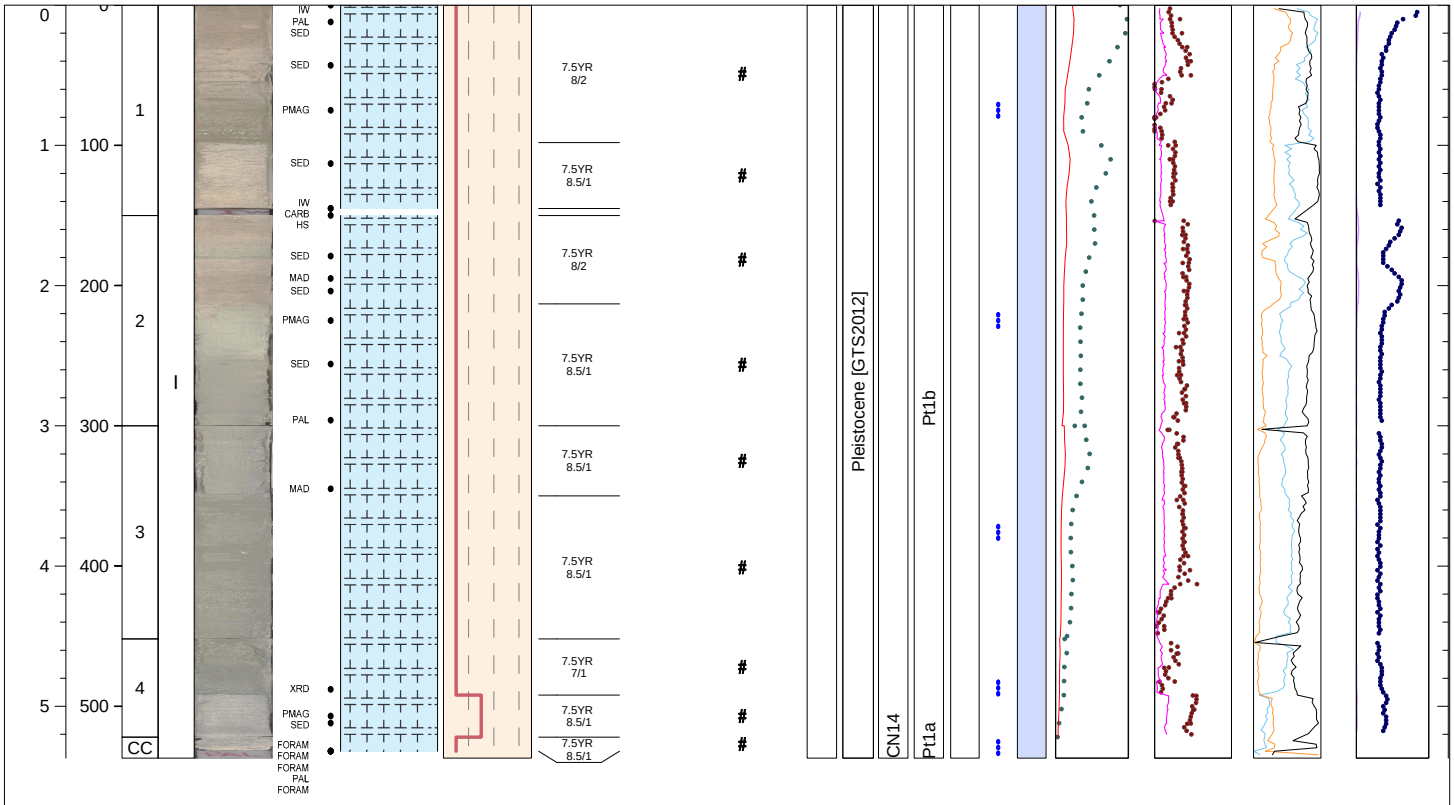
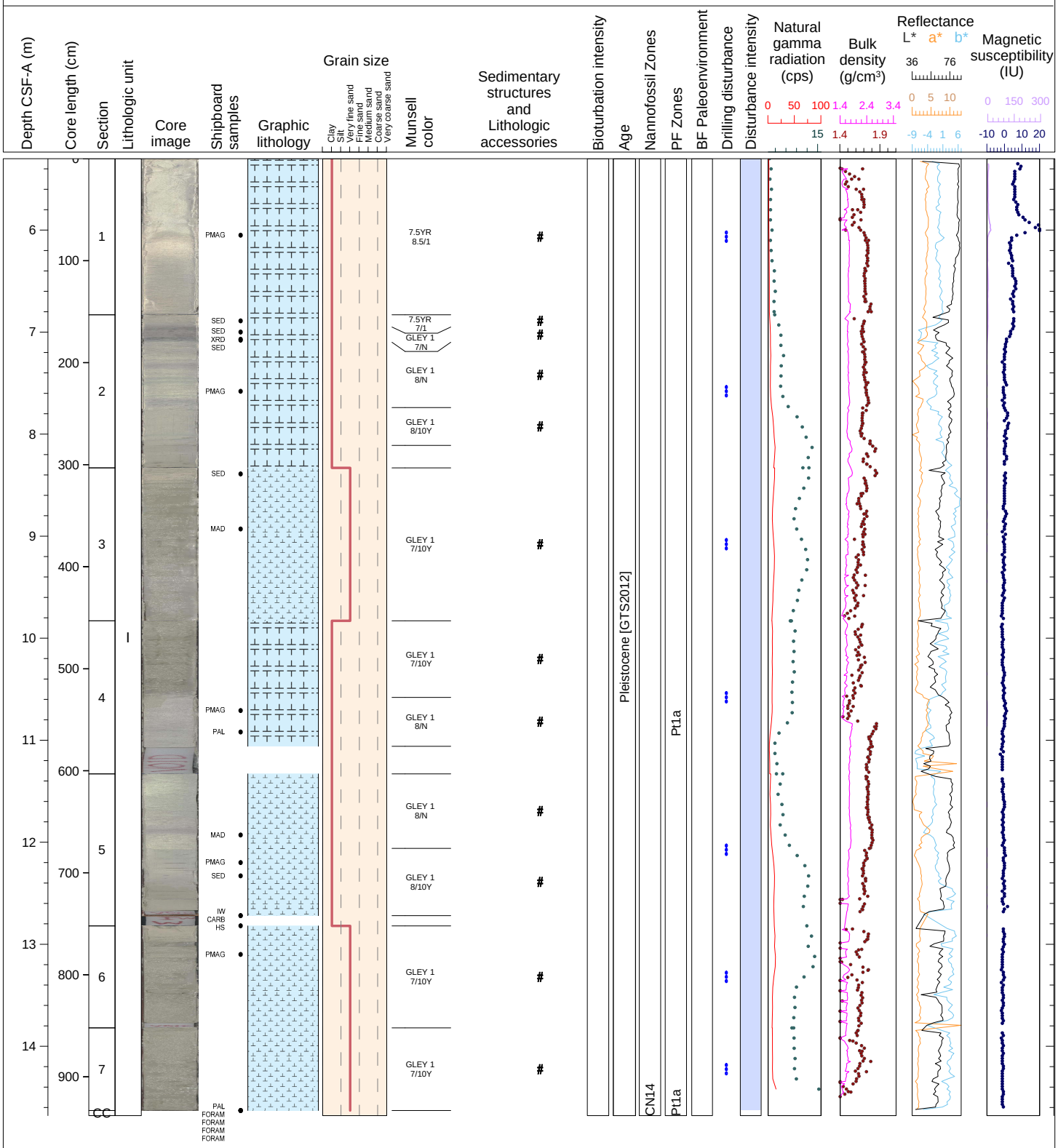
Hole 369-U1513A Core 1H, Interval 0.0-5.37 m (CSF-A)

Core 1H is dominated by a light gray to white calcareous ooze. Iron oxide-rich reddish intervals are present throughout the core. The overall grain size is clay. In Section 4, a fine grained sand interval is dominated by abundant foraminifera and calcareous nannofossils. The core exhibits a slight soupy drilling disturbance. Munsell color notations for this core are as follows: 7.5YR 7/1– light gray, 7.5YR 8/2– pinkish white, and 7.5YR 8.5/1–white.



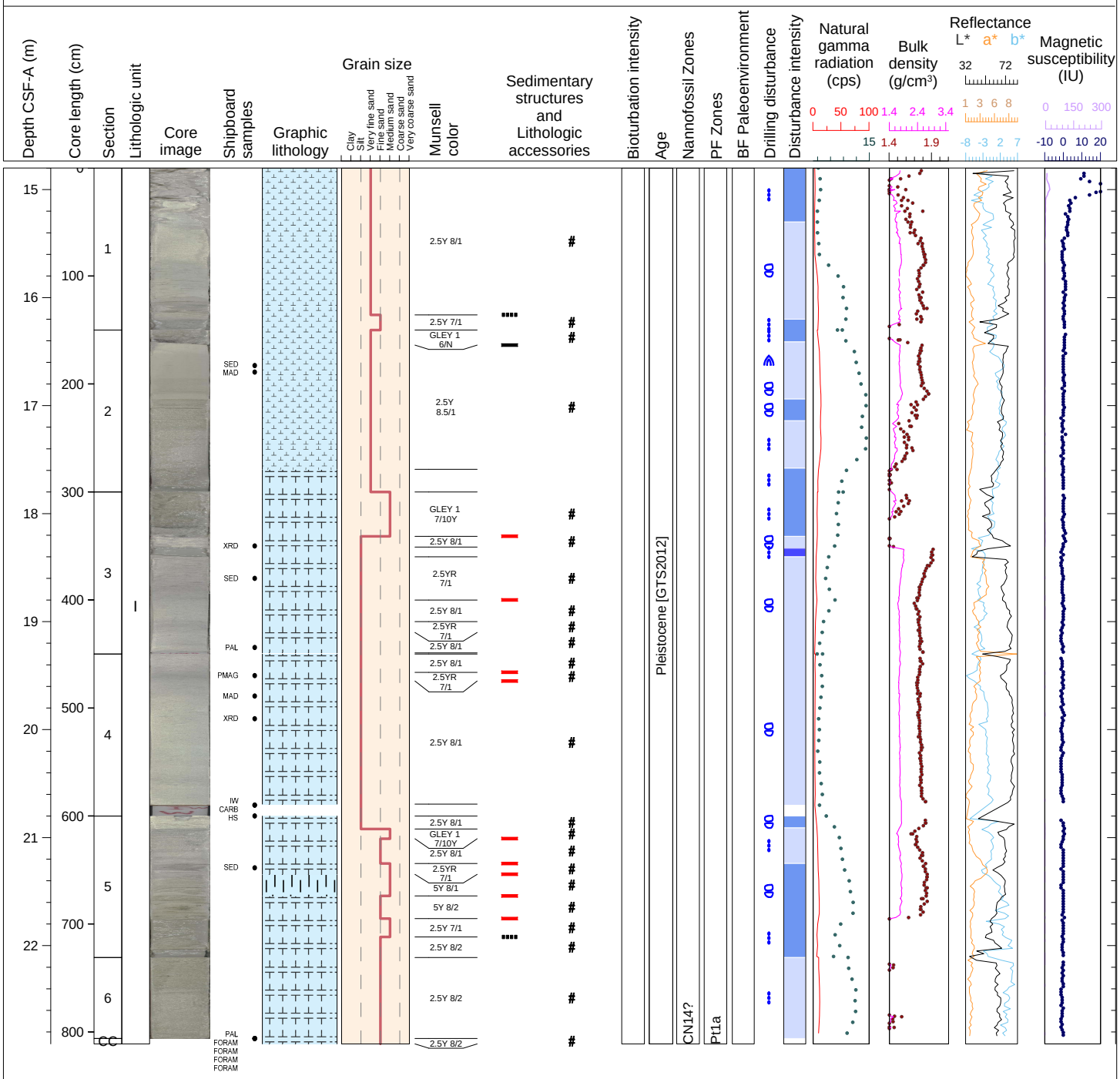
Hole 369-U1513A Core 2H, Interval 5.3-14.68 m (CSF-A)

Core 2H is dominated by a light gray to white calcareous and nannofossil ooze. Purple and greenish intervals are present throughout the core. The overall grain size is clay. Sections 3, 6 and 7 contain fine sand-grained which is dominated by foraminifera. The core exhibits a slight soupy drilling disturbance. Munsell color notations for this core are as follows: GLEY 1 7/N– light gray, GLEY 1 8/N– white gray, GLEY 1 8/10Y– light greenish gray, GLEY 1 7/10Y– light greenish gray, 7.5YR 7/1– light gray, and 7.5YR 8.5/1–white.



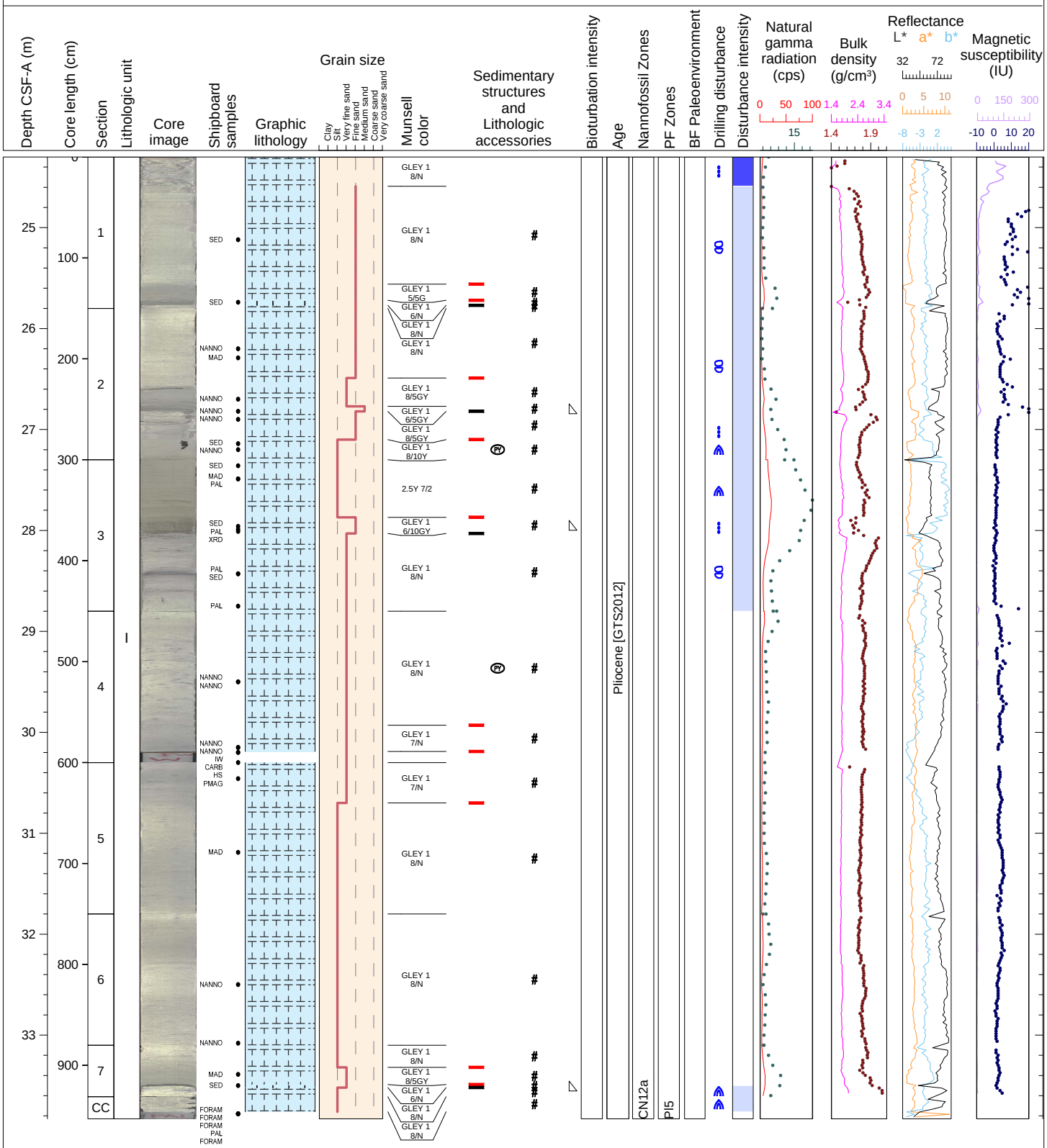
Hole 369-U1513A Core 3H, Interval 14.8-22.91 m (CSF-A)

Core 3H is dominated by light gray to white calcareous ooze. Light reddish gray and pale yellow intervals are present throughout the core. The grain size varies from silt to medium sand. The core exhibits a slight to moderate soupy drilling disturbance. Munsell color notations for this core are as follows: GLEY 1 6/N– gray, GLEY 1 7/10Y– light greenish gray, 2.5Y 7/1– light gray, 2.5Y 8/1– white, 2.5Y 8/2– pale yellow, 2.5Y 8.5/1– white, 2.5YR 7/1– light reddish gray, 5Y 8/1–white, and 5Y 8/2– pale yellow.



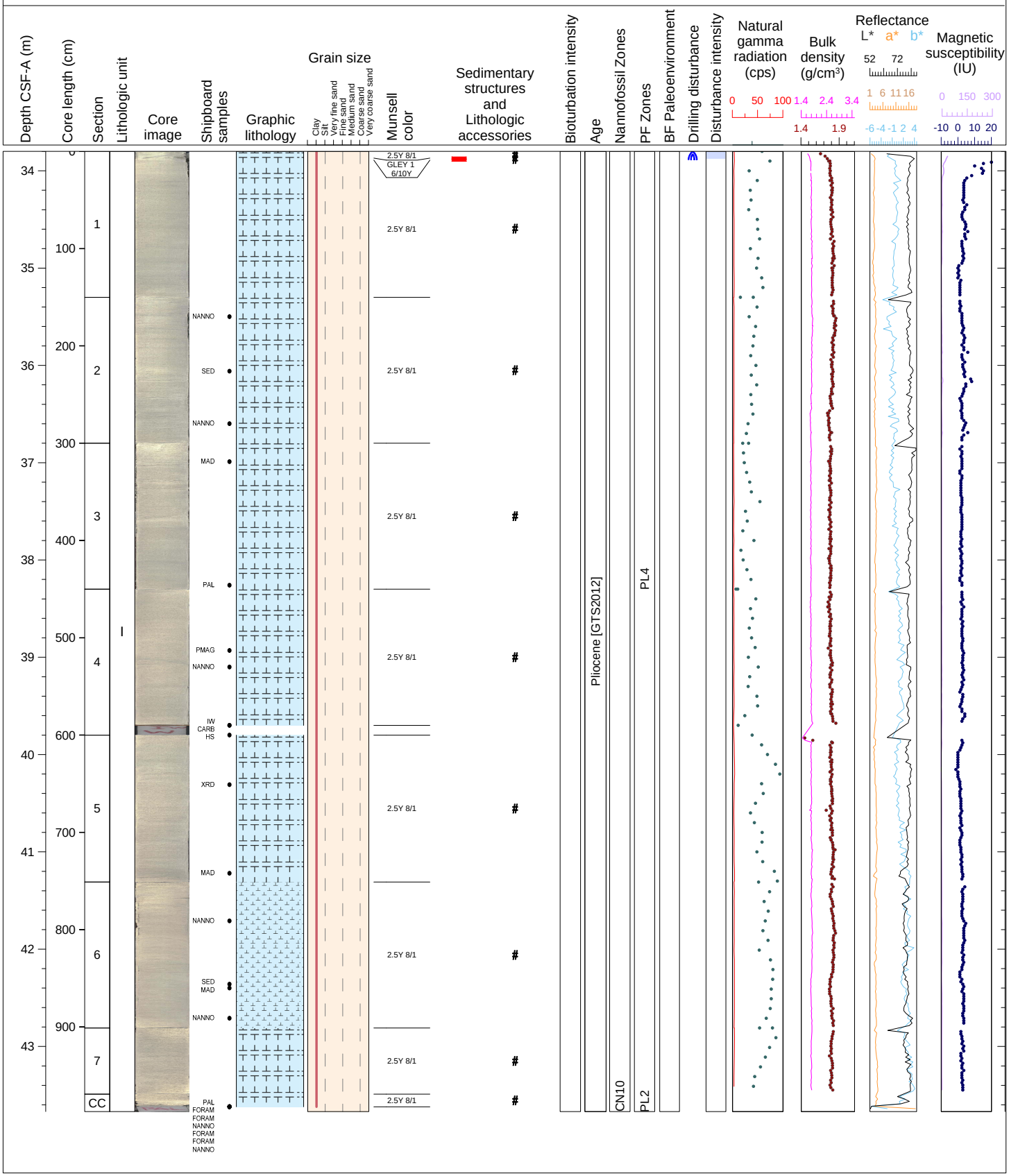
Hole 369-U1513A Core 4H, Interval 24.3-33.83 m (CSF-A)

Core 4H is dominated by light gray to white calcareous ooze with several greenish gray intervals. The grain size varies from silt to medium sand. In Section 2, there is a burrow infilled with possible pyrite or monosulfide. Munsell color notations for this core are as follows: GLEY 1 6/N– gray, GLEY 1 7/N– light gray, GLEY 1 8/N– white gray, GLEY 1 5/5G– greenish gray, GLEY 1 6/N– gray, GLEY 1 8/5GY– light greenish gray, GLEY 1 6/5GY– greenish gray, GLEY 1 8/10Y– light greenish gray, GLEY 1 6/10GY– greenish gray, and 2.5Y 7/2– light gray.



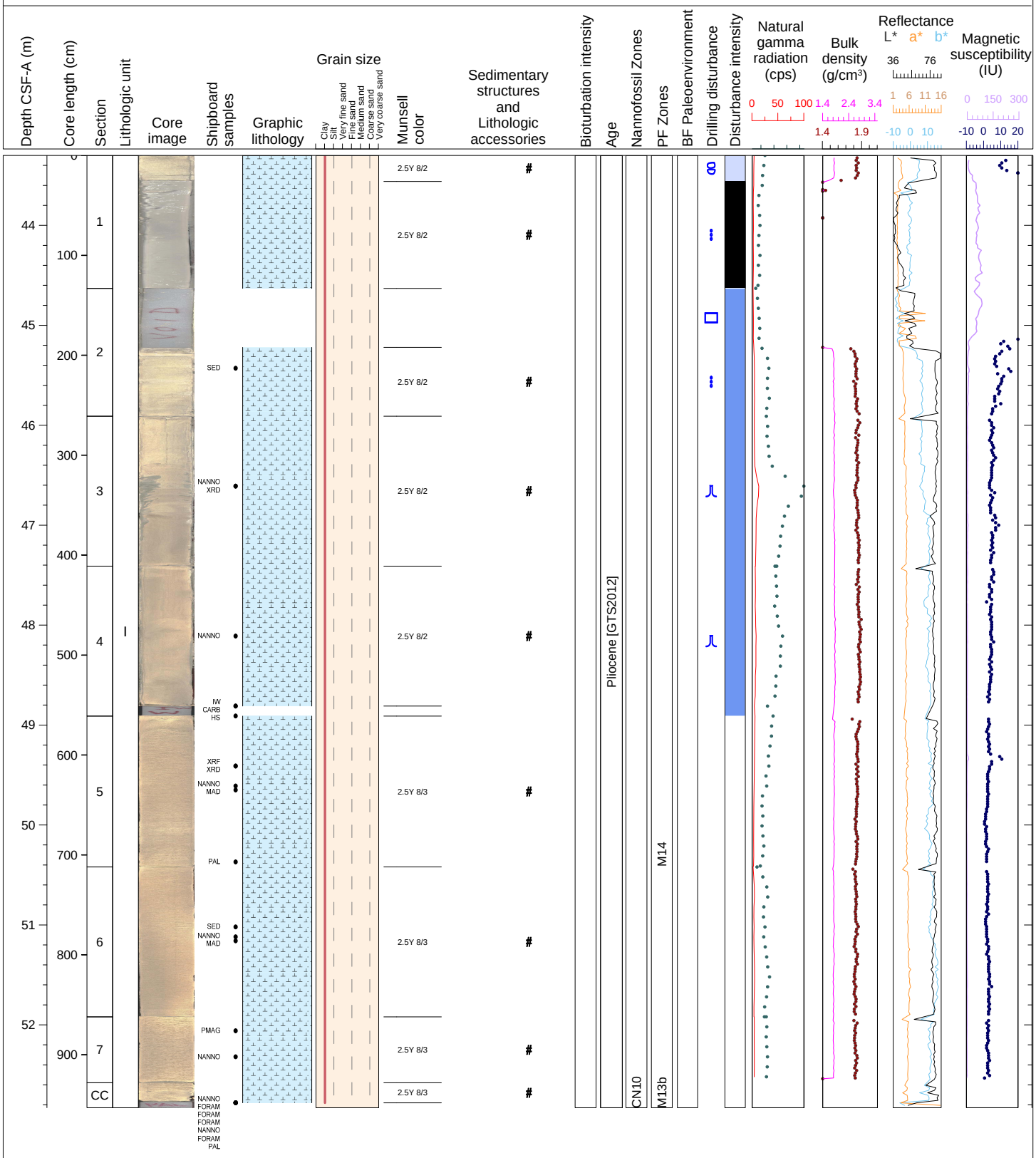
Hole 369-U1513A Core 5H, Interval 33.8-43.67 m (CSF-A)

Core 5H is a white calcareous ooze. One greenish grey interval of 2 cm is present in the top of the core. The overall grain size is clay. There is no drilling disturbance. Munsell color notations for this core are as follows: GLEY 1 6/10GY– greenish gray, and 2.5Y 8/1– white.



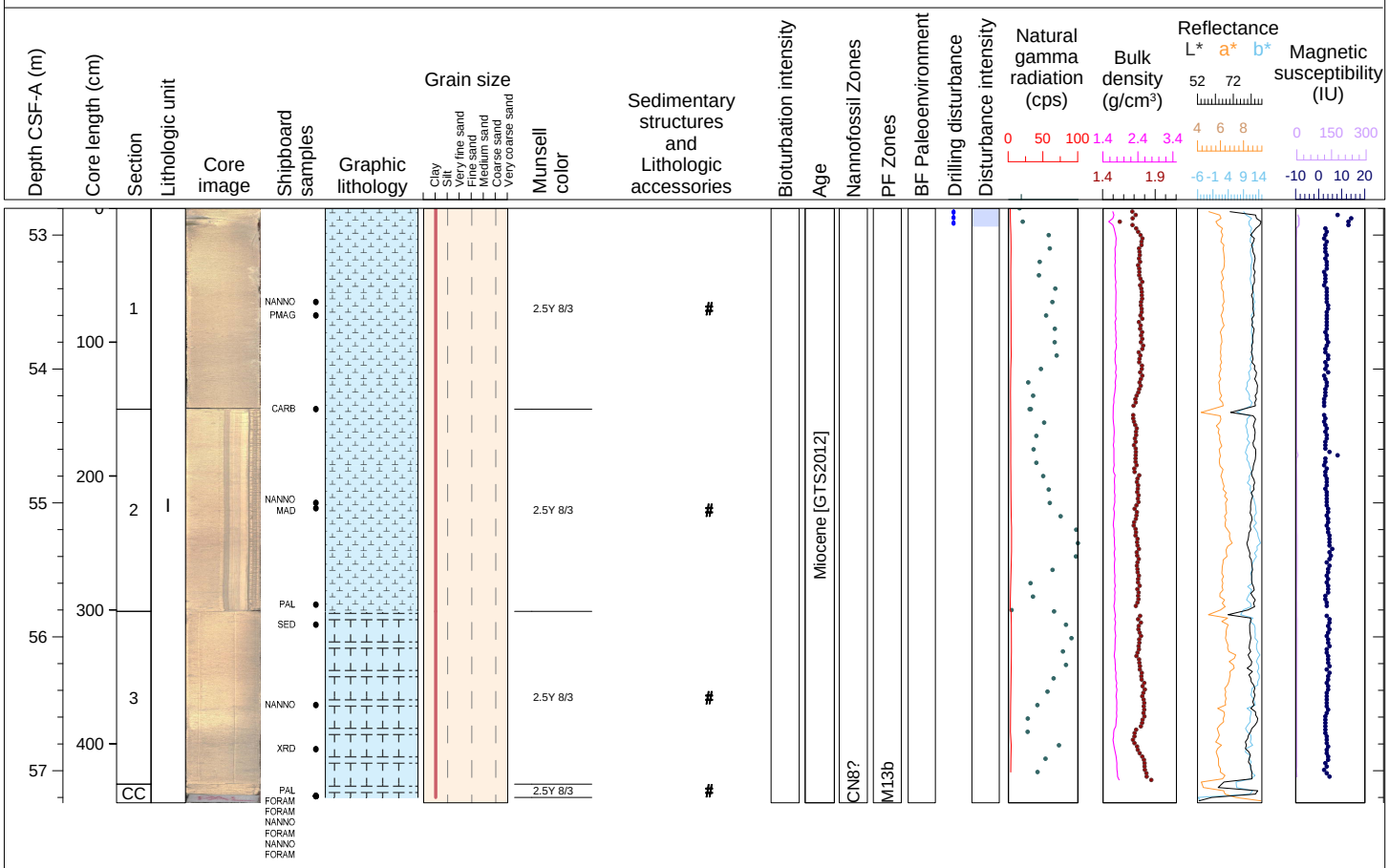
Hole 369-U1513A Core 6H, Interval 43.3-52.83 m (CSF-A)

Core 6H is a pale yellow nannofossil ooze. The overall grain size is clay. The core has been subject to drilling disturbance evident with flow in (Sections 2 to 3), voids (Section 2) and soupy intervals (Section 1). Munsell color notations for this core are as follows: 2.5Y 8/2– pale yellow, and 2.5Y 8/3– pale yellow.



