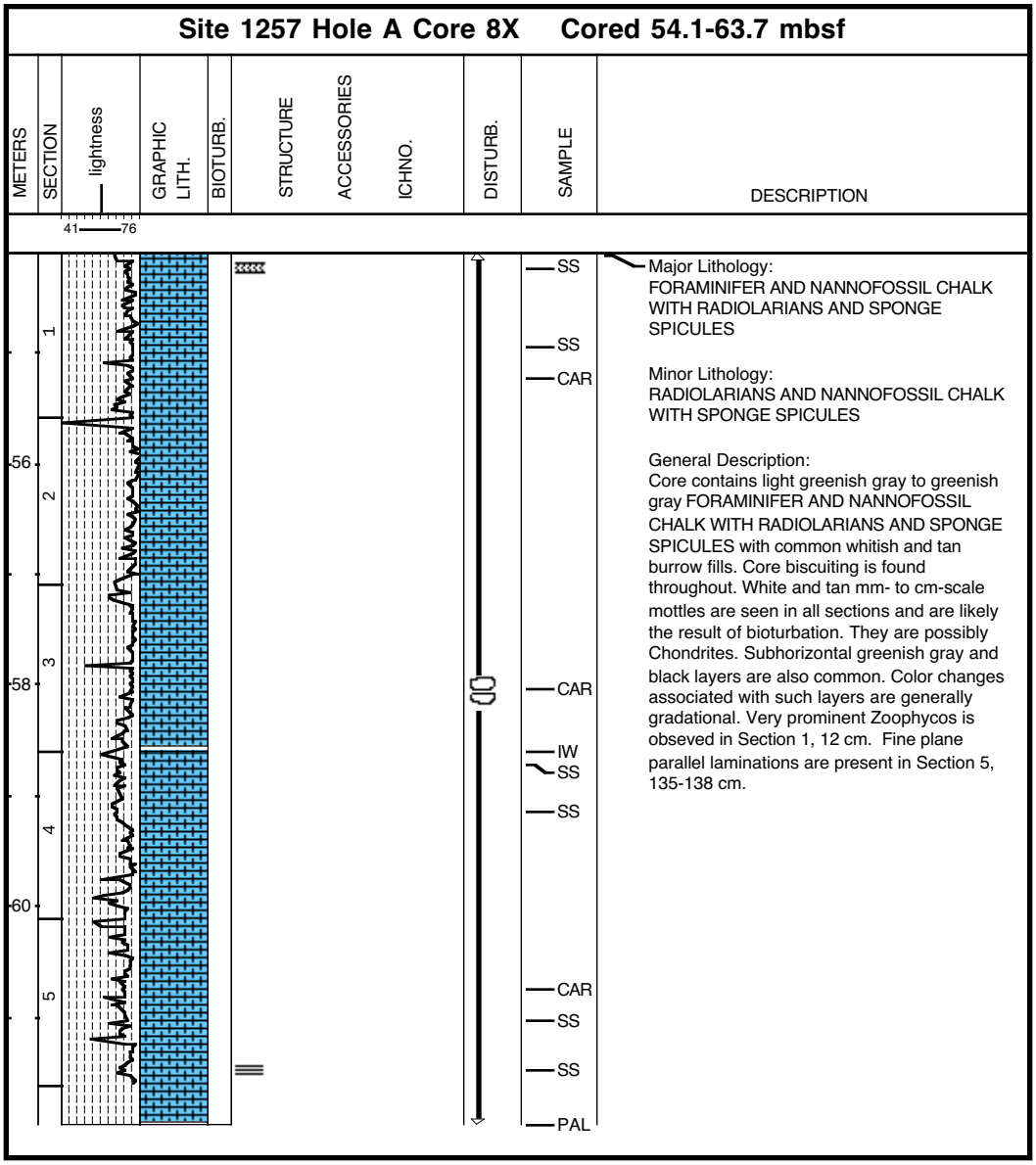
Core Photo


Site 1257 Hole A Core 6X Cored 40.6-44.9 mbsf
METERS
SECTION
lightness
36
76
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
42
44
46
1
2
3
4
CAR
SS
SS
CAR
SS
SS
IW
CAR
PAL
Major Lithology:
Hard light greenish gray to greenish gray chalk (5G 7/1 – 5GY 6/1) with burrowing throughout.
NANNOFOSSIL CHALK WITH FORAMINIFERS
Minor Lithology:
NANNOFOSSIL CHALK WITH FORAMINIFERS, RADIOLARIANS, DIATOMS, and SPONGE SPICULES.
General Description:
Core contains light greenish gray (5G 7/1) NANNOFOSSIL CHALK WITH FORAMINIFERS that is biscuited throughout. The rock saw was used to cut the top 32 cm of Section 1 and Sections 3 and 4. The wire cutter was used to cut the rest of the core. On cut biscuits discrete subhorizontal green (5G 4/2) streaks are present and slight color variations occur giving a mottled appearance throughout. Black smears and blebs are more common in Sections 1 and 2 than rest of core. A well preserved Zoophycos burrow is present at Section 1, 47 cm. Subvertical to subhorizontal burrows are seen within the hard biscuits and are infilled with tan or light gray mud. Chondrites are also observed.

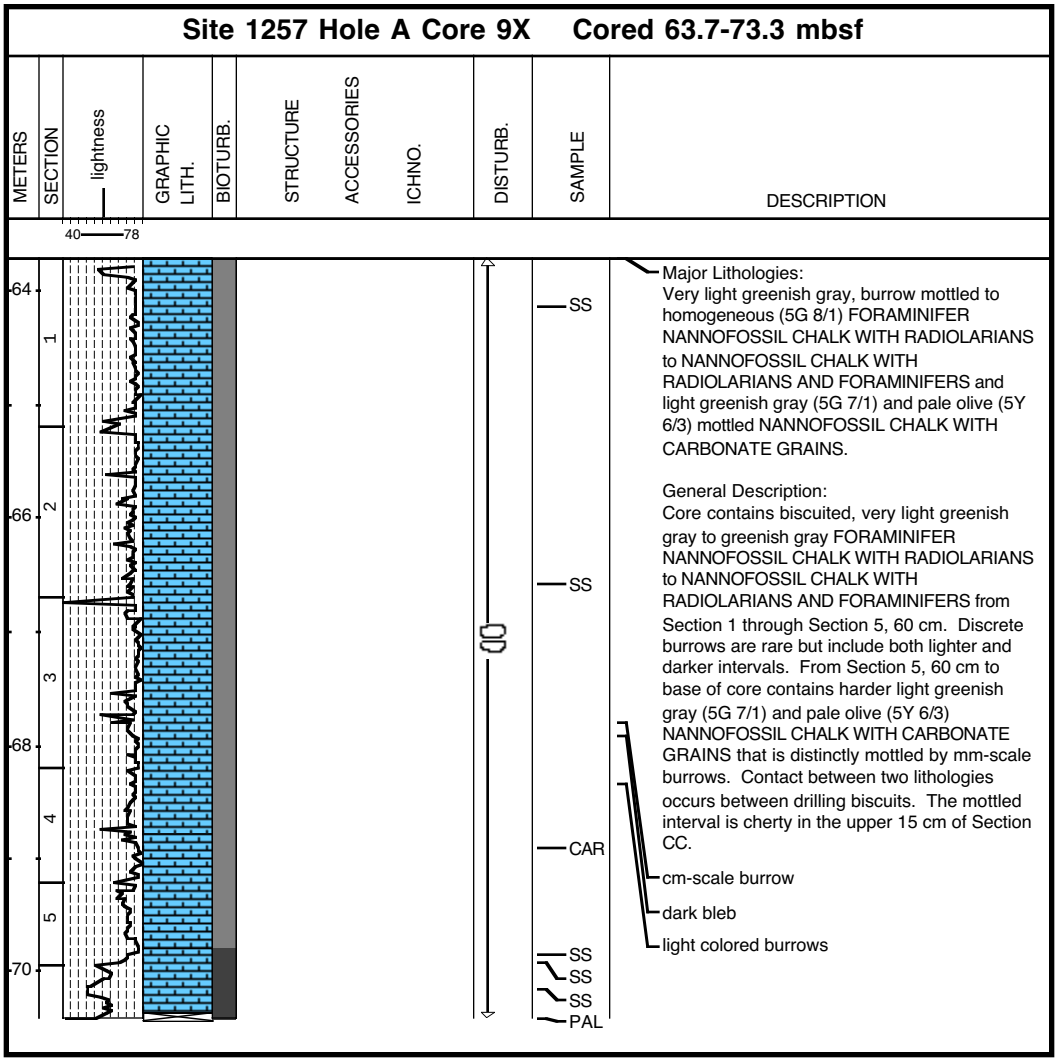
Core Photo


Site 1257 Hole A Core 7X Cored 44.9-54.1 mbsf
METERS
SECTION
lightness
50
79
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
46
48
50
52
1
2
3
4
5
CAR
SS
SS
SS
CAR
IW
SS
SS
CAR
PAL
Major Lithology:
NANNOFOSSIL SILICEOUS CHALK
Minor Lithology:
NANNOFOSSIL SILICEOUS CHALK WITH FORAMINIFERS
General Description:
Hard, light greenish gray to greenish gray chalk (5G 7/1 – 5GY 6/1) with burrowing throughout. NANNOFOSSIL SILICEOUS CHALK (5G 7/1) NANNOFOSSIL SILICEOUS CHALK WITH FORAMINIFERS that is biscuited throughout. Discrete subhorizontal green (5G 4/2) streaks are present and slight color variations occur giving a mottled appearance throughout. Black layers and smears are present in Section 2. Zoophycos is common in all sections and is seen as brown subhorizontal layers. Biscuits seem to break along Zoophycos burrows. Chondrites are seen as very light green or white streaks and mottles and are very common in all sections. Hard light brownish gray (6/2) layer was found in Section 2, 48-60 cm, has common Zoophycos.

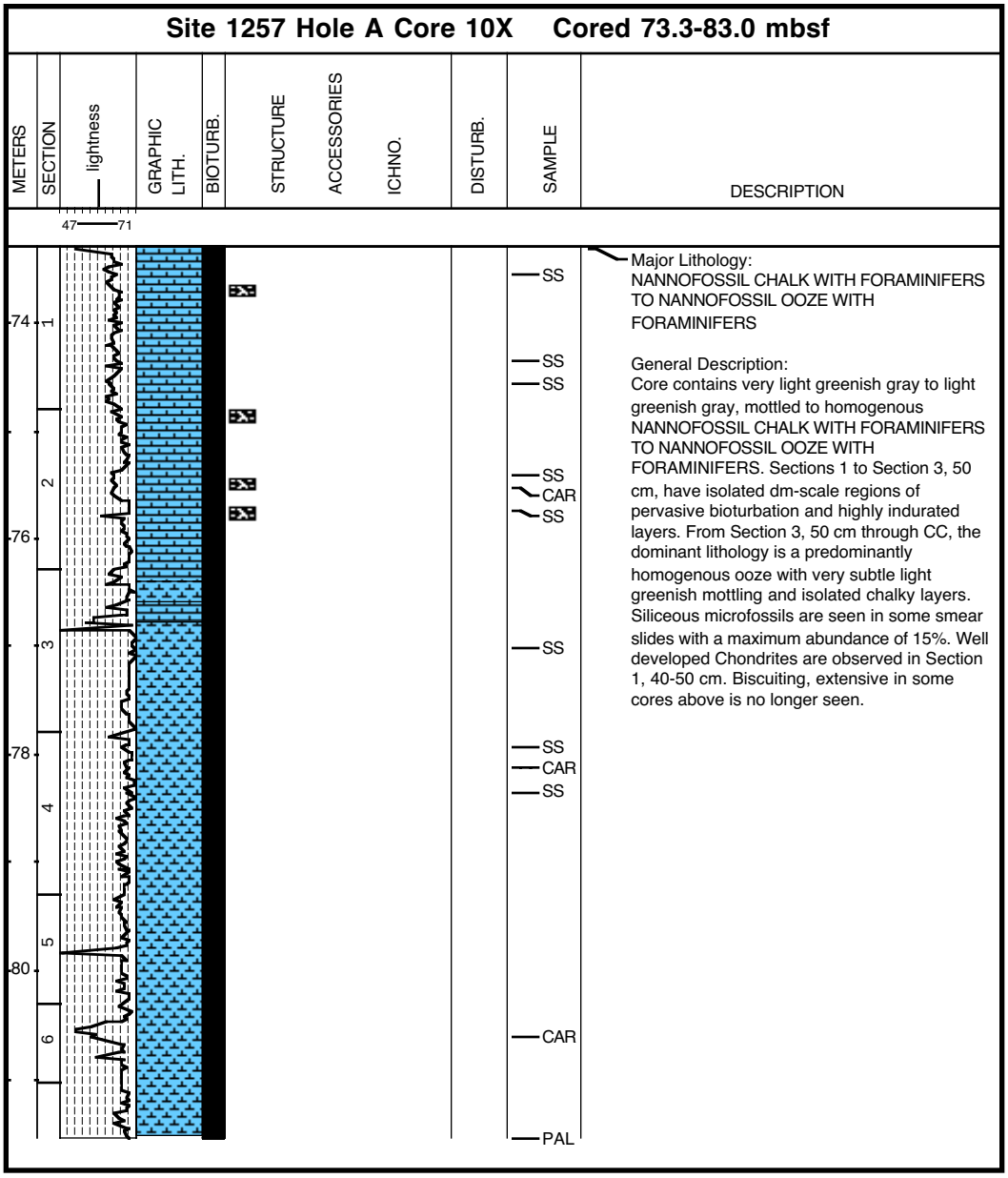
Core Photo


Site 1257 Hole A Core 8X Cored 54.1-63.7 mbsf
METERS
SECTION
lightness
41
76
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
56
58
60
1
2
3
4
5
SS
SS
CAR
CAR
IW
SS
SS
CAR
SS
SS
PAL
Major Lithology:
FORAMINIFER AND NANNOFOSSIL CHALK WITH RADIOLARIANS AND SPONGE SPICULES
Minor Lithology:
RADIOLARIANS AND NANNOFOSSIL CHALK WITH SPONGE SPICULES
General Description:
Core contains light greenish gray to greenish gray FORAMINIFER AND NANNOFOSSIL CHALK WITH RADIOLARIANS AND SPONGE SPICULES with common whitish and tan burrow fills. Core biscuiting is found throughout. White and tan mm- to cm-scale mottles are seen in all sections and are likely the result of bioturbation. They are possibly Chondrites. Subhorizontal greenish gray and black layers are also common. Color changes associated with such layers are generally gradational. Very prominent Zoophycos is obseved in Section 1, 12 cm. Fine plane parallel laminations are present in Section 5, 135-138 cm.

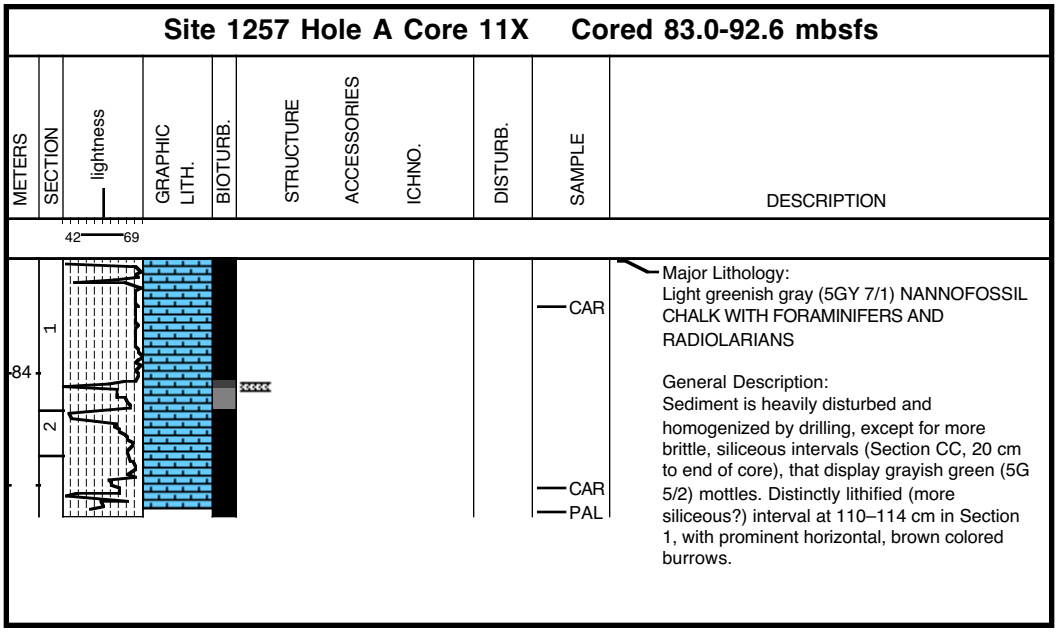
Core Photo


Site 1257 Hole A Core 9X Cored 63.7-73.3 mbsf
METERS
SECTION
lightness
40
78
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
64
66
68
70
1
2
3
4
5
SS
SS
CAR
SS
SS
SS
PAL
Major Lithologies:
Very light greenish gray, burrow mottled to homogeneous (5G 8/1) FORAMINIFER NANNOFOSSIL CHALK WITH RADIOLARIANS to NANNOFOSSIL CHALK WITH RADIOLARIANS AND FORAMINIFERS and light greenish gray (5G 7/1) and pale olive (5Y 6/3) mottled NANNOFOSSIL CHALK WITH CARBONATE GRAINS.
General Description:
Core contains biscuited, very light greenish gray to greenish gray FORAMINIFER NANNOFOSSIL CHALK WITH RADIOLARIANS to NANNOFOSSIL CHALK WITH RADIOLARIANS AND FORAMINIFERS from Section 1 through Section 5, 60 cm. Discrete burrows are rare but include both lighter and darker intervals. From Section 5, 60 cm to base of core contains harder light greenish gray (5G 7/1) and pale olive (5Y 6/3) NANNOFOSSIL CHALK WITH CARBONATE GRAINS that is distinctly mottled by mm-scale burrows. Contact between two lithologies occurs between drilling biscuits. The mottled interval is cherty in the upper 15 cm of Section CC.
cm-scale burrow
dark bleb
light colored burrows

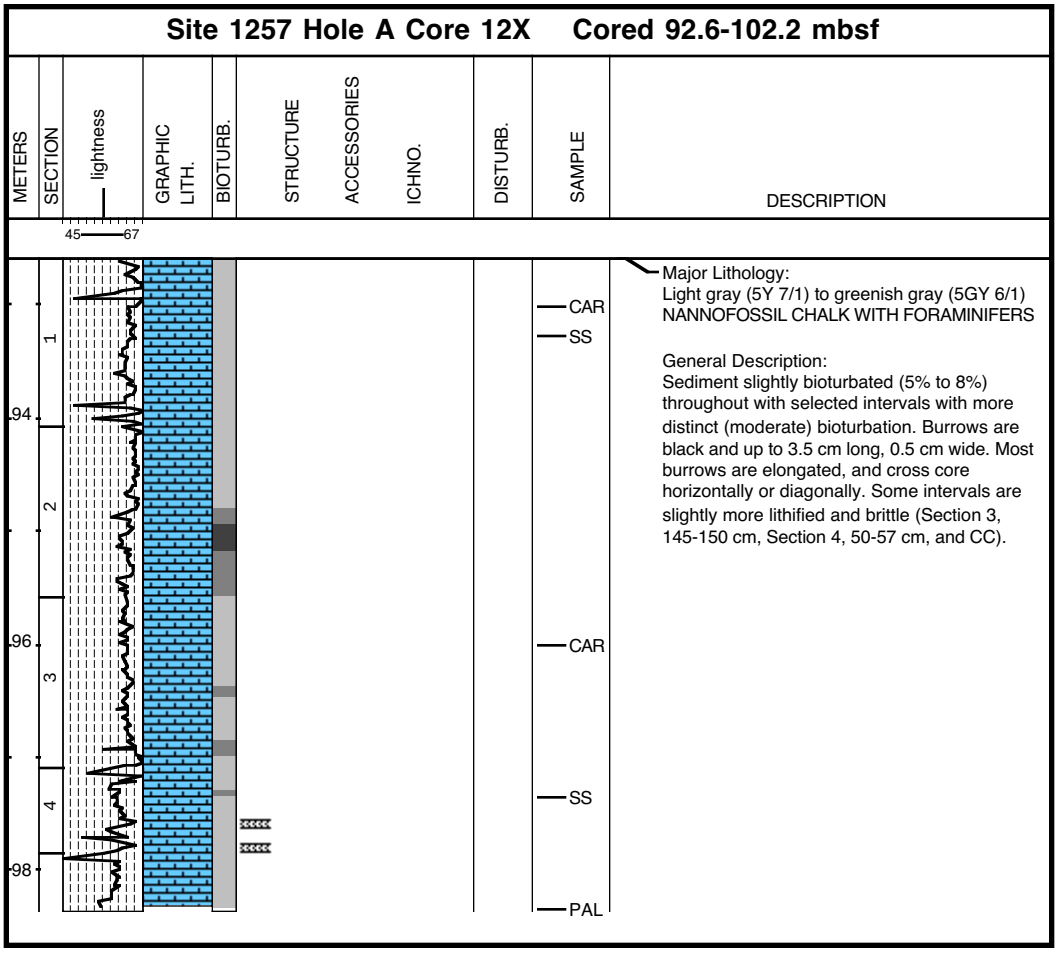
Core Photo


Site 1257 Hole A Core 10X Cored 73.3-83.0 mbsf
METERS
SECTION
lightness
47
71
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
74
76
78
80
1
2
3
4
5
6
SS
SS
SS
SS
CAR
SS
SS
CAR
SS
CAR
PAL
Major Lithology:
NANNOFOSSIL CHALK WITH FORAMINIFERS TO NANNOFOSSIL OOZE WITH FORAMINIFERS
General Description:
Core contains very light greenish gray to light greenish gray, mottled to homogenous NANNOFOSSIL CHALK WITH FORAMINIFERS TO NANNOFOSSIL OOZE WITH FORAMINIFERS. Sections 1 to Section 3, 50 cm, have isolated dm-scale regions of pervasive bioturbation and highly indurated layers. From Section 3, 50 cm through CC, the dominant lithology is a predominantly homogenous ooze with very subtle light greenish mottling and isolated chalky layers. Siliceous microfossils are seen in some smear slides with a maximum abundance of 15%. Well developed Chondrites are observed in Section 1, 40-50 cm. Biscuiting, extensive in some cores above is no longer seen.

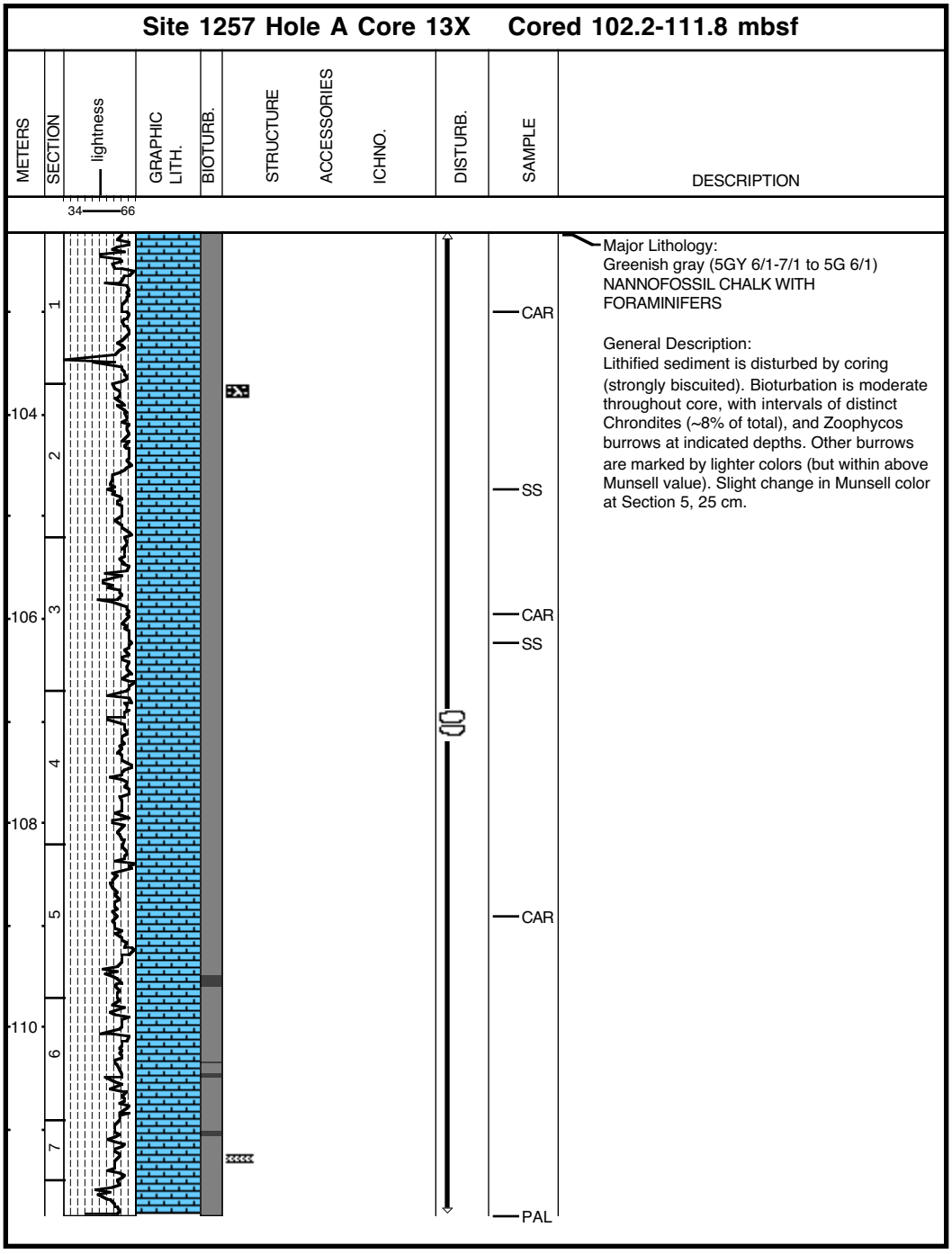
Core Photo


Site 1257 Hole A Core 11X Cored 83.0-92.6 mbsfs
METERS
SECTION
lightness
42
69
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
84
1
2
CAR
CAR
PAL
Major Lithology:
Light greenish gray (5GY 7/1) NANNOFOSSIL CHALK WITH FORAMINIFERS AND RADIOLARIANS
General Description:
Sediment is heavily disturbed and homogenized by drilling, except for more brittle, siliceous intervals (Section CC, 20 cm to end of core), that display grayish green (5G 5/2) mottles. Distinctly lithified (more siliceous?) interval at 110–114 cm in Section 1, with prominent horizontal, brown colored burrows.

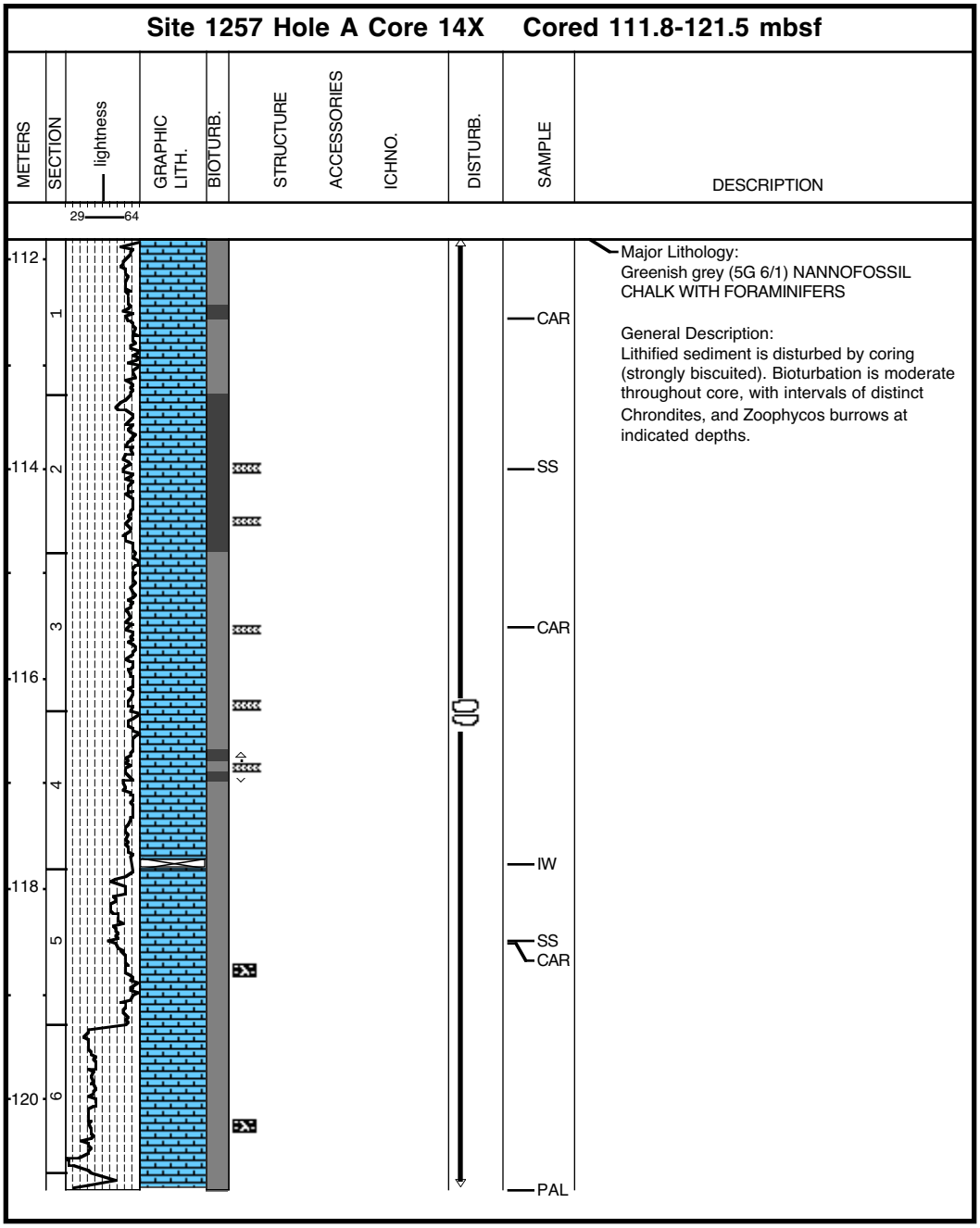
Core Photo


Site 1257 Hole A Core 12X Cored 92.6-102.2 mbsf
METERS
SECTION
lightness
45
67
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
94
96
98
1
2
3
4
CAR
SS
CAR
SS
PAL
Major Lithology:
Light gray (5Y 7/1) to greenish gray (5GY 6/1)
NANNOFOSSIL CHALK WITH FORAMINIFERS
General Description:
Sediment slightly bioturbated (5% to 8%) throughout with selected intervals with more distinct (moderate) bioturbation. Burrows are black and up to 3.5 cm long, 0.5 cm wide. Most burrows are elongated, and cross core horizontally or diagonally. Some intervals are slightly more lithified and brittle (Section 3, 145-150 cm, Section 4, 50-57 cm, and CC).

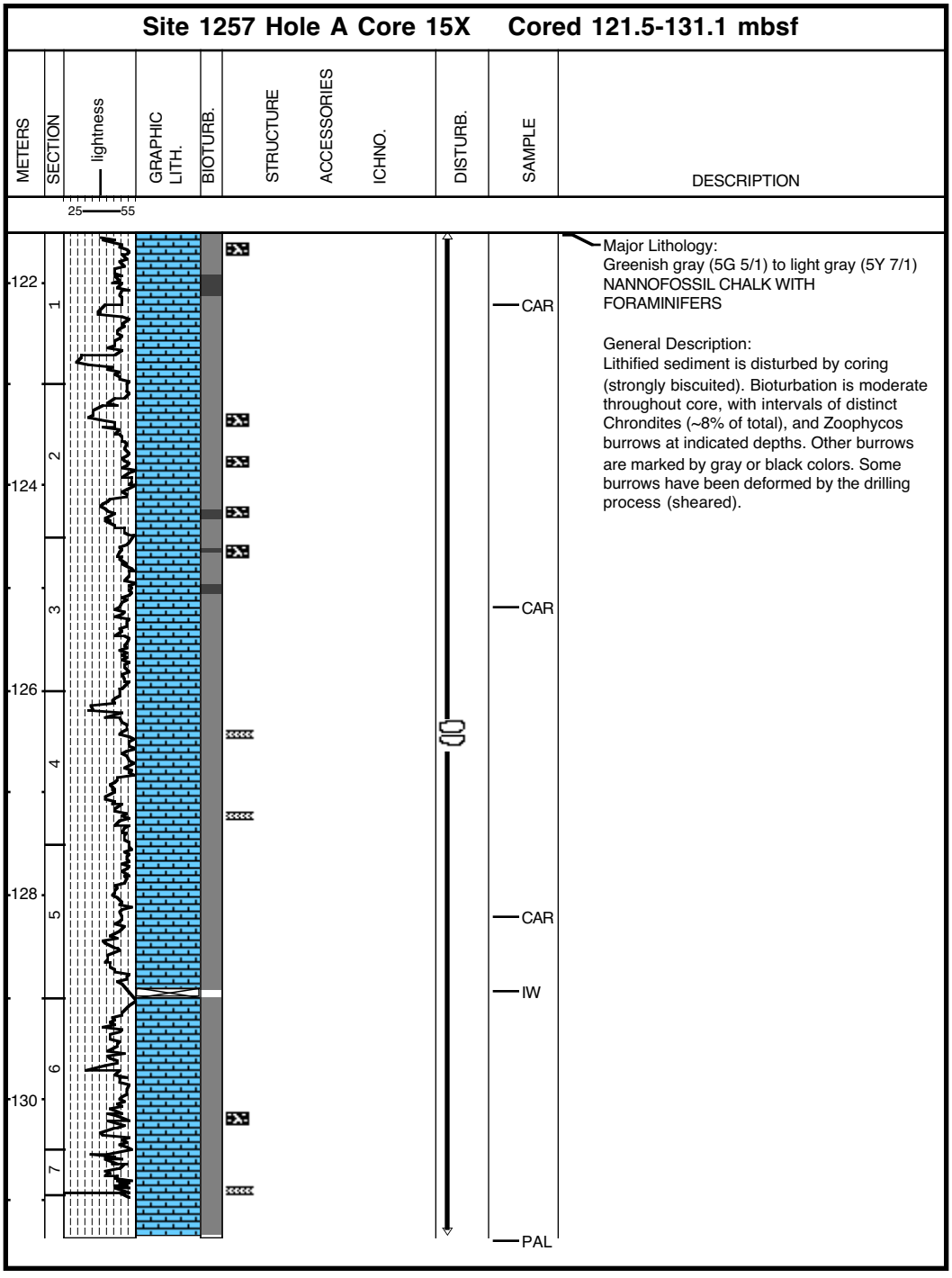
Core Photo


Site 1257 Hole A Core 13X Cored 102.2-111.8 mbsf
METERS
SECTION
lightness
34
66
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
104
106
108
110
1
2
3
4
5
6
7
CAR
SS
CAR
SS
CAR
PAL
Major Lithology:
Greenish gray (5GY 6/1-7/1 to 5G 6/1)
NANNOFOSSIL CHALK WITH
FORAMINIFERS
General Description:
Lithified sediment is disturbed by coring (strongly biscuited). Bioturbation is moderate throughout core, with intervals of distinct Chrondites (~8% of total), and Zoophycos burrows at indicated depths. Other burrows are marked by lighter colors (but within above Munsell value). Slight change in Munsell color at Section 5, 25 cm.

