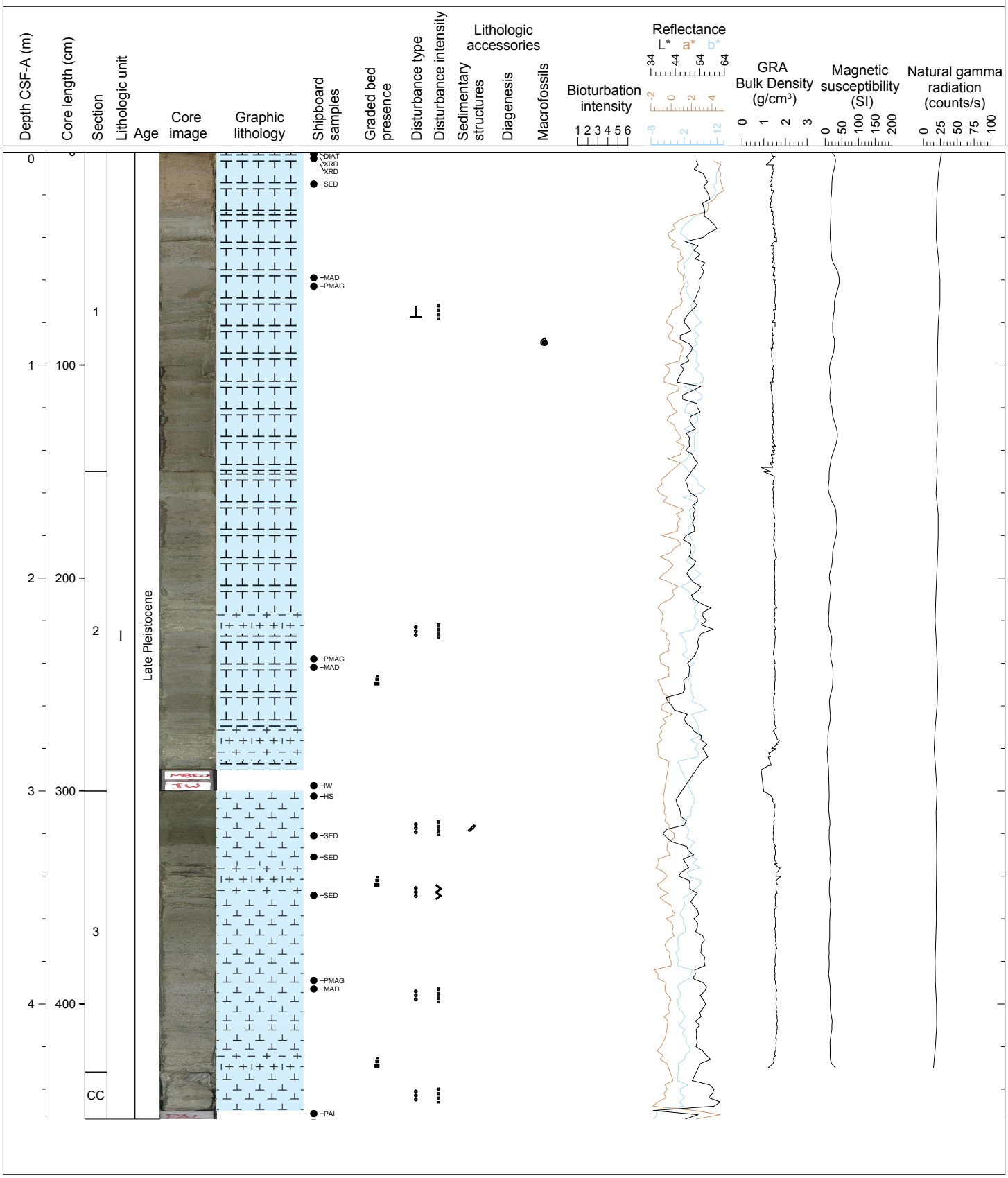
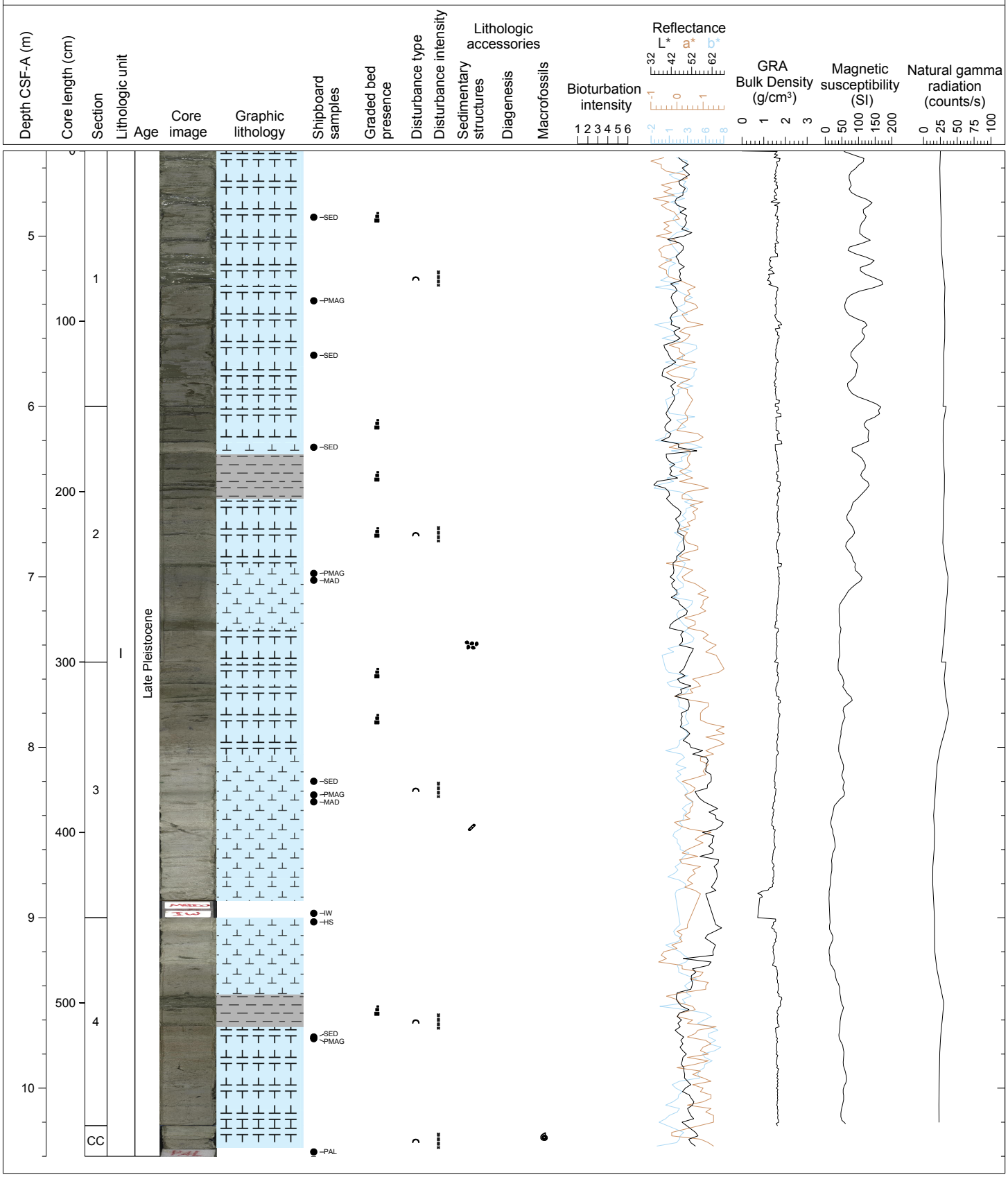
Hole 355-U1456A Core 1H, Interval 0.0-4.54 m (CSF-A)

NANNOFOSSIL OOZE WITH FORAMINIFERS, FORAMINFER-RICH NANNOFOSSIL OOZE and CALCAREOUS OOZE WITH FORAMINIFERS. These light colored pelagic sediments dominate the core. they are mostly massive and structureless. A small amount of more clastic material is found in the form of beds of NANNOFOSSIL OOZE WITH CLAY and FORAMINIFER-RICH NANNOFOSSIL OOZE WITH CLAY which have a green gray color and show normal grading above sharp erosive bases.



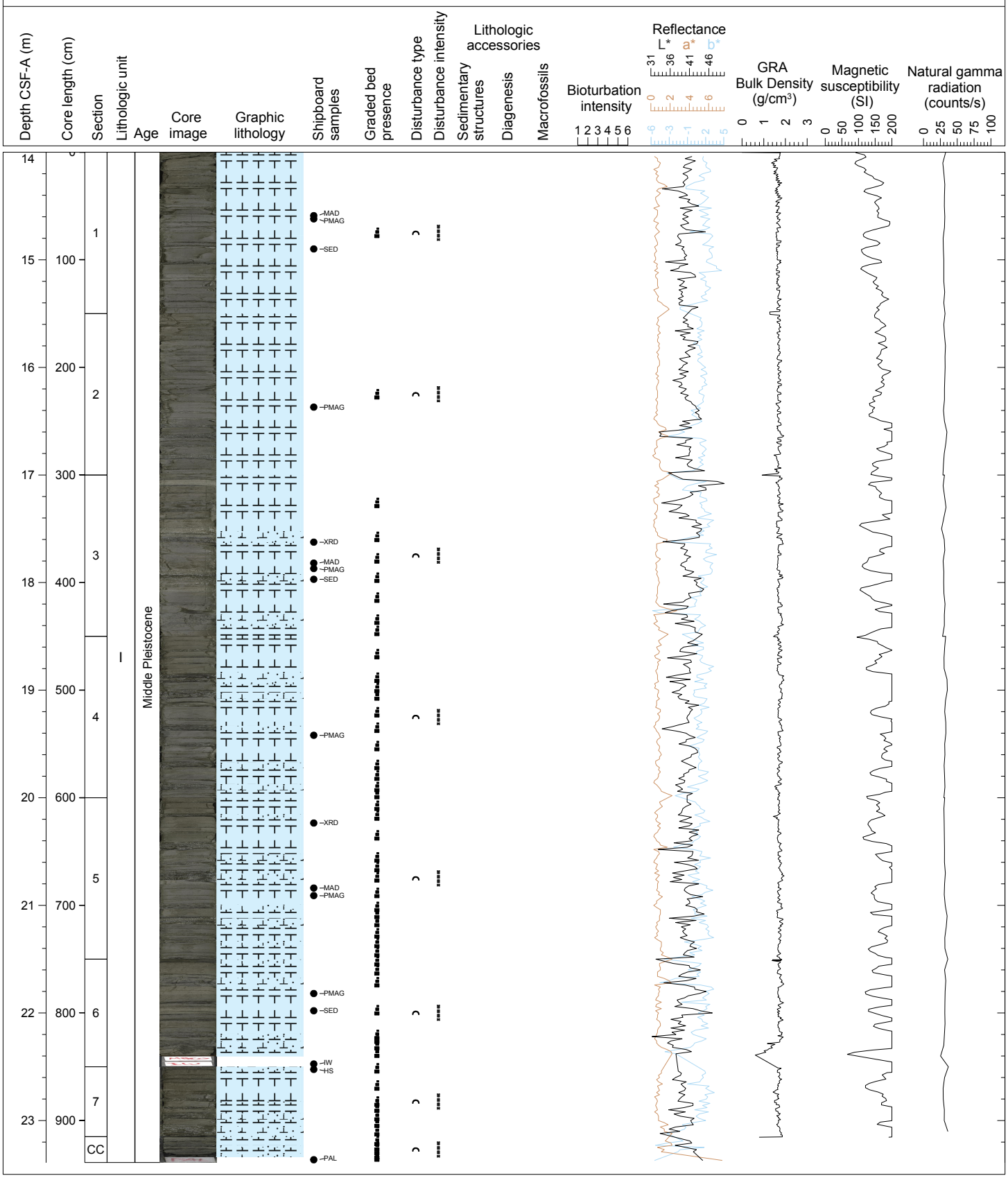
Hole 355-U1456A Core 2H, Interval 4.5-10.4 m (CSF-A)

FORAMINIFER-RICH NANNOFOSSIL OOZE dominates the core, interbedded with moderate amounts of CLAY WITH NANNOFOSSILS and NANNOFOSSIL OOZE WITH CLAY, especially in Section 2. Sediment color is normally light gray and dark gray, but closer to white for NANNOFOSSIL OOZE interbeds. Planar and sharp lithologic boundaries occur throughout the core and normal grading is frequently observed. Mottling was found in Section 2 and burrow was found in Section 3.



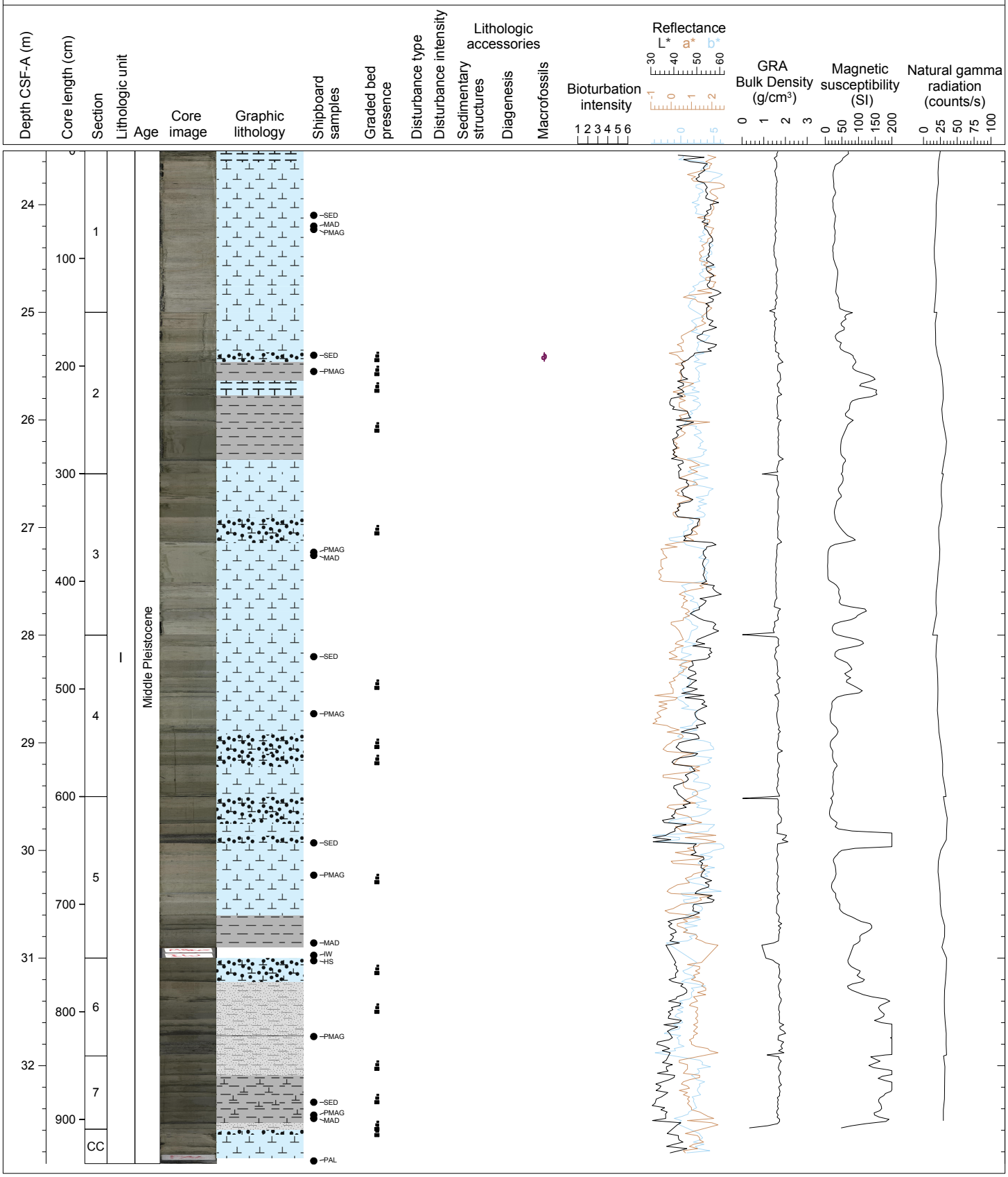
Hole 355-U1456A Core 3H, Interval 14.0-23.39 m (CSF-A)

FORAMINIFER RICH NANNOFOSSIL OOZE WITH CLAY is the dominant lithology of this core. SILTY NANNOFOSSIL OOZE WITH CLAY is frequently intercalated throughout the core. These two lithologies are both light gray (gray 1 5/10Y). The boundary between two lithologies is typically sharp and horizontal. The intercalated SILTY NANNOFOSSIL OOZE WITH CLAY layers are characterized mostly by normal grading.



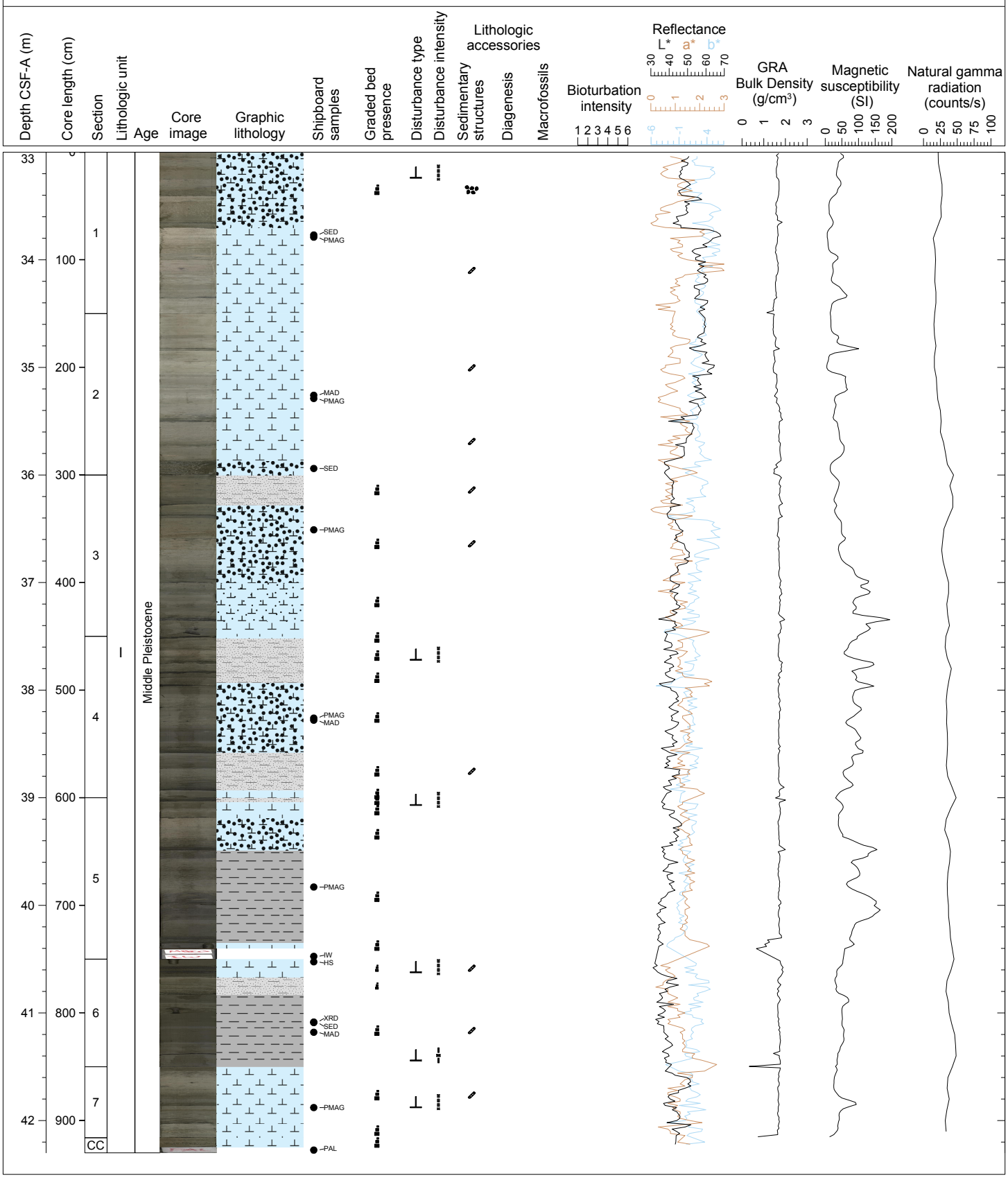
Hole 355-U1456A Core 4H, Interval 23.5-32.91 m (CSF-A)

NANNOFOSSIL OOZE, NANNOFOSSIL OOZE with CLAY, FORAMINIFER-RICH NANNOFOSSIL OOZE WITH CLAY, SANDY CLAY with NANNOFOSSILS, NANNOFOSSIL-RICH SAND. FORAMINIFER-RICH NANNOFOSSIL OOZE WITH CLAY and NANNOFOSSIL OOZE WITH CLAY are interbedded as minor lithologies. NANNOFOSSIL-RICH SAND occurs in Section 5 (36-43 cm) and Section 6 (72-91 cm), where it is associated with SANDY CLAY WITH NANNOFOSSILS. The dominant lithology color is dark gray (Grey 1 5/10Y). The bottom boundaries of the coarser layers are mostly sharp with normal grading.



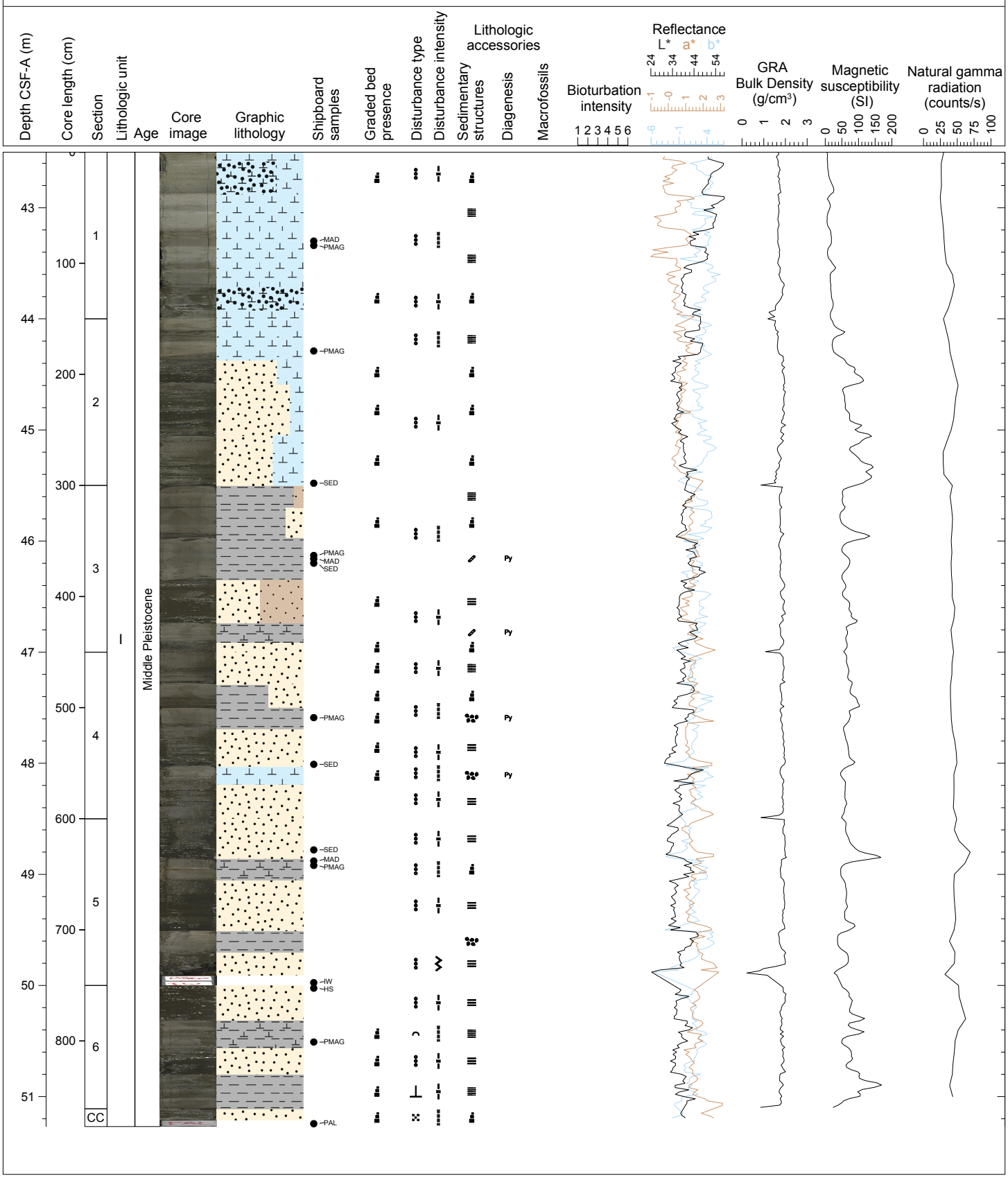
Hole 355-U1456A Core 5H, Interval 33.0-42.3 m (CSF-A)

NANNOFOSSIL OOZE, NANNOFOSSIL OOZE WITH CLAY, FORAMINIFER-RICH NANNOFOSSIL OOZE WITH CLAY, NANNOFOSSIL-RICH SAND. NANNOFOSSIL OOZE WITH CLAY is dominant with FORAMINIFER-RICH NANNOFOSSIL OOZE WITH CLAY and NANNOFOSSIL OOZE interbedded in the sequence as minor lithologies. NANNOFOSSIL-RICH SAND and CLAY WITH NANNOFOSSILS is minor and forms normally graded interbeds. The dominant lithology color is dark gray (GLEY 1 5/10Y), except towards the top of the core where sediments are light gray and more pelagic in Sections 1 and 2 (GLEY 1 7/10Y)..



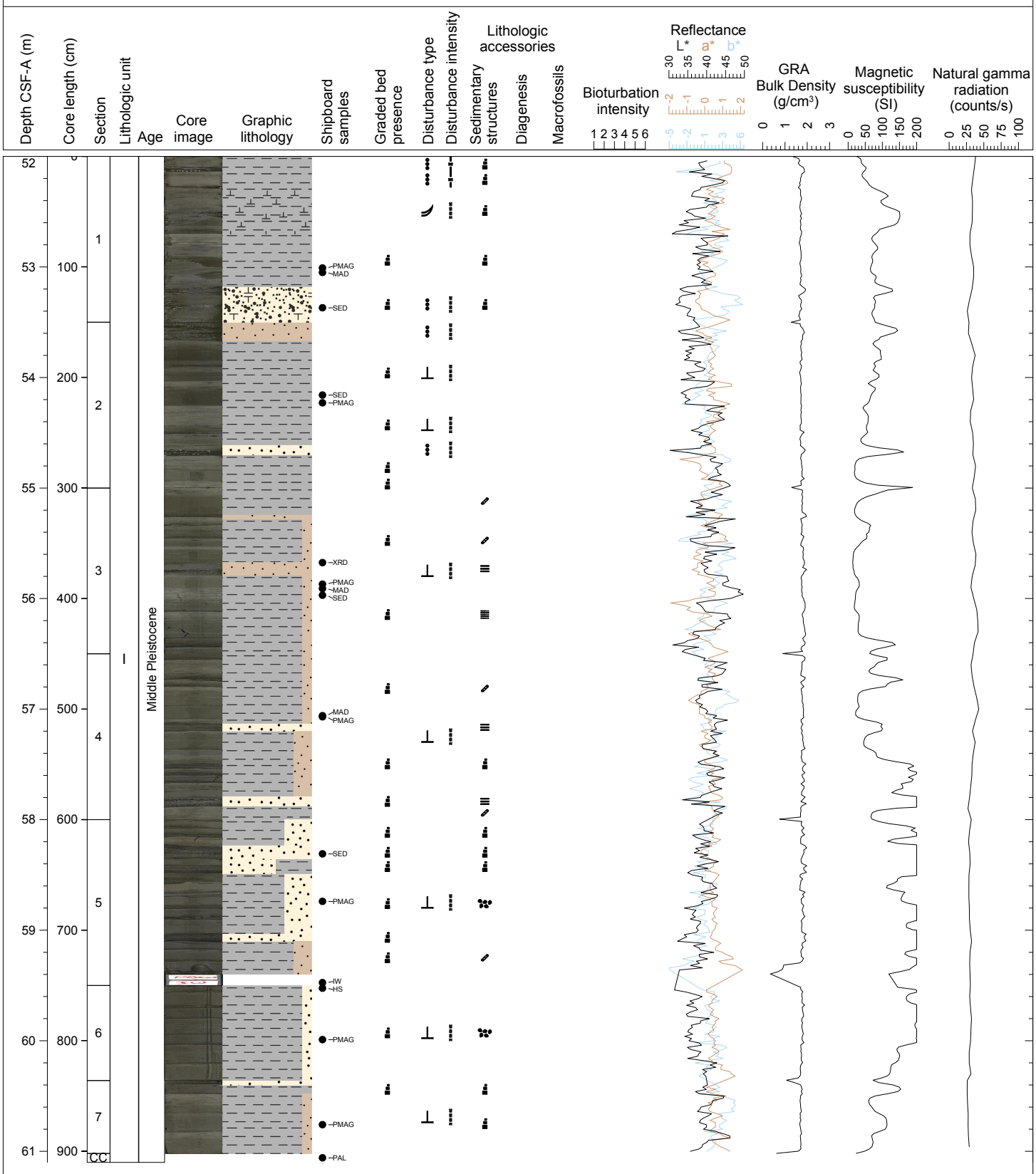
Hole 355-U1456A Core 6H, Interval 42.5-51.27 m (CSF-A)

SAND, SAND WITH SILT, NANNOFOSSIL OOZE WITH CLAY, NANNOFOSSIL OOZE. This core is largely comprised of stacked dark gray and dark green turbidites composed of SAND and SAND WITH CLAY mostly fine grained, occasionally medium grained sand. The sands have sharp, erosive bases and some parallel lamination. They grade up into slightly lighter NANNOFOSSIL OOZE WITH CLAY, NANNOFOSSIL-RICH CLAY and CLAY WITH NANNOFOSSILS. NANNOFOSSIL OOZE is present but less common than higher in the section, Hemipelagic layers show moderate bioturbation and sparse development of pyrite.



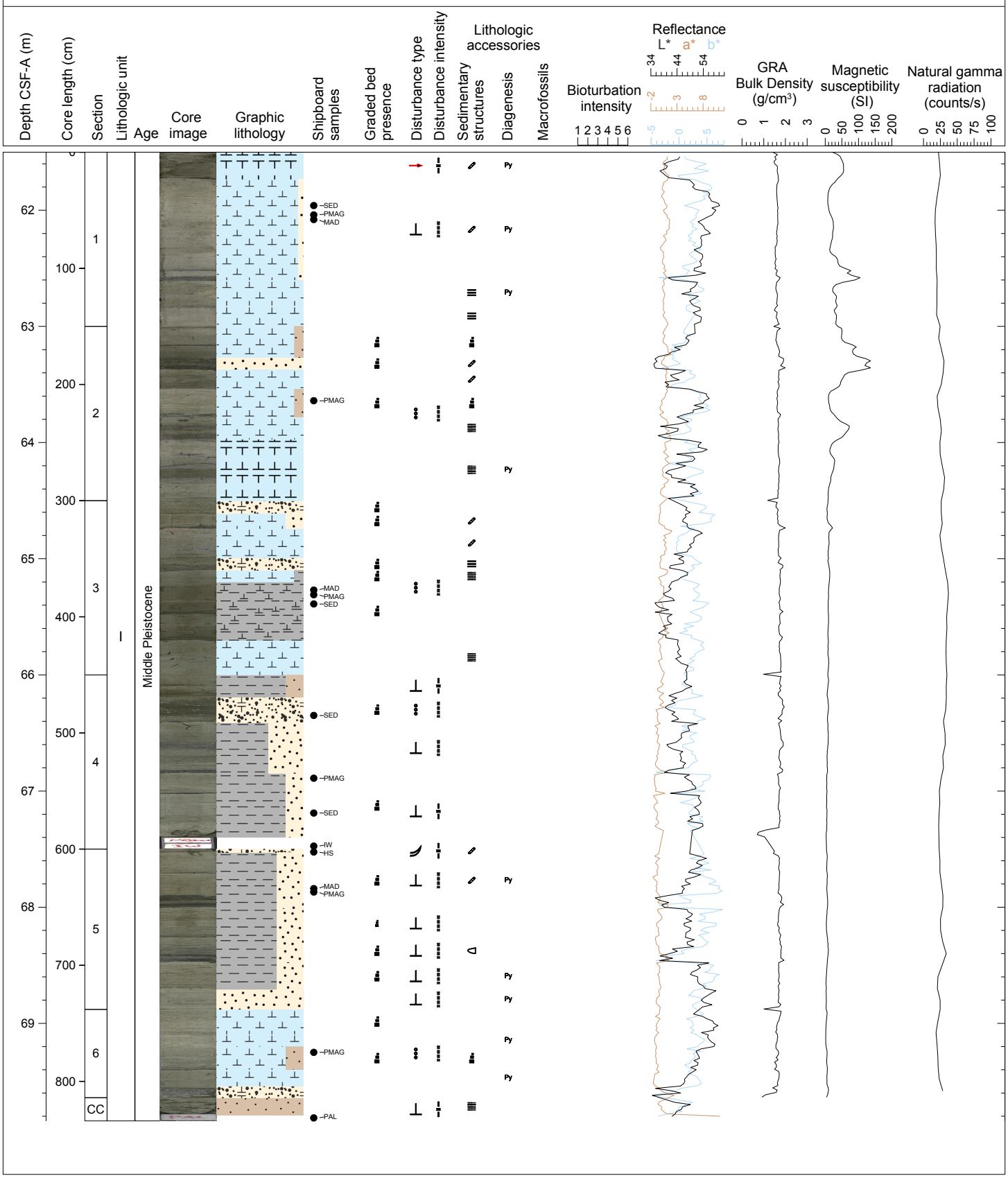
Hole 355-U1456A Core 7H, Interval 52.0-61.1 m (CSF-A)

CLAY WITH NANNOFOSSILS, SAND WITH SILT, SILT. Dark green CLAY is the major lithology and is typically massive or mottled with clear bioturbation, including Chondrites burrows. The color banded CLAY contains nannofossils which vary in concentration along the core. The black color patches of pyrite are in the CLAY bands. SAND WITH SILT is most often grayish green and interbedded with alternating beds of CLAY WITH NANNOFOSSILS. The SILT and SAND WITH SILT beds represent turbidite deposits and often show erosive bottoms and faint parallel laminations.



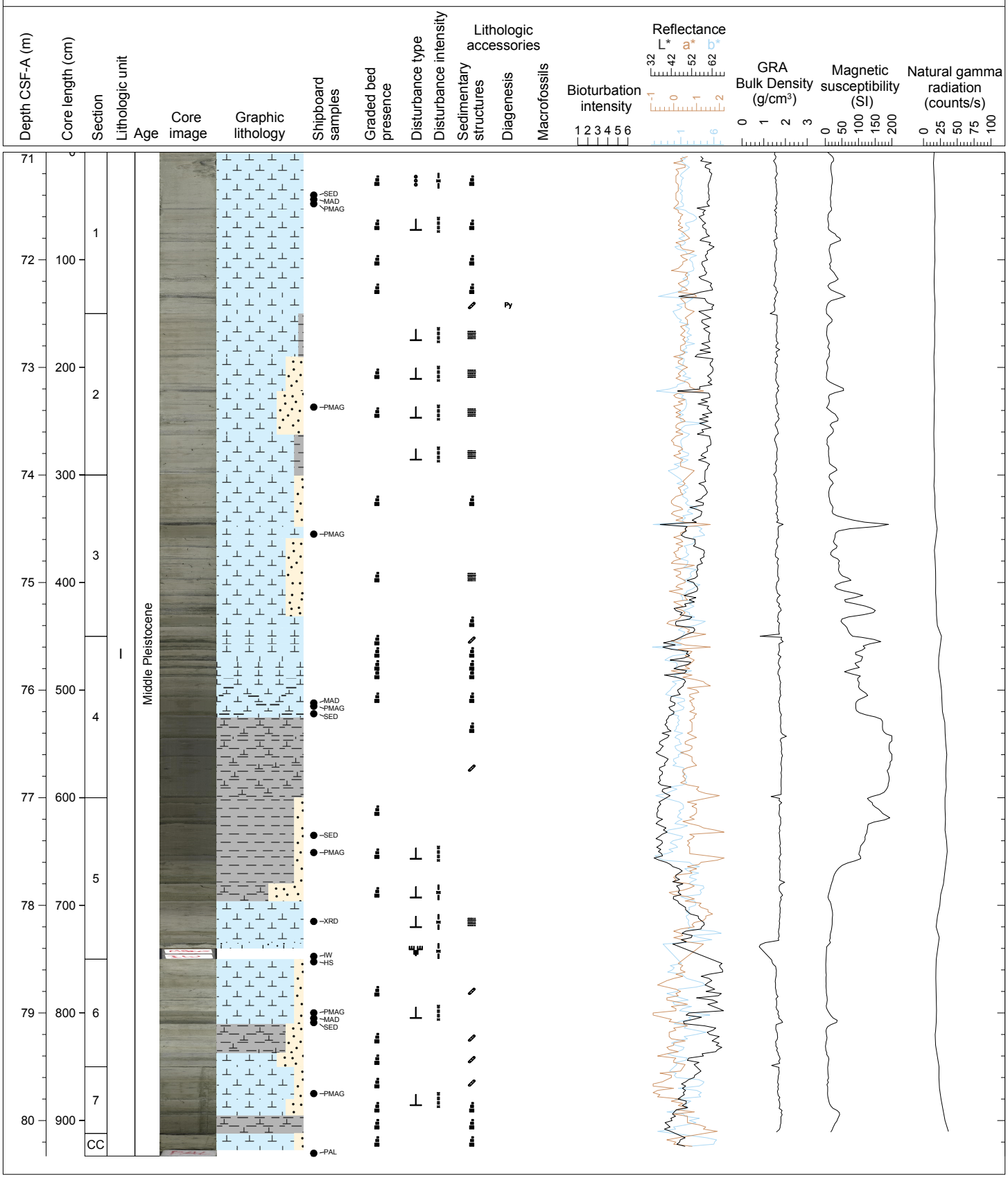
Hole 355-U1456A Core 8H, Interval 61.5-69.84 m (CSF-A)

NANNOFOSSIL OOZE WITH CLAY, SAND WITH SILT, NANNOFOSSIL OOZE, SILT. The core is dominated by interbedded dark greenish gray NANNOFOSSIL OOZE WITH CLAY and light gray NANNOFOSSIL OOZE with frequent interbeds of SILT that are less common, as well as thick bedded, laminated SAND and SAND WITH SILT that all have erosive bases and parallel laminations in the base of the thicker beds. Zoophycos and Chondrites trace fossils are seen in the clay and nannofossil-rich hemipelagic units. Sparse pyrite is developed in some of the fine grained beds, which are often generally mottled. The core is generally lighter colored and more calcareous than the overlying cores.



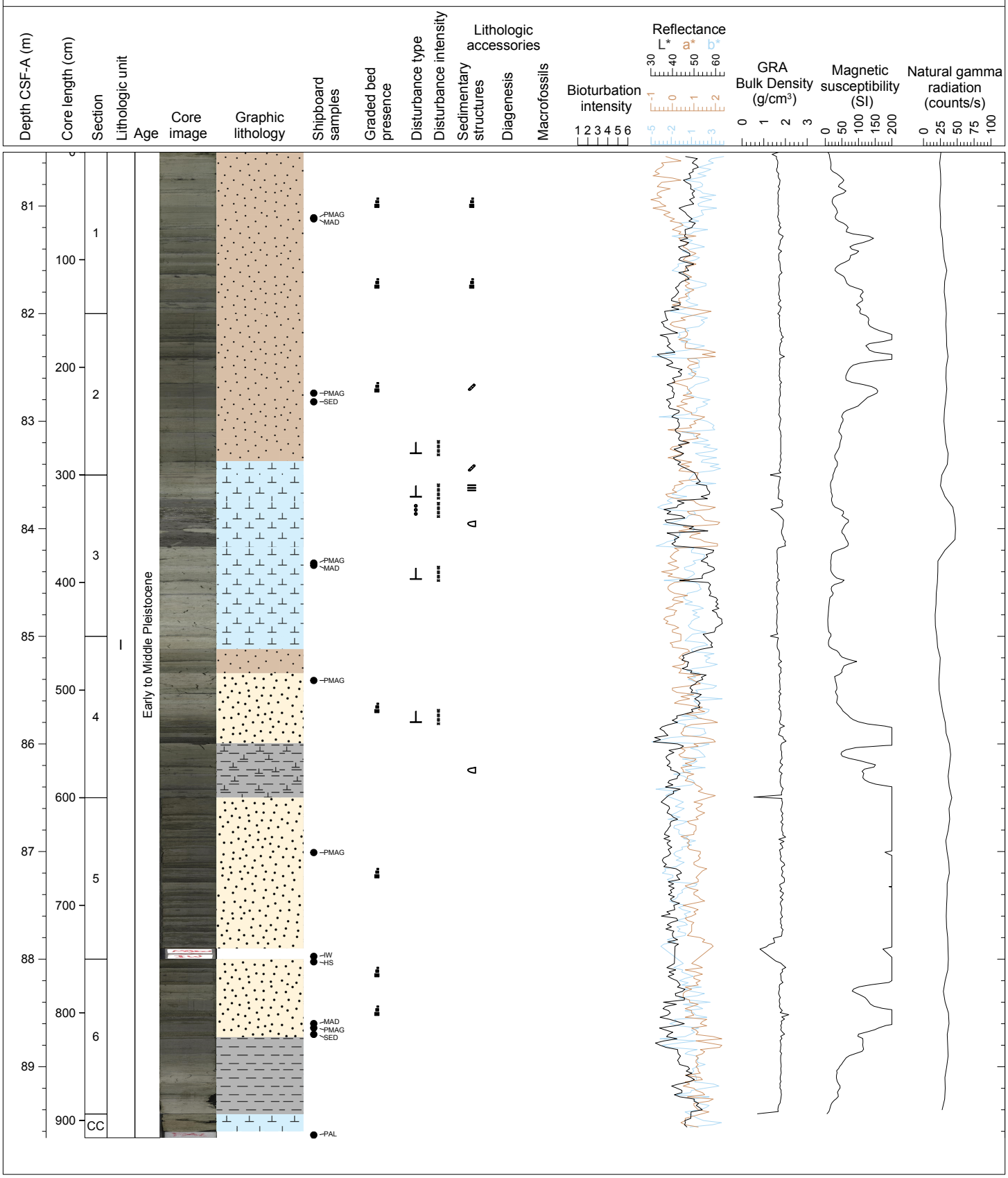
Hole 355-U1456A Core 9H, Interval 71.0-80.33 m (CSF-A)

NANNOFOSSIL OOZE WITH CLAY, SILTY SAND WITH NANNOFOSSILS and CLAYEY NANNOFOSSIL OOZE. Light colored NANNOFOSSIL OOZE WITH CLAY is the major lithology, except in Sections 4 and 5 where the whole sediment becomes more clastic and clay-rich. Dark colored SILTY SAND WITH NANNOFOSSILS is the minor lithology and is present as a series of thin, graded interbeds. SILTY SAND WITH NANNOFOSSILS is typically interbedded with the major lithology and alternating bands of these two lithologies are observed.



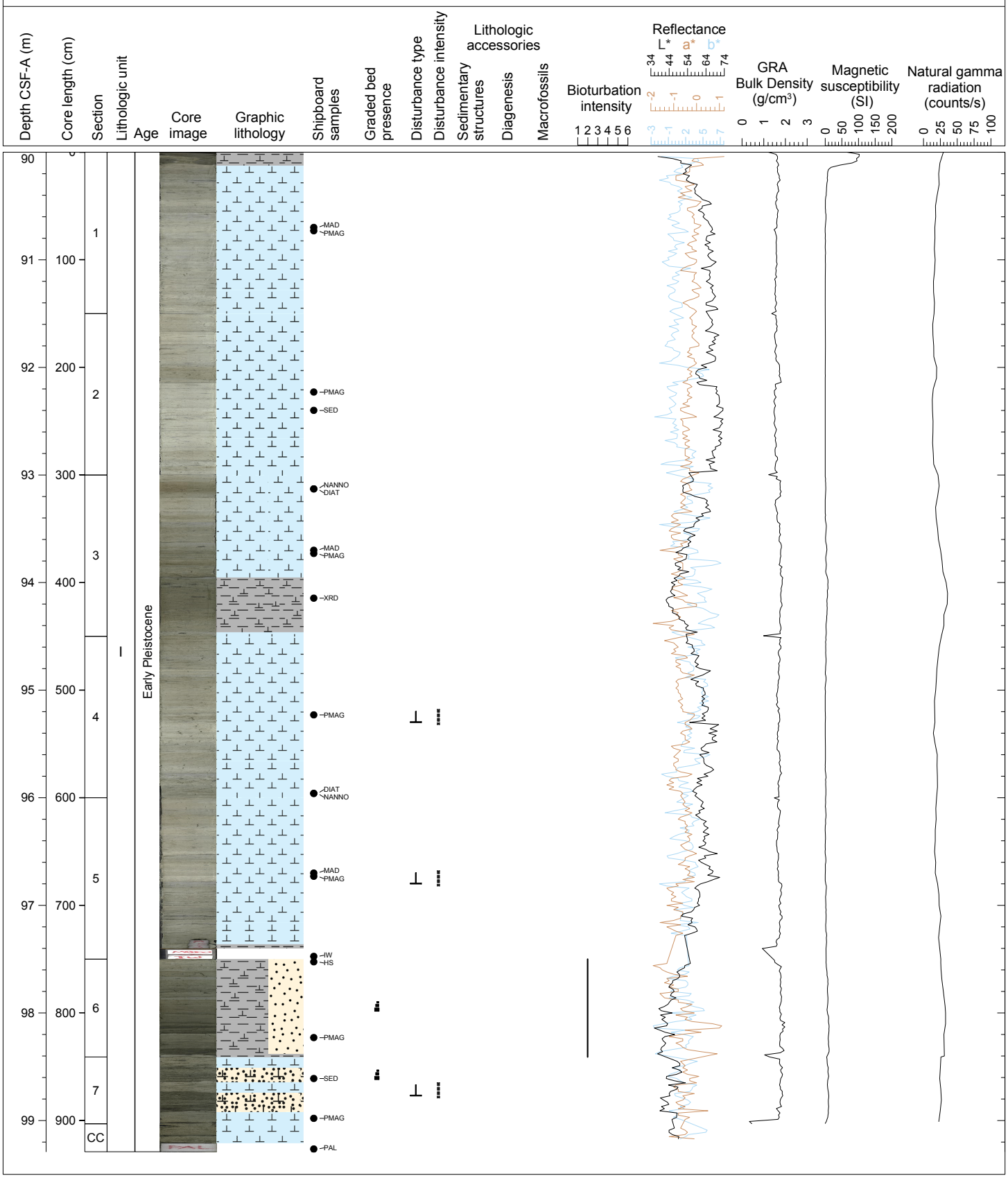
Hole 355-U1456A Core 10H, Interval 80.5-89.66 m (CSF-A)

NANNOFOSSIL OOZE WITH CLAY, NANNOFOSSIL OOZE and NANNOFOSSIL RICH CLAY are dominant lithologies in this core. Minor lithologies are NANNOFOSSIL RICH SILT WITH CLAY, NANNOFOSSIL RICH SAND WITH CLAY, which are intercalated as normally graded beds. Most lithology boundaries are sharp and erosive at the base of the coarser grained sediments. Some rip-up chunks of nannofossil ooze are found (Section 3, 26 cm, 52 cm, Section 6, 37 cm). A scour mark was observed at Section 4, 100 cm.



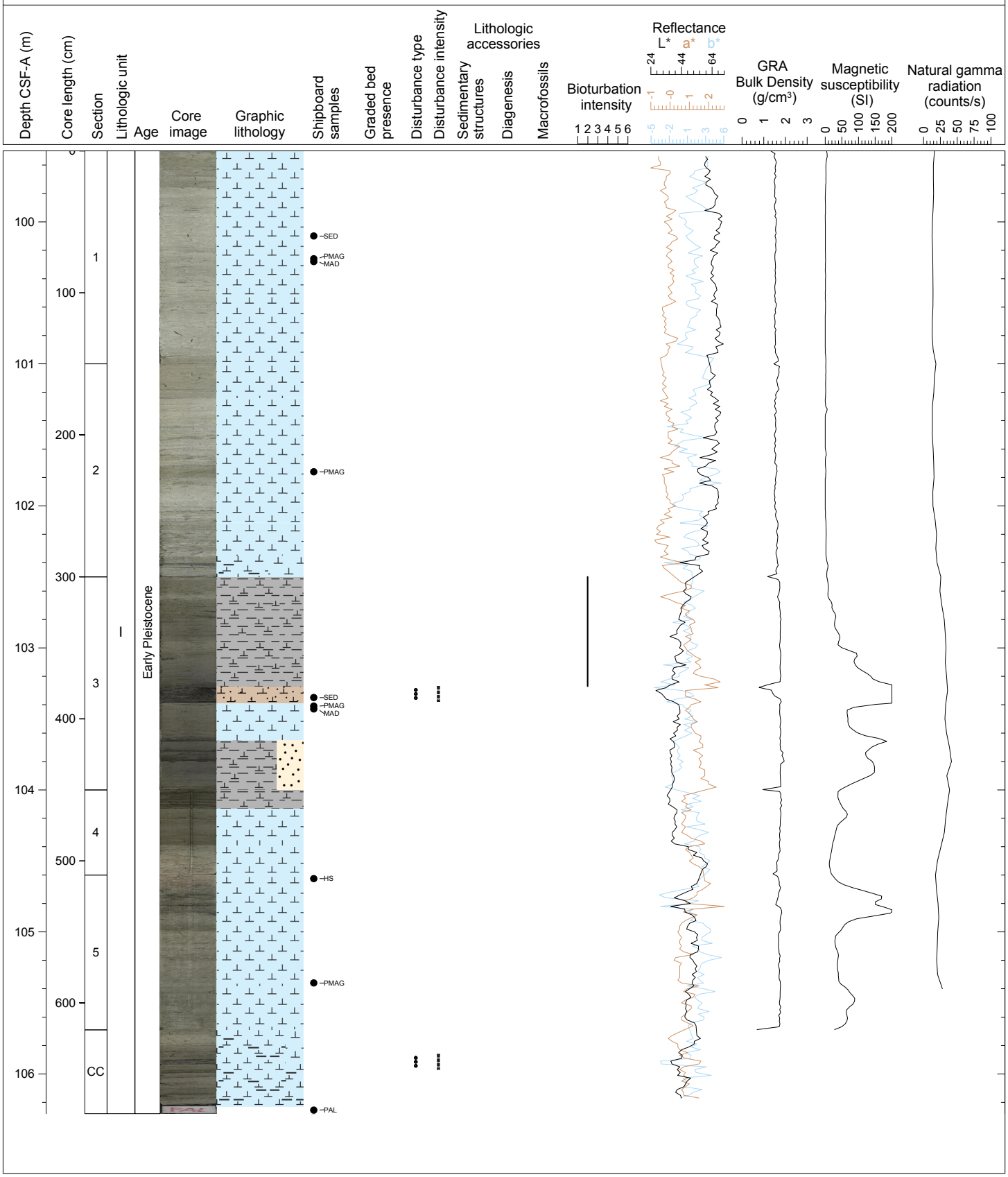
Hole 355-U1456A Core 11H, Interval 90.0-99.29 m (CSF-A)

NANNOFOSSIL OOZE and NANNOFOSSIL OOZE WITH CLAY are the dominant lithologies in this core. In addition, NANNOFOSSIL-RICH SAND WITH CLAY comprises a significant fraction, but it is minor. Lithology color is white for NANNOFOSSIL OOZE and light green for NANNOFOSSIL OOZE WITH CLAY. Lithology boundaries at the base of NANNOFOSSIL-RICH SAND WITH CLAY layers show sharp and erosive contacts.



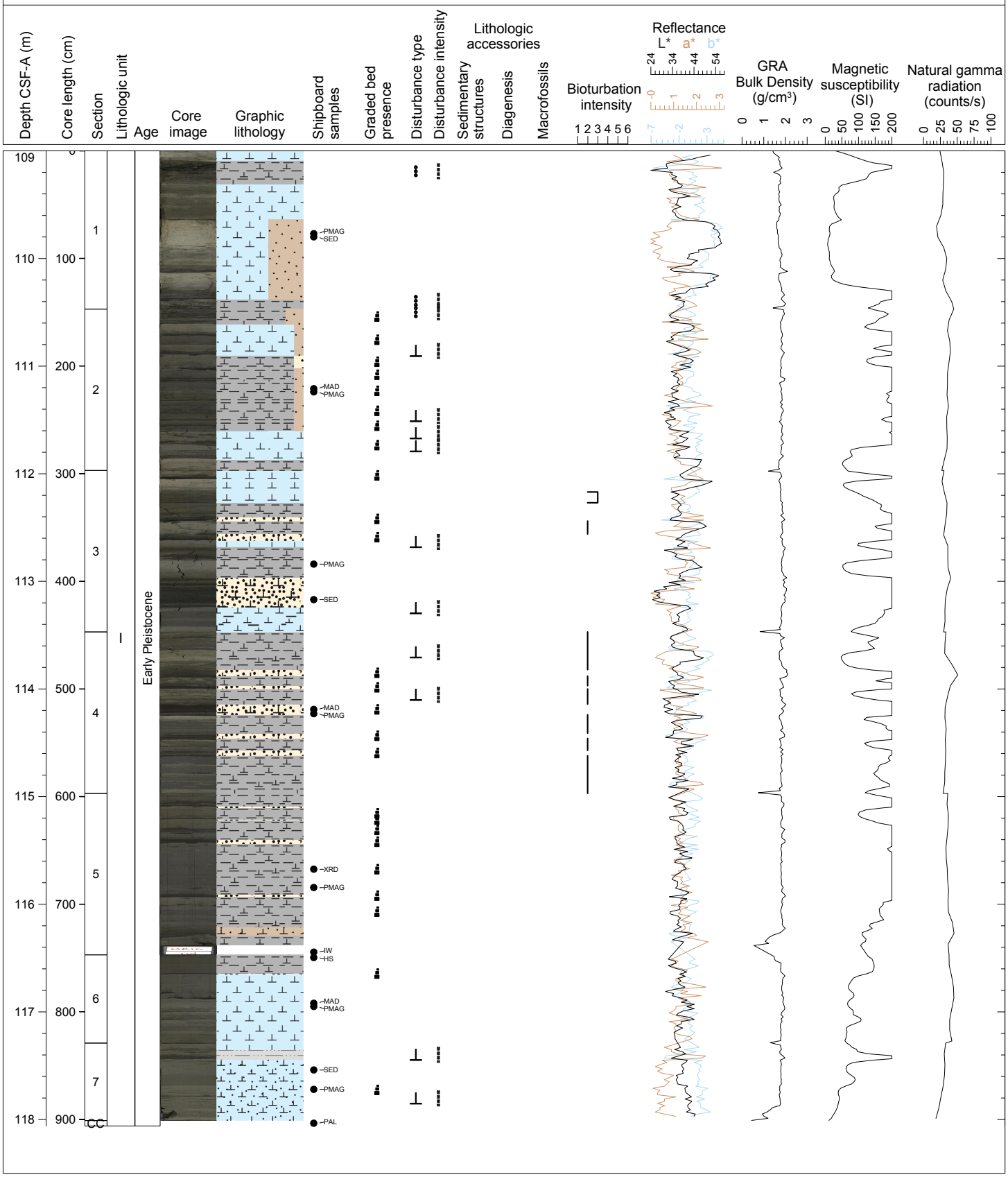
Hole 355-U1456A Core 12H, Interval 99.5-106.28 m (CSF-A)

Dominant lithology is NANNOFOSSIL OOZE and NANNOFOSSIL OOZE WITH CLAY. Lithology colors are white and dark green, depending on the degree of clay content. A thin sandy layer enriched with nannofossils is found in Section 3 (78 to 89 cm). The lithology boundaries largely gradational upward from clay-rich to nannofossil-rich sediments. Several erosive and sharp boundaries are also found at the base of more clay-rich divisions.



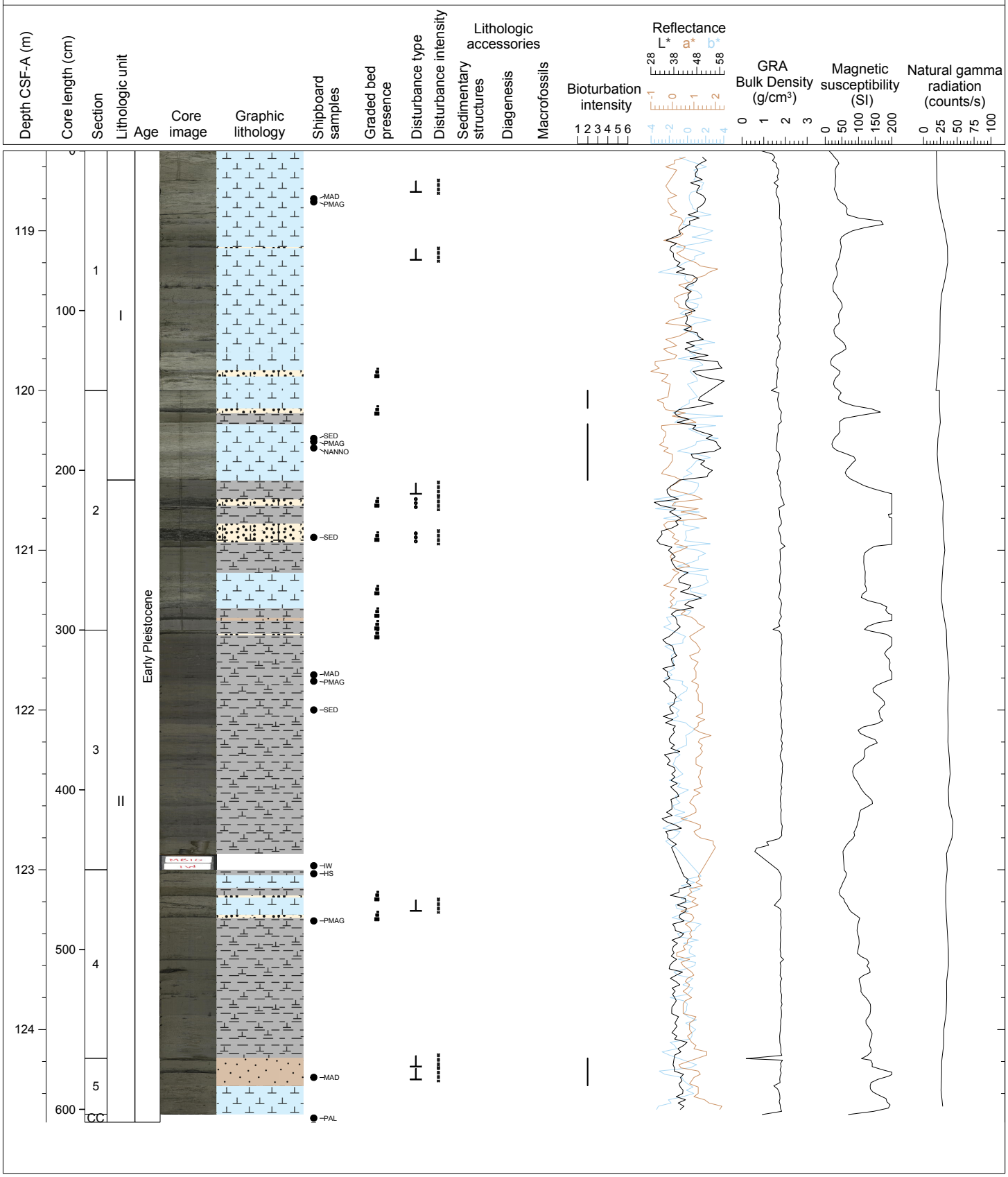
Hole 355-U1456A Core 13H, Interval 109.0-118.06 m (CSF-A)

NANNOFOSSIL-RICH CLAY and NANNOFOSSIL-RICH SAND are dominant with a short interval of NANNOFOSSIL OOZE in Section 1. Sand layers are frequent and show sharp erosive contacts at their bases. Moderate bioturbation was observed in Section 4. A disrupted layer of graded silt was observed in Section 6 (39 cm), associated with pyrite.



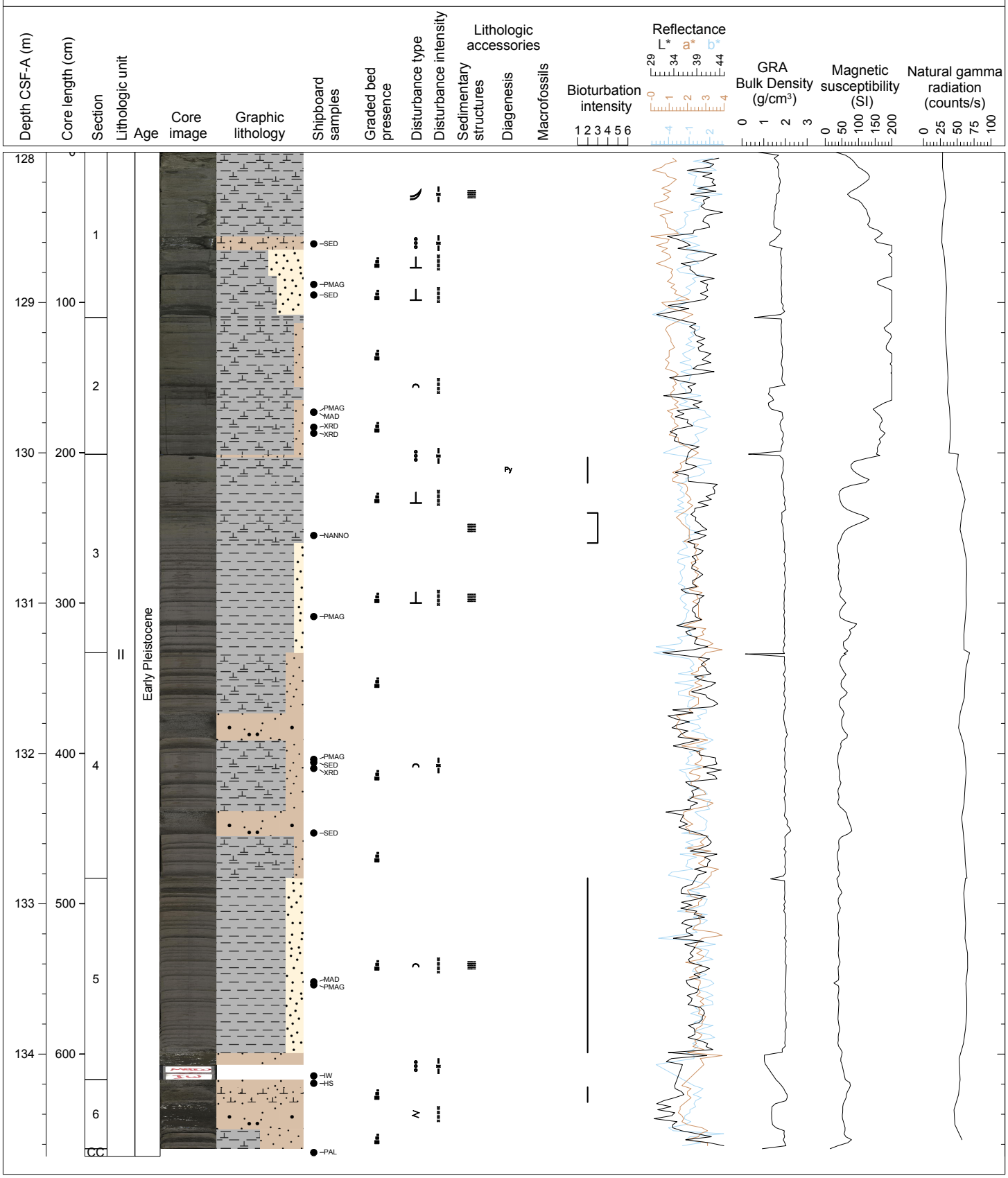
Hole 355-U1456A Core 14H, Interval 118.5-124.58 m (CSF-A)

NANNOFOSSIL-RICH CLAY and NANNOFOSSIL-RICH SAND dominate the section and are colored dark green (GLEY 1 4/10Y) and dark greenish gray (GLEY 1 4/5G) respectively. NANNOFOSSIL OOZE and NANNOFOSSIL OOZE WITH CLAY are minor lithologies and constitute lighter colored intervals between the more clastic graded sequences. NANNOFOSSIL-RICH SAND beds in particular show sharp, erosive bases. Mottling caused by bioturbation is found in more massive hemipelagic beds.



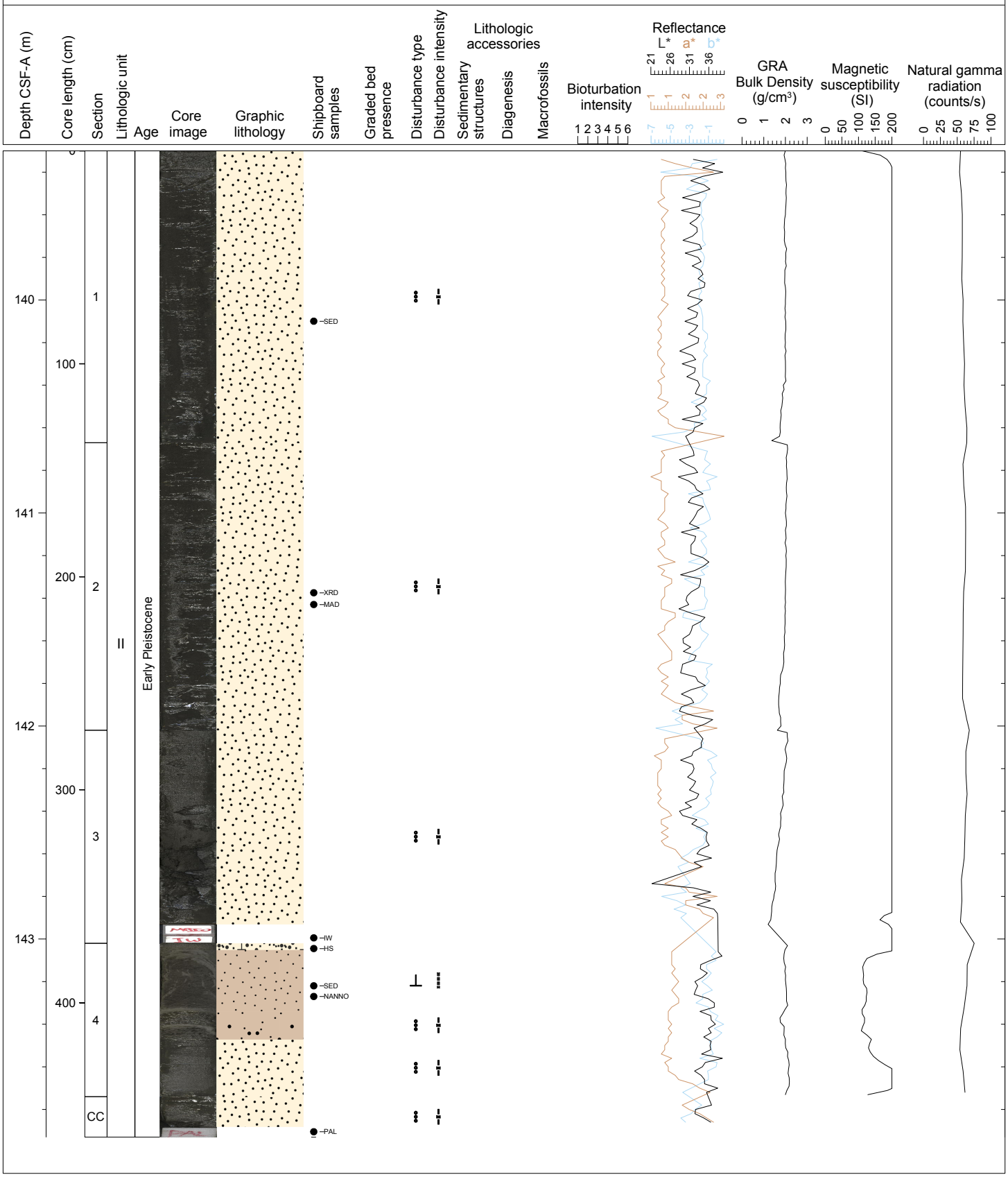
Hole 355-U1456A Core 15H, Interval 128.0-134.68 m (CSF-A)

NANNOFOSSIL OOZE WITH CLAY, NANNOFOSSIL-RICH SAND, SANDY SILT. Dark green and dark brown colored NANNOFOSSIL OOZE WITH CLAY is the major dominant lithology. Dark blackish and brown colored NANNOFOSSIL-RICH SAND alternates with beds of NANNOFOSSIL OOZE WITH CLAY. There is a marked color contrast change in Section 3 with a change from dark green above to dark brown below in the clay-rich, fine grained beds. There are no trace of nannofossils in the SANDY SILT beds.



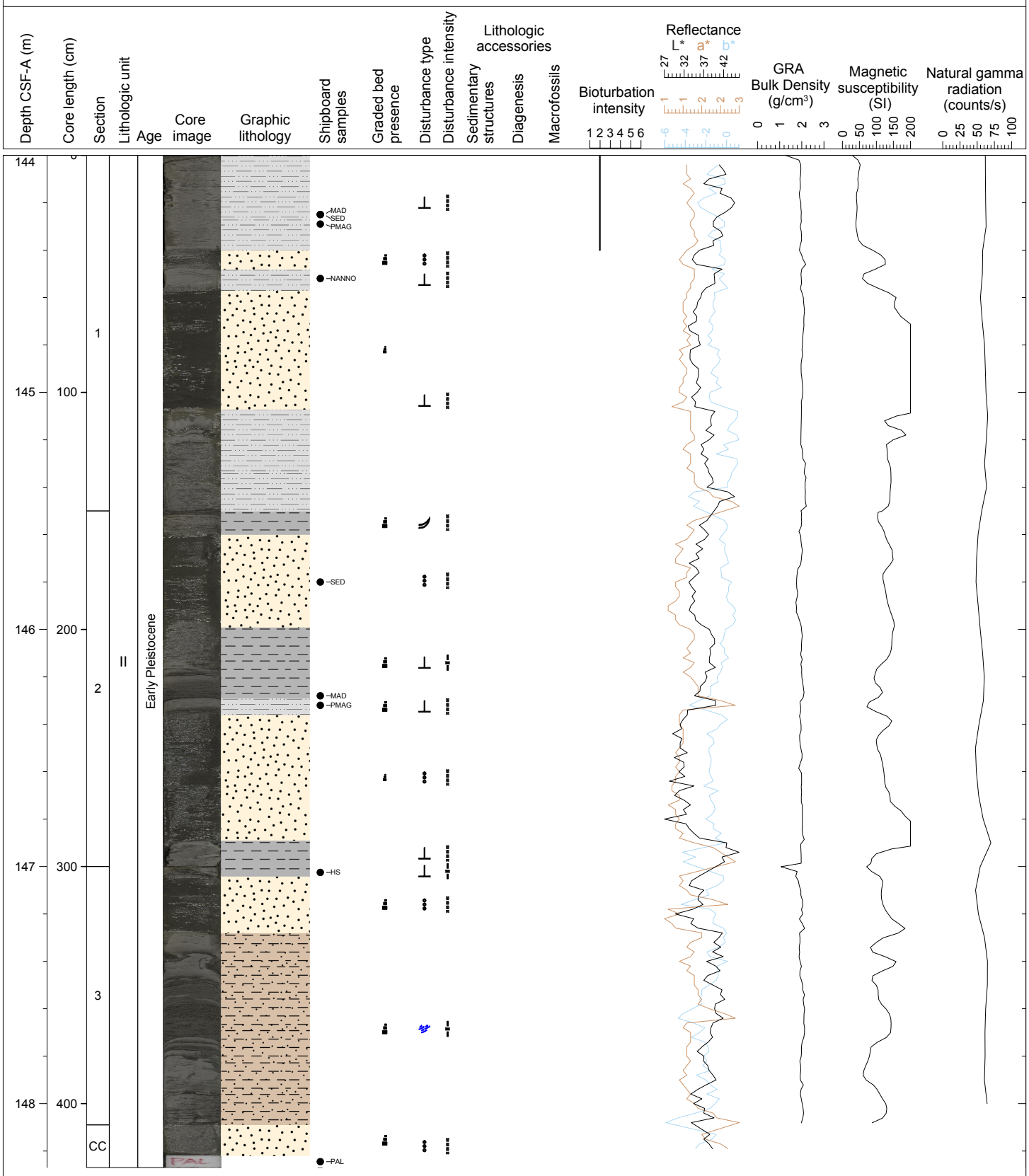
Hole 355-U1456A Core 17F, Interval 139.3-143.93 m (CSF-A)

SAND, SILTY SAND, SILT WITH CLAY, SANDY SILT WITH CLAY. Dark gray SAND is the major lithology present. Sand is the major contributor to the light gray colored sediment, including SILTY SAND and SANDY SILT WITH CLAY, which represent the minor lithologies. Nannofossils are absent and sediment is dominated by clastic input.



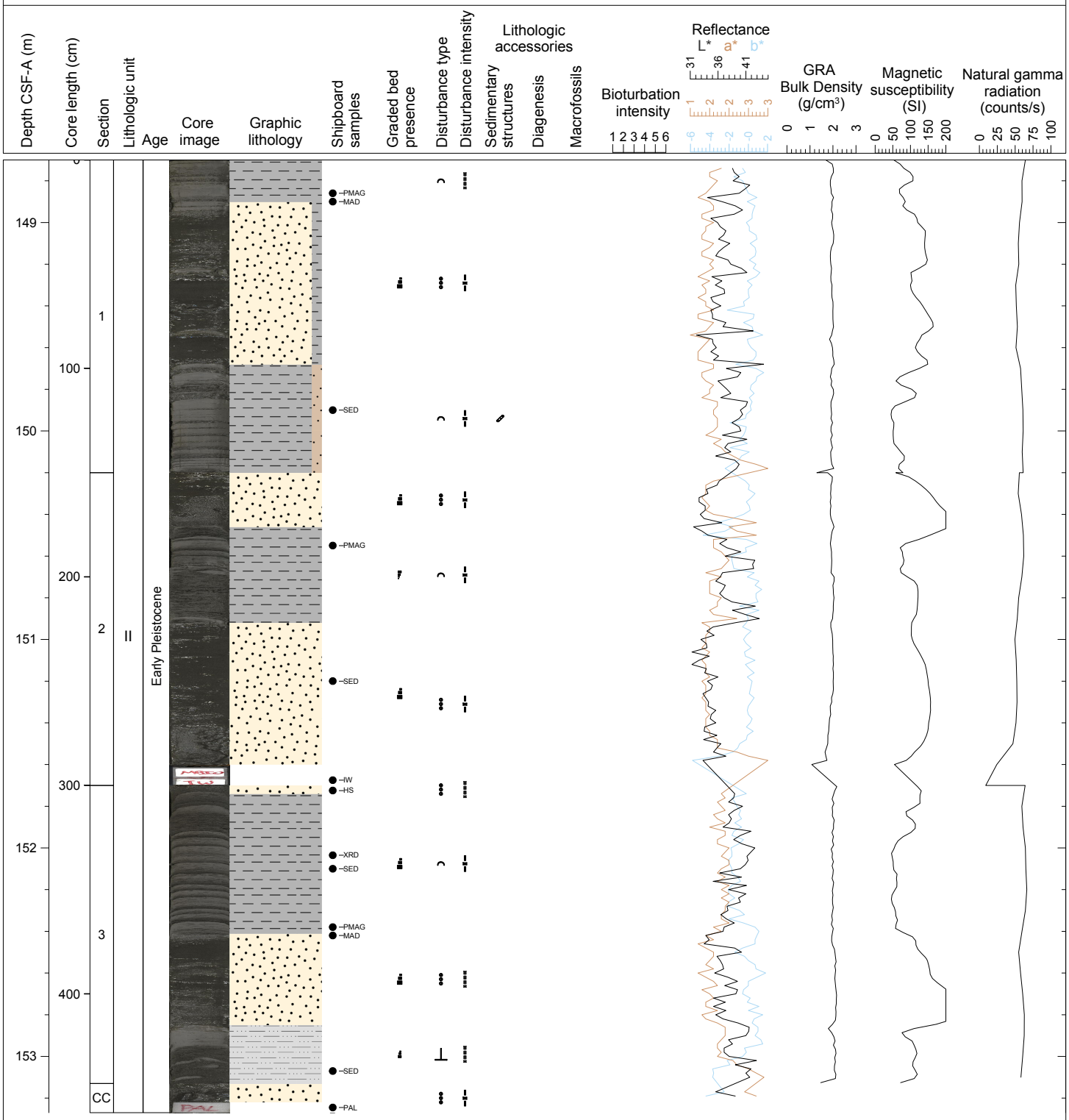
Hole 355-U1456A Core 18F, Interval 144.0-148.27 m (CSF-A)

SAND, SAND WITH SILT, SAND WITH CLAY, SILT WITH SAND, CLAYEY SILT WITH SAND, SILT WITH CLAY, SILTY CLAY are the major lithologies . Light gray CLAY WITH SILT , CLAYEY SILT WITH SAND, SILTY CLAY, CLAY WITH SILT are the other minor lithologies. The presence of biogenic materials is rare. Gradational lithological boundaries between sediments in fining upwards cycles are common.



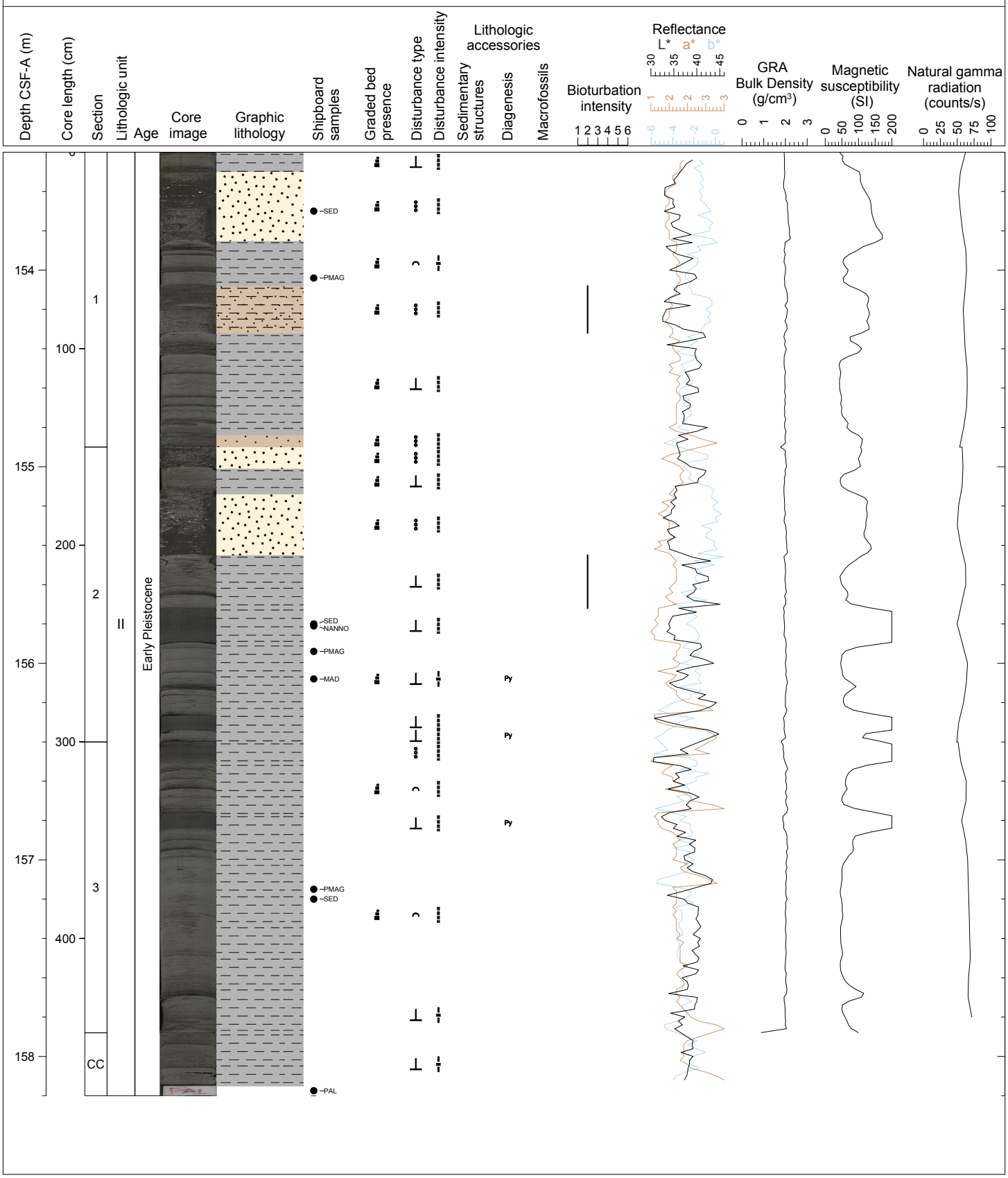
Hole 355-U1456A Core 19F, Interval 148.7-153.27 m (CSF-A)

SAND, SAND WITH SILT, SILTY CLAY WITH SAND, CLAY WITH SILT, CLAY. Dark gray SAND, and light gray CLAY WITH SILT are the major lithologies and are seen to form massive, structureless beds with sharp bases overlying massive CLAY. CLAY and CLAY WITH SILT beds often show gradational alternate layers with normal grading, suggestive of a turbidite origin. Thin (1-2 cm), graded CLAY WITH SILT beds are often repeated and common overlying thick SAND units. The core is quite soupy and no sedimentary structures are preserved in the SAND.



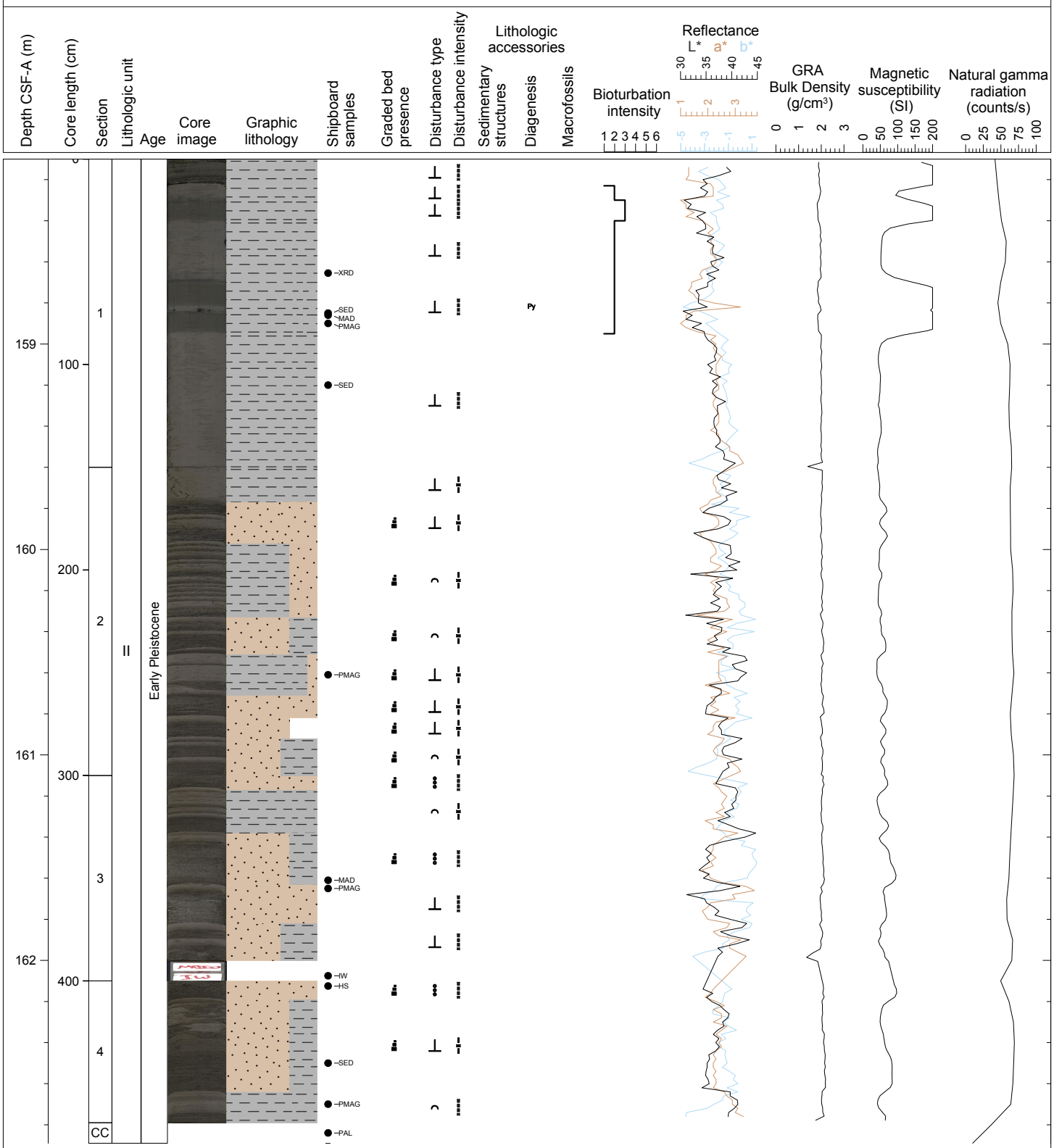
Hole 355-U1456A Core 20F, Interval 153.4-158.2 m (CSF-A)

SAND WITH SILT, SILT WITH SAND, CLAY WITH SILT, CLAYEY SILT WITH SAND, CLAY. Dark gray calcareous CLAY WITH SILT is the major lithology. Dark grey SAND WITH SILT is the secondary lithology. The sand is only found above 55 cm, Section 2. Greenish CLAY WITH NANNOFOSSILS is found below 82 cm, Section 2. Dark gray, thick bedded, calcareous CLAY WITH SILT and greenish, thin-bedded CLAY WITH NANNOFOSSILS are found in cyclical couplets, with normal grading above a sharp, erosive base.



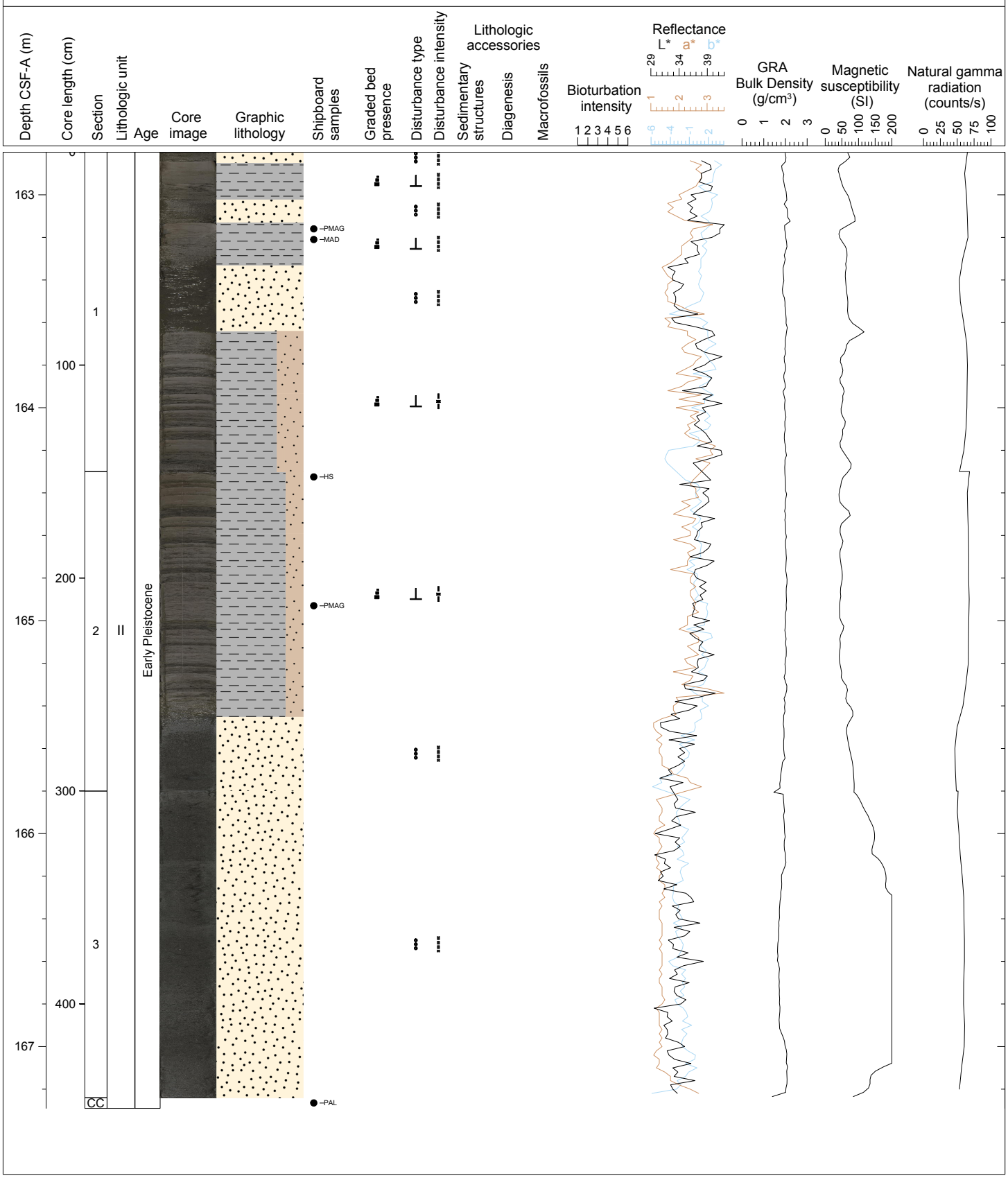
Hole 355-U1456A Core 21F, Interval 158.1-162.89 m (CSF-A)

CLAY, CLAY WITH SILT, SAND WITH SILT. Dark grey calcareous CLAY WITH SILT is the major lithology. The thin-bedded green CLAY is repeated many times with CLAY WITH SILT. The gray SAND WITH SILT is interbedded with CLAY WITH SILT.



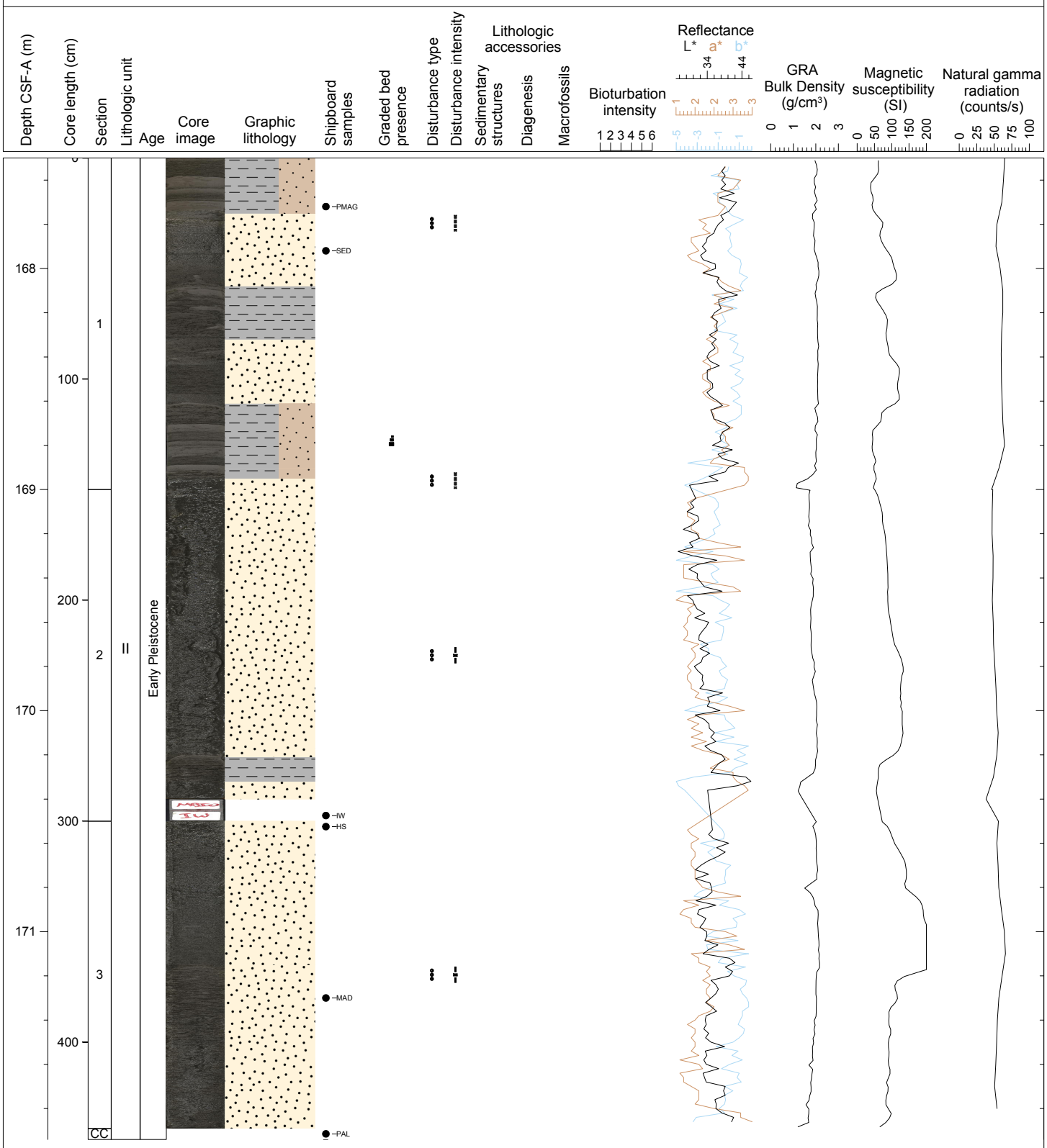
Hole 355-U1456A Core 22F, Interval 162.8-167.29 m (CSF-A)

SAND, CLAY. This core can be divided in two parts, the upper part is more nannofossil rich with alternations of thinly to medium bedded clay and sand; the lower part is very thickly bedded, massive sand with less nannofossils.



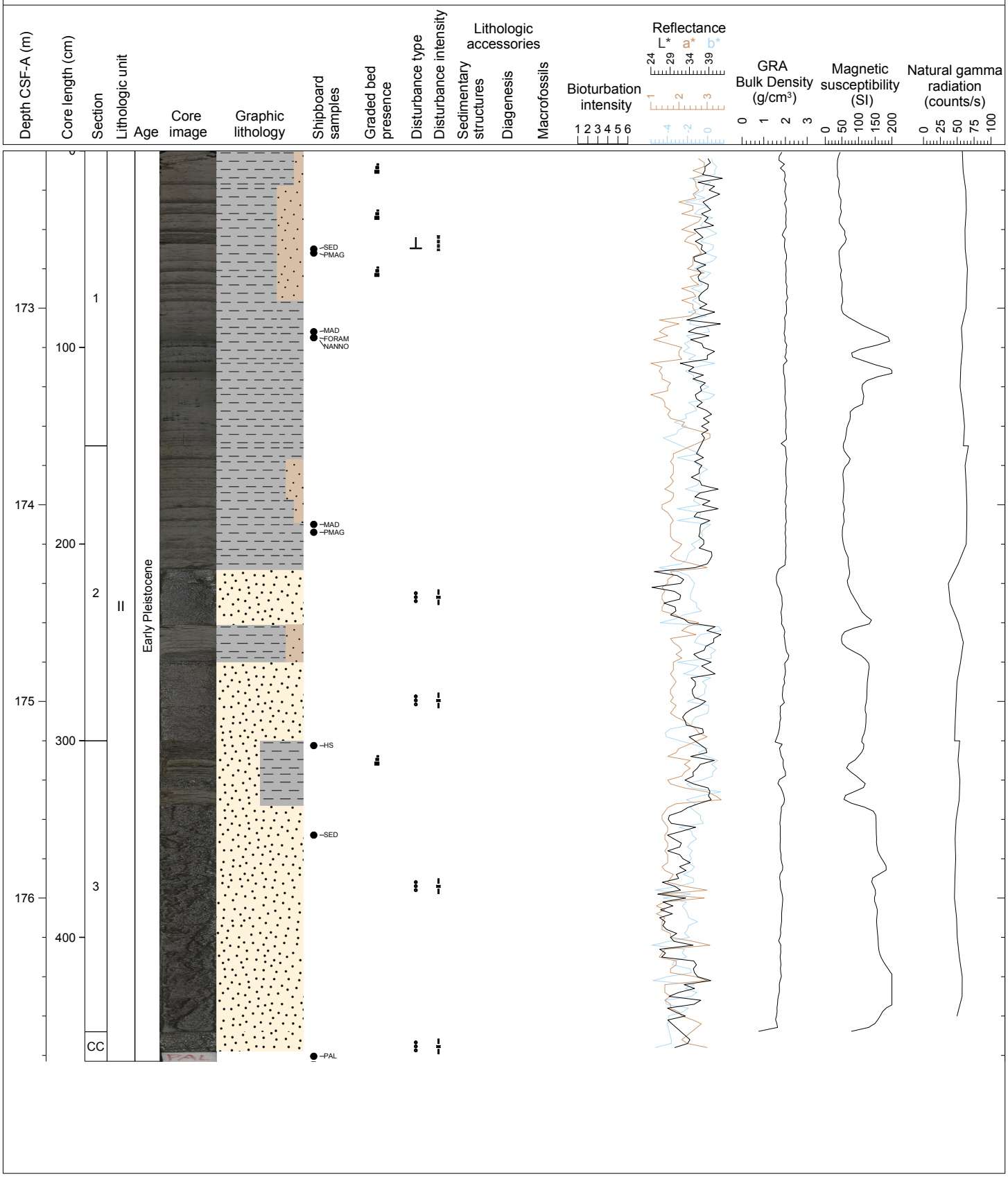
Hole 355-U1456A Core 23F, Interval 167.5-171.94 m (CSF-A)

SAND, CLAY WITH SILT, SILT WITH CLAY. SAND is the dominant lithology of this core, especially Sections 2 and 3. CLAY WITH SILT is found mostly in Section 1 and this is intercalated with SILT WITH CLAY. Core is mostly soupy, especially in the sandy intervals..



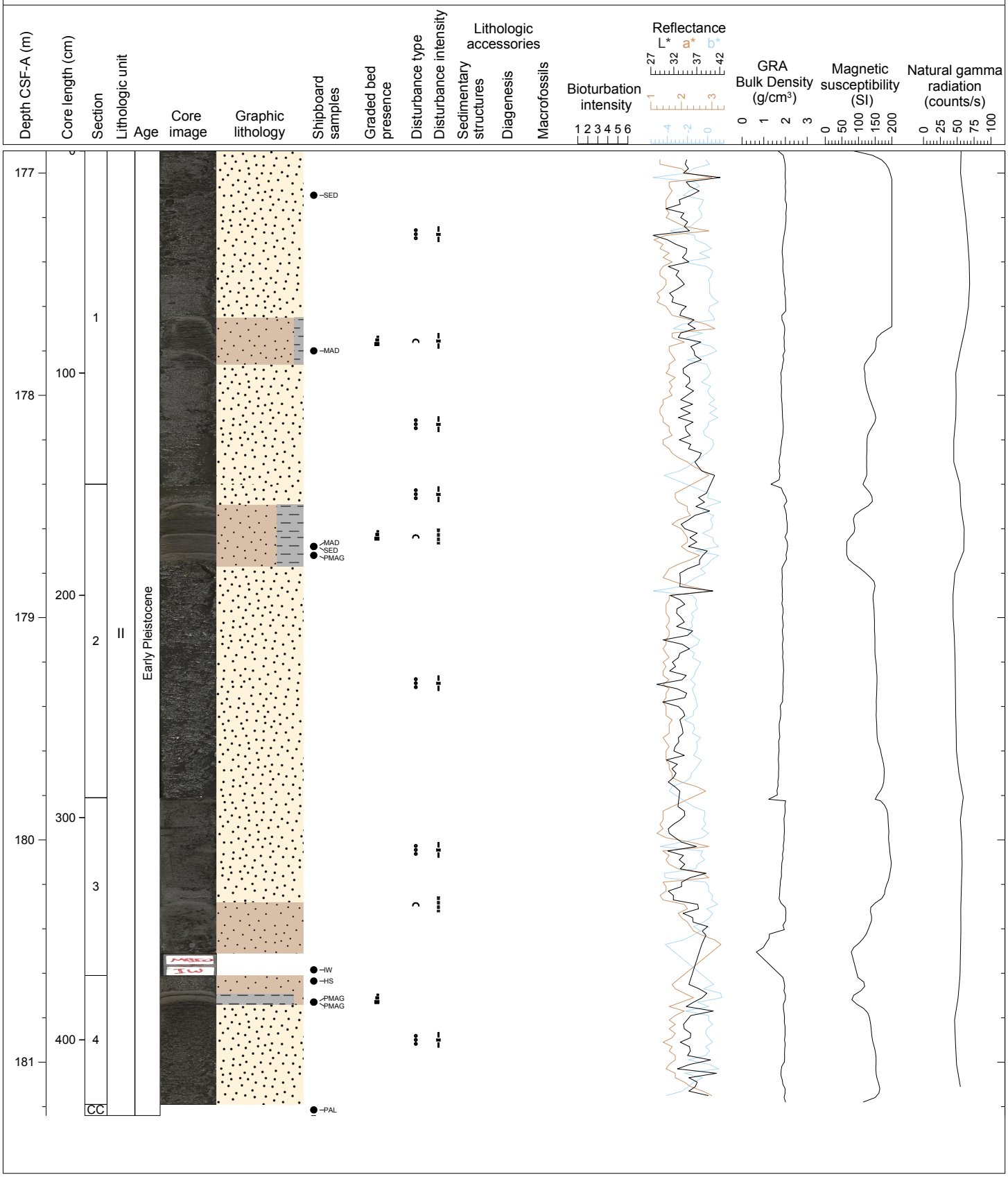
Hole 355-U1456A Core 24F, Interval 172.2-176.83 m (CSF-A)

CLAY WITH SILT and SAND are dominant in this core. CLAY WITH SILT is intercalated with SILT WITH CLAY layers that have sharp erosive boundaries at their base with normal grading above. This is distinct in the upper parts of Sections 1 and 2. Soupy SAND occupies the lower half of core. Some pyrite-rich layers are shown in the lower part of Section 1. In Section 3, CLAY and SAND alternate in the upper part.



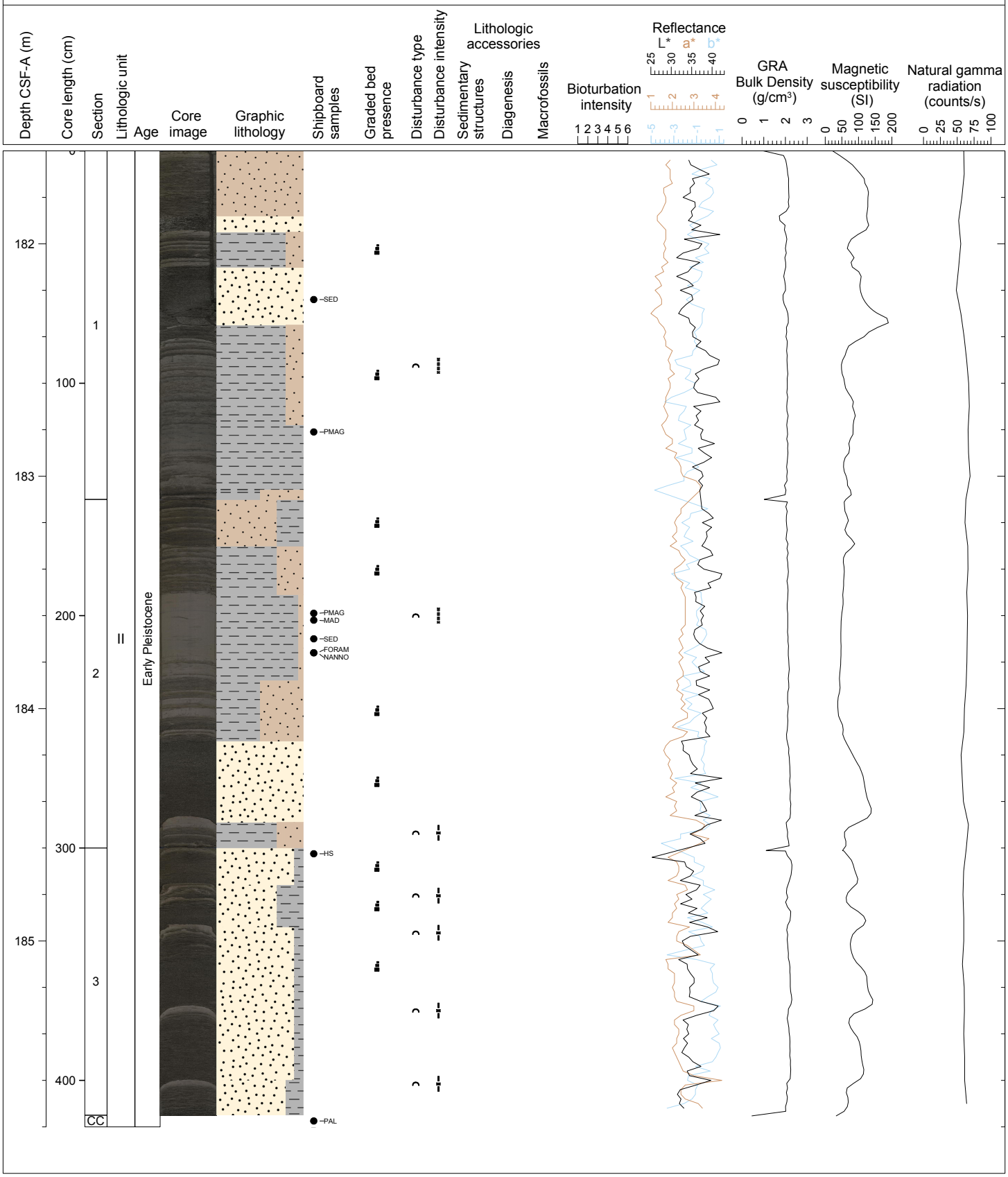
Hole 355-U1456A Core 25F, Interval 176.9-181.24 m (CSF-A)

SAND is the dominant lithology. CLAY WITH SILT and SILT WITH CLAY occurs interbedded within the SAND and form normally graded cycles. Up-arching and soupy drilling disturbance were observed through the whole core. The bottom boundary of the SAND is erosive and sharp. Erosive boundaries are also found between normally graded SILT WITH CLAY and underlying CLAY WITH SILT



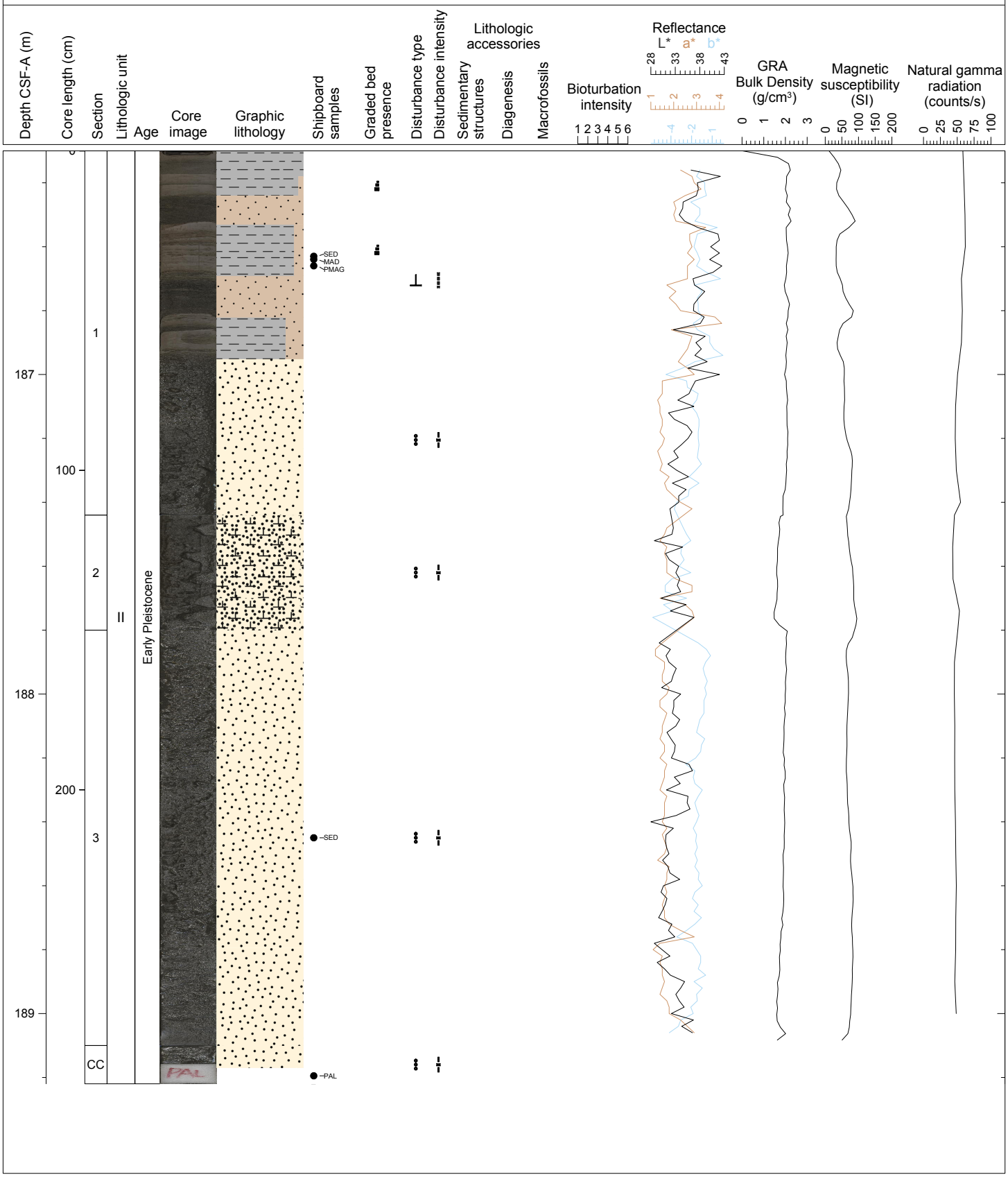
Hole 355-U1456A Core 26F, Interval 181.6-185.8 m (CSF-A)

CLAY WITH SILT and SAND are the dominant lithologies. The CLAY WITH SILT is overlain by an erosive contact by more silty and sandy sediments. SAND is coupled with CLAY WITH SILT in normally graded couplets. Drilling disturbance is soupy in sand and shows moderate up-arching.



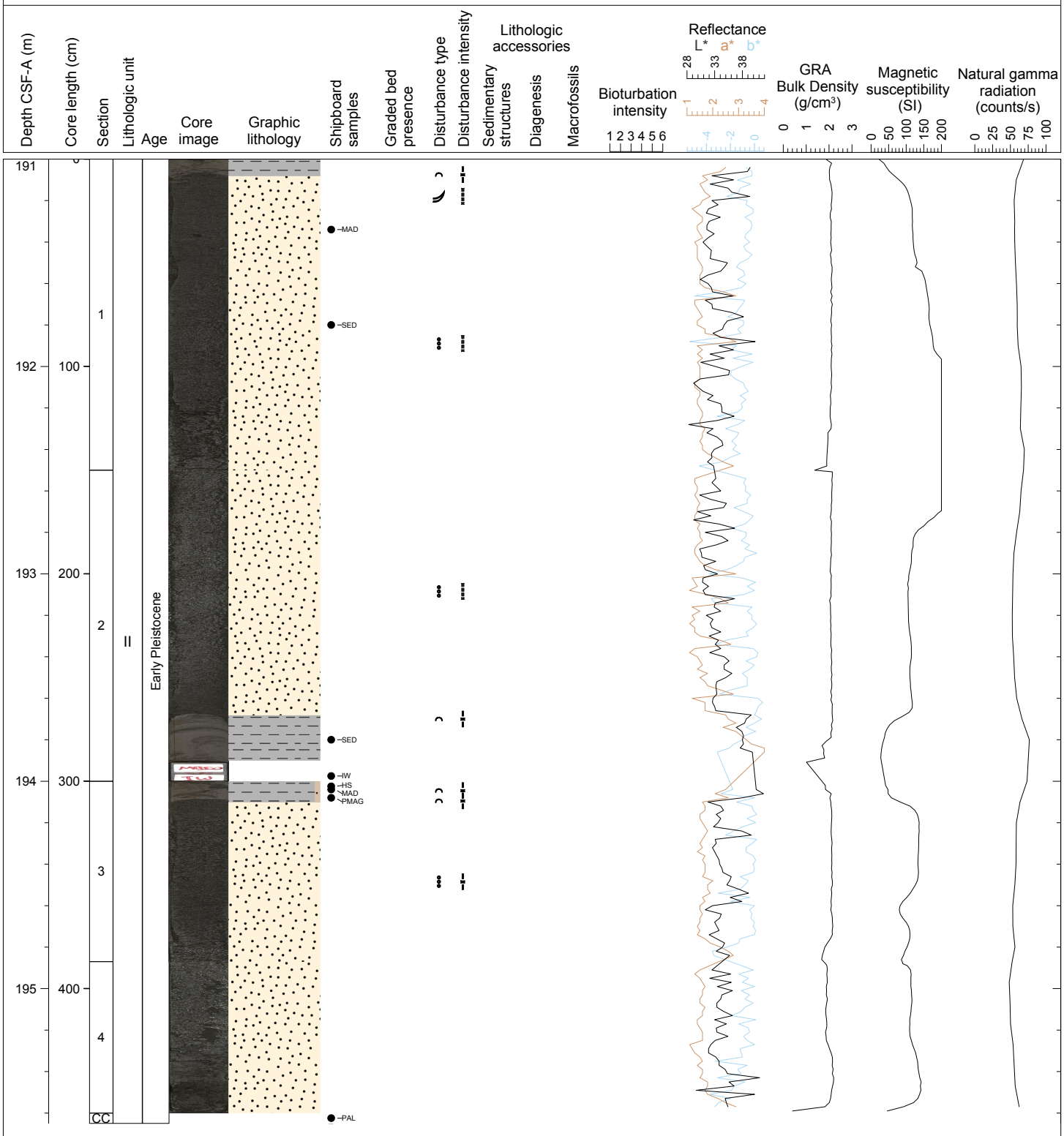
Hole 355-U1456A Core 27F, Interval 186.3-189.22 m (CSF-A)

SAND is the dominant lithology. Grain size is mostly fine sand. CLAY WITH SILT is interbedded with SILT WITH CLAY in the upper part of Section 1, and it has a sharp erosive boundary with the overlying sandy deposits and normal grading. Drilling disturbance is moderately soupy.



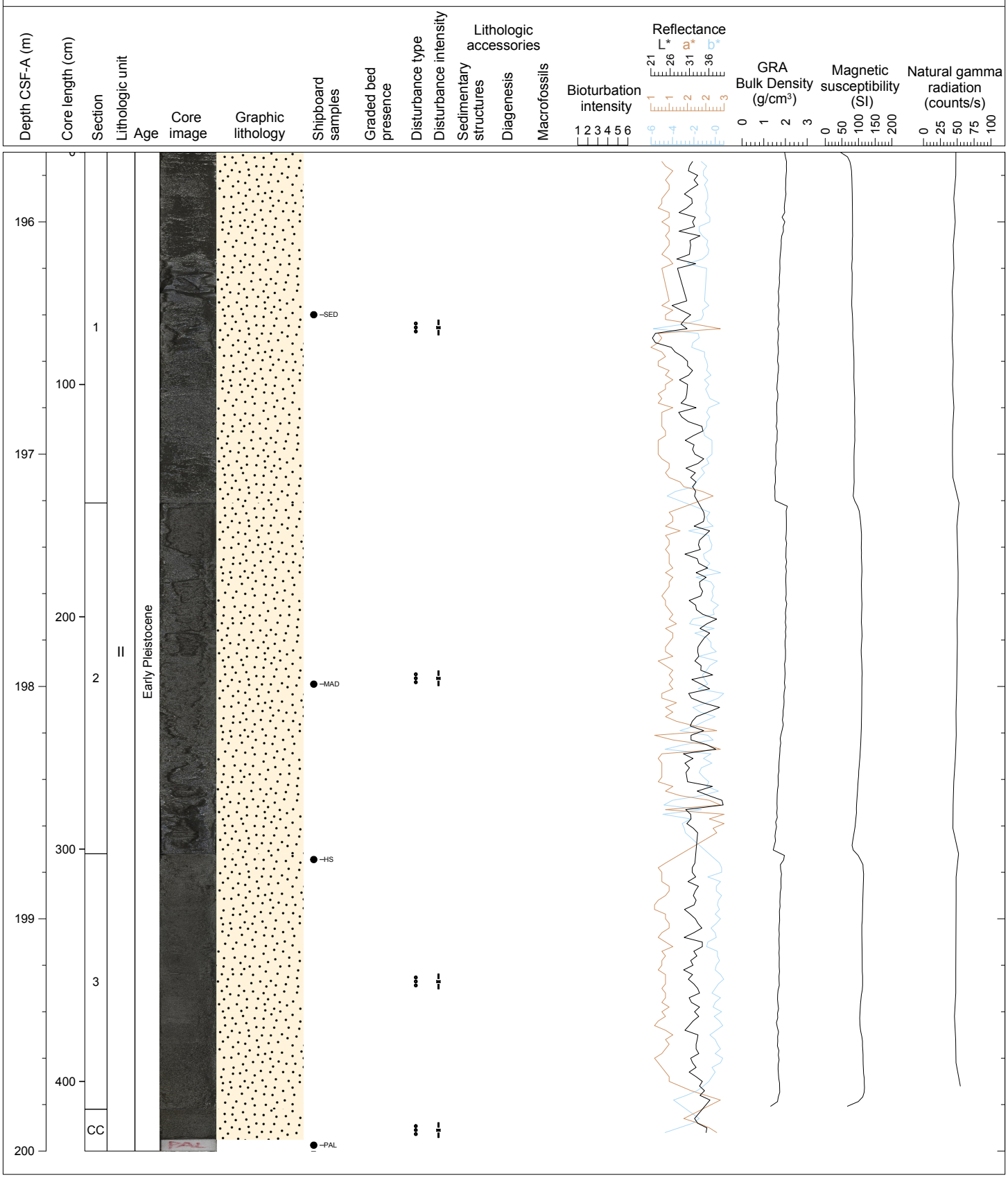
Hole 355-U1456A Core 28F, Interval 191.0-195.65 m (CSF-A)

SAND occupies almost the whole core. CLAY was found only in the top of Section 1 and the bottom of Section 2 and the top of Section 3. The top of the CLAY is clearly erosive with overlying sandy deposits. Drilling disturbance is moderately soupy throughout the core with clear up-arching in Section 3.



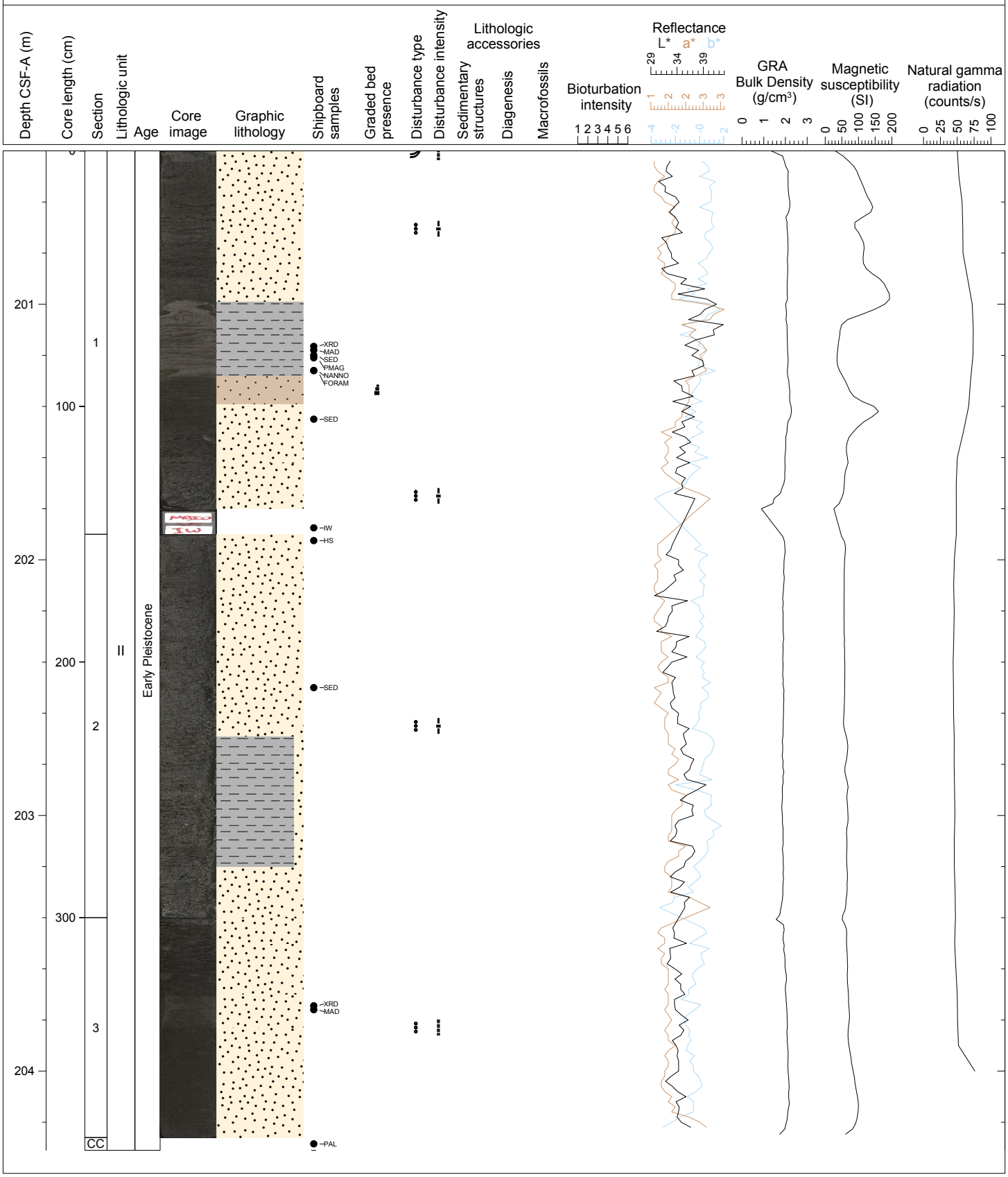
Hole 355-U1456A Core 29F, Interval 195.7-200.0 m (CSF-A)

SAND is the only lithology in this core. Disturbance is moderately soupy. Sand grains consist of abundant quartz and feldspar, common mica and heavy minerals (clinopyroxene, tourmaline, opaque minerals). Calcareous nannofossil remains are abundant.



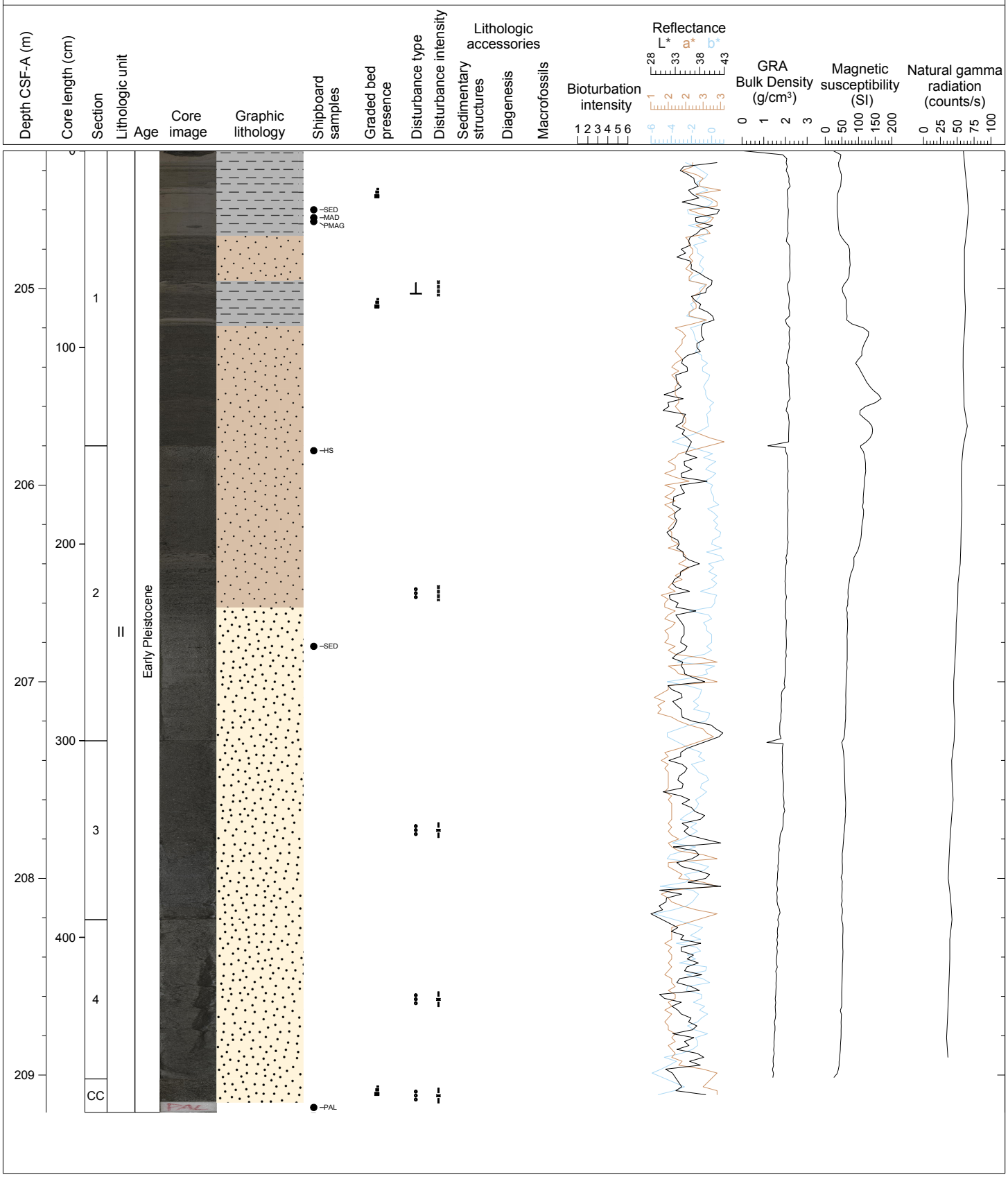
Hole 355-U1456A Core 30F, Interval 200.4-204.31 m (CSF-A)

SAND is dominant. SAND WITH CLAY and SAND WITH SILT are also distributed throughout the core. A CLAY layer (about 30 cm thick) was found in the middle of Section 1. The upper contact of this lithology shows an erosive boundary with overlying SAND. Drilling disturbance is moderately soupy. Sand size minerals are commonly mica with common heavy minerals (tourmaline, hornblende, clinopyroxene, epidote).



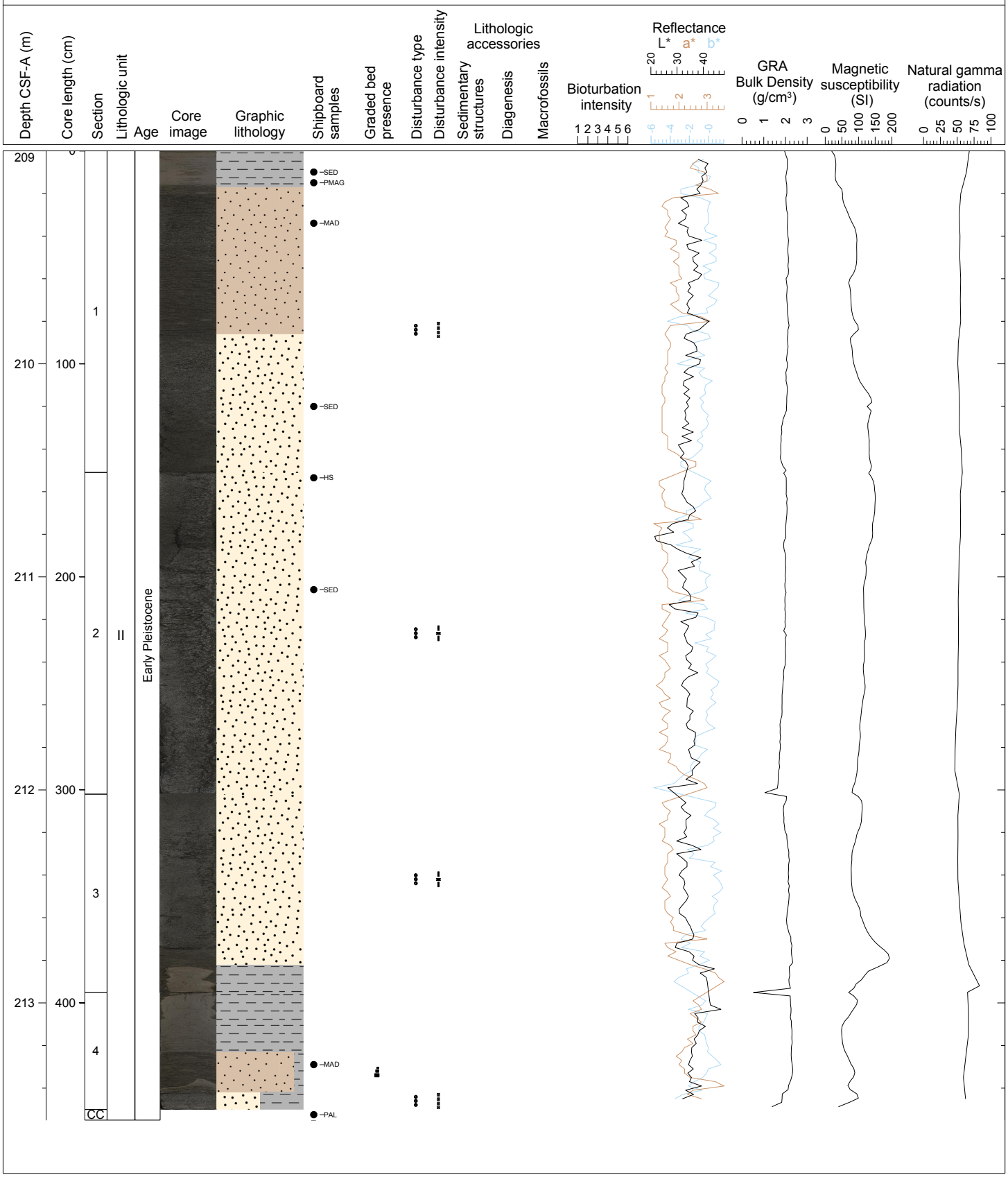
Hole 355-U1456A Core 31F, Interval 204.3-209.19 m (CSF-A)

CLAY and SAND WITH CLAY are dominant lithologies and are interbedded with SILT WITH CLAY and CLAY WITH SILT. A thick CLAY is found the upper part of Section 1, including a few thin layers of SILT WITH CLAY. The boundary between overlying SILT WITH CLAY and underlying CLAY is distinctly erosive. These alternations are located in the upper part of Section 1. Sand grains consist of mica, and heavy minerals, including hornblende, epidote, clinopyroxene, and opaque minerals.



