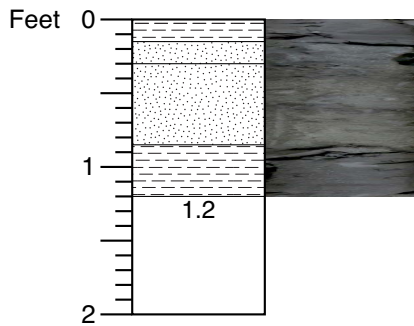


SAND; lower medium to upper fine, well sorted, subrounded, 2% ohm; 1-2 cm shell fragments, shells at 1.0, 1.2 and 1.4-1.5 ft; clay lens at 2.35-2.55 ft same color; 2.55-3 ft: medium sand, fining upward succession; 1.95-2.1 ft is a shell hash layer; 3.05 lignite in shoe good for carbon dating; 5Y 4/1 dark gray

SH-SMY-B Core #1
Start depth: 73
Stop depth: 80
Recovery (ft): 3.0
Date: 10/08/14
Described by: KGM, CSJ, SJG, DHM



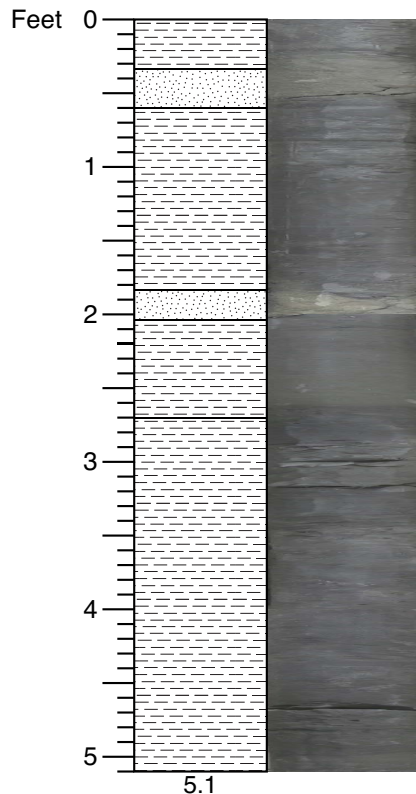
CLAY; silty, including abundant very fine sand sized light green mica and common flecks of organics or plant fragments, soft; Gley 2 GY 4/5 dark greenish gray

SAND; very fine; quartz; angular to subangular; with abundant (>5%) light green mica; common flecks of plant debris interrupted by clay blobs of 1 mm -1 cm diameter, likely muddy burrow fill; Gley 1 PB 4/5 dark bluish gray

SAND; fine to very fine; fine fraction is more abundant, mostly yellowish tan, irregular grains like siderite fragments, some look like the cement smaller grains; very fine sand to silt sized quartz; abundant fine mica (>5%), light to slightly greenish; distinctly thinly laminated, with clay laminations <1 mm but there are laminae up to 6 mm (middle part) and many laminae of a few mm in the upper part, most of the clay laminae show disruption by burrowing; in the basal part 1-3 mm diameter charcoal grains in laminae

CLAY; very silty (more than above); contains abundant fine sand sized mica; also common very fine sand sized plant fragments; faintly laminated, soft

SH-SMY-C Core #1
Start depth: 717 ft
Stop depth: 719 ft
Recovery (ft): 1.2
Date: 10/31/14
Described by: PPM



CLAY; very silty with thin inclined laminae that washed out (cleaner silt to very fine sand) and flattened; subhorizontal burrows 1 x 3 mm

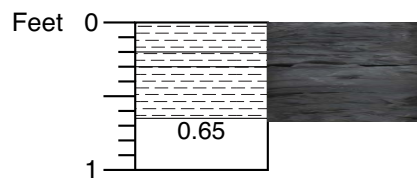
SAND; very fine to fine; fine fraction is irregular roundish tan-yellow grains that look like siderite may be cement and smaller grains; very fine to silt fraction is quartz; abundant (~5%) fine mica, distinctly thinly laminated with varying amounts of mud matrix by laminae

CLAY; same as top interval but more abundant sand laminae from 0.6-1.0 ft; sand is very fine quartz and abundant mica; laminae are mostly <1 mm, some up to 2 mm, in that part almost ½ of the volume is sand laminae; similar more scattered laminae in rest of interval; scattered flecks of plant debris; bigger burrow at 1.55 f; burrows are more abundant at bottom

SAND; similar to 0.35-0.6 ft; but contains more disrupted clay laminae and blebs that likely reflect bioturbation

CLAY; from 2.15-2.3 ft and 2.7-5.1 ft similar to clays described above; but 2.3-2.7 ft is lighter colored, lighter downward; light color appears to reflect high mica content, light colored to greenish mica; otherwise the darker silty clay has common laminae of clean to slightly muddy micaceous silt and very fine sand, mm scale of <1 mm laminae

SH-SMY-C Core #2
Start depth: 719 ft
Stop depth: 724 ft
Recovery (ft): 5.1
Date: 10/31/14
Described by: PPM



CLAY

CLAY; silty; burrowed

CLAY; laminated

SH-SMY-C Core #3

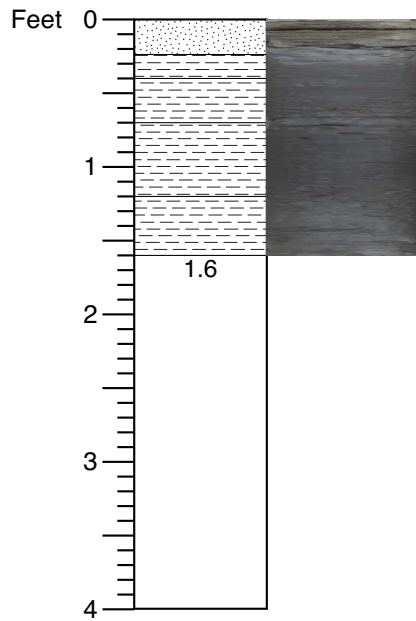
Start depth: 724 ft

Stop depth: 725 ft

Recovery (ft): 0.65

Date: 10/31/14

Described by: JVB



SAND; with siderite

SILT; very fine sandy; micaceous

CLAY; silty; laminated, burrowed

SILT; clayey; Gley 1 3/N very dark gray

SH-SMY-C Core #4

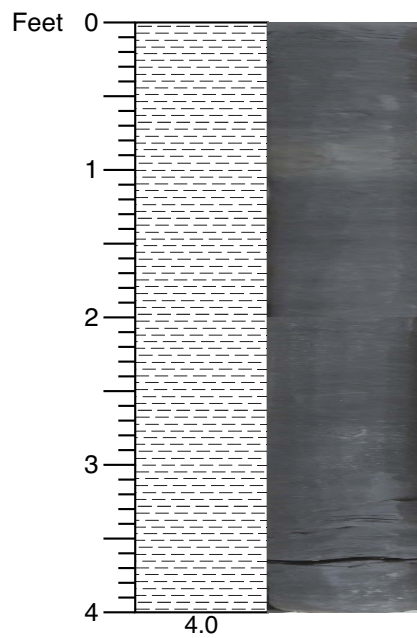
Start depth: 725 ft

Stop depth: 729 ft

Recovery (ft): 1.6

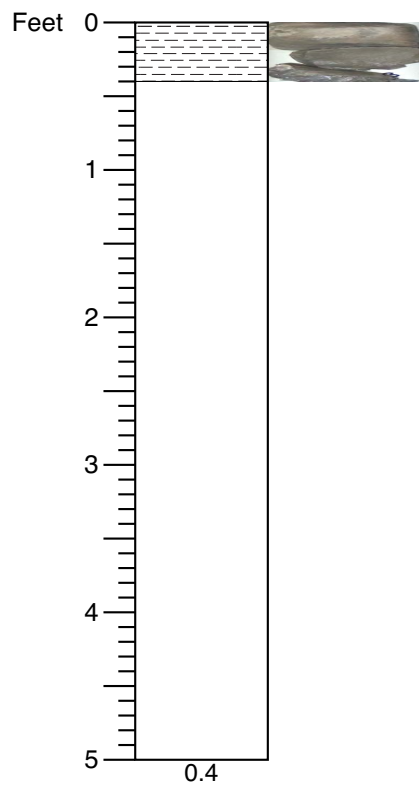
Date: 10/31/14

Described by: JVB



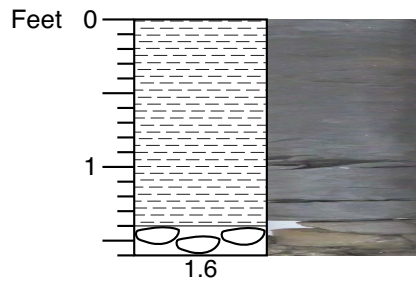
CLAY; silty, micaceous; siderite sand concentration at 0.8-1.1 ft and at base; core appears to be largely bioturbated with faint laminae preserved; uniform core

SH-SMY-C Core #5
Start depth: 729 ft
Stop depth: 732.5 ft
Recovery (ft): 4.0
Date: 10/31/14
Described by: JVB



SILTSTONE; indurated; siderite nodule; 5Y 6/3 pale olive

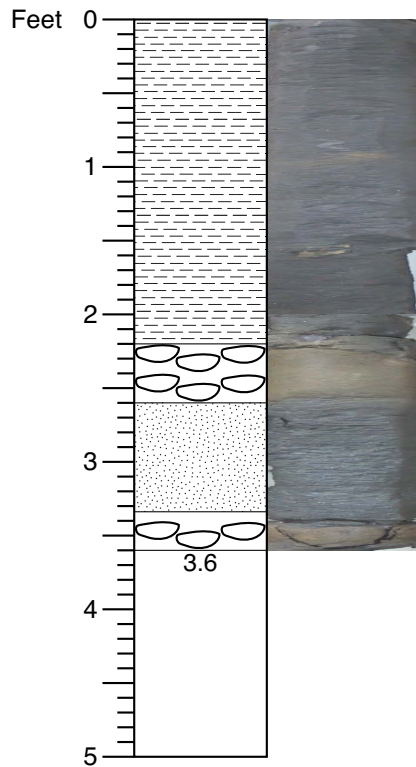
SH-SMY-C Core #6
Start depth: 732.5 ft
Stop depth: 737.5 ft
Recovery (ft): 0.4
Date: 11/01/14
Described by: JVB



CLAY; fairly structureless; bioturbated; mica flakes, siderite nodule; 10GY 1/1 very dark greenish gray

SIDERITE NODULE; 5Y 4/2 olive gray

SH-SMY-C Core #7
Start depth: 737.5 ft
Stop depth: 739.0 ft
Recovery (ft): 1.6
Date: 11/01/14
Described by: JVB



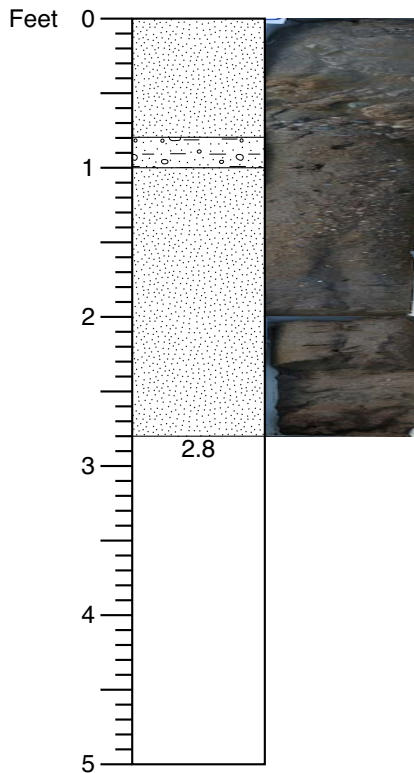
CLAY; same as above; bioturbated; more laminated below 1.5 ft; incipient siderite nodule at 0.95 ft; pyrite nodule at 1.6 ft; 10GY 3/1 very dark greenish gray

SIDERITE NODULE

SAND; very fine; silty, more mica, mm scale in places; appears bioturbated with remnant laminations

SIDERITE NODULE; lignite flakes; appears sandy

SH-SMY-C Core #8
Start depth: 739.0 ft
Stop depth: 744 ft
Recovery (ft): 3.6
Date: 11/01/14
Described by: JVB



0-0.8 ft, SAND; medium to coarse, occasionally reaches very coarse; sub-angular to rounded, moderately sorted; primarily quartz with some potassium feldspar; 5Y 4/2 olive gray; 0.55-0.8, 2.5Y 4/4 olive brown layer

0.8-1.0 ft, GRAVEL; 0.5-2 cm pebbles, sub-rounded; gneissic, Mesozoic basin, gray lithics; matrix is coarse sand; moderately sorted, sub-rounded

1.0-1.8 ft, SAND; poorly sorted, sub-angular to sub-rounded, 5-6% lithics in matrix, primarily quartz; <1% potassium feldspar; coarse fraction has same composition as 0.8-1.0 ft Mesozoic Basin; very coarse to upper medium near base; 5Y 4/1 dark gray (matrix)

1.8-2.8 ft, SAND; upper medium sand; moderately well sorted, sub-rounded; dominantly quartz with <1% potassium feldspar; thin lenses or bands of brown at: 1.95-2.0, 2.075-2.1, 2.2-2.35; 2.7-2.8 ft, 7.5YR 2.5/3 very dark brown sub-angular primarily quartz with more ohm

SH-SMY-B Core #2

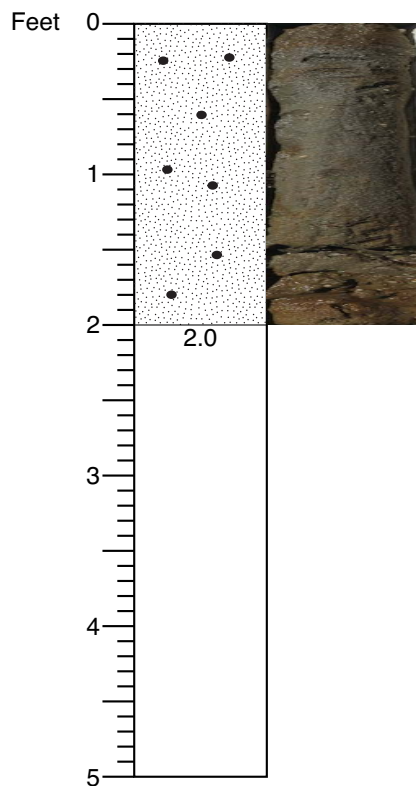
Start depth: 80 ft

Stop depth: 85 ft

Recovery (ft): 2.8 ft

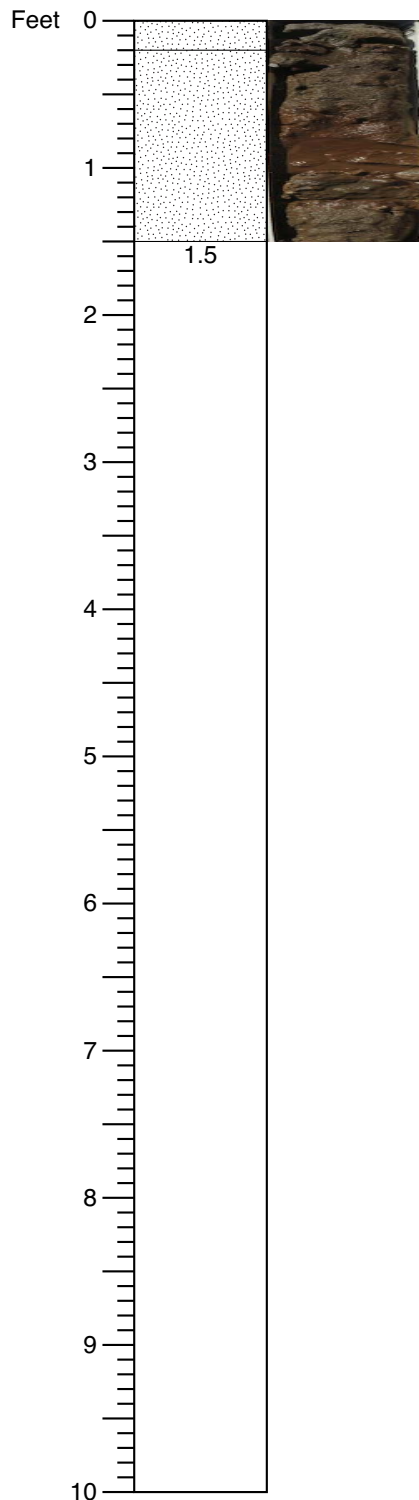
Date: 10/08/14

Described by: CSJ, SJG, DHW, KGM



SAND; coarse-very coarse, some pebbles throughout - not in place; sub-rounded, dominantly quartz, ~1% potassium feldspar; <1% medium-grained sub-rounded darker grains; oxidized zones: 0.05-0.2, 0.35-0.42, 1.3-1.6 ft; 1.85-2 ft sub-rounded, predominantly quartz medium sand-brown staining potassium feldspar; 10YR 4/4 dark yellowish brown

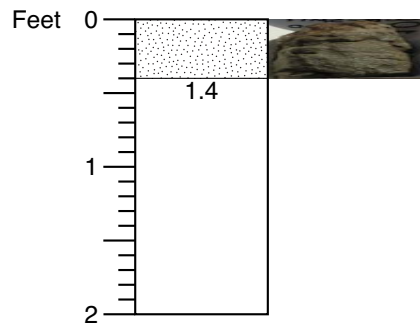
SH-SMY-B Core #3
Start depth: 85 ft
Stop depth: 90 ft
Recovery (ft): 2
Date: 10/08/14
Described by: CSJ, SJG, DHM, KGM



0-0.2, SAND; medium, well sorted, dominantly sub-rounded with some subangular; primarily quartz, <1% feldspar; 5Y 4/2 olive gray

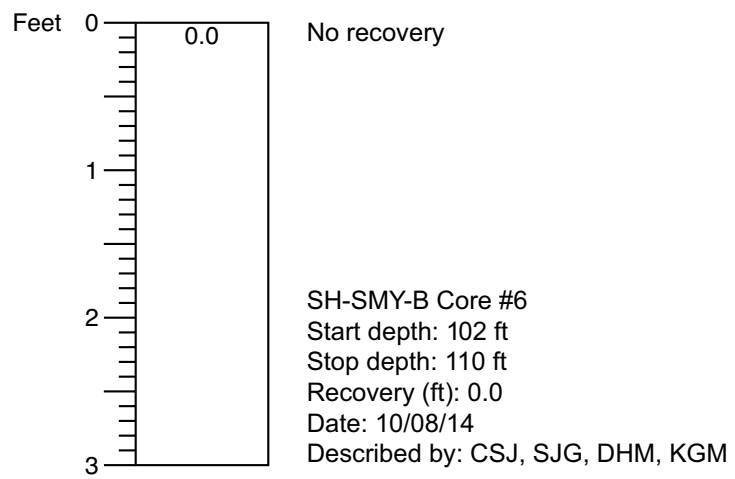
0.2-1.5 SAND; medium to coarse; dominantly quartz, moderately well sorted; <1% k-spar; sub-rounded; 0.4 gradational color change through 2.5Y 3/2 very dark grayish brown to 10YR 4/3 brown

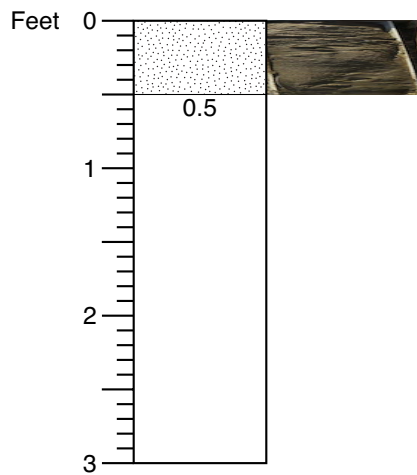
SH-SMY-B Core #4
Start depth: 90 ft
Stop depth: 100 ft
Recovery (ft): 1.5
Date: 10/08/14
Described by: CSJ, SJG, DHM, KGM



0-0.4 ft SAND; medium to coarse; sub-rounded; predominantly quartz, <1% ohm; <1% k-spar; moderate-well sorted; (angular brown section is a drilling artifact); 0-0.05 ft 2.5Y 3/3 dark olive brown, 0.05-4 ft 2.5Y 3/2 very dark grayish brown

SH-SMY-B Core # 5
Start depth: 100 ft
Stop depth: 102 ft
Recovery (ft): 0.4
Date: 10/08/14
Described by: SJG, DHM, CSJ, KGM





SAND; upper medium to upper fine; rounded; moderately well sorted; 3-10 mm sub-rounded pebbles; quartz dominated, possible very fine organics (<0.01 %), trace feldspar, ohm <1%, possible shell fragments on exterior of core; 2.5Y 4/3 olive brown; 2 mm fine sand and silt laminae at 0.28, 0.42, and 0.43 ft, sub-rounded, very well sorted; 2.5Y 6/2 light brownish gray

SH-SMY-B Core #7

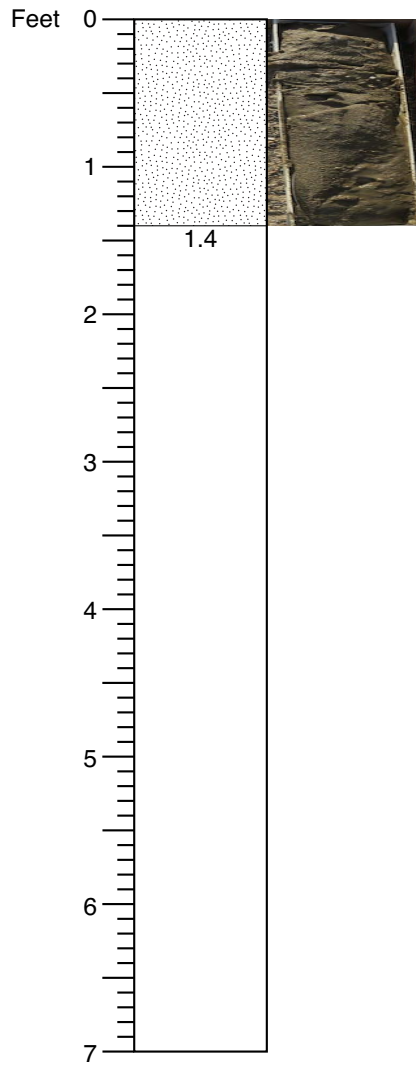
Start depth: 110 ft

Stop depth: 113 ft

Recovery (ft): 0.5

Date: 10/08/14

Described by: CSJ, SJG, DHM, KGM



SAND; medium; well sorted, sub-rounded; 90% quartz, ~1% feldspar, ~5% ohm, <1% micas; 7 mm gray Mesozoic basin lithic pebbles in core; 2 cm pebble at top of core, Mesozoic basin? not sure if it is in place

SH-SMY-B Core #8

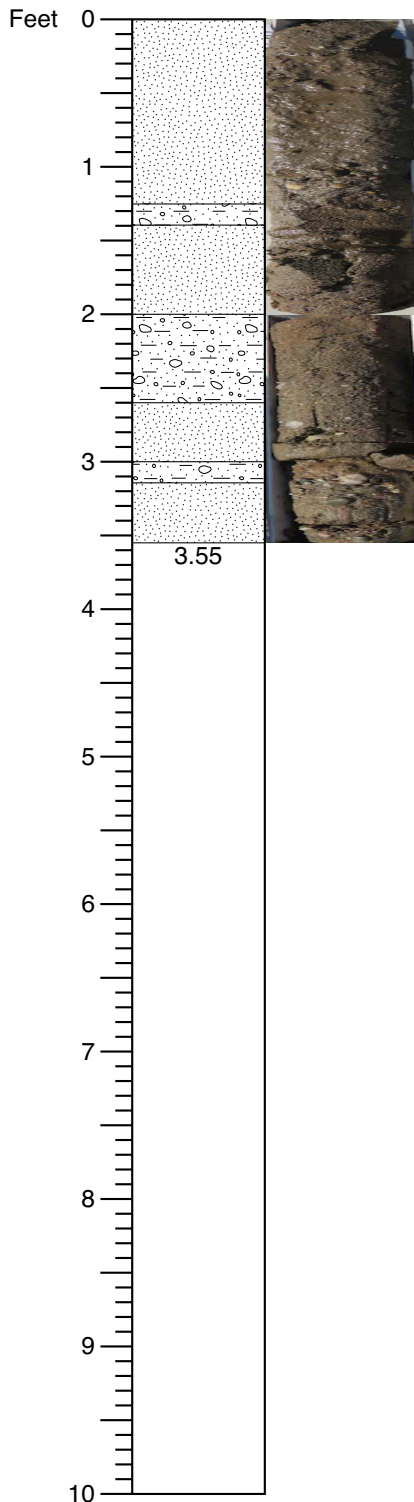
Start depth: 113 ft

Stop depth: 120 ft

Recovery (ft): 1.4

Date: 10/08/14

Described by: SJG, DHM, CSJ, KGM



SAND, with gravelly intervals, fine to medium; sub-angular sub-rounded, moderately sorted; mostly quartz, nearly 10% dark grains including lithics (green and red siltstone/mudstone?); possible garnets (reddish); larger quartz is sub-rounded

1.25-1.4 ft, SAND; gravelly, including gravel 2mm-1cm diameter, including clasts of yellow sandstone, quartzite, reddish siltstone?, white and black plutonic? gravel is ~ 1/4 -1/3 volume