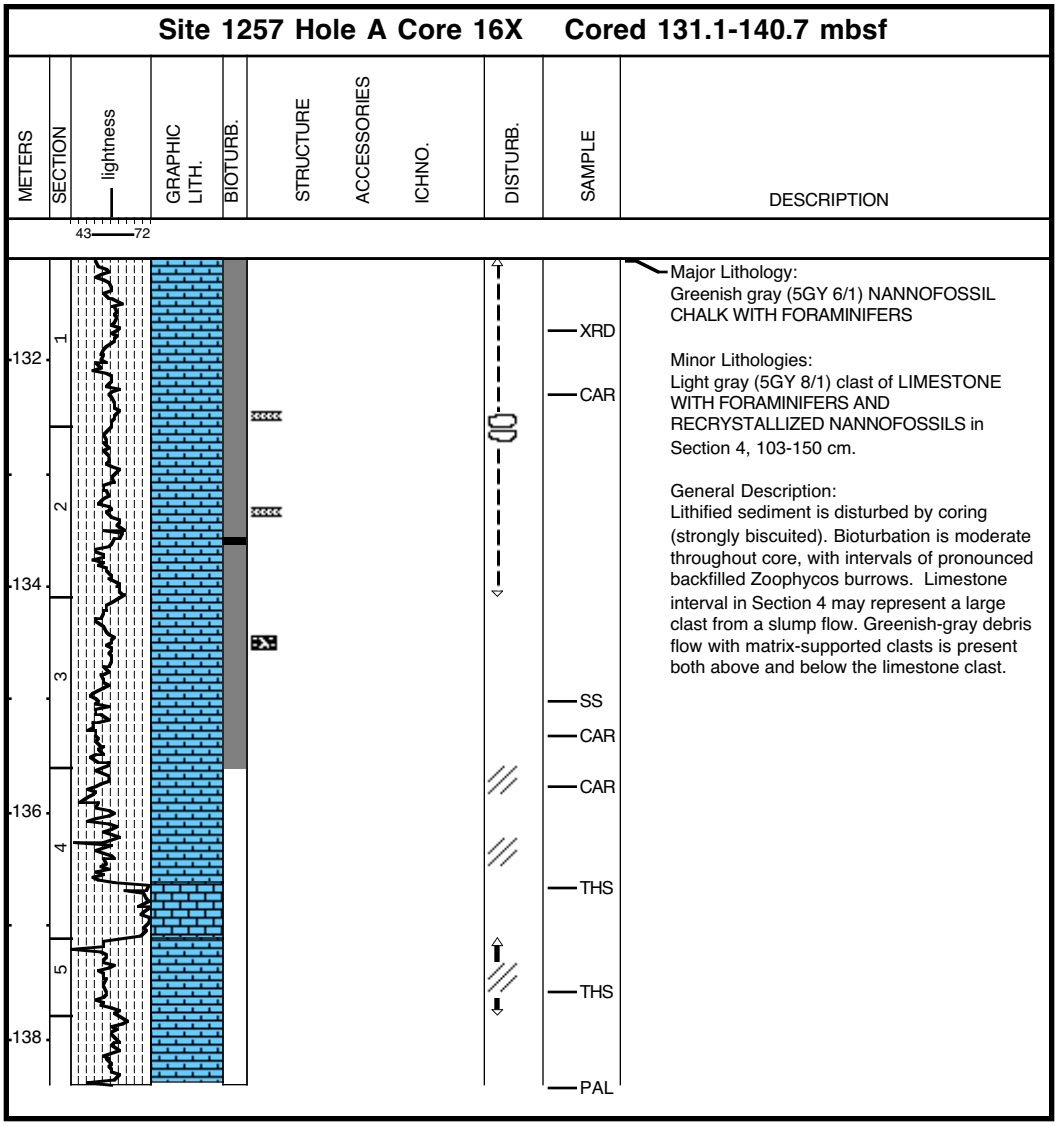
Core Photo


Site 1257 Hole A Core 14X Cored 111.8-121.5 mbsf
METERS
SECTION
lightness
29
64
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
112
114
116
118
120
1
2
3
4
5
6
CAR
SS
CAR
IW
SS
CAR
PAL
Major Lithology:
Greenish grey (5G 6/1) NANNOFOSSIL CHALK WITH FORAMINIFERS
General Description:
Lithified sediment is disturbed by coring (strongly biscuited). Bioturbation is moderate throughout core, with intervals of distinct Chrondites, and Zoophycos burrows at indicated depths.

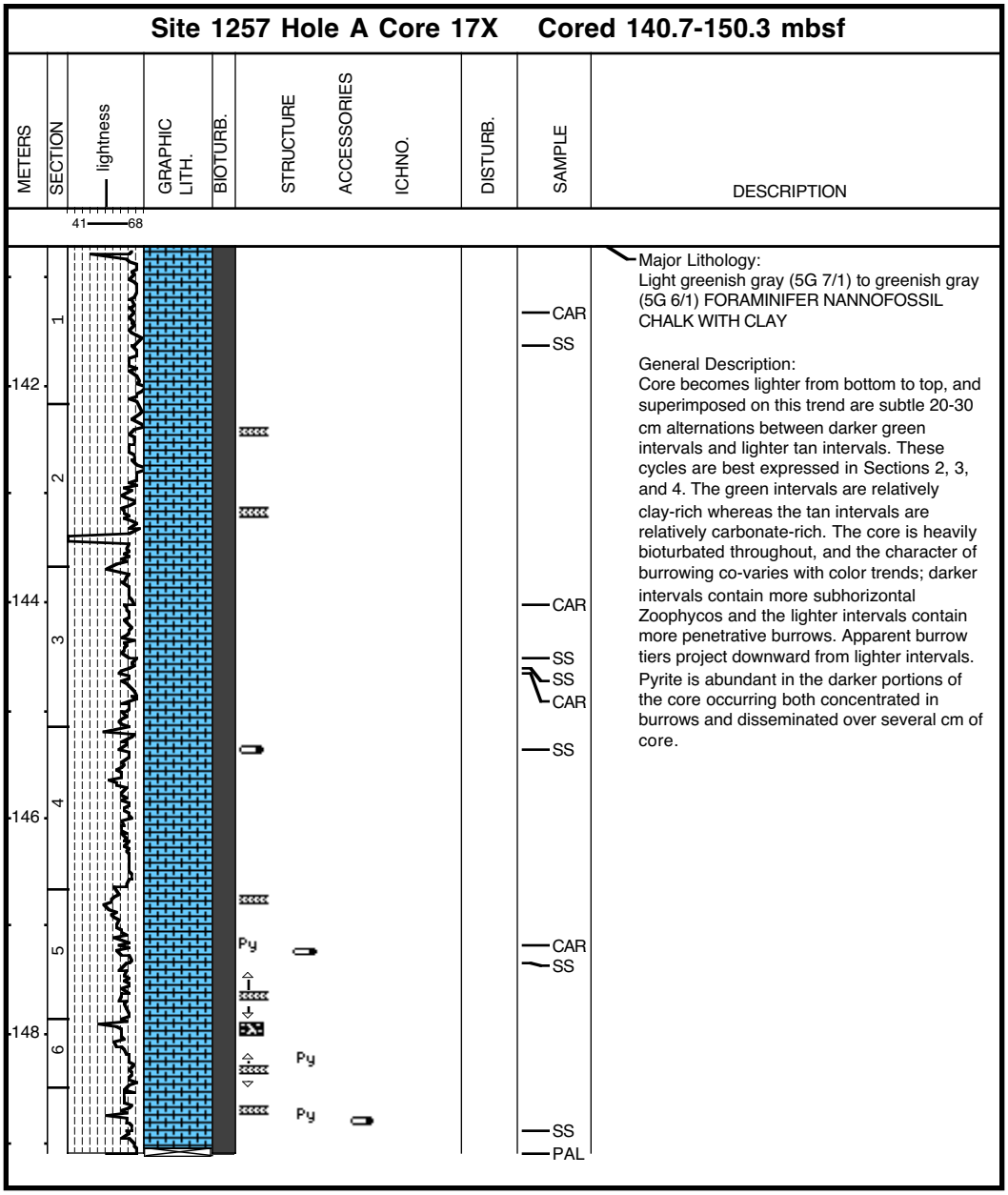
Core Photo


Site 1257 Hole A Core 15X Cored 121.5-131.1 mbsf
METERS
SECTION
lightness
25
55
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
122
124
126
128
130
1
2
3
4
5
6
7
CAR
CAR
CAR
IW
PAL
Major Lithology:
Greenish gray (5G 5/1) to light gray (5Y 7/1) NANNOFOSSIL CHALK WITH FORAMINIFERS
General Description:
Lithified sediment is disturbed by coring (strongly biscuited). Bioturbation is moderate throughout core, with intervals of distinct Chrondites (~8% of total), and Zoophycos burrows at indicated depths. Other burrows are marked by gray or black colors. Some burrows have been deformed by the drilling process (sheared).

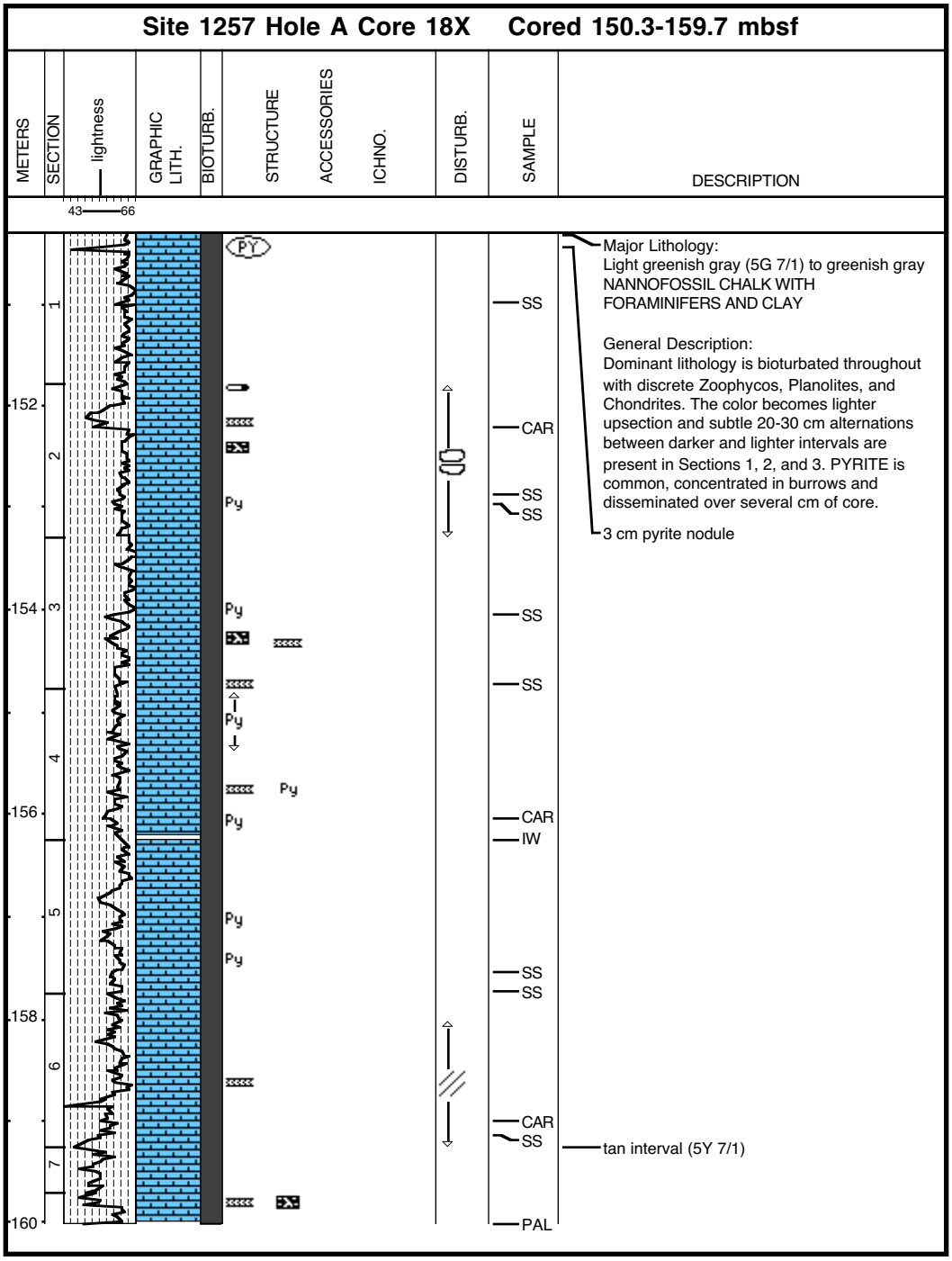
Core Photo


Site 1257 Hole A Core 16X Cored 131.1-140.7 mbsf
METERS
SECTION
lightness
43
72
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
132
134
136
138
1
2
3
4
5
XRD
CAR
SS
CAR
CAR
THS
THS
PAL
Major Lithology:
Greenish gray (5GY 6/1) NANNOFOSSIL CHALK WITH FORAMINIFERS
Minor Lithologies:
Light gray (5GY 8/1) clast of LIMESTONE WITH FORAMINIFERS AND RECRYSTALLIZED NANNOFOSSILS in Section 4, 103-150 cm.
General Description:
Lithified sediment is disturbed by coring (strongly biscuited). Bioturbation is moderate throughout core, with intervals of pronounced backfilled Zoophycos burrows. Limestone interval in Section 4 may represent a large clast from a slump flow. Greenish-gray debris flow with matrix-supported clasts is present both above and below the limestone clast.

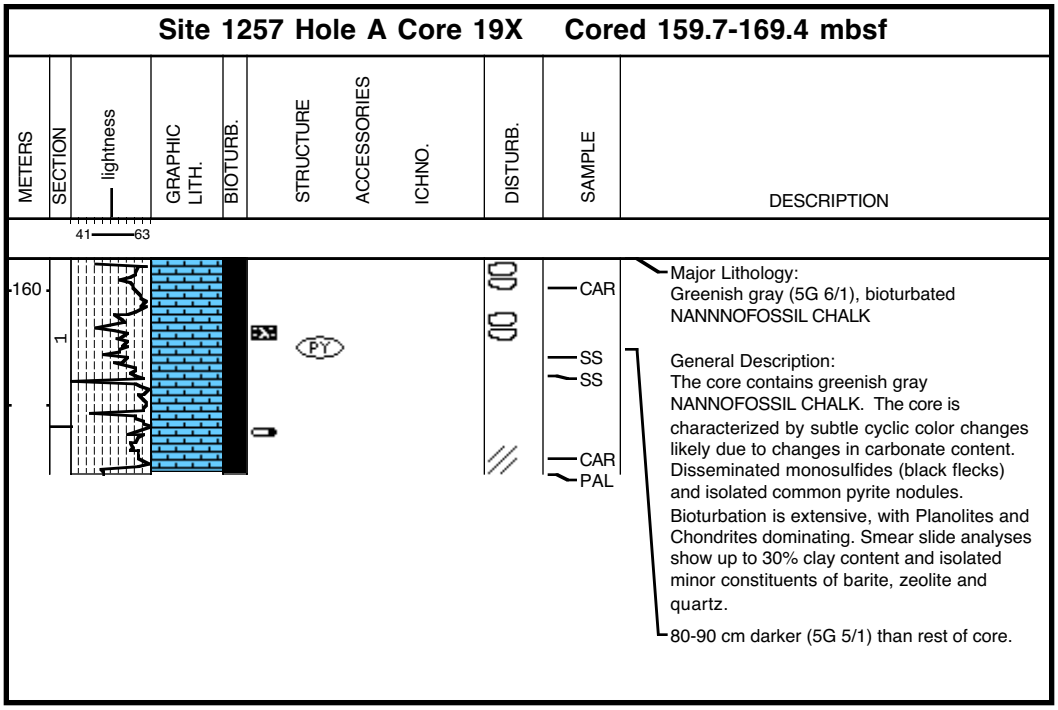
Core Photo


Site 1257 Hole A Core 17X Cored 140.7-150.3 mbsf
METERS
SECTION
lightness
41
68
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
142
144
146
148
1
2
3
4
5
6
Py
Py
Py
CAR
SS
CAR
SS
SS
CAR
SS
CAR
SS
SS
PAL
Major Lithology:
Light greenish gray (5G 7/1) to greenish gray (5G 6/1) FORAMINIFER NANNOFOSSIL CHALK WITH CLAY
General Description:
Core becomes lighter from bottom to top, and superimposed on this trend are subtle 20-30 cm alternations between darker green intervals and lighter tan intervals. These cycles are best expressed in Sections 2, 3, and 4. The green intervals are relatively clay-rich whereas the tan intervals are relatively carbonate-rich. The core is heavily bioturbated throughout, and the character of burrowing co-varies with color trends; darker intervals contain more subhorizontal Zoophycos and the lighter intervals contain more penetrative burrows. Apparent burrow tiers project downward from lighter intervals. Pyrite is abundant in the darker portions of the core occurring both concentrated in burrows and disseminated over several cm of core.

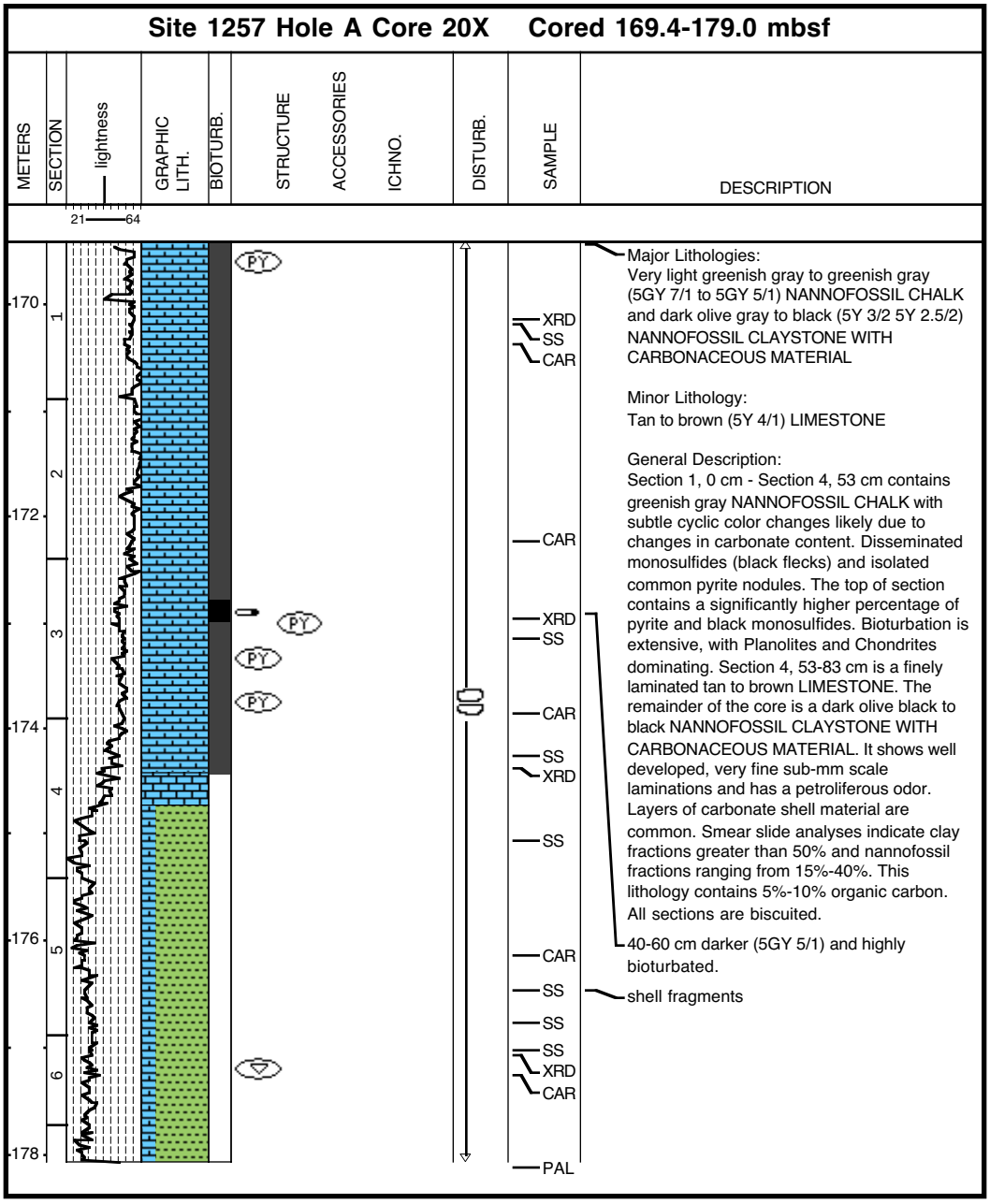
Core Photo


Site 1257 Hole A Core 18X Cored 150.3-159.7 mbsf
METERS
SECTION
lightness
43
66
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
152
154
156
158
160
1
2
3
4
5
6
7
PY
Py
SS
CAR
IW
PAL
Major Lithology:
Light greenish gray (5G 7/1) to greenish gray NANNOFOSSIL CHALK WITH FORAMINIFERS AND CLAY
General Description:
Dominant lithology is bioturbated throughout with discrete Zoophycos, Planolites, and Chondrites. The color becomes lighter upsection and subtle 20-30 cm alternations between darker and lighter intervals are present in Sections 1, 2, and 3. PYRITE is common, concentrated in burrows and disseminated over several cm of core.
3 cm pyrite nodule
tan interval (5Y 7/1)

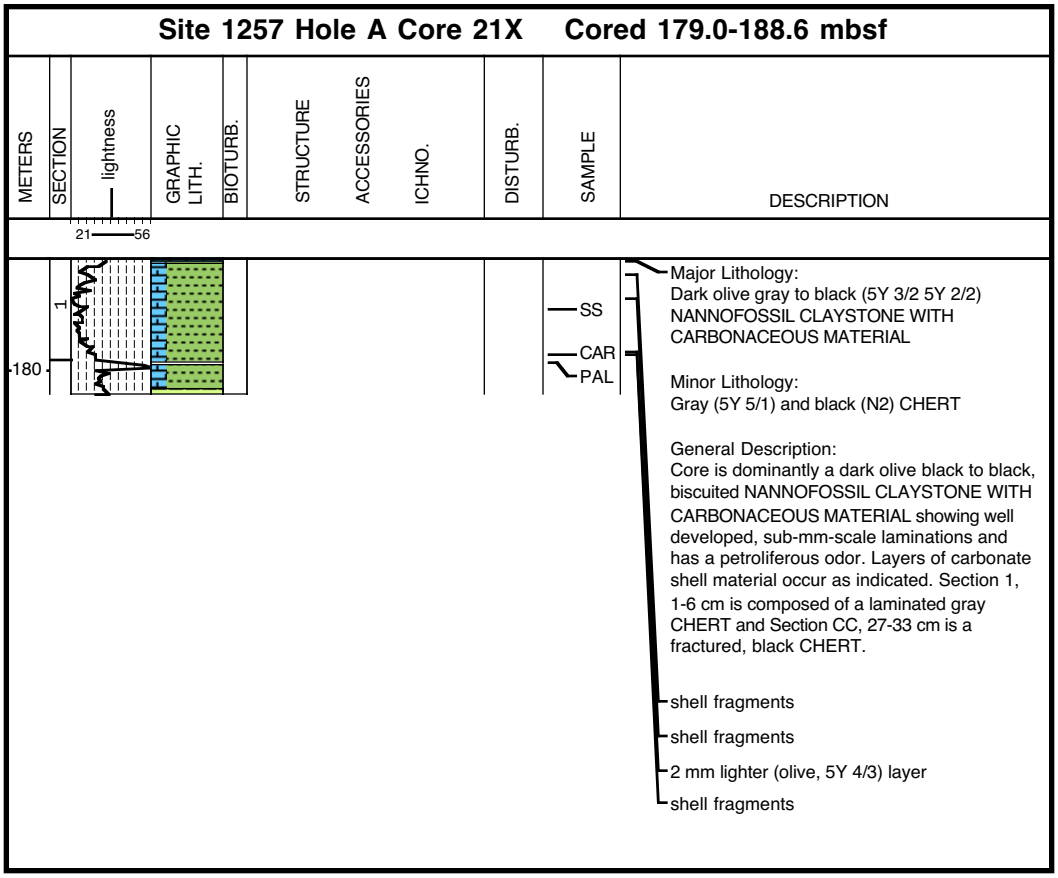
Core Photo


Site 1257 Hole A Core 19X Cored 159.7-169.4 mbsf
METERS
SECTION
lightness
41
63
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
160
1
PY
CAR
SS
SS
CAR
PAL
Major Lithology:
Greenish gray (5G 6/1), bioturbated NANNNOFOSSIL CHALK
General Description:
The core contains greenish gray NANNOFOSSIL CHALK. The core is characterized by subtle cyclic color changes likely due to changes in carbonate content. Disseminated monosulfides (black flecks) and isolated common pyrite nodules. Bioturbation is extensive, with Planolites and Chondrites dominating. Smear slide analyses show up to 30% clay content and isolated minor constituents of barite, zeolite and quartz.
80-90 cm darker (5G 5/1) than rest of core.

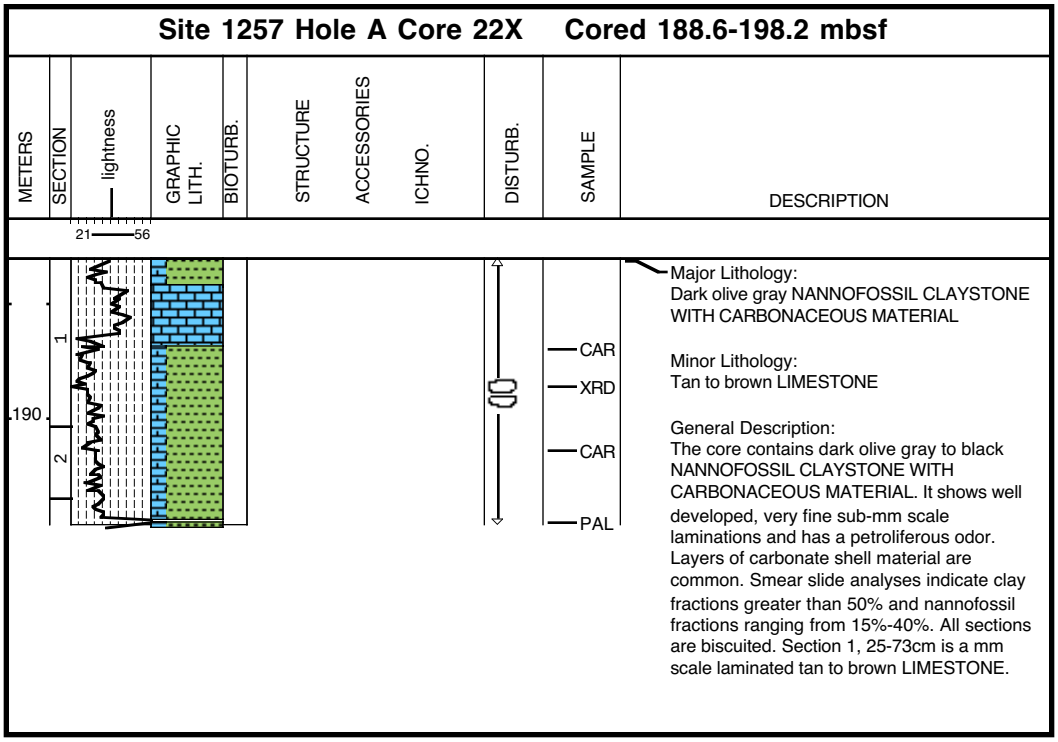
Core Photo


Site 1257 Hole A Core 20X Cored 169.4-179.0 mbsf
METERS
SECTION
lightness
21
64
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
170
172
174
176
178
1
2
3
4
5
6
PY
XRD
SS
CAR
PAL
Major Lithologies:
Very light greenish gray to greenish gray (5GY 7/1 to 5GY 5/1) NANNOFOSSIL CHALK and dark olive gray to black (5Y 3/2 5Y 2.5/2) NANNOFOSSIL CLAYSTONE WITH CARBONACEOUS MATERIAL
Minor Lithology:
Tan to brown (5Y 4/1) LIMESTONE
General Description:
Section 1, 0 cm - Section 4, 53 cm contains greenish gray NANNOFOSSIL CHALK with subtle cyclic color changes likely due to changes in carbonate content. Disseminated monosulfides (black flecks) and isolated common pyrite nodules. The top of section contains a significantly higher percentage of pyrite and black monosulfides. Bioturbation is extensive, with Planolites and Chondrites dominating. Section 4, 53-83 cm is a finely laminated tan to brown LIMESTONE. The remainder of the core is a dark olive black to black NANNOFOSSIL CLAYSTONE WITH CARBONACEOUS MATERIAL. It shows well developed, very fine sub-mm scale laminations and has a petroliferous odor. Layers of carbonate shell material are common. Smear slide analyses indicate clay fractions greater than 50% and nannofossil fractions ranging from 15%-40%. This lithology contains 5%-10% organic carbon. All sections are biscuited.
40-60 cm darker (5GY 5/1) and highly bioturbated.
shell fragments

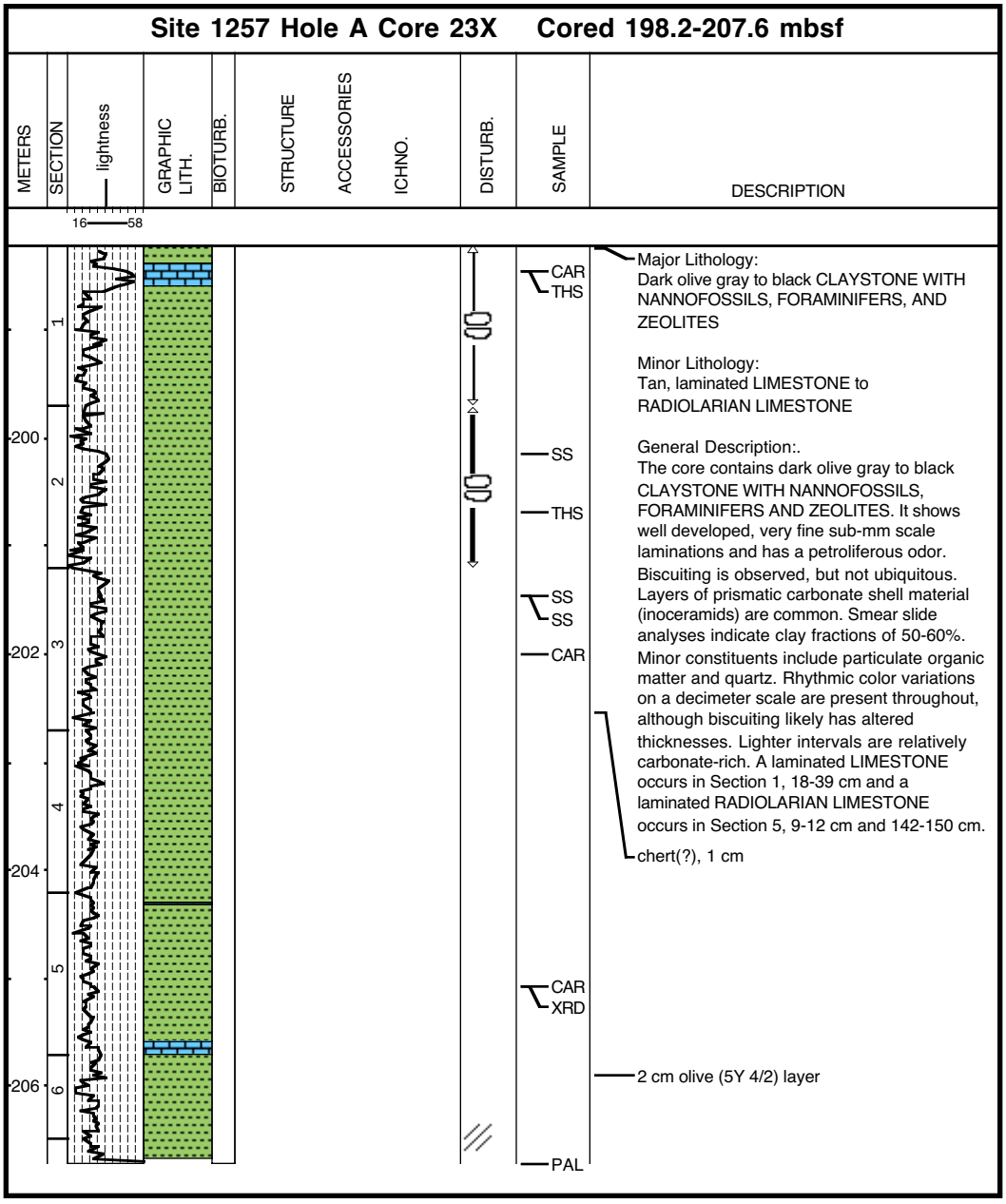
Core Photo


Site 1257 Hole A Core 21X Cored 179.0-188.6 mbsf
METERS
SECTION
lightness
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
21
56
1
180
SS
CAR
PAL
Major Lithology:
Dark olive gray to black (5Y 3/2 5Y 2/2) NANNOFOSSIL CLAYSTONE WITH CARBONACEOUS MATERIAL
Minor Lithology:
Gray (5Y 5/1) and black (N2) CHERT
General Description:
Core is dominantly a dark olive black to black, biscuited NANNOFOSSIL CLAYSTONE WITH CARBONACEOUS MATERIAL showing well developed, sub-mm-scale laminations and has a petroliferous odor. Layers of carbonate shell material occur as indicated. Section 1, 1-6 cm is composed of a laminated gray CHERT and Section CC, 27-33 cm is a fractured, black CHERT.
shell fragments
shell fragments
2 mm lighter (olive, 5Y 4/3) layer
shell fragments

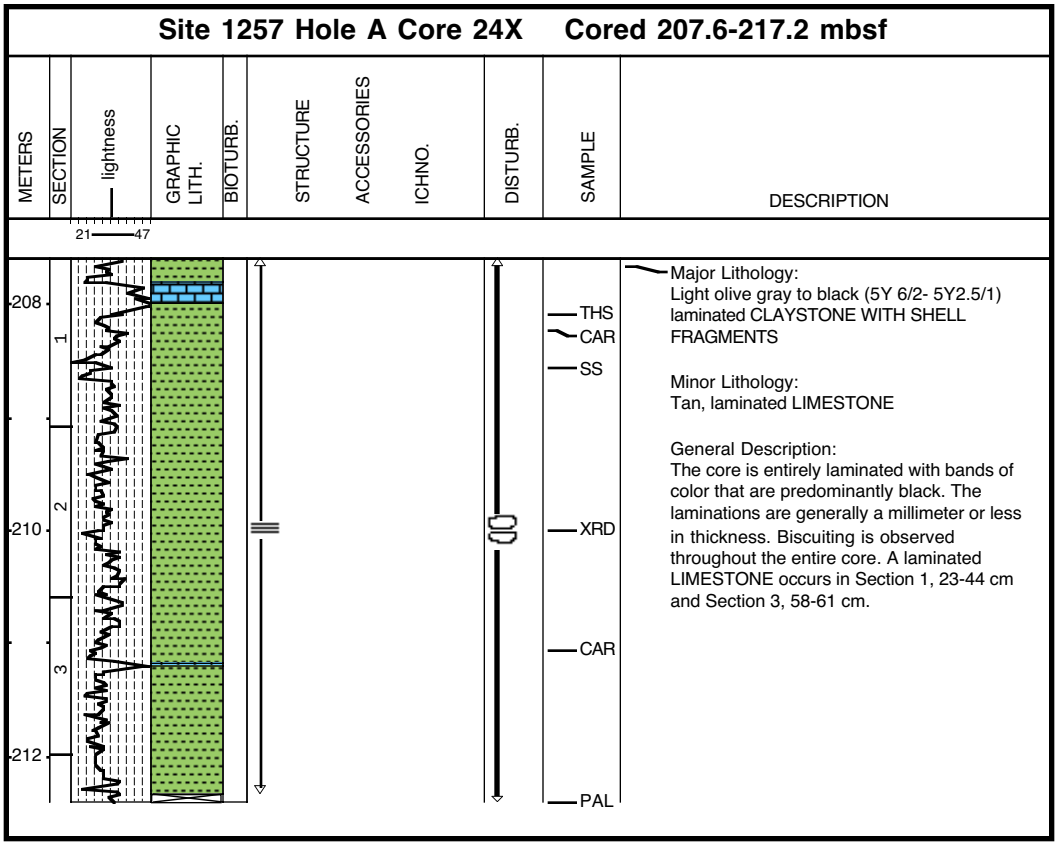
Core Photo


Site 1257 Hole A Core 22X Cored 188.6-198.2 mbsf
METERS
SECTION
lightness
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
21
56
190
1
2
CAR
XRD
CAR
PAL
Major Lithology:
Dark olive gray NANNOFOSSIL CLAYSTONE WITH CARBONACEOUS MATERIAL
Minor Lithology:
Tan to brown LIMESTONE
General Description:
The core contains dark olive gray to black NANNOFOSSIL CLAYSTONE WITH CARBONACEOUS MATERIAL. It shows well developed, very fine sub-mm scale laminations and has a petroliferous odor. Layers of carbonate shell material are common. Smear slide analyses indicate clay fractions greater than 50% and nannofossil fractions ranging from 15%-40%. All sections are biscuited. Section 1, 25-73cm is a mm scale laminated tan to brown LIMESTONE.