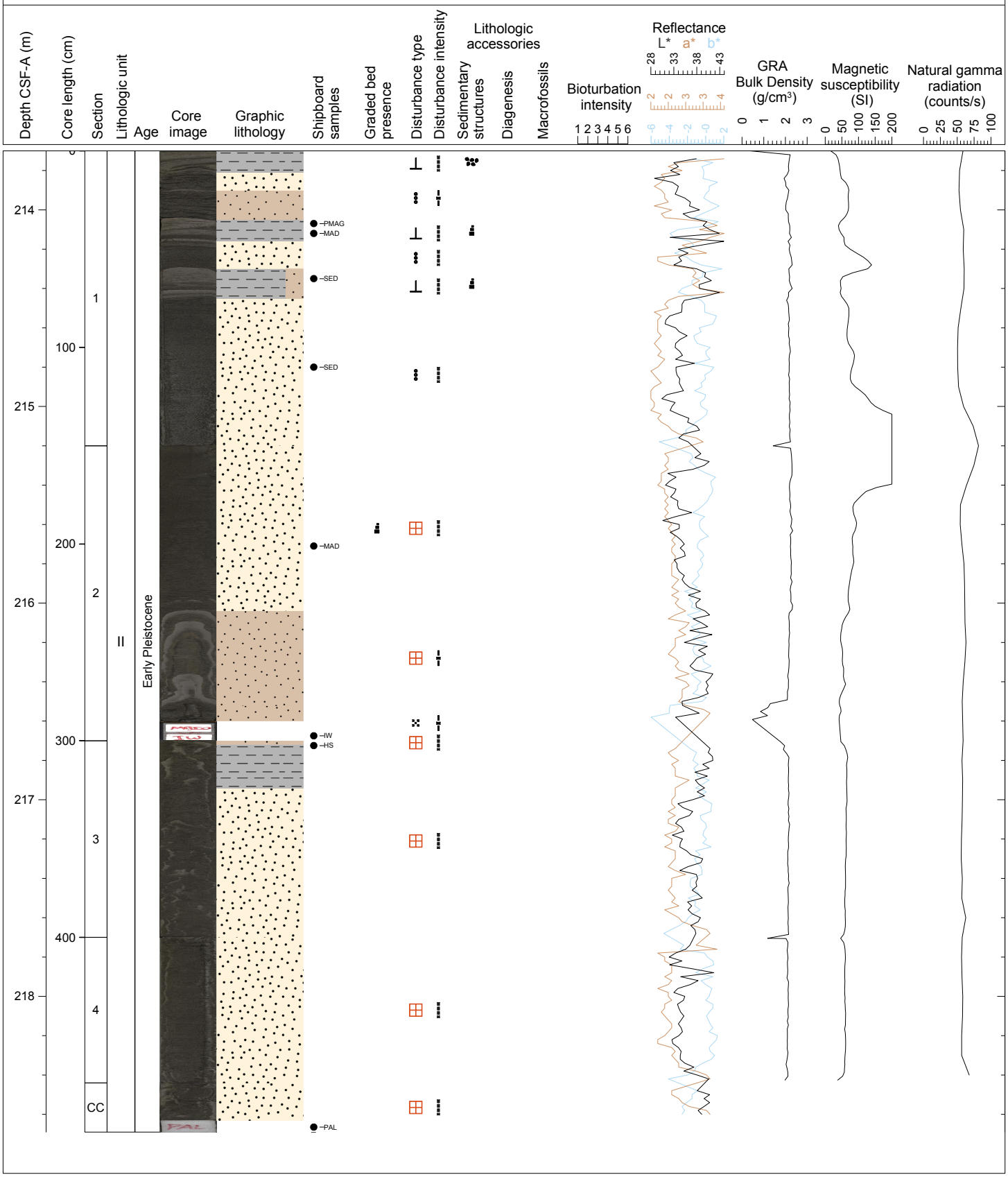
Hole 355-U1456A Core 32F, Interval 209.0-213.55 m (CSF-A)

CLAY, SAND, SILT WITH CLAY are dominant. The boundary between CLAY and SILT WITH CLAY is gradational at Section 1, 17 cm. However, the boundaries between CLAY and SAND are distinctly erosive (Section 3, 81 cm and Section 4, 45 cm). Drilling disturbance is slight to moderately soupy. Stress has caused the protrusion of CLAY into SAND.



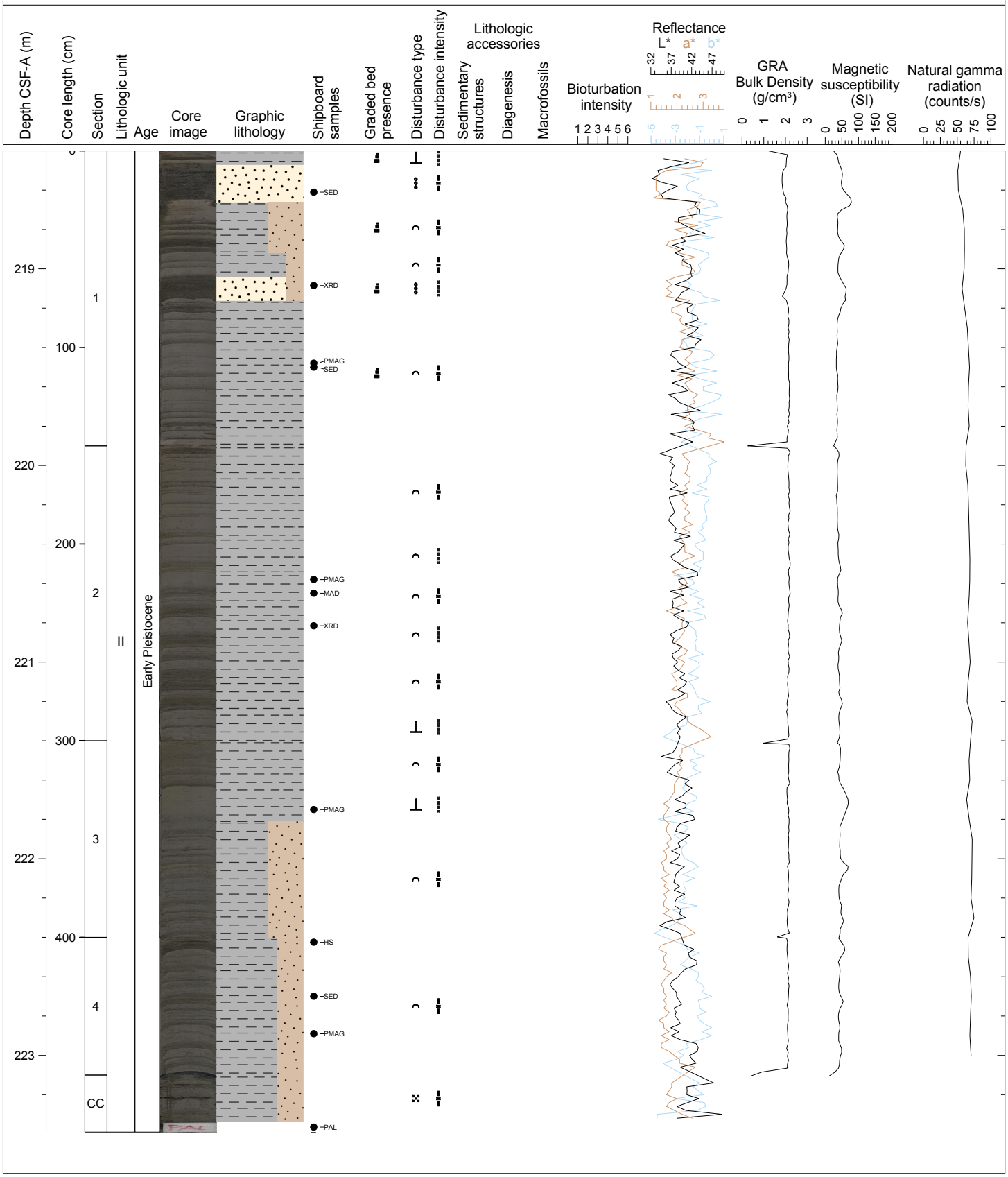
Hole 355-U1456A Core 33F, Interval 213.7-218.69 m (CSF-A)

CLAY WITH SILT, SILT WITH CLAY, SILT WITH SAND. SAND, SAND WITH SILT. Dark gray SAND and lighter gray SAND WITH SILT are the major lithologies. Light colored SILT, SILT WITH SAND, SILT WITH CLAY are the minor lithologies. Flow-in drilling disturbance is observed in most sections. SAND and SAND WITH SILT are rich in mica.



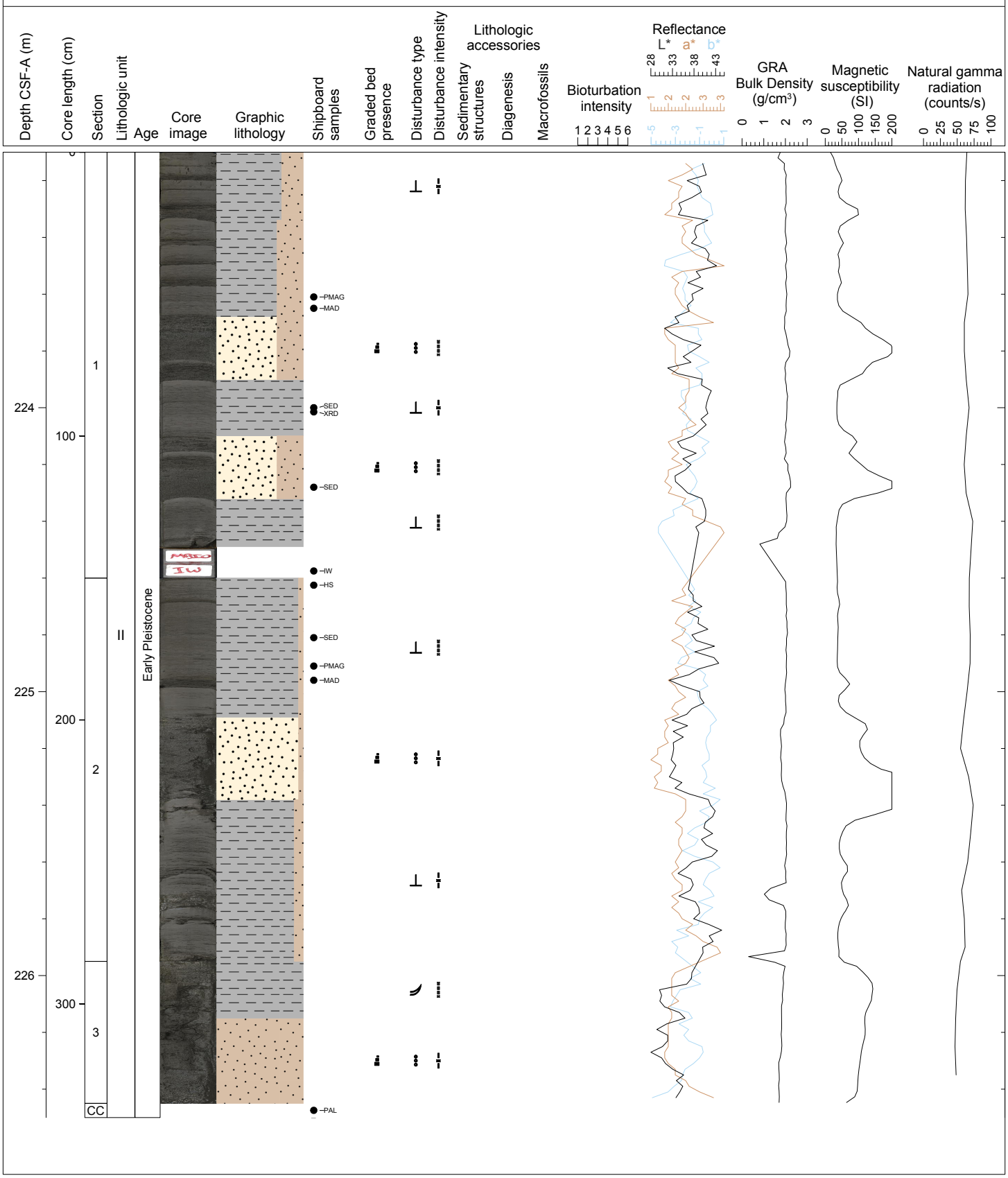
Hole 355-U1456A Core 34F, Interval 218.4-223.39 m (CSF-A)

CLAY, CLAY WITH SILT, SAND WITH SILT. Dark brown CLAY, CLAY WITH SILT and dark gray SAND WITH SILT are the major lithologies. The thinner micaceous SAND units are observed in the upper 76 cm of Section 1. The light brown and light green colored CLAY occurs interbedded with thin SILTY layers. CLAY WITH SILT mixed layers are observed in Sections 2 and 3. The brown CLAY contrasts with light greenish CLAY at 24 cm, Section 3.



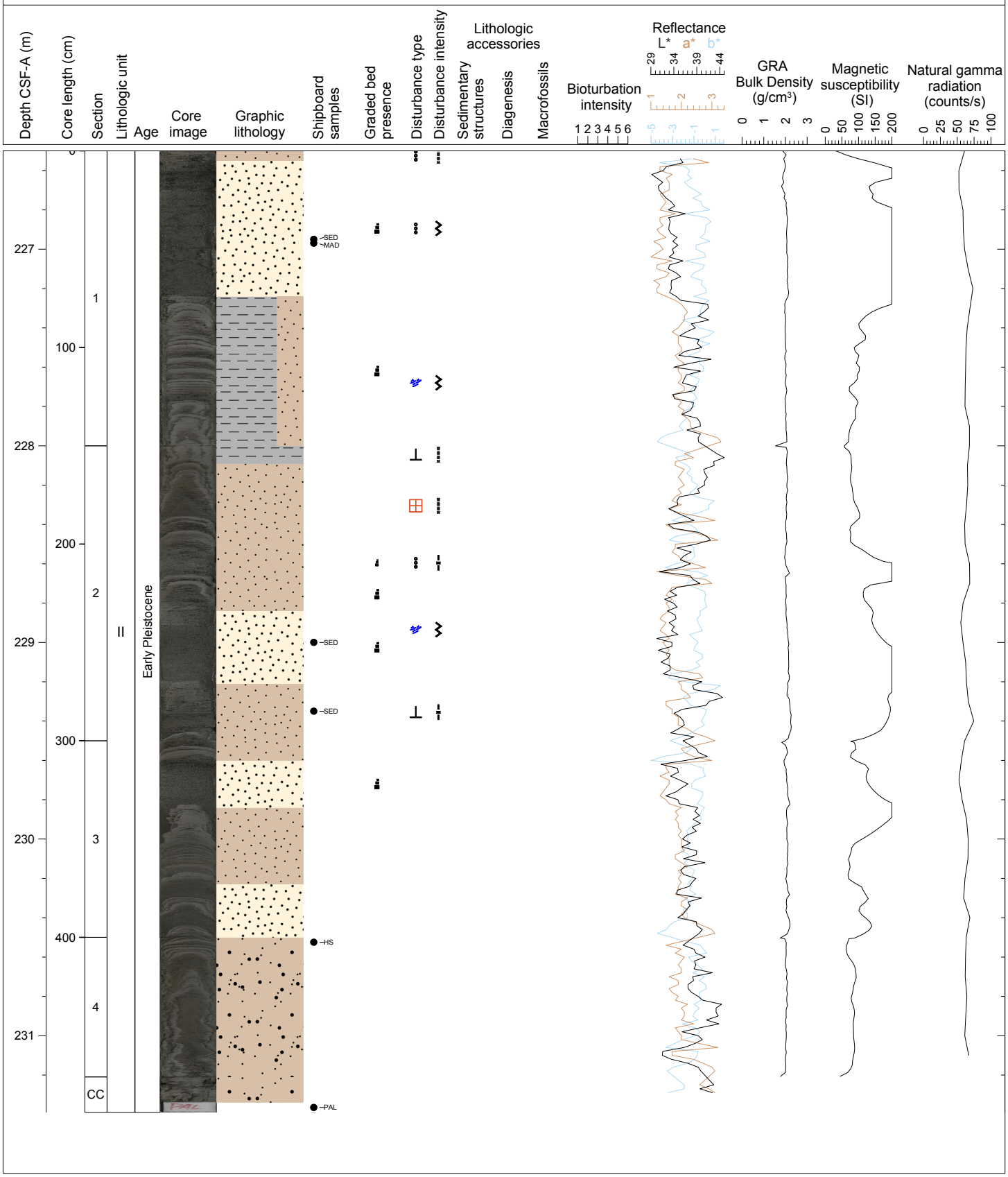
Hole 355-U1456A Core 35F, Interval 223.1-226.5 m (CSF-A)

CLAY WITH SILT, SAND WITH SILT. The light colored CLAY WITH SILT is the major lithology and are interbedded with dark colored SILT which comprises minor, thinner beds. Micaceous dark colored SAND WITH SILT occur interbedded with CLAY WITH SILT. The sand size fraction decreases from top to bottom. At the bottom of Section 3 SILT WITH SAND is observed.



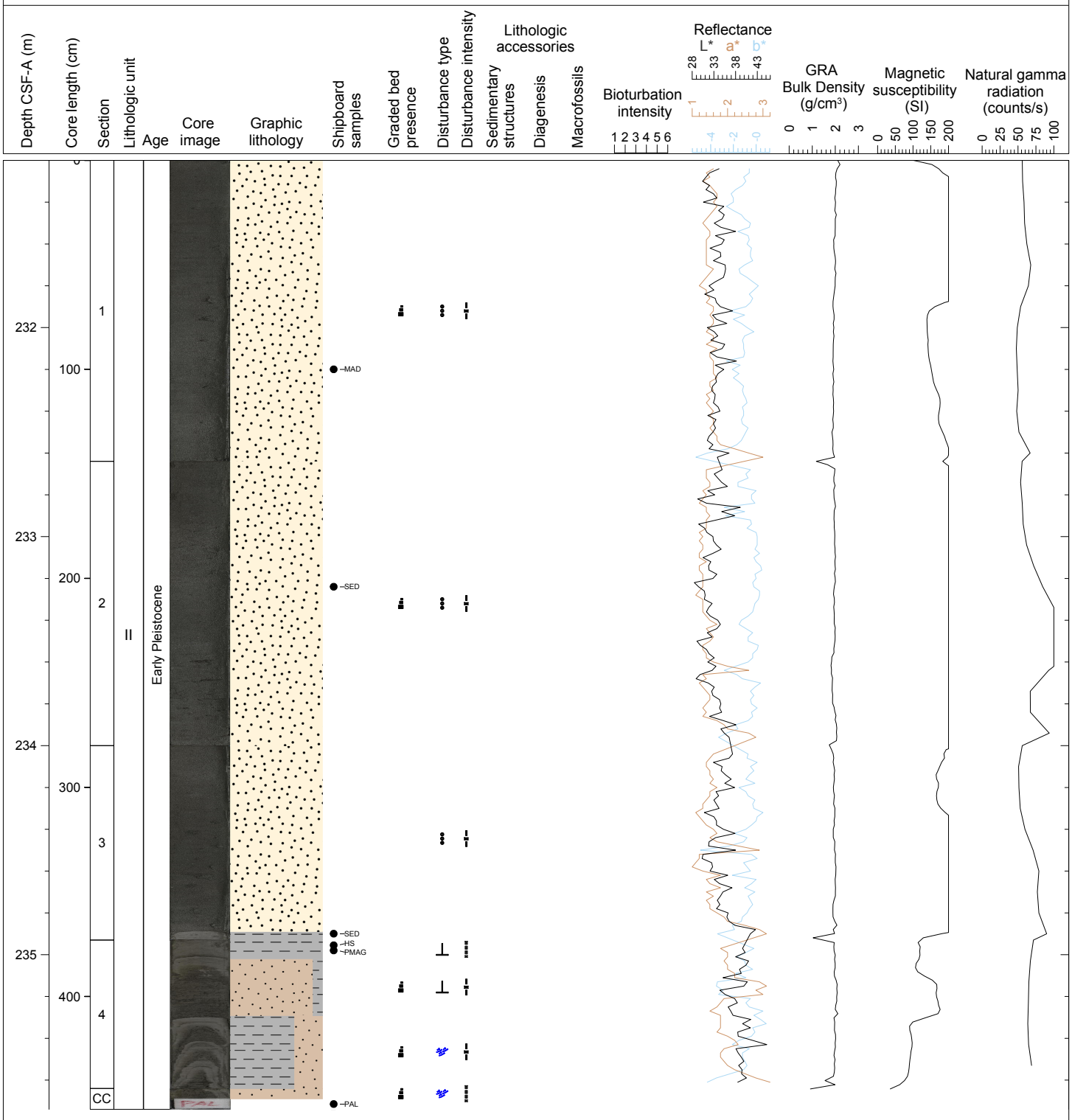
Hole 355-U1456A Core 36F, Interval 226.5-231.39 m (CSF-A)

CLAY WITH SILT, SAND, SILT WITH SAND, SAND WITH SILT, SANDY SILT WITH CLAY, SILT WITH CLAY. Light colored SILT WITH CLAY and darker color SAND WITH SILT are the major lithologies and occur in rhythmic couplets through the core. The proportion of SAND and sand-sized particles reduces from top to bottom of the core. Thin interbeds are absent and SILT WITH CLAY beds are slightly compacted and are becoming lithified.



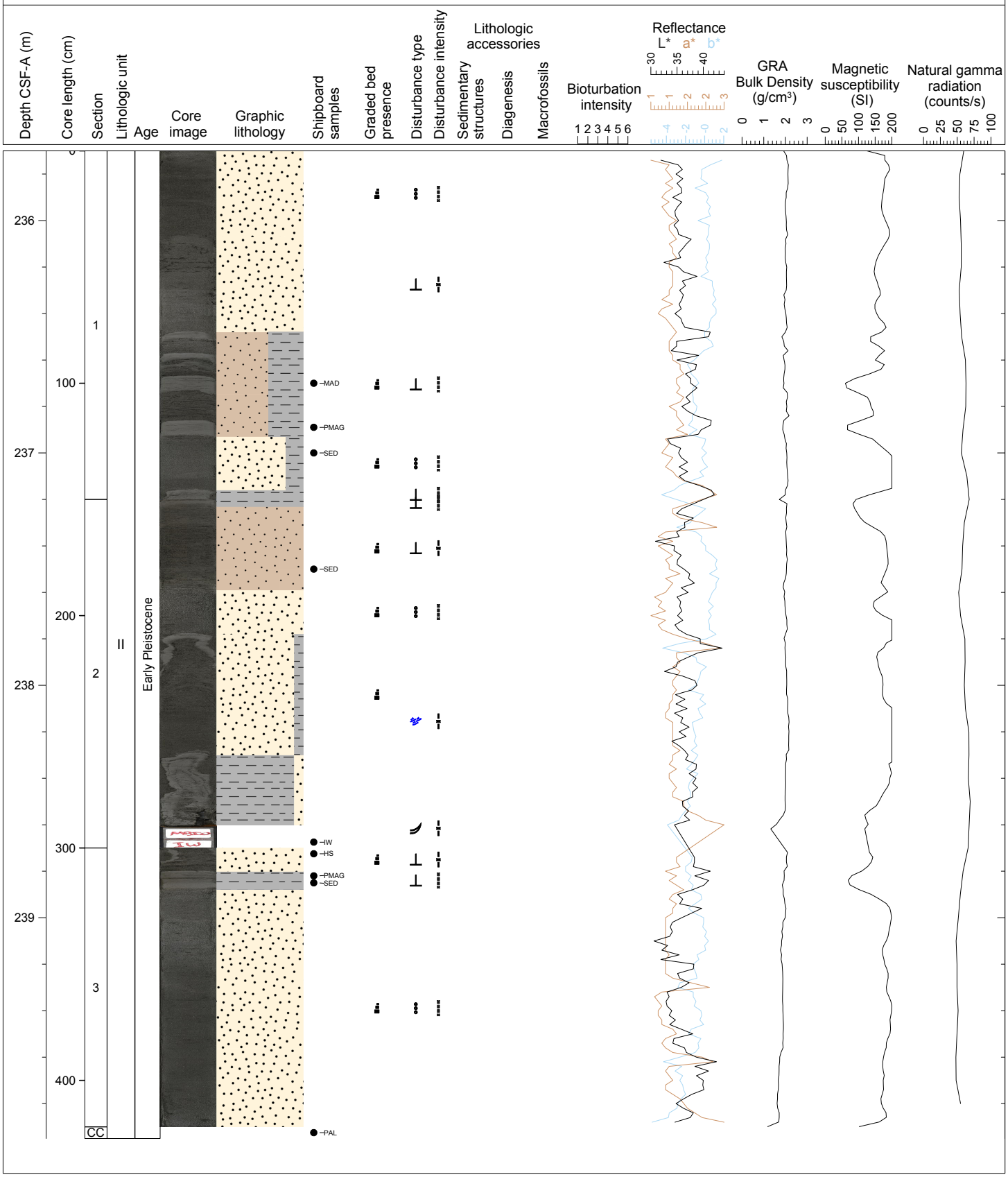
Hole 355-U1456A Core 37F, Interval 231.2-235.74 m (CSF-A)

SAND WITH SILT, CLAY WITH SILT, SILT WITH SAND. Dark colored SAND WITH SILT is the major lithology. Light colored CLAY WITH SILT lies below 88 cm Section 3. SILT WITH SAND and CLAY WITH SILT are thinly interbedded in Section 4.



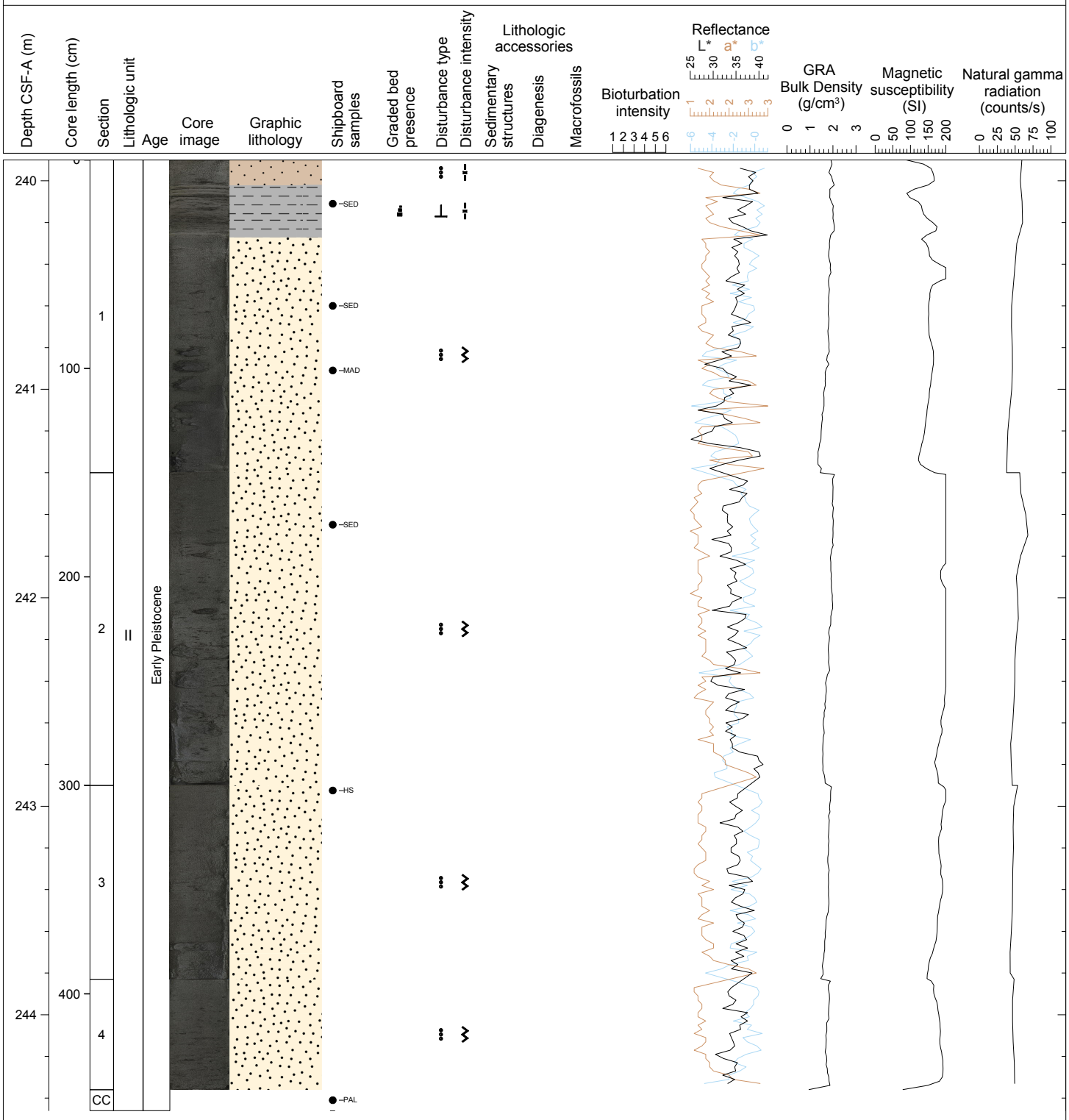
Hole 355-U1456A Core 38F, Interval 235.7-239.95 m (CSF-A)

CLAY WITH SILT, SAND WITH SILT, CLAY, SILT WITH SAND, SILT The core is dominated by dark colored SAND WITH SILT and SILT. The light colored CLAY, CLAY WITH SILT and SILT are the minor lithologies and contain moderate amounts of nannofossils and other carbonate materials. CLAY is deformed by flow-in in Section 2.



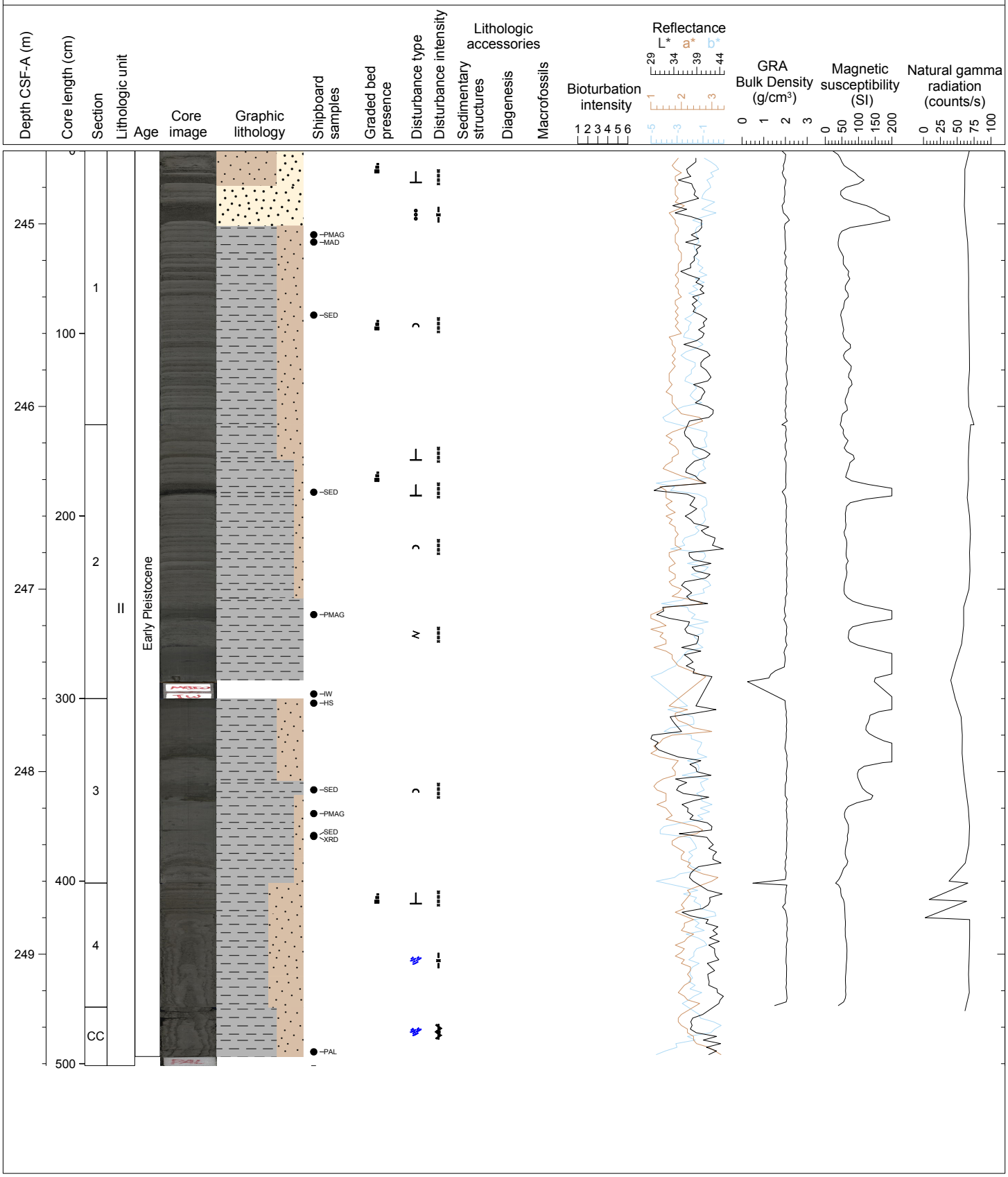
Hole 355-U1456A Core 39F, Interval 239.9-244.46 m (CSF-A)

SILT WITH SAND, CLAY WITH SILT, SAND WITH SILT. Dark colored SAND WITH SILT is the major lithology. Dark colored SILT WITH SAND and CLAY WITH SILT occurs in the top 37 cm of Section 1.



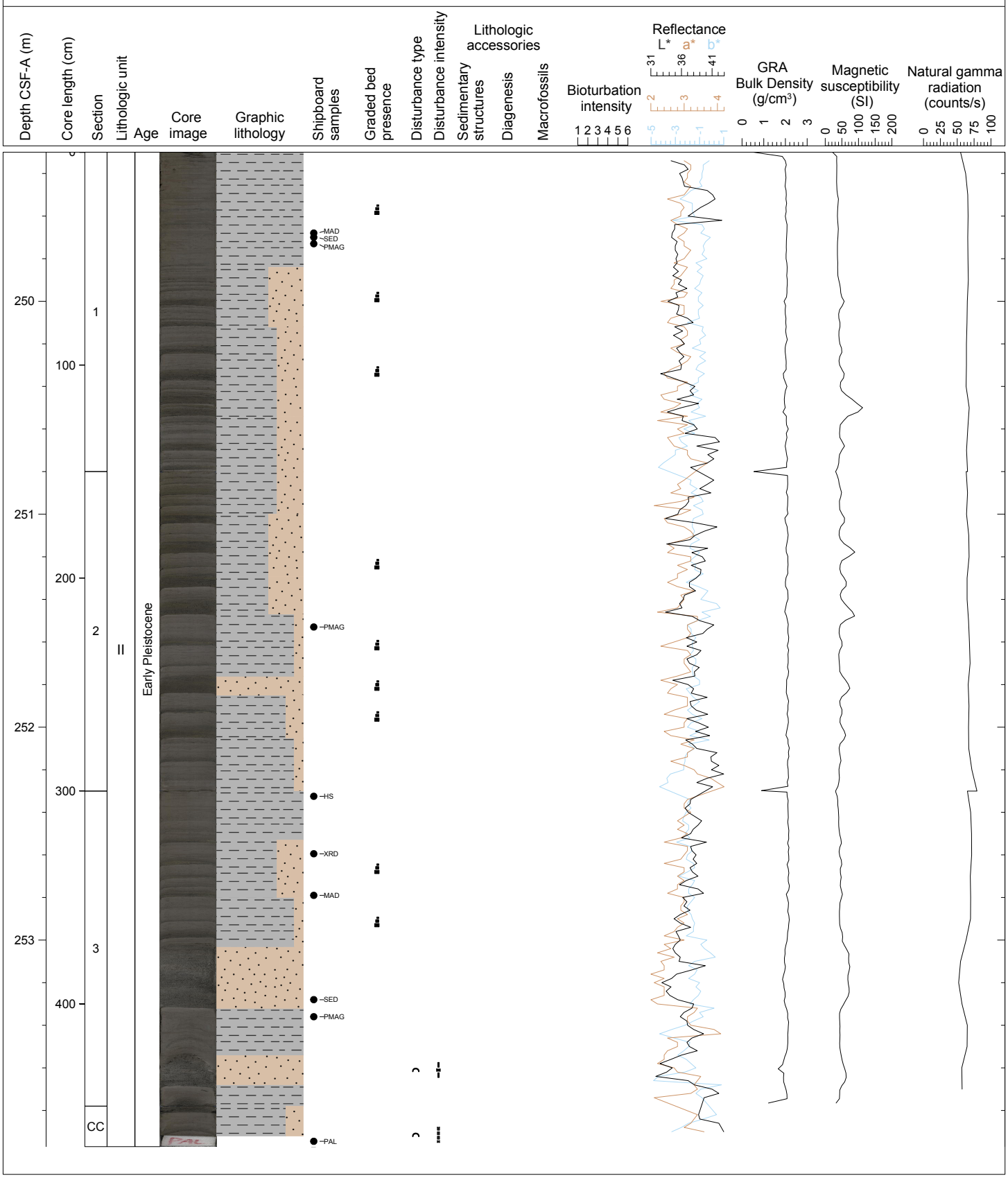
Hole 355-U1456A Core 40F, Interval 244.6-249.61 m (CSF-A)

CLAY is the dominant lithology. In Section 1, a couplet of thicker bedded CLAY and thinner SILT is repeated, showing a sharp contact with the underlying couplet and normal grading within the couplet. Most of Section 2 is similar to Section 1, except for a thick CLAY bed in the lower part. CLAY occupies most of Section 3. Section 4 and the CC show moderate drilling disturbance in the form of basal flow-in.



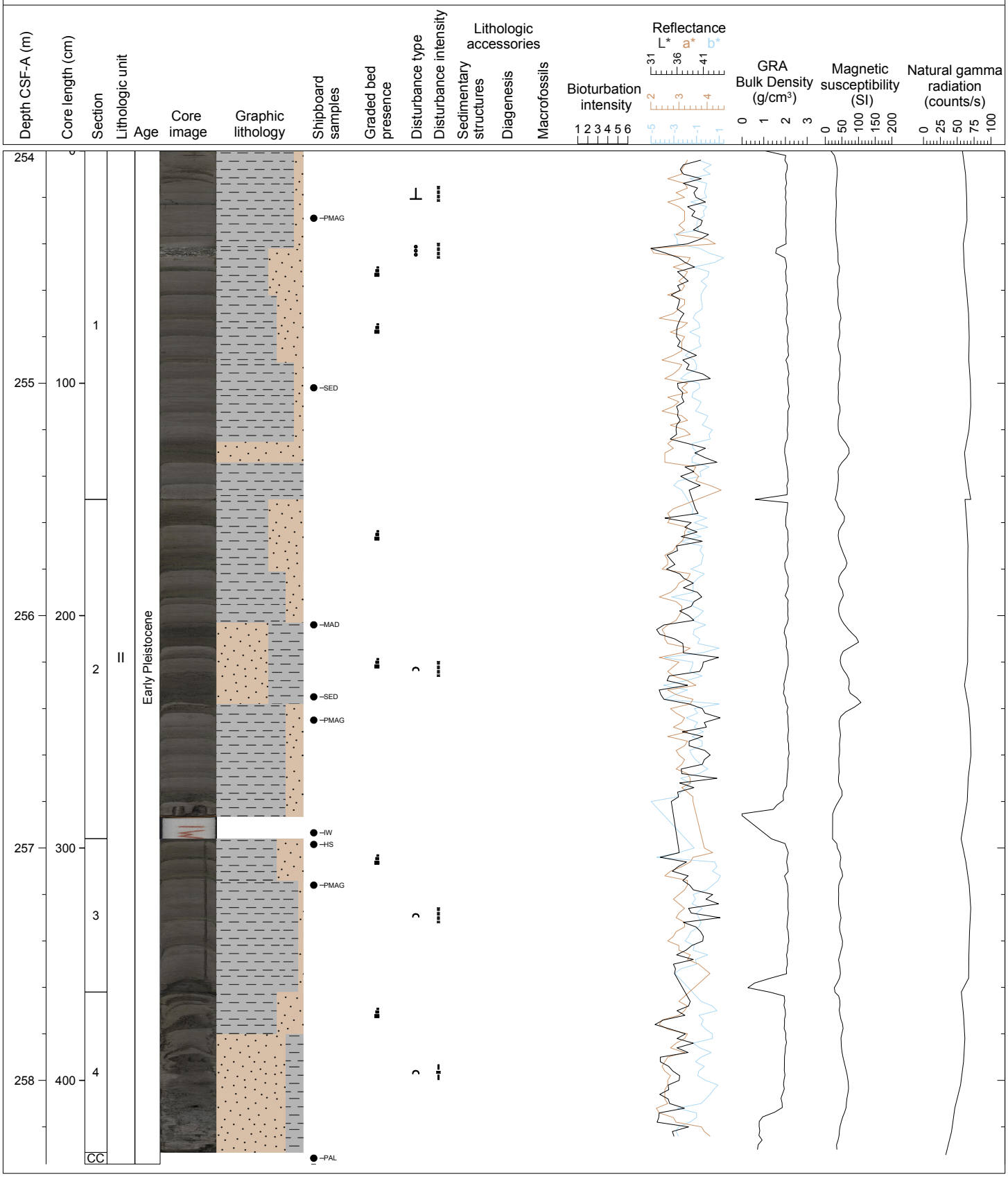
Hole 355-U1456A Core 41F, Interval 249.3-253.97 m (CSF-A)

CLAY is the dominant lithology with thin (<1 cm) intercalations of SILT. Several thicker CLAY layers were found in the upper part of Sections 1 and 3 and the lower part of Section 3. The lithologic boundary between the CLAY below to SILT above is erosive and sharp. Normal grading was observed going up-section from SILT to CLAY. Sand grain minerals include hornblende, clinopyroxene and tourmaline. Quartz, feldspar and chlorite are rare.



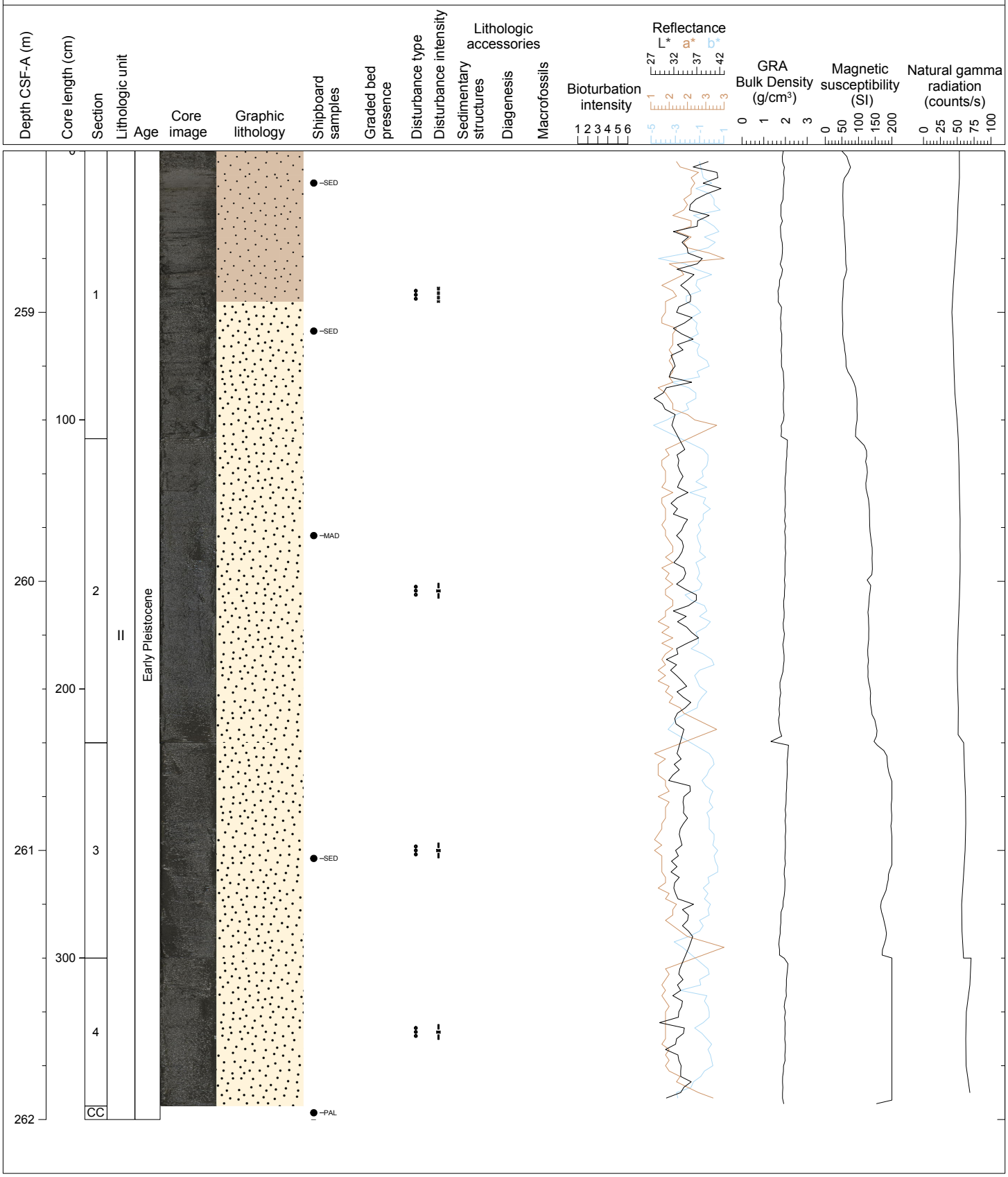
Hole 355-U1456A Core 42F, Interval 254.0-258.36 m (CSF-A)

CLAY comprises 80% of the core with lesser amounts of SILT. The bases of the SILT beds are erosive and are overlain by normally graded sediment. The thin SILT beds are light gray and dark gray. Major heavy minerals identified in smear slides are tourmaline, epidote, garnet, and orthopyroxene.



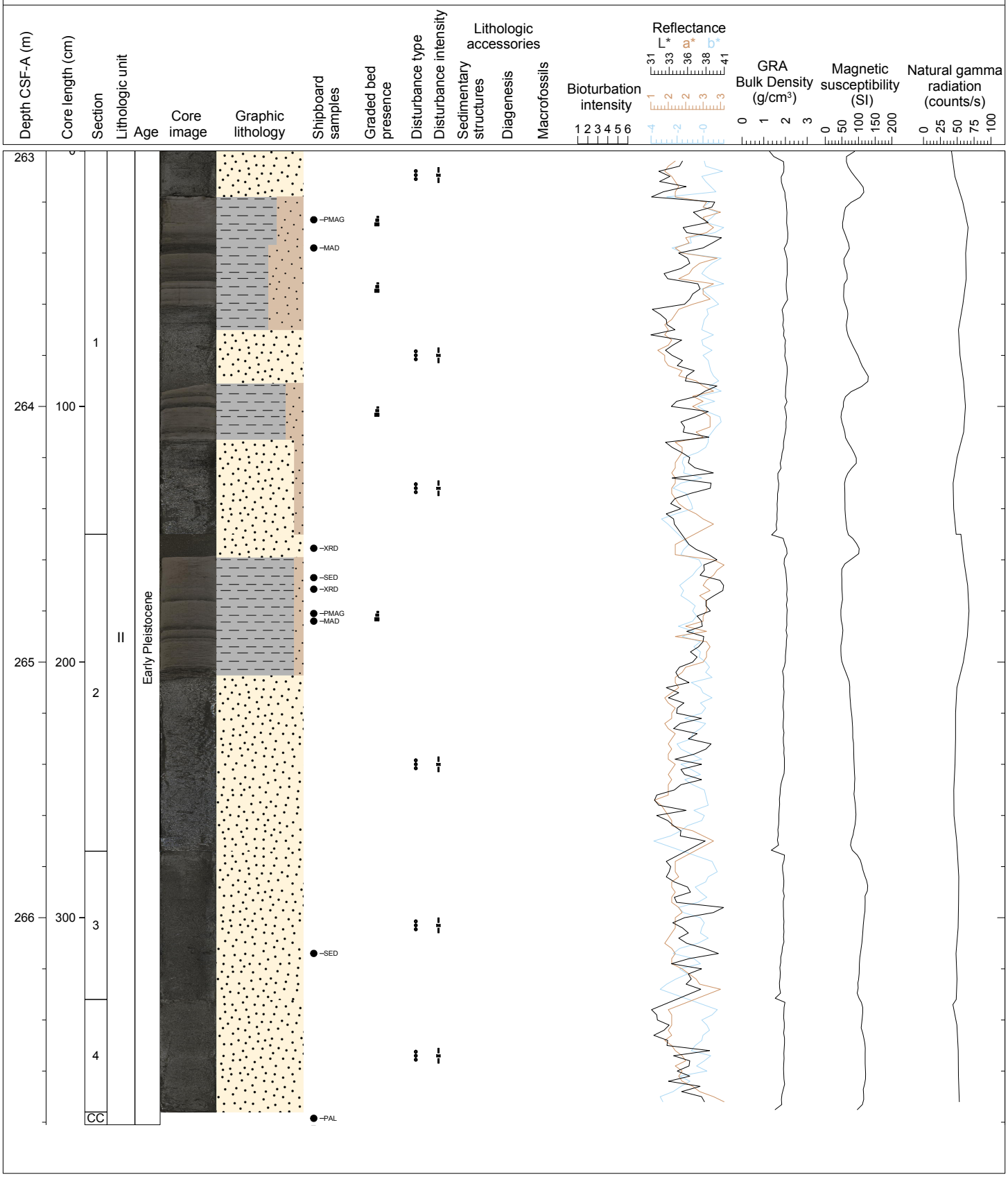
Hole 355-U1456A Core 43F, Interval 258.4-262.0 m (CSF-A)

SAND is dominant from the lower part of Section 1 to the bottom of core. CLAY, SILT WITH CLAY and SAND WITH SILT are found in Section 1. These lithologies show general upward fining trends. Sand layers contain common very small shell fragments.



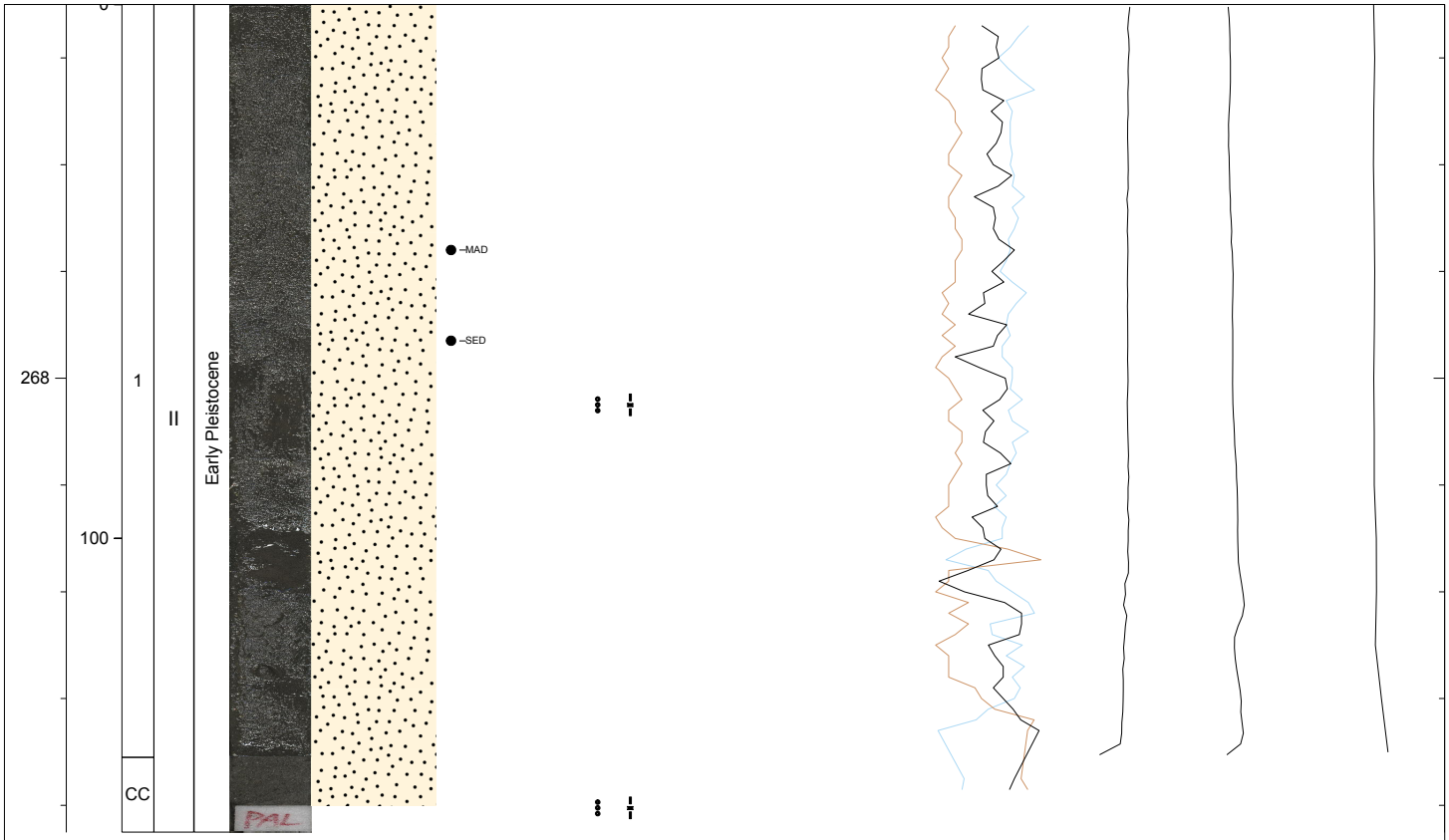
Hole 355-U1456A Core 44F, Interval 263.0-266.81 m (CSF-A)

SAND, CLAY, SILT. SAND is the main lithology. CLAY is intercalated with SAND in Sections 1 and 2. The basal lithology boundaries of the sandy beds are sharp and erosive. CLAY is overlain by SILT, showing normal grading. A lot of very small shell fragments were found in the sand layers.



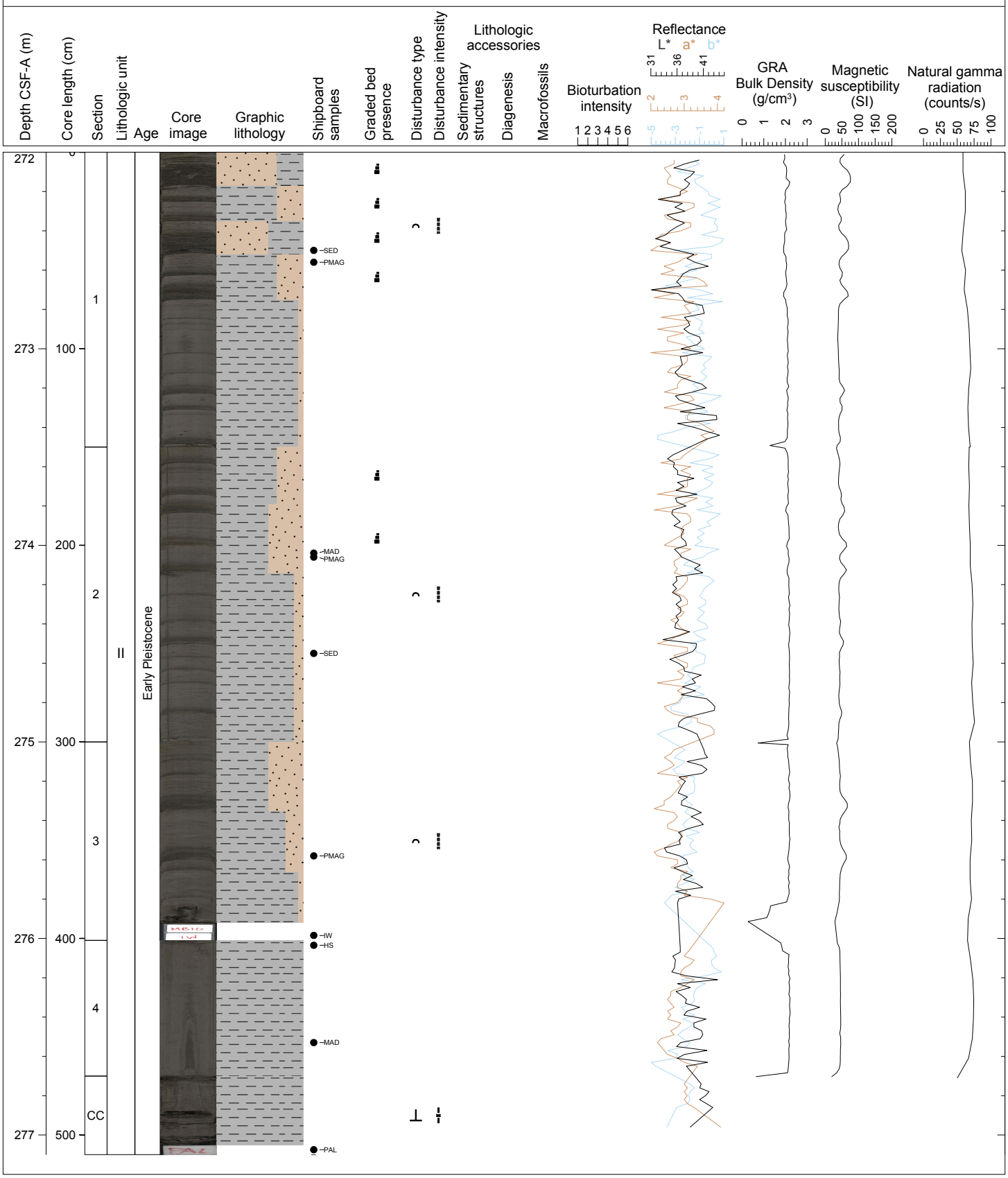
Hole 355-U1456A Core 45F, Interval 267.3-268.85 m (CSF-A)

SAND occupies the whole core. It is a fine sand and includes abundant tiny shell fragments. Drilling disturbance is moderate soupy. Sand-sized minerals include quartz, feldspar, and mica. Silt-sized minerals include epidote, hornblende, clinopyroxene and garnet.



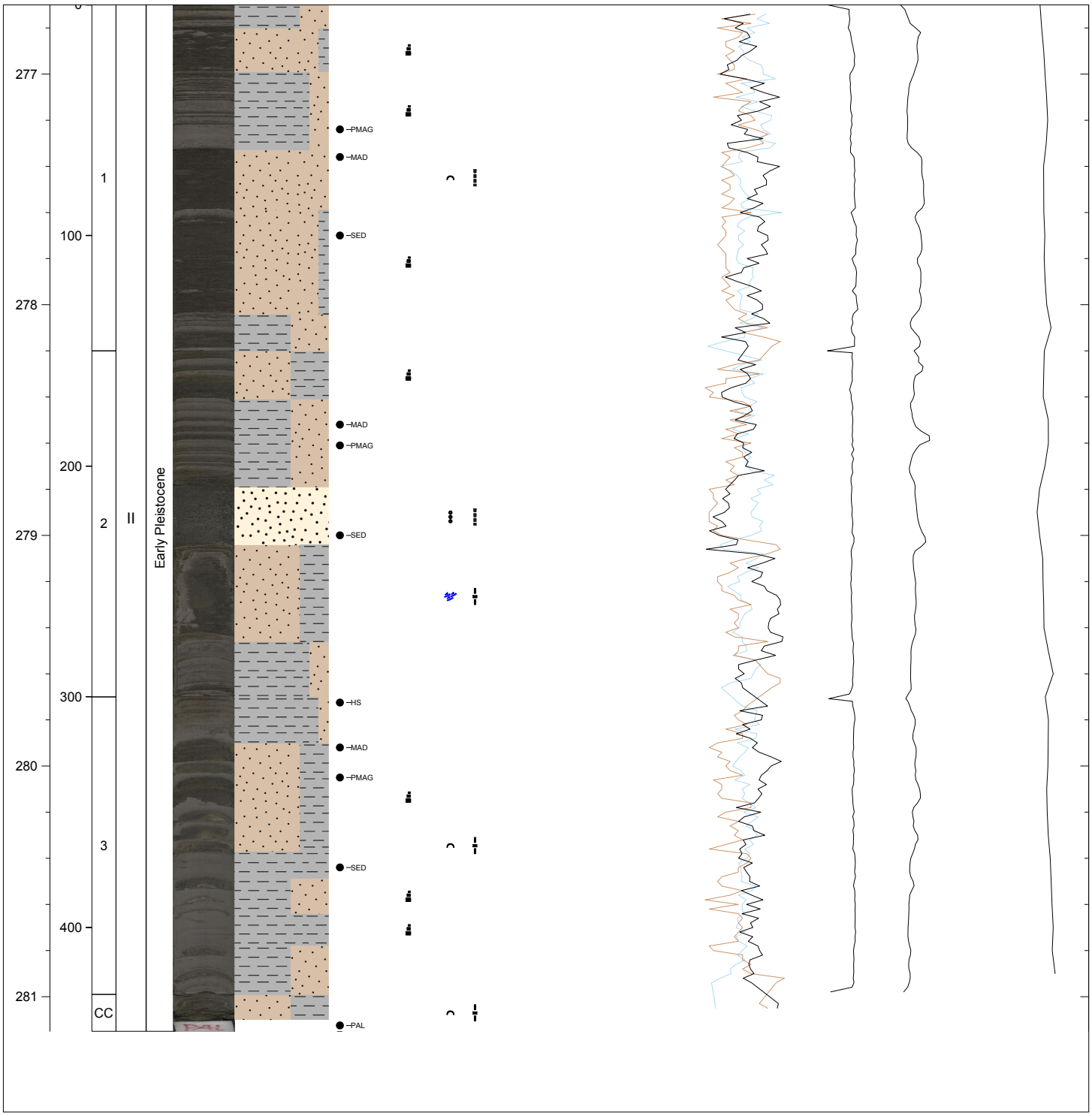
Hole 355-U1456A Core 46F, Interval 272.0-277.1 m (CSF-A)

CLAY, SILT. CLAY is the dominant lithology and overlies thin layers of SILT, showing normal grading. The top of the CLAY is erosive with another SILT bed cutting into this. SILT layers are darker in color compared to the finer grained sediment. Much darker layers were found in the top of Section 1, whereas the lower part of Section 1 and Section 2 contain much lighter layers. The color difference may be due to the difference in silt content. In sandy sediments, quartz, feldspar and mica are commonly observed. Abundant minerals include clinopyroxene, amphibole, zircon, tourmaline, epidote and garnet.



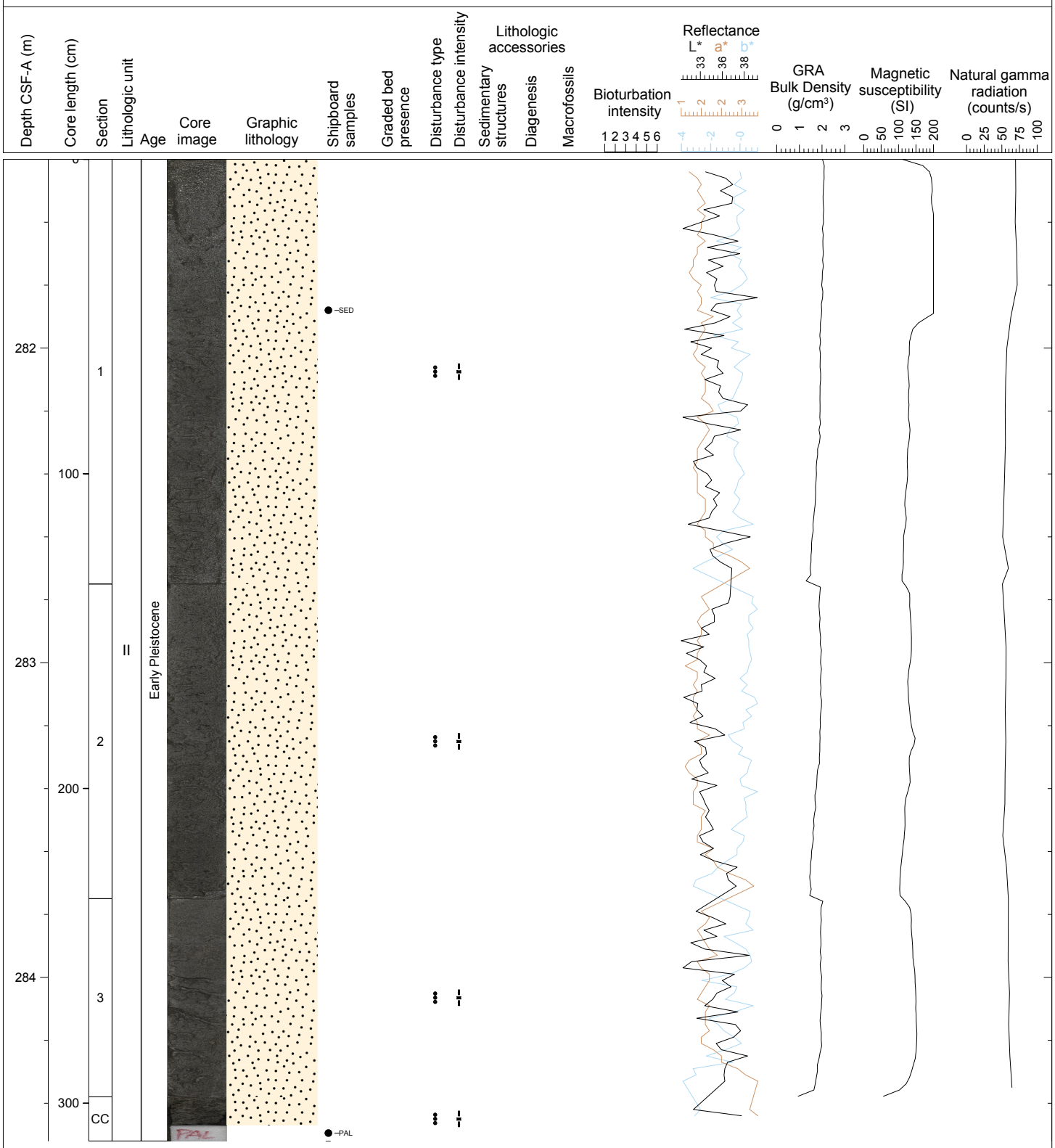
Hole 355-U1456A Core 47F, Interval 276.7-281.15 m (CSF-A)

CLAY, SILT, SAND. CLAY and SILT are the dominant lithologies in this core. Cycles of thin SILT and thick CLAY are repetitive. The boundary between couplets is normally erosive with normal grading above the base. A thick SAND layer was interbedded in Section 2. This SAND layer contains abundant micas. Drilling disturbance is slight up-arching of bedding. Abundant minerals seen in smear slides include tourmaline, epidote and hornblende with lesser amounts of zircon. Detrital carbonate is common.



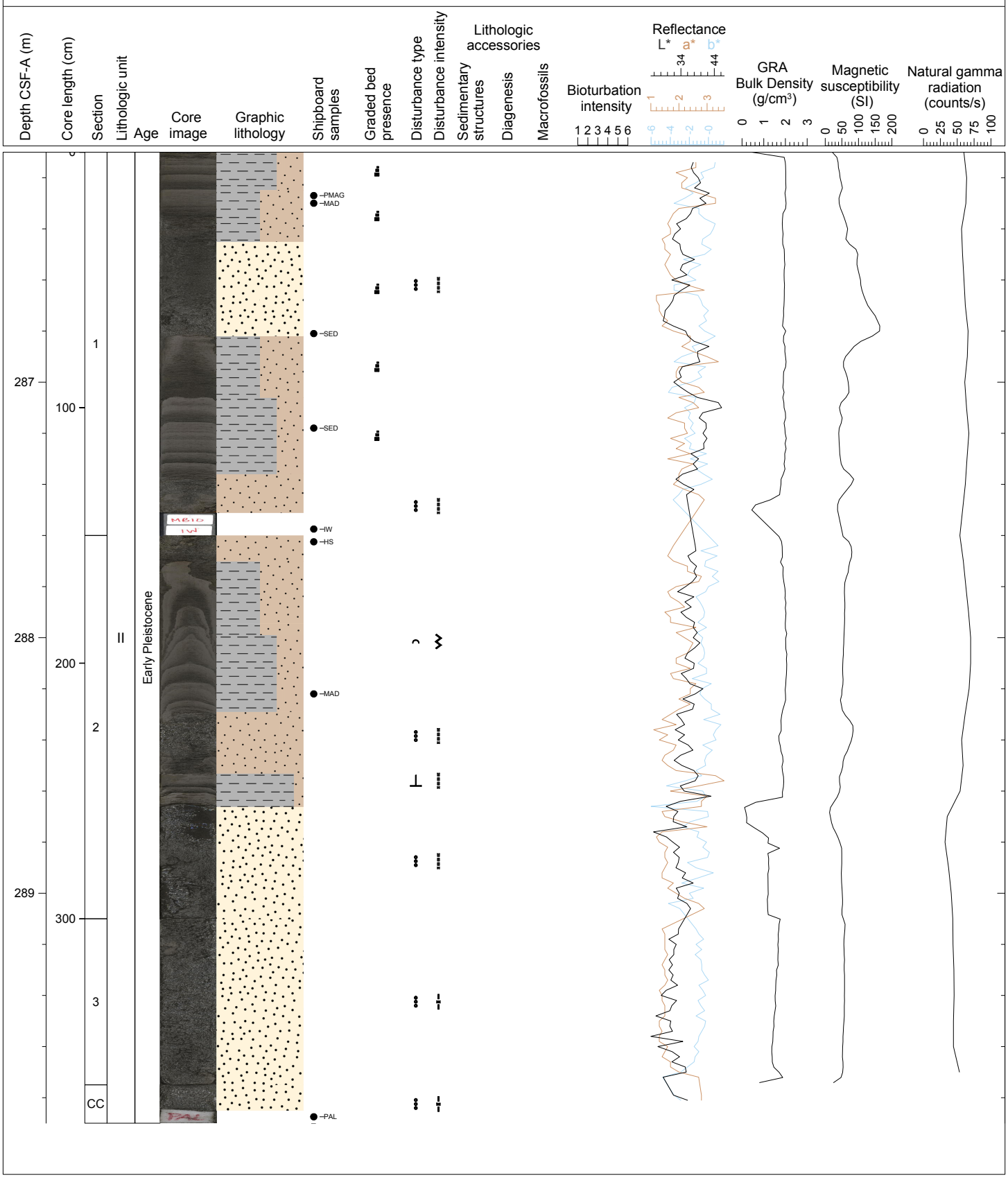
Hole 355-U1456A Core 48F, Interval 281.4-284.52 m (CSF-A)

The whole core consists of SAND. Quartz, feldspar, mica and glauconite are common. Abundant minerals seen under smear slides include amphibole, zircon, epidote, and tourmaline. Nannofossils are common in the core.



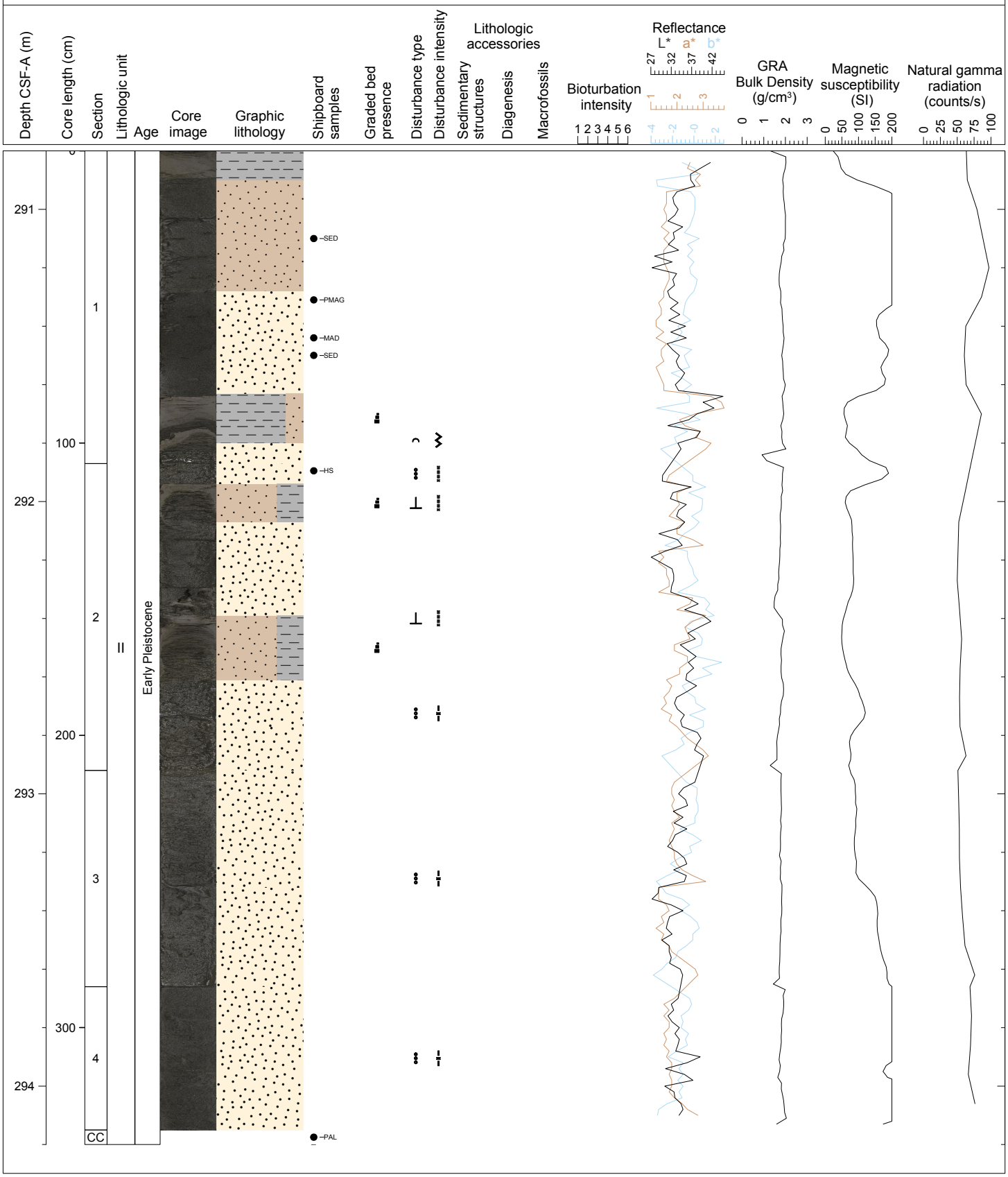
Hole 355-U1456A Core 49F, Interval 286.1-289.9 m (CSF-A)

CLAY, SAND, SILT. CLAY and SAND are the dominant lithologies. SAND occurs in the middle of Section 1, the top, middle, and bottom of Section 2 as well as through the whole of Sections 3 and 4. CLAY alternates with SILT, and shows normal grading above an erosional sharp basal boundary. In Section 1, SAND, SILT and CLAY form a classic, fining-upwards turbidite sequence.



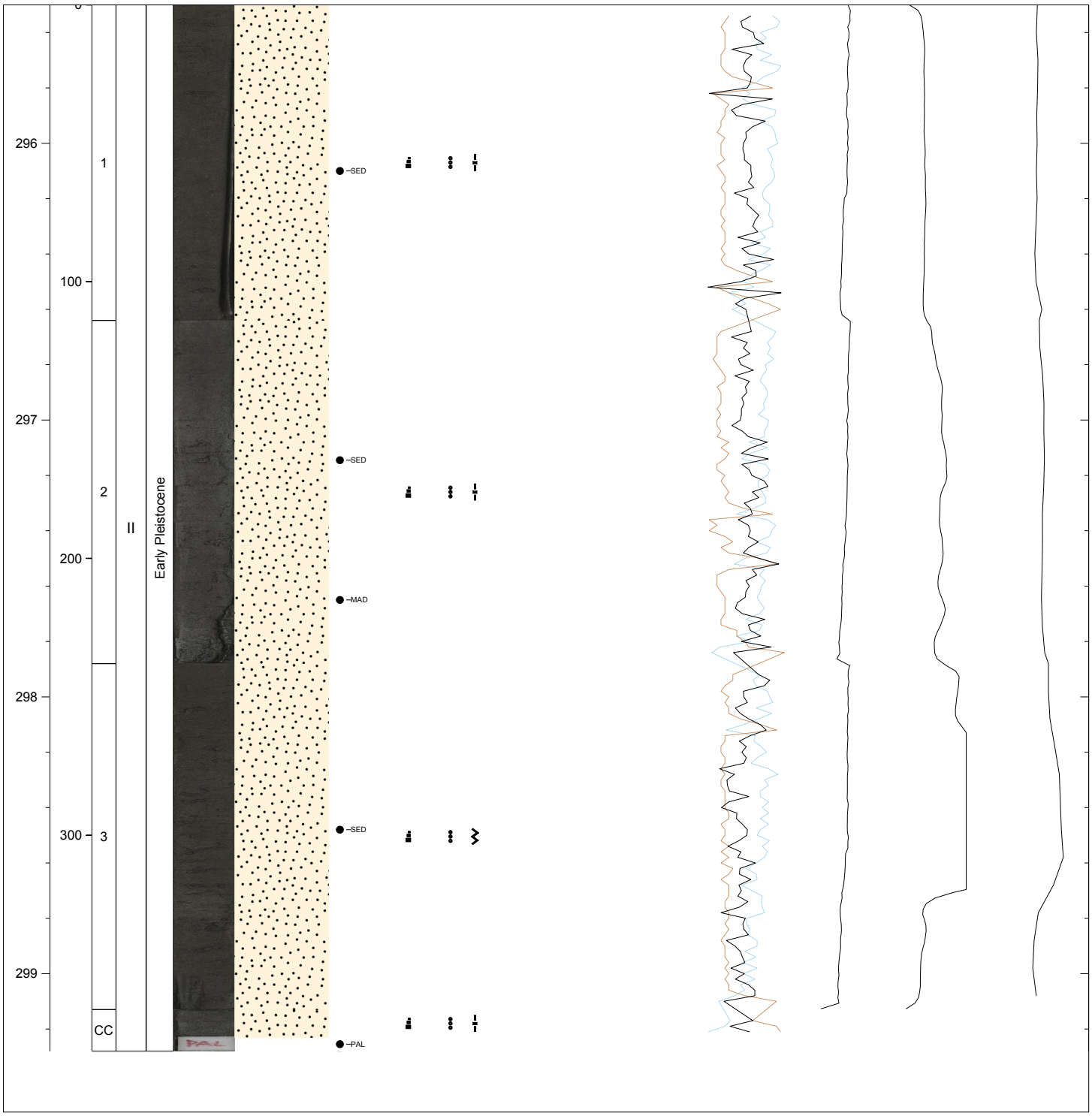
Hole 355-U1456A Core 50F, Interval 290.8-294.2 m (CSF-A)

SAND, CLAY. The main lithology of this core is SAND. All sections contain this lithology, and it is especially common in Sections 3 and 4. CLAY was found at the top and bottom of Section 1. The upper boundary of sand is gradational, but the lower boundary is erosive and sharp. Drilling disturbance is moderate soupy and up-arching are observed.



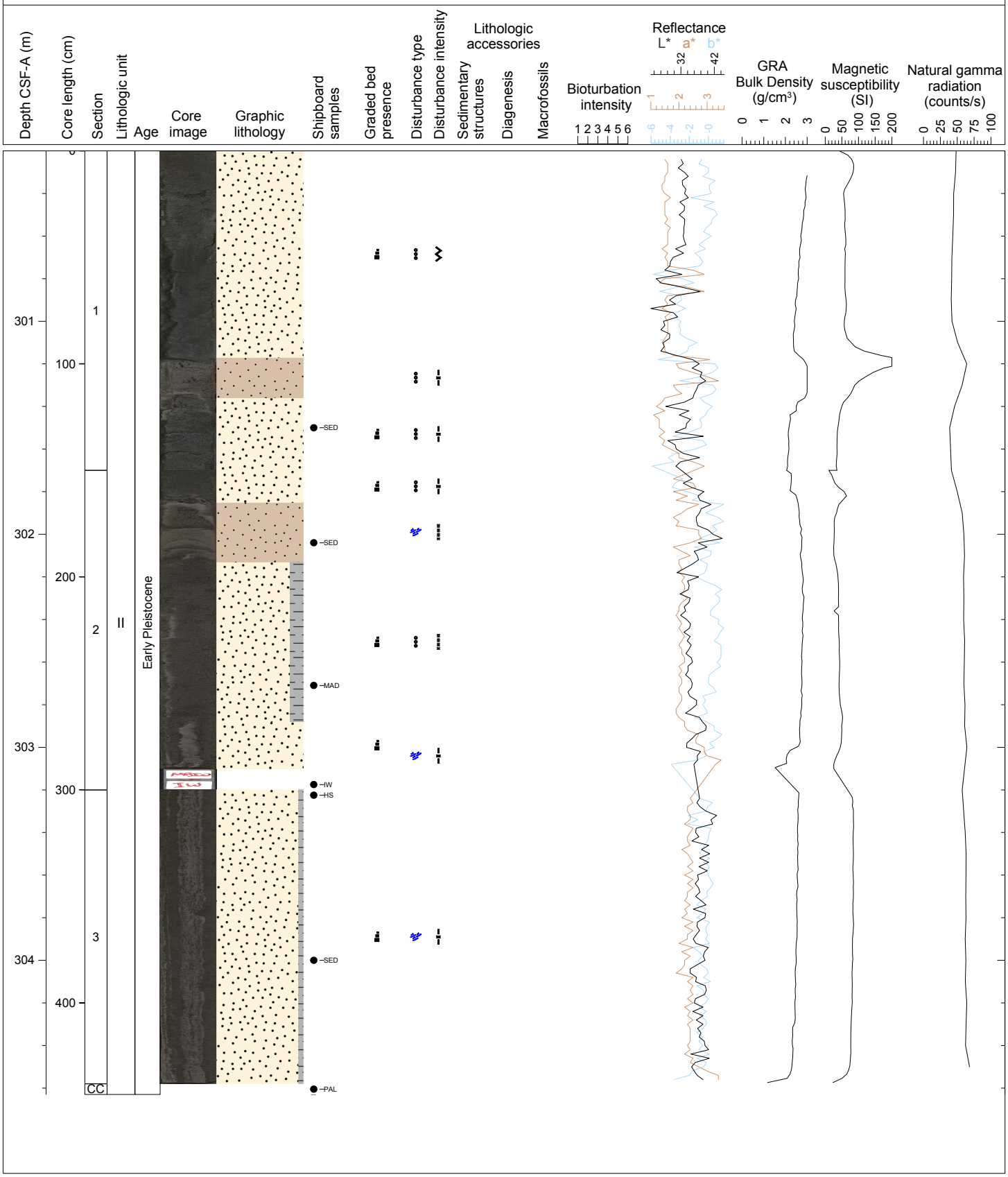
Hole 355-U1456A Core 51F, Interval 295.5-299.28 m (CSF-A)

SAND WITH SILT. Dark gray colored, fine grained SAND WITH SILT is the major lithology. The sediment is disturbed and a little washed away. Carbonates (micrite and calcite rock fragments) are present in the smear slide where they are rare to common. Mica flakes are generally fine to medium in grain size and are commonly seen on the cut sediment surface.



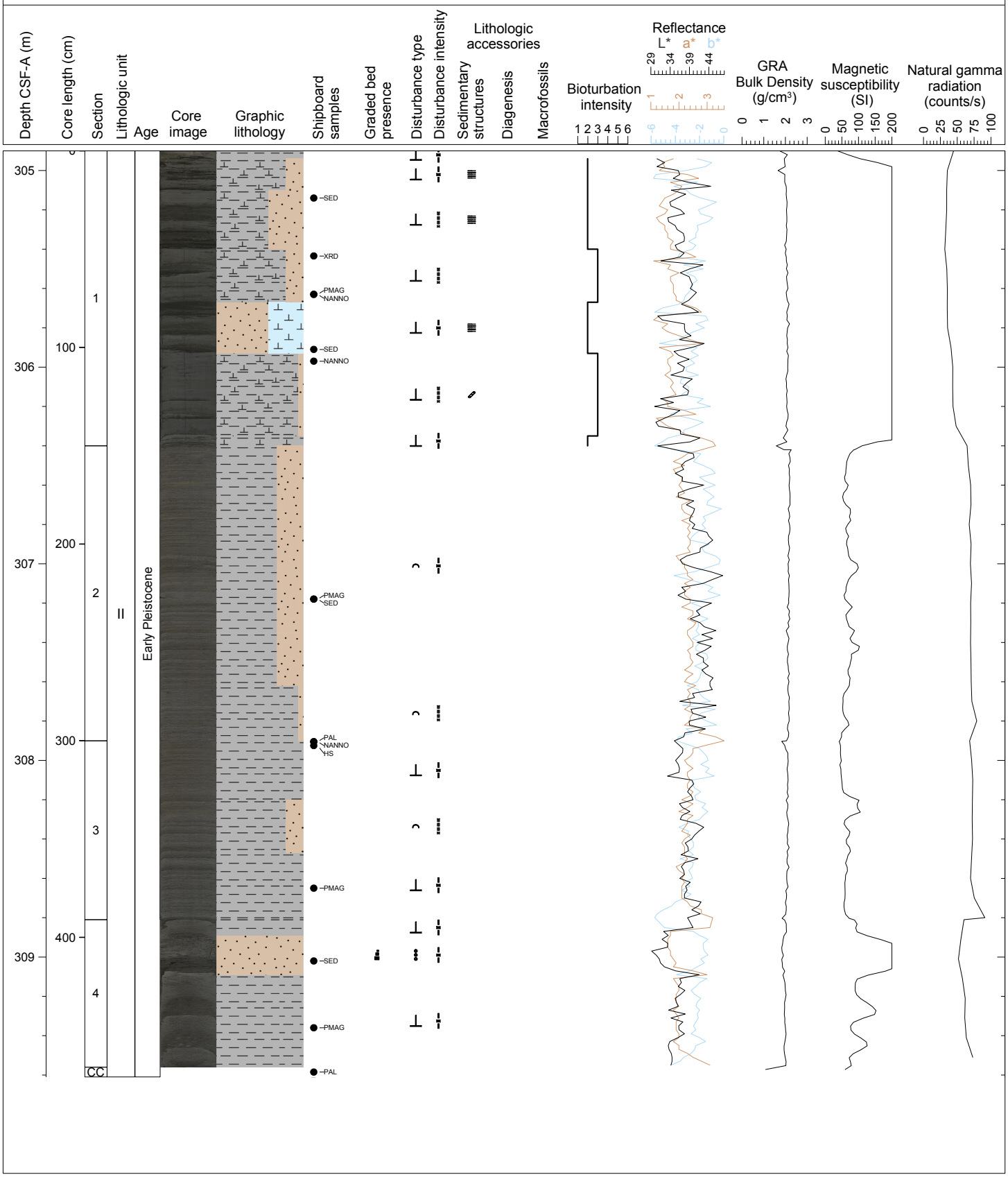
Hole 355-U1456A Core 52F, Interval 300.2-304.63 m (CSF-A)

SAND WITH SILT, SILT WITH CLAY, SAND WITH SILT is major lithology and varies in color from dark to light gray. Medium-bedded SILT WITH CLAY is interbedded in Sections 1 and 2. Sediments are less compacted below 15 cm of Section 2. Flow-in of CLAY WITH SILT is observed below 118 cm, Section 2 through the whole of Section 3. In Section 3 a thin layer of clay flow-in was seen within the middle of the dominantly SAND WITH SILT unit.



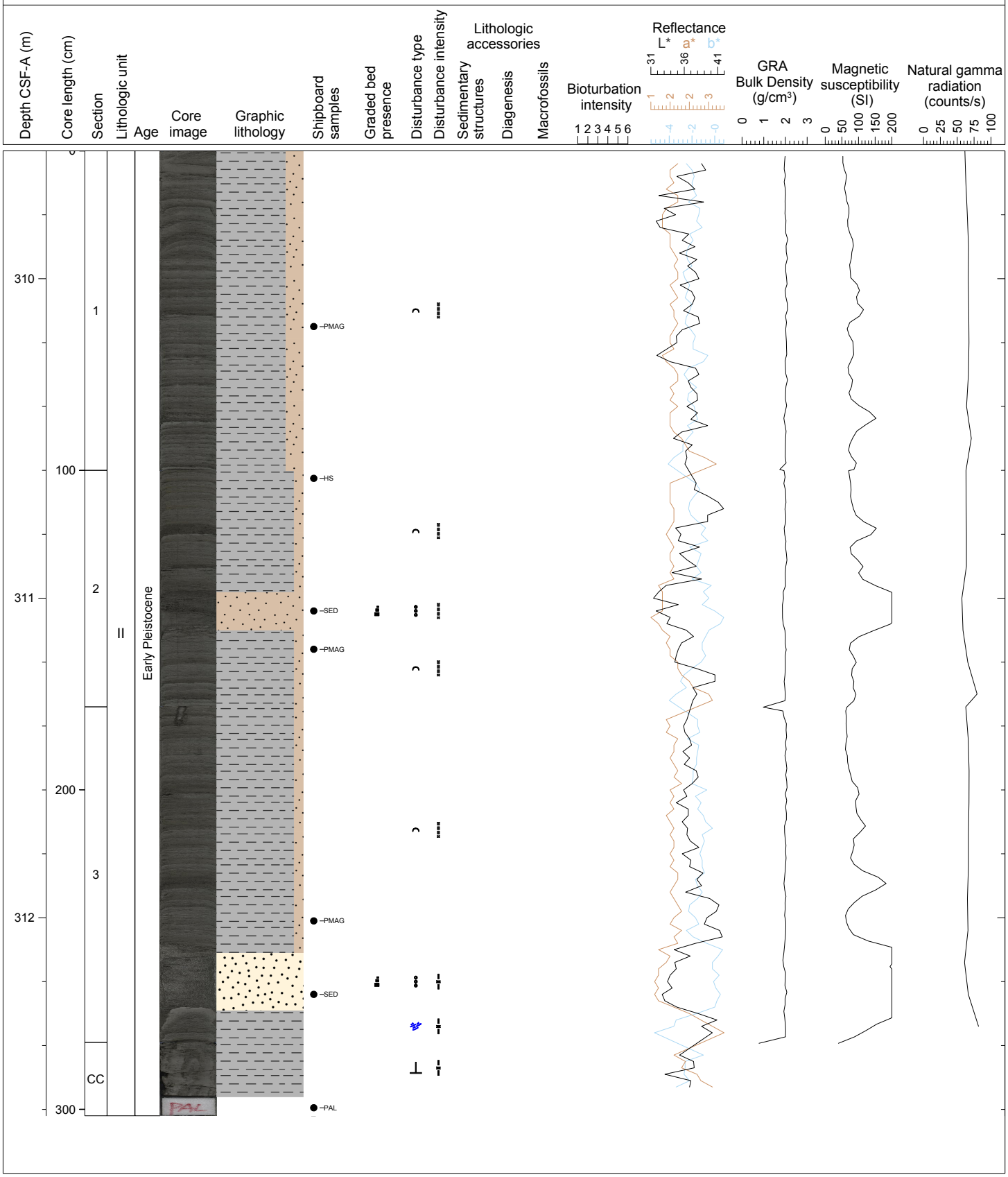
Hole 355-U1456A Core 53F, Interval 304.9-309.61 m (CSF-A)

NANNOFOSSIL-RICH CLAY WITH SILT, SILT WITH CLAY, CLAY WITH SILT, SILT WITH SAND. Dark green colored NANNOFOSSIL-RICH CLAY WITH SILT and brown colored CLAY WITH SILT are the major lithological units in this core. The top boundary of the NANNOFOSSIL-RICH CLAY WITH SILT is at 4 cm and base at 145 cm in Section 1. NANNOFOSSIL-RICH CLAY WITH SILT is interbedded with thin layers of SILT WITH CLAY which contains foraminifers. The thin-bedded brown colored CLAY WITH SILT and SILT WITH CLAY are interbedded in Section 2. Thin-bedded SILT WITH CLAY is interbedded with medium-bedded CLAY WITH SILT in Section 3. SILT WITH SAND is found in Section 4.



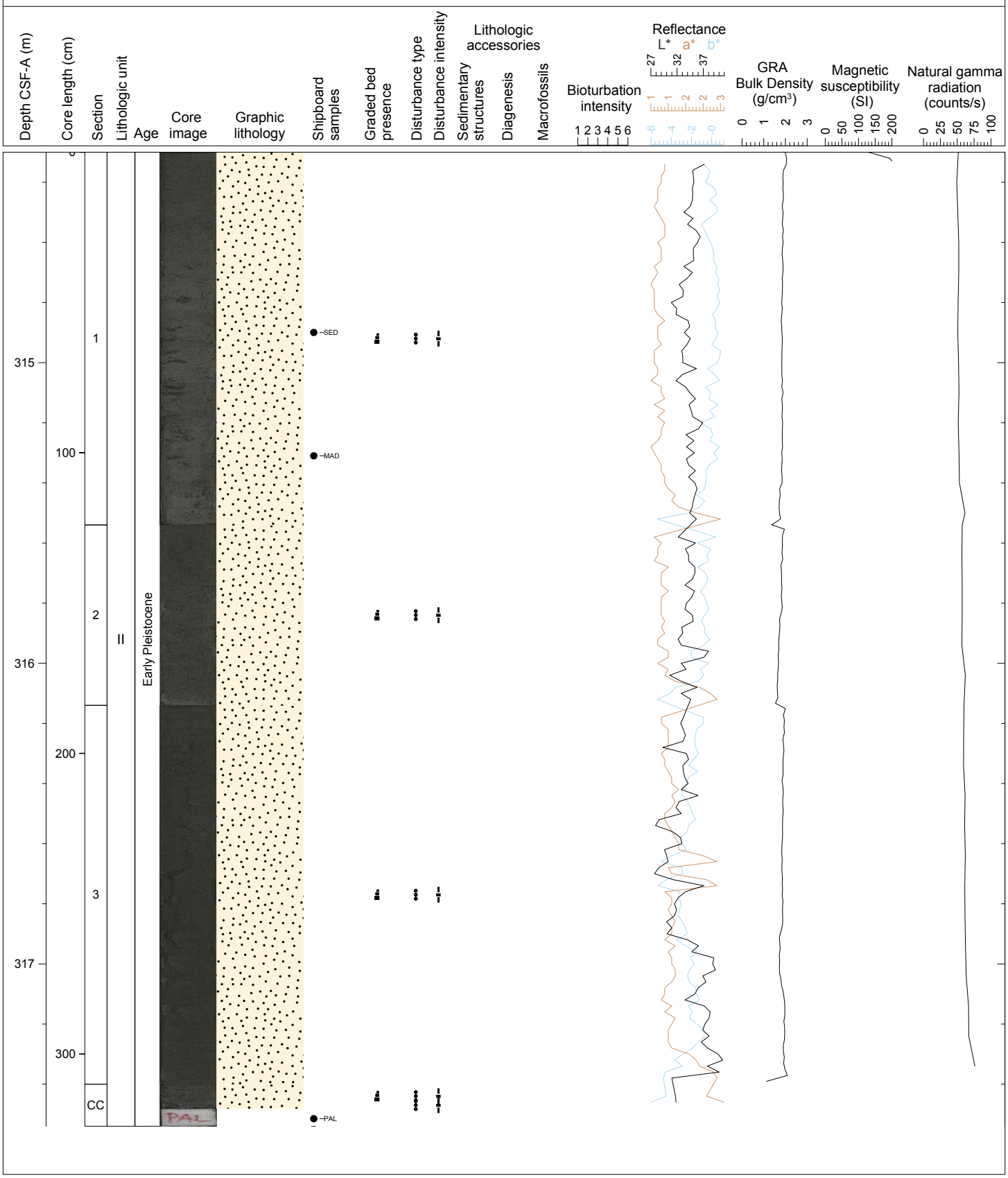
Hole 355-U1456A Core 54F, Interval 309.6-312.62 m (CSF-A)

CLAY WITH SILT, SILT WITH SAND, SAND WITH SILT. Gray colored CLAY WITH SILT and SILT WITH SAND thin layers are rhythmically interbedded in the core. Thin-bedded SAND WITH SILT and thick-bedded SAND WITH SILT are observed in Sections 2 and 3 respectively. SILT WITH SAND contains a high carbonate percentage in the silt fraction.



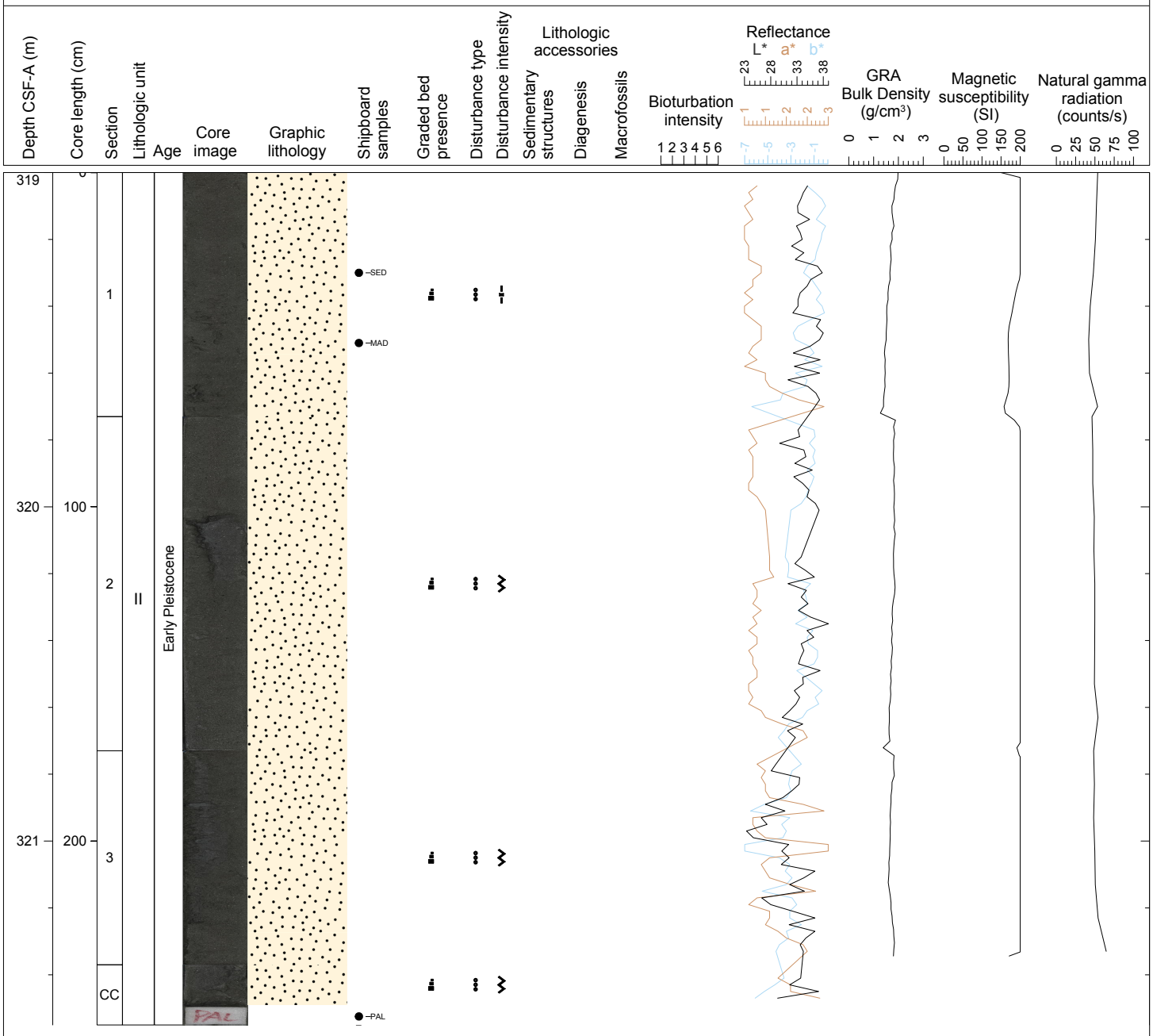
Hole 355-U1456A Core 55F, Interval 314.3-317.54 m (CSF-A)

SAND. Dark gray SAND is the only lithology present in this core. The fine to medium grained SAND is rich in detrital minerals. Mica is abundant in the entire core and is medium grain sized.



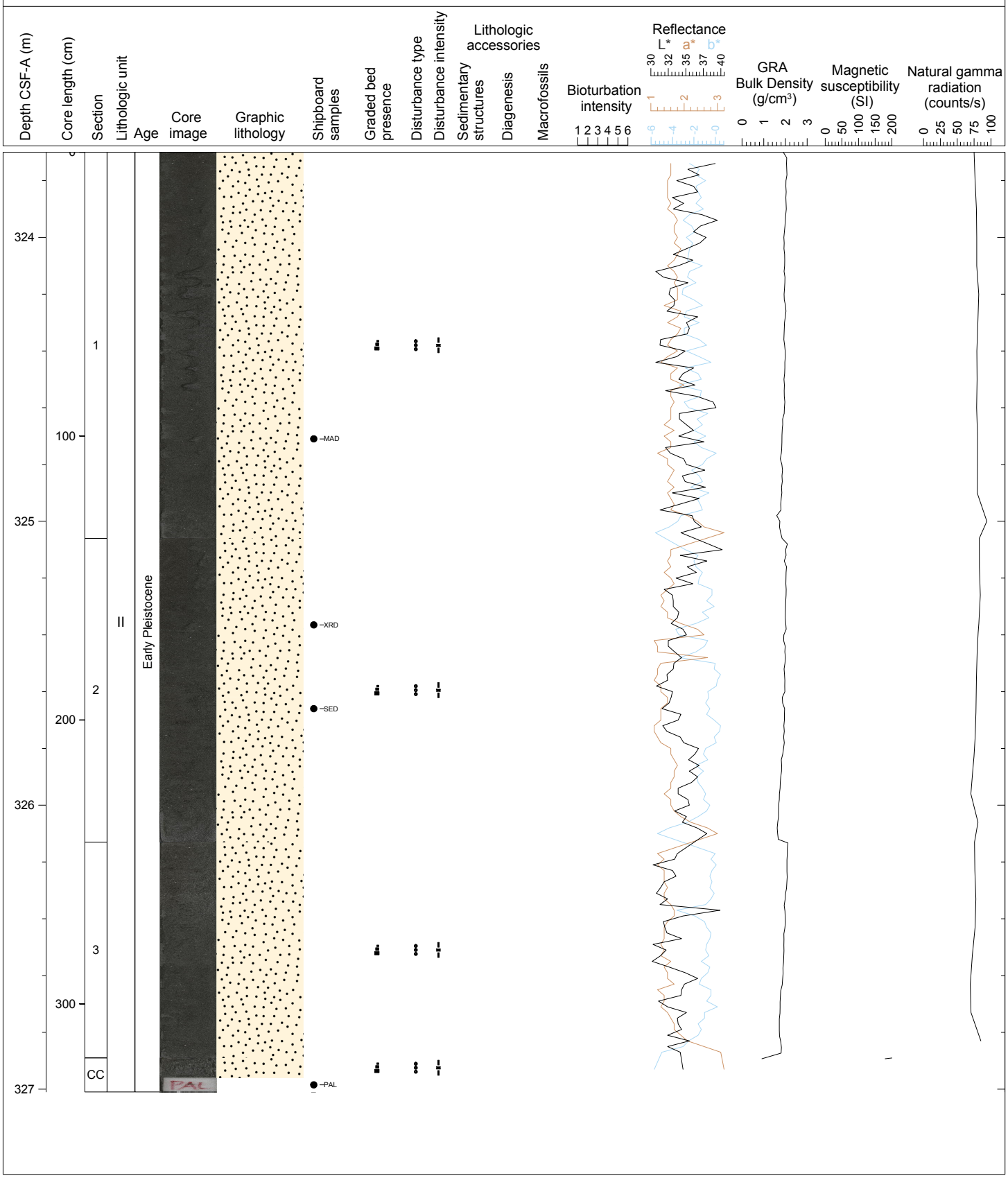
Hole 355-U1456A Core 56F, Interval 319.0-321.55 m (CSF-A)

Dark gray SAND is the only lithology in the core. Fine to medium grained SAND is rich in detrital minerals. Mica is abundant throughout the entire core and is mostly medium grain sized.



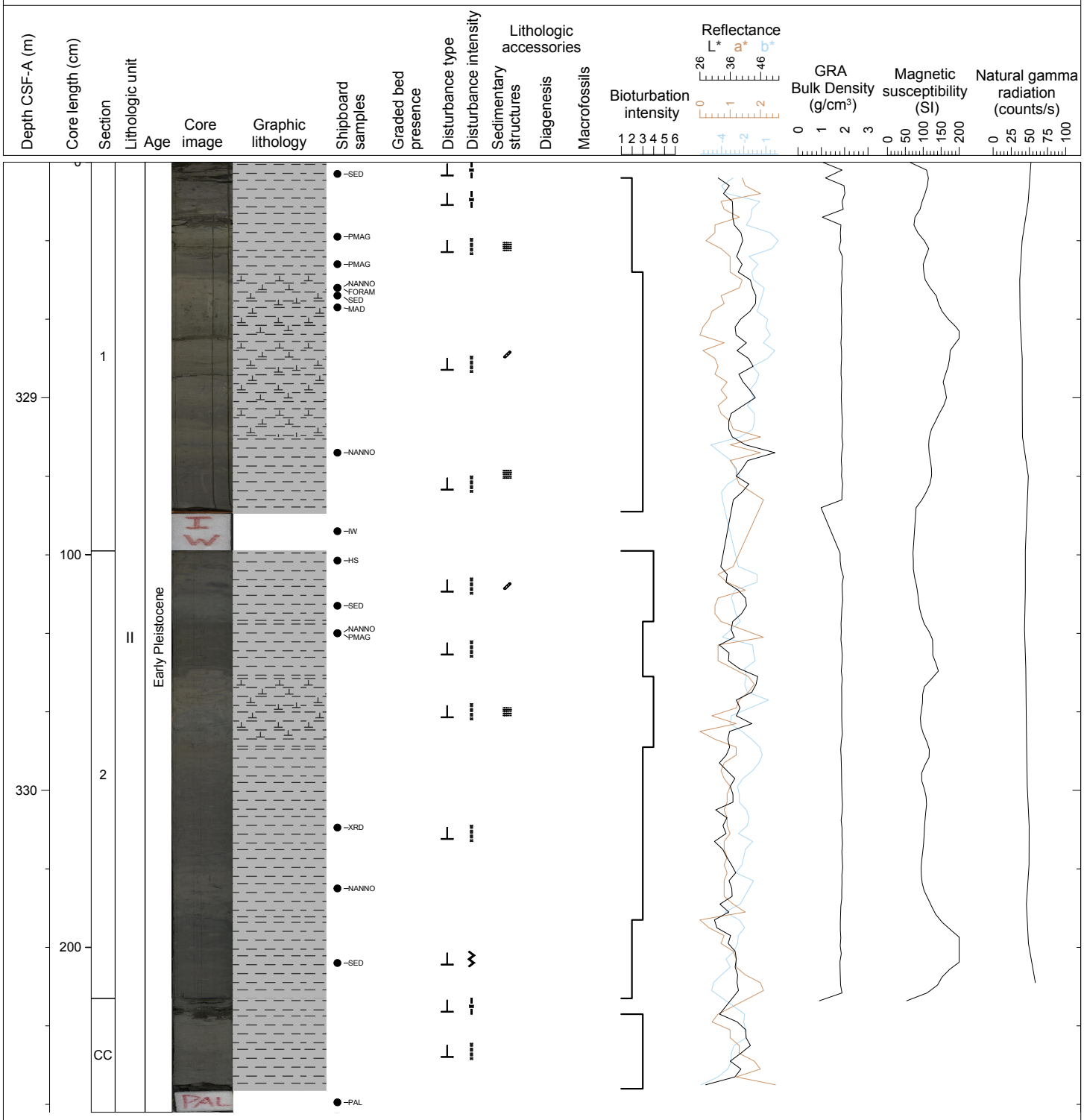
Hole 355-U1456A Core 57F, Interval 323.7-327.01 m (CSF-A)

SAND. Dark gray, massive SAND is the only lithology in the core. The Fine to medium grained SAND is rich in detrital minerals. Mica is abundant through the entire core and mostly is medium grain sized.



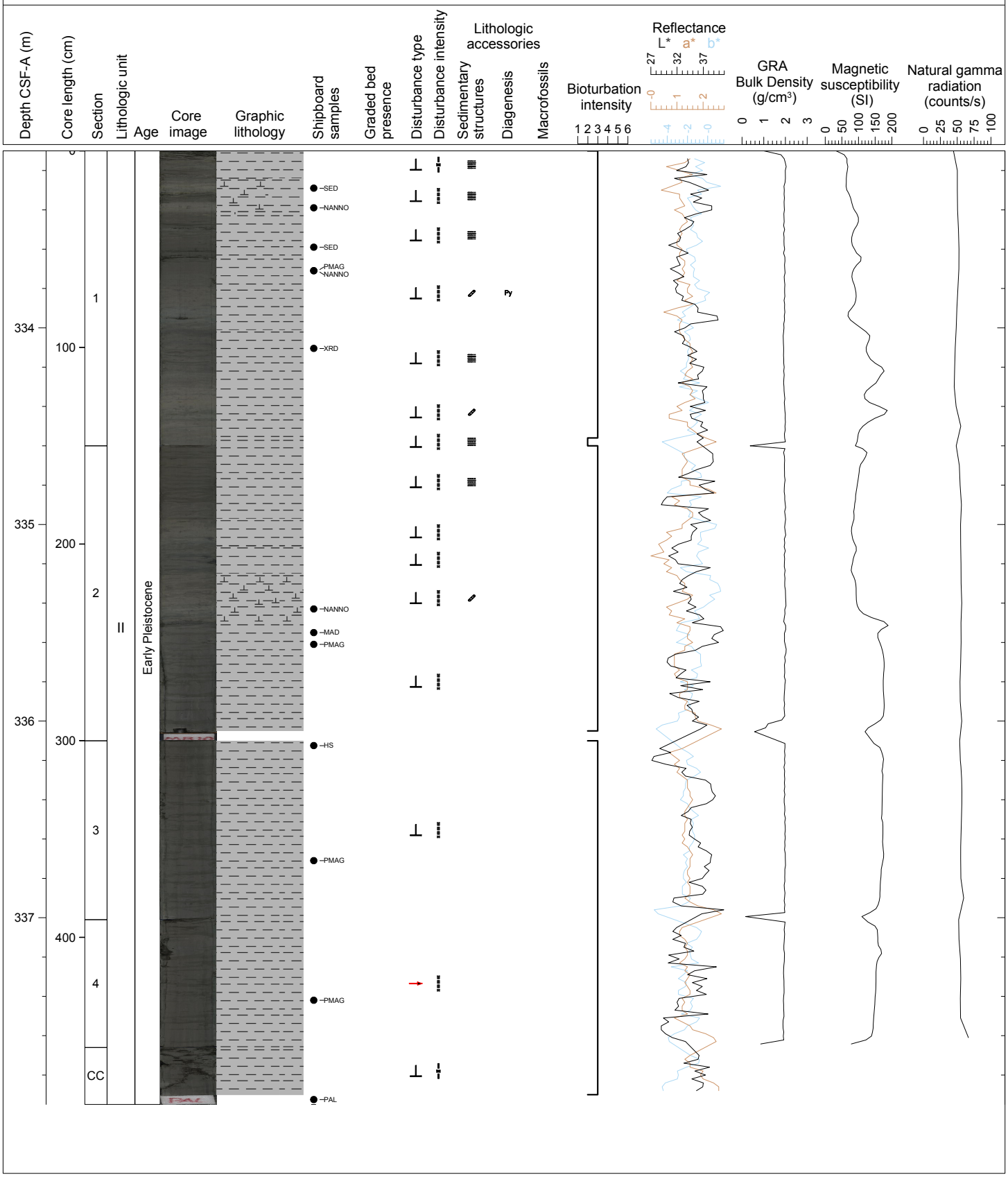
Hole 355-U1456A Core 58F, Interval 328.4-330.82 m (CSF-A)

CLAY WITH SILT, CLAY, CLAY WITH NANNOFOSSILS, NANNOFOSSIL-RICH CLAY. Light gray CLAY WITH NANNOFOSSILS and NANNOFOSSIL- RICH CLAY are the major lithologies observed in the core. The litho-boundaries are mostly gradational. The light color CLAY with NANNOFOSSILS and NANNOFOSSIL-RICH CLAY show color banding. A hard nodule is observed at 15 cm, Section 1.



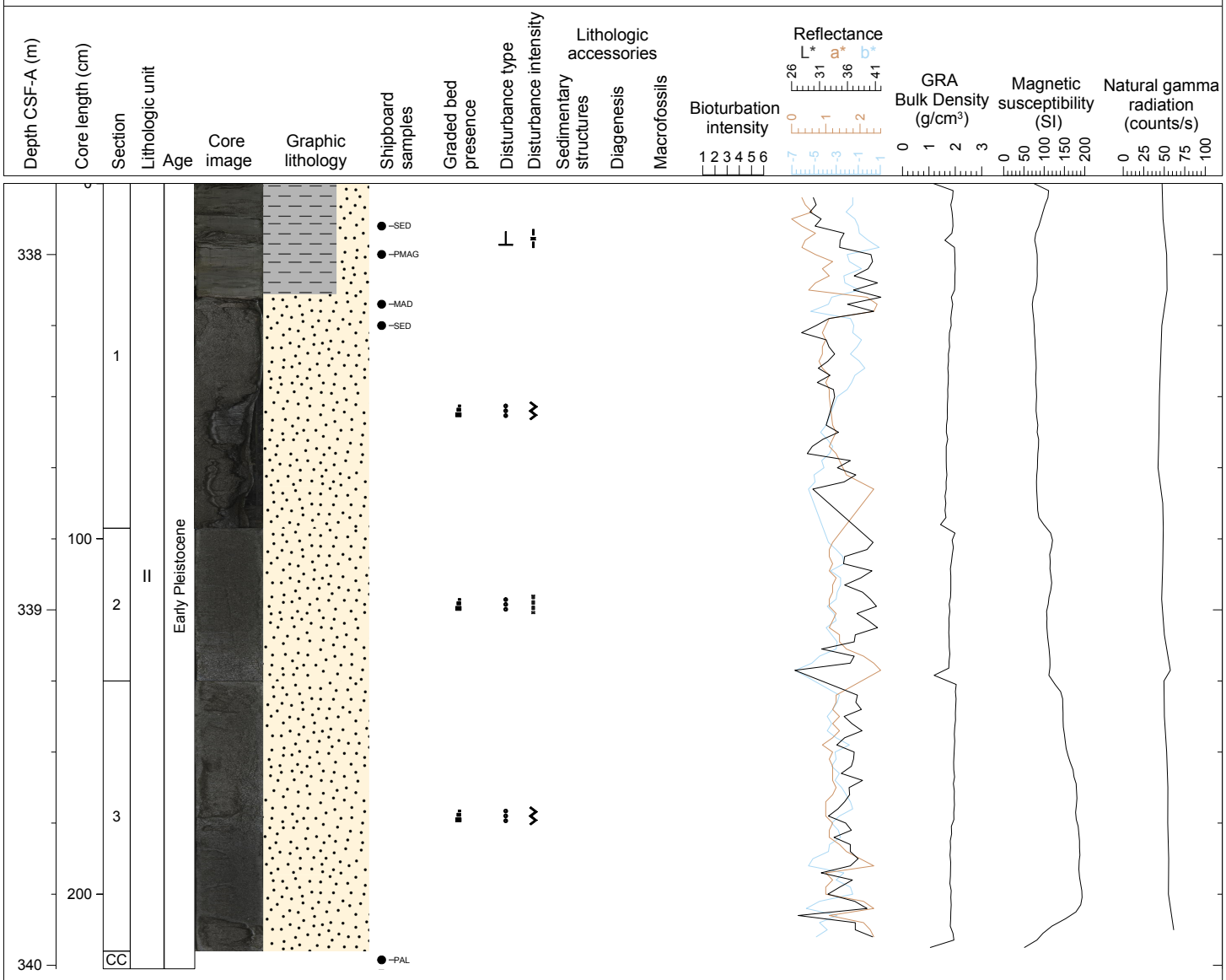
Hole 355-U1456A Core 59F, Interval 333.1-337.95 m (CSF-A)

CLAY, CLAY WITH NANNOFOSSILS, NANNOFOSSIL-RICH CLAY. The core is dominated by CLAY interbedded with NANNOFOSSIL-RICH CLAY and CLAY WITH NANNOFOSSILS. CLAY shows various color banding through all the sections. A big pyrite nodule is observed at 85 cm, Section 1. The basic separation of the CLAY units is based on the color and the relative abundance of NANNOFOSSILS.



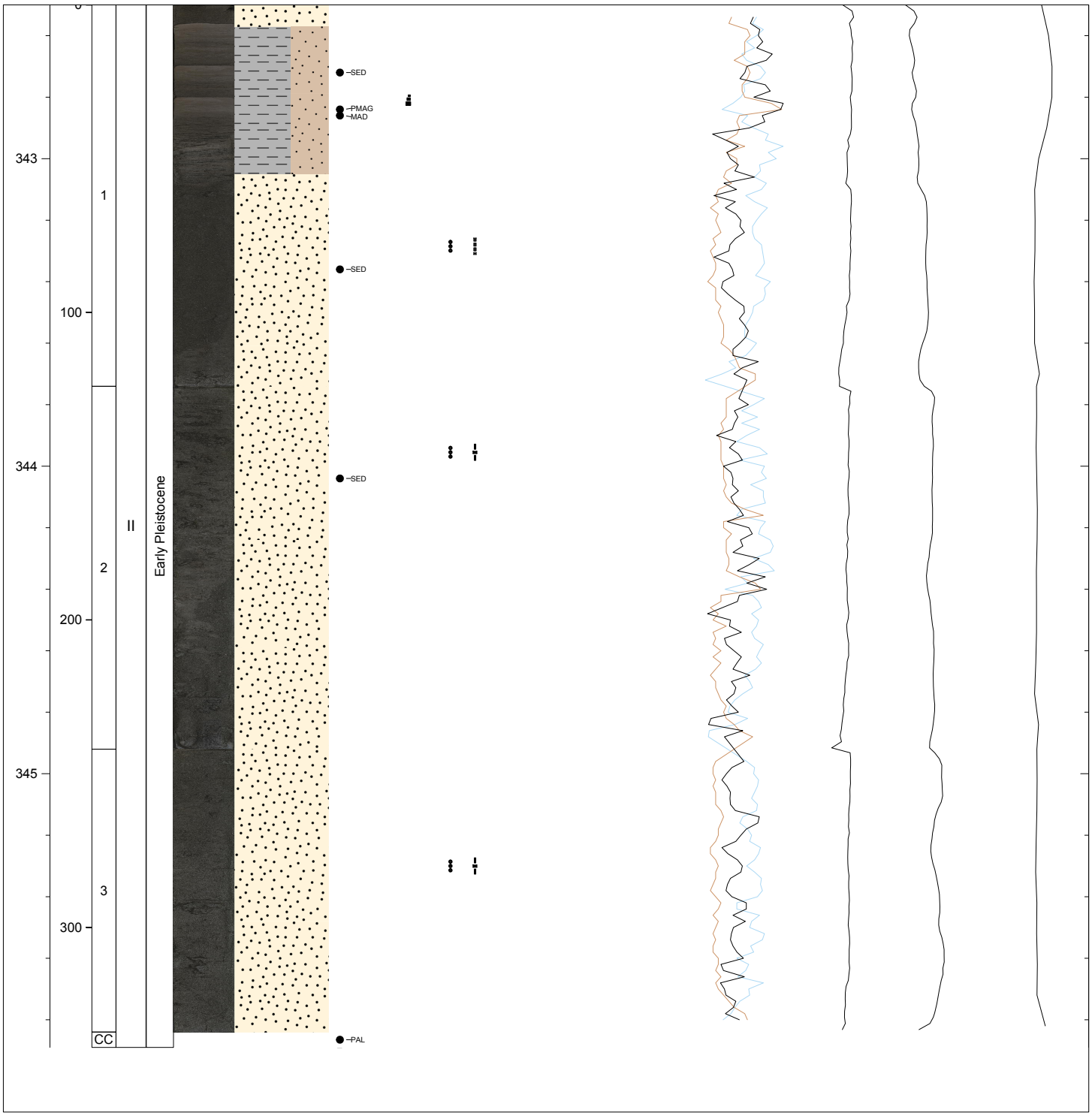
Hole 355-U1456A Core 60F, Interval 337.8-340.01 m (CSF-A)

SAND, CLAY WITH NANNOFOSSILS. Dark gray SAND and light gray CLAY WITH NANNOFOSSILS are the two lithologies in the core. The CLAY WITH NANNOFOSSILS occurs at the top of the core, above 32 cm, Section 1. SAND comprises the rest of the core. The SAND is structureless, probably because of drilling disturbance. Large mica flakes are visible on the cut core surface.



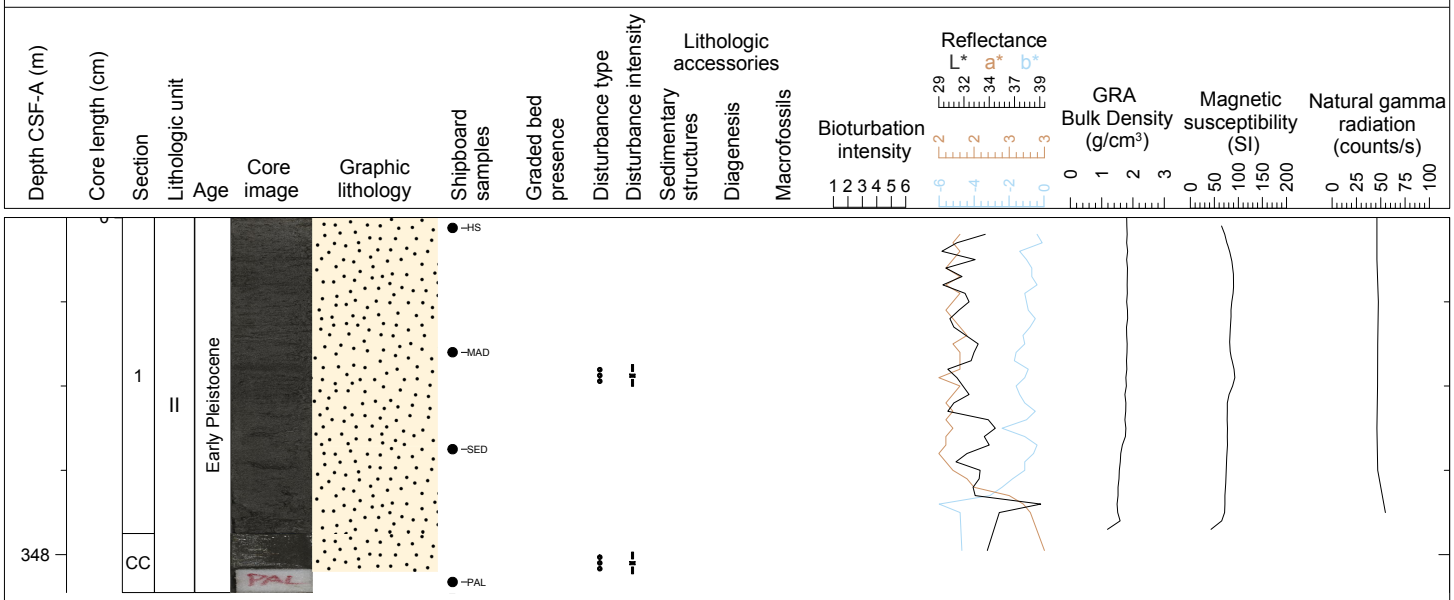
Hole 355-U1456A Core 61F, Interval 342.5-345.89 m (CSF-A)

SAND is the dominant lithology in this core. Normally graded, sharp, erosively-based couplets of SILT and CLAY occur in the top of Section 1. SAND WITH CLAY was found in the middle of Section 2 (50 to 85 cm). Like the rest of the SAND this bed is massive and ungraded. Large mica flakes are seen on the cut core face.



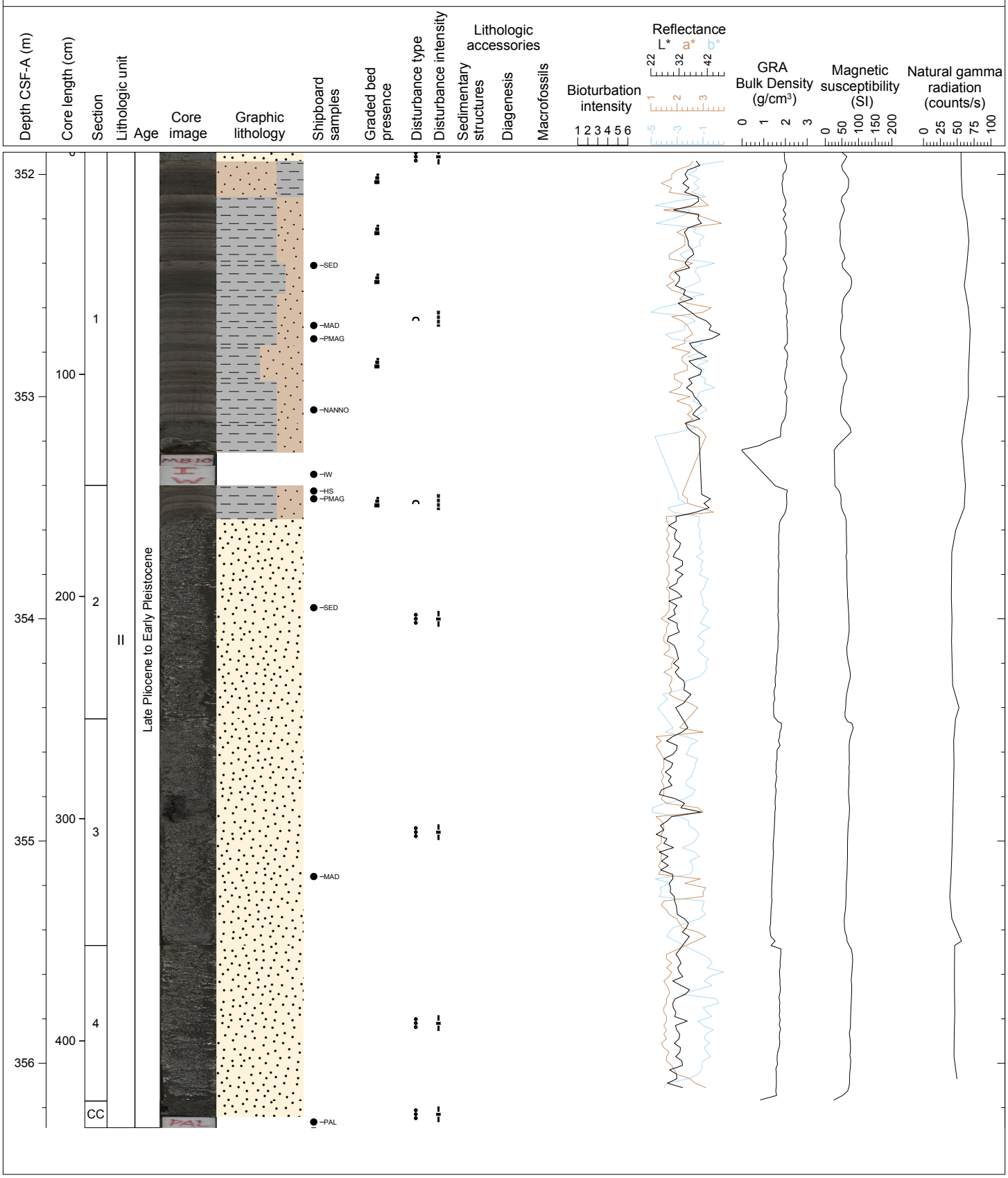
Hole 355-U1456A Core 62F, Interval 347.2-348.09 m (CSF-A)

SAND WITH CLAY is the main lithology in this core and is apparently massive and structureless. Drilling disturbance may be severe. SAND contains large mica flakes on the cut core surface.



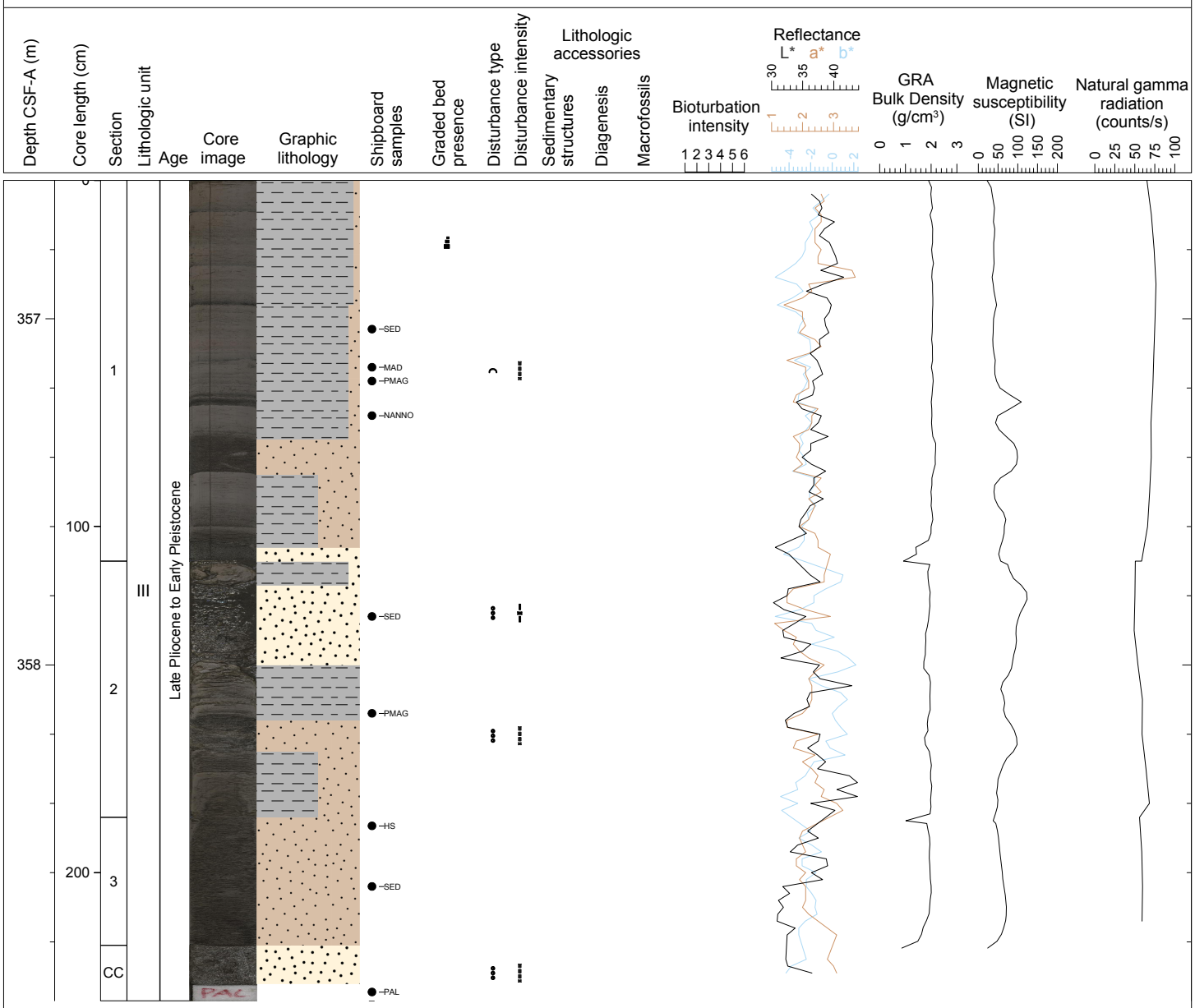
Hole 355-U1456A Core 63F, Interval 351.9-356.29 m (CSF-A)

CLAY, SILT, and SAND are the primary lithologies. Graded couplets of SILT and CLAY alternate in Section 1. The basal boundary between each couplet is erosive and each couplet shows normal grading from SILT up into CLAY. Except for the top of Section 2, SAND occupies Sections 2 and 3 and the CC. Drilling disturbance is moderately soupy in the SAND. Quartz, feldspar and mica are common. Heavy minerals observed includes tourmaline, hornblende and epidote.



