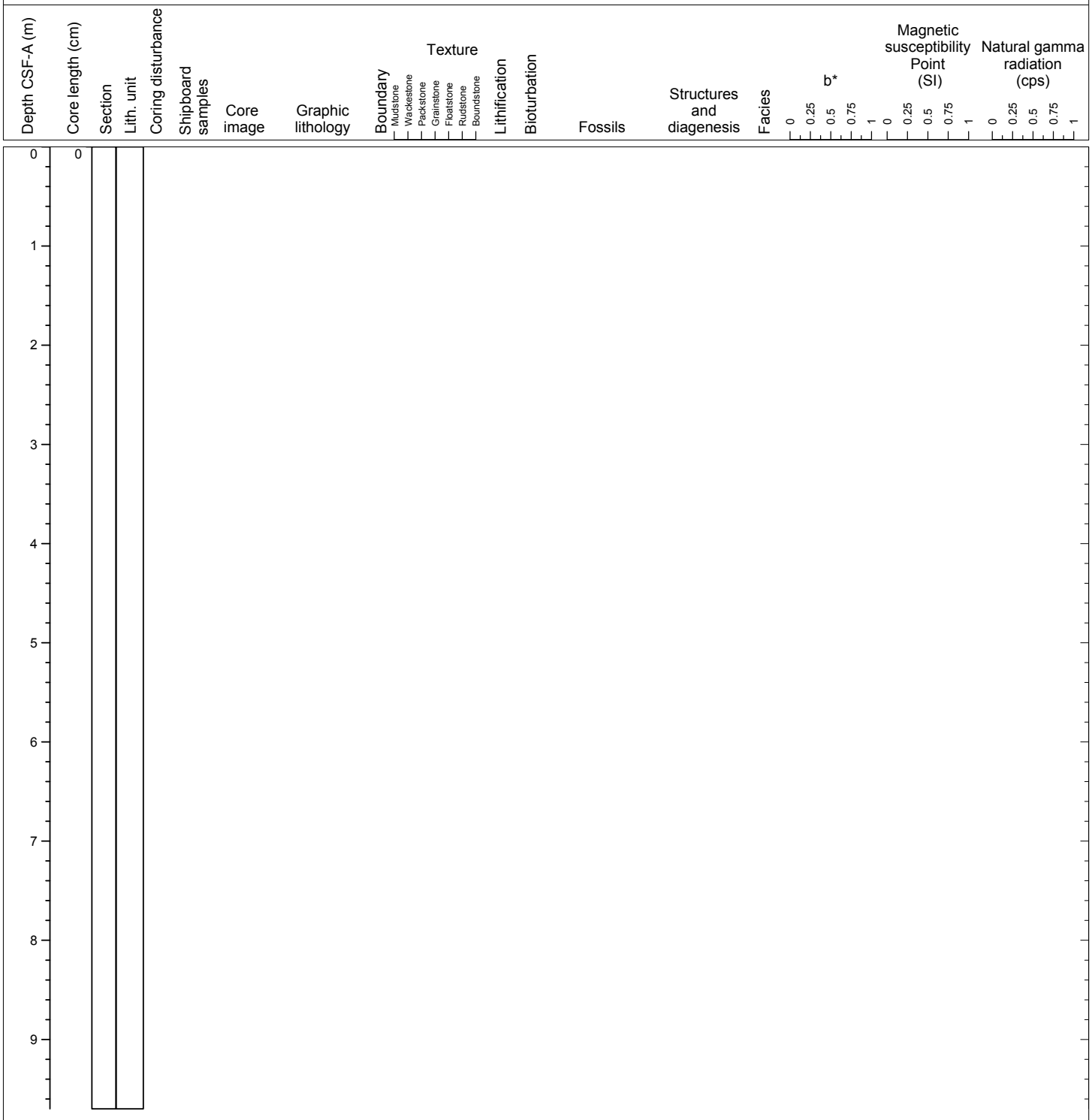
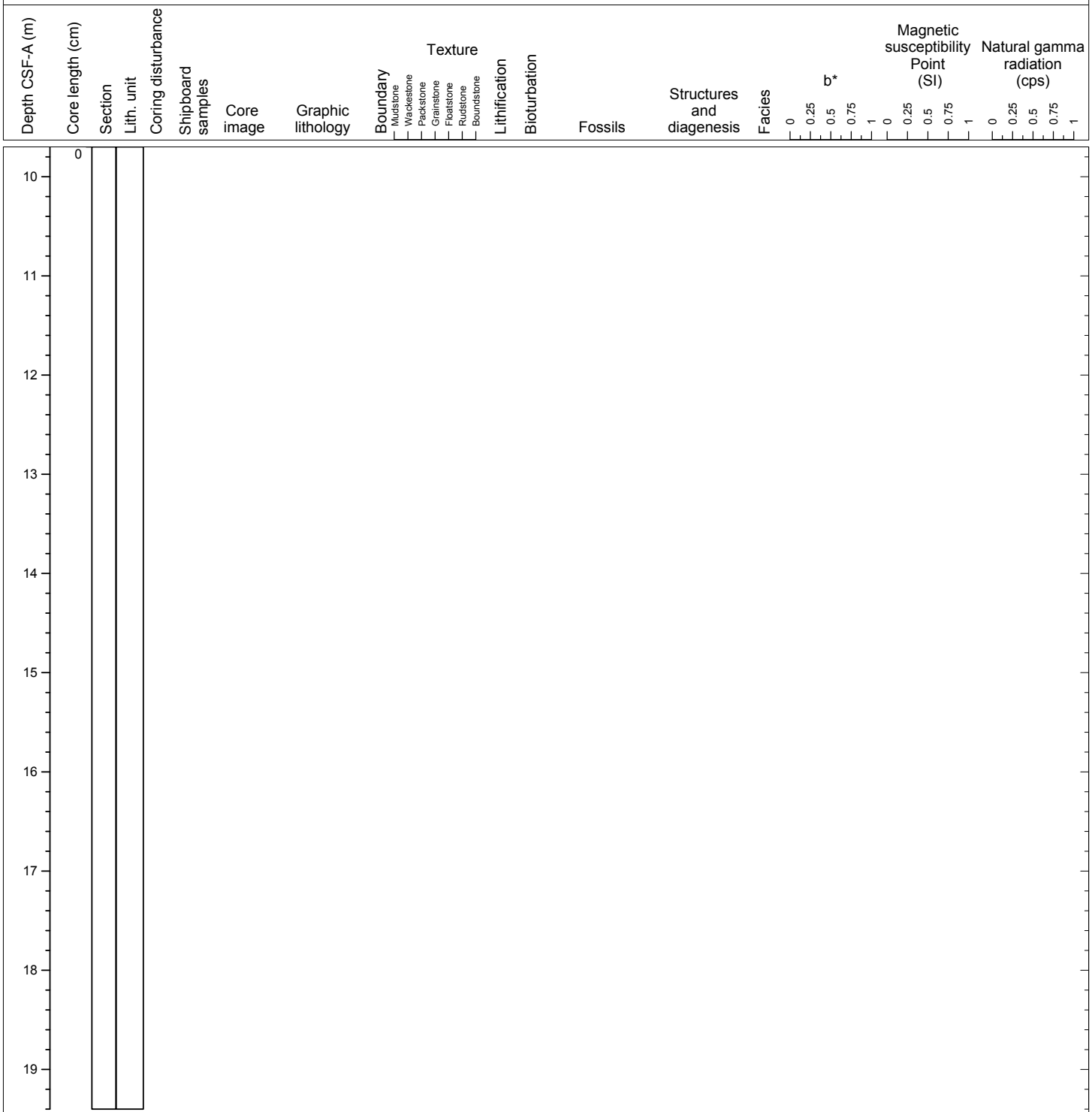
NO RECOVERY

Hole 356-U1464A Core 1X, Interval 0.0-9.7 m (CSF-A)



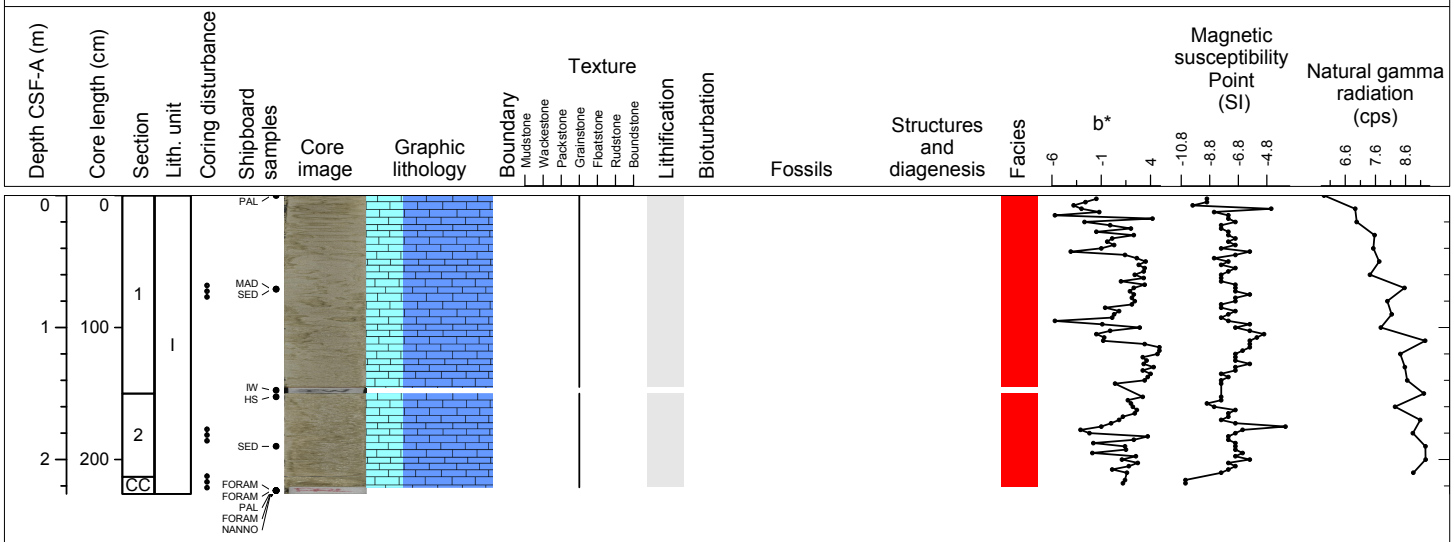
NO RECOVERY

Hole 356-U1464A Core 2X, Interval 9.7-19.4 m (CSF-A)



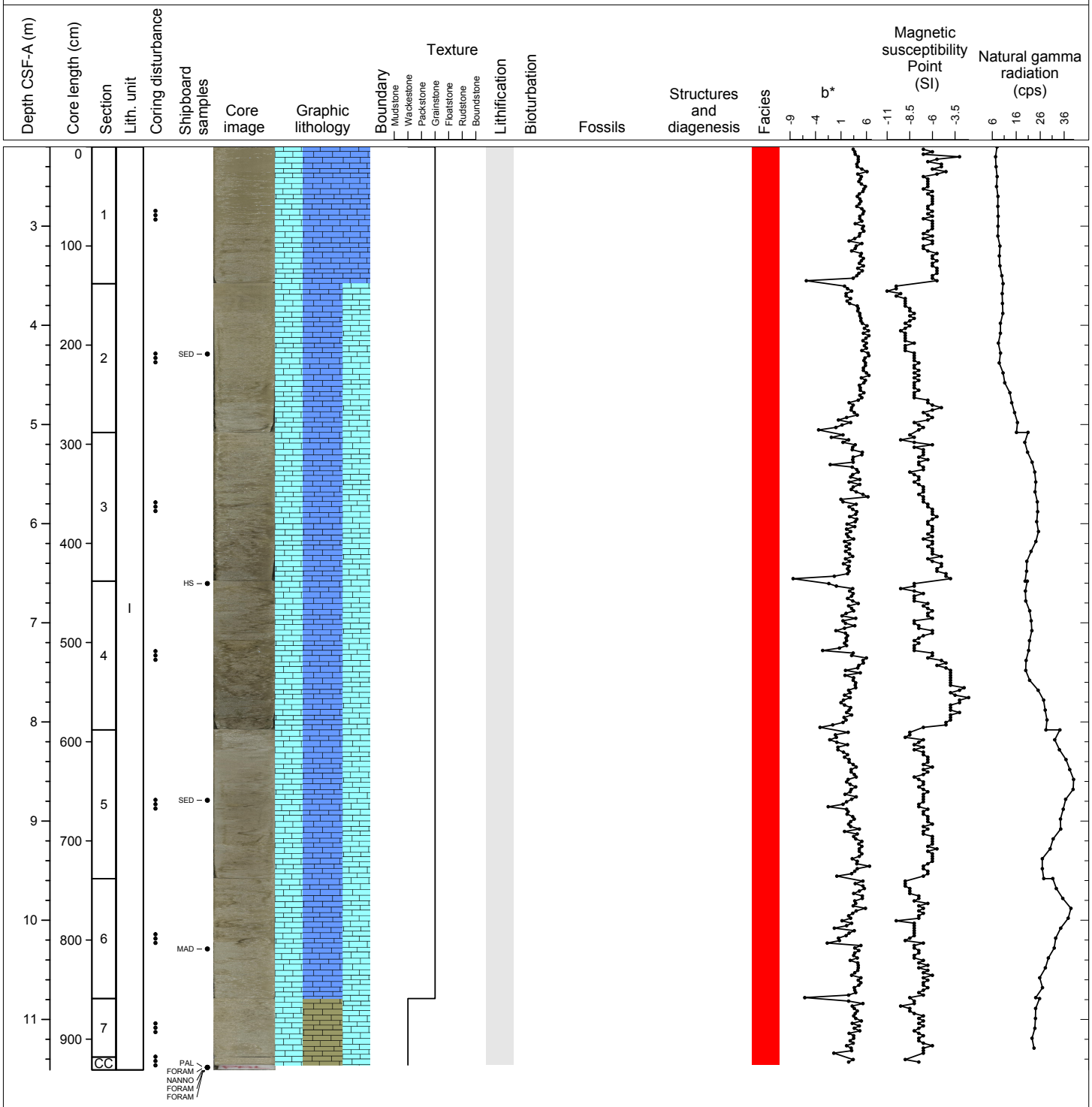
Hole 356-U1464B Core 1H, Interval 0.0-2.26 m (CSF-A)

Unlithified, light brown, skeletal, fine sand-sized, GRAINSTONE with peloids, diverse macrofossils, and very abundant green/black grains.



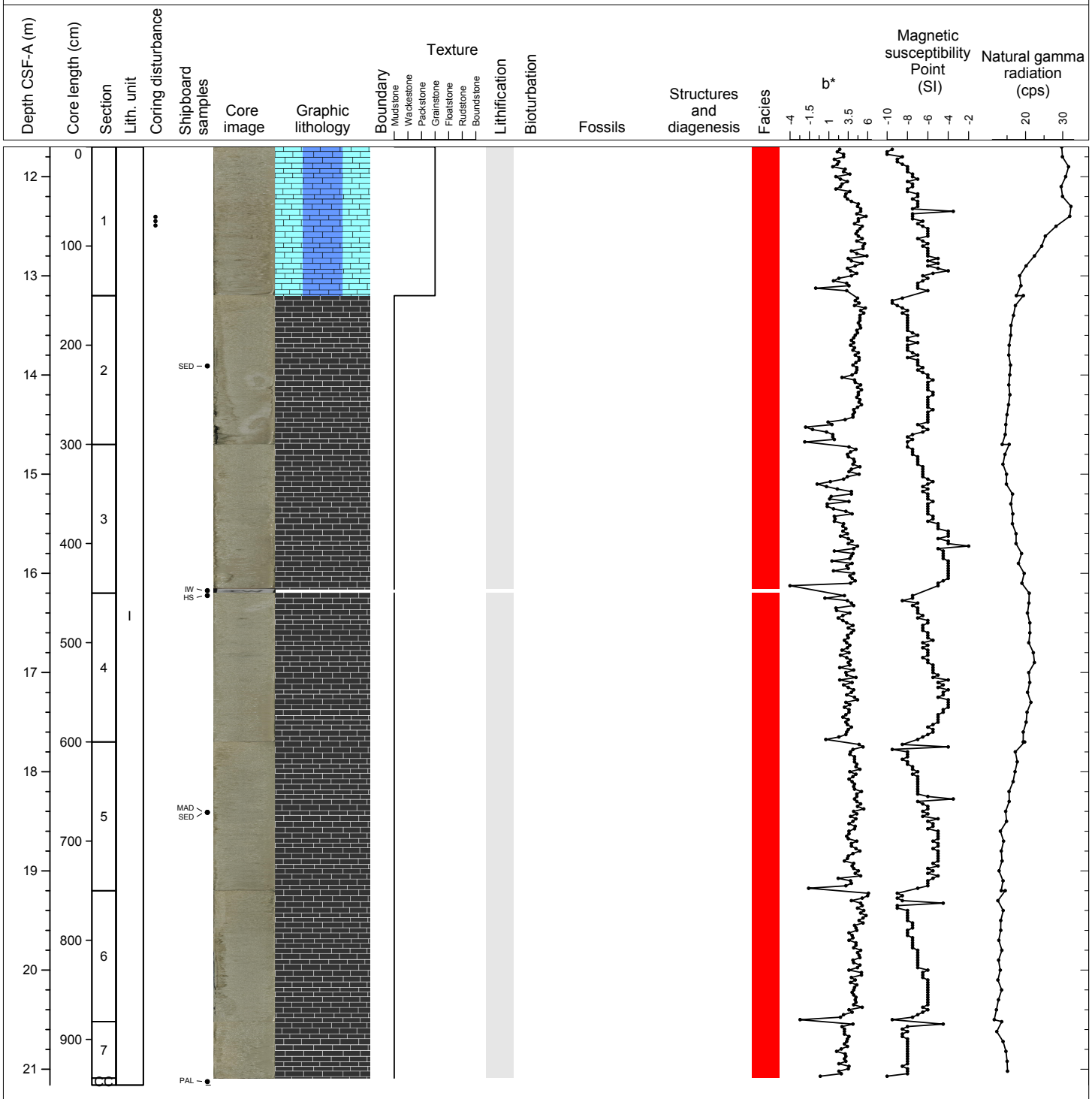
Hole 356-U1464B Core 2H, Interval 2.2-11.51 m (CSF-A)

Unlithified, light brown to brown, skeletal, fine to medium sand-sized, GRAINSTONE with peloids, foraminifers, diverse macrofossils, and very abundant green/black grains. The grainstone changes to beige before transitioning to unlithified, creamy gray, skeletal, coarse sand-sized, WACKESTONE with peloids, green/black grains, and abundant (unidentified) macrofossils.



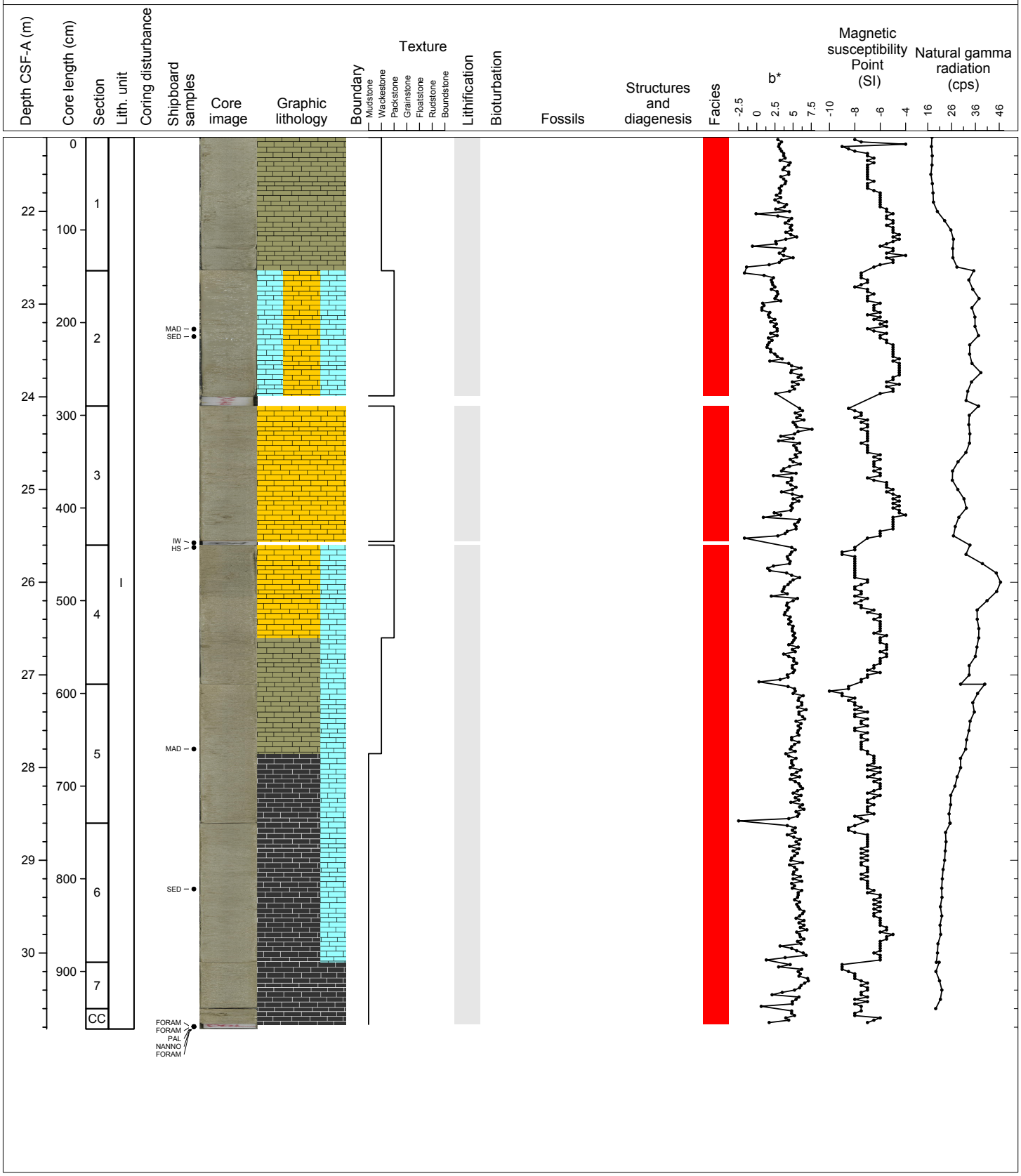
Hole 356-U1464B Core 3H, Interval 11.7-21.16 m (CSF-A)

Unlithified, creamy gray, skeletal, sand-sized, GRAINSTONE with foraminifers, abundant green/black grains (glauconite), macrofossils (scaphopod, gastropod), and common peloids. Below the grainstone, the majority of the core is composed of homogeneous, unlithified, cream, very fine sand-sized, MUDSTONE with green/black grains.



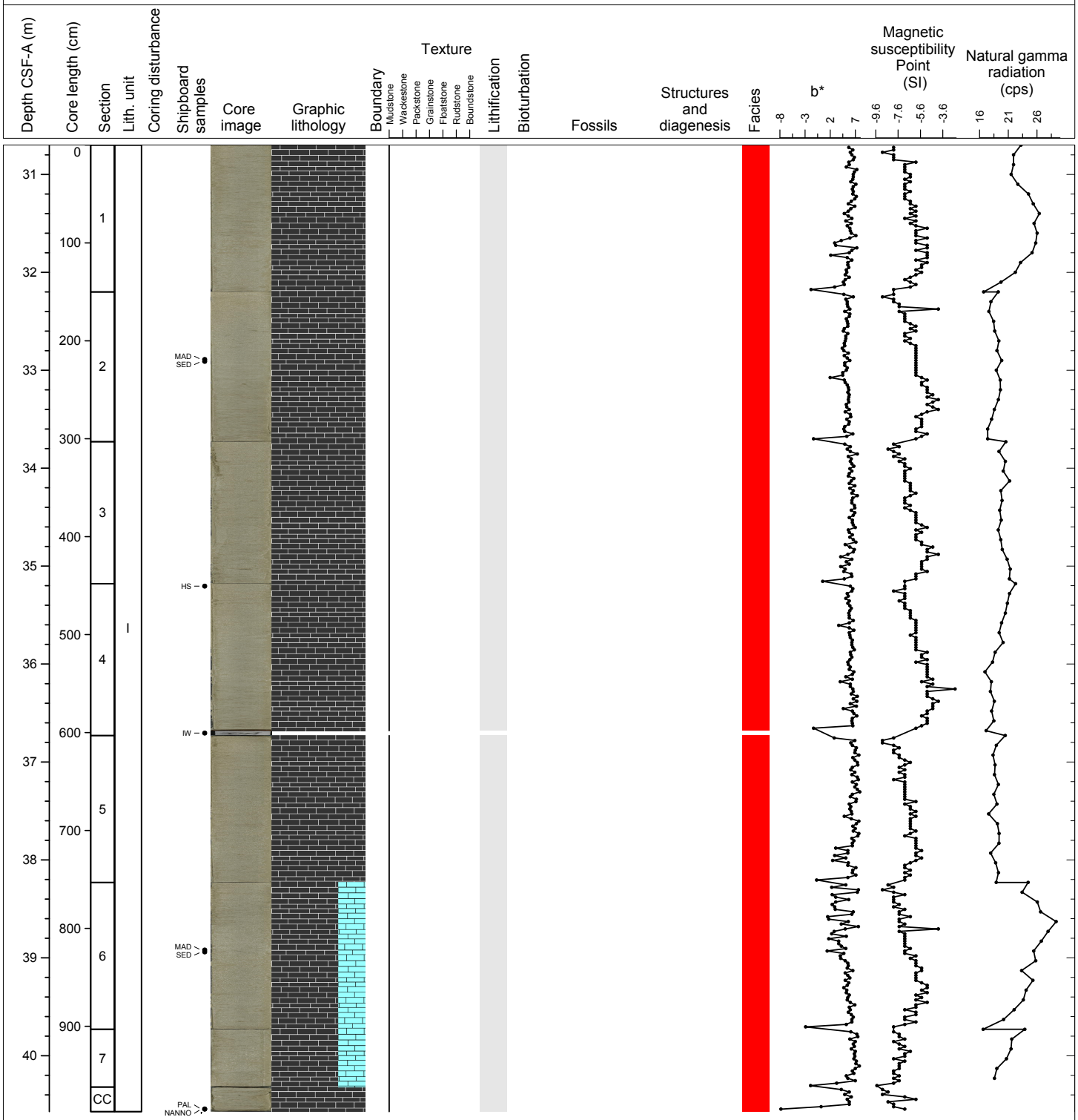
Hole 356-U1464B Core 4H, Interval 21.2-30.82 m (CSF-A)

Homogeneous, unlithified, cream, fine sand-sized, WACKESTONE with abundant green/black grains and macrofossils (foraminifer and bivalve fragments but most unidentifiable) transitions down core to unlithified, creamy gray, skeletal, coarse to sand-sized, PACKSTONE with foraminifers, abundant green grains, and various macrofossils (up to gravel-size). The packstone transitions to sand-sized, WACKESTONE with foraminifers, which in turn becomes fine to very fine sand-sized MUDSTONE.



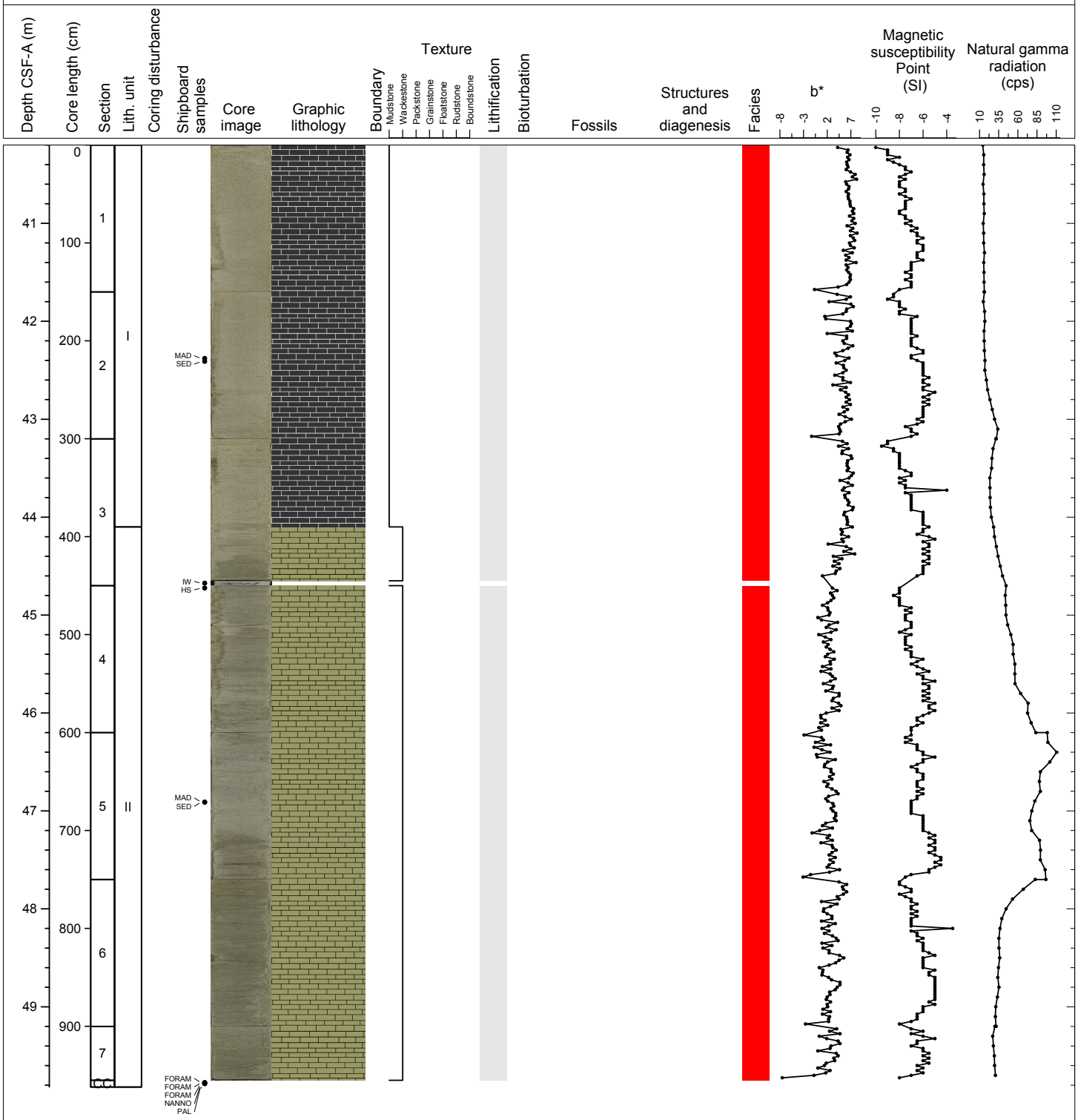
Hole 356-U1464B Core 5H, Interval 30.7-40.57 m (CSF-A)

Homogeneous, unlithfied, creamy gray, very fine sand-sized, MUDSTONE with occasional bivalve fragments and foraminifers.



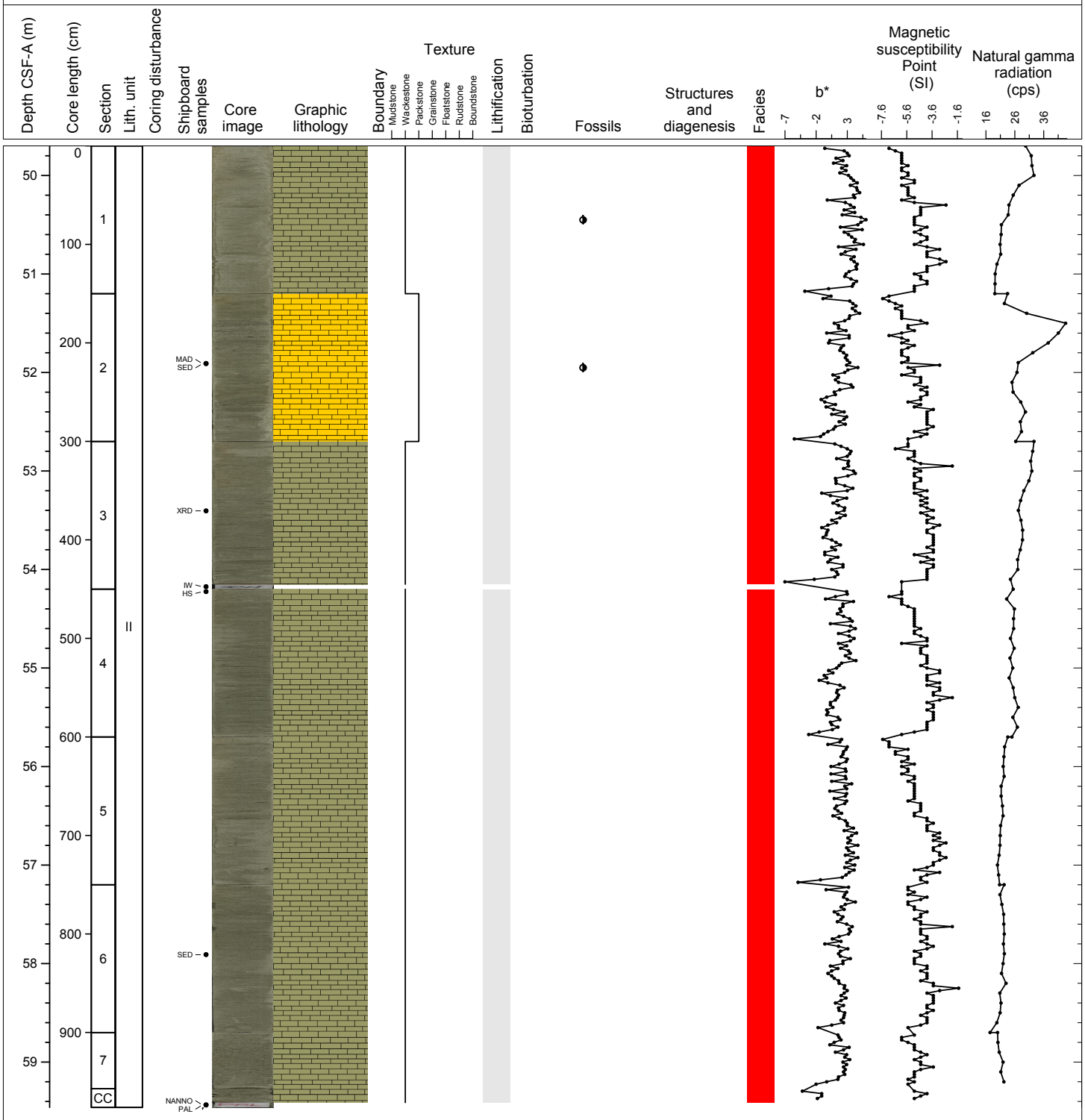
Hole 356-U1464B Core 6H, Interval 40.2-49.82 m (CSF-A)

Homogeneous, unlithified, creamy gray, very fine sand-sized, MUDSTONE with occasional macrofossils (bivalves and solitary corals). The grain size coarsens down core to sand and then to coarse and very coarse sand-size grains. This change in grain size coincides with a lithologic change to WACKESTONE (contains one solitary coral). This WACKESTONE grades into greenish gray, glauconite-rich, coarse sand-sized, WACKESTONE with one solitary coral, other macrofossil fragments, and benthic foraminifers.



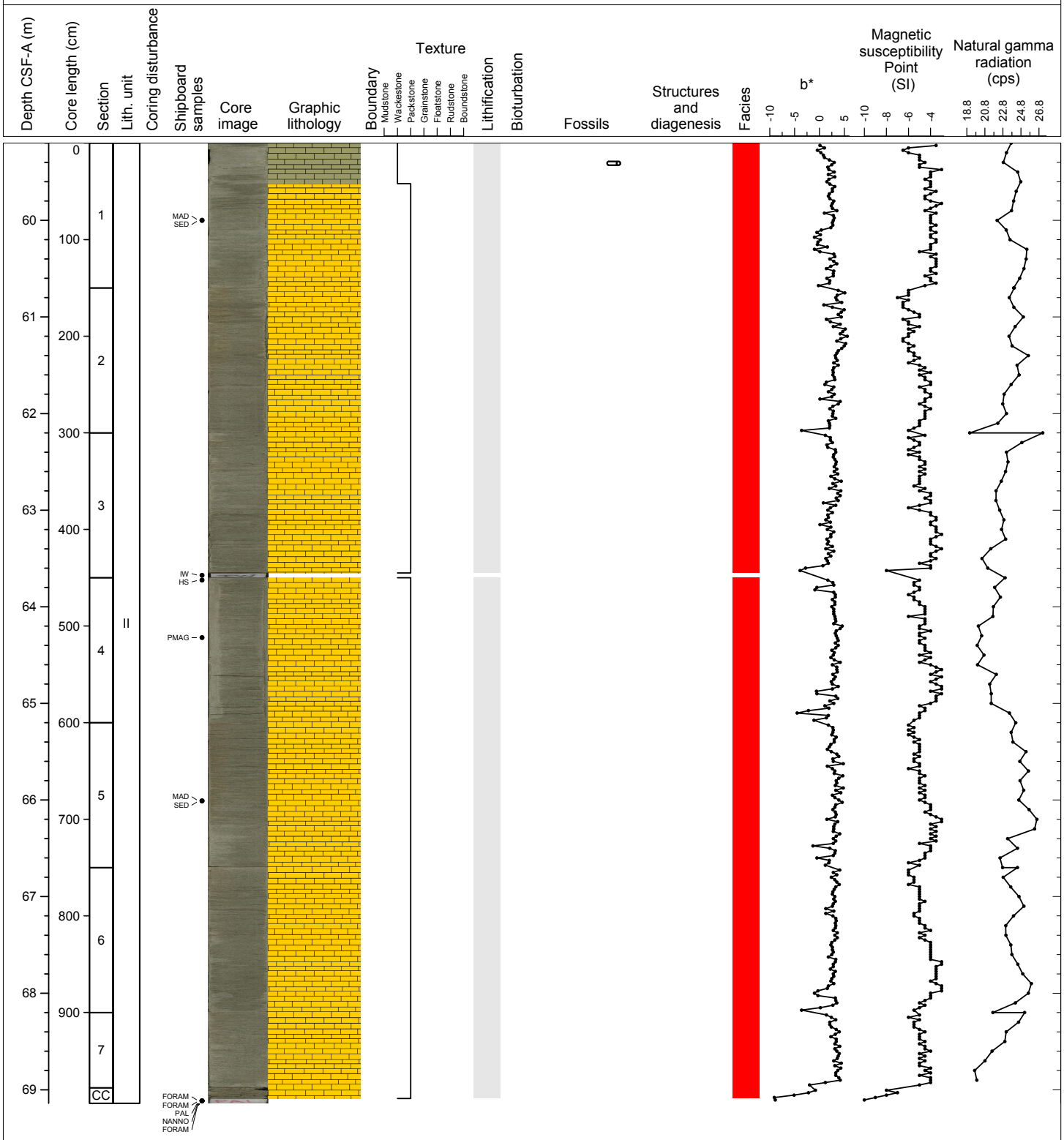
Hole 356-U1464B Core 7H, Interval 49.7-59.46 m (CSF-A)

Homogeneous, unlithified, greenish gray, sand-sized, WACKESTONE with abundant glauconite and macrofossils (foraminifers, bivalves, and echinoderms). Near the top of the core there is a PACKSTONE within the wackestone interval with similar lithologic characteristics. Small benthic foraminifers become more common with depth.



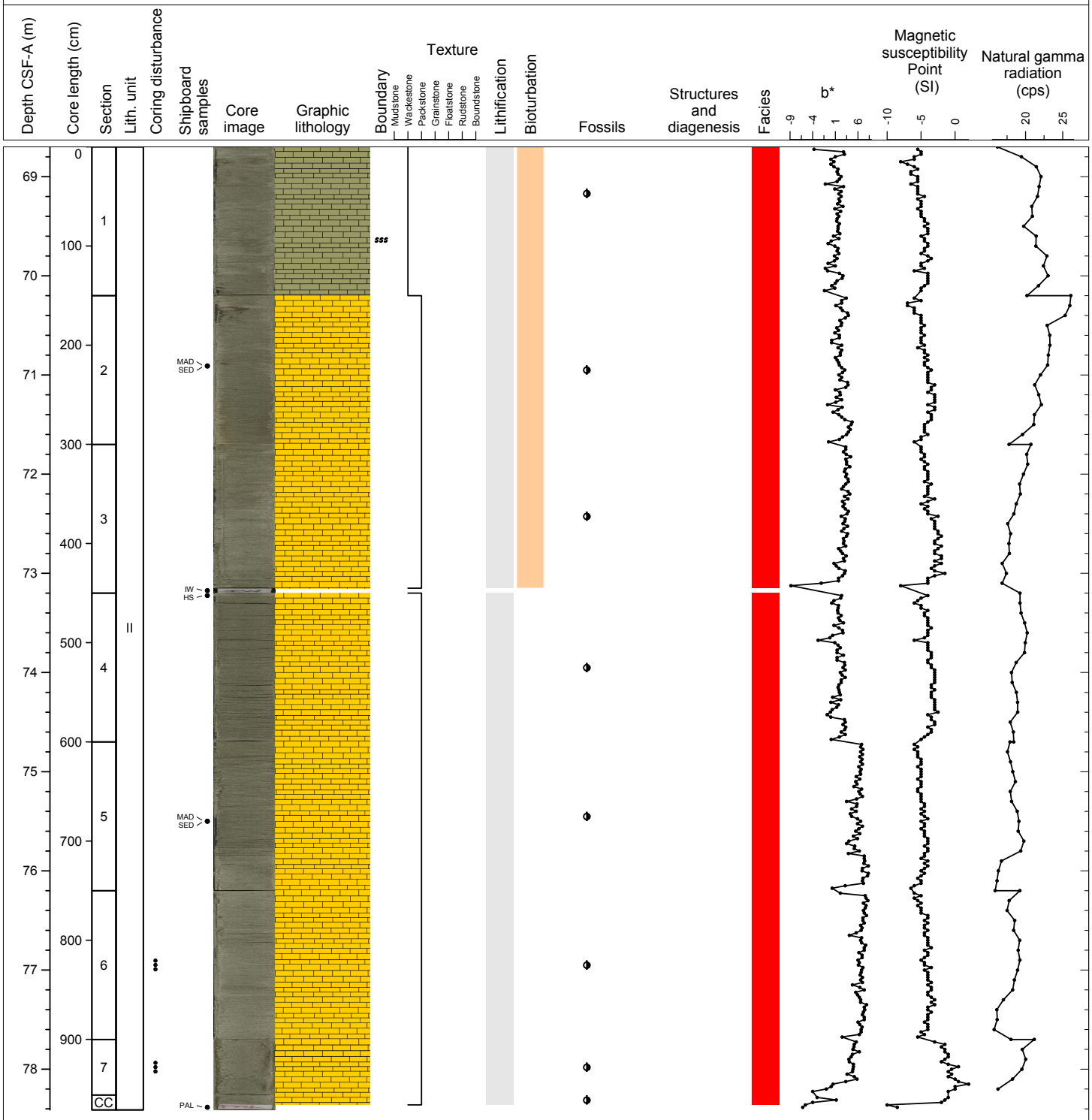
Hole 356-U1464B Core 8H, Interval 59.2-69.14 m (CSF-A)

Homogeneous, unlithified, greenish gray, fine sand-sized, PACKSTONE with small benthic foraminifers and sparse macrofossils.



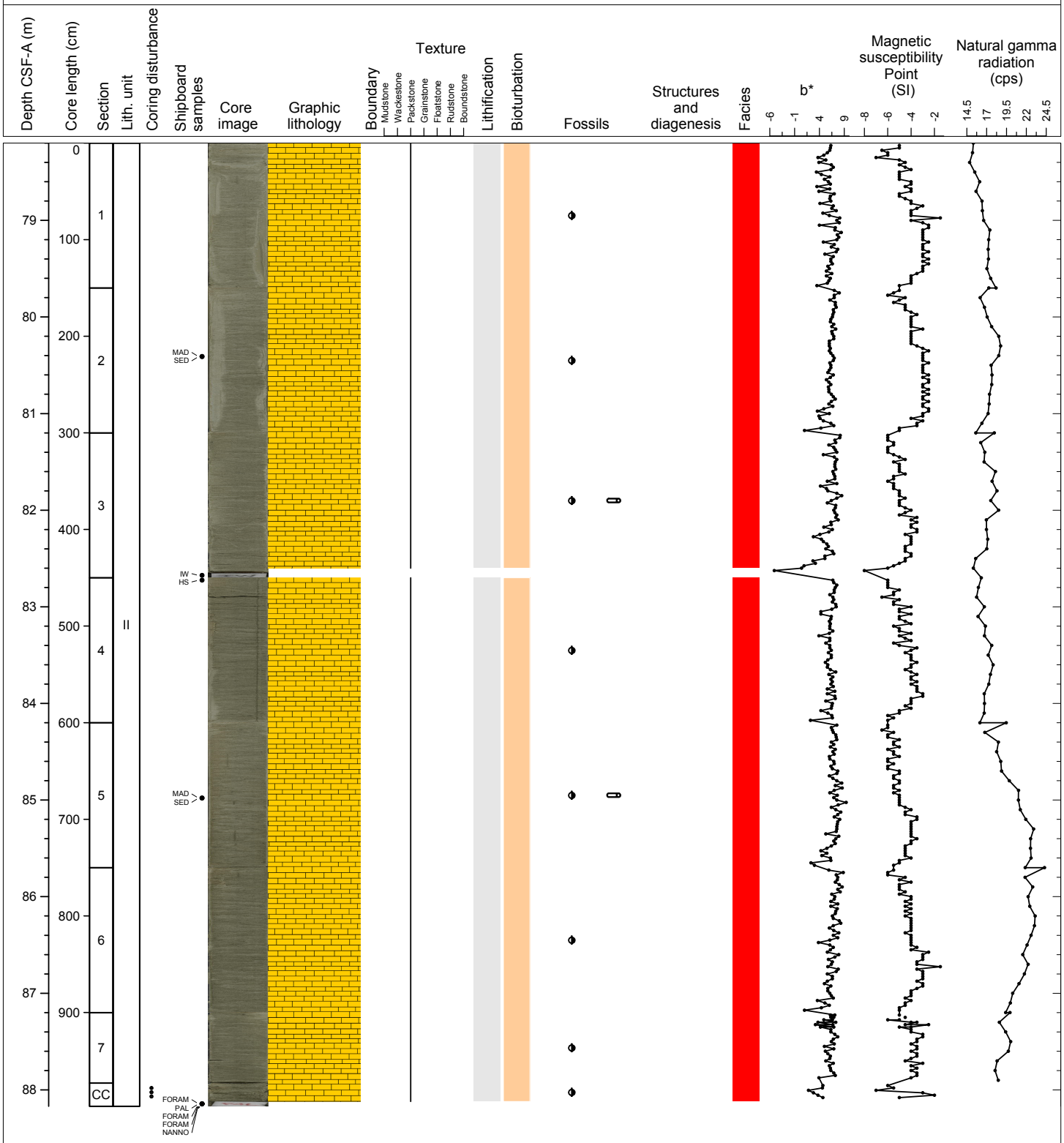
Hole 356-U1464B Core 9H, Interval 68.7-78.41 m (CSF-A)

Homogeneous, unlithified, greenish gray, fine sand-sized, PACKSTONE with small benthic foraminifers and small macrofossils (bivalves, echinoderms, and decapods).



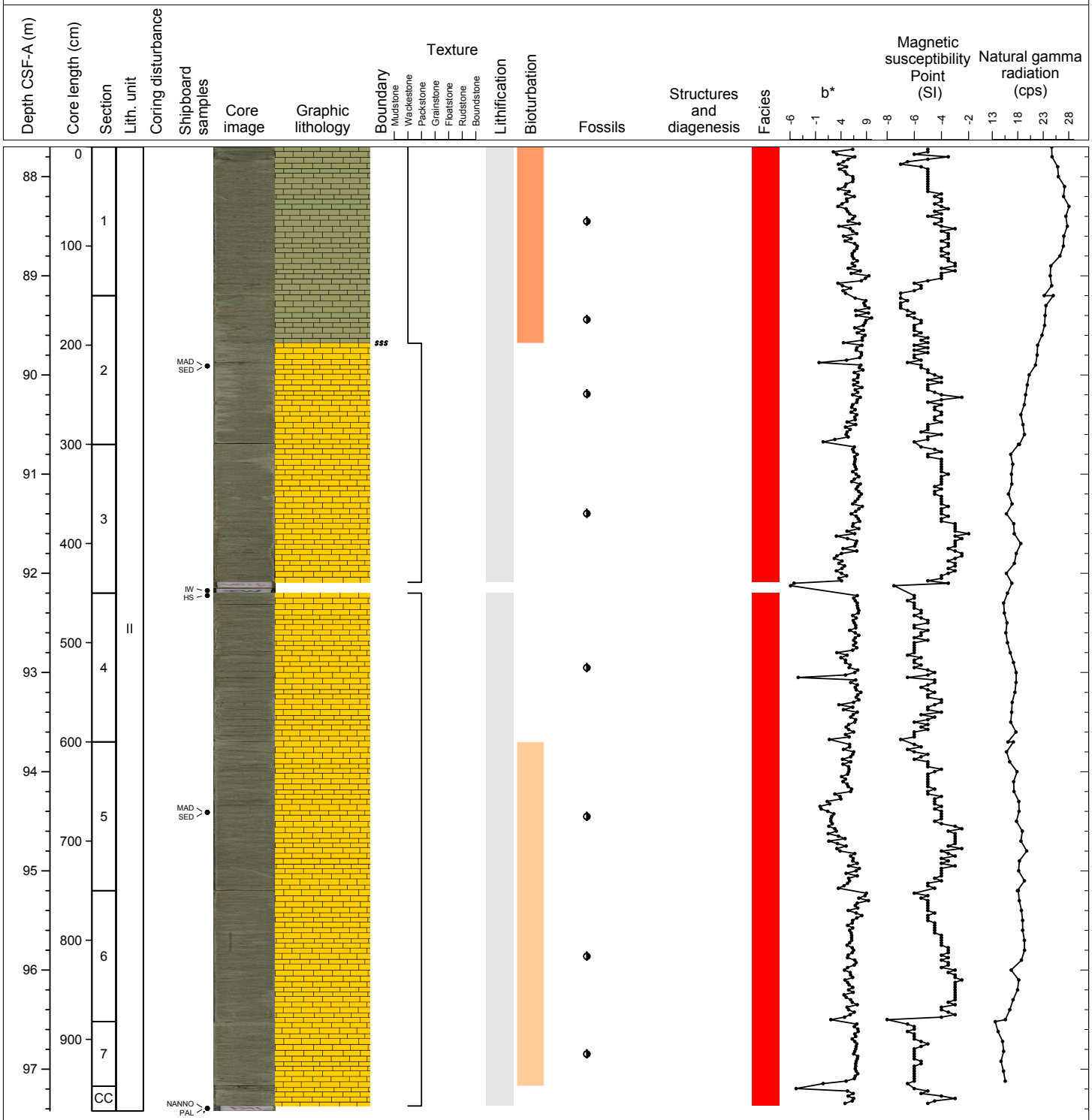
Hole 356-U1464B Core 10H, Interval 78.2-88.17 m (CSF-A)

Homogeneous, unlithified, greenish gray, fine sand-sized, PACKSTONE with small benthic foraminifers, scaphopods, and abundant fine sand-sized dark gray grains (possibly glauconite).



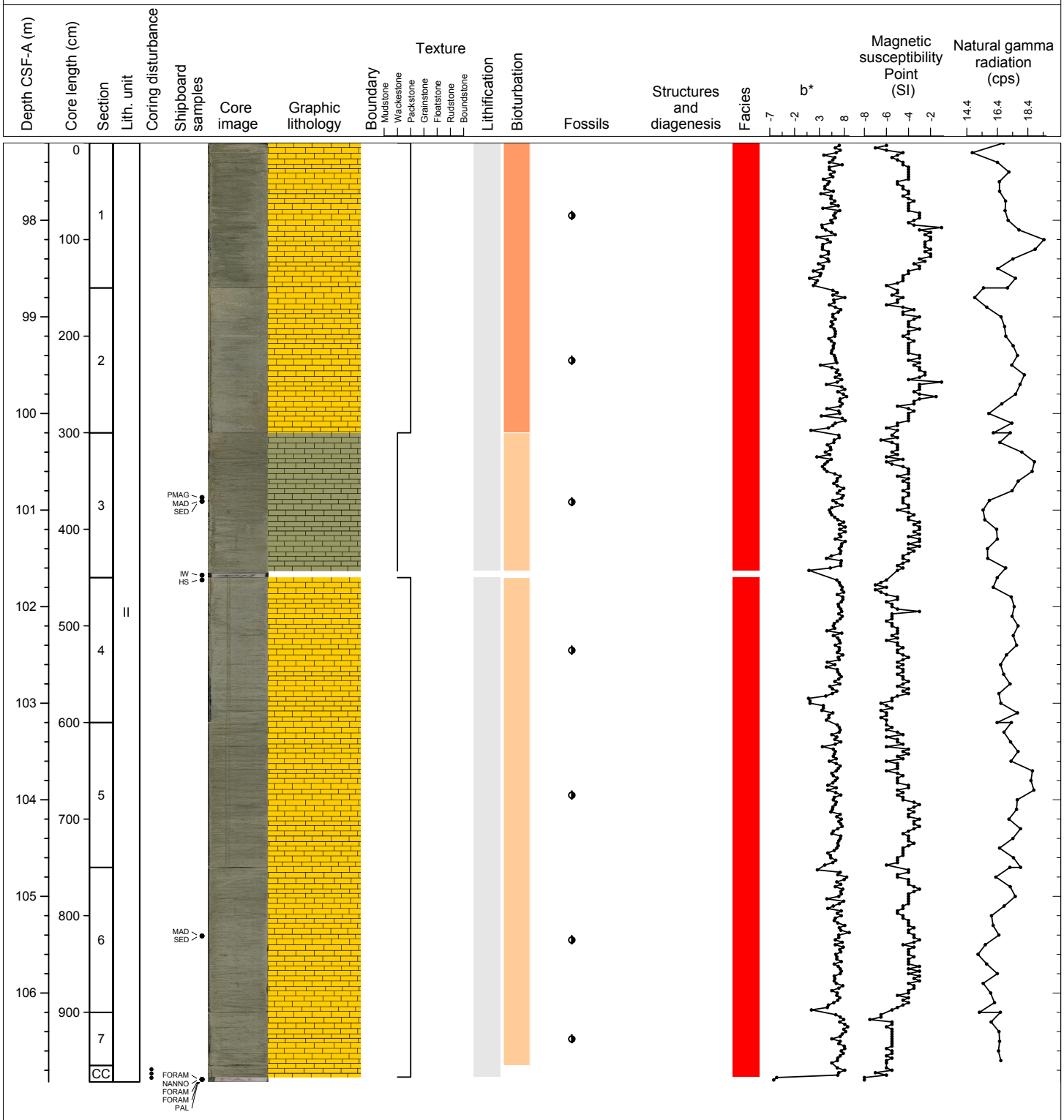
Hole 356-U1464B Core 11H, Interval 87.7-97.42 m (CSF-A)

Homogeneous, unlithified, greenish gray, fine sand-sized, PACKSTONE with small benthic foraminifers, sparse shell fragments, slight to moderate bioturbation, and dark gray, fine sand-sized grains (possibly glauconite).



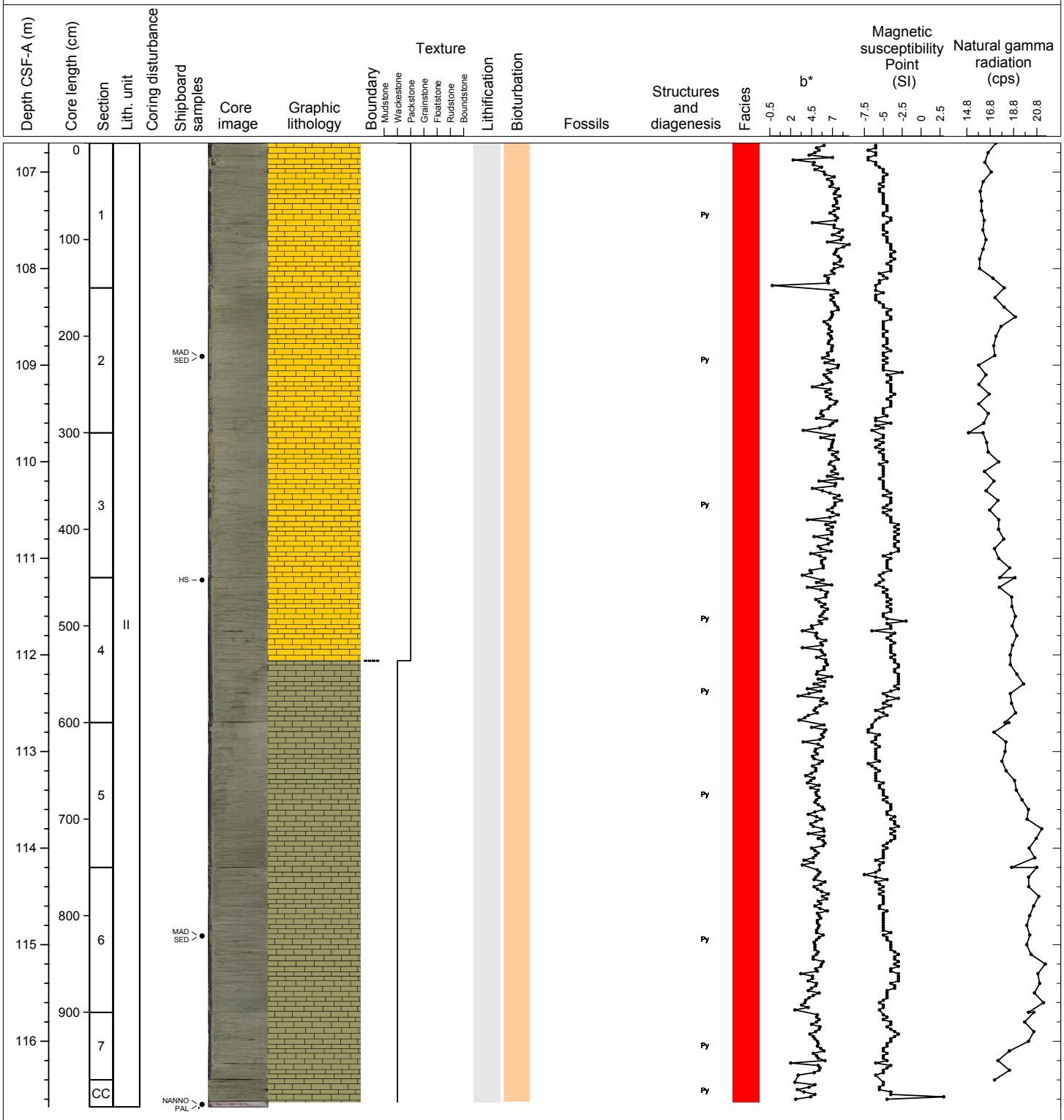
Hole 356-U1464B Core 12H, Interval 97.2-106.92 m (CSF-A)

Homogeneous, unlithified, greenish gray, fine sand-sized, PACKSTONE with slight bioturbation.