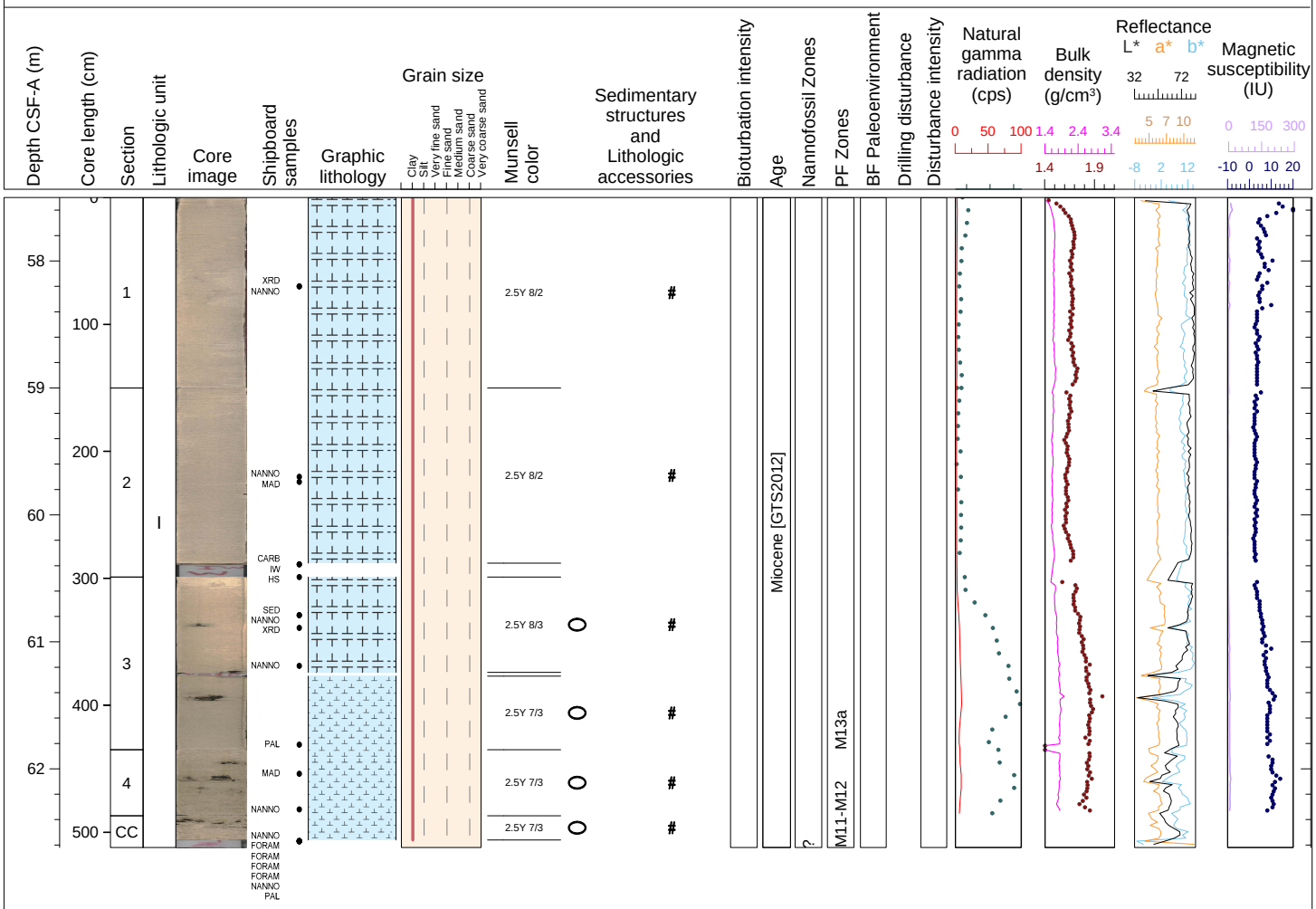
Hole 369-U1513A Core 7F, Interval 52.8-57.24 m (CSF-A)

Core 7F is a pale yellow nannofossil ooze. The overall grain size is clay. The Munsell color notation for this core is as follows: 2.5Y 8/3– pale yellow.



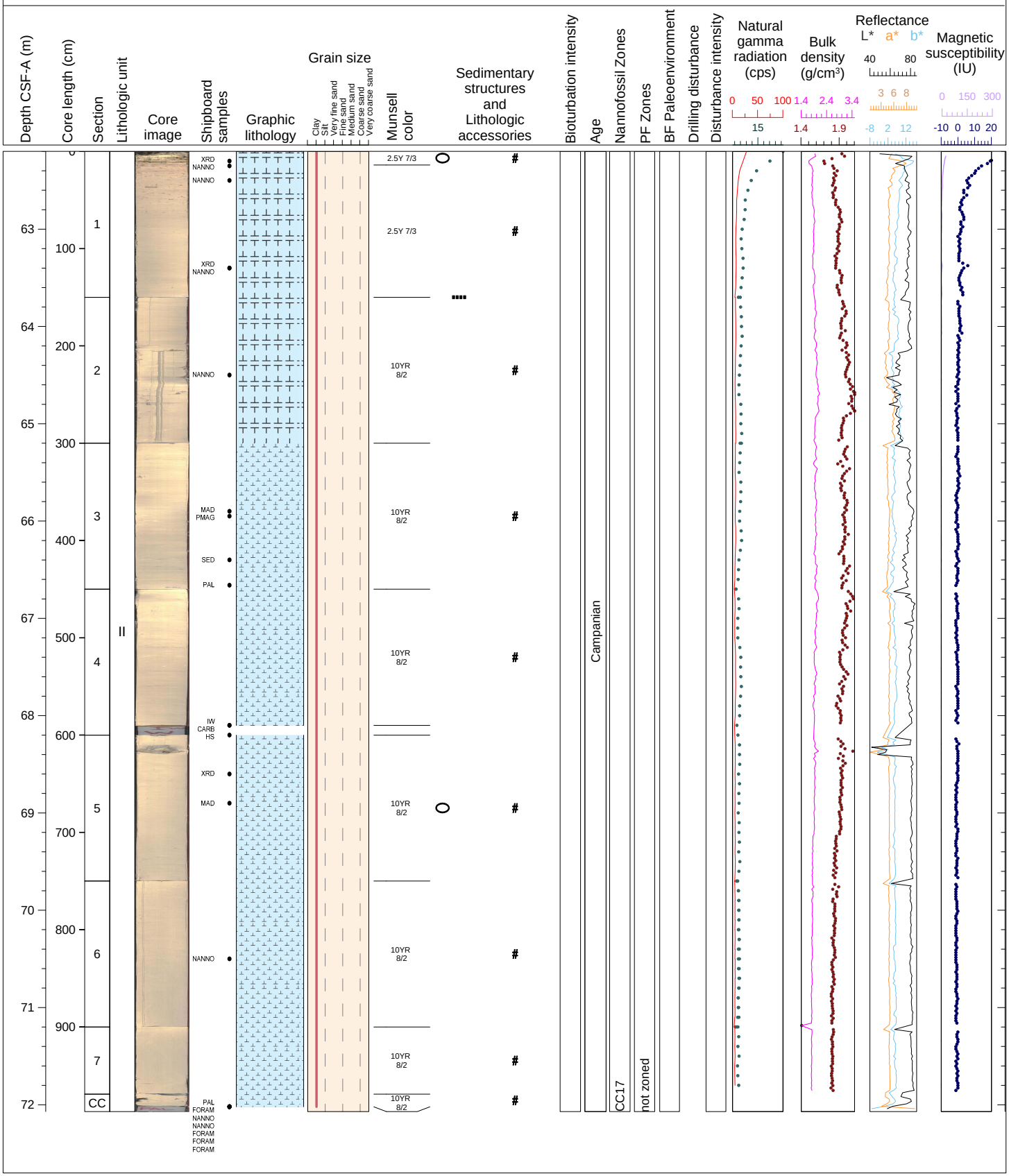
Hole 369-U1513A Core 8F, Interval 57.5-62.62 m (CSF-A)

Core 8F is a pale yellow nannofossil ooze. The overall grain size is clay. Manganese nodules are present in Sections 3, 4 and in the CC. There is no drilling disturbance. Munsell color notations for this core are as follows: 2.5Y 7/3– pale yellow, 2.5Y 8/2– pale yellow, and 2.5Y 8/3– pale yellow.



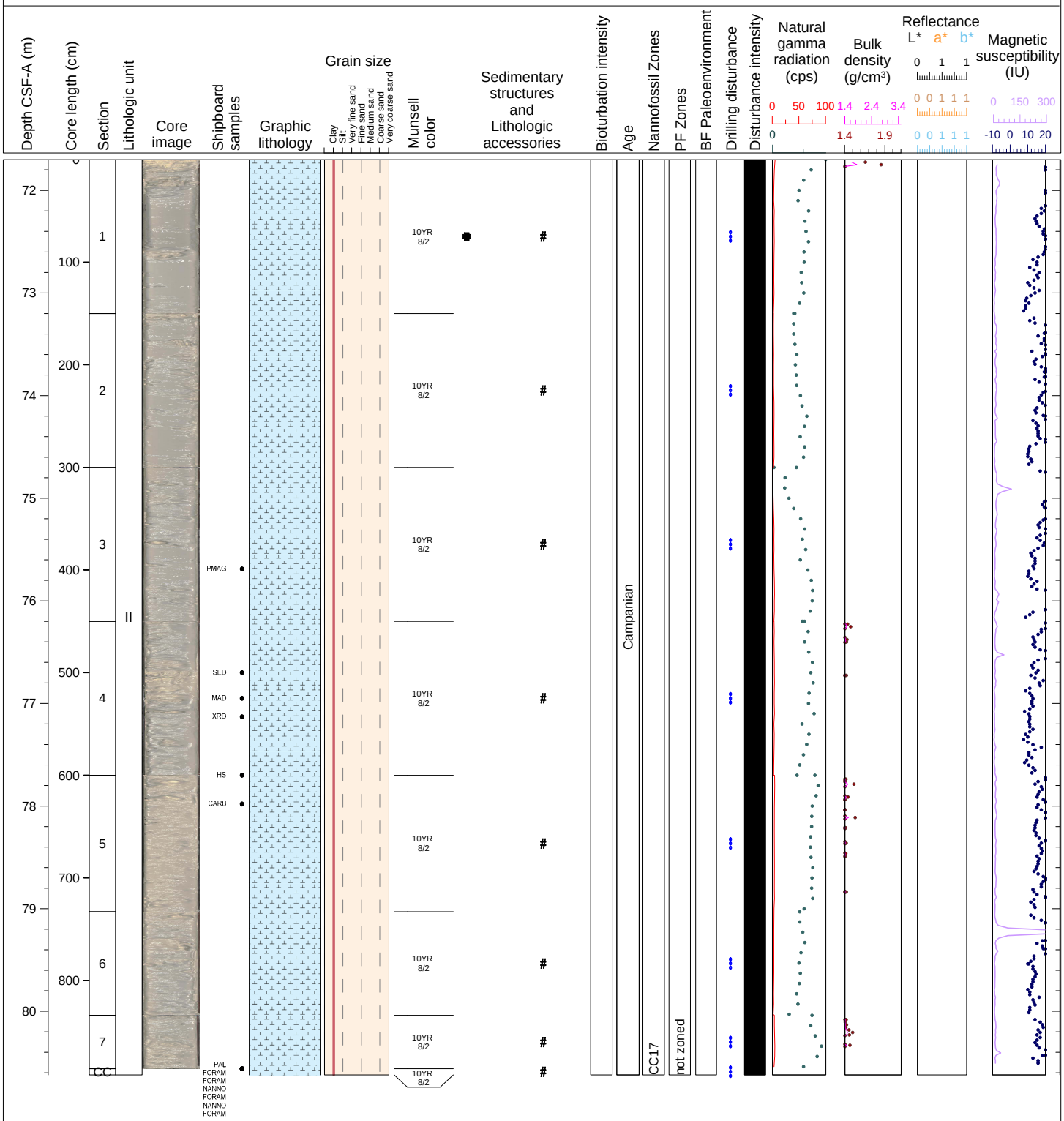
Hole 369-U1513A Core 9H, Interval 62.2-72.07 m (CSF-A)

Core 9H is a pale yellow nannofossils ooze. Nannofossils are generally more abundant than foraminifera. The overall grain size is clay. A chert nodule is present in Section 5 at 14-20 cm. There is no drilling disturbance. Munsell color notations for this core are as follows: 2.5Y 7/3– pale yellow, and 10YR 8/2– very pale brown.



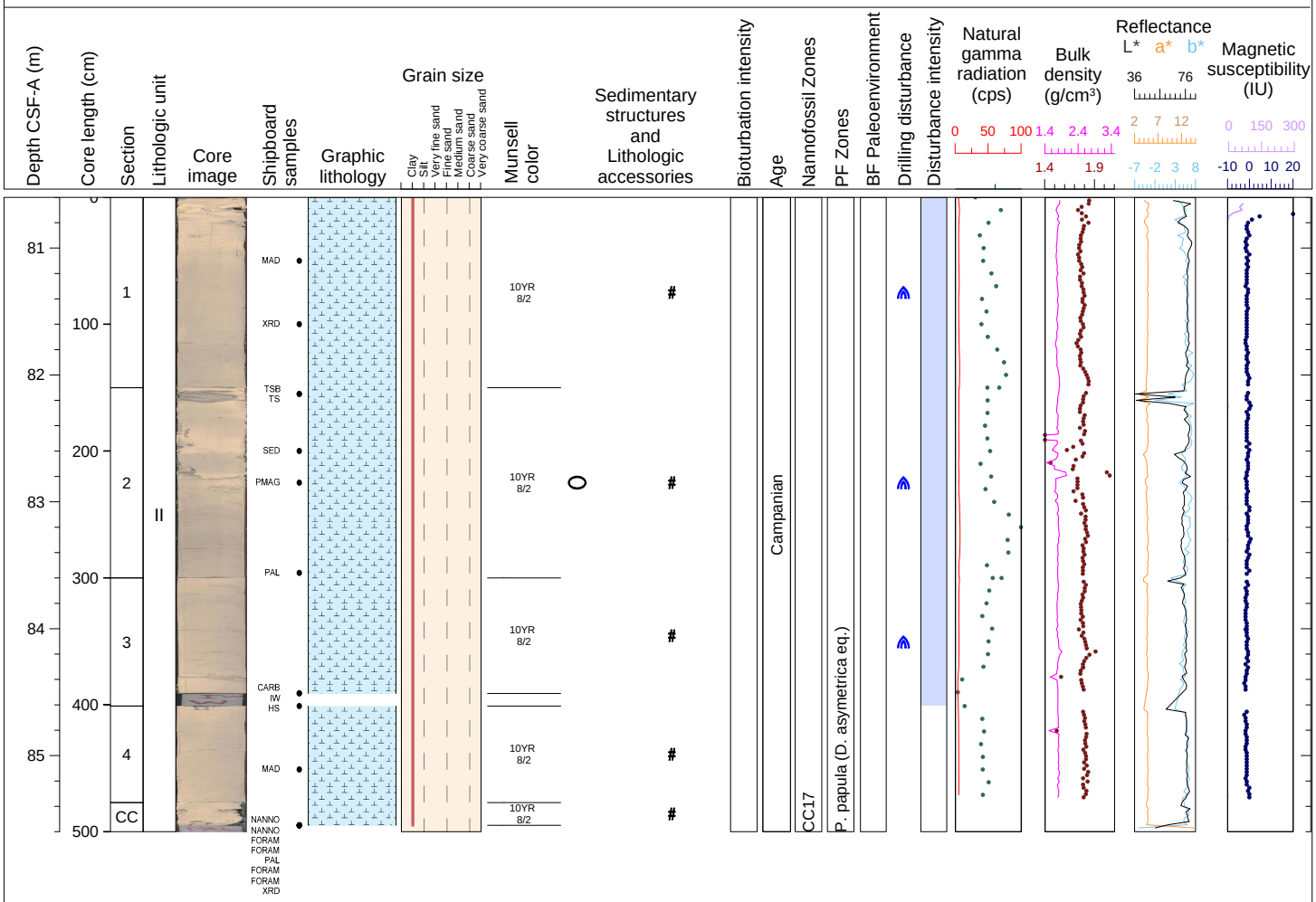
Hole 369-U1513A Core 10H, Interval 71.7-80.62 m (CSF-A)

Core 10H is a very pale brown nannofossil ooze. Nannofossils are generally more abundant than foraminifera. The overall grain size is clay. A chert nodule is present in Section 1 at 1-5 cm.The core is destroyed with soupy disturbance. The Munsell color notation for this core is as follows: 10YR 8/2– very pale brown.



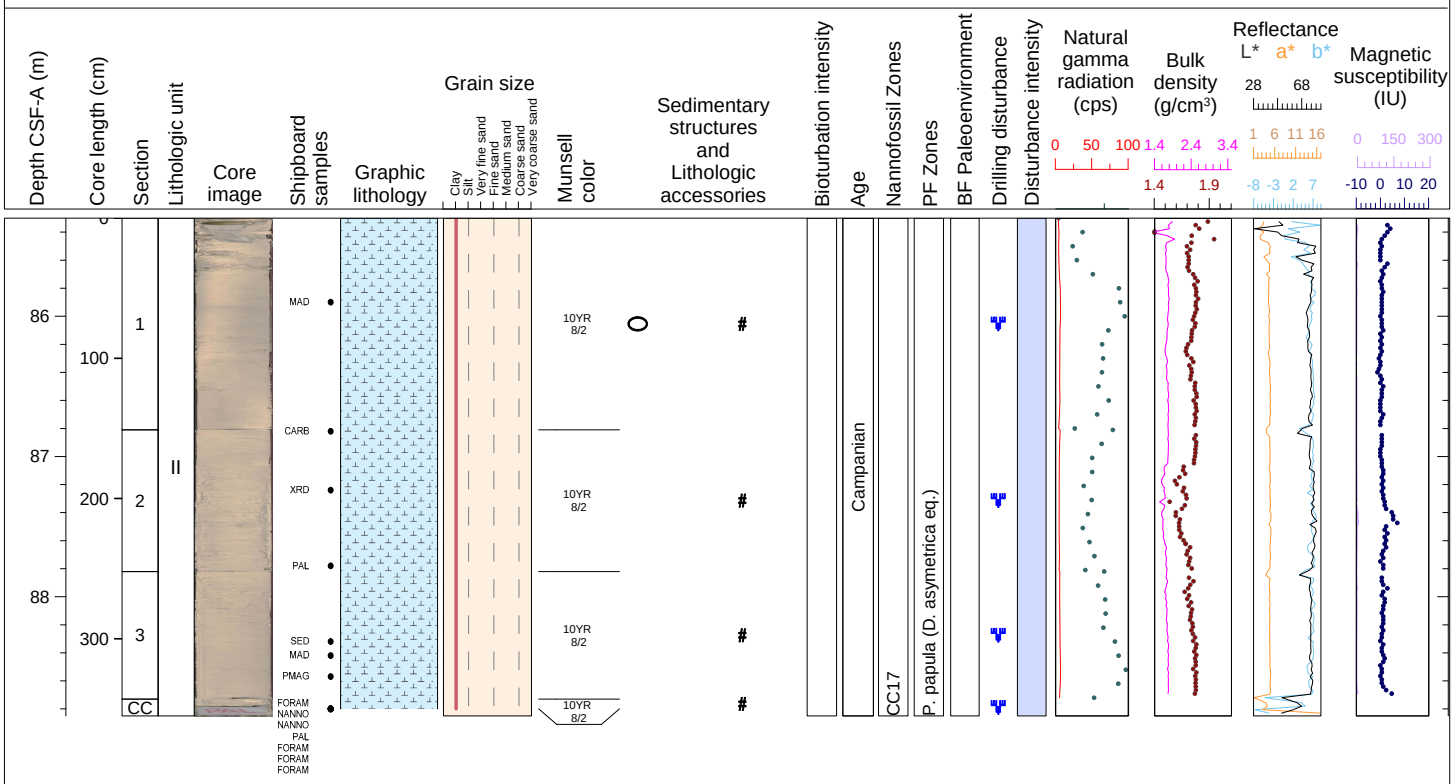
Hole 369-U1513A Core 11F, Interval 80.6-85.6 m (CSF-A)

Core 11F is a very pale brown nannofossil ooze. Nannofossils are generally more abundant than foraminifera. The overall grain size is clay. A silicified limestone fragment is present in Section 2 at 6-10 cm. In Section 2, there are trace amounts of ooids. The core exhibits an overall slight bowed drilling disturbance.The Munsell color notation for this core is as follows: 10YR 8/2– very pale brown.



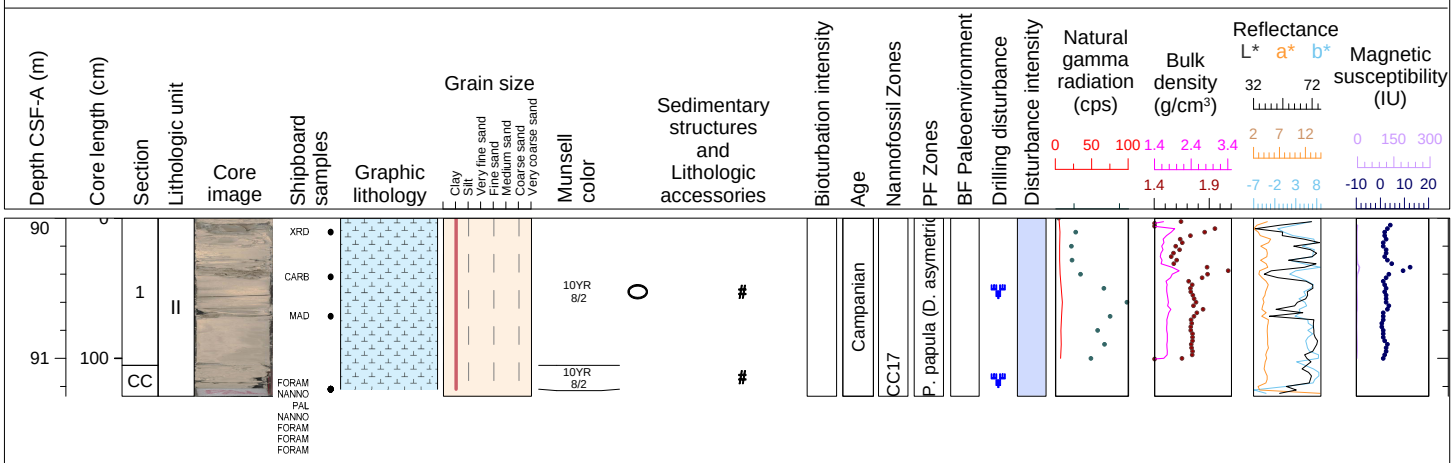
Hole 369-U1513A Core 12F, Interval 85.3-88.85 m (CSF-A)

Core 12F is a very pale brown nannofossil ooze. Nannofossils are generally more abundant than foraminifera. The overall grain size is clay. A chert nodule is present in Section 1 (1-5cm). There is slight mousselike drilling disturbance. The Munsell color notation for this core is as follows: 10YR 8/2– very pale brown.



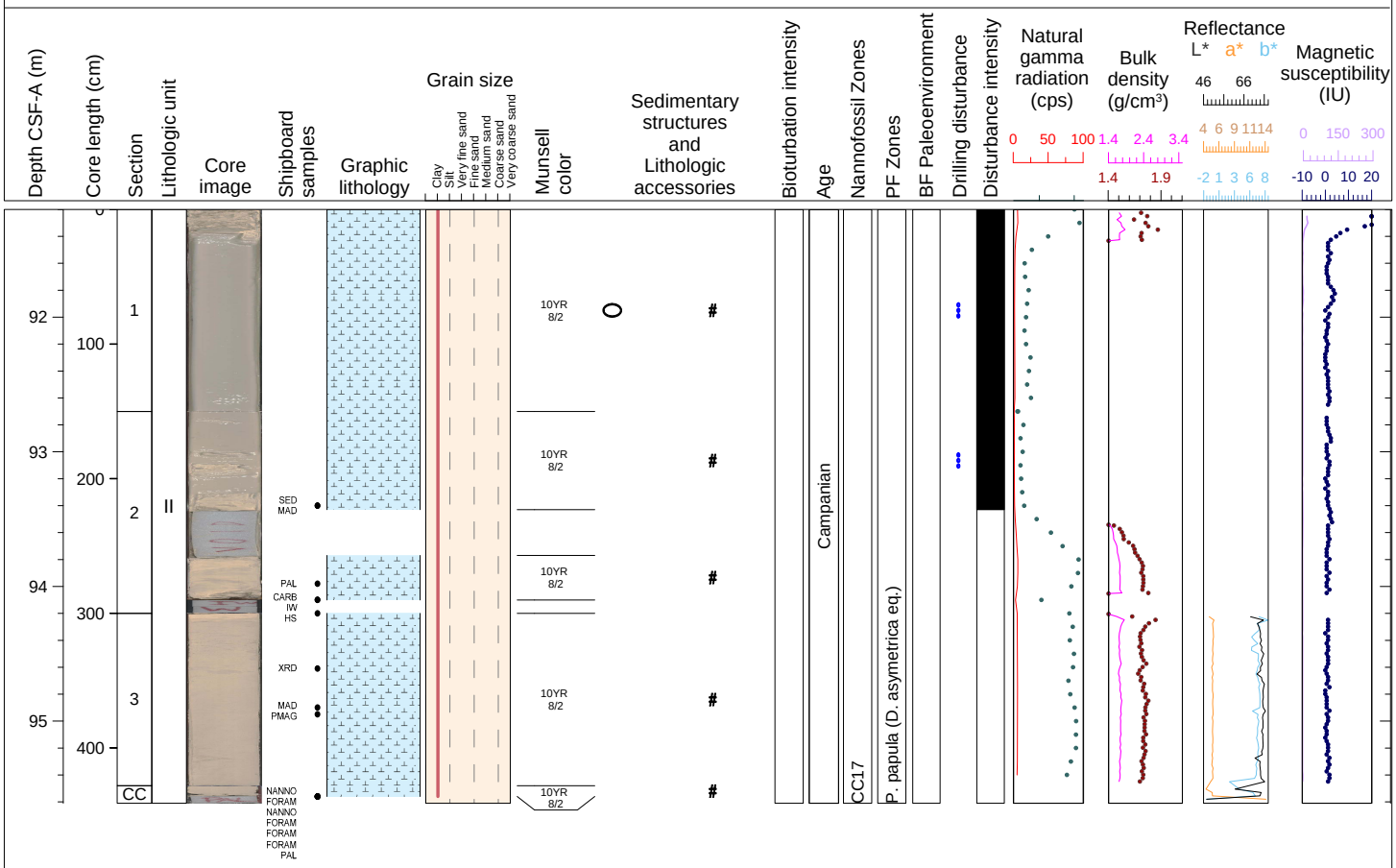
Hole 369-U1513A Core 13F, Interval 90.0-91.27 m (CSF-A)

Core 13F is a very pale brown nannofossil ooze. Nannofossils are generally more abundant than foraminifera. The overall grain size is clay. The core exhibits a slight mousse-like drilling disturbance. In Section 1, two silicified limestone fragments are observed at 32-35 cm and 65-58 cm. The Munsell color notation for this core is as follows: 10YR 8/2– very pale brown.



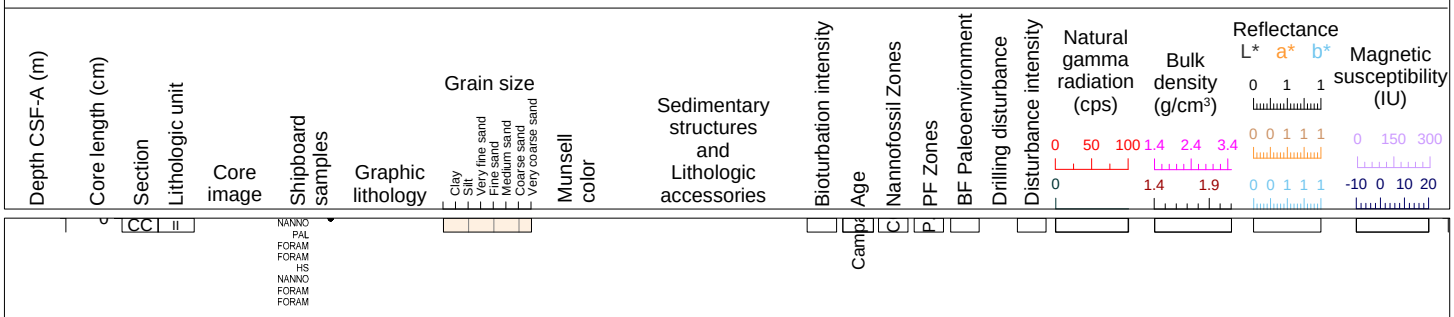
Hole 369-U1513A Core 14F, Interval 91.2-95.61 m (CSF-A)

Core 14F is a very pale brown nannofossil ooze. Nannofossils are generally more abundant than foraminifera. The overall grain size is clay. Section 1 and Section 2 (until 73 cm) are destroyed with soupy drilling disturbance, the rest of the core presents no drilling disturbance. In Section 1, silicified limestone fragments are observed at 32-35 cm and 65-58 cm. The Munsell color notation for this core is as follows: 10YR 8/2– very pale brown.