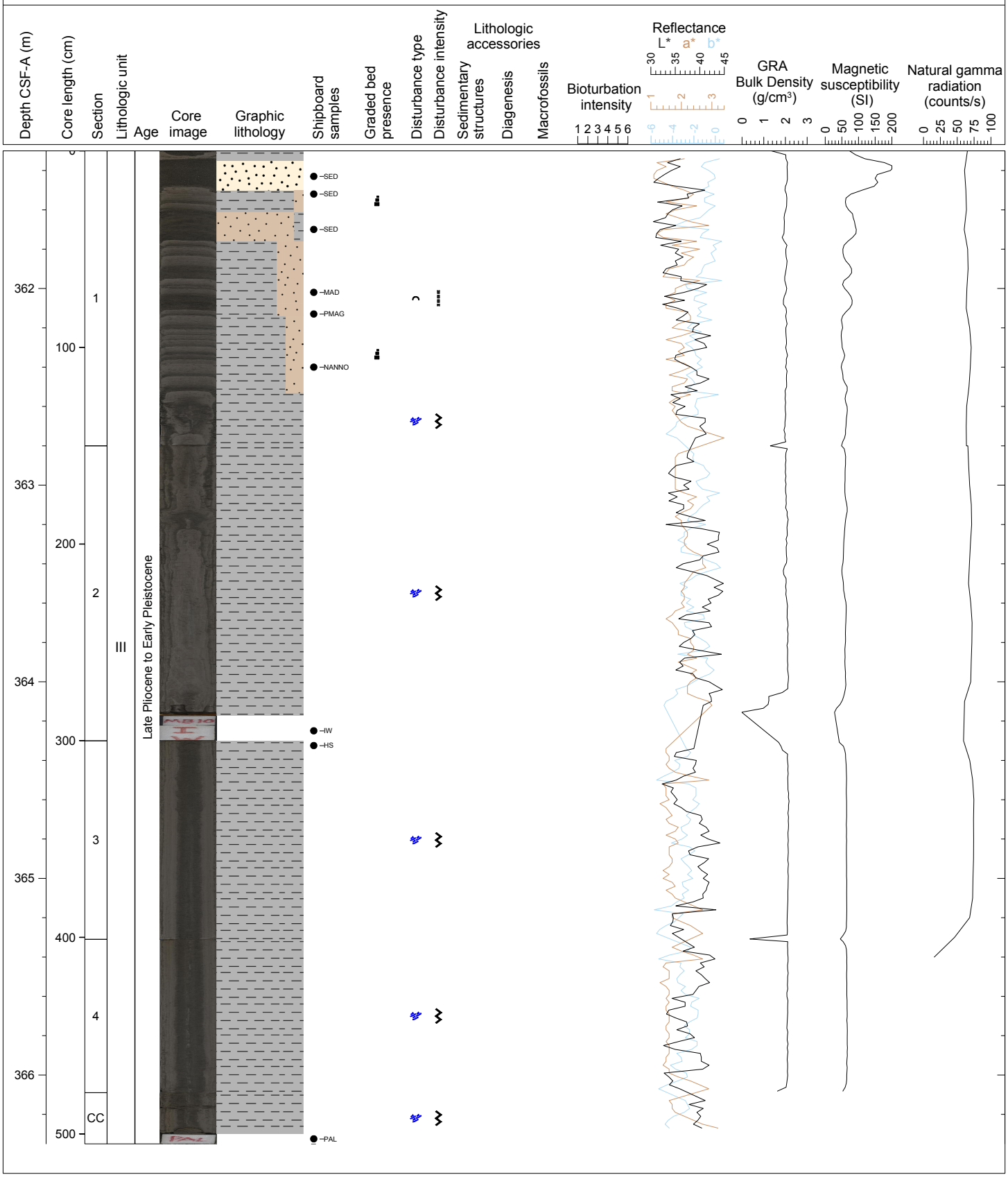
Hole 355-U1456A Core 64F, Interval 356.6-358.97 m (CSF-A)

CLAY and SILT are the main lithologies in Section 1, but CLAY is more dominant when considering the whole core. A thick CLAY bed and thin SILT bed comprises a couplet showing normal grading. SAND and SILT WITH CLAY occurs in Section 2. In the top of Section 2, CLAY is sandwiched within the SAND. The silt piece looks like a chunk but whether it is drilling related or not is unclear. Section 3 is entirely SILT. SAND occupies the CC. Quartz, feldspar and mica are common. Heavy minerals (hornblende, epidote, amphibole, tourmaline) are also found.



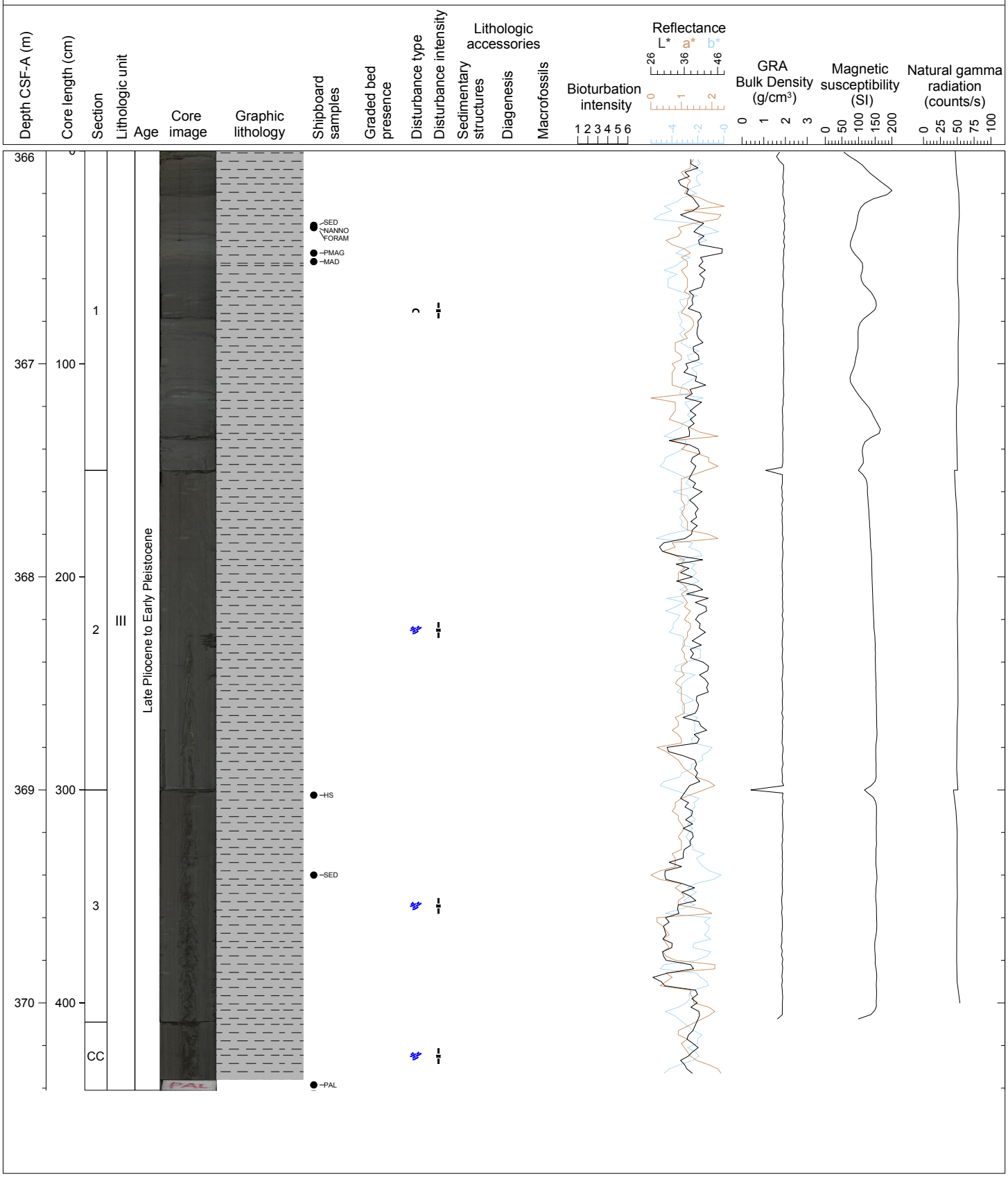
Hole 355-U1456A Core 65F, Interval 361.3-366.35 m (CSF-A)

CLAY is the main lithology inthis core, but Sections 2 and 3, as well as the CC, are disturbed seriously by drilling related flow-in. In Section 1, couplets of CLAY and SILT are repeatedly interbedded with a SAND layer at the top of section. Mostly the CLAY is thick bedded and interbeds of SILT are thin and show erosive basal boundaries and normal grading. Quartz, feldspar and mica are common seen in smear slides. Clinopyroxene, zircon, tourmaline, epidote are abundant heavy minerals.



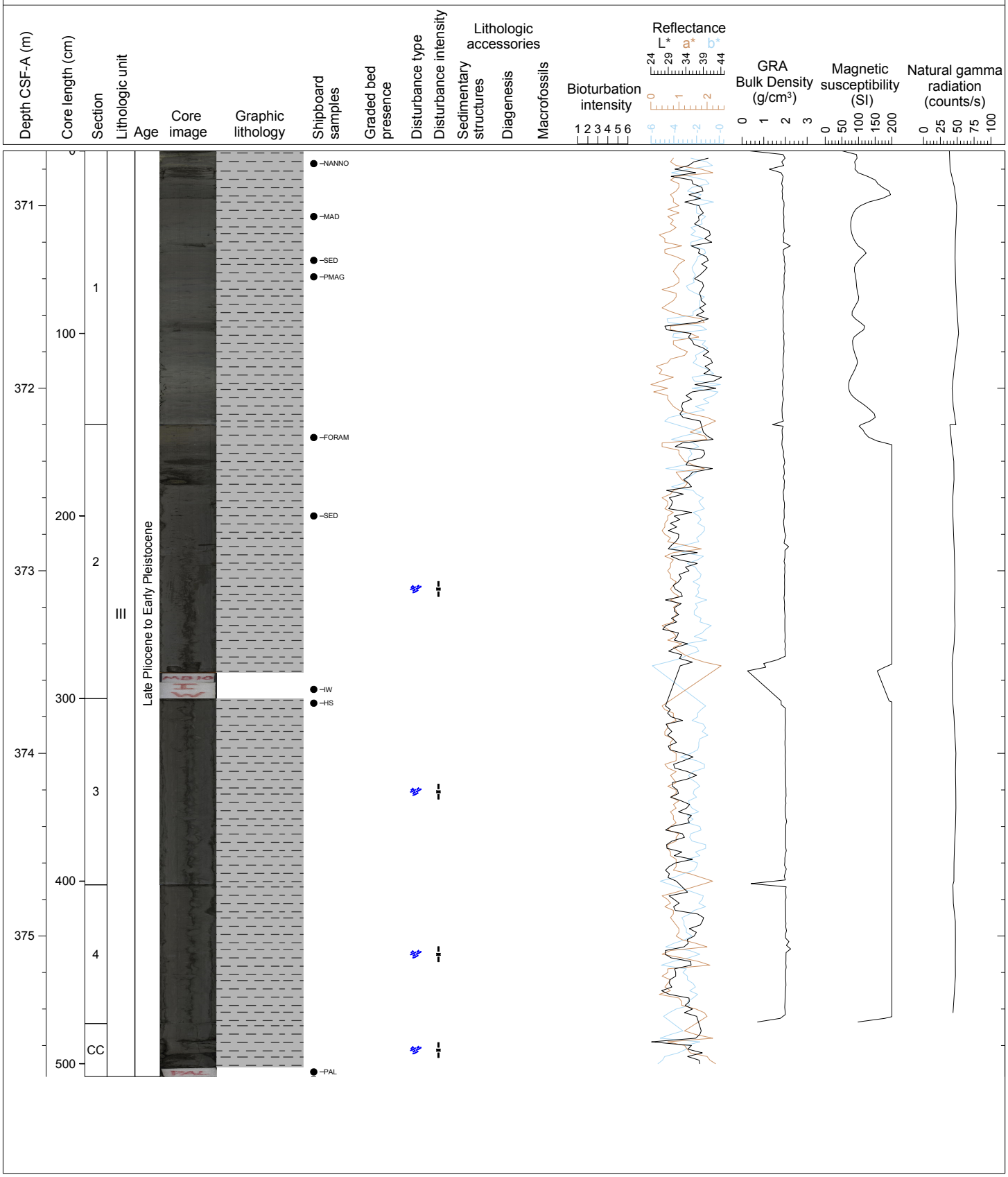
Hole 355-U1456A Core 66F, Interval 366.0-370.41 m (CSF-A)

CLAY is the only lithology found in this core. It is fairly hard and semi-consolidated. There are two types of CLAY. One is dark and another is relatively lighter. Based on the acid reaction, the lighter CLAY seems to be more calcareous. Sections 2 and 3 and the CC are affected by severe flow-in disturbance.



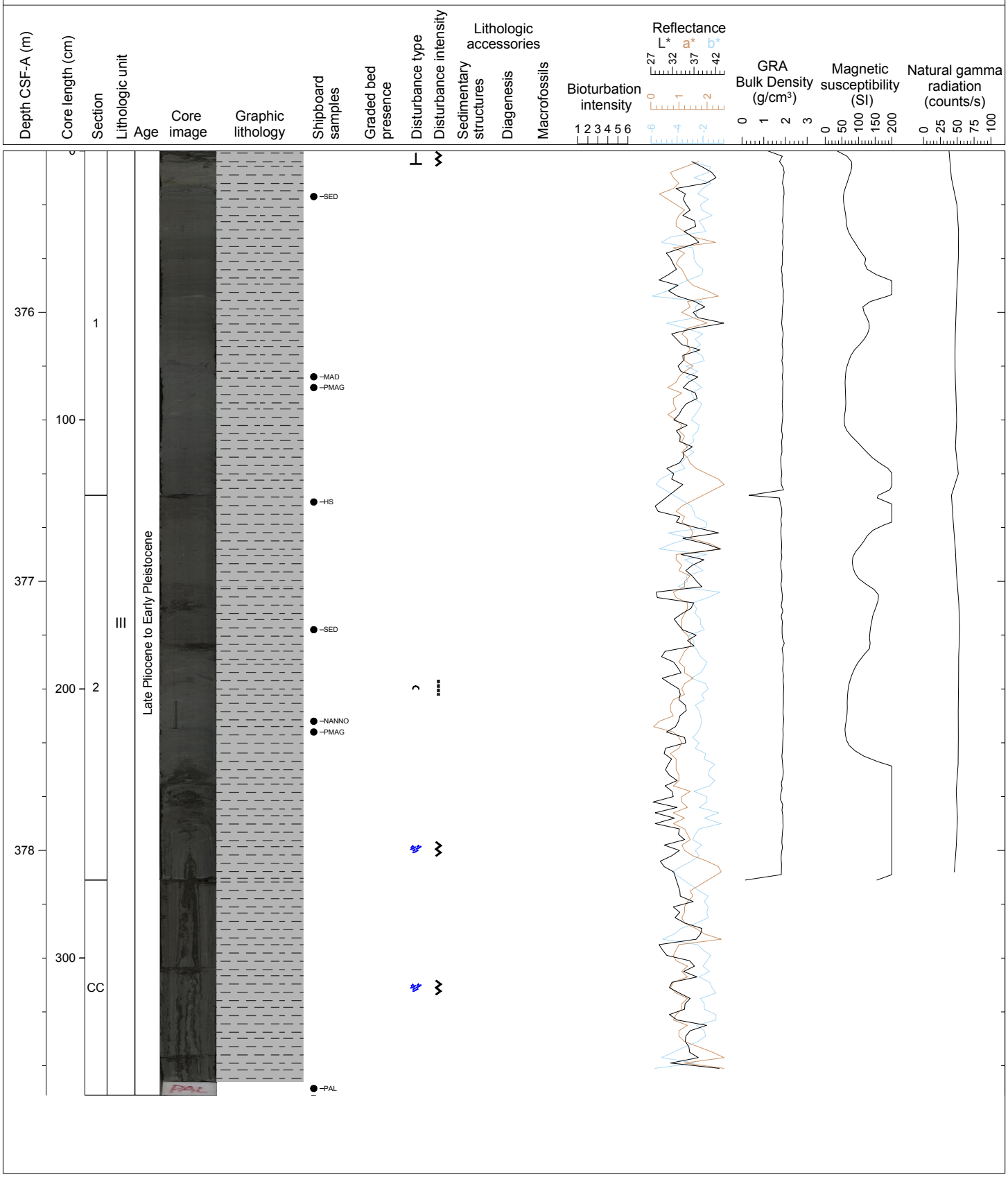
Hole 355-U1456A Core 67F, Interval 370.7-375.77 m (CSF-A)

Semi-consolidated CLAY is the only primary lithology in this core. Section 1 contains mostly lighter CLAY, which is presumed to be richer in carbonate content, but the rest of core comprises dark CLAY. Drilling disturbance is severe in Section 2 and 3, plus the CC by flow-in.



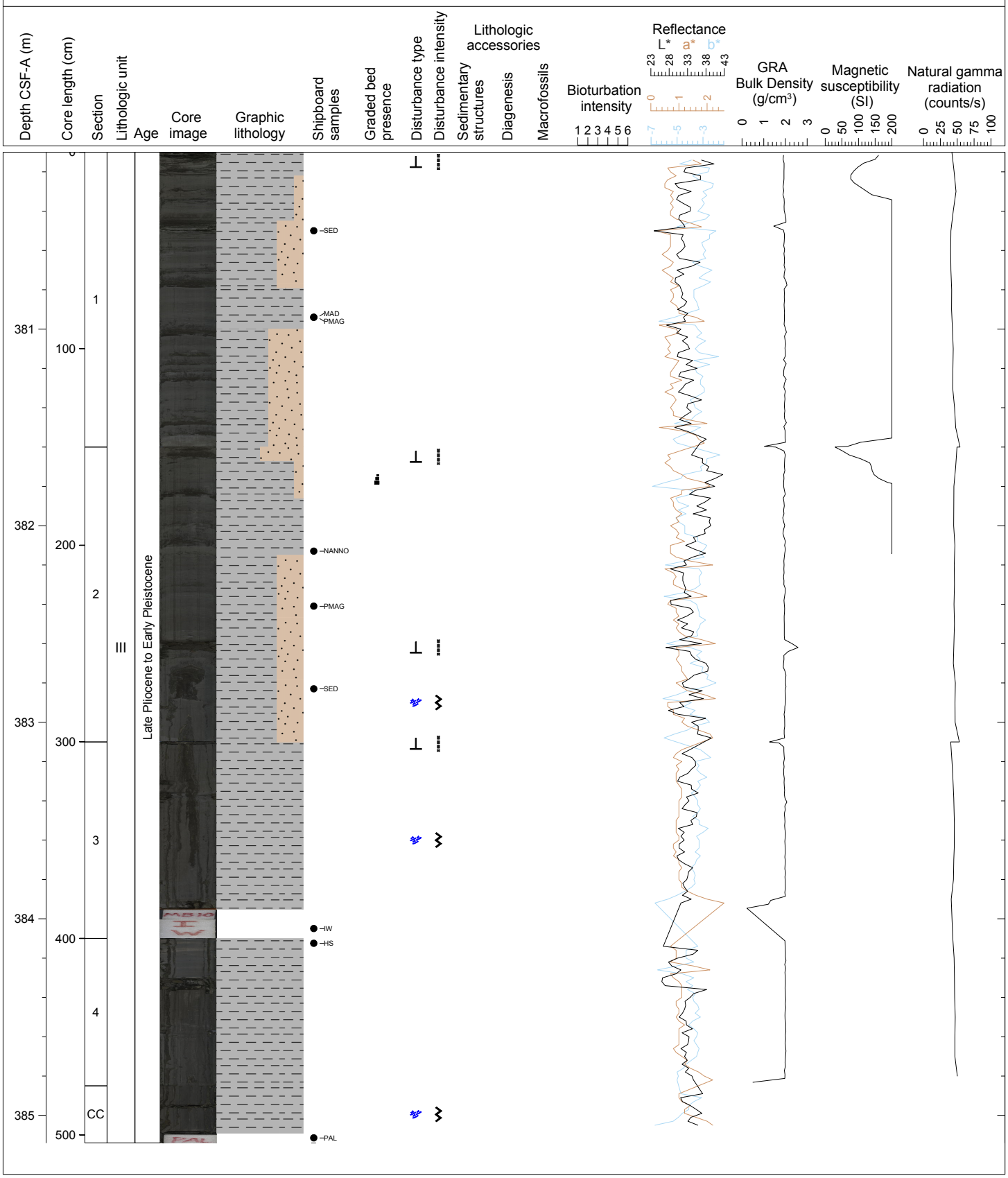
Hole 355-U1456A Core 68F, Interval 375.4-378.91 m (CSF-A)

CLAY is the only lithology present in this core. There are CLAY layers with different degrees of lightness in Section 1. Relatively lighter CLAY and relatively darker CLAY were found Sections 1 and 2. Lighter CLAY is more calcareous. A ~3 cm long concretion was preserved at 57 cm in Section 2. The CC is disturbed by flow-in.



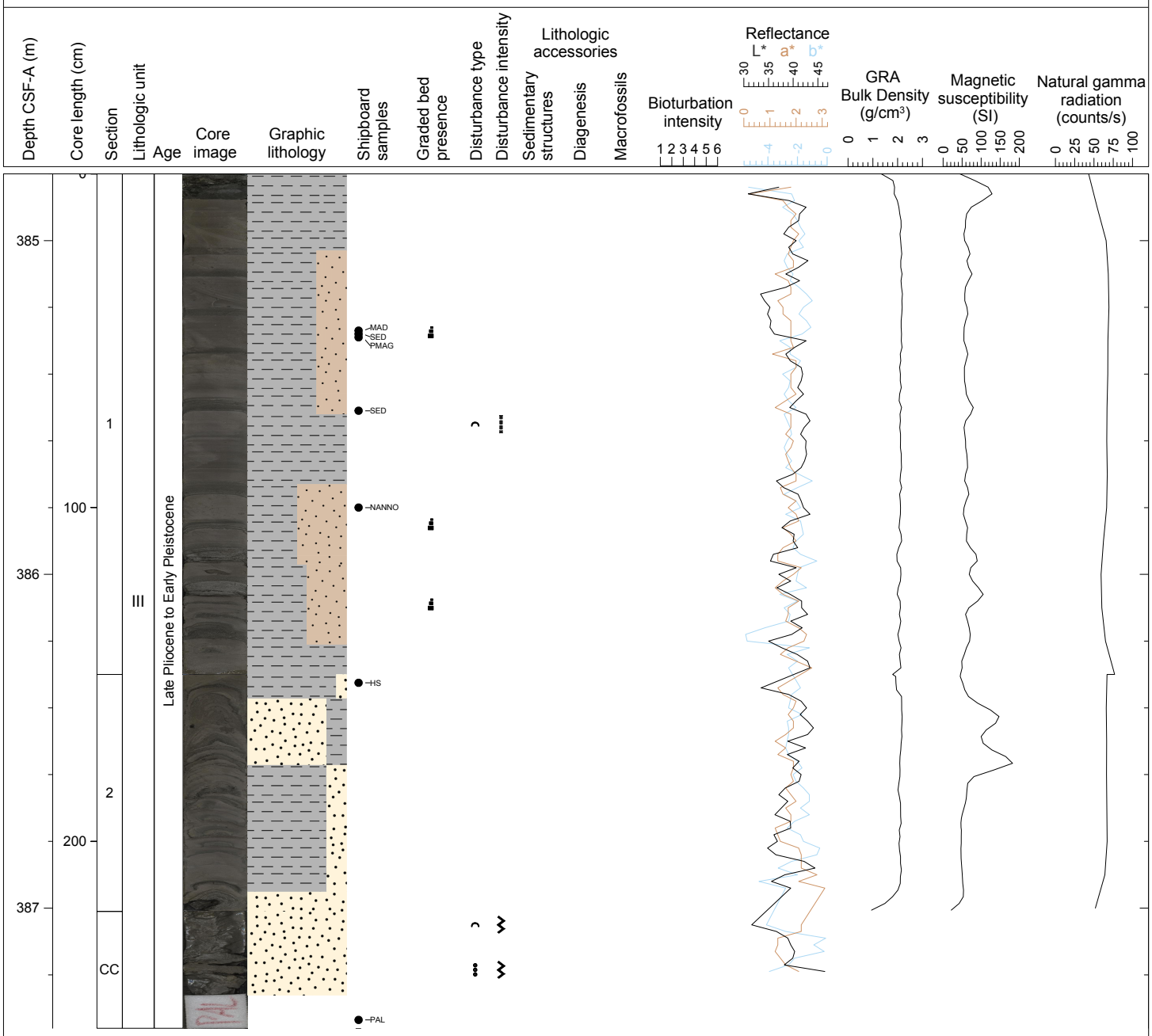
Hole 355-U1456A Core 69F, Interval 380.1-385.14 m (CSF-A)

CLAY is the dominant lithology in this core. Thin SILT layers are intercalated within the CLAY as layers, mostly in Section 1. These couplets show the normal grading and the basal boundary is erosive and sharp. A concretion was found at 100-104 cm in Section 2 and at 20-24 cm in Section 3. A concretion layer in Section 4 shows significant authigenic carbonate precipitation, possibly including formation of aragonite needles.



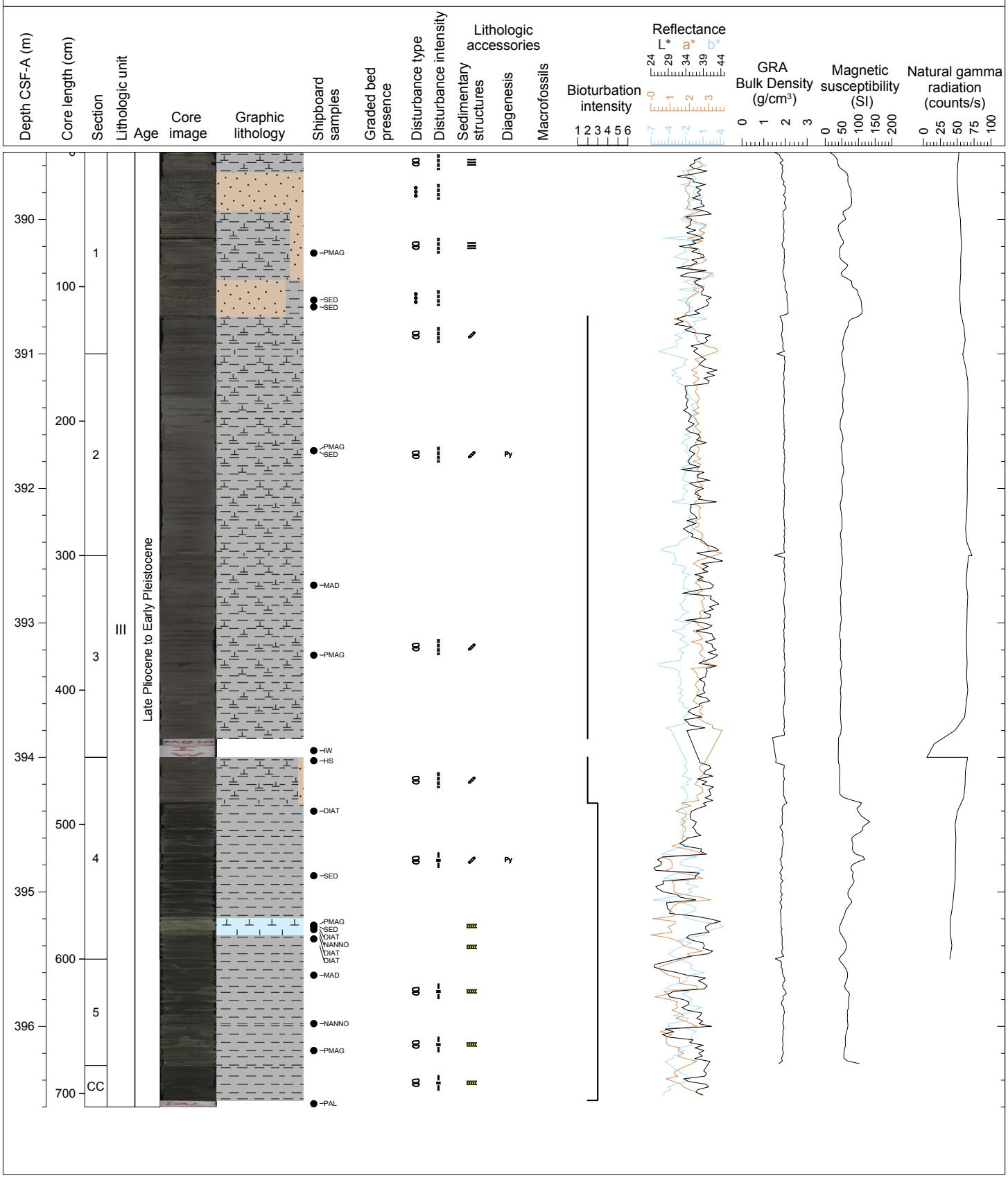
Hole 355-U1456A Core 70F, Interval 384.8-387.36 m (CSF-A)

CLAY is the dominant lithology. Dark CLAY overlies light CLAY at the top of Section 1, separated by a distinct lithology boundary. SAND occurs in the CC. SAND and CLAY layers alternate in the upper part of Section 2. Up-arching disturbance is severe in Section 2. In smear slides, quartz, feldspar, and clay minerals are commonly observed. Heavy minerals include clinopyroxene, hornblende, tourmaline and epidote. Diagenetic pyrite is abundant.



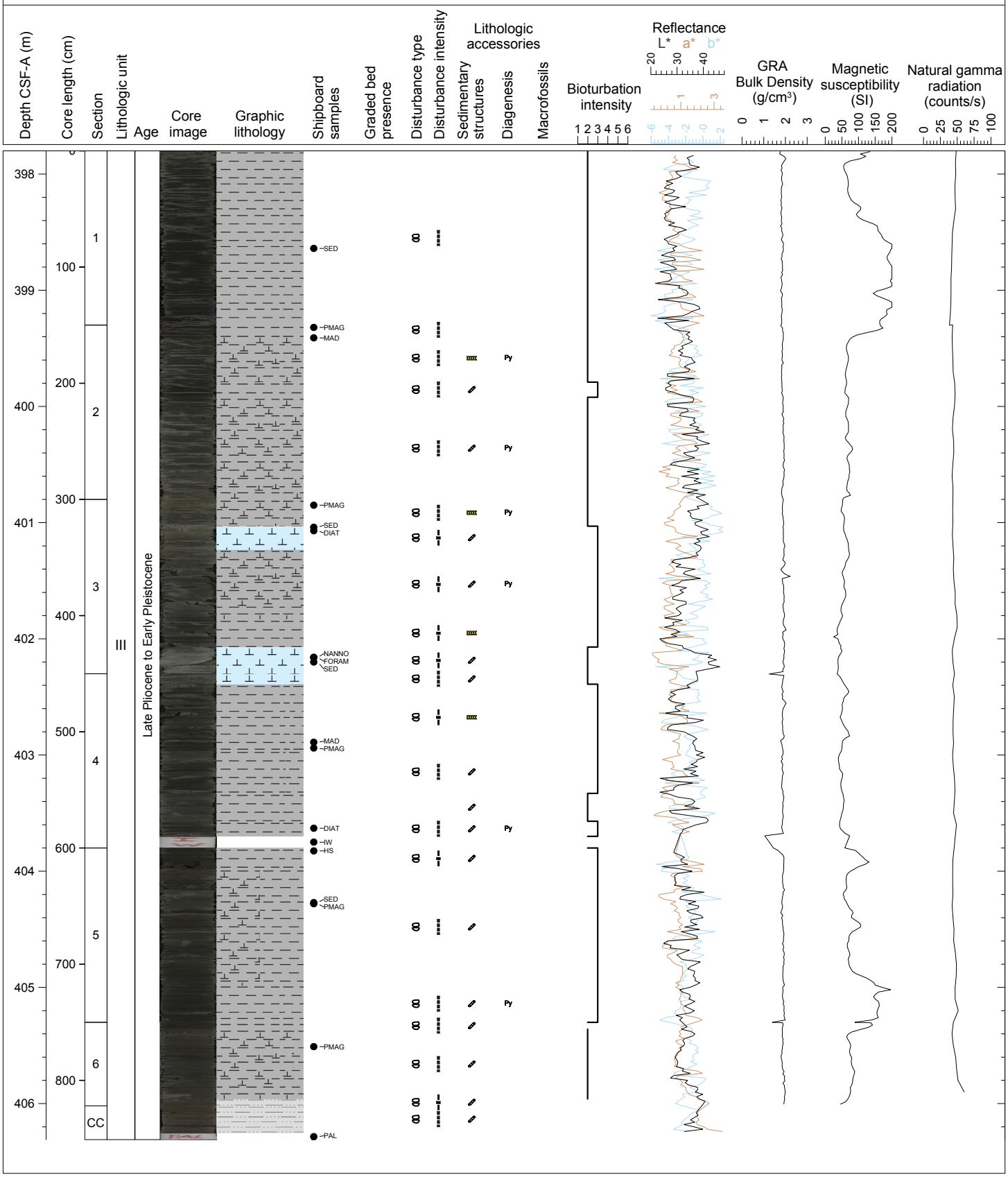
Hole 355-U1456A Core 71X, Interval 389.5-396.6 m (CSF-A)

NANNOFOSSIL-RICH CLAY, CLAYSTONE, CALCAREOUS CLAY, SILT WITH CLAY, SILT WITH SAND, CLAYSTONE WITH NANNOFOSSILS, NANNOFOSSILS CHALK. Light brown CALCAREOUS CLAY, dark greenish CLAYSTONE WITH NANNOFOSSILS, and light gray CALCAREOUS CLAYSTONE are the major lithologies in the core. SILT WITH CLAY and SILT WITH SAND are the other lithologies found in Section 1 and are sandwiched between the NANNOFOSSIL-RICH CLAY beds. Lithification and related biscuit type of drilling disturbance are observed in the core. NANNOFOSSIL-RICH CLAYSTONE is seen below 35 cm, Section 4 and continues to the end of core . The sharp boundary between NANNOFOSSIL-RICH CLAY and CLAYSTONE WITH NANNOFOSSILS at 34 cm, Section 4 is demarked with SILT WITH FINE SAND at the contact. Bioturbation is observed in the core and Zoophycos and Chondrites trace fossils are observed in the core.



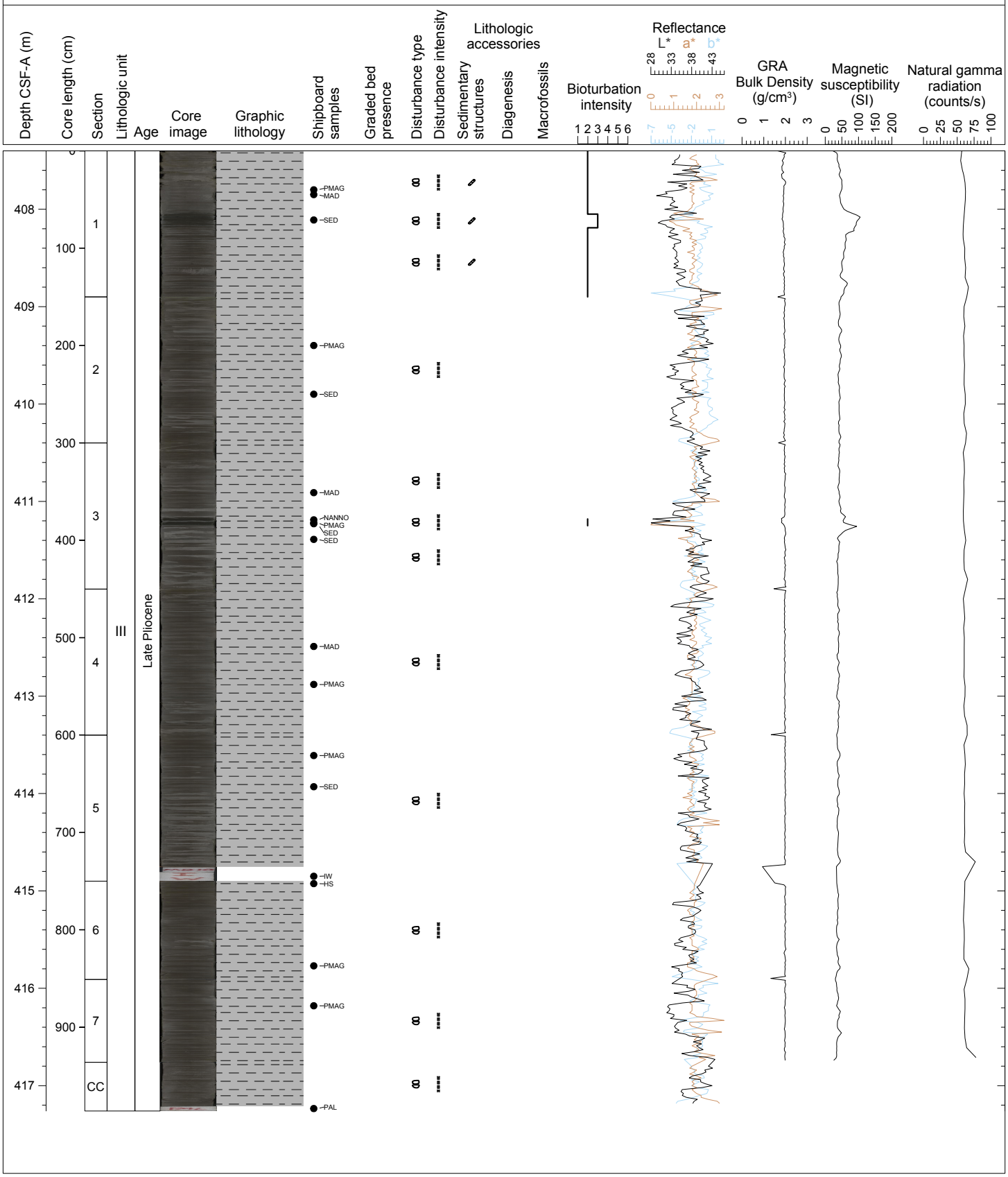
Hole 355-U1456A Core 72X, Interval 397.8-406.31 m (CSF-A)

CLAYSTONE WITH NANNOFOSSILS, CLAYSTONE, NANOOFOSSIL-RICH CLAYSTONE, NANNOFOSSIL CHALK, SILTY CLAYSTONE. The very dark blackish CLAYSTONE WITH NANNOFOSSILS and light gray NANNOFOSSIL-RICH CLAYSTONE are the major lithologies. The light gray CLAYSTONE is interbedded with NANNOFOSSIL-RICH CLAYSTONE and light grey CLAYSTONE WITH NANNOFOSSILS. The very light gray NANNOFOSSIL CHALK is observed at 23-43 and 127-150 cm in Section 3. The core colors vary from the very dark blackish color CLAYSTONE WITH NANNOFOSSILS at the top of the core to light brown SILTY CLAYSTONE in the core catcher. The bioturbation is slight to moderate. Zoophycos trace fossils and a big pyrite nodule (>2 cm across) are also observed.



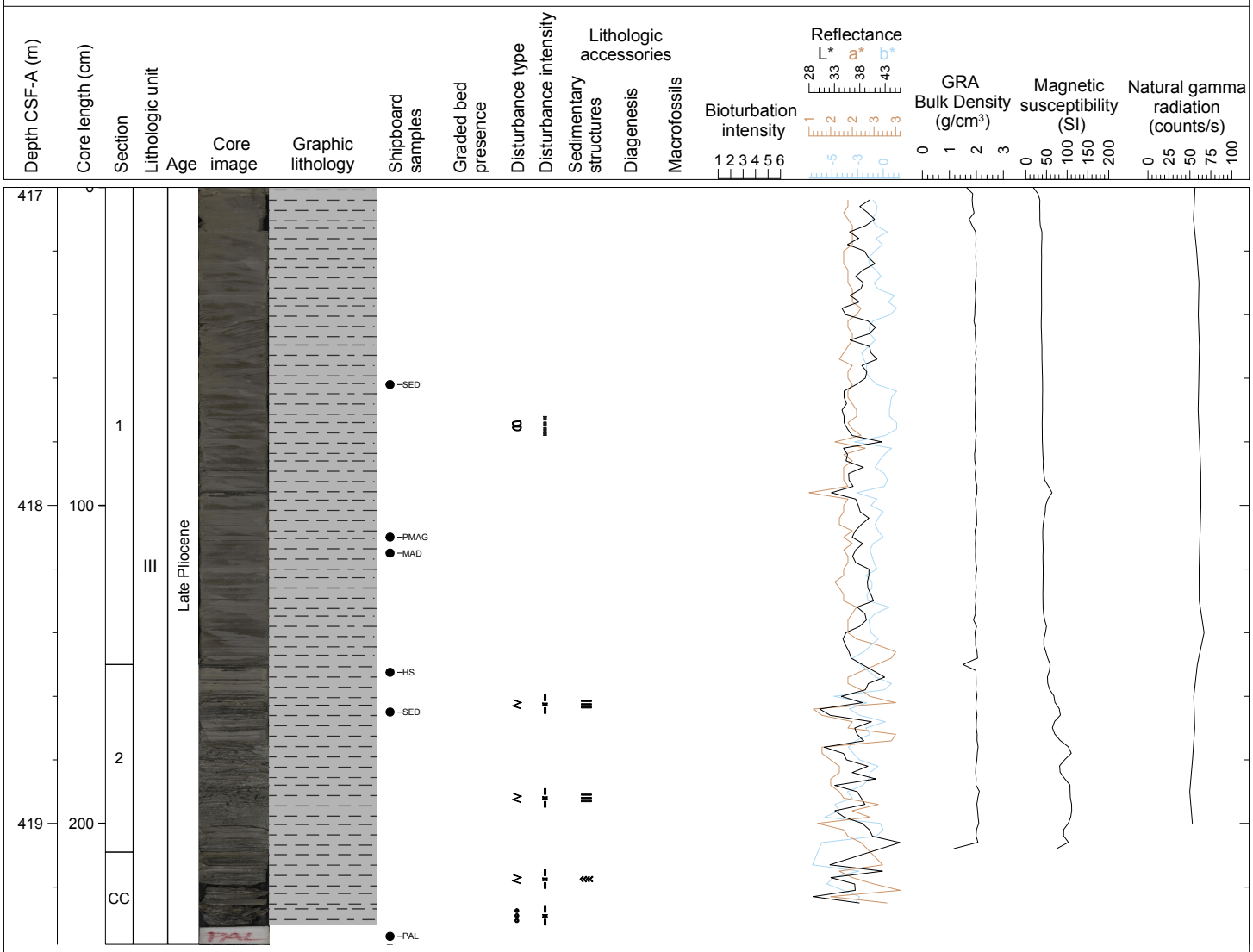
Hole 355-U1456A Core 73X, Interval 407.4-417.26 m (CSF-A)

CLAYSTONE, CLAYSTONE WITH NANNOFOSSILS. CLAYSTONE is the major lithology, with thin interbeds of CLAYSTONE WITH NANNOFOSSILS observed in Sections 1 and 3.



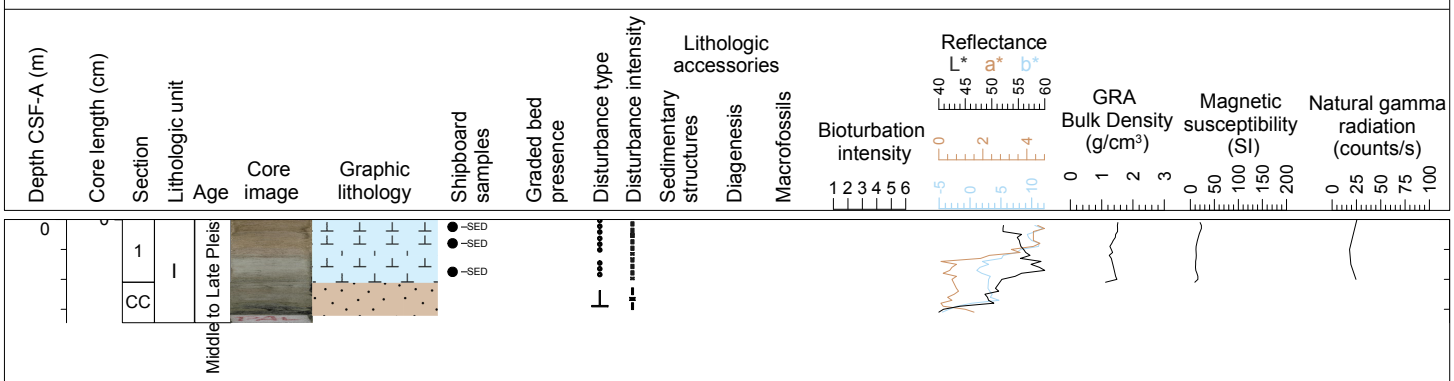
Hole 355-U1456A Core 74X, Interval 417.0-419.38 m (CSF-A)

CLAYSTONE, CLAYSTONE WITH SILT. Light brown CLAYSTONE is the major lithology. Thin bedded SILTSTONE layers are observed in Section 1. Parallel laminated CLAYSTONE and SILTSTONE are interbedded in Section 2. Cross bedding is also observed in Section 3. A hydrogen sulphide smell is also detected in the sediment.



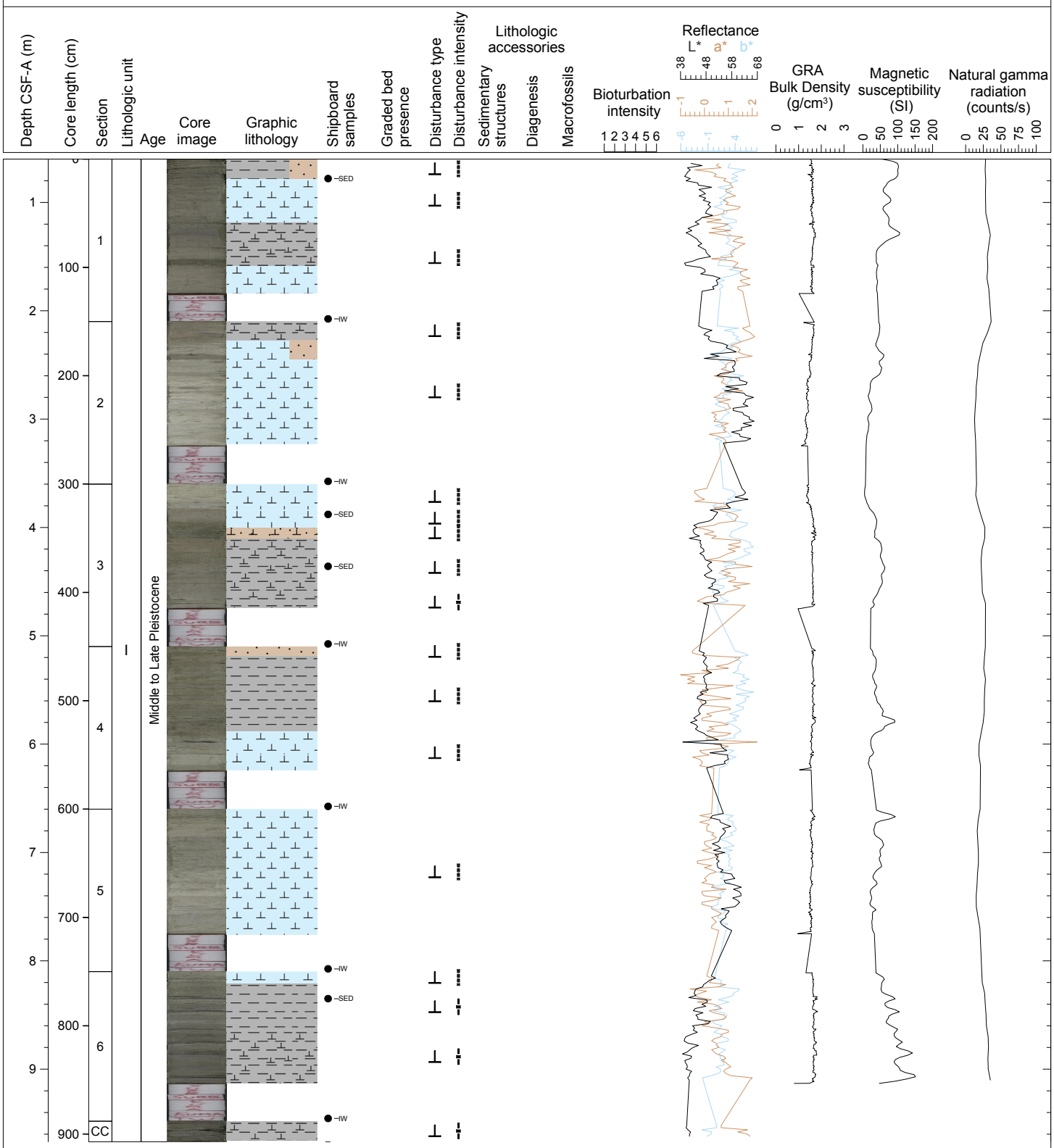
Hole 355-U1456B Core 1H, Interval 0.0-0.69 m (CSF-A)

NANNOFOSSIL OOZE, SILT WITH SAND. NANNOFOSSIL OOZE is the major lithology. The NANNOFOSSIL OOZE varies in color from from dark brown to light brown, light white to light gray from top to bottom of the core. The thin bedded gray colored SILT WITH SAND occurs at the bottom of the core.



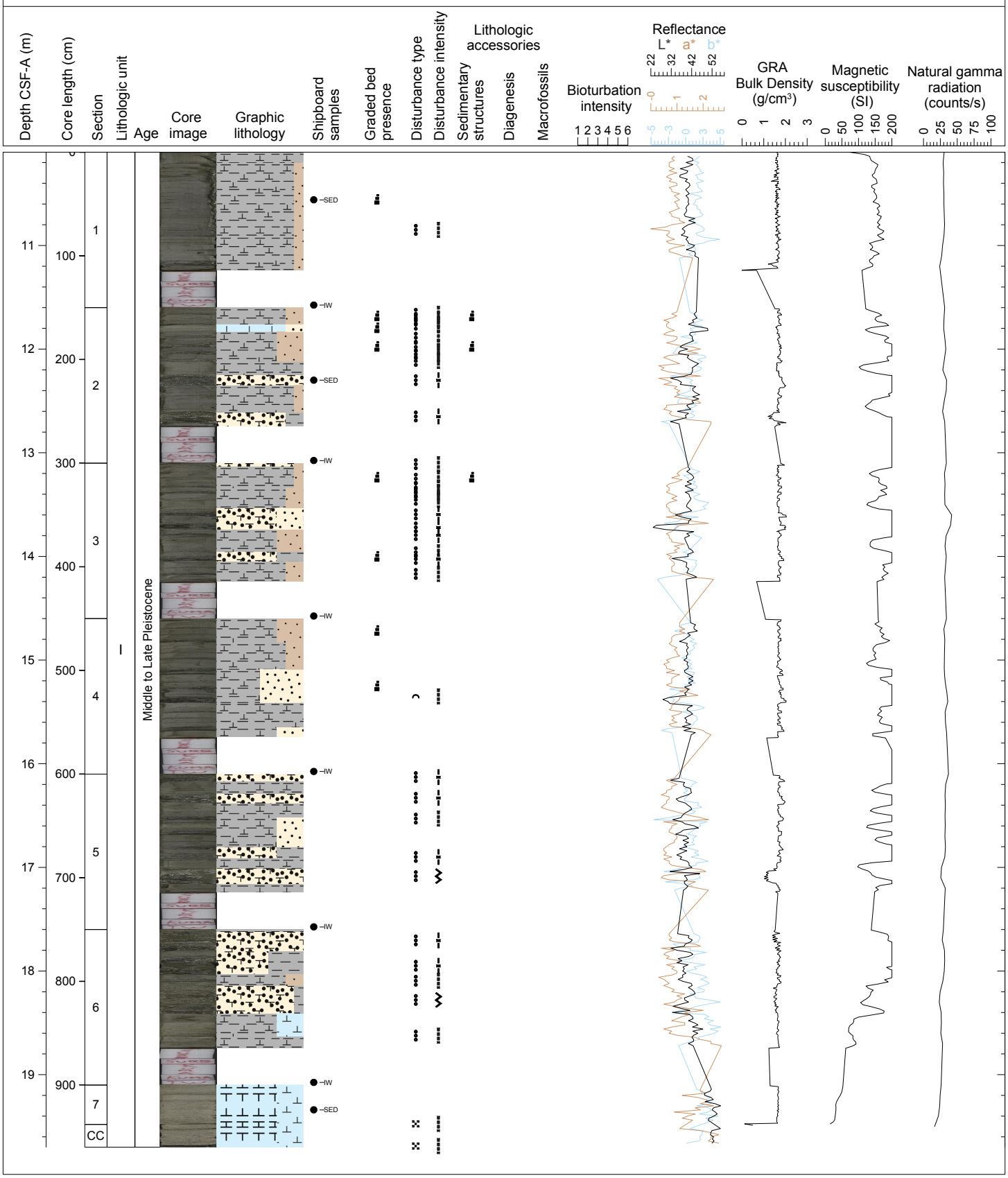
Hole 355-U1456B Core 2H, Interval 0.6-9.67 m (CSF-A)

NANNOFOSSIL OOZE, NANNOFOSSIL OOZE WITH FORAMINIFERS, NANNOFOSSIL-RICH CLAY WITH FORAMINIFERS, NANNOFOSSIL-RICH SILT WITH FORAMINIFERS. The NANNOFOSSIL OOZE and NANNOFOSSIL OOZE WITH FORAMINIFERS are the major lithologies. The interbedded SILT and CLAY layers are rich in foraminifers. The core is generally light colored and shows parallel laminations.



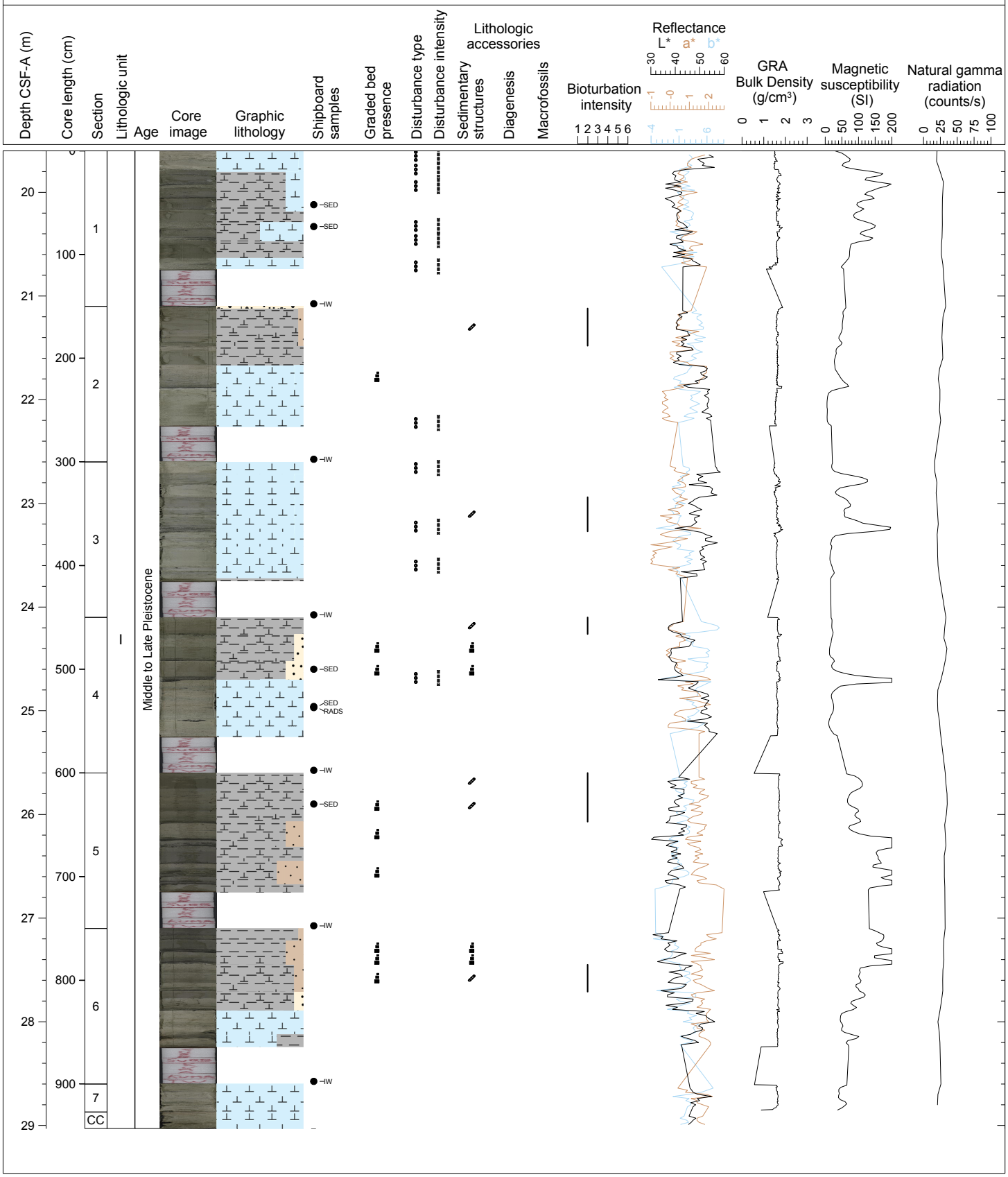
Hole 355-U1456B Core 3H, Interval 10.1-19.7 m (CSF-A)

NANNOFOSSIL-RICH CLAY is the dominant lithology. A thin NANNOFOSSIL-RICH SILT layers overlies a thicker NANNOFOSSIL-RICH CLAY layer. Normal grading was shown within this couplet. The lower boundary of this couplet was erosive. FORAMINIFER-RICH SAND occurs intermittently. The thickness of this SAND layers is variable from 3 cm to about 30 cm. Light greenish FORAMINIFER-RICH NANNOFOSSIL OOZE and NANNOFOSSIL OOZE occur in the lower part of core (Section 7 and CC.) The main heavy minerals identified are tourmaline, hornblende, clinopyroxene and epidote.



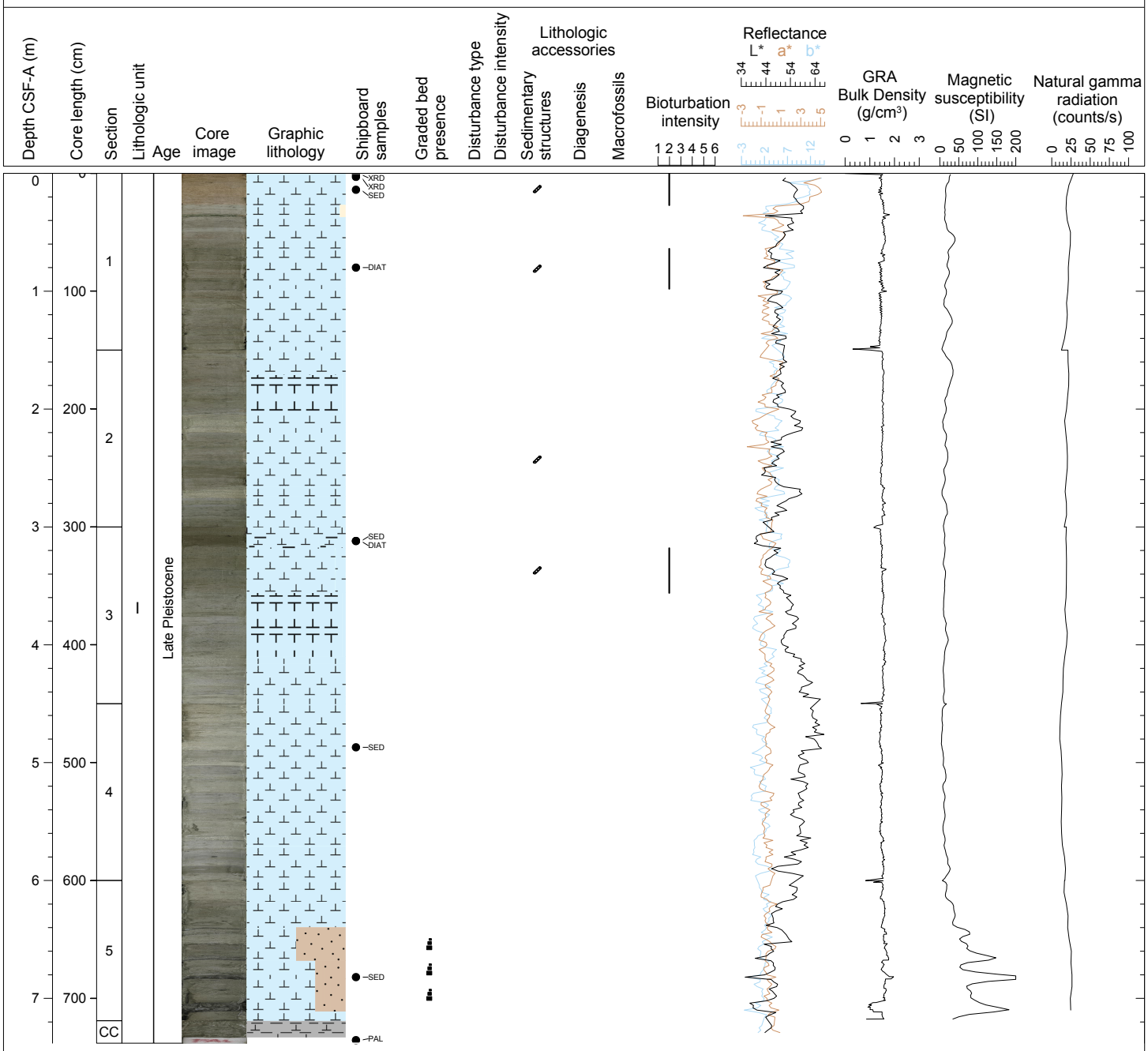
Hole 355-U1456B Core 4H, Interval 19.6-29.03 m (CSF-A)

NANNOFOSSIL OOZE and NANNOFOSSIL-RICH CLAY are dominant. NANNOFOSSIL OOZE includes pyrite-nodules. A concretion is observed within NANNOFOSSIL OOZE (Section 6, 99 cm). NANNOFOSSIL-RICH CLAY is coupled with NANNOFOSSIL-RICH SILT or FORAMINIFER-RICH SAND. The top boundaries of OOZE or CLAY layers are erosive. Some burrow structures are observed in the core.



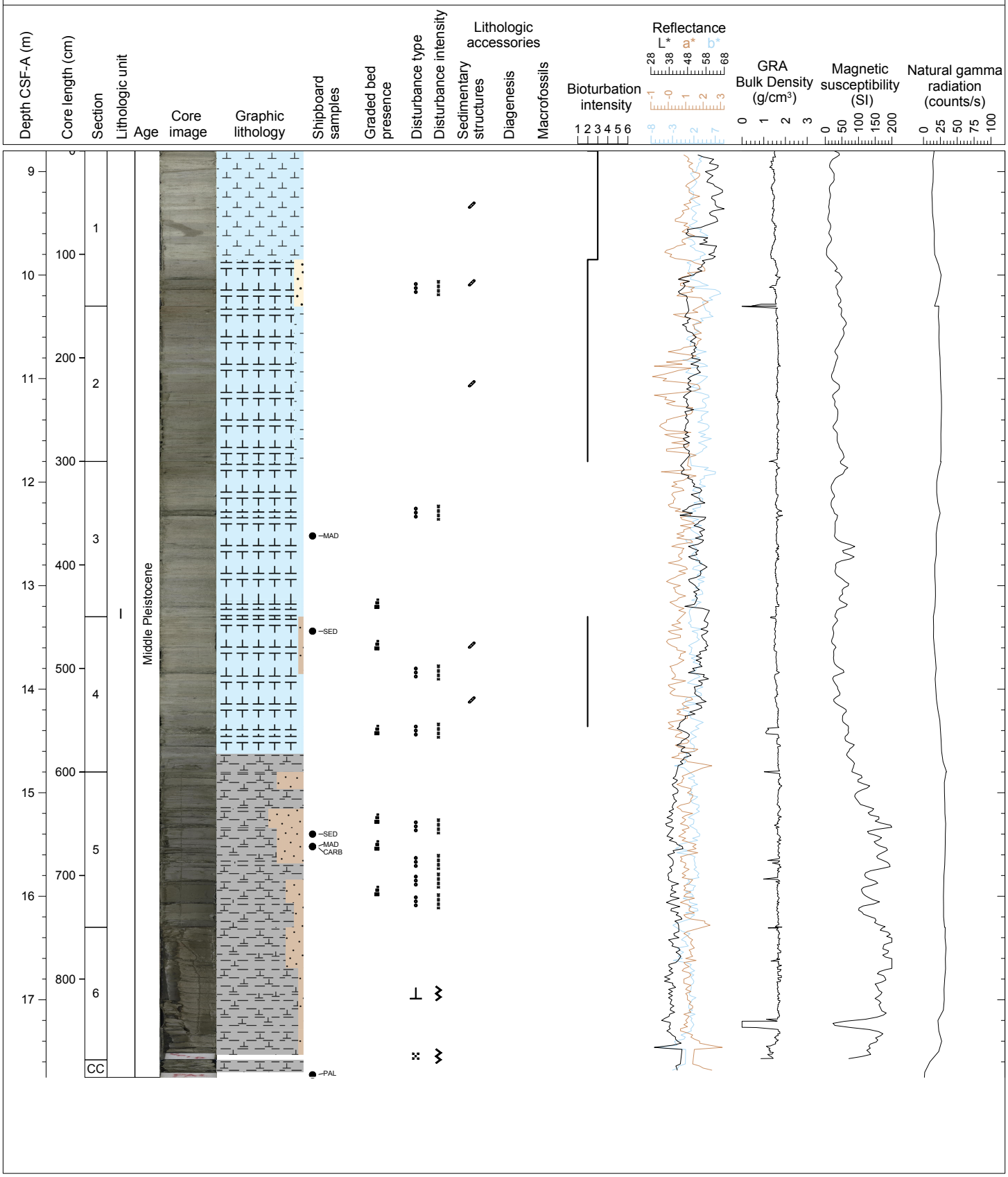
Hole 355-U1456C Core 1H, Interval 0.0-7.38 m (CSF-A)

NANNOFOSSIL OOZE, FORAMINIFER-RICH NANNOFOSSIL OOZE, NANNOFOSSIL OOZE WITH CLAY and NANNOFOSSIL OOZE WITH SILT are the main lithologies. The top of Section 1 consists of brownish NANNOFOSSIL OOZE while the underlying of NANNOFOSSIL OOZE is white. Burrows are found at the top of Section 1 and in some of NANNOFOSSIL OOZE WITH CLAY beds. A bioclastic layer was preserved at 37 cm, Section 1. In the lower part of core, NANNOFOSSIL-RICH CLAY and NANNOFOSSIL-RICH SILT are interbedded with beds of variable thickness.



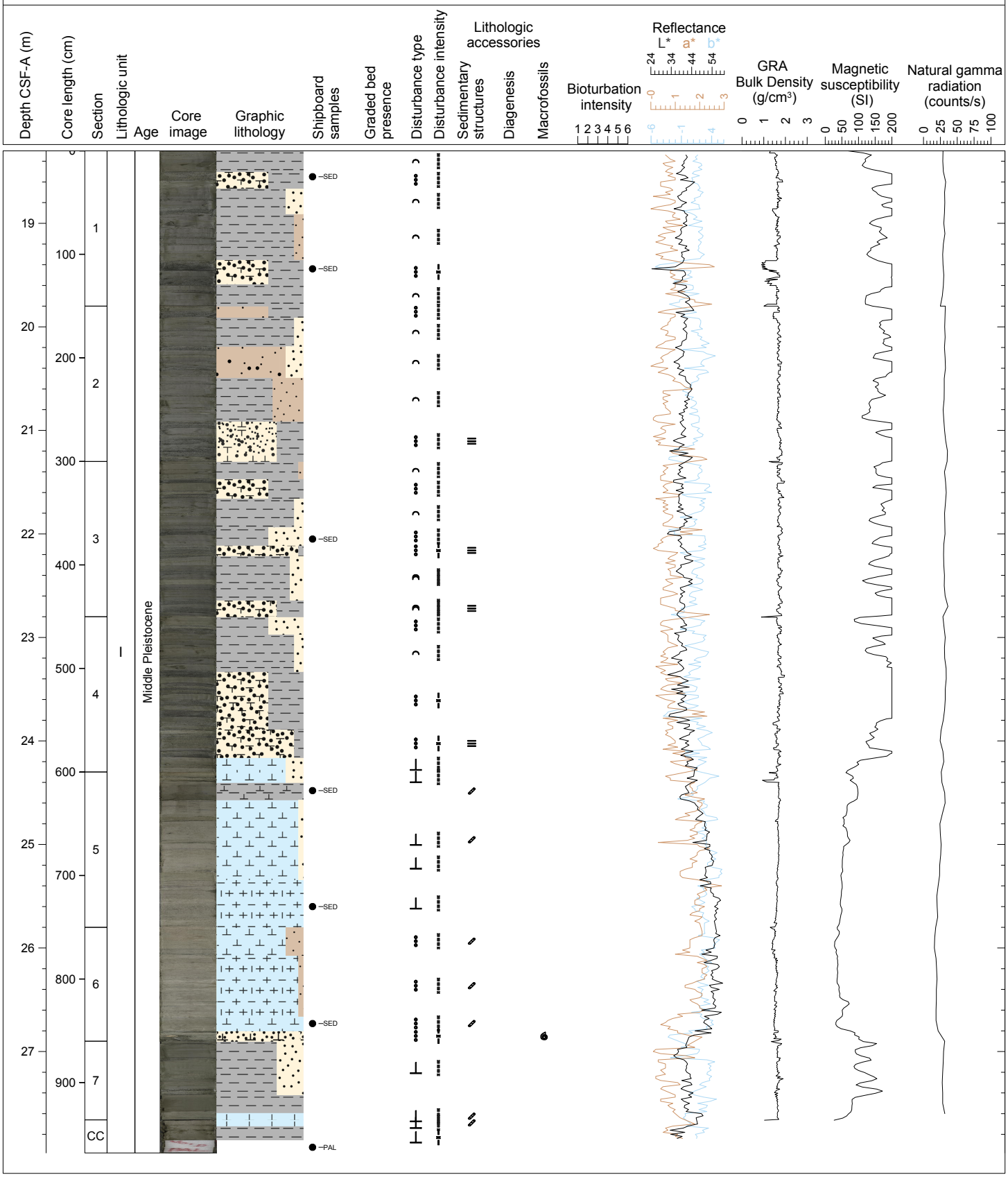
Hole 355-U1456C Core 3H, Interval 8.8-17.75 m (CSF-A)

NANNOFOSSIL OOZE and FORAMINIFER-RICH NANNOFOSSIL OOZE with NANNOFOSSIL-RICH CLAY are dominant lithology. From Sections 1 to 4, NANNOFOSSIL OOZE and FORAMINIFER-RICH NANNOFOSSIL OOZE are dominant, whereas from Section 5 and below NANNOFOSSIL-RICH CLAY is more common. In Section 1, large burrow structures are found. Thin FORAMINIFER-RICH NANNOFOSSIL OOZE WITH SILT is intercalated with thick FORAMINIFER-RICH NANNOFOSSIL OOZE. This couplet shows normal grading and an erosive boundary at the top of the NANNOFOSSIL OOZE layer where it is overlain by NANNOFOSSIL-RICH CLAY.



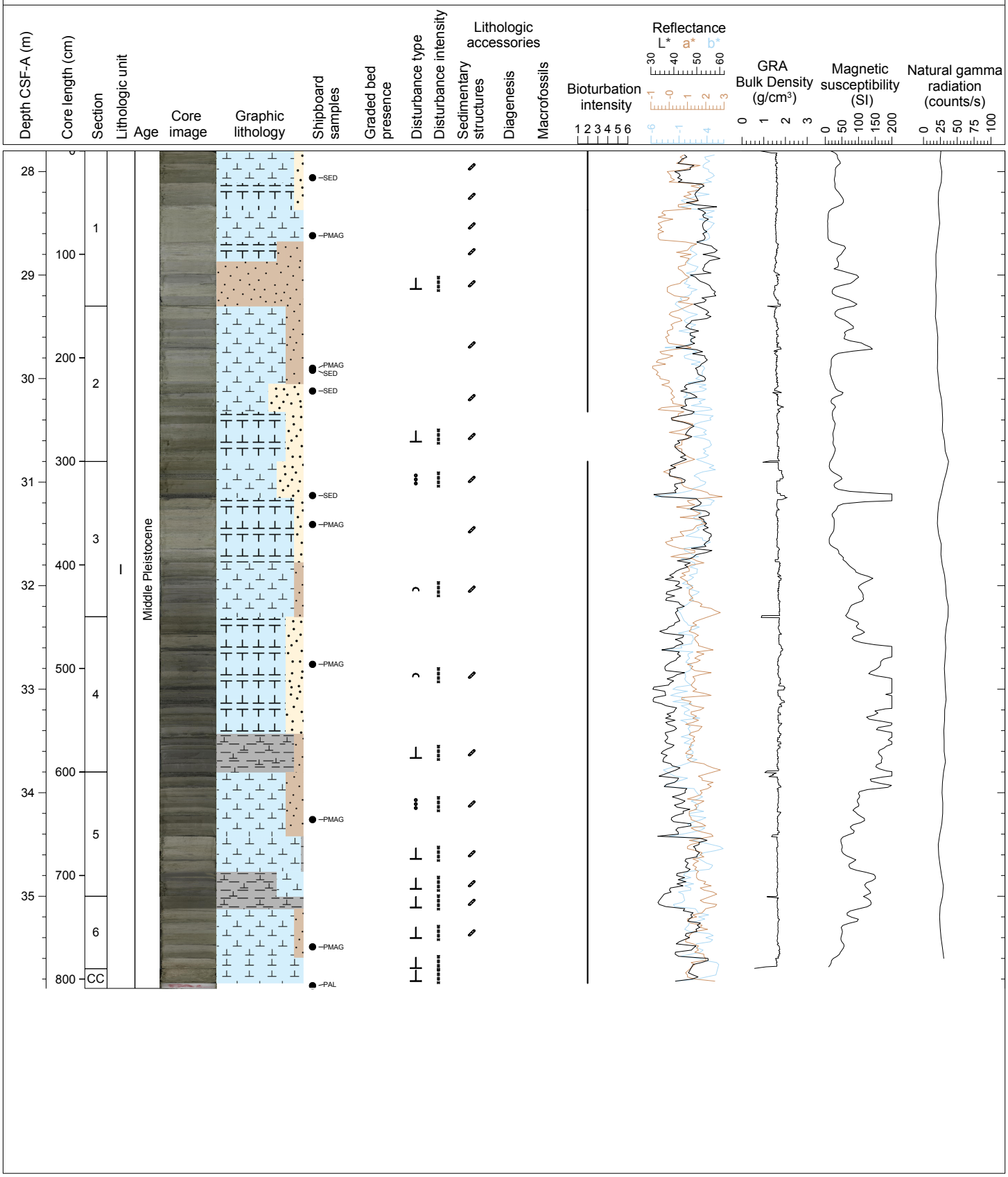
Hole 355-U1456C Core 4H, Interval 18.3-27.98 m (CSF-A)

CLAY WITH NANNOFOSSILS, FORAMINIFER-RICH SAND WITH SILT, SILT WITH SAND, NANNOFOSSIL OOZE, NANNOFOSSIL OOZE WITH CLAY, CALCAREOUS OOZE WITH NANNOFOSSILS. Greenish colored CLAY WITH NANNOFOSSILS, light brown NANNOFOSSIL OOZE and light white CALCAREOUS OOZE WITH NANNOFOSSILS are the major lithologies. The FORAMINIFER-RICH SAND WITH SILT and SILT WITH SAND are minor lithologies often interbedded in the CLAY WITH FORAMINIFERS. Macrofossil shells are observed at 105 cm, Section 6.



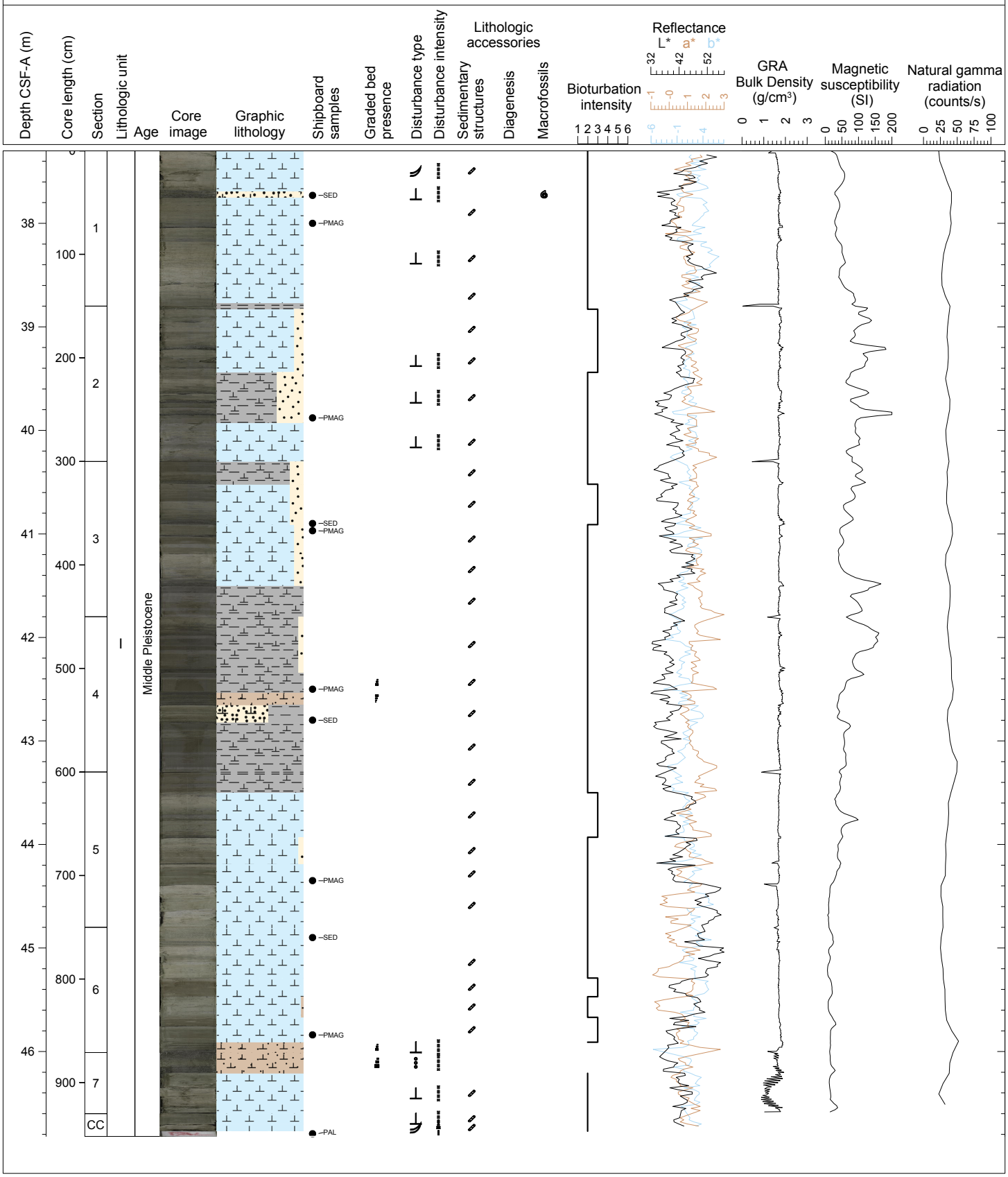
Hole 355-U1456C Core 5H, Interval 27.8-35.89 m (CSF-A)

NANNOFOSSIL OOZE, NANNOFOSSIL OOZE WITH CLAY, NANNOFOSSIL OOZE WITH SILT, NANNOFOSSIL-RICH CLAY, NANNOFOSSIL OOZE WITH CLAY. Light to dark brown and light greenish white colored NANNOFOSSIL OOZE is the major lithology with interbeds richer in clay and silt contents, developed as color-banded, typically normally graded intervals. The thin to medium-bedded greenish and dark gray NANNOFOSSIL-RICH SAND and NANNOFOSSIL-RICH SILT are interbedded in NANNOFOSSIL OOZE and NANNOFOSSILS OOZE WITH CLAY.



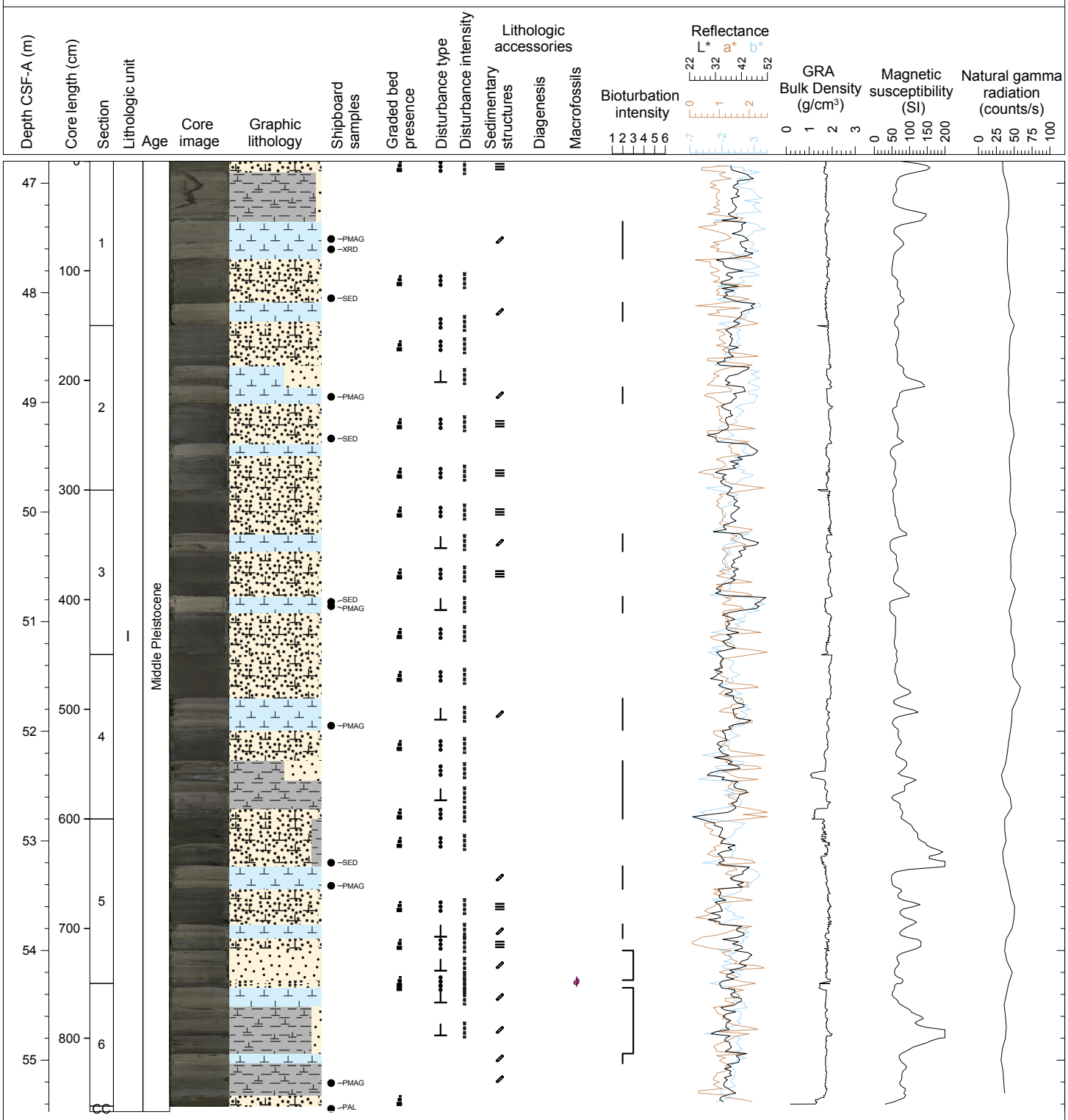
Hole 355-U1456C Core 6H, Interval 37.3-46.82 m (CSF-A)

NANNOFOSSIL OOZE, NANNOFOSSIL OOZE WITH CLAY, NANNOFOSSIL OOZE WITH SAND, NANNOFOSSIL-RICH CLAY, NANNOFOSSIL-RICH SILT, NANNOFOSSIL-RICH SAND. Light brown, light greenish and light white colored NANNOFOSSIL OOZE, NANNOFOSSIL OOZE WITH CLAY and dark gray NANNOFOSSIL-RICH CLAY are the major lithologies. Dark gray NANNOFOSSIL-RICH SAND and NANNOFOSSIL-RICH SILT are interbedded within a massive NANNOFOSSIL OOZE and NANNOFOSSILS OOZE WITH CLAY sequence.



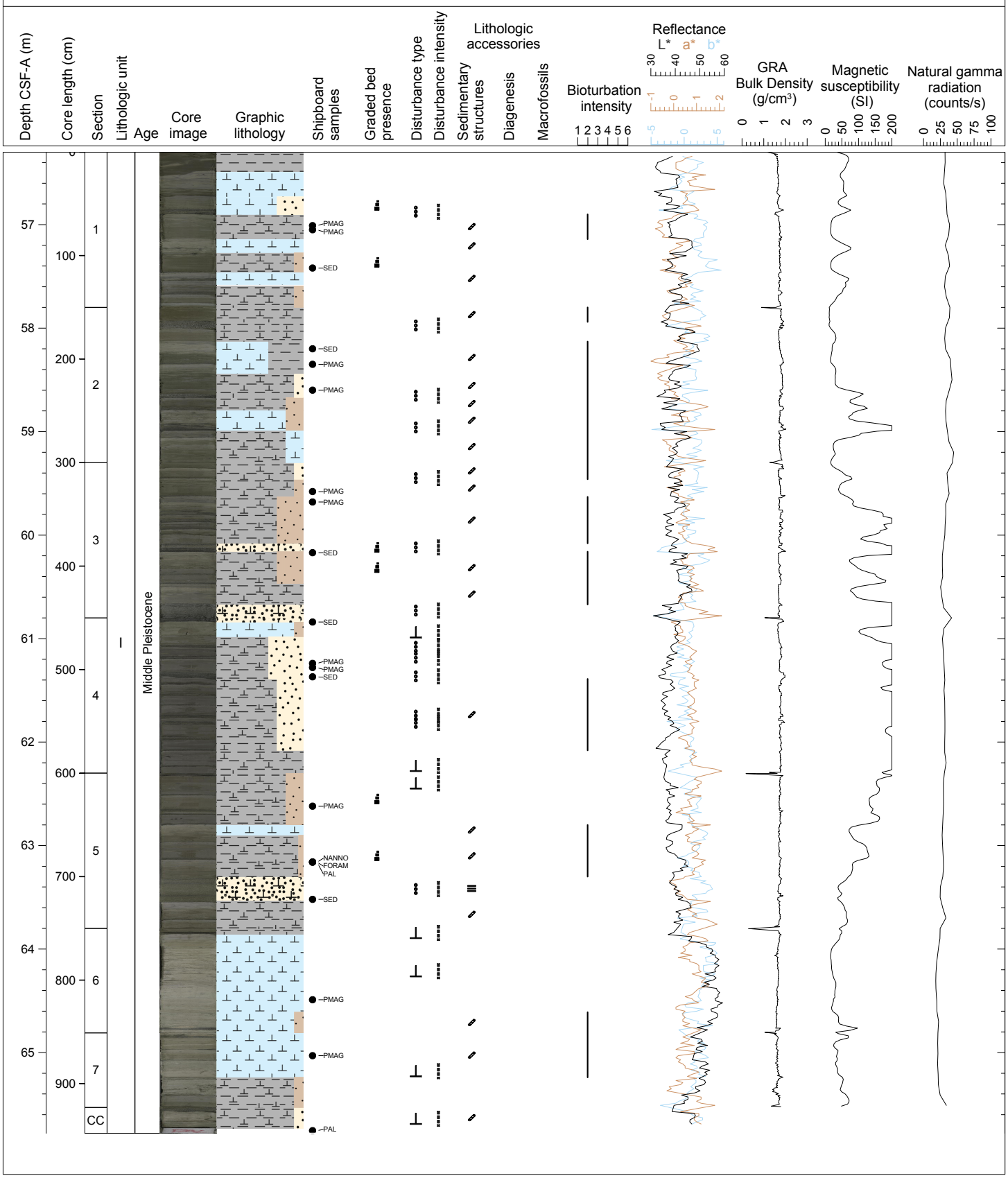
Hole 355-U1456C Core 7H, Interval 46.8-55.47 m (CSF-A)

NANNOFOSSIL-RICH SAND WITH SILT, NANNOFOSSIL-RICH CLAY, NANNOFOSSIL-RICH SAND, NANNOFOSSIL OOZE. Light greenish gray NANNOFOSSIL-RICH CLAY, light brown NANNOFOSSIL OOZE, dark gray NANNOFOSSIL-RICH SAND and NANNOFOSSIL-RICH SAND WITH SILT are the major lithologies. The medium bedded NANNOFOSSIL OOZE and NANNOFOSSIL-RICH CLAY are interbedded in NANNOFOSSIL-RICH SAND. Shell fragments are also observed at 120 cm, Section 6. Very thin pyrite rich lamina is observed at 134 cm, Section 5.



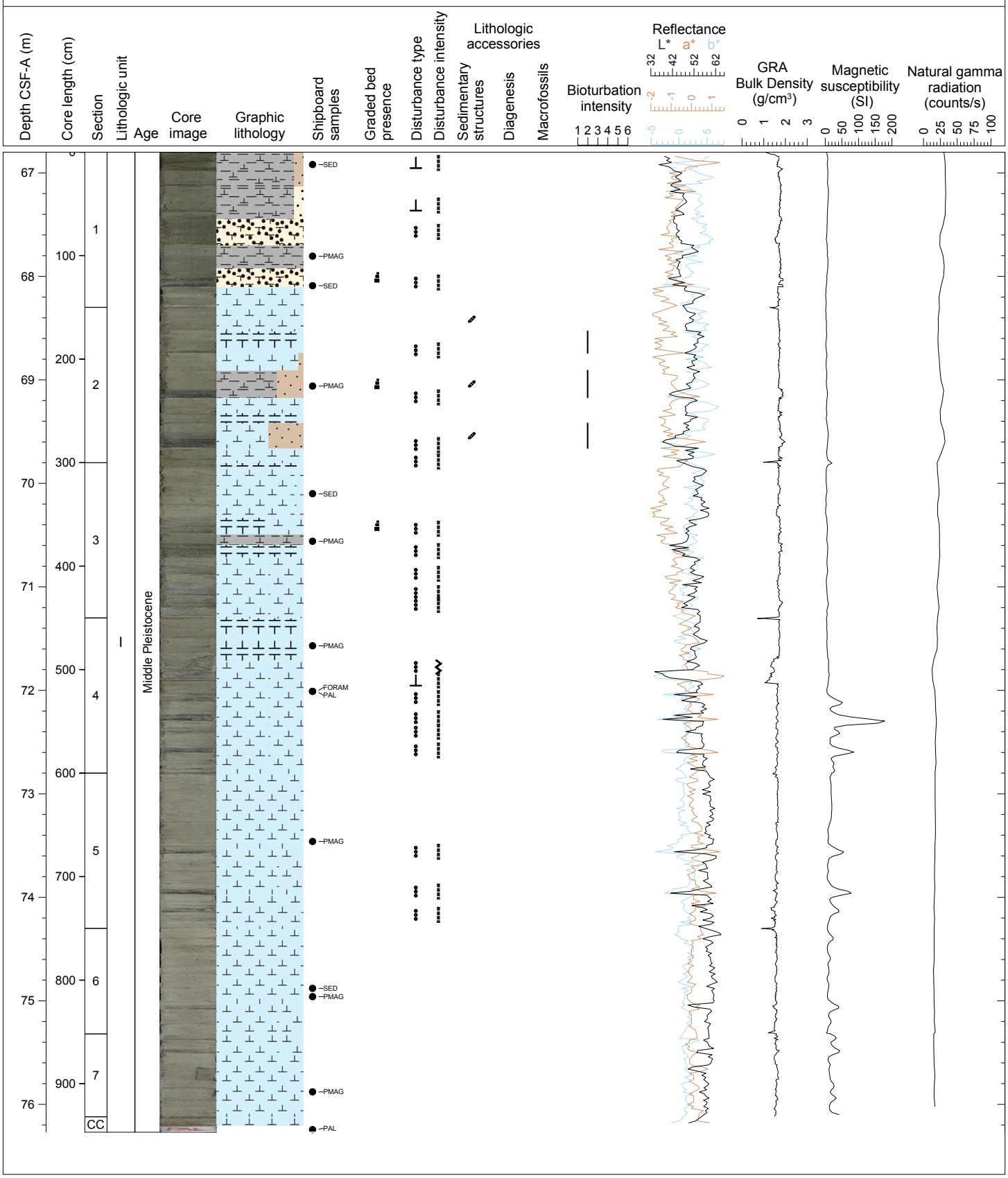
Hole 355-U1456C Core 8H, Interval 56.3-65.78 m (CSF-A)

NANNOFOSSIL-RICH CLAY and NANNOFOSSIL OOZE are dominant. NANNOFOSSIL-RICH CLAY interbedded with NANNOFOSSIL-RICH SILT or NANNOFOSSIL-RICH SAND, both show normal grading and an erosive boundary below the coraser grained lithology. Slight burrowing was observed mostly in NANNOFOSSIL OOZE and NANNOFOSSIL-RICH CLAY. A thick NANNOFOSSIL OOZE occupies Section 6. Toumaline, hornblende, clinopyroxene and epidote with apatite are generally present in trace amounts, but are common in the minor lithologies.



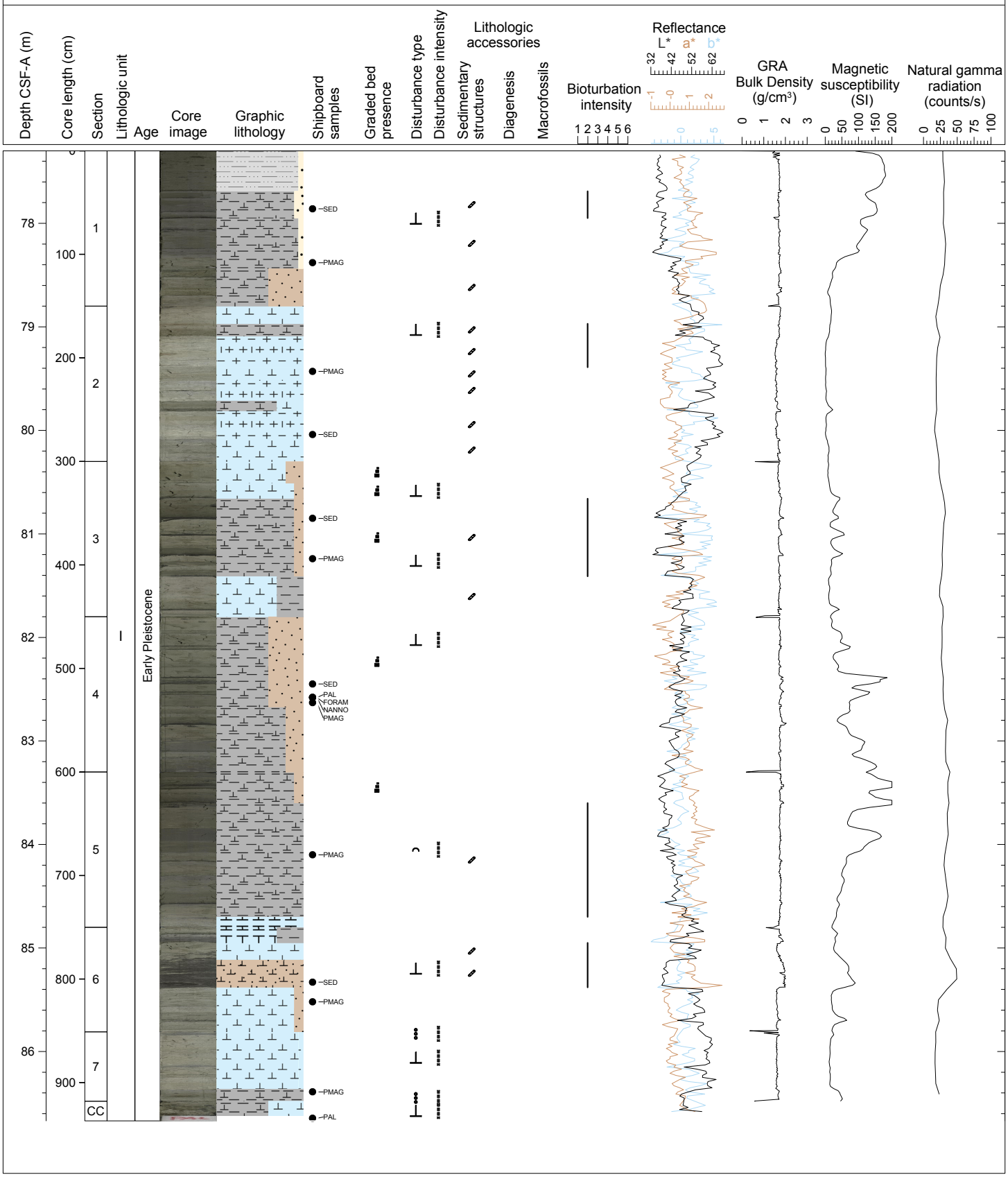
Hole 355-U1456C Core 10H, Interval 66.8-76.27 m (CSF-A)

NANNOFOSSIL OOZE is the dominant lithology. NANNOFOSSIL-RICH CLAY was found in the upper part of core (Sections 1 and 2) and FORAMINIFER-RICH NANNOFOSSIL OOZE is intercalated with NANNOFOSSIL OOZE. In the lower part of core, NANNOFOSSIL OOZE dominates. Commonly observed heavy minerals include hornblende, tourmaline, epidote, and apatite.



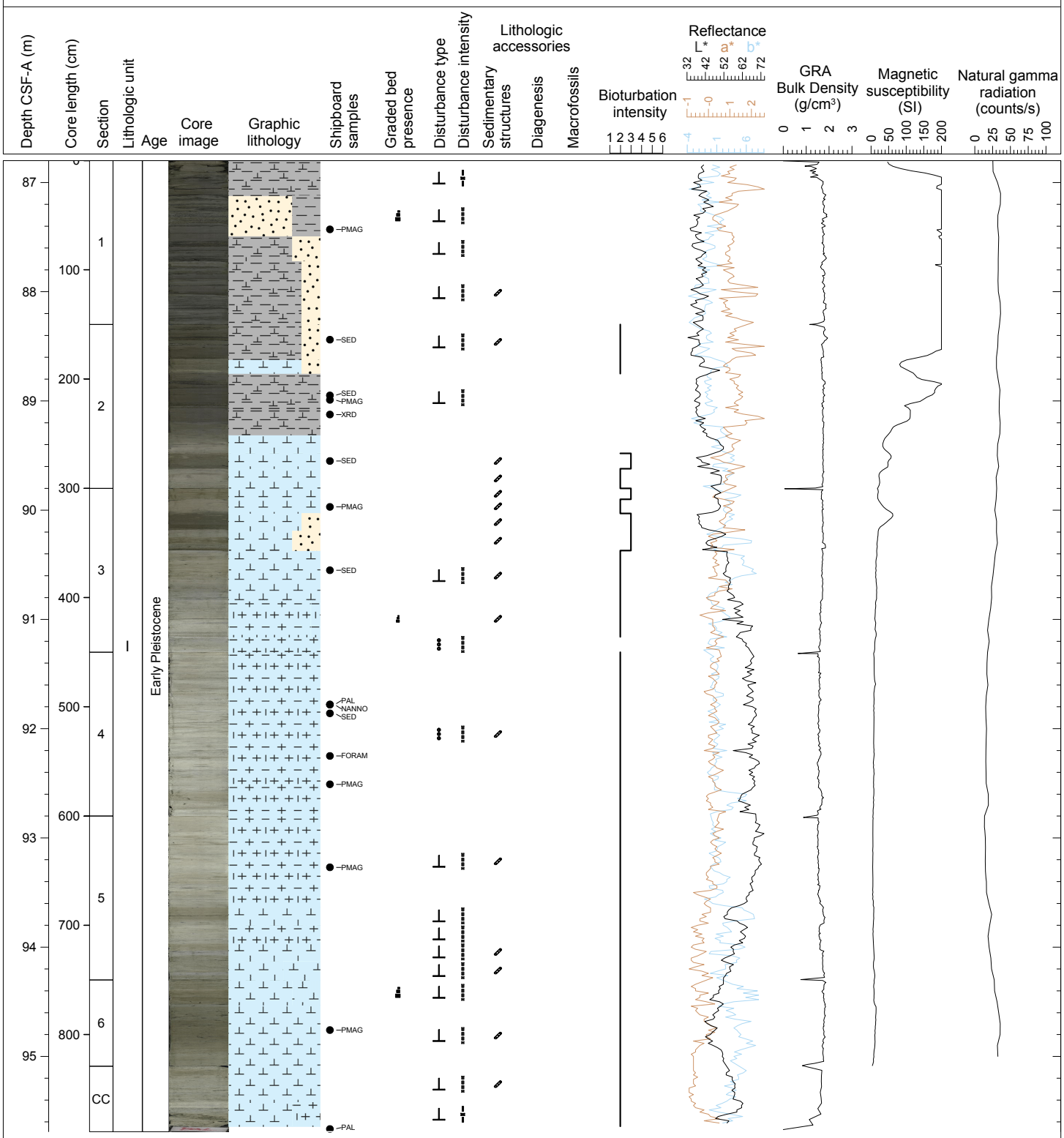
Hole 355-U1456C Core 12H, Interval 77.3-86.67 m (CSF-A)

NANNOFOSSIL-RICH CLAY and NANNOFOSSIL OOZE are the dominant lithologies. A thin layer of NANNOFOSSIL-RICH CLAYEY SILT or NANNOFOSSIL-RICH SILTY SAND occurs interbedded with NANNOFOSSIL-RICH CLAY or NANNOFOSSIL OOZE. A thick bed of CALCAREOUS CLAY (about 80 cm thick) is observed in Section 2. Bioturbation is slight. Sharp erosive boundaries are frequently observed at the base of more clastic-rich layers, with normal grading.



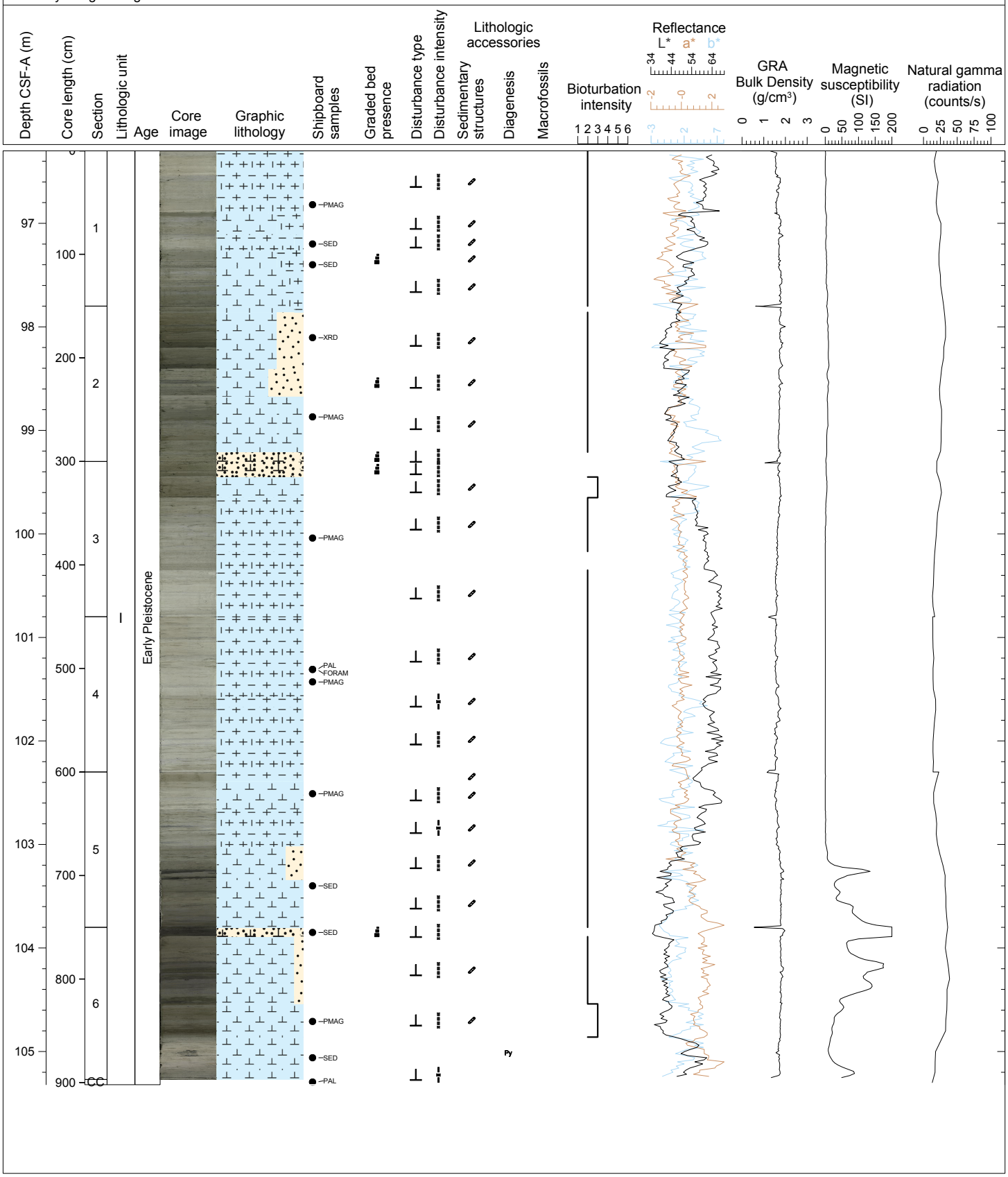
Hole 355-U1456C Core 13H, Interval 86.8-95.69 m (CSF-A)

NANNOFOSSIL-RICH CLAY, NANNOFOSSIL OOZE, NANNOFOSSIL OOZE WITH SILT, CALCAREOUS OOZE, SAND WITH FORAMINIFERS. Dark to light gray and greenish gray NANNOFOSSIL OOZE, light white CALCAREOUS OOZE and dark gray NANNOFOSSIL-RICH CLAY are the major lithologies. The thin bedded FORAMINIFER-RICH SAND are interbedded with NANNOFOSSIL-RICH CLAY. The NANNOFOSSIL OOZE WITH SAND and NANNOFOSSIL OOZE WITH SILT are interbedded in NANNOFOSSIL OOZE.



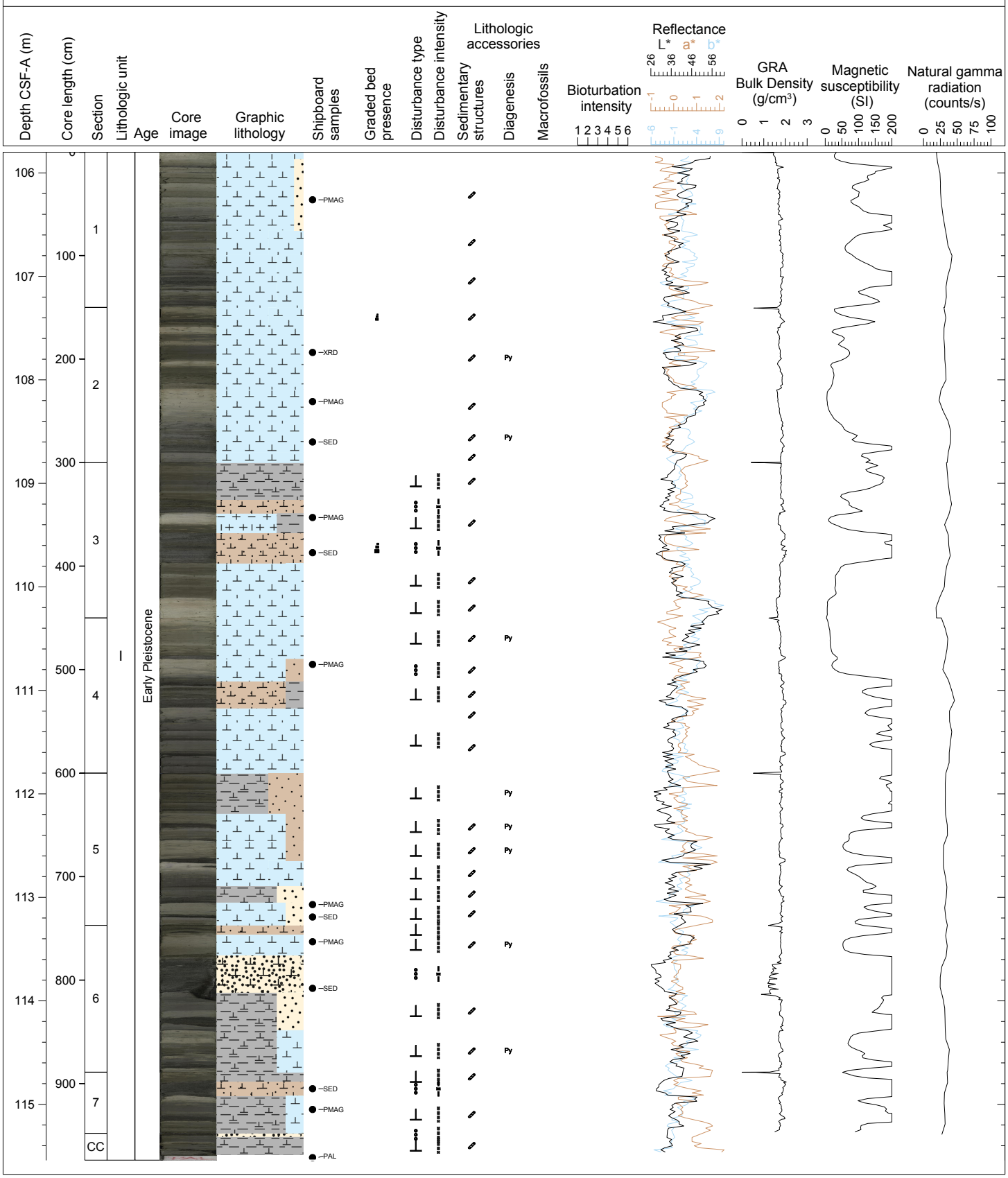
Hole 355-U1456C Core 14H, Interval 96.3-105.32 m (CSF-A)

CALCAREOUS OOZE, CALCAREOUS OOZE WITH CLAY, CALCAREOUS OOZE WITH SILT, CALCAREOUS OOZE WITH SAND, NANNOFOSSIL OOZE, NANNOFOSSIL OOZE WITH SILT, NANNOFOSSIL OOZE WITH CLAY, NANNOFOSSIL OOZE WITH SAND, SAND WITH FORAMINIFERS. Bright white CALCAREOUS OOZE and greenish NANNOFOSSIL OOZE with SILT and dark gray NANNOFOSSIL OOZE WITH CLAY are the major lithologies. CALCAREOUS OOZE WITH SILT and CALCAREOUS OOZE WITH SAND are interbedded in CALCAREOUS OOZE. The thin bedded dark gray to blackish colored SAND WITH FORAMINIFERS is often interbedded with NANNOFOSSIL OOZE and NANNOFOSSIL OOZE WITH CLAY. Light colored NANNOFOSSIL OOZE WITH CLAY and greenish NANNOFOSSIL OOZE WITH SILT are alternately interbedded in Section 2. A pyrite nodule is observed at 120 cm, Section 6. In general bioturbation intensity is higher in greenish NANNOFOSSIL OOZE WITH SILT.



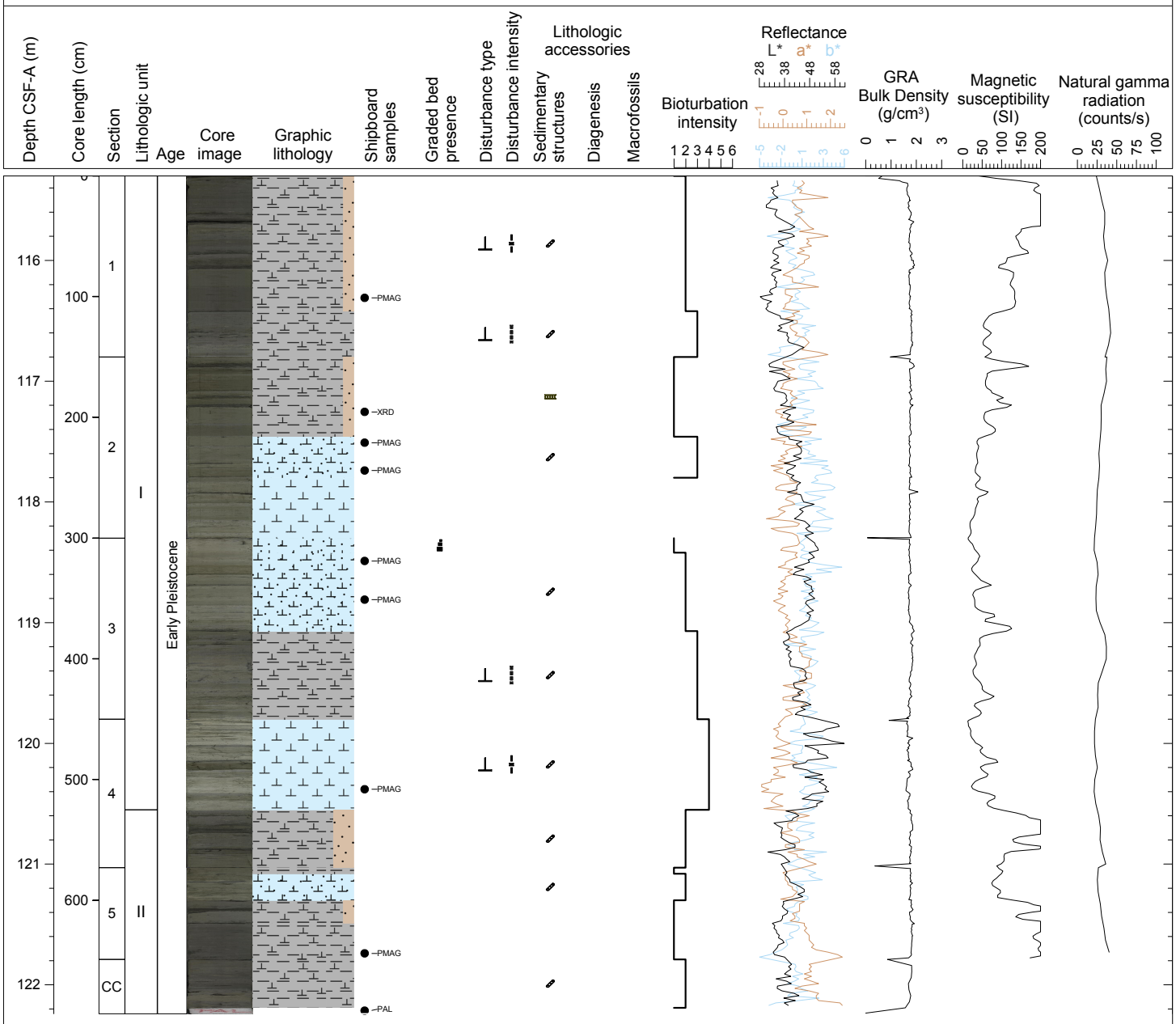
Hole 355-U1456C Core 15H, Interval 105.8-115.54 m (CSF-A)

NANNOFOSSIL OOZE , NANNOFOSSIL OOZE WITH SILT, NANNOFOSSIL OOZE WITH CLAY, NANNOFOSSIL-RICH SAND, SAND WITH FORAMINIFERS. Light gray to light greenish and light brown NANNOFOSSILS OOZE and dark blackish grey SAND WITH FORAMINIFERS are the major lithologies. The thin bedded SAND WITH FORAMINIFERS is interbedded in NANNOFOSSIL OOZE. SAND-RICH FORAMINIFERAL OOZE is also rich in pyrite, with a single big pyrite nodule being observed at 65 cm, Section 4.



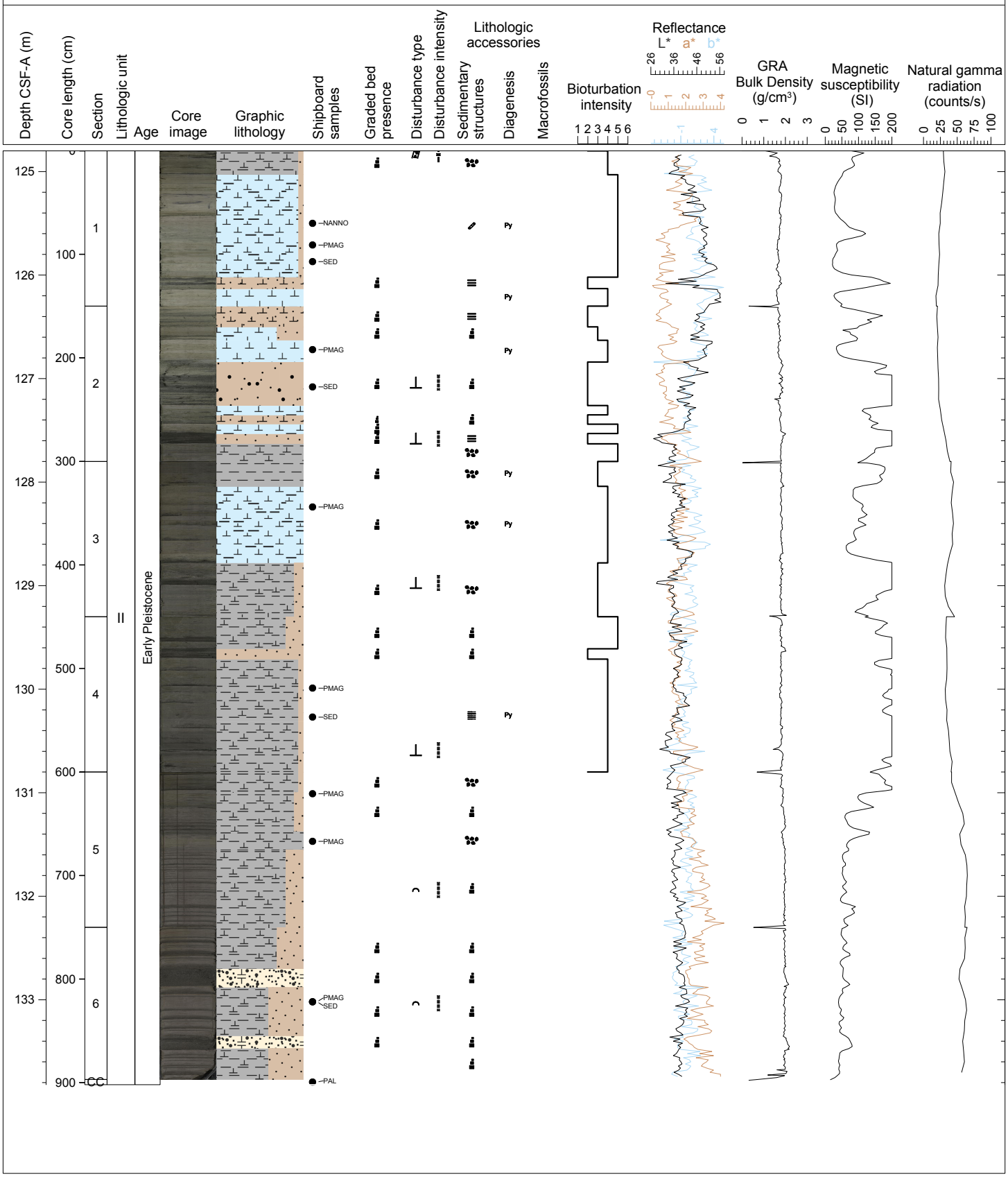
Hole 355-U1456C Core 16H, Interval 115.3-122.24 m (CSF-A)

NANNOFOSSIL-RICH CLAY, SILTY NANNOFOSSIL OOZE, NANNOFOSSIL OOZE. The core is dominated by fine grained sediments with varying degrees of clay content mixed with nannofossils resulting in thick-bedded hemipelagic beds with color banding. The lighter, more nannofossil-rich sediments show well defined burrows of the Zoophycos ichnofacies. A small percentage of the core is comprised of SILTY NANNOFOSSIL OOZE that forms sharp-based, normally graded beds. These rarely include parallel laminations at the base, especially in the more carbonate-rich beds.



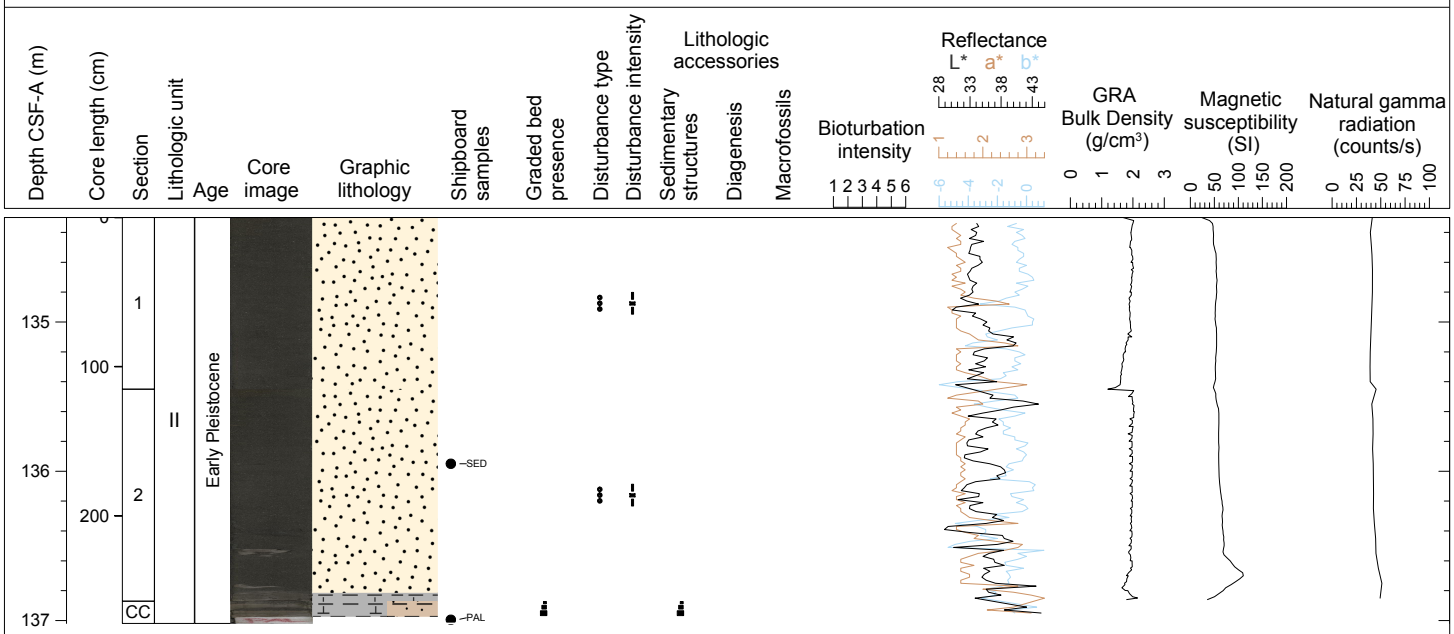
Hole 355-U1456C Core 17H, Interval 124.8-133.82 m (CSF-A)

CLAYEY NANNOFOSSIL OOZE and NANNOFOSSIL-RICH CLAY are dominant lithologies. Clayey NANNOFOSSIL OOZE is mostly found in Sections 1 and 2, where some of the layers preserve thin parallel laminae. Bioturbation and mottling are widespread in this lithology. NANNOFOSSIL-RICH CLAY is dominant in the lower half of core. It is intercalated with a thin clayey silt layer, showing an erosive basal boundary and normal grading. A thick SILTY SAND occurs in Section 6, with a sharp, erosive basal boundary. This SILTY SAND marks the transition from Unit II SAND below to overlying NANNOFOSSIL OOZE and NANNOFOSSIL-RICH CLAY of Unit I.



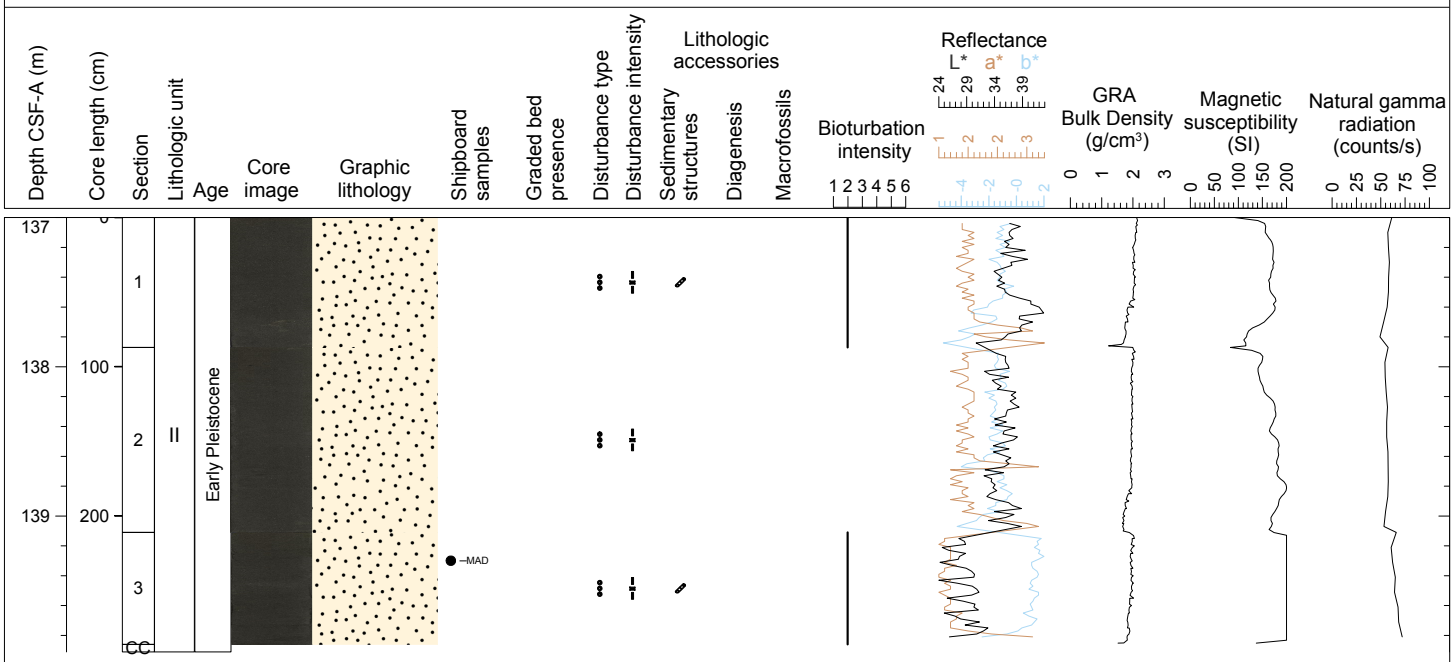
Hole 355-U1456C Core 18H, Interval 134.3-137.02 m (CSF-A)

SAND is the dominant lithology in this core and is ubiquitous, except for the lower-most part of Section 2 (below 136 cm) and the CC, where NANNOFOSSIL-RICH CLAY is observed. This clay layer was interbedded with CLAYEY SILT in Section CC. SAND is normally medium grained. A big rip-up chunk of NANNOFOSSIL-RICH CLAY is observed in Section 2 (106-113 cm).



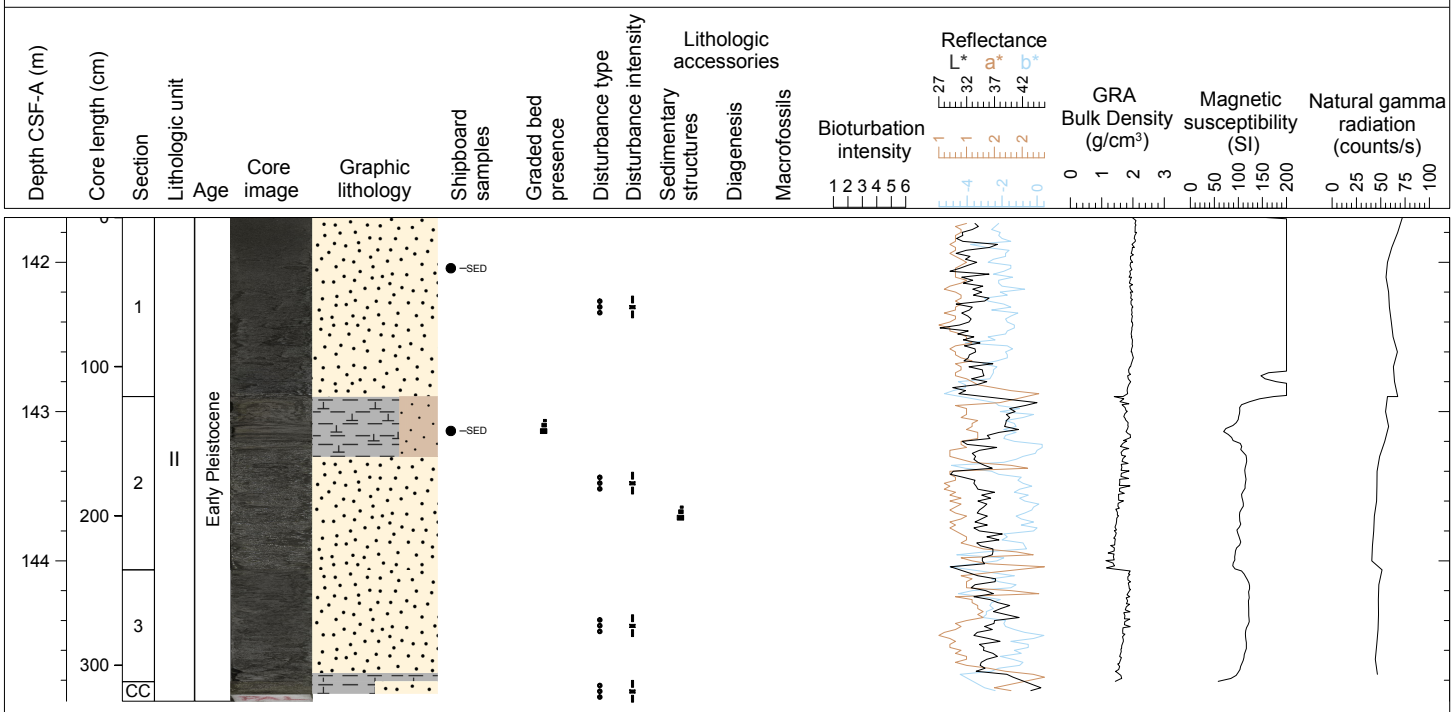
Hole 355-U1456C Core 19F, Interval 137.0-139.91 m (CSF-A)

SAND is the only lithology recognized in this core. Grain size is medium grained. All the SAND is massive and structureless. Small burrows filled with mica-rich sand are found in Sections 1 and 3.



