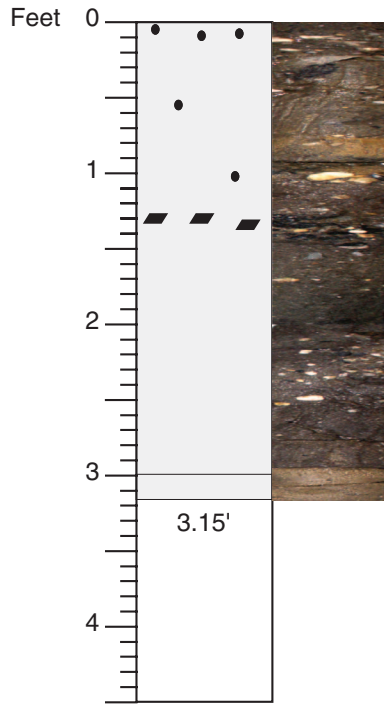


CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



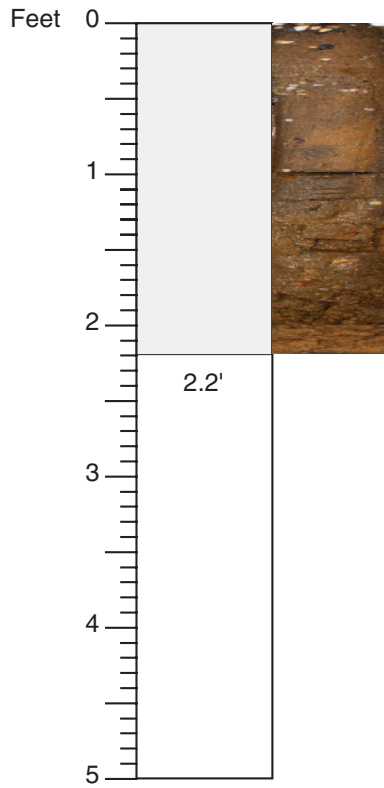
SAND: medium to coarse; abundant pebbles up to 4 cm and granules; abundant lignite at 1.3-1.4 ft, harder brown clay layer at plastic sheet, above is fill, below is probably good core, fewer pebbles down core; very dark gray (10YR 3/1)

Sharp change

SAND; very fine to fine, silty, clayey, angular to subangular, mostly quartz; brown (10YR 4/3)

174AX SG
 Core #1
 Start depth: 1 ft
 Stop depth: 5.5 ft
 Recovery: 3.15 ft
 Date: 9/24/03
 Described by: JVB/SM

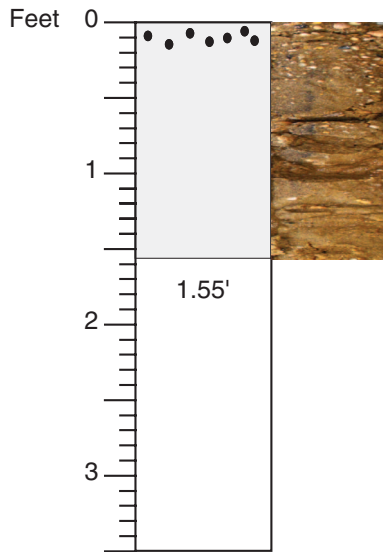
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; medium, some fine and some coarse; subangular, quartz; 0-1.1 — silty, the core holds together well; 1.1-2.2 — less silt more coarse sand; some granules and pebbles on outside of core, not in middle, yellowish brown (10YR 5/4)

174AX SG
Core #2
Start depth: 5.5 ft
Stop depth: 10.5 ft
Recovery: 2.2 ft
Date: 9/24/03
Described by: JVB/SM

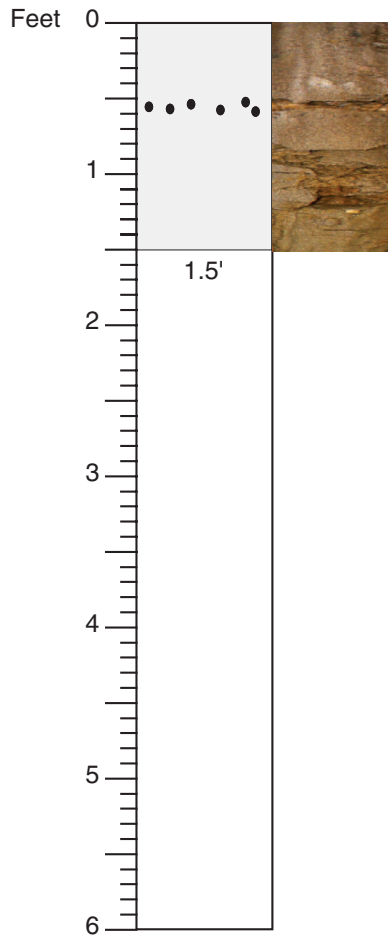
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; coarse, 5% dark minerals (?lignite), subrounded, clear quartz grains, upper 0.2 ft contains abundant pebbles up to 25 mm; fewer pebbles further down, only on outside of core; yellowish brown (10YR 5/6)

174AX SG
Core #3
Start depth: 10.5 ft
Stop depth: 14.0 ft
Recovery: 1.55 ft
Date: 9/24/03
Described by: JVB/SM

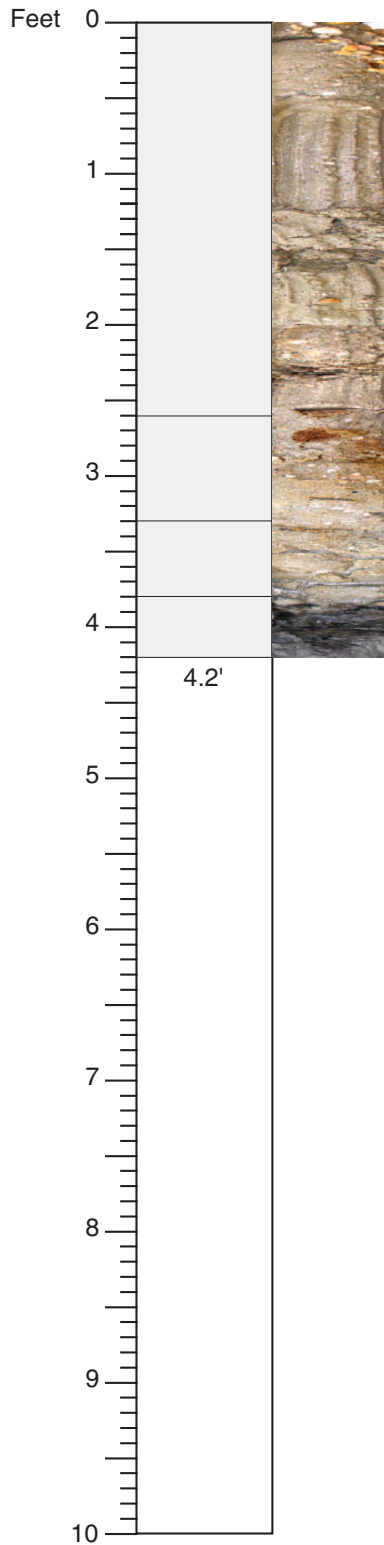
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; medium, subrounded, very slightly silty, quartz, ~1-3% ohm/lignite; at 0.6 ft is a thin layer of pebbles up to 10 mm, possible burrow at 0.5 ft, scattered granules and small pebbles on outside, may be slightly siltier at bottom (core catcher), clay nodule near bottom; pale olive (5Y 6/4)

174AX SG
Core #4
Start depth: 14 ft
Stop depth: 20 ft
Recovery: 1.5 ft
Date: 9/24/03
Described by: JVB/SM

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; medium, quartz, clear, subrounded, ~1% ohm, top 0-0.3 ft contains many large pebbles, note on inside of core, pebbles and granules are scattered on outside; thin iron-stained layer at 2.3 ft; two fining upward successions, 2.3-0 and 3.3-2.3 ft; light olive gray (5Y 6/2)

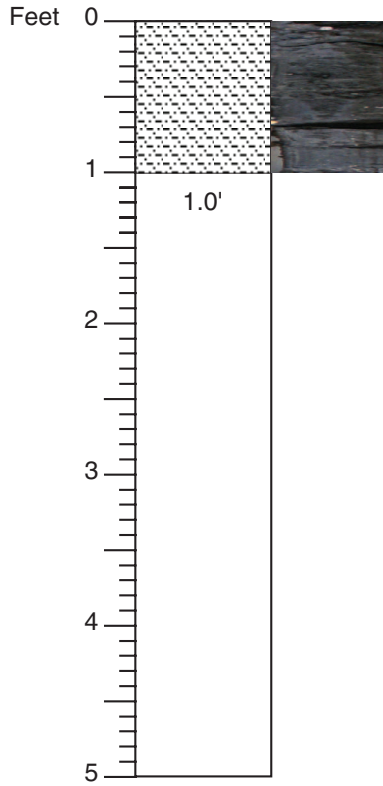
SAND; ?iron stained; coarse, subangular to subrounded yellowish brown (10YR 5/6)

SAND; fine to very fine, quartz, 1-3% ohm

SAND; fine to very fine, silty, lots of organics; dark olive gray (5Y 3/2)

174AX SG
 Core #5
 Start depth: 20 ft
 Stop depth: 30 ft
 Recovery: 4.2 ft
 Date: 9/24/03
 Described by: JVB/SM

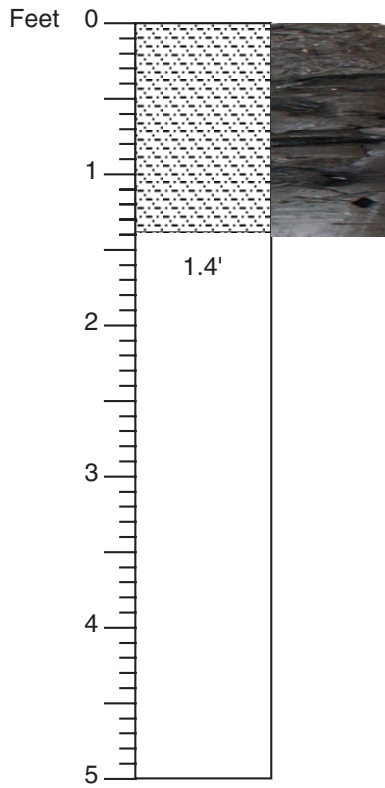
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; and laminated SILT; fine mica; pebbles pushed into outside of core

174AX SG
Core #6
Start depth: 30 ft
Stop depth: 35 ft
Recovery: 1.0 ft
Date: 9/24/03
Described by: JVB/SM

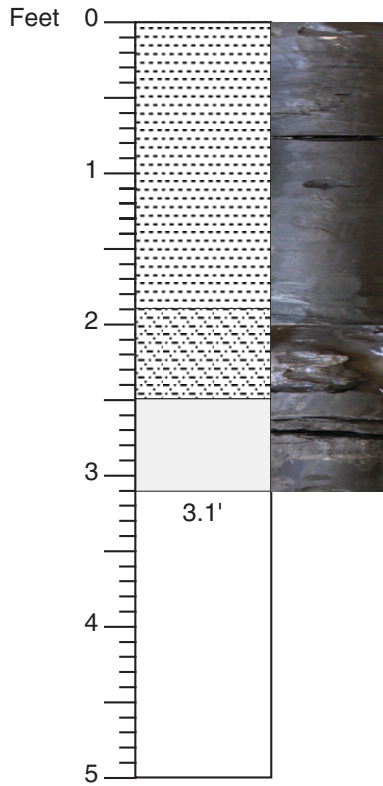
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; slightly silty; slightly micaceous, scattered pebbles on outside of core, some burrows, no laminations seen, at bottom of core is a coating of medium sand and ?lignite; dark olive gray (5Y 3/2)

174AX SG
Core #7
Start depth: 35 ft
Stop depth: 40 ft
Recovery: 1.4 ft
Date: 9/24/03
Described by: JVB/SM

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



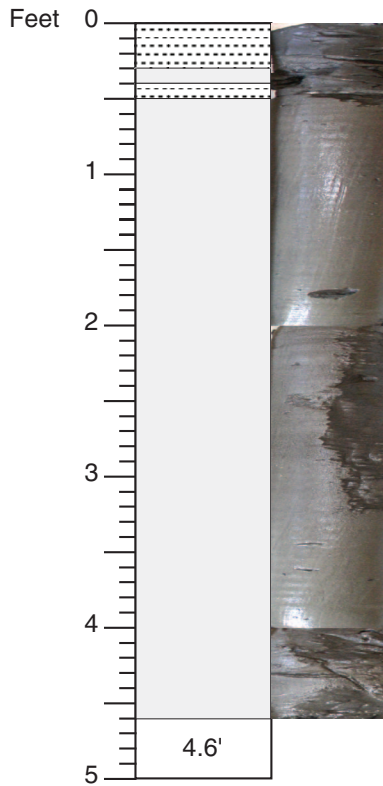
CLAY; very little silt; very slightly micaceous; 0.3-0.4 ft, ?laminations; otherwise structureless, very hard; dark olive gray (5Y 3/2)

SILT; slightly very fine sandy; very soft, slightly micaceous; 1-3% lignite

SAND; fine to ver fine; abundant silt; sli htl micaceous

174AX SG
 Core #8
 Start depth: 40 ft
 Stop depth: 45 ft
 Recovery: 3.1 ft
 Date: 9/24/03
 Described by: JVB/SM

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; hard; no silt, very slightly micaceous

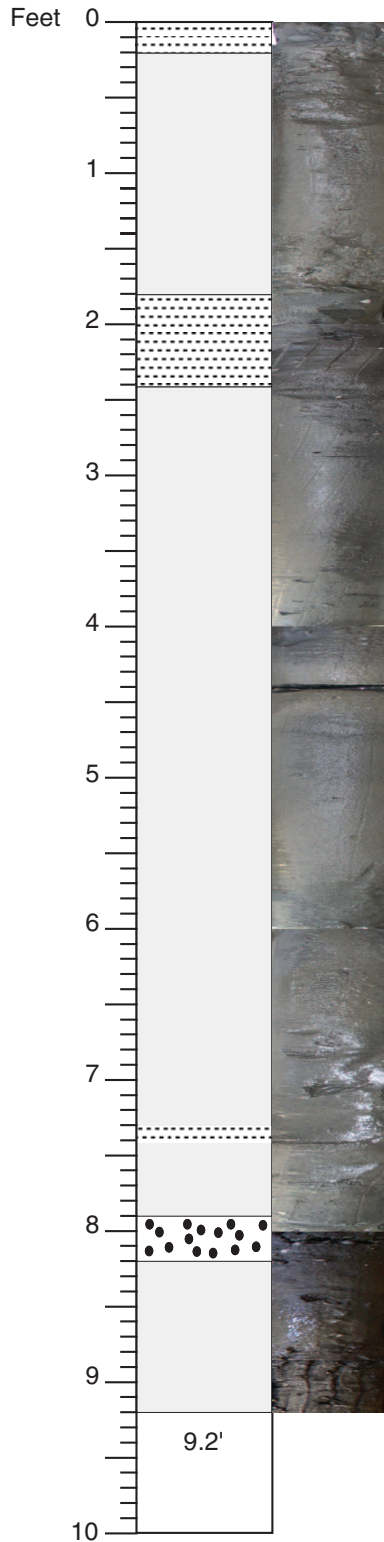
SAND; soft, very fine; abundant silt, ~5% ?lignite; slightly micaceous, dark olive gray (5Y 3/2)

CLAY; as above

SAND; as above; clay plug at bottom

174AX SG
Core #9
Start depth: 45 ft
Stop depth: 50 ft
Recovery: 4.6 ft
Date: 9/24/03
Described by: JVB/SM

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; as below

SAND; coarsens down, medium to fine at top and medium to coarse at base; to granules and small pebbles; abundant OHM; dark gray (5Y 4/1)

CLAY; silty, very micaceous; dark, ?organic rich

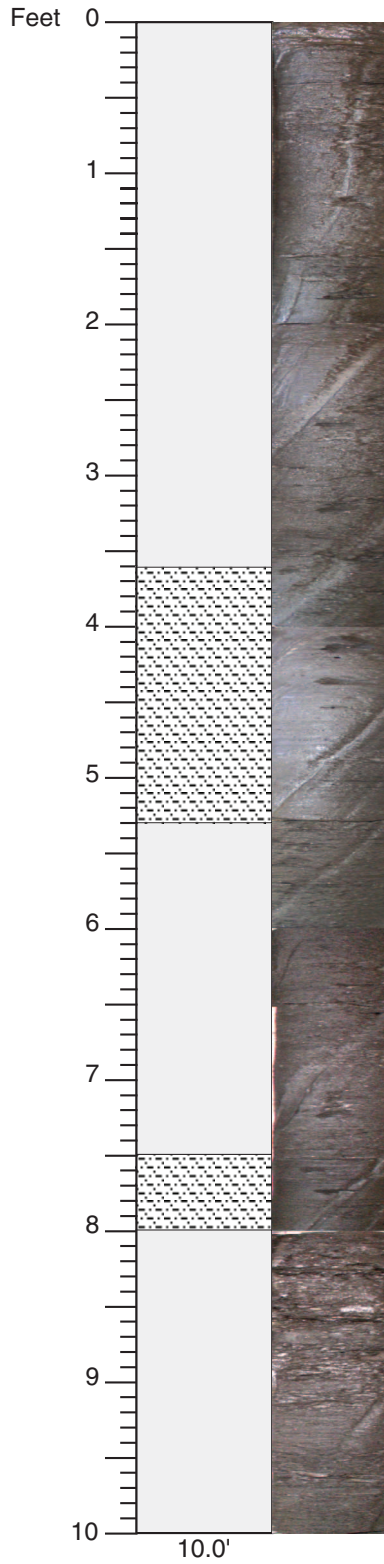
SAND; medium to fine, very soft, contains abundant water, 5% OHM, subangular to subrounded; thin clay layer at 7.4 ft

174AX SG
 Core #10
 Start depth: 50 ft
 Stop depth: 60 ft
 Recovery: 9.2 ft
 Date: 9/24/03
 Described by: JVB

GRAVEL; coarse to very coarse sand matrix; pebbles to 1 cm

SAND; silty, medium to fine

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; silty, dark olive gray (5Y 3/2); fine to very fine; appears laminated with sand and silt layers; in some parts of the core silt dominates

SILT; sandy, fine to very fine

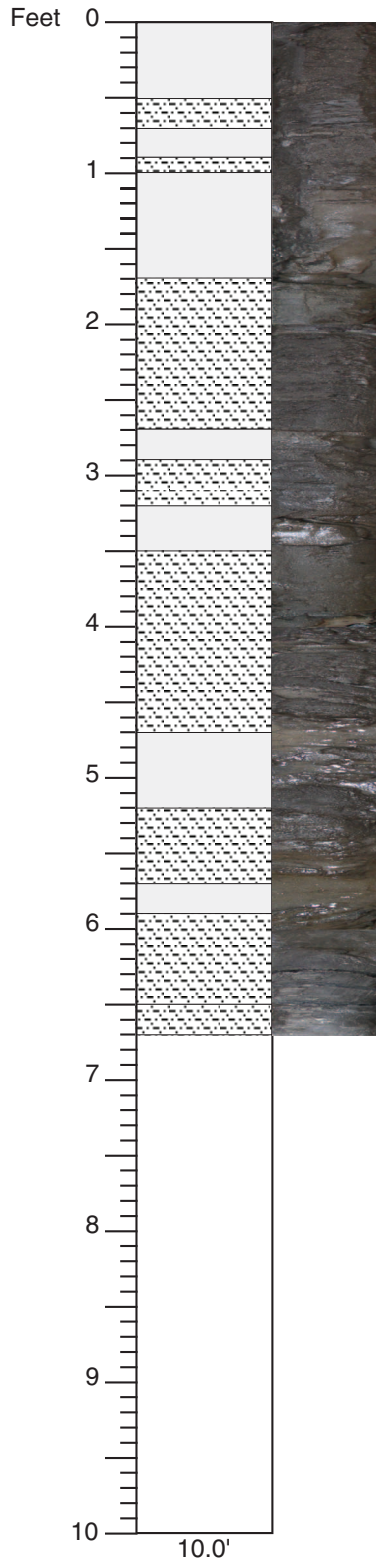
SAND; very fine to fine; silty

SILT; sandy, fine to very fine

SAND; very fine to fine; silty

174AX SG
 Core #11
 Start depth: 60 ft
 Stop depth: 70 ft
 Recovery: 10 ft
 Date: 9/24/03
 Described by: JVB/SM

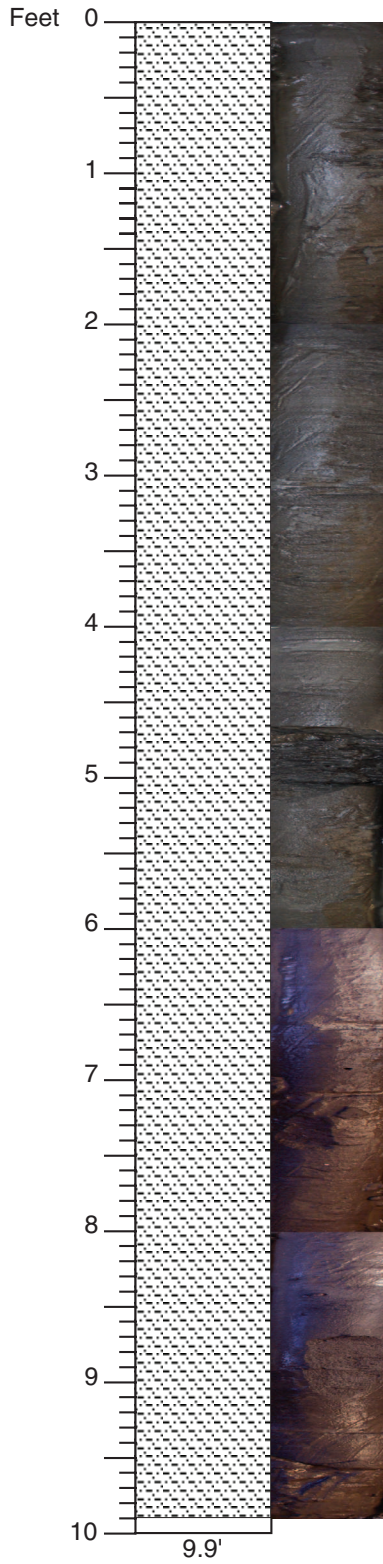
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; interbedded with silty SAND; quickly changing lithology, interbedded silt and clay some sand beds are thicker, very laminated at base

174AX SG
Core #12
Start depth: 70 ft
Stop depth: 80 ft
Recovery: 6.7 ft
Date: 9/24/03
Described by: JVB/SM

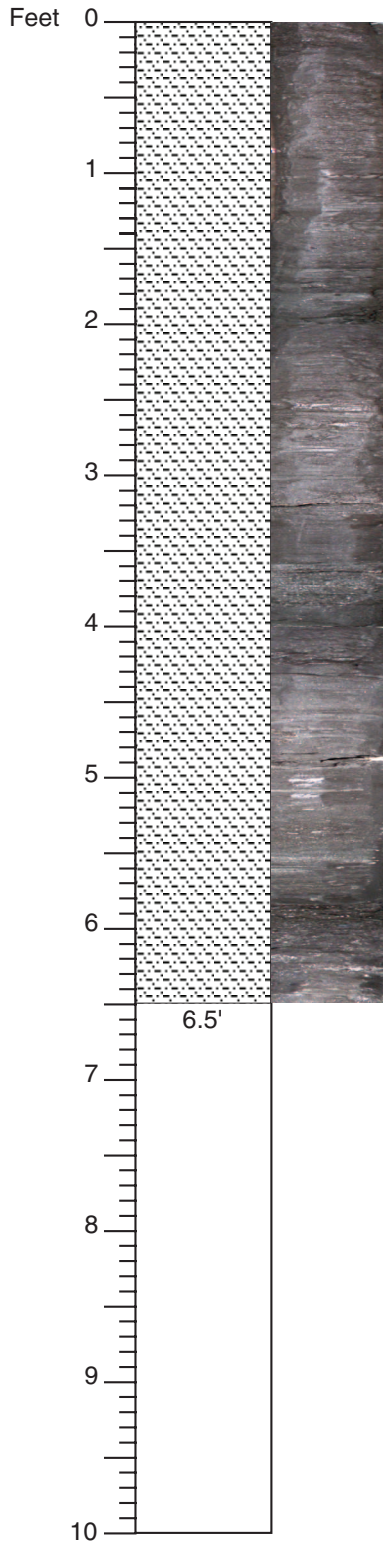
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; and interbedded/interlaminated SILT; micaceous and lignitic, sand is medium to fine; sand dominates in lower part of the core

174AX SG
Core #13
Start depth: 80 ft
Stop depth: 90 ft
Recovery: 9.9 ft
Date: 9/24/03
Described by: JVB/SM

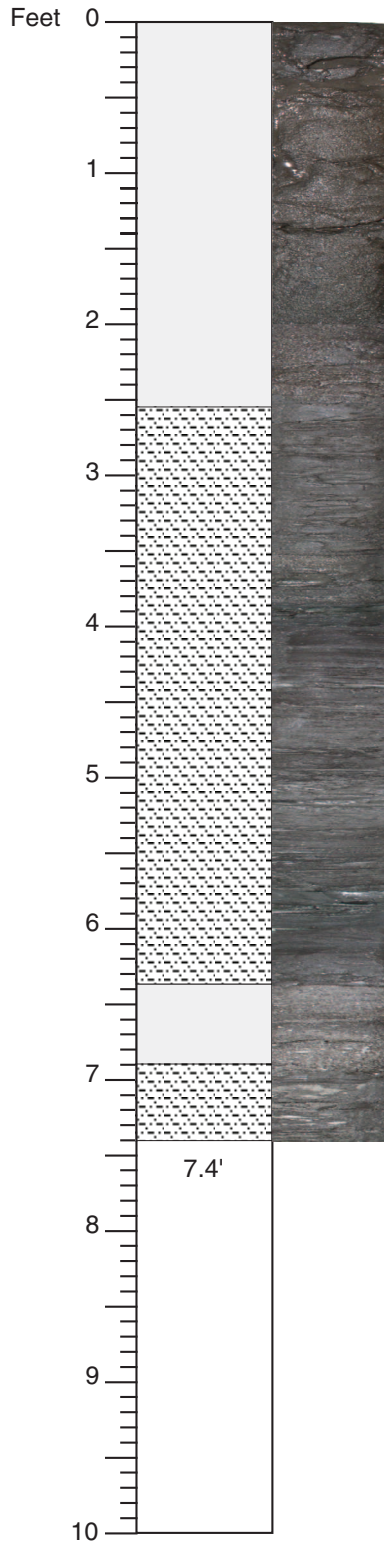
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; with interlaminated SILT and clay; finely laminated (1-3 mm) in most of core; slightly burrowed (e.g., 1.3-1.4 ft); 0-0.3 ft — more silt; 0.3-0.9 ft — cross laminated sand and silt; 0.9-1.1 ft — silty clay; 1.1-3.2 ft — fine sand dominates with silt laminations; 3.2-3.5 ft — woody, micaceous, clayey silt; 3.5-3.8 ft — medium to very coarse sand with silt laminations; 3.8-5.7 ft — clayey silt with laminations of micaceous fine sand; 5.7-6.0 ft — medium to very coarse sand; 6.0-6.5 ft — silt with cross-bedded fine sand; dark olive gray (5Y 3/2)

174AX SG
Core #14
Start depth: 90 ft
Stop depth: 100 ft
Recovery: 6.5 ft
Date: 9/25/03
Described by: JVB

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; coarse to very coarse, some medium to fine, a few granules, poorly sorted; >90% quartz, a few ohm; very loose, does not hold together

SILT; interlaminated with CLAY; thin sand beds (1-5 mm), fine to very fine; most beds 1-3 mm; woody; dark gray (2.5Y 4/1)

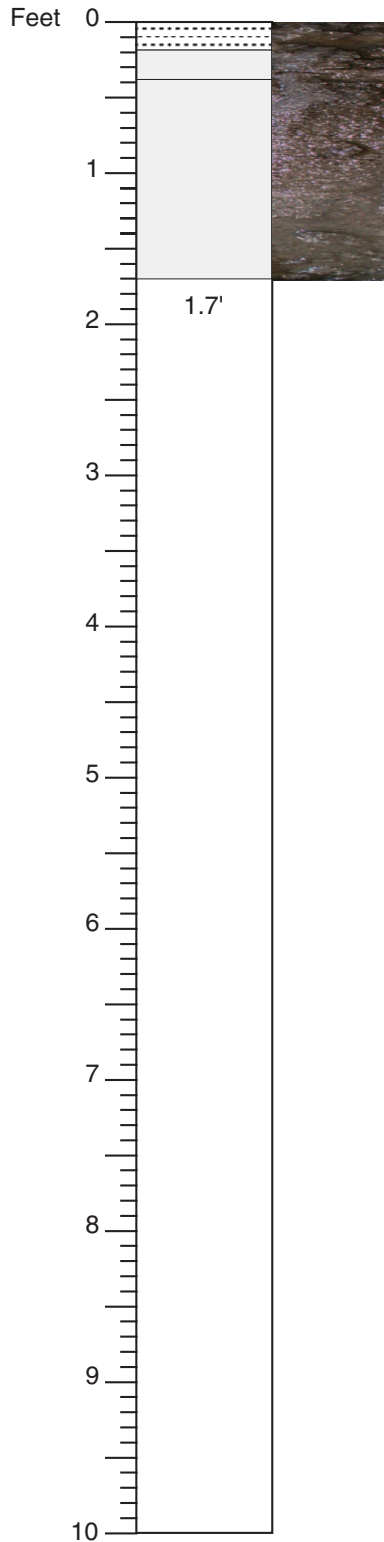
possible sequence boundary

SAND; poorly sorted, as above

SAND; and interlaminated SILT; less clay than above

174AX SG
 Core #15
 Start depth: 100 ft
 Stop depth: 110 ft
 Recovery: 7.4 ft
 Date: 9/25/03
 Described by: JVB/LP/PJS

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; silty

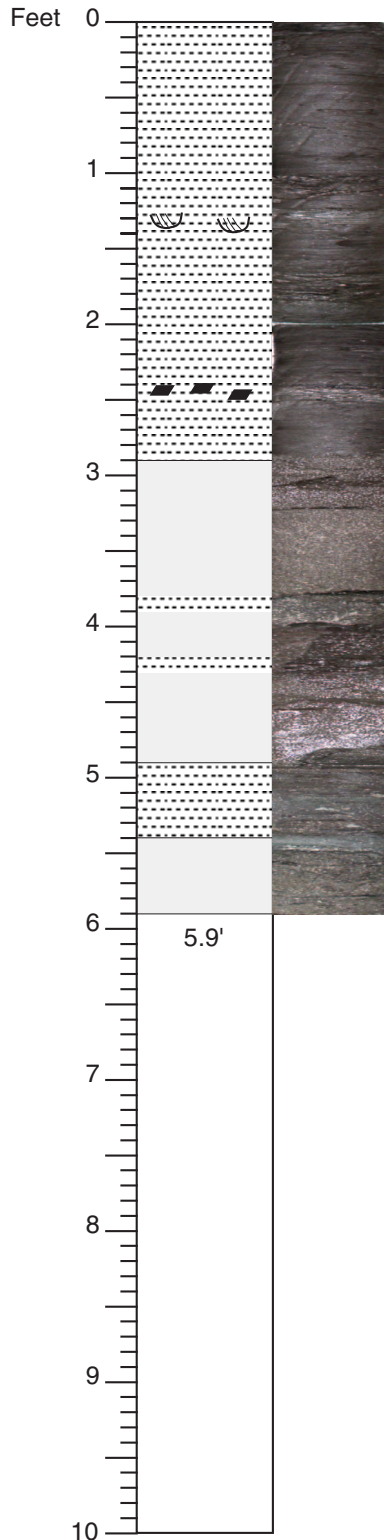
SAND; fine;

SAND; coarse to very coarse, some fine to medium; poorly sorted, subangular to subrounded; quartz, 1-2% ohm

1.7'

174AX SG
Core #16
Start depth: 110 ft
Stop depth: 120 ft
Recovery: 1.7 ft
Date: 9/25/03
Described by: JVB/LP/PJS

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; with interbedded SILT and SAND; micaceous, organics (wood); thinly laminated, possible cross laminations at 1.3 ft; some lignite beds (e.g., at 2.4 ft)

possible sequence boundary

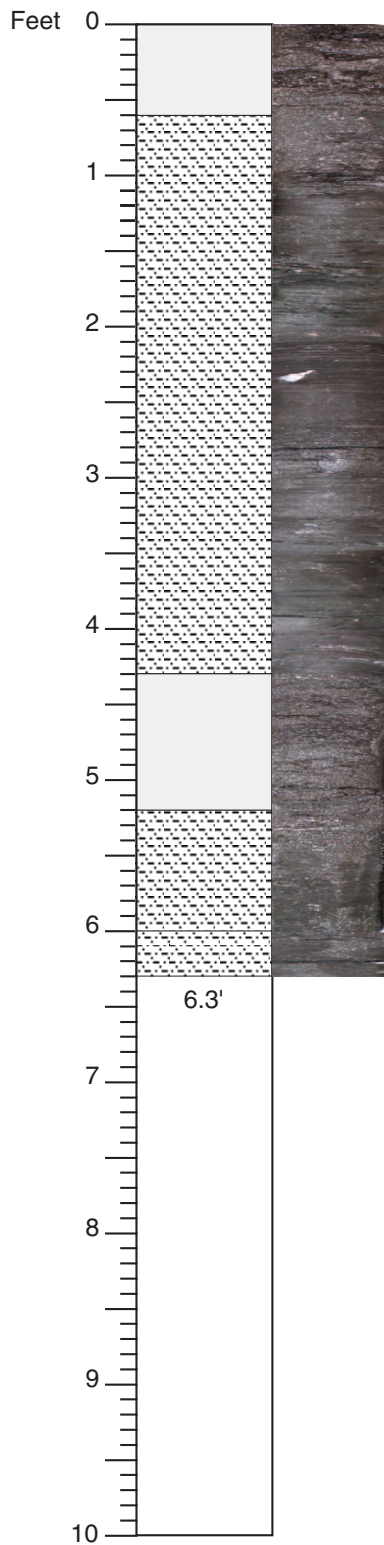
SAND; fines downward, coarse at top, with medium and fine in small amounts, mostly quartz; odd granule-size particles at top of sand; clayey layers at 3.8-3.9 ft; dark gray (2.5Y 4/1)

CLAY and interbedded SAND, sand ranges from medium to coarse, small lignite layer at 5.2-5.3 ft; clay layers average 1 millimeter thick, sand layers are about 1 cm thick; grayish green (5G 4/2)

SAND; coarse

174AX SG
 Core #17
 Start depth: 120 ft
 Stop depth: 130 ft
 Recovery: 5.9 ft
 Date: 9/25/03
 Described by: JVB/PJS/LP/JU

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; coarse, quartz, subangular, some clay drapes

SILT and interbedded CLAY; more silty and sandy at the top; fine mica; laminated organics (probably lignite), whole unit is mostly clay; laminae are 1-3 mm thick; very dark gray (2.5Y 3/1)

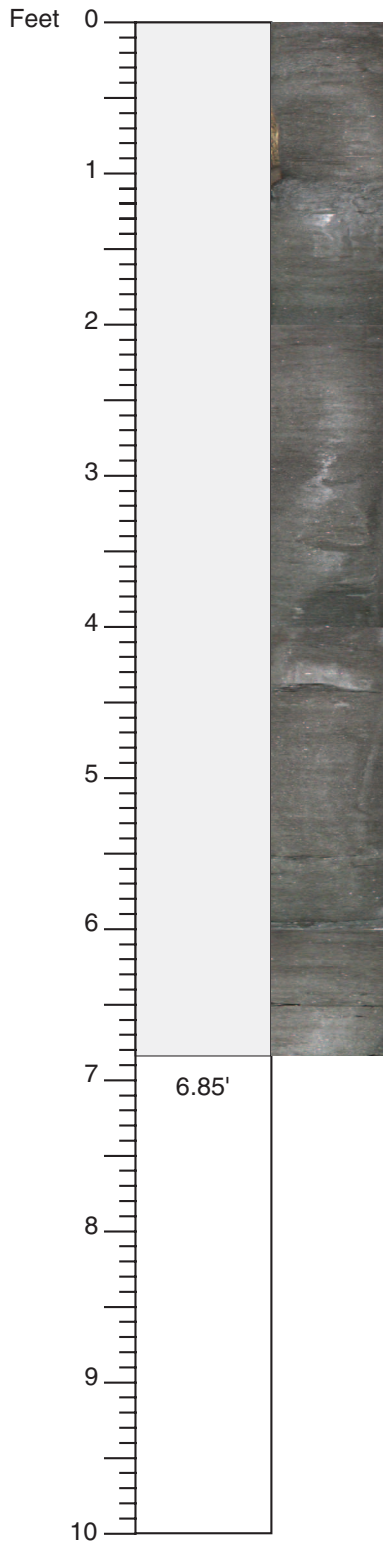
SAND; muddy, fine to medium; 1-2% glauconite

MUD; sandy; clayey trace of mica

SILT; clayey; some sand

174AX SG
 Core #18
 Start depth: 130 ft
 Stop depth: 140 ft
 Recovery: 6.3 ft
 Date: 9/25/03
 Described by: JVB/PJS/LP/JU

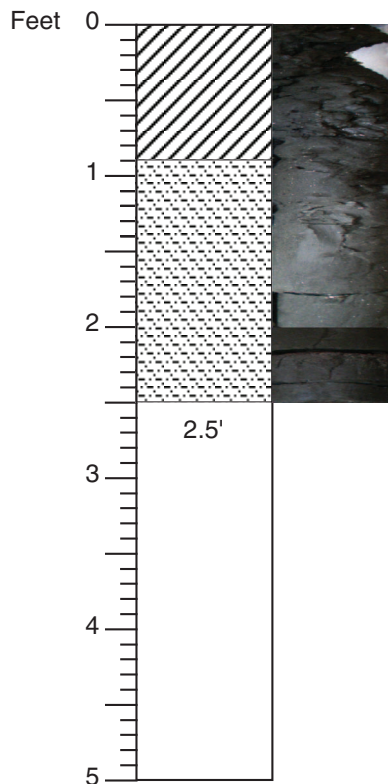
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; and interlaminated CLAY; laminae are 1-3 mm thick; some bioturbation, burrows evident; some mica, 3-5% glauconite; fairly uniform core; dark gray (5Y 4/1)

174AX SG
Core #19
Start depth: 140 ft
Stop depth: 150 ft
Recovery: 6.85 ft
Date: 9/25/03
Described by: JVB/LP/JU

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE

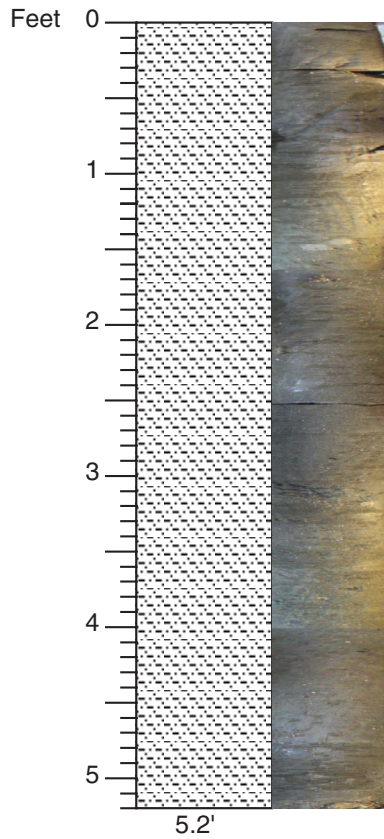


Mostly slop but there may be some good core

SAND; clayey or sandy CLAY; appears bioturbated together; large mica flakes, ~5% glauconite; dark gray (5Y 4/1)

174AX SG
Core #20
Start depth: 150 ft
Stop depth: 155 ft
Recovery: 2.5 ft
Date: 9/26/03
Described by: JVB/LP/JU

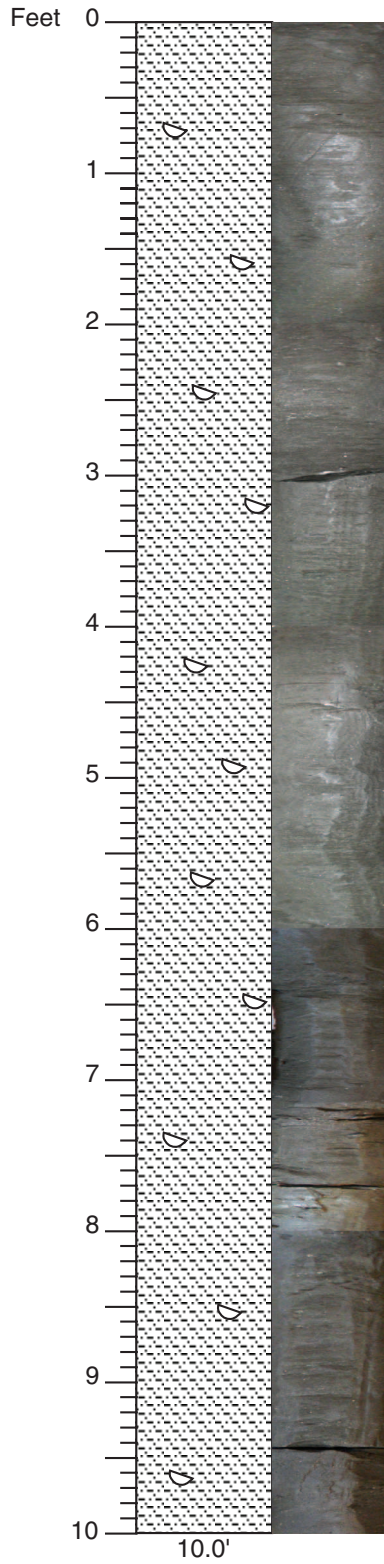
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; sandy, probably clay and sand laminae that have been partially bioturbated together; fine to very fine quartz sand; ~5% glauconite; scattered laminations and burrows

174AX SG
Core #21
Start depth: 155 ft
Stop depth: 160 ft
Recovery: 5.1 ft
Date: 9/25/03
Described by: JVB/LP

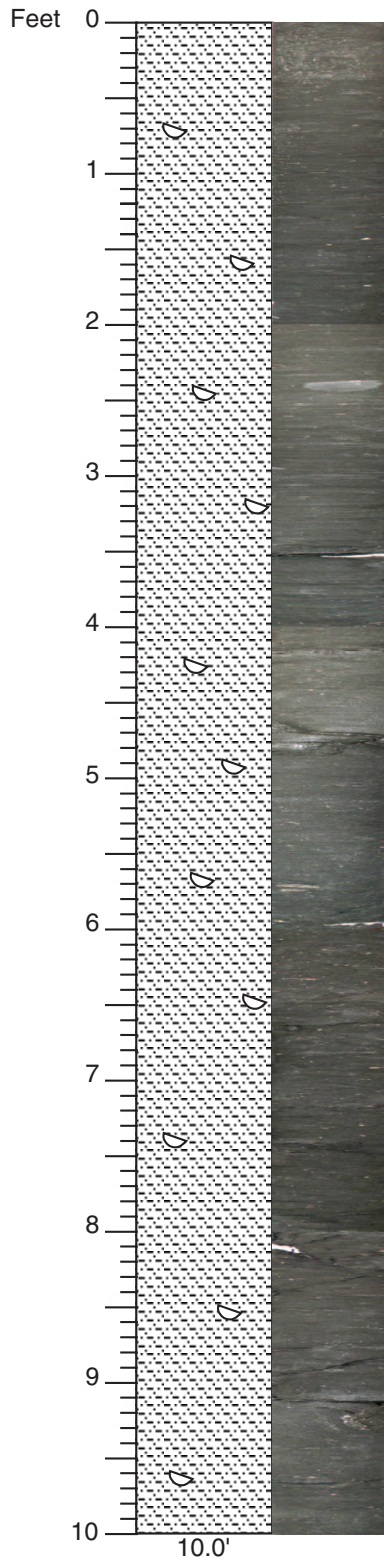
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; muddy; more silty than clayey, but a little bit of clay; sand is fine grained, micaceous, 5% glauconite; looks like laminations of silt an clay; some evidence of burrowing; large grains of mica throughout; scaphopod at 3.0 ft, shells at the base; very dark gray (5Y 3/1)

174AX SG
Core #22
Start depth: 160 ft
Stop depth: 170 ft
Recovery: 9.2 ft
Date: 9/25/03
Described by: JVB/LP

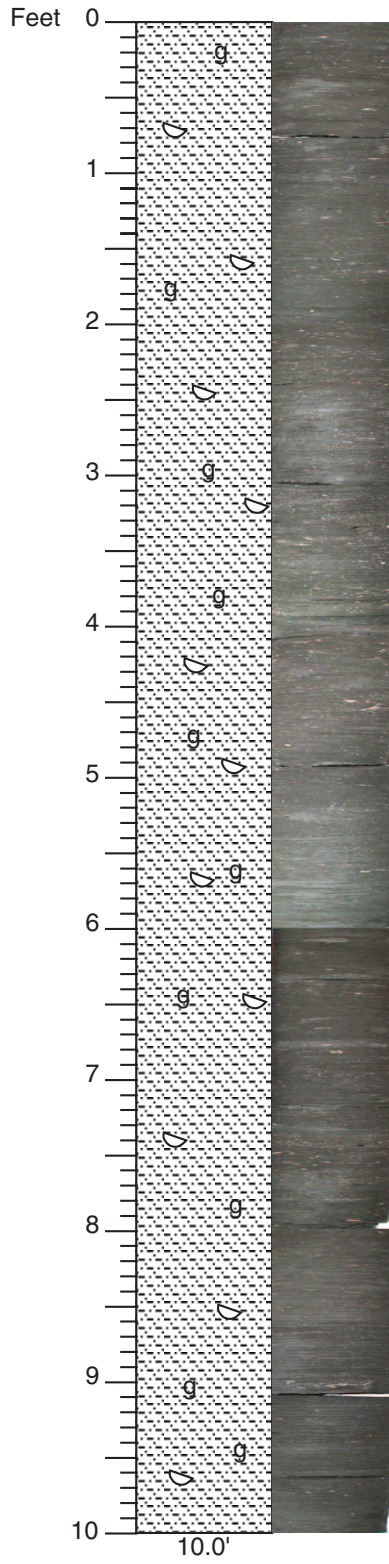
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SILT; clayey, laminated, several percent of very fine glauconite, trace mica; fine shell hash throughout; ?pyritized shell at 5.7 ft; olive gray (5Y 4/2)

174AX SG
Core #23
Start depth: 170 ft
Stop depth: 180 ft
Recovery: 10.0 ft
Date: 9/26/03
Described by: PJS/DM

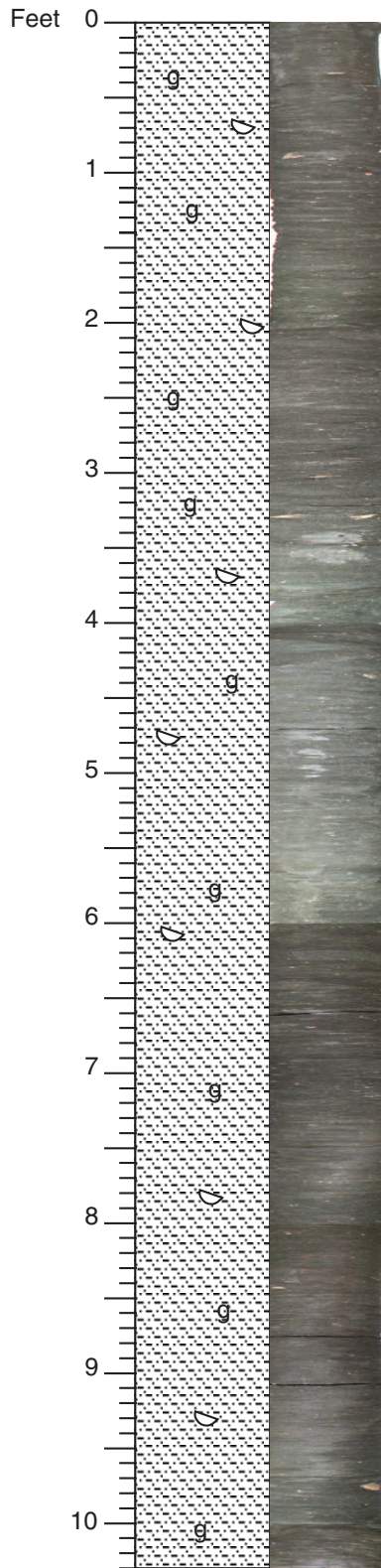
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SILTY; glauconitic, shelly, clayey, with very fine sand; some beds are sandier (10%);
?phosphate at 9.1 ft; olive gray (5Y 4/2)

