Interbedded NANNOFOSIL Ooze and FORAMINIFER-BEARING NANNOFOSIL Ooze

Section 1, 0-5 cm, is highly disturbed.

Major lithology: Interbedded nannofossil ooze and foraminifer-bearing nannofossil ooze. Contacts are gradational. Beds range from light greenish gray (5GY 7/1, 10Y 6/2) to olive gray (5Y 4/2) and olive (5Y 4/3, 5/3). Bioturbation is minor to moderate throughout, with some pyrite-imregnated burrows.

SMOER SLIDE SUMMARY (%):

<table>
<thead>
<tr>
<th>TEXTURE:</th>
<th>D</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>Silt</td>
<td>20</td>
<td>17</td>
</tr>
<tr>
<td>Clay</td>
<td>70</td>
<td>60</td>
</tr>
</tbody>
</table>

COMPOSITION:

- Access minerals: 1%
- Clay: 10%
- Fossils: 2%
- Foraminifers: 10%
- Inorganic calcite: 18%
- Mica: 1%
- Nannofossils: 60%
- Osseous: 1%
- Sponge spicules: 1%
Interbedded NANNOFOSIL OOZE and FORAMINIFER-BEARING NANNOFOSIL OOZE

Entire core is undisturbed.

Major lithology: Interbedded NANNOFOSIL OOZE and FORAMINIFER-BEARING NANNOFOSIL OOZE. Contacts are gradational. Beds range from light gray (5Y 7/1) to light olive gray (5Y 7/2, 7/3) and light olive (5Y 6/3, 5/3).

Bioturbation is minor to moderate throughout, with some pyrite?-impregnated burrows.

SMRE SLIDE SUMMARY (%):

TEXTURE:
- Sand: 20%
- Silt: 10%
- Clay: 70%

COMPOSITION:
- Access, minerals: 7%
- Clay: 5%
- Dolomite: 1%
- Feldspar: 1%
- Foraminifers: 5%
- Volcanic glass: 4%
- Inorganic calcite: 8%
- Mica: 9%
- Nannofossils: 10%
- Quartz: 2%
SITE 722 HOLE A CORE 3H CORED INTERVAL 2047.2-2056.8 mbsl; 19.4-29.0 mbsf

Interbedded NANNOFOSIL Ooze and FORAMINIFER-BEARING NANNOFOSIL Ooze
Section 1, 1-10 cm, soupy; CC, 10-20 cm, moderately disturbed.
Major lithology: Interbedded NANNOFOSIL Ooze and FORAMINIFER-BEARING NANNOFOSIL Ooze. Beds range from light olive gray (5Y 6/2) to light gray (5Y 7/1), olive (5Y 4/3, 5/3), and pale olive (5Y 6/3). Contacts are gradational. Bioturbation is minor to moderate throughout.

SMEAR SLIDE SUMMARY (%):

<table>
<thead>
<tr>
<th>TEXTURE</th>
<th>0</th>
<th>10</th>
<th>50</th>
<th>85</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand</td>
<td>5</td>
<td>15</td>
<td>75</td>
<td>60</td>
</tr>
<tr>
<td>Silt</td>
<td>0</td>
<td>15</td>
<td>75</td>
<td>60</td>
</tr>
</tbody>
</table>

COMPOSITION:

<table>
<thead>
<tr>
<th>ACCESS, minerals</th>
<th>1</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clay</td>
<td>10</td>
<td>75</td>
</tr>
<tr>
<td>Dolomite</td>
<td>20</td>
<td>75</td>
</tr>
<tr>
<td>Foraminifers</td>
<td>10</td>
<td>75</td>
</tr>
<tr>
<td>Volcanic glass</td>
<td>15</td>
<td>75</td>
</tr>
<tr>
<td>Inorganic calcite</td>
<td>15</td>
<td>75</td>
</tr>
<tr>
<td>Nannofossils</td>
<td>60</td>
<td>70</td>
</tr>
<tr>
<td>Quartz</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>Radiolarians</td>
<td>5</td>
<td>15</td>
</tr>
</tbody>
</table>
**LITHOLOGIC DESCRIPTION**

- Interbedded Nannofossil Ooze and Marly Nannofossil Ooze
- Entire core is undisturbed to slightly disturbed.
- Major lithology: Interbedded Nannofossil Ooze and Marly Nannofossil Ooze. Contacts are gradational. Beds range from light olive gray (5Y 6/2) to light gray (5Y 7/2) and light olive (5Y 6/3, 5Y 6/3). Bioturbation is minor to moderate throughout.

**SAMPLE SUMMARY (%):**

- 1, 105 4, 43 5, 35
- M D D

**TEXTURE:**

- Sand 35 5 5
- Silt 25 10 15
- Clay 40 85 80

**COMPOSITION:**

- Access, minerals 1 1 1
- Clay 20
- Diatoms 80
- Dolomite 1
- Foraminifers 40 2 5
- Volcanic glass Tr Tr
- Inorganic calcite 16 12 13
- Mica Tr
- Nannofossils 40 5 60
- Quartz 2 Tr 1
**SITE 722 HOLE A**

**CORE 5H**

**CORED INTERVAL** 2066.4-2076.0 mbsl; 38.6-48.2 mbsf

---

### Lithologic Description

Interbedded NANNOFOSIL Ooze and FORAMINIFER-BEARING NANNOFOSIL Ooze.

- **Section 1, 0-47 cm**: soupy. Major lithology: Interbedded NANNOFOSIL Ooze and FORAMINIFER-BEARING NANNOFOSIL Ooze. Contacts are gradational. Beds range from light olive gray (5Y 7/2, 6/2) to light gray (5Y 7/2). Bioturbation is minor throughout.

**Smear Slide Summary (%):**

- **Texture:**
  - Silt: 20
  - Clay: 80

- **Composition:**
  - Clay: 10
  - Foraminifers: 5
  - Inorganic calcite: 5
  - Mica: 5
  - Nannofossils: 80
  - Quartz: 5

---

**Graphic Lithology**

[Diagram showing lithologic units with corresponding descriptions and percentages]

---

**Core Log**

[Image showing core samples with annotations for lithologic units and descriptions]
INTERBEDDED FORAMINIFER BEARING NANNOFOSSIL OOZE AND MARLY NANNOFOSSIL OOZE

Section 1, 0-15 cm, is soupy. Major lithology: Interbedded FORAMINIFER-BEARING NANNOFOSSIL OOZE and MARLY NANNOFOSSIL OOZE. Contacts are gradational. Beds range from light gray (5Y 7/2) to olive gray (5Y 6/1, 6/2), pale olive (5Y 6/3), and olive (5Y 5/3, 4/3). Bioturbation is minor to moderate throughout.

**SMEAR SLIDE SUMMARY (%):**
- Clay: 30%
- Feldspar: 5%
- Foraminifers: 5%
- Inorganic calcite: 30%
- Nannofossils: 30%
- Quartz: 5%

**TEXTURE:** Sand 5%, Silt 40%, Clay 55%

**COMPOSITION:** Clay 30%, Feldspar Tr 5%, Foraminifers 5%, Inorganic calcite 30%, Nannofossils 30%, Quartz 5%
**Lithologic Description**

Interbedded Nannofossil Ooze and Marly Nannofossil Ooze

Section 1, 0-10 cm, soupy; Section 1, 140-150 cm, slightly disturbed.

Major lithology: Interbedded Nannofossil Ooze and Marly Nannofossil Ooze. Contacts are gradational. Beds range from light olive gray (5Y 6/2) to light gray (5Y 7/2), olive (5Y 4/4, 5/4, 5/3, 4/3), pale olive (5Y 6/3), and dark olive gray (5Y 3/2). Bioturbation is minor to moderate throughout.

**Smear Slides Summary (%):**

<table>
<thead>
<tr>
<th>Texture</th>
<th>Sand</th>
<th>Silt</th>
<th>Clay</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5%</td>
<td>20%</td>
<td>75%</td>
</tr>
</tbody>
</table>

**Composition:**

- Access minerals: 2%
- Clay: 2%
- Diatoms: 1%
- Foraminifers: 15%
- Inorganic calcite: 3%
- Nannofossils: 40%
- Quartz: 10%
- Radiolarians: 1%
- Sponge spicules: 1%
SITE 722 HOLE A CORE 8H CORED INTERVAL 2095.0-2104.6 mbsl; 67.20-76.80 mbsf

Interbedded NANNOFOSIL OOZE and MARLY NANNOFOSIL OOZE

Section 1, 0-35 cm, soupy; CC moderately disturbed.

Major lithology: Interbedded NANNOFOSIL OOZE and MARLY NANNOFOSIL OOZE. Contacts are gradational. Beds range from light olive gray (5Y 6/2) to olive gray (5Y 5/2), olive (5Y 5/3, 5/4), and pale olive (5Y 6/3). Bioturbation is minor to moderate throughout.

SMERE SLIDE SUMMARY (%):

<table>
<thead>
<tr>
<th>TEXTURE:</th>
<th>Sand</th>
<th>Silt</th>
<th>Clay</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4,80</td>
<td>36</td>
<td>60</td>
</tr>
</tbody>
</table>

COMPOSITION:

<table>
<thead>
<tr>
<th>Access, minerals</th>
<th>Clay</th>
<th>Dolomite</th>
<th>Foraminifers</th>
<th>Inorganic calcite</th>
<th>Mica</th>
<th>Nannofossils</th>
<th>Pyrite</th>
<th>Quartz</th>
<th>Radiolarians</th>
</tr>
</thead>
<tbody>
<tr>
<td>75</td>
<td>25</td>
<td>7</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>65</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

4.80
Section 1, 5-10 cm, and CC are very disturbed. Major lithology: NANNOFOSIL OOZE and MARLY NANNOFOSIL OOZE. Contacts are gradational. Beds range from light olive gray (5Y 6/2) to light gray (5Y 4/2), olive (5Y 4/4, 4/3, 5/4, 5/3), and dark olive gray (5Y 3/2). Section 5, 125-135 cm, is strongly bioturbated. Bioturbation is minor to moderate throughout the remainder of the core.

SMEAR SLIDE SUMMARY (%): 5, 39 6, 52

TEXTURE:
- Silt 20 10
- Clay 80 90

COMPOSITION:
- Access, minerals 2
- Clay 29 10
- Diatoms Tr
- Foraminifers 3 5
- Gypsum Tr
- Inorganic calcite 4 5
- Nannofossils 57 80
- Quartz 4
- Radiolarians Tr
- Sponge spicules Tr

SITE 72A/8H
**SITE 722 HOLE A CORE 10X CORED INTERVAL 2114.3-2124.0 mbsl; 86.5-96.2 mbsf**

### Lithologic Description

Section 1, 1-10 cm, is moderately disturbed. Major lithology: Interbedded NANNOFossil, Foraminifer-bearing NANNOFossil ooze, and Marly NANNOFossil ooze. Contacts are gradational. Beds range from light olive gray (5Y 6/2) to olive gray (5Y 5/2), olive (5Y 4/3, 5/3, 5/4), and dark olive gray (5Y 3/2). Bioturbation is minor to moderate throughout.

**Smear Slide Summary (%)**

<table>
<thead>
<tr>
<th>Clay</th>
<th>Diatoms</th>
<th>Foraminifers</th>
<th>Inorganic calcite</th>
<th>Nannofossils</th>
<th>Quartz</th>
<th>Radiolarians</th>
<th>Silicoflagellates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.106</td>
<td>10.10</td>
<td>10.10</td>
<td>10.10</td>
<td>10.10</td>
<td>10.10</td>
<td>10.10</td>
<td>10.10</td>
</tr>
</tbody>
</table>

**Texture:**

- Clay: 10.10
- Diatoms: 10.10
- Foraminifers: 10.10
- Inorganic calcite: 10.10
- Nannofossils: 10.10
- Quartz: 10.10
- Radiolarians: 10.10
- Silicoflagellates: 10.10
SITE 722 HOLE A  CORE 11X CORED INTERVAL 2124.0-2133.7 mbsl; 90.2-105.9 mbsf

LITHOLOGIC DESCRIPTION

NANNOFOSSIL Ooze:
Section 1, 0-50 cm, is very disturbed. Section 2, 50-150 cm, Section 3, 0-150 cm, Section 4, 15-25 cm, and CC are moderately disturbed. Section 5, 0-150 cm, is slightly disturbed.
Major lithology: NANNOFOSSIL Ooze. Beds range from gray (5Y 6/1) to light olive gray (5Y 6/2), light greenish gray (10Y 6/1), and olive (5Y 5/3, 4/3, 4/4). Contacts are gradational. Bioturbation is minor to moderate throughout.

SMER SLIDE SUMMARY (%):

<table>
<thead>
<tr>
<th>TEXTURE</th>
<th align="right">Silt</th>
<th align="right">Clay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silt</td>
<td align="right">20</td>
<td align="right"></td>
</tr>
<tr>
<td>Clay</td>
<td align="right"></td>
<td align="right">80</td>
</tr>
</tbody>
</table>

COMPOSITION:

<table>
<thead>
<tr>
<th>Clay</th>
<th>Dolomites</th>
<th>Foraminifers</th>
<th>Inorganic calcite</th>
<th>Nannofossils</th>
<th>Quartz</th>
<th>Radiolarians</th>
<th>Silicoflagellates</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>9</td>
<td>9</td>
<td>5</td>
<td>7</td>
<td>9</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
</tbody>
</table>
Interbedded NANNOFossil Ooze and FORAMINIFER BEARING NANNOFossil Ooze

Section 1, 0-10 cm, is moderately disturbed. Section 3, 0-150 cm, is slightly disturbed.

Major lithology: Interbedded NANNOFossil Ooze and FORAMINIFER BEARING NANNOFossil Ooze. Contacts are gradational. Beds range from light olive gray (5Y 6/2) to light gray (5Y 7/1), olive gray (5Y 5/2), and olive (5Y 5/3, 5/4, 4/4). Bioturbation is minor through out.

SMEAR SLIDE SUMMARY (%):

TEXTURE:

Clay 20

COMPOSITION:

Clay 10

Diatoms 7

Foraminifers 10

Inorganic calcite 5

Nannofossils 75

Quartz 3

Radiolarians 3
Section 1, 0-10 cm, and Section 6, 110-150 cm, are moderately disturbed. Section 2, 0 cm, to Section 3, 150 cm, is slightly disturbed. Major lithology: NANNOFossil ooze. Beds range from gray (5Y 6/1) to light olive gray (5Y 6/2), light gray (5Y 7/1), olive gray (5Y 5/2), olive (5Y 5/3, 4/3), and pale olive (5Y 6/3). Contacts are gradational. Bioturbation is minor throughout.