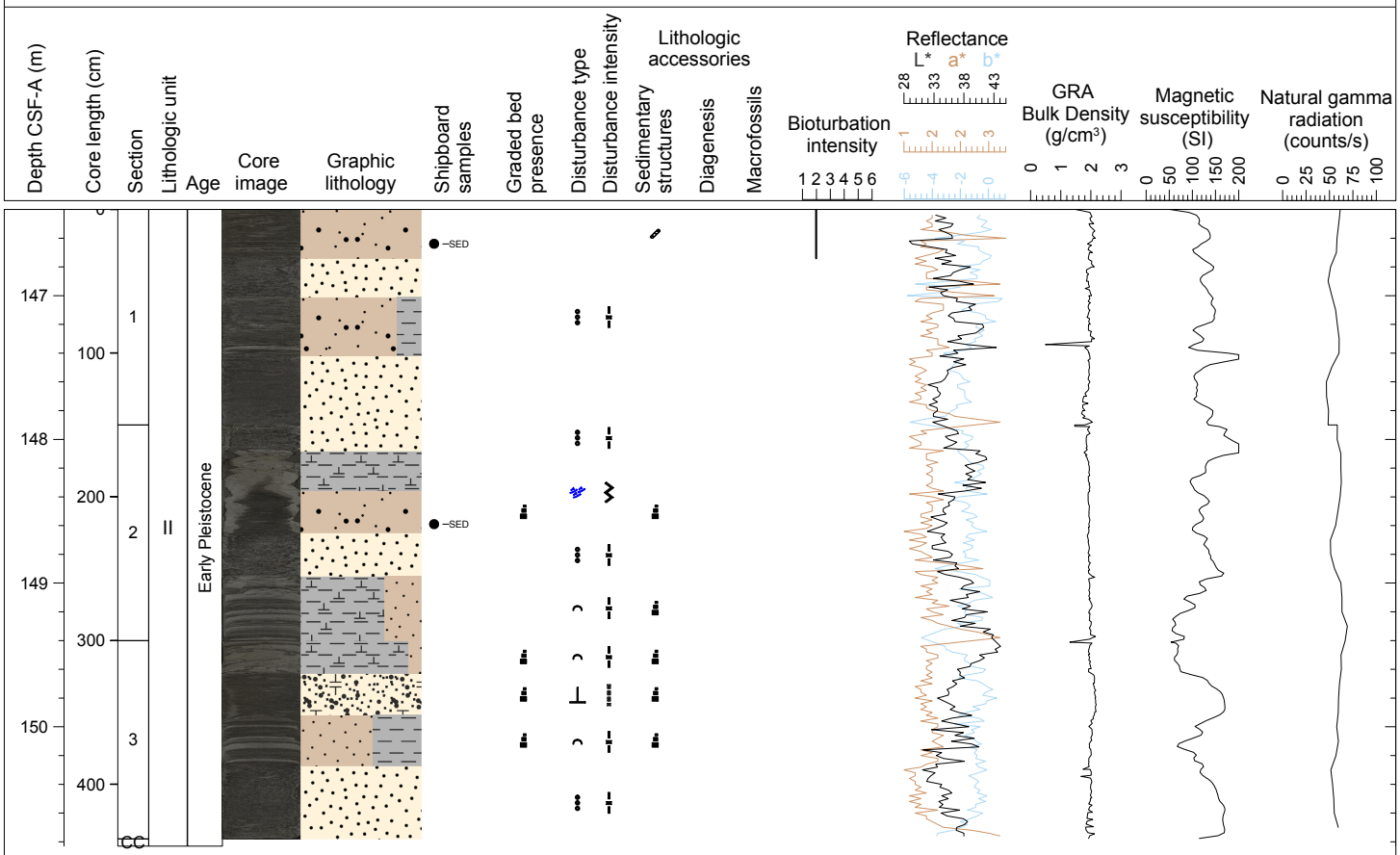
Hole 355-U1456C Core 20F, Interval 141.7-144.94 m (CSF-A)

Massive, thick-bedded SAND is the dominant lithology. NANNOFOSSIL-RICH CLAY occurs at the top of Section 2 where it is intercalated with thin NANNOFOSSIL-RICH CLAYEY SILT layers. Sand grains are medium to fine grained.



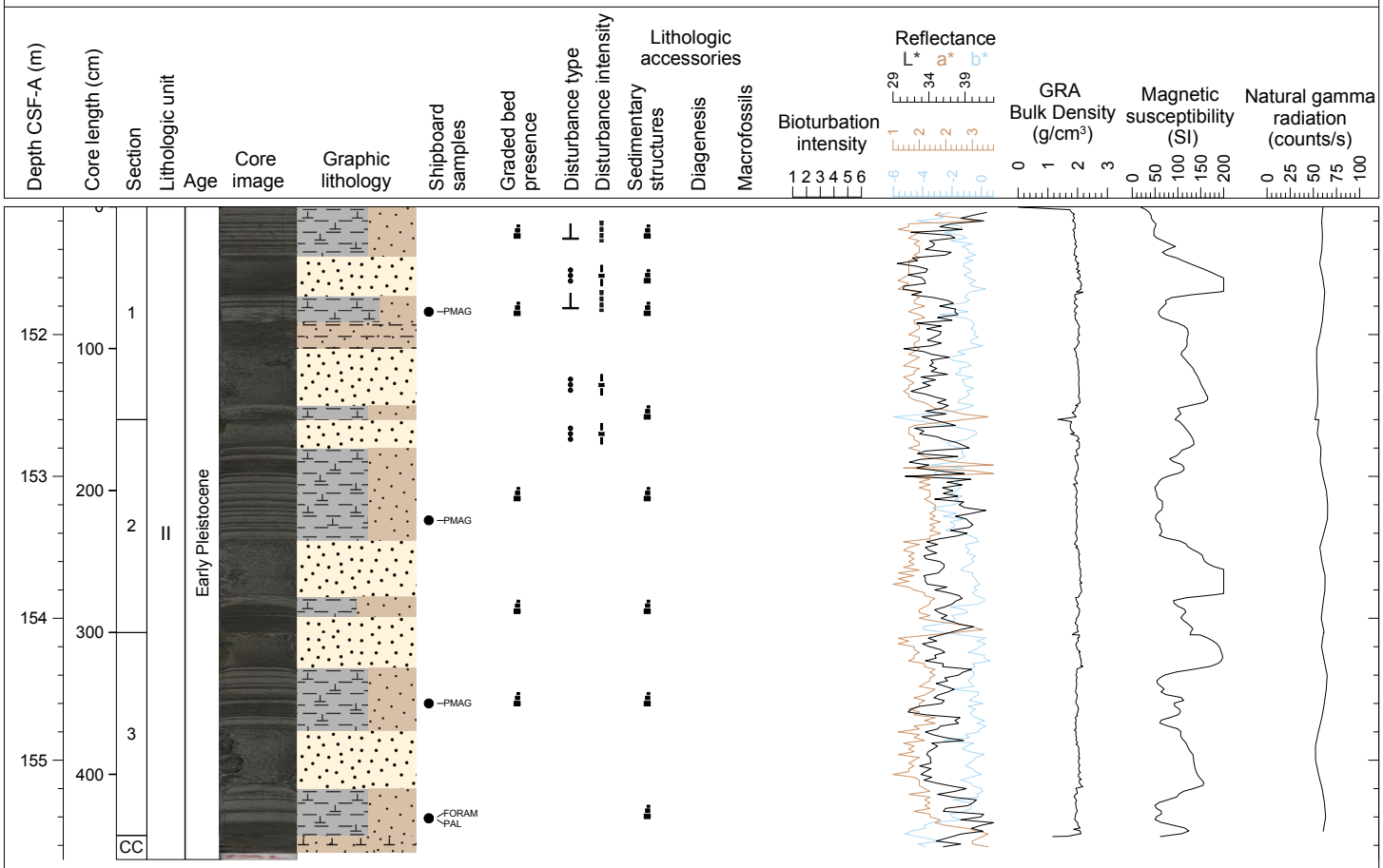
Hole 355-U1456C Core 21F, Interval 146.4-150.83 m (CSF-A)

SAND, NANNOFOSSIL-RICH SILT, and NANNOFOSSIL-RICH CLAY are dominant. SAND is interbedded with normally graded couplets of SILT and NANNOFOSSIL-RICH CLAY. The thickness of each NANNOFOSSIL-RICH CLAY layer varies from 1 cm to more than 5 cm. SAND is normally fine-grained.



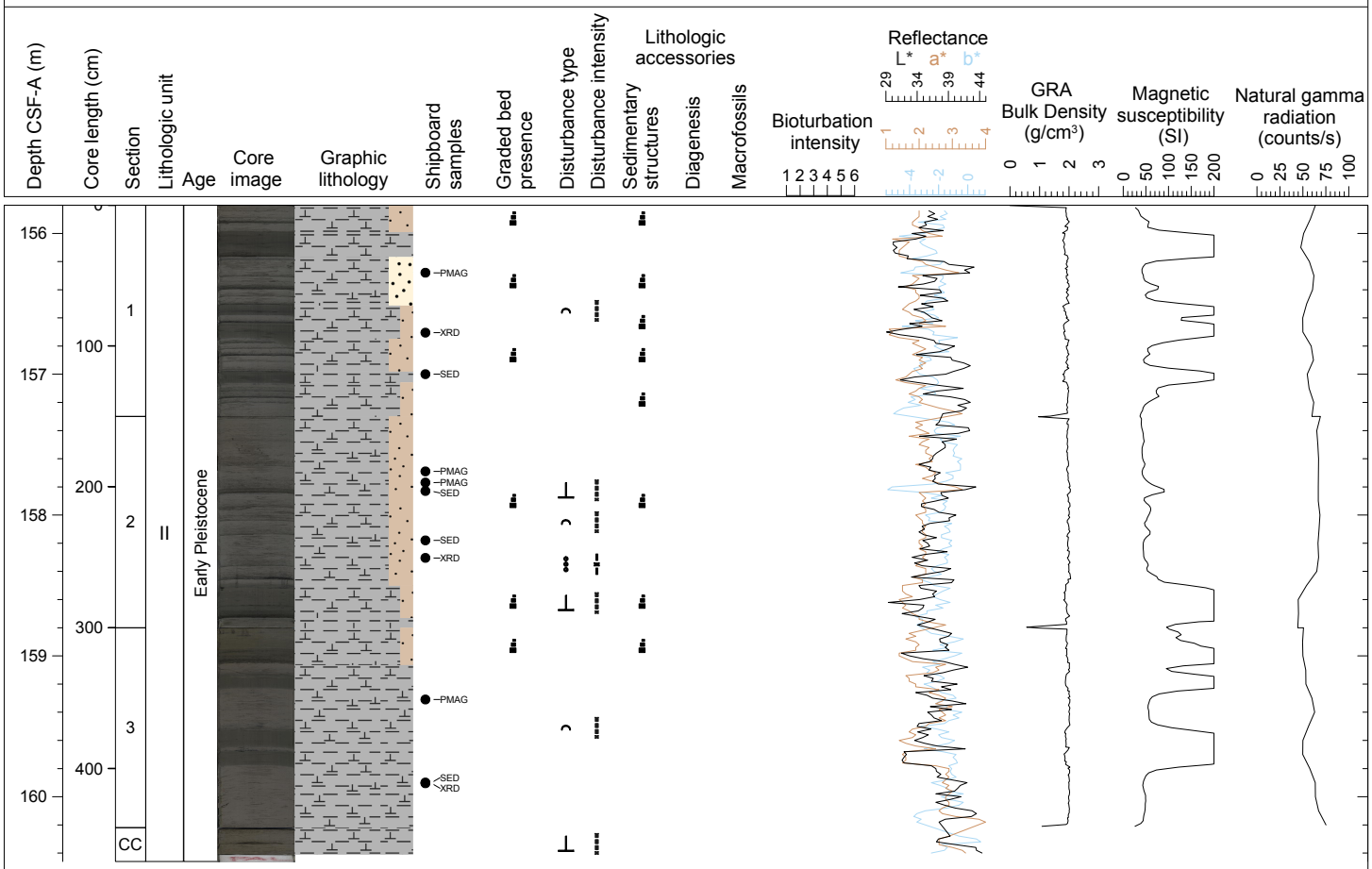
Hole 355-U1456C Core 22F, Interval 151.1-155.7 m (CSF-A)

SAND, NANNOFOSSIL-RICH CLAY, and NANNOFOSSIL-RICH CLAYEY SILT are dominant lithology. A thick NANNOFOSSIL-RICH CLAY is intercalated with relatively thin NANNOFOSSIL-RICH CLAYEY SILT, showing normal grading and erosive scoured boundaries at the base of each layer. Thick SAND is interbedded with these couplets of NANNOFOSSIL-RICH CLAY and NANNOFOSSIL-RICH CLAYEY SILT.



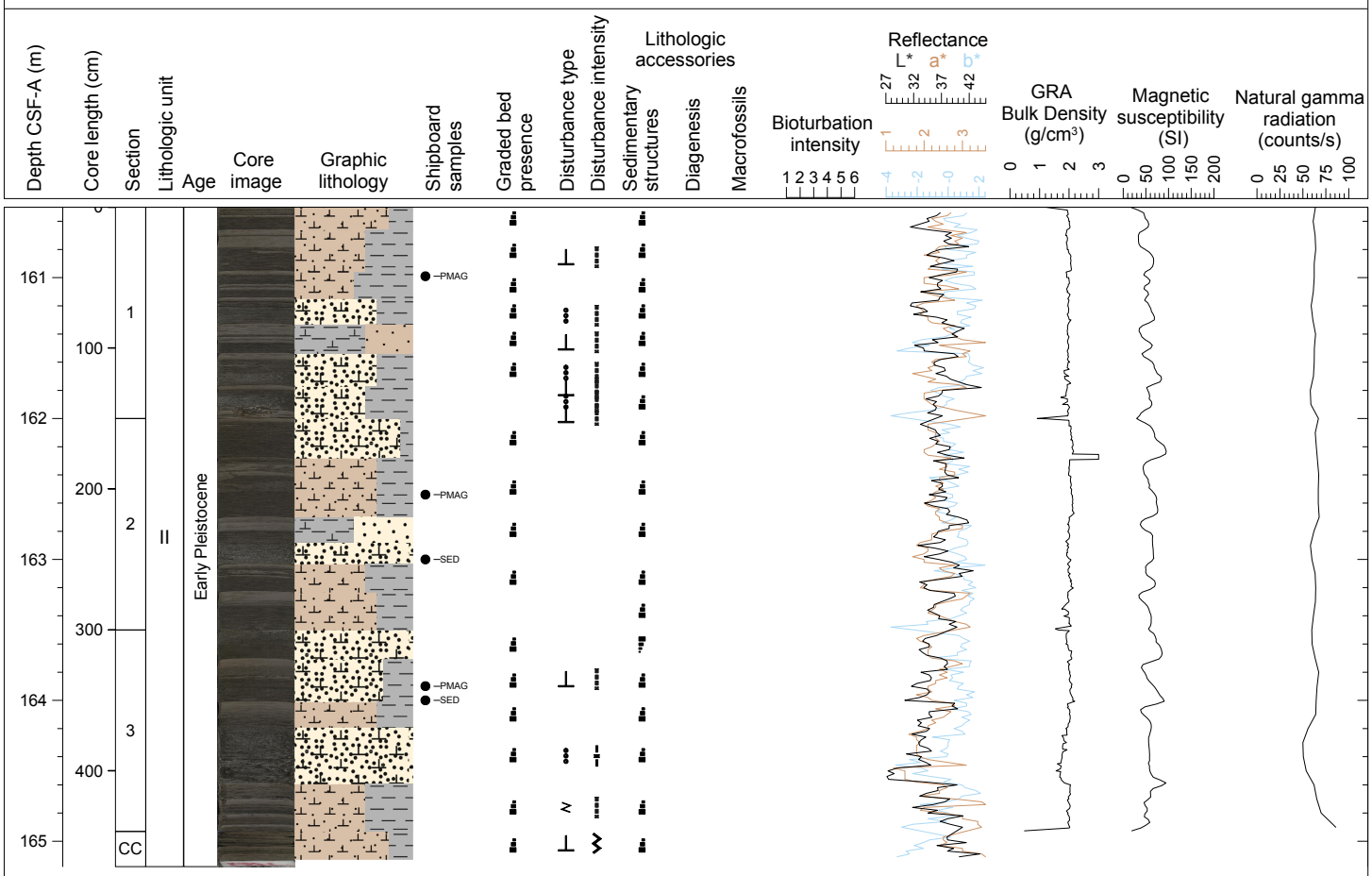
Hole 355-U1456C Core 23F, Interval 155.8-160.46 m (CSF-A)

NANNOFOSSIL-RICH CLAY is the major lithology. It is interbedded with thin NANNOFOSSIL-RICH CLAYEY SILT beds, which form erosive, sharp boundaries at their bases and show normal grading. Some pyrite nodules are observed in the NANNOFOSSIL-RICH CLAYEY SILT. NANNOFOSSIL-RICH CLAY is divided into two types based on the sediment color, light and dark.



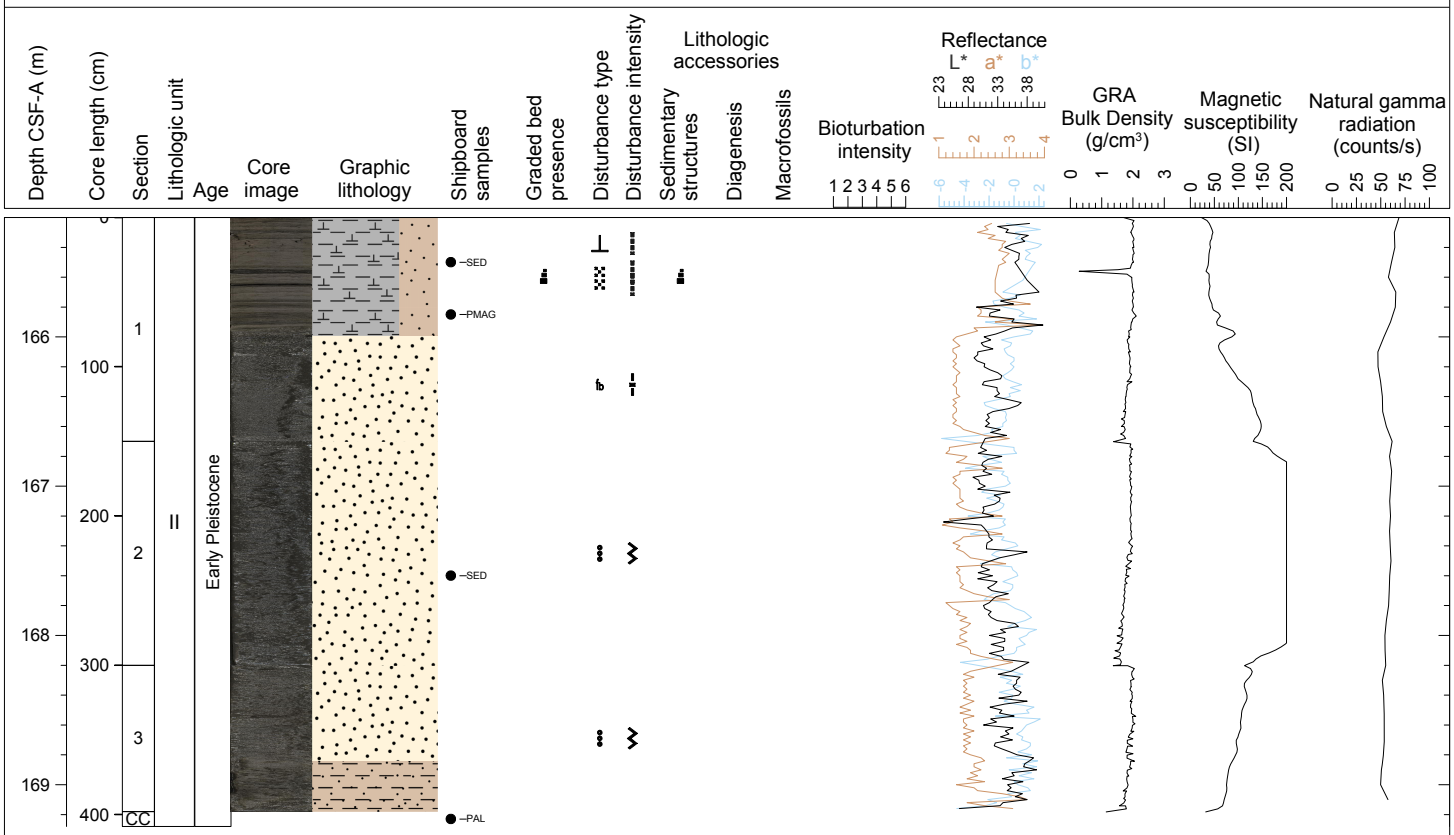
Hole 355-U1456C Core 24F, Interval 160.5-165.18 m (CSF-A)

NANNOFOSSIL-RICH SILTY SAND and NANNOFOSSIL-RICH CLAYEY SILT are dominant, with lesser amounts of NANNOFOSSIL-RICH CLAY. Normal grading is seen from NANNOFOSSIL-RICH SILTY SAND through NANNOFOSSIL-RICH CLAYEY SILT up into NANNOFOSSIL-RICH CLAY. The top of each NANNOFOSSIL-RICH CLAY interval is an erosive boundary. The content of NANNOFOSSIL-RICH SILTY SAND increases in the lower part of core.



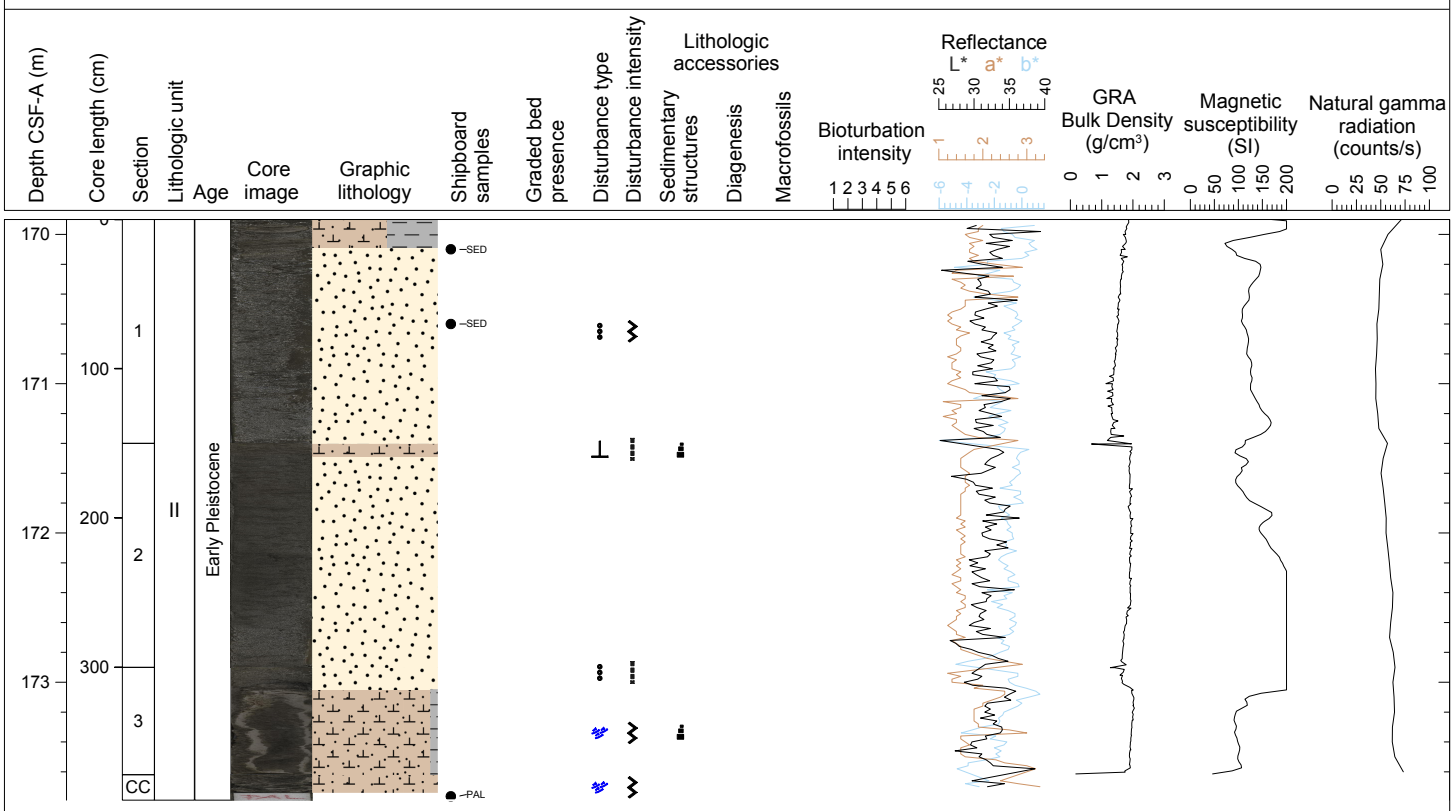
Hole 355-U1456C Core 25F, Interval 165.2-169.28 m (CSF-A)

SAND and NANNOFOSSIL-RICH CLAY are the dominant lithologies. SAND occupies between the middle of Section 1 to the middle of Section 3. NANNOFOSSIL-RICH CLAY is interbedded with NANNOFOSSIL-RICH CLAYEY SILT, both of which show normal grading in the upper half of Section 1. A pyrite concretion is found at 79 cm, Section 1.



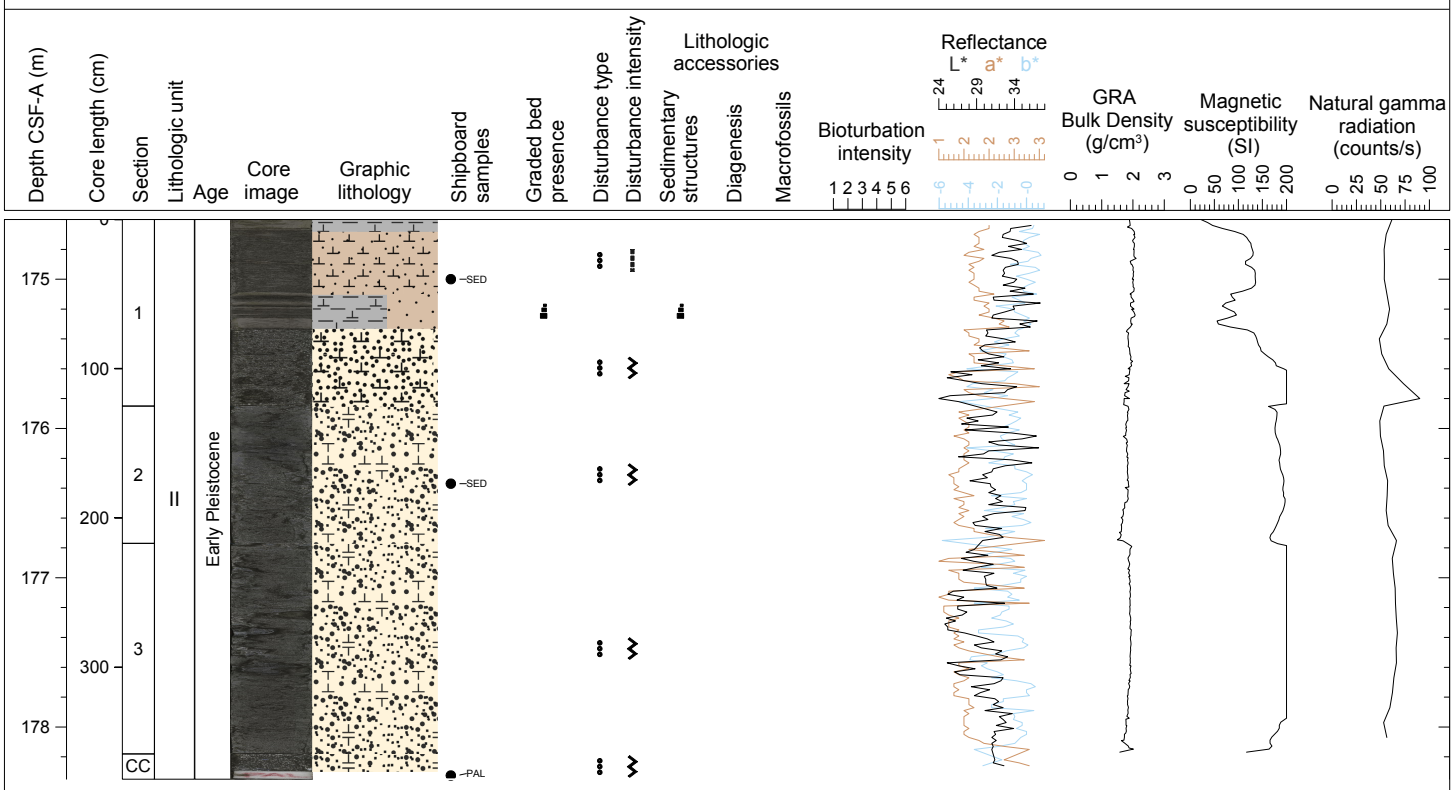
Hole 355-U1456C Core 26F, Interval 169.9-173.79 m (CSF-A)

SAND and NANNOFOSSIL-RICH CLAYEY SILT are dominant. NANNOFOSSIL-RICH CLAYEY SILT occupies most of Section 3 and the CC. Sections 1 and 2 are composed of SAND. NANNOFOSSIL-RICH CLAY can be found right at the top of Section 1. A round ball-shaped clast of NANNOFOSSIL-RICH CLAY was embedded in NANNOFOSSIL-RICH CLAYEY SILT (top of Section 1).



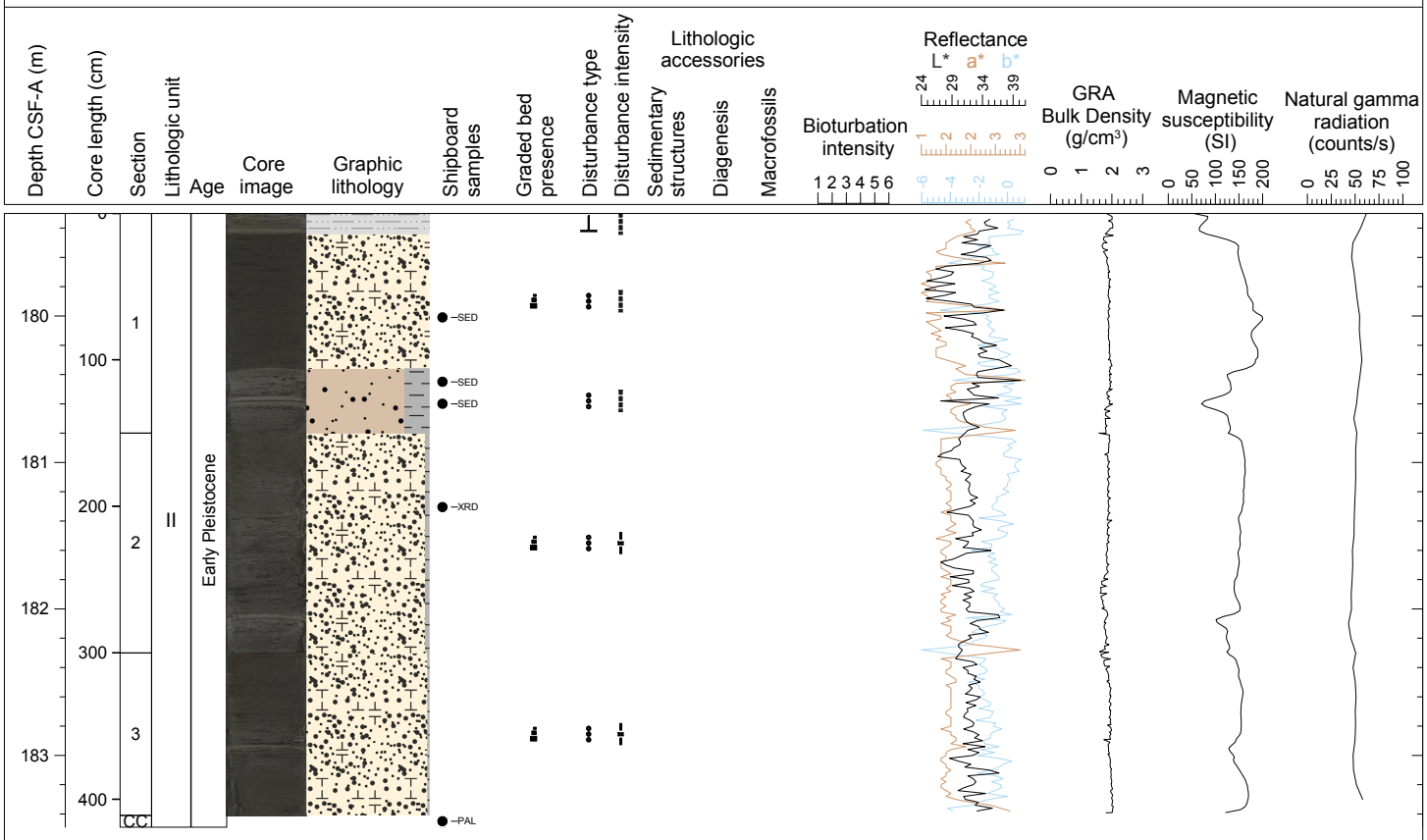
Hole 355-U1456C Core 27F, Interval 174.6-178.35 m (CSF-A)

SAND dominates this core, except for the presence of NANNOFOSSIL-RICH CLAY and NANNOFOSSIL-RICH CLAYEY SILT, both of which are found in the upper half of Section 1. Several couplets of NANNOFOSSIL-RICH CLAY and NANNOFOSSIL-RICH CLAYEY SILT show normal grading and sharp erosional boundary, where overlain by coarse grained lithologies. Sand grains are mostly fine-grained.



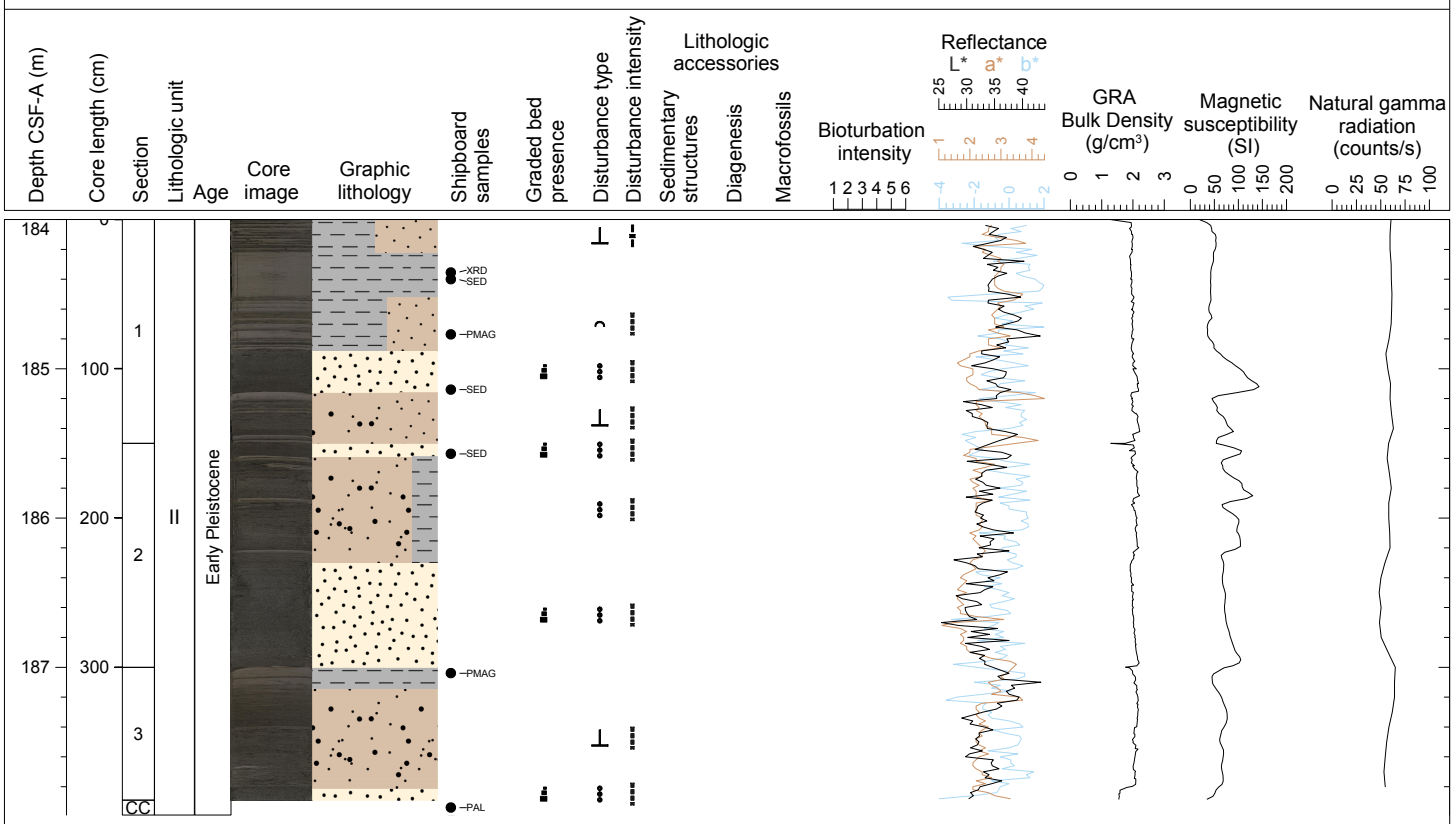
Hole 355-U1456C Core 28F, Interval 179.3-183.49 m (CSF-A)

SILTY SAND, SANDY SILT , SILTY CLAY. Dark gray colored SILTY SAND is the major lithology. SILTY CLAY is observed at top of the core up to 14 cm, Section 1. The lower part of Section 1 from 106 to 150 cm is dominated by SANDY SILT with thinly interbedded CLAY. Very thinly bedded CLAY is also observed at 124 cm, Section 2 and 64 cm, Section 3.



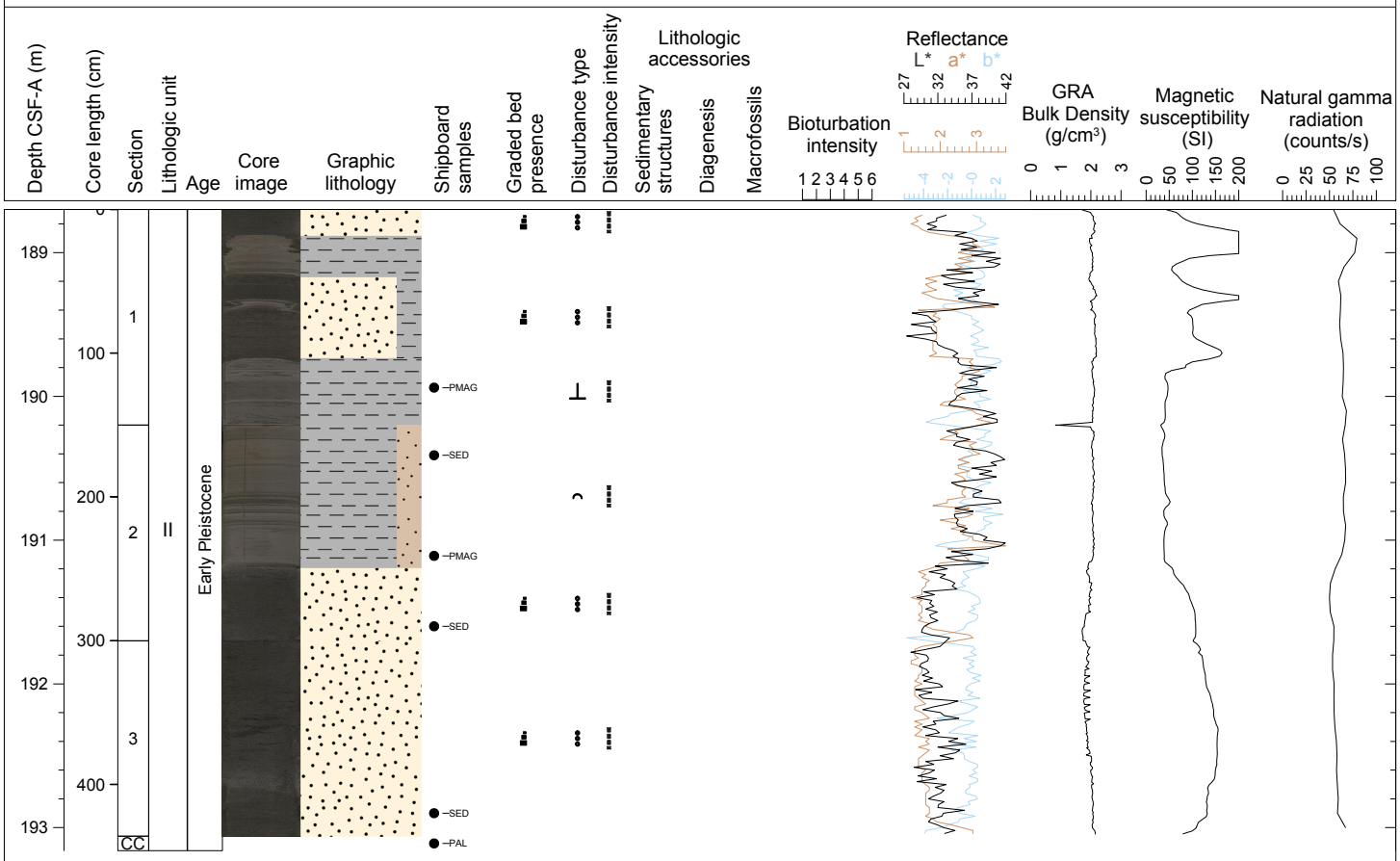
Hole 355-U1456C Core 29F, Interval 184.0-187.99 m (CSF-A)

CLAY, SANDY SILT, SANDY SILT WITH CLAY, SILT. Gray colored SAND , light brown CLAY and light brown SANDY SILT WITH CLAY are the major lithologies. Above Section 1, 22 cm there are homogeneous, alternating, thin interbeds of CLAY and SANDY SILT. Thin-bedded SANDY SILT and thin-bedded CLAY are observed to form an alternating sequence. Light brown SANDY SILT WITH CLAY is observed in Section 3.



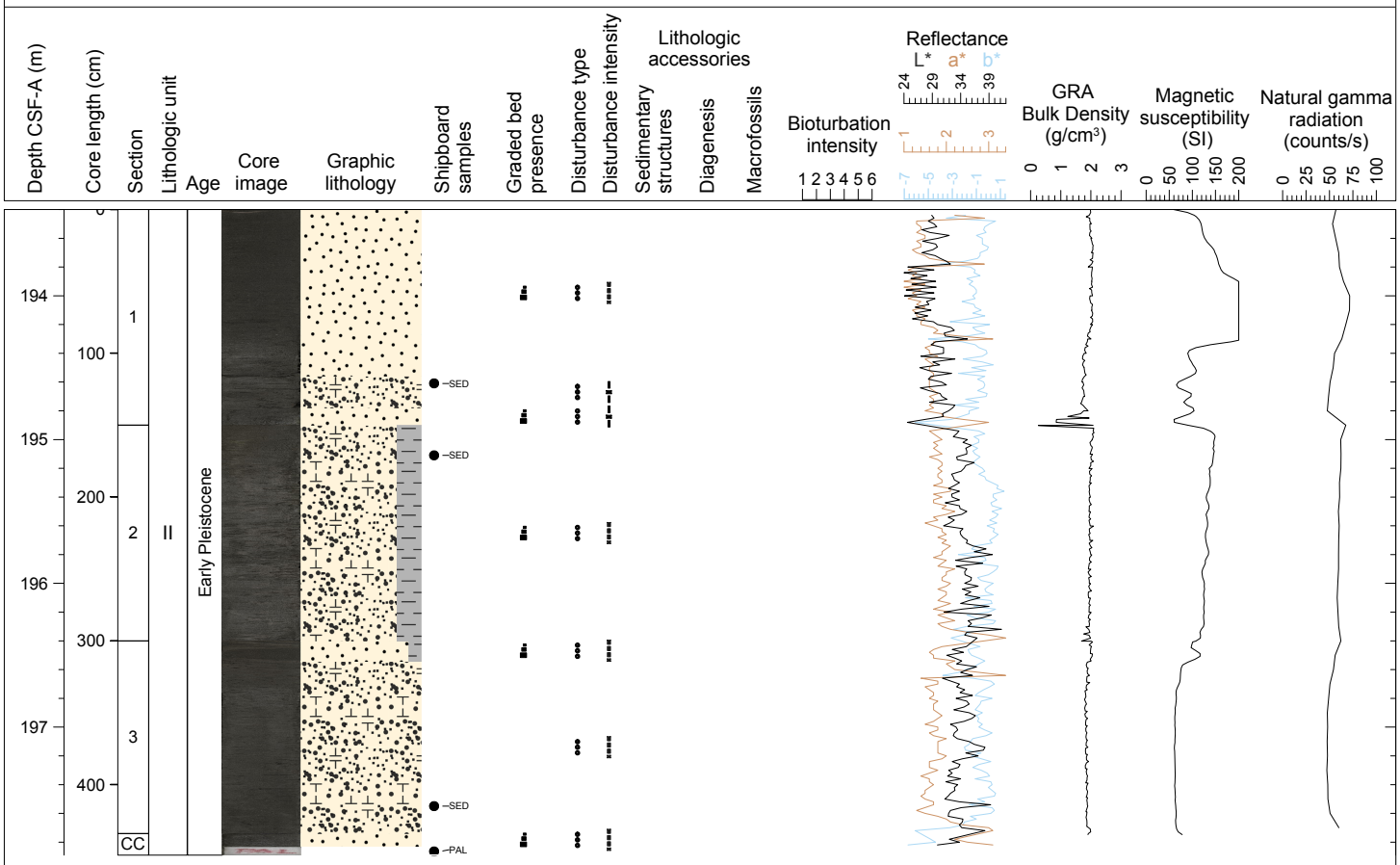
Hole 355-U1456C Core 30F, Interval 188.7-193.16 m (CSF-A)

SAND, CLAY, SANDY SILT. The core is dominated by dark gray colored SAND and light brown CLAY. The thinly bedded SANDY SILT intervals are interbedded within the CLAY. Flow-in of CLAY is observed at 63 to 72 cm, Section 1.



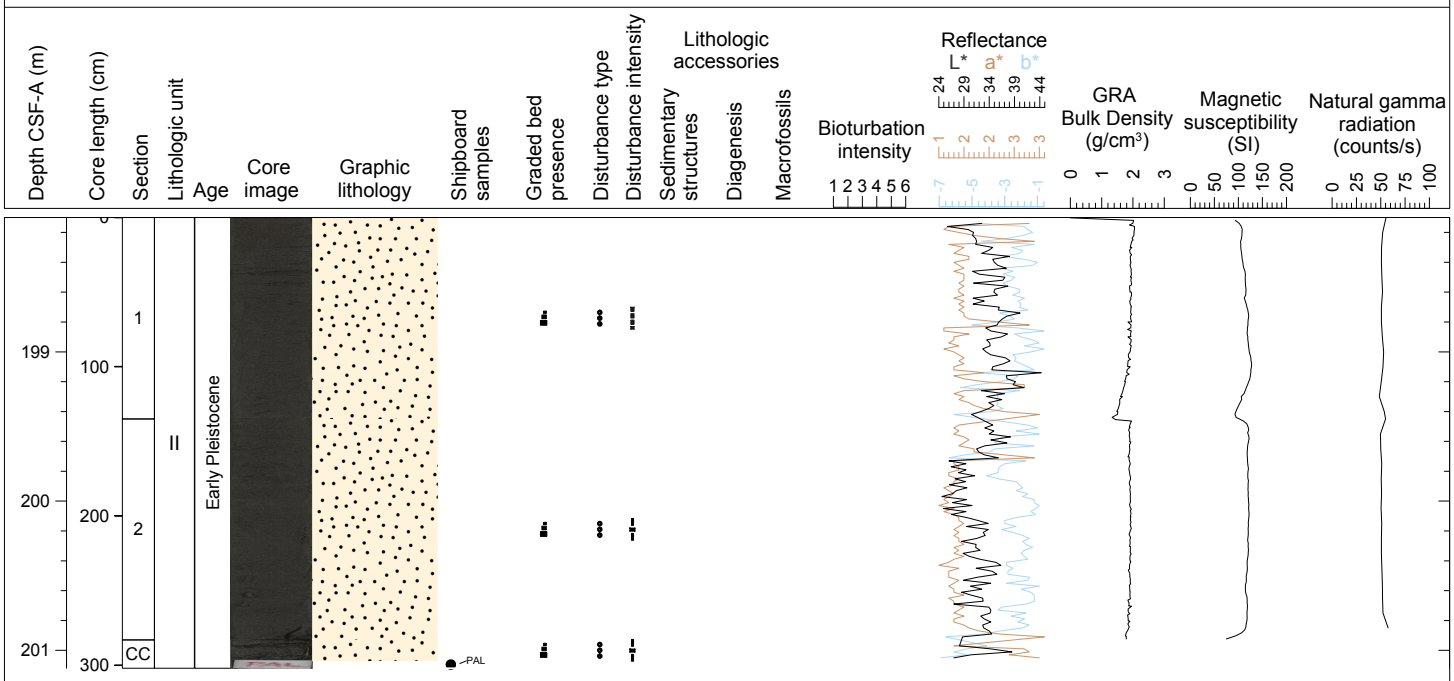
Hole 355-U1456C Core 31F, Interval 193.4-197.89 m (CSF-A)

SAND, SILTY SAND WITH CLAY. Dark gray colored SAND and SILTY SAND WITH CLAY are the major lithologies. A thin vertical CLAY layer is mixed with SILT SAND WITH CLAY in Section 2 and represents drilling disturbance.



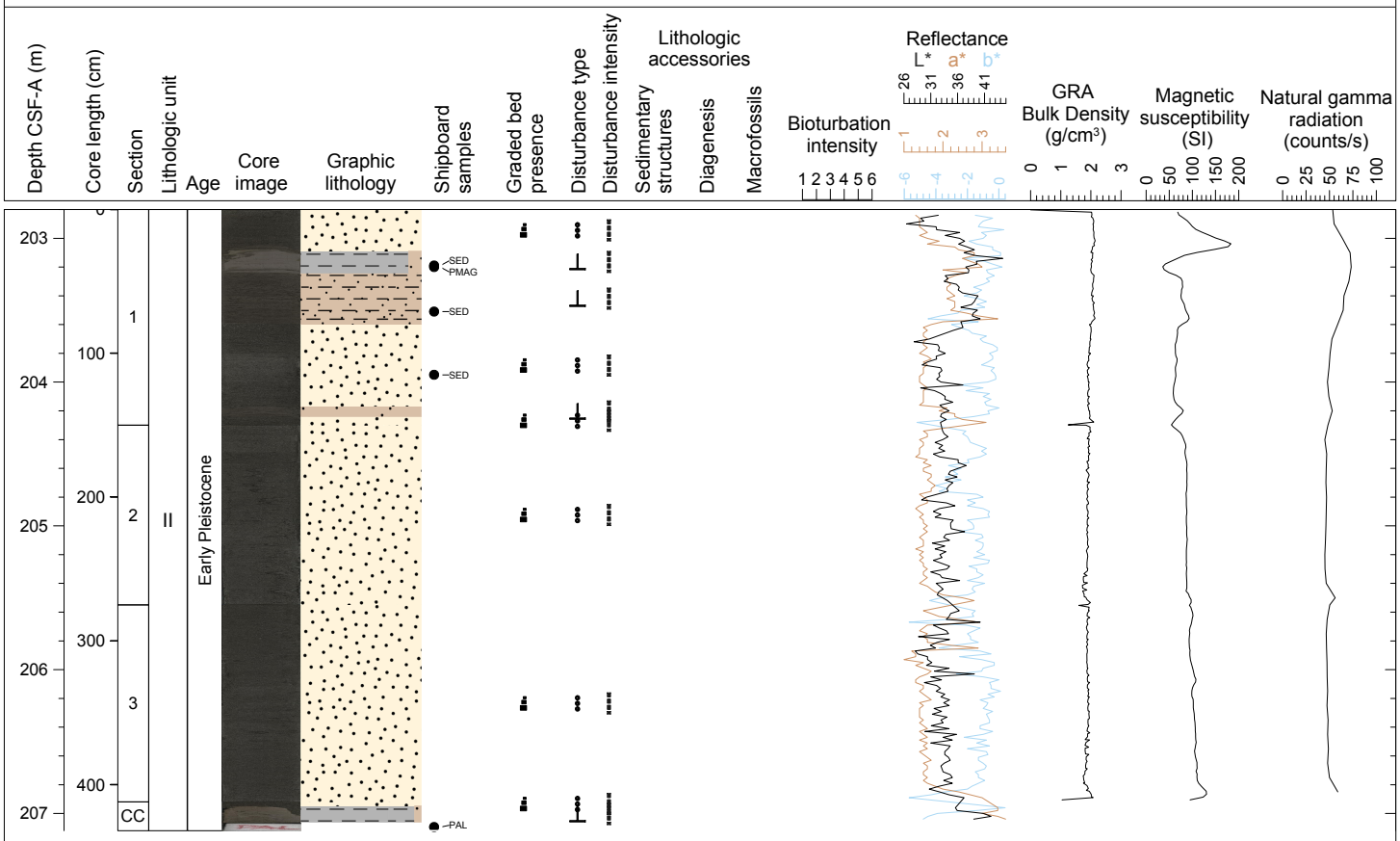
Hole 355-U1456C Core 32F, Interval 198.1-201.12 m (CSF-A)

SAND. Dark gray colored SAND is the only lithology and is massive and structureless.



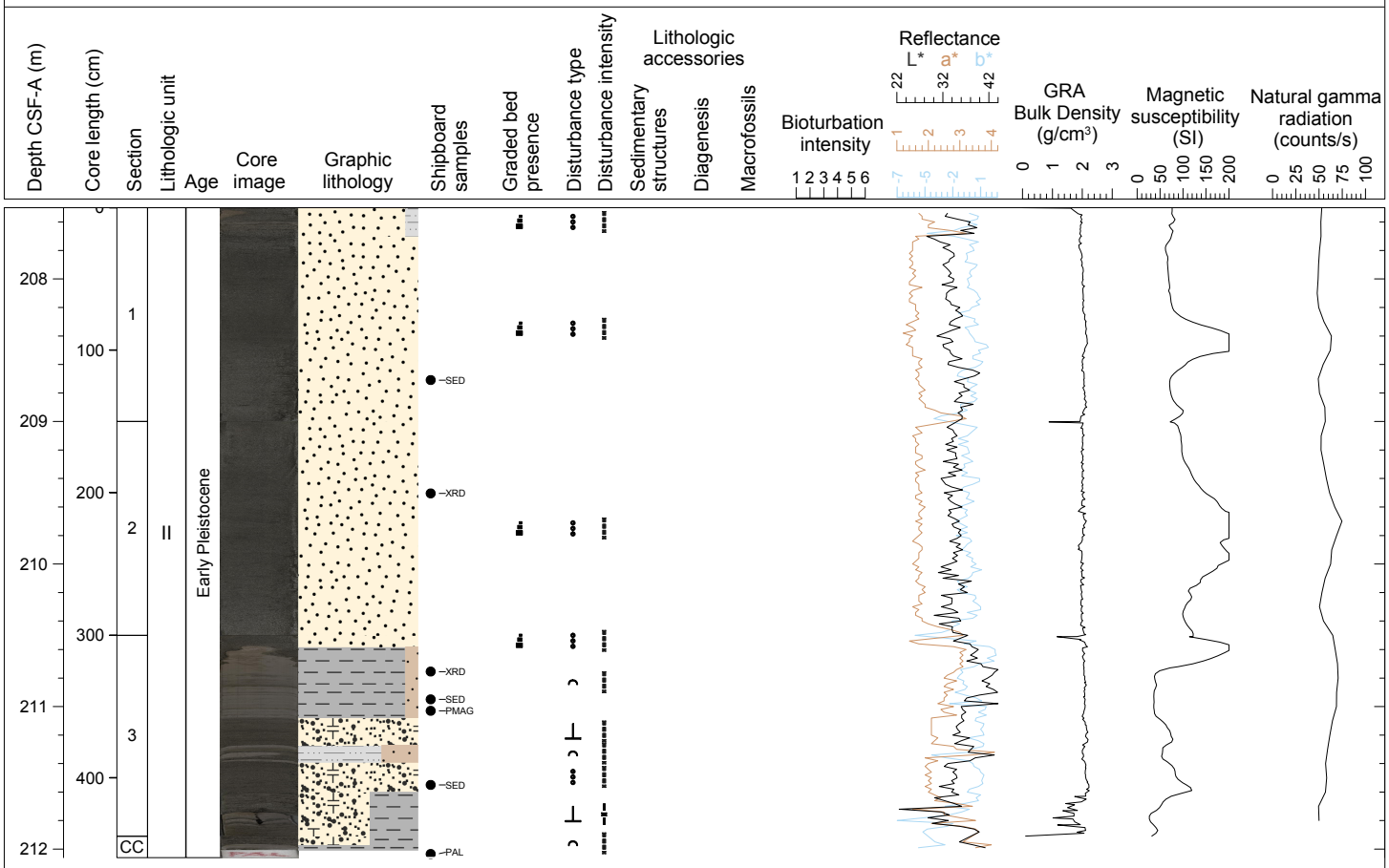
Hole 355-U1456C Core 33F, Interval 202.8-207.12 m (CSF-A)

SAND, SANDY SILT, CLAY. Dark gray colored SAND is the major lithology. Light brown SANDY SILT is observed interbedded with SAND and CLAY. Thickly bedded SANDY SILT is observed from 44 cm to 80 cm, Section 1 and is thinly bedded from 137 cm to 144 cm in Section 1. Thin-bedded CLAY is observed in Section 1 and the core catcher.



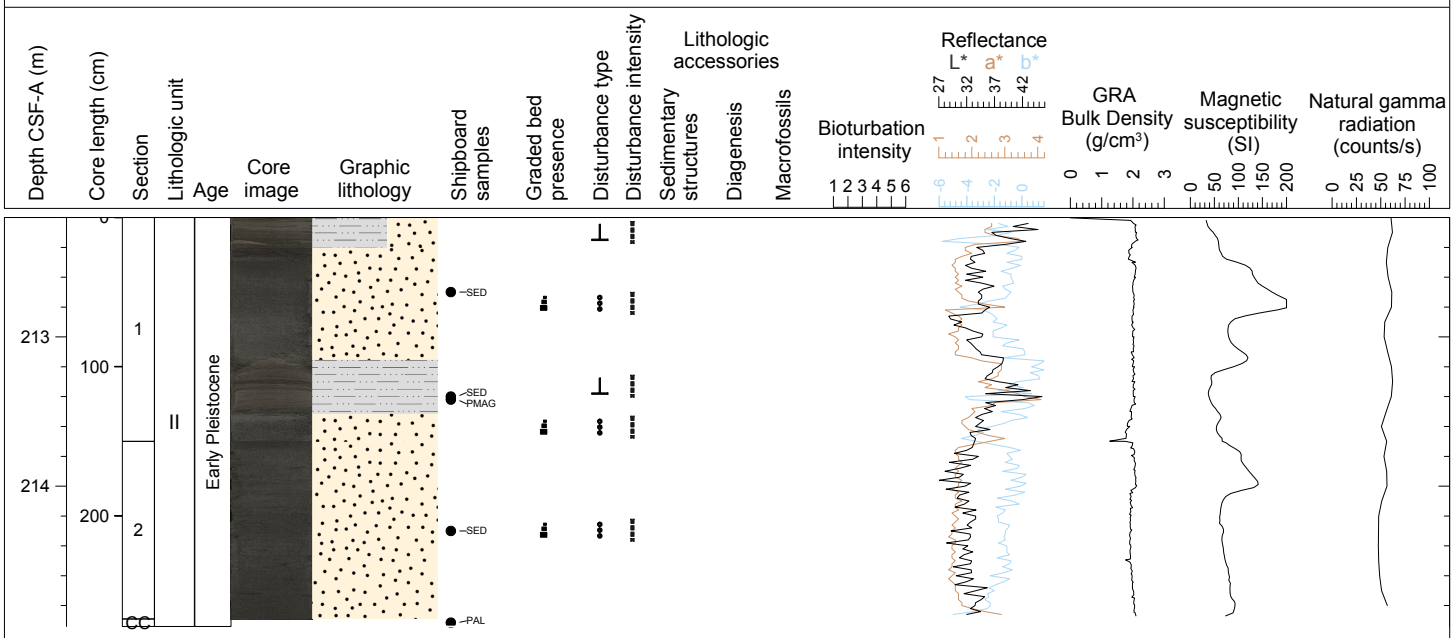
Hole 355-U1456C Core 34F, Interval 207.5-212.06 m (CSF-A)

SAND, CLAY, SILTY SAND, SILTY CLAY, SANDY SILT. Dark gray SAND, brown CLAY and light brown SILTY SAND are the major lithologies. The top 20 cm of Section 1 shows a thin layer of CLAY. The thinly bedded SANDY SILT layers are interbedded in CLAY in Section 3.



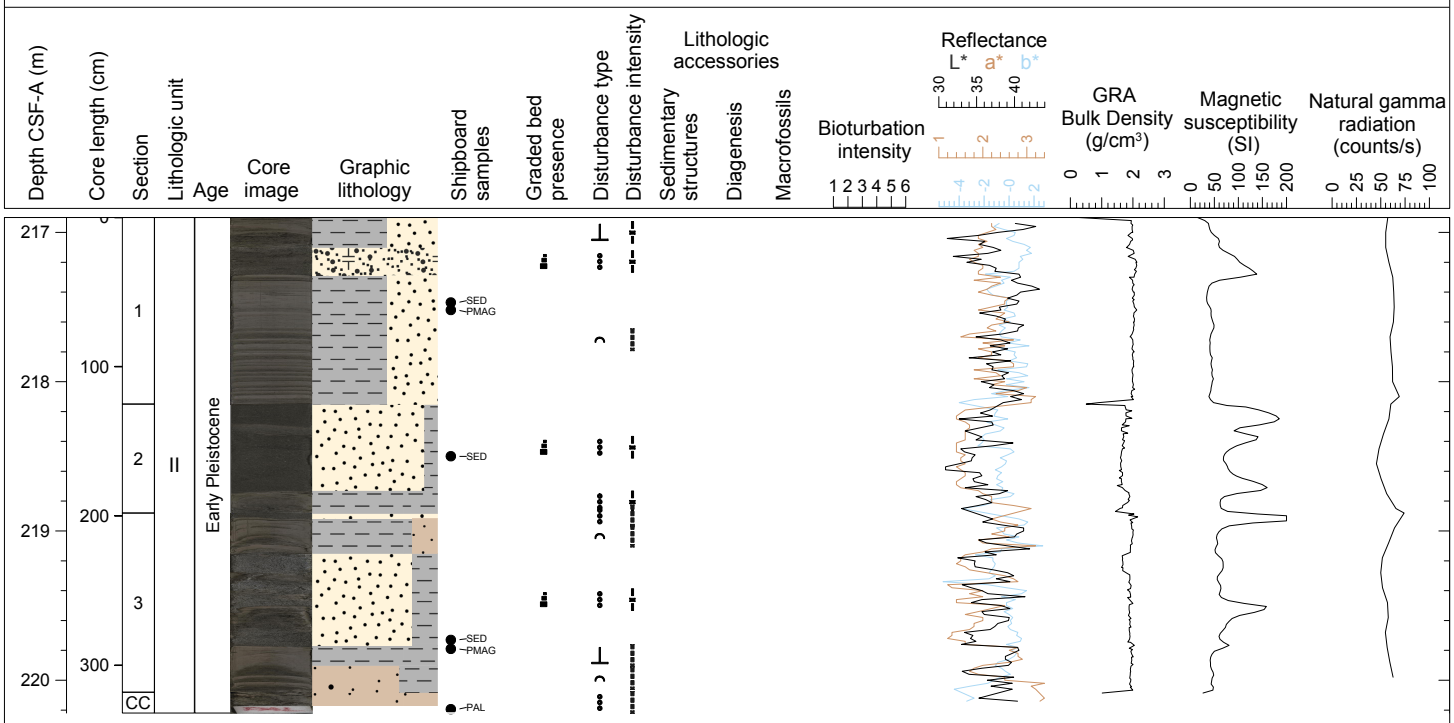
Hole 355-U1456C Core 35F, Interval 212.2-214.94 m (CSF-A)

SAND, SILTY CLAY, SILTY SAND. Dark gray colored SAND is the major lithology. Light brown SILTY CLAY is observed at the top 20 cm and from 95 cm to 131 cm of Section 1. The SILTY SAND is associated with SILTY CLAY and is observed at the top of Section 1 only.



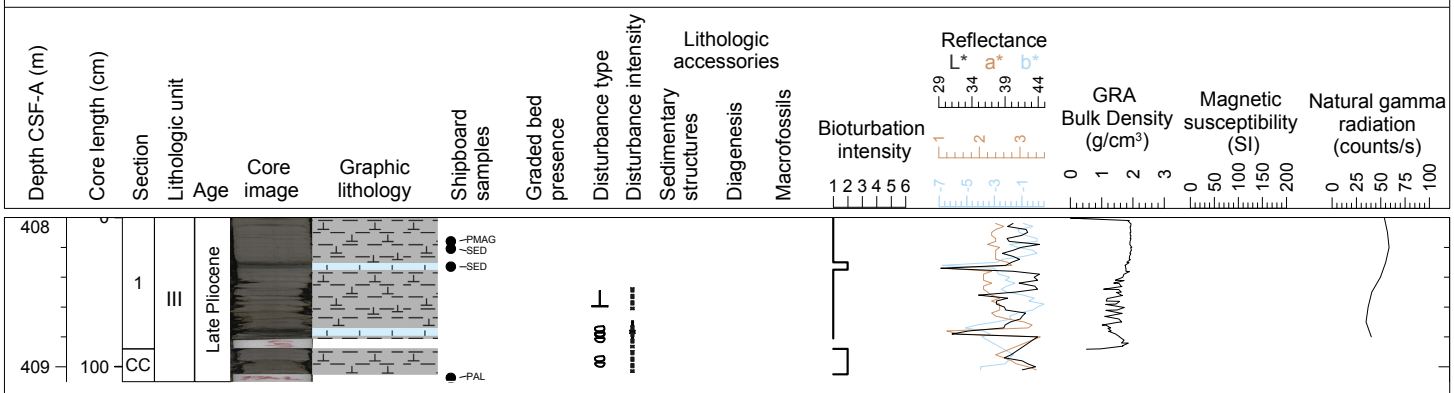
Hole 355-U1456C Core 36F, Interval 216.9-220.22 m (CSF-A)

SAND, CLAY, SILTY SAND, SANDY SILT. Dark gray SAND and light brown CLAY are the major lithologies. Thin-bedded SANDY SILT are interbedded in CLAY as graded intervals. CLAY patches within the SAND layer are observed in Sections 2 and 3.



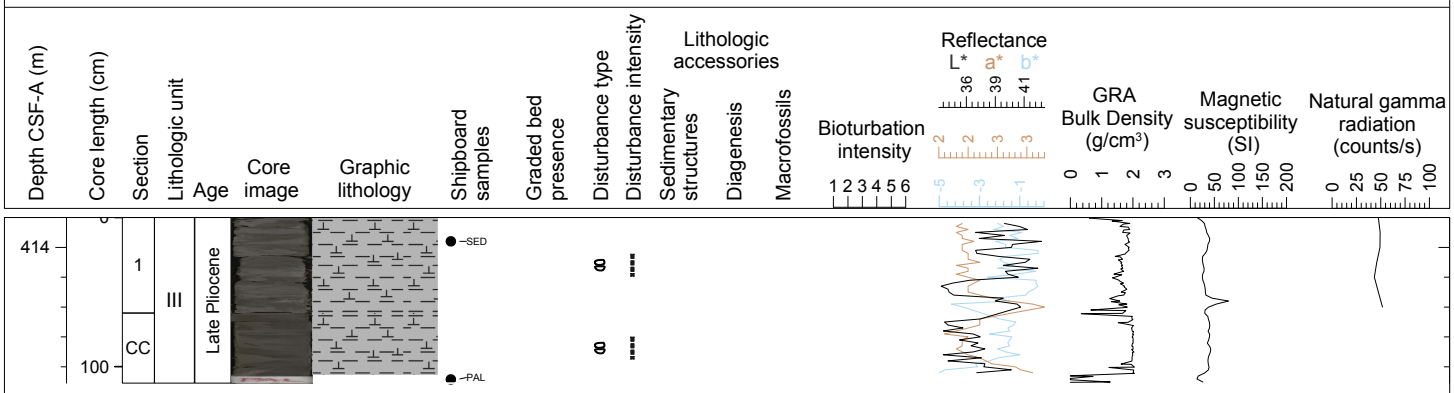
Hole 355-U1456C Core 38X, Interval 408.0-409.1 m (CSF-A)

NANNOFOSSIL OOZE, NANNOFOSSIL-RICH CLAY. Light brown NANNOFOSSIL-RICH CLAY is the major lithology. It is little compact and interbedded between CLAY and CLAYSTONE. The dark green thinly bedded NANNOFOSSIL OOZE is interbedded within NANNOFOSSIL-RICH CLAY.



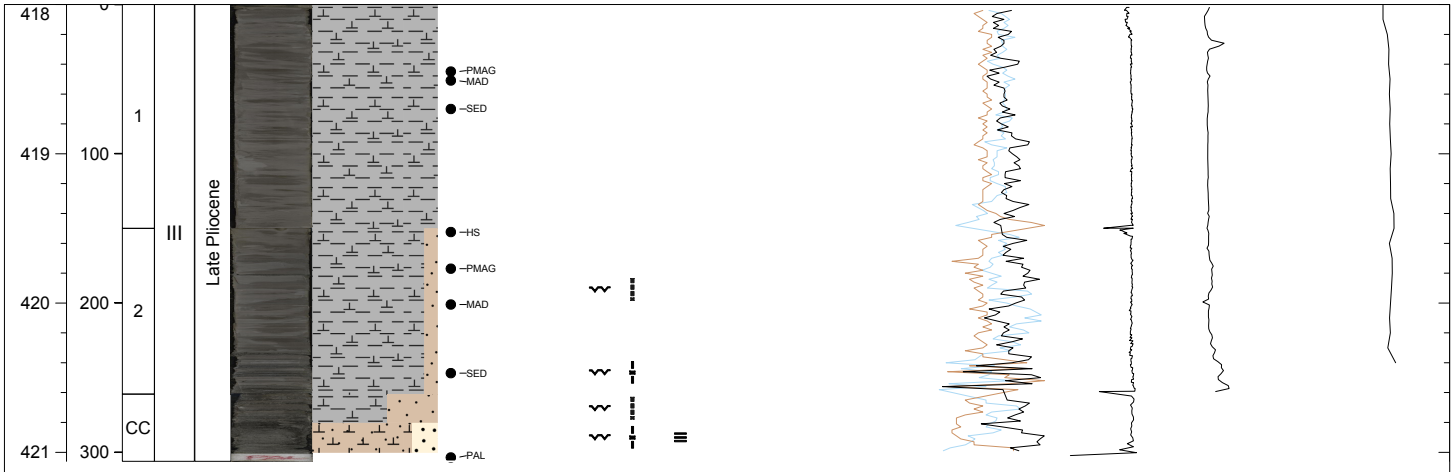
Hole 355-U1456C Core 39X, Interval 413.8-414.91 m (CSF-A)

NANNOFOSSIL-RICH CLAYSTONE. Light brown NANNOFOSSIL-RICH CLAYSTONE is the only lithology present. It is slightly indurated and generally massive.



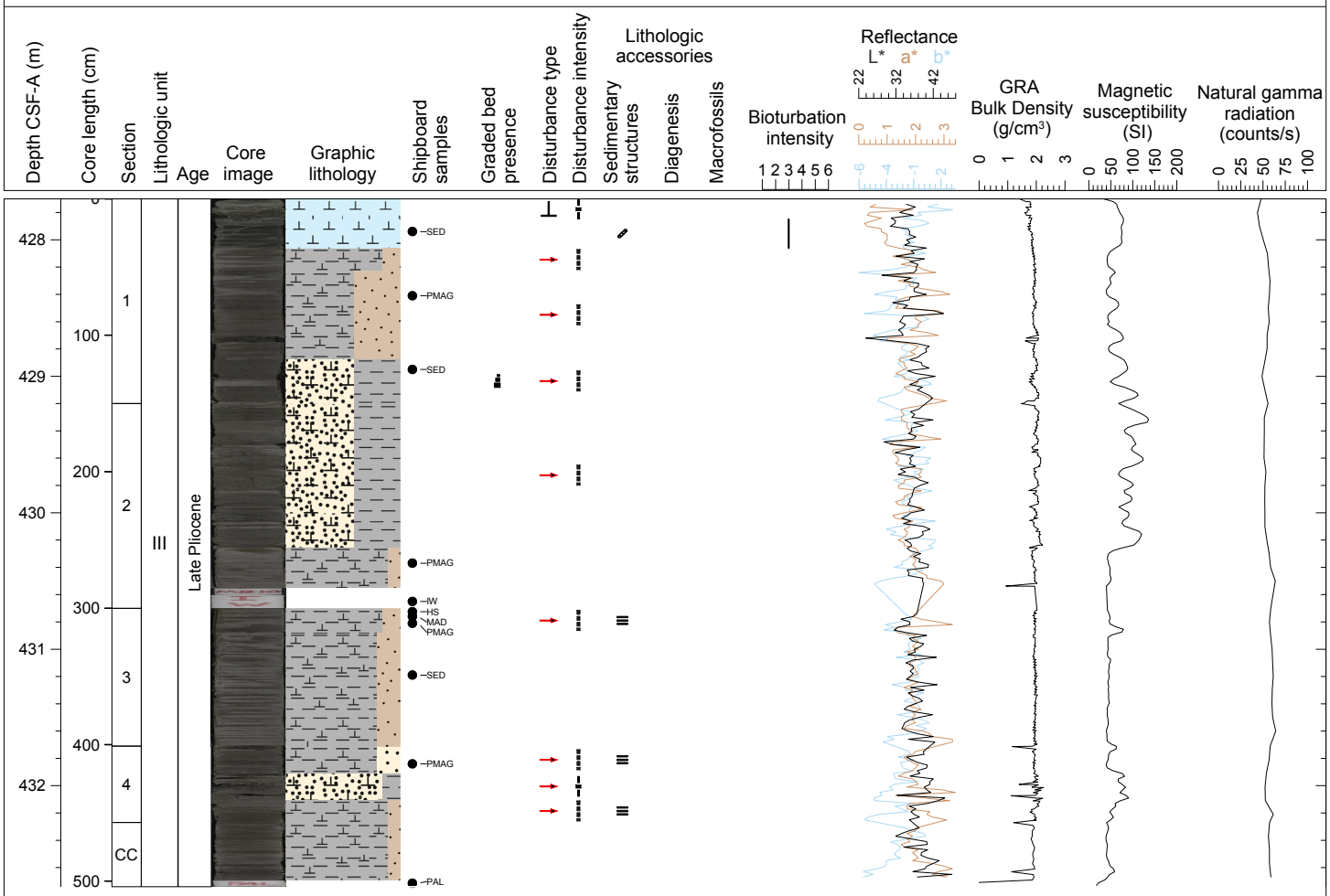
Hole 355-U1456C Core 40X, Interval 418.0-421.06 m (CSF-A)

NANNOFOSSIL-RICH CLAYSTONE, NANNOFOSSIL-RICH CLAY, NANNOFOSSIL-RICH CLAYEY SILT, NANNOFOSSIL-RICH SILTSTONE, NANNOFOSSIL-RICH SAND. Light brown color NANNOFOSSIL-RICH CLAYSTONE is the major lithology. The very thin bedded NANNOFOSSIL-RICH CLAY and NANNOFOSSIL-RICH SILT are interbedded in the lower part of Section 1 and in the upper part of the Core Catcher. Thin interbeds of NANNOFOSSIL-RICH CLAYEY SILT and NANNOFOSSIL-RICH SAND are observed in the lower part of the Core Catcher. Parallel lamination is also observed in the lower part of the Core Catcher.



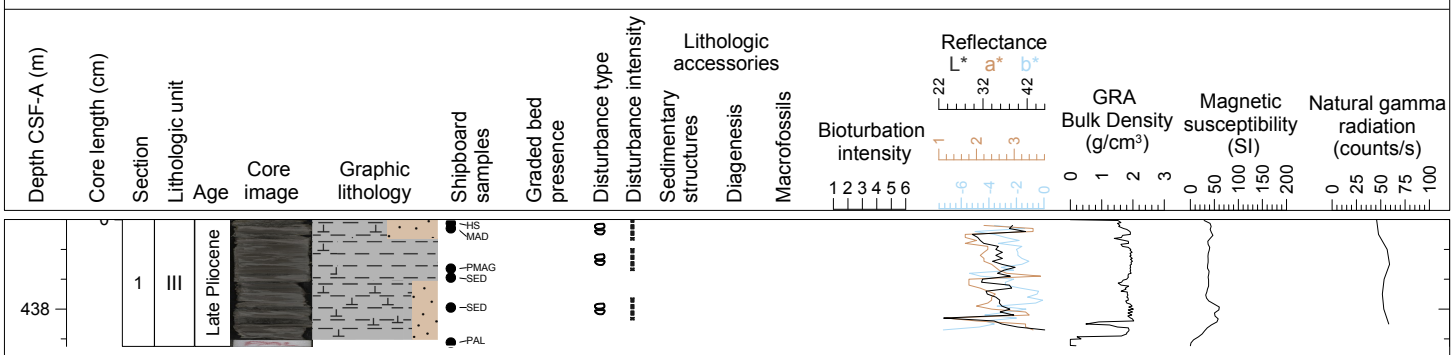
Hole 355-U1456C Core 41X, Interval 427.7-432.74 m (CSF-A)

NANNOFOSSIL-RICH CLAYSTONE, NANNOFOSSIL-RICH SAND, NANNOFOSSIL CHALK, NANNOFOSSIL-RICH SILTSTONE, NANNOFOSSIL-RICH SILTY SAND. Light brown NANNOFOSSIL-RICH CLAYSTONE and gray colored NANNOFOSSIL-RICH SAND are the major lithologies. Thinly bedded NANNOFOSSIL-RICH SILTSTONE is repetitively interbedded with NANNOFOSSIL-RICH CLAYSTONE. NANNOFOSSIL-RICH OOZE and NANNOFOSSIL CHALK are observed at the top of Section 1. Thinly to medium bedded NANNOFOSSIL-RICH SAND are observed in repeated graded couplets with NANNOFOSSIL-RICH CLAYSTONE interbedded with thin NANNOFOSSIL-RICH SILTSTONE. Parallel lamination is also observed in Sections 1, 3 and 4.



Hole 355-U1456C Core 42X, Interval 437.4-438.25 m (CSF-A)

NANNOFOSSIL-RICH CLAYSTONE, NANNOFOSSIL-RICH SILTSTONE, NANNOFOSSIL-RICH CLAY, Light brown NANNOFOSSILS-RICH CLAYSTONE is the major lithology. NANNOFOSSIL-RICH CLAY is observed in the top half of the section. Very thinly bedded NANNOFOSSIL-RICH SILTSTONE is interbedded with NANNOFOSSIL-RICH CLAYSTONE.

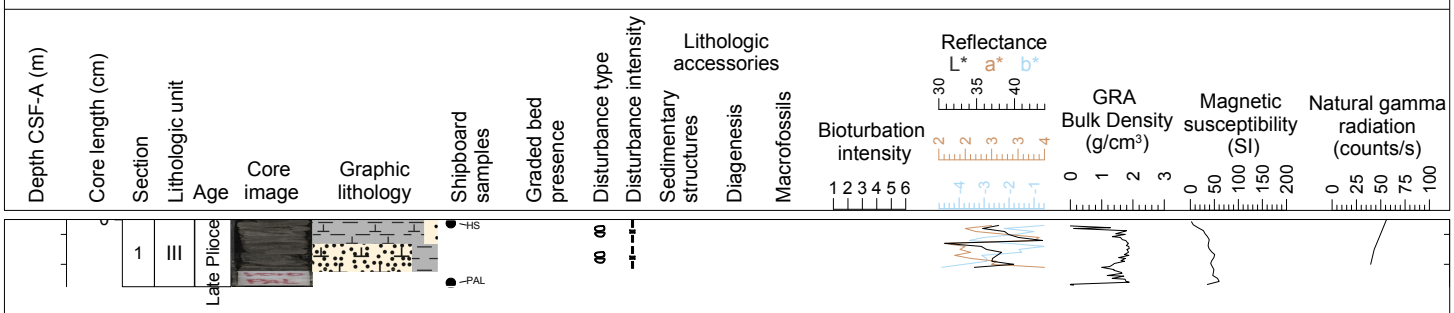


Hole 355-U1456C Core 43X, Interval 438.1-438.98 m (CSF-A)

NANNOFOSSIL-RICH CLAYSTONE, NANNOFOSSIL-RICH SILTY SAND, NANNOFOSSIL-RICH SILTSTONE, NANNOFOSSIL-RICH CLAY. Light brown color NANNOFOSSIL-RICH CLAYSTONE and gray NANNOFOSSIL-RICH SILTY SAND are the major lithologies. Very thinly bedded NANNOFOSSIL-RICH SILTSTONE is interbedded with NANNOFOSSIL-RICH CLAYSTONE.

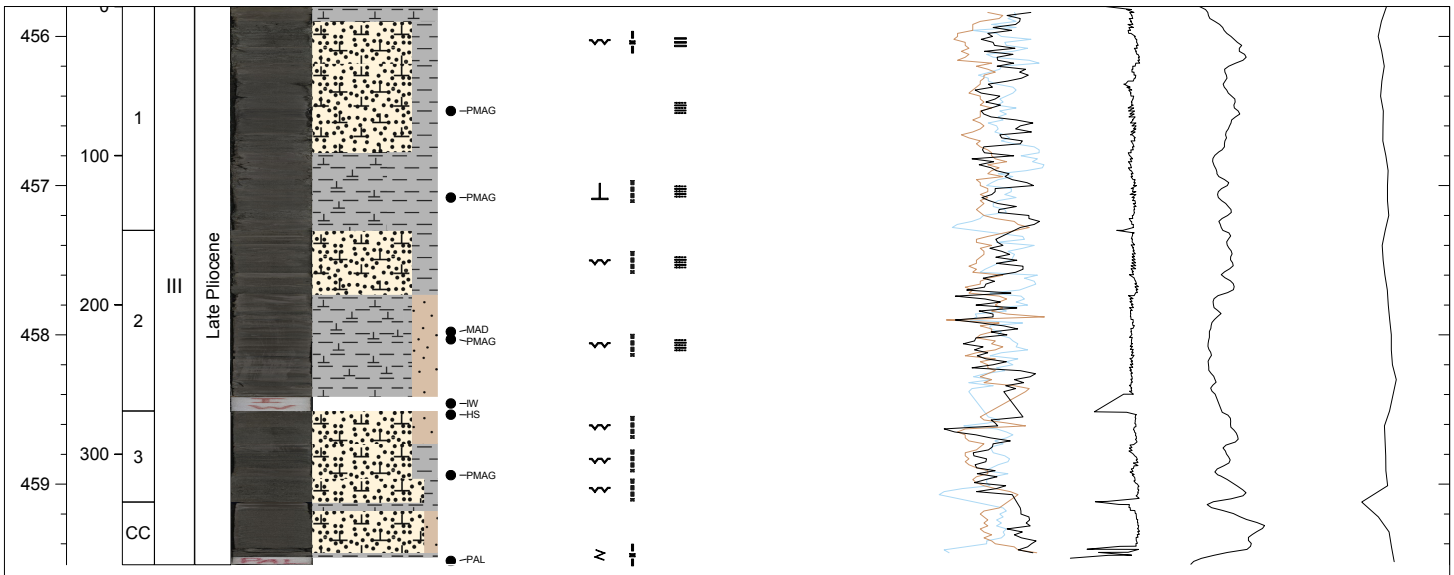
Hole 355-U1456C Core 44X, Interval 446.1-446.55 m (CSF-A)

NANNOFOSSIL-RICH SILTY SAND, NANNOFOSSIL-RICH CLAYSTONE. Light brown NANNOFOSSIL-RICH CLAYSTONE and gray colored NANNOFOSSIL-RICH SILTY SAND are the major lithologies.



Hole 355-U1456C Core 45X, Interval 455.8-459.54 m (CSF-A)

NANNOFOSSIL-RICH CLAYSTONE, NANNOFOSSIL-RICH SILTY SAND, NANNOFOSSIL-RICH SANDSTONE, NANNOFOSSIL-RICH CLAY, NANNOFOSSIL-RICH SILTSTONE. Light brown NANNOFOSSIL-RICH CLAYSTONE and light gray NANNOFOSSIL-RICH SANDSTONE are the major lithologies. The very thinly bedded NANNOFOSSIL-RICH SILTSTONE is interbedded with NANNOFOSSIL-RICH SANDSTONE and also with NANNOFOSSIL-RICH CLAYSTONE.

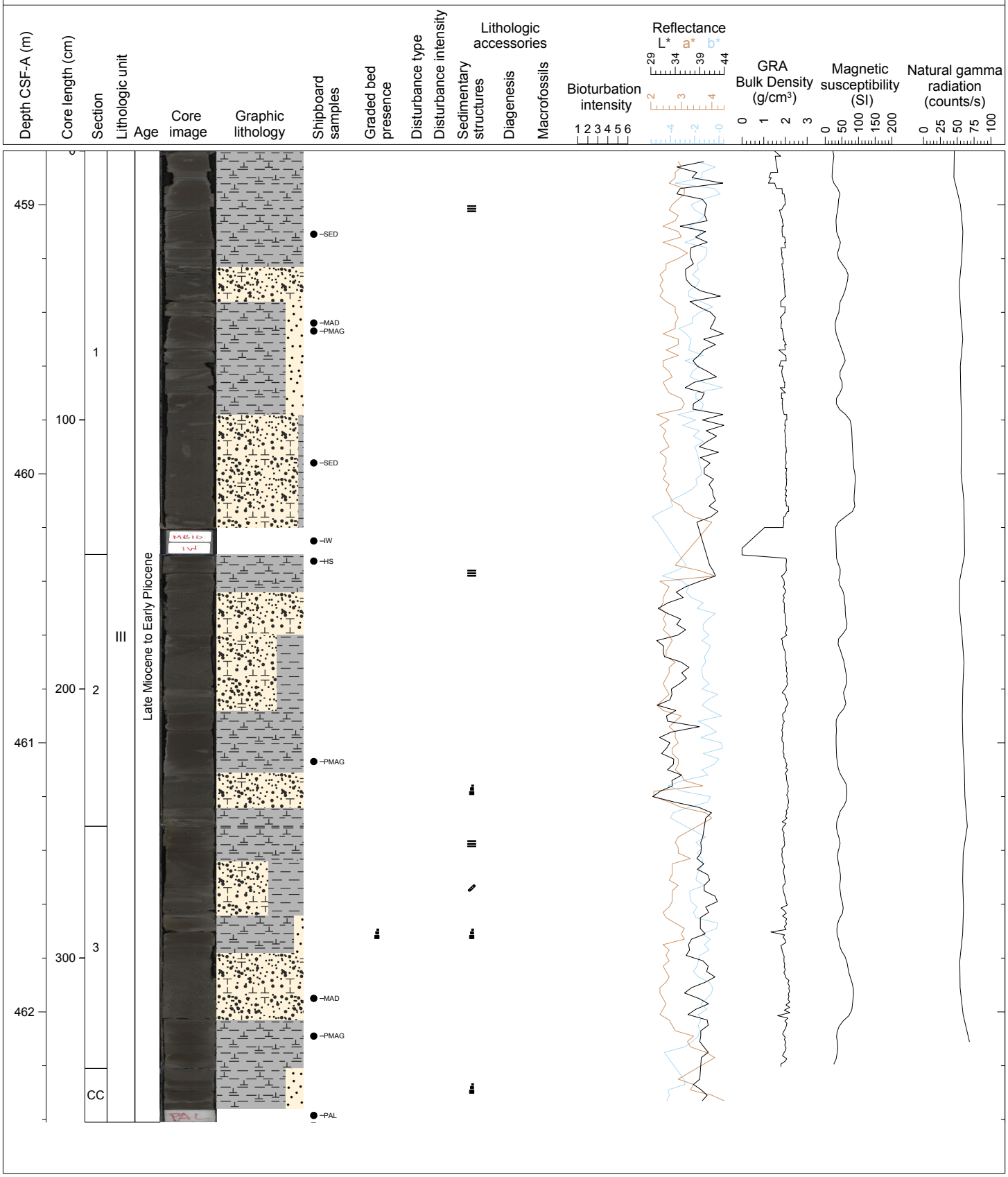


Hole 355-U1456C Core 46X, Interval 463.3-463.8 m (CSF-A)

NANNOFOSSIL-RICH SILTY SAND, NANNOFOSSIL-RICH CLAYSTONE. The gray color NANNOFOSSIL-RICH SILTY SAND and light brown NANNOFOSSIL-RICH CLAYSTONE are the major lithologies. The NANNOFOSSIL-RICH CLAYSTONE is interbedded with thin beds of soft NANNOFOSSIL-RICH SILT SAND.

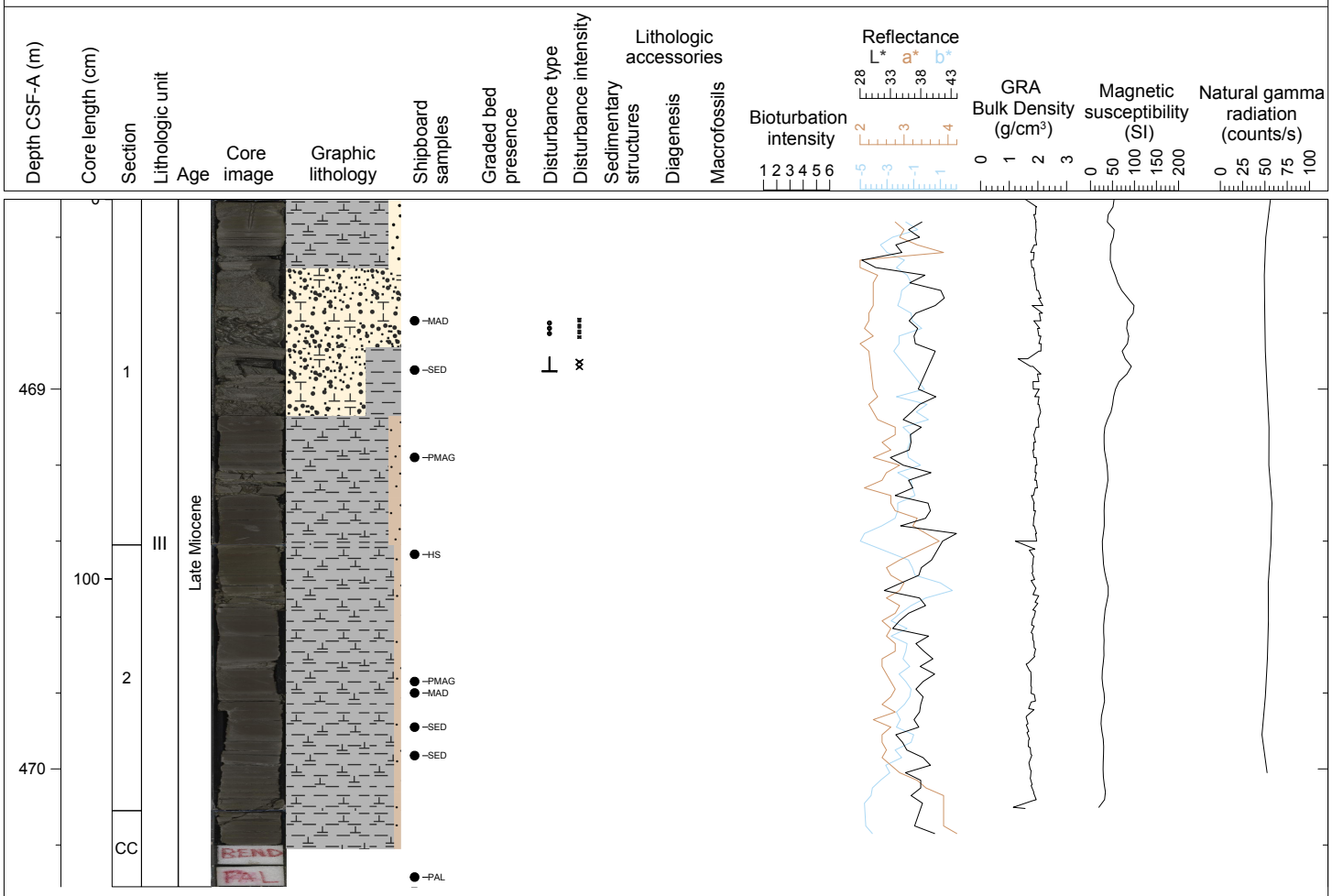
Hole 355-U1456D Core 2R, Interval 458.8-462.41 m (CSF-A)

SILTY SAND, CLAY. SAND is more dominant than CLAY. CLAY contains abundant nannofossils. CLAY and SAND are semi-consolidated. Thinly-interbedded SILTY SAND layers are observed throughout the core. Clay-to-sand contacts are erosive and sharp, when passing up into SAND, but are not scoured. Normal grading structures are preserved and suggest a turbidite origin. Some SAND layers include burrows (Section 3, 28 cm). Sand grains are fine-grained and contains lots of large mica grains. Heavy minerals are abundant in SAND and poor in the CLAY fraction.



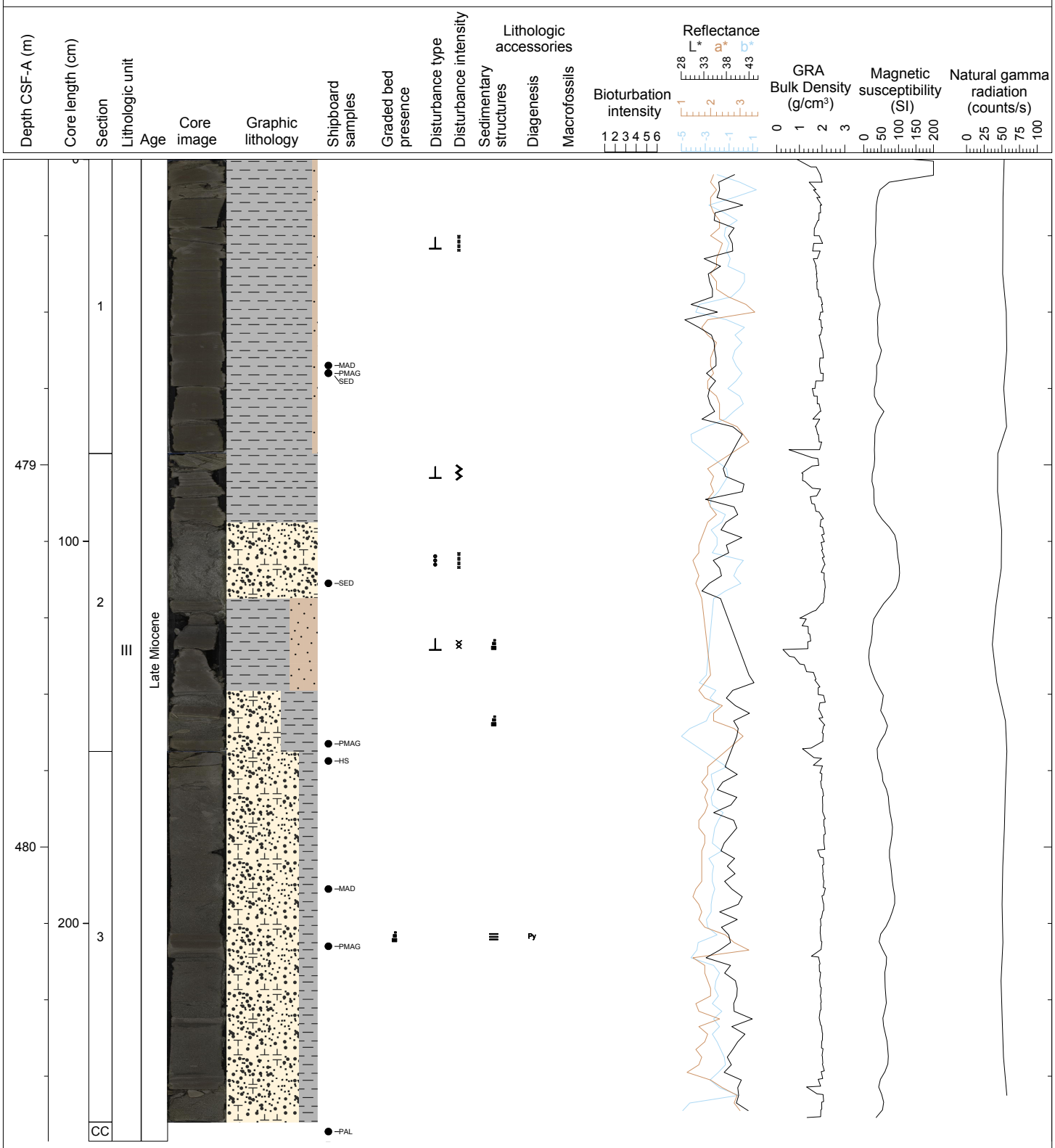
Hole 355-U1456D Core 3R, Interval 468.5-470.31 m (CSF-A)

CLAY, SILTY SAND. CLAY is dominant and semi-consolidated. Nannofossils are observed in the CLAY in smear slides. A very thin (a few mm thick) SILT or clay laminae are interbedded in the massive CLAY throughout the core. One of these thin laminae contains fibrous fragments that may be micro-scale wooden pieces. Clay is massive and deposited by suspension settling. SAND contains mica similar to the overlying core. A piece of wood fragment was found in Section 1, 75 cm.



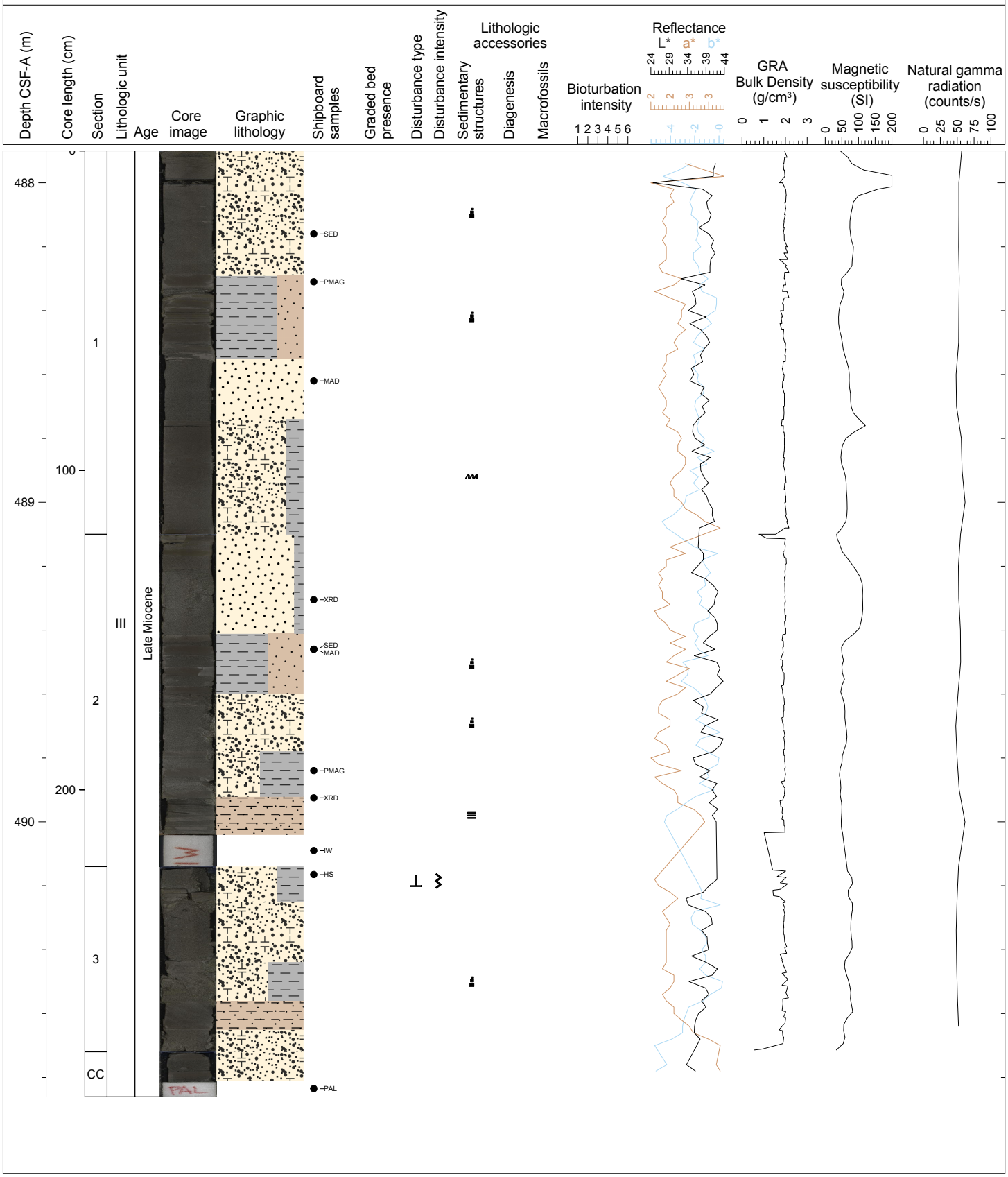
Hole 355-U1456D Core 4R, Interval 478.2-480.77 m (CSF-A)

SILTY SAND, SILT, CLAY. CLAY is semi-consolidated and contains nannofossils. Very thin (few mm in thickness) SILT laminae are frequently interbedded in CLAY in Section 1 and in the upper part of Section 2. SAND grains are very fine to medium in size. Clay chunks, interpreted as rip-up clasts, are included in the SAND (Section 3, 16 cm). The boundary between underlying CLAY to overlying SAND is erosive and sharp. Mica is common in the SAND and shell fragments are also observed in SAND. Normal grading can be observed in the SAND fining upward to CLAY. A piece of wood IS FOUND in Section 3, 66 cm.



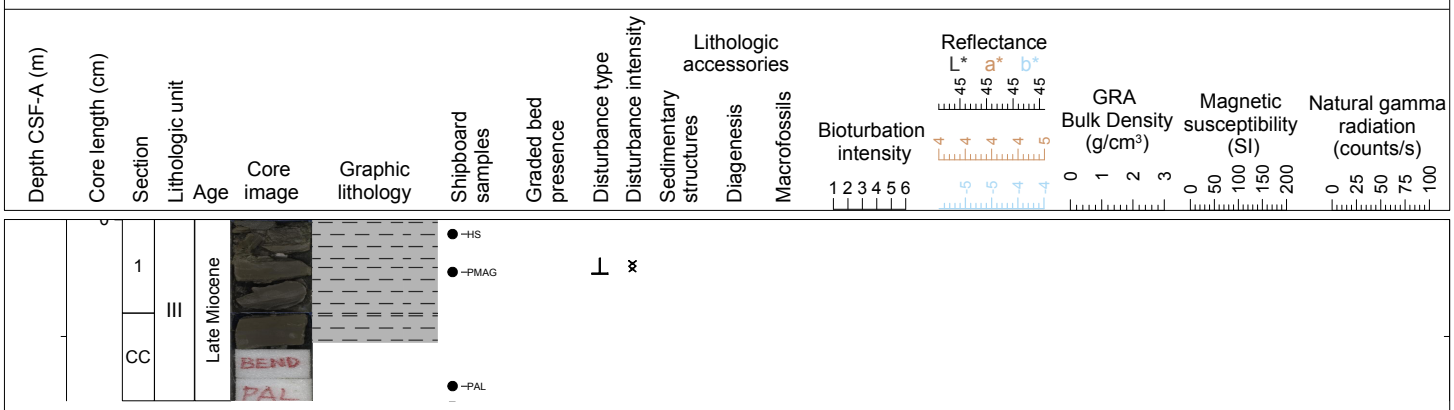
Hole 355-U1456D Core 5R, Interval 487.9-490.86 m (CSF-A)

SILTY SAND, CLAY, CLAYEY SILT. Several wooden fragments are preserved in the top (10 cm) of Section 1 and tiny fibrous pieces of wood are widespread in SILT and SAND layers. Some pieces of wood fragments are found in SAND and are abundant in SILT layers. Pyrite filaments are formed at the bottom of the SILT layer at 86 cm in Section 1. All indicate that they were transported from the land. Sand grains are fine to medium grained. Convolute structures within the CLAY layer are observed interbedded in SAND in the lowermost part of Section 1. SAND also contains tiny shell fragments. A thin SILT lamina is interbedded within CLAY. The top of CLAY layers is erosive and sharp. CLAY and SILT layers alternate in the middle of Section 2. Thin parallel laminations are found in the lowermost part of Section 2. CLAY is enriched in nannofossils.



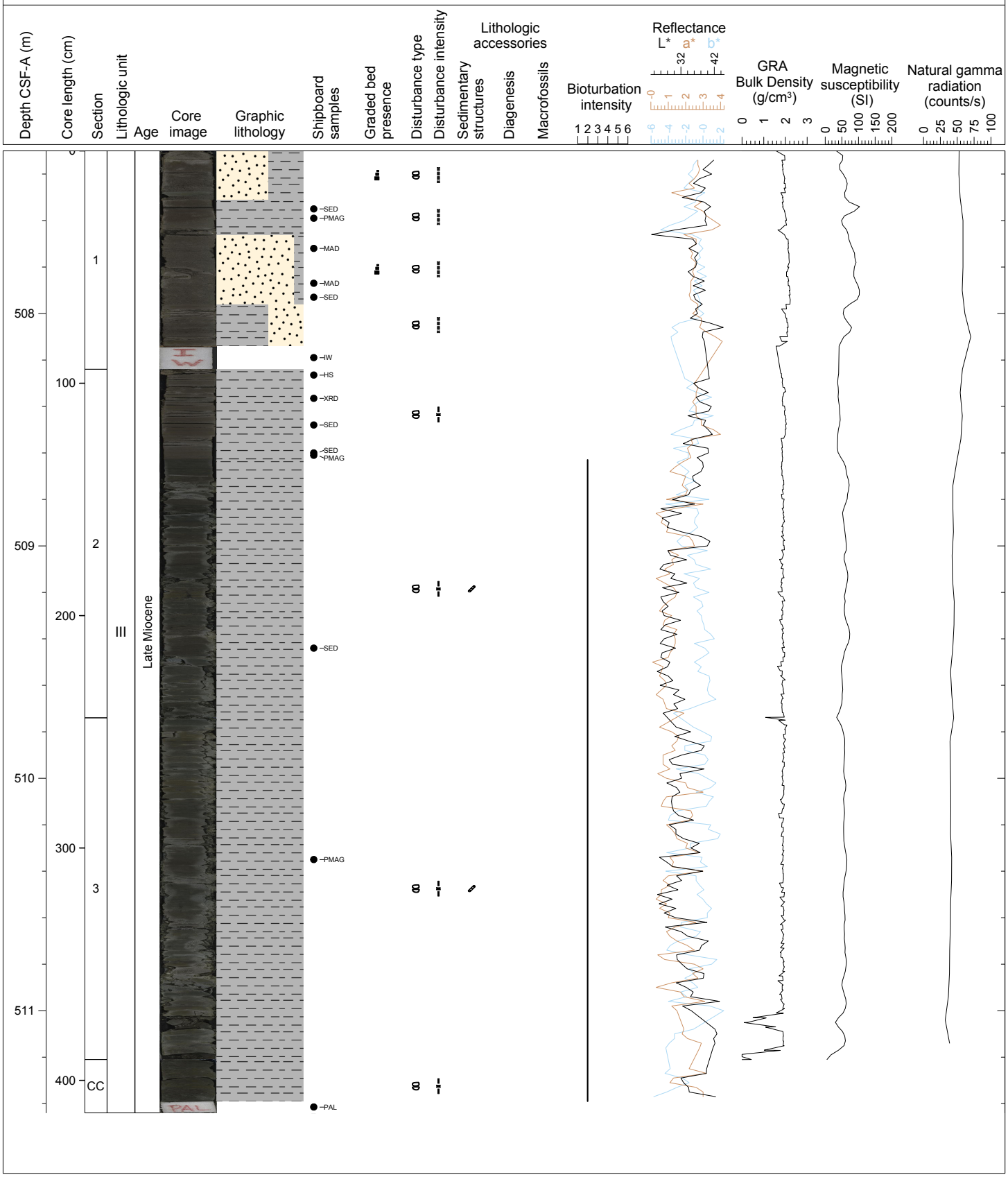
Hole 355-U1456D Core 6R, Interval 497.6-497.91 m (CSF-A)

CLAY. This short core is composed completely of massive, dark greenish gray CLAY.



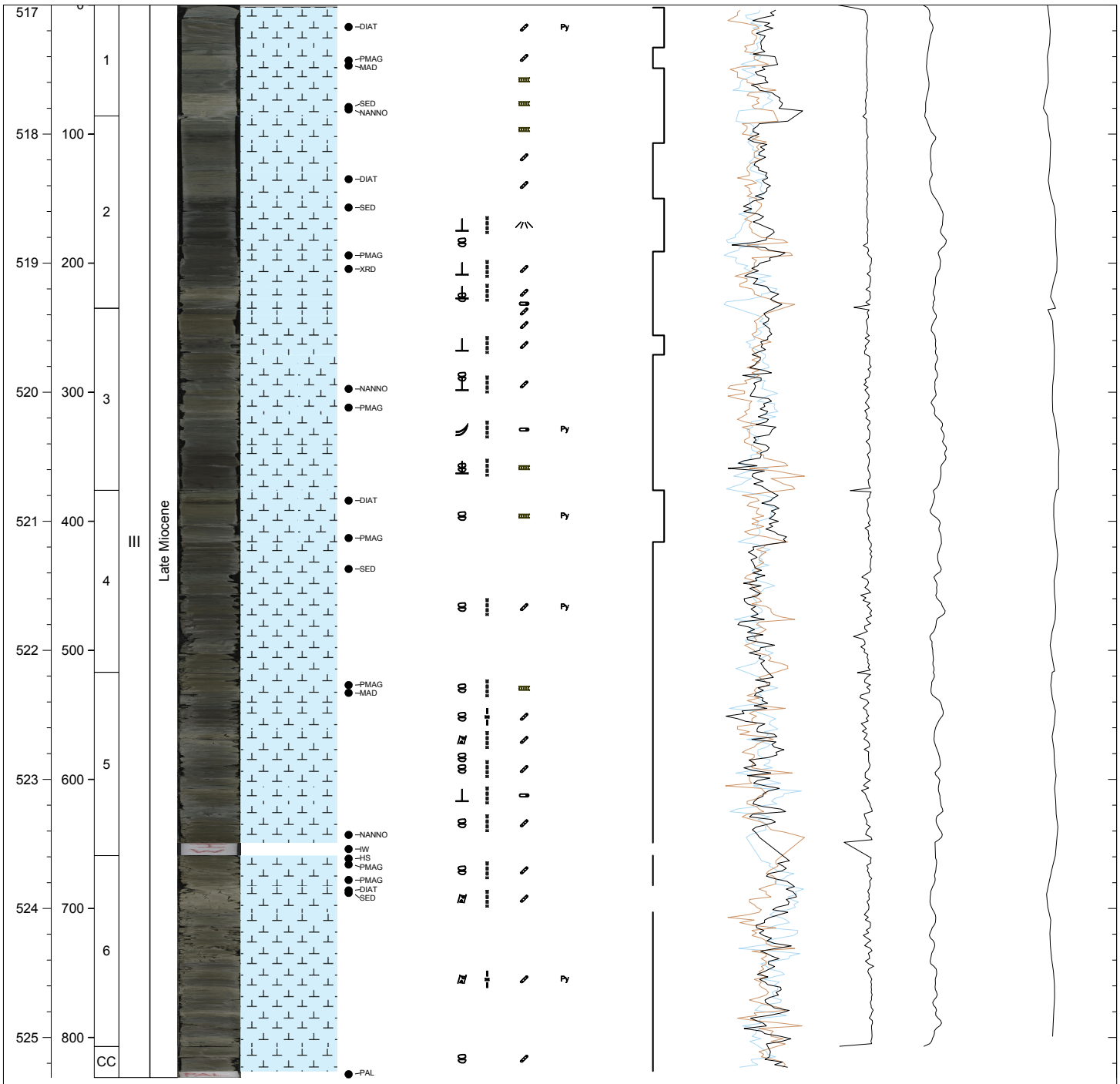
Hole 355-U1456D Core 7R, Interval 507.3-511.44 m (CSF-A)

CLAYSTONE, CLAYSTONE WITH SILT, SANDSTONE, SILTSTONE, CLAY. Light brown CLAYSTONE and light green CLAYSTONE WITH SILT are the dominant lithologies. Light brown SANDSTONE is observed in Section 1, interbedded with thinly bedded (<10 cm) CLAYSTONE. SANDSTONE is only found above 66 cm in Section 1. 2-cm-thick greenish CLAYSTONE WITH SILT is found interbedded within SANDSTONE at 18 cm, Section 1. The light brown CLAYSTONE is interbedded with very thin (<0.5 cm) SILTSTONE. Blackish material (<0.5 cm) is observed interbedded in light brown CLAYSTONE at 24 cm, Section 1 and in Section 2. A boundary between light brown CLAYSTONE and light greenish CLAYSTONE WITH SILT is observed at 39 cm in Section 2. The light greenish CLAYSTONE WITH SILT is bioturbated and the Planolites are the most common burrows (39-47 cm, 135-150 cm in Section 2). Nannofossils are common to rare in CLAYSTONE WITH SILT and CLAYSTONE.



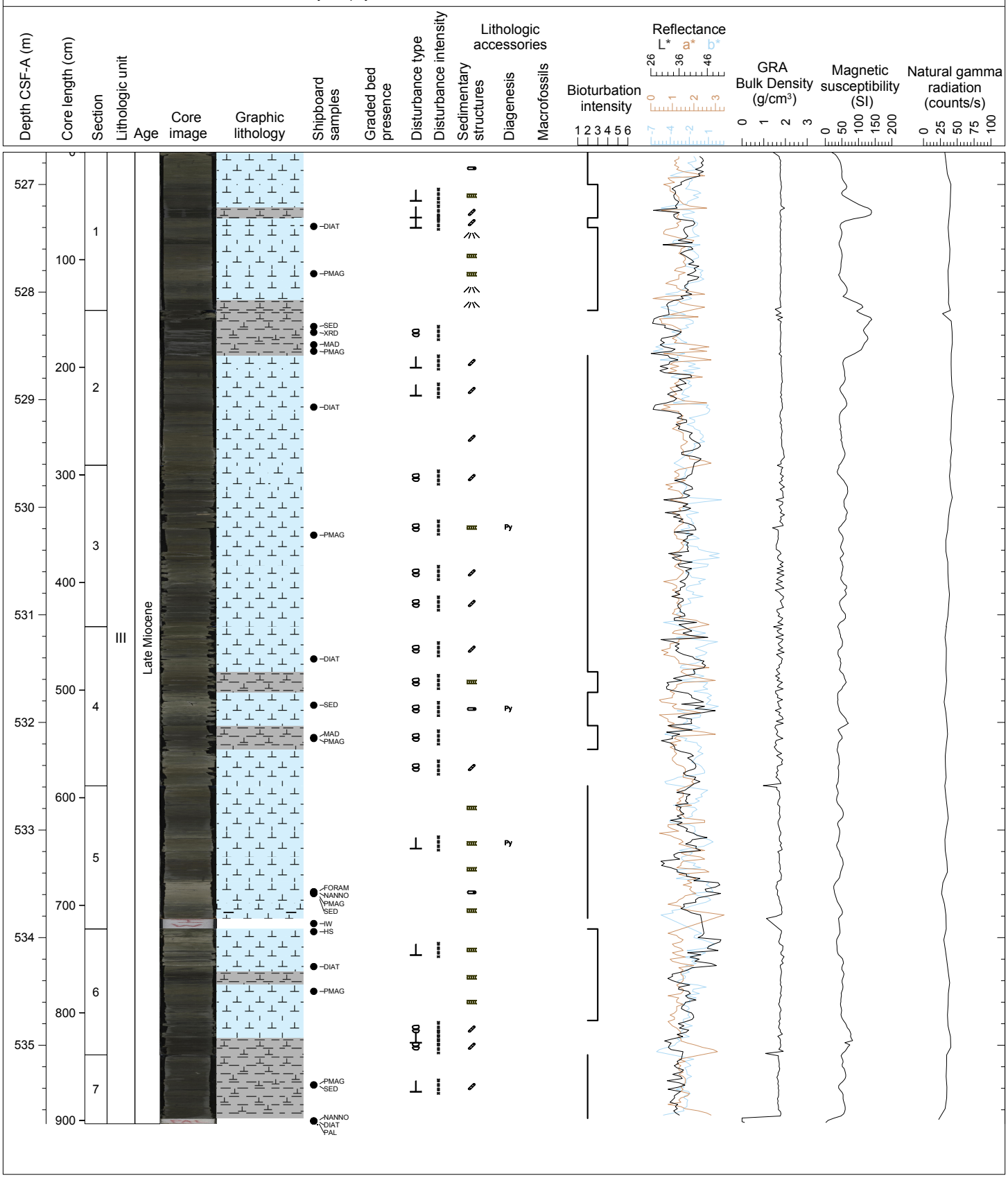
Hole 355-U1456D Core 8R, Interval 517.0-525.31 m (CSF-A)

NANNOFOSSIL CHALK, NANNOFOSSIL CHALK WITH CLAY, NANNOFOSSIL CHALK WITH SILT. Light greenish NANNOFOSSIL CHALK WITH SILT, white NANNOFOSSIL CHALK and light brownish gray color NANNOFOSSIL CHALK WITH CLAY are the major lithologies. Thin to medium bedded (<20 cm) white NANNOFOSSIL CHALK is often interbedded in light greenish NANNOFOSSIL CHALK WITH SILT and light brown gray NANNOFOSSIL CHALK WITH CLAY. The contact boundaries are mostly bioturbated and not very sharp. Greenish NANNOFOSSIL CHALK WITH SILT is more bioturbated and contains various burrows, especially Planolites, Zoophycos , Chondrites. The light gray and light brownish gray NANNOFOSSIL CHALK WITH CLAY is less bioturbated but it is disturbed and even brecciated (23-82 cm in Section 5) due to drilling disturbance. Big pyrite nodules (<3 cm) are observed. Blackish, very thin (<3 mm) layers and circular oxidized pyrite are very common in all sections. Dark green, thin layers (<3 mm) are often observed in Sections 3, 4 and 5, interbedded in light brown gray NANNOFOSSIL CHALK WITH CLAY.



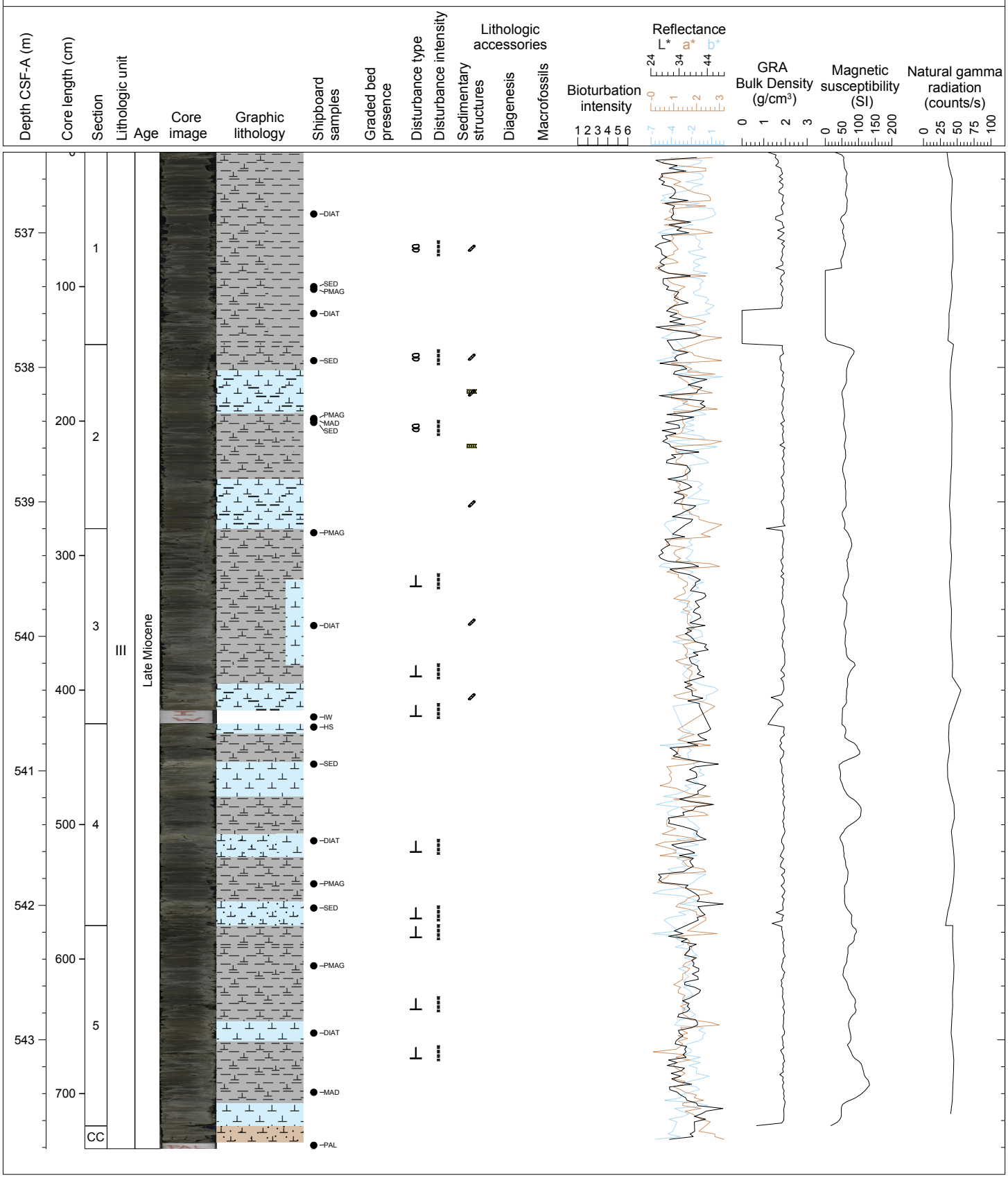
Hole 355-U1456D Core 9R, Interval 526.7-535.73 m (CSF-A)

NANNOFOSSIL CHALK, NANNOFOSSIL CHALK WITH CLAY, NANNOFOSSIL CHALK WITH SILT, NANNOFOSSILS-RICH CLAYSTONE. Light brownish gray NANNOFOSSIL CHALK WITH CLAY, light greenish NANNOFOSSIL CHALK WITH SILT, blackish NANNOFOSSILS RICH CLAYSTONE and light white NANNOFOSSIL CHALK are the major lithologies. Light greenish thinly bedded (<10 cm) NANNOFOSSIL CHALK WITH SILT is often interbedded in NANNOFOSSIL CHALK WITH CLAY. Very thin blackish layers (< 1cm) are interbedded in light brownish to gray NANNOFOSSIL CHALK WITH. Very thin (< 3mm) greenish layers are also often observed in NANNOFOSSIL CHALK WITH CLAY. Medium sized pyrite nodules (< 2cm) are observed in Sections 3, 4 and 5. Blackish, oxidized pyrite layers are found in all sections. The light greenish NANNOFOSSIL CHALK WITH SILT is mostly bioturbated and commonly dominated by Planolites and Chondrites, whereas light brownish gray NANNOFOSSIL CHALK WITH CLAY is dominated by Zoophycos.



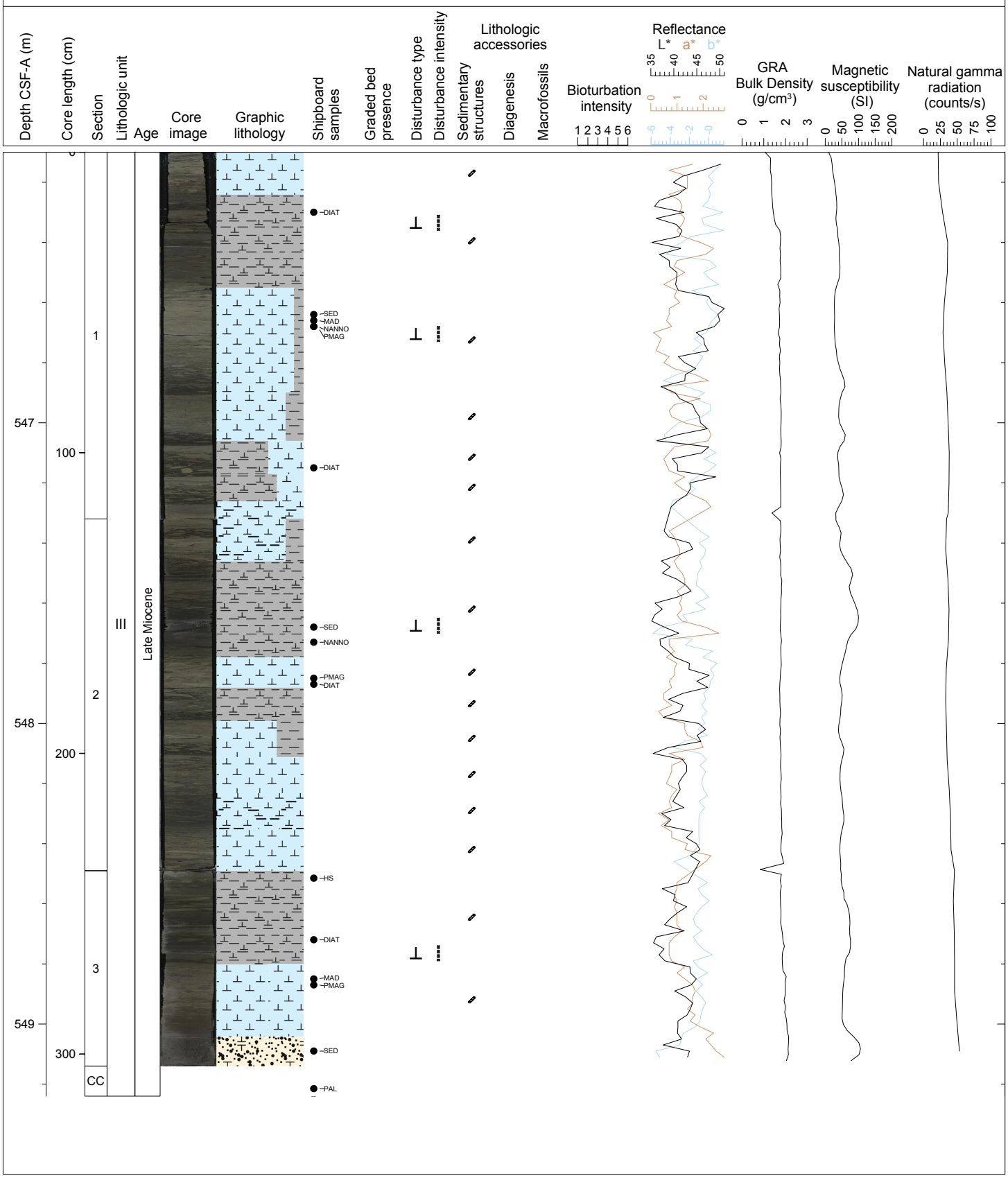
Hole 355-U1456D Core 10R, Interval 536.4-543.81 m (CSF-A)

NANNOFOSSIL-RICH CLAYSTONE, CLAYEY NANNOFOSSIL CHALK, NANNOFOSSIL CHALK, SILTY NANNOFOSSIL CHALK, NANNOFOSSIL-RICH SILTSTONE. The core is mostly a color banded sequence of sediment that represents a mixture of CLAY and NANNOFOSSILS. Dark sediments tend to have more CLAY. A small proportion of the sediment contains thin SILT-rich material that exist as sharp-based, normally graded layers of NANNOFOSSIL-RICH SILTSTONE overlying fine grained sediments. Bioturbation is strong in the fine-grained hemipelagic sediments.



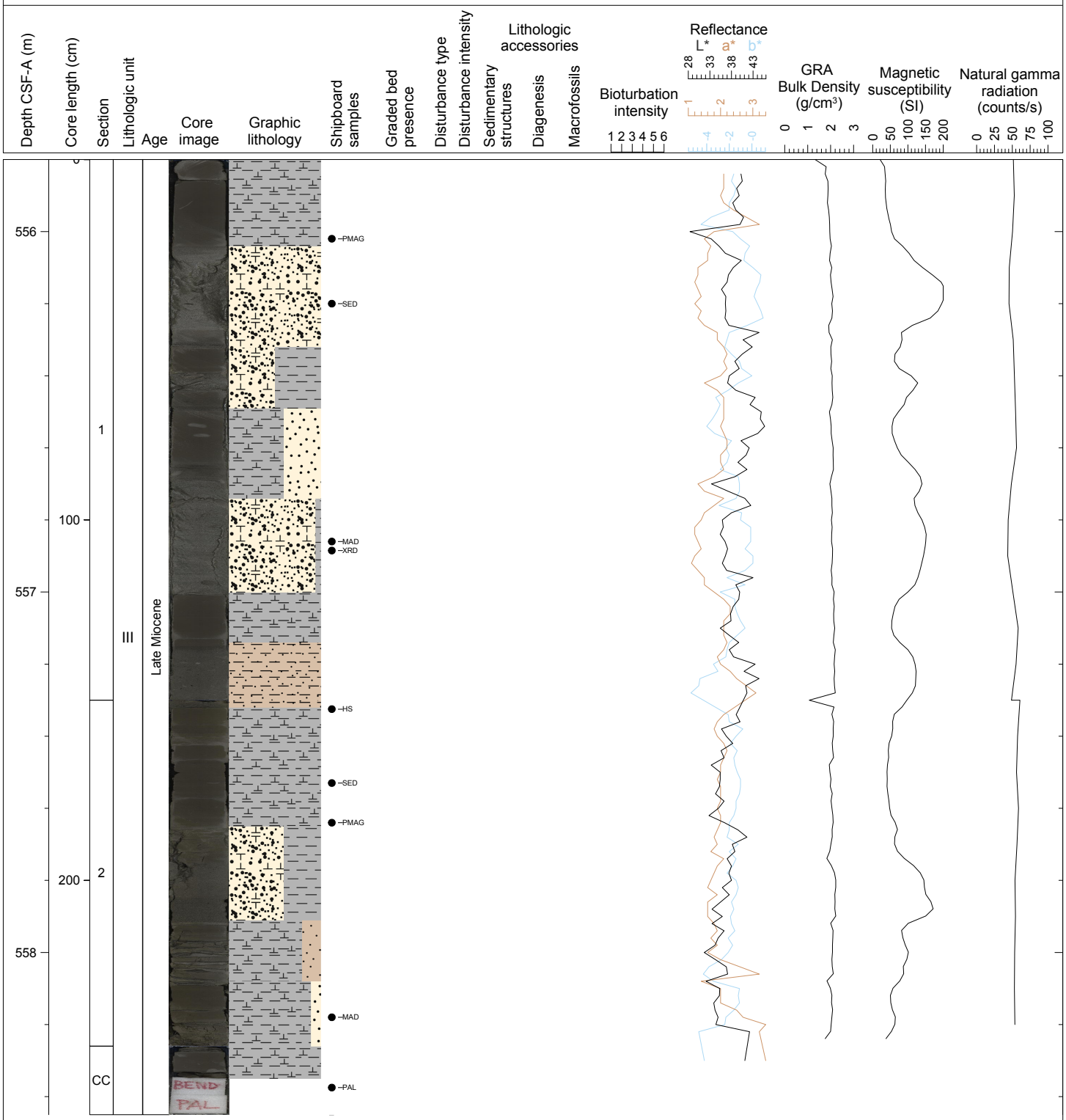
Hole 355-U1456D Core 11R, Interval 546.1-549.24 m (CSF-A)

NANNOFOSSIL CHALK, NANNOFOSSIL-RICH CLAYSTONE, CLAYEY NANNOFOSSIL CHALK, SILTY SANDSTONE. Burrows are abundant through the core. Burrow filling components are mostly enriched in nannofossils. A sequence grading from NANNOFOSSIL-RICH CLAYSTONE to NANNOFOSSIL CHALK is interpreted as a turbidite and this is repeated in Sections 1 and 2. The contact from underlying chalk to overlying claystone is planar and relatively sharp. Sometimes burrow filling includes pyrite filaments (34 cm in Section 1 and 43 cm in Section 2). SILTY SAND occurs at the bottom of Section 3.



