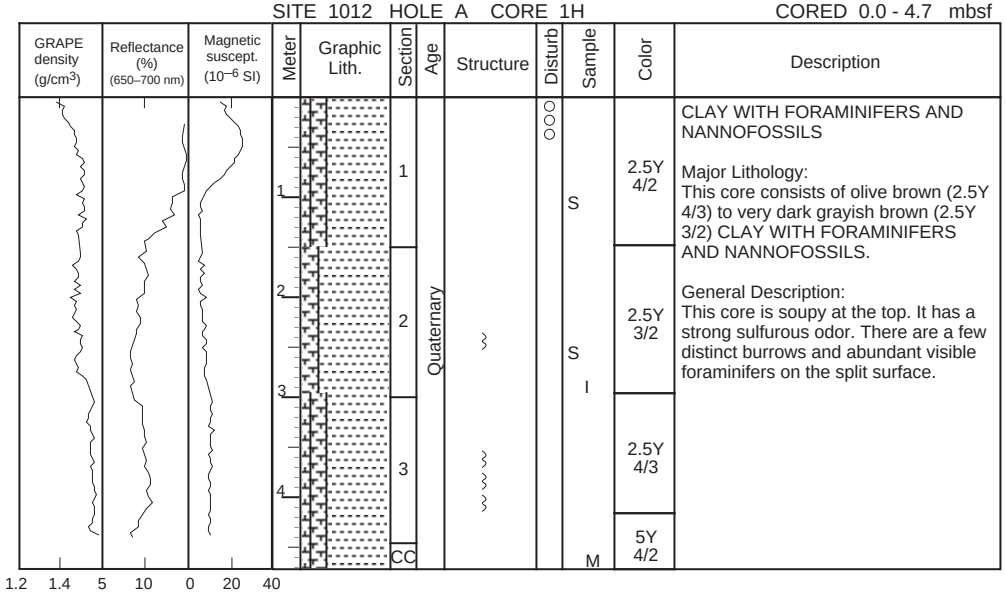
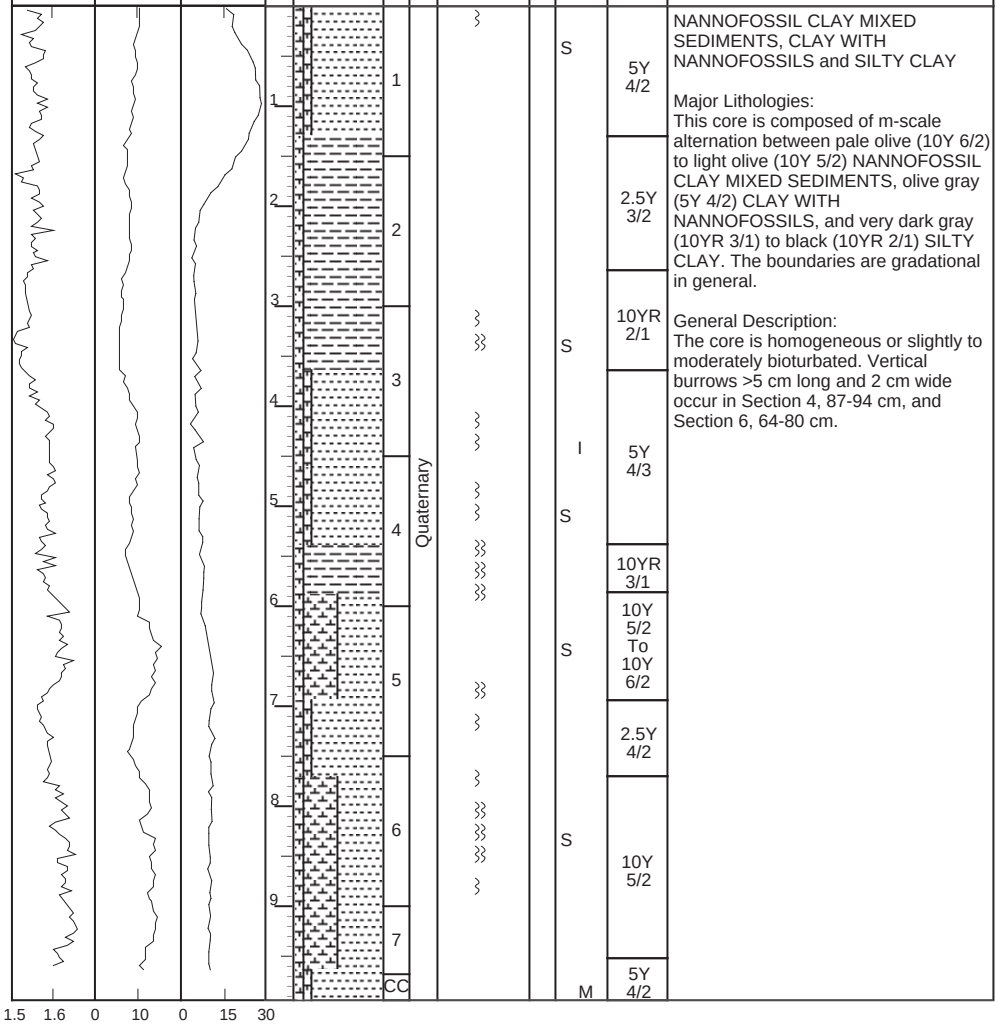
SITE 1012 HOLE A CORE 1H CORED 0.0 - 4.7 mbsf



SITE 1012 HOLE A CORE 2H CORED 4.7 - 14.2 mbsf

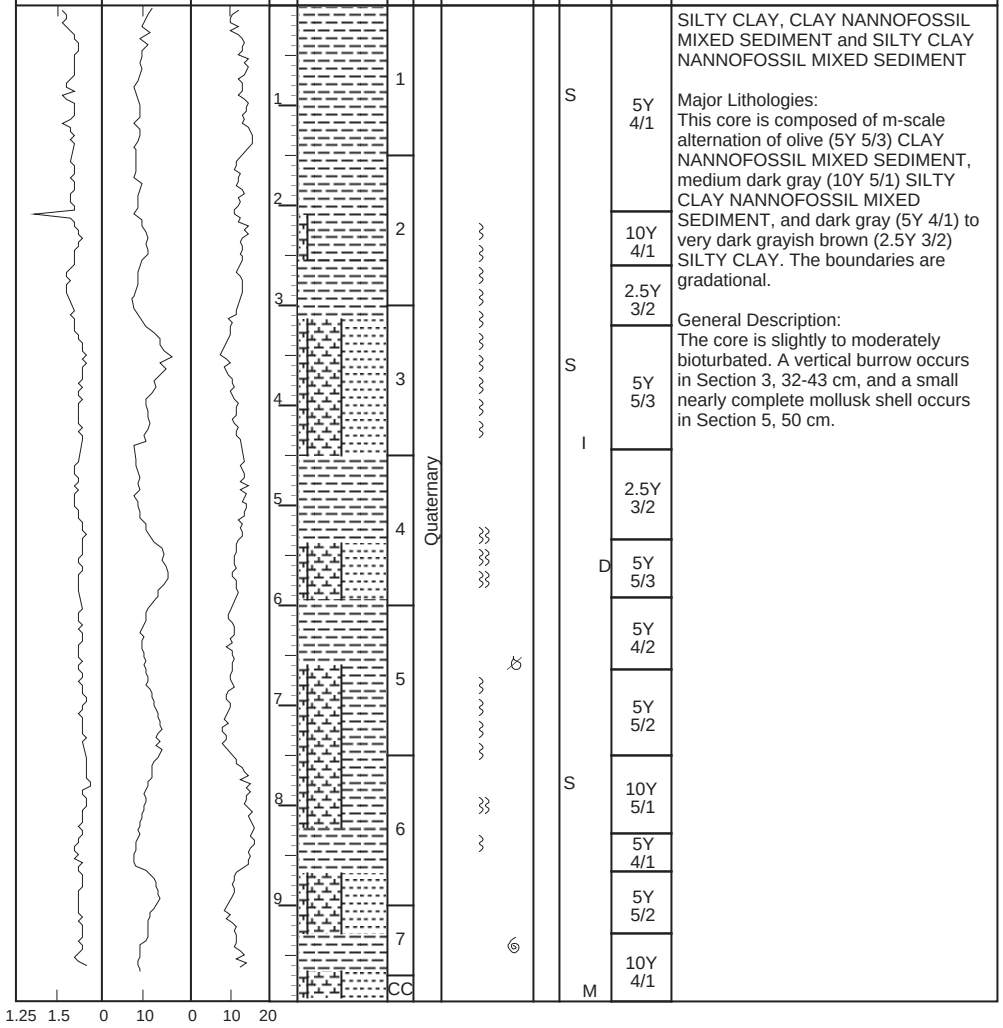


NANNOFOSSIL CLAY MIXED SEDIMENTS, CLAY WITH NANNOFOSSILS and SILTY CLAY

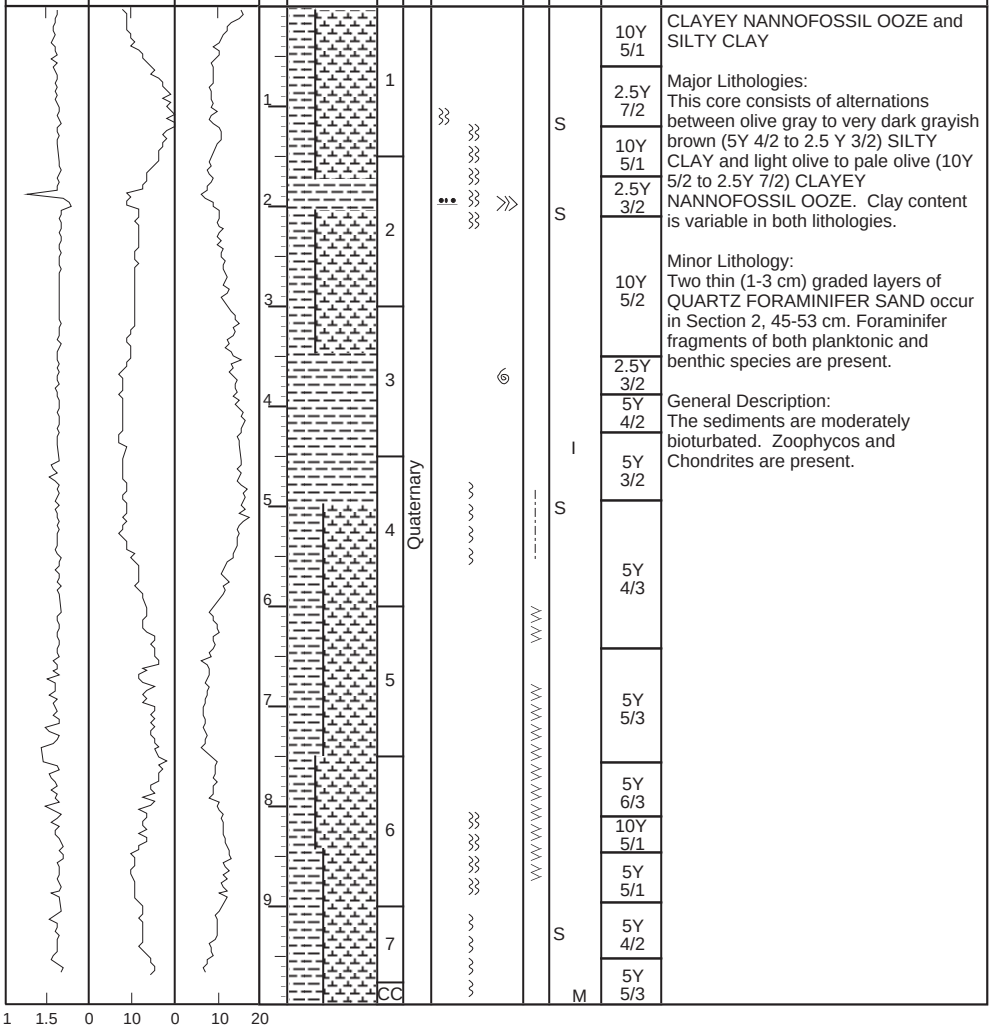
Major Lithologies:
This core is composed of m-scale alternation between pale olive (10Y 6/2) to light olive (10Y 5/2) NANNOFOSSIL CLAY MIXED SEDIMENTS, olive gray (5Y 4/2) CLAY WITH NANNOFOSSILS, and very dark gray (10YR 3/1) to black (10YR 2/1) SILTY CLAY. The boundaries are gradational in general.

General Description:
The core is homogeneous or slightly to moderately bioturbated. Vertical burrows >5 cm long and 2 cm wide occur in Section 4, 87-94 cm, and Section 6, 64-80 cm.

SITE 1012 HOLE A CORE 3H CORED 14.2 - 23.7 mbsf



SITE 1012 HOLE A CORE 4H CORED 23.7 - 33.2 mbsf



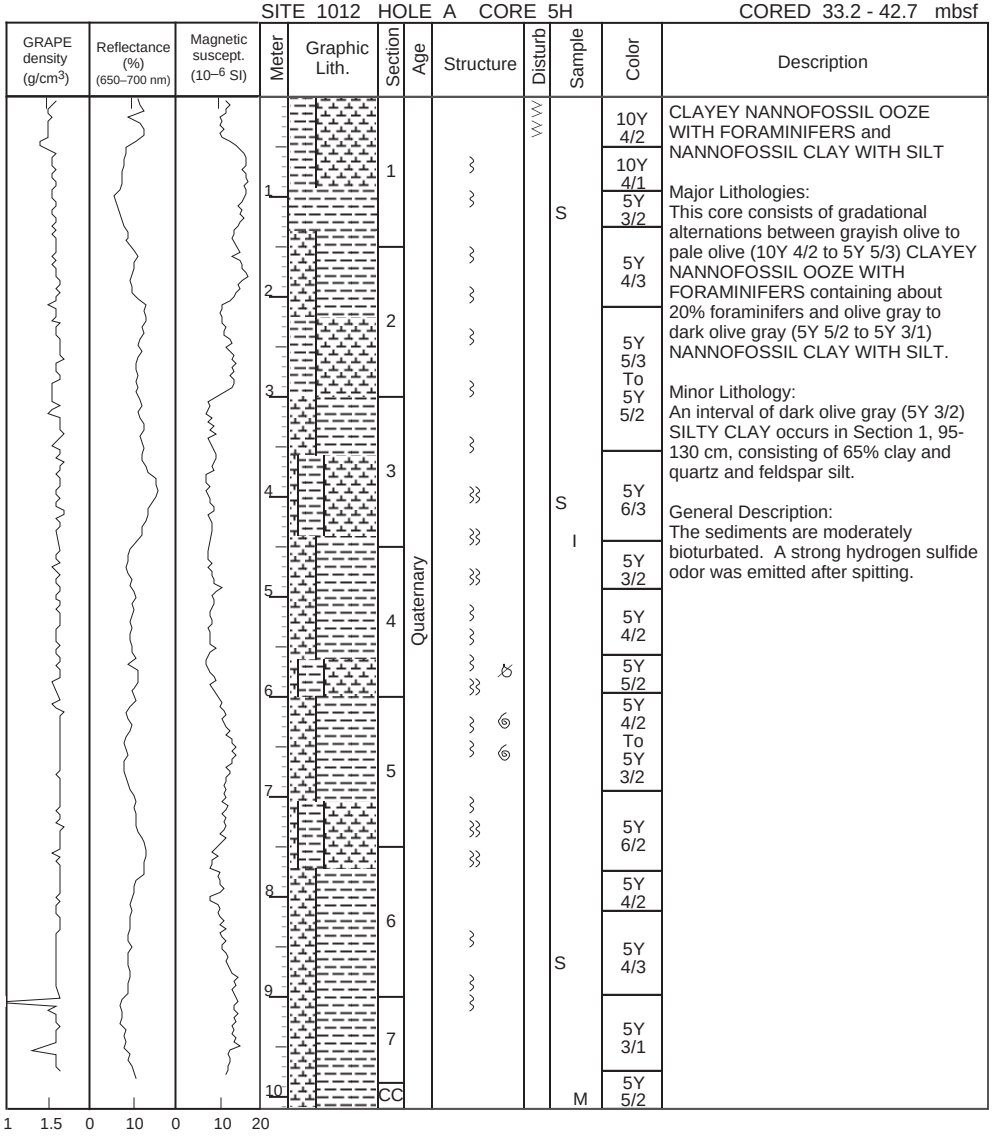
CLAYEY NANNOFOSSIL OOZE and SILTY CLAY

Major Lithologies:
This core consists of alternations between olive gray to very dark grayish brown (5Y 4/2 to 2.5 Y 3/2) SILTY CLAY and light olive to pale olive (10Y 5/2 to 2.5Y 7/2) CLAYEY NANNOFOSSIL OOZE. Clay content is variable in both lithologies.

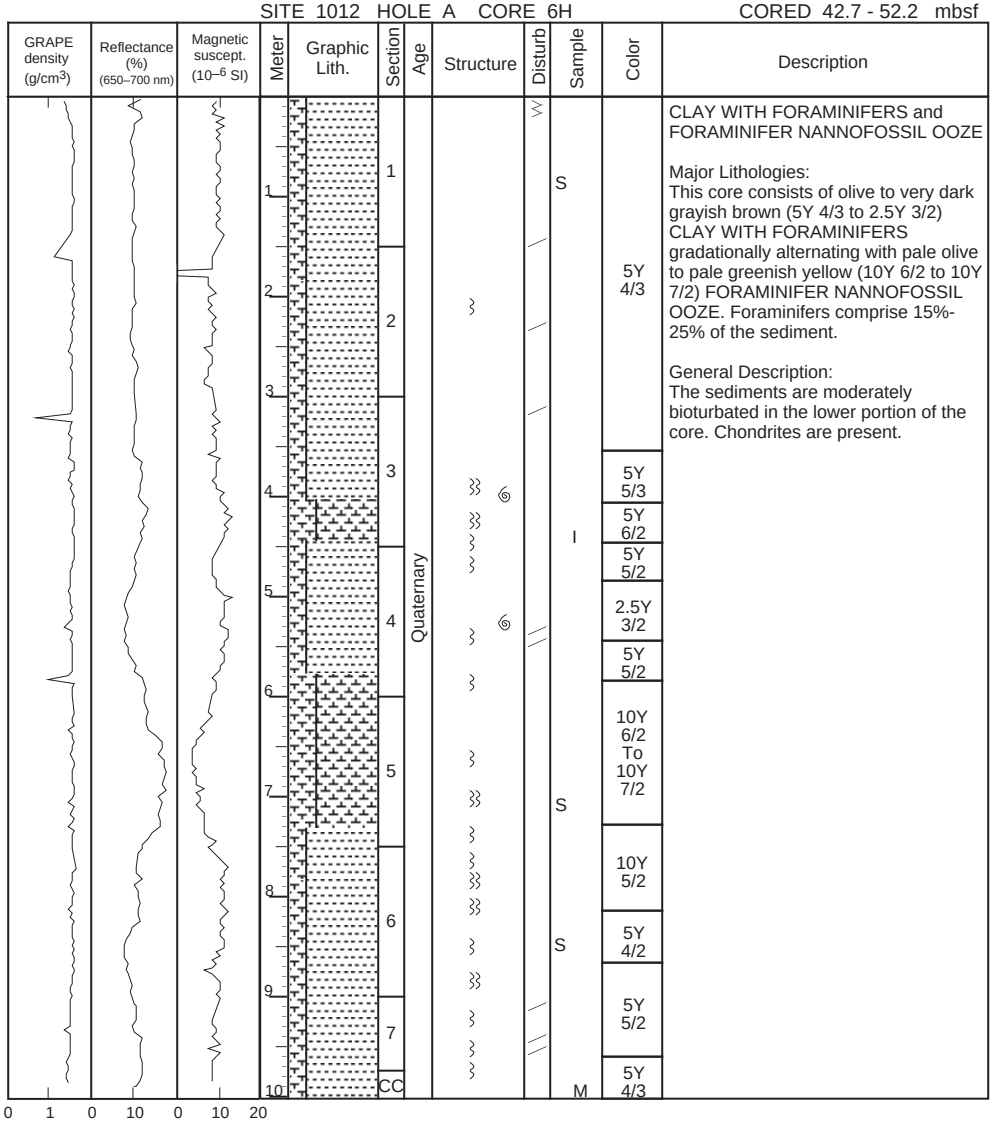
Minor Lithology:
Two thin (1-3 cm) graded layers of QUARTZ FORAMINIFER SAND occur in Section 2, 45-53 cm. Foraminifer fragments of both planktonic and benthic species are present.

General Description:
The sediments are moderately bioturbated. Zoophycos and Chondrites are present.

