Information on Core Description Forms, for ALL sites, represents field notes taken aboard ship. Some of this information has been refined in accord with post-cruise findings, but production schedules prohibit definitive correlation of these forms with subsequent findings. Thus, the reader should be alerted to the occasional ambiguity or discrepancy.
SITE 844 HOLE B CORE 1H
CORED 0.0 - 4.5 mbsf

<table>
<thead>
<tr>
<th>Reflectance (%)</th>
<th>GRAPE Density (g/cm³)</th>
<th>Lith.</th>
<th>Color</th>
<th>Description</th>
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<tbody>
<tr>
<td>10 - 20</td>
<td>1.2 - 1.4</td>
<td>M</td>
<td>S</td>
<td><strong>CLAYEY DIATOM OOZE WITH RADIOLARIANS</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>S</td>
<td>S</td>
<td>Major Lithology: The core consists of variegated and mottled medium to dark greenish gray CLAYEY DIATOM OOZE WITH RADIOLARIANS (up to 20%). Carbonate is absent in the upper 1 meter of Section 1. Trace amounts of carbonate, including nannofossils, are present in the remainder of the core. The upper 52 cm of the core are brownish, more diatom-rich and contain less clay.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S</td>
<td>S</td>
<td>General Description: COLOR: The entire core is mottled and vertical dark bluish-gray streaks are present in the top meter. TRACE FOSSILS: The core is highly burrowed with mainly solid and rind burrows.</td>
</tr>
</tbody>
</table>

COLOR: The entire core is mottled and vertical dark bluish-gray streaks are present in the top meter. TRACE FOSSILS: The core is highly burrowed with mainly solid and rind burrows.
**SITE 844 HCLE B CORE 2H**

**CORED 4.5 - 14.0 mbsf**

<table>
<thead>
<tr>
<th>Reflectance (%)</th>
<th>GRAPE Density (g/cm³)</th>
<th>Matrix</th>
<th>Graphic Lith.</th>
<th>Age</th>
<th>Structure</th>
<th>Disturb</th>
<th>Sample</th>
<th>Color</th>
<th>Description</th>
</tr>
</thead>
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<tr>
<td>10</td>
<td>1.3</td>
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<td></td>
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<tr>
<td>20</td>
<td>1.4</td>
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</tbody>
</table>

**CLAYEY NANNOFISSION DIATOM Ooze**

**Major Lithology:**
- This core consists of variegated medium to dark greenish gray CLAYEY NANNOFISSION DIATOM Ooze with lesser amounts of radiolarians. Trace amounts of volcanic ash, quartz, feldspar, and pyrite are present throughout the core.

**General Description:**
- COLOR: Variegated and mottled from 10YR 5/2 to 10YR 4/1. Individual color bands range in color from 10YR 4/1 to 2.5YR 4/2.
- TRACE FOSSILS: Planolites and rind burrows are abundant over the interval from Section, 1-93 cm, to Section 3, 130 cm. Discrete Zoophycos burrows occur at Section 2, 20 cm, and Section 3, 130 cm.
- BANDING CONTRAST: Moderate.
### Description

**Major Lithologies:**

The core consists of mottled greenish gray to light greenish gray RADIOLARIAN CLAYEY DIATOM Ooze with minor amounts of nannofossils, volcanic glass and silicoflagellates and greenish gray mottled (10Y 5/2) RADIOLARIAN CLAY containing variable amounts of volcanic/glass, diatoms, and nannofossils.

**Minor Lithology:**

Light tan (10YR 5/6) NANNOFOSIL DIATOM CLAY occurs at the top of the core and is marked by a distinct color change and a bioturbated band.

**General Description:**

**COLOR:** The color grades from mottled greenish gray (5GY 9/1) to light greenish gray (10Y 6/1) in Sections 1 through 6. In Section 6, 103 cm, the color changes further to light tan (10YR 5/6).

Section 2, 0-40 cm, has fine-scale banding and laminations surrounding an interval (Section 2, 13-25 cm) containing abundant volcanic ash.

**TRACE FOSSILS:** Moderate bioturbation and trace fossils (Zoophycos) are located in the interval from Section 5, 60-120 cm. Truncated burrows occur in Section 3, 82 cm. A prominent burrowed horizon is present at a sharp color change in Section 6, 103 cm.

**BANDING CONTRAST:** Light.
RADIOLARIAN DIATOM CLAY

Major Lithology:
This core consists of mottled gray to light gray RADIOLARIAN DIATOM CLAY containing varying amounts of diatoms and radiolarians, minor amounts of volcanic ash and trace amounts of quartz, feldspar, sponge spicules and silicoflagellates.

Minor Lithology:
Between Section 7 and the core catcher, the sediment grades to light grayish tan (5Y 6/3) FORAMINIFER NANNOFOSIL OOZE.

General Description:
VOID: Section 2, 18-20 cm.
COLOR: The color gradually changes through the core from gray (10YR 4/1) at the top of Section 1 to light grayish tan (5Y 6/3) at the base of Section 7.
TRACE FOSSILS: Small dark, filled burrows occur in Section 3, 22-26 cm. Moderate bioturbation in the interval Section 5, 40-110 cm is characterized by filled burrows, Planolites, and Skolithos structures. The core catcher shows moderate bioturbation with pelloid Zoophycos and Planolites.
<table>
<thead>
<tr>
<th>Structure</th>
<th>Sample</th>
<th>Color</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>10YR 7/2</td>
<td>S</td>
<td></td>
<td>DIATOM NANNOMOSSIL OOZE WITH RADIOLARIANS and DIATOM RADIOLARKIAN NANNOMOSSIL OOZE</td>
</tr>
<tr>
<td>10YR 6/3</td>
<td>S</td>
<td></td>
<td>Major Lithologies: The core consist of (1) lightly bioturbated, light brown DIATOM NANNOMOSSIL OOZE WITH RADIOLARIANS with minor amounts of foraminifers and trace amounts of sponge spicules and silicoflagellates; and (2) heavily bioturbated, brown to light greenish brown DIATOM RADIOLARKIAN NANNOMOSSIL OOZE with minor amounts of clay, foraminifers, sponge spicules, and silicoflagellates.</td>
</tr>
<tr>
<td>5Y 7/3</td>
<td>S</td>
<td></td>
<td>Minor Lithology: This lithology consists of lightly bioturbated, light brown FORAMINIFER NANNOMOSSIL OOZE with up to 12% of a mixture of all siliceous microfossil groups. Minor amounts of clay and volcanic glass also present.</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>General Description: Section 1, 0-19 cm, and Section 7, 28-54 cm, are disturbed by drilling. A void is present in Section 1, 7-12 cm.</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>COLOR: Variably colored and mottled throughout cored interval with colors ranging from dark greenish gray (5Y 7/3) to tan (10YR 6/3) to light gray (2.5Y 7/2). A sharp color contact occurs in Section 5, 114 cm.</td>
</tr>
<tr>
<td></td>
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<td>TRACE FOSSILS: Bioturbation is weak to moderate throughout most of the core. Scattered rind burrows, solid filled burrows and Planolites are found, especially at Sections 5, 53 cm; 4, 30 cm; and 6, 100-125 cm.</td>
</tr>
</tbody>
</table>
Major Lithologies:
This core contains (1) light gray to light greenish gray, heavily bioturbated 
RADIALARIAN NANNOFOSIL OOZE WITH DIATOMS AND CLAY and trace 
to minor amounts of foraminifers, 
sponge spicules and silicoflagellates 
and (2) light to medium greenish gray; 
moderately to heavily bioturbated 
DIATOM RADIALARIAN 
NANNOFOSIL OOZE WITH CLAY anc 
trace to minor amounts of ash, 
foraminifers, sponge spicules and 
silicoflagellates.