1.6-2.0 ft, SAND; with granules and rare fine gravel

2.0-2.6 ft, SAND; with scattered gravel (generally <5 mm)

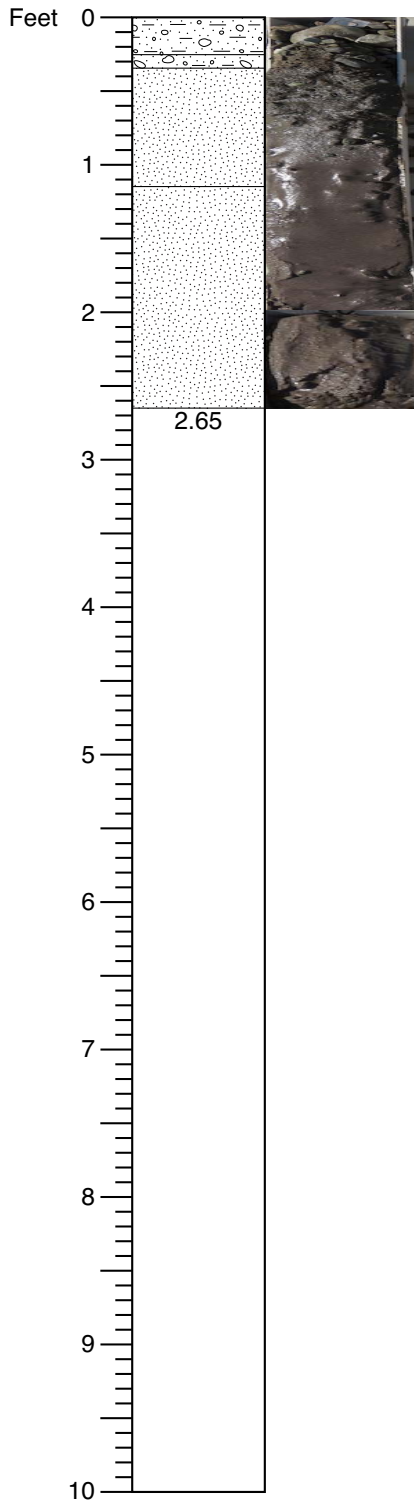
2.6-3.0 ft, SAND; gravelly, granule rich, gravel up to 2 cm, longer clasts angular- sub-angular, including black and white fine grain igneous clasts, reddish siltstone/very fine grained siltstone, and abundant quartz/quartzite

3.0-3.1 ft, SAND; is slightly sticky, mud matrix, fine grained; mostly quartz, less lithics than coarser sand

3.1-3.3 ft, as above but also dark brownish gray siltstone clasts

3.4-3.5 ft, as above (some of this core, especially upper part, may be a mix of material)

SH-SMY-B Core #9
Start depth: 120 ft
Stop depth: 130 ft
Recovery (ft): 3.55
Date: 10/09/14
Described by: PPM, CJL



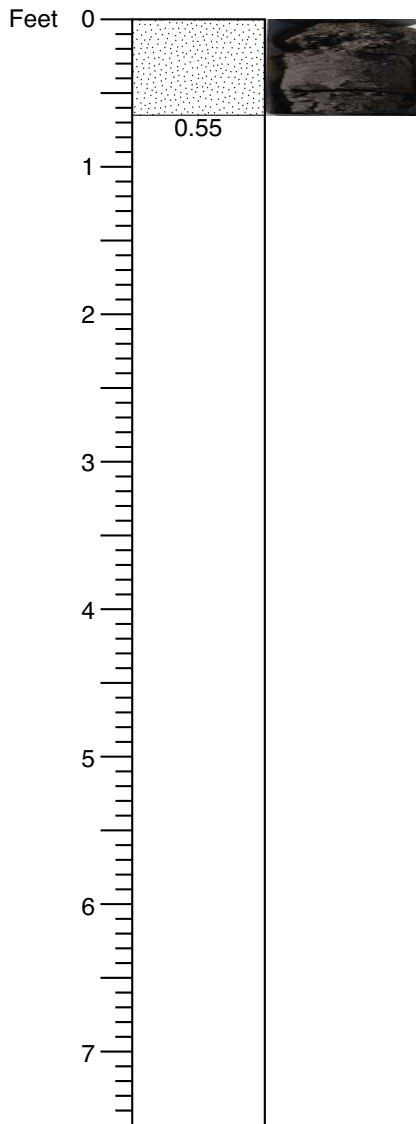
GRAVEL; (junk from above?) up to 5 cm, sub-angular to well rounded; sediment and crystalline rock fragments

Gravelly sand/ sandy gravel mix of above and below

SAND, poorly sorted, with common granules and scattered gravel Medium most common, but including range from very fine angular quartz to coarse well-rounded quartz and coarse lithics (greenish and reddish silts/ very fine grain sandstone); gravel up to 1 cm, ≈10% volume, well-rounded to angular quartzite and lithics (mostly sediment rock fragments)

SAND, fine grained, well sorted, mostly sub-angular-angular quartz; about 10% quartz is red rust stained, 1-2% other sediment rock fragments; a few green micas (chlorite?); faintly laminated?; seems fairly clean, any mud looks like drilling mud and not matrix

SH-SMY-B Core #10
Start depth: 130 ft
Stop depth: 140 ft
Recovery (ft): 2.65
Date: 10/09/14
Described by: PPM, CJL

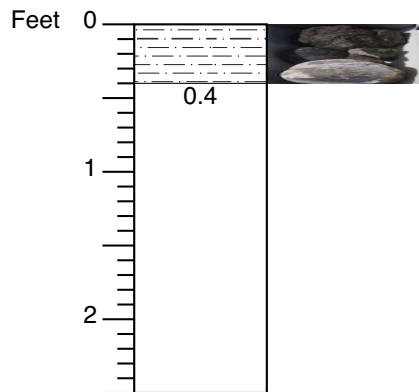


0-0.2 ft, SAND; loose, poorly sorted (junk?), fine grain to granule, abundant lithic grains sub-rounded to sub-angular; coarser quartz is subrounded to well rounded, finer quartz is angular to sub-angular

0.2-0.45 ft, SAND; laminated, slightly cohesive (due to grain size, not matrix, maybe a little matrix), well sorted, fine-grained, angular quartz, abundant red-stained quartz, some greenish sediment rock fragments in between (0.2-0.3, 0.45-0.55)

0.45-0.55 ft, SAND, like 0.3-0.45 ft but slightly looser and only moderately sorted with some coarser grains; fine to medium, with some coarse grains; more abundant sediment rock fragments and in upper (0.2-0.3) also granules abundant, granules rare in lower (0.45-0.55)

SH-SMY-B Core #11
Start depth: 140 ft
Stop depth: 147.5 ft
Recovery (ft): 0.55
Date: 10/09/14
Described by: PPM, CJL



(0-0.15) SAND, fine to medium; moderately well sorted, quartz, with ~5% ohm, trace muscovite, and <5% lithic fragments, slightly silty, sub-rounded (sand), some reddish stained quartz

4 large clasts, rounded, but broken by drill bit 1) 63 mm quartzite; 2) crystalline igneous fragment; 3) arenite fragment; 4) dark pebble

SH-SMY-B Core #12

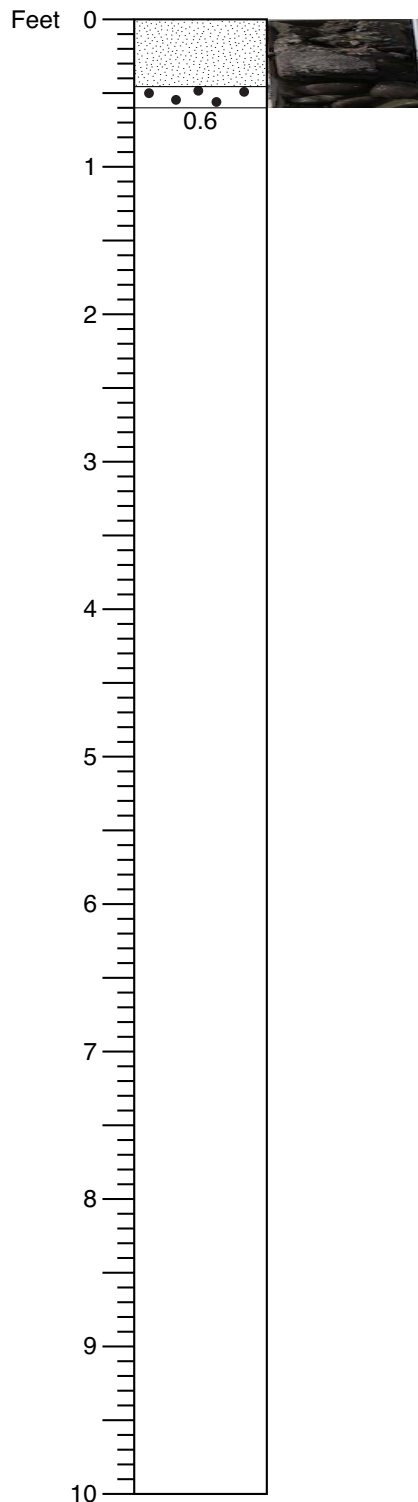
Start depth: 147.5 ft

Stop depth: 150 ft

Recovery (ft): 0.4

Date: 10/09/14

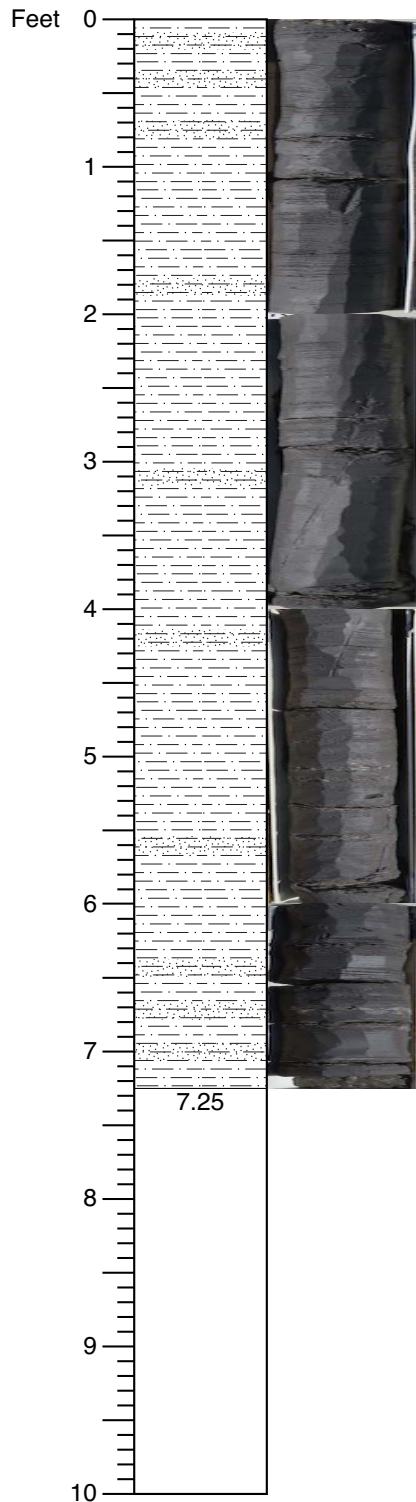
Described by: C JL



SAND; fine to medium; quartz, sub-rounded with 1-3% ohm; abundant lithic fragments, some coarse sand Newark Basin red lithics; from ~0.2-0.3 ft, layer of poorly sorted medium to >2 mm grains (50% quartz, 50% lithics); some coarse lithology is scattered in pockets from 0.0-0.2 ft, within fine grain/medium grain matrix

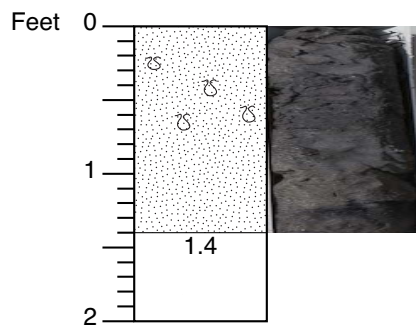
0.45-0.6 ft, PEBBLES; quartzite, well rounded, 5-6 pebbles

SH-SMY-B Core #13
Start depth: 150 ft
Stop depth: 160 ft
Recovery (ft): 0.6
Date: 10/09/14
Described by: CJL



CLAY, silty, with very thin laminae of sand (fat clay, rolls well), includes very fine sand sized micas and brownish organic flecks; sand laminae tend to be <0.5 mm thick unless otherwise noted and spaced about 3-4 mm average apart (occur in clusters); 2.7 and 2.9 ft: ~5 mm thick sand laminae with pyrite nodules (2x1 cm and 0.5x1 cm), nodules in and just below sand, very fine quartz sand with mica and organics; 3.1-3.9 ft: more dense, no sand laminae; 3.9-4.2 ft: pyrite cement/semi-lithified pyrite concretions on top, sandier, especially at top and bottom; the thicker sand laminae are irregularly distributed and ~5 mm average thickness, sand in those laminae are very fine to fine with organic fragments and some mica; GLEY 1 3/N very dark gray for most of the core (the dark gray clays); SANDS are GLEY 1 5/N gray

SH-SMY-B Core #14
Start depth: 160 ft
Stop depth: 170 ft
Recovery (ft): 7.25
Date: 10/09/14
Described by: PPM



SAND, fine, lignitic, trace mica, lignitic bed at 1.2 ft;
0.35-0.75 ft looks burrowed; quartz pebble at top may be
caved (soupy 0.2 ft); ?Englishtown Formation; GLEY 1 4/N
dark gray

SH-SMY-B Core #15

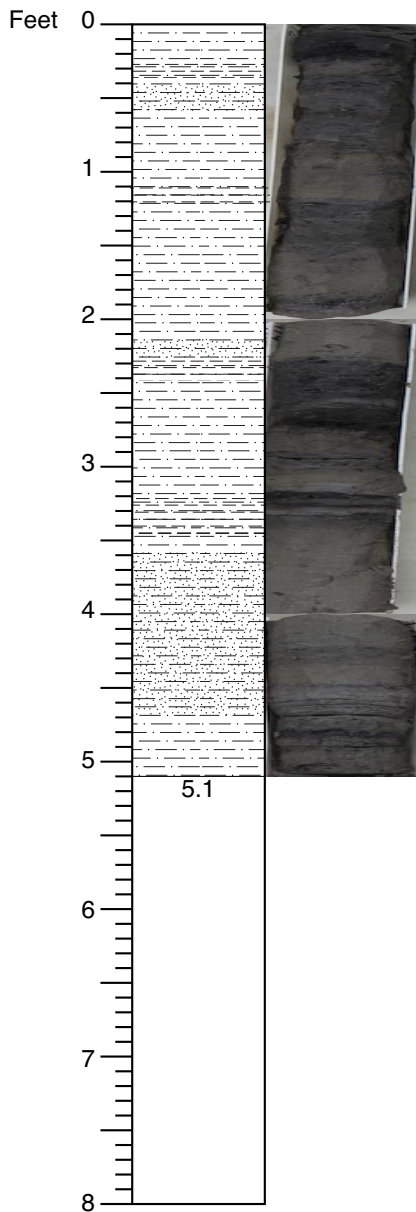
Start depth: 170 ft

Stop depth: 172 ft

Recovery (ft): 1.4

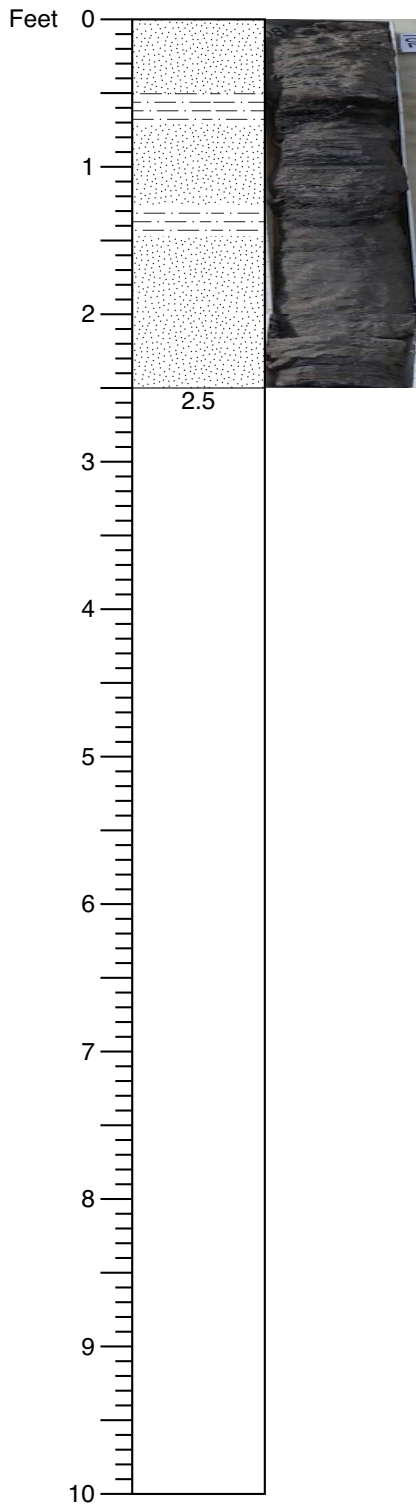
Date: 10/09/14

Described by: CJL, KGM, BB, LKJ



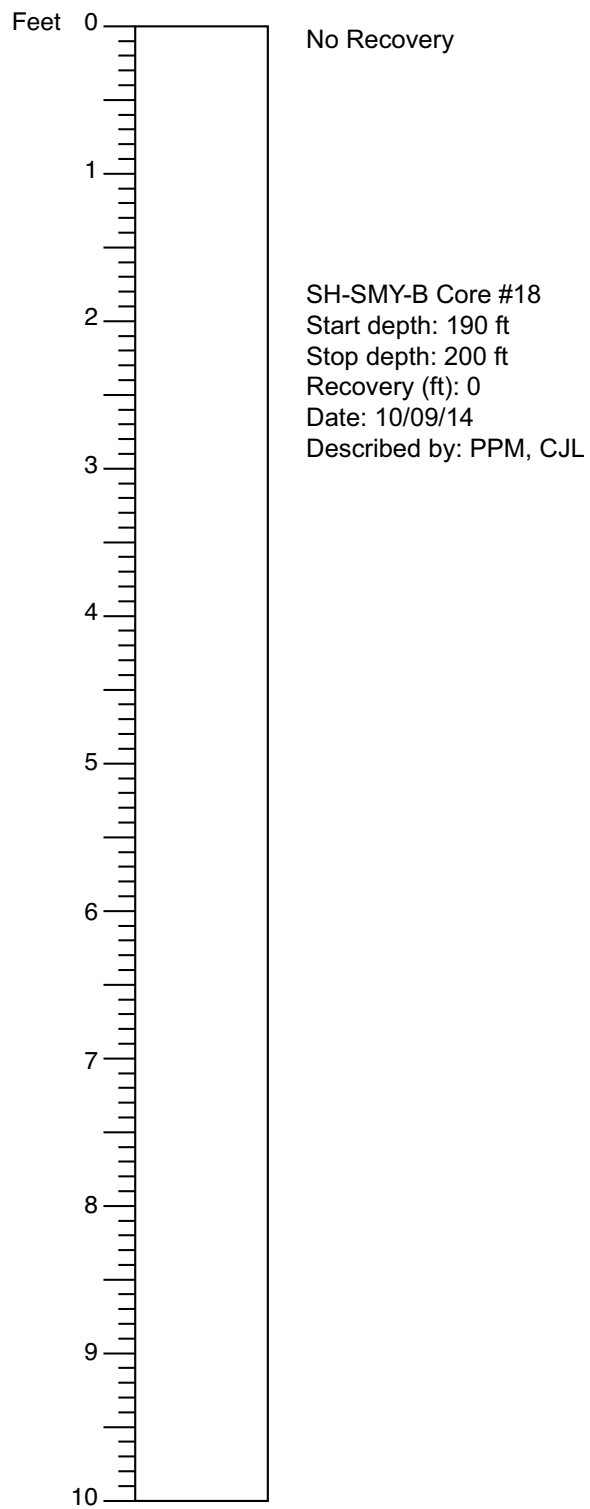
0-0.4 ft, SAND; fine, silty, dark organic-rich
 0.4-0.9 ft, CLAY; silty, with 2 cm thick fine sand bed
 0.9-1.3 ft, SAND; medium, quartz with abundant muscovite
 1.3-1.7 ft, CLAY; with thin sand laminae
 1.7-2.4 ft, SAND; fine, some medium, quartz
 2.4-3.5 ft, SAND; silty, dark, organic-rich, large mica flakes,
 dark organic rich sandy clay bleb (4 cm thick) at 2.9 ft; thin
 clay lenses between 3.05-3.2 ft; 3.35 ft, 3 lenses of dark
 organic rich clay (1 cm, 3 mm, and 3 mm thick)
 3.5-4.7 ft, SAND; fine, some very fine, angular to
 sub-angular, quartz, fine to medium fine muscovite and
 ohms; 4.3-4.4 ft thin clay laminae
 4.7-5.1 ft, SAND; abundant mica, thin organic lamina at 4.7
 ft; cross bedded laminae at 4.75 ft; sands: Gley 1 4/10Y-4/N
 clay: Gley 1 2.5/N

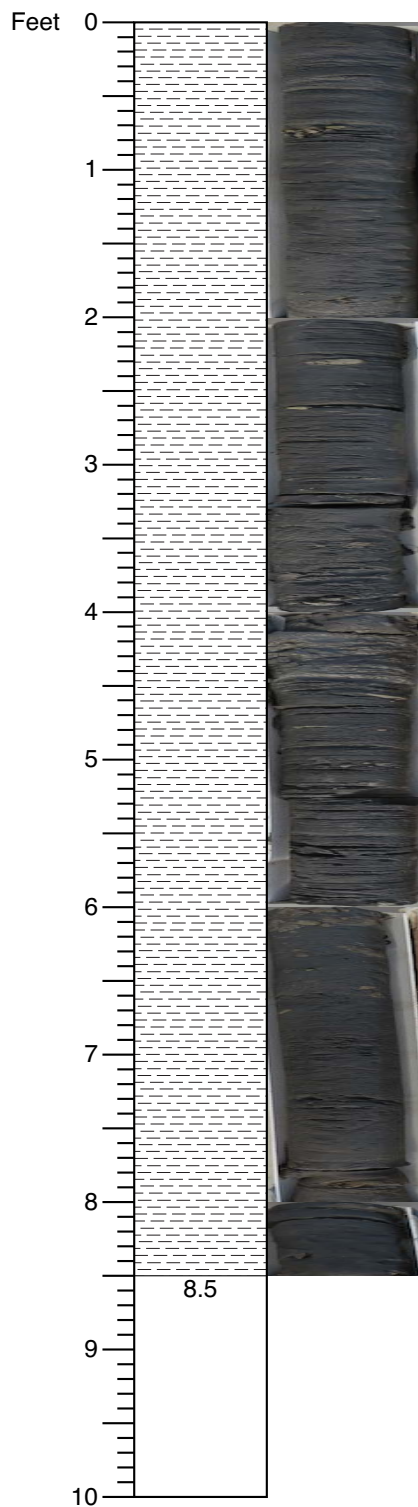
SH-SMY-B Core #16
 Start depth: 172 ft
 Stop depth: 180 ft
 Recovery (ft): 5.1
 Date: 10/09/14
 Described by: PPM, CJL, BB, CSJ



SAND; medium and common upper fine; moderately well sorted with a silty matrix; sub-rounded, quartz, common mica, traces of plant fragments; speckled black/ gold pyritized wood chunks very abundant at ~1.35 ft; 0.65-0.75 ft; 4 cm of wood fragments; 0.75-1.4 ft: abundant woody fragments of twigs, many partially pyritized; 1.4-1.5 ft: silty sand with woody fragments and and pyritized wood 1-5 mm chunks; 1.5'-2.2' sand; 2.2'-2.5' interdominated clay and sand, <5 mm each with pyrite nodules

SH-SMY-B Core #17
Start depth: 180 ft
Stop depth: 190 ft
Recovery (ft): 2.5
Date: 10/09/14
Described by: PPM, CJL





CLAY, laminated, silt in laminae; 0-1.5 ft: sandier bed; 0.05 ft thick micaceous very fine sand; abundant pyrite and siderite concretions; becomes harder clay at bottom; fine lignite disappears at bottom; Woodbury Formation; 3/N very dark gray

SH-SMY-B Core #19
Start depth: 200 ft
Stop depth: 210 ft
Recovery (ft): 8.5
Date: 10/10/14
Described by: JVB, PJS

