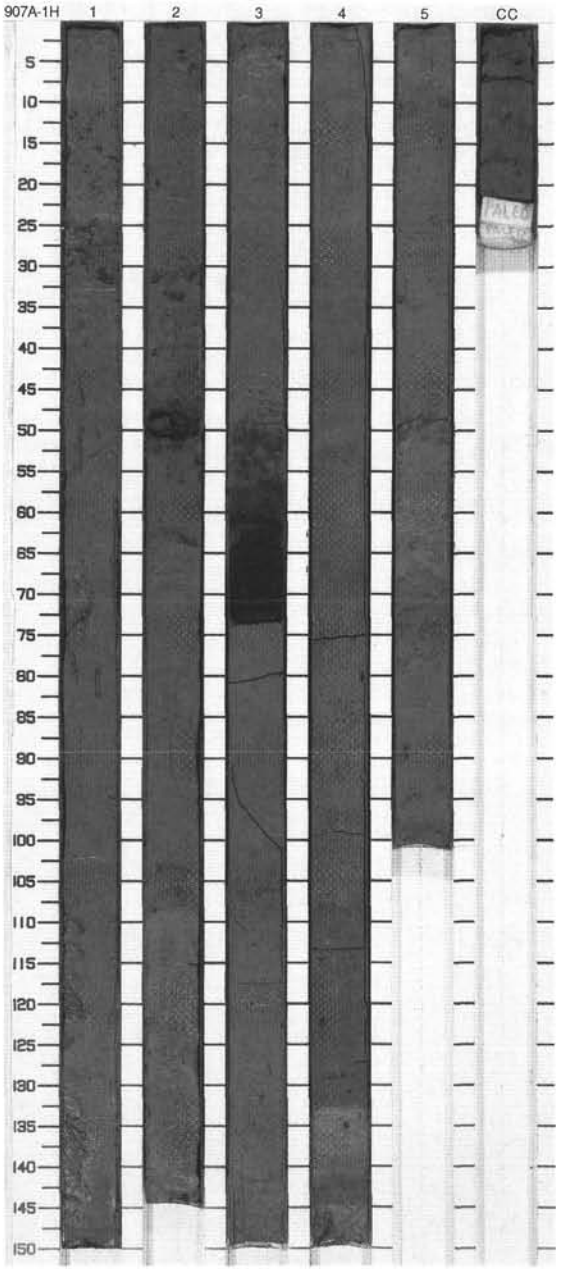
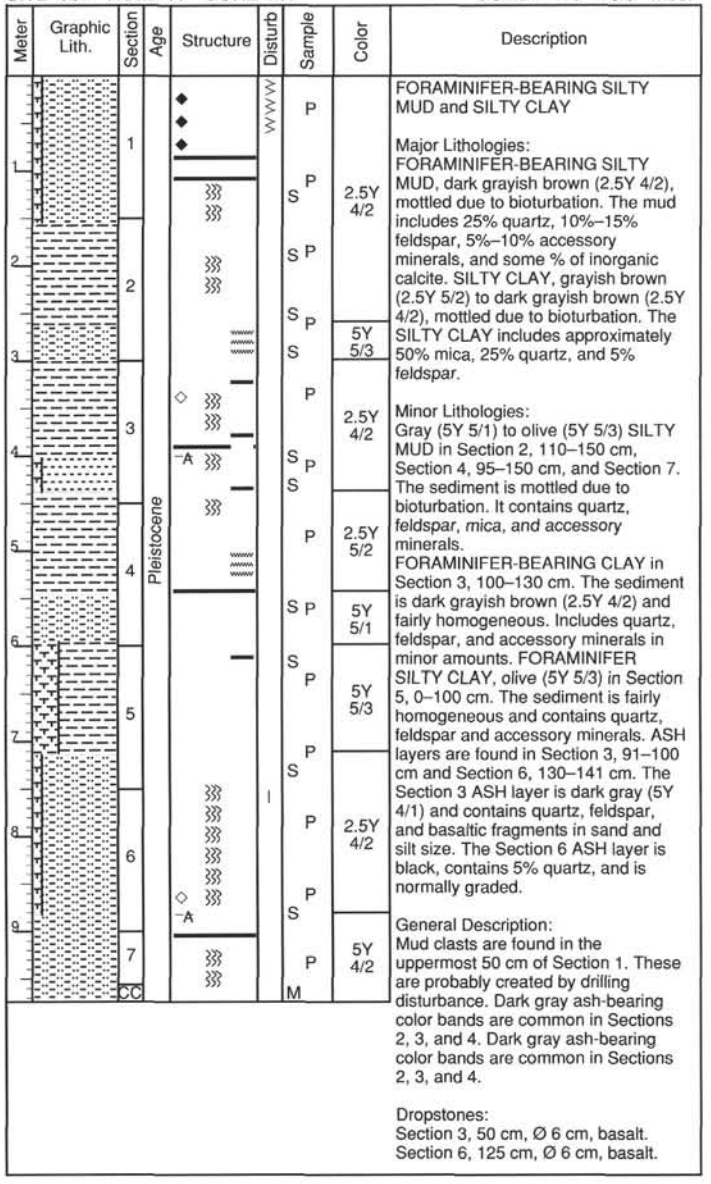
Information on Core Description Forms, for ALL sites, represents field notes taken aboard ship. Some of this information has been refined in accord with post-cruise findings, but production schedules prohibit definitive correlation of these forms with subsequent findings. Thus, the reader should be alerted to the occasional ambiguity or discrepancy in this unedited material.

SITE 907 HOLE A CORE 1H CORED 0.0 - 7.3 mbsf

| Meter | Graphic Lith. | Section | Age | Structure | Disturb | Sample | Color | Description |
|---|---|---|---|---|---|---|---|---|
| 1–7 | | 1–5, CC | Pleistocene | A | | S P, M | 10YR 4/3; 2.5Y 4/4; 2.5Y 5/2; 2.5Y 4/2 | CLAYEY SILT and SILTY CLAY<br><br>Major Lithologies:<br>Core comprised of brown to dark brown (10YR 4/3) CLAYEY SILT to SILTY CLAY with small dropstones throughout, mottled due to bioturbation. Foraminifer content in SILTY CLAY locally up to ~20%.<br><br>Minor Lithology:<br>BIOSILICA-BEARING SILTY BIOCARBONATE OOZE in Section 1, 0–23 cm, contains large benthic foraminifers, pteropods. Very dark grayish brown (2.5YR 3/2) SANDY ASH in Section 3, 56–74 cm, contains 60% glass fragments.<br>FORAMINIFERAL SILTY CLAY, Section 4, 132–150 cm, color bands and minor dropstones. Carbonate content is higher in Section 5, 45–80 cm, grading to a CLAYEY FORAMINIFERAL OOZE from 58–62 cm containing ~60% foraminifers, light brownish gray (2.5Y 6/2) in color. |



SITE 907 HOLE A CORE 2H CORED 7.3 - 16.8 mbsf



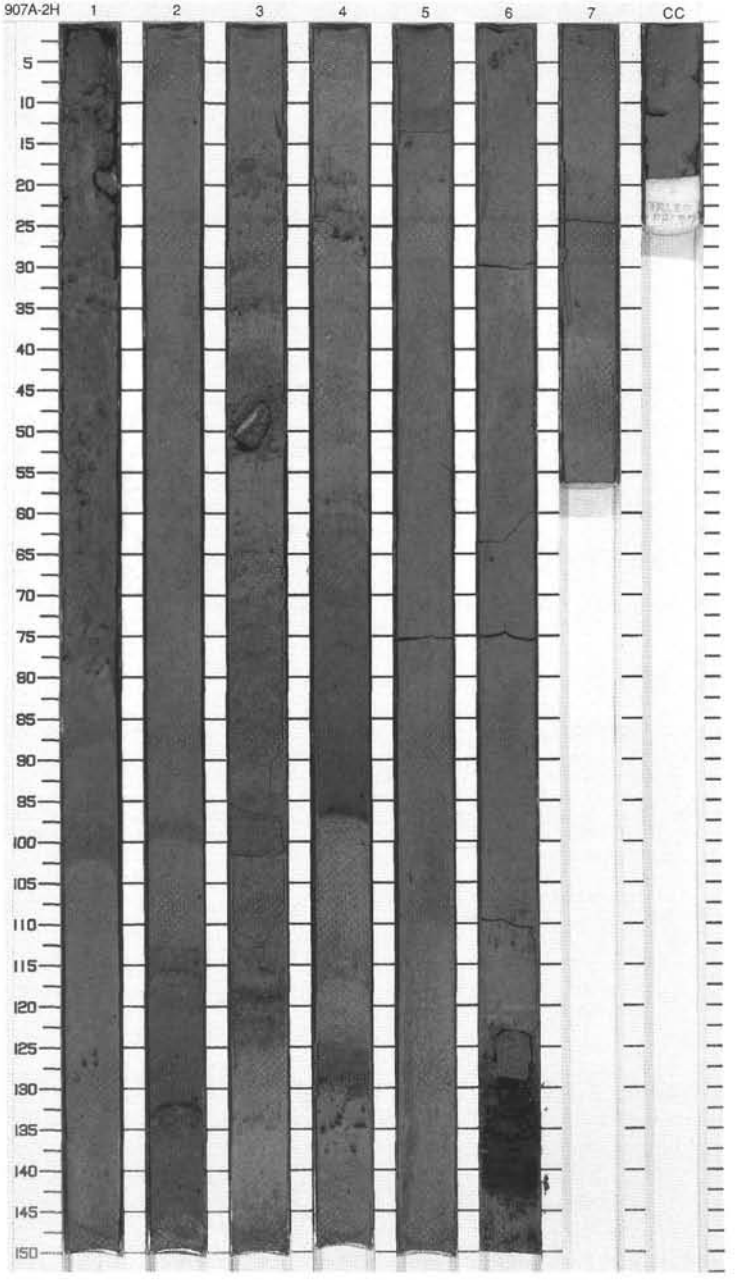

FORAMINIFER-BEARING SILTY MUD and SILTY CLAY

Major Lithologies:
FORAMINIFER-BEARING SILTY MUD, dark grayish brown (2.5Y 4/2), mottled due to bioturbation. The mud includes 25% quartz, 10%–15% feldspar, 5%–10% accessory minerals, and some % of inorganic calcite. SILTY CLAY, grayish brown (2.5Y 5/2) to dark grayish brown (2.5Y 4/2), mottled due to bioturbation. The SILTY CLAY includes approximately 50% mica, 25% quartz, and 5% feldspar.

Minor Lithologies:
Gray (5Y 5/1) to olive (5Y 5/3) SILTY MUD in Section 2, 110–150 cm, Section 4, 95–150 cm, and Section 7. The sediment is mottled due to bioturbation. It contains quartz, feldspar, mica, and accessory minerals.
FORAMINIFER-BEARING CLAY in Section 3, 100–130 cm. The sediment is dark grayish brown (2.5Y 4/2) and fairly homogeneous. Includes quartz, feldspar, and accessory minerals in minor amounts. FORAMINIFER SILTY CLAY, olive (5Y 5/3) in Section 5, 0–100 cm. The sediment is fairly homogeneous and contains quartz, feldspar and accessory minerals. ASH layers are found in Section 3, 91–100 cm and Section 6, 130–141 cm. The Section 3 ASH layer is dark gray (5Y 4/1) and contains quartz, feldspar, and basaltic fragments in sand and silt size. The Section 6 ASH layer is black, contains 5% quartz, and is normally graded.

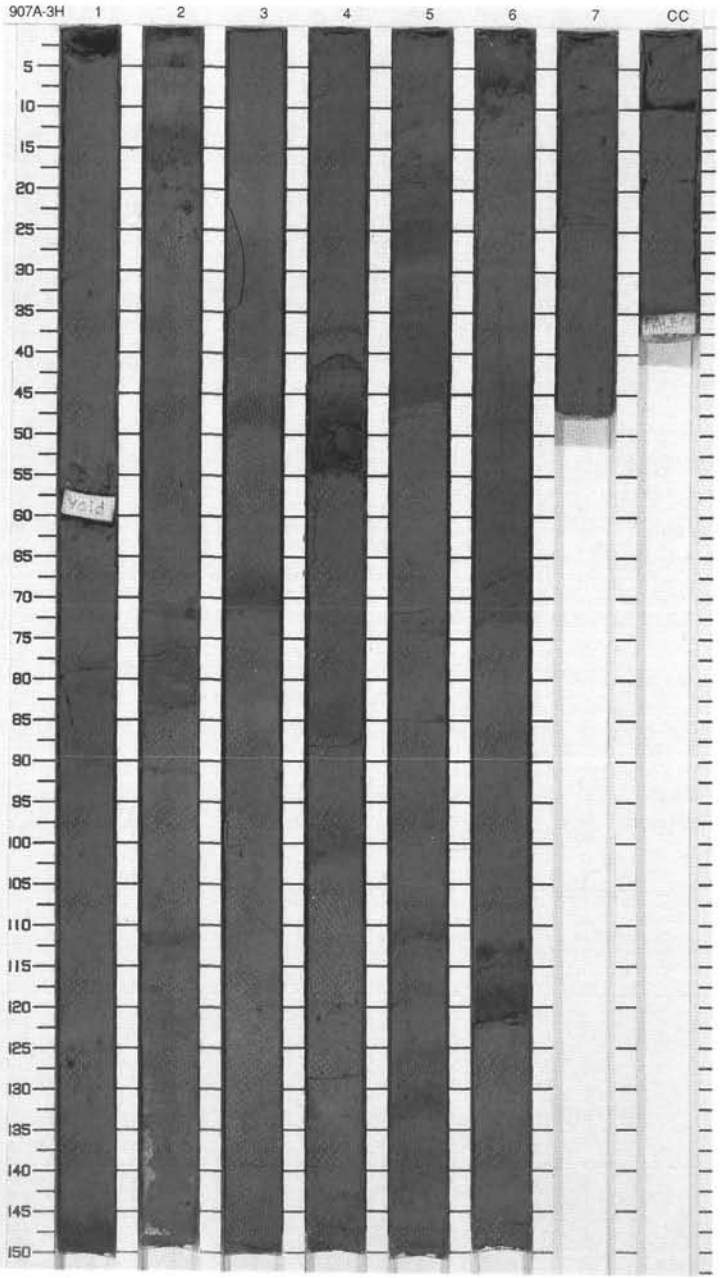
General Description:
Mud clasts are found in the uppermost 50 cm of Section 1. These are probably created by drilling disturbance. Dark gray ash-bearing color bands are common in Sections 2, 3, and 4. Dark gray ash-bearing color bands are common in Sections 2, 3, and 4.

Dropstones:
Section 3, 50 cm, Ø 6 cm, basalt.
Section 6, 125 cm, Ø 6 cm, basalt.



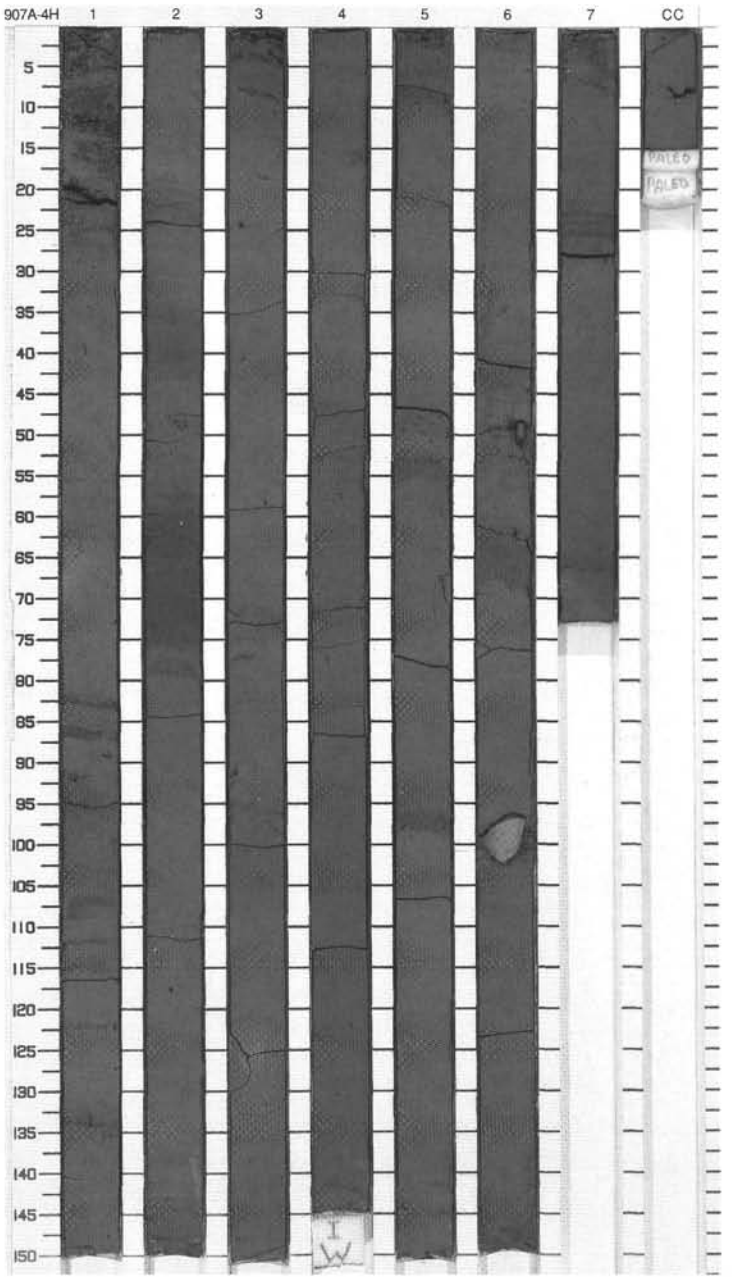
SITE 907 HOLE A CORE 3H CORED 16.8 - 26.3 mbsf

| Meter | Graphic Lith. | Section | Age | Structure | Disturb | Sample | Color | Description |
|---|---|---|---|---|---|---|---|---|
| 1–9 | | 1 | Pleistocene | | | S P | 2.5Y 4/2 | CLAYEY SILT and SILTY CLAY<br><br>Major Lithologies:<br>Dark grayish brown (2.5Y 4/2) CLAYEY SILT and SILTY CLAY, with dark grayish brown (2.5Y 3/2) laminae. These laminae are especially pronounced in Section 6, 15–68 cm and in Section 7, 6–27 cm. Numerous thin dark olive gray (5Y 3/2) laminae occur in Sections 3, 4, and 5.<br><br>Minor Lithologies:<br>Dark grayish brown (2.5Y 4/2) CLAY occurs in Section 2, 70–84 cm. Dark grayish brown (2.5Y 4/2) ASH occurs in Sections 4, 45–54 cm, and in Section 6, 111–121 cm. |
| | | | | | | P | 2.5Y 4/4 | |
| | | 2 | | | | S P | 2.5Y 4/2 | |
| | | 3 | | | | S P | | |
| | | | | | | S P | | |
| | | 4 | | A | | S P | | |
| | | 5 | | | | S P | 10Y 4/2 | |
| | | | | | | P | 5Y 4/2 | |
| | | 6 | | A | | S P | 10Y 4/2 | |
| | | 7 | | | | S P | | |
| | | CC | | | | M | | |



