

**Core 02-V5
(9.8% compaction)**

Depth Interval

0-19
Modern marsh peat

19-22
Peaty mud, silty clay loam, tan to brown w/orange oxidation nodules, many v.f. to f. random roots, massive, ~25-30% clay, ~20% organics (peat), lower contact over 3 mm.

22-60.5
Peaty mud, silt loam, dark brown to black, ~15-20% clay, common f. vertical roots, many v.f. random roots, trace coarse peat fragments, weak horizontal matting, ~20% organics (peat), less clay than above, no mica, contains 0.5 cm thick clean v.f. gray sand (similar to beach sand) between 23.5 and 24 cm, lower contact over 2 mm.

60.5-96.5
Peat, dark reddish brown w/ dark brown to black mottles over 30-40% of unit, well decomposed, velvety structure, mineral component silt (<10%), organic odor, 5 cm long wood chunk in horizontal position between 63 and 64 cm, herbaceous seeds present near top of unit, no mica, lower contact over 1 mm.

96.5-103.5
Mud, silt loam, dark gray, organic, slight odor, common v.f. random roots, <10% clay, massive, trace peat chunks, much less organics (<10%) than black mud above, no mica, lower contact over 1 mm.

103.5-127
Peat, dark reddish brown, slight odor, ~80% organics, mineral component silt (~10-15%), slightly more mineral component than peat above, many v.f. random roots, trace coarse peat fragments, very well decomposed, velvety structure, no mica, lower contact over 30 mm.

127-139
Mud, silt loam, dark olive brown, very few f. random roots, no odor, massive, <10% clay, ~5% mica, trace humified organics, contains irregular 5 mm thick v.f. grained gray sand pocket at 134 cm, lower contact over 3 mm.

139-162
Divided into 3 subunits; upper unit (139-150 cm): sandy loam, dark olive brown, ~50% v.f. sand, 10% mica, massive, very few med. vertical roots, trace v.f. roots; middle unit (150-157 cm): Sandy silt loam, dark olive brown, <5% clay, ~5% mica, ~20% v.f. sand, massive to weakly laminated w/ v.f. sand laminae 1-2 mm thick, trace f. and v.f. random roots; lower unit (157-162): sandy loam, dark olive brown, weakly laminated, ~30% v.f. sand, ~5% mica, common v.f. random roots, lower contact over 2 mm.

162-193
Mud, silt loam, dark olive brown, slight odor, massive, ~10% clay, trace peat fragments, few v.f. random and trace f. vertical roots, inorganic relative to unit below, contains flat lying wood chunk (3 X 2.5 cm) between 164 and 165 cm, lower contact over 2 mm.

193-209
Mud, silt loam, dark olive brown, micaceous, massive, slightly more organics than above, slight odor, few v.f. random roots, ~15% clay, ~15% organics, lower half of unit contains irregular zones of sand (v.f. to f., w/ trace coarse grains), sand may be result of mixing of unit below by tidal processes, lower contact over 3 mm.

209-223.5
Sandy loam to loamy sand w/ gravel, dark brown gray, weakly bedded, trace mica, sand is coarse grained w/ granite clasts up to 1 cm, interpreted as alluvial deposit, lower contact over 1 mm.

223.5-244
Sandy silt loam, dark gray brown, ~30% v.f. sand and trace coarse sand, trace mica, trace woody debris, no odor, massive, rare large 5 mm diameter feldspar clasts (angular), lower contact over 4 mm.

244-248
Mud, silt loam, dark olive gray brown, lower contact has relief over 2 cm, trace woody debris.

248-259
Peat, dark brown, well decomposed, ~70% organics, velvety, trace coarse peat fragments, trace v.f. random roots, moderate smell, mineral component silt (~30%), lower contact over 1 mm.