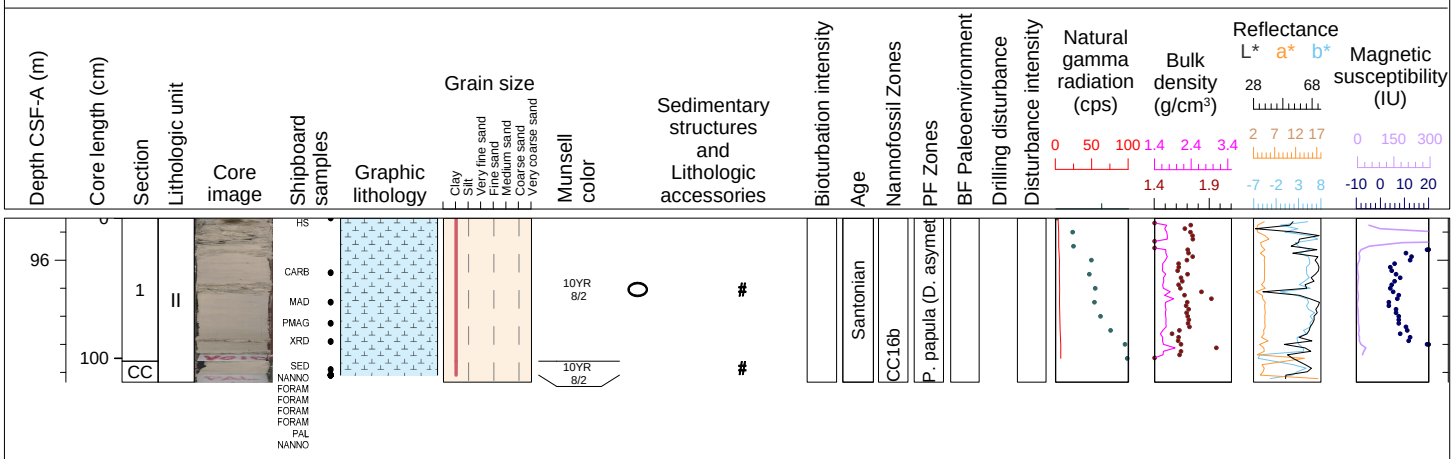
Hole 369-U1513A Core 15F, Interval 95.6-95.7 m (CSF-A)

All to paleo



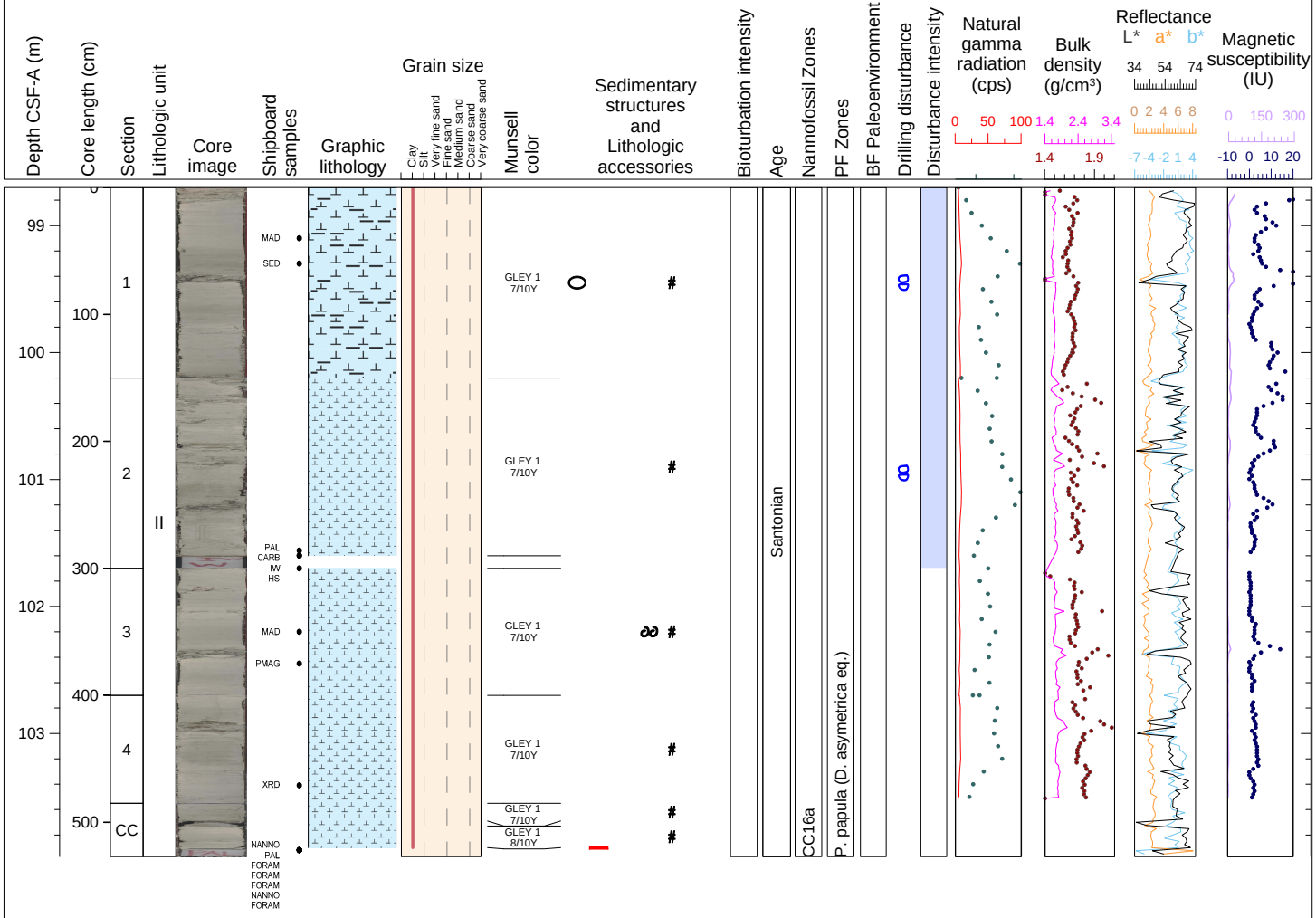
Hole 369-U1513A Core 16X, Interval 95.7-96.87 m (CSF-A)

Core 16X is a very pale brown nannofossils ooze. The overall grain size is clay. Section 1 and Section 2 (until 73 cm) are destroyed with soupy drilling disturbance, the rest of the core presents no drilling disturbance. In Section 1, silicified limestone fragments are present at 0-20 cm and 47-54 cm. The Munsell color notation for this core is as follows: 10YR 8/2– very pale brown.



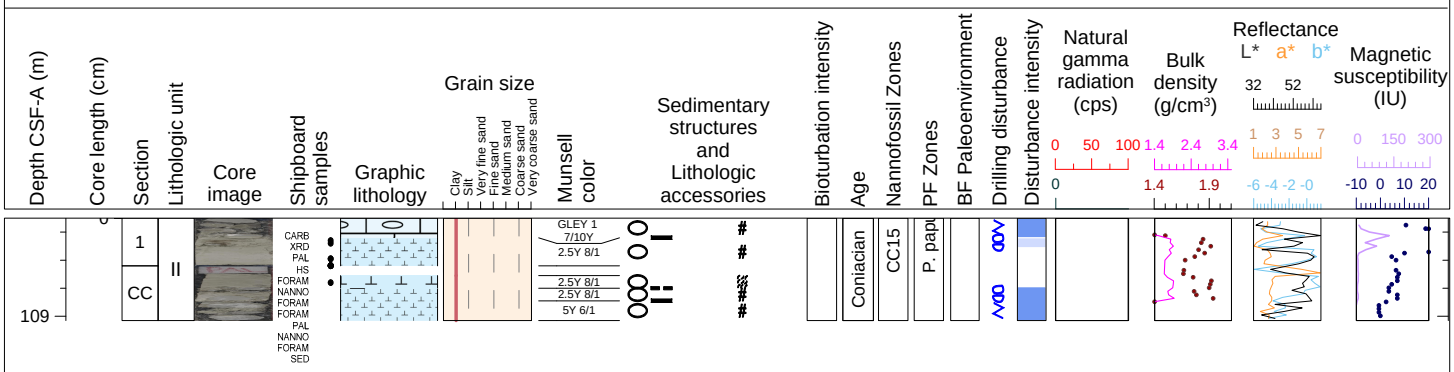
Hole 369-U1513A Core 17X, Interval 98.7-103.97 m (CSF-A)

Core 17X is a light greenish gray nannofossil ooze. The overall grain size is clay. Section 1 and Section 2 present slight biscuit drilling disturbance, the rest of the core presents no drilling disturbance. Intervals with silicified limestone fragment are frequent throughout. In Section 3, an inoceramid fragment was present. Munsell color notations for this core are as follows: GLEY 1 7/10Y– light greenish gray, and GLEY 1 8/10Y– light greenish gray.



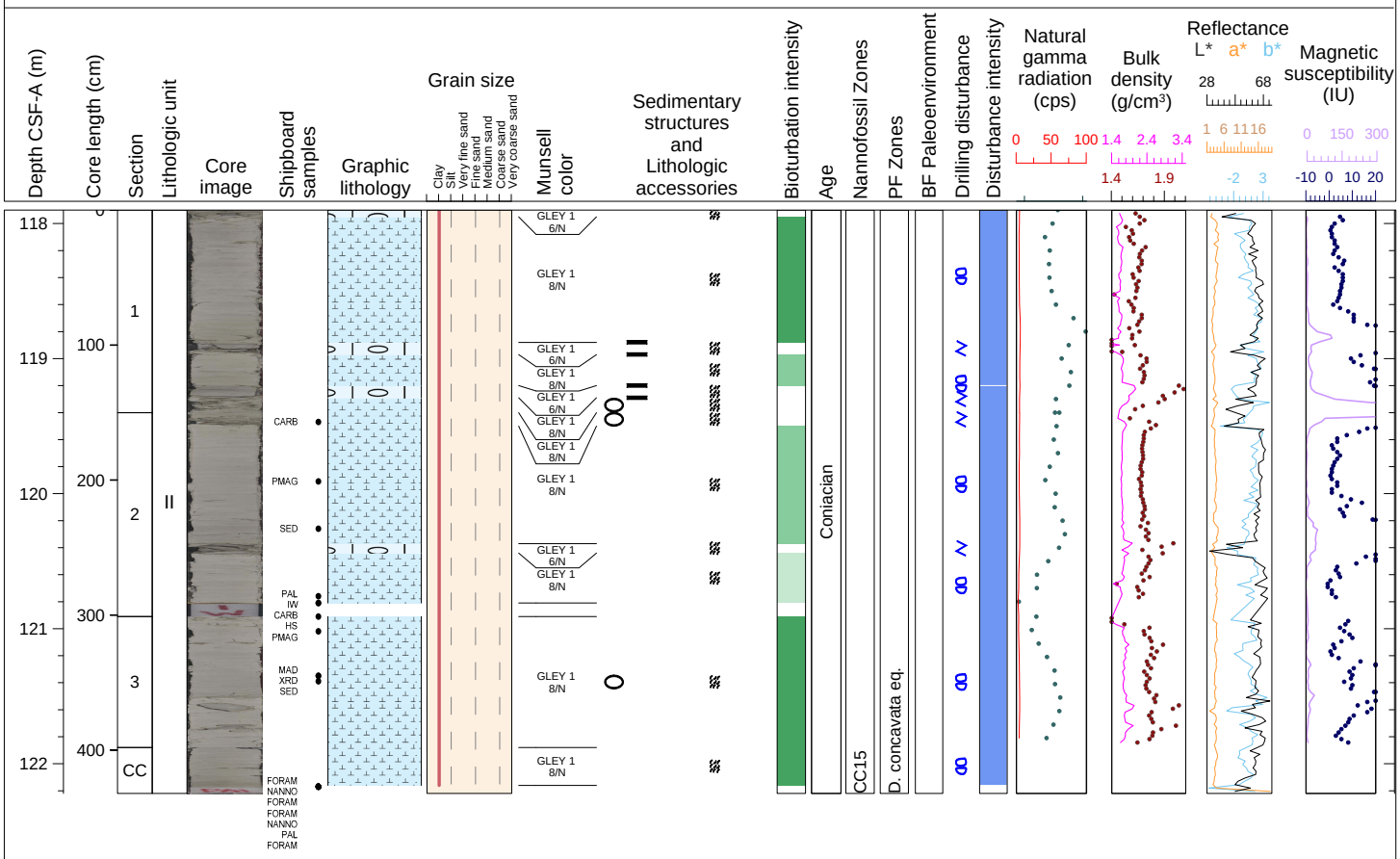
Hole 369-U1513A Core 18X, Interval 108.3-109.03 m (CSF-A)

Core 18X is a white to light olive gray nannofossil ooze with silicified limestone. The overall grain size is clay. Munsell color notations for this core are as follows: GLEY 1 7/10Y– light greenish gray, 2.5Y 8/1– white, and 5Y 6/1– light olive gray.



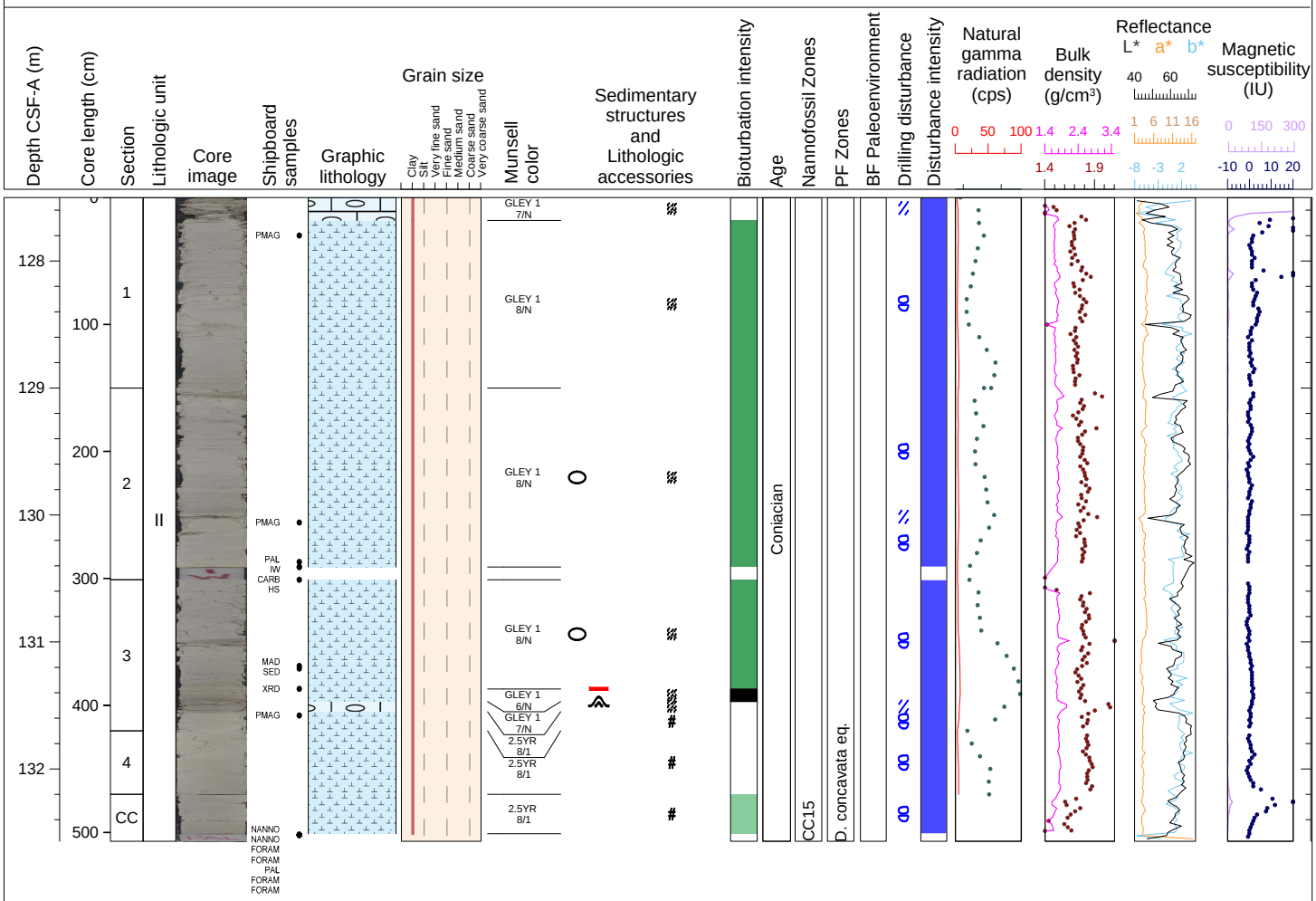
Hole 369-U1513A Core 19X, Interval 117.9-122.22 m (CSF-A)

Core 19X is a white nannofossil ooze with silicified limestone/nodules. The overall grain size is clay. Bioturbation is low to moderate throughout. The core exhibits moderate biscuit to fragmented drilling disturbance. Munsell color notations for this core are as follows: GLEY 1 6/N– gray, and GLEY 1 8/N– white gray.



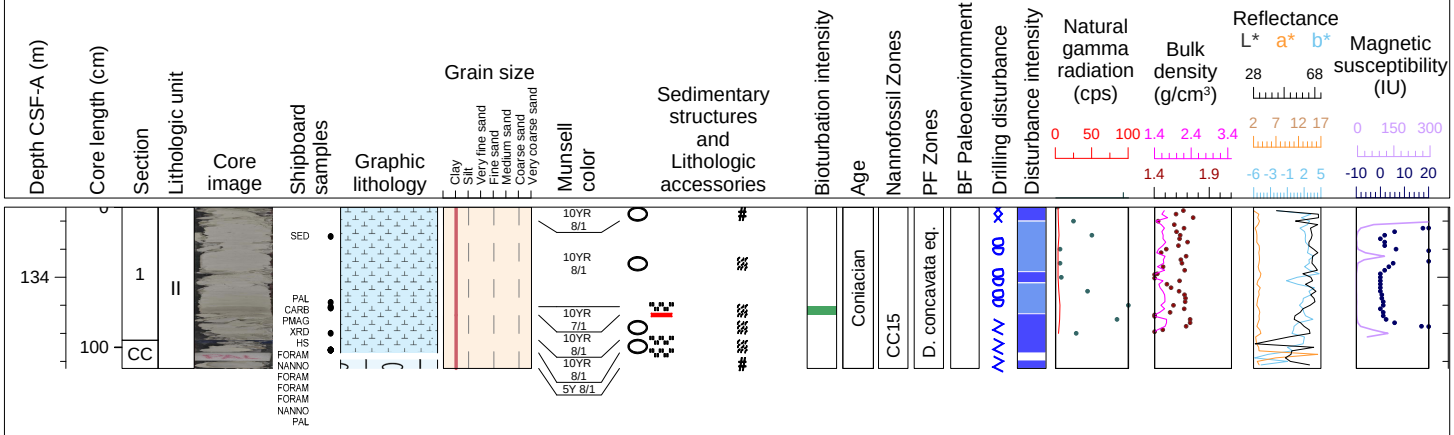
Hole 369-U1513A Core 20X, Interval 127.5-132.57 m (CSF-A)

Core 20X is a white nannofossil ooze with silicified limestone/nodules. The overall grain size is clay. Bioturbation intensity is low to moderate throughout. The core exhibits moderate biscuit to fragmented drilling disturbance. Munsell color notations for this core are as follows: GLEY 1 6/N– gray, GLEY 1 7/N– light gray, GLEY 1 8/N– white gray, and 2.5YR 8/1– white.



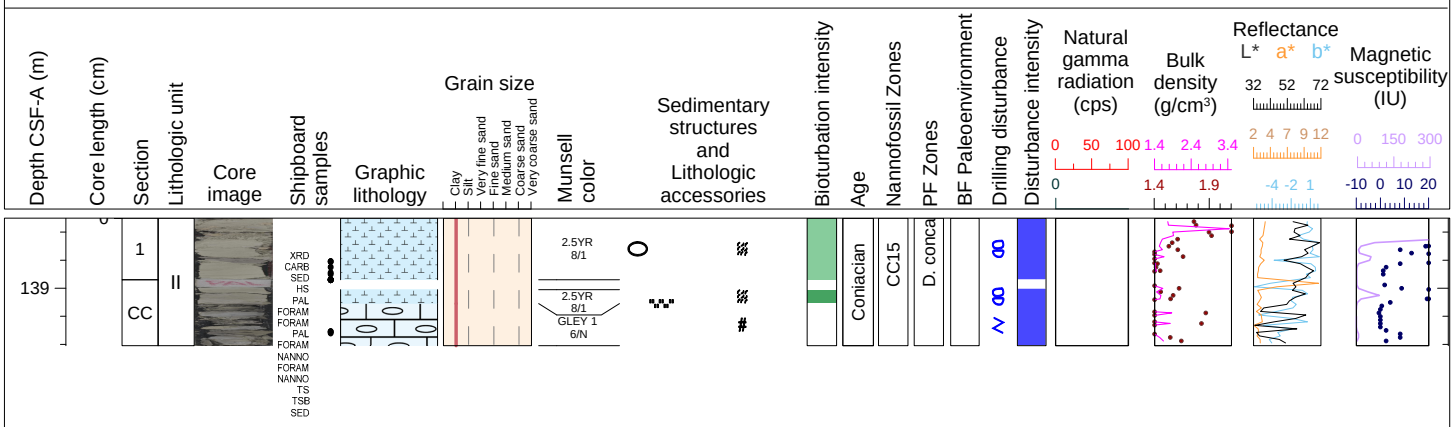
Hole 369-U1513A Core 21X, Interval 133.5-134.65 m (CSF-A)

Core 21X is a white nannofossil ooze with silicified limestone/nodules. The overall grain size is clay. Bioturbation is low throughout. The core exhibits moderate biscuit to brecciated drilling disturbance. Munsell color notations for this core are as follows: 10YR 8/1– white, 10YR 7/1– light gray, and 5Y 8/1–white.



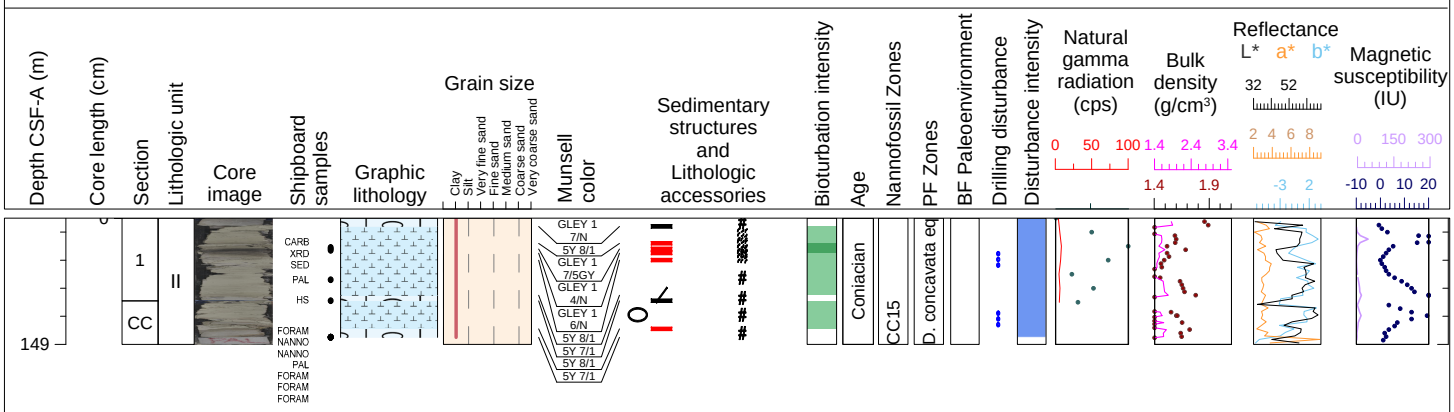
Hole 369-U1513A Core 22X, Interval 138.5-139.41 m (CSF-A)

Core 22X is a white nannofossil ooze with silicified limestone/nodules. A manganese nodule is present at the top of Section 1. The overall grain size is clay. Bioturbation is low to moderate throughout. The core exhibits moderate biscuited to fragmented drilling disturbance. Munsell color notations for this core are as follows: 2.5YR 8/1– white, and GLEY 1 6/N– gray.



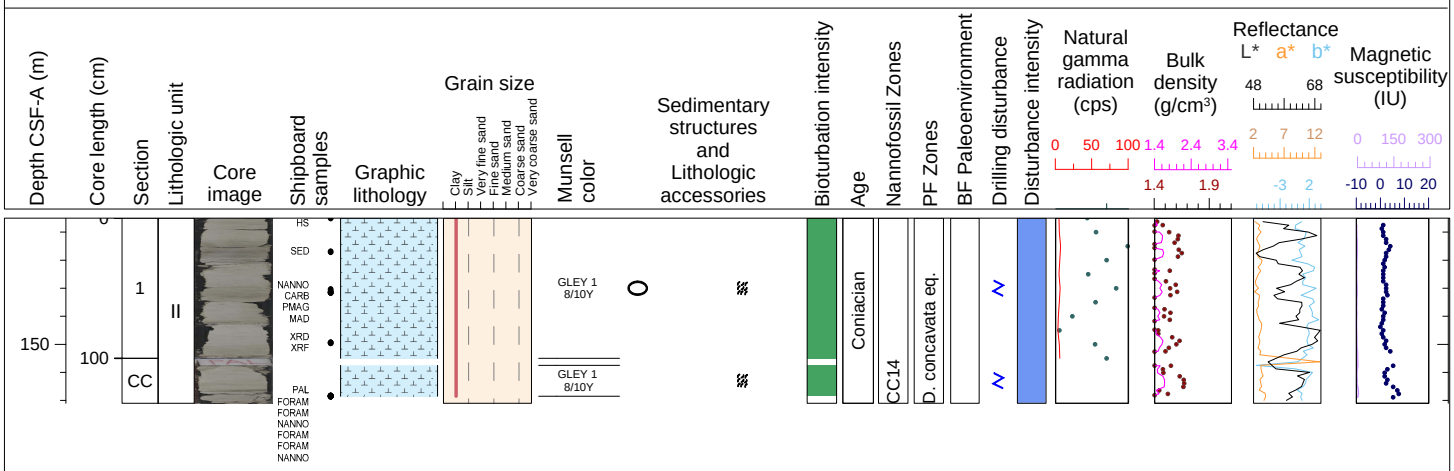
Hole 369-U1513A Core 23X, Interval 148.1-149.0 m (CSF-A)

Core 23X is a white nannofossil/calcareous ooze with silicified limestone/nodules. Black streaks of an unknown mineral(?) is present in the silicified limestone and the ooze. The overall grain size is clay. Bioturbation is low to moderate throughout. The core exhibits moderate biscuited drilling disturbance. Munsell color notations for this core are as follows: GLEY 1 4/N– dark gray, GLEY 1 6/N– gray, GLEY 1 7/N– light gray, GLEY 1 7/5GY– light greenish gray, 5Y 7/1– light gray, and 5Y 8/1–white.



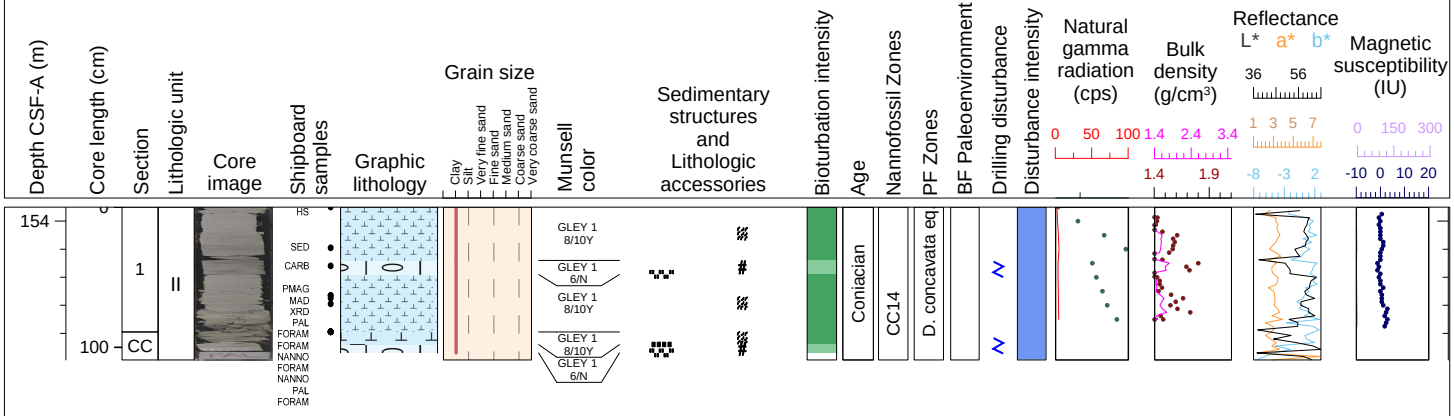
Hole 369-U1513A Core 24X, Interval 149.1-150.42 m (CSF-A)

Core 24X is a greenish gray nannofossil ooze with silicified limestone/nodules. The overall grain size is clay. Bioturbation intensity is moderate throughout with frequent burrows. Recognised ichofacies include chondrites, zoophycos, planolites, thalassinoides and teichichnus. The core exhibits moderately fragmented drilling disturbance. The Munsell color notation for this core is as follows: GLEY 1 8/10Y– light greenish gray.