174AX SG
Core #24
Start depth: 180 ft
Stop depth: 190 ft
Recovery: 10.0 ft
Date: 9/26/03
Described by: PJS/DM/AK

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE

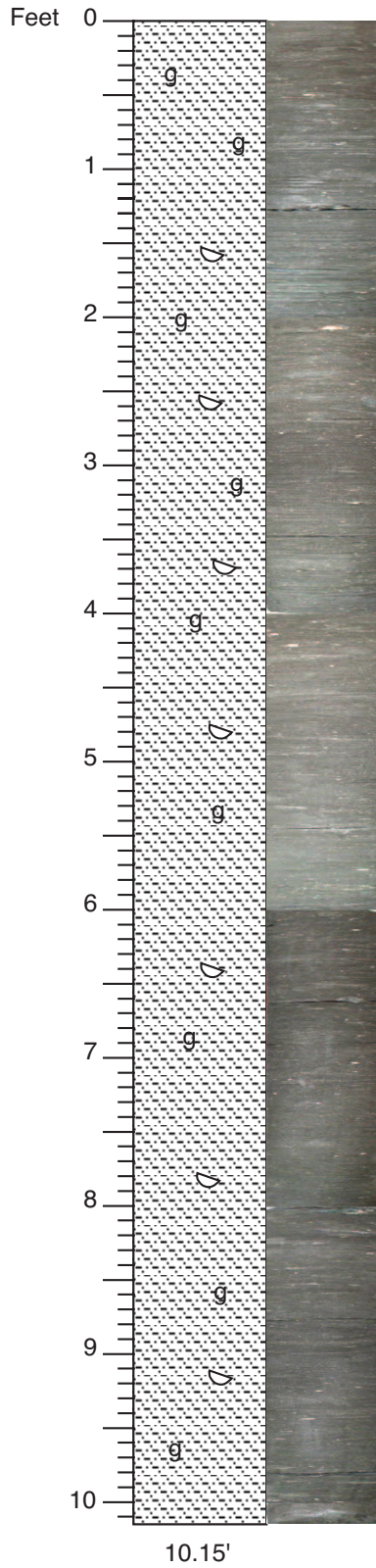


CLAY; silty, dark, slightly glauconitic, interbedded with more glauconitic (5%) slightly sandy (very fine grained) clayey silt; sandier beds are lighter; shelly, larger mollusks and busted shell hash, foraminifer rich

Core #25
Start depth: 190 ft
Stop depth: 200 ft
Recovery: 10.3 ft
Date: 9/26/03
Described by: PJS/DM/AK

10.3'

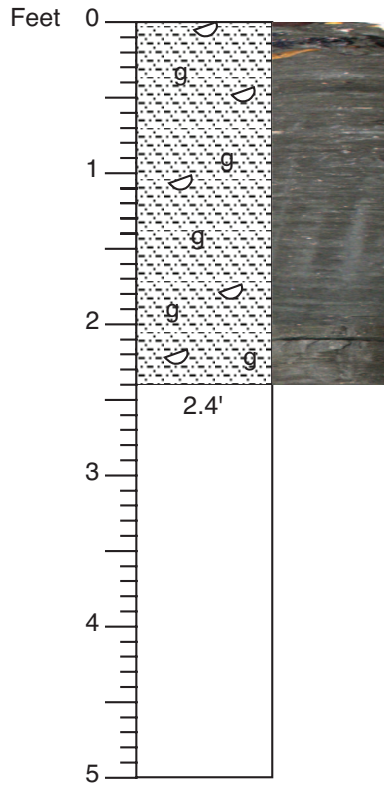
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; some slightly silty laminae; foraminifer rich, some shell hash, occasional thin interbeds of slightly sandy silt; some very fine glauconite; pyritic glauconite clay at 8.3 ft; olive gray (5Y 4/2)

174AX SG
 Core #26
 Start depth: 200 ft
 Stop depth: 210 ft
 Recovery: 10.15 ft
 Date: 9/26/03
 Described by: PJS/DM/AK

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE

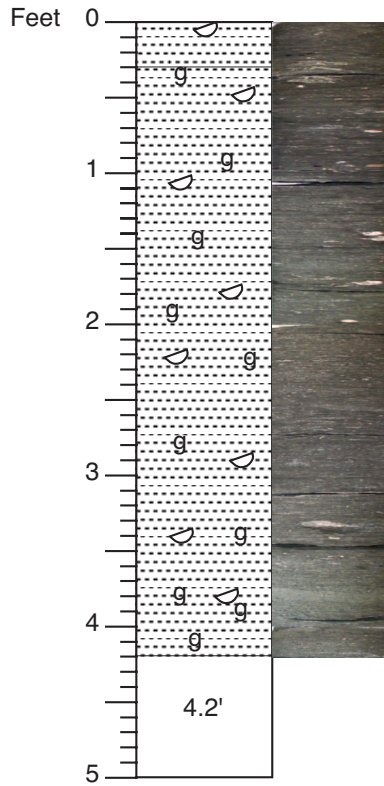


CLAY; slightly silty, fossiliferous, glauconitic; laminated (darker and lighter green), 1-2 cm bands; glauconitic (~5%); dark greenish gray (5GY 4/1)

Note: quartz and charcoal/lignite pebbles and granules are pressed into the outside of solid core

174AX SG
Core #27
Start depth: 210 ft
Stop depth: 215 ft
Recovery: 2.4 ft
Date: 9/29/03
Described by: KGM/SM

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



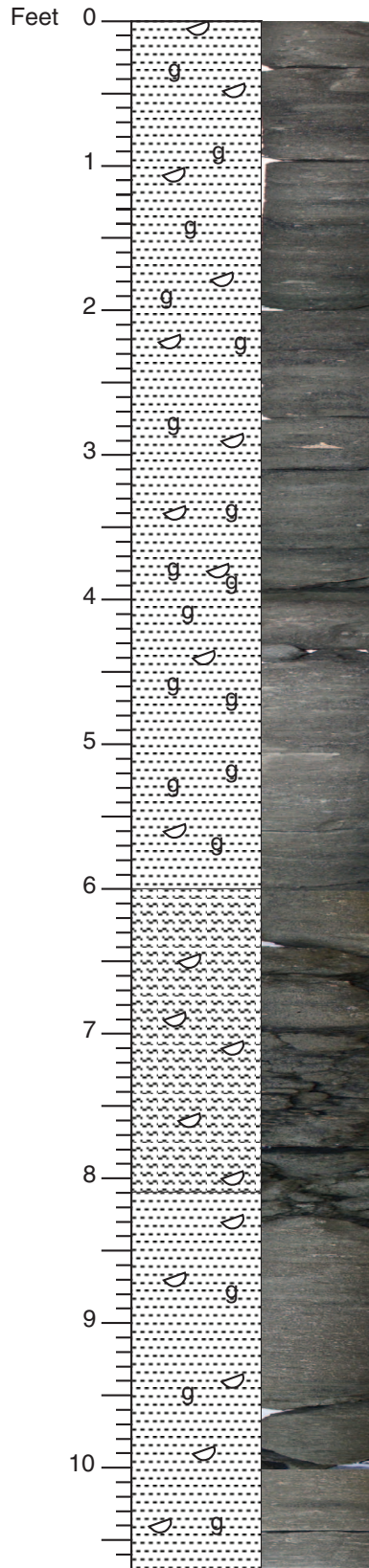
CLAY; fossiliferous, glauconitic, slightly silty, shells up to 8 mm; mollusks and foraminifers

CLAY; glauconite increases from top (~5%) to bottom (~10%); 20 mm pyrite nodule at 3.3 ft; dark greenish gray (SGY 4/1)

Note: at the very top a pebble (~40 mm) pushed into core

174AX SG
 Core #28
 Start depth: 215 ft
 Stop depth: 220 ft
 Recovery: 4.2 ft
 Date: 9/29/03
 Described by: KGM/SM

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; glauconitic, slightly shelly; glauconite increases down section from <10% at top to 20-50% at 6.0 ft; heavily burrowed with large (2-3 cm burrows);

174AX SG
 Core #29
 Start depth: 220 ft
 Stop depth: 230 ft
 Recovery: 10.7 ft
 Date: 9/29/03
 Described by: KGM/SM

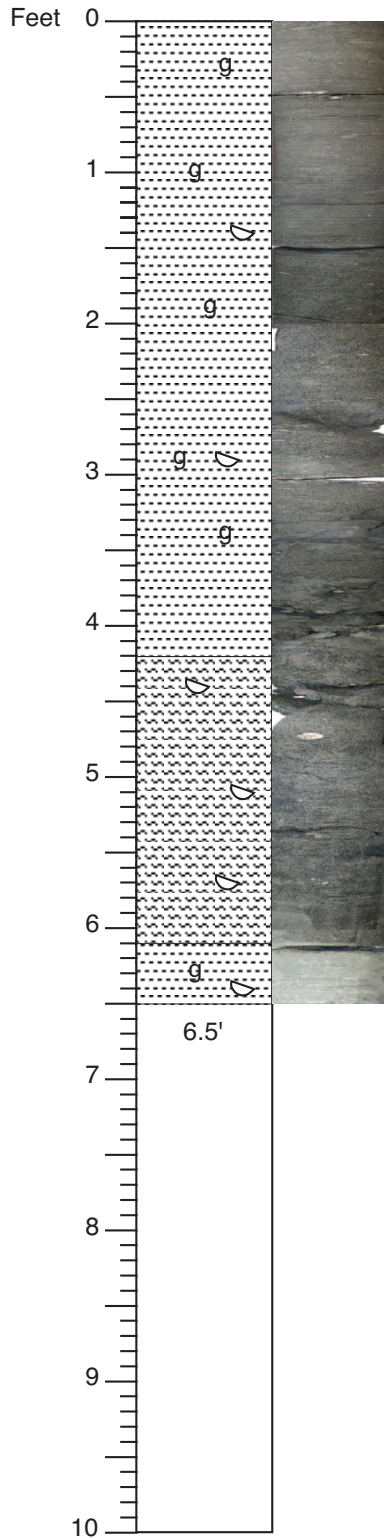
SAND; glauconite (50%); shelly; 7.0-8.0 ft is friable, >60% glauconite

Contact

CLAY; glauconitic, shelly, heavily burrowed (?*Skolithos*, looks like a bacillum); glauconite sand filled burrows, interlaminations of darker brown (1-2 cm scale) and lighter green clay, foraminifers and mollusk shells

10.7'

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; glauconitic to clayey glauconite SAND; three different units; 0-1.6 ft is shelly glauconite clay; pyrite nodule at 0.7 ft; 1.6-4.2 ft is shelly very glauconitic clay; 4.2-6.1 ft is shelly, clayey glauconite sand; coral at 4.7 ft;

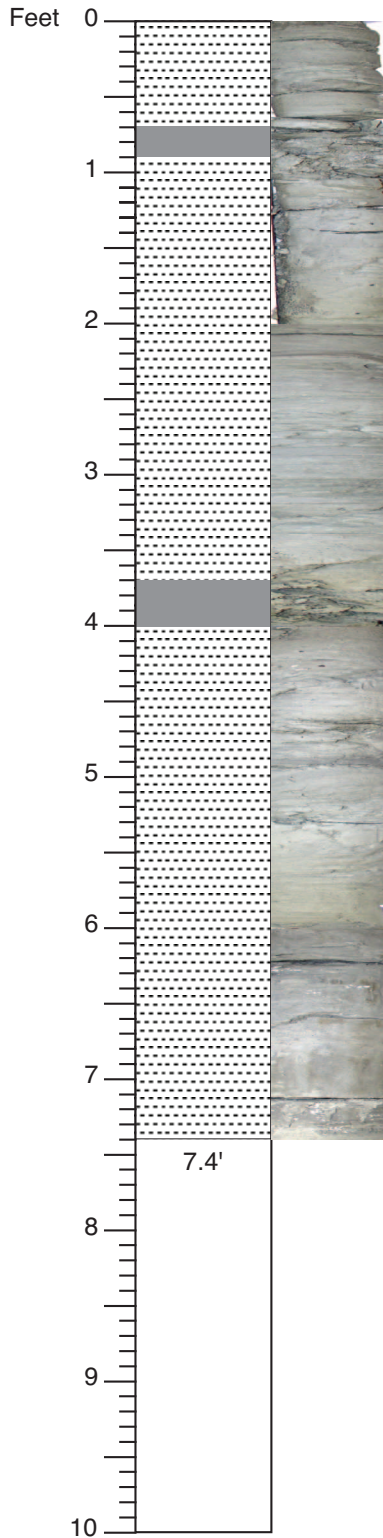
Contact

CLAY; hard, slightly glauconitic, heavily burrowed, small ?*Skolithos* (bacillum) burrows

Looks like the contact was recovered with the clay in the shoe

174AX SG
 Core #30
 Start depth: 230 ft
 Stop depth: 240 ft
 Recovery: 6.5 ft
 Date: 9/29/03
 Described by: KM/SM

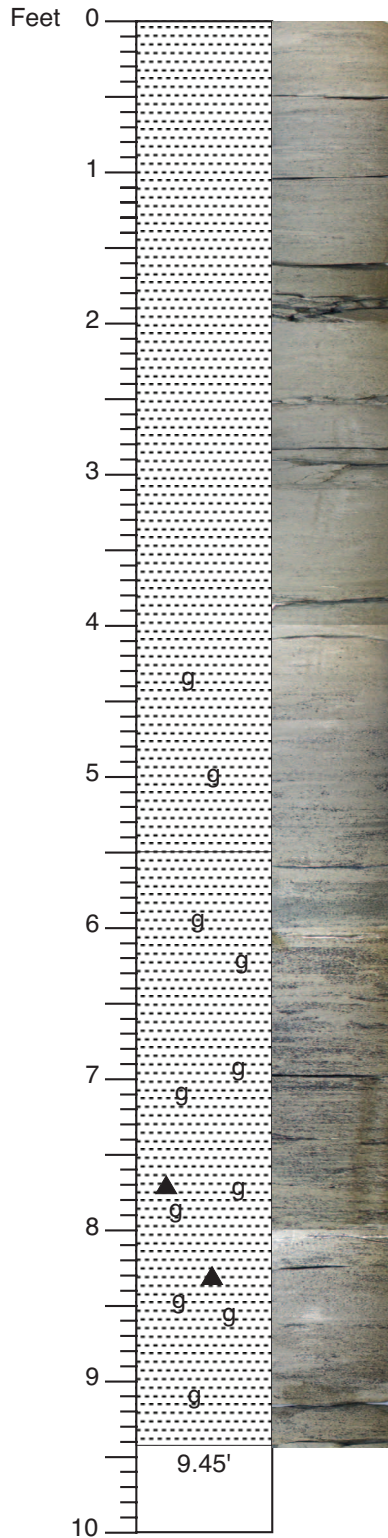
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; occasional silt interbeds, slightly glauconitic (~2-4%), semi-indurated intervals; foraminifer rich; greenish gray (5GY 6/1)

174AX SG
Core #31
Start depth: 240 ft
Stop depth: 250 ft
Recovery: 7.4 ft
Date: 9/29/03
Described by: KM/SM

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE

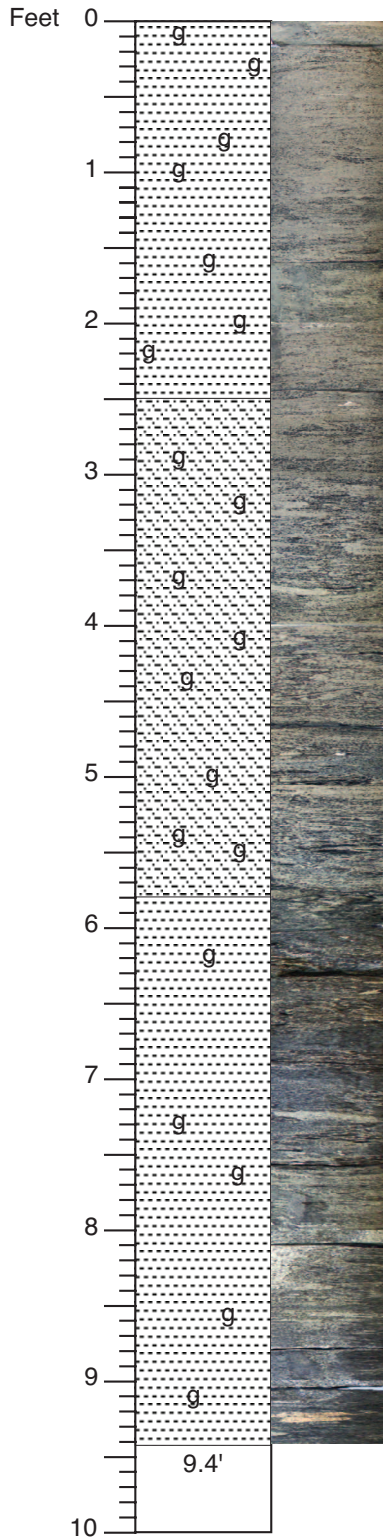


CLAY; indurated, slightly glauconitic; glauconite increases below 3.8 ft; greenish gray (5GY 6/1)

CLAY; glauconite to 20%; burrowed; porcellanitic at base

174AX SG
 Core #32
 Start depth: 250 ft
 Stop depth: 260 ft
 Recovery: 9.45 ft
 Date: 9/29/03
 Described by: PJS/KGM/SM

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY, glauconitic; slightly indurated; 10-15% glauconite; foraminifer rich

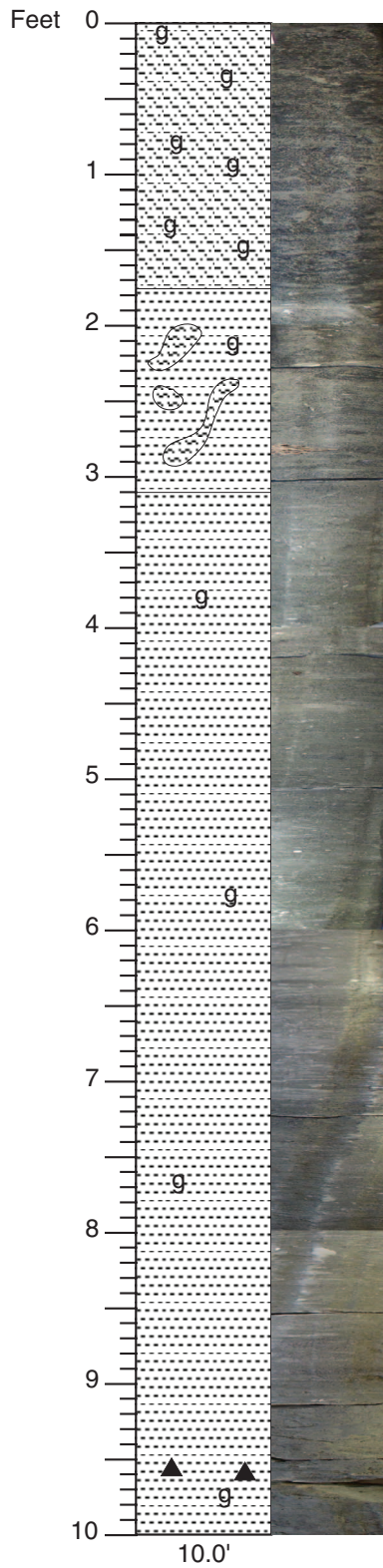
CLAY; glauconitic; and interbedded glauconite SAND; heavily bioturbated; olive gray (5Y 5/2)

Possible surface at 5.8 ft

SAND; glauconite; clayey; a few clasts at 5.8 ft; brown clast at 9.0 ft; light olive gray (5Y 6/2) to black

174AX SG
 Core #33
 Start depth: 260 ft
 Stop depth: 270 ft
 Recovery: 9.4 ft
 Date: 9/29/03
 Described by: PJS/SM/KGM

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; glauconite; clayey; bioturbated

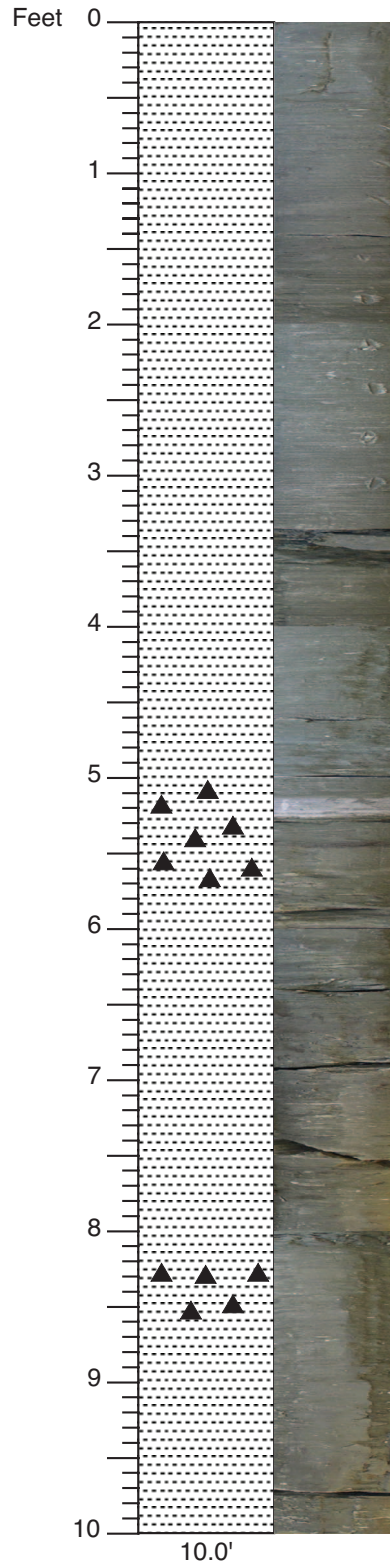
1.75-3.1 ft contact zone

CLAY; glauconite in burrows

CLAY; glauconitic (10-15%); foraminifer rich; porcellanite at bottom; light gray (5Y 7/2)

174AX SG
 Core #34
 Start depth: 270 ft
 Stop depth: 280 ft
 Recovery: 10.0 ft
 Date: 9/29/03
 Described by: PJS/SM/KGM

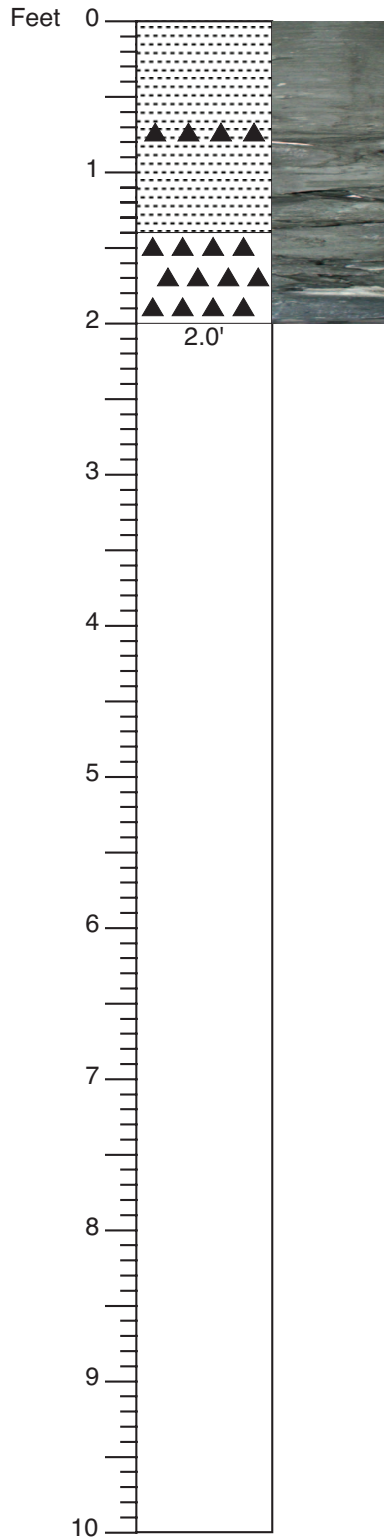
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; slightly silty; rare very fine sand; burrowed with laminations in some intervals; porcellanite at 5.0-5.7 ft and 8.2-8.6 ft; burrowed contorted zone (hardground?, flooding surface?) at 7.9-8.0 ft; light olive gray (5Y 6/2)

174AX SG
 Core #35
 Start depth: 280 ft
 Stop depth: 290 ft
 Recovery: 10.0 ft
 Date: 9/29/03
 Described by: PJS/SM

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE

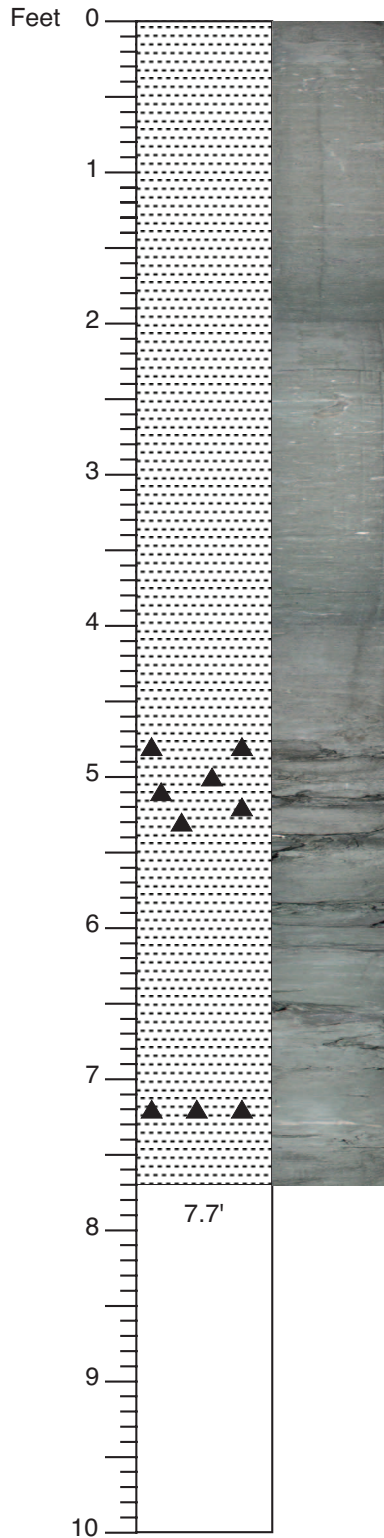


CLAY; very slightly silty, slightly micaceous; ~1% glauconite; foraminifers present; porcellanite at 0.7-0.8 ft

PORCELLANITE; same material as above but with silica cement; grayish green (5G 4/2)

174AX SG
 Core #36
 Start depth: 290 ft
 Stop depth: 300 ft
 Recovery: 2.0 ft
 Date: 9/30/03
 Described by: PJS/JVB

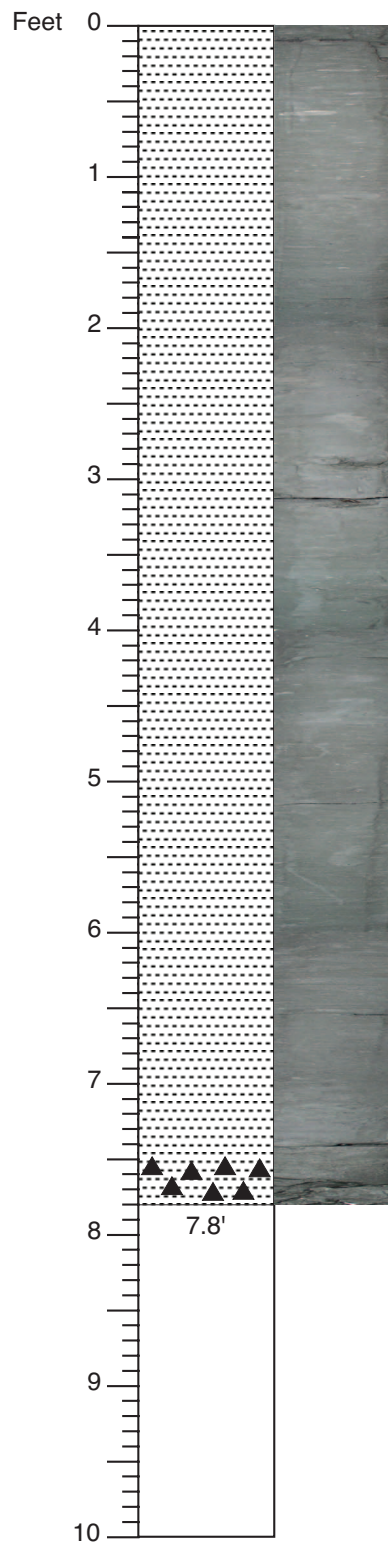
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; minor silt; 1-2% fine to very fine glauconite; abundant foraminifers; heavily burrowed; large clay burrow at 6.4 ft; grayish green (5G 4/2)

174AX SG
Core #37
Start depth: 300 ft
Stop depth: 310 ft
Recovery: 7.7 ft
Date: 9/30/03
Described by: PJS/JVB/AH

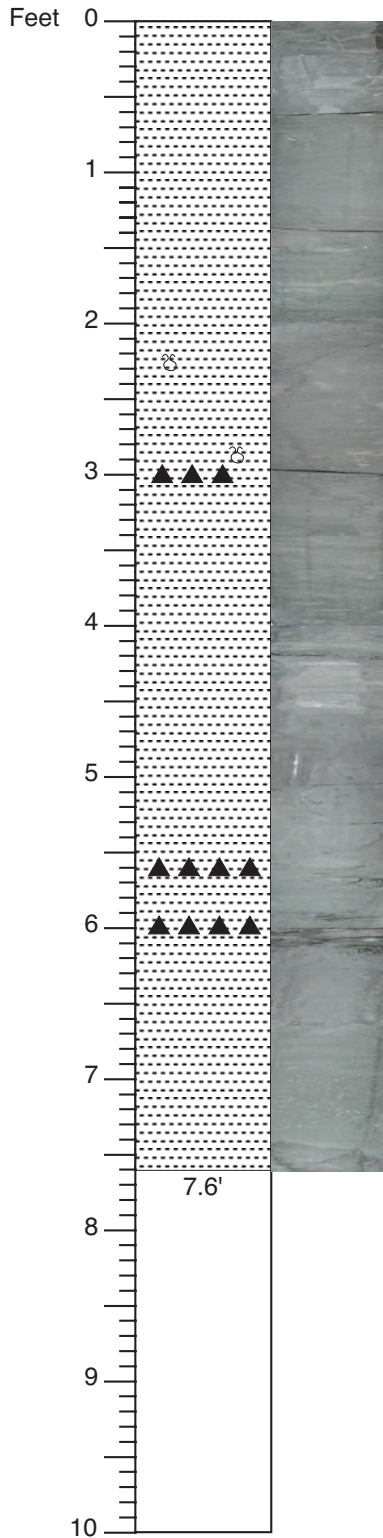
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; slightly silty; 1-3% very fine to fine glauconite, trace medium; abundant foraminifers; heavily burrowed; porcellanite at 7.5-7.8 ft; grayish green (5G 5/2)

174AX SG
Core #38
Start depth: 310 ft
Stop depth: 320 ft
Recovery: 7.8 ft
Date: 9/30/03
Described by: PJS/JVB/AH

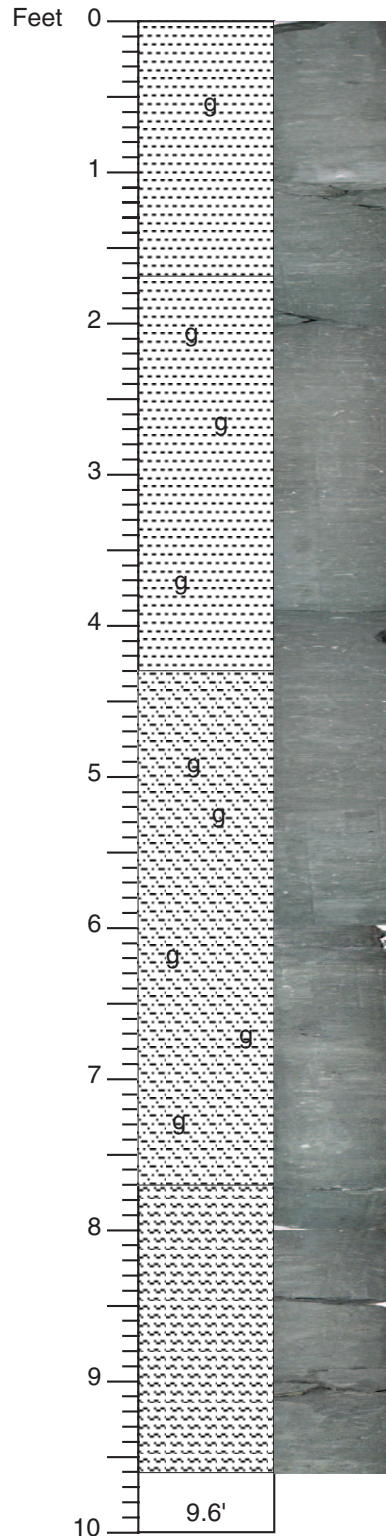
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; slightly silty, 1-3% fine glauconite, often infilling burrows; foraminifer rich; some clay lined burrows; grayish green (5G 4/2)

174AX SG
Core #39
Start depth: 320 ft
Stop depth: 330 ft
Recovery: 7.6 ft
Date: 9/30/03
Described by: PJS/JVB/AH

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; 1-3% glauconite; burrowed; dark greenish gray (5G 4/1)

CLAY; silty, laminated; more glauconite than above (5%)

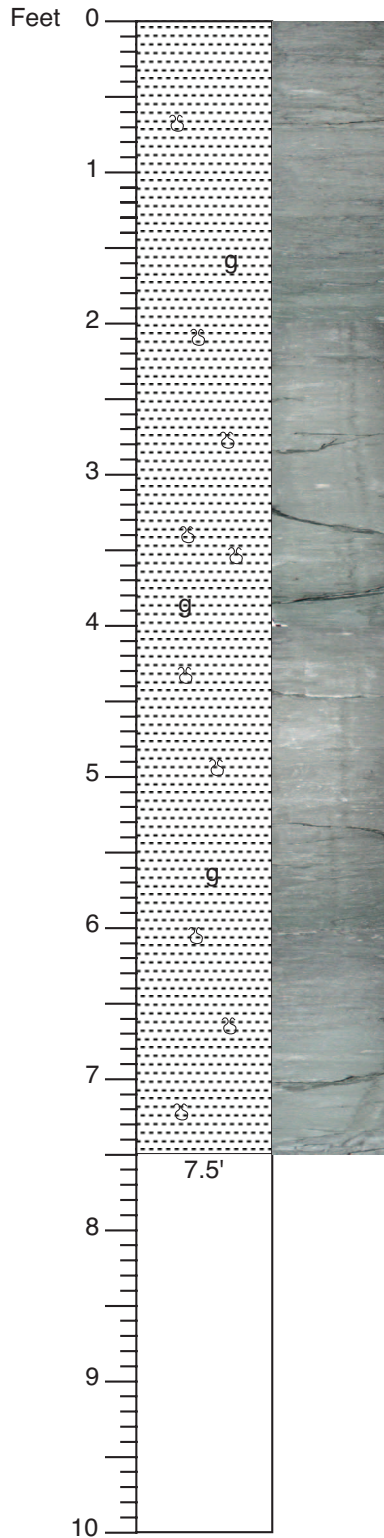
SILT; glauconitic (5-10%), laminated; trace mica; some very fine quartz sand

Contact

SAND, very fine; glauconitic, silty; dark greenish gray (5GY 4/1)

174AX SG
 Core #40
 Start depth: 330 ft
 Stop depth: 340 ft
 Recovery: 9.6 ft
 Date: 9/30/03
 Described by: PJS/JVB/AH

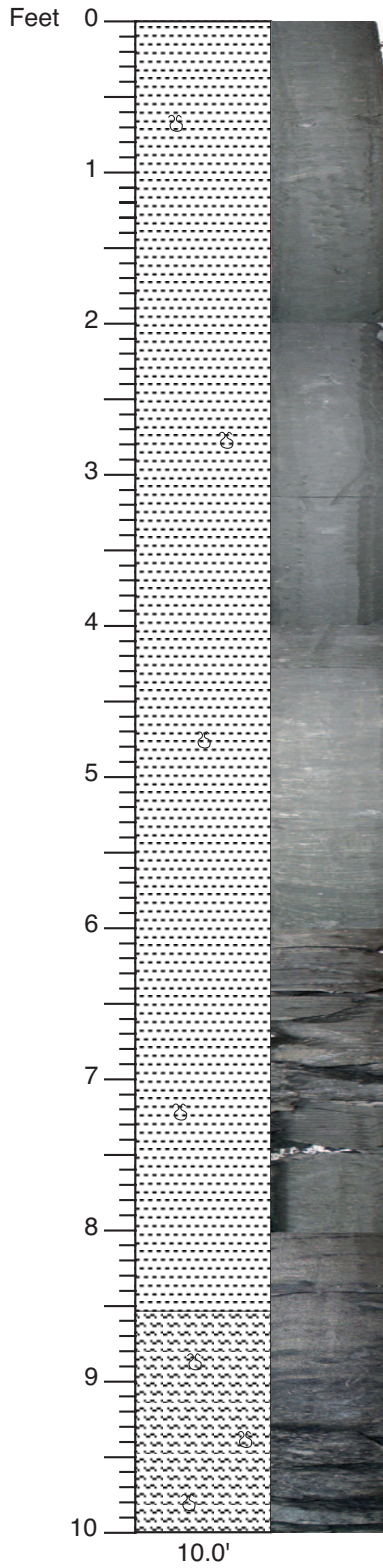
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; silty, interlaminated with clay; 1-3% fine to very fine glauconite, the percentage is higher in coarser sediments, slightly micaceous; common 1 mm diameter burrows; below 2 ft the core becomes more silty with some very fine sand; brown clay filled burrow at 3.1 ft; common burrows at 4.2-4.8 ft; grayish green (5G 4/2)

174AX SG
 Core #41
 Start depth: 340 ft
 Stop depth: 350 ft
 Recovery: 7.5 ft
 Date: 9/30/03
 Described by: PJS/JVB/AH

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE

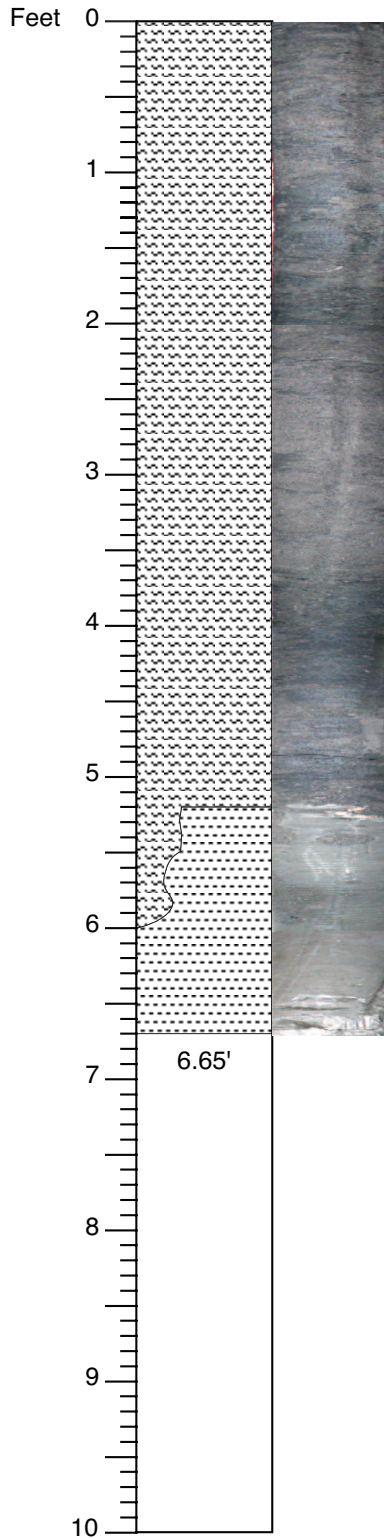


CLAY; laminated, slightly burrowed, trace very fine mica, some foraminifers; grayish green (SG 4/2)

174AX SG
Core #42
Start depth: 350 ft
Stop depth: 360 ft
Recovery: 10 ft
Date: 9/30/03
Described by: PJS/JVB/AH

SAND; medium grained glauconite appears in burrows from 1-3% to 40-70% at the bottom of the core

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



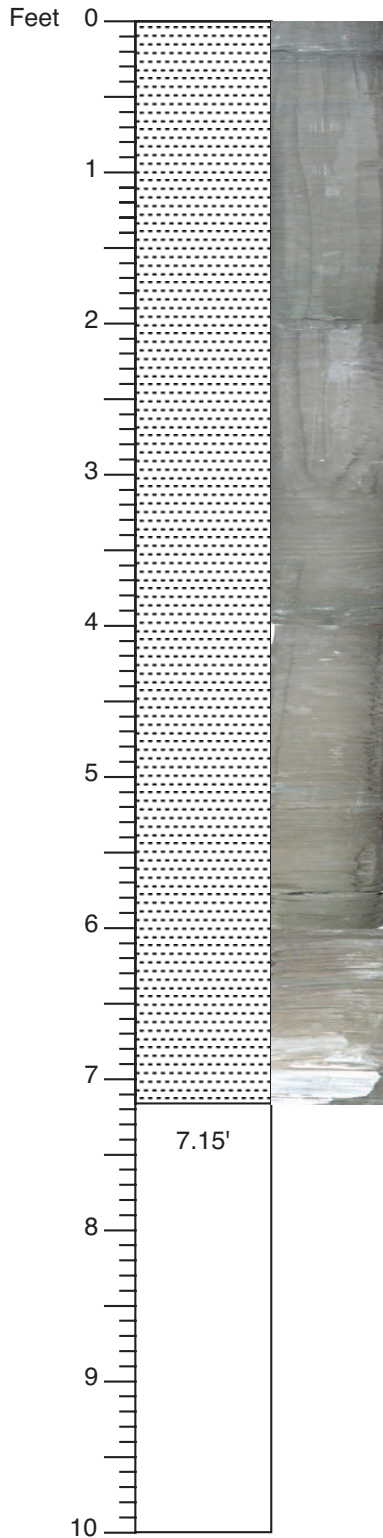
CLAY, glauconitic (up to 40%); dark gray (N4/)

Contact with phosphate at 5.2 ft

CLAY; dark greenish gray (5GY 4/1)

174AX SG
Core #43
Start depth: 360 ft
Stop depth: 370 ft
Recovery: 6.65 ft
Date: 9/30/03
Described by: PJS/JVB/AH

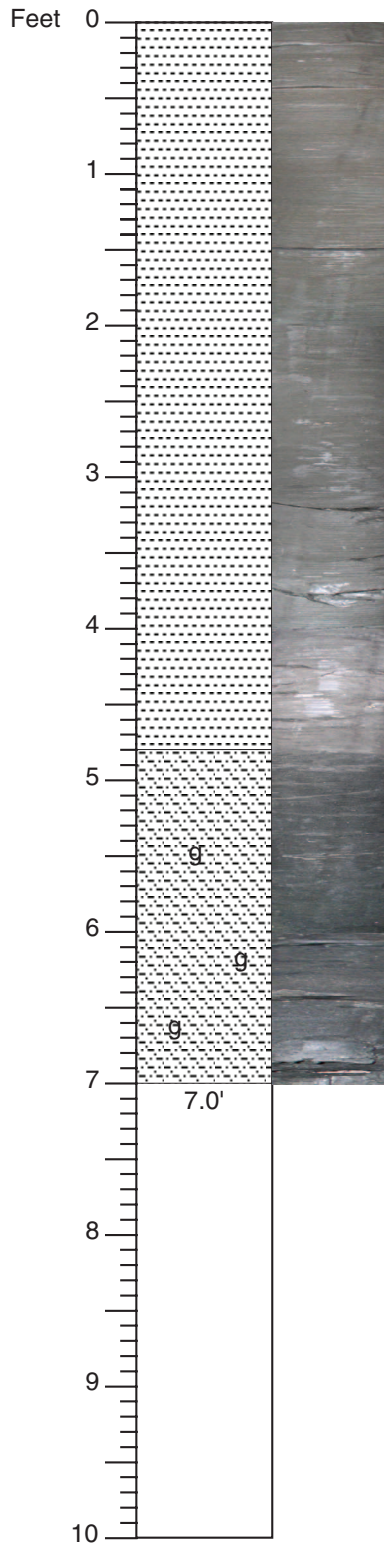
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; trace of mica, some silt, laminated some foraminifers, glauconite filled burrows in top 0.4 ft; burrow with bright green clay at 5.1 ft; glauconite filled burrow at base; greenish gray (5GY 5/1)

174AX SG
Core #44
Start depth: 370 ft
Stop depth: 380 ft
Recovery: 7.15 ft
Date: 9/30/03
Described by: PJS/JVB/AH

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



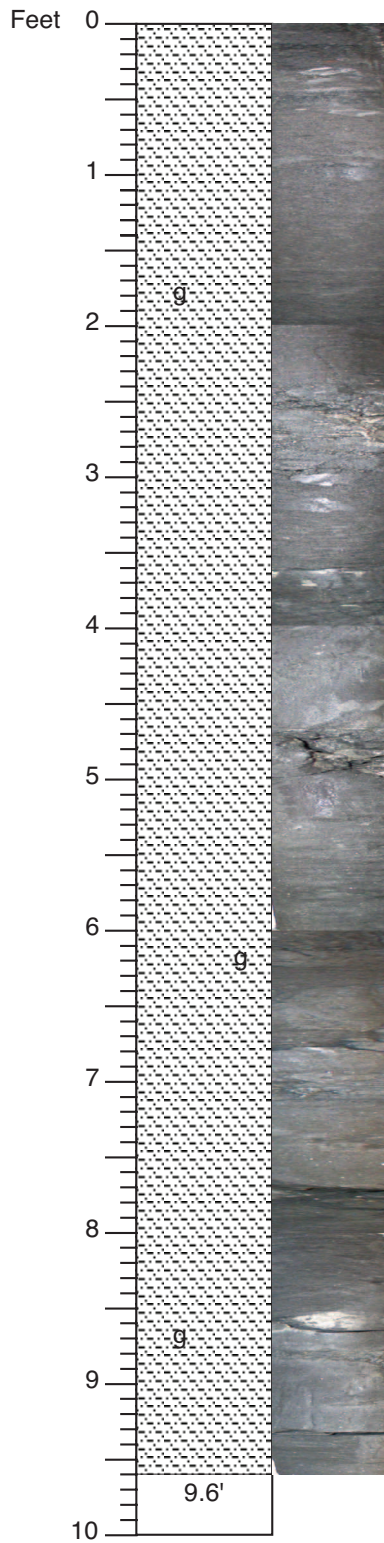
CLAY; slightly micaceous, scattered fine to very fine glauconite, scattered foraminifers, gray (N5/)

Contact; with rip up, pyrite, ?phosphate

CLAY; sandy, silty, glauconite, maximum glauconite in burrows, but 10% outside of burrows; fine quartz sand in burrows; thin pyrite replacing shells; dark greenish gray (5G 4/1)

174AX SG
 Core #45
 Start depth: 380 ft
 Stop depth: 390 ft
 Recovery: 7 ft
 Date: 9/30/03
 Described by: PJS/JVB/AH

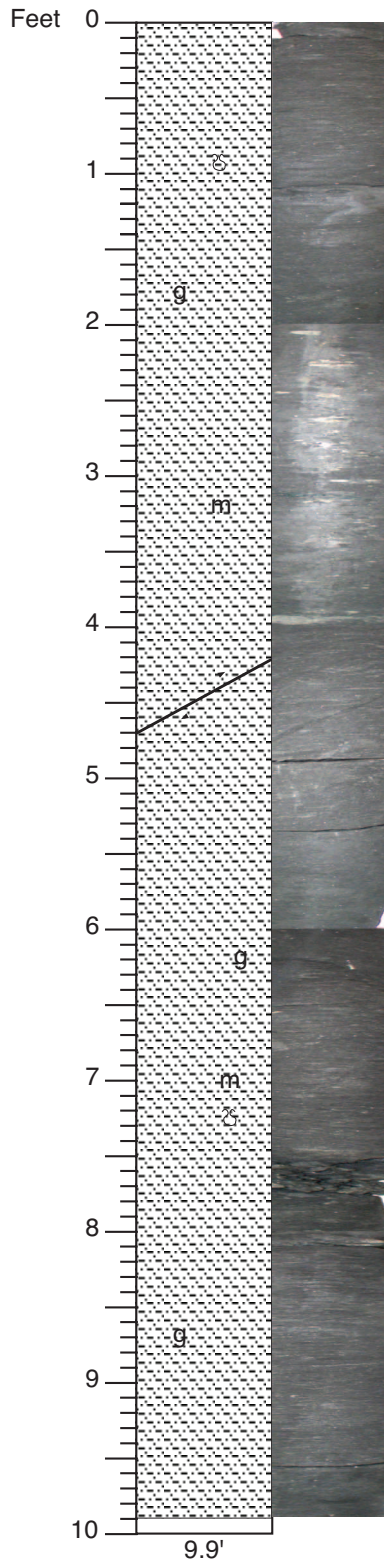
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SILT; sandy at top grading to clayey at bottom, 1-3% glauconite, quartz, slightly micaceous, structureless, no obvious burrows; gray (N5/)