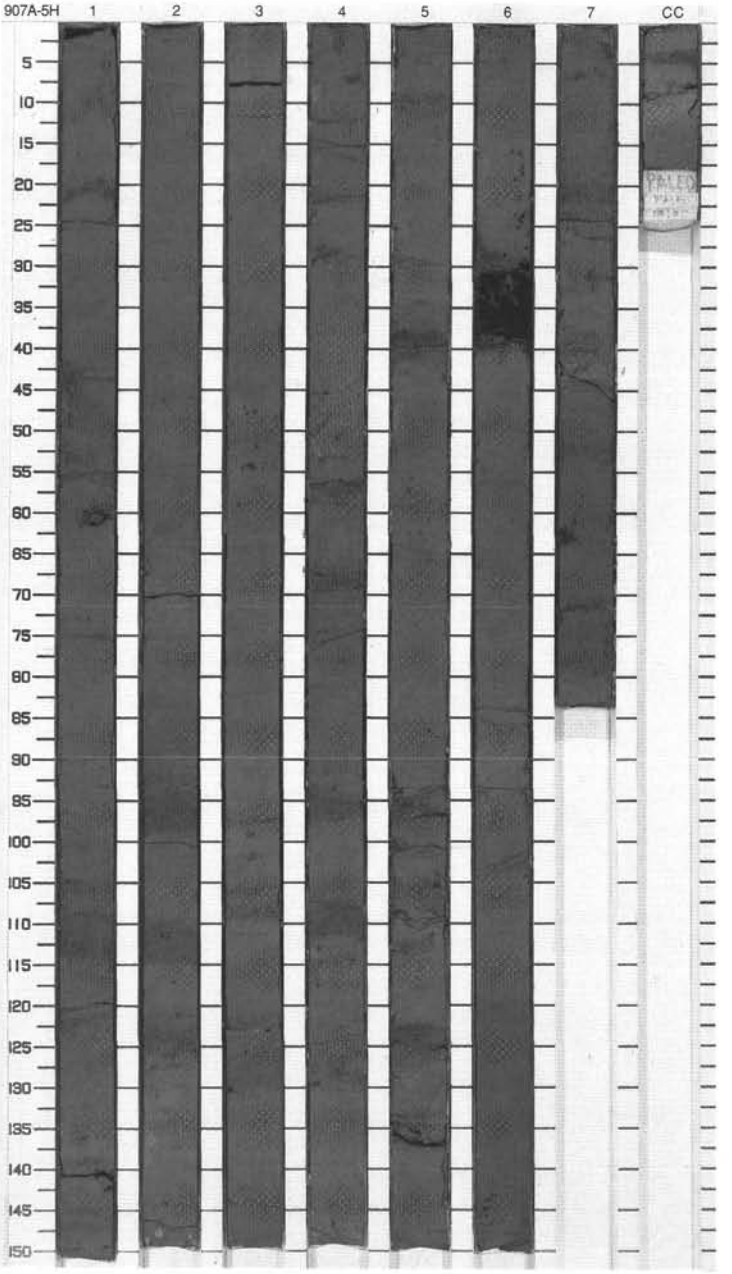
SITE 907 HOLE A CORE 4H CORED 26.3 - 35.8 mbsf

| Meter | Graphic Lith. | Section | Age | Structure | Disturb | Sample | Color | Description |
|---|---|---|---|---|---|---|---|---|
| 1 | | 1 | Pleistocene | | | S P | 10Y 4/1 | SILTY CLAY |
| | | | | | | | 5Y 4/1 | Major Lithology: Olive gray to dark gray (5Y 4/2–5Y 4/1) SILTY CLAY with small dropstones and rare larger dropstones (2–6 cm). Faintly mottled texture due to bioturbation. Interbedded gray and greenish yellow layers, 10–30 cm thick, occur in Sections 1, 2, and 6. |
| | | | | | | S | 5Y 4/2 | |
| | | | | | | | 5Y 4/1 | |
| 2 | | 2 | | | | P | 5Y 5/1 | |
| | | | | | | | 2.5Y N4/0 | |
| | | | | | | S | 5Y 4/1 | Minor Lithology: Dark gray (10Y 4/1) CLAY occurs in Section 1, 0–30 cm. Thin (<10 cm), dark gray layers occur in Sections 1 and 3–7. Grayish olive lenticular mud bed separates olive gray and dark gray silty clays in Section 3, 75 cm. |
| 3 | | 3 | | | | P | 2.5Y N4/0 | |
| | | | | | | | 5Y 5/2 | |
| 4 | | | | | | | 2.5Y N4/0 | |
| | | 4 | | | | P S | | General Description: Dropstones: Section 1, 41 cm, Ø 1 cm. Section 6, 49 cm, Ø 2 cm; 99 cm, Ø 6 cm, gneiss. |
| 5 | | | | | | | | |
| 6 | | | | | | I P | 5Y 5/2 | |
| | | 5 | | | | | 10Y 5/1 | |
| 7 | | | | | | | 5Y 5/1 | |
| 8 | | 6 | | | | P S | 5Y 4/1 | |
| | | | | | | | 5Y 5/2 | |
| 9 | | 7 | | | | S P | 5Y 4/1 | |
| | | CC | | | | M | 10Y 5/1 | |



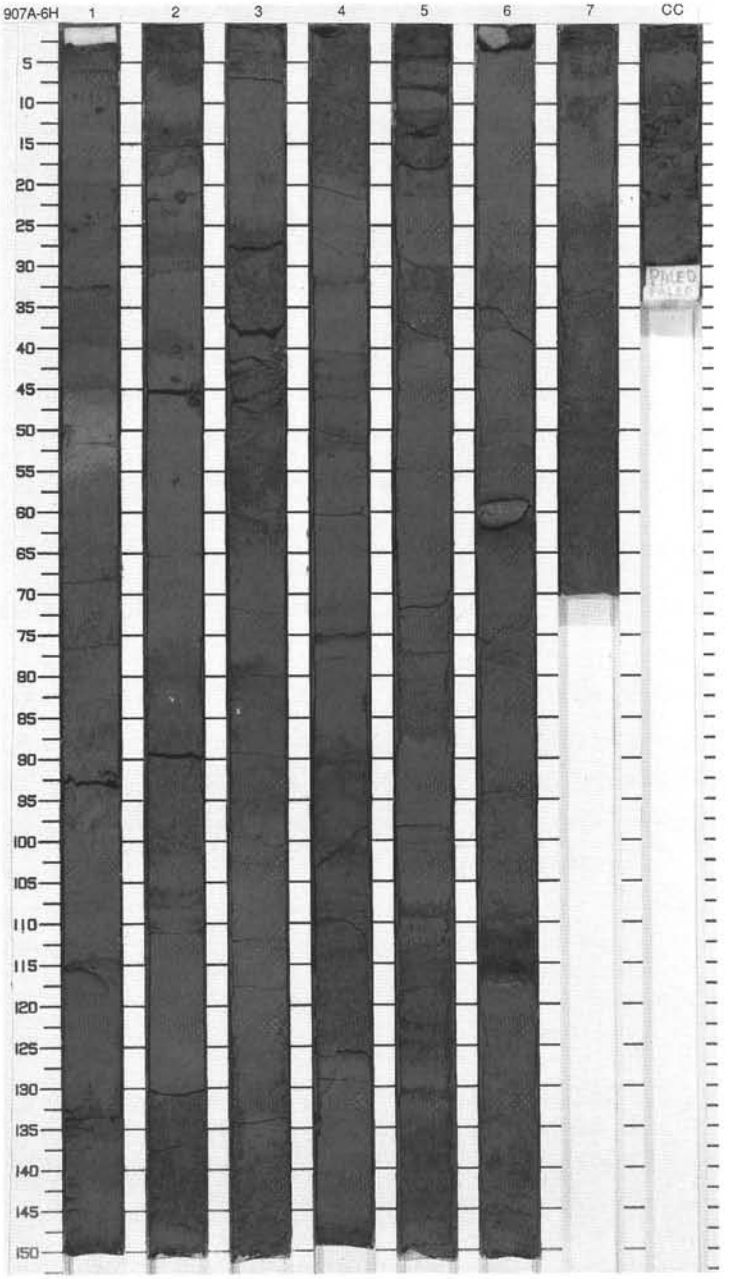
SITE 907 HOLE A CORE 5H CORED 35.8 - 45.3 mbsf

| Meter | Graphic Lith. | Section | Age | Structure | Disturb | Sample | Color | Description |
|---|---|---|---|---|---|---|---|---|
| 1 | | 1 | Pliocene | | | S P | 10Y 5/1 | SILTY CLAY and CLAYEY SILT<br><br>Major Lithologies:<br>Gray (10Y 5/1) and dark gray (5Y 4/1) to olive gray (5Y 5/2, 4/2) SILTY CLAY and CLAYEY SILT, mottled at intervals in all sections. Contains rare small dropstones throughout, and 2-cm mud clast in Section 1. Thin dark color bands, 2–4 cm thick, are present between Section 2, 95 cm, and the base of the core.<br><br>Minor Lithologies:<br>An 8-cm-thick ASH layer in Section 4, 31–39 cm, grades from coarse sand at the base to fine sand at the top. Lower contact of ash is sharp, and upper contact is gradational, with distinct burrows. Olive (5Y 5/6) sediment wedge in Section 5, 40 cm, contains planar laminae. Grayish brown sediment (2.5Y 5/2) in Section CC consists of fine (<4 µm), well-rounded and well-sorted DETRITAL CARBONATE. |
| | | | | | | S | 5Y 4/2 | |
| | | | | | | | 10Y 5/1 | |
| 2 | | 2 | | | | S P | 5Y 4/1 To 5Y 5/2 | |
| | | | | | | | 5Y 5/1 | |
| 3 | | 3 | | | | S P | 10Y 5/1 | |
| 4 | | | | | | | | |
| 5 | | 4 | | A | | S P S | 5Y 5/1 | |
| | | | | | | | 10Y 5/1 | |
| 6 | | 5 | | | | S P | 5Y 4/1 | |
| | | | | | | | 5Y 5/1 | |
| 7 | | | | | | | 10Y 5/1 | |
| 8 | | 6 | | | | S P | 5Y 4/1 | |
| | | | | | | | 5Y 3/1 | |
| 9 | | 7 | | | | S P | 5Y 4/1 | |
| | | | | | | | 5Y 3/1 | |
| 10 | | CC | | | ! | S M | | |



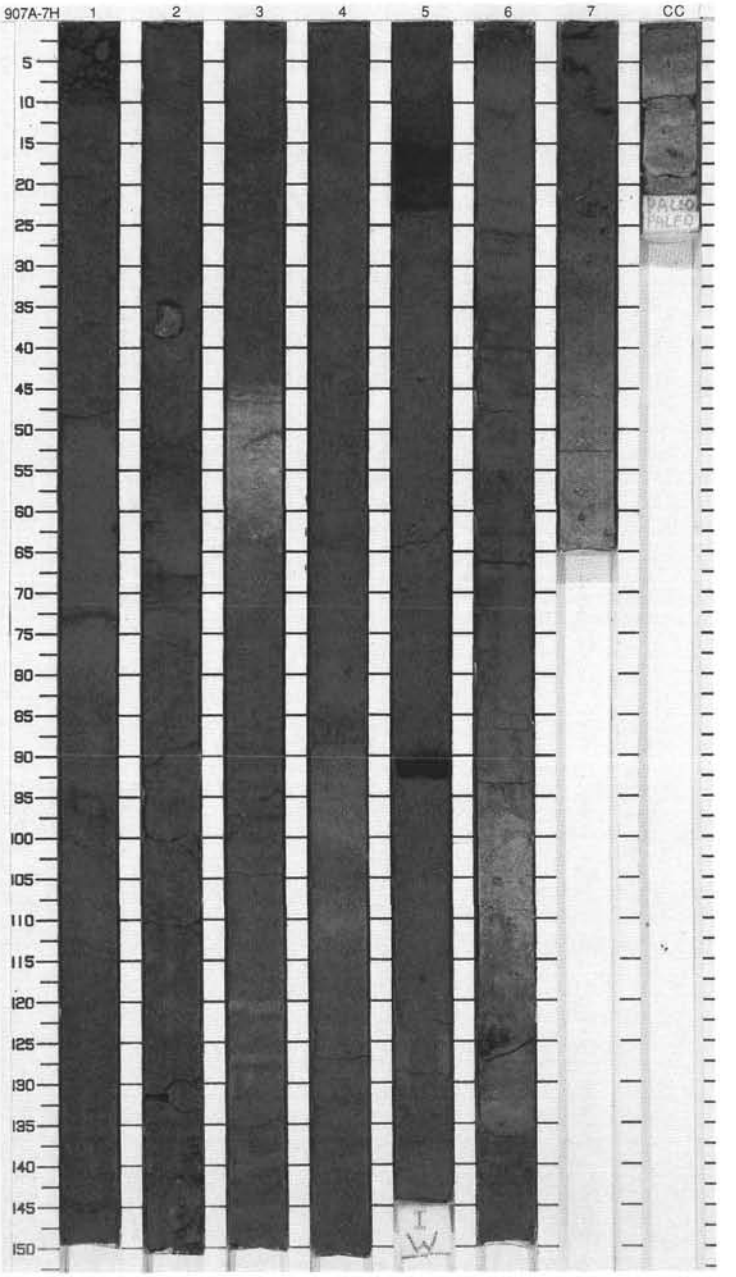
SITE 907 HOLE A CORE 6H CORED 45.3 - 54.8 mbsf

| Meter | Graphic Lith. | Section | Age | Structure | Disturb | Sample | Color | Description |
|---|---|---|---|---|---|---|---|---|
| 1–9 | | 1–7, CC | Pliocene | | W | P, S, M | 5Y 4/1 To 5GY 4/1; 5Y 4/1 To 5Y 3/1; 5Y 4/1 | SILTY CLAY and CLAYEY SILT<br><br>Major Lithologies:<br>Dark gray (5Y 4/1) SILTY CLAY is structureless with a rough-textured split surface. Gray (5Y 3/1) to dark gray (5Y 4/1) CLAYEY SILT has a smoother surface, the darker intervals containing more numerous muddy pods and mm-size clayey clasts than the lighter intervals. A few shards to 20% volcanic glass is found in the silty and clayey lithologies. The two major lithologies alternate in thick intervals (20–50 cm) with commonly gradational contacts. The basal contacts of the SILTY CLAY are sharper than the upper contacts. More greenish bands are present and are commonly associated with more indurated sediment. A concretion is present in Section 6, 60 cm.<br><br>Minor Lithologies:<br>DETRITAL CARBONATE in Section 1, 45–55 cm is composed of 90% rounded carbonate grains that are well sorted and fine silt to clay sized. The lower contact is gradational; the upper contact is sharp. SANDY ASH layer in Section 6, 107–115 cm has a sharp base and gradational upper contact.<br><br>General Description:<br>Dropstones:<br>Section 2, 21 cm, Ø 1 cm, siltstone.<br>Section 6, 0 cm, Ø 3 cm. |