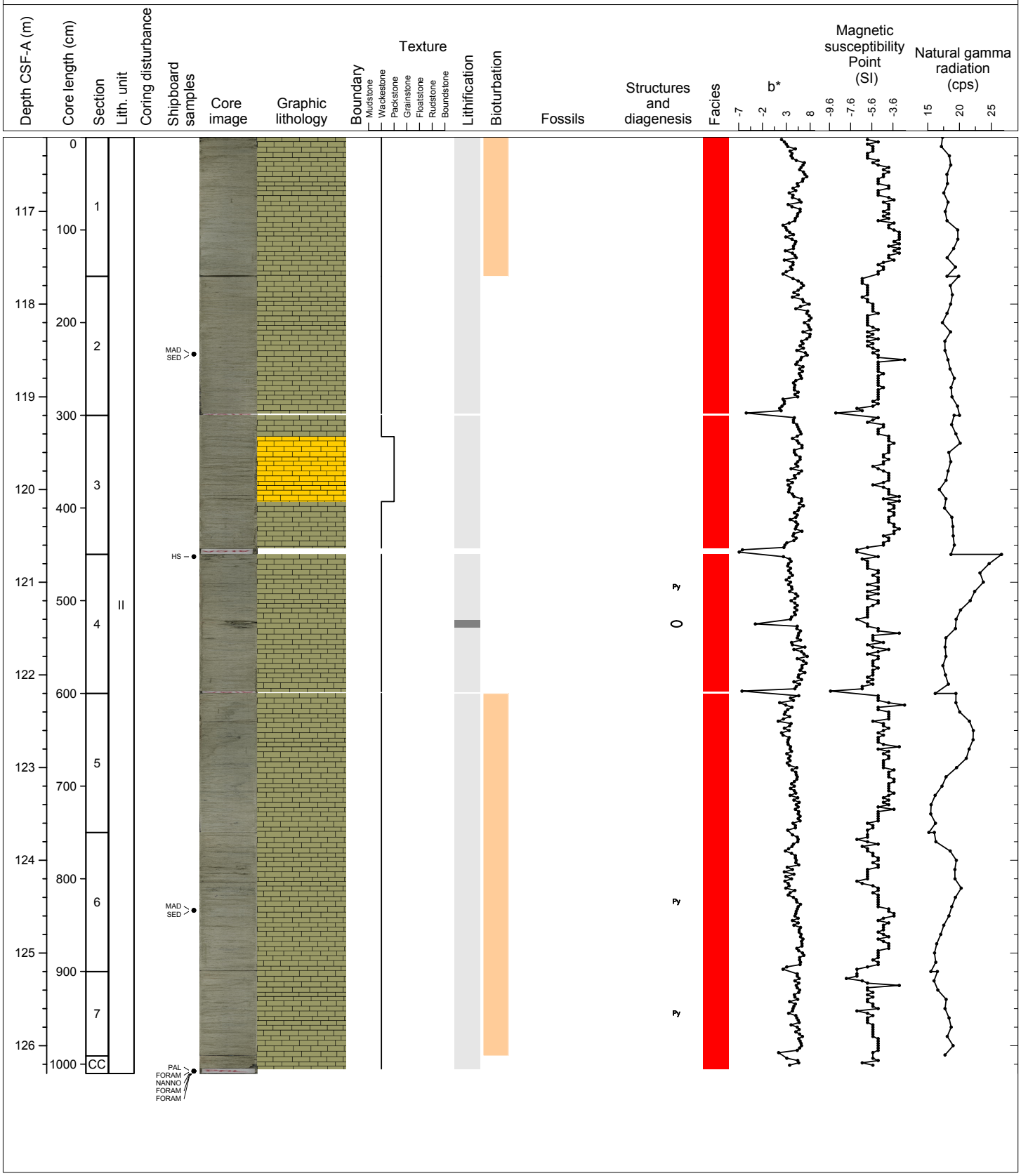
Hole 356-U1464B Core 13H, Interval 106.7-116.68 m (CSF-A)

Homogeneous, unlithified, greenish gray, silt- to fine sand-sized, PACKSTONE with disseminated pyrite patches transitions to homogeneous, unlithified, greenish gray, fine sand-sized, WACKESTONE with disseminated pyrite patches and sparse unidentified macrofossils.



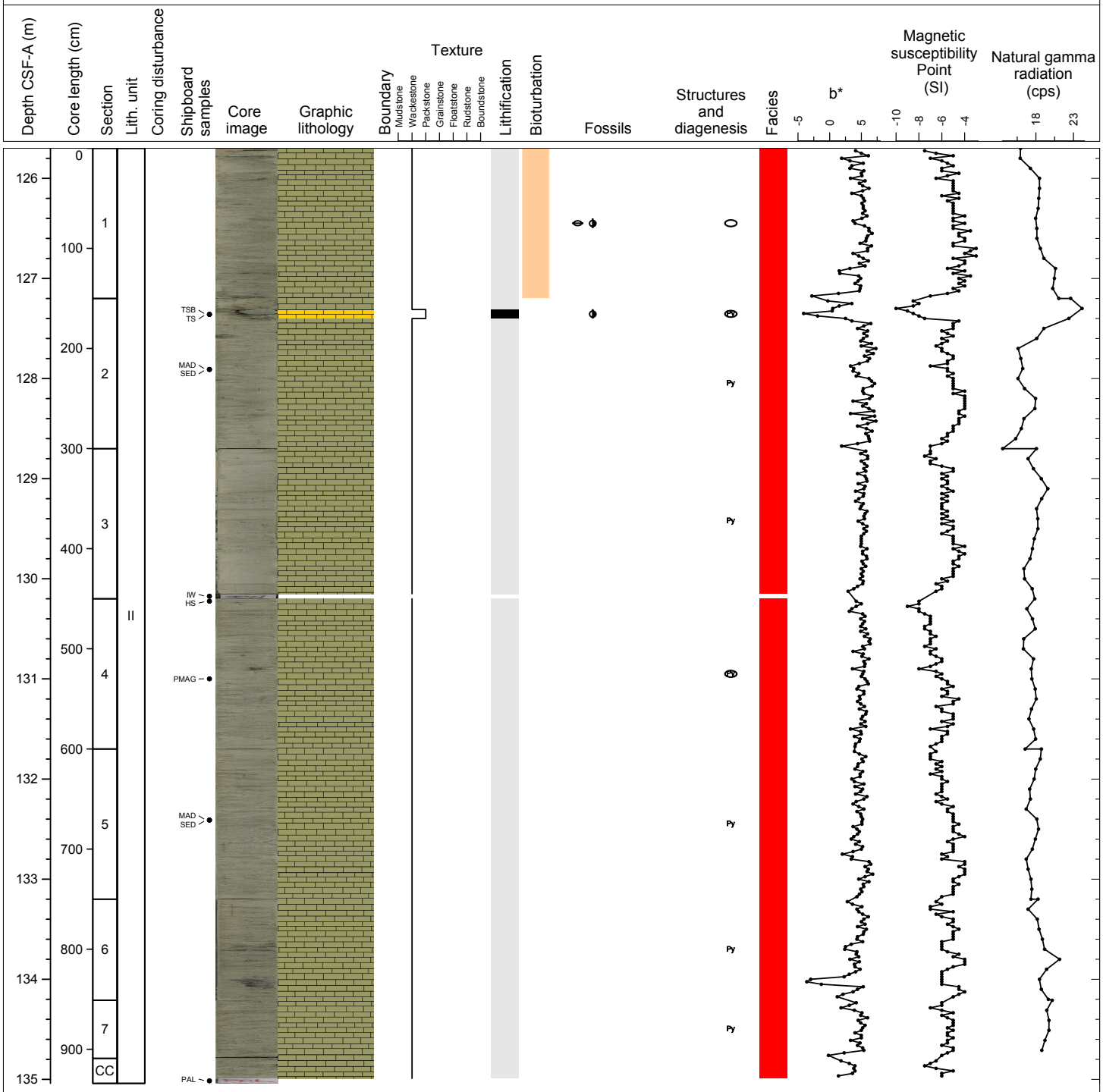
Hole 356-U1464B Core 14H, Interval 116.2-126.3 m (CSF-A)

Homogeneous, unlithified, greenish gray, fine sand-sized, WACKESTONE with disseminated pyrite patches throughout the core. At the middle part of the core (14H, 72-78 cm depth), there are celesite nodules (max d.= 3 cm).



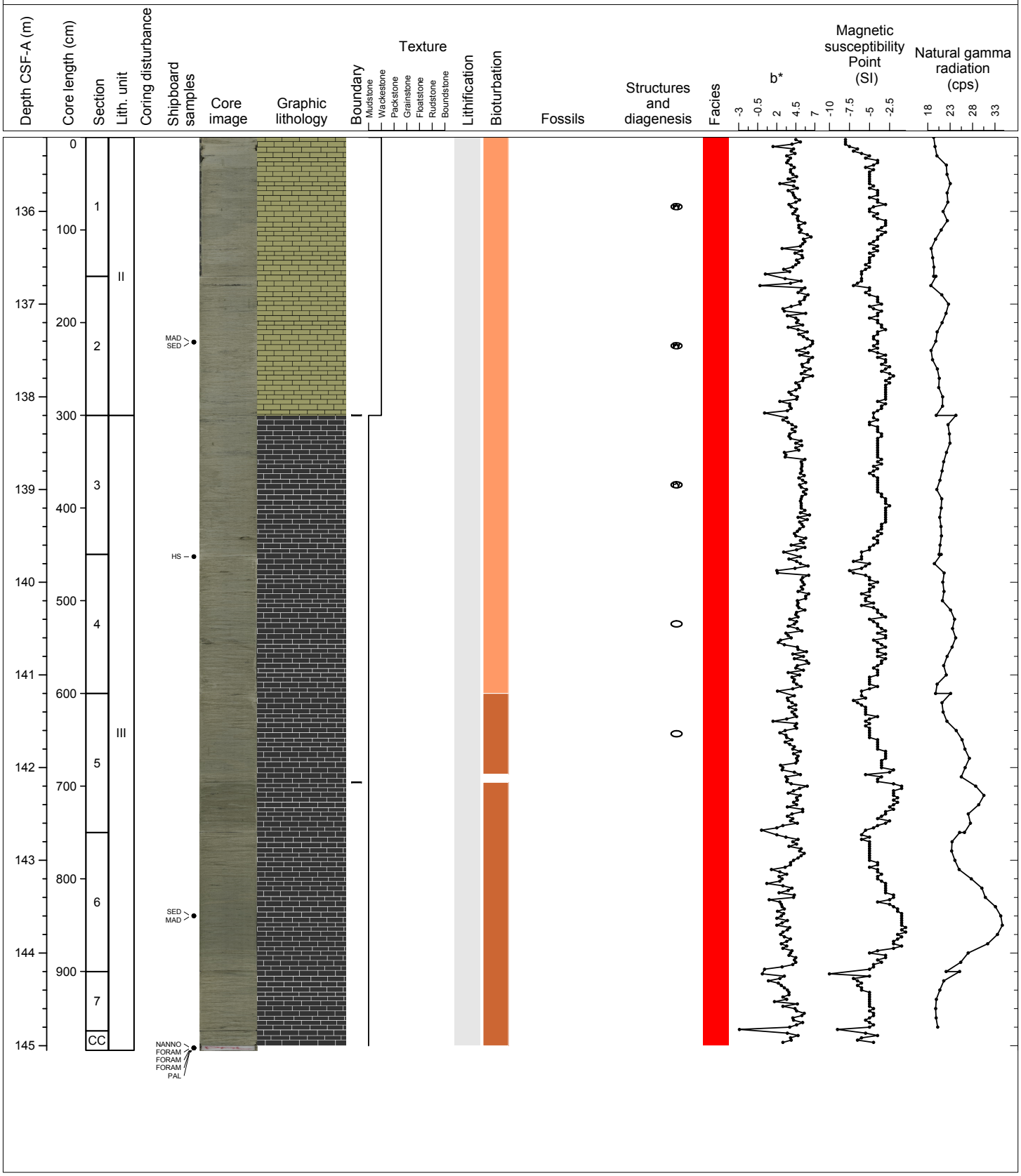
Hole 356-U1464B Core 15H, Interval 125.7-135.04 m (CSF-A)

Unlithified, light greenish gray,very fine to fine sand-sized, WACKESTONE with disseminated pyrite patches and sparse unidentified macrofossil. At the upper part of the core (2A, 11-20 cm depth), a strongly-lithified, dark gray, PACKSTONE concretion is intercalated with the wackestone bed. The packstone abundantly contains small benthic foraminifers and dark gray grains (possibly glauconite).



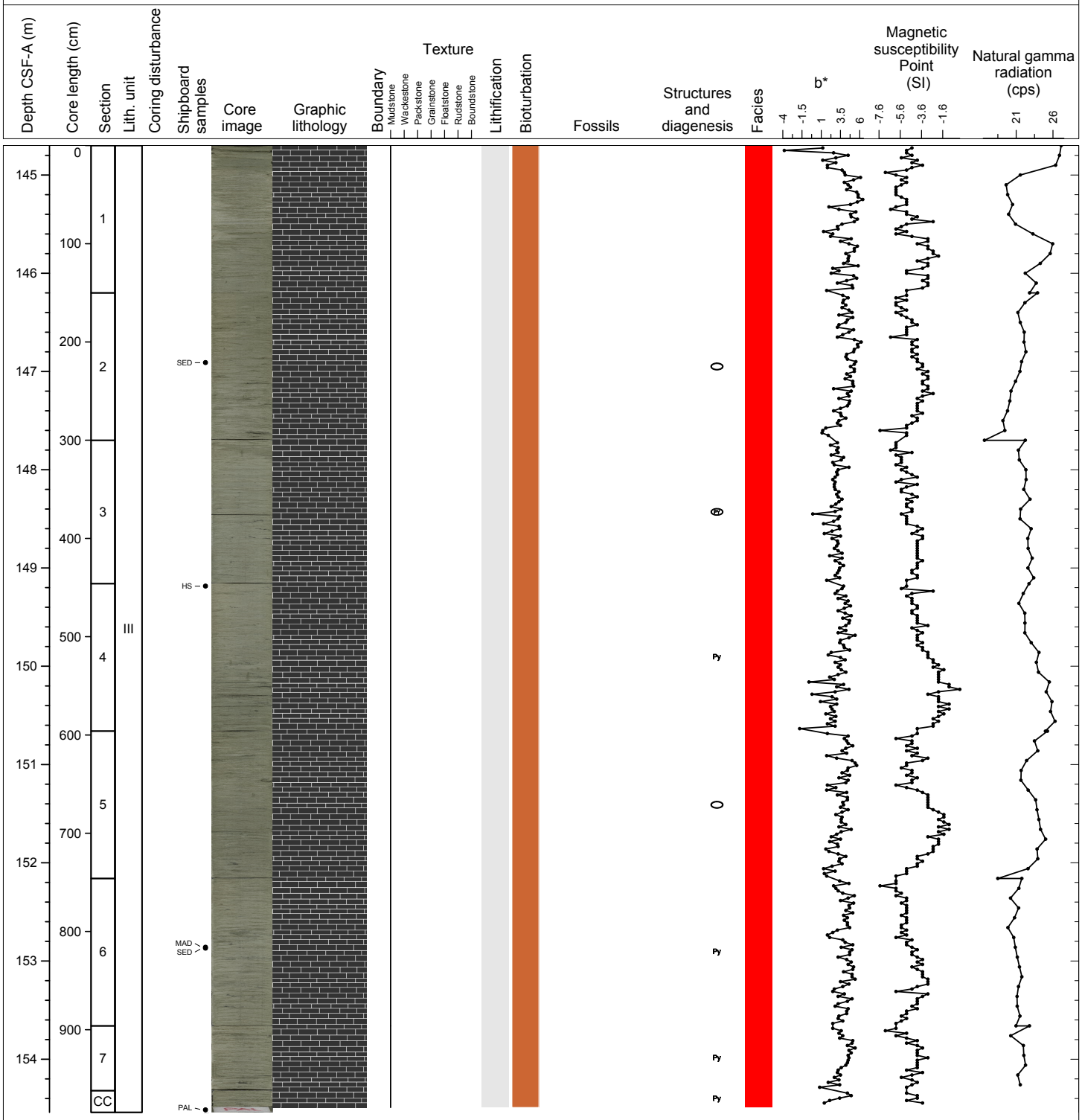
Hole 356-U1464B Core 16H, Interval 135.2-145.05 m (CSF-A)

Homogeneous, unlithified, greenish gray, fine to coarse sand-sized, WACKESTONE with disseminated pyrite (concentrated in burrows), pyrite nodules, and occasional small benthic foraminifers and shell fragments. Color is patchy and variable (olive gray, light olive gray, greenish gray). WACKESTONE turns to unlithified, greenish gray, MUDSTONE with disseminated pyrite, moderate bioturbation, occasional carbonate concretion, common celestite concretions, and occasional foraminifers and bivalve fragments. The MUDSTONE color changes to light olive gray in the bottom half of the core.



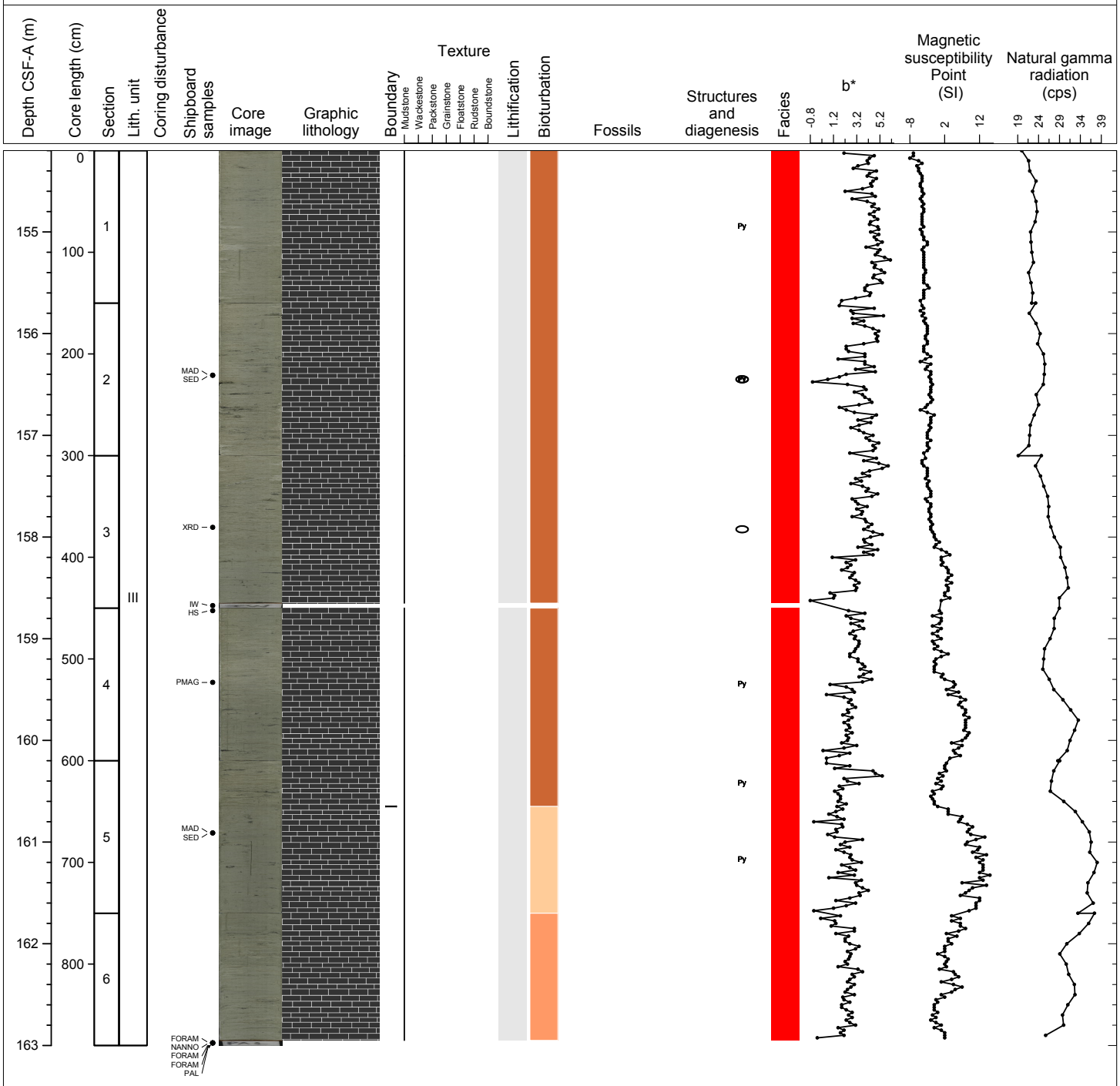
Hole 356-U1464B Core 17H, Interval 144.7-154.54 m (CSF-A)

Unlithfied, light olive gray to light greenish-gray, fine sand-sized, MUDSTONE with common bioturbation, celestite and other concretions, rare macrofossils (echinoderm, small benthic foraminifers, and bivalves), and disseminated pyrite and pyrite nodules.



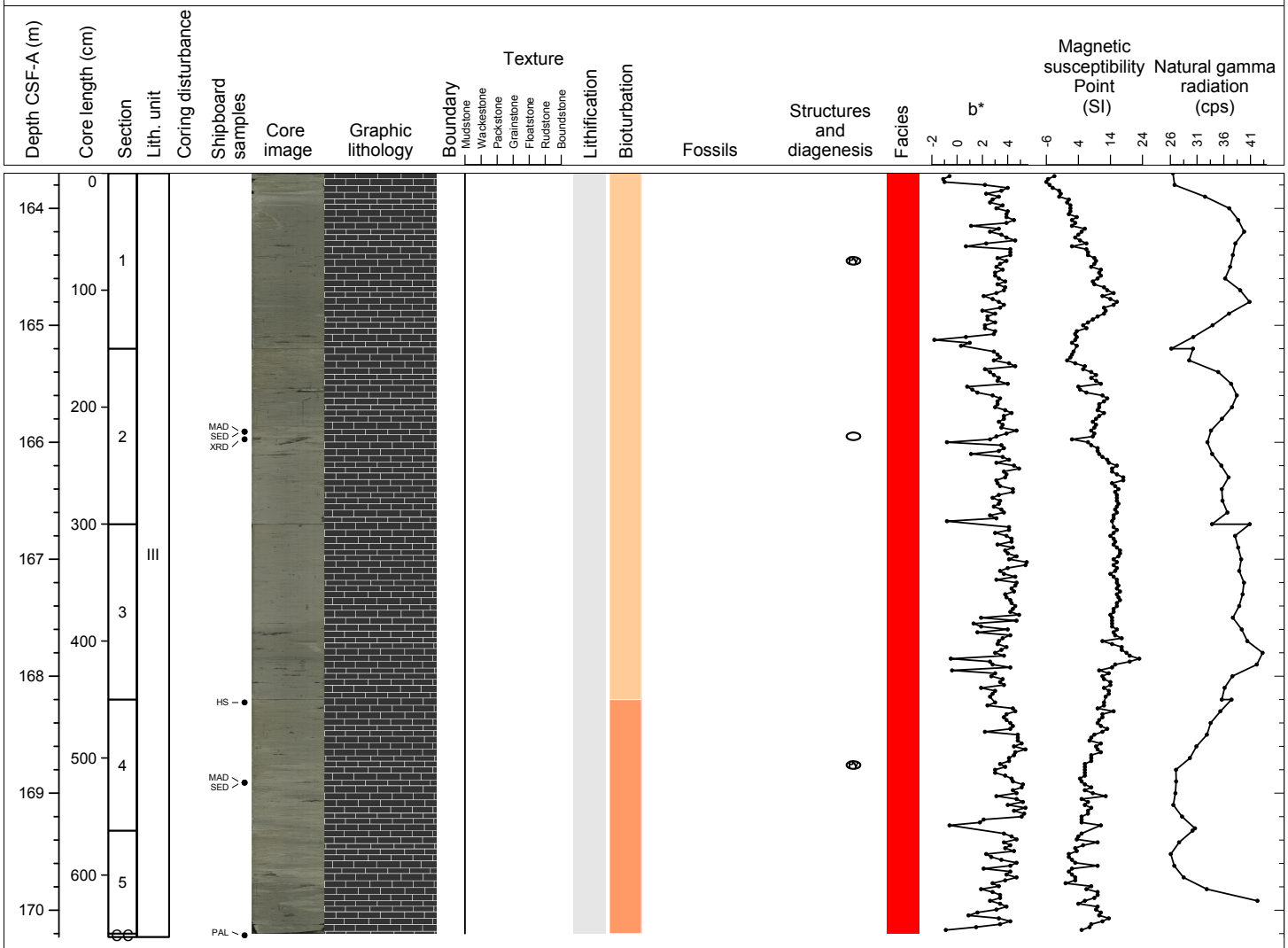
Hole 356-U1464B Core 18H, Interval 154.2-163.0 m (CSF-A)

Unlithified, light greenish gray, MUDSTONE with common bioturbation, disseminated pyrite mainly in burrows, sparse small benthic foraminifers, macrofossils (shells and echinoderm fragments), celestite concretions, and coarse sand grains concentrated in lenses.



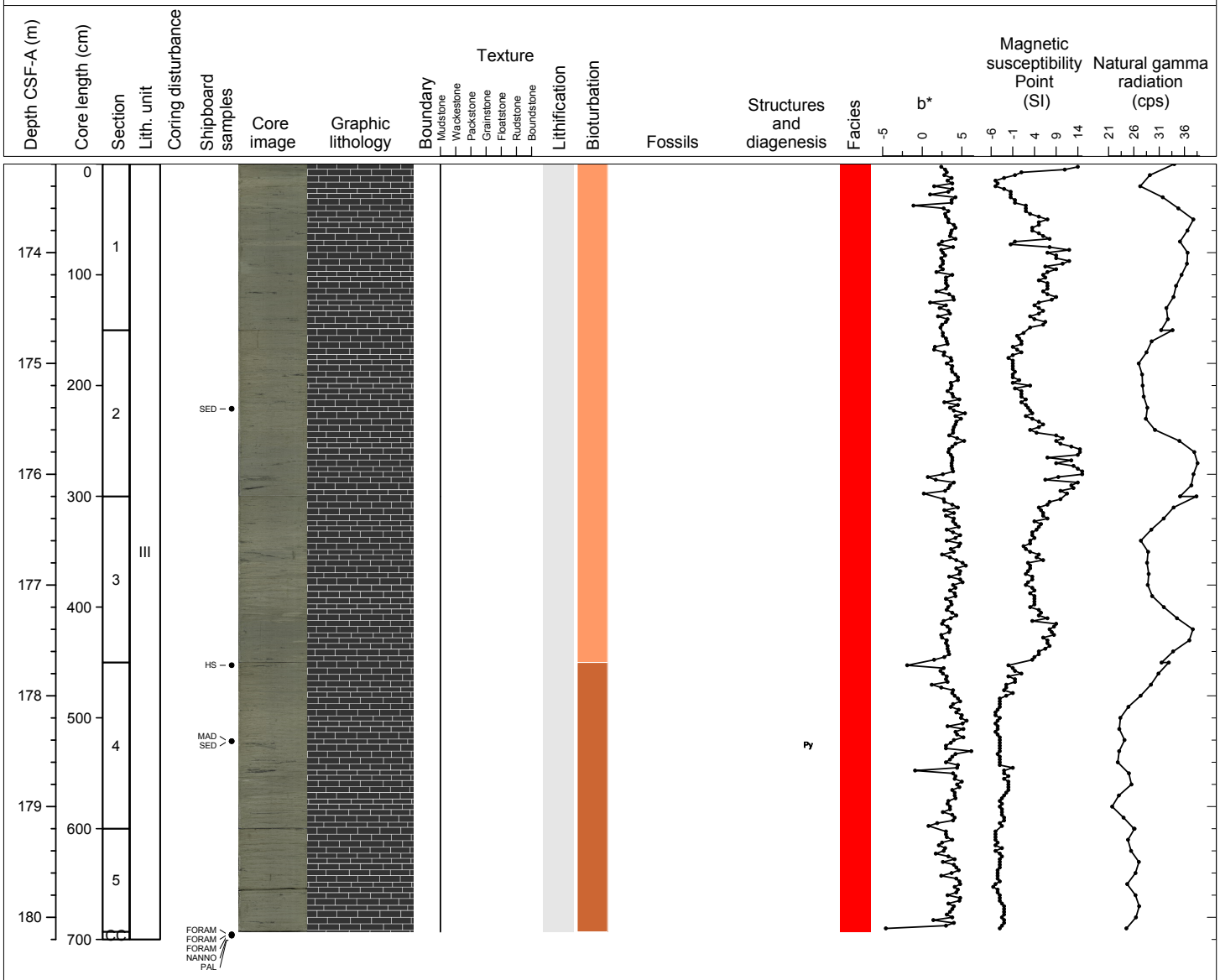
Hole 356-U1464B Core 19H, Interval 163.7-170.23 m (CSF-A)

Unlithified, light greenish-gray, MUDSTONE with slight bioturbation, sparse disseminated pyrite mainly in burrows, celestite concretions, and occasional benthic foraminifers and sand-sized shell fragments.



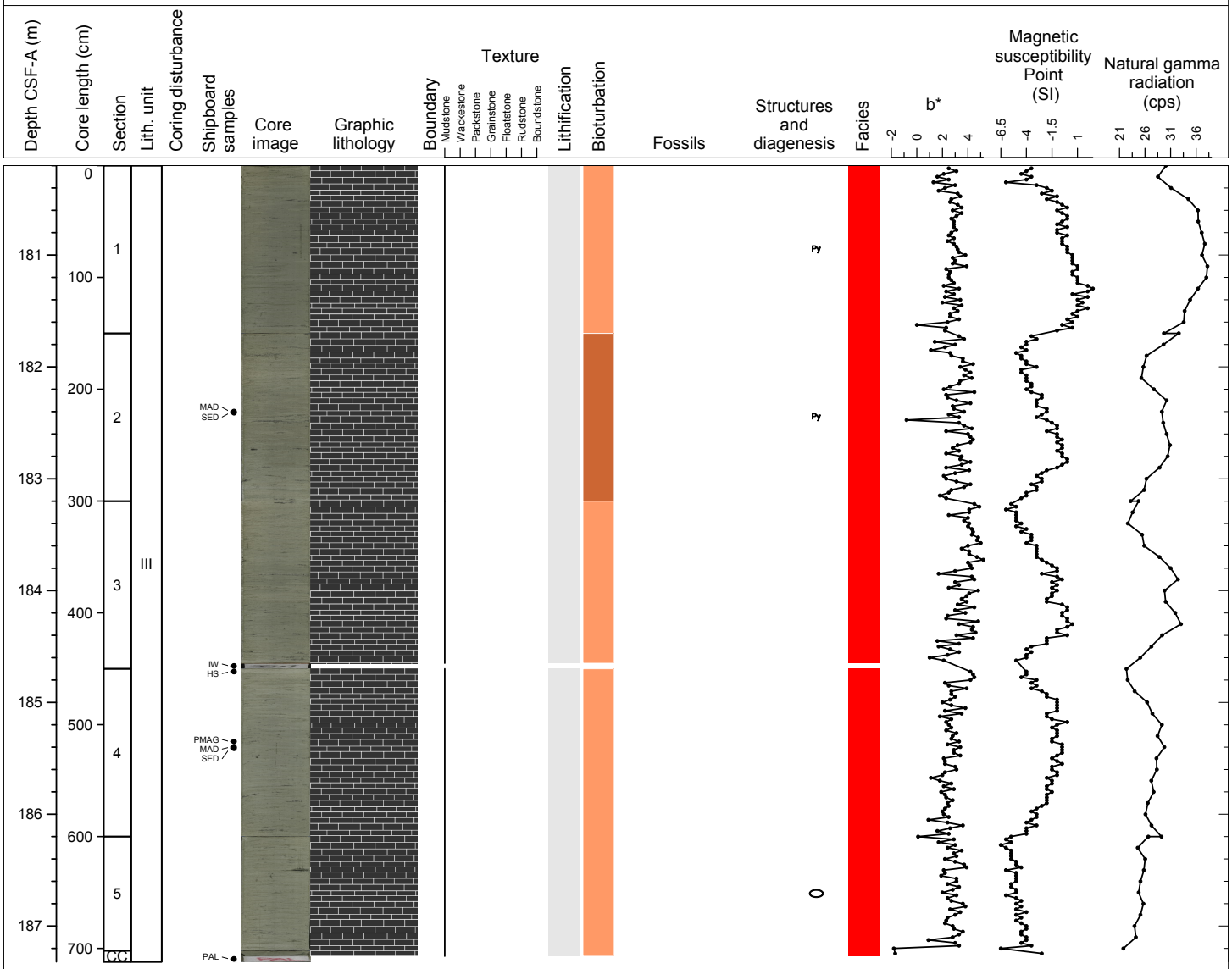
Hole 356-U1464B Core 20H, Interval 173.2-180.2 m (CSF-A)

Unlithified, light greenish-gray, MUDSTONE with moderate bioturbation, disseminated pyrite concentrated in burrows, and sparse macrofossil fragments (shells, echionderms, and bryozoans), and foraminifers (pyritized, in burrows).



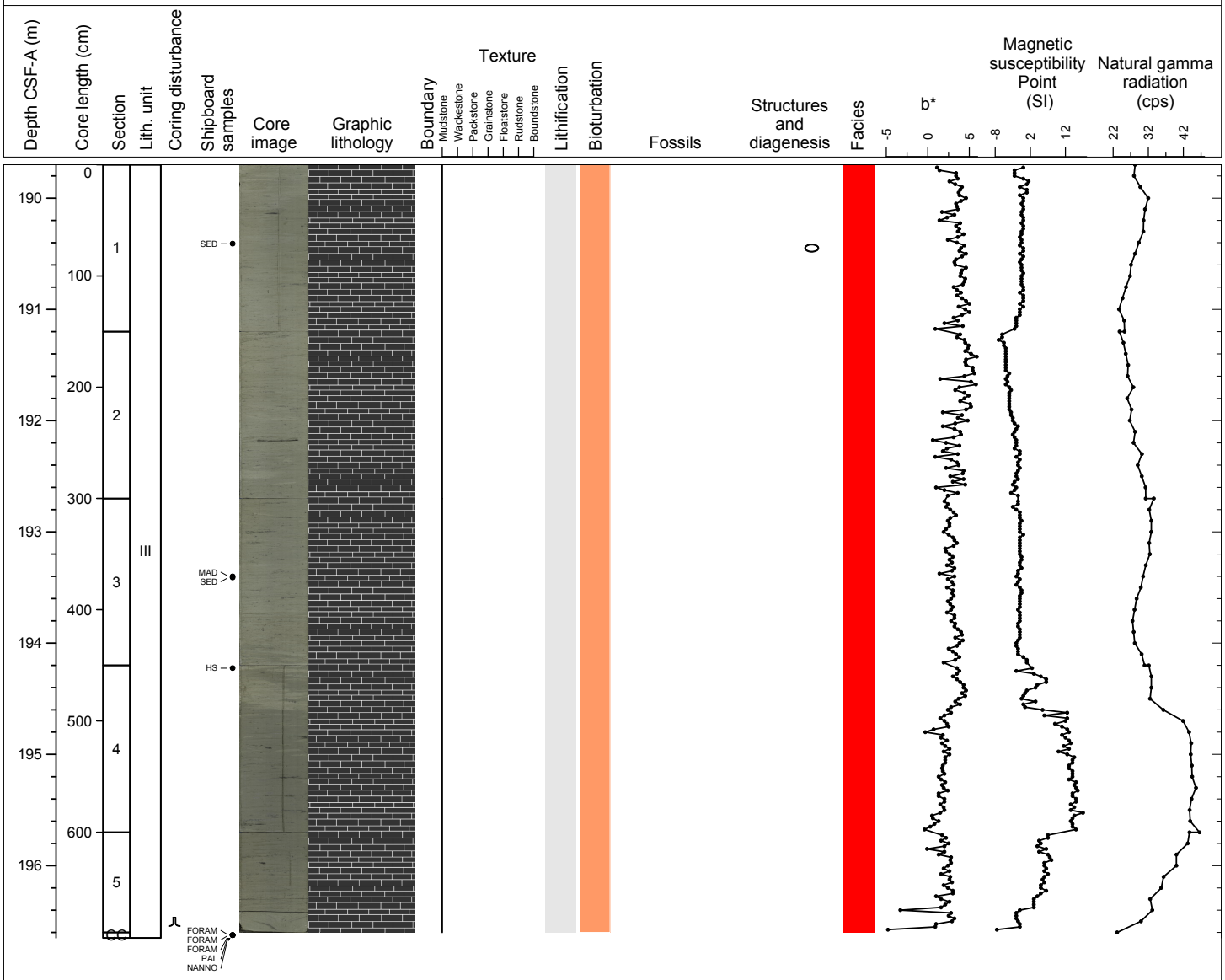
Hole 356-U1464B Core 21H, Interval 180.2-187.32 m (CSF-A)

Unlithified, light greenish-gray, very fine sand-sized, MUDSTONE with moderate bioturbation, disseminated pyrite (mainly concentrated in burrows), occasional pyrite concretions, and sparse macrofossils (echinoderms, shell fragments, and foraminifers).



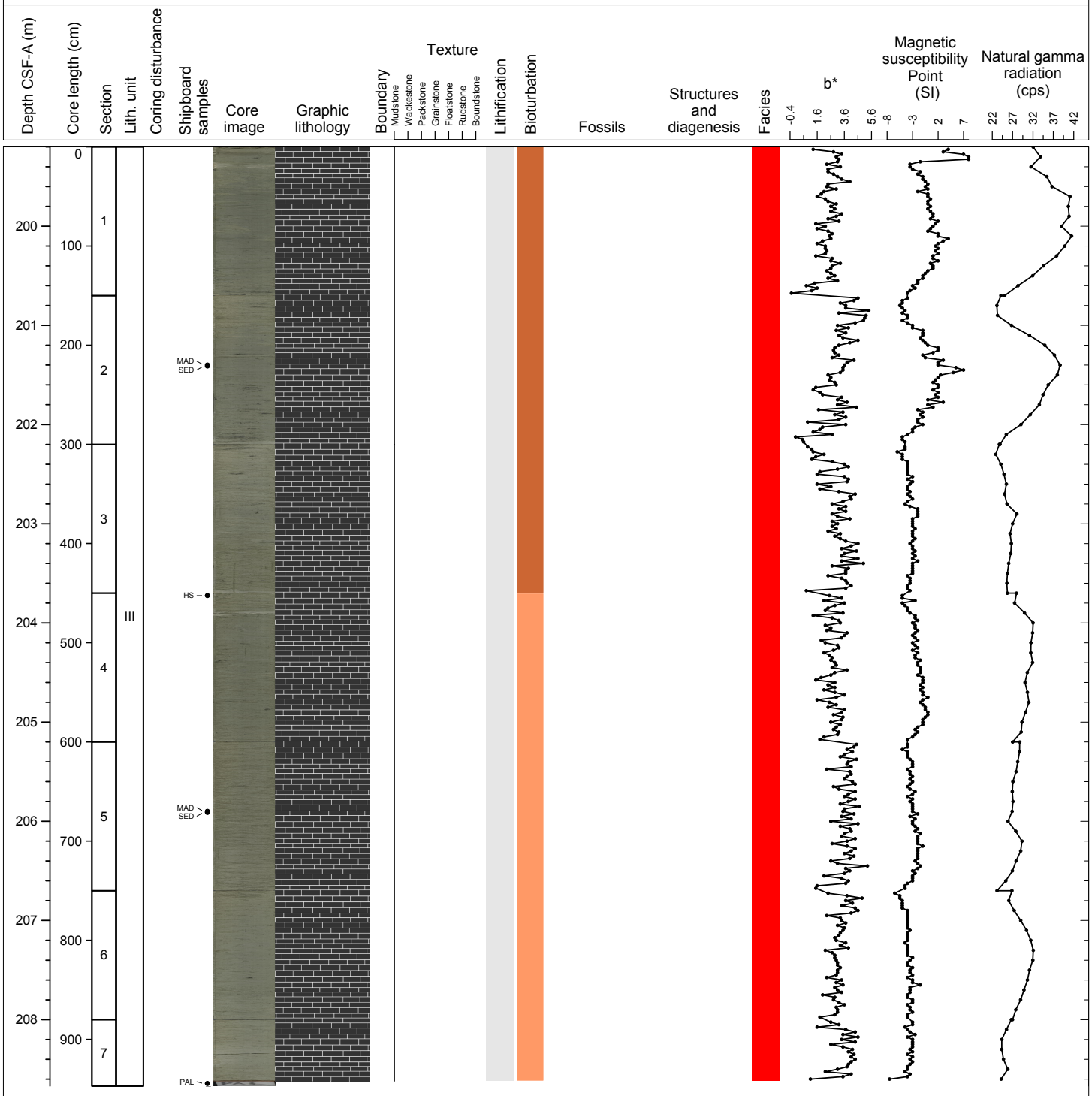
Hole 356-U1464B Core 22H, Interval 189.7-196.65 m (CSF-A)

Homogeneous, unlithified, very fine sand-sized, MUDSTONE with moderate bioturbation, disseminated pyrite mainly in burrows, a few celestite nodules, and sparse macrofossils (shell fragments and echinoderm spine). From the top of the core to the base, the color varies from light gray to light olive gray to olive gray to light greenish gray.



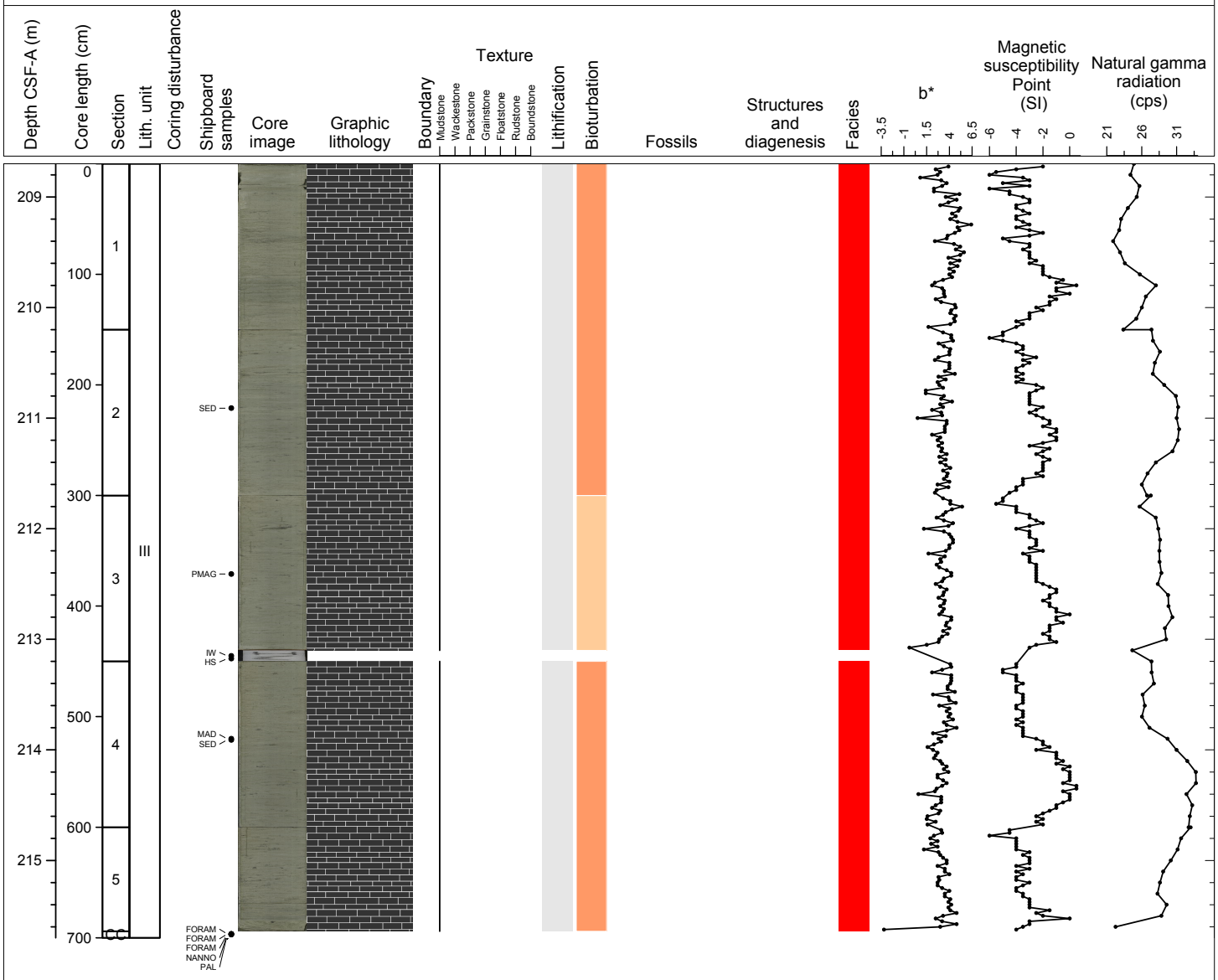
Hole 356-U1464B Core 23H, Interval 199.2-208.67 m (CSF-A)

Unlithified, olive gray to light greenish-gray, fine sand-sized, MUDSTONE with disseminated pyrite, sparse macrofossils (echinoderms, benthic foraminifers, and shell fragments), and celestite (?) nodules. Grain size variations are visible in lenses, laminae, and in burrows. Pyrite and small benthic foraminifers are also concentrated in burrows.



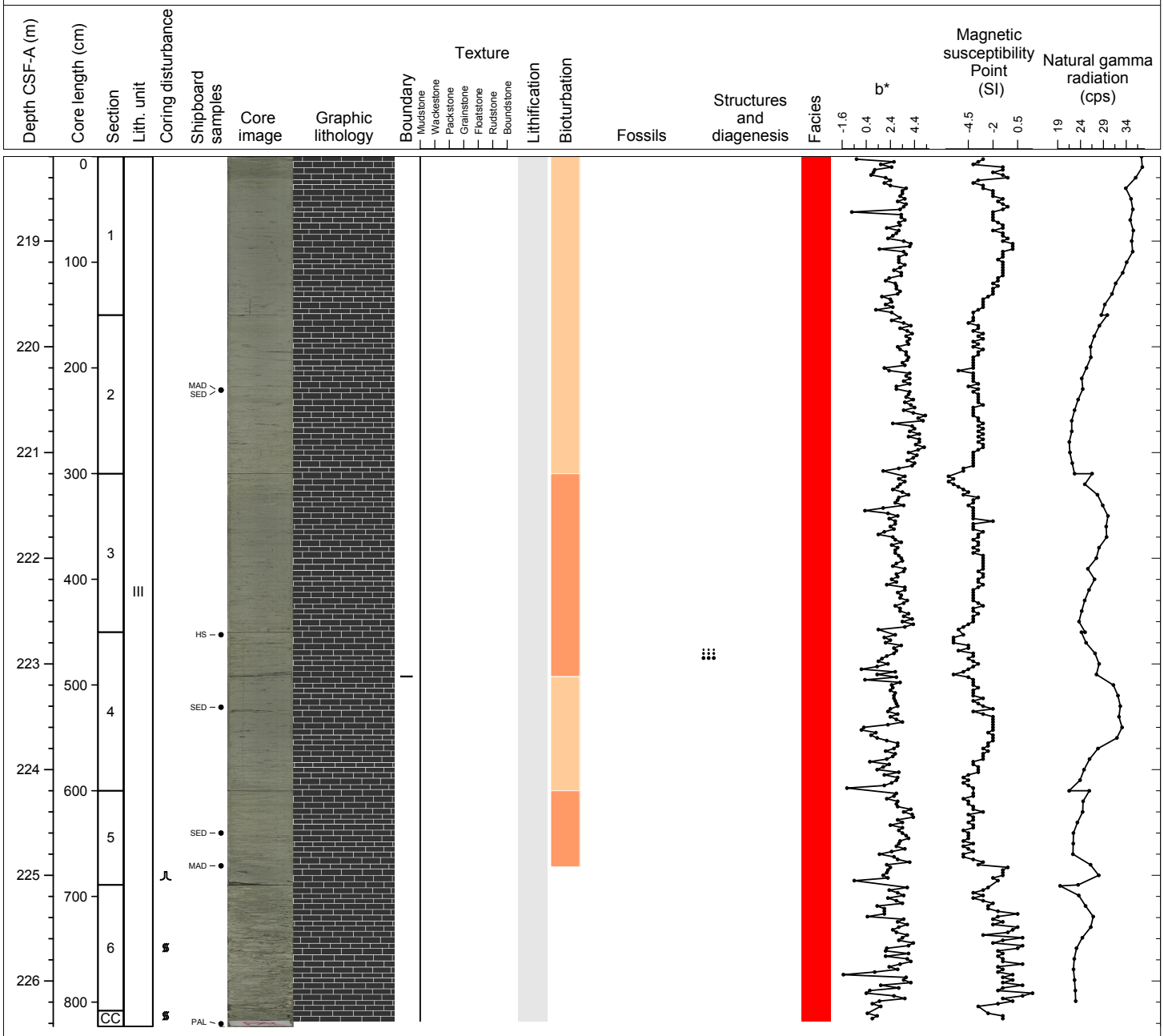
Hole 356-U1464B Core 24H, Interval 208.7-215.7 m (CSF-A)

Unlithified, light greenish-gray, MUDSTONE with moderate bioturbation and sparse pyrite, small benthic foraminifers, and shell fragments. Fine sand is concentrated in burrows and lenses. Foraminifers and pyrite are concentrated in burrows.



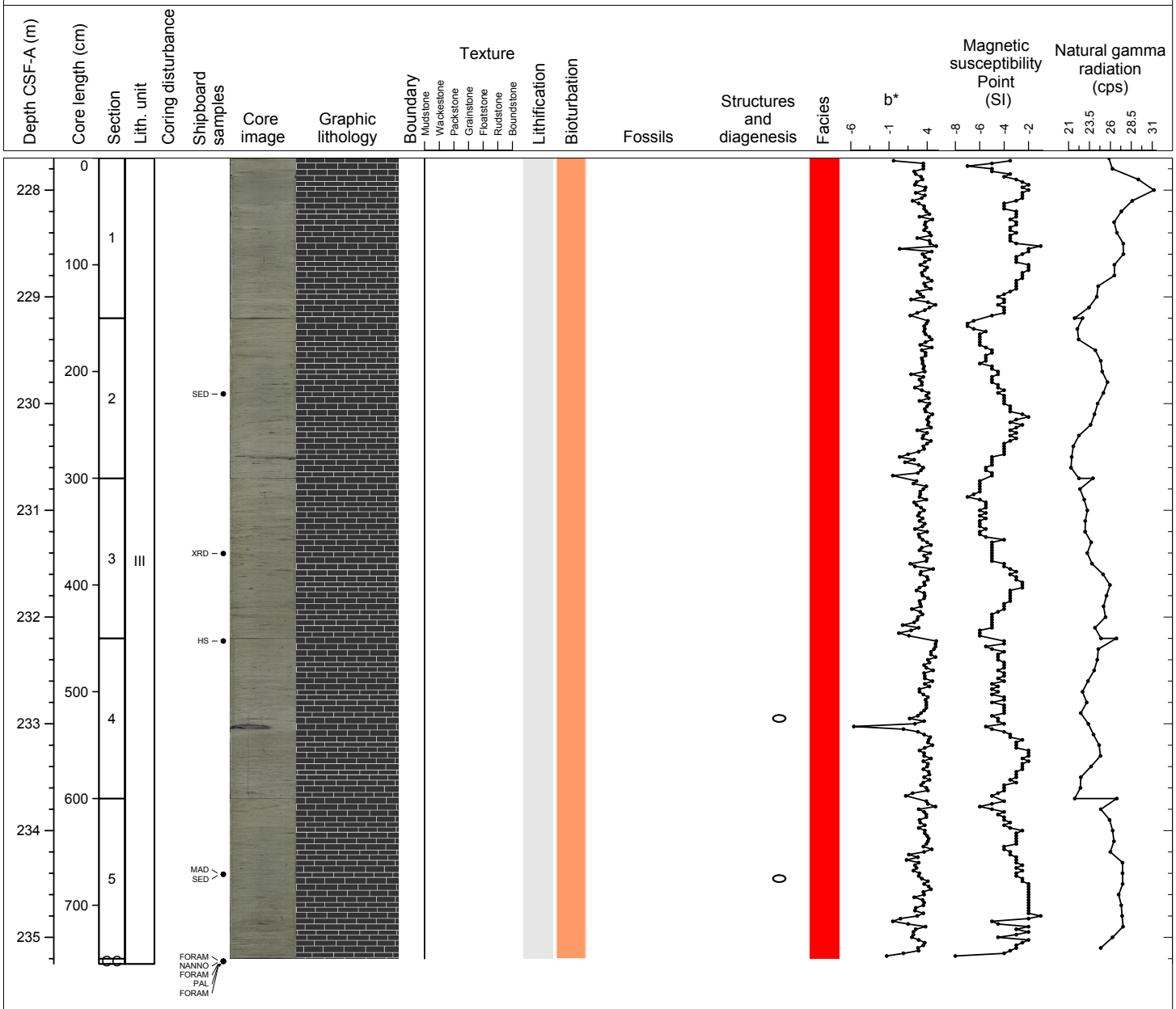
Hole 356-U1464B Core 25H, Interval 218.2-226.43 m (CSF-A)

Unlithified, light greenish-gray, MUDSTONE with slight to moderate bioturbation and sparse foraminifers, shell fragments, and pyrite nodules. Foraminifers and pyrite are concentrated in burrows. Fine sand is concentrated in lenses and burrows or disseminated. The bottom section and core catcher are deformed and destroyed, respectively, by coring.



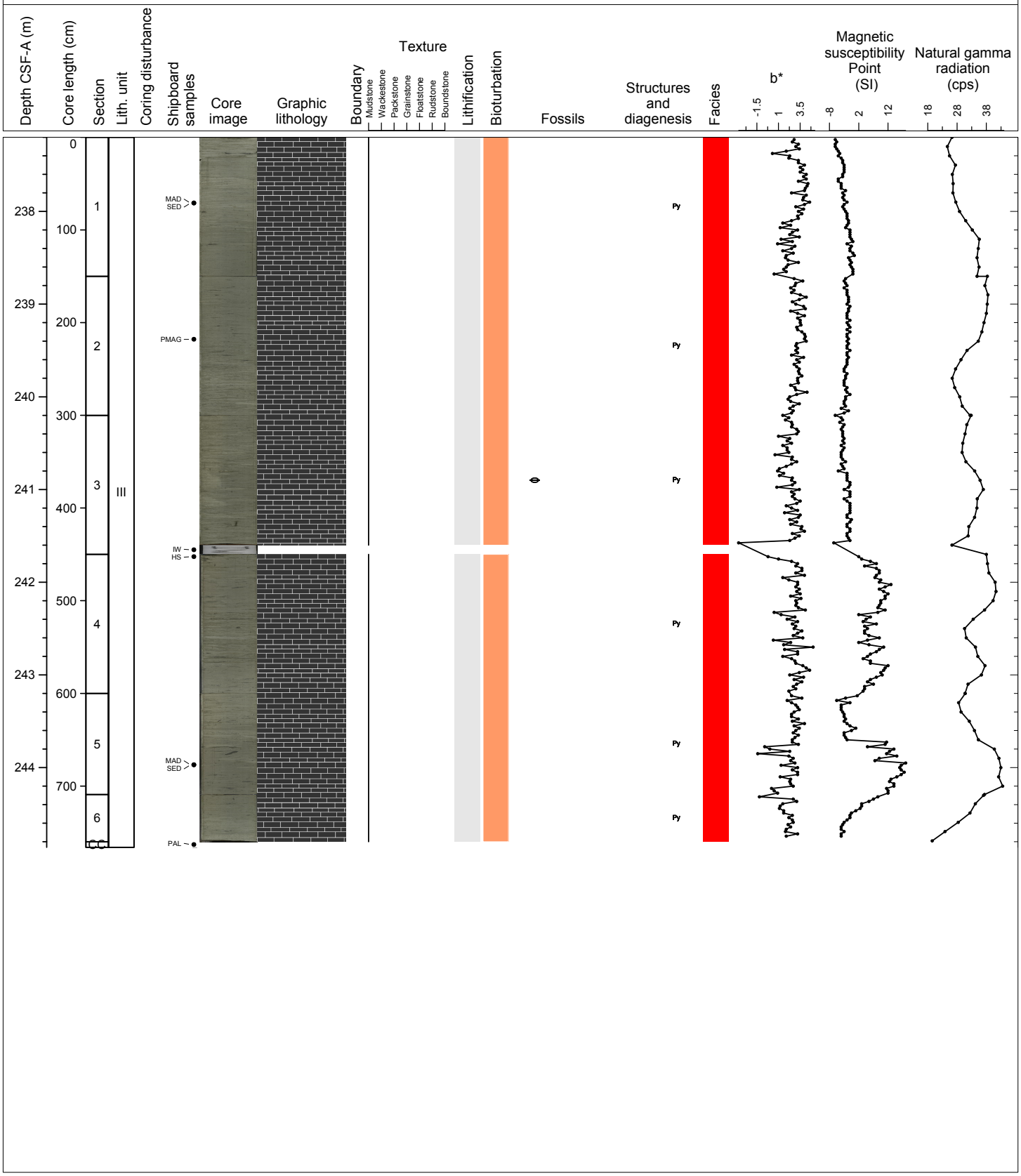
Hole 356-U1464B Core 26H, Interval 227.7-235.25 m (CSF-A)

Unlithified, light greenish-gray, MUDSTONE with moderate bioturbation, sparse shell fragments, and occasional pyrite and celestite nodules. Burrows contain pyrite and foraminifers.