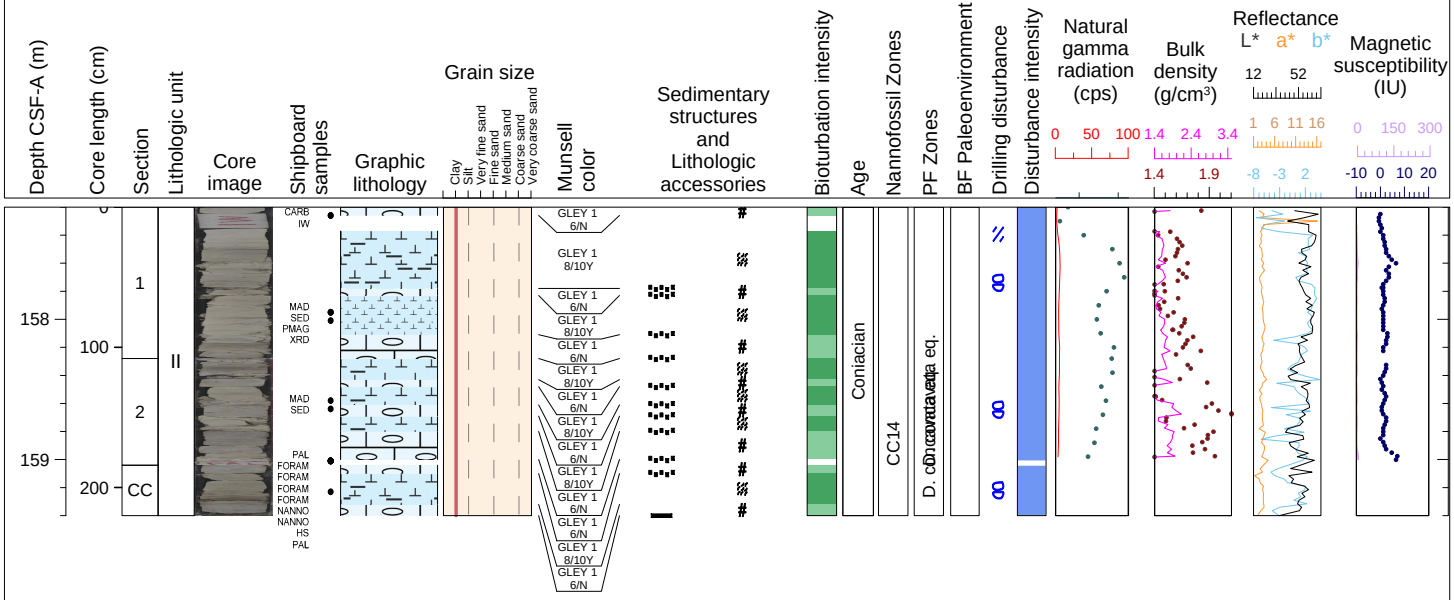
Hole 369-U1513A Core 25X, Interval 153.9-154.99 m (CSF-A)

Core 25X is a light greenish gray clayey nannofossil ooze/chalk with silicified limestone beds. The lithology changes to lithified calcareous chalk at 25X-CC (0 cm). The overall grain size is clay. Bioturbation is moderate in the nannofossil ooze/chalk and low in the silicified beds. Recognised ichofacies include chondrites, zoophycos, planolites, thalassinoides and teichichnus. The core exhibits moderately fragmented drilling disturbance. Munsell color notations for this core are as follows: GLEY 1 6/N– gray, and GLEY 1 8/10Y– light greenish gray.



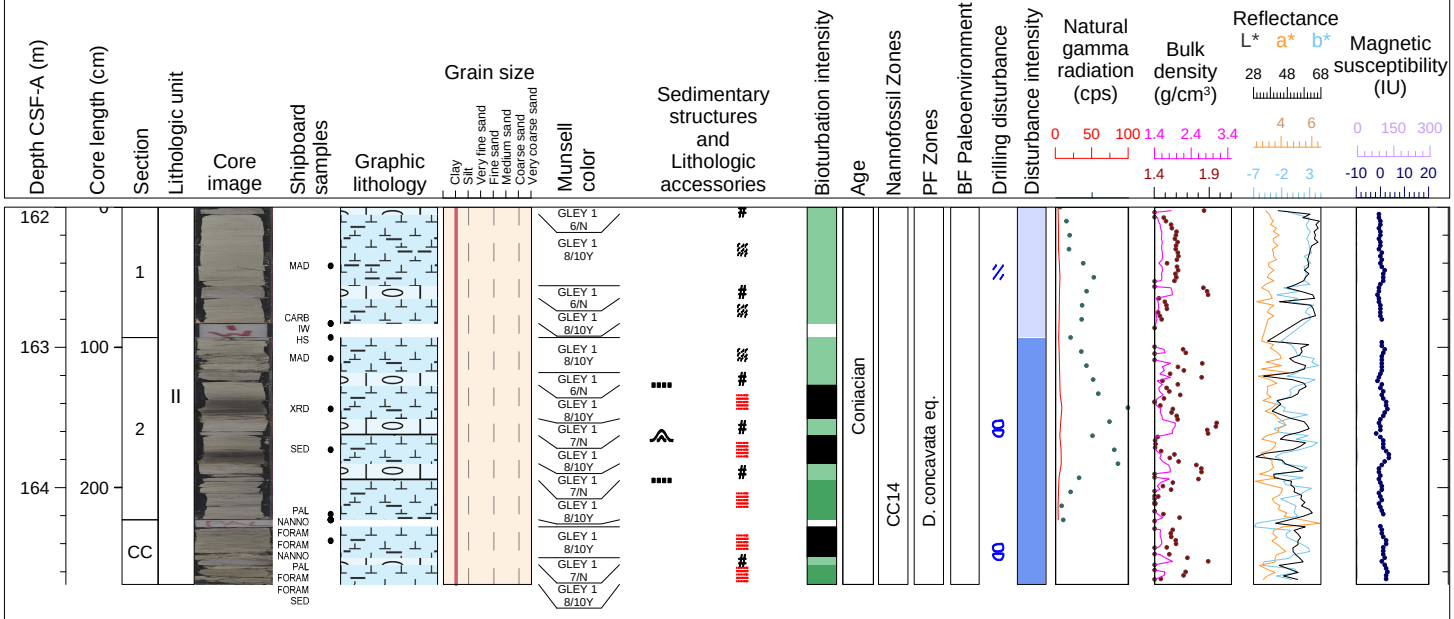
Hole 369-U1513A Core 26X, Interval 157.2-159.4 m (CSF-A)

Core 26X is a greenish gray clayey nannofossil chalk with silicified limestone beds up to 10 cm thick. The overall grain size is clay. Bioturbation intensity is moderate in the nannofossil chalk and low in the silicified beds. Recognized ichofacies include chondrites, zoophycos, planolites, thalassinoides and teichichnuss. The core exhibits moderately fragmented and biscuited drilling disturbance. Munsell color notations for this core are as follows: GLEY 1 6/N– gray, and GLEY 1 8/10Y– light greenish gray.



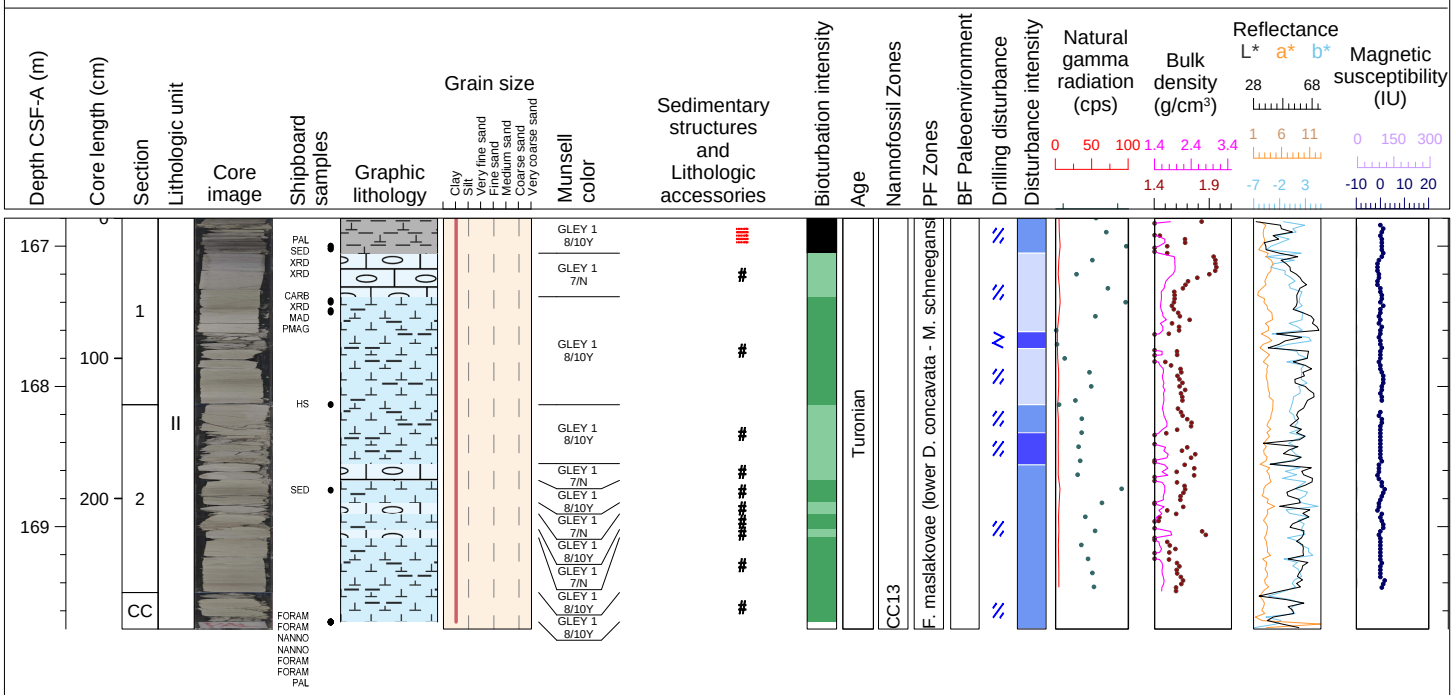
Hole 369-U1513A Core 27X, Interval 162.0-164.69 m (CSF-A)

Core 27X is a greenish gray clayey nannofossil chalk with silicified limestone beds up to 8 cm thick. The overall grain size is clay. Bioturbation intensity is moderate to high in the nannofossil chalk and low in the silicified beds. High bioturbation in the nannofossil chalk causes color banding. Recognized ichofacies include chondrites, zoophycos, planolites, thalassinoides and teichichnus. The core exhibits slight to moderately fragmented and biscuited drilling disturbance. Munsell color notations for this core are as follows: GLEY 1 6/N– gray, GLEY 1 7/N– light gray, and GLEY 1 8/10Y– light greenish gray.



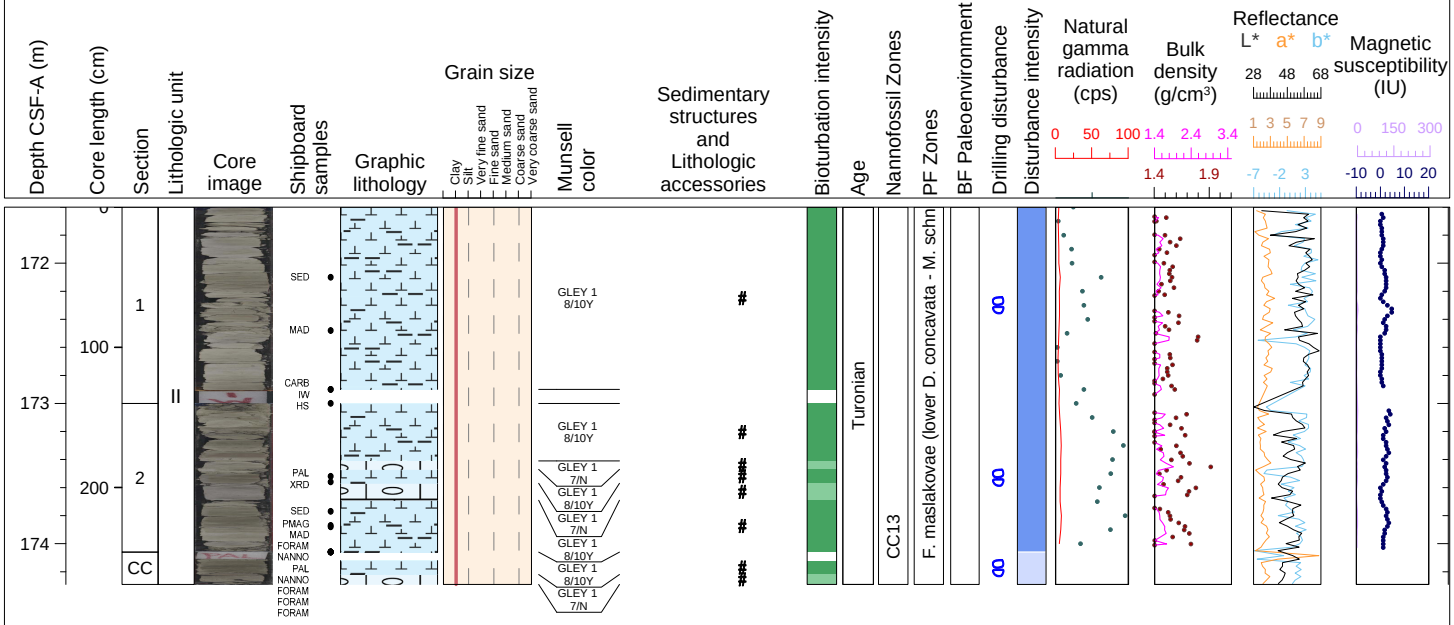
Hole 369-U1513A Core 28X, Interval 166.8-169.73 m (CSF-A)

Core 28X is a greenish gray clayey nannofossil chalk with silicified limestone beds up to 10 cm thick. The overall grain size is clay. Bioturbation intensity is moderate to high in the nannofossil chalk and low in the silicified beds. High bioturbation in the nannofossil chalk causes color banding. Recognized ichofacies include chondrites, zoophycos, planolites, thalassinoides and teichichnus. The core exhibits slight to highly fragmented drilling disturbance. Munsell color notations for this core are as follows: GLEY 1 7/N– light gray, and GLEY 1 8/10Y– light greenish gray.



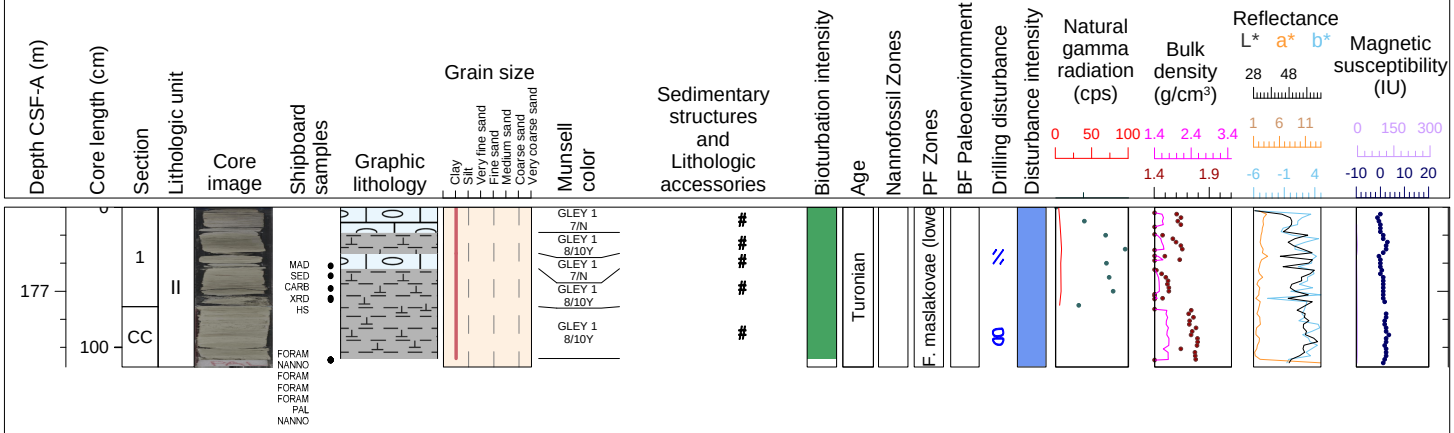
Hole 369-U1513A Core 29X, Interval 171.6-174.29 m (CSF-A)

Core 29X is a greenish gray clayey nannofossil chalk with silicified limestone beds up to 10 cm thick. The overall grain size is clay. Bioturbation intensity is moderate to high in the nannofossil chalk and low in the silicified beds. Greenish/brownish-coloed burrows are frequently observed. Recognized ichofacies include chondrites, zoophycos, planolites, thalassinoides and teichichnus. The core exhibits moderate biscuit drilling disturbance. Munsell color notations for this core are as follows: GLEY 1 7/N– light gray, and GLEY 1 8/10Y– light greenish gray.



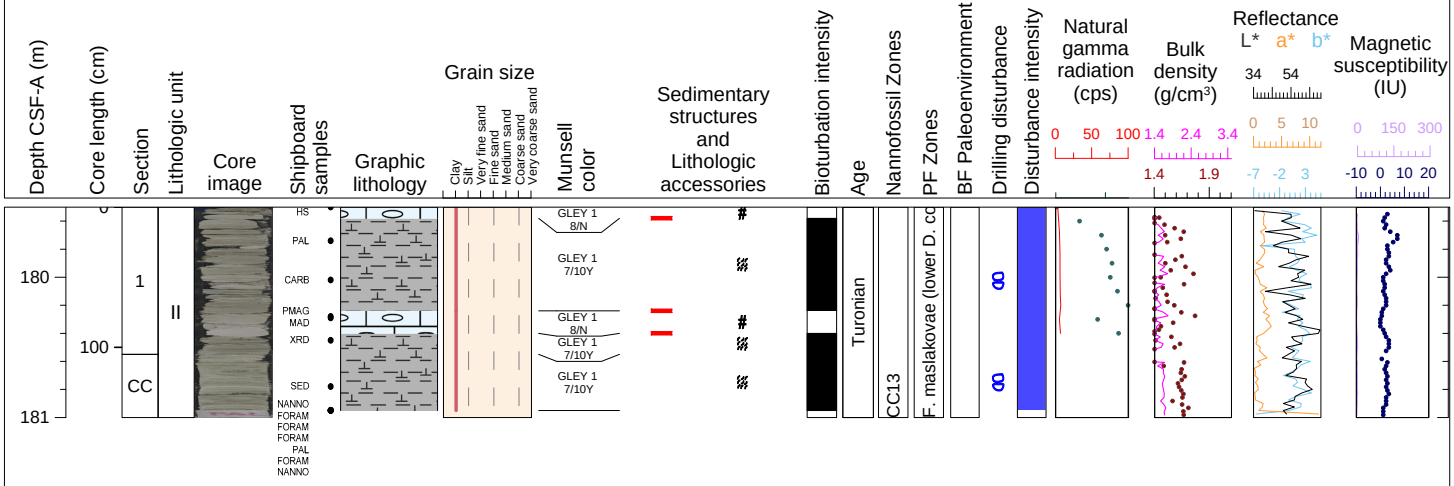
Hole 369-U1513A Core 30X, Interval 176.4-177.54 m (CSF-A)

Core 30X is a greenish gray clayey nannofossil chalk with silicified limestone beds up to 5 cm thick. The overall grain size is clay. Bioturbation intensity is moderate in the nannofossil chalk and low in the silicified beds. Recognized ichofacies include chondrites, zoophycos, planolites, thalassinoides and teichichnus. The core exhibits moderately fractured/biscuited drilling disturbance. Munsell color notations for this core are as follows: GLEY 1 7/N– light gray, and GLEY 1 8/10Y– light greenish gray.



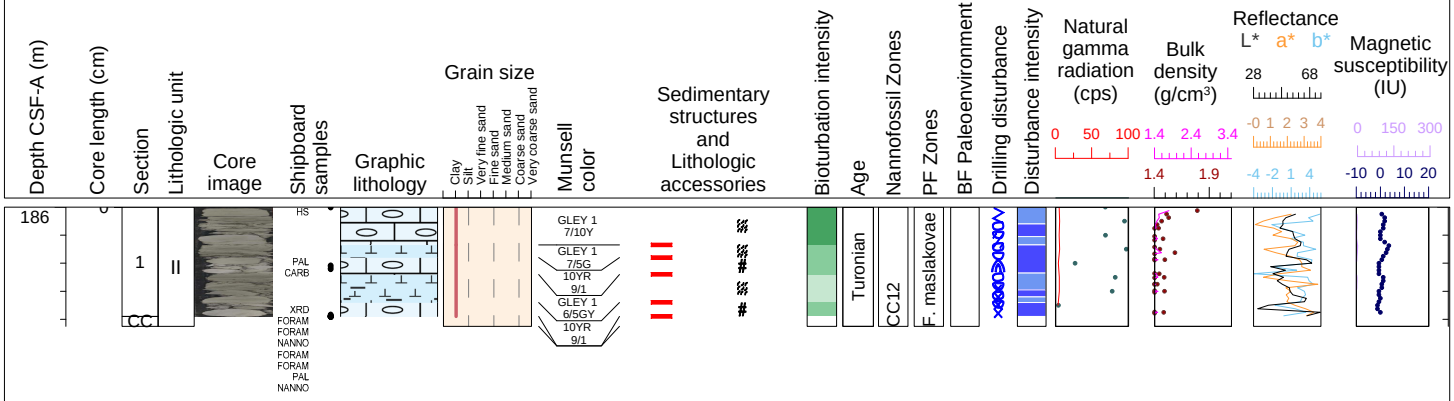
Hole 369-U1513A Core 31X, Interval 179.5-181.0 m (CSF-A)

Core 31X is a light greenish gray clayey nannofossil chalk with white intervals and silicified limestone. The overall grain size is clay. Bioturbation is high in the light greenish gray nannofossil chalk and low in the white intervals. The core exhibits severe biscuited drilling disturbance. Munsell color notations for this core are as follows: GLEY 1 8/N– white gray, and GLEY 1 7/10Y– light greenish gray.



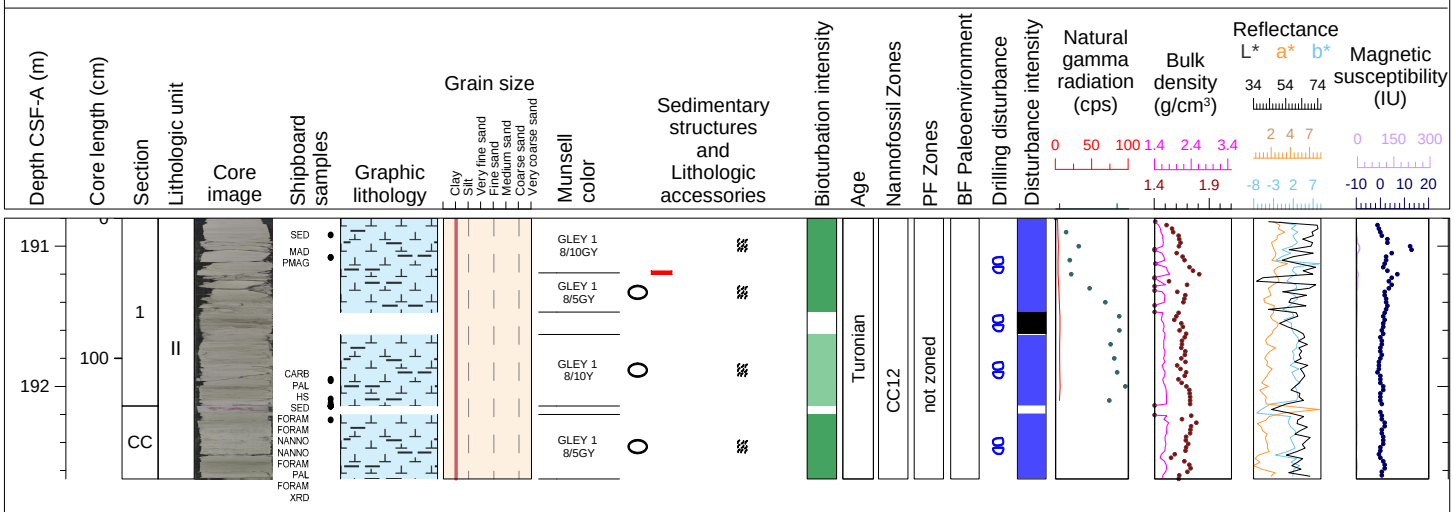
Hole 369-U1513A Core 32X, Interval 186.0-186.85 m (CSF-A)

Core 32X is a white to greenish gray clayey nannofossil chalk with intervals of silicified limestone. The overall grain size is clay. Bioturbation is sparse to low throughout. The core exhibits severe brecciated and biscuited drilling disturbance. Munsell color notations for this core are as follows: GLEY 1 7/10Y– light greenish gray, GLEY 1 6/5GY– greenish gray, GLEY 1 7/5G– light greenish gray, and 10YR 9/1– white.



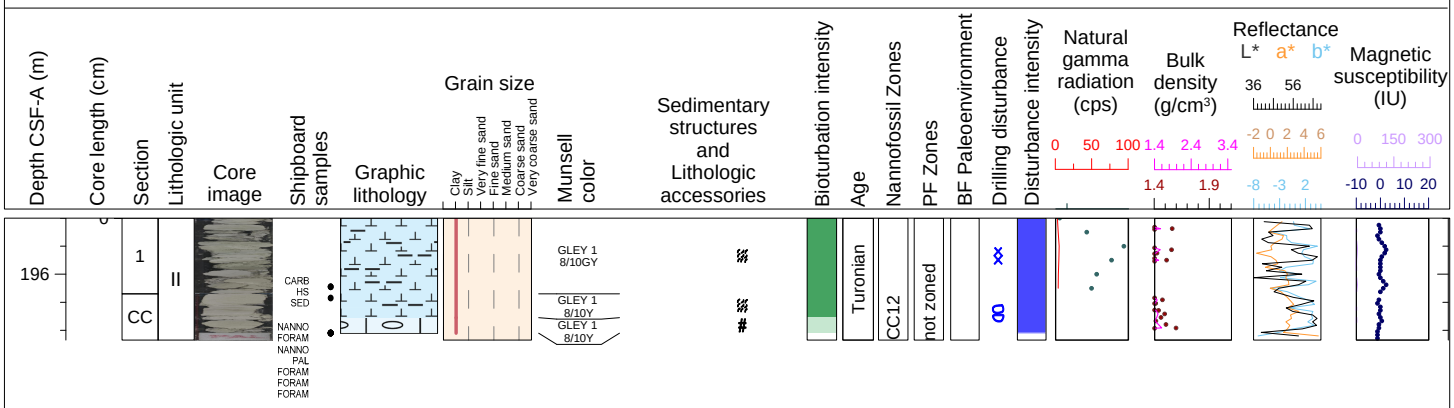
Hole 369-U1513A Core 33X, Interval 190.8-192.66 m (CSF-A)

Core 33X is a light greenish gray clayey nannofossil chalk with intervals of silicified limestone. The overall grain size is clay. Bioturbation intensity is low to moderate throughout. The core exhibits severe to destroyed biscuited drilling disturbance. Munsell color notations for this core are as follows: GLEY 1 8/10GY– light greenish gray, and GLEY 1 8/5GY– light greenish gray.



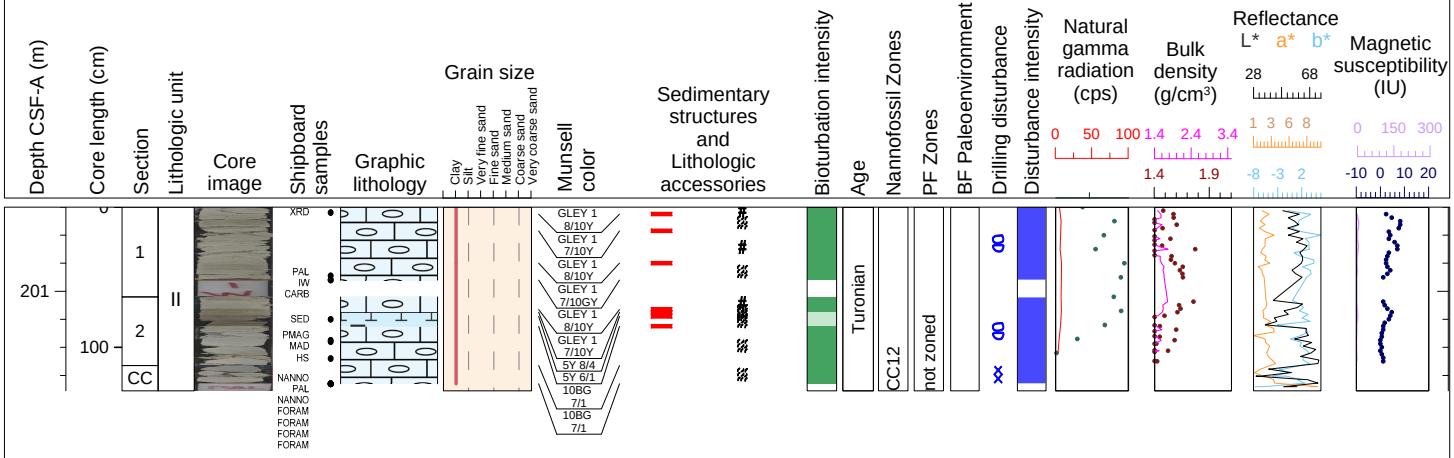
Hole 369-U1513A Core 34X, Interval 195.6-196.47 m (CSF-A)

Core 34X is a light greenish gray clayey nannofossil chalk with an interval of silicified limestone. The overall grain size is clay. Bioturbation is sparse to moderate throughout. The core exhibits severe to destroyed biscuited drilling disturbance and as a result, many pieces are not in situ. The Munsell color notation for this core is as follows: GLEY 1 8/10GY–light greenish gray.