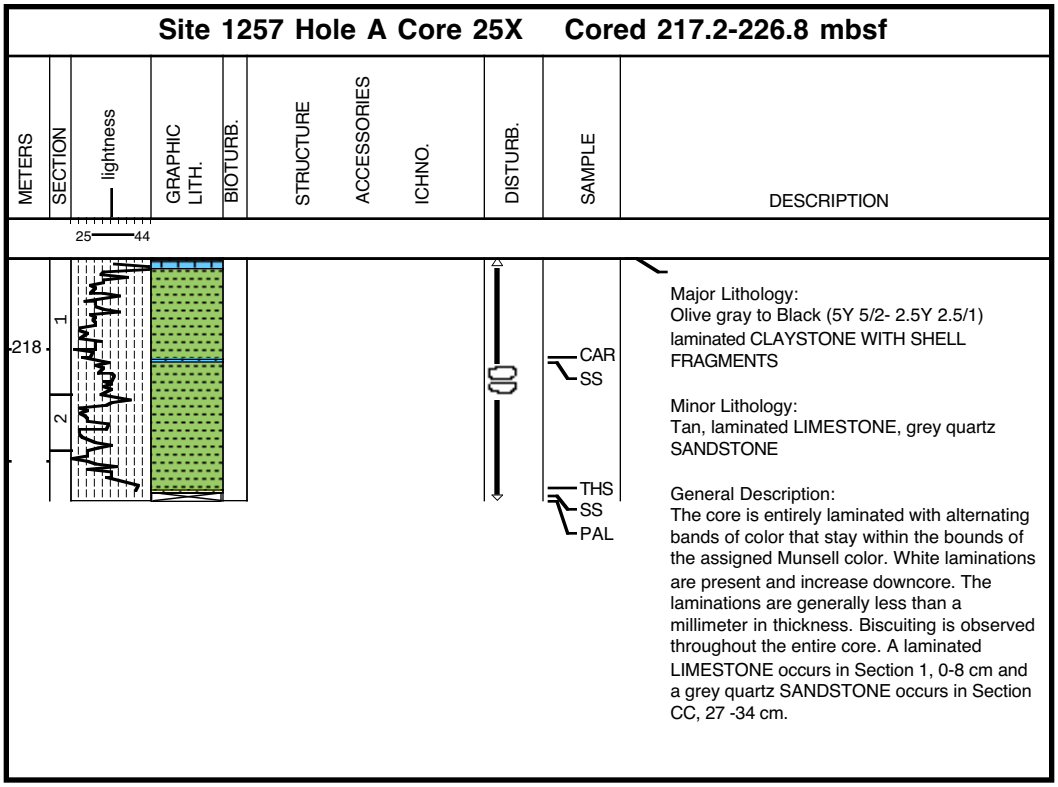
Core Photo


Site 1257 Hole A Core 23X Cored 198.2-207.6 mbsf
METERS
SECTION
lightness
16
58
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
200
202
204
206
1
2
3
4
5
6
CAR
THS
SS
THS
SS
SS
CAR
CAR
XRD
PAL
Major Lithology:
Dark olive gray to black CLAYSTONE WITH NANNOFOSSILS, FORAMINIFERS, AND ZEOLITES
Minor Lithology:
Tan, laminated LIMESTONE to RADIOLARIAN LIMESTONE
General Description:.
The core contains dark olive gray to black CLAYSTONE WITH NANNOFOSSILS, FORAMINIFERS AND ZEOLITES. It shows well developed, very fine sub-mm scale laminations and has a petroliferous odor. Biscuiting is observed, but not ubiquitous. Layers of prismatic carbonate shell material (inoceramids) are common. Smear slide analyses indicate clay fractions of 50-60%. Minor constituents include particulate organic matter and quartz. Rhythmic color variations on a decimeter scale are present throughout, although biscuiting likely has altered thicknesses. Lighter intervals are relatively carbonate-rich. A laminated LIMESTONE occurs in Section 1, 18-39 cm and a laminated RADIOLARIAN LIMESTONE occurs in Section 5, 9-12 cm and 142-150 cm.
chert(?), 1 cm
2 cm olive (5Y 4/2) layer

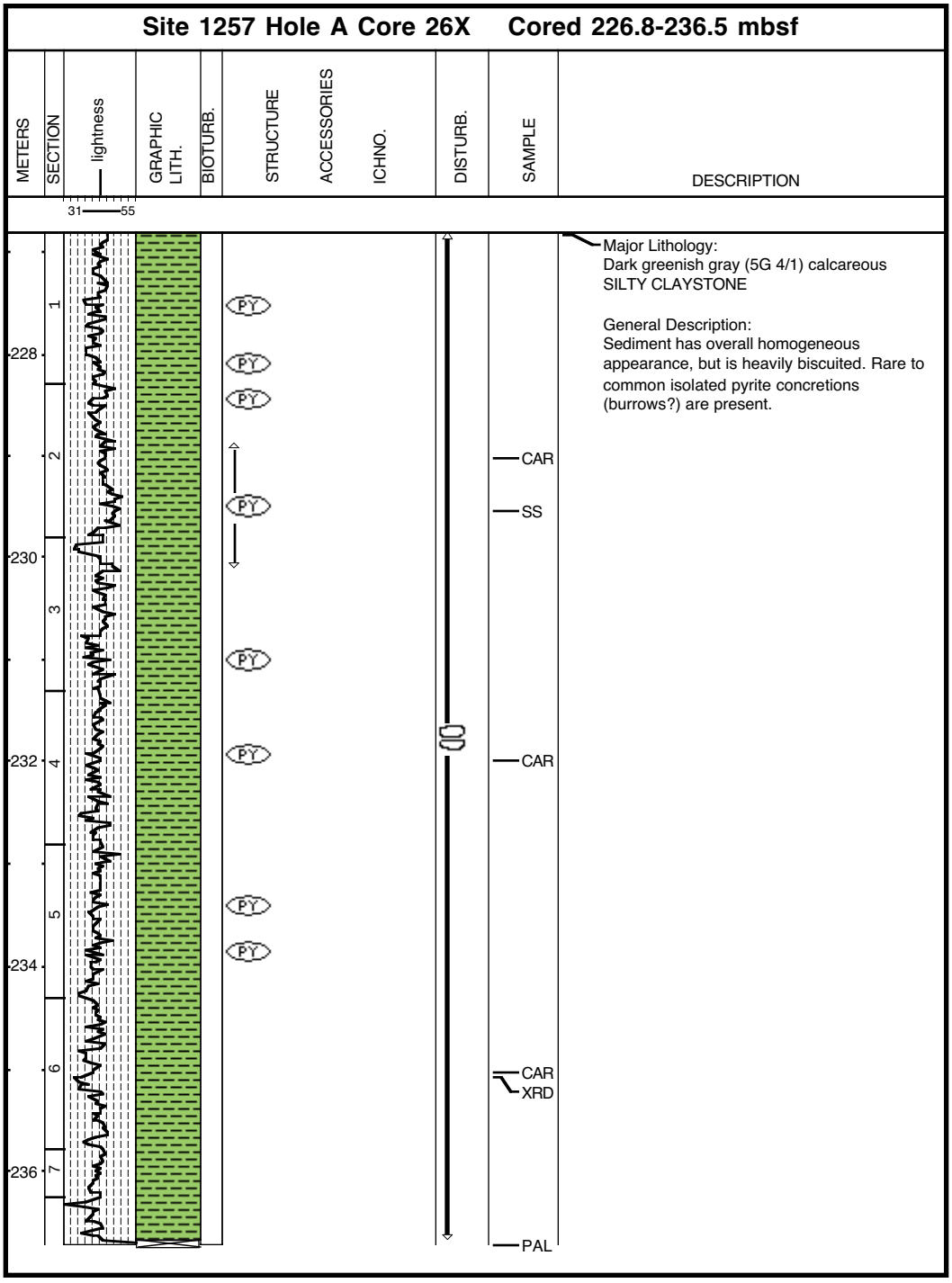
Core Photo


Site 1257 Hole A Core 24X Cored 207.6-217.2 mbsf
METERS
SECTION
lightness
21
47
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
208
210
212
1
2
3
THS
CAR
SS
XRD
CAR
PAL
Major Lithology:
Light olive gray to black (5Y 6/2- 5Y2.5/1) laminated CLAYSTONE WITH SHELL FRAGMENTS
Minor Lithology:
Tan, laminated LIMESTONE
General Description:
The core is entirely laminated with bands of color that are predominantly black. The laminations are generally a millimeter or less in thickness. Biscuiting is observed throughout the entire core. A laminated LIMESTONE occurs in Section 1, 23-44 cm and Section 3, 58-61 cm.

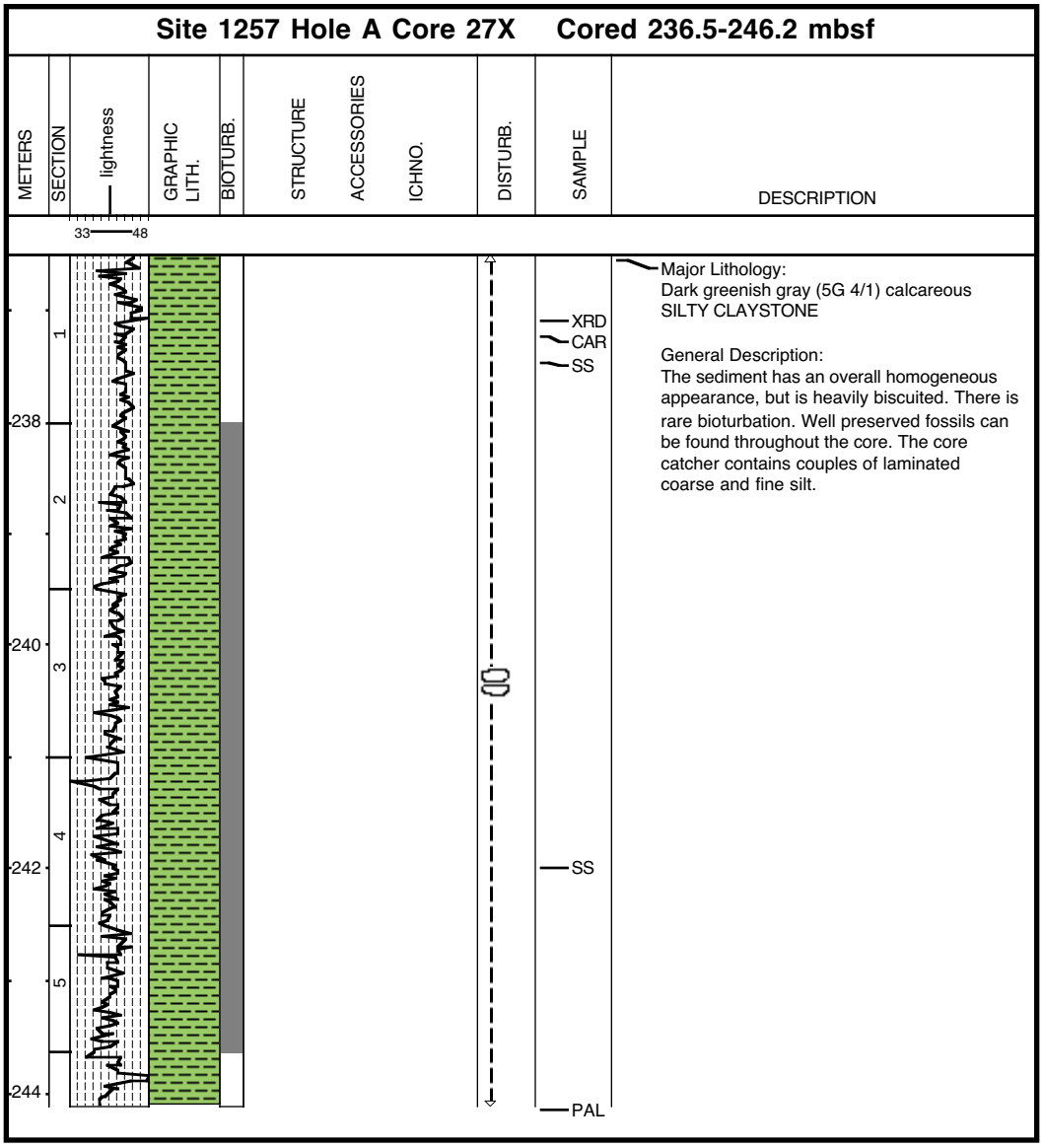
Core Photo


Site 1257 Hole A Core 25X Cored 217.2-226.8 mbsf
METERS
SECTION
lightness
25
44
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
218
1
2
CAR
SS
THS
SS
PAL
Major Lithology:
Olive gray to Black (5Y 5/2- 2.5Y 2.5/1) laminated CLAYSTONE WITH SHELL FRAGMENTS
Minor Lithology:
Tan, laminated LIMESTONE, grey quartz SANDSTONE
General Description:
The core is entirely laminated with alternating bands of color that stay within the bounds of the assigned Munsell color. White laminations are present and increase downcore. The laminations are generally less than a millimeter in thickness. Biscuiting is observed throughout the entire core. A laminated LIMESTONE occurs in Section 1, 0-8 cm and a grey quartz SANDSTONE occurs in Section CC, 27 -34 cm.

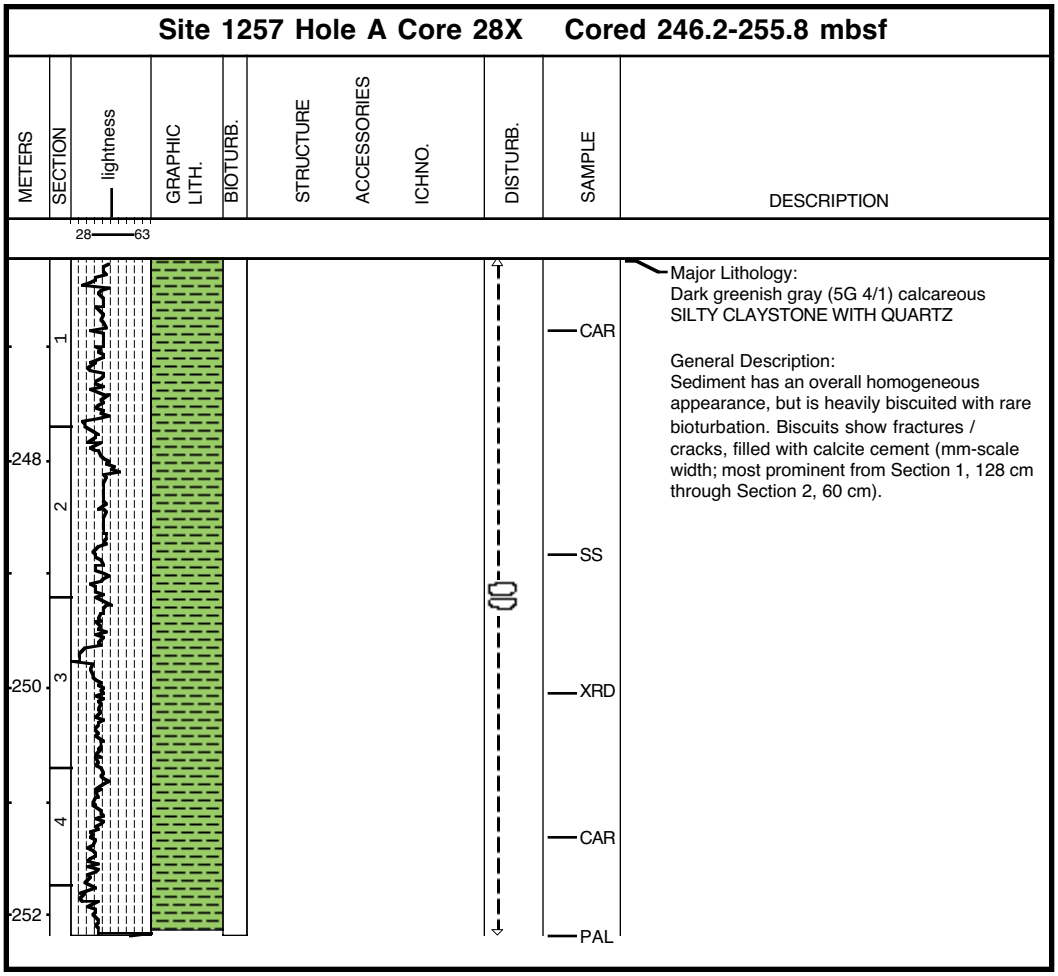
Core Photo


Site 1257 Hole A Core 26X Cored 226.8-236.5 mbsf
METERS
SECTION
lightness
31
55
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
228
230
232
234
236
1
2
3
4
5
6
7
PY
CAR
SS
CAR
CAR
XRD
PAL
Major Lithology:
Dark greenish gray (5G 4/1) calcareous SILTY CLAYSTONE
General Description:
Sediment has overall homogeneous appearance, but is heavily biscuited. Rare to common isolated pyrite concretions (burrows?) are present.

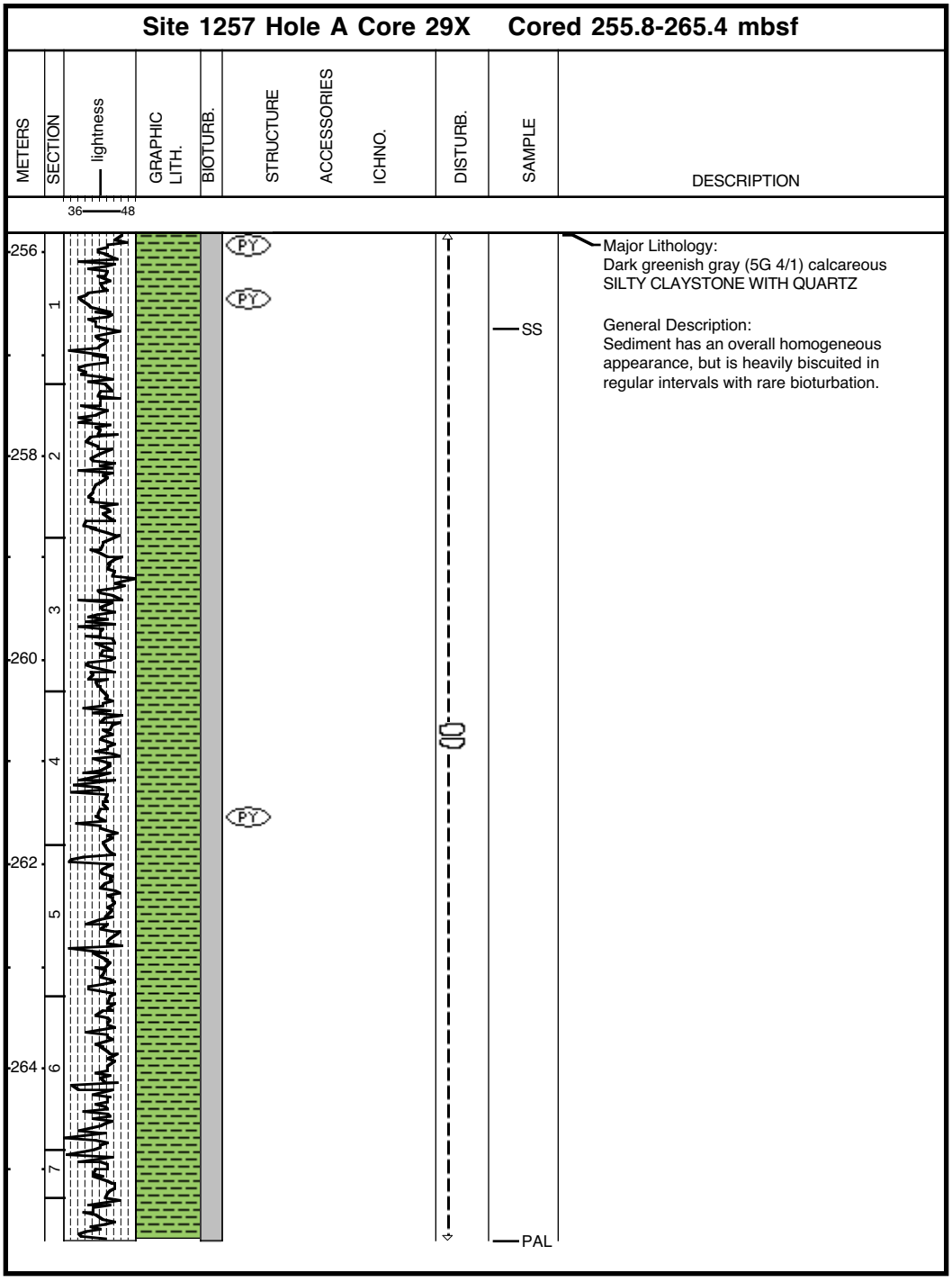
Core Photo


Site 1257 Hole A Core 27X Cored 236.5-246.2 mbsf
METERS
SECTION
lightness
33
48
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
238
240
242
244
1
2
3
4
5
XRD
CAR
SS
SS
PAL
Major Lithology:
Dark greenish gray (5G 4/1) calcareous SILTY CLAYSTONE
General Description:
The sediment has an overall homogeneous appearance, but is heavily biscuited. There is rare bioturbation. Well preserved fossils can be found throughout the core. The core catcher contains couples of laminated coarse and fine silt.

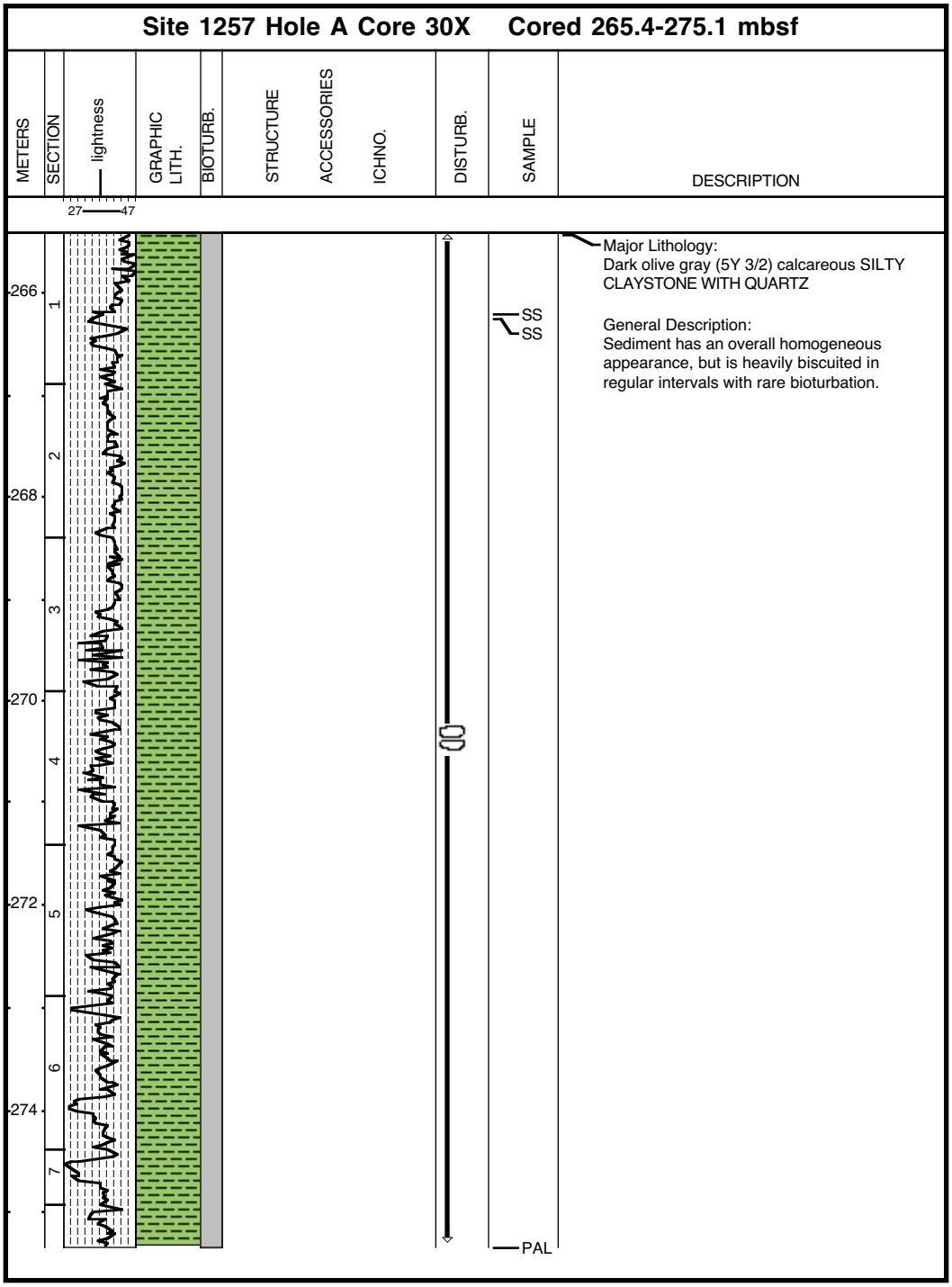
Core Photo


Site 1257 Hole A Core 28X Cored 246.2-255.8 mbsf
METERS
SECTION
lightness
28
63
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
248
250
252
1
2
3
4
CAR
SS
XRD
CAR
PAL
Major Lithology:
Dark greenish gray (5G 4/1) calcareous SILTY CLAYSTONE WITH QUARTZ
General Description:
Sediment has an overall homogeneous appearance, but is heavily biscuited with rare bioturbation. Biscuits show fractures / cracks, filled with calcite cement (mm-scale width; most prominent from Section 1, 128 cm through Section 2, 60 cm).

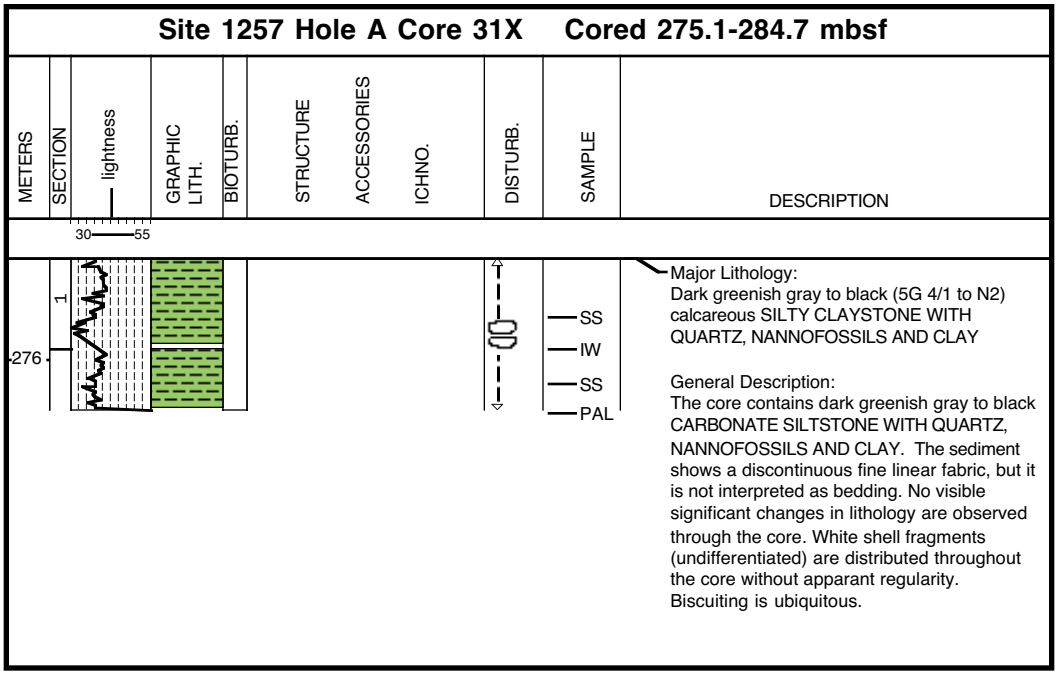
Core Photo


Site 1257 Hole A Core 29X Cored 255.8-265.4 mbsf
METERS
SECTION
lightness
36
48
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
256
258
260
262
264
1
2
3
4
5
6
7
PY
PY
PY
SS
PAL
Major Lithology:
Dark greenish gray (5G 4/1) calcareous SILTY CLAYSTONE WITH QUARTZ
General Description:
Sediment has an overall homogeneous appearance, but is heavily biscuited in regular intervals with rare bioturbation.

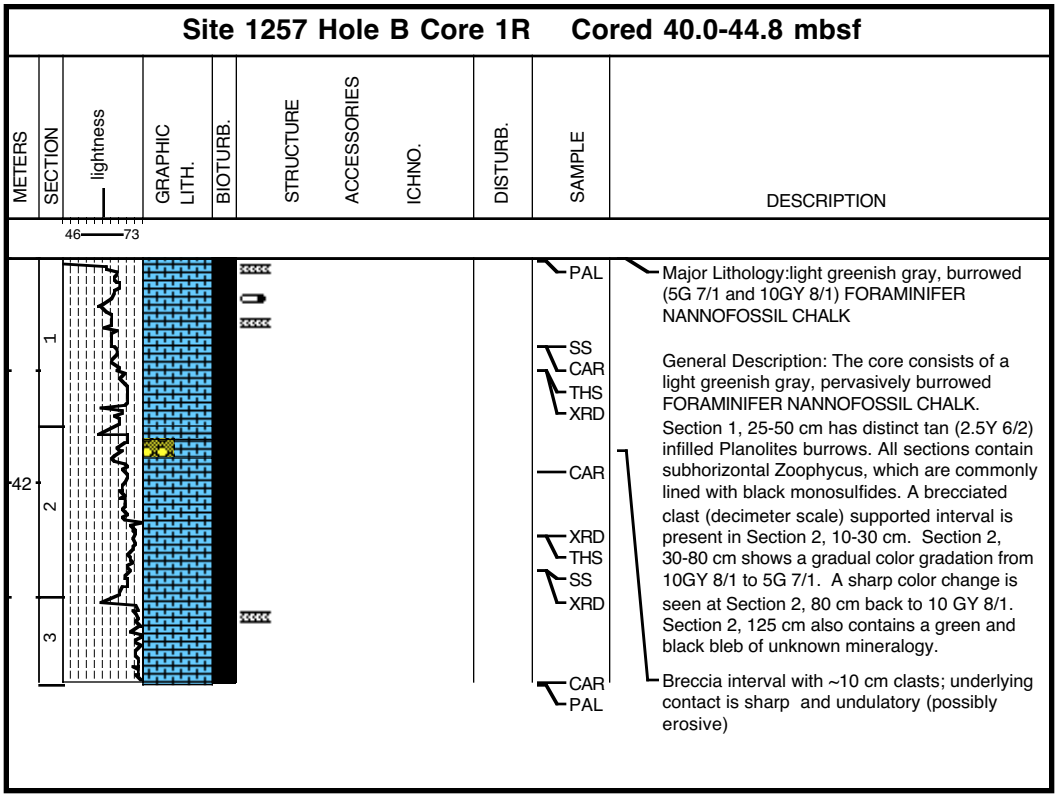
Core Photo


Site 1257 Hole A Core 30X Cored 265.4-275.1 mbsf
METERS
SECTION
lightness
27
47
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
266
268
270
272
274
1
2
3
4
5
6
7
SS
SS
PAL
Major Lithology:
Dark olive gray (5Y 3/2) calcareous SILTY CLAYSTONE WITH QUARTZ
General Description:
Sediment has an overall homogeneous appearance, but is heavily biscuited in regular intervals with rare bioturbation.

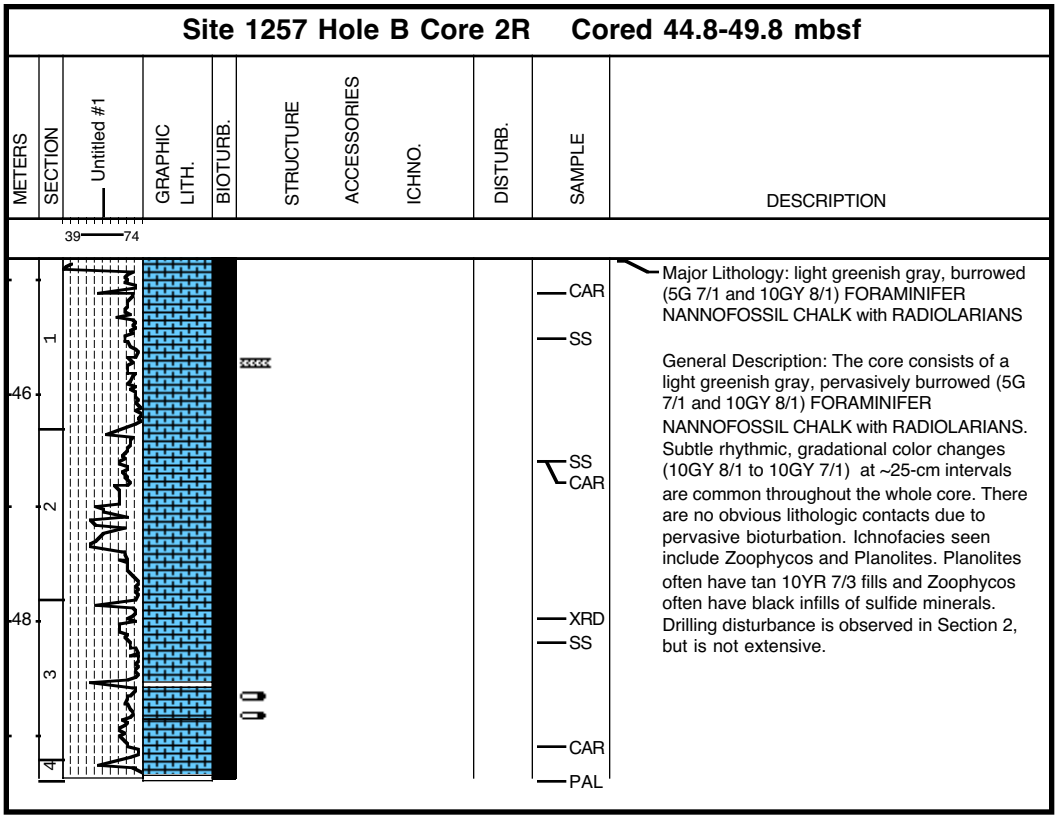
Core Photo


Site 1257 Hole A Core 31X Cored 275.1-284.7 mbsf
METERS
SECTION
lightness
30
55
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
1
276
SS
IW
SS
PAL
Major Lithology:
Dark greenish gray to black (5G 4/1 to N2) calcareous SILTY CLAYSTONE WITH QUARTZ, NANNOFOSSILS AND CLAY
General Description:
The core contains dark greenish gray to black CARBONATE SILTSTONE WITH QUARTZ, NANNOFOSSILS AND CLAY. The sediment shows a discontinuous fine linear fabric, but it is not interpreted as bedding. No visible significant changes in lithology are observed through the core. White shell fragments (undifferentiated) are distributed throughout the core without apparant regularity. Biscuiting is ubiquitous.