General Description:
COLOR: A change in color to values of 
10Y 5/1 to 10Y 7/1 occurs in Section 5, 
10 cm.
TRACE FOSSILS: Massive burrows 
are found throughout the core. 
Planolites and Skolithos are present in 
the top half of Section 3, the bottom of 
Section 4, and in Section 5. 
Abundant Zoophycos are found in Section 5 and 
the bottom of Section 6.
BANDING CONTRAST: None.
### Description

**Major Lithologies:**
- This core contains (1) light to dark greenish gray, moderately to heavily bioturbated DIATOM Ooze WITH CLAY AND RADIOLARIANS and (2) light bluish to light greenish gray, moderately to heavily bioturbated NANNOFossil Ooze WITH RADIOLARIANS that has minor to trace amounts of clay, foraminifers, sponge spicules and silicoflagellates. Some light gray bands and pods of nannofossil diatom ooeze are mixed within the first lithology.

**Minor Lithology:**
- This lithology consists of light to medium brownish RADIOLARIAN NANNOFossil Ooze WITH DIATOMS with minor to trace amounts of clay, sponge spicules, glass, foraminifers and silicoflagellates.

**General Description:**
- TRACE FOSSILS: Solid and rind burrows occur throughout core. Planolites are found at the bottom of Sections 5 and 6, and Zoophycos are found in Section 6, 93-94 cm. BANDING CONTRAST: Possible weak banding in Sections 3 and 4.
### Major Lithology:
This core consists of medium to very light greenish gray NANNOFOSIL OOZE WITH DIATOMS, sometimes also with radiolarians. It is heavily bioturbated with lighter and darker shades of greenish gray and dusky yellow green. The interval from Section 3, 90 cm, to Section 6, 100 cm, contains many long and thin pyritized burrows. The ooze is very faintly banded with lighter and darker shades of greenish gray.

### Minor Lithologies:
The minor lithologies include: 1) light greenish gray DIATOM NANNOFOSIL OOZE WITH RADIOLARIANS that contains minor amounts of clay. This lithology is moderately bioturbated in Section 2. In Sections 6 and 7 it is dusky yellow in color, is heavy bioturbated and has faint banding. 2) At the base of Section 7, the lithology grades to NANNOFOSIL DIATOM OOZE with a crumbly texture.

### General Description:
- **TRACE FOSSILS:** Massive solid burrows are present throughout. Skolithos (?) burrows occur in Section 2, 53 cm. Many long thin pyritized burrows are present between Sections 3, 90 cm, and Section 6, 100 cm.
- **BANDING CONTRAST:** Very high in nannofossil ooze lithologies, very slight in diatom ooze lithology.
### Reflectance (%)

<table>
<thead>
<tr>
<th>Reflectance (%)</th>
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<tbody>
<tr>
<td>30 50</td>
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### GRAPE Density (g/cm³)

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<tr>
<th>GRAPE Density (g/cm³)</th>
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<tr>
<td>1.4 1.6</td>
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### Graphic Lith.

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<tbody>
<tr>
<td>1.4 1.6</td>
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### Structure

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### Description

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<th>Description</th>
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### Major Lithology:

This core contains very light brownish to greenish to purplish gray, weakly to moderately bioturbated CLAYEY RADIOLARIAN DIATOM NANNOFOSIL OOZE. Faint burrows are scattered throughout. The purplish gray units have streaks of dark purple.

### Minor Lithologies:

Two minor lithologies are interbedded (app. 35 cm bedding) in the upper 3 m:

1. very light to medium brown, moderately bioturbated CLAYEY NANNOFOSIL DIATOM OOZE.
2. light brown to medium gray to light purple, moderately to heavily bioturbated CLAYEY NANNOFOSIL OOZE WITH RADIOLARIANS.

### General Description:

TRACE FOSSILS: Trace fossils include Planolites and Chondrites in Section 3, 0-60 cm, and Zoophycos in Section 2, 130-150 cm.

BANDING CONTRAST: Generally light banding contrast, with a few intervals of high banding contrast (dark purple and light gray bands).
### Major Lithology:

This core contains very light gray, moderately to heavily bioturbated **NANNOFOSIL Ooze with Diatoms** and minor amounts of radiolarians. Yellowish gray bands and burrows of diatom nannofossil ooze are present. Grayish purple and grayish blue green bands and streaks of color indicate diagenetic alteration.

### Minor Lithology:

This minor lithology consists of yellowish gray, heavily bioturbated **Diatom Nannofossil Ooze with poorly-defined grayish purple bands and solid and rind burrows.**

### General Description:

**COLOR:** Major (N8) and minor lithology (5Y 8/1) have bands of grayish purple (5RP 4/2), grayish blue green (5BG 5/2), light greenish gray (5GY 8/1), yellowish gray (5Y 8/1), very pale blue (5BB 2/1) and pinkish gray (5YR 8/1).

**TRACE FOSSILS:** Filled burrows and random burrows with diagenetic haloes are present throughout.

**BANDING CONTRAST:** Banding is generally weak throughout.
DIATOM NANNOFOSIL OOZE

Major Lithology:
This core consists of light greenish gray (5Y 7/2) to very light greenish gray (5GY 8/1) DIATOM NANNOFOSIL OOZE with variable, but low, amounts of radiolarians. Burrow fills in the sediment are slightly yellower than the matrix and contain greater percentages of diatoms. Burrows are frequently encircled by dark grayish purple (5P 4/2) and faint greenish reduction diagenetic haloes. Faint to prominent banding of the same colors also results from diagensis.

General Description:
TRACE FOSSILS: The entire core is subtly mottled with slightly lighter and darker shades of the dominant sediment color, probably indicating extensive bioturbation. Superimposed on this level of bioturbation are distinct burrows that are slightly yellower than the dominant sediment color and are diatom-rich. These burrows often have purplish and greenish haloes that are attributed to diagensis. Many very small burrows have undergone extensive diagnesis and contain fine pyrite.

BANDING CONTRAST: Most contrast is subtle, but that associated with reduction diagensis is very pronounced.
**SITE 844 HOLE B CORE 12H**

**CORED 99.5 - 109.0 mbsf**

**Reflectance (%)**

**GRAPE Density (g/cm³)**

**Graphic Lith.**

**Structure**

**Color**

**Description**

**DIATOM NANNOFOSIL OOZE**

Major Lithology:
This core contains very light gray (N8) DIATOM NANNOFOSIL OOZE, weakly mottled with prominent light gray (5Y 7/2) diatom-rich, filled burrows. Thin to medium banding of medium gray (N5) layers is present in the nannofossil ooze. An abrupt transition from the major lithology to light gray (5Y 7/2) nannofossil diatom ooze with laminations and thin bands of paler gray more nannofossil-rich sediment occurs in Section 6 at 70 cm.