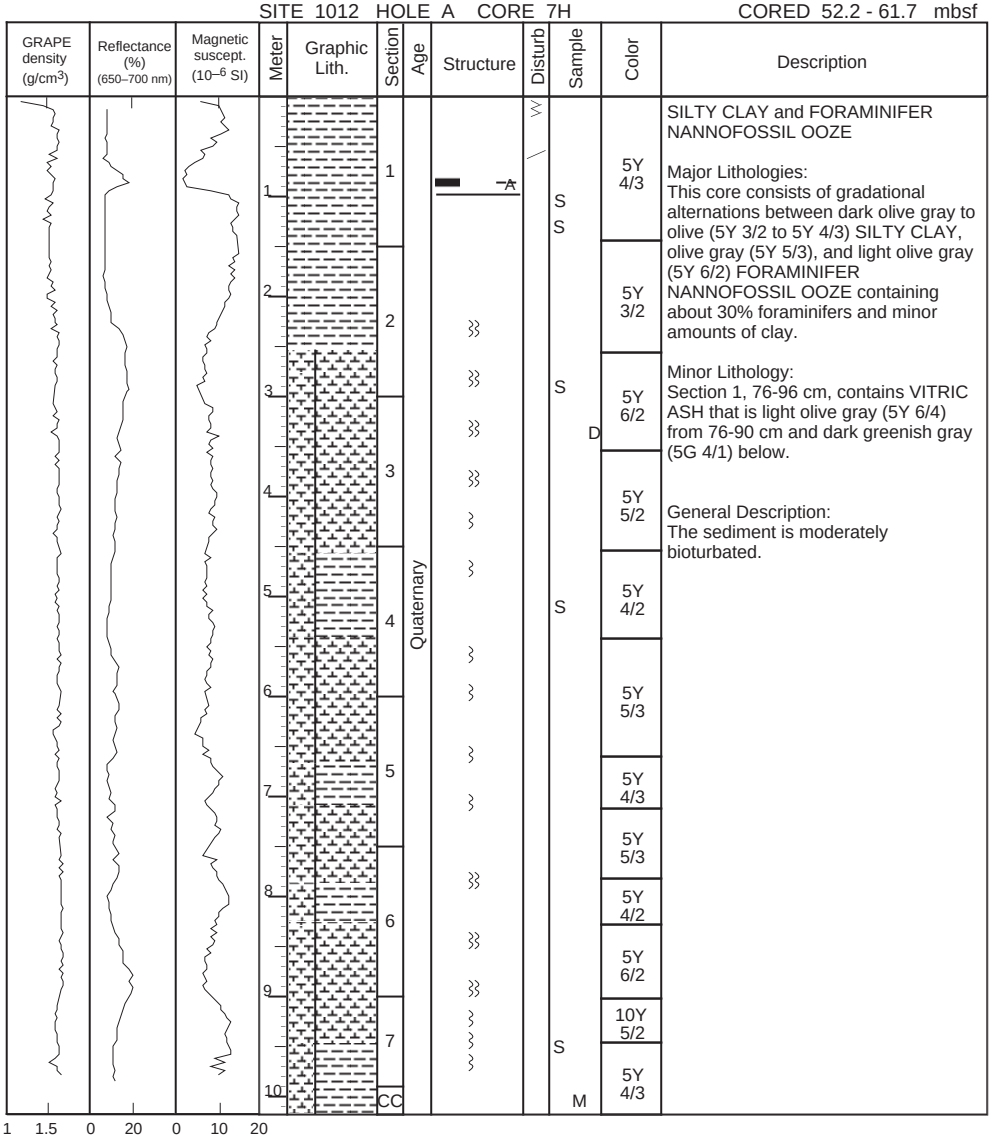
SITE 1012 HOLE A CORE 5H CORED 33.2 - 42.7 mbsf



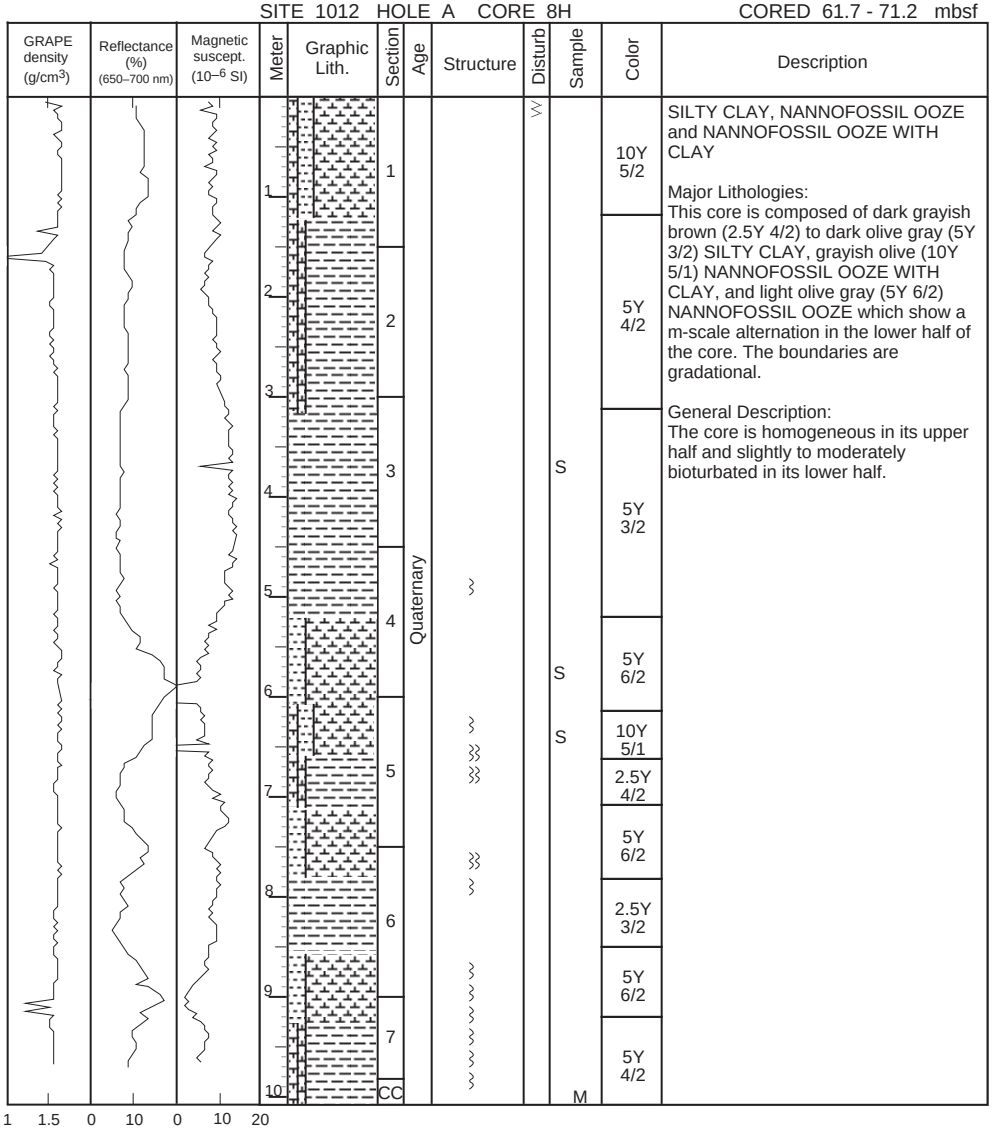
SITE 1012 HOLE A CORE 6H CORED 42.7 - 52.2 mbsf



SITE 1012 HOLE A CORE 7H CORED 52.2 - 61.7 mbsf



SITE 1012 HOLE A CORE 8H CORED 61.7 - 71.2 mbsf



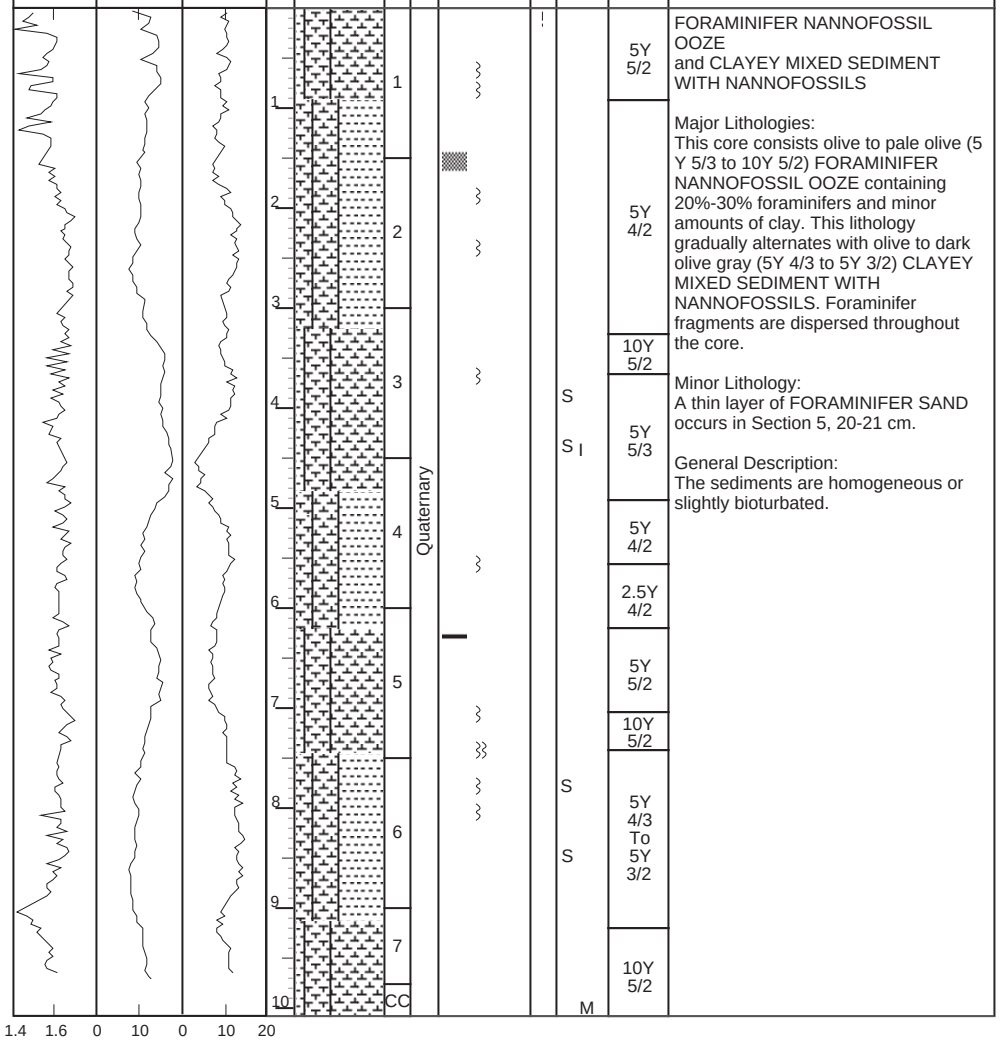
SILTY CLAY, NANNOFOSSIL OOZE and NANNOFOSSIL OOZE WITH CLAY

Major Lithologies:
This core is composed of dark grayish brown (2.5Y 4/2) to dark olive gray (5Y 3/2) SILTY CLAY, grayish olive (10Y 5/1) NANNOFOSSIL OOZE WITH CLAY, and light olive gray (5Y 6/2) NANNOFOSSIL OOZE which show a m-scale alternation in the lower half of the core. The boundaries are gradational.

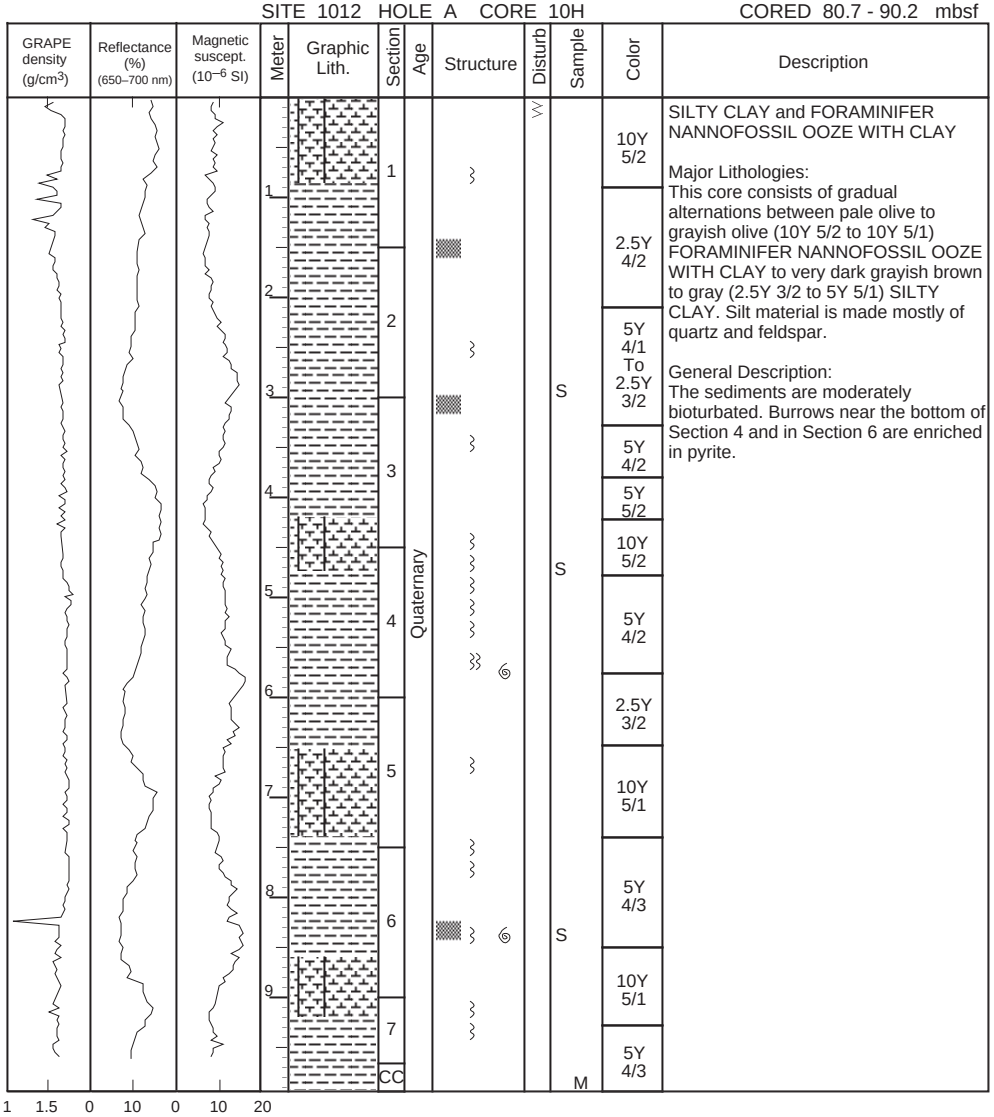
General Description:
The core is homogeneous in its upper half and slightly to moderately bioturbated in its lower half.

SITE 1012

SITE 1012 HOLE A CORE 9H CORED 71.2 - 80.7 mbsf



SITE 1012 HOLE A CORE 10H CORED 80.7 - 90.2 mbsf

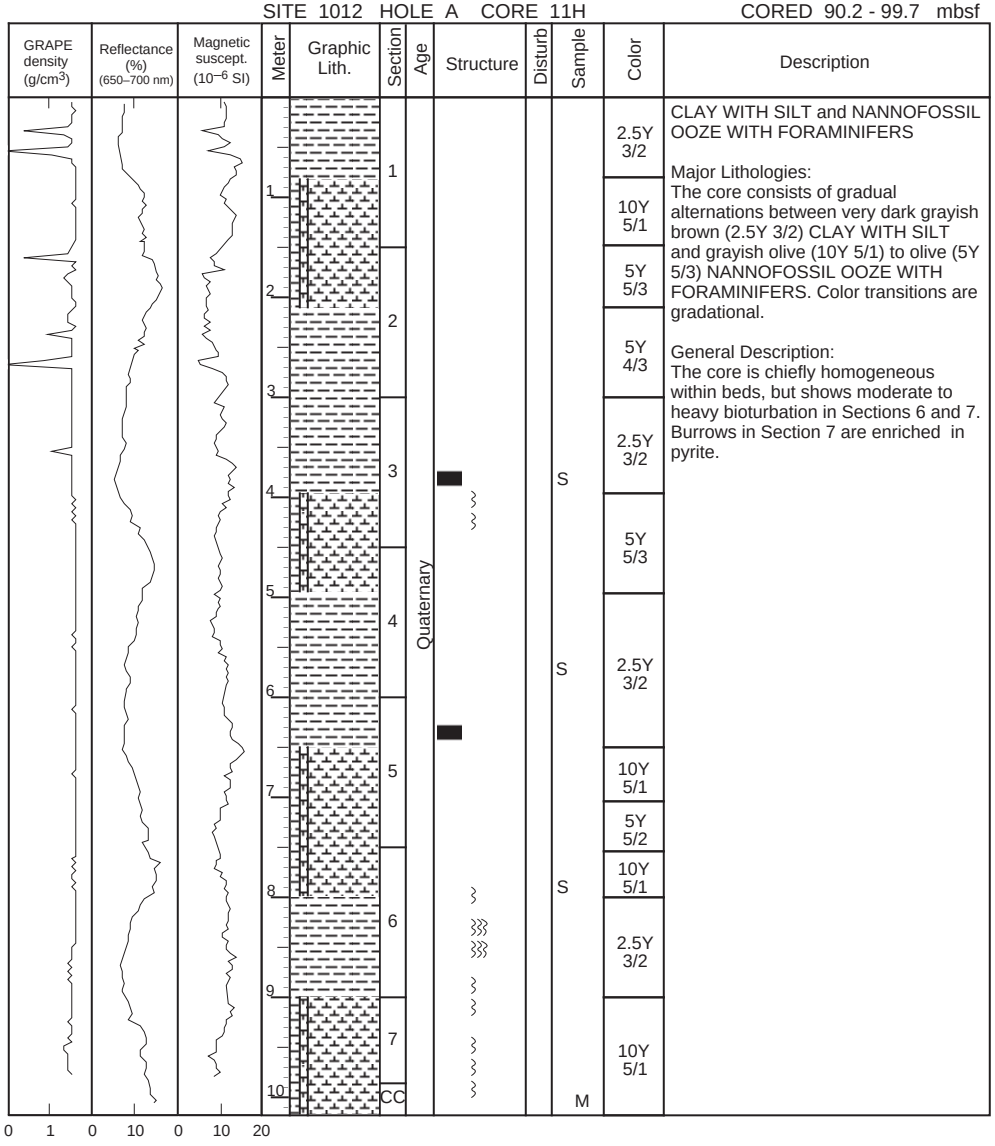


SILTY CLAY and FORAMINIFER NANNOFOSSIL OOZE WITH CLAY

Major Lithologies:
This core consists of gradual alternations between pale olive to grayish olive (10Y 5/2 to 10Y 5/1) FORAMINIFER NANNOFOSSIL OOZE WITH CLAY to very dark grayish brown to gray (2.5Y 3/2 to 5Y 5/1) SILTY CLAY. Silt material is made mostly of quartz and feldspar.

General Description:
The sediments are moderately bioturbated. Burrows near the bottom of Section 4 and in Section 6 are enriched in pyrite.

SITE 1012 HOLE A CORE 11H CORED 90.2 - 99.7 mbsf

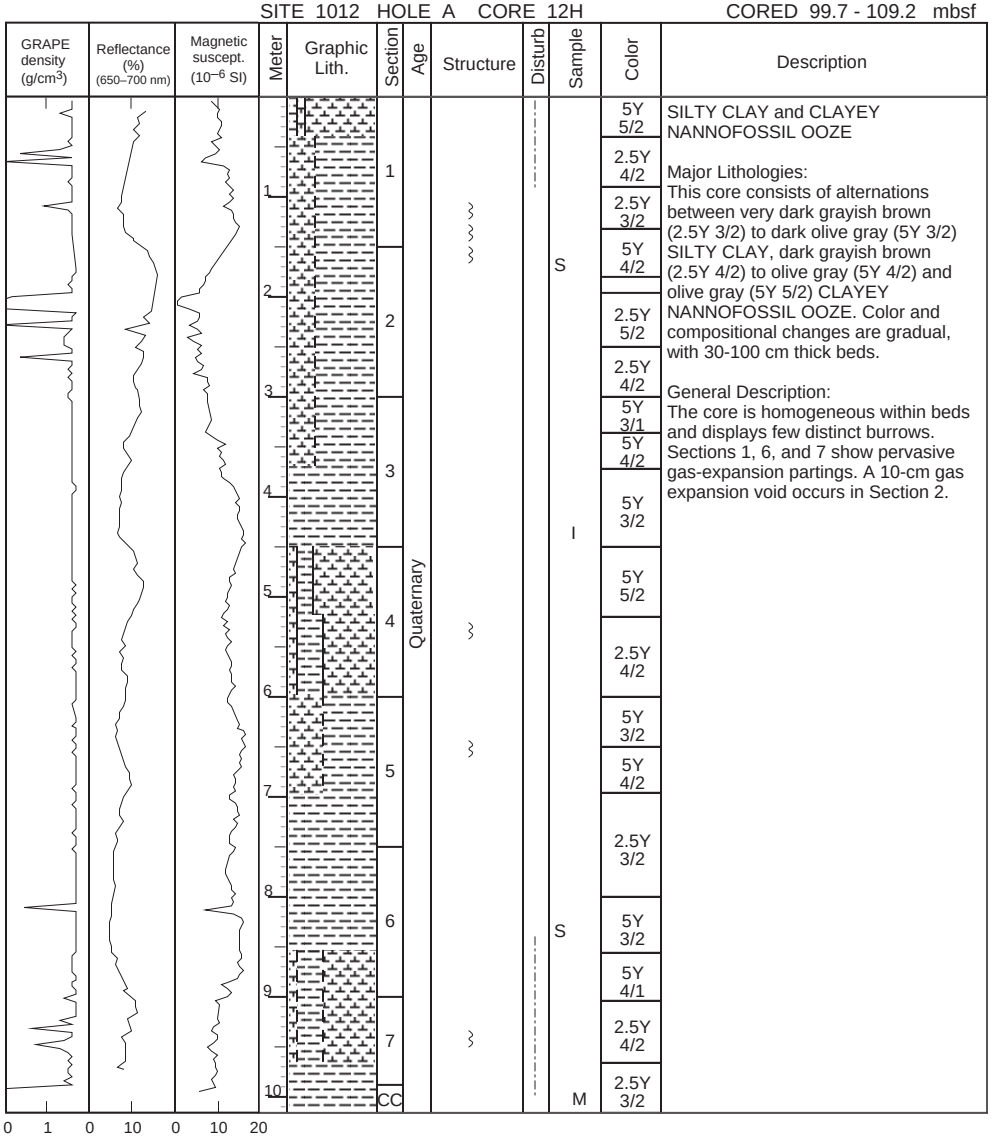


CLAY WITH SILT and NANNOFOSSIL OOZE WITH FORAMINIFERS

Major Lithologies:
The core consists of gradual alternations between very dark grayish brown (2.5Y 3/2) CLAY WITH SILT and grayish olive (10Y 5/1) to olive (5Y 5/3) NANNOFOSSIL OOZE WITH FORAMINIFERS. Color transitions are gradational.

General Description:
The core is chiefly homogeneous within beds, but shows moderate to heavy bioturbation in Sections 6 and 7. Burrows in Section 7 are enriched in pyrite.

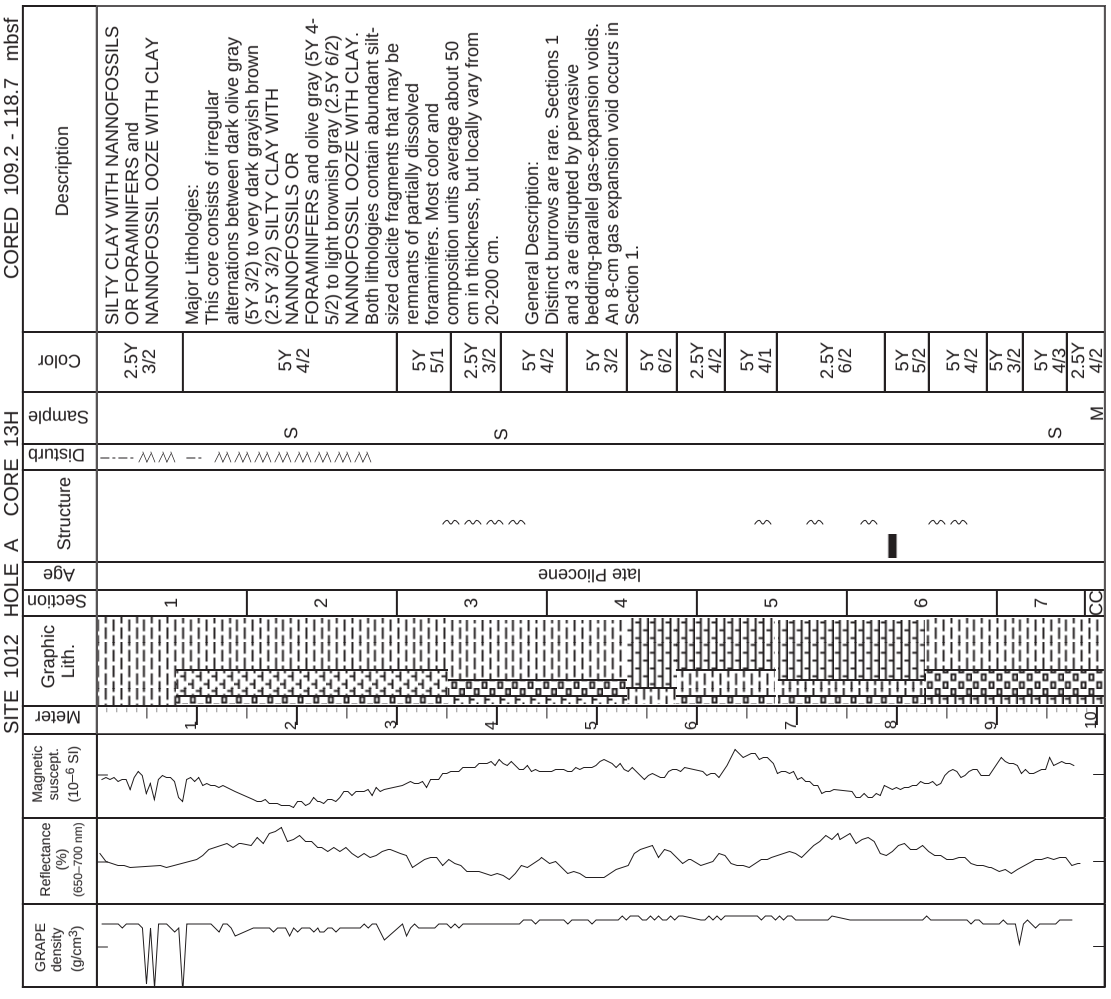
SITE 1012 HOLE A CORE 12H CORED 99.7 - 109.2 mbsf



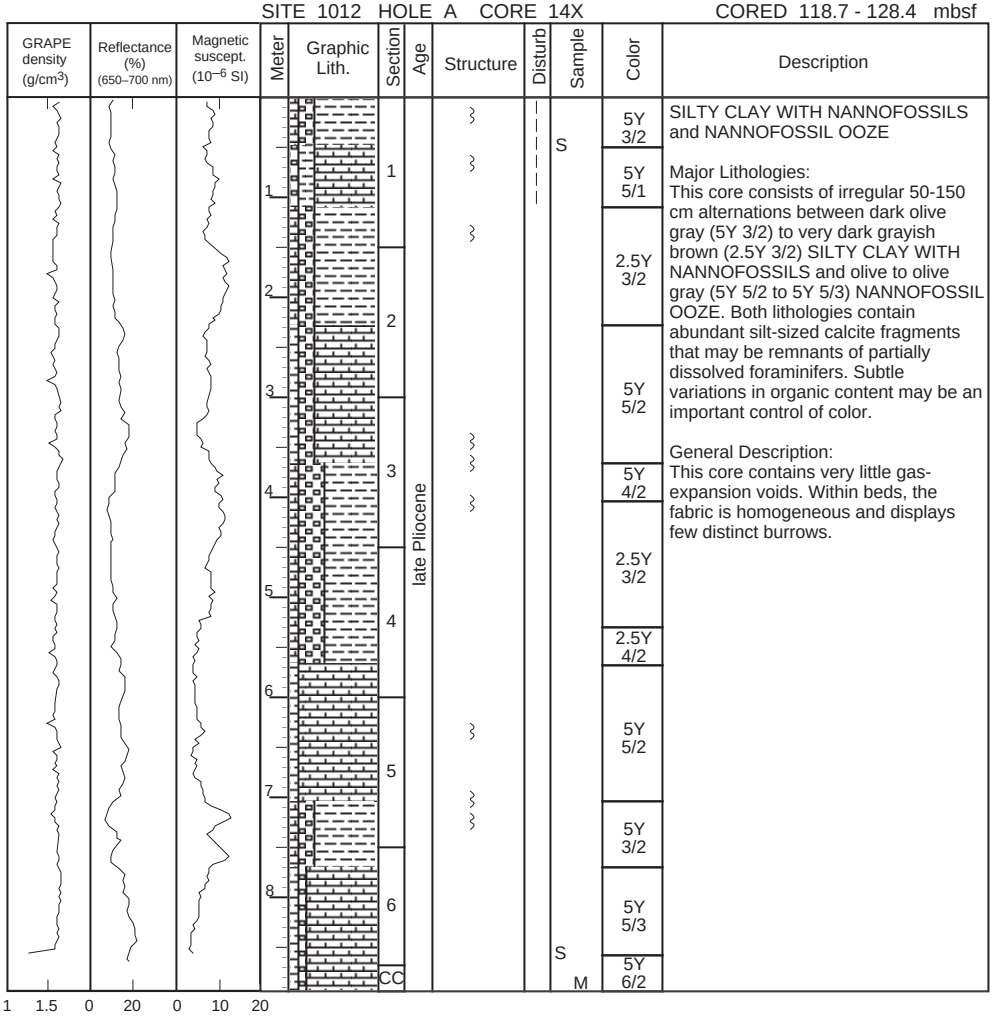
SILTY CLAY and CLAYEY NANNOFOSSIL OOZE

Major Lithologies:
This core consists of alternations between very dark grayish brown (2.5Y 3/2) to dark olive gray (5Y 3/2) SILTY CLAY, dark grayish brown (2.5Y 4/2) to olive gray (5Y 4/2) and olive gray (5Y 5/2) CLAYEY NANNOFOSSIL OOZE. Color and compositional changes are gradual, with 30-100 cm thick beds.