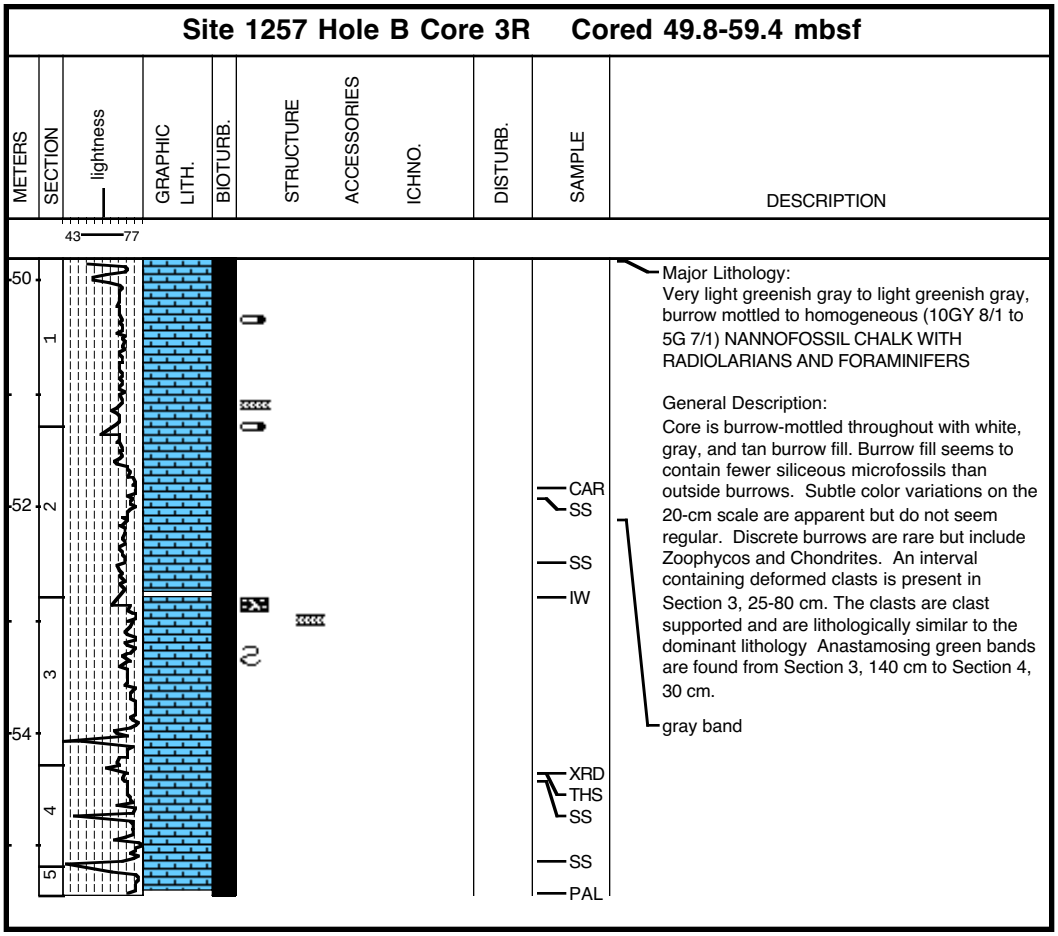
Core Photo


Site 1257 Hole B Core 1R Cored 40.0-44.8 mbsf
METERS
SECTION
lightness
46
73
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
1
2
3
42
PAL
SS
CAR
THS
XRD
CAR
XRD
THS
SS
XRD
CAR
PAL
Major Lithology:light greenish gray, burrowed (5G 7/1 and 10GY 8/1) FORAMINIFER NANNOFOSSIL CHALK
General Description: The core consists of a light greenish gray, pervasively burrowed FORAMINIFER NANNOFOSSIL CHALK. Section 1, 25-50 cm has distinct tan (2.5Y 6/2) infilled Planolites burrows. All sections contain subhorizontal Zoophycus, which are commonly lined with black monosulfides. A brecciated clast (decimeter scale) supported interval is present in Section 2, 10-30 cm. Section 2, 30-80 cm shows a gradual color gradation from 10GY 8/1 to 5G 7/1. A sharp color change is seen at Section 2, 80 cm back to 10 GY 8/1. Section 2, 125 cm also contains a green and black bleb of unknown mineralogy.
Breccia interval with ~10 cm clasts; underlying contact is sharp and undulatory (possibly erosive)

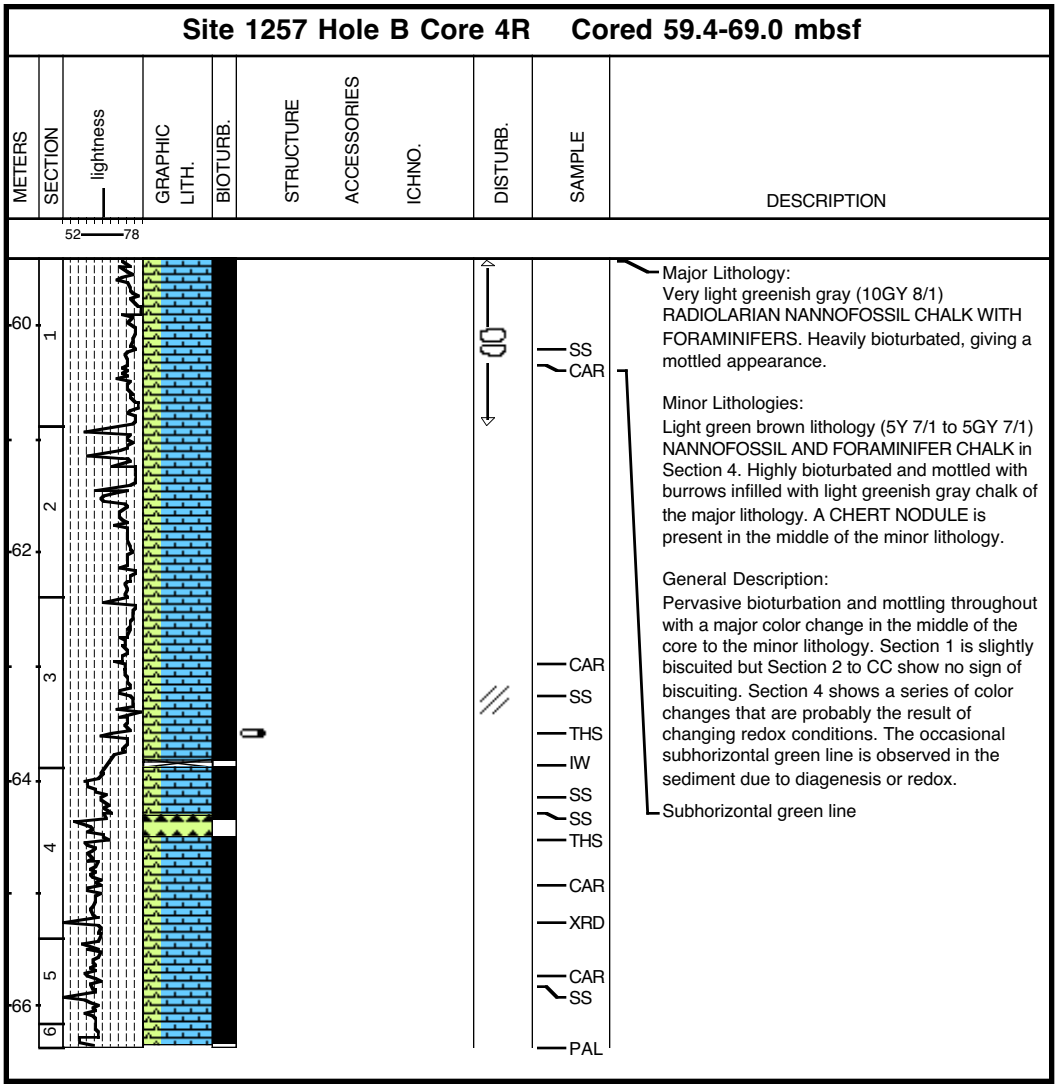
Core Photo


Site 1257 Hole B Core 2R Cored 44.8-49.8 mbsf
METERS
SECTION
Untitled #1
39
74
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
46
48
1
2
3
4
CAR
SS
SS
CAR
XRD
SS
CAR
PAL
Major Lithology: light greenish gray, burrowed (5G 7/1 and 10GY 8/1) FORAMINIFER NANNOFOSSIL CHALK with RADIOLARIANS
General Description: The core consists of a light greenish gray, pervasively burrowed (5G 7/1 and 10GY 8/1) FORAMINIFER NANNOFOSSIL CHALK with RADIOLARIANS. Subtle rhythmic, gradational color changes (10GY 8/1 to 10GY 7/1) at ~25-cm intervals are common throughout the whole core. There are no obvious lithologic contacts due to pervasive bioturbation. Ichnofacies seen include Zoophycos and Planolites. Planolites often have tan 10YR 7/3 fills and Zoophycos often have black infills of sulfide minerals. Drilling disturbance is observed in Section 2, but is not extensive.

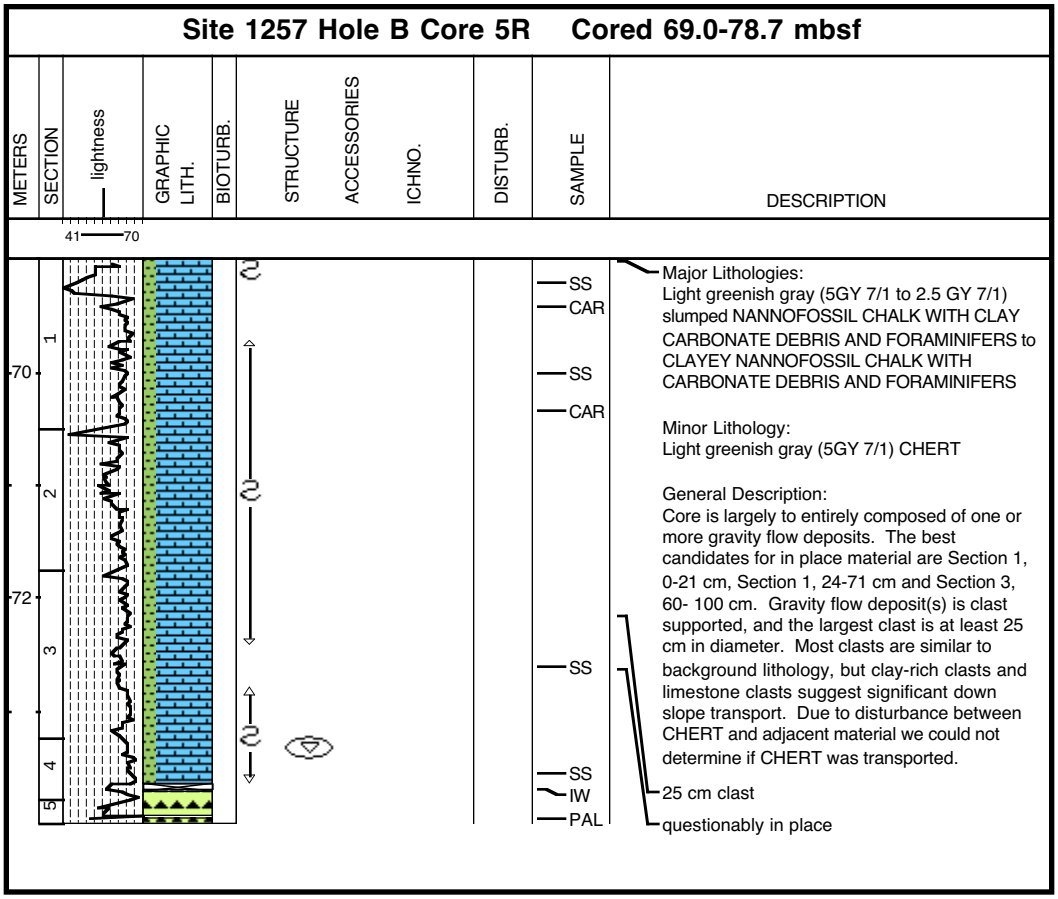
Core Photo


Site 1257 Hole B Core 3R Cored 49.8-59.4 mbsf
METERS
SECTION
lightness
43
77
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
50
52
54
1
2
3
4
5
CAR
SS
SS
IW
XRD
THS
SS
SS
PAL
Major Lithology:
Very light greenish gray to light greenish gray, burrow mottled to homogeneous (10GY 8/1 to 5G 7/1) NANNOFOSSIL CHALK WITH RADIOLARIANS AND FORAMINIFERS
General Description:
Core is burrow-mottled throughout with white, gray, and tan burrow fill. Burrow fill seems to contain fewer siliceous microfossils than outside burrows. Subtle color variations on the 20-cm scale are apparent but do not seem regular. Discrete burrows are rare but include Zoophycos and Chondrites. An interval containing deformed clasts is present in Section 3, 25-80 cm. The clasts are clast supported and are lithologically similar to the dominant lithology Anastamosing green bands are found from Section 3, 140 cm to Section 4, 30 cm.
gray band

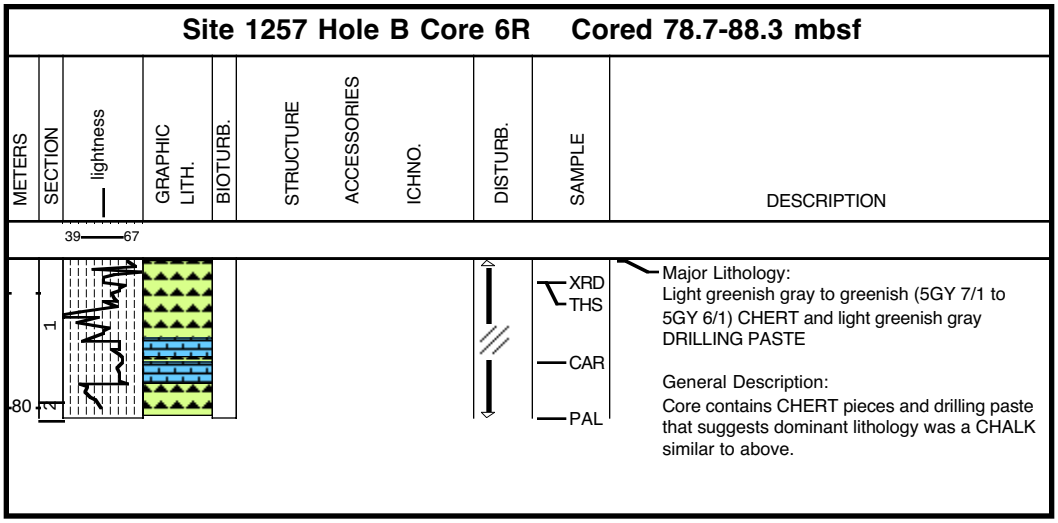
Core Photo


Site 1257 Hole B Core 4R Cored 59.4-69.0 mbsf
METERS
SECTION
lightness
52
78
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
60
62
64
66
1
2
3
4
5
6
SS
CAR
CAR
SS
THS
IW
SS
SS
THS
CAR
XRD
CAR
SS
PAL
Major Lithology:
Very light greenish gray (10GY 8/1) RADIOLARIAN NANNOFOSSIL CHALK WITH FORAMINIFERS. Heavily bioturbated, giving a mottled appearance.
Minor Lithologies:
Light green brown lithology (5Y 7/1 to 5GY 7/1) NANNOFOSSIL AND FORAMINIFER CHALK in Section 4. Highly bioturbated and mottled with burrows infilled with light greenish gray chalk of the major lithology. A CHERT NODULE is present in the middle of the minor lithology.
General Description:
Pervasive bioturbation and mottling throughout with a major color change in the middle of the core to the minor lithology. Section 1 is slightly biscuited but Section 2 to CC show no sign of biscuiting. Section 4 shows a series of color changes that are probably the result of changing redox conditions. The occasional subhorizontal green line is observed in the sediment due to diagenesis or redox.
Subhorizontal green line

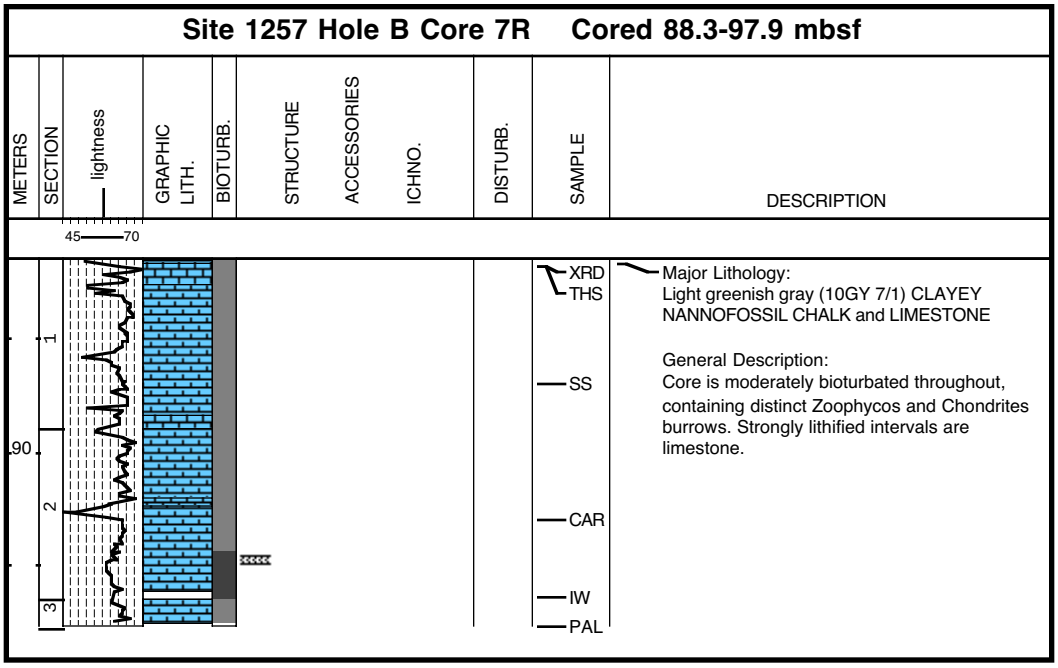
Core Photo


Site 1257 Hole B Core 5R Cored 69.0-78.7 mbsf
METERS
SECTION
lightness
41
70
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
70
72
1
2
3
4
5
SS
CAR
SS
CAR
SS
SS
IW
PAL
Major Lithologies:
Light greenish gray (5GY 7/1 to 2.5 GY 7/1) slumped NANNOFOSSIL CHALK WITH CLAY CARBONATE DEBRIS AND FORAMINIFERS to CLAYEY NANNOFOSSIL CHALK WITH CARBONATE DEBRIS AND FORAMINIFERS
Minor Lithology:
Light greenish gray (5GY 7/1) CHERT
General Description:
Core is largely to entirely composed of one or more gravity flow deposits. The best candidates for in place material are Section 1, 0-21 cm, Section 1, 24-71 cm and Section 3, 60- 100 cm. Gravity flow deposit(s) is clast supported, and the largest clast is at least 25 cm in diameter. Most clasts are similar to background lithology, but clay-rich clasts and limestone clasts suggest significant down slope transport. Due to disturbance between CHERT and adjacent material we could not determine if CHERT was transported.
25 cm clast
questionably in place

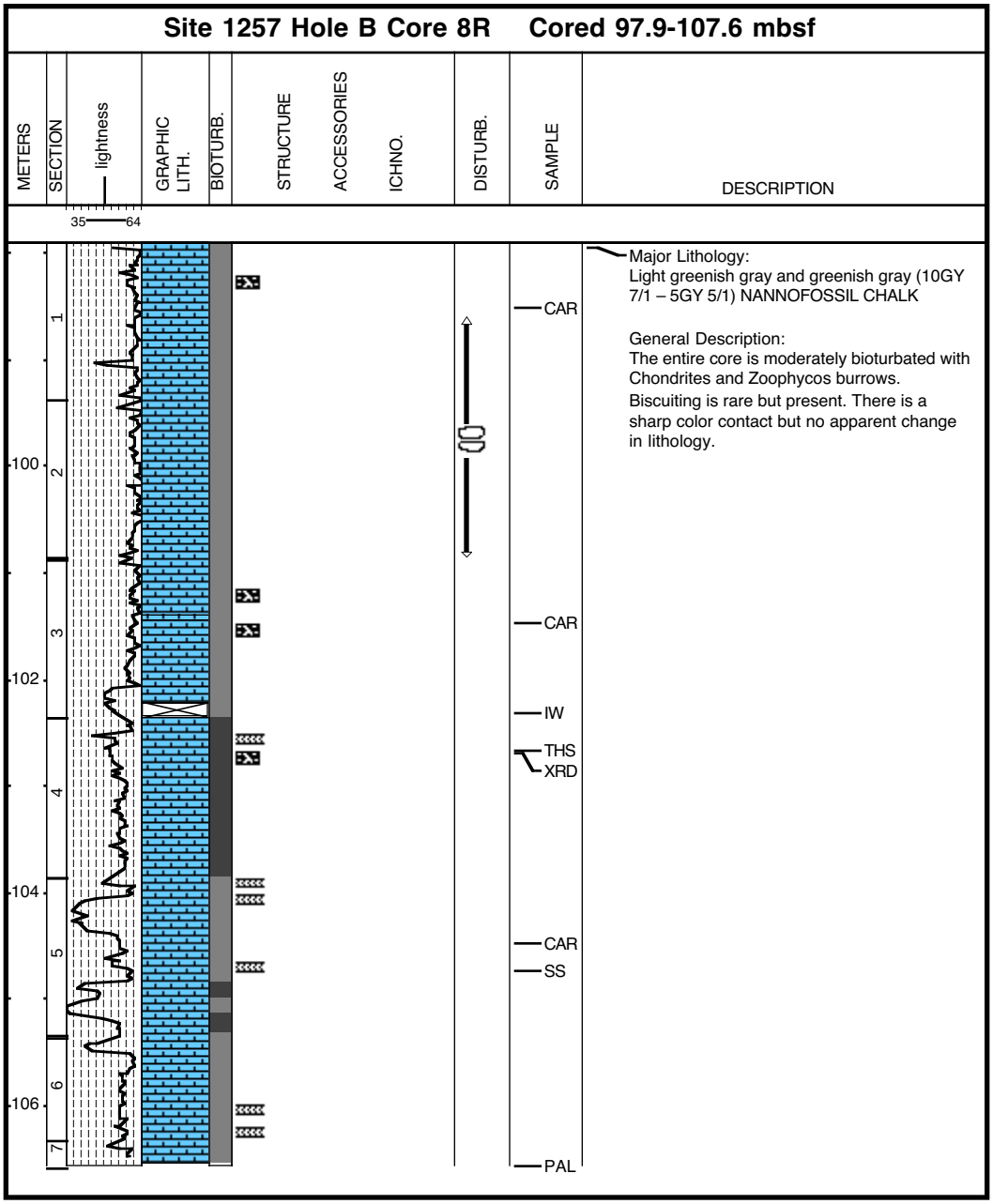
Core Photo


Site 1257 Hole B Core 6R Cored 78.7-88.3 mbsf
METERS
SECTION
lightness
39
67
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
1
80
XRD
THS
CAR
PAL
Major Lithology:
Light greenish gray to greenish (5GY 7/1 to 5GY 6/1) CHERT and light greenish gray DRILLING PASTE
General Description:
Core contains CHERT pieces and drilling paste that suggests dominant lithology was a CHALK similar to above.

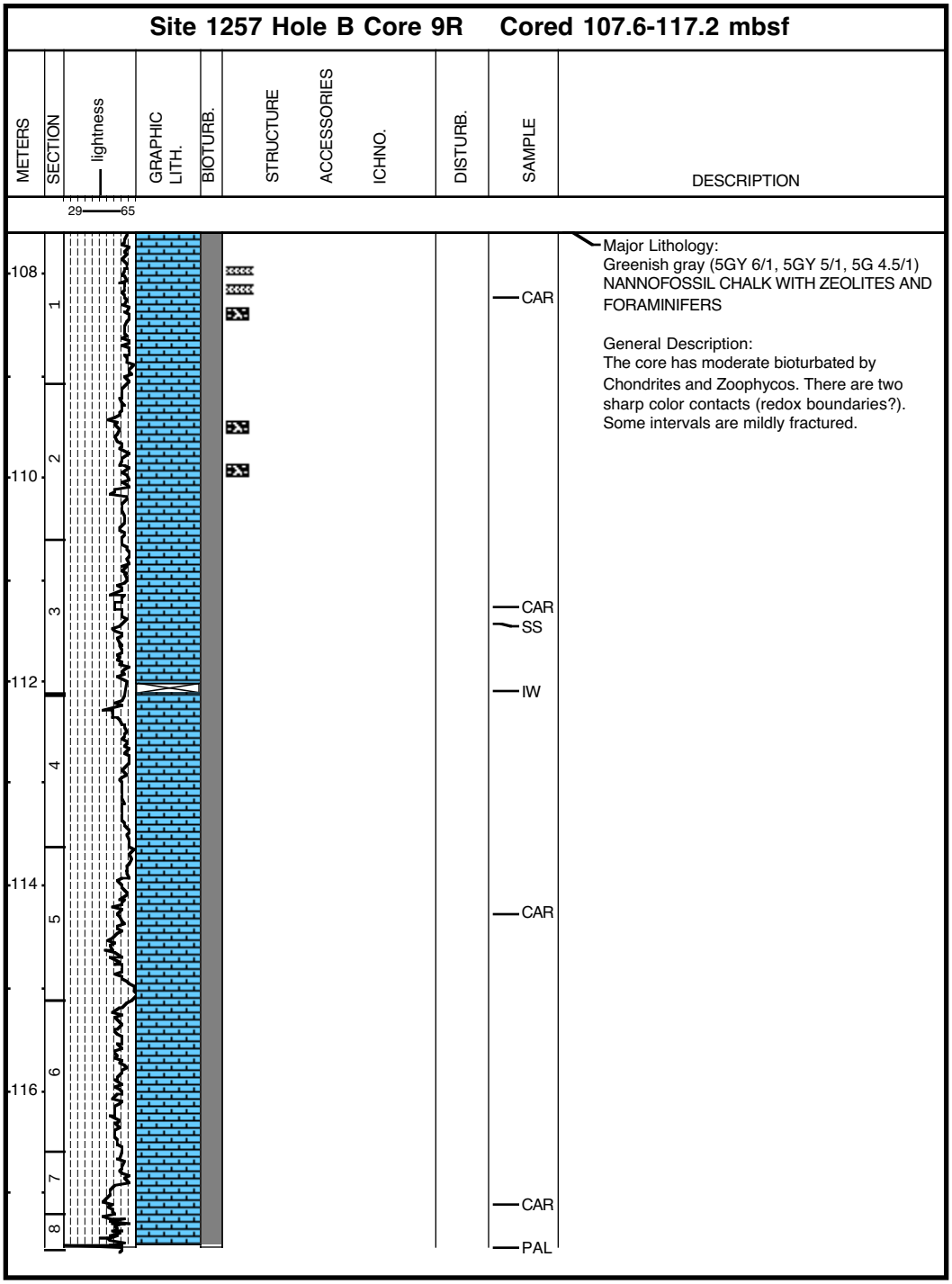
Core Photo


Site 1257 Hole B Core 7R Cored 88.3-97.9 mbsf
METERS
SECTION
lightness
45
70
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
90
1
2
3
XRD
THS
SS
CAR
IW
PAL
Major Lithology:
Light greenish gray (10GY 7/1) CLAYEY NANNOFOSSIL CHALK and LIMESTONE
General Description:
Core is moderately bioturbated throughout, containing distinct Zoophycos and Chondrites burrows. Strongly lithified intervals are limestone.

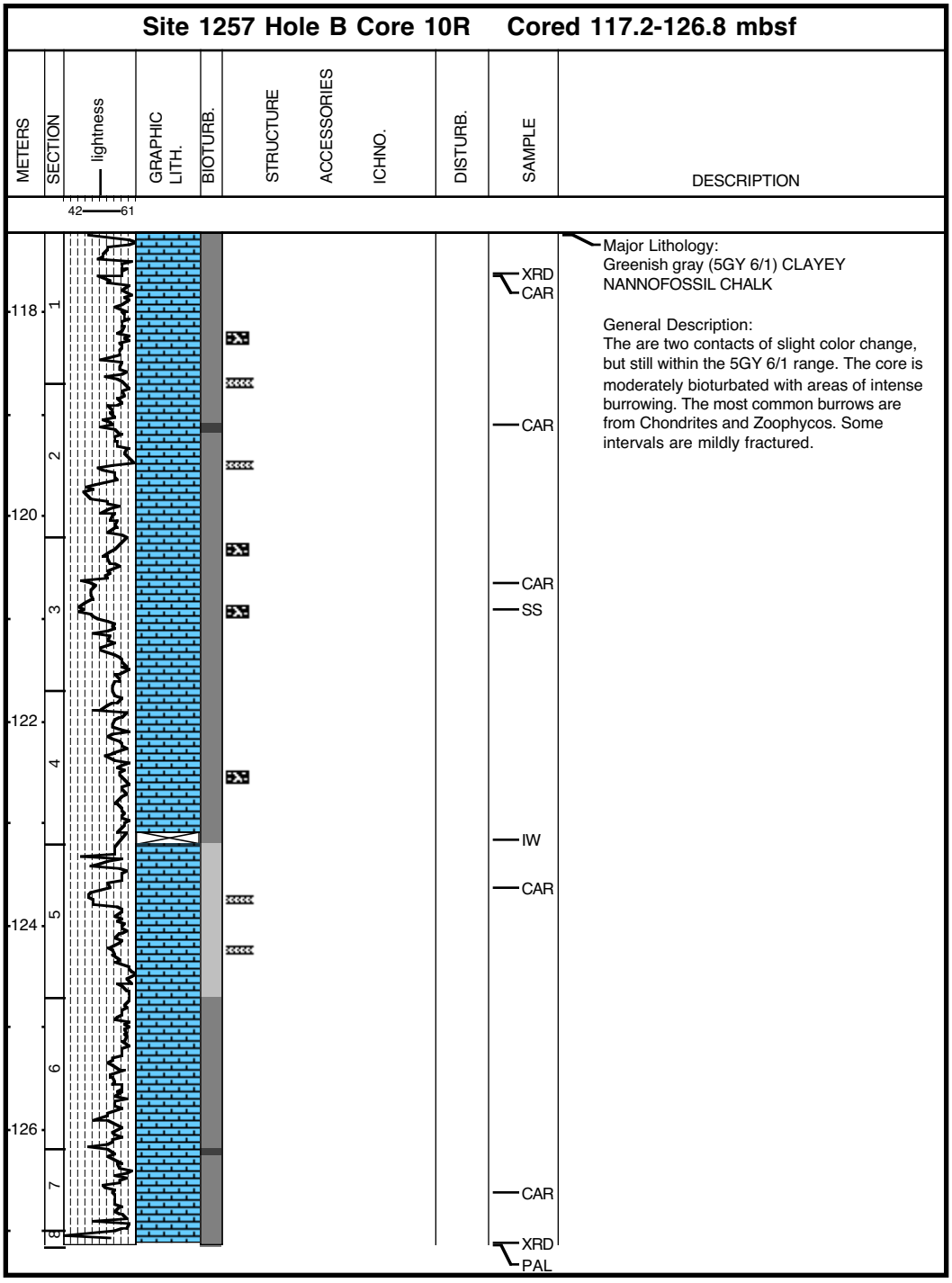
Core Photo


Site 1257 Hole B Core 8R Cored 97.9-107.6 mbsf
METERS
SECTION
lightness
35
64
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
100
102
104
106
1
2
3
4
5
6
7
CAR
CAR
IW
THS
XRD
CAR
SS
PAL
Major Lithology:
Light greenish gray and greenish gray (10GY 7/1 – 5GY 5/1) NANNOFOSSIL CHALK
General Description:
The entire core is moderately bioturbated with Chondrites and Zoophycos burrows.
Biscuiting is rare but present. There is a sharp color contact but no apparent change in lithology.

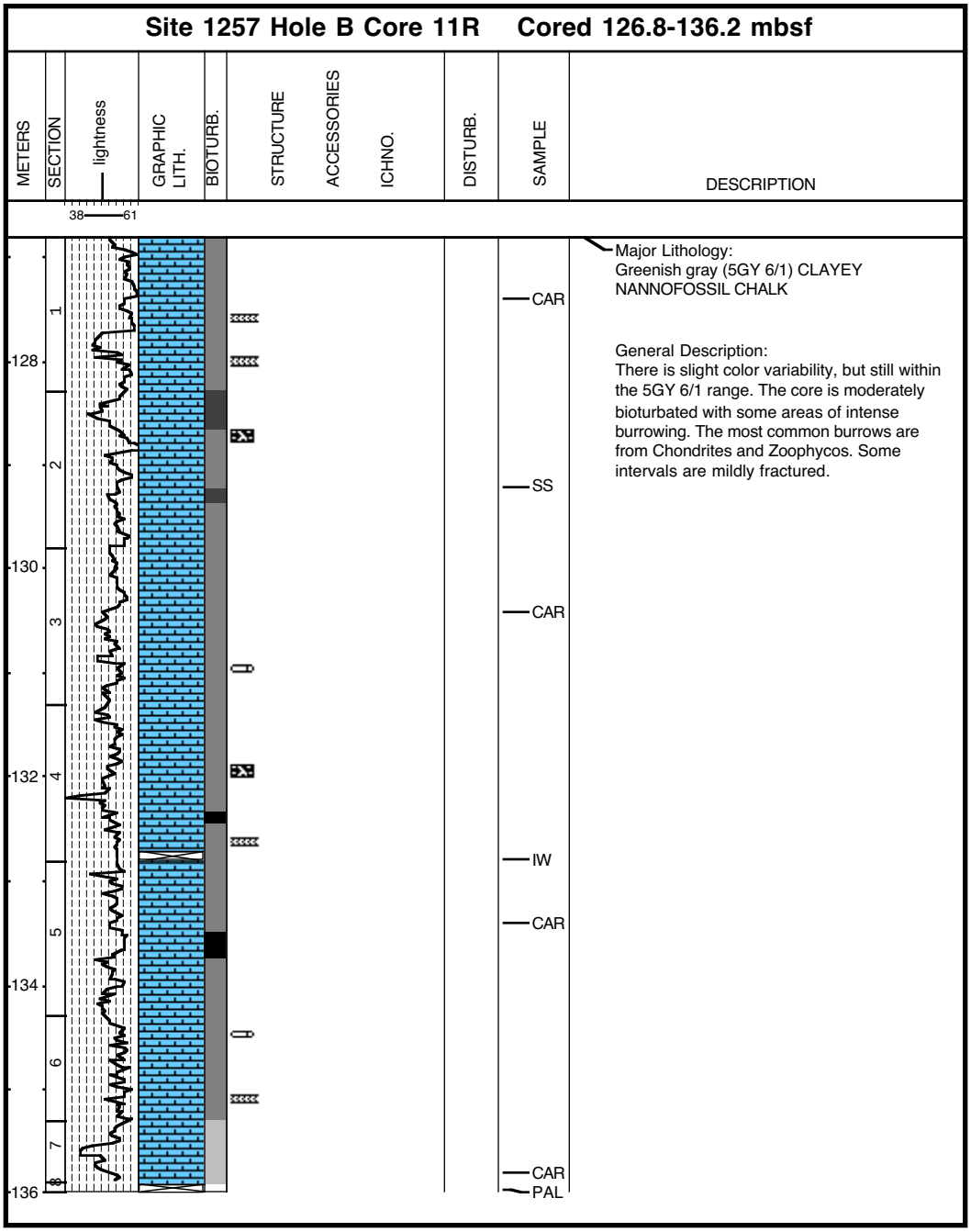
Core Photo


Site 1257 Hole B Core 9R Cored 107.6-117.2 mbsf
METERS
SECTION
lightness
29
65
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
108
110
112
114
116
1
2
3
4
5
6
7
8
CAR
CAR
SS
IW
CAR
CAR
PAL
Major Lithology:
Greenish gray (5GY 6/1, 5GY 5/1, 5G 4.5/1) NANNOFOSSIL CHALK WITH ZEOLITES AND FORAMINIFERS
General Description:
The core has moderate bioturbated by Chondrites and Zoophycos. There are two sharp color contacts (redox boundaries?). Some intervals are mildly fractured.

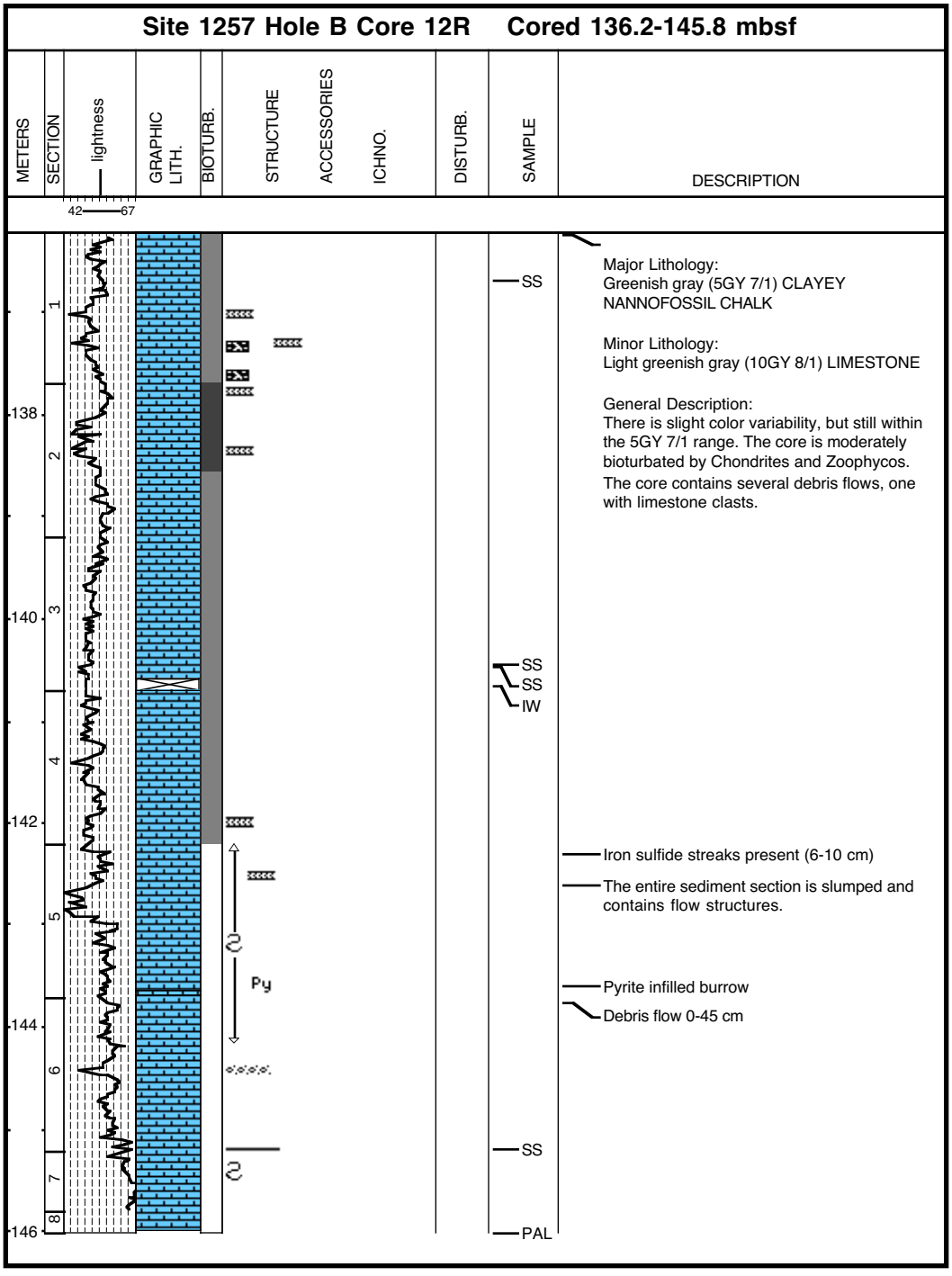
Core Photo


Site 1257 Hole B Core 10R Cored 117.2-126.8 mbsf
METERS
SECTION
lightness
42
61
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
118
120
122
124
126
1
2
3
4
5
6
7
CC
XRD
CAR
CAR
CAR
SS
IW
CAR
CAR
XRD
PAL
Major Lithology:
Greenish gray (5GY 6/1) CLAYEY NANNOFOSSIL CHALK
General Description:
The are two contacts of slight color change, but still within the 5GY 6/1 range. The core is moderately bioturbated with areas of intense burrowing. The most common burrows are from Chondrites and Zoophycos. Some intervals are mildly fractured.