Minor Lithology:
NANNOFOSIL DIATOM OOZE is present as medium gray (N5), clay-rich bands in the dominant nannofossil ooze and becomes the dominant lithology below Section 6, 70 cm.

General Description:
TRACE FOSSILS: Solid burrows and Planolites are common in the diatom nannofossil ooze.

BANDING CONTRAST: Weak medium banding is present in Section 1. Strong medium banding occurs above the color transition in Section 6.
**SITE 844 HOLE B CORE 13H**

**CORED 109.0 - 118.5 mbsf**

<table>
<thead>
<tr>
<th>Reflectance (%)</th>
<th>GRAPE Density (g/cm³)</th>
<th>Meter</th>
<th>Section</th>
<th>App</th>
<th>Structure</th>
<th>Disturbance</th>
<th>Sample</th>
<th>Color</th>
<th>Description</th>
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<tr>
<td>30 40 50 60</td>
<td>1.4 1.6</td>
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</table>

**Description**

**DIATOM NANNOFOSIL OOZE and NANNOFOSIL OOZE WITH DIATOMS**

**Major Lithology:**
This core consists of very light gray (N8) DIATOM NANNOFOSIL OOZE with prominent filled burrows of gray (5Y 7/2) diatom-rich sediment. A less diatomaceous component, NANNOFOSIL OOZE WITH DIATOMS is present through Section 4, 30 cm. It is white (N9-N10) in color.

**Minor Lithology:**
A NANNOFOSIL DIATOM OOZE, gray (5Y 7/2) in color, is present in Section 1, 0-74 cm; 115-120 cm; Section 3, 70-94 cm and as fill to burrows.

**General Description:**
TRACE FOSSILS: Large (1 cm in diameter), gray (5Y 7/2) burrows filled with diatom-rich material are common from Section 1, 74 cm, to Section 4, 30 cm. Planolites are prominent in the top of Section 3, and one isolated Zoophycos is present at Section 3, 105 cm.

COLOR BANDING: Variations between diatom and nannofossil-rich bands as described above. Dark bluish gray mottling is common.
Major Lithology:
This core contains very light gray (N8) DIATOM NANNOFOSIL OOZE that is mottled with abundant burrows filled with darker (5Y 7/2) diatom-rich material. Weak color bands (1 cm thick) occur at regularly spaced intervals about 20 to 30 cm apart.

Minor Lithology:
An abrupt transition to DIATOM OOZE occurs in Section 6, 107 cm. The diatom ooze (5Y7/2) is finely laminated and banded with lighter-colored (N8) thin layers of more nannofossil-rich sediment.

General Description:
TRACE FOSSILS: Abundant, filled burrows and Planolites occur throughout the nannofossil ooze.

BANDING CONTRAST: Weak to medium banding is present in the nannofossil ooze and strong banding is present in the diatom ooze.
**SITE 844 HOLE B CORE 15H**

**CORED 128.0 - 137.5 mbsf**

<table>
<thead>
<tr>
<th>Reflectance (%)</th>
<th>GRAPE Density (g/cm³)</th>
<th>Graphic Lith.</th>
<th>Age</th>
<th>Structure</th>
<th>Sample</th>
<th>Color</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>50 60 70 80</td>
<td>1.5 1.6 1.7</td>
<td>N8</td>
<td>S</td>
<td></td>
<td></td>
<td></td>
<td>DIATOM NANNOFOSSIL OOZE</td>
</tr>
</tbody>
</table>

**Major Lithology:**
This core contains very light gray (N8) mottled DIATOM NANNOFOSSIL OOZE. Burrows are filled with gray (5Y 7/2) nannofossil diatom ooze. Color bands on a cm- to mm-scale occur throughout, although they are generally concentrated in closely spaced bundles at certain horizons.

**General Description:**
**TRACE FOSSILS:** Solid burrows (some with rinds) are common throughout. They are typically about 1 to 1.5 cm in diameter and are filled with diatom-rich gray material.

**BANDING & LAMINATION CONTRAST:** Thin banding and some of the very fine mm-scale laminations are blue-gray or gray green in color. In Section 6, 96-101 cm, these fine laminations cut a solid burrow.
### SITE 844 HOLE B CORE 16H

<table>
<thead>
<tr>
<th>Reflectance (%)</th>
<th>GRAPE Density (g/cm³)</th>
<th>Graphic Lith.</th>
<th>Age</th>
<th>Structure</th>
<th>Sample</th>
<th>Color</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 50 60 70</td>
<td>1.5 1.6 1.7</td>
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</table>

**DIATOM NANNOFOSIL OOZE**

**Major Lithology:**
This core consists of very light gray (N8) nannofossil ooze mottled with abundant, filled burrows. The burrows are filled with a darker (5Y7/2) diatom-rich material. Weak color banding occurs throughout the core. Occasional intervals, 3 to 5 cm thick, contain fine color laminations (1-2 mm thick).

**General Description:**
TRACE FOSSILS: Abundant burrows and Planolites structures are filled with a diatom-rich (50-55%) material.

**BANDING CONTRAST:** Moderate to strong.
FORAMINIFER DIATOM NANNOFOSIL Ooze

Major Lithology:
This core consists of very light gray (N8 to N9) FORAMINIFER DIATOM NANNOFOSIL Ooze mottled with abundant filled burrows. The burrows are filled with diatom-rich material composed of 50% diatoms and 50% nannofossils. Weak color banding occurs as thin (3-5 cm) intervals throughout the core. Fine (1-3 mm) color laminations are occasionally present.

General Description:
A small pumice pod is present in Section 2, 136 cm.

TRACE FOSSILS: Abundant burrows and rind burrows occur throughout the cored interval, especially from Section 4, 100 cm, to CC.

BANDING CONTRAST: Moderate to high.
FORAMINIFER NANNOFOSIL OOZE WITH DIATOMS AND CLAY

Major Lithology:
This core consists of very light gray (N8 to N9) FORAMINIFER NANNOFOSIL OOZE WITH DIATOMS AND CLAY with small variable amounts of radiolarians. Burrows are filled with sediment that is richer in diatoms and are frequently circled by dark grayish purple (5P 4/2) and faint greenish reduction diagenetic haloes. Faint to prominent banding of the same colors results from diagenesis.

General Description:
TRACE FOSSILS: The entire core is subtly mottled with slightly lighter and darker shades of the dominant sediment color, probably indicating extensive bioturbation. Superimposed on this level of bioturbation are distinct burrows that are slightly yellower than the dominant sediment color and are diatom-rich. These burrows often have purplish and greenish colors haloes resulting from diagenetic alteration. Many very small burrows have undergone extensive diagnosis and contain fine pyrite.