General Description:
The core is homogeneous within beds and displays few distinct burrows. Sections 1, 6, and 7 show pervasive gas-expansion partings. A 10-cm gas expansion void occurs in Section 2.


SITE 1012 HOLE A CORE 13H CORED 109.2 - 118.7 mbsf
GRAPE density (g/cm³)
Reflectance (%) (650–700 nm)
Magnetic suscept. (10⁻⁶ SI)
Meter
Graphic Lith.
Section
Age
Structure
Disturb
Sample
Color
Description
late Pliocene
SILTY CLAY WITH NANNOFOSSILS OR FORAMINIFERS and NANNOFOSSIL OOZE WITH CLAY
Major Lithologies:
This core consists of irregular alternations between dark olive gray (5Y 3/2) to very dark grayish brown (2.5Y 3/2) SILTY CLAY WITH NANNOFOSSILS OR FORAMINIFERS and olive gray (5Y 4-5/2) to light brownish gray (2.5Y 6/2) NANNOFOSSIL OOZE WITH CLAY. Both lithologies contain abundant silt-sized calcite fragments that may be remnants of partially dissolved foraminifers. Most color and composition units average about 50 cm in thickness, but locally vary from 20-200 cm.
General Description:
Distinct burrows are rare. Sections 1 and 3 are disrupted by pervasive bedding-parallel gas-expansion voids. An 8-cm gas expansion void occurs in Section 1.

SITE 1012 HOLE A CORE 14X CORED 118.7 - 128.4 mbsf

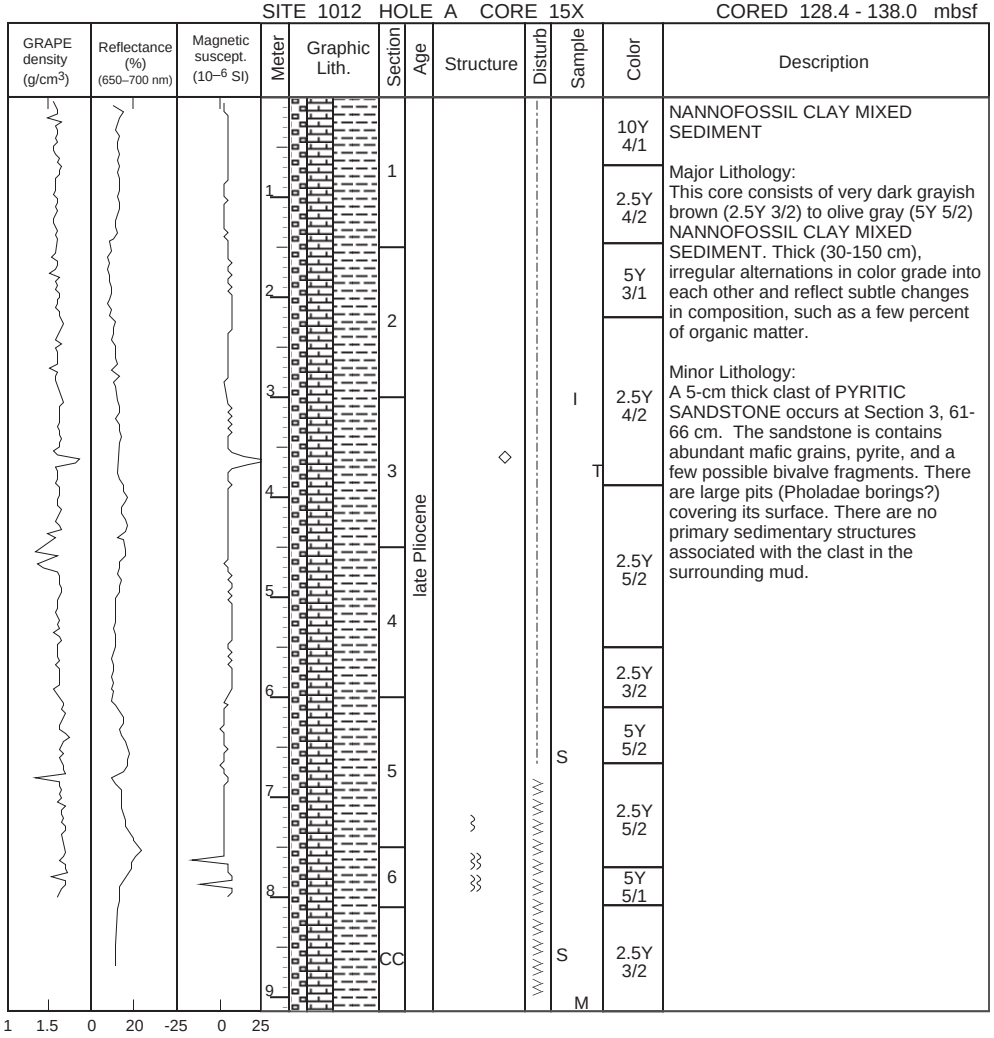


SILTY CLAY WITH NANNOFOSSILS and NANNOFOSSIL OOZE

Major Lithologies:
This core consists of irregular 50-150 cm alternations between dark olive gray (5Y 3/2) to very dark grayish brown (2.5Y 3/2) SILTY CLAY WITH NANNOFOSSILS and olive to olive gray (5Y 5/2 to 5Y 5/3) NANNOFOSSIL OOZE. Both lithologies contain abundant silt-sized calcite fragments that may be remnants of partially dissolved foraminifers. Subtle variations in organic content may be an important control of color.

General Description:
This core contains very little gas-expansion voids. Within beds, the fabric is homogeneous and displays few distinct burrows.

SITE 1012 HOLE A CORE 15X CORED 128.4 - 138.0 mbsf



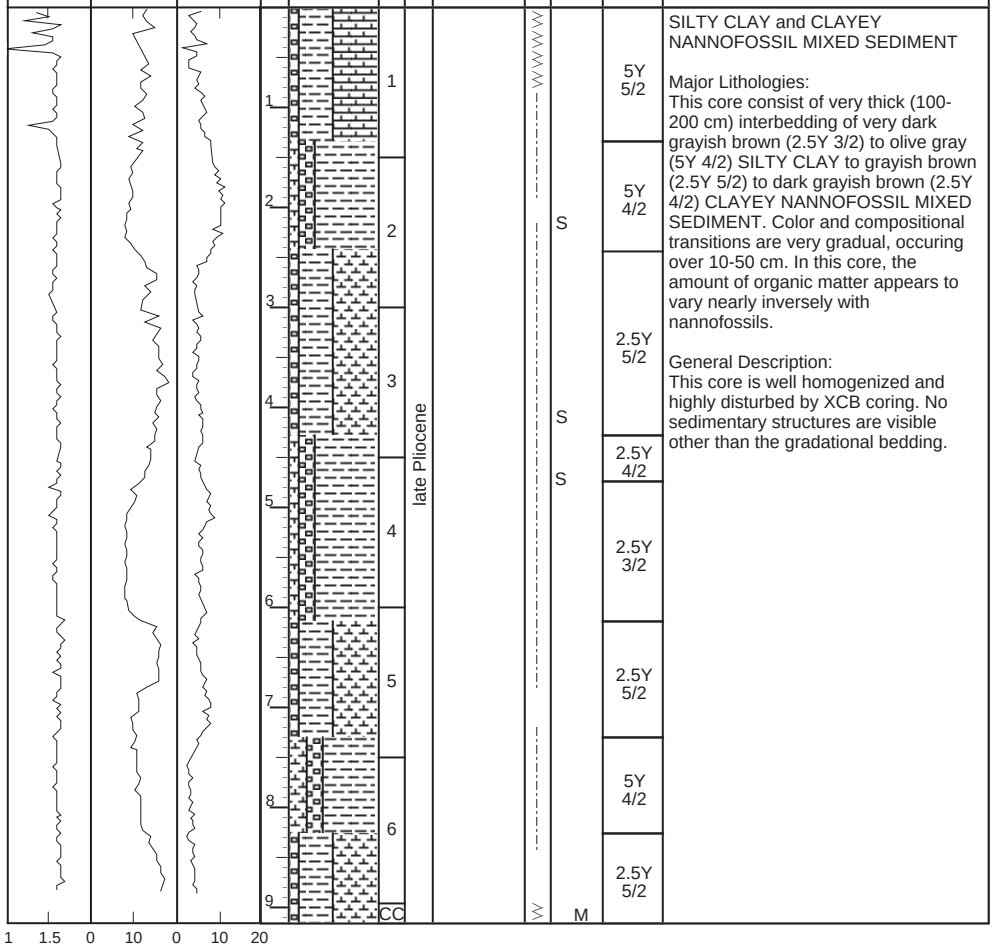
Description

NANNOFOSSIL CLAY MIXED SEDIMENT

Major Lithology:
This core consists of very dark grayish brown (2.5Y 3/2) to olive gray (5Y 5/2) NANNOFOSSIL CLAY MIXED SEDIMENT. Thick (30-150 cm), irregular alternations in color grade into each other and reflect subtle changes in composition, such as a few percent of organic matter.

Minor Lithology:
A 5-cm thick clast of PYRITIC SANDSTONE occurs at Section 3, 61-66 cm. The sandstone is contains abundant mafic grains, pyrite, and a few possible bivalve fragments. There are large pits (Pholadae borings?) covering its surface. There are no primary sedimentary structures associated with the clast in the surrounding mud.

SITE 1012 HOLE A CORE 16X CORED 138.0 - 147.6 mbsf



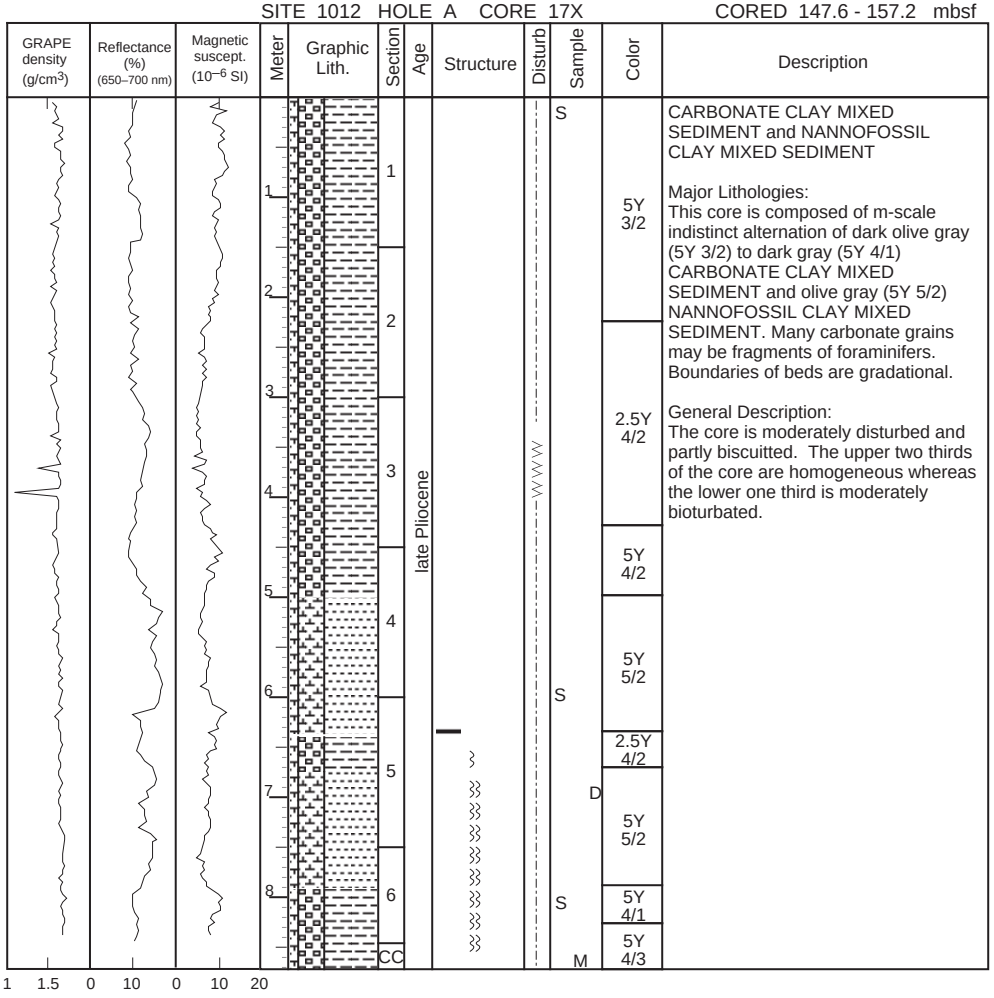
Description

SILTY CLAY and CLAYEY NANNOFOSSIL MIXED SEDIMENT

Major Lithologies:
This core consist of very thick (100-200 cm) interbedding of very dark grayish brown (2.5Y 3/2) to olive gray (5Y 4/2) SILTY CLAY to grayish brown (2.5Y 5/2) to dark grayish brown (2.5Y 4/2) CLAYEY NANNOFOSSIL MIXED SEDIMENT. Color and compositional transitions are very gradual, occuring over 10-50 cm. In this core, the amount of organic matter appears to vary nearly inversely with nannofossils.

General Description:
This core is well homogenized and highly disturbed by XCB coring. No sedimentary structures are visible other than the gradational bedding.

SITE 1012 HOLE A CORE 17X CORED 147.6 - 157.2 mbsf

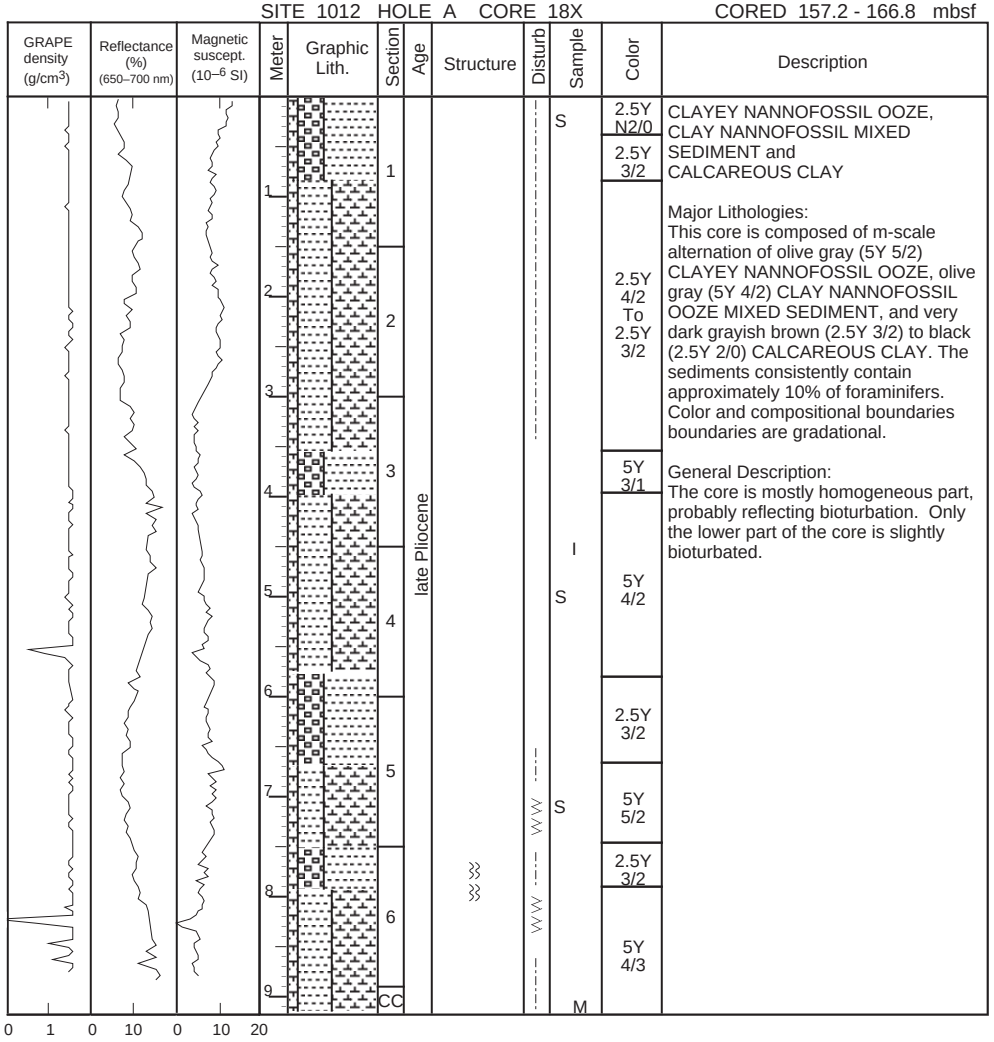


CARBONATE CLAY MIXED SEDIMENT and NANNOFOSSIL CLAY MIXED SEDIMENT

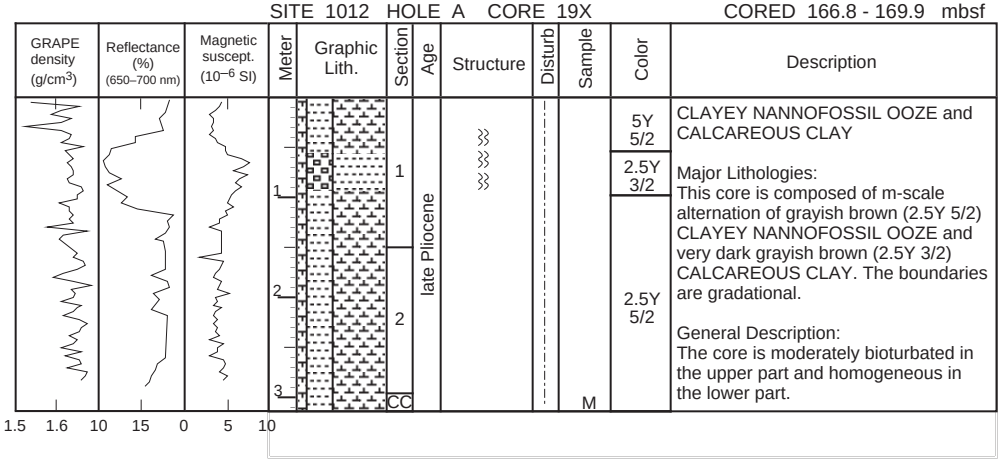
Major Lithologies:
This core is composed of m-scale indistinct alternation of dark olive gray (5Y 3/2) to dark gray (5Y 4/1) CARBONATE CLAY MIXED SEDIMENT and olive gray (5Y 5/2) NANNOFOSSIL CLAY MIXED SEDIMENT. Many carbonate grains may be fragments of foraminifers. Boundaries of beds are gradational.

General Description:
The core is moderately disturbed and partly biscuitted. The upper two thirds of the core are homogeneous whereas the lower one third is moderately bioturbated.