SMEAR SLIDE SUMMARY (%):

TEXTURE:
- Sand: 5%
- Silt: 30%
- Clay: 65%

COMPOSITION:
- Access. minerals: 2%
- Clay: 25%
- Foraminifers: 5%
- Inorganic calcite: 15%
- Mica: 3%
- Nannofossils: 45%
- Quartz: 5%

GEOLOGIC DESCRIPTION:

Manganese oxide, 0-0.25 cm, present throughout. Thin manganese dioxide coating on shell fragments. Cements are dominated by hydrous silica with minor manganese oxide, and voids are filled with clay and silt.
Interbedded NANNOFOSIL OOZE and FORAMINIFER-BEARING NANNOFOSIL OOZE. The section 0-33 cm is moderately disturbed. Major lithology: Interbedded NANNOFOSIL OOZE and FORAMINIFER-BEARING NANNOFOSIL OOZE. Contacts are gradational. Beds range from gray (5Y 6/1) to light olive gray (5Y 6/2), light gray (5Y 7/1), olive (5Y 5/3, 5/4), and pale olive (5Y 6/3). Bioturbation is minor throughout.

TEXTURE:
- Silt: 10%
- Clay: 90%

COMPOSITION:
- Clay: 15%
- Foraminifers: 5%
- Gypsum: 3%
- Inorganic calcite: 74%
- Nannofossils: 5%
- Quartz: 1%
- Radiolarians: 1%
- Sponge spicules: 1%
**LITHOLOGIC DESCRIPTION**

**NANNOFOSSIL Ooze:**
- Entire core is undisturbed.
- Major lithology: NANNOFOSSIL Ooze. Beds range from light gray (5Y 7/1) to light olive gray (5Y 6/2) and olive (5Y 5/3, 4/4). Contacts are gradational.
- Disturbance is minor to moderate throughout.

**SMEAR SLIDE SUMMARY (%)**:

<table>
<thead>
<tr>
<th>Texture</th>
<th>1</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>Clay</td>
<td>2</td>
<td>10</td>
</tr>
</tbody>
</table>

**TEXTURE:**
- Sand 3 12 5
- Clay 65 95

**COMPOSITION:**
- Access. minerals 1 15 4
- Baccode peloids 1 12 6
- Foraminifers 1 10 6
- Nannofossils 70 90
- Oxyaporites Tr Tr
- Sponge spicules Tr Tr
**SITE 722 HOLE A CORE 16X CORED INTERVAL 2172.4-2182.1 mbsl; 144.6-154.3 mbsf**

**LITHOLOGIC DESCRIPTION**

**NANNOFOSIL Ooze**
Section 1, 0-10 cm, and CC are slightly disturbed. Major lithology: NANNOFOSIL Ooze. Beds range from light gray (5Y 7/1) to light olive gray (5Y 6/2) and olive (5Y 5/3, 4/4). Contacts are gradational. Bioturbation is minor to moderate throughout.

**SMEAR SLIDE SUMMARY (%):**

<table>
<thead>
<tr>
<th>Texture</th>
<th>1</th>
<th>110</th>
<th>5, 61</th>
<th>D</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silt</td>
<td>10</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clay</td>
<td>90</td>
<td>93</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TEXTURE:**
- Silt: 10%
- Clay: 90%

**COMPOSITION:**
- Access, minerals: 1%
- Clay: 20%
- Diatoms: 90%
- Foraminifers: Tr
- Volcanic glass: Tr
- Nannofossils: 70%
- Quartz: 9%
- Sponge spicules: Tr

**TIME-BEDS CHART**

<table>
<thead>
<tr>
<th>TIME-BEDS CHART</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOWER PLIOCENE</td>
</tr>
<tr>
<td>N8 - N20</td>
</tr>
<tr>
<td>MN2</td>
</tr>
<tr>
<td>MN1</td>
</tr>
<tr>
<td>MN0</td>
</tr>
<tr>
<td>0</td>
</tr>
<tr>
<td>7</td>
</tr>
</tbody>
</table>

**GRAPHIC LITHOLOGY**

**SEDIMENT**
- SAMPLE 1
- SAMPLE 2
- SAMPLE 3
- SAMPLE 4
- SAMPLE 5
- SAMPLE 6
- SAMPLE 7

**PALEOMAGNETIC STRATUM**
- 41.56
- 39.53
- 37.50
- 35.47
- 33.44
- 31.41
- 29.38

**IRIANS RADIOL/INRA**
- 38.00
- 36.00
- 34.00
- 32.00
- 30.00
- 28.00
- 26.00
- 24.00

**ZONE/DIATOMS**
- 39.00
- 37.00
- 35.00
- 33.00
- 31.00
- 29.00
- 27.00
- 25.00

**CHEMICAL SECTIONS**
- 2172.4
- 2182.1
- 144.6
- 154.3
LOWER PLIOCENE
N18 - N21

* Site Unit
TIME-ROCK UNIT

<table>
<thead>
<tr>
<th>C/M*</th>
<th>S/M*</th>
<th>C/G*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NN12 Amauroolithus tricorniculatus - NN15 Reticulofenestra pseudounivalis</td>
<td>Stichocorys peregrina • C/M</td>
</tr>
</tbody>
</table>

Gilbert | ⭕-62.0 7-1.71 | ⭕-62.5 7-1.80 |

**SITE 722**
HOLE A
CORE 17X
CORE INTERVAL
2182.1-2191.7 mnsf 154.3-163.9 mbsf

**LITHOLOGIC DESCRIPTION**

- Entire core is slightly disturbed by drilling biscuit formation.
- Major lithology: NANNOFOSSIL CHALK. Beds range from light olive gray (5Y 6/2) to light gray (5Y 7/1) and olive (5Y 5/3, 5/4, 4/3). Contacts are gradational.
- Bioturbation is minor to moderate throughout.

**TEXTURE:**
- Sand 3
- Silt 5 7
- Clay 95 90

**COMPOSITION:**
- Access minerals
- Clay 10
- Diatoms Tr
- Foraminifera Tr 3
- Volcanic glass Tr
- Inorganic calcite 5 7
- Mica Tr
- Nannofossils 85 90
- Radiolarians Tr
- Sponge spicules Tr
LITHOLOGIC DESCRIPTION

NANNOFOS Fossil CHALK
Core extruded on drilling deck, reconstructed on catwalk. Section 1, 0-150 cm, is slightly disturbed.

Major lithology, NANNOFOS Fossil CHALK. Beds range from gray (5Y 6/1) to light gray (5Y 7/1, 7/2), olive (5Y 5/3, 4/3, 5/4), and pale olive (5Y 6/3). Contacts are gradational. Distribution is minor to moderate throughout.

SMEAR SLIDE SUMMARY (%):

Sand 2 2
Silt 8 10
Clay 93 85

TEXTURE:

Access, minerals 1
Diatoms 4
Ferns 1 1
Volcanic glass 5 10
Nannofossils 50 85
Quartz 1
Radiolarians
Silicoflagellates
Sponge spicules

COMPOSITION:
Interbedded NANNOFOSIL CHALK and MARLY NANNOFOSIL CHALK

Entire core is slightly disturbed.

Major lithology: Interbedded NANNOFOSIL CHALK and MARLY NANNOFOSIL CHALK. Contacts are gradational. Beds range from gray (5Y 6/1) to light olive gray (5Y 6/2), light gray (5Y 7/1, 7/2), olive gray (5Y 5/2), olive (5Y 4/3, 5/3, 4/4, 5/4), and pale olive (5Y 6/3). Bioturbation is minor to moderate throughout.

SMEAR SLIDE SUMMARY (%):

<table>
<thead>
<tr>
<th>1</th>
<th>142</th>
<th>4.77</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>95</td>
</tr>
</tbody>
</table>

TEXTURE:

| Sand | 5
| Silt | 10
| Clay | 85

COMPOSITION:

| Access. minerals | 2
| Diatoms | 7
| Foraminiferal | 5
| Inorganic calcite | 7
| Mica | 7
| Nannofossils | 70
| Quartz | 80
| Radiolarians | 7
| Sponge spicules | 7

SITE 722 HOELE A CORE 19X CORED INTERVAL 2201.4-2211.1 mbsl; 173.6-183.3 mbsf

SITE 722
LITHOLOGIC DESCRIPTION

NANNFOSSIL CHALK

Section 1, 0-10 cm, is very disturbed/soupy. Remainder of core is slightly disturbed.

Major lithology: NANNFOSSIL CHALK. Beds range from light olive gray (5Y 6/2) to light gray (5Y 7/1), olive (5Y 6/3), and pale olive (5Y 6/3). Contacts are gradational. Disturbation is minor throughout.

SMERE SLIDE SUMMARY (%):

<table>
<thead>
<tr>
<th>Silt</th>
<th>Clay</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>85</td>
</tr>
</tbody>
</table>

TEXTURE:

<table>
<thead>
<tr>
<th>Access, minerals</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clay</td>
<td>4</td>
</tr>
<tr>
<td>Feldspars</td>
<td>4</td>
</tr>
<tr>
<td>Foraminifers</td>
<td>4</td>
</tr>
<tr>
<td>Nannofossils</td>
<td>5</td>
</tr>
<tr>
<td>Quartz</td>
<td>1</td>
</tr>
<tr>
<td>Radiolaris</td>
<td>1</td>
</tr>
<tr>
<td>Sponge spicules</td>
<td>1</td>
</tr>
</tbody>
</table>

COMPOSITION:

183.3-193.0 mbsf

<table>
<thead>
<tr>
<th>ACCESS, MINERALS</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLAY</td>
<td>4</td>
</tr>
<tr>
<td>FELDSPAR</td>
<td>1</td>
</tr>
<tr>
<td>FORAMINIFERS</td>
<td>1</td>
</tr>
<tr>
<td>NANNOFOSILIS</td>
<td>5</td>
</tr>
<tr>
<td>QUARTZ</td>
<td>1</td>
</tr>
<tr>
<td>RADIOLARIS</td>
<td>1</td>
</tr>
<tr>
<td>SPONGE SPICULES</td>
<td>1</td>
</tr>
</tbody>
</table>
Interbedded NANNOFOSIL CHALK and DIATOM-BEARING NANNOFOSIL CHALK.

Entire core is moderately disturbed.

Major lithology: Interbedded NANNOFOSIL CHALK and DIATOM-BEARING NANNOFOSIL CHALK. Contacts are gradational. Beds range from light gray (5Y 7/1) to gray (5Y 6/1), pale olive (5Y 6/2), and olive (5Y 4/2). Disturbation is minor throughout. Diatom content is higher in the darker pale olive and olive beds.

SMOKE SLIDE SUMMARY (%):

1, 1, 3, 3, 100

D D

TEXTURE:

Sand 15 10
Silt 15 2
Clay 65 90

COMPOSITION:

Access. minerals 1
Clay 50
Dolomite 10
Feldspar 1
Foraminifers 1
Foraminifers 2
Foraminifers 5
Foraminifers 8
Nannofossils 60 90
Quartz 3
Radiolarians 1
Radiolarians 1
Sponge spicules 1
SITE 722 HOLE A CORE 22X CORED INTERVAL 2230.5-2240.2 mbsl; 202.7-212.4 mbsf

LITHOLOGIC DESCRIPTION

Interbedded NANNOFOSIL CHALK and MARLY NANNOFOSIL CHALK

Entire core is moderately disturbed.

Major lithology: Interbedded NANNOFOSIL CHALK and MARLY NANNOFOSIL CHALK. Contacts are gradational. Beds range from light gray (5Y 7/1, 7/2) to light olive gray (5Y 6/1), olive gray (5Y 5/2), and olive (5Y 5/3, 4/2). Bioturbation is minor to moderate throughout.

SMear SLIDE SUMMARY (%):

<table>
<thead>
<tr>
<th></th>
<th>3.6</th>
<th>5.119</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Silt</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Clay</td>
<td>94</td>
<td>80</td>
</tr>
</tbody>
</table>

TEXTURE:

Access, minerals 11, 1
Diatoms 11, 20
Feldspar 1
Foraminifers 1, 5
Volcanic glass 11, 1
Inorganic calcite 1, 10
Mica 1
Nannofossils 85, 60
Quartz 1
Radiolarians 1
Sponge spicules 1

COMPOSITION:
**SITE 722 HOLE A CORE 23X CORED INTERVAL 2240.2-2249.8 mbsl; 212.4-22.0 mbsf**

**Lithologic Description**

Interbedded Nannofossil Chalk and Diatom-Bearing Nannofossil Chalk.

Entire core is slightly disturbed.

Major lithology: Interbedded Nannofossil Chalk and Diatom-Bearing Nannofossil Chalk. Contacts are gradational. Beds range from white (10YR 8/1) to light gray (10YR 7/2), light greenish gray (10YR 7/1), light olive gray (5Y 6/2), pale olive (5Y 6/3), and olive (5Y 5/3). Bioturbation is minor to moderate throughout. Diatom-bearing chalk is generally pale olive to olive.

**Smear Slide Summary (%):**

<table>
<thead>
<tr>
<th></th>
<th>4%</th>
<th>9%</th>
<th>6%</th>
<th>90%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand</td>
<td>5</td>
<td>3</td>
<td>15</td>
<td>7</td>
</tr>
<tr>
<td>Silt</td>
<td>15</td>
<td>7</td>
<td>15</td>
<td>7</td>
</tr>
<tr>
<td>Clay</td>
<td>80</td>
<td>90</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Texture:**

<table>
<thead>
<tr>
<th></th>
<th>5%</th>
<th>15%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand</td>
<td>5</td>
<td>15</td>
<td>80</td>
</tr>
<tr>
<td>Silt</td>
<td>15</td>
<td>15</td>
<td>90</td>
</tr>
<tr>
<td>Clay</td>
<td>80</td>
<td>80</td>
<td></td>
</tr>
</tbody>
</table>

**Composition:**

- Access minerals: 1%
- Clay: 14%
- Diatoms: 5%
- Dolomite: 1%
- Feldspar: 1%
- Foraminifers: 2%
- Volcanic glass: 10%
- Inorganic calcite: 1%
- Mica: 1%
- Nannofossils: 65%
- Quartz: 2%
- Radiolarians: 1%
- Silicoflagellates: 1%
- Sponge spicules: 1%

**Graphic Lithology:**

- 0.5
- 1.0
- 2.0
- 3.0
- 4.0
- 5.0
- 6.0
- 7.0

**Time-Scale Unit:**

- C/T: Cenozoic
- C: Cenozoic
- T: Cenozoic

**Biostratigraphic Zone:**

- J1 I L

**Chronozones:**

- Zone 6
- Zone 7
- Zone 8

**Microfacies:**

- Zone 6
- Zone 7
- Zone 8

**Images:**

- 722A-23X
NANNOFOSSIL CHALK

Entire core is slightly to moderately fractured.

Major lithology: NANNOFOSSIL CHALK. Beds range from white (5Y 8/1) to light olive gray (5Y 7/1), light gray (5Y 7/1), olive gray (5Y 6/1), and pale olive (5Y 6/3). Entire core is moderately bioturbated.

SMAR SLIDE SUMMARY (%):

<table>
<thead>
<tr>
<th></th>
<th>3</th>
<th>4</th>
<th>34</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>D</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TEXTURE:

- Sand: 2
- Silt: 10
- Clay: 78

COMPOSITION:

- Access, minerals: 1
- Clay: 15
- Foraminifers: 2
- Inorganic calcite: 10
- Mica: 7
- Nannofossils: 70
- Quartz: 7
- Radiolarians: 7
- Silicoflagellates: 7
- Sponge spicules: 7
**SITE 722 HOLE A**  
**CORE 25X**  
**CORED INTERVAL** 2259.5-2269.5 mbsl; 231.7-241.7 mbsf

### LITHOLOGIC DESCRIPTION

Interbedded NANNOFOSIL CHALK and DIATOM-BEARING NANNOFOSIL CHALK

Entire core is slightly fractured throughout.