BANDING CONTRAST: Most contrast is subtle, but that associated with reduction diagnosis is very pronounced.
General Description: The core consists of light grey (N8) FORAMINIFER NANNOFOSIL OOZE WITH DIATOMS. There are small variable amounts of radiolarians and clay. Burrow fills in the sediment are slightly yellower and contain greater percentages of diatoms. Burrows are frequently circled by dark grayish purple (5P 4/2) and faint greenish reduction diagenetic haloes. Faint to prominent banding of the same colors results from diagenesis.

Minor Lithologies: Minor lithologies include NANNOFOSIL OOZE WITH DIATOMS AND FORAMINIFERS and CLAYEY NANNOFOSIL OOZE WITH FORAMINIFERS. The boundaries between these and the major lithology are gradational.

Major Lithology: FORAMINIFER NANNOFOSIL OOZE WITH DIATOMS. The entire core is subtly mottled with slightly lighter and darker shades of the dominant sediment color, probably indicating extensive bioturbation. Superimposed on this level of bioturbation are distinct burrows that are slightly yellower than the dominant sediment color and are diatom-rich. These burrows often have purplish and greenish diagenetic haloes. Many very small burrows have undergone extensive diagnosis and contain fine pyrite.

BANDING CONTRAST: Most contrast is subtle, but that associated with reduction diagenesis is very pronounced.
<table>
<thead>
<tr>
<th>Reflectance (%)</th>
<th>GRAPE Density (g/cm³)</th>
<th>Major Lithology: FORAMINIFER NANNFOSSIL OOZE WITH DIATOMS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>This core consists of very light gray (N8) to very light bluish gray (5B 9/1) FORAMINIFER NANNFOSSIL OOZE WITH DIATOMS. Burrow fills in the sediment are slightly yellower and contain greater percentages of diatoms. Burrows are frequently circled by dark grayish purple (5P 4/2) and faint greenish reduction diagenetic haloes. These is faint, thin to medium banding of the sediment.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Minor Lithology: The minor lithology, located between Section 5,15 cm, and Section 5,130 cm, is light to very light greenish gray (5Y 6/1 to 5Y 5/1) DIATOM NANNFOSSIL OOZE WITH CLAY that contains up to 20% diatoms. This interval is yellower than those above and below and has indistinct horizontal banding.</td>
</tr>
<tr>
<td></td>
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<td>General Description: TRACY FOSSILS: The entire core is subtly mottled with slightly lighter and darker shades of the dominant sediment color, probably indicating extensive bioturbation. Superimposed on this level of bioturbation are distinct burrows that are slightly yellower than the dominant sediment color and are diatom-rich. These burrows often have purplish and greenish diagenetic haloes. Many very small burrows have undergone extensive diagenesis and contain fine pyrite.</td>
</tr>
<tr>
<td></td>
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<td>BANDING CONTRAST: Most contrast is subtle, but that associated with reduction diagenesis is very pronounced.</td>
</tr>
</tbody>
</table>
### Description

**NANNOFOSSIL Ooze WITH FORAMINIFERS**

**Major Lithology:**
- This core contains very light gray (N8) to very light bluish gray (5B 9/1) NANNOFOSSIL Ooze WITH FORAMINIFERS and small variable amounts of diatoms. Burrow fills in the sediment are slightly yellower and contain greater percentages of diatoms. Burrows are frequently circled by dark grayish purple (5P 4/2) reduction diagenetic haloes. There is faint, thin to medium banding of the sediment.

**Minor Lithology:**
- Light to very light greenish gray (5Y 8/1) and faint greenish to 5Y 6/1) CLAYEY DIATOM NANNOFOSSIL Ooze WITH FORAMINIFERS that contains up to 25% diatoms is interbedded with the major lithology between Section 3, 135 cm, and Section 6, 100 cm.

**General Description:**
- TRACE FOSSILS: The entire core is subtly mottled with slightly lighter and darker shades of the dominant sediment color, probably indicating extensive bioturbation. Superimposed on this level of bioturbation are distinct burrows that are slightly yellower than the dominant sediment color and are diatom rich. These burrows often have purplish and greenish diagenetic haloes. Many very small burrows have undergone extensive diagenesis and contain fine pyrite.

- BANDING CONTRAST: Contrast is subtle above Section 4, and more distinct below.
CLAYEY FORAMINIFER NANNOFOSSIL Ooze

Major Lithology:
This core consists of intensely to moderately bioturbated very pale bluish gray (5B 9/1) CLAYEY FORAMINIFER NANNOFOSSIL Ooze. The core is indistinctly mottled throughout with (1) dusky grayish blue (5PB 4/2) streaks, spots, mottles, and thin layers with finely disseminated pyrite; (2) pale yellowish gray (5Y 7/3) diatom-rich sediment, primarily as burrow fills. Many of these burrows are surrounded by grayish blue haloes with finely disseminated pyrite; and (3) pale bluish gray (5B 8/1) irregular mottles and thin gradational bands (about 2 cm thick).

Minor Lithology:
The minor lithology is very pale bluish green (5GY 9/1) NANNOFOSSIL Ooze WITH FORAMINIFERS, less intensely mottled and bioturbated than the overlying sediment. This sediment has markedly fewer streaks and mottles with disseminated pyrite (5PB 4/2), but a similar number of burrows and mottles of yellowish gray. The sediment becomes more blue in color toward the base of the core.

General Description:
TRACE FOSSILS: See lithologic description.

BANDING CONTRAST: Generally very indistinct except when bands contain finely disseminated pyrite.
**Major Lithology:**
This core contains a very pale blue-green (almost white, 5BG 8/6), moderately bioturbated NANNOFOSIL OOZE WITH CLAY AND FORAMINIFERS. Various colored spots, streaks, and faint, grayish purple (5P 4/2) and grayish green (5BG 5/2) color bands are present throughout the core. Some yellowish gray (5Y 7/2) burrows have a slightly larger siliceous component and purplish haloes.

**General Description:**
TRACE FOSSILS: Solid burrows are found throughout.

**BANDING CONTRAST:** Generally weak, but slightly higher in Section 3.
Major Lithology:
This core consists of slightly to moderately bioturbated very pale blue green (5BG 8/6) FORAMINIFER NANNOFOSSIL OOZE. Thin gradational bands, grayish green (5GY 6/1), grayish purple (5P 4/2), and yellowish gray (5Y 8/1) in color, are present throughout. Burrows and mottling are less prevalent than higher up in the section but, when present, are often filled with yellowish gray sediment. Sediment color becomes whiter (5B 9/1) in Section 3, 70 cm through Section 4, 60 cm.

General Description:
TRACE FOSSILS: The core is slightly to moderately bioturbated with solid burrows.

BANDING CONTRAST: Banding is generally indistinct.
<table>
<thead>
<tr>
<th>Reflectance (%)</th>
<th>GRAPE Density (g/cm³)</th>
<th>Marker</th>
<th>Graphic Lith.</th>
<th>Age</th>
<th>Structure</th>
<th>Sample</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 50</td>
<td>1.5 1.6 1.7</td>
<td></td>
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</tbody>
</table>

**Foraminifer Nannofossil Ooze with Diatoms**

**Major Lithology:**
This core contains very light greenish gray (5G 9/1), lightly bioturbated FORAMINIFER NANNOFOSIL Ooze with DIATOMS. There are a few purplish gray (5P 4/2) and greenish gray (5G 6/1) streaks and spots and some burrows filled with light yellowish gray sediment (5Y 8/1), which probably have higher siliceous contents.