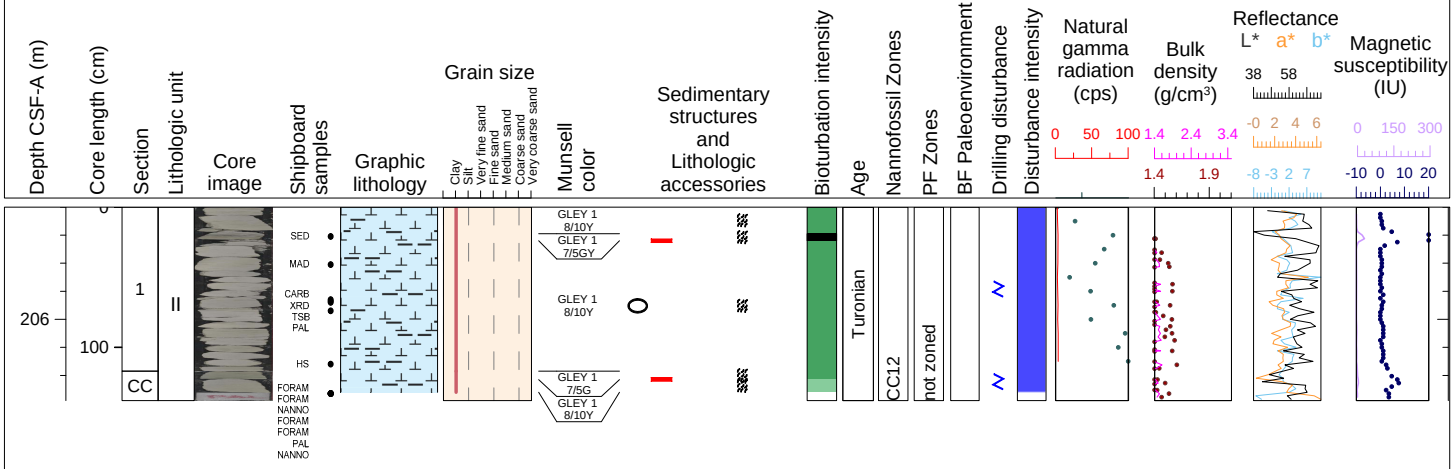
Hole 369-U1513A Core 35X, Interval 200.4-201.71 m (CSF-A)

Core 35X is a light greenish gray to pale yellow silicified limestone with an interval of clayey nannofossil chalk. The overall grain size is clay. Bioturbation is sparse to moderate throughout. The core exhibits severe biscuited and brecciated drilling disturbance. Munsell color notations for this core are as follows: GLEY 1 7/10Y– light greenish gray, GLEY 1 8/10Y– light greenish gray, 5Y 6/1– gray, 5Y 8/4– pale yellow, and 10BG 7/1– light greenish gray.



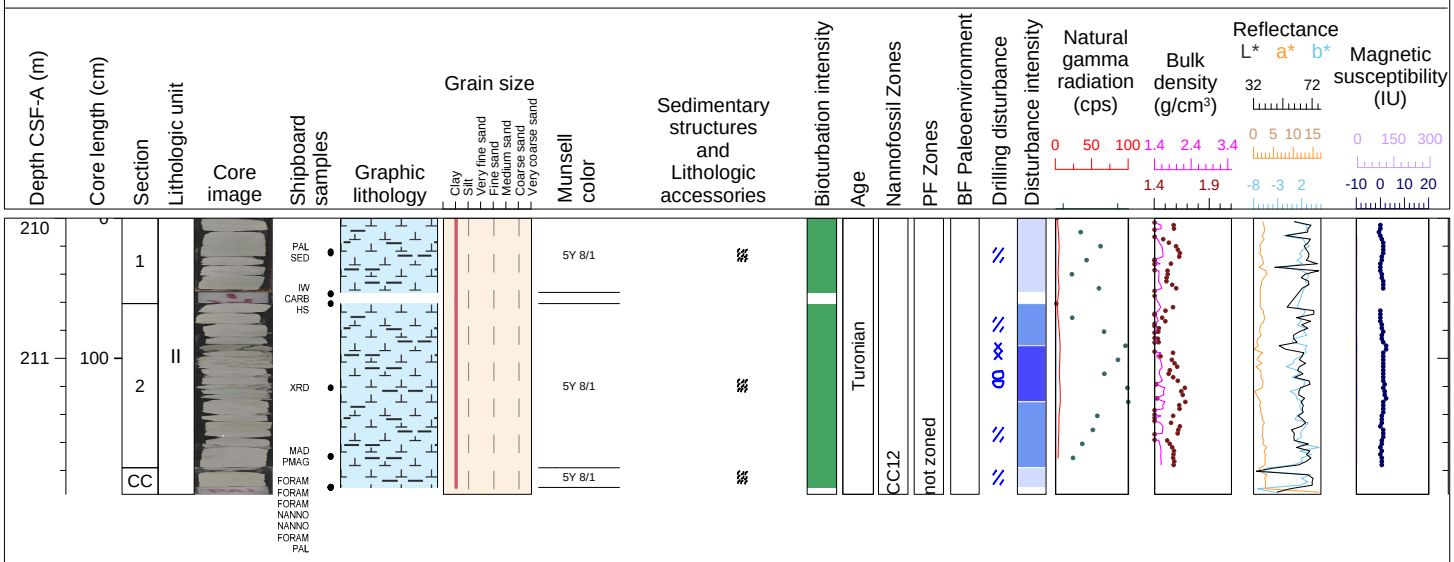
Hole 369-U1513A Core 36X, Interval 205.2-206.58 m (CSF-A)

Core 36X is a white to white greenish gray nannofossil chalk. The overall grain size is clay. Bioturbation is moderate throughout. This core is more lithified than previous cores. The core exhibits severely fragmented drilling disturbance. Munsell color notations for this core are as follows: GLEY 1 8/10Y– light greenish gray, GLEY 1 7/5GY– light greenish gray, and GLEY 1 7/5G– pale green.



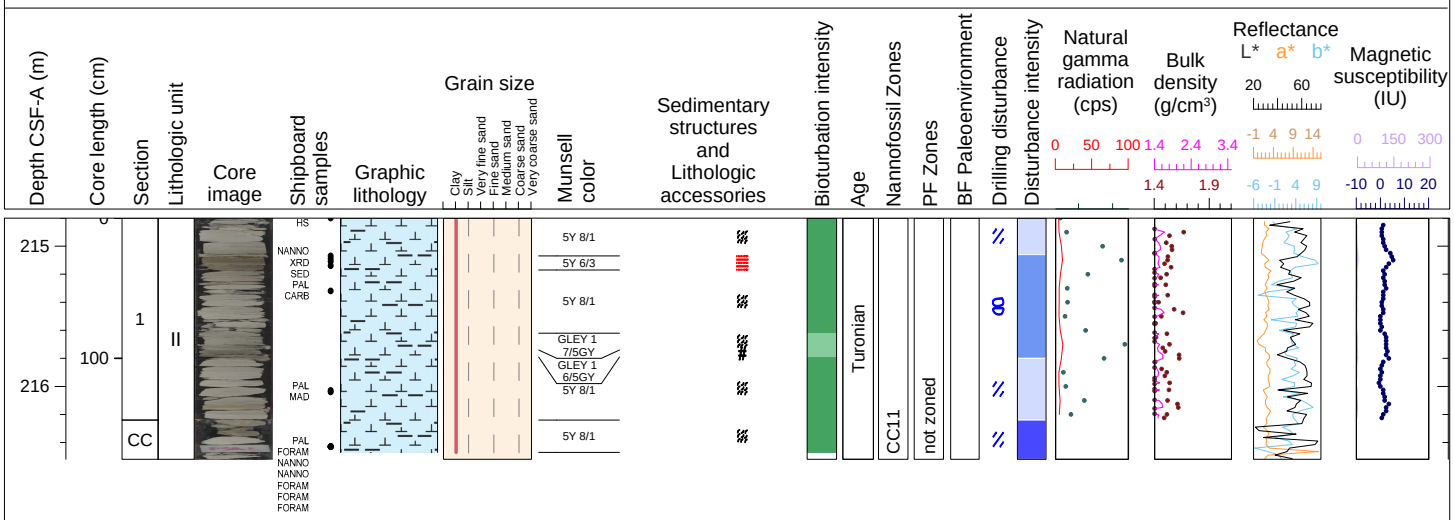
Hole 369-U1513A Core 37X, Interval 210.0-211.97 m (CSF-A)

Core 37X is a white clayey nannofossil chalk. The overall grain size is clay. Bioturbation is moderate throughout. The core exhibits slightly fragmented to severely brecciated drilling disturbances.



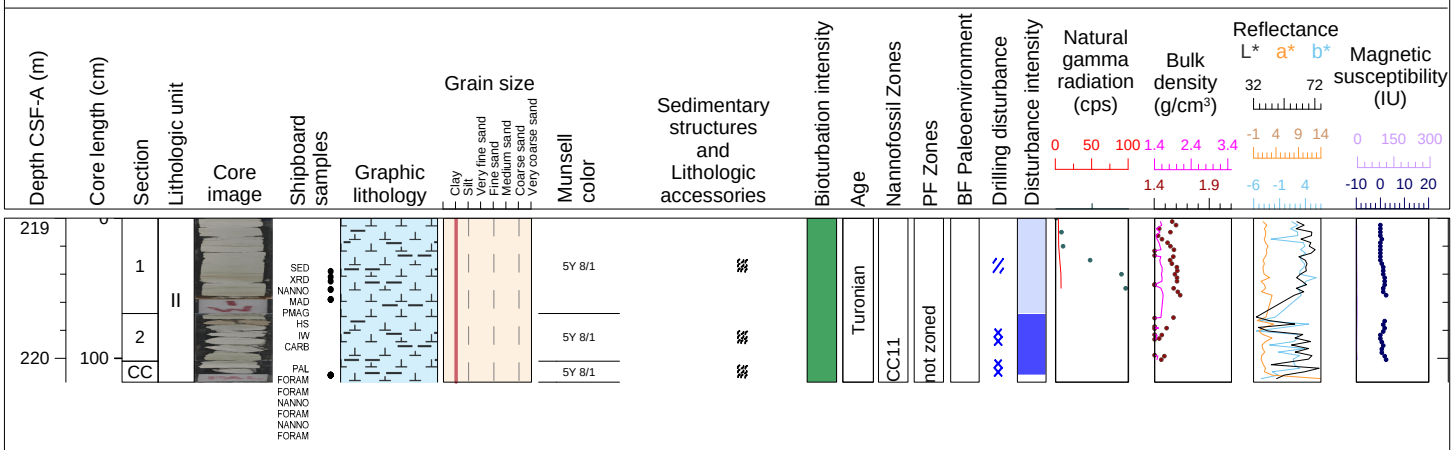
Hole 369-U1513A Core 38X, Interval 214.8-216.52 m (CSF-A)

Core 38X is a white clayey nannofossil chalk. The overall grain size is clay. Bioturbation is moderate throughout. Greenish/gray and brownish/olive intervals were observed. The core exhibits slight to severe fractured and biscuited drilling disturbance.



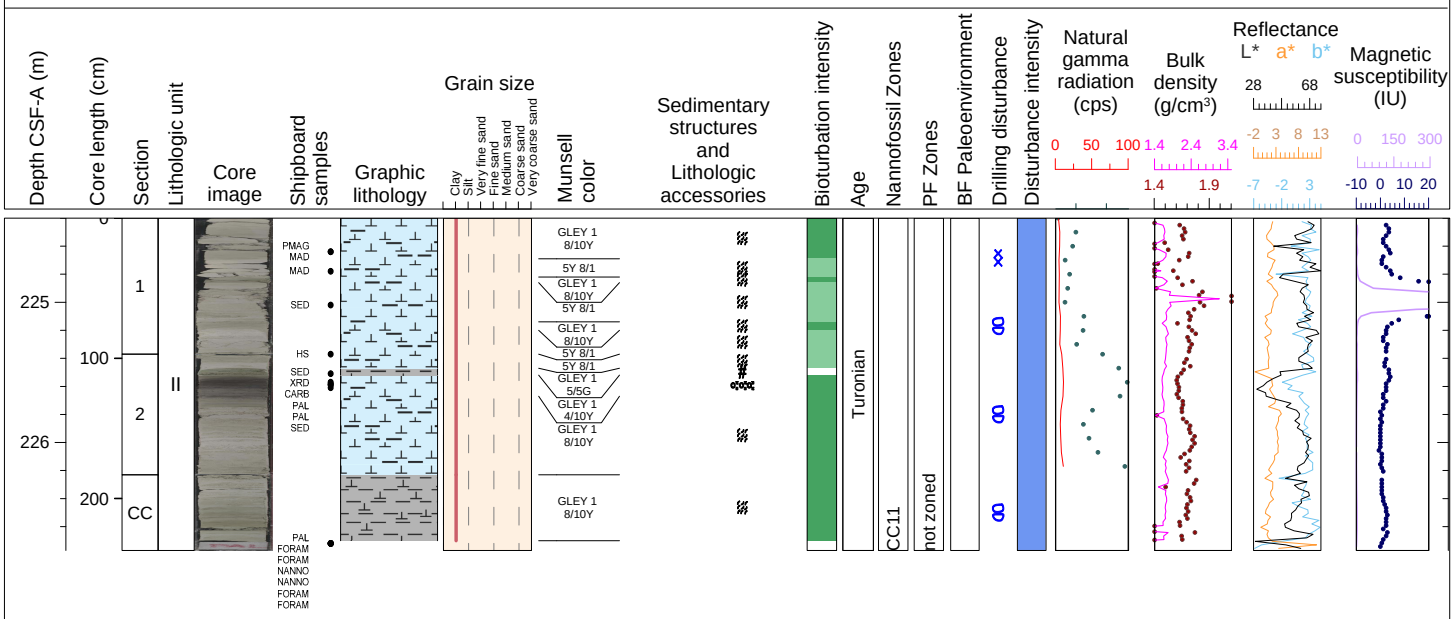
Hole 369-U1513A Core 39X, Interval 219.0-220.17 m (CSF-A)

Core 39X is a white clayey nannofossil chalk. The overall grain size is clay. Bioturbation is moderate throughout. The core exhibits slight to severe fractured and brecciated drilling disturbance.



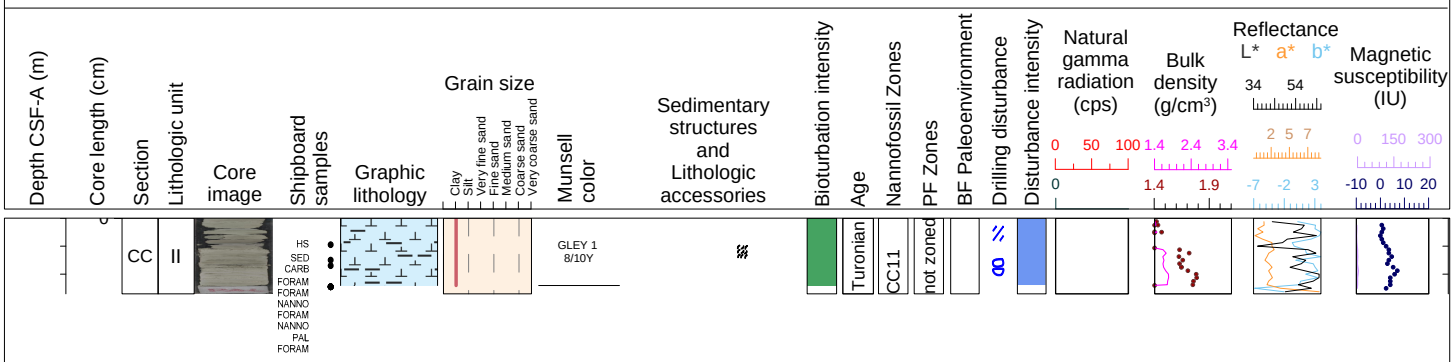
Hole 369-U1513A Core 40X, Interval 224.4-226.77 m (CSF-A)

Core 40X alternates between greenish-grey and white clayey nannofossil chalks. The overall grain size is clay. An interval of green nannofossil-rich claystone was observed in Section 2 (10-15 cm). Bioturbation is variable throughout. The core exhibits moderately biscuited and brecciated drilling disturbances.



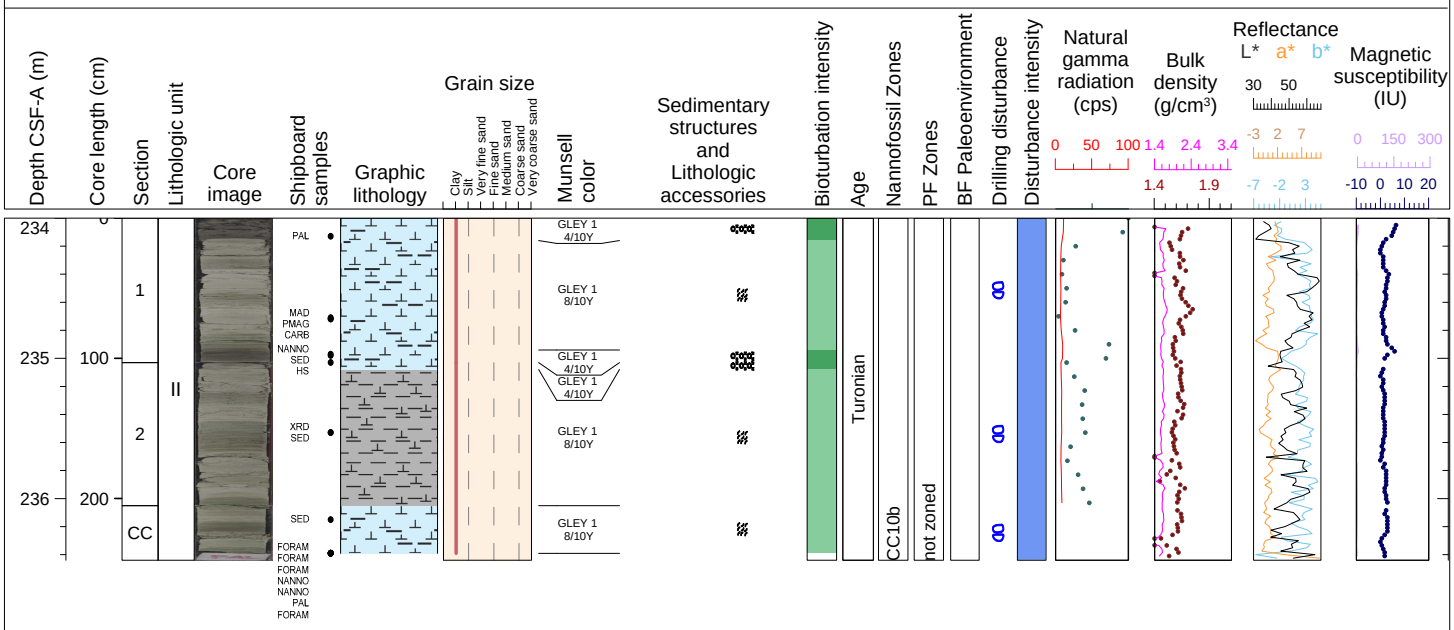
Hole 369-U1513A Core 41X, Interval 229.2-229.74 m (CSF-A)

Core 41X is a greenish-grey nannofossil chalk. The overall grain size is clay. Bioturbation is moderate throughout. The core exhibits moderate biscuited and fractured drilling disturbance.



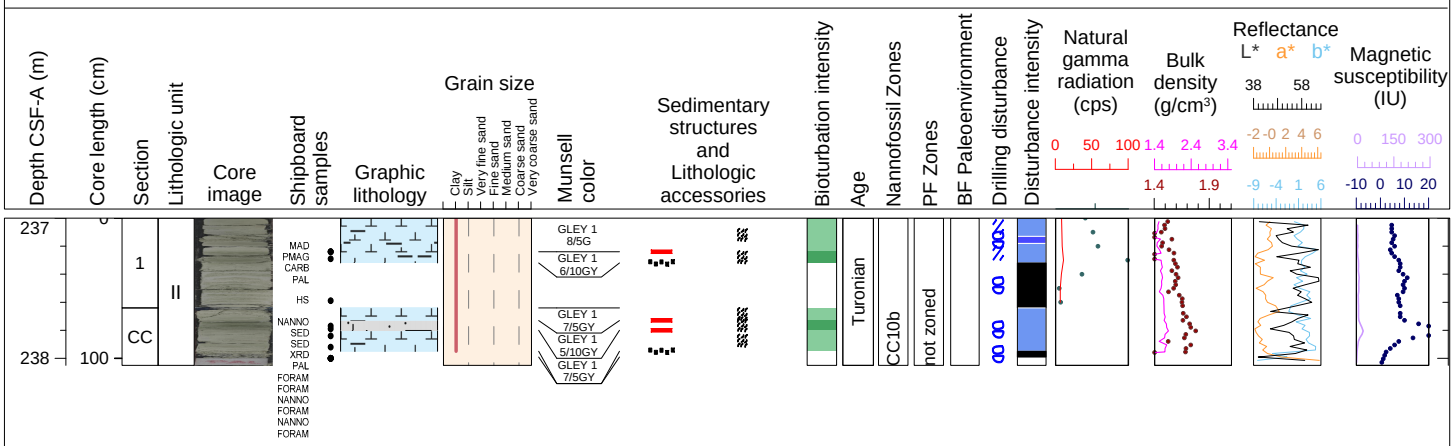
Hole 369-U1513A Core 42X, Interval 234.0-236.44 m (CSF-A)

Core 42X is a greenish-grey nannofossil chalk. A darker greenish-grey nannofossil chalk interval is present in Section 1 (0-15 cm). The overall grain size is clay. Bioturbation is moderate throughout. The core exhibits moderate biscuit drilling disturbance.



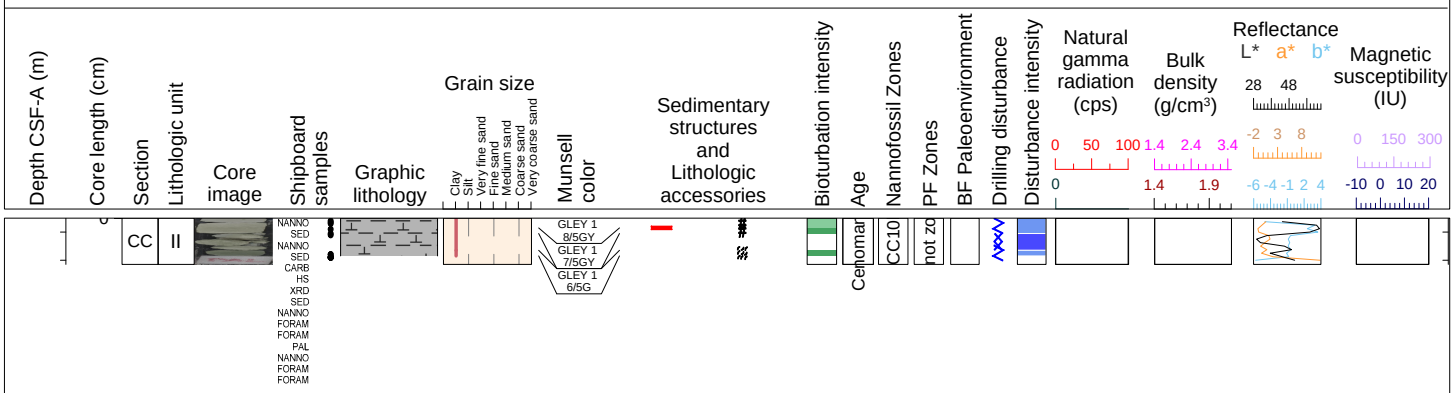
Hole 369-U1513A Core 43X, Interval 237.0-238.05 m (CSF-A)

Core 43X alternates between greenish-grey and light greenish-grey nannofossil chalk. The overall grain size is clay. Bioturbation is low to moderate throughout. The core exhibits severely to destroyed biscuit drilling disturbance.



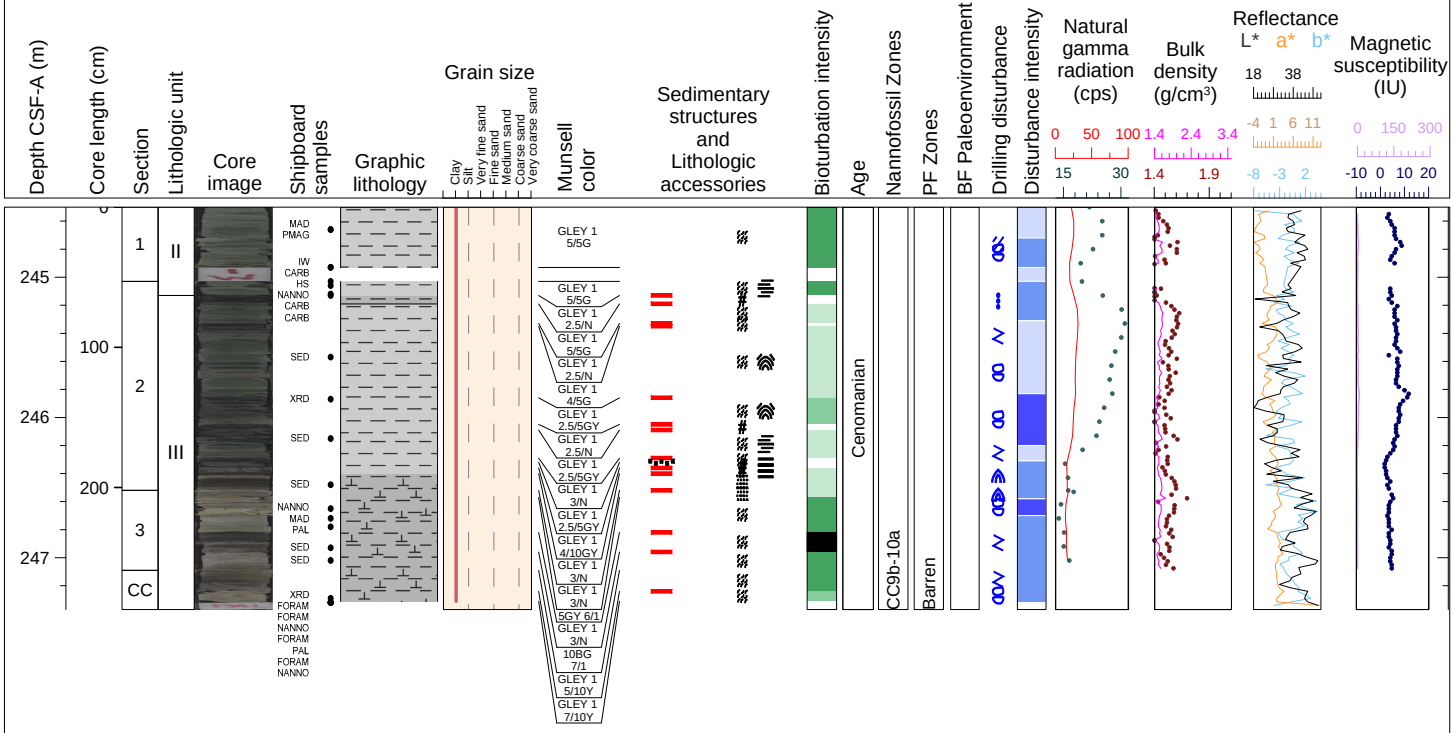
Hole 369-U1513A Core 44X, Interval 240.5-240.83 m (CSF-A)

Core 44X is a light greenish-grey silicified limestone with an interval of pale green nannofossil chalk at the bottom of the core. The overall grain size is clay. Bioturbation is low to moderate throughout. The core exhibits moderate fragmented and severe brecciated drilling disturbance.