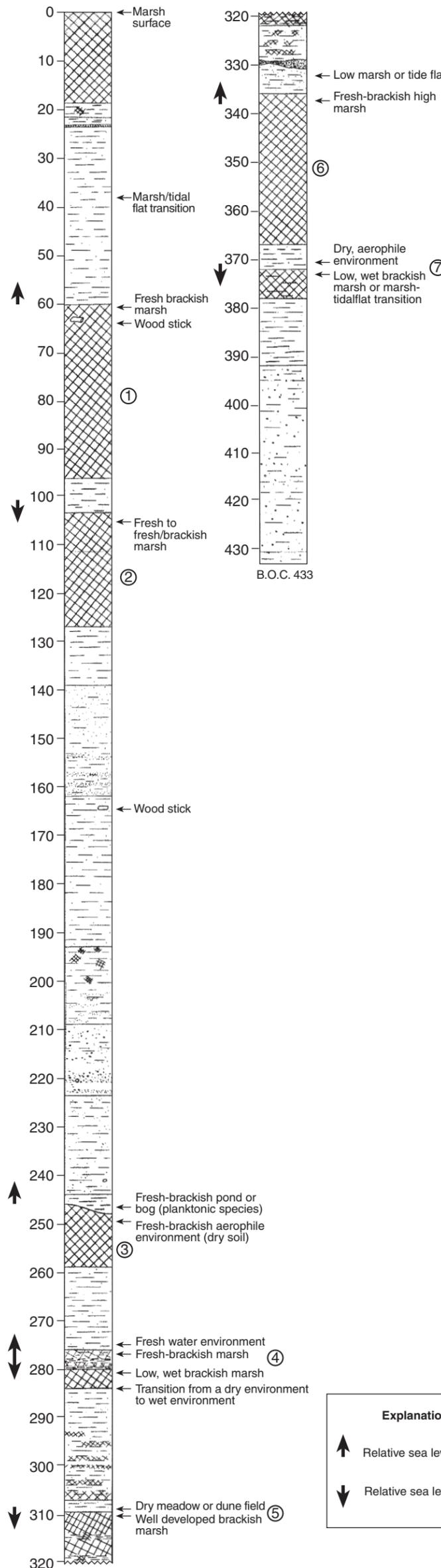
259-276
Mud, silt loam, dark olive gray grading downward to dark gray, massive weakly laminated (2 mm scale laminae), slight odor, ~15% organics above 269 cm, <10% organics below 269 cm, trace v.f. random roots, trace coarse plant fragments, trace to no mica, lower contact over 2-3 mm.

276-280
Interbedded muddy peat and mud, muddy peats; dark brown to light olive brown, common v.f. roots, trace coarse peat fragments, ~50% organics, mud beds; silt loam, gray, massive w/ no roots, lower contact over 1 mm.

280-284
Peat, brown to dark brown, >60-70% organics, trace coarse peat fragments, velvety, mineral component silt (~20%) and clay (<10%), strong organic odor, upper 1 cm is less decomposed and darker color, lower contact over 1-2 mm.

284-307
Peaty mud, silt loam, dark olive gray w/ brown peat zones, ~20-25% clay, >10% mica, <20% peat concentrated below 293 cm, occurs in beds and pockets, few v.f. random roots, trace f. sub-vertical roots, massive w/ weakly laminated peaty layers, lower contact over 3 mm.

307-309.5
Organic mud, silt loam, dark gray, strong odor, ~10% mica, massive, trace coarse peat fragments, common v.f. random roots, lower contact over 1 mm, interpreted as a possible storm deposit based on a rapid return to organic deposition in unit above.



309.5-322
Laminated peat, muddy peat, and peaty mud, reddish brown to black, moderately laminated, trace coarse peat fragments, many v.f. roots, trace f. vertical roots, individual gray mud laminae are 3-4 mm to over 10 mm thick, strong odor, ~60% organics, mineral component silt, velvety to massive, ~15-20% organics, lower contact over 20 mm.

322-336
Upper unit: silt loam, dark olive brown, massive, trace mica (<5%), common v.f. random roots, ~20% organics, ~15% clay; lower unit: sandy silt loam, dark gray, ~15% clay, ~5% mica, v.f. grained sand over 20% of unit, trace f. vertical roots, massive, no odor, less organic than above; upper and lower unit separated by a 2 cm thick med. to coarse sand bed, clean, single grain supported, angular, trace gravels up to 4 mm, lower contact of entire unit is gradual over 20 mm and is characterized by peat and mud laminae.

336-367
Peat, reddish brown, fibrous, laminated, individual lams from 1-2 cm. thick, abundant to many coarse peat fragments, contains seeds, many v.f. random roots, common f. random roots, laminae are tan brown, dark brown, and reddish brown, ~70% organics, mineral component is silt, notably less decomposed than other peats in core, lower contact over 20 mm.

367-372
Silt loam to silty clay loam, dark gray, ~25% clay, ~10% mica, common v.f. random roots, trace coarse peat fragments, massive, trace coarse peat fragments, lower contact over 10 mm.

372-378
Muddy peat, dark brown to reddish brown, faint odor, ~60% organics, ~40% silt loam, massive to velvety, well decomposed, lower contact over 2 mm.

378-392
Silty clay loam, olive gray to olive brown, ~25-30% clay, mottled black in places, includes coarse peat fragments, few v.f. roots, few f. random roots, massive to weakly laminated, strong odor, up to 30% organics, lower contact over 20 mm, at base of unit mixing occurs with the soil below, gravels from soil occur up to 2 cm above contact and vertical roots penetrate through the contact.

392-433
Silty clay loam, dark bluish gray to black, angular gravels up to 1 cm diameter make up ~10% of unit, few to common f. random and trace med. roots, olive brown band occurs between 416 and 418 cm, interpreted as Pleistocene alluvial fan soil, base of core at 433 cm.

Explanation

↑ Relative sea level rise

↓ Relative sea level fall

Figure 9. Detailed stratigraphic descriptions for vibra-core 02-V5. The location of buried marsh soils as described in text are numbered and shown on the right side of core.