**General Description:**
COLOR: There is a gradual color change to greenish gray (5G 8/1) from the middle of Section 4 to Section 5, 30 cm, then a transition back to the general color of the core.

TRACE FOSSILS: A few faint solid burrows.

BANDING CONTRAST: Generally low.

Note that 0-12 cm in Section 1 is void, and there were only about 8.5 m recovered in this core.
Major Lithology:
The core contains very light greenish gray (5G 8/1), moderately bioturbated FORAMINIFER NANNOFOSIL OOZE. There are a few purplish gray (5P 4/2) and greenish gray (5G 6/1) streaks and spots in the upper two sections and fewer below. Burrows throughout the core are filled with light yellowish gray sediment (5Y 8/1), which has a higher diatom content (25%). There is a slightly lighter (N8) interval in the top part of Section 2.

Minor Lithology:
The minor lithology of the core is DIATOM NANNOFOSIL OOZE WITH FORAMINIFERS. This lithology is slightly darker in color than the major lithology.

General Description:
TRACE FOSSILS. The trace fossils in this core are easily visible in Sections 4 though 7 because they were split with a saw. Some good examples of Planolites are at Section 4, 0-10 cm, Section 5, 103-110 cm; Chondrites at Section 4, 32-40 cm, Section 5, 122-130 cm and 23-35 cm; rind burrows at Section 5, 26 cm, Section 6, 91 cm, and Section 6, 68 cm; Skolithos at Section 5, 107-110 cm; Zoophycos at Section 5, 69-64 cm.

BANDING CONTRAST: Weak to medium.

Sections 1 - 3 were split with wire.
Sections 4 - 7 were cut with a saw. The entire core is "biscuited" from coring disturbance.
<table>
<thead>
<tr>
<th>Meter</th>
<th>Graphic Lith.</th>
<th>Structure</th>
<th>Sample</th>
<th>Color</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
<td>FORAMINIFER NANNOFOSIL OOZE WITH DIATOMS</td>
</tr>
</tbody>
</table>

Major Lithology:
This core contains very light gray to white (N8-N9), FORAMINIFER NANNOFOSIL OOZE WITH DIATOMS.

General Description:
TRACE FOSSILS: Planolites burrow fill are light gray (5Y 7/2) or greenish in color.
<table>
<thead>
<tr>
<th>Reflectance (%)</th>
<th>GRAPE Density (g/cm³)</th>
<th>Graphic Lith.</th>
<th>Structure</th>
<th>Sample</th>
<th>Color</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td>30 40 50</td>
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</tbody>
</table>

**SITE 844 HOLE B CORE 28X**

**CORERD 252.6 - 261.9 mbsf**

**DIATOM FORAMINIFER NANNOFOSSIL OOZE**

- **Major Lithology:**
  - This core consists of light gray (N7) DIATOM FORAMINIFER NANNOFOSSIL OOZE. Intervals of moderate to heavy bioturbation occur as light greenish gray (5B 7/1) in color. Isolated color bands are present throughout and are moderately to heavily bioturbated. Filled burrows (5Y 7/1) contain nannofossil diatom ooze with foraminifers.

- **Minor Lithologies:**
  - An isolated ASH bed is present in Section 3, 123-133 cm, (5YR 3/2). NANNOFOSSIL DIATOM OOZE WITH FORAMINIFERS fills Planolites burrows.

**General Description:**

- **TRACE FOSSILS:** Planolites and rind burrows are common and are filled with nannofossil diatom ooze. Chondrites are often found within the burrow fill. Overall, bioturbation traces are minor.

- **BANDING:** Weak color banding on a meter scale alternates from light gray to light greenish gray in color. The ash layer at Section 3, 123-133 cm is sharply delineated.
<table>
<thead>
<tr>
<th>Reflectance (%)</th>
<th>GRAPE Density (g/cm³)</th>
<th>Structure</th>
<th>Sample</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>00 - 40</td>
<td>1.5 - 1.7</td>
<td></td>
<td></td>
<td>FORAMINIFER NANNOFI ss COZE</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Major Lithology: This core contains FORAMINIFER NANNOFI ss COZE mottled in color between light bluish gray (5B 7/1) and light greenish gray (5G 7/1). The sediment changes gradually with depth to light greenish gray. Moderate to heavy bioturbation is present throughout core with burrow structures commonly filled with a relatively diatom-rich sediment.</td>
</tr>
<tr>
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<td></td>
<td>Minor Lithology: Section 4, 105-112 cm, is composed of light olive gray (5Y 7/1), highly bioturbated NANNOFI ss DIATOM OOZE WITH FORAMINIFERS.</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>General Description: TRACE FOSSILS: Trace fossils are common to abundant throughout and filled massive burrows. Planolites, Skolithos and Zoophycos are present. Color rinds are found around many of the burrows.</td>
</tr>
<tr>
<td></td>
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<td>BANDING CONTRAST: Generally light except for darker medium gray (N5) band in Section 4, 75-78 cm.</td>
</tr>
</tbody>
</table>
FORAMINIFER NANNOFOSSIL Ooze WITH DIATOMS

Major Lithology:
This core consists of very light greenish gray to very light gray (5G 7/1 to N8) FORAMINIFER NANNOFOSSIL Ooze WITH DIATOMS.

Minor Lithology:
Gray brown (5Y 4/1) graded ASH AND VITRIC CLAY layers, 2-6 cm thick, are present in Section 5, 22-25 cm, and 108-113 cm.

General Description:
TRACE FOSSILS: Light to moderate burrowing is common and Planolites is present throughout the core. Chondrites is present within Planolites in Sections 1, 2, 6 & CC. Some solid and rind burrows are present in the top of Section 2. Planolites burrows are generally brownish gray (5Y 7/1).

COLOR BANDING: In Sections 4 and 5, light greenish gray color bands alternate with very light gray bands.

LAMINATION: Bundles of laminations are 5G 6/1 in color.
Major Lithology:
This core contains FORAMINIFER NANNOFOSIL OOZE. The color of the sediment ranges from very light gray (N8) to light bluish gray (5B 7/1) to light greenish gray (5GY 7/1). Distinct bands of darker material are found in Section 1, 42-47 cm (10YR 5/2), 51-52 cm (10YR 2/2), 78-86 cm (10YR 6/2), Section 3, 130-132 cm (10YR 6/3), and Section 6, 126-129 cm (5G 3/2). Bioturbation is slight throughout most of the core with the exception of Section 6, 22-26 cm, where there is moderate bioturbation.

Minor Lithologies:
The sediment becomes more diatom-rich with depth, grading to a FORAMINIFER DIATOM NANNOFOSIL OOZE in Section 5, and to DIATOM NANNOFOSIL OOZE in Section 6. There is an abrupt change to light reddish brown (5YR 6/4) METALLIFEROUS NANNOFOSIL OOZE WITH DIATOMS in Section 7, 32 cm, followed by a gradual change to very light gray (N8) DIATOM NANNOFOSIL OOZE at CC, 30 cm. Below this depth there is a 10 cm-thick interval of dark greenish gray DIATOM NANNOFOSIL OOZE underlain by BASALT.