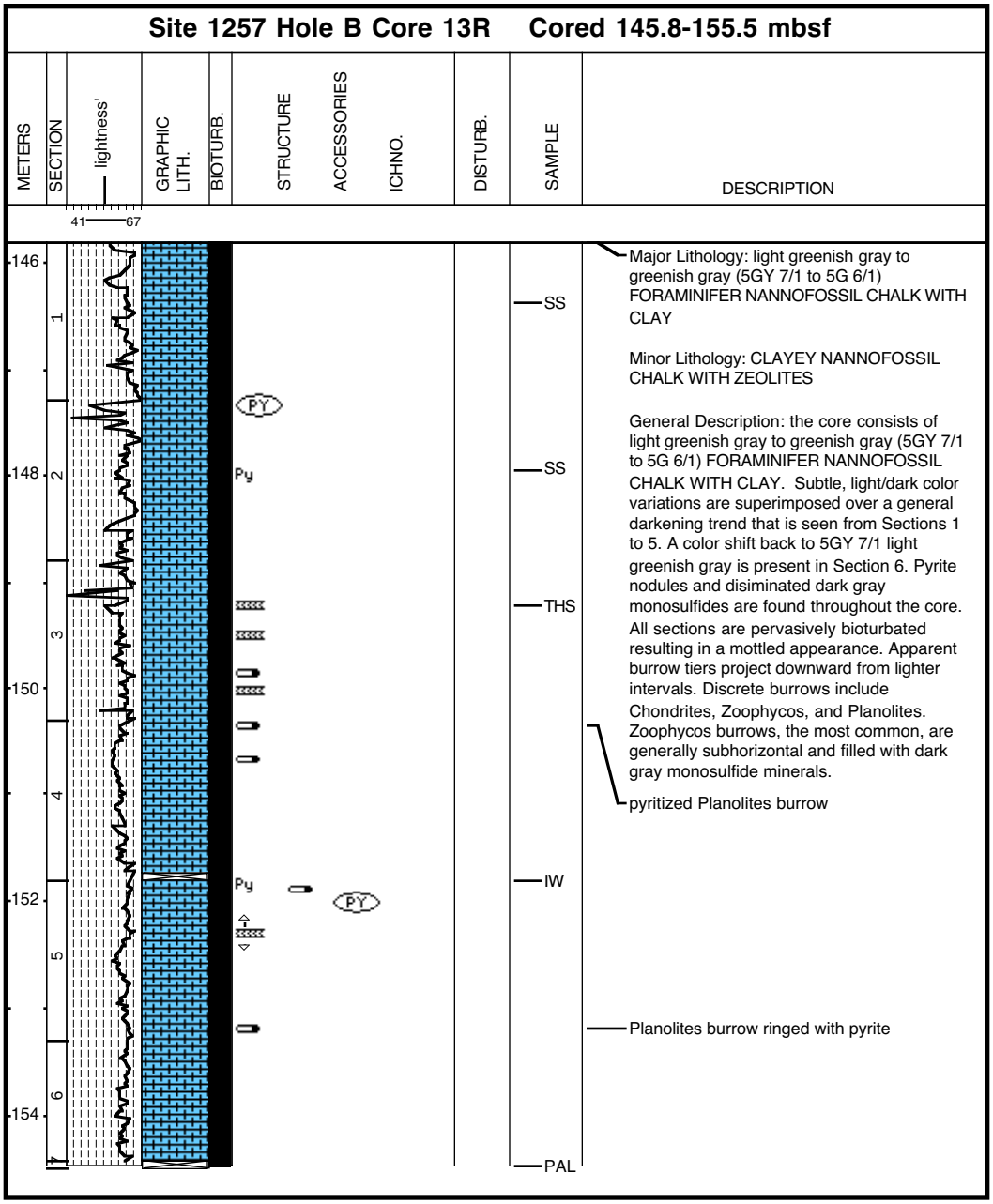
Core Photo


Site 1257 Hole B Core 11R Cored 126.8-136.2 mbsf
METERS
SECTION
lightness
38
61
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
128
130
132
134
136
1
2
3
4
5
6
7
CAR
SS
CAR
IW
CAR
CAR
PAL
Major Lithology:
Greenish gray (5GY 6/1) CLAYEY NANNOFOSSIL CHALK
General Description:
There is slight color variability, but still within the 5GY 6/1 range. The core is moderately bioturbated with some areas of intense burrowing. The most common burrows are from Chondrites and Zoophycos. Some intervals are mildly fractured.

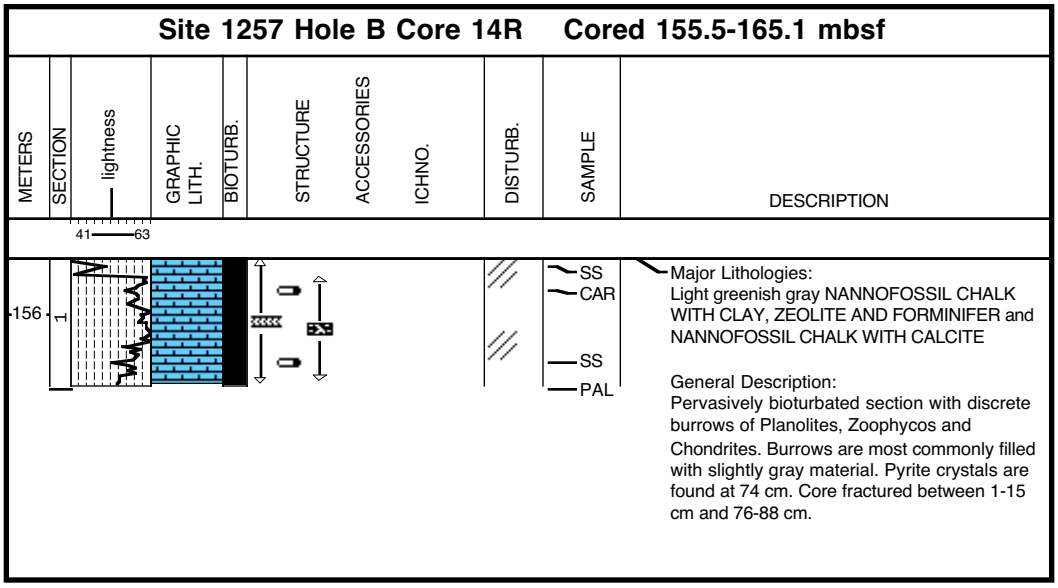
Core Photo


Site 1257 Hole B Core 12R Cored 136.2-145.8 mbsf
METERS
SECTION
lightness
42
67
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
138
140
142
144
146
1
2
3
4
5
6
7
8
SS
SS
SS
IW
SS
PAL
Py
Major Lithology:
Greenish gray (5GY 7/1) CLAYEY NANNOFOSSIL CHALK
Minor Lithology:
Light greenish gray (10GY 8/1) LIMESTONE
General Description:
There is slight color variability, but still within the 5GY 7/1 range. The core is moderately bioturbated by Chondrites and Zoophycos. The core contains several debris flows, one with limestone clasts.
Iron sulfide streaks present (6-10 cm)
The entire sediment section is slumped and contains flow structures.
Pyrite infilled burrow
Debris flow 0-45 cm

Core Photo

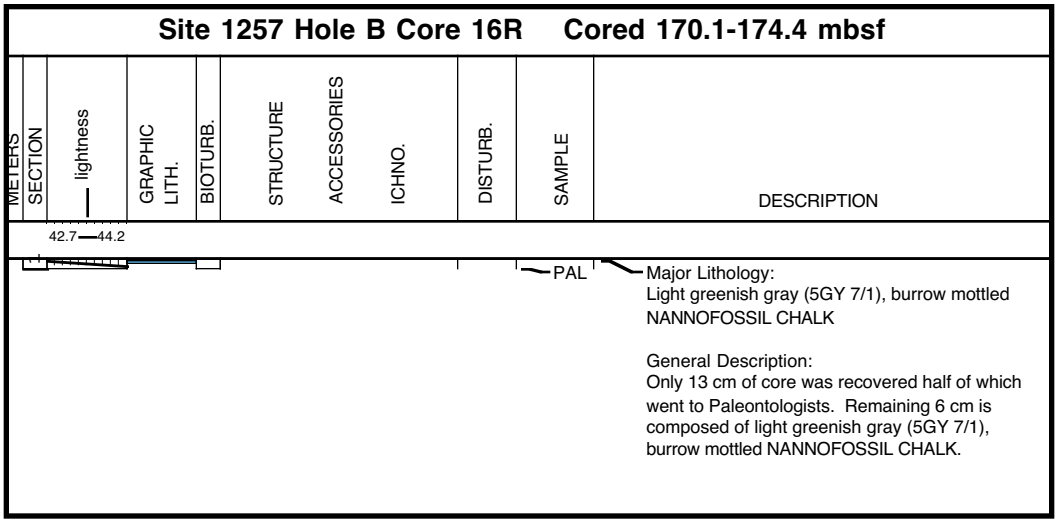

Site 1257 Hole B Core 13R Cored 145.8-155.5 mbsf
METERS
SECTION
lightness'
41
67
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
146
148
150
152
154
1
2
3
4
5
6
PY
Py
SS
SS
THS
IW
PAL
Major Lithology: light greenish gray to greenish gray (5GY 7/1 to 5G 6/1) FORAMINIFER NANNOFOSSIL CHALK WITH CLAY
Minor Lithology: CLAYEY NANNOFOSSIL CHALK WITH ZEOLITES
General Description: the core consists of light greenish gray to greenish gray (5GY 7/1 to 5G 6/1) FORAMINIFER NANNOFOSSIL CHALK WITH CLAY. Subtle, light/dark color variations are superimposed over a general darkening trend that is seen from Sections 1 to 5. A color shift back to 5GY 7/1 light greenish gray is present in Section 6. Pyrite nodules and disiminated dark gray monosulfides are found throughout the core. All sections are pervasively bioturbated resulting in a mottled appearance. Apparent burrow tiers project downward from lighter intervals. Discrete burrows include Chondrites, Zoophycos, and Planolites. Zoophycos burrows, the most common, are generally subhorizontal and filled with dark gray monosulfide minerals.
pyritized Planolites burrow
Planolites burrow ringed with pyrite

Core Photo

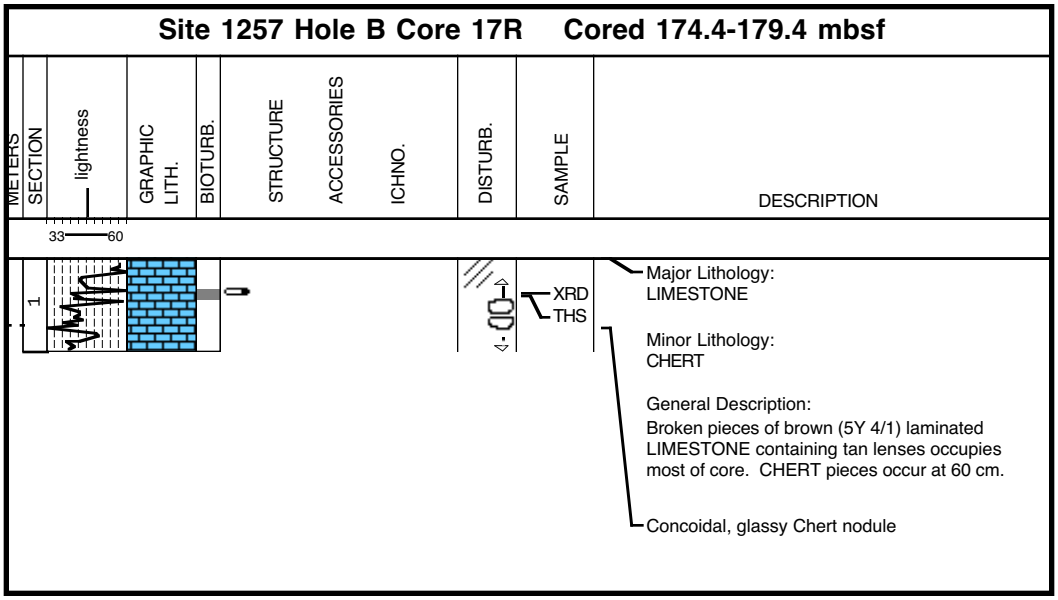


1257B-15R ENTIRE CORE GIVEN TO BIOSTRATIGRAPHERS.

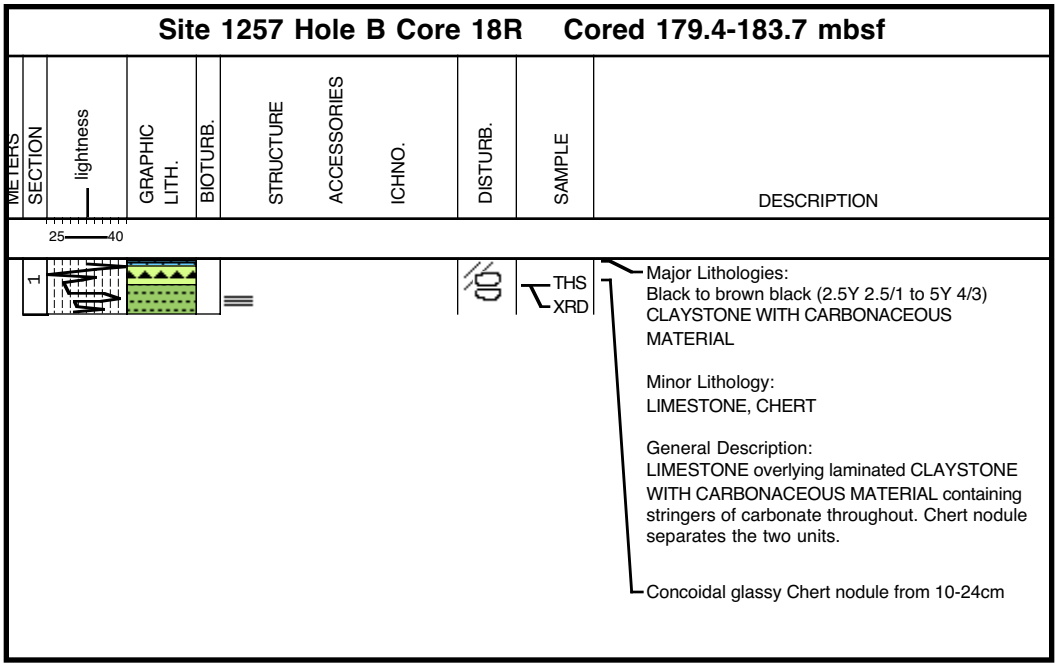
Core Photo


Site 1257 Hole B Core 16R Cored 170.1-174.4 mbsf
METERS
SECTION
lightness
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
42.7
44.2
PAL
Major Lithology:
Light greenish gray (5GY 7/1), burrow mottled NANNOFOSSIL CHALK
General Description:
Only 13 cm of core was recovered half of which went to Paleontologists. Remaining 6 cm is composed of light greenish gray (5GY 7/1), burrow mottled NANNOFOSSIL CHALK.

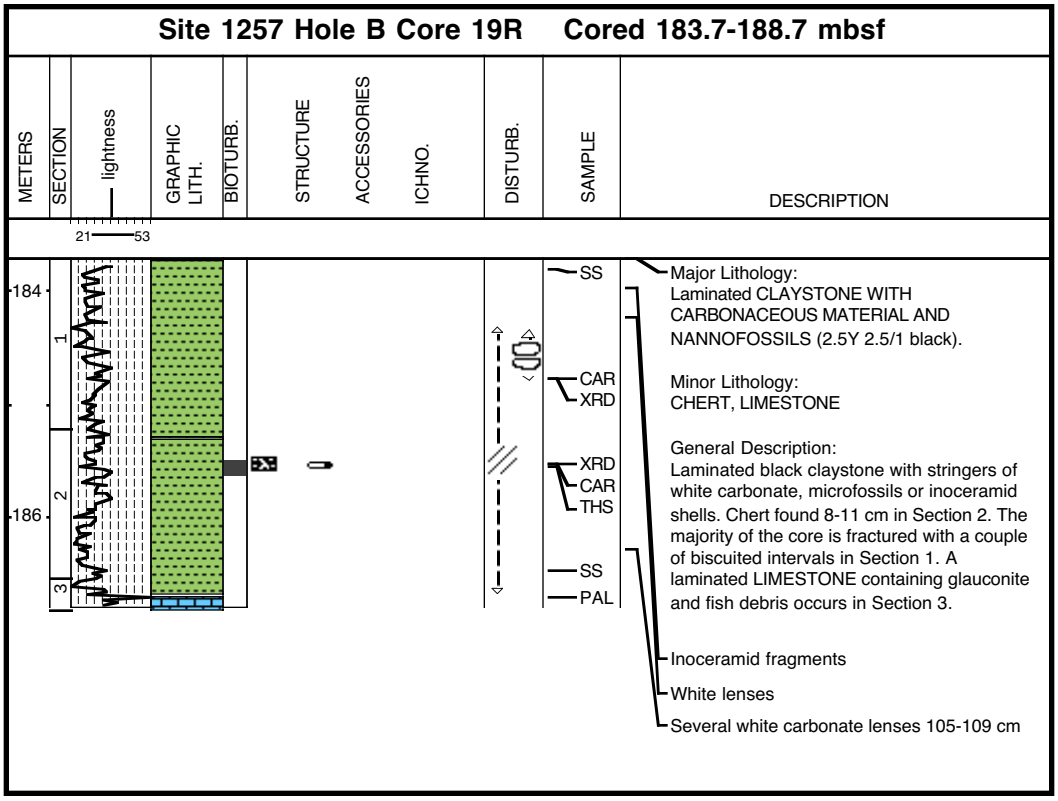
Core Photo


Site 1257 Hole B Core 17R Cored 174.4-179.4 mbsf
METERS
SECTION
lightness
33
60
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
1
XRD
THS
Major Lithology:
LIMESTONE
Minor Lithology:
CHERT
General Description:
Broken pieces of brown (5Y 4/1) laminated LIMESTONE containing tan lenses occupies most of core. CHERT pieces occur at 60 cm.
Concoidal, glassy Chert nodule

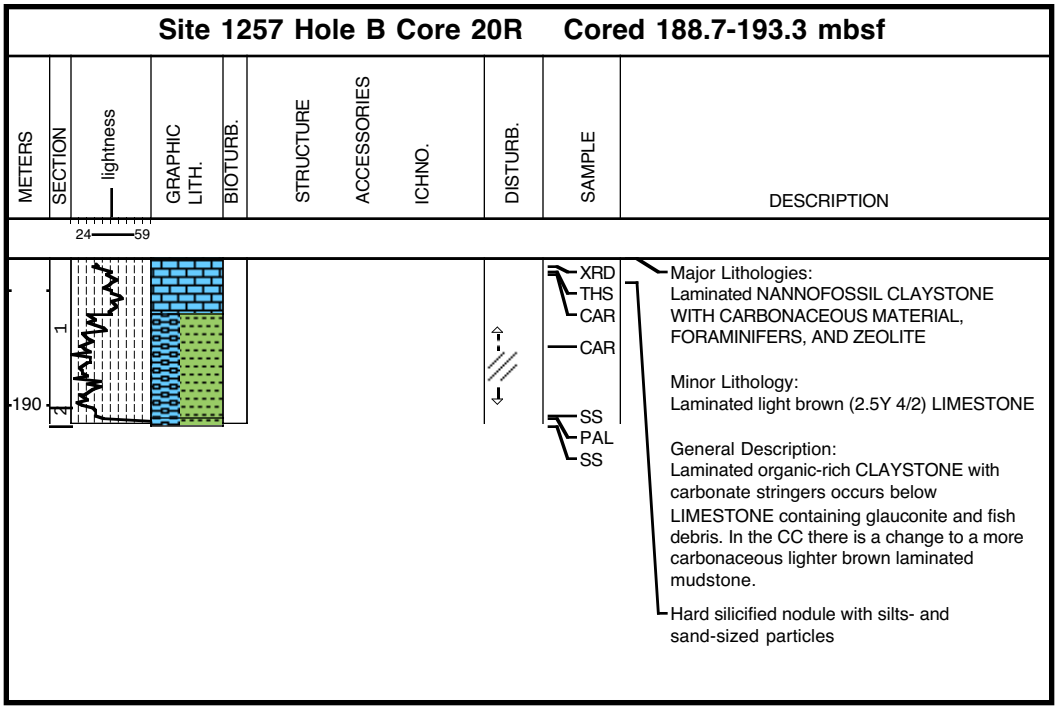
Core Photo


Site 1257 Hole B Core 18R Cored 179.4-183.7 mbsf
METERS
SECTION
lightness
25
40
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
1
THS
XRD
Major Lithologies:
Black to brown black (2.5Y 2.5/1 to 5Y 4/3) CLAYSTONE WITH CARBONACEOUS MATERIAL
Minor Lithology:
LIMESTONE, CHERT
General Description:
LIMESTONE overlying laminated CLAYSTONE WITH CARBONACEOUS MATERIAL containing stringers of carbonate throughout. Chert nodule separates the two units.
Concoidal glassy Chert nodule from 10-24cm

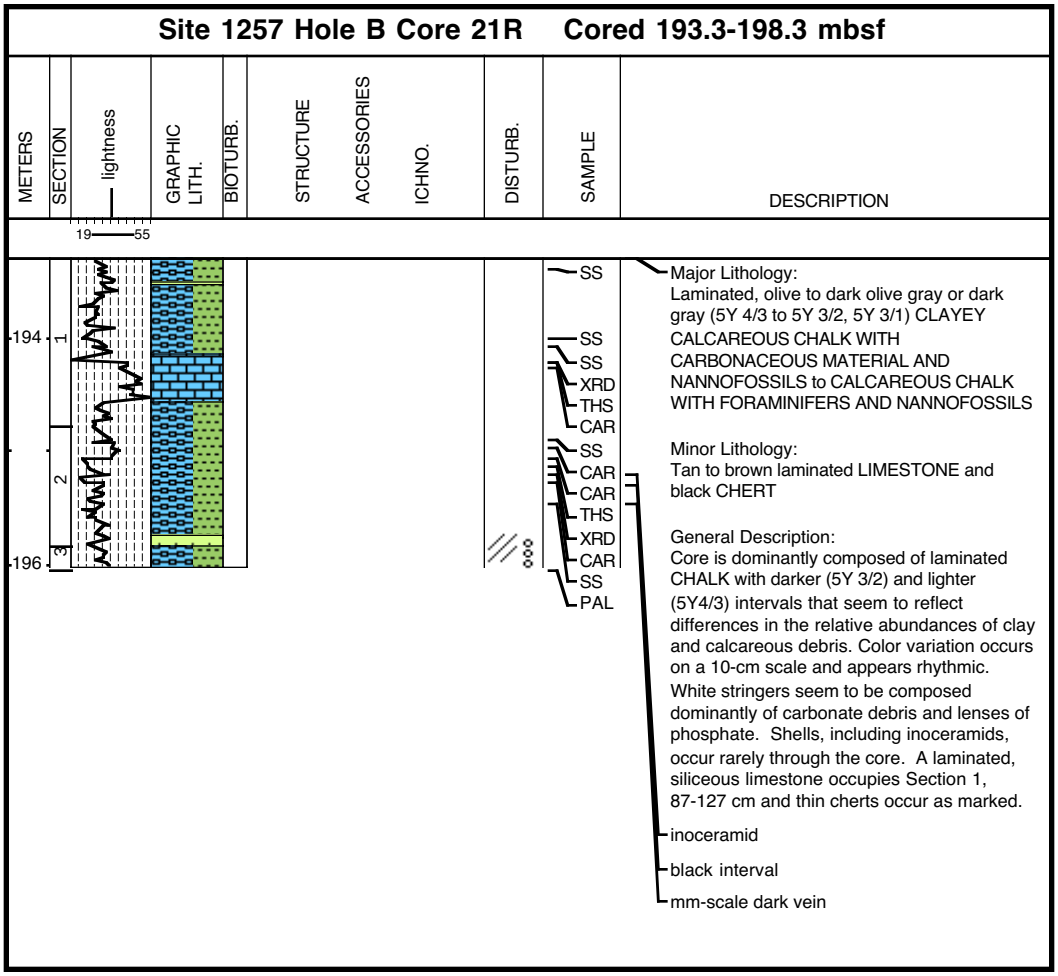
Core Photo


Site 1257 Hole B Core 19R Cored 183.7-188.7 mbsf
METERS
SECTION
lightness
21
53
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
184
186
1
2
3
SS
CAR
XRD
XRD
CAR
THS
SS
PAL
Major Lithology:
Laminated CLAYSTONE WITH CARBONACEOUS MATERIAL AND NANNOFOSSILS (2.5Y 2.5/1 black).
Minor Lithology:
CHERT, LIMESTONE
General Description:
Laminated black claystone with stringers of white carbonate, microfossils or inoceramid shells. Chert found 8-11 cm in Section 2. The majority of the core is fractured with a couple of biscuited intervals in Section 1. A laminated LIMESTONE containing glauconite and fish debris occurs in Section 3.
Inoceramid fragments
White lenses
Several white carbonate lenses 105-109 cm

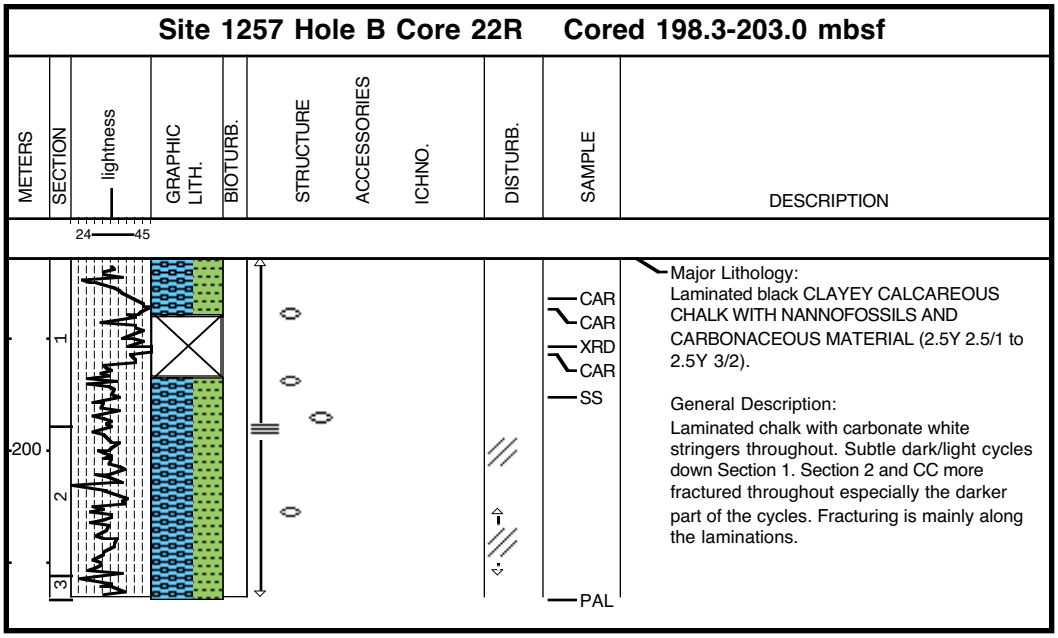
Core Photo


Site 1257 Hole B Core 20R Cored 188.7-193.3 mbsf
METERS
SECTION
lightness
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
24
59
190
1
2
XRD
THS
CAR
CAR
SS
PAL
SS
Major Lithologies:
Laminated NANNOFOSSIL CLAYSTONE WITH CARBONACEOUS MATERIAL, FORAMINIFERS, AND ZEOLITE
Minor Lithology:
Laminated light brown (2.5Y 4/2) LIMESTONE
General Description:
Laminated organic-rich CLAYSTONE with carbonate stringers occurs below LIMESTONE containing glauconite and fish debris. In the CC there is a change to a more carbonaceous lighter brown laminated mudstone.
Hard silicified nodule with silts- and sand-sized particles

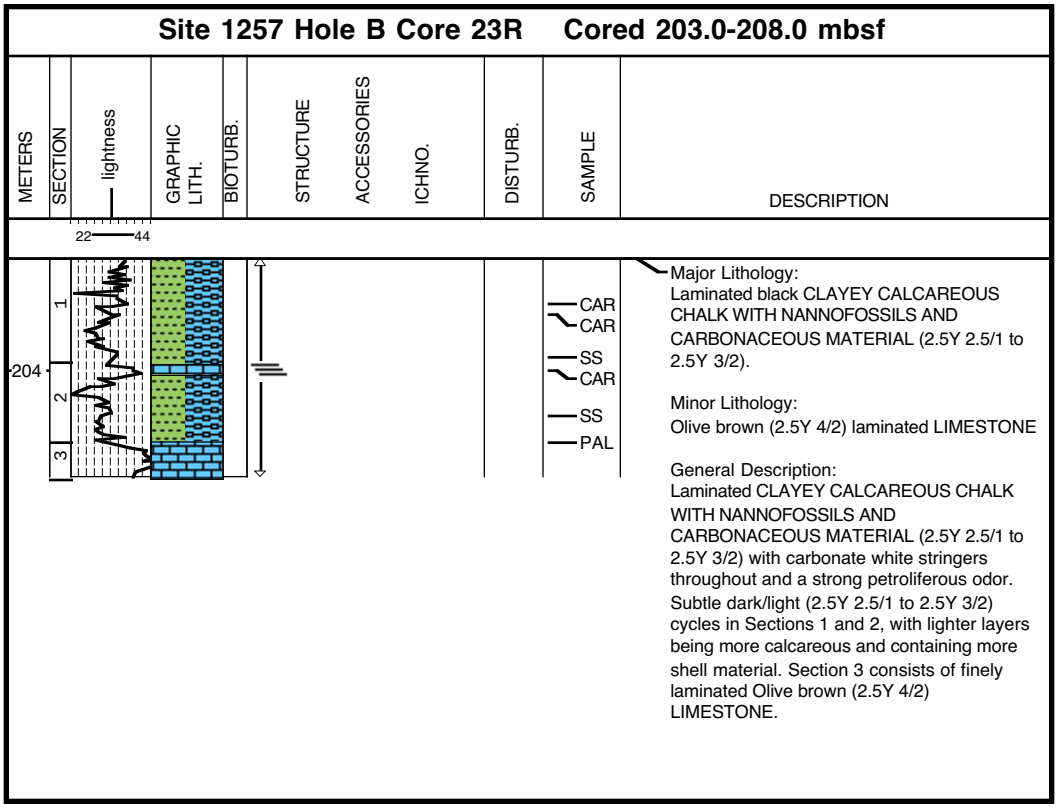
Core Photo


Site 1257 Hole B Core 21R Cored 193.3-198.3 mbsf
METERS
SECTION
lightness
19
55
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
194
196
1
2
3
SS
SS
SS
XRD
THS
CAR
SS
CAR
CAR
THS
XRD
CAR
SS
PAL
Major Lithology:
Laminated, olive to dark olive gray or dark gray (5Y 4/3 to 5Y 3/2, 5Y 3/1) CLAYEY CALCAREOUS CHALK WITH CARBONACEOUS MATERIAL AND NANNOFOSSILS to CALCAREOUS CHALK WITH FORAMINIFERS AND NANNOFOSSILS
Minor Lithology:
Tan to brown laminated LIMESTONE and black CHERT
General Description:
Core is dominantly composed of laminated CHALK with darker (5Y 3/2) and lighter (5Y4/3) intervals that seem to reflect differences in the relative abundances of clay and calcareous debris. Color variation occurs on a 10-cm scale and appears rhythmic. White stringers seem to be composed dominantly of carbonate debris and lenses of phosphate. Shells, including inoceramids, occur rarely through the core. A laminated, siliceous limestone occupies Section 1, 87-127 cm and thin cherts occur as marked.
inoceramid
black interval
mm-scale dark vein

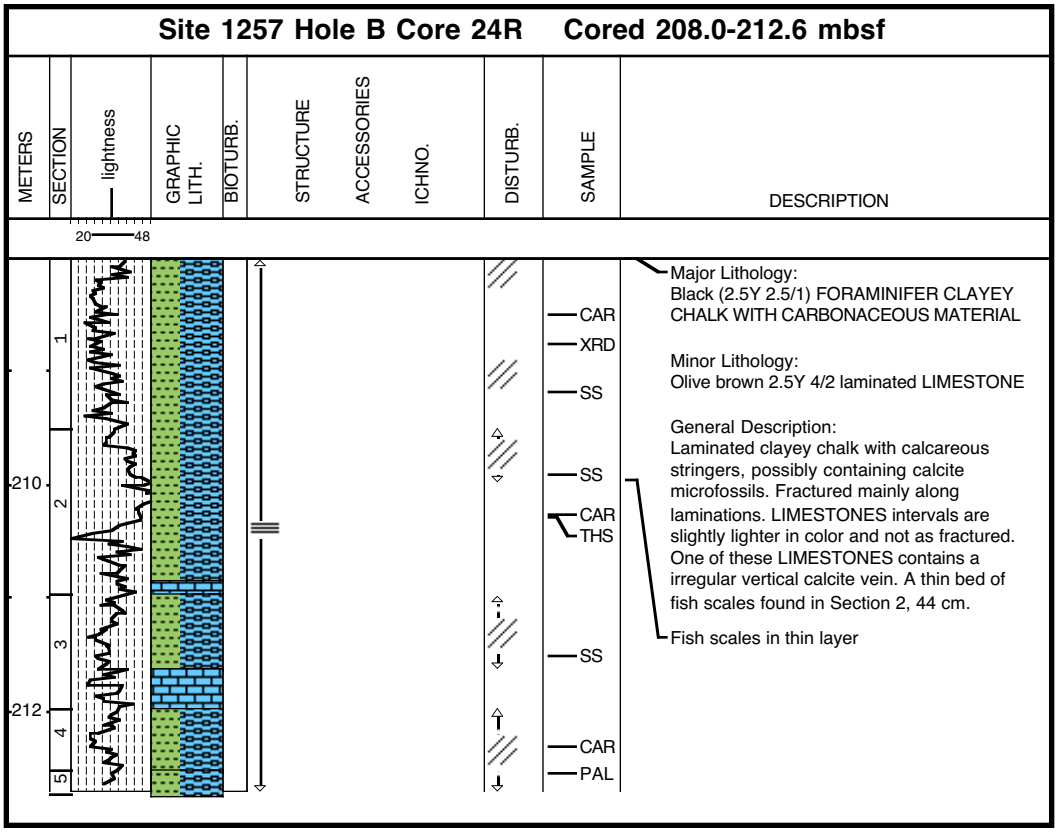
Core Photo


Site 1257 Hole B Core 22R Cored 198.3-203.0 mbsf
METERS
SECTION
lightness
24
45
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
200
1
2
3
CAR
CAR
XRD
CAR
SS
PAL
Major Lithology:
Laminated black CLAYEY CALCAREOUS CHALK WITH NANNOFOSSILS AND CARBONACEOUS MATERIAL (2.5Y 2.5/1 to 2.5Y 3/2).
General Description:
Laminated chalk with carbonate white stringers throughout. Subtle dark/light cycles down Section 1. Section 2 and CC more fractured throughout especially the darker part of the cycles. Fracturing is mainly along the laminations.

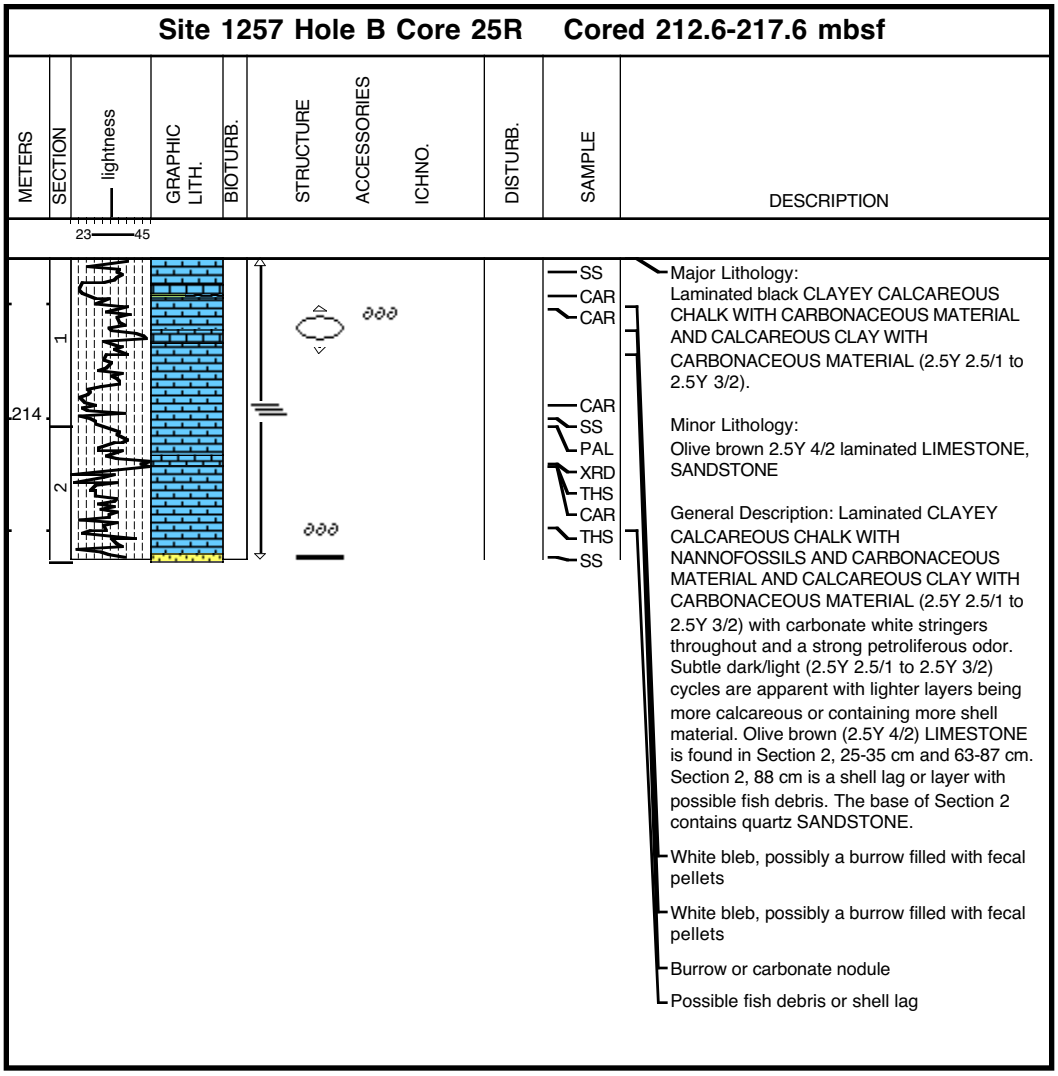
Core Photo


Site 1257 Hole B Core 23R Cored 203.0-208.0 mbsf
METERS
SECTION
lightness
22
44
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
204
1
2
3
CAR
CAR
SS
CAR
SS
PAL
Major Lithology:
Laminated black CLAYEY CALCAREOUS CHALK WITH NANNOFOSSILS AND CARBONACEOUS MATERIAL (2.5Y 2.5/1 to 2.5Y 3/2).
Minor Lithology:
Olive brown (2.5Y 4/2) laminated LIMESTONE
General Description:
Laminated CLAYEY CALCAREOUS CHALK WITH NANNOFOSSILS AND CARBONACEOUS MATERIAL (2.5Y 2.5/1 to 2.5Y 3/2) with carbonate white stringers throughout and a strong petroliferous odor. Subtle dark/light (2.5Y 2.5/1 to 2.5Y 3/2) cycles in Sections 1 and 2, with lighter layers being more calcareous and containing more shell material. Section 3 consists of finely laminated Olive brown (2.5Y 4/2) LIMESTONE.