Major lithology: Interbedded NANNOFOSIL CHALK and DIATOM-BEARING NANNOFOSIL CHALK. Contacts are gradational. Beds range from white (5Y 6/1) to light gray (5Y 7/1). Bioturbation is minor throughout.

**SMEAR SLIDE SUMMARY (%)**:

<table>
<thead>
<tr>
<th>TEXTURE:</th>
<th>1.33</th>
<th>1.91</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silt</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>Clay</td>
<td>65</td>
<td>85</td>
</tr>
</tbody>
</table>

**COMPOSITION:**

- Access, minerals: Tr
- Clay: 7
- Diatoms: Tr 5
- Foraminifers: Tr
- Inorganic calcite: 5
- Nannofossils: 90
- Radiolarians: Tr 1
- Silicoflagellates: Tr 1
- Sponge spicules: Tr 1

---

**TIMED-SLICE UNIT**

<table>
<thead>
<tr>
<th>TIME-SLICE UNIT</th>
<th>ROCK UNIT</th>
<th>FOSSIL CHARACTER</th>
<th>LITHOLOGIC DESCRIPTION</th>
<th>DIATOM-BEARING NANNOFOSIL CHALK</th>
</tr>
</thead>
<tbody>
<tr>
<td>N16 - N17</td>
<td>Miocene</td>
<td>D. discaster quinquecostatus</td>
<td>Interbedded NANNOFOSIL CHALK and DIATOM-BEARING NANNOFOSIL CHALK</td>
<td>Contacts are gradational. Beds range from white (5Y 6/1) to light gray (5Y 7/1). Bioturbation is minor throughout.</td>
</tr>
</tbody>
</table>

---

**DIATOM-BEARING NANNOFOSIL CHALK**

- Entire core is slightly fractured throughout.
- Major lithology: Interbedded NANNOFOSIL CHALK and DIATOM-BEARING NANNOFOSIL CHALK. Contacts are gradational. Beds range from white (5Y 6/1) to light gray (5Y 7/1). Bioturbation is minor throughout.

---

**SMEAR SLIDE SUMMARY (%)**:

<table>
<thead>
<tr>
<th>TEXTURE:</th>
<th>1.33</th>
<th>1.91</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silt</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>Clay</td>
<td>65</td>
<td>85</td>
</tr>
</tbody>
</table>

**COMPOSITION:**

- Access, minerals: Tr
- Clay: 7
- Diatoms: Tr 5
- Foraminifers: Tr
- Inorganic calcite: 5
- Nannofossils: 90
- Radiolarians: Tr 1
- Silicoflagellates: Tr 1
- Sponge spicules: Tr 1
**SITE 722 HOLE A**

**CORE 26X**

**CORED INTERVAL** 2269.5-2278.8 mbsl; 24 1.7-251.0 mbsf

**N16 - N17**

**Didymocystes virgatus**

**SMEAR SLIDE SUMMARY (%):**

<table>
<thead>
<tr>
<th>Texture</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silt</td>
<td>10</td>
</tr>
<tr>
<td>Clay</td>
<td>90</td>
</tr>
</tbody>
</table>

**COMPOSITION:**

<table>
<thead>
<tr>
<th>Component</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clay</td>
<td>15</td>
</tr>
<tr>
<td>Diatoms</td>
<td>45</td>
</tr>
<tr>
<td>Foraminifers</td>
<td>5</td>
</tr>
<tr>
<td>Inorganic calcite</td>
<td>5</td>
</tr>
<tr>
<td>Nannofossils</td>
<td>5</td>
</tr>
<tr>
<td>Radiolarians</td>
<td>1</td>
</tr>
<tr>
<td>Silicoflagellates</td>
<td>1</td>
</tr>
<tr>
<td>Sponge spicules</td>
<td>1</td>
</tr>
</tbody>
</table>

**LITHOLOGIC DESCRIPTION**

FORAMINIFER-BEARING DIATOM-NANNOFOSIL CHALK

Entire core is slightly disturbed.

Major lithology: FORAMINIFER-BEARING DIATOM-NANNOFOSIL CHALK.

Beds range from light olive gray (5Y 6/2) to light gray (5Y 7/1). Contacts are gradational. Bioturbation is minor throughout.

**SMEAR SLIDE SUMMARY (%):**

- Silt: 10%
- Clay: 90%

**TEXTURE:**

- Silt: 30%
- Clay: 70%

**COMPOSITION:**

- Clay: 15%
- Diatoms: 15%
- Foraminifers: 5%
- Inorganic calcite: 5%
- Nannofossils: 5%
- Radiolarians: 1%
- Silicoflagellates: 1%
- Sponge spicules: 1%
SITE 722 HOLE A  CORE 27X  CORED INTERVAL 2278.8-2288.5 mbsl; 251.0-260.7 mbsf

LITHOLOGIC DESCRIPTION

RADIOLARIAN-BEARING DIATOM-NANNOFOSSIL CHALK

Major lithology: RADIOLARIAN-BEARING DIATOM-NANNOFOSSIL CHALK. Beds range from light olive gray (5Y 6/2) to light gray (5Y 7/2), olive (5Y 5/3, 4/3), and pale olive (5Y 6/3). Contacts are gradational. Bioturbation is minor throughout. Siliceous components are more abundant in the pale olive and olive beds.

SMEAR SLIDE SUMMARY (%):

<table>
<thead>
<tr>
<th>Component</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silt</td>
<td>15</td>
</tr>
<tr>
<td>Clay</td>
<td>85</td>
</tr>
<tr>
<td>Diatoms</td>
<td>18</td>
</tr>
<tr>
<td>Foraminifers</td>
<td>3</td>
</tr>
<tr>
<td>Inorganic calcite</td>
<td>5</td>
</tr>
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<td>Nannofossils</td>
<td>80</td>
</tr>
<tr>
<td>Quartz</td>
<td>5</td>
</tr>
<tr>
<td>Radiolarians</td>
<td>3</td>
</tr>
<tr>
<td>Silicoflagellates</td>
<td>2</td>
</tr>
<tr>
<td>Sponge spicules</td>
<td>1</td>
</tr>
</tbody>
</table>

TEXTURE:

| Texture | 1 | 40 |

Access, minerals 7
Clay 10
Dolomite 25
Porifera 3
Inorganic calcite 5
Nannofossils 80
Quartz 5
Radiolarians 3
Silicoflagellates 2
Sponge spicules 1
<table>
<thead>
<tr>
<th><strong>MIOCENE</strong></th>
<th><strong>TIME-ROCK UNIT</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>N16 - N17</td>
<td>R/M*</td>
</tr>
<tr>
<td>NN13 Discocysta quinqueramus A/M*</td>
<td></td>
</tr>
<tr>
<td>Didymocysta antepenultima C/G*</td>
<td></td>
</tr>
</tbody>
</table>

**FORAMINIFERS**
- Nanofossiles

**RADIALIANS**

**DIAZOMA**

**SILICIC FORMATIONS**
- Palesilicities
- Phys. Properties

**CHEMISTRY**

**SECTION**

**METERS**

**GRAPHIC LITHOLOGY**

**DIATOM- NANOFOSIL CHALK**

Major: Diatom-Nanofossil Chalk.

CC is very disturbed.

**CORE**

- 2288.5-2298.2 mbsf
- 260.7-270.4 mbsf

**LITHOLOGIC DESCRIPTION**

- 2288.5-2298.2 mbsf
- 260.7-270.4 mbsf

SITE 722
**Lithologic Description**

Interbedded *Nannofossil Chalk* and *Diatom-bearing Nannofossil Chalk*

Section 1 to Section 2 is slightly fractured. Section 3 and CC are moderately fractured.

Major lithology: **INTERBEDDED NANNOFOSIL CHALK and DIATOM-BEARING NANNOFOSIL CHALK.** Contacts are gradational. Beds range from light olive gray (5Y 6/2) to light greenish gray (10Y 7/1, 7/2), olive gray (5Y 5/2), olive (5Y 5/3, 4/3, 4/4), pale olive (5Y 5/4), and dark greenish gray (10Y 5/2). Bioturbation is minor to moderate throughout.

Minor lithology: Diatomaceous silty claystone, dark olive gray (6Y 3/2). Section 3, 30-40 cm.

**Smear Slide Summary (1%):**

<table>
<thead>
<tr>
<th>Component</th>
<th>1, 101</th>
<th>2, 25</th>
<th>3, 39</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silt</td>
<td>25</td>
<td>5</td>
<td>50</td>
</tr>
<tr>
<td>Clay</td>
<td>75</td>
<td>95</td>
<td>50</td>
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</tbody>
</table>

**Texture:**

<table>
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<tr>
<th>Texture</th>
<th>D</th>
<th>D</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silt</td>
<td>25</td>
<td>5</td>
<td>50</td>
</tr>
<tr>
<td>Clay</td>
<td>75</td>
<td>95</td>
<td>50</td>
</tr>
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</table>

**Composition:**

<table>
<thead>
<tr>
<th>Access. minerals</th>
<th>7</th>
<th>3</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clay</td>
<td>10</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>Dolomite</td>
<td>5</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Nannofossils</td>
<td>65</td>
<td>90</td>
<td>5</td>
</tr>
<tr>
<td>Quartz</td>
<td>5</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Radiolarians</td>
<td>7</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Silicoflagellates</td>
<td>7</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Sponge spicules</td>
<td>7</td>
<td>11</td>
<td></td>
</tr>
</tbody>
</table>
SITE 722 HOLE B
CORE 1H
CORED INTERVAL 207.8-2033.3 mbsl; 0.0-5.5 mbsf

LITHOLOGY

1. Interbedded FORAMINIFER-BEARING NANNOFOSIL OOZE and FORAMINIFER-NANNOFOSSIL OOZE. CC is slightly disturbed. Major lithology: Interbedded FORAMINIFER-BEARING NANNOFOSIL OOZE and FORAMINIFER-NANNOFOSSIL OOZE. Contacts are gradational. Beds range from light olive gray (5Y 6/2) to light greenish gray (10Y 5/2, 6/2), olive (5Y 4/3, 5/3, 5/4), and pale olive (5Y 6/3). Bioturbation is minor throughout.

SMEAR SLIDE SUMMARY (%):

1,20 2,79 2,149 4,30
Sand 15 5 20
Silt 20 10 30
Clay 65 85 50

COMPOSITION:

Access, minerals 2 3
Clay 16 10 15 10
Diatoms 16 10 17
Foraminifers 15 5 5 5
Inorganic calcite 3 5 5 10
Mica 19 19
Nannofossils 80 65 55 75
Pyrite 15
Quartz 9 2 4 3
Redoxlayer 3
**LITHOLOGIC DESCRIPTION**

Interbedded NANNOFOSIL OOZE and FORAMINIFER-BEARING NANNOFOSIL OOZE

CC is slightly disturbed.

Major lithology: Interbedded NANNOFOSIL OOZE and FORAMINIFER-BEARING NANNOFOSIL OOZE. Contacts are gradational. Beds range from gray (5Y 6/1) to light olive gray (5Y 6/2), light gray (5Y 7/1), olive gray (5Y 5/2), olive (5Y 5/4, 5/3), and pale olive (5Y 6/3). Bioturbation is minor throughout, with some pyrite-lined burrows.

SMEAR SLIDE SUMMARY (%):

<table>
<thead>
<tr>
<th>Sand</th>
<th>Silt</th>
<th>Clay</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>10</td>
<td>80</td>
</tr>
</tbody>
</table>

**TEXTURE:**

Clay 10
Diatoms 9
Dolomite 5
Foraminifers 5
Inorganic calcite 80
Nannofossils 60
Interbedded NANNOFOSIL Ooze and FORAMINIFER-BEARING NANNOFOSIL Ooze

Section 1, 0-40 cm, is soupy. CC is moderately disturbed.

Major lithology: Interbedded NANNOFOSIL Ooze and FORAMINIFER-BEARING NANNOFOSIL Ooze. Contacts are gradational. Beds range from light olive gray (5Y 6/2) to light gray (5Y 7/1, 7/2), olive gray (5Y 5/2), olive (5Y 5/3, 5/4, 4/3), pale olive (5Y 6/3), and dark greenish gray (10Y 5/2). Bioturbation is minor throughout.

SMEAR SLIDE SUMMARY (%):

TEXTURE:
- Silt: 30 15
- Clay: 60 85

COMPOSITION:
- Access. minerals: 9 9
- Clay: 7 5
- Dolomite: 7 9
- Foraminifers: 8 10
- Volcanic glass: 7 9
- Inorganic calcite: 5 5
- Nannofossils: 90 80
- Quartz: 1 9
INTERBEDDED FORAMINIFER-BEARING NANNOFOSIL Ooze and FORAMINIFER-BEARING MARLY NANNOFOSIL Ooze

Section 1, 0-20 cm, is soupy. CC is slightly disturbed.

Major lithology: INTERBEDDED FORAMINIFER-BEARING NANNOFOSIL Ooze and FORAMINIFER-BEARING MARLY NANNOFOSIL Ooze. Contacts are gradational except for sharp contact at Section 5, 100 cm. Beds range from gray (5Y 6/2) to light olive gray (5Y 6/3), light gray (5Y 7/1), light greenish gray (5Y 6/2), olive gray (5Y 5/2), olive (5Y 5/4, 5/3, 4/4, 4/3), and pale olive (5Y 6/3). Bioturbation is minor to moderate throughout.

SMEAR SLIDE SUMMARY (%):

<table>
<thead>
<tr>
<th>Component</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand</td>
<td>10</td>
<td></td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silt</td>
<td>15</td>
<td></td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clay</td>
<td></td>
<td>1</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Access minerals</td>
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<td></td>
<td></td>
<td></td>
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<td>Clay</td>
<td></td>
<td>10</td>
<td>25</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Dolomite</td>
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<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Foraminifers</td>
<td></td>
<td>12</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volcanic glass</td>
<td></td>
<td>15</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inorganic calcite</td>
<td></td>
<td>10</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mica</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7</td>
</tr>
<tr>
<td>Nannofossils</td>
<td></td>
<td></td>
<td>65</td>
<td>55</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quartz</td>
<td></td>
<td></td>
<td>2</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TEXTURE:

- Sand
- Silt
- Clay

COMPOSITION:

- Access minerals
- Clay
- Dolomite
- Foraminifers
- Volcanic glass
- Inorganic calcite
- Mica
- Nannofossils
- Quartz
Section 1, 0-30 cm, is soupy. CC is moderately disturbed. Major lithology: Interbedded NANNOFOSIL Ooze and FORAMINIFER-BEARING NANNOFOSIL Ooze. Contacts are gradational. Beds range from light olive gray (5Y 6/2) to light gray (5Y 7/1, 7/2), light greenish gray (10Y 6/2), olive gray (5Y 5/2), olive (5Y 5/3, 5/4), and pale olive (5Y 6/4). Bioturbation is minor throughout.