General Description:
TRACE FOSSILS: Filled burrow structures and occasional Chondrites are found throughout the core.

BANDING CONTRAST: High.

NOTE: Void in Section 1, 1-3 cm.
CLAYEY DIATOM Ooze

Major Lithology:
This core contains variegated and mottled, medium to dark greenish gray CLAYEY DIATOM Ooze with varying amounts of radiolarians. The upper portion of the core is brown (10YR 4/2), the lower sections are highly mottled shades of olive (10Y 4/1 to 5/2). The entire core is slightly to moderately bioturbated.

Minor Lithology:
A dark gray (5YR 4/1) ASH layer is found in Section 1, 99-101 cm.

General Description:
TRACE FOSSILS: The core is highly burrowed with abundant rind and filled burrows, including Zoophycos, Planolites and Skolithos. Open burrows are present in Section 1, 77 and 140 cm.

BANDING CONTRAST: Moderate.
The dominant lithology in this core is **CLAY WITH DIATOMS**. The core is mottled greenish gray to light greenish gray. Thin dark gray (N3) color bands are common. Burrows are filled with a lighter olive (5Y 5/2) sediment that is richer in nannofossils and diatoms.

Minor lithologies: Minor lithologies in this core are **CLAYEY DIATOM Ooze** and **CLAYEY FORAMINIFER DIATOM Ooze WITH NANNOFOSILS**. These lithologies have variable amounts of nannofossils, foraminifers and clay. Minor amounts of volcanic glass and radiolarians are also present. An **ASH layer** is present in the interval from Section 5, 146 cm to Section 6, 26 cm.

General Description:
- **COLOR**: The sediment is mottled medium to dark greenish gray (10Y 4/2 to 5GY 4/1). The interval between Section 5, 146 cm and Section 6, 26 cm has fine-scale banding and laminations surrounding an ash layer that is dark gray (5YR 4/1) to dark greenish black (5GY 3/1).
- **TRACE FOSSILS**: The core is moderately bioturbated with filled burrows, Planolites and rind structures.
- **BANDING CONTRAST**: Medium.

**NOTE**: Voids are present in Section 1, 116-126 cm, and Section 2, 95-98 cm.
### Major Lithology:

The core contains slightly to extensively bioturbated CLAY WITH DIATOMS AND RADIOLARIANS and minor amounts of volcanic glass. The sediment is greenish gray (5GY 6/1) at the top of core and brownish yellow (10YR 5/1 to 6/6) at the bottom of core.

### Minor Lithologies:

- A lightly to extensively bioturbated gray (5Y 6/2) FORAMINIFER NANNOFOSIL Ooze is present in Section 3. Very pale brown (10YR 6/4, 7/4 and 8/3) FORAMINIFER NANNOFOSIL Ooze WITH CLAY mottled with dark brown (10YR 4/2) is present in Sections 6 and 7. A lower CLAY interval in Sections 4 and 5 contains only trace amounts of diatoms.

### General Description:

- Trace fossils: The bioturbation is generally solid burrows. Sections 6 and 7 have good examples of Zoophycos and Chondrites.
- Banding contrast: High.
### Major Lithologies:

This core consists of grayish brown RADIOLARIAN CLAY WITH DIATOMS AND NANNOFOSILS interbedded with very pale brown FORAMINIFER NANNOFOSIL OOZE WITH CLAY. There is dispersed volcanic ash in the clay near the top of Section 5. The entire core is extensively bioturbated. The boundaries between lithologies are not well defined.

### General Description:

*TRACE FOSSILS:* There are many solid burrows, Zoophycos and Skolithos throughout entire core.

*BANDING CONTRAST:* Low to medium.

#### Description

<table>
<thead>
<tr>
<th>Color</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RADIOLARIAN CLAY WITH DIATOMS AND NANNOFOSILS and FORAMINIFER NANNOFOSIL OOZE WITH CLAY</td>
</tr>
</tbody>
</table>

#### Graphic Lith.

- **Structure:**
  - S

- **Age:**
  - 10YR 5/2

- **Color:**
  - M

- **Lithology:**
  - GRAPE Density (g/cm³)
  - 1.3, 1.4, 1.5
**Description**

**Major Lithology:**
The dominant lithology in the core is pale brown gray RADIOLARIAN OOZE WITH DIATOMS with minor amounts of clay.

**Minor Lithologies:**
Interbedded with the major lithology are 1) light to medium gray NANNOFOSIL OOZE and NANNOFOSIL OOZE WITH DIATOMS AND CLAY with minor amounts of foraminifers and radiolarians, 2) SPICULAR DIATOM OOZE WITH CLAY AND RADIOLARIANS. The contacts between interbedded lithologies are indistinct, and the entire core is extensively bioturbated.

**General Description:**
TRACE FOSSILS: Solid burrows, Skolithos and Zoophycos are found throughout entire core.

**BANDING CONTRAST:** Low to medium.
### Major Lithologies:
This core consists of extensively bioturated gray CLAYEY RADIOLARIAN OOZE interbedded and mottled with light gray DIATOM NANNOFossil RADIOLARIAN OOZE.

### Minor Lithologies:
The radiolarian ooze-dominated lithologies are interbedded with lighter colored DIATOM RADIOLARIAN NANNOFOSSIL OOZE and darker colored DIATOM RADIOLARIAN CLAY.

### General Description:
TRACE FOSSILS: Many solid burrows, Skolithos, Zoophycos, and a few rind burrows are found throughout the core.

BANDING CONTRAST: Medium.
Major Lithologies: This core consists of light bluish gray, slightly to moderately bioturbated DIATOM NANNOFOSIL OOZE with varying amounts of diatoms. This lithology is interbedded and mixed with greenish gray NANNOFOSIL DIATOM OOZE. The general color of the sediment becomes lighter from the top to the bottom of the core.

Minor Lithologies: Minor lithologies include VITRIC DIATOM NANNOFOSIL OOZE WITH DIATOMS near the top of Section 1 and NANNOFOSIL OOZE WITH CLAY in the light bluish gray thinly banded interval of Sections 6 and 7.

General Description: TRACE FOSSILS: Solid burrows, Zoophycos, Planolites and Skolithos are present throughout core, especially in the darker sections.

BANDING CONTRAST: Light to medium. Color banding varying from greenish gray to light bluish gray (dark bands are marked by the arrows in the structures column). The light bluish gray sections (middle of Section 6 to bottom of core) have purplish gray thin bands (5GY 4/2) and greenish gray bands (5GY 5/1).
<table>
<thead>
<tr>
<th>Section</th>
<th>Structure</th>
<th>Sample</th>
<th>Color</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>S</td>
<td></td>
<td></td>
<td>NANNOFOSIL OOZE WITH DIATOMS AND FORAMINIFERS</td>
</tr>
</tbody>
</table>

**Major Lithology:**

This core consists of white to light bluish gray (N9 to 5B 7/1) NANNOFOSIL OOZE WITH DIATOMS AND FORAMINIFERS that grades into a thinly banded and laminated DIATOM OOZE WITH NANNOFOSILS. Grayish purple (10R 6/1) bands are common. A sharp transition back to nannofossil ooze occurs at Section 5, 26 cm.