174AX SG
Core #46
Start depth: 390 ft
Stop depth: 400 ft
Recovery: 9.6 ft
Date: 9/30/03
Described by: JVB/AH

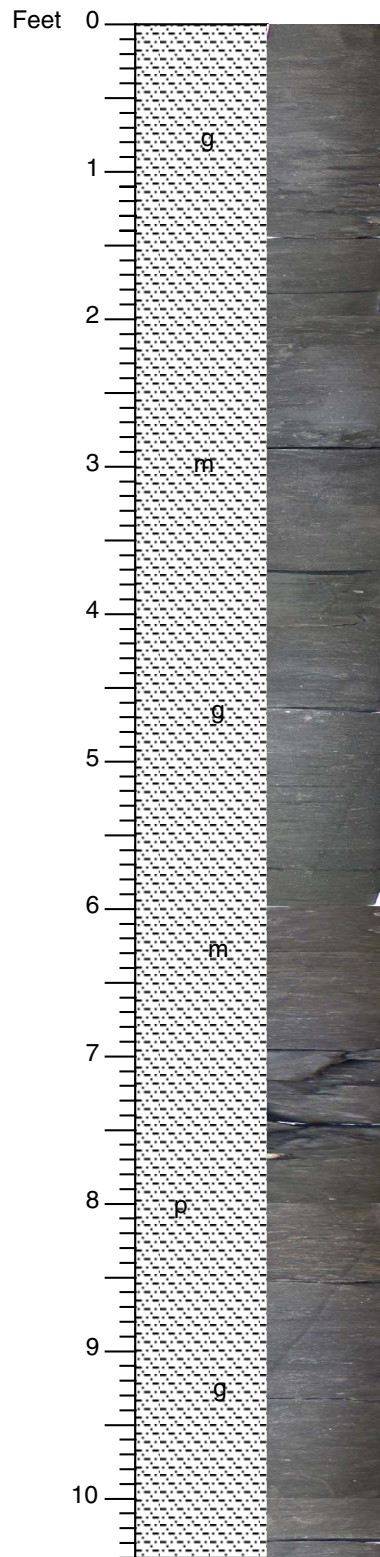
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SILT; clayey, slightly glauconitic (~3%), trace to slightly micaceous, slightly very fine quartz sandy; burrowed with thin laminations ~1 cm especially in the top foot, 4.4-4.75 ft microfault; black (5Y 2.5/2)

174AX SG
 Core #47
 Start depth: 400 ft
 Stop depth: 410 ft
 Recovery: 9.9 ft
 Date: 10/1/03
 Described by: KGM/DK

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE

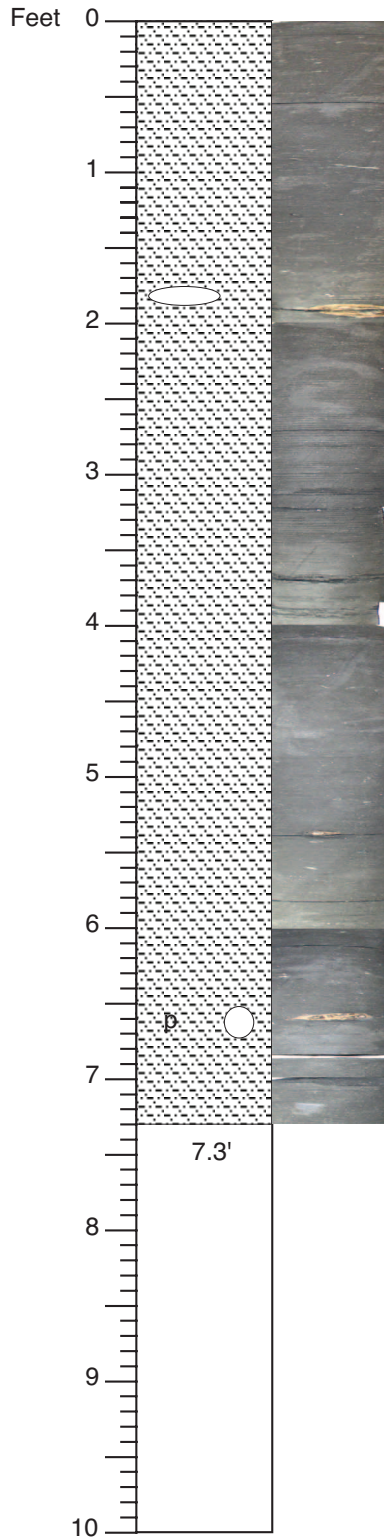


SILT; clayey, very slightly micaceous, slightly glauconitic (±2%), quartzose, (less glauconite and mica than above, slightly more quartz); bioturbated, but not as much as above; scattered pyrite and replaced shell; very dark gray to black (N3/ To N2.5/)

174AX SG
Core #48
Start depth: 410 ft
Stop depth: 420 ft
Recovery: 10.4 ft
Date: 10/1/03
Described by: KGM/DK

10.4'

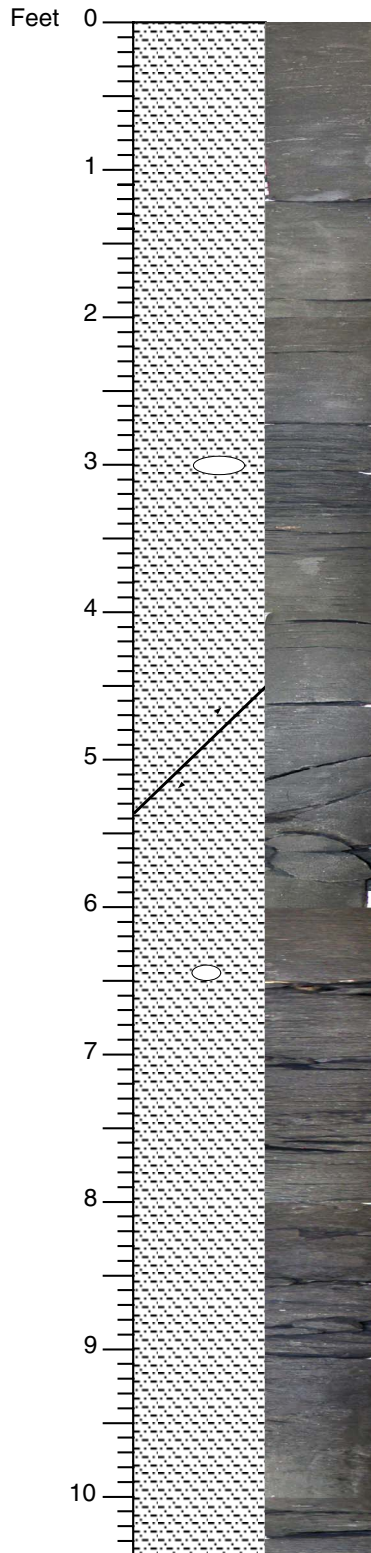
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; silty to clayey SILT; very slightly micaceous, trace of quartz sand; glauconite trace to 1%; pyrite nodules and disseminated pyrite; generally massive with intervals of 1-2 mm scale laminations (2.3-4.2; and 5-6.0 ft); nodules at 1.8, 5.6, and 6.9 ft; classic subsurface Vincentown Formation, very dark gray to black (N3/ To N2.5/)

174AX SG
Core #49
Start depth: 420 ft
Stop depth: 430 ft
Recovery: 7.3 ft
Date: 10/1/03
Described by: KGM/DK

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE

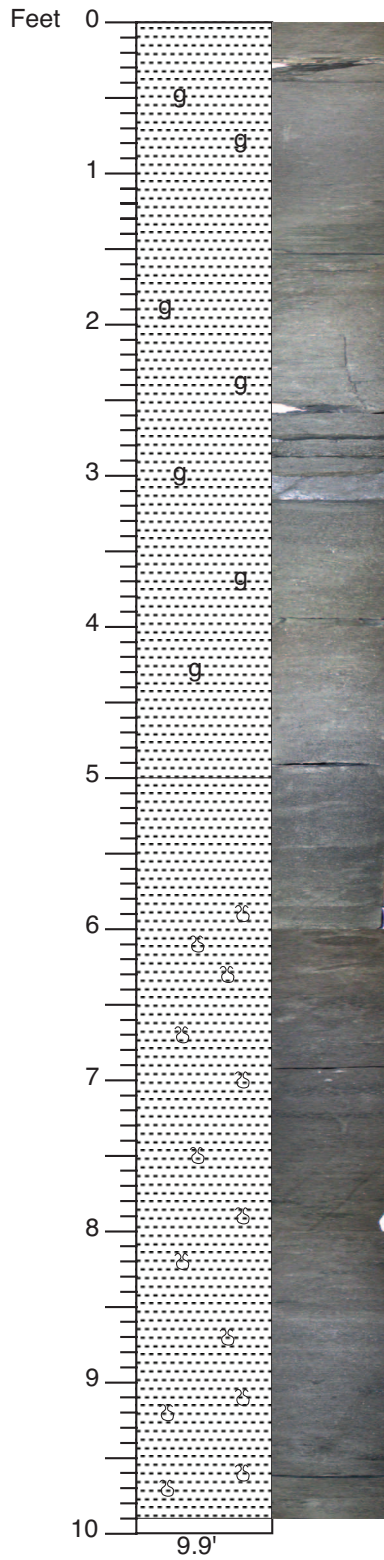


SILT; clayey, to glauconitic clayey SILT; increasing percentage of glauconite towards the bottom, ~1% glauconite from 0-4.5 ft, 3-5% glauconite from 4.5-10.05 ft; ~1% quartz, ~1% mica; 2-3 mm laminations from 2.7-3.3 ft, microfaults 4.9-5.4 ft (other than possible offset laminations, no clear offset visible); dark greenish gray (SGY 4/1)

174AX SG
Core #50
Start depth: 430 ft
Stop depth: 440 ft
Recovery: 10.4 ft
Date: 10/1/03
Described by: KGM/DK

10.4'

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE

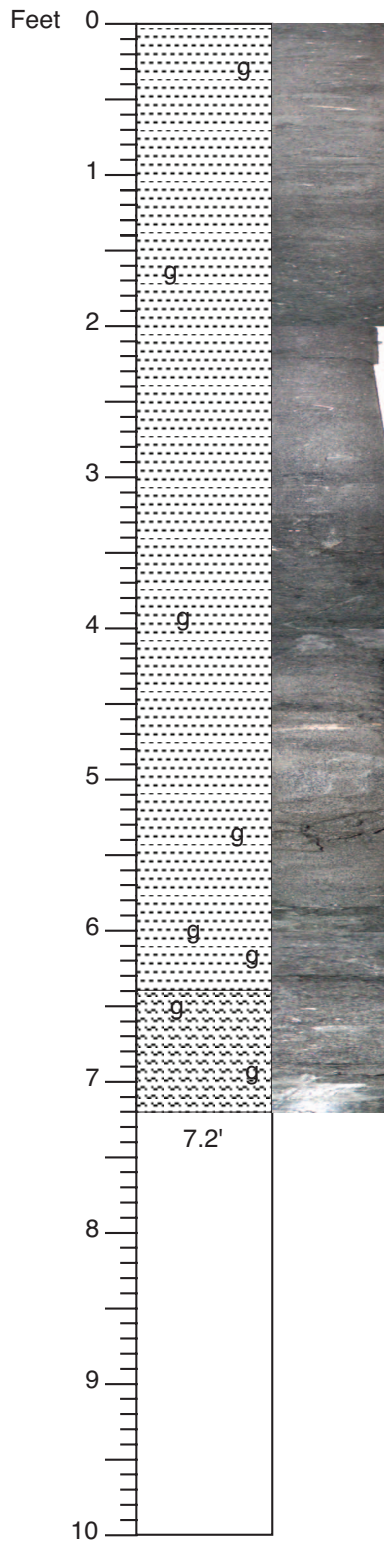


CLAY; silty, slightly glauconitic to glauconitic

174AX SG
 Core #51
 Start depth: 440 ft
 Stop depth: 450 ft
 Recovery: 9.9 ft
 Date: 10/1/03
 Described by: KGM/DK

CLAY; laminated (1.6-2.6 ft), to heavily bioturbated with large burrows (4.8-6.2 ft); possible contact at 5.6 ft, 5-10% glauconitic clay over slightly glauconitic clay; very heavily burrowed to well burrowed under the contact, with glauconite concentrated in burrows; dark greenish gray (5GY 4/1), burrows: very dark gray (N3/)

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE

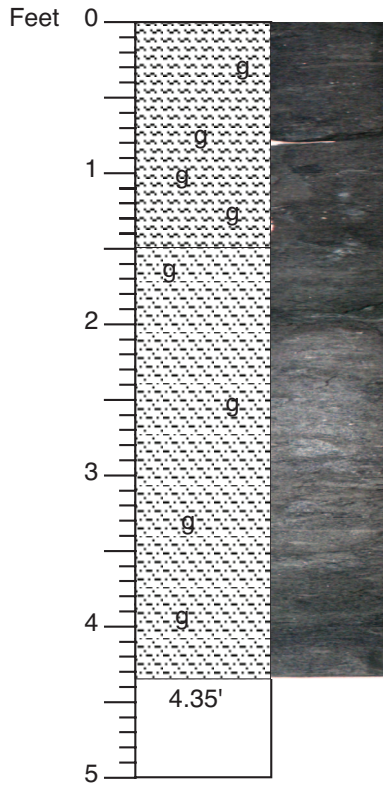


SILT; clayey, 10% glauconite sand in burrows, laminated, trace very fine mica, some benthic foraminifers, some shell hash and occasional shell layers (thin), glauconite is dark, fine to medium; glauconite increases to 20-30%; dark olive gray (5Y 3/2)

SAND; glauconite (50%), silty

174AX SG
Core #52
Start depth: 450 ft
Stop depth: 460 ft
Recovery: 7.2 ft
Date: 10/2/03
Described by: JVB/PJS/RKO

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE

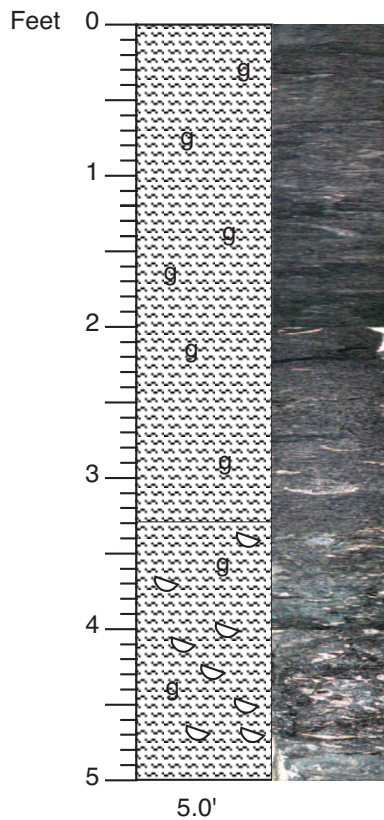


SAND; glauconite; silty, slightly clayey, slightly micaceous, slightly quartzose, some foraminifers; dark olive gray (5Y 3/2)

SILT; glauconitic, foraminifers, heavily bioturbated, clay filled burrows; dark, fine to medium glauconite, more glauconite at base; dark gray (N4/)

174AX SG
 Core #53
 Start depth: 460 ft
 Stop depth: 465 ft
 Recovery: 4.35 ft
 Date: 10/2/03
 Described by: JVB/PJS/RKO

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE

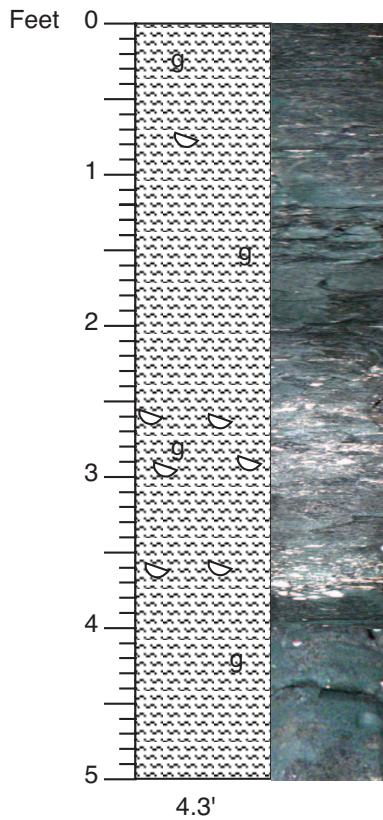


SAND; glauconite; trace mica, some very fine quartz sand, some foraminifers; clay lined burrows, common *Gryphaea* shells

SAND; glauconite, with abundant broken shells, glauconite is very black, fine to medium, ~80%; the bottom 0.2 ft of the core is not as shelly; black (N 2.5/)

174AX SG
 Core #54
 Start depth: 465 ft
 Stop depth: 470 ft
 Recovery: 5 ft
 Date: 10/2/03
 Described by: JVB/PJS/RKO

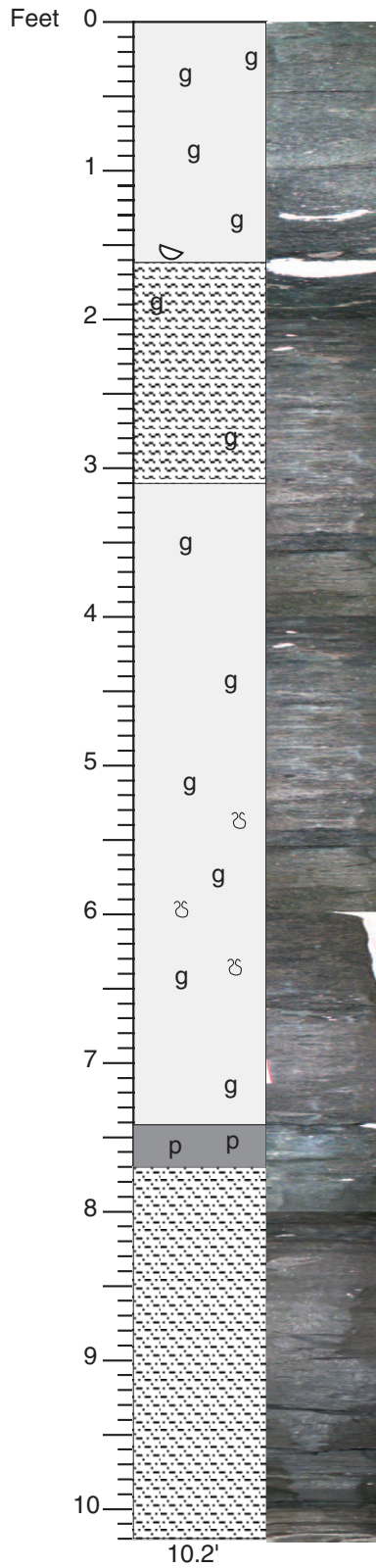
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; very fine to fine quartz, glauconitic (~40%), slightly silty; with bright green clay laminae; more clay-silt below 1.1 ft; clays: grayish green (5G 5/2); glauconite: sand black (N2.5)

174AX SG
Core #55
Start depth: 470 ft
Stop depth: 475 ft
Recovery: 4.3 ft
Date: 10/2/03
Described by: JVB/PJS/RKO

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; silty, 50% glauconite and 50% quartz, heavily burrowed, slightly micaceous; grayish green (Gley 5G 4/2)

SAND; glauconite, silty; less quartz; generally heavily bioturbated; burrowed surface at 3.1 ft

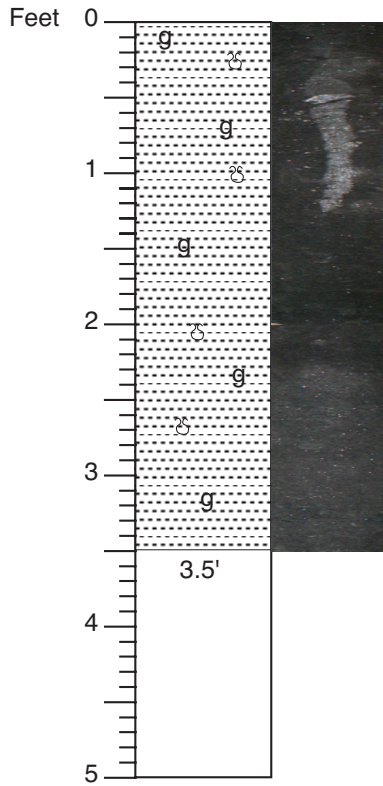
SILT; sandy, 50% glauconite and 50% quartz; micaceous, glauconite burrowed down to 4.1 ft; at 4.8 ft glauconite content starts of increase; heavily burrowed; dark gray (5Y 4/1)

174AX SG
 Core #56
 Start depth: 475 ft
 Stop depth: 485 ft
 Recovery: 10.2 ft
 Date: 10/2/03
 Described by: JVB/LP

7.4 ft; hardground with pyrite nodules

CLAY; with interbedded micaceous SILT; dark olive gray (5Y 3/2)

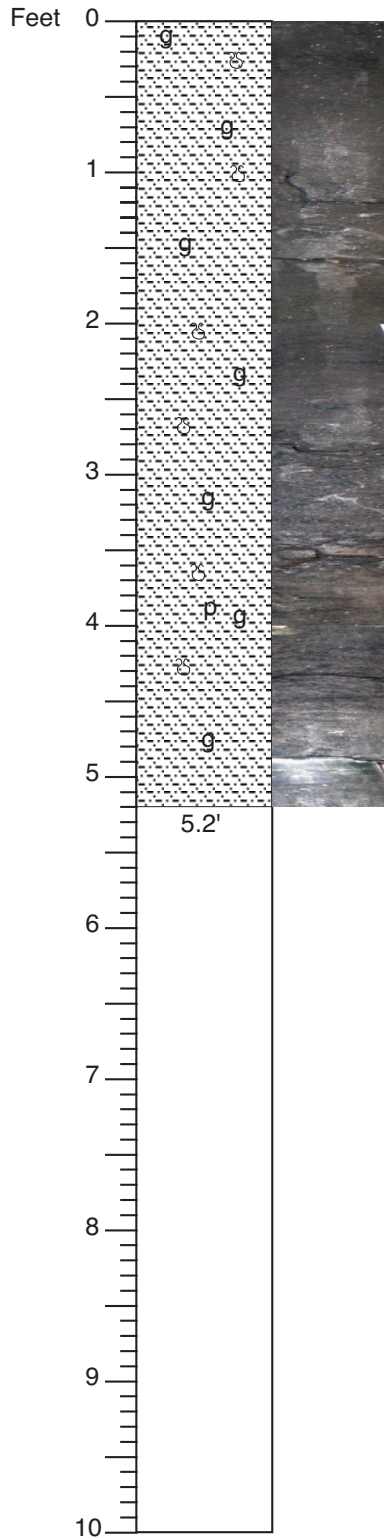
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; silty with interbedded sandy SILT; heavily burrowed, some mica; abundant quartz and glauconite; the sand fraction in the sandy silty is ~50% glauconite and 50% quartz; foraminifers are present, large benthics are visible on the outside of the core; very dark gray (5Y 3/1)

174AX SG
 Core #57
 Start depth: 485 ft
 Stop depth: 490 ft
 Recovery: 3.5 ft
 Date: 10/2/03
 Described by: JVB/LP

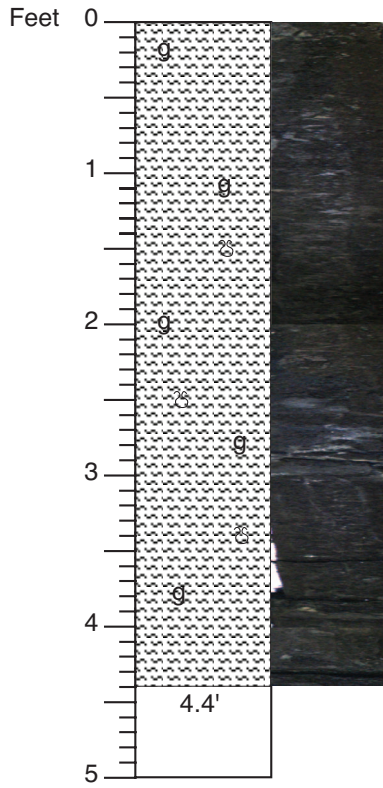
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SILT; glauconitic, and interbedded silty CLAY; 50% quartz and 50% glauconite; evidence for bioturbation, micaceous; very dark gray (5Y 3/1)

174AX SG
 Core #58
 Start depth: 490 ft
 Stop depth: 500 ft
 Recovery: 5.2 ft
 Date: 10/2/03
 Described by: JVB/LP

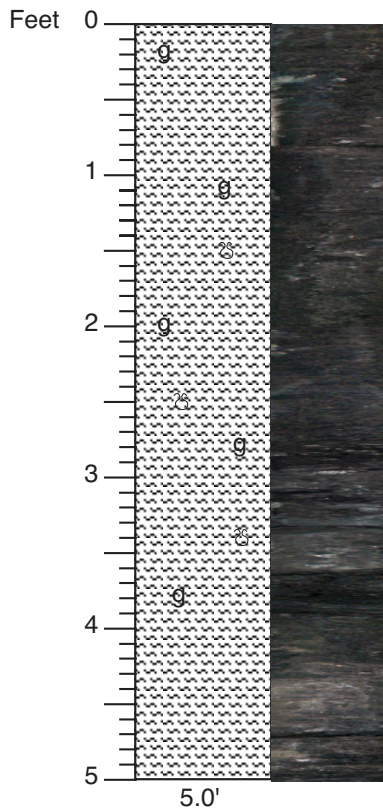
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; glauconite, little quartz; very clay rich (up to 40% on places); slightly micaceous; heavily bioturbated, many clay filled burrows; black (N 2.5/)

174AX SG
Core #59
Start depth: 500 ft
Stop depth: 505 ft
Recovery: 4.4 ft
Date: 10/2/03
Described by: JVB

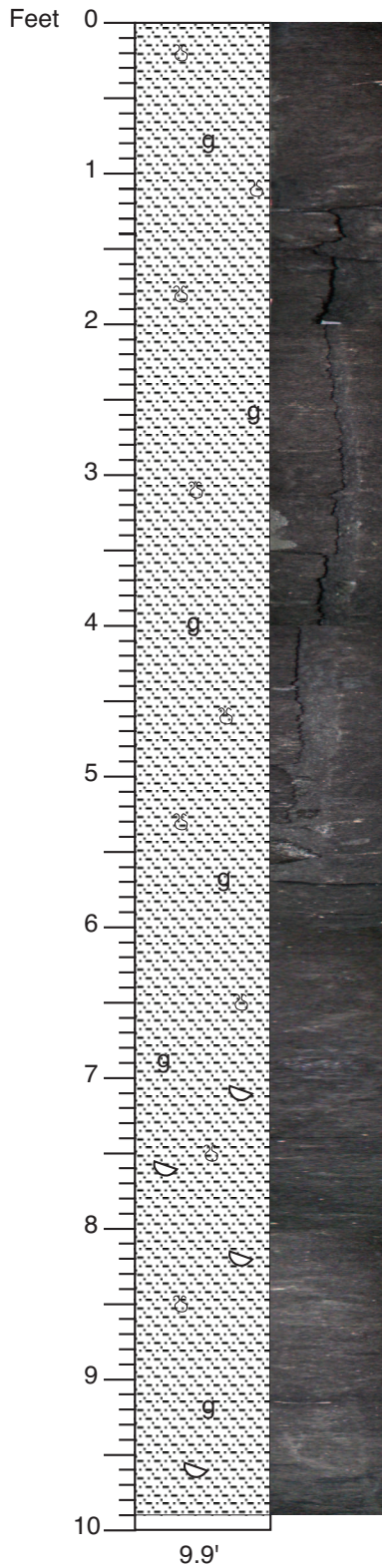
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; glauconite (40%, dark, very fine to fine), silty, with 1-2% very fine to fine quartz, trace of mica, some foraminifers, bioturbated, clayier at the bottom; brown clast at 4.8 ft; black (N2.5)

174AX SG
Core #60
Start depth: 505 ft
Stop depth: 510 ft
Recovery: 5 ft
Date: 10/3/03
Described by: JVB/PJS/AH/RKO

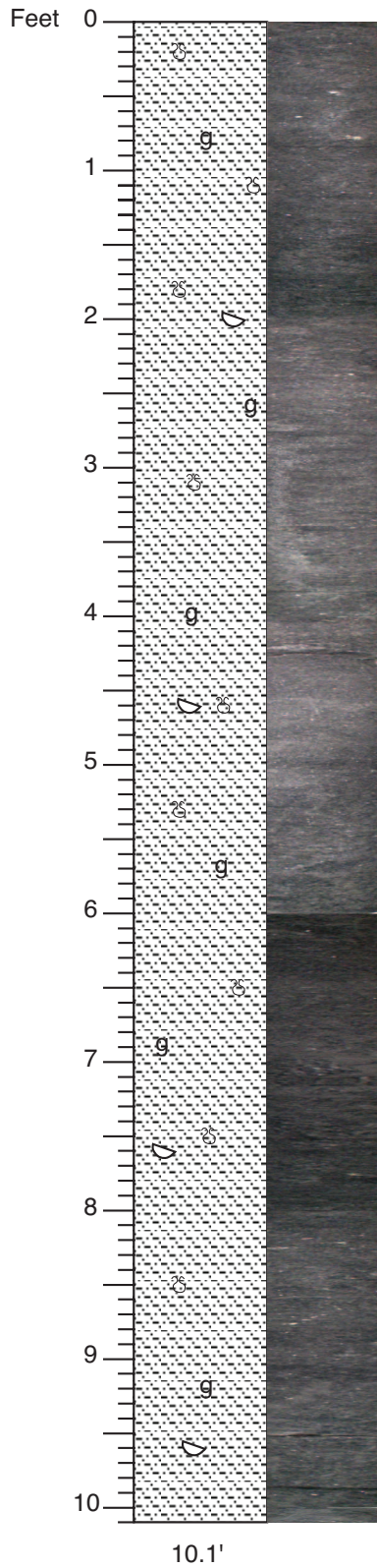
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; glauconite (up to 30%), silty, clayey, slightly micaceous, some fine pyrite, heavily bioturbated; shell fragments in the bottom 2.8 ft; clay lined burrows in the bottom 0.8 ft; black (N 2.5/)

174AX SG
Core #61
Start depth: 510 ft
Stop depth: 520 ft
Recovery: 9.9 ft
Date: 10/3/03
Described by: JVB/PJS/AH/RKO

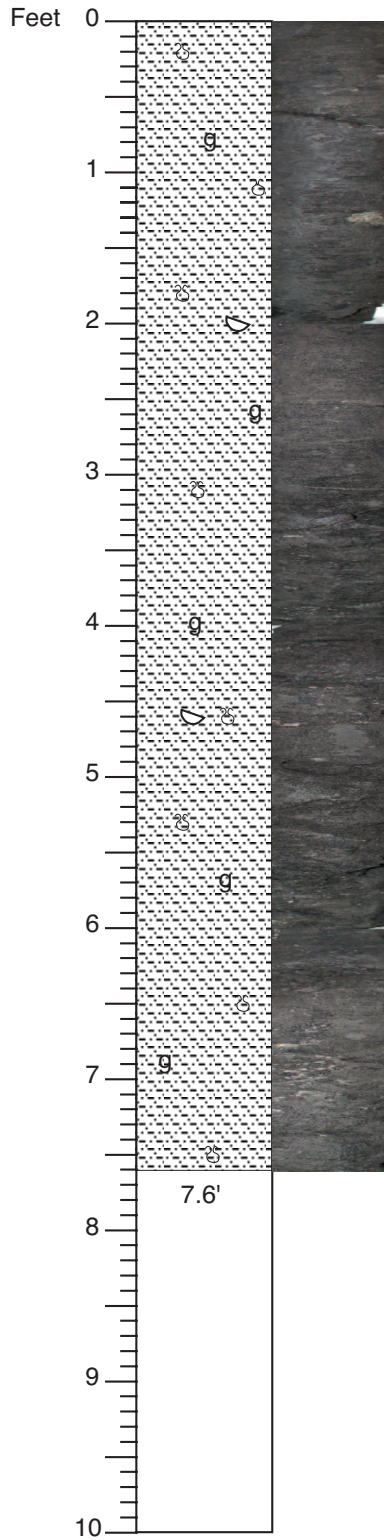
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SILT; slightly clayey, glauconitic (30-50%); foraminifer rich; heavily bioturbated with clay and glauconite filled burrows; trace of mica, rare thin shells; clay increases at the base; very dark gray (Gley 10G 3/1)

174AX SG
 Core #62
 Start depth: 520 ft
 Stop depth: 530 ft
 Recovery: 10.1 ft
 Date: 10/3/03
 Described by: JVB/PJS/AH

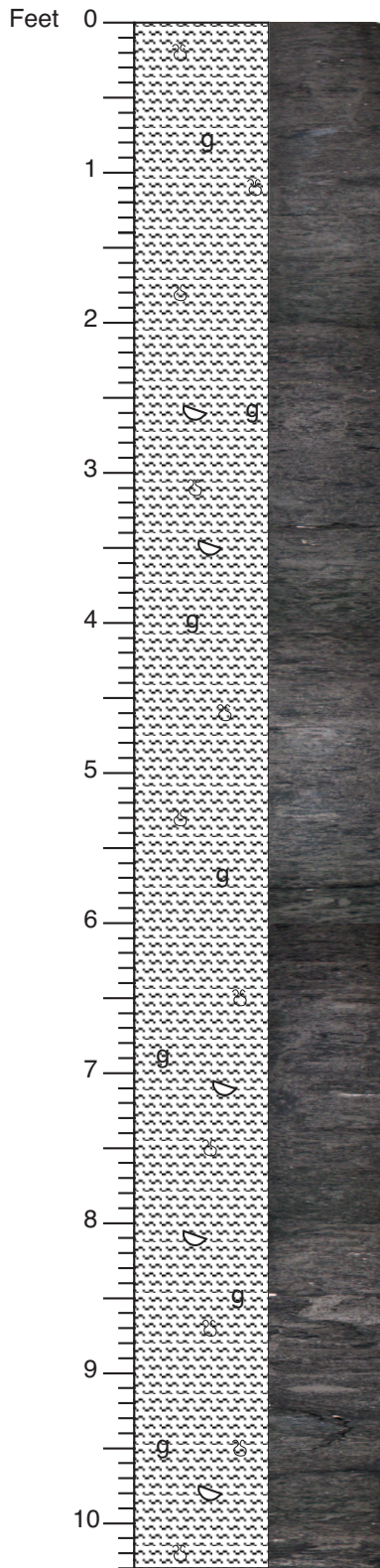
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; clayey; numerous glauconite filled burrows; glauconite up to 30-40%, concentrated in burrows; rare shells

174AX SG
Core #63
Start depth: 530 ft
Stop depth: 540 ft
Recovery: 7.6 ft
Date: 10/3/03
Described by: JVB/PJS/AH

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE

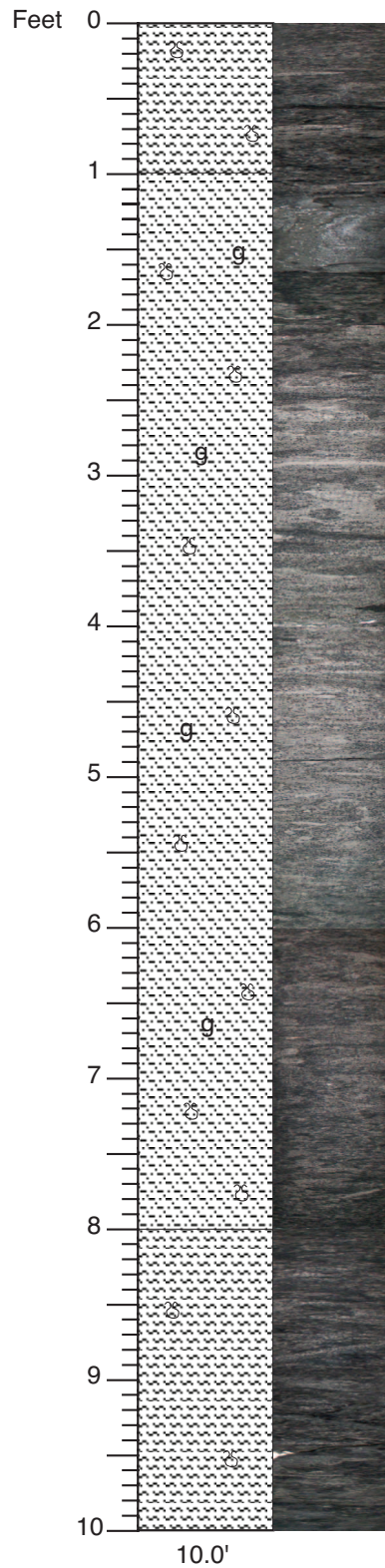


SAND; glauconite, silty; abundant clay filled burrows, heavily bioturbated, no bedding; scattered pyrite; less mica than above, scattered shells; no quartz seen; gray (5Y)

174AX SG
Core #64
Start depth: 540 ft
Stop depth: 550 ft
Recovery: 10.3 ft
Date: 10/3/03
Described by: JVB/PJS/AH

10.3'

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



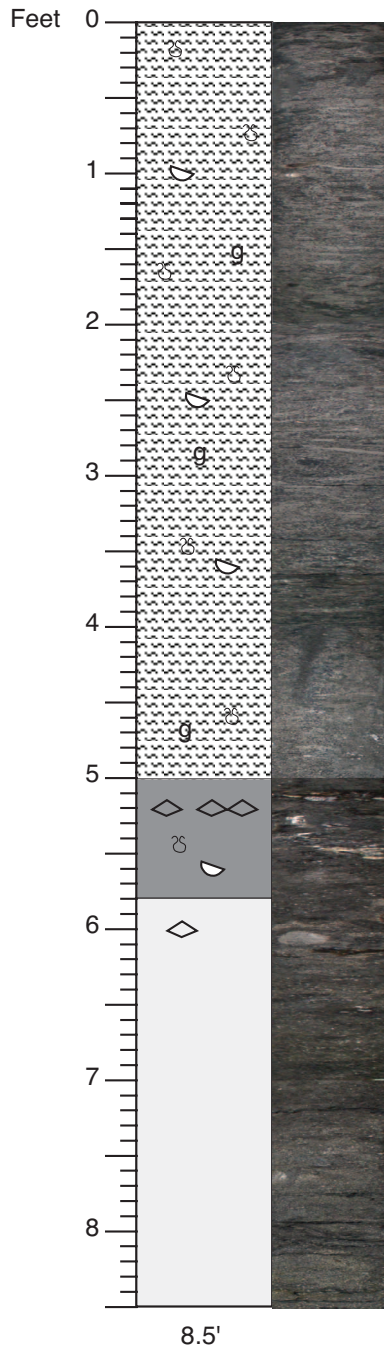
SAND; glauconite (70%); gray (6/1)

SILT; clayey; glauconitic; heavily burrowed, clay and glauconite filled burrows; the top 2 ft is more glauconite rich; 1-2% quartz; scattered shells and foraminifers; brown clay clast

174AX SG
Core #65
Start depth: 550 ft
Stop depth: 560 ft
Recovery: 10 ft
Date: 10/3/03
Described by: JVB/PJS/AH

SAND; glauconite (70%)

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; glauconitic (30%); heavily burrowed with clay and glauconite filled burrows; common oyster shells

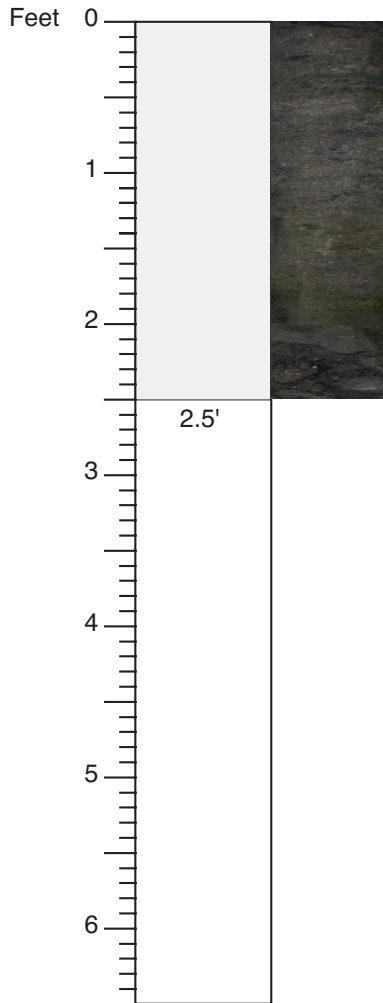
Indurated contact zone; glauconite clay from above mixed with quartz sand from below; phosphate zone at 5.2 ft

SAND; medium quartz, silty; 5-10% glauconite, trace of mica

174AX SG
 Core #66
 Start depth: 560 ft
 Stop depth: 568.5 ft
 Recovery: 8.5 ft
 Date: 10/3/03
 Described by: JVB/AH

8.5'

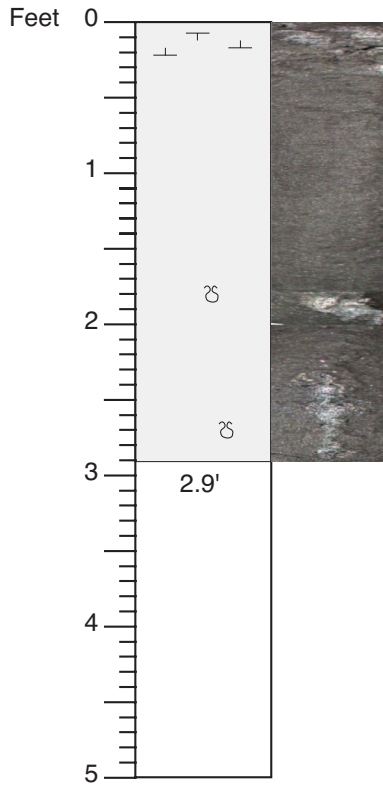
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; mostly quartz; medium with some coarse, subangular; slightly silty; homogenous core

174AX SG
Core #67
Start depth: 568.5 ft
Stop depth: 575 ft
Recovery: 2.5 ft
Date: 10/3/03
Described by: JVB/AH

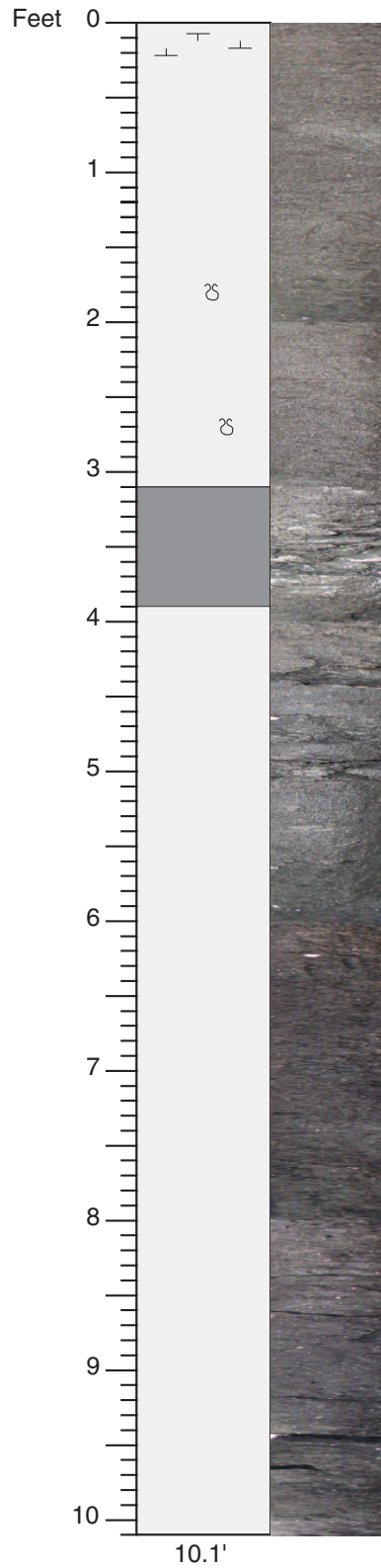
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; mostly medium, some fine, trace of coarse and granules; 1-2% fine glauconite, bioturbated with occasional very large burrows, some cross laminae, trace mica, some phosphate, 0-0.35 calcareous cemented interval; dark greenish gray (5GY 4/1); burrows: light greenish gray (5GY 8/1)

174AX SG
 Core #68
 Start depth: 575 ft
 Stop depth: 580 ft
 Recovery: 2.9 ft
 Date: 10/4/03
 Described by: PJS/AK

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



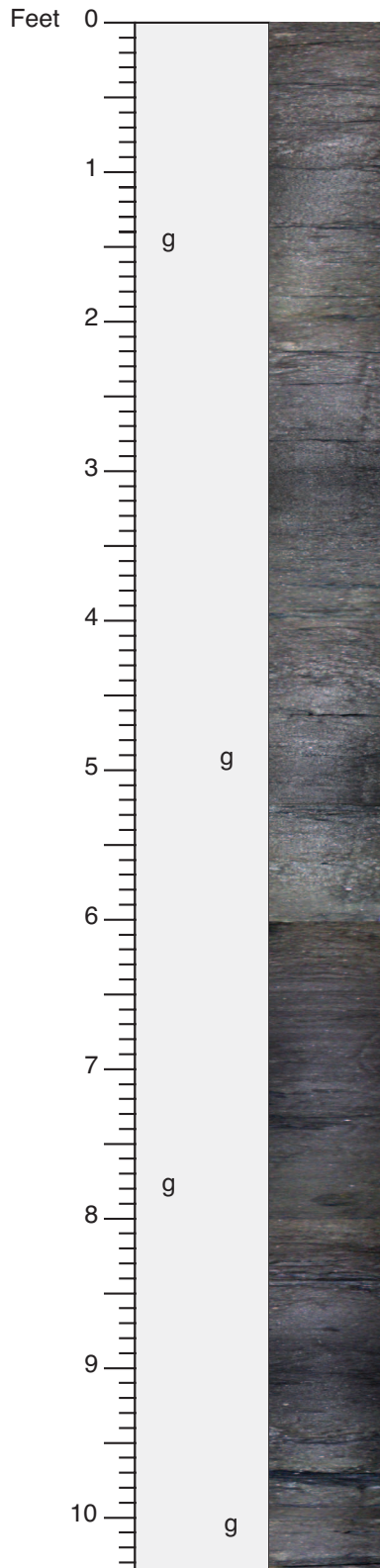
SAND; mostly medium, 1-2% thin shells, trace of mica; bioturbated, gray (5Y 5/1)

Indurated

SAND; fine to medium, micaceous, more glauconitic (2-3%); with thin interbeds of silt, bioturbated, shells are less common below 7.9 ft; very dark gray (5Y 3/1)

174AX SG
 Core #69
 Start depth: 580 ft
 Stop depth: 590 ft
 Recovery: 10.1 ft
 Date: 10/4/03
 Described by: PJS/AK

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE

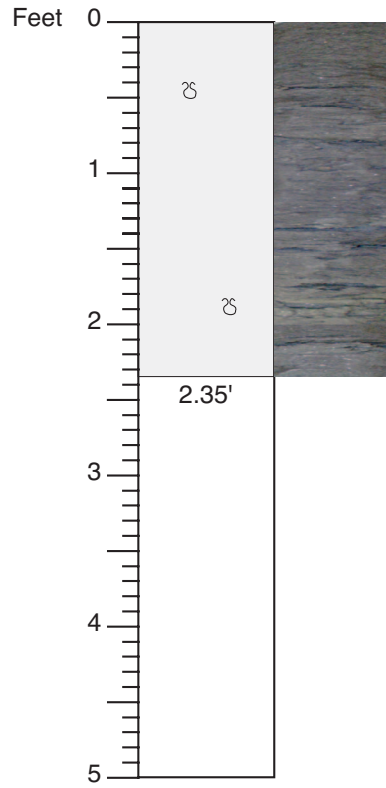


SAND; fine; silty; micaceous, trace of glauconite; with interbeds of clayey silt; interbeds get thicker towards the base; bioturbated; very dark gray (5Y 3/1)

174AX SG
Core #70
Start depth: 590 ft
Stop depth: 600 ft
Recovery: 10.35 ft
Date: 10/4/03
Described by: PJS/AK

10.35'

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; very fine to fine; quartz; clayey, silty, micaceous; with thin slightly glauconitic, woody, medium sand interbeds; bioturbated; very dark gray (5Y 3/1)

174AX SG
Core #71
Start depth: 600 ft
Stop depth: 605 ft
Recovery: 2.35 ft
Date: 10/4/03
Described by: PJS/AK