SMEAR SLIDE SUMMARY (%):

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access, minerals</td>
<td>7</td>
</tr>
<tr>
<td>Clay</td>
<td>10</td>
</tr>
<tr>
<td>Foraminifers</td>
<td>5</td>
</tr>
<tr>
<td>Nannofossils</td>
<td>85</td>
</tr>
<tr>
<td>Quartz</td>
<td>1</td>
</tr>
<tr>
<td>Radiolarans</td>
<td>1</td>
</tr>
<tr>
<td>Silicoflagellates</td>
<td>2</td>
</tr>
</tbody>
</table>
**SITE 722 HOLE B**

**CORE 6H**

**CORED INTERVAL** 2071.7-2081.0 mbsf; 43.9-53.2 mbsf

**BIOSTRAT. ZONE/FOSSIL CHARACTER**

**LITHOLOGIC DESCRIPTION**

Interbedded NANNOFOSIL Ooze and FORAMINIFER-BEARING MARLY NANNOFOSIL Ooze.

Entire core is undisturbed.

Major lithologic Interbedded NANNOFOSIL Ooze and FORAMINIFER-BEARING MARLY NANNOFOSIL Ooze. Contacts are gradational. Beds range from light olive gray (5Y 6/2) to light gray (5Y 7/2), light greenish gray (10Y 6/2), olive gray (5Y 6/2), olive (5Y 5/2, 4/3), pale olive (5Y 6/3), and dark olive gray (5Y 6/2). Bioturbation is minor to moderate throughout.

**SMEAR SLIDE SUMMARY (%):**

<table>
<thead>
<tr>
<th>Composition</th>
<th>Sand</th>
<th>Silt</th>
<th>Clay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access. minerals</td>
<td>2</td>
<td>20</td>
<td>75</td>
</tr>
<tr>
<td>Clay</td>
<td>5</td>
<td>18</td>
<td>15</td>
</tr>
<tr>
<td>Diatoms</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dolomite</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foraminifers</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volcanic glass</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inorganic calcite</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mica</td>
<td>5</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Nannofossils</td>
<td>75</td>
<td>45</td>
<td>10</td>
</tr>
<tr>
<td>Quartz</td>
<td>75</td>
<td>45</td>
<td>10</td>
</tr>
<tr>
<td>Silicoflagellates</td>
<td>75</td>
<td>45</td>
<td>10</td>
</tr>
</tbody>
</table>

**TEXTURE:**

<table>
<thead>
<tr>
<th>Sand</th>
<th>Silt</th>
<th>Clay</th>
</tr>
</thead>
<tbody>
<tr>
<td>5, 11</td>
<td>6, 129</td>
<td>D</td>
</tr>
<tr>
<td>D</td>
<td>D</td>
<td>D</td>
</tr>
</tbody>
</table>

**COMPOSITION:**

- Nannofossils: 75%
- Marly Nannofossil Ooze: 45%
- Foraminifers: 10%
- Inorganic calcite: 10%
- Volcanic glass: 10%
- Diatoms: 10%
- Dolomite: 10%
- Clay: 15%
- Access. minerals: 20%
- Quartz: 75%
- Silicoflagellates: 75%
- Mica: 5%
- Feldspar: 5%
- Diatoms: 10%
- Foraminifers: 5%
- Volcanic glass: 10%
- Inorganic calcite: 10%
- Mica: 5%
- Nannofossils: 75%
- Quartz: 75%
- Silicoflagellates: 75%
- Sand: 5%
- Silt: 15%
- Clay: 100%
LITHOLOGIC DESCRIPTION

Interbedded NANNOFOSIL Ooze and FORAMINIFER-BEARING NANNOFOSIL Ooze

Section 1, 0-10 cm, is moderately disturbed. CC is slightly disturbed.

Major lithology: INTERBEDDED NANNOFOSIL Ooze and FORAMINIFER-BEARING NANNOFOSIL Ooze. Contacts are gradational. Beds range from light olive gray (5Y 7/1) to olive gray (5Y 5/2, 4/2), olive (5Y 4/3, 5/3), dark greenish gray (10Y 5/2), and dark olive gray (5Y 3/2). Bioturbation is minor throughout.

SMEAR SLIDE SUMMARY (%):

<table>
<thead>
<tr>
<th>Texture</th>
<th>2</th>
<th>3</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand</td>
<td>3</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Silt</td>
<td>7</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Clay</td>
<td>25</td>
<td>75</td>
<td></td>
</tr>
</tbody>
</table>

COMPOSITION:

<table>
<thead>
<tr>
<th>Access. minerals</th>
<th>1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Clay</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Dolomite</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Foraminifers</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Volcanic glass</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Nannofossils</td>
<td>70</td>
<td>55</td>
</tr>
<tr>
<td>Quartz</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Radiolarians</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Sponge spicules</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

TEXTURE:

<table>
<thead>
<tr>
<th>Sand</th>
<th>Silt</th>
<th>Clay</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>15</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Diagram:

- Graphic Lithology
- Core Section
- Smear Slide Summary
- Composition Chart
- Text Description
Interbedded NANNOFOSIL OOZE and FORAMINIFER-BEARING MARLY NANNOFOSIL OOZE CC is slightly disturbed.

Major lithology: interbedded NANNOFOSIL OOZE and FORAMINIFER-BEARING MARLY NANNOFOSIL OOZE. Contacts are gradational. Beds range from light olive gray (5Y 6/2) to light gray (5Y 7/2, 7/1), light greenish gray (10Y 6/2), olive gray (5Y 5/2, 4/2), olive (5Y 4/3, 5/3), pale olive (5Y 6/3), and dark greenish gray (10Y 5/2). Bioturbation is minor to moderate throughout.

SMEAR SLIDE SUMMARY (%):

<table>
<thead>
<tr>
<th>Sand</th>
<th>Silt</th>
<th>Clay</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>1</td>
<td>92</td>
</tr>
</tbody>
</table>

TEXTURE:
Sand 7 Silt 1 Clay 92

COMPOSITION:
- Access, minerals 7%
- Clay 92%
- Diatoms 1%
- Dolomite 1%
- Feldspar 4%
- Foraminifers 4%
- Volcanic glass 4%
- Inorganic calcite 4%
- Mica 4%
- Nannofossils 4%
- Quartz 3%
- Radiolarians 3%
- Sponge spicules 3%
Interbedded MARLY NANNOFOSIL COZE and FORAMINIFER-BEARING MARLY NANNOFOSIL COZE

Section 1, 0-30 cm, is disturbed.

Major lithology: Interbedded MARLY NANNOFOSIL COZE and FORAMINIFER-BEARING MARLY NANNOFOSIL COZE. Contacts are gradational. Beds range from light gray (5Y 7/1, 7/2) to light greenish gray (10Y 6/2), olive (5Y 6/4, 6/5), and pale olive (5Y 6/2, 6/4). Disturbance is minor throughout.

**SMEAR SLIDE SUMMARY (%):**

<table>
<thead>
<tr>
<th>Component</th>
<th>4.73</th>
<th>6.102</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Silt</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Clay</td>
<td>80</td>
<td>85</td>
</tr>
</tbody>
</table>

**TEXTURE:**

- Sand: D D D
- Silt: D D D
- Clay: 80 75 85

**COMPOSITION:**

<table>
<thead>
<tr>
<th>Component</th>
<th>4.73</th>
<th>6.102</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access, minerals</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Clay</td>
<td>9</td>
<td>30</td>
</tr>
<tr>
<td>Diatoms</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Feldspar</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Foraminifers</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Volcanic glass</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Inorganic oxide</td>
<td>14</td>
<td>5</td>
</tr>
<tr>
<td>Mica</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Nannofossils</td>
<td>70</td>
<td>50</td>
</tr>
<tr>
<td>Quartz</td>
<td>55</td>
<td>50</td>
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<tr>
<td>Radiolarians</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Sponge spicules</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
SITE 722 HOLE B CORE 10H CORED INTERVAL 2110.0-2119.7 mbsl; 82.2-91.9 mbsf

LITHOLOGIC DESCRIPTION

Interbedded FORAMINIFER-BEARING NANNOFOSIL OOZE and MARLY NANNOFOSIL OOZE

CC is moderately disturbed.

Major lithology: Interbedded FORAMINIFER-BEARING NANNOFOSIL OOZE and MARLY NANNOFOSIL OOZE. Contacts are gradational. Beds range from light olive gray (5Y 6/2) to olive (5Y 5/4, 5/3, 4/4, 4/1), pale olive (5Y 6/3), and dark olive gray (5Y 5/8). Bioturbation is minor to moderate throughout.

SMEAR SLIDE SUMMARY (%):

| Component | Percentage
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand</td>
<td>10</td>
</tr>
<tr>
<td>Silt</td>
<td>20</td>
</tr>
<tr>
<td>Clay</td>
<td>70</td>
</tr>
</tbody>
</table>

TEXTURE:

| Component | Percentage
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand</td>
<td>5</td>
</tr>
<tr>
<td>Silt</td>
<td>15</td>
</tr>
<tr>
<td>Clay</td>
<td>80</td>
</tr>
</tbody>
</table>

COMPOSITION:

| Component   | Percentage
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Access, minerals</td>
<td>3</td>
</tr>
<tr>
<td>Clay</td>
<td>30</td>
</tr>
<tr>
<td>Dolomite</td>
<td>5</td>
</tr>
<tr>
<td>Feldspar</td>
<td>3</td>
</tr>
<tr>
<td>Foraminifers</td>
<td>5</td>
</tr>
<tr>
<td>Isopods</td>
<td>10</td>
</tr>
<tr>
<td>Mica</td>
<td>1</td>
</tr>
<tr>
<td>Nannofossils</td>
<td>40</td>
</tr>
<tr>
<td>Quartz</td>
<td>12</td>
</tr>
<tr>
<td>Radialasters</td>
<td>1</td>
</tr>
<tr>
<td>Sponge spicules</td>
<td>1</td>
</tr>
</tbody>
</table>
Interbedded NANNOFOSIL OOZE and MARLY NANNOFOSIL OOZE

CC is moderately disturbed.

Major lithology: interbedded NANNOFOSIL OOZE and MARLY NANNOFOSIL OOZE. Contacts are gradational. Beds range from light olive gray (5Y 6/2) to light gray (5Y 7/1), olive (5Y 5/4,4/4,4/3), and pale olives (5Y 6/6). Disturbance is minor to moderate throughout.

SMER SLIDE SUMMARY (%):

<table>
<thead>
<tr>
<th>Texture</th>
<th>Sand</th>
<th>Silt</th>
<th>Clay</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15</td>
<td>10</td>
<td>75</td>
</tr>
</tbody>
</table>

COMPOSITION:

<table>
<thead>
<tr>
<th>Access, minerals</th>
<th>2 %</th>
<th>1 %</th>
<th>1 %</th>
<th>1 %</th>
<th>1 %</th>
<th>1 %</th>
<th>1 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clays</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
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<tr>
<td>Feldspar</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Foraminifers</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
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<tr>
<td>Inorganic calcite</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
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<tr>
<td>Mica</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Nannofossils</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Quartz</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Radiolarians</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
Section 1 is slightly disturbed; initial stages of biscuit formation due to drilling.

Major lithology: NANNOFOSSIL OOZE. Beds range from white (5Y 8/1) to light olive gray (5Y 6/2), light gray (5Y 7/1, 7/2), olive (5Y 5/3, 5/4), and pale olive (5Y 6/3). Bioturbation is minor to moderate throughout.
**LITHOLOGIC DESCRIPTION**

Interbedded FORAMINIFER-BEARING NANNOFOSIL OOZE and MARLY NANNOFOSIL OOZE

Section 2 is slightly disturbed.

Major lithology: Interbedded FORAMINIFER-BEARING NANNOFOSIL OOZE and MARLY NANNOFOSIL OOZE. Contacts are gradational. Beds range from light olive gray (5Y 6/2) to olive gray (5Y 7/1), light greenish gray (10Y 7/1, 7/2), olive (5Y 5/3), and pale olive (5Y 6/3). Bioturbation is minor throughout.

**SMEAR SLIDE SUMMARY (%)**

- **TEXTURE:**
  - Sand: 10
  - Silt: 10
  - Clay: 80

- **COMPOSITION:**
  - Access, minerals: 7
  - Clay: 10
  - Foraminifers: 10
  - Volcanic glass: 7
  - Benthic foraminifers: 10
  - Foraminifers: 10
  - Nannofossils: 75
  - Quartz: 1
  - Radiolaria: 1

**GRAPHIC LITHOLOGY**

- Time Zone: PLEISTOCENE
- Depth Range: 2148.7-2158.3 mbsl; 120.9-130.5 mbsf

**PALEOMAGNETICS**

- Site: SITE 722
- Hole: HOLE B
- Core: CORE 13X
- Cored Interval: 2146.7-2158.3 mbsl; 120.9-130.5 mbsf
Interbedded NANNOFossil Ooze and MARLY NANNOFossil Ooze

Sections 1-3 and Section 7 are slightly disturbed. CC is moderately disturbed.

Major lithology: Interbedded NANNOFossil Ooze and MARLY NANNOFossil Ooze. Contacts are gradational. Beds range from light olive gray (5Y 6/2) to light gray (5Y 7/1), light grayish gray (10Y 7/1, 7/2, 6/2), and olive (5Y 6/2). Disturbation is minor to moderate throughout.

SMEAR SLIDE SUMMARY (%):

- Sand: 2%
- Silt: 10%
- Clay: 85%
- Mica: 5%
- Nannofossils: 90%
- Quartz: 10%
- Radiolarians: Tr
- Silicoflagellates: Tr
- Sponge spicules: Tr

TEXTURE:

- Sand: 2
- Silt: 10
- Clay: 85

COMPOSITION:

- Access, minerals: Tr
- Clay: 30
- Eolutes: Tr
- Foraminifers: Tr
- Volcanic glass: Tr
- Inorganic calcite: 7
- Mica: 1
- Nannofossils: 00
- Quartz: 10
- Radiolarians: Tr
- Silicoflagellates: Tr
- Sponge spicules: Tr
### Lithologic Description

**Nannofossil Ooze**

Section 1, 0-15 cm, is very disturbed. Section 1, 15-120 cm, is slightly disturbed.

Major lithology: Nannofossil Ooze. Beds range from light olive gray (5Y 6/2) to light greenish gray (10Y 7/1). Contacts are gradational. Bioturbation is minor to moderate throughout.

**Smear Slide Summary (%):**

<table>
<thead>
<tr>
<th></th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand</td>
<td>117</td>
</tr>
<tr>
<td>Silt</td>
<td>7</td>
</tr>
<tr>
<td>Clay</td>
<td>80</td>
</tr>
</tbody>
</table>

**Composition:**

| Access, minerals | 10% |
| Diatoms         | 10% |
| Foraminifers    | 3%  |
| Volcanic glass  | 1%  |
| Inorganic sulfate | 1% |
| Nannofossils    | 90% |
| Quartz          | 1%  |
| Radiolarians    | 1%  |
Interbedded NANNOFOSIL Ooze and DIATOM-BEARING NANNOFOSIL Ooze

CC is moderately disturbed.