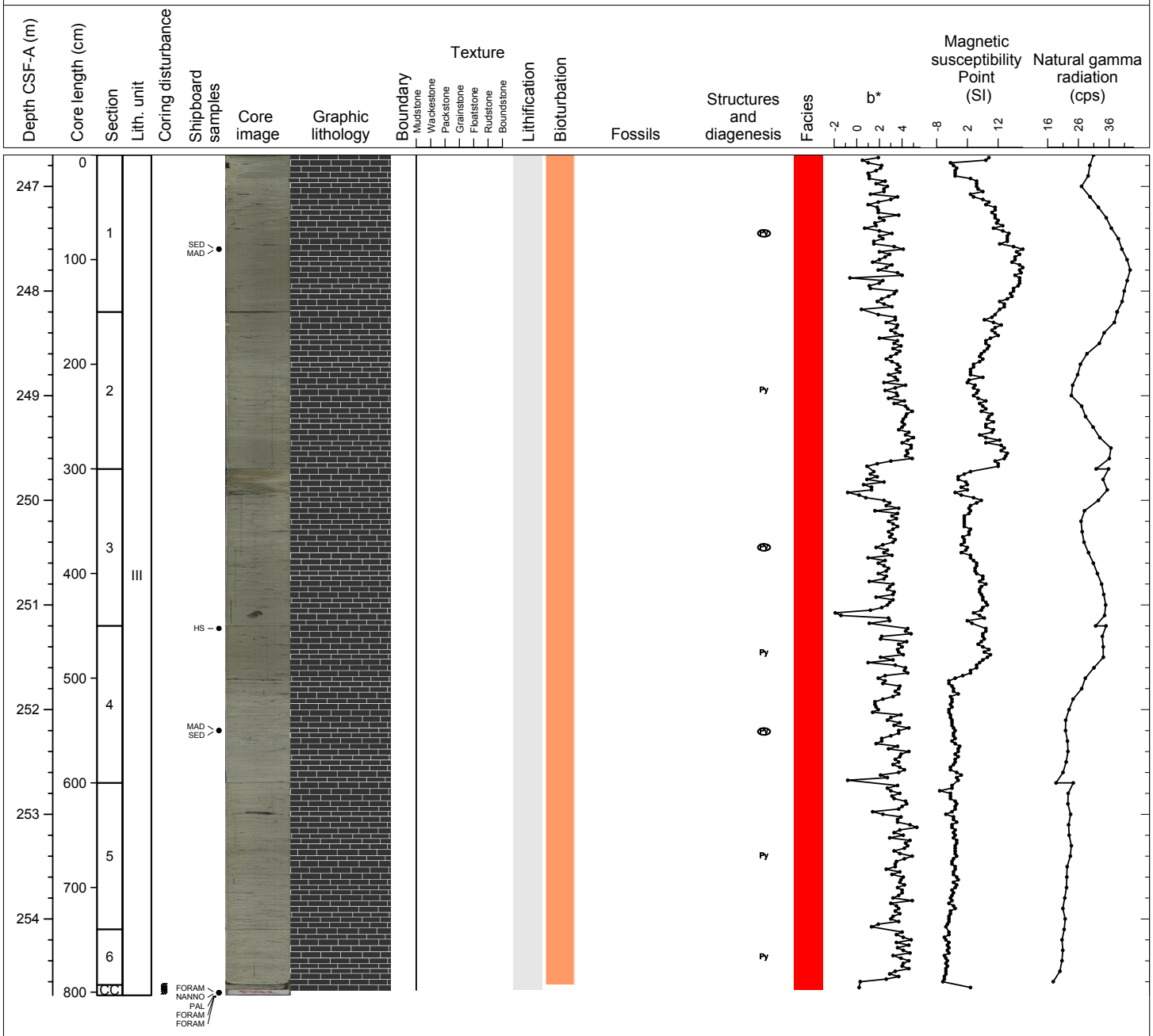
Hole 356-U1464B Core 27H, Interval 237.2-244.86 m (CSF-A)

Homogeneous, unlithifed, grayish green, MUDSTONE with moderate bioturbation, disseminated pyrite patches, small benthic foraminifers, spare bivalve fragments, and unidentified bioclasts.



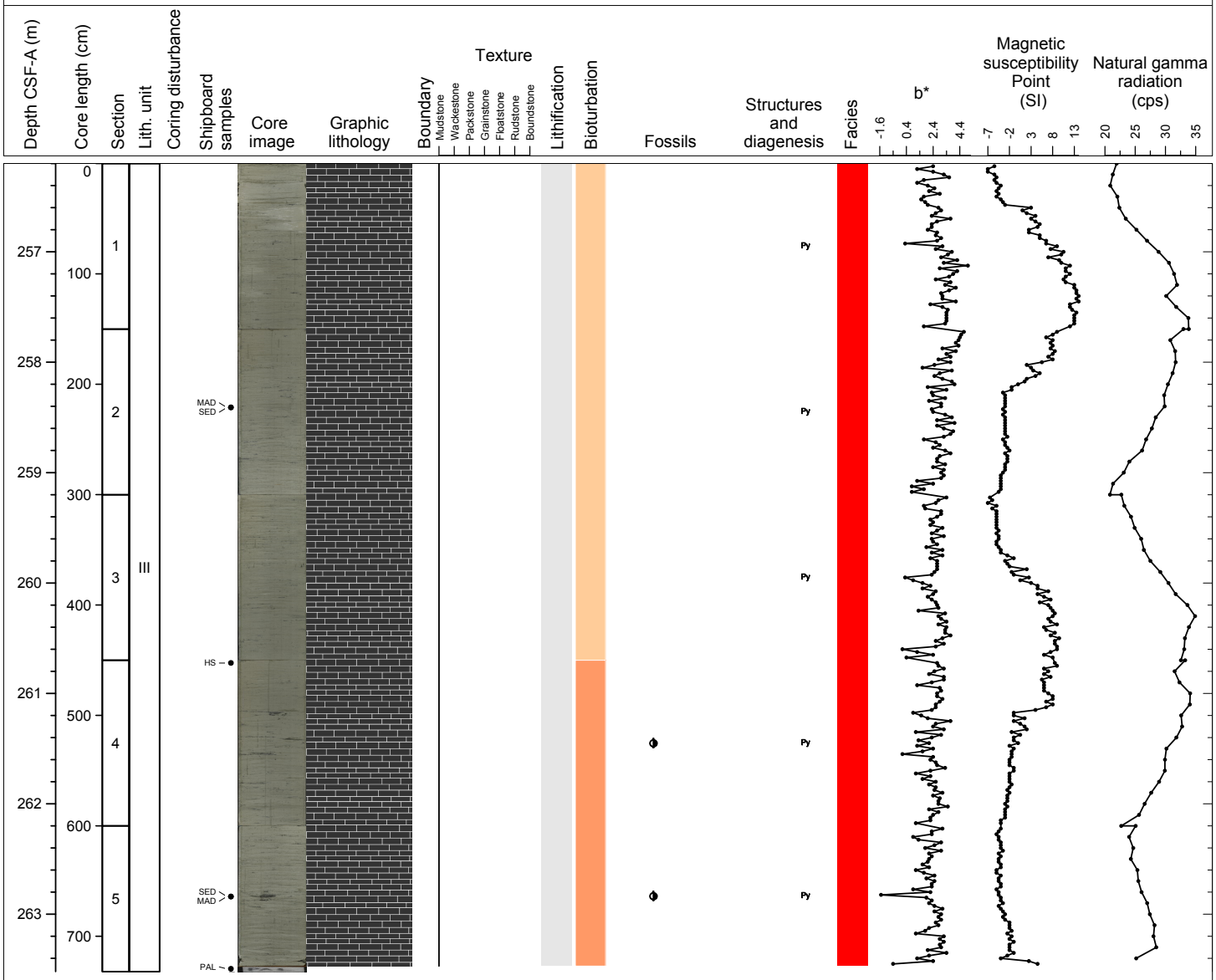
Hole 356-U1464B Core 28H, Interval 246.7-254.73 m (CSF-A)

Unlithifed, grayish green, MUDSTONE with moderate bioturbation, disseminated pyrite, pyrite concretions, and unidentified bioclasts. At the middle part of the core (3A, 23-25 cm depth), there is a strongly-lithified concretion.



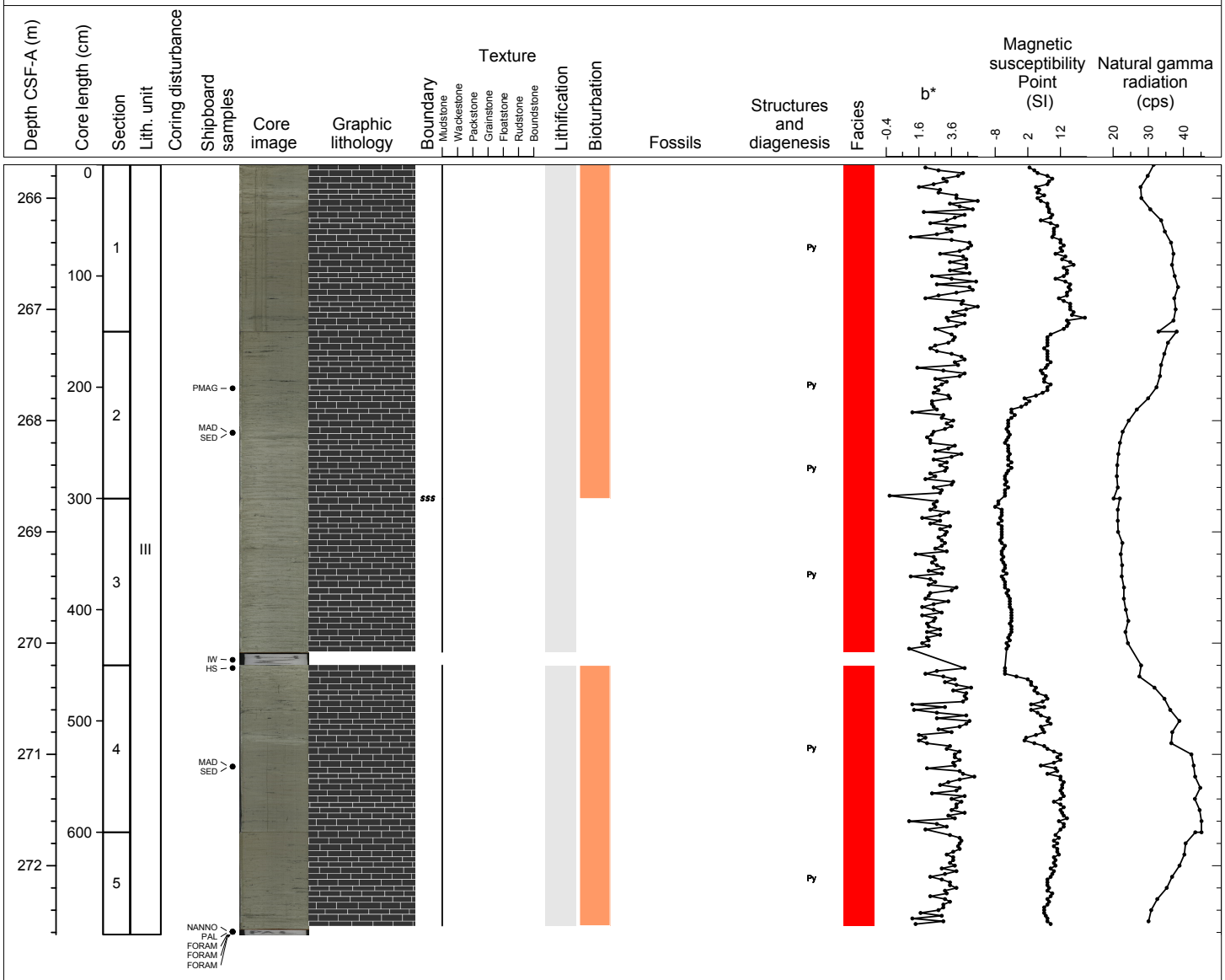
Hole 356-U1464B Core 29H, Interval 256.2-263.52 m (CSF-A)

Homogeneous, unlithified, grayish green, MUDSTONE with slight to moderate bioturbation, disseminated pyrite, small benthic foraminifer-rich patches, and sparse unidentified bioclasts.



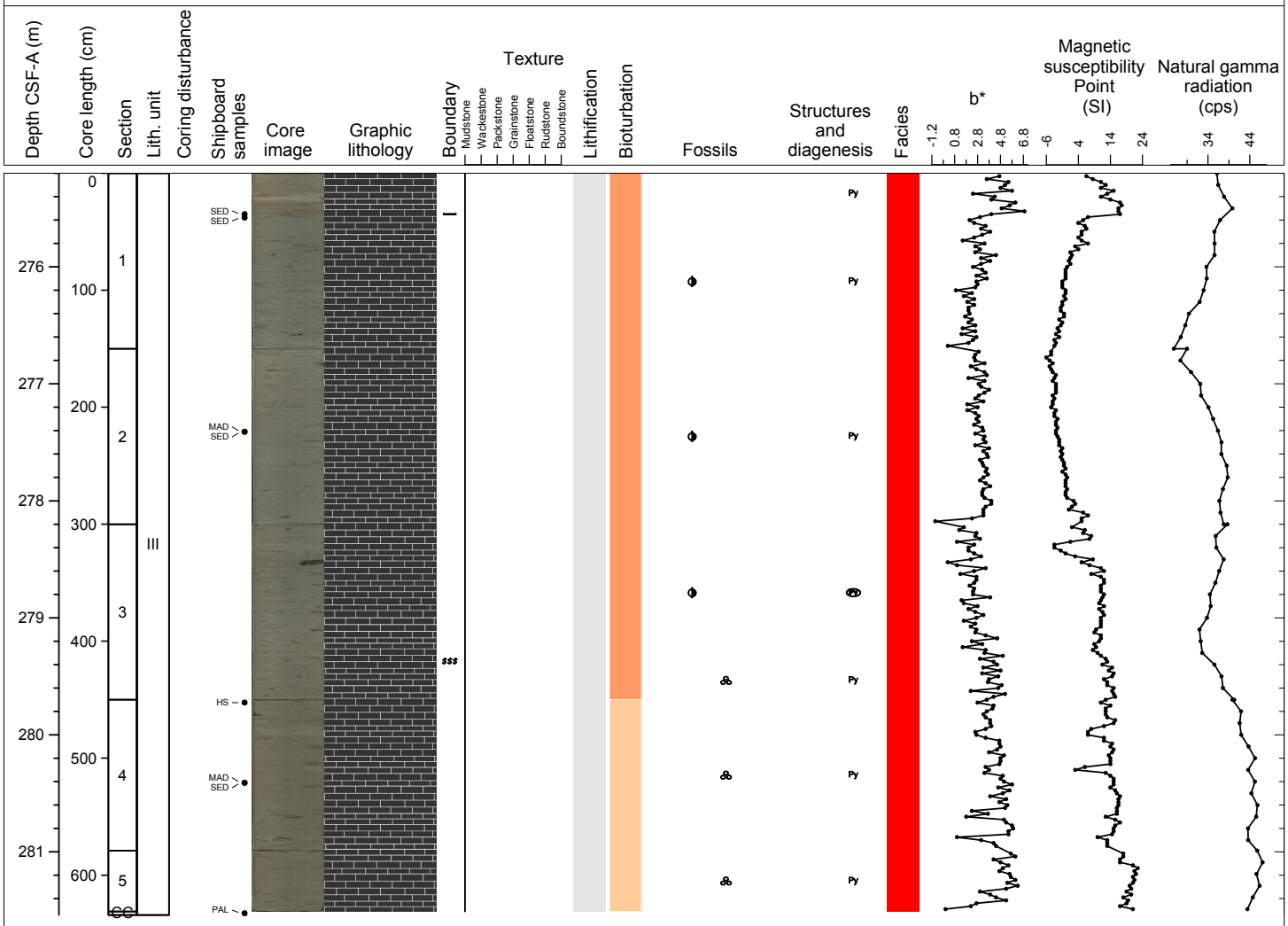
Hole 356-U1464B Core 30H, Interval 265.7-272.62 m (CSF-A)

Homogeneous, unlithified, light grayish green to grayish green, MUDSTONE with moderate bioturbation, disseminated pyrite patches, and unidentified bioclasts.



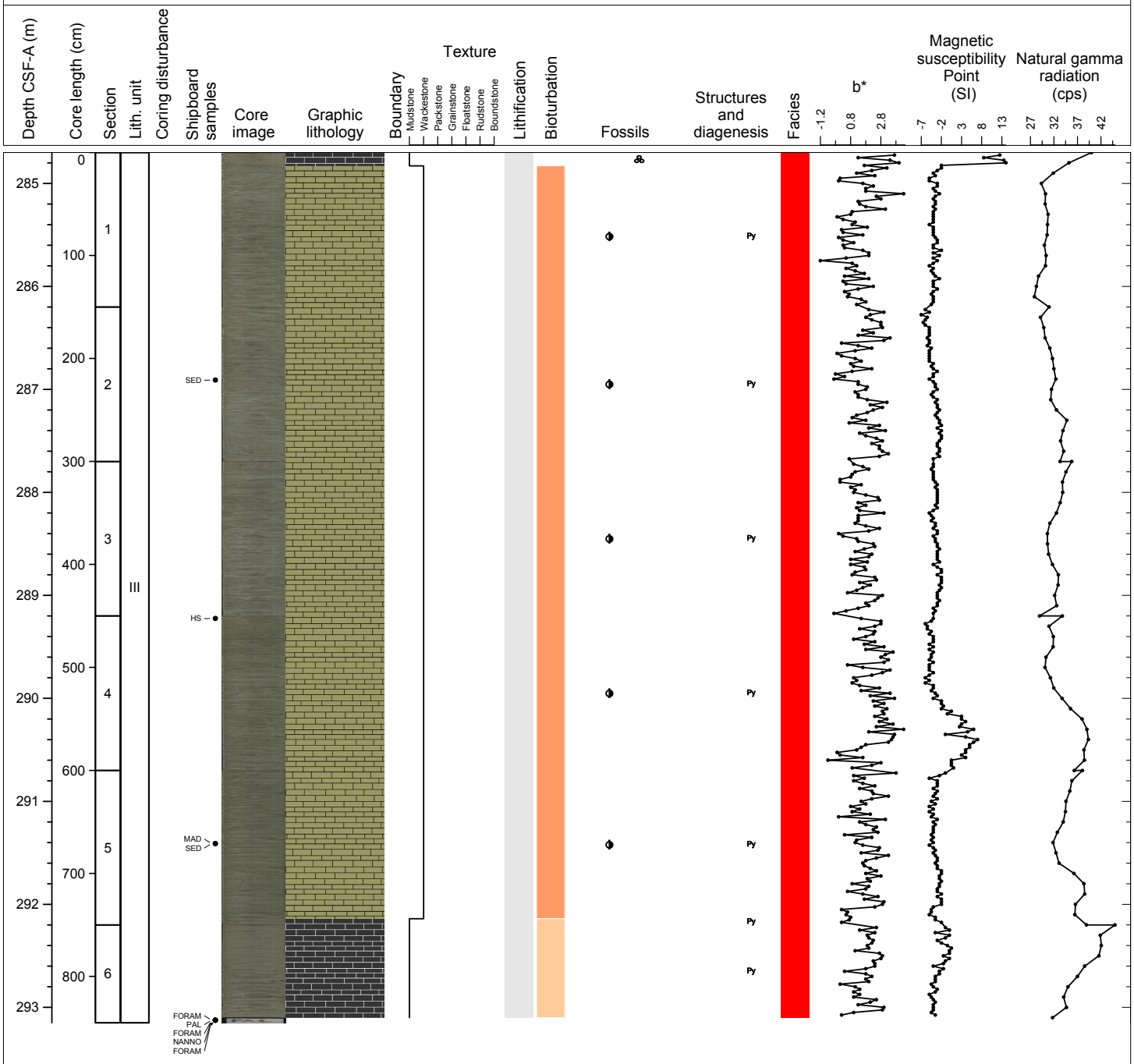
Hole 356-U1464B Core 31H, Interval 275.2-281.54 m (CSF-A)

Homogeneous, unlithified, light grayish green MUDSTONE with small benthic foraminifers transitions to light brown MUDSTONE with planktic foraminifers and disseminated pyrite patches. There is slight to moderate bioturbation throughout the core.



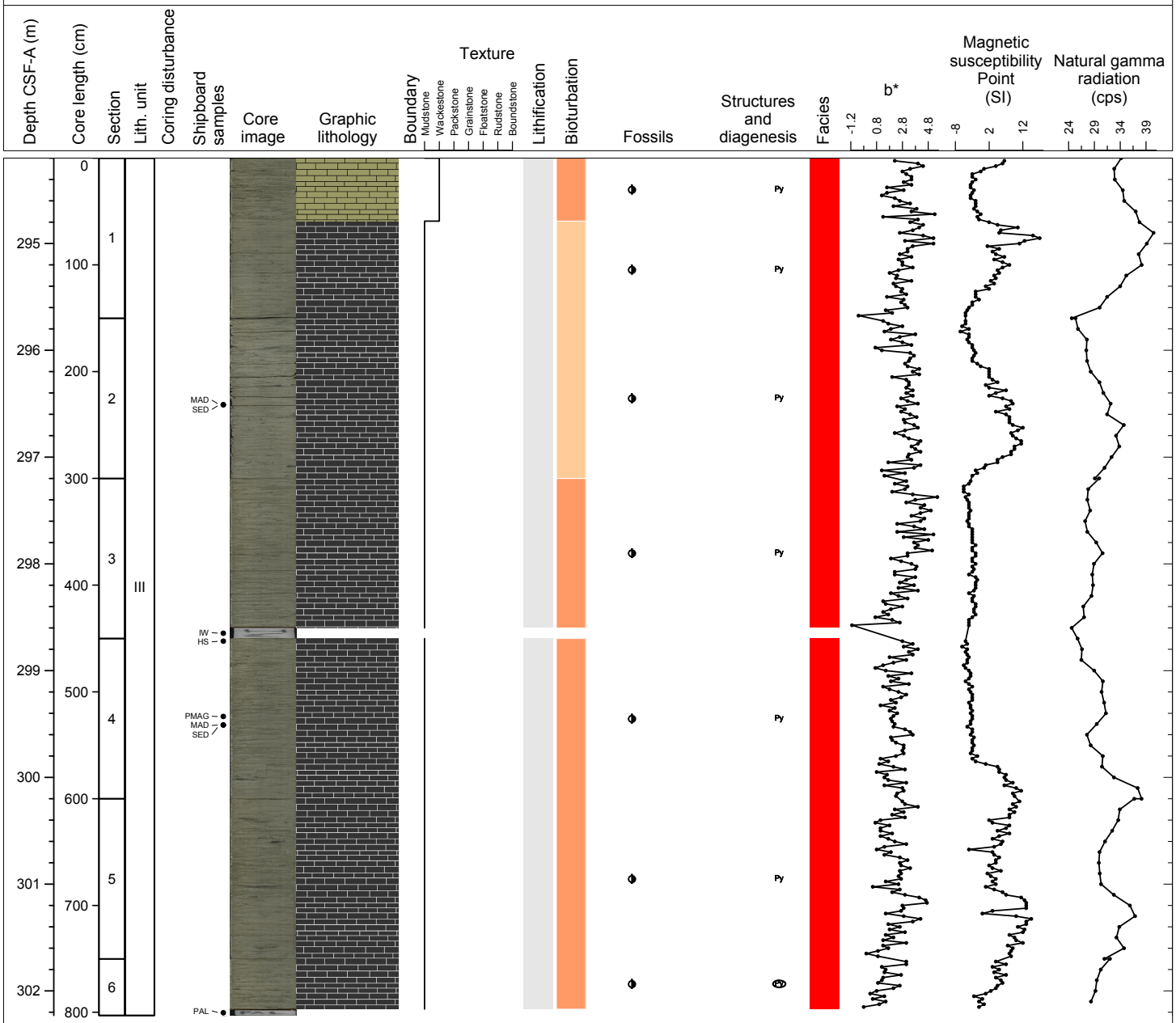
Hole 356-U1464B Core 32H, Interval 284.7-293.15 m (CSF-A)

Homogeneous, unlithified grayish green, very fine to fine sand-sized, MUDSTONE and WACKESTONE with small benthic foraminifers and disseminated pyrite patches.



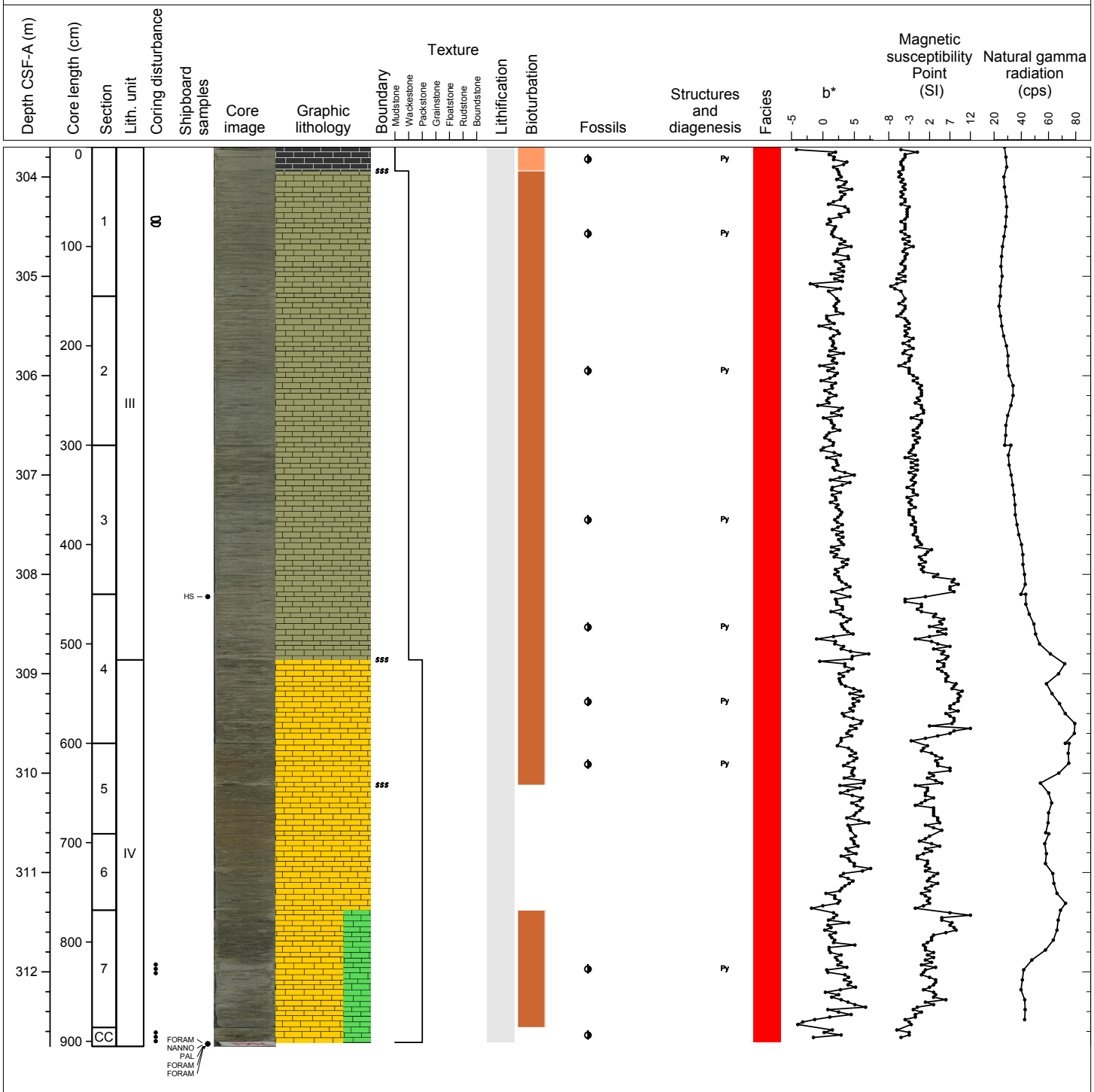
Hole 356-U1464B Core 33H, Interval 294.2-302.23 m (CSF-A)

Homogeneous, unlithified, grayish green, fine sand-sized, MUDSTONE with small benthic foraminifers and disseminated pyrite patches. At the lower part of the core, partially-lithified concretion beds are intercalated with the mudstone.



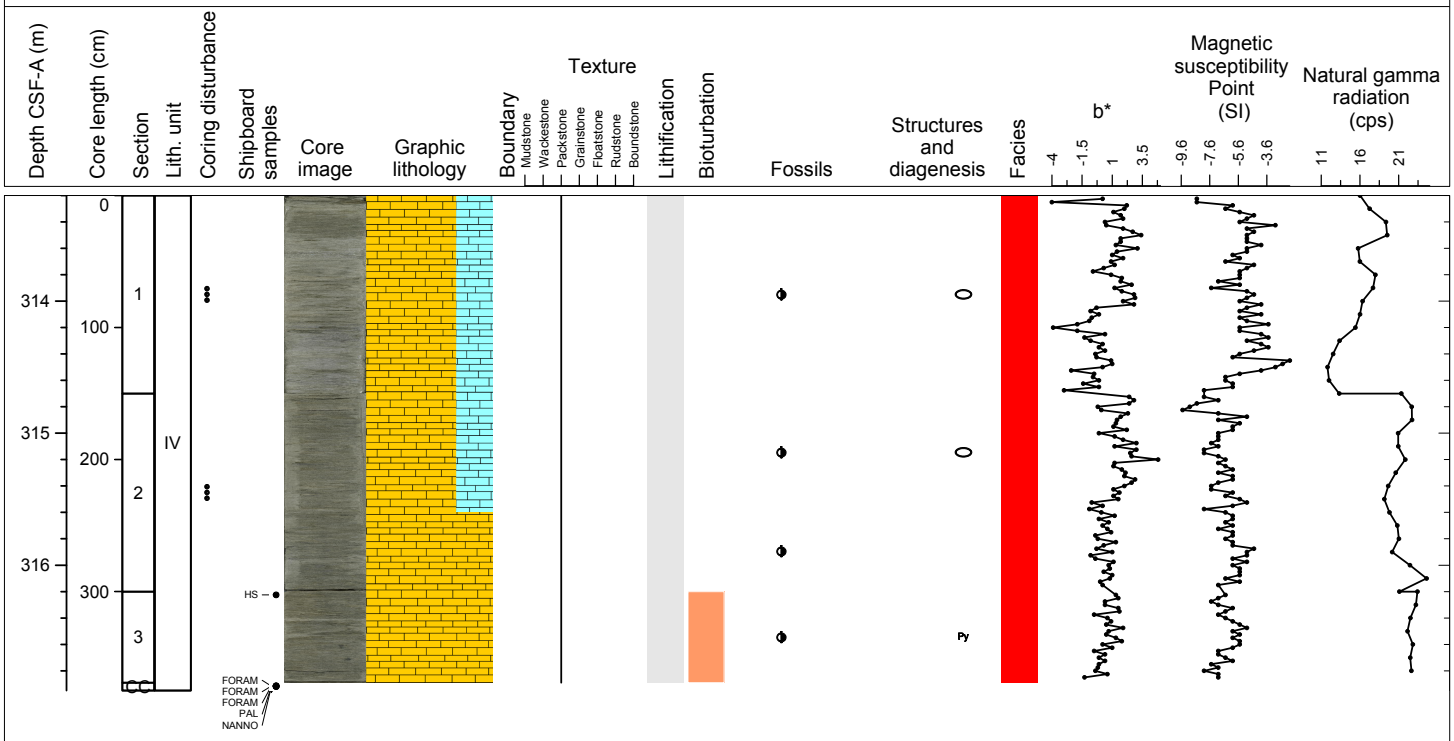
Hole 356-U1464B Core 34H, Interval 303.7-312.75 m (CSF-A)

Unlithified, grayish green, WACKESTONE transitions to unlithified, dark greenish gray and light brown, PACKSTONE. The packstone shows normal-grading from poor-sorted, medium sand-sized grains to homogeneous, grayish green, MUDSTONE. Throughout the core there are disseminated pyrite patches, and bioturbation is common. At the lower part of the core (5A, 42 cm to 6A, 39 cm depth), light brown PACKSTONE is intercalated.



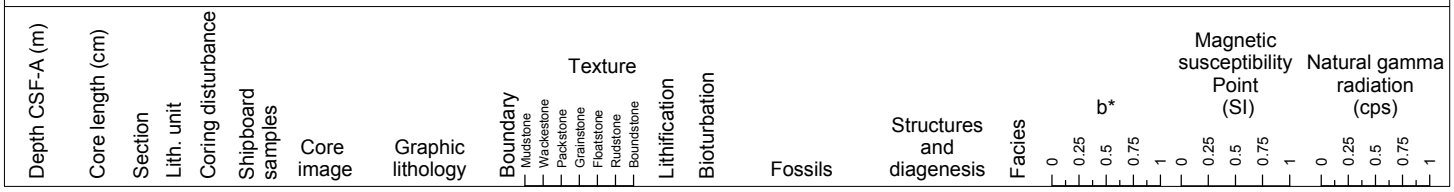
Hole 356-U1464B Core 35F, Interval 313.2-316.95 m (CSF-A)

Unlithified, light gray, medium sand-sized, PACKSTONE with abundant unidentified macrofossils and several strongly-lithified, intercalated beds.



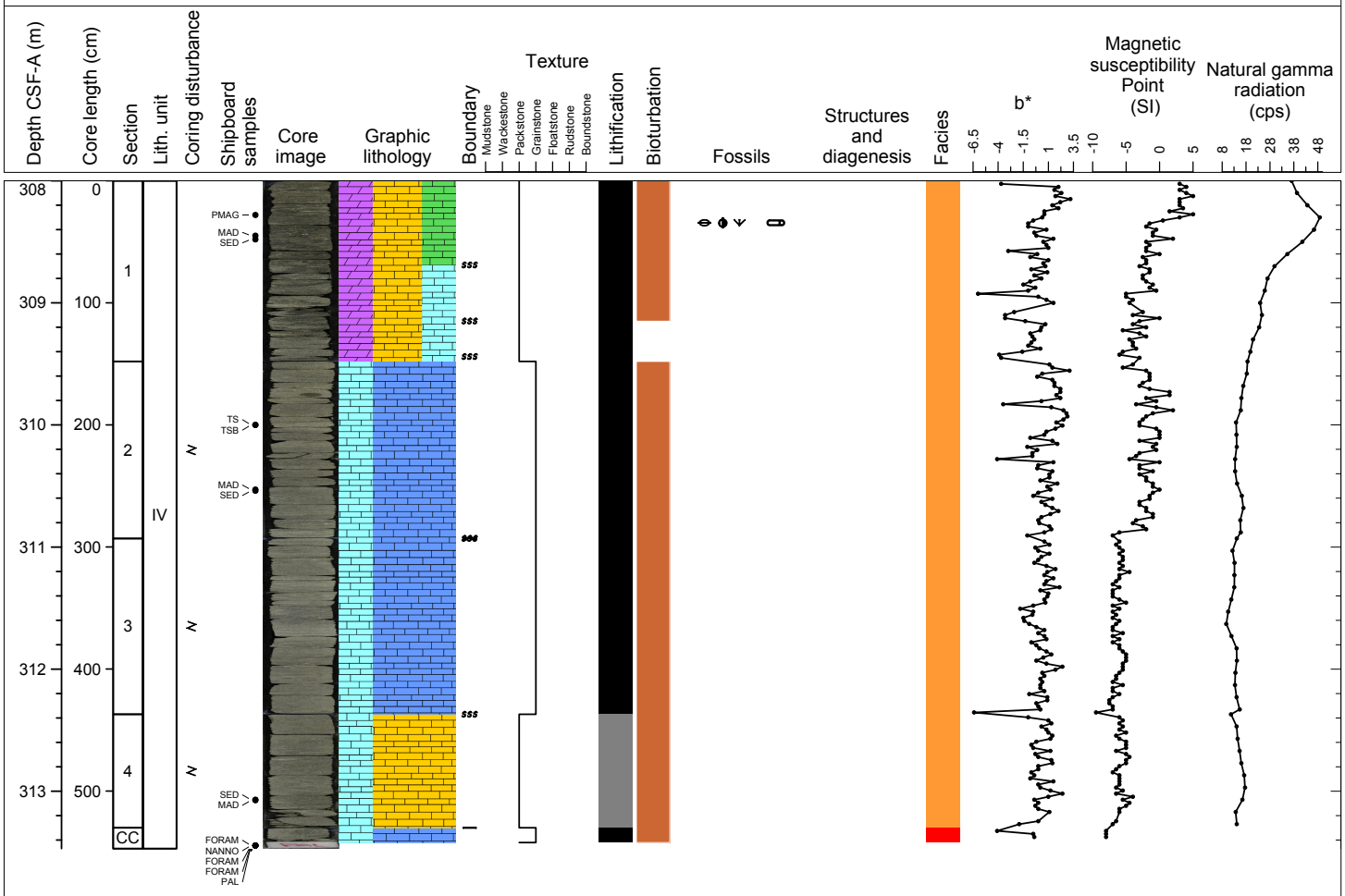
DRILLED INTERVAL

Hole 356-U1464C Core 11, Interval 0.0-0.0 m (CSF-A)



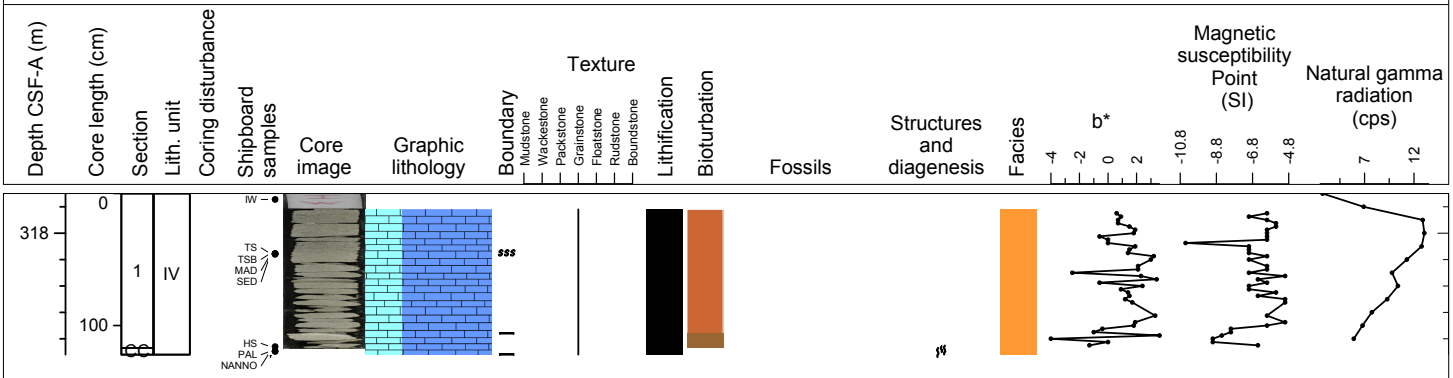
Hole 356-U1464C Core 2R, Interval 308.0-313.47 m (CSF-A)

Lithified, mottled dark greenish gray, dolomitic, PACKSTONE with abundant medium sand-size glauconite grains and abundant macrofossils (bivalves, scaphopods, bryozoans, and large benthic foraminifers including one Cycloclypeus) transitions to lithified, dark greenish gray, skeletal, GRAINSTONE with coarse sand- to medium pebble-size grains. Lithoclasts include glauconite and carbonate grains. Bioturbation is common, and there are bioturbated contacts, occasional bedding (coarser grains), and macrofossils (small benthic foraminifers, Cycloclypeus, bryozoans, echinoderm spines, solitary coral, and sand dollar fragments).



Hole 356-U1464C Core 3R, Interval 317.7-318.92 m (CSF-A)

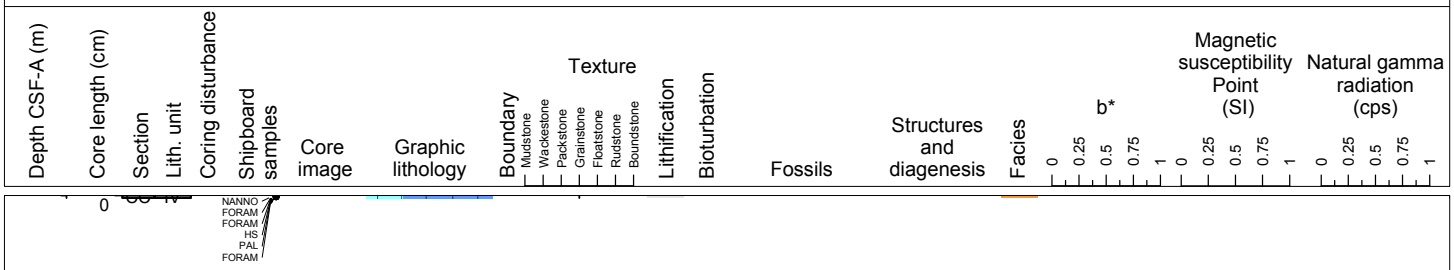
Lithified, dark greenish gray to creamy gray to cream, skeletal GRAINSTONE with sand, coarse sand, and granule-size grains; lithoclasts of glauconite and carbonate; dolomite cement; bioturbated and sharp contacts; and macrofossils (Cycloclypeus, benthic foraminifers, bivalves, bryozoans, sand dollar, and echinoderm spines). At the base of core, the lithology transitions to lithified, cream, skeletal, coarse- to pebble-sized, GRAINSTONE with dissolution and moldic porosity, dolomite cement, micrite, sharp contacts, lithic clasts (carbonate and glauconite) and macrofossils (benthic foraminifers, bivalves, bryozoans, and gastropods).



ALL TO PAL

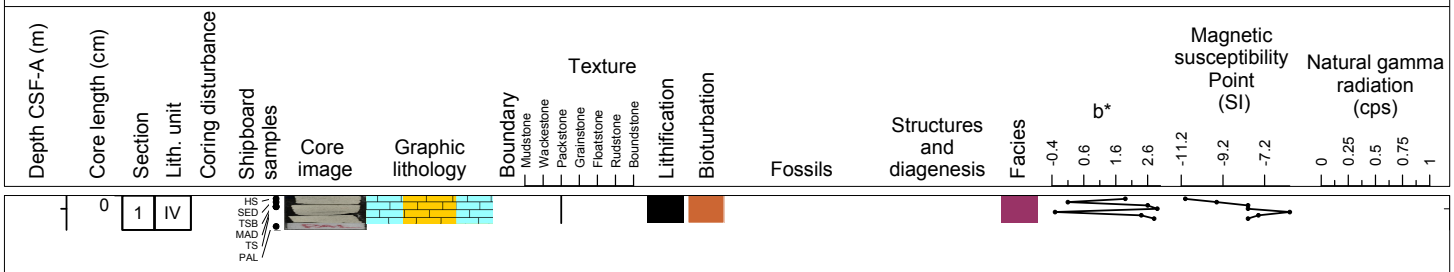
Hole 356-U1464C Core 4R, Interval 327.4-327.42 m (CSF-A)

Unlithified, creamy gray, skeletal, coarse sand- to granule-sized, GRAINSTONE with macrofossils (bivalves and gastropods) and lithoclasts (carbonate and glauconite).



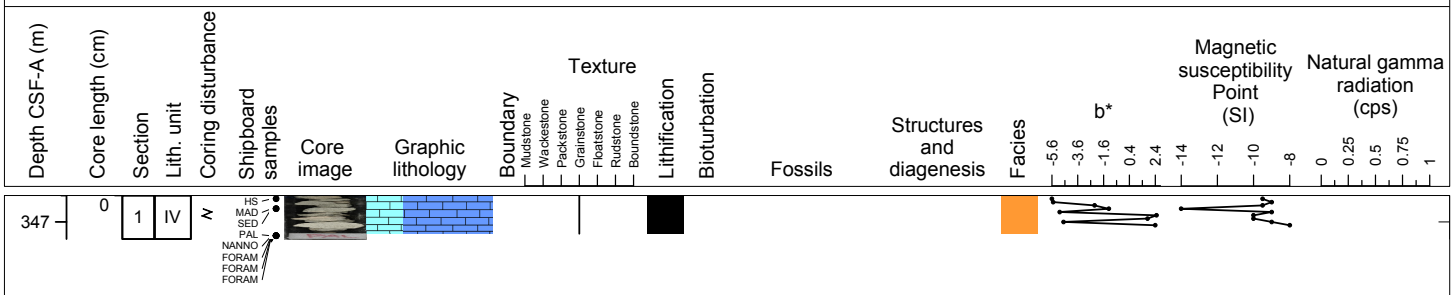
Hole 356-U1464C Core 5R, Interval 337.1-337.36 m (CSF-A)

Lithified, cream, skeletal, medium to coarse sand-sized, PACKSTONE with foraminfers, macrofossils (bivalves, bryozoansns, echinoderms), and lithic grains (carbonate and glauconite).



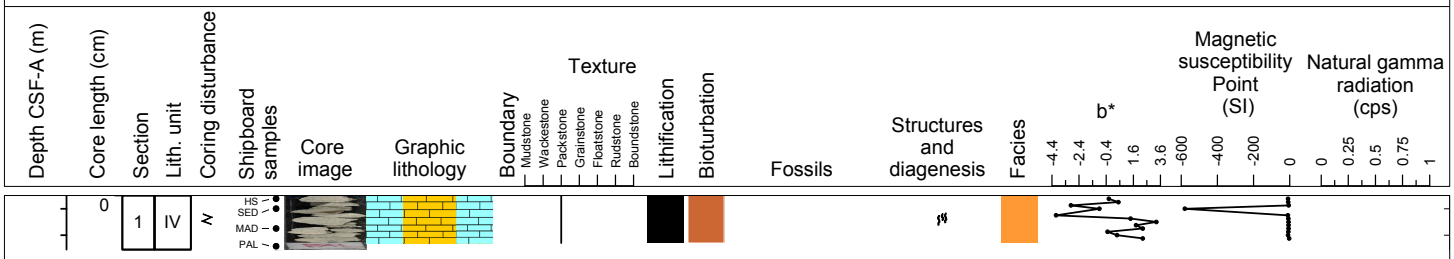
Hole 356-U1464C Core 6R, Interval 346.8-347.13 m (CSF-A)

This core includes at least three different lithologies that were likely mixed during coring. All three lithologies have dolomite cement. From top to bottom: Lithified, cream, light greenish gray, skeletal, medium and coarse sand-sized to large pebble-sized, GRAINSTONE with lithoclasts (glauconite and carbonate), macrofossils (benthic foraminifers and bivalves). A coarser-grained, creamy-gray, GRAINSTONE containing glauconite, benthic foraminifers, Cycloclypeous, bivalves, abundant solution cavities and moldic porosity. A cream PACKSTONE with bivalve fragments 2x3 cm thick and long; the supporting matrix contains benthic foraminifers, Cycloclypeous, bryozoans, solution cavities and moldic porosity, and very sparse glauconite.



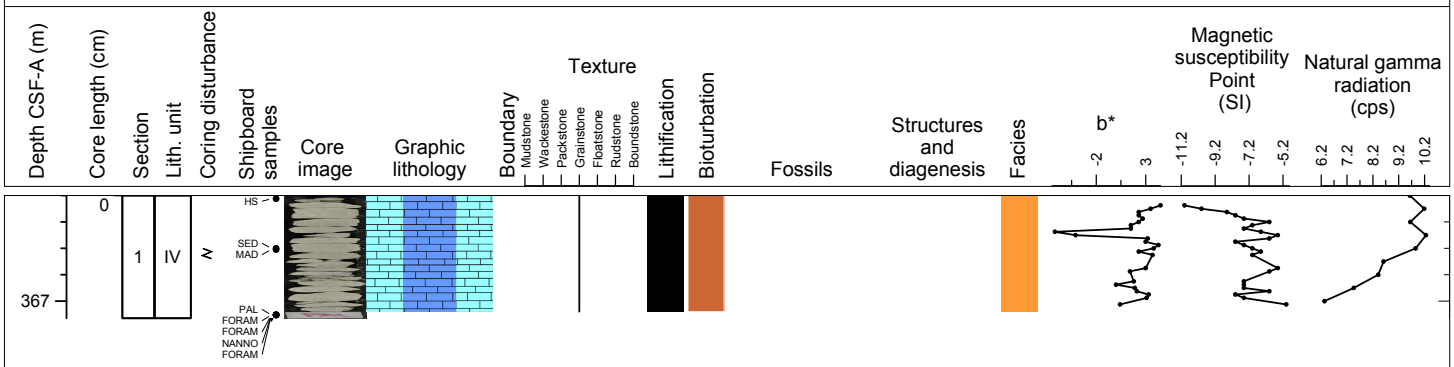
Hole 356-U1464C Core 7R, Interval 356.5-356.91 m (CSF-A)

Lithified, creamy gray, skeletal, medium to coarse sand-sized, PACKSTONE with macrofossils (abundant benthic foraminifers and bivalves, few bryozoans, Cycloclypeus), and lithoclasts (sparse coarse sand-size glauconite and common carbonate).



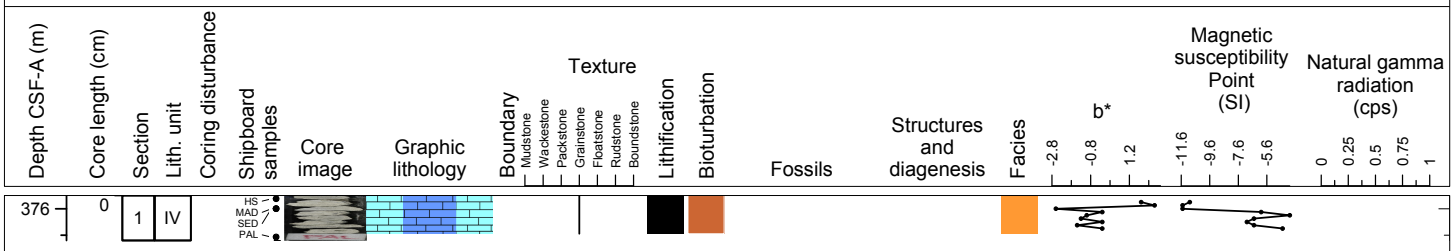
Hole 356-U1464C Core 8R, Interval 366.2-367.13 m (CSF-A)

Lithified, creamy gray, skeletal, medium to coarse sand-sized, GRAINSTONE with lithoclasts (sparse glauconite and common carbonate) and macrofossils fragments (bivalves and bryozoans).



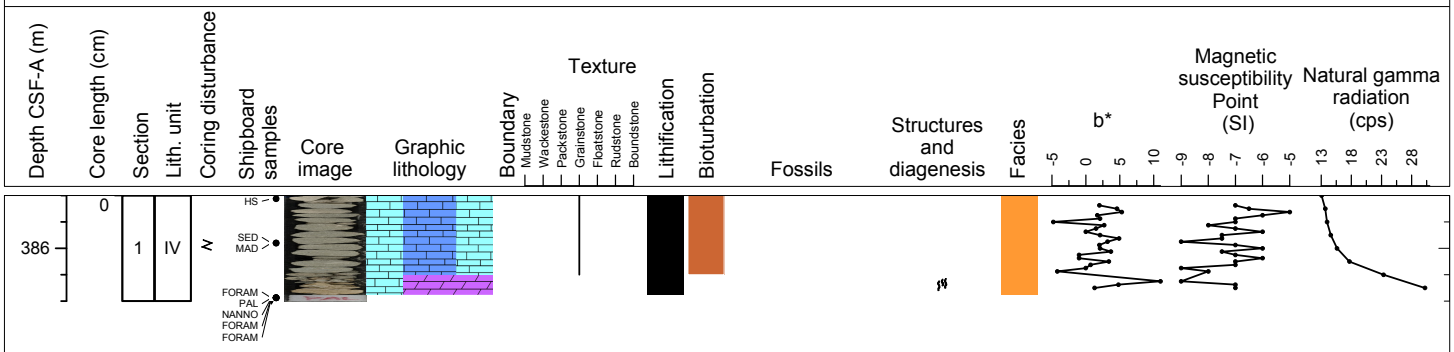
Hole 356-U1464C Core 9R, Interval 375.9-376.24 m (CSF-A)

Lithified, creamy gray, skeletal, GRAINSTONE with foraminfers; lithoclasts (sparse, coarse sand-size glauconite and common carbonate), a gypsum nodule, burrows in-filled with glauconite, mineralized bivalve shell fragments, and other macrofossils and benthic foraminifers.



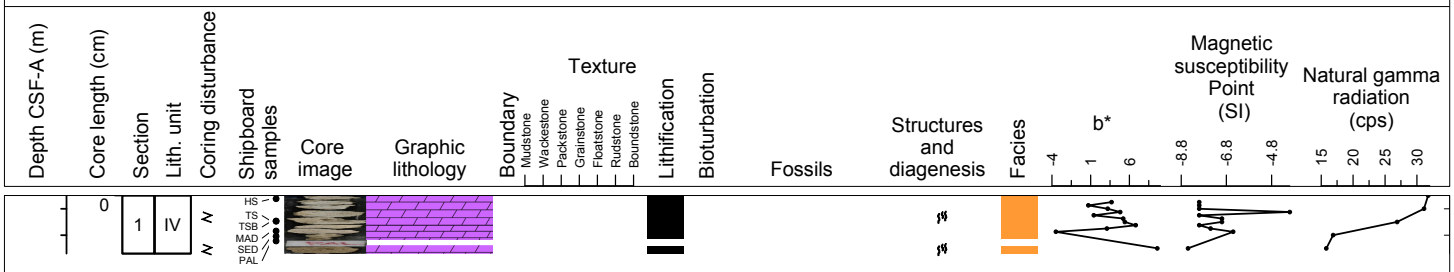
Hole 356-U1464C Core 10R, Interval 385.6-386.4 m (CSF-A)

Lithified, light brownish-gray, skeletal, medium to coarse sand-sized, GRAINSTONE with foraminiferss, abundant sand-size glauconite and carbonate grains, sand to coarse sand-size macrofossils (bivalves, benthic foraminifers, Cycloclypeus, bryozoans, and urchin spines). The lithology ransitions to lithified, brown, skeletal, DOLOSTONE that is likely a solution surface with common solution cavities and moldic porosity, molds of colonial reef building corals, and other macrofossils (benthic foraminifers, bryozoans, and bivalve fragments).



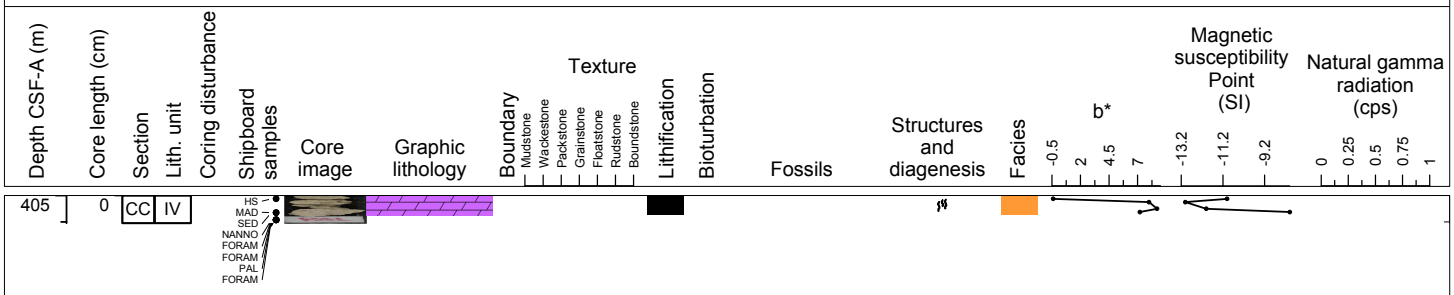
Hole 356-U1464C Core 11R, Interval 395.3-395.74 m (CSF-A)

Lithified, brown to dark brown, very fine-grained, DOLOSTONE with common solution cavities and moldic porosity, a gypsum crystal, and macrofossils (coral fragments-Acropora?, bivalves and gastropods). Most shells have dissolved and only moldic porosity remains.