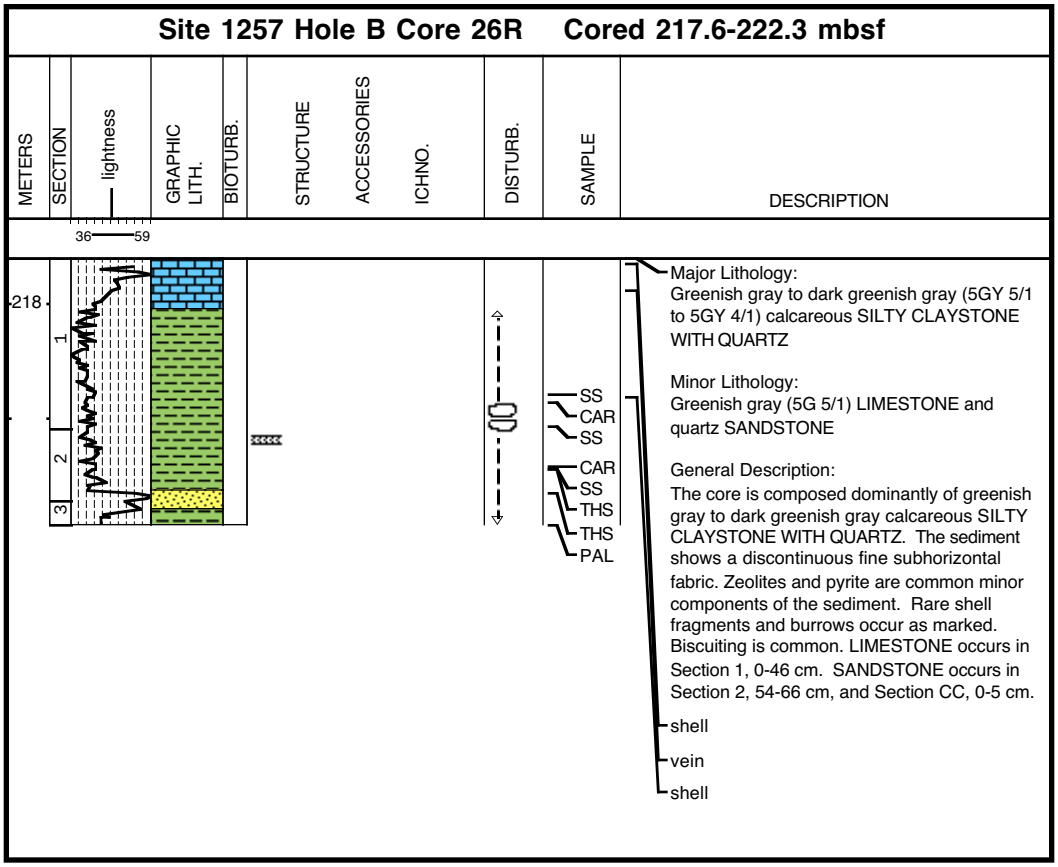
Core Photo


Site 1257 Hole B Core 24R Cored 208.0-212.6 mbsf
METERS
SECTION
lightness
20
48
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
210
212
1
2
3
4
5
CAR
XRD
SS
SS
CAR
THS
SS
CAR
PAL
Major Lithology:
Black (2.5Y 2.5/1) FORAMINIFER CLAYEY CHALK WITH CARBONACEOUS MATERIAL
Minor Lithology:
Olive brown 2.5Y 4/2 laminated LIMESTONE
General Description:
Laminated clayey chalk with calcareous stringers, possibly containing calcite microfossils. Fractured mainly along laminations. LIMESTONES intervals are slightly lighter in color and not as fractured. One of these LIMESTONES contains a irregular vertical calcite vein. A thin bed of fish scales found in Section 2, 44 cm.
Fish scales in thin layer

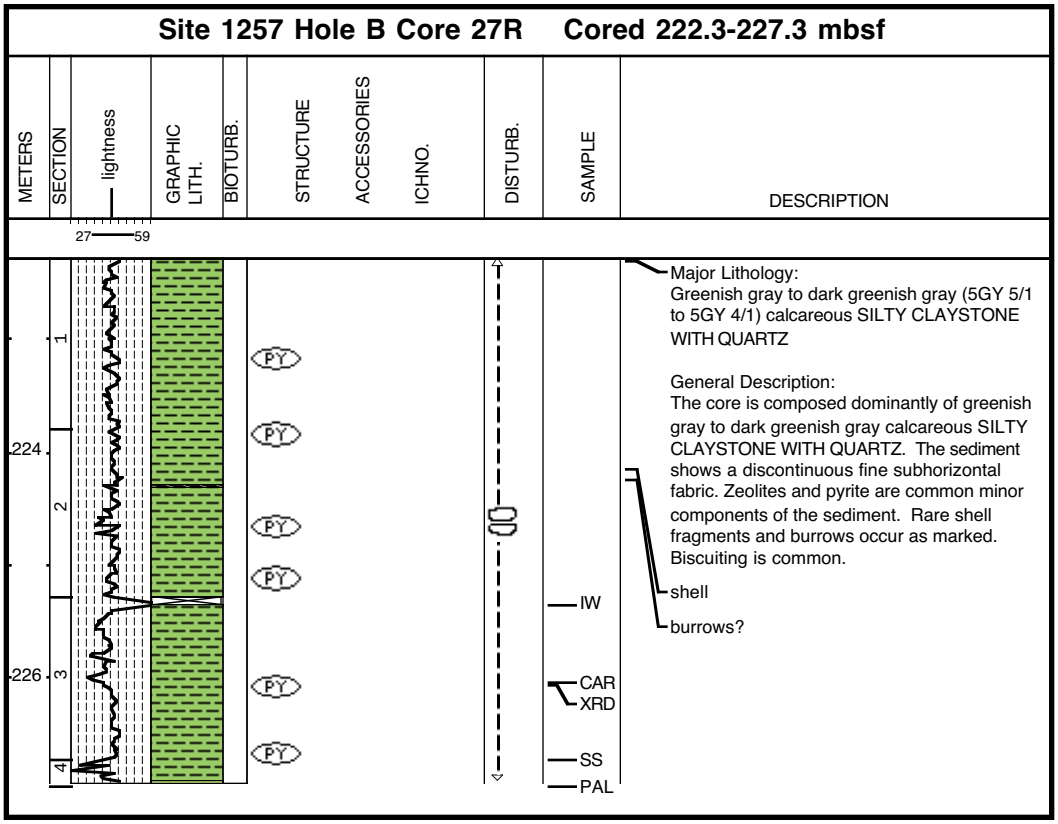
Core Photo


Site 1257 Hole B Core 25R Cored 212.6-217.6 mbsf
METERS
SECTION
lightness
23
45
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
214
1
2
SS
CAR
CAR
CAR
SS
PAL
XRD
THS
CAR
THS
SS
Major Lithology:
Laminated black CLAYEY CALCAREOUS CHALK WITH CARBONACEOUS MATERIAL AND CALCAREOUS CLAY WITH CARBONACEOUS MATERIAL (2.5Y 2.5/1 to 2.5Y 3/2).
Minor Lithology:
Olive brown 2.5Y 4/2 laminated LIMESTONE, SANDSTONE
General Description: Laminated CLAYEY CALCAREOUS CHALK WITH NANNOFOSSILS AND CARBONACEOUS MATERIAL AND CALCAREOUS CLAY WITH CARBONACEOUS MATERIAL (2.5Y 2.5/1 to 2.5Y 3/2) with carbonate white stringers throughout and a strong petroliferous odor. Subtle dark/light (2.5Y 2.5/1 to 2.5Y 3/2) cycles are apparent with lighter layers being more calcareous or containing more shell material. Olive brown (2.5Y 4/2) LIMESTONE is found in Section 2, 25-35 cm and 63-87 cm. Section 2, 88 cm is a shell lag or layer with possible fish debris. The base of Section 2 contains quartz SANDSTONE.
White bleb, possibly a burrow filled with fecal pellets
White bleb, possibly a burrow filled with fecal pellets
Burrow or carbonate nodule
Possible fish debris or shell lag

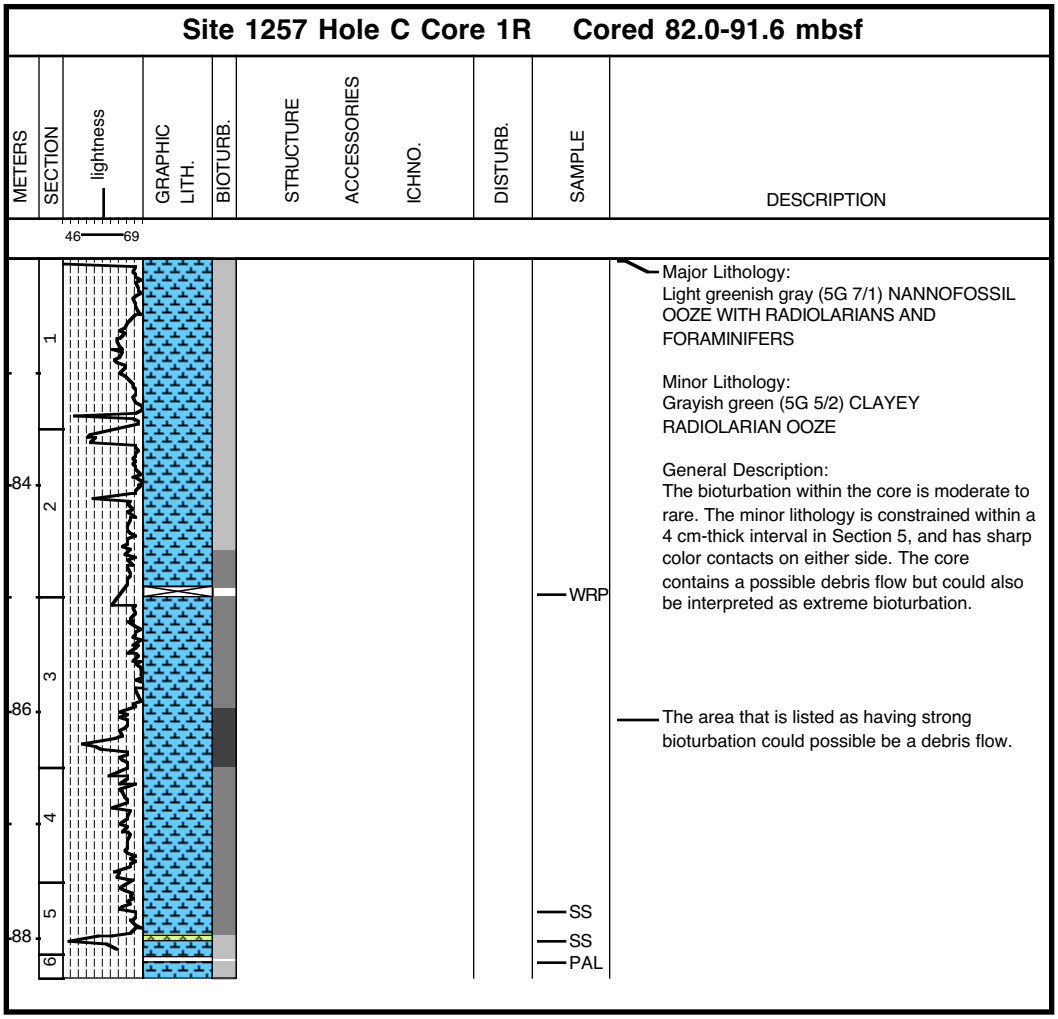
Core Photo


Site 1257 Hole B Core 26R Cored 217.6-222.3 mbsf
METERS
SECTION
lightness
36
59
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
218
1
2
3
SS
CAR
SS
CAR
SS
THS
THS
PAL
Major Lithology:
Greenish gray to dark greenish gray (5GY 5/1 to 5GY 4/1) calcareous SILTY CLAYSTONE WITH QUARTZ
Minor Lithology:
Greenish gray (5G 5/1) LIMESTONE and quartz SANDSTONE
General Description:
The core is composed dominantly of greenish gray to dark greenish gray calcareous SILTY CLAYSTONE WITH QUARTZ. The sediment shows a discontinuous fine subhorizontal fabric. Zeolites and pyrite are common minor components of the sediment. Rare shell fragments and burrows occur as marked. Biscuiting is common. LIMESTONE occurs in Section 1, 0-46 cm. SANDSTONE occurs in Section 2, 54-66 cm, and Section CC, 0-5 cm.
shell
vein
shell

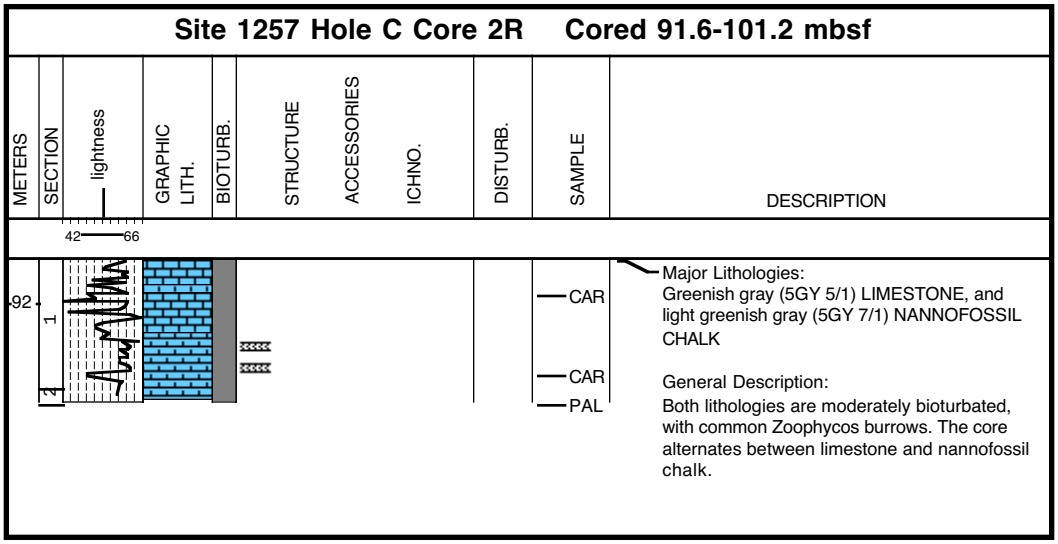
Core Photo


Site 1257 Hole B Core 27R Cored 222.3-227.3 mbsf
METERS
SECTION
lightness
27
59
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
224
226
1
2
3
4
PY
IW
CAR
XRD
SS
PAL
Major Lithology:
Greenish gray to dark greenish gray (5GY 5/1 to 5GY 4/1) calcareous SILTY CLAYSTONE WITH QUARTZ
General Description:
The core is composed dominantly of greenish gray to dark greenish gray calcareous SILTY CLAYSTONE WITH QUARTZ. The sediment shows a discontinuous fine subhorizontal fabric. Zeolites and pyrite are common minor components of the sediment. Rare shell fragments and burrows occur as marked. Biscuiting is common.
shell
burrows?

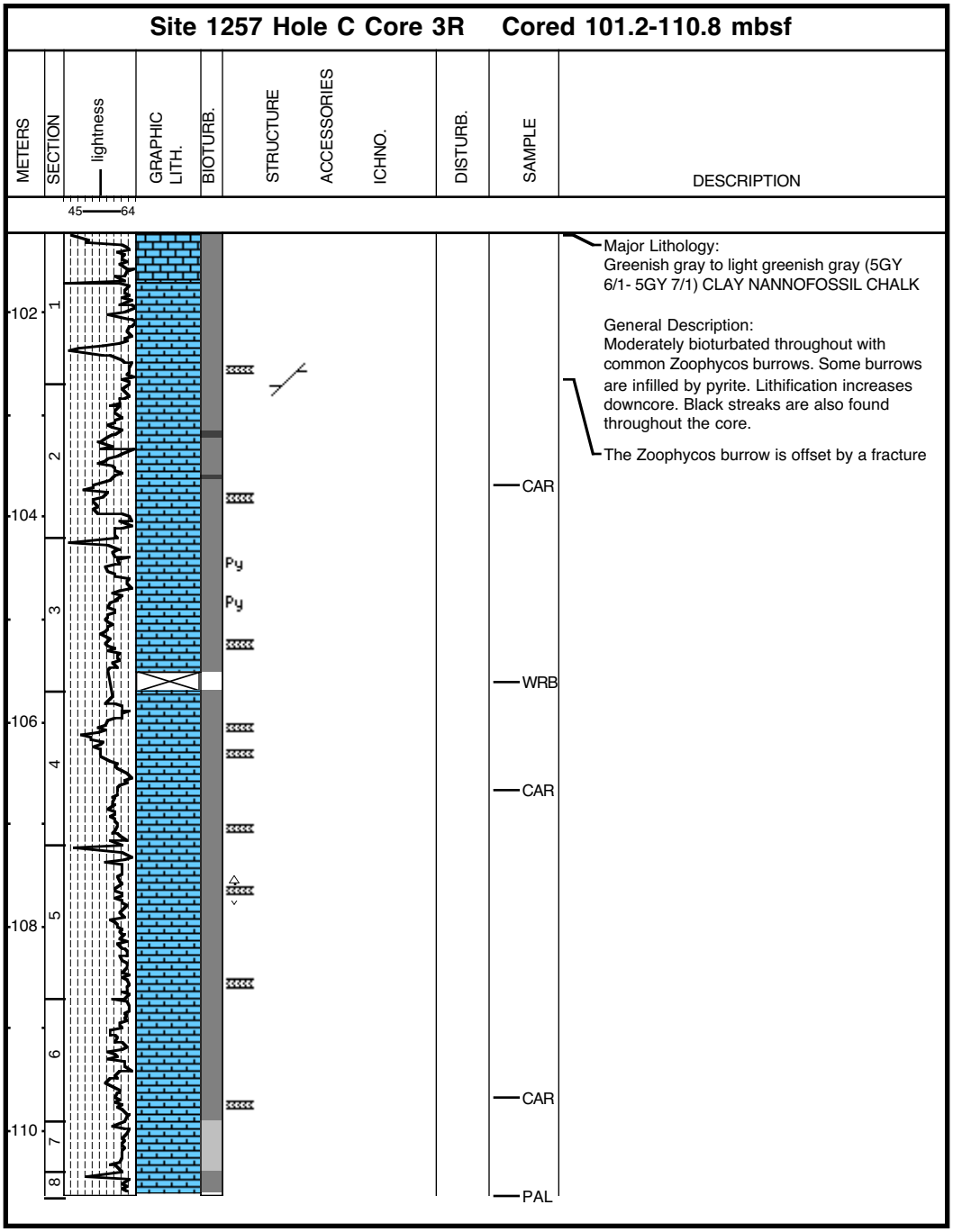
Core Photo


Site 1257 Hole C Core 1R Cored 82.0-91.6 mbsf
METERS
SECTION
lightness
46
69
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
84
86
88
1
2
3
4
5
6
WRP
SS
SS
PAL
Major Lithology:
Light greenish gray (5G 7/1) NANNOFOSSIL OOZE WITH RADIOLARIANS AND FORAMINIFERS
Minor Lithology:
Grayish green (5G 5/2) CLAYEY RADIOLARIAN OOZE
General Description:
The bioturbation within the core is moderate to rare. The minor lithology is constrained within a 4 cm-thick interval in Section 5, and has sharp color contacts on either side. The core contains a possible debris flow but could also be interpreted as extreme bioturbation.
The area that is listed as having strong bioturbation could possible be a debris flow.

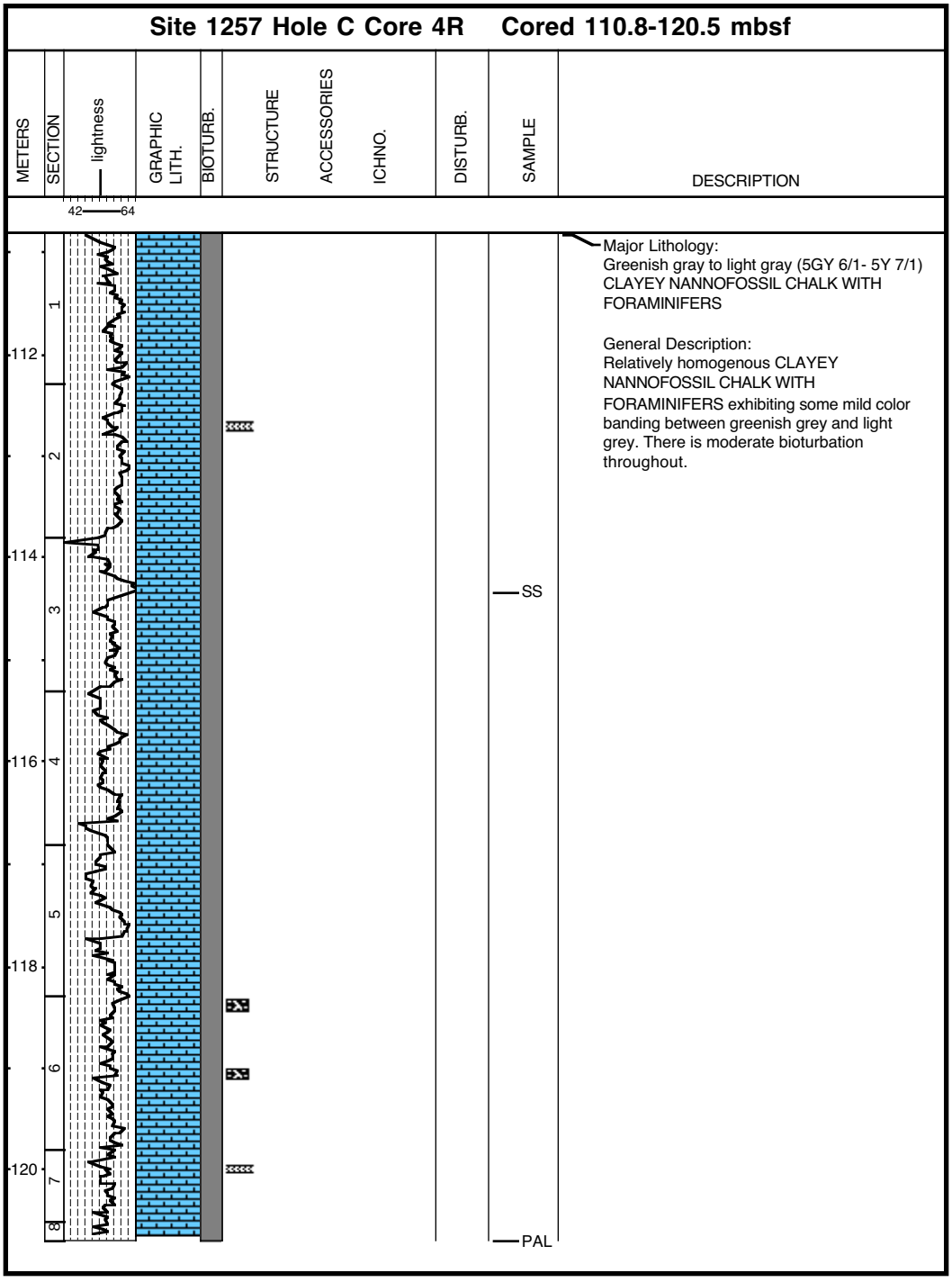
Core Photo


Site 1257 Hole C Core 2R Cored 91.6-101.2 mbsf
METERS
SECTION
lightness
42
66
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
92
1
CAR
CAR
PAL
Major Lithologies:
Greenish gray (5GY 5/1) LIMESTONE, and light greenish gray (5GY 7/1) NANNOFOSSIL CHALK
General Description:
Both lithologies are moderately bioturbated, with common Zoophycos burrows. The core alternates between limestone and nannofossil chalk.

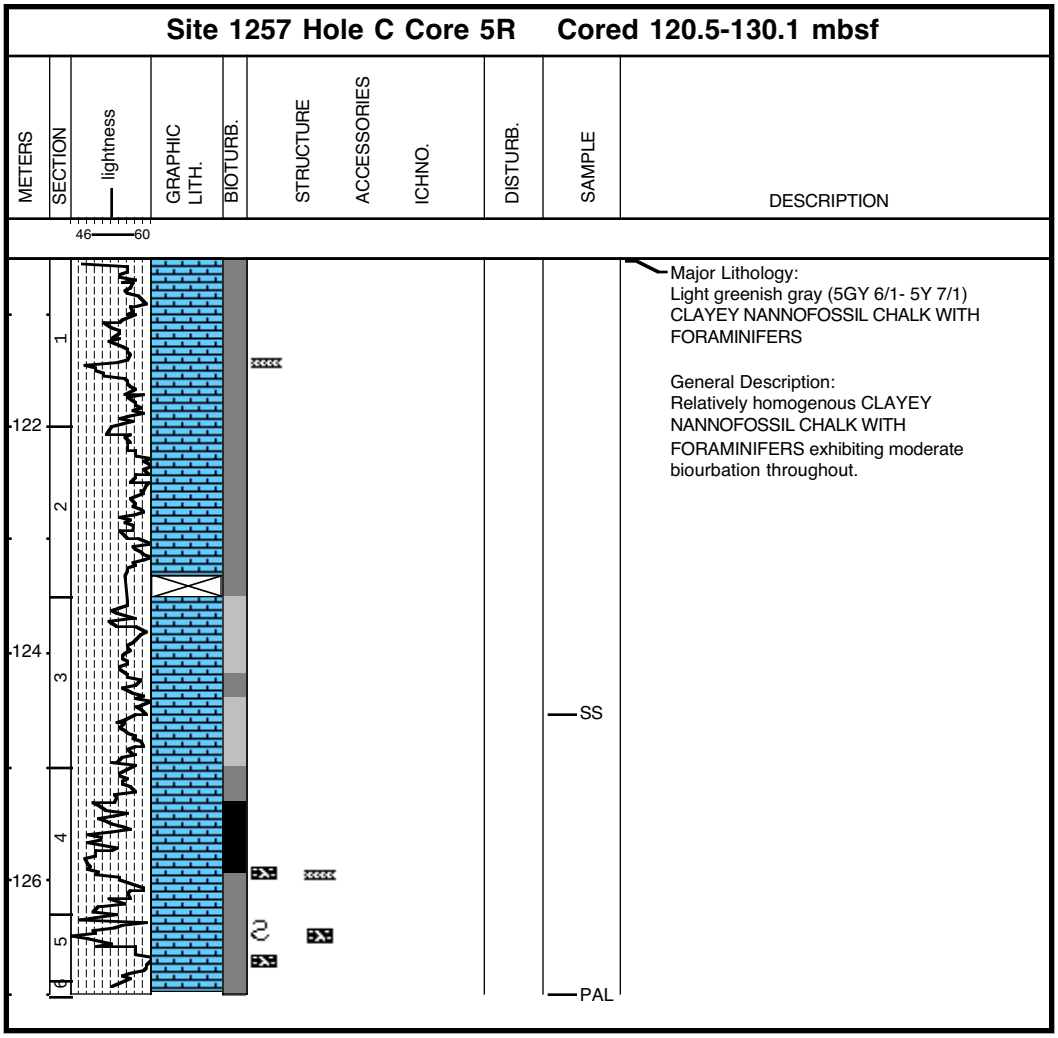
Core Photo


Site 1257 Hole C Core 3R Cored 101.2-110.8 mbsf
METERS
SECTION
lightness
45
64
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
102
104
106
108
110
1
2
3
4
5
6
7
8
Py
Py
CAR
WRB
CAR
CAR
PAL
Major Lithology:
Greenish gray to light greenish gray (5GY 6/1- 5GY 7/1) CLAY NANNOFOSSIL CHALK
General Description:
Moderately bioturbated throughout with common Zoophycos burrows. Some burrows are infilled by pyrite. Lithification increases downcore. Black streaks are also found throughout the core.
The Zoophycos burrow is offset by a fracture

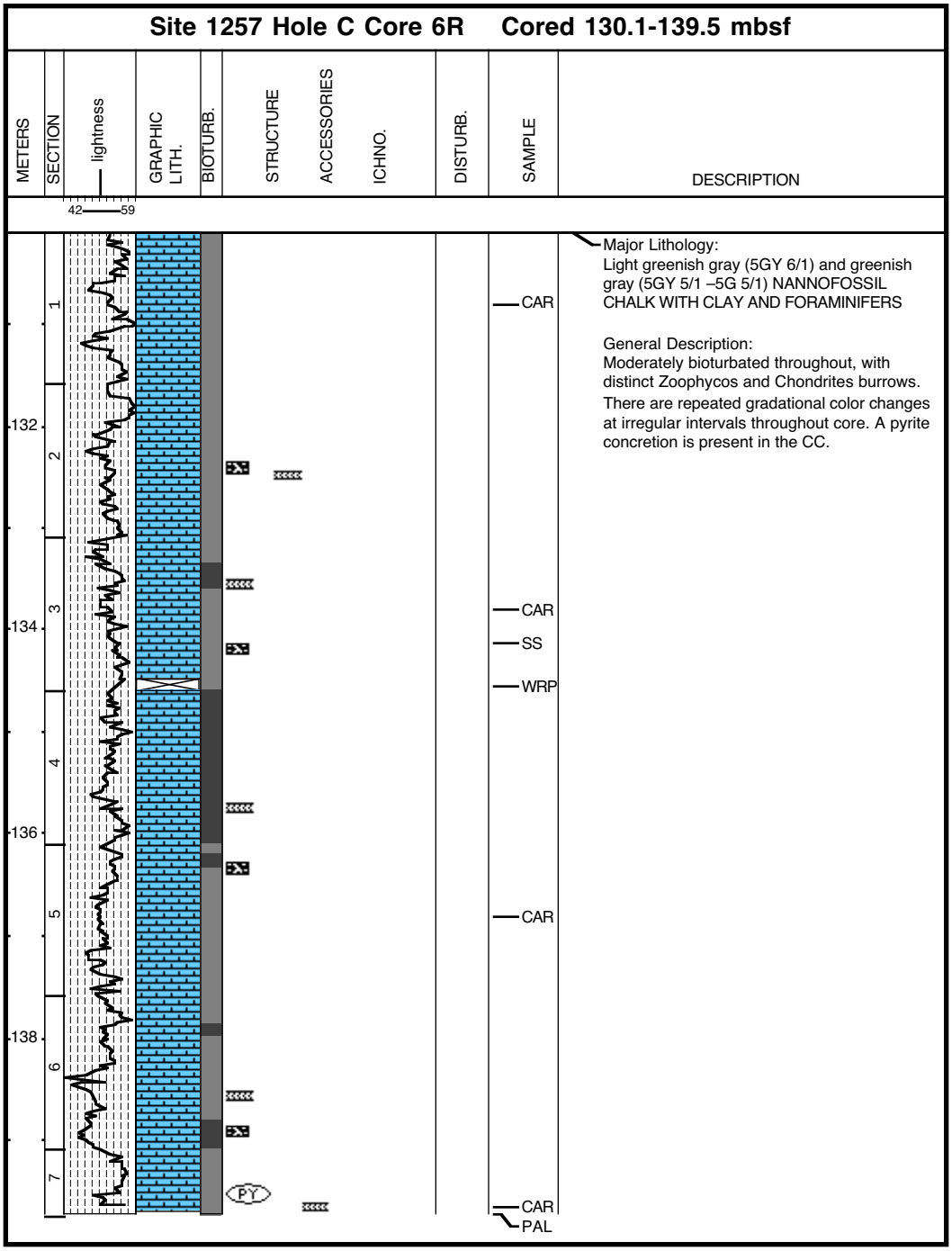
Core Photo


Site 1257 Hole C Core 4R Cored 110.8-120.5 mbsf
METERS
SECTION
lightness
42
64
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
112
114
116
118
120
1
2
3
4
5
6
7
8
SS
PAL
Major Lithology:
Greenish gray to light gray (5GY 6/1- 5Y 7/1) CLAYEY NANNOFOSSIL CHALK WITH FORAMINIFERS
General Description:
Relatively homogenous CLAYEY NANNOFOSSIL CHALK WITH FORAMINIFERS exhibiting some mild color banding between greenish grey and light grey. There is moderate bioturbation throughout.

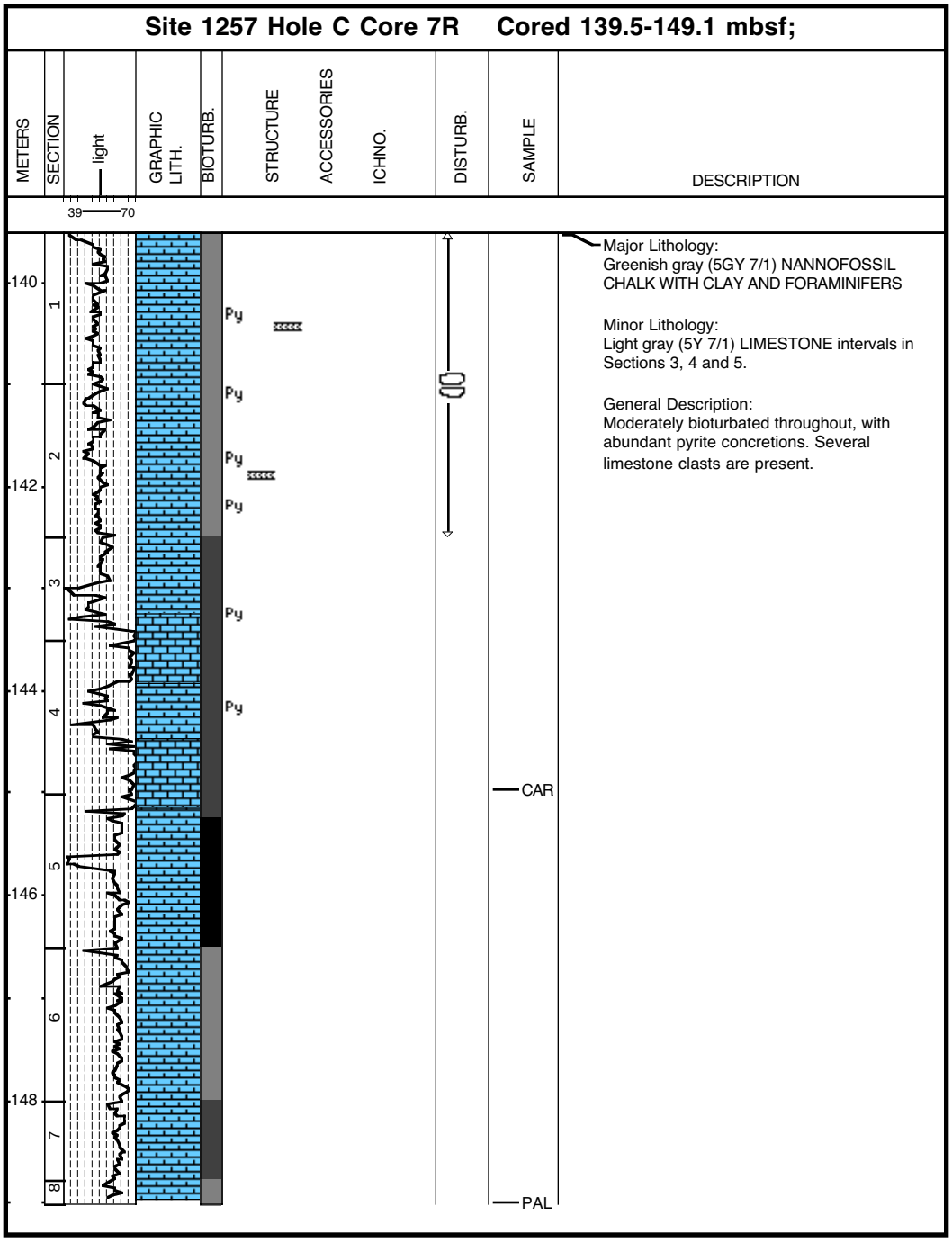
Core Photo


Site 1257 Hole C Core 5R Cored 120.5-130.1 mbsf
METERS
SECTION
lightness
46
60
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
122
124
126
1
2
3
4
5
SS
PAL
Major Lithology:
Light greenish gray (5GY 6/1- 5Y 7/1) CLAYEY NANNOFOSSIL CHALK WITH FORAMINIFERS
General Description:
Relatively homogenous CLAYEY NANNOFOSSIL CHALK WITH FORAMINIFERS exhibiting moderate biourbation throughout.