Major lithology: INTERBEDDED NANNOFOSIL Ooze and DIATOM-BEARING NANNOFOSIL Ooze. Contacts are gradational. Beds range from light olive gray (5Y 6/2) to light gray (5Y 7/1), light greenish gray (5Y 6/3), olive gray (5Y 4/2), and olive (5Y 4/3, 4/4, 5/3). Bioturbation is minor to moderate throughout. Diatom-bearing beds occur as darker, more clayey beds.

SMEAR SLIDE SUMMARY (%):

**COMPOSITION:**
- Clay: 10
- Diatoms: 10
- Dolomite: 10
- Foraminifers: 10
- Inorganic calcite: 10
- Nannofossils: 10
- Quartz: 10
- Silicoflagellates: 10

**TEXTURE:**
- Silt: 10
- Clay: 90

**CONTACTS:**

INTERBEDDED NANNOFOSIL Ooze and DIATOM-BEARING NANNOFOSIL Ooze. Contacts are gradational.
**Core Interval:** 2177.7-2187.3 mbsf; 149.9-159.5 mbsf

### Lithologic Description

#### NANNOFOSSIL CHALK

Section 1, 0-10 cm, is moderately disturbed.

Major lithology: NANNOFOSSIL CHALK. Beds range from light gray (5Y 7/1) to light greenish gray (10Y 7/1, 6/2), olive gray (5Y 5/2), olive (5Y 5/3, 4/2, 4/3), and dark greenish gray (10Y 5/2). Contacts are gradational except for a sharp contact in Section 2, 20-110 cm. Disturbance is minor to moderate throughout.

#### Smear Slide Summary (%):

<table>
<thead>
<tr>
<th>Component</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clay</td>
<td>10</td>
</tr>
<tr>
<td>Diatoms</td>
<td>10</td>
</tr>
<tr>
<td>Foraminifera</td>
<td>5</td>
</tr>
<tr>
<td>Inorganic calcite</td>
<td>5</td>
</tr>
<tr>
<td>Nannofossils</td>
<td>80</td>
</tr>
<tr>
<td>Quartz</td>
<td>11</td>
</tr>
</tbody>
</table>

#### Texture:

- Stiff
- Dry

---

**Time-Disc Unit**

- **Stage/Zone/Epoch/Formation:**"
SITE 722 HOLE B  CORE 18X  CORED INTERVAL 2187.3-2197.0 mbsl; 159.5-169.2 mbsf

### Lithologic Description

**NANOFOSIL CHALK**

Section 1, 70 cm, to Section 2, 150 cm, is slightly disturbed. Section 4 to Section 6 is slightly to moderately disturbed. CC is moderately disturbed.

Major lithology: NANOFOSIL CHALK. Beds range from gray (5Y 6/1) to light olive gray (5Y 6/2), light gray (5Y 7/1), olive gray (5Y 5/2), and olive (5Y 5/3). Contacts are gradational. Bioturbation is minor throughout.

**Smear Slide Summary (%):**

<table>
<thead>
<tr>
<th>Texture</th>
<th>Silt</th>
<th>Clay</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>10</td>
<td>80</td>
</tr>
</tbody>
</table>

**Composition:**

- Clay: 10%
- Diatoms: 10%
- Foraminifers: 5%
- Inorganic calcite: Tr
- Nannofossils: 85%
- Quartz: Tr

---

**Graphic Lithology:**

<table>
<thead>
<tr>
<th>Sample</th>
<th>Texture</th>
<th>Clay</th>
<th>Diatoms</th>
<th>Foraminifers</th>
<th>Inorganic calcite</th>
<th>Nannofossils</th>
<th>Quartz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section 1</td>
<td>Silt</td>
<td>10%</td>
<td>10%</td>
<td>Tr</td>
<td>Tr</td>
<td>85%</td>
<td>Tr</td>
</tr>
<tr>
<td>Section 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Section 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Section 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Section 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Section 6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**M. OCEAN**

**NN1 (Nannofossil assemblage) Quaternary age group**

---

**Section 1:**

- 70 cm to 150 cm: Slightly disturbed.
- 150 cm to 2187.3 mbsl: Moderately disturbed.
- 2187.3 mbsl to 2197.0 mbsl: CC moderately disturbed.

**Major lithology:**

- NANOFOSIL CHALK
- Contacts are gradational.
- Bioturbation is minor throughout.

---

**Graphical Representation:**

- **Time-rock unit:**
  - **Section:** 1 to 7
  - **Depth:** 0 to 2197.0 mbsl

- **Graphic Lithology:**
  - **Text:** Silt, Clay
  - **Composition:** Clay, Diatoms, Foraminifers, Inorganic calcite, Nannofossils, Quartz

---

**Smear Slide Summary (%):**

- **Texture:** Silt (10%), Clay (80%)
- **Composition:**
  - Clay: 10%
  - Diatoms: 10%
  - Foraminifers: 5%
  - Inorganic calcite: Tr
  - Nannofossils: 85%
  - Quartz: Tr

---

**M. OCEAN:**

**NN1 (Nannofossil assemblage) Quaternary age group**

---

**Section 1:**

- 70 cm to 150 cm: Slightly disturbed.
- 150 cm to 2187.3 mbsl: Moderately disturbed.
- 2187.3 mbsl to 2197.0 mbsl: CC moderately disturbed.

**Major lithology:**

- NANOFOSIL CHALK
- Contacts are gradational.
- Bioturbation is minor throughout.
**SITE 722 HOLE B CORE 19X CORED INTERVAL 2197.0-2206.7 mbsl; 169.2-178.9 mbsf**

**LITHOLOGIC DESCRIPTION**

NANNOFOSSIL CHALK:

Section 1 to Section 2 is slightly disturbed. CC is moderately disturbed.

Major lithology: NANNOFOSSIL CHALK. Beds range from light olive gray (5Y 6/2) to light gray (5Y 7/1), light greenish gray (10Y 7/1), olive gray (5Y 5/2, 4/2), olive (5Y 5/3, 4/3), pale olive (5Y 6/3), dark greenish gray (5Y 6/3), and dark olive gray (5Y 3/2). Contacts are gradational. Bioturbation is minor to strong.

**SMEAR SLIDE SUMMARY (%)**:%

<table>
<thead>
<tr>
<th>Texture</th>
<th>3.25</th>
<th>4.51</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silt</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Clay</td>
<td>90</td>
<td>90</td>
</tr>
</tbody>
</table>

**COMPOSITION**:

| Clay     | 10   | 20   |
| Diatoms  | Tr   | Tr   |
| Foraminifera | Tr  | Tr   |
| Inorganic calcite | 5 | 5   |
| Nannofossils | 80 | 69   |
| Organic debris | Tr | Tr   |
| Quartz   | Tr   | Tr   |
| Radiolarians | Tr | Tr   |
| Sponge spicules | Tr | Tr   |

**GRAPHIC LITHOLOGY**

[Image of core samples and graphic representation of lithology]
Interbedded NANNOFOSIL CHALK and MARLY NANNOFOSIL CHALK

Section 1 is slightly disturbed. CC is moderately disturbed.

Major lithology: Interbedded NANNOFOSIL CHALK and MARLY NANNOFOSIL CHALK. Contacts are gradational. Beds range from light olive gray (5Y 6/2) to light gray (5Y 7/1), olive gray (5Y 5/2), pale olive gray (5Y 6/2), and dark greenish gray (10Y 4/2). Bioturbation is minor to moderate throughout.

SMEAR SLIDE SUMMARY (%):

- 2, 93

TEXTURE:

- Clay

COMPOSITION:

- Clay: 25
- Foraminifers: 1
- Inorganic calcite: 7
- Mica: 3
- Nannofossils: 16
- Quartz: 3
- Radiolarians: 1
- Rock fragments: 10
**MIOCENE**

**SITE 722 HOLE B**

**CORE 21X**

**CORREL INTERVAL 2216.3-2226.0 mbsl: 188.5-198.2 mbsf**

**BIOSTRAT. ZONE**

**FOSSIL CHARACTER**

**GRAPHIC LITHOLOGY**

**LITHOLOGIC DESCRIPTION**

NANNOFOSSIL CHALK
olive (3Y or 4/3). Contacts are gradational. Texturation is minor to moderate throughout. Minor lithology: Silica-bearing calcitic silty claystone, dark olive gray (5Y 3/2). Section 3, 86-92 cm.

**SMEAR SLIDE SUMMARY (%):**

<table>
<thead>
<tr>
<th>TEXTURE</th>
<th>Sand</th>
<th>Silt</th>
<th>Clay</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPOSITION</td>
<td>Clay</td>
<td>Diatoms</td>
<td>Dolomite</td>
</tr>
</tbody>
</table>

3, 90 M 5 40 55 48 5 10 3 5 4 20 2 2
**SITE** 722

**HOLE** B

**CORE** 22X

**CORED INTERVAL** 226.0-2235.7 mbSl: 198.2-207.9 mbsf

### Lithologic Description

- Interbedded DIATOM-BEARING NANNOFOSSIL CHALK and MARLY NANNOFOSSIL CHALK
- Sections 1 and CC are moderately disturbed. Sections 2 and 3 are slightly disturbed.

### Major Lithology

- Interbedded DIATOM-BEARING NANNOFOSSIL CHALK and MARLY NANNOFOSSIL CHALK
- Contacts are gradational.
- Beds range from white (5Y 8/1) to gray (5Y 6/1), light gray (5Y 7/1, 7/2), and olive (5Y 5/3, 5/4, 4/3).
- Bioturbation is minor to moderate throughout.

### SMEAR SLIDE SUMMARY (%):

- Silt: 20%
- Clay: 80%

### Composition:

- Access, minerals
- Clay: 30%
- Diatoms: 5%
- Foraminifers: 3%
- Inorganic calcite: 3%
- Nannofossils: 55%
- Organic debris: 2%
- Quartz: Tr
- Radiolarians: Tr

---

**Graph of Core**

**Section**

- **CC**: Core of Core
- **Ch`: Chronozone 5
- **C`: Chronozone 6
- **D`: Chronozone 7
- **E`: Chronozone 8
- **F`: Chronozone 9
- **G`: Chronozone 10

**TIME-ROCK UNIT**

- **FORAMINIFERS**
- **NANOFOSSELS**
- **RADIOLARIANS**
- **DIATOMS**

**PALEOMAGNETICS**

**PHYS. PROPERTIES**

**CHEMISTRY**

**DIAGRAMS**

**SED. STRUCTURES**

**SAMPLES**

---

**Lithologic Log**

- **COMPOSITION**
- **TEXTURE**
- **SAMPLES**
- **Drilling Disturbance**
- **Lithologic Description**

---

**NN11 Discoaster quinqueramus**

---

**SITE** 722
**SITE 722 HOLE B**
**CORE 23X**
**CORED INTERVAL** 2235.7-2245.3 mbsl; 207.9-217.5 mbsf

### Lithologic Description

**NANNOFOSSIL CHALK**

Sections 1-3 are slightly disturbed. CC is highly fragmented.

Major lithology: NANNOFOSSIL CHALK. Beds range from light olive gray (5Y 7/1, 7/2) to olive gray (5Y 5/2) and pale olive (5Y 6/3). Contacts are gradational. Bioturbation is minor throughout.

**Smeared Slide Summary (%):**

<table>
<thead>
<tr>
<th>Component</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silt</td>
<td>4,60</td>
</tr>
<tr>
<td>Clay</td>
<td>5</td>
</tr>
</tbody>
</table>

**Texture:**

- Silt: 5
- Clay: 95

**Composition:**

- Clay: 10
- Foraminifers: 5
- Inorganic calcite: 11
- Nannofossils: 85
- Quartz: 11

---

**Time-Rock Unit**

- MIOCENE: NN11
- QUAZARANES: 3-10

---

**Dilution, Structures**

---

**Lithologic Description**

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**Graphic Lithology**

---

---

---
INTERBEDDED NANNOFOSIL CHALK AND DIATOM-BEARING NANNOFOSIL CHALK

Entire core is slightly disturbed. Major lithology: Interbedded NANNOFOSIL CHALK and DIATOM-BEARING NANNOFOSIL CHALK. Contacts are gradational. Beds range from light olive gray (5Y 6/2) to light gray (5Y 7/1). Bioturbation is minor throughout.

SMEAR SLIDE SUMMARY (%):

<table>
<thead>
<tr>
<th>TEXTURE</th>
<th>Sand</th>
<th>Silt</th>
<th>Clay</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10</td>
<td>30</td>
<td>65</td>
</tr>
</tbody>
</table>

COMPOSITION:

<table>
<thead>
<tr>
<th>Clay</th>
<th>20</th>
<th>15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diam</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>Dolomite</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>Foraminifera</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Inorganic calcite</td>
<td>74</td>
<td>50</td>
</tr>
<tr>
<td>Nannofossils</td>
<td>50</td>
<td>3</td>
</tr>
<tr>
<td>Pyrite</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Quartz</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Radiolarians</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Sponge spicules</td>
<td>5</td>
<td>1</td>
</tr>
</tbody>
</table>

FIGURE 1: Lithologic Description
Interbedded NANNOFOSIL CHALK and DIATOM-BEARING NANNOFOSIL CHALK

Sections 1, 2, 5, 6, and 8 are slightly disturbed.

Major lithology: Interbedded NANNOFOSIL CHALK and DIATOM-BEARING NANNOFOSIL CHALK. Contacts are gradational. Beds range from white (5Y 8/1) to light olive gray (5Y 7/1, 7/2), olive gray (5Y 5/2), and olive (5Y 5/3). Bioturbation is minor throughout.

SMEAR SLIDE SUMMARY (%):

<table>
<thead>
<tr>
<th>TEXTURE</th>
<th>Silt</th>
<th>Clay</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>25</td>
<td>60</td>
</tr>
<tr>
<td>2</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td>3</td>
<td>65</td>
<td>80</td>
</tr>
</tbody>
</table>

COMPOSITION:

- Clay: 5%
- Dolomite: 5%
- Foraminifers: 5%
- Inorganic calcite: 5%
- Nannofossils: 3%
- Quartz: 75%
- Radiolarians: 3%
- Rock fragments: 5%
Core 26X
Cored Interval: 2264.7-2274.3 mbsl; 236.9-246.5 mbsf

**Lithologic Description**

Interbedded Nannofossil Chalk and Diatom-Bearing Nannofossil Chalk.

Sections 1-4 and Section 6 are slightly disturbed.

Major lithology: Interbedded Nannofossil Chalk and Diatom-Bearing Nannofossil Ooze. Contacts are gradational. Beds range from light olive gray (5Y 6/2) to light gray (5Y 7/2, 7/1), olive gray (5Y 5/2), and olive (5Y 5/3).

Bioturbation is minor to moderate throughout.