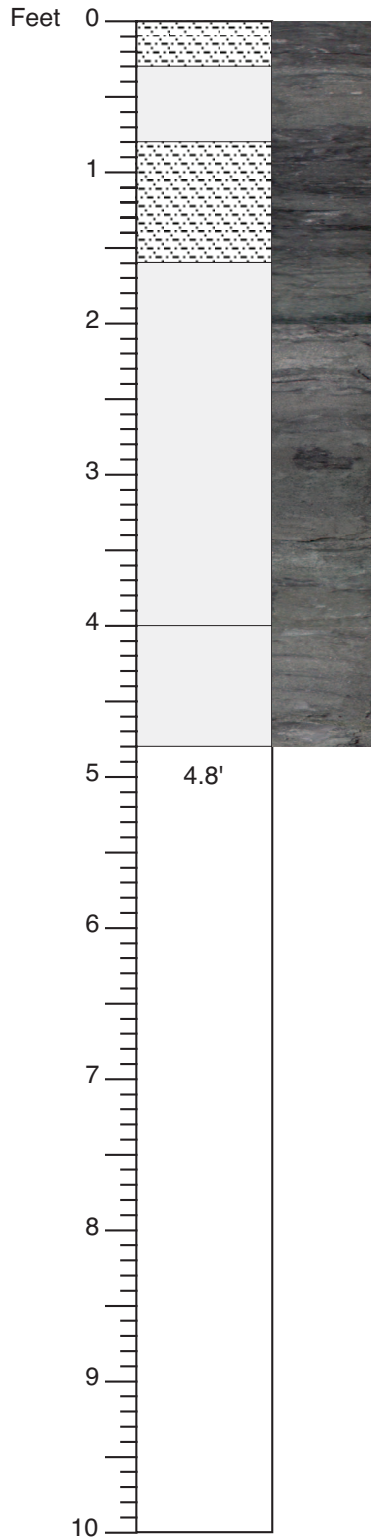
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; fine, slightly glauconitic; micaceous, some wood, some large burrows with interbedded dark silty clay; grayish green (5G 5/2)

174AX SG
Core #72
Start depth: 605 ft
Stop depth: 610 ft
Recovery: 5.4 ft
Date: 10/4/03
Described by: PJS/AK

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; fine; with clayey silt; some beds (to 3mm) of silt, silt is micaceous; ?burrows, 0.3 ?shell; very dark gray (N3/)

SAND; medium, quartz, 1-2% glauconite; very slightly micaceous, thin silty laminae at top; subrounded, good sorting; gray (N6/)

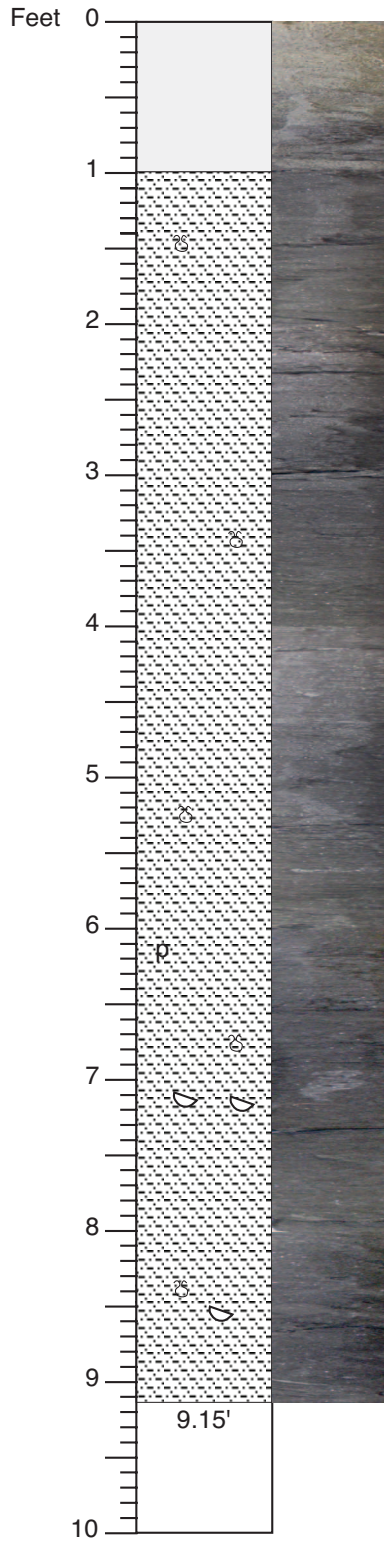
SAND; same as 0-0.3 ft; clay laminae at 1.35 ft does not go all the way across core and may be a burrow

SAND; medium; contains a small amount of silt; with silt laminae; 1-2% glauconite

SAND; medium; slightly micaceous, mica grains to 0.5 mm; 1-3% ohm and glauconite; laminae (?beach sand)

174AX SG
 Core #73
 Start depth: 610 ft
 Stop depth: 620 ft
 Recovery: 4.8 ft
 Date: 10/5/03
 Described by: JVB/SM/SP

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE

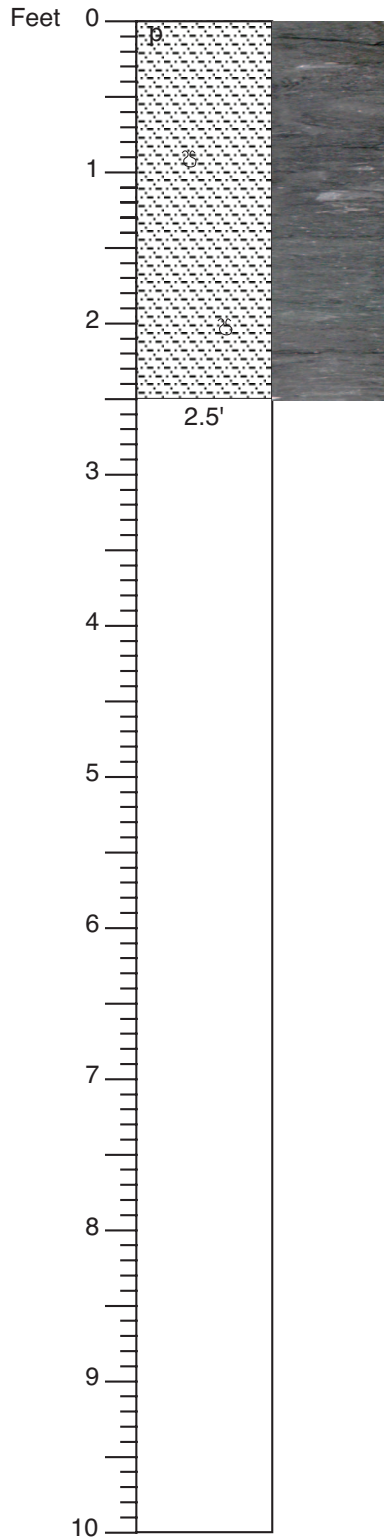


SAND; medium; some coarse; quartz, slightly glauconitic (<10%), rare feldspar; clay lamination/beds at 0.5, 0.7-0.8, and 0.8-1.0 ft; olive gray (5Y 5/2)

SILT; interlaminated with CLAY; silt is clayey, slightly very fine sandy, rare glauconite, micaceous; clay is silty, not as micaceous; slightly burrowed, up to 1cm diameter, clay and mica increase toward the bottom; thin shells at 7.05, 7.2 and 8.35 ft; pyrite at 6.15 ft; physical structures dominate, more bioturbation at bottom; very dark gray (5Y 3/1)

174AX SG
 Core #74
 Start depth: 620 ft
 Stop depth: 630 ft
 Recovery: 9.15 ft
 Date: 10/5/03
 Described by: JVB/SM/SP

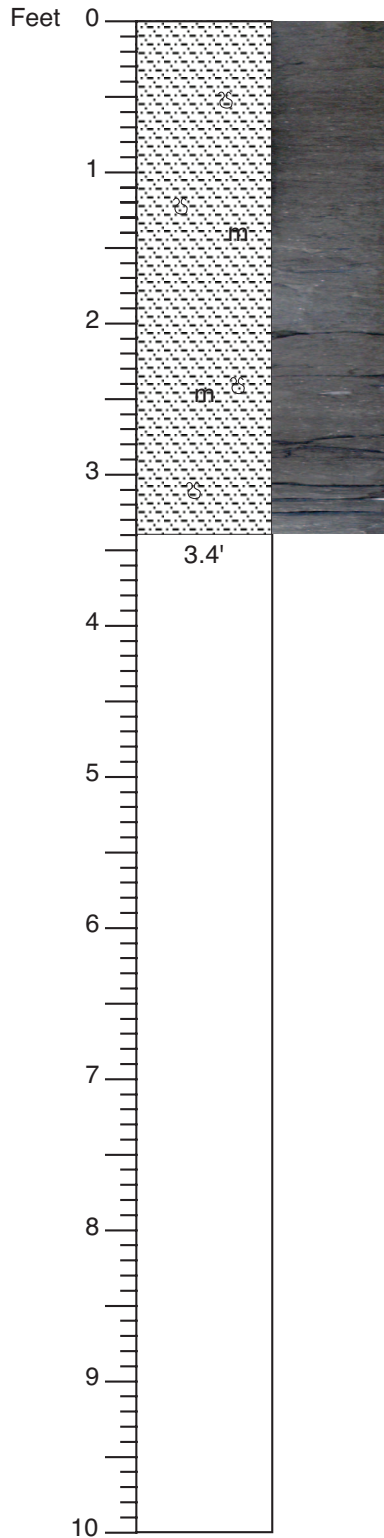
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY and interlaminated SILT; slightly micaceous, trace of glauconite; rare very fine sand in silt beds, clays contain mica; rare pyrite (0.3 ft); very small shell fragments at 0.25, and 2.35 ft; thinly bedded to laminated, burrowed slightly throughout (0.5-1 cm), horizontal burrows; fine quartz sand bed at 2.45 ft (?storm event); black (N2.5/)

174AX SG
Core #75
Start depth: 630 ft
Stop depth: 640 ft
Recovery: 2.5 ft
Date: 10/5/03
Described by: JVB/SM/SP

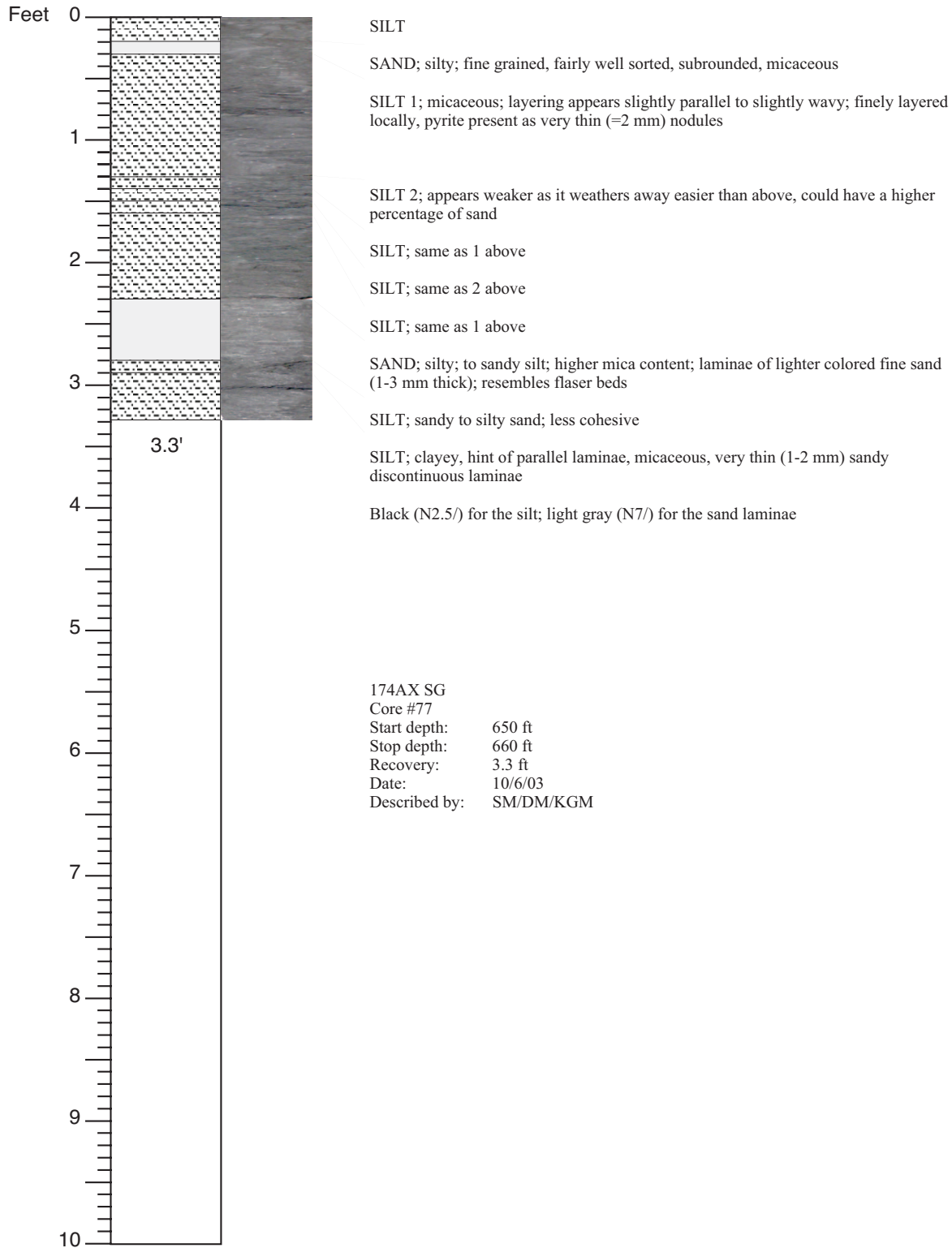
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



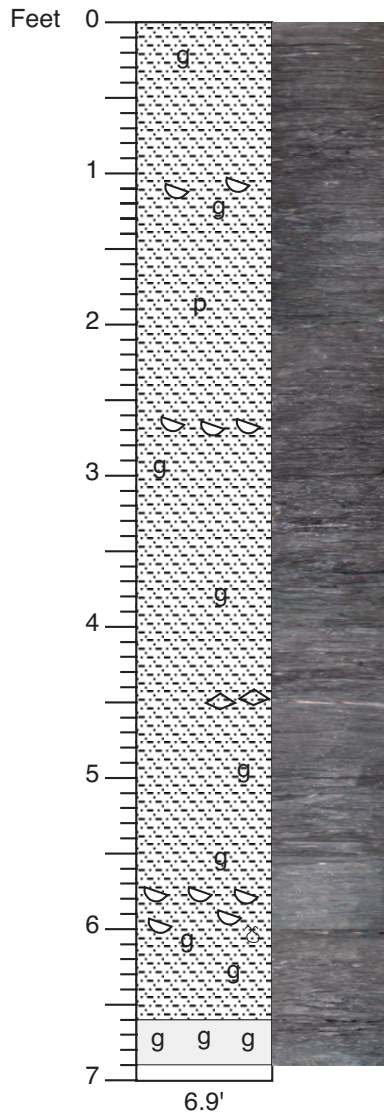
SILT; clayey and interlaminated silty CLAY; silt contains a small percentage of very fine sand, micaceous, ?chlorite; clays are darker than the silty; may be a few grains of immature glauconite, rare burrows, 1.6-1.7 ft finely laminated; black (N2.5/)

174AX SG
 Core #76
 Start depth: 640 ft
 Stop depth: 650 ft
 Recovery: 3.4 ft
 Date: 10/5/03
 Described by: JVB/SM

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE

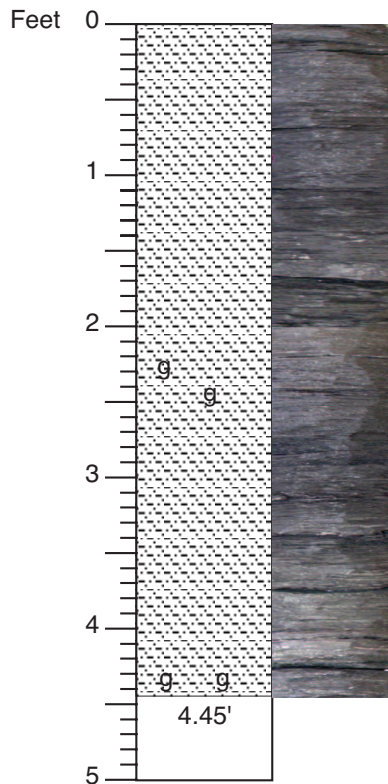


SILT; varies from sandy silt to clayey silt, finely interlaminated; hints of cross laminations as packets, micaceous, burrowed, rare shell-rich layers and pyrite nodules; shells are broken; glauconite content increases down core; preserved cross laminations and bioturbation increase down core; some very thin sandy interbeds at the base of the unit, black (N2.5/)

SAND; glauconitic, micaceous, black (N2.5/)

174AX SG
 Core #78
 Start depth: 660 ft
 Stop depth: 667 ft
 Recovery: 6.9 ft
 Date: 10/6/03
 Described by: SM/DM/KGM

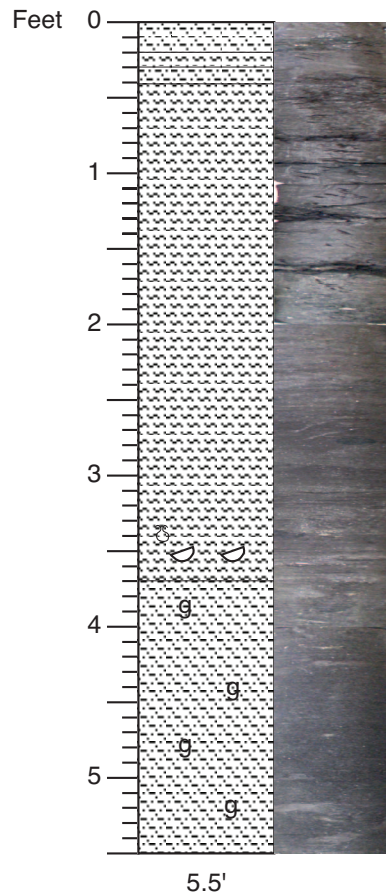
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SILT; interlayered very clayey silt to silty clay and silty sand; micaceous, glauconitic, rare very small shell fragments, contains glauconite filled burrows; laminae are slightly wavy and appear more continuous than the sandy laminae (?flaser beds) in the last core; some zones have stronger bioturbation and more corresponding glauconite (2.8, 3.5, and 4.3 ft); this core appears to have been deposited in shallower paleoenvironments than the last core

174AX SG
 Core #79
 Start depth: 667 ft
 Stop depth: 672 ft
 Recovery: 4.45 ft
 Date: 10/6/03
 Described by: SM/DM/KGM

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SILT; clayey, structureless

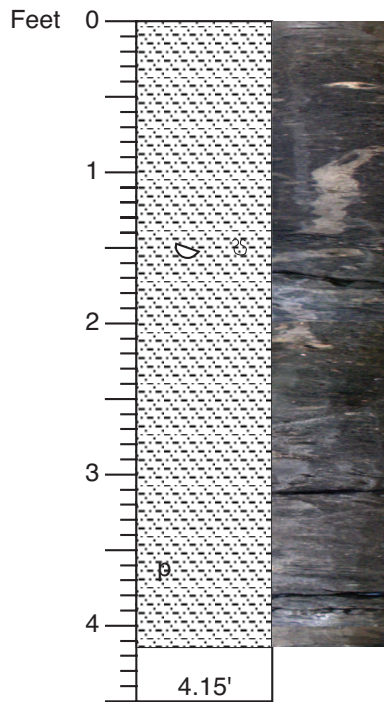
SILT; and very silty glauconite SAND; sand content increases with depth; bioturbation increases to contact; pyrite nodules and shell fragments to the base; glauconite sand layer and large (3 cm) pyrite nodule at 1.6 ft; possible fault surface at 2.7-2.9 ft

Gradational contact

SILT; very glauconitic (~30%); glauconite content increases with depth; lacks apparent structures suggesting complete bioturbation

174AX SG
 Core #80
 Start depth: 672 ft
 Stop depth: 677.5 ft
 Recovery: 5.5 ft
 Date: 10/6/03
 Described by: SM/DM/KGM

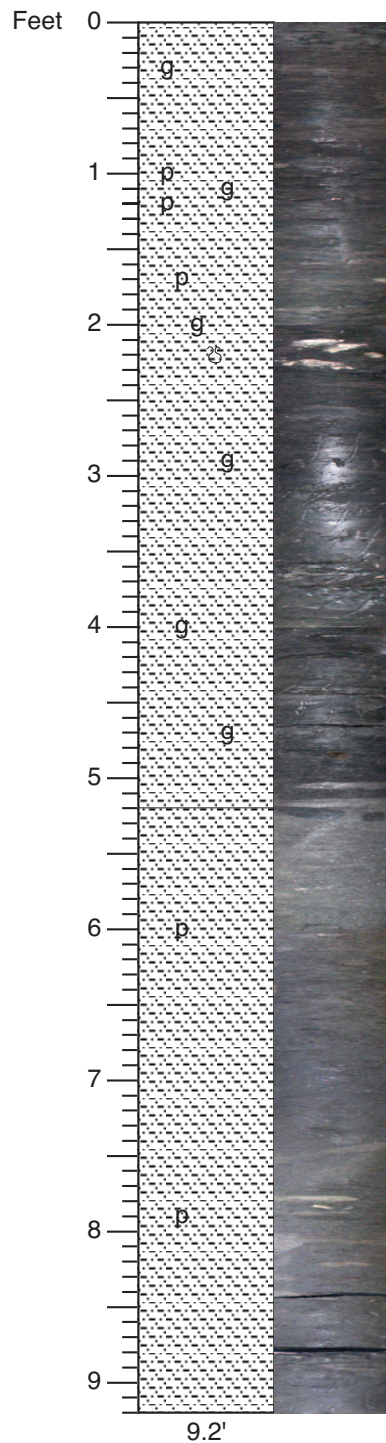
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SILT; glauconitic to silty glauconite SAND; vertical and horizontal burrows, clay lined; glauconite increases down core; black (N2.5/); clay – dark gray (5Y 4/1)

174AX SG
Core #81
Start depth: 677.5 ft
Stop depth: 682 ft
Recovery: 4.15 ft
Date: 10/6/03
Described by: SM/DM/KGM

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



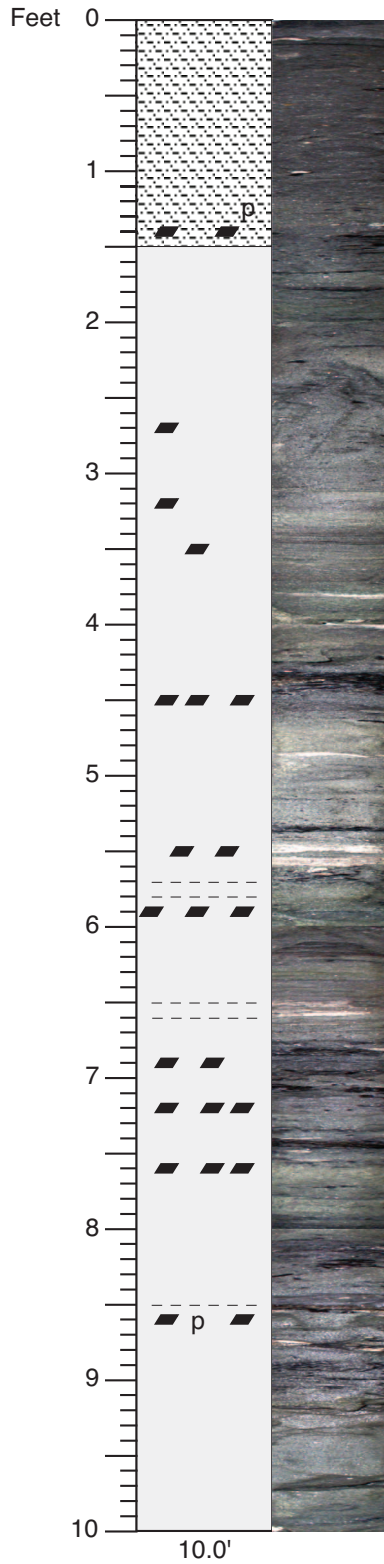
SILT; clayey, glauconitic, uniform, no apparent structures suggesting high bioturbation; a few silt filled burrows at 2.2 ft (gray; 5Y 6/1); black (2.5N/)

Sharp contact

SILT; sandy, micaceous, no glauconite, glauconite filled burrows at top; otherwise structureless, a few pyrite nodules and clay filled burrows, black (7.5YR 2.5/1)

174AX SG
 Core #82
 Start depth: 682 ft
 Stop depth: 690 ft
 Recovery: 9.2 ft
 Date: 10/6/03
 Described by: SM/DM

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



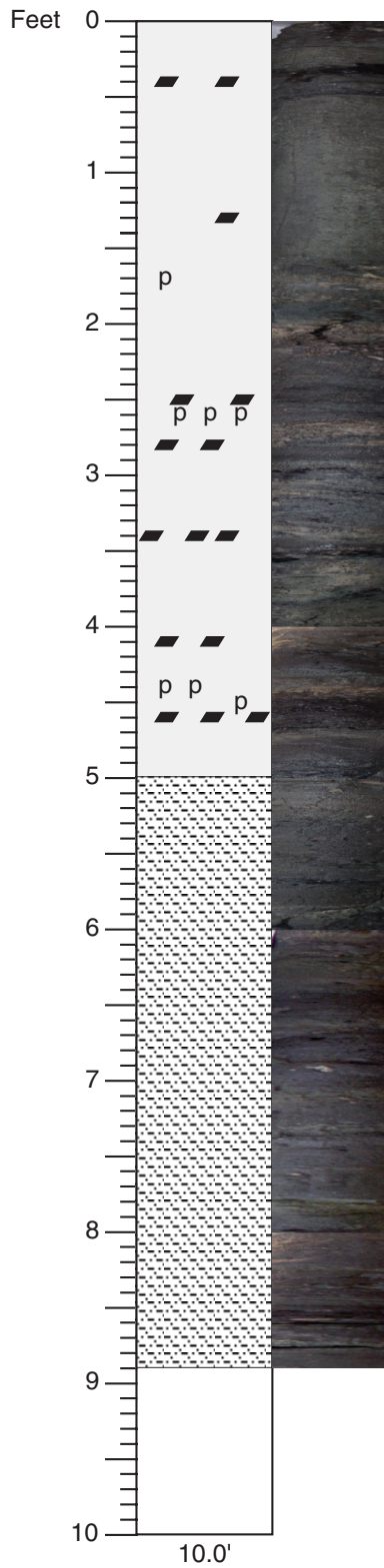
SAND; fine, very silty with lignitic interbeds, slightly micaceous; black (5GY 2.5/1)

Sequence boundary

SAND; gradational change; medium, less fine, slightly micaceous, with silty lignitic laminae to thin interbeds; occasional thin brown clayey silt interbeds (0.05 ft maximum thickness); lignite beds are ~0.1-0.2 ft thick; sand becomes medium at base, sand has very fine green rounded grains (?wood); occasional thin burrows; grayish green (5G 5/2)

174AX SG
 Core #83
 Start depth: 690 ft
 Stop depth: 700 ft
 Recovery: 10 ft
 Date: 10/7/03
 Described by: PJS/DK

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



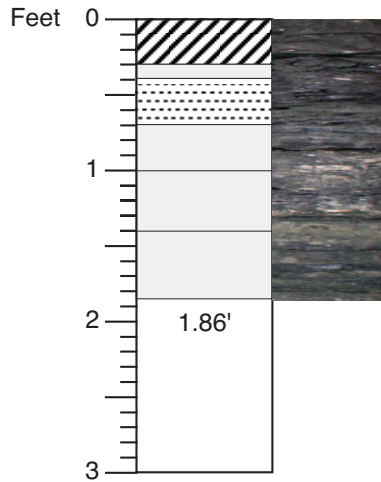
SAND; fine, some medium; slightly micaceous, finely disseminated pyrite, with interbeds of lignite and dark organic-rich sandy clayey silt, zones of pyrite; greenish gray (5GY 5/1)

Gradational contact

SILT; dark, organic clayey, and interbedded fine SAND; beds (~0.2 ft) thick

Core #84
 Start depth: 700 ft
 Stop depth: 710 ft
 Recovery: 8.9 ft
 Date: 10/7/03
 Described by: PJS/DK

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SLURRY; (vertical clay lamination, clasts)
 SAND; ?in place
 CLAY; silty, slightly sandy and interlaminated SAND; slightly micaceous
 SAND; medium to fine with clay cross laminations
 SAND; medium to fine with clay clasts (0.3-1 cm); rare quartz pebbles and lignite
 SAND; medium to fine with clay laminations, some cross laminations
 Looks like a channel fill deposit (?tidal delta/estuarine); sands: dark gray (5Y 4/1); clays: black (N2.5/)

174AX SG
 Core #85
 Start depth: 710 ft
 Stop depth: 713 ft
 Recovery: 1.86 ft
 Date: 10/8/03
 Described by: SM/KGM

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; medium to fine; lignitic with lignite and clay laminae; ?bay fill deposit; olive gray (5Y 4/2)

174AX SG
Core #86
Start depth: 713 ft
Stop depth: 720 ft
Recovery: 6.7 ft
Date: 10/8/03
Described by: SM/KGM

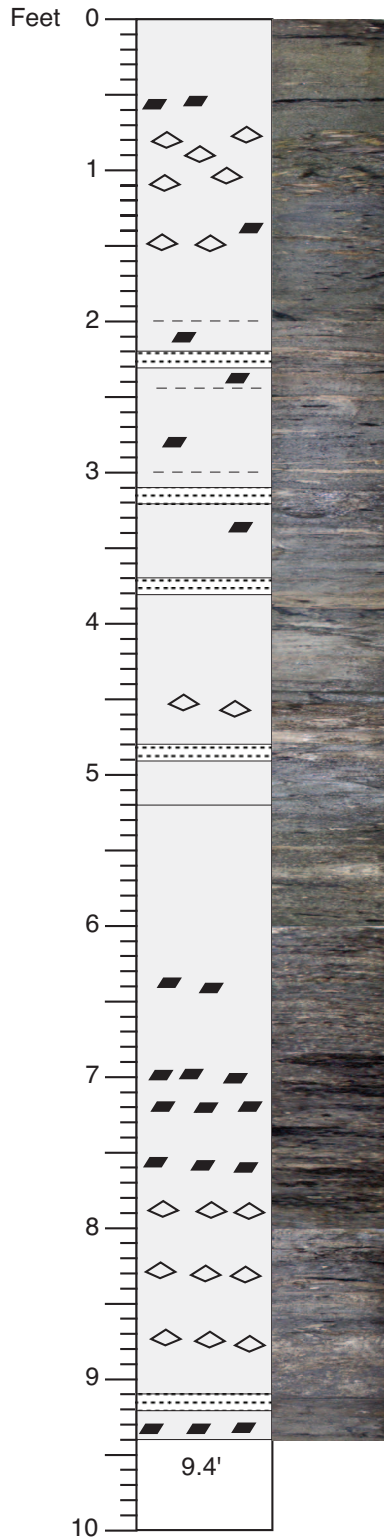
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; medium, lignitic, with lignite and clay cross beds; lignite is found in laminae and cross laminae, below 7.7 ft lignite is scattered throughout core; clay rip up at 2.0-2.4 ft; greenish tint but no glauconite seen between 2.4-3.4 ft

174AX SG
 Core #87
 Start depth: 720 ft
 Stop depth: 730 ft
 Recovery: 9.0 ft
 Date: 10/8/03
 Described by: SM/KGM

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE

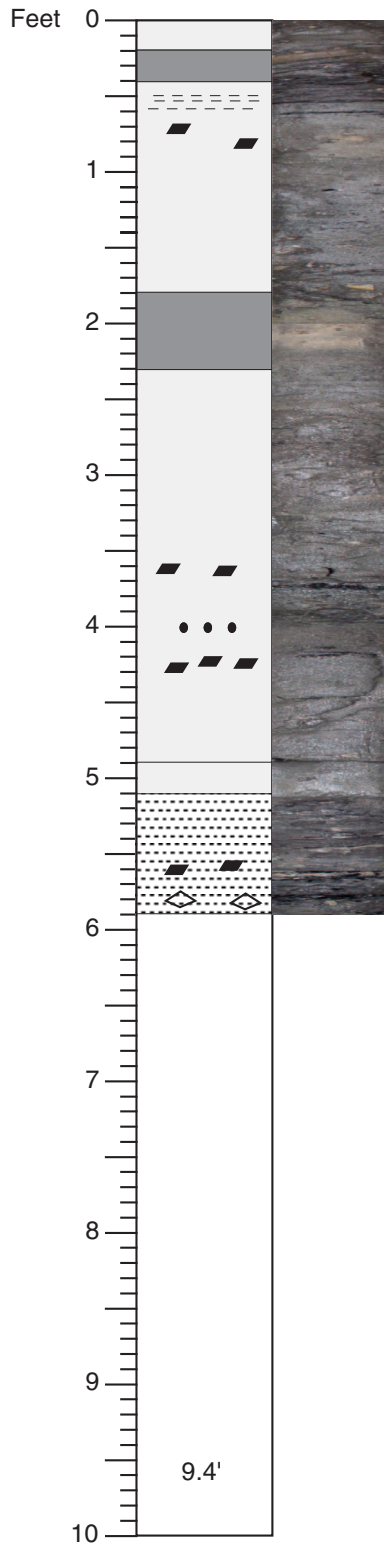


SAND; fine to coarse; lignitic, with clay laminations and angular lithic clast beds; clast bed with sand matrix; clasts up to 2 cm; clasts lithologically resemble the Passaic Formation shale

SAND; medium to coarse, poorly sorted, quartz, with clay matrix and lithic clasts, lignitic

174AX SG
 Core #88
 Start depth: 730 ft
 Stop depth: 740 ft
 Recovery: 9.4 ft
 Date: 10/8/03
 Described by: SM/KGM

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; fine to medium with clay lamination, lignite laminations and clay beds, indurated layers at 0.3-0.4, 1.85-2.3 ft

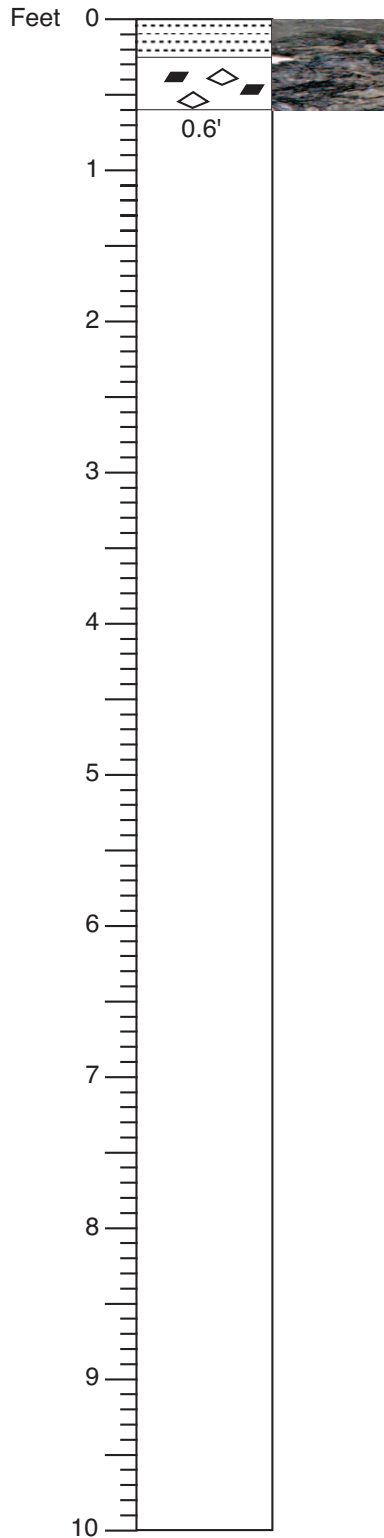
SAND; clean

CLAY; silty, with sand laminations, flaser bedding, clast laminations

Dark gray (2.5Y 4/1)

174AX SG
 Core #89
 Start depth: 740 ft
 Stop depth: 750 ft
 Recovery: 5.9 ft
 Date: 10/8/03
 Described by: SM/KGM

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE

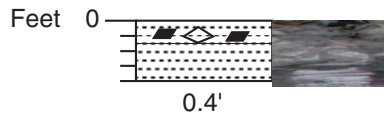


CLAY; mostly drilling slurry, slightly micaceous, some fine sand; gray (N3/)

Lignite chunks and concretions with rocks and sand in it; lignite may be part of a layer that fell apart

174AX SG
Core #90
Start depth: 750 ft
Stop depth: 760 ft
Recovery: 0.6 ft
Date: 10/9/03
Described by: JVB

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE

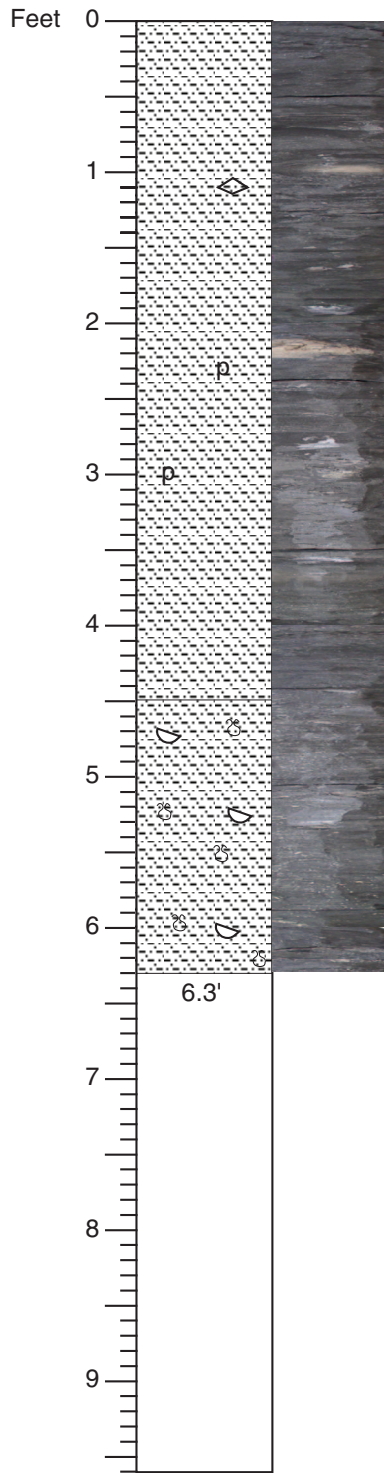


LIGNITE; chunks, and concretions in a clay matrix, concretions are sandy and contain lignite, clay matrix, may be a clay bed at base with chunks pushed in; some fine sand; trace glauconite, slightly micaceous; dark olive gray (5Y 3/2)

CLAY; slightly silty, slightly micaceous, much darker than above, more organics; very dark gray (5Y 3/1)

Core #91
Start depth: 760 ft
Stop depth: 760.4 ft
Recovery: 0.4 ft
Date: 10/9/03
Described by: JVB

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE

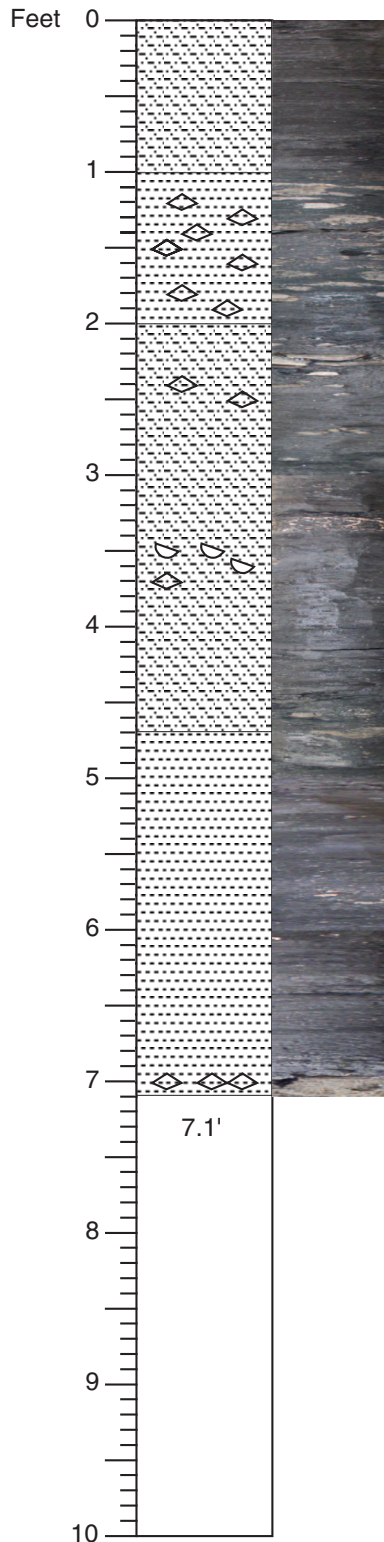


SILT; and interbedded silty clay; silt beds are thicker (to 5cms), clay beds to 1 cm; silts are very micaceous, slightly micaceous, foraminifers present, large pyrite chunks at 1.4, 2.4, and 3.0 ft; brownish clay concretion at 1.2-1.3 ft; very dark gray (N3/)

CLAY; silty, may be the same lithology as above but bioturbated together; abundant thin shell fragments, small bed of fragments at 5.9 ft; very occasional laminae of very fine sand (<1 mm); very dark gray (N3/)

174AX SG
 Core #92
 Start depth: 760.4 ft
 Stop depth: 770 ft
 Recovery: 6.3 ft
 Date: 10/9/03
 Described by: JVB

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SILT; clayey, micaceous, ?laminated; common thin shells; dark gray (N3/)

CLAY; silty, ~5% very fine to fine glauconite, numerous 1-3 cm concretions; fewer shells; heavily bioturbated; light gray (5Y 7/2)

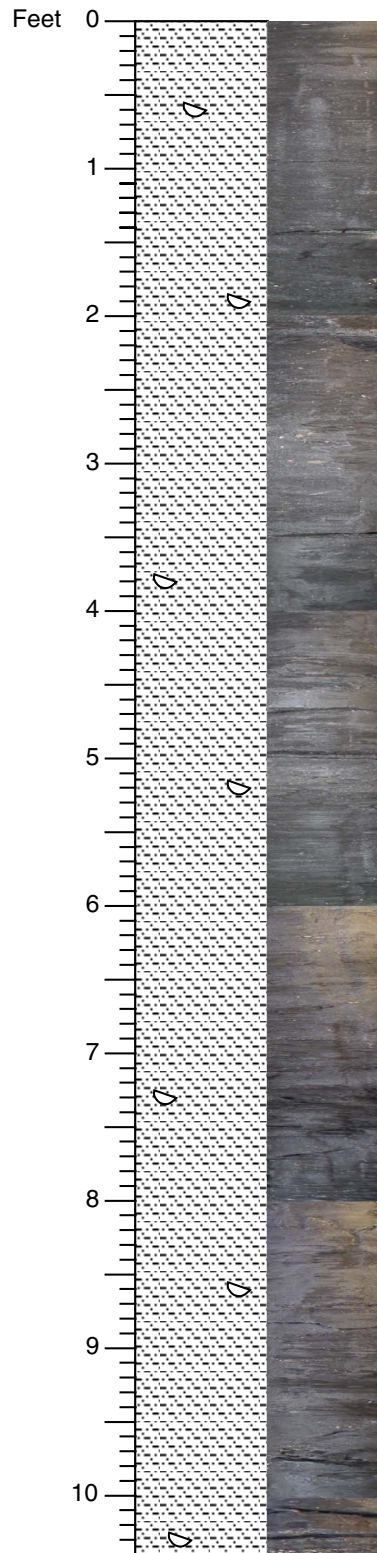
?Contact

SILT; and interlaminated CLAY; bioturbated together, laminae still visible; glauconite abundant on top but gets less down section, large (3-5 cm) concretions, fewer than above; shell ed at 3.4 ft; scattered pyrite

CLAY; silty, bioturbated, may be similar lithology as above but the sediments have been mixed together; shells more common, slightly micaceous; large concretions at base

174AX SG
 Core #94
 Start depth: 780 ft
 Stop depth: 790 ft
 Recovery: 7.1 ft
 Date: 10/9/03
 Described by: JVB

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE

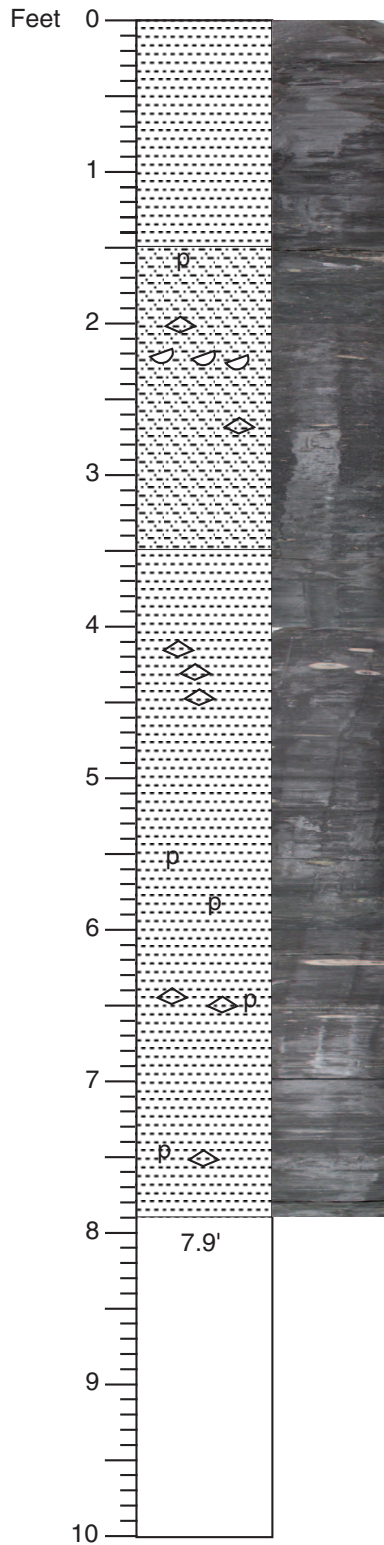


SILT, clayey; and interbedded CLAY; burrowed together, shelly, some iridescent material (?aragonite); rare pyrite and clay concretions; very dark gray (N3/)

174AX SG
Core #95
Start depth: 790 ft
Stop depth: 800 ft
Recovery: 10.4 ft
Date: 10/9/03
Described by: JVB

10.4'

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



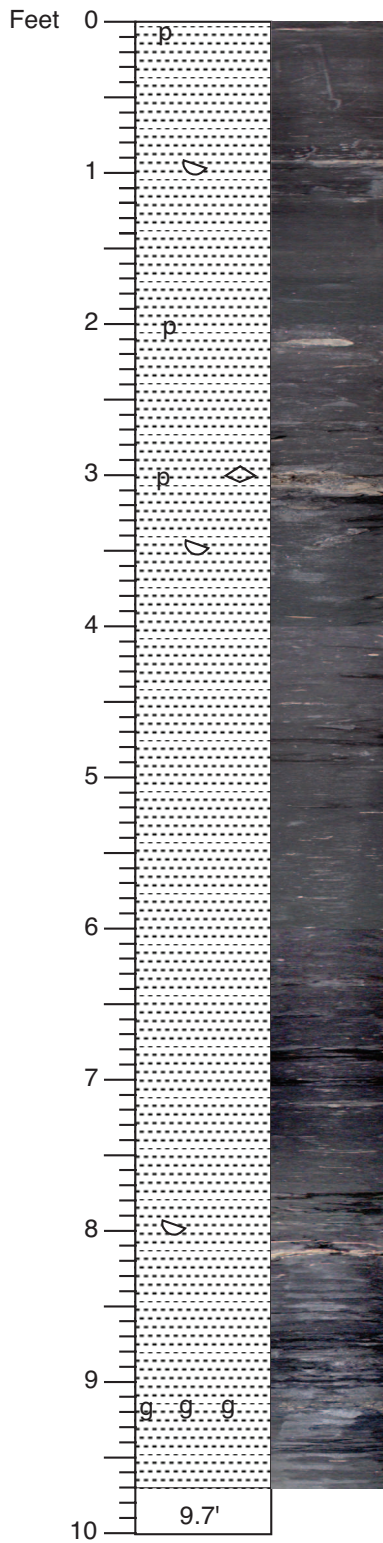
CLAY; slightly silty; laminated, few thin shells first appear at 1.2 ft

SILT, clayey; micaceous, lignitic; concretions at 2.7 and 3.3 ft; thin shells throughout, thicker than above, clayey; bioturbated, probably originally laminated but now mixed together