SITE 1012 HOLE A CORE 18X CORED 157.2 - 166.8 mbsf



SITE 1012 HOLE A CORE 19X CORED 166.8 - 169.9 mbsf

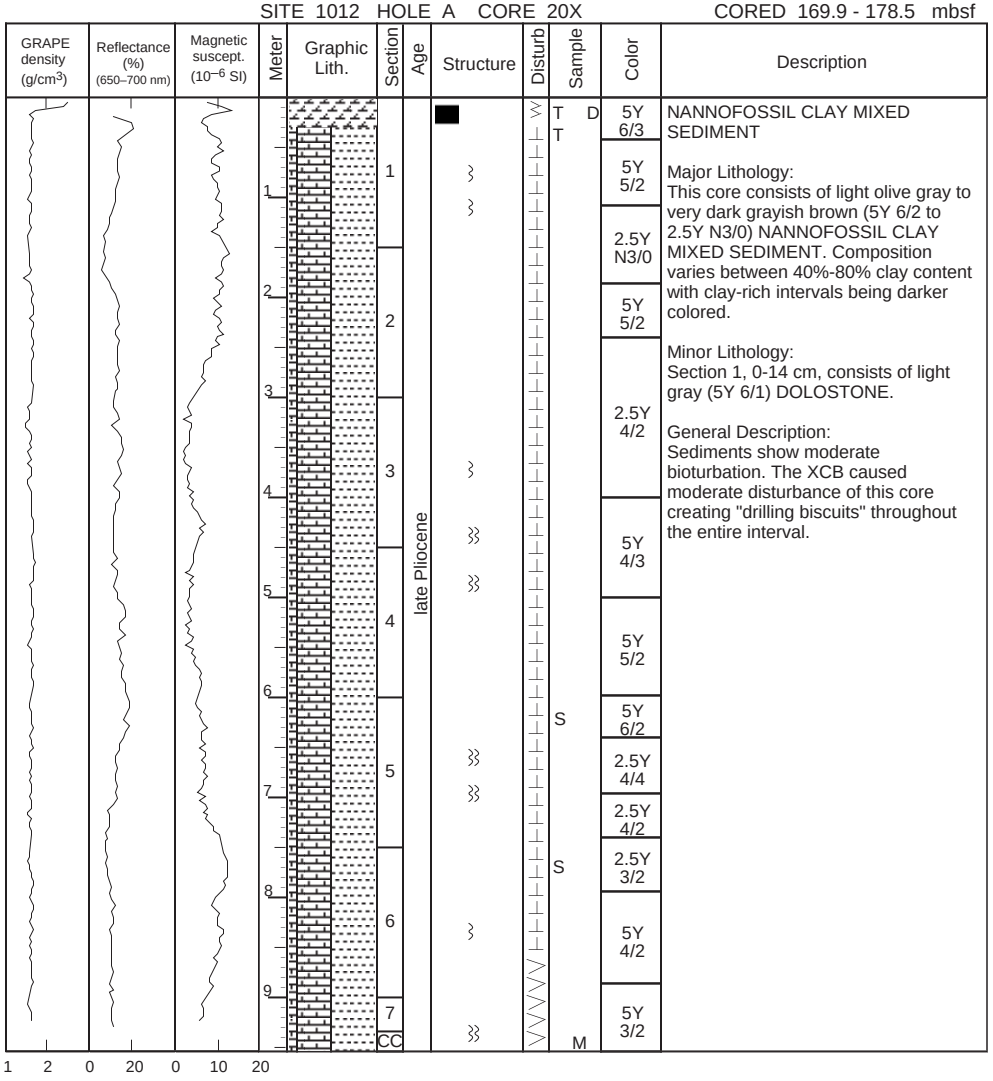


CLAYEY NANNOFOSSIL OOZE and CALCAREOUS CLAY

Major Lithologies:
This core is composed of m-scale alternation of grayish brown (2.5Y 5/2) CLAYEY NANNOFOSSIL OOZE and very dark grayish brown (2.5Y 3/2) CALCAREOUS CLAY. The boundaries are gradational.

General Description:
The core is moderately bioturbated in the upper part and homogeneous in the lower part.

SITE 1012 HOLE A CORE 20X CORED 169.9 - 178.5 mbsf



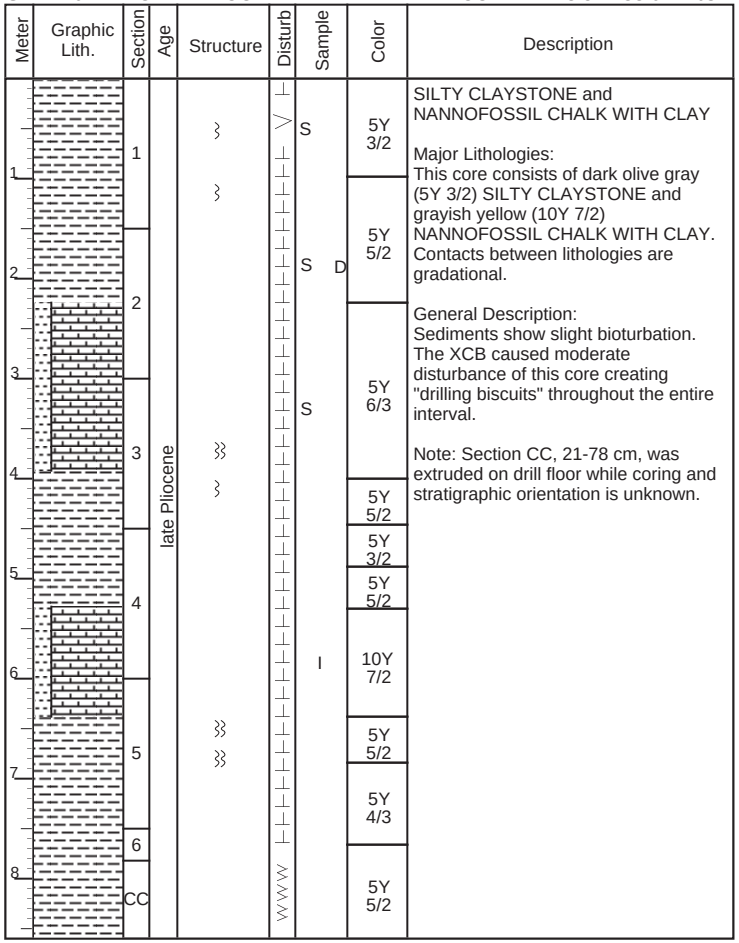
NANNOFOSSIL CLAY MIXED SEDIMENT

Major Lithology:
This core consists of light olive gray to very dark grayish brown (5Y 6/2 to 2.5Y N3/0) NANNOFOSSIL CLAY MIXED SEDIMENT. Composition varies between 40%-80% clay content with clay-rich intervals being darker colored.

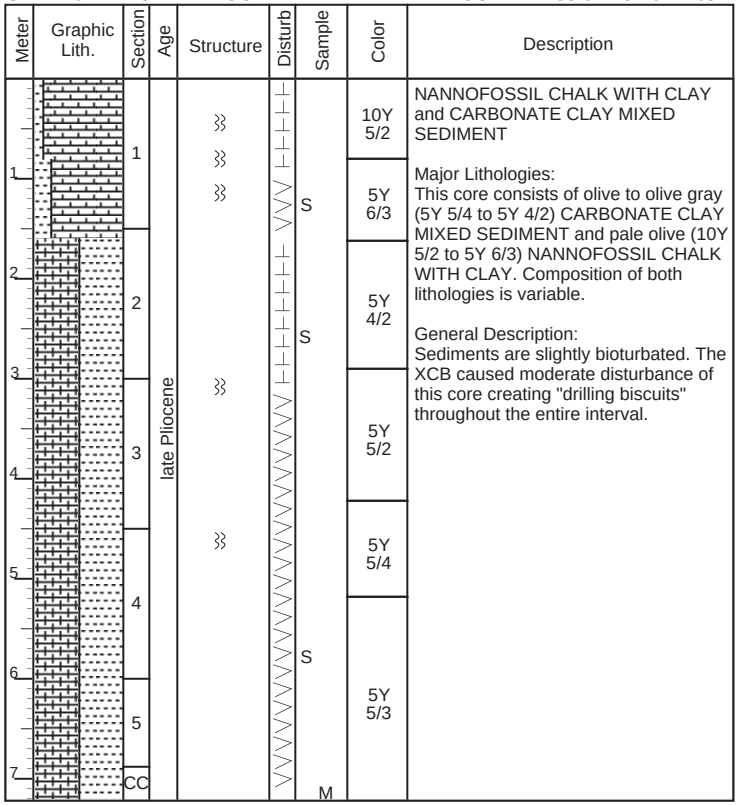
Minor Lithology:
Section 1, 0-14 cm, consists of light gray (5Y 6/1) DOLOSTONE.

General Description:
Sediments show moderate bioturbation. The XCB caused moderate disturbance of this core creating "drilling biscuits" throughout the entire interval.

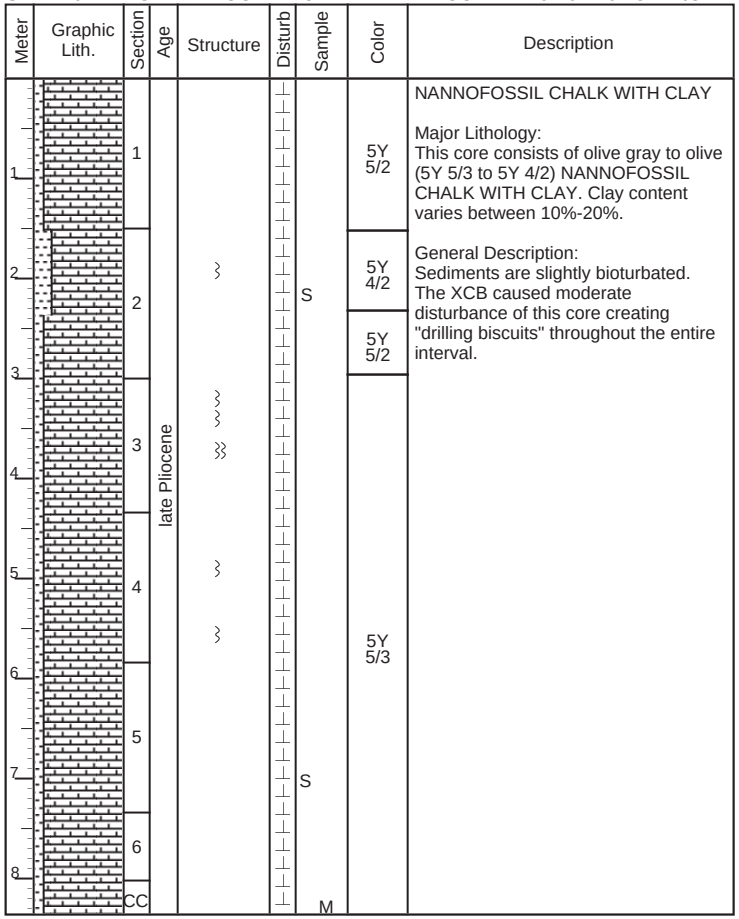
SITE 1012 HOLE A CORE 21X CORED 178.5 - 188.0 mbsf



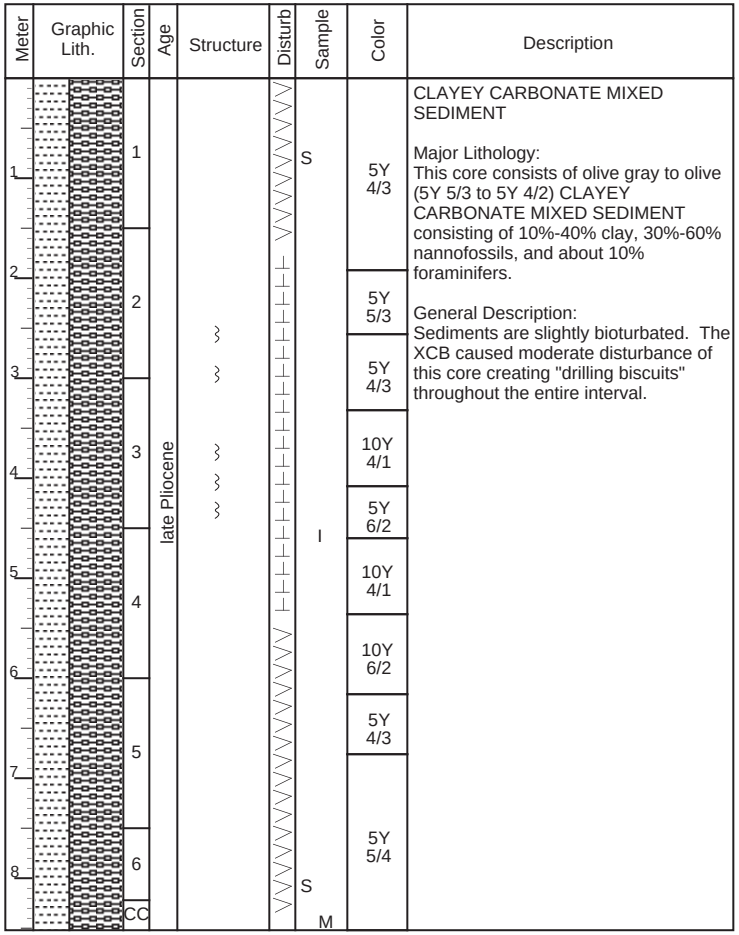
SITE 1012 HOLE A CORE 22X CORED 188.0 - 197.6 mbsf



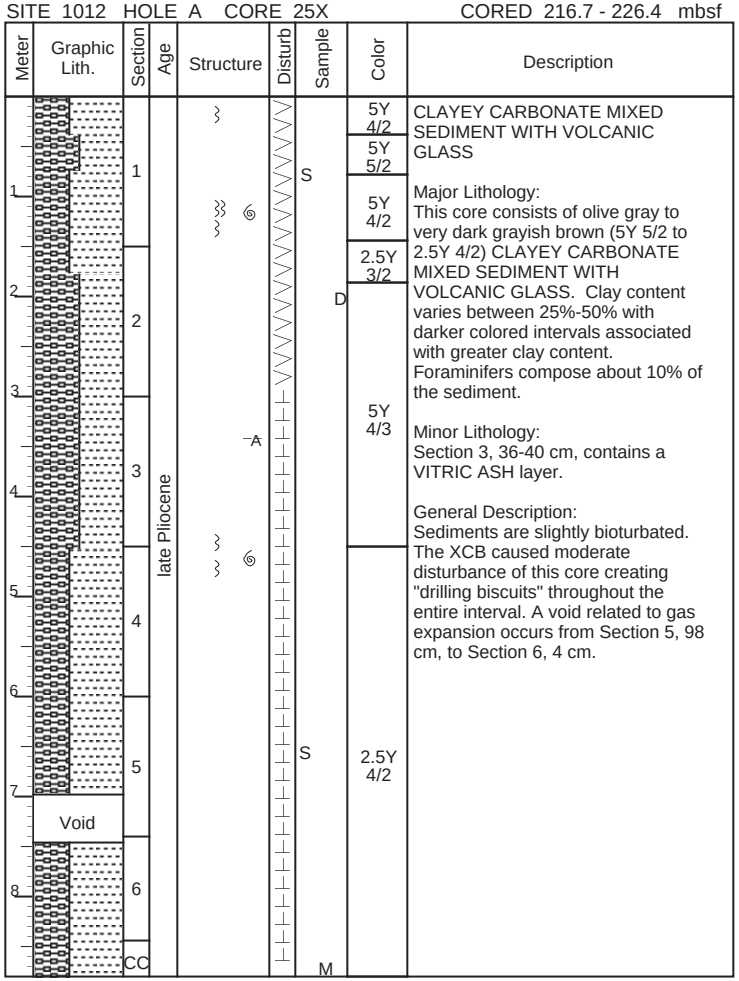
SITE 1012 HOLE A CORE 23X CORED 197.6 - 207.3 mbsf



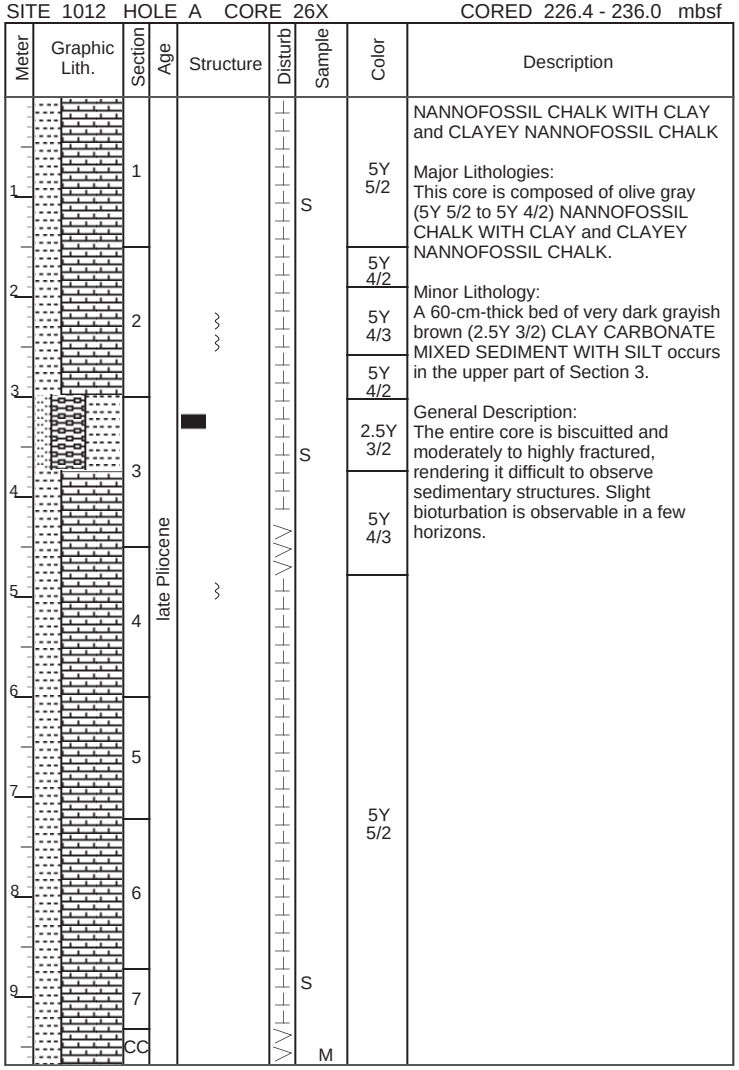
SITE 1012 HOLE A CORE 24X CORED 207.3 - 216.7 mbsf



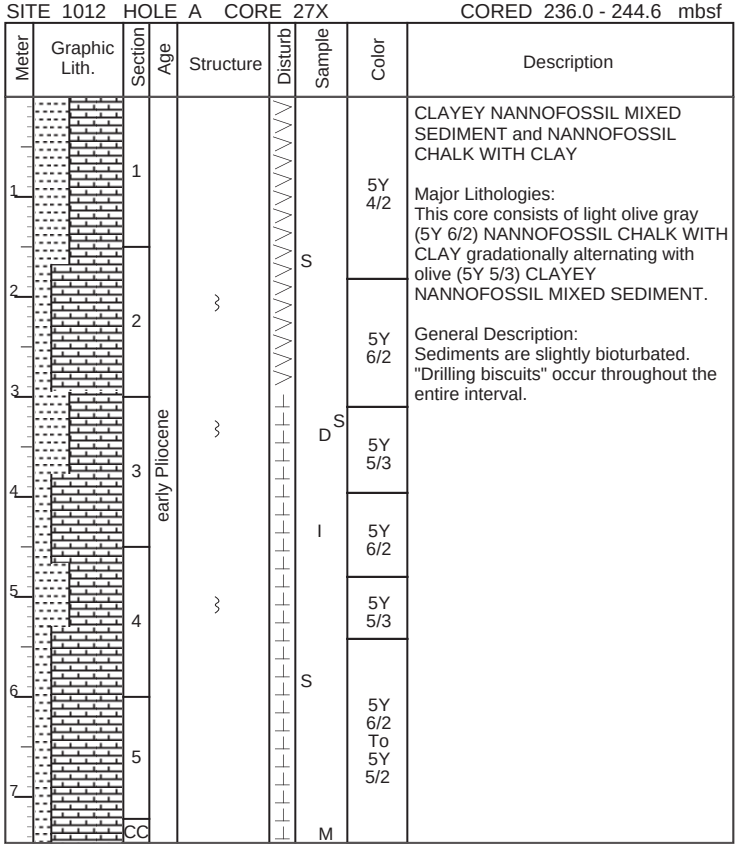
SITE 1012 HOLE A CORE 25X CORED 216.7 - 226.4 mbsf



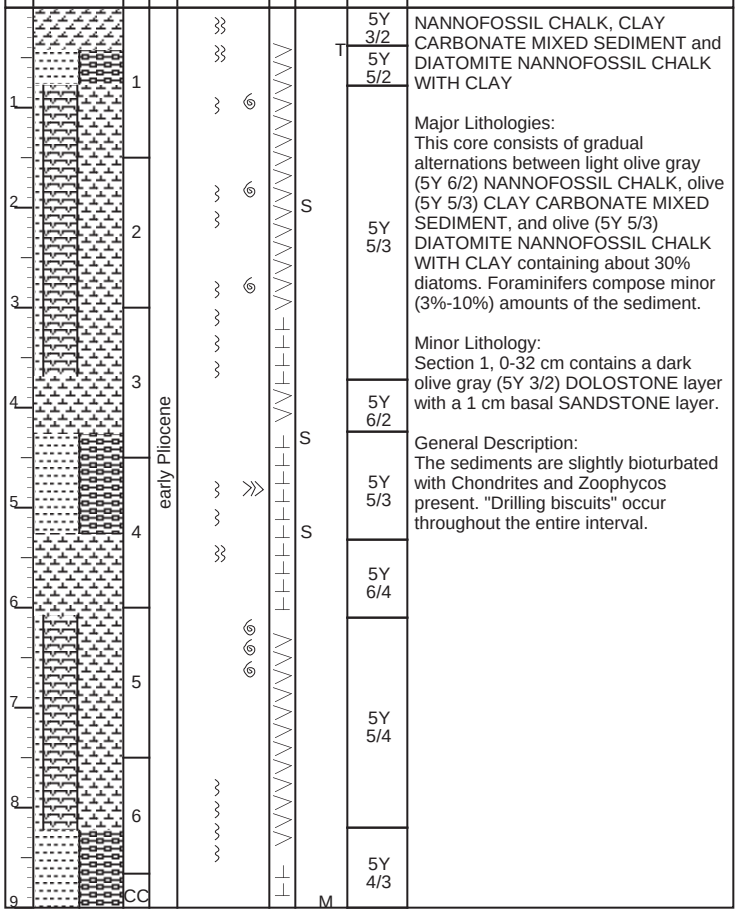
SITE 1012 HOLE A CORE 26X CORED 226.4 - 236.0 mbsf



SITE 1012 HOLE A CORE 27X CORED 236.0 - 244.6 mbsf



SITE 1012 HOLE A CORE 28X CORED 244.6 - 254.2 mbsf



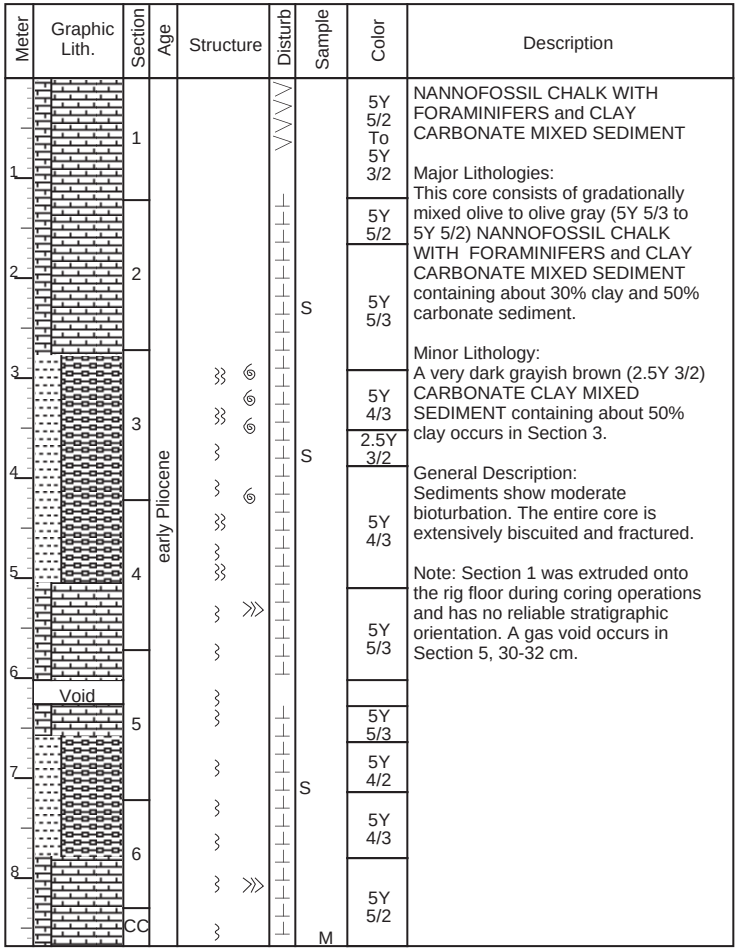
NANNOFOSSIL CHALK, CLAY CARBONATE MIXED SEDIMENT and DIATOMITE NANNOFOSSIL CHALK WITH CLAY

Major Lithologies:
This core consists of gradual alternations between light olive gray (5Y 6/2) NANNOFOSSIL CHALK, olive (5Y 5/3) CLAY CARBONATE MIXED SEDIMENT, and olive (5Y 5/3) DIATOMITE NANNOFOSSIL CHALK WITH CLAY containing about 30% diatoms. Foraminifers compose minor (3%-10%) amounts of the sediment.