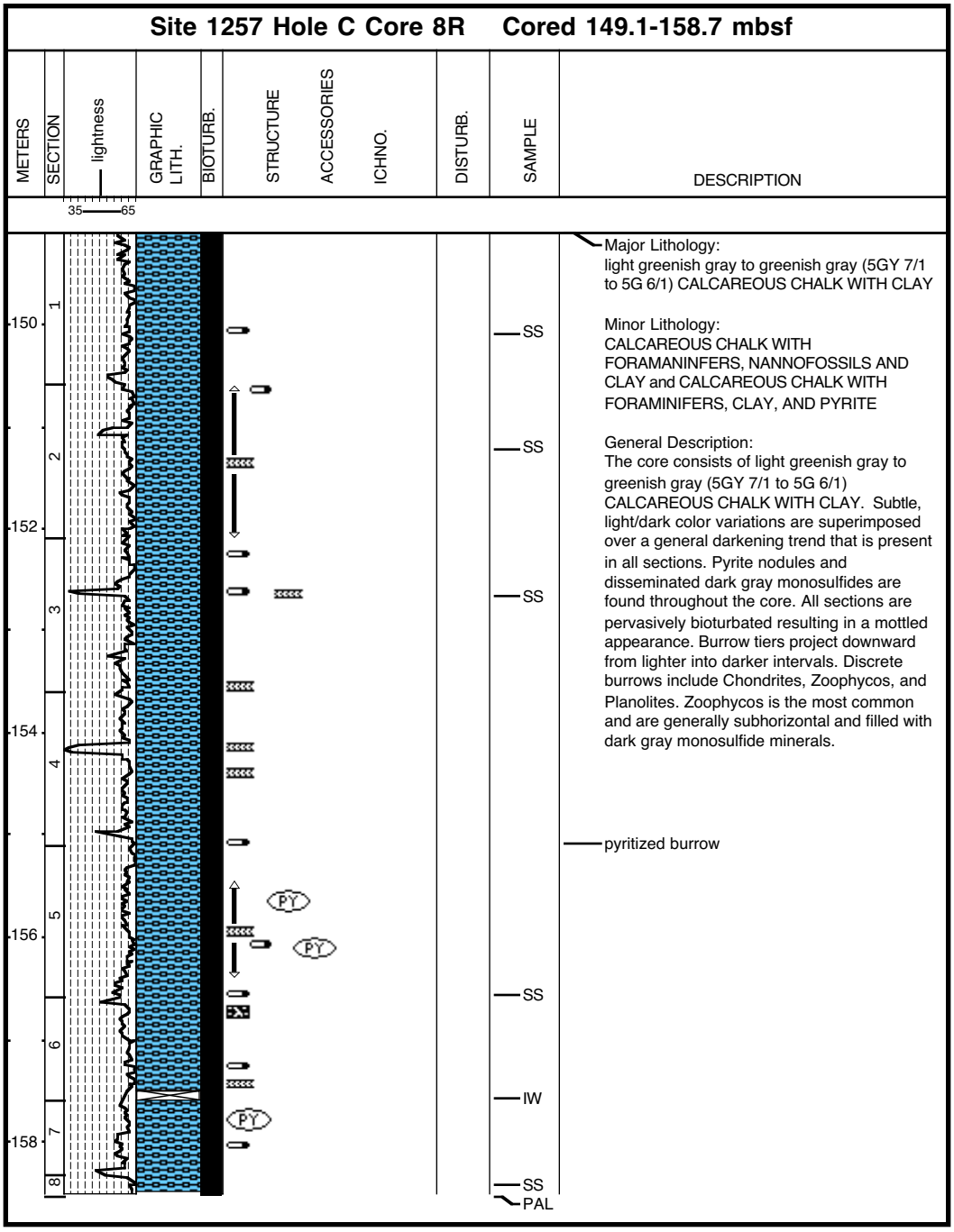
Core Photo


Site 1257 Hole C Core 6R Cored 130.1-139.5 mbsf
METERS
SECTION
lightness
42
59
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
132
134
136
138
1
2
3
4
5
6
7
CAR
CAR
SS
WRP
CAR
CAR
PAL
PY
Major Lithology:
Light greenish gray (5GY 6/1) and greenish gray (5GY 5/1 –5G 5/1) NANNOFOSSIL CHALK WITH CLAY AND FORAMINIFERS
General Description:
Moderately bioturbated throughout, with distinct Zoophycos and Chondrites burrows.
There are repeated gradational color changes at irregular intervals throughout core. A pyrite concretion is present in the CC.

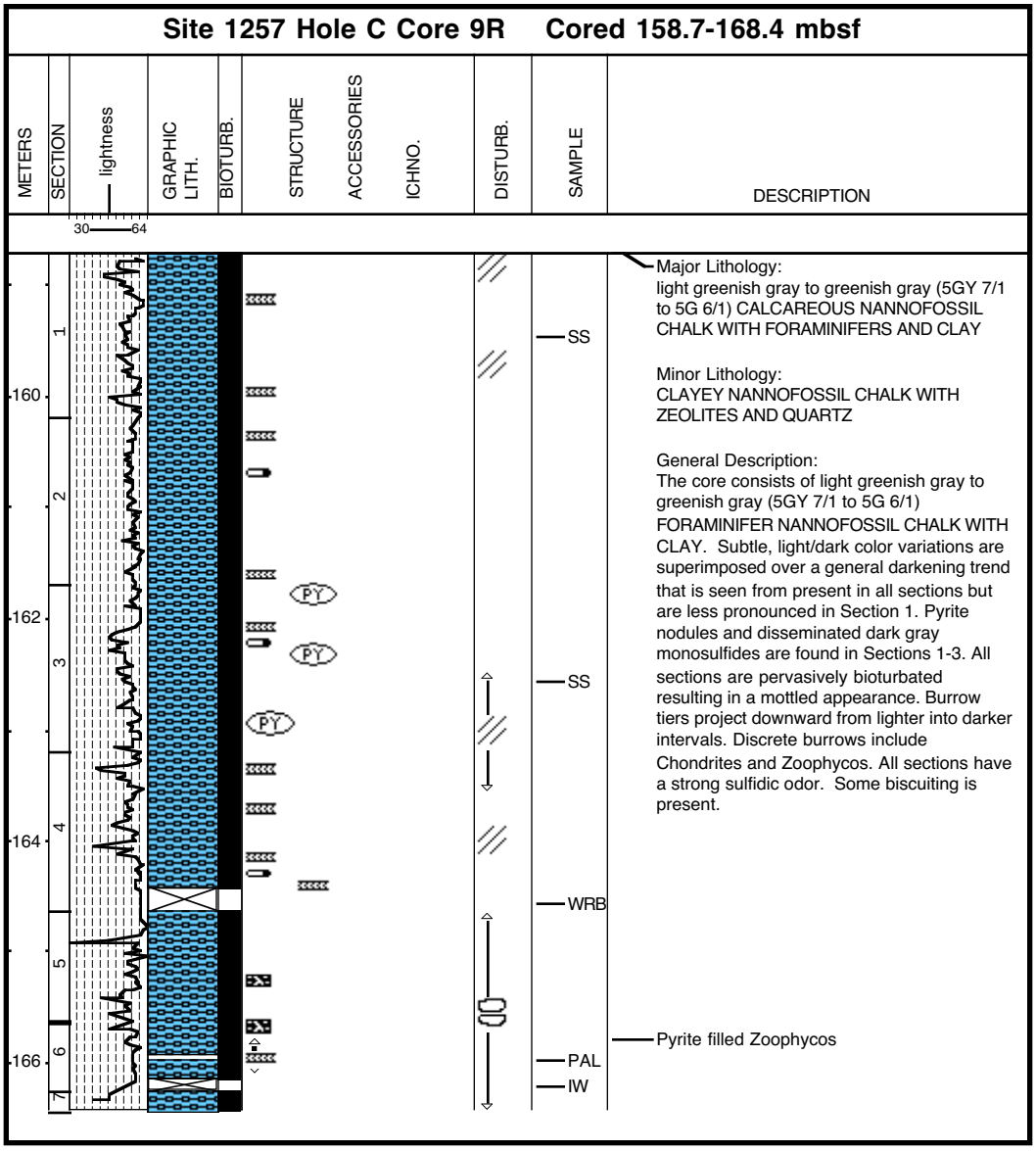
Core Photo


Site 1257 Hole C Core 7R Cored 139.5-149.1 mbsf;
METERS
SECTION
light
39
70
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
140
142
144
146
148
1
2
3
4
5
6
7
8
Py
Py
Py
Py
Py
Py
CAR
PAL
Major Lithology:
Greenish gray (5GY 7/1) NANNOFOSSIL CHALK WITH CLAY AND FORAMINIFERS
Minor Lithology:
Light gray (5Y 7/1) LIMESTONE intervals in Sections 3, 4 and 5.
General Description:
Moderately bioturbated throughout, with abundant pyrite concretions. Several limestone clasts are present.

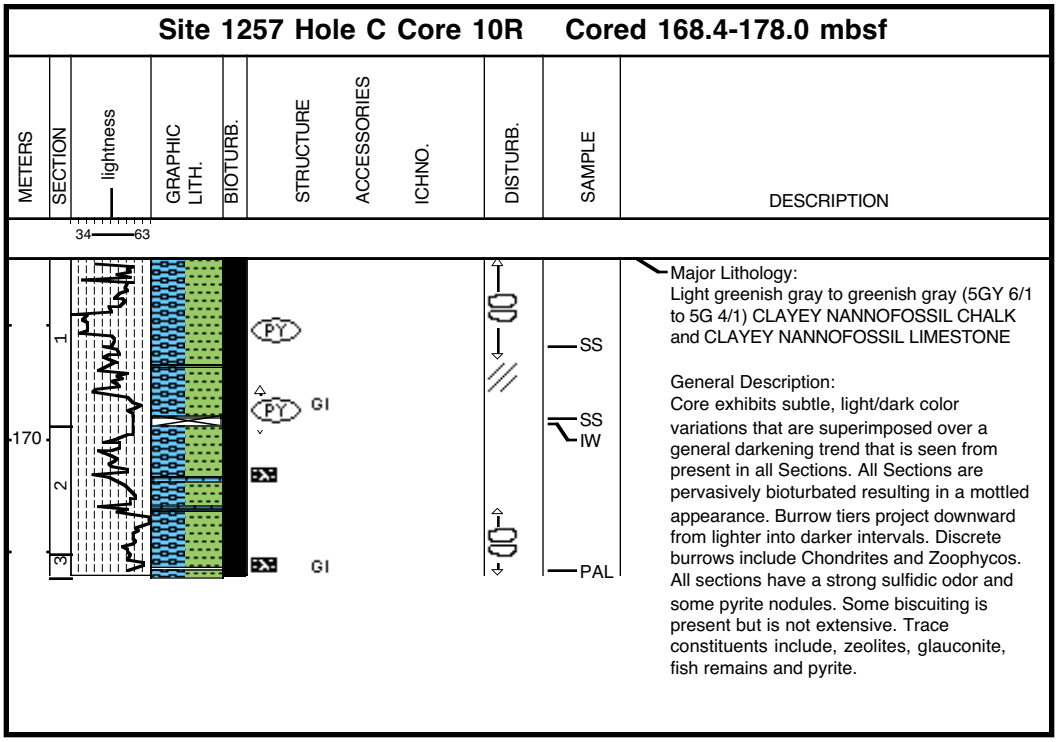
Core Photo


Site 1257 Hole C Core 8R Cored 149.1-158.7 mbsf
METERS
SECTION
lightness
35
65
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
150
152
154
156
158
1
2
3
4
5
6
7
8
SS
SS
SS
SS
IW
SS
PAL
PY
PY
PY
Major Lithology:
light greenish gray to greenish gray (5GY 7/1 to 5G 6/1) CALCAREOUS CHALK WITH CLAY
Minor Lithology:
CALCAREOUS CHALK WITH FORAMANINFERS, NANNOFOSSILS AND CLAY and CALCAREOUS CHALK WITH FORAMINIFERS, CLAY, AND PYRITE
General Description:
The core consists of light greenish gray to greenish gray (5GY 7/1 to 5G 6/1) CALCAREOUS CHALK WITH CLAY. Subtle, light/dark color variations are superimposed over a general darkening trend that is present in all sections. Pyrite nodules and disseminated dark gray monosulfides are found throughout the core. All sections are pervasively bioturbated resulting in a mottled appearance. Burrow tiers project downward from lighter into darker intervals. Discrete burrows include Chondrites, Zoophycos, and Planolites. Zoophycos is the most common and are generally subhorizontal and filled with dark gray monosulfide minerals.
pyritized burrow

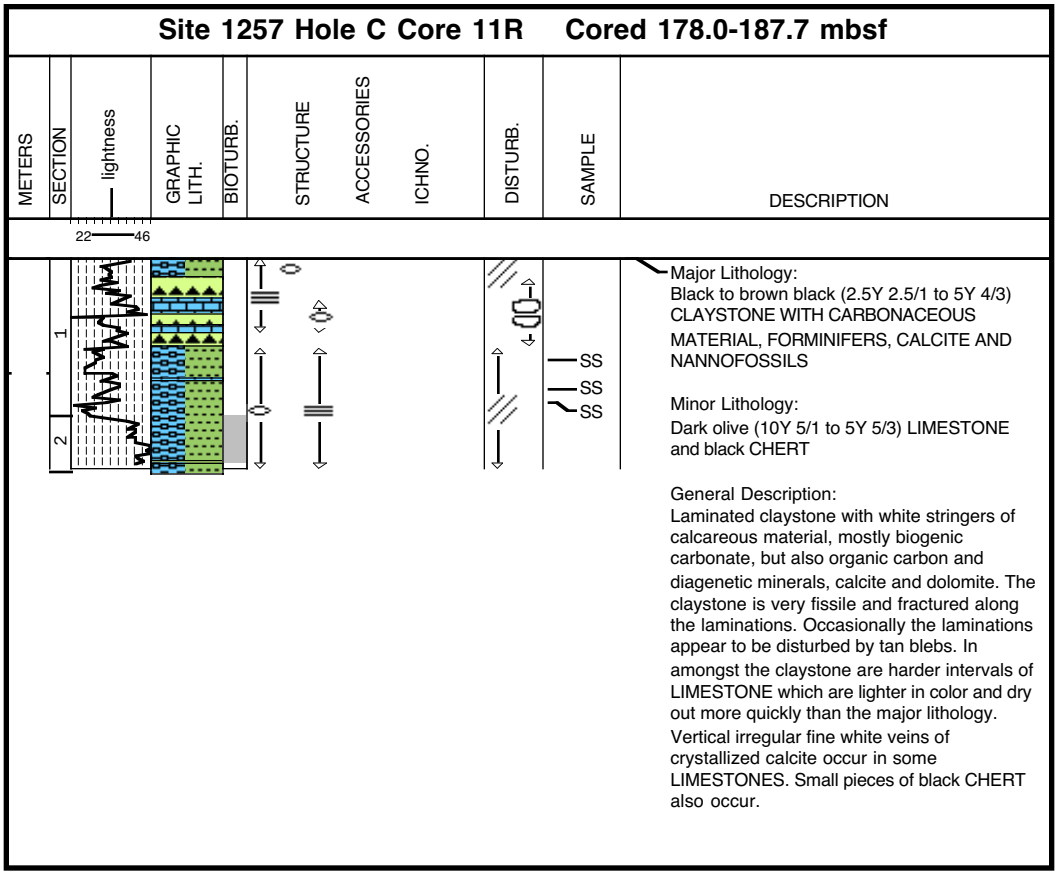
Core Photo


Site 1257 Hole C Core 9R Cored 158.7-168.4 mbsf
METERS
SECTION
lightness
30
64
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
160
162
164
166
1
2
3
4
5
6
7
PY
PY
PY
SS
SS
WRB
PAL
IW
Major Lithology:
light greenish gray to greenish gray (5GY 7/1 to 5G 6/1) CALCAREOUS NANNOFOSSIL CHALK WITH FORAMINIFERS AND CLAY
Minor Lithology:
CLAYEY NANNOFOSSIL CHALK WITH ZEOLITES AND QUARTZ
General Description:
The core consists of light greenish gray to greenish gray (5GY 7/1 to 5G 6/1) FORAMINIFER NANNOFOSSIL CHALK WITH CLAY. Subtle, light/dark color variations are superimposed over a general darkening trend that is seen from present in all sections but are less pronounced in Section 1. Pyrite nodules and disseminated dark gray monosulfides are found in Sections 1-3. All sections are pervasively bioturbated resulting in a mottled appearance. Burrow tiers project downward from lighter into darker intervals. Discrete burrows include Chondrites and Zoophycos. All sections have a strong sulfidic odor. Some biscuiting is present.
Pyrite filled Zoophycos

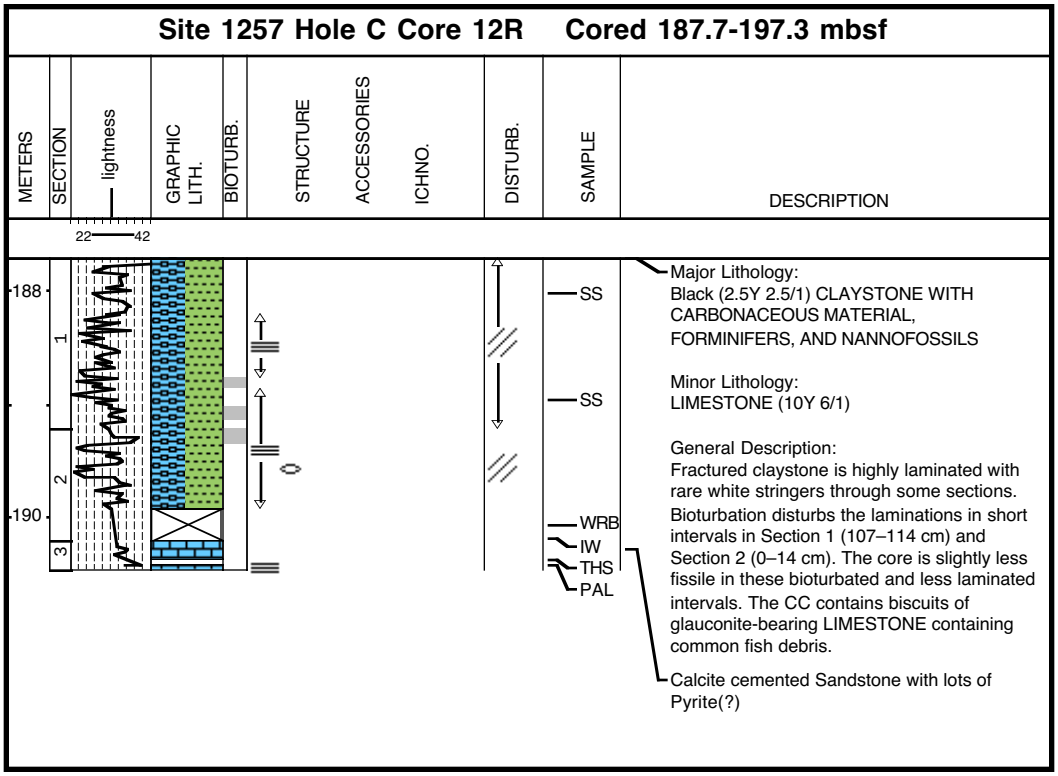
Core Photo


Site 1257 Hole C Core 10R Cored 168.4-178.0 mbsf
METERS
SECTION
lightness
34
63
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
170
1
2
3
PY
PY
GI
GI
SS
SS
IW
PAL
Major Lithology:
Light greenish gray to greenish gray (5GY 6/1 to 5G 4/1) CLAYEY NANNOFOSSIL CHALK and CLAYEY NANNOFOSSIL LIMESTONE
General Description:
Core exhibits subtle, light/dark color variations that are superimposed over a general darkening trend that is seen from present in all Sections. All Sections are pervasively bioturbated resulting in a mottled appearance. Burrow tiers project downward from lighter into darker intervals. Discrete burrows include Chondrites and Zoophycos. All sections have a strong sulfidic odor and some pyrite nodules. Some biscuiting is present but is not extensive. Trace constituents include, zeolites, glauconite, fish remains and pyrite.

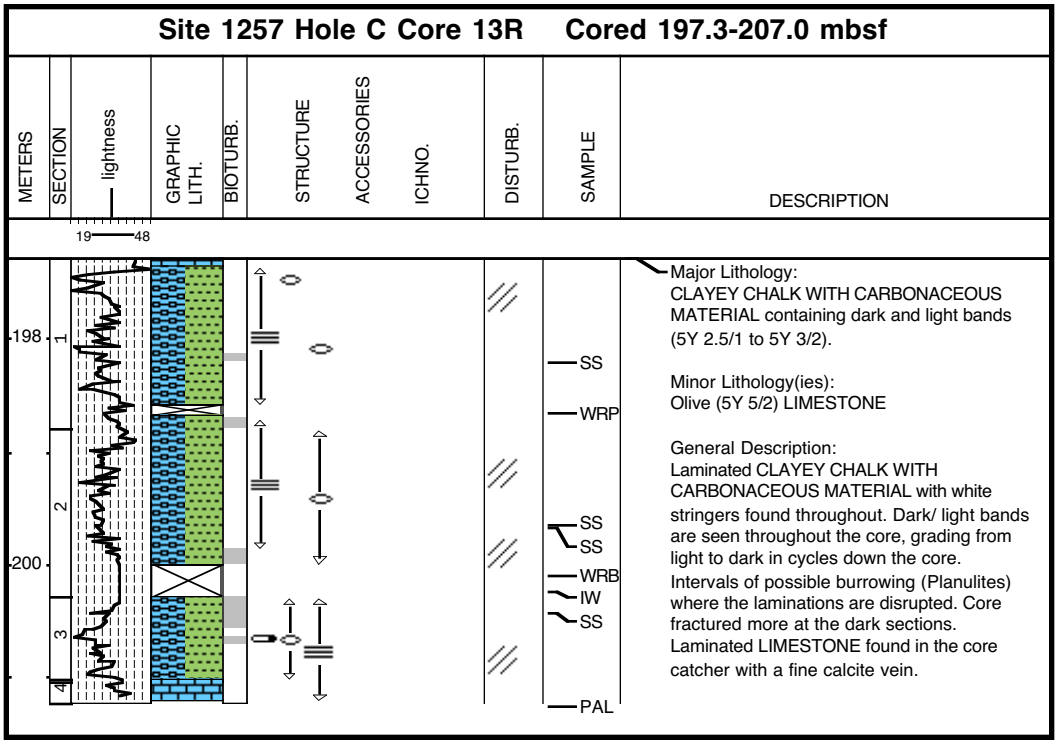
Core Photo


Site 1257 Hole C Core 11R Cored 178.0-187.7 mbsf
METERS
SECTION
lightness
22
46
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
1
2
SS
SS
SS
Major Lithology:
Black to brown black (2.5Y 2.5/1 to 5Y 4/3) CLAYSTONE WITH CARBONACEOUS MATERIAL, FORMINIFERS, CALCITE AND NANNOFOSSILS
Minor Lithology:
Dark olive (10Y 5/1 to 5Y 5/3) LIMESTONE and black CHERT
General Description:
Laminated claystone with white stringers of calcareous material, mostly biogenic carbonate, but also organic carbon and diagenetic minerals, calcite and dolomite. The claystone is very fissile and fractured along the laminations. Occasionally the laminations appear to be disturbed by tan blebs. In amongst the claystone are harder intervals of LIMESTONE which are lighter in color and dry out more quickly than the major lithology. Vertical irregular fine white veins of crystallized calcite occur in some LIMESTONES. Small pieces of black CHERT also occur.

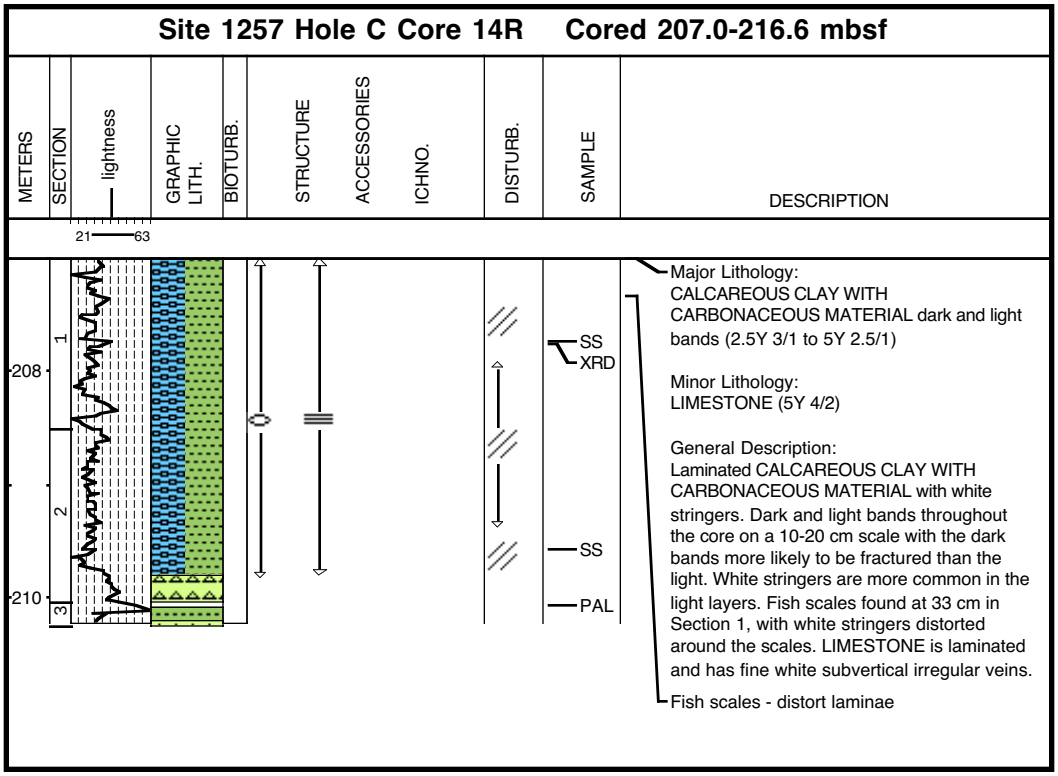
Core Photo


Site 1257 Hole C Core 12R Cored 187.7-197.3 mbsf
METERS
SECTION
lightness
22
42
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
188
190
1
2
3
SS
SS
WRB
IW
THS
PAL
Major Lithology:
Black (2.5Y 2.5/1) CLAYSTONE WITH CARBONACEOUS MATERIAL, FORMINIFERS, AND NANNOFOSSILS
Minor Lithology:
LIMESTONE (10Y 6/1)
General Description:
Fractured claystone is highly laminated with rare white stringers through some sections. Bioturbation disturbs the laminations in short intervals in Section 1 (107–114 cm) and Section 2 (0–14 cm). The core is slightly less fissile in these bioturbated and less laminated intervals. The CC contains biscuits of glauconite-bearing LIMESTONE containing common fish debris.
Calcite cemented Sandstone with lots of Pyrite(?)

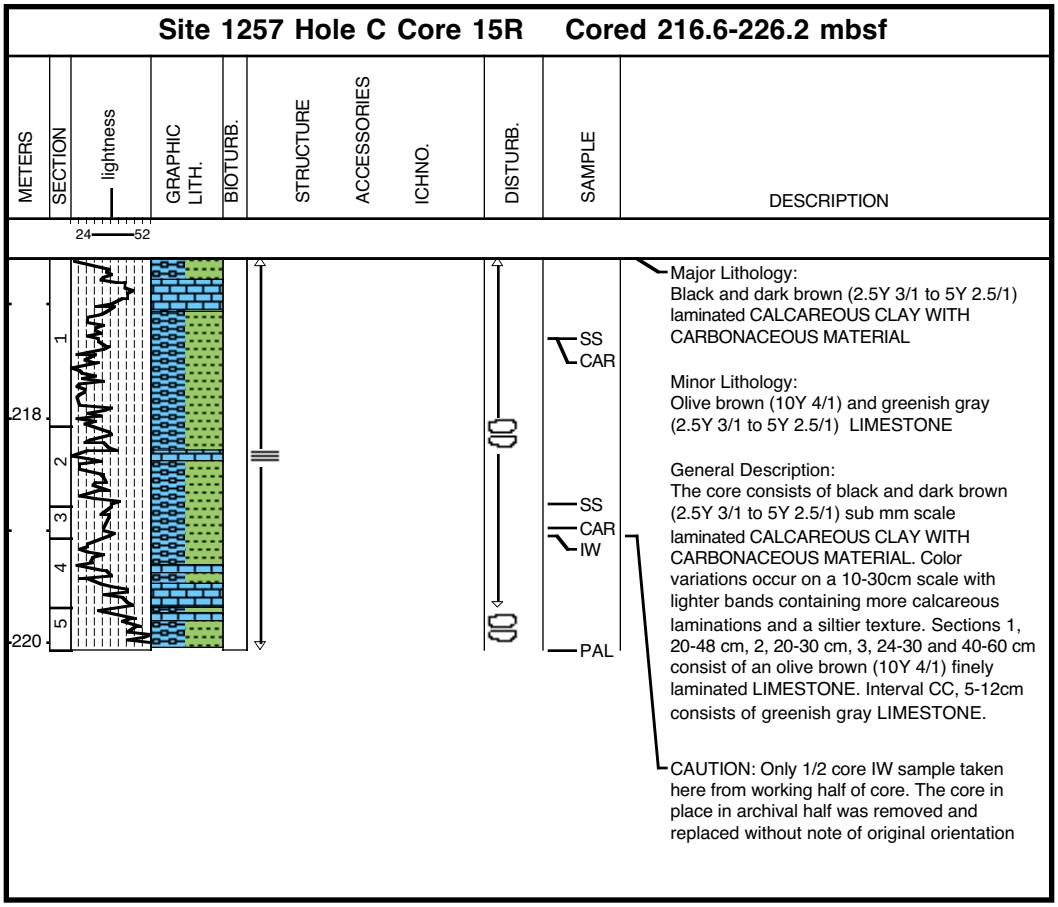
Core Photo


Site 1257 Hole C Core 13R Cored 197.3-207.0 mbsf
METERS
SECTION
lightness
19
48
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
198
200
1
2
3
4
SS
WRP
SS
SS
WRB
IW
SS
PAL
Major Lithology:
CLAYEY CHALK WITH CARBONACEOUS MATERIAL containing dark and light bands (5Y 2.5/1 to 5Y 3/2).
Minor Lithology(ies):
Olive (5Y 5/2) LIMESTONE
General Description:
Laminated CLAYEY CHALK WITH CARBONACEOUS MATERIAL with white stringers found throughout. Dark/ light bands are seen throughout the core, grading from light to dark in cycles down the core. Intervals of possible burrowing (Planulites) where the laminations are disrupted. Core fractured more at the dark sections. Laminated LIMESTONE found in the core catcher with a fine calcite vein.

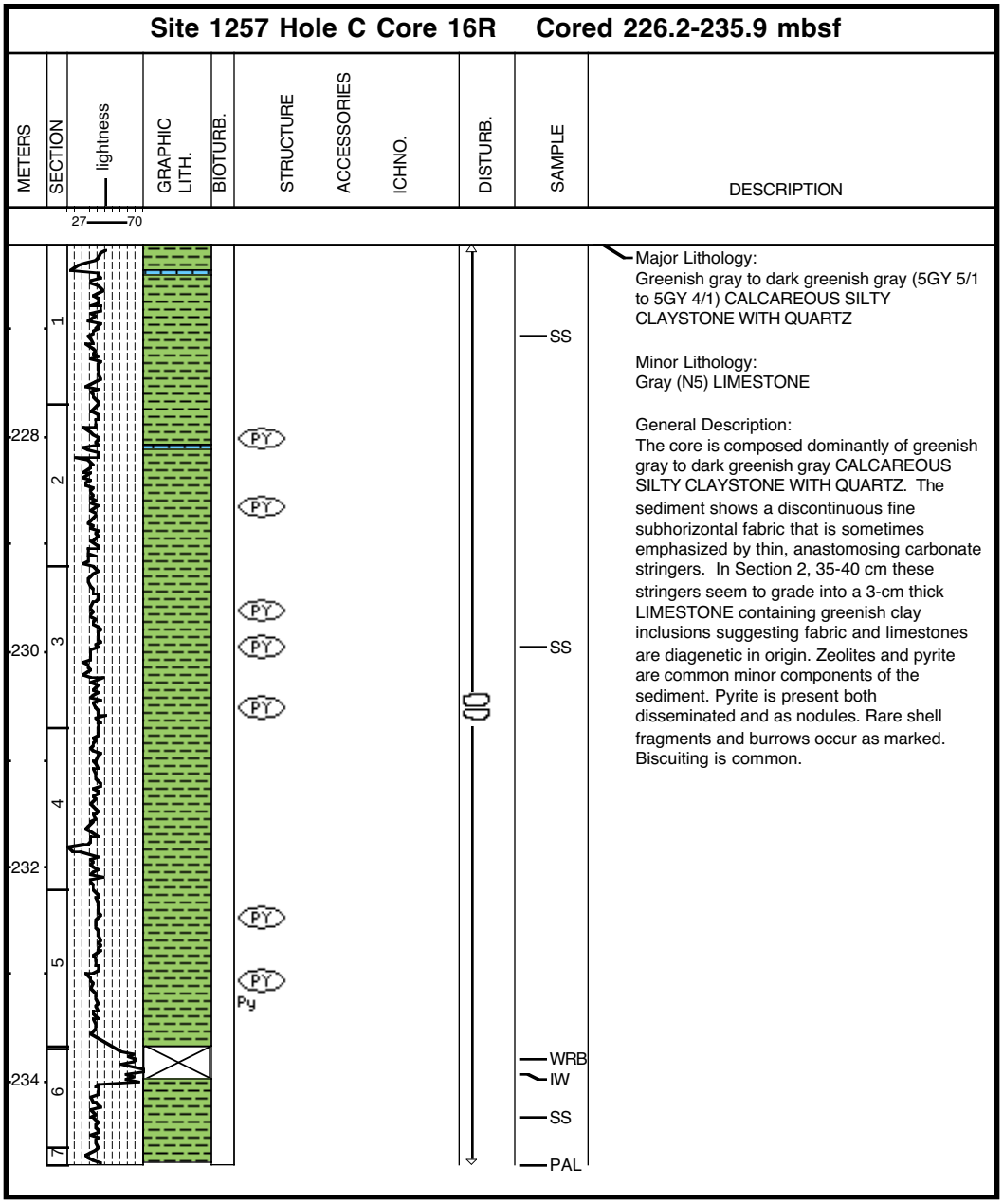
Core Photo


Site 1257 Hole C Core 14R Cored 207.0-216.6 mbsf
METERS
SECTION
lightness
21
63
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
208
210
1
2
3
SS
XRD
SS
PAL
Major Lithology:
CALCAREOUS CLAY WITH CARBONACEOUS MATERIAL dark and light bands (2.5Y 3/1 to 5Y 2.5/1)
Minor Lithology:
LIMESTONE (5Y 4/2)
General Description:
Laminated CALCAREOUS CLAY WITH CARBONACEOUS MATERIAL with white stringers. Dark and light bands throughout the core on a 10-20 cm scale with the dark bands more likely to be fractured than the light. White stringers are more common in the light layers. Fish scales found at 33 cm in Section 1, with white stringers distorted around the scales. LIMESTONE is laminated and has fine white subvertical irregular veins.
Fish scales - distort laminae

Core Photo


Site 1257 Hole C Core 15R Cored 216.6-226.2 mbsf
METERS
SECTION
lightness
24
52
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
218
220
1
2
3
4
5
SS
CAR
SS
CAR
IW
PAL
Major Lithology:
Black and dark brown (2.5Y 3/1 to 5Y 2.5/1) laminated CALCAREOUS CLAY WITH CARBONACEOUS MATERIAL
Minor Lithology:
Olive brown (10Y 4/1) and greenish gray (2.5Y 3/1 to 5Y 2.5/1) LIMESTONE
General Description:
The core consists of black and dark brown (2.5Y 3/1 to 5Y 2.5/1) sub mm scale laminated CALCAREOUS CLAY WITH CARBONACEOUS MATERIAL. Color variations occur on a 10-30cm scale with lighter bands containing more calcareous laminations and a siltier texture. Sections 1, 20-48 cm, 2, 20-30 cm, 3, 24-30 and 40-60 cm consist of an olive brown (10Y 4/1) finely laminated LIMESTONE. Interval CC, 5-12cm consists of greenish gray LIMESTONE.
CAUTION: Only 1/2 core IW sample taken here from working half of core. The core in place in archival half was removed and replaced without note of original orientation

Core Photo


Site 1257 Hole C Core 16R Cored 226.2-235.9 mbsf
METERS
SECTION
lightness
27
70
GRAPHIC LITH.
BIOTURB.
STRUCTURE
ACCESSORIES
ICHNO.
DISTURB.
SAMPLE
DESCRIPTION
228
230
232
234
1
2
3
4
5
6
7
PY
Py
SS
SS
WRB
IW
SS
PAL
Major Lithology:
Greenish gray to dark greenish gray (5GY 5/1 to 5GY 4/1) CALCAREOUS SILTY CLAYSTONE WITH QUARTZ
Minor Lithology:
Gray (N5) LIMESTONE
General Description:
The core is composed dominantly of greenish gray to dark greenish gray CALCAREOUS SILTY CLAYSTONE WITH QUARTZ. The sediment shows a discontinuous fine subhorizontal fabric that is sometimes emphasized by thin, anastomosing carbonate stringers. In Section 2, 35-40 cm these stringers seem to grade into a 3-cm thick LIMESTONE containing greenish clay inclusions suggesting fabric and limestones are diagenetic in origin. Zeolites and pyrite are common minor components of the sediment. Pyrite is present both disseminated and as nodules. Rare shell fragments and burrows occur as marked. Biscuiting is common.