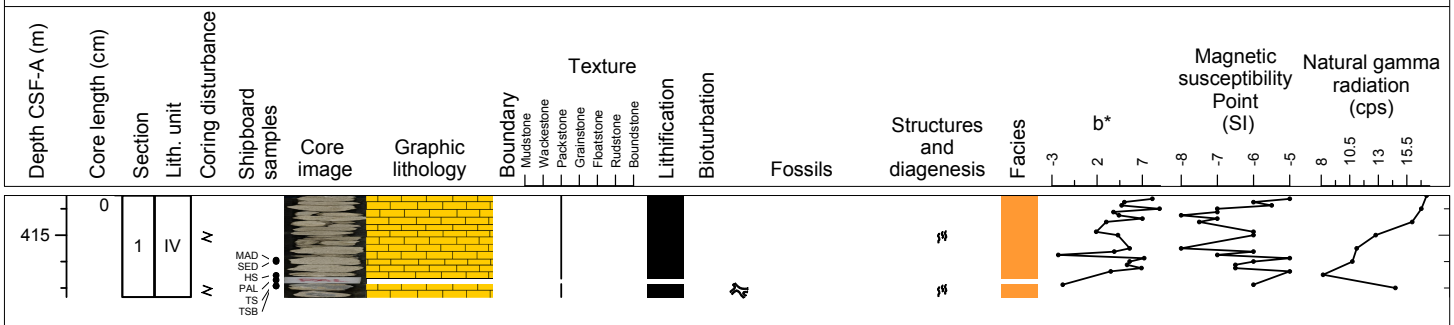
Hole 356-U1464C Core 12R, Interval 405.0-405.21 m (CSF-A)

Lithified, brown, very fine-grained, DOLOSTONE with common solution cavities and moldic porosity, macrofossils (coral fragments?, bivalves, gastropods, urchin spine, benthic foraminifers, and a branching coral mold). Most shells have dissolved and only moldic porosity remains.



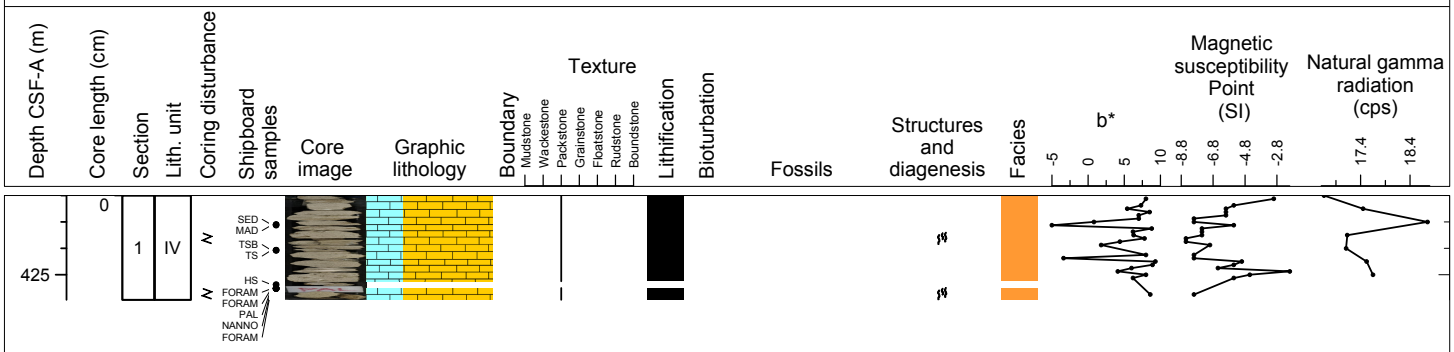
Hole 356-U1464C Core 13R, Interval 414.7-415.47 m (CSF-A)

Lithified, light brown, skeletal, PACKSTONE with solution cavities and moldic porosity. macrofossils (benthic foraminifers, urchin spines, coral molds, and bryozoans). Branching coral molds may be Acropora? Porites?; branching corals overgrown by coralline algae (with micrite above).



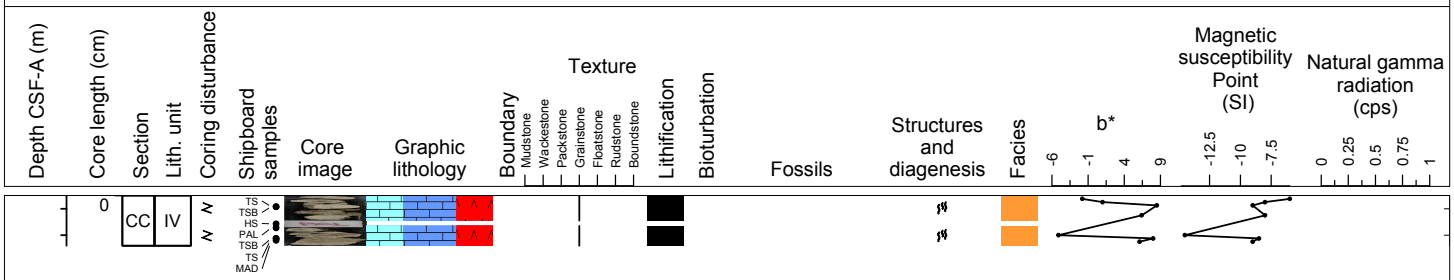
Hole 356-U1464C Core 14R, Interval 424.4-425.19 m (CSF-A)

Lithified, light brown, skeletal, PACKSTONE with abundant molds of corals (Acropora?), an unaltered platy coral, urchin spines, and small benthic foraminifers. Burrows are in-filled with skeletal PACKSTONE, and there is a gypsum mineralized surface.



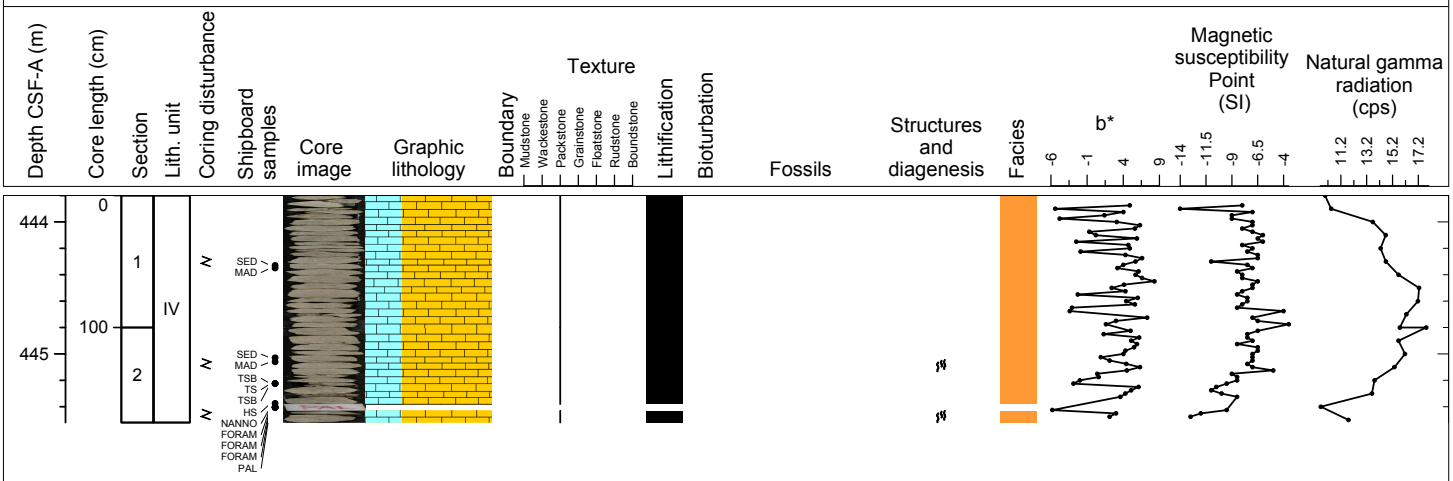
Hole 356-U1464C Core 15R, Interval 434.1-434.48 m (CSF-A)

Lithified, light brown to brown, skeletal, GRAINSTONE with gypsum crystals and replacement, dissolution cavities and moldic porosity, and macrofossils (urchin spines, bryozoans, benthic foraminifers, coralline algae?, and cavities of bivalves and gastropods).



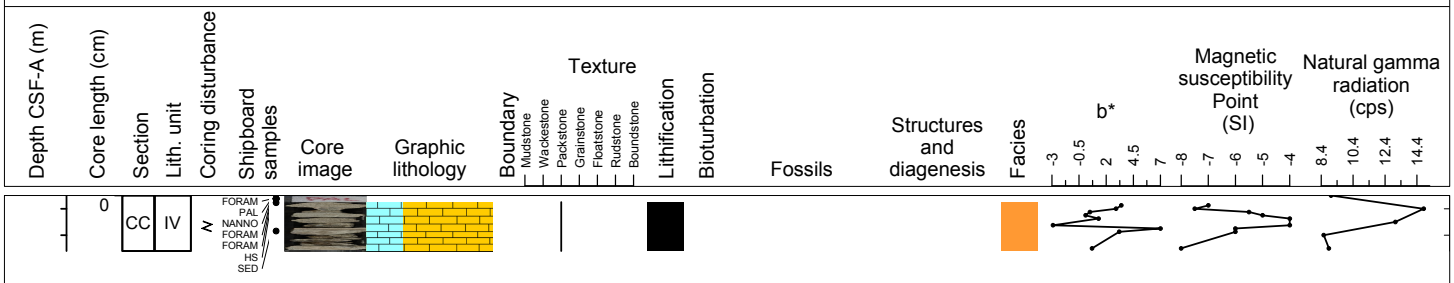
Hole 356-U1464C Core 16R, Interval 443.8-445.52 m (CSF-A)

Lithified, light brown to brown, skeletal, PACKSTONE with gypsum crystals and replacement, dissolution cavities and moldic porosity, and macrofossils (urchin spines, bryozoans, benthic foraminifers, coralline algae?, and cavities of bivalves and gastropods).



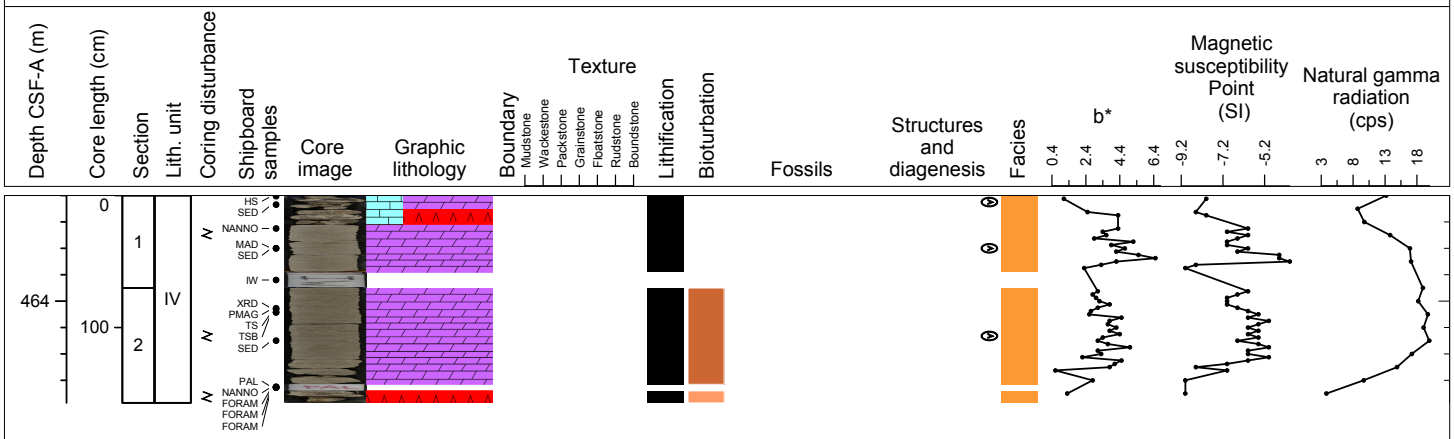
Hole 356-U1464C Core 17R, Interval 453.5-453.92 m (CSF-A)

Lithified, light brown, skeletal, PACKSTONE with gypsum and/or dolomite replacement, up to gravel-size grains,and macrofossils (coralline algae overgrowing corals, spherical bryozoans, foraminifers, corals (solitary), and bivalve fragments). There is some burrowing associated with coral growth.



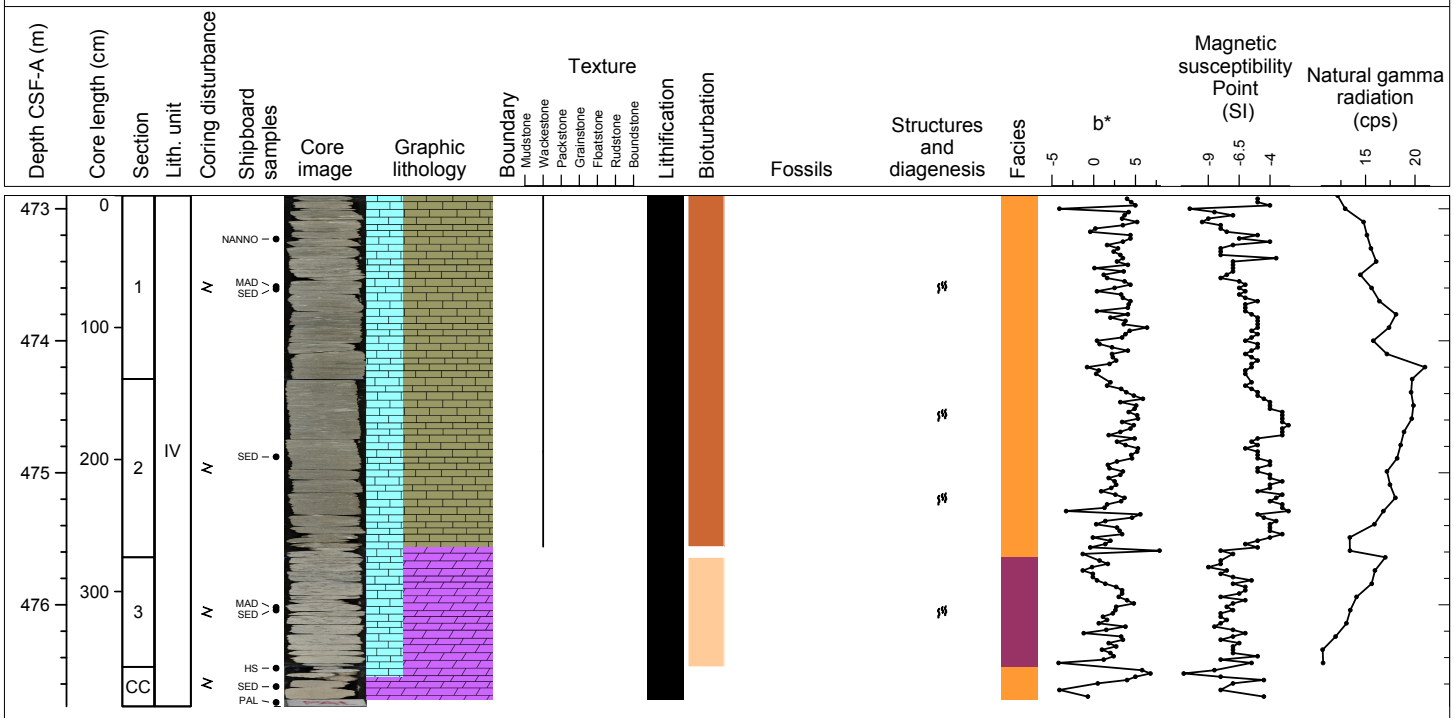
Hole 356-U1464C Core 18R, Interval 463.2-464.77 m (CSF-A)

Lithified, brown, skeletal, DOLOSTONE with macrofossils (coral - Faviid, Acropora - replaced by gypsum, bivalve fragments, Cycloclpeus?, foraminifers, coraline algea?, and bryozoans), moderate bioturbation, gypsum nodules, and intervals of gypsum rock containing Cycloclypeus, foraminifers, bryozoans, bivalves, burrows, and glauconite grains.



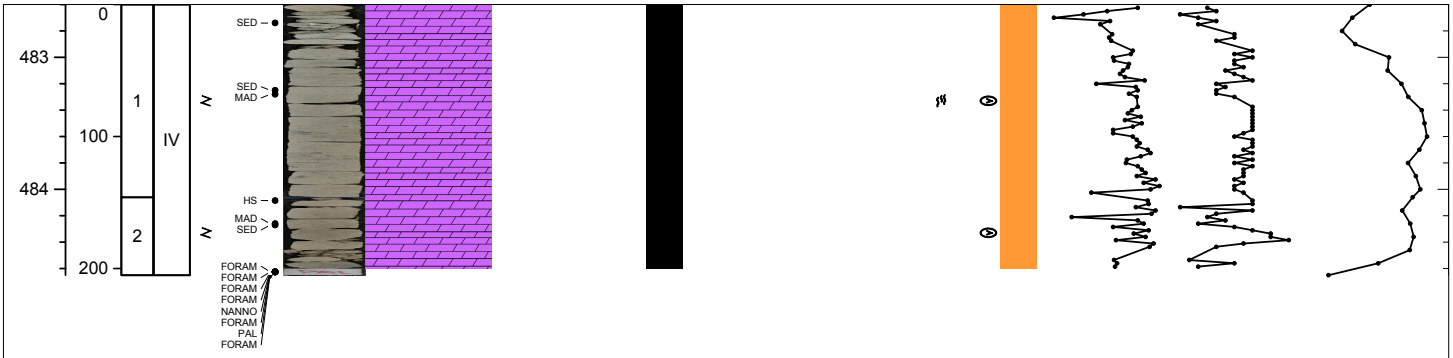
Hole 356-U1464C Core 19R, Interval 472.9-476.77 m (CSF-A)

Lihtified, creamy gray, skeletal, medium sand to granule-size, WACKESTONE with macrofossils (bivalves, foraminifers, bryozoans, and Cycloclypeus), lithoclasts (glauconite), common bioturbation, burrows in-filled with carbonate cement, and some solution cavities. Near the middle of the core, there is a transition to lithified, light bluish gray, skeletal DOLOSTONE with bivalves (replaced by gypsum and anhydrate) and other macrofossils (gastropods, bryozoans, echinoderms, colonial and solitary corals, and benthic foraminifers). Gypsum and fine-grained light bluish gray material in-fill burrows and some skeletal material. There are solution cavities and moldic porosity. At the base of the core there is lithified, creamy gray, DOLOSTONE with sand-size gypsum grains and shell fragments and sparse foraminifers.



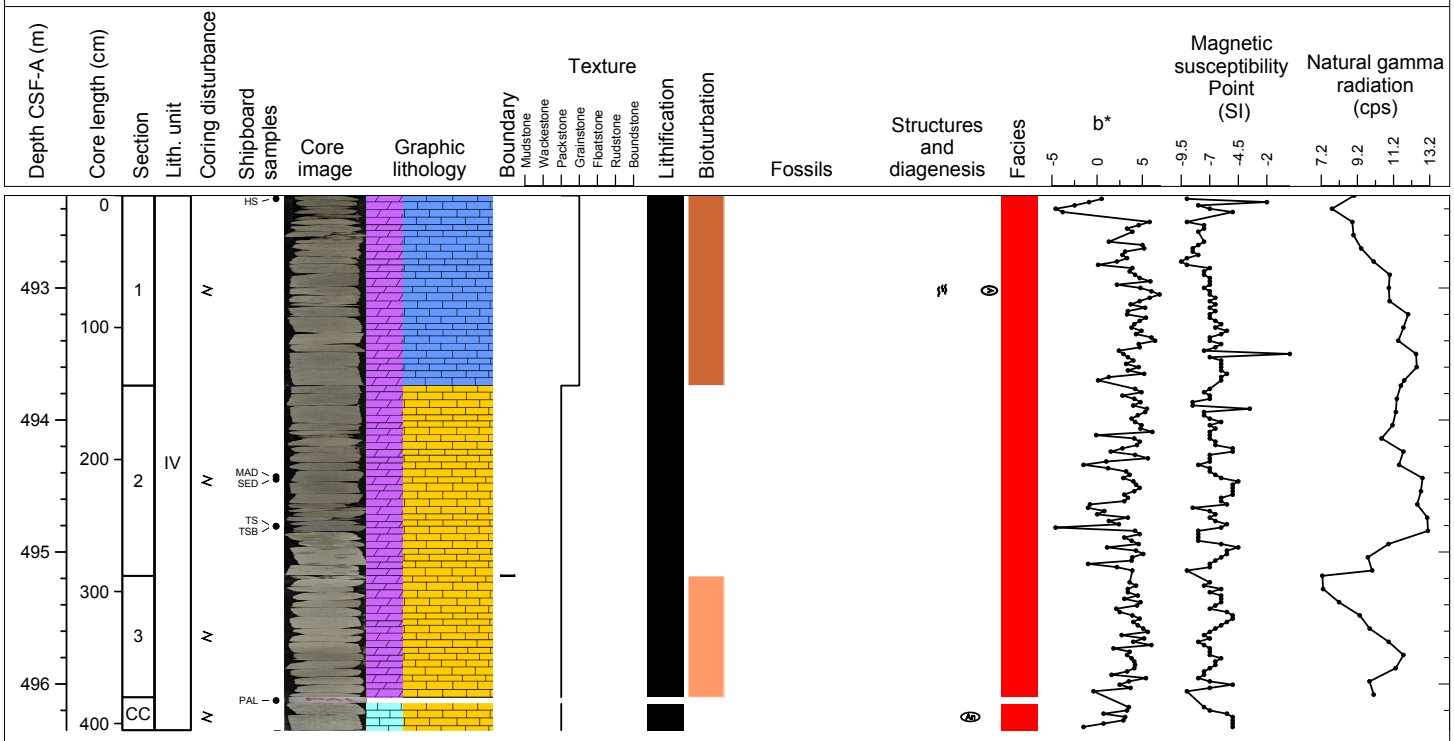
Hole 356-U1464C Core 20R, Interval 482.6-484.65 m (CSF-A)

Lithified, light gray to light brown, DOLOSTONE with gypsum nodules and some macrofossils (gastropods, bivalves, bryozoans, Cycloclypeus and benthic foraminifers) in-filled by gypsum .



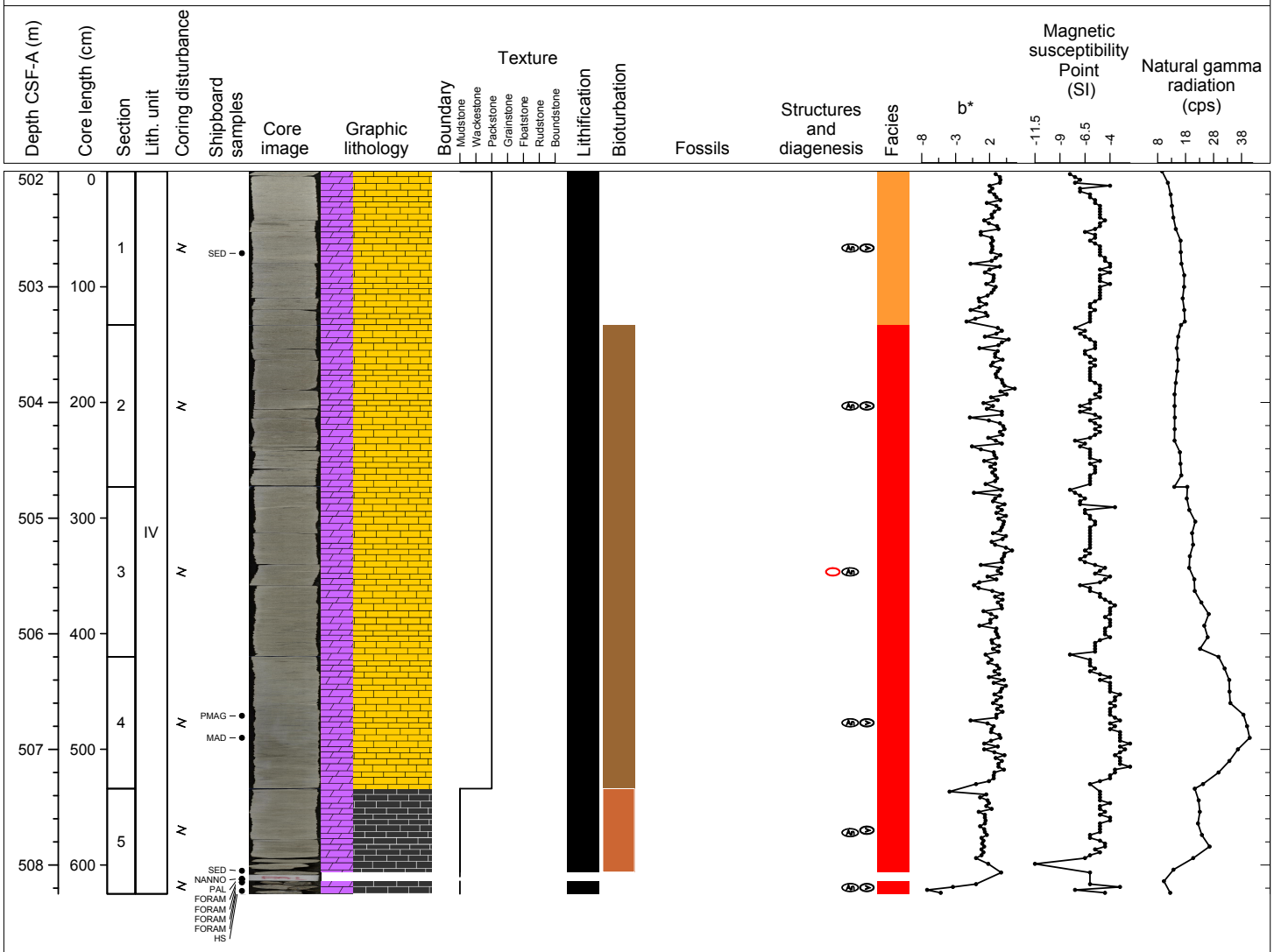
Hole 356-U1464C Core 21R, Interval 492.3-496.35 m (CSF-A)

Lithified, light brown to light bluish gray, dolomitic, medium to coarse sand-sized, GRAINSTONE to PACKSTONE with common moldic porosity, burrows (in-filled by a darker brown cement), 5-cm thick beds with sharp contacts, gypsum nodules and gypsum-replaced shells, and macrofossils (bivalves and bryozoans), and sparse small benthic foraminifers.



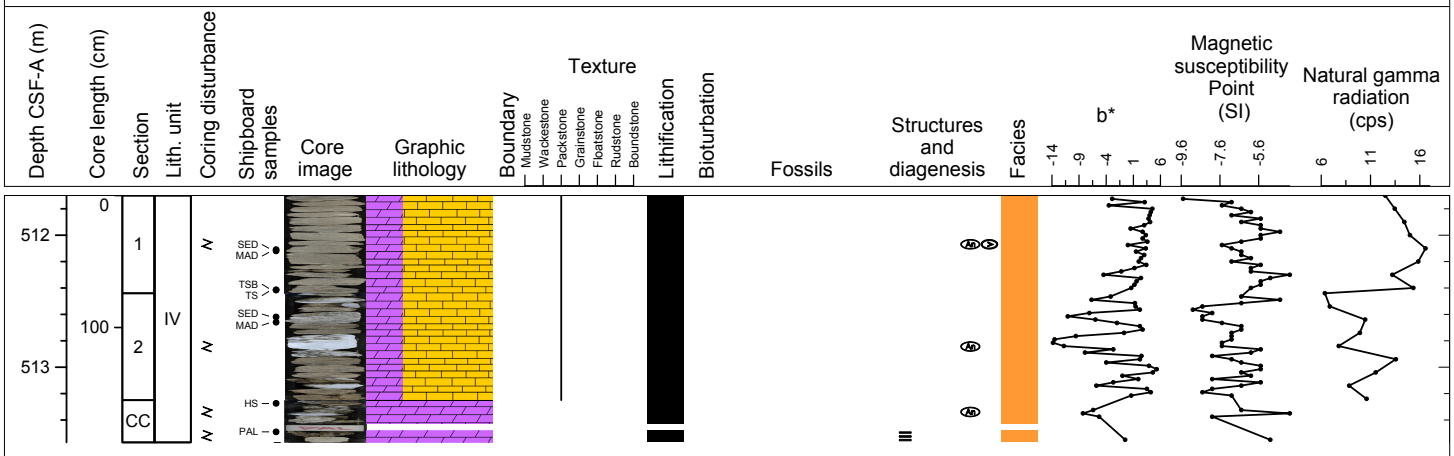
Hole 356-U1464C Core 22R, Interval 502.0-508.25 m (CSF-A)

Lithified, light bluish gray, skeletal, dolomitic, medium to coarse sand-sized, PACKSTONE with macrofossils (bivalves, gastropods, benthic foraminifers, echinoderms, and bryozoans) replaced by gypsum and/or anhydrite; anhydrite nodules; and sand-size glauconite grains. In the lower part of the core there is a transition to lithified, light brown, dolomitic, MUDSTONE with gypsum and anhydrite nodules, common bioturbation, and macrofossils (bivalves, bryozoans, foraminifers, and gastropods).



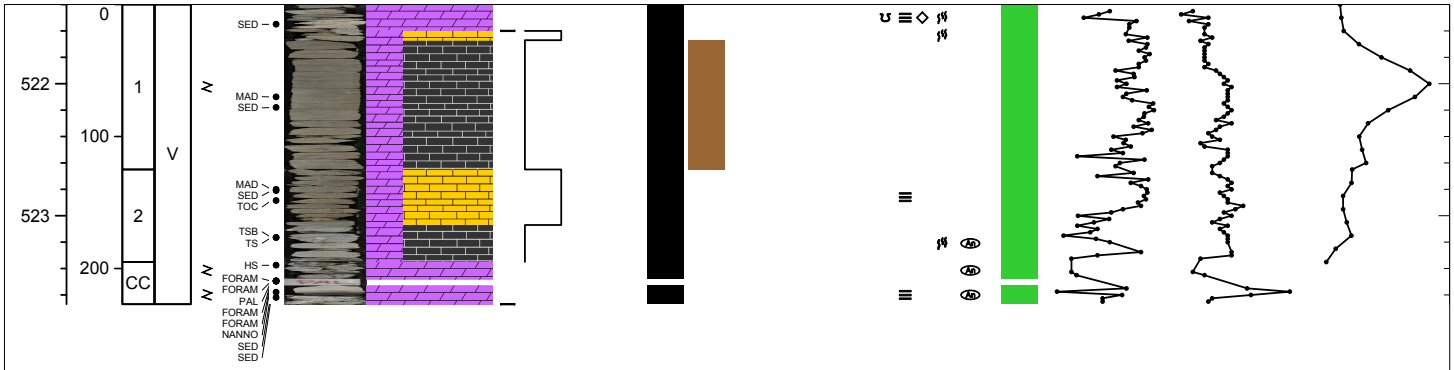
Hole 356-U1464C Core 23R, Interval 511.7-513.57 m (CSF-A)

Lithified, light brown, dolomitic, medium and coarse sand-sized, PACKSTONE with common gypsum and anhydrite nodules, macrofossils (bivalves, solitary and colonial corals, sand dollars, and urchin spines) replaced by gypsum and anhydrite, and solution cavities. Anhydrite and chickenwire structures (abundance) increase with depth and macrofossils disappear. The lower part of the core is composed of lithified, brown, very fine-grained, DOLOSTONE with fine laminations, mud clasts, branching corals, anhydrite nodules, and chickenwire structure.



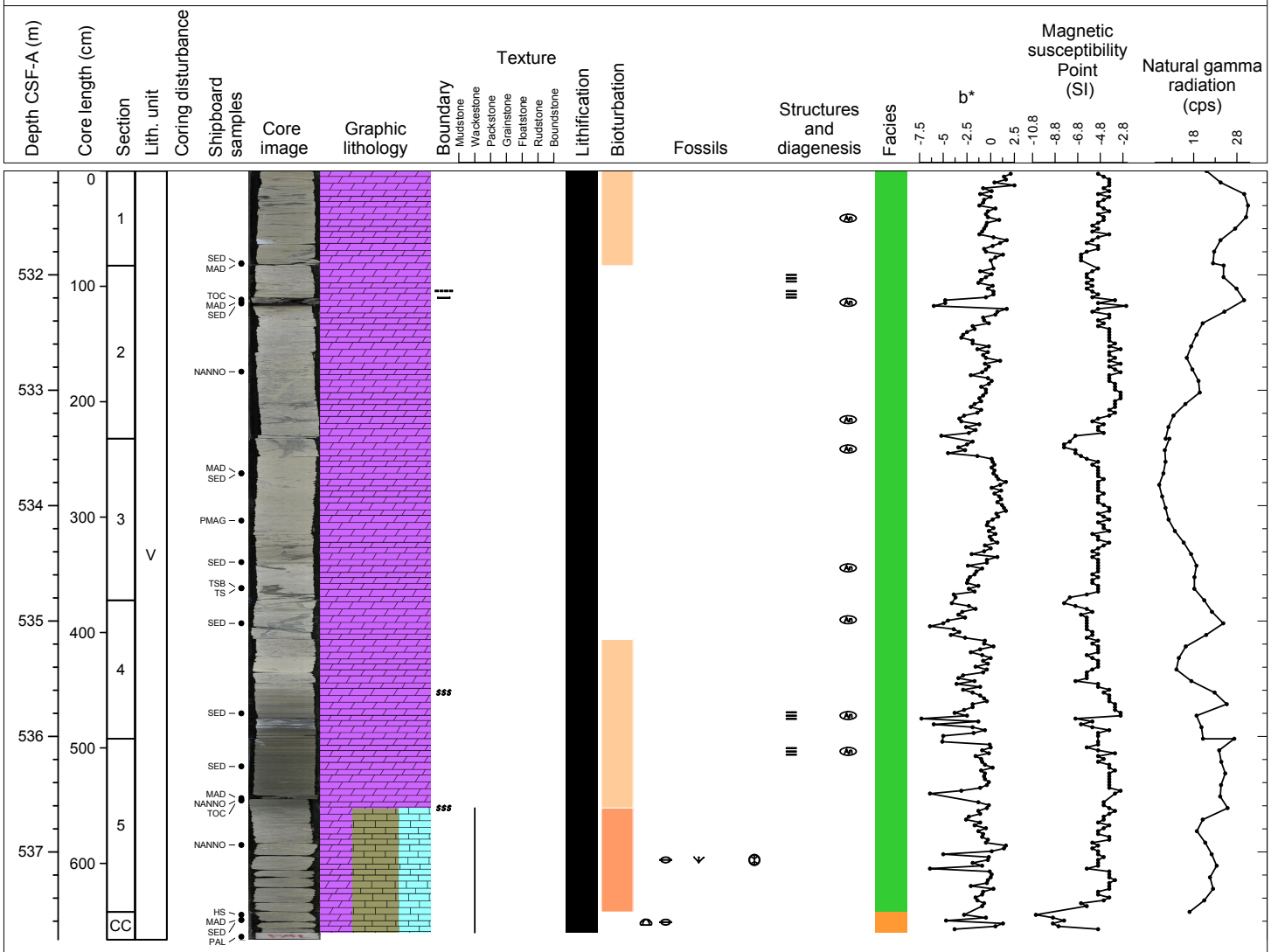
Hole 356-U1464C Core 24R, Interval 521.4-523.67 m (CSF-A)

Lithified, beige, dolomitic, DOLOSTONE with various sedimentary structure (planar laminations, ball and pillow, intraclasts, load casts, solution cavities). Lithology transitions to beige to light gray to brown, dolomitic PACKSTONE and MUDSTONE with common replacement of shells by anhydrite. The lithology switches back to lithified, light gray to beige, DOLOSTONE with similar features as seen in the top of the core.



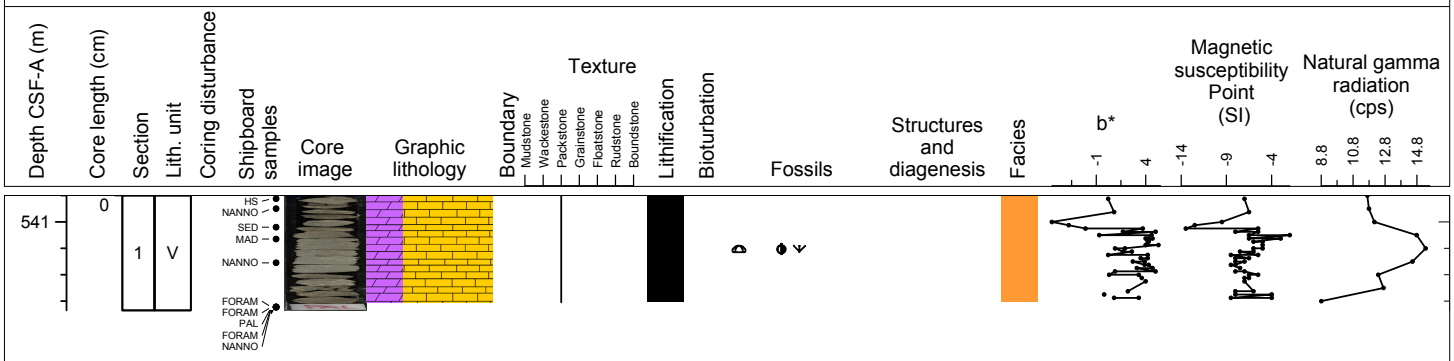
Hole 356-U1464C Core 25R, Interval 531.1-537.76 m (CSF-A)

Lithified, beige to gray DOLOSTONE with > 10 cm long lenticular anhydrite, resembling aggregates of anhydrite crystalls grown displacively and replacively in the sediment. There are also laminations to thin bedding. The lithology transitions in the bottom of the core to lithified, light gray, dolomitic, WACKESTONE with macrofossils.



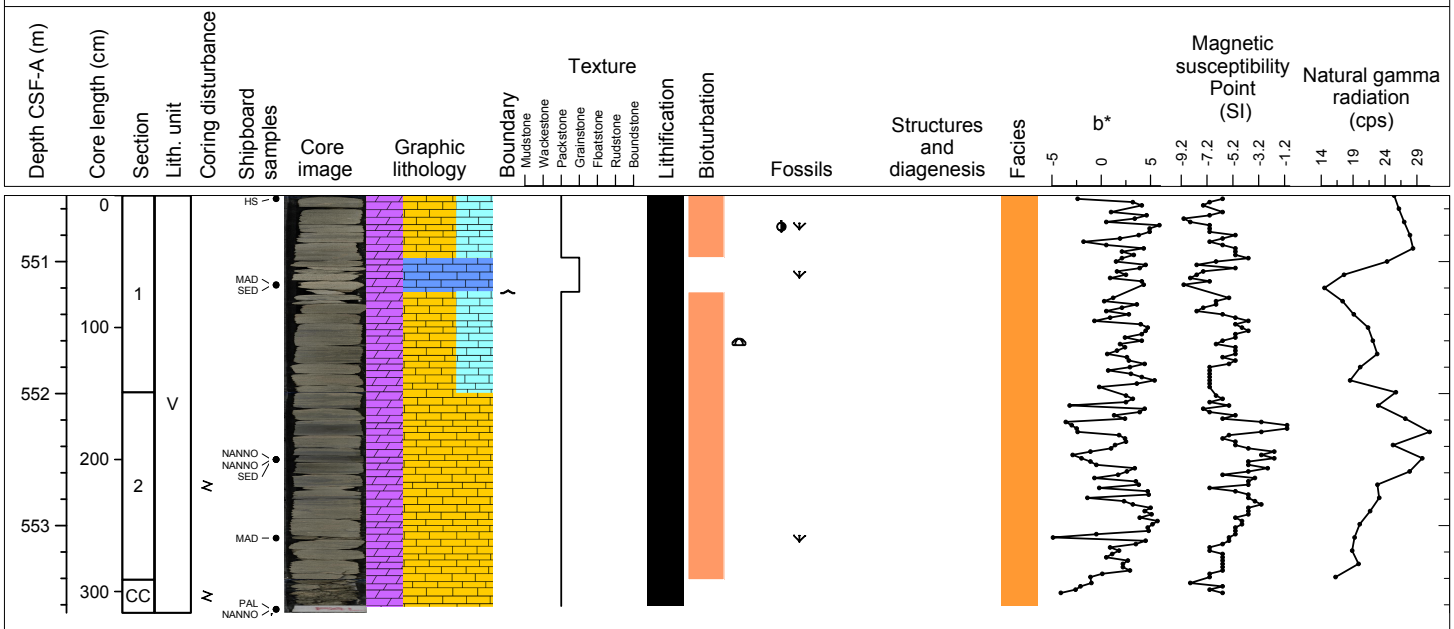
Hole 356-U1464C Core 26R, Interval 540.8-541.67 m (CSF-A)

Light gray dolomitic WACKESTONE with abundant and diverse fully marine assemblage of fossils, including echinoderms and bivalves.



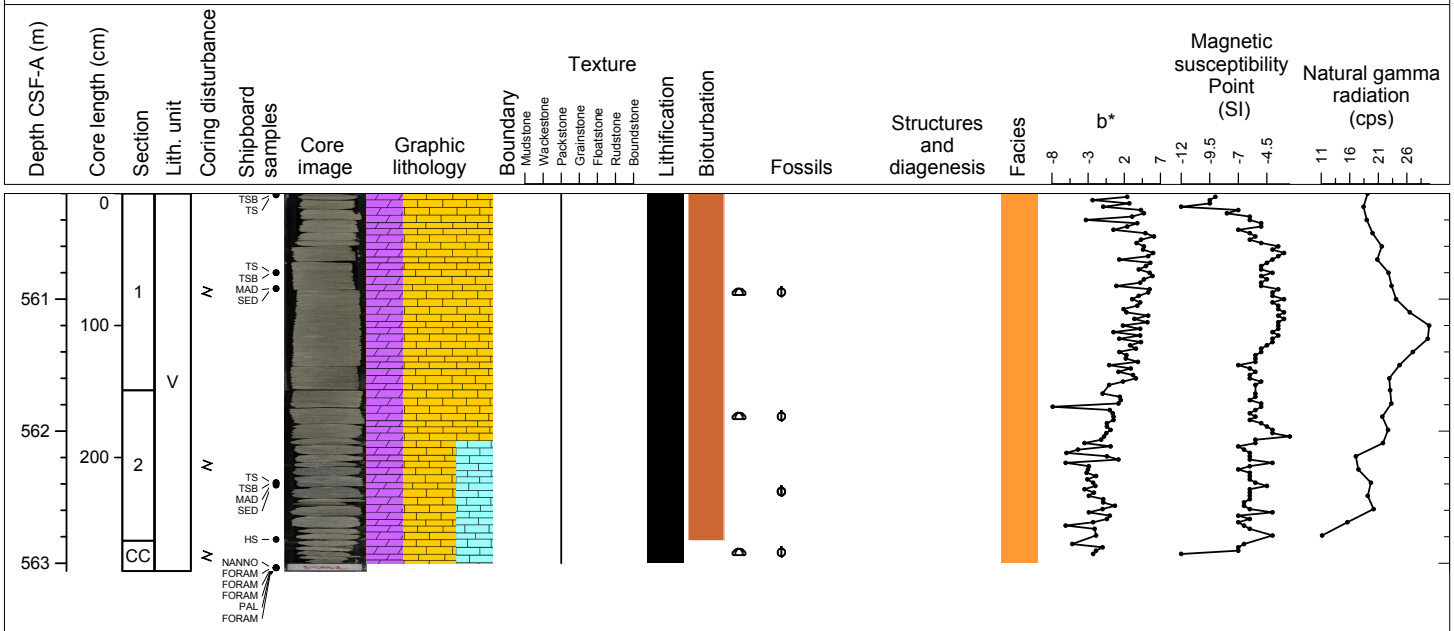
Hole 356-U1464C Core 27R, Interval 550.5-553.66 m (CSF-A)

Lithified, light gray, dolomitic, medium sand-sized, PACKSTONE with some darker gray WACKESTONE material and macrofossils.



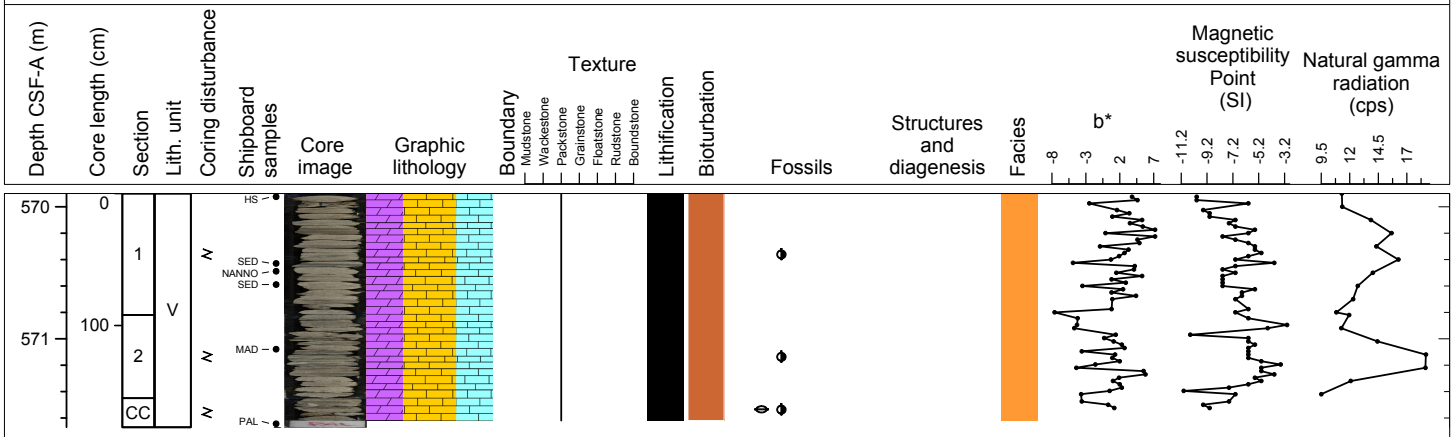
Hole 356-U1464C Core 28R, Interval 560.2-563.06 m (CSF-A)

Lithified, mottled, gray to beige, dolomitic, fine-grained, PACKSTONE with abundant large benthic foraminifers and common bioturbation. Grain size coarsens to medium sand-sized with depth, and the sediment contains some darker gray WACKESTONE material.



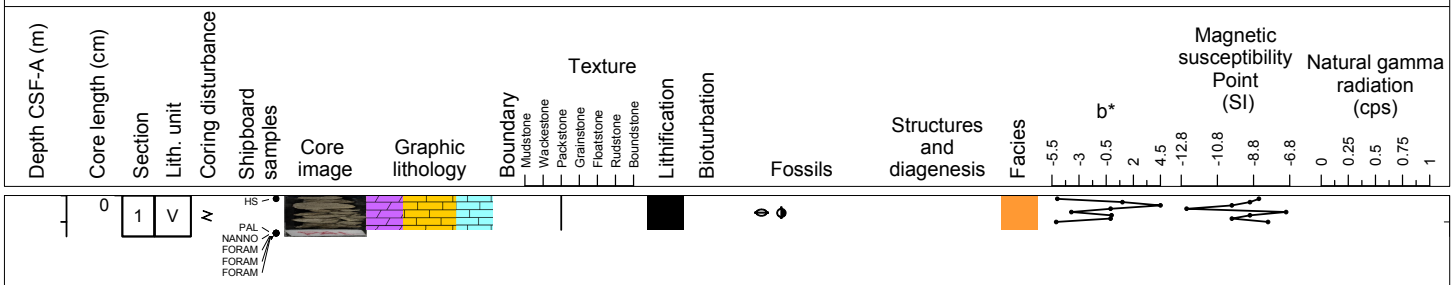
Hole 356-U1464C Core 29R, Interval 569.9-571.67 m (CSF-A)

Lithified, light brown to gray, medium sand-sized, skeletal, PACKSTONE with macrofossils and thin WACKESTONE laminations. The bottom contacts of the wackestone beds are characterized by sharp bioturbated boundaries.



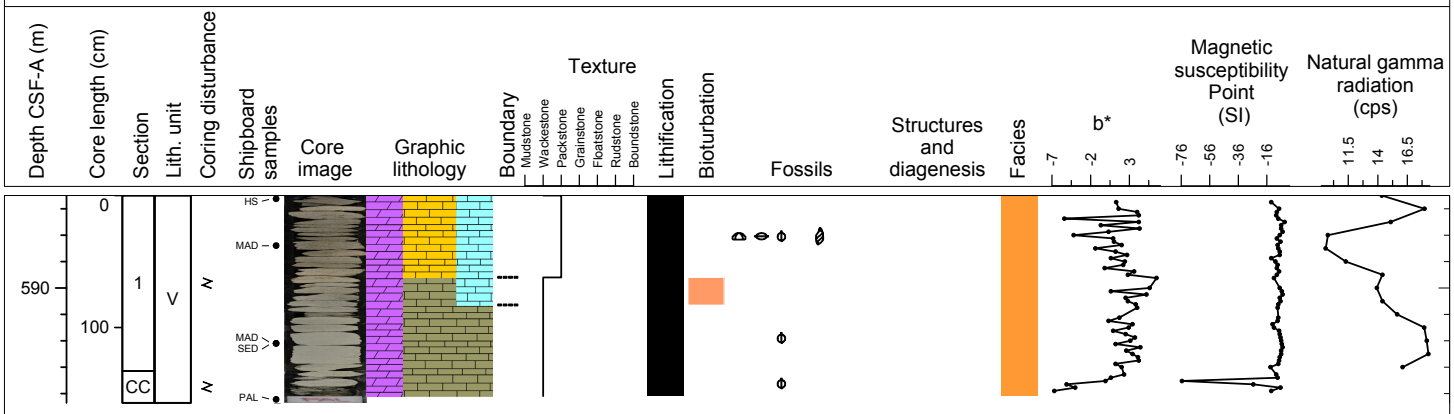
Hole 356-U1464C Core 30R, Interval 579.6-579.91 m (CSF-A)

Lithified, light brown, dolomitic, medium sand-sized, PACKSTONE with few macrofossils.



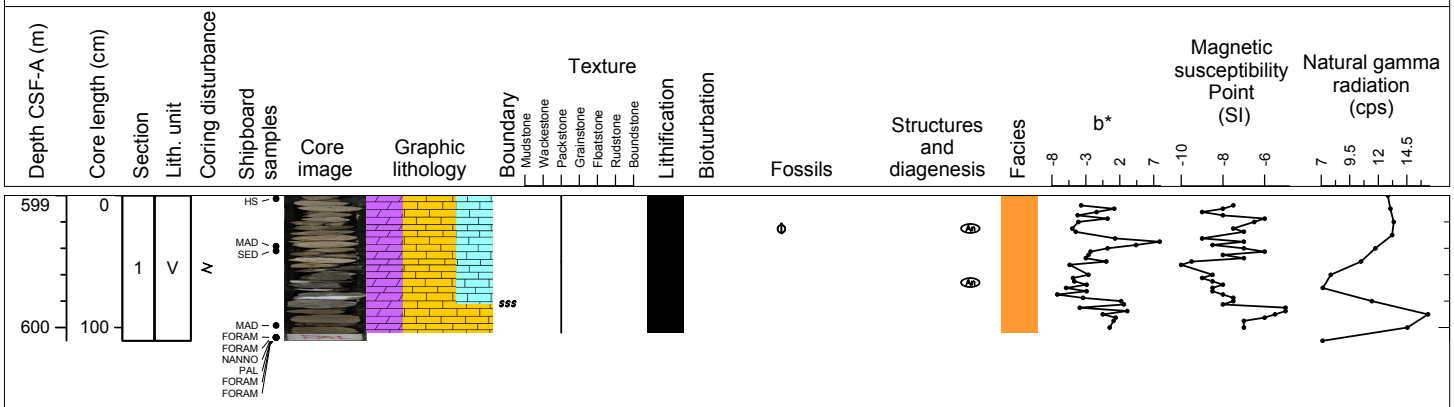
Hole 356-U1464C Core 31R, Interval 589.3-590.87 m (CSF-A)

Lithified, brown, dolomitic, PACKSTONE transitions to lithified, brown to beige, dolomitic, WACKESTONE. There is possible reverse-grading through the core. There are large benthic foraminifers, bivalves, gastropods, echinoderms, and macrofossil molds.



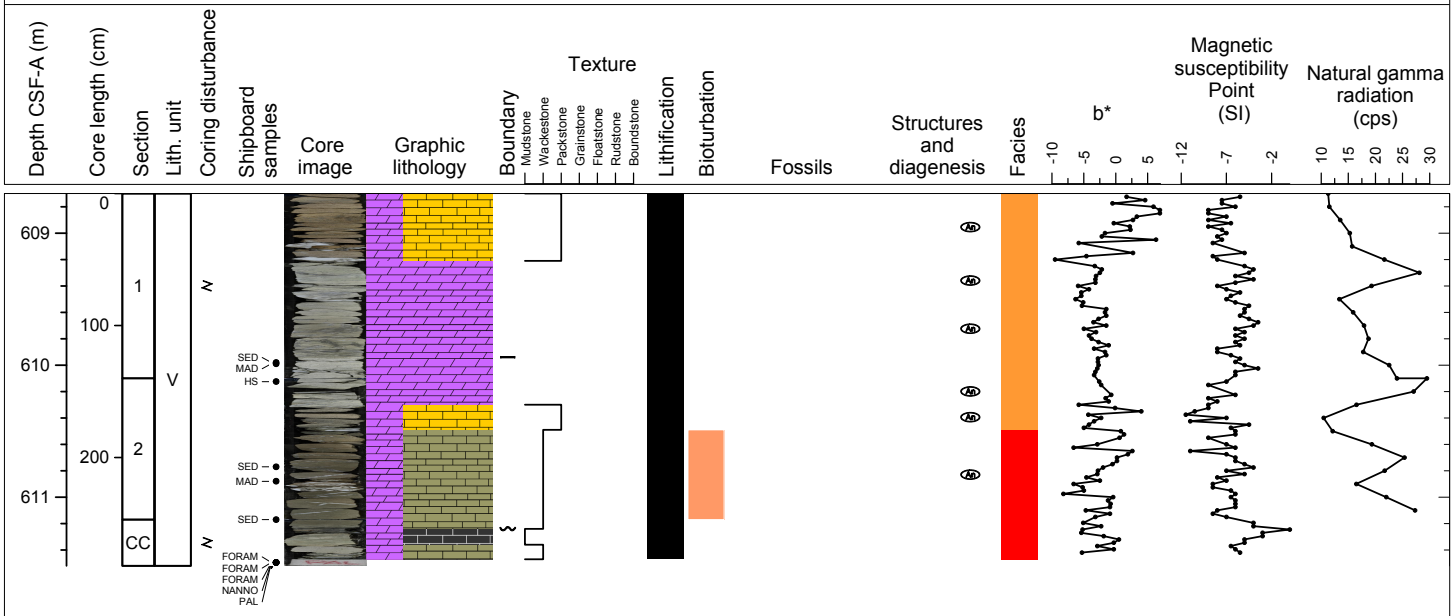
Hole 356-U1464C Core 32R, Interval 599.0-600.1 m (CSF-A)

Lithified, light to dark brown, dolomitic, medium sand-sized, PACKSTONE with macrofossils and molds and anhydrite nodules in the lower part of the core.



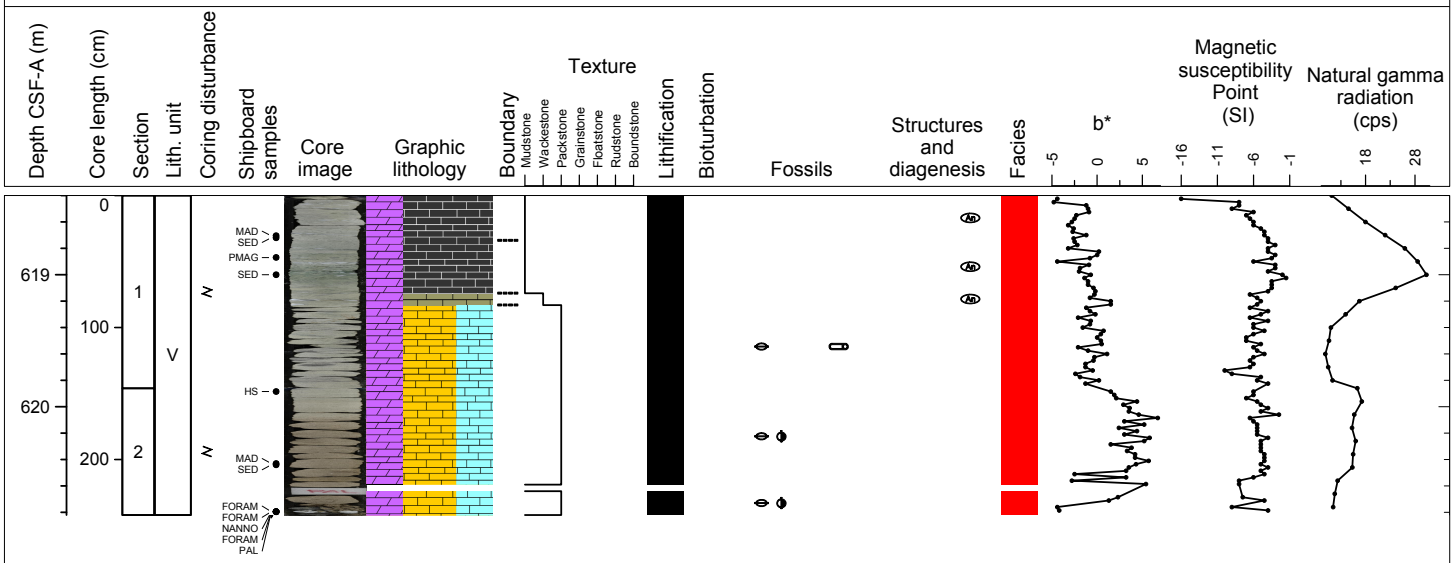
Hole 356-U1464C Core 33R, Interval 608.7-611.52 m (CSF-A)

Lithified, light brown to cream, DOLOSTONE underlain by lithified, dolomitic, MUDSTONE, WACKESTONE, and PACKSTONE that ranges in color (dark brown, dark grayish green, light green, black, beige) and contains abundant anhydrite crystals.