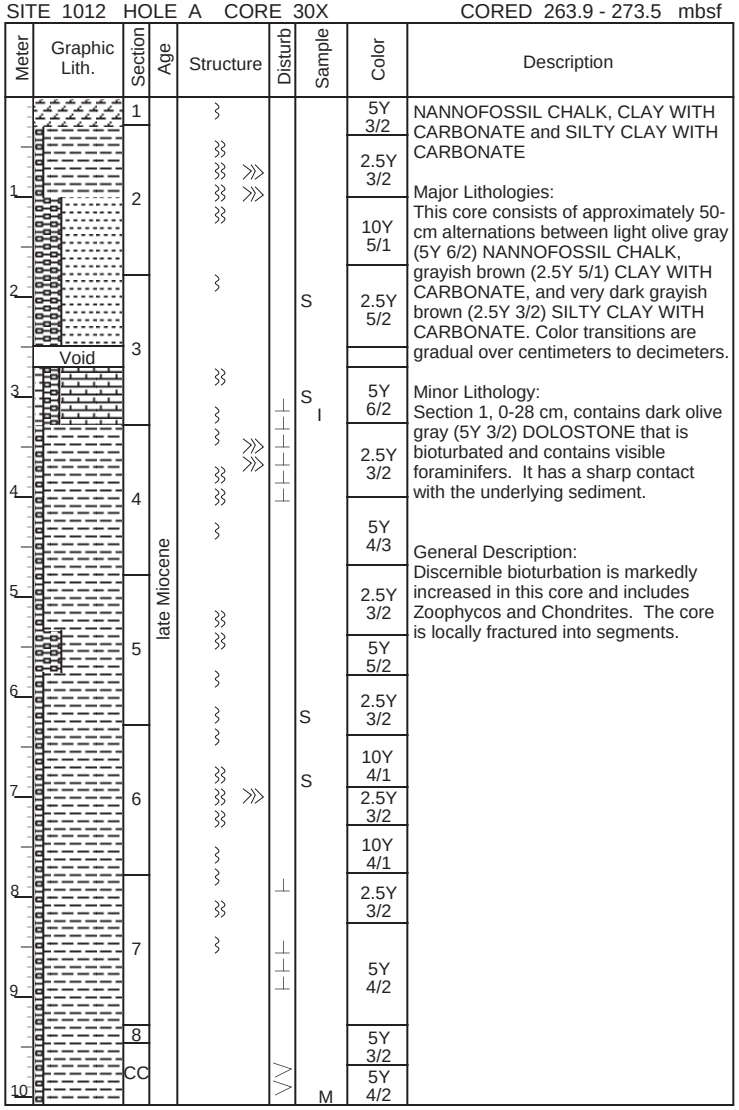
Minor Lithology:
Section 1, 0-32 cm contains a dark olive gray (5Y 3/2) DOLOSTONE layer with a 1 cm basal SANDSTONE layer.

General Description:
The sediments are slightly bioturbated with Chondrites and Zoophycos present. "Drilling biscuits" occur throughout the entire interval.

SITE 1012 HOLE A CORE 29X CORED 254.2 - 263.9 mbsf



SITE 1012 HOLE A CORE 30X CORED 263.9 - 273.5 mbsf



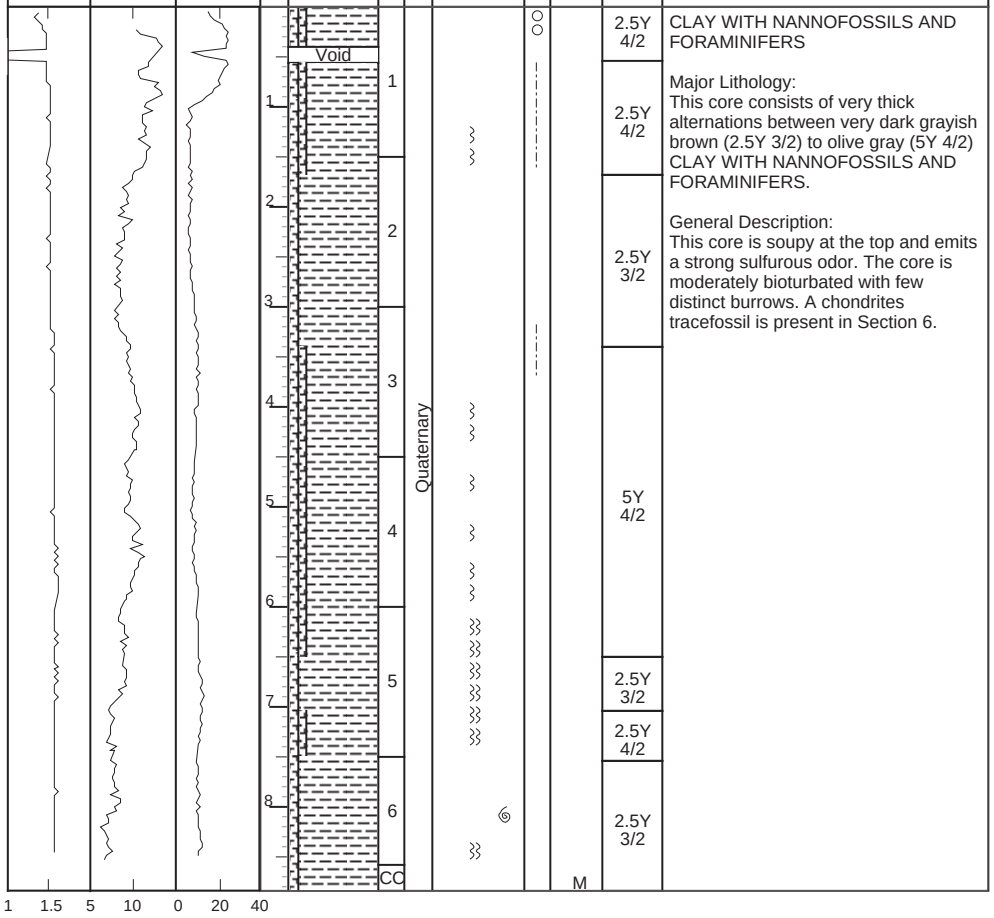
NANNOFOSSIL CHALK, CLAY WITH CARBONATE and SILTY CLAY WITH CARBONATE

Major Lithologies:
This core consists of approximately 50-cm alternations between light olive gray (5Y 6/2) NANNOFOSSIL CHALK, grayish brown (2.5Y 5/1) CLAY WITH CARBONATE, and very dark grayish brown (2.5Y 3/2) SILTY CLAY WITH CARBONATE. Color transitions are gradual over centimeters to decimeters.

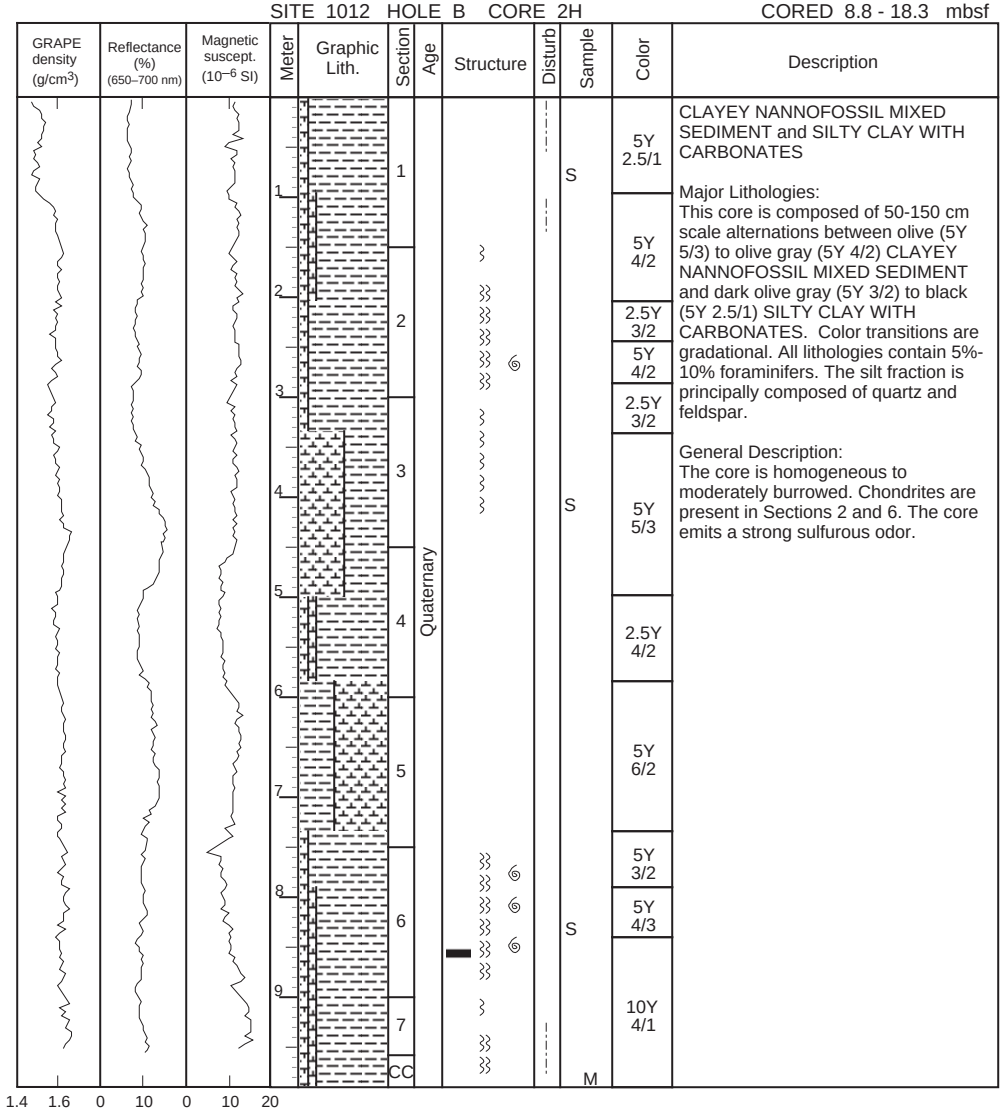
Minor Lithology:
Section 1, 0-28 cm, contains dark olive gray (5Y 3/2) DOLOSTONE that is bioturbated and contains visible foraminifers. It has a sharp contact with the underlying sediment.

General Description:
Discernible bioturbation is markedly increased in this core and includes Zoophycos and Chondrites. The core is locally fractured into segments.

SITE 1012 HOLE B CORE 1H CORED 0.0 - 8.8 mbsf



SITE 1012 HOLE B CORE 2H CORED 8.8 - 18.3 mbsf

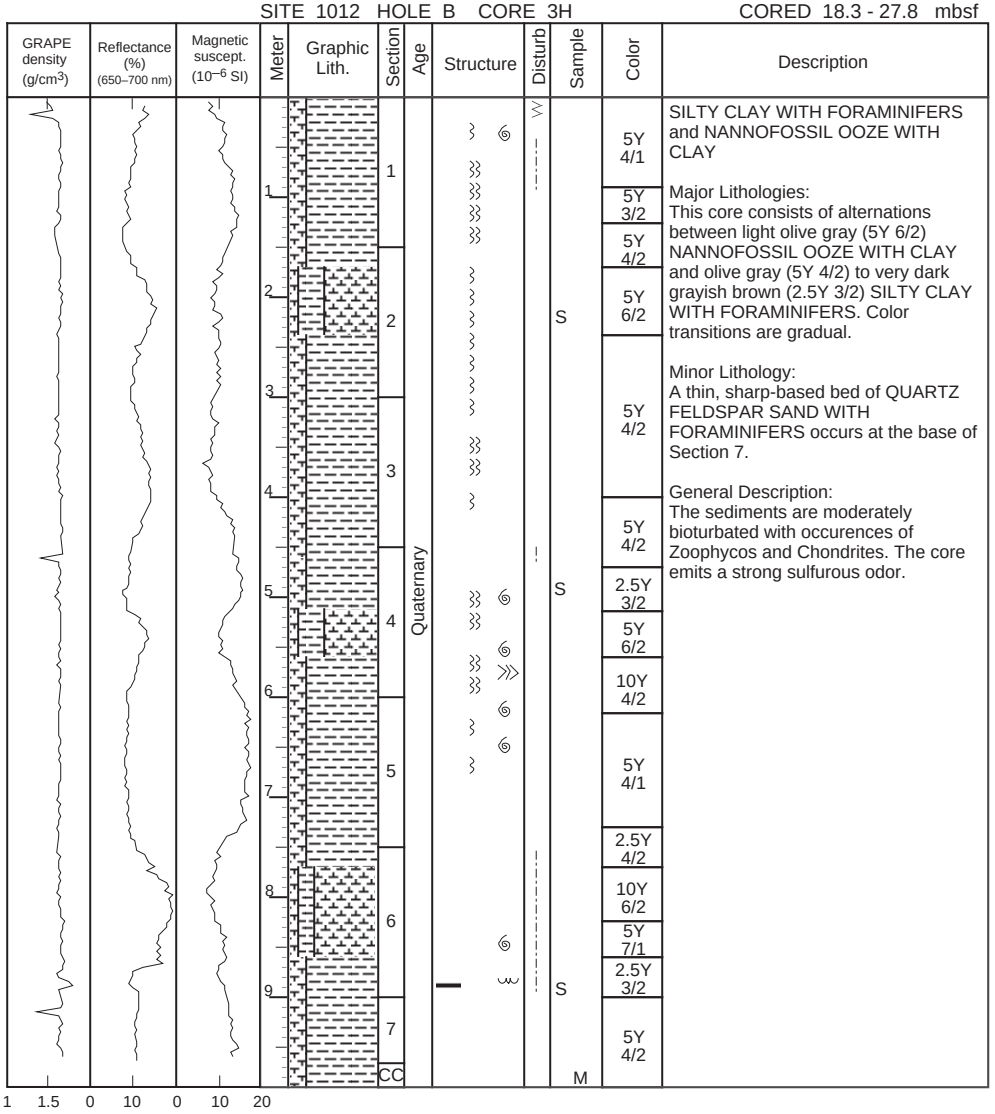


CLAYEY NANNOFOSSIL MIXED SEDIMENT and SILTY CLAY WITH CARBONATES

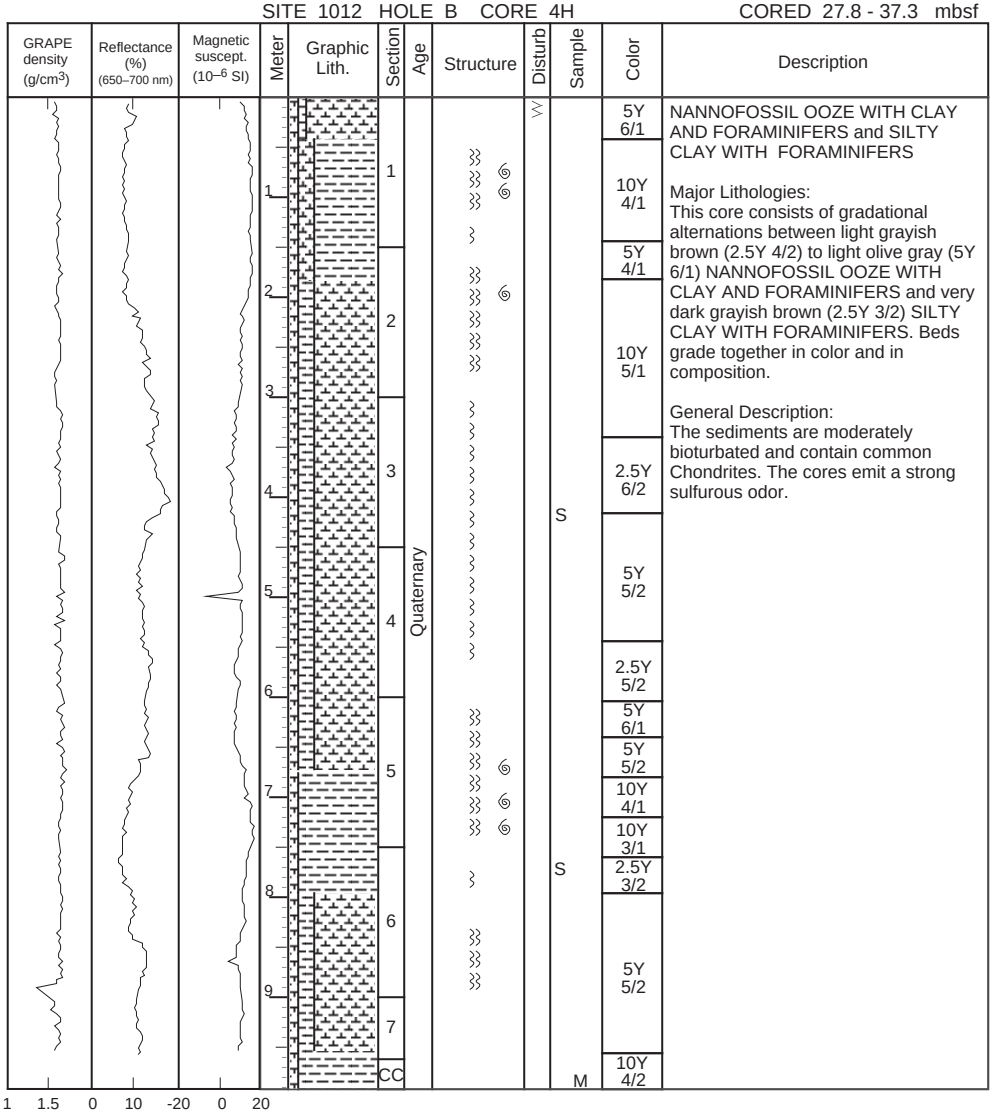
Major Lithologies:
This core is composed of 50-150 cm scale alternations between olive (5Y 5/3) to olive gray (5Y 4/2) CLAYEY NANNOFOSSIL MIXED SEDIMENT and dark olive gray (5Y 3/2) to black (5Y 2.5/1) SILTY CLAY WITH CARBONATES. Color transitions are gradational. All lithologies contain 5%-10% foraminifers. The silt fraction is principally composed of quartz and feldspar.

General Description:
The core is homogeneous to moderately burrowed. Chondrites are present in Sections 2 and 6. The core emits a strong sulfurous odor.

SITE 1012 HOLE B CORE 3H CORED 18.3 - 27.8 mbsf



SITE 1012 HOLE B CORE 4H CORED 27.8 - 37.3 mbsf

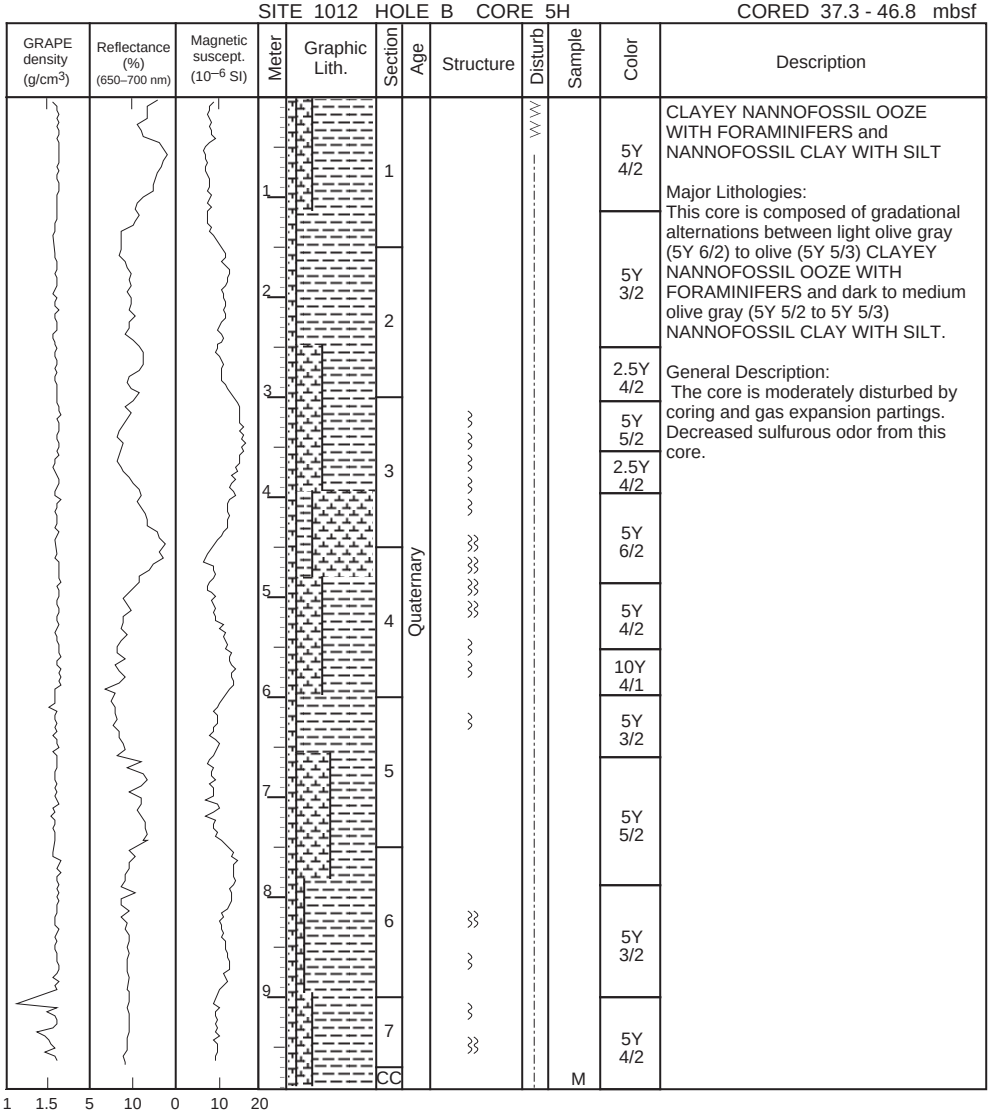


NANNOFOSSIL OOZE WITH CLAY AND FORAMINIFERS and SILTY CLAY WITH FORAMINIFERS

Major Lithologies:
This core consists of gradational alternations between light grayish brown (2.5Y 4/2) to light olive gray (5Y 6/1) NANNOFOSSIL OOZE WITH CLAY AND FORAMINIFERS and very dark grayish brown (2.5Y 3/2) SILTY CLAY WITH FORAMINIFERS. Beds grade together in color and in composition.

General Description:
The sediments are moderately bioturbated and contain common Chondrites. The cores emit a strong sulfurous odor.