**Smear Slide Summary (%):**

<table>
<thead>
<tr>
<th>Composition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand</td>
</tr>
<tr>
<td>Silt</td>
</tr>
<tr>
<td>Clay</td>
</tr>
</tbody>
</table>

**Texture:**

- Sand 5%
- Silt 10%
- Clay 85%

**Composition:**

- Clay 10%
- Diatoms 5%
- Foraminifers 3%
- Inorganic calcite 1%
- Nannofossils 60%
- Ooliths 9%
- Radiolarians 1%
Interbedded NANNOFOSIL CHALK and DIATOM-NANNOFOSIL CHALK

Major lithology: Interbedded NANNOFOSIL CHALK and DIATOM-NANNOFOSIL CHALK. Contacts are gradational. Beds range from white (5Y 6/1) to gray (5Y 6/1), light gray (5Y 7/1, 6/1), light greenish gray (10Y 7/1, 6/2), olive gray (5Y 6/2), olive (5Y 5/3, 4/3, 5/4), and pale olive (5Y 5/2). Bioturbation is minor throughout. The diatom-nannofossil chalk occurs mainly as darker beds.

SMEAR SLIDE SUMMARY (%):

<table>
<thead>
<tr>
<th>Component</th>
<th>2</th>
<th>5</th>
<th>80</th>
<th>114</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand</td>
<td></td>
<td></td>
<td>20</td>
<td>15</td>
</tr>
<tr>
<td>Clay</td>
<td></td>
<td></td>
<td>75</td>
<td>65</td>
</tr>
</tbody>
</table>

TEXTURE:

Sand 5
Clay 75

COMPOSITION:

Access, minerals 10
Clay 75
Diatom 30
Dolomite 10
Foraminifers 10
Nannofossils 70
Quartz 10
Radiolarians 10
Silicoflagellates 10
Sponge spicules 10
**SITE 722 HOLE B**

**CORE 28X**

**CORED INTERVAL:** 2284.0-2293.7 mbsl; 256.2-265.9 mbsf

---

### Lithologic Description

Interbedded NANNOFossil CHALK and DIATOM-BEARING NANNOFossil CHALK

Entire core is moderately disturbed.

Major lithology: Interbedded NANNOFossil CHALK and DIATOM-BEARING NANNOFossil CHALK. Contacts are gradational. Beds range from light olive gray (5Y 6/2) to light gray (5Y 7/1) and olive gray (5Y 5/2). Bioturbation is minor throughout.

**SMEAR SLIDE SUMMARY (%):**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand</td>
<td>5</td>
</tr>
<tr>
<td>Silt</td>
<td>15</td>
</tr>
<tr>
<td>Clay</td>
<td>80</td>
</tr>
</tbody>
</table>

**COMPOSITION:**

- Clay: 10%
- Diatoms: 5%
- Foraminifers: 5%
- Nannofossils: 80%
- Quartz: 1%
- Radiolarians: 1%
- Silicoflagellates: 1%
Interbedded Nannofossil Chalk and Diatom-Bearing Nannofossil Chalk.

Section 2, 0-70 cm, is very disturbed. Section 1 and Section 5, 50 cm, to Section 7, 20 cm, are moderately disturbed. Remainder of the core is slightly disturbed.

Major lithology: Interbedded Nannofossil Chalk and Diatom-Bearing Nannofossil Chalk. Contacts are gradational. Beds range from gray (5Y 6/2), light olive gray (5Y 7/1), light gray (5Y 7/2), olive gray (5Y 5/2, 4/3, 4/2), and olive (5Y 5/2). Bioturbation is minor to moderate throughout.

Smear Slide Summary (%):

- Sand: 40
- Silt: 30
- Clay: 30

Composition:
- Access. minerals: 1
- Cement: 30
- Clay: 20
- Feldspar: 10
- Hornblende: 1
- Mica: 3
- Opal: 4
- Quartz: 40
**SITE 722 HOLE B**  
**CORE 3OX**  
**CORED INTERVAL 2303.4-2313.1 mbsl; 275.6-285.3 mbsf**

<table>
<thead>
<tr>
<th>TIME-SOIL UNIT</th>
<th>FORMATION</th>
<th>NANNOSACCHAROSIS</th>
<th>DIATOM-BEARING NANNOSACCHAROSIS</th>
<th>CHALK</th>
<th>GRAPHIC LITHOLOGY</th>
<th>SEcular STRUCTURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIocene</td>
<td>D. radiata</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**LITHOLOGIC DESCRIPTION**

Interbedded NANNOSACCHAROSIS and DIATOM-BEARING NANNOSACCHAROSIS CHALK.

CC is highly fragmented. Remainder of the core is moderately fractured.

Major lithology: Interbedded NANNOSACCHAROSIS and DIATOM-BEARING NANNOSACCHAROSIS CHALK. Contacts are gradational. Beds range from gray (5Y 6/1) to light gray (5Y 7/1) and olive gray (5Y 5/2). Bioturbation is minor throughout.
Interbedded NANNOFOSSIL CHALK and DIATOM-BEARING NANNOFOSSIL CHALK

Section 5, 20-85 cm, and Section 6, 25-140 cm, are slightly fractured. Section 1, Section 3, and CC are slightly disturbed. Remainder of the core is moderately disturbed.

Major lithology: Interbedded NANNOFOSSIL CHALK and DIATOM-BEARING NANNOFOSSIL CHALK. Contacts are gradational. Beds range from gray (5Y 6/1) to light olive gray (5Y 6/2), light gray (5Y 7/1), olive gray (5Y 5/2), and olive (5Y 5/3, 4/3). Bioturbation is minor to strong throughout and most evident across contacts.

SMEAR SLIDE SUMMARY (%):

<table>
<thead>
<tr>
<th>Composition</th>
<th>1</th>
<th>6</th>
<th>67</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand</td>
<td>10</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Silt</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clay</td>
<td>80</td>
<td>90</td>
<td></td>
</tr>
</tbody>
</table>

TEXTURE:

Clay: 15%
Diatoms: 10%
Foraminifers: 5%
Inorganic calcite: 5%
Mica: 5%
Nannofossils: 85%
Quartz: 5%
Radiolaria: 5%
Silicoflagellates: 5%
Sponge spicules: 5%

COMPOSITION:

Clay: 15%
Diatoms: 10%
Foraminifers: 5%
Inorganic calcite: 5%
Mica: 5%
Nannofossils: 85%
Quartz: 5%
Radiolaria: 5%
Silicoflagellates: 5%
Sponge spicules: 5%

GRAPHIC LITHOLOGY

LITHOLOGIC DESCRIPTION

Interbedded NANNOFOSSIL CHALK and DIATOM-BEARING NANNOFOSSIL CHALK

Section 5, 20-85 cm, and Section 6, 25-140 cm, are slightly fractured. Section 1, Section 3, and CC are slightly disturbed. Remainder of the core is moderately disturbed.

Major lithology: Interbedded NANNOFOSSIL CHALK and DIATOM-BEARING NANNOFOSSIL CHALK. Contacts are gradational. Beds range from gray (5Y 6/1) to light olive gray (5Y 6/2), light gray (5Y 7/1), olive gray (5Y 5/2), and olive (5Y 5/3, 4/3). Bioturbation is minor to strong throughout and most evident across contacts.
Interbedded Nannofossil Chalk and Diatomaceous Marly Nannofossil Chalk

Sections 1-2 are slightly disturbed. Sections 3-CC are moderately disturbed. Major lithology: Interbedded Nannofossil Chalk and Diatomaceous Marly Nannofossil Chalk. Contacts are gradational except for sharp contact in Section 4, 73 cm. Beds range from light olive gray (5Y 6/2) to light gray (5Y 7/1, 7/2), olive (5Y 4/3, 4/2), pale olive (5Y 6/3), and dark olive gray (5Y 3/2). Bioturbation is minor to moderate throughout.

SMEAR SLIDE SUMMARY (%):

<table>
<thead>
<tr>
<th>2</th>
<th>5</th>
<th>16</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>M</td>
<td></td>
</tr>
</tbody>
</table>

TEXTURE:

| Sand | 10 |
| Silt | 10 |
| Clay | 80 |

COMPOSITION:

| Clay | 10 |
| Diatoms | 10 |
| Inorganic calcite | Tr |
| Mica | Tr |
| Nannofossils | 80 |
| Quartz | 15 |
| Radiolarians | Tr |
| Silicoflagellates | Tr |
| Sponge spicules | Tr |
INTERBEDDED NANNOFOSIL CHALK and DIATOMACEOUS MARLY NANNOFOSIL CHALK

Entire core is moderately disturbed to highly fractured.

Major lithologic: Interbedded NANNOFOSIL CHALK and DIATOMACEOUS MARLY NANNOFOSIL CHALK. Contacts are gradational. Beds range from light olive gray (SY 6/2) to light gray (SY 7/1), olive (SY 5/4, 5/3), and dark olive gray (SY 3/2). Bioturbation is minor to strong throughout. Diatomaceous marly nannofossil chalk occurs as darker beds.
Interbedded NANNOFossil CHALK and DIATOMACEOUS MARLY NANNOFossil CHALK

Entire core is slightly disturbed to brecciated.

Major lithology: Interbedded NANNOFossil CHALK and DIATOMACEOUS MARLY NANNOFossil CHALK. Contacts are gradational except for sharp contact in Section 2, 35 cm. Beds range from light olive gray (5Y 6/2) to light gray (5Y 7/1), olive gray (5Y 5/2), and olive (5Y 4/3, 5/3). Bioturbation is minor to strong throughout. Subvertical, en echelon dewatering (?) structures are present in darker, diatomaceous beds.

SMEAR SLIDE SUMMARY (%):

<p>| | | |</p>
<table>
<thead>
<tr>
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<tbody>
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<td></td>
</tr>
</tbody>
</table>

TEXTURE:

<p>| | | |</p>
<table>
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</thead>
<tbody>
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</tr>
</tbody>
</table>

COMPOSITION:

<p>| | | |</p>
<table>
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<tbody>
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<tr>
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<td></td>
</tr>
</tbody>
</table>

- Access, minerals
- Clay
- Diatoms
- Fossils
- Volcanic glass
- Biotite
- Foraminifers
- Quartz
- Radiolarians
- Silicoflagellates
- Sponge spicules
SITE 722 HOLE B CORE 35X CORED INTERVAL 2351.8-2361.5 mbsl; 324.0-337.7 mbsf

LITHOLOGIC DESCRIPTION

Interbedded NANNOFOSIL CHALK and DIATOMACEOUS MARLY NANNOFOSIL CHALK

Entire core is slightly fractured.

Major lithology: Interbedded NANNOFOSIL CHALK and DIATOMACEOUS MARLY NANNOFOSIL CHALK. Contacts are gradational except for sharp contacts in Section 6, 137 cm, and CC, 24 cm. Beds range from white (5Y 6/1) to gray (5Y 6/1), light olive gray (5Y 6/2), light gray (5Y 7/2, 7/1), light greenish gray (5GY 7/1, 10Y 6/2), olive (5Y 5/4, 5/3, 4/3), pale olive (5Y 6/3), and dark greenish gray (5GY 6/1). Bioturbation is minor to strong throughout.

Subvertical, en echelon dewatering (?) structures are present in light and dark beds, but they are larger and more prevalent in darker beds. Concentric purple alteration rings around burrows occur within the lighter beds.

SMEAR SLIDE SUMMARY (%):

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand</td>
<td>10</td>
</tr>
<tr>
<td>Silt</td>
<td></td>
</tr>
<tr>
<td>Clay</td>
<td>70</td>
</tr>
</tbody>
</table>

TEXTURE:

- Sand
- Silt
- Clay

COMPOSITION:

- Access. minerals: 2
- Clay: 70
- Feldspar: 1
- Foraminifera: 1
- Inorganic calcite: 3
- Mica: 3
- Manganese: 35
- Quartz: 3
- Radiolarians: 3
- Silicoflagellates: 3
- Sponge spicules: 3

Access: Access. minerals
SITE 722 HOLE B CORE 36X CORED INTERVAL 2361.5-2371.2 mbsl; 333.7-343.4 mbsf

**Lithologic Description**

Interbedded NANNOFOSSIL CHALK and DIATOMACEOUS MARLY NANNOFOSSIL CHALK.

Section 1 is slightly fractured. Section 2 to Section 4, 90 cm, is moderately fractured. CC is highly fragmented.

Major lithology: Interbedded NANNOFOSSIL CHALK and DIATOMACEOUS MARLY NANNOFOSSIL CHALK. Contacts are gradational except for sharp contact at Section 4, 28 cm. Beds range from light gray (5Y 7/2, 7/1) to light greenish gray (10Y 7/1, 6/2), olive (5Y 5/4, 4/3), pale olive (5Y 6/3), and dark greenish gray (5GY 7/1, 6/1). Bioturbation is minor to moderate throughout the core. Concentric purple calcite alteration rings around burrows occur within the lighter beds.

**Smear Slide Summary (%):**

<table>
<thead>
<tr>
<th>Texture</th>
<th>Sand</th>
<th>Silt</th>
<th>Clay</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.92</td>
<td>75</td>
<td>90</td>
<td></td>
</tr>
</tbody>
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**Composition:**

<table>
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<tr>
<th>Access. minerals</th>
<th>Clay</th>
<th>Diatom</th>
<th>Dolomite</th>
<th>Feldspar</th>
<th>Foraminiferal</th>
<th>Grains and grit</th>
<th>Inorganic calcite</th>
<th>Mica</th>
<th>Nanotubes</th>
<th>Quartz</th>
<th>Radiolarians</th>
<th>Silicoflagellates</th>
<th>Sponge spicules</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10</td>
<td>25</td>
<td>5</td>
<td>1</td>
<td>9</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>40</td>
<td>85</td>
<td>3</td>
<td>7</td>
<td>1</td>
</tr>
</tbody>
</table>

**Graphic Lithology**

<table>
<thead>
<tr>
<th>Section</th>
<th>Lithology</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Interbedded NANNOFOSSIL CHALK and DIATOMACEOUS MARLY NANNOFOSSIL CHALK</td>
</tr>
<tr>
<td>2</td>
<td>Section 2 to Section 4, 90 cm, is moderately fractured. CC is highly fragmented.</td>
</tr>
<tr>
<td>3</td>
<td>Major lithology: Interbedded NANNOFOSSIL CHALK and DIATOMACEOUS MARLY NANNOFOSSIL CHALK.</td>
</tr>
<tr>
<td>4</td>
<td>Contacts are gradational except for sharp contact at Section 4, 28 cm. Beds range from light gray (5Y 7/2, 7/1) to light greenish gray (10Y 7/1, 6/2), olive (5Y 5/4, 4/3), pale olive (5Y 6/3), and dark greenish gray (5GY 7/1, 6/1). Bioturbation is minor to moderate throughout the core. Concentric purple calcite alteration rings around burrows occur within the lighter beds.</td>
</tr>
</tbody>
</table>
NANNOFOSSIL CHALK

Section 1, 0 cm, to Section 2, 20 cm, and Section 3, 10 cm, to Section 7, 30 cm, are slightly fractured. Section 2, 20 cm, to Section 3, 90 cm, is moderately fractured. CC is highly fragmented.