**Minor Lithologies:**

The minor lithologies are DIATOM OOZE WITH NANNOFOSILS AND DIATOM OOZE WITH FORAMINIFERS. This lithologies are olive gray (5Y 4/2) to dusty yellow (5Y 6/4) and are finely laminated.

**General Description:**

TRACE FOSSILS: Filled burrows and Planolites are common.

**BANDING CONTRAST:** The contrast is moderate in the nannofossil ooze; slight to moderate in the diatomaceous ooze.
### Major Lithology:

This core consists of light bluish gray (5B 7/1) NANNOFossil ooze with minor amounts of radiolarians and diatoms. Burrows frequently contain pyrite (10-20%) and are circled by dark grayish purple (5P 4/2) and faint greenish haloes. There is also faint to prominent banding of the same colors throughout cored interval. A small pumice fragment is located at Section 6, 143 cm.

### General Description:

**TRACE FOSSILS:** Slight bioturbation is present, primarily filled burrows and Planolites.

**BANDING CONTRAST:** Slight.

**NOTE:** A void occurs in Section 1, 84-90 cm.
### Major Lithology:

This core consists of a very light gray (N8) to bluish white (5B 9/1) DIATOM NANNOSFOSIL Ooze with Radiolarians and Foraminifers. The core is mottled and faintly banded with purple. Purple vertical streaks, burrow haloes, and deep purple pyrite burrow fills occur throughout the core.

### Minor Lithology:

A pale gray (5Y7/1) FORAMINIFER DIATOM NANNOSFOSIL Ooze with Radiolarians that contains approximately 30% diatoms occurs as fill in solid burrows and as a major component of more diffuse burrowed bands in Section 3, 75-98 cm and Section 4, 98-100 cm. This lithology increases in abundance from Section 3 to the base of the core.

### General Description:

**TRACE FOSSILS:** Light to moderate bioturbation is present throughout the core. Solid burrows are most common, some with multiple purple haloes (rinds). Planolites also are present, and in Sections 3, 4, and 6 Chondrites are present within Planolites burrows. A single Zoophycos trail is present at 6, 124 cm. Purple coloration of haloes and pyrite burrow fills is common.

**BANDING CONTRAST:** Very faint. Occasional bundles of faint purple laminations.
### Reflectance

<table>
<thead>
<tr>
<th>Reflectance (%)</th>
<th>GRAPE Density (g/cm³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
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<tr>
<td>50</td>
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<td>60</td>
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### Structure

<table>
<thead>
<tr>
<th>Graphic Lith.</th>
<th>S</th>
<th>M</th>
</tr>
</thead>
</table>

### Description

**Major Lithology:**
This core consists of white (N9) to light bluish gray (5B 7/1) NANNOFOSSIL Ooze with DIATOMS. The sediment also contains minor amounts of radiolarians. Burrows are frequently circled by dark grayish purple (5P 4/2) and faint greenish haloes. Faint to prominent banding of the same colors occurs throughout the cored interval.

**Minor Lithology:**
Burrow-filling is composed of a pale gray (5Y 7/1) DIATOM NANNOFOSSIL Ooze (20-30% diatoms).

**General Description:**
TRACE FOSSILS: Bioturbation increases from slight to moderate downcore and the primary trace fossils are filled burrows and Planolites.

**BANDING CONTRAST:** Slight to moderate.
SITE 844 HOLE C CORE 12H
CORED 104.1 - 113.6 mbsf

<table>
<thead>
<tr>
<th>Reflectance (%)</th>
<th>GRAPE Density (g/cm²)</th>
<th>Lith. Graph.</th>
<th>Age</th>
<th>Structure</th>
<th>Datum</th>
<th>Sample</th>
<th>Color</th>
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</thead>
<tbody>
<tr>
<td>30</td>
<td>1.4</td>
<td>N8</td>
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<td>50</td>
<td>1.8</td>
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</tbody>
</table>

**Description**

**DIATOM NANNOFOSIL OOZE WITH FORAMINIFERS**

**Major Lithology:**
- This core consists of very light gray (NB) to light bluish gray (5B 7/1) DIATOM NANNOFOSIL OOZE WITH FORAMINIFERS (about 70% nannofossils, 20% diatoms, 10% foraminifers) and minor amounts of radiolarians. Burrows are frequently circled by dark grayish purple (5P 4/2) and faint greenish haloes. Faint to prominent banding of the same colors occurs throughout the cored interval. Burrows are filled with pale gray (5Y 7/1) diatom nannofossil ooze (20-30% diatoms). This lithology is also present as a very light gray (NB) interval with thin bands of pale gray (5Y 7/1) DIATOM OOZE below a sharp transition at Section 5, 143 cm.

**Minor Lithologies:**
- A minor lithology of light olive gray NANNOFOSIL DIATOM OOZE (70% diatoms, 30% nannofossils) with pale gray laminations and thin bands occurs over the interval from Section 3, 100 cm, to Section 4, 37 cm. An isolated small olive (5Y 4/3) chert nodule is present in Section 4, at 108 cm.

**General Description:**
- TRACE FOSSILS: Bioturbation is moderate in the nannofossil ooze section. Large (5 cm wide) Skolithos are present in Section 3, 75 cm to 97 cm. Some Chondrites are present in Planolites burrows.

**BANDING CONTRAST:** Slight to moderate. Laminations and thin color banding are seen in the nannofossil diatom ooze in Sections 4 and 5.
Major Lithology:
This core contains very light gray (N8) to light bluish gray (5B 7/1) NANNOFOSIL OOZE WITH FORAMINIFERS (10%) AND DIATOMS (7%). Burrows are frequently circled by dark grayish purple (SP 4/2) and faint greenish haloes. Burrows are also filled with pale gray (5Y 7/1) diatom nannofossil ooze (20-30% diatoms).

Minor Lithologies:
A light olive gray (5Y 6/2) NANNOFOSIL DIATOM OOZE (70% diatoms, 30% nannofossils) is present in Section 1, 1-15 cm.

General Description:
TRACE FOSSILS: Most trace fossils are solid burrows, but they are often obscured by drilling disturbance. Chondrites are present in solid burrows in Section 6, 132 cm.

NOTE: The entire core was disturbed during the coring process.
## Major Lithology:

This core consists of very light gray (N8) to light bluish gray (5B 7/1) DIATOM NANNOFOSSIL OOZE WITH FORAMINIFERS and minor amounts of radiolarians. Burrows are frequently circled by dark grayish purple (5P 4/2) and faint greenish haloes. Faint to prominent banding of the same colors occurs throughout the cored intervals. Burrows are filled with pale gray (5Y 7/1) diatom nannofossil ooze (20–30% diatoms).

## Minor Lithologies:

A light olive gray (5Y 6/2) NANNOFOSSIL DIATOM OOZE (70% diatoms) with laminations and thin bands of pale gray nannofossil-rich sediment is present in the lower part of Section 3 and the upper part of Section 4.