SITE 1012 HOLE B CORE 5H CORED 37.3 - 46.8 mbsf

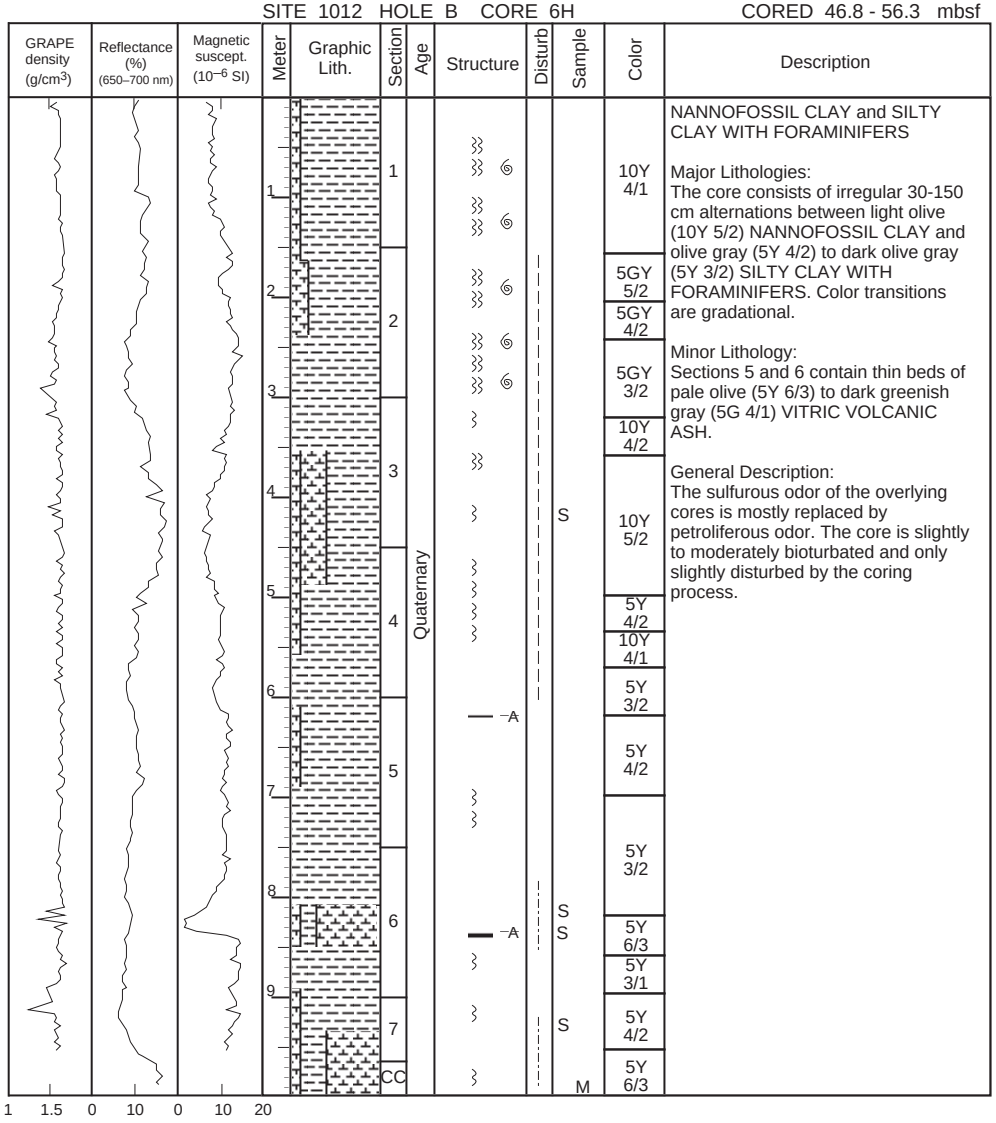


CLAYEY NANNOFOSSIL OOZE WITH FORAMINIFERS and NANNOFOSSIL CLAY WITH SILT

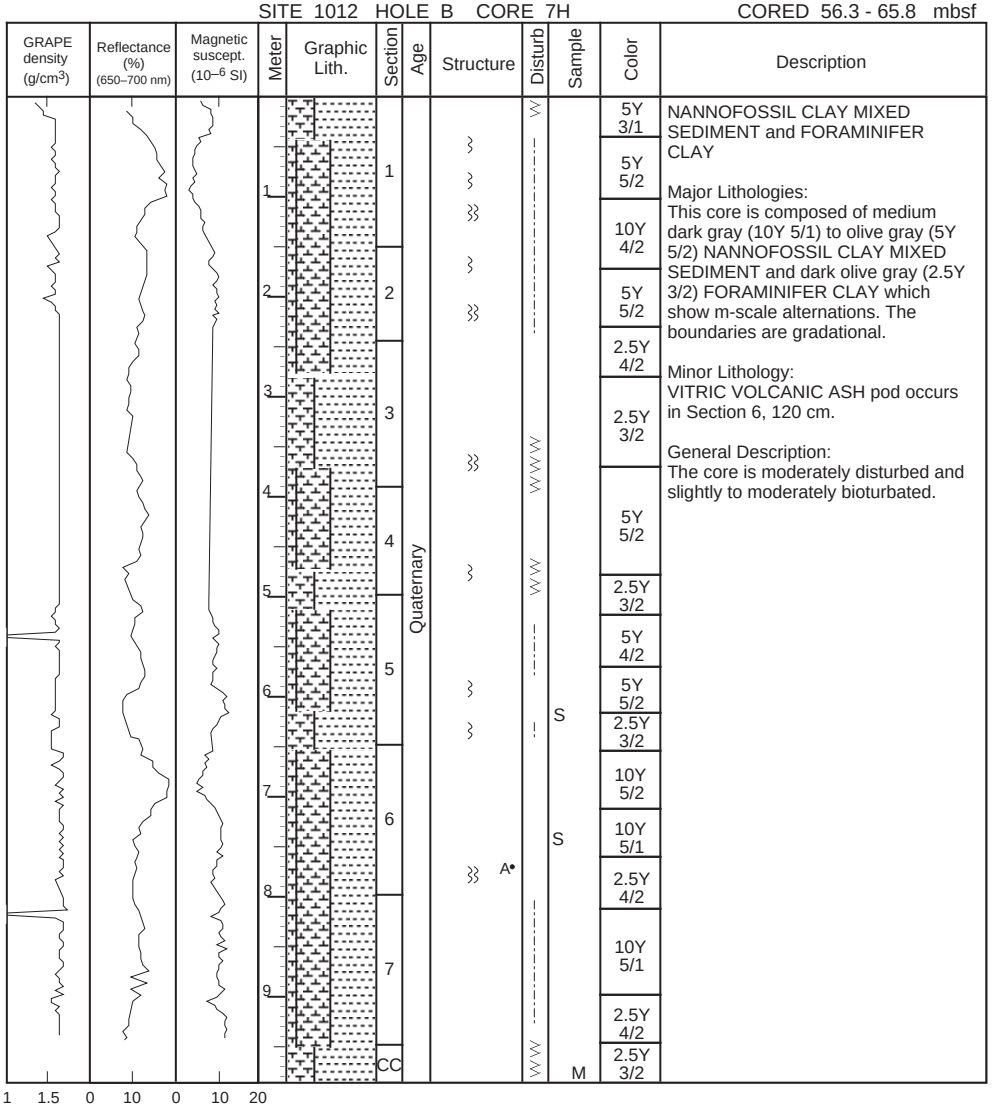
Major Lithologies:
This core is composed of gradational alternations between light olive gray (5Y 6/2) to olive (5Y 5/3) CLAYEY NANNOFOSSIL OOZE WITH FORAMINIFERS and dark to medium olive gray (5Y 5/2 to 5Y 5/3) NANNOFOSSIL CLAY WITH SILT.

General Description:
The core is moderately disturbed by coring and gas expansion partings. Decreased sulfurous odor from this core.

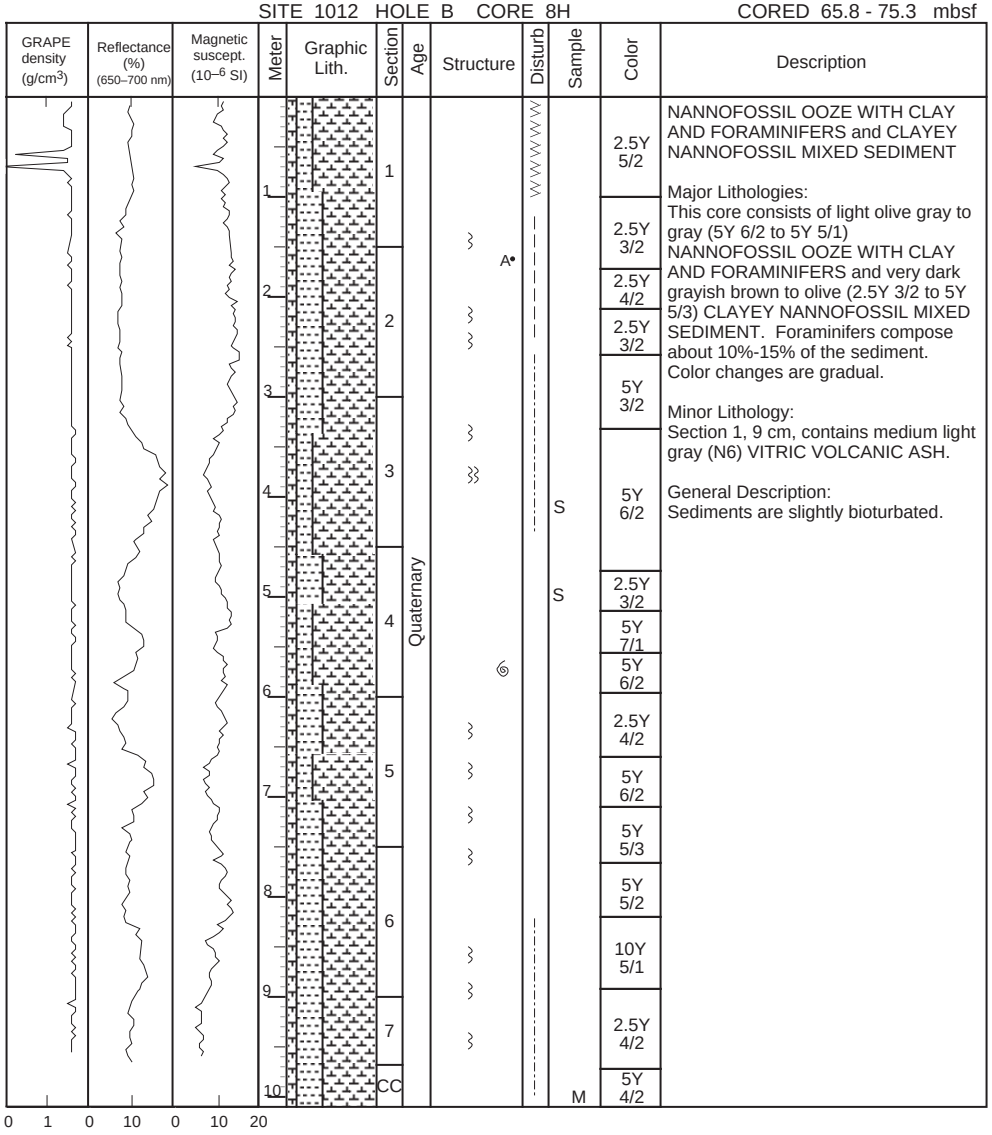
SITE 1012 HOLE B CORE 6H CORED 46.8 - 56.3 mbsf



SITE 1012 HOLE B CORE 7H CORED 56.3 - 65.8 mbsf



SITE 1012 HOLE B CORE 8H CORED 65.8 - 75.3 mbsf



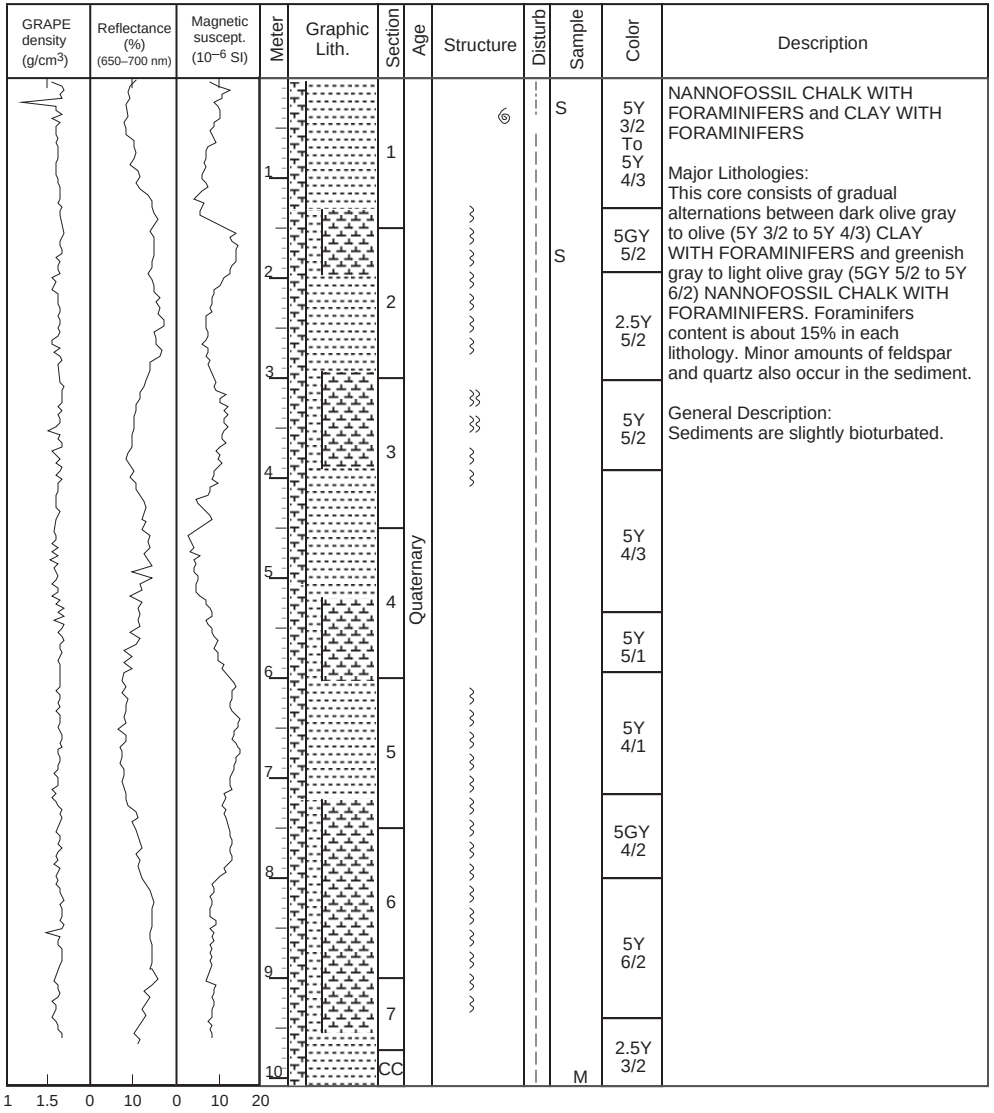
NANNOFOSSIL OOZE WITH CLAY AND FORAMINIFERS and CLAYEY NANNOFOSSIL MIXED SEDIMENT

Major Lithologies:
This core consists of light olive gray to gray (5Y 6/2 to 5Y 5/1) NANNOFOSSIL OOZE WITH CLAY AND FORAMINIFERS and very dark grayish brown to olive (2.5Y 3/2 to 5Y 5/3) CLAYEY NANNOFOSSIL MIXED SEDIMENT. Foraminifers compose about 10%-15% of the sediment. Color changes are gradual.

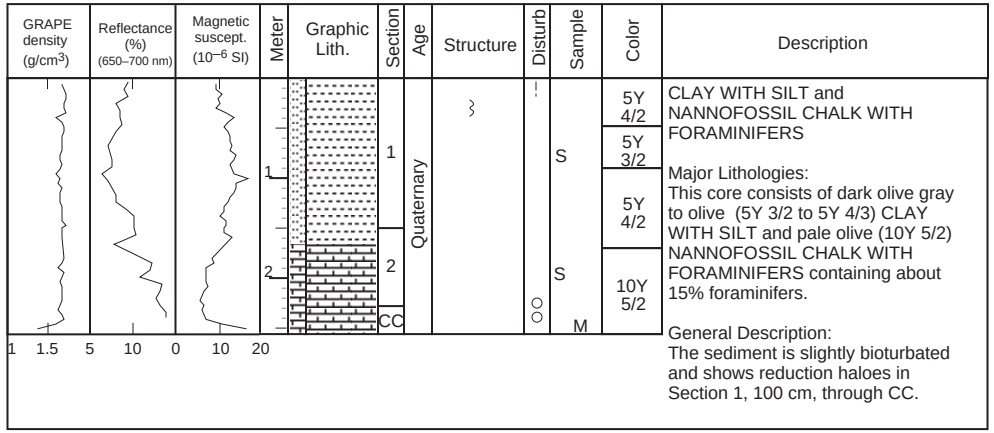
Minor Lithology:
Section 1, 9 cm, contains medium light gray (N6) VITRIC VOLCANIC ASH.

General Description:
Sediments are slightly bioturbated.

SITE 1012 HOLE B CORE 9H CORED 75.3 - 84.8 mbsf



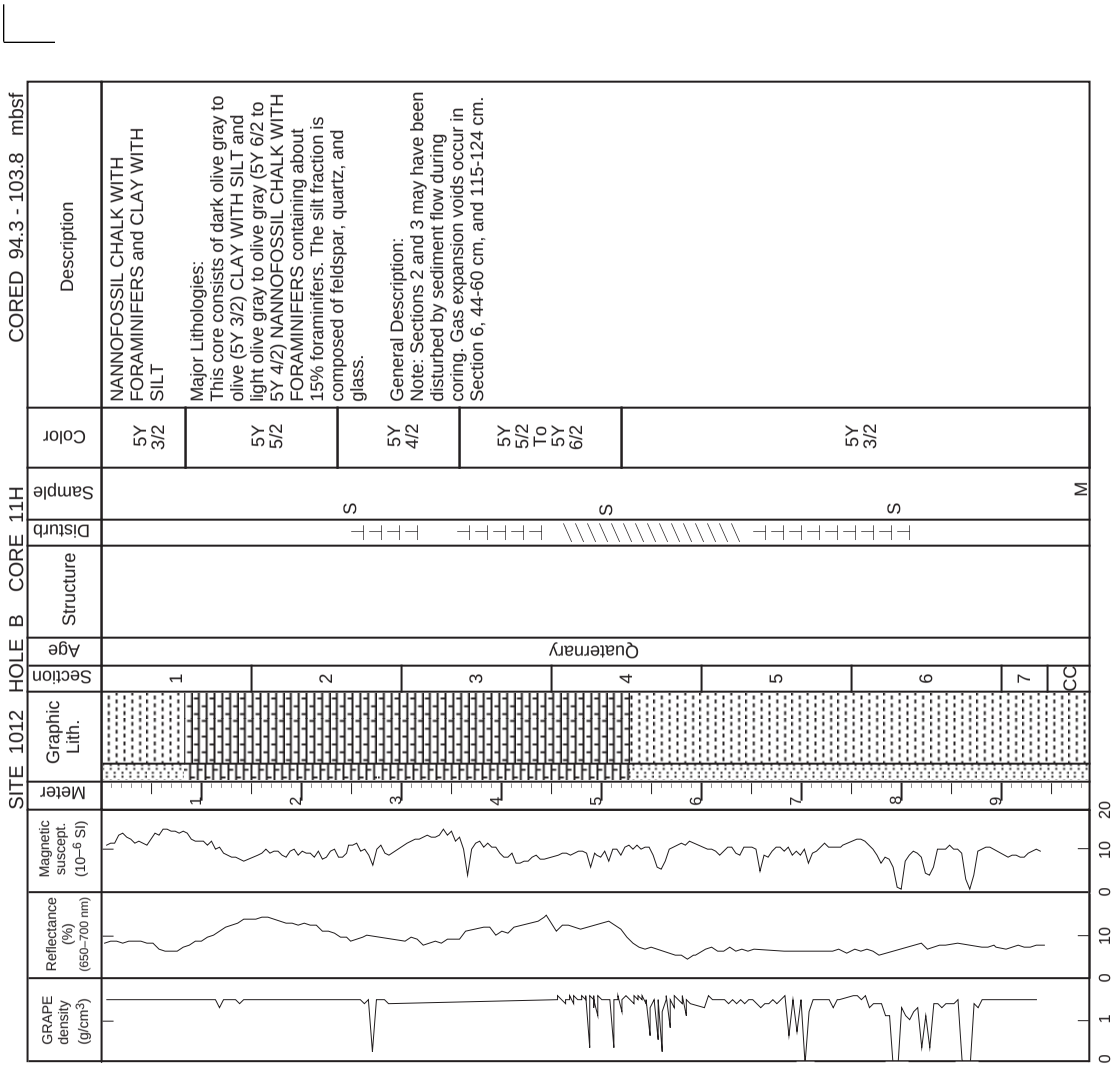
SITE 1012 HOLE B CORE 10H CORED 84.8 - 94.3 mbsf



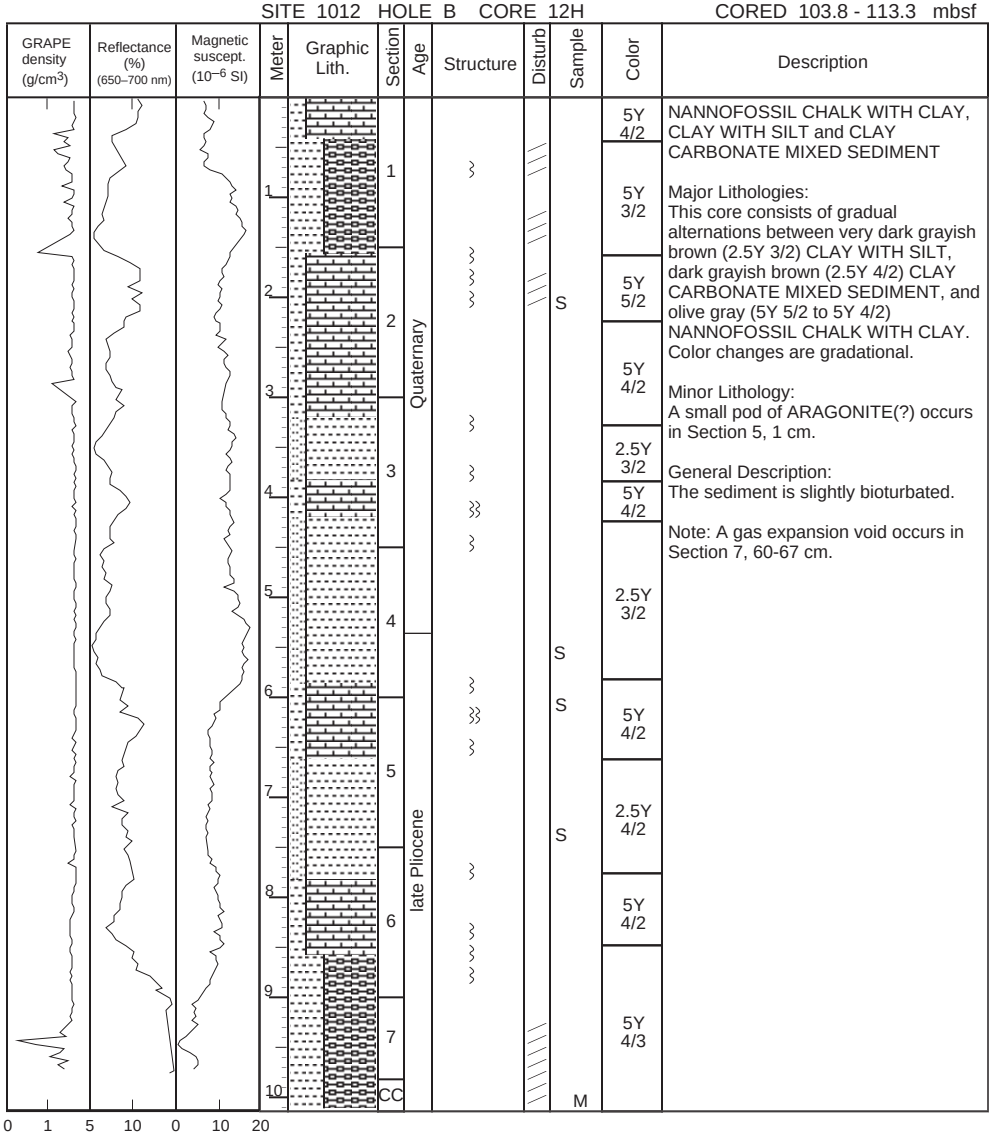
CLAY WITH SILT and NANNOFOSSIL CHALK WITH FORAMINIFERS

Major Lithologies:
This core consists of dark olive gray to olive (5Y 3/2 to 5Y 4/3) CLAY WITH SILT and pale olive (10Y 5/2) NANNOFOSSIL CHALK WITH FORAMINIFERS containing about 15% foraminifers.

General Description:
The sediment is slightly bioturbated and shows reduction haloes in Section 1, 100 cm, through CC.