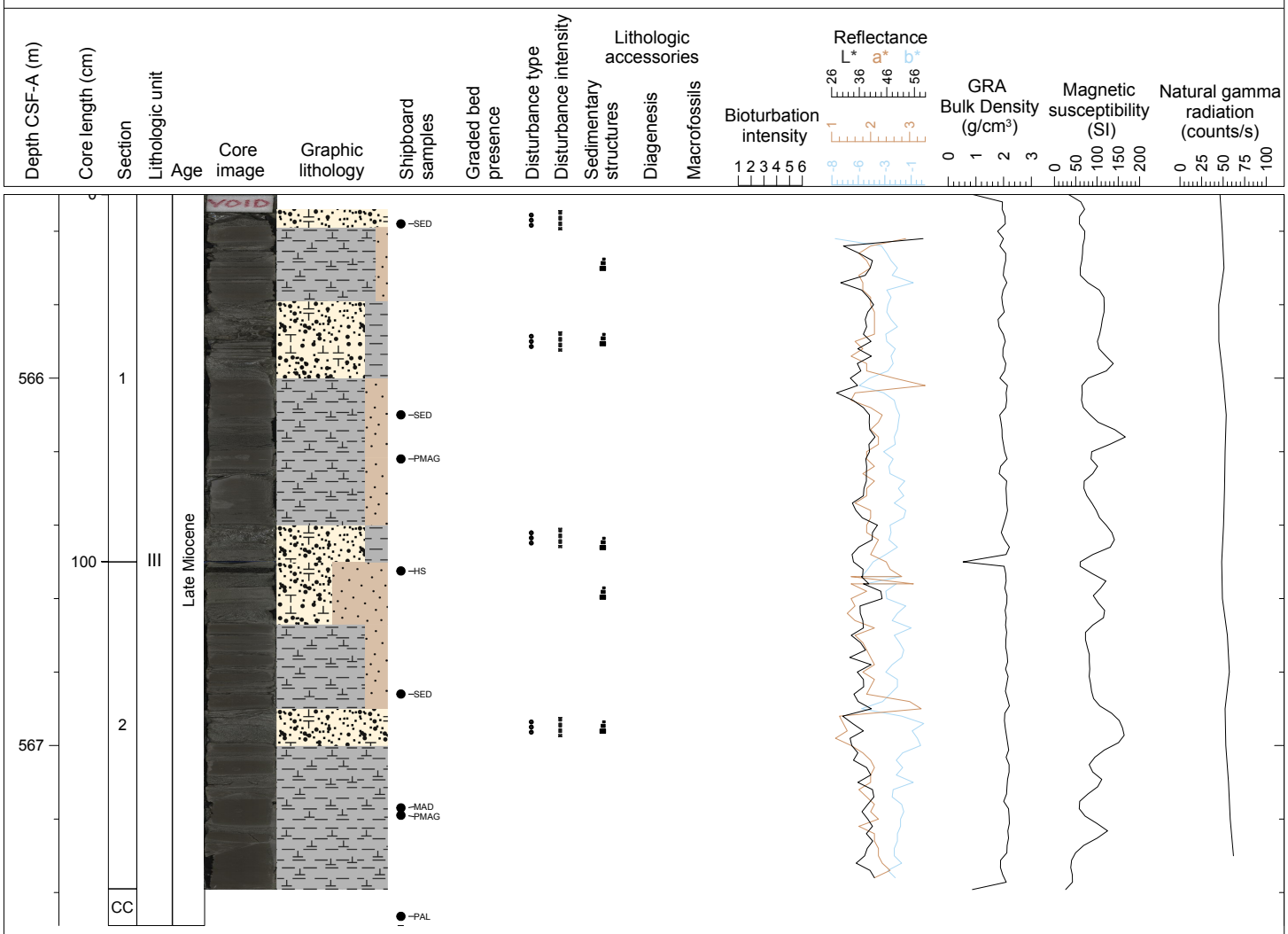
Hole 355-U1456D Core 12R, Interval 555.8-558.45 m (CSF-A)

NANNOFOSSIL-RICH CLAYSTONE, SILTY SAND, SANDY SILT, NANNOFOSSIL-RICH SILT. The major lithology is NANNOFOSSIL-RICH CLAYSTONE. Clay and sand are massive and without apparent bioturbation. Some SILTY SAND includes tiny shell fragments and wooden fibrous particles (Section 1, 51 cm and 60 cm). SILTY SAND is fine to medium grained, containing large mica grains. Alternations of thin silt and clay were deposited in Section 3 (61 to 79 cm). The top of the clay layers is mostly erosive, suggesting that the silt-rich sediments may have been deposited as a turbidite.



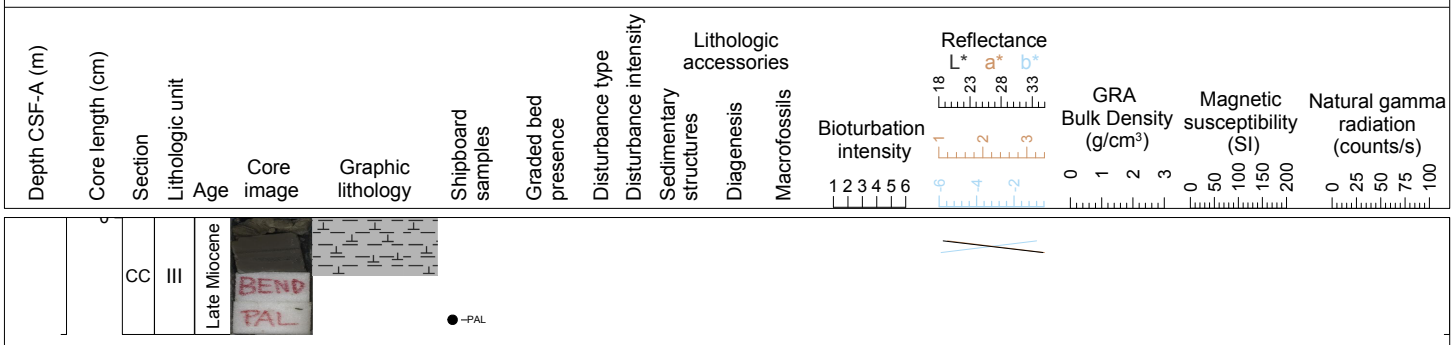
Hole 355-U1456D Core 13R, Interval 565.5-567.49 m (CSF-A)

NANNOFOSSIL-RICH CLAYSTONE, SILTY SAND, CLAYEY SILT. NANNOFOSSIL-RICH CLAYSTONE is mostly massive and include intercalations of very thin SILT laminae. SILTY SAND is fine to medium-grained and contains many tiny wooden fibrous fragments. CLAYEY SILT contains more black fibrous wooden particles. The upper parts of SILT and SAND layers show rip-up mud clasts. The sand to clay transition is normally graded and the top of the clay is generally erosive. A 1-cm-thick wooden (lignite-like) fragment was found in the top of Section 2.



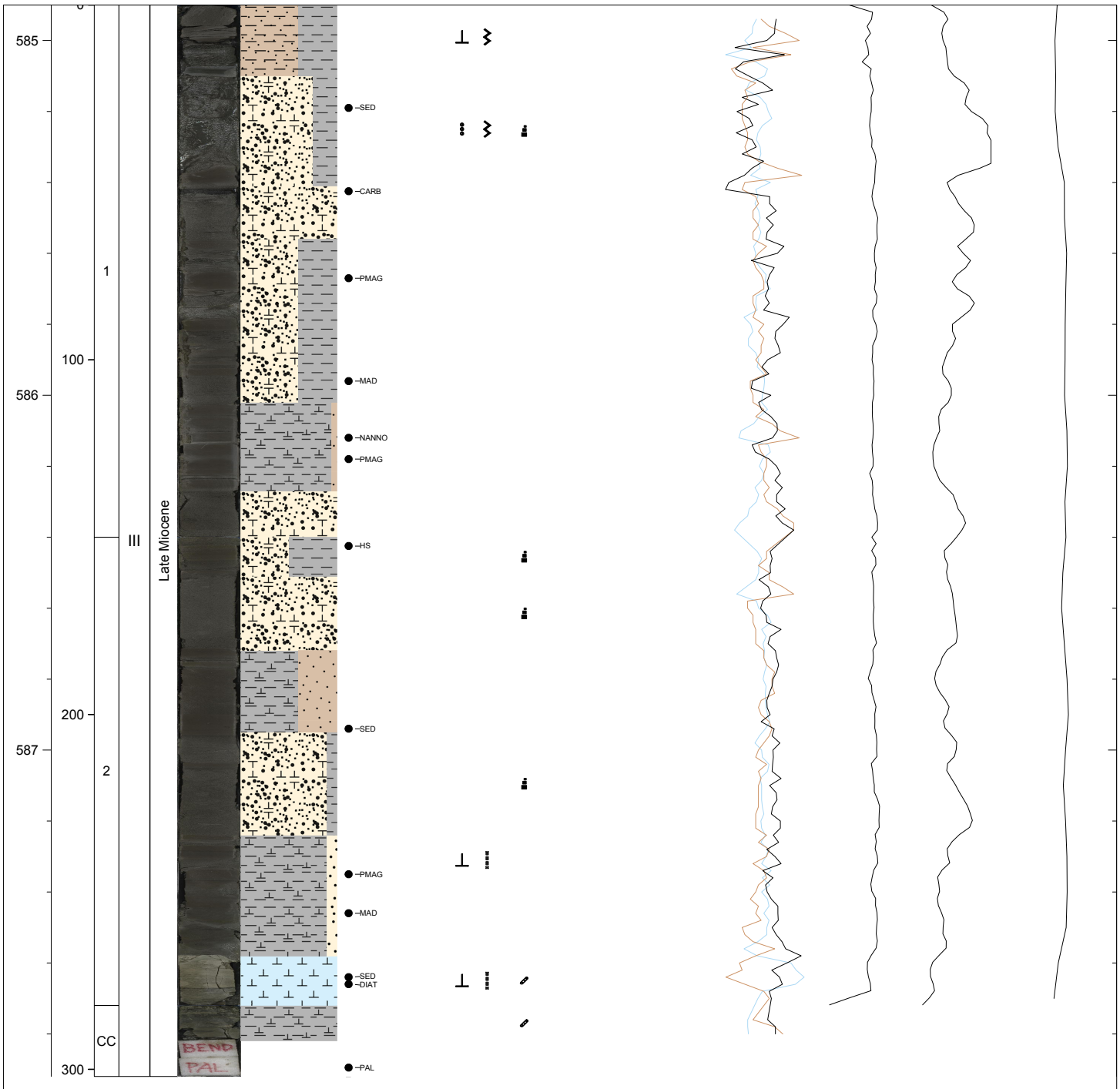
Hole 355-U1456D Core 14R, Interval 575.2-575.4 m (CSF-A)

NANNOFOSSIL-RICH CLAYSTONE.



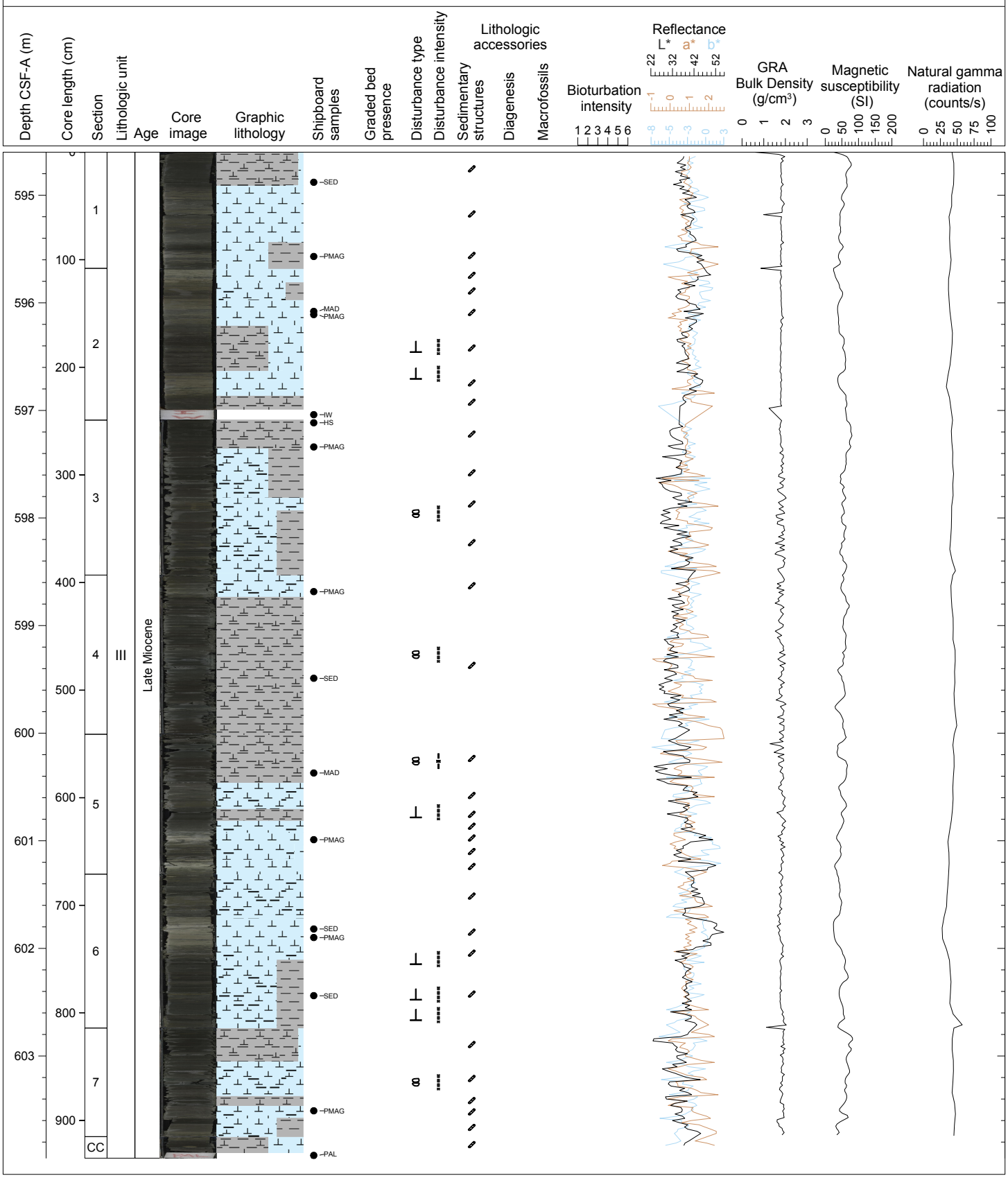
Hole 355-U1456D Core 15R, Interval 584.9-587.92 m (CSF-A)

SILTY SAND, NANNOFOSSIL-RICH CLAYSTONE, CLAYEY SILT, NANNOFOSSIL CHALK. A 1-cm-thick wood-fragment layer is located at 53 cm in Section 1. Sand layers show normal grading into overlying clay, with a sharp erosive boundary at the base of the sand. Tiny black wood particles are widespread in both sand and silt. Sand layers also include pieces of clay chunks in their upper parts. Large micas and irregular quartz grains are observed in sands that are interpreted as turbidites. Sand grains are fine to medium-grained. NANNOFOSSIL-RICH CLAYSTONE is mostly massive and interbedded by a series of thin CLAYEY SILT laminae. At the bottom of Section 2, NANNOFOSSIL CHALK is present and shows strong bioturbation.



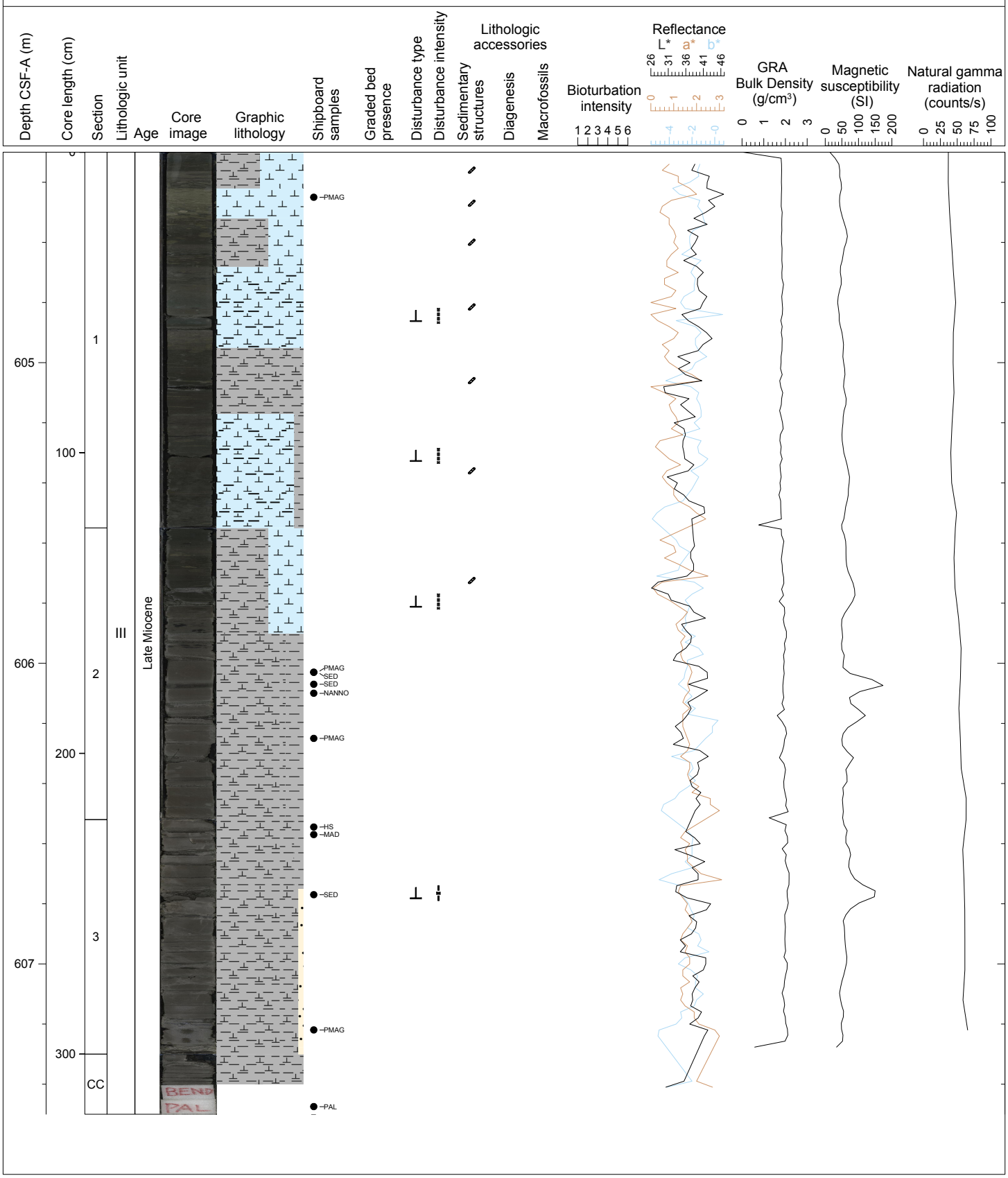
Hole 355-U1456D Core 16R, Interval 594.6-603.95 m (CSF-A)

NANNOFOSSIL-RICH CLAYSTONE, CLAYEY NANNOFOSSIL CHALK, NANNOFOSSIL CHALK. Burrows are intensive throughout the core. Most of the burrows are horizontal. Alternations of dark gray to light gray from NANNOFOSSIL-RICH CLAYSTONE to NANNOFOSSIL CHALK are repeated. The transition from clay to chalk is gradational, but the reverse is typically sharp. Small pyrite concretions are found at Section 1. (77 cm, 84 cm) and Section 2 (81 cm). Biscuit-type drilling disturbance is severe.



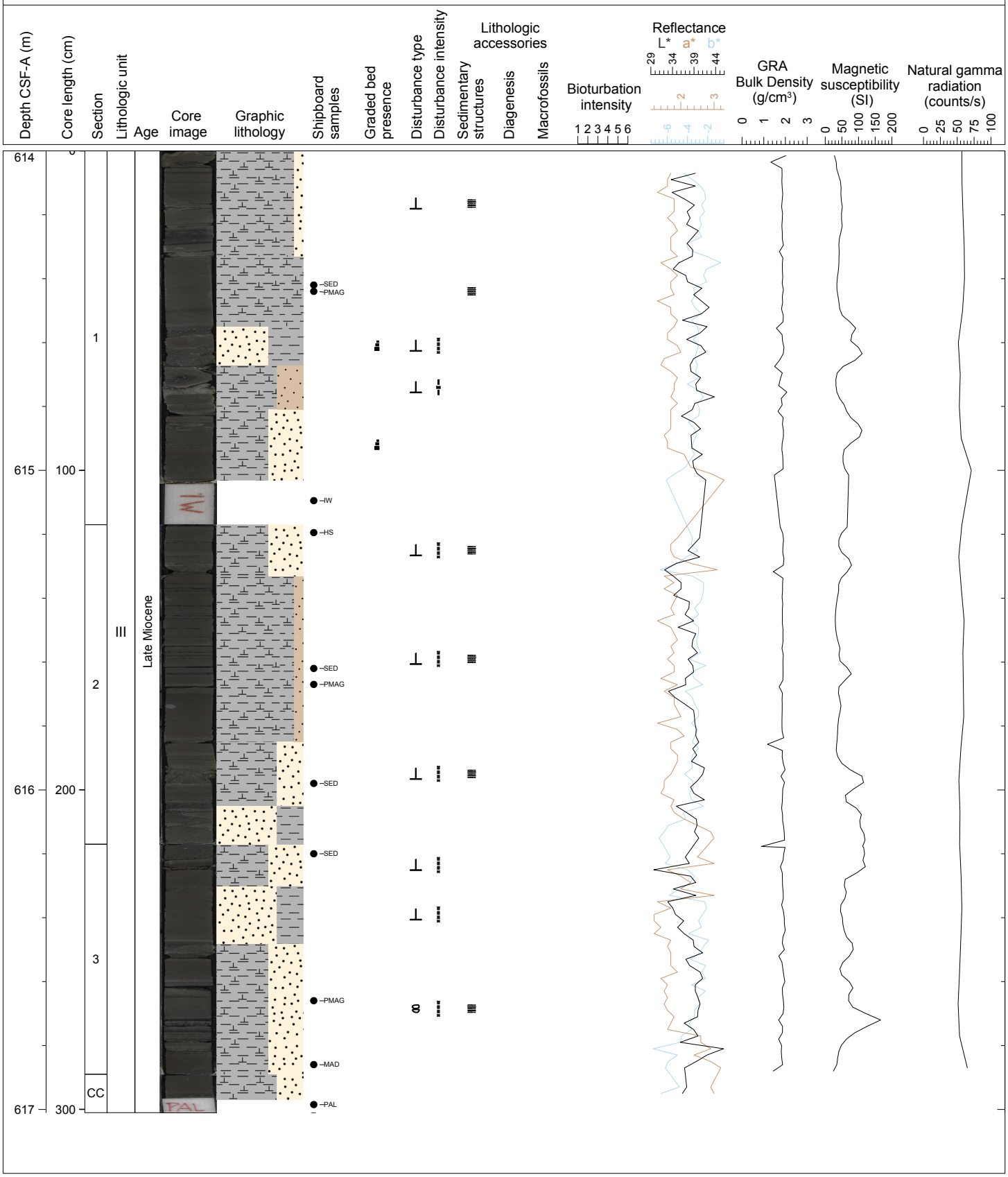
Hole 355-U1456D Core 17R, Interval 604.3-607.5 m (CSF-A)

NANNOFOSSIL-RICH CLAYSTONE, CLAYEY NANNOFOSSIL CHALK, NANNOFOSSIL CHALK. Bioturbated NANNOFOSSIL-RICH CLAYSTONE and NANNOFOSSIL-RICH CHALK was overlain by massive NANNOFOSSIL-RICH CLAYSTONE. This lithology transition occurs at 30 cm in Section 2. Below this level, black stains and lines appear, which seem to be Mn-oxides and hydroxides. A thin SILTY CLAY is interbedded in massive CLAY.



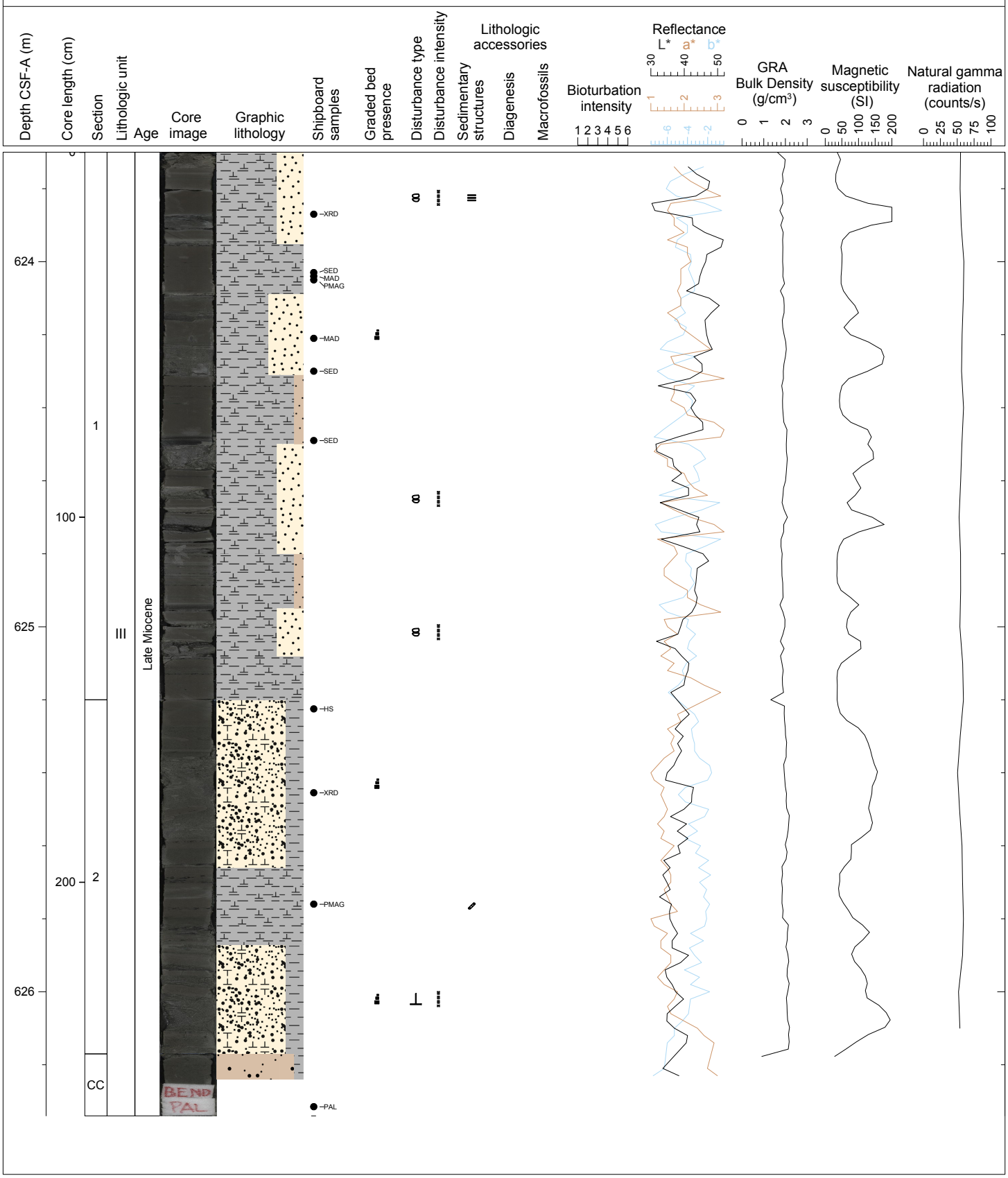
Hole 355-U1456D Core 18R, Interval 614.0-617.01 m (CSF-A)

NANNOFOSSIL-RICH CLAYSTONE, SANDSTONE, SILTY SANDSTONE, NANNOFOSSIL-RICH SILT. Light brownish gray NANNOFOSSIL-RICH CLAYSTONE is the major lithology, and is observed interbedded with medium bedded (<15 cm) gray SANDSTONE. The thin (<3 cm) SILTY SANDSTONE is interbedded in light brownish NANNOFOSSIL-RICH CLAYSTONE. NANNOFOSSI-RICH SILT is only observed at 67-75 cm in Section 1. Blackish, very thin layers (<8 mm) are commonly observed in NANNOFOSSIL-RICH CLAYSTONE. Parallel lamination is observed at 56 cm in Section 3.



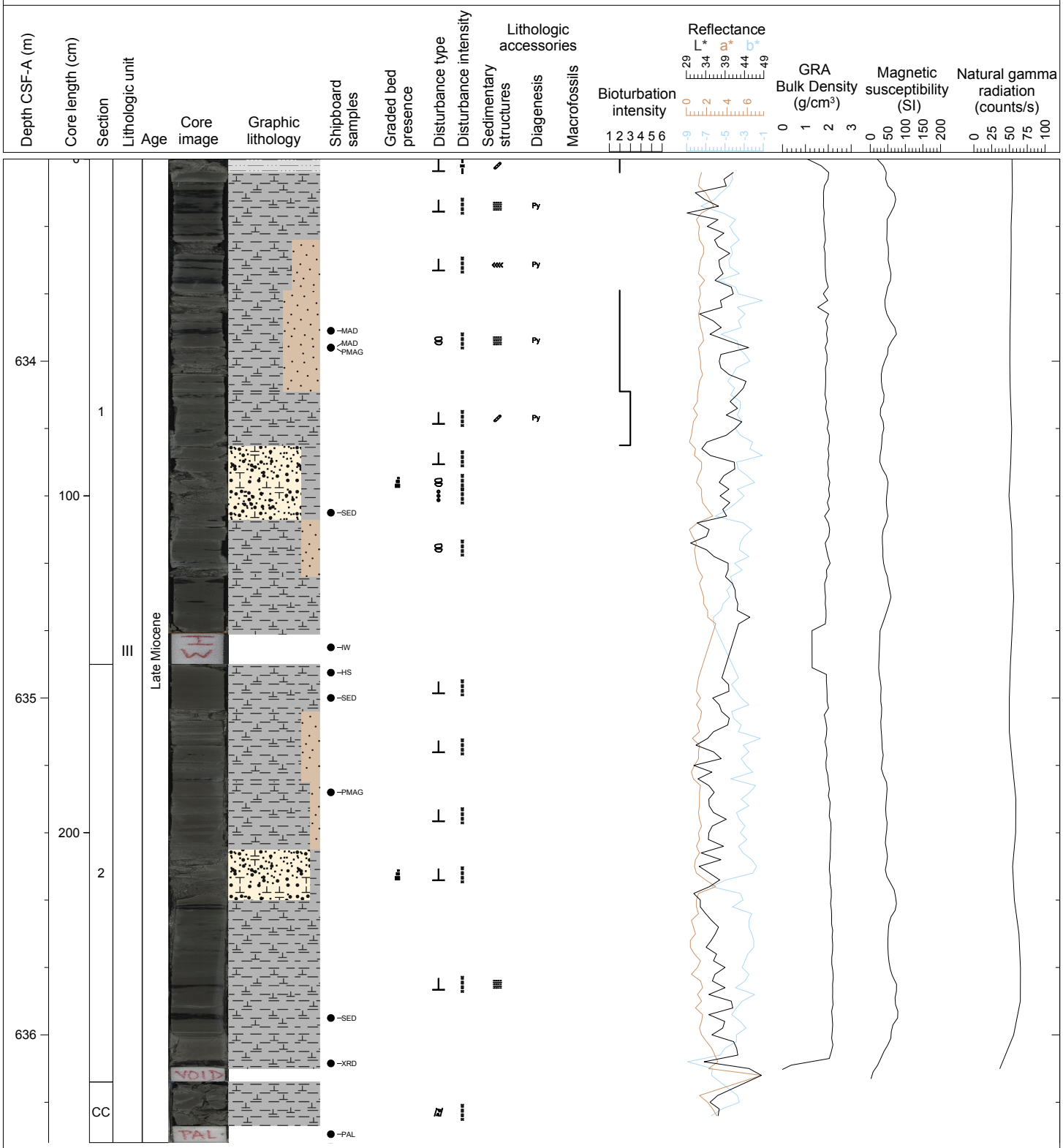
Hole 355-U1456D Core 19R, Interval 623.7-626.34 m (CSF-A)

NANNOFOSSIL-RICH CLAYSTONE, SILTY SANDSTONE, SANDY SILTSTONE, SILTY SAND. Light brownish to gray NANNOFOSSIL-RICH CLAYSTONE and gray SILTY SANDSTONE are the major lithologies. Thin-bedded (<10 cm) SILTY SANDSTONE is often alternately interbedded with NANNOFOSSIL-RICH CLAYSTONE. The SILTY SANDSTONE is occasionally thick (< 50 cm) bedded. The layers of CLAYSTONE are interbedded in SILTY SANDSTONE in Section 2. Dark, blackish layers are observed in Section 1 (79 cm and 124 cm). The contact boundaries, especially the bases of coarser clastic sediments are mostly erosive and sharp. The NANNOFOSSIL-RICH CLAYSTONE also shows thin (<5mm) interbeds of SILTSTONE.



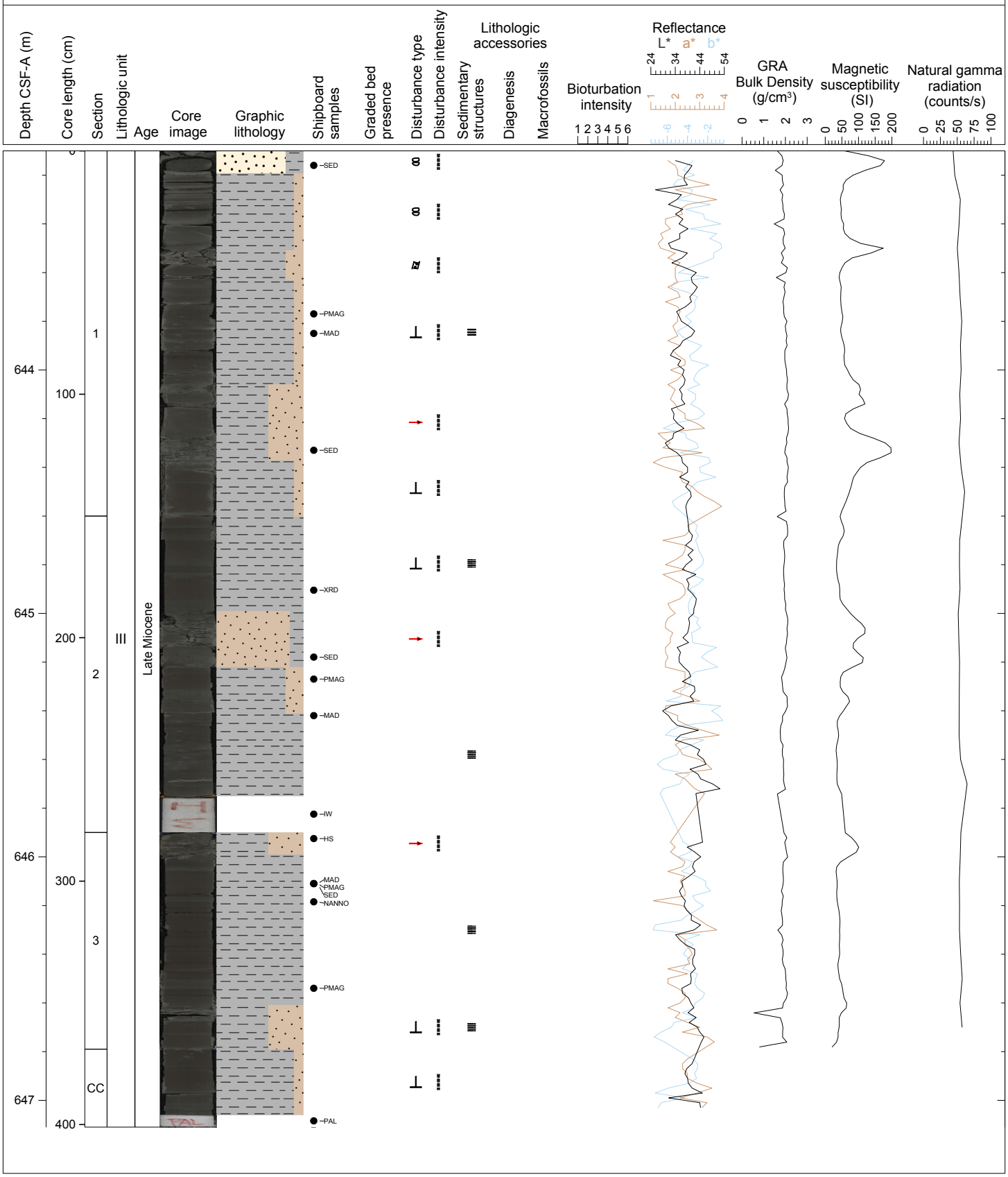
Hole 355-U1456D Core 20R, Interval 633.4-636.32 m (CSF-A)

NANNOFOSSIL-RICH CLAYSTONE, SANDY SILTSTONE, SILTY SAND. Light greenish gray to light brownish gray NANNOFOSSIL-RICH CLAYSTONE is the major lithology. SILTY CLAY is observed only in the top 4 cm in Section 1. Gray colored thinly bedded (<5 cm) SANDY SILTSTONE is often interbedded in NANNOFOSSIL-RICH CLAYSTONE. The medium bedded (<15 cm) SANDY SILTSTONE is observed with interbedded layers of NANNOFOSSIL-RICH CLAYSTONE. Dark blackish (<2 cm) color banding is common in NANNOFOSSIL-RICH CLAYSTONE. Cross bedding is observed at 24-29 cm in Section 1.



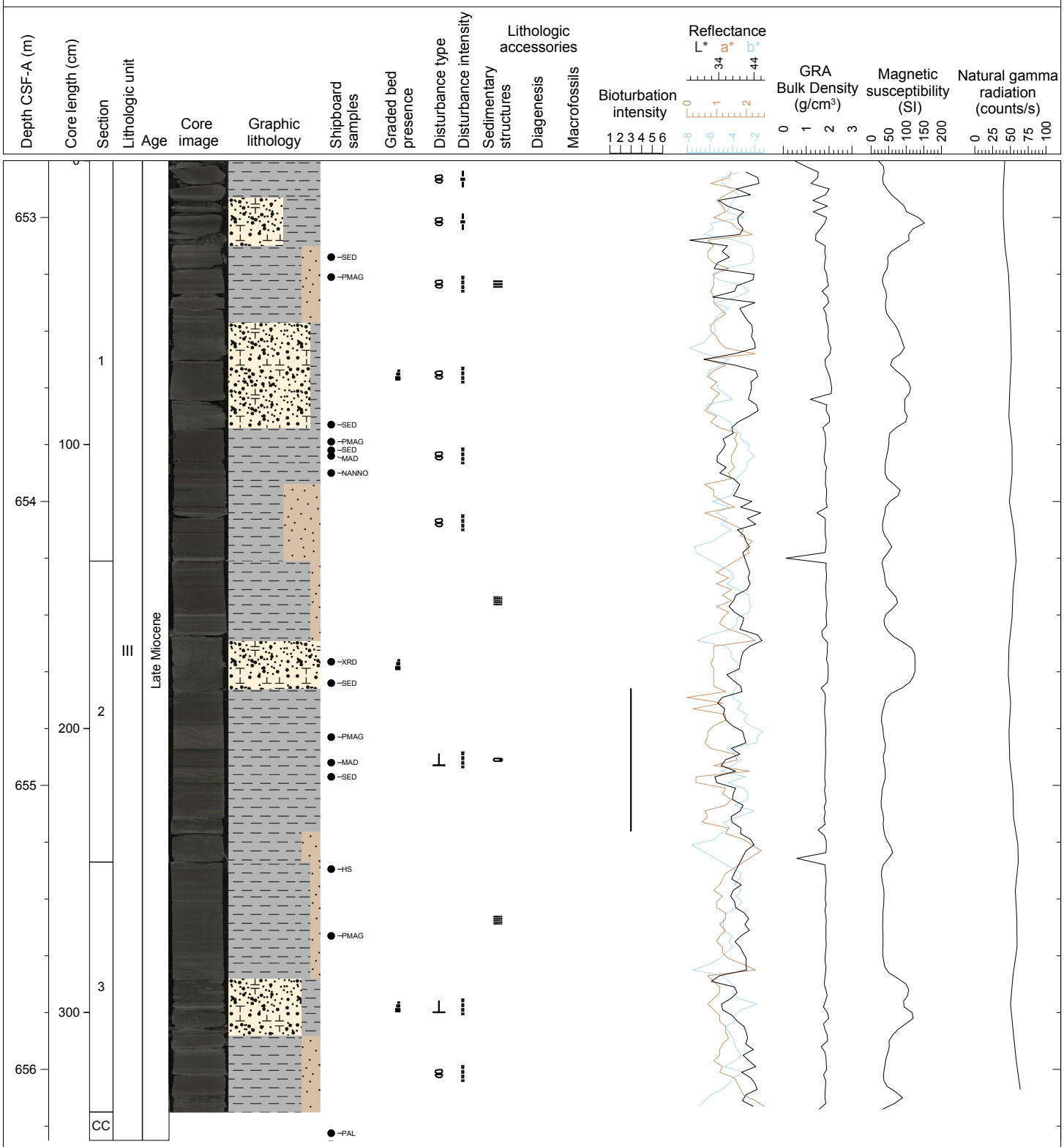
Hole 355-U1456D Core 21R, Interval 643.1-647.11 m (CSF-A)

CLAYSTONE, SANDSTONE, SILTSTONE. Light greenish to light brownish CLAYSTONE is the major lithology and is observed with varying amounts of nannofossils (common to rare). Biscuits of blackish SANDSTONE are found at top of Section 1 (4-8 cm). Thin bedded (<10 cm) light greenish gray SILTSTONE is observed interbedded in CLAYSTONE. Light colored, very thin-bedded (<5 mm) SILTSTONE beds are observed interbedded in CLAYSTONE. Slightly thicker (<1 cm) blackish beds are also observed in CLAYSTONE. Parallel lamination is observed at 78 cm and 82 cm in Section 1.



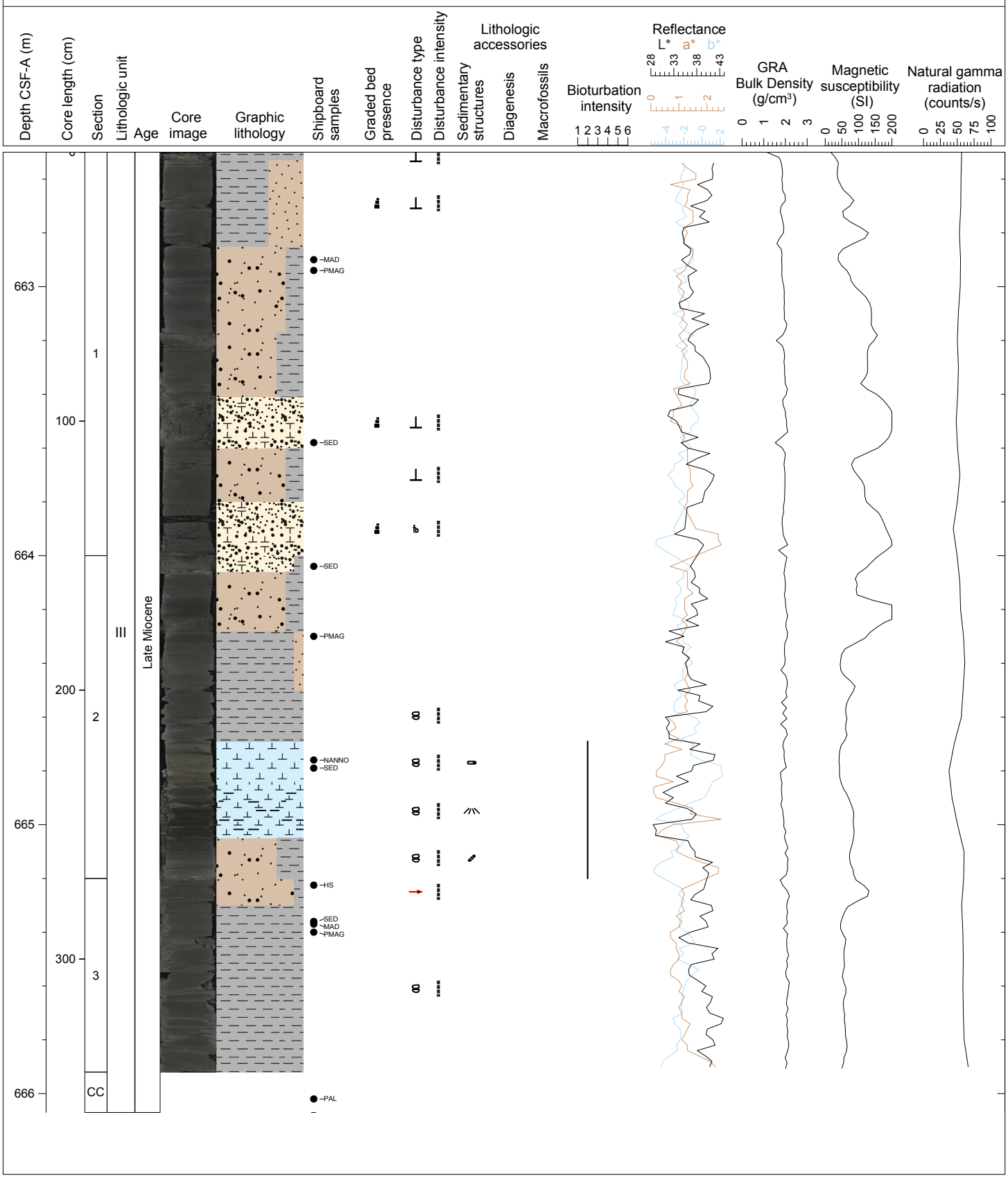
Hole 355-U1456D Core 22R, Interval 652.8-656.25 m (CSF-A)

CLAYSTONE, SILTY SANDSTONE, SANDSTONE, SILTSTONE, SANDY SILTSTONE, NANNOFOSSIL-RICH CLAYSTONE WITH SILT. Light gray to brownish CLAYSTONE and gray SILTY SANDSTONE are major lithologies. Light gray CLAYSTONE is often parallel laminated (30-49 cm, Section 1) and is interbedded with thinly bedded (<3 cm) SILTY SANDSTONE. Brownish CLAYSTONE is observed with thin colored bands (<1 cm) of SILTSTONE and SANDY SILTSTONE. CLAYSTONE units are often observed interbedded in SILTY SANDSTONE. Brownish CLAYSTONE and light greenish gray NANNOFOSSIL-RICH CLAYSTONE WITH SILT (< 10 cm) are alternately interbedded in Section 2. Bioturbation and burrows are observed in light greenish gray CLAYSTONE in Section 2.



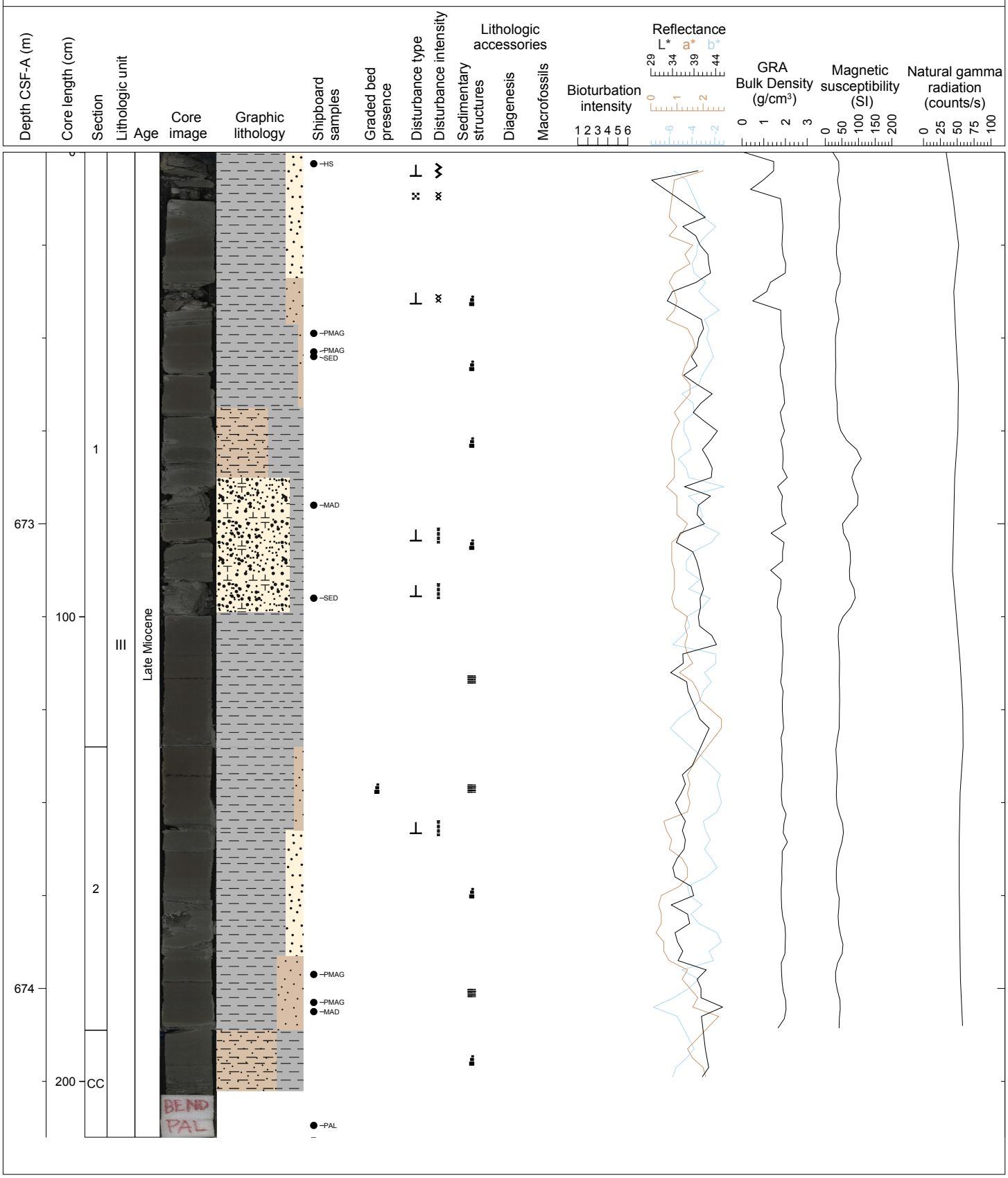
Hole 355-U1456D Core 23R, Interval 662.5-666.07 m (CSF-A)

CLAYSTONE, SANDY SILTSTONE, SILTY SANDSTONE, NANNOFOSSIL CHALK, CLAYSTONE WITH SILT, CLAYSTONE. Light brown CLAYSTONE, light greenish gray CLAYSTONE WITH SILT, gray SANDY SILTSTONE and dark SILTY SANDSTONE are the major lithologies. White NANNOFOSSIL CHALK and dark brownish green NANNOFOSSIL CHALK WITH SILT are observed in Section 2, where they are bioturbated especially with Planolites and Chondrites burrows. The thinly bedded (<10 cm) brownish CLAYSTONE is observed interbedded in SANDY SILTSTONE and SILT SANDSTONE.



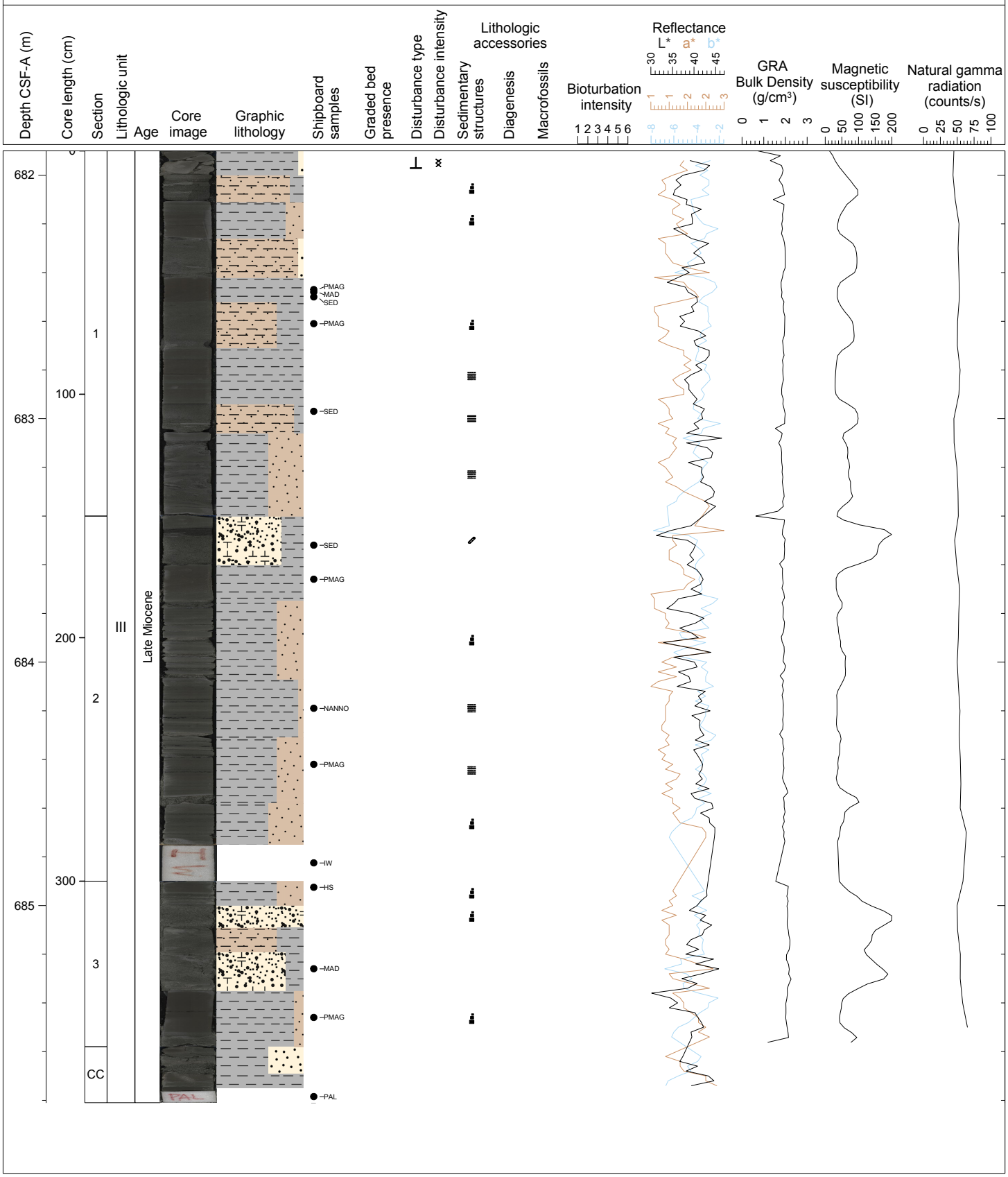
Hole 355-U1456D Core 24R, Interval 672.2-674.32 m (CSF-A)

CLAYSTONE, CLAYEY SILTSTONE, SILTY SANDSTONE. CLAYSTONE bed is massive. The top contact of the CLAYSTONE is erosive where it is overlain by the SILTY SANDSTONE. Black tiny wood fibrous particles are common within the CLAYEY SILTSTONE bed. Some color bandings are found in the CLAYSTONE. Rip-up clasts of CLAYSTONE are observed within the upper CLAYEY SILTSTONE layer. Very thin silt to clay laminae alternations can be observed (35-37 cm in Section 1). Sandy patches are observed within the clay-rich layer at 35-40 cm in Section 2. Sand grain size ranges from fine to medium.



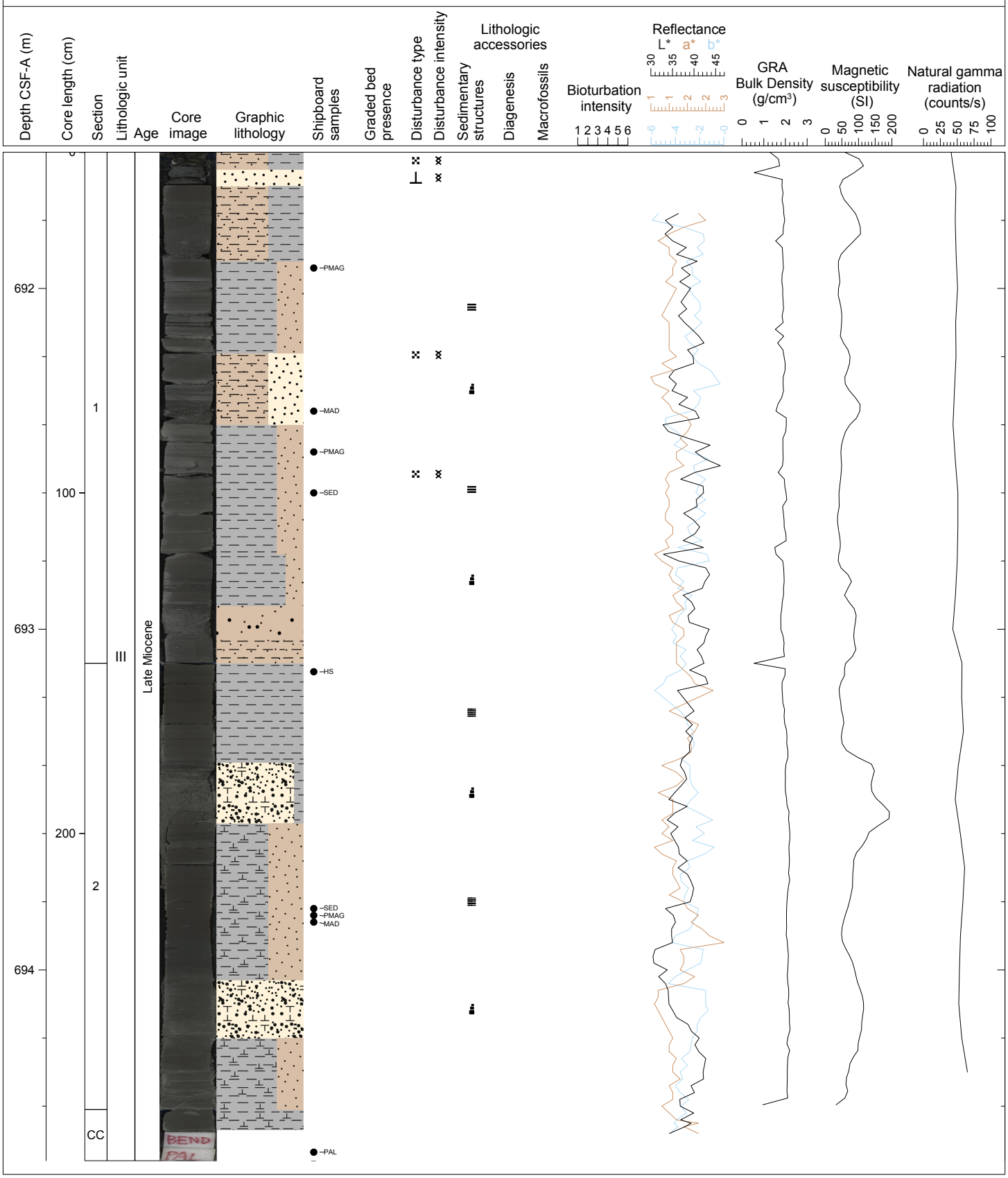
Hole 355-U1456D Core 25R, Interval 681.9-685.81 m (CSF-A)

CLAYSTONE, CLAYEY SILTSTONE, SILTY SANDSTONE. CLAYSTONE layer is massive or shows dark color banding. CLAYSTONE and CLAYEY SILTSTONE laminae alternate and are common in the core. These cycles shows normal grading and the top of each clay-rich layer is erosive or scoured, indicating likely sedimentation from a turbidity current. CLAYEY SILTSTONE contains black tiny fibrous wood particles. Burrow structures are found in the SILTY SANDSTONE layers, which also include rip-up CLAYSTONE clasts. A lamina of aciculuar pyrite is found at the top of the silt layer (104 cm in Section 1).



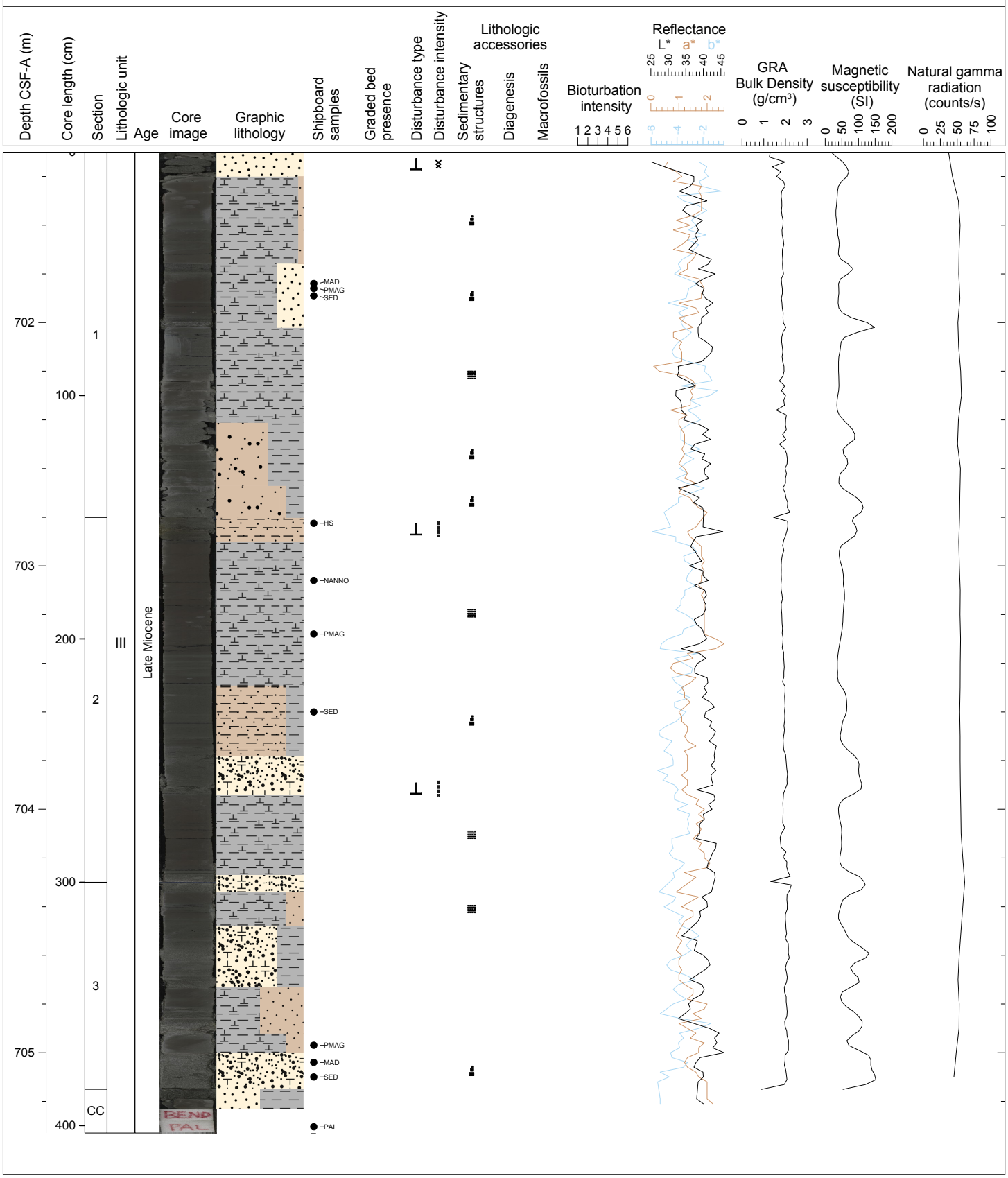
Hole 355-U1456D Core 26R, Interval 691.6-694.56 m (CSF-A)

CLAYSTONE, NANNOFOSSIL-RICH CLAYSTONE, SILTY CLAYSTONE, CLAYEY SILTSTONE, SILTY SANDSTONE, SANDY SILTSTONE. CLAYSTONE beds are massive, but sometimes dark color banded. Thin clay and silt laminae alternate rapidly. Normal grading is found clearly in SILTY SANDSTONE layers with upward fining and even in thin silt-to-clay lamina. CLAYSTONE chunks are found in the upper part of the SILTY SANDSTONE bed. Drilling disturbance is moderate and in the form of fractures and voids. Tiny wood pieces are abundant in CLAYEY or SANDY SILTSTONE beds. Brown platy particles are aligned in sand layer (34 cm in Section 2). Sand grains are fine to medium sized.



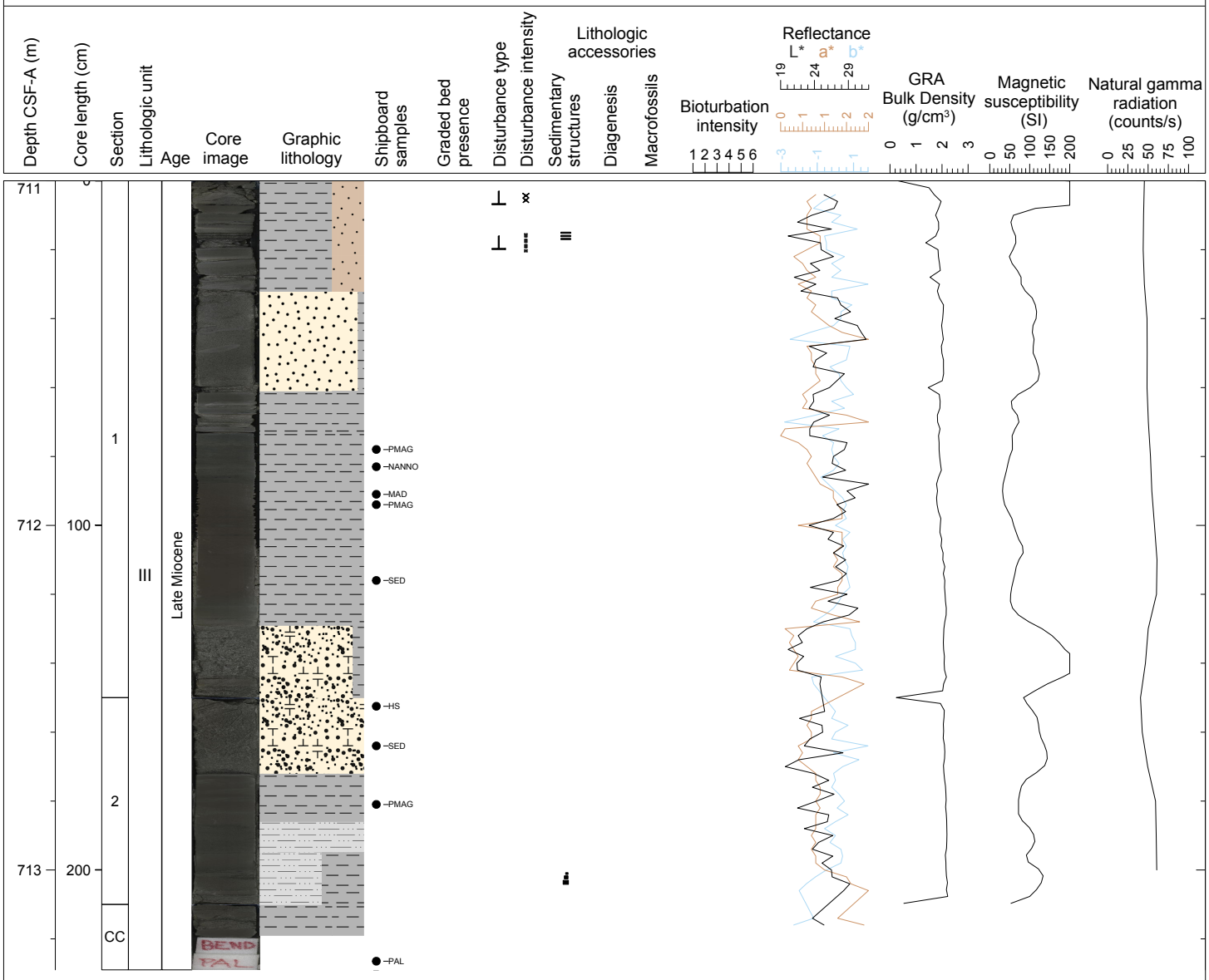
Hole 355-U1456D Core 27R, Interval 701.3-705.33 m (CSF-A)

CLAYSTONE, SANDY SILTSTONE, CLAYEY SILTSTONE, SILTY SANDSTONE, SANDSTONE. Clay layer is massive and with dark color banding. Tops of CLAYSTONE layers are typically erosive where they are overlain by silt or sand-rich sediments. Very thin CLAYEY SILTSTONE laminae are interbedded in CLAYSTONE, and show normal grading. CLAYSTONE chunks are abundant within SANDSTONE intervals.



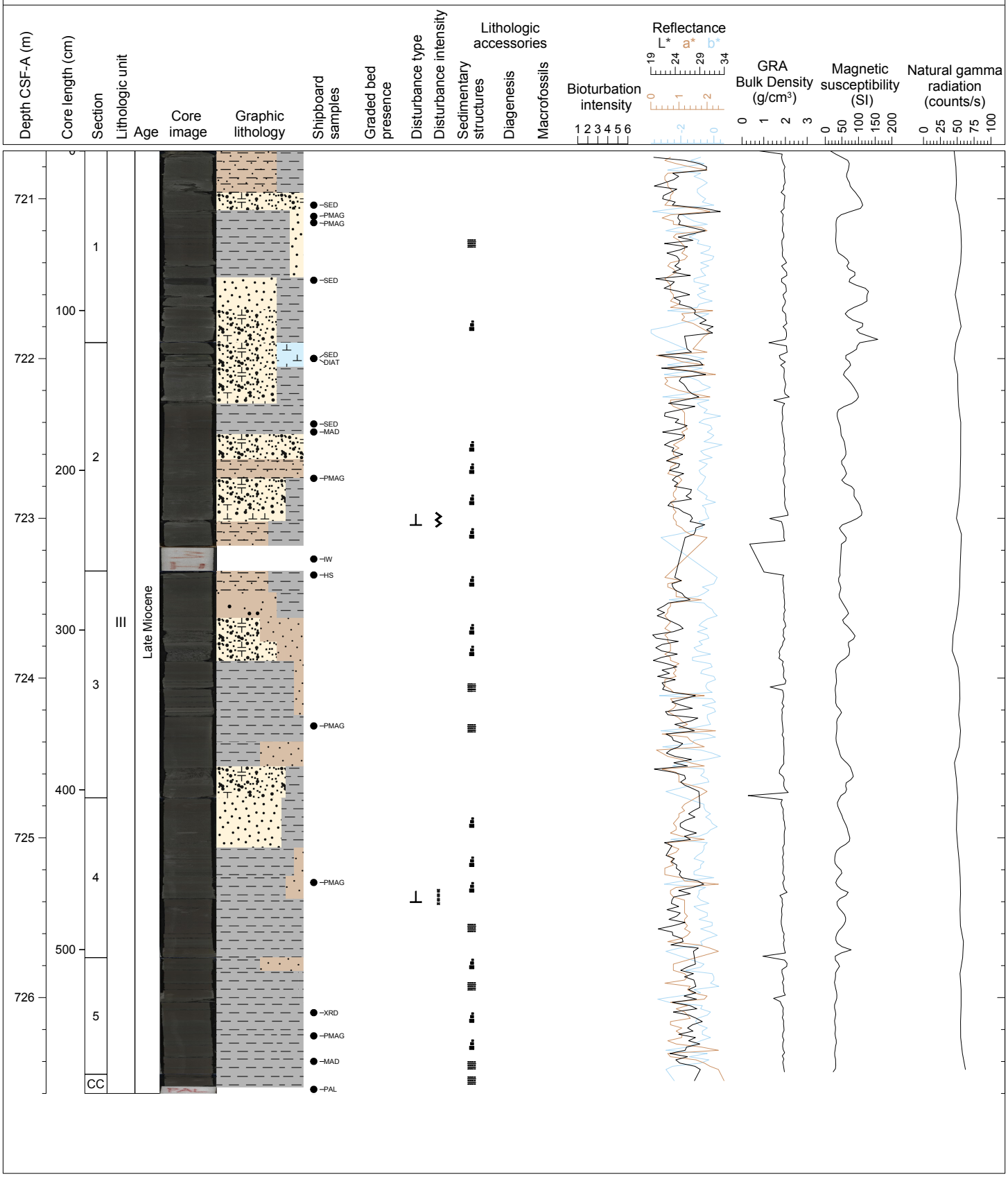
Hole 355-U1456D Core 28R, Interval 711.0-713.29 m (CSF-A)

SANDSTONE, CLAYSTONE, SILTY CLAYSTONE. Thick clay and sand layers alternate throughout the core. In SANDSTONE beds, deformed clay chunks are abundant. Thin SILTY CLAYSTONE laminae were found within the CLAYSTONE background. The top of each CLAYSTONE layer is erosive. Thin dark laminae are observed in the upper part of Section 1. CLAYSTONE includes abundant nannofossils, which is different from the CLAYSTONE observed in Core 27R.



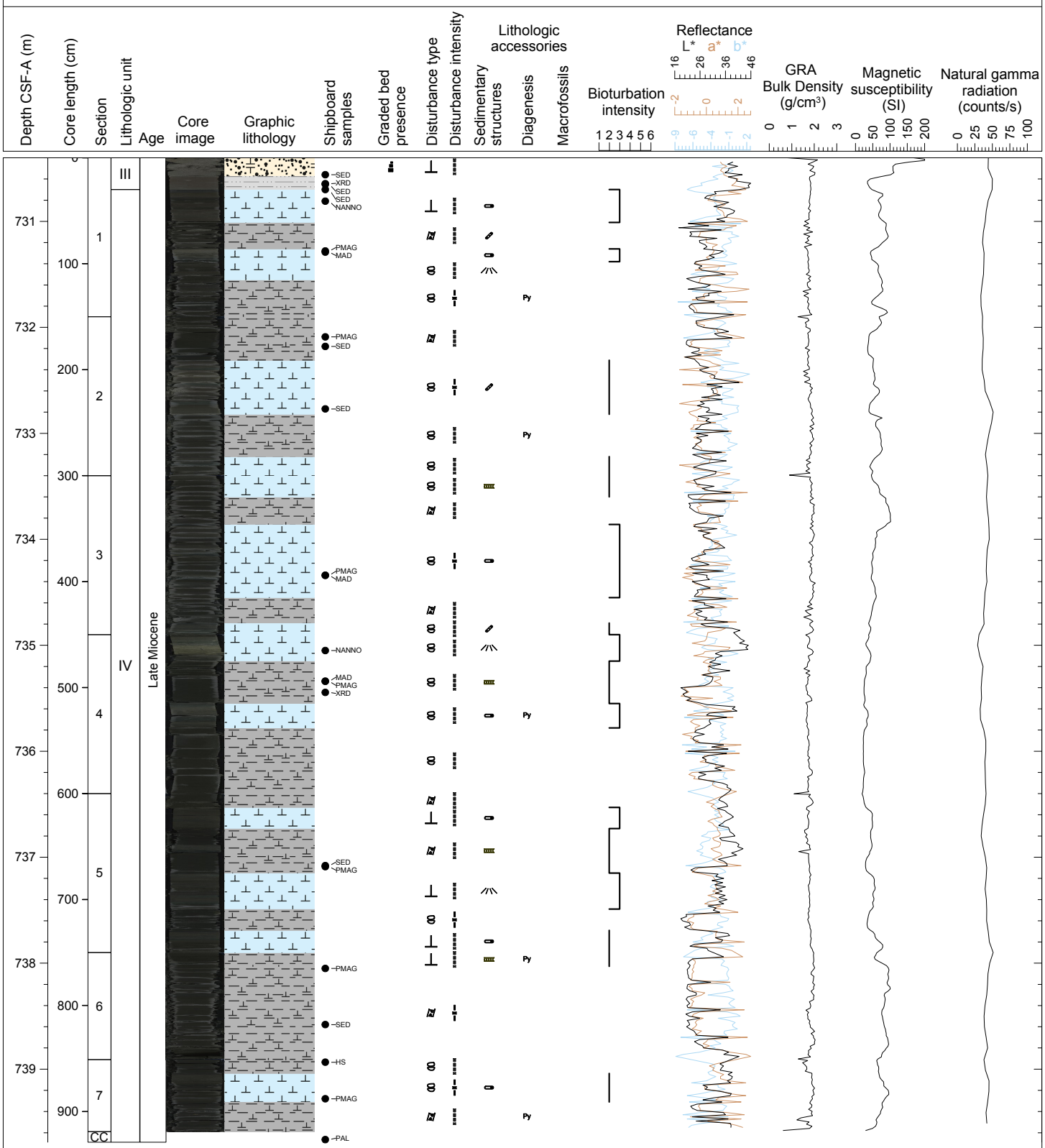
Hole 355-U1456D Core 29R, Interval 720.7-726.6 m (CSF-A)

CLAYSTONE, SILTY SANDSTONE, SANDSTONE, CLAYEY SILTSTONE, SANDY SILTSTONE, NANNOFOSSIL-RICH CLAYSTONE, CLAYEY NANNOFOSSIL CHALK. SANDSTONE is fine to medium grained and includes abundant clay chunks. SANDSTONE fines up into CLAYEY SILTSTONE to clay, showing normal grading and erosive top boundary. Thin CLAYEY SILTSTONE grade up into CLAY beds and show normal grading. Several cycles of these lithologies are noted. Color bandings is frequent in CLAYSTONE beds. SILTY SANDSTONE and CLAYEY SILTSTONE layers are fairly thick. NANNOFOSSIL-RICH CLAYSTONE and CLAYEY NANNOFOSSIL CHALK occur in Sections 1 and 2, but they seem to be transported.



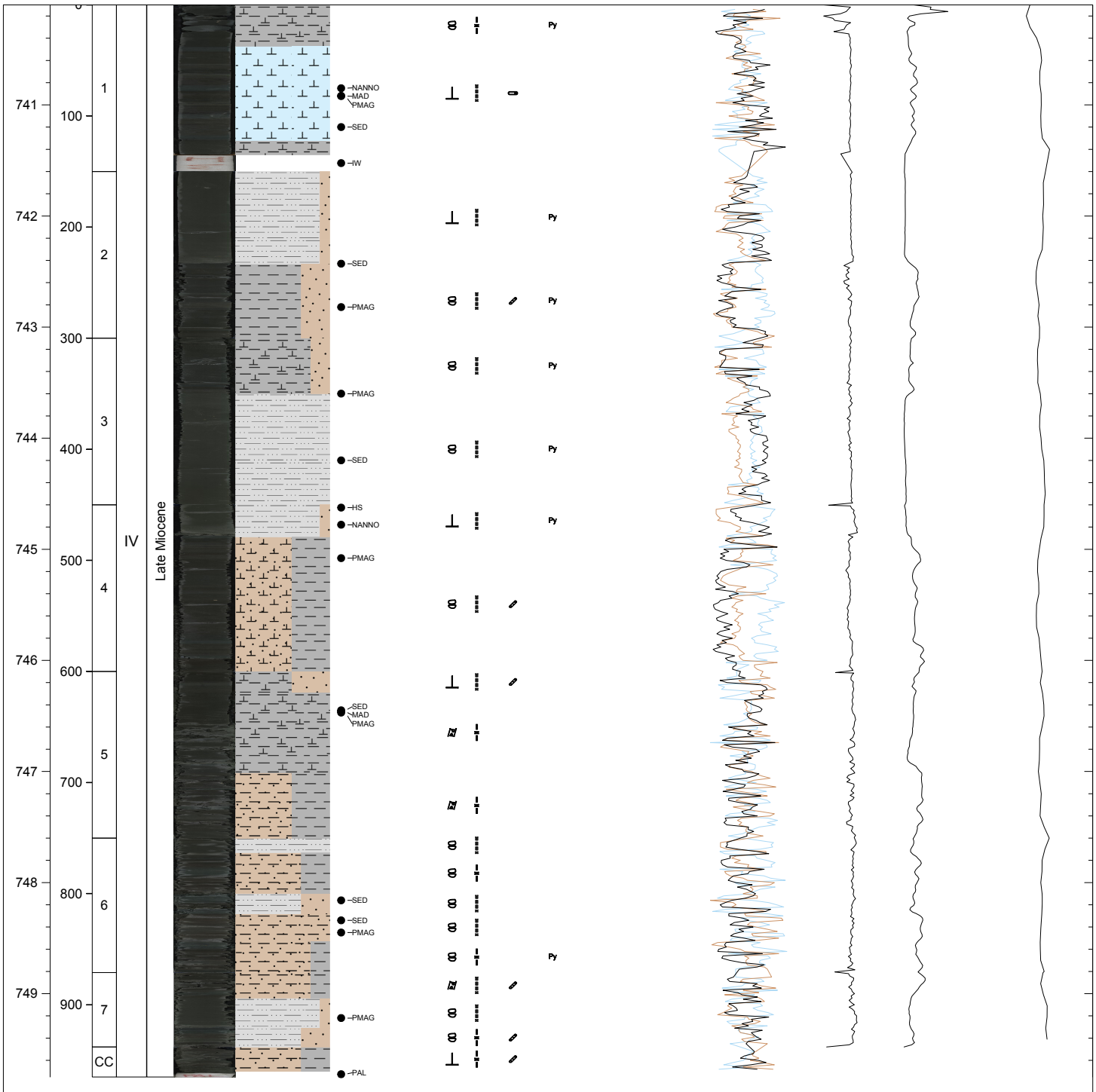
Hole 355-U1456D Core 30R, Interval 730.4-739.69 m (CSF-A)

SILTY SANDSTONE, SILTY CLAYSTONE, NANNOFOSSIL CHALK, NANNOFFOSIL CHALK WITH CLAY. Dark NANNOFOSSIL-RICH CLAYSTONE and whitish to light greenish brown colored NANNOFOSSIL CHALK are the major lithologies. The SILTY SANDSTONE and SILTY CLAYSTONE are found in the upper 30 cm of Section 1. Medium to thick-bedded (<55 cm) light colored NANNOFOSSIL CHALK is interbedded with NANNOFOSSIL-RICH CLAYSTONE. Bioturbation is mostly observed in NANNOFOSSIL CHALK and dominated by Planolites, Chondrites and Zoophycos burrows. Pyrite nodules (<1 cm) are often seen.



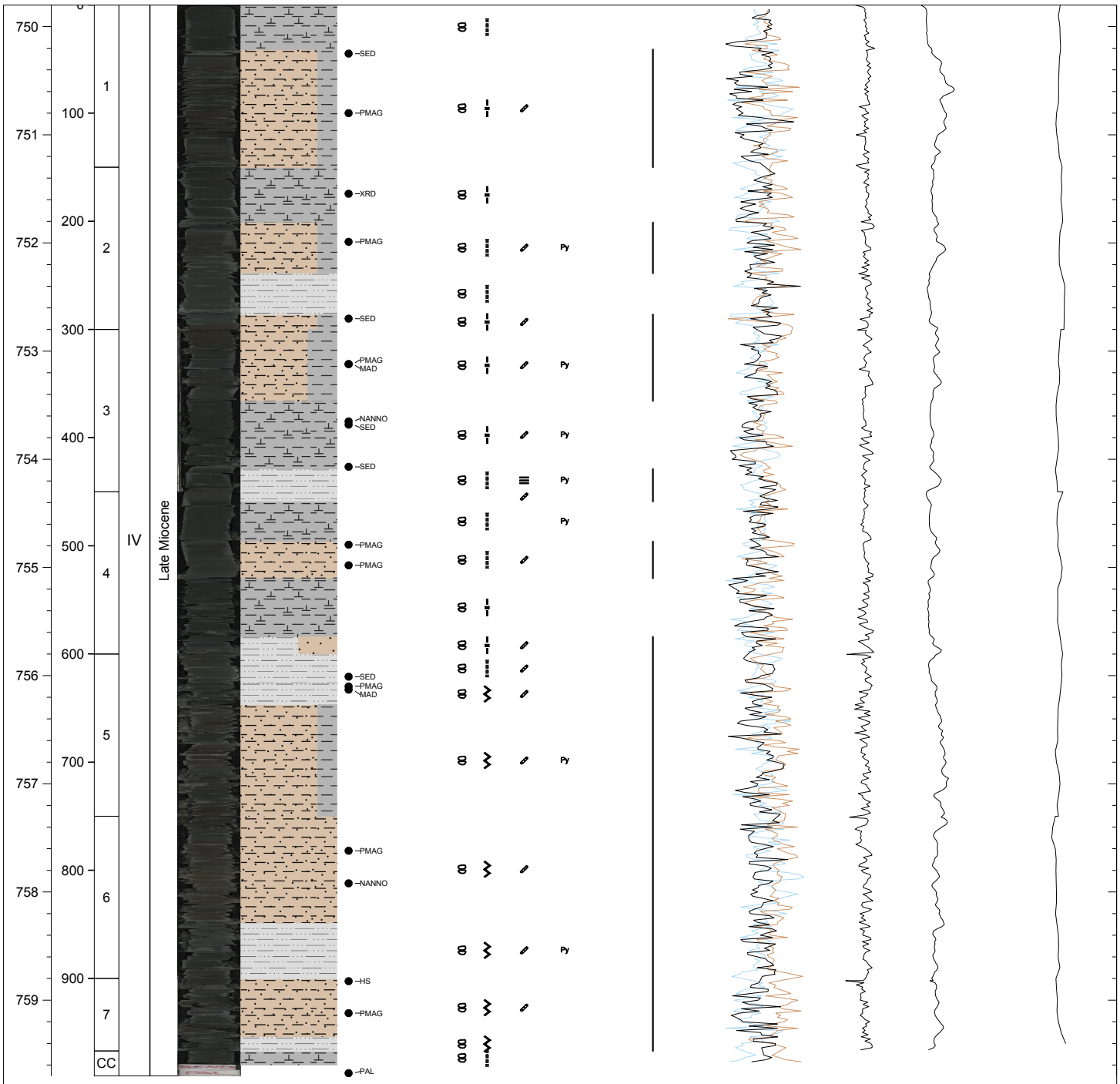
Hole 355-U1456D Core 31R, Interval 740.1-749.75 m (CSF-A)

NANNOFOSSIL-RICH CLAYSTONE, NANNOFOSSIL CHALK WITH SILT, NANNOFOSSIL CHALK WITH CLAY, NANNOFOSSIL-RICH SILTSTONE, SILTY CLAYSTONE WITH NANNOFOSSILS, CLAYEY SILTSTONE WITH NANNOFOSSILS, CLAYEY SILTSTONE, SILTY CLAYSTONE. Dark gray colored NANNOFOSSIL-RICH CLAYSTONE, dark greenish SILTY CLAYSTONE, light brownish CLAYEY SILTSTONE WITH NANNOFOSSILS are the major lithologies. The bioturbated brownish NANNOFOSSIL CHALK and light bluish green NANNOFOSSIL CHALK WITH CLAY are interbedded in the top of Section 1. Light brown CLAYEY SILTSTONE and light bluish green SILTY CLAYSTONE are often interbedded in thin beds. The CLAYSTONE and SILTSTONE WITH NANNOFOSSILS also shows bioturbation. Very small pyrite nodules are very common. Drilling induced brecciation is common in the bottom of the core.



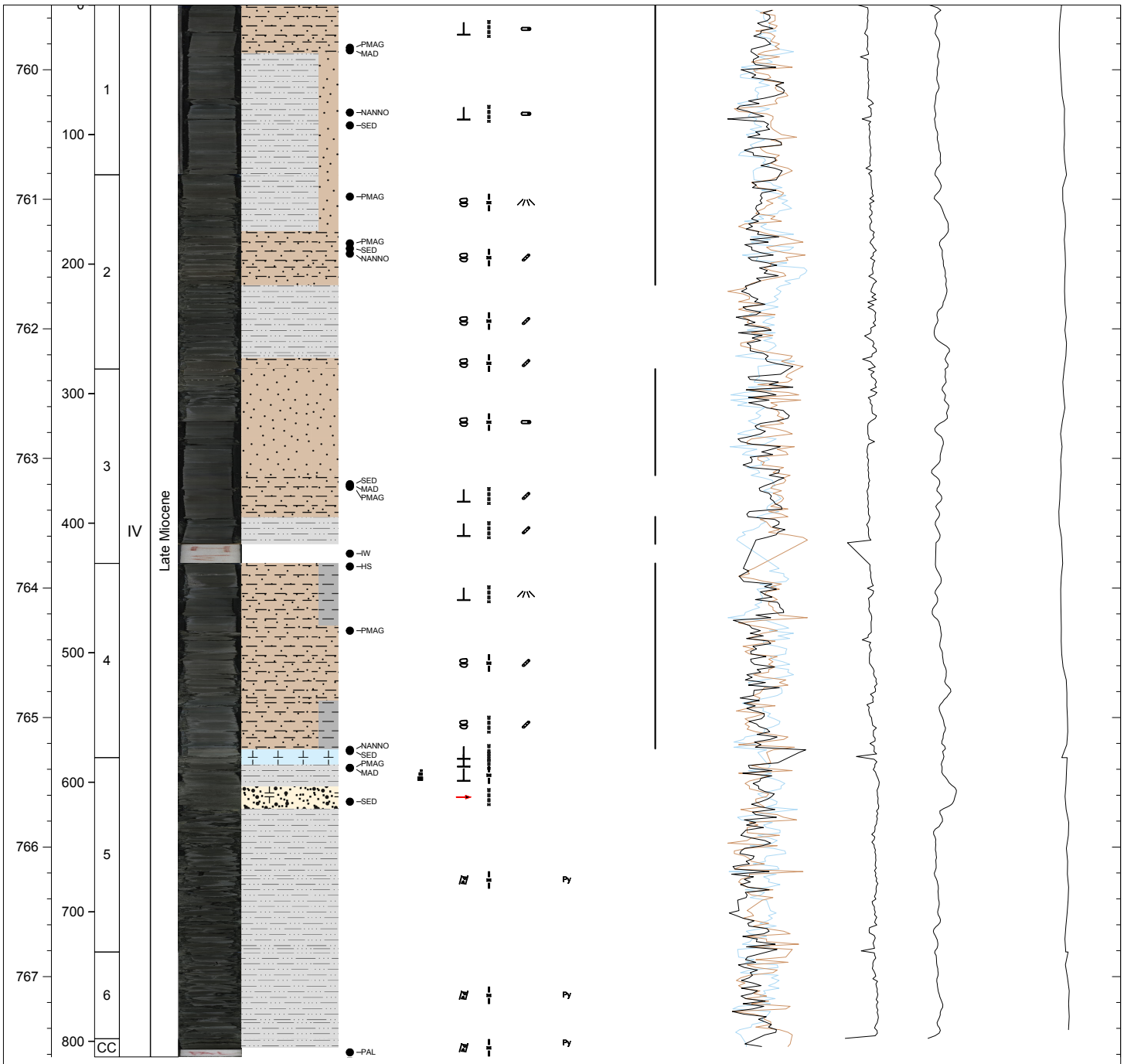
Hole 355-U1456D Core 32R, Interval 749.8-759.7 m (CSF-A)

NANNOFOSSIL-RICH CLAYSTONE, CLAYEY SILTSTONE WITH NANNOFOSSILS, SILTY CLAYSTONE WITH NANNOFOSSILS, CLAYEY SILTSTONE, SILTY CLAYSTONE. Dark greenish NANNOFOSSIL-RICH CLAYSTONE, light brownish CLAYEY SILTSTONE and bluish green SILTY CLAYSTONE are the major lithologies. The medium bedded (<10 cm) bluish green SILTY CLAYSTONE is often interbedded in light brownish CLAYEY SILTSTONE. Bioturbation is mostly seen in bluish green SILTY CLAYSTONE WITH NANNOFOSSILS and brownish CLAYEY SILTSTONE WITH NANNOFOSSILS. Parallel lamination is observed at 127-129 cm in Section 2. Pyrite nodules and oxidized pyrite blackish patches are common. Moderate to severe biscuiting by drilling disturbance is common.



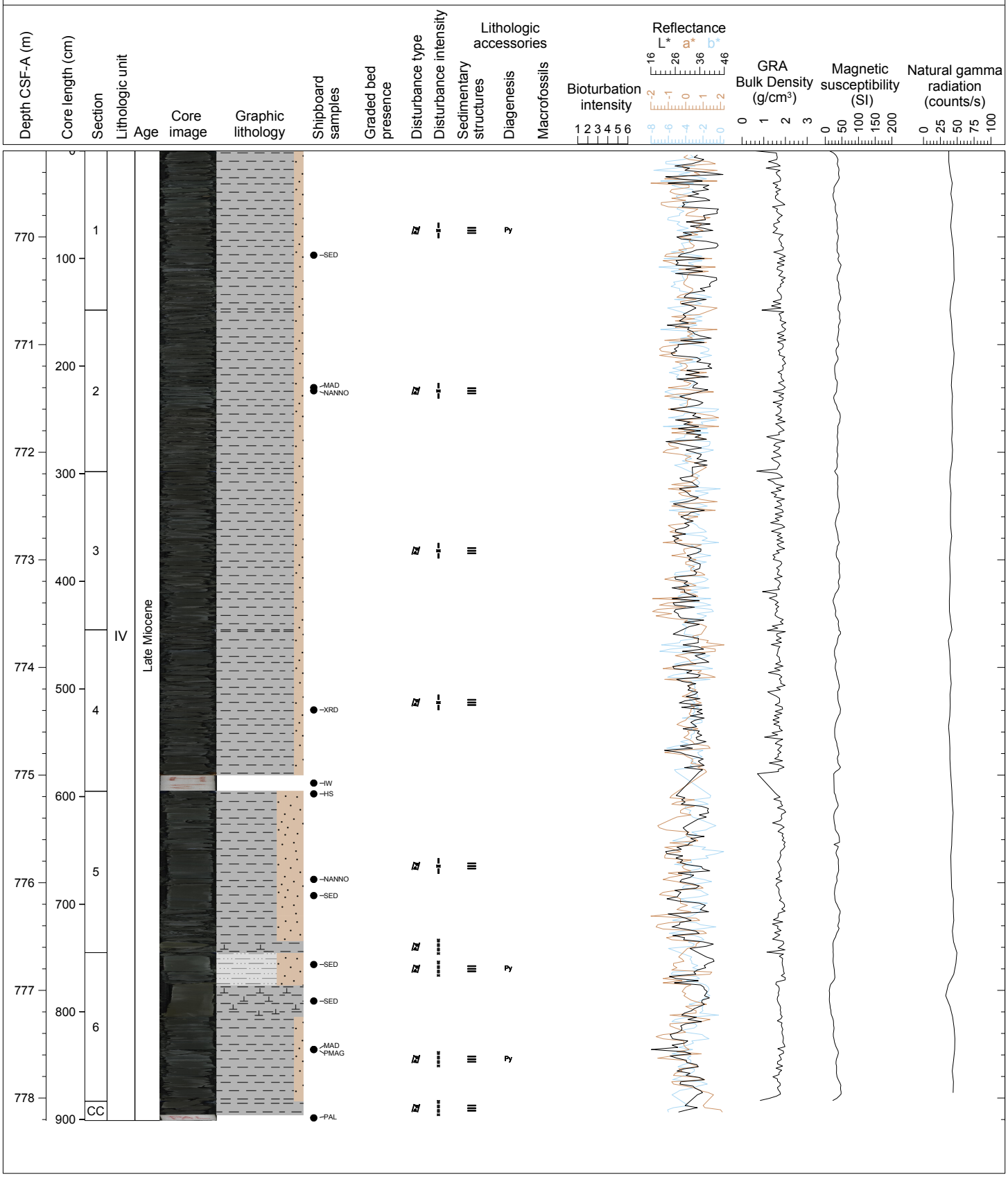
Hole 355-U1456D Core 33R, Interval 759.5-767.62 m (CSF-A)

CLAYEY SILTSTONE, SILTY CLAYSTONE, SILTY CLAYSTONE WITH FORAMINIFERS, SILTY SANDSTONE, NANNOFOSSIL CHALK. Light greenish SILTY CLAYSTONE and light brownish CLAYEY SILTSTONE are the major lithologies. Medium bedded (<15 cm) CLAYEY SILTSTONE and SILTY CLAYSTONE are often interbedded. Bed boundaries are disturbed by drilling. Minor medium-bedded (<10 cm) NANNOFOSSIL CHALK is observed in the bottom of Section 4 and the top of the Section 5. Foraminifers are observed in SILTY CLAYSTONE in Section 5. Bioturbation and burrows are present but identification is difficult due to drilling induce disturbances. Pyrite is observed in Section 5, 6 and the Core Catcher.



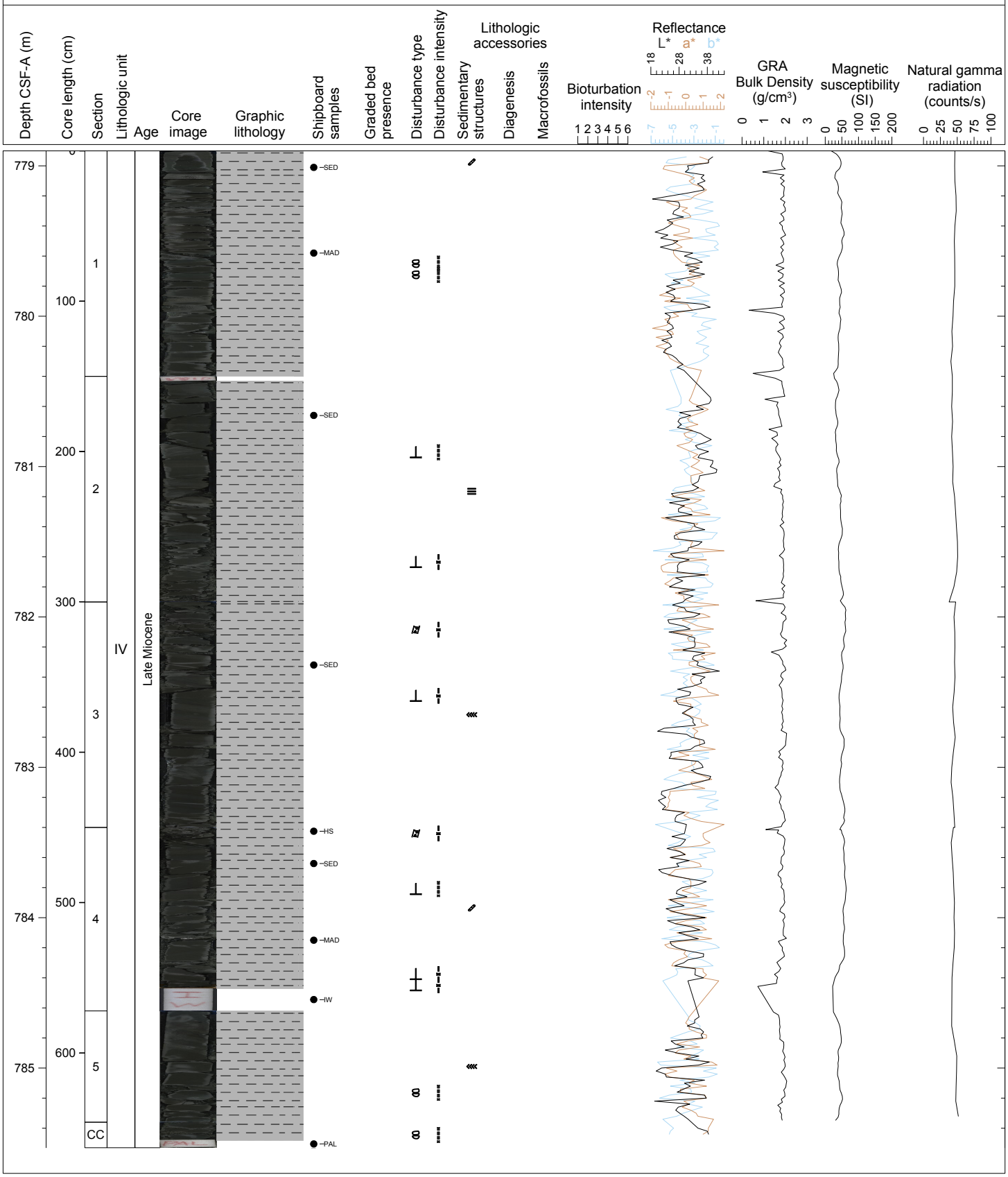
Hole 355-U1456D Core 34R, Interval 769.2-778.21 m (CSF-A)

CLAYSTONE, NANNOFOSSIL-RICH CLAYSTONE, SILTY CLAYSTONE, CLAYEY SILTSTONE. The core is dominated by massive, dark green CLAYSTONE interbedded with thin (<2 cm) intervals of dark green SILTY CLAYSTONE. Locally parallel laminations are seen together with possible cross bedding in the coarse silty and sandy rich beds. Pyrite is commonly seen dispersed through the core and occasional nodules up to 1 cm across are seen. Burrowing is recognized but relatively rare and dominated by horizontal structures. CLAYSTONE dominates >90% of the core. NANNOFOSSIL-RICH CLAYSTONE is a minor lithology and is seen in a single massive, pale green bed.



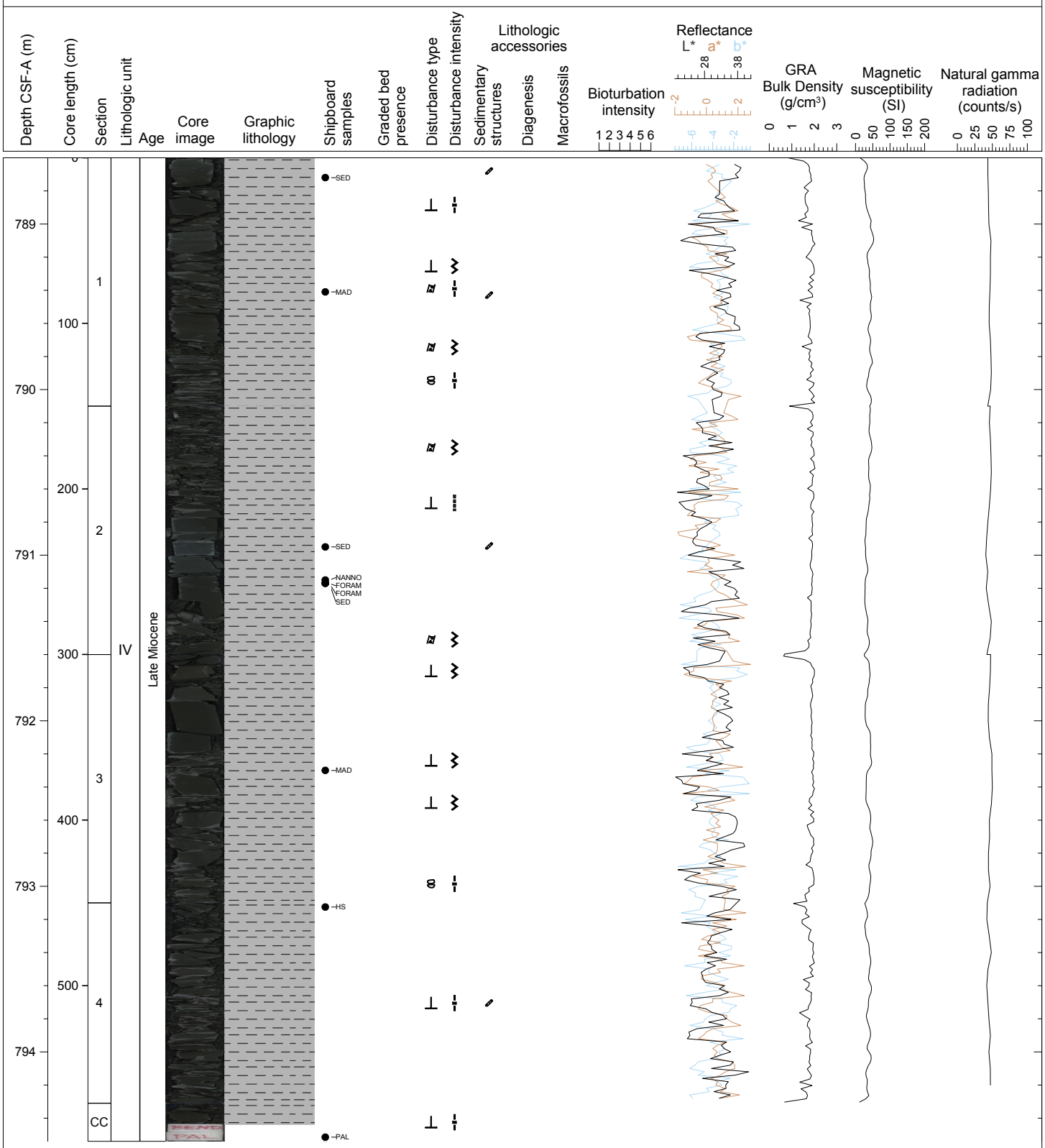
Hole 355-U1456D Core 35R, Interval 778.9-785.53 m (CSF-A)

CLAYSTONE, SILTY CLAYSTONE WITH FORAMINIFERS. The core is dominated by massive, dark green CLAYSTONE. Dark green, thin (<1 cm) or thick (1 to 3 cm) laminated SILTY CLAYSTONE WITH FORAMINFERS is overlain by CLAYSTONE with a gradual boundary. However, the basal contact of SILTY CLAYSTONE WITH FORAMINIFERS overlying CLAYSTONE is planar and sharp. Burrows are seen in the top of Section 1. Locally parallel laminations are seen and high-angle cross bedding of SILTY CLAYSTONE WITH FORAMINIFERS is distinct in Section 3 (81 cm) and Section 5 (22 cm). Pyrite micro-concretions are found through the core and occasional nodules up to 1 cm across are seen. CLAYSTONE dominates >90% of the core. SILTY CLAYSTONE WITH FORAMINIFERS is a minor lithology.



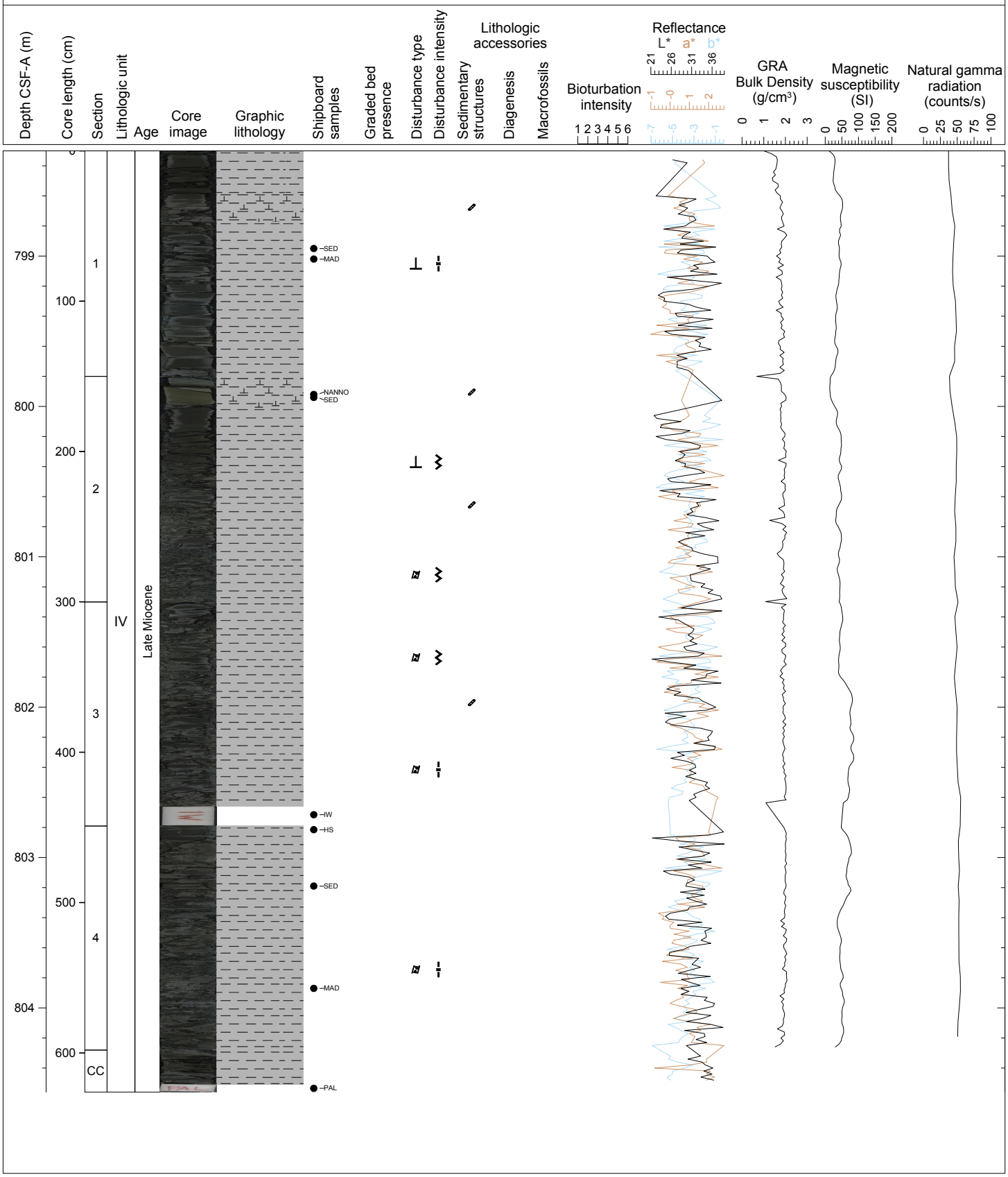
Hole 355-U1456D Core 36R, Interval 788.6-794.54 m (CSF-A)

CLAYSTONE, CLAYSTONE WITH NANNOFOSSILS, SILTY CLAYSTONE WITH FORAMINIFERS. Dark greenish CLAYSTONE is the dominant lithology. Bluish green CLAYSTONE WITH NANNOFOSSIL was seen in the top of Section 1 and in the middle of Section 2. Burrows are found in some of CLAYSTONE beds. Thin (~1 cm) dark green SILTY CLAYSTONE WITH FORAMINIFERS is interbedded with CLAYSTONE. The tops of SILTY CLAYTONE WITH FORAMINIFERS beds are planar and sharp. A 4-cm-thick SILTY CLAYSTONE WITH FORAMINIFERS bed is overlain by bluish green CLAYSTONE in the top of Section 1. Pyrite is rare. Drilling disturbance is severe.



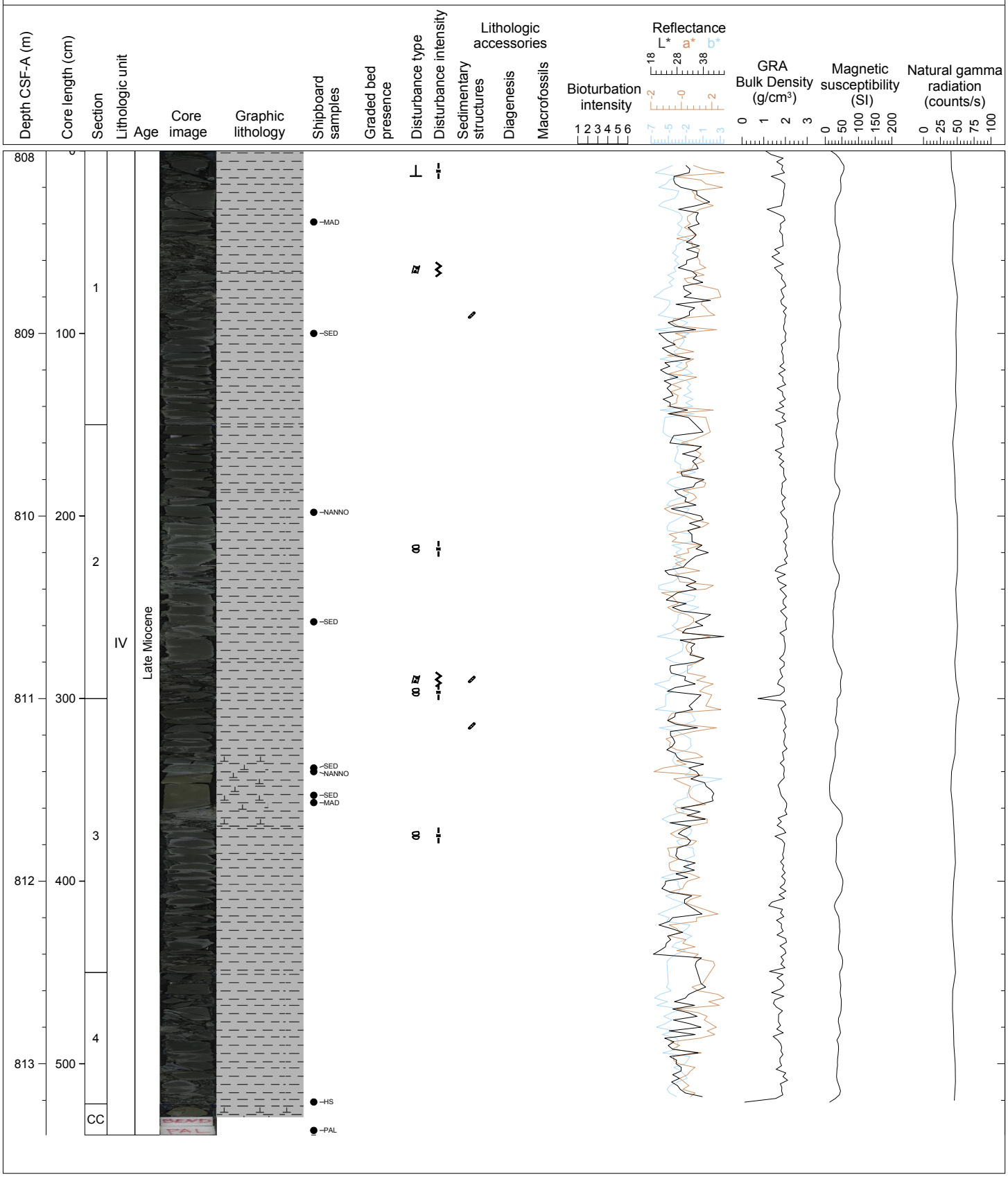
Hole 355-U1456D Core 37R, Interval 798.3-804.56 m (CSF-A)

CLAYSTONE, NANNOFOSSIL-RICH CLAYSTONE, CLAYSTONE WITH NANNOFOSSILS. Dark green and massive CLAYSTONE is the main lithology in this core, although this is disrupted by severe drilling-induced fracturing and brecciation. Light greenish gray NANNOFOSSIL-RICH CLAYSTONE, showing burrows (Zoophycos, Planolites), are found at the top of Section 2. In the lower part (100-150 cm) of Section 1, bluish green CLAYSTONE WITH NANNOFOSSILS is interbedded with CLAYSTONE. Several pyrite nodules (1-2 cm) are observed. Burrows can be seen in some CLAYSTONE layers. At the bottom of the core catcher, a white clastic particle (~1 cm) is observed.



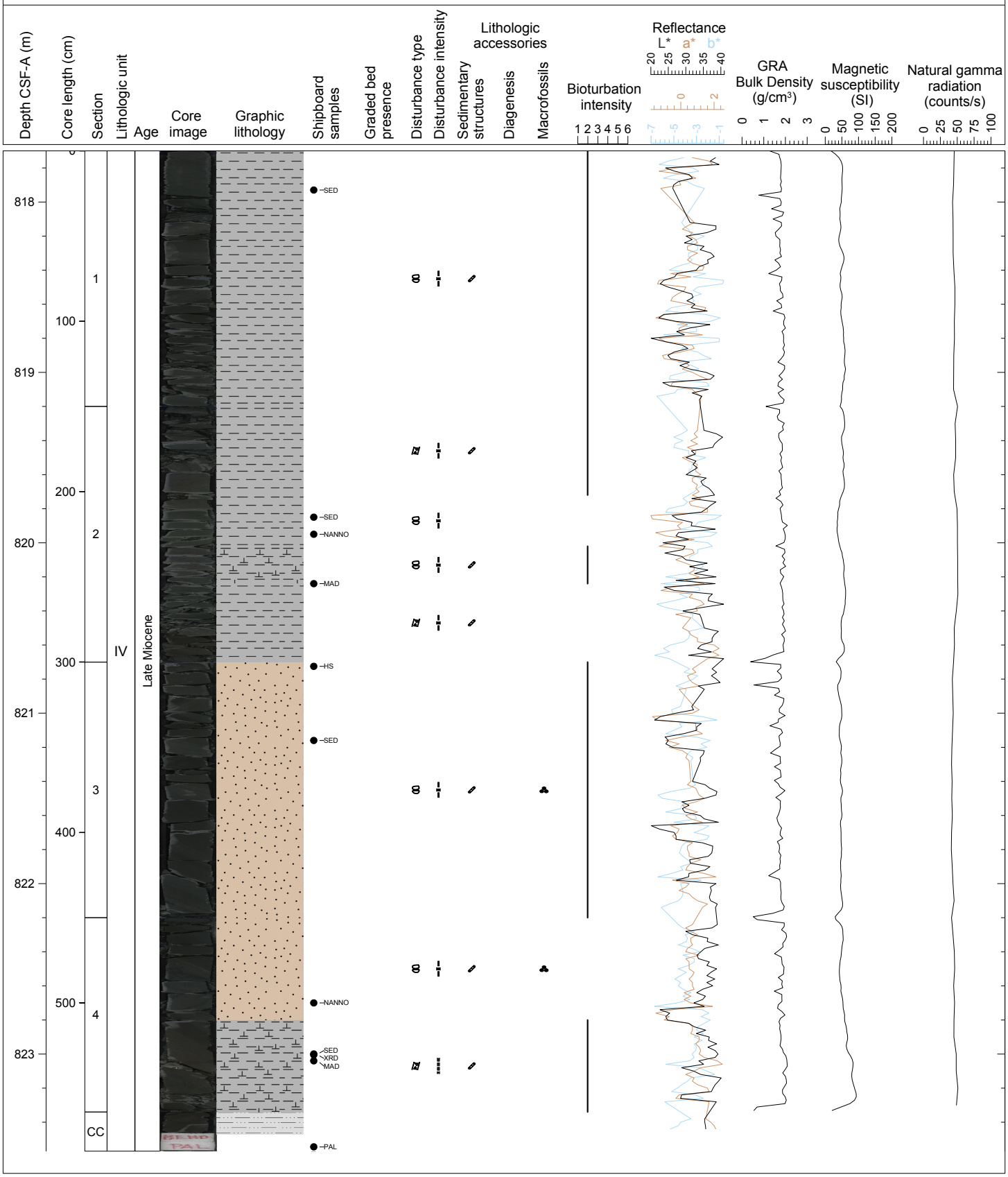
Hole 355-U1456D Core 38R, Interval 808.0-813.39 m (CSF-A)

CLAYSTONE, NANNOFOSSIL-RICH CLAYSTONE, CLAYSTONE WITH NANNOFOSSILS, SILTY CLAYSTONE. Massive CLAYSTONE, either dark green or bluish green is the dominant lithology. Light gray NANNOFOSSIL-RICH CLAYSTONE is minor. Burrowing is observed in CLAYSTONE WITH NANNOFOSSILS. A pyrite concretion (1 cm) is found at 13 cm of Section 2. A very thin (<1 cm) silt lamina is found at 36 cm in Section 2. Drilling disturbance is severe.



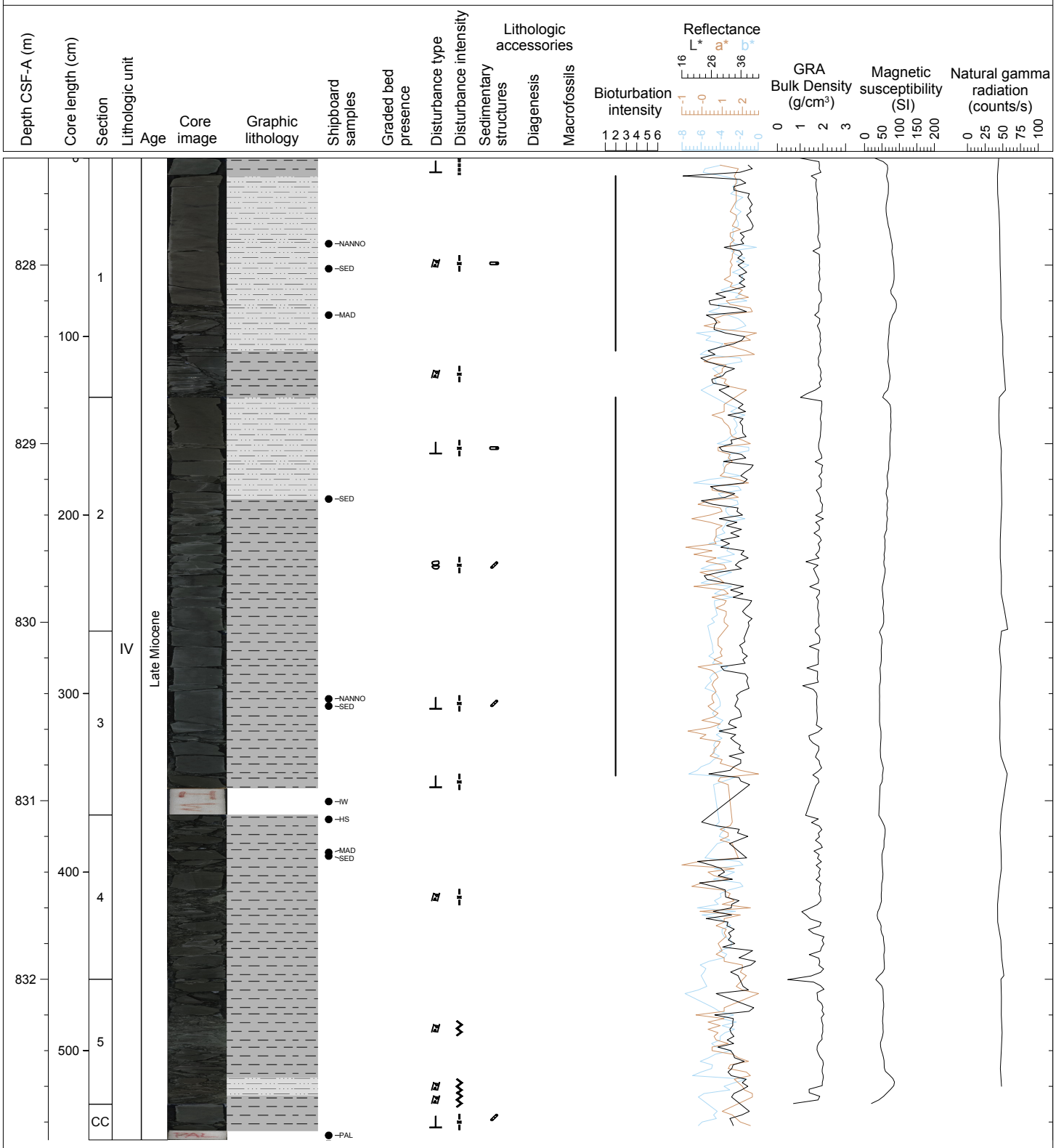
Hole 355-U1456D Core 39R, Interval 817.7-823.57 m (CSF-A)

CLAYSTONE, CLAYSTONE WITH SILT, CLAYSTONE WITH NANNOFOSSILS. The core is dominated by a dark green and dark greenish gray CLAYSTONE. Inclined bedding (<1 cm) is typically observed in the CLAYSTONE, which is locally rich in foraminifers. Burrows are common in greenish CLAYSTONE and brown greenish CLAYSTONE WITH SILT which are dominated by Planolites. The light greenish medium bedded (<30 cm) CLAYSTONE WITH NANNOFOSSILS is observed only in Section 2. Pyrite is not observed in the core but is found in smear slides.



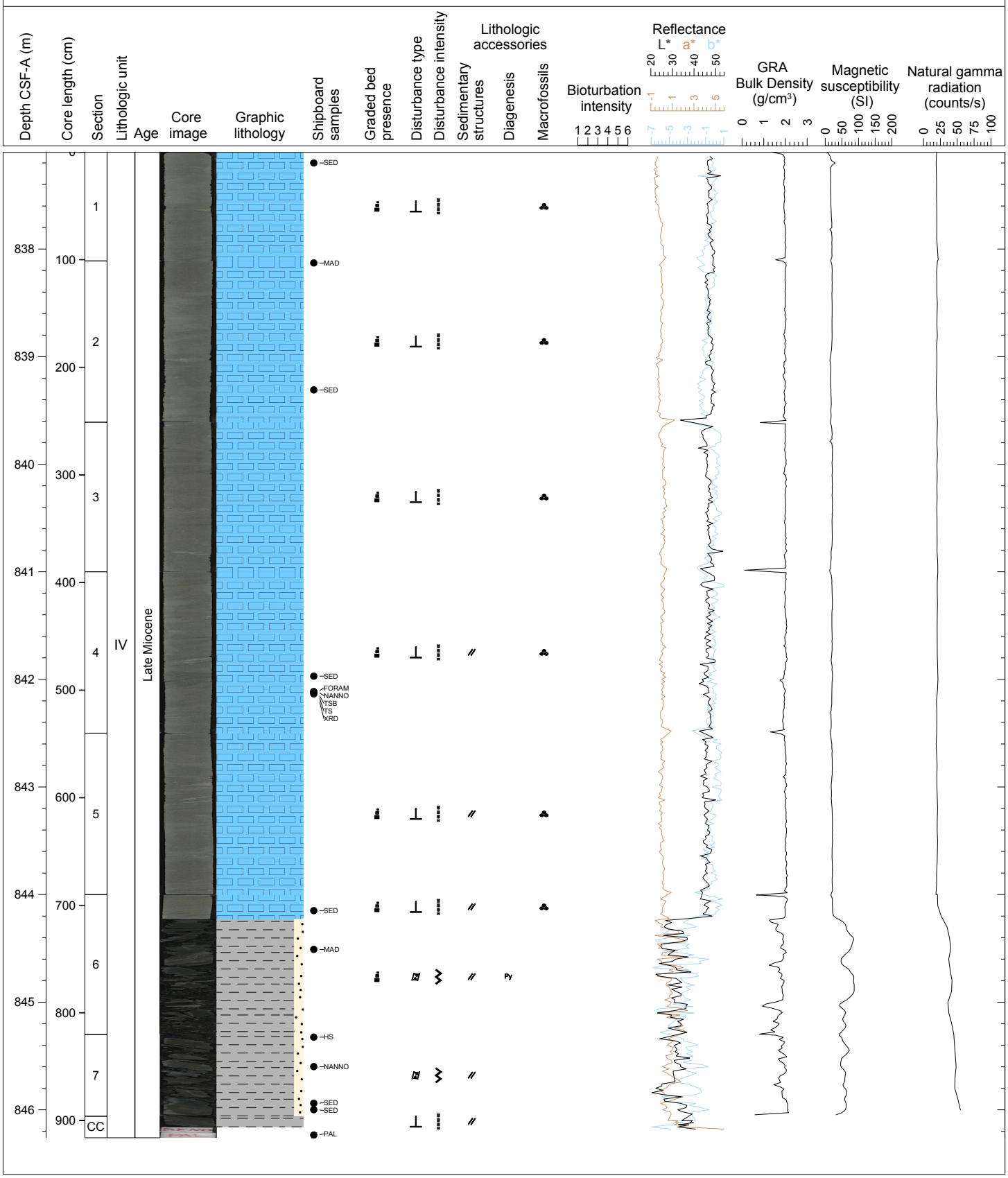
Hole 355-U1456D Core 40R, Interval 827.4-832.9 m (CSF-A)

CLAYSTONE, SILTY CLAYSTONE. The core is dominated by light brownish SILTY CLAYSTONE and light bluish gray to dark gray CLAYSTONE. A thin, vertical to sub vertical layer (<1 cm) of SANDY SILTSTONE is observed within light gray CLAYSTONE. A horizontal thin layer (<1 cm) of SANDY SILTSTONE is observed at 57 cm in Section 2. Black pyrite patches are numerous. Burrows are commonly dominated by Planolites. SILTY CLAYSTONE and CLAYSTONE account for roughly equal proportions of the core.