CLAY; little silt; lignitic silty layers at 5.75-5.85, 6.15-6.2, 6.5-6.6, concretions and pyrite at 4.2-4.2, 4.8, 5.2, 5.5, 5.8, 6.25, 6.6, and 7.5 ft

174AX SG
 Core #96
 Start depth: 800 ft
 Stop depth: 810 ft
 Recovery: 7.9 ft
 Date: 10/10/03
 Described by: JVB/DHM

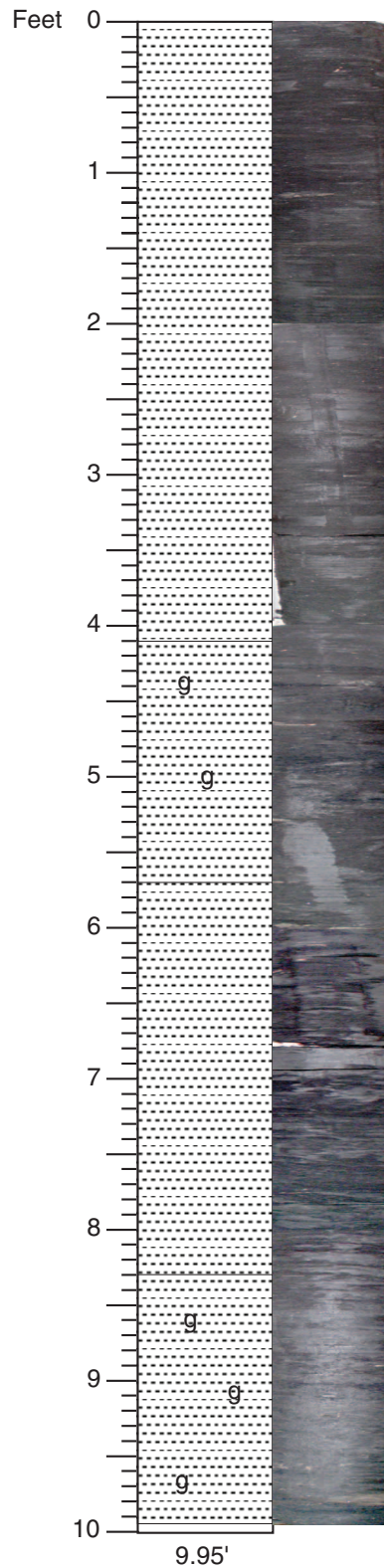
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; scattered thin shells, some iridescent, glauconite ~5% at 9-9.25 ft; black (N2.5/)

174AX SG
 Core #97
 Start depth: 810 ft
 Stop depth: 820 ft
 Recovery: 9.7 ft
 Date: 10/10/03
 Described by: JVB/DHM

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; rare scattered shells; slightly micaceous; pyrite nodule at 1.1 ft; glauconite starts to appear near bottom; black (N2.5/)

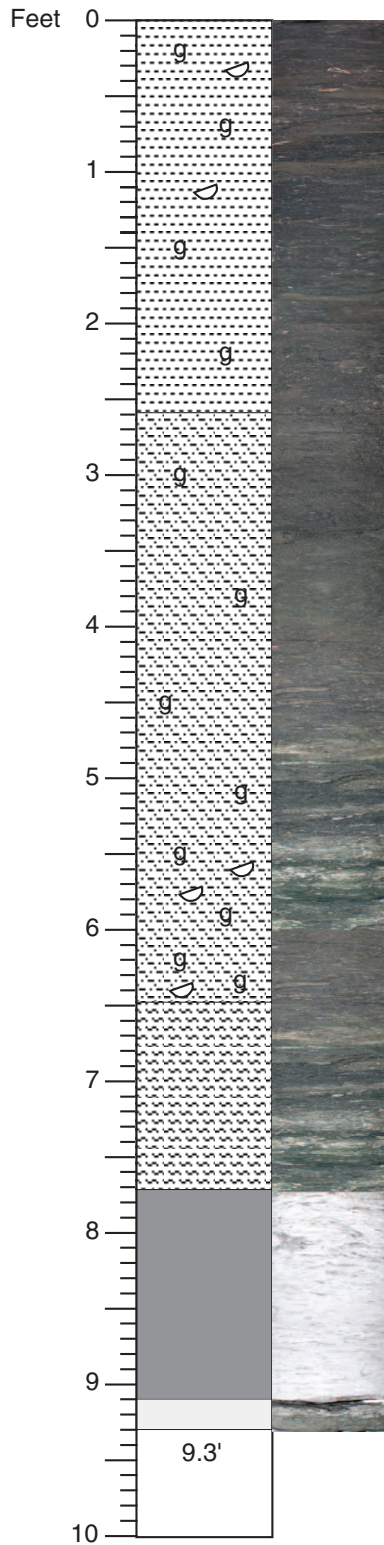
CLAY; glauconitic; horizontal glauconite filled and clay filled burrows

CLAY; as above but with no glauconite

174AX SG
 Core #98
 Start depth: 820 ft
 Stop depth: 830 ft
 Recovery: 9.95 ft
 Date: 10/10/03
 Described by: JVB/DHM

CLAY; glauconitic; coarser, more uniform

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; glauconitic, with brown clay laminations and burrows, shelly; glauconite up to 10%, ~5% in brown clay; dark olive gray (5Y 3/2)

SAND; glauconite-quartz, shelly, clayey, to sandy CLAY; very shelly 5.7-6.5 ft; glauconite increases down core; dark greenish gray (5GY 4/1)

174AX SG
 Core #99
 Start depth: 830 ft
 Stop depth: 840 ft
 Recovery: 9.3 ft
 Date: 10/11/03
 Described by: KGM/AH

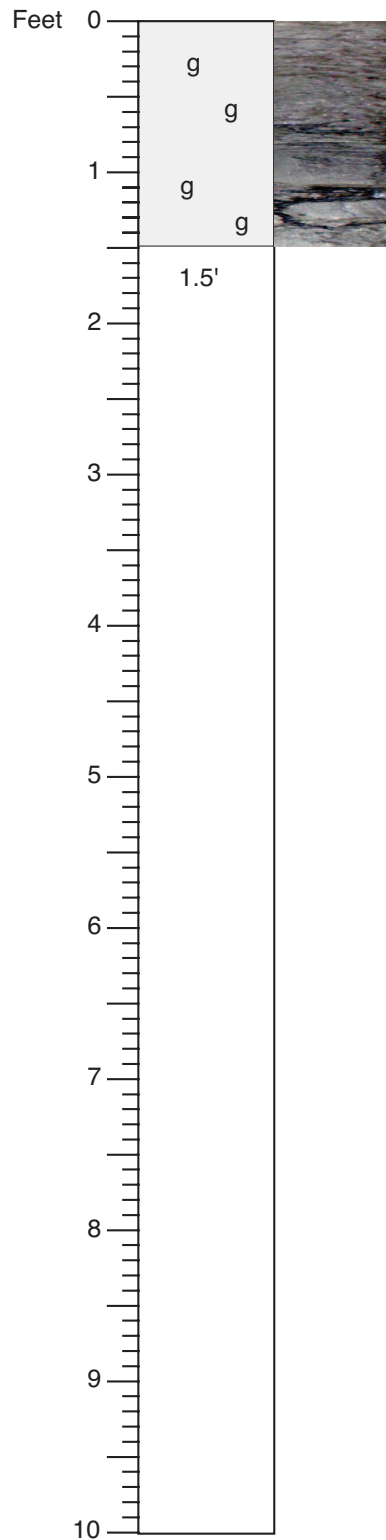
SAND; glauconite (40-50%), quartz

Sequence boundary at 837.7 ft

SANDSTONE; with scattered shells; light gray (N7/)

SAND; quartz; silty (not much clay); micaceous, slightly glauconitic

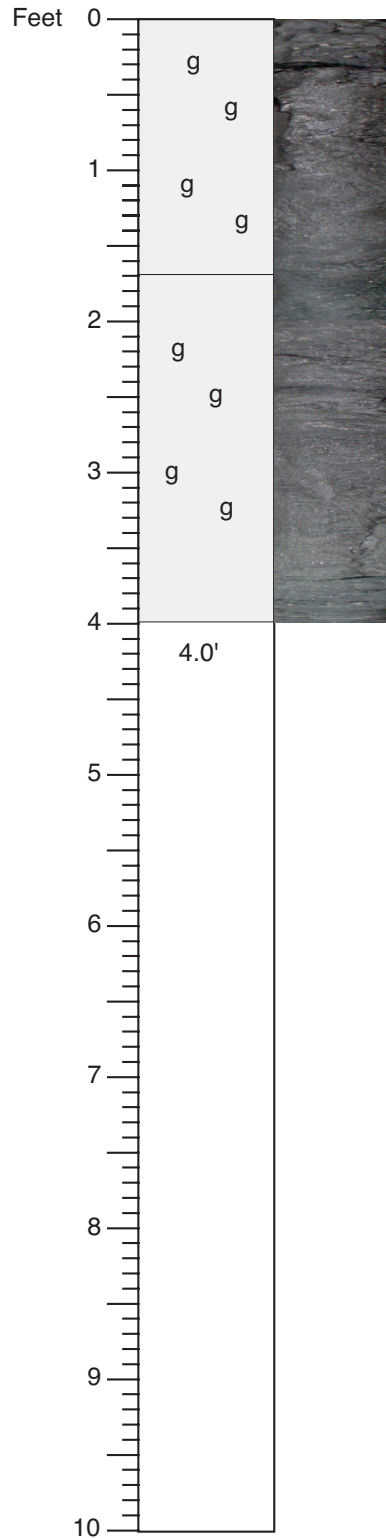
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; glauconite, quartz; silty, micaceous, some shells; dark greenish gray (5GY 4/1)

174AX SG
Core #100
Start depth: 840 ft
Stop depth: 850 ft
Recovery: 1.5 ft
Date: 10/11/03
Described by: ADH

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



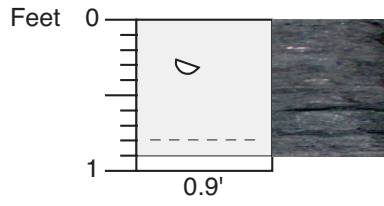
UNCERTAIN, may not be good core

SAND; fine; quartz; some glauconite; silty, clayey; micaceous; rare clay laminations; very dark gray (N3/)

Core #101
Start depth: 850 ft
Stop depth: 860 ft
Recovery: 4 ft
Date: 10/11/03
Described by: ADH

4.0'

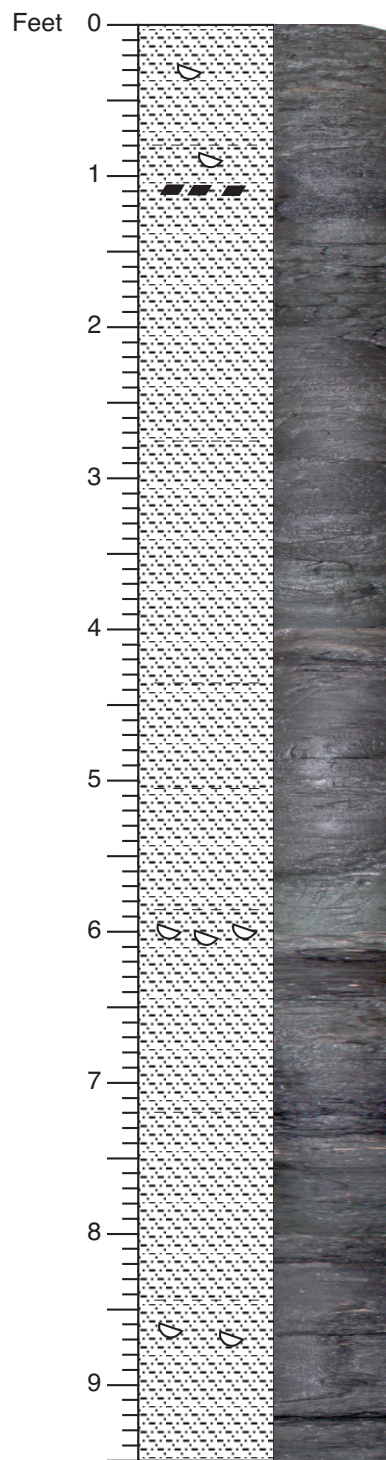
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; fine; micaceous (chlorite); shell at 0.3 ft; bioturbated, clay laminae at 0.87 ft; ?lower shoreface; very dark gray (N3/)

174AX SG
Core #102
Start depth: 860 ft
Stop depth: 861 ft
Recovery: 0.9 ft
Date: 10/12/03
Described by: JVB/SM

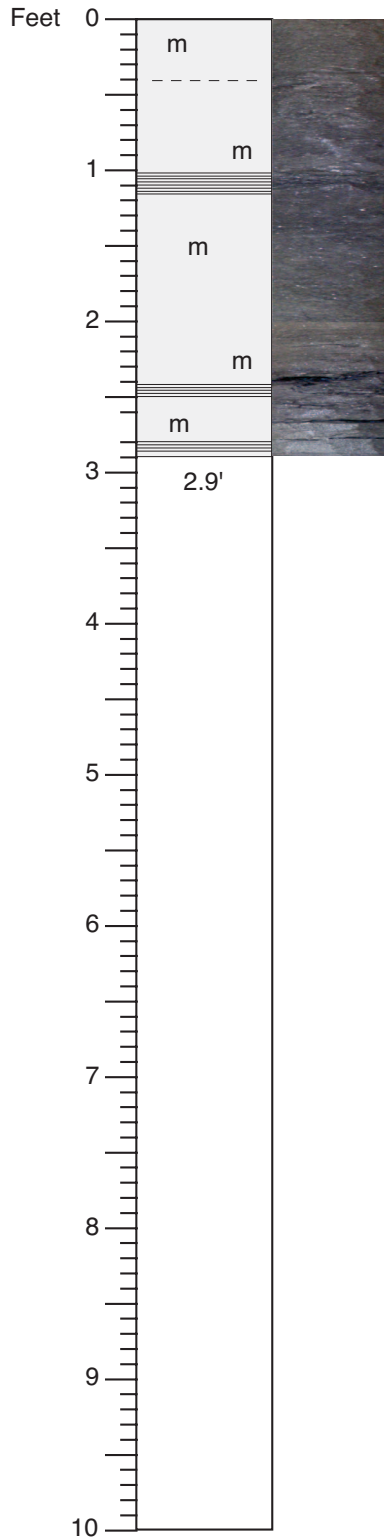
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; with interbedded SILT; in some places interlaminated; individual beds up to 0.2 ft thick; micaceous (chlorite); shells present and more common at bottom, shell bed at 6.0-6.1 ft, shell concentrations at 7.4, 8.4-8.5 ft lignitic laminations 1.1 ft; silts are more burrowed internally, silt: dark gray (N4/); clay: very dark gray (N3/)

174AX SG
 Core #103
 Start depth: 861 ft
 Stop depth: 870 ft
 Recovery: 9.5 ft
 Date: 10/12/03
 Described by: JVB/SM

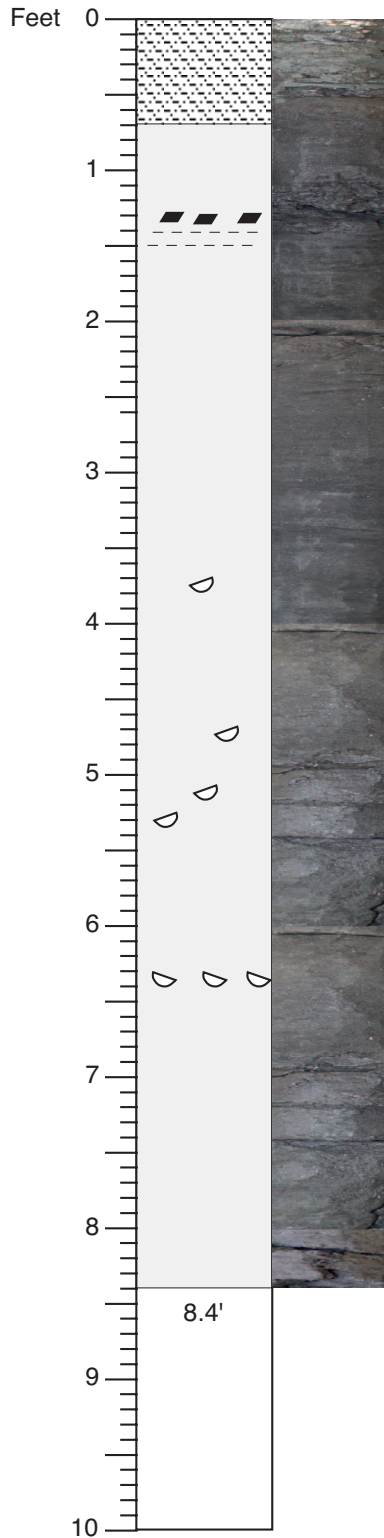
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SILT; fine, sandy, micaceous (chlorite), slightly shelly, slightly lignitic; 0.4 ft clay lamination (4-5 mm); finely laminated at 1.2, 2.4, and 2.9 ft; generally bioturbated with a few obvious burrows; silty very fine sand beds at 2.4-2.5 and 2.8-2.9 ft

174AX SG
 Core #104
 Start depth: 870 ft
 Stop depth: 880 ft
 Recovery: 2.9 ft
 Date: 10/12/03
 Described by: JVB/SM

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE

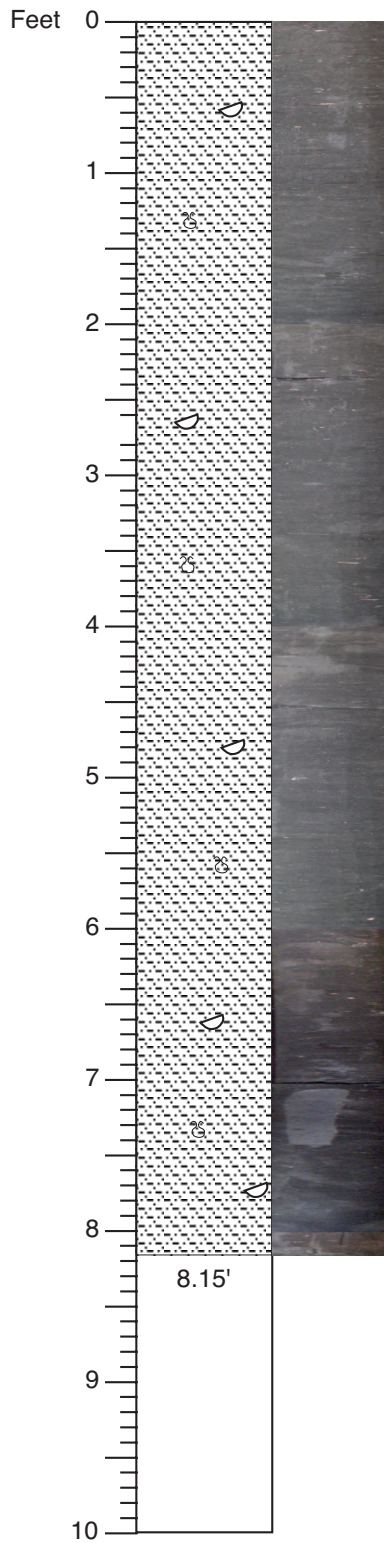


SILT; very fine sandy, micaceous; many shells, some aragonitic; cup coral (2-3 mm across); Note: this material is very gooey and may be intruded with drilling mud but it is lithologically similar to what was found in the last core; grayish green (5G 4/2)

SAND; silty; very micaceous (chlorite); slightly shelly throughout; slightly lignitic; heavily bioturbated; lignite layer at 1.2-1.4 ft; silty clay layer at 1.4-1.5 ft; shell concentration at 6.4 ft; very dark gray (N3/)

174AX SG
 Core #105
 Start depth: 880 ft
 Stop depth: 890 ft
 Recovery: 8.4 ft
 Date: 10/12/03
 Described by: JVB/SM

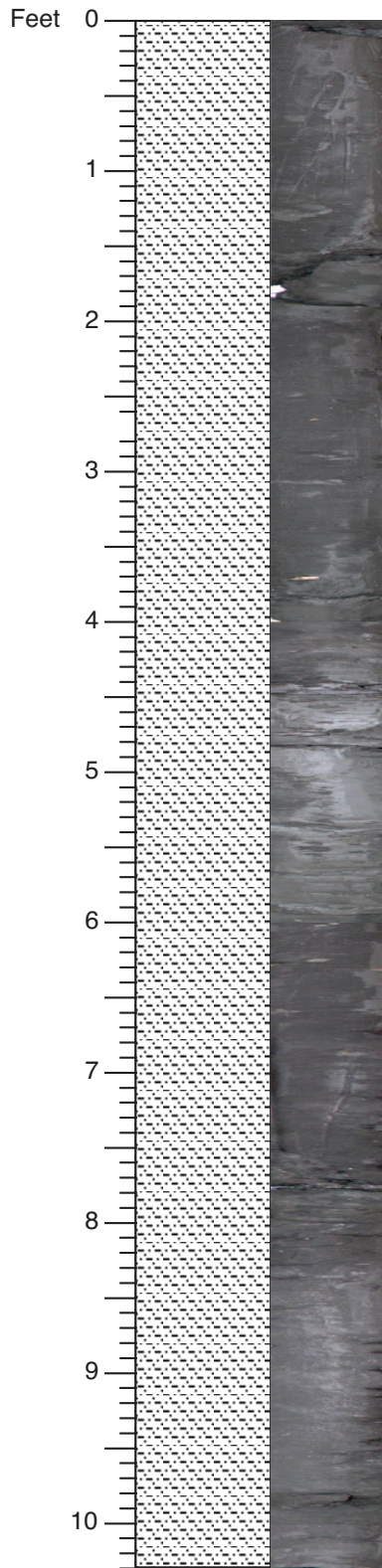
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SILT; very fine sand, clayey; slightly micaceous, thin shells throughout; two clay concretions at 5.0 ft; pyrite (5 mm) at 0.8 ft; rare laminations at top; mostly burrowed; dark gray (N4/1)

174AX SG
Core #106
Start depth: 890 ft
Stop depth: 900 ft
Recovery: 8.15 ft
Date: 10/12/03
Described by: JVB

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE

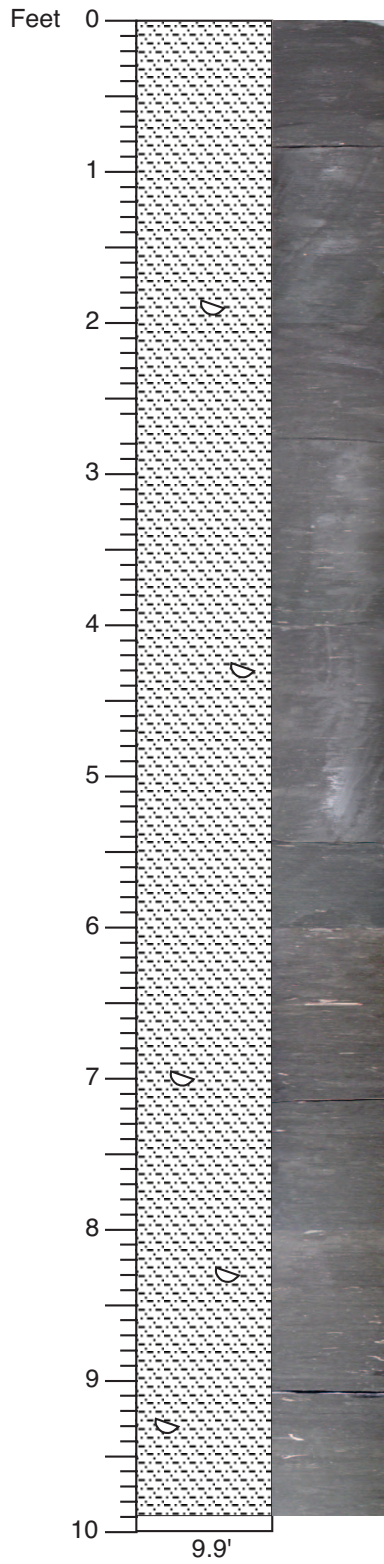


CLAY; silty to silty CLAY; very slightly shelly throughout; appears laminated at base; more bioturbated at top; change from more bioturbated to more laminated is ~4.5 ft; rare pyrite; dark gray (N4/1)

174AX SG
Core #107
Start depth: 900 ft
Stop depth: 910 ft
Recovery: 10.3 ft
Date: 10/12/03
Described by: JVB

10.3'

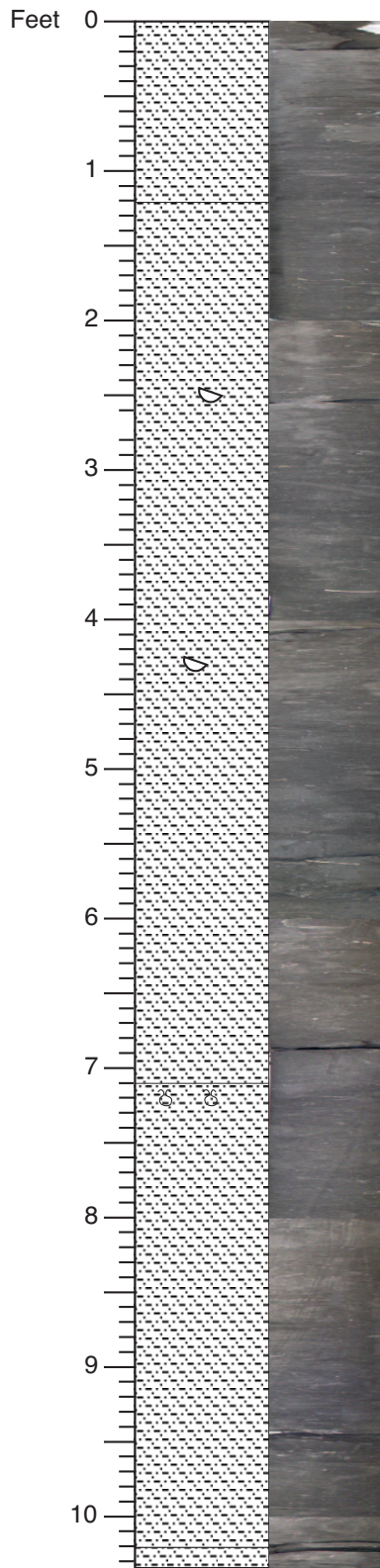
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; silty, finely micaceous, some thin shells; laminated; very dark gray (2.5Y 3/1)

174AX SG
Core #108
Start depth: 910 ft
Stop depth: 920 ft
Recovery: 9.9 ft
Date: 10/13/03
Described by: KGM/PJS/DM

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SILT; with interlaminated micaceous CLAY

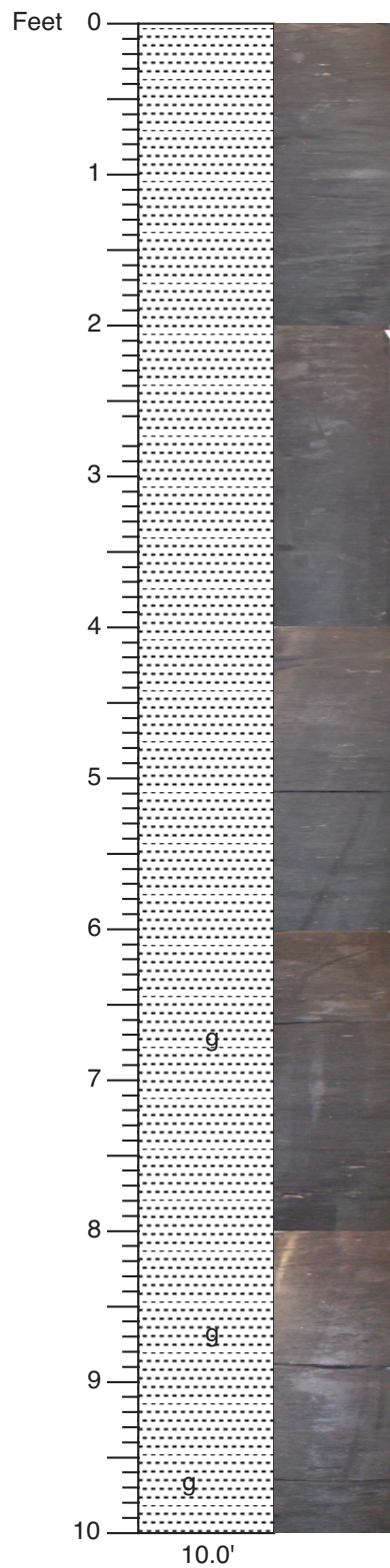
CLAY; silty; more massive and consistent lithology; some thin walled shells

174AX SG
Core #109
Start depth: 920 ft
Stop depth: 930 ft
Recovery: 10.35 ft
Date: 10/13/03
Described by: DM/PJS

CLAY; silty; micaceous; burrowed just below contact; occasional thin walled shells

CLAY; less micaceous, 1-2% very fine ?glaucinite
10.35'

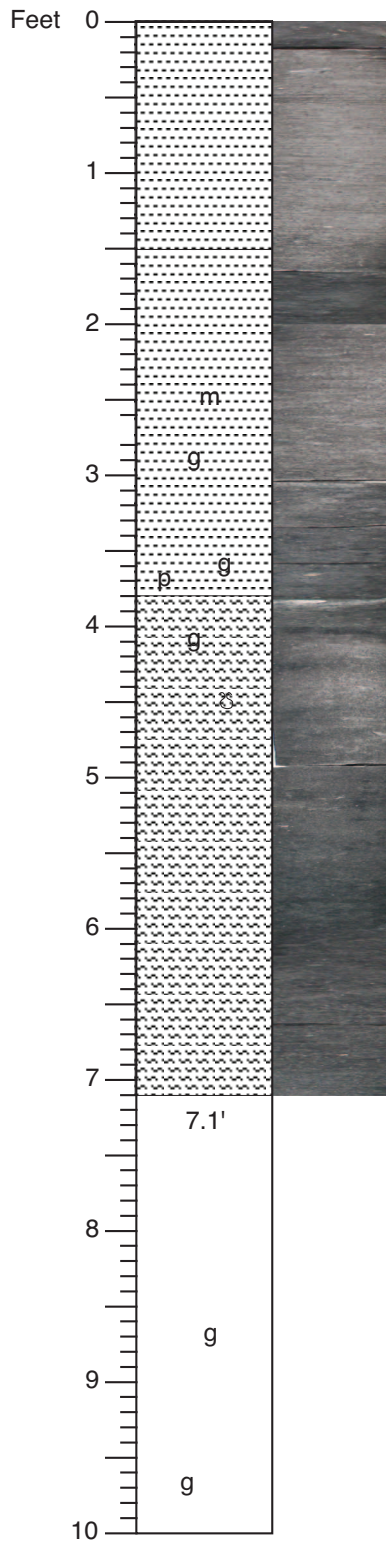
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; slightly silty, slightly micaceous; glauconite increases from a trace at top 5% at the bottom; trace thin walled shells; laminated and burrowed; very dark gray (2.5Y 3/1)

174AX SG
Core #110
Start depth: 930 ft
Stop depth: 940 ft
Recovery: 10 ft
Date: 10/13/03
Described by: PJS/DM

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



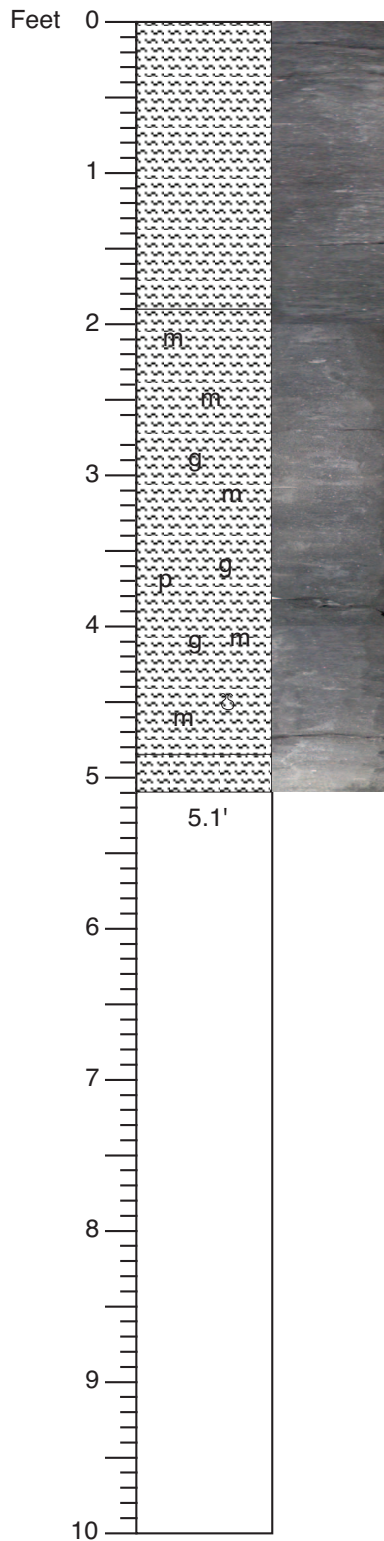
CLAY; slightly silty; micaceous, ~10% glauconite; glauconite is concentrated in burrows; 3/4 of the glauconite is black, 1/4 is lighter green; slightly shelly, foraminifers present; no visible quartz; dark greenish gray (Gley 5GY 4/1)

CLAY; micaceous, very slightly quartzose; glauconite content increases down core; glauconite is still concentrated in burrows (up to 50%); burrows to 3-4 mm diameter; this is essentially a clay facies with glauconite filled burrows

SAND; glauconite; very muddy; rare quartz; glauconite content is roughly equal to the mud content; with clay filled burrows; burrows range from 3-10 mm diameter, some are clay lined with a glauconitic core; less shells and less mica than above, many foraminifers; very dark gray (Gley N3/)

174AX SG
 Core #111
 Start depth: 940 ft
 Stop depth: 950 ft
 Recovery: 7.1 ft
 Date: 10/16/03
 Described by: JVB/PPMcL

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



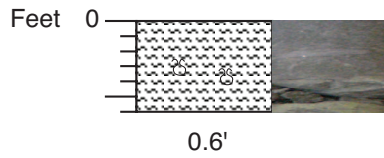
SAND; glauconite, clayey, slightly micaceous; glauconite content is ~60%; minor (5% or less) fine to very fine quartz; rare shell fragments; structureless, no obvious burrows; very dark gray (Gley N3/) to black

SAND; glauconite, muddy; differs from above because: more mica; more silt; firmer (probably because of the silt); more quartz (very fine, 15-25% of the sand); light green glauconite; foraminifers present; scattered shells; many clay-lined/clay-filled burrows; very dark gray (5Y 3/1); chocolate colored

SAND; hard; clayier than above; slightly micaceous, slightly shelly; glauconite grains have a limonite rind (i.e., they appear weathered; less mica and less quartz than above; less silt and more clay

174AX SG
 Core #112
 Start depth: 950 ft
 Stop depth: 960 ft
 Recovery: 5.1 ft
 Date: 10/16/03
 Described by: JVB/PPMcL

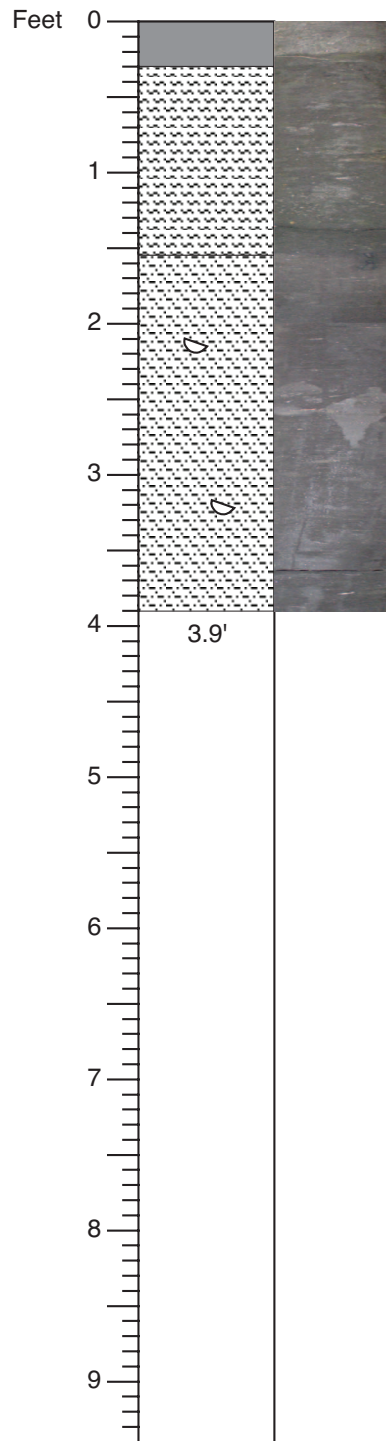
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; glauconite (half yellowish green; half greenish black); clayey and silty; semi-indurated; 10-15% quartz; large clay filled burrows; slightly micaceous, scattered shell fragments; some blebs of limonite (may contain pyrite); pebble (?concretion) on top of core may not be in place; color ranges from very dark gray (5Y 3/1) to olive (5Y 5/6)

174AX SG
Core #113
Start depth: 960 ft
Stop depth: 960.6 ft
Recovery: 0.6 ft
Date: 10/16/03
Described by: JVB/PPMcL

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SANDSTONE; glauconite, mostly yellow-green, some black, rare shells; olive (5Y 4/4)

SAND; glauconite, mostly yellow green; more clay than above and not indurated; some quartz; some concretions, rare shells; olive (5Y 4/4)

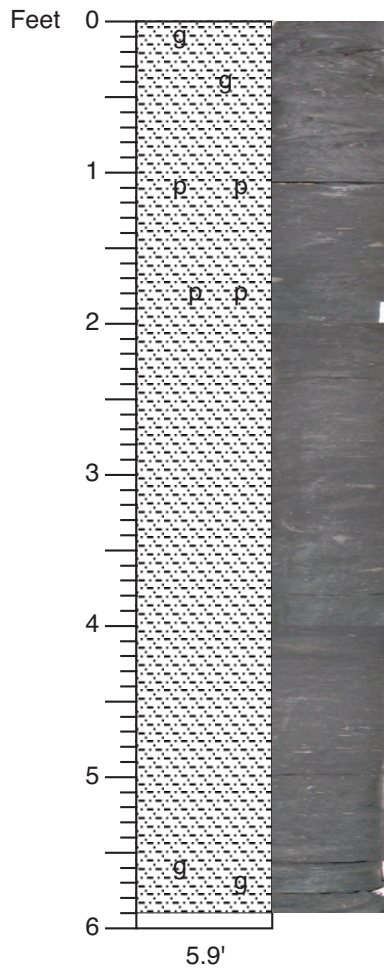
Contact; abrupt/burrowed

SILT; abundant clay and sand; quartz, minor glauconite; micaceous, some thin shells; burrowed; very dark gray (5Y 3/1)

174AX SG
 Core #114
 Start depth: 960.6 ft
 Stop depth: 970 ft
 Recovery: 3.9 ft
 Date: 10/16/03
 Described by: JVB

Core 115 (970-974 ft) NO RECOVERY

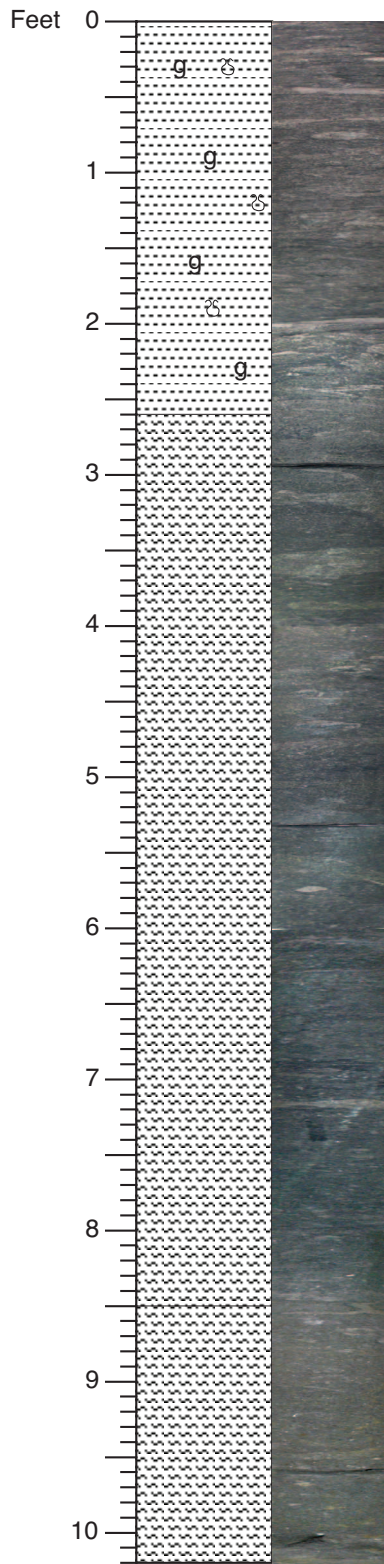
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SILT; clayey to silty CLAY; dispersed shell fragments; micaceous, some pyrite nodules; glauconite is 25% between 974-975 and 979-980 ft, glauconite is 2-3% in the rest of the core; very dark gray (N3/)

174AX SG
Core #116
Start depth: 974 ft
Stop depth: 980 ft
Recovery: 5.9 ft
Date: 10/17/03
Described by: DK/AH/PJS

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; glauconitic, mostly weathered (limonitic) glauconite; silty, very bioturbated with clay lined burrows; some sections contain rip-up clasts; very dark gray (10YR 3/1)

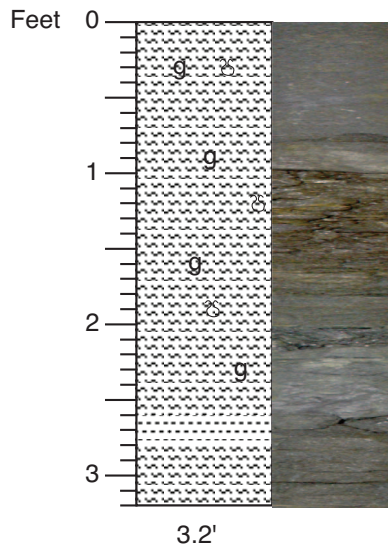
SAND; glauconite, mostly unweathered; dark greenish gray (5GY 4/1)

174AX SG
 Core #117
 Start depth: 980 ft
 Stop depth: 990 ft
 Recovery: 10.2 ft
 Date: 10/17/03
 Described by: PJS/DK/AH/RD

SAND; glauconite; weathered, brown clay matrix; dark yellowish brown (10YR 4/6)

10.2'

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE

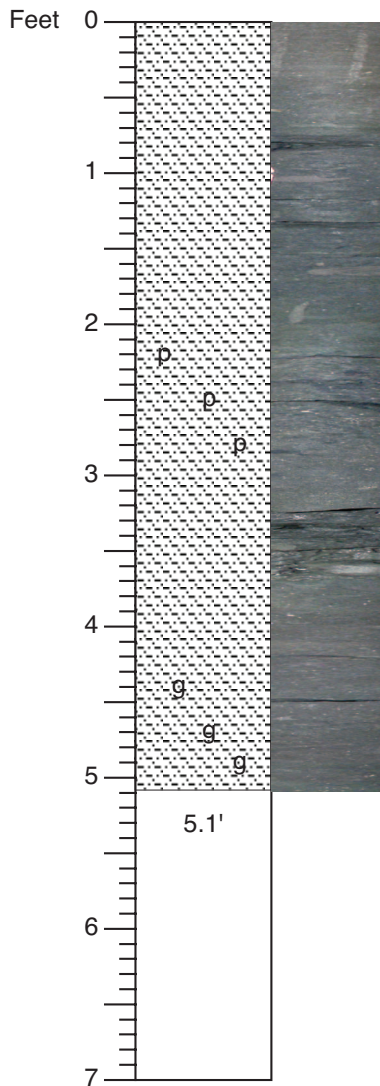


SAND; semi-indurated to indurated, very fine, silty, glauconite (two colors); clay lens at 1-1.1 and 2.6-2.75 ft; occasional very fine shell hash; browner colored fracture zone at 1.1-1.6 ft

SAND; very fine, glauconitic (one colored, lighter green); very dark gray (N3/)

174AX SG
Core #118
Start depth: 990 ft
Stop depth: 993 ft
Recovery: 3.2 ft
Date: 10/17/03
Described by: PJS/DK/AH

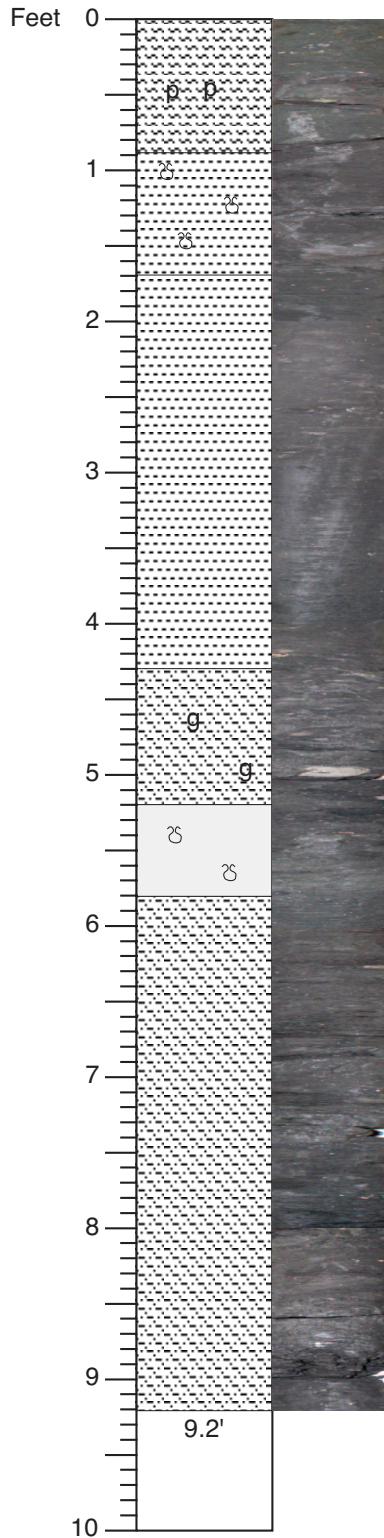
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SILT; indurated to semi-indurated, very fine sandy, glauconitic; grading down core to CLAY, silty; occasional shell fragments, some pyrite zones, trace of mica, large horizontal clay filled burrows, two colored glauconite interbedded with clayey glauconite sand; dark olive gray (5Y 3/2)

174AX SG
Core #119
Start depth: 993 ft
Stop depth: 1000 ft
Recovery: 5.1 ft
Date: 10/17/03
Described by: PJS/DK/AH

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; glauconite, mostly weathered to limonite, scattered shells, scattered pyrite, clayey, near the bottom clay from below is worked into the glauconite sand above; dark greenish gray (5GY 4/1)

CLAY; slightly micaceous, burrowed

CLAY; laminated; shelly, micaceous, glauconite is found at 3.3 ft and increases down core

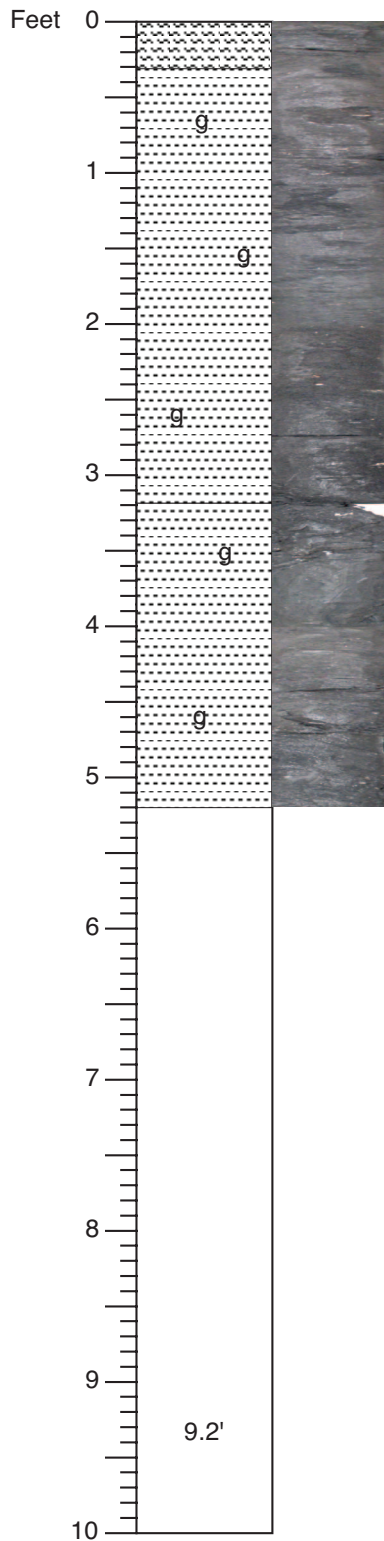
SAND; clayey, very fine quartz and some glauconite; possibly some lignite, micaceous, small concretions at base