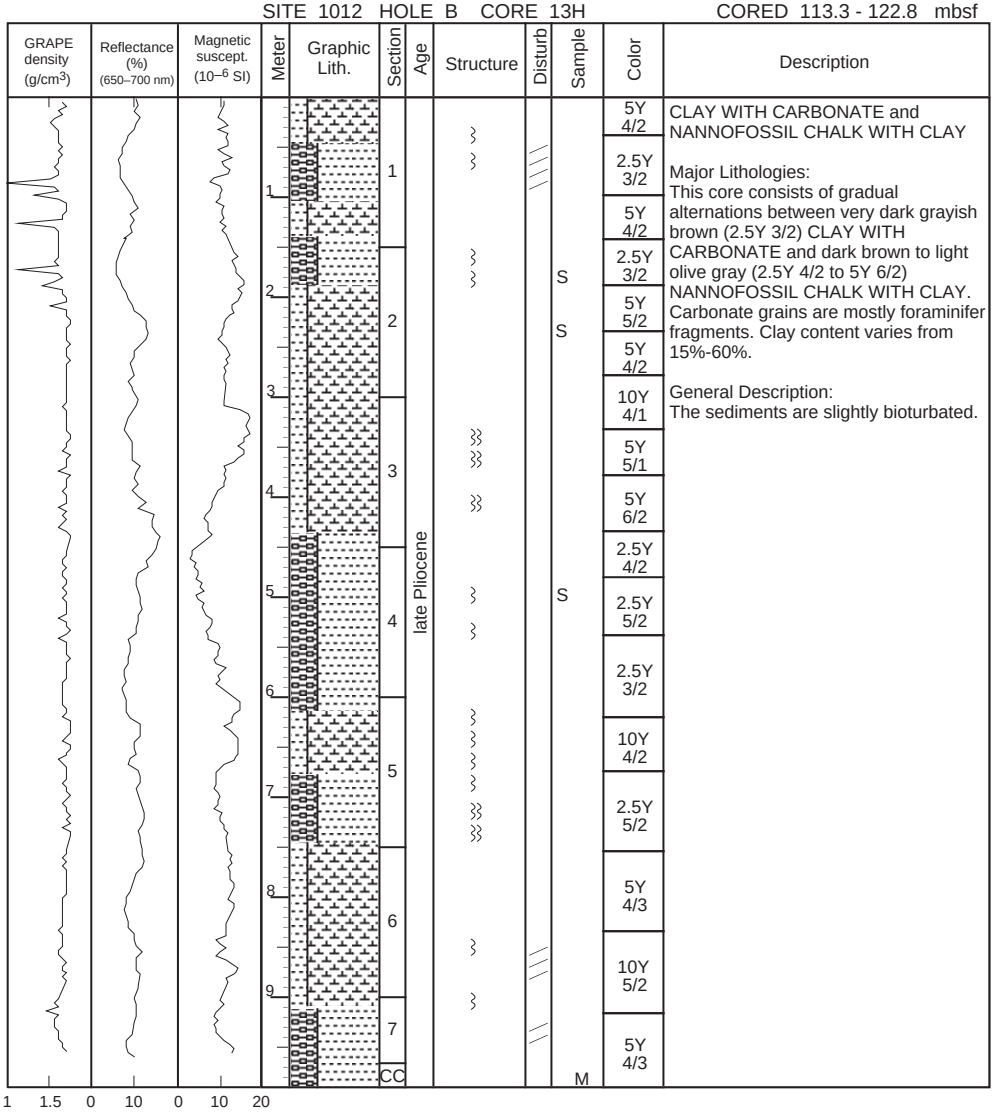

SITE 1012 HOLE B CORE 11H CORED 94.3 - 103.8 mbsf
GRAPE density (g/cm³)
Reflectance (%) (650–700 nm)
Magnetic suscept. (10⁻⁶ SI)
Meter
Graphic Lith.
Section
Age
Structure
Disturb
Sample
Color
Description
Quaternary
1
2
3
4
5
6
7
CC
5Y 3/2
5Y 5/2
5Y 4/2
5Y 5/2 To 5Y 6/2
5Y 3/2
NANNOFOSSIL CHALK WITH FORAMINIFERS and CLAY WITH SILT
Major Lithologies:
This core consists of dark olive gray to olive (5Y 3/2) CLAY WITH SILT and light olive gray to olive gray (5Y 6/2 to 5Y 4/2) NANNOFOSSIL CHALK WITH FORAMINIFERS containing about 15% foraminifers. The silt fraction is composed of feldspar, quartz, and glass.
General Description:
Note: Sections 2 and 3 may have been disturbed by sediment flow during coring. Gas expansion voids occur in Section 6, 44-60 cm, and 115-124 cm.
S
M
0 1 0
0 10 0
0 10 20

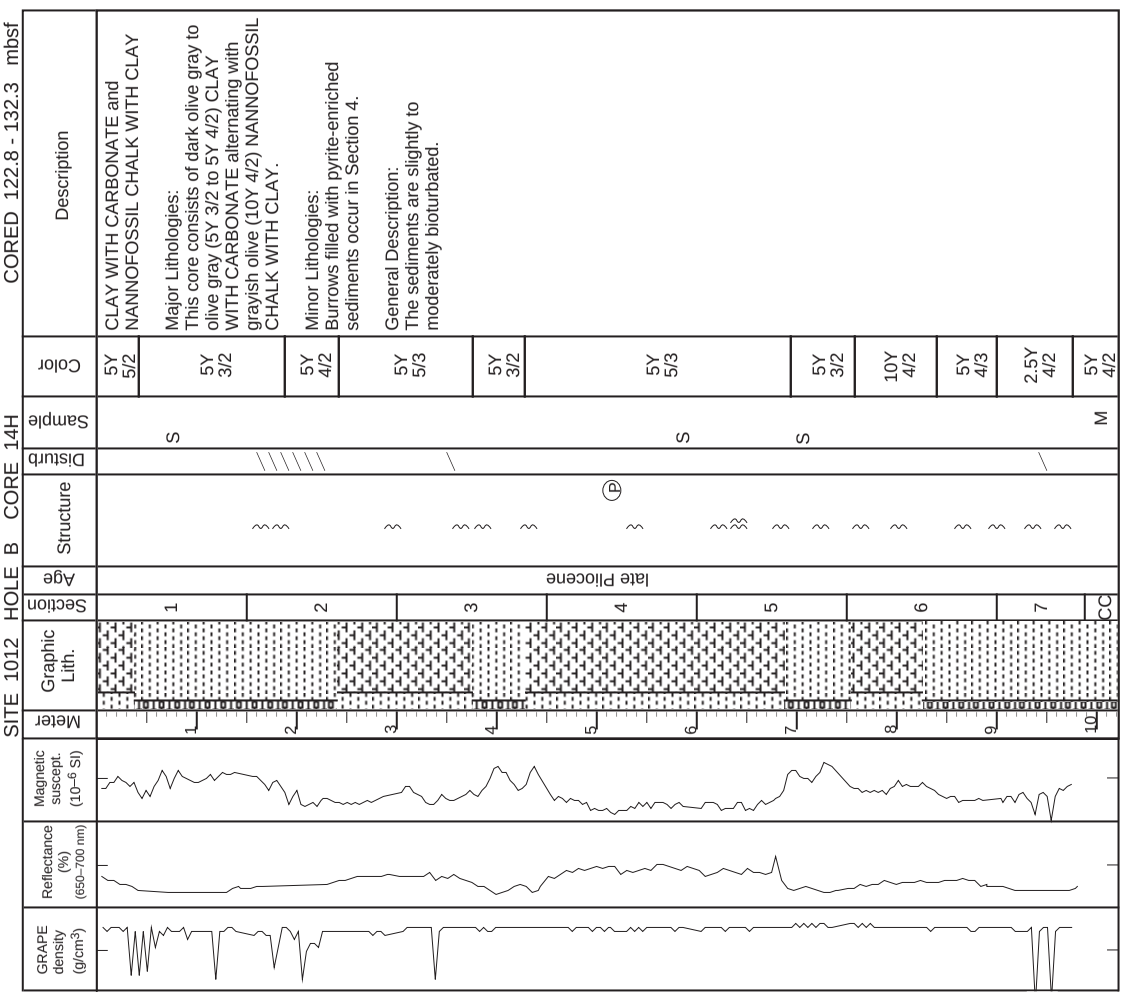
SITE 1012 HOLE B CORE 12H CORED 103.8 - 113.3 mbsf



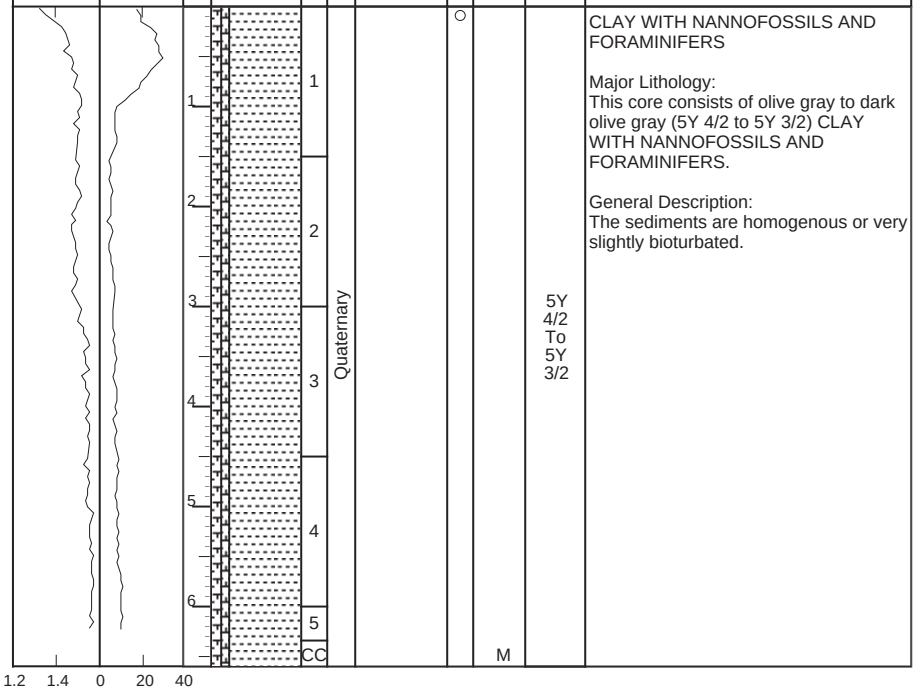
Color	Description
5Y 4/2	NANNOFOSSIL CHALK WITH CLAY, CLAY WITH SILT and CLAY CARBONATE MIXED SEDIMENT
5Y 3/2	Major Lithologies: This core consists of gradual alternations between very dark grayish brown (2.5Y 3/2) CLAY WITH SILT, dark grayish brown (2.5Y 4/2) CLAY CARBONATE MIXED SEDIMENT, and olive gray (5Y 5/2 to 5Y 4/2) NANNOFOSSIL CHALK WITH CLAY. Color changes are gradational.
5Y 5/2	
5Y 4/2	Minor Lithology: A small pod of ARAGONITE(?) occurs in Section 5, 1 cm.
2.5Y 3/2	General Description: The sediment is slightly bioturbated.
5Y 4/2	
2.5Y 3/2	Note: A gas expansion void occurs in Section 7, 60-67 cm.
5Y 4/2	
2.5Y 4/2	
5Y 4/2	
5Y 4/3	

SITE 1012 HOLE B CORE 13H CORED 113.3 - 122.8 mbsf




SITE 1012 HOLE B CORE 14H CORED 122.8 - 132.3 mbsf
GRAPE density (g/cm3)
Reflectance (%) (650–700 nm)
Magnetic suscept. (10–6 SI)
Meter
Graphic Lith.
Section
Age
Structure
Disturb
Sample
Color
Description
late Pliocene
CLAY WITH CARBONATE and NANNOFOSSIL CHALK WITH CLAY
Major Lithologies: This core consists of dark olive gray to olive gray (5Y 3/2 to 5Y 4/2) CLAY WITH CARBONATE alternating with grayish olive (10Y 4/2) NANNOFOSSIL CHALK WITH CLAY.
Minor Lithologies: Burrows filled with pyrite-enriched sediments occur in Section 4.
General Description: The sediments are slightly to moderately bioturbated.

SITE 1012 HOLE C CORE 1H CORED 0.0 - 6.6 mbsf

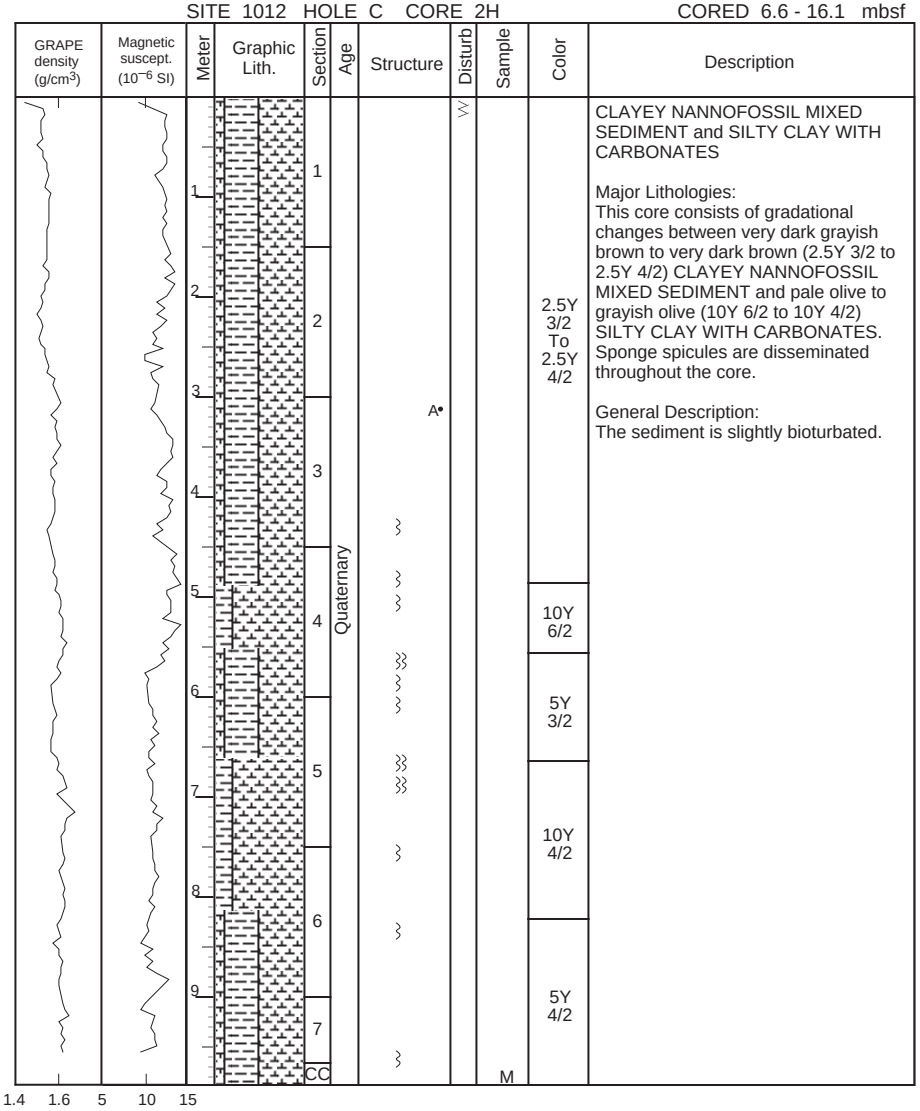


CLAY WITH NANNOFOSSILS AND FORAMINIFERS

Major Lithology:
This core consists of olive gray to dark olive gray (5Y 4/2 to 5Y 3/2) CLAY WITH NANNOFOSSILS AND FORAMINIFERS.

General Description:
The sediments are homogenous or very slightly bioturbated.

SITE 1012 HOLE C CORE 2H CORED 6.6 - 16.1 mbsf

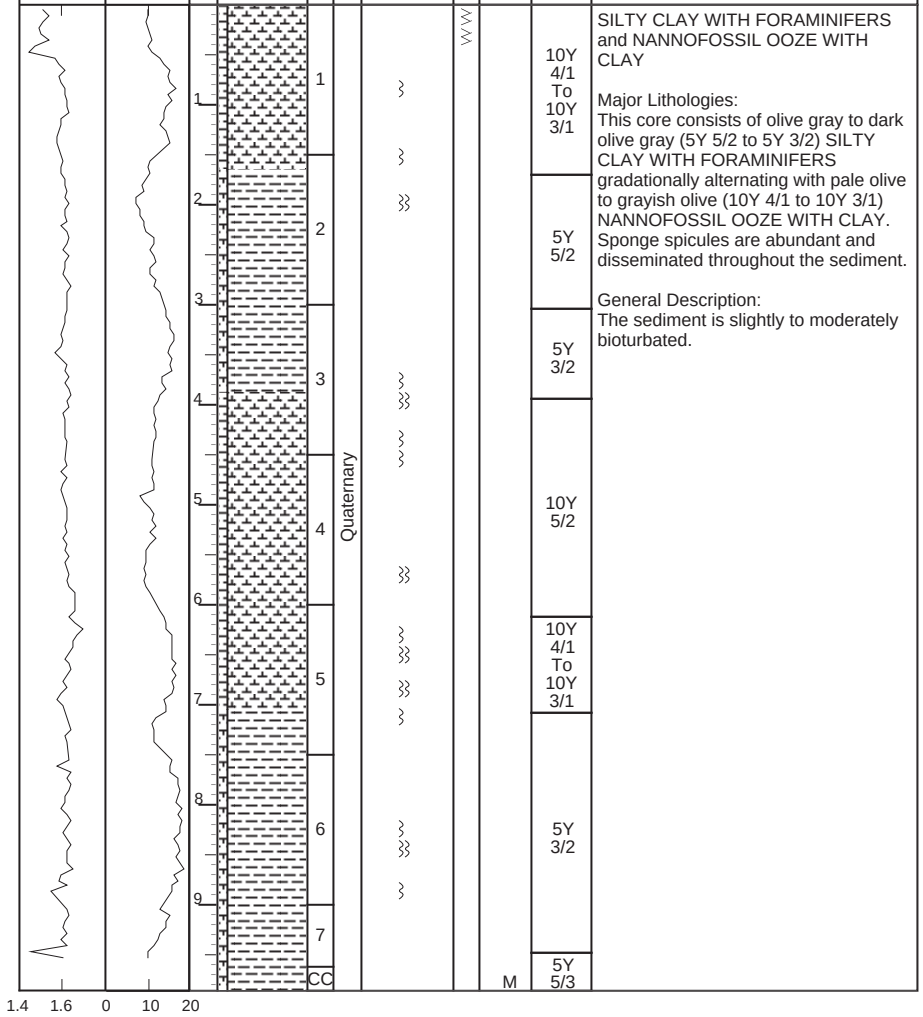


CLAYEY NANNOFOSSIL MIXED SEDIMENT and SILTY CLAY WITH CARBONATES

Major Lithologies:
This core consists of gradational changes between very dark grayish brown to very dark brown (2.5Y 3/2 to 2.5Y 4/2) CLAYEY NANNOFOSSIL MIXED SEDIMENT and pale olive to grayish olive (10Y 6/2 to 10Y 4/2) SILTY CLAY WITH CARBONATES. Sponge spicules are disseminated throughout the core.

General Description:
The sediment is slightly bioturbated.

SITE 1012 HOLE C CORE 3H CORED 16.1 - 25.6 mbsf

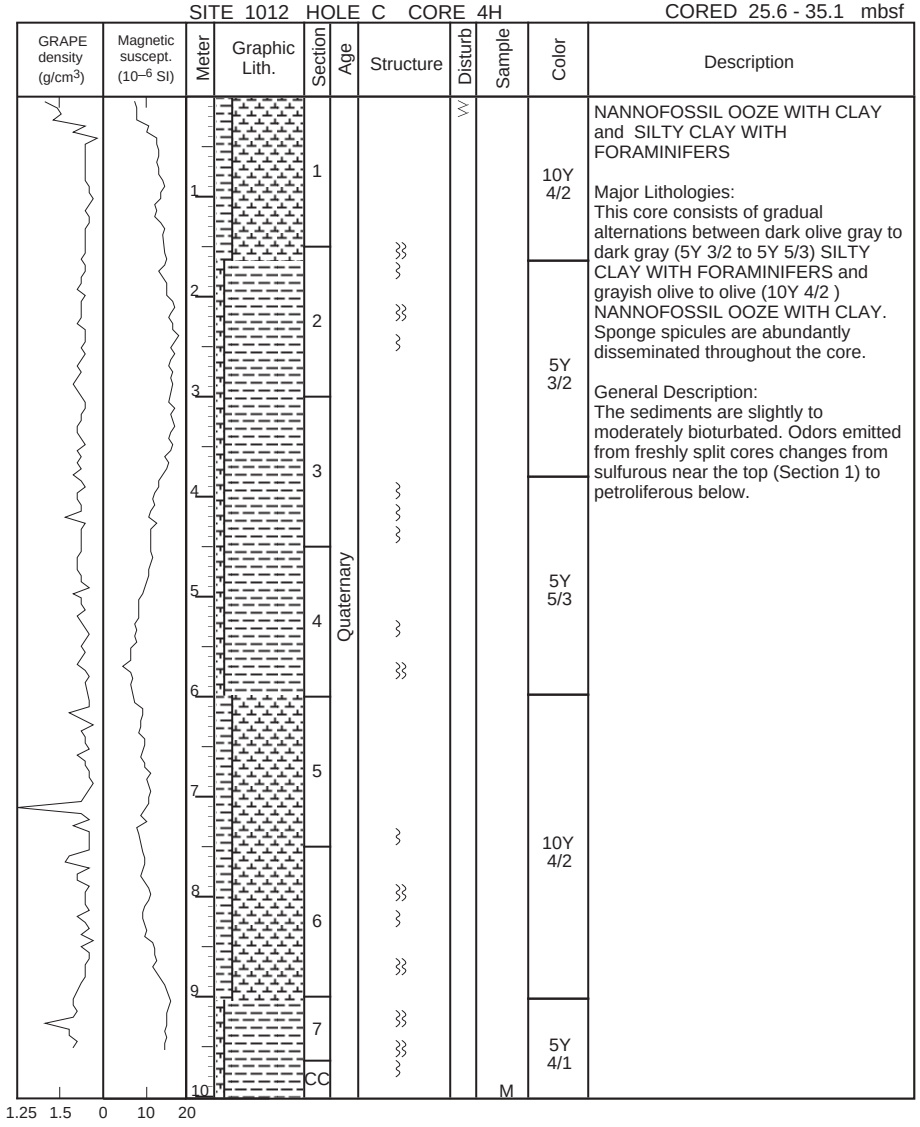


SILTY CLAY WITH FORAMINIFERS and NANNOFOSSIL OOZE WITH CLAY

Major Lithologies:
This core consists of olive gray to dark olive gray (5Y 5/2 to 5Y 3/2) SILTY CLAY WITH FORAMINIFERS gradationally alternating with pale olive to grayish olive (10Y 4/1 to 10Y 3/1) NANNOFOSSIL OOZE WITH CLAY. Sponge spicules are abundant and disseminated throughout the sediment.

General Description:
The sediment is slightly to moderately bioturbated.