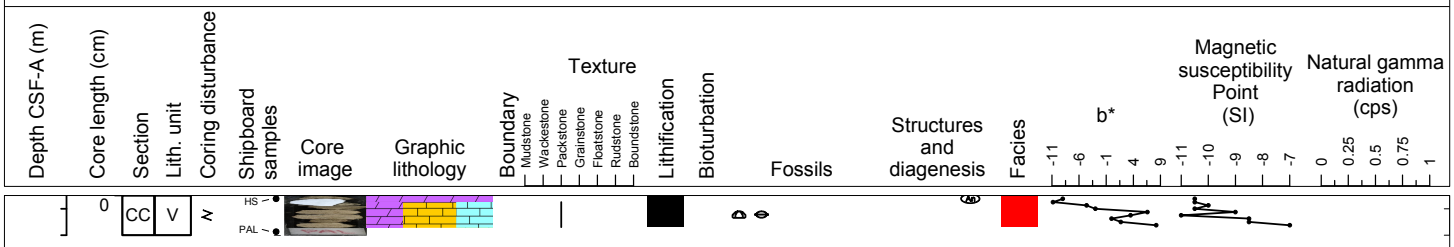
Hole 356-U1464C Core 34R, Interval 618.4-620.82 m (CSF-A)

Lithified, light green to green, dolomitic, MUDSTONE with anhydrite crystals and unidentified skeletal fragments transitions to lithified, light gray, dolomitic, skeletal, PACKSTONE with bivalves, small benthic foraminifers, and unidentifiable macrofossils.



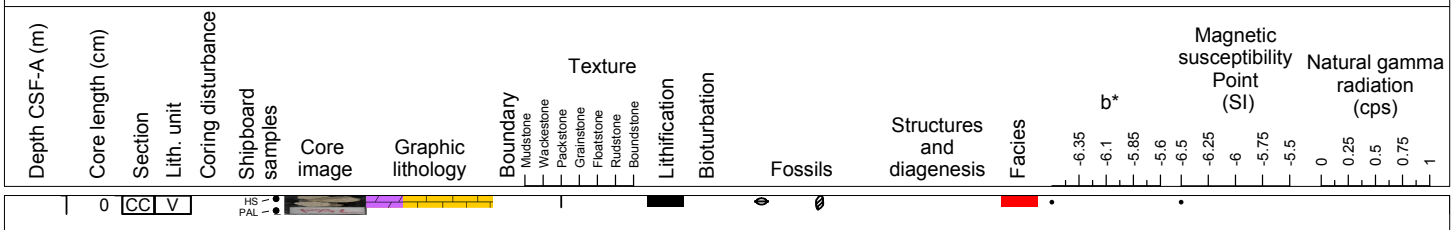
Hole 356-U1464C Core 35R, Interval 628.1-628.4 m (CSF-A)

Lithified, white DOLOSTONE underlain by lithified, orange, dolomitic, skeletal, PACKSTONE with abundant macrofossil molds (bivalves, echinoderm, and unidentified macrofossils).



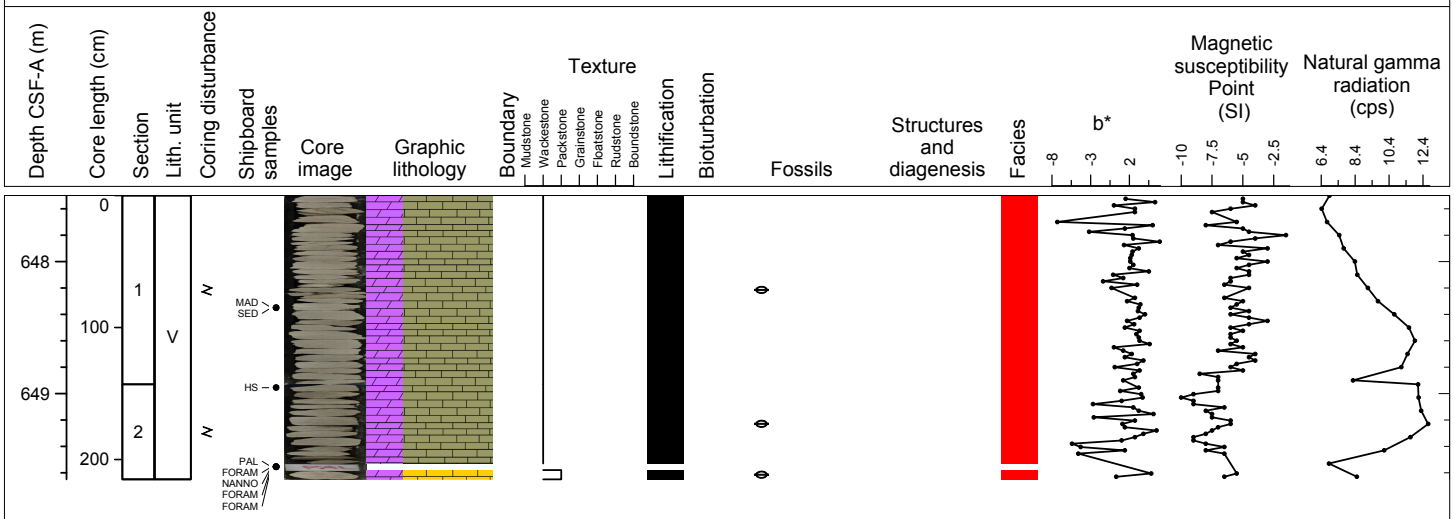
Hole 356-U1464C Core 36R, Interval 637.8-637.94 m (CSF-A)

Homogeneous, lithified, beige, dolomitic, PACKSTONE with abundant macrofossil molds (bivalves, gastropods, and unidentified macrofossils).



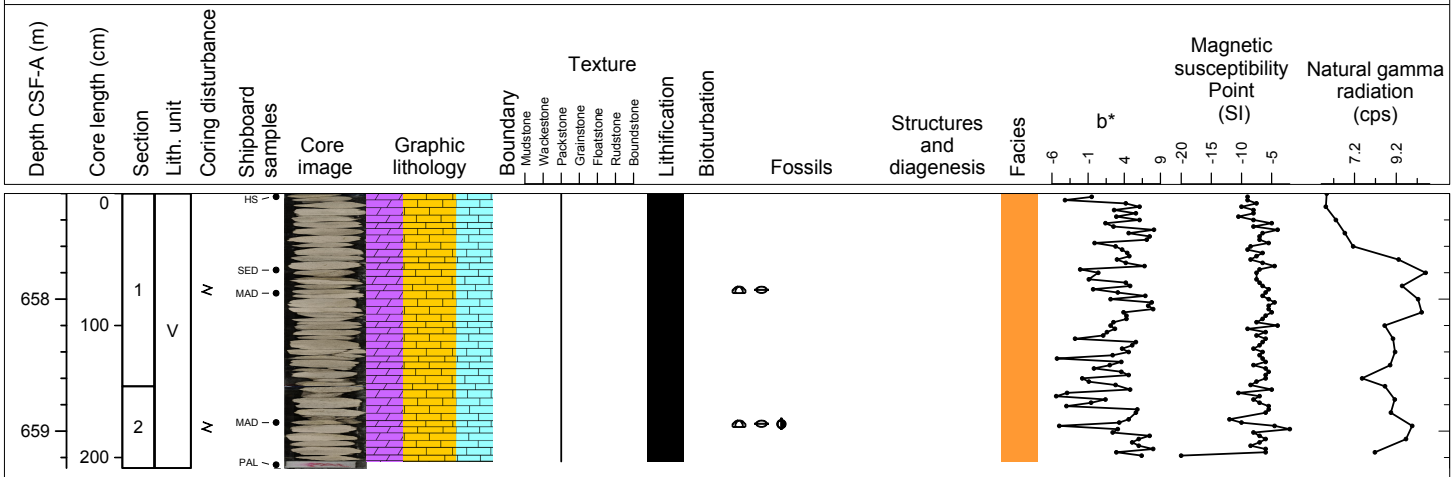
Hole 356-U1464C Core 37R, Interval 647.5-649.65 m (CSF-A)

Homogeneous, lithified, light gray, dolomitic, WACKESTONE to PACKSTONE with dark gray patches and sparse bivalve and unidentified macrofossil fragments.



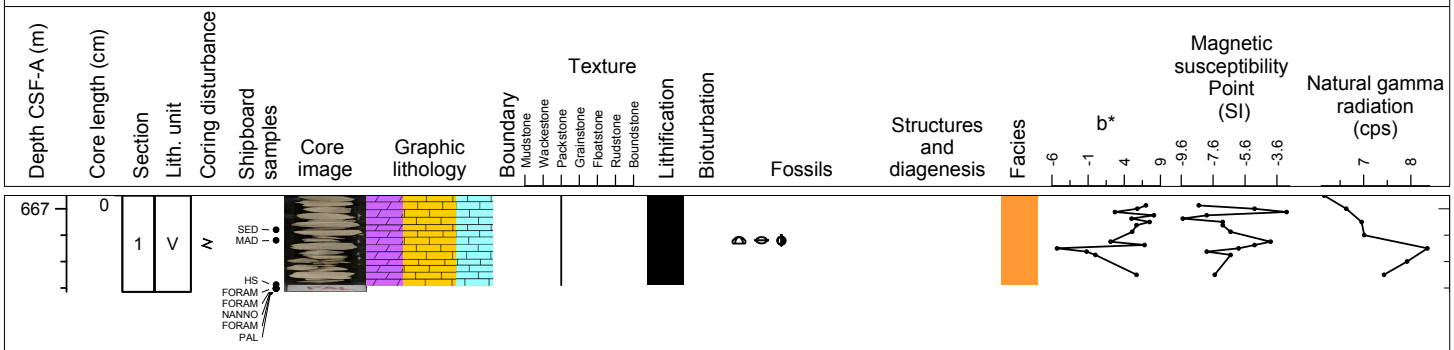
Hole 356-U1464C Core 38R, Interval 657.2-659.28 m (CSF-A)

Lithified, light brown, dolomitic, skeletal, PACKSTONE with abundant macrofossils, foraminifers, and unidentified macrofossils.



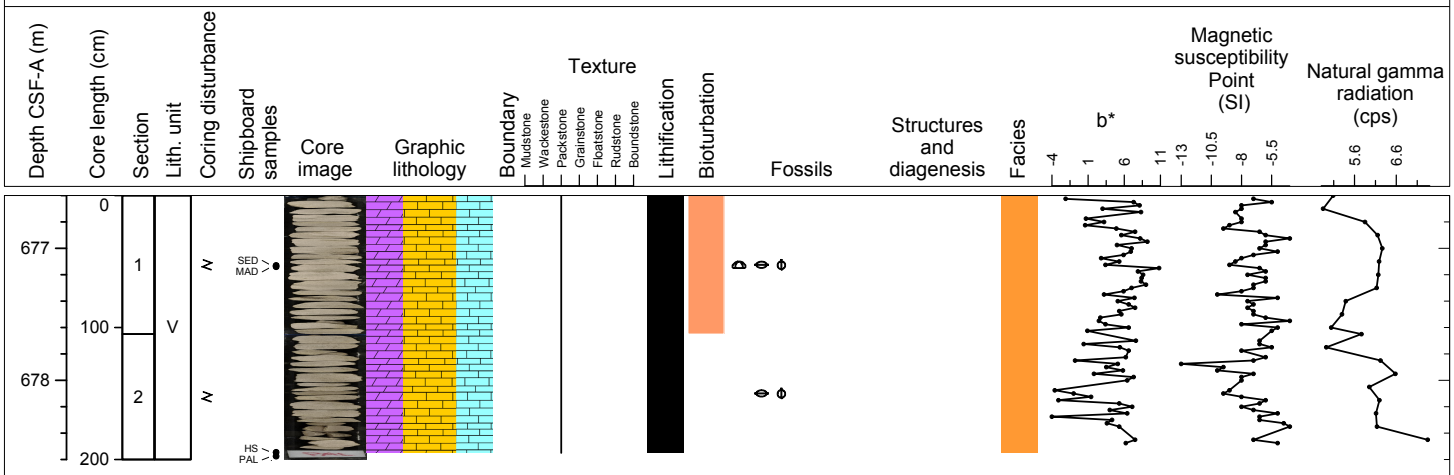
Hole 356-U1464C Core 39R, Interval 666.9-667.63 m (CSF-A)

Lithified, light brown, dolomitic, skeletal, PACKSTONE with abundant macrofossils, benthic foraminifers, and unidentified macrofossils.



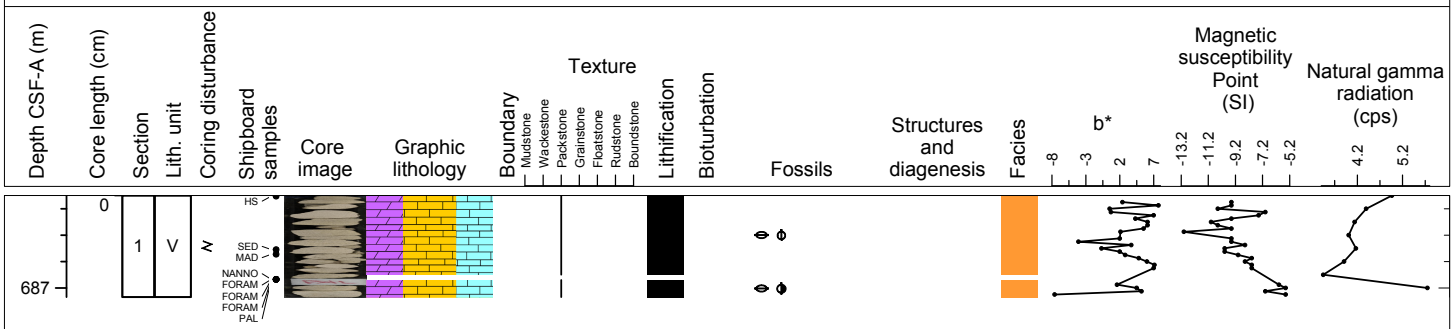
Hole 356-U1464C Core 40R, Interval 676.6-678.6 m (CSF-A)

Lithified, light brown, dolomitic, skeletal, PACKSTONE with abundant macrofossils, foraminifers, and unidentified macrofossils.



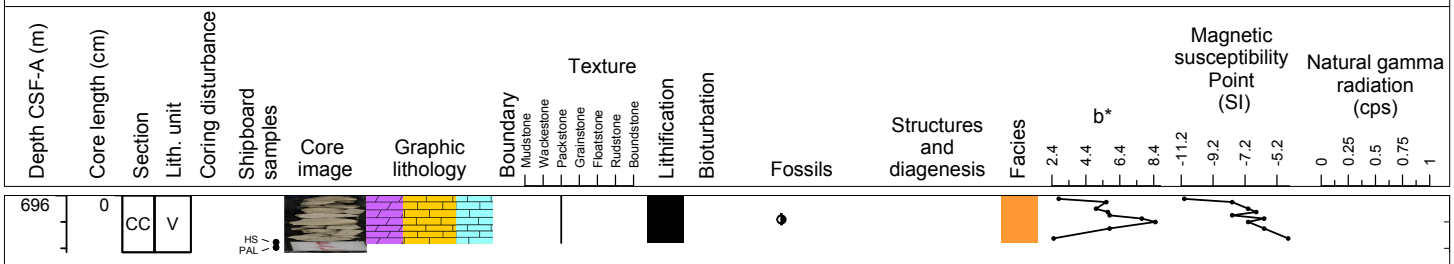
Hole 356-U1464C Core 41R, Interval 686.3-687.07 m (CSF-A)

Lithified, light brown, dolomitic, skeletal, PACKSTONE with abundant macrofossils, benthic foraminifers, and unidentified macrofossils.



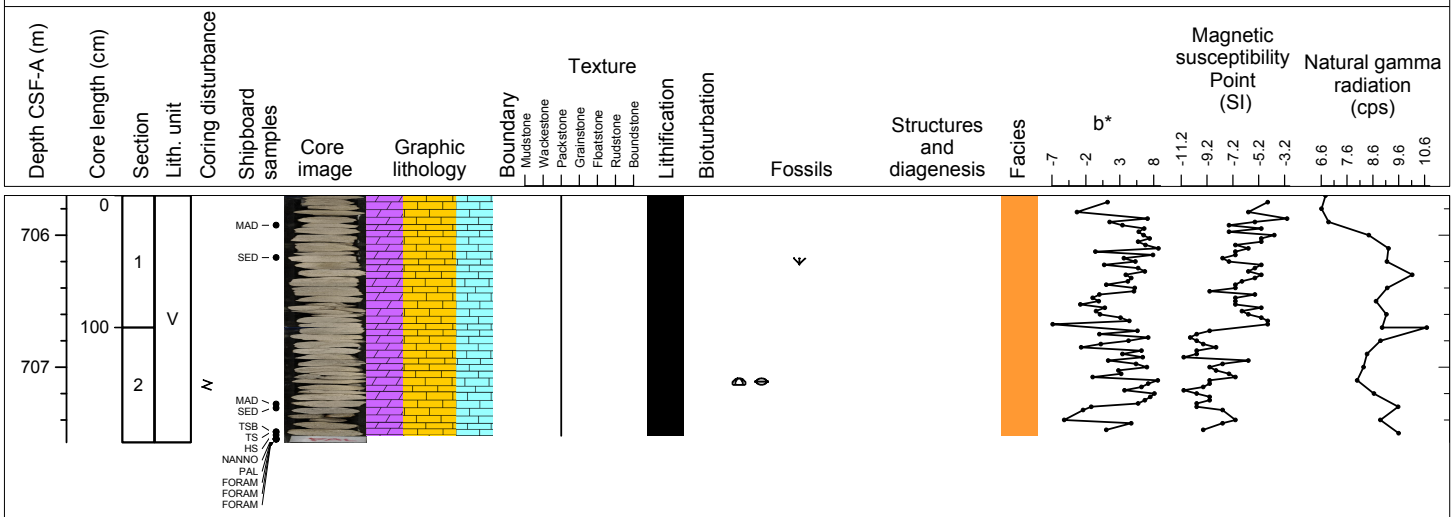
Hole 356-U1464C Core 42R, Interval 696.0-696.43 m (CSF-A)

Lithified, light brown, dolomitic, skeletal, PACKSTONE with abundant macrofossils, benthic foraminifers, and unidentified macrofossils.



Hole 356-U1464C Core 43R, Interval 705.7-707.57 m (CSF-A)

Lithified, light brown, dolomitic, skeletal, PACKSTONE with abundant macrofossils (bivalves and echinoderms), and unidentified macrofossils.

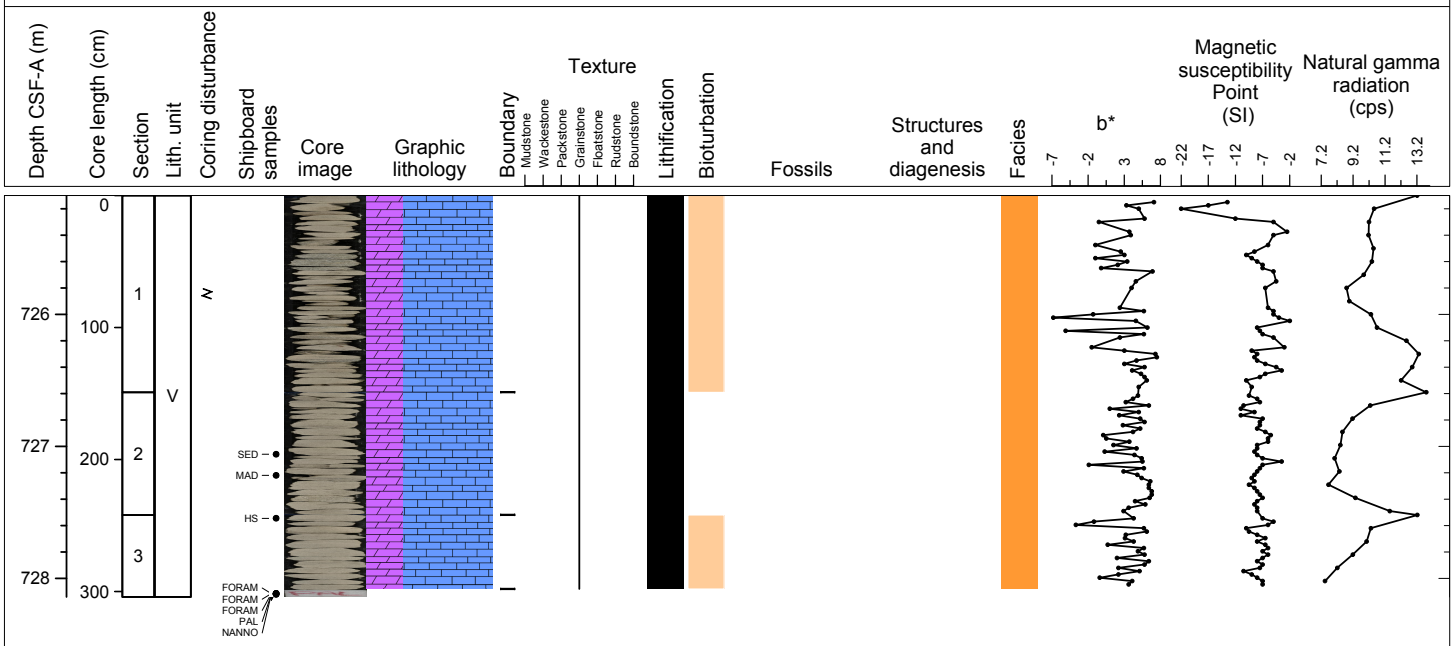


Hole 356-U1464C Core 44R, Interval 715.4-716.0 m (CSF-A)

Lithified, brown, dolomitic, medium to coarse sand-sized, PACKSTONE with green/black grains that are possibly glauconite and/or pyrite. Macrofossils include bivalve shell fragments, foraminifers and bryozoans but most are sand-sized and unidentifiable, possibly gastropod impressions. Some moldic porosity in the base of the Section 45-55 cm that is in-filled with light bluish gray material.

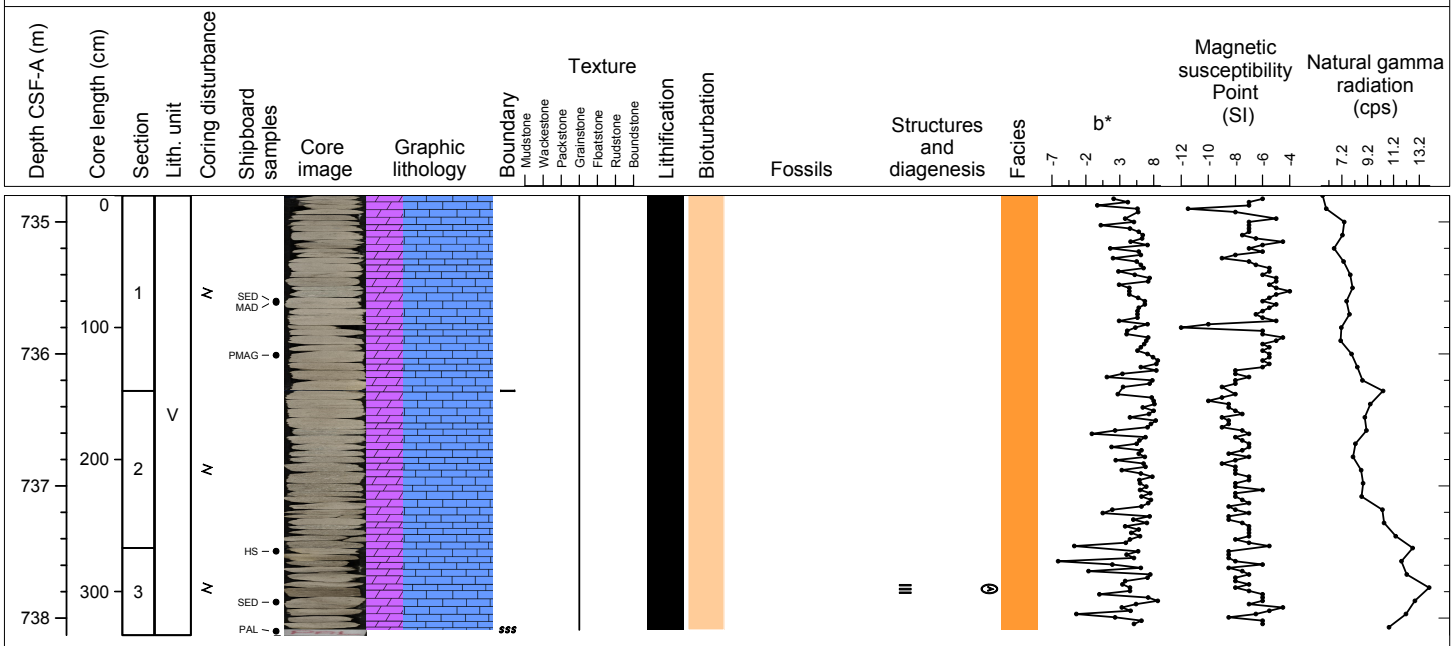
Hole 356-U1464C Core 45R, Interval 725.1-728.14 m (CSF-A)

Lithified, light brown, dolomitic, very fine sand-sized, GRAINSTONE. Near the top of the core, the dolomitic GRAINSTONE is interbedded with dark greenish gray GRAINSTONE with coarse sand-size grains, abundant macrofossils, and green/ black grains. These beds have sharp contacts. Macrofossils include bivalves, foraminifers, Cycloclypeus, bryozoans, abundant large and small foraminifers, urchin spines and others not identified. Some bivalves are replaced by gypsum.



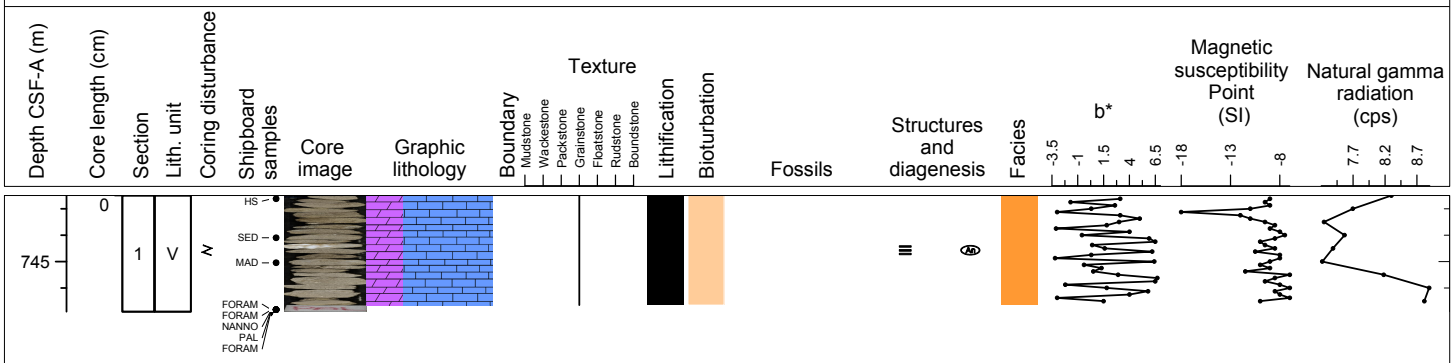
Hole 356-U1464C Core 46R, Interval 734.8-738.13 m (CSF-A)

Lithified, light brown, dolomitic, fine to medium sand-sized, GRAINSTONE with beds of coarse-sand grains with sharp and gradational contacts. Glauconite and macrofossils (foraminifers, echinoderms, Cycloclypeus, bryozoans, and bivalves) are replaced by gypsum. There is slight bioturbation, and burrows are in-filled with coarse sand-size grains. Parallel laminae and moldic porosity occur near the base of the core.



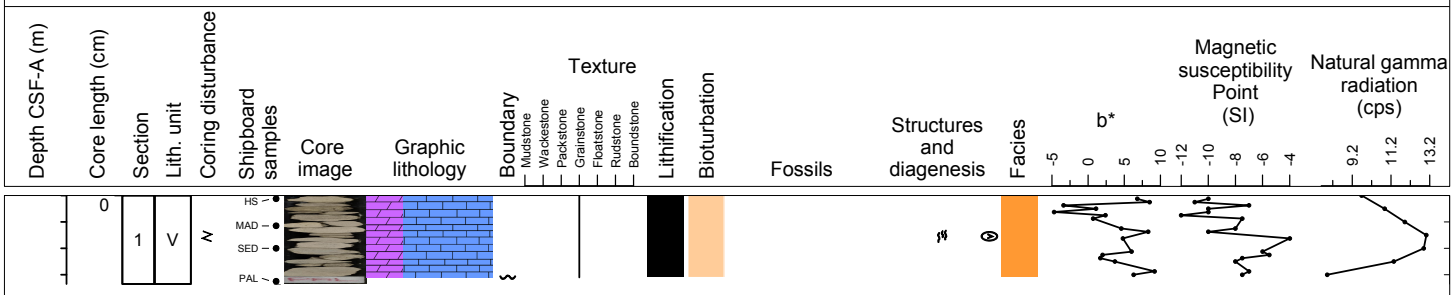
Hole 356-U1464C Core 47R, Interval 744.5-745.38 m (CSF-A)

Lithified, brown dolomitic, coarse sand-sized, GRAINSTONE with abundant macrofossils (solitary, massive, branching and encrusting corals; Cyclopypeus; shell fragments; bryozoans; echionderms; and coralline algae), lithoclasts (glauconite), anhydrite nodules and chickenwire structure. There are very faint laminations, but moldic porosity is common. Burrows are filled with glauconite and gypsum.



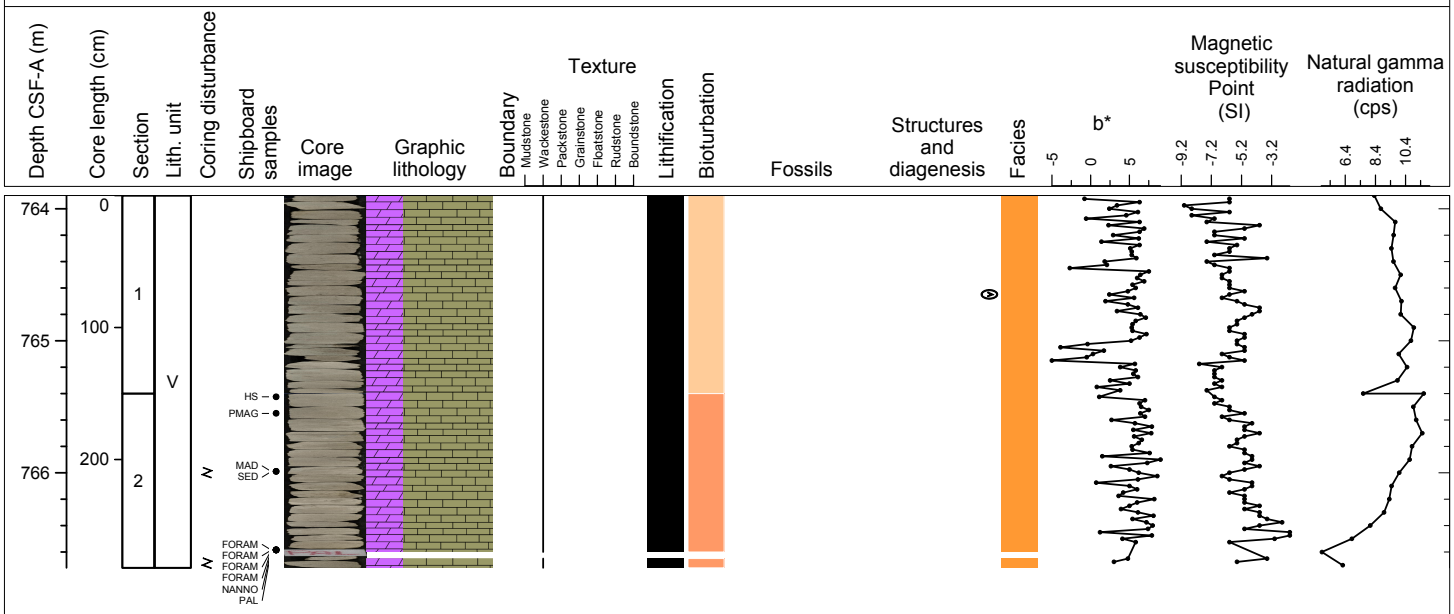
Hole 356-U1464C Core 48R, Interval 754.2-754.87 m (CSF-A)

Lithified, light brown, dolomitic, fine sand-sized, GRAINSTONE with intervals of coarse sand-size grains. Moldic porosity is common. Glauconite occurs as disseminated grains and concentrated in burrows. There is some replacement of shells by gypsum. Macrofossils include abundant foraminifers, bryozoans, and occasional bivalve fragments.



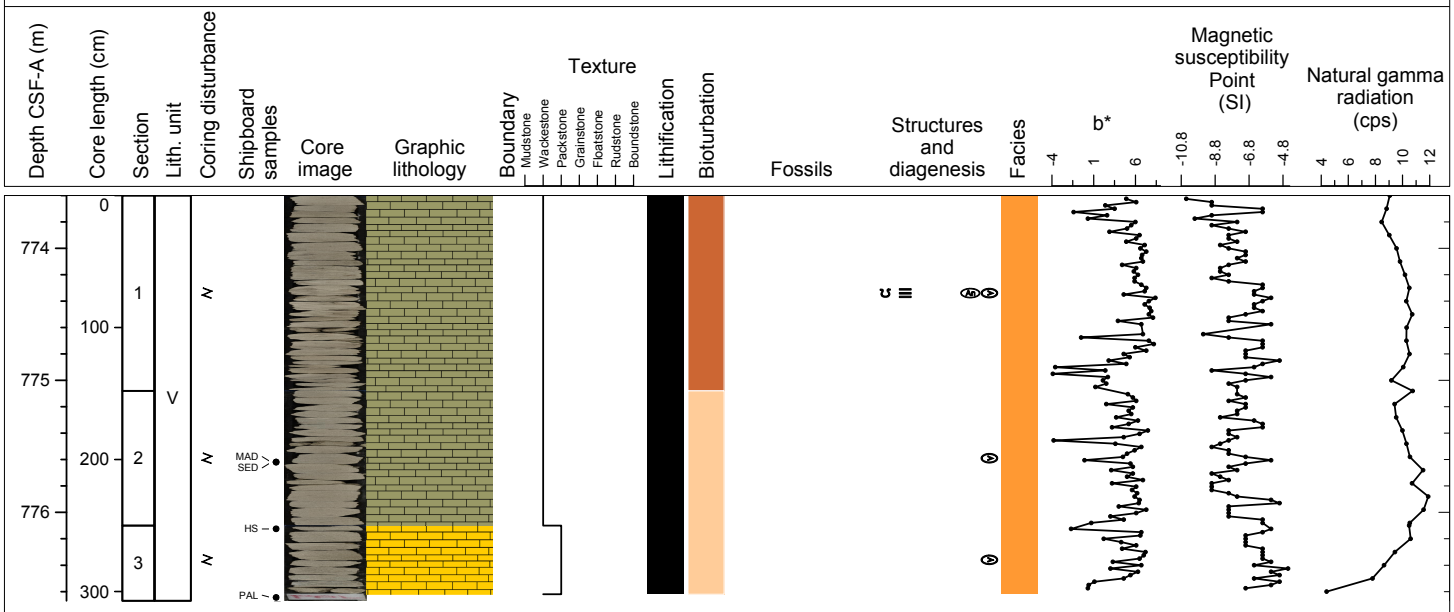
Hole 356-U1464C Core 49R, Interval 763.9-766.72 m (CSF-A)

Lithified, light brown, dolomitic, very fine sand-sized, WACKESTONE with common bioturbation. Burrows are large and filled with gypsum in some places. Macrofossils include benthic foraminifers, sparse bryozoans, and bivalve fragments.



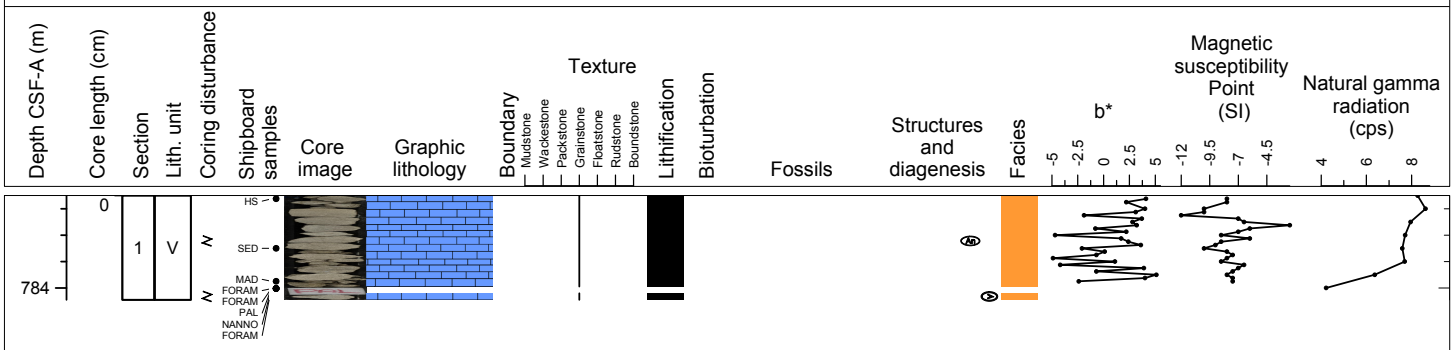
Hole 356-U1464C Core 50R, Interval 773.6-776.67 m (CSF-A)

Lithified, light brown, very fine to medium sand-sized, WACKESTONE to PACKSTONE. Bioturbation is common and burrows sometimes contain gypsum. In Section 1 there are parallel laminations and load casts. Macrofossils throughout the core include benthic foraminifers, bryozoans, and bivalves. There are also occasional gypsum nodules, glauconite grains (near the base of the core), and sharp contacts (coarser sand-size grains).



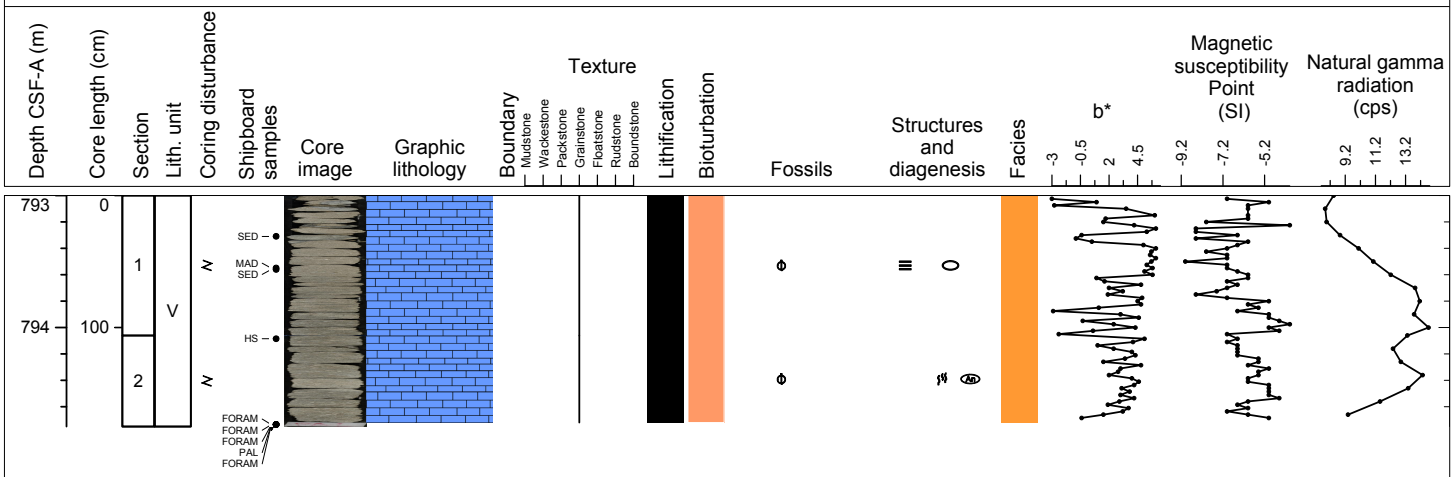
Hole 356-U1464C Core 51R, Interval 783.3-784.09 m (CSF-A)

Lithified, light grayish-brown to light brown, coarse sand-sized, GRAINSTONE with relatively higher porosity than the above cores. Glauconite grains are common and macrofossils (benthic foraminifers, Cycloclypeus, bivalves, and bryozoans) are abundant. The GRAINSTONE is dark brown towards the base of the core where there is also gypsum replacement of shells (mm sacle) and grains replaced by bright grayish blue mineral (anhydrite).



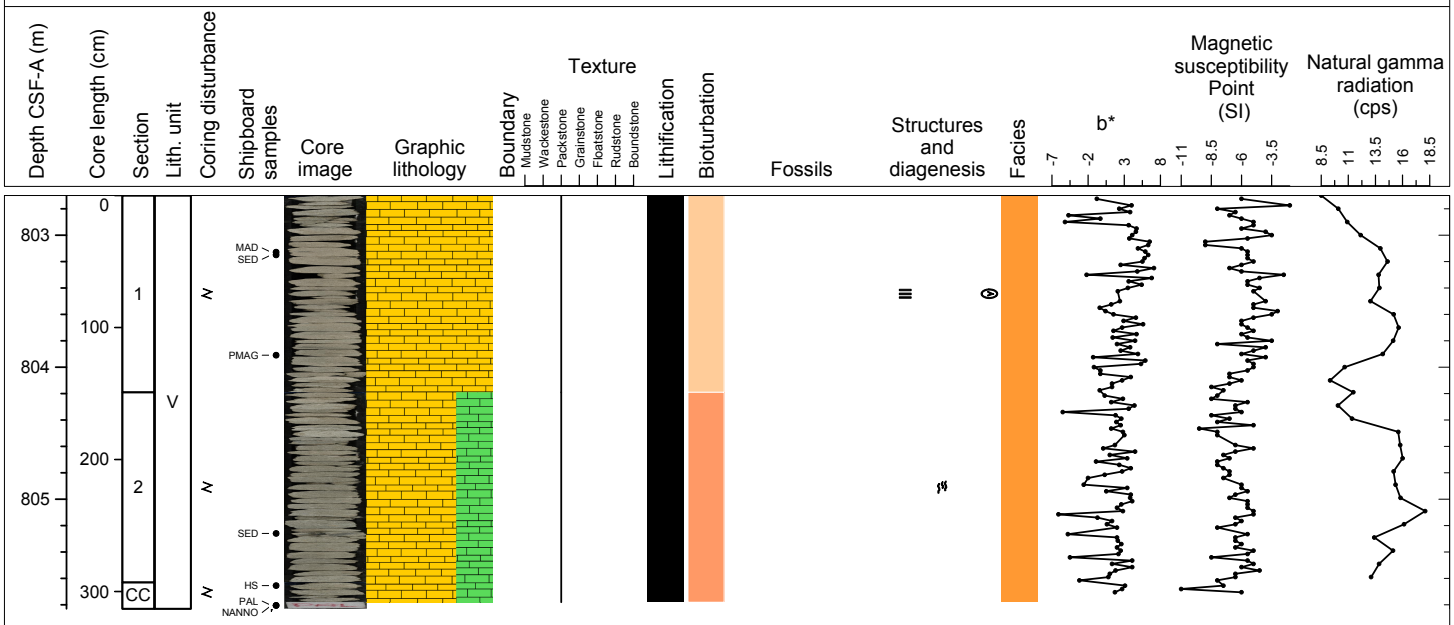
Hole 356-U1464C Core 52R, Interval 793.0-794.75 m (CSF-A)

Lithified, light brown, medium to coarse sand-sized, GRAINSTONE with common bioturbation, laminated and possibly thinly-bedded intervals, and abundant macrofossils (foraminifers, Cylcoclypeous, bivalves, and bryozoans). There are light bluish-gray concretions - anhydrite? Gypsum is more common towards the base of the core. Moldic porosity/small cavities are present.



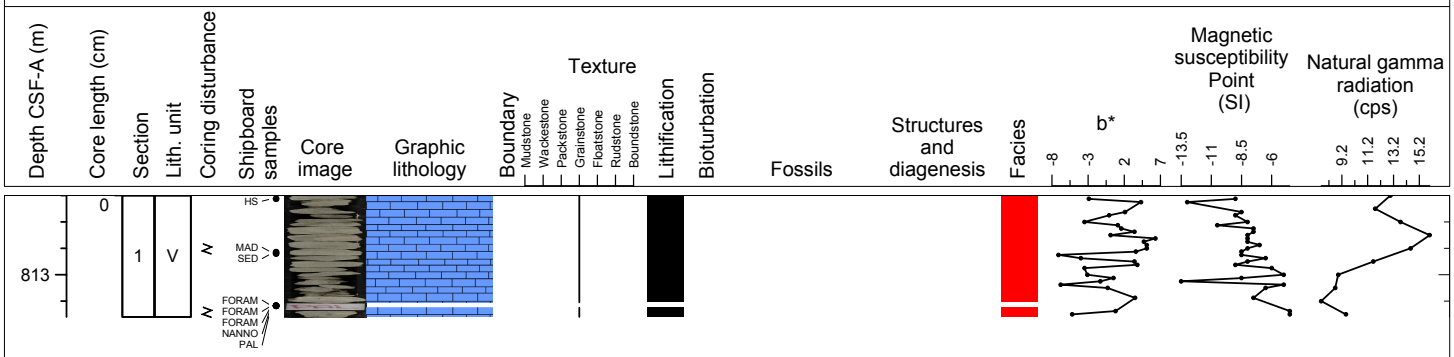
Hole 356-U1464C Core 53R, Interval 802.7-805.83 m (CSF-A)

Lithified, light brown to light greenish-gray, medium sand-sized, PACKSTONE with slight bioturbation, laminated and possibly thinly-bedded intervals (containing light grayish blue material as shell replacement), and macrofossils (foraminifers, Cylcoclypeous, bryozoans, bivalves and gastropods). Shells are mainly white in most of the Section except near the top where some are brown and possibly replaced by gypsum. Glauconite increases with depth, appearing when color changes to light greenish gray; Cycloclypeus is less abundant in the light greenish gray interval.



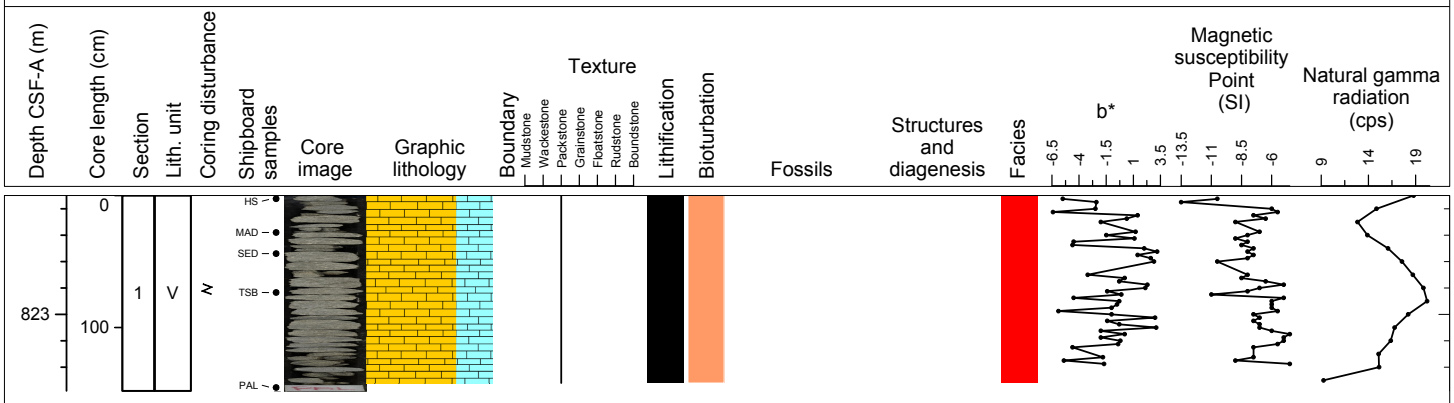
Hole 356-U1464C Core 54R, Interval 812.4-813.32 m (CSF-A)

Lithified, light brown, fine sand-sized, GRAINSTONE with sparse benthic foraminifers, bryozoans and bivalve fragments.



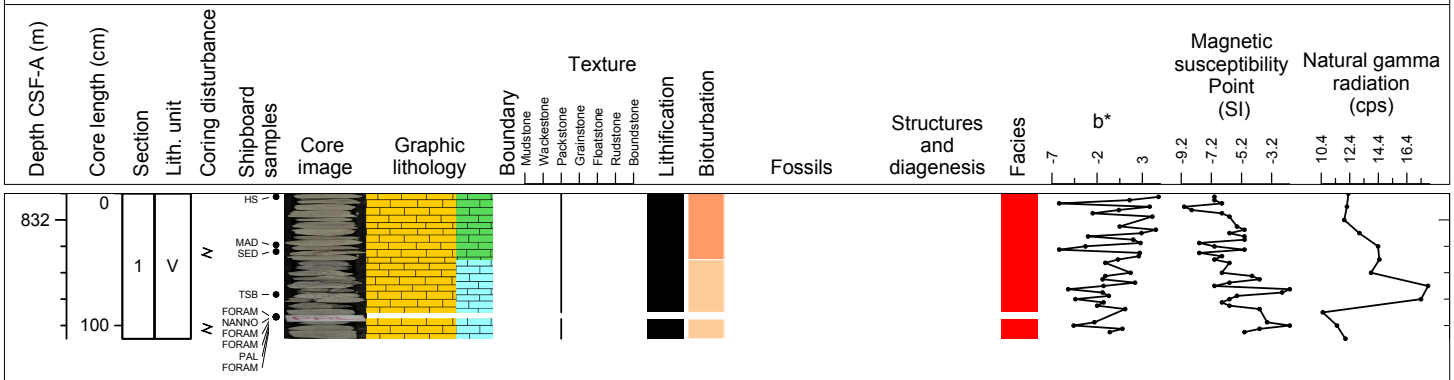
Hole 356-U1464C Core 55R, Interval 822.1-823.58 m (CSF-A)

Lithified, light greenish gray, medium sand-sized, PACKSTONE with abundant bryozoansns, a few foraminifers (including Cycloclypeus), bivalve fragments and urchin spines. Going down core, the grain size fines to fine sand-size and glauconite content increases.



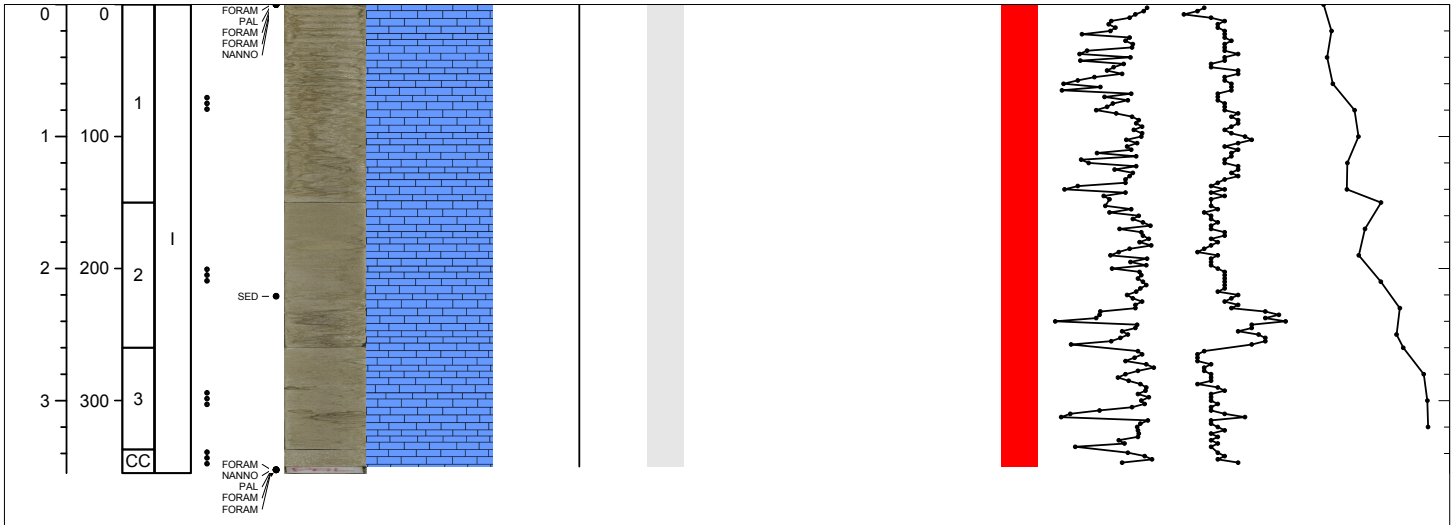
Hole 356-U1464C Core 56R, Interval 831.8-832.9 m (CSF-A)

Lithified, light brown, PACKSTONE with glauconite transitions to lithified, gray, sand-sized, PACKSTONE with abundant bryozoans, a few foraminifers (including Cycloclypeus), bivalve fragments and a tube.



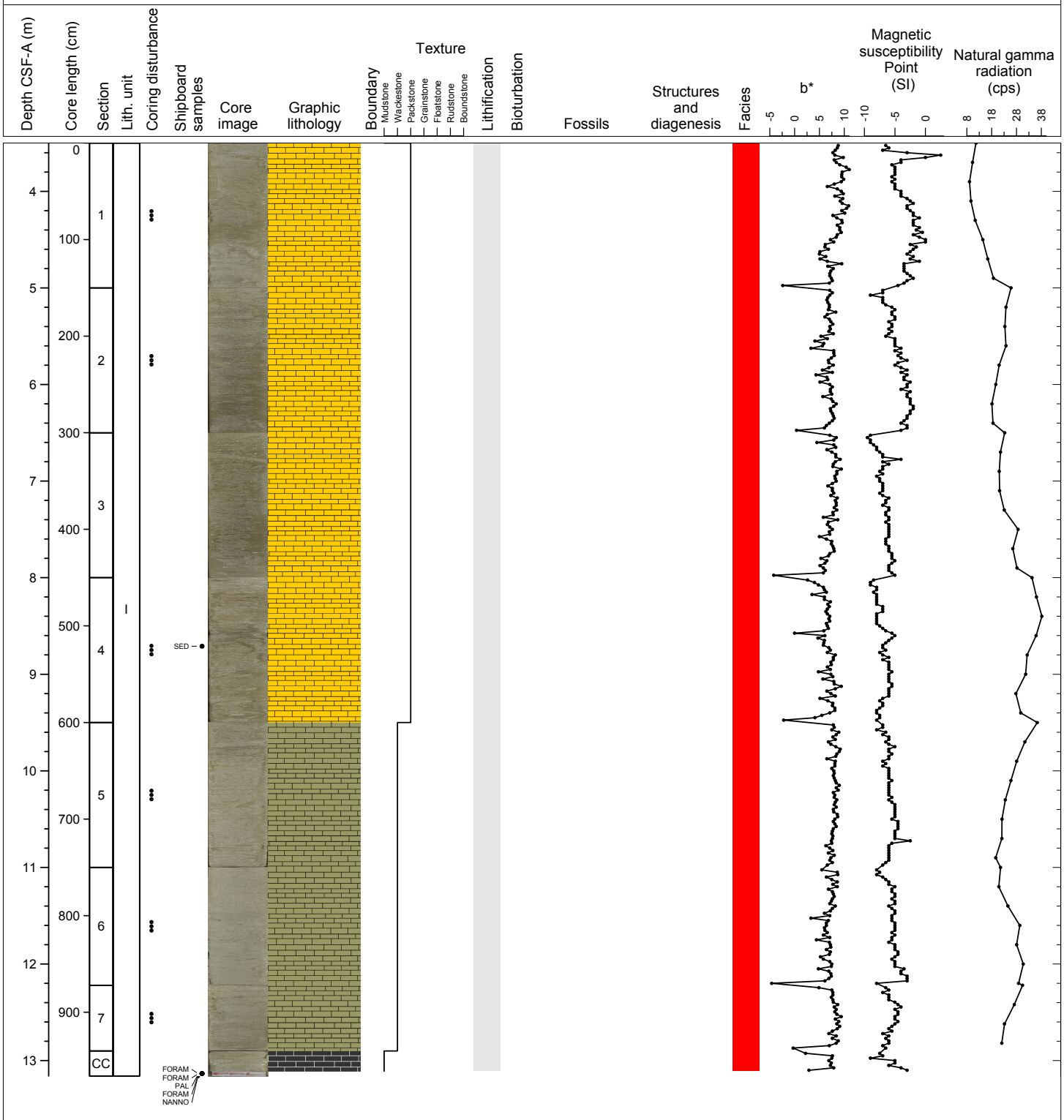
Hole 356-U1464D Core 1H, Interval 0.0-3.55 m (CSF-A)

Unlithified, light brownish-gray, fine to medium sand-sized, GRAINSTONE. Grains include very fine sand-size black grains and carbonate material. Macrofossils are sand sized and include urchin spines, foraminifers, larger pteropods, and solitary coral.