SAND; burrowed, looks like clasts mixed together, silty micaceous

CLAY and interbedded SAND; silty clay, micaceous (chlorite); lignitic, common laminations; a few thin shells

174AX SG
 Core #120
 Start depth: 1000 ft
 Stop depth: 1010 ft
 Recovery: 9.2 ft
 Date: 10/18/03
 Described by: ADH/JVB

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



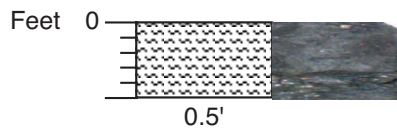
SAND; glauconite, clayey; slightly quartzose, fine; slightly micaceous

CLAY; with glauconite sand grading to glauconite SAND; slightly very fine quartzose, micaceous, large glauconite filled burrows; top : dark greenish gray (5GY 4/1), bottom: very dark gray (7.5YR 3/1)

CLAY; soft, sticky, slightly glauconitic and quartzose at the base

174AX SG
 Core #121
 Start depth: 1010 ft
 Stop depth: 1020 ft
 Recovery: 5.2 ft
 Date: 10/18/03
 Described by: ADH/JVB

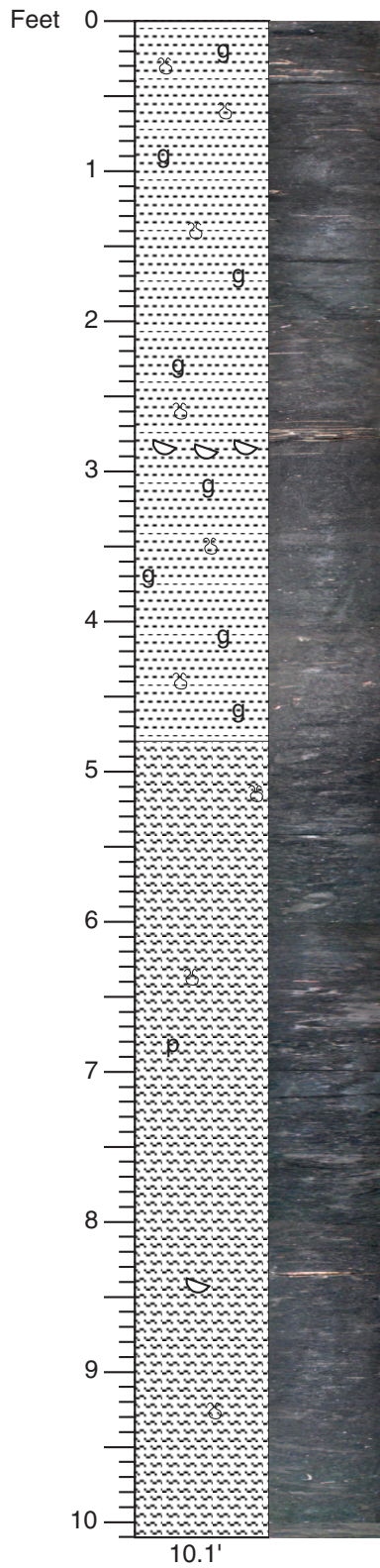
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; glauconite; silty, slightly micaceous, some shells

174AX SG
Core #121A
Start depth: 1015.2 ft
Stop depth: 1015.7 ft
Recovery: 0.5 ft
Date: 10/18/03
Described by: ADH/JVB

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



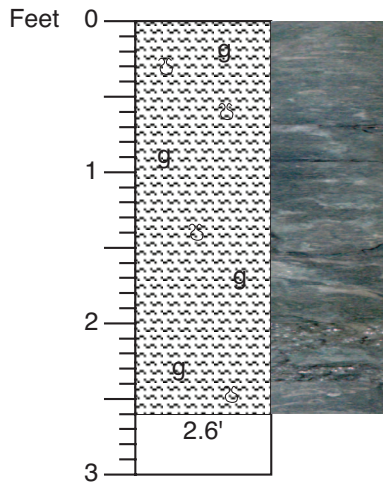
CLAY; with glauconite sand; heavily burrowed, large shells, scattered pyrite; *Inoceramus* shells are common, micaceous; very dark gray (N3/)

Grades down to

SAND; glauconite; heavily burrowed, large clay filled and clay lined burrows, scattered pyrite; slightly micaceous; scattered shells, not as many as above, core is harder at the base

174AX SG
 Core #122
 Start depth: 1020 ft
 Stop depth: 1030 ft
 Recovery: 10.1 ft
 Date: 10/18/03
 Described by: ADH/JVB

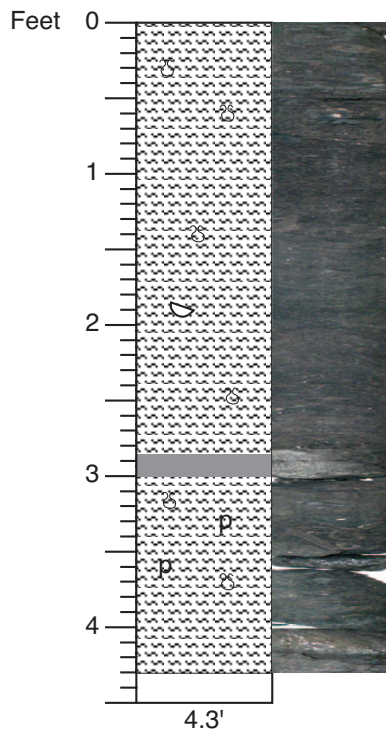
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; clayey, slightly micaceous; heavily burrowed, large clay filled and clay lined burrows; less pyrite than above; no shells visible; less mica than above; grayish green (5G 4/2)

174AX SG
Core #123
Start depth: 1030 ft
Stop depth: 1033 ft
Recovery: 2.6 ft
Date: 10/18/03
Described by: ADH/JVB

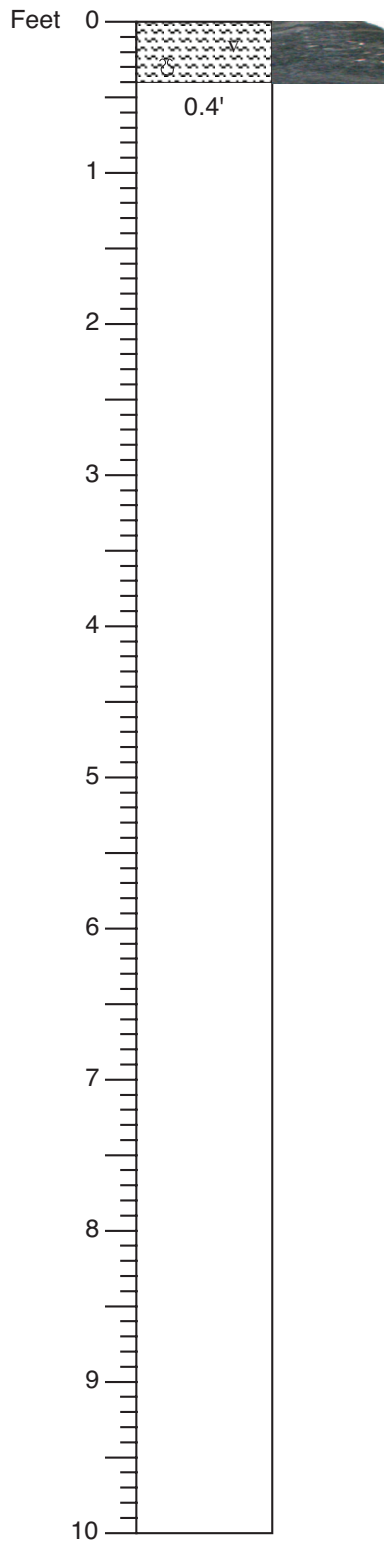
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; glauconite (>70%), clayey; slightly quartzose, slightly micaceous, pyrite present, few shells, heavily burrowed, numerous clay filled and clay lined burrows, indurated zone at 2.85-3.0 ft; large pyrite chunks below the indurated layer; black, (10YR 2/1)

174AX SG
Core #124
Start depth: 1033 ft
Stop depth: 1037.5 ft
Recovery: 4.3 ft
Date: 10/18/03
Described by: JVB/ADH

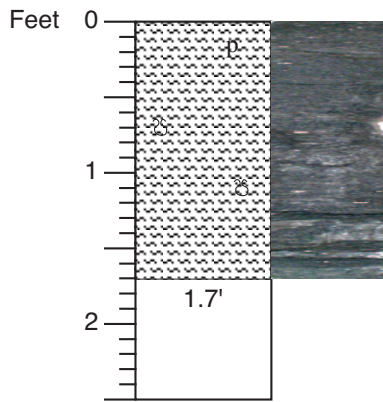
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; glauconite; very muddy; micaceous, 1-2 cm shell fragments; burrows up to 1 cm in diameter, all are clay lined and either sand or clay filled

174AX SG
Core #125
Start depth: 1037.5 ft
Stop depth: 1047.5 ft
Recovery: 0.4 ft
Date: 10/19/03
Described by: PPMcL/MEK

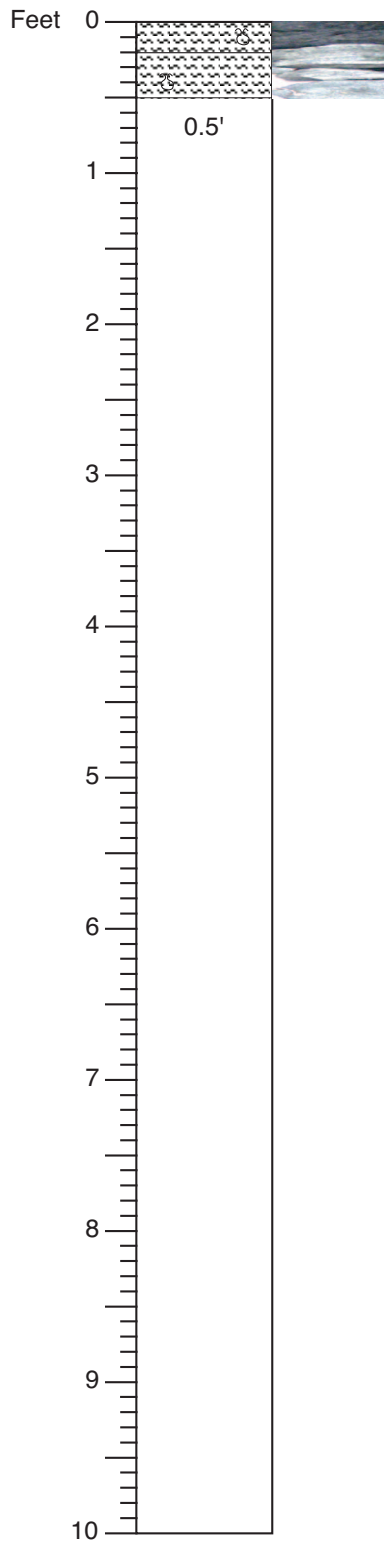
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; glauconite, very muddy, micaceous clay lined burrows filled with sand or clay, faint bedding traces, pyrite at 0.8 and 1.5-1.7 ft; more clay at 0.6-1.0 ft; 1 large burrow (2 cm diameter) with micaceous clay fill at 1.3-1.4 ft; shell fragments

174AX SG
Core #126
Start depth: 1047.5 ft
Stop depth: 1050 ft
Recovery: 1.7 ft
Date: 10/19/03
Described by: PPMcL/MEK

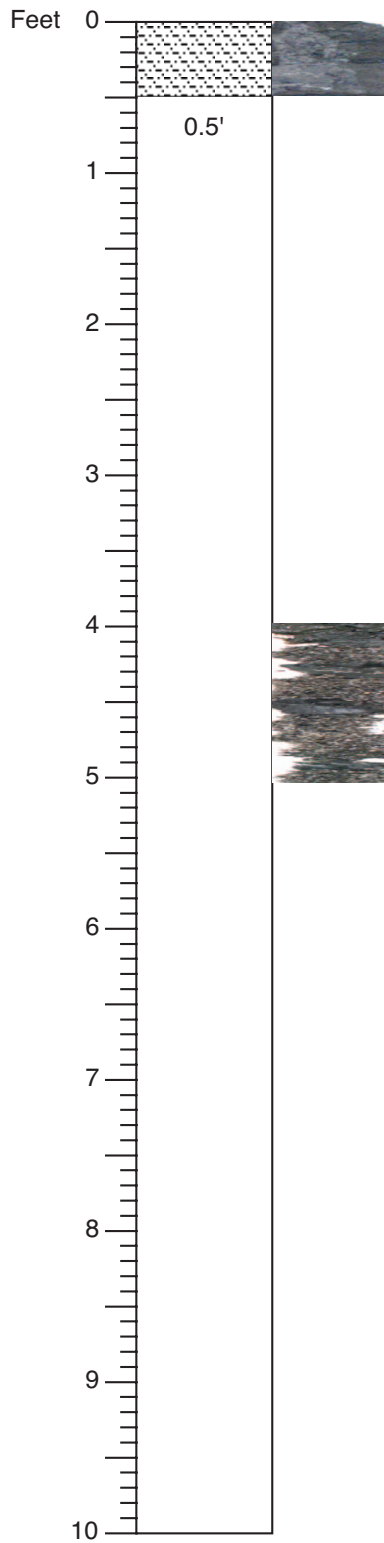
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; glauconite, clayey, micaceous, burrowed, similar to the lithology in core 126
SAND; glauconite, indurated, muddy, with clay lined burrows, mica, more and larger shells, some glauconite is weathered to limonite, foraminifers present

174AX SG
Core #127
Start depth: 1050 ft
Stop depth: 1060 ft
Recovery: 0.5 ft
Date: 10/19/03
Described by: PPMcL/MEK

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE

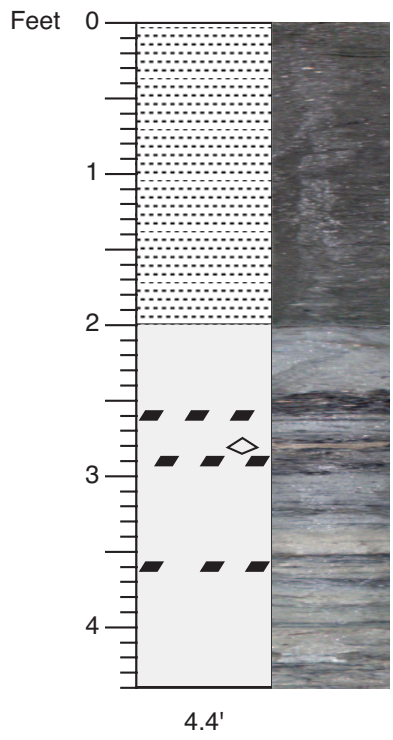


SILT; very micaceous; scattered small shells, minor amount of very fine glauconite; homogenous, no visible burrows, very dark gray (Gley N3/) to black (N2.5/)

174AX SG
Core #128
Start depth: 1060 ft
Stop depth: 1070 ft
Recovery: 0.5 ft
Date: 10/21/03
Described by: PJS/AK

Note: redrilled part of 1060-1070 ft and recovered gravel

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE

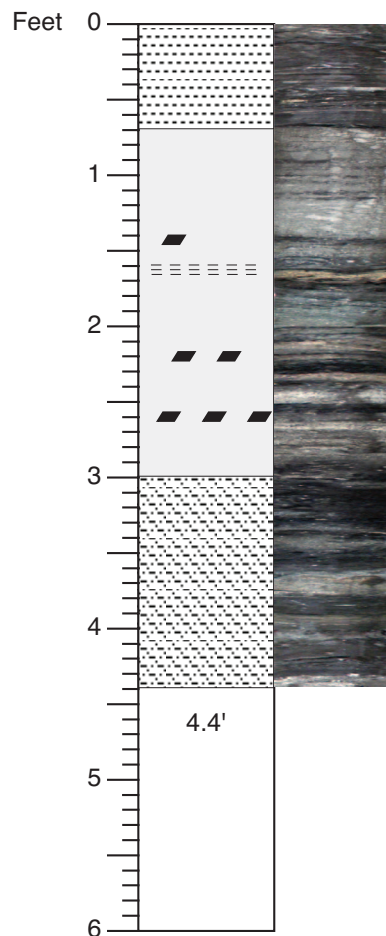


CLAY; silty, sandy, slightly micaceous, organic rich; laminated to thinly bedded (?deposited in standing water); black (N2.5/)

SAND; fine, some medium and very fine, very micaceous, interbedded and cross bedded, lignite and clay layers, lignite present throughout; clayier zones at 2.6 and 2.9 ft, clay clast at 2.9 ft; (?deposited in running water); gray (N 6/)

174AX SG
 Core #129
 Start depth: 1070 ft
 Stop depth: 1074 ft
 Recovery: 4.4 ft
 Date: 10/23/03
 Described by: JVB/PJS

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



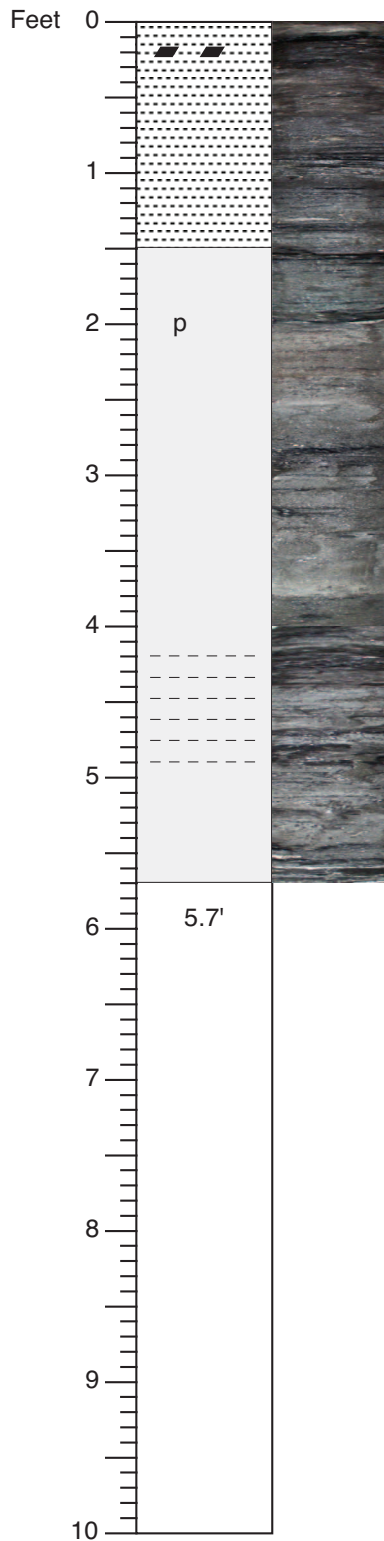
CLAY; laminated, some sand laminae to 4 mm; slightly silty, lignite laminae, pyrite present, lignite chunk at base

SAND; fine to medium, laminae of clay and lignite, 1 cm bed of medium sand with silt at 1.6 ft; gray (N6/) to black (N2.5/)

SAND and interbedded CLAY; sand is fine to medium, clay is very dark/organic rich

174AX SG
 Core #130
 Start depth: 1074 ft
 Stop depth: 1080 ft
 Recovery: 4.4 ft
 Date: 11/2/03
 Described by: JVB

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE

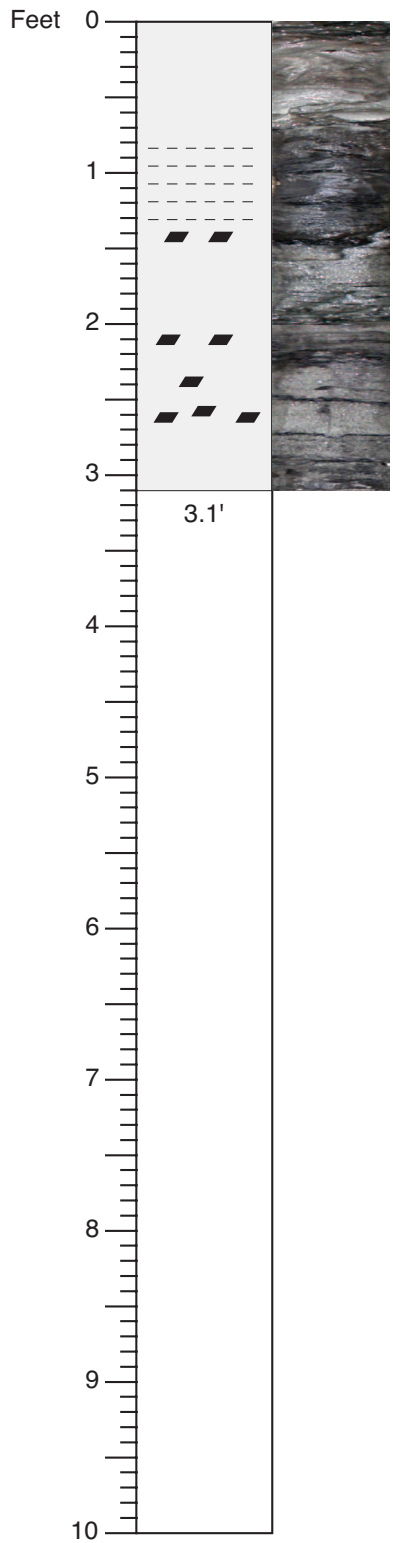


CLAY; and interlaminated SAND; clay dominates, lignite beds/laminae present, sand is fine to very fine, micaceous, many granules on outside of core

SAND, scattered clay and lignite laminae, fine to very fine, silty, hard silt plug at bottom; gray (N/6) to black (N/2.5)

174AX SG
 Core #131
 Start depth: 1080 ft
 Stop depth: 1090 ft
 Recovery: 5.7 ft
 Date: 11/2/03
 Described by: JVB

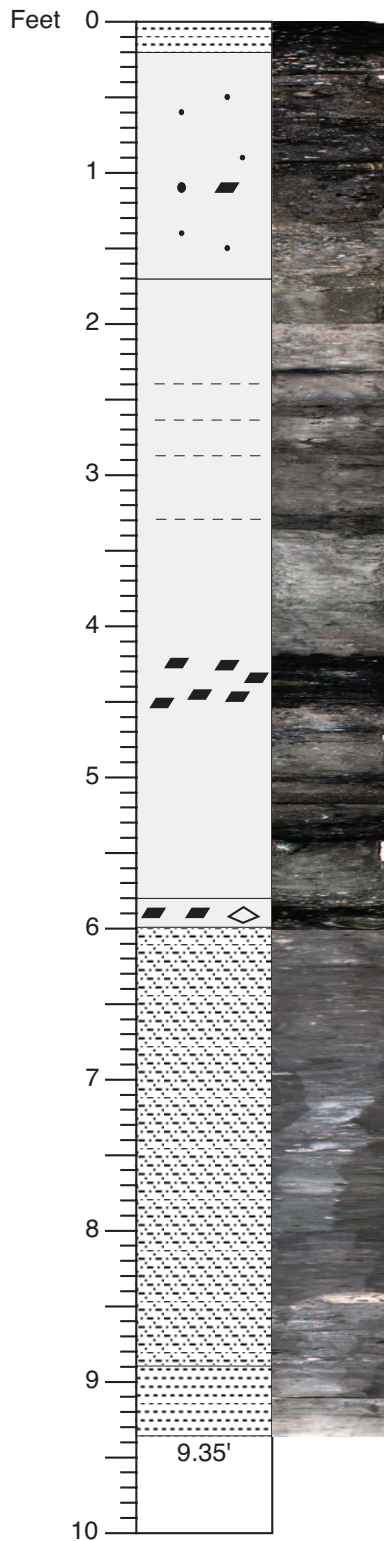
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; with interbedded clay and lignite, silty, micaceous, from 0-0.8 ft fine to very fine sand dominates; from 0.8-1.4 ft mostly clay with sand laminae; 1.4 ft to bottom, medium sand; gray (N/6) to black (N/2.5)

174AX SG
Core #132
Start depth: 1090 ft
Stop depth: 1100 ft
Recovery: 3.1 ft
Date: 11/2/03
Described by: JVB

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; very organic rich, mucky; sand on outside is contamination

SAND; coarse with abundant medium, very coarse and granules, rare small pebbles, poorly sorted, nodule at 0.5 ft, subangular, quartz, rare lignite (1.2 ft); rare mica; gray (Gley N6/)

SAND; medium, well sorted, quartz, slightly micaceous, rare clay laminae (2.35, 2.6, 2.9, 3.3 ft); 4.2-4.6 ft lignitic bed, laminated large pyrite nodule at 4.4 ft; there are hints that the bed contains laminae at 0.5 ft intervals; below 5 ft silt and very fine sand increases; the core becomes more micaceous and contains more fine lignite grains; gray (Gley N6/)

SAND; lignitic, 2 cm diameter nodule (non carbonate)

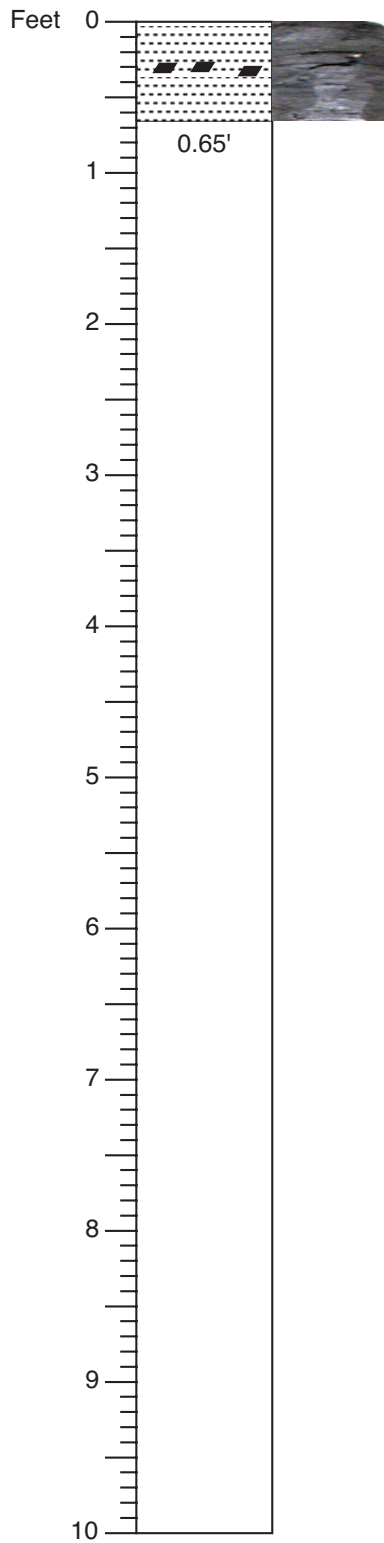
CLAY; sandy on top, more laminated on top and more mixed together at bottom; sand is interlaminated (a few are >1 cm), maybe burrowed; sand is very fine, clay is sandy; some fine sand at base, very dark gray (2.5Y 3/1)

174AX SG
 Core #133
 Start depth: 1100 ft
 Stop depth: 1110 ft
 Recovery: 9.35 ft
 Date: 11/3/03
 Described by: JVB

Sharp contact

CLAY; lightly mottled (but not soils), slightly sandy/silty

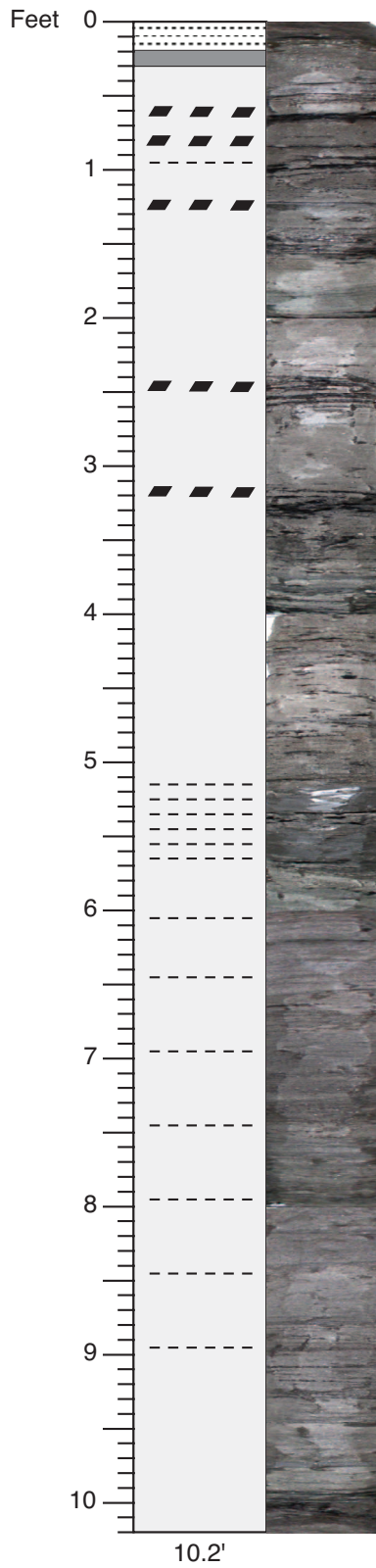
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; with fine to very fine sand; has a mottled (but not soils) appearance, slightly micaceous, lignite chunks at 0.3 ft; very dark gray (5Y 3/1)

174AX SG
Core #134
Start depth: 1110 ft
Stop depth: 1120 ft
Recovery: 0.65 ft
Date: 11/3/03
Described by: JVB

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



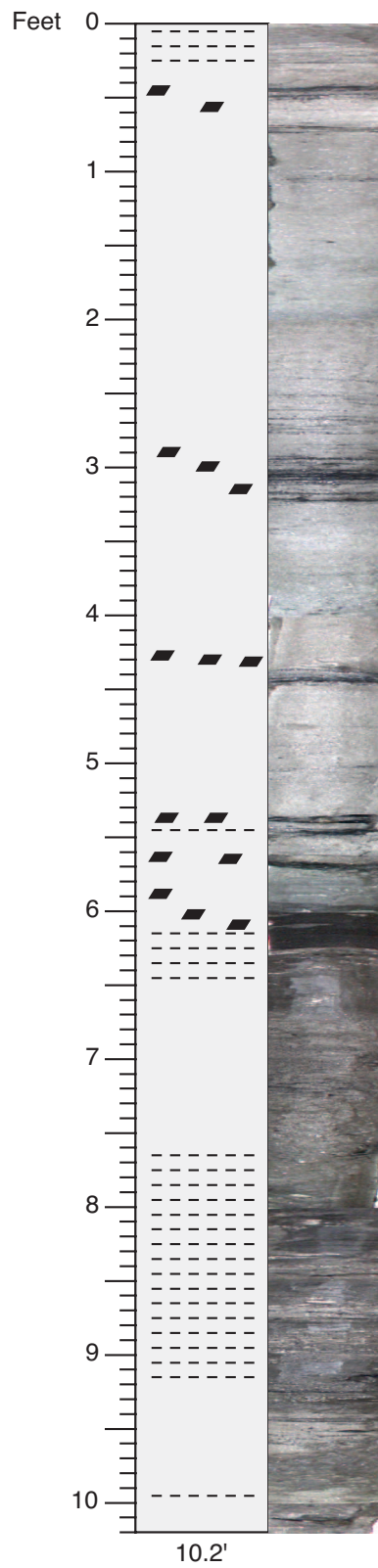
CLAY; with interbedded sand mixed in; the mixture of sand and clay gives a mottled appearance

SANDSTONE; similar to the sand below but indurated

SAND; medium; moderate sorting, subangular/subrounded; some fine to very fine to silt; quartz; abundant clayey, organic rich lignitic laminae; lignite laminae are rare below 5.6 ft; a few thin lignitic laminae are present at the bottom; clay laminae (to 0.5 cm) are rare above 5.6 ft but are abundant below 5.6 ft; clay beds are mixed with sand beds between 5.1-5.6 ft; gray (Gley N6/)

174AX SG
 Core #135
 Start depth: 1120 ft
 Stop depth: 1130 ft
 Recovery: 10.2 ft
 Date: 11/3/03
 Described by: JVB

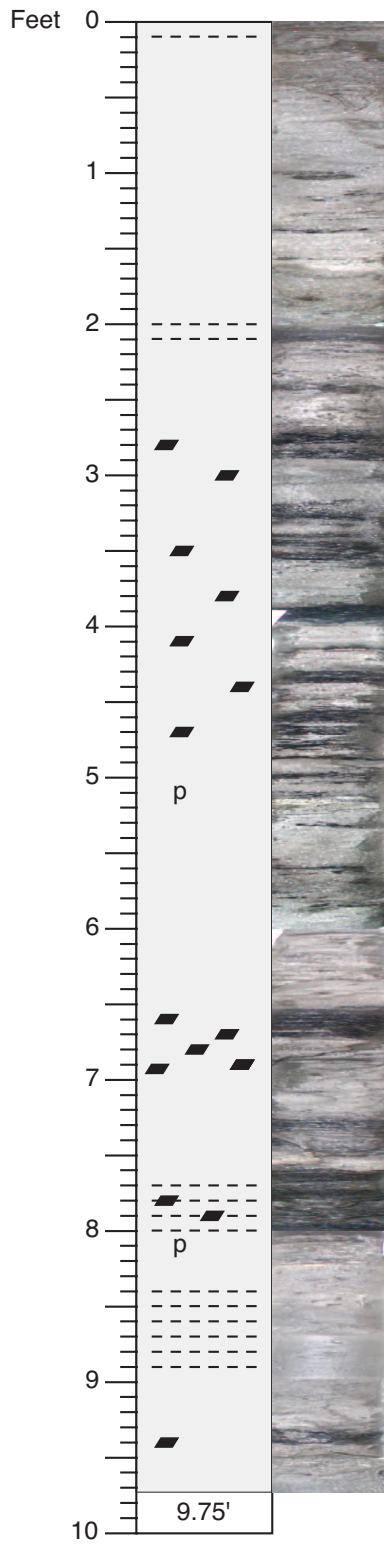
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; medium, some coarse, some large mica and lignite; some clay is burrowed with very fine sand; lignite is cross bedded; very dark gray (SGY 3/1)

174AX SG
Core #136
Start depth: 1130 ft
Stop depth: 1140 ft
Recovery: 10.2 ft
Date: 11/3/03
Described by: PJS/AK

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; medium to coarse, micaceous with occasional cross bedded lignite, interbedded thin to thick dark clays and lignite; sand: gray (5GY 6/1), clay: very dark gray (5GY 3/1)

174AX SG
 Core #137
 Start depth: 1140 ft
 Stop depth: 1150 ft
 Recovery: 9.75 ft
 Date: 11/4/03
 Described by: PJS/AK

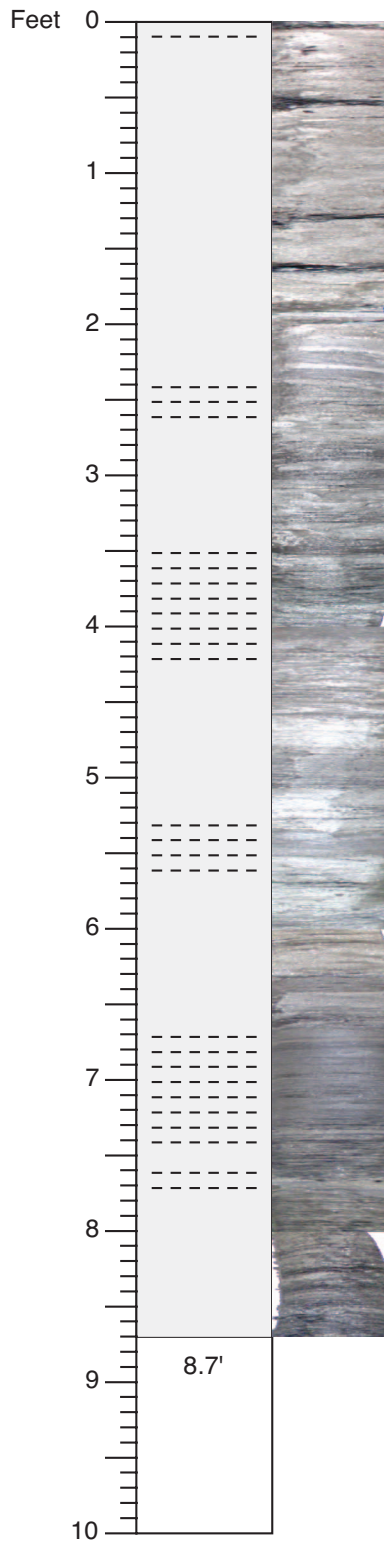
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; laminated to cross laminated; with interbedded micaceous fine, sand, some medium, sands thicken and become coarser and more micaceous with depth; ?amber at 7.2 and 7.7 ft

174AX SG
 Core #138
 Start depth: 1150 ft
 Stop depth: 1160 ft
 Recovery: 9.25 ft
 Date: 11/4/03
 Described by: PJS/AK

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE

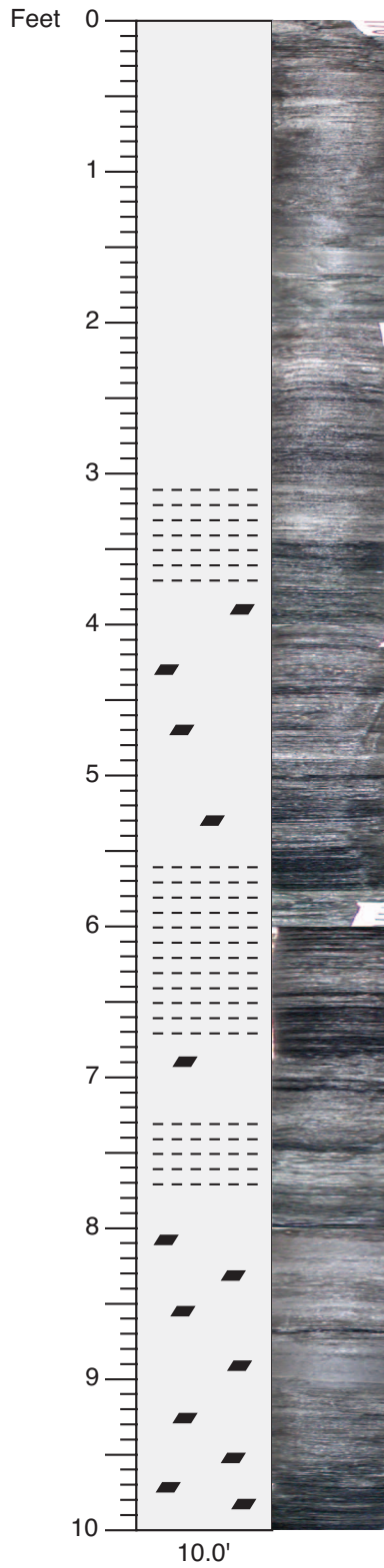


SAND; medium to coarse, slightly micaceous with some thin cross bedded lignites (0.5 ft)

SAND; with interbedded silty CLAY; beds are 0.1-0.3 ft thick; clays are laminated, some lignite; sand: gray (5GY 5/1); clay: dark gray (5GY 4/1)

174AX SG
 Core #139
 Start depth: 1160 ft
 Stop depth: 1170 ft
 Recovery: 8.7 ft
 Date: 11/4/03
 Described by: PJS/DK

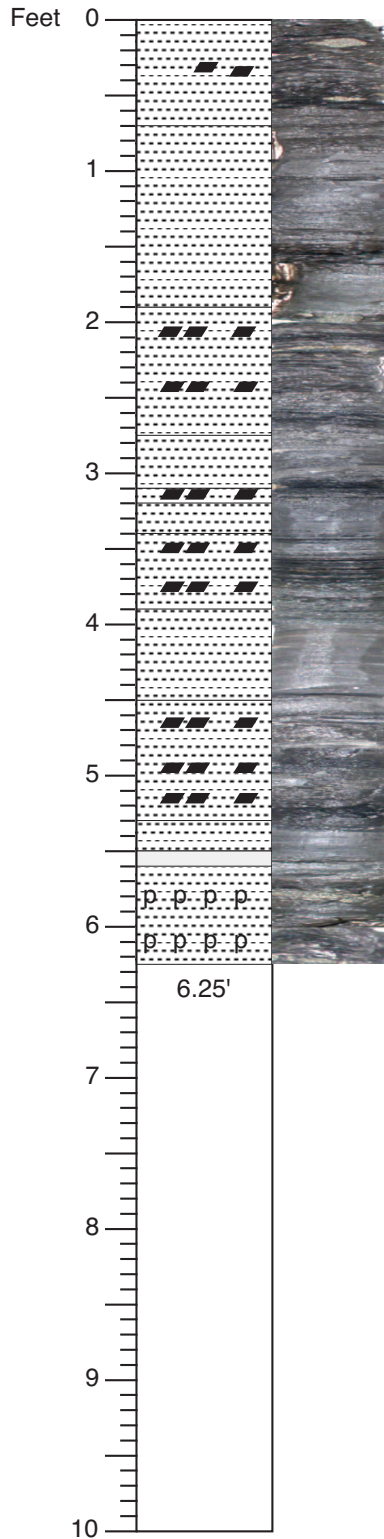
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; fine, silty, laminate; with lignite and occasional lignite silty beds; sand beds are as thin as 0.5 ft and laminated clay beds can be 0.2 ft; trace of pyrite throughout core; pyrite is in granular sized cubes; the bottom 2.3 ft contain more lignite than the top

174AX SG
 Core #140
 Start depth: 1170 ft
 Stop depth: 1180 ft
 Recovery: 10 ft
 Date: 11/4/03
 Described by: PJS/DK

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; lignitic, laminated, alternating laminae of light gray clay and lignite, abundant pyrite (to 1.5 cm)

CLAY; light gray, laminated, abundant fragmental lignite, slightly micaceous, very slightly silty, 1.5-1.7 ft lignite laminations

CLAY and LIGNITE, laminated as above

CLAY; as above

CLAY and LIGNITE, laminated as above; with pyrite

CLAY; as above

CLAY and LIGNITE, laminated as above

CLAY; as above, a few lignite laminations

CLAY; laminated, lignite laminations and sand laminations; sand is fine to medium, slightly silty; laminations from 1-2 mm to 2 cms thick

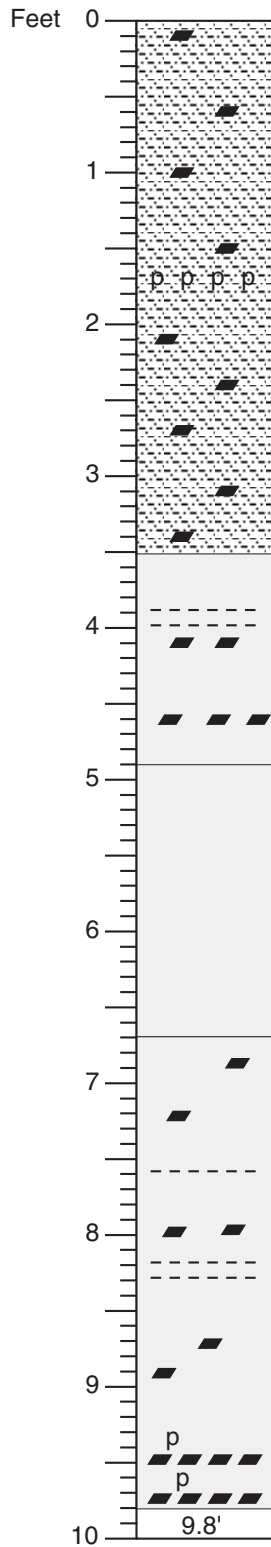
CLAY; as above

SAND

CLAY; interlaminated with SAND; pyrite nodules at 5.8 and 6.25 ft

174AX SG
 Core #141
 Start depth: 1180 ft
 Stop depth: 1190 ft
 Recovery: 6.25 ft
 Date: 11/5/03
 Described by: JVB/SM

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; LIGNITE and SAND; interbedded/interlaminated; sand is very fine, silty, slightly micaceous; thickest sand bed at 0.25-0.35 ft; thicker clay beds at 0.6-0.9, 1.15-1.3, 2.454-2.7 ft

SAND; fine to medium (mostly fine), silty, with thin and sparse lignite and clay laminae

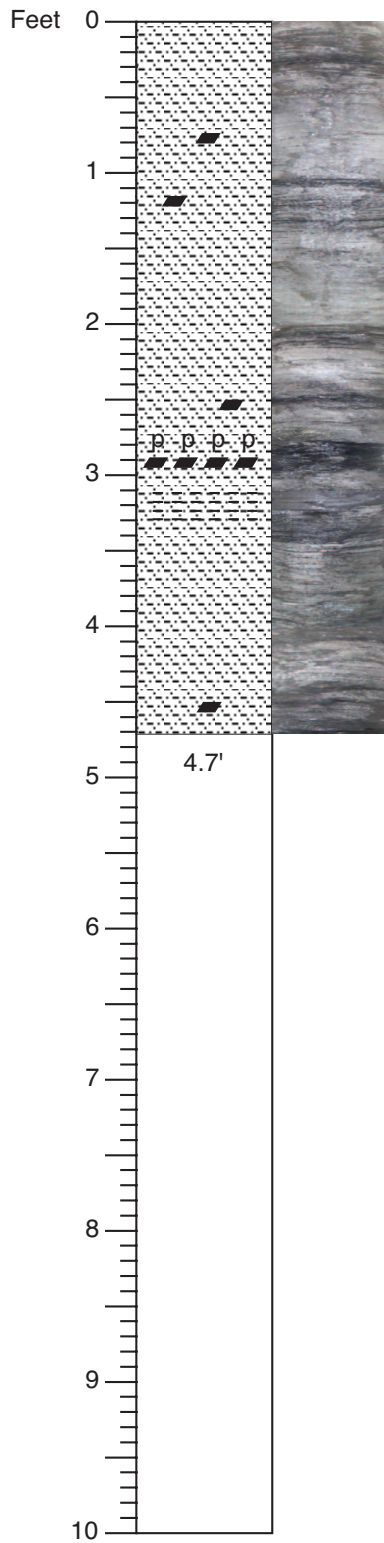
SAND; silty, mostly fine with some medium; no laminations, occasional lignite

SAND; with lignite and clay laminae, as above; sand: gray (N6/), lignite: black (N2.5/), clay: very dark gray (N3/)

174AX SG
 Core #142
 Start depth: 1190 ft
 Stop depth: 1200 ft
 Recovery: 9.8 ft
 Date: 11/5/03
 Described by: JVB/SM

10 9.8'

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE

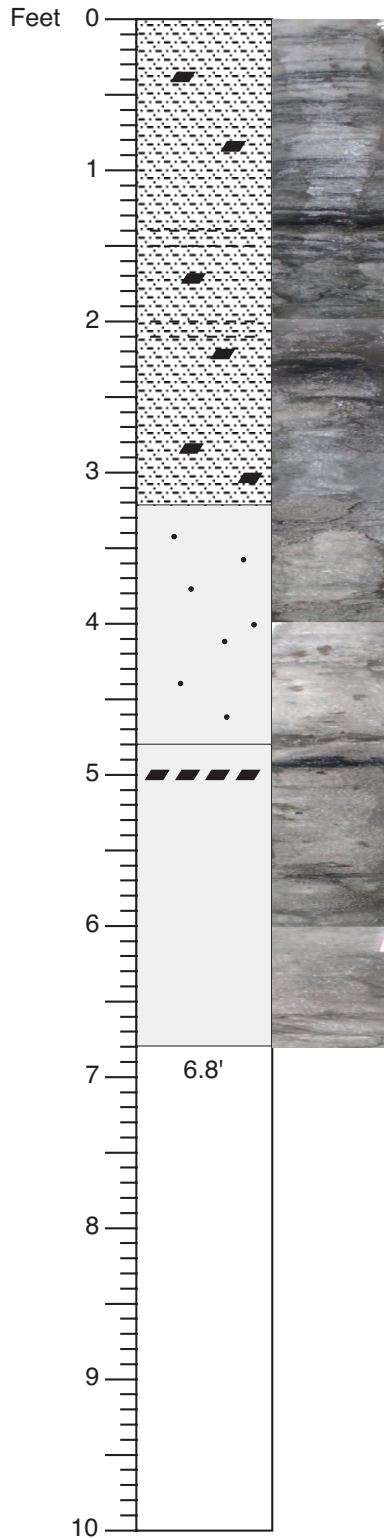


SAND; fine, silty; with interlaminated and interbedded clay and lignite; laminated silty clay with lignite at bottom; sand: gray (N6/), lignite: black (N2.5/), clay: very dark gray (N3/)

174AX SG
 Core #143
 Start depth: 1200 ft
 Stop depth: 1210 ft
 Recovery: 4.7 ft
 Date: 11/5/03
 Described by: JVB/SM

4.7'