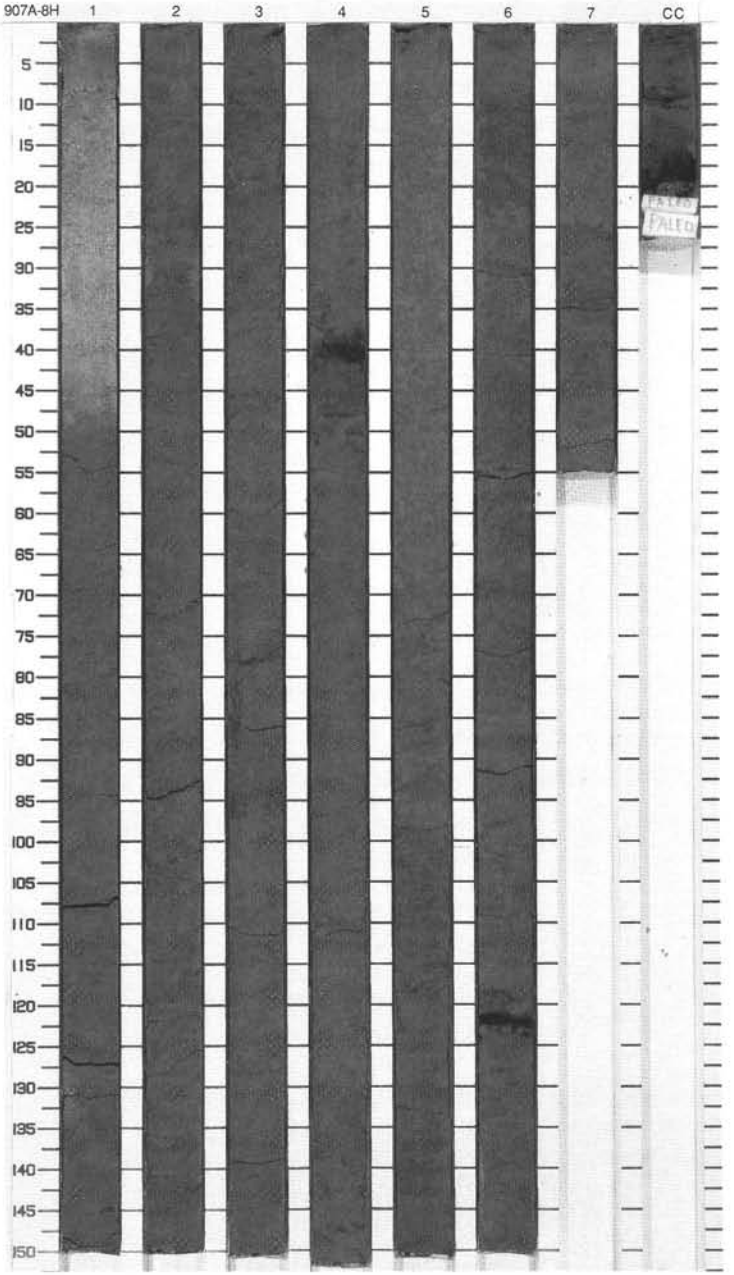
SITE 907 HOLE A CORE 7H CORED 54.8 - 64.3 mbsf

| Meter | Graphic Lith. | Section | Age | Structure | Disturb | Sample | Color | Description |
|---|---|---|---|---|---|---|---|---|
| 1–9 | | 1–7, CC | Pliocene | A•, A•, ◇, ⁻A, ⁻A, ⁻A, ⁻A | | P, S, P, S P, P, P, S, P, S P, P, P, S P, S, P, I, P, S P, S, P, M | 5Y 4/1; 5Y 5/1; 5Y 4/1; 5Y 5/1 To 10Y 5/1; 5Y 4/1; 5Y 5/1; 5Y 4/1; 5Y 6/1 | CLAYEY SILT, SILTY CLAY, and BIOSILICA- AND ASH-BEARING CLAYEY SILT<br><br>Major Lithologies:<br>SILTY CLAY, CLAYEY SILT, and BIOSILICA- AND ASH-BEARING CLAYEY SILT, gray, and dark gray (10Y 5/1, 5Y 5/1, 5Y 4/1) are massive. Silt-sized grain components include quartz, feldspar, volcanic glass, and rare biosiliceous particles.<br><br>Minor Lithologies:<br>NANNOFOSSIL OOZE and ASH- and BIOSILICA-BEARING NANNOFOSSIL OOZE, gray (5Y 5/1) are massive. Layers, 2–10 cm in thickness, are found in Section 3, 43–62, 121–123, and 126–128 cm; Section 6, 97–115 cm; Section 7, 42–65 cm. Sponge spicules are common components and volcanic glass is present in some layers. ASH layers, 3–10 cm in thickness, are typically black (5Y 2.5/1) or grayish brown (2.5Y 5/2) and commonly have sharp bases and gradational tops. Black ASH layers occur in Section 5, 15–23 and 89–93 cm; Section 6, 120 cm. Grayish brown ASH layers occur in Section 4, 85–87 cm and Section 6, 130–140 cm.<br><br>General Description:<br>Dropstones and pumice pods, mm to cm size, are found throughout the core.<br>Dropstone:<br>Section 2, 36 cm; Ø 4 cm, quartzite. |



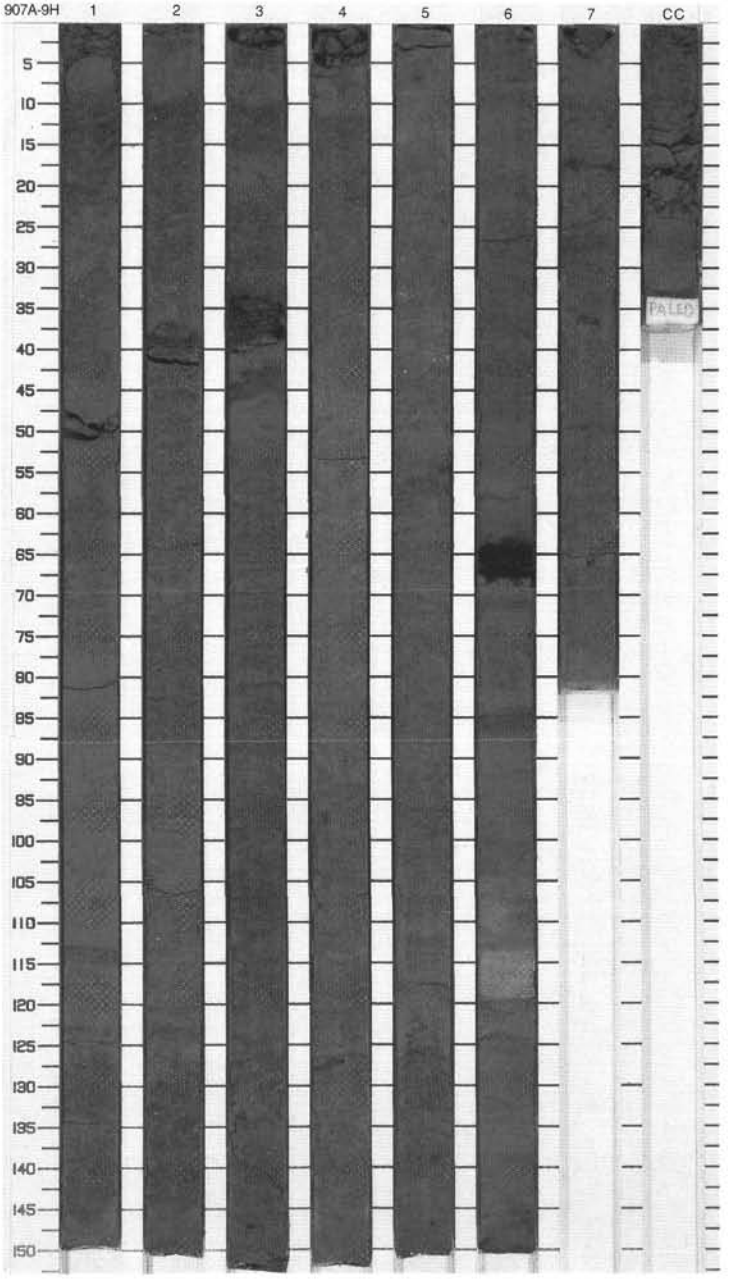
SITE 907 HOLE A CORE 8H CORED 64.3 - 73.8 mbsf

| Meter | Graphic Lith. | Section | Age | Structure | Disturb | Sample | Color | Description |
|---|---|---|---|---|---|---|---|---|
| 1–9 | | 1–7, CC | Pliocene | A, F, ◇ | ! | S, P, M | 5Y 6/1; 5Y 4/1; 5Y 4/2 | ASH-BEARING SILTY CLAY<br><br>Major Lithology:<br>ASH-BEARING SILTY CLAY, olive gray (5Y 4/2), mottled due to bioturbation throughout the core. Silt-sized grains include 1%–5% quartz, 0–5% accessory minerals, and a few % opaque minerals. Radiolarians and sponge spicules are also present.<br><br>Minor Lithologies:<br>BIOSILICA-BEARING NANNOFOSSIL OOZE, light gray (5Y 6/1) is present in Section 1, 8–50 cm. The sediment contains about 5% siliciclastic material. A grayish brown (10YR 5/2) ASH layer is found in Section 1, 0–8 cm. The layer is fining upward and has a graditional contact with the underlying silty clay. It contains 5% siliciclastic material and 5% nannofossils. Two black ASH layers, 2 cm in thickness, are present in Section 4, 41 cm, and Section 6, 121 cm. These layers show no grading and have gradational contacts with over- and underlying sediments.<br><br>General Description:<br>Greenish gray (10Y 5/2), olive (5Y 4/3) and very dark gray (5Y 3/1) color bands are present throughout the core.<br>Dropstone:<br>Section 5, 56 cm, Ø 1 cm, basalt. |



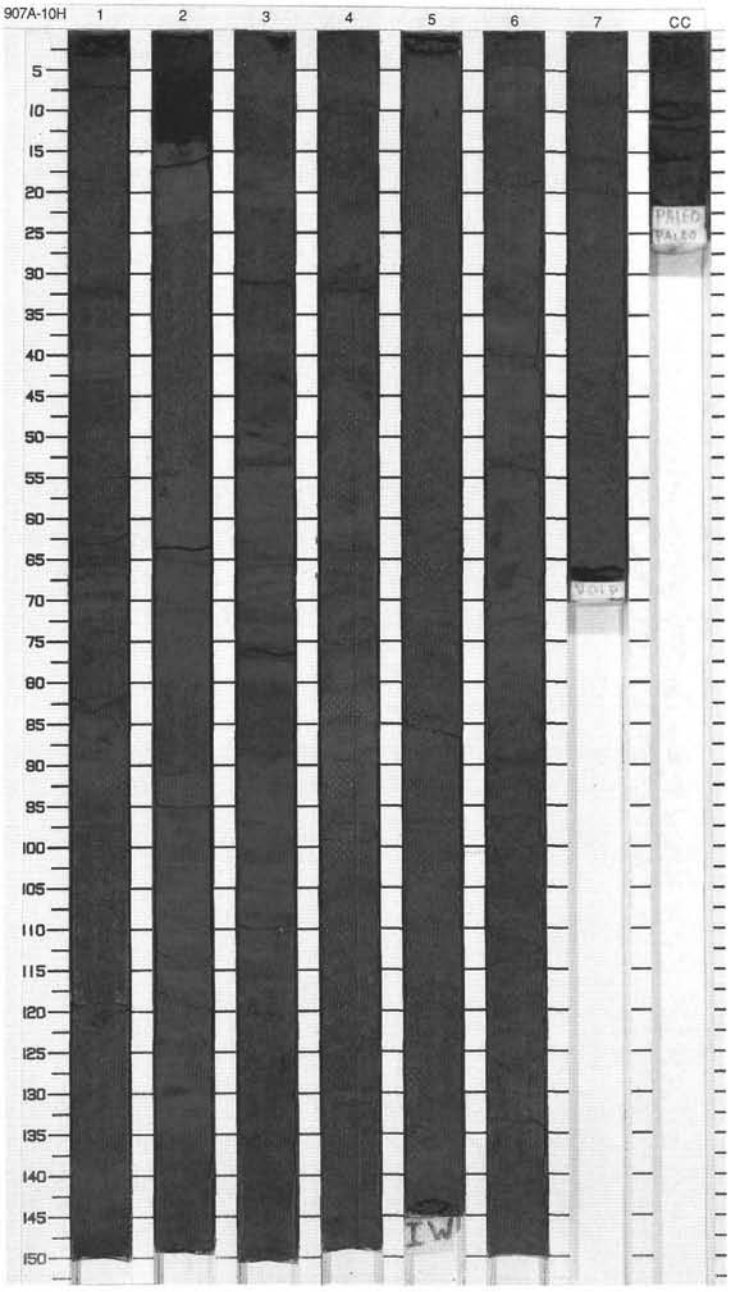
SITE 907 HOLE A CORE 9H CORED 73.8 - 83.3 mbsf

| Meter | Graphic Lith. | Section | Age | Structure | Disturb | Sample | Color | Description |
|---|---|---|---|---|---|---|---|---|
| 1–10 | | 1 | Pliocene | | | P | 5Y 4/2 | ASH-BEARING SILTY CLAY<br><br>Major Lithology:<br>ASH-BEARING SILTY CLAY, and ash- and siosilicia-bearing silty clay, dark olive gray (5Y 4/2) to dark greenish gray (5GY 4/1), slightly bioturbated. Several indurated green layers are related to diagenesis of clay. Biosilica is present in Section 2. Within a lighter interval (Section 4, 40–90 cm) there are up to 60% volcanic grains.<br><br>Minor Lithologies:<br>CLAY, dark gray, Section 1, 80–114 cm, homogeneous slightly bioturbated. Course fraction consists of quartz and feldspar.<br>ASH layers, with sharp contacts, up to 5 cm thick, consisting of volcanic glass (light) and pumice (dark) in Section 2, 38 cm, Section 3, 31–36 cm, Section 6, 63–68 cm, and Section 6, 114–120 cm. |
| | | | | | | S P | 5Y 4/1 | |
| | | 2 | | A | | P | 5Y 4/2 | |
| | | | | | | S | | |
| | | | | A | | S P | | |
| | | 3 | | A | | S | | |
| | | | | | | P | | |
| | | | | | | P | 5Y 4/1 | |
| | | 4 | | | | P | | |
| | | | | | | S | 5GY 5/1 | |
| | | | | | | P | 5GY 4/1 To 5Y 4/1 | |
| | | 5 | | | | P | | |
| | | | | | | S P | | |
| | | | | | | P | | |
| | | 6 | | A | | S | | |
| | | | | A | | S P | | |
| | | 7 | | | | P | 5Y 4/1 | |
| | | CC | | | ⊥ | M | | |



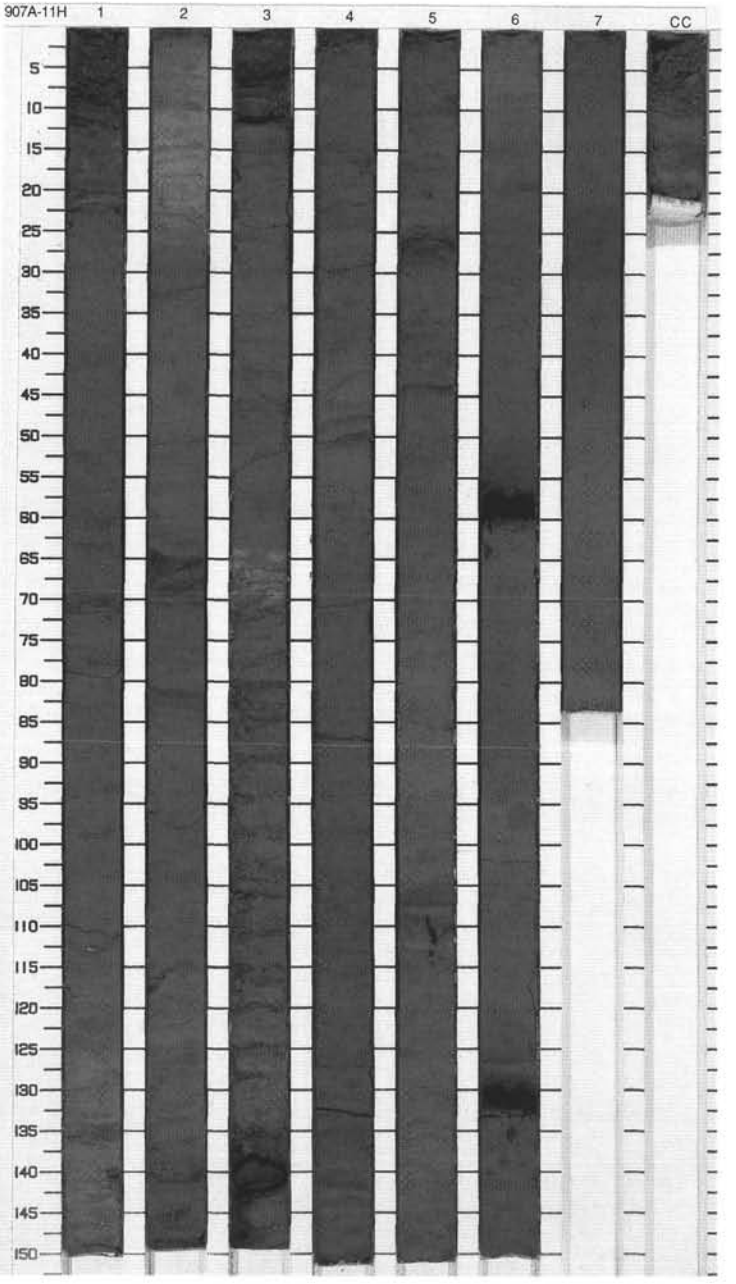
SITE 907 HOLE A CORE 10H CORED 83.3 - 92.8 mbsf

| Meter | Graphic Lith. | Section | Age | Structure | Disturb | Sample | Color | Description |
|---|---|---|---|---|---|---|---|---|
| 1–9 | | 1–7, CC | late Miocene | A | VV | P, S, I, M | 10Y 4/1; 5Y 4/1 | SILTY CLAY<br><br>Major Lithology:<br>Core is composed almost entirely of dark olive (10Y 4/1) SILTY CLAY, with greenish gray (5GY 4/1) and brownish gray (5Y 3/1) bands, generally mottled due to bioturbation.<br><br>Minor Lithologies:<br>Dark gray (5Y 4/1) CLAY occurs in Section 1, 63–72 cm and in Section 2, 54–82 cm. A very dark grayish brown (2.5Y 3/2) SANDY ASH with ~65% glass occurs from Section 1, 145 cm to Section 2, 13 cm. Small dropstones (2–5 mm) occur in Section 2, 126 cm, Section 3, 111 and 121 cm, and Section 5, 105 cm. |