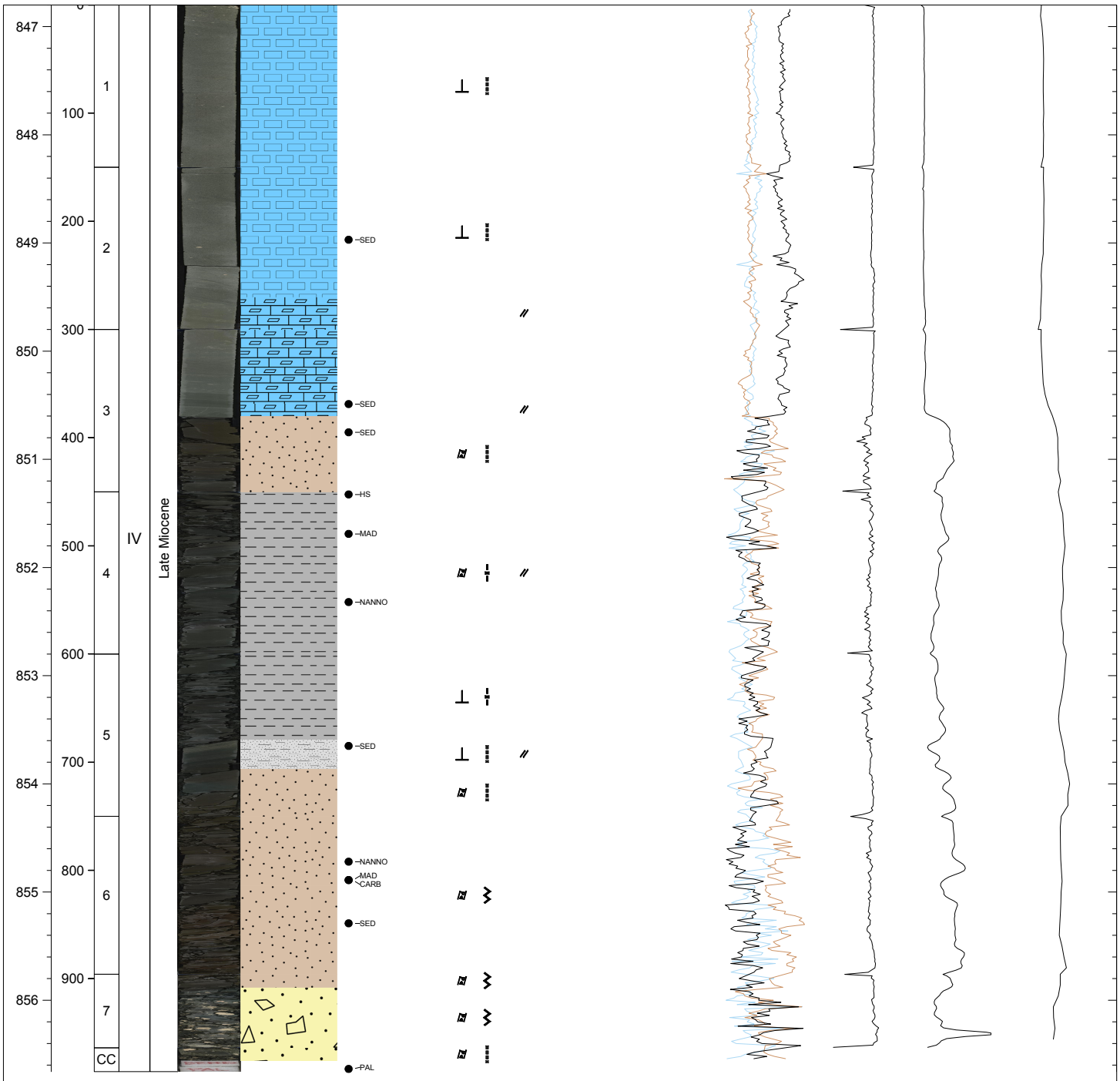
Hole 355-U1456D Core 41R, Interval 837.1-846.26 m (CSF-A)

CALCARENITE, CLAYSTONE WITH NANNOFOSSILS, SILTY SANDSTONE. The core is dominated by fine to medium grained light green CALCARENITE and blackish dark gray CLAYSTONE WITH NANNOFOSSILS. One medium bedded (<10 cm) coarse grained CALCARENITE interbedded layer is observed at 94 cm in Section 4. Tilted bedding and folds (<3 cm) are occasionally observed in CALCARENITE. The thin tilted (<10 cm) SILTY SANDSTONE beds are often observed interbedded in dark blackish CLAYSTONE WITH NANNOFOSSILS. Bioturbation is observed only in patches of greenish CLAYSTONE interbedded in CLAYSTONE WITH NANNOFOSSILS. Pyrites nodules are observed in CLAYSTONE WITH NANNOFOSSILS. The CALCARENITE comprises 80% of the core.



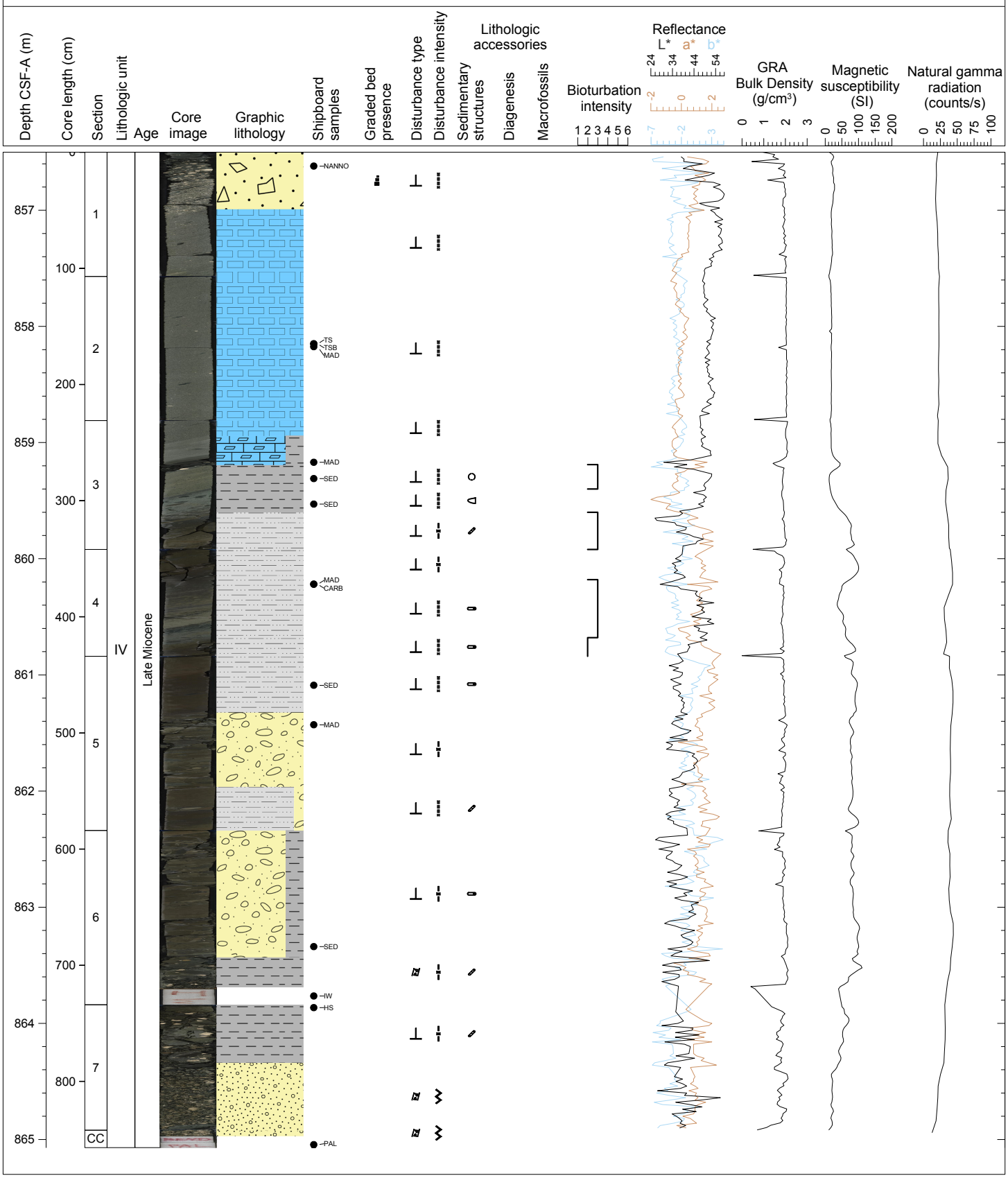
Hole 355-U1456D Core 42R, Interval 846.8-856.66 m (CSF-A)

CALCARENITE, CALCILUTITE, SILTSTONE, CLAYSTONE, CALCILUTITE WITH NANNOFOSSILS, SANDY CLAYSTONE WITH FORAMINIFERS, BRECCIA. The core is dominated by massive light greenish CALCARENITE, light brown SILTSTONE, dark gray CLAYSTONE and BRECCIA. The dispersed sub-angular to sub-rounded carbonate (< 1 cm diameter) fragments are often seen in CALCARENITE. Beds of CALCILUTITE are tilted and observed below the massive CALCARENITE. Blackish pyrite-bearing layers are seen within the tilted CLAYSTONE are common. Medium-bedded (<30 cm) SANDY CLAYSTONE WITH FORAMINIFERS is observed in Section 5. The thick (~75 cm) BRECCIA is dominated by angular to sub-angular fragment of CLAYSTONE and sub-rounded to rounded (<3 cm) carbonate fragments is observed at the bottom of the core.



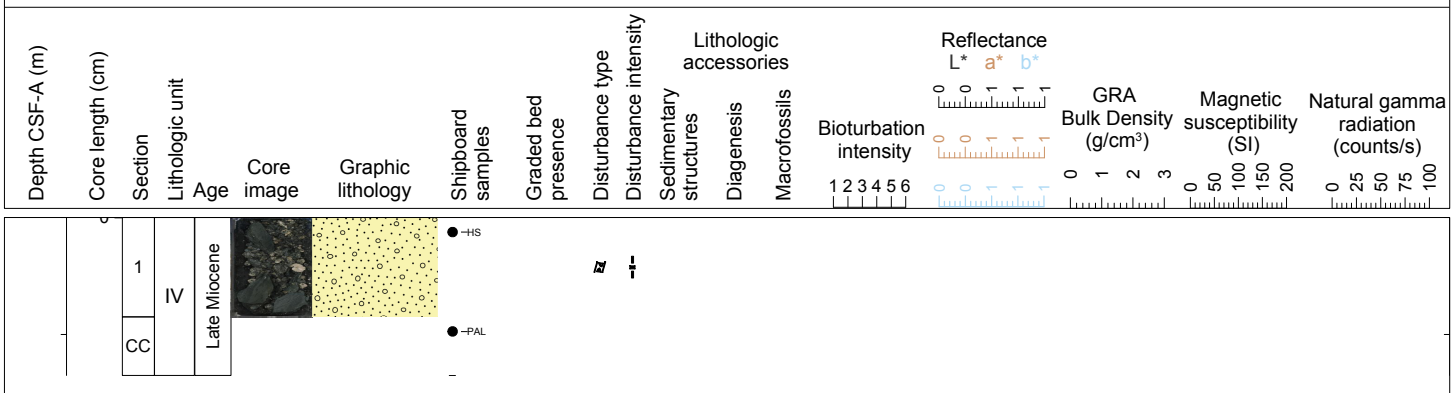
Hole 355-U1456D Core 43R, Interval 856.5-865.07 m (CSF-A)

BRECCIA, CALCARENITE, CALCILUTITE, NANNOFOSSIL-RICH CLAYSTONE WITH INTRACLASTS, SILTSTONE, SILTSTONE WITH INTRACLASTS, CONGLOMERATE, GRAVEL Core is dominated by massive light green CALCARENITE, brownish SILTSTONE, light brownish BRECCIA, NANNOFOSSIL-RICH CLAYSTONE WITH INTRACLASTS and GRAVELS. The grain size gradually reduced from top of the core to middle of the Section 3. The NANNOFOSSIL-RICH CLAYSTONE is dominated by intraclast lens and patches, observed with fault-like structures (64 cm and 80 cm, Section 3). The CONGLOMERATE is dominated by nannofossil-rich claystone matrix and clast sizes up to 5 cm. Bioturbation is commonly observed in NANNOFOSSIL-RICH CLAYSTONE and SILTSTONE and is mostly of Planolites type. The thick (>50 cm) carbonate gravel is observed in the bottom of the core.



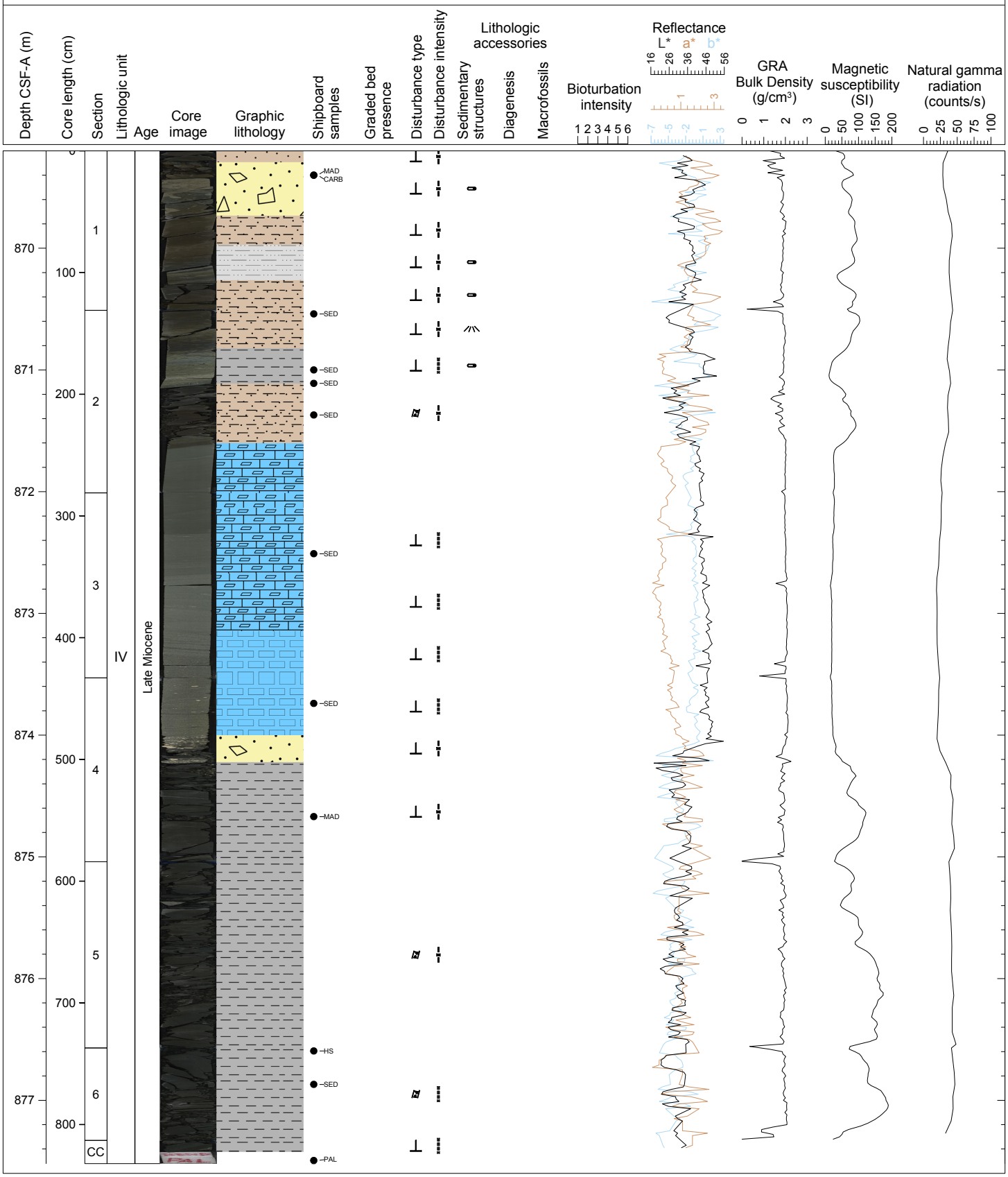
Hole 355-U1456D Core 44R, Interval 866.2-866.47 m (CSF-A)

GRAVEL. GRAVEL is found with fragments (up to 5 cm) of CLAYSTONE in addition to the bright white, angular fragments of limestone, suspended in a dark green clay matrix. The gravel is poorly sorted and ungraded.



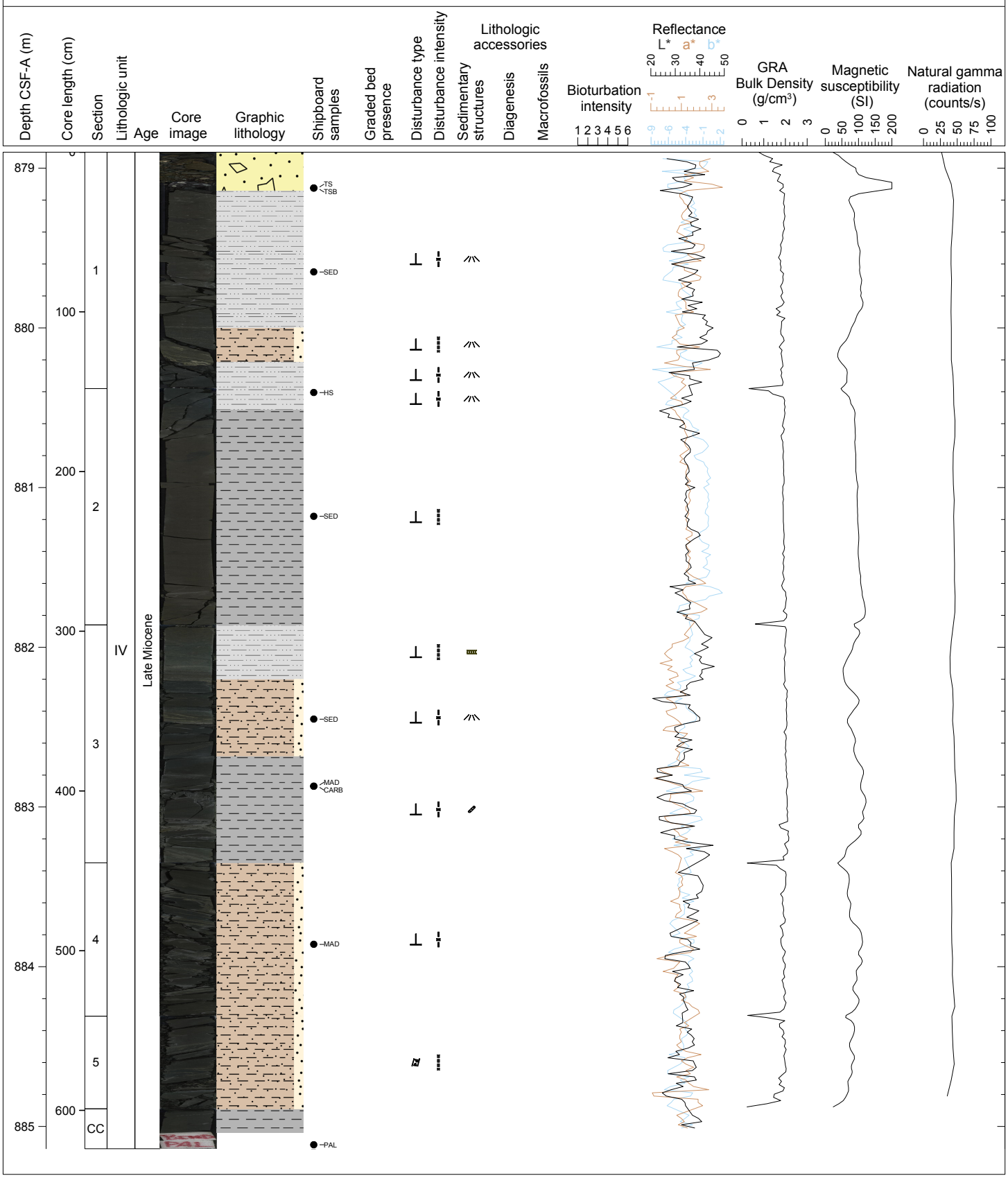
Hole 355-U1456D Core 45R, Interval 869.2-877.52 m (CSF-A)

SILTSTONE, CLAYSTONE, CLAYEY SILTSTONE, SILTY CLAYSTONE, CLAYSTONE WITH INTRACLASTS, CALCILUTITE, CALCARENITE, BRECCIA. Core is dominated by dark gray to blackish gray CLAYSTONE, with occasional SANDY SILTSTONE fragments and light greenish white CALCARENITE and CALCILUTITE. Medium-bedded BRECCIA (~25 cm) has clasts up to 2 cm across and is interbedded with SILTY CLAYSTONE in Section 1. The SILTY CLAYSTONE WITH INTRACLASTS (~30 cm) of claystone is observed interbedded in CLAYEY SILTSTONE. The CALCILUTITE and CALCARENITE are present as thick beds (~55 cm). A small fault is observe at 32 cm in Section 2. Massive CLAYSTONE (~300 cm thick), is observed under the BRECCIA. The bedding is mostly inclined high above the horizontal.



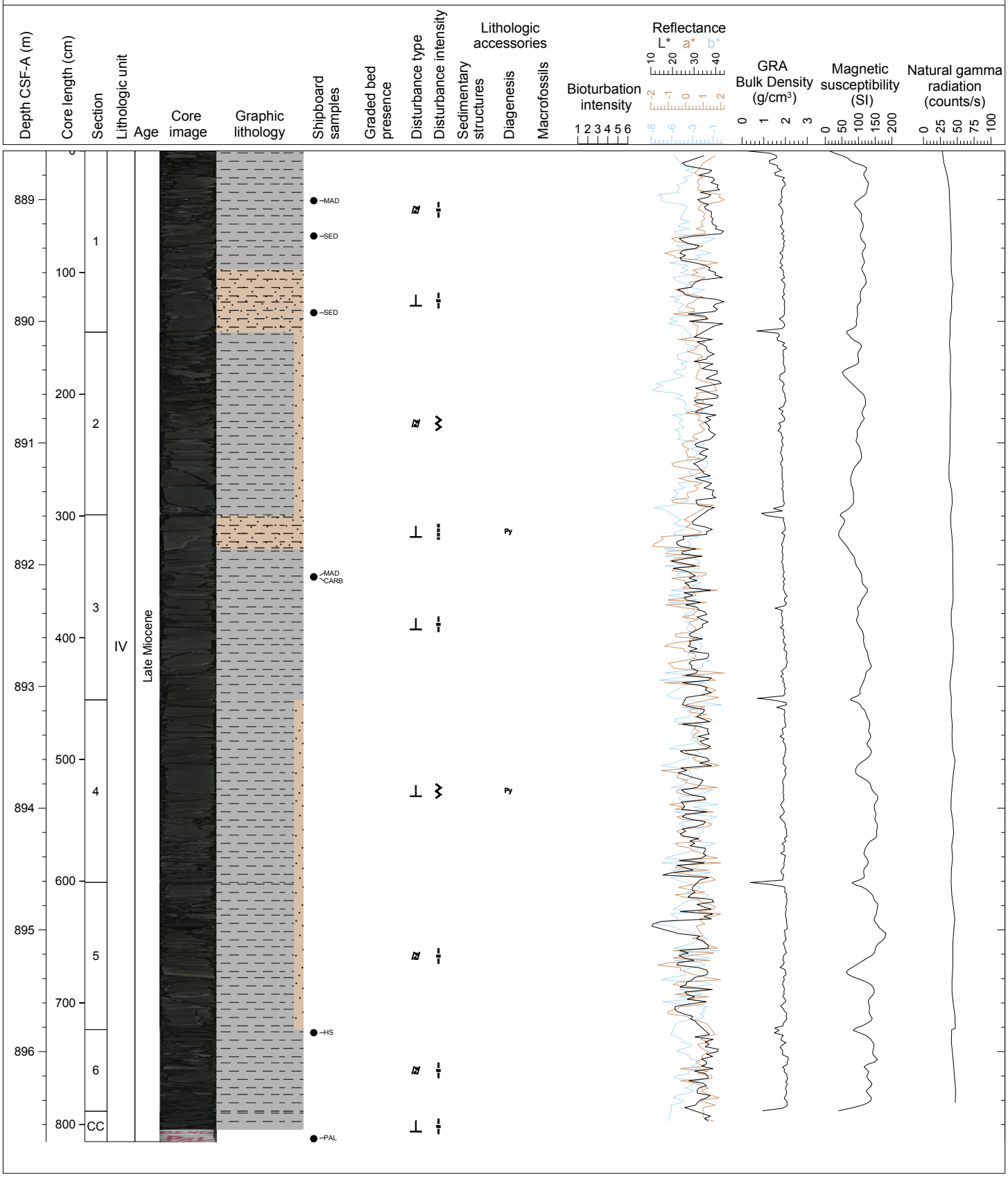
Hole 355-U1456D Core 46R, Interval 878.9-885.14 m (CSF-A)

BRECCIA, SILTY CLAYSTONE, CLAYEY SILTSTONE, CLAYSTONE, SILTY SANDSTONE. Core is dominated by massive brownish CLAYSTONE, grayish brown SILTY CLAYSTONE and gray to dark gray CLAYEY SILTSTONE. Unconsolidated BRECCIA is observed in the top 20 cm of Section 1, and contains gravel to pebble-sized pieces of CLAYSTONE, SILTSTONE and a vesicular, mafic volcanic fragment with zeolite amygdales. SILTY SANDSTONE is found interbedded with CLAYEY SILTSTONE and often folded. Thin (<2 cm) parallel laminated SILTY SANDSTONE beds are interleaved in CLAYEY SILTSTONE. A fault is observed at 144 cm in Section 3. Bioturbation is observed in SILTY CLAYSTONE with Planolites, Chondrites and Zoophycos.



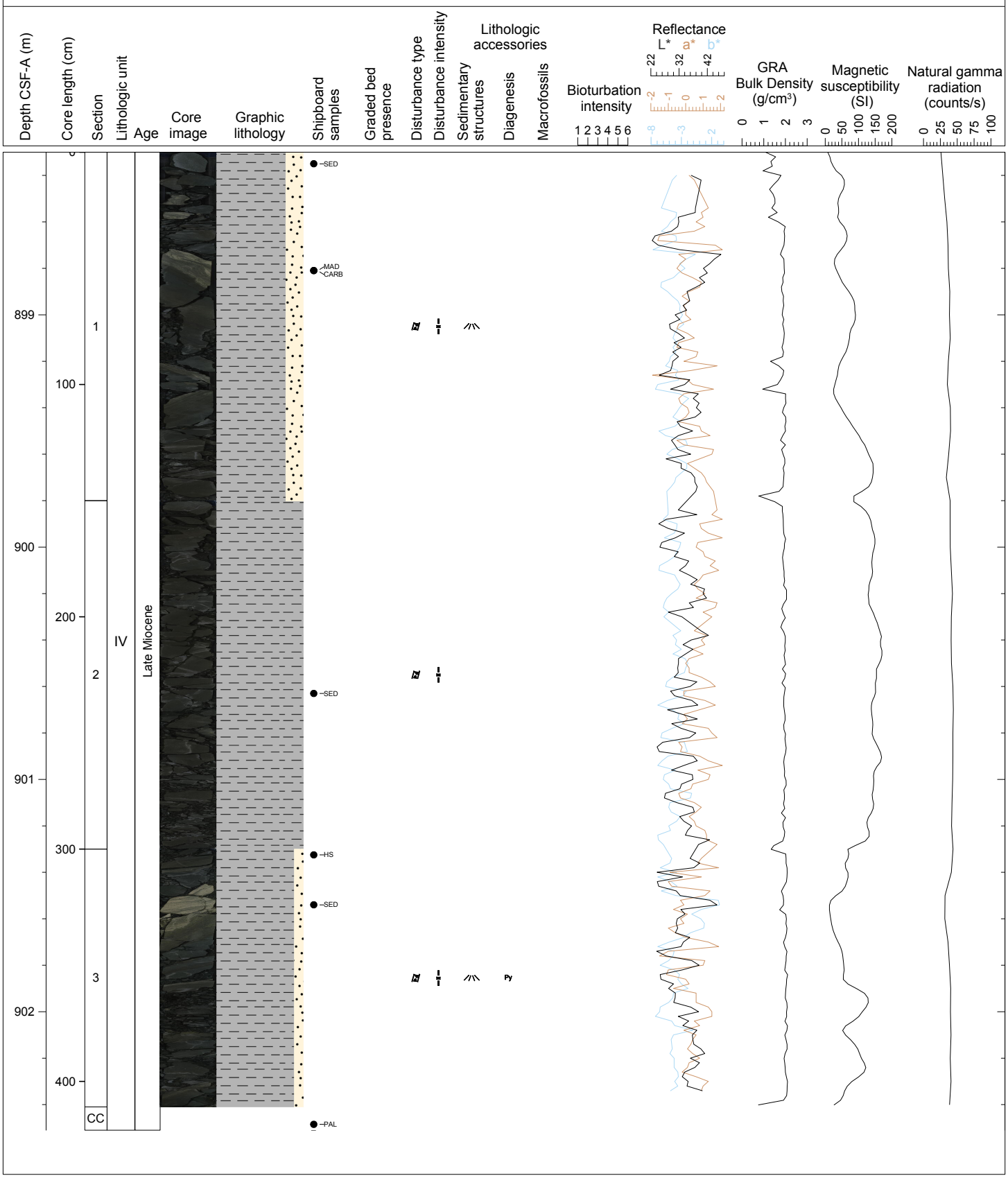
Hole 355-U1456D Core 47R, Interval 888.6-896.74 m (CSF-A)

CLAYSTONE, SILTY SANDSTONE. Core is largely composed of light greenish to light greenish gray, massive CLAYSTONE. The bedding is inclined close to vertical where it can be observed. Parallel laminations are observed in SILTY SANDSTONE beds, which are often interbedded with CLAYSTONE. Pyrite nodules (<0.5 cm across) are mostly associated with SILTY SANDSTONE layers.



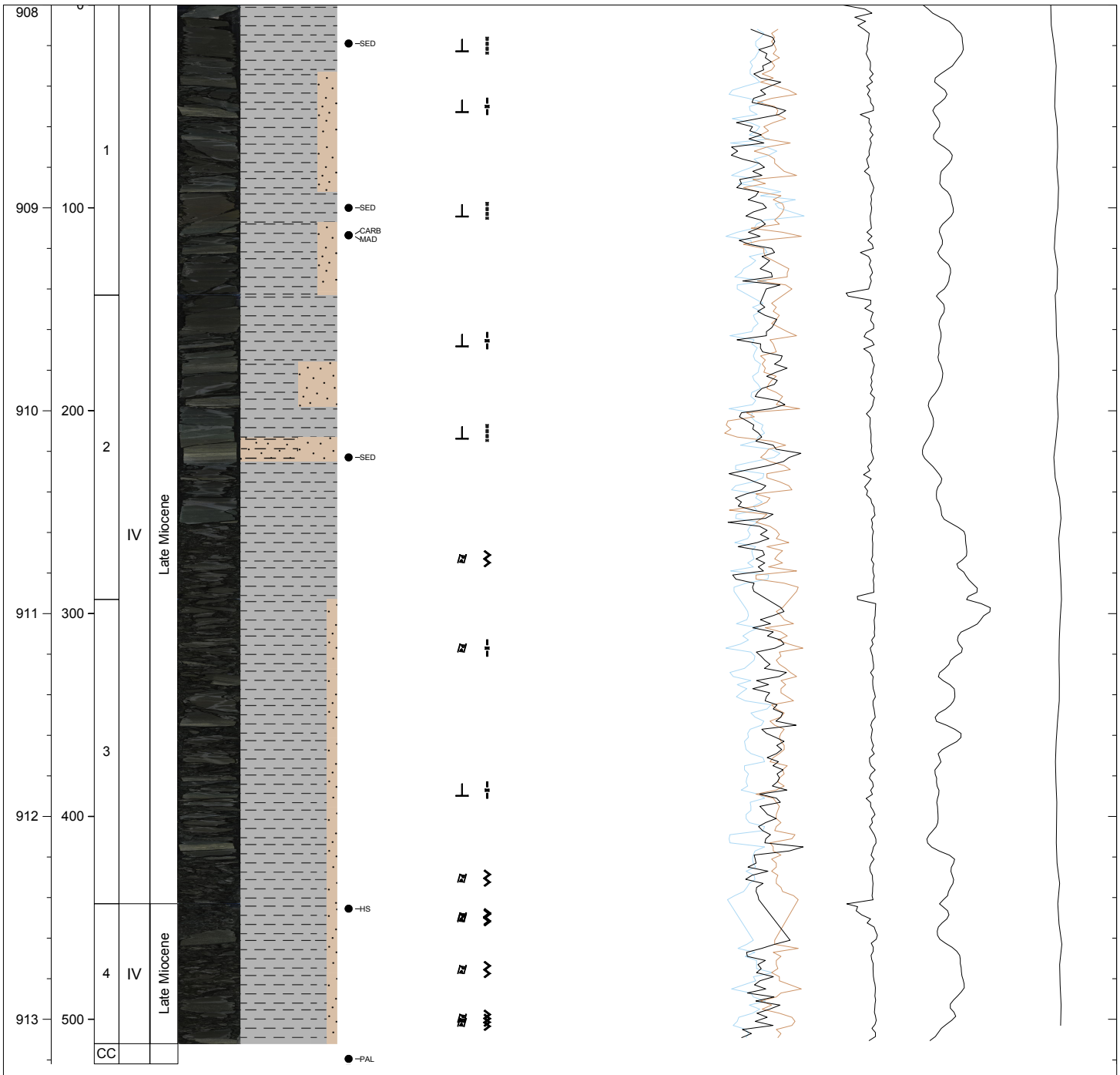
Hole 355-U1456D Core 48R, Interval 898.3-902.51 m (CSF-A)

CLAYSTONE, SILTY SANDSTONE. Core is mainly composed of dark gray to light gray CLAYSTONE, Laminated thin-bedded (< 10 cm) SILTY SANDSTONE is repeatedly interbedded in CLAYSTONE. Bioturbation is mostly observed in the SILTY SANDSTONE beds and is dominated by Chondrites and Planolites. Pyrite nodules are observed at 53 cm in Section 3.



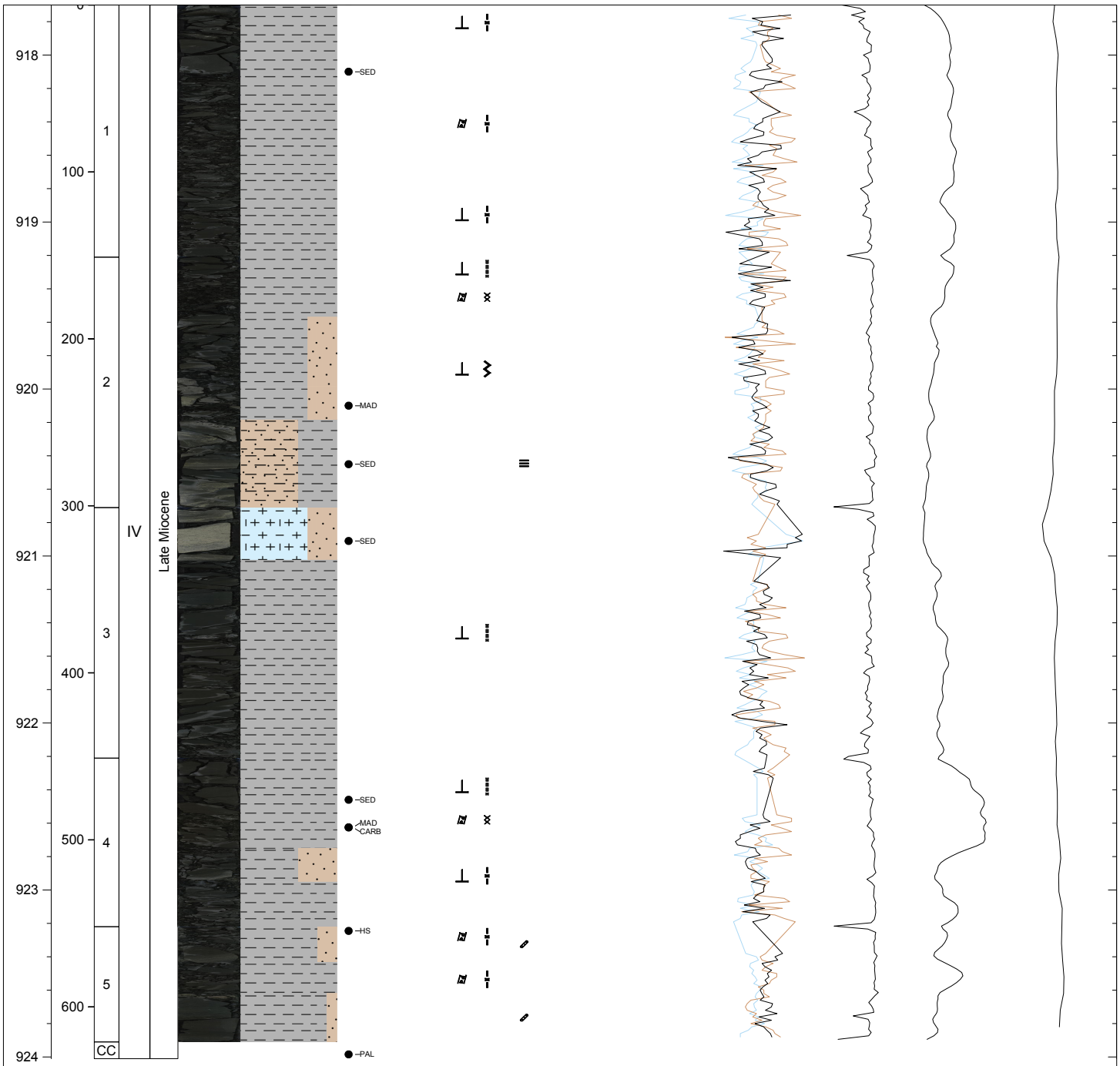
Hole 355-U1456D Core 49R, Interval 908.0-913.22 m (CSF-A)

CLAYSTONE, CLAYSTONE WITH NANNOFOSSILS, CLAYEY SILTSTONE, SILTY SANDSTONE. Core is largely comprised of dark greenish, massive CLAYSTONE. Brownish gray CLAYSTONE WITH NANNOFOSSILS is observed in Section 1. Gray SILTY SANDSTONE is repeatedly interbedded with CLAYSTONE. SILTY SANDSTONE preserves thin laminations and is also thinly bedded . This sediment dominantly consists of foraminifers and bioclasts. CLAYEY SILTSTONE also shows thin laminations but they are mostly deformed. Drilling disturbance is severe in the lower part of core.



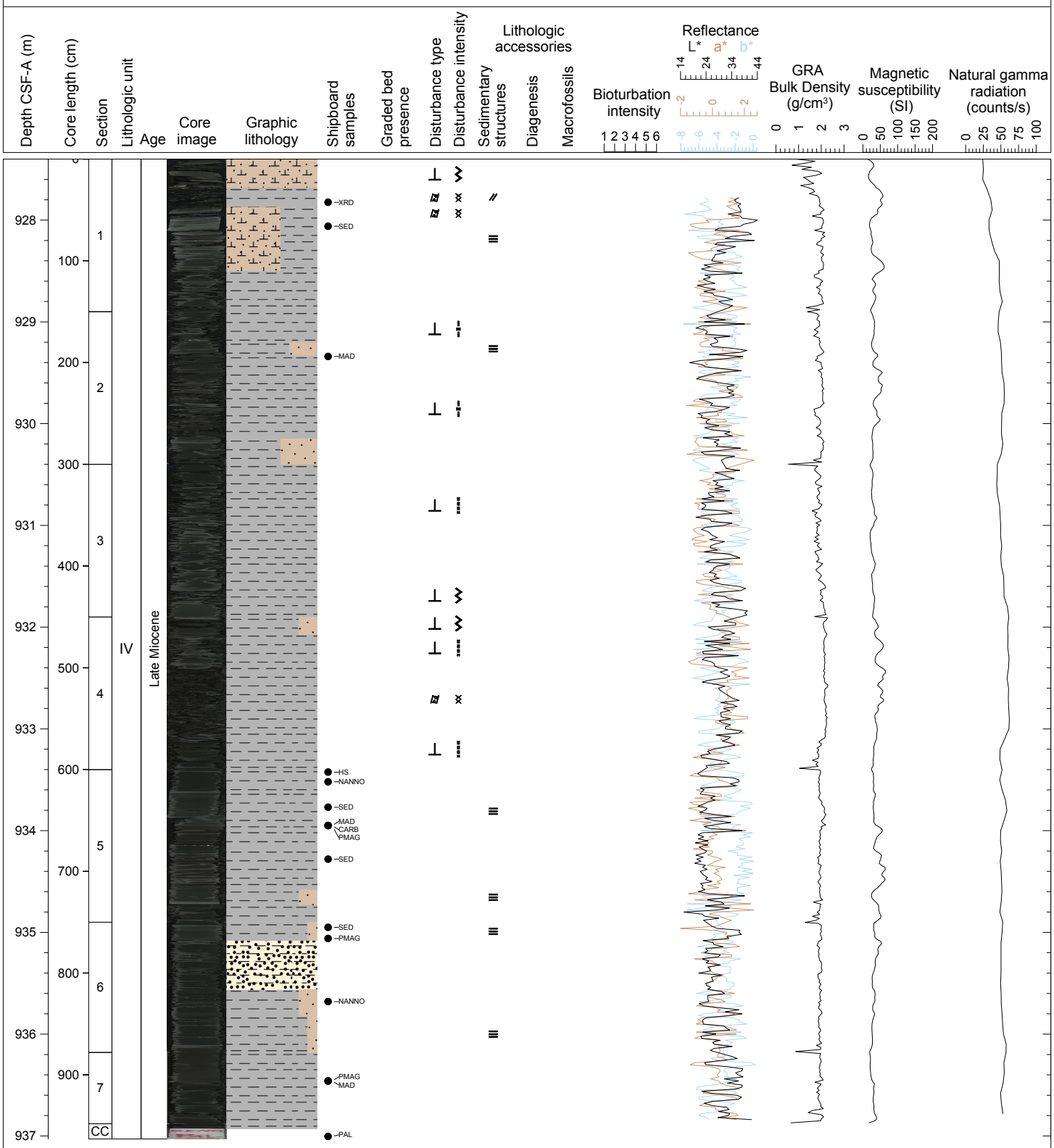
Hole 355-U1456D Core 50R, Interval 917.7-924.01 m (CSF-A)

CLAYSTONE, CLAYSTONE WITH NANNOFOSSILS, SILTSTONE, CALCAREOUS CHALK. Core is largely comprised of dark greenish, massive CLAYSTONE and dark brownish gray, massive CLAYSTONE WITH NANNOFOSSILS. Thin (1-3 cm) gray CLAYEY SILTSTONE and SILTSTONE is often interbedded with CLAYSTONE. CLAYEY SILTSTONE and FORAMINIFER-RICH SILTSTONE show thin parallel laminations, many of which are deformed into folds. Tiny Chondrites burrows can be found in Section 5. A 15 cm thick CALCAREOUS CHALK is seen in the top of Section 2. A pyrite concretion 1 cm across is seen at 41 cm of Section 5. Drilling disturbance in the form of fracturing and brecciation is severe throughout the core.



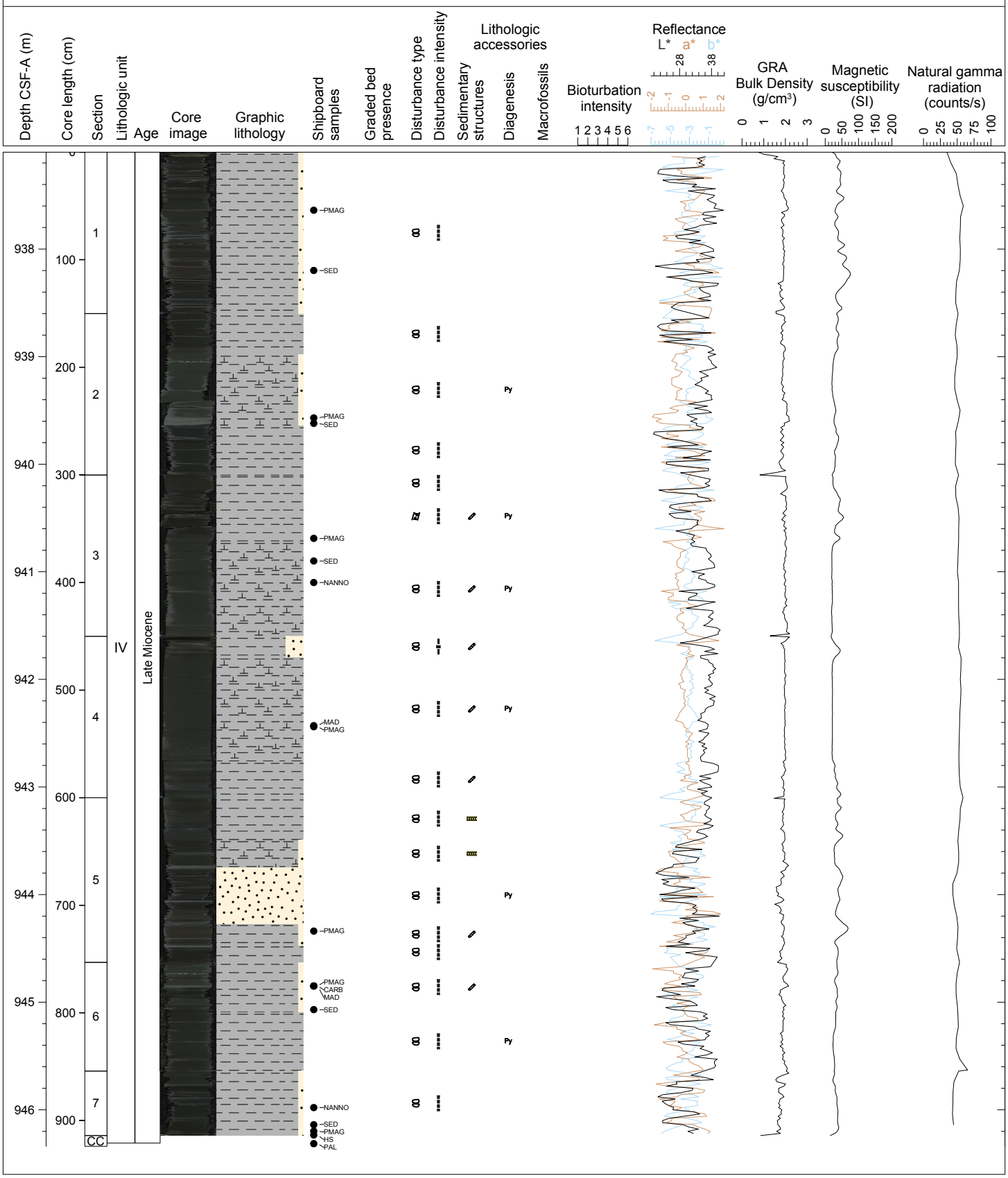
Hole 355-U1456D Core 51R, Interval 927.4-937.03 m (CSF-A)

CLAYSTONE, NANNOFOSSIL-RICH CLAYSTONE, NANNOFOSSIL-RICH SILTSTONE WITH FORAMINIFERS, CLAYSTONE WITH NANNOFOSSILS, CLAYEY SILTSTONE. Core is mainly comprised of dark greenish, massive CLAYSTONE. Thin (1-3 cm) gray CLAYEY SILTSTONE is often interbedded with CLAYSTONE. Gray CLAYEY SILTSTONE also shows thin parallel laminations. Gray NANNOFOSSIL-RICH SILTSTONE WITH FORAMINIFERS preserves deformed but fine-scale laminations. A sequence transitions from thin, gray CLAYEY SILTSTONE at the base, passing up into dark green CLAYSTONE and topped by dark bluish green NANNOFOSSIL-RICH CLAYSTONE is observed in Section 3. Burrows are rare throughout the core. Pyrite is frequently observed.



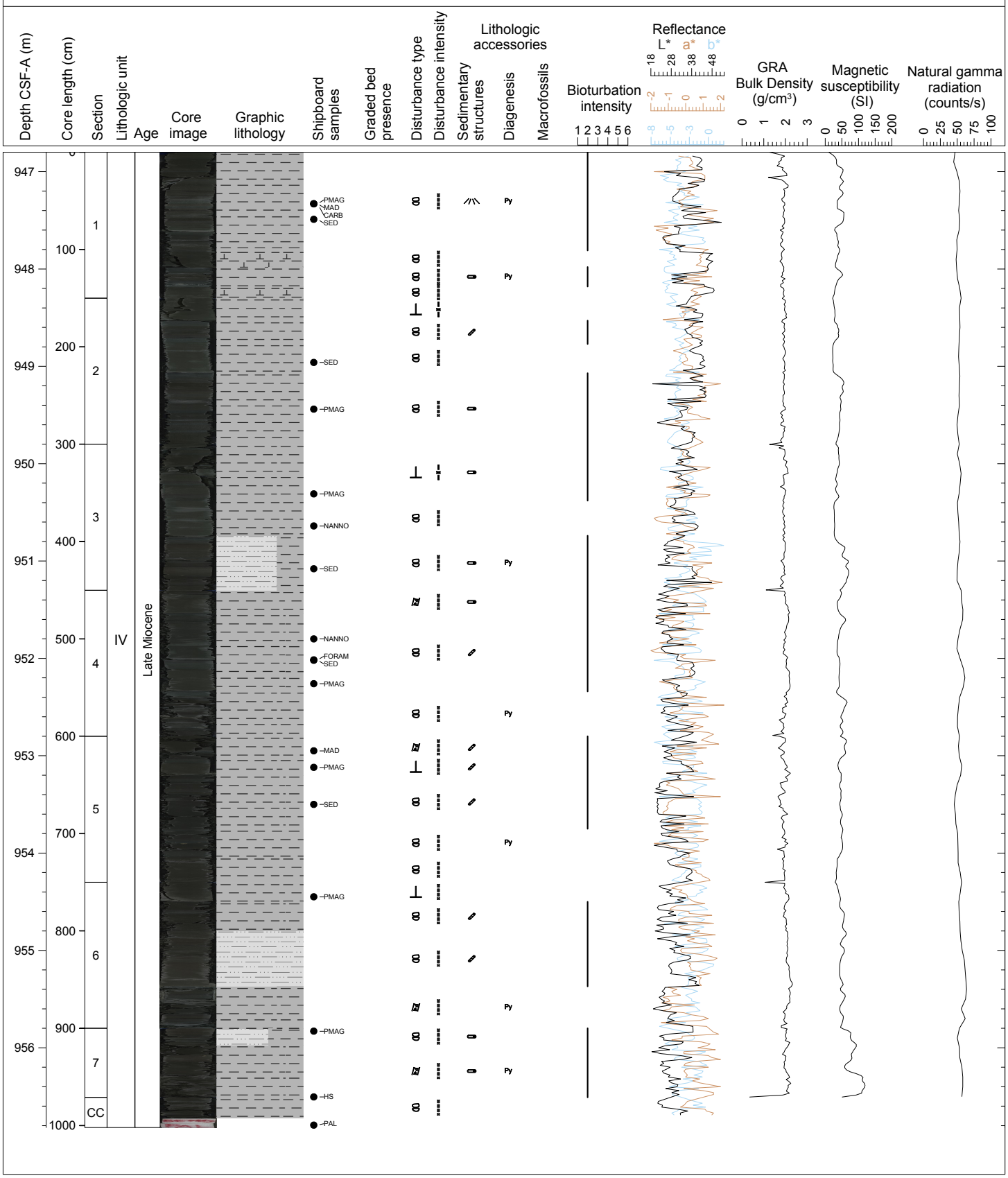
Hole 355-U1456D Core 52R, Interval 937.1-946.34 m (CSF-A)

CLAYSTONE, NANNOFOSSIL-RICH CLAYSTONE, CLAYSTONE WITH NANNOFOSSILS, SILTY SANDSTONE. Core is dominated by light green to dark green massive NANNOFOSSIL-RICH CLAYSTONE and dark gray CLAYSTONE WITH NANNOFOSSILS, as well as light brownish green to light gray CLAYSTONE. The SILTY SANDSTONE is a minor lithology and comprises only <2% of the core. Very thin to thin (<10 cm) SILTY SANDSTONE interbeds are often observed in CLAYSTONE, NANNOFOSSIL-RICH CLAYSTONE and CLAYSTONE WITH NANNOFOSSILS. Pyrites nodules (<1 cm) are common and diffused black patches of pyrite are occasionally seen in the sections. Bioturbation is limited only in few patches and dominated by Zoophycos burrows.



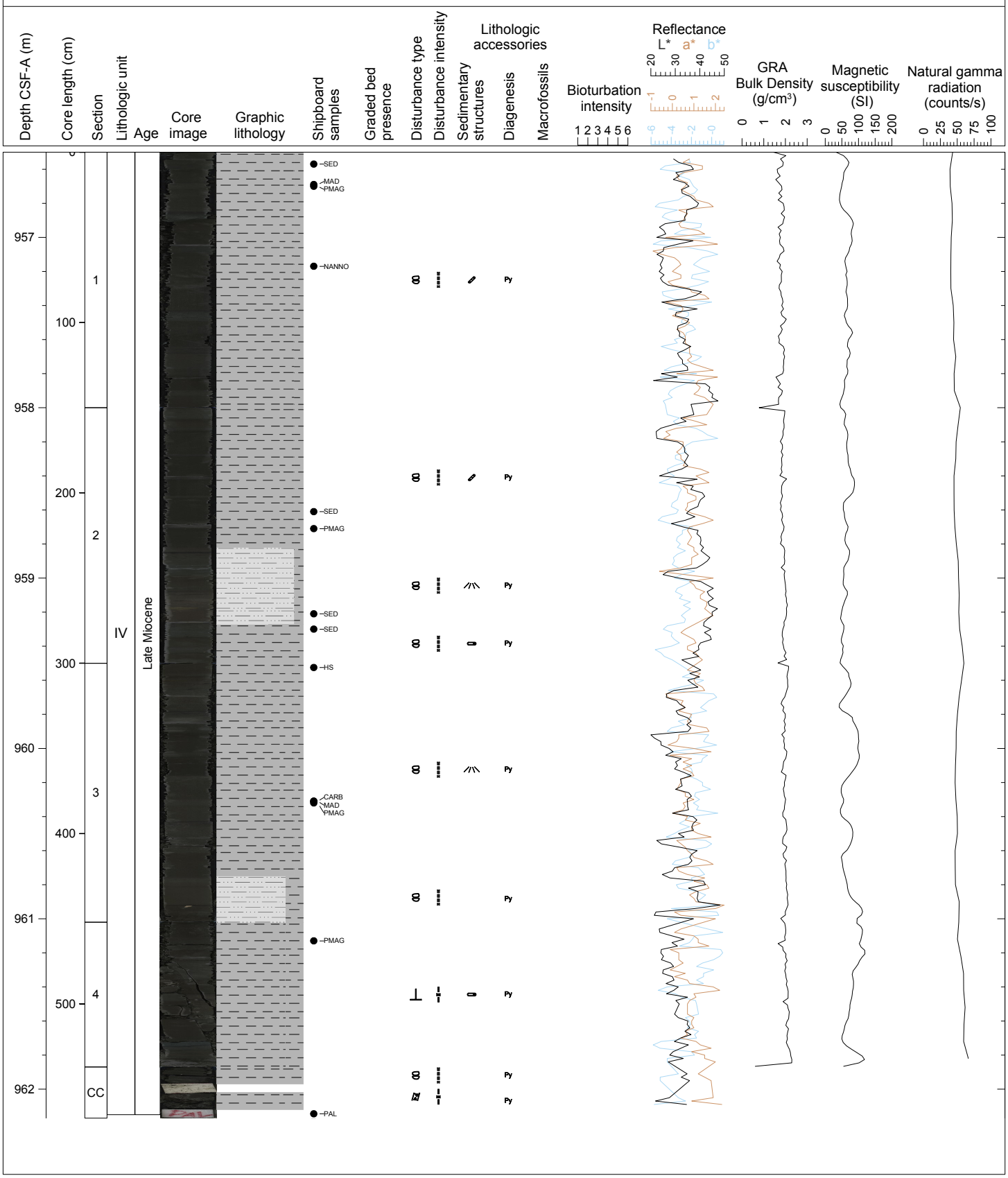
Hole 355-U1456D Core 53R, Interval 946.8-956.82 m (CSF-A)

CLAYSTONE, SILTY CLAYSTONE, CLAYSTONE WITH SILT. Core is dominated by light greenish to dark gray and gray CLAYSTONE. Thin to medium bedded (< 15 cm) brownish SILTY CLAYSTONE beds along with thin bedded bluish CLAYSTONE WITH SILT layers are often observed interbedded in CLAYSTONE . Very thin layers (<2 cm) of very fine grained SILTY SANDSTONE, contain foraminifers and are occasionally found associated with SILTY CLAYSTONE, The color banding of SILTY CLAYSTONE and CLAYSTONE WITH SILT is clearly visible in the core. NANNOFOSSILS are rare or of only trace abundance. Bioturbation is common in SILTY CLAYSTONE and CLAYSTONE WITH SILT. Common burrows include Chondrites, Planotites, Skolithios and composite burrows. Pyrite is commonly disbursed and occasionally pyrite nodules up to 1.5 cm are found (144 cm, Section 4).



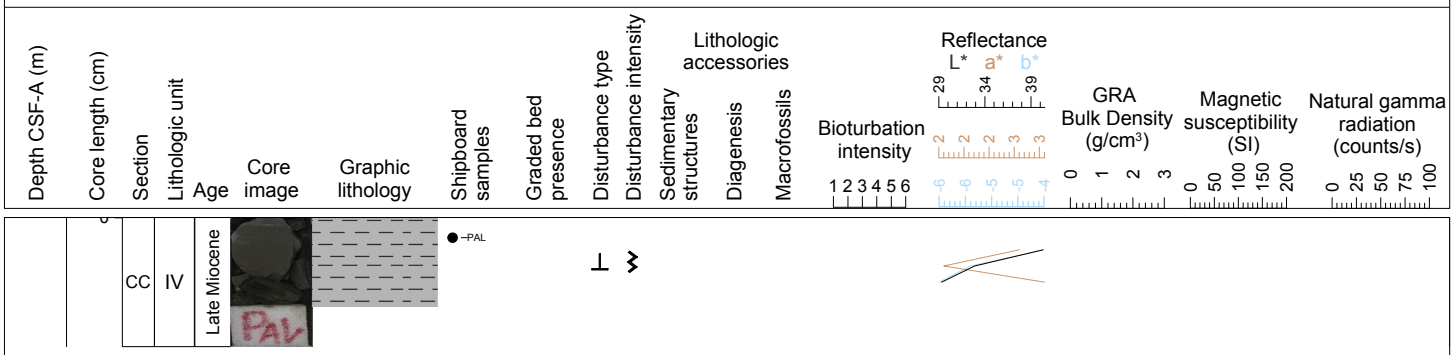
Hole 355-U1456D Core 54R, Interval 956.5-962.17 m (CSF-A)

CLAYSTONE WITH NANNOFOSSILS, CLAYSTONE, SILTY CLAYSTONE WITH NANNOFOSSILS, CLAYSTONE WITH SILT. Core is dominated by massive dark green to gray CLAYSTONE WITH NANNOFOSSILS, which comprises >80 % of core. The thin to medium bedded (<20 cm) brownish SILTY CLAYSTONE WITH NANNOFOSSILS beds are found interbedded in CLAYSTONE WITH NANNOFOSSILS. Bluish green thinly bedded (< 10 cm) CLAYSTONE WITH SILT are also observed interbedded in CLAYSTONE WITH NANNOFOSSILS. Dispersed pyrite nodules are common with occasionally medium sized (<1.5 cm) nodules. Bioturbation is mostly observed in brownish SILTY CLAYSTONE and bluish green CLAYSTONE WITH SILT, with phycodes, planolites, chondrites and composite burrows.



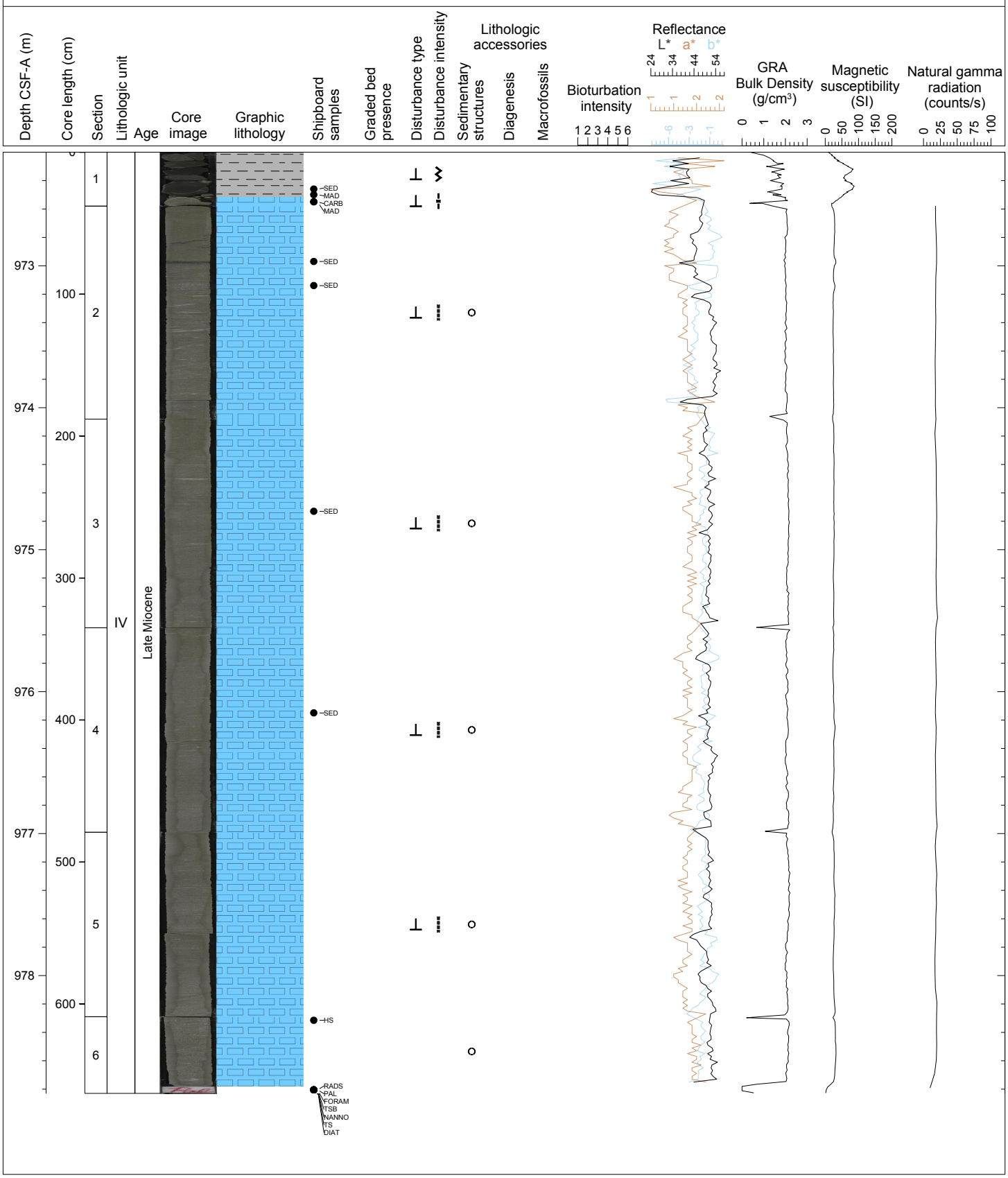
Hole 355-U1456D Core 55R, Interval 966.2-966.36 m (CSF-A)

CLAYSTONE. The very short core catcher contains hard CLAYSTONE.



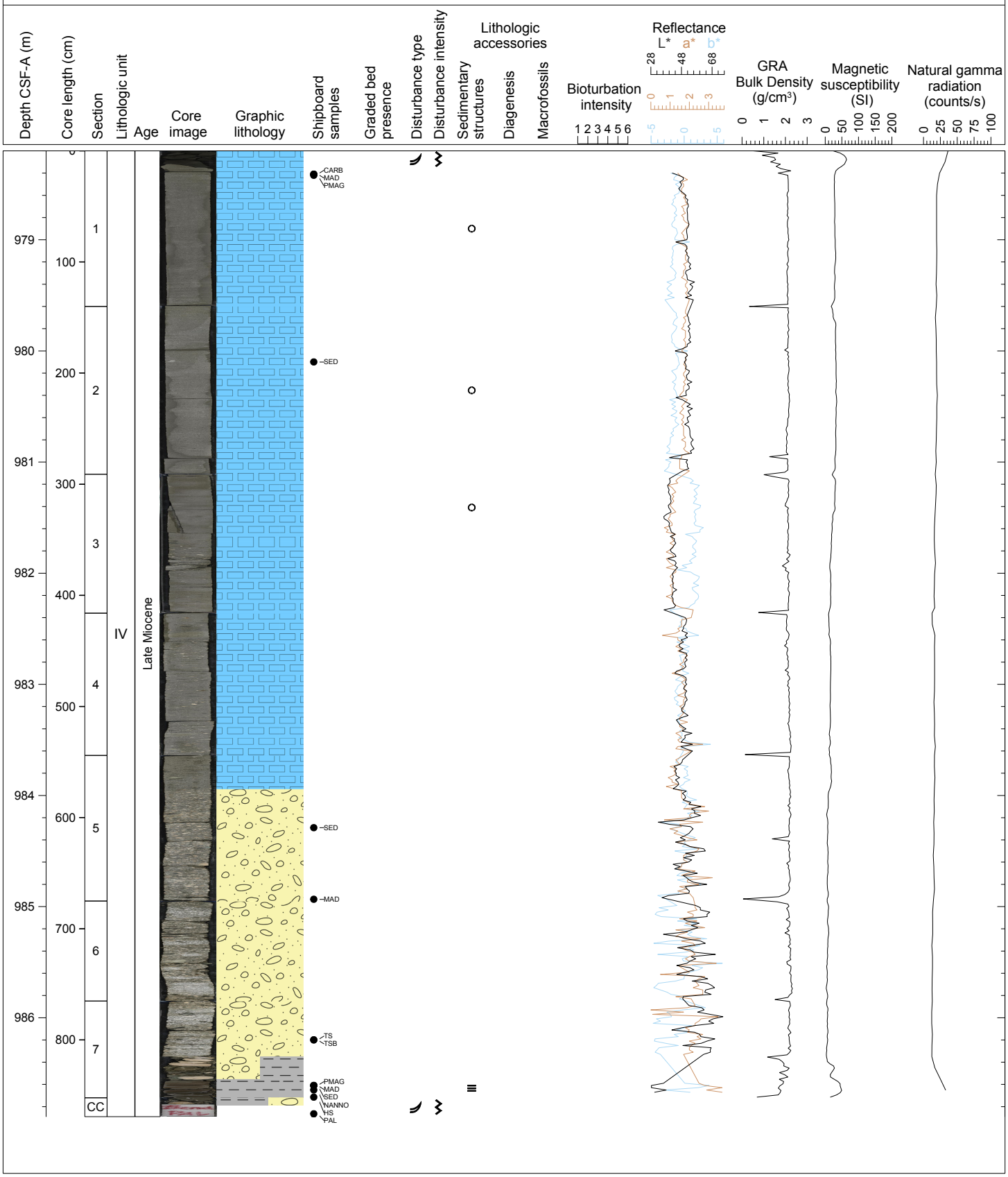
Hole 355-U1456D Core 56R, Interval 972.2-978.83 m (CSF-A)

CLAYSTONE, CALCARENITE. Core is dominated by massive light greenish white, very fine to fine grained CALCARENITE. CLAYSTONE is found above 31 cm, Section 1. The CALCARENITE is mostly massive but is marked by a moderate number of white colored lenses of carbonate material oriented in a sub-horizontal but clearly tilted direction. Parallel lamination is observed at 39-44 cm in Section 2. One coarse-grained CALCARENITE bed (5 cm thick) is seen at 54-59 cm in Section 2. Nannofossils are abundant, while foraminifers are also present in the CALCARANITE. The CALCARENITE is hard, compact and comprises >95 % of the core.



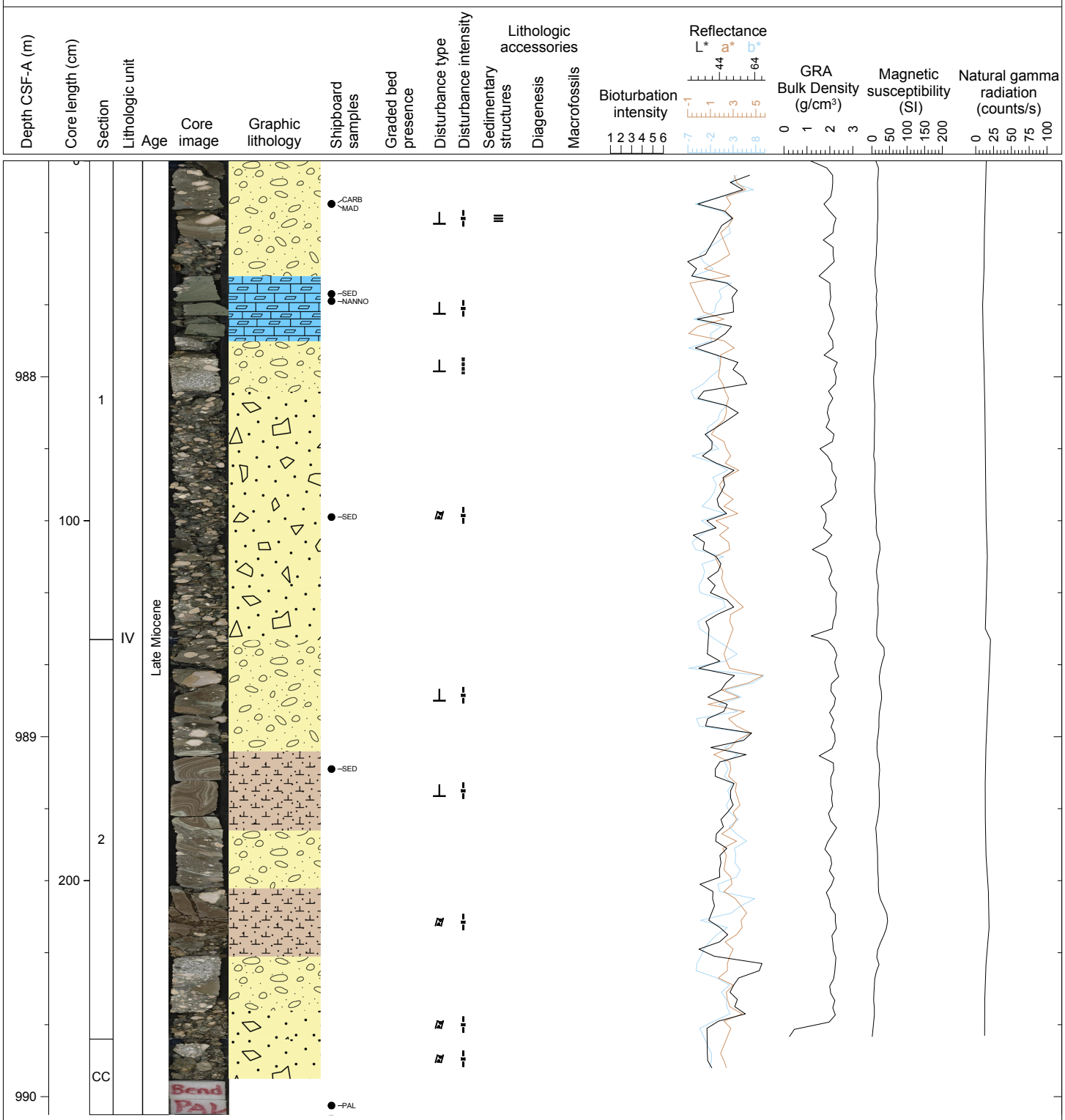
Hole 355-U1456D Core 57R, Interval 978.2-986.89 m (CSF-A)

CALCARENITE, CALCARENITE WITH CLASTS, CONGLOMERATE, CLAYSTONE. Core shows normal grading from light gray CONGLOMERATE at the bottom up into light gray CALCARENITE WITH CLASTS into light gray, massive CALCARENITE at the top. The clasts within the CALCARENITE are mostly light sub-angular limestone pieces with dark, well-rounded clay chunks. CONGLOMERATE consists of mostly sub-angular gravel-size limestone clasts, together with rounded mud clasts. Large (<5 cm) limestone pebbles are seen below CONGLOMERATE in Section 7, separating intervals of dark brownish gray CLAYSTONE, CLAYSTONE shows very fine-scale lamination.



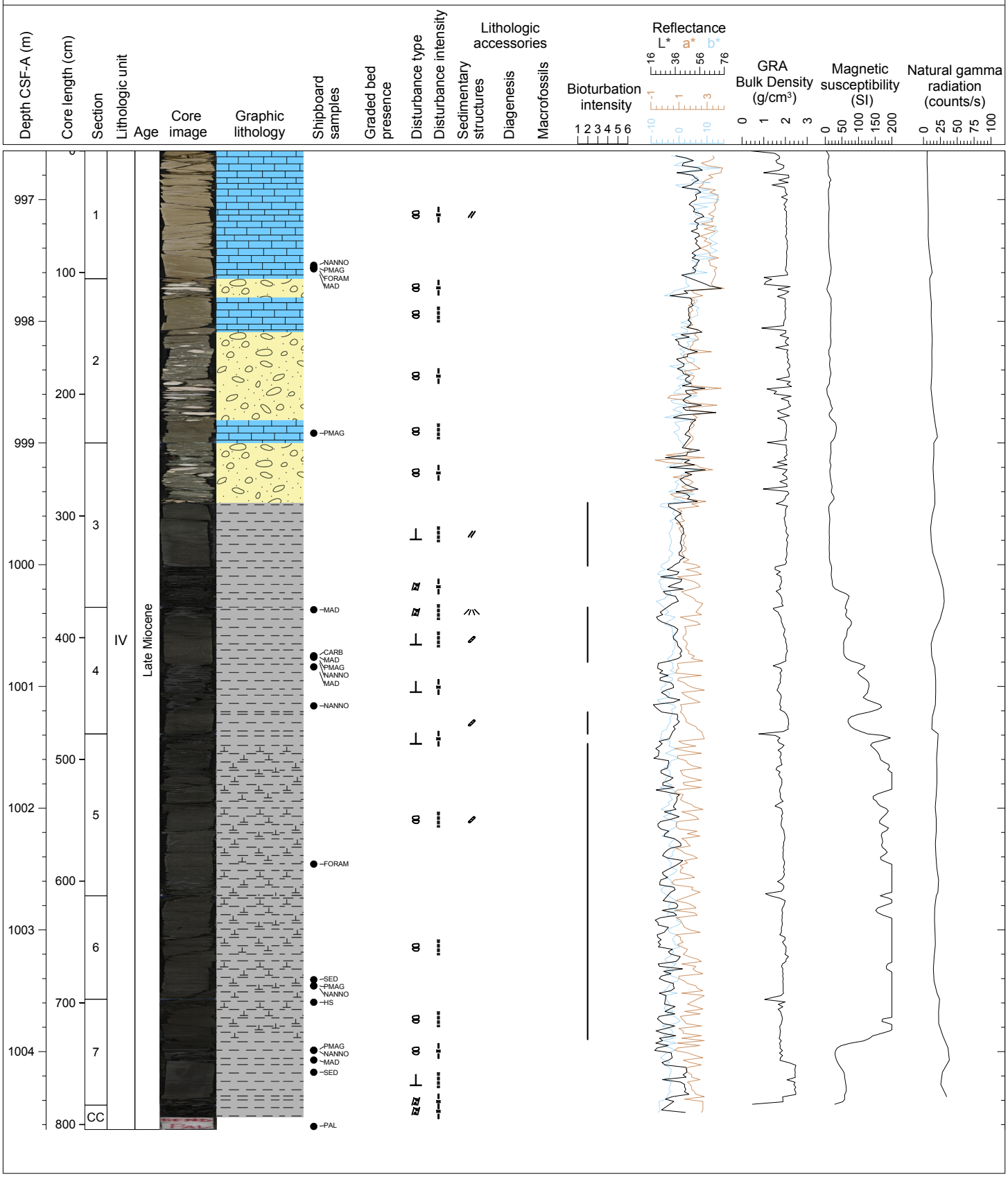
Hole 355-U1456D Core 58R, Interval 987.4-990.05 m (CSF-A)

CONGLOMERATE, CALCILUTITE, NANNOFOSSIL-RICH SILTSTONE, BRECCIA, Core is dominated by granule to pebble-sized carbonate BRECCIA and CONGLOMERATE. The medium bedded (<32 cm thick) CONGLOMERATE is dominated with sub-angular to sub-rounded carbonate clasts (<5 cm across) observed in the top of Section 1 and in Section 2. The light green medium bedded (<15 cm)) CALCILUTITE is observed interbedded with CONGLOMERATE in Section 1. Light brownish NANNOFOSSIL-RICH SILTSTONE is observed interbedded with CONGLOMERATE in Section 2. A vertical, tight fold is observed in brownish NANNOFOSSIL-RICH SILTSTONE (32-54 cm, Section 2). The unconsolidated to semi-consolidated BRECCIA, is dominated by <2 cm-across, carbonate pebbles with common to rare dark greenish volcanic rock and volcanic glass clasts observed in bottom of Section 1 and throughout Section 2.



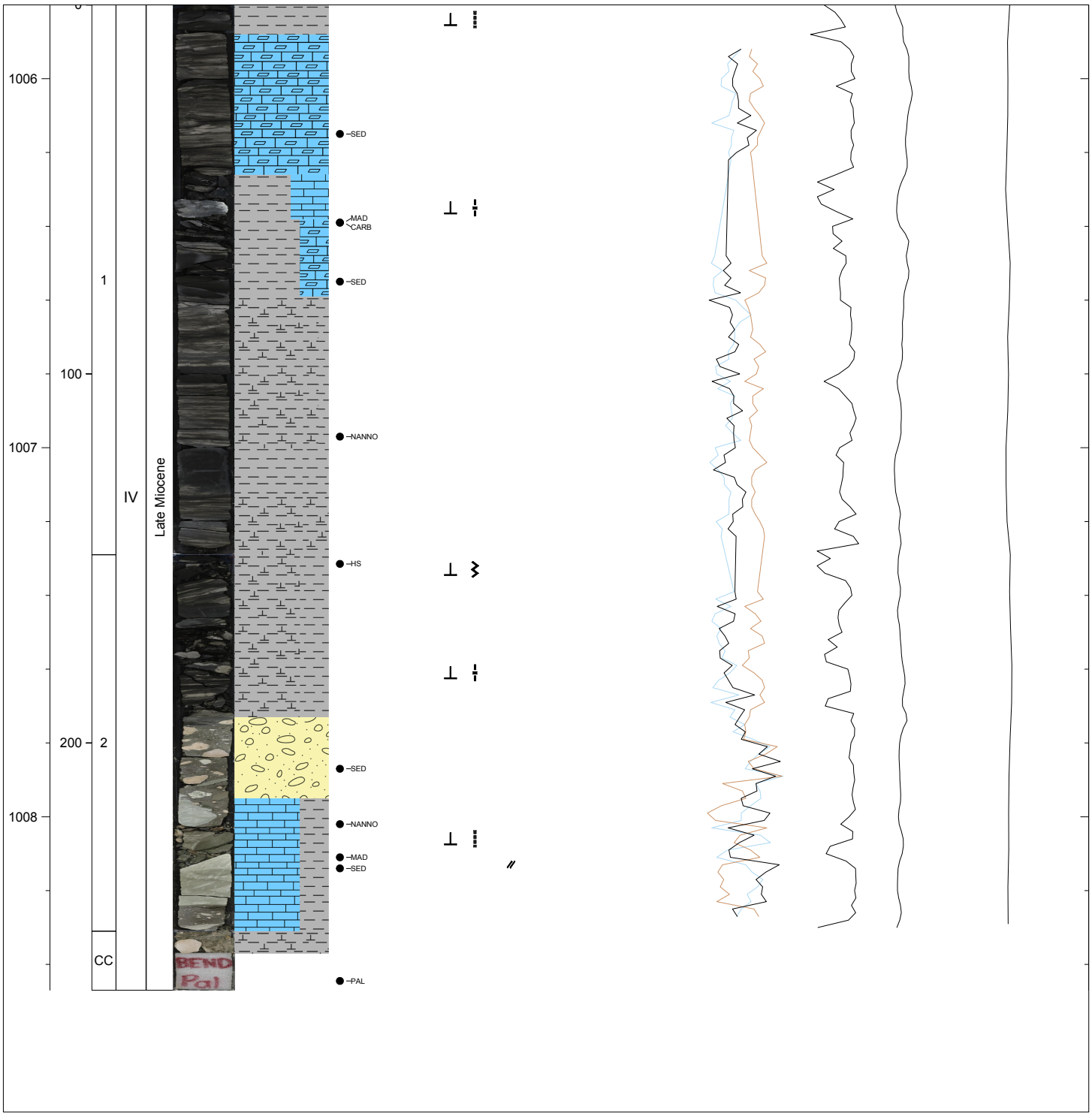
Hole 355-U1456D Core 59R, Interval 996.6-1004.64 m (CSF-A)

LIMESTONE, CONGLOMERATE, CLAYSTONE, NANNOFOSSIL-RICH CLAYSTONE, CLAYSTONE WITH CALCITE. Core is dominated by light yellowish brown massive LIMESTONE and light greenish gray CLAYSTONE WITH CALCITE, as well as dark gray NANNOFOSSIL-RICH CLAYSTONE. The calcite crystallization gives a rough sandy texture to the CLAYSTONE WITH CALCITE. Blackish CLAYSTONE is observed interbedded in NANNOFOSSIL-RICH CLAYSTONE and CLAYSTONE WITH CALCITE. The CONGLOMERATE sharply overlies the CLAYSTONE WITH CALCITE in Section 3. The CONGLOMERATE is dominated by carbonate pebbles (<7 cm across) suspended within claystone matrix. Chondrites burrows are observed at 6 cm in Section 4. Tilted bedding is occasionally found in LIMESTONE and CLAYSTONE WITH CALCITE.



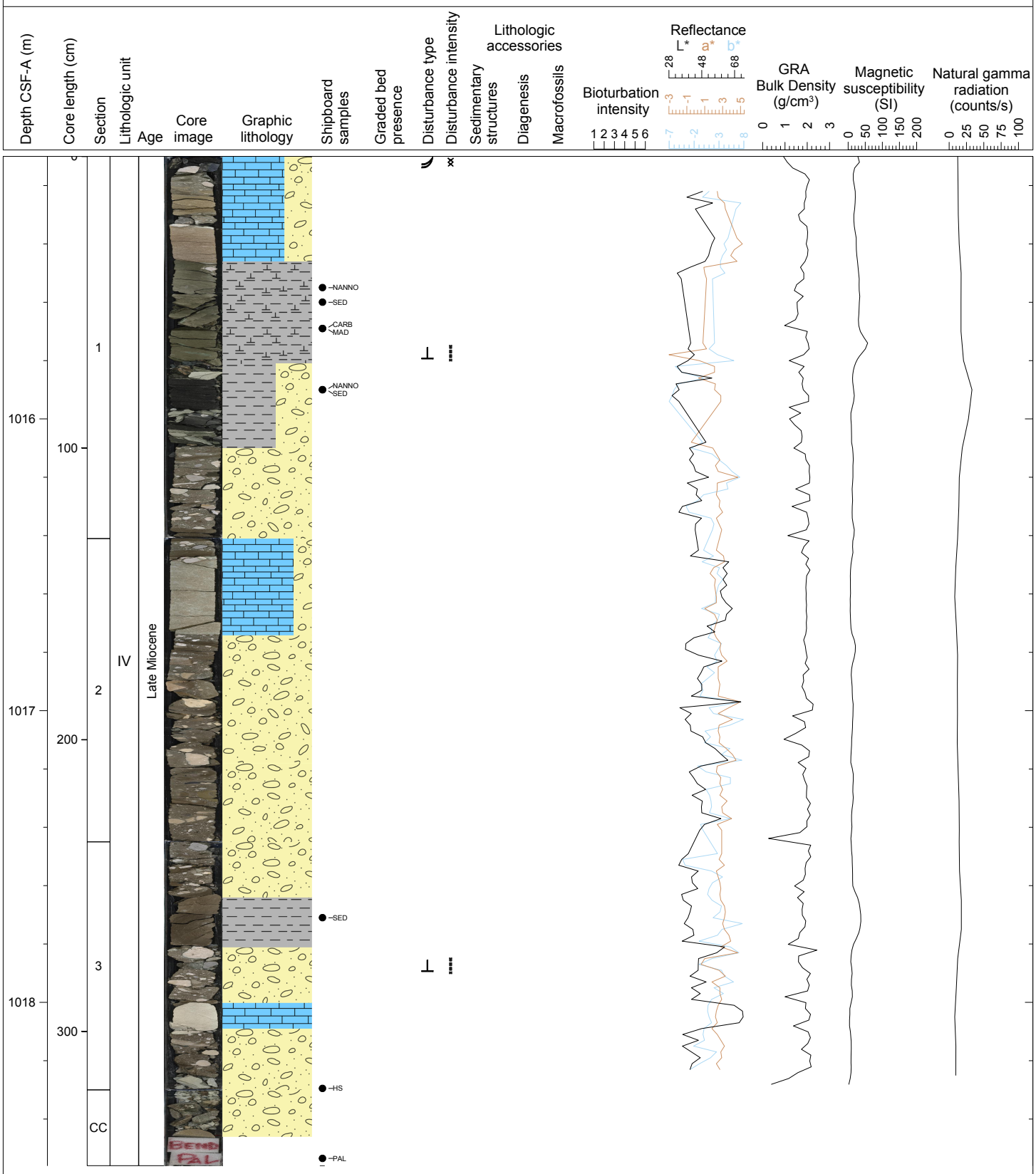
Hole 355-U1456D Core 60R, Interval 1005.8-1008.47 m (CSF-A)

NANNOFOSSIL-RICH CLAYSTONE, CLAYSTONE, CONGLOMERATE, LIMESTONE. Core is dominated by gray NANNOFOSSIL-RICH CLAYSTONE and dark gray CLAYSTONE which are interbedded with each other. NANNOFOSSIL-RICH CLAYSTONE is marked by alternations of thin (<1 cm) laminae of silt and clay. Laminations are mostly deformed. A 7-cm-thick LIMESTONE interbed is found within CLAYSTONE in Section 1. The lower half of the core is composed of CONGLOMERATE including sub-angular pebble-sized carbonate clasts and white LIMESTONE.



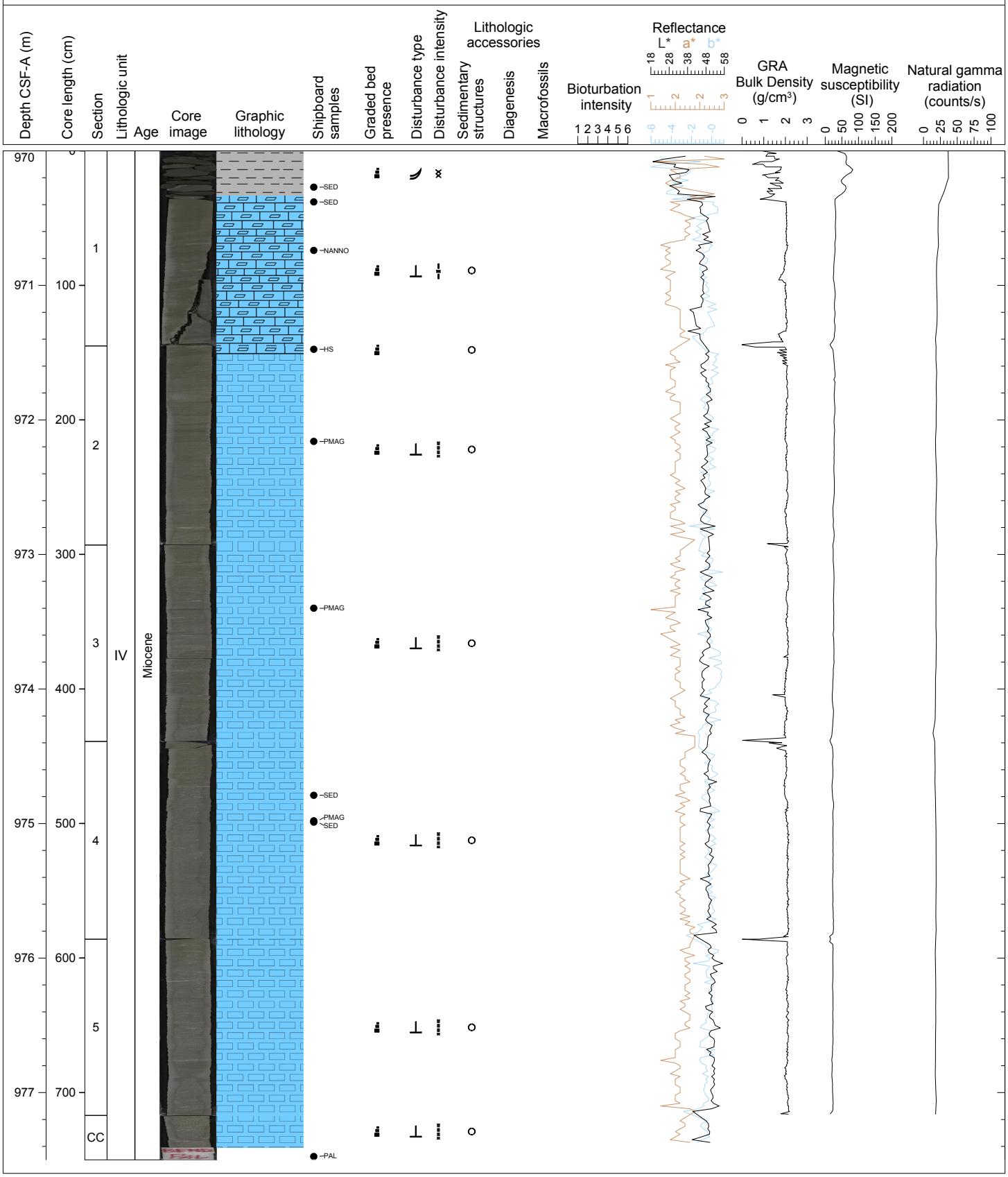
Hole 355-U1456D Core 61R, Interval 1015.1-1018.56 m (CSF-A)

LIMESTONE, NANNOFOSSIL-RICH CLAYSTONE, CLAYSTONE, CONGLOMERATE. The core is composed largely of gray CONGLOMERATE and brownish, massive LIMESTONE with brownish CLAYSTONE and greenish gray, massive NANNOFOSSIL-RICH CLAYSTONE. CLAYSTONE and LIMESTONE are interbedded with CONGLOMERATE. The CONGLOMERATE matrix is mostly greenish gray CLAYSTONE. Clasts are angular/sub-angular to sub-rounded limestone fragments.



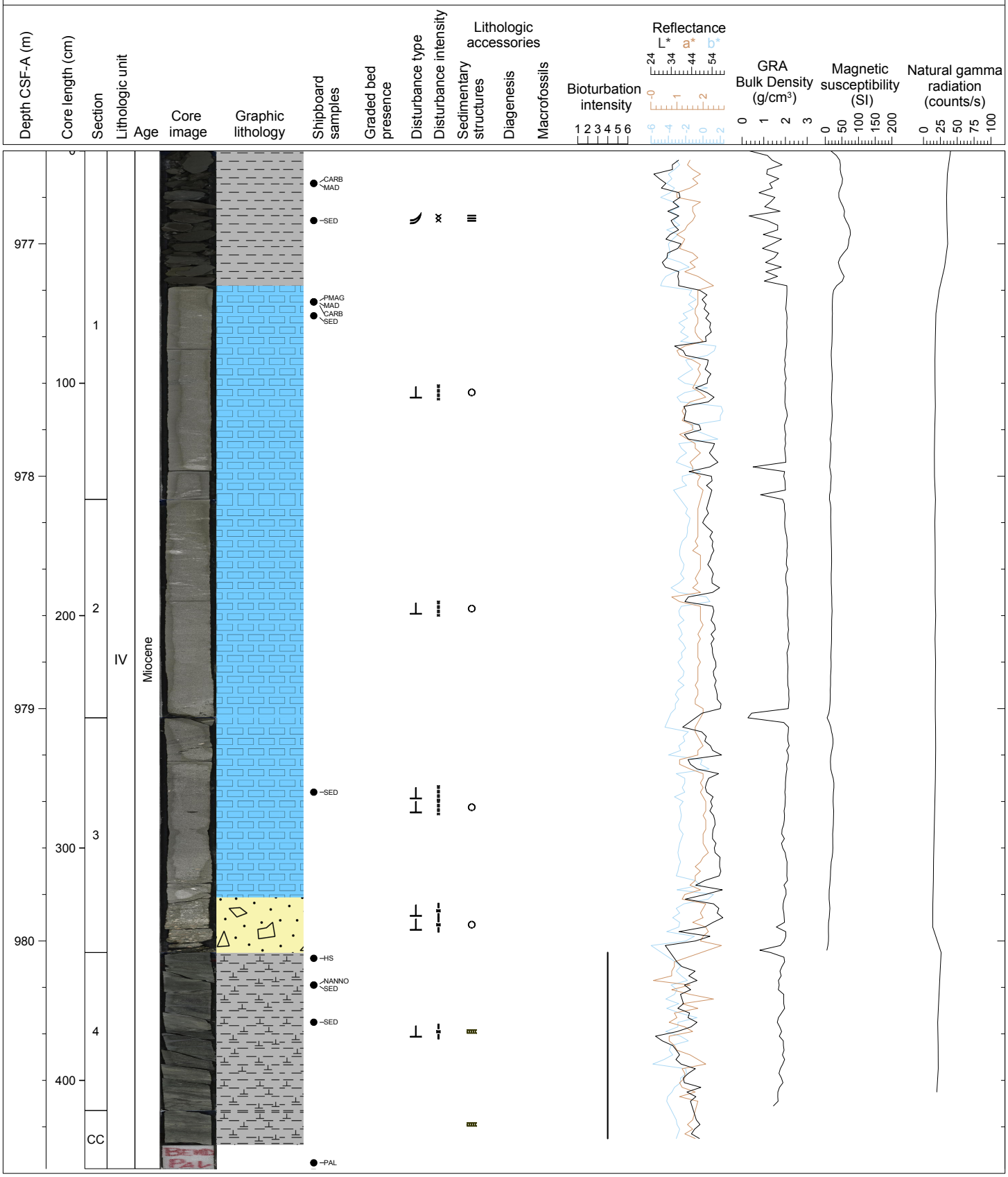
Hole 355-U1456E Core 3R, Interval 970.0-977.5 m (CSF-A)

CLAYSTONE, CALCILUTITE, CALCARENITE. Light greenish massive CALCILUTITE and very fine to fine grained massive CALCARENITE are the major lithologies. Dark gray CLAYSTONE is limited to the top 33 cm of the core. Massive CALCARENITE and CALCILUTITE show normal grading with increasing grain size towards the bottom of the core. Bedding is sub-horizontal to inclined. White color lens and pods are very common within the massive CALCARENITE. Foraminifers and nannofossils are common to rare in CALCARENITE and CALCILUTITE. CALCARENITE is occasionally interbedded with very thin (< 3 cm) beds of CLAYSTONE and medium grained CALCARENITE.



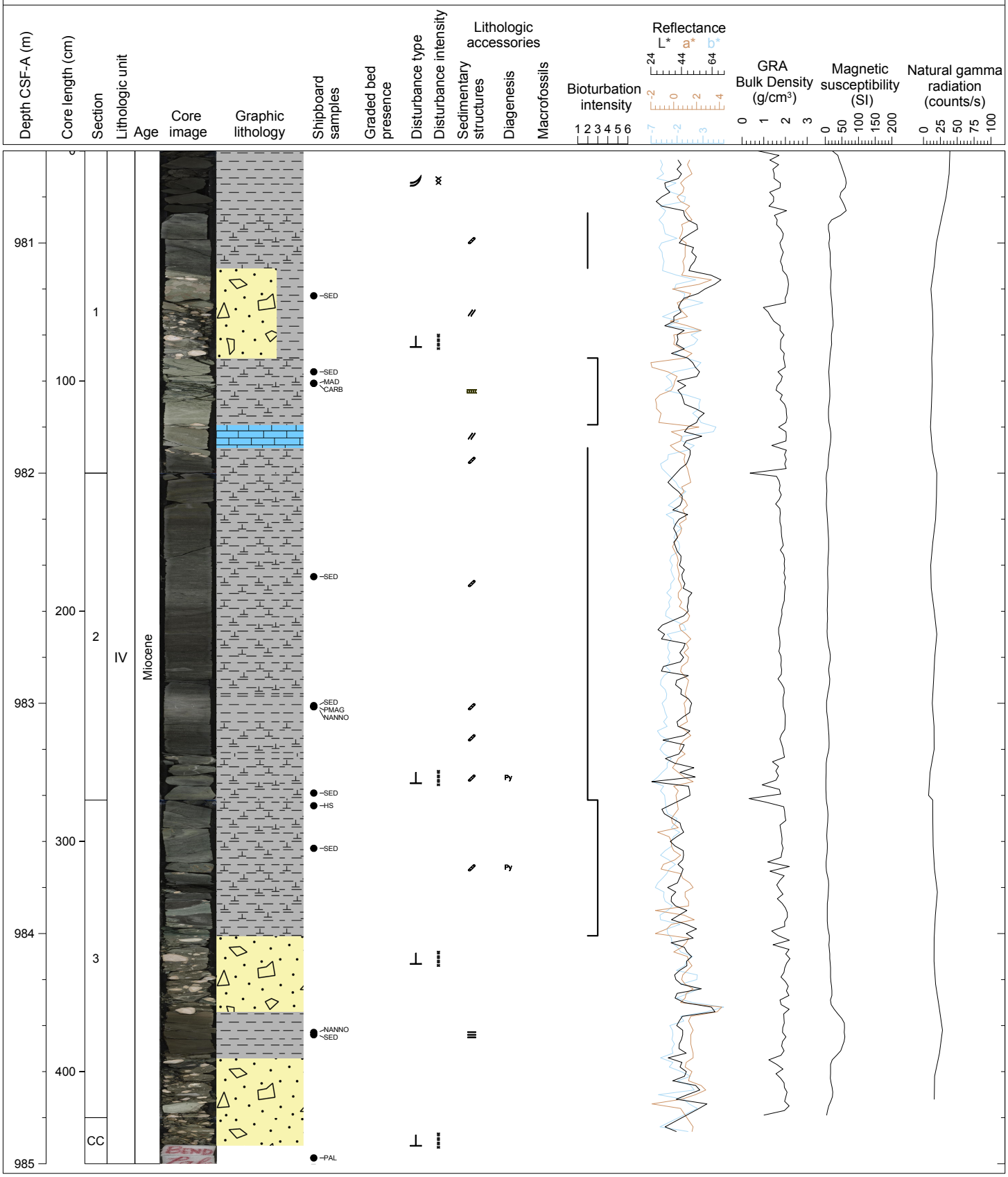
Hole 355-U1456E Core 4R, Interval 976.6-980.98 m (CSF-A)

CLAYSTONE, CALCARENITE , BRECCIA, SILTY CLAYSTONE. Light gray, fine to medium grained massive CALCARENITE is the dominant lithology of the core. CALCARENITE is often interbedded with thin (<10 cm) sub-horizontal to inclined layers and patches of medium to coarse grained CALCARENITE WITH CLAYSTONE and carbonate clasts. The dark gray CLAYSTONE occurs in the top 58 cm of the core. Medium bedded (<30 cm) BRECCIA occurs at the bottom of the CALCARENITE interval and overlies SILTY CLAYSTONE. The BRECCIA is dominated by subangular to subrounded carbonate clasts with common to rare clasts of CLAYSTONE and BASALT. The SILTY CLAYSTONE is bioturbated and common burrows observed include Zoophycos, Planolites and Skolithos.



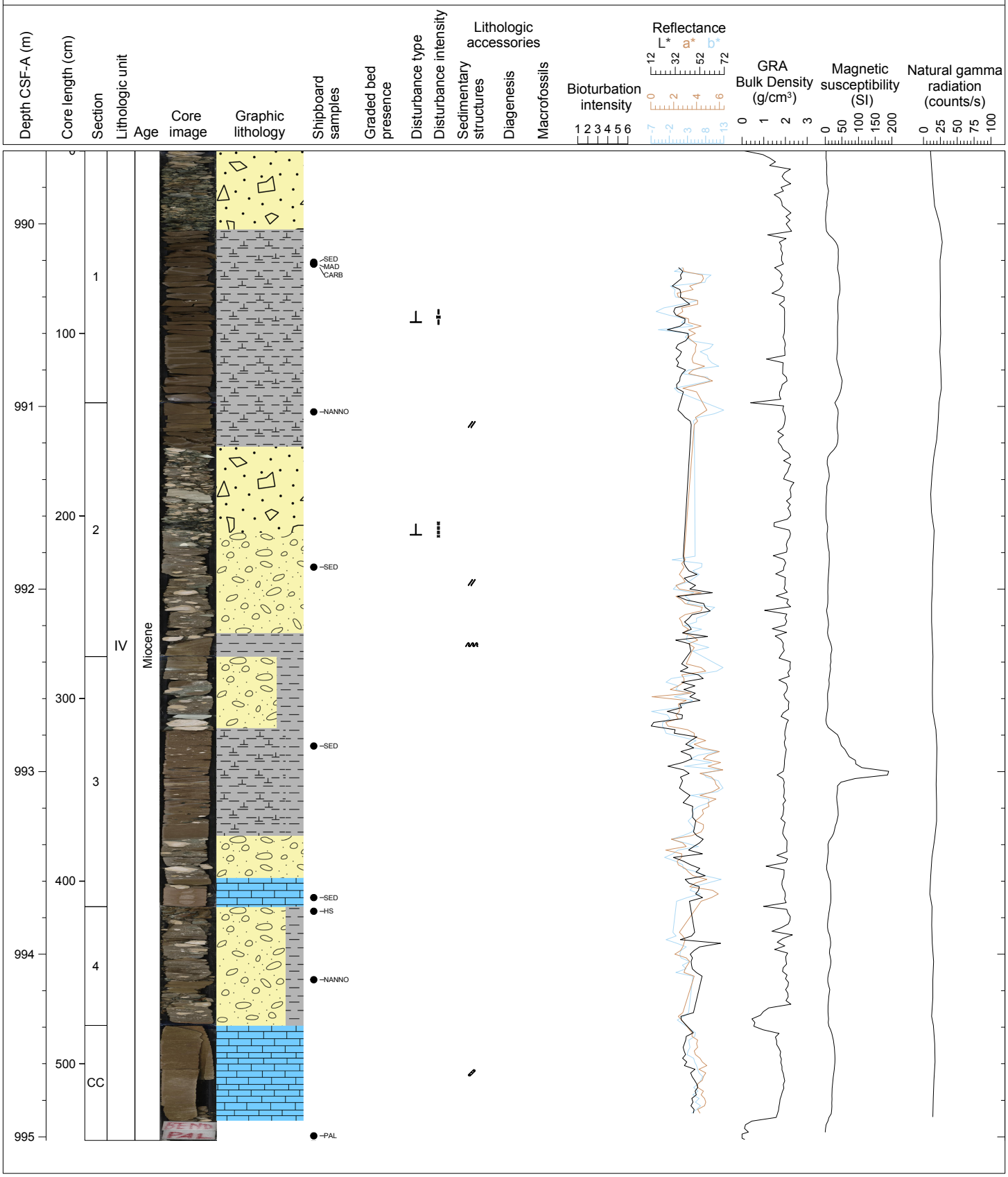
Hole 355-U1456E Core 5R, Interval 980.6-985.0 m (CSF-A)

NANNOFOSSIL-RICH CLAYSTONE, CLAYSTONE, BRECCIA, LIMESTONE. Dark gray CLAYSTONE in the uppermost of Section 1 is fall-in. Light greenish NANNOFOSSIL-RICH CLAYSTONE and gray BRECCIA are interbedded on scales of 10s of cm. Several tilted beds were seen within NANNOFOSSIL-RICH CLAYSTONE. Clasts of the BRECCIA are mostly subrounded to subangular pebbles, and consist mainly of calcite and LIMESTONE. Light greenish NANNOFOSSIL-RICH CLAYSTONE shows strong bioturbation, whereas dark gray CLAYSTONE shows massive or laminated structure. Thin (~10 cm) LIMESTONE is interbedded with SILTY CLAYSTONE in Section 1. Pyrite nodules occur in both NANNOFOSSIL-RICH CLAYSTONE and BRECCIA. Laminated CLAYSTONE is found within BRECCIA in Section 3, but is likely a clast.



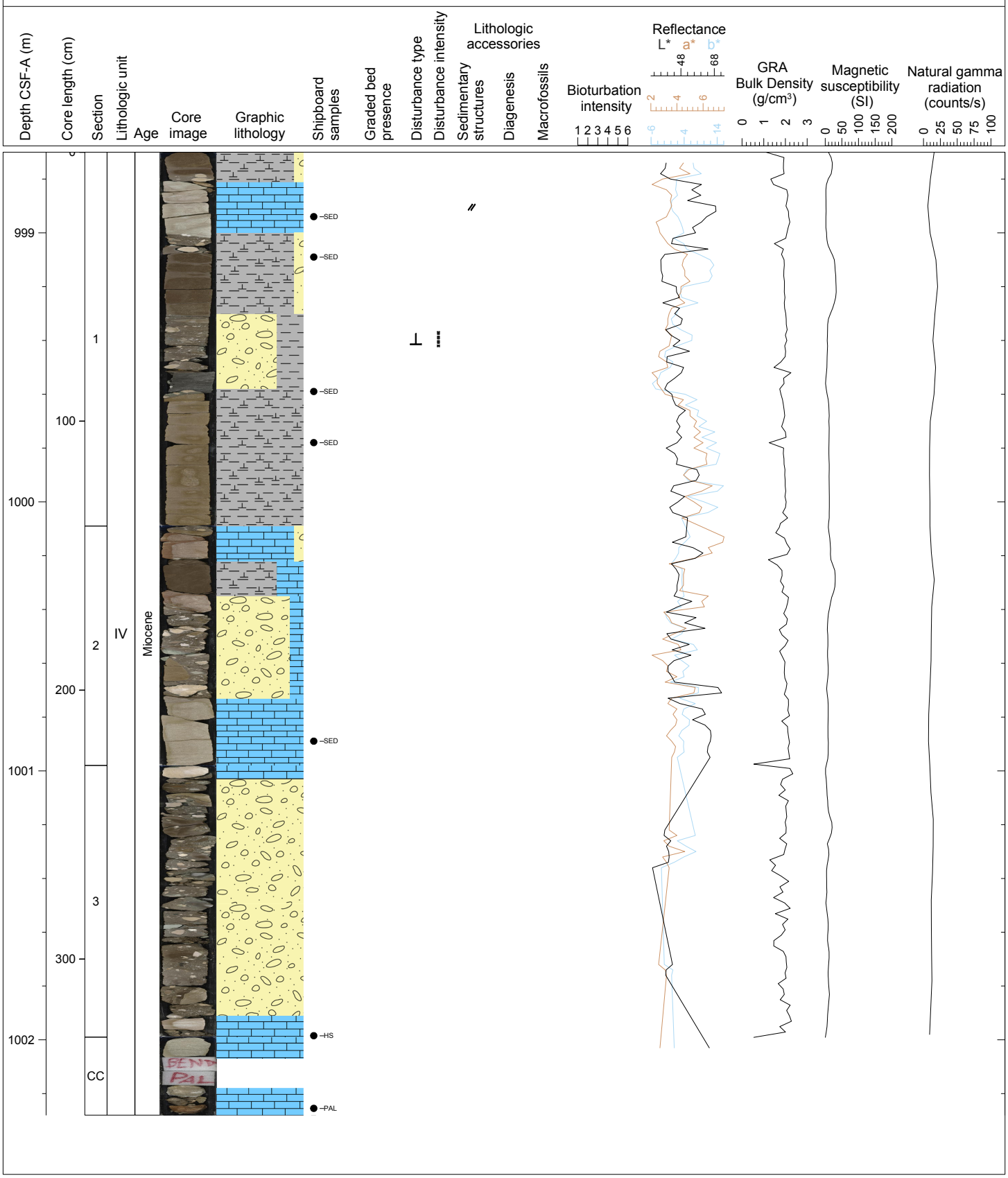
Hole 355-U1456E Core 6R, Interval 989.6-995.02 m (CSF-A)

BRECCIA, CONGLOMERATE, NANNOFOSSIL-RICH CLAYSTONE. The main lithology is an alternation of brown NANNOFOSSIL-RICH CLAYSTONE and gray BRECCIA/CONGLOMERATE. Brown NANNOFOSSIL-RICH CLAYSTONE is massive, but shows some convolute internal structure. NANNOFOSSIL-RICH CLAYSTONE in Section 3 includes diverse clasts of pebble size composed of calcite and CLAYSTONE, as well as some foraminifers. BRECCIA and CONGLOMERATE consists of angular to subrounded clasts up to 5 cm in size. All clasts in CONGLOMERATE are matrix-supported. A piece of dark CLAYSTONE was seen within CONGLOMERATE. The boundary between CLAYSTONE and CONGLOMERATE is tilted.



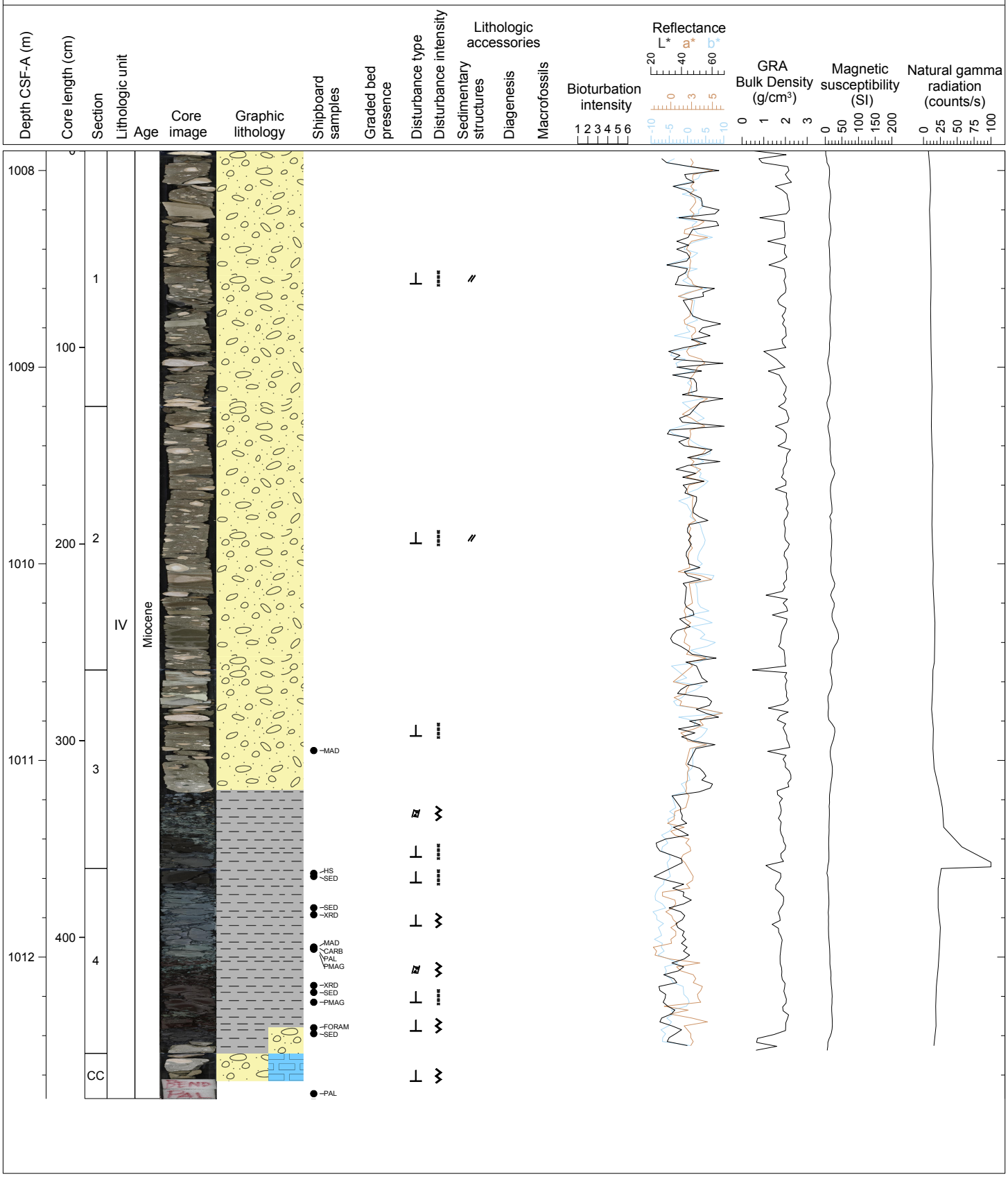
Hole 355-U1456E Core 7R, Interval 998.7-1002.28 m (CSF-A)

LIMESTONE, CONGLOMERATE, NANNOFOSSIL-RICH CLAYSTONE. CALCARENITE. The main lithology consists of brown NANNOFOSSIL-RICH CLAYSTONE and gray CONGLOMERATE. Whitish LIMESTONE is interbedded with NANNOFFOSIL-RICH CLAYSTONE and CONGLOMERATE. A thin (~7 cm) dark CLAYSTONE is interbedded between NANNOFOSSIL-RICH CLAYSTONE and CONGLOMERATE in Section 1. CONGLOMERATE shows subangular to subrounded calcareous clasts, as well as brown CLAYSTONE fragments. Brown CALCARENITE occurs in the bottom of the core-catcher.



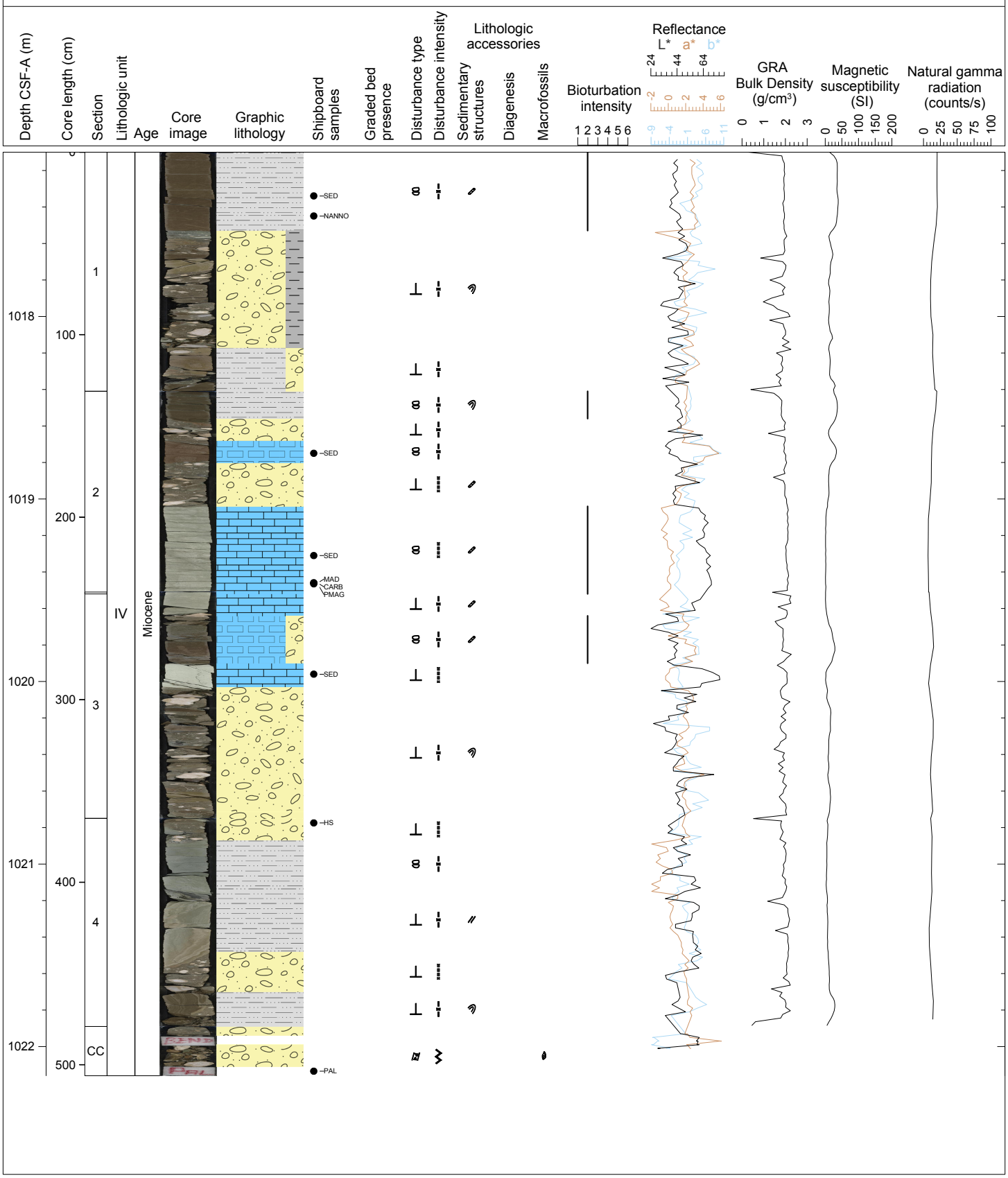
Hole 355-U1456E Core 8R, Interval 1007.9-1012.72 m (CSF-A)

CONGLOMERATE, CLAYSTONE. Gray CONGLOMERATE and multi-colored CLAYSTONE occupy the entire core. CONGLOMERATE includes different size of clasts from a few mm to more than 10 cm across. Clasts are subangular to subrounded. Clasts comprise almost purely LIMESTONE with lesser amounts of CLAYSTONE clasts and a matrix enriched in nannofossils. CLAYSTONE ranges in color, including tones such as dark brown, light blue, pale blue. All CLAYSTONE beds are massive.



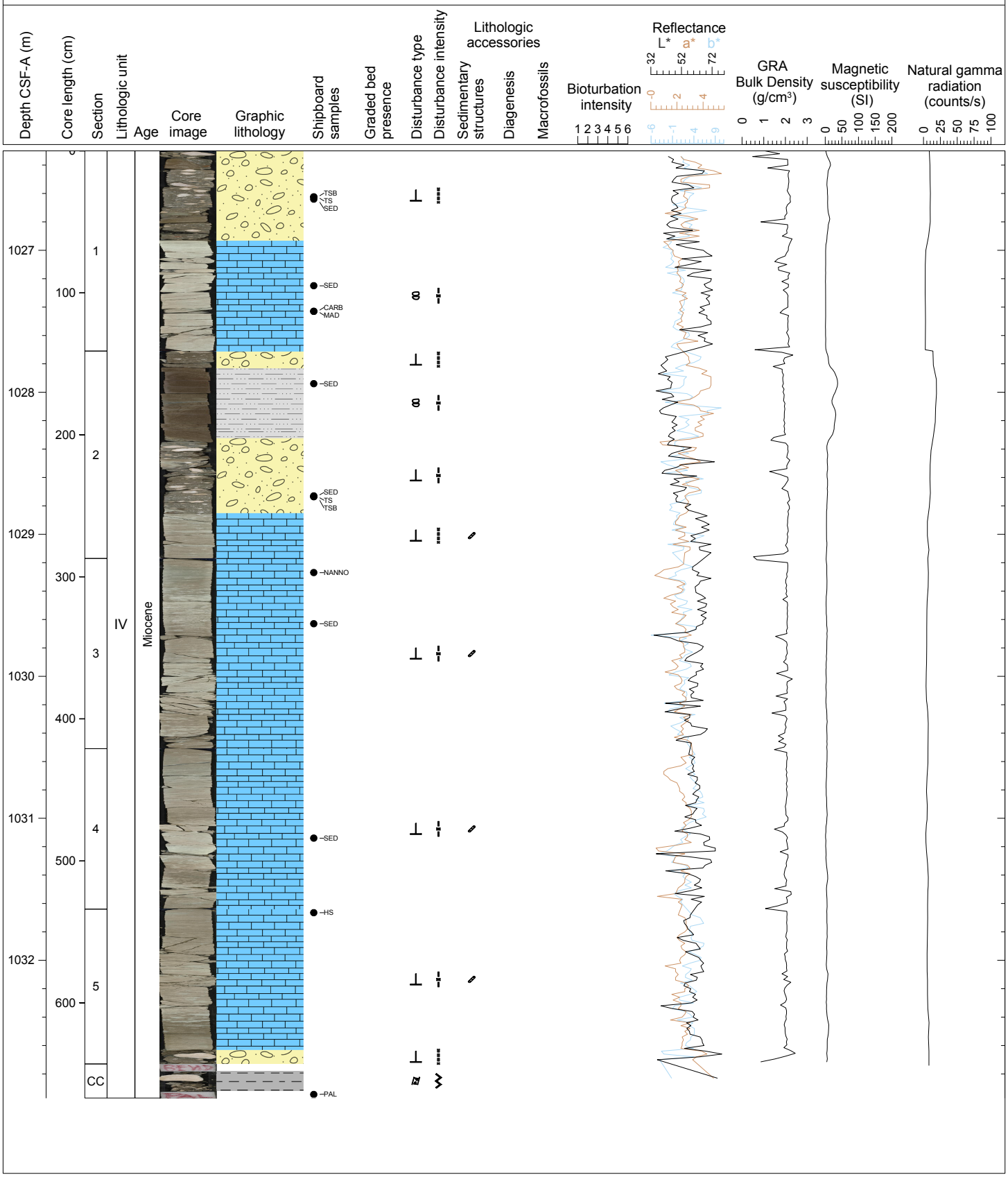
Hole 355-U1456E Core 9R, Interval 1017.1-1022.16 m (CSF-A)

SILTY CLAYSTONE, CONGLOMERATE, LIMESTONE, CALCARENITE. Light brown SILTY CLAYSTONE, light greenish white LIMESTONE and CONGLOMERATE are the major lithologies in the core. CONGLOMERATE is often interbedded with thin (<10 cm) SILTY CLAYSTONE. CONGLOMERATE clasts are dominated by granule to pebble size carbonate, volcanic and claystone intraclasts suspended in a claystone matrix. A slickensided, high-angle fault structure was observed. Slump folds are commonly observed in the SILTY CLAYSTONE. A gastropod fossil is observed in the core catcher. The bed boundaries are mostly observed to be inclined to steeply sub-vertical. Bioturbations are limited and mostly observed in LIMESTONE and SILTY CLAYSTONE.



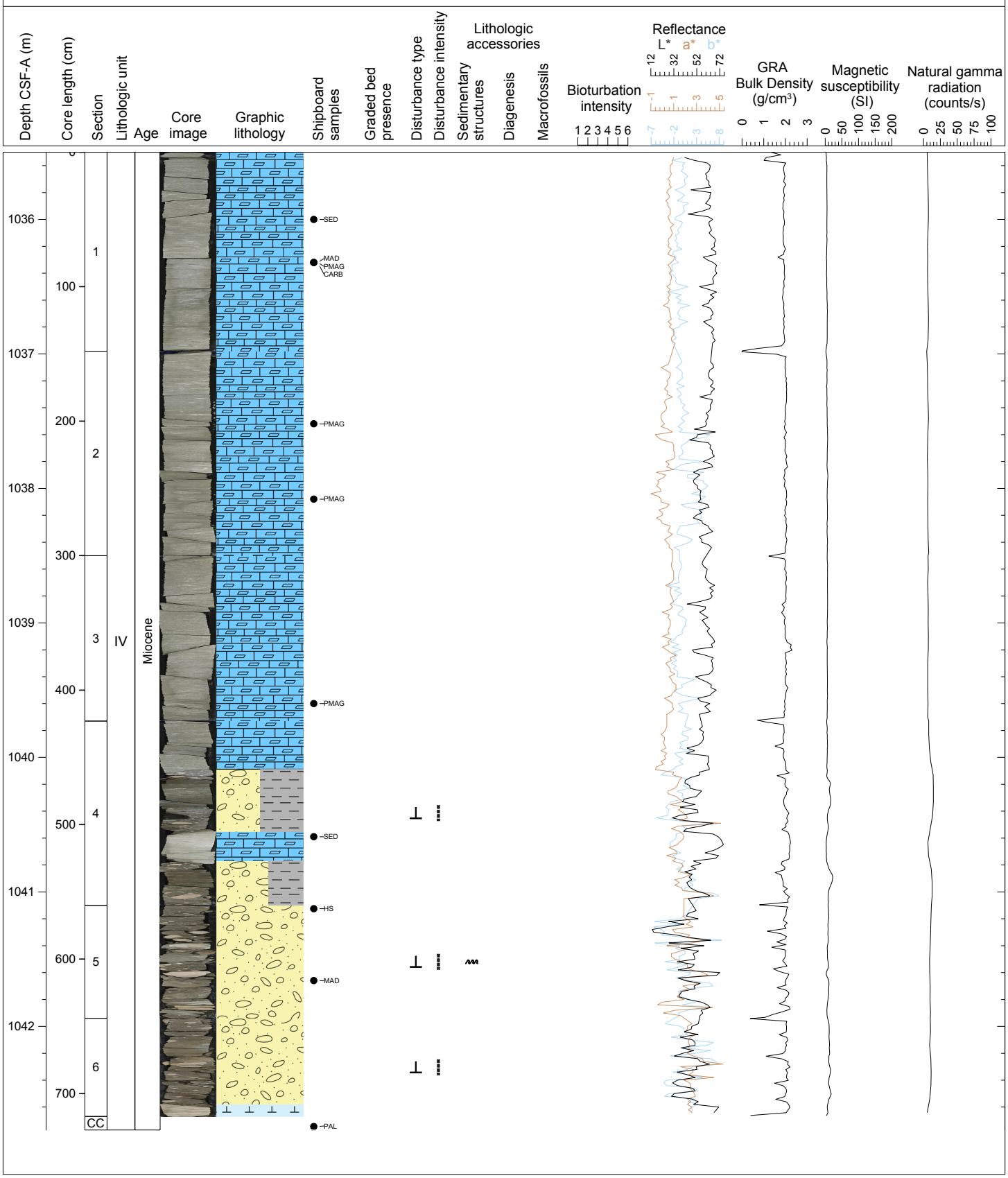
Hole 355-U1456E Core 10R, Interval 1026.3-1032.97 m (CSF-A)

CONGLOMERATE, LIMESTONE, SILTY CLAYSTONE WITH NANNOFOSSILS. The white to light brownish white massive LIMESTONE, CONGLOMERATE and brownish SILTY CLAYSTONE WITH NANNOFOSSILS are the dominant lithologies in this core. CONGLOMERATE clasts are dominated with granule to pebble sized subangular to subrounded carbonate, claystone and volcanic clasts. The CONGLOMERATE matrix is a mixture of clay and calcilutite. The LIMESTONE is often bioturbated and observed with lens and pod-shaped intraclasts of claystone and calcareous chalk. The variations in color and mottling in the LIMESTONE may be the due to variable amounts of dissolution and bioturbation. LIMESTONE comprises >80 % of core.



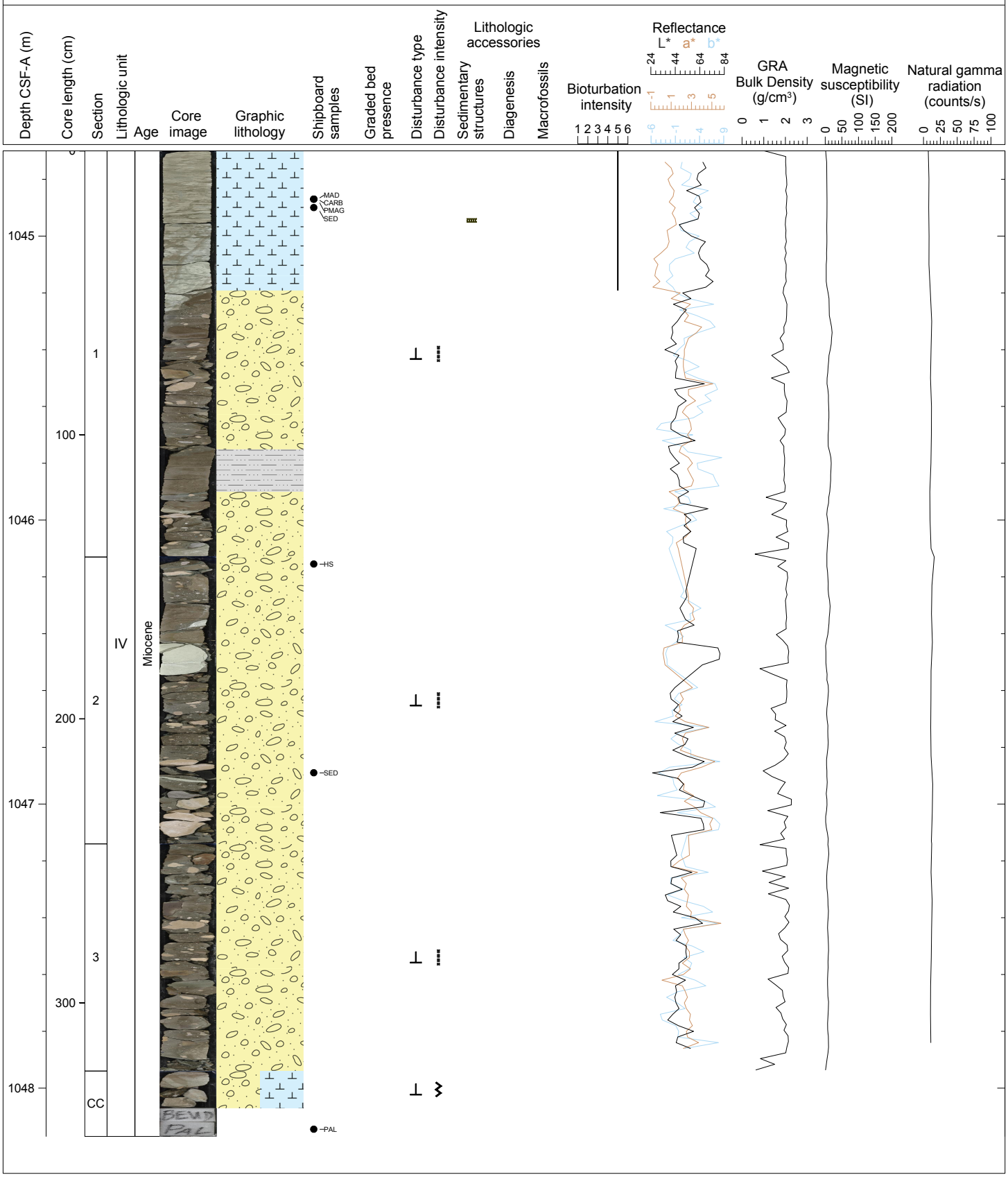
Hole 355-U1456E Core 11R, Interval 1035.5-1042.77 m (CSF-A)

CALCILUTITE, CONGLOMERATE, SILTY CLAYSTONE, NANNOFOSSIL-RICH CHALK. The main lithologies in this core is light gray CALCILUTITE and gray CONGLMERATE. Massive CALCILUTITE is overlain by CONGLOMERATE. Gray SILTY CLAYSTONE and light gray LIMESTONE are interbedded with CONGLOMERATE. Clasts of CONGLOMERATE consist of subangular to subrounded LIMESTONE fragments, gray CLAYSTONE chunks with minor dark volcanic fragments. Clast size ranges from a few mm to more than 5 cm. The clay matrix of the CONGLOMERATE shows deformation structures. NANNOFOSSIL-RICH CHALK occurs in the lowermost part of Section 6.