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



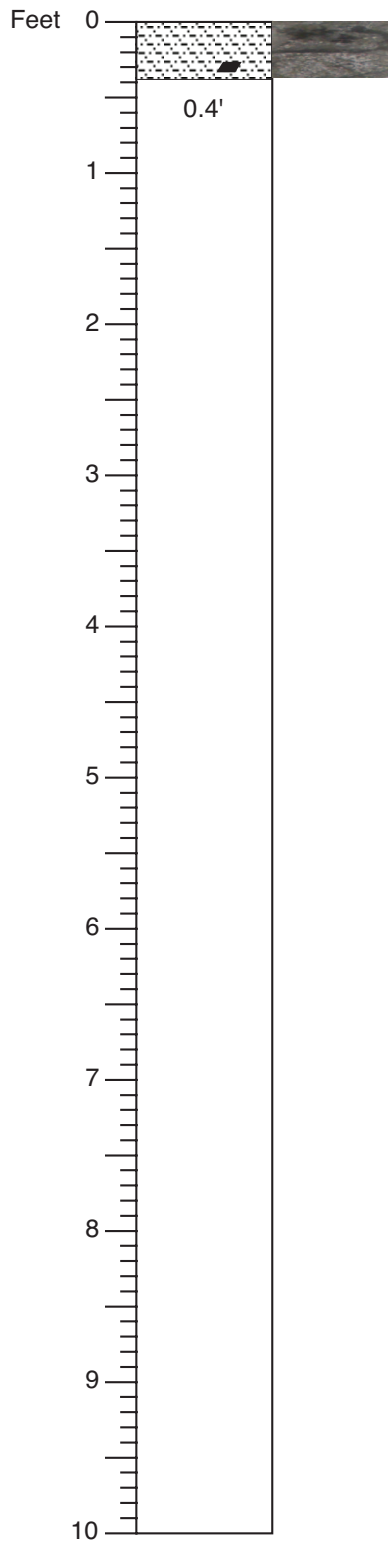
SAND; micaceous, silty fine; laminated, mostly lignite, organic-rich clay lamination at 1.4 ft, 2.0-2.1 ft clay bed; 2.3-2.4 ft organic rich clay

SAND; coarse; some very coarse and granules; structureless, uniform

SAND; medium to coarse, no granules, organic rich clay bed at 5.0 ft; structureless, uniform, well sorted

174AX SG
 Core #144
 Start depth: 1210 ft
 Stop depth: 1220 ft
 Recovery: 6.8 ft
 Date: 11/5/03
 Described by: JVB/SM

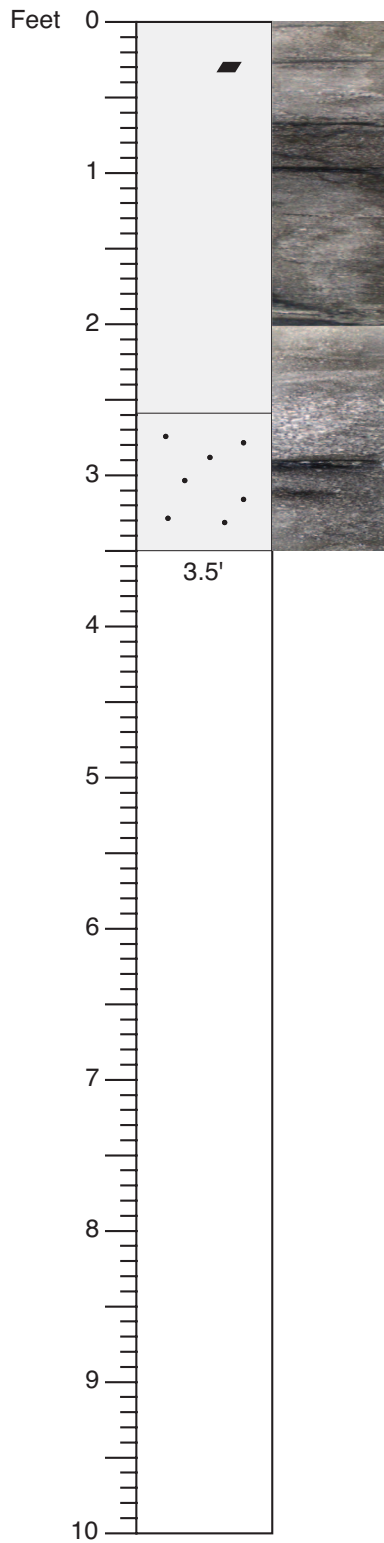
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; coarse to very coarse; quartz, subangular, large lignite chunks

174AX SG
Core #145
Start depth: 1220 ft
Stop depth: 1230 ft
Recovery: 0.4 ft
Date: 11/5/03
Described by: JVB/SM

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE

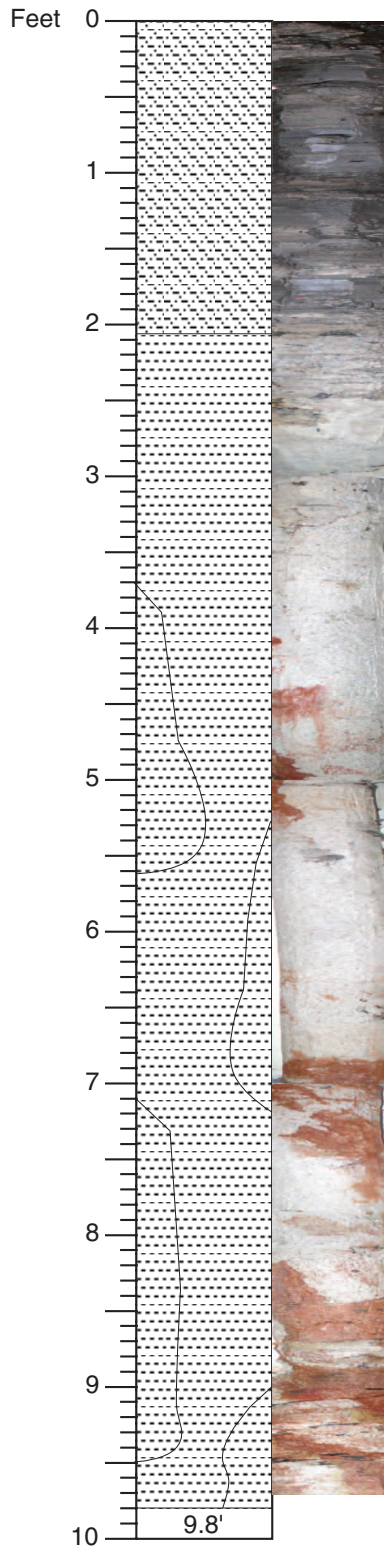


SAND; medium to coarse, quartz, subrounded, moderate sorting

SAND; coarse to very coarse; rare granules; organic rich zones at 3.1 ft

174AX SG
Core #146
Start depth: 1230 ft
Stop depth: 1240 ft
Recovery: 3.5 ft
Date: 11/5/03
Described by: JVB/SM

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



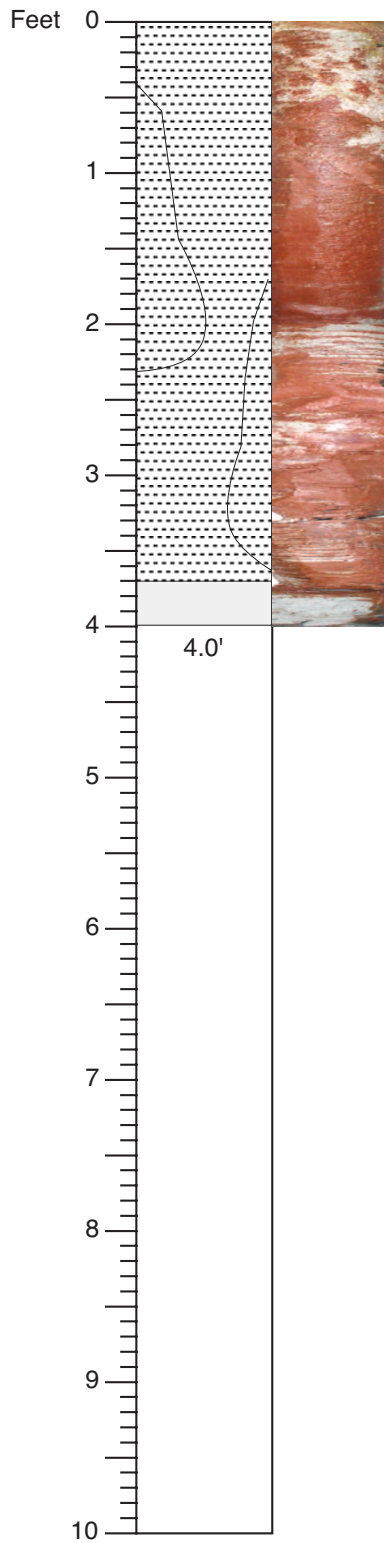
SAND; with interbedded and interlaminated CLAY; very fine to fine sand; clay has very little silt; lignite beds are generally 5 cms thick; laminae are about 1 mm thick; very slightly micaceous; gray (N4/)

Abrupt contact

CLAY; red and white mottled paleosol; clay is very dry, slightly silty; very slightly finely micaceous; contains sphaerosiderite; red mottles start 3.7 ft and continue to the bottom of the core; there is a small amount of quartz on the outside of the core in the lower ft; the lower 2 ft is cracked and intruded with drilling mud; white: light gray (N7/), red: red (10R 5/6)

Core #147
 Start depth: 1240 ft
 Stop depth: 1250 ft
 Recovery: 9.8 ft
 Date: 11/6/03
 Described by: JVB

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE

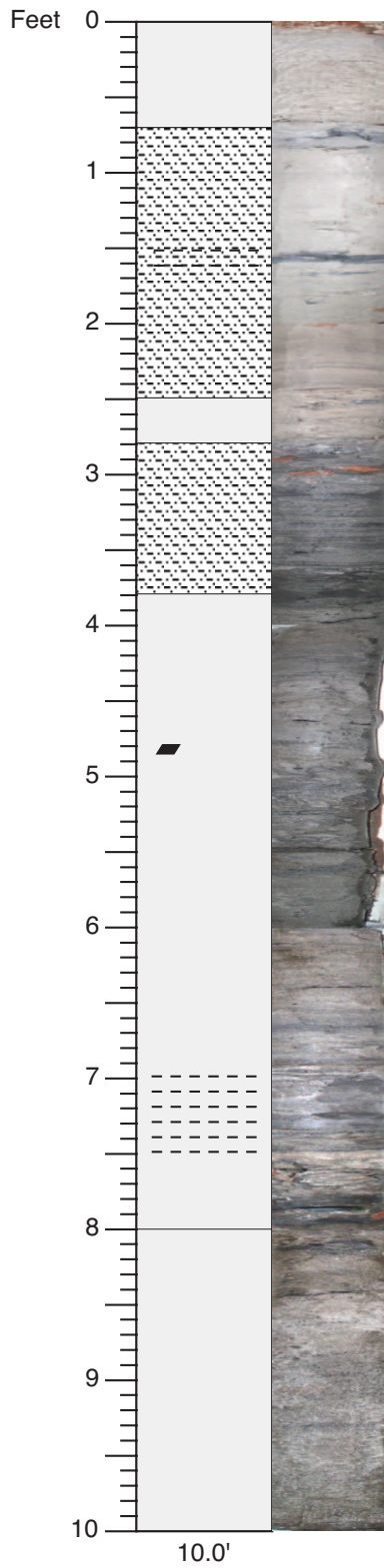


CLAY; mottled red and white; more intense mottling at the bottom; white: light gray (N7/), red: red (10R 5/6); some green/yellow color at top: yellow (2.5Y 7/6)

SAND; very fine, very silty; white (N8/)

174AX SG
Core #148
Start depth: 1250 ft
Stop depth: 1260 ft
Recovery: 4.0 ft
Date: 11/6/03
Described by: JVB

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; very fine, very silty, ~1% dark minerals; white (N8/)

SILT; some very fine sand; hints of bedding in the lower part; very slightly micaceous, gray clayier bed at 1.6 ft; white (10YR 8/1)

SAND; as above; very silty, white

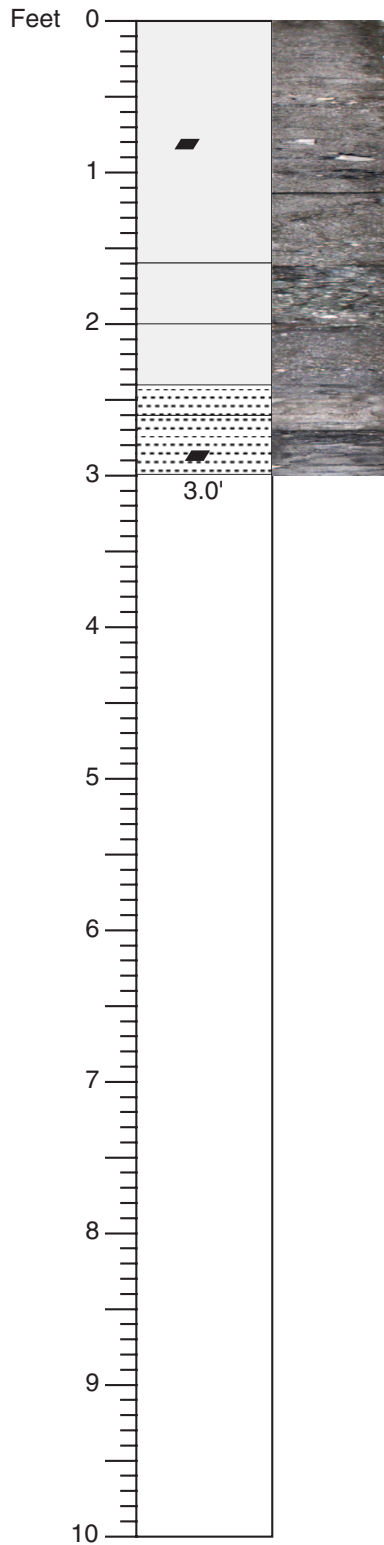
SAND; very fine, slightly micaceous; and interlaminated CLAY; laminae range from <1 mm to 8 mm; clay bed at bottom is 4.5 cm; sand: gray (N6/), clay: very dark gray (5YR 3/1)

SAND; medium to fine, stinks like rotten eggs; rare clay laminae to 9 mm; lignite chunk at 4.7 ft; lignite laminae near bottom; clay bed from 7.0-7.4 ft

174AX SG
 Core #149
 Start depth: 1260 ft
 Stop depth: 1270 ft
 Recovery: 10 ft
 Date: 11/6/03
 Described by: JVB

SAND; medium; well sorted; subrounded; no clay laminations

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; medium to very coarse; fines upwards; 0.9-1.0 ft lignite

SAND; very coarse to granuliferous

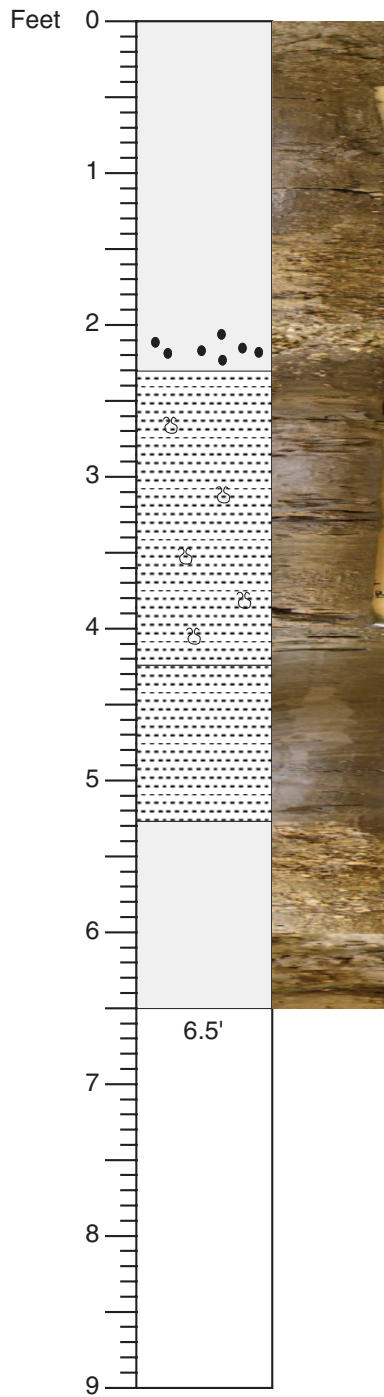
SAND; fine; heavily bioturbated; burrows between 2.45-2.7 ft

CLAY; lignitic, silty with interbedded sandy

CLAY; ra 5G 6/1 to li ht ra 5G 7/1

174AX SG
 Core #150
 Start depth: 1270 ft
 Stop depth: 1280 ft
 Recovery: 3.0 ft
 Date: 11/7/03
 Described by: KGM/DM

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; medium to very coarse (fining up), and burrowed sandy silty CLAY; sands are bioturbated, poorly sorted, little clay or silt; gravel at base; sand: light gray (5G 7/1) to gray (5G 6/1), clay: dark gray (5G 4/1)

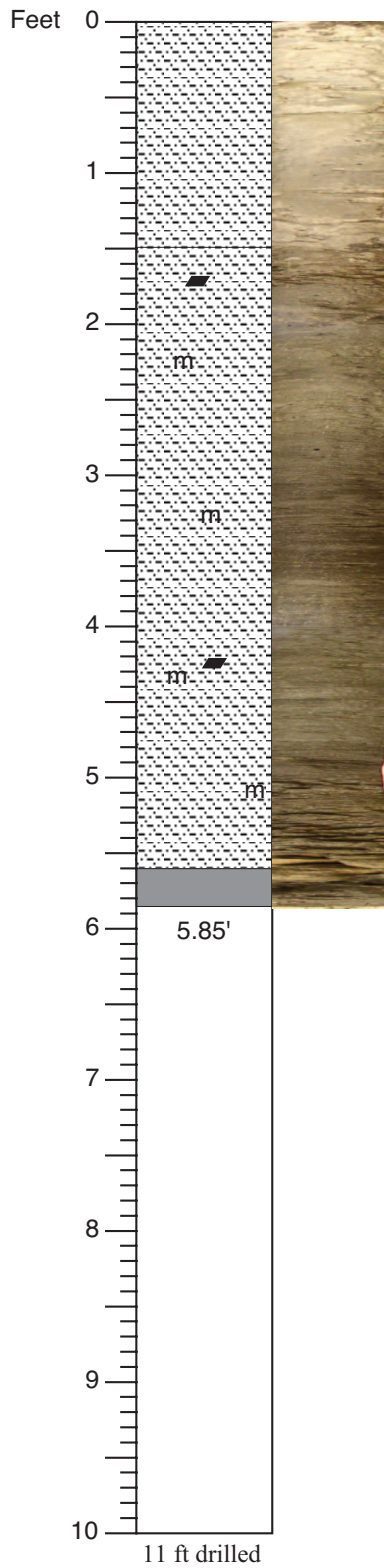
CLAY; sandy, silty; generally heavily bioturbated, with a few laminations preserved (e.g., 3.3-3.4 ft)

CLAY; silty, with angled color cross-laminations

SAND; ?kaolinized and clayey, poorly sorted sand, appears to fine down to clean medium sand; ?exposure

174AX SG
 Core #151
 Start depth: 1280 ft
 Stop depth: 1289 ft
 Recovery: 6.5 ft
 Date: 11/7/03
 Described by: KGM/DM

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



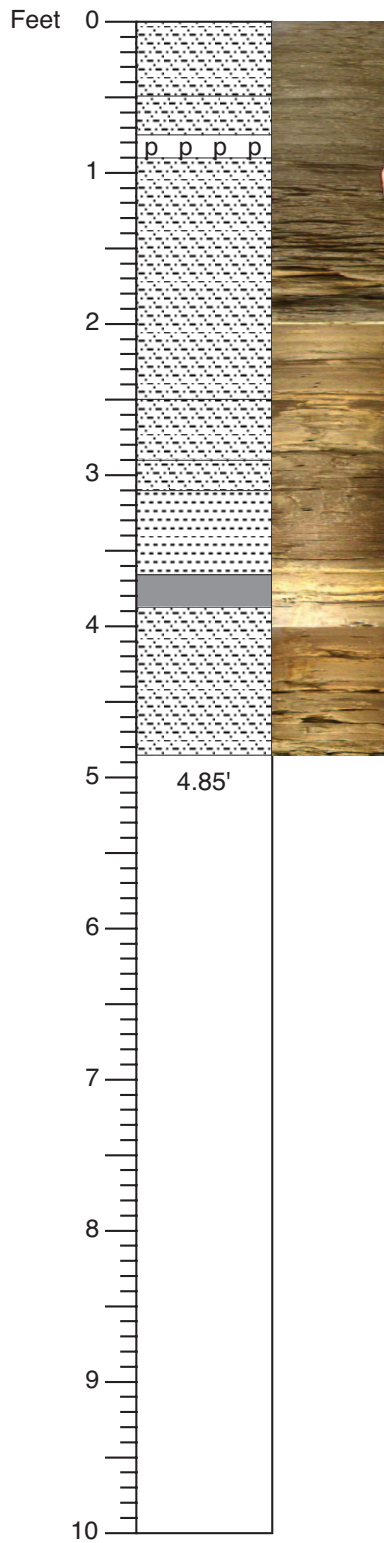
SILT; white (?kaolinized), slightly sandy, micaceous, heavily bioturbated.; this might be weathered Bass River Formation; white (SGY 8/1)

SILT; very slightly sandy clayey, micaceous; ?lignite; some white material burrowed down from above; ~3% mica including chlorite; ~3% dark grains that appear to be lignite; heavily bioturbated, "dirty, dirty shelf;" very dark gray (SGY 3/1)

174AX SG
 Core #152
 Start depth: 1289 ft
 Stop depth: 1300 ft
 Recovery: 5.85 ft
 Date: 11/7/03
 Described by: KGM/DK/DM

SILTSTONE; indurated, clayey, micaceous, not calcium carbonate cement

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



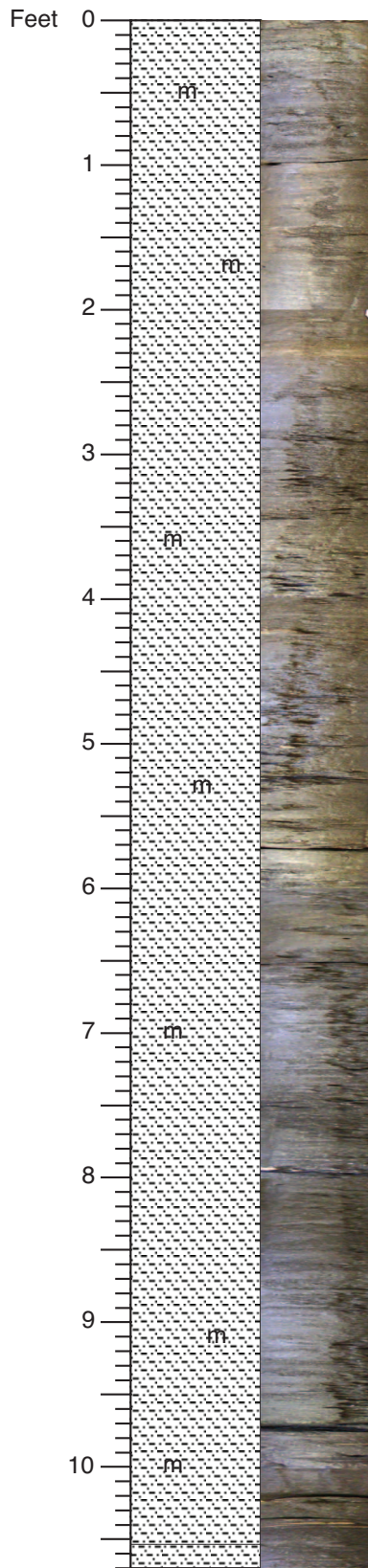
slightly bioturbated
 SILT; micaceous with silty sand interbeds
 SAND; very silty, medium; to sandy silt
 PYRITE
 SILT; very micaceous; very slightly sandy; greenish

laminated
 SILT; slightly sandy, micaceous
 SILT, clayey, micaceous
 CLAY; micaceous, silty

laminated
 INDURATED
 SILT; very micaceous, clayey, heavily bioturbated, dark gray (N4/), greenish gray (5GY 6/1)

174AX SG
 Core #153
 Start depth: 1300 ft
 Stop depth: 1310 ft
 Recovery: 4.85 ft
 Date: 11/7/03
 Described by: KGM/DM/DK

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE

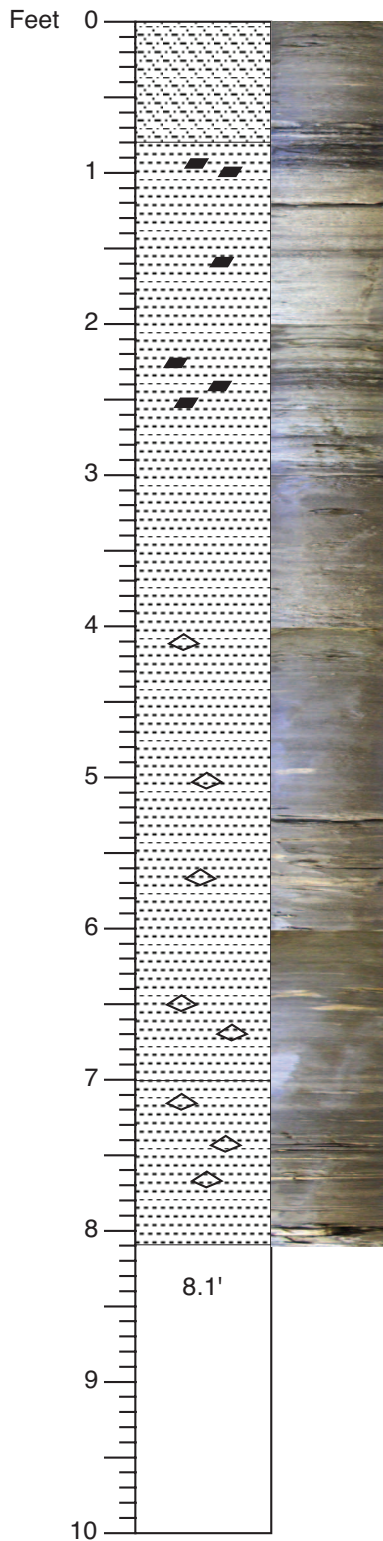


SILT; micaceous, clayey, fine to clay at 9.8 ft; bioturbated zones at 0.2-0.4, 3.8-5.3 ft; pyritized inclusion at 8.0 ft; mud lamination/rip up clast at 9.4 and 10.5 ft

174AX SG
Core #154
Start depth: 1310 ft
Stop depth: 1320 ft
Recovery: 10.7 ft
Date: 11/7/03
Described by: KGM/DM/DK

SILT; lignitic, micaceous, clayey
10.7'

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



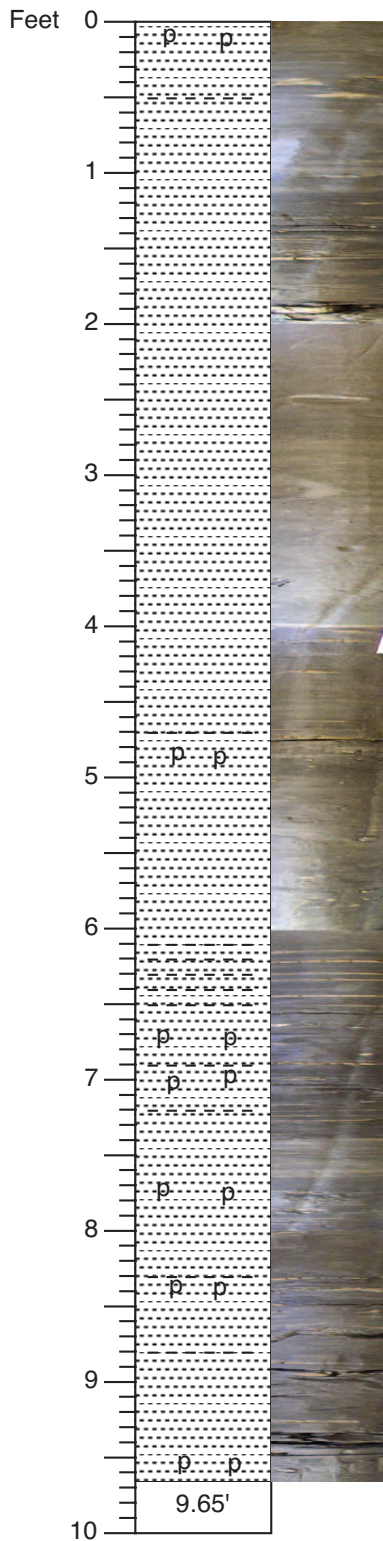
SILT; clayey

CLAY; silty; lignite zone at 0.8 and 2.35-2.5 ft; 4.1 ft slightly indurated, light brown irregular silt clast; very dark gray (5GY 3/3); in middle: light greenish gray (5GY 7/1)

174AX SG
Core #155
Start depth: 1320 ft
Stop depth: 1330 ft
Recovery: 8.1 ft
Date: 11/7/03
Described by: KGM/DM/DK

CLAY; silty

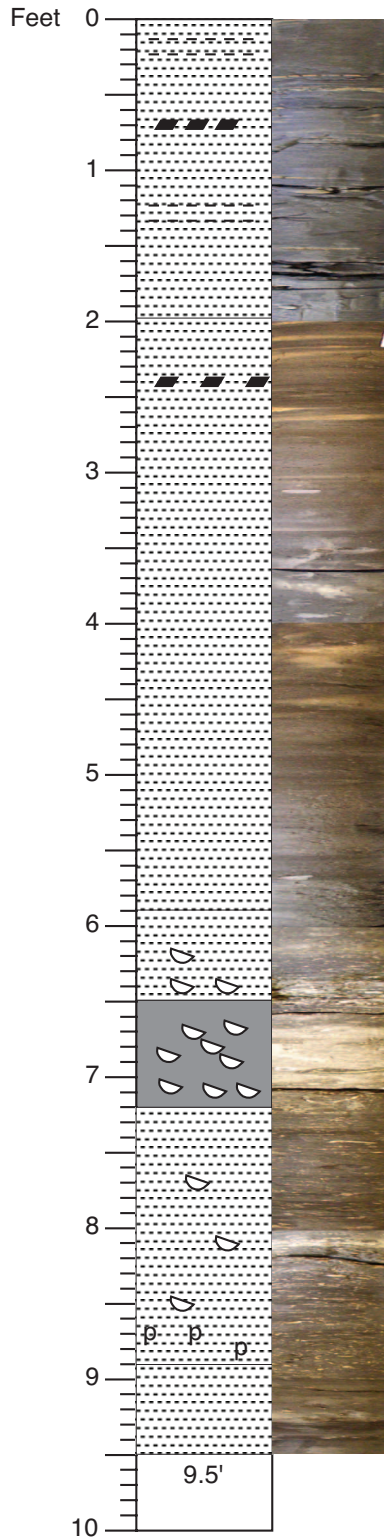
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; pyrite at top of core and 0.3 ft; few laminae containing a high percentage of lignite in the upper section; a different clay (pale brown; 10YR 6/3) occurs in thin seams and clasts that do not cross the entire core; a surface is at .05 ft; thin lignitic lamina below and dramatic color change below, surface is slightly inclined; dark gray (N4/) below surface, very dark gray (N3/) above

174AX SG
 Core #156
 Start depth: 1330 ft
 Stop depth: 1340 ft
 Recovery: 9.65 ft
 Date: 11/7/03
 Described by: KGM/DM/DK

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; laminated, inclined bedding from top of hole to 0.5 ft in one direction, below from 0.6-1.0 ft dipping in other direction; lignitic rich clay layer at 0.7 ft, just below is a clay clast

CLAY; mottled, pale brown, not distinct layering

174AX SG
 Core #157
 Start depth: 1340 ft
 Stop depth: 1350 ft
 Recovery: 9.5 ft
 Date: 11/7/03
 Described by: DM/DK

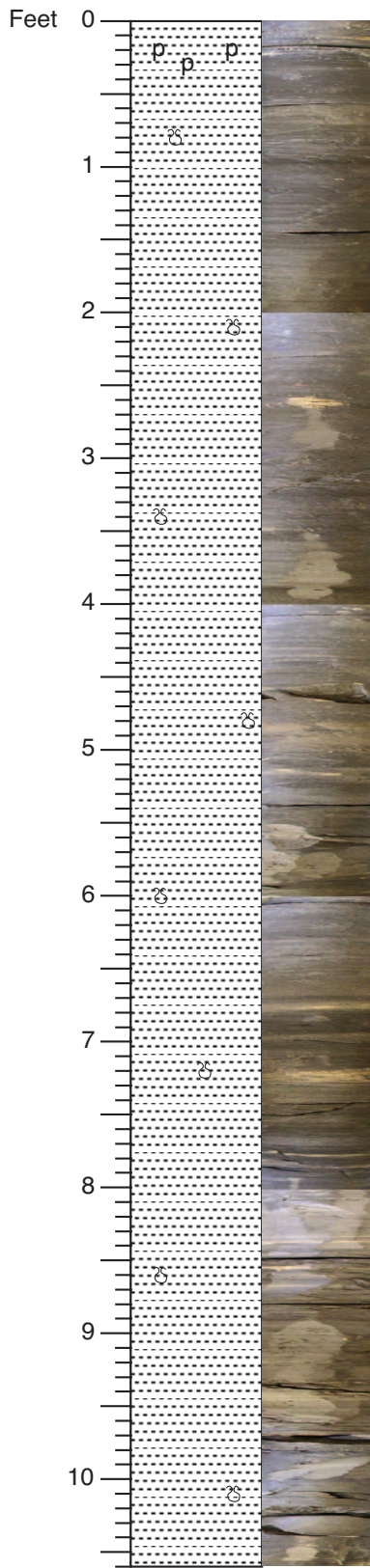
CLAY; shell content increases; shell size increases also; shell concentration at 6.3-6.4 ft

Indurated zone; large shells

CLAY; dispersed shells to bottom of hole

CLAY; laminated

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE

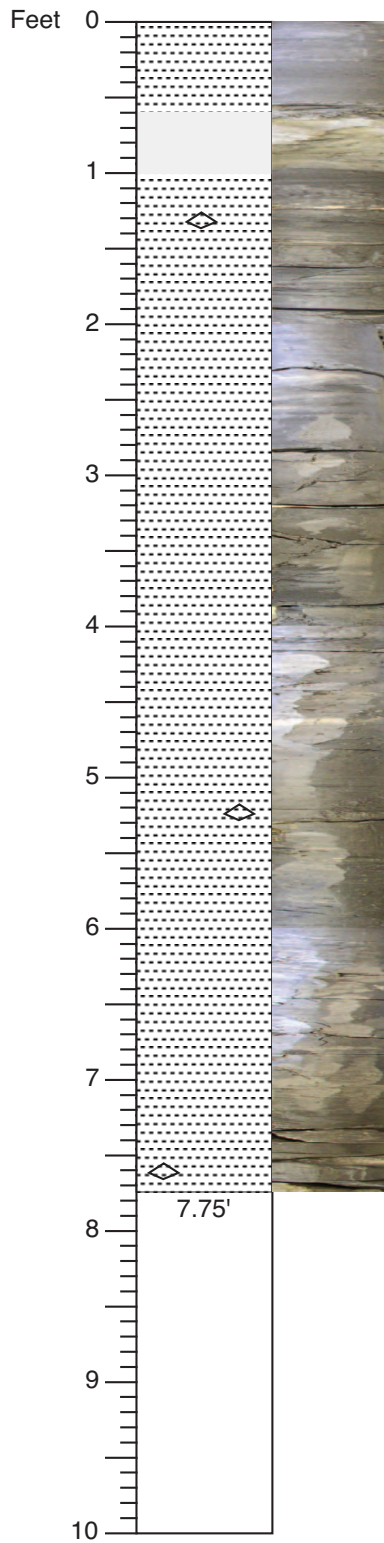


CLAY; slightly silty, slightly micaceous, scattered lignite, scattered shell fragments, no laminations, no obvious burrows, in spots there is color banding; pyrite common at top, more pyrite at 9.8 ft; numerous brownish nodules (?burrows); gray (10YR 6/1)

174AX SG
 Core #158
 Start depth: 1350 ft
 Stop depth: 1360 ft
 Recovery: 10.6 ft
 Date: 11/8/03
 Described by: JVB

10.6'

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; slightly silty slightly micaceous; burrowed, few shells; foraminifers common, sand bed at 1.0 ft, silty micaceous very fine sand, slightly lignitic; nodule layers at 1.3, 5.3, and 7.7 ft; core is harder at bottom, may be indicating more clay

174AX SG
Core #159
Start depth: 1360 ft
Stop depth: 1370 ft
Recovery: 7.75 ft
Date: 11/8/03
Described by: JVB/AH

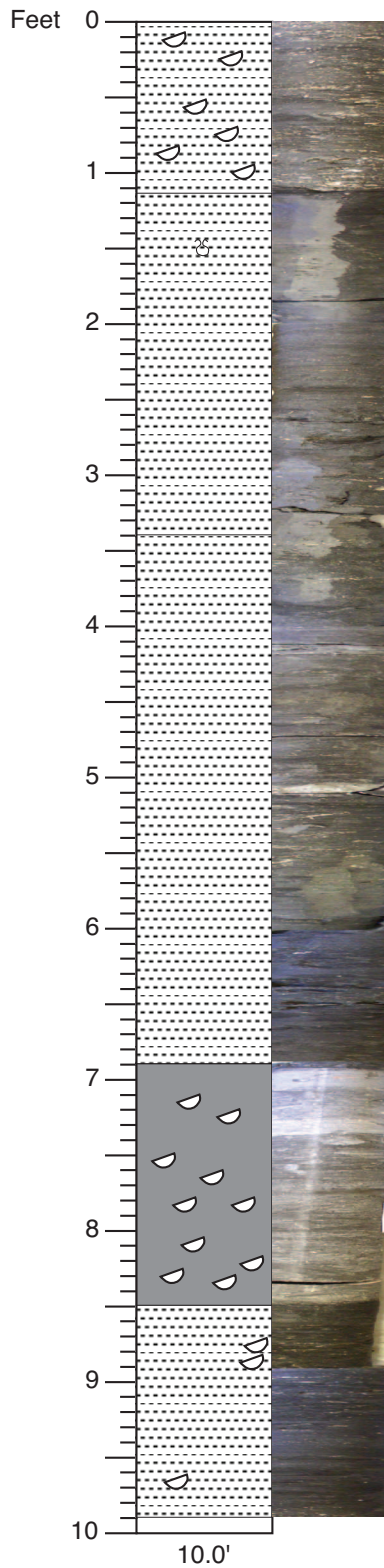
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; slightly micaceous, slightly silty, numerous organic grains, shells are common below 3.5 ft; shelly beds at 5.7-5.9, 6.5-6.7, 9.5-10.0 ft; brown concretions at 0-0.15, 1.5-1.6, 1.8 ft; fine silty sand bed at 2.4-2.55 ft; a few siltier beds with bases at 1.1, 2.2, 5.15, 6.35 ft; clay: very dark gray (N3/), silt/sand: gray (N6/)

174AX SG
 Core #160
 Start depth: 1370 ft
 Stop depth: 1380 ft
 Recovery: 10.0 ft
 Date: 11/8/03
 Described by: JVB/AH/PJS

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; shelly (30%); slightly very fine sandy; slightly micaceous; coarser shells are at bottom, many shell fragments

Irregular contact, ?channel

CLAY; grading down to a sandy clay, slightly shelly; heavily burrowed, one glauconite filled burrow at 1.55 ft

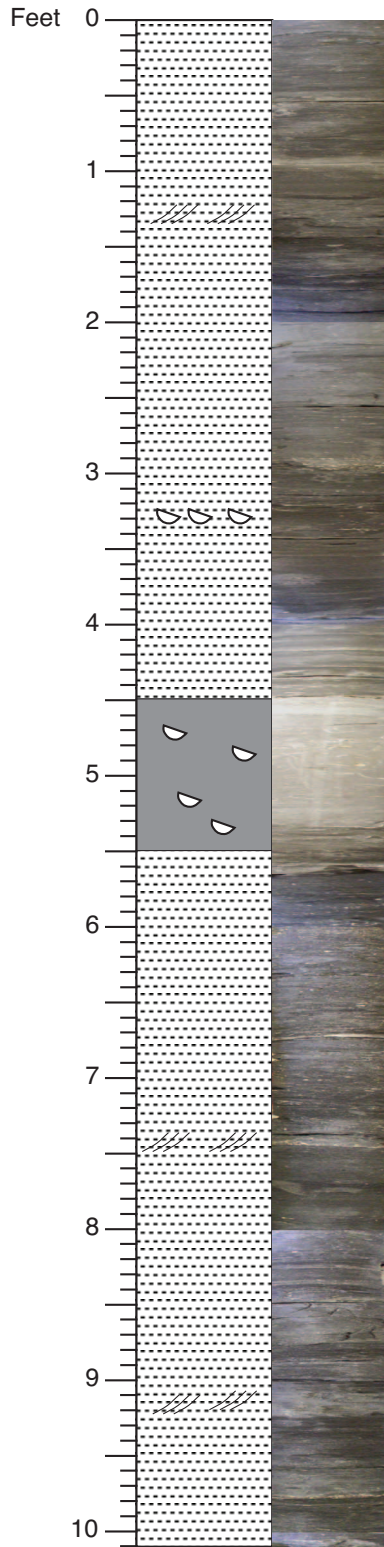
CLAY; slightly silty; trace of very fine sand; some sand laminations, burrowed, very dark gray (N3/)

174AX SG
 Core #161
 Start depth: 1380 ft
 Stop depth: 1390 ft
 Recovery: 9.9 ft
 Date: 11/8/03
 Described by: JVB/AH/PJS

CALCARENITE; abundant very fine sand; shelly clayey; light gray (N7/) to gray (N5/)

CLAY; shelly, slightly micaceous, slightly sandy

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; slightly sandy, slightly micaceous; shelly; bedded; some sandy beds, sand bed with cross beds at 1.3, 3.3, 7.4-7.5, 9.1-9.3, 9.6-9.8 ft;

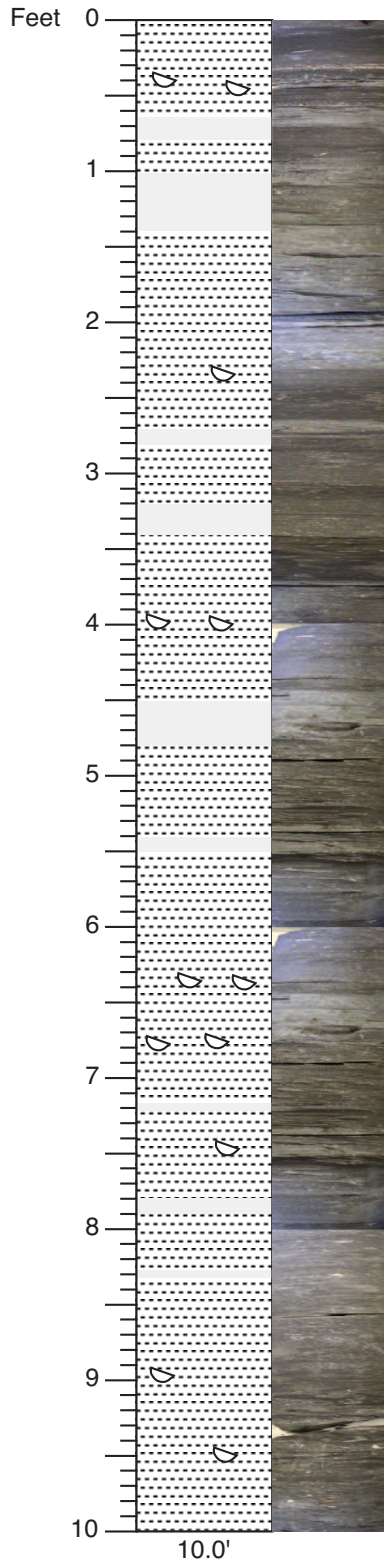
174AX SG
 Core #162
 Start depth: 1390 ft
 Stop depth: 1400 ft
 Recovery: 10.1 ft
 Date: 11/8/03
 Described by: JVB/AH/PJS

CALCARENITE; sandier, shelly

CLAY; as above, sandier units

10.1'

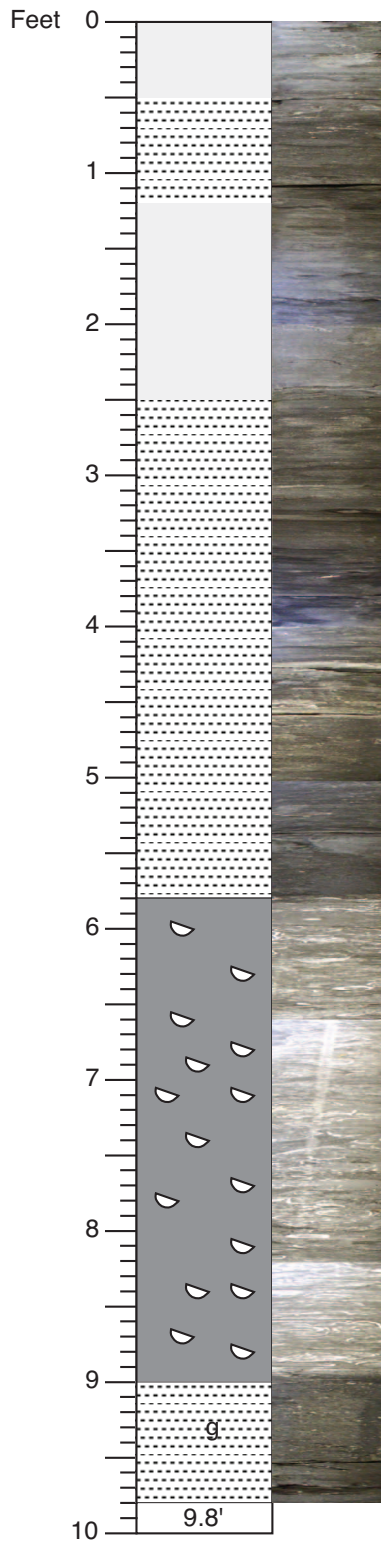
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; silty; slightly sandy, micaceous; shell beds at 0.4, 4.0, 6.8 ft; large shell at 6.4 ft, shell hash throughout; fine micaceous sand beds at 0.65-0.8, 1.0-2.4, 2.7-2.8, 3.2-3.4, 4.5-4.8, 5.4-5.5, 7.2, 7.8-7.9, 8.3 ft

174AX SG
Core #163
Start depth: 1400 ft
Stop depth: 1410 ft
Recovery: 10.0 ft
Date: 11/8/03
Described by: JVB/AH/PJS

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; silty; with interbedded sandy CLAY; finely micaceous, shelly throughout; sand 0-0.5 ft; clay 0.5-1.2 ft; sand 1.2-2.5 ft; clay 2.5-5.8; sand is often laminated or cross bedded

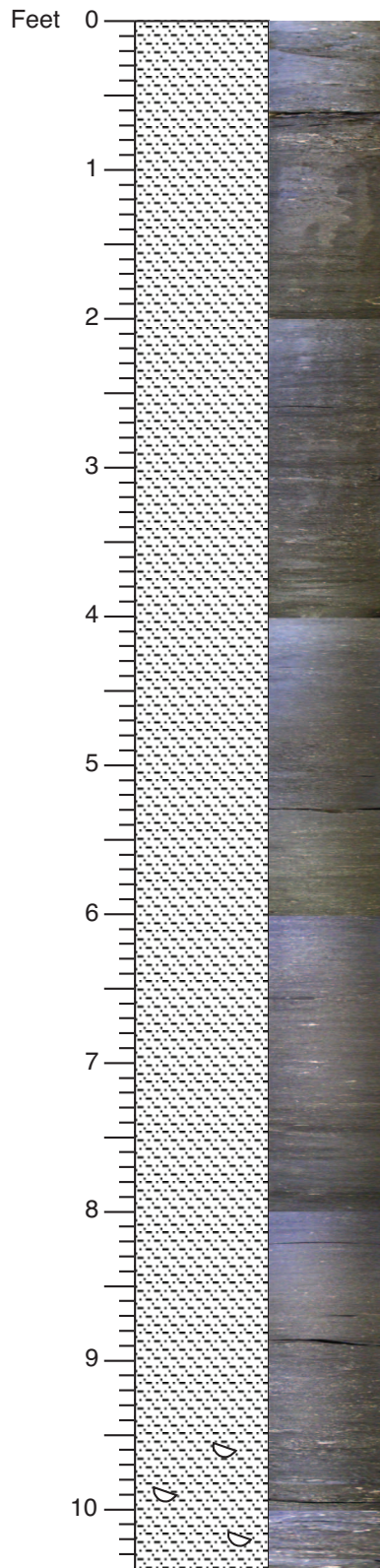
174AX SG
 Core #164
 Start depth: 1410 ft
 Stop depth: 1420 ft
 Recovery: 9.8 ft
 Date: 11/8/03
 Described by: JVB/AH/PJS