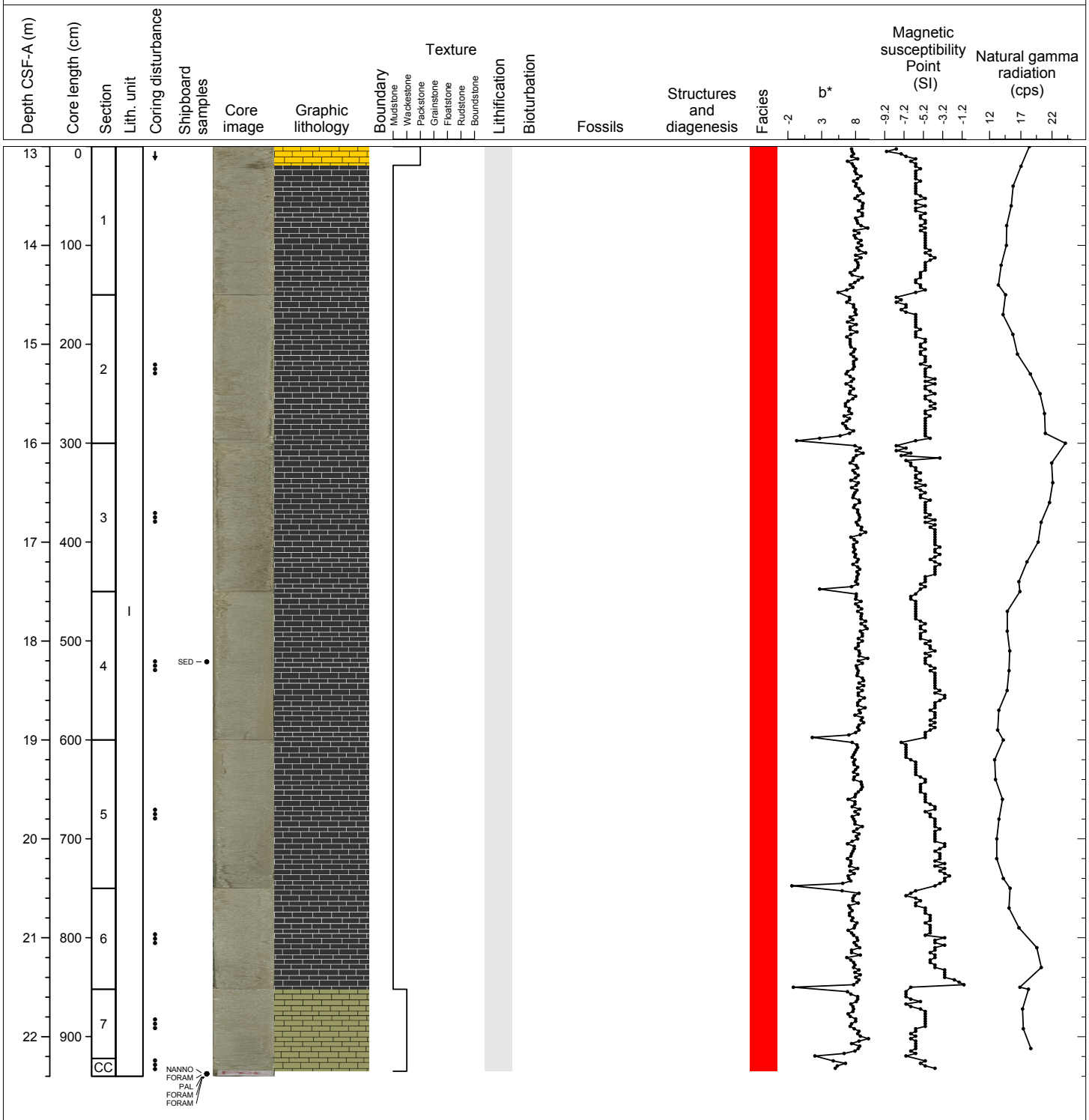
Hole 356-U1464D Core 2H, Interval 3.5-13.16 m (CSF-A)

Unlithified, light brownish gray to grayish brown, fine sand to medium sand-sized, PACKSTONE with abundant black and carbonate grains (very fine sand-size). Macrofossils include bivalves, pteropods, foraminifers, urchin spines, and solitary coral. In the lower part of the core, the PACKSTONE transitions to WACKESTONE with fine sand to sand-size grains, common sand-size black grains, and bivalve fragments. At the base of the core the WACKESTONE becomes creamy gray and transitions to MUDSTONE.



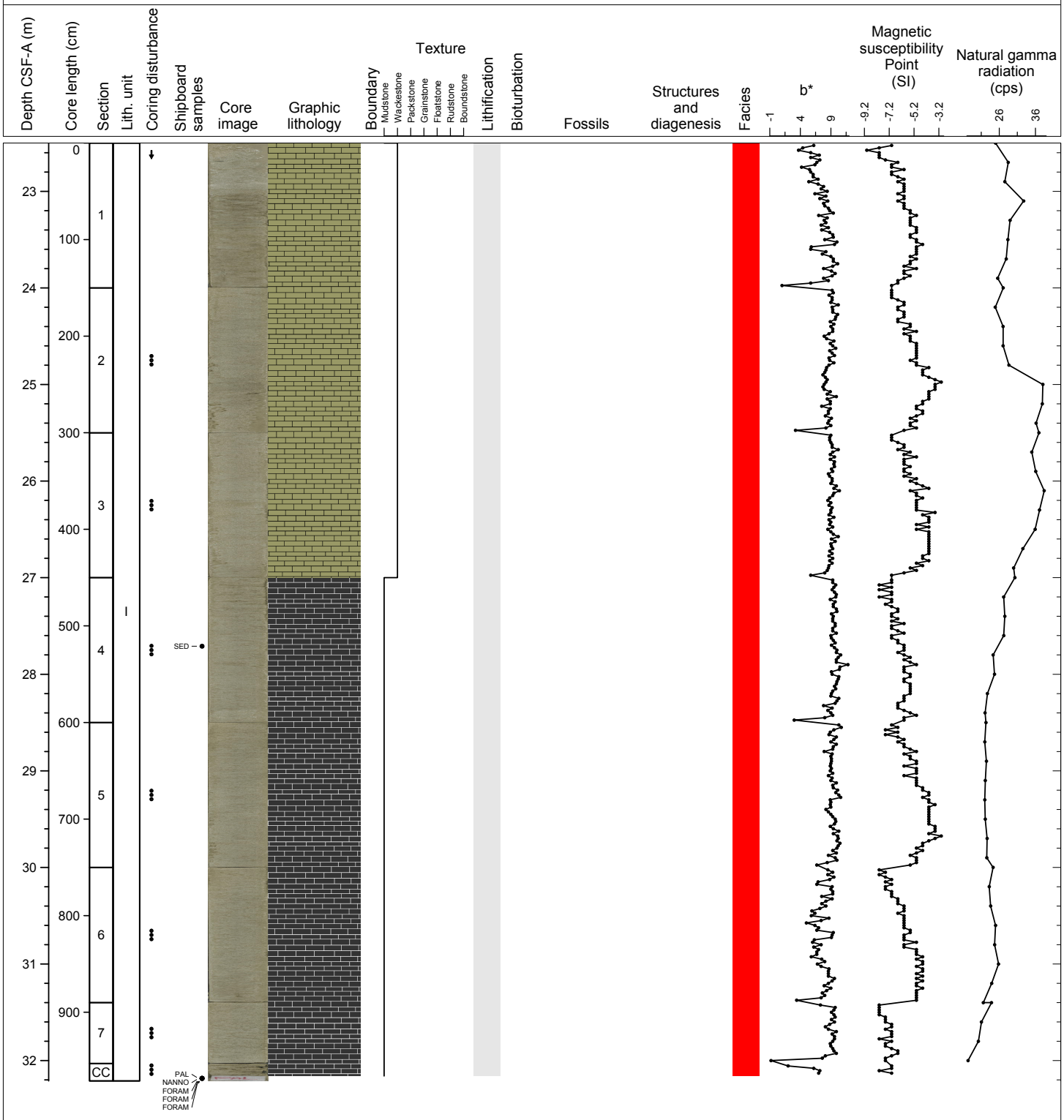
Hole 356-U1464D Core 3H, Interval 13.0-22.4 m (CSF-A)

Unlithified, light brown, PACKSTONE (fall-in) with sand, coarse sand and granule size-grains and abundant macrofossils (gastropods, bivalves, scaphopods). Below the packstone, there is homogeneous, unlithified, creamy gray, very fine sand-sized, MUDSTONE with very sparse bivalve fragments. Near the base of the core, the MUDSTONE changes to homogeneous, unlithified, light brown, sand-sized, WACKESTONE with bivalve fragments, and benthic foraminifers.



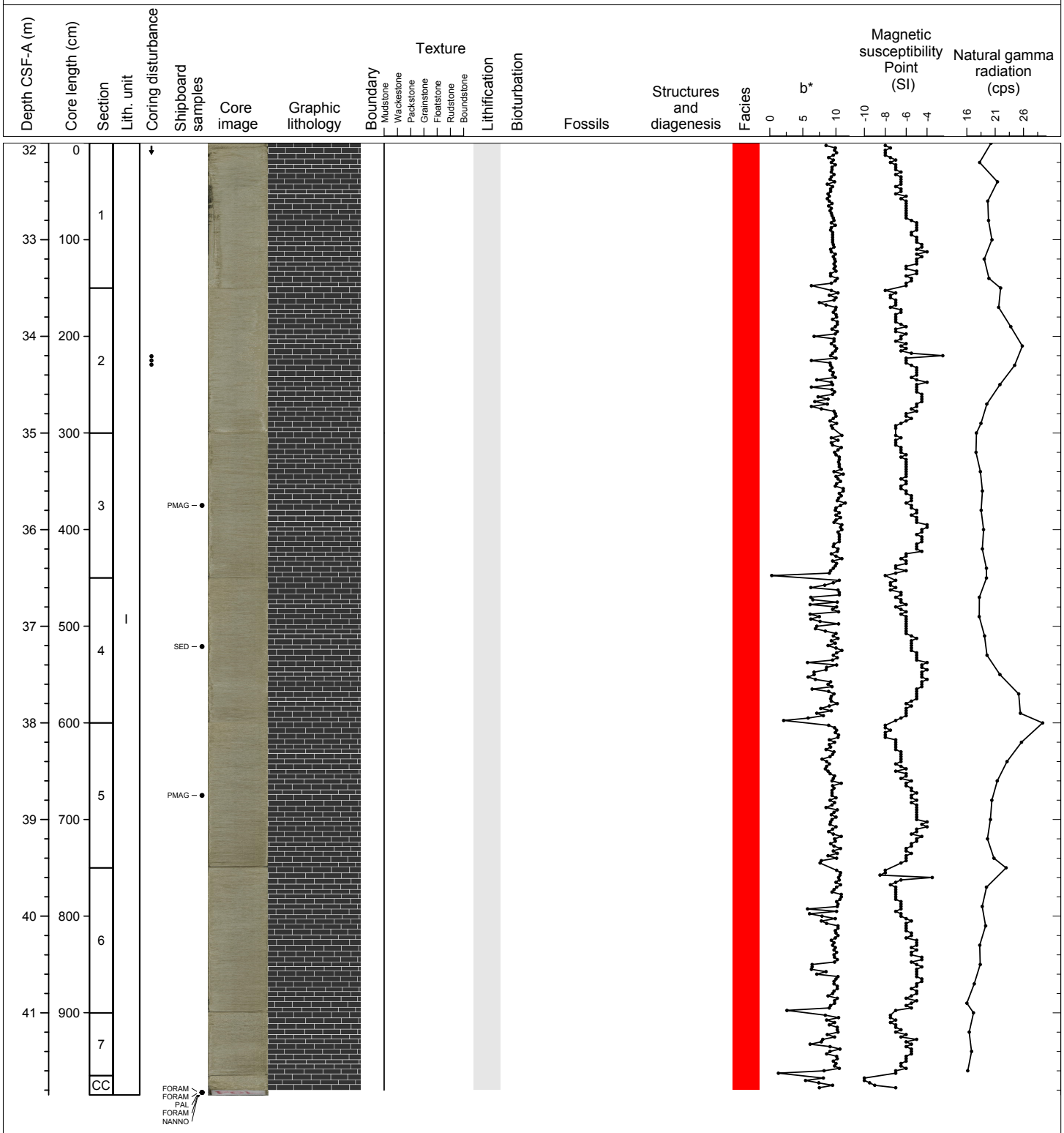
Hole 356-U1464D Core 4H, Interval 22.5-32.21 m (CSF-A)

Unlithified, light brown, WACKESTONE with sand, coarse sand and gravel size grains and abundant macrofossils (bivalves, gastropods, scaphopods, and benthic foraminifers). Sand-sized black grains are also common. Wackestone transitions to homogeneous, unlithified, creamy gray, very fine sand-sized, MUDSTONE.



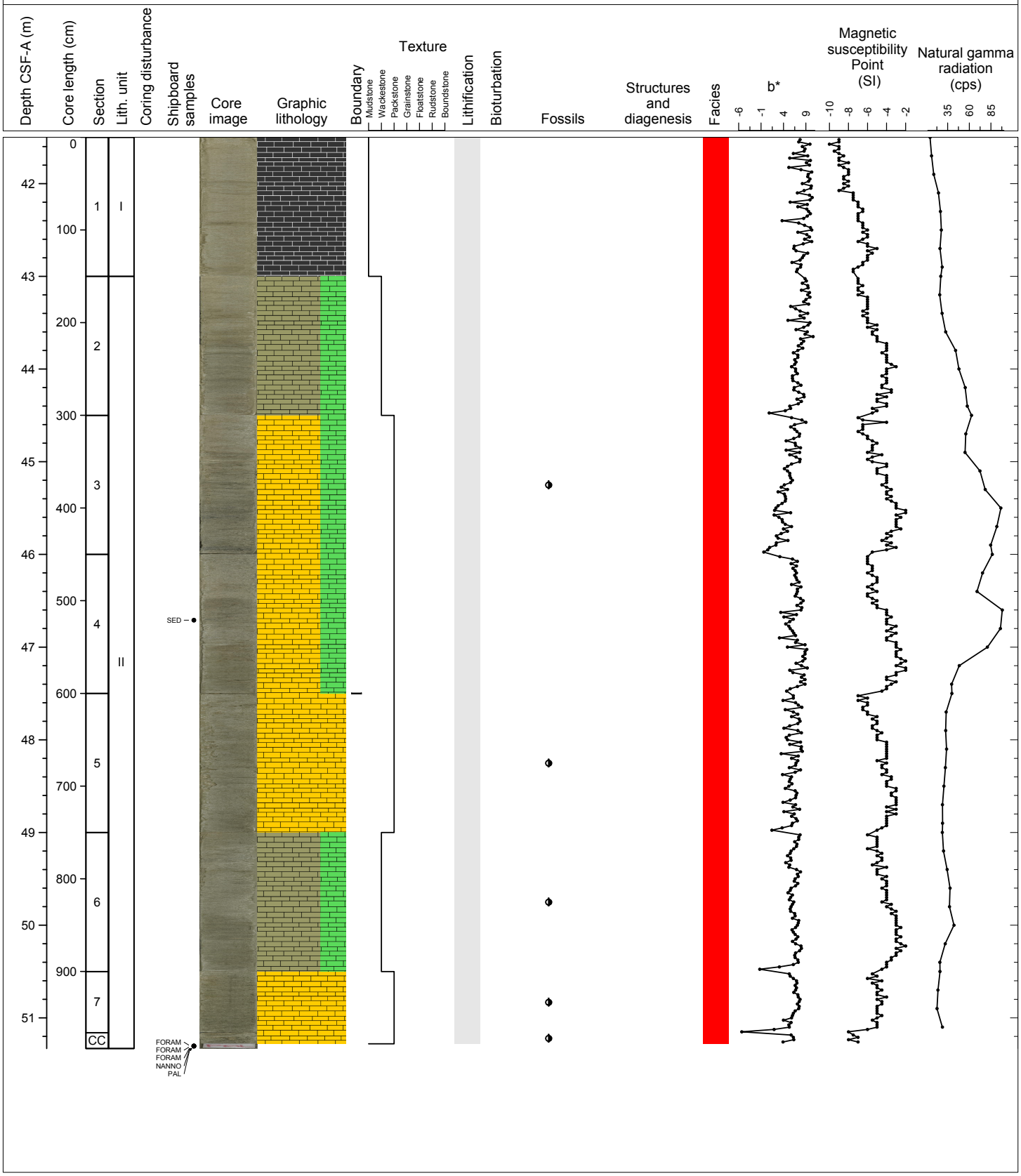
Hole 356-U1464D Core 5H, Interval 32.0-41.85 m (CSF-A)

Homogeneous, unlithified, creamy gray, MUDSTONE with sand and granule size grains near the top of the core and very fine to fine sand-size grains through the majority of the core. There are sparse fragments of bivalves, gastropods, scaphopods, and Cibicidoides foraminifers. There is also a possible cemented burrow.



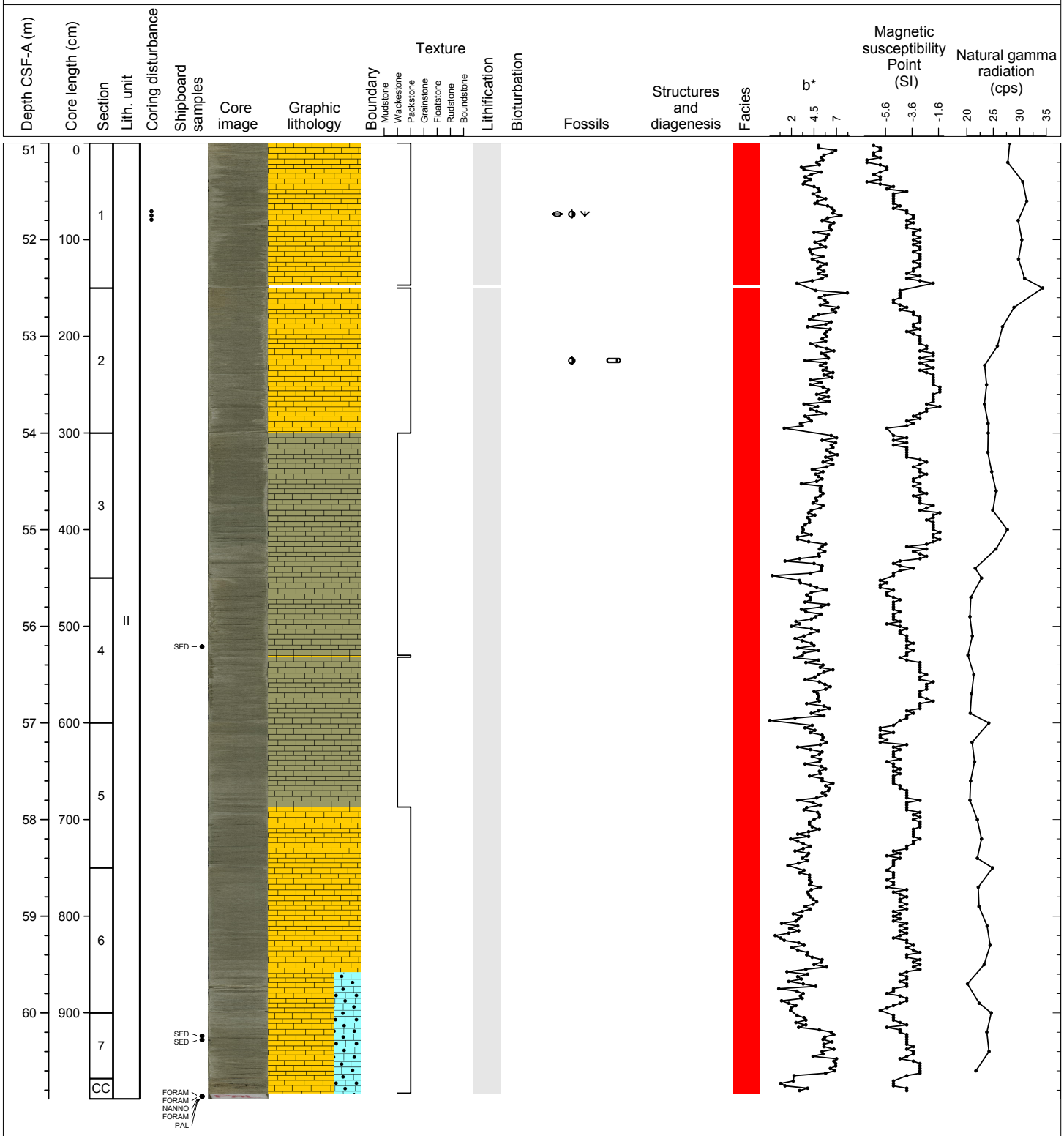
Hole 356-U1464D Core 6H, Interval 41.5-51.33 m (CSF-A)

Homogeneous, unlithified, creamy gray, sand-sized, MUDSTONE transitions to unlithified, light greenish-gray, sand-sized, WACKESTONE with glauconite, common benthic foraminifers and sand-size shell fragments. The wackestone then transitions to unlithified, dark greenish-gray, PACKSTONE with sand and coarse sand-size grains (mainly glauconite), abundant benthic foraminifers, and sparse sand-size shell fragments. The packstone becomes down core light greenish-gray, primarily with sand-size grains, abundant glauconite and benthic foraminifers.



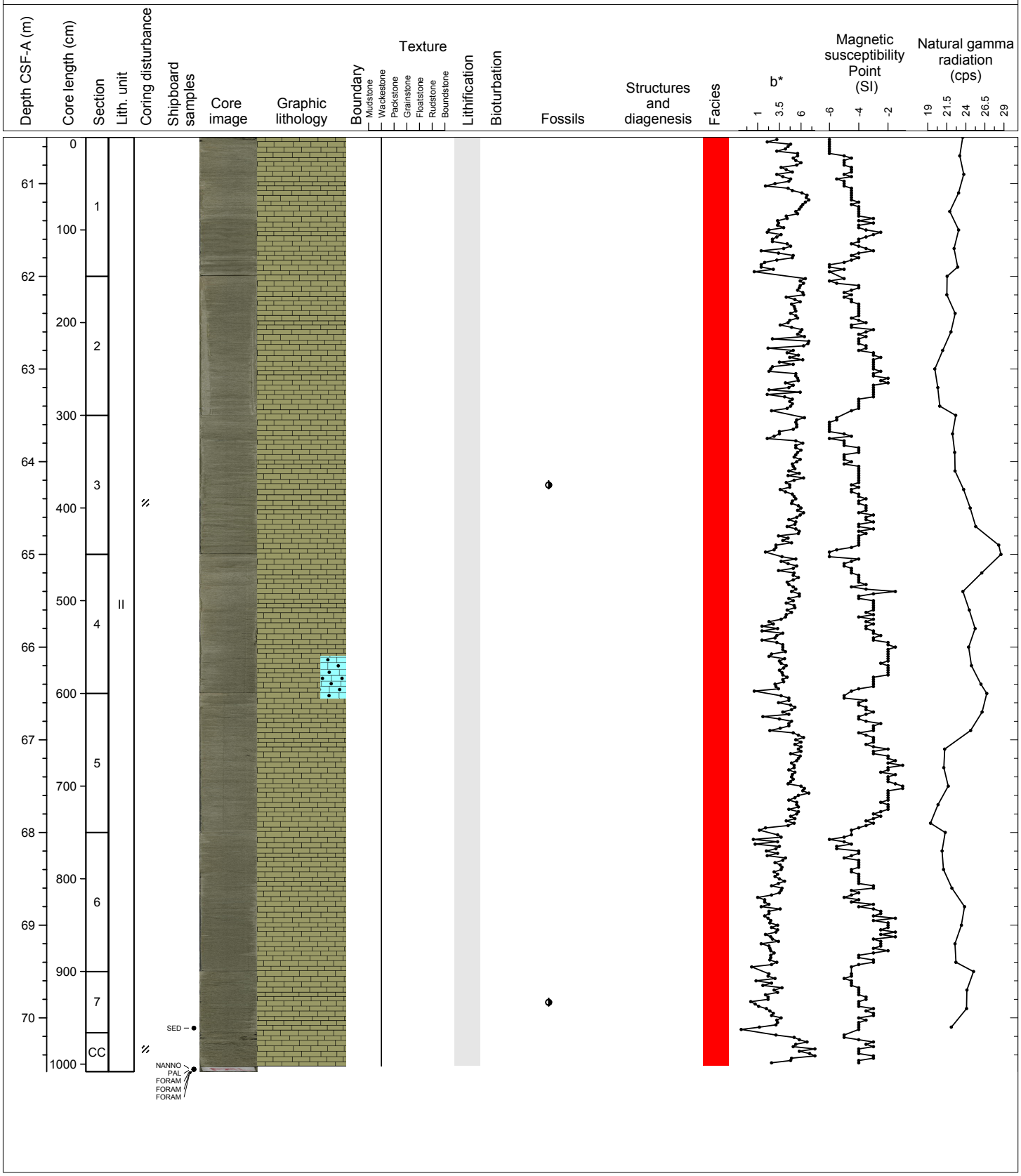
Hole 356-U1464D Core 7H, Interval 51.0-60.89 m (CSF-A)

Unlithified, light greenish gray to gray, WACKESTONE to PACKSTONE with medium sand-sized grains. Beginning with the lower half of core section 7 there is a clear increase in non-skeletal components like peloids.



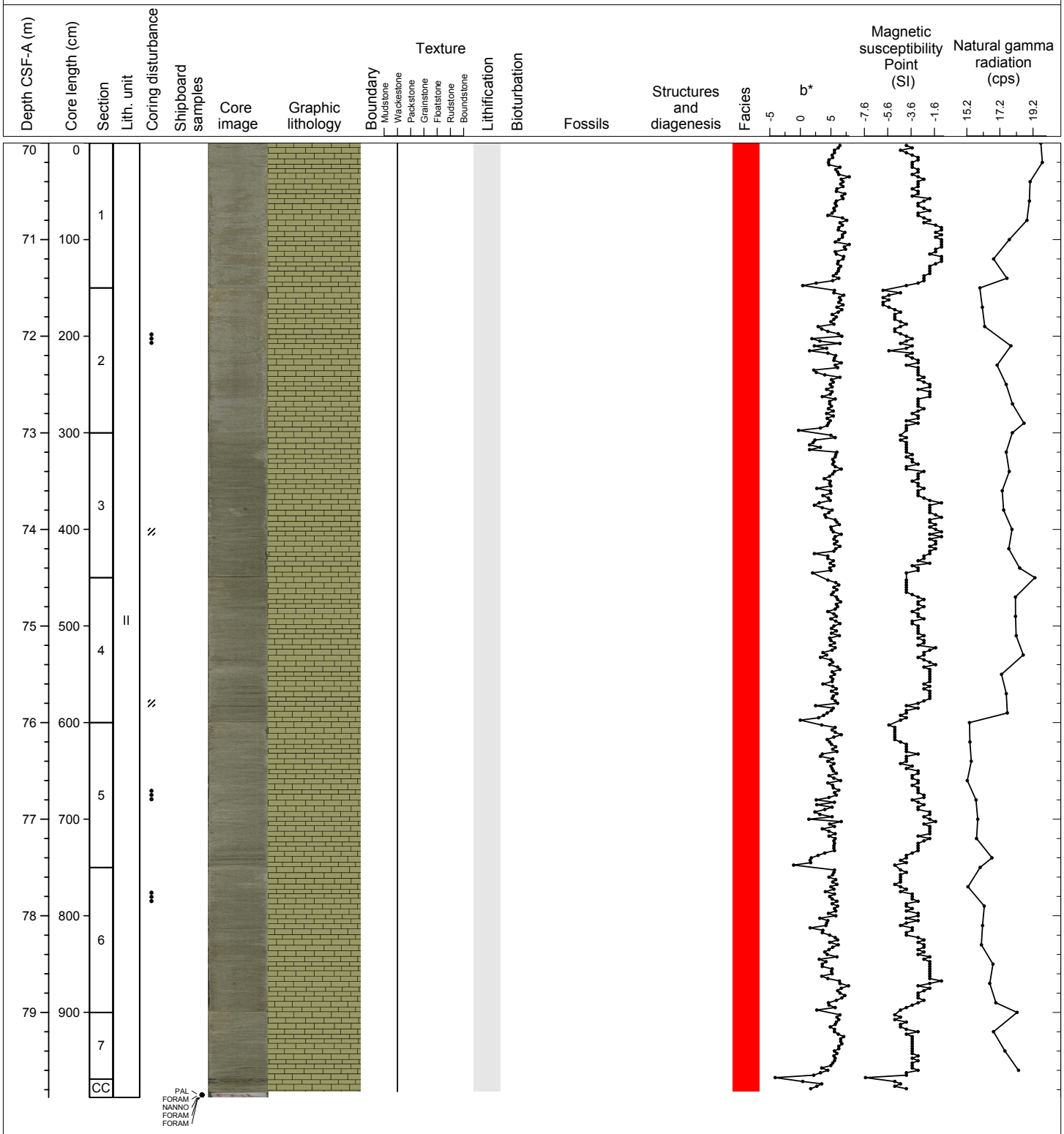
Hole 356-U1464D Core 8H, Interval 60.5-70.58 m (CSF-A)

Unlithified, light greenish gray to gray, WACKESTONE. The greenish gray WACKESTONE contains slightly finer medium sand-sized grains, whereas the grey WACKESTONE contains slightly coarser grains, peloids and small black grains.



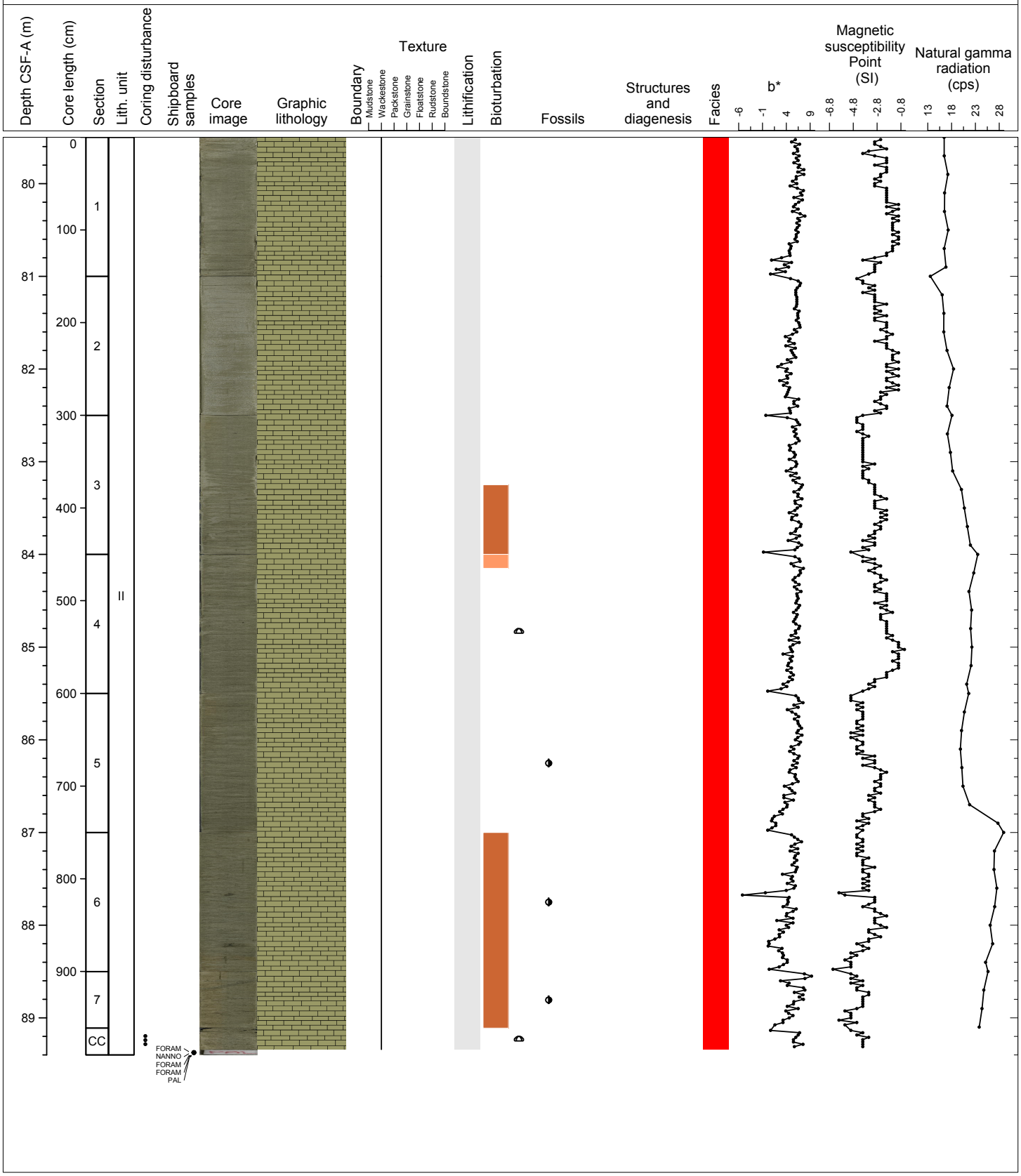
Hole 356-U1464D Core 9H, Interval 70.0-79.88 m (CSF-A)

Unlithified, light greenish gray, medium sand-sized, WACKESTONE with some black grains.



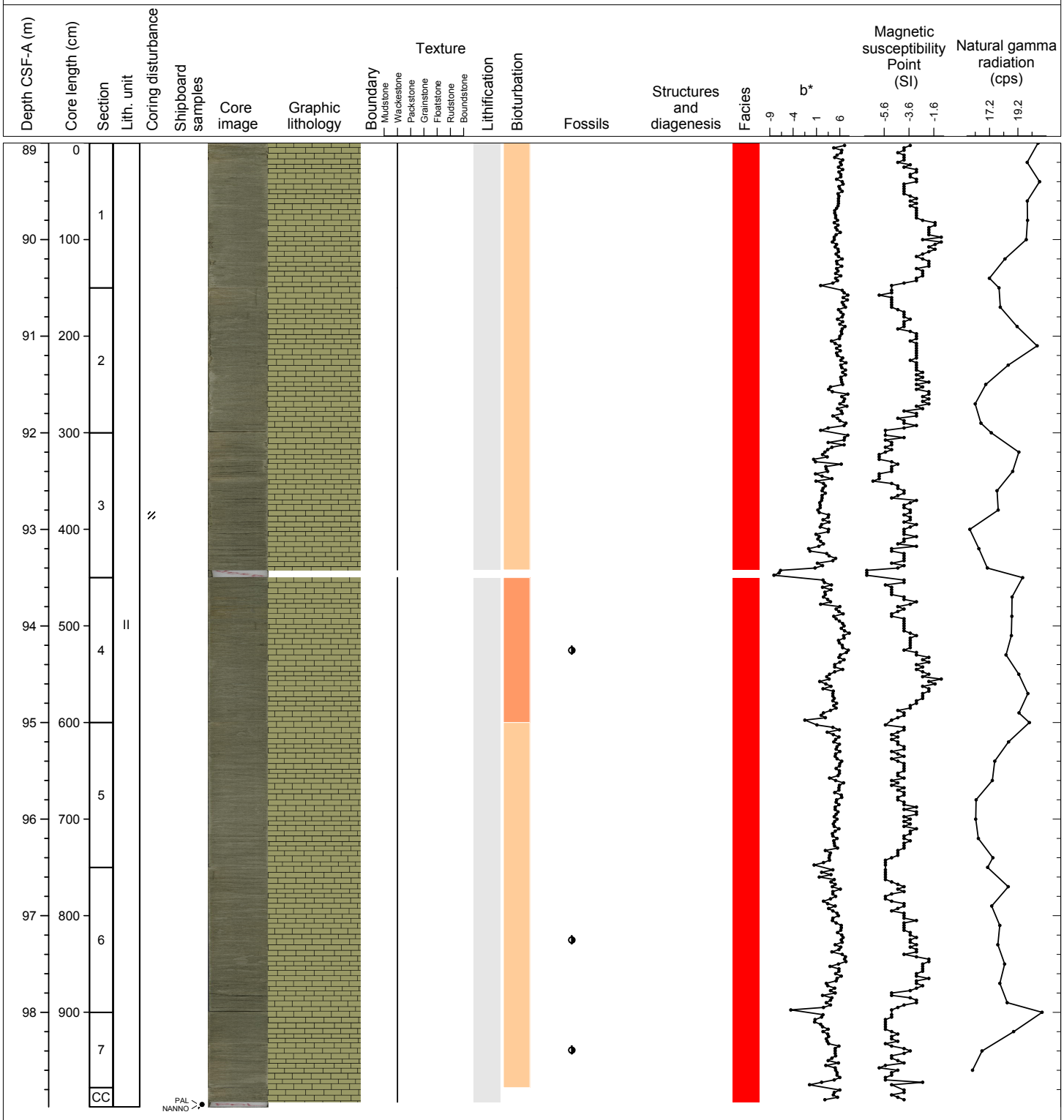
Hole 356-U1464D Core 10H, Interval 79.5-89.4 m (CSF-A)

Unlithified, light grayish green, medium sand-sized, WACKESTONE. Downhole from the base of section three, the content of micrite in the WACKESTONE, the number of small benthic foraminifers, and the amount of bioturbation increases.



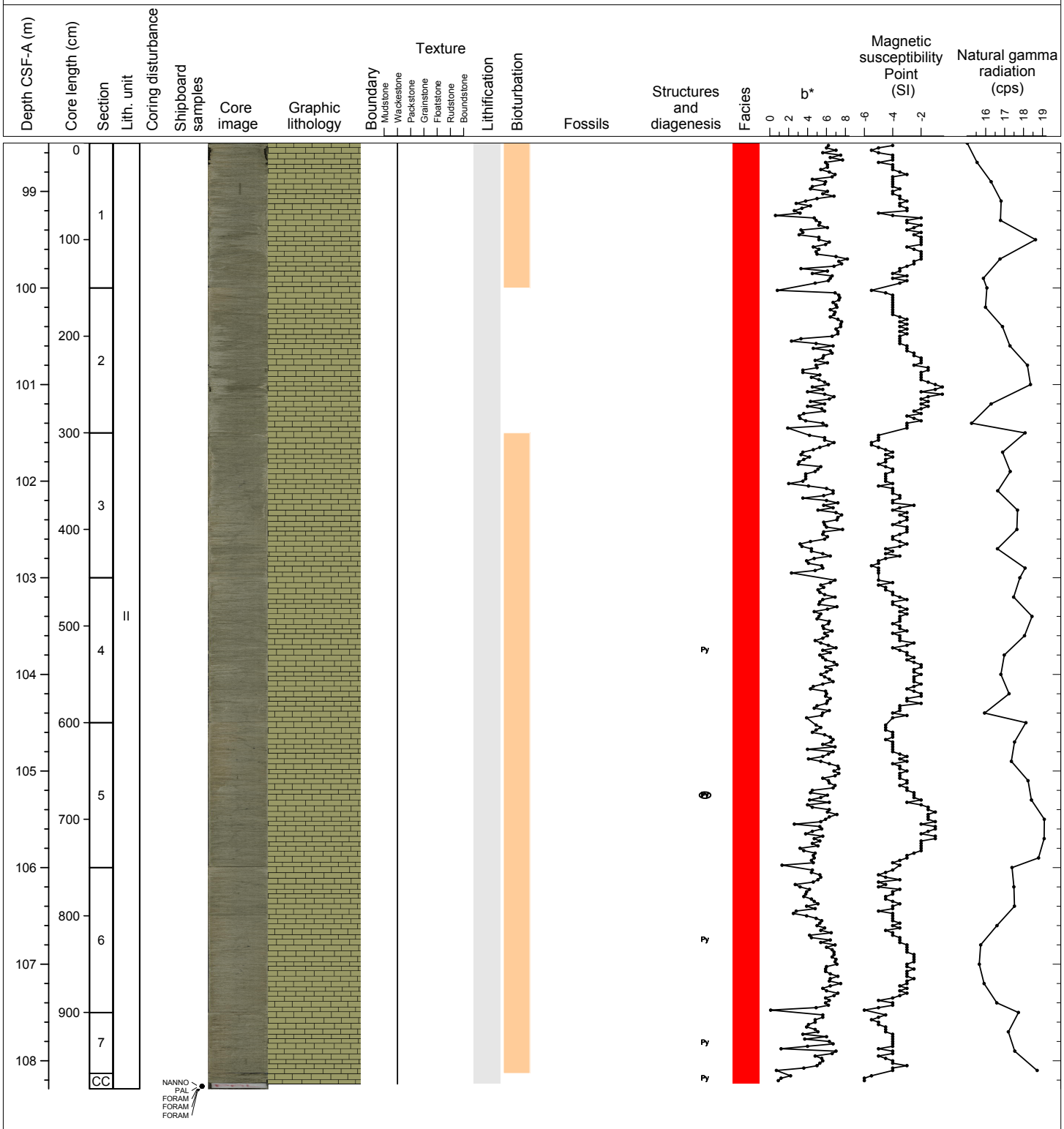
Hole 356-U1464D Core 11H, Interval 89.0-98.98 m (CSF-A)

Unlithified, light grayish green, medium sand-sized, WACKESTONE. The degree of bioturbation is variable, and the amount of small benthic foraminifers increases beginning with core section 4.



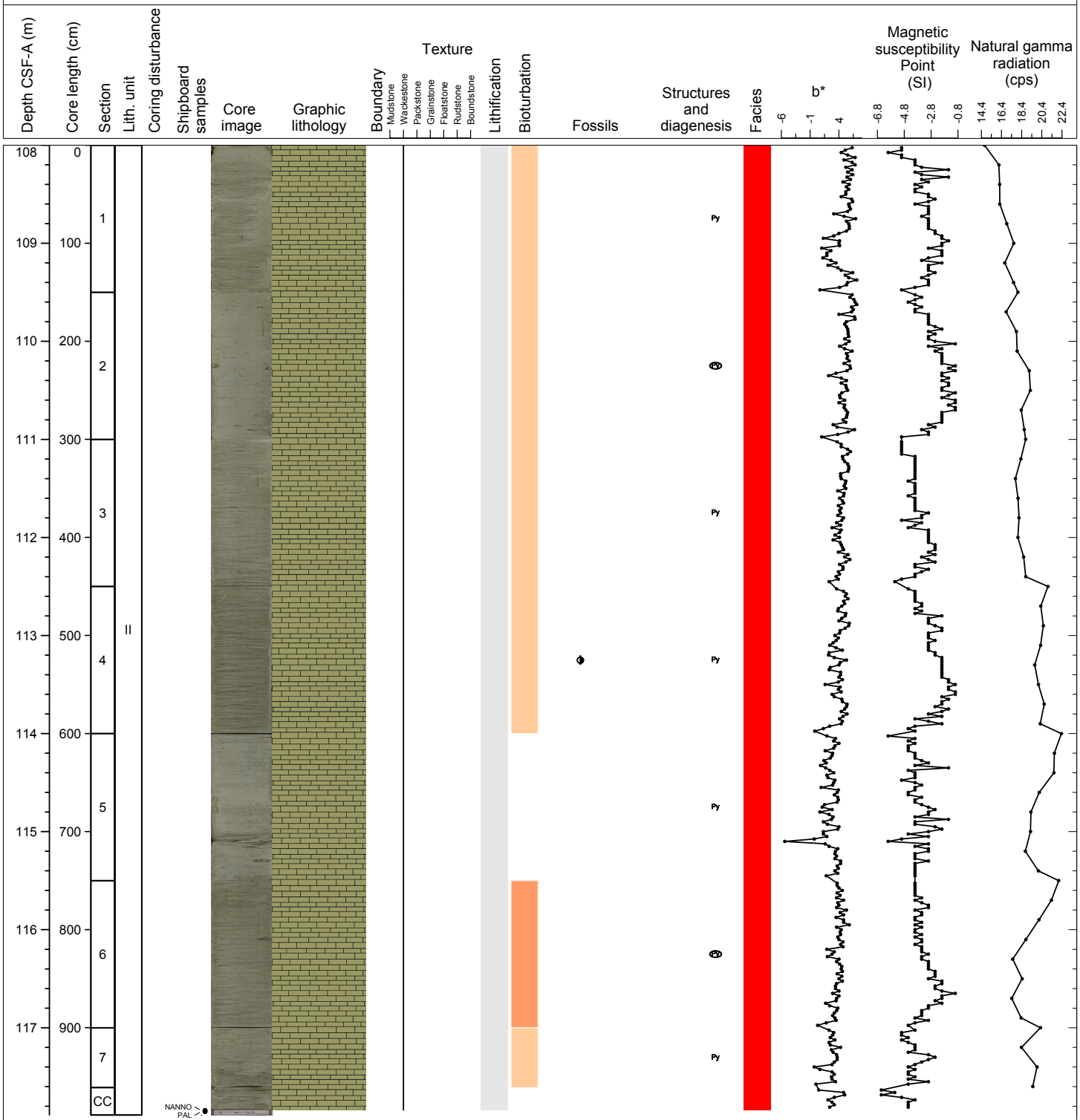
Hole 356-U1464D Core 12H, Interval 98.5-108.29 m (CSF-A)

Homogeneous, unlithified, light grayish green, fine to medium sand-sized, WACKESTONE with some small benthic foraminifers, sparse unidentified macrofossils, and disseminated pyrite patches and nodules.



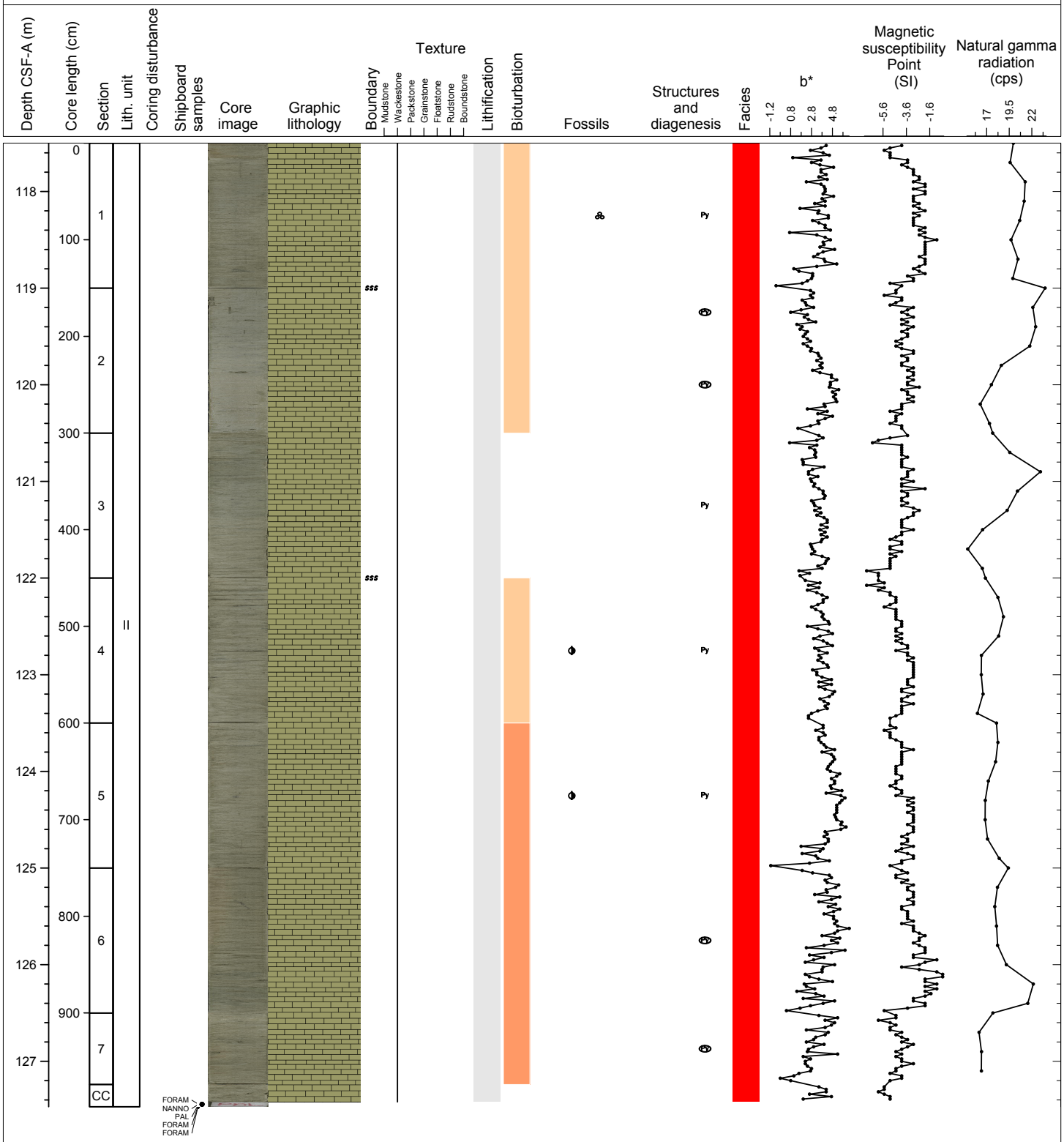
Hole 356-U1464D Core 13H, Interval 108.0-117.89 m (CSF-A)

Homogeneous, unlithified, light grayish green, fine to medium sand-sized, WACKESTONE with small concretions (d=3 cm) and disseminated pyrite patches. At the lower part of the core (5A, 104-117 cm depth), there are large shell fragments, possily oyster.



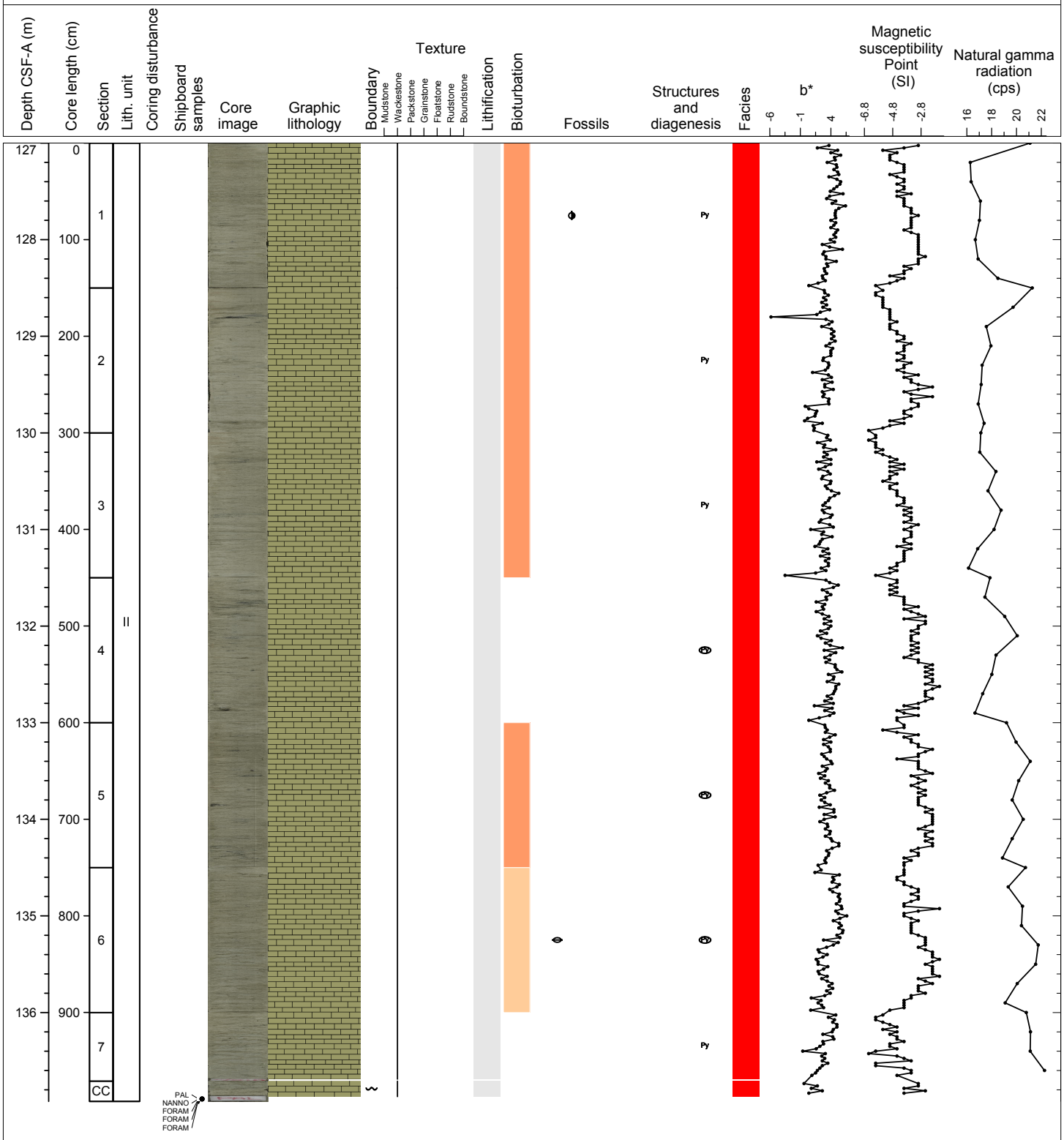
Hole 356-U1464D Core 14H, Interval 117.5-127.47 m (CSF-A)

Homogeneous, unlithified, light greenish gray, fine to medium sand-sized, WACKESTONE with sparse small celestite nodules, small benthic foraminifers, unidentified macrofossils, disseminated pyrite patches, and partially-lithified concretions.



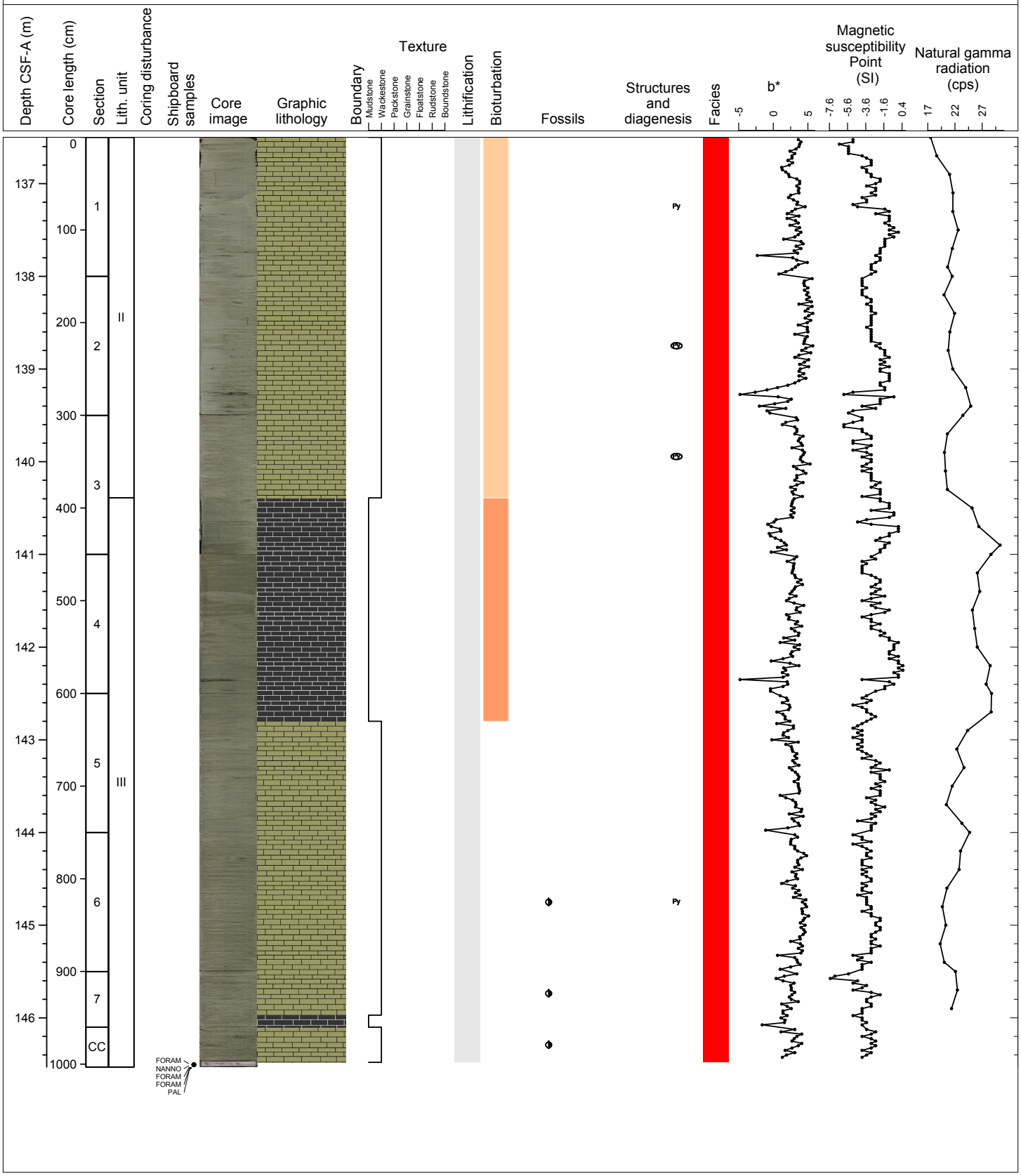
Hole 356-U1464D Core 15H, Interval 127.0-136.92 m (CSF-A)

Homogeneous, unlithified, light grayish green, very fine to fine sand-sized, WACKESTONE with partially-lithified, intercalated concretions and disseminated pyrite patches .