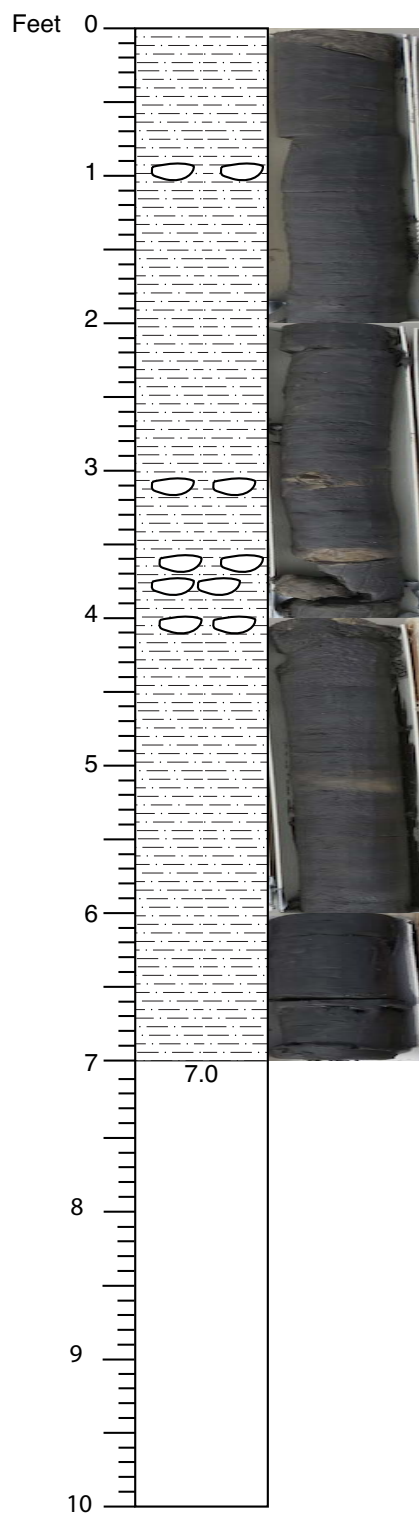


0-1.6 ft, CLAY; slightly glauconitic (up to 10%) to 1.6 ft; not laminated; siderite concretions common; lignite present, no pyrite

1.6-2.3 ft, CLAY; laminated, no glauconite, clayier, trace of silt, slight lignitic

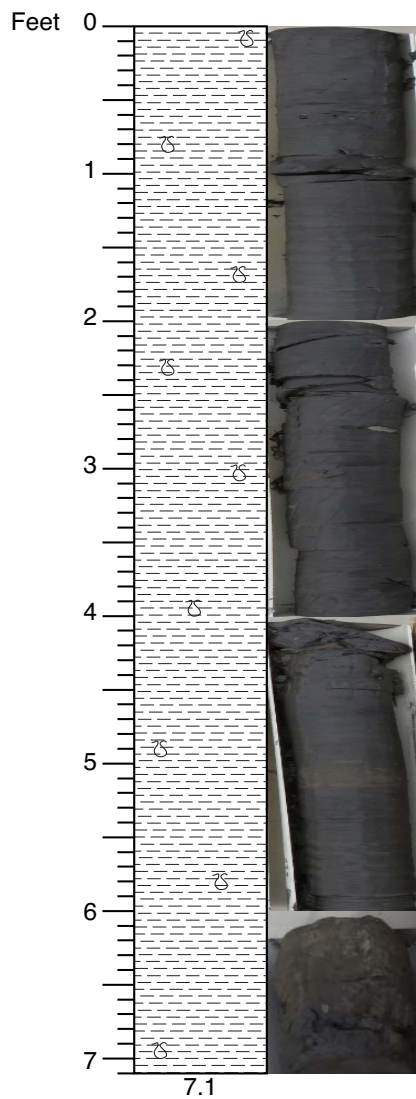
2.3-8.0 ft, CLAY; silty beds at top; traces of thin bedded to laminae, very fine mica, trace lignite, Woodbury lithology; 3/N very dark gray

SH-SMY-B Core #20
Start depth: 210 ft
Stop depth: 220 ft
Recovery (ft): 8.0
Date: 10/10/14
Described by: JVB, PJS



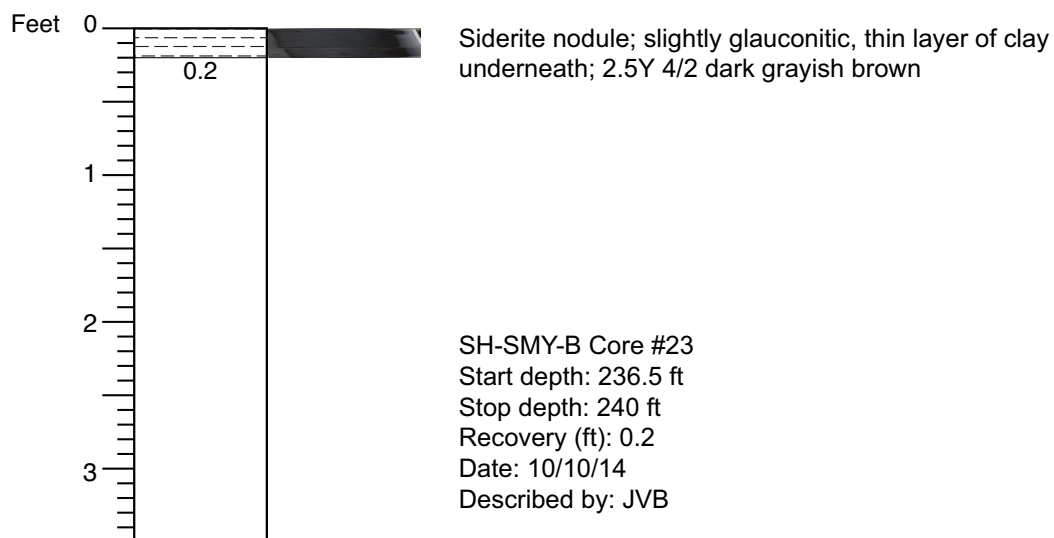
CLAY; very little silt, finely disseminated mica, laminated, large siderite concentrations; 3/N very dark gray

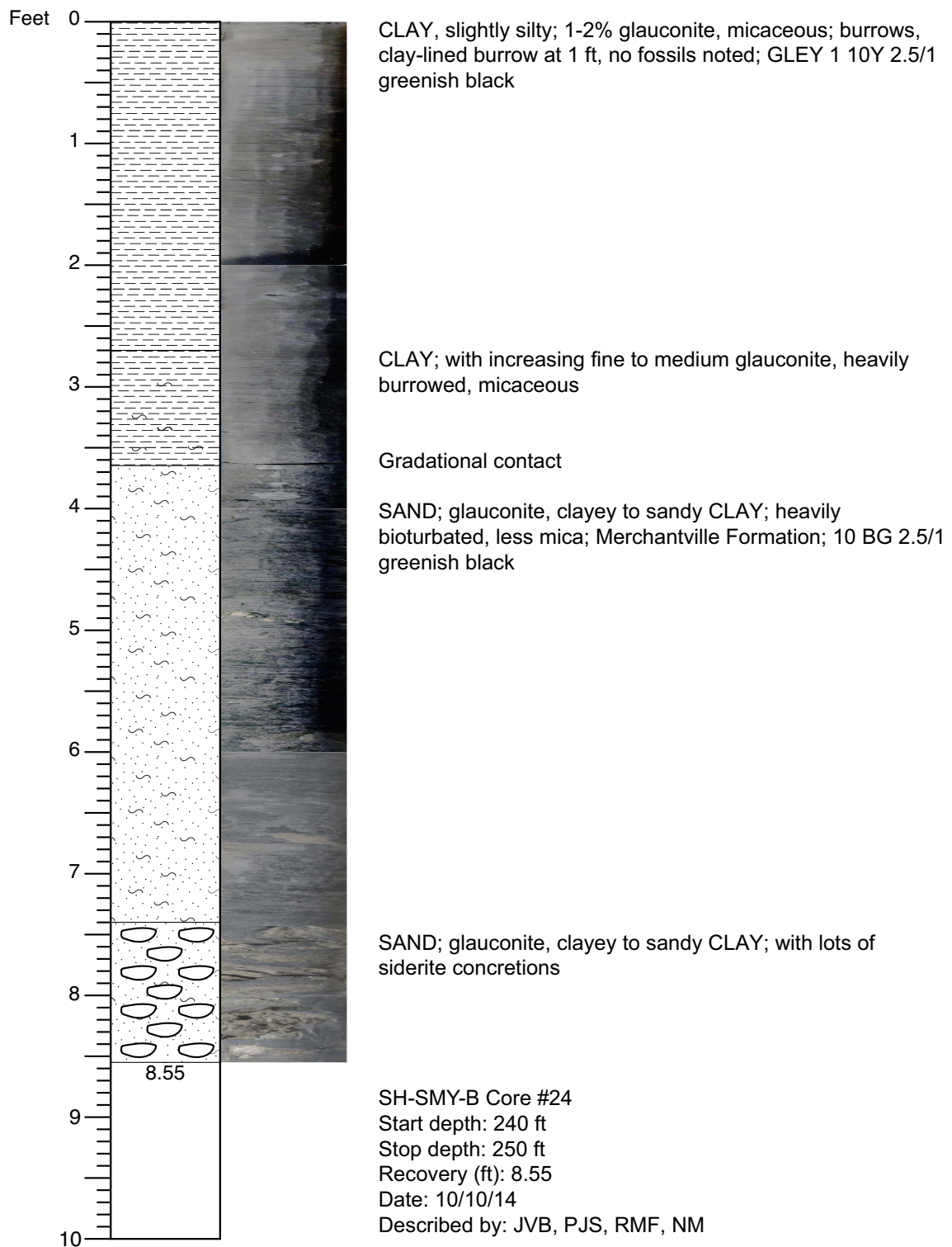
SH-SMY-B Core #21
Start depth: 220 ft
Stop depth: 230 ft
Recovery (ft): 7
Date: 10/10/14
Described by: JVB, PJS, RMF, NM

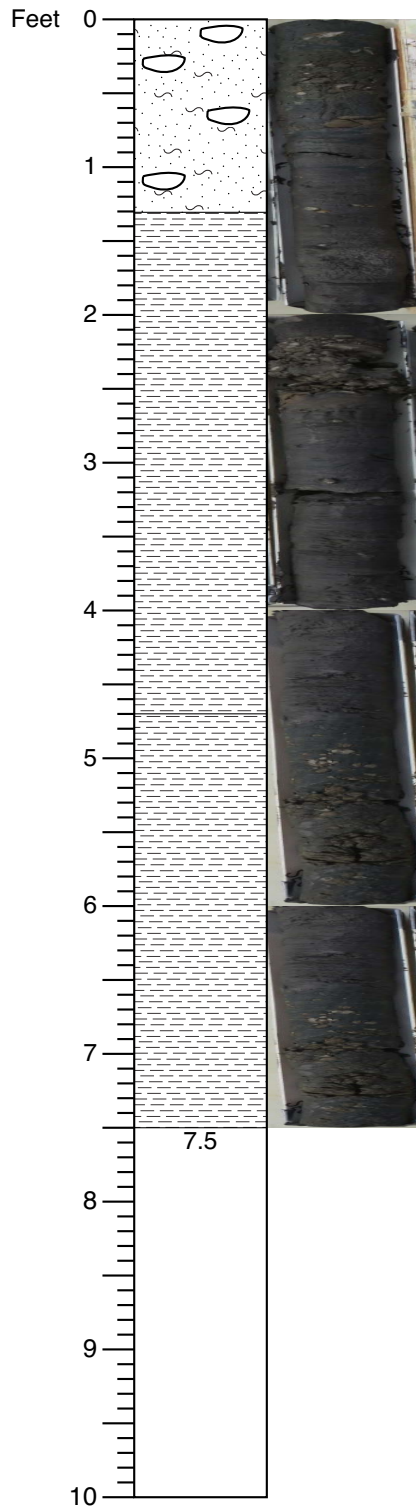


CLAY, finely dispersed mica, siderite, pyrite; traces of burrows at 1.1 ft; traces of bedding, beds are more prominent at bottom (1-2 cm thick), beds are lighter on the bottom and darker on top; mica is very common; Gley (1) 3/N very dark gray

SH-SMY-B Core #22
Start depth: 230 ft
Stop depth: 236.5 ft
Recovery (ft): 7.1
Date: 10/10/14
Described by: JVB, PJS, RMF, NM







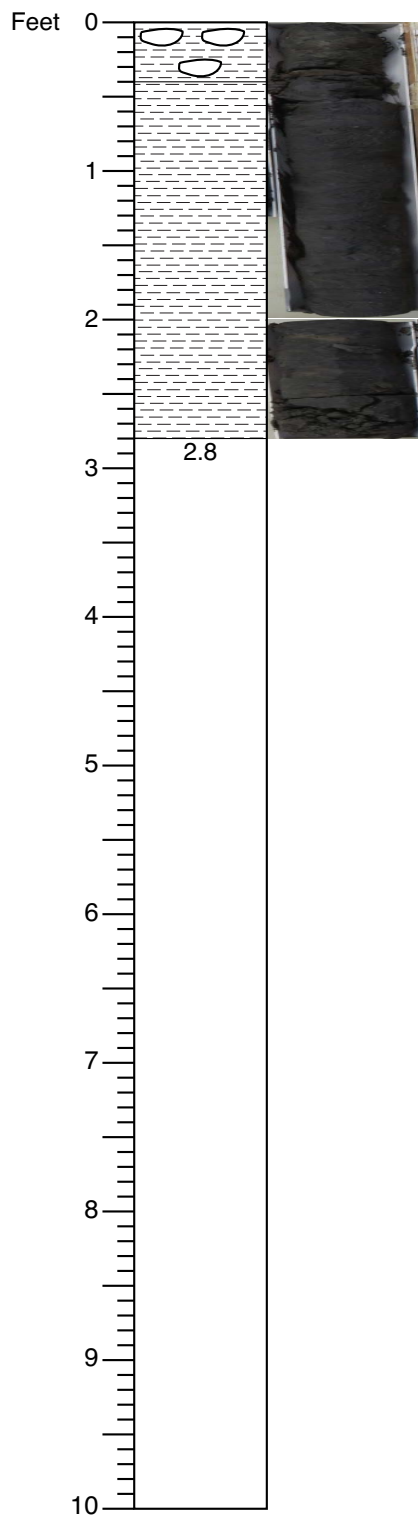
SAND; glauconite, clay; many siderite concretions, burrows
Merchantville Formation

Burrowed contact

SILT; grading to clayey silt; lignitic, micaceous, glauconite
filled burrows, conglomerate-pebbly bed (to 1.5 cm), some is
sideritized; 5PB 2.5/1 bluish black

SILT; clayey, glauconitic; siderite concretions throughout;
Cheesequake below; micaceous 10BG 2.5/1 greenish black

SH-SMY-B Core #25
Start depth: 250 ft
Stop depth: 260 ft
Recovery (ft): 7.5
Date: 10/10/14
Described by: JVB, PJS, RMF, NM



Siderite, in a clayey matrix

SILT, micaceous; shells begin at 1.6 ft, burrowed Gley 1 3/N very dark gray

SH-SMY-B Core #26

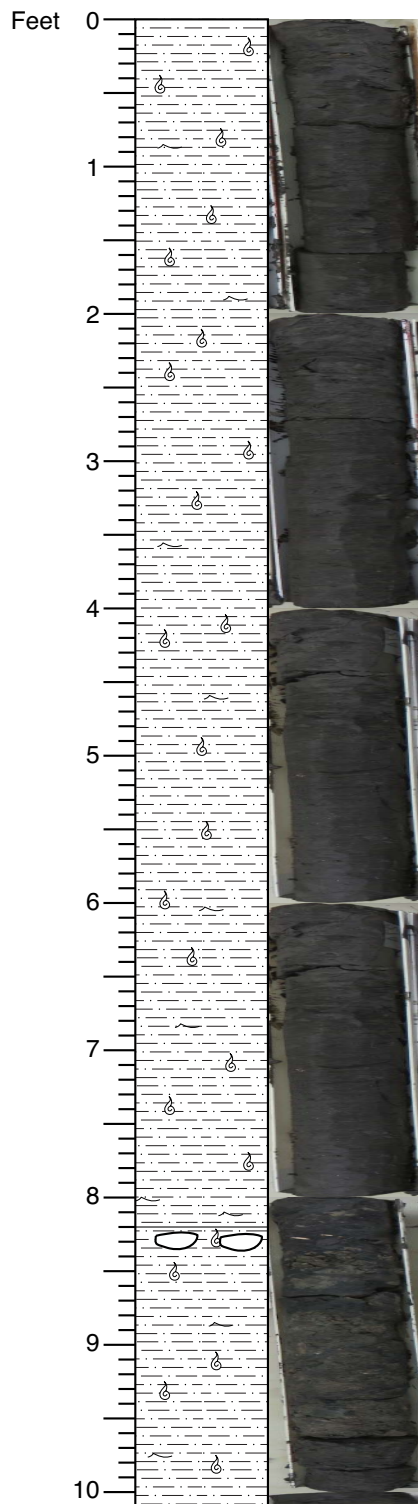
Start depth: 260 ft

Stop depth: 270 ft

Recovery (ft): 2.8

Date: 10/10/14

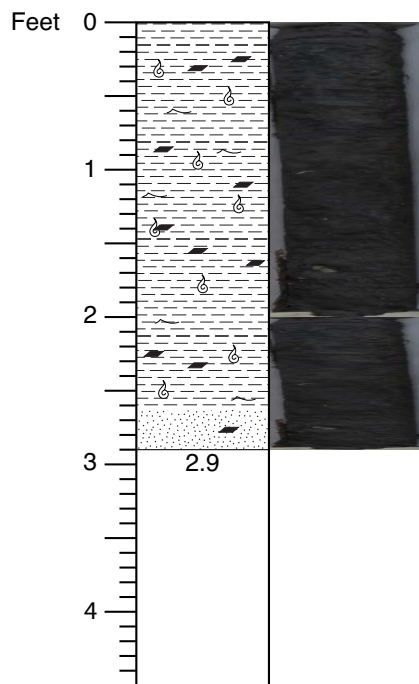
Described by: JVB, PJS, RMF, NM



SILT; micaceous, shells (thin walled bivalves) scattered throughout, lignitic, slightly glauconitic; mostly bioturbated

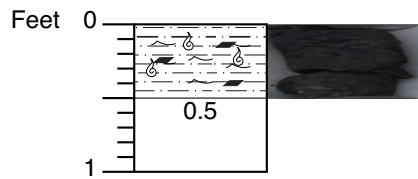
CLAY; siderite, glauconite, large shells at top

SH-SMY-B Core #27
Start depth: 270 ft
Stop depth: 280 ft
Recovery (ft): 10.1
Date: 10/10/14
Described by: JVB, PJS



SILT; clayey, micaceous shells, slightly glauconitic; bioturbated, sandier at base; very lignitic; Cliffwood beds?

SH-SMY-B Core #28
Start depth: 280 ft
Stop depth: 284.5 ft
Recovery (ft): 2.9
Date: 10/10/14
Described by: JVB, PJS



SILT; similar to above with more glauconite; lignitic, micaceous, trace shells; 10Y 3/1 very dark, greenish gray

SH-SMY-B Core #29

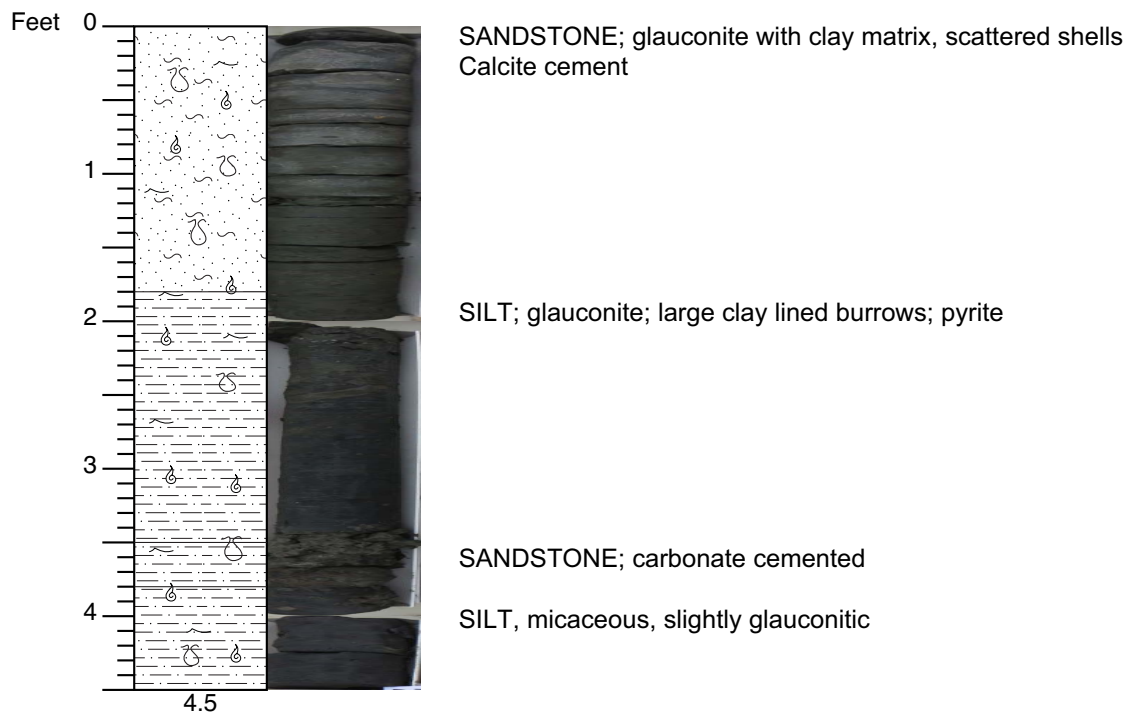
Start depth: 284.5 ft

Stop depth: 285.5 ft

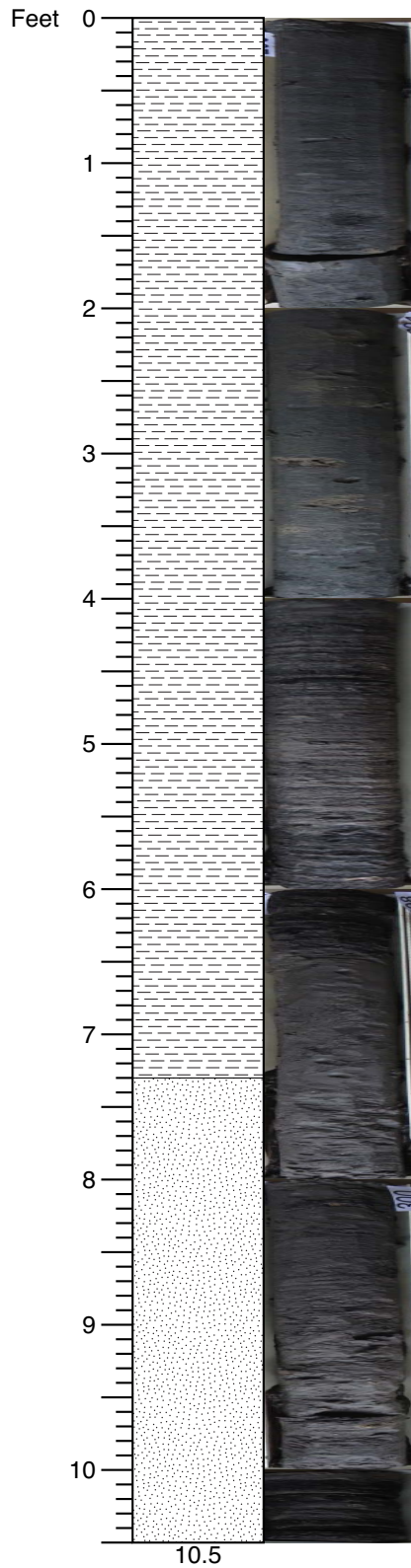
Recovery (ft): 0.5

Date: 10/10/14

Described by: JVB, PJS



SH-SMY-B Core #30
Start depth: 285.5 ft
Stop depth: 290 ft
Recovery (ft): 4.5
Date: 10/10/14
Described by: JVB, PJS