Major lithology: NANNOFOSSIL CHALK. Beds range from white (5Y 8/1) to gray (5Y 7/1), light olive gray (5Y 6/1), light gray (5Y 7/1), light greenish gray (5G 7/1), olive (5Y 6/2), and dark greenish gray (10Y 5/1). Contacts are gradational except for Section 2, 93 cm, and Section 6, 84 cm. Bioturbation is minor to moderate throughout. Lighter beds contain burrows encircled by concentric purple alteration rings.

SMEAR SLIDE SUMMARY (%):
SITE 722 HOLE B  CORE 38X  CORED INTERVAL 2380.9-2390.6 mbsl; 353.1-362.8 mbsf

**LITHOLOGIC DESCRIPTION**

Interbedded NANNOFOSIL CHALK and MARLY NANNOFOSIL CHALK

Entire core is slightly fractured to highly fragmented.

Major Lithology: Interbedded NANNOFOSIL CHALK and MARLY NANNOFOSIL CHALK. Contacts are gradational. Beds range from white (5Y 6/1) to light gray (5Y 7/1), light greenish gray (5G 7/1), dark greenish gray (5G 6/1), and dark greenish gray (10Y 4/2, 5G). Bioturbation is moderate throughout. Lighter beds contain burrows encircled by concentric purple alteration rings.

**SMEAR SLIDE SUMMARY (%):**

<table>
<thead>
<tr>
<th>1</th>
<th>4.72</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**TEXTURE:**

| Sand | 5 |
| Silt | 10 |
| Clay | 85 |

**COMPOSITION:**

- Access, minerals
- Diatoms
- Grains

- Feldspar
- Foraminifers
- Volcanic glass
- Inorganic calcite
- Nannofossils
- Quartz
- Radiolarians
- Sponge spicules

| Access, minerals | 2 |
| Diatoms | 2 |
| Grains | 2 |
| Feldspar | 2 |
| Foraminifers | 2 |
| Volcanic glass | 2 |
| Inorganic calcite | 2 |
| Nannofossils | 2 |
| Quartz | 2 |
| Radiolarians | 2 |
| Sponge spicules | 2 |
SITE 722 HOLE B
CORE 39X CORED INTERVAL 2390.6-2400.3 mbsl; 362.3-362.5 m DSF

LITHOLOGIC DESCRIPTION
Interbedded NANNOFOSIL CHALK and MARLY NANNOFOSIL CHALK
Entire core is moderately fractured.
Major lithology: Interbedded NANNOFOSIL CHALK and MARLY NANNOFOSIL CHALK. Contacts are gradational. Beds range from white (5Y 8/1) to light gray (N7), light greenish gray (5BG 7/1, 5G 7/1, 5GY 7/1), and greenish gray (5GY 6/1). Bioturbation is minor to moderate throughout. Lighter beds contain burrows encircled by concentric purple alteration rings.

SMEAR SLIDE SUMMARY (%):
1, 85 2, 32

COMPOSITION:
Access, minerals
Clay
Dolomite
Feldspar
Foraminifers
Volcanic glass
Inorganic calcite
Mica
Nannofossils
Quartz
Radiolarians
Sponge spicules

918
Interbedded NANNOFOSIL CHALK and FORAMINIFER-BEARING NANNOFOSIL CHALK. Entire core is slightly fractured to highly fragmented.

Major lithology: Interbedded NANNOFOSIL CHALK and FORAMINIFER-BEARING NANNOFOSIL CHALK. Contacts are gradational except for sharp contact at Section 2, 70 cm. Beds range from white (5Y 8/1) to gray (5Y 6/1), light gray (N7 5Y 7/1), light greenish gray (5GY 7/1), greenish gray (5G 5/1, 6/1; 5GY 6/1), and olive gray (5Y 5/2). Bioturbation is moderate to strong throughout. Lighter beds contain concentric purple alteration rings around burrows.

**SMEAR SLIDE SUMMARY (%):**  
<table>
<thead>
<tr>
<th>Component</th>
<th>D</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Silt</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Clay</td>
<td>95</td>
<td>85</td>
</tr>
</tbody>
</table>

**COMPOSITION:**  
- Access. minerals: 7%
- Clay: 10%
- Dolomite: 7%
- Foraminifers: 2%
- Inorganic calcite: 3%
- Nannofossils: 85%
Interbedded NANNOFOSIL CHALK and FORAMINIFER-BEARING NANNOFOSIL CHALK. Entire core is slightly to moderately shattered. Contacts are gradational. Beds range from white (2.5Y 8/1) to light gray (N7), light greenish gray (5GY 7/1, 5G 7/1), and greenish gray (5GY 6/1). Bioturbation is minor throughout. Lighter beds contain burrows encircled by concentric purple alteration rings.

**SMEAR SLIDE SUMMARY (%):**

- **1.48 D**

**TEXTURE:**
- Silt: 5
- Clay: 95

**COMPOSITION:**
- Clay: 5
- Dolomite: 1
- Manganese calcite: 2
- Nannofossils: 90
**Lithologic Description**

Interbedded NANNFOSSIL CHALK and MARLY NANNFOSSIL CHALK

Entire core is slightly fractured to highly fragmented.

Major lithology: Interbedded NANNFOSSIL CHALK and MARLY NANNFOSSIL CHALK. Contacts are gradational. Beds range from white (N8) to gray (5Y 5/1, 6/1) and light gray (5Y 7/1). Bioturbation is minor to moderate throughout. Diagenetic fronts (stylolites) occur within the lighter beds.

**Smear Slide Summary (%)**

<table>
<thead>
<tr>
<th>Texture</th>
<th>Silt</th>
<th>Clay</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0%</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Composition**

<table>
<thead>
<tr>
<th>Access, minerals</th>
<th>5</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clay</td>
<td>35</td>
<td>100</td>
</tr>
<tr>
<td>Dolomite</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>Inorganic calcite</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>Nannofossils</td>
<td>82</td>
<td>100</td>
</tr>
</tbody>
</table>

- **TEXTURE:** Silt, Clay
- **COMPOSITION:** Access, minerals, Clay, Dolomite, Inorganic calcite, Nannofossils, Quartz

**Note:** The table above represents the composition of the sediment samples from Site 722 Hole B Core 42X Cored Interval 2419.6-2429.2 mbsl; 391.8-401.4 mbsf.
**LITHOLOGIC DESCRIPTION**

Entire core is slightly fractured to highly fragmented.

Major lithology: Interbedded NANNOFOSIL CHALK and FORAMINIFER-BEARING NANNOFOSIL CHALK. Contacts are gradational. Beds range from white (5Y 8/0, 2.5Y 8/9, 5Y 8/1) to light gray (2.5Y 7/2, 5Y 7/1), light brownish gray (2.5Y 6/2), gray (5Y 6/1), light olive gray (5Y 6/2), olive gray (5Y 5/2, 4/3), and light greenish gray (10Y 7/1, 6/1). Bioturbation is minor to strong throughout.

**SMear SLIDE SUMMARY (%):**

<table>
<thead>
<tr>
<th>TEXTURE</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silt</td>
<td>20</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clay</td>
<td>80</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**COMPOSITION:**

- Access, minerals: 10%
- Clay: 80%
- Dolomite: 5%
- Foraminifers: 10%
- Inorganic calcite: 10%
- Nannofossils: 80%
- Quartz: 10%
SITE 722 HOLE B CORE 44X CORED INTERVAL 2438.9-2448.6 mbsl; 411.1-420.8 mbsf

LITHOLOGIC DESCRIPTION

Interbedded NANNOFOSIL CHALK and MARLY NANNOFOSIL CHALK

Entire core is slightly disturbed.

Major lithology: Interbedded NANNOFOSIL CHALK and MARLY NANNOFOSIL CHALK. Contacts are gradational. Beds range from gray (5Y 6/1) to olive gray (5Y 5/2, 4/3, 4/2), pale brown (10YR 5/3), and yellowish brown (10YR 5/4). Bioturbation is minor throughout.

Minor lithology: Silty claystone, greenish gray (5G 6/1, 6/2), with parallel laminae. Basal contact usually sharp, upper contact gradational with major lithology.

SMEAR SLIDE SUMMARY (%):

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>5</th>
<th>111</th>
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<tr>
<td>1,120</td>
<td>2,120</td>
<td>3,95</td>
<td>5,111</td>
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</tr>
<tr>
<td>M</td>
<td>D</td>
<td>D</td>
<td>D</td>
<td></td>
</tr>
</tbody>
</table>

TEXTURE:

- Silt 40 20 30 20
- Clay 60 80 70 80

COMPOSITION:

- Access. minerals 1 3 7 1
- Clay 60 15 40 10
- Dolomite 2 2
- Volcanic glass 2 2
- Inorganic calcite 10 10 7 5
- Nannofossils 70 70 20 85
- Quartz 25 5 10 11
**SITE 722 HOLE B CORE 45X CORED INTERVAL 2448.6-2458.3 mbsl; 420.8-430.5 mbsf**

**LITHOLOGIC DESCRIPTION**

Interbedded NANNOFossil CHALK and MARLY NANNOFossil CHALK

Entire core is slightly to very disturbed.

Major lithology: Interbedded NANNOFossil CHALK and MARLY NANNOFossil CHALK. Contacts are gradational. Beds range from olive gray (5Y 6/2) to olive (5Y 4/2), greenish gray (5Y 5/1), light brownish gray (10YR 5/2), pale brown (10YR 4/2), and brown (10YR 5/2). Bioturbation is minor to strong throughout.

Minor lithology: Silty claystone, greenish gray (5G 5/1, 6/1). Parallel laminae present. Basal contacts sharp, upper contacts gradational with major lithology.

**SMEAR SLIDE SUMMARY (%):**

<table>
<thead>
<tr>
<th>Sample</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<th>6</th>
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<tbody>
<tr>
<td>M</td>
<td>140</td>
<td>82</td>
<td>103</td>
<td>16</td>
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<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
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**TEXTURE:**

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<td>Sand</td>
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<td>Silt</td>
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<tr>
<td>Clay</td>
<td>75</td>
<td>70</td>
<td>70</td>
<td>10</td>
</tr>
</tbody>
</table>

**COMPOSITION:**

| Access. minerals | 3 | 5 | 10 | 10 |
| Clay          | 60| 10| 10| 10 |
| Dolomite     | 9 | 9 | 9 | 9 |
| Feldspar     | 10| 10| 10| 10 |
| Foraminifers | 5 | 5 | 5 | 5 |
| Inorganic calcite | 20| 20| 20| 20 |
| Nannofossils | 10| 10| 10| 10 |
| Quartz      | 15| 15| 15| 15 |
Section 1 is highly fragmented; remainder of the core is moderately disturbed.

Major lithologies:
- **CLAYEY SILTSTONE** and MARLY NANNOFOSIL CHALK
  a. CLAYEY SILTSTONE, olive (5Y 4/3), gradationally interbedded with nannofossil chalk and minor siltstone.
  b. MARLY NANNOFOSIL CHALK, gradationally interbedded with and usually overlying clayey siltstone. Beds range from dark brown (10YR 4/3) to dark grayish brown (10YR 4/2) and light brownish gray (10YR 6/2). Contacts are gradational. Bioturbation is moderate throughout.

Minor lithology: Siltstone, greenish gray (5G 1/2). Contains parallel laminae. Gradationally interbedded with and usually underlying siltstone. Basal contact with underlying nannofossil chalk is usually sharp.

**SMEAR SLIDE SUMMARY (%):**

<table>
<thead>
<tr>
<th>Texture</th>
<th>M</th>
<th>D</th>
<th>O</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silt</td>
<td>85</td>
<td>40</td>
<td>15</td>
</tr>
<tr>
<td>Clay</td>
<td>15</td>
<td>60</td>
<td>25</td>
</tr>
</tbody>
</table>

**COMPOSITION:**

- Access, minerals: 15
- Clay: 15
- Feldspar: 5
- Inertial calcite: 10
- Mica: 10
- Nannofossils: 25
- Quartz: 15

**TEXTURE:**

- Silt: 85%
- Clay: 15%
- Mica: 5%
- Quartz: 15%
SITE 722 HOLE B CORE 48X CORED INTERVAL 2477.6-2487.2 mbsl; 449.8-459.4 mbsf

<table>
<thead>
<tr>
<th>TIME-ROCK UNIT</th>
<th>FOSSILS</th>
<th>PALIMPSEST</th>
<th>GRAPHIC LITHOLOGY</th>
<th>LITHOLOGIC DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIOCENE Barren</td>
<td>NaN</td>
<td>NaN</td>
<td>NaN</td>
<td>SILTY CLAYSTONE</td>
</tr>
<tr>
<td>N4a.helcopesa/M. argo-r-raga/NS Spinomithus heteromorphus Barren</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>Moderately fractured to very fragmented throughout. Major lithology: SILTY CLAYSTONE, dark grayish brown (10YR 4/2). Layer of plant debris (1 cm thick) at Section 1, 45 cm.</td>
</tr>
</tbody>
</table>

SMEAR SLIDE SUMMARY (%):

- Texture:
  - Sand: 20
  - Silt: 50
  - Clay: 30

- Composition:
  - Clay: 15
  - Feldspar: 5
  - Inorganic calcite: 10
  - Mica: 15
  - Plant debris: 10
  - Quartz: 25
  - Rock fragments: 9

LITHOLOGIC DESCRIPTION:
SILTY CLAYSTONE:
Moderately fractured to very fragmented throughout.
Major lithology: SILTY CLAYSTONE, dark grayish brown (10YR 4/2). Layer of plant debris (1 cm thick) at Section 1, 45 cm.
**SILTY CLAYSTONE**

Entire core slightly fractured.

Major lithology: SILTY CLAYSTONE, very dark grayish brown (10YR 3/2). Interbedded with marly nannofossil chalk and mudstone. Contacts are sharp. Charcoal-rich bands (1-2 cm thick) and sandy beds (1 cm thick) are common. Pyrite concretions (?) occur in Sections 1, 2, and 4.

Minor lithologies:
- a. Marly nannofossil chalk, olive gray (5Y 5/2). Moderately bioturbated and interbedded with silty claystone and mudstone. Contacts are sharp.
- b. Mudstone, gray (5Y 5/1). Interbedded with marly nannofossil chalk and silty claystone. Contacts are sharp. Bioturbation is minor; mica flakes are common.