CALCARENITE; fine to medium sand with abundant shells, micaceous

Sequence Boundary

SILT; sandy, clayey, very slightly glauconitic

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE

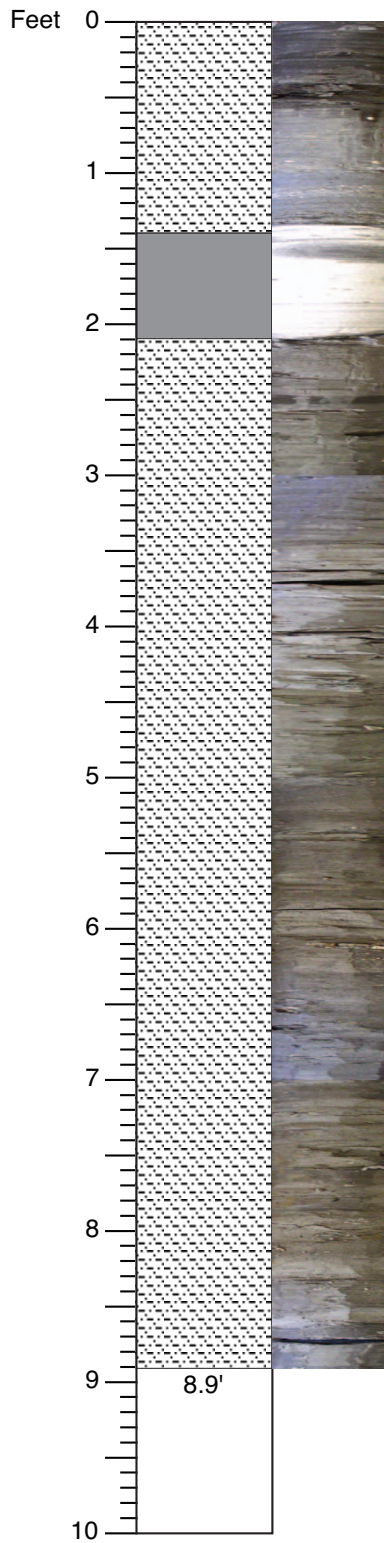


CLAY; sandy; with interbedded clayey SAND; sand is very coarse from 0-0.85 ft; clay and sand are burrowed together; shells scattered throughout, some aragonitic material, larger shells and very coarse sand grains common at the bottom, a few granules, dark greenish gray (5GY 4/1)

174AX SG
Core #165
Start depth: 1420 ft
Stop depth: 1430 ft
Recovery: 10.4 ft
Date: 11/8/03
Described by: JVB/AH/PJS

10.4'

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



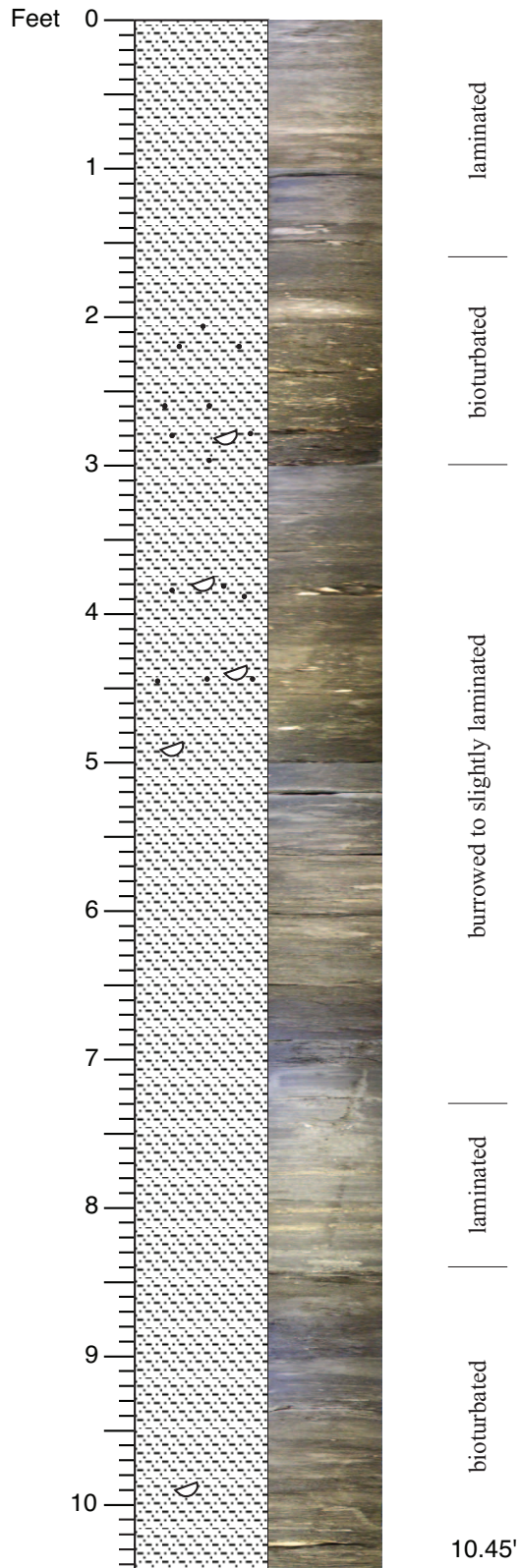
CLAY and interbedded SAND; very fine sand slightly shelly, slightly micaceous

CALCARENITE; common shells; this is coarser than other parts of the core; banded

CLAY and interbedded SAND; few shells; in some areas sand dominates and clay in others, lignite grains, very finely micaceous; gets sandier at bottom

174AX SG
 Core #166
 Start depth: 1430 ft
 Stop depth: 1440 ft
 Recovery: 8.9 ft
 Date: 11//03
 Described by: JVB/AH

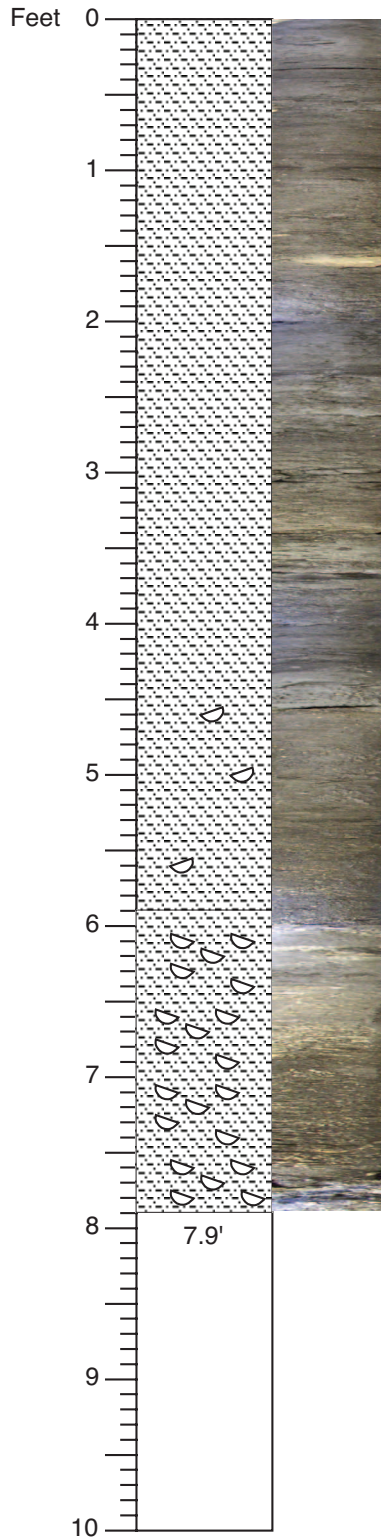
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SILT; occasionally shelly, occasionally graniferous, scattered ignite, micaceous (chlorite), granules at 2-3 ft; shell concentration at 2.8 ft; granules tend to be associated with shell and may indicate hydrodynamic sorting; possible environment is a dirty storm dominated shelf with high silt input in between storms; indurated siltstone at base

174AX SG
 Core #167
 Start depth: 1440 ft
 Stop depth: 1450 ft
 Recovery: 10.45 ft
 Date: 11/8/03
 Described by: AH/KGM

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE

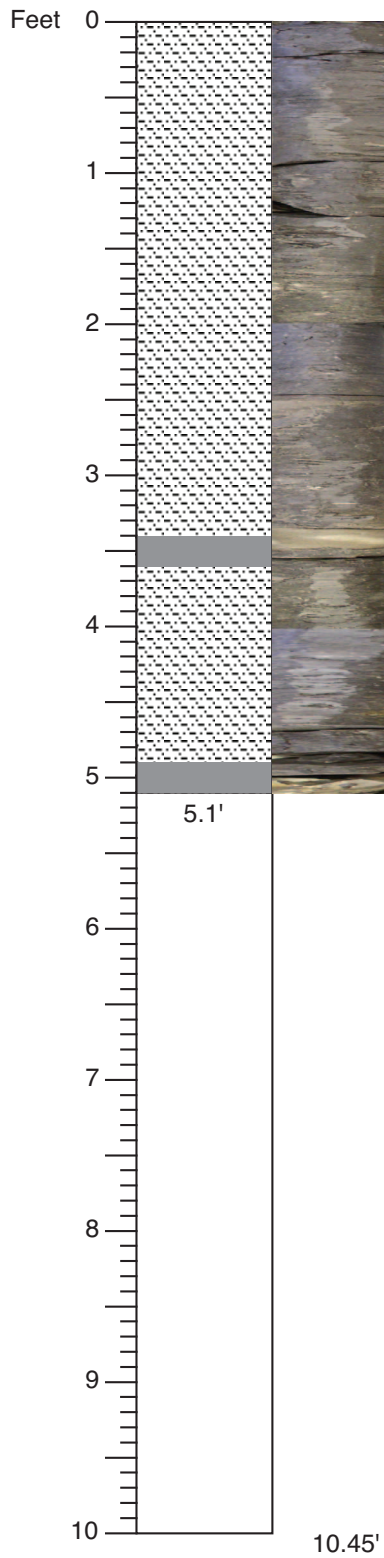


SILT; very clayey, abundant mica (most is chlorite?); mica is very fine sand sized; laminated, some variability in clay and mica content on lamina scale shows lamination; scattered zones with fine disseminated organic debris; variable degrees of bioturbation; 1.5 ft nodule, 1/2 core diameter, 20x30 mm, very weak fizz with acid; first very thin shell bed at 4.5 ft; gradually more shell material at 5.5 ft

174AX SG
 Core #168
 Start depth: 1450 ft
 Stop depth: 1460 ft
 Recovery: 7.9 ft
 Date: 11/8/03
 Described by: KGM/AH/PPMcL

SILT; very shelly, abundant mica (including chlorite); mica is very fine sand sized; increasing amount of sand down core, especially from 6.9-7.9 ft, up to coarse sized sand

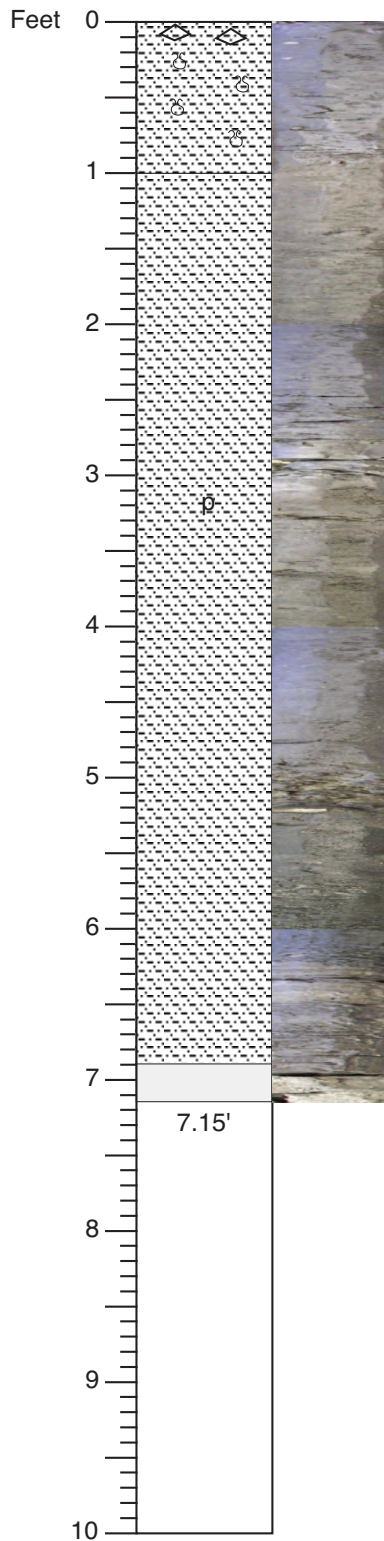
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; slightly silty overall with some thin silt laminae and small silt filled burrows; some lamination evident but mostly disrupted by bioturbation; scattered flakes of finely disseminated organic debris; 2.1-2.2 ft contains very thin small shells, similar shells also scattered in other places; scattered flecks of mica; 3.4-3.55 ft indurated bed/concretion, 0.15 ft thick and diameter of core; 4.9-5.1 ft indurated bed/concretion; very dark gray (Gley N3/), silt zones are gray (Gley N6/)

174AX SG
 Core #169
 Start depth: 1460 ft
 Stop depth: 1470 ft
 Recovery: 5.1 ft
 Date: 11/9/03
 Described by: PPMcL/AH

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CLAY; silty, micaceous, small ~10 mm diameter concretions at 0.15 ft; bioturbated, dark gray (5Y 4/1)

CLAY; very fine sandy to silty, micaceous; dark gray (5Y 4/1) to very dark gray (5Y 3/1)

Faint laminations with bioturbation

Especially sandy (2.75-2.9 ft)

Concretion with pyrite (3.2 ft)

Generally homogenous, faint laminations

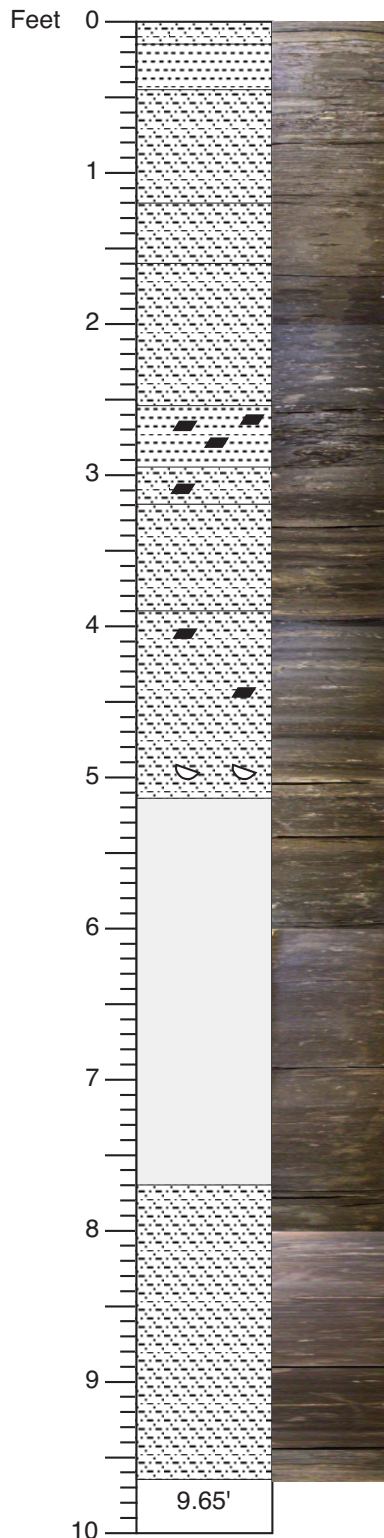
Laminated

Laminated with bioturbation

SAND; very fine, silty

174AX SG
 Core #170
 Start depth: 1470 ft
 Stop depth: 1480 ft
 Recovery: 7.15 ft
 Date: 11/9/03
 Described by: PPMcL/AH

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SAND; very fine, silty, some dark laminations, finely laminated, some with relief (scoop and fill?), abundant mica

CLAY; fairly homogenous, (appears bioturbated); slightly silty to silty, micaceous, soft; very dark gray (5Y 3/1)

SILT; laminated, laminae alternate between very clayey (to clayey silt) and cleaner silt; soft; abundant mica; thinly laminated (<1-3 mm); organic flecks; dark gray (5Y 4/1)

SILT; hard, clayey (but powders more than ribbons), abundant very fine mica; faintly banded, bands ~1 cm; contrast of slightly siltier and slightly clayier bands; between dark gray (5Y 4/1) and very dark gray (5Y 3/10);

Transitions down to

SILT; hard, clayey, as above, but darker; bands alternate from lighter bands between very dark gray (5Y 3/1) to black (5Y 2.5/1) and darker bands of black (5Y 2.5/1); overall darker toward bottom; small sulfate blooms on surface; at 2.3 ft thin layer of carbonaceous material and pyrite

CLAY; with abundant lignitic matter/charcoal, slightly silty, slightly micaceous, some pyrite, wood fragments are up to 30-40 mm, irregular shape and orientation, ~50% carbon by volume; black (5Y 2.5/1)

SILT; clayey, with a few carbon pieces, micaceous; between very dark gray (5Y 3/1) and black (5Y 2.5/1)

SILT; hard, clayey, micaceous, banded, bands are ~1 cm thick, change in darkness and slightly in clayeyness (lighter is siltier, darker clayey and ?more organic rich); colors from black (5Y 2.5/1) to olive gray (5Y 5/2)

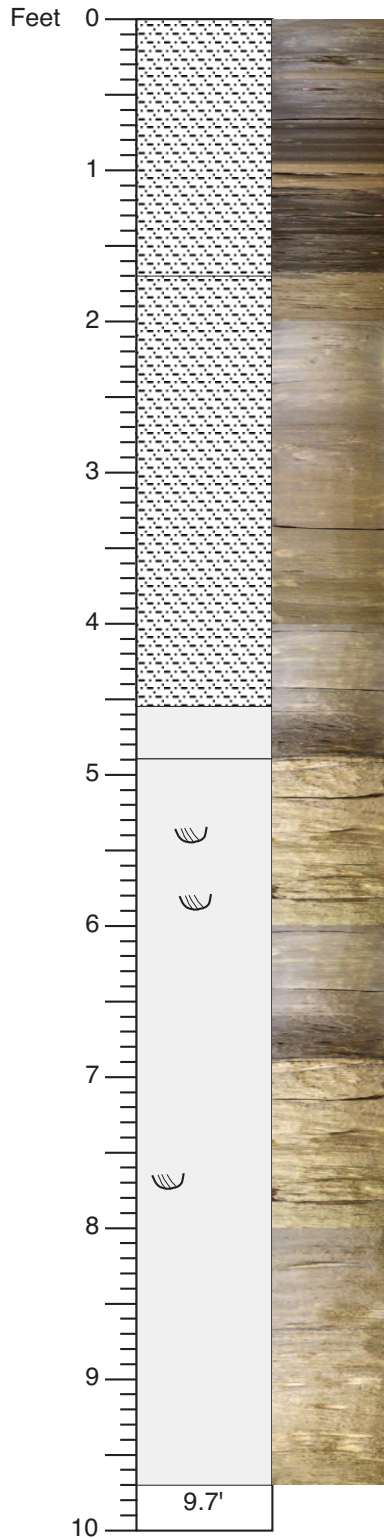
SILT; as above, but darker banding; a few small concretions at 4.1 and 4.4 ft; zone of abundant laminated foraminifers at 4.7 ft; a few shells at 4.9 ft; overall foraminifers are more conspicuous than above; some clean very thin silt laminations; pyrite at 4.4 and 4.98 ft; a few white sulfate blooms

SILT; very slightly sandy (very fine); slightly clayey; micaceous; hard, faintly banded; with colors between very dark gray (5Y 3/1) and dark gray (5Y 4/1); a few easily washed away very thin laminations of silt and very fine sand, a number of circular (?burrow form) rings of ?sulfate blooms; pyrite concretion in very thin (2 mm) subvertical burrow

SILT; clayey (clayier than above); slightly micaceous, hard; more distinctly banded with dark as dark as black (5Y 2.5/1) and as light as between very dark gray (5Y 3/10) and dark gray (5Y 4/1); more foraminifers than above, a number of circular (?burrow form) whitish ?sulfate bloom rings, pyrite concretion at 8.2, 9.4, 9.5 ft; thin laminae with apparent concentrations of foraminifers at 8.5, 9.0, 9.2 ft; washed out sandier laminae at 8.1 ft; slightly sandier at bottom

174AX SG
 Core #171
 Start depth: 1480 ft
 Stop depth: 1490 ft
 Recovery: 9.65 ft
 Date: 11/9/03
 Described by: PPMcL/AH

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SILT; clayey, slightly micaceous, hard, abundant very fine silt-sized dispersed organics, banded from black (5Y 2.5/1) to silt: gray (5Y 5/1); some thin laminations of very fine micaceous sand/silt at 0.35, 1.1, 1.2, 1.4 ft; concretions at 1.15; (this is a continuation from the bottom of the last core); banding ranges from 10-20 mm

SILT; clayey (slightly but variable), slightly micaceous, firm; much lighter than above, gray (5Y 5/1); clear lamination to 2.4 ft modified by bioturbation; pyrite filled 1 mm diameter subvertical burrow at 2.3 ft; only faintly laminated below 2.4 ft; more evidence of bioturbation, not banded; several small pyrite burrows at 2.9 ft; slightly very fine sandy at 3.5-4.1 ft; "leaf" impression at 2.35 ft

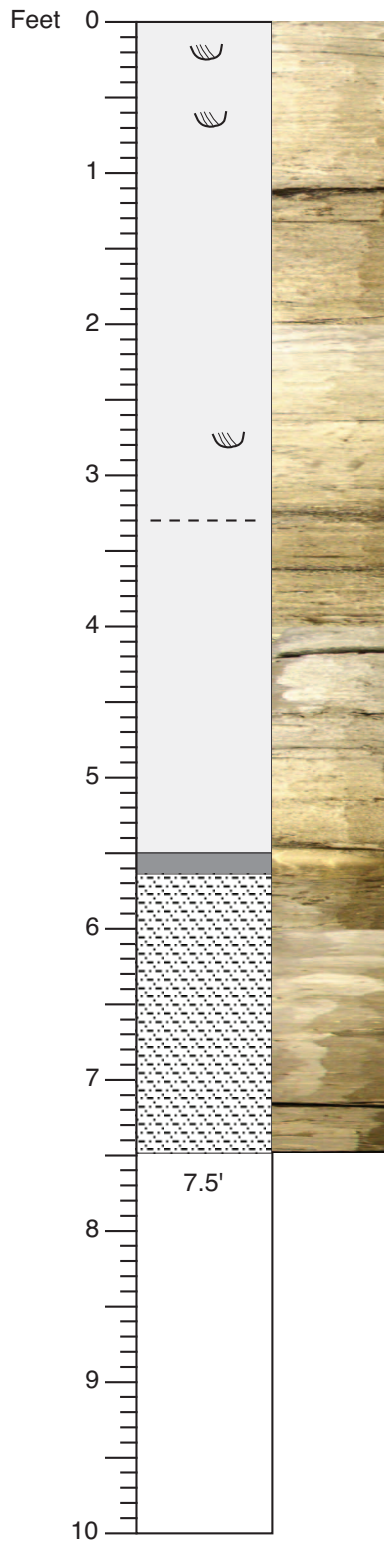
Transition to

SAND; clayey and silty at base, fining up to SILT, sandy at top; sand is very fine to fine, micaceous, dark gray (5Y 4/1)

SAND; very fine to fine (more very fine); very slightly silty; abundant very fine to fine mica, cross-bedded, cross bed sets up to 0.5 ft, on some inclination appears to decrease upward, suggesting possible hummocky cross stratification; possibly slightly coarser at base

174AX SG
 Core #172
 Start depth: 1490 ft
 Stop depth: 1500 ft
 Recovery: 9.7 ft
 Date: 11/9/03
 Described by: PPMcL/AH

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



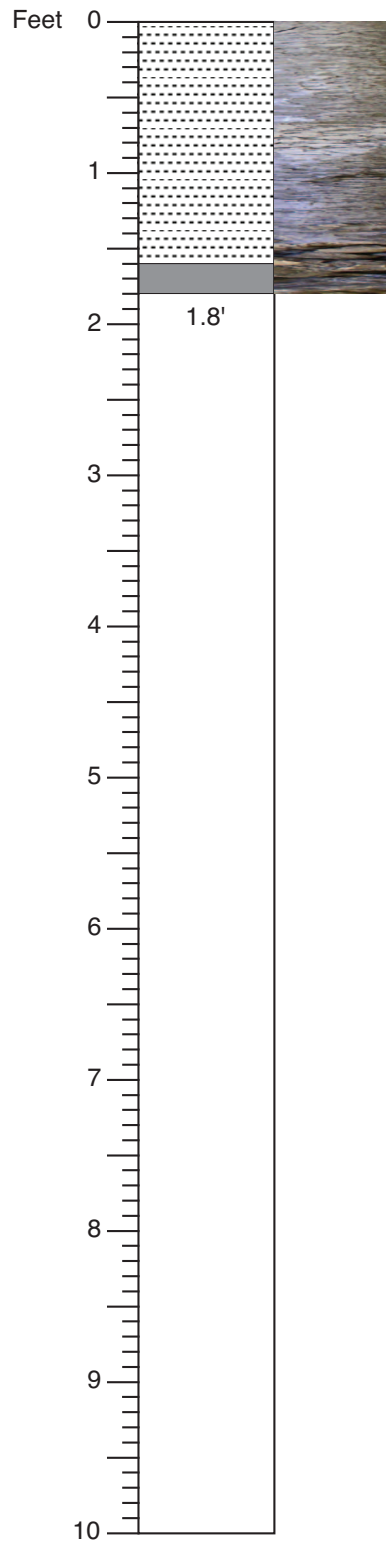
SAND; very fine to fine (mostly very fine); fairly clean (variable but slightly silty); micaceous, some organic-rich laminae, cross bedded to 0.8 ft; 0.8-2.3 ft slightly mottled, with bioturbated appearance; 1.1-1.5 ft dark organic-rich zone; 2.3-4.4 ft laminated very fine sand with a few thin organic clay laminations 2.5-2.8 ft; mica rich zone 3.2-3.3 ft with thin soft clay lamina at 3.3 ft; mica rich dark zones at 3.6 ft; 4.4-5.45 ft again mottled lightish and medium gray reflecting bioturbation; gray (Gley N6)

Cemented zone; no reaction with HCl (concretions?)

SILT; clayey, stiff, mottled due to bioturbation, trace very fine/silt-sized mica but less than above; burrows are small, 1-2 mm, mostly subhorizontal, fill: lighter colored (gray; 5Y 6/1), matrix: dark gray (5Y 4/1)

174AX SG
 Core #173
 Start depth: 1500 ft
 Stop depth: 1510 ft
 Recovery: 7.5 ft
 Date: 11/9/03
 Described by: PPMcL/AH

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE

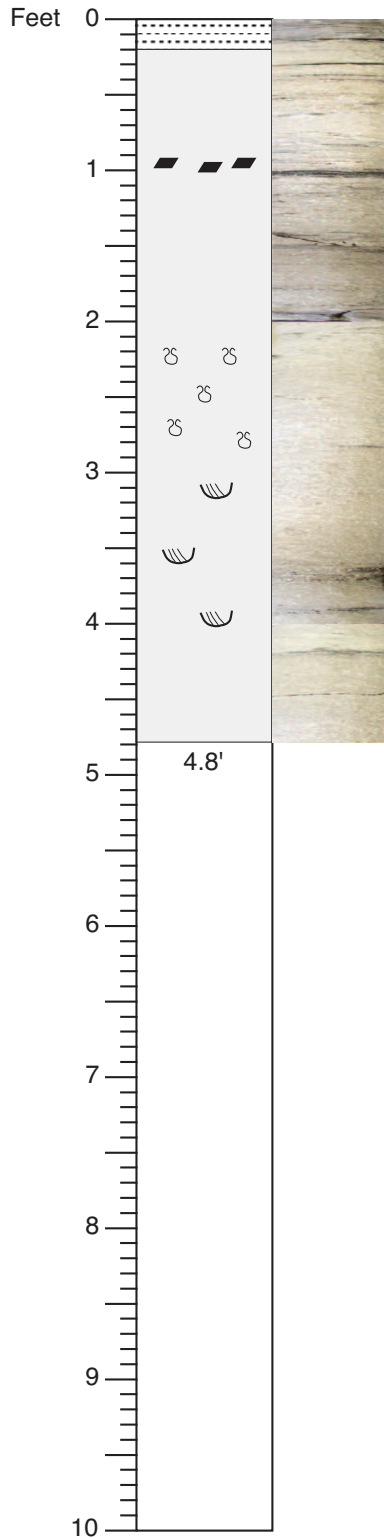


CLAY; very slightly micaceous, very slightly silty; burrowed; dark gray (N4/)

CLAYSTONE; silicified, with sandstone chunk and pyrite

174AX SG
Core #174
Start depth: 1510 ft
Stop depth: 1520 ft
Recovery: 1.8 ft
Date: 11/9/03
Described by: JVB/KGM

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE

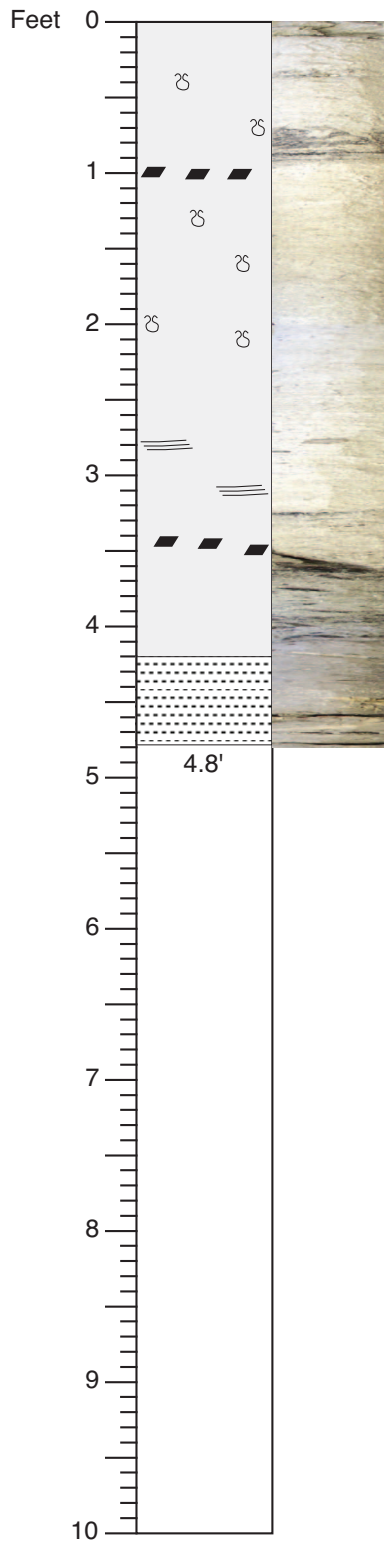


CLAY; with sand burrows, fine sand; slightly micaceous (chlorite); (note sand is similar to the sand below and may be reworked)

SAND; fine, micaceous (no chlorite); some mica grains are ~1 mm across, 10% pink grains (?feldspar); scattered lignite and lignite laminations, cross bedded, few clay drapes, slightly coarser from 0.4-0.7 ft (medium to fine sand); very rare green grains (?glauconite or chlorite); possible environment is distal upper shoreface to lower shoreface

174AX SG
 Core #175
 Start depth: 1520 ft
 Stop depth: 1530 ft
 Recovery: 4.8 ft
 Date: 11/10/03
 Described by: JVB/KGM/SM

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



heavily bioturbated

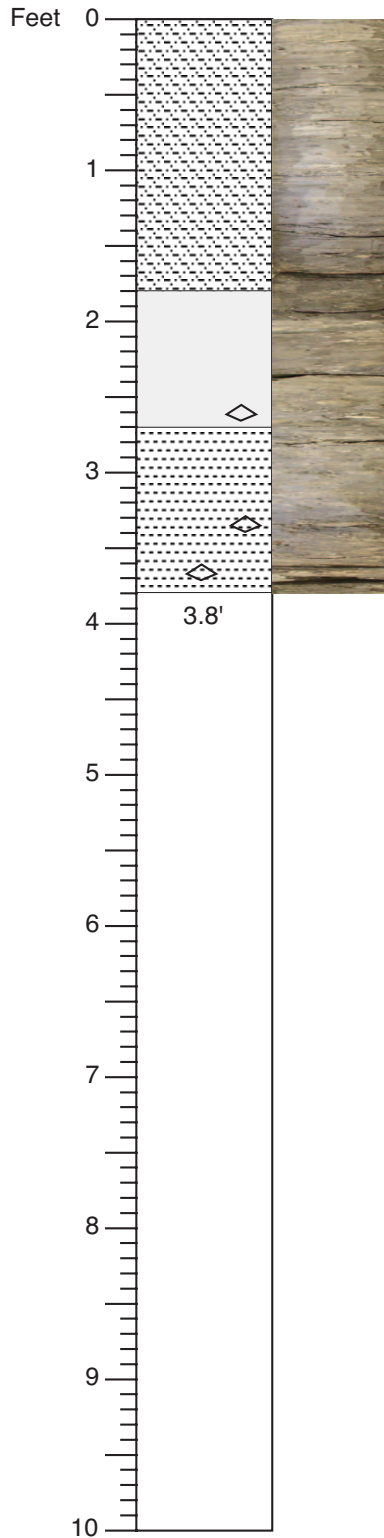
cross bedded
to laminated

SAND; fine, silty, lignitic, a few percent pink grains, slightly micaceous; light gray (N7/)

CLAY; with thin sand laminae; very micaceous, concretion at 4.6 ft; gray (N5/)

174AX SG
 Core #176
 Start depth: 1530 ft
 Stop depth: 1540 ft
 Recovery: 4.8 ft
 Date: 11/10/03
 Described by: JVB/KGM/SM

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



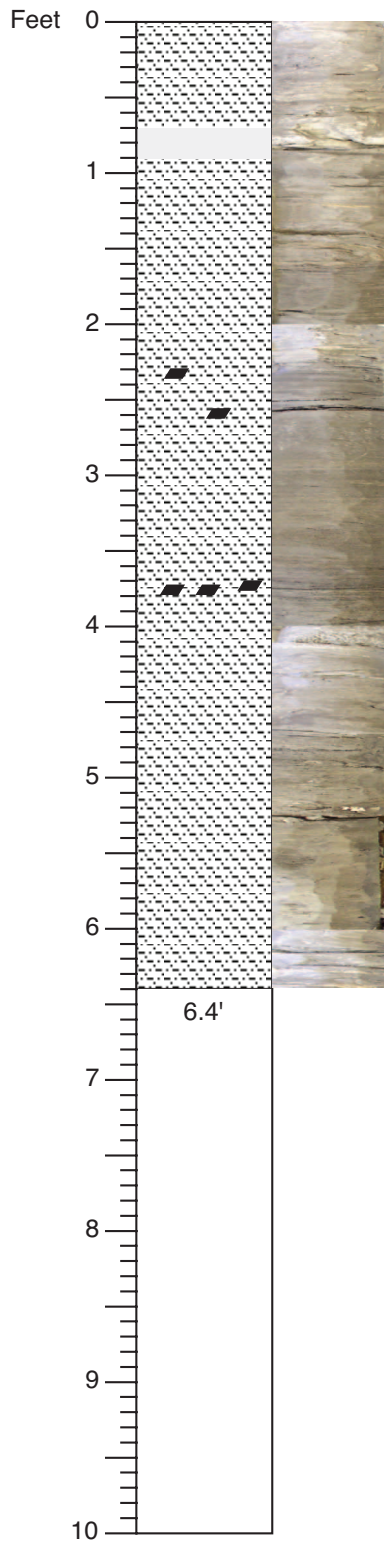
CLAY; and interbedded very fine SAND; very slightly silty, slightly micaceous; clay predominates; black flecks (?lignite)

SAND; fine; clay interbeds; nodules at 2.6 ft

CLAY; with sand interbeds; numerous 1 cm concretions

174AX SG
 Core #177
 Start depth: 1540 ft
 Stop depth: 1550 ft
 Recovery: 3.8 ft
 Date: 11/10/03
 Described by: JVB/KGM/SM

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE

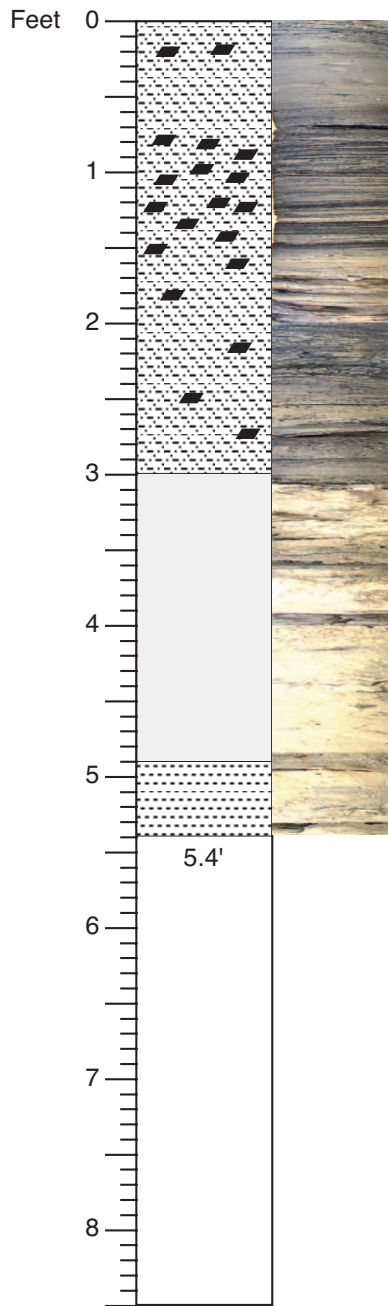


bioturbated
 laminated
 bioturbated
 lam.
 bioturbated

CLAY and interbedded SAND; in places finely laminated (<1 mm); in places bioturbated; 0.7-0.9 ft sugar sand (fine); most sand is very fine, slightly finely micaceous; organics are common, lignite at 2.3, 2.6, 3.7 ft; dark gray (10YR 4/1)

174AX SG
 Core #178
 Start depth: 1550 ft
 Stop depth: 1560 ft
 Recovery: 6.4 ft
 Date: 11/10/03
 Described by: JVB/SM

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



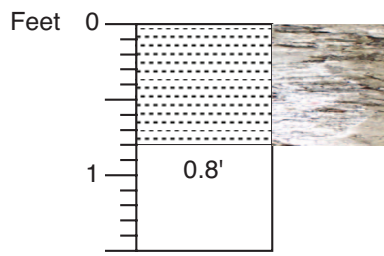
CLAY; silty; lignitic; fine sugar sand; hard; lignite content varies, lignitic - 0-0.35 ft, slightly lignitic - 0.35-0.75 ft, extremely lignitic and cross-bedded - 0.75-1.55, slightly lignitic - 1.55-2.0 ft, lignitic - 2.0-2.35 ft, slightly lignitic - 2.35-3.0 ft; very dark gray (10YR 3/1)

SAND; sphaerosiderite; light brownish gray (10YR 6/2)

CLAY; white; hard

174AX SG
 Core #179
 Start depth: 1560 ft
 Stop depth: 1568.5 ft
 Recovery: 5.4 ft
 Date: 11/10/03
 Described by: KGM/SM

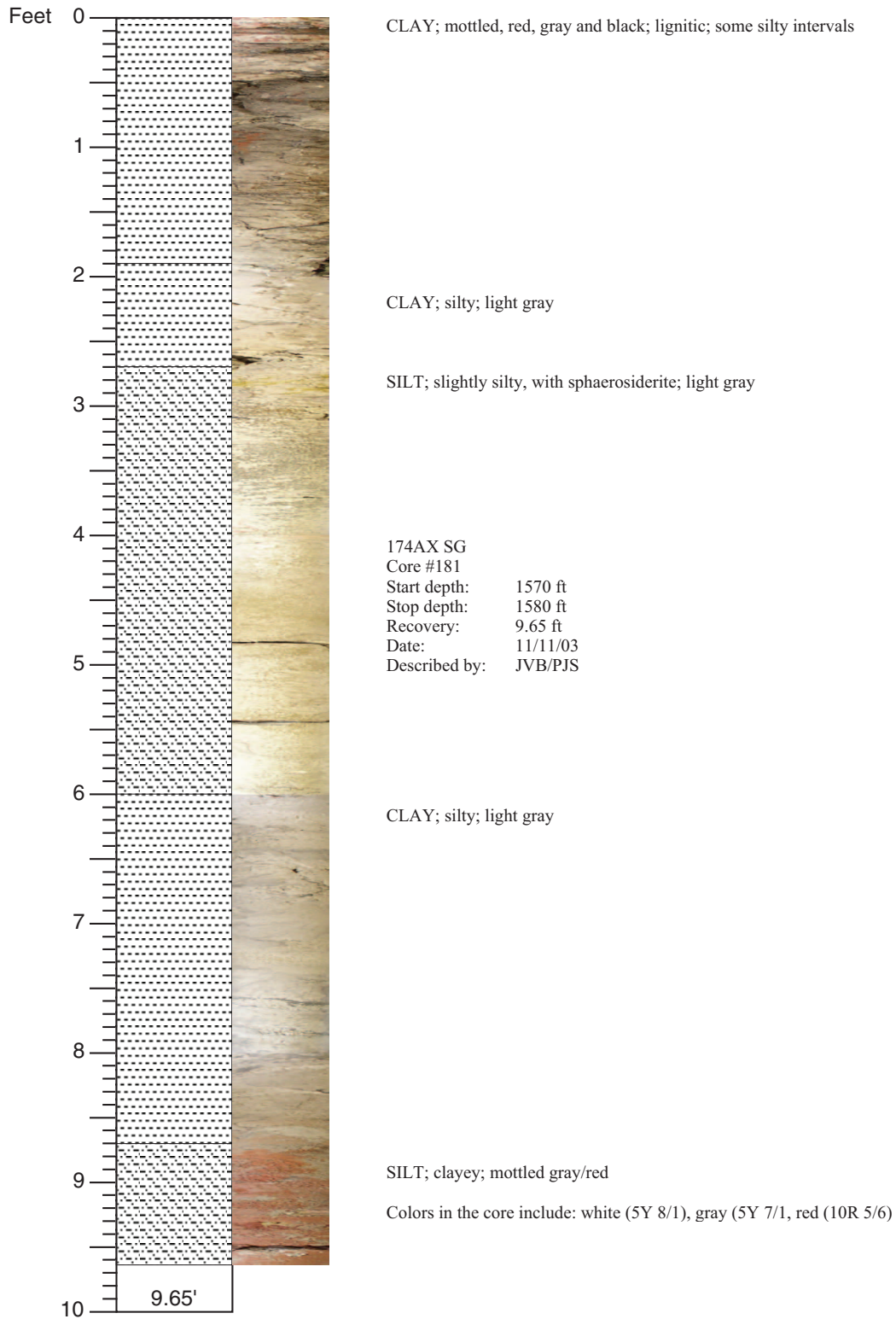
CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



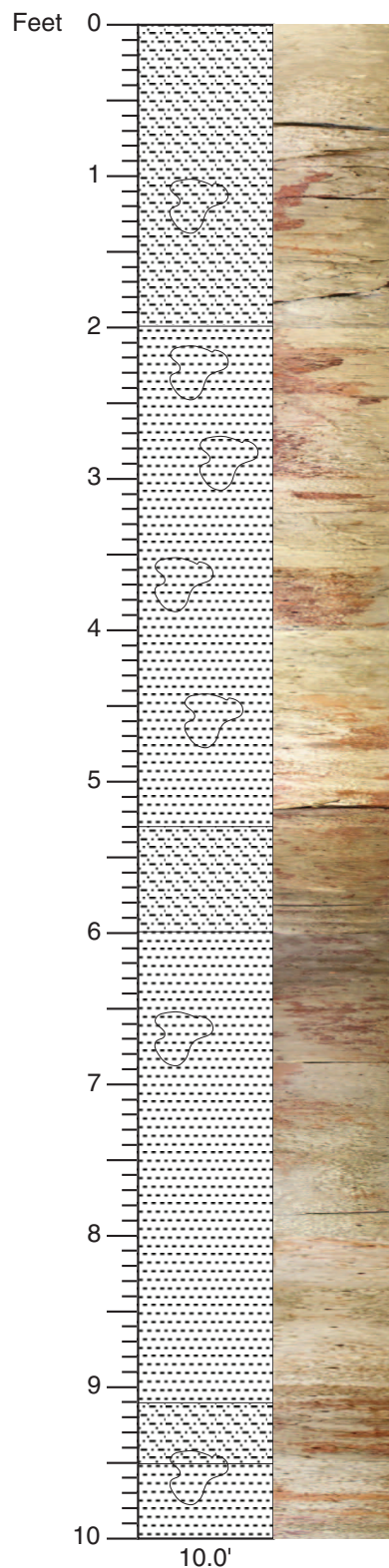
CLAY; a few red mottles; trace of fine organic material; light gray (5Y 7/1)

174AX SG
Core #180
Start depth: 1568.5 ft
Stop depth: 1570 ft
Recovery: 0.8 ft
Date: 11/11/03
Described by: JVB

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SILT; clayey to silty CLAY; light gray several large red mottled roots structures; sphaerosiderite

CLAY; light gray; red mottled root structures

174AX SG
 Core #182
 Start depth: 1580 ft
 Stop depth: 1590 ft
 Recovery: 10 ft
 Date: 11/11/03
 Described by: PJS/JVB

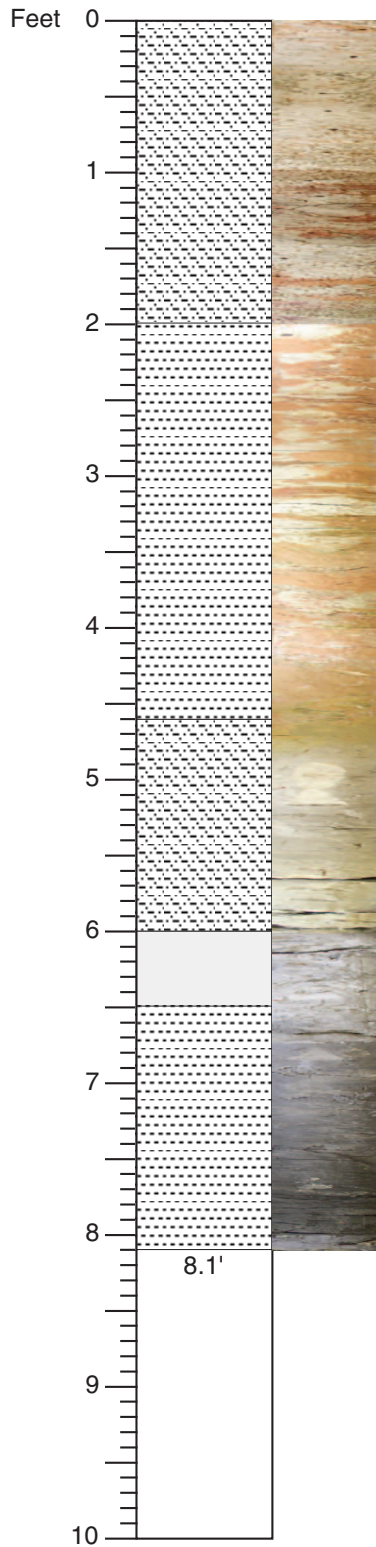
SILT; darker gray

CLAY; silty, light gray

SILT; darker gray

CLAY; silty

CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SEA GIRT SITE



SILT; clayey; abundant sphaerosiderite; heavily red and white mottled

CLAY; silty; heavily red and white mottled; red mottles: red (2.5YR 5/6)

SILT; light gray (10YR 7/1)

SAND; silty, very fine sand; hints of cross bedding

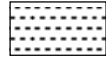
CLAY; silty, dark gray (?siderite nodules at base; thin lignite stringers at bottom; dark grayish brown (10YR 4/2)

174AX SG
 Core #183
 Start depth: 1590 ft
 Stop depth: 1600 ft
 Recovery: 8.1 ft
 Date: 11/11/03
 Described by: PJS/JVB

Key



Limestone



Clay



Silty sand



Glaucanite sand



Sand



Indurated



Peat/Lignite



Pebbles



Nodule



Granules



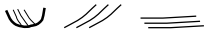
Pyrite



Shells



Foraminifers



Cross beds



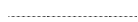
Glaucanite



Laminations



Mica



Sand laminae



Calcite cemented



Clay laminae



Fining upward



Silt laminae



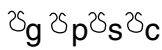
Coarsening upward



Burrows



Sphaerosiderite nodules



Burrows filled with glauconite,
pyrite, sand or clay



Mottles



Porcellanite