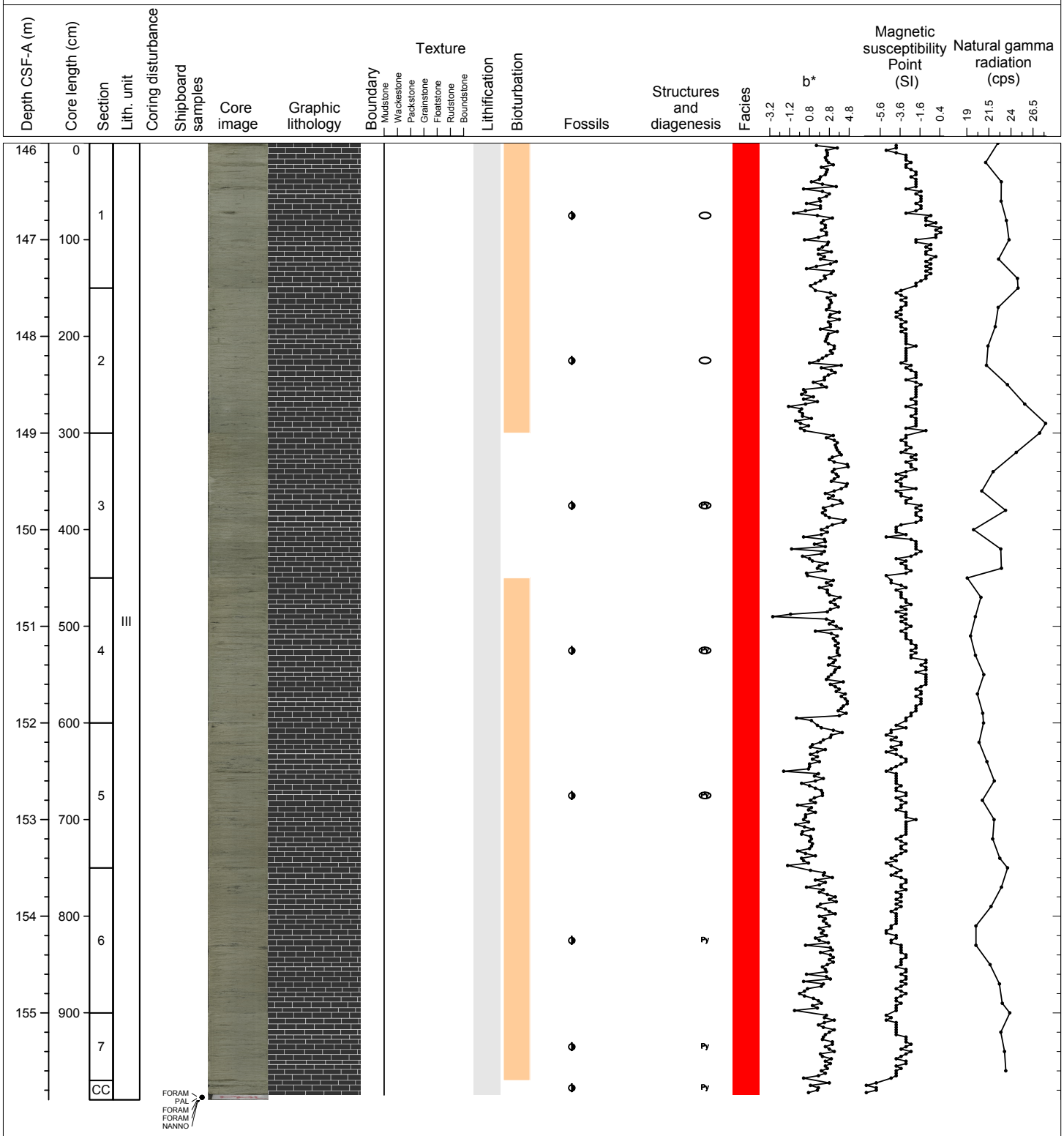
Hole 356-U1464D Core 16H, Interval 136.5-146.53 m (CSF-A)

Homogeneous, unlithified, light grayish green, WACKESTONE with an interval of light olive gray MUDSTONE. Throughout the core there are common disseminated pyrite patches and rare unidentified macrofossils.



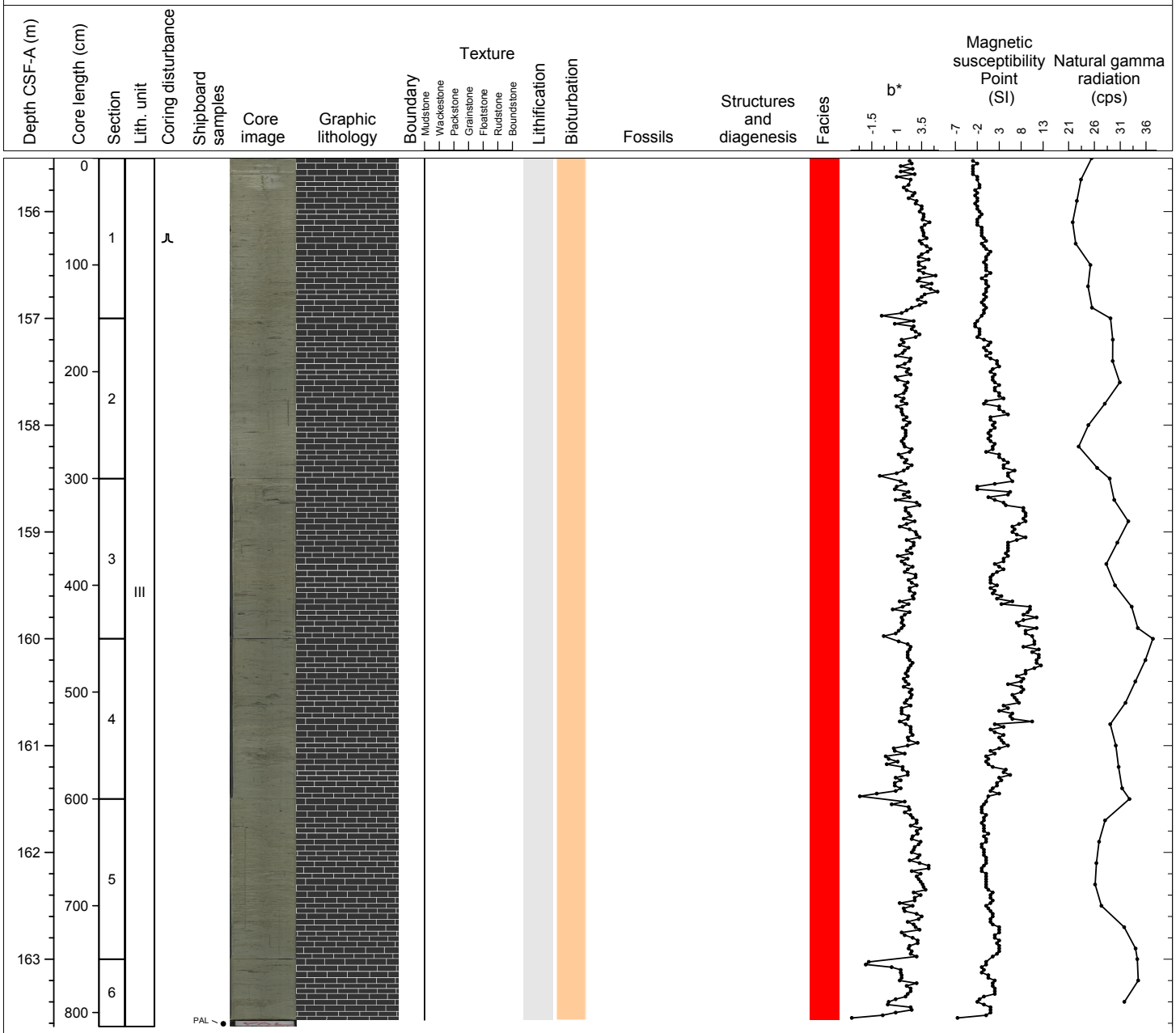
Hole 356-U1464D Core 17H, Interval 146.0-155.9 m (CSF-A)

Homogeneous, unlithified, light gray MUDSTONE with sparse disseminated pyrite patches, small benthic foraminifers, and small celestite nodules. There is slight bioturbation throughout the core.



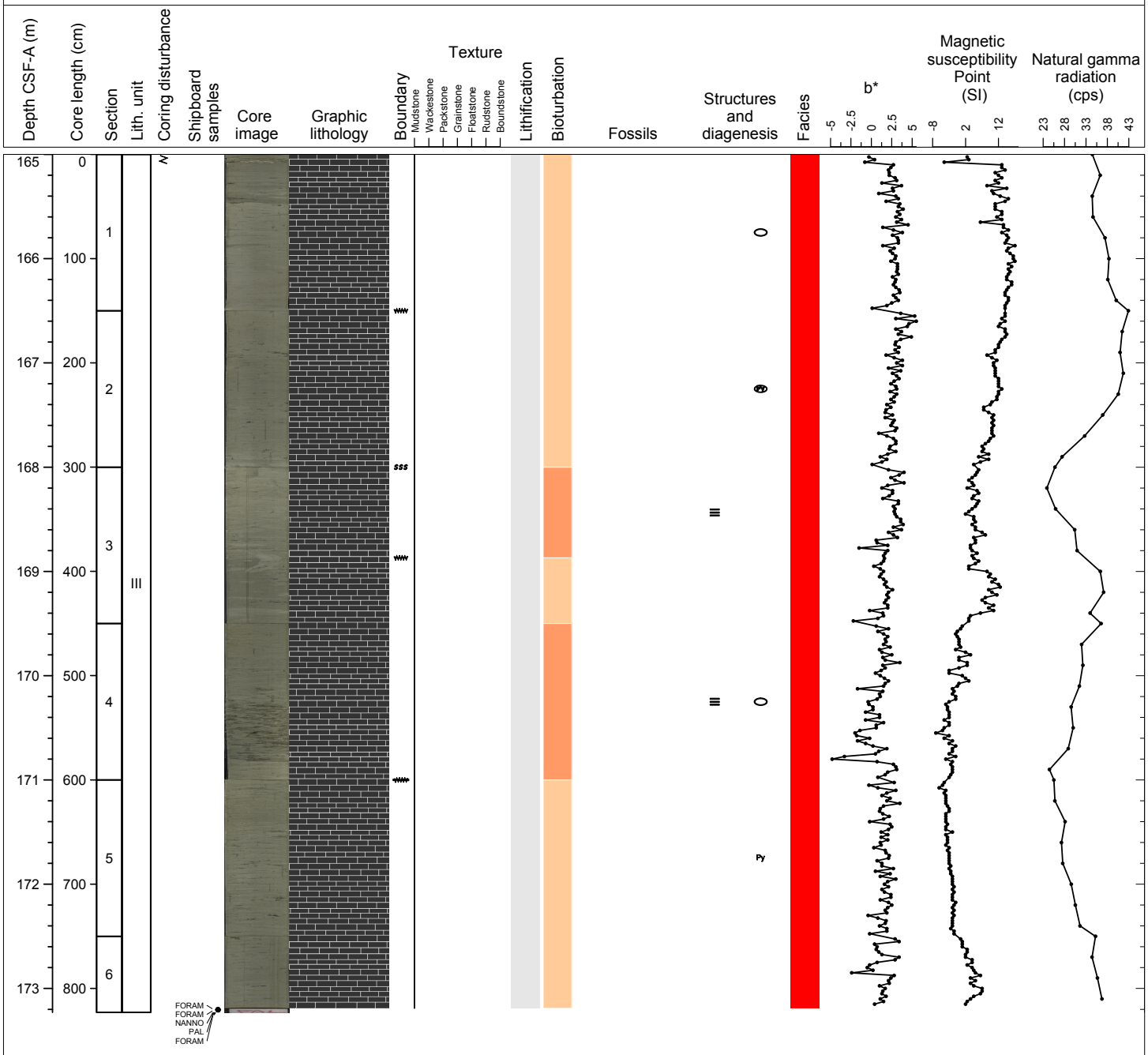
Hole 356-U1464D Core 18H, Interval 155.5-163.63 m (CSF-A)

Homogeneous, unlithified, olive gray, MUDSTONE with occasional macrofossils (shell fragments, benthic foraminifers, and bryozoans), disseminated pyrite, and occasional burrows with concentrated pyrite.



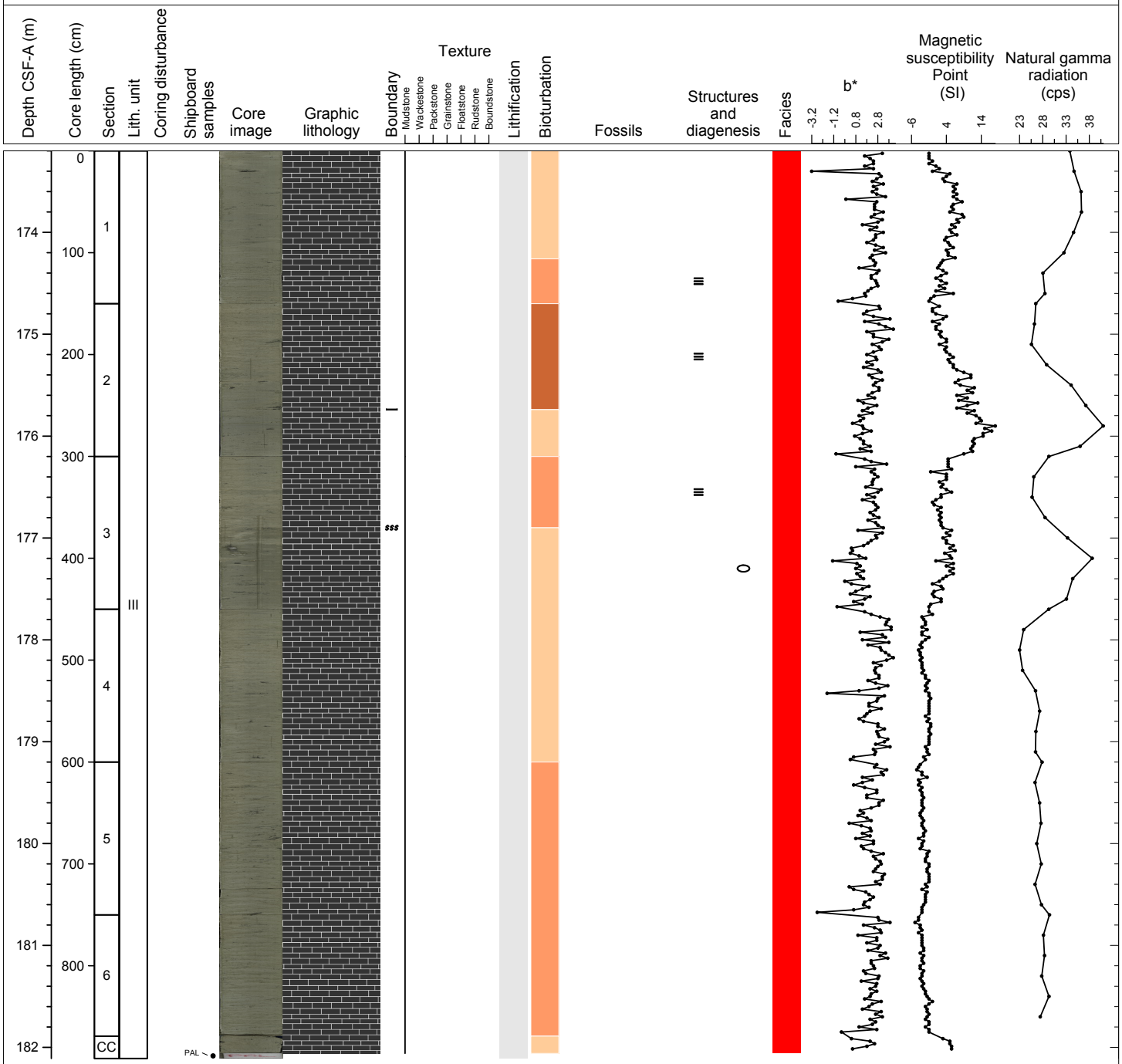
Hole 356-U1464D Core 19H, Interval 165.0-173.23 m (CSF-A)

Unlithified, olive gray, MUDSTONE with slight bioturbation, sparse disseminated pyrite (mainly in burrows), occasional concretions and nodules (celestite and pyrite), sparse macrofossils (urchin spines, shell fragments, and bryozoans), occasional contacts (scoured, gradational, bioturbated), and one interval of parallel laminae.



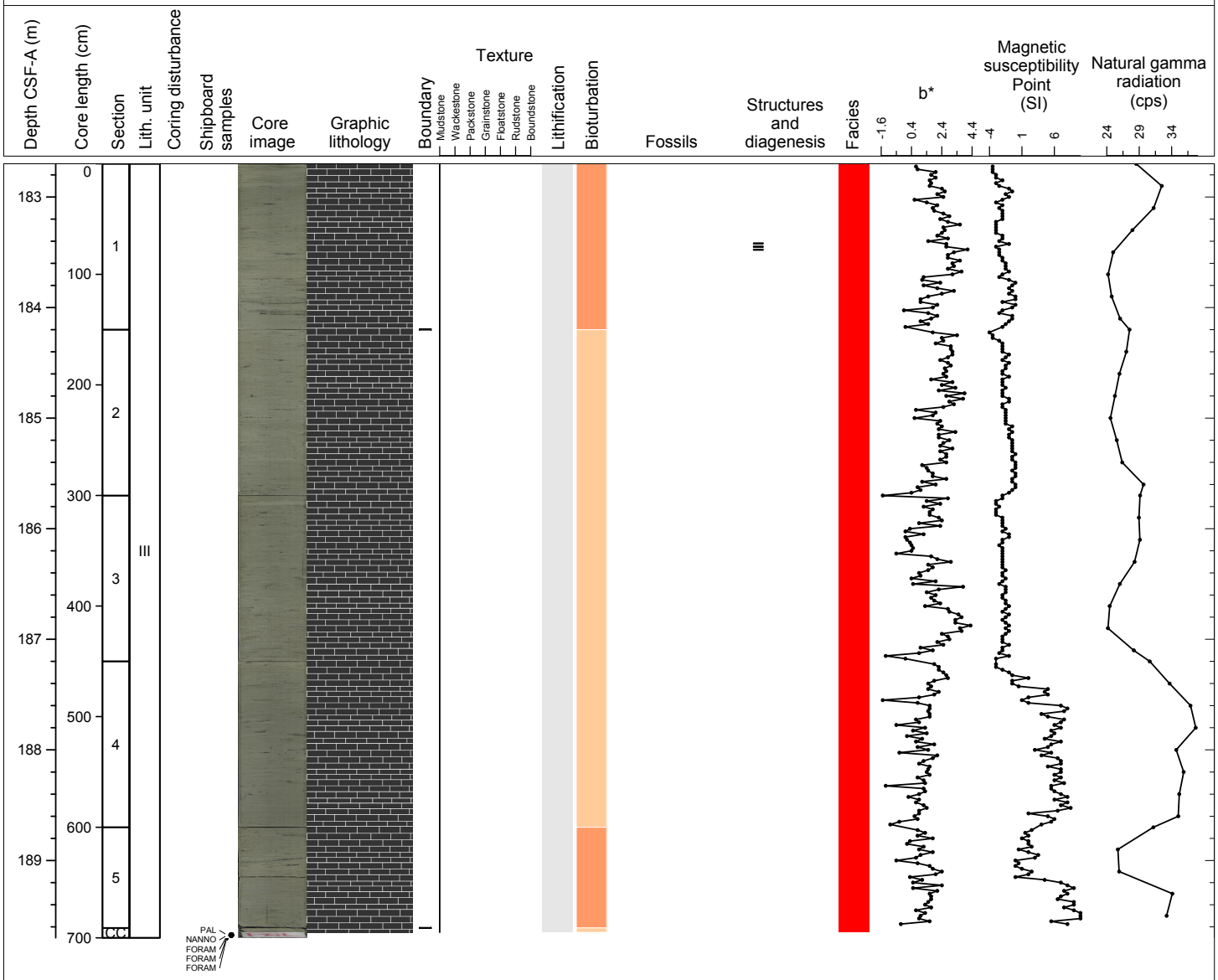
Hole 356-U1464D Core 20H, Interval 173.2-182.11 m (CSF-A)

Unlithified, olive gray, MUDSTONE with slight to common bioturbation, fine sand-size disseminated pyrite (concentrated in burrows), occasional macrofossils (benthic foraminifers, bivalves, and non-scleractinian coral), fine to very fine sand grains disseminated and occurring as laminae and lenses, and concretions (celestite and pyrite).



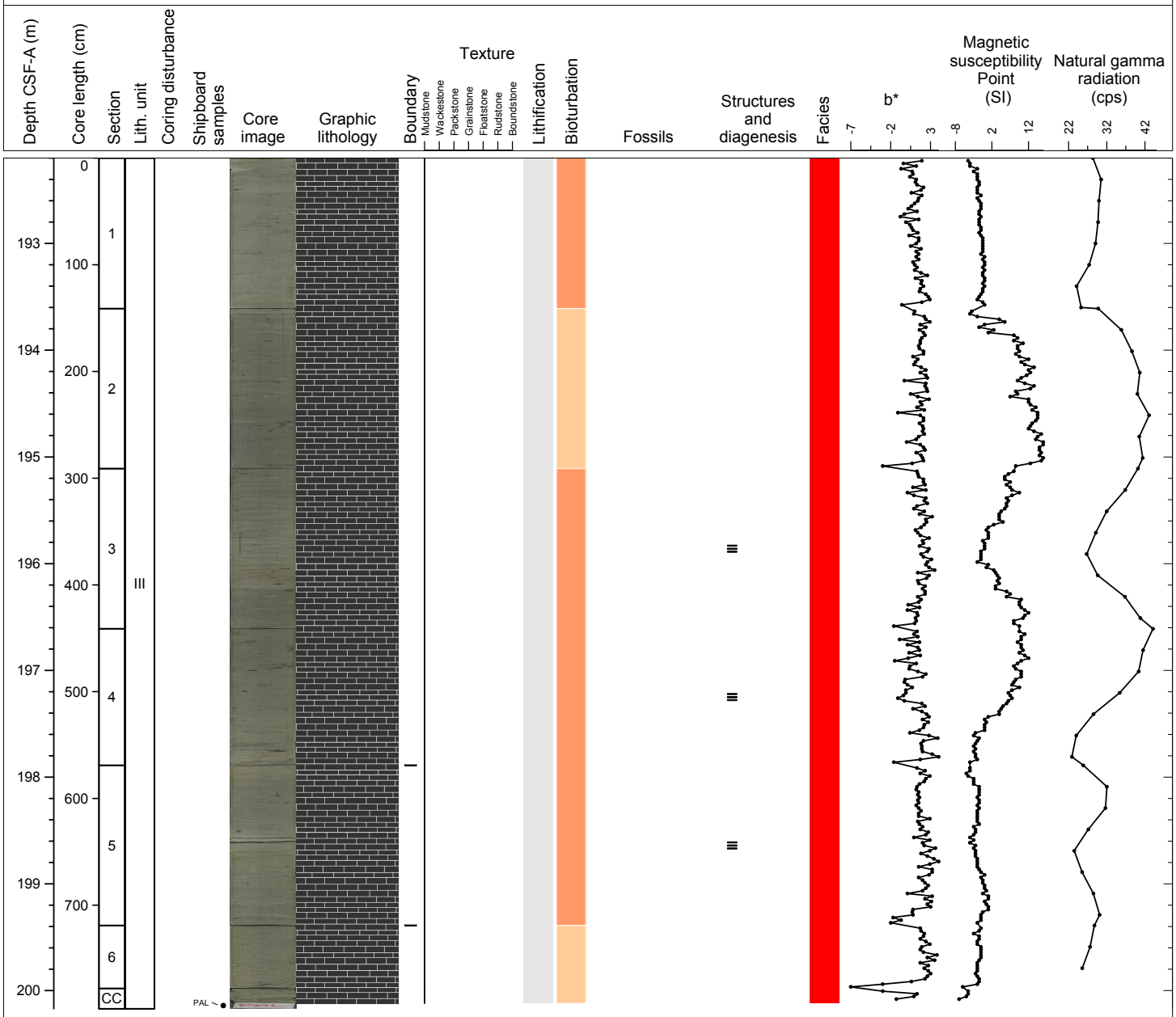
Hole 356-U1464D Core 21H, Interval 182.7-189.7 m (CSF-A)

Unlithified, olive gray to light olive gray, MUDSTONE with slight bioturbation, occasional sand-size macrofossils (benthic foraminifers, shells, and urchin spines), pyrite (concentrated in burrows), very fine sand grains disseminated and found in laminae and lenses, and a few sharp contacts.



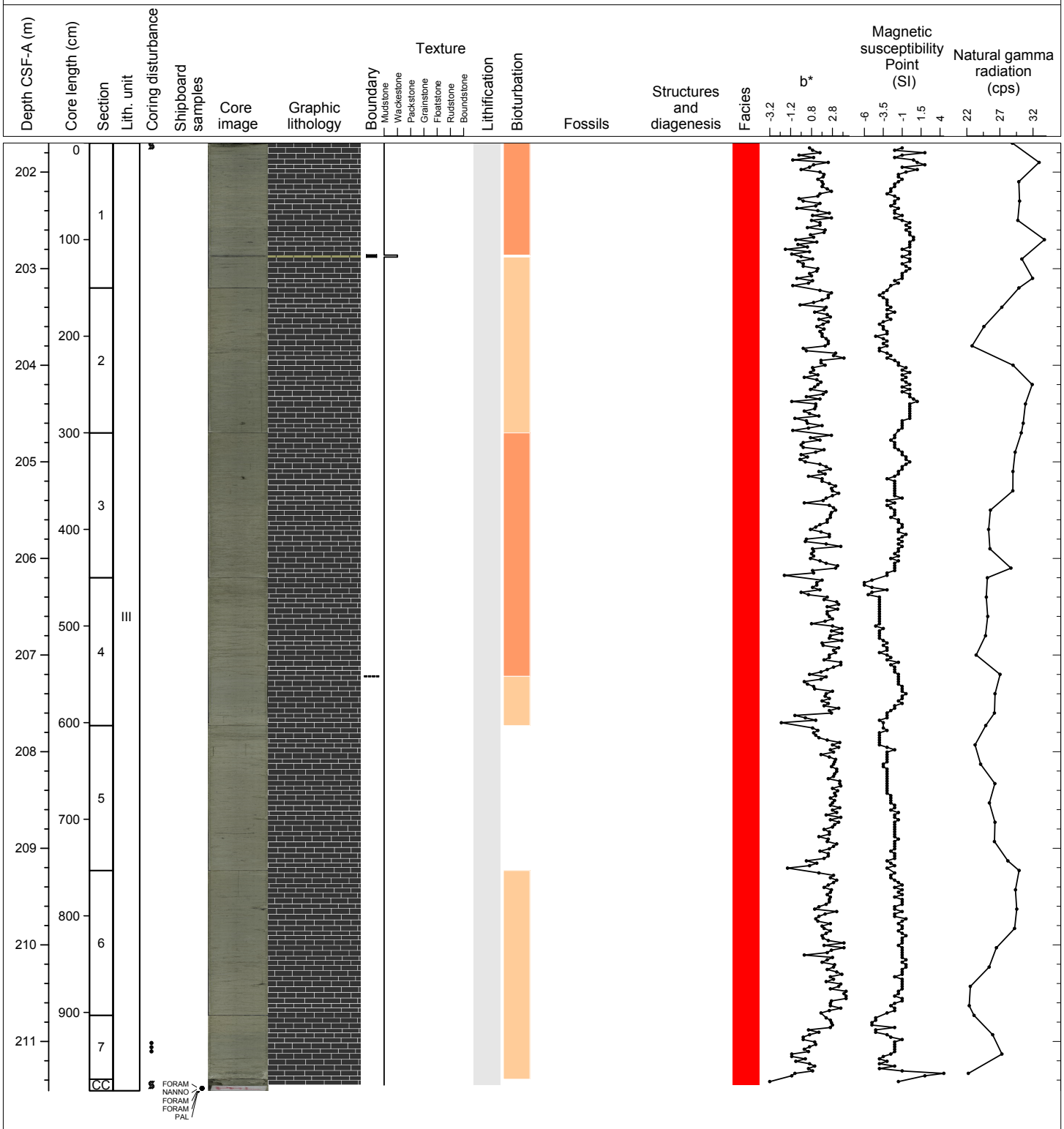
Hole 356-U1464D Core 22H, Interval 192.2-200.17 m (CSF-A)

Unlithified, olive gray to light olive gray, MUDSTONE with disseminated very fine sand-size grains, slight to moderate bioturbation, pyrite (disseminated and concentrated in burrows, laminae, and lenses), occasional sand-size macrofossils (benthic foraminifers, shells, and bryozoans), rare sharp contacts, and one celestite nodule.



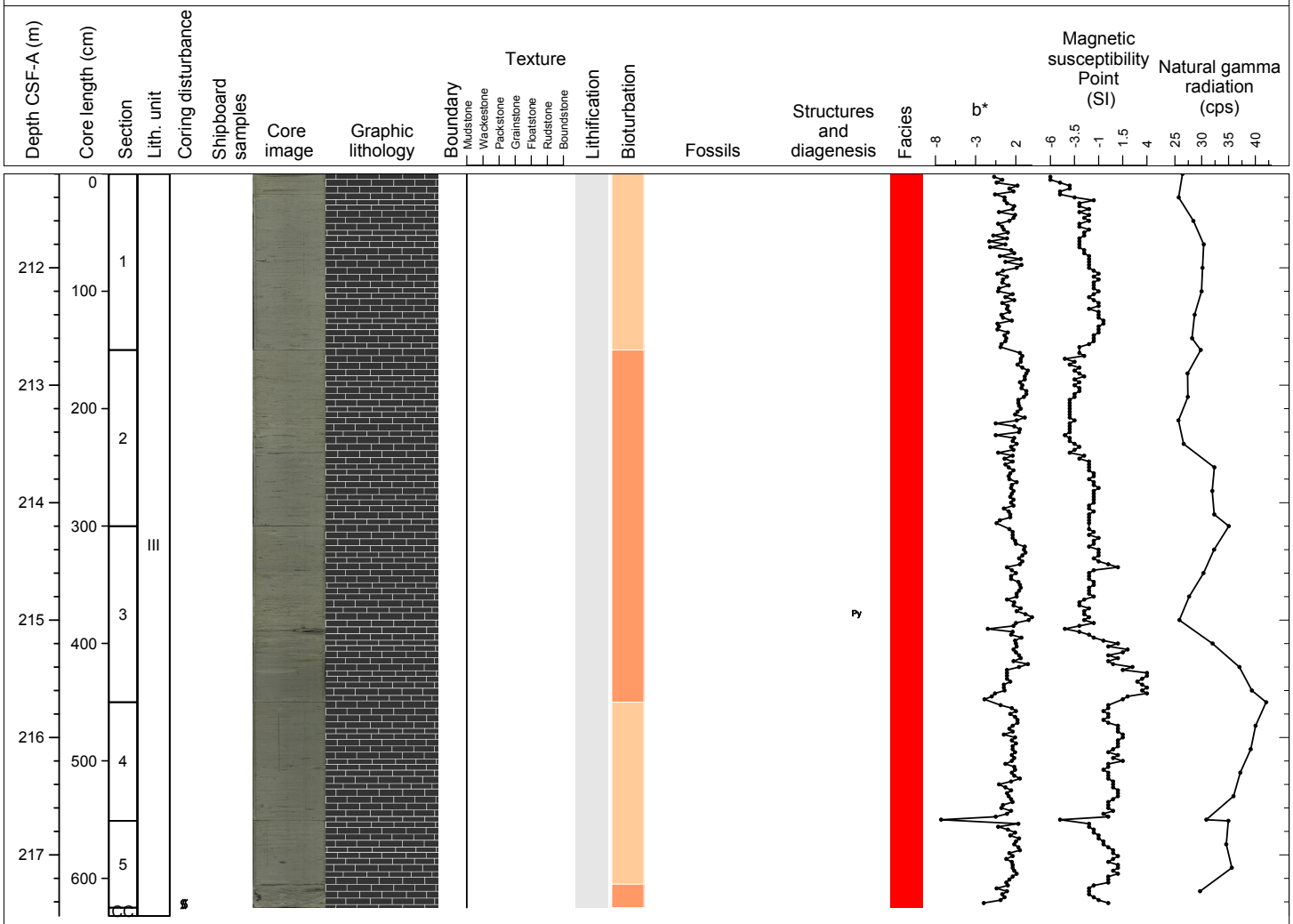
Hole 356-U1464D Core 23H, Interval 201.7-211.51 m (CSF-A)

Unlithified, olive gray, MUDSTONE with moderate bioturbation, lenses of very fine sand-size grains with burrows and pyrite, occasional sand-size shell fragments, sparse echinoderm fragments, and benthic foraminifers.



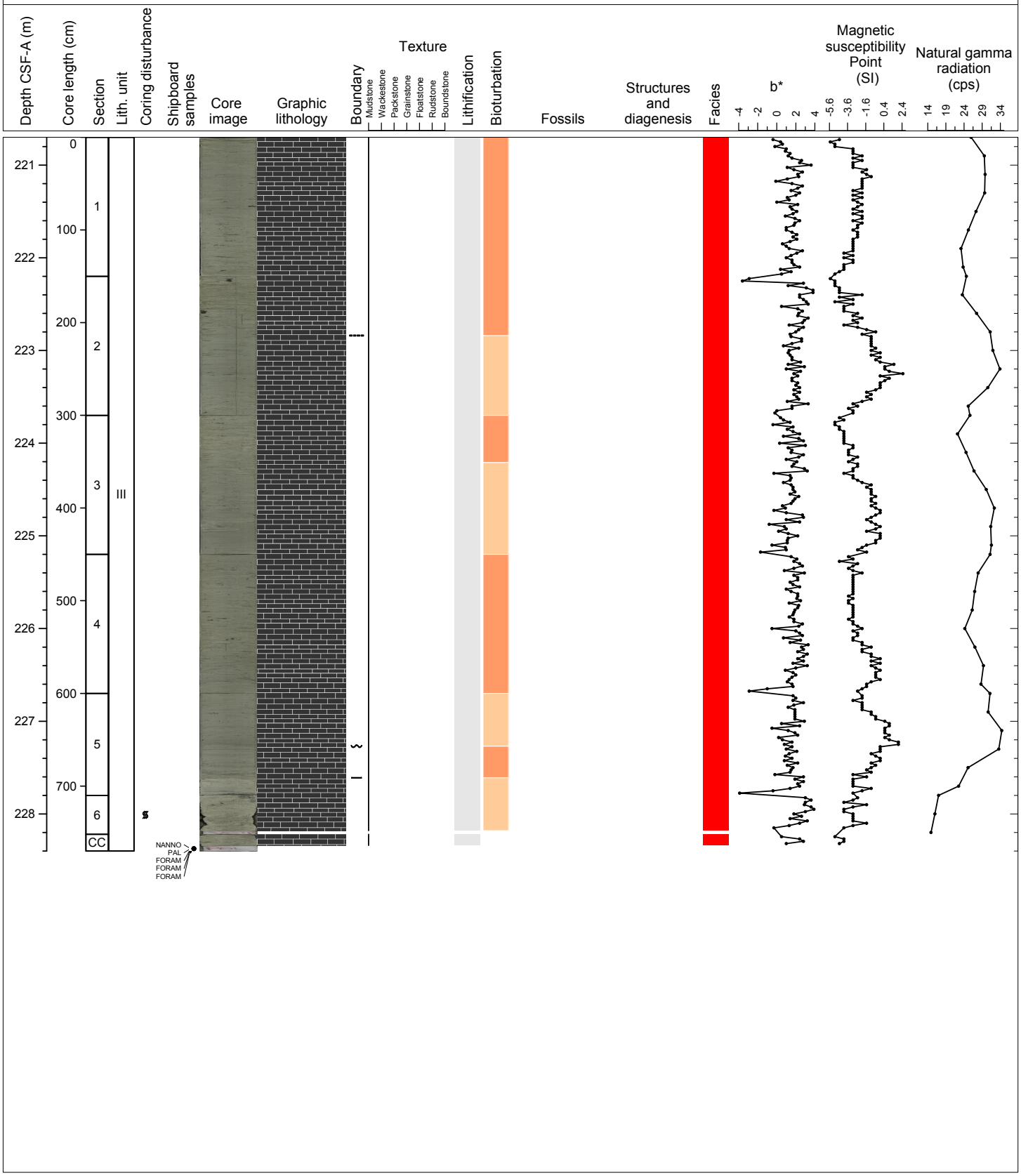
Hole 356-U1464D Core 24H, Interval 211.2-217.52 m (CSF-A)

Unlithified, olive gray, MUDSTONE with slight to moderate bioturbation, occasional sand-size shell fragments, pyrite (concentrated in burrows), lenses of very fine sand-size grains, and a few benthic foraminifers (often in fine sand lenses).



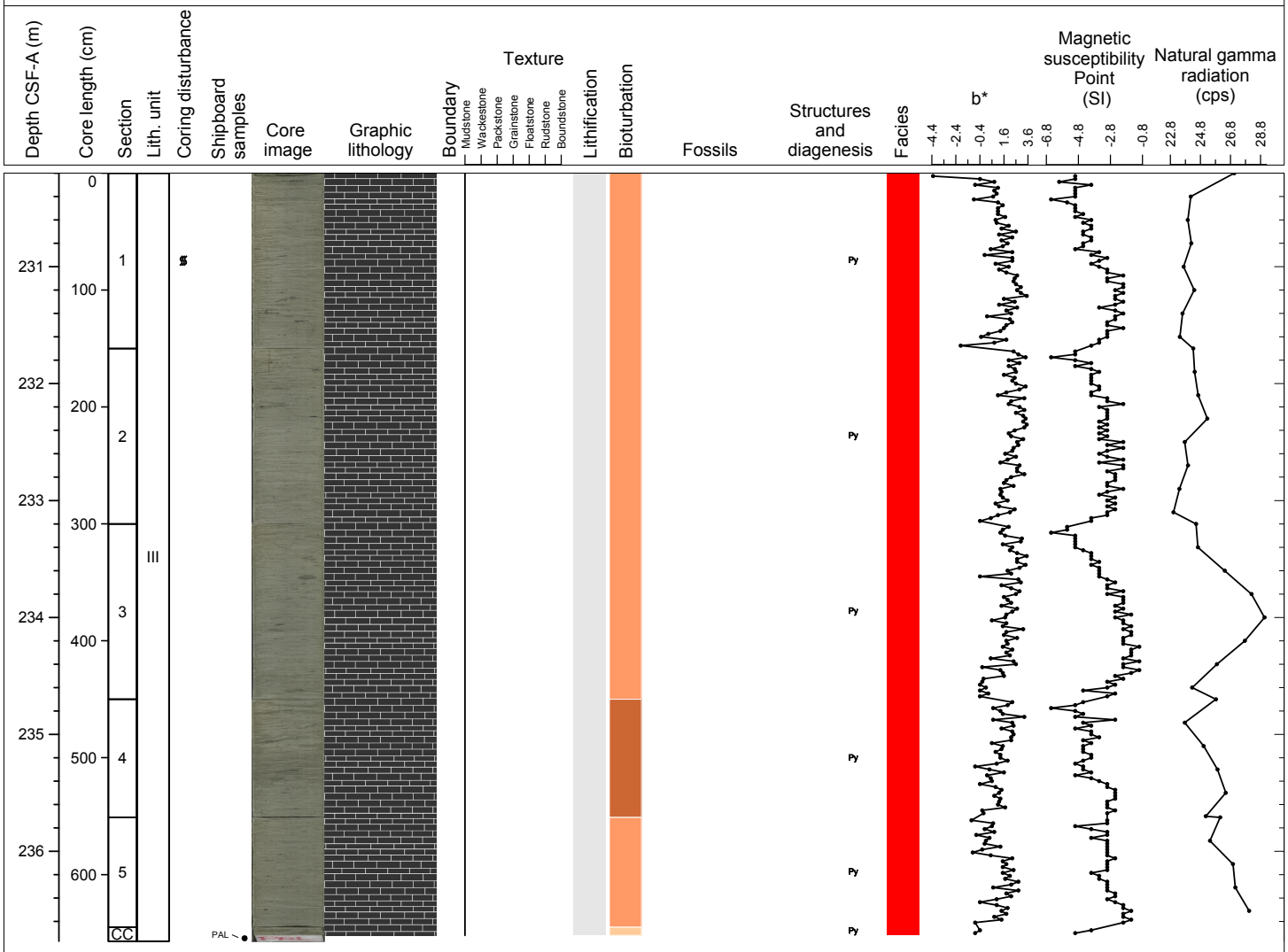
Hole 356-U1464D Core 25H, Interval 220.7-228.4 m (CSF-A)

Unlithified, olive gray, MUDSTONE with moderate bioturbation, very fine sand-size grains (as lenses and in burrows; often associated with benthic foraminifers and pyrite), pyrite (concentrated in burrows), occasional sand-size shell fragments and echinoderm fragments, and celestite nodules. Lithology changes to unlithified, creamy gray, MUDSTONE with slight bioturbation and some very fine sand-size grains of pyrite (in burrows).



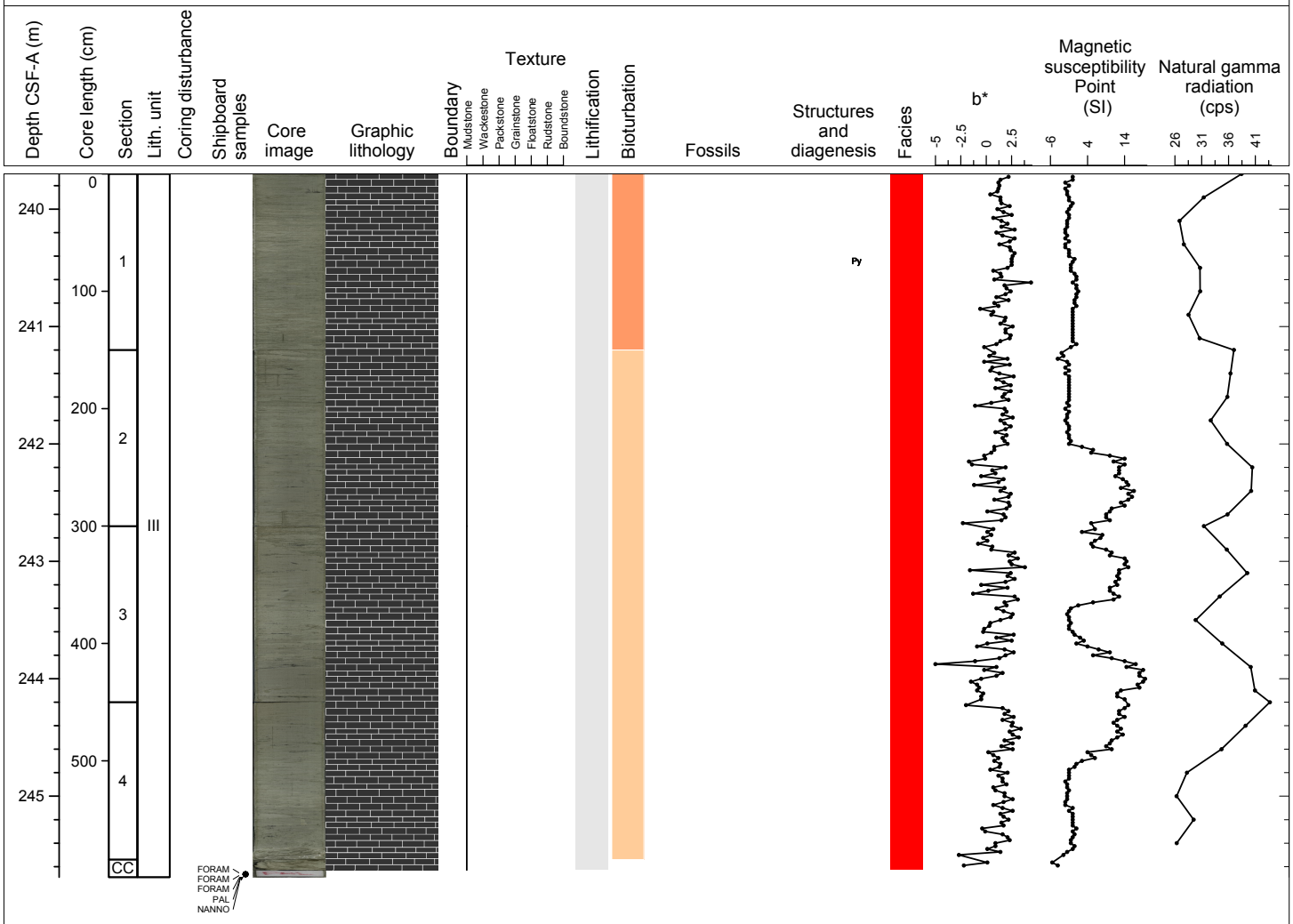
Hole 356-U1464D Core 26H, Interval 230.2-236.77 m (CSF-A)

Unlithified, olive gray, MUDSTONE with moderate biouturbation, benthic foraminifers and pyrite concentrated in burrows, and sparse disseminated pyrite.



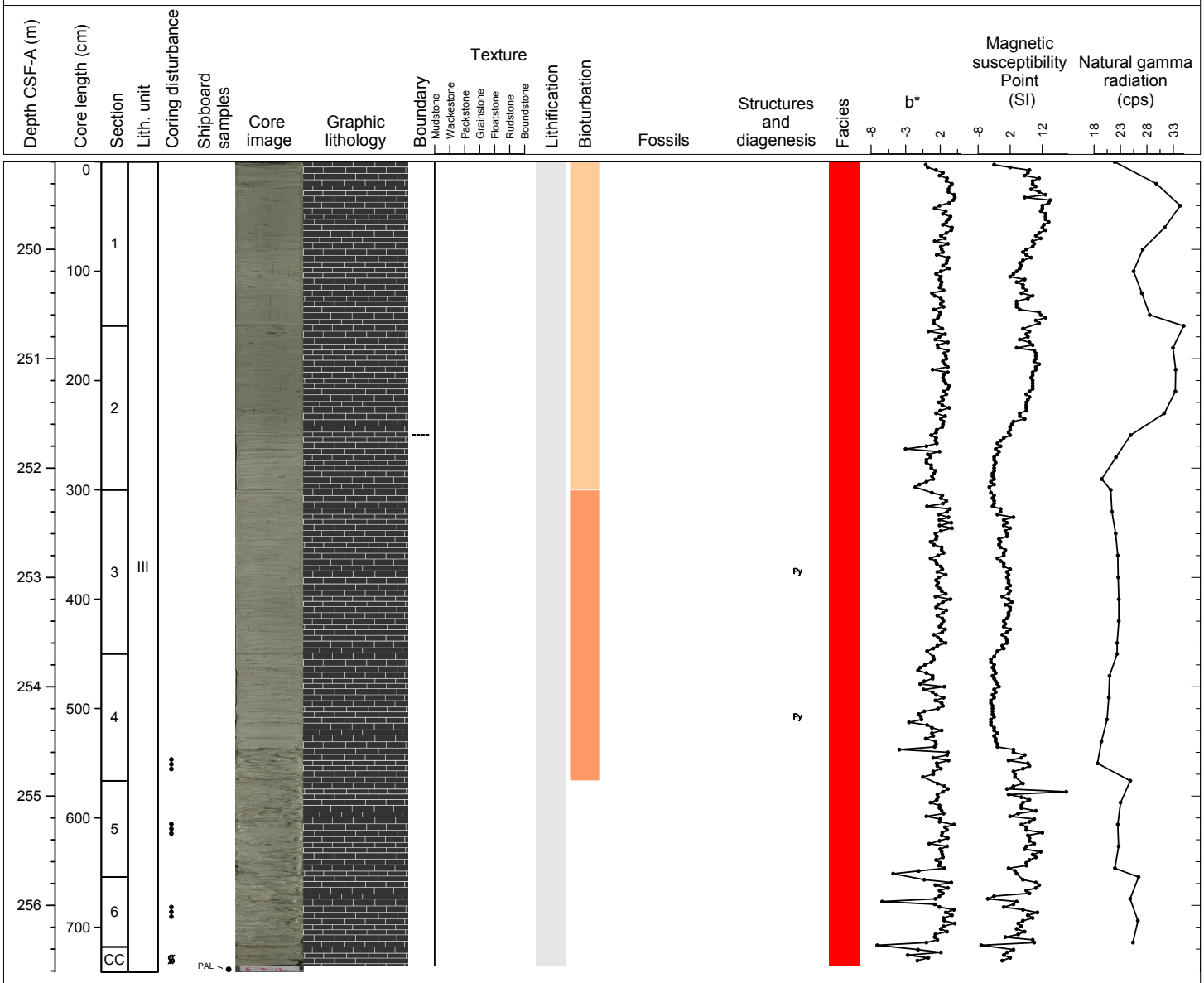
Hole 356-U1464D Core 27H, Interval 239.7-245.69 m (CSF-A)

Unlithified, olive gray, MUDSTONE with slight bioturbation, very fine sand-size grains, sparse benthic foraminifers and pyrite (mostly concentrated in burrows), and sparse pyrite nodules and echinoderm spines.



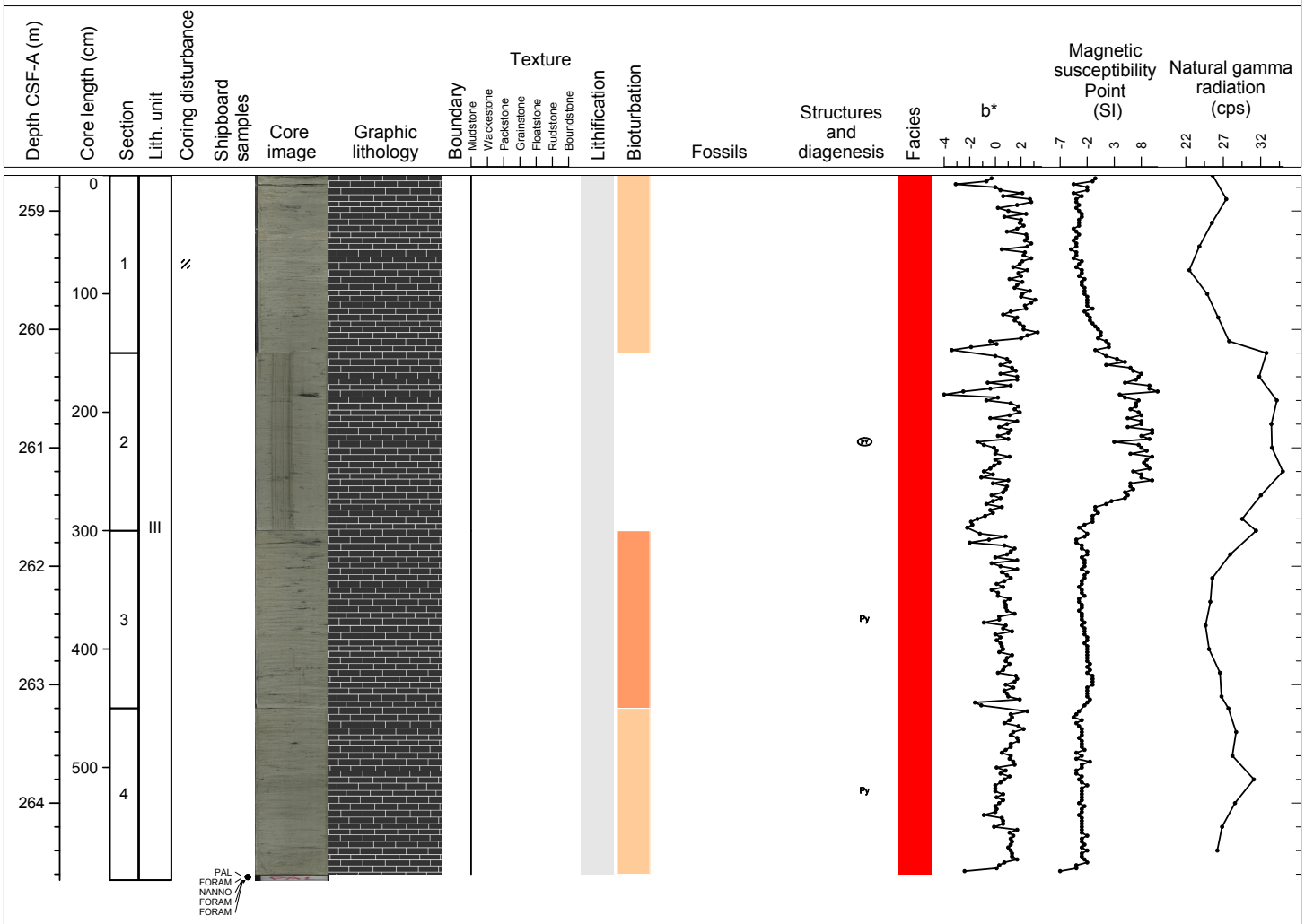
Hole 356-U1464D Core 28H, Interval 249.2-256.61 m (CSF-A)

Unlithified, olive gray, MUDSTONE with slight to moderate bioturbation, occasional benthic foraminifers and sparse disseminated pyrite (both concentrated in burrows), and rare macrofossil fragments (echinoderm spines and shells). The mudstone becomes creamy gray about midway down the core.



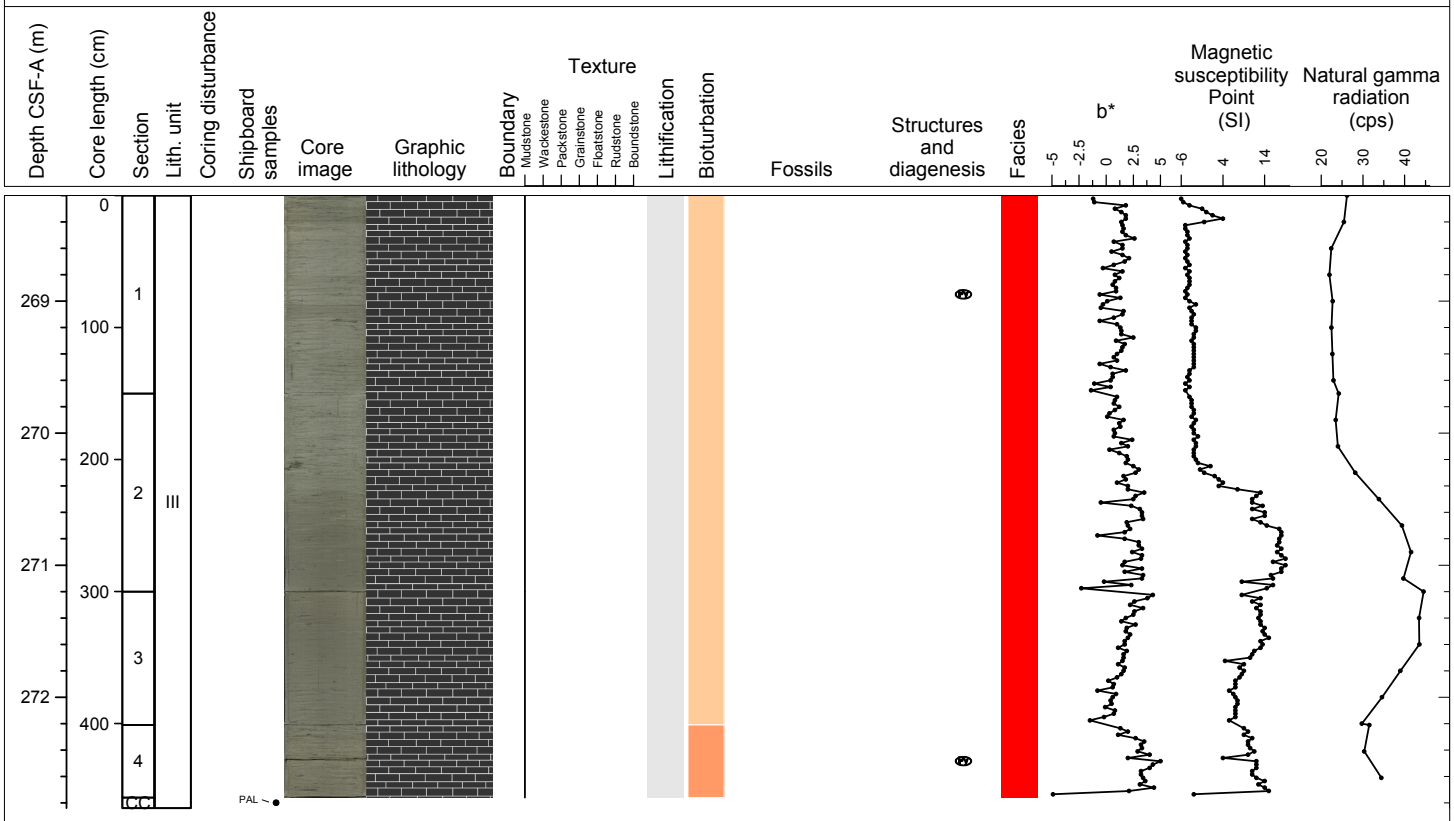
Hole 356-U1464D Core 29H, Interval 258.7-264.65 m (CSF-A)

Unlithified, olive gray to light olive gray, MUDSTONE with slight to moderate bioturbation, occasional benthic foraminifers and shell fragments, and pyrite (mainly in burrows).