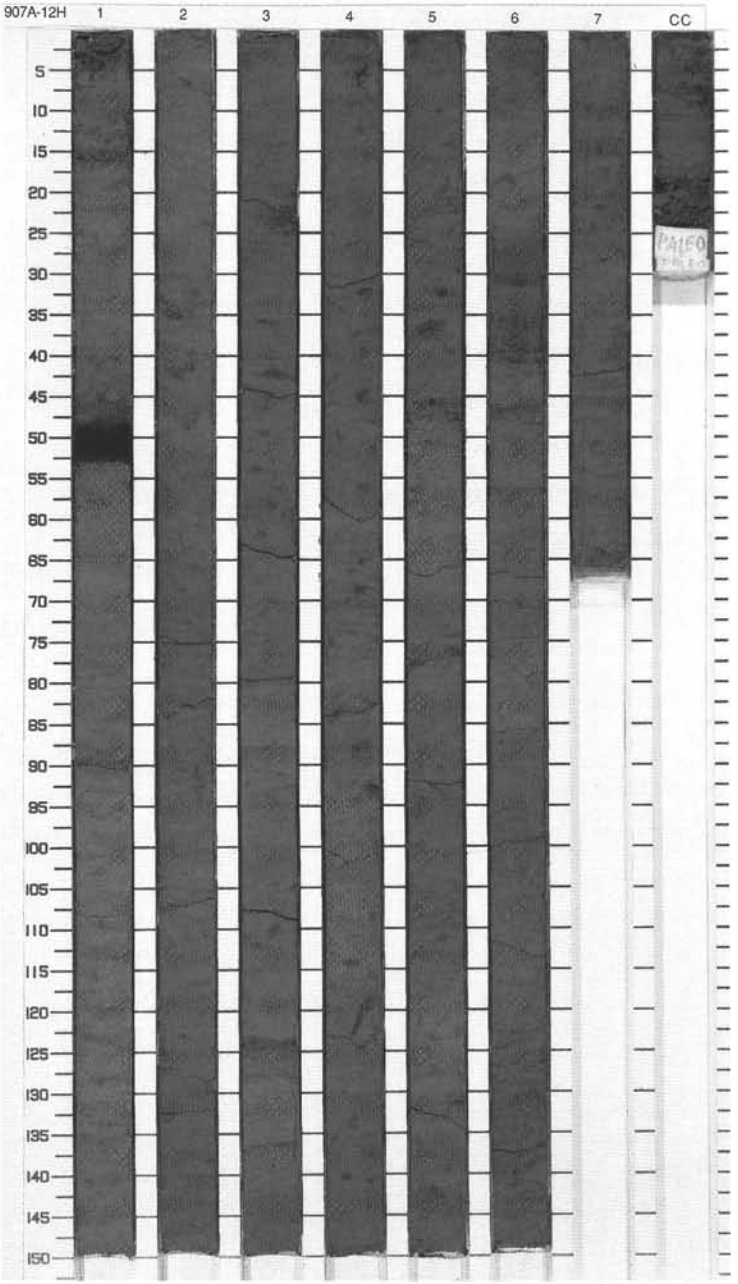
SITE 907 HOLE A CORE 11H CORED 92.8 - 102.3 mbsf

| Meter | Graphic Lith. | Section | Age | Structure | Disturb | Sample | Color | Description |
|---|---|---|---|---|---|---|---|---|
| 1–10 | | 1–7, CC | late Miocene | | I | S P | 10Y 4/2 To 5Y 5/2 | SILTY CLAY<br><br>Major Lithology:<br>Major lithology is SILTY CLAY, with greenish gray (10Y 4/2) to dark olive gray (5Y 3/2) alternating beds of 0.5–1.5 cm thickness. The content of clay varies between 60% and 75%. The sand content is usually less than 5%. Contacts are generally mottled with slight to heavy bioturbation. Burrows often filled with coarse material.<br><br>Minor Lithologies:<br>BIOSILICA BEARING SILTY CLAY is present in Section 5 with alternating layers (0.5 to 1.0 cm thick) of very dark olive gray (10Y 3/1) to olive gray (10Y 5/2). Heavily bioturbation destroyed original contacts.<br>BIOSILICA-BEARING NANNOFOSSIL OOZE, gray (5Y 5/1) is present in Section 2, 0–27 cm.<br><br>General Description:<br>Dropstones:<br>Section 1, 112 cm; Ø 1.5 cm, sandstone; 141 cm, Ø 1.0 cm.<br>Section 3, 140 cm; Ø 5.5 cm.<br><br>Ashes and ash-bearing layers:<br>Section 1, 70 cm, >1.0 cm thick (10Y 4/2),<br>Section 1, 76 cm, >1.0 cm thick (5Y 3/1),<br>Section 1, 134 cm; >1.0 cm thick (5Y 4/1),<br>Section 5, 103 cm; >3.0 cm thick (5Y 4/1),<br>Section 6, 30 cm; >6.0 cm thick (10Y 6/2),<br>Section 6, 50 cm; >3.0 cm thick (5Y 3/1),<br>Section 6, 129 cm; >5.0 cm thick (5Y 3/1),<br>Section 7, 21 cm; >10.0 cm thick (4Y 4/1). |
| | | | | | | S P | | |
| | | | | | | P | | |
| | | | | | | S P | 10Y 4/2 To 5Y 4/2 | |
| | | | | | | S | | |
| | | | | | | P | 10Y 4/1 To 5Y 3/2 | |
| | | | | | | S P | | |
| | | | | | | P | 5Y 3/1 To 5Y 4/3 | |
| | | | | | | S P | | |
| | | | | | | P | 10Y 4/2 To 5Y 3/2 | |
| | | | | | | P | 10Y 3/1 To 10Y 5/2 | |
| | | | | | | S P | | |
| | | | | | | S | | |
| | | | | | | P | 5Y 4/1 | |
| | | | | | | S | | |
| | | | | | | P | 5Y 3/1 To 10Y 5/2 | |
| | | | | | | S P | | |
| | | | | | I | M | | |



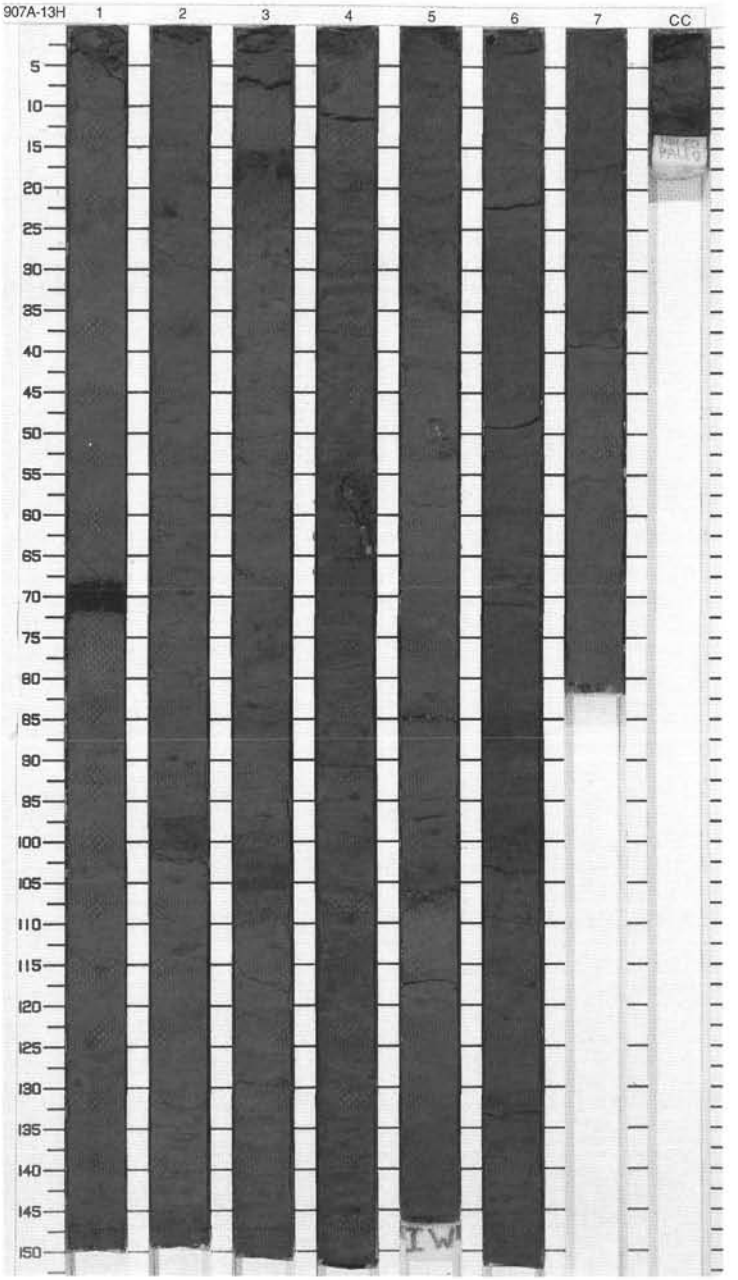
SITE 907 HOLE A CORE 12H CORED 102.3 - 111.8 mbsf

| Meter | Graphic Lith. | Section | Age | Structure | Disturb | Sample | Color | Description |
|---|---|---|---|---|---|---|---|---|
| 1–9 | | 1 | late Miocene | | | S P | 5GY 5/1 | CLAY, ASH-BEARING SILTY CLAY, BIOSILICA-BEARING SILTY CLAY and ASH-BEARING SILTY MUD<br><br>Major Lithologies:<br>CLAY with grayish green to dark gray (5GY 6/1 to 5Y 4/1) alternating beds (0.5 to 2 cm thick) is present in Sections 1 and 3. BIOSILICA-BEARING SILTY CLAY is present beginning in Section 5. It contains 3%–8% diatoms and 10%–14% sponge spicules. Light to dark cyclical color change is dominant below Section 5. ASH-BEARING SILTY MUD, greenish gray (5GY 5/2) to dark gray (5Y 4/1) is found in throughout Section 2. Coarse fraction includes diatoms and sponge spicules. ASH-BEARING SILTY CLAY, grayish green (5GY 5/2) to dark grayish green (5GY 5/1) was observed in Section 4, and includes diatoms and sponge spicules. Four ASH LAYERS are present in the core:<br>Section 1, 48–52 cm, black (N 2/0).<br>Section 2, 25–30 cm, gray (5y 5/1).<br>Section 3, 123–124 cm, dark gray (10YR 4/2). Section 6, 24–39.5 cm, gray to greenish gray color banding (5Y 5/1 to 5G 5/2). |
| | | | | | | S | | |
| | | | | A | | P | | |
| | | 2 | | | | S P | 5GY 5/2 To 5Y 4/1 | |
| | | | | | | P | | |
| | | 3 | | | | S P | 5Y 5/2 To 5Y 5/1 | |
| | | | | | | P | | |
| | | 4 | | | | S | 5GY 5/2 To 5GY 5/1 | |
| | | | | | | S P | | |
| | | | | | | P | | |
| | | 5 | | | | S P | 5GY 6/1 To 5Y 4/2 | |
| | | | | | | P | | |
| | | 6 | | A | | S P | | |
| | | | | | | P | | |
| | | 7 | | | | S P | 5GY 4/1 | |
| | | CC | | | | S M | | |



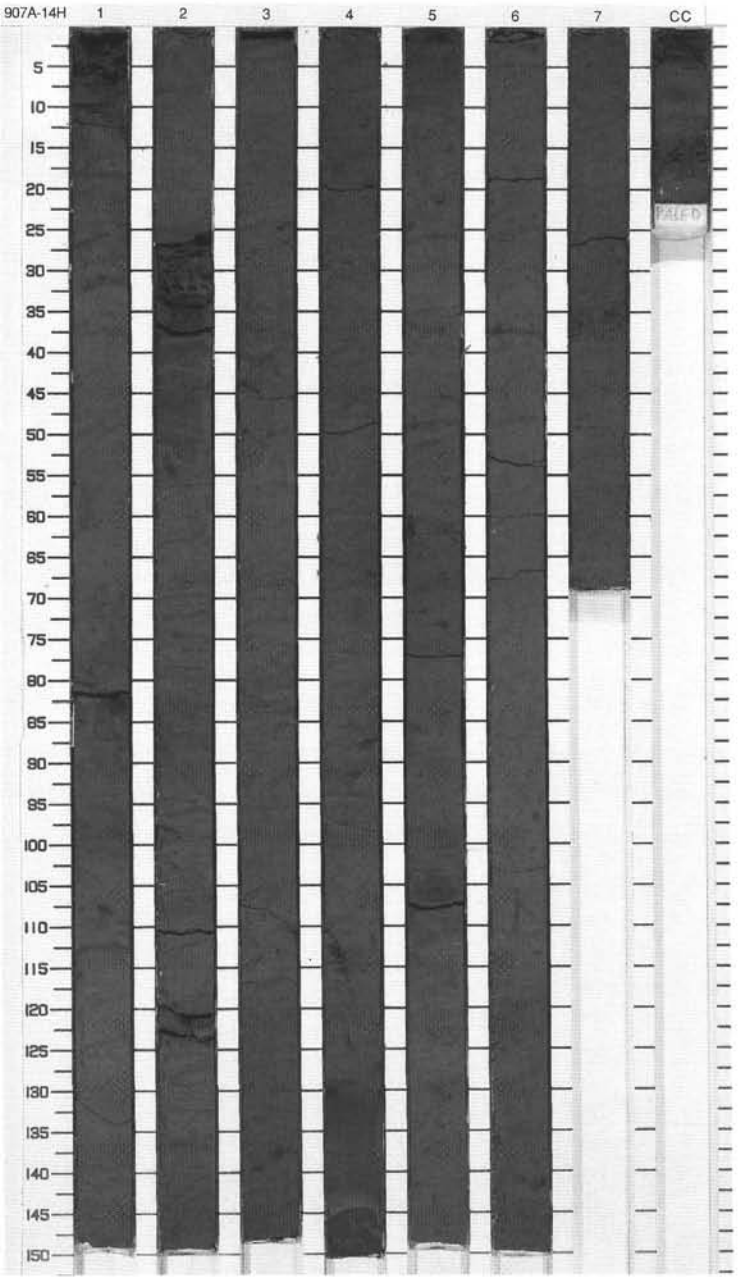
SITE 907 HOLE A CORE 13H CORED 111.8 - 121.3 mbsf

| Meter | Graphic Lith. | Section | Age | Structure | Disturb | Sample | Color | Description |
|---|---|---|---|---|---|---|---|---|
| 1–10 | | 1–7, CC | late Miocene | | | S, I, M | 5GY 4/1; 5Y 3/1 To 5GY 4/1; 5Y 4/1 To 5GY 4/1; 5Y 4/2; 5Y 4/1 To 5GY 4/1 | ASH AND BIOSILICA-BEARING CLAY, ASH AND BIOSILICA-BEARING SILTY CLAY and ASH-BEARING SILTY CLAY<br><br>Major Lithologies:<br>Core is dominantly CLAY and SILTY CLAY (60%–80%) with slight variations between biosilica (5%–15% - mostly diatoms) and volcanic ash (2%–12%). Mottled, thoughout with colors varying between dark gray (5Y 4/1) and dark greenish gray (5GY 4/1), with minor amounts of olive gray (5Y 4/2). A few distinct burrows (black or gray ash) are present. Thin (0.5–2-cm-thick) green bands (although only 5GY 4/1) are present at several intervals.<br><br>Minor Lithologies:<br>Three ASH layers are present: Section 1, 68–71.5 cm, black (5Y 2.5/1), with sharp upper and lower boundaries. Below the ash layer, the sediment is dark gray. Section 2, 97–102 cm, gray (10YR 5/1), with sharp lower contact. The upper contact, to 92 cm, contains interbedded ash and ashy silty clay, dark greenish gray (5GY 4/1). Section 3, 105–110 cm, dark grayish brown (2.5Y 4/2), with a sharp lower contact and a gradational upper contact, with an upper level of 97 cm of ashy silty clay.<br><br>General Description:<br>Three dropstones are present in Section 4:<br>21 cm, Ø 1 cm, subrounded gneiss;<br>62 cm, Ø 3.5 cm, flat (7-mm-thick) rock with pyrite crystals on the outside. The last one is suspect, leaving the possibility that these are contaminants. |