SITE 1012 HOLE C CORE 4H CORED 25.6 - 35.1 mbsf

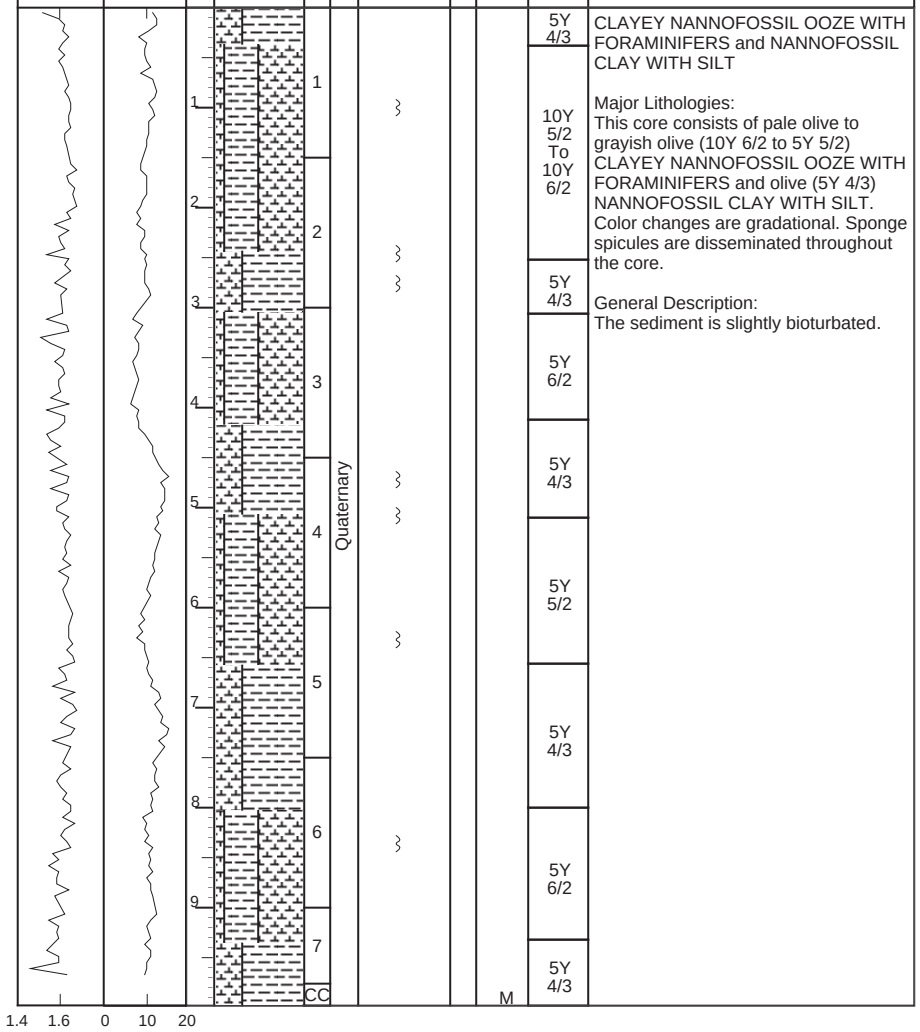


NANNOFOSSIL OOZE WITH CLAY and SILTY CLAY WITH FORAMINIFERS

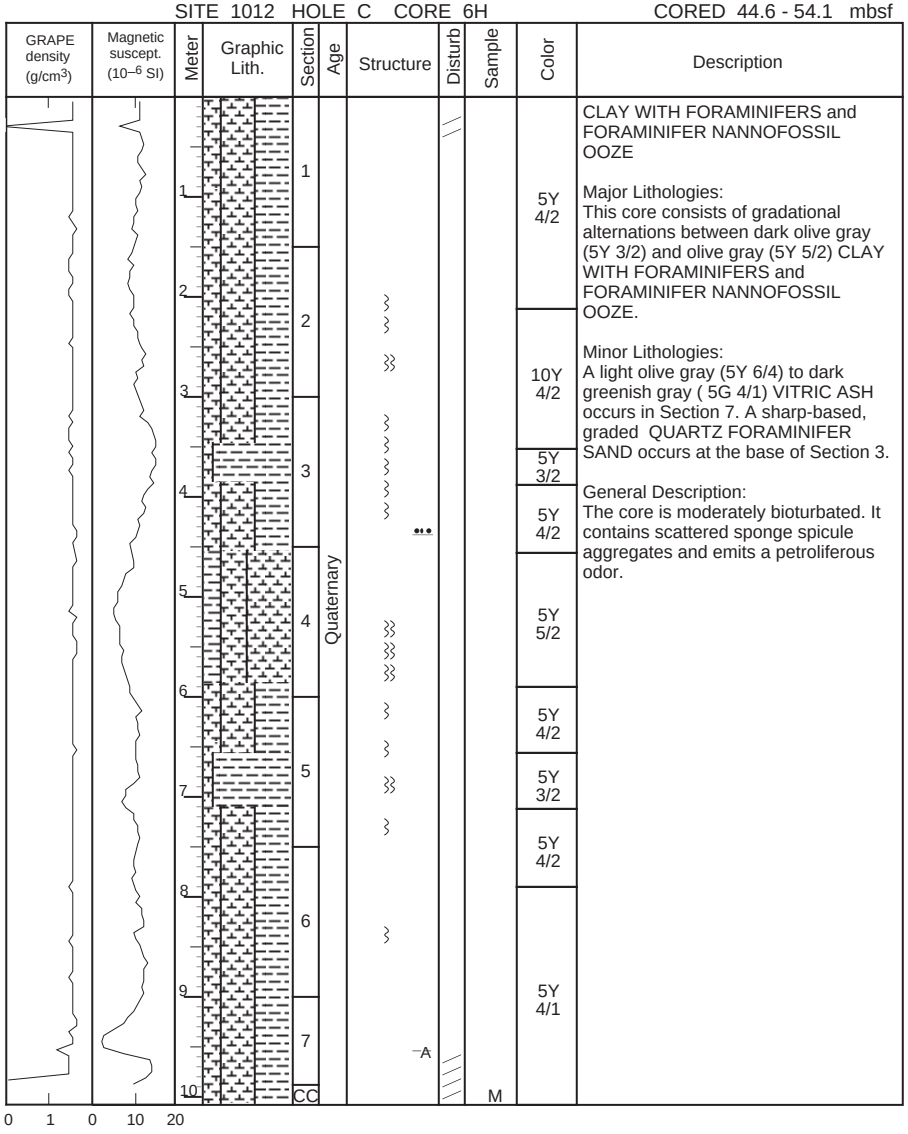
Major Lithologies:
This core consists of gradual alternations between dark olive gray to dark gray (5Y 3/2 to 5Y 5/3) SILTY CLAY WITH FORAMINIFERS and grayish olive to olive (10Y 4/2) NANNOFOSSIL OOZE WITH CLAY. Sponge spicules are abundantly disseminated throughout the core.

General Description:
The sediments are slightly to moderately bioturbated. Odors emitted from freshly split cores changes from sulfurous near the top (Section 1) to petroliferous below.

SITE 1012 HOLE C CORE 5H CORED 35.1 - 44.6 mbsf



SITE 1012 HOLE C CORE 6H CORED 44.6 - 54.1 mbsf



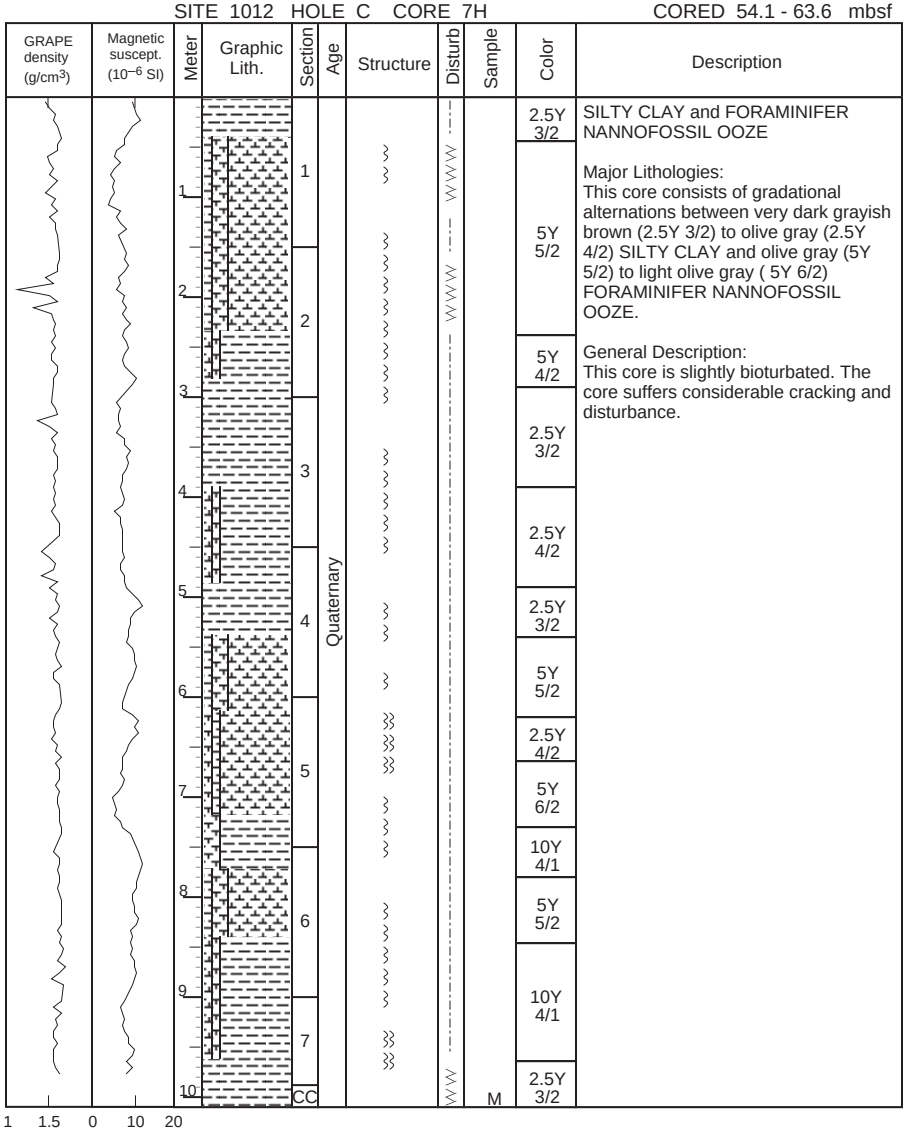
CLAY WITH FORAMINIFERS and FORAMINIFER NANNOFOSSIL OOZE

Major Lithologies:
This core consists of gradational alternations between dark olive gray (5Y 3/2) and olive gray (5Y 5/2) CLAY WITH FORAMINIFERS and FORAMINIFER NANNOFOSSIL OOZE.

Minor Lithologies:
A light olive gray (5Y 6/4) to dark greenish gray (5G 4/1) VITRIC ASH occurs in Section 7. A sharp-based, graded QUARTZ FORAMINIFER SAND occurs at the base of Section 3.

General Description:
The core is moderately bioturbated. It contains scattered sponge spicule aggregates and emits a petroliferous odor.

SITE 1012 HOLE C CORE 7H CORED 54.1 - 63.6 mbsf

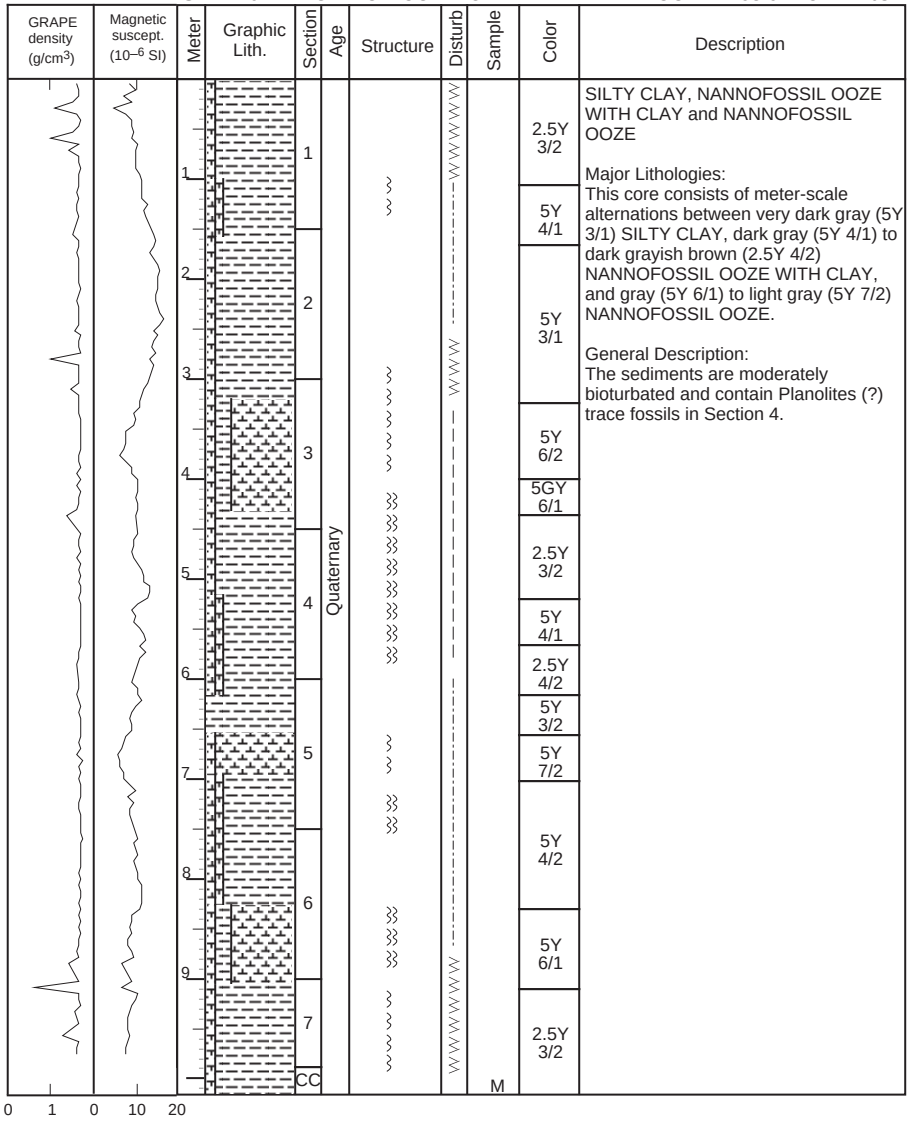


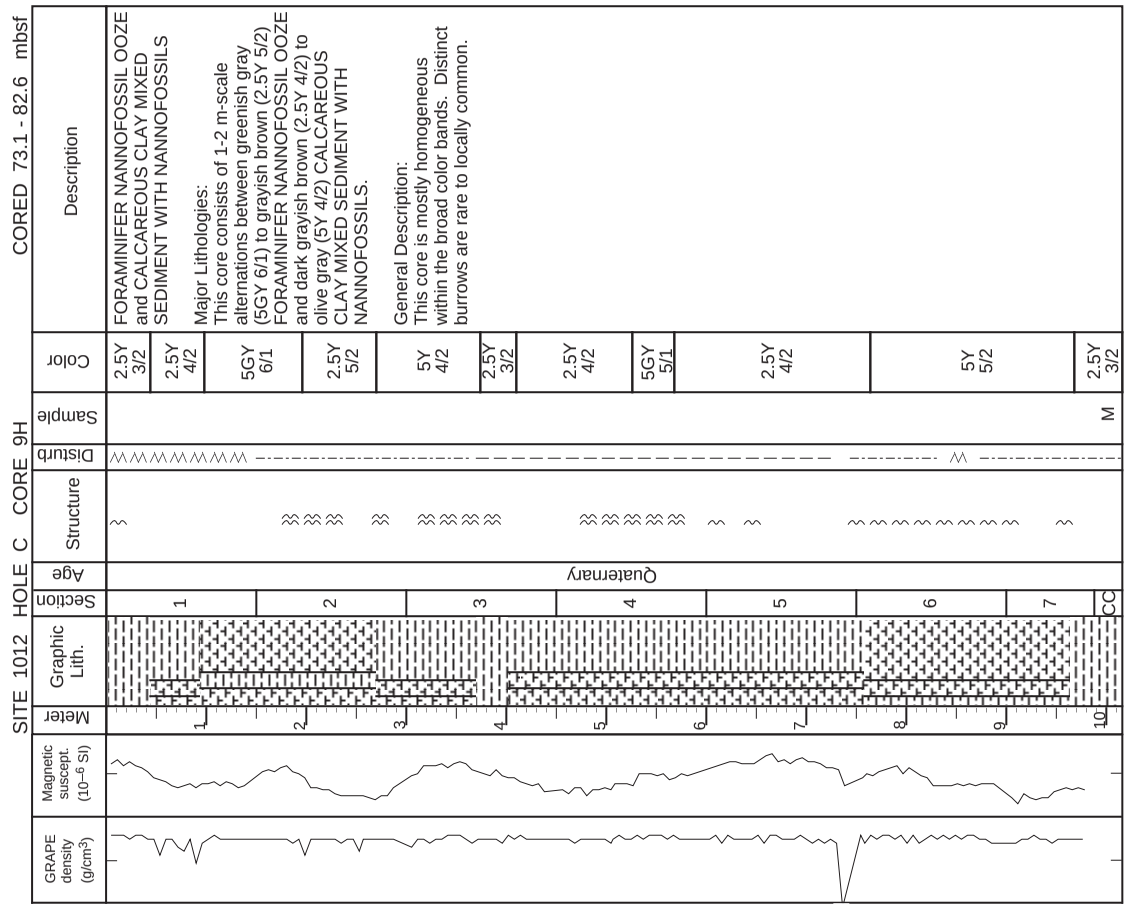
SILTY CLAY and FORAMINIFER NANNOFOSSIL OOZE

Major Lithologies:
This core consists of gradational alternations between very dark grayish brown (2.5Y 3/2) to olive gray (2.5Y 4/2) SILTY CLAY and olive gray (5Y 5/2) to light olive gray (5Y 6/2) FORAMINIFER NANNOFOSSIL OOZE.

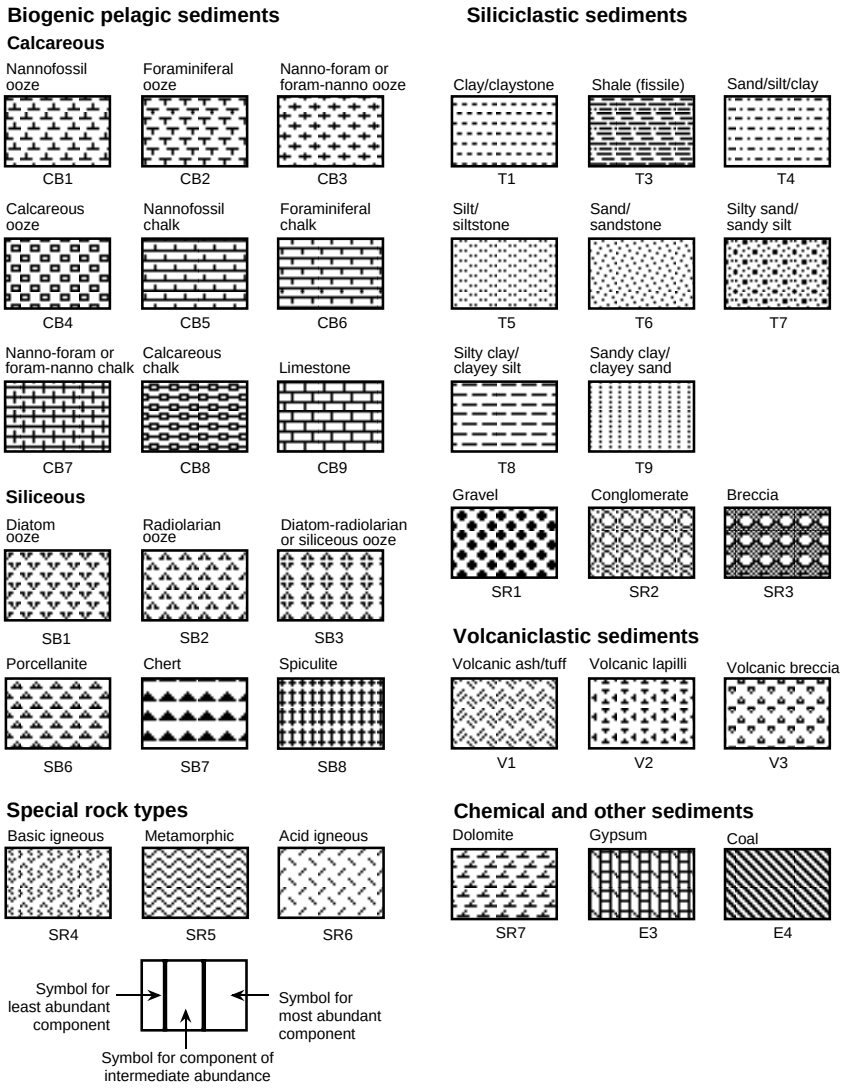
General Description:
This core is slightly bioturbated. The core suffers considerable cracking and disturbance.

SITE 1012 HOLE C CORE 8H CORED 63.6 - 73.1 mbsf



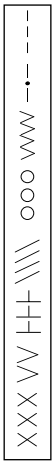

SITE 1012 HOLE C CORE 9H CORED 73.1 - 82.6 mbsf
GRAPE density (g/cm3)
Magnetic suscept. (10–6 SI)
Meter
Graphic Lith.
Section
Age
Structure
Disturb
Sample
Color
Description
Quaternary
FORAMINIFER NANNOFOSSIL OOZE and CALCAREOUS CLAY MIXED SEDIMENT WITH NANNOFOSSILS
Major Lithologies:
This core consists of 1-2 m-scale alternations between greenish gray (5GY 6/1) to grayish brown (2.5Y 5/2) FORAMINIFER NANNOFOSSIL OOZE and dark grayish brown (2.5Y 4/2) to olive gray (5Y 4/2) CALCAREOUS CLAY MIXED SEDIMENT WITH NANNOFOSSILS.
General Description:
This core is mostly homogeneous within the broad color bands. Distinct burrows are rare to locally common.
2.5Y 3/2
2.5Y 4/2
5GY 6/1
2.5Y 5/2
5Y 4/2
2.5Y 3/2
2.5Y 4/2
5GY 5/1
2.5Y 4/2
5Y 5/2
2.5Y 3/2
M
CC

Key to symbols used in the “Graphic Lithology” column on the core description sheets.



Key to symbols used in the "Structures" column on the core description sheets.

Drilling disturbance symbols



Soft sediments

- Slightly disturbed
- Moderately disturbed
- Highly disturbed
- Soupy

Hard sediments

- Slightly fractured
- Moderately fractured
- Highly fragmented
- Drilling breccia

Sedimentary structures

- Burrows, rare (<30% surface area)
- Burrows, common (30%–60% surface area)
- Burrows, abundant (>60% surface area)
- Discrete *Zoophycos* trace fossil
- Discrete *Chondrites* trace fossil
- *Sagarites* sponge
- Gastropods
- Other bivalves
- Shell fragments
- Wood framents
- Fish debris

Sedimentary structures cont.

- Fining-upward sequence
- Interval over which primary sedimentary structure occur
- Planar laminae
- Wedge-planar laminae/beds
- Graded bedding (normal)
- Graded bedding (reversed)
- Sharp contact
- Gradational contact
- Scoured, sharp contact
- Scoured contact with graded bed
- Thick color bands (sharp contact)
- Thick color bands (gradational contact)
- Medium color bands (sharp contact)
- Medium color bands (gradational contact)
- Thin color bands (sharp contact)
- Thin color bands (gradational contact)
- Laminations (mm scale)
- Individual thick color band
- Individual medium color band
- Individual thin color band
- Individual lamination
- Wavy lamination
- Cross laminae
- Cross stratification
- Cross bedding
- Convoluted/contorted bedding
- Flaser bedding
- Graded interval, normal
- Veins
- Water escape structure
- Scour

- Isolated pebbles/cobbles
- Isolated mud clasts
- Slump blocks or slump folds
- Contorted slump
- Probable compaction fracture
- Microfault (normal)
- Microfault (thrust)
- Macrofault
- Fracture
- Totally fractured
- Vein structures
- Color mottles
- Dolomite nodule/concretion
- D — Disseminated dolomite
- P — Pyrite nodule/concretion
- P — Disseminated pyrite
- G — Glauconite
- Concretions/nodules
- Ba — Barite nodule/concretion
- Ba — Disseminated barite
- Ca — Calcite nodule/concretion
- C — Carbonate nodule/concretion
- Ch — Chert nodule/concretion
- A — Ash/pumice pods
- A — Ash layer