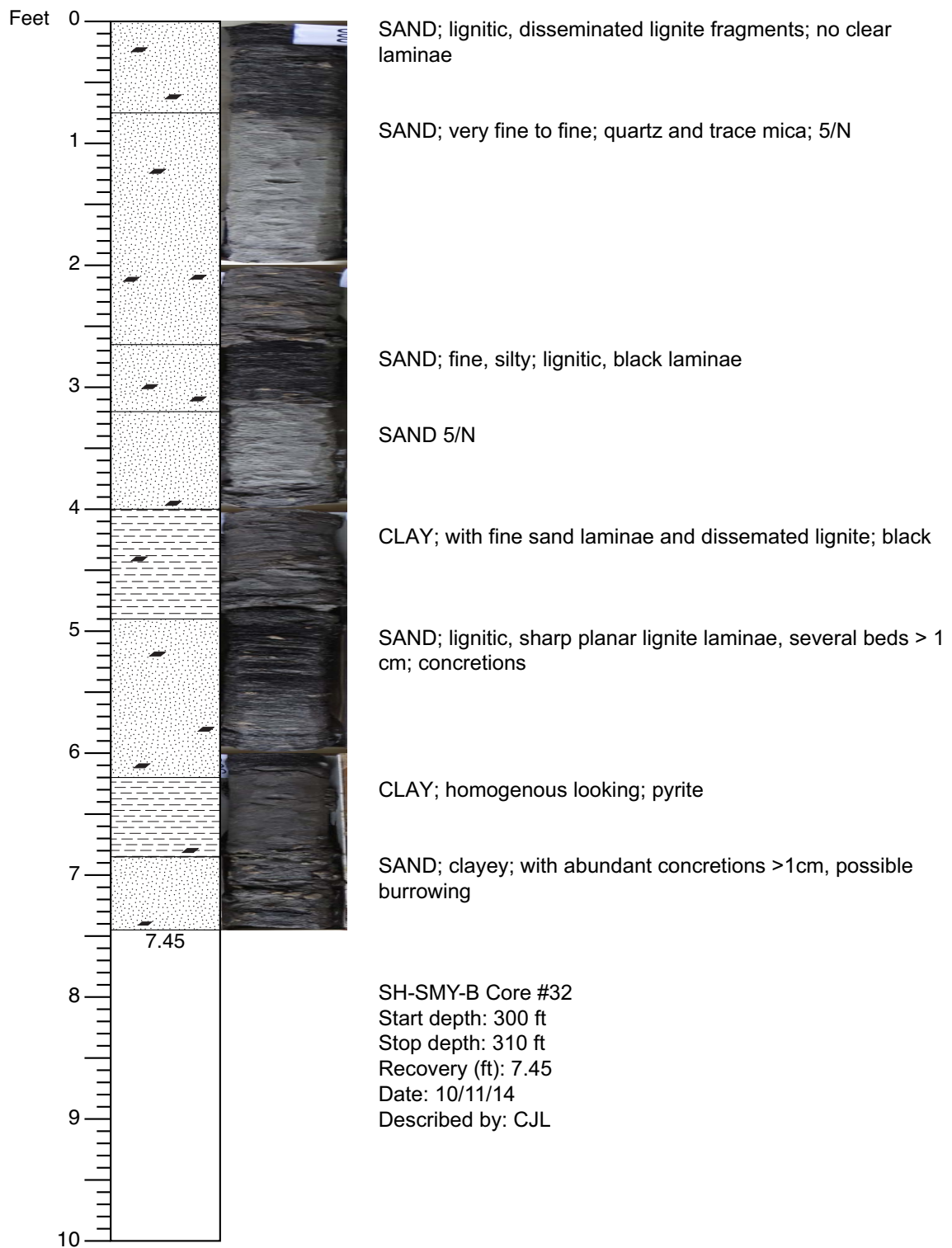
CLAY; micaceous, dark, rolls well; maybe a trace of glauconite; possibly bioturbated; light greyish brown nodules, (well cemented) some with lignite fragments at 1.3, 3.3, and 3.4 ft. ; GLEY 1 2.5/56 Y

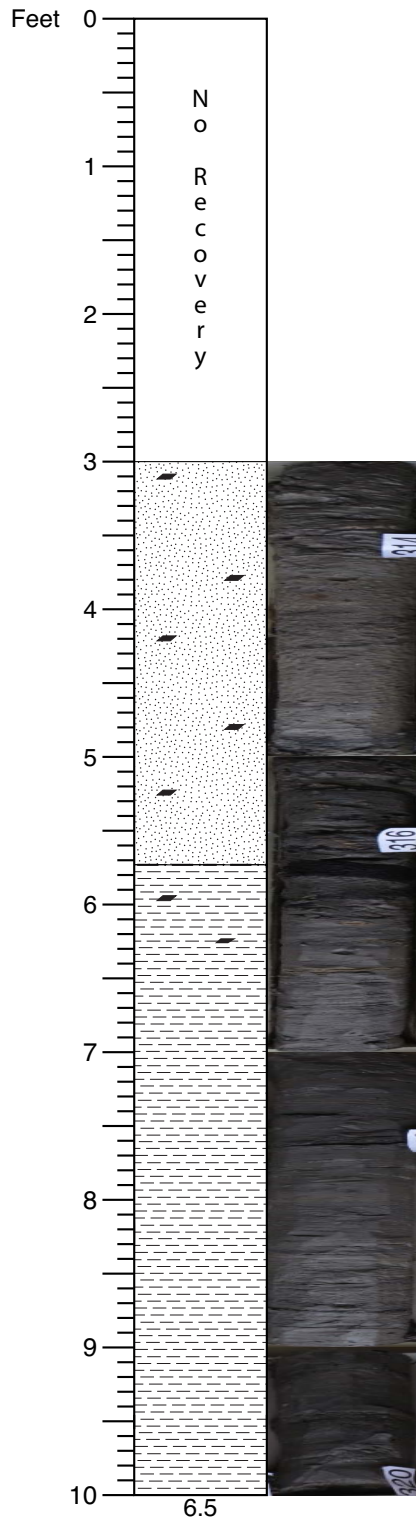
4.05 ft – contact – sharp, one small riprap or sand pod above

CLAY; laminated, micaceous, light gray; with thin lignite laminae and lignite fragments (4.5 ft); cm thick lignite beds between 5.5 and 6.3 ft; high angle cross beds of very fine sand and black organics at 7 ft; Magothy Formation; 10YR 4/1 dark gray

SAND; cross-bedded and interlaminated with very fine SAND; quartz, with abundant mica, occasional pyrite nodules, possible siderite concretions, clay laminae <1 cm thick; bottom of core is interbedded >1 cm lignite and sand and clay beds

SH-SMY-B Core #31
Start depth: 290 ft
Stop depth: 300 ft
Recovery (ft): 10.5
Date: 10/11/14
Described by: CJL



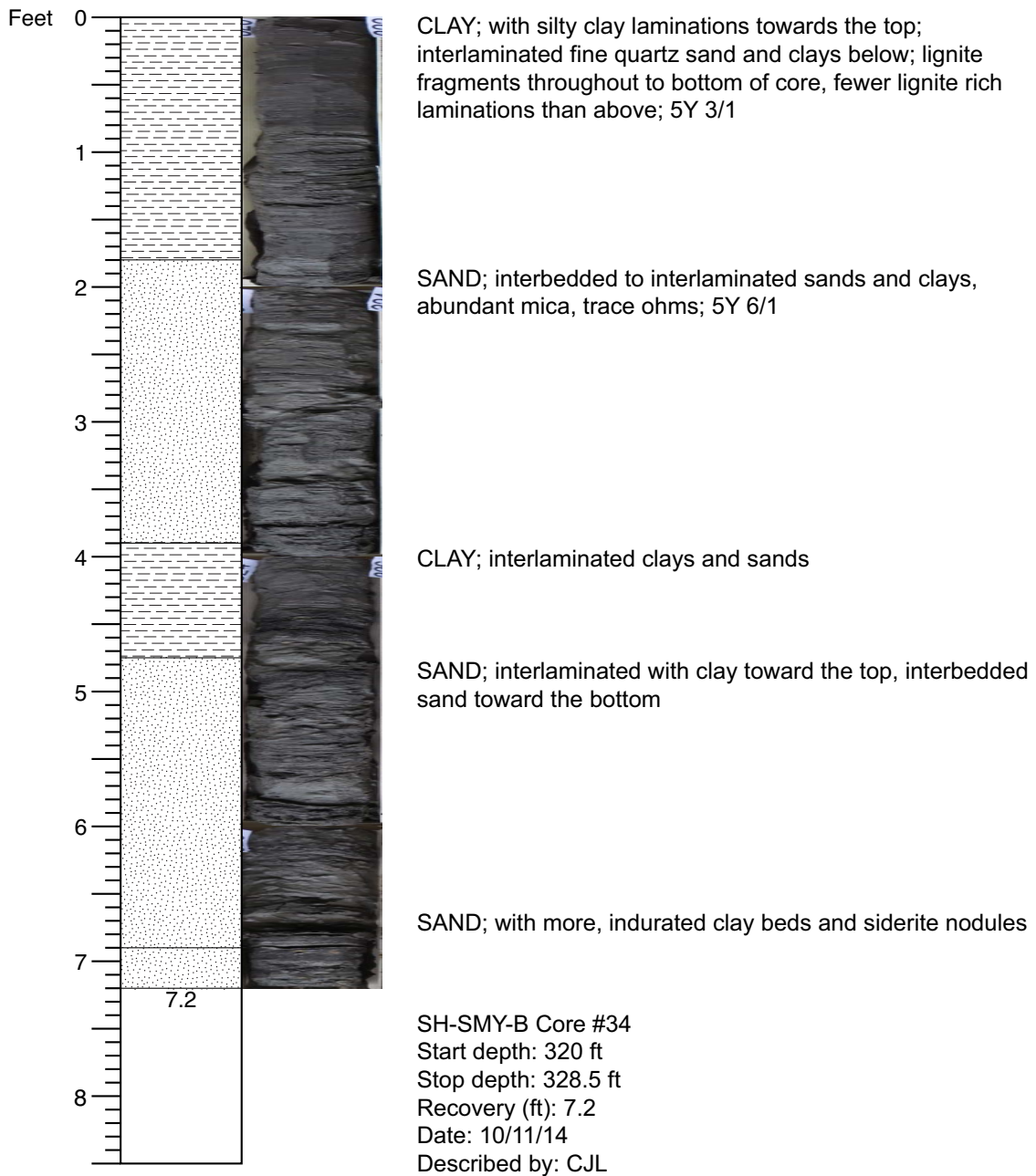


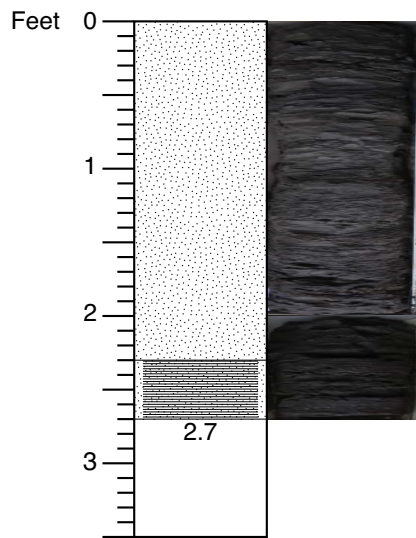
Drilled ~4 ft and recovered nothing because of a shoe malfunction; drillers fixed the shoe and drilled the remaining ~6 ft, recovering 6.5 ft

SAND; silty, clayey, laminated, <0.5 cm laminae coarsens down to SAND; fine, some medium; quartz, trace ohm; fine lignite (some pyritized), lignite layer of sand at 5.2 ft; 2 cm clay layer at 5.6 ft with sands above and below

CLAY; with lignite fragments and sand laminae, slightly silty; to silty interlaminae, more silt toward the base; siderite; possibly cross-laminated, thin lignite layers continue towards base; common concretions on top

SH-SMY-B Core #33
Start depth: 310 ft
Stop depth: 320 ft
Recovery (ft): 6.5
Date: 10/11/14
Described by: CJL





SAND; fine to medium; subangular to angular; quartz, with abundant large muscovite and lignite concentrated in occasional thin laminae; clay laminations common from 0.0 to 0.6 ft and 2.3 to 2.7 ft; small indurated clay cross-bed? with pyrite at 1.1 ft; abundant siderite concretions (0.1-1 cm diameter) at 1.9-2. ft

Interlaminated CLAY and SAND

SH-SMY-B Core #35

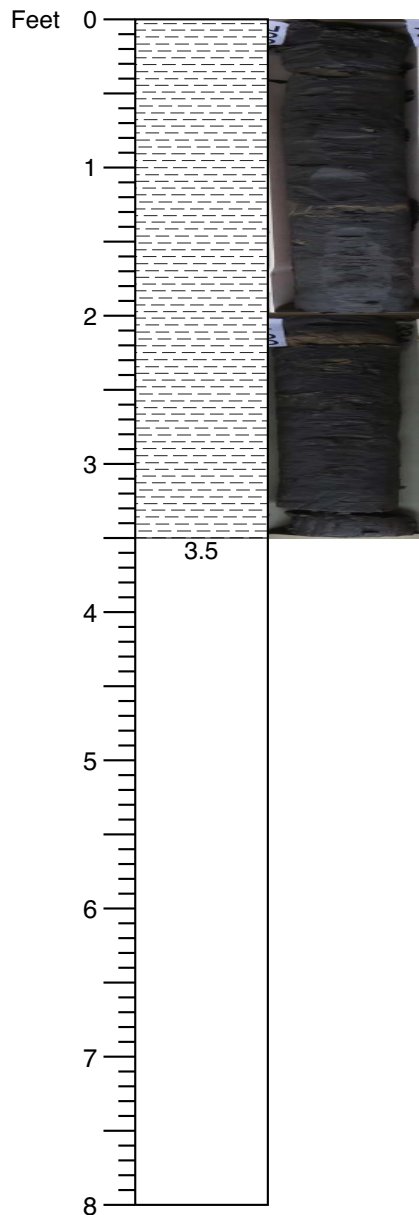
Start depth: 328.5 ft

Stop depth: 332.0 ft

Recovery: 2.7 ft

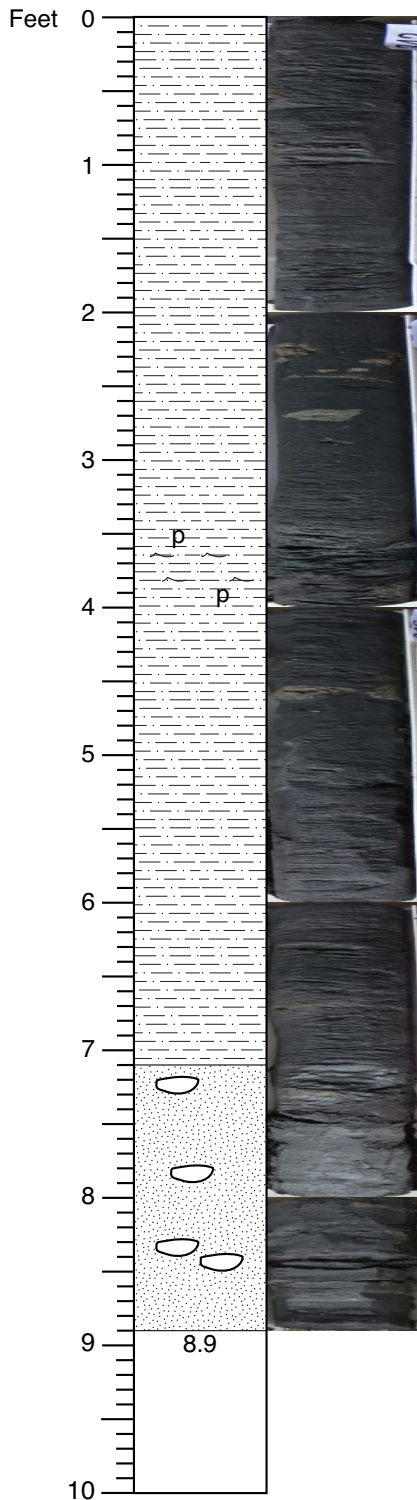
Date: 10/11/14

Described by: CJL



CLAY; slightly silty; mica traces, organics more common toward base; concretion at top; white clay lens (~1-1.5 cm thick) at 0.3 ft; pyrite chunk at 1.5 ft; mottled coloring at 1.5-2.0 ft result of soil processes?; siderite chunks at 2.2- 2.6 ft, < 2.5 cm thick layer; mica abundant near base; GLEY 1 2.5/N

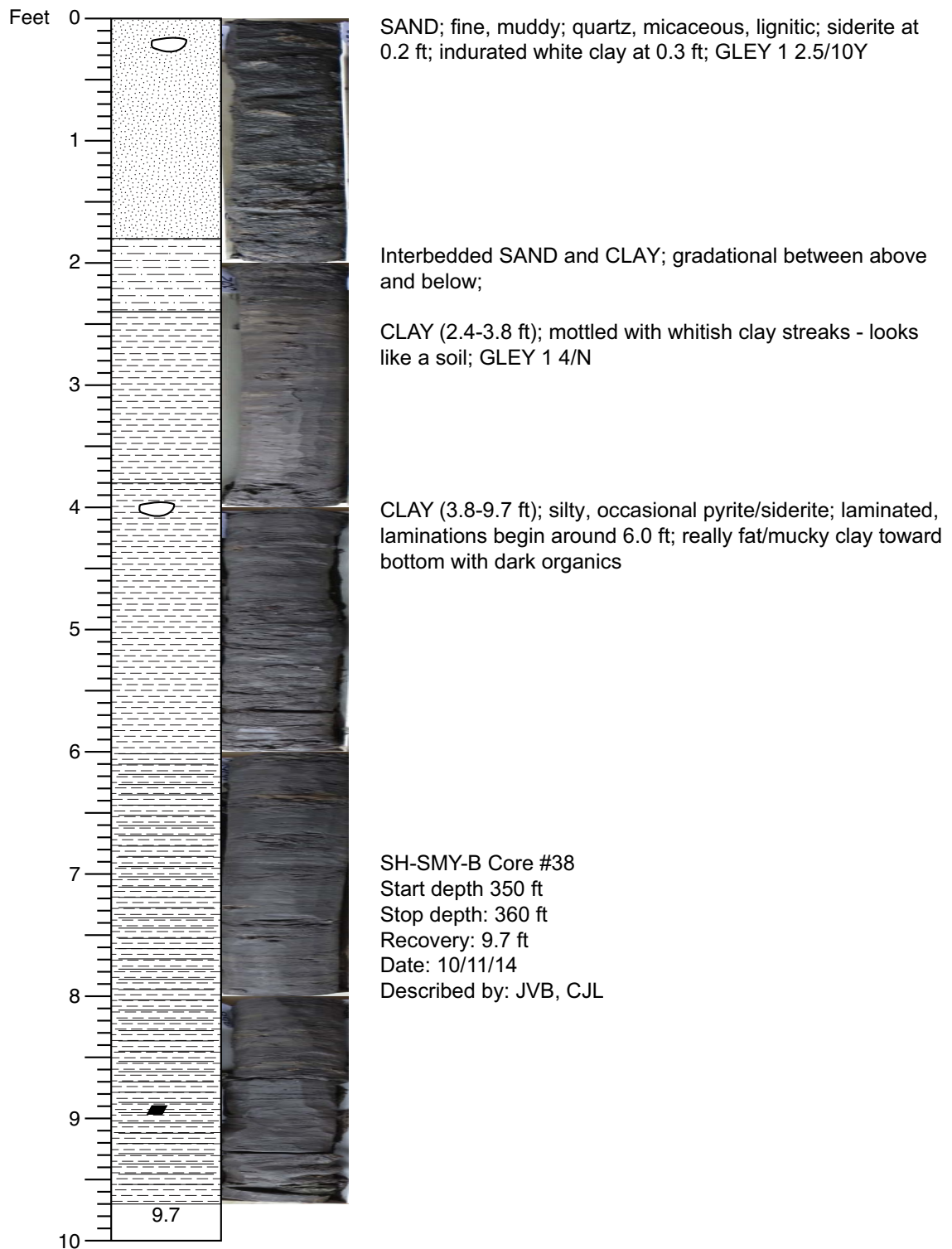
SH-SMY-B Core #36
Start depth: 332 ft
Stop depth: 340 ft
Recovery: 3.5 ft
Date: 10/11/14
Described by: CJL, JVB

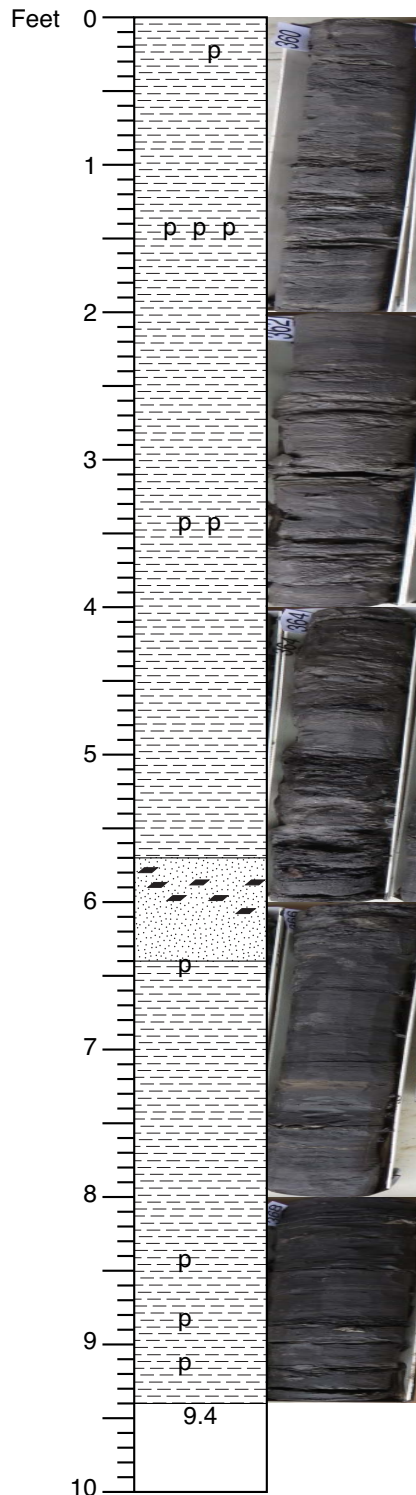


CLAY; interbedded and interlaminated with sand and silt, very micaceous, organics disseminated throughout; silt is more common toward the top (0.6-1.1 ft); sand with siderite nodules at 2.2-2.5 ft; white clay nodule at 2.7-2.8ft ; glauconitic/maybe chlorite at 3.6-3.8 ft; siderite and pyrite at interesting surface; laminations starting below 4.0 ft; angled surface with laminations dipping below siderite, very fine laminations, well defined

SAND; fine, quartz, very micaceous, probably silty; many siderite nodules; abrupt change from clay above to sand

SH-SMY-B Core #37
Start depth: 340 ft
Stop depth: 350 ft
Recovery: 8.9
Date: 10/11/14
Described by: JVB, CJL



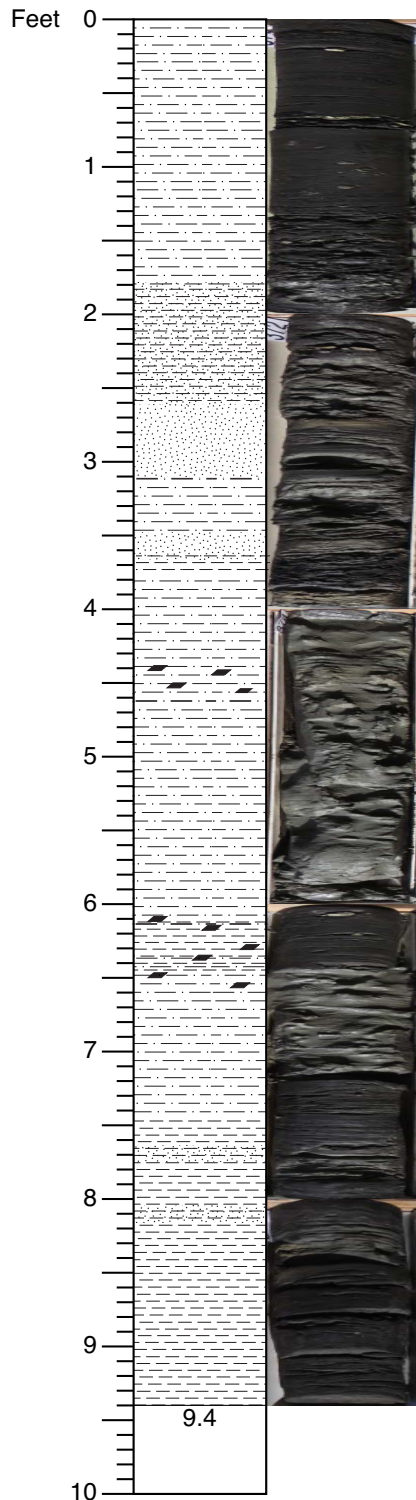


CLAY; with sand laminations; pyrite and disseminated lignite; mottled soil-looking clay at 5.7 ft; GLEY 1 4/N lighter on top

SAND; lignitic, with clay beds; coal chunk with amber? at ~ 5.9 ft

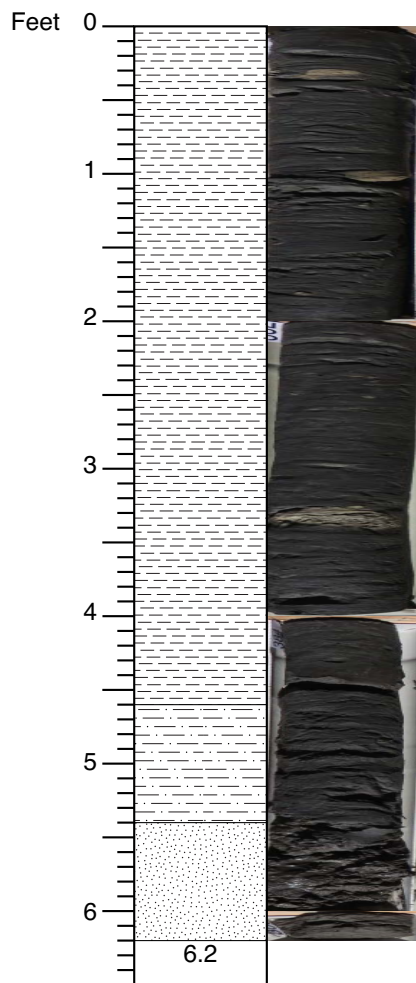
CLAY; darker near the base; indurated white clay chunks; GLEY 1 2.5/N

SH-SMY-B Core #39
Start depth: 360 ft
Stop depth: 370 ft
Recovery: 9.4
Date: 10/11/14
Described by: JVB, C JL