Sample						Texture			Mineral															Biogenic										Rock	
Cor	CT	Sct	Top (cm)	Depth (mbsf)	Lithology	Sand	Silt	Clay	Barite (17)	Biotite (22)	Calcite (30)	Clay Mineral (47)	Dark Mica (226)	Dolomite (62)	Glauconite (82)	Opaques (140)	Pyrite (169)	Quartz (172)	Unspecified Minerals (218)	Volcanic Glass (81)	Zeolite (222)	Benthic foraminifers (236)	Carbonaceous shell fragments (267)	Diatoms (58)	Fish Remains (74)	Foraminifers (78)	Nannofossils (132)	Planktonic Forams (160)	Radiolarians (173)	Siliceous Sponge Spicules (185)	calcareous debris (161)	Organic Debris Organic Matter (142)	Comments
Hole A																																			
1	H	1	43	0.43	D							5														2	93						Nannofossil ooze
1	H	2	5	1.55	D													1				1				5	93						Nannofossil ooze with foraminifers
1	H	2	65	2.15	D																					15	85						Nannofossil ooze with foraminifers
2	H	3	65	6.25	M											1										18	81						Nannofossil chalk with foraminifers
2	H	4	65	7.75	D																					20	80						Nannofossil chalk with foraminifers
2	H	4	111	8.21	M																					17	83						Nannofossil chalk with foraminifers
3	H	5	40	18.50	D																					5	94		1	*			Nannofossil chalk with foraminifers
3	H	5	88	18.98	M											73											25	2					
4	H	2	75	23.85	D																					14	80		5	1			Nannofossil chalk with foraminifers and radiolarians
4	H	2	143	24.53	M																			8		30	50		2	10			Nannofossil chalk with foraminifers and diatoms
4	H	6	40	29.30	M																			20		34	42		2	2			Nannofossil chalk with foraminifers and diatoms
4	H	7	71	31.11	M											30								2		30	35		1	2			Nannofossil chalk with foraminifersS and opaque minerals
5	H	1	8	31.18	M							99												1									Clay
5	H	3	90	35.00	M																			15	1	40	35		3	6			Foraminifer chalk with nannofossils
5	H	4	3	35.63	M																			5	1	35	44		10	5			Nannofossil chalk with foraminifers and radiolarians
5	H	4	68	36.28	D																				1	30	54		5	10			Nannofossil chalk with foraminifers and sponge spicules
5	H	5	74	37.84	M															*				20		30	35		5	10			Nannofossil chalk with foraminifers and diatoms
5	H	CC	7	40.56	D																			1		30	50		10	9			Nannofossil chalk with foraminifers and radiolarians
6	X	1	96	41.56	M																			2		10	80		8				Nannofossil chalk
6	X	1	109	41.69	M																					15	80		5				Nannofossil chalk with foraminifers
6	X	1	144	42.04	M																			1		10	85		3	1			Nannofossil chalk with foraminifers
6	X	2	67	42.77	M																			1		15	80		3	1			Nannofossil chalk with foraminifers
6	X	3	54	44.14	D																			1		10	75		10	4			Nannofossil chalk with foraminifers and radiolarians

Sample						Texture			Mineral														Biogenic										Rock	
Cor	CT	Sct	Top (cm)	Depth (mbsf)	Lithology	Sand	Silt	Clay	Barite (17)	Biotite (22)	Calcite (30)	Clay Mineral (47)	Dark Mica (226)	Dolomite (62)	Glauconite (82)	Opaques (140)	Pyrite (169)	Quartz (172)	Unspecified Minerals (218)	Volcanic Glass (81)	Zeolite (222)	Benthic foraminifers (236)	Carbonaceous shell fragments (267)	Diatoms (58)	Fish Remains (74)	Foraminifers (78)	Nannofossils (132)	Planktonic Forams (160)	Radiolarians (173)	Siliceous Sponge Spicules (185)	calcareous debris (161)	Organic Debris Organic Matter (142)	Comments
Hole A (continued)																																	
6	X	4	132	46.42	D																			2		15	70		10	3			Nannofossil chalk with foraminifers and radiolarians
7	X	1	100	45.90	D																			19		1	45		20	15			Nannofossil chalk with radiolarians, diatoms ,and sponge spicules
7	X	1	146	46.36	M																			30		10	40		10	10			Nannofossil chalk with diatoms
7	X	2	2.5	46.43	M																			30		5	40		10	15			Nannofossil chalk with diatoms
7	X	2	52	46.92	M																			25	1	8	26		20	20			Diatom ooze with nannofossils radiolarians, and sponge spicules
7	X	2	87.5	47.28	M											1								24		10	40		15	10			Nannofossil chalk with diatoms
7	X	4	100	50.40	D																			20		3	47		20	10			Nannofossil chalk with diatoms and radiolarians
7	X	5	61.5	51.52	M																			29	1	10	40		10	10			Nannofossil chalk/diatom ooze
8	X	1	14.5	54.25	M												20							10		10	40		10	10			Nannofossil chalk/siliceous ooze
8	X	1	82.5	54.93	D							3												2		30	50		5	10			Nannofossil chalk with foraminifers and sponge spicules
8	X	4	10.5	58.71	D																			5		25	45		10	15			Nannofossil chalk with foraminifers and sponge spicules
8	X	4	52.5	59.13	D																					20	50		20	10			Nannofossil chalk with foraminifers and radiolarians
8	X	5	92	61.02	M																			10		7	50		20	13			Nannofossil chalk/biosiliceous ooze
8	X	5	137	61.47	M																			1		20	50		15	14			Nannofossil chalk with foraminifers, radiolarians, and sponge spicules
9	X	1	40	64.10	D																					25	57		15	3			Nannofossil chalk with foraminifers and radiolarians
9	X	2	137	66.57	D																			1		16	60		20	3			Nannofossil chalk with foraminifers and radiolarians
9	X	4	43	68.63	D																2					28	48		20	2			Nannofossil chalk with foraminifers and radiolarians
9	X	5	64	69.84	D																2					3	90				5		Nannofossil chalk
9	X	5	72	69.92	D																2					8	80				10		Nannofossil chalk
9	X	CC	20	70.15	D																					5	85		*		10		Nannofossil chalk
10	X	1	26	73.56	D																					10	85				5		Nannofossil chalk with foraminifers
10	X	1	108	74.38	M																					10	85				5		Nannofossil chalk with foraminifers
10	X	1	125	74.55	M										*											20	75				5		Nannofossil chalk with foraminifers
10	X	2	69	75.49	D																2					10	88			*			Nannofossil chalk with foraminifers

Sample						Texture			Mineral														Biogenic										Rock	
Cor	CT	Sct	Top (cm)	Depth (mbsf)	Lithology	Sand	Silt	Clay	Barite (17)	Biotite (22)	Calcite (30)	Clay Mineral (47)	Dark Mica (226)	Dolomite (62)	Glauconite (82)	Opaques (140)	Pyrite (169)	Quartz (172)	Unspecified Minerals (218)	Volcanic Glass (81)	Zeolite (222)	Benthic foraminifers (236)	Carbonaceous shell fragments (267)	Diatoms (58)	Fish Remains (74)	Foraminifers (78)	Nannofossils (132)	Planktonic Forams (160)	Radiolarians (173)	Siliceous Sponge Spicules (185)	calcareous debris (161)	Organic Debris Organic Matter (142)	Comments
Hole A (continued)																																		
10	X	2	96	75.76	M																					10	81		2	2	5		Nannofossil chalk with foraminifers
10	X	3	70	77.00	D																					15	78			2	5		Nannofossil chalk with foraminifers
10	X	5	12	79.42	D													*								10	82		3	5	*		Nannofossil chalk with foraminifers
10	X	5	54	79.84	M																					25	60		5	10			Nannofossil chalk with foraminifers
11	X	1	60	83.60	D						5									1	2					5	80		5	2			Nannofossil chalk with foraminifers and sponge spicules
12	X	1	60	93.20	D						15									1	1					3	80						Nannofossil chalk
13	X	2	100	104.70	D						10														*	2	88						Nannofossil chalk
13	X	3	100	106.20	D						10														*	3	87						Nannofossil chalk
14	X	2	68	113.98	D						5										1					4	90						Nannofossil chalk
14	X	5	68	118.48	D						5										1					4	90						Nannofossil chalk
15	X	1	93	122.43	D						10										1					1	88						Nannofossil chalk
15	X	4	91	126.91	D						10															2	88						Nannofossil chalk
16	X	2	90	133.50	D						15										1					15	69						Nannofossil chalk with foraminifers
16	X	4	121	136.81	D						20				*											15	65						Nannofossil chalk with foraminifers
17	X	1	90	141.60	D								*					*		*	*			*		30	65				5		Nannofossil chalk with foraminifers
17	X	3	86	144.52	D							10						1			3					20	59				7		Nannofossil chalk with foraminifers
17	X	3	95	144.61	D							15						2			2					30	51						Nannofossil chalk with foraminifers and clay
17	X	4	20	145.36	D																5					30	55				10		Nannofossil chalk with foraminifers
17	X	5	65	147.31	D																5					30	60		*		5		Nannofossil chalk with foraminifers
17	X	CC	40	148.89	D																5					25	60		*		10		Nannofossil chalk with foraminifers
18	X	1	67	150.97	M							10	1				5	1			1					10	72						Nannofossil chalk
18	X	2	106.5	152.87	D							10	1					1			10					10	68						Nannofossil chalk
18	X	2	114	152.94	D							20	*					2			5					10	63						Nannofossil chalk with clay
18	X	3	75	154.05	M												31	2								5	60		2				Nannofossil chalk with pyrite
18	X	3	141.5	154.72	D							11									5					1	80		1		2		Nannofossil chalk with clay
18	X	5	127	157.53	D													5			2					12	80		1				Nannofossil chalk with foraminifers
18	X	5	147	157.73	D							10									5					20	64		1				Nannofossil chalk with foraminifers
18	X	6	138	159.14	M													2			1					20	77						Nannofossil chalk with foraminifers

Sample						Texture			Mineral														Biogenic										Rock	
Cor	CT	Sct	Top (cm)	Depth (mbsf)	Lithology	Sand	Silt	Clay	Barite (17)	Biotite (22)	Calcite (30)	Clay Mineral (47)	Dark Mica (226)	Dolomite (62)	Glauconite (82)	Opaques (140)	Pyrite (169)	Quartz (172)	Unspecified Minerals (218)	Volcanic Glass (81)	Zeolite (222)	Benthic foraminifers (236)	Carbonaceous shell fragments (267)	Diatoms (58)	Fish Remains (74)	Foraminifers (78)	Nannofossils (132)	Planktonic Forams (160)	Radiolarians (173)	Siliceous Sponge Spicules (185)	calcareous debris (161)	Organic Debris Organic Matter (142)	Comments
Hole A (continued)																																		
19	X	1	86	160.56	D													2	1		1						10	86						Nannofossil chalk. Possibly a couple of grains of Barite present in the slide(??) and a red opaque mineral(?)
19	X	1	103	160.73	D				1			30									1						5	63						Clayey nannofossil chalk
20	X	1	15	169.55	D				*			60	1		1		1	5	1		1						2	28						Clay with nanofossils
20	X	1	75.5	170.16	D							48			*		*	1			1						5	45						Clay/Nannofossil chalk, nannofossil clay
20	X	2	128	172.18	D				*			63				1		1			2						3	30						Clay with nanofossils
20	X	3	74	173.14	D							50				1		1			1				1			46						Nannofossil clay
20	X	4	32	174.22	D					1		50			1	1					5							41				1		Nannofossil clay
20	X	4	114	175.04	D							50			2						10						9	28				1		Nannofossil clay
20	X	5	106	176.46	M							58						*			2		10				20	10						Clay with nannofossils, calcareous debris - probably Inoceramid crystals?
21	X	1	44	179.44	D							80						2			2						1	10				5		Clay
21	X	CC	9	179.99	D							43						2			20						5	10					20	Zeolitic cclay with organic debris
23	X	2	41	200.11	D							50		7	1			2			5						20	10		*			5	Foraminifer clay
23	X	3	24.5	201.45	D							63									10						15	7		*			5	Foraminifer clay
23	X	3	26	201.46	D							40									5							5					50	Organic-rich clay
24	X	1	95	208.55	D						5										20						3	52					20	Nannofossil chalk with organic debris and zeolite
25	X	1	90	218.10	D						3			1				*	3								7	76					10	Nannofossil chalk
25	X	CC	38	219.28	M	100					25			45		*		30																Dolomite arenite with quzrtz
26	X	2	121	229.51	M						70	14			1			5					5				*	1					4	Calcite siltite with clay
27	X	1	95	237.45	D						71			8	*			6															15	Calcite siltite with organic debris
28	X	2	110	248.80	D						37	37		2		1		10									1	4					8	Calcite siltite /clay
29	X	1	94	256.74	D						45	10		4		2		10				1	20				1	7						Calcite siltite with shell fragments
30	X	1	80	266.20	D						55	15		5				10					10					1					4	Calcite siltite with clay
30	X	1	83	266.23	D						65	15		5				10					4		*	*	1						Calcite siltite with clay
31	X	1	52	275.62	D						71			10		5		8								1	5						Calcite siltite
31	X	CC	28	276.19	D						62	17		5				10				*					1	5						Calcite siltite with clay

Sample						Texture			Mineral									Biogenic												Rock	
Cor	CT	Sct	Top (cm)	Depth (mbsf)	Lithology	Sand	Silt	Clay	Calcite (30)	Clay Mineral (47)	Dolomite (62)	Glauconite (82)	Opaques (140)	Pyrite (169)	Quartz (172)	Unspecified Minerals (218)	Zeolite (222)	Biosiliceous Remains (249)	Calcispheres (29)	Carbonaceous shell fragments (267)	Diatoms (58)	Fish Remains (74)	Nannofossils (132)	Planktonic Forams (160)	Radiolarians (173)	Silicoflagellates (189)	Sponge Spicules (199)	Unknown (258)	calcareous debris (161)	Organic Debris Organic Matter (142)	Comments
Hole B																														
1	R	1	70.5	40.71	M												1				2		69	15	10		2		1		Nannofossils chalk with radiolarians and foraminifers
1	R	1	70.8	40.71	D												*				5		60	10	20		5				Nannofossil chalk with foraminifers and radiolarians
1	R	1	77	40.77	D												1				2		67	15	15		*				Nannofossil chalk with radiolarians and foraminifers
1	R	2	125.5	42.76	M					9				88	1								2	*	*		*				Nodule
2	R	1	70.5	45.51	M												1				2		69	15	10		2		1		Nannofossil chalk with radiolarians and foraminifers
2	R	1	70.8	45.51	D												*				5		60	10	20		5				Nannofossil chalk with foraminifers and radiolarians
2	R	1	131	46.11	D										1		1				10		53	10	20		5				Nannofossil chalk with diatoms foraminifers and radiolarians
2	R	2	27	46.57	M												*				20		55	10	10		5				Nannofossil chalk with foraminifers, radiolarians. and diatoms
2	R	3	37	48.17	D																5		64	15	10		5		1		Nannofossil chalk with diatoms, radiolarians and foraminifers
2	R	3	89.5	48.70	D															1	10		54	10	20	*	5				Nannofossil chalk with diatoms, foraminifers and radiolarians
3	R	2	60	51.90	D																5		64	10	15	1	5				Nannofossil chalk with foraminifers and Radiolarians
3	R	2	116	52.46	M																		80	10	5		5				Nannofossil chalk with foraminifers
3	R	4	15	54.41	M																1		15	4	30		*		50		Foraminifer Chalk with nannofossils and radiolarians
3	R	4	83	55.09	D																2		68	15	10		5				Nannofossil chalk with radiolarians and foraminifers
3	R	CC	10	55.27	D																		30	5	20		3		42		Nannofossil chalk with foraminifers and radiolarians
4	R	1	80	60.20	D																		40	20	30	*	3		7		radiolarians nannofossil chalk with foraminifers
4	R	3	85	63.24	M																		40	15	30		5		10		Radiolairna nannofossil chalk WITH foraminifers
4	R	3	121	63.60	M					21							1						30	10	15	*	3		20		Nannofossil chalk with foraminifers and radiolarians
4	R	4	25	64.14	D					26								4					20	10					40		Carbonate clayey chalk with foraminifers and nannofossils
4	R	4	40.5	64.30	D				20	30							1	4					20	5					20		Carbonate clayey chalk with foraminifers and nannofossils
4	R	5	42	65.81	D				20	12							1	2					10	5					50		Carbonate clayey chalk with foraminifers and nannofossils
5	R	1	22	69.22	M					40					2		3						15	10					30		Clayey chalk with foraminifers and carbonate debris
5	R	1	100	70.00	D					30					2		5						40	5					18		Clayey chalk with foraminifers and carbonate debris

Sample						Texture			Mineral									Biogenic													Rock	
Cor	CT	Sct	Top (cm)	Depth (mbsf)	Lithology	Sand	Silt	Clay	Calcite (30)	Clay Mineral (47)	Dolomite (62)	Glauconite (82)	Opaques (140)	Pyrite (169)	Quartz (172)	Unspecified Minerals (218)	Zeolite (222)	Biosiliceous Remains (249)	Calcispheres (29)	Carbonaceous shell fragments (267)	Diatoms (58)	Fish Remains (74)	Nannofossils (132)	Planktonic Forams (160)	Radiolarians (173)	Silicoflagellates (189)	Sponge Spicules (199)	Unknown (258)	calcareous debris (161)	Organic Debris Organic Matter (142)	Comments
Hole B (continued)																															
5	R	3	83	72.58	M					20							10						10	10					50		Carbonate clayey chalk with foraminifers and nannofossils
5	R	4	28	73.51	D					10							3						57	15					15		Nannofossil chalk with clay carbonate debris, and foraminifers
6	R	1	90.5	79.61	D					28					1		1						30	10	*				30		carbonate nannofossil chalk with foraminifers
7	R	1	110	89.40	D				10	20							3						44	8	5				10		Clayey nannofossil chalk
8	R	4	6	102.43	M				20	10					*	3	*			2			65	*							Nannofossil chalk with carbonate cement
8	R	5	83	104.70	D				10	10						3	2						70	5							Nannofossil chalk
9	R	3	80	111.42	D				10	10							12						53	15							Nannofossil chalk with foraminifers and zeolite
10	R	2	70	119.40	D				10	15							8						59	8							Clayey Nannofossil chalk
11	R	2	88	129.18	D				10	10							10					*	60	10							Nannofossil chalk
12	R	1	46	136.66	D				10	15							15		1				54	5							Nannofossil chalk with clay and zeolite
12	R	3	125	140.45	D				10	20							10		2			*	38	20	*						Nannofossil chalk with foraminifers and clay
12	R	6	50	144.21	D				10	10							10					*	50	20							Nannofossil chalk with foraminifers
12	R	6	146	145.17	D				10	19		*		3			8						40	10	*				10		Nannofossil chalk with foraminifers
13	R	1	57	146.37	D				20						2		*					*	48	30							Foraminifer and nannofossil chalk
13	R	3	61	149.41	D				15	5							15					*	45	20							Nannofossil chalk with foraminifers
14	R	1	5	155.55	M				5	10			3				10					*	50	15					7		Nannofossil chalk with clay, zeolite, and foraminifers
14	R	1	90	156.40	D				20					3	3		8						26	10					30		Nannofossil chalk with foraminifers and calcite
19	R	1	8	183.78	D				15	62							2					1	15	5							Nannofossil clay with calcite
19	R	2	123.5	186.44	D				25	54				3			5						10	3							Clay with nannofossils and calcite
20	R	CC	15	190.17	D				40	19	5			1	3		2						20	10							Carbonate clay with foraminifers and nannofossils
20	R	CC	50		D				20	13			5		2		10						30	5						15	Carbonaceous nannofossils claystone with foraminifers and zeolites
21	R	1	10.5	193.41	D				10	51	1						8					*	10							20	Claystone with nannofossils
21	R	1	71.5	194.02	M				10	73	5		2		3							2		5	*						Claystone with calcite, nannofossils, and foraminifers
21	R	1	78	194.08	D				20	60					2								4	10						4	Claystone with foraminifers and carbonate
21	R	2	8	194.88	D				40	30					1								15	4						10	Clayey calcareous chalk with zeolite and nannofossils
21	R	2	66	195.46	M					40							15						15	5						25	Carbonaceous claystone with zeolite and nannofossils
21	R	CC	3	195.87	D				5	60							2						10	3						20	Claystone with nannofossils
22	R	1	121	199.51	M				10	54			2				1						10	3						20	Carbonaceous claystone with calcite and nannofossils
22	R	2	112	200.92	M				10	68							2						10	10							Claystone with calcite, nannofossils, and foraminifers
23	R	1	86	203.86	D				5	40							20					*	5							30	Carbonaceous claystone with zeolite

Sample						Texture			Mineral									Biogenic												Rock	
Cor	CT	Sct	Top (cm)	Depth (mbsf)	Lithology	Sand	Silt	Clay	Calcite (30)	Clay Mineral (47)	Dolomite (62)	Glauconite (82)	Opaques (140)	Pyrite (169)	Quartz (172)	Unspecified Minerals (218)	Zeolite (222)	Biosiliceous Remains (249)	Calcispheres (29)	Carbonaceous shell fragments (267)	Diatoms (58)	Fish Remains (74)	Nannofossils (132)	Planktonic Forams (160)	Radiolarians (173)	Silicoflagellates (189)	Sponge Spicules (199)	Unknown (258)	calcareous debris (161)	Organic Debris Organic Matter (142)	Comments
Hole B (continued)																															
23	R	2	47	204.38	D				10	22					10							3	5	30						20	Carbonaceous foraminifer claystone with quartz and calcite
24	R	1	117	209.17	D				10	20	5			2			2					*	30	30					5		Nannofossil and foraminifers clay with calcite
24	R	2	45	209.95	M				10	10												20	30	20						10	Nannofossil chalk with calcite, clay, apatite, and foraminifers
24	R	3	53	211.49	M				20		2											2	20	30	1					25	Foraminifer chalk with calcite, organic debris and nannofossils
25	R	1	113	213.73	M					30					4		2					3	1	20					40		Clayey calcareous chalk with nannofossils
25	R	2	10	214.20	D					50					2								20	5					23		Claystone with foraminifers, nannofossils and calcareous debris
26	R	1	119	218.79	M					40				5			25											5	25		Calcareous zeolitic claystone with pyrite and chunks
26	R	1	146	219.06	D					60				1	5		3					1							30		Calcareous silty claystone with quartz
26	R	2	36	219.46	D					67				3	2		2					1							25		Calcareous silty claystone

Sample						Mineral										Biogenic								Rock		
Cor	CT	Sct	Top (cm)	Depth (mbsf)	Lithology	Apatite (14)	Calcite (30)	Clay Mineral (47)	Dolomite (62)	Glauconite (82)	Opaques (140)	Pyrite (169)	Quartz (172)	Zeolite (222)	Calcispheres (29)	Fish Remains (74)	Nannofossils (132)	Planktonic Forams (160)	Radiolarians (173)	Silicoflagellates (189)	calcareous debris (161)	Organic Debris	Organic Matter (142) Pellets (152)	Comments
Hole C																										
1	R	5	25	87.75	D		5	20						5			30	25	15	*				Foraminifer clayey nannofossil chalk with radiolarians
1	R	5	49	87.99	M		3	40					1	3			8	3	42					Clayey radiolarian ooze
3	R	5	57	107.77	D		7	30						5		*	46	12						Clayey nannofossil chalk with foraminifer
4	R	3	52	114.32	D		10	25					*	8		*	42	15						Clayey nannofossil chalk with foraminifer
5	R	3	100	124.50	D	1		33						5	1		45	15						Clayey nannofossil chalk with foraminifer
6	R	3	100	134.10	D	1	10	21					1	3	*	*	45	19						Nannofossil chalk with clay and foraminifers
8	R	1	96	150.06	M		40	10				20		5		*	5	10			10			Carbonate chalk with foraminifers and pyrite
8	R	2	60	151.20	D		55	4	1			3		2			15	10			10			Calcareous chalk with foraminifers and nannofossils
8	R	3	55	152.65	D		50	16				1		5		1	2	15			10			Calcareous chalk with foraminifers and clay
8	R	5	143	156.53	M		70	6				3	5	3		1	10	2						Calcareous chalk
8	R	CC	8	158.40	D		35	12				2	1	2			40	5			3			Calcareous nannofossil chalk with clay
9	R	1	74	159.44	D		30	4				2	2	2			40	15			5			Calcareous nannofossil chalk with foraminifers
9	R	3	85	162.55	M		10	46				1	8	7		1	10	10	2		5			"Clay with calcite, nannofossils, and foraminifers"
9	R	5	69	165.33	D		15	42					3	10			10	5					15	"Clay with zeolite, nannofossil, pellet, and calcite"
10	R	1	76	169.16	D		5	53				3	10	5			20	2	2					Clay with quartz and nannofossils
10	R	1	131	169.71	D		19	40		1		1	5	2		1	30	1						Nannofossil clay with calcite
11	R	1	89	178.89	M		5	46					1			3	20	10			10	5		Claystone with foraminifers and nannofossils
11	R	1	114	179.14	D		15	33				3	1	5		3	20	10			5	5		Calcareous clay with foraminifers and nannofossils
11	R	1	125	179.25	M		30	27	10				3			5	15	10						Calcareous clay with foraminifers and nannofossils
12	R	1	30	188.00	D		10	33				2		5			25	15			5	5		"Clay with calcite, foraminifers, and nannofossils"
12	R	1	124	188.94	D		5	9				20		10		1	40	10			5			"Nannofossil clay with zeolite, foraminifers, and pyrite "
13	R	1	91	198.21	M			45				5		30		10	4	1				5		"Zeolitic siltstone with pyrite, clay, fish and carbonate material"
13	R	2	27	199.07	D		10	40				20		20		2		5				3		"Carbonaceous claystone with foraminifers, calcite, pyrite and zeolite"
13	R	2	83	199.63	D		3	30			10			10		3	20	20				4		"Claystone with opaque minerals, zeolite, nannofossils, and foraminifers"
13	R	3	10	200.40	D		23	52					2	10		1	2	10	*					"Claystone with foraminifers, zeolite, and calcite"
14	R	1	72	207.72	M		30	30			7			8				20				5		Calcareous clay with foraminifers
14	R	2	104	209.55	M		44	25						10		1		15				5		Calcareous clay with zeolite and foraminifers
15	R	1	70	217.30	D		15	34			5		1	8			20	15				2		"Clay with calcite, foraminifers, and nannofossils"
15	R	2	66	218.76	D		30	16	5		5		1	8			20	15						Calcareous clay with foraminifers and nannofossils
16	R	1	85	227.05	D		10	71	3	1		10				3	2							Claystone with calcite and pyrite
16	R	3	72	229.92	D		50	11		1		15	20			1							2	Calcareous clay with pyrite and quartz
16	R	6	62	234.29	D		45	23	5	4		10	10			2		1						Calcareous clay with pyrite and quartz

Sample								Mineral														Biogenic											Rock														
Cor	CT	Sct	Top (cm)	Bot (cm)	Depth (mbsf)	Thin Section Number	Lithology	Calcite	Inorganic Calcite	Chert	Clay	Feldspar	Glauconite	Accessory Minerals	Opaque Minerals	Pyrite	Fe-oxide	Quartz	Zeolite	Calcispheres	Bioclast	Fish Remains	Fecal Pellets	Foraminifers	Planktonic Foraminifers	Benthic Foraminifers	Nannofossils	Radiolarians	Shell Fragments	Calcareous Debris	Cement	Clasts	Biosiliceous Material	Fecal Pellet	Micrite	Sparite	Cryptocrystalline(?) Silica Matrix	Organic Matter		Lithology	Comments
Hole A																																														
16	X	4	103	106	136.63	1	D	20														1		80															100	Foraminifer packstone	Foraminifers are mostly planktonic foraminifers with calcite filling.
16	X	5	46	49	137.56	2	D	74														1		15					10										100	Foraminiferal wackestone	
23	X	1	20	23	198.40	3	D	25	15													*		8				17						25				10	100	Radiolarian wackestone	Foraminifers are heavily recrystallized, filled with blocky calcite. Radiolarians are replaced by calcite, filled with microspar.
23	X	2	95	98	200.65	4	D				39							*	20			11		*													30	100	Carbonaceous clay with zeolites and fecal pellets	Distinctly laminated. Fish remains include phosphate.
24	X	1	58	62	208.18	5	D	10			10													30			40											10	100	Foraminifer wackestone	Black shale. Nannofossils are in fecal pellets and in matrix. Calcite is diagenetic. Foraminifers include blocky calcite filling.
25	X	C C	32	34	219.22	6	M	30		8		8	*					49										5			*								100	Quartz arenite	Inorganic calcite is carbonate cement. Quartz grains are mainly angular to subrounded. Many grains have a coating of opaque minerals.
Hole B																																														
1	R	1	92	94	40.92	7	D															*			26			15							59			100	Foraminifer wackestone with radiolarians	Bimodal foraminifer sizes; many are filled with Fe-hydroxide stained micrite.
1	R	2	93	97	42.43	8	D																	30				20							50				100	Foraminifer wackestone with radiolarians	Thin section is of poor quality. Many foraminifers are filled with Fe-hydroxide stained micrite.
3	R	4	6	9	54.32	9	D																		30			15							55				100	Foraminifer wackestone with radiolarians	The thin section is too thick. Some foraminifers are filled with Fe-hydroxide stained micrite.
4	R	3	119	122	63.58	10	D														*			15									5		80				100	Foraminifer wackestone	Bioclasts are shell fragments.
4	R	4	62	65	64.51	11	D														*			20				5							70				95	Foraminifer wackestone	Foraminifers show a preferred orientation +/- parallel bedding plane.

Sample								Mineral														Biogenic											Rock												
Cor	CT	Sct	Top (cm)	Bot (cm)	Depth (mbsf)	Thin Section Number	Lithology	Calcite	Inorganic Calcite	Chert	Clay	Feldspar	Glauconite	Accessory Minerals	Opaque Minerals	Pyrite	Fe-oxide	Quartz	Zeolite	Calcispheres	Bioclast	Fish Remains	Fecal Pellets	Foraminifers	Planktonic Foraminifers	Benthic Foraminifers	Nannofossils	Radiolarians	Shell Fragments	Calcareous Debris	Cement	Clasts	Biosiliceous Material	Fecal Pellet	Micrite	Sparite	Cryptocrystalline(?) Silica Matrix	Organic Matter		Lithology	Comments
Hole B (continued)																																												
6	R	1	19	22	78.89	12	D																	20											40		40		100	Siliceous wackestone with foraminifers	There are some radiolarians, but difficult to identify. Most foraminifers are filled with some sort of cryptocrystalline silica.
7	R	1	4	7	88.34	13	D																	25		3		5							37		30		100	Siliceous foraminifer wackestone	Foraminifers are filled with silica (cryptocrystalline, opal).
8	R	4	29	32	102.66	14	D								1				5			*		50				2							42				100	Foraminifer wackestone to packstone	Foraminifers are mainly filled with cryptocrystalline silica and micrite. Many are empty. Common zeolite growth in chambers. Fragments of pyrite replaced radiolarians.
13	R	3	39	43	149.19	15	D											*						30		*			*						60		10			Foraminifer wackestone (some areas packstone)	Bivalve shell fragments.
17	R	1	32	34	174.72	16	D	40			15														12										15	16		2	100	Foraminifer wackestone	This is in contact with well crystallized limestone (showing relics of planktonic foraminifers). Micrite is in fecal pellets. Calcite neomorphic. Microsparite matrix.
18	R	1	21	24	179.61	17	D				33				2				3			3			25				1					15			18	100	Foraminifer claystone with micrite and organic matter	Typical black shale. One large calcareous shell fragment is present.
19	R	1	105	108	184.75	18					31				15				2			2				15								30			5	100	Clayey chalk with opaque minerals and foraminifers	Organic-rich but no lamination. Color due to minute brown pigments. Clay and micrite background matrix. Fish remains include phosphate nodules. Brown spherical organic matter.
19	R	2	31	34	185.51	19	D				30		1		3			6	5			2			20				*					28			5	100	Clayey foraminifer wackestone	Bioturbated areas are cleaner in this thin section. Quartz is cryptocrystalline. Zeolites are in foraminifer chambers.

Sample								Mineral														Biogenic											Rock												
Cor	CT	Sct	Top (cm)	Bot (cm)	Depth (mbsf)	Thin Section Number	Lithology	Calcite	Inorganic Calcite	Chert	Clay	Feldspar	Glauconite	Accessory Minerals	Opaque Minerals	Pyrite	Fe-oxide	Quartz	Zeolite	Calcispheres	Bioclast	Fish Remains	Fecal Pellets	Foraminifers	Planktonic Foraminifers	Benthic Foraminifers	Nannofossils	Radiolarians	Shell Fragments	Calcareous Debris	Cement	Clasts	Biosiliceous Material	Fecal Pellet	Micrite	Sparite	Cryptocrystalline(?) Silica Matrix	Organic Matter		Lithology	Comments
Hole B (continued)																																												
20	R	1	11	14	188.81						8		22		18							17			25											10			100	Foraminifer glauconite phosphorite sandstone with opaque minerals	Matrix clay includes organic matter. Fish remains include phosphate. Foraminifers are filled with blocky calcite.
21	R	1	90	93	194.20	21	M				5				2									3											90			100	Laminated mudstone (recrystallized)	Distinct flaser fabric. 5% sparite (blocky calcite) and 85% microsparite.
21	R	2	33	36	195.13	22	D				25				3							1			20									20	20		11	100	Foraminifer wackestone with organic matter and clay	Wavy flaser. Micrite is in fecal pellets. 10% diagenetic microsparite, 10% is background micrite.
24	R	2	76	80	210.26	23	D				26				15				2			1	18		20									10			8	100	(Laminated) foraminifer wackestone (with clay)	Fecal pellets in micrite, no clay. Micrite in background matrix. Organic matter is brown colored pigments.
25	R	2	32	35	214.42	24	M								4							1		15					*					80				100	Foraminifer wackestone	Darker part of thin section. Only foraminifer casts left consisting of sparite. Shell fragments are with neomorphic spar. 35% slightly recrystallized, clean micrite. 45% is dirty, clayey micrite. (100% for this part only)
25	R	2	32	35	214.42	24	M								3					60				*										37				100	Calcisphere packstone (recrystallized)	Lighter part of thin section. Recrystallized micrite, includes some patches. (100% for this part only)
25	R	2	87	90	214.97	25	D				30											4			15				3					37	3		8	100	Foraminifer wackestone	One cm of prominent layer with fish debris and phosphorite. 20% micritic fecal pellets, 17% background matrix micrite. Sparite cement.
26	R	2	36	40	219.46	26	D				25		*	*	7			6						1						5				56				100	Calcareous wackestone	Thin Section is poor quality (soft sediment). Few well preserved glauconite grains. Microsparitic micrite. One polyquartz grain.

Sample								Mineral															Biogenic												Rock																
Cor	CT	Sct	Top (cm)	Bot (cm)	Depth (mbsf)	Thin Section Number	Lithology	Calcite	Inorganic Calcite	Chert	Clay	Feldspar	Glauconite	Accessory Minerals	Opaque Minerals	Pyrite	Fe-oxide	Quartz	Zeolite	Calcispheres	Bioclast	Fish Remains	Fecal Pellets	Foraminifers	Planktonic Foraminifers	Benthic Foraminifers	Nannofossils	Radiolarians	Shell Fragments	Calcareous Debris	Cement	Clasts	Biosiliceous Material	Fecal Pellet	Micrite	Sparite	Cryptocrystalline(?) Silica Matrix	Organic Matter		Lithology	Comments
Hole B (continued)																																																		
26	R	2	56	60	219.66	27	M					*	*			5	*	57								*			1		28	5			3		1		100	Quartz Arenite (dirty)	No grain contacts are observed. Cement must have replaced the original micrite. Rock fragments include mudstones and calcite. Fe-oxide as coating.
Hole C																																																	
12	R	2	96	100	190.16	28	M				15		15		5							7			50										8		*	100	Foraminifer sand with glauconite and clay	