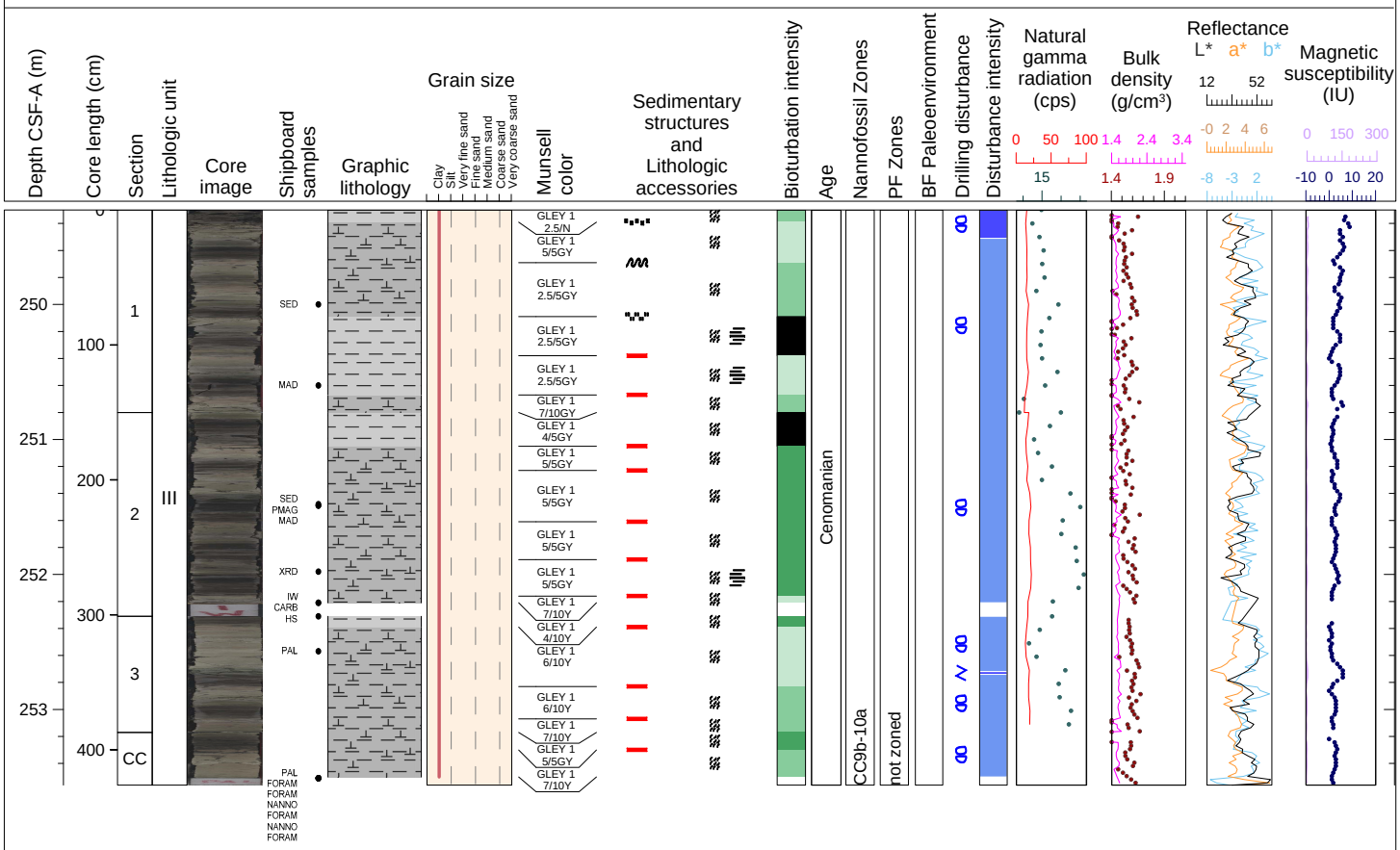
Hole 369-U1513A Core 45X, Interval 244.5-247.37 m (CSF-A)

Core 45X is a dark greenish claystone with thin beds of black claystone. From Section 3, there is transition in litholoiges from claystone to nannofossil-rich clay. There are sharp and gradational color changes throughout the core. Bioturbation is sparse to high in the green claystones, low to high in the calcareous clays, and absent in the black clay intervals. Chondrites is present in Section 3 (42-44 cm). Many sedimentary structures are present including convolute bedding, parallel laminations and load casts. The overall grain size is clay. The core exhibits many different types of drilling disturbances, but is mostly fragmented.



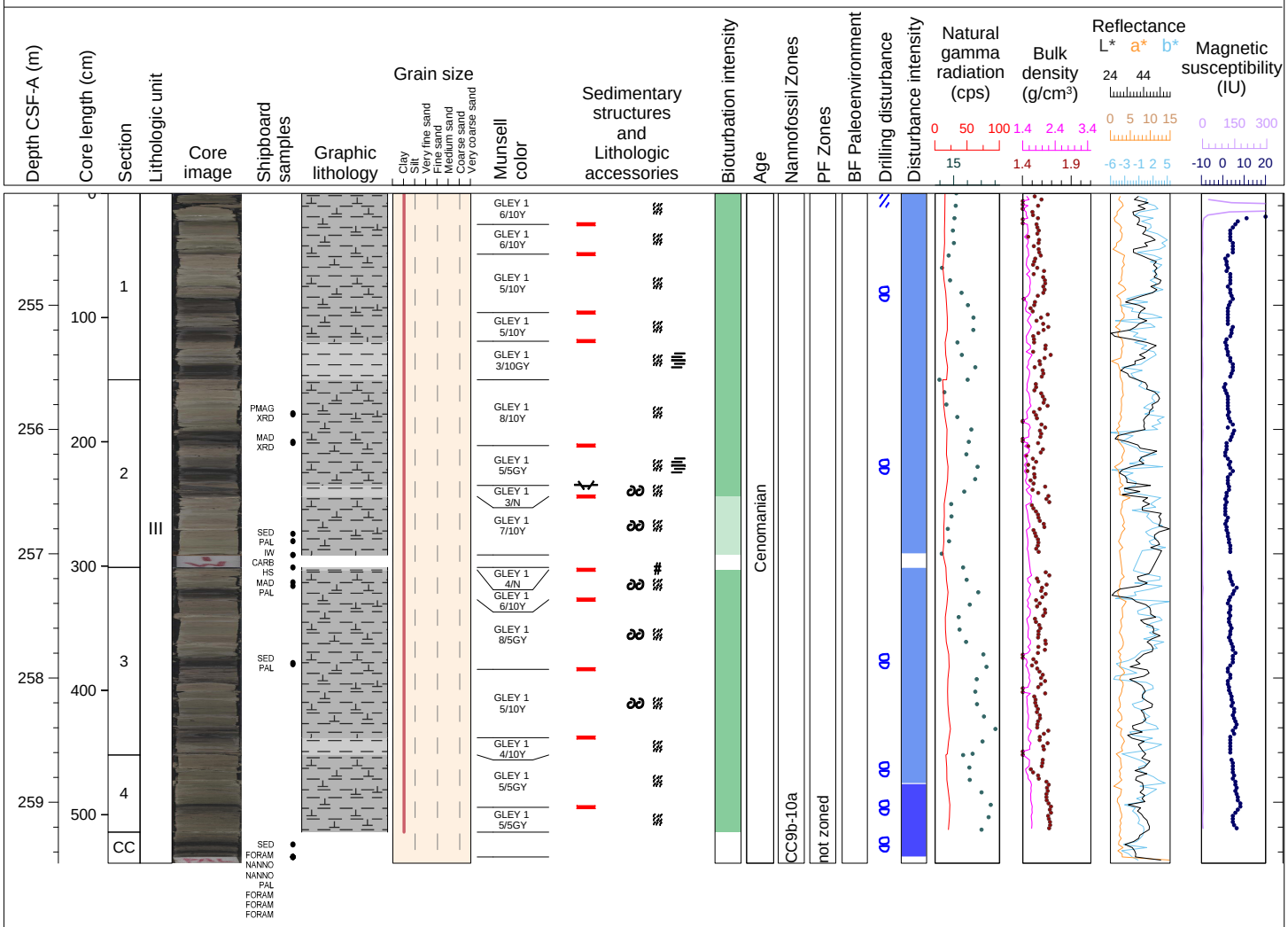
Hole 369-U1513A Core 46X, Interval 249.3-253.56 m (CSF-A)

Core 46X is an alternation of very dark gray claystone with nannofossils to light greenish-grey nannofossil-rich claystone, every 20-30 cm. The overall grain size is clay. Bioturbation is low to high throughout with darker intervals being more highly bioturbated. Sedimentary structures present including convolute bedding and parallel laminations. The core exhibits moderate to severe fragmented to biscuit drilling disturbance



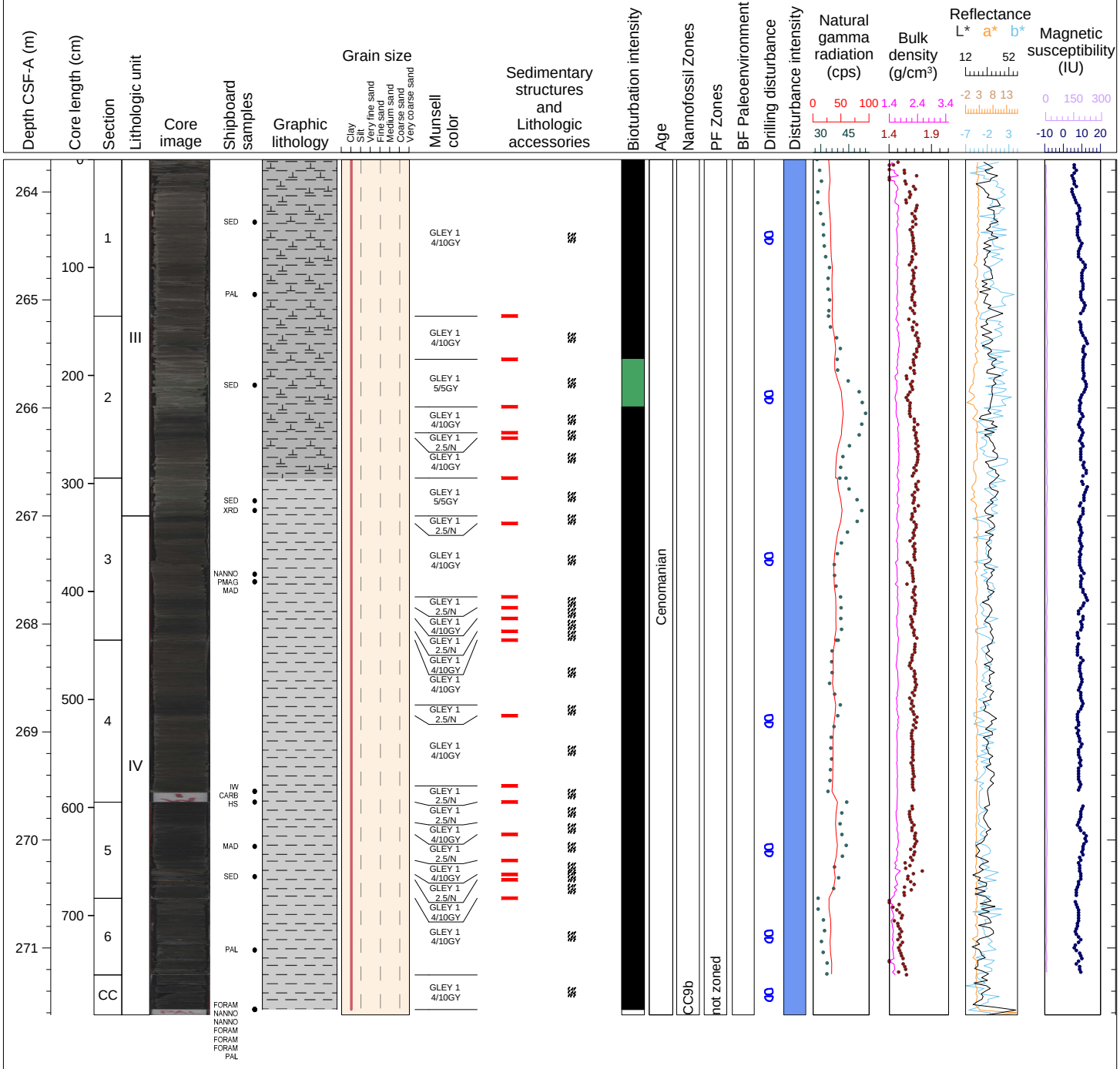
Hole 369-U1513A Core 47X, Interval 254.1-259.49 m (CSF-A)

Core 47X is an alternation of very dark gray claystone with nannofossils to light greenish-grey nannofossil-rich claystone, every 20-60 cm. The overall grain size is clay. Bioturbation is low throughout. High bioturbations are in the darker interval. Shell fragments is present in Section 2 (95, 104 cm) interlaminations are present. There is faulting contact at 84 cm ~45 degrees. The core exhibits moderate fragmented to severe biscuit drilling disturbance



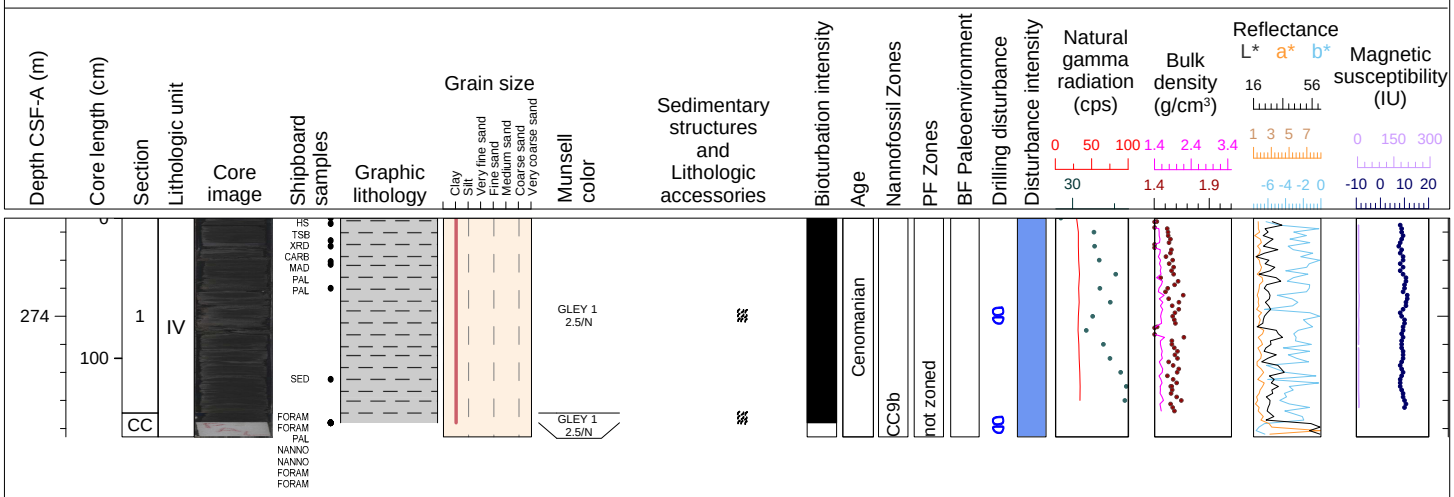
Hole 369-U1513A Core 48X, Interval 263.7-271.62 m (CSF-A)

Core 48X is an alternation of dark greenish-gray nannofossils-rich claystone to light greenish-grey and sometimes nannofossil-rich claystone. The overall grain size is clay. Bioturbation is generally intense throughout. Dark greenish-gray intervals tend to be highly bioturbated. Shell fragments are present throughout but tend to be more abundant in dark greenish-gray intervals. Recognized ichofacies include chondrites, zoophycos, planolites, thalassinoides and teichichnus and are mostly present in the dark greenish-gray intervals. The core exhibits moderate biscuit drilling disturbance.



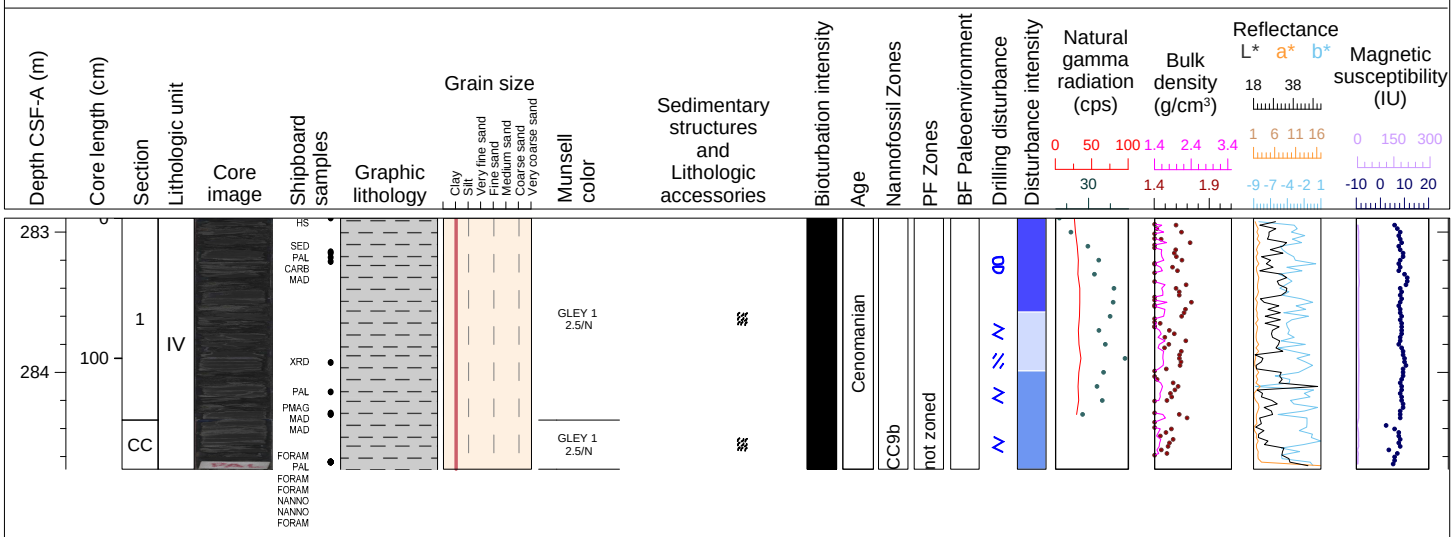
Hole 369-U1513A Core 49X, Interval 273.3-274.86 m (CSF-A)

Core 49X is a dark black claystone that is highly bioturbated. In Section 1 (0-44 cm), disseminated shell fragments are present. The overall grain size is clay. The core exhibits moderate biscuit drilling disturbances



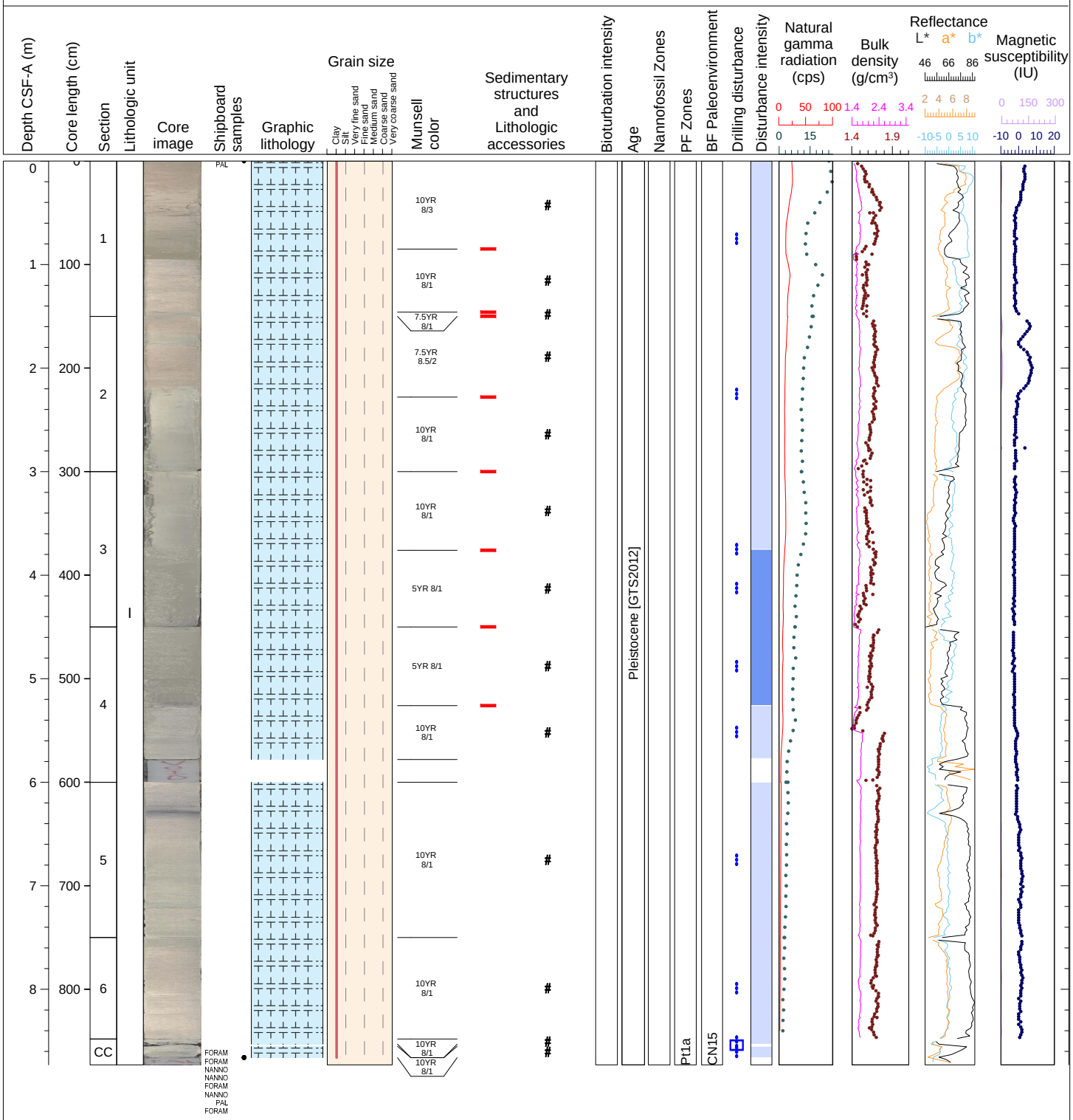
Hole 369-U1513A Core 50X, Interval 282.9-284.69 m (CSF-A)

Core 50X is a dark black claystone that is highly bioturbated. The overall grain size is clay. The core exhibits many different types of drilling disturbances, but is mostly fragmented.



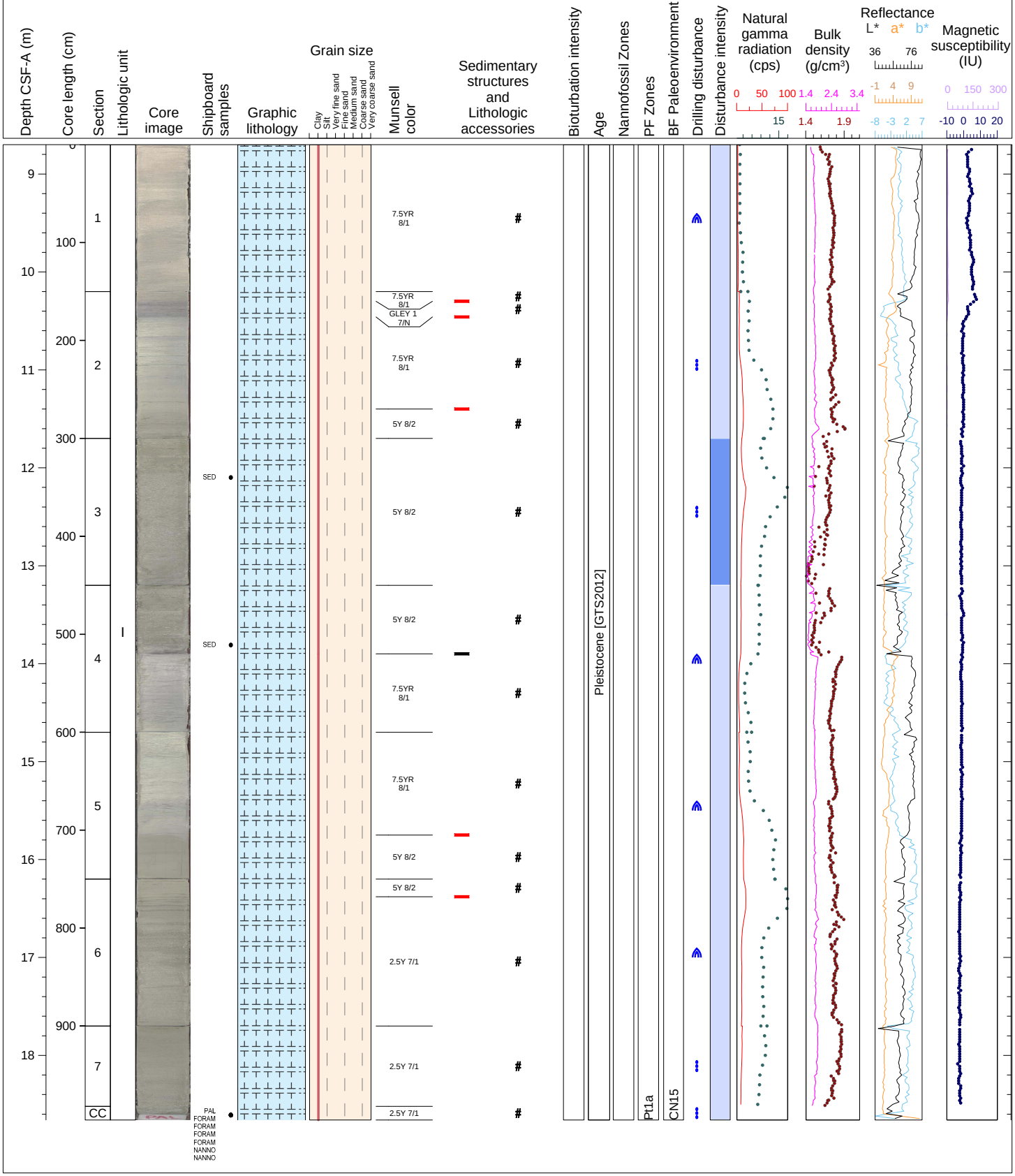
Hole 369-U1513B Core 1H, Interval 0.0-8.73 m (CSF-A)

Core 1H is dominated by a light gray to white calcareous ooze. White to pinkish intervals are present throughout the core. The overall grain size is clay. Sections 3 and 4 are dominated by foraminifera. The core exhibits a slight to moderate soupy drilling disturbance. Munsell color notations for this core are as follows: 5YR 8/1–white, 7.5YR 8/1– white, 7.5YR 8.5/2– pinkish white, 10YR 8/1–white and 10YR 8/3–very pale brown.



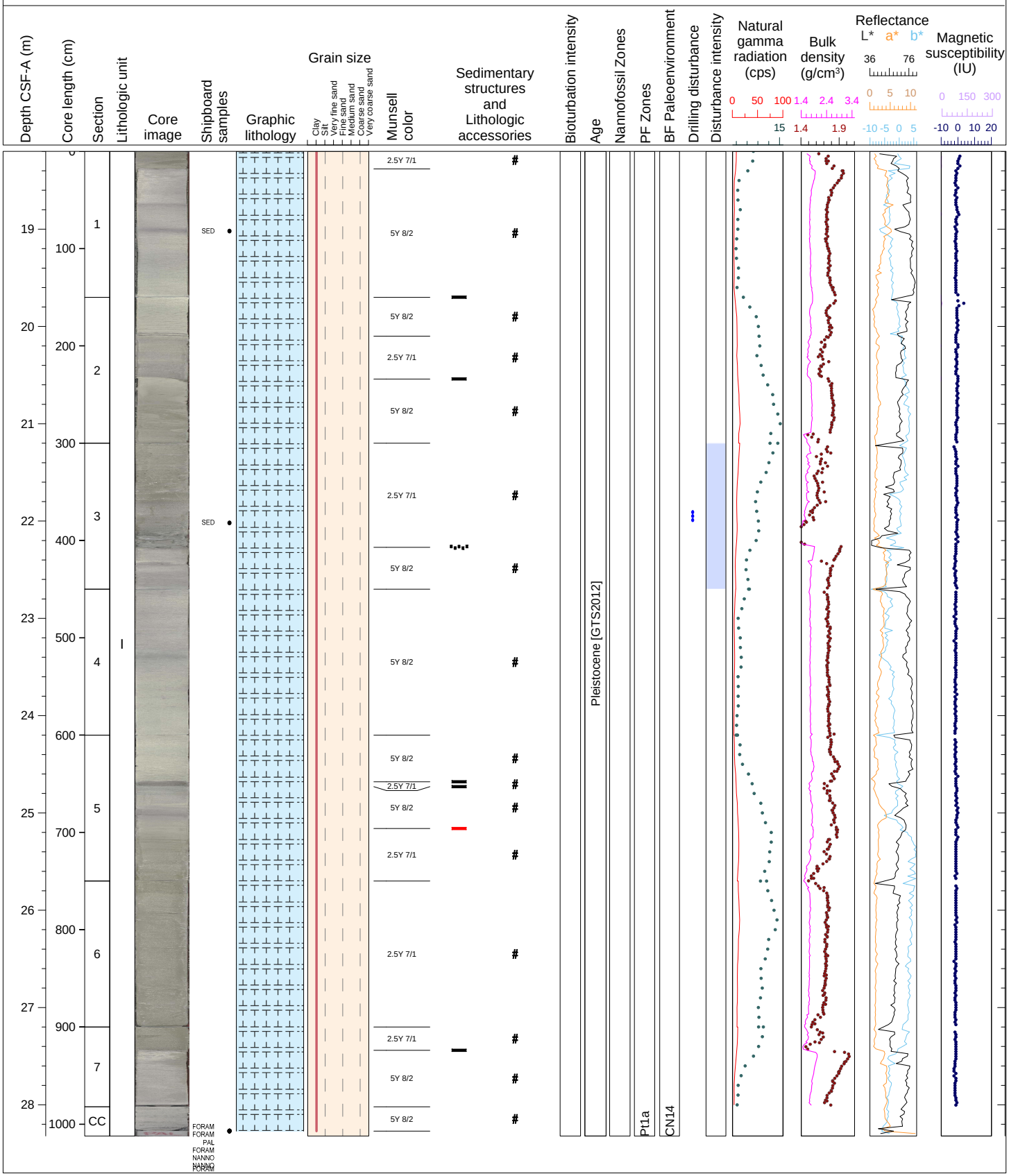
Hole 369-U1513B Core 2H, Interval 8.7-18.66 m (CSF-A)

Core 2H is dominated by a light gray to white calcareous ooze. Purple and greenish intervals are present throughout the core. The overall grain size is clay. Sections 3, 6 and 7 contain fine sand-grained which is dominated by foraminifera. The core exhibits a slight soupy drilling disturbance. Munsell color notations for this core are as follows: 2.5Y 7/1-light gray, 5Y 8/2-white, 7.5YR 8/1-white, and Gley 1 7/N-light gray.