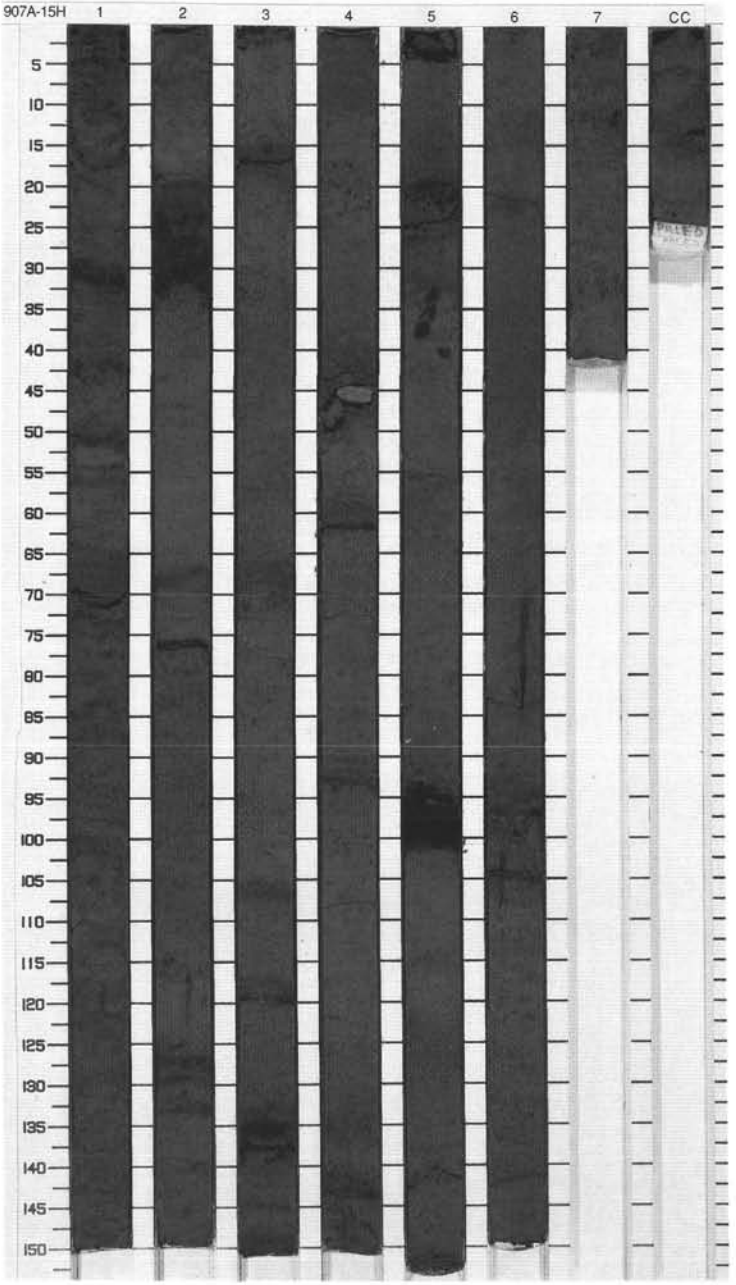
SITE 907 HOLE A CORE 14H CORED 121.3 - 130.8 mbsf

| Meter | Graphic Lith. | Section | Age | Structure | Disturb | Sample | Color | Description |
|---|---|---|---|---|---|---|---|---|
| 1 | | 1 | late Miocene | | W | P | 5Y 4/3 | BIOSILICA-BEARING SILTY CLAY<br><br>Major Lithology:<br>Pale olive (5GY 5/2) to olive gray (5Y 4/2) and dark olive gray (10Y 4/2) biosilica-bearing silty clay. Sediment is firm throughout the first seven sections, with a faint, yet pervasive, mottled appearance. Core catcher sediment is crumbly. Clay particles are dominant in all sections. Silt-sized quartz, feldspar, and glass shards are minor constituents. Biogenic material comprises 10%–20% of the sediment, and consists primarily of sponge spicules, with diatom fragments and trace quantities of radiolarians and silicoflagellates. Rare sand-sized volcanic glass and quartz grains occur throughout. Thin subhorizontal bands of yellow, pale green, and dark brown contrast with the dominant olive green, and are common in Sections 1, 2, 5, 6, and 7.<br><br>Minor Lithology:<br>Dark gray (2.5Y N4/0) to dark olive gray (10Y 4/2) ASH. ASH layers consist of 1–15-cm-thick deposits of sand, silt, and clay-sized glass shards. They are present in Section 2, 25–36 cm, Section 3, 79–83 cm, and Section 4, 130–145 cm. The layers contrast markedly from adjacent sediments in color, texture, grain size, and composition. Silt-sized platy, triangular shards predominate, with larger grains abundant. The basal contact of each ash layer is sharper than the top, where burrows are apparent. The two thick layers in this core are normally graded, with coarse sand occurring at the base. |
| | | | | | | S P | 10Y 4/2 | |
| | | | | | | | 5Y 4/2 | |
| 2 | | 2 | | A | W | S P | 10Y 4/2 | |
| | | | | | | P | 5GY 3/2 | |
| 3 | | 3 | | A | I | S P | 5Y 4/2 | |
| | | | | | | P | 5GY 5/2 | |
| 4 | | 4 | | | | P | | |
| | | | | | | S P | | |
| | | | | A | | S P | 2.5Y N4/0 | |
| 5 | | 5 | middle Miocene | | | P | 10Y 4/2 | |
| | | | | | | S P | 5GY 5/2 | |
| 6 | | 6 | | | | P | | |
| | | | | | | S P | | |
| 7 | | 7 | | | | P | 10Y 4/2 | |
| | | CC | | | | S M | | |



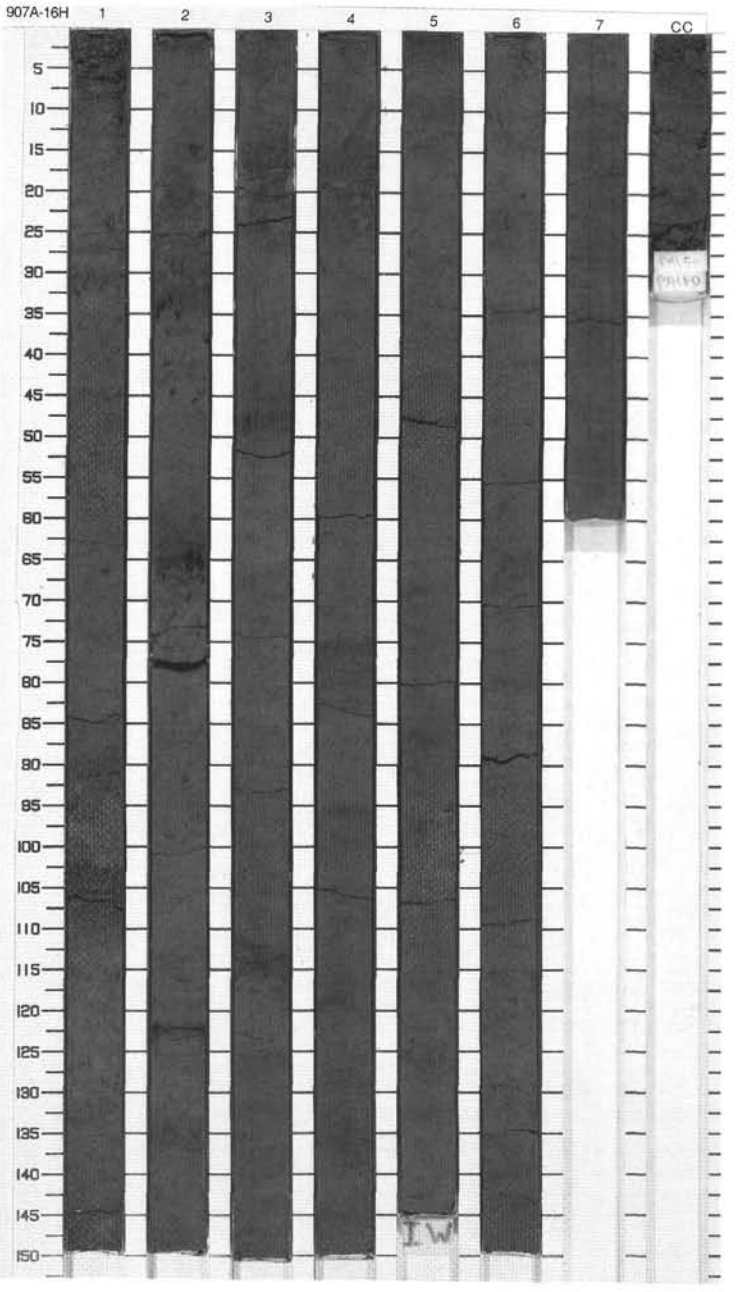
SITE 907 HOLE A CORE 15H CORED 130.8 - 140.3 mbsf

| Meter | Graphic Lith. | Section | Age | Structure | Disturb | Sample | Color | Description |
|---|---|---|---|---|---|---|---|---|
| 1–9 | | 1–7, CC | middle Miocene | A | | S P | 5Y 4/1 To 5GY 4/2 | ASH-BEARING BIOSILICEOUS SILTY CLAY<br><br>Major Lithology:<br>ASH-BEARING BIOSILICEOUS SILTY CLAY, gray (5Y 5/1), dark gray (5Y 4/1), and dark greenish gray (5GY 4/1), is structureless except for numerous burrows either dark greenish gray (5GY 4/1) or dark gray (5Y 4/1) (up to15-cm-long vertical burrows). Rapid color changes in Section 1, 0–60 cm, gradual color changes in other sections occuring within 20–70-cm-thick intervals. The lithology includes 15%–20% diatoms and 10%–25% sponge spicules. Volcanic glass ranges between 5% and 20%, concentrated within burrows. Several dark greenish gray (5GY 4/1) layers, patchy or stratified, are present and yellow planar concretion of clay is observed in Section 4, 45 cm within such a layer.<br><br>Minor Lithology:<br>ASH layers with a distinct basal contact and gradational upper contact are present in:<br>Section 1, 64–73 cm;<br>Section 2, 18–31 cm;<br>Section 3, 128–136 cm;<br>Section 5, 93–101 cm.<br>Thinner, strongly bioturbated ASH layers occur in:<br>Section 1, 18 cm;<br>Section 6, 97 cm. |
| | | | | | | S | | |
| | | | | | | P | | |
| | | | | A | | S | | |
| | | | | | | P | 5Y 5/1 To 5GY 5/1 | |
| | | | | | | S P | | |
| | | | | A | | P | | |
| | | | | | | S P | 5Y 4/1 To 5GY 5/1 | |
| | | | | | | P | | |
| | | | | | | S P | 5Y 5/1 To 5GY 5/1 | |
| | | | | | | P | | |
| | | | | | | P | | |
| | | | | A | | P | | |
| | | | | | | P | | |
| | | | | | | M | | |



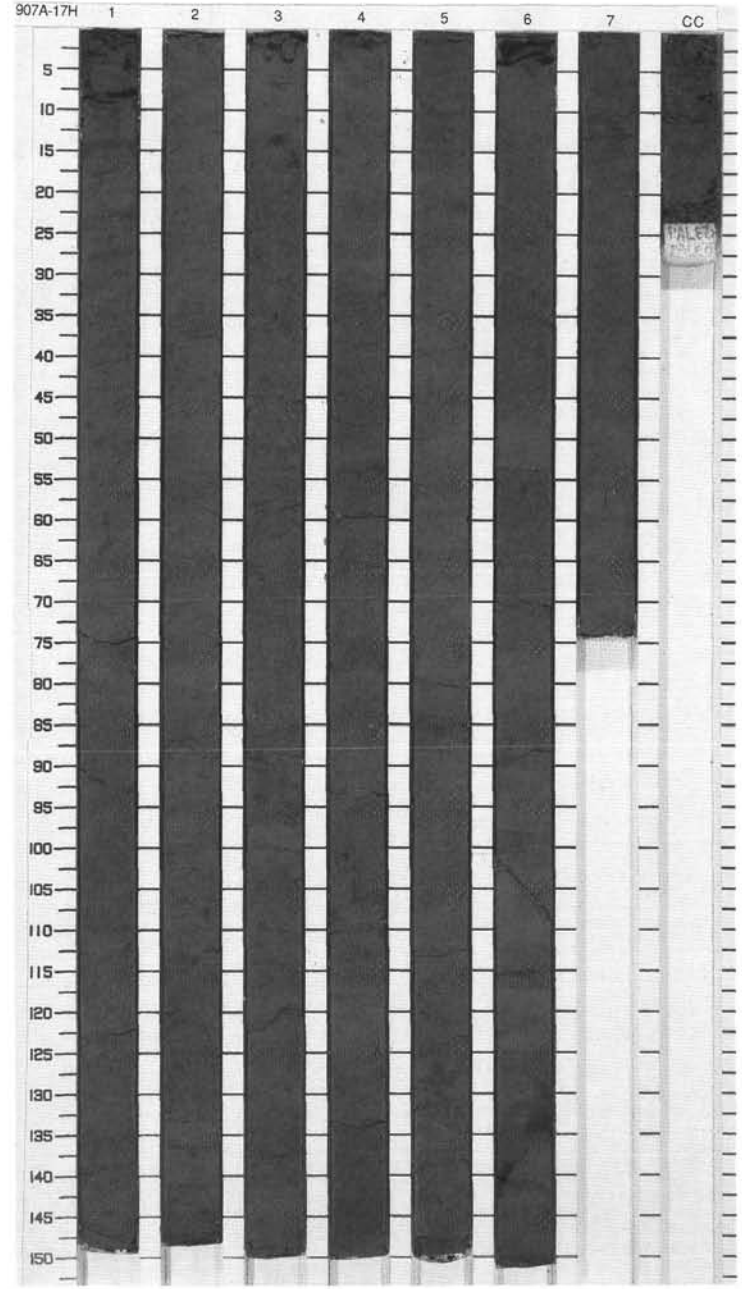
SITE 907 HOLE A CORE 16H CORED 140.3 - 149.8 mbsf

| Meter | Graphic Lith. | Section | Age | Structure | Disturb | Sample | Color | Description |
|---|---|---|---|---|---|---|---|---|
| 1–9 | | 1–7, CC | middle Miocene | | | S, P, I, M | 10Y 4/1 To 5G 4/2; 5GY 4/1 To 10Y 4/1; 10Y 5/2; 5GY 4/1 To 5Y 4/1; 5GY 4/1 To 10Y 5/1 | ASH- AND BIOSILICA-BEARING SILTY CLAY<br><br>Major Lithology:<br>ASH- AND BIOSILICA-BEARING SILTY CLAY, mottled and variegated gray (10Y 5/1) to dark greenish gray (5GY 4/1), is the predominant lithology and is locally interbedded with thin beds of variegated ASH and dark greenish gray silty clay. In Sections 5 to 7, ASH- AND BIOSILICA-BEARING SILTY CLAY is only slightly mottled and the dark greenish gray silty clay is absent. Burrows, filled with dark gray (10Y 4/1) to dark greenish gray silty clay, are scattered throughout; ash-filled burrows are commonly associated with diffuse ash layers. Components in ASH- AND BIOSILICA-BEARING SILTY CLAY include clear to light brown shards of volcanic glass, diatoms, and sponge spicules.<br><br>Minor Lithology:<br>ASH, gray (10Y 5/1) or black (5Y 2.5/1), occurs in thin beds with gradational top and bottom contacts in Section 2, 62–69 cm (black ash) and Section 4, 19–20, 75–83, and 95–97 cm (gray ash). The beds are commonly burrowed. |



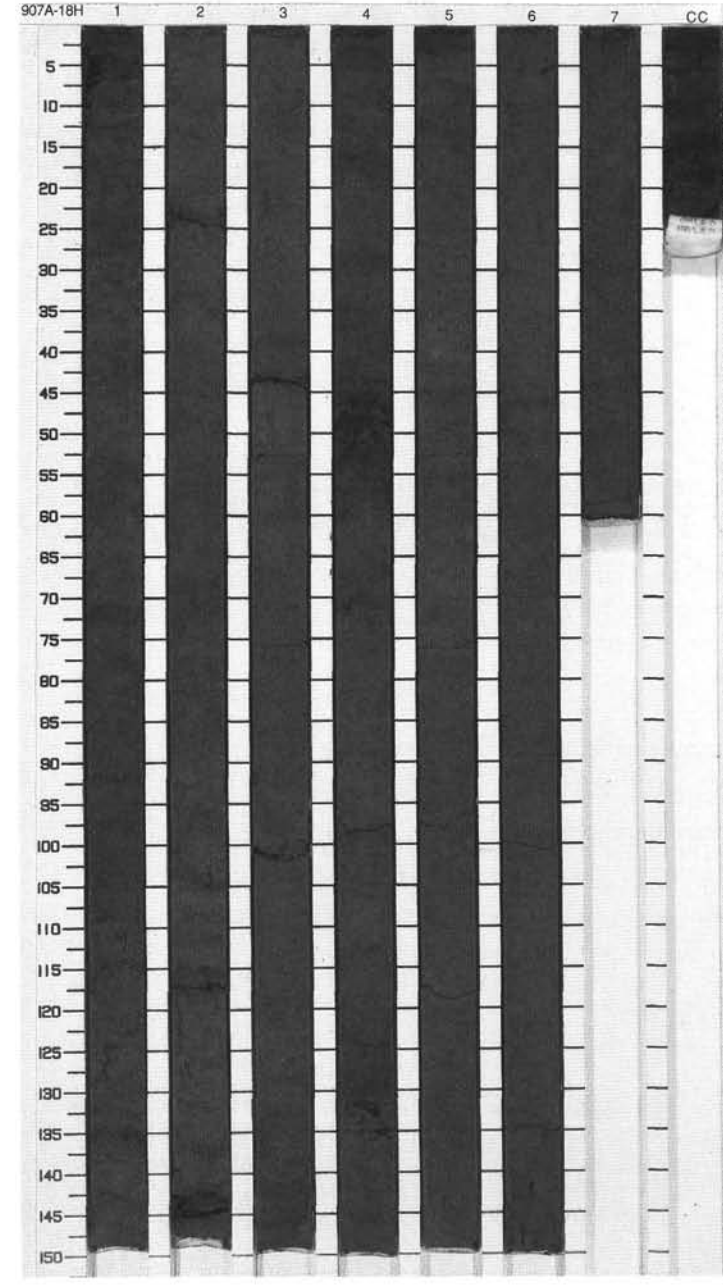
SITE 907 HOLE A CORE 17H CORED 149.8 - 159.3 mbsf

| Meter | Graphic Lith. | Section | Age | Structure | Disturb | Sample | Color | Description |
|---|---|---|---|---|---|---|---|---|
| 1–10 | | 1–7, CC | middle Miocene | | | P, S, M | 5GY 5/1 To 5Y 4/1; 5Y 4/1; 5Y 4/1 To 5GY 5/1; 5Y 4/1 | ASH-BEARING BIOSILICIOUS SILTYCLAY and BIOSILICIOUS SILTY CLAY<br><br>Major Lithologies:<br>ASH-BEARING BIOSILICIOUS SILTY CLAY, mottled dark gray (5Y 4/1) to greenish gray (5GY 5/1). Silt and clay contents are equivalent in Section 3. Throughout the core the sediment is mottled due to bioturbation. Includes <5% siliciclastic components.<br>BIOSILICEOUS SILTY CLAY is present in the uppermost 250 cm of the core. The clay contains about 5% volcanic glass.<br><br>General Description:<br>Faint greenish gray (5GY 5/1) color bands are present throughout the core, but are concentrated in Section 1, 0–50 cm and in the interval from Section 4, 80 cm to Section 6, 70 cm. The layers give the sediment a two-colored appearance. Very dark gray (5Y 3/1) burrows are found rarely in all sections. |