**SMOOTH SLIDE SUMMARY (%):**

<table>
<thead>
<tr>
<th></th>
<th>1, 88</th>
<th>2, 70</th>
<th>3, 103</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Textures:</td>
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<td>50</td>
</tr>
<tr>
<td>50</td>
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</tr>
<tr>
<td>Gray</td>
<td>15</td>
<td>75</td>
<td>50</td>
</tr>
<tr>
<td>Composition:</td>
<td>2 Tr 5</td>
<td>15 10</td>
<td>15 5</td>
</tr>
<tr>
<td>Access., minerals</td>
<td>Tr 2</td>
<td>60 30</td>
<td>60 30</td>
</tr>
<tr>
<td>Clay</td>
<td>3</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Feldspar</td>
<td>3</td>
<td>20</td>
<td>5</td>
</tr>
<tr>
<td>Inorganic calcite</td>
<td>15 10</td>
<td>15 50</td>
<td>15 50</td>
</tr>
<tr>
<td>Mica</td>
<td>60 20</td>
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<tr>
<td>Nannofossils</td>
<td></td>
<td></td>
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<tr>
<td>Quartz</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rock fragments</td>
<td></td>
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</tr>
</tbody>
</table>

**LITHOLOGIC DESCRIPTION**

SITE 722  HOLE B  CORE 49X  CORED INTERVAL  2487.2-2496.8 mbsl; 459.8-469.0 mbsf
SITE 722 HOLE B CORE 50X CORED INTERVAL 2496.6-2506.4 mbsl; 469.0-478.6 mbsf

LITHOLOGIC DESCRIPTION

Interbedded SANDY MUDSTONE and MUDSTONE

Entire core is moderately fractured.


Minor lithologies:

a. Silty claystone, very dark gray (5YR 3/1). Sections 1, 4, and CC.

b. Sandy siltstone, very dark grayish brown (10YR 3/2). Fines upward into silty claystones. Sections 1, 4, and CC.
**SITE 722 HOLE B CORE 51X CORED INTERVAL 2506.4-2516.0 mbsl; 478.6-488.2 mbf**

**LITHOLOGIC DESCRIPTION**

### SILTY CLAYSTONE

Section 1 is slightly fractured. CC is moderately fractured.

Major lithology: **Silty Claystone**, massive, very dark grayish brown (2.5Y 4/2). Gradationally interbedded with and overlying clayey sand and sandstone.

Minor lithologies:
- a. Clayey sand, grades upward into silty claystone. Contains charcoal-rich bands (1-2 cm thick) and parallel laminae.
- b. Sandstone, grades upward into clayey siltstone.

**SMEAR SLIDE SUMMARY (%):**

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<thead>
<tr>
<th></th>
<th>1.26</th>
<th>1.75</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
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**TEXTURE:**

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<tbody>
<tr>
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<td>Silt</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Clay</td>
<td>35</td>
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**COMPOSITION:**

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<tbody>
<tr>
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<td>Feldspar</td>
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<tr>
<td>Volcanic glass</td>
<td>10</td>
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<tr>
<td>Inorganic calcite</td>
<td>10</td>
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<tr>
<td>Mica</td>
<td>10</td>
</tr>
<tr>
<td>Melted feldspar</td>
<td>10</td>
</tr>
<tr>
<td>Quartz</td>
<td>40</td>
</tr>
</tbody>
</table>
### Lithologic Description

**Silty Claystone**

Entire core is moderately disturbed.

Major lithology: Silty Claystone, massive. Beds range from dark gray (5Y 4/1) to dark olive (5Y 3/2, 3/1), very dark greenish gray (10Y 4/2), olive gray (5Y 4/2), dark bluish brown (5YR 3/2), dark grayish brown (10YR 4/2), and dark grayish green (10Y 5/2). Contains upward-fining carbonate turbidites (6 cm thick). Interbedded with nannofossil chalk and foraminifer-bearing nannofossil chalk. Contacts are sharp.

Minor lithologies:

a. Nannofossil chalk and foraminifer-bearing nannofossil chalk, massive, light gray (5Y 7/1, 10YR 7/2) to gray (5Y 6/1). Interbedded with silty claystone. Contacts are sharp. Minor bioturbation throughout.

b. Clayey sand, dark gray (5Y 4/1). Grades upward into silty claystone. Section 5, 0-40 cm.

### Smear Slide Summary (%):

1. 126 2. 20 3. 12 4. 78 5. 13

### Texture:

- **Sand**: 2, 5, 59, 60
- **Silt**: 8, 32, 5, 10, 10
- **Clay**: 90, 90, 90, 69, 90

### Composition:

- **Access. minerals**: 2, 5, 5
- **Clay**: 20, 65, 10, 20, 20, 90
- **Dolomite**: 7
- **Feldspar**: 2
- **Foraminifers**: 2, 5
- **Volcanic glass**: 8, 10, 10, 6, 7
- **Mica**: 9, 9, 9, 9, 9
- **Nannofossils**: 9, 20, 45, 20, 3
- **Quartz**: 15, 20, 45, 20, 3
**SITE 722 HOLE 0**

**CORE 53X**

**CORED INTERVAL**: 2525.7-2535.4 mbsf; 497.9-507.6 mbf

---

### Lithologic Description

**Silty Claystone**

*Entire core moderately fractured.*

**Major lithological units:**

- **Massive Claystone**: Massive, dark gray (5YR 4/1).

**Lithology Summary (%):**

- **Texture**: Silt 40, Clay 60
- **Composition**:
  - Access.; Minerals 2
  - Clay 60
  - Dolomite Tr
  - Feldspar 1
  - Volcanic glass 1
  - Inorganic calcite 15
  - Mica 1
  - Quartz 20

---

**Paleomagnetism**

- **B-42.0 ±2.00**

**Phys. Properties**

**Chemistry**

**Drilling Diaries**

**Section**

**Meters**

**Lithologic**

**Sample**
**SITE 722 HOLE B**

### CORED INTERVAL

- **SITE 722 HOLE B**
- **CORE 54X**
- **CORED INTERVAL 2535.4-2545.0 mbsf; 507.6-517.2 mbsf**

#### TIME-ROCK UNIT

| TIME-ROCK UNIT | FOSSIL | STRATIGRAPHIC | LITHOLOGIC | RADIOCARBON | MAGNETIC \ntype | COLOR | TEXTURE | SMOKE | SMOKE \n
#### LITHOLOGIC DESCRIPTION

- **Entire core is highly fragmented.**
- **Major lithologies:**
  a. **Silty Claystone**, massive, light gray (10YR 7/3) to yellowish brown (10YR 5/4).
  b. **Micaceous Sand**, dark gray (10YR 4/1).

#### SMEAR SLIDE SUMMARY (%):

<table>
<thead>
<tr>
<th>Sample</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silt</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clay</td>
<td>10</td>
<td>40</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### TEXTURE:

- **Sand**: 80%
- **Silt**: 10%
- **Clay**: 10%

#### COMPOSITION:

- **Access. minerals**: 5%
- **Feldspar**: 40%
- **Micaceous Glass**: 5%
- **Inorganic Calcium**: 10%
- **Mica**: 10%
- **Quartz**: 80%
### Site 722: Hole B, Core 55X

#### Cored Interval: 2545.0 - 2554.7 mbsl; 517.2 - 526.9 mbsf

#### Lithologic Description

**Silty Claystone and Micaceous Sand**

- **Major lithologies**:
  - a. Silty Claystone, massive, dark gray (5Y 4/1).
  - b. Micaceous Sand, dark gray (10YR 4/1); pyrite present.

**Smear Slide Summary (%):**

<table>
<thead>
<tr>
<th>Component</th>
<th>%</th>
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</thead>
<tbody>
<tr>
<td>Silt</td>
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</tr>
<tr>
<td>Clay</td>
<td>135</td>
</tr>
<tr>
<td>Diatoms</td>
<td>0</td>
</tr>
<tr>
<td>Foraminifers</td>
<td>30</td>
</tr>
<tr>
<td>Inorganic calcite</td>
<td>70</td>
</tr>
<tr>
<td>Nannofossils</td>
<td>5</td>
</tr>
<tr>
<td>Oolites</td>
<td>3</td>
</tr>
<tr>
<td>Opal</td>
<td>3</td>
</tr>
<tr>
<td>Quartz</td>
<td>3</td>
</tr>
<tr>
<td>Radiolarians</td>
<td>3</td>
</tr>
<tr>
<td>Silicoflagellates</td>
<td>3</td>
</tr>
<tr>
<td>Sponge spicules</td>
<td>3</td>
</tr>
<tr>
<td>Zeolites</td>
<td>3</td>
</tr>
</tbody>
</table>

**Texture:**

- Clay: 30
- Silt: 70

**Composition:**

- Clay: 40
- Diatoms: 10
- Foraminifers: 10
- Inorganic calcite: 5
- Nannofossils: 20
- Oolites: 2
- Opal: 5
- Quartz: 3
- Radiolarians: 7
- Silicoflagellates: 3
- Sponge spicules: 3
- Zeolites: 3

---

### Site 722: Hole B, Core 56X

#### Cored Interval: 2554.7 - 2564.4 mbsl; 526.9 - 536.6 mbsf

#### Lithologic Description

**Sandstone**

- **Entire core is slightly fractured to brecciated.**

**Major lithology:** Sandstone, dark gray (5Y 4/1), with minor parallel laminae.

Fine-grained, moderately sorted. Quartz, feldspar, chlorite, mica, and pyrite visible in hand sample.
**SITE 722 HOLE B CORE 57X CORED INTERVAL 2564.4-2574.0 mbsl; 536.6-546.2 mbsf**

<table>
<thead>
<tr>
<th>TIME-ROCK UNIT</th>
<th>Fossil Character</th>
<th>TIME-ROCK UNIT</th>
<th>Fossil Character</th>
<th>TIME-ROCK UNIT</th>
<th>Fossil Character</th>
<th>DRILLING DISTANCE</th>
<th>SESS STRUCTURES</th>
<th>LITHOLOGIC DESCRIPTION</th>
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<tr>
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<td>FORAMINIFERS</td>
<td><strong>FOSSIL CHARACTER</strong></td>
<td><strong>NANNOFOSSILS</strong></td>
<td><strong>R/P</strong></td>
<td><strong>RADIOLARIANS</strong></td>
<td><strong>DIATOMS</strong></td>
<td><strong>PALEOMAGNETICS</strong></td>
<td><strong>PHYS. PROPERTIES</strong></td>
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<tr>
<td><strong>FORAMINIFERS</strong></td>
<td>Barren</td>
<td><strong>NANNOFOSSILS</strong></td>
<td></td>
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<td></td>
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<td></td>
<td><strong>R/P</strong></td>
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<tr>
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<td></td>
<td><strong>RADIOLARIANS</strong></td>
<td>Barren</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>DIATOMS</strong></td>
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</table>

**SMEAR SLIDE SUMMARY (%):**

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<th>Sand</th>
<th>Silt</th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>45</td>
<td>55</td>
<td>5</td>
</tr>
</tbody>
</table>

**COMPOSITION:**

<table>
<thead>
<tr>
<th>Access. minerals</th>
<th>Dolomite</th>
<th>Feldspar</th>
<th>Volcanic glass</th>
<th>Inorganic calcite</th>
<th>Mica</th>
<th>Quartz</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>10</td>
<td>5</td>
<td>10</td>
<td>20</td>
<td>5</td>
<td>40</td>
</tr>
</tbody>
</table>

---

**LITHOLOGIC DESCRIPTION:**

Entire core moderately fractured.

Major lithologies:

a. CLAYEY SILTSTONE, dark gray (10YR 4/1), interbedded with silty sand. Contacts obscured by drilling deformation.

b. Silty sand, gray (10YR 4/1).

**CLAYEY SILTSTONE and SILTY SAND**

Entire core moderately fractured.

Major lithologies:

a. CLAYEY SILTSTONE, dark gray (10YR 4/1), interbedded with silty sand. Contacts obscured by drilling deformation.

b. Silty sand, gray (10YR 4/1).

**SMEAR SLIDE SUMMARY (%):**

<table>
<thead>
<tr>
<th>TEXTURE:</th>
<th>Sand</th>
<th>Silt</th>
<th>Clay</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>45</td>
<td>55</td>
<td>5</td>
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</tbody>
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**COMPOSITION:**

<table>
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<th>Access. minerals</th>
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<th>Volcanic glass</th>
<th>Inorganic calcite</th>
<th>Mica</th>
<th>Quartz</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>10</td>
<td>5</td>
<td>10</td>
<td>20</td>
<td>5</td>
<td>40</td>
</tr>
</tbody>
</table>

---

**LITHOLOGIC DESCRIPTION:**

Entire core moderately fractured.

Major lithologies:

a. CLAYEY SILTSTONE, dark gray (10YR 4/1), interbedded with silty sand. Contacts obscured by drilling deformation.

b. Silty sand, gray (10YR 4/1).

**SMEAR SLIDE SUMMARY (%):**

<table>
<thead>
<tr>
<th>TEXTURE:</th>
<th>Sand</th>
<th>Silt</th>
<th>Clay</th>
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</thead>
<tbody>
<tr>
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<td>5</td>
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**COMPOSITION:**

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<th>Volcanic glass</th>
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<td>5</td>
<td>10</td>
<td>20</td>
<td>5</td>
<td>40</td>
</tr>
</tbody>
</table>
CLAYSTONE and NANNOFOSIL CHALK

Moderately disturbed throughout.

Major lithology: CLAYSTONE, dark gray (5YR 4/1) to olive (5Y 4/3), olive gray (5Y 4/2), reddish brown (5YR 4/3), reddish gray (5YR 4/2), interbedded with NANNOFOSIL CHALK. Minor bioturbation throughout.

Minor lithology: interbedded clayey silt and silty sand, dark gray (5YR 4/1). Silty sand has sharp basal contacts and fines upward into clayey silt. Silty sand/clayey silt units are 10-20 cm thick.

SMEAR SLIDE SUMMARY (%):

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
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<tbody>
<tr>
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</tbody>
</table>

TEXTURE:

<table>
<thead>
<tr>
<th>Silt</th>
<th>Clay</th>
</tr>
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<tbody>
<tr>
<td>10</td>
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COMPOSITION:

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<th>Dolomite</th>
<th>Foraminifers</th>
<th>Organic calcite</th>
<th>Mica</th>
<th>Nannofossils</th>
<th>Quartz</th>
<th>Rock fragments</th>
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<tr>
<td>10</td>
<td>70</td>
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<td>10</td>
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<th>TIME-BACK UNIT</th>
<th>FORMATION</th>
<th>SUBFORMATION</th>
<th>SAMPLES</th>
<th>RAPID LITHOLOGY</th>
<th>CLAYSTONE</th>
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<tr>
<td>MIOCENE</td>
<td>Miocene</td>
<td>Miocene</td>
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<td>0.73</td>
<td>Moderately fractured to highly fragmented throughout.</td>
</tr>
<tr>
<td></td>
<td>Miocene</td>
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<td></td>
<td>0.73</td>
<td>Major lithology: CLAYSTONE, olive (5Y 4/2) to dark gray (5YR 4/1) and greenish gray (5GY 5/1). Carbonate turbidite(s) in Section 1, 64-75 cm.</td>
</tr>
</tbody>
</table>

**Smear Slide Summary (%):**

- **Texture:**
  - Sand: 20
  - Silt: 20
  - Clay: 60

- **Composition:**
  - Foraminifer: 20
  - Inorganic calcite: 30
  - Nannofossil: 50

---

**Lithologic Description:**

Moderately fractured to highly fragmented throughout. Major lithology: CLAYSTONE, olive (5Y 4/2) to dark gray (5YR 4/1) and greenish gray (5GY 5/1). Carbonate turbidite(s) in Section 1, 64-75 cm.