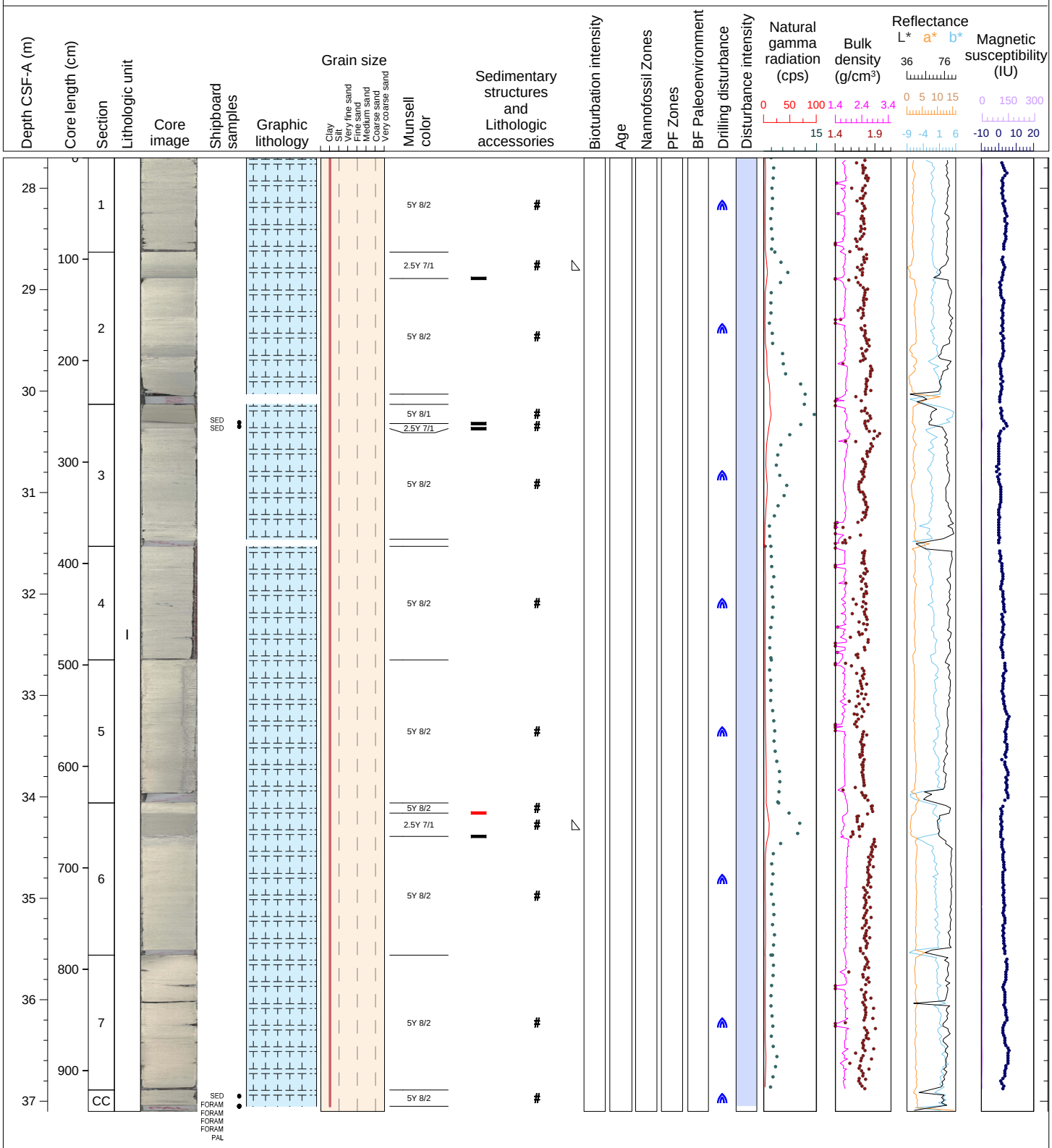
Hole 369-U1513B Core 3H, Interval 18.2-28.32 m (CSF-A)

Core 3H is dominated by a light gray to white calcareous ooze. Purple and greenish intervals are present throughout the core. The overall grain size is clay. Sections 3, 6 and 7 contain fine sand-grained which is dominated by foraminifera. Section 3 exhibits a slight soupy drilling disturbance. Munsell color notations for this core are as follows: 2.5Y 7/1-light gray and 5Y 8/2-white.



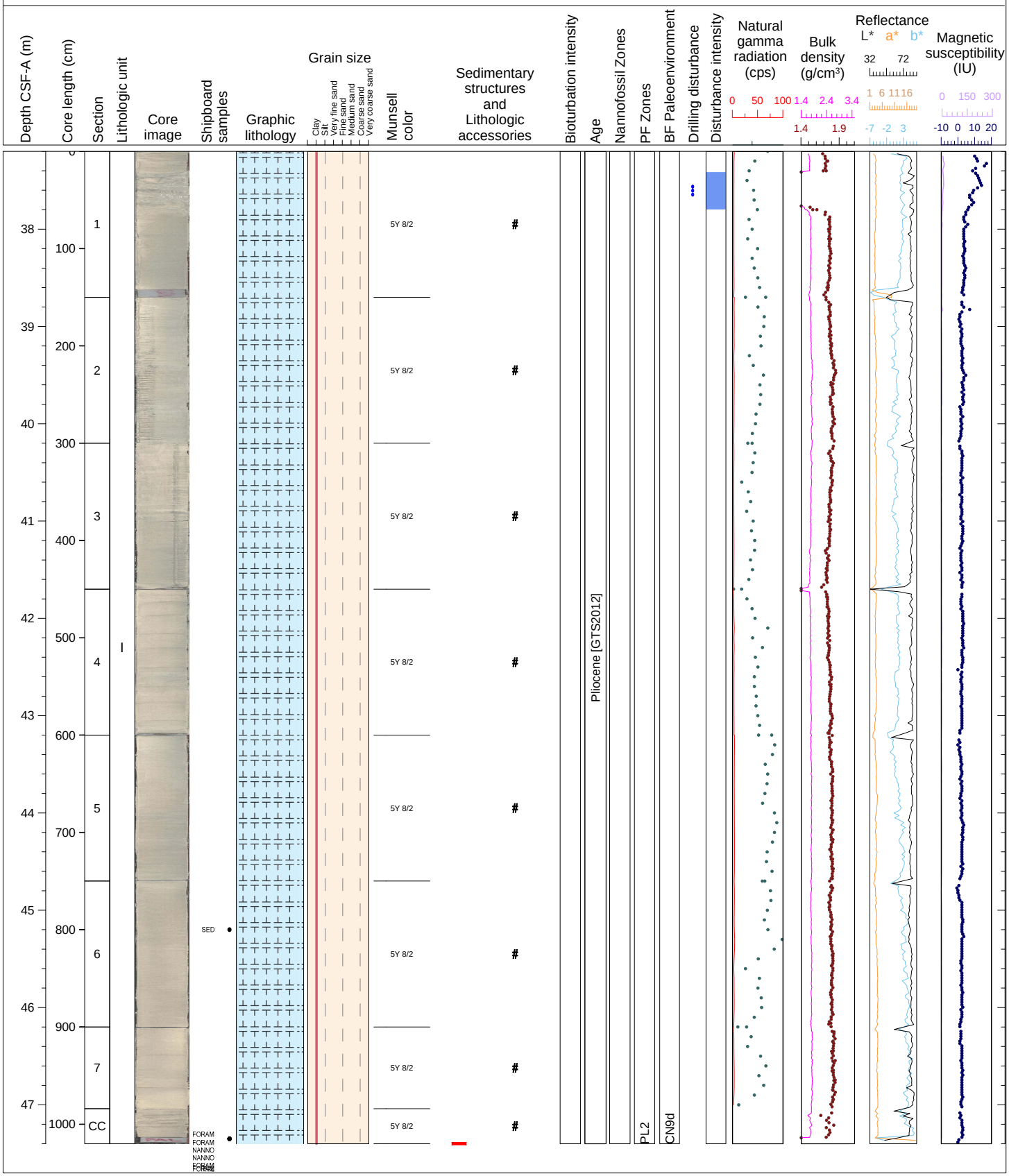
Hole 369-U1513B Core 4H, Interval 27.7-37.1 m (CSF-A)

Core 4H is dominated by a light gray to white calcareous ooze. The overall grain size is clay to fine sand. Section 6 contains fine sand-grained which is dominated by foraminifera ooze. Manganese nodules occur at 58 cm of Section 4. The core is disturbed by broken core liner.Munsell color notations for this core are as follows: 2.5Y 7/1-light gray, 5Y 8/2-white, and 5YR 8/1-yellowish gray.



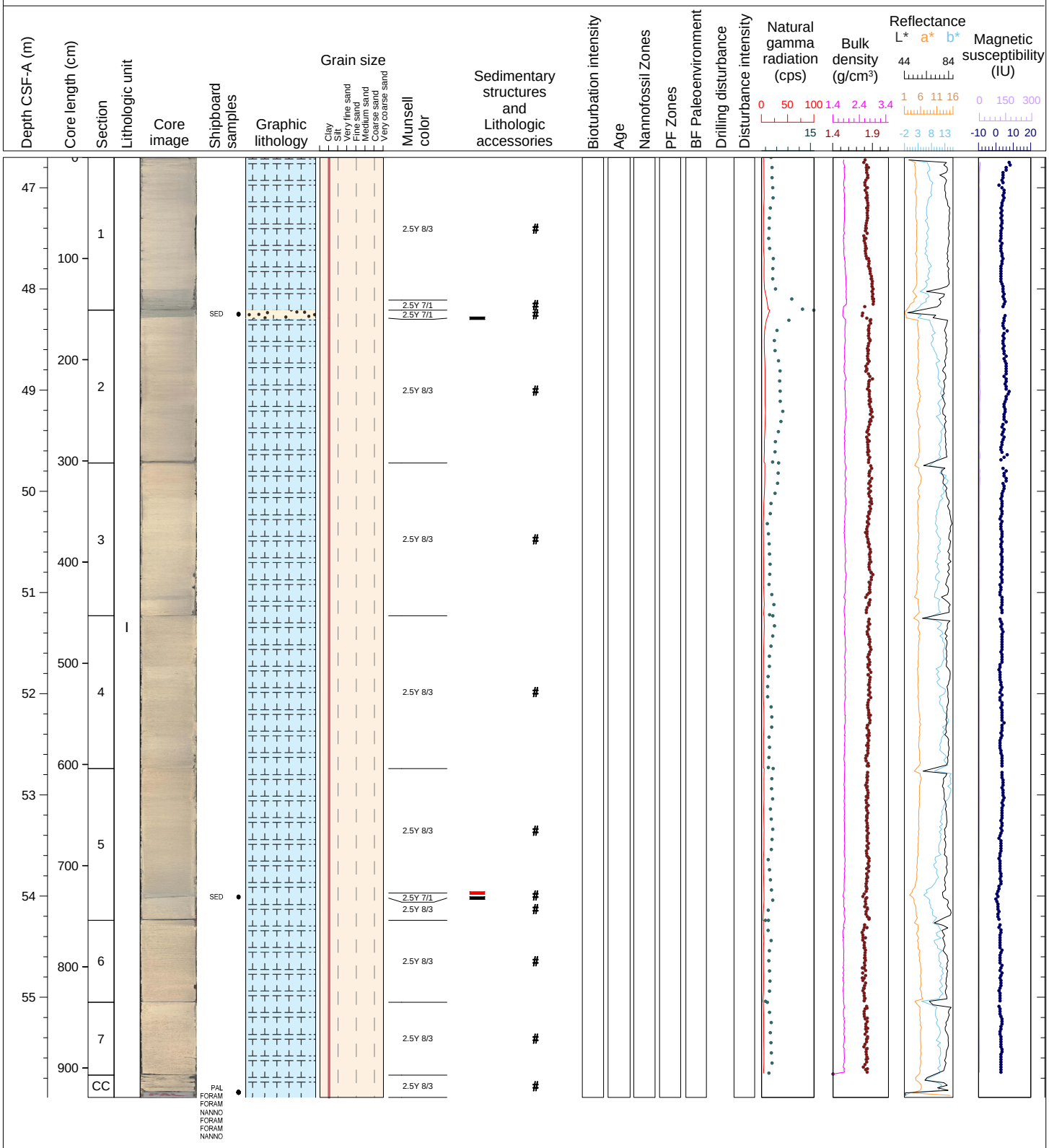
Hole 369-U1513B Core 5H, Interval 37.2-47.4 m (CSF-A)

Core 5H is dominated by a white calcareous ooze. The overall grain size is clay. Munsell color notation for this core is 5Y 8/2-white.



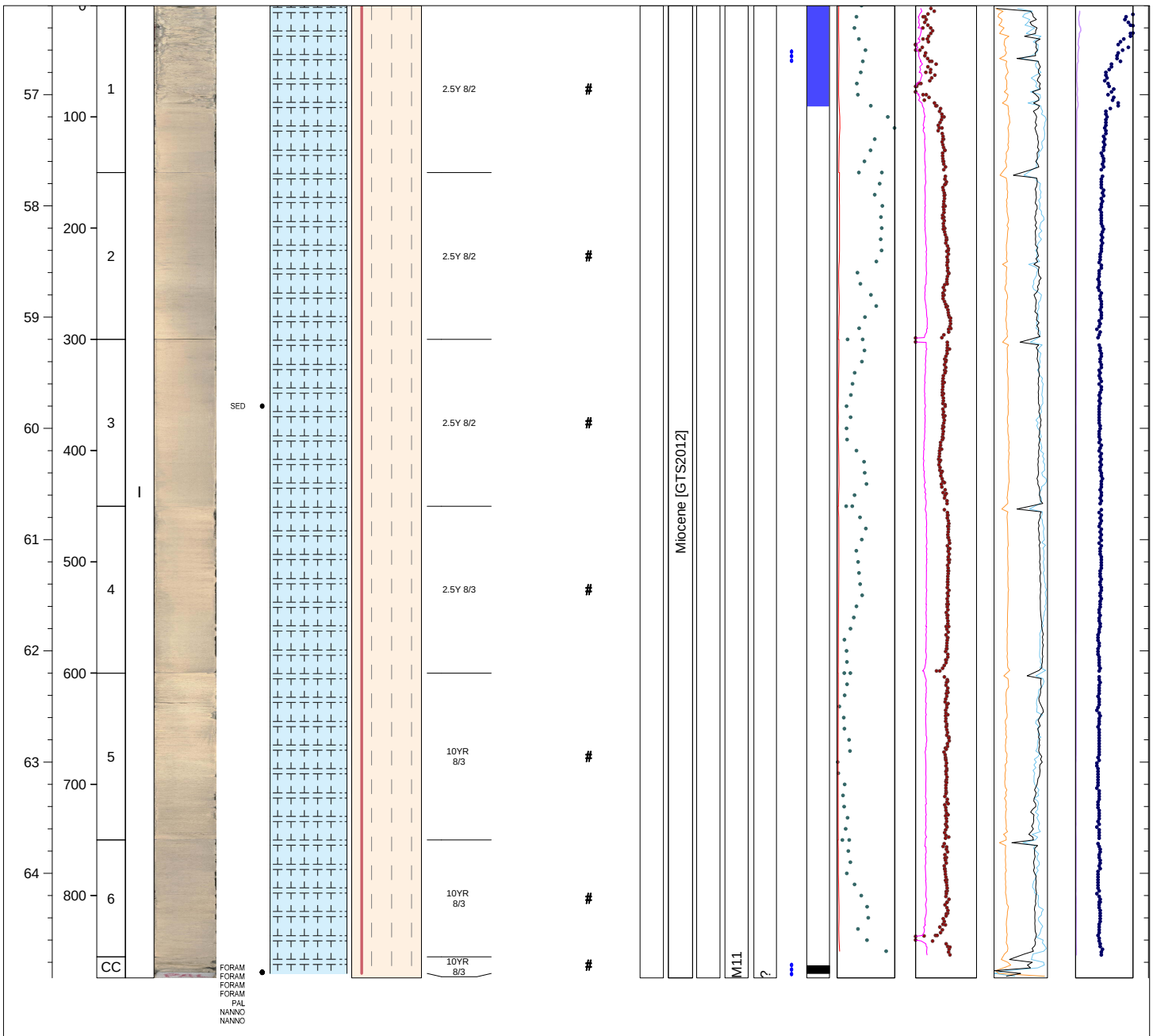
Hole 369-U1513B Core 6H, Interval 46.7-55.99 m (CSF-A)

Core 6H is dominated by a pale yellow calcareous ooze. The overall grain size is clay to fine sand. Section 2 (0-8 cm) contains a light gray fine sand-grained which is dominated by foraminifera ooze. Munsell color notations for this core are as follows: 2.5Y 7/1-light gray and 2.5Y 8/3-pale yellow.



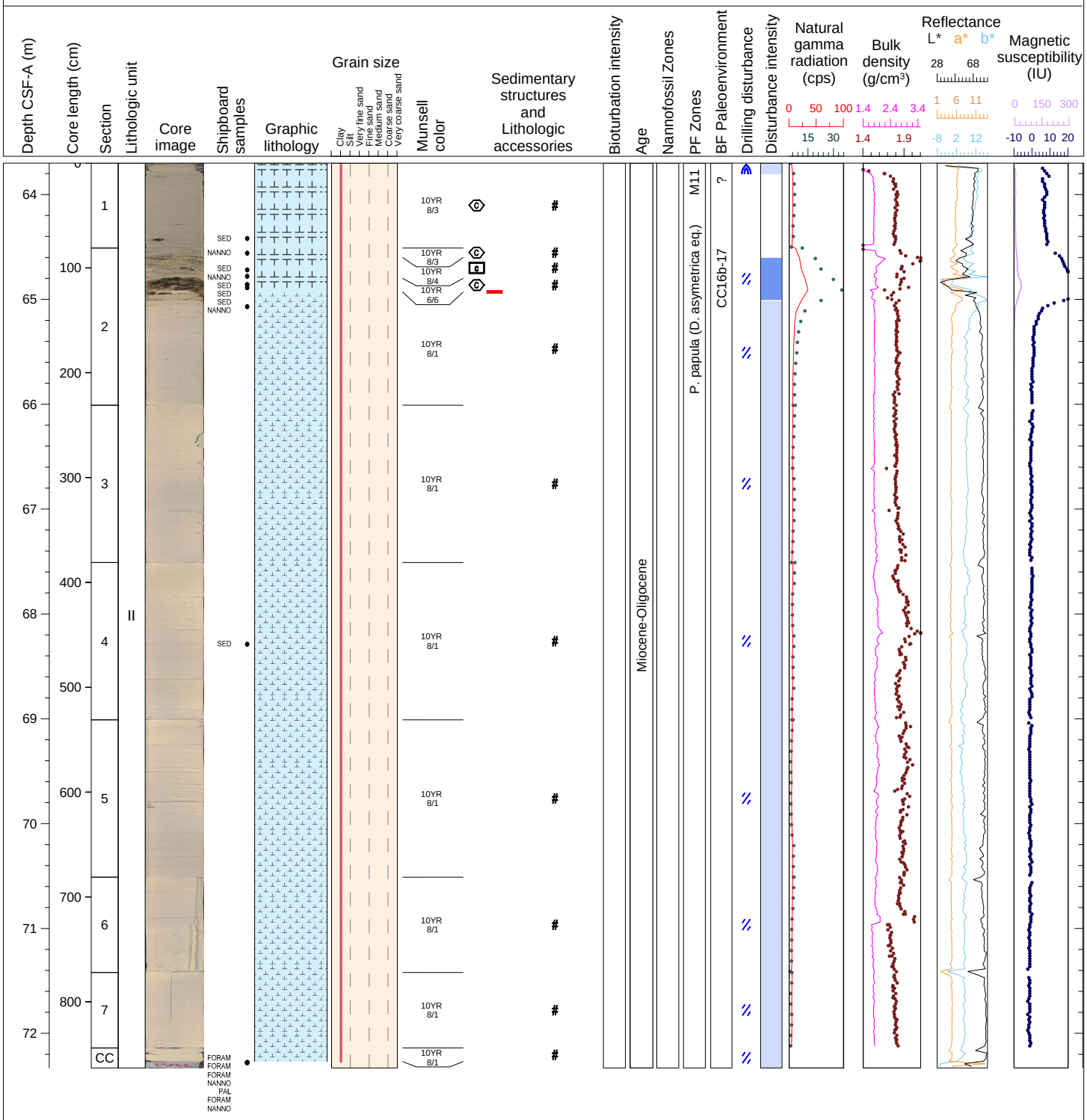
Hole 369-U1513B Core 7H, Interval 56.2-64.94 m (CSF-A)

Core 7H is dominated by a pale yellow calcareous ooze. The overall grain size is clay. The core exhibits moderate to severe soupy drilling disturbance in section 1 (0-91cm) and CC (8-15 cm). Munsell color notations for this core are as follows: 2.5Y 8/2-pale yellow, 2.5Y 8/3-pale yellow, and 10YR 8/3-very pale brown.



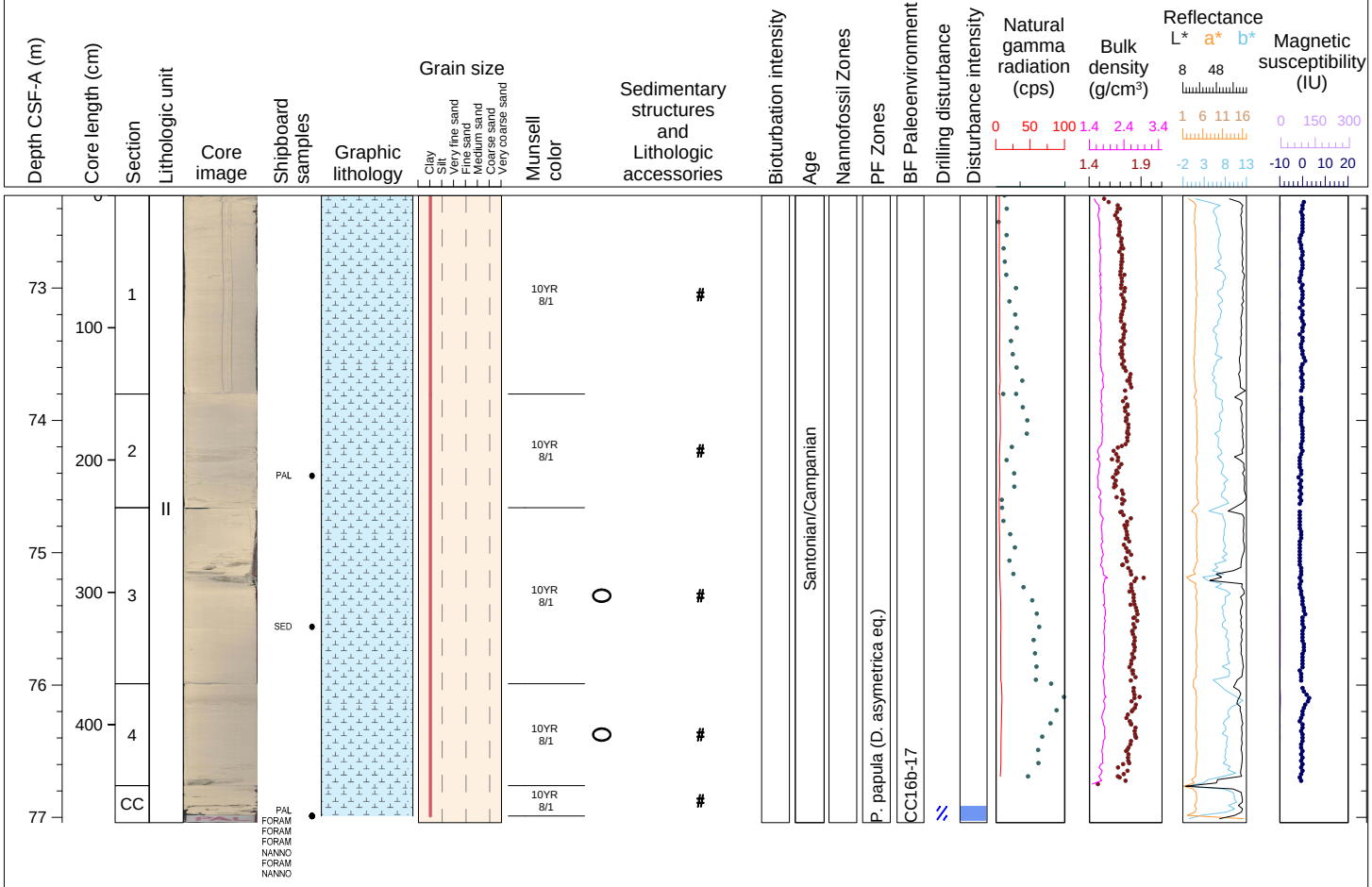
Hole 369-U1513B Core 8H, Interval 63.7-72.33 m (CSF-A)

Core 8H is dominated by a brownish yellow calcareous ooze and a white nannofossil ooze. A hardground is present in section 2 (10 to 42 cm) and hosts abundant manganese nodules. Rare manganese nodules are also present in section 1 (14 and 72 cm). The core is slightly fractured as aconsequence of drilling disturbance. Munsell color notations for this core are as follows: 10YR 6/6-brownish yellow, 10YR 8/1-white, 10YR 8/3-very pale brown and 10YR 8/4-very pale brown.



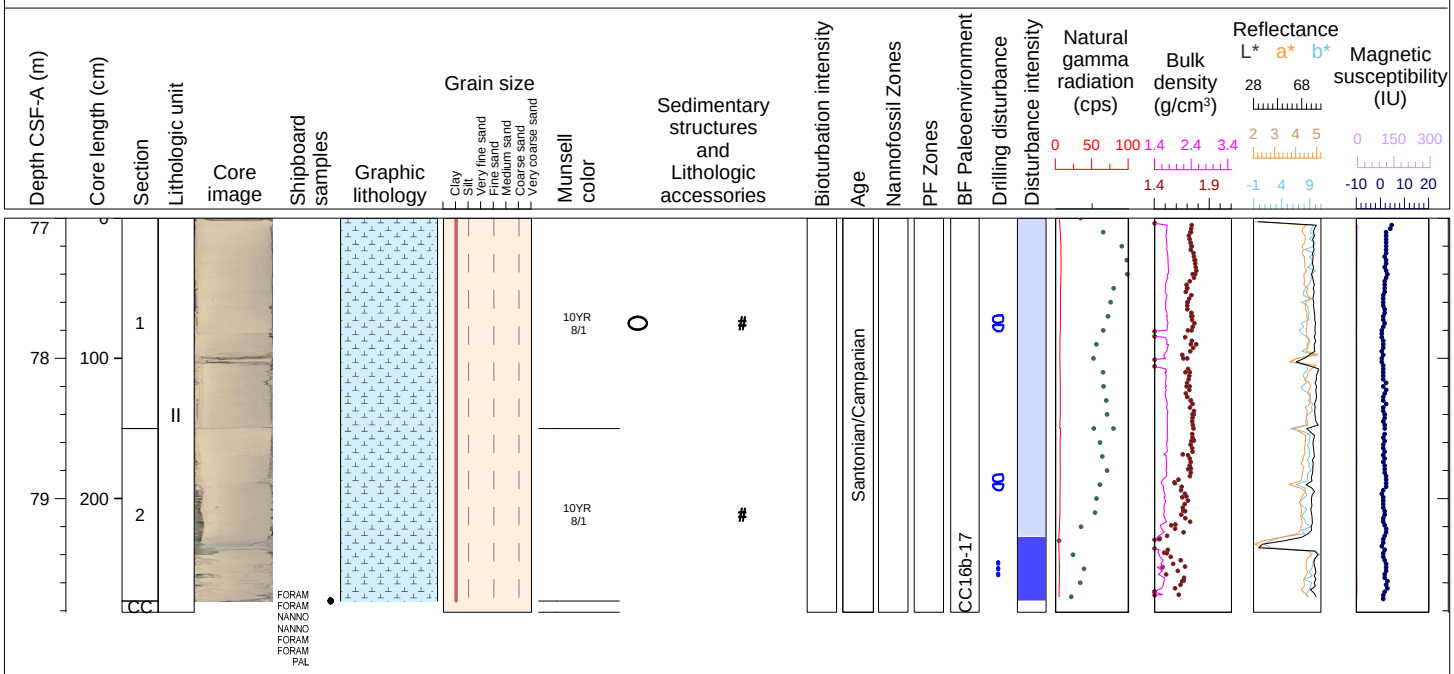
Hole 369-U1513B Core 9F, Interval 72.3-77.04 m (CSF-A)

Core 9F is dominated by a white nannofossil ooze. The overall grain size is clay, Cherts are present in section 3 (41 to 57 cm) and in section 4 (71 to 76 cm). The core has not been disturbed by drilling. Munsell color notation for this core is 10YR 8/1-white.