Interbeds of silty CLAY and SAND, 0-1.3 ft silty clay, organic rich beds (or laminae) at 0.1, 0.7-0.8 ft; pyrite at 0.2, 0.7, 1.0, 1.1 ft; bidirectional cross-laminations of organic-rich laminae (distributary bays?); slightly sandy, silty clay common pyrite, and wood; sandy clay to clayey sand at 2.3-2.6 ft; siderite cemented beds at 2.6-2.7 ft; sandy clay, pyrite at 2.7-3.1 ft; sandy silt at 3.1-3.5 ft; sandy clay to clayey sand at 3.5-3.7 ft; organic-rich, pyrite rich at 3.7-3.9 ft; sandy silty clay, siderite cemented at 3.9-4.0 ft; 4.1-6.15 ft: very fine, silty sand; slightly micaceous, scattered lignite, laminated 4.4-4.6 ft otherwise massive; lignitic, pyritic clay, thin silt/sand laminae at 6.15-6.6 ft; sand, very fine; micaceous, very silty at 6.6-7.4 ft; clay with thin sand laminae, bidirectional cross-laminated; soft sediment deformation at 8.2-8.3 ft; interpretation: high sedimentation rates in tidally influenced bay; colors: clays: GLEY 1 3/N very dark gray and 2.5/N black; sands: GLEY 5/N gray

SH-SMY-B Core #40
Start depth: 370 ft
Stop depth: 380 ft
Recovery: 9.4
Date: 10/12/14
Described by: KGM, PJS, GEG, MCF

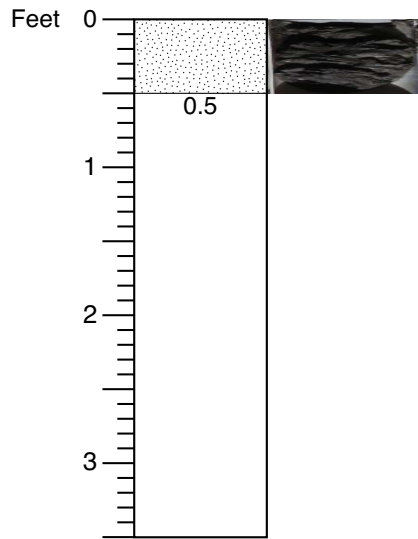


CLAY; lignitic, slightly silty to slightly sandy; nodules at 0.25, 0.95, and 3.3 ft; pyrite; thin sand/silt laminae/wispy; wispy sand laminae almost look like bioturbation; slightly sandier at 2 ft; GLEY 1 3/N very dark gray

sandy CLAY to clayey SAND

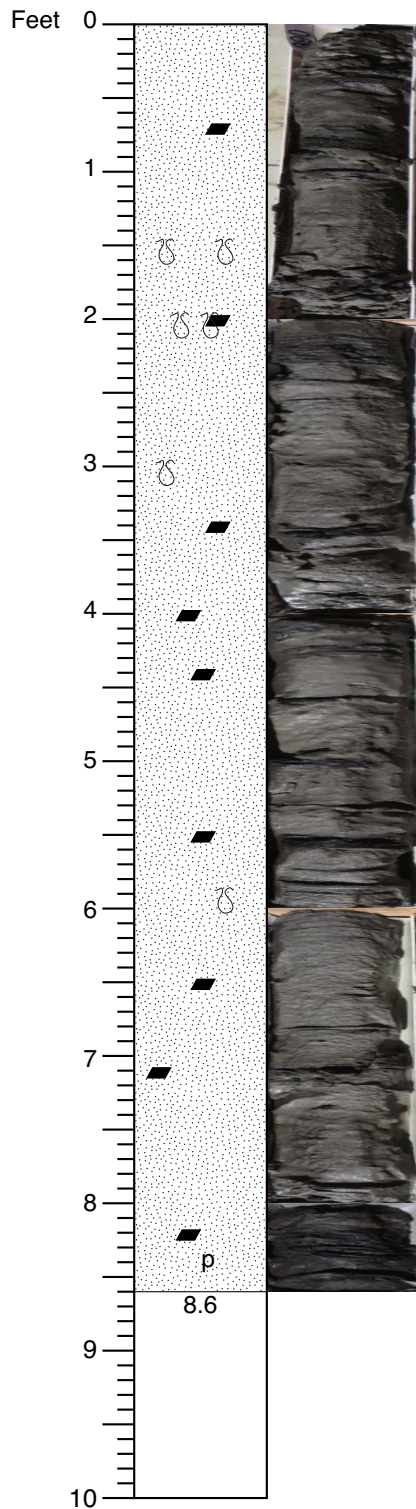
SAND, medium to fine, micaceous; GLEY 1 5/N gray

SH-SMY-B Core #41
Start depth: 380 ft
Stop depth: 386.5 ft
Recovery 6.2 ft
Date: 10/12/14
Described by: KGM, PJS, MCF, GEG



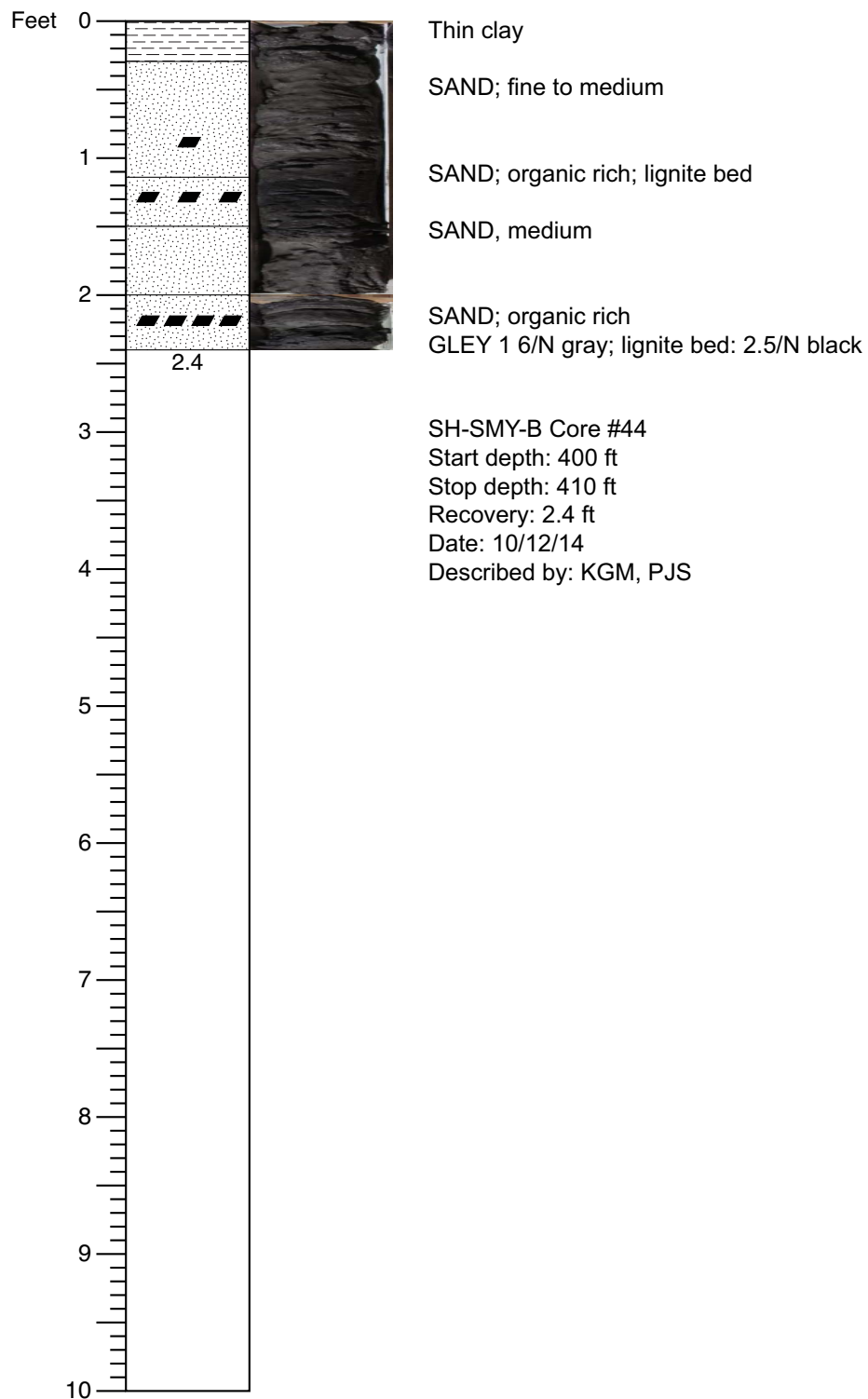
SAND; with clay layers at 0.25-0.3 and 0.5 ft; lignite in clay

SH-SMY-B Core #42
Start depth: 386.5 ft
Stop depth: 390 ft
Recovery: 0.5 ft
Date 10/12/14
Described: KGM, PJS, MCF, GEG



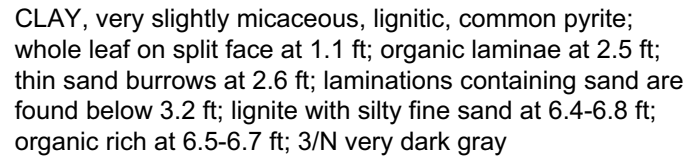
SAND; fine, some medium; 2 cm bed at 0.8 ft is micaceous, with finely dispersed lignite; bidirectional crossbeds of wood/lignite; lignite bed have fine sand; sands are massive, well sorted, mostly fine; burrow at 2.9-3 ft; 1 cm pyrite in woody/lignite at 3.4 ft; 1.5 cm vertical burrow at 5.8 ft; wood chunks at 7.0 ft; pyrite at 8.5 ft gorgeous core; interpretation: tidal influenced distributary channel; sands: GLEY 1 6/N gray, black organics: GLEY 1 2.5/n

SH-SMY-B Core #43
Start depth: 390 ft
Stop depth: 400 ft
Recovery: 8.6 ft
Date: 10/12/14
Described by: KGM, PJS, GEG, MCF



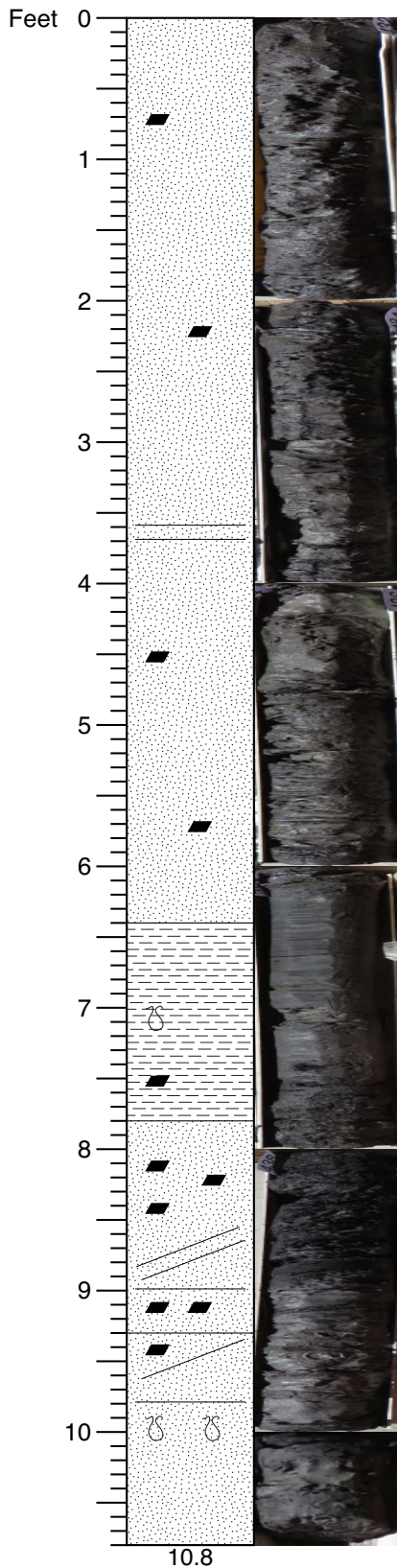
CLAY, tight, scattered lignite (fresh surfaces have common lignite); pyrite throughout; finely laminated (need to cut a fresh surface to see) pretty homogenous; slightly micaceous; Amboy Stoneware (ss), swamp/marsh environment; GLEY 1 3/N very dark gray, some sections are 2.5/N black

SH-SMY-B Core #45
Start depth: 410 ft
Stop depth: 420 ft
Recovery: 10.5 ft
Date: 10/12/14
Described by: KGM, PJS, GEG, MCF



SH-SMY-B Core #46
Start depth: 420 ft
Stop depth: 430 ft
Recovery: 9.65 ft
Date:10/12/14
Described by: KGM, GEG, MCF, PJS

Contact (8.25 ft)
SAND, fine, some medium, with clay and lignitic laminae;
6/N gray



SAND; fine, some medium; thin clay and lignite laminae, flecks of pyrite, slightly micaceous; moderately burrowed; laminations generally parallel; lignite laminations prominent at 3.6-3.8 ft; sands: GLEY 2 6/N gray, 7.5YR 4/1 gray (brownish) oxidizes to 3/N gray

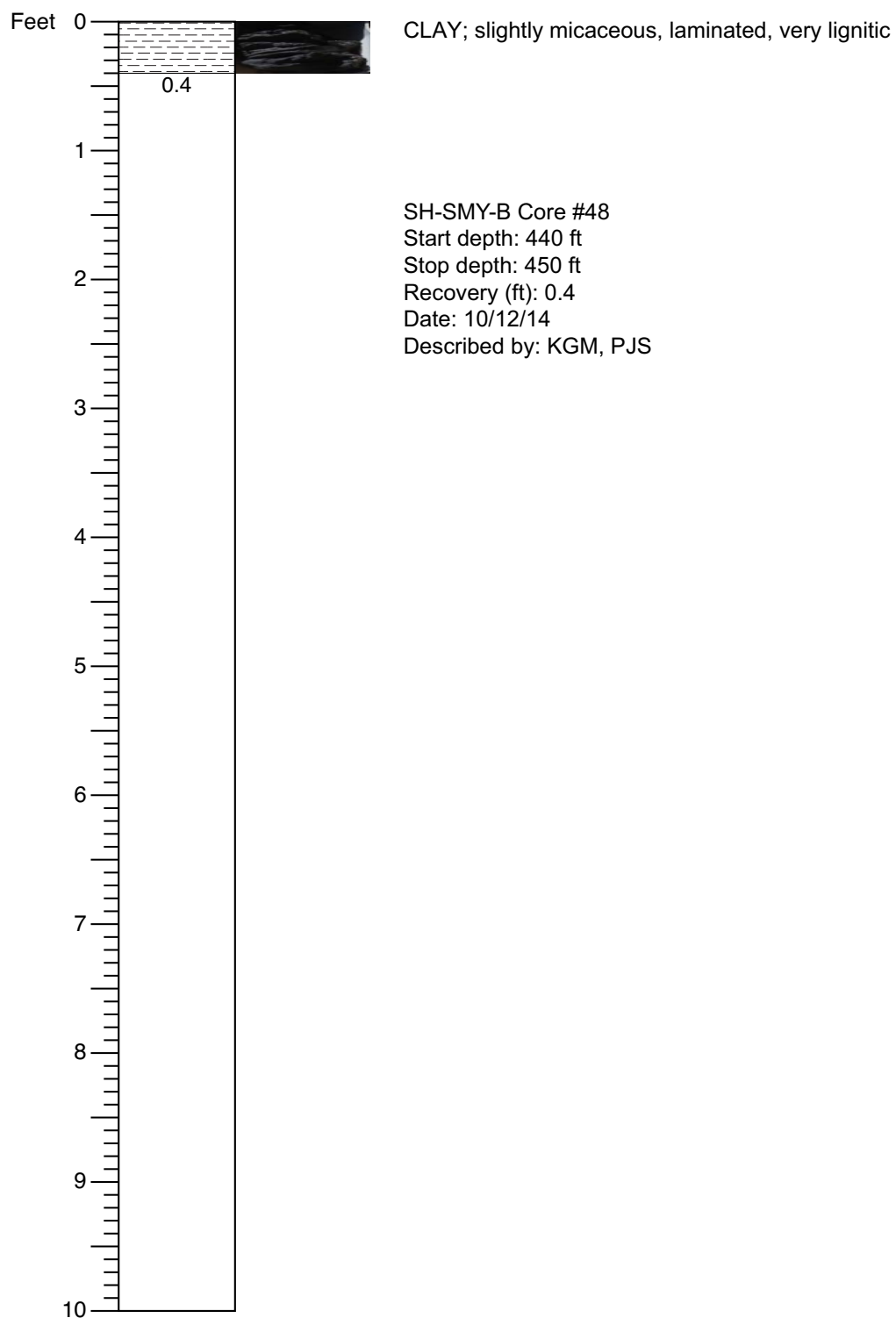
SH-SMY-B Core #47
Start depth: 430 ft
Stop depth: 440 ft
Recovery (ft): 10.8
Date: 10/12/14
Described by: KGM, PJS, GEG, MCP

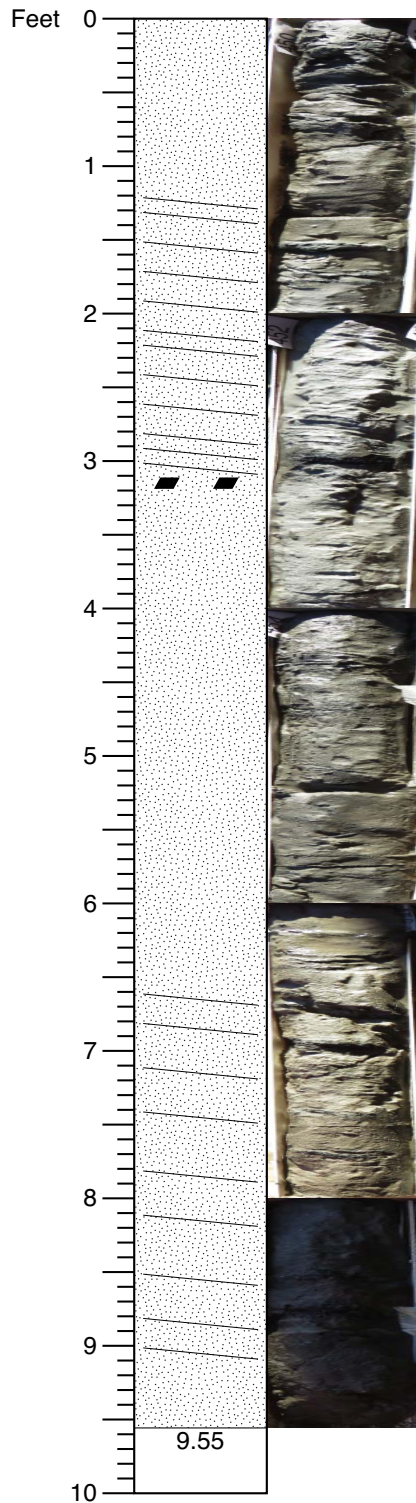
CLAY; laminated, with 0.8 cm thick lignite/sandy laminae; very slightly micaceous

Sharp contact

SAND; medium, very lignitic (crevasse splay? rapid deposition), steeply dipping charcoal-rich, slightly micaceous laminae

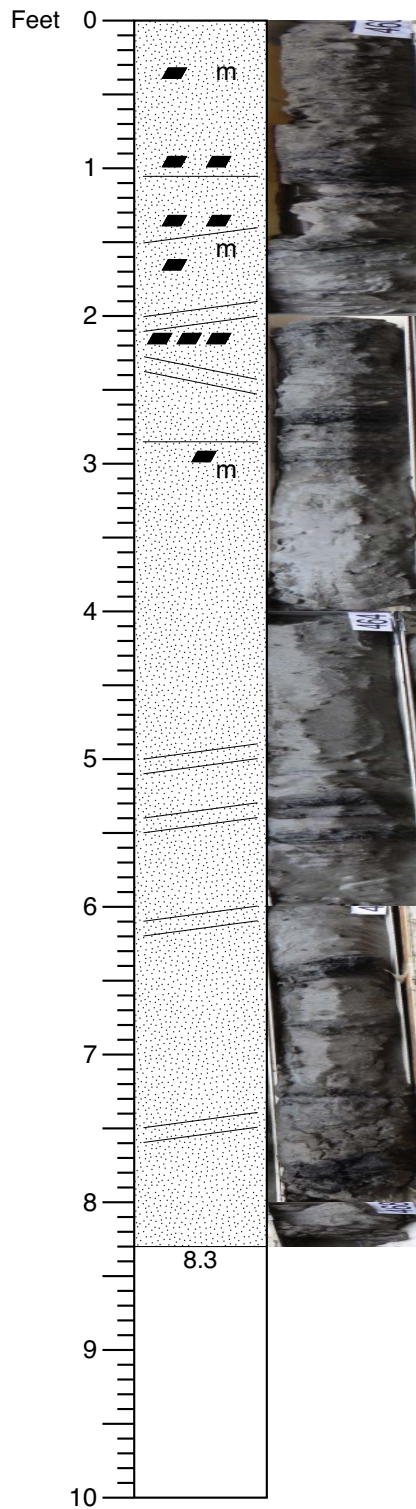
SAND; fine, lignite increases up core, burrow at 10.8 ft; cool core





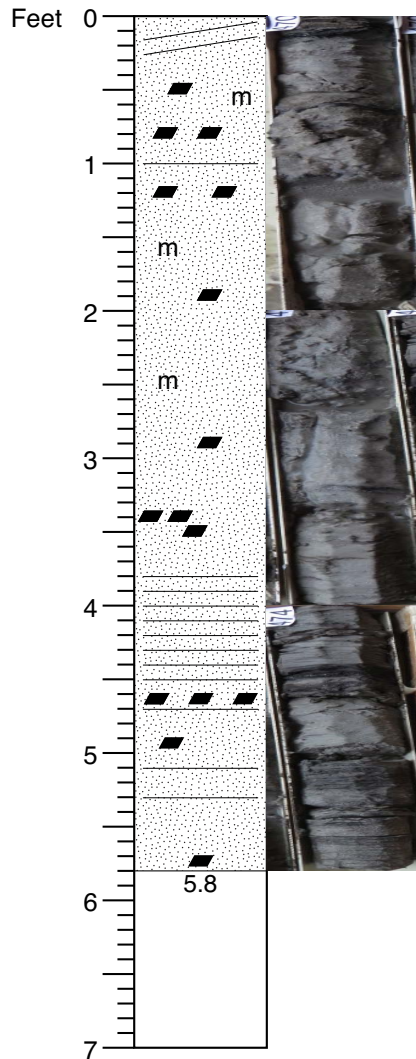
SAND, medium; slightly lignitic, trace mica, lignitic lamination at 2.7-2.9 ft, sand laminae common between 1.5-2.5 ft; lignitic 3-3.2 ft; structureless sand 3.2-4.2 ft; micaceous becomes darker below 4.2 ft; disseminated lignite between 5.5-6.2 ft; Old Bridge Sand; GLEY 6/N gray

SH-SMY-B Core #49
Start depth: 450 ft
Stop depth: 460 ft
Recovery (ft): 9.55
Date: 10/12/14
Described by: KGM, GEG, MCF



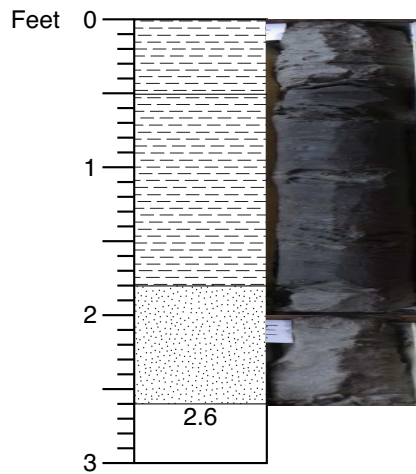
SAND; medium and fine (mostly fine); "zebra sands"; lignite rich laminae; thin clay laminae (kaolinite); micaceous to very micaceous; 1.8-2.2 beautiful flaser(?); clay laminae on sand; bidirectional lamination; structureless sand from 2.8-5.0 ft; lignitic bed 6.15-6.25 ft; clay laminae at 6.2-6.6 ft; 7.6-7.7 ft; excellent example of tidal bundles (5.4-5.6 ft) spring/neap; GLEY 6/N to 5/N gray

SH-SMY-B Core #50
 Start depth: 460 ft
 Stop depth: 470 ft
 Recovery (ft): 8.3
 Date: 10/13/14
 Described by: KGM, MM



SAND, fine to medium, very micaceous, lignitic, with lignite disseminated, in laminae, and in bed; structureless sand 1.0-3.8 ft; lamina 3.4 ft; laminae begin at 3.8 ft (kaolinite and lignite laminae (tidal)); lignite bed 4.6-4.7 ft; structureless micaceous sand 4.75-5.1 ft; convoluted soft sediment deformation at 5.1-5.3 ft; silty, sand, laminated 5.3-5.7 ft; sand: GLEY 2 6/N gray, clayier beds: 3/N very dark gray, lignite: 2.5/N black

SH-SMY-B Core #51
 Start depth: 470 ft
 Stop depth: 477 ft
 Recovery (ft): 5.8
 Date: 10/13/14
 Described by: KGM, MM