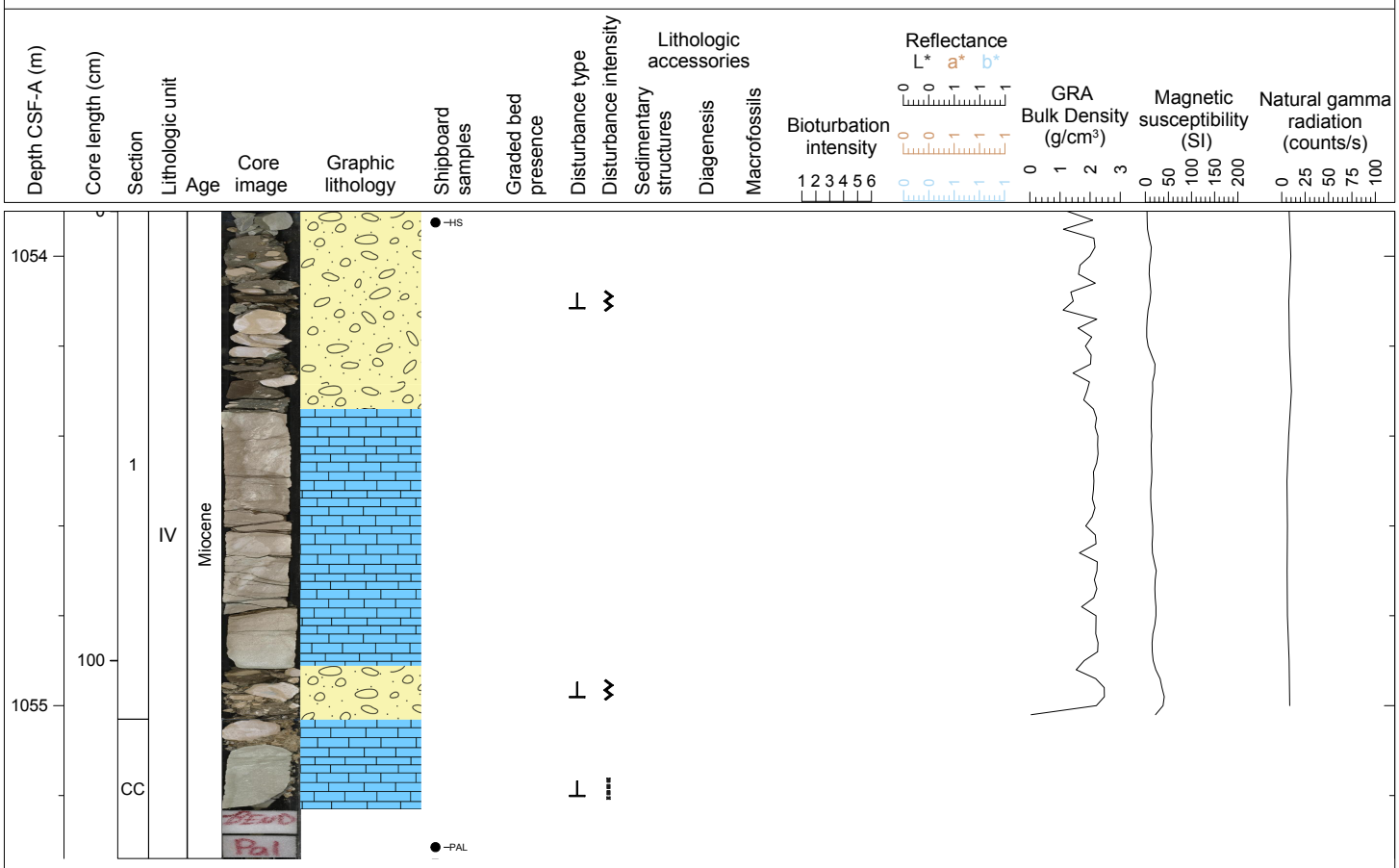
Hole 355-U1456E Core 12R, Interval 1044.7-1048.17 m (CSF-A)

NANNOFOSSIL CHALK, CONGLOMERATE, SILTY CLAYSTONE. The main lithology is gray CONGLOMERATE. Light gray NANNOFOSSIL CHALK is overlain by gray CONGLOMERATE. Gray SILTY CLAYSTONE is interbedded in CONGLOMERATE in Section 1. Clast size is very variable, ranging from a few mm to cobble-sized (>10 cm). Most of the clasts are LIMESTONE but dark volcanic fragments are also seen. All clasts are subangular to subrounded. CONGLOMERATE also includes deformed clay clasts.



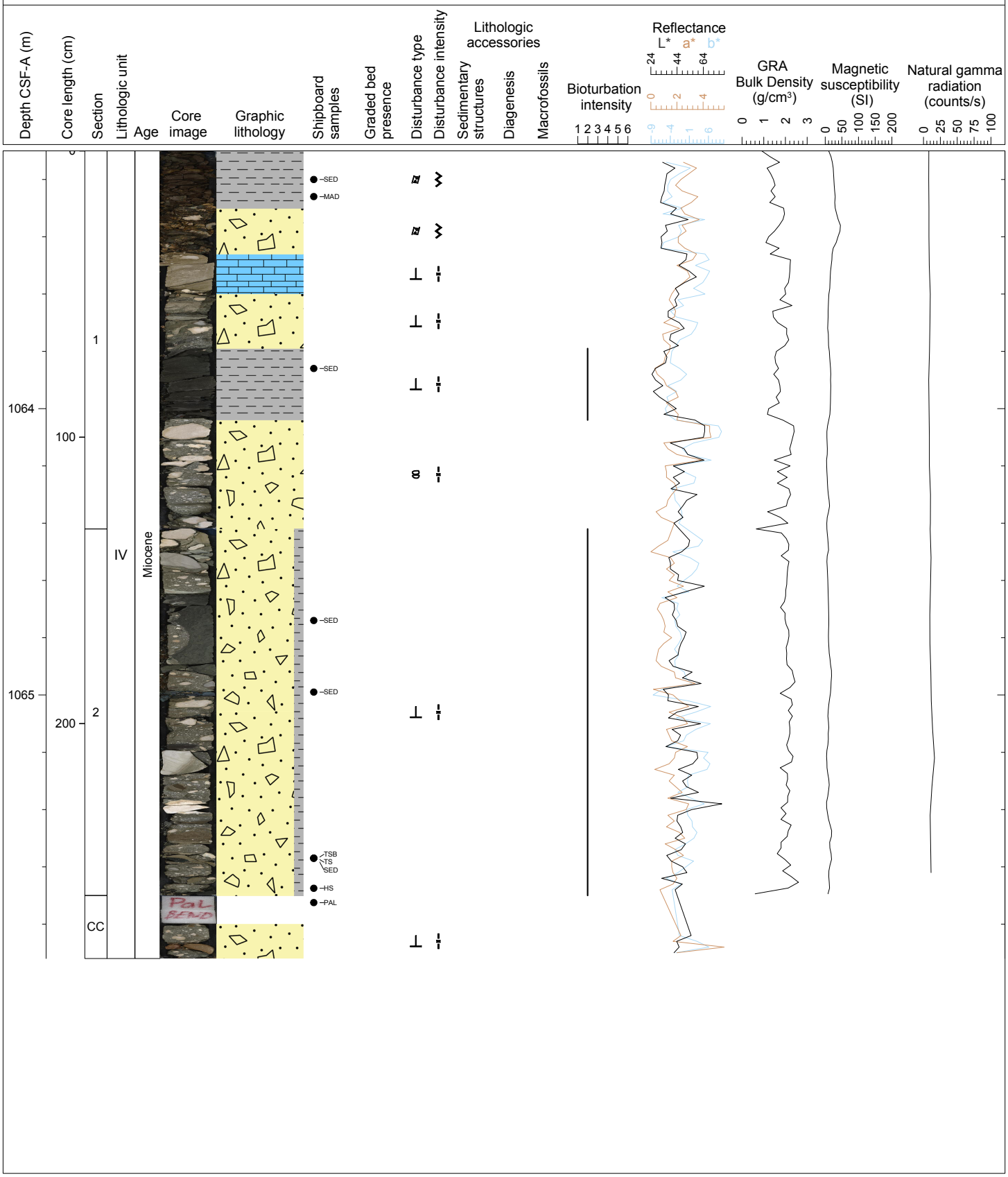
Hole 355-U1456E Core 13R, Interval 1053.9-1055.34 m (CSF-A)

CONGLOMERATE, LIMESTONE. Gray CONGLOMERATE and light gray LIMESTONE dominate this core and are interbedded with each other. CONGLOMERATE is composed of whitish pebble-sized LIMESTONE clasts suspended in dark gray clay. Clasts are subangular to subrounded. LIMESTONE includes very thin clay laminae which show deformed laminations and structures of pressure solutions, such as stylolites.



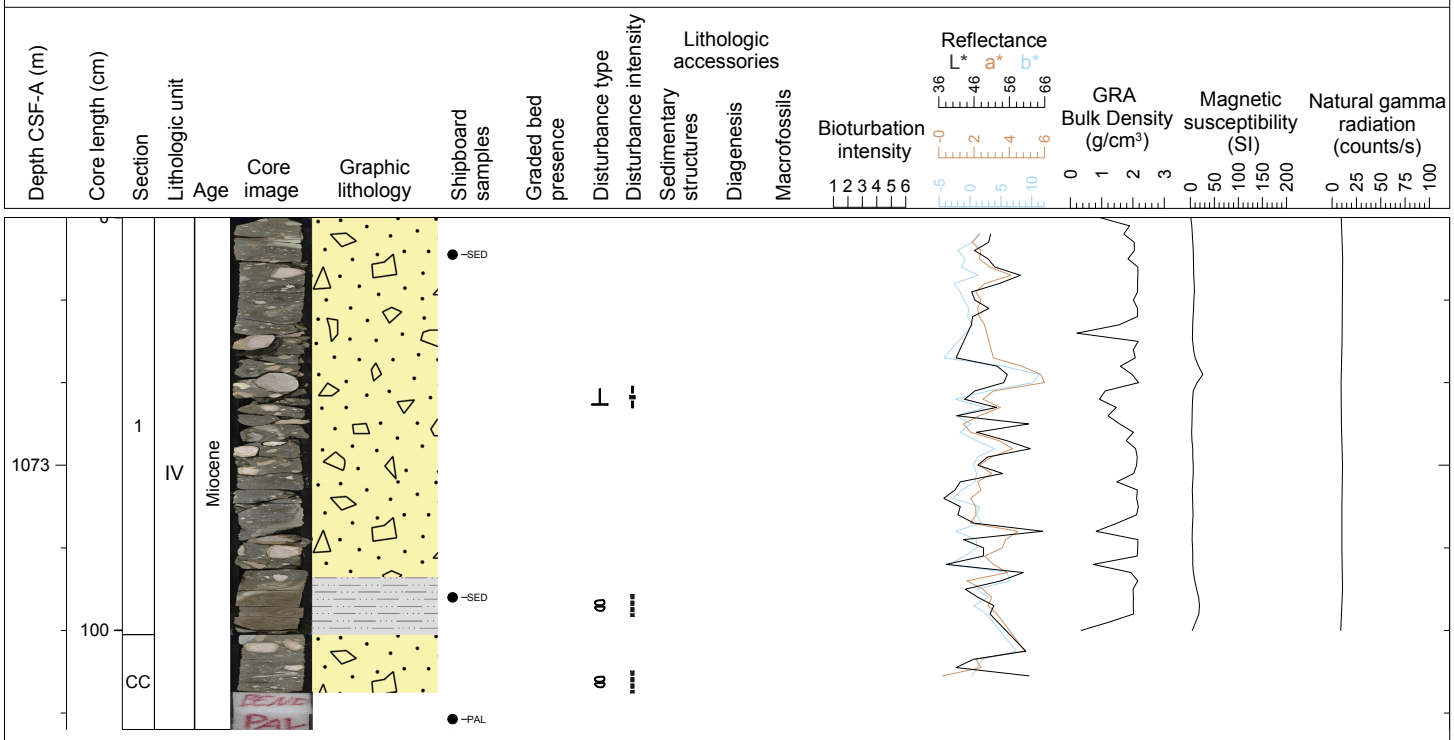
Hole 355-U1456E Core 14R, Interval 1063.1-1065.92 m (CSF-A)

BRECCIA, LIMESTONE, CLAYSTONE, A BRECCIA composed of limestone clasts is the dominant lithology in the core. The minor lithologies are brown CLAYSTONE, light tan-colored LIMESTONE, greenish to blackish CLAYSTONE, and bluish CLAYSTONE. These are thin to medium (<30 cm) bedded and observed interbedded with each other, as well as being mixed with BRECCIA. The contact boundaries are erosive and mostly inclined to almost vertical. The BRECCIA matrix is a mixture of clay and carbonate, while clasts are mostly LIMESTONES and CLAYSTONE with lesser amounts of volcanic clasts. The brownish CLAYSTONE is observed in the top of the core and is mixed with BRECCIA. Very thin (< 2 cm) bluish CLAYSTONE beds are also observed in Section 2 interbedded in BRECCIA. The bioturbation and a slickensided fault surface are observed in LIMESTONE and greenish CLAYSTONE .



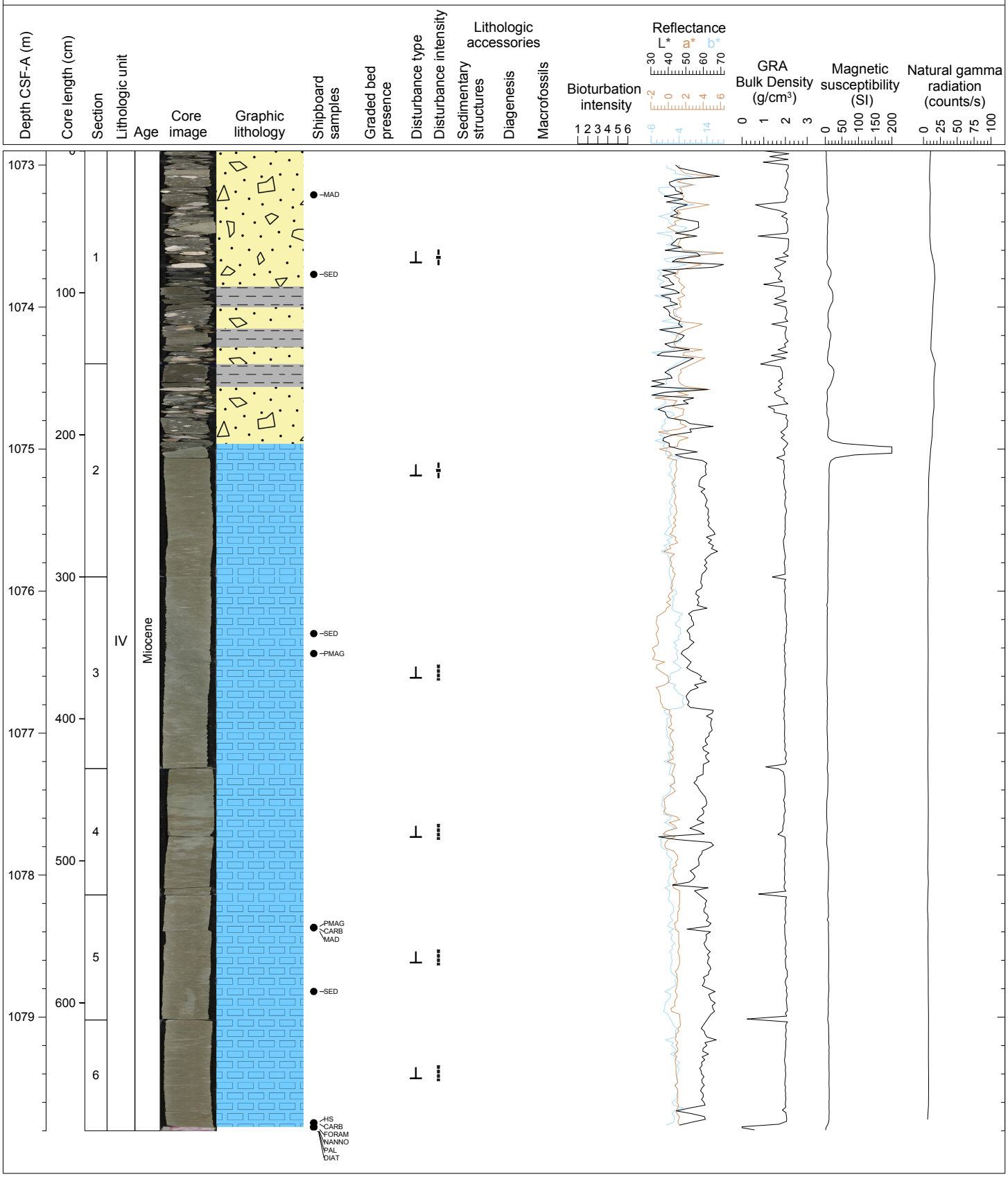
Hole 355-U1456E Core 15R, Interval 1072.4-1073.64 m (CSF-A)

BRECCIA, SILTY CLAYSTONE. The coreis dominated by BRECCIA. A thin (<20 cm) bed of SITY CLAYSTONE is observed in the bottom of Section 1. BRECCIA clasts are dominated by carbonate with claystone and volcanic clasts but with carbonate dominating. The matrix is a dark grayish green mixture of clay and carbonate. Clasts are up to 8 cm across and are matrix-supported.



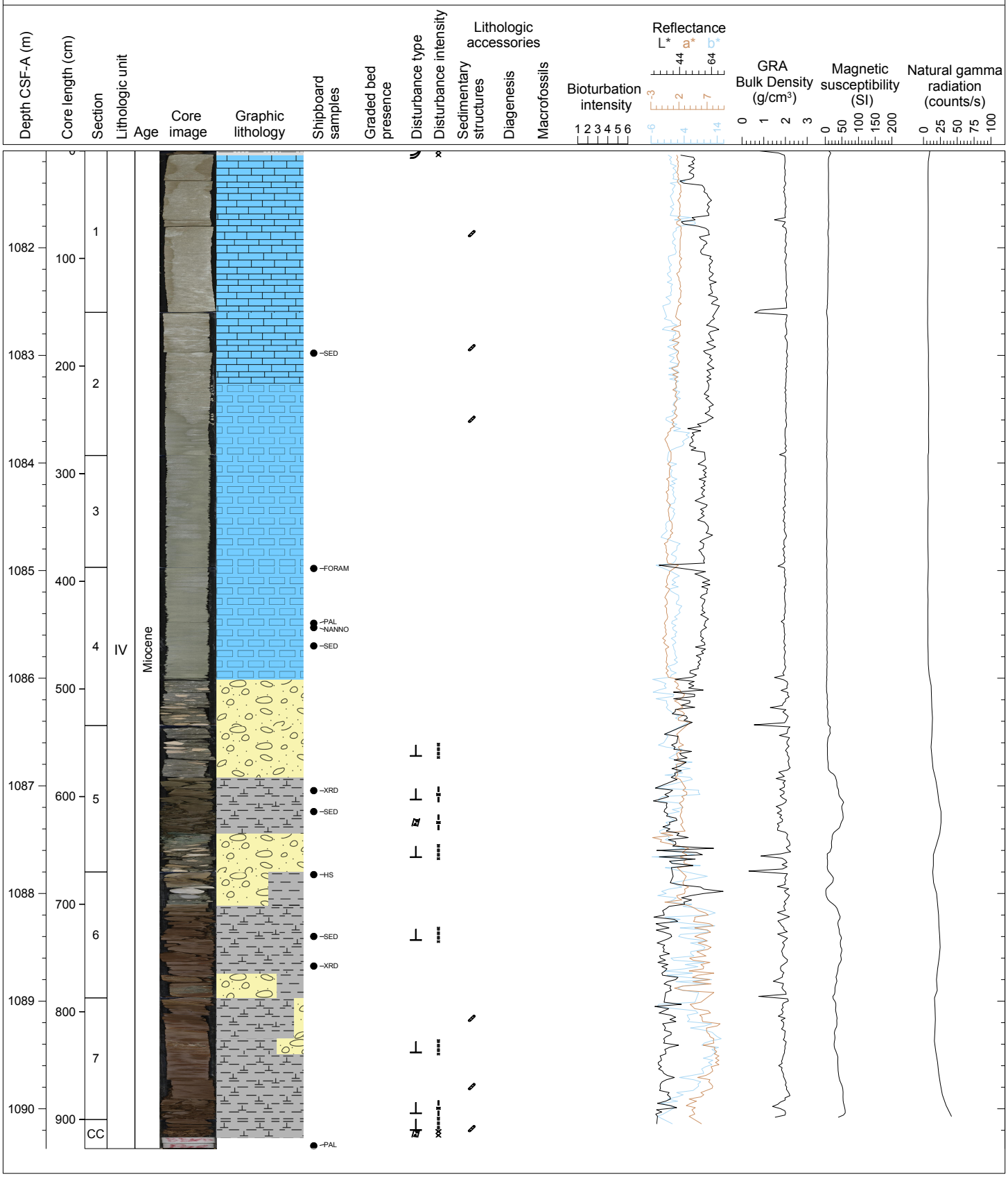
Hole 355-U1456E Core 16R, Interval 1072.9-1079.8 m (CSF-A)

BRECCIA, CLAYSTONE, CALCARENITE. Light greenish gray massive CALCARENITE and BRECCIA are the major lithologies in this core. The BRECCIA is observed at the top of the core and is interbedded with thin intervals of brownish and blackish CLAYSTONE (<20 cm) beds. BRECCIA clasts are dominated by LIMESTONE with lesser amounts of CLAYSTONE fragments. BRECCIA clasts are suspended in a clay and carbonate mixed matrix.



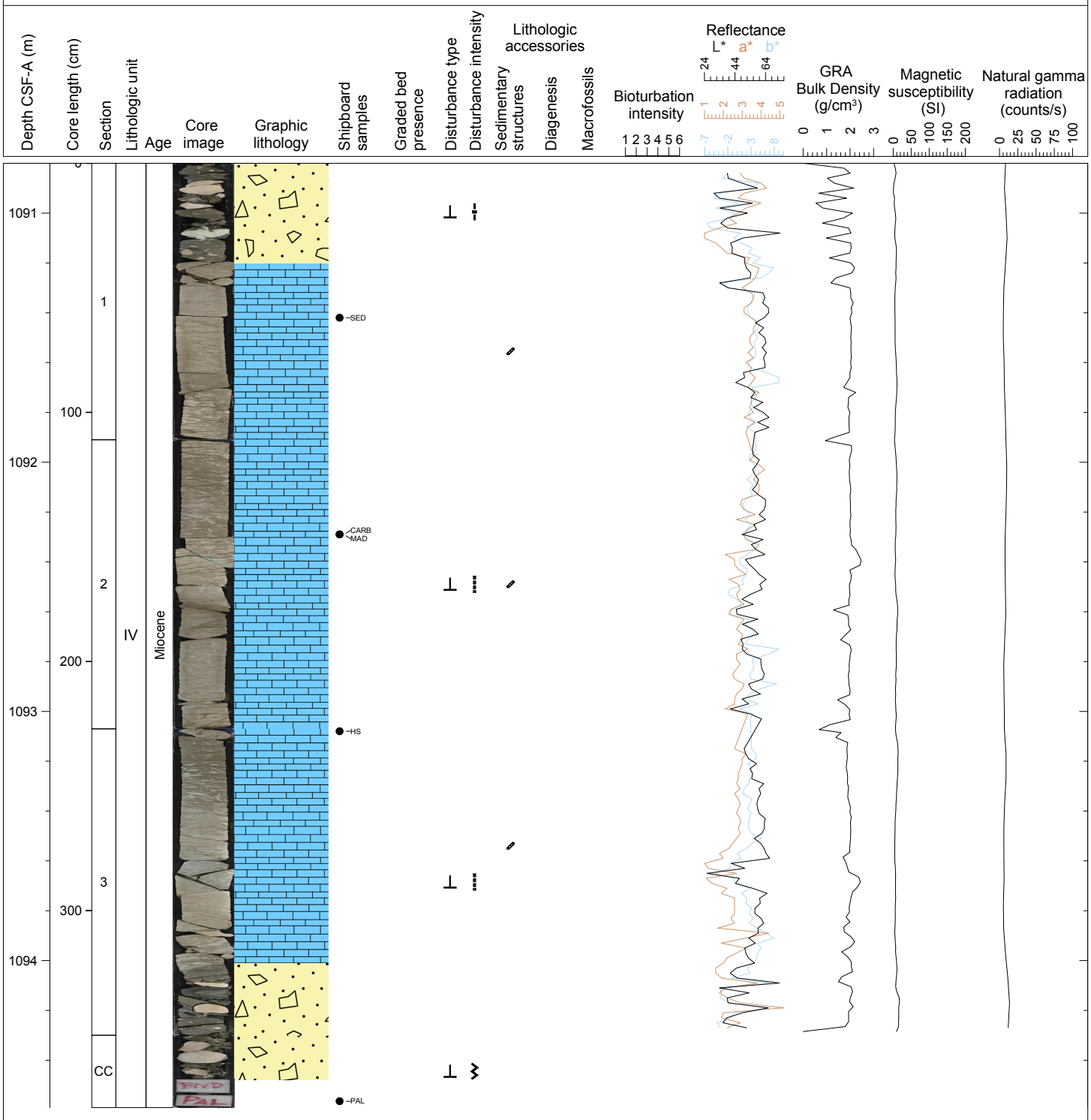
Hole 355-U1456E Core 17R, Interval 1081.1-1090.37 m (CSF-A)

LIMESTONE, CALCARENITE, NANNOFOSSIL-RICH CLAYSTONE, CONGLOMERATE. Light gray LIMESTONE and CALCARENITE are the main lithologies. LIMESTONE grades up into CALCARENITE. The LIMESTONE shows strong bioturbation. Carbonate-rich sediments are overlain by gray CONGLOMERATE and brown NANNOFOSSIL-RICH CLAYSTONE. Greenish gray NANNOFOSSIL-RICH CLAYSTONE is interbedded with CONGLOMERATE in Section 5. Brown NANNOFOSSIL-RICH CLAYSTONE shows some burrow structures and includes a couple of thin (<10cm) CONGLOMERATE beds, the boundaries of which are tilted. Clasts within the CONGLOMERATE are subangular to subrounded and range in size from a few mm up to 5 cm. Most of large clasts are LIMESTONES.



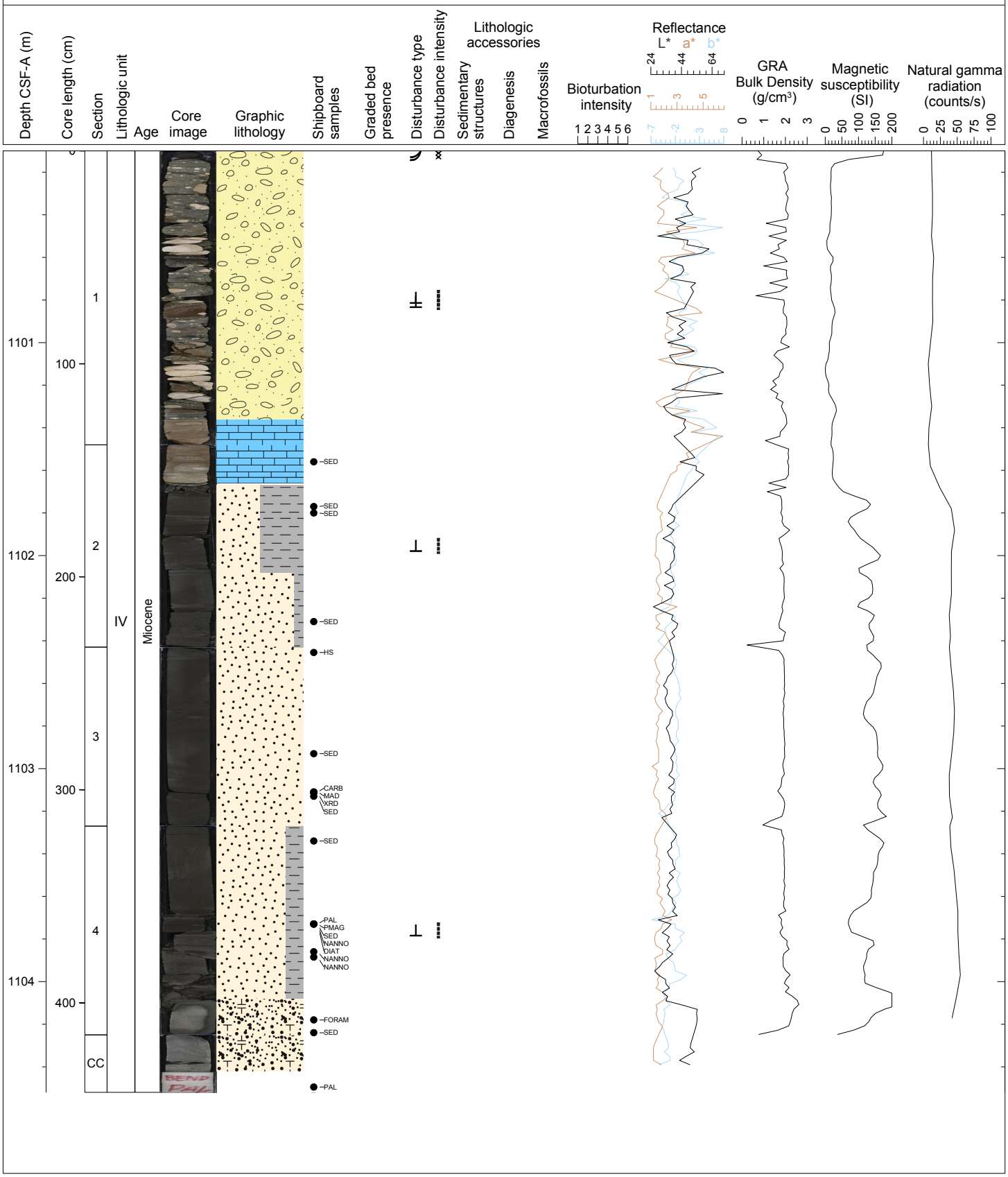
Hole 355-U1456E Core 18R, Interval 1090.8-1094.59 m (CSF-A)

LIMESTONE, BRECCIA Light brownish white LIMESTONE is the major lithology. LIMESTONE is sandwiched between the BRECCIA as a top and bottom of the core. LIMESTONE shows high bioturbation with filled carbonate intraclast. LIMESTONE also shows inclined bedding and contact boundaries. BRECCIA clasts are dominated with carbonate, claystone, siltstone and other materials with clay and muddy carbonate matrix.



Hole 355-U1456E Core 19R, Interval 1100.1-1104.52 m (CSF-A)

BRECCIA, SANDSTONE, LIMESTONE, SILTY SANDSTONE. The dark blackish gray SANDSTONE and BRECCIA are the major lithologies in the core. BRECCIA clasts are dominant by LIMESTONE, CLAYSTONE with some clasts of other materials. The very thin LIMESTONE and CLAYSTONE layers are interbedded with and sometimes mixed in the BRECCIA. Light brown LIMESTONE is underlain by BRECCIA and overlain by dark blackish gray SANDSTONE with thin layer of BRECCIA along the contact. The SANDSTONE beds are alternately interbedded with thin (<20 cm thick) SILTY CLAYSTONE beds. The SILTY CLAYSTONE beds are oriented sub-horizontal to inclined and have irregular, erosive boundaries. SANDSTONE is rich in mica and shows both normal and inverse grading.



Sample	Top Depth [m]	Bottom Depth [m]	Sand texture [%]	Silt texture [%]	Clay texture [%]	Quartz abundance	Feldspar abundance	Mica abundance	Clay minerals abundance	Lithic grains abundance	Glauconite abundance	Vitric grains abundance	Heavy minerals abundance	Zircon relative abundance	Zircon relative abundance rank	Tourmaline relative abundance	Tourmaline relative abundance rank	Rutile relative abundance	Rutile relative abundance rank	Apatite relative abundance	Apatite relative abundance rank	Titanite relative abundance	Titanite relative abundance rank	Spinel relative abundance	Spinel relative abundance rank
355-U1456A-1H-1-A 15/15-SS83	0.15	0.15	10	10	80			Tr					Tr					Tr	1						
355-U1456A-1H-3-A 21/21-SED	3.21	3.21	0	5	95	R		R			Tr		Tr												
355-U1456A-1H-3-A 31/31-SED	3.31	3.31	10	30	60	R	R	Tr					Tr					Tr	1			Tr	1		
355-U1456A-1H-3-A 49/49-SED	3.49	3.49	90	10	0	C	C	Tr			R		R			Tr	1								
355-U1456A-2H-1-A 120/120-SED	5.7	5.7	2	18	80	C	C																		
355-U1456A-2H-1-A 39/39-SED	4.89	4.89	0	40	60	C	C																		
355-U1456A-2H-2-A 24/24-SED	6.24	6.24	10	10	80				D																
355-U1456A-2H-3-A 70/70-SED	8.2	8.2	10	60	30	R																			
355-U1456A-2H-4-A 70/70-SED	9.7	9.7	10	60	30		R						R	Tr	1			Tr	1						
355-U1456A-3H-1-A 90/90-SED	14.9	14.9	10	60	30	C	C	R	C				R												
355-U1456A-3H-3-A 97/97-SED	17.97	17.97	40	50	10	A	A	C																	
355-U1456A-3H-6-A 48/48-SED	21.98	21.98	0	30	70	R	R		D				Tr												
355-U1456A-4H-1-A 60/60-SED	24.1	24.1	0	10	90	C	C		D																
355-U1456A-4H-2-A 40/40-SED	25.4	25.4	70	25	5	C	R	R					C	Tr	1	Tr	1								
355-U1456A-4H-4-A 20/20-SED	28.2	28.2	15	5	80				D				Tr												
355-U1456A-4H-5-A 43/43-SED	29.93	29.93	60	20	20			R			Tr		C			Tr	1								
355-U1456A-4H-7-A 43/43-SED	32.34	32.34	0	20	80			Tr	D				Tr												
355-U1456A-5H-1-A 77/77-SED	33.77	33.77	1	9	90			Tr					Tr												
355-U1456A-5H-2-A 144/144-SED	35.94	35.94	15	80	5	C	C						R			Tr	1								
355-U1456A-5H-6-A 59/59-SED	41.09	41.09	5	30	65	R	R	Tr					R			Tr	1	Tr	1						
355-U1456A-6H-2-A 148/148-SED	45.48	45.48	10	30	60	C	C	R			Tr		R	Tr	1					Tr	1				
355-U1456A-6H-3-A 70/70-SED	46.2	46.2	0	20	80	Tr	Tr	Tr					Tr												
355-U1456A-6H-4-A 101/101-SED	48.01	48.01	85	15	0	D	A				Tr		R	Tr	1										
355-U1456A-6H-5-A 28/28-SED	48.78	48.78	30	70	0	D	A	R		R			C	Tr	1	Tr	1			Tr	1				
355-U1456A-7H-1-A 137/137-SED	53.37	53.37	30	15	55	C	C	Tr		R	Tr		R												
355-U1456A-7H-2-A 66/66-SED	54.16	54.16	0	10	90	Tr	Tr	Tr					R			Tr	1								
355-U1456A-7H-3-A 97/97-SED	55.97	55.97	0	10	90	R	R	Tr					Tr			Tr	1								
355-U1456A-7H-5-A 31/31-SED	58.31	58.31	80	15	5	A	C	Tr		R	R		C	Tr	1	Tr	1	Tr	1	Tr	1				
355-U1456A-8H-1-A 46/46-SED	61.96	61.96	0	10	90	Tr		Tr																	
355-U1456A-8H-3-A 89/89-SED	65.39	65.39	0	35	65	Tr		Tr	Tr				Tr					Tr	1	Tr	1				
355-U1456A-8H-4-A 119/119-SED	67.19	67.19	0	5	95	Tr		Tr	R				Tr												
355-U1456A-8H-4-A 35/35-SED	66.35	66.35	60	30	10	A	C	C		C	Tr		R			Tr	1								
355-U1456A-9H-1-A 40/40-SED	71.4	71.4	10	30	60	R	Tr	Tr			Tr		Tr												
355-U1456A-9H-4-A 72/72-SED	76.22	76.22	20	30	50	C	R	R		Tr	Tr		Tr												
355-U1456A-9H-5-A 35/35-SED	77.35	77.35	0	10	90	R	R	Tr					Tr	Tr	1										
355-U1456A-9H-6-A 59/59-SED	79.09	79.09	40	55	5	C	C	R		R	Tr		R	Tr	1										
355-U1456A-10H-2-A 82/82-SED	82.82	82.82	10	30	60	R	R						R					Tr	1	Tr	1				
355-U1456A-10H-6-A 70/70-SED	88.7	88.7	30	50	20	R		R			Tr		C	Tr	1	Tr	1								
355-U1456A-11H-2-A 90/90-SED	92.4	92.4	0	20	80			R					Tr												
355-U1456A-11H-7-A 20/20-SED	98.61	98.61	60	25	15	C		R			R		R	Tr	1										
355-U1456A-12H-1-A 60/60-SED	100.1	100.1	10	40	50	R	R	R			Tr		R												
355-U1456A-12H-3-A 85/85-SED	103.35	103.35	10	72	20		R	R			C		C												
355-U1456A-13H-1-A 80/80-SED	109.8	109.8	0	10	90																				
355-U1456A-13H-3-A 120/120-SED	113.17	113.17	50	35	15	C	R	R		Tr	C		R												
355-U1456A-13H-7-A 25/25-SED	117.54	117.54	5	20	75	R	R	Tr			R		C												
355-U1456A-14H-2-A 30/30-SED	120.3	120.3	0	30	70	R							R												
355-U1456A-14H-2-A 92/92-SED	120.92	120.92	55	40	5	R	Tr	C			C		C	Tr	1	Tr	1	Tr	1			Tr	1		
355-U1456A-14H-3-A 50/50-SED	122	122	0	20	80								R	Tr	1	Tr	1								
355-U1456A-15H-1-A 61/61-SED	128.61	128.61	5	30	65	C	R	Tr		R	Tr		R					Tr	1	Tr	1				
355-U1456A-15H-1-A 95/95-SED	128.95	128.95	0	20	80	R	Tr	Tr	Tr				Tr							Tr	1				
355-U1456A-15H-4-A 120/120-SED	132.53	132.53	25	60	15	C	C	R	C	R			R	Tr	1							Tr	1		
355-U1456A-15H-4-A 73/73-SED	132.06	132.06	0	10	90	Tr		Tr																	
355-U1456A-17F-1-A 80/80-SED	140.1	140.1	80	15	5	A	C	R		C			C	Tr	1	Tr	1			Tr	1	Tr	1		
355-U1456A-17F-4-A 20/20-SED	143.22	143.22	10	60	30	A	C	R		R			C	Tr	1	Tr	1	Tr	1					Tr	1
355-U1456A-18F-1-A 25/25-SED	144.25	144.25	0	60	40	C	R		R				R	Tr	1			Tr	1						
355-U1456A-18F-2-A 30/30-SED	145.8	145.8	60	35	5	A	C	R		R			C	Tr	1							Tr	1		
355-U1456A-19F-1-A 120/120-SED	149.9	149.9	0	20	80	R	Tr	Tr					Tr			Tr	1								
355-U1456A-19F-2-A 100/100-SED	151.2	151.2	90	8	2	A	A	C		R			C			Tr	1			Tr	1	C	2		
355-U1456A-19F-3-A 137/137-SED	153.07	153.07	85	10	5	A	A	C		C			R	Tr	1							Tr	1		
355-U1456A-19F-3-A 40/40-SED	152.1	152.1	0	25	75	R	Tr	Tr					Tr												
355-U1456A-20F-1-A 30/30-SED	153.7	153.7	40	50	10	A	A	R	R	R			C	Tr	1					C	2	Tr	1		
355-U1456A-20F-2-A 90/90-SED	155.8	155.8	0	15	85	R	R	R		R			Tr												
355-U1456A-20F-3-A 80/80-SED27	157.2	157.2	0	20	80	R		R	R																
355-U1456A-21F-1-A 110/110-SED	159.2	159.2	0	30	70	R	R	R	Tr				R							Tr	1				
355-U1456A-21F-1-A 75/75-SED	158.85	158.85	0	15	85	R		Tr	Tr				Tr												
355-U1456A-21F-4-A 40/40-SED	162.5	162.5	15	60	25	C	R	R	Tr	Tr			R							Tr	1	Tr	1		
355-U1456A-23F-1-A 42/42-SED	167.92	167.92	70	25	5	R	R	C			R		C	Tr	1	Tr	1			Tr	1	Tr	1		
355-U1456A-24F-1-A 50/50-SED	172.7	172.7	0	30	70	R		C					Tr			Tr	1								
355-U1456A-24F-3-A 48/48-SED	175.68	175.68	60	35	5	A	C	C		R	R		C			Tr	1			Tr	1	Tr	1		
355-U1456A-25F-1-A 20/20-SED	177.1	177.1	50	40	10	R	R	R			Tr		C	Tr	1	Tr	1	Tr	1						
355-U1456A-25F-2-A 28/28-SED	178.68	178.68	5	30	65	R	R	R			R		R			Tr	1	Tr	1						
355-U1456A-26F-1-A 64/64-SED	182.24	182.24	70	25	5	A	C	C		R	C		C			Tr	1	Tr	1	Tr	1	Tr	1		
355-U1456A-26F-2-A 60/60-SED	183.7	183.7	0	10	90	R		R	C				Tr					Tr	1						
355-U1456A-27F-1-A 33/33-SED	186.63	186.63	0	30	70	R		R	C				Tr												
355-U1456A-27F-3-A 65/65-SED	188.45	188.45	60	30	10	C	C	C		C	C		C	Tr	1	Tr	1			Tr	1				
355-U1456A-28F-1-A 80/80-SED	191.8	191.8	60	30	10	C	C	C		A	C		R			Tr	1								
355-U1456A-28F-2-A 130/130-SED	193.8	193.8	0	10	90	A	C	R			R		Tr			Tr	1								
355-U1456A-29F-1-A 70/70-SED	196.4	196.4	50	40	10	C	R	C			C		R	Tr	1										
355-U1456A-30F-1-A 105/105-SED	201.45	201.45	20	50	30	R	R	C			R		C												
355-U1456A-30F-1-A 80/80-SED	201.2	201.2	0	10	90	C	R		C				R			Tr	1								
355-U1456A-30F-2-A 60/60-SED	202.5	202.5	50	30	20	C	C	R			R		R	Tr	1	Tr	1	Tr	1			Tr	1		
355-U1456A-31F-1-A 30/30-SED	204.6	204.6	0	5	95	R		R					Tr												
355-U1456A-31F-2-A 102/102-SED	206.82	206.82	50	40	10	C	R	C		Tr	Tr		C							Tr	1				
355-U1456A-32F-1-A 10/10-SED	209.1	209.1	0	30	70	R	R	Tr	R				Tr					Tr	1						

Sample	Hornblende relative abundance	Hornblende relative abundance rank	Actinolite relative abundance	Actinolite relative abundance rank	Glaucophane relative abundance	Glaucophane relative abundance rank	Augite relative abundance	Augite relative abundance rank	Other clinopyroxenes relative abundance	Other CPX relative abundance rank	Enstatite relative abundance	Enstatite relative abundance rank	Hypersthene relative abundance	Hypersthene relative abundance rank	Epidote relative abundance	Epidote relative abundance rank	Zoisite relative abundance	Zoisite relative abundance rank	Allanite relative abundance	Allanite relative abundance rank	Garnet relative abundance	Garnet relative abundance rank	Staurolite relative abundance	Staurolite relative abundance rank	Chloritoid relative abundance	Chloritoid relative abundance rank	Kyanite relative abundance	Kyanite relative abundance rank	Sillimanite relative abundance	Sillimanite relative abundance rank	Opaques relative abundance	Opaques relative abundance rank
355-U1456A-1H-1-A 15/15-SS83	Tr	1																							Tr	1					Tr	1
355-U1456A-1H-3-A 21/21-SED			Tr	1																	Tr	1										
355-U1456A-1H-3-A 31/31-SED	C	2							Tr	1					C	2					Tr	1										
355-U1456A-1H-3-A 49/49-SED	C	2							Tr	1					C	2									Tr	1						
355-U1456A-2H-1-A 120/120-SED																																
355-U1456A-2H-1-A 39/39-SED																																
355-U1456A-2H-2-A 24/24-SED																																
355-U1456A-2H-3-A 70/70-SED																																
355-U1456A-2H-4-A 70/70-SED	C	2							Tr	1					Tr	1																
355-U1456A-3H-1-A 90/90-SED																															A	3
355-U1456A-3H-3-A 97/97-SED																																
355-U1456A-3H-6-A 48/48-SED																															A	3
355-U1456A-4H-1-A 60/60-SED																																
355-U1456A-4H-2-A 40/40-SED	A	3							C	2					C	2					Tr	1					C	2				
355-U1456A-4H-4-A 20/20-SED			Tr	1											Tr	1																
355-U1456A-4H-5-A 43/43-SED	A	3	Tr	1					C	2					C	2					Tr	1										
355-U1456A-4H-7-A 43/43-SED	C	2							Tr	1					C	2																
355-U1456A-5H-1-A 77/77-SED															A	3																
355-U1456A-5H-2-A 144/144-SED	C	2							Tr	1					C	2					C	2										
355-U1456A-5H-6-A 59/59-SED	C	2													C	2											Tr	1				
355-U1456A-6H-2-A 148/148-SED	C	2							Tr	1																						
355-U1456A-6H-3-A 70/70-SED															A	3																
355-U1456A-6H-4-A 101/101-SED	C	2													C	2					C	2					Tr	1				
355-U1456A-6H-5-A 28/28-SED	A	3													C	2					C	2									Tr	1
355-U1456A-7H-1-A 137/137-SED	C	2					Tr	1	Tr	1																						
355-U1456A-7H-2-A 66/66-SED									Tr	1																						
355-U1456A-7H-3-A 97/97-SED	Tr	1													Tr	1																
355-U1456A-7H-5-A 31/31-SED	A	3	Tr	1			Tr	1	Tr	1					C	2					C	2					Tr	1				
355-U1456A-8H-1-A 46/46-SED																																
355-U1456A-8H-3-A 89/89-SED															C	2																
355-U1456A-8H-4-A 119/119-SED															A	3																
355-U1456A-8H-4-A 35/35-SED	C	2	Tr	1					Tr	1					C	2					Tr	1										
355-U1456A-9H-1-A 40/40-SED	C	2							Tr	1					Tr	1															C	2
355-U1456A-9H-4-A 72/72-SED									A	3																						
355-U1456A-9H-5-A 35/35-SED	C	2																			Tr	1					Tr	1			C	2
355-U1456A-9H-6-A 59/59-SED	C	2					Tr	1	Tr	1					C	2					C	2										
355-U1456A-10H-2-A 82/82-SED	Tr	1							Tr	1					Tr	1															C	2
355-U1456A-10H-6-A 70/70-SED									C	2					C	2					Tr	1									A	3
355-U1456A-11H-2-A 90/90-SED																															Tr	1
355-U1456A-11H-7-A 20/20-SED							A	3	Tr	1					Tr	1															Tr	1
355-U1456A-12H-1-A 60/60-SED																																
355-U1456A-12H-3-A 85/85-SED																																
355-U1456A-13H-1-A 80/80-SED																																
355-U1456A-13H-3-A 120/120-SED																																
355-U1456A-13H-7-A 25/25-SED															Tr	1					Tr	1									Tr	1
355-U1456A-14H-2-A 30/30-SED	Tr	1													Tr	1															Tr	1
355-U1456A-14H-2-A 92/92-SED									C	2					C	2					Tr	1	Tr	1					Tr	1	Tr	1
355-U1456A-14H-3-A 50/50-SED	Tr	1													Tr	1															Tr	1
355-U1456A-15H-1-A 61/61-SED	C	2							C	2											C	2									Tr	1
355-U1456A-15H-1-A 95/95-SED	Tr	1																														
355-U1456A-15H-4-A 120/120-SED	C	2													C	2					C	2										
355-U1456A-15H-4-A 73/73-SED																																
355-U1456A-17F-1-A 80/80-SED	A	3	C	2					Tr	1			Tr	1	C	2			Tr	1	C	2	Tr	1	Tr	1						
355-U1456A-17F-4-A 20/20-SED	A	3	C	2											C	2					C	2										
355-U1456A-18F-1-A 25/25-SED	C	2	Tr	1											C	2																
355-U1456A-18F-2-A 30/30-SED	A	3	Tr	1					Tr	1					C	2					Tr	1										
355-U1456A-19F-1-A 120/120-SED	C	2																														
355-U1456A-19F-2-A 100/100-SED	A	3	C	2					Tr	1					C	2					Tr	1							Tr	1	Tr	1
355-U1456A-19F-3-A 137/137-SED	A	3	C	2									Tr	1	C	2					Tr	1					Tr	1				
355-U1456A-19F-3-A 40/40-SED	Tr	1																											Tr	1		
355-U1456A-20F-1-A 30/30-SED	C	2	C	2					Tr	1					A	3					C	2	Tr	1							Tr	1
355-U1456A-20F-2-A 90/90-SED	Tr	1							Tr	1																						
355-U1456A-20F-3-A 80/80-SED27																																
355-U1456A-21F-1-A 110/110-SED	C	2																			Tr	1										
355-U1456A-21F-1-A 75/75-SED															Tr	1					Tr	1										
355-U1456A-21F-4-A 40/40-SED	C	2	C	2					Tr	1					C	2					Tr	1										
355-U1456A-23F-1-A 42/42-SED	C	2	Tr	1					Tr	1			Tr	1	C	2													Tr	1		
355-U1456A-24F-1-A 50/50-SED															Tr	1															Tr	1
355-U1456A-24F-3-A 48/48-SED	C	2							Tr	1					C	2			Tr	1	C	2			Tr	1	Tr	1			C	2
355-U1456A-25F-1-A 20/20-SED	C	2	Tr	1					C	2											Tr	1									Tr	1
355-U1456A-25F-2-A 28/28-SED			C	2											C	2					Tr	1									Tr	1
355-U1456A-26F-1-A 64/64-SED	A	3	C	2											C	2					C	2							Tr	1	Tr	1
355-U1456A-26F-2-A 60/60-SED	Tr	1																													Tr	1
355-U1456A-27F-1-A 33/33-SED	Tr	1													Tr	1															Tr	1
355-U1456A-27F-3-A 65/65-SED	A	3	C	2											C	2					Tr	1									Tr	1
355-U1456A-28F-1-A 80/80-SED	C	2													C	2					Tr	1									Tr	1
355-U1456A-28F-2-A 130/130-SED			Tr	1											Tr	1															Tr	1
355-U1456A-29F-1-A 70/70-SED	C	2	Tr	1											C	2					Tr	1									Tr	1
355-U1456A-30F-1-A 105/105-SED	C	2	C	2											C	2															Tr	1
355-U1456A-30F-1-A 80/80-SED																															Tr	1
355-U1456A-30F-2-A 60/60-SED	C	2													C	2			Tr	1	Tr	1									Tr	1
355-U1456A-31F-1-A 30/30-SED	Tr	1													Tr	1															Tr	1
355-U1456A-31F-2-A 102/102-SED	A	3							C	2					C	2															Tr	1
355-U1456A-32F-1-A 10/10-SED	Tr	1													Tr	1																

Sample	Fe sulfides (opaques) abundance	Fe-oxides abundance	Ti-oxides abundance	Carbonate, detrital abundance	Carbonate, authigenic abundance	Foraminifers abundance	Calcareous nannofossil abundance	Pteropod fragments abundance	Other calcareous bioclasts abundance	Radiolarians abundance	Diatoms abundance	Sponge spicule fragments abundance	Other biosiliceous fossil fragments abundance	Fish debris abundance	Plant debris abundance	Organic matter abundance	Total of group estimates [%]	Lithology prefix	Principal lithology	Lithology suffix	Lithology major or minor	Lithology comment	Smear slide comment
355-U1456A-1H-1-A 15/15-SS83		Tr				A	D					Tr			Tr				calcareous ooze		major lithology		
355-U1456A-1H-3-A 21/21-SED	R				R		D				Tr	Tr							calcareous ooze		major lithology		
355-U1456A-1H-3-A 31/31-SED	R	R			C	C	D			Tr									calcareous ooze		major lithology		Etched Cpx
355-U1456A-1H-3-A 49/49-SED	R					C	D					Tr		Tr					calcareous ooze		major lithology		Etched Cpx
355-U1456A-2H-1-A 120/120-SED		Tr				A	D				Tr								calcareous ooze		major lithology		
355-U1456A-2H-1-A 39/39-SED							D				C								calcareous ooze		minor lithology		
355-U1456A-2H-2-A 24/24-SED							D			R		A							nannofossil ooze		minor lithology		
355-U1456A-2H-3-A 70/70-SED							R			C	R	C							nannofossil ooze		minor lithology		
355-U1456A-2H-4-A 70/70-SED					C	C	D												calcareous ooze		major lithology		
355-U1456A-3H-1-A 90/90-SED	R					R	A												calcareous ooze		major lithology		
355-U1456A-3H-3-A 97/97-SED						R	C			R									calcareous ooze		minor lithology		
355-U1456A-3H-6-A 48/48-SED							A			C									nannofossil ooze		major lithology		
355-U1456A-4H-1-A 60/60-SED						R	D												calcareous ooze		major lithology		
355-U1456A-4H-2-A 40/40-SED						A	C												sand		minor lithology		
355-U1456A-4H-4-A 20/20-SED						C	A												calcareous ooze		minor lithology		
355-U1456A-4H-5-A 43/43-SED							C												calcareous ooze		minor lithology		
355-U1456A-4H-7-A 43/43-SED						R	D												calcareous ooze		major lithology		
355-U1456A-5H-1-A 77/77-SED	Tr	Tr			Tr	C	D					Tr							nannofossil ooze		minor lithology		
355-U1456A-5H-2-A 144/144-SED	Tr					C	R					Tr							silt		minor lithology		
355-U1456A-5H-6-A 59/59-SED	R	R				Tr	D					Tr							clay		major lithology		
355-U1456A-6H-2-A 148/148-SED		Tr					A												clay		minor lithology		
355-U1456A-6H-3-A 70/70-SED	Tr	Tr				Tr	D												calcareous ooze		minor lithology		
355-U1456A-6H-4-A 101/101-SED							Tr												sand		minor lithology		
355-U1456A-6H-5-A 28/28-SED	Tr					Tr	Tr												silt		minor lithology		
355-U1456A-7H-1-A 137/137-SED	Tr					A	D		Tr		Tr	Tr	Tr						calcareous ooze		major lithology		
355-U1456A-7H-2-A 66/66-SED	R	Tr				Tr	D					Tr							calcareous ooze		major lithology		
355-U1456A-7H-3-A 97/97-SED		Tr				Tr					Tr								calcareous ooze		major lithology		
355-U1456A-7H-5-A 31/31-SED	R					R	Tr					R							sand		minor lithology		
355-U1456A-8H-1-A 46/46-SED	Tr				R	Tr	D												calcareous chalk		major lithology		
355-U1456A-8H-3-A 89/89-SED	R	Tr			R	R	D					R							calcareous ooze		minor lithology		
355-U1456A-8H-4-A 119/119-SED	R					Tr	D		Tr			Tr							nannofossil ooze		major lithology		
355-U1456A-8H-4-A 35/35-SED	Tr	Tr				C	C		R										sand		minor lithology		
355-U1456A-9H-1-A 40/40-SED	Tr					Tr	C					Tr	C						nannofossil ooze		major lithology		
355-U1456A-9H-4-A 72/72-SED	Tr	Tr				C	C		R				C						nannofossil ooze		minor lithology		Cpx skeletal
355-U1456A-9H-5-A 35/35-SED	Tr	Tr				Tr	D		R			Tr							nannofossil ooze		major lithology		
355-U1456A-9H-6-A 59/59-SED	Tr					R	R		C										silt		minor lithology		
355-U1456A-10H-2-A 82/82-SED	R					Tr	D					Tr	C					foraminifer rich	nannofossil ooze	with silt	major lithology		
355-U1456A-10H-6-A 70/70-SED	C	Tr				R	D											sandy	silt	with nannofossils	minor lithology		
355-U1456A-11H-2-A 90/90-SED	Tr						Tr		D										calcareous ooze		major lithology		
355-U1456A-11H-7-A 20/20-SED	R					C	C											foraminifer rich	sand	with nannofossils	major lithology		Indian passive margin?
355-U1456A-12H-1-A 60/60-SED						R	C					Tr						silty	nannofossil ooze		major lithology		
355-U1456A-12H-3-A 85/85-SED						C	C											nannofossil rich	silt	with foraminifers	minor lithology		
355-U1456A-13H-1-A 80/80-SED	R					R	D												nannofossil ooze		major lithology		
355-U1456A-13H-3-A 120/120-SED						A	C											foraminifer rich	sand	with nannofossils	minor lithology		
355-U1456A-13H-7-A 25/25-SED						R	D					Tr						nannofossil rich	clay		major lithology		
355-U1456A-14H-2-A 30/30-SED						R	D												nannofossil ooze	with foraminifers	major lithology		
355-U1456A-14H-2-A 92/92-SED						R	C												nannofossil ooze		minor lithology		
355-U1456A-14H-3-A 50/50-SED						R	D												nannofossil ooze	with clay	major lithology		
355-U1456A-15H-1-A 61/61-SED	C					R	A		R									silty	nannofossil ooze	with silt	major lithology		
355-U1456A-15H-1-A 95/95-SED		Tr				Tr	D		Tr										nannofossil ooze	with silt	minor lithology		
355-U1456A-15H-4-A 120/120-SED									Tr									sandy	silt	with clay	major lithology		
355-U1456A-15H-4-A 73/73-SED		Tr					D												nannofossil ooze	with clay	major lithology		
355-U1456A-17F-1-A 80/80-SED						Tr													sand		major lithology		Indus River assemblage
355-U1456A-17F-4-A 20/20-SED																		sandy	silt	with clay	minor lithology		
355-U1456A-18F-1-A 25/25-SED	C								C										silt	with clay	major lithology		
355-U1456A-18F-2-A 30/30-SED						Tr	Tr												sand	with silt	major lithology		
355-U1456A-19F-1-A 120/120-SED	R	Tr	Tr		R		Tr												clay	with silt	major lithology		
355-U1456A-19F-2-A 100/100-SED		Tr																	sand		major lithology		
355-U1456A-19F-3-A 137/137-SED		Tr																	sand		minor lithology		
355-U1456A-19F-3-A 40/40-SED	Tr	Tr			C	Tr													clay	with silt	major lithology		
355-U1456A-20F-1-A 30/30-SED		Tr				Tr												sandy	silt	with clay	major lithology		
355-U1456A-20F-2-A 90/90-SED	R	R				Tr	C					Tr		Tr					clay	with silt	major lithology		
355-U1456A-20F-3-A 80/80-SED27	R	Tr							C										clay	with silt	major lithology		
355-U1456A-21F-1-A 110/110-SED		Tr				Tr	R											silty	clay	with nannofossils	major lithology		
355-U1456A-21F-1-A 75/75-SED	R	R				Tr	A		C										clay	with nannofossils	minor lithology		
355-U1456A-21F-4-A 40/40-SED	Tr	Tr			Tr							Tr						sandy	silt	with clay	major lithology		
355-U1456A-23F-1-A 42/42-SED									C									silty	sand		major lithology		
355-U1456A-24F-1-A 50/50-SED	R	R							A									silty	clay		major lithology		
355-U1456A-24F-3-A 48/48-SED									R									silty	sand		major lithology		Indus River assemblage
355-U1456A-25F-1-A 20/20-SED									R									silty	sand		major lithology		
355-U1456A-25F-2-A 28/28-SED	C								A									silty	clay		major lithology		
355-U1456A-26F-1-A 64/64-SED	R								R									silty	sand		major lithology		
355-U1456A-26F-2-A 60/60-SED	R	Tr					Tr		A										clay		major lithology		
355-U1456A-27F-1-A 33/33-SED	Tr	R					C		A										clay		major lithology		
355-U1456A-27F-3-A 65/65-SED	C					Tr												silty	sand		major lithology		
355-U1456A-28F-1-A 80/80-SED									C									silty	sand		major lithology		
355-U1456A-28F-2-A 130/130-SED							Tr		A										clay		major lithology		
355-U1456A-29F-1-A 70/70-SED						Tr			R									silty	sand		major lithology		
355-U1456A-30F-1-A 105/105-SED		Tr					Tr		R									sandy	silt		major lithology		
355-U1456A-30F-1-A 80/80-SED									A									calcareous rich	clay		major lithology		
355-U1456A-30F-2-A 60/60-SED							Tr		C						Tr			silty	sand		major lithology		
355-U1456A-31F-1-A 30/30-SED	C	Tr					Tr		A										clay		major lithology		
355-U1456A-31F-2-A 102/102-SED						Tr	R		C									silty	sand		major lithology		Big micas
355-U1456A-32F-1-A 10/10-SED							R		C										clay	with silt	major lithology		

Sample	Top Depth [m]	Bottom Depth [m]	Sand texture [%]	Silt texture [%]	Clay texture [%]	Quartz abundance	Feldspar abundance	Mica abundance	Clay minerals abundance	Lithic grains abundance	Glauconite abundance	Vitric grains abundance	Heavy minerals abundance	Zircon relative abundance	Zircon relative abundance rank	Tourmaline relative abundance	Tourmaline relative abundance rank	Rutile relative abundance	Rutile relative abundance rank	Apatite relative abundance	Apatite relative abundance rank	Titanite relative abundance	Titanite relative abundance rank	Spinel relative abundance	Spinel relative abundance rank	Hornblende relative abundance	Hornblende relative abundance rank	Actinolite relative abundance	Actinolite relative abundance rank	Glaucophane relative abundance	Glaucophane relative abundance rank	Augite relative abundance	Augite relative abundance rank	Other clinopyroxenes relative abundance	Other CPX relative abundance rank	Enstatite relative abundance	Enstatite relative abundance rank	Hypersthene relative abundance	Hypersthene relative abundance rank	Epidote relative abundance	Epidote relative abundance rank
355-U1456A-32F-1-A 120/120-SED	210.2	210.2	50	35	15	A	C	C		C			C	Tr	1					Tr	1			Tr	1	A	3	C	2					Tr	1					C	2
355-U1456A-32F-2-A 55/55-SED	211.06	211.06	60	35	5	A	C	R		C			C			Tr	1					Tr	1			A	3	C	2											C	2
355-U1456A-33F-1-A 110/110-SED	214.8	214.8	45	35	20	A	A	C		C			C	C	2			Tr	1	Tr	1	C	2			A	3							Tr	1			Tr	1	A	3
355-U1456A-33F-1-A 65/65-SED	214.35	214.35	1	39	60	R	R						Tr													C	2	Tr	1											Tr	1
355-U1456A-34F-1-A 110/110-SED	219.5	219.5	0	40	60	C	C		R				R					Tr	1							C	2													Tr	1
355-U1456A-34F-1-A 21/21-SED	218.61	218.61	50	20	30	C	C	R		R			R			Tr	1	Tr	1							C	2	Tr	1											Tr	1
355-U1456A-34F-4-A 30/30-SED	222.7	222.7	0	45	55	A	C	R	Tr				R			Tr	1									C	2	C	2					Tr	1					C	2
355-U1456A-35F-1-A 118/118-SED	224.28	224.28	70	25	5	A	C	R		C			C	Tr	1					Tr	1	Tr	1			A	3							Tr	1			Tr	1	C	2
355-U1456A-35F-1-A 90/90-SED	224	224	0	20	80	C	R	Tr	R				R					Tr	1							C	2													C	2
355-U1456A-35F-2-A 21/21-SED	224.81	224.81	0	20	80	R	Tr	R	Tr				R			Tr	1	Tr	1																					C	2
355-U1456A-36F-1-A 45/45-SED	226.95	226.95	50	40	10	A	C	R	Tr	C			C	Tr	1			Tr	1	Tr	1					A	3							Tr	1			Tr	1	C	2
355-U1456A-36F-2-A 100/100-SED	229	229	35	45	20	A	C	R	Tr	C			R							Tr	1					A	3	Tr	1					Tr	1					C	2
355-U1456A-36F-2-A 135/135-SCRAP	229.35	229.35	10	70	20	A	C	R	Tr	R			R	Tr	1											C	2													C	2
355-U1456A-37F-2-A 60/60-SED	233.24	233.24	70	25	5	A	C	R		C			C	C	2	Tr	1					Tr	1	Tr	1	A	3	C	2					Tr	1			Tr	1	C	2
355-U1456A-37F-3-A 90/90-SED	234.9	234.9	0	5	90	R		Tr	C				Tr			Tr	1									C	2													C	2
355-U1456A-38F-1-A 130/130-SED	237	237	55	40	5	A	A	C		C			C	Tr	1			Tr	1	Tr	1					A	3	C	2					Tr	1	Tr	1			C	2
355-U1456A-38F-2-A 30/30-SED	237.5	237.5	20	70	10	A	A	C		Tr			C			Tr	1			Tr	1	Tr	1			C	2							Tr	1					C	2
355-U1456A-38F-3-A 15/15-SED	238.85	238.85	0	20	80	C	C	R					R													Tr	1													Tr	1
355-U1456A-39F-1-A 21/21-SED	240.11	240.11	10	30	60	A	A	C	Tr				R					Tr	1							C	2	Tr	1					Tr	1						
355-U1456A-39F-1-A 70/70-SED	240.6	240.6	60	35	5	D	A	C	R	C			C	Tr	1			Tr	1	Tr	1					C	2							Tr	1					Tr	1
355-U1456A-39F-2-A 25/25-SED	241.65	241.65	80	15	5	D	A	C	Tr	C			C	Tr	1	Tr	1	Tr	1	Tr	1			Tr	1	A	3							Tr	1					C	2
355-U1456A-40F-1-A 90/90-SED	245.5	245.5	0	5	95	Tr	Tr	Tr	Tr				Tr													Tr	1													Tr	1
355-U1456A-40F-2-A 37/37-SED	246.47	246.47	5	30	65	C	C	A	Tr	Tr			R	Tr	1			Tr	1	Tr	1					C	2													C	2
355-U1456A-40F-3-A 50/50-SED	248.1	248.1	0	10	90	R	R	Tr	Tr				R													C	2	Tr	1											Tr	1
355-U1456A-40F-3-A 75/75-SED	248.35	248.35	0	15	85	R	R		R				Tr					C	2							Tr	1	Tr	1												
355-U1456A-41F-1-A 40/40-SED	249.7	249.7	0	5	95	R	R	R	R				C					Tr	1							C	2													C	2
355-U1456A-41F-3-A 98/98-SED	253.28	253.28	30	60	10	R	R	C	R		C		R	Tr	1	Tr	1									C	2	Tr	1											C	2
355-U1456A-42F-1-A 102/102-SED	255.02	255.02	0	5	95	R	R	Tr	R				Tr			Tr	1									Tr	1													Tr	1
355-U1456A-42F-2-A 85/85-SED	256.35	256.35	40	50	10	C	C	C	R		C		R			Tr	1	Tr	1							C	2													Tr	1
355-U1456A-43F-1-A 12/12-SED	258.52	258.52	0	24	75	C	R	C					R			Tr	1	Tr	1					Tr	1	C	2													Tr	1
355-U1456A-43F-1-A 67/67-SED	259.07	259.07	70	25	5	C	C	C	C		Tr		R			Tr	1									C	2							Tr	1					Tr	1
355-U1456A-43F-3-A 43/43-SED	261.03	261.03	80	15	5	C	C	C	R		C		C	Tr	1	Tr	1			Tr	1					C	2	Tr	1					Tr	1					C	2
355-U1456A-44F-2-A 17/17-SED	264.67	264.67	0	15	85	R	R		R				Tr					Tr	1							Tr	1													Tr	1
355-U1456A-44F-3-A 40/40-SED	266.14	266.14	80	15	5	C	C	C	Tr				C	Tr	1	Tr	1	Tr	1							C	2							Tr	1					C	2
355-U1456A-45F-1-A 63/63-SED	267.93	267.93	50	35	15	C	C	C	R		R		C													C	2							Tr	1					C	2
355-U1456A-46F-1-A 50/50-SED	272.5	272.5	35	60	5	C	C	C			R		R			Tr	1									C	2	Tr	1					C	2					C	2
355-U1456A-46F-2-A 105/105-SED	274.55	274.55	0	5	95	R	R	R	R				Tr	Tr	1											C	2													Tr	1
355-U1456A-47F-1-A 100/100-SED	277.7	277.7	25	60	15	C	C	C					C			Tr	1			Tr	1					A	3	C	2											C	2
355-U1456A-47F-2-A 80/80-SED	279	279	25	50	25	R	R	C	R		R		C	Tr	1	Tr	1	Tr	1	Tr	1					A	3											Tr	1	C	2
355-U1456A-47F-3-A 74/74-SED	280.44	280.44	0	5	95	R	Tr	R	R				Tr			Tr	1																							Tr	1
355-U1456A-48F-1-A 48/48-SED	281.88	281.88	35	50	15	C	C	C	R		C		R			Tr	1									C	2	Tr	1											Tr	1
355-U1456A-49F-1-A 108/108-SED	287.18	287.18	0	5	95	R	R	R	C				Tr																											A	3
355-U1456A-49F-1-A 71/71-SED	286.81	286.81	60	30	10	C	C	C	R		C		C	Tr	1	Tr	1					Tr	1			A	3	C	2											C	2
355-U1456A-50F-1-A 30/30-SED	291.1	291.1	50	40	10	C	C	C		A			C	Tr	1	Tr	1	Tr	1	C	2	Tr	1	Tr	1	A	3	C	2			Tr	1					Tr	1	A	3
355-U1456A-50F-1-A 70/70-SED	291.5	291.5	60	35	5	C	C	R		C			C	Tr	1	Tr	1					Tr	1			A	3	C	2	Tr	1									C	2
355-U1456A-51F-1-A 60/60-SED	296.1	296.1	55	35	10	A	A	C		C			C					Tr	1			Tr	1	Tr	1	A	3							C	2			Tr	1	C	2
355-U1456A-51F-3-A 60/60-SED	298.48	298.48	60	35	5	A	C	R		C			R	Tr	1	Tr	1	Tr	1	Tr	1			Tr	1	A	3	C	2					Tr	1					C	2
355-U1456A-52F-1-A 130/130-SED	301.5	301.5	50	35	15	A	C	R		C			R	Tr	1	Tr	1									A	3	C	2					Tr	1					C	2
355-U1456A-52F-2-A 34/34-SED	302.04	302.04	0	70	30	A	C	C		R			R	Tr	1	Tr	1									C	2													Tr	1
355-U1456A-52F-3-A 80/80-SED	304	304	5	30	65	C	C	R	Tr	Tr			R													C	2													C	2
355-U1456A-53F-1-A 101/101-SED	305.91	305.91	15	30	50	C	C	R			Tr		R													C	2	Tr	1					Tr	1					Tr	1
355-U1456A-53F-1-A 24/24-SED	305.14	305.14	0	20	80	R	Tr	Tr	Tr				Tr													Tr	1													Tr	1
355-U1456A-53F-2-A 78/78-SED	307.18	307.18	0	20	80	C	C		Tr				Tr													Tr	1													Tr	1
355-U1456A-53F-4-A 21/21-SED	309.02	309.02	20	75	5	D	A	C		Tr			C	Tr	1			Tr	1	Tr	1	Tr	1			A	3	C	2					Tr	1					C	2
355-U1456A-54F-2-A 44/44-SED	311.04	311.04	20	70	10	D	A	C		C			C	Tr	1			Tr	1	Tr	1	Tr	1			A	3	C	2											C	2
355-U1456A-54F-3-A 90/90-SED	312.24	312.24	50	40	10	D	A	C		C			C	Tr	1	Tr	1			Tr	1					A	3											Tr	1	C	2
355-U1456A-54F-CC-A 10/10-SED	312.49	312.49	0	15	85	C	C	R	Tr				R													A	3														
355-U1456A-55F-1-A 60/60-SED	314.9	314.9	60	30	10	A	A	R		C			C	Tr	1	Tr	1							Tr	1	A	3			Tr	1			Tr	1					C	2
355-U1456A-56F-1-A 30/30-SED	319.3	319.3	75	20	5	D	A	R		C			C	Tr	1					Tr	1	Tr	1			A	3													C	2
355-U1456A-57F-2-A 60/60-SED	325.66	325.66	80	15	5	A	C	C		C			C	Tr	1							Tr	1			A	3	C	2			Tr	1	Tr	1					C	2
355-U1456A-58F-1-A 3/3-SED	328.43	328.43	0	5	95	R		R		C			Tr					Tr	1							Tr	1													Tr	1
355-U1456A-58F-1-A 34/34-SED	328.74	328.74	0	10	90	Tr			Tr																																
355-U1456A-58F-2-A 105/105-SED	330.44	330.44	0	20	80	R	Tr	Tr					Tr													Tr	1													Tr	1
355-U1456A-58F-2-A 14/14-SED	329.53	329.53	0	15	75	C	R	R					Tr													Tr	1													Tr	1
355-U1456A-59F-1-A 19/19-SED	333.29	333.29	0	25	75	Tr	Tr	R					Tr	Tr	1																									Tr	1
355-U1456A-59F-1-A 49/49-SED	333.59	333.59	0	15	85	R	Tr	Tr	R				Tr			Tr	1									Tr	1														
355-U1456A-60F-1-A 12/12-SED	337.92	337.92	5	10	85	R	Tr	Tr	R	Tr			R													C	2													Tr	1
355-U1456A-60F-1-A 40/40-SED	338.2	338.2	50	35	15	D	A	C		C			C			Tr	1	Tr	1			Tr	1			A	3	C	2									Tr	1	C	2
355-U1456A-61F-1-A 22/22-SED	342.72	342.72	0	25	75	C	R	R	R				R	Tr	1	Tr	1	Tr	1	Tr	1			Tr	1	C	2													Tr	1
355-U1456A-61F-1-A 86/86-SED	343.36	343.36	70	25	5	C	R	R					C	Tr	1	Tr	1			Tr	1					A	3							C	2					C	2
355-U1456A-61F-2-A 30/30-SED	344.04	344.04	70	25	5	C	R	R			R		C	Tr	1	Tr	1									A	3							Tr	1					C	2
355-U1456A-62F-1-A 55/55-SED	347.75	347.75	60	30	10	C	C	C					C	Tr	1	Tr	1	Tr	1			Tr	1			A	3	C	2					C	2					C	2
355-U1456A-63F-1-A 51/51-SED	352.41	352.41	5	30	65	C	R		R				Tr			Tr	1	Tr	1							Tr	1													Tr	1
355-U1456A-63F-2-A 55/55-SED	353.95	353.95	25	65	10	C	C	C	R				C	Tr	1	Tr	1	Tr	1			Tr	1			A	3	C	2											C	2
355-U1456A-64F-1-A 43/43-SED	357.03	357.03	0	25	75	C		C					C			Tr	1																							Tr	1
355-U1456A-64F-2-A 16/16-SED	357.86	357.86	75	20	5	C	C	C					C	Tr	1	Tr	1			Tr	1	Tr	1			A	3	C	2					Tr	1					C	2
355-U1456A-64F-3-A 20/20-SED	358.64	358.64	0	80	20	C	R	C	C				C			C	2									A	3													C	2
355-U1456A-65F-1-A 13/13-SED	361.43	361.43	80	15	5	C	C	C			R		C	Tr	1			Tr	1	Tr	1					A	3							Tr	1			Tr	1	C	2
355-U1456A-65F-1-A 22/22-SED	361.52	361.52	0	5	95	C			R				R	Tr	1					Tr	1																			C	2
355-U1456A-65F-1-A 40/40-SED	361.7	361.7	15	80	5	C	C	C			C		C	Tr	1	Tr	1									A	3							Tr	1					C	2
355-U1456A-66F-1-A 35/35-SED	366.35	366.35	0	20	80	C	R	C	R				R	Tr	1	Tr	1	Tr	1							C	2													C	2
355-U1456A-66F-3-A 40/40-SED	369.4	369.4	5	10	85	Tr	Tr	R	C				Tr	Tr	1	Tr	1									C	2	Tr	1											C	2
355-U1456A-67F-1-A 60/60-SED	371.3	371.3	0	35	65	C	Tr	C	C				R							Tr	1					C	2													Tr	1

Sample	Zoisite relative abundance	Zoisite relative abundance rank	Allanite relative abundance	Allanite relative abundance rank	Garnet relative abundance	Garnet relative abundance rank	Staurolite relative abundance	Staurolite relative abundance rank	Chloritoid relative abundance	Chloritoid relative abundance rank	Kyanite relative abundance	Kyanite relative abundance rank	Sillimanite relative abundance	Sillimanite relative abundance rank	Opaques relative abundance	Opaques relative abundance rank	Fe sulfides (opaques) abundance	Fe-oxides abundance	Ti-oxides abundance	Carbonate, detrital abundance	Carbonate, authigenic abundance	Foraminifers abundance	Calcareous nannofossil abundance	Pteropod fragments abundance	Other calcareous bioclasts abundance	Radiolarians abundance	Diatoms abundance	Sponge spicule fragments abundance	Other biosiliceous fossil fragments abundance	Fish debris abundance	Plant debris abundance	Organic matter abundance	Total of group estimates [%]	Lithology prefix	Principal lithology	Lithology suffix	Lithology major or minor	Lithology comment	Smear slide comment
355-U1456A-32F-1-A 120/120-SED					Tr	1					Tr	1									C													silty	sand		major lithology		
355-U1456A-32F-2-A 55/55-SED																					R	Tr												silty	sand		major lithology		
355-U1456A-33F-1-A 110/110-SED					C	2					Tr	1									C	Tr	Tr											silty	sand		major lithology		Indus River assemblage
355-U1456A-33F-1-A 65/65-SED																	R	Tr					C		C						Tr			silty	clay		minor lithology		
355-U1456A-34F-1-A 110/110-SED																	C	Tr					Tr	C											clay	with silt	major lithology		
355-U1456A-34F-1-A 21/21-SED					Tr	1												R			C													clayey	sand	with silt	minor lithology		
355-U1456A-34F-4-A 30/30-SED																		R	Tr				Tr		C						Tr			silty	clay		major lithology		
355-U1456A-35F-1-A 118/118-SED					C	2					Tr	1											Tr		R										sand	with silt	minor lithology		Indus river assemblage
355-U1456A-35F-1-A 90/90-SED																	R	Tr					Tr		Tr										clay	with silt	major lithology		
355-U1456A-35F-2-A 21/21-SED																	R	Tr					C		C										clay	with silt	major lithology		
355-U1456A-36F-1-A 45/45-SED					C	2					Tr	1			Tr	1							Tr		R									silty	sand		major lithology		Indus River assemblage
355-U1456A-36F-2-A 100/100-SED					C	2																	Tr											sandy	silt	with clay	major lithology		
355-U1456A-36F-2-A 135/135-SCRAP					Tr	1											Tr	Tr			R	Tr	Tr		R									sandy	silt	with clay	minor lithology		
355-U1456A-37F-2-A 60/60-SED					C	2			Tr	1	Tr	1			Tr	1						Tr	Tr											silty	sand		major lithology		Indus River assemblage
355-U1456A-37F-3-A 90/90-SED																	Tr	Tr	Tr				Tr		C										clay		minor lithology		
355-U1456A-38F-1-A 130/130-SED	Tr	1			Tr	1			Tr	1	Tr	1																						silty	sand		major lithology		Indus River assemblage
355-U1456A-38F-2-A 30/30-SED					Tr	1							Tr	1				Tr				Tr			R									sandy	silt		major lithology		
355-U1456A-38F-3-A 15/15-SED																	Tr	Tr	Tr				R		C										clay	with silt	minor lithology		
355-U1456A-39F-1-A 21/21-SED																	Tr	Tr			R		R		R									silty	clay		minor lithology		
355-U1456A-39F-1-A 70/70-SED					Tr	1					Tr	1					Tr	Tr			Tr													silty	sand		major lithology		Indus River assemblage
355-U1456A-39F-2-A 25/25-SED	Tr	1			C	2					Tr	1	Tr	1	Tr	1	R	Tr																	sand	with silt	major lithology		Indus River assemblage
355-U1456A-40F-1-A 90/90-SED					Tr	1											Tr	Tr	Tr				R												clay		major lithology		
355-U1456A-40F-2-A 37/37-SED																	A						Tr											silty	clay		minor lithology		
355-U1456A-40F-3-A 50/50-SED																	Tr	Tr	Tr			Tr	C		Tr										clay	with silt	minor lithology		
355-U1456A-40F-3-A 75/75-SED																	R						R		R										clay	with silt	major lithology		
355-U1456A-41F-1-A 40/40-SED																	R	Tr					Tr		C						Tr				clay		major lithology		
355-U1456A-41F-3-A 98/98-SED																	C								R									sandy	silt		major lithology		
355-U1456A-42F-1-A 102/102-SED																	R								C										clay		major lithology		
355-U1456A-42F-2-A 85/85-SED					Tr	1											R	Tr					R											sandy	silt		minor lithology		
355-U1456A-43F-1-A 12/12-SED											Tr	1					C								R									clayey	silt		minor lithology		
355-U1456A-43F-1-A 67/67-SED					Tr	1			Tr	1							C					Tr	R											silty	sand		major lithology		
355-U1456A-43F-3-A 43/43-SED			Tr	1	C	2					Tr	1					C						Tr		R									silty	sand		major lithology		
355-U1456A-44F-2-A 17/17-SED																	C	Tr							C										clay	with silt	major lithology		
355-U1456A-44F-3-A 40/40-SED					C	2											C						Tr		R									silty	sand		major lithology		
355-U1456A-45F-1-A 63/63-SED					Tr	1											R					Tr	Tr		Tr									silty	sand		major lithology		
355-U1456A-46F-1-A 50/50-SED					Tr	1			Tr	1	Tr	1					C								C									sandy	silt		minor lithology		
355-U1456A-46F-2-A 105/105-SED																	C						Tr		C										clay		major lithology		
355-U1456A-47F-1-A 100/100-SED					Tr	1											Tr						R											sandy	silt		major lithology		
355-U1456A-47F-2-A 80/80-SED					Tr	1											R						Tr		A									sandy	silt		major lithology		
355-U1456A-47F-3-A 74/74-SED																	R						Tr		C										clay		major lithology		
355-U1456A-48F-1-A 48/48-SED					Tr	1																			R									sandy	silt		major lithology		
355-U1456A-49F-1-A 108/108-SED																	Tr								A										clay		major lithology		
355-U1456A-49F-1-A 71/71-SED					C	2											R								C									silty	sand		major lithology		
355-U1456A-50F-1-A 30/30-SED	Tr	1			C	2					Tr	1			Tr	1		R		R		Tr												silty	sand		major lithology		Indus River + minor volcanic detritus
355-U1456A-50F-1-A 70/70-SED					C	2					Tr	1								R		Tr													sand	with silt	major lithology		HP Glaucophane, Kyanite
355-U1456A-51F-1-A 60/60-SED					C	2					Tr	1						Tr		R	Tr	Tr												silty	sand		major lithology		
355-U1456A-51F-3-A 60/60-SED	Tr	1			C	2					Tr	1	Tr	1	Tr	1		R		C		Tr												silty	sand		major lithology		Indus river assemblage
355-U1456A-52F-1-A 130/130-SED											Tr	1					Tr	Tr	Tr	R		Tr												silty	sand	with clay	major lithology		
355-U1456A-52F-2-A 34/34-SED											Tr	1					Tr	Tr				Tr													silt	with clay	minor lithology		
355-U1456A-52F-3-A 80/80-SED									Tr	1							Tr	Tr		C			Tr												clay	with silt	minor lithology		
355-U1456A-53F-1-A 101/101-SED																	C	Tr				C	Tr		Tr									silty	clay	with foraminifers	minor lithology		oxy-Hbl reddish brown?
355-U1456A-53F-1-A 24/24-SED																	Tr	C				Tr	A		R										silt	with nannofossils	minor lithology		
355-U1456A-53F-2-A 78/78-SED																	Tr	Tr					R		C										clay	with silt	major lithology		
355-U1456A-53F-4-A 21/21-SED											Tr	1										Tr												sandy	silt		minor lithology		Indus River assemblage
355-U1456A-54F-2-A 44/44-SED					Tr	1											Tr	Tr				Tr													silt	with sand	minor lithology		
355-U1456A-54F-3-A 90/90-SED					C	2					Tr	1					Tr	Tr			R													silty	sand		minor lithology		
355-U1456A-54F-CC-A 10/10-SED																	Tr	Tr	Tr		Tr		R		C										clay	with silt	major lithology		
355-U1456A-55F-1-A 60/60-SED					C	2							Tr	1								Tr													sand	with silt	major lithology		
355-U1456A-56F-1-A 30/30-SED			Tr	1	C	2									Tr	1				Tr															sand	with silt	major lithology		
355-U1456A-57F-2-A 60/60-SED					C	2									Tr	1		Tr					Tr												sand	with silt	major lithology		
355-U1456A-58F-1-A 3/3-SED																	C	C				Tr	C		A										clay		major lithology		
355-U1456A-58F-1-A 34/34-SED																	Tr	Tr				C	A		A										clay	with foraminifers	major lithology		
355-U1456A-58F-2-A 105/105-SED																	R	R	Tr		Tr		C		R										clay	with silt	major lithology		
355-U1456A-58F-2-A 14/14-SED																	R	C			Tr	Tr	A		R										clay	with silt	major lithology		
355-U1456A-59F-1-A 19/19-SED																	Tr	Tr				R	D		C									silty	clay		minor lithology		
355-U1456A-59F-1-A 49/49-SED																	R	R				Tr	R		C										clay	with silt	major lithology		
355-U1456A-60F-1-A 12/12-SED					Tr	1											Tr	Tr			Tr		C												clay	with silt	minor lithology		
355-U1456A-60F-1-A 40/40-SED					Tr	1															C				R									silty	sand		major lithology		
355-U1456A-61F-1-A 22/22-SED					Tr	1											Tr	Tr					R		A									silty	clay		minor lithology		
355-U1456A-61F-1-A 86/86-SED																	C								R									silty	sand		major lithology		
355-U1456A-61F-2-A 30/30-SED					C	2					Tr	1			Tr	1	R	Tr	Tr		Tr				R									silty	sand		major lithology		
355-U1456A-62F-1-A 55/55-SED			Tr	1							Tr	1					R				Tr	Tr			R									silty	sand		major lithology		
355-U1456A-63F-1-A 51/51-SED																	C								A									silty	clay		minor lithology		
355-U1456A-63F-2-A 55/55-SED																	C	Tr							R									sandy	silt		major lithology		
355-U1456A-64F-1-A 43/43-SED																	C				Tr				A									silty	clay		major lithology		
355-U1456A-64F-2-A 16/16-SED					C	2			Tr	1							Tr								Tr									silty	sand		major lithology		
355-U1456A-64F-3-A 20/20-SED																	C				Tr				A										silt		major lithology		
355-U1456A-65F-1-A 13/13-SED					C	2									Tr	1	C				R				Tr									silty	sand		minor lithology		
355-U1456A-65F-1-A 22/22-SED																	R				Tr		Tr		C										clay		major lithology		
355-U1456A-65F-1-A 40/40-SED					C	2											C				R	Tr			C									sandy	silt		minor lithology		
355-U1456A-66F-1-A 35/35-SED																	R	Tr	Tr				R		C									calcareous rich	clay		major lithology		
355-U1456A-66F-3-A 40/40-SED																	C	R				R	C		R										clay	with nannofossils	major lithology		
355-U1456A-67F-1-A 60/60-SED					Tr	1											C	Tr			Tr		Tr												clay		major lithology		

Sample	Top Depth [m]	Bottom Depth [m]	Sand texture [%]	Silt texture [%]	Clay texture [%]	Quartz abundance	Feldspar abundance	Mica abundance	Clay minerals abundance	Lithic grains abundance	Glauconite abundance	Vitric grains abundance	Heavy minerals abundance	Zircon relative abundance	Zircon relative abundance rank	Tourmaline relative abundance	Tourmaline relative abundance rank	Rutile relative abundance	Rutile relative abundance rank	Apatite relative abundance	Apatite relative abundance rank	Titanite relative abundance	Titanite relative abundance rank
355-U1456A-67F-2-A 50/50-SED	372.7	372.7	15	25	60	C		C	Tr		C		Tr			Tr	1	Tr	1	Tr	1		
355-U1456A-68F-1-A 17/17-SED	375.57	375.57	0	70	30	C	C	C	C		C		R	Tr	1			Tr	1				
355-U1456A-68F-2-A 50/50-SED	377.18	377.18	0	20	80	R		R	C				Tr			Tr	1						
355-U1456A-69F-1-A 40/40-SED	380.5	380.5	0	5	95	Tr		R	Tr				Tr			Tr	1						
355-U1456A-69F-2-A 123/123-SED	382.83	382.83	0	80	20	C	C	C			R		C	Tr	1	C	2	C	2	Tr	1		
355-U1456A-70F-1-A 48/48-SED	385.28	385.28	0	20	80	C	C		C				R	Tr	1	Tr	1	Tr	1	Tr	1		
355-U1456A-70F-1-A 71/71-SED	385.51	385.51	15	70	15	C	C	C	Tr				C	Tr	1	Tr	1	Tr	1	Tr	1	Tr	1
355-U1456A-71X-1-A 110/110-SED	390.6	390.6	35	45	20	D	A	R	Tr	R			C			Tr	1					Tr	1
355-U1456A-71X-1-A 115/115-SED	390.65	390.65	20	50	30	D	A	C		R			R					Tr	1				
355-U1456A-71X-2-A 72/72-SED	391.72	391.72	0	10	90	Tr	Tr	Tr	R				Tr										
355-U1456A-71X-4-A 125/125-SED	395.25	395.25	0	5	90	Tr		Tr															
355-U1456A-71X-4-A 88/88-SED	394.88	394.88	0	10	90	R	Tr	Tr	Tr				Tr										
355-U1456A-72X-1-A 84/84-SED	398.64	398.64	0	15	85	R	Tr	Tr	Tr				Tr			Tr	1						
355-U1456A-72X-3-A 140/140-SED	402.2	402.2	0	10	90	Tr							R			Tr	1	Tr	1				
355-U1456A-72X-3-A 24/24-SED	401.04	401.04	0	10	90	Tr	Tr	Tr	Tr				Tr	Tr	1								
355-U1456A-72X-5-A 47/47-SED	404.27	404.27	0	20	80	R	R	R	Tr				Tr			Tr	1						
355-U1456A-72X-CC-A 11/11-SED68	406.13	406.13	0	25	75	C	R	R	R				Tr			Tr	1	Tr	1				
355-U1456A-73X-1-A 71/71-SED	408.11	408.11	0	35	65	A	C	C	Tr				R										
355-U1456A-73X-2-A 100/100-SED	409.9	409.9	0	10	90	R	R	Tr					Tr					Tr	1				
355-U1456A-73X-3-A 83/83-SED	411.23	411.23	0	10	90	Tr	Tr	Tr	C				Tr										
355-U1456A-73X-3-A 99/99-SED	411.39	411.39	0	10	90	R	R	Tr	Tr				Tr										
355-U1456A-73X-5-A 53/53-SED	413.93	413.93	0	5	95	Tr	Tr	Tr	R				Tr										
355-U1456A-74X-1-A 62/62-SED	417.62	417.62	0	5	95	C	R	Tr					Tr			Tr	1						
355-U1456A-74X-2-A 15/15-SED	418.65	418.65	0	60	40	D	A	C	R	R			C	Tr	1	Tr	1	Tr	1	Tr	1	Tr	1

Sample	Spinel relative abundance	Spinel relative abundance rank	Hornblende relative abundance	Hornblende relative abundance rank	Actinolite relative abundance	Actinolite relative abundance rank	Glaucophane relative abundance	Glaucophane relative abundance rank	Augite relative abundance	Augite relative abundance rank	Other clinopyroxenes relative abundance	Other CPX relative abundance rank	Enstatite relative abundance	Enstatite relative abundance rank	Hypersthene relative abundance	Hypersthene relative abundance rank	Epidote relative abundance	Epidote relative abundance rank	Zoisite relative abundance	Zoisite relative abundance rank	Allanite relative abundance	Allanite relative abundance rank	Garnet relative abundance	Garnet relative abundance rank	Staurolite relative abundance	Staurolite relative abundance rank	Chloritoid relative abundance	Chloritoid relative abundance rank	Kyanite relative abundance	Kyanite relative abundance rank	Sillimanite relative abundance	Sillimanite relative abundance rank	Opaques relative abundance	Opaques relative abundance rank
355-U1456A-67F-2-A 50/50-SED	Tr	1	C	2													C	2																
355-U1456A-68F-1-A 17/17-SED			C	2	Tr	1					Tr	1					C	2																
355-U1456A-68F-2-A 50/50-SED																	Tr	1																
355-U1456A-69F-1-A 40/40-SED																	Tr	1																
355-U1456A-69F-2-A 123/123-SED	C	2	Tr	1													Tr	1															A	3
355-U1456A-70F-1-A 48/48-SED			C	2													C	2																
355-U1456A-70F-1-A 71/71-SED			C	2													C	2													Tr	1		
355-U1456A-71X-1-A 110/110-SED			A	3													C	2					C	2			Tr	1					Tr	1
355-U1456A-71X-1-A 115/115-SED			A	3											Tr	1	C	2					C	2									Tr	1
355-U1456A-71X-2-A 72/72-SED			A	3																														
355-U1456A-71X-4-A 125/125-SED																																		
355-U1456A-71X-4-A 88/88-SED			A	3																														
355-U1456A-72X-1-A 84/84-SED			C	2													Tr	1					Tr	1										
355-U1456A-72X-3-A 140/140-SED			C	2													C	2					C	2										
355-U1456A-72X-3-A 24/24-SED																	C	2					C	2										
355-U1456A-72X-5-A 47/47-SED			Tr	1																														
355-U1456A-72X-CC-A 11/11-SED68			C	2													Tr	1																
355-U1456A-73X-1-A 71/71-SED			C	2													C	2					Tr	1										
355-U1456A-73X-2-A 100/100-SED			C	2																			Tr	1										
355-U1456A-73X-3-A 83/83-SED			A	3																														
355-U1456A-73X-3-A 99/99-SED																	Tr	1																
355-U1456A-73X-5-A 53/53-SED																	A	3																
355-U1456A-74X-1-A 62/62-SED			Tr	1																														
355-U1456A-74X-2-A 15/15-SED			A	3	C	2					Tr	1					C	2					C	2					Tr	1			Tr	1

Sample	Fe sulfides (opaques) abundance	Fe-oxides abundance	Ti-oxides abundance	Carbonate, detrital abundance	Carbonate, authigenic abundance	Foraminifers abundance	Calcareous nannofossil abundance	Pteropod fragments abundance	Other calcareous bioclasts abundance	Radiolarians abundance	Diatoms abundance	Sponge spicule fragments abundance	Other biosiliceous fossil fragments abundance	Fish debris abundance	Plant debris abundance	Organic matter abundance	Total of group estimates [%]	Lithology prefix	Principal lithology	Lithology suffix	Lithology major or minor	Lithology comment	Smear slide comment
355-U1456A-67F-2-A 50/50-SED	C					R	R		R						Tr	Tr		silty	clay	with foraminifers	major lithology		
355-U1456A-68F-1-A 17/17-SED	Tr	Tr	Tr				Tr		C									calcareous rich	silt	with clay	major lithology		
355-U1456A-68F-2-A 50/50-SED	C	R				Tr	Tr		C										clay	with carbonates	major lithology		
355-U1456A-69F-1-A 40/40-SED	C						D								Tr			nannofossil rich	clay		major lithology		
355-U1456A-69F-2-A 123/123-SED	D	Tr							Tr										silt	with clay	minor lithology		Hydraulic concentration of HM, drilling disturbance?
355-U1456A-70F-1-A 48/48-SED	A				C		C		A									calcareous rich	clay	with silt	major lithology		
355-U1456A-70F-1-A 71/71-SED	Tr				C		Tr												silt		minor lithology		
355-U1456A-71X-1-A 110/110-SED	Tr	Tr			C		C		R									sandy	silt	with clay	minor lithology		
355-U1456A-71X-1-A 115/115-SED	Tr	Tr		R		Tr	C		C									sandy	silt	with clay	minor lithology		
355-U1456A-71X-2-A 72/72-SED	R	Tr					C		A										clay		major lithology		
355-U1456A-71X-4-A 125/125-SED	Tr	Tr			Tr		D		R										nannofossil chalk		minor lithology		
355-U1456A-71X-4-A 88/88-SED	Tr	Tr			Tr		C		C										clay		major lithology		
355-U1456A-72X-1-A 84/84-SED	R	Tr			Tr	Tr	A		Tr										claystone	with nannofossils	major lithology		
355-U1456A-72X-3-A 140/140-SED	Tr				R	Tr	D		R										nannofossil chalk		minor lithology		
355-U1456A-72X-3-A 24/24-SED	Tr	Tr			Tr	Tr	D		R										nannofossil chalk		major lithology		
355-U1456A-72X-5-A 47/47-SED		R				Tr	C		C										claystone	with nannofossils	major lithology		
355-U1456A-72X-CC-A 11/11-SED68		R			Tr		C		C									silty	claystone		major lithology		
355-U1456A-73X-1-A 71/71-SED	Tr	Tr			R		C		R									silty	claystone	with nannofossils	minor lithology		
355-U1456A-73X-2-A 100/100-SED	R	R					R		A										claystone		major lithology		
355-U1456A-73X-3-A 83/83-SED	Tr	Tr				Tr	Tr		R										claystone	with nannofossils	minor lithology		
355-U1456A-73X-3-A 99/99-SED	R	R			Tr		A		A									calcareous rich	claystone	with nannofossils	major lithology		
355-U1456A-73X-5-A 53/53-SED	Tr	R					R		A										claystone	with carbonates	major lithology		
355-U1456A-74X-1-A 62/62-SED	R	R			Tr	Tr	R		A										claystone		major lithology		
355-U1456A-74X-2-A 15/15-SED	C	Tr			A	Tr	R		R						Tr				silt	with clay	minor lithology		Indus River assemblage

Sample	Top Depth [m]	Bottom Depth [m]	Sand texture [%]	Silt texture [%]	Clay texture [%]	Quartz abundance	Feldspar abundance	Mica abundance	Clay minerals abundance	Lithic grains abundance	Glauconite abundance	Vitric grains abundance	Heavy minerals abundance	Zircon relative abundance	Zircon relative abundance rank	Tourmaline relative abundance	Tourmaline relative abundance rank	Rutile relative abundance	Rutile relative abundance rank	Apatite relative abundance	Apatite relative abundance rank	Titanite relative abundance	Titanite relative abundance rank	Spinel relative abundance	Spinel relative abundance rank
355-U1456B-1H-1-A 16/16-SED	0.16	0.16	20	10	70	Tr		Tr					Tr												
355-U1456B-1H-1-A 35/35-SED	0.35	0.35	0	5	95	Tr	Tr						Tr												
355-U1456B-1H-1-A 5/5-SED	0.05	0.05	5	15	80	Tr			Tr				Tr			Tr	1			Tr	1				
355-U1456B-1H-CC-A 20/20-SED	0.62	0.62	80	15	5	D	A	C		R	R		C	Tr	1	Tr	1	Tr	1						
355-U1456B-2H-1-A 18/18-SED	0.78	0.78	0	20	80	C	R	Tr					R	Tr	1	Tr	1	Tr	1						
355-U1456B-2H-3-A 28/28-SED	3.88	3.88	0	10	90	Tr	Tr	Tr					Tr			Tr	1								
355-U1456B-2H-3-A 76/76-SED	4.36	4.36	0	5	95	Tr	Tr	Tr					Tr			Tr	1					Tr	1		
355-U1456B-2H-6-A 25/25-SED	8.35	8.35	80	15	5	A	C	R		Tr			R	Tr	1			Tr	1						
355-U1456B-2H-CC-A 5/5-SED	9.53	9.53	0	10	90	Tr	Tr	Tr					Tr			Tr	1								
355-U1456B-3H-1-A 46/46-SED	10.56	10.56	0	5	95	R		Tr	Tr				Tr			Tr	1			Tr	1				
355-U1456B-3H-2-A 70/70-SED	12.3	12.3	50	40	10	A	C	C	C		C		C			Tr	1	Tr	1	Tr	1	Tr	1		
355-U1456B-3H-7-A 24/24-SED	19.34	19.34	5	15	80	R		Tr	R				R			Tr	1			Tr	1				
355-U1456B-4H-1-A 52/52-SED	20.12	20.12	0	10	90				A				Tr	Tr	1			Tr	1						
355-U1456B-4H-1-A 73/73-SED	20.33	20.33	70	20	10	C	C	R	C		C		R			Tr	1								
355-U1456B-4H-4-A 50/50-SED	24.6	24.6	0	5	95				A				Tr			A	3								
355-U1456B-4H-4-A 86/86-SED	24.96	24.96	20	20	60			R	D		R		Tr			Tr	1								
355-U1456B-4H-5-A 30/30-SED	25.9	25.9	5	5	90	R		C	D				R			Tr	1							Tr	1

Sample	Hornblende relative abundance	Hornblende relative abundance rank	Actinolite relative abundance	Actinolite relative abundance rank	Glaucophane relative abundance	Glaucophane relative abundance rank	Augite relative abundance	Augite relative abundance rank	Other clinopyroxenes relative abundance	Other CPX relative abundance rank	Enstatite relative abundance	Enstatite relative abundance rank	Hypersthene relative abundance	Hypersthene relative abundance rank	Epidote relative abundance	Epidote relative abundance rank	Zoisite relative abundance	Zoisite relative abundance rank	Allanite relative abundance	Allanite relative abundance rank	Garnet relative abundance	Garnet relative abundance rank	Staurolite relative abundance	Staurolite relative abundance rank	Chloritoid relative abundance	Chloritoid relative abundance rank	Kyanite relative abundance	Kyanite relative abundance rank	Sillimanite relative abundance	Sillimanite relative abundance rank	Opaques relative abundance	Opaques relative abundance rank
355-U1456B-1H-1-A 16/16-SED	Tr	1							Tr	1																						
355-U1456B-1H-1-A 35/35-SED															A	3																
355-U1456B-1H-1-A 5/5-SED	C	2													Tr	1					Tr	1										
355-U1456B-1H-CC-A 20/20-SED	A	3							Tr	1					C	2					C	2										
355-U1456B-2H-1-A 18/18-SED	C	2	Tr	1											Tr	1					Tr	1					Tr	1				
355-U1456B-2H-3-A 28/28-SED	C	2													C	2																
355-U1456B-2H-3-A 76/76-SED	C	2					Tr	1	Tr	1					Tr	1					Tr	1									Tr	1
355-U1456B-2H-6-A 25/25-SED	C	2	Tr	1			C	2							C	2																
355-U1456B-2H-CC-A 5/5-SED	Tr	1	Tr	1			Tr	1							Tr	1					Tr	1										
355-U1456B-3H-1-A 46/46-SED	C	2					Tr	1																								
355-U1456B-3H-2-A 70/70-SED	C	2					Tr	1	Tr	1			Tr	1	C	2					C	2					Tr	1				
355-U1456B-3H-7-A 24/24-SED	C	2							Tr	1					Tr	1																
355-U1456B-4H-1-A 52/52-SED	C	2																														
355-U1456B-4H-1-A 73/73-SED	C	2							Tr	1					Tr	1																
355-U1456B-4H-4-A 50/50-SED																																
355-U1456B-4H-4-A 86/86-SED	C	2							Tr	1																						
355-U1456B-4H-5-A 30/30-SED	C	2							Tr	1											Tr	1										

Sample	Fe sulfides (opaques) abundance	Fe-oxides abundance	Ti-oxides abundance	Carbonate, detrital abundance	Carbonate, authigenic abundance	Foraminifers abundance	Calcareous nannofossil abundance	Pteropod fragments abundance	Other calcareous bioclasts abundance	Radiolarians abundance	Diatoms abundance	Sponge spicule fragments abundance	Other biosiliceous fossil fragments abundance	Fish debris abundance	Plant debris abundance	Organic matter abundance	Total of group estimates [%]	Lithology prefix	Principal lithology	Lithology suffix	Lithology major or minor	Lithology comment	Smear slide comment
355-U1456B-1H-1-A 16/16-SED		R				A	D		C										nannofossil ooze		major lithology		Etched Clinopyroxene
355-U1456B-1H-1-A 35/35-SED						C	D		R			Tr							nannofossil ooze		minor lithology		
355-U1456B-1H-1-A 5/5-SED	Tr	Tr			Tr	C	D		R			Tr			Tr				nannofossil ooze		major lithology		
355-U1456B-1H-CC-A 20/20-SED						C	C		C										sand		minor lithology		Deeply etched clinopyroxene
355-U1456B-2H-1-A 18/18-SED	Tr	Tr			Tr	R	A		C										clay	with nannofossils	minor lithology		
355-U1456B-2H-3-A 28/28-SED	Tr	Tr				C	D		R			Tr			Tr				nannofossil ooze		major lithology		
355-U1456B-2H-3-A 76/76-SED	Tr	Tr			Tr	R	D		C			Tr							nannofossil ooze		major lithology		Corroded hornblende
355-U1456B-2H-6-A 25/25-SED	R	Tr				C	R		A										sand		minor lithology		Skeletal Augite
355-U1456B-2H-CC-A 5/5-SED	C	Tr					C		C										clay	with nannofossils	major lithology		
355-U1456B-3H-1-A 46/46-SED	C				C	C	A		A									nannofossil rich	clay		major lithology		
355-U1456B-3H-2-A 70/70-SED	C				C	C	R											silty	sand	with foraminifers	minor lithology		Indus River assemblage; yellow garnet, etched augite and etched Hypersthene
355-U1456B-3H-7-A 24/24-SED	C					R	D		A										nannofossil ooze	with foraminifers	major lithology		calcareous needles are abundant.
355-U1456B-4H-1-A 52/52-SED	C						A											nannofossil rich	clay		major lithology		
355-U1456B-4H-1-A 73/73-SED	C				R	C	A		Tr									nannofossil rich	sand	with foraminifers	minor lithology		
355-U1456B-4H-4-A 50/50-SED	C				R	R	D											nannofossil rich	clay		major lithology		
355-U1456B-4H-4-A 86/86-SED	C				R	A	D		C										nannofossil ooze	with foraminifers	major lithology		
355-U1456B-4H-5-A 30/30-SED	C	Tr			R	R	D		C						Tr				nannofossil ooze		major lithology		

Sample	Top Depth [m]	Bottom Depth [m]	Sand texture [%]	Silt texture [%]	Clay texture [%]	Quartz abundance	Feldspar abundance	Mica abundance	Clay minerals abundance	Lithic grains abundance	Glauconite abundance	Vitric grains abundance	Heavy minerals abundance	Zircon relative abundance	Zircon relative abundance rank	Tourmaline relative abundance	Tourmaline relative abundance rank	Rutile relative abundance	Rutile relative abundance rank	Apatite relative abundance	Apatite relative abundance rank	Titanite relative abundance	Titanite relative abundance rank	Spinel relative abundance	Spinel relative abundance rank	Hornblende relative abundance	Hornblende relative abundance rank
355-U1456C-1H-1-A 14/14-SED	0.14	0.14	25	25	50				A				R			Tr	1	Tr	1								
355-U1456C-1H-3-A 12/12-SED	3.12	3.12	5	20	75	R			D				R			Tr	1										
355-U1456C-1H-4-A 37/37-SED	4.87	4.87	10	30	60	R		Tr	D				R													Tr	1
355-U1456C-1H-5-A 82/82-SED	6.82	6.82	30	60	10	C	C				C		C			Tr	1			Tr	1					A	3
355-U1456C-3H-4-A 14/14-SED	13.44	13.44	10	30	60	R			D		R		C			Tr	1									A	3
355-U1456C-3H-5-A 60/60-SED	15.4	15.4	0	10	90	R		Tr	C				C			Tr	1									A	3
355-U1456C-4H-1-A 114/114-SED	19.44	19.44	80	15	5	A	C	R		C	Tr		C	Tr	1											A	3
355-U1456C-4H-1-A 25/25-SED	18.55	18.55	70	20	10	A	C	R		C	Tr		C									Tr	1			A	3
355-U1456C-4H-3-A 75/75-SED	22.05	22.05	0	20	80	Tr	Tr	Tr	Tr				Tr	Tr	1	Tr	1			Tr	1						
355-U1456C-4H-5-A 130/130-SED	25.6	25.6	0	5	95	Tr							Tr													A	3
355-U1456C-4H-5-A 18/18-SED	24.48	24.48	0	5	95			Tr																			
355-U1456C-4H-6-A 93/93-SED41	26.73	26.73	0	5	95			Tr					Tr														
355-U1456C-5H-1-A 26/26-SED	28.06	28.06	0	20	80	R	Tr	Tr	R				Tr														
355-U1456C-5H-2-A 62/62-SED	29.92	29.92	0	10	90	Tr		Tr																			
355-U1456C-5H-2-A 82/82-SED	30.12	30.12	45	20	35	C	R	Tr	Tr		Tr		Tr			Tr	1			Tr	1					C	2
355-U1456C-5H-3-A 33/33-SED	31.13	31.13	60	10	30	D	A	C		C	C		C									Tr	1			A	3
355-U1456C-6H-1-A 43/43-SCRAPE	37.73	37.73	65	30	5	D	A	R		C	Tr		C	Tr	1	Tr	1					Tr	1			A	3
355-U1456C-6H-3-A 60/60-SED	40.9	40.9	60	35	5	A	C	R			Tr		R			Tr	1			Tr	1					C	2
355-U1456C-6H-4-A 100/100-SED	42.8	42.8	20	10	70	R	Tr				Tr		Tr							Tr	1					C	2
355-U1456C-6H-6-A 10/10-SED	44.9	44.9	60	25	15	R		Tr					Tr													C	2
355-U1456C-7H-1-A 125/125-SED	48.05	48.05	25	70	5	D	A	C		C			C	Tr	1	Tr	1					Tr	1	Tr	1	A	3
355-U1456C-7H-2-A 103/103-SED	49.33	49.33	15	75	10	A	C	C		C	Tr		C	Tr	1	Tr	1					Tr	1				
355-U1456C-7H-3-A 102/102-SED	50.82	50.82	0	5	95	Tr		Tr	Tr				Tr					Tr	1							Tr	1
355-U1456C-7H-5-A 40/40-SED	53.2	53.2	60	30	10	A	C	C		C	R		R			Tr	1					Tr	1			A	3
355-U1456C-8H-1-A 112/112-SED	57.42	57.42	0	15	85	Tr		Tr					Tr			Tr	1									C	2
355-U1456C-8H-2-A 40/40-SED	58.2	58.2	0	5	95	Tr		R					Tr														
355-U1456C-8H-3-A 87/87-SED	60.17	60.17	40	25	35	C	R	Tr		R	Tr		R	Tr	1	Tr	1										
355-U1456C-8H-4-A 4/4-RMS	60.84	60.84	80	15	5	A	C	R			R		C													A	3
355-U1456C-8H-4-A 57/57-SED	61.37	61.37	30	60	10	A	C	R			R		C			Tr	1			Tr	1					A	3
355-U1456C-8H-5-A 122/122-SED	63.52	63.52	60	25	15	R		Tr			Tr		R							Tr	1					C	2
355-U1456C-10H-1-A 12/12-SED	66.92	66.92	0	15	85	R							R							Tr	1					C	2
355-U1456C-10H-1-A 129/129-SED	68.09	68.09	60	25	10	C	R	Tr					C			Tr	1			Tr	1					A	3
355-U1456C-10H-3-A 30/30-SED	70.1	70.1	5	5	90	Tr							R													A	3
355-U1456C-10H-6-A 58/58-SED	74.88	74.88	10	15	75	R							R			Tr	1									C	2
355-U1456C-12H-1-A 56/56-SED	77.86	77.86	5	5	90	Tr		Tr					R							Tr	1					C	2
355-U1456C-12H-2-A 124/124-SED	80.04	80.04	5	10	85	Tr							R			A	3										
355-U1456C-12H-3-A 55/55-SED	80.85	80.85	30	60	10	A	R	Tr			C		C			Tr	1			Tr	1					A	3
355-U1456C-12H-4-A 65/65-SED	82.45	82.45	20	30	50	R	R	R					R							Tr	1					C	2
355-U1456C-12H-6-A 53/53-SED	85.33	85.33	40	50	10	A	C	C					C	Tr	1	Tr	1			Tr	1					A	3
355-U1456C-13H-2-A 125/125-SED	89.55	89.55	0	20	75	Tr		Tr	Tr				Tr														
355-U1456C-13H-2-A 14/14-SED	88.44	88.44	50	35	15	A	C	C		C	Tr		R	Tr	1	Tr	1									C	2
355-U1456C-13H-2-A 65/65-SED	88.95	88.95	0	10	90			Tr	Tr				Tr			A	3										
355-U1456C-13H-3-A 75/75-SED	90.55	90.55	0	10	90			Tr																			
355-U1456C-13H-4-A 56/56-SED	91.86	91.86	0	35	65	Tr																					
355-U1456C-14H-1-A 110/110-SED	97.4	97.4	70	20	10	R	R	Tr			Tr		R	Tr	1			Tr	1							C	2
355-U1456C-14H-1-A 90/90-SED	97.2	97.2	20	70	10	R	Tr	Tr					Tr													Tr	1
355-U1456C-14H-5-A 110/110-SED	103.4	103.4	0	20	80	R	R	Tr	Tr				R													C	2
355-U1456C-14H-6-A 126/126-SED	105.06	105.06	0	10	90	R		Tr	Tr				Tr			Tr	1					Tr	1			C	2
355-U1456C-14H-6-A 5/5-SED	103.85	103.85	80	15	5	A	C	R		C	C		R													C	2
355-U1456C-15H-2-A 130/130-SED	108.6	108.6	15	30	55	C	R	Tr	Tr				Tr													C	2
355-U1456C-15H-3-A 87/87-SED	109.67	109.67	60	35	5	D	A	C		C	Tr		C	Tr	1	Tr	1			Tr	1					A	3
355-U1456C-15H-5-A 139/139-SED	113.19	113.19	40	45	15	C	R	R	R	C	Tr		Tr													C	2
355-U1456C-15H-6-A 61/61-SED	113.88	113.88	20	45	35	A	C	R		R	C		R													A	3
355-U1456C-15H-7-A 16/16-SED	114.85	114.85	75	20	5	D	A	C		C	C		C			Tr	1									A	3
355-U1456C-17H-1-A 107/107-SED	125.87	125.87	5	15	80	R		Tr			Tr		R			Tr	1			Tr	1					C	2
355-U1456C-17H-2-A 78/78-SED	127.08	127.08	30	60	10	A	C	R			C		C			Tr	1			Tr	1					C	2
355-U1456C-17H-4-A 97/97-SED	130.27	130.27	0	10	90	R	Tr						R	Tr	1	Tr	1			Tr	1						
355-U1456C-17H-6-A 72/72-SED	133.02	133.02	0	5	95	Tr		Tr					Tr							Tr	1						
355-U1456C-18H-2-A 50/50-SED	135.95	135.95	85	10	5	A	R	R		R	C		C			Tr	1			Tr	1					A	3
355-U1456C-20F-1-A 34/34-SED	142.04	142.04	75	20	5	A	C	C		Tr			C	Tr	1	Tr	1			Tr	1					A	3
355-U1456C-20F-2-A 23/23-SED	143.13	143.13	5	5	90	R	Tr	Tr					Tr													A	3
355-U1456C-21F-1-A 24/24-SED	146.64	146.64	20	30	50	C	C	C					C			Tr	1			Tr	1					C	2
355-U1456C-21F-2-A 69/69-SED	148.59	148.59	65	30	5	A	C	A					C			Tr	1			Tr	1					C	2
355-U1456C-23F-1-A 120/120-SED	157	157	0	5	95	Tr	Tr	Tr					R	Tr	1					Tr	1					C	2
355-U1456C-23F-2-A 53/53-SED	157.83	157.83	5	30	65	R	Tr	Tr	R				C			Tr	1			Tr	1					C	2
355-U1456C-23F-2-A 88/88-SED	158.18	158.18	0	5	95	R	Tr		R				R			Tr	1			Tr	1						
355-U1456C-23F-3-A 110/110-SED	159.9	159.9	0	5	95	Tr	Tr		R				R							Tr	1						
355-U1456C-24F-2-A 100/100-SED	163	163	40	50	10	A	C	R			Tr		C			Tr	1			Tr	1					A	3
355-U1456C-24F-3-A 50/50-SED	164	164	30	50	20	C	C	R		Tr	R		C	Tr	1	Tr	1			Tr	1					A	3
355-U1456C-25F-1-A 30/30-SED	165.5	165.5	0	10	90	R	Tr	Tr					R			Tr	1									C	2
355-U1456C-25F-2-A 90/90-SED	167.6	167.6	40	50	10	A	C	R		Tr			C			Tr	1									A	3
355-U1456C-26F-1-A 20/20-SED	170.1	170.1	10	55	35	A	R	C					C			Tr	1			Tr	1					A	3
355-U1456C-26F-1-A 70/70-SED	170.6	170.6	30	60	10	A	C	R	Tr	C			C	Tr	1			Tr	1			Tr	1			A	3
355-U1456C-27F-1-A 40/40-SED	175	175	60	25	15	A	C	C	R	A			C									Tr	1			A	3
355-U1456C-27F-2-A 52/52-SED	176.37	176.37	65	30	5	D	A	R	Tr	C			C	Tr	1			Tr	1	Tr	1	Tr	1	Tr	1	A	3
355-U1456C-28F-1-A 115/115-SED	180.45	180.45	5	70	25	A	C	R	R	R			R			Tr	1	Tr	1							C	2
355-U1456C-28F-1-A 130/130-SED	180.6	180.6	0	20	80	R	Tr	C	R				R													C	2
355-U1456C-28F-1-A 71/71-SED	180.01	180.01	65	30	5	D	A	R		C			C	Tr	1	Tr	1			Tr	1	Tr	1			A	3
355-U1456C-29F-1-A 114/114-SED	185.14	185.14	20	30	50	D	C	R	R	C			C	Tr	1	Tr	1			Tr	1					A	3
355-U1456C-29F-1-A 40/40-SED	184.4	184.4	0	15	85	Tr	Tr	Tr	R				Tr													A	3
355-U1456C-29F-2-A 7/7-SED	185.57	185.57	10	30	60	A	C	R	R	Tr			R													C	2
355-U1456C-30F-2-A 140/140-SED	191.6	191.6	50	40	10	D	A	C		C	Tr		C	Tr	1	Tr	1			Tr	1	Tr	1			A	3
355-U1456C-30F-2-A 21/21-SED	190.41	190.41	0	15	85	Tr			Tr																		
355-U1456C-30F-3-A 120/120-SED	192.9	192.9	30	50	20	A	C	C	C	C			C			Tr	1			Tr	1					C	2

Sample	Actinolite relative abundance	Actinolite relative abundance rank	Glaucophane relative abundance	Glaucophane relative abundance rank	Augite relative abundance	Augite relative abundance rank	Other clinopyroxenes relative abundance	Other CPX relative abundance rank	Enstatite relative abundance	Enstatite relative abundance rank	Hypersthene relative abundance	Hypersthene relative abundance rank	Epidote relative abundance	Epidote relative abundance rank	Zoisite relative abundance	Zoisite relative abundance rank	Allanite relative abundance	Allanite relative abundance rank	Garnet relative abundance	Garnet relative abundance rank	Staurolite relative abundance	Staurolite relative abundance rank	Chloritoid relative abundance	Chloritoid relative abundance rank	Kyanite relative abundance	Kyanite relative abundance rank	Sillimanite relative abundance	Sillimanite relative abundance rank	Opaques relative abundance	Opaques relative abundance rank	Fe sulfides (opaques) abundance	Fe-oxides abundance	Ti-oxides abundance	Carbonate, detrital abundance	Carbonate, authigenic abundance
355-U1456C-1H-1-A 14/14-SED							C	2					Tr	1																	C				R
355-U1456C-1H-3-A 12/12-SED													Tr	1																	C				
355-U1456C-1H-4-A 37/37-SED							Tr	1																							R				
355-U1456C-1H-5-A 82/82-SED							Tr	1																							C				
355-U1456C-3H-4-A 14/14-SED							Tr	1																							C				D
355-U1456C-3H-5-A 60/60-SED							Tr	1																							C				D
355-U1456C-4H-1-A 114/114-SED					Tr	1							C	2					C	2											Tr	Tr		R	
355-U1456C-4H-1-A 25/25-SED							C	2					C	2											Tr	1					Tr	Tr		C	Tr
355-U1456C-4H-3-A 75/75-SED																															R	Tr			
355-U1456C-4H-5-A 130/130-SED																																Tr			
355-U1456C-4H-5-A 18/18-SED																															Tr	Tr			
355-U1456C-4H-6-A 93/93-SED41							Tr	1																											
355-U1456C-5H-1-A 26/26-SED													A	3																	R	Tr			
355-U1456C-5H-2-A 62/62-SED																															Tr				
355-U1456C-5H-2-A 82/82-SED							Tr	1															Tr	1							R	Tr		C	Tr
355-U1456C-5H-3-A 33/33-SED	C	2			Tr	1					Tr	1																							
355-U1456C-6H-1-A 43/43-SCRAPE					Tr	1							C	2									C	2							R			C	
355-U1456C-6H-3-A 60/60-SED											Tr	1							Tr	1	Tr	1			Tr	1					R			Tr	
355-U1456C-6H-4-A 100/100-SED							C	2			Tr	1	C	2					Tr	1											R			Tr	Tr
355-U1456C-6H-6-A 10/10-SED							Tr	1																								Tr		A	
355-U1456C-7H-1-A 125/125-SED													A	3	Tr	1			C	2					Tr	1	Tr	1	Tr	1	Tr			C	Tr
355-U1456C-7H-2-A 103/103-SED	A	3							Tr	1			A	3					C	2					Tr	1								C	
355-U1456C-7H-3-A 102/102-SED																															Tr				
355-U1456C-7H-5-A 40/40-SED	C	2					Tr	1							Tr	1			C	2															Tr
355-U1456C-8H-1-A 112/112-SED																															R				
355-U1456C-8H-2-A 40/40-SED							C	2											Tr	1											R				
355-U1456C-8H-3-A 87/87-SED							Tr	1																							R				
355-U1456C-8H-4-A 4/4-RMS	Tr	1			C	2							C	2					Tr	1												C			
355-U1456C-8H-4-A 57/57-SED							C	2					C	2																	C				
355-U1456C-8H-5-A 122/122-SED													Tr	1																	Tr	Tr			
355-U1456C-10H-1-A 12/12-SED													Tr	1																	R				
355-U1456C-10H-1-A 129/129-SED													C	2																	R				R
355-U1456C-10H-3-A 30/30-SED																															C				
355-U1456C-10H-6-A 58/58-SED																															Tr				
355-U1456C-12H-1-A 56/56-SED													Tr	1																	C	R			Tr
355-U1456C-12H-2-A 124/124-SED																															Tr				D
355-U1456C-12H-3-A 55/55-SED							Tr	1					C	2																	C				R
355-U1456C-12H-4-A 65/65-SED							Tr	1																							R				
355-U1456C-12H-6-A 53/53-SED							Tr	1																							R				Tr
355-U1456C-13H-2-A 125/125-SED	C	2					Tr	1																							R				Tr
355-U1456C-13H-2-A 14/14-SED							Tr	1					C	2					Tr	1											C	Tr			
355-U1456C-13H-2-A 65/65-SED																															C				
355-U1456C-13H-3-A 75/75-SED																															Tr	Tr			
355-U1456C-13H-4-A 56/56-SED																															Tr				
355-U1456C-14H-1-A 110/110-SED					Tr	1							C	2																	Tr			C	
355-U1456C-14H-1-A 90/90-SED													Tr	1																	Tr				
355-U1456C-14H-5-A 110/110-SED													Tr	1																	Tr				
355-U1456C-14H-6-A 126/126-SED													Tr	1																	Tr				
355-U1456C-14H-6-A 5/5-SED							C	2					C	2																	R			Tr	
355-U1456C-15H-2-A 130/130-SED							Tr	1					Tr	1																	R	Tr			Tr
355-U1456C-15H-3-A 87/87-SED							C	2					A	3					C	2					Tr	1			Tr	1	C	Tr			
355-U1456C-15H-5-A 139/139-SED							Tr	1																							C			Tr	
355-U1456C-15H-6-A 61/61-SED							C	2																							R	Tr			Tr
355-U1456C-15H-7-A 16/16-SED							C	2					C	2					Tr	1	Tr	1									R	R			Tr
355-U1456C-17H-1-A 107/107-SED																															R	Tr			A
355-U1456C-17H-2-A 78/78-SED							Tr	1					C	2																	A	R		R	Tr
355-U1456C-17H-4-A 97/97-SED													C	2																	C				A
355-U1456C-17H-6-A 72/72-SED													C	2																	R	R			C
355-U1456C-18H-2-A 50/50-SED							Tr	1					C	2					Tr	1											Tr			R	
355-U1456C-20F-1-A 34/34-SED							Tr	1					C	2					Tr	1											Tr			C	
355-U1456C-20F-2-A 23/23-SED																															R	C			
355-U1456C-21F-1-A 24/24-SED													C	2																	C			Tr	
355-U1456C-21F-2-A 69/69-SED							Tr	1																							C			R	
355-U1456C-23F-1-A 120/120-SED																															R	Tr			
355-U1456C-23F-2-A 53/53-SED																															C	Tr			
355-U1456C-23F-2-A 88/88-SED																															R	Tr			Tr
355-U1456C-23F-3-A 110/110-SED							Tr	1																							R	R			
355-U1456C-24F-2-A 100/100-SED							Tr	1											Tr	1											Tr	R		R	
355-U1456C-24F-3-A 50/50-SED							Tr	1																							Tr			R	
355-U1456C-25F-1-A 30/30-SED																															R	Tr			R
355-U1456C-25F-2-A 90/90-SED													C	2					Tr	1											R			R	
355-U1456C-26F-1-A 20/20-SED																															C	R		C	
355-U1456C-26F-1-A 70/70-SED	Tr	1					Tr	1					C	2	Tr	1			Tr	1					C	2								R	
355-U1456C-27F-1-A 40/40-SED							Tr	1																	Tr	1	Tr	1						R	
355-U1456C-27F-2-A 52/52-SED											Tr	1	C	2					C	2					Tr	1						Tr		R	
355-U1456C-28F-1-A 115/115-SED													C	2																	Tr				
355-U1456C-28F-1-A 130/130-SED							C	2					Tr	1					Tr	1											R	R			
355-U1456C-28F-1-A 71/71-SED	C	2					C	2					C	2					C	2					C	2						Tr	Tr	C	
355-U1456C-29F-1-A 114/114-SED							Tr	1					C	2													Tr	1					Tr	R	
355-U1456C-29F-1-A 40/40-SED																																Tr			
355-U1456C-29F-2-A 7/7-SED							Tr	1																											
355-U1456C-30F-2-A 140/140-SED							Tr	1					C	2			Tr	1	C	2	Tr	1												R	
355-U1456C-30F-2-A 21/21-SED																															Tr	Tr			
355-U1456C-30F-3-A 120/120-SED							Tr	1					A	3					C	2					Tr	1					R			R	R

Sample	Foraminifers abundance	Calcareous nannofossil abundance	Pteropod fragments abundance	Other calcareous bioclasts abundance	Radiolarians abundance	Diatoms abundance	Sponge spicule fragments abundance	Other biosiliceous fossil fragments abundance	Fish debris abundance	Plant debris abundance	Organic matter abundance	Total of group estimates [%]	Lithology prefix	Principal lithology	Lithology suffix	Lithology major or minor	Lithology comment	Smear slide comment
355-U1456C-1H-1-A 14/14-SED	A	D		A										nannofossil ooze	with foraminifers	major lithology		
355-U1456C-1H-3-A 12/12-SED	C	D		C		R	R							nannofossil ooze		major lithology		
355-U1456C-1H-4-A 37/37-SED	C	A		C			Tr							nannofossil ooze		major lithology		
355-U1456C-1H-5-A 82/82-SED	C	R											sandy	silt		minor lithology		
355-U1456C-3H-4-A 14/14-SED	C	D					Tr							nannofossil ooze		major lithology		
355-U1456C-3H-5-A 60/60-SED	Tr	D											nannofossil rich	clay		major lithology		
355-U1456C-4H-1-A 114/114-SED	Tr	Tr		R			Tr							sand		minor lithology		Etched Augite
355-U1456C-4H-1-A 25/25-SED	Tr	Tr		Tr										sand	with silt	minor lithology		Etched Cpx
355-U1456C-4H-3-A 75/75-SED	Tr	A		C			Tr						silty	clay	with nannofossils	major lithology		
355-U1456C-4H-5-A 130/130-SED	Tr	A		D			Tr							calcareous ooze		major lithology		
355-U1456C-4H-5-A 18/18-SED	Tr	D		R										nannofossil ooze		minor lithology		
355-U1456C-4H-6-A 93/93-SED41		D		A										nannofossil ooze		minor lithology		
355-U1456C-5H-1-A 26/26-SED	Tr	D		C			Tr							nannofossil ooze	with silt	minor lithology		
355-U1456C-5H-2-A 62/62-SED		D		R			Tr							nannofossil ooze		major lithology		
355-U1456C-5H-2-A 82/82-SED	C	A		C										sand	with carbonates	minor lithology		
355-U1456C-5H-3-A 33/33-SED	R	A												sand	with nannofossils	minor lithology		Etched Augite
355-U1456C-6H-1-A 43/43-SCRAPE	Tr	C		Tr									silty	sand	with nannofossils	minor lithology		
355-U1456C-6H-3-A 60/60-SED	Tr												silty	sand		minor lithology		
355-U1456C-6H-4-A 100/100-SED	C	D		Tr			Tr							nannofossil ooze	with sand	minor lithology		Etched Clinopyroxene
355-U1456C-6H-6-A 10/10-SED	C	A		R			Tr							sand	with nannofossils	minor lithology		
355-U1456C-7H-1-A 125/125-SED	Tr	Tr											sandy	silt		major lithology		Indus River assemblage
355-U1456C-7H-2-A 103/103-SED	Tr	A		C										silt		minor lithology		
355-U1456C-7H-3-A 102/102-SED		D		R										nannofossil ooze		minor lithology		
355-U1456C-7H-5-A 40/40-SED	C	C		C									silty	sand	with foraminifers	minor lithology		
355-U1456C-8H-1-A 112/112-SED		D		R									nannofossil rich	clay		major lithology		
355-U1456C-8H-2-A 40/40-SED	Tr	D												nannofossil ooze		major lithology		
355-U1456C-8H-3-A 87/87-SED	Tr	C		C									silty	sand		minor lithology		
355-U1456C-8H-4-A 4/4-RMS	C	R		R										sand		minor lithology		
355-U1456C-8H-4-A 57/57-SED	Tr	C											silty	sand		minor lithology		
355-U1456C-8H-5-A 122/122-SED	C	D		A			Tr						nannofossil rich	sand	with silt	major lithology		
355-U1456C-10H-1-A 12/12-SED	C	D											nannofossil rich	clay		major lithology		
355-U1456C-10H-1-A 129/129-SED	C	D		R			R						nannofossil rich	clay	with silt	minor lithology		
355-U1456C-10H-3-A 30/30-SED	C	D				R								nannofossil ooze		major lithology		
355-U1456C-10H-6-A 58/58-SED	C	D				Tr	Tr							nannofossil ooze		major lithology		
355-U1456C-12H-1-A 56/56-SED	Tr	D				R	Tr						nannofossil rich	clay		major lithology		
355-U1456C-12H-2-A 124/124-SED	R	C		Tr										calcareous ooze		major lithology		
355-U1456C-12H-3-A 55/55-SED	C	C		R									sandy	sand		minor lithology		
355-U1456C-12H-4-A 65/65-SED	C	D		C		Tr							nannofossil rich	clay	with silt	minor lithology		
355-U1456C-12H-6-A 53/53-SED	R	D											nannofossil rich	silt	with sand	minor lithology		
355-U1456C-13H-2-A 125/125-SED	Tr	D		Tr										nannofossil ooze	with silt	major lithology		
355-U1456C-13H-2-A 14/14-SED	C	C		C			Tr						sandy	silt		minor lithology		Skeletal Cpx
355-U1456C-13H-2-A 65/65-SED	Tr	D		C			Tr							nannofossil ooze		major lithology		
355-U1456C-13H-3-A 75/75-SED	Tr	D		C										nannofossil ooze		major lithology		
355-U1456C-13H-4-A 56/56-SED	Tr	R		D										calcareous ooze		major lithology		
355-U1456C-14H-1-A 110/110-SED	Tr			D										sand	with carbonates	minor lithology		Etched green clinopyroxenes
355-U1456C-14H-1-A 90/90-SED	Tr	A		D			Tr							silt	with carbonates	minor lithology		
355-U1456C-14H-5-A 110/110-SED	Tr	D		C										nannofossil ooze		major lithology		
355-U1456C-14H-6-A 126/126-SED	Tr	D		R										nannofossil ooze		major lithology		
355-U1456C-14H-6-A 5/5-SED	Tr	R		C										sand		minor lithology		
355-U1456C-15H-2-A 130/130-SED	R	D		A									silty	nannofossil ooze		major lithology		
355-U1456C-15H-3-A 87/87-SED	Tr	C		Tr									silty	sand		minor lithology		Indus River assemblage
355-U1456C-15H-5-A 139/139-SED	C												sandy	silt	with carbonates	minor lithology		
355-U1456C-15H-6-A 61/61-SED	C	R		C										silt	with clay	minor lithology		Skeletal Cpx
355-U1456C-15H-7-A 16/16-SED	Tr	Tr		Tr										sand		minor lithology		Skeletal Cpx
355-U1456C-17H-1-A 107/107-SED	C	C				R								nannofossil ooze		major lithology		
355-U1456C-17H-2-A 78/78-SED	C	R		A									sandy	silt		minor lithology		
355-U1456C-17H-4-A 97/97-SED	R	D											nannofossil rich	clay		major lithology		
355-U1456C-17H-6-A 72/72-SED		D											nannofossil rich	clay		major lithology		
355-U1456C-18H-2-A 50/50-SED		C												sand		major lithology		
355-U1456C-20F-1-A 34/34-SED		R											silty	sand		major lithology		
355-U1456C-20F-2-A 23/23-SED		D											nannofossil rich	clay		minor lithology		
355-U1456C-21F-1-A 24/24-SED	Tr	D											nannofossil rich	clay	with silt	major lithology		
355-U1456C-21F-2-A 69/69-SED		C		Tr									silty	sand		major lithology		
355-U1456C-23F-1-A 120/120-SED		D											nannofossil rich	clay		major lithology		
355-U1456C-23F-2-A 53/53-SED	Tr	A											nannofossil rich	clay	with silt	minor lithology		
355-U1456C-23F-2-A 88/88-SED		D											nannofossil rich	clay		major lithology		
355-U1456C-23F-3-A 110/110-SED		D											nannofossil rich	clay		major lithology		
355-U1456C-24F-2-A 100/100-SED		C											sandy	silt		minor lithology		
355-U1456C-24F-3-A 50/50-SED		R											sandy	silt		minor lithology		
355-U1456C-25F-1-A 30/30-SED		D											nannofossil rich	clay		minor lithology		
355-U1456C-25F-2-A 90/90-SED	Tr	A											sandy	silt		major lithology		
355-U1456C-26F-1-A 20/20-SED		R											clayey	silt		minor lithology		
355-U1456C-26F-1-A 70/70-SED													sandy	silt		major lithology		Indus River assemblage
355-U1456C-27F-1-A 40/40-SED													silty	sand		major lithology		
355-U1456C-27F-2-A 52/52-SED													silty	sand		major lithology		Indus River assemblage
355-U1456C-28F-1-A 115/115-SED		Tr											clayey	silt		minor lithology		
355-U1456C-28F-1-A 130/130-SED		R		C										clay	with silt	minor lithology		
355-U1456C-28F-1-A 71/71-SED		R											silty	sand		major lithology		Indus River assemblage
355-U1456C-29F-1-A 114/114-SED		Tr		C									silty	clay		minor lithology		
355-U1456C-29F-1-A 40/40-SED		C		C										clay		minor lithology		
355-U1456C-29F-2-A 7/7-SED				C									silty	clay		minor lithology		
355-U1456C-30F-2-A 140/140-SED	Tr												silty	sand		major lithology		Indus river assemblage
355-U1456C-30F-2-A 21/21-SED		C		C										clay		major lithology		
355-U1456C-30F-3-A 120/120-SED	Tr			C									sandy	silt		major lithology		Indus River assemblage