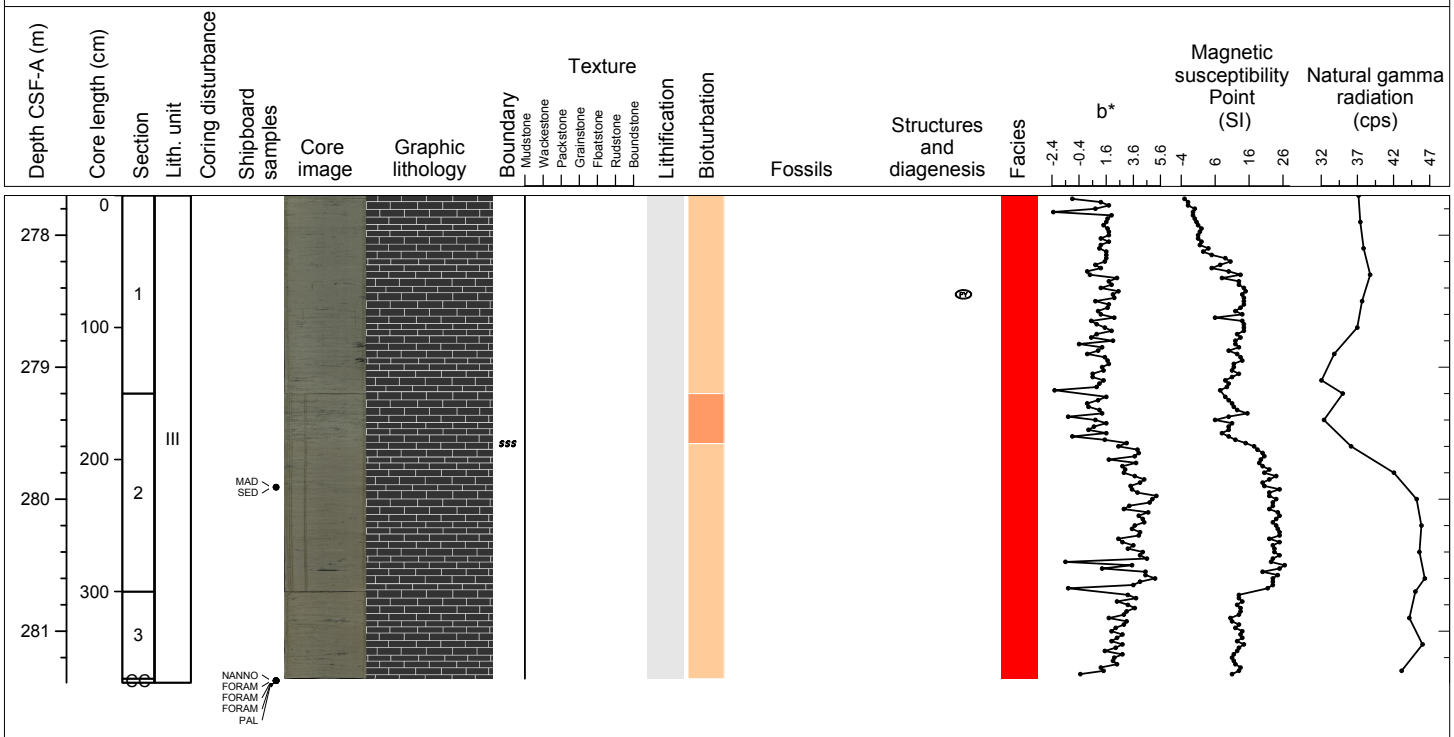
Hole 356-U1464D Core 30H, Interval 268.2-272.84 m (CSF-A)

Unlithified, light greenish gray to light olive gray, MUDSTONE with slight bioturbation, disseminated pyrite and pyrite nodules (concentrated in burrows), and sparse sand-size shell fragments.



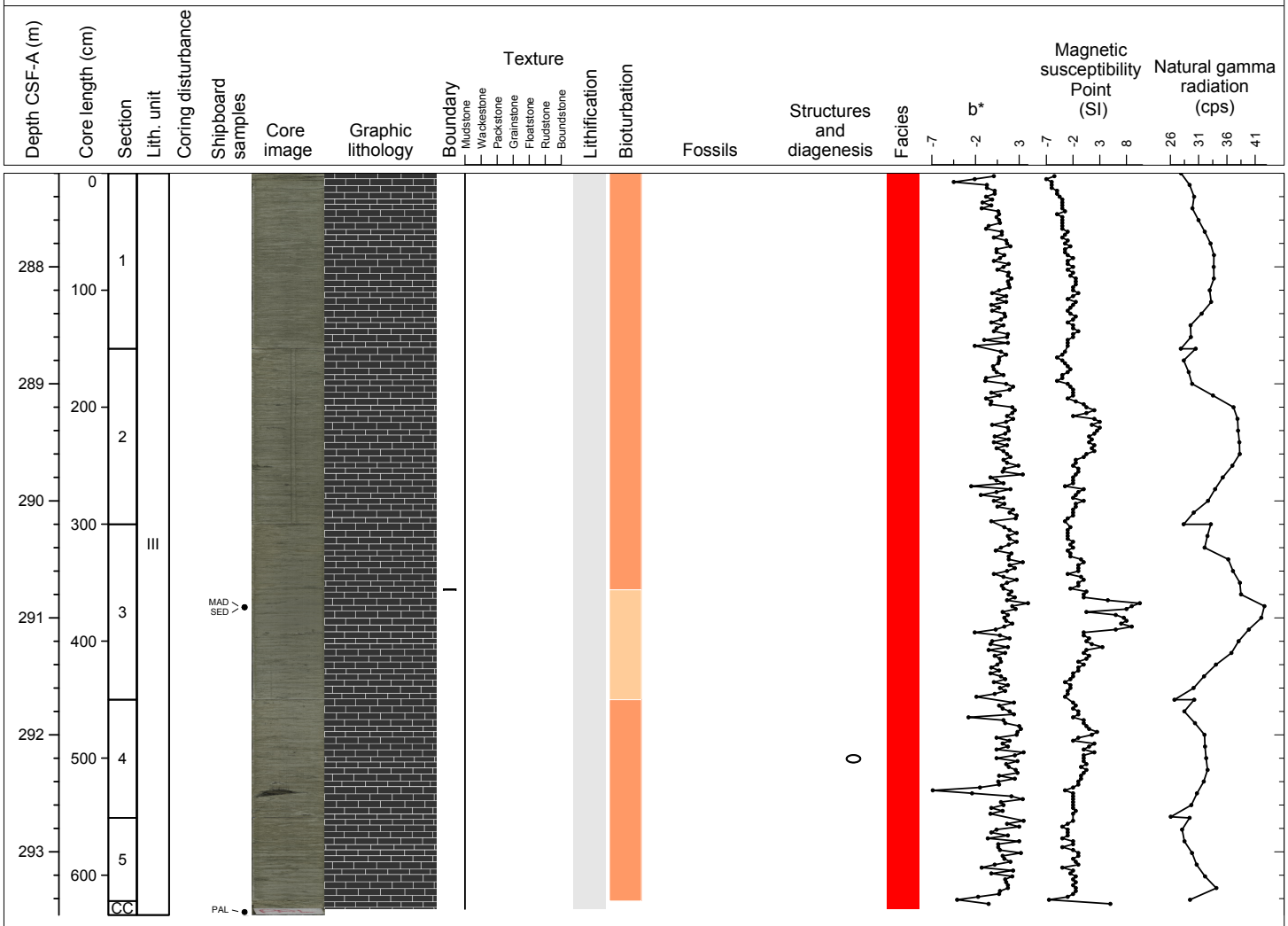
Hole 356-U1464D Core 31H, Interval 277.7-281.39 m (CSF-A)

Homogeneous, unlithified, olive gray to light grayish green, MUDSTONE with slight bioturbation, disseminated very fine sand-size grains, pyrite (concentrated in burrows), pyrite nodules, sparse sand-size shell fragments and small benthic foraminifers, and one bioturbated contact.



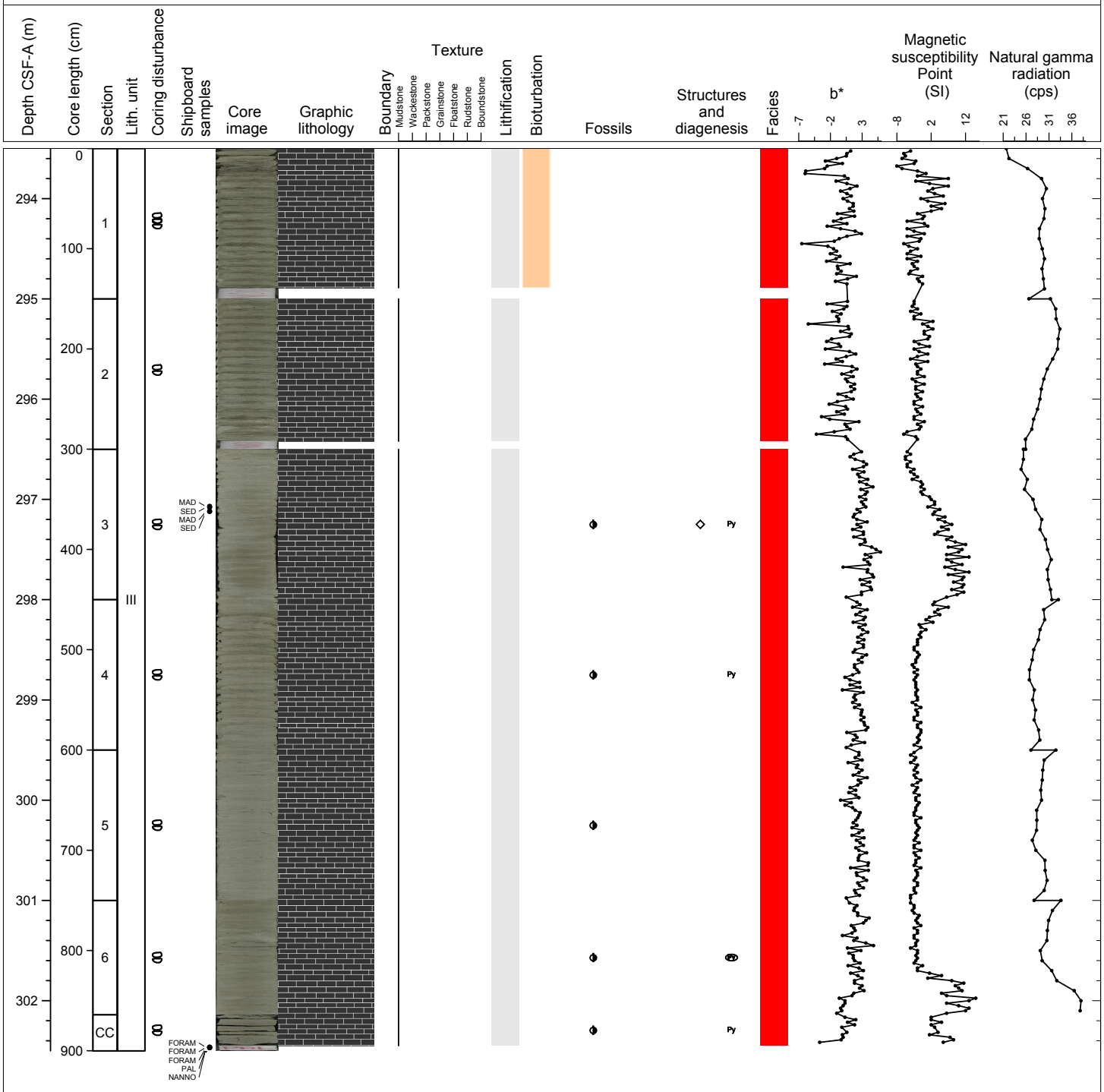
Hole 356-U1464D Core 32H, Interval 287.2-293.54 m (CSF-A)

Unlithified, olive gray, MUDSTONE with disseminated very fine sand-size grains, moderate bioturbation, sparse pyrite, pyrite nodules, and shell fragments. Benthic foraminifers (Cibicidoides) become common at the base of the core.



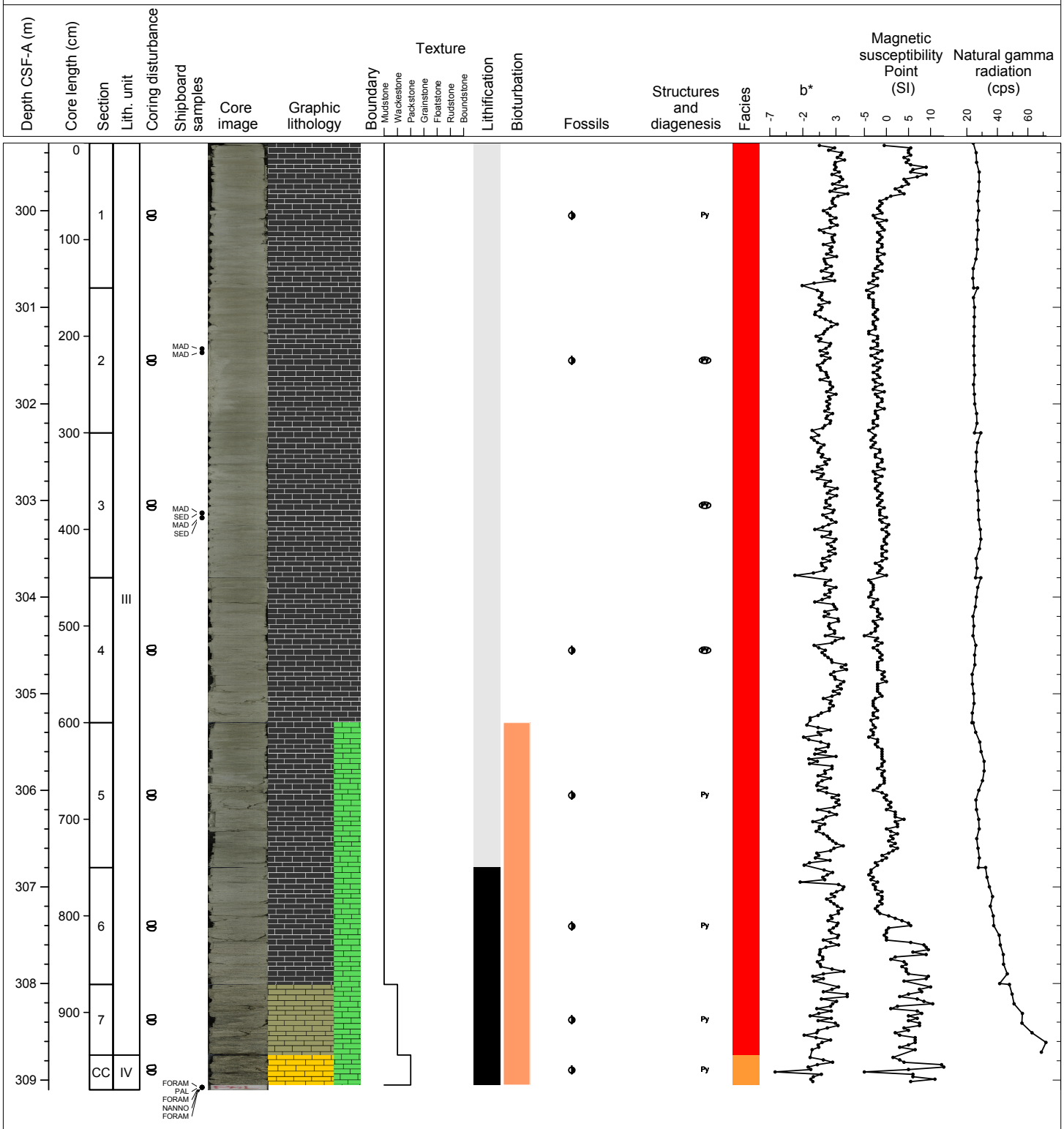
Hole 356-U1464D Core 33X, Interval 293.5-302.5 m (CSF-A)

Unlithified, olive gray, MUDSTONE with slight bioturbation, disseminated pyrite (mainly in burrows), sparse sand-size shell fragments, and common small benthic foraminifers. Midway down the core there are intraclasts and benthic foraminifers become more abundant. Near the base of the core the color changes to light greenish gray.



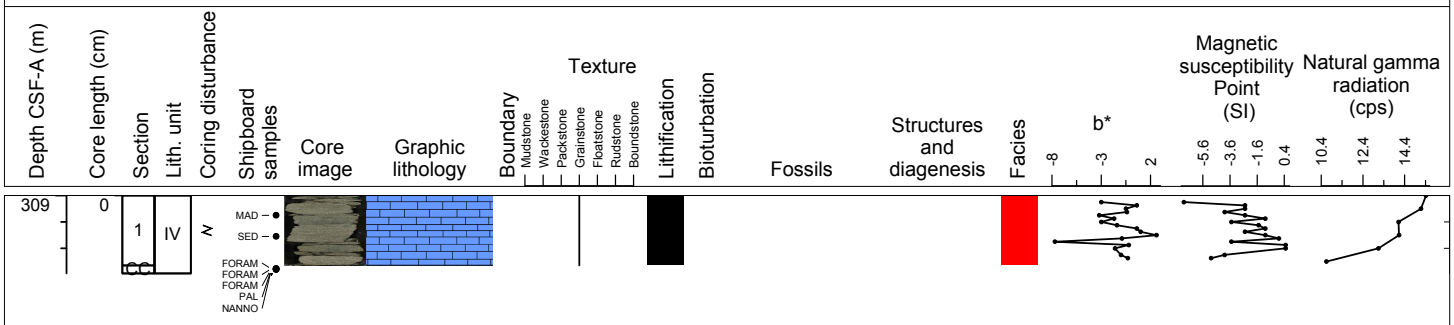
Hole 356-U1464D Core 34X, Interval 299.3-309.1 m (CSF-A)

Unlithified, light greenish gray, MUDSTONE with abundant very fine sand-size grains, abundant small benthic foraminifers, common disseminated pyrite, some pyrite nodules, and occasional macrofossil fragments (bryozoans and shells). About midway down the core, the lithology changes to lithified, dark greenish gray, MUDSTONE with glauconite, abundant disseminated pyrite (sometimes form laminae and bands), some pyrite nodules, abundant benthic foraminifers, moderate bioturbation, and occasional macrofossil fragments (echinoderm spines, bryozoans, and bivalves). Near the base of the core, mudstone changes to WACKESTONE with sand-size grains, and further down the wackestone transitions to PACKSTONE with coarse sand-size grains. The wackestone and packstone have similar sedimentary features/characteristics as the overlying mudstone.



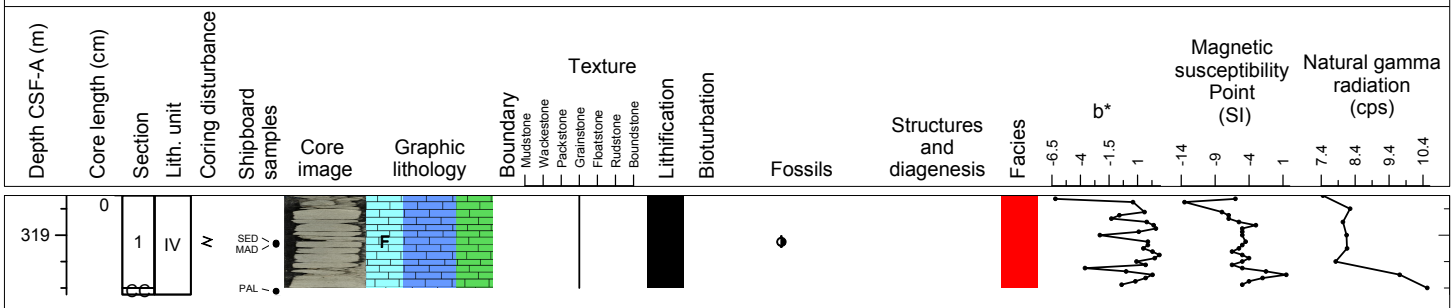
Hole 356-U1464D Core 35X, Interval 309.0-309.59 m (CSF-A)

Lithified, dark greenish gray, GRAINSTONE with coarse sand-size grains (glauconite, pyrite, reddish-brown grains and carbonate) and macrofossils (benthic foraminifers, bivalves, Cycloclypeus, and bryozoans).



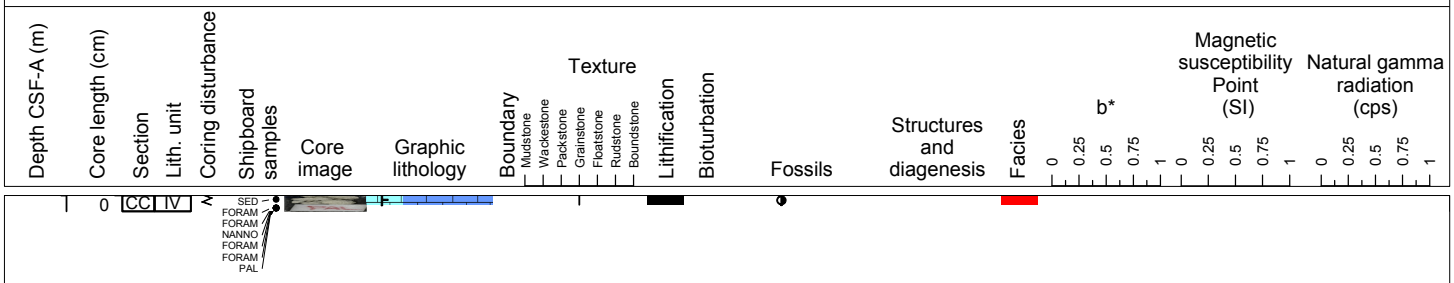
Hole 356-U1464D Core 36X, Interval 318.7-319.45 m (CSF-A)

Lithified, creamy gray, foraminifer-rich, GRAINSTONE with glauconite, sand to coarse sand-size grains (glauconite, carbonate), and macrofossils (benthic foraminifers, bivalves, Cycloclypeus, bryozoans, and a small sand dollar).



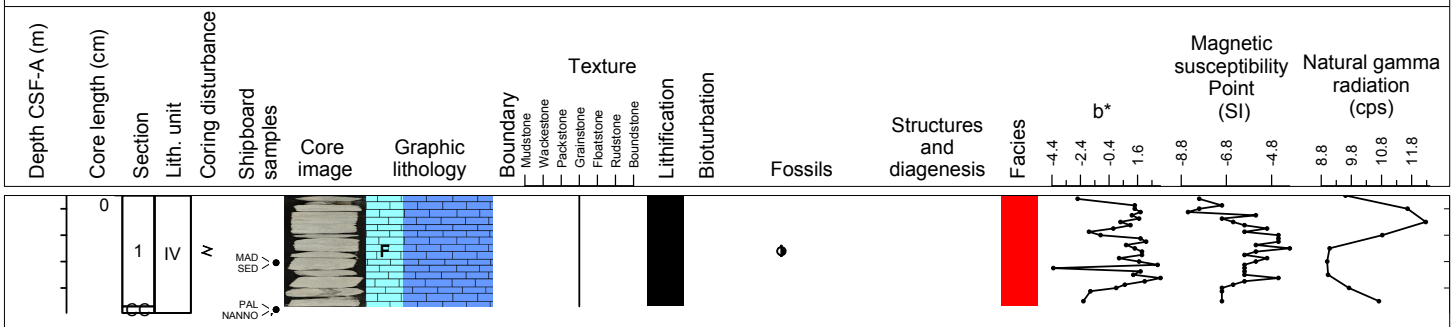
Hole 356-U1464D Core 37X, Interval 328.4-328.52 m (CSF-A)

Lithified, creamy gray, foraminifer-rich, GRAINSTONE with macrofossils (benthic foraminifers, bivalves, Cycloclypeus, and bivalve fragments) less glauconite and sand to coarse sand-size grains (glauconite, carbonate) than previous cores.



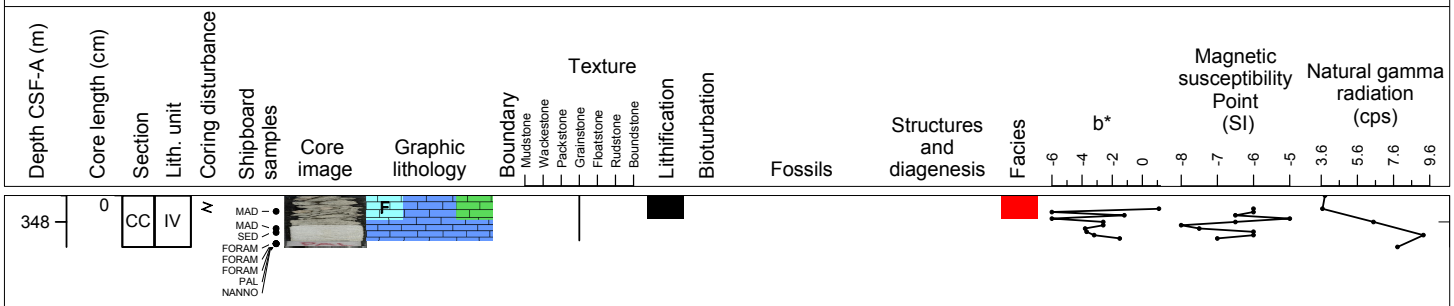
Hole 356-U1464D Core 38X, Interval 338.1-338.99 m (CSF-A)

Lithified, creamy gray, foraminifer-rich, GRAINSTONE with glauconite and sand to coarse sand-size grains (glauconite, carbonate) and macrofossils (benthic foraminifers, bivalves, Cycloclypeus, bryozoans, bivalves, and sea urchin spines).



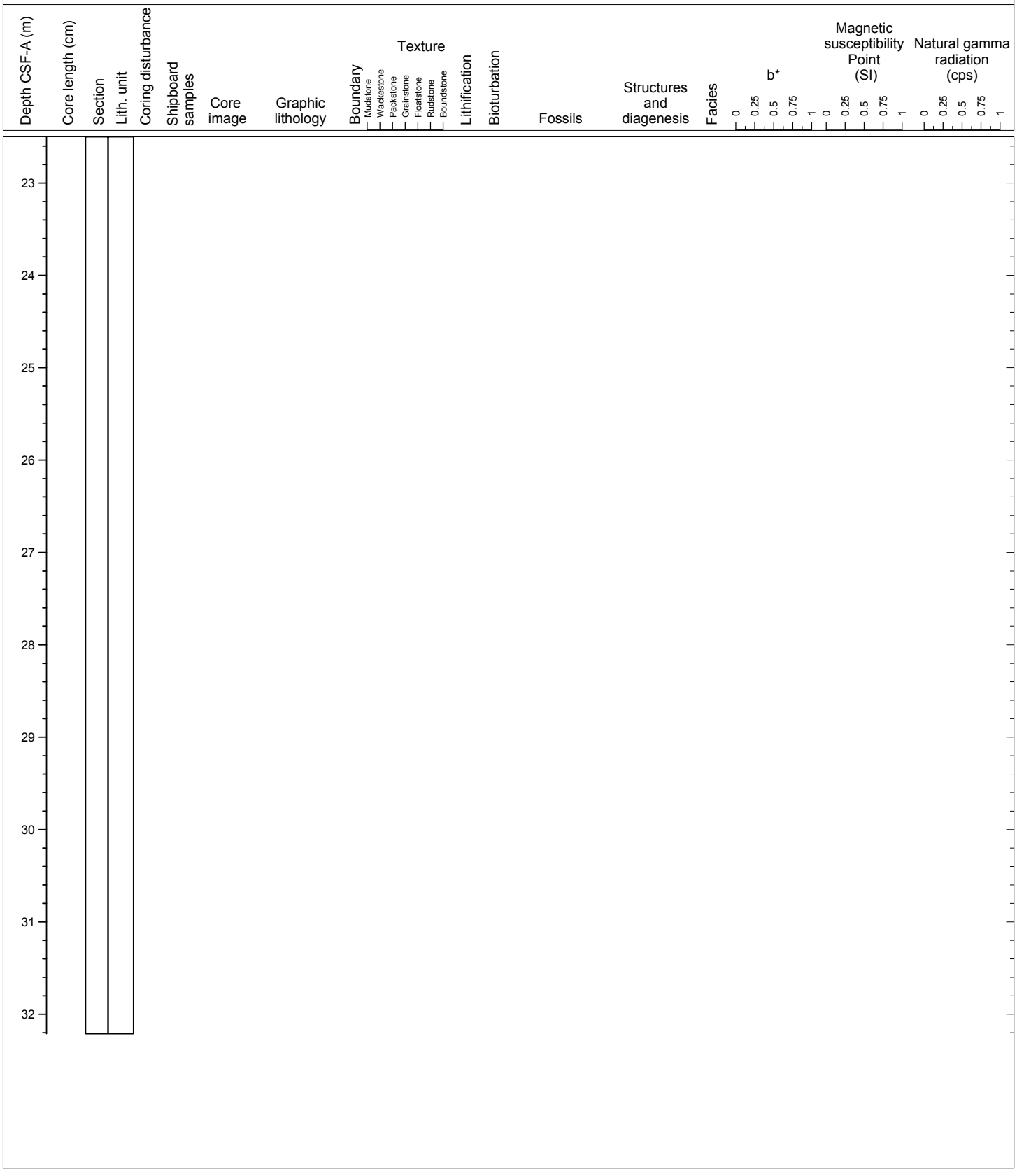
Hole 356-U1464D Core 39X, Interval 347.8-348.19 m (CSF-A)

Lithified, creamy gray, foraminifer-rich GRAINSTONE with sand to coarse sand-size grains (glauconite, carbonate) and macrofossils (benthic foraminifers, bivalve fragments, bryozoans). The core catcher contains compacted GRAINSTONE.



NO RECOVERY

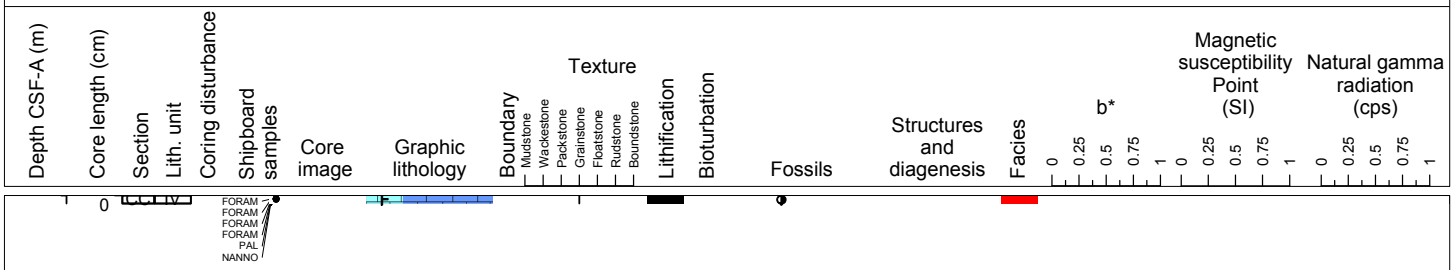
Hole 356-U1464D Core 40X, Interval 357.5-357.5 m (CSF-A)



ALL TO PAL

Hole 356-U1464D Core 41X, Interval 367.2-367.26 m (CSF-A)

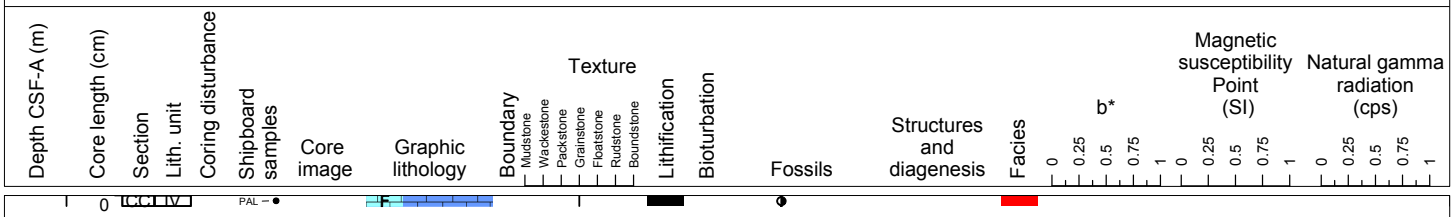
Lithified, creamy gray, foraminifer-rich, sand-sized, GRAINSTONE with very sparse glauconite and bivalve fragments.



ALL TO PAL

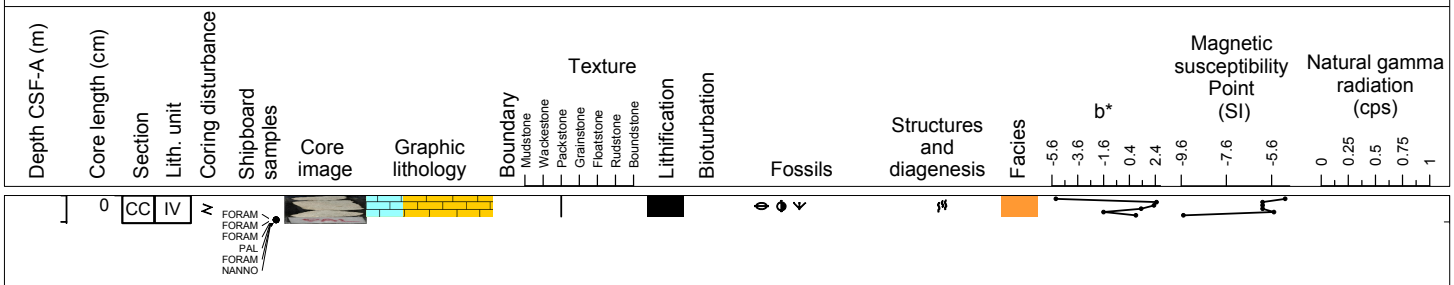
Hole 356-U1464D Core 42X, Interval 376.9-376.98 m (CSF-A)

Lithified, creamy gray, foraminifer-rich, medium to coarse sand-sized, GRAINSTONE with sparse glauconite and large bivalve fragments (3 cm long).



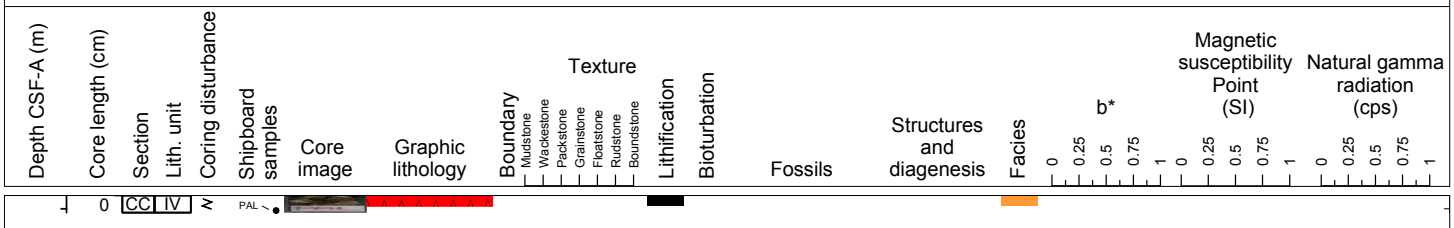
Hole 356-U1464D Core 43X, Interval 386.6-386.81 m (CSF-A)

Lithified, cream, skeletal, PACKSTONE with benthic foraminifers, bivalves, and abundant unidentified macrofossils.



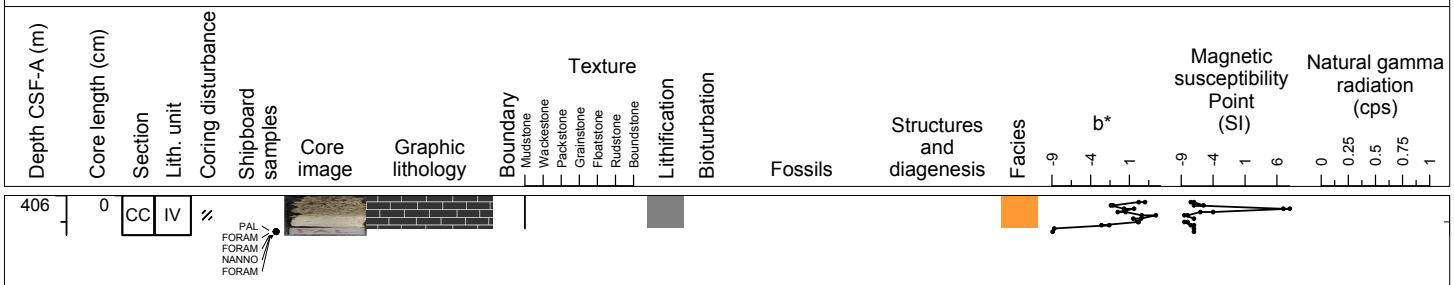
Hole 356-U1464D Core 44X, Interval 396.3-396.43 m (CSF-A)

Lithified, light brown, GYPSUM crystals.



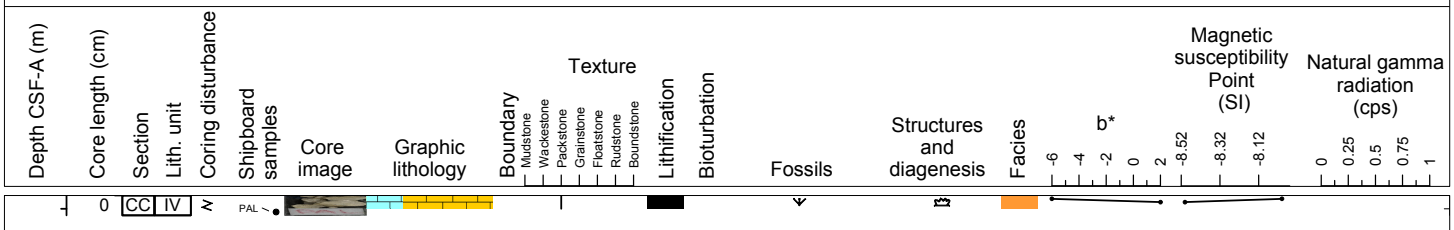
Hole 356-U1464D Core 45X, Interval 406.0-406.3 m (CSF-A)

Partially lithified, light gray, thinly laminated, MUDSTONE.



Hole 356-U1464D Core 46X, Interval 415.7-415.85 m (CSF-A)

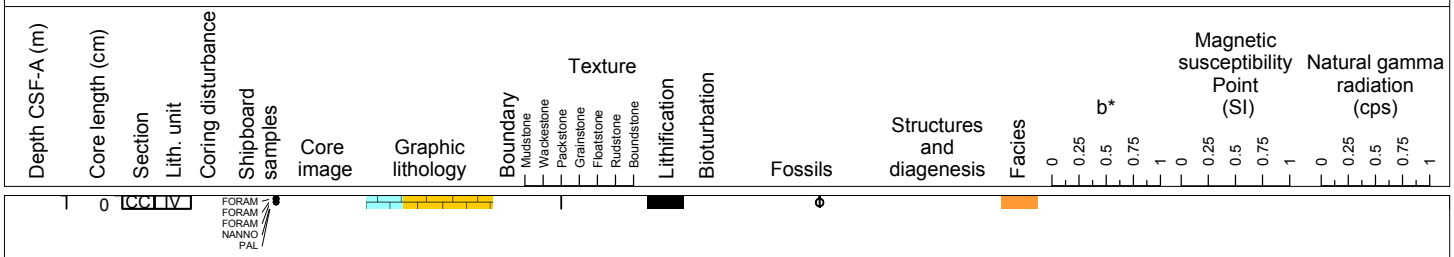
Lithified, cream, skeletal, PACKSTONE with bryozoans, unidentified macrofossils, and a possible microbialite boundstone in the upper 3 cm.



ALL TO PAL

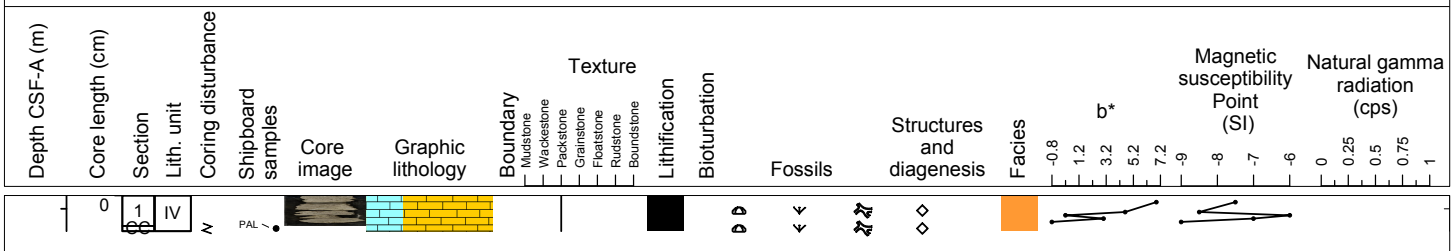
Hole 356-U1464D Core 47X, Interval 425.4-425.5 m (CSF-A)

Lithified, cream, skeletal, PACKSTONE with larger benthic foraminifers. The rock is partially recrystallized.



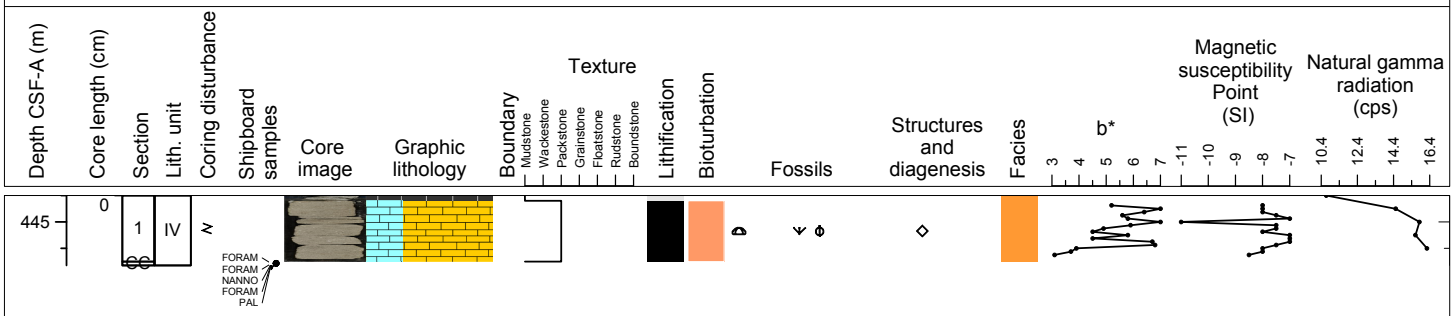
Hole 356-U1464D Core 48X, Interval 435.1-435.37 m (CSF-A)

Lithified, cream, skeletal, PACKSTONE with corals (branching?), bryozoans, and echinoderm fragments. There are also many molds of diverse fossils. This core is slightly recrystallized.



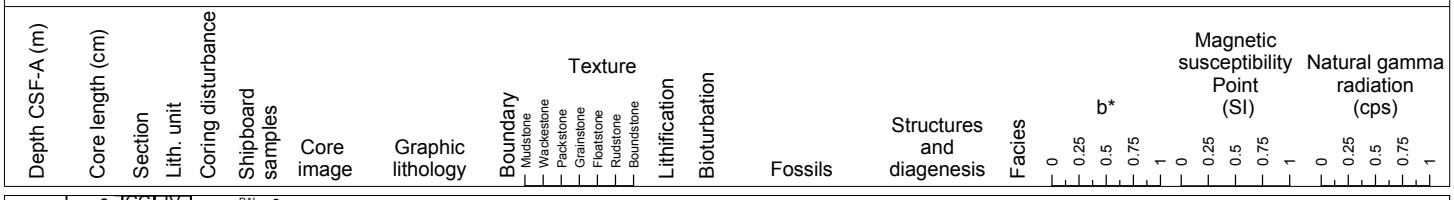
Hole 356-U1464D Core 49X, Interval 444.8-445.33 m (CSF-A)

Unlithified, light gray, MUDSTONE transitions down core to lithified, light brown, skeletal, PACKSTONE with abundant macrofossils (echinoderms, bryozoans, and large benthic foraminifers).



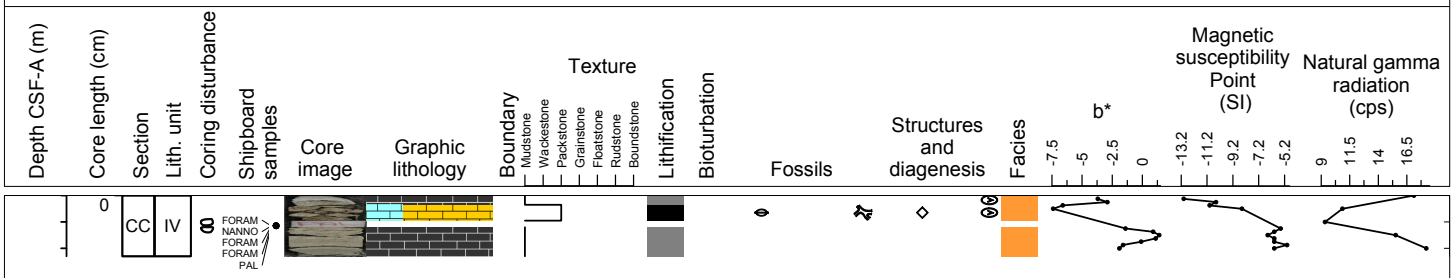
ALL TO PAL

Hole 356-U1464D Core 50X, Interval 454.5-454.6 m (CSF-A)



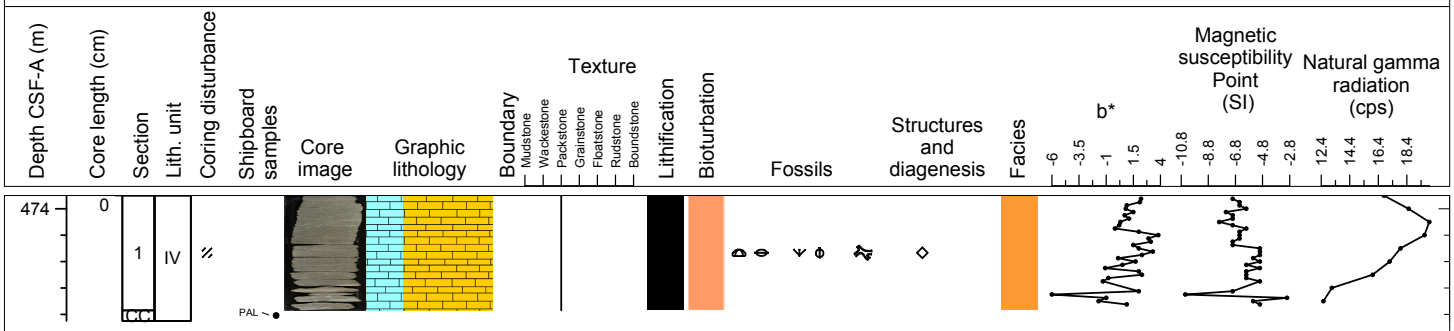
Hole 356-U1464D Core 51X, Interval 464.2-464.66 m (CSF-A)

Partially lithified, light gray to gray, thinly-laminated, MUDSTONE with gypsum crystals contains an interval of lithified, light brown, skeletal, PACKSTONE with gypsum crystals.



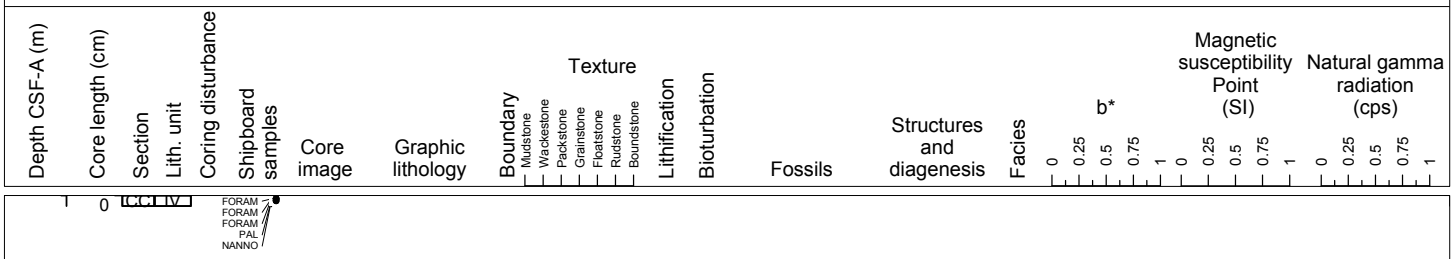
Hole 356-U1464D Core 52X, Interval 473.9-474.85 m (CSF-A)

Lithified, mottled, gray, skeletal, PACKSTONE with moderate bioturbation and abundant macrofossils (bivalves, bryozoans, echinoderms, branching corals, and large benthic foraminifers).



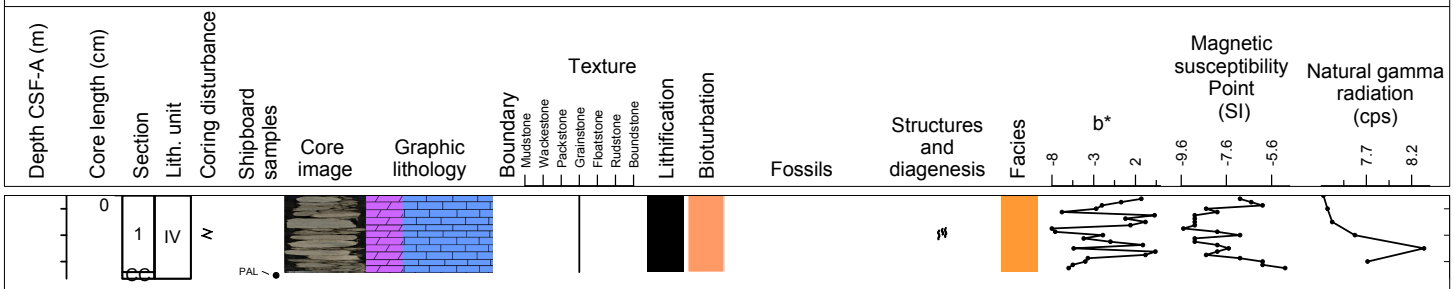
ALL TO PAL

Hole 356-U1464D Core 53X, Interval 483.6-483.68 m (CSF-A)



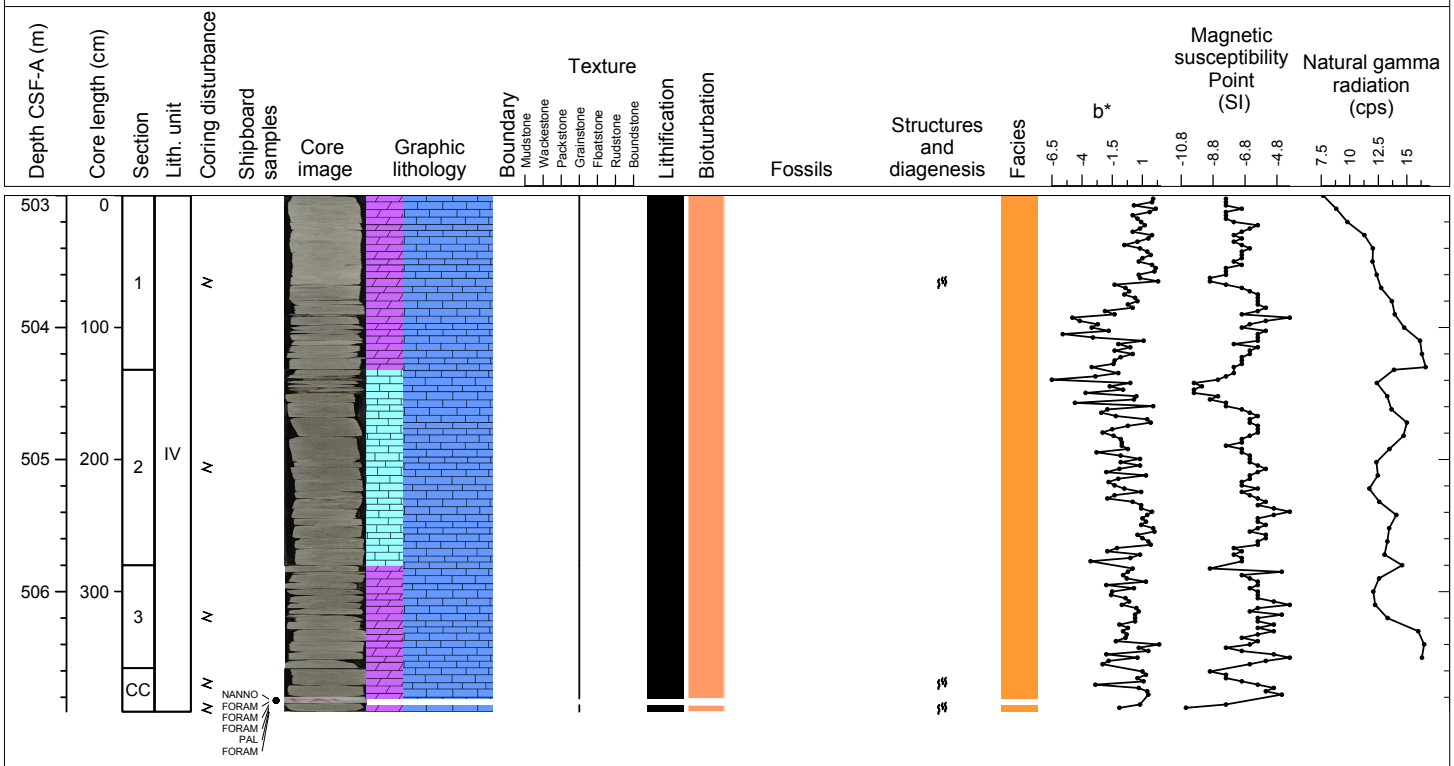
Hole 356-U1464D Core 54X, Interval 493.3-493.93 m (CSF-A)

Lithified, light brown, dolomitic, sand-sized, GRAINSTONE with moderate bioturbation and macrofossils. Burrows (mm scale) are in-filled with brown material (gypsum or dolomite?). Larger burrows (few cm scale) are dark gray or dark brown. Macrofossils include benthic foraminifers, molds of bivalves and urchin spines. There are also sparse solution cavities.



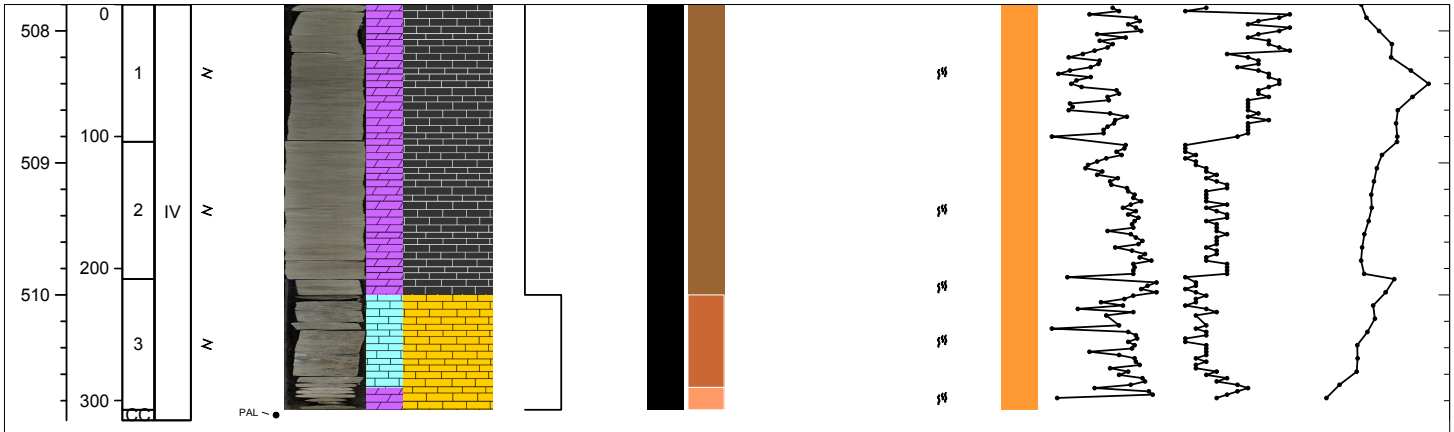
Hole 356-U1464D Core 55X, Interval 503.0-506.91 m (CSF-A)

Lithified, light brown to brown to light brownish gray, dolomitic, skeletal, sand-sized, GRAINSTONE with abundant shell fragments, common glauconite grains, and macrofossils (bivalves, gastropods, bryozoans, large and small benthic foraminifers (Cycloclypeus), urchin spines, and sand dollars). Shells have mainly been replaced with gypsum and to a lesser extent ANHYDRITE. Burrows are in-filled with gypsum. Dissolution cavities are filled with gypsum. Shell abundance and glauconite abundance decrease down core.



Hole 356-U1464D Core 56X, Interval 507.8-510.95 m (CSF-A)

Lithified, brown to light brown, dolomitic, MUDSTONE with complete bioturbation (larger burrows filled with coarser sand-size grains, pyrite and glauconite; smaller burrows filled with gypsum; some burrows contain ANHYDRITE nodules); occasional gastropod, small benthic foraminifers, urchin spines, coral (Acropora, Fungiid), and bryozoans; and abundant bivalve fragments (replaced by gypsum). In the lower part of the core, the lithology changes to lithified, skeletal PACKSTONE and then lithified, creamy brown, dolomitic, fine sand-sized, PACKSTONE with abundant solution cavities, burrows, gypsum replacement of macrofossils (coral, bivalves, and gastropods), some benthic foraminifers, and less ANHYDRITE than in above cores.



Hole 356-U1464D Core 57X, Interval 512.7-513.33 m (CSF-A)

LIthified, light brown, dolomitic, sand-sized, WACKESTONE with large (10 cm long and 5 wide) ANHYDRITE crystals with chickenwire structure. Burrows are abundant, and the smaller ones (mm scale) are filled with gypsum. Smaller ANHYDRITE nodules (1-2 cm) are also common.. Macrofossils (bivalves, coral fragments, and occasional foraminifers) occur in the upper 18 cm. Within the large ANHYDRITE crystals there are Porites corals. In the lower 10 cm there are bivalve fragments replaced by gypsum.