## General Description:

TRACE FOSSILS: Bioturbation is moderate in the siliceous nannofossil ooze interval. Abundant filled burrows, Planolites, Skolithos and rind burrows are present in the nannofossil ooze interval.

BANDING CONTRAST: Slight to moderate. Laminations and thin color banding occur in the interval containing nannofossil diatom ooze.

Note: A large (2 cm) diatomaceous chert fragment was found in Section 1, 7 cm, most likely a result of side-wall contamination from above.
### Description

**Major Lithology:**
This core contains very light gray (N8) to light bluish gray (5B 7/1) DIATOM NANNOFOSIL Ooze (75% nannofossils, 15% diatoms) and minor radiolarians and foraminifers. Burrow haloes and faint banding occur throughout as dark grayish purple (5P 4/2) and faint greenish colors. Some burrows are filled with pale gray (5Y 7/1) DIATOM NANNOFOSIL Ooze (20-30% diatoms).

**General Description:**
TRACE FOSSILS: Solid burrows (some with rinds) are common through the entire core. They are typically about 1 - 1.5 cm in diameter and are filled with diatom-rich gray sediment.

BANDING CONTRAST: Thin banding and some very fine mm-scale laminations, blue-gray or gray green in color are present throughout. In Section 6, 96-101 cm, these fine laminations cross-cut a solid burrow. Color bands on a cm- to mm-scale also occur, although they are generally concentrated at certain horizons in closely-spaced bundles.

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<table>
<thead>
<tr>
<th>Reflectance (%)</th>
<th>GRAPE Density (g/cm³)</th>
<th>Graphic Lith.</th>
<th>Age</th>
<th>Structure</th>
<th>Sample</th>
<th>Color</th>
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</thead>
<tbody>
<tr>
<td>40</td>
<td>1.6</td>
<td>N8</td>
<td>1</td>
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<tr>
<td>50</td>
<td>1.7</td>
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<td>2</td>
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<tr>
<td>60</td>
<td>1.8</td>
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<td>3</td>
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<tr>
<td>70</td>
<td>1.8</td>
<td>Middle Miocene</td>
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### GRAPE Density (g/cm³)

<table>
<thead>
<tr>
<th>GRAPE Density</th>
<th>Diatom Nannofossil Ooze</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.6</td>
<td>75% nannofossils, 15% diatoms</td>
</tr>
<tr>
<td>1.7</td>
<td></td>
</tr>
<tr>
<td>1.8</td>
<td></td>
</tr>
</tbody>
</table>

### Description

**DIATOM NANNOFOSIL Ooze**

**Major Lithology:**
This core consists of a very light gray (N8) to light bluish gray (5B 7/1) diatom nannofossil ooze (75% nannofossils, 15% diatoms) with minor amounts of radiolarians and foraminifers. Burrow haloes and faint banding occur throughout as dark grayish purple (5P 4/2) and faint greenish colors. Burrows are sometimes filled with pale gray (5Y 7/1) diatom nannofossil ooze (20-30% diatoms).

**General Description:**
TRACE FOSSILS: Solid burrows and Planolites occur throughout. Planolites commonly are burrowed by Chondrites. A possible Teichichnus may be adjacent to Zoophycos at Section 6, 45 cm.

**BANDING CONTRAST:** Faint pale purple banding and some lamination occur throughout.

Diatom-rich burrowed horizons occur at:
- Section 1, 50-100 cm
- Section 2, 70-90 cm
- Section 3, 0-40 cm
- Section 5, 10-20 cm.
<table>
<thead>
<tr>
<th>Reflectance (%)</th>
<th>GRAPE Density (g/cm³)</th>
<th>Color</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 50 60</td>
<td>1.6 1.7 1.8</td>
<td></td>
<td>NANNOfossil ooze with diatoms and Radiolarians</td>
</tr>
</tbody>
</table>

**Major Lithology:**
This core consists of a very pale gray (N8) to light bluish gray (6B 7/1), moderately to heavily bioturbated NANNOfossil ooze with diatoms and Radiolarians and minor amounts of foraminifers. Burrows are filled with light yellowish gray (5Y 7/3) sediment with higher diatom content than the surrounding nannofossil ooze. There are thin laminations, streaks and spots of purplish gray (5P 4/2) and greenish gray (5G 7/1) throughout.

**General Description:**
TRACE FOSSILS: Burrows are found throughout core, some with diagenetic haloes.

BANDING CONTRAST: Low to High.
**Major Lithology:**
This core consists of very pale gray (N8) to light bluish gray (5B 7/1), lightly to heavily bioturbated NANNOFossil Ooze With Diatoms and minor amounts of foraminifers and radiolarians. Burrows are filled with light yellowish gray (5Y 7/3) material with a higher diatom content than the surrounding nannofossil ooze. There are purplish gray (5P 4/2) and greenish gray (5G 7/1) thin laminations, streaks and spots throughout.

**General Description:**
TRACE FOSSILS: Burrows are found throughout, some with diagenetic haloes.
BANDING CONTRAST: Low to high.
Major Lithology:
This core consists of very pale gray (N/8) to light bluish gray (5B 7/1), moderately bioturbated NANNOFOSIL OOZE WITH and minor amounts of foraminifers. Burrows are filled with light yellowish gray (5Y 7/3) material with a higher diatom content than surrounding nannofossil ooze. There are thin laminations, streaks and spots of purplish gray (5P 4/2) and greenish gray (5G 7/1) throughout.

General Description:
TRACE FOSSILS: Burrows are found throughout, some with diagenetic halos.

BANDING CONTRAST: Low to high.
<table>
<thead>
<tr>
<th>Reflectance (%)</th>
<th>GRAPE Density (g/cm³)</th>
<th>Water</th>
<th>Graphic Lith.</th>
<th>Age</th>
<th>Structure</th>
<th>Material</th>
<th>Description</th>
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<tbody>
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</tbody>
</table>

**SITE 844 HOLE D CORE 1H**

**CORED 24.0 - 33.5 mbsf**

**Description**

CLAYEY DIATOM OOZE and NANNOFOSIL OOZE WITH CLAY, DIATOMS AND RADIOLARIANS

**Major Lithologies:**

This core consists of very pale brown NANNOFOSIL OOZE WITH CLAY, DIATOMS AND RADIOLARIANS interbedded and mixed with grayish brown CLAYEY DIATOM OOZE with varying amounts of radiolarians, diatoms and volcanic glass. The entire core is extensively bioturbated with mottling and mixing between the two lithologies. Generally, the core becomes lighter in color (more carbonate-rich) towards the bottom.

**Minor Lithology:**

The minor lithology in this core is NANNOFOSIL OOZE WITH CLAY AND FORAMINIFERS.

**General Description:**

TRACE FOSSILS: There are many solid burrows, Chondrites and Zoophycos throughout core. Good examples of Chondrites and Zoophycos are located in Section 2, 26-101 cm, and of Zoophycos in Section 3, 110-120 cm, and 137-143 cm; and Section 4, at 2, 7, 16, and 18 cm.

BANDING CONTRAST: Low to medium.