Sample	Top Depth [m]	Bottom Depth [m]	Sand texture [%]	Silt texture [%]	Clay texture [%]	Quartz abundance	Feldspar abundance	Mica abundance	Clay minerals abundance	Lithic grains abundance	Glauconite abundance	Vitric grains abundance	Heavy minerals abundance	Zircon relative abundance	Zircon relative abundance rank	Tourmaline relative abundance	Tourmaline relative abundance rank	Rutile relative abundance	Rutile relative abundance rank	Apatite relative abundance	Apatite relative abundance rank	Titanite relative abundance	Titanite relative abundance rank	Spinel relative abundance	Spinel relative abundance rank	Hornblende relative abundance	Hornblende relative abundance rank	Actinolite relative abundance	Actinolite relative abundance rank	Glaucophane relative abundance	Glaucophane relative abundance rank	Augite relative abundance	Augite relative abundance rank	Other clinopyroxenes relative abundance	Other CPX relative abundance rank	Enstatite relative abundance	Enstatite relative abundance rank	Hypersthene relative abundance	Hypersthene relative abundance rank	Epidote relative abundance	Epidote relative abundance rank	Zoisite relative abundance	Zoisite relative abundance rank	Allanite relative abundance	Allanite relative abundance rank	Garnet relative abundance	Garnet relative abundance rank	Staurolite relative abundance	Staurolite relative abundance rank	Chloritoid relative abundance	Chloritoid relative abundance rank	Kyanite relative abundance	Kyanite relative abundance rank	Sillimanite relative abundance	Sillimanite relative abundance rank	Opaques relative abundance	Opaques relative abundance rank	Fe sulfides (opaques) abundance	Fe-oxides abundance	Ti-oxides abundance	Carbonate, detrital abundance	Carbonate, authigenic abundance	Foraminifers abundance	Calcareous nannofossil abundance	Pteropod fragments abundance	Other calcareous bioclasts abundance	Radiolarians abundance	Diatoms abundance	Sponge spicule fragments abundance	Other biosiliceous fossil fragments abundance	Fish debris abundance	Plant debris abundance	Organic matter abundance	Total of group estimates [%]	Lithology prefix	Principal lithology	Lithology suffix	Lithology major or minor	Lithology comment	Smear slide comment
355-U1456C-31F-1-A 121/121-SED	194.61	194.61	20	75	5	D	A	C		C			C			Tr	1	Tr	1	Tr	1	C	2	Tr	1	A	3													C	2					C	2							Tr	1			Tr	R			Tr				R										silt		minor lithology		
355-U1456C-31F-2-A 21/21-SED	195.11	195.11	65	30	5	D	A	R		C			C	Tr	1					Tr	1					A	3							C	2					C	2					C	2											Tr	Tr	Tr	Tr					R									silty	sand		major lithology		Etched clinopyroxene
355-U1456C-31F-3-A 115/115-SED	197.55	197.55	40	50	10	A	C	C	R	C			C							Tr	1					A	3							Tr	1					C	2					Tr	1												R		C					C									sandy	silt		major lithology		Etched clinopyroxene
355-U1456C-33F-1-A 115/115-SED	203.95	203.95	65	35	10	A	C	C	C				C	Tr	1			Tr	1			Tr	1			A	3	Tr	1											C	2					Tr	1												Tr		C		Tr	Tr											silty	sand		major lithology		
355-U1456C-33F-1-A 39/39-SED	203.19	203.19	0	15	85	R	Tr	Tr	Tr				Tr													Tr	1													Tr	1					Tr	1											Tr	Tr					R		C										clay		minor lithology		
355-U1456C-33F-1-A 71/71-SED	203.51	203.51	10	55	35	A	C	C	C	R			C			Tr	1			Tr	1					A	3													C	2					Tr	1												Tr	Tr				Tr		C									clayey	silt		major lithology		
355-U1456C-34F-1-A 121/121-SED	208.71	208.71	20	50	30	A	C	C	R	C			C									Tr	1			C	2							Tr	1					C	2			Tr	1			Tr	1					C	2			Tr	Tr	Tr	Tr			Tr		R									clayey	silt	with sand	minor lithology		
355-U1456C-34F-3-A 105/105-SED	211.55	211.55	30	60	10	A	C	C	C	C			C	Tr	1	Tr	1					Tr	1			A	3							Tr	1					C	2											Tr	1						Tr		R		Tr	Tr		C									sandy	silt		minor lithology		
355-U1456C-34F-3-A 45/45-SED	210.95	210.95	0	15	85	C	C	Tr	R				Tr			Tr	1							Tr	1	C	2													C	2															C	2	R	R					C		A										clay		minor lithology		
355-U1456C-35F-1-A 120/120-SED	213.4	213.4	0	5	95	C	C	Tr	Tr				Tr													C	2													C	2					Tr	1											Tr	Tr					R		A										clay		minor lithology		
355-U1456C-35F-1-A 50/50-SED	212.7	212.7	30	55	15	A	C	C	Tr	C			C	Tr	1			Tr	1	Tr	1	Tr	1	Tr	1	A	3	C	2			Tr	1							Tr	1					Tr	1									Tr	1		Tr				Tr	Tr		R									sandy	silt		major lithology		Volcanic apatite
355-U1456C-35F-2-A 60/60-SED	214.3	214.3	60	30	10	A	C	C	Tr				C			Tr	1	Tr	1							A	3	Tr	1											A	3			Tr	1	Tr	1											Tr			C		Tr			R									silty	sand		major lithology		
355-U1456C-36F-1-A 57/57-SED	217.47	217.47	0	25	75	C	Tr	R	R				Tr													A	3																															Tr	Tr					C		C									silty	clay		major lithology		
355-U1456C-36F-2-A 35/35-SED	218.5	218.5	50	10	40	A	C	C		A			R					Tr	1							A	3	Tr	1											C	2					Tr	1												Tr					Tr		C									clayey	sand		minor lithology		
355-U1456C-36F-3-A 85/85-SED	219.73	219.73	70	20	10	D	A	C	R	C			C	Tr	1							Tr	1			A	3							C	2					C	2																	Tr	Tr			R		R		C										sand		major lithology		Etched clinopyroxene
355-U1456C-38X-1-A 21/21-SED	408.21	408.21	0	5	95	Tr		Tr					Tr			Tr	1																							C	2																	R	R				Tr	A		C										clay	with nannofossils	major lithology		
355-U1456C-38X-1-A 33/33-SED	408.33	408.33	0	5	95	Tr		Tr	Tr																																																	R	R				Tr	D		R										nannofossil ooze		minor lithology		
355-U1456C-39X-1-A 16/16-SED	413.96	413.96	0	20	80	Tr							Tr													A	3																															R	R					C		C										clay		major lithology		
355-U1456C-40X-1-A 70/70-SED	418.7	418.7	0	20	80			Tr	R				R													A	3																															R	R	Tr				R		R										clay		major lithology		
355-U1456C-40X-2-A 97/97-SED	420.47	420.47	50	30	20	A	C	C	R	R			C	Tr	1	Tr	1					Tr	1			A	3													C	2					Tr	1											R								R									silty	sand		minor lithology		
355-U1456C-41X-1-A 125/125-SED	428.95	428.95	25	60	15	A	C	Tr					C			Tr	1			Tr	1					A	3							Tr	1																							R			C		R	C											sandy	silt	with nannofossils	minor lithology		
355-U1456C-41X-1-A 24/24-SED	427.94	427.94	0	10	90	R	Tr		R				R			A	3																																									R	R				Tr	D											nannofossil rich	clay		minor lithology		
355-U1456C-41X-3-A 49/49-SED	431.19	431.19	0	5	95	R	Tr		R				R							Tr	1																									Tr	1											R	R					D											nannofossil rich	clay		major lithology		
355-U1456C-42X-1-A 39/39-SED	437.79	437.79	0	5	95	R	Tr	Tr	R				R	Tr	1	Tr	1																							C	2																	R	Tr					D											nannofossil rich	clay		major lithology		
355-U1456C-42X-1-A 59/59-SED	437.99	437.99	5	55	40	A	C	R					C			Tr	1			Tr	1					A	3							Tr	1					C	2																	C						A											nannofossil rich	silt	with clay	minor lithology		
355-U1456C-43X-1-A 54/54-SCRAPE	438.64	438.64	60	30	10	A	C	R					A	Tr	1					Tr	1					A	3							Tr	1					C	2					Tr	1											R	R		C			C											silty	sand		minor lithology		
355-U1456C-43X-1-A 69/69-SED	438.79	438.79	0	5	95	R	Tr	Tr					Tr													A	3																															R	R			R		D											nannofossil rich	clay		major lithology		

Sample	Top Depth [m]	Bottom Depth [m]	Sand texture [%]	Silt texture [%]	Clay texture [%]	Quartz abundance	Feldspar abundance	Mica abundance	Clay minerals abundance	Lithic grains abundance	Glauconite abundance	Vitric grains abundance	Heavy minerals abundance	Zircon relative abundance	Zircon relative abundance rank	Tourmaline relative abundance	Tourmaline relative abundance rank	Rutile relative abundance	Rutile relative abundance rank	Apatite relative abundance	Apatite relative abundance rank	Titanite relative abundance	Titanite relative abundance rank	Spinel relative abundance	Spinel relative abundance rank	Hornblende relative abundance	Hornblende relative abundance rank
355-U1456D-2R-1-A 116/116-SED	459.96	459.96	55	20	25	C	C	C					C	Tr	1	Tr	1			Tr	1					A	3
355-U1456D-2R-1-A 31/31-SED	459.11	459.11	0	2	98	R	R	Tr					Tr							A	3						
355-U1456D-3R-1-A 45/45-SED	468.95	468.95	50	40	10	C	C	C					C			Tr	1									A	3
355-U1456D-3R-2-A 48/48-SED	469.89	469.89	0	5	95	R	Tr	R					R	Tr	1											C	2
355-U1456D-3R-2-A 56/56-SED	469.965	469.965	5	75	20	A	C	R					R	Tr	1	Tr	1			Tr	1						
355-U1456D-4R-1-A 56/56-SED	478.76	478.76	0	25	75	R	R	C					R			Tr	1									C	2
355-U1456D-4R-2-A 34/34-SED	479.31	479.31	30	50	20	C	C	C					C	Tr	1	Tr	1									A	3
355-U1456D-5R-1-A 26/26-SED	488.16	488.16	20	65	15	C	C	C					C			Tr	1									A	3
355-U1456D-5R-2-A 36/36-SED	489.46	489.46	0	5	95	R	Tr	R					Tr							A	3						
355-U1456D-6R-CC-A 4/4-SED	497.8	497.8	0	5	95	R	Tr	Tr					Tr			Tr	1									Tr	1
355-U1456D-7R-1-A 25/25-SED	507.55	507.55	35	50	15	C	R	C					Tr			Tr	1			Tr	1					Tr	1
355-U1456D-7R-1-A 63/63-SED	507.93	507.93	30	50	20	A	A	R		R			R			Tr	1			Tr	1					C	2
355-U1456D-7R-2-A 120/120-SED	509.44	509.44	5	35	60	R	R	Tr					Tr	Tr	1											Tr	1
355-U1456D-7R-2-A 24/24-SED	508.48	508.48	15	65	20	C	R	C		R	Tr		R													C	2
355-U1456D-7R-2-A 36/36-SED	508.6	508.6	0	10	90	R	Tr	Tr					R			Tr	1									Tr	1
355-U1456D-8R-1-A 79/79-SED	517.79	517.79	0	5	95	Tr		Tr																			
355-U1456D-8R-2-A 71/71-SED	518.57	518.57	0	10	90	R	Tr	Tr	Tr				Tr					Tr	1							C	2
355-U1456D-8R-4-A 61/61-SED	521.37	521.37	0	10	90	R	Tr	Tr					Tr							Tr	1					C	2
355-U1456D-8R-6-A 29/29-SED	523.88	523.88	0	5	95	Tr	Tr	Tr					Tr			Tr	1									Tr	1
355-U1456D-9R-2-A 15/15-SED	528.32	528.32	0	20	80	Tr	Tr	Tr					Tr			Tr	1	Tr	1							Tr	1
355-U1456D-9R-4-A 73/73-SED	531.84	531.84	0	2	98	Tr	Tr	Tr					Tr							Tr	1					Tr	1
355-U1456D-9R-5-A 100/100-SED	533.59	533.59	0	2	98	Tr		Tr					Tr			A	3										
355-U1456D-9R-7-A 28/28-SED	535.37	535.37	0	15	75	Tr	Tr	Tr	Tr				Tr			Tr	1					Tr	1				
355-U1456D-10R-1-A 100/100-SED	537.4	537.4	0	15	85	R	Tr	Tr					R					Tr	1							C	2
355-U1456D-10R-2-A 12/12-SED	537.95	537.95	0	10	90	Tr	Tr	Tr					Tr														
355-U1456D-10R-2-A 58/58-SED	538.41	538.41	0	15	85	R		Tr					R	Tr	1	Tr	1	Tr	1								
355-U1456D-10R-4-A 137/137-SED	542.02	542.02	0	15	85	R	Tr	Tr					Tr					Tr	1							Tr	1
355-U1456D-10R-4-A 30/30-SED	540.95	540.95	0	2	98			Tr																			
355-U1456D-11R-1-A 54/54-SED	546.64	546.64	0	15	85	Tr	Tr	Tr					R			Tr	1									C	2
355-U1456D-11R-2-A 36/36-SED	547.68	547.68	0	20	80	R	R						R			Tr	1										
355-U1456D-11R-3-A 60/60-SED	549.09	549.09	30	55	15	C	C	C					C			Tr	1			Tr	1					C	2
355-U1456D-12R-1-A 40/40-SED	556.2	556.2	50	40	10	C	C	C					C			Tr	1			Tr	1					C	2
355-U1456D-12R-2-A 23/23-SED	557.53	557.53	0	35	65	C	R	Tr					C	Tr	1	Tr	1									C	2
355-U1456D-13R-1-A 60/60-SED	566.1	566.1	0	30	70	R	R	R					R													A	3
355-U1456D-13R-1-A 8/8-SED	565.58	565.58	55	30	15	C	R	R		Tr			C	Tr	1	Tr	1									A	3
355-U1456D-13R-2-A 36/36-SED	566.86	566.86	0	70	30	A	C	R					C			Tr	1			Tr	1					C	2
355-U1456D-15R-1-A 29/29-SED	585.19	585.19	70	25	0	C	C	C					C			Tr	1									A	3
355-U1456D-15R-2-A 124/124-SED	587.64	587.64	0	5	95	Tr	Tr						Tr													A	3
355-U1456D-15R-2-A 54/54-SED	586.94	586.94	0	5	95	Tr		Tr					R							A	3						
355-U1456D-16R-1-A 28/28-SED	594.88	594.88	0	5	95	Tr		Tr					Tr													A	3
355-U1456D-16R-4-A 96/96-SED	599.49	599.49	30	20	50	R	R	R			Tr		C							Tr	1					A	3
355-U1456D-16R-6-A 113/113-SED	602.44	602.44	5	5	90								Tr			Tr	1			Tr	1						
355-U1456D-16R-6-A 51/51-SED	601.82	601.82	0	5	95			Tr					Tr														
355-U1456D-17R-2-A 48/48-SED	606.03	606.03	0	10	90	R	Tr						R			Tr	1			Tr	1					C	2
355-U1456D-17R-2-A 52/52-SED	606.07	606.07	30	50	20	C	C	R					C													C	2
355-U1456D-17R-3-A 25/25-SED	606.77	606.77	35	60	5	A	C	R			R		C			Tr	1			Tr	1	Tr	1			A	3
355-U1456D-18R-1-A 42/42-SED	614.42	614.42	0	30	70	R	Tr	Tr	Tr				Tr					Tr	1							Tr	1
355-U1456D-18R-2-A 45/45-SED	615.62	615.62	0	90	10	C	R	Tr					Tr			Tr	1									C	2
355-U1456D-18R-2-A 81/81-SED	615.98	615.98	30	55	15	C	R	R	Tr		Tr		R	Tr	1							Tr	1	Tr	1	C	2
355-U1456D-18R-3-A 3/3-SED	616.2	616.2	5	75	20	C	R	R					R	Tr	1									Tr	1	C	2
355-U1456D-19R-1-A 33/33-SED	624.03	624.03	0	5	95	Tr		Tr					Tr														
355-U1456D-19R-1-A 60/60-SED	624.3	624.3	40	35	25	C	R	R					R	Tr	1							Tr	1			A	3
355-U1456D-19R-1-A 79/79-SED	624.49	624.49	15	75	10	A	C	R					R							Tr	1			Tr	1	C	2
355-U1456D-20R-1-A 105/105-SED	634.45	634.45	45	30	25	C	R	Tr	Tr				R	Tr	1	Tr	1	Tr	1							A	3
355-U1456D-20R-2-A 10/10-SED	635	635	0	20	80			Tr					Tr														
355-U1456D-20R-2-A 105/105-SED	635.95	635.95	0	5	95	Tr		Tr																			
355-U1456D-21R-1-A 123/123-SED	644.33	644.33	10	70	20	A	C	R	R	C			C	Tr	1			Tr	1							A	3
355-U1456D-21R-1-A 6/6-SED	643.16	643.16	70	25	5	A	C	R		R			R	Tr	1					Tr	1					A	3
355-U1456D-21R-2-A 58/58-SED	645.18	645.18	0	20	80	C	R	Tr					R	Tr	1			Tr	1	Tr	1					C	2
355-U1456D-21R-3-A 21/21-SED	646.11	646.11	0	5	95	Tr	Tr	Tr	Tr				Tr													A	3
355-U1456D-22R-1-A 102/102-SED	653.82	653.82	0	5	95	Tr		Tr					Tr														
355-U1456D-22R-1-A 34/34-SED	653.14	653.14	0	80	20	C	R	Tr	Tr				R	Tr	1			Tr	1			Tr	1			C	2
355-U1456D-22R-1-A 93/93-SED	653.73	653.73	40	25	35	C	R	Tr	Tr	Tr			R			Tr	1			Tr	1					C	2
355-U1456D-22R-2-A 43/43-SED	654.64	654.64	35	45	20	A	C	R					R					Tr	1	Tr	1					C	2
355-U1456D-22R-2-A 76/76-SED	654.97	654.97	0	5	95	Tr		Tr					Tr													A	3
355-U1456D-23R-1-A 108/108-SED	663.58	663.58	30	55	15	A	C	R	Tr	C			C					Tr	1			Tr	1			A	3
355-U1456D-23R-2-A 4/4-SED	664.04	664.04	50	30	20	A	C	R		C	Tr		R			Tr	1					Tr	1			C	2
355-U1456D-23R-2-A 79/79-SED	664.79	664.79	0	50	95	Tr		Tr					Tr													A	3
355-U1456D-23R-3-A 16/16-SED	665.36	665.36	0	70	30	C	R	Tr	Tr				Tr					Tr	1								
355-U1456D-24R-1-A 44/44-SED	672.64	672.64	0	10	90	R	R	Tr					R	Tr	1					Tr	1						
355-U1456D-24R-1-A 96/96-SED	673.16	673.16	30	60	10	A	C	C			R		C			Tr	1			Tr	1					C	2
355-U1456D-25R-1-A 107/107-SED	682.97	682.97	35	60	5	A	C	C					C							Tr	1					C	2
355-U1456D-25R-1-A 60/60-SED	682.5	682.5	5	10	85	R	R	R			Tr		R							Tr	1					C	2
355-U1456D-25R-2-A 12/12-SED	683.52	683.52	30	60	10	C	C	R			Tr		C			Tr	1			Tr	1					C	2
355-U1456D-26R-1-A 100/100-SED	692.6	692.6	0	15	85	R	R	R					R			Tr	1			Tr	1					C	2
355-U1456D-26R-2-A 72/72-SED	693.82	693.82	0	5	95	R	R	Tr					R							A	3						
355-U1456D-27R-1-A 59/59-SED	701.89	701.89	0	5	95	Tr	Tr	Tr					R	Tr	1	Tr	1			Tr	1						
355-U1456D-27R-2-A 80/80-SED	703.6	703.6	10	70	20	C	R	R					C			Tr	1			Tr	1					A	3
355-U1456D-27R-3-A 80/80-SED	705.1	705.1	70	25	5	C	C	C			C		C			Tr	1			Tr	1					A	3
355-U1456D-28R-1-A 116/116-SED	712.16	712.16	0	5	95	Tr	Tr	Tr					Tr			Tr	1	Tr	1								
355-U1456D-28R-2-A 14/14-SED	712.64	712.64	65	30	5	C	C	R			Tr		C	Tr	1	Tr	1			Tr	1					A	3
355-U1456D-29R-1-A 34/34-SED	721.04	721.04	35	60	5	C	C	R			R		C	Tr	1	Tr	1			Tr	1					C	2
355-U1456D-29R-1-A 81/81-SED	721.51	721.51	0	5	95	R	Tr	Tr					R			Tr	1									C	2
355-U1456D-29R-2-A 10/10-SED	722	722	0	5	95								Tr							A	3						

Sample	Actinolite relative abundance	Actinolite relative abundance rank	Glaucophane relative abundance	Glaucophane relative abundance rank	Augite relative abundance	Augite relative abundance rank	Other clinopyroxenes relative abundance	Other CPX relative abundance rank	Enstatite relative abundance	Enstatite relative abundance rank	Hypersthene relative abundance	Hypersthene relative abundance rank	Epidote relative abundance	Epidote relative abundance rank	Zoisite relative abundance	Zoisite relative abundance rank	Allanite relative abundance	Allanite relative abundance rank	Garnet relative abundance	Garnet relative abundance rank	Staurolite relative abundance	Staurolite relative abundance rank	Chloritoid relative abundance	Chloritoid relative abundance rank	Kyanite relative abundance	Kyanite relative abundance rank	Sillimanite relative abundance	Sillimanite relative abundance rank	Opaques relative abundance	Opaques relative abundance rank
355-U1456D-2R-1-A 116/116-SED																			C	2										
355-U1456D-2R-1-A 31/31-SED																														
355-U1456D-3R-1-A 45/45-SED													C	2					C	2										
355-U1456D-3R-2-A 48/48-SED																														
355-U1456D-3R-2-A 56/56-SED																														
355-U1456D-4R-1-A 56/56-SED																														
355-U1456D-4R-2-A 34/34-SED							Tr	1											C	2										
355-U1456D-5R-1-A 26/26-SED							Tr	1					C	2					Tr	1										
355-U1456D-5R-2-A 36/36-SED																														
355-U1456D-6R-CC-A 4/4-SED																														
355-U1456D-7R-1-A 25/25-SED													Tr	1					Tr	1									Tr	1
355-U1456D-7R-1-A 63/63-SED													C	2																
355-U1456D-7R-2-A 120/120-SED																														
355-U1456D-7R-2-A 24/24-SED							Tr	1					Tr	1																
355-U1456D-7R-2-A 36/36-SED																														
355-U1456D-8R-1-A 79/79-SED																														
355-U1456D-8R-2-A 71/71-SED													C	2					Tr	1							Tr	1		
355-U1456D-8R-4-A 61/61-SED													C	2																
355-U1456D-8R-6-A 29/29-SED													Tr	1																
355-U1456D-9R-2-A 15/15-SED													Tr	1																
355-U1456D-9R-4-A 73/73-SED													Tr	1					Tr	1									Tr	1
355-U1456D-9R-5-A 100/100-SED																														
355-U1456D-9R-7-A 28/28-SED																														
355-U1456D-10R-1-A 100/100-SED													C	2																
355-U1456D-10R-2-A 12/12-SED													A	3																
355-U1456D-10R-2-A 58/58-SED													C	2									Tr	1						
355-U1456D-10R-4-A 137/137-SED																														
355-U1456D-10R-4-A 30/30-SED																														
355-U1456D-11R-1-A 54/54-SED													Tr	1																
355-U1456D-11R-2-A 36/36-SED							Tr	1					C	2																
355-U1456D-11R-3-A 60/60-SED							Tr	1																						
355-U1456D-12R-1-A 40/40-SED							Tr	1					C	2																
355-U1456D-12R-2-A 23/23-SED													C	2																
355-U1456D-13R-1-A 60/60-SED																														
355-U1456D-13R-1-A 8/8-SED													C	2					Tr	1										
355-U1456D-13R-2-A 36/36-SED																			Tr	1					Tr	1				
355-U1456D-15R-1-A 29/29-SED							Tr	1					Tr	1																
355-U1456D-15R-2-A 124/124-SED																														
355-U1456D-15R-2-A 54/54-SED																														
355-U1456D-16R-1-A 28/28-SED																														
355-U1456D-16R-4-A 96/96-SED							Tr	1					Tr	1					Tr	1										
355-U1456D-16R-6-A 113/113-SED																														
355-U1456D-16R-6-A 51/51-SED													A	3																
355-U1456D-17R-2-A 48/48-SED							Tr	1																						
355-U1456D-17R-2-A 52/52-SED							Tr	1					C	2					Tr	1										
355-U1456D-17R-3-A 25/25-SED							Tr	1					C	2					Tr	1					Tr	1				
355-U1456D-18R-1-A 42/42-SED																														
355-U1456D-18R-2-A 45/45-SED													C	2																
355-U1456D-18R-2-A 81/81-SED			Tr	1									C	2					C	2										
355-U1456D-18R-3-A 3/3-SED							Tr	1					C	2					C	2										
355-U1456D-19R-1-A 33/33-SED																			A	3										
355-U1456D-19R-1-A 60/60-SED	C	2					Tr	1					C	2					Tr	1										
355-U1456D-19R-1-A 79/79-SED	Tr	1																												
355-U1456D-20R-1-A 105/105-SED	C	2											C	2					C	2										
355-U1456D-20R-2-A 10/10-SED													A	3																
355-U1456D-20R-2-A 105/105-SED																														
355-U1456D-21R-1-A 123/123-SED													C	2					C	2										
355-U1456D-21R-1-A 6/6-SED													C	2					C	2										
355-U1456D-21R-2-A 58/58-SED													C	2															Tr	1
355-U1456D-21R-3-A 21/21-SED																														
355-U1456D-22R-1-A 102/102-SED							Tr	1																					Tr	1
355-U1456D-22R-1-A 34/34-SED													C	2					C	2										
355-U1456D-22R-1-A 93/93-SED													Tr	1					C	2										
355-U1456D-22R-2-A 43/43-SED	Tr	1											C	2			Tr	1	C	2										
355-U1456D-22R-2-A 76/76-SED																														
355-U1456D-23R-1-A 108/108-SED	Tr	1					Tr	1					C	2					C	2			Tr	1						
355-U1456D-23R-2-A 4/4-SED	C	2											C	2																
355-U1456D-23R-2-A 79/79-SED																														
355-U1456D-23R-3-A 16/16-SED													Tr	1																
355-U1456D-24R-1-A 44/44-SED							Tr	1																						
355-U1456D-24R-1-A 96/96-SED							Tr	1																						
355-U1456D-25R-1-A 107/107-SED							Tr	1					C	2																
355-U1456D-25R-1-A 60/60-SED							Tr	1																						
355-U1456D-25R-2-A 12/12-SED							Tr	1					C	2					C	2										
355-U1456D-26R-1-A 100/100-SED																														
355-U1456D-26R-2-A 72/72-SED																														
355-U1456D-27R-1-A 59/59-SED																														
355-U1456D-27R-2-A 80/80-SED							Tr	1																						
355-U1456D-27R-3-A 80/80-SED							Tr	1											C	2										
355-U1456D-28R-1-A 116/116-SED																														
355-U1456D-28R-2-A 14/14-SED							Tr	1					C	2					Tr	1										
355-U1456D-29R-1-A 34/34-SED																			Tr	1										
355-U1456D-29R-1-A 81/81-SED													C	2																
355-U1456D-29R-2-A 10/10-SED																														

Sample	Fe sulfides (opaques) abundance	Fe-oxides abundance	Ti-oxides abundance	Carbonate, detrital abundance	Carbonate, authigenic abundance	Foraminifers abundance	Calcareous nannofossil abundance	Pteropod fragments abundance	Other calcareous bioclasts abundance	Radiolarians abundance	Diatoms abundance	Sponge spicule fragments abundance	Other biosiliceous fossil fragments abundance	Fish debris abundance	Plant debris abundance	Organic matter abundance	Total of group estimates [%]	Lithology prefix	Principal lithology	Lithology suffix	Lithology major or minor	Lithology comment	Smear slide comment
355-U1456D-2R-1-A 116/116-SED	C	R					C											silty	sand		major lithology		
355-U1456D-2R-1-A 31/31-SED	R	C			Tr		D											nannofossil rich	clay		major lithology		
355-U1456D-3R-1-A 45/45-SED	R	R				Tr	R											silty	sand		minor lithology		
355-U1456D-3R-2-A 48/48-SED	R	R			R		A											nannofossil rich	clay		major lithology		
355-U1456D-3R-2-A 56/56-SED	R	C		R			C											clayey	silt	with nannofossils	minor lithology		
355-U1456D-4R-1-A 56/56-SED	R	R			Tr		D											nannofossil rich	clay	with nannofossils	major lithology		
355-U1456D-4R-2-A 34/34-SED	Tr	Tr					C											silty	sand		minor lithology		
355-U1456D-5R-1-A 26/26-SED	R			Tr	R	Tr	C											sandy	silt		major lithology		
355-U1456D-5R-2-A 36/36-SED	Tr	Tr			R	Tr	D											nannofossil rich	clay		minor lithology		
355-U1456D-6R-CC-A 4/4-SED	R	Tr			R		D											nannofossil rich	clay		major lithology		
355-U1456D-7R-1-A 25/25-SED		Tr					R		R						R	C		sandy	silt		minor lithology		
355-U1456D-7R-1-A 63/63-SED	Tr	R	Tr	C			R											sandy	silt		minor lithology		
355-U1456D-7R-2-A 120/120-SED		Tr	Tr				Tr		A									silty	clay		major lithology		
355-U1456D-7R-2-A 24/24-SED	Tr	Tr	Tr				Tr		R						R	Tr			silt		minor lithology		Skeletal cpx
355-U1456D-7R-2-A 36/36-SED		Tr					A		C									nannofossil rich	clay		major lithology		
355-U1456D-8R-1-A 79/79-SED	Tr	Tr			Tr	Tr	D		R										nannofossil chalk		major lithology		
355-U1456D-8R-2-A 71/71-SED	R	R					D		R										nannofossil chalk		major lithology		
355-U1456D-8R-4-A 61/61-SED	R	R	Tr		Tr		D		Tr						Tr				nannofossil chalk		major lithology		Corroded epidote
355-U1456D-8R-6-A 29/29-SED		Tr					D		Tr										nannofossil chalk		major lithology		
355-U1456D-9R-2-A 15/15-SED	C	R			Tr		D		Tr										nannofossil chalk		major lithology		
355-U1456D-9R-4-A 73/73-SED		Tr					D		Tr										nannofossil chalk		minor lithology		
355-U1456D-9R-5-A 100/100-SED		Tr	Tr				D		Tr										nannofossil chalk		minor lithology		Tou authigenic?
355-U1456D-9R-7-A 28/28-SED	Tr	Tr	Tr				D					Tr							nannofossil chalk		major lithology		
355-U1456D-10R-1-A 100/100-SED	Tr	Tr	Tr		Tr		C		Tr									nannofossil rich	claystone		major lithology		
355-U1456D-10R-2-A 12/12-SED	Tr		Tr		Tr		C		R									nannofossil rich	claystone		major lithology		
355-U1456D-10R-2-A 58/58-SED	R	Tr					R												claystone		minor lithology		
355-U1456D-10R-4-A 137/137-SED	C						R												claystone		minor lithology		Etched Hbl
355-U1456D-10R-4-A 30/30-SED	A						D		Tr										nannofossil chalk		minor lithology		
355-U1456D-11R-1-A 54/54-SED	R				R		D												nannofossil chalk		major lithology		
355-U1456D-11R-2-A 36/36-SED	C	R					D		Tr									nannofossil rich	clay		minor lithology		
355-U1456D-11R-3-A 60/60-SED	R	R		R			C											sandy	silt	with nannofossils	minor lithology		
355-U1456D-12R-1-A 40/40-SED	Tr			R		Tr	C											silty	sand		major lithology		
355-U1456D-12R-2-A 23/23-SED	R	R		R			D											nannofossil rich	clay	with silt	major lithology		
355-U1456D-13R-1-A 60/60-SED	C	R			C		D		Tr									nannofossil rich	clay	with silt	major lithology		
355-U1456D-13R-1-A 8/8-SED	R			R			C											silty	sand		minor lithology		
355-U1456D-13R-2-A 36/36-SED	C			C			C											clayey	silt		minor lithology		
355-U1456D-15R-1-A 29/29-SED	R	R		R			R											silty	sand		major lithology		
355-U1456D-15R-2-A 124/124-SED	R	R					D		Tr										nannofossil chalk		minor lithology		
355-U1456D-15R-2-A 54/54-SED	R	R			C		D											Nannofossil rich	clay		minor lithology		
355-U1456D-16R-1-A 28/28-SED	C	Tr			R		D											nannofossil rich	clay		major lithology		
355-U1456D-16R-4-A 96/96-SED	R	R			R		D											nannofossil rich	clay	with sand	minor lithology		
355-U1456D-16R-6-A 113/113-SED	R	Tr			Tr	R	D												nannofossil chalk		minor lithology		
355-U1456D-16R-6-A 51/51-SED	R						D		Tr		R								nannofossil chalk		minor lithology		
355-U1456D-17R-2-A 48/48-SED	R	Tr			C		D											nannofossil rich	clay		major lithology		
355-U1456D-17R-2-A 52/52-SED	Tr			R		Tr	C									C		sandy	silt	with nannofossils	minor lithology		
355-U1456D-17R-3-A 25/25-SED	R			C		Tr	R											silty	sand		minor lithology		
355-U1456D-18R-1-A 42/42-SED	Tr						C		A						Tr			silty	claystone		major lithology		
355-U1456D-18R-2-A 45/45-SED	D			C															siltstone		minor lithology		
355-U1456D-18R-2-A 81/81-SED				C			Tr											sandy	siltstone		minor lithology		Turbidite from Indus River
355-U1456D-18R-3-A 3/3-SED		Tr	Tr	C		Tr	R		R						Tr				siltstone		minor lithology		Corroded Ep and skeletal Cpx
355-U1456D-19R-1-A 33/33-SED	Tr	Tr					A		C						Tr			nannofossil rich	claystone		major lithology		
355-U1456D-19R-1-A 60/60-SED	C	Tr		C	Tr		Tr											silty	sandstone		minor lithology		Skeletal Cpx
355-U1456D-19R-1-A 79/79-SED	C	Tr			Tr		Tr		C						Tr				siltstone		minor lithology		Brown reddish spinel
355-U1456D-20R-1-A 105/105-SED	Tr	Tr		R			Tr		R									silty	sandstone		minor lithology		
355-U1456D-20R-2-A 10/10-SED	Tr						C		A										claystone	with nannofossils	major lithology		
355-U1456D-20R-2-A 105/105-SED	D						A		C									nannofossil rich	claystone		major lithology		
355-U1456D-21R-1-A 123/123-SED		Tr		C		Tr	Tr												siltstone		major lithology		
355-U1456D-21R-1-A 6/6-SED		Tr		R			Tr		R										sandstone		minor lithology		
355-U1456D-21R-2-A 58/58-SED		Tr		A			Tr												claystone		minor lithology		
355-U1456D-21R-3-A 21/21-SED	Tr	Tr					R		C										claystone		major lithology		
355-U1456D-22R-1-A 102/102-SED	Tr	Tr					Tr		C						Tr	Tr			claystone		minor lithology		
355-U1456D-22R-1-A 34/34-SED	Tr	Tr		R			Tr		A										siltstone		major lithology		
355-U1456D-22R-1-A 93/93-SED		Tr	Tr	R											Tr			clayey	siltstone		minor lithology		Yellow blende
355-U1456D-22R-2-A 43/43-SED		Tr			Tr		Tr		R									sandy	siltstone		minor lithology		Corroded Hbl
355-U1456D-22R-2-A 76/76-SED	Tr	Tr					D		Tr										nannofossil chalk		minor lithology		
355-U1456D-23R-1-A 108/108-SED							Tr		C									sandy	silt		minor lithology		Skeletal Cpx
355-U1456D-23R-2-A 4/4-SED		Tr		C					R									silty	sand		minor lithology		
355-U1456D-23R-2-A 79/79-SED	Tr	Tr					D		R										nannofossil chalk		minor lithology		
355-U1456D-23R-3-A 16/16-SED	Tr	R			Tr		A											clayey	siltstone		major lithology		
355-U1456D-24R-1-A 44/44-SED	C	Tr			R		R												clay		major lithology		
355-U1456D-24R-1-A 96/96-SED	C			R		Tr	R											sandy	silt		minor lithology		
355-U1456D-25R-1-A 107/107-SED	C			R		Tr	R											sandy	silt		minor lithology		
355-U1456D-25R-1-A 60/60-SED	R	Tr			R		A												clay	with nannofossils	major lithology		
355-U1456D-25R-2-A 12/12-SED	R			R			R											sandy	silt		minor lithology		
355-U1456D-26R-1-A 100/100-SED	R				C		R												clay		major lithology		
355-U1456D-26R-2-A 72/72-SED	R	Tr			R		D											nannofossil rich	clay		major lithology		
355-U1456D-27R-1-A 59/59-SED	R	R			C		C												clay	with nannofossils	major lithology		
355-U1456D-27R-2-A 80/80-SED	C			R	R		R												silt		minor lithology		
355-U1456D-27R-3-A 80/80-SED	C			R			Tr											silty	sand		minor lithology		
355-U1456D-28R-1-A 116/116-SED	R	R			C		A											nannofossil rich	clay		major lithology		
355-U1456D-28R-2-A 14/14-SED	R			R			R											silty	sand		major lithology		
355-U1456D-29R-1-A 34/34-SED	C			R	Tr		Tr											sandy	silt		minor lithology		
355-U1456D-29R-1-A 81/81-SED	R				R		C												clay	with nannofossils	minor lithology		
355-U1456D-29R-2-A 10/10-SED	R				R		D												nannofossil chalk		minor lithology		

Sample	Top Depth [m]	Bottom Depth [m]	Sand texture [%]	Silt texture [%]	Clay texture [%]	Quartz abundance	Feldspar abundance	Mica abundance	Clay minerals abundance	Lithic grains abundance	Glauconite abundance	Vitric grains abundance	Heavy minerals abundance	Zircon relative abundance	Zircon relative abundance rank	Tourmaline relative abundance	Tourmaline relative abundance rank	Rutile relative abundance	Rutile relative abundance rank	Apatite relative abundance	Apatite relative abundance rank	Titanite relative abundance	Titanite relative abundance rank	Spinel relative abundance	Spinel relative abundance rank
355-U1456D-29R-2-A 51/51-SED	722.41	722.41	0	5	95	R	Tr	R	R				R			Tr	1			Tr	1				
355-U1456D-30R-1-A 16/16-SED	730.56	730.56	30	50	20	A	C	R		R			R	Tr	1	Tr	1	Tr	1	Tr	1	Tr	1	Tr	1
355-U1456D-30R-1-A 25/25-SED	730.65	730.65	0	30	70	C	R	R	Tr				Tr												
355-U1456D-30R-1-A 30/30-SED	730.7	730.7	5	70	25	C	C	R					R	Tr	1	Tr	1	Tr	1	Tr	1			Tr	1
355-U1456D-30R-2-A 28/28-SED	732.18	732.18	0	10	90	R		Tr																	
355-U1456D-30R-2-A 87/87-SED	732.77	732.77	0	35	65	R	Tr	Tr					Tr			Tr	1								
355-U1456D-30R-5-A 68/68-SED	737.08	737.08	0	5	95	Tr	Tr	Tr	R				Tr	Tr	1			Tr	1	Tr	1				
355-U1456D-30R-6-A 68/68-SED	738.58	738.58	0	5	95			Tr	Tr				Tr							Tr	1				
355-U1456D-31R-1-A 110/110-SED	741.2	741.2	0	10	90	Tr	Tr	C	R				Tr							A	3				
355-U1456D-31R-2-A 83/83-SED	742.43	742.43	60	30	10	C	R	R			Tr		R			Tr	1								
355-U1456D-31R-3-A 110/110-SED	744.2	744.2	0	40	60	C	R	R					Tr												
355-U1456D-31R-5-A 35/35-SED	746.45	746.45	0	10	90	Tr		Tr																	
355-U1456D-31R-6-A 56/56-SED	748.16	748.16	0	10	90	R		Tr																	
355-U1456D-31R-6-A 74/74-SED	748.34	748.34	0	70	30	C	C	R					R	Tr	1			Tr	1	Tr	1				
355-U1456D-32R-1-A 45/45-SED	750.25	750.25	75	10	15	C	R	R			Tr		C	Tr	1					Tr	1				
355-U1456D-32R-2-A 140/140-SED	752.7	752.7	0	10	90	TR	Tr	Tr					Tr												
355-U1456D-32R-3-A 127/127-SED	754.07	754.07	5	70	25	C	C	R		Tr	Tr		R					Tr	1	Tr	1				
355-U1456D-32R-3-A 88/88-SED	753.68	753.68	0	5	95	Tr	Tr	Tr					Tr												
355-U1456D-32R-5-A 21/21-SED	756.01	756.01	0	20	80	C	R	Tr					R			Tr	1	Tr	1						
355-U1456D-33R-1-A 93/93-SED	760.43	760.43	0	5	95	R	R	R	Tr				Tr	Tr	1	Tr	1								
355-U1456D-33R-2-A 57/57-SED	761.38	761.38	0	5	95	C	R	C	Tr				Tr	Tr	1										
355-U1456D-33R-3-A 89/89-SED	763.2	763.2	0	25	75	A	C	R					R	Tr	1										
355-U1456D-33R-4-A 145/145-SED	765.26	765.26	0	10	90	R	Tr	R					Tr			Tr	1	Tr	1						
355-U1456D-33R-5-A 34/34-SED	765.65	765.65	50	30	20	A	C	C		C	R		R			Tr	1	Tr	1						
355-U1456D-34R-1-A 97/97-SED	770.17	770.17	0	10	90	R	Tr	Tr					R							Tr	1				
355-U1456D-34R-5-A 97/97-SED	776.12	776.12	30	20	50	Tr	Tr	Tr					Tr									Tr	1		
355-U1456D-34R-6-A 11/11-SED	776.76	776.76	0	25	75	R	R	Tr					R			Tr	1								
355-U1456D-34R-6-A 45/45-SED	777.1	777.1	0	5	95	Tr	Tr						Tr							Tr	1			Tr	1
355-U1456D-35R-1-A 11/11-SED	779.01	779.01	0	20	80	R	Tr	R					R	Tr	1					Tr	1			Tr	1
355-U1456D-35R-2-A 26/26-SED	780.66	780.66	0	10	90	R	R	Tr					R			Tr	1			Tr	1				
355-U1456D-35R-3-A 42/42-SED	782.32	782.32	0	10	90	R	R	Tr					R							Tr	1				
355-U1456D-35R-4-A 24/24-SED	783.64	783.64	5	20	75	R	R	R					R												
355-U1456D-36R-1-A 12/12-SED	788.72	788.72	15	35	50	R	Tr	R					R			Tr	1			Tr	1				
355-U1456D-36R-2-A 107/107-SED	791.17	791.17	5	10	85	R	R	R					Tr	Tr	1	Tr	1								
355-U1456D-36R-2-A 85/85-SED	790.95	790.95	0	5	95			Tr					Tr			Tr	1								
355-U1456D-37R-1-A 65/65-SED	798.95	798.95	5	10	85	R	R	Tr					R			Tr	1			Tr	1				
355-U1456D-37R-2-A 14/14-SED	799.94	799.94	5	25	70	R	R	Tr					R							Tr	1				
355-U1456D-37R-4-A 40/40-SED	803.19	803.19	0	20	80	R	R	Tr					R			Tr	1			Tr	1				
355-U1456D-38R-1-A 100/100-SED	809	809	0	5	95	R	R						R			Tr	1			Tr	1				
355-U1456D-38R-2-A 108/108-SED	810.58	810.58	0	25	75	C	R	Tr					Tr	Tr	1	Tr	1								
355-U1456D-38R-3-A 38/38-SED	811.38	811.38	5	10	85	Tr	Tr	R					Tr			A	3								
355-U1456D-38R-3-A 53/53-SED	811.53	811.53	0	10	90	R	R	R					Tr												
355-U1456D-39R-1-A 23/23-SED	817.93	817.93	0	5	95	R	Tr	Tr	R				Tr			A	3								
355-U1456D-39R-2-A 65/65-SED	819.85	819.85	0	30	70	C	C	R		R			Tr												
355-U1456D-39R-3-A 46/46-SED	821.16	821.16	30	20	50	R	R	Tr	R				Tr									Tr	1		
355-U1456D-39R-4-A 80/80-SED	823	823	0	25	75	C	R	R	C				Tr			Tr	1								
355-U1456D-39R-CC-A 7/7-SED	823.41	823.41	5	25	75	R	Tr	R		R			R			Tr	1					Tr	1		
355-U1456D-40R-1-A 62/62-SED	828.02	828.02	0	25	75	R	R	Tr	Tr				Tr			Tr	1								
355-U1456D-40R-2-A 57/57-SED	829.31	829.31	5	60	35	A	C	C	Tr	R			R	Tr	1	Tr	1	Tr	1			Tr	1	Tr	1
355-U1456D-40R-3-A 42/42-SED	830.47	830.47	0	15	85	R		Tr	Tr				Tr	Tr	1	Tr	1								
355-U1456D-40R-4-A 23/23-SED	831.31	831.31	0	5	95	R	Tr	Tr	R			Tr	Tr	A	3										
355-U1456D-41R-1-A 10/10-SED	837.2	837.2	5	70	25			Tr					Tr					A	3						
355-U1456D-41R-2-A 120/120-SED	839.31	839.31	0	70	30	Tr	Tr																		
355-U1456D-41R-4-A 97/97-SED	841.97	841.97	0	70	30	R																			
355-U1456D-41R-6-A 15/15-SED	844.15	844.15	0	70	30	R																			
355-U1456D-41R-7-A 64/64-SED	845.94	845.94	0	20	80	C	C	R	R				Tr												
355-U1456D-41R-7-A 70/70-SED	846	846	0	20	80	C	C	R					Tr												
355-U1456D-42R-2-A 67/67-SED	848.97	848.97	50	40	10	Tr			Tr																
355-U1456D-42R-3-A 69/69-SED	850.49	850.49	0	25	75				Tr																
355-U1456D-42R-3-A 95/95-SED	850.75	850.75	5	60	35	R		A	C				Tr	Tr	1			Tr	1						
355-U1456D-42R-5-A 85/85-SED	853.65	853.65	5	20	75	Tr	Tr	Tr																	
355-U1456D-42R-6-A 99/99-SED	855.29	855.29	0	20	80	Tr	Tr	R	C				Tr					A	3						
355-U1456D-43R-3-A 50/50-SED	859.31	859.31	0	5	95	Tr		Tr	Tr				Tr												
355-U1456D-43R-3-A 72/72-SED	859.53	859.53	0	10	90	R		Tr																	
355-U1456D-43R-5-A 25/25-SED	861.09	861.09	0	25	75				C	R			R	Tr	1			Tr	1						
355-U1456D-43R-6-A 100/100-SED	863.34	863.34	0	5	95	Tr		R	Tr																
355-U1456D-45R-2-A 3/3-SED	870.54	870.54	0	5	95	Tr		R	C				Tr			A	3								
355-U1456D-45R-2-A 49/49-SED	871	871	0	15	85			Tr	Tr																
355-U1456D-45R-2-A 60/60-SED	871.11	871.11	10	20	70	Tr							Tr												
355-U1456D-45R-2-A 86/86-SED	871.37	871.37	0	15	75	Tr		R	C				Tr			A	3								
355-U1456D-45R-3-A 50/50-SED	872.51	872.51	5	10	85			Tr	Tr																
355-U1456D-45R-4-A 21/21-SED	873.74	873.74	60	25	15			R																	
355-U1456D-45R-6-A 30/30-SED	876.87	876.87	5	25	75	C	Tr	R	A				R					Tr	1					Tr	1
355-U1456D-46R-1-A 75/75-SED	879.65	879.65	0	5	95	Tr		R	A				Tr	A	3										
355-U1456D-46R-2-A 80/80-SED	881.18	881.18	0	15	85	R	Tr	Tr	C				R												
355-U1456D-46R-3-A 59/59-SED	882.45	882.45	40	35	25			R					Tr					A	3						
355-U1456D-47R-1-A 133/133-SED	889.93	889.93	10	50	30				R				A												
355-U1456D-47R-1-A 70/70-SED	889.3	889.3	0	5	95	Tr		Tr					Tr			A	3								
355-U1456D-48R-1-A 5/5-SED	898.35	898.35	10	25	65	R	R	Tr																	
355-U1456D-48R-2-A 83/83-SED	900.63	900.63	25	60	15	C	C	Tr			Tr		R	Tr	1	Tr	1			C	2			Tr	1
355-U1456D-48R-3-A 24/24-SED	901.54	901.54	50	25	25	R	R																		
355-U1456D-49R-1-A 100/100-SED34	909	909	0	5	95	R	R						Tr												
355-U1456D-49R-1-A 19/19-SED	908.19	908.19	0	5	95	R	R						Tr			A	3								

Sample	Hornblende relative abundance	Hornblende relative abundance rank	Actinolite relative abundance	Actinolite relative abundance rank	Glaucophane relative abundance	Glaucophane relative abundance rank	Augite relative abundance	Augite relative abundance rank	Other clinopyroxenes relative abundance	Other CPX relative abundance rank	Enstatite relative abundance	Enstatite relative abundance rank	Hypersthene relative abundance	Hypersthene relative abundance rank	Epidote relative abundance	Epidote relative abundance rank	Zoisite relative abundance	Zoisite relative abundance rank	Allanite relative abundance	Allanite relative abundance rank	Garnet relative abundance	Garnet relative abundance rank	Staurolite relative abundance	Staurolite relative abundance rank	Chloritoid relative abundance	Chloritoid relative abundance rank	Kyanite relative abundance	Kyanite relative abundance rank	Sillimanite relative abundance	Sillimanite relative abundance rank	Opaques relative abundance	Opaques relative abundance rank
355-U1456D-29R-2-A 51/51-SED	C	2																														
355-U1456D-30R-1-A 16/16-SED	A	3	C	2					Tr	1					C	2																
355-U1456D-30R-1-A 25/25-SED															A	3																
355-U1456D-30R-1-A 30/30-SED	C	2	Tr	1											C	2																
355-U1456D-30R-2-A 28/28-SED																																
355-U1456D-30R-2-A 87/87-SED	C	2																														
355-U1456D-30R-5-A 68/68-SED	C	2																														
355-U1456D-30R-6-A 68/68-SED	C	2													C	2																
355-U1456D-31R-1-A 110/110-SED																																
355-U1456D-31R-2-A 83/83-SED	C	2	Tr	1											C	2					Tr	1										
355-U1456D-31R-3-A 110/110-SED															A	3																
355-U1456D-31R-5-A 35/35-SED																																
355-U1456D-31R-6-A 56/56-SED																																
355-U1456D-31R-6-A 74/74-SED	C	2													C	2																
355-U1456D-32R-1-A 45/45-SED	C	2													C	2					Tr	1										
355-U1456D-32R-2-A 140/140-SED															A	3																
355-U1456D-32R-3-A 127/127-SED	C	2													C	2					C	2										
355-U1456D-32R-3-A 88/88-SED															Tr	1					Tr	1										
355-U1456D-32R-5-A 21/21-SED	C	2													C	2																
355-U1456D-33R-1-A 93/93-SED			Tr	1																	Tr	1										
355-U1456D-33R-2-A 57/57-SED			Tr	1											Tr	1																
355-U1456D-33R-3-A 89/89-SED	C	2			Tr	1									C	2					Tr	1										
355-U1456D-33R-4-A 145/145-SED	C	2													C	2																
355-U1456D-33R-5-A 34/34-SED	C	2													C	2					C	2			Tr	1						
355-U1456D-34R-1-A 97/97-SED															C	2																
355-U1456D-34R-5-A 97/97-SED	C	2													C	2																
355-U1456D-34R-6-A 11/11-SED	C	2																														
355-U1456D-34R-6-A 45/45-SED																																
355-U1456D-35R-1-A 11/11-SED																																
355-U1456D-35R-2-A 26/26-SED															Tr	1																
355-U1456D-35R-3-A 42/42-SED	C	2																			Tr	1										
355-U1456D-35R-4-A 24/24-SED	C	2													Tr	1																
355-U1456D-36R-1-A 12/12-SED	C	2																														
355-U1456D-36R-2-A 107/107-SED																																
355-U1456D-36R-2-A 85/85-SED																																
355-U1456D-37R-1-A 65/65-SED															C	2																
355-U1456D-37R-2-A 14/14-SED																																
355-U1456D-37R-4-A 40/40-SED	C	2																														
355-U1456D-38R-1-A 100/100-SED	C	2							Tr	1					C	2																
355-U1456D-38R-2-A 108/108-SED																																
355-U1456D-38R-3-A 38/38-SED																																
355-U1456D-38R-3-A 53/53-SED															A	3																
355-U1456D-39R-1-A 23/23-SED																																
355-U1456D-39R-2-A 65/65-SED															Tr	1					Tr	1										
355-U1456D-39R-3-A 46/46-SED	C	2	Tr	1																												
355-U1456D-39R-4-A 80/80-SED															C	2																
355-U1456D-39R-CC-A 7/7-SED	C	2	Tr	1											C	2															Tr	1
355-U1456D-40R-1-A 62/62-SED			Tr	1											C	2					C	2										
355-U1456D-40R-2-A 57/57-SED			C	2																	C	2									Tr	1
355-U1456D-40R-3-A 42/42-SED															C	2																
355-U1456D-40R-4-A 23/23-SED																																
355-U1456D-41R-1-A 10/10-SED																																
355-U1456D-41R-2-A 120/120-SED																																
355-U1456D-41R-4-A 97/97-SED																																
355-U1456D-41R-6-A 15/15-SED																																
355-U1456D-41R-7-A 64/64-SED	A	3																														
355-U1456D-41R-7-A 70/70-SED																					A	3										
355-U1456D-42R-2-A 67/67-SED																																
355-U1456D-42R-3-A 69/69-SED																																
355-U1456D-42R-3-A 95/95-SED	C	2	Tr	1											C	2																
355-U1456D-42R-5-A 85/85-SED																																
355-U1456D-42R-6-A 99/99-SED																																
355-U1456D-43R-3-A 50/50-SED															A	3																
355-U1456D-43R-3-A 72/72-SED																																
355-U1456D-43R-5-A 25/25-SED	C	2													C	2																
355-U1456D-43R-6-A 100/100-SED																																
355-U1456D-45R-2-A 3/3-SED																																
355-U1456D-45R-2-A 49/49-SED																																
355-U1456D-45R-2-A 60/60-SED																															A	3
355-U1456D-45R-2-A 86/86-SED																																
355-U1456D-45R-3-A 50/50-SED																																
355-U1456D-45R-4-A 21/21-SED																																
355-U1456D-45R-6-A 30/30-SED															C	2					C	2										
355-U1456D-46R-1-A 75/75-SED																																
355-U1456D-46R-2-A 80/80-SED															Tr	1					Tr	1										
355-U1456D-46R-3-A 59/59-SED																																
355-U1456D-47R-1-A 133/133-SED																															A	3
355-U1456D-47R-1-A 70/70-SED																																
355-U1456D-48R-1-A 5/5-SED																																
355-U1456D-48R-2-A 83/83-SED	Tr	1													C	2					Tr	1										
355-U1456D-48R-3-A 24/24-SED																																
355-U1456D-49R-1-A 100/100-SED34																																
355-U1456D-49R-1-A 19/19-SED																																

Sample	Fe sulfides (opaques) abundance	Fe-oxides abundance	Ti-oxides abundance	Carbonate, detrital abundance	Carbonate, authigenic abundance	Foraminifers abundance	Calcareous nannofossil abundance	Pteropod fragments abundance	Other calcareous bioclasts abundance	Radiolarians abundance	Diatoms abundance	Sponge spicule fragments abundance	Other biosiliceous fossil fragments abundance	Fish debris abundance	Plant debris abundance	Organic matter abundance	Total of group estimates [%]	Lithology prefix	Principal lithology	Lithology suffix	Lithology major or minor	Lithology comment	Smear slide comment
355-U1456D-29R-2-A 51/51-SED	R	R			C		C												clay	with nannofossils	major lithology		
355-U1456D-30R-1-A 16/16-SED	Tr	Tr		R			Tr		R									sandy	siltstone		minor lithology		Etched Cpx
355-U1456D-30R-1-A 25/25-SED	Tr	Tr							C						Tr			silty	clay		minor lithology		
355-U1456D-30R-1-A 30/30-SED	Tr	Tr					R		A									clayey	siltstone		minor lithology		Brown spinel
355-U1456D-30R-2-A 28/28-SED	Tr	Tr			Tr		D		R									nannofossil rich	nannofossil chalk		major lithology		
355-U1456D-30R-2-A 87/87-SED	Tr	Tr					A		C									nannofossil rich	claystone		minor lithology		
355-U1456D-30R-5-A 68/68-SED	R				Tr	Tr	A		R									nannofossil rich	claystone		major lithology		
355-U1456D-30R-6-A 68/68-SED	Tr	Tr					C		Tr										claystone	with nannofossils	major lithology		
355-U1456D-31R-1-A 110/110-SED	Tr	Tr			Tr		R		D										calcareous chalk		major lithology		
355-U1456D-31R-2-A 83/83-SED	Tr				A	R			Tr						Tr			silty	sandstone		minor lithology		
355-U1456D-31R-3-A 110/110-SED	R	Tr				Tr	C		A									silty	claystone		major lithology		
355-U1456D-31R-5-A 35/35-SED	Tr	Tr				Tr	A											nannofossil rich	claystone		major lithology		
355-U1456D-31R-6-A 56/56-SED	R								D										calcareous chalk		major lithology		
355-U1456D-31R-6-A 74/74-SED	Tr	Tr							A									clayey	siltstone		major lithology		
355-U1456D-32R-1-A 45/45-SED					A	Tr			R										sandstone		minor lithology		
355-U1456D-32R-2-A 140/140-SED	Tr	Tr					Tr		C										claystone		minor lithology		
355-U1456D-32R-3-A 127/127-SED	C	Tr			A	Tr			Tr										claystone		minor lithology		
355-U1456D-32R-3-A 88/88-SED	Tr	Tr					A		C									nannofossil rich	claystone		major lithology		
355-U1456D-32R-5-A 21/21-SED	Tr	Tr					C		C										claystone		major lithology		
355-U1456D-33R-1-A 93/93-SED	Tr	Tr					Tr		R										claystone		major lithology		
355-U1456D-33R-2-A 57/57-SED	Tr	Tr					Tr		R										claystone		major lithology		
355-U1456D-33R-3-A 89/89-SED	Tr	Tr			Tr				R									silty	claystone		major lithology		
355-U1456D-33R-4-A 145/145-SED	Tr	Tr			Tr	Tr	A		R									nannofossil rich	claystone		minor lithology		
355-U1456D-33R-5-A 34/34-SED	R	Tr		R		R	R											silty	sandstone		minor lithology		
355-U1456D-34R-1-A 97/97-SED	R				R		R												claystone		major lithology		
355-U1456D-34R-5-A 97/97-SED	C	Tr		Tr	Tr	C	R		Tr									sandy	claystone	with foraminifers	minor lithology		
355-U1456D-34R-6-A 11/11-SED	R				R		A											nannofossil rich	claystone	with silt	minor lithology		
355-U1456D-34R-6-A 45/45-SED	R				R	Tr	D					Tr						nannofossil rich	claystone		major lithology		
355-U1456D-35R-1-A 11/11-SED	R				C		R												claystone		minor lithology		
355-U1456D-35R-2-A 26/26-SED	C				R	Tr	C					Tr							claystone	with nannofossils	major lithology		
355-U1456D-35R-3-A 42/42-SED	C				R	Tr	A											nannofossil rich	claystone		minor lithology		
355-U1456D-35R-4-A 24/24-SED	C				C	C	C												claystone	with foraminifers	minor lithology		
355-U1456D-36R-1-A 12/12-SED	C				R	C	C												claystone	with foraminifers	minor lithology		
355-U1456D-36R-2-A 107/107-SED	R				R	R	A											nannofossil rich	claystone		major lithology		
355-U1456D-36R-2-A 85/85-SED	C		Tr		A														claystone	with nannofossils	minor lithology		
355-U1456D-37R-1-A 65/65-SED	R	Tr			C		R		Tr										claystone		major lithology		
355-U1456D-37R-2-A 14/14-SED	Tr				C	C	D		Tr									nannofossil rich	claystone	with foraminifers	minor lithology		
355-U1456D-37R-4-A 40/40-SED	R	Tr			C		C		Tr										claystone	with nannofossils	minor lithology		
355-U1456D-38R-1-A 100/100-SED	R				C		C												claystone	with nannofossils	major lithology		
355-U1456D-38R-2-A 108/108-SED	R	Tr			C		D											nannofossil rich	claystone		minor lithology		
355-U1456D-38R-3-A 38/38-SED	Tr				C	Tr	D											nannofossil rich	claystone		minor lithology		
355-U1456D-38R-3-A 53/53-SED	Tr				C	R	D											nannofossil rich	claystone		minor lithology		
355-U1456D-39R-1-A 23/23-SED	R	R							C										claystone		major lithology		
355-U1456D-39R-2-A 65/65-SED	R						C		R									silty	clay	with nannofossils	major lithology		
355-U1456D-39R-3-A 46/46-SED	R					C	R		R										claystone	with foraminifers	minor lithology		
355-U1456D-39R-4-A 80/80-SED	Tr	Tr							Tr									silty	claystone		minor lithology		
355-U1456D-39R-CC-A 7/7-SED	R	Tr							R									silty	claystone		minor lithology		
355-U1456D-40R-1-A 62/62-SED		Tr							Tr									silty	claystone		major lithology		
355-U1456D-40R-2-A 57/57-SED		Tr							R									clayey	siltstone		minor lithology		Reddish brown spinel
355-U1456D-40R-3-A 42/42-SED	R	Tr							C										claystone		major lithology		
355-U1456D-40R-4-A 23/23-SED	R						R												claystone		major lithology		
355-U1456D-41R-1-A 10/10-SED		Tr			D	C	A											nannofossil rich	calcilutite		major lithology	In VSD calcarenite	
355-U1456D-41R-2-A 120/120-SED	Tr				D	R	C		Tr										calcilutite	with nannofossils	major lithology	In VSD calcarenite	
355-U1456D-41R-4-A 97/97-SED					D	R	C												calcilutite	with nannofossils	major lithology	In VSD calcarenite	
355-U1456D-41R-6-A 15/15-SED	Tr				D	R	A											nannofossil rich	calcilutite		major lithology	In VSD calcarenite	
355-U1456D-41R-7-A 64/64-SED	R	R					R		R										claystone		minor lithology		
355-U1456D-41R-7-A 70/70-SED	C	R							C										claystone		minor lithology		
355-U1456D-42R-2-A 67/67-SED	Tr	Tr			C	C	A											nannofossil rich	calcarenite		major lithology	In VSD calcarenite	
355-U1456D-42R-3-A 69/69-SED	Tr				C		A											nannofossil rich	calcilutite		minor lithology	In VSD calcarenite	
355-U1456D-42R-3-A 95/95-SED		R			Tr													clayey	siltstone		minor lithology		
355-U1456D-42R-5-A 85/85-SED	R	Tr			A	Tr	R		R									silty	claystone		minor lithology		
355-U1456D-42R-6-A 99/99-SED	R								Tr										claystone		major lithology		
355-U1456D-43R-3-A 50/50-SED	Tr	Tr				R	D		C									nannofossil rich	claystone		minor lithology		
355-U1456D-43R-3-A 72/72-SED	Tr	Tr				R	A		R									nannofossil rich	claystone		minor lithology		
355-U1456D-43R-5-A 25/25-SED	Tr	R			Tr		Tr		R									silty	claystone		major lithology		
355-U1456D-43R-6-A 100/100-SED	R	R			Tr		D		Tr									nannofossil rich	claystone		major lithology		
355-U1456D-45R-2-A 3/3-SED	R	R			Tr		Tr												claystone		minor lithology		
355-U1456D-45R-2-A 49/49-SED	Tr	Tr				Tr	C		C										claystone	with nannofossils	minor lithology		
355-U1456D-45R-2-A 60/60-SED	Tr	Tr			Tr	C	C		R										claystone	with foraminifers	minor lithology		
355-U1456D-45R-2-A 86/86-SED	Tr	Tr	Tr		Tr														claystone		major lithology		
355-U1456D-45R-3-A 50/50-SED	R	Tr				R	A		C									nannofossil rich	calcilutite		major lithology		
355-U1456D-45R-4-A 21/21-SED	R					C			C									nannofossil rich	calcarenite		major lithology		
355-U1456D-45R-6-A 30/30-SED	R	Tr							R									silty	claystone		major lithology		
355-U1456D-46R-1-A 75/75-SED	R	R							Tr										claystone		minor lithology		
355-U1456D-46R-2-A 80/80-SED	R	R			R														claystone		major lithology		
355-U1456D-46R-3-A 59/59-SED	C	Tr				C	R		A									silty	sandstone	with foraminifers	minor lithology		
355-U1456D-47R-1-A 133/133-SED						Tr	C		R										siltstone		minor lithology		Big crystals of magnetite 10-20 microns
355-U1456D-47R-1-A 70/70-SED	R	R			Tr		R								Tr				claystone		major lithology		
355-U1456D-48R-1-A 5/5-SED	R				R	C	A		R			Tr						nannofossil rich	claystone	with foraminifers	minor lithology		authigenic xx
355-U1456D-48R-2-A 83/83-SED					Tr	R	R									C		sandy	siltstone		major lithology		authigenic xx
355-U1456D-48R-3-A 24/24-SED	R			Tr		A	C		C									foraminifer rich	claystone		minor lithology		authigenic xx
355-U1456D-49R-1-A 100/100-SED34	R				Tr		C												claystone	with nannofossils	minor lithology		
355-U1456D-49R-1-A 19/19-SED	R						R												claystone		major lithology		

Sample	Top Depth [m]	Bottom Depth [m]	Sand texture [%]	Silt texture [%]	Clay texture [%]	Quartz abundance	Feldspar abundance	Mica abundance	Clay minerals abundance	Lithic grains abundance	Glauconite abundance	Vitric grains abundance	Heavy minerals abundance
355-U1456D-49R-2-A 80/80-SED35	910.23	910.23	30	50	20			Tr					
355-U1456D-50R-1-A 40/40-SED	918.1	918.1	0	30	70	R	R	Tr					Tr
355-U1456D-50R-2-A 124/124-SED69	920.45	920.45	0	80	20	Tr	Tr						Tr
355-U1456D-50R-3-A 20/20-SED70	920.91	920.91	50	40	10	R	R						Tr
355-U1456D-50R-4-A 25/25-SED71	922.46	922.46	0	25	75	R	R	Tr			Tr		Tr
355-U1456D-51R-1-A 66/66-SED	928.06	928.06	20	30	50	R	R	R					
355-U1456D-51R-5-A 37/37-SED	933.77	933.77	0	15	85	R	R	Tr					
355-U1456D-51R-5-A 88/88-SED	934.28	934.28	0	5	95	Tr	Tr	Tr					Tr
355-U1456D-51R-6-A 5/5-SED	934.95	934.95	0	10	90	R	R	Tr					Tr
355-U1456D-52R-1-A 110/110-SED	938.2	938.2	0	10	90	R	Tr	R					R
355-U1456D-52R-2-A 102/102-SED	939.62	939.62	5	25	70	C	R	R			Tr		R
355-U1456D-52R-3-A 80/80-SED	940.9	940.9	0	10	90	R	Tr	R	Tr				Tr
355-U1456D-52R-6-A 44/44-SED	945.07	945.07	0	20	80	C	R	R	C				Tr
355-U1456D-52R-7-A 50/50-SED	946.14	946.14	0	15	85	C		R					Tr
355-U1456D-53R-1-A 69/69-SED	947.49	947.49	0	70	30	C	R	R	C				Tr
355-U1456D-53R-2-A 66/66-SED	948.96	948.96	0	15	85	R		R					Tr
355-U1456D-53R-3-A 128/128-SED	951.08	951.08	0	30	70	R	Tr	C					R
355-U1456D-53R-4-A 72/72-SED	952.02	952.02	45	30	25	C	C	C		R	Tr		C
355-U1456D-53R-5-A 70/70-SED	953.5	953.5	0	5	95	Tr		C	C				Tr
355-U1456D-54R-1-A 7/7-SED	956.57	956.57	10	30	60	R	R	C					Tr
355-U1456D-54R-2-A 121/121-SED	959.21	959.21	0	40	60	R	Tr	R	C				Tr
355-U1456D-54R-2-A 130/130-SED	959.3	959.3	0	10	90	Tr		R	R				Tr
355-U1456D-54R-2-A 61/61-SED	958.61	958.61	0	50	95			Tr	C				Tr
355-U1456D-56R-1-A 26/26-SED	972.46	972.46	0	15	85			C					Tr
355-U1456D-56R-2-A 39/39-SED	972.97	972.97	20	25	55	Tr		R					Tr
355-U1456D-56R-2-A 56/56-SED	973.14	973.14	20	25	55	Tr		R					
355-U1456D-56R-3-A 65/65-SED	974.73	974.73	20	30	50			Tr					
355-U1456D-56R-4-A 60/60-SED	976.15	976.15	20	25	55			Tr					
355-U1456D-57R-2-A 50/50-SED	980.1	980.1	25	20	55			Tr					Tr
355-U1456D-57R-5-A 65/65-SED	984.29	984.29	25	25	50								
355-U1456D-57R-7-A 76/76-SED	986.61	986.61	0	30	70	R	Tr	Tr					
355-U1456D-58R-1-A 37/37-SED	987.77	987.77	15	25	60	Tr	Tr	Tr					Tr
355-U1456D-58R-1-A 99/99-SED	988.39	988.39	75	20	5							D	
355-U1456D-58R-2-A 36/36-SED	989.09	989.09	0	15	85								Tr
355-U1456D-59R-6-A 69/69-SED	1003.41	1003.41	20	30	50			Tr					
355-U1456D-59R-7-A 60/60-SED	1004.17	1004.17	30	20	50								
355-U1456D-60R-1-A 35/35-SED	1006.15	1006.15	0	20	80	Tr	Tr						
355-U1456D-60R-1-A 75/75-SED	1006.55	1006.55	5	20	75	R	R	Tr					
355-U1456D-60R-2-A 58/58-SED	1007.87	1007.87	15	55	30	Tr	Tr	Tr					
355-U1456D-60R-2-A 85/85-SED	1008.14	1008.14	20	30	50								
355-U1456D-61R-1-A 50/50-SED	1015.6	1015.6	0	5	95	Tr	Tr						
355-U1456D-61R-1-A 80/80-SED	1015.9	1015.9	10	20	70			R	C				
355-U1456D-61R-3-A 26/26-SED	1017.71	1017.71	15	15	70	Tr	Tr	Tr					Tr

Sample	Zircon relative abundance	Zircon relative abundance rank	Tourmaline relative abundance	Tourmaline relative abundance rank	Rutile relative abundance	Rutile relative abundance rank	Apatite relative abundance	Apatite relative abundance rank	Titanite relative abundance	Titanite relative abundance rank	Spinel relative abundance	Spinel relative abundance rank	Hornblende relative abundance	Hornblende relative abundance rank	Actinolite relative abundance	Actinolite relative abundance rank	Glaucophane relative abundance	Glaucophane relative abundance rank	Augite relative abundance	Augite relative abundance rank	Other clinopyroxenes relative abundance	Other CPX relative abundance rank	Enstatite relative abundance	Enstatite relative abundance rank	Hypersthene relative abundance	Hypersthene relative abundance rank
355-U1456D-49R-2-A 80/80-SED35																										
355-U1456D-50R-1-A 40/40-SED			Tr	1																						
355-U1456D-50R-2-A 124/124-SED69			A	3																						
355-U1456D-50R-3-A 20/20-SED70																										
355-U1456D-50R-4-A 25/25-SED71			A	3																						
355-U1456D-51R-1-A 66/66-SED																										
355-U1456D-51R-5-A 37/37-SED																										
355-U1456D-51R-5-A 88/88-SED							A	3																		
355-U1456D-51R-6-A 5/5-SED			Tr	1	Tr	1																				
355-U1456D-52R-1-A 110/110-SED			C	2			Tr	1					C	2												
355-U1456D-52R-2-A 102/102-SED	Tr	1	C	2			Tr	1	Tr	1	C	2	Tr	1												
355-U1456D-52R-3-A 80/80-SED					Tr	1																				
355-U1456D-52R-6-A 44/44-SED			C	2							Tr	1														
355-U1456D-52R-7-A 50/50-SED			C	2							Tr	1														
355-U1456D-53R-1-A 69/69-SED			C	2			Tr	1					Tr	1												
355-U1456D-53R-2-A 66/66-SED					Tr	1																				
355-U1456D-53R-3-A 128/128-SED			C	2	Tr	1																				
355-U1456D-53R-4-A 72/72-SED			C	2					Tr	1																
355-U1456D-53R-5-A 70/70-SED																										
355-U1456D-54R-1-A 7/7-SED																										
355-U1456D-54R-2-A 121/121-SED			Tr	1																						
355-U1456D-54R-2-A 130/130-SED																										
355-U1456D-54R-2-A 61/61-SED																										
355-U1456D-56R-1-A 26/26-SED	Tr	1	Tr	1	Tr	1																				
355-U1456D-56R-2-A 39/39-SED									Tr	1																
355-U1456D-56R-2-A 56/56-SED																										
355-U1456D-56R-3-A 65/65-SED																										
355-U1456D-56R-4-A 60/60-SED																										
355-U1456D-57R-2-A 50/50-SED			A	3																						
355-U1456D-57R-5-A 65/65-SED																										
355-U1456D-57R-7-A 76/76-SED																										
355-U1456D-58R-1-A 37/37-SED			A	3																						
355-U1456D-58R-1-A 99/99-SED																										
355-U1456D-58R-2-A 36/36-SED			A	3																						
355-U1456D-59R-6-A 69/69-SED																										
355-U1456D-59R-7-A 60/60-SED																										
355-U1456D-60R-1-A 35/35-SED																										
355-U1456D-60R-1-A 75/75-SED																										
355-U1456D-60R-2-A 58/58-SED																										
355-U1456D-60R-2-A 85/85-SED																										
355-U1456D-61R-1-A 50/50-SED																										
355-U1456D-61R-1-A 80/80-SED																										
355-U1456D-61R-3-A 26/26-SED			Tr	1	Tr	1																				

Sample	Epidote relative abundance	Epidote relative abundance rank	Zoisite relative abundance	Zoisite relative abundance rank	Allanite relative abundance	Allanite relative abundance rank	Garnet relative abundance	Garnet relative abundance rank	Staurolite relative abundance	Staurolite relative abundance rank	Chloritoid relative abundance	Chloritoid relative abundance rank	Kyanite relative abundance	Kyanite relative abundance rank	Sillimanite relative abundance	Sillimanite relative abundance rank	Opaques relative abundance	Opaques relative abundance rank
355-U1456D-49R-2-A 80/80-SED35																		
355-U1456D-50R-1-A 40/40-SED	Tr	1																
355-U1456D-50R-2-A 124/124-SED69																		
355-U1456D-50R-3-A 20/20-SED70																		
355-U1456D-50R-4-A 25/25-SED71																		
355-U1456D-51R-1-A 66/66-SED																		
355-U1456D-51R-5-A 37/37-SED																		
355-U1456D-51R-5-A 88/88-SED																		
355-U1456D-51R-6-A 5/5-SED																		
355-U1456D-52R-1-A 110/110-SED	A	3																
355-U1456D-52R-2-A 102/102-SED							Tr	1									Tr	1
355-U1456D-52R-3-A 80/80-SED	C	2															Tr	1
355-U1456D-52R-6-A 44/44-SED																		
355-U1456D-52R-7-A 50/50-SED	C	2																
355-U1456D-53R-1-A 69/69-SED	C	2															Tr	1
355-U1456D-53R-2-A 66/66-SED																	Tr	1
355-U1456D-53R-3-A 128/128-SED	C	2																
355-U1456D-53R-4-A 72/72-SED																	A	3
355-U1456D-53R-5-A 70/70-SED	A	3																
355-U1456D-54R-1-A 7/7-SED	Tr	1					Tr	1									C	2
355-U1456D-54R-2-A 121/121-SED							Tr	1										
355-U1456D-54R-2-A 130/130-SED	Tr	1					Tr	1										
355-U1456D-54R-2-A 61/61-SED	Tr	1															Tr	1
355-U1456D-56R-1-A 26/26-SED	C	2																
355-U1456D-56R-2-A 39/39-SED	Tr	1																
355-U1456D-56R-2-A 56/56-SED																		
355-U1456D-56R-3-A 65/65-SED																		
355-U1456D-56R-4-A 60/60-SED																		
355-U1456D-57R-2-A 50/50-SED																		
355-U1456D-57R-5-A 65/65-SED																		
355-U1456D-57R-7-A 76/76-SED																		
355-U1456D-58R-1-A 37/37-SED																		
355-U1456D-58R-1-A 99/99-SED																		
355-U1456D-58R-2-A 36/36-SED																		
355-U1456D-59R-6-A 69/69-SED																		
355-U1456D-59R-7-A 60/60-SED																		
355-U1456D-60R-1-A 35/35-SED																		
355-U1456D-60R-1-A 75/75-SED																		
355-U1456D-60R-2-A 58/58-SED																		
355-U1456D-60R-2-A 85/85-SED																		
355-U1456D-61R-1-A 50/50-SED																		
355-U1456D-61R-1-A 80/80-SED																		
355-U1456D-61R-3-A 26/26-SED																		

Sample	Fe sulfides (opaques) abundance	Fe-oxides abundance	Ti-oxides abundance	Carbonate, detrital abundance	Carbonate, authigenic abundance	Foraminifers abundance	Calcareous nannofossil abundance	Pteropod fragments abundance	Other calcareous bioclasts abundance	Radiolarians abundance	Diatoms abundance	Sponge spicule fragments abundance	Other biosiliceous fossil fragments abundance	Fish debris abundance	Plant debris abundance	Organic matter abundance	Total of group estimates [%]	Lithology prefix	Principal lithology	Lithology suffix	Lithology major or minor	Lithology comment	Smear slide comment
355-U1456D-49R-2-A 80/80-SED35	R				R	A	C		C									sandy	siltstone	with foraminifers	minor lithology		
355-U1456D-50R-1-A 40/40-SED	C				R		C												claystone	with nannofossils	major lithology		
355-U1456D-50R-2-A 124/124-SED69	C			R		A	C		C			C						foraminifer rich	siltstone		minor lithology		
355-U1456D-50R-3-A 20/20-SED70	R				A	A	C					R						foraminifer rich	calcarenite		minor lithology		
355-U1456D-50R-4-A 25/25-SED71	C	Tr					C		Tr										claystone	with nannofossils	minor lithology		
355-U1456D-51R-1-A 66/66-SED	R				R	C	D		R			R						nannofossil rich	siltstone	with foraminifers	minor lithology		
355-U1456D-51R-5-A 37/37-SED	R				C	Tr	C					Tr							claystone	with nannofossils	major lithology		
355-U1456D-51R-5-A 88/88-SED	R	R			C		R					R							claystone		minor lithology		
355-U1456D-51R-6-A 5/5-SED	R	Tr			R		D		Tr									nannofossil rich	claystone		minor lithology		Authigenic exagonal crystals, phosphate/carbonate?
355-U1456D-52R-1-A 110/110-SED	C	R			R		R												claystone		minor lithology		
355-U1456D-52R-2-A 102/102-SED	R		Tr	C	R		R											silty	claystone		minor lithology		
355-U1456D-52R-3-A 80/80-SED	R	Tr				Tr	C		R										claystone		major lithology		
355-U1456D-52R-6-A 44/44-SED	C		Tr						C										claystone	with silt	minor lithology		
355-U1456D-52R-7-A 50/50-SED	Tr						C		A										claystone		minor lithology		
355-U1456D-53R-1-A 69/69-SED	R	Tr	R		Tr				C						Tr			clayey	siltstone		minor lithology		
355-U1456D-53R-2-A 66/66-SED	Tr		Tr				R		R										claystone		major lithology		
355-U1456D-53R-3-A 128/128-SED	R	Tr	Tr						C									silty	claystone		major lithology		
355-U1456D-53R-4-A 72/72-SED	C	Tr	Tr	Tr														silty	sandstone	with foraminifers	minor lithology		
355-U1456D-53R-5-A 70/70-SED	R	Tr	Tr																claystone	with nannofossils	major lithology		
355-U1456D-54R-1-A 7/7-SED			Tr	Tr		Tr	R								Tr			silty	claystone		minor lithology		
355-U1456D-54R-2-A 121/121-SED	Tr	Tr					C		A									silty	claystone	with nannofossils	minor lithology		
355-U1456D-54R-2-A 130/130-SED	R								C										claystone		minor lithology		
355-U1456D-54R-2-A 61/61-SED	R	Tr					C		R										claystone	with nannofossils	major lithology		
355-U1456D-56R-1-A 26/26-SED	R	Tr	Tr						C										claystone		minor lithology		
355-U1456D-56R-2-A 39/39-SED	R			C	R	C	D											nannofossil rich	calcarenite	with foraminifers	minor lithology		
355-U1456D-56R-2-A 56/56-SED	Tr					C	A		R									nannofossil rich	calcarenite	with foraminifers	minor lithology		
355-U1456D-56R-3-A 65/65-SED	Tr			R	R	A	D											nannofossil rich	calcarenite	with foraminifers	major lithology		
355-U1456D-56R-4-A 60/60-SED	Tr			R	R	C	D		R						Tr			nannofossil rich	calcarenite	with foraminifers	major lithology		
355-U1456D-57R-2-A 50/50-SED				C	R	C	D		R									nannofossil rich	calcarenite	with foraminifers	major lithology		
355-U1456D-57R-5-A 65/65-SED				C	R	C	D								R			nannofossil rich	calcarenite	with foraminifers	major lithology	Matrix of conglomerate	
355-U1456D-57R-7-A 76/76-SED	Tr	Tr			C		D											nannofossil rich	claystone	with authigenic carb	minor lithology		
355-U1456D-58R-1-A 37/37-SED	Tr			R	C	C	D											nannofossil rich	claystone	with foraminifers	minor lithology		
355-U1456D-58R-1-A 99/99-SED																			basalt		minor lithology	Black rock fragment crushed and mounted	Weathered volcanic glass
355-U1456D-58R-2-A 36/36-SED	Tr				R		D											nannofossil rich	claystone		minor lithology		
355-U1456D-59R-6-A 69/69-SED	R	R			C	C	D								Tr			nannofossil rich	claystone	with foraminifers	major lithology		
355-U1456D-59R-7-A 60/60-SED	R				D		R											carbonate	claystone		minor lithology		
355-U1456D-60R-1-A 35/35-SED	R				D		A								Tr			nannofossil rich	calcarenite		major lithology		
355-U1456D-60R-1-A 75/75-SED	R	R			C											Tr			claystone		minor lithology		
355-U1456D-60R-2-A 58/58-SED	R	R			C	C	D											nannofossil rich	calcarenite	with foraminifers	minor lithology		
355-U1456D-60R-2-A 85/85-SED	R				D	C	A												calcarenite	with nannofossils	minor lithology		
355-U1456D-61R-1-A 50/50-SED	R	Tr			R		D								Tr			nannofossil rich	claystone		minor lithology		
355-U1456D-61R-1-A 80/80-SED	R	R			R	R	D								Tr			nannofossil rich	claystone		minor lithology		
355-U1456D-61R-3-A 26/26-SED	R				R	C	D		Tr						Tr			nannofossil rich	claystone	with foraminifers	minor lithology		

Sample	Top Depth [m]	Bottom Depth [m]	Sand texture [%]	Silt texture [%]	Clay texture [%]	Quartz abundance	Feldspar abundance	Mica abundance	Clay minerals abundance	Lithic grains abundance	Glauconite abundance	Vitric grains abundance	Heavy minerals abundance
355-U1456E-3R-1-A 27/27-SED	970.27	970.27	0	20	80	R		R					Tr
355-U1456E-3R-1-A 38/38-SED	970.38	970.38	5	15	80	Tr		Tr					Tr
355-U1456E-3R-4-A 40/40-SED	974.79	974.79	5	15	80	Tr		Tr					Tr
355-U1456E-3R-4-A 60/60-SED	974.99	974.99	10	20	70			Tr	Tr				Tr
355-U1456E-4R-1-A 30/30-SED	976.9	976.9	0	25	75	R	R	R	C				Tr
355-U1456E-4R-1-A 71/71-SED	977.31	977.31	40	35	25			Tr	Tr				
355-U1456E-4R-3-A 32/32-SED	979.36	979.36	40	30	30			R					
355-U1456E-4R-4-A 14/14-SED	980.19	980.19	10	20	70			R					
355-U1456E-4R-4-A 30/30-SED	980.35	980.35	30	60	10			C					
355-U1456E-5R-1-A 63/63-SED	981.23	981.23	5	15	80	R	R						
355-U1456E-5R-1-A 96/96-SED	981.56	981.56	25	15	60								
355-U1456E-5R-2-A 101/101-SED	983.01	983.01	20	30	50	R	R						
355-U1456E-5R-2-A 139/139-SED	983.39	983.39	10	20	70								
355-U1456E-5R-2-A 45/45-SED	982.45	982.45	15	25	60	Tr	Tr	Tr					
355-U1456E-5R-3-A 102/102-SED	984.44	984.44	5	15	80			Tr					
355-U1456E-5R-3-A 21/21-SED	983.63	983.63	15	30	55			Tr					
355-U1456E-6R-1-A 61/61-SED	990.21	990.21	0	25	75	Tr	Tr						
355-U1456E-6R-2-A 90/90-SED	991.88	991.88	10	30	60	Tr	Tr	Tr					
355-U1456E-6R-3-A 132/132-SED	993.69	993.69	10	30	60								
355-U1456E-6R-3-A 49/49-SED	992.86	992.86	10	30	60	Tr	Tr	Tr					
355-U1456E-6R-CC-A 25/25-SED	994.64	994.64	10	30	60								
355-U1456E-7R-1-A 108/108-SED	999.78	999.78	10	20	70								
355-U1456E-7R-1-A 24/24-SED	998.94	998.94	10	30	60	Tr	Tr						
355-U1456E-7R-1-A 39/39-SED	999.09	999.09	10	20	70								
355-U1456E-7R-1-A 89/89-SED	999.59	999.59	10	25	65			Tr					
355-U1456E-7R-2-A 80/80-SED	1000.89	1000.89	5	10	85	Tr	Tr						
355-U1456E-7R-CC-PAL-SED	1002.27	1002.27	10	50	40								
355-U1456E-8R-4-A 20/20-SED	1011.75	1011.75	0	0	100				A			D	
355-U1456E-8R-4-A 4/4-SED	1011.59	1011.59	0	5	95		Tr	Tr	A				
355-U1456E-8R-4-A 63/63-SED	1012.18	1012.18	0	0	100		Tr			A			
355-U1456E-8R-4-A 84/84-SED	1012.39	1012.39	0	0	100					A			
355-U1456E-9R-1-A 24/24-SED	1017.34	1017.34	10	20	70								
355-U1456E-9R-2-A 34/34-SED	1018.75	1018.75	15	15	70			Tr					
355-U1456E-9R-2-A 90/90-SED	1019.31	1019.31	20	20	60	Tr	Tr						
355-U1456E-9R-3-A 45/45-SED	1019.96	1019.96	20	30	50							Tr	
355-U1456E-10R-1-A 34/34-SED	1026.64	1026.64	15	20	75							Tr	
355-U1456E-10R-1-A 95/95-SED	1027.25	1027.25	5	10	85								
355-U1456E-10R-2-A 102/102-SED	1028.73	1028.73	5	25	70							Tr	Tr
355-U1456E-10R-2-A 23/23-SED	1027.94	1027.94	0	20	80				R				
355-U1456E-10R-3-A 46/46-SED	1029.63	1029.63	5	15	80								
355-U1456E-10R-4-A 63/63-SED	1031.14	1031.14	0	0	100								
355-U1456E-11R-1-A 50/50-SED	1036	1036	0	50	50								
355-U1456E-11R-4-A 86/86-SED	1040.59	1040.59	10	30	60								
355-U1456E-12R-1-A 20/20-SED	1044.9	1044.9	5	20	75								
355-U1456E-12R-2-A 76/76-SED	1046.89	1046.89	5	25	70	Tr	Tr	Tr					
355-U1456E-13R-CC-A 18/18-SED	1055.21	1055.21	5	15	80								
355-U1456E-14R-1-A 10/10-SED	1063.2	1063.2	0	0	100				A				
355-U1456E-14R-1-A 76/76-SED	1063.86	1063.86	0	15	85			Tr	C			R	
355-U1456E-14R-2-A 115/115-SED	1065.57	1065.57										D	
355-U1456E-14R-2-A 32/32-SED	1064.74	1064.74	5	15	80								
355-U1456E-14R-2-A 57/57-SED	1064.99	1064.99	0	0	100							D	Tr
355-U1456E-15R-1-A 9/9-SED	1072.49	1072.49	5	25	70								
355-U1456E-15R-1-A 92/92-SED	1073.32	1073.32	0	20	80								
355-U1456E-16R-1-A 87/87-SED	1073.77	1073.77	15	20	65			Tr	R				Tr
355-U1456E-16R-3-A 40/40-SED	1076.3	1076.3	20	30	50	Tr		Tr	Tr				
355-U1456E-16R-5-A 68/68-SED	1078.82	1078.82	10	20	70	Tr	Tr	Tr					
355-U1456E-17R-2-A 38/38-SED	1082.98	1082.98	10	40	50								
355-U1456E-17R-4-A 73/73-SED	1085.7	1085.7	40	30	30	Tr	Tr						
355-U1456E-17R-5-A 80/80-SED	1087.24	1087.24	0	10	90	Tr	Tr	Tr	C				Tr
355-U1456E-17R-6-A 60/60-SED	1088.4	1088.4	0	10	90	Tr	Tr		C				
355-U1456E-17R-CC-PAL-SED	1090.32	1090.37	0	5	95			Tr	R				Tr
355-U1456E-18R-1-A 62/62-SED	1091.42	1091.42	10	20	70								
355-U1456E-19R-2-A 29/29-SED	1101.77	1101.77	60	20	10	R	R	C	Tr	A			R
355-U1456E-19R-2-A 32/32-SED	1101.8	1101.8	0	25	75	R	R	R	C				Tr
355-U1456E-19R-2-A 8/8-SED	1101.56	1101.56	15	30	55								
355-U1456E-19R-2-A 83/83-SED	1102.31	1102.31	60	30	10	C	C	C		C	R		C
355-U1456E-19R-3-A 50/50-SED	1102.93	1102.93	30	60	10	C	C	C		A			R
355-U1456E-19R-3-A 70/70-SED	1103.13	1103.13	60	30	10	C	C	C	C	C			C
355-U1456E-19R-4-A 46/46-SED	1103.73	1103.73	0	15	85	C	C	Tr					
355-U1456E-19R-4-A 7/7-SED	1103.34	1103.34	60	30	10	C	C	C	C	A			R
355-U1456E-19R-4-A 97/97-SED	1104.24	1104.24	30	60	10	C	C	C		C			Tr

Sample	Zircon relative abundance	Zircon relative abundance rank	Tourmaline relative abundance	Tourmaline relative abundance rank	Rutile relative abundance	Rutile relative abundance rank	Apatite relative abundance	Apatite relative abundance rank	Titanite relative abundance	Titanite relative abundance rank	Spinel relative abundance	Spinel relative abundance rank	Hornblende relative abundance	Hornblende relative abundance rank	Actinolite relative abundance	Actinolite relative abundance rank	Glaucophane relative abundance	Glaucophane relative abundance rank	Augite relative abundance	Augite relative abundance rank	Other clinopyroxenes relative abundance	Other CPX relative abundance rank	Enstatite relative abundance	Enstatite relative abundance rank	Hypersthene relative abundance	Hypersthene relative abundance rank	Epidote relative abundance	Epidote relative abundance rank	Zoisite relative abundance	Zoisite relative abundance rank	Allanite relative abundance	Allanite relative abundance rank	Garnet relative abundance	Garnet relative abundance rank	Staurolite relative abundance	Staurolite relative abundance rank	Chloritoid relative abundance	Chloritoid relative abundance rank	Kyanite relative abundance	Kyanite relative abundance rank	Sillimanite relative abundance	Sillimanite relative abundance rank
355-U1456E-3R-1-A 27/27-SED			C	2	Tr	1																																				
355-U1456E-3R-1-A 38/38-SED																																										
355-U1456E-3R-4-A 40/40-SED			Tr	1									Tr	1																							C	2				
355-U1456E-3R-4-A 60/60-SED					Tr	1																																				
355-U1456E-4R-1-A 30/30-SED									Tr	1											Tr	1					Tr	1														
355-U1456E-4R-1-A 71/71-SED																																										
355-U1456E-4R-3-A 32/32-SED																																										
355-U1456E-4R-4-A 14/14-SED																																										
355-U1456E-4R-4-A 30/30-SED																																										
355-U1456E-5R-1-A 63/63-SED																																										
355-U1456E-5R-1-A 96/96-SED																																										
355-U1456E-5R-2-A 101/101-SED																																										
355-U1456E-5R-2-A 139/139-SED																																										
355-U1456E-5R-2-A 45/45-SED																																										
355-U1456E-5R-3-A 102/102-SED																																										
355-U1456E-5R-3-A 21/21-SED																																										
355-U1456E-6R-1-A 61/61-SED																																										
355-U1456E-6R-2-A 90/90-SED																																										
355-U1456E-6R-3-A 132/132-SED																																										
355-U1456E-6R-3-A 49/49-SED																																										
355-U1456E-6R-CC-A 25/25-SED																																										
355-U1456E-7R-1-A 108/108-SED																																										
355-U1456E-7R-1-A 24/24-SED																																										
355-U1456E-7R-1-A 39/39-SED																																										
355-U1456E-7R-1-A 89/89-SED																																										
355-U1456E-7R-2-A 80/80-SED																																										
355-U1456E-7R-CC-PAL-SED																																										
355-U1456E-8R-4-A 20/20-SED																																										
355-U1456E-8R-4-A 4/4-SED																																										
355-U1456E-8R-4-A 63/63-SED																																										
355-U1456E-8R-4-A 84/84-SED																																										
355-U1456E-9R-1-A 24/24-SED																																										
355-U1456E-9R-2-A 34/34-SED																																										
355-U1456E-9R-2-A 90/90-SED																																										
355-U1456E-9R-3-A 45/45-SED																																										
355-U1456E-10R-1-A 34/34-SED																																										
355-U1456E-10R-1-A 95/95-SED																																										
355-U1456E-10R-2-A 102/102-SED					Tr	1																																				
355-U1456E-10R-2-A 23/23-SED																																										
355-U1456E-10R-3-A 46/46-SED																																										
355-U1456E-10R-4-A 63/63-SED																																										
355-U1456E-11R-1-A 50/50-SED																																										
355-U1456E-11R-4-A 86/86-SED																																										
355-U1456E-12R-1-A 20/20-SED																																										
355-U1456E-12R-2-A 76/76-SED																																										
355-U1456E-13R-CC-A 18/18-SED																																										
355-U1456E-14R-1-A 10/10-SED																																										
355-U1456E-14R-1-A 76/76-SED																																										
355-U1456E-14R-2-A 115/115-SED																																										
355-U1456E-14R-2-A 32/32-SED																																										
355-U1456E-14R-2-A 57/57-SED																																										
355-U1456E-15R-1-A 9/9-SED																																										
355-U1456E-15R-1-A 92/92-SED																																										
355-U1456E-16R-1-A 87/87-SED									Tr	1																																
355-U1456E-16R-3-A 40/40-SED																																										
355-U1456E-16R-5-A 68/68-SED																																										
355-U1456E-17R-2-A 38/38-SED																																										
355-U1456E-17R-4-A 73/73-SED																																										
355-U1456E-17R-5-A 80/80-SED	Tr	1																																								
355-U1456E-17R-6-A 60/60-SED																																										
355-U1456E-17R-CC-PAL-SED					Tr	1																																				
355-U1456E-18R-1-A 62/62-SED																																										
355-U1456E-19R-2-A 29/29-SED													C	2													C	2					C	2								
355-U1456E-19R-2-A 32/32-SED	Tr	1																																								
355-U1456E-19R-2-A 8/8-SED																																										
355-U1456E-19R-2-A 83/83-SED							Tr	1	Tr	1			A	3													C	2					Tr	1			Tr	1				
355-U1456E-19R-3-A 50/50-SED	Tr	1	Tr	1									C	2													C	2					Tr	1								
355-U1456E-19R-3-A 70/70-SED	Tr	1			Tr	1			Tr	1			A	3													C	2					C	2								
355-U1456E-19R-4-A 46/46-SED																																										
355-U1456E-19R-4-A 7/7-SED	Tr	1			Tr	1							C	2													Tr	1					Tr	1								
355-U1456E-19R-4-A 97/97-SED	Tr	1									Tr	1															Tr	1														

Sample	Opaques relative abundance	Opaques relative abundance rank	Fe sulfides (opaques) abundance	Fe-oxides abundance	Ti-oxides abundance	Carbonate, detrital abundance	Carbonate, authigenic abundance	Foraminifers abundance	Calcareous nannofossil abundance	Pteropod fragments abundance	Other calcareous bioclasts abundance	Radiolarians abundance	Diatoms abundance	Sponge spicule fragments abundance	Other biosiliceous fossil fragments abundance	Fish debris abundance	Plant debris abundance	Organic matter abundance	Total of group estimates [%]
355-U1456E-3R-1-A 27/27-SED	Tr	1		Tr	Tr				Tr		Tr								
355-U1456E-3R-1-A 38/38-SED	A	3					C	R	A		Tr								
355-U1456E-3R-4-A 40/40-SED				Tr		Tr	R	R	C		R								
355-U1456E-3R-4-A 60/60-SED	Tr	1	Tr	Tr				C	C										
355-U1456E-4R-1-A 30/30-SED	Tr	1	Tr	Tr	Tr						R							Tr	
355-U1456E-4R-1-A 71/71-SED			Tr	Tr				R	A										
355-U1456E-4R-3-A 32/32-SED			Tr	Tr		R	C	C	C		C								
355-U1456E-4R-4-A 14/14-SED			Tr	Tr			Tr	R	D		Tr								
355-U1456E-4R-4-A 30/30-SED			Tr					C			C								
355-U1456E-5R-1-A 63/63-SED							R	C	D		Tr								
355-U1456E-5R-1-A 96/96-SED							R	C	D		Tr								
355-U1456E-5R-2-A 101/101-SED							R	C	C										
355-U1456E-5R-2-A 139/139-SED							R	R	A								Tr		
355-U1456E-5R-2-A 45/45-SED			R				R	C	D										
355-U1456E-5R-3-A 102/102-SED			R	Tr					D		Tr						Tr		
355-U1456E-5R-3-A 21/21-SED			Tr				R	C	D								Tr		
355-U1456E-6R-1-A 61/61-SED			R	Tr			R		D		Tr						R		
355-U1456E-6R-2-A 90/90-SED			R			Tr	C	C	D										
355-U1456E-6R-3-A 132/132-SED			R	Tr			A	C	D		Tr						Tr		
355-U1456E-6R-3-A 49/49-SED			R	Tr			Tr	C	D		R						Tr		
355-U1456E-6R-CC-A 25/25-SED			R	Tr			C	R	D								Tr		
355-U1456E-7R-1-A 108/108-SED			Tr				A	C	D					Tr					
355-U1456E-7R-1-A 24/24-SED							C	C	D										
355-U1456E-7R-1-A 39/39-SED			R	Tr			C	C	D		Tr						Tr		
355-U1456E-7R-1-A 89/89-SED			R	Tr			R	C	Tr		Tr			Tr			R		
355-U1456E-7R-2-A 80/80-SED							R	C	D								Tr		
355-U1456E-7R-CC-PAL-SED			Tr				A	C	D		Tr								
355-U1456E-8R-4-A 20/20-SED																			
355-U1456E-8R-4-A 4/4-SED			C																
355-U1456E-8R-4-A 63/63-SED				A															
355-U1456E-8R-4-A 84/84-SED			C																
355-U1456E-9R-1-A 24/24-SED			Tr	R			R		C		A								
355-U1456E-9R-2-A 34/34-SED			Tr	R				C	C		A								
355-U1456E-9R-2-A 90/90-SED								C	R		C								
355-U1456E-9R-3-A 45/45-SED							R		C										
355-U1456E-10R-1-A 34/34-SED			Tr	Tr				R	C		A								
355-U1456E-10R-1-A 95/95-SED								R	R		A								
355-U1456E-10R-2-A 102/102-SED	Tr	1	Tr	Tr			C	R	R										
355-U1456E-10R-2-A 23/23-SED			Tr	R				Tr	C										
355-U1456E-10R-3-A 46/46-SED			Tr					Tr	C										
355-U1456E-10R-4-A 63/63-SED																			
355-U1456E-11R-1-A 50/50-SED			Tr				A	R	A		R						Tr		
355-U1456E-11R-4-A 86/86-SED							C	C	D		R								
355-U1456E-12R-1-A 20/20-SED			Tr	Tr			C	R	D										
355-U1456E-12R-2-A 76/76-SED			Tr	R			C	R	D		R						R	C	
355-U1456E-13R-CC-A 18/18-SED							C	C	D		Tr								
355-U1456E-14R-1-A 10/10-SED								Tr	R										
355-U1456E-14R-1-A 76/76-SED			R	R					A										
355-U1456E-14R-2-A 115/115-SED			Tr																
355-U1456E-14R-2-A 32/32-SED			Tr					R	C		R								
355-U1456E-14R-2-A 57/57-SED	A	3							Tr										
355-U1456E-15R-1-A 9/9-SED							Tr	R	C		A								
355-U1456E-15R-1-A 92/92-SED			Tr	Tr			R		A		C								
355-U1456E-16R-1-A 87/87-SED	Tr	1	Tr				R	R	C		C								
355-U1456E-16R-3-A 40/40-SED				Tr				Tr	R		A								
355-U1456E-16R-5-A 68/68-SED			Tr	Tr				R	Tr		D								
355-U1456E-17R-2-A 38/38-SED							C	C	A								Tr		
355-U1456E-17R-4-A 73/73-SED							C	A	A		Tr								
355-U1456E-17R-5-A 80/80-SED			R	R			R		D										
355-U1456E-17R-6-A 60/60-SED			R	R			R		D										
355-U1456E-17R-CC-PAL-SED	Tr	1		C	Tr		Tr		D		C								
355-U1456E-18R-1-A 62/62-SED			Tr				R	R	D								Tr		
355-U1456E-19R-2-A 29/29-SED	Tr	1		Tr		R	R												
355-U1456E-19R-2-A 32/32-SED			R	R			C		C										
355-U1456E-19R-2-A 8/8-SED							C	C	D		Tr								
355-U1456E-19R-2-A 83/83-SED			R	R		R	R		Tr		Tr								
355-U1456E-19R-3-A 50/50-SED						R	A												
355-U1456E-19R-3-A 70/70-SED				Tr		Tr	R												
355-U1456E-19R-4-A 46/46-SED				Tr			A		Tr									Tr	
355-U1456E-19R-4-A 7/7-SED	Tr	1					C												
355-U1456E-19R-4-A 97/97-SED			R	R		R	A		Tr										

Sample	Lithology prefix	Principal lithology	Lithology suffix	Lithology major or minor	Lithology comment	Smear slide comment
355-U1456E-3R-1-A 27/27-SED		claystone		minor lithology		
355-U1456E-3R-1-A 38/38-SED	nannofossil rich	calcilutite		minor lithology		
355-U1456E-3R-4-A 40/40-SED		calcilutite	with nannofossils	major lithology	VSD calcarenite	
355-U1456E-3R-4-A 60/60-SED		calcilutite	with nannofossils	major lithology	VSD calcarenite	
355-U1456E-4R-1-A 30/30-SED	nannofossil rich	calcarenite		major lithology		
355-U1456E-4R-1-A 71/71-SED	nannofossil rich	calcarenite		major lithology		
355-U1456E-4R-3-A 32/32-SED		calcarenite	with nannofossils	major lithology		
355-U1456E-4R-4-A 14/14-SED	nannofossil rich	claystone		major lithology		
355-U1456E-4R-4-A 30/30-SED	calcareous rich	siltstone		minor lithology		
355-U1456E-5R-1-A 63/63-SED	nannofossil rich	claystone		minor lithology		
355-U1456E-5R-1-A 96/96-SED		nannofossil chalk	with foraminifers	minor lithology		
355-U1456E-5R-2-A 101/101-SED		claystone	with foraminifers	minor lithology		
355-U1456E-5R-2-A 139/139-SED	nannofossil rich	claystone		minor lithology		
355-U1456E-5R-2-A 45/45-SED	nannofossil rich	claystone	with foraminifers	major lithology		
355-U1456E-5R-3-A 102/102-SED	nannofossil rich	claystone		minor lithology		
355-U1456E-5R-3-A 21/21-SED	nannofossil rich	claystone	with foraminifers	minor lithology		
355-U1456E-6R-1-A 61/61-SED	nannofossil rich	claystone		major lithology		
355-U1456E-6R-2-A 90/90-SED	nannofossil rich	claystone	with foraminifers	minor lithology	This sample represent the matrix of calcareous Breccia.	
355-U1456E-6R-3-A 132/132-SED	nannofossil rich	limestone	with foraminifers	minor lithology		
355-U1456E-6R-3-A 49/49-SED	nannofossil rich	claystone	with foraminifers	minor lithology	This sample represent the matrix of calcareous Breccia.	
355-U1456E-6R-CC-A 25/25-SED	nannofossil rich	limestone	with foraminifers	minor lithology		
355-U1456E-7R-1-A 108/108-SED	nannofossil rich	claystone	with foraminifers	minor lithology		
355-U1456E-7R-1-A 24/24-SED		limestone		minor lithology		
355-U1456E-7R-1-A 39/39-SED	nannofossil rich	claystone	with foraminifers	minor lithology		
355-U1456E-7R-1-A 89/89-SED	nannofossil rich	claystone	with foraminifers	minor lithology		
355-U1456E-7R-2-A 80/80-SED		limestone		minor lithology		
355-U1456E-7R-CC-PAL-SED	nannofossil rich	calcarenite		minor lithology		
355-U1456E-8R-4-A 20/20-SED		claystone		minor lithology	Brownish weathered glass	
355-U1456E-8R-4-A 4/4-SED		claystone		minor lithology	Very common pyrite	
355-U1456E-8R-4-A 63/63-SED		claystone		minor lithology	brownish and reddish weathered glass	
355-U1456E-8R-4-A 84/84-SED		claystone		minor lithology	Gray	
355-U1456E-9R-1-A 24/24-SED		claystone	with nannofossils	minor lithology		
355-U1456E-9R-2-A 34/34-SED		claystone	with foraminifers	minor lithology		
355-U1456E-9R-2-A 90/90-SED		calcilutite	with foraminifers			
355-U1456E-9R-3-A 45/45-SED	silty	claystone		minor lithology		
355-U1456E-10R-1-A 34/34-SED		calcilutite	with nannofossils	minor lithology	Matrix of pebbly mudstone	
355-U1456E-10R-1-A 95/95-SED		calcareous chalk		major lithology		
355-U1456E-10R-2-A 102/102-SED	silty	claystone	with nannofossils	minor lithology	Matrix of pebbly mudstone	
355-U1456E-10R-2-A 23/23-SED		claystone	with nannofossils	minor lithology		
355-U1456E-10R-3-A 46/46-SED		calcareous chalk		major lithology	Greenish white and bioturbated	
355-U1456E-10R-4-A 63/63-SED		calcareous chalk		minor lithology	Stilolite	
355-U1456E-11R-1-A 50/50-SED		calcilutite		major lithology		
355-U1456E-11R-4-A 86/86-SED		limestone		minor lithology		
355-U1456E-12R-1-A 20/20-SED		calcareous chalk		minor lithology		
355-U1456E-12R-2-A 76/76-SED	nannofossil rich	claystone		minor lithology		
355-U1456E-13R-CC-A 18/18-SED		limestone		minor lithology		
355-U1456E-14R-1-A 10/10-SED		claystone		minor lithology	Chocolate	
355-U1456E-14R-1-A 76/76-SED		claystone	with nannofossils	minor lithology	Green color	
355-U1456E-14R-2-A 115/115-SED		basalt		minor lithology	Rock fragment from a pebbly mudstone	weathered glass, bluish color after grinding?
355-U1456E-14R-2-A 32/32-SED		claystone	with nannofossils	minor lithology	Green color with bioturbations	
355-U1456E-14R-2-A 57/57-SED		claystone			Bluish in color and made of brownish weathered glass and trace of	
355-U1456E-15R-1-A 9/9-SED	calcareous rich	claystone	with silt	major lithology	Matrix of pebbly mudstone	
355-U1456E-15R-1-A 92/92-SED		claystone	with nannofossils			
355-U1456E-16R-1-A 87/87-SED		claystone	with silt	minor lithology		
355-U1456E-16R-3-A 40/40-SED	calcareous rich	claystone	with silt	major lithology	Green	
355-U1456E-16R-5-A 68/68-SED	calcareous rich	claystone		major lithology	White and green	
355-U1456E-17R-2-A 38/38-SED		limestone		major lithology		
355-U1456E-17R-4-A 73/73-SED		calcarenite		major lithology		
355-U1456E-17R-5-A 80/80-SED	nannofossil rich	claystone		minor lithology		
355-U1456E-17R-6-A 60/60-SED	nannofossil rich	claystone		major lithology		
355-U1456E-17R-CC-PAL-SED		nannofossil chalk		major lithology		With common red hematite
355-U1456E-18R-1-A 62/62-SED		limestone		major lithology		
355-U1456E-19R-2-A 29/29-SED		sandstone		major lithology		
355-U1456E-19R-2-A 32/32-SED		claystone	with nannofossils	minor lithology		
355-U1456E-19R-2-A 8/8-SED		limestone		minor lithology		
355-U1456E-19R-2-A 83/83-SED		sandstone		major lithology		Etched hornblende
355-U1456E-19R-3-A 50/50-SED	sandy	siltstone		major lithology		
355-U1456E-19R-3-A 70/70-SED		sandstone		major lithology		Pink garnet
355-U1456E-19R-4-A 46/46-SED	calcareous rich	claystone		minor lithology		
355-U1456E-19R-4-A 7/7-SED	silty	sandstone		major lithology		
355-U1456E-19R-4-A 97/97-SED	calcareous rich	sandstone	with sand	minor lithology		

THIN SECTION LABEL ID **355-U1456D-41R-4-W 111/113-TSB-TS_01** Thin section no.: 1

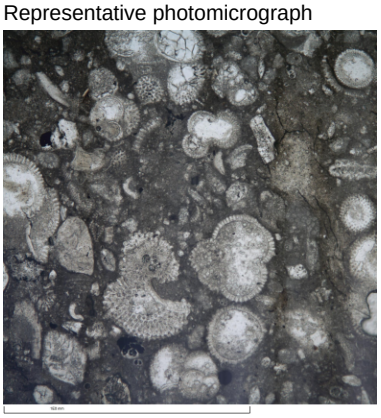
Unit/Subunit: Observer: Ando

Thin section summary: Calcarenite with foraminifers. Coarse biocalcarenite with calcisiltite matrix. Minor detrital minerals and weathered volcanic rock fragments. Authigenic crystal of calcite are common.

Plane-polarized:

Cross-polarized:

Representative photomicrograph



SEDIMENT/SEDIMENTARY ROCK

Lithology: calcarenite with foraminifers

Texture	Sand	Silt	Clay
Percent (%)	60	30	10

Constituent	Siliciclastic	Ash	Detrital carbonate	Biogenic carbonate	Biogenic silica
Percent (%)	5	0	10	85	0

Mineral abundance names and grain features

Volcanic glass	Lithic grains	Quartz	Feldspar	Micas	Clay minerals	Heavy minerals	Calcite, authigenic	Sulfides, authigenic
		Tr	Tr	Tr	Tr		R	Tr

Mineral grain MAX size (mm)	Mineral grain roundness	Mineral grain corrosion feature comment
150	very angular	Feldspars exhibit a slight degree of corrosion with common corroded outlines

Fossil abundance and details

Foraminifers	Calcareous nannofossils	Calcareous bioclasts
A	R	Tr

Biogenic grain MAX size (mm)	Biogenic grain roundness	Biogenic grain corrosion feature comment
300	sub-rounded	

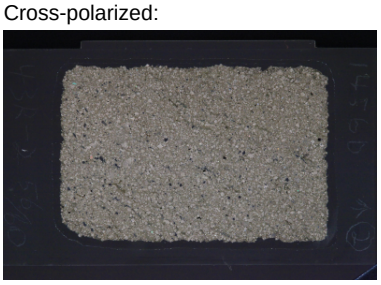
THIN SECTION LABEL ID **355-U1456D-43R-2-W 56/60-TSB-TS_02** Thin section no.: 2

Unit/Subunit: Observer: Ando

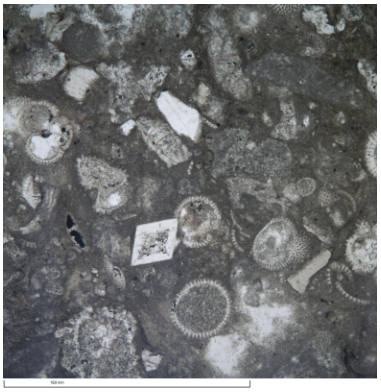
Thin section summary: Calcarenite with foraminifers. Medium coarse biocalcarenite with abundant calcisiltite and calcilutite matrix. Rare authigenic pyrite spheres and romboidal crystal of calcite.

Plane-polarized:

Cross-polarized:



Representative photomicrograph



SEDIMENT/SEDIMENTARY ROCK

Lithology: calcarenite with foraminifers

Texture	Sand	Silt	Clay
Percent (%)	50	30	20

Constituent	Siliciclastic	Ash	Detrital carbonate	Biogenic carbonate	Biogenic silica
Percent (%)	5	0	10	85	0

Mineral abundance names and grain features

Volcanic glass	Lithic grains	Quartz	Feldspar	Micas	Clay minerals	Heavy minerals	Calcite, authigenic	Sulfides, authigenic
	Tr	Tr	Tr		R		Tr	Tr

Mineral grain MAX size (mm)	Mineral grain roundness	Mineral grain corrosion feature comment
200	very angular	Epidote with cooroded rim

Fossil abundance and details

Foraminifers	Calcareous nannofossils	Calcareous bioclasts
A	Tr	R

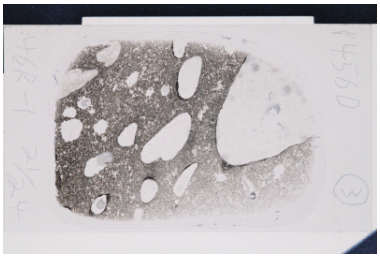
Biogenic grain MAX size (mm)	Biogenic grain roundness	Biogenic grain corrosion feature comment
500	sub-rounded	

THIN SECTION LABEL ID **355-U1456D-46R-1-W 21/24-TSB-TS_03** Thin section no.: 3

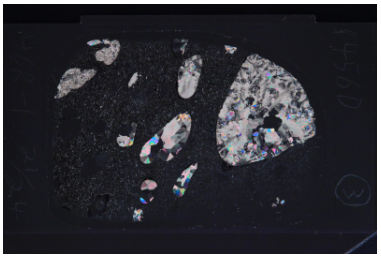
Unit/Subunit: Observer: TR

Thin section summary: The rock is moderately plagioclase phyric basalt. Plagioclase is the only phenocryst phase. Groundmass is almost like glass but may range to cryptocrystalline and it mostly may contain mesostasis. Occasionally Fe-Ti oxides are seen as dispersed grains. The texture is intersertal. Vesicles are seen as spherical and sometimes elongated; these are filled with calcite or carbonate material. Alteration can be described as sparsely altered.

Plane-polarized:



Cross-polarized:



PRIMARY (IGNEOUS) MINERALOGY

LITHOLOGY: plagioclase phyric basalt

Texture 1:	intersertal	Domain relative abundance:	100
Avg. grain size:	cryptocrystalline	Grain size distribution:	bimodal

Phenocrysts	(%) original	(%) present	(%) replaced	size MIN (mm)	size MAX (mm)	size MODE (mm)	Shape	Habit	Comments
Plagioclase	10	9	1	0.1	0.3	0.2	euhedral-subhedral	lath-shaped	

Vesicle abundance	% empty	% filled	MIN size (mm)	MAX size (mm)	AVG size (mm)	Vesicle shape	Vesicle distribution
moderately vesicular		12	1	4	2	subrounded	Although subrounded, some vesicles are elongated; filled with calcite or carbonate material. On the margins thin glassy rim is also seen.

SECONDARY (ALTERATION) MINERALOGY

General phenocryst comments: Only plagioclase occurs as phanocryst within a groundmass

Phenocryst	Olivine	Orthopyroxene	Clinopyroxene	Plagioclase
Total original [%]				10
Total present [%]				9
Total replaced [%]				1

GROUNDMASS total original (%):

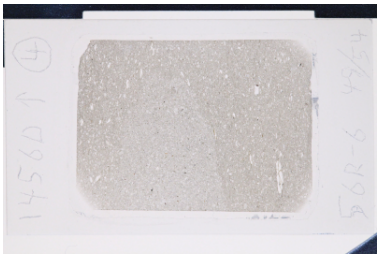
Groundmass phases	% original	% present	% replaced	MIN size (mm)	MAX size (mm)	Average size (mm)	Shape	Habit	Comments
Mesostasis	68								
Glass	10								

THIN SECTION LABEL ID **355-U1456D-56R-6-PAL-TSB-TS_04** Thin section no.: 4

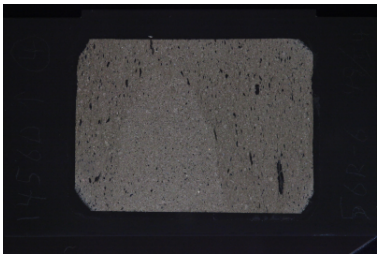
Unit/Subunit: Observer: Ando

Thin section summary: Calcarenite with foraminifers. Coarse biocalcarenite with rare calcisiltite matrix. Rare Fe-oxides and pyrite.

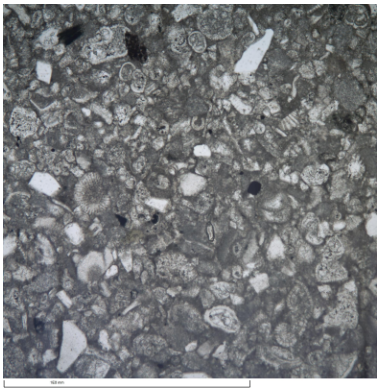
Plane-polarized:



Cross-polarized:



Representative photomicrograph



SEDIMENT/SEDIMENTARY ROCK

Lithology: calcarenite with foraminifers

Texture	Sand	Silt	Clay
Percent (%)	70	10	20

Constituent	Siliciclastic	Ash	Detrital carbonate	Biogenic carbonate	Biogenic silica
Percent (%)	10	0	20	70	0

Mineral abundance names and grain features

Volcanic glass	Lithic grains	Quartz	Feldspar	Micas	Clay minerals	Heavy minerals	Calcite, authigenic	Sulfides, authigenic
	R	C	R	R	Tr	Tr	C	Tr

Mineral grain MAX size (mm)	Mineral grain roundness	Mineral grain corrosion feature comment
100	very angular	Feldspars exhibit a slight degree of corrosion with common corroded outlines

Fossil abundance and details

Foraminifers	Calcareous nannofossils	Calcareous bioclasts
C		R

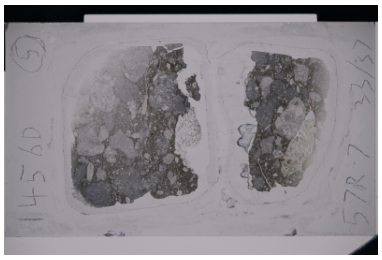
Biogenic grain MAX size (mm)	Biogenic grain roundness	Biogenic grain corrosion feature comment
300	sub-rounded	

THIN SECTION LABEL ID **355-U1456D-57R-7-W 33/37-TSB-TS_05** Thin section no.: 5

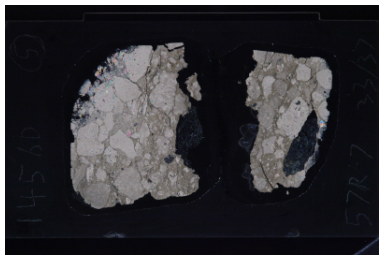
Unit/Subunit: Observer: Ando

Thin section summary: Carbonate breccia. Biocalcirudite with foraminifers and other bioclasts with very common subrounded and corroded carbonatic clasts. Authigenic calcite is rare and only trace of detrital minerals are present with weathered lithic rock framents.

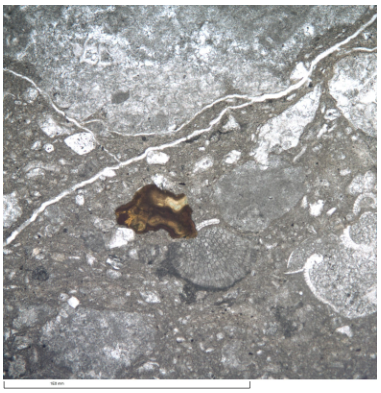
Plane-polarized:



Cross-polarized:



Representative photomicrograph



SEDIMENT/SEDIMENTARY ROCK

Lithology: carbonate breccia

Texture	Sand	Silt	Clay
Percent (%)	80	10	10

Constituent	Siliciclastic	Ash	Detrital carbonate	Biogenic carbonate	Biogenic silica
Percent (%)	20	0	80	0	0

Mineral abundance names and grain features

Volcanic glass	Lithic grains	Quartz	Feldspar	Micas	Clay minerals	Heavy minerals	Calcite, authigenic	Sulfides, authigenic
	R	Tr	Tr	R	Tr	Tr	C	R

Mineral grain MAX size (mm)	Mineral grain roundness	Mineral grain corrosion feature comment
250	angular	Feldspars exhibit a slight degree of corrosion with common corroded outlines

Fossil abundance and details

Foraminifers	Calcareous nannofossils	Calcareous bioclasts
C		Tr

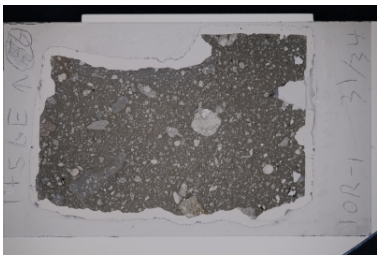
Biogenic grain MAX size (mm)	Biogenic grain roundness	Biogenic grain corrosion feature comment
700	sub-rounded	

THIN SECTION LABEL ID **355-U1456E-10R-1-W 31/34-TSB-TS_06** Thin section no.: 6

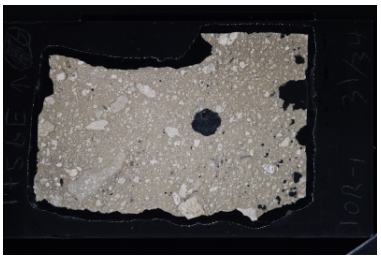
Unit/Subunit: Observer: Ando

Thin section summary: Calcarenite with foraminifers. Coarse calcarenite with calcilutite matrix. Trace of detrital rock fragments, deeply weathered (volcanic glass). Authigenic crystal of calcite up to 400 microns in size

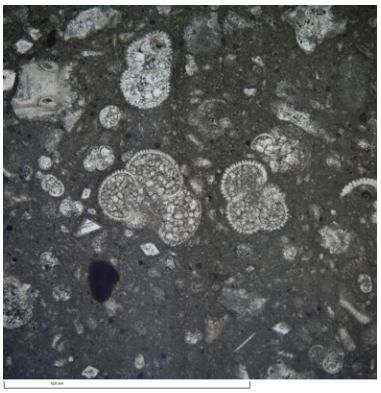
Plane-polarized:



Cross-polarized:



Representative photomicrograph



SEDIMENT/SEDIMENTARY ROCK

Lithology: calcarenite

Texture	Sand	Silt	Clay
Percent (%)	70	20	10

Constituent	Siliciclastic	Ash	Detrital carbonate	Biogenic carbonate	Biogenic silica
Percent (%)	2		40	58	

Mineral abundance names and grain features

Volcanic glass	Lithic grains	Quartz	Feldspar	Micas	Clay minerals	Heavy minerals	Calcite, authigenic	Sulfides, authigenic
	Tr						R	

Mineral grain MAX size (mm)	Mineral grain roundness	Mineral grain corrosion feature comment
100	sub-rounded	slight

Fossil abundance and details

Foraminifers	Calcareous nannofossils	Calcareous bioclasts
A		C

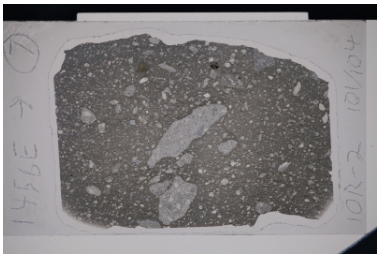
Biogenic grain MAX size (mm)	Biogenic grain roundness	Biogenic grain corrosion feature comment
600	sub-rounded	

THIN SECTION LABEL ID **355-U1456E-10R-2-W 101/104-TSB-TS_07** Thin section no.: 7

Unit/Subunit: Observer: Ando

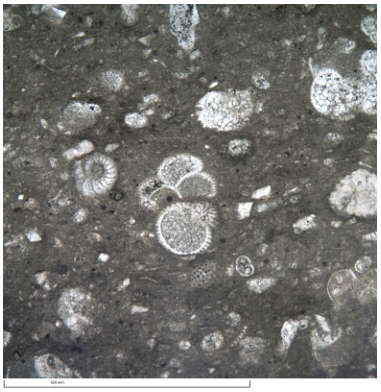
Thin section summary: Calcarenite with foraminifers. Very coarse with calcilutite matrix. Trace of deeply weathered rock fragments (glass). Authigenic calcite up to 300 microns in size.

Plane-polarized:



Cross-polarized:

Representative photomicrograph



SEDIMENT/SEDIMENTARY ROCK

Lithology: calcarenite

Texture	Sand	Silt	Clay
Percent (%)	60	30	10

Constituent	Siliciclastic	Ash	Detrital carbonate	Biogenic carbonate	Biogenic silica
Percent (%)	2		58	40	

Mineral abundance names and grain features

Volcanic glass	Lithic grains	Quartz	Feldspar	Micas	Clay minerals	Heavy minerals	Calcite, authigenic	Sulfides, authigenic
	Tr				Tr		R	

Mineral grain MAX size (mm)	Mineral grain roundness	Mineral grain corrosion feature comment
100	sub-rounded	slight

Fossil abundance and details

Foraminifers	Calcareous nannofossils	Calcareous bioclasts
C		C

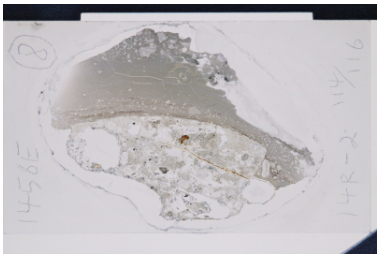
Biogenic grain MAX size (mm)	Biogenic grain roundness	Biogenic grain corrosion feature comment
700	sub-rounded	

THIN SECTION LABEL ID **355-U1456E-14R-2-W 114/116-TSB-TS_08** Thin section no.: 8

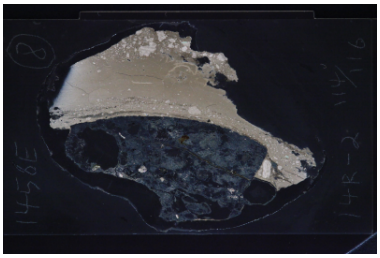
Unit/Subunit: Observer: Ando

Thin section summary: Weathered basaltic glass with spherulites and iron oxides. Feldspars and heavy minerals are absent.

Plane-polarized:



Cross-polarized:



SEDIMENT/SEDIMENTARY ROCK

Lithology: basalt

Mineral abundance names and grain features

Volcanic glass	Lithic grains	Quartz	Feldspar	Micas	Clay minerals	Heavy minerals	Calcite, authigenic	Sulfides, authigenic
	D				R			

Mineral grain MAX size (mm)	Mineral grain roundness	Mineral grain corrosion feature comment
	sub-rounded	