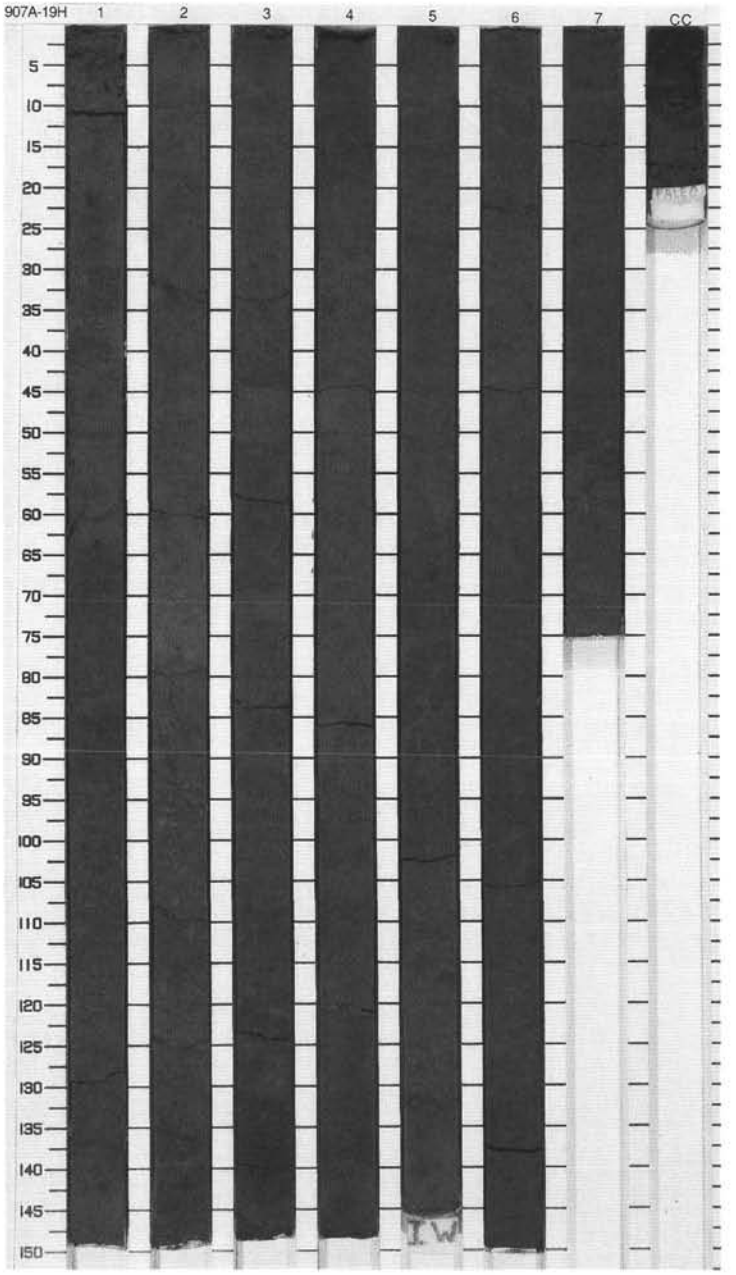
SITE 907 HOLE A CORE 18H CORED 159.3 - 168.8 mbsf

| Meter | Graphic Lith. | Section | Age | Structure | Disturb | Sample | Color | Description |
|---|---|---|---|---|---|---|---|---|
| 1–9 | | 1–7, CC | middle Miocene | A | | P, S, M | 10Y 4/1 | ASH- AND BIOSILICA-BEARING SILTY CLAY<br><br>Major Lithology:<br>Core is composed of dark gray (10Y 4/1) ASH- AND BIOSILICA-BEARING SILTY CLAY, with mottled grayish green (5G 4/2) color banding throughout and rare dark grayish brown (2.5Y 4/2) banding. Band thickness ranges from 4 mm to 3 cm with gradual contacts. Blebs of very dark gray (5Y 3/1) possibly burrows are seen throughout the core.<br><br>Minor Lithology:<br>Grayish green (5G 4/2) BIOSILICA-BEARING ASH layer in Section 2, 143–150 cm. Burrows are commonly filled with sand-sized BIOSILICA-BEARING ASH. |



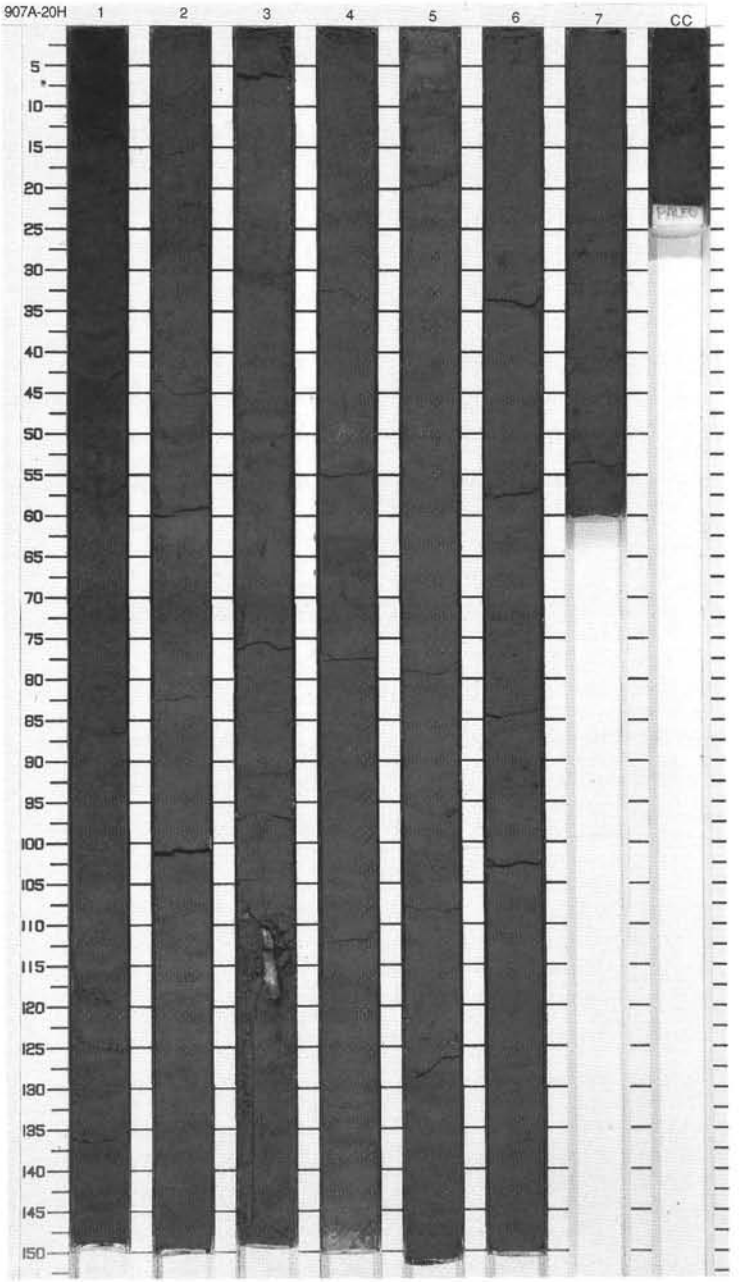
SITE 907 HOLE A CORE 19H CORED 168.8 - 178.3 mbsf

| Meter | Graphic Lith. | Section | Age | Structure | Disturb | Sample | Color | Description |
|---|---|---|---|---|---|---|---|---|
| 1–9 | | 1–7, CC | middle Miocene | | W | P, S, M, I | 5Y 4/1; 5GY 5/1 To 5Y 4/1; 5YR 3/2; 5Y 4/1; 5Y 3/2; 5Y 4/1; 5Y 3/2; 5Y 4/1; 5Y 4/2; 5Y 4/1 | ASH- AND BIOSILICA-BEARING CLAYEY SILT and ASH- AND CLAY-BEARING SILICEOUS OOZE<br><br>Major Lithologies:<br>ASH- AND BIOSILICA-BEARING CLAYEY SILT and ASH- AND CLAY-BEARING BIOSILICEOUS OOZE consist mainly of thickly interbedded dark gray (5Y 4/1) and dark greenish gray (5GY 4/1) beds. The beds have gradational top and bottom contacts and a uniform to slightly mottled texture. Dark gray, ash-filled burrows are present throughout the core. Greenish gray burrows (*Chondrites*?) are observed in Section 1, 47–57 cm; Section 2, 77–78 and 78–113 cm; Section 3, 36–52 and 118–134 cm; Section 5, 70–98 cm; and Section 7, 52–62 cm. Biogenic components include diatoms and sponge spicules, up to approximately 50%.<br><br>General Description:<br>Sand-sized particles of pumice are scattered throughout the core. |



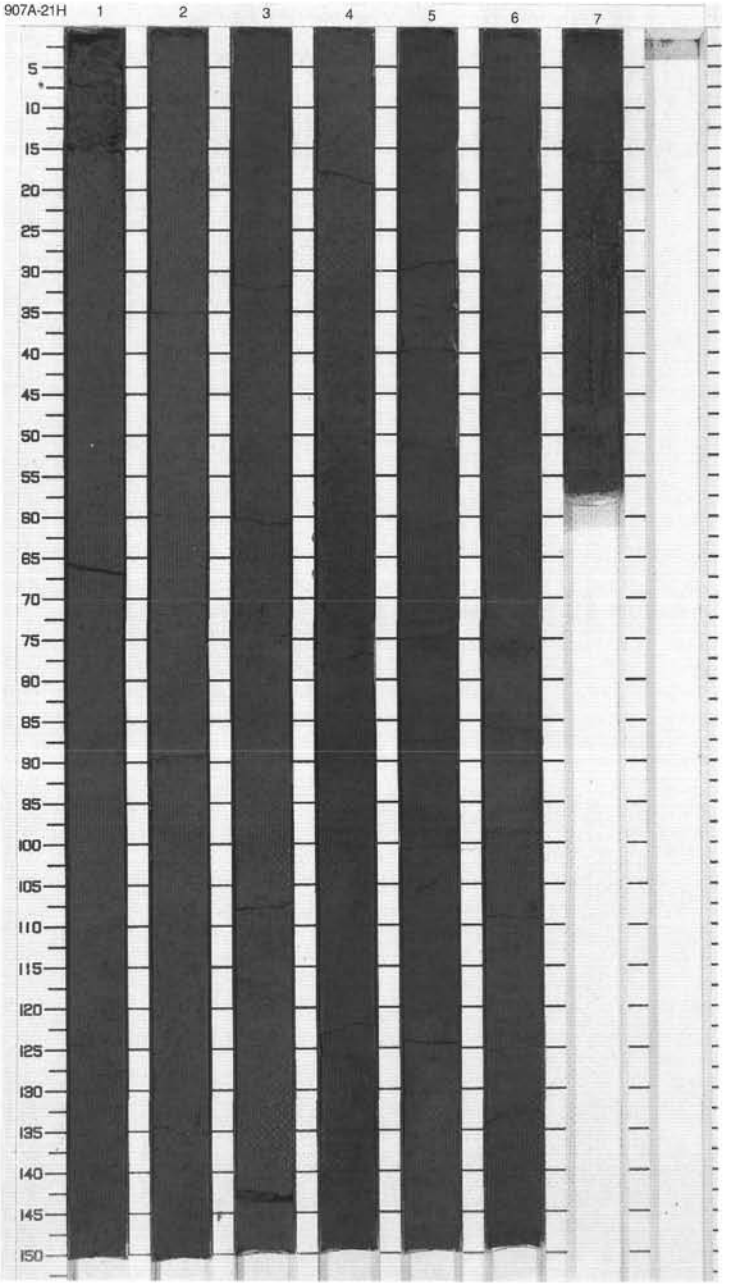
SITE 907 HOLE A CORE 20H CORED 178.3 - 187.8 mbsf

| Meter | Graphic Lith. | Section | Age | Structure | Disturb | Sample | Color | Description |
|---|---|---|---|---|---|---|---|---|
| 1–9 | | 1 | middle Miocene | | | S P | 5Y 3/2 | ASH-BEARING SILTY CLAY<br><br>Major Lithology:<br>ASH-BEARING SILTY CLAY, very dark gray (5Y 3/2) in the upper part of Section 1, with diffuse color banding, 1–2 cm scale, between dark gray (5Y 4/1) to dark olive gray (5Y 3/2) down to Section 5, 40 cm. Dark gray (5Y 4/1) in the lower part. Volcanic glass scattered throughout the core (5%–20%). A few percent of diatoms and sponge spicules. Slight bioturbation in the upper and lower darker sections. Moderate bioturbation in the lighter sections. Pyritized vertical burrow in Section 3, 110 cm.<br><br>Minor Lithology:<br>ASH layer, gray (5Y 5/1), pure sand-sized volcanic glass: Section 4, 148 cm to Section 5, 8 cm. |
| | | | | | | S P | 5Y 4/1 | |
| | | 2 | | | | S P | 5Y 4/1 To 5GY 4/1 | |
| | | | | | | P | | |
| | | 3 | | | | P | | |
| | | | | P | | P | | |
| | | 4 | | | | S P | | |
| | | | | | | P | | |
| | | | | | | S P | | |
| | | 5 | | | | P | 5Y 4/1 | |
| | | | | | | P | | |
| | | 6 | | | | P | | |
| | | | | | | P | | |
| | | 7 | | | | P | | |
| | | CC | | | | M | | |



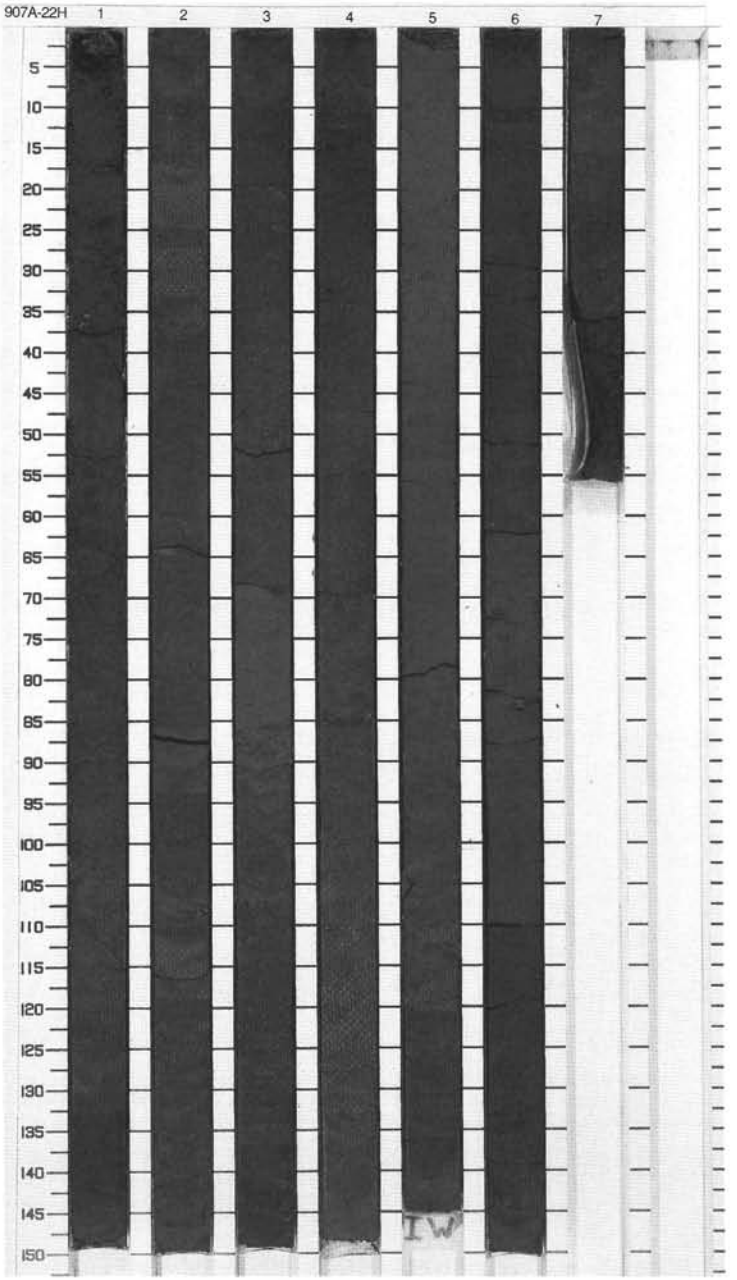
SITE 907 HOLE A CORE 21H CORED 187.8 - 197.3 mbsf

| Meter | Graphic Lith. | Section | Age | Structure | Disturb | Sample | Color | Description |
|---|---|---|---|---|---|---|---|---|
| 1 | | 1 | middle Miocene | | | P<br>S<br>P | 5Y 3/2 | ASH- AND BIOSILICA-BEARING SILTY CLAY<br><br>Major Lithology:<br>Core is composed almost entirely of dark olive gray (5Y 3/2) ASH- AND BIOSILICA-BEARING SILTY CLAY. Unit is very homogeneous, almost featureless, but mottled in Sections 5 to 7 due to bioturbation. ASH content is ~15%–20%. Biosiliceous components include diatoms and sponge spicules (each ~10%). Small black (5Y 2.5/1) ASH pods (2–10 mm) occur in Section 3, 72 and 95 cm, Section 5, 36 and 105 cm, Section 6, 22 cm, and Section 7, 45–55 cm. Disturbed interval in Section 4 from 53 to 142 cm may be related to drilling disturbance. |
| 2 | | 2 | | | | P<br>P | | |
| 3 | | 3 | | A•<br>A• | | S<br>P | | |
| 4 | | 4 | | | | P<br>S<br>P | 5Y 3/1 | |
| 5 | | 5 | | A•<br>A• | | S<br>P<br>P | | |
| 6 | | 6 | | A• | | P<br>S<br>P | 5Y 3/2 | |
| 7 | | 7 | | A• | | P<br>M | | |