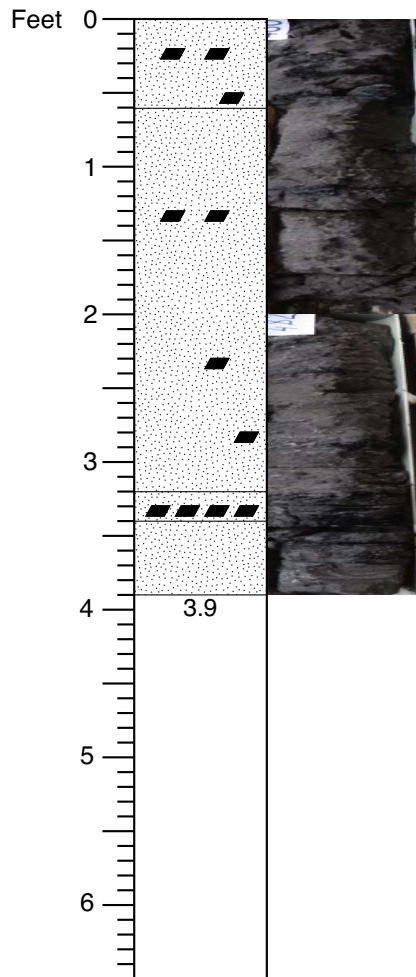


CLAY; sand, fine, silty, micaceous; GLEY 1 6/N gray

CLAY; laminated; lenticular laminations with sand pockets (burrows) and sand and lignite laminae; bidirectional laminae; GLEY 3/N very dark gray

SAND; very fine, very micaceous; a few lignite particles; massive; GLEY 1 6/N gray

SH-SMY-B Core #52
Start depth: 477 ft
Stop depth: 480 ft
Recovery (ft): 2.6
Date: 10/13/14
Described by: KGM, MM



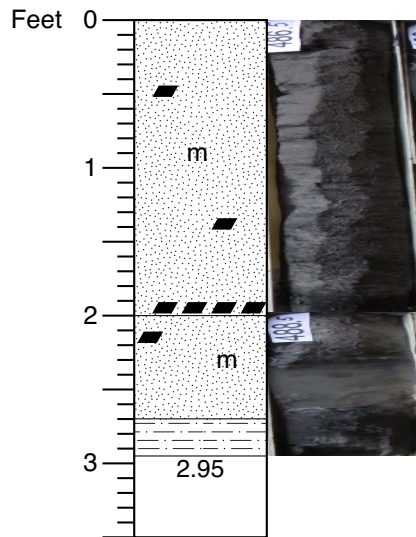
SAND; fine to medium, structureless with lignite fragments and large charcoal chunk (2-3 cm); GLEY 1 3/N very dark gray

SAND; medium, micaceous, structureless with light-gray clay burrows (bioturbation); GLEY 1 5/N gray

0.2 ft lignite layer at 3.2-3.4 ft

SAND; fine, laminated with clay; GLEY 1 4/N dark gray

SH-SMY-B Core #53
Start depth: 480 ft
Stop depth: 486.5 ft
Recovery (ft): 3.9
Date: 10/13/14
Described by: KGM, MM

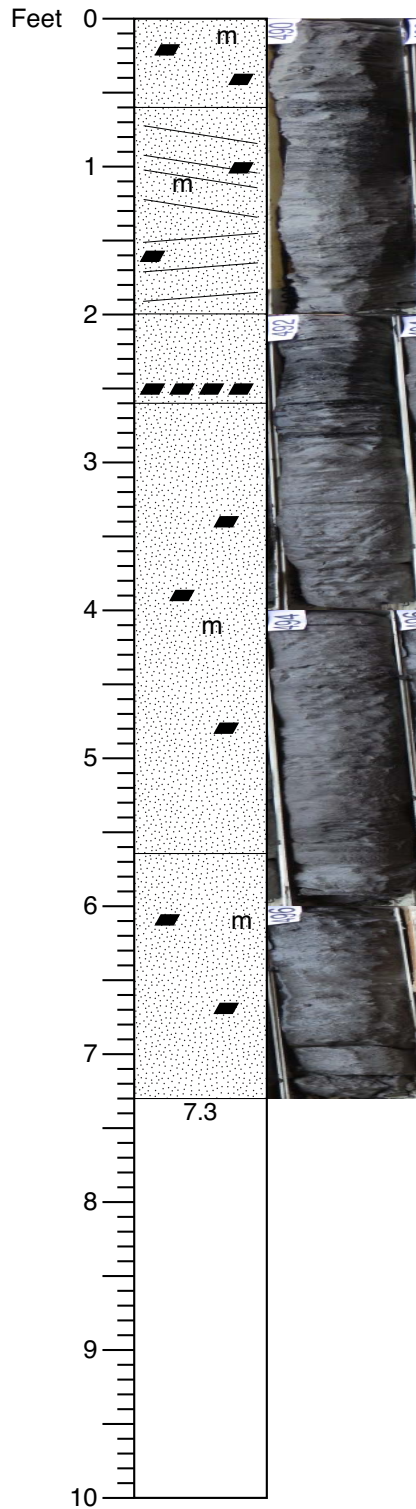


SAND, medium-fine; with organic/lignite laminae broken by bioturbation; micaceous bioturbation and organic laminae increase up core; lignite bed at 1.95-2.0 ft

SAND; fine-medium, very micaceous, clay clasts

SAND; silty, organic rich; sand: GLEY 1 6/N, lignite: 2.5/N, silty sand: 3/N

SH-SMY-B Core #54
Start depth: 486.5 ft
Stop depth: 490 ft
Recovery (ft): 2.95
Date: 10/13/14
Described by: KGM, MM



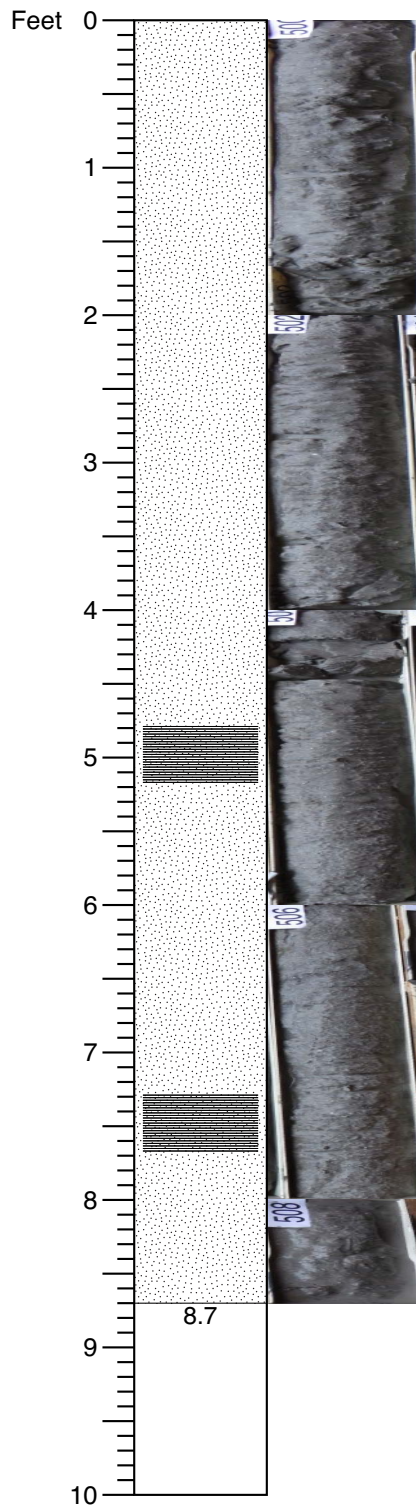
SAND; fine to medium, lignitic

SAND; fine; wonderful laminae 0.6-2.0 ft; bidirectional, to right 0.6-1.3 ft, to left 1.3-2.0 ft; soft sediment deformation 2.2-2.3 ft; very lignitic bed at 2.3-2.6 ft

SAND; laminated, 2-3 mm laminae accentuated by washing; laminae are clean sand alternating with slightly silty, slightly lignitic sand, laminae are somewhat discontinuous and wavy; laminae from 2.9-5.6 ft appear soupy, this may be: 1) soft sediment deformation 2) coring disturbance; pretty core

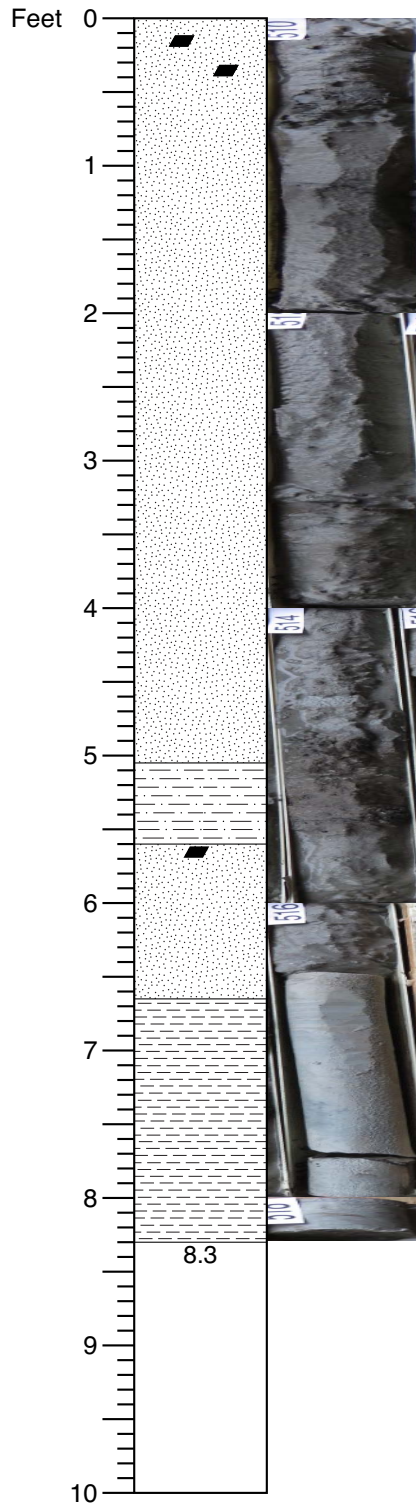
SAND; micaceous, lignitic, fine, structureless

SH-SMY-B Core #55
Start depth: 490 ft
Stop depth: 500 ft
Recovery (ft): 7.3
Date: 10/13/14
Described by: KGM, MM



Sand, upper fine to lower medium; structureless; with light-gray clay burrows; very micaceous; with lignite fragments, heavy burrowing; ?bay mouth bars; hints of laminae to slightly laminated broken by bioturbation; GLEY 1 5/N gray

SH-SMY-B Core #56
Start depth: 500 ft
Stop depth: 510 ft
Recovery (ft): 8.7
Date: 10/13/14
Described by: KGM, MM



SAND (0-5.05 ft); upper fine; with minor lignite, a few very thin laminae otherwise structureless; very micaceous; Gley 1 6/N gray

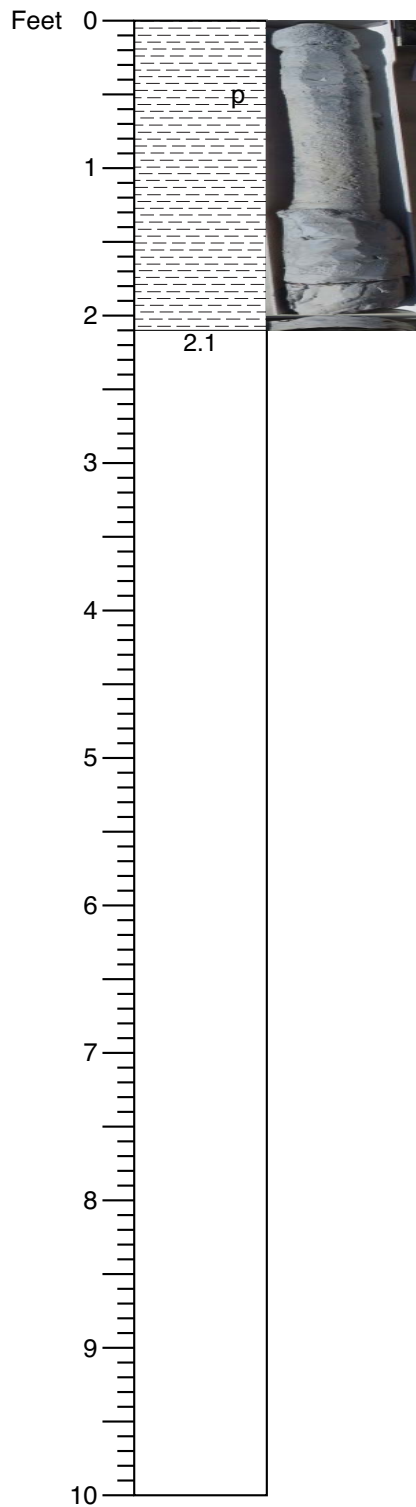
SAND (5.05-5.6 ft); lower upper medium; with kaolinitic laminae; very micaceous; Gley 1 5/N gray

SAND (5.6-6.65 ft); upper fine; structureless; very micaceous

Contact 6.65

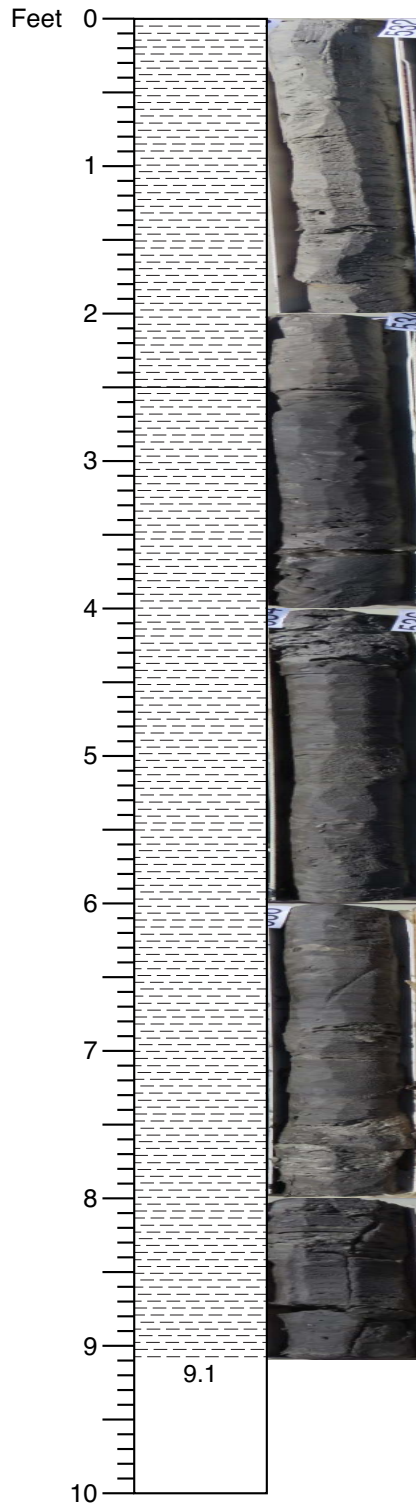
CLAY; kaolinitic; 0.5-1 cm laminae, white versus "blue" black; lignite/plant debris; Gley 1 7/N light gray to Gley 1 8/N white

SH-SMY-B Core #57
Start depth: 510 ft
Stop depth: 520 ft
Recovery (ft): 8.3
Date: 10/13/14
Described by: KGM



CLAY; slightly silty, traces of pyrite and micro-sphero-siderite throughout; slightly micaceous; larger chunk of pyrite with dark patch around the pyrite at 0.5 ft; 1.3-2.1 the core is fat; more mica, less siderite, kaolinitic; South Amboy Fire Clay; Gley 1 7/N light gray

SH-SMY-B Core #58
Start depth: 520 ft
Stop depth: 530 ft
Recovery (ft): 2.1
Date: 10/14/14
Described by: JVB, C JL

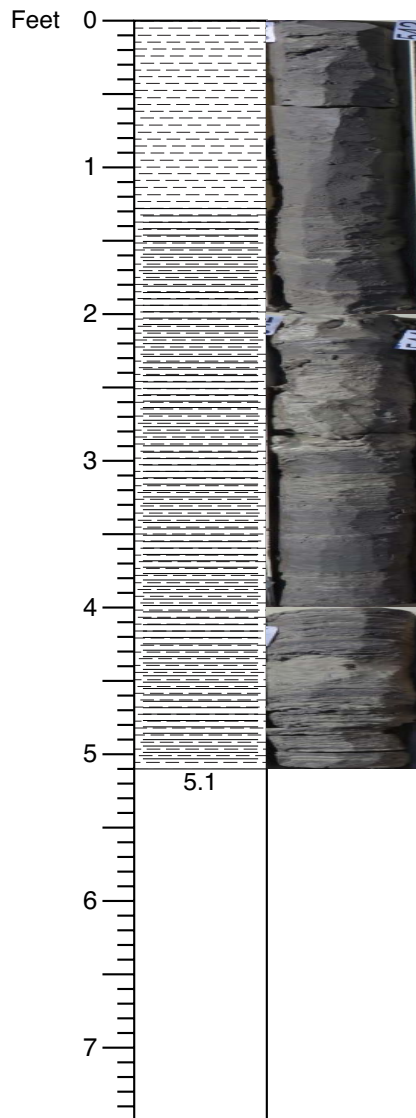


CLAY; kaolinitic, slightly silty, micaceous; organic streaks, structureless 0-0.8 ft; siltier and clayier laminae from 0.8-2.5 ft, silt laminae 1-2 mm thick, clay laminae to 5 mm thick; scattered microsphaerosiderite on top, 1.8 ft lots of microsphaerosiderite; Gley 1 7/N light gray

Abrupt Contact: irregular, no rip ups noted

CLAY; slightly silty; not kaolinitic, very micaceous; laminated, laminae have sand in them; sand bed, very fine, silty with large pyrite chunk from 4.1-4.4 ft; very little sand at 4.4-5.0 ft, more sand down core; irregular mottled color (Gley 10Y 6/1) at 6.2 ft; 13 x 8 mm pyrite at 6.9 ft; very fine sand increases below 6.8 ft; sand bed, very fine at 6.4-6.6 ft; very laminated 7.4-9.1 ft; Gley 1 3/N very dark gray

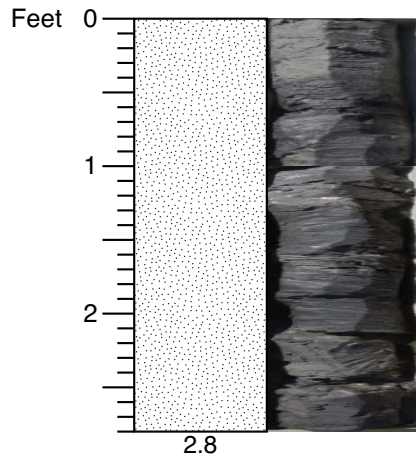
SH-SMY-B Core #59
Start depth: 530 ft
Stop depth: 540 ft
Recovery (ft): 9.1
Date: 10/14/14
Described by: JVB, C JL, KMS, BB



CLAY; very silty, micaceous

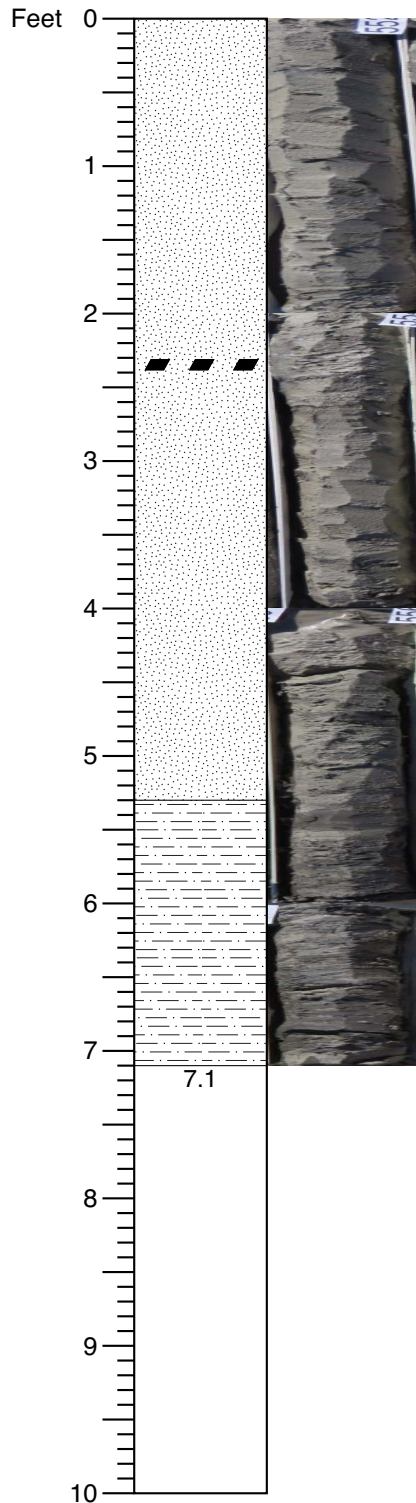
CLAY; interbedded and interlaminated with SAND; very fine laminae; clay is very silty, micaceous; sand is very fine; slightly micaceous; lamina sets: sand on top, clay on bottom with a gradual change from sand to clay and an abrupt change from clay to sand; clay: 3/1 N, sand: 10Y 6/1

SH-SMY-B Core #60
Start depth: 540 ft
Stop depth: 547.5 ft
Recovery (ft): 5.1
Date: 10/14/14
Described by: JVB, CJL, KMS, BB



CLAY; interbedded and interlaminated with SAND; 0.2-1 cm thick laminations; thin clays bundled between thin beds; thin sand bed from 1.1-1.2 ft; high angle interlaminated sands and clays from 1.7-2.1 ft; dark lignite band 1 mm at 2.0 ft; planar laminated sands 2-5 mm thick with less than or equal to 1 mm clays at 2.1-2.5; ≤ 5 mm thick clays with thin sand laminae; sands: very fine quartz slightly micaceous, dark organic flecks; Gley 1 7/10Y; clays: silty; Gley 1 2.5/N

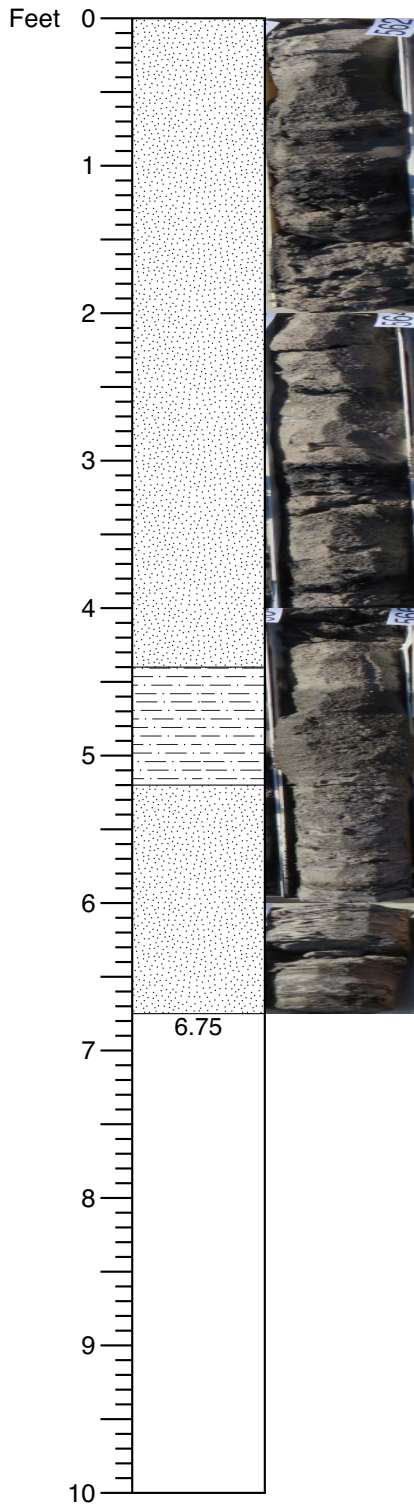
SH-SMY-B Core #61
Start depth: 547.5 ft
Stop depth: 550 ft
Recovery (ft): 2.8
Date: 10/14/14
Described by: CJL, BB



SAND; fine to very fine, silty sand; some inclined lignite beds (3-4 mm thick) at 2.2-2.3, 2.4-2.5, and 2.6 ft, each about 0.1 ft; lignitic interval at 3.9 ft; and dark bands every 1-2 cm from 2.6-3.0 ft; micaceous, some ohms

CLAY; starts appearing at 4.7 ft; clay beds at 5.05 and 5.2 ft; below 5.3 interbedded- interlaminated clay and sand; clay bed at 5.3-5.45 ft; clay beds are 0.5-1 cm thick, evenly spaced, many appear discontinuous, particularly from 6.2-6.5 ft; flaser beds perhaps?