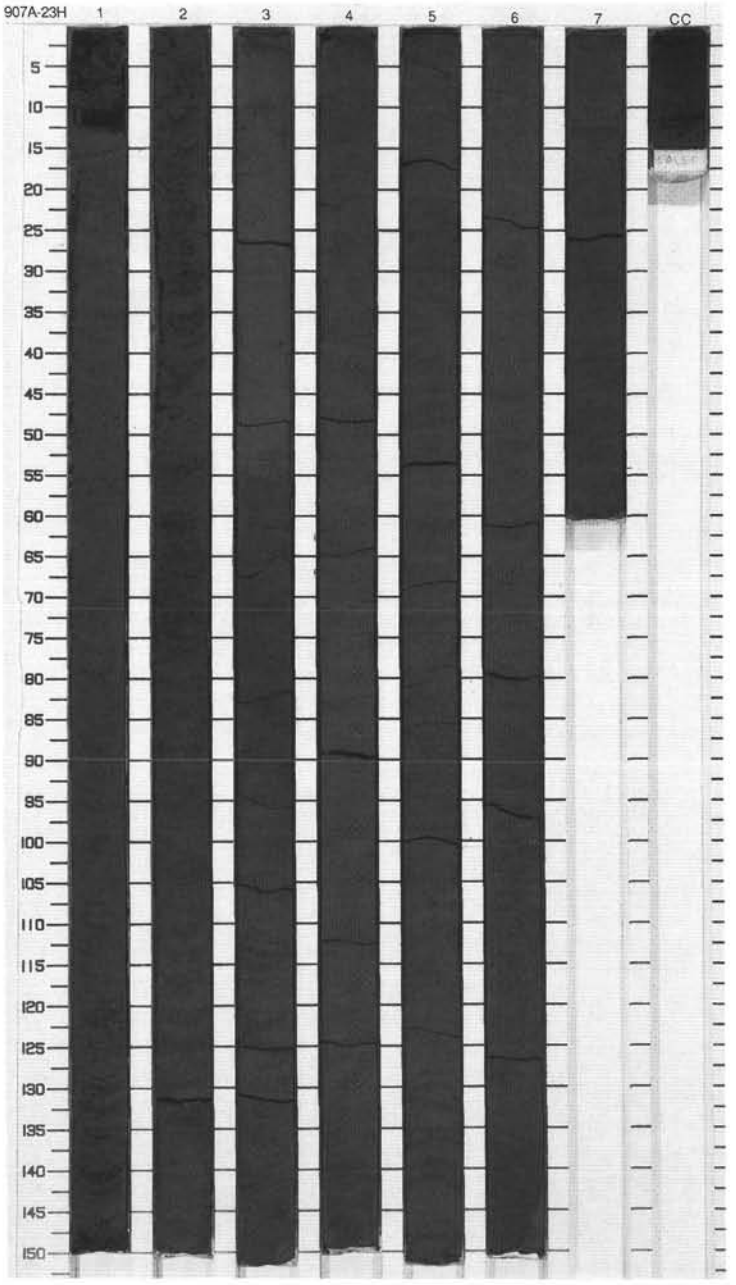
SITE 907 HOLE A CORE 22H CORED 197.3 - 206.8 mbsf

| Meter | Graphic Lith. | Section | Age | Structure | Disturb | Sample | Color | Description |
|---|---|---|---|---|---|---|---|---|
| 1–9 | | 1–7, CC | middle Miocene | | | P, S P, S, I, M | 5Y 3/2 | CLAYEY MUD and ASH-BEARING SILTY CLAY<br><br>Major Lithologies:<br>Dark olive gray (5Y 3/2), mottled, ASH-BEARING SILTY CLAY containing about 10% quartz, 5% feldspar, 5% accessory minerals, and 2% glauconite from top of core to Section 3, 20 cm. CLAYEY MUD, fairly homogeneous from Section 3, 20 cm to bottom of core, with some mottled intervals. CLAYEY MUD is dark olive gray (5Y 3/2) and contains 15%–25% quartz, 5%–10% accessory minerals, 5% opaque minerals, and 5% volcanic glass.<br><br>General Description:<br>The two lithologies are distinguishable only in the smear slides. Very dark gray ashy patches up to a few cm thick are present in all sections. A large basalt clast at top of Section 1 is likely of drilling origin and related to disturbance in the uppermost meter. Two concretions are found, in Section 2, 106 cm and Section 6, 80 cm. An elongate, high angle void in Section 1 (36–39 cm) has a pyrite surface. A 2-cm lens of coarse-grained sediment occurs in Section 3, 90 cm. |

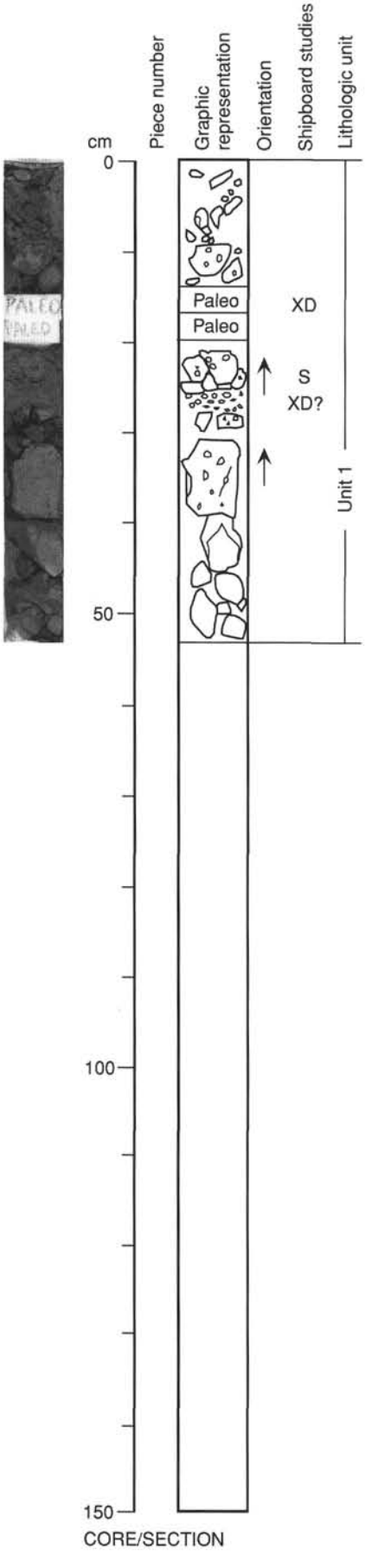


SITE 907 HOLE A CORE 23H CORED 206.8 - 216.3 mbsf

| Meter | Graphic Lith. | Section | Age | Structure | Disturb | Sample | Color | Description |
|---|---|---|---|---|---|---|---|---|
| 1–9 | | 1 | middle Miocene | | | S P | 5Y 3/2 To 5Y 3/1 | CLAYEY MUD and SILTY CLAY<br><br>Major Lithologies:<br>Dark olive gray to very dark gray (5Y 3/2 to 5Y 3/1), homogeneous sediment changes from slightly bioturbated CLAYEY MUD from top of core to Section 3, 150 cm, to moderately bioturbated SILTY CLAY from Section 3, 150 cm to bottom of core. Thick black (5Y 2.5/1) color band is present in Section 2, 60–100 cm. Color change is gradational. Burrow fills have slightly coarser sediment.<br><br>Minor Lithology:<br>ZEOLITIC SILTY MUD, which seems to be derived from alteration of ash-bearing silty mud, is observed in Section 2, 25 cm. ZEOLITES are also reported as a minor component (5%) in Section 6, 25 cm. |
| | | | | | | P | | |
| | | 2 | | | | S P | 5Y 2.5/1 | |
| | | | | | | P | 5Y 4/1 To 5Y 3/1 | |
| | | 3 | | | | S P | 2.5Y 3/2 | |
| | | | | | | P | 5Y 4/2 | |
| | | 4 | | | | S P | 5Y 3/2 | |
| | | | | | | P | | |
| | | | | | | | 5Y 3/1 | |
| | | 5 | | | | S P | 5Y 4/2 | |
| | | | | | | P | | |
| | | 6 | | | | S P | 5Y 3/1 To 5Y 3/2 | |
| | | | | | | P | | |
| | | 7 | | | | S P | | |
| | | CC | | | | S M | | |



**151-907A-24X-CC**

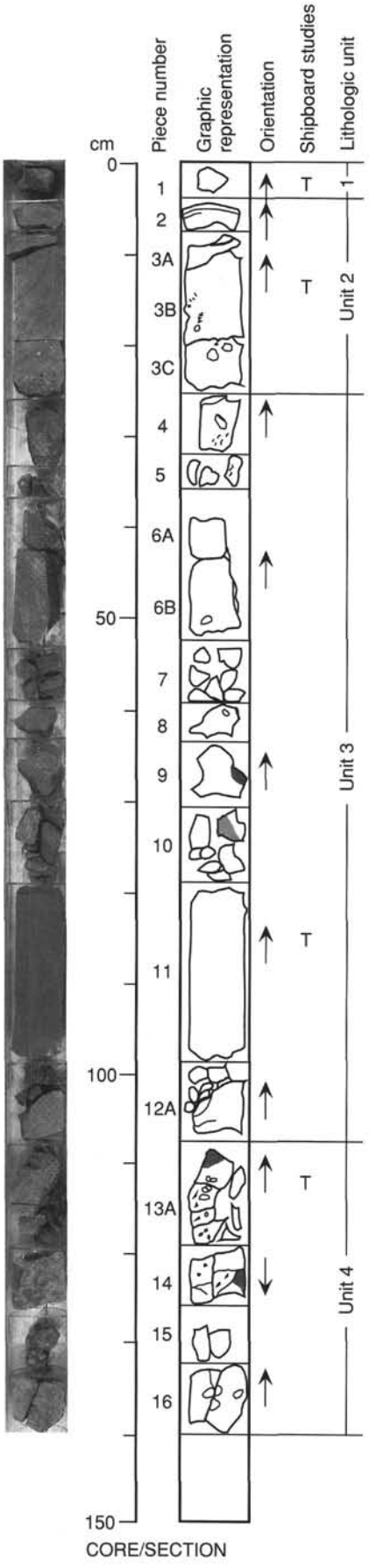



## UNIT 1: FINE-GRAINED BASALT

### Pieces are not numbered in CC

**CONTACTS:** Not observed.
**PHENOCRYSTS:**
Plagioclase - 12%; 2 mm; tabular to skeletal.
Clinopyroxene - 5%; 0.4 mm; anhedral to euhedral.
Olivine - <1%; 0.3 mm; euhedral; completely altered.
**GROUNDMASS:** Texture: Very fine-grained to glassy. Composition: Plagioclase, clinopyroxene, iron-oxide minerals, altered glass.
**VESICLES:** <1 to 2 mm; spheroidal and irregularly shaped; some are amygdaloidal, filled with green clay minerals.
**COLOR:** Bluish-gray (5B 5/1).
**STRUCTURE:** Massive, with some brecciation.
**ALTERATION:** Some pieces appear chloritic, mostly in the top 10 cm. Groundmass is devitrified with spherulitic structure preserved, although replaced by clay minerals.
**VEINS/FRACTURES:** <1%; <1 mm; random; fractures are chlorite lined.
**ADDITIONAL COMMENTS:** Between rock fragments from 20–53 cm is a hard green to black clay-rich mud. Smear slide shows plagioclase and perhaps pyroxene fragments in a very fine-grained, mostly isotropic matrix. Some mud is birefringent and is perhaps a clay mineral. X-ray diffraction of bulk clay from the upper 15 cm shows quartz, illite, smectite, possibly celadonite and glauconite, and feldspar.

## 151-907A-25X-1




### UNIT 1: PILLOW BASALT

#### Piece 1

**CONTACTS:** Top is glassy and bottom is an alteration rind.
**PHENOCRYSTS:**
Plagioclase - <1%; 1.5 mm; euhedral.
Clinopyroxene - <1%; 1.5 mm; bladed.
**GROUNDMASS:** Texture: Very fine-grained, subophitic. Composition: Clinopyroxene, plagioclase, altered glass.
**VESICLES:** 0%.
**COLOR:** Bluish-gray (5B 5/1).
**STRUCTURE:** Massive; pillow basalts.
**ALTERATION:** Iron-oxide mineral alteration rind at bottom. Glass is completely altered to palagonite(?).
**VEINS/FRACTURES**: 0%.

### UNIT 2: PILLOW BASALT

#### Pieces 2–3C

**CONTACTS:** Top is an alteration rind (iron-oxide minerals). Matches the bottom of Piece 1.
**PHENOCRYSTS:**
Clinopyroxene - 1%; 2.5 mm; euhedral to anhedral.
Plagioclase - 7%; 2.0 mm; euhedral to subhedral.
Altered Olivine - <1%; 0.5 mm; euhedral.
**GROUNDMASS:** Texture: Very fine-grained, subophitic. Composition: Clinopyroxene, plagioclase, iron-oxide minerals, and altered glass.
**VESICLES:** Range up to 5 mm; spheroidal and irregularly shaped; amygdaloidal, filled with green and black minerals or mineraloids.
**COLOR:** Bluish-gray (5B 5/1).
**STRUCTURE:** Massive; pillow basalts.
**ALTERATION:** Iron-oxide mineral rind at the top of the unit. Amygdules filled with clay and sulfide minerals. Plumose sheaves of pyroxene in the groundmass, are moderately altered.
**VEINS/FRACTURES**: 1 mm; not oriented; calcite and pyrite veins are present.

### UNIT 3: PILLOW BASALT

#### Pieces 4–12A

**CONTACTS:** Glassy rind at top and abundant vesicles fingering upward. Possibly glassy rind at bottom, but glassy pieces are fragments and could come from Unit 4 below.
**PHENOCRYSTS:**
Plagioclase - <1%. 2.0 mm; euhedral.
Clinopyroxene - <1%; 1.1 mm; euhedral.
**GROUNDMASS:** Texture: Subophitic, quenched. Composition: Altered olivine, plagioclase, clinopyroxene, iron-oxide minerals, altered glass.
**VESICLES:** <1 to 10 mm; irregularly shaped and spheroidal; only found in Piece 4. Amygdules are filled with green clays.
**COLOR:** Bluish-gray (5B 5/1).
**STRUCTURE:** Massive; pillow basalts.
**ALTERATION:** Slightly; contains altered olivine. Glass is completely devitrified and replaced by clay minerals. Pyrite is found in vesicles.
**VEINS/FRACTURES**: Not oriented; The right side of Piece 6B is a nearly vertical vein or alteration rim containing iron and manganese oxide minerals. Piece 12A has a convex upward alteration rind possibly along a fracture.
**ADDITIONAL COMMENTS:** Bottom contact is questionable due to loose pieces of glass - could have come from above or below Piece 12A.

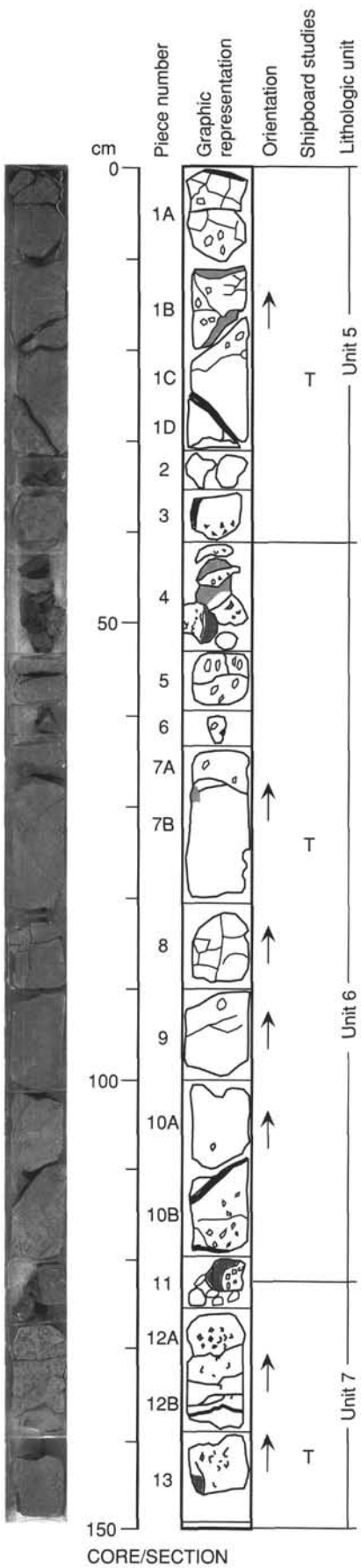
**151-907A-25X-1**

## UNIT 4: PILLOW BASALT

### Pieces 13A–16

**CONTACTS:** Top is glassy and vesicle rich. Bottom contact is not observed.
**PHENOCRYSTS:**
Plagioclase - 8%; 1 mm; skeletal to tabular.
Clinopyroxene - 6%; 0.8 mm; subhedral.
**GROUNDMASS:** Texture: Spherolitic, vesicular. Composition: Altered glass and iron-oxide minerals.
**VESICLES:** Range up to 6 mm; irregularly shaped and spheroidal; amygdules are filled with green clay minerals.
**COLOR:** Bluish-gray (5B 5/1).
**STRUCTURE:** Massive; pillow basalts.
**ALTERATION:** Splotchy coloration is probably due to hydrothermal alteration. Veins have alteration envelopes. Glass has been completely altered to palagonite or a smectite.
**VEINS/FRACTURES**: Vertical and horizontal and otherwise.
**ADDITIONAL COMMENTS:** Although the amygdules in Piece 13 are irregularly shaped, they appear elongate in the horizontal direction and most are parallel, defining a crude foliation.