SH-SMY-B Core #62
Start depth: 550 ft
Stop depth: 560 ft
Recovery (ft): 7.1
Date: 10/14/14
Described by: JVB, C JL

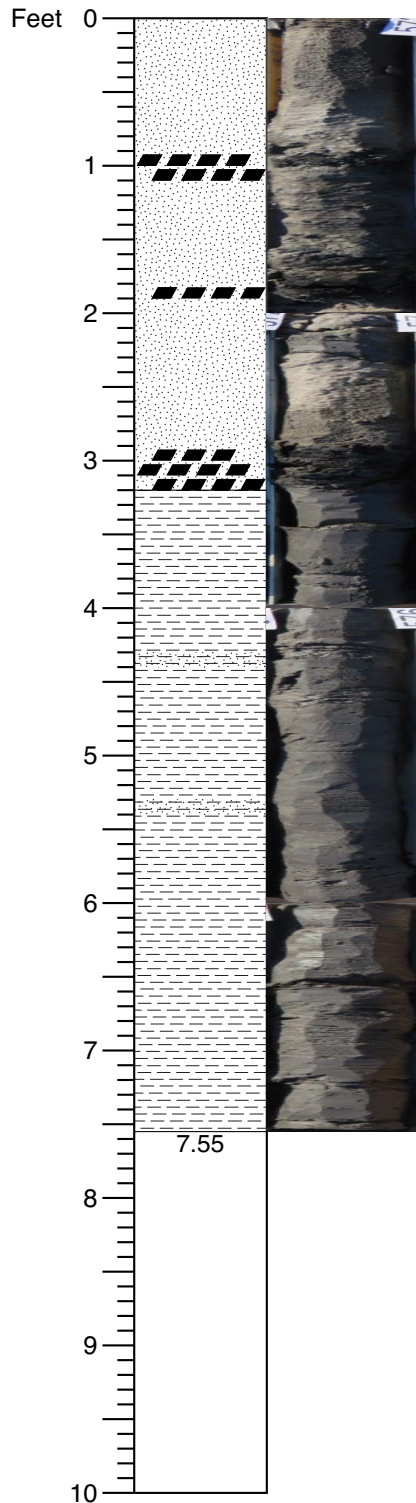


SAND; medium to coarse, with, fine; poorly sorted, angular to subangular; large mica grains but not a lot, several large lignite/coal beds; 0-0.4 and 2.5-3.1 ft are medium

SAND; with gray mud; sand is similar to above but with a muddy matrix; channel base; sand: Gley 1 10Y 7/1

SAND; fine to very fine with interlaminated clay and lignite, clays are discontinuous, tidal; micaceous; less mica at bottom

SH-SMY-B Core #63
Start depth: 560 ft
Stop depth: 570 ft
Recovery (ft): 6.75
Date: 10/14/14
Described by: CJL, JVB, BB, KMS

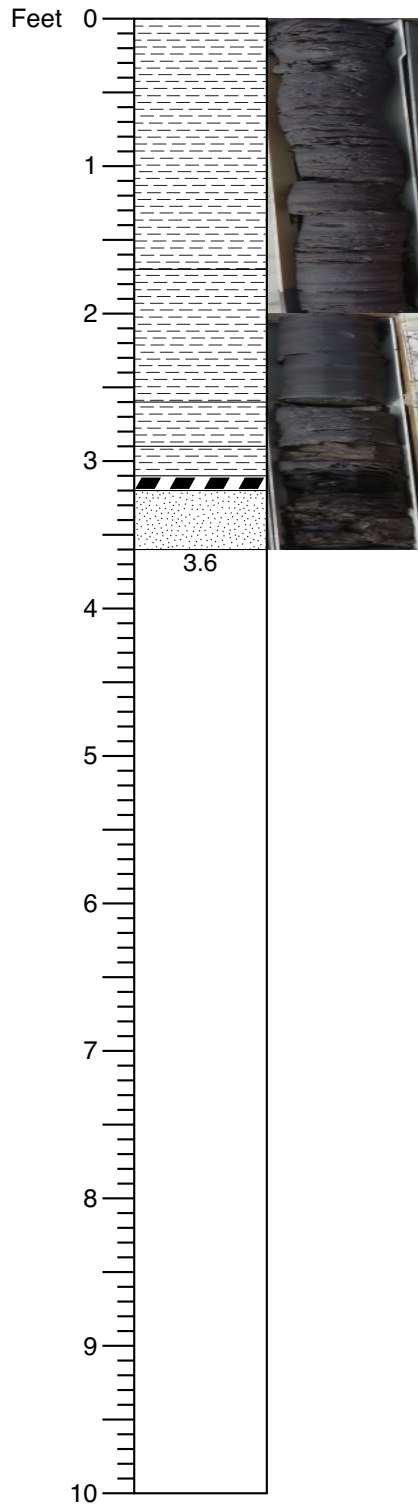


SAND (0.0-3.2 ft); fine to very fine; lignitic, quartz, more medium down below 2.3 ft; clay layer at 2.2-2.3 ft; lignite beds, some containing huge micas at 0.9-1.1, 1.8-1.9, and 2.9-3.2 ft; sand: Gley 1 6/N, clay: 4/N dark gray

Contact (3.2 ft)

CLAY (3.2-7.55 ft); sticky clay with silty laminae; clay itself is micaceous but very clayey, no silt; discontinuous sand lenses are present 6 ft; clay has occasional sandy beds, becoming sandier toward the base; Raritan Formation? (Bass River Formation?)

SH-SMY-B Core #64
Start depth: 570 ft
Stop depth: 580 ft
Recovery (ft): 7.55
Date: 10/14/14
Described by: JVB, CJL



CLAY; silty to clayey silt; laminated (1 to a few mm thick sand laminae from 0-0.9 ft); centimeter scale color laminae from 0.9-2 ft;

CLAY; finely laminated (1 mm); tight clay

SAND; crenulated sandy laminae

SAND; slightly silty, quartz, trace lignite subrounded to subangular

LIGNITE; organic rich layer

SAND; medium, sub-rounded; lignitic; pyritized shells (2)

Overall: clay has small lignite fragments, occasional quartz grains and trace mica; lignite in both laminae; clay: Gley 1 5/N; silty clay: 3/N; lignite: 2.5/N black

SH-SMY-B Core #65

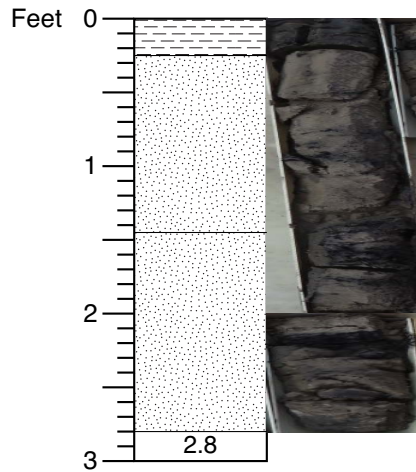
Start depth: 580 ft

Stop depth: 590 ft

Recovery (ft): 3.6

Date: 10/15/14

Described by: SJG, KGM, CSJ, DHM

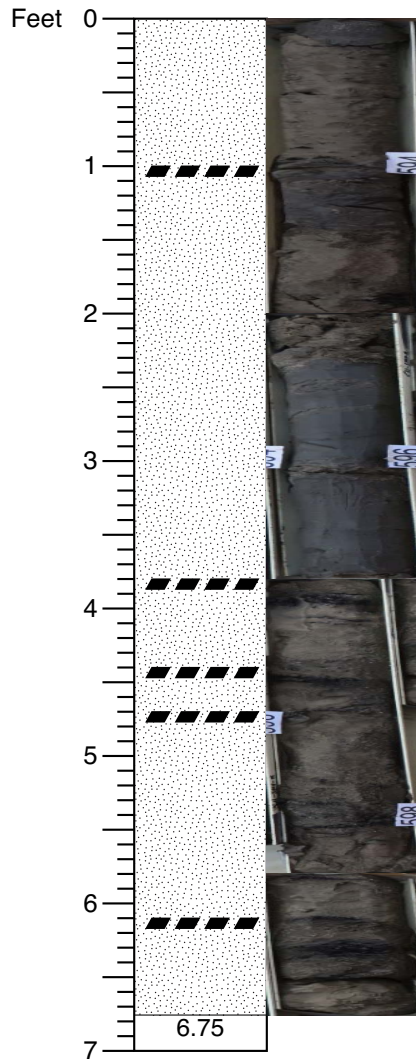


CLAY (0-0.25 ft); with medium sand lenses, quartz, lignite at base

SAND (0.25-1.45 ft); fining upward, fine to medium, slight change; poorly sorted, subrounded; primarily quartz, <1% feldspar, <1% pyrite, <1% mica, ~3% lignite; 1.4-1.7 ft lignite rich layer, pyrite (1-0.5 mm) present in lignite layer

SAND (1.45-2.8 ft); fining upward sequence of poorly sorted medium to coarse sand at base to moderately sorted near top; dominantly quartz with trace micas and some lignite; sub-angular; note: lignite layer; heavily burrowed; lignite bedded and disseminated; Gley 1 4/N

SH-SMY-B Core #66
Start depth: 590 ft
Stop depth: 593 ft
Recovery (ft): 2.8
Date: 10/15/14
Described by: SJG, KGM, CSJ, DHM



SAND; medium to fine; all quartz; some dispersed lignite; well sorted; sub-angular/sub-rounded; Increasingly lignitic at base

LIGNITE (0.95-1 ft)

CLAY (1-1.4 ft); fine to silt at 1-1.2 ft; fines down to clay at 1.4 ft, with mm-scale sand stringers in between

SAND (1.4-2.35 ft); moderately sorted fine-medium sand, mostly quartz, sub-angular, trace mica and small pyrite chunk (mm); possible burrows

CLAY (2.35-3.75 ft); bioturbated at 3.5 and 3.7 ft; sand layer at 3.0-3.1 ft; pure clay other than noted sand

SAND (3.75 ft) fine, coarser at base; all quartz, well sorted, sub-rounded, trace lignite

LIGNITE (3.85-3.9 ft)

SAND (3.9-4.45 ft); fines upward; moderately sorted, trace lignite, sub-angular

LIGNITE (4.45 ft)

SAND (4.45-5.75 ft); coarsens toward lignite, medium/coarse quartz grains

SAND; medium; poor sorting with trace large quartz grains

SAND (5.75-5.85 ft); cross bedded; lignite/sand layer

SAND (5.85-6.2 ft); medium/coarse; sub angular/sub rounded, trace lignite; sand coarsens slightly downward toward lignite

LIGNITE (6.2-6.3 ft)

SAND (6.3-6.75 ft); medium sand; slightly more rounded/sorted at base

Overall: sand bands above lignite all coarsen toward lignite

SH-SMY-B Core #67

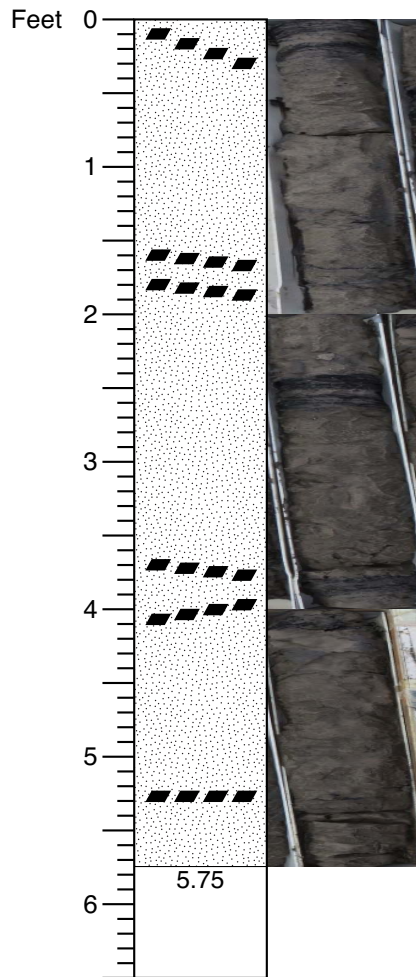
Start depth: 593 ft

Stop depth: 600 ft

Recovery (ft): 6.75

Date: 10/15/14

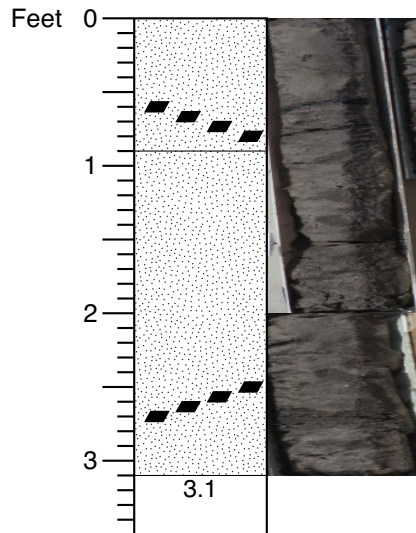
Described by: SJG, KGM, CSJ, DHM



SAND; coarse, moderate sorting, lignite throughout; mostly quartz, sub-angular to sub-rounded; rare 5 mm pebble imbedded-sulfate?; 1.3-1.4 ft sand is coarser; medium colorless mica flakes; quartz-sub-angular

LIGNITE bands at 0-0.3 ft (angled), 1.7 and 1.9 ft (bands angled in same direction; 2.4-2.6 ft (less angled than others); 3.75 and 3.95 ft (bands angled opposite each other); all lignite layers show some pyrite "chunks", 0.5-20 mm

SH-SMY-B Core #68
Start depth: 600 ft
Stop depth: 606.5 ft
Recovery (ft): 5.75
Date: 10/15/14
Described by: KGM, CSJ, DHM, SJG, S. Johnson (NJGWS)



SAND (0-0.9 ft); medium, quartz; some ohms, subangular

SAND (0.9-3.1 ft); upper medium to lower coarse; quartz, subrounded, moderate sorting, trace ohms, traces of lignite at/near base, inclined lignite beds at 0.6 and 2.8 ft (note: inclined in opposite directions)

SH-SMY-B Core #69

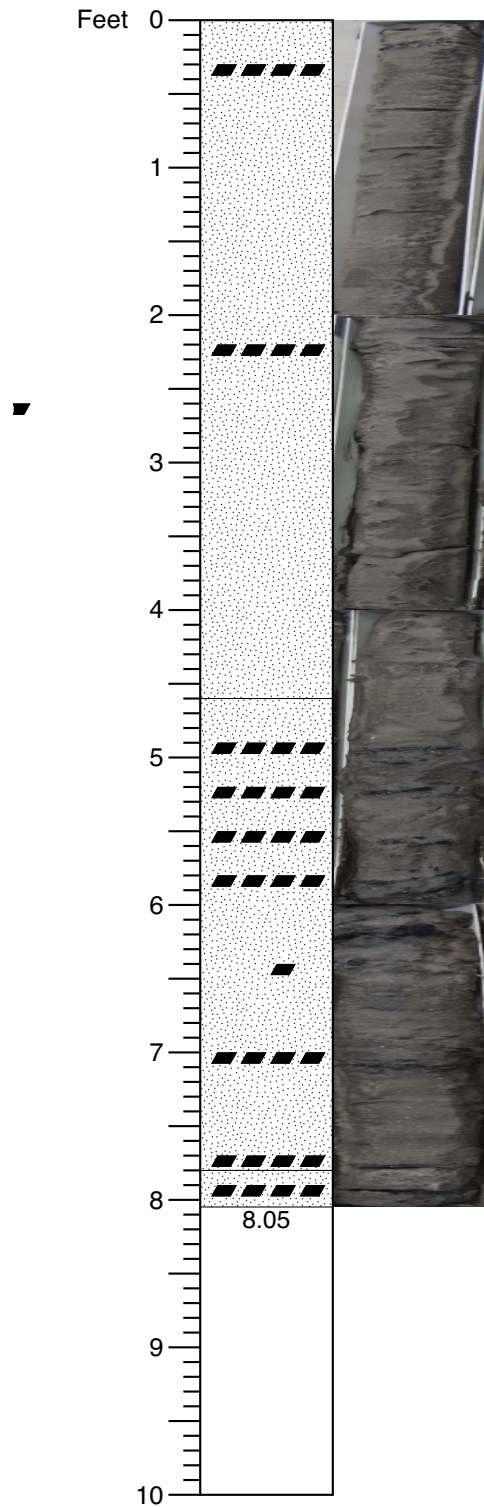
Start depth: 606.5 ft

Stop depth: 610 ft

Recovery (ft): 3.1

Date: 10/15/14

Described by: CSJ, DHM, KGM, S. Johnson (NJGWS), SJG



SAND; medium to coarse; dominantly quartz; subrounded to subangular; moderate sorting; transitions to all medium below 2.25 ft with better rounding; lignite rich clay rip-up clasts(?) at 3.4-3.5 ft; poorly sorted, coarse, subangular quartz sand band with a trace of mica and lignite at 4.4-4.6 ft; inclined lignite beds at 0.25, and 2.25 ft, all inclined beds sub-parallel; 4.5 cm wood at 6.25 ft

SAND (4.6-7.8 ft); coarse to medium; poorly sorted; quartz, trace potassium spar, lignite, lithic fragments, ohms at 7.2 ft;

SAND (7.8-8.05 ft); silty; kaolinite, burrows, rip-ups, 2.5Y 5/1 gray

SH-SMY-B Core #70

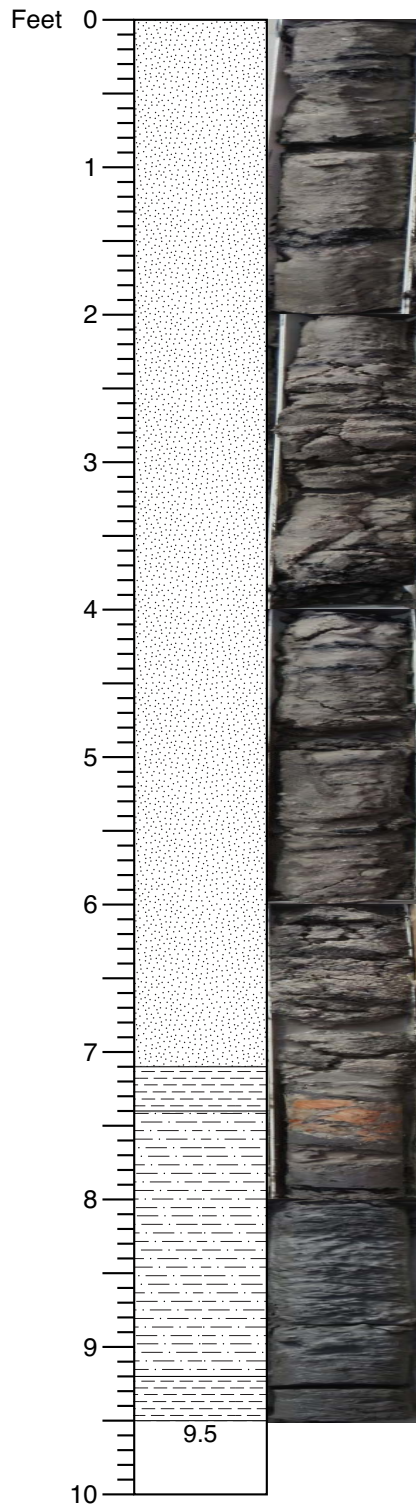
Start depth: 610 ft

Stop depth: 620 ft

Recovery (ft): 8.05

Date: 10/15/14

Described by: CSJ, SJG, S. Johnson (NJGWS), DHM



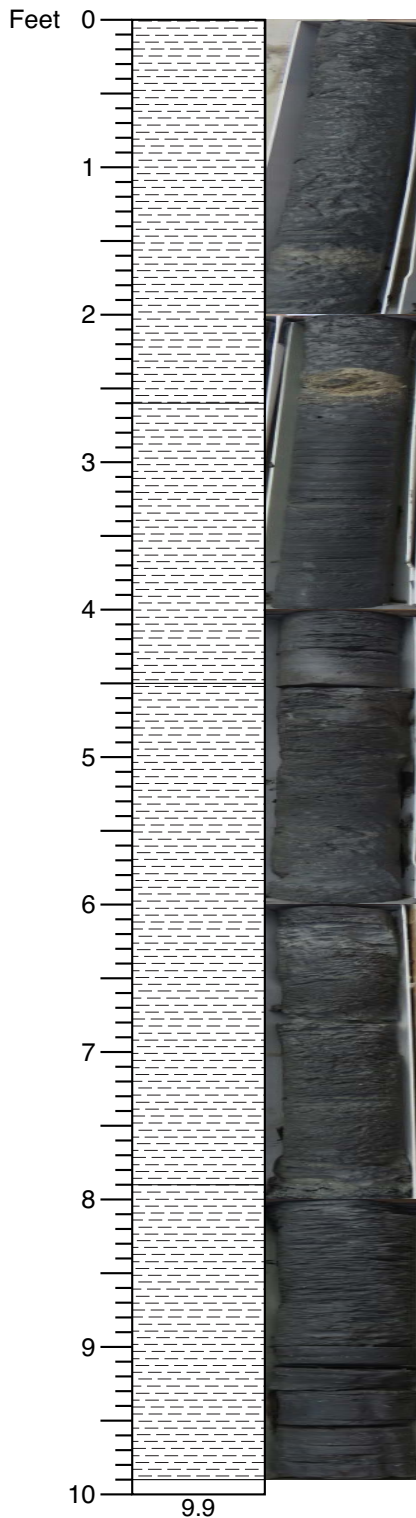
SAND; very coarse to medium; poorly sorted; larger grains subangular/angular, smaller grains subrounded; 1 cm thick inclined bands of lignite in primarily sand common; very coarse sand bed at 6.6-6.95 ft; fine cross bedded sand at 7.4 ft

SH-SMY-B Core #71
Start depth: 620 ft
Stop depth: 630 ft
Recovery (ft): 9.5
Date: 10/15/14
Described by: CLJ, SJG, KGM

PALEOSOL (7.1-7.4 ft); red and tan clasts with gray burrows

Reworked zone (7.4-9.2 ft); large chinks of lignite

CLAY; silty; burrowed to laminated, micaceous, Raritan/Bass River Formation



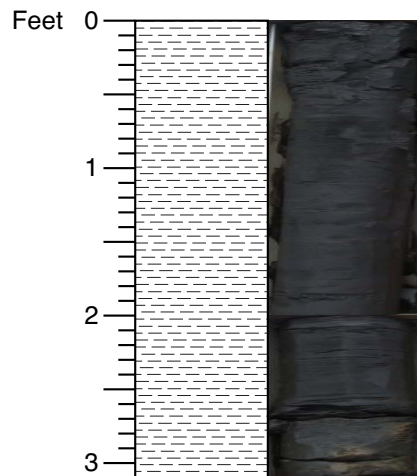
Silty clay to clayey silt Lignite, micaceous Clayey silt
Laminated silty clay Concretion? heavily bioturbated;
Concretion 2.6 Clay, Laminated with silt ~1 cm and mm
scale laminae Micaceous and lignite Anoxic Clayey silt
Sandy silt to silty sand, very fine Clayey, sandy, silt Silty,
sand, fine, lignite, mica, charcoal CLAY laminated xLaminae
CLAY; silty to clayey silt; lignite, micaceous; slightly
laminated; heavily bioturbated; concretions at 1.6 and 2.4 ft

CLAY; laminated with silt; ~1 cm and mm scale laminae,
micaceous and lignitic (suggests anoxia)

SILT clayey; sandy silt to silty very fine sand beds with
lignite, mica, charcoal at 6.1-6.1, 6.7-6.8, and 7.8-7.9 ft;

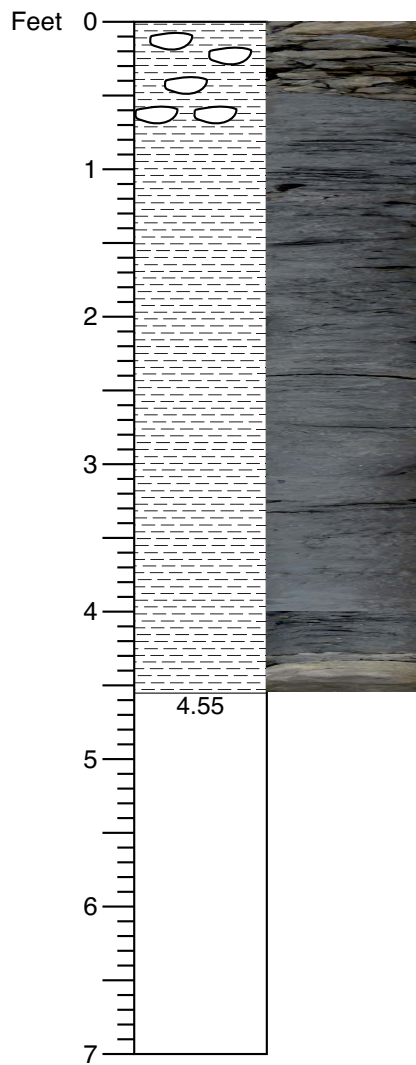
CLAY; laminated on mm and cm scale concretion (3 x 3 cm)
at 9.8 ft; Bass River

SH-SMY-B Core #72
Start depth: 630 ft
Stop depth: 640 ft
Recovery (ft): 9.9
Date: 10/15/14
Described by: KGM, SJG, CLJ, JU



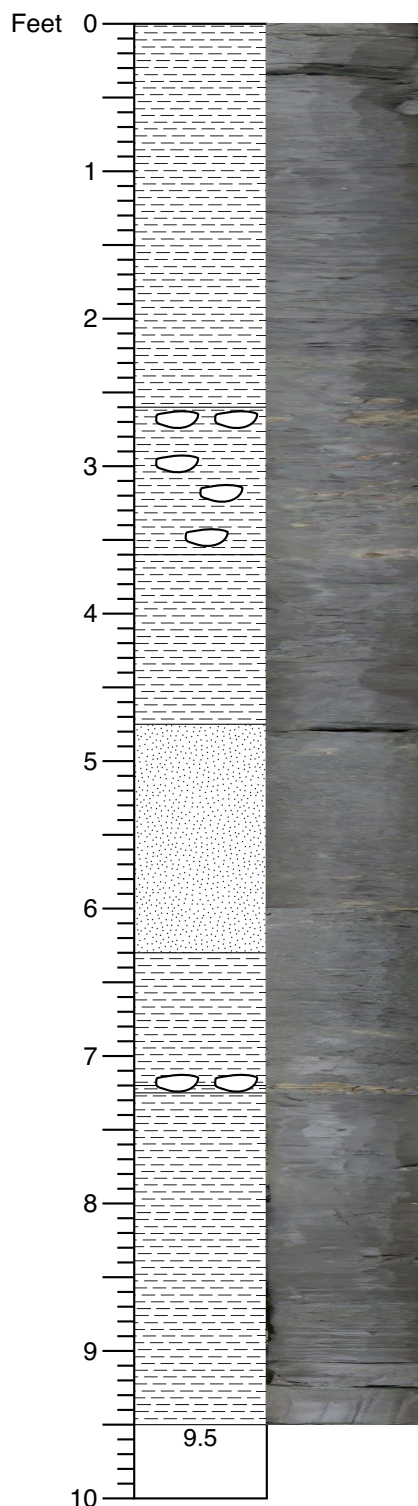
CLAY; lignitic, micaceous, very burrowed; mm-scale laminae, with occasional cm-scale laminae; 0.2-0.5 ft 1 cm wide burrow; 1.5 ft 3 mm pyrite nodules; 1.9 ft <1 cm pyrite nodules; 2.1 ft small burrows; 2.75-3.1 ft siderite concretions

SH-SMY-B Core #73
Start depth: 640 ft
Stop depth: 643 ft
Recovery (ft): 3.1
Date: 10/15/14
Described by: SJG, KGM, CLJ, JU



CLAY; silty; micaceous, finely laminated, cross bedded, lignite throughout, pyrite nodules (4x5 mm); 0-0.55 ft large siderite concretions; 1.1 ft burrows?; 3.0 ft localized heavy bioturbation (mm-cm scale); 4.4-4.5 ft solid siderite concretions

SH-SMY-B Core #74
Start depth: 643 ft
Stop depth: 650 ft
Recovery (ft): 4,55
Date: 10/15/14
Described by: SJG, CLJ



CLAY; silt, sand, very fine; micaceous; interbedded and interlaminated; sand increases down section

Abrupt contact (2.6 ft),
SIDERITE; concretions, matrix of silty mud; micaceous (large flakes), lignitic

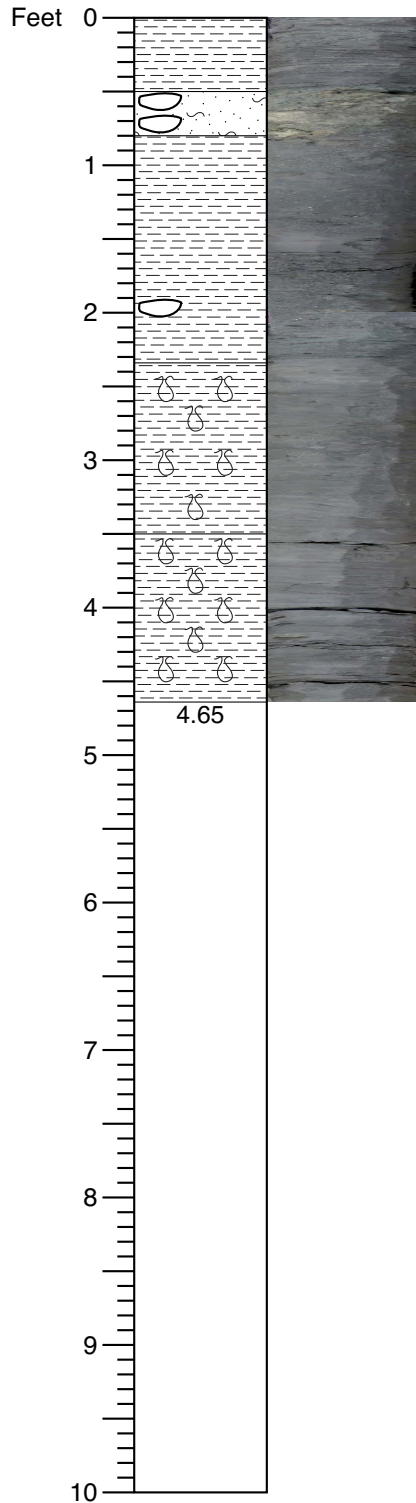
MUD; similar to above without the siderite

SAND; very fine, silty; possible bioturbation, looks disturbed; siderite concretions at 4.8-4.9, and 5.9-6.0 ft; lignite at 6.0 ft

SILT; inter laminated with SAND

SIDERITE layer (7.2-7.25 ft
CLAY, silty; laminated, silty sand bed at bottom

SH-SMY-B Core #75
Start depth: 650 ft
Stop depth: 660 ft
Recovery (ft): 9.5
Date: 10/15/14
Described by: JVB



CLAY; interlaminated and interbedded with SAND, very fine, very micaceous (chlorite); mm scale sandy cross beds; 5G 4/1 dark greenish gray

GLAUCONITE (0.5-0.8 ft); medium to fine; siderite nodule, some glauconite in nodule

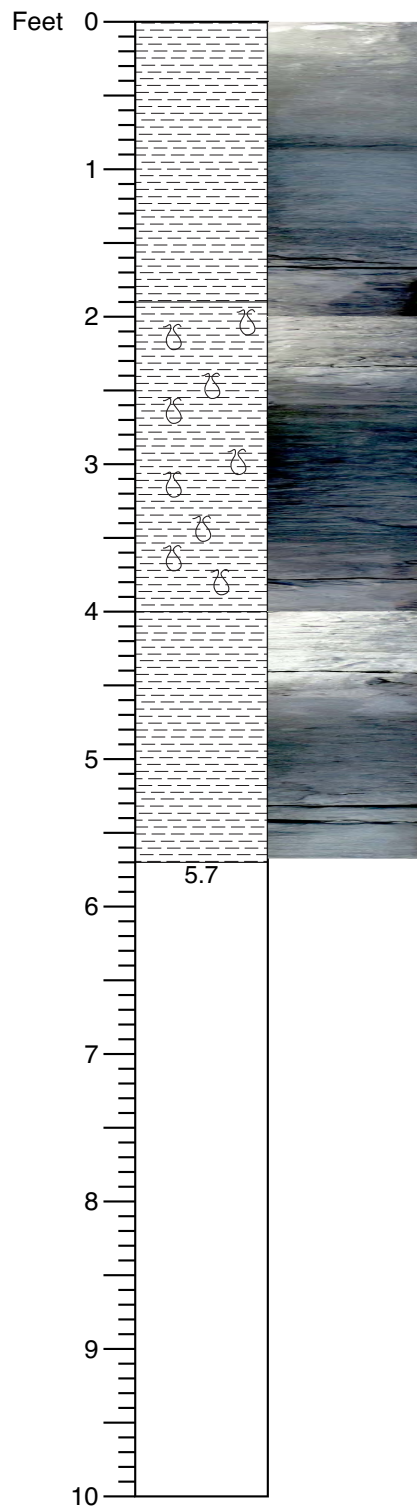
SILT; clayey, very micaceous, a few medium sand grains; clay bed with burrows at 1.5-1.6 ft; less green; siderite nodule at 1.9-2.0 ft; abundant lignite below clay bed

SHARP CONTACT (2.35 ft)

SILT; micaceous, bioturbated, some burrows, faint bedding; appearance of dewatering structures

SILT; clayey; fewer structures than unit above; possibly more burrowed

SH-SMY-B Core #76
Start depth: 660 ft
Stop depth: 670 ft
Recovery (ft): 4.65
Date: 10/15/14
Described by: JVB

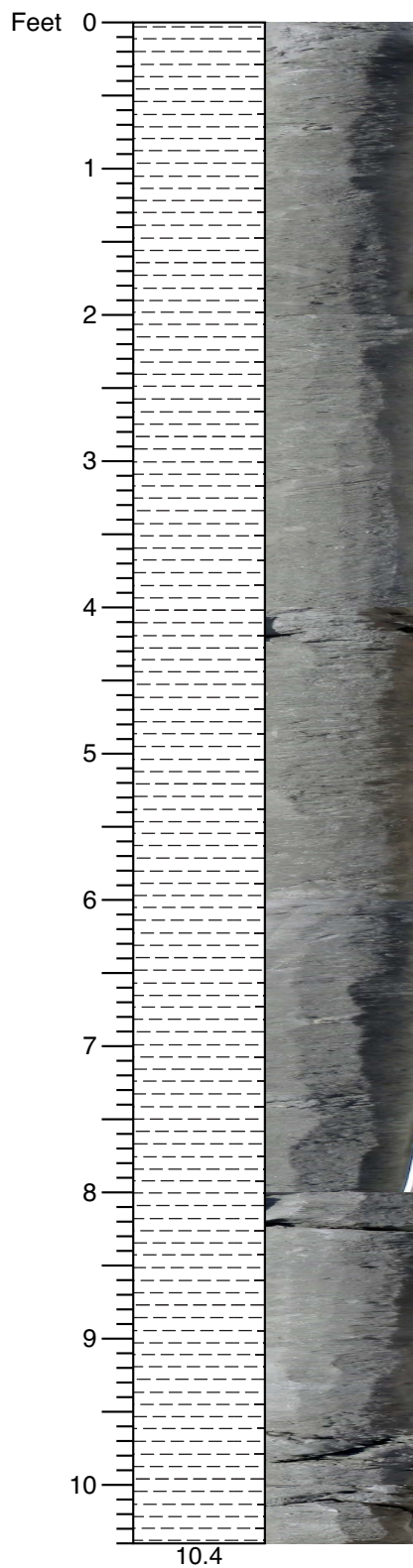


CLAY; silty; structureless, heavy bioturbation?

CLAY; silty; bioturbated, many visible burrows

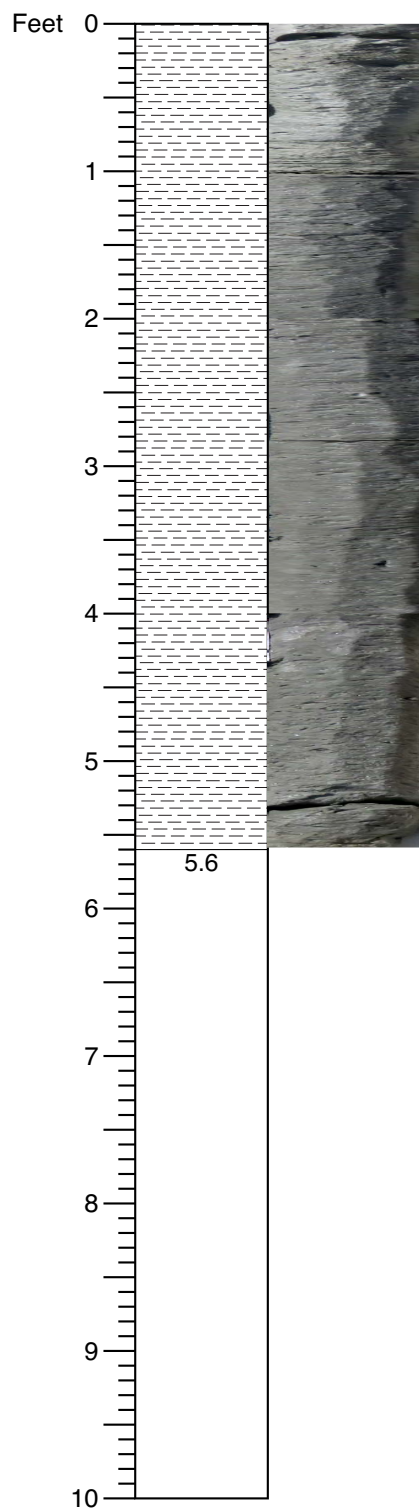
Very planar laminations

SH-SMY-B Core #77
Start depth: 670 ft
Stop depth: 680 ft
Recovery (ft): 5.7
Date: 10/15/14
Described by: JVB



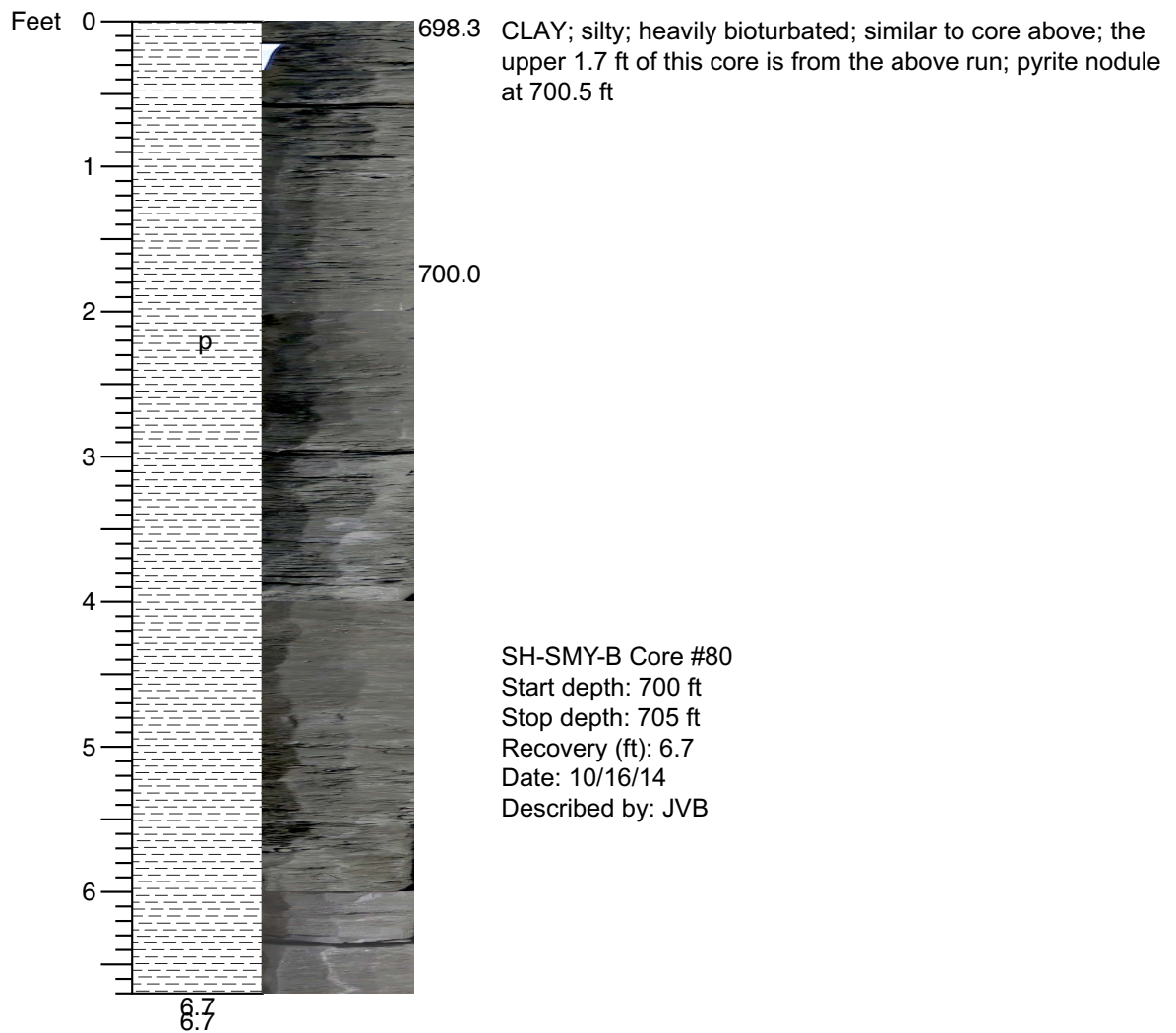
SILT; clayey, very micaceous, heavily bioturbated, clay-lined and filled burrows; uniform throughout; large burrows at 1.7, 3.0-3.1, 3.5 ft; pyrite nodules at 0.8 and 6.6 ft; first fully marine core; 10Y 4/1 greenish gray

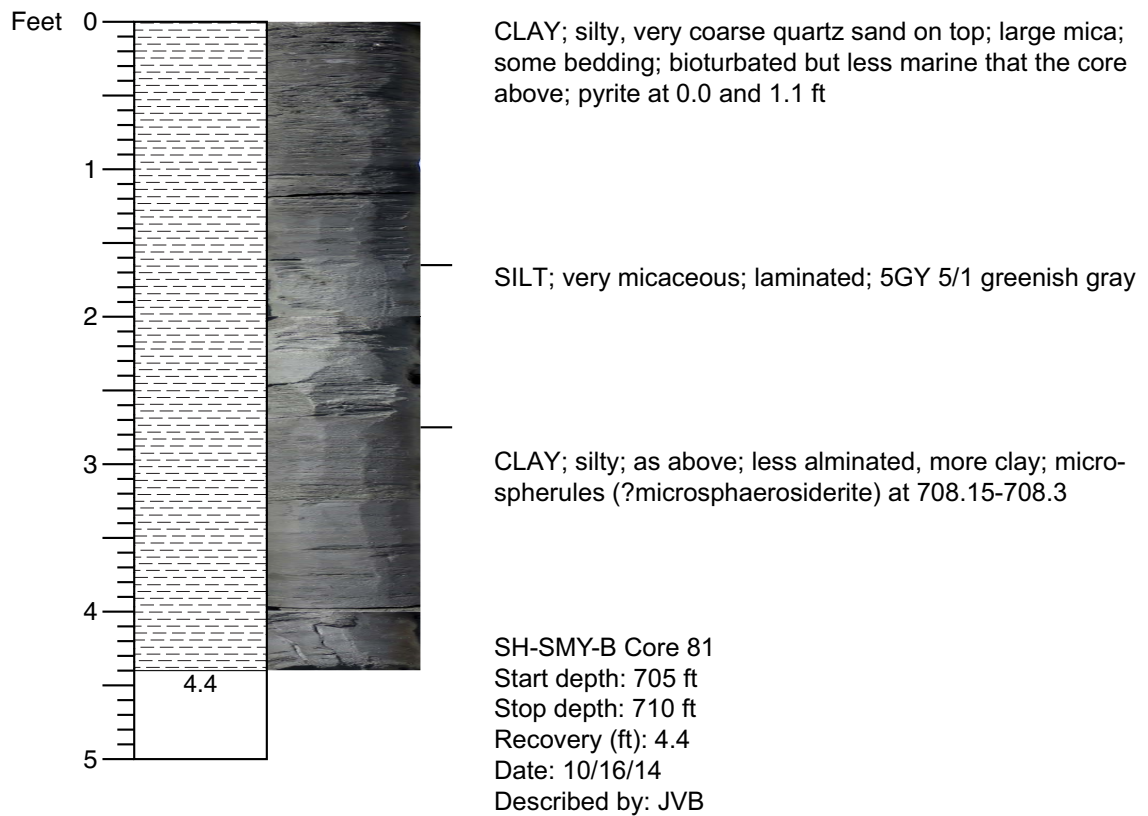
SH-SMY-B Core #78
Start depth: 680 ft
Stop depth: 690 ft
Recovery (ft): 10.4
Date: 10/15/14
Described by: JVB

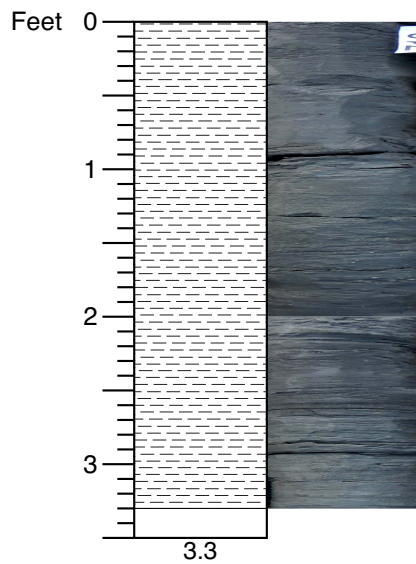


CLAY; silty; heavily bioturbated; microspherules at top of core; 5GY 2.5/1

SH-SMY-B Core #79
Start depth: 690 ft
Stop depth: 700 ft
Recovery (ft): 5.6
Date: 10/16/14
Described by: JVB

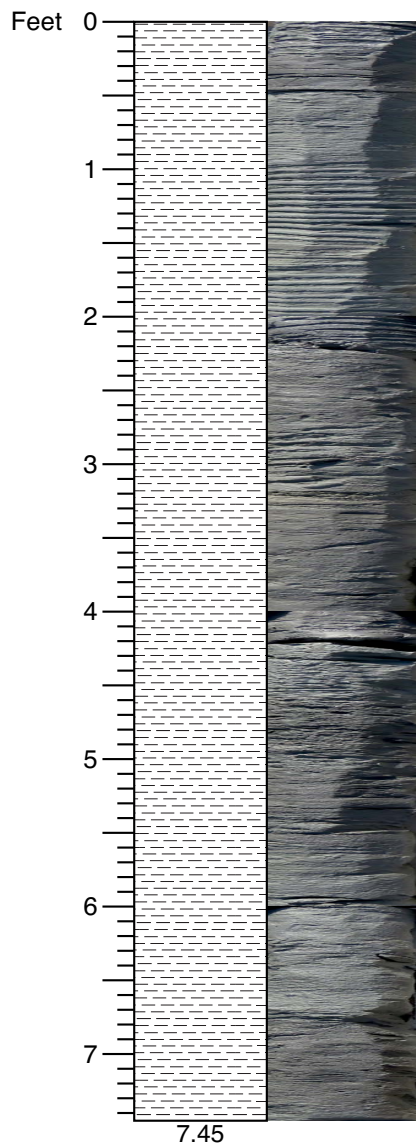






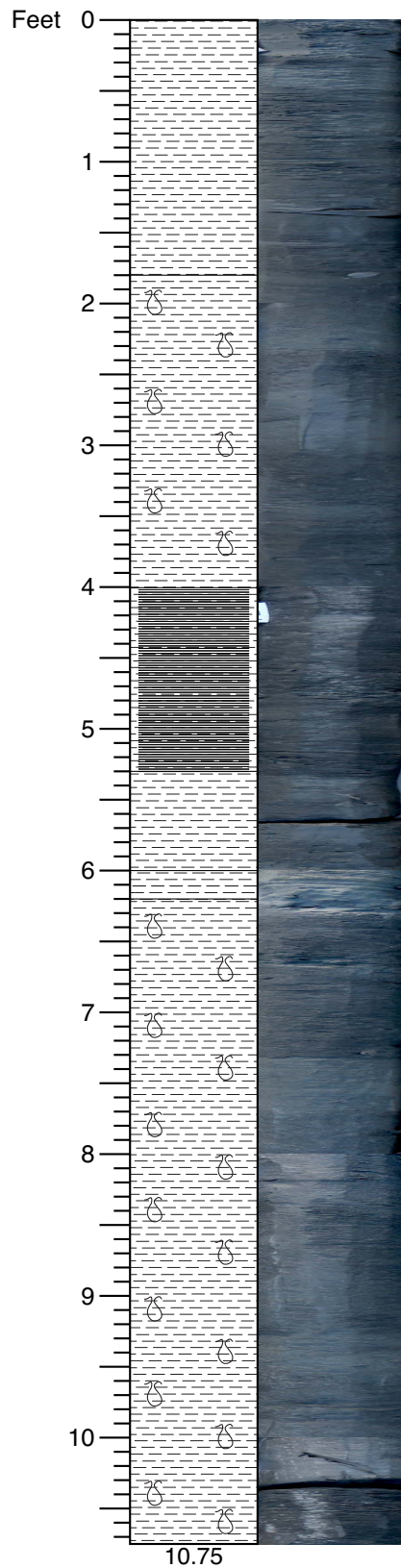
Clay; silty, finely laminated throughout; some coarse sand from 1.0-1.75 ft; fault fro 1.85-2.25; pyrite at 2.1 (2 chunks 0.5 cm) and 3.0 (1cm) ft; slit increases downcore; Gley 1 10Y 2.5/ greenish black and Gley 15Y 4/ dark geenish gray

SH-SMY-B Core #82
Start depth: 710 ft
Stop depth: 713.5 ft
Recovery (ft): 3.3
Date: 10/16/14
Described by: JVB



SILT; interlaminated and interbedded with SAND; regular spacing; very micaceous; nodules from 2.8-3.2 ft, indurated layer of nodules at 3.2-3.25 ft; below 3.45 ft laminations become finer (mm scale); some bioturbation at bottom of core

SH-SMY-B Core #83
Start depth: 713.5 ft
Stop depth: 720 ft
Recovery (ft): 7.45
Date: 10/16/14
Described by: JVB



SILT; clayey; very micaceous; cross bedding from 0.3-0.5 and 1.0-1.6 ft; below 1.8 ft the core is structureless; bioturbation increases downcore to 4.0 ft; laminated from 4-5.3 ft; clayey, sandy silt bed from 5.3-6 ft; spherical nodules (?sphaerosiderite) from 6.0-6.2 ft; below 6.2 ft bioturbation increases to bottom

SH-SMY-B Core #84
Start depth: 720 ft
Stop depth: 730 ft
Recovery (ft): 10.75
Date: 10/16/14
Described by: JVB