**151-907A-25X-2**




## UNIT 5: PILLOW BASALT

### Pieces 1A–3

**CONTACTS:** Top is glassy with a chilled zone and accompanying abundant vesicles. Bottom is vesicle rich, but not glassy.

**PHENOCRYSTS:**

Plagioclase - 1%; 1 mm; skeletal, bladed.
Clinopyroxene - <1%; 1 mm; skeletal, tabular.
Altered Olivine - <1; 1 mm; euhedral.

**GROUNDMASS:** Texture: Variolitic, subophitic, microporphyritic. Composition: Plagioclase, clinopyroxene, altered olivine, iron-oxide minerals, glass.

**VESICLES:** Spheroidal and irregularly shaped; amygdules are filled with green clay and rare sulfide minerals. Some smaller spheroidal amygdules are joined to form chains.

**COLOR:** Bluish-gray (5B 5/1).

**STRUCTURE:** Massive; pillow basalts.

**ALTERATION:** Alteration envelopes around fractures. Glass is often hydrated. Splotchy appearance in Pieces 1C, 1D, and 3 indicates groundmass alteration/devitrification. Some pyrite is present. Glass and olivine are completely altered.

**VEINS/FRACTURES**: Range up to 2 mm; not oriented; material in the vein joining Pieces 1C and 1D is a soft black mineral or mineraloid. Bifurcation at the bottom indicates injection of material rather than low-temperature fracture filling. It is possibly altered glass.

## UNIT 6: PILLOW BASALTS

### Pieces 4–11

**CONTACTS:** Glassy rind and fine-grained chilled zone at top, although exact placement is probably off due to rubble. Same for bottom contact. Both ends are vesicle rich.

**PHENOCRYSTS:**

Plagioclase - 10%; 1.5 mm; anhedral.
Clinopyroxene - 3%; 2.0 mm; anhedral.

**GROUNDMASS:** Texture: Glomeroporphyritic, subophitic. Composition: Plagioclase, clinopyroxene, iron-oxide minerals, altered olivine, and altered glass.

**VESICLES:** Spheroidal and irregularly shaped; amygdaloidal and filled with green clay and pyrite.

**COLOR:** Bluish-gray (5B 5/1).

**STRUCTURE:** Massive; pillow basalts.

**ALTERATION:** Glass and olivine are completely altered.

**VEINS/FRACTURES**: Not oriented; most are subhorizontal. Veins contain pyrite and an unknown black mineraloid. Some may be altered glass.

**ADDITIONAL COMMENTS:** Top and bottom contacts are not exact due to rubbly, vesicle-rich, glassy chill zones.

## UNIT 7: PILLOW BASALTS

### Pieces 11–13

**CONTACTS:** Top is placed in rubble of glassy chilled zone and vesicle-rich material. Bottom is in next lower section.

**PHENOCRYSTS:**

Plagioclase - 10%; 1.5 mm; euhedral and broken.
Clinopyroxene - 1%; 1.5 mm; subhedral, poikilitic.
Altered Olivine - <1%; 0.3 mm; equant and euhedral.

**GROUNDMASS:** Texture: Microporphyritic, subophitic, variolitic. Composition: Plagioclase, clinopyroxene, altered olivine, iron-oxide minerals, and altered glass.

**VESICLES:** Spheroidal and irregularly shaped; amygdaloidal and filled with green clays and pyrite.

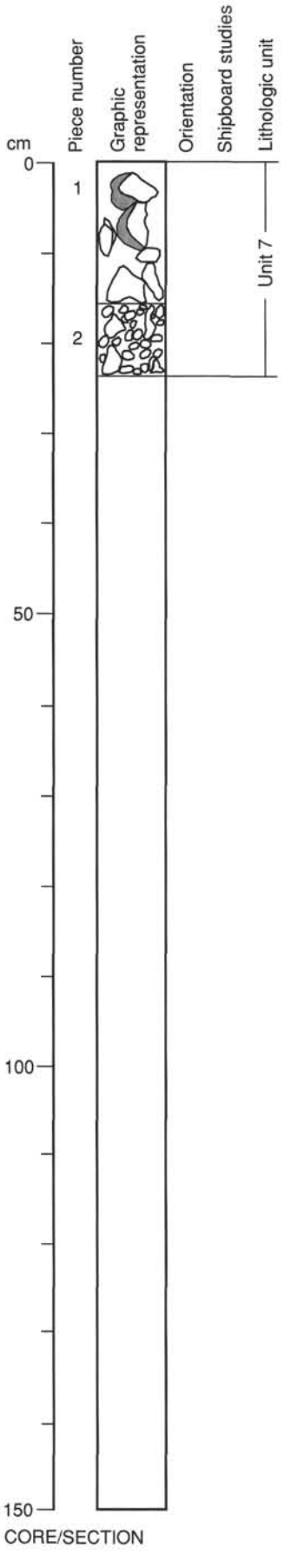
**COLOR:** Bluish-gray (5B 5/1).

**STRUCTURE:** Massive; pillow basalts.

**ALTERATION:** Slight; pyrite veinlets are present. Glass and olivine are completely altered. Plumose pyroxene is slightly altered.

**VEINS/FRACTURES**: <1 mm; mostly horizontal; at least one vein (Piece 12B) contains a black mineraloid. Many minute pyrite veinlets are present.

**151-907A-25X-3**

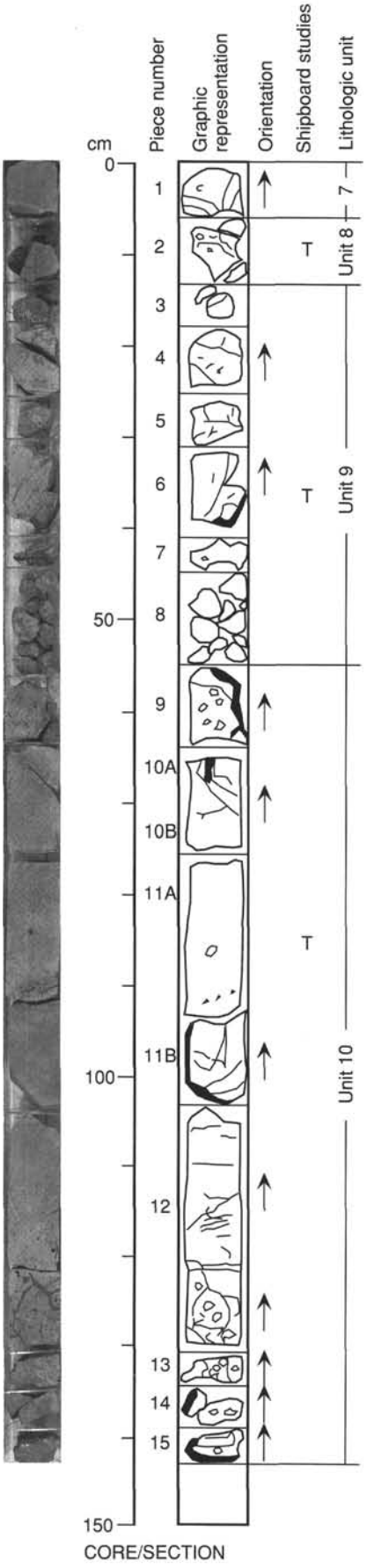



## UNIT 7: PILLOW BASALT

### Pieces 1–2

**CONTACTS:** None observed.
**PHENOCRYSTS:**
Plagioclase - 1mm.
**GROUNDMASS:** Very fine-grained; perhaps devitrified.
**VESICLES:** Spheroidal; amygdaloidal, filled with green clay minerals.
**COLOR:** Bluish-gray (5B 5/1).
**STRUCTURE:** Massive; pillow basalts.
**ALTERATION:** Black mineraloid coats some of the rubble.
**VEINS/FRACTURES**: 0%; none observed.
**ADDITIONAL COMMENTS:** No thin section.

**151-907A-26X-1**




## UNIT 7: PILLOW BASALT

### Piece 1

**CONTACTS:** Top is located in core above. Bottom contact is glassy with an accompanying thick (1 cm) chilled zone.
**PHENOCRYSTS:**
Plagioclase - 8%; 1.5 mm; euhedral, skeletal.
Clinopyroxene - 5%; 1.0 mm; euhedral.
Altered Olivine - <1%; 0.2 mm; euhedral.
**GROUNDMASS:** Texture: Spherolitic, microporphyritic, vitrophyric. Composition: Plagioclase, clinopyroxene, altered olivine, iron-oxide minerals, fresh and altered glass.
**VESICLES:** Spheroidal and irregularly shaped; vesicles are rare.
**COLOR:** Bluish-gray (5B 5/1).
**STRUCTURE:** Massive; pillow basalts.
**ALTERATION:** Hydrothermal alteration inward from chill zone and along fractures. Sulfide mineral in the groundmass.
**VEINS/FRACTURES:** <1 mm; no orientation.

## UNIT 8: PILLOW BASALT

### Piece 2

**CONTACTS:** Top is glassy with a 2-cm chilled rind. Bottom is not observed.
**PHENOCRYSTS:**
Plagioclase - 1 mm; bladed to tabular.
**GROUNDMASS:** Very fine-grained.
**VESICLES:** Spheroidal and irregularly shaped; amygdaloidal and filled with green clay minerals.
**COLOR:** Bluish-gray (5B 5/1).
**STRUCTURE:** Massive; pillow basalts.
**ALTERATION:** Slight, iron- or manganese-oxide minerals in veins and vesicles (or perhaps altered iron-magnesium silicates).
**VEINS/FRACTURES:** <1 mm; no orientation.
**ADDITIONAL COMMENTS:** This unit is distinguished from the next lower unit based solely on an altered surface at the top of Unit 9, which could also be a vein/fracture footwall. No thin section.

## UNIT 9: PILLOW BASALT

### Pieces 3–8

**CONTACTS:** Top is an altered surface (iron-oxide minerals). Bottom is placed below rubble (Piece 8) that was collected and placed below Piece 6. Piece 6 has a glassy and chilled rind on the right and bottom side of split core.
**PHENOCRYSTS:**
Plagioclase - 10%; 1.5 mm; euhedral, bladed.
Clinopyroxene - 2%; 2.0 mm; euhedral, anhedral.
Altered Olivine - 2%; 0.4 mm; euhedral.
**GROUNDMASS:** Texture: Variolitic, subophitic, microporphyritic. Composition: Plagioclase, clinopyroxene, olivine, iron-oxide minerals, altered olivine, and altered glass.
**VESICLES:** Spheroidal to irregularly shaped; Varioles possibly present in Piece 10B.
**COLOR:** Bluish-gray (5B 5/1).
**STRUCTURE:** Massive; pillow basalts.
**ALTERATION:** Splotchy discoloration typically around vesicles. Iron-oxide minerals along fractures. Pyrite in vesicles and groundmass. Glass and olivine are completely altered and pyroxene is partially altered.
**VEINS/FRACTURES:** <1 mm wide; not oriented; one vein in Piece 4.
**ADDITIONAL COMMENTS:** Pieces 7 and 8 could belong above Piece 6 or they could be a separate unit between Units 9 and 10.

**151-907A-26X-1**

## UNIT 10: PILLOW BASALT

### Pieces 9–15

**CONTACTS:** Top is glassy with a chilled rind (2 cm) and large vesicles. Bottom is glassy with a chilled rind and very abundant, large vesicles.

**PHENOCRYSTS:**

Plagioclase - 4%; 1.0 mm; anhedral.
Clinopyroxene - 1%; 1.0 mm; anhedral, euhedral.
Altered Olivine - <1%; 1.0 mm; euhedral.

**GROUNDMASS:** Texture: Microporphyritic, subophitic. Composition: Plagioclase, clinopyroxene, altered olivine, iron-oxide minerals, altered glass.

**VESICLES:** Range up to 3 mm in diameter; spheroidal and irregularly shaped; vesicles are abundant near glassy rinds. Amygdules are filled with green clay minerals and/or pyrite.

**COLOR:** Bluish-gray (5B 5/1).

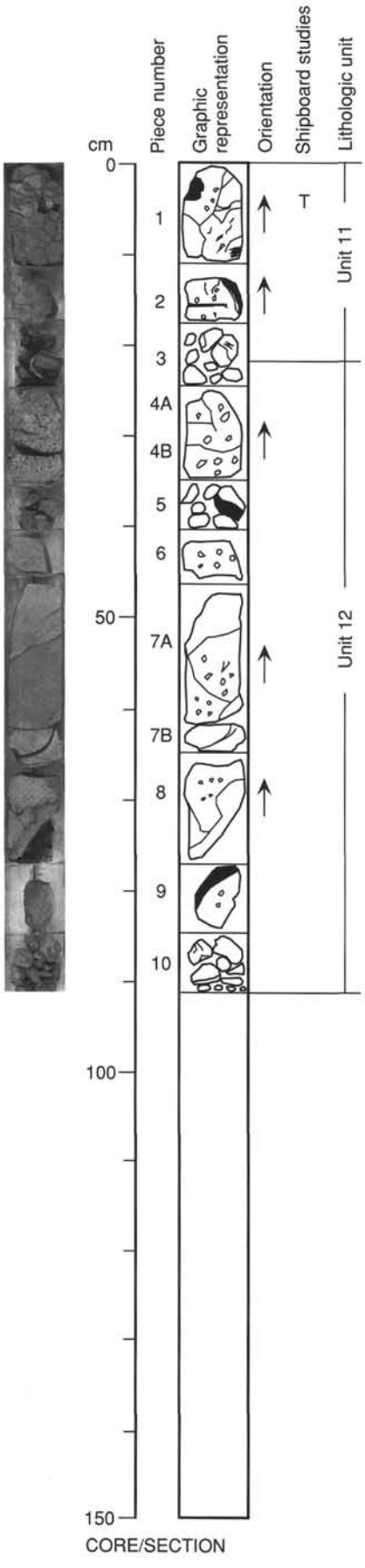
**STRUCTURE:** Massive; pillow basalts. Abundant subhorizontal veinlets define an apparent foliation.

**ALTERATION:** Hydrothermal alteration indicated by pyrite and chalcopyrite veinlets and pockets. Glass and olivine are completely altered.

**VEINS/FRACTURES**: Most are subhorizontal and undulating; some of the veins contain quenched glass.

**ADDITIONAL COMMENTS:** The abundant and large vesicles at the bottom of the unit are distinctive in that they are larger and more abundant than observed in any upper unit. Pieces 11–15 should have been combined as one piece with five subpieces.

**151-907A-26X-2**




## UNIT 11: PILLOW BASALT

### Pieces 1–3

**CONTACTS:** Top of Piece 1 is glassy and has a chilled rind with abundant vesicles. Right sides of Pieces 1 and 2 also have glass and chilled rind. Bottom contact is placed within the glassy rubble (Piece 3).
**PHENOCRYSTS:**
Plagioclase - 5%; 1.5 mm; skeletal, tabular.
Clinopyroxene - 3%–5%; 2.0 mm; euhedral, anhedral.
Altered Olivine - <1%; 0.3 mm; euhedral.
**GROUNDMASS:** Texture: Vesicular, variolitic, glomeroporphyritic. Composition: Clinopyroxene, plagioclase, altered olivine, iron-oxide minerals, altered glass.
**VESICLES:** Spheroidal and irregularly shaped; most amygdules are filled with green clay minerals.
**COLOR:** Bluish-gray (5B 5/1).
**STRUCTURE:** Pillow basalt.
**ALTERATION:** Mottled coloring indicates hydrothermal alteration. Olivine is hydrated or oxidized. Fractures have very thin alteration envelopes. Glass is completely altered.
**VEINS/FRACTURES:** Randomly oriented.
**ADDITIONAL COMMENTS:** Right side of core is the edge of a pillow.

## UNIT 12: PILLOW BASALT

### Pieces 3–10

**CONTACTS:** Top contact is placed in glassy rubble (Piece 3) as justified by the structure of the above pillow.
**PHENOCRYSTS:**
Plagioclase - 1%–2%; 1.5 mm; euhedral to subhedral.
Clinopyroxene - <1%; 2.0 mm; tabular.
**GROUNDMASS:** Texture: Variolitic, Subophitic, vesicular. Composition: Plagioclase, clinopyroxene, altered olivine, iron-oxide minerals, altered glass.
**VESICLES:** Spheroidal and irregularly shaped; most are spheroidal. Amygdules are filled with green clay minerals and pyrite.
**COLOR:** Bluish-gray (5B 5/1).
**STRUCTURE:** Pillow basalt.
**ALTERATION:** Alteration envelopes around fractures.
**VEINS/FRACTURES:** Not oriented; relatively few are present.