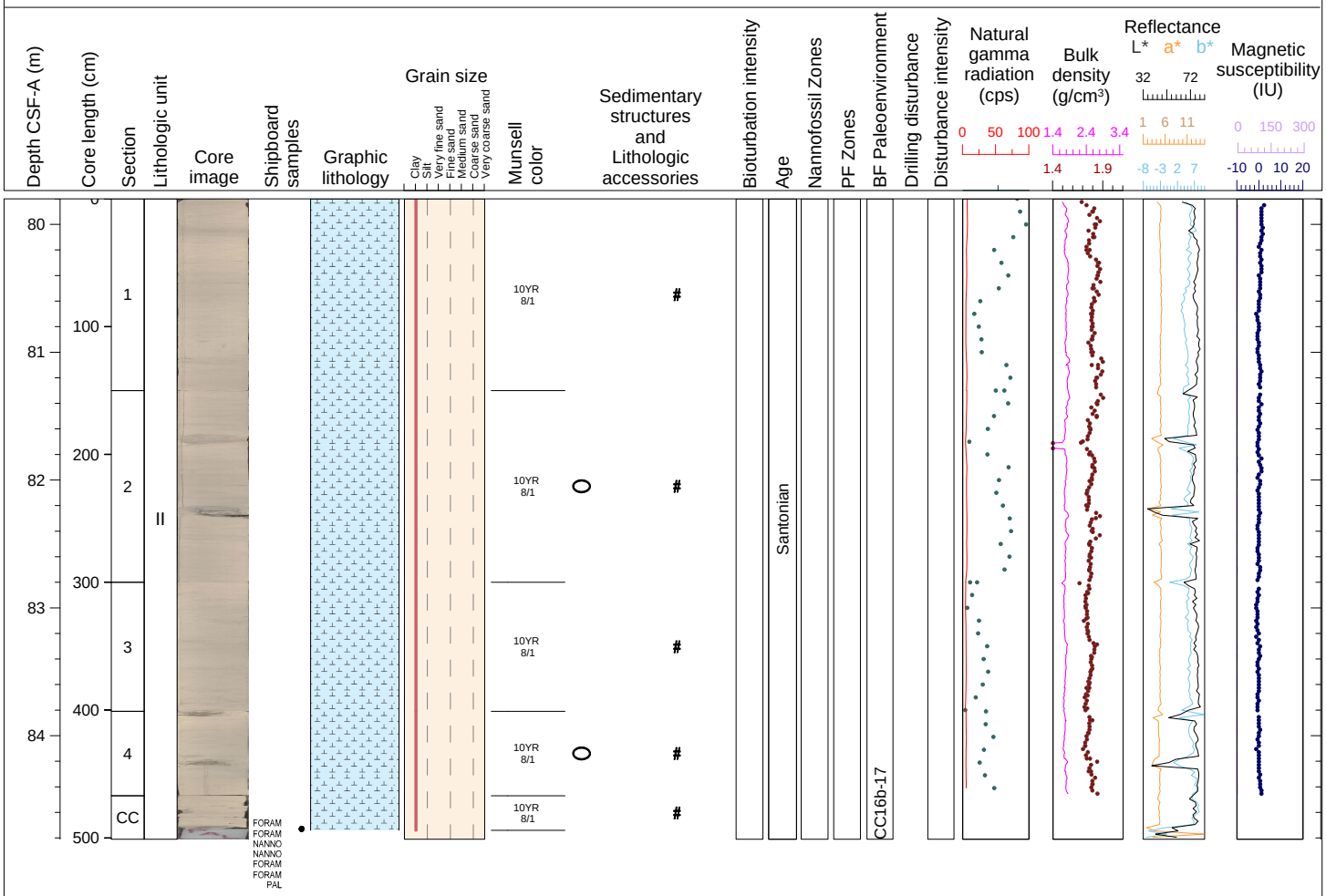
Hole 369-U1513B Core 10F, Interval 77.0-79.81 m (CSF-A)

Core 10F is dominated by a white nannofossil ooze. The overall grain size is clay, Cherts are present in section 1 (98 to 105 cm) and in section 4. The core exhibits both a slight biscuit and severe soupy drilling disturbance. Munsell color notation for this core is 10YR 8/1-white.



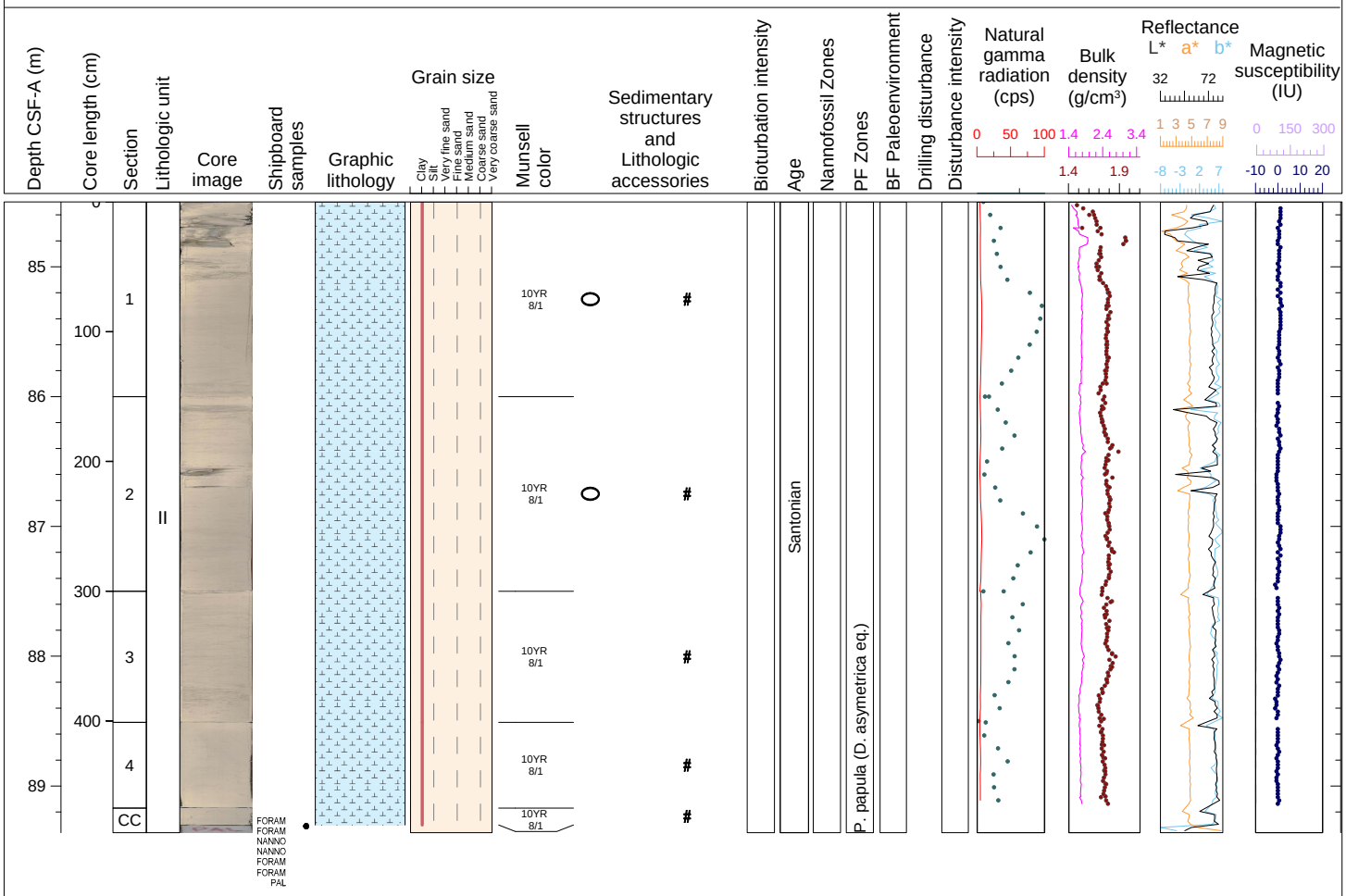
Hole 369-U1513B Core 11F, Interval 79.8-84.81 m (CSF-A)

Core 11F is a white nannofossil ooze. The overall grain size is clay, Nodule of silicified limestone is present in section 2 (96 cm). Cherts are present in section 4 (2 and 40 cm). The core exhibits no drilling disturbance. Munsell color notation for this core is 10YR 8/1-white.



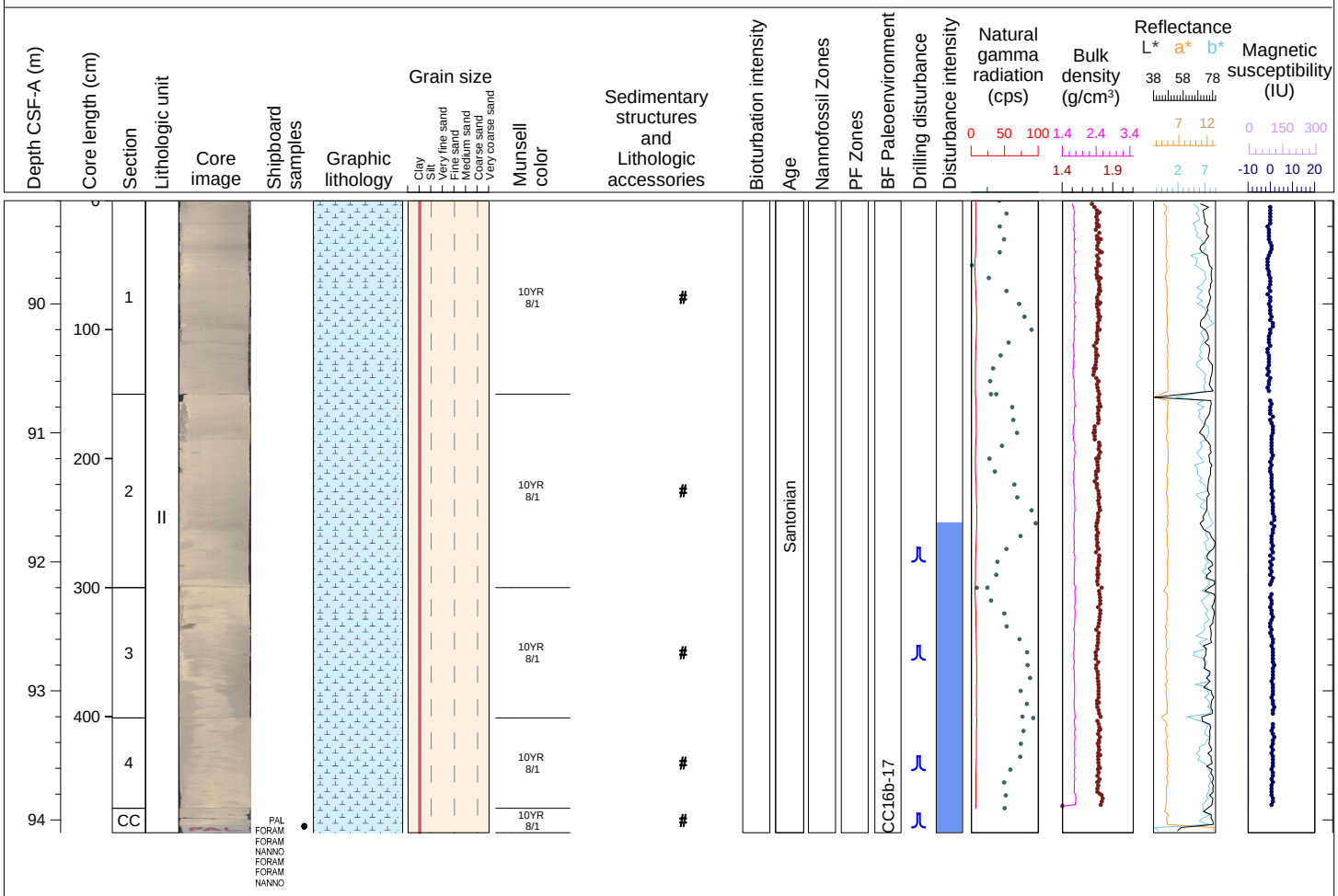
Hole 369-U1513B Core 12F, Interval 84.5-89.36 m (CSF-A)

Core 12F is a white nannofossil ooze. The overall grain size is clay, Nodules of silicified limestone are present in section 1 (12 to 19 and 30 to 35 cm). Cherts are present in section 2 (55 to 61 cm). The core exhibits no drilling disturbance. Munsell color notation for this core is 10YR 8/1-white.



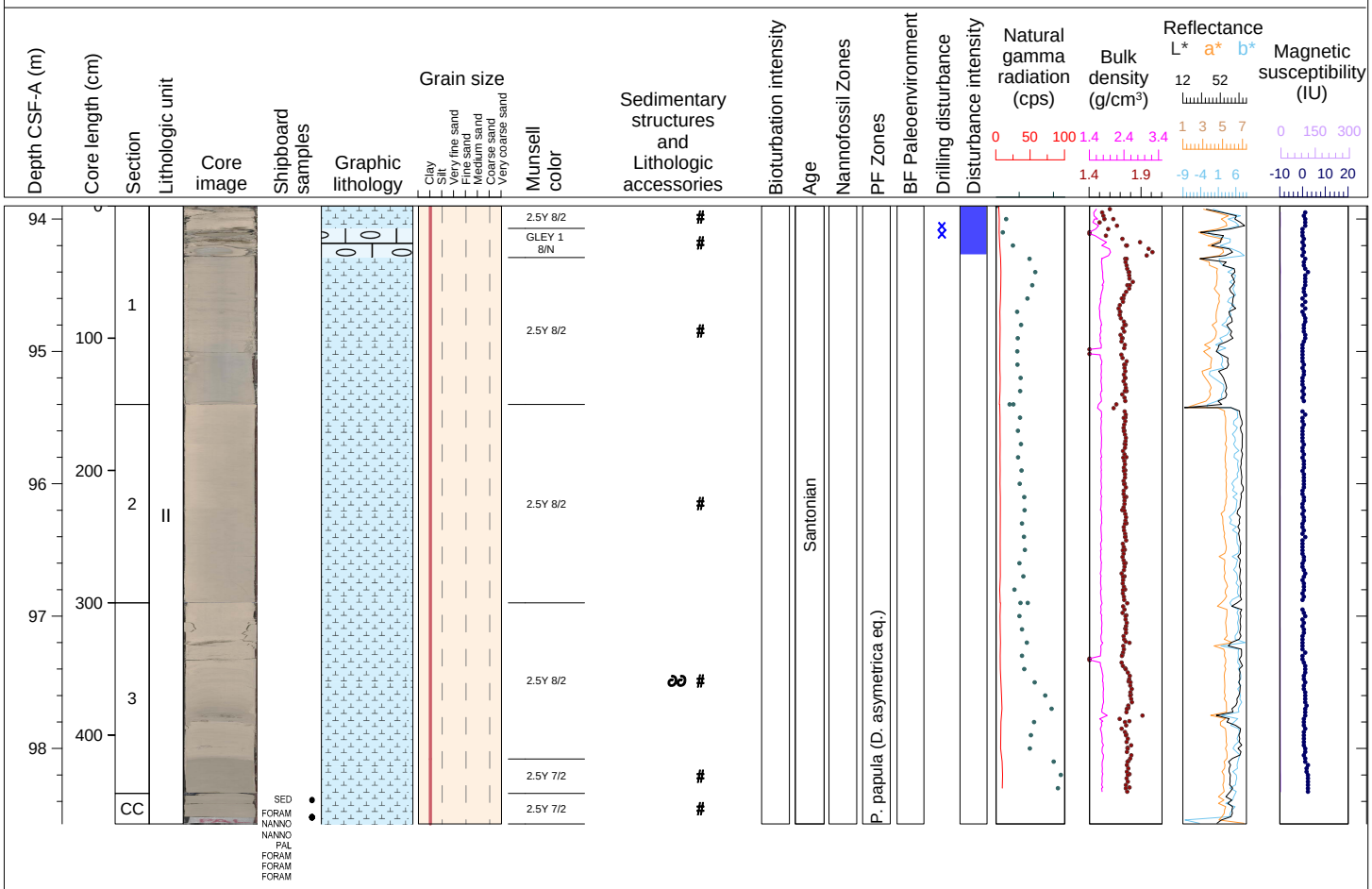
Hole 369-U1513B Core 13F, Interval 89.2-94.1 m (CSF-A)

Core 13F is a white nannofossil ooze. The overall grain size is clay, The core exhibits moderate flow-in drilling disturbance from section 2 to cc. Munsell color notation for this core is 10YR 8/1-white.



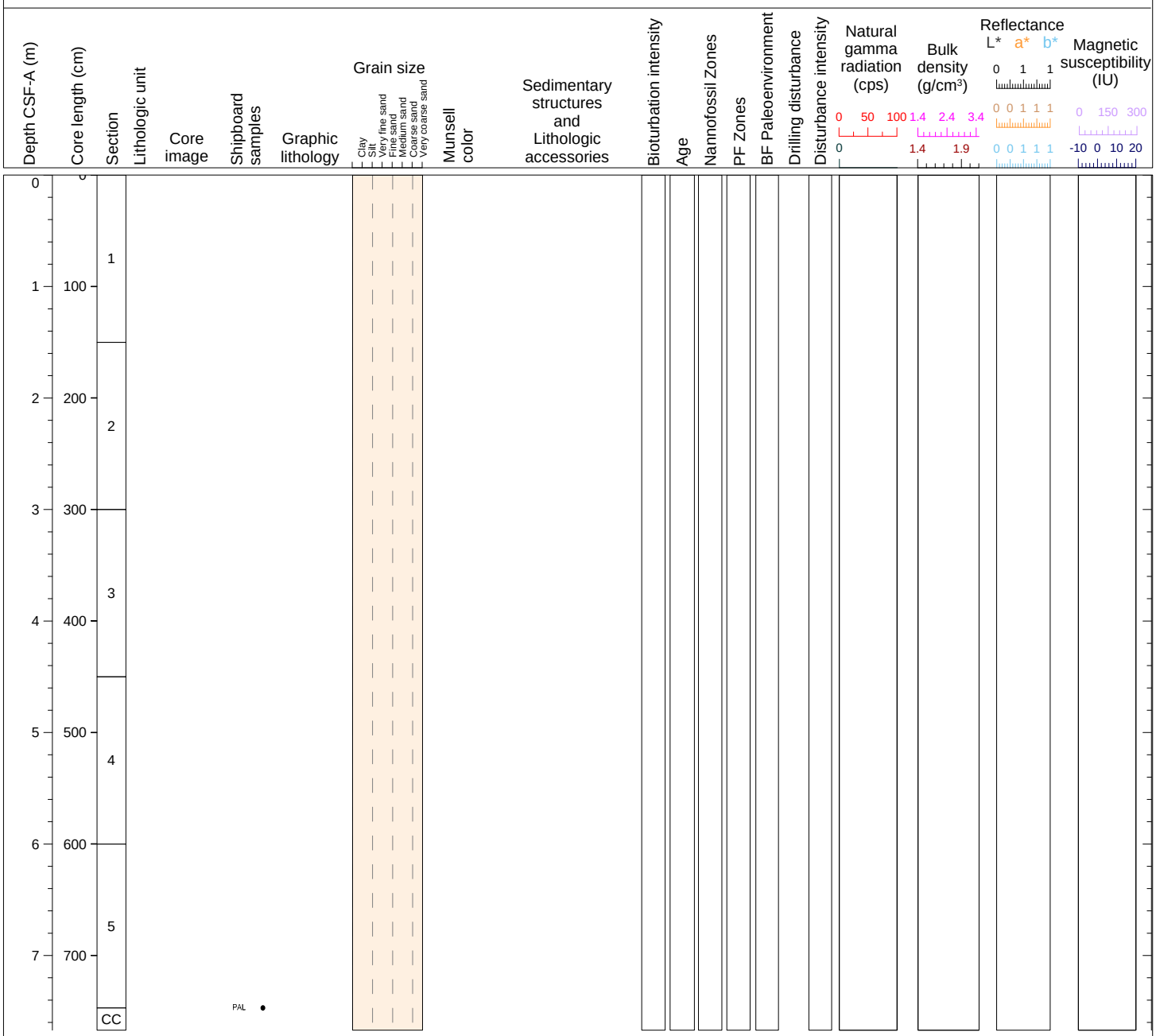
Hole 369-U1513B Core 14F, Interval 93.9-98.57 m (CSF-A)

Core 14F is a white nannofossil ooze. The overall grain size is clay, The core exhibits severe brecciated drilling disturbance in section 1 (0-37 cm). Munsell color notations for this core are as follows: 2.5Y 7/2-light gray, 2.5Y 8/2-pale yellow and Gley 1 8/N-white.



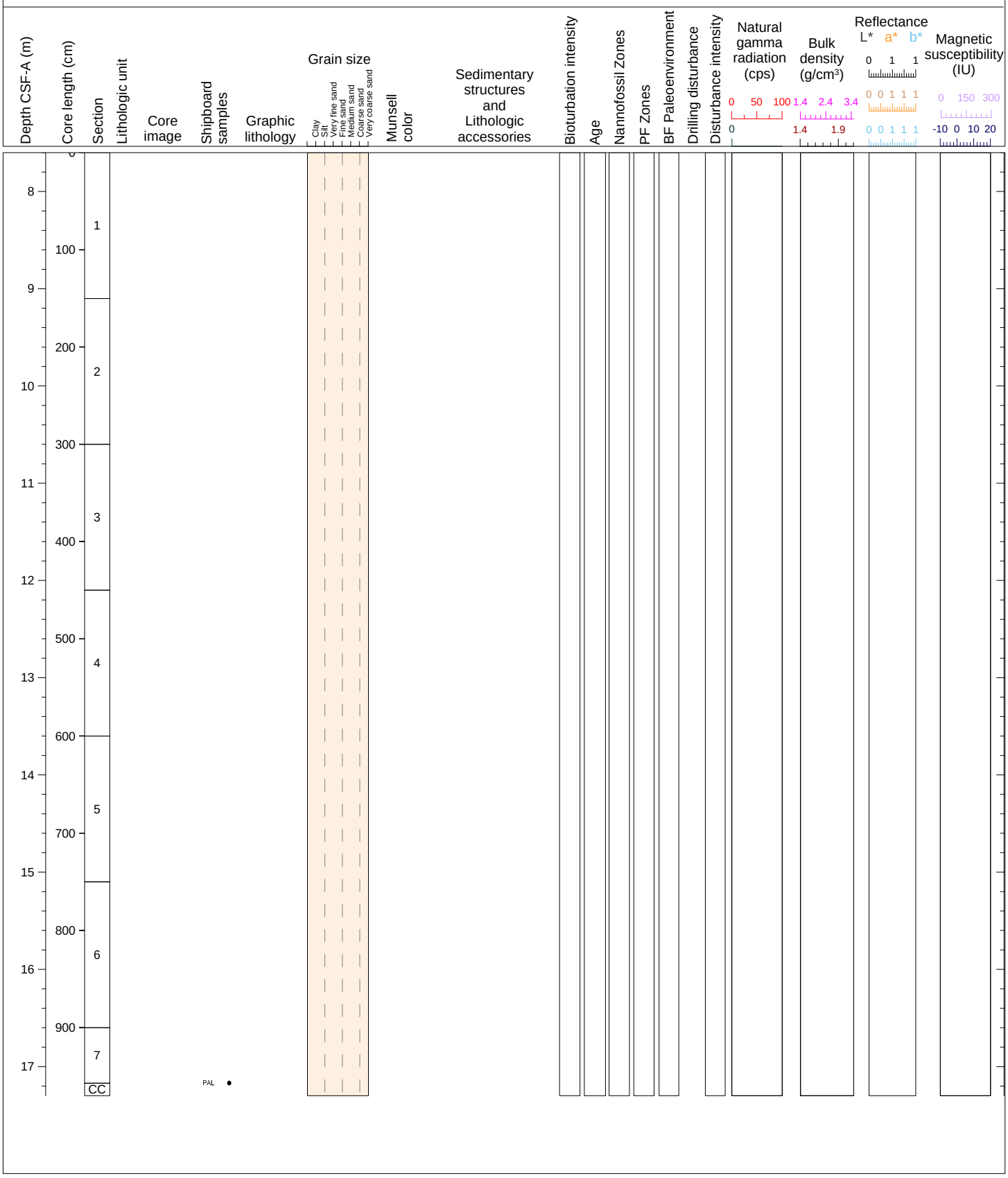
Hole 369-U1513C Core 1H, Interval 0.0-7.67 m (CSF-A)

All to paleo.



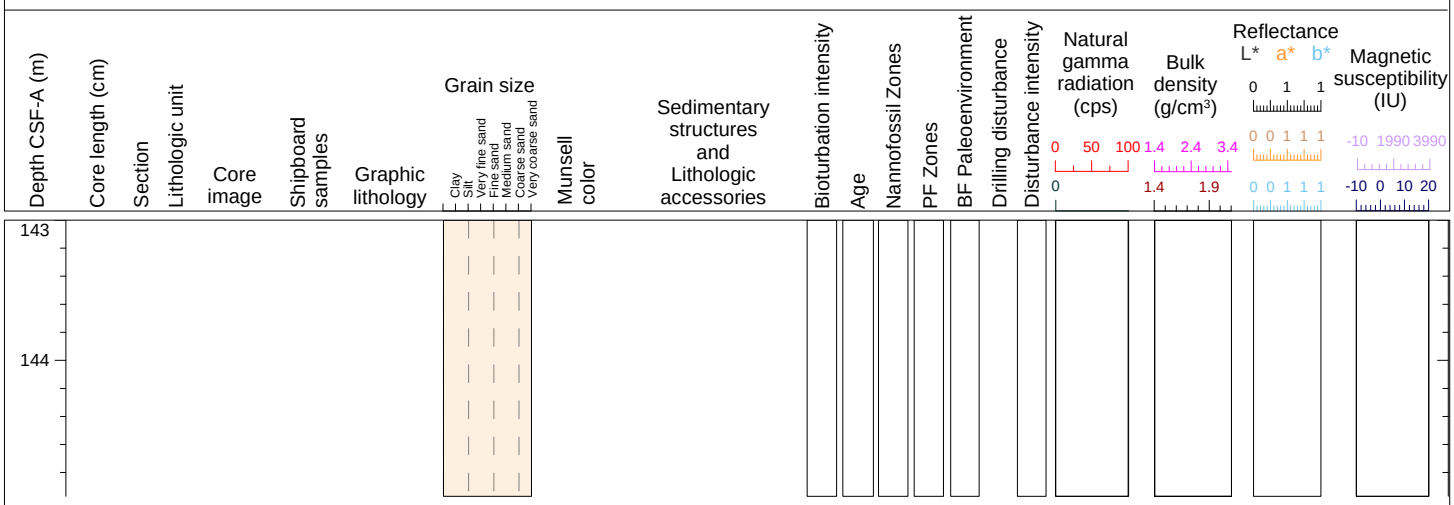
Hole 369-U1513C Core 2H, Interval 7.6-17.3 m (CSF-A)

All to paleo.



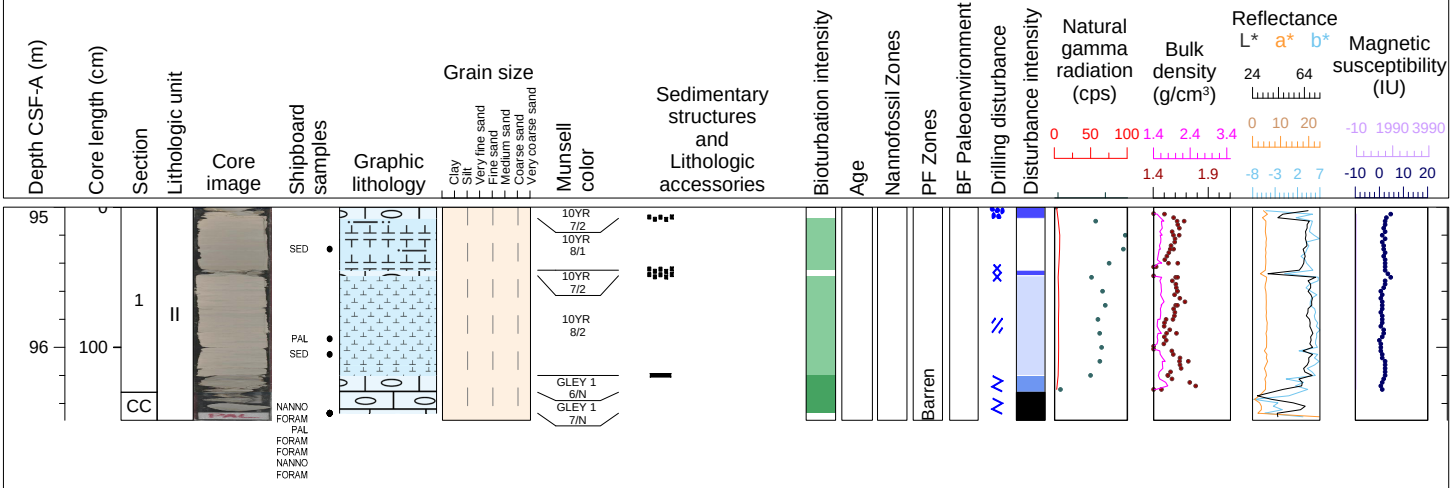
Hole 369-U1513D Core 11, Interval 0.0-0.0 m (CSF-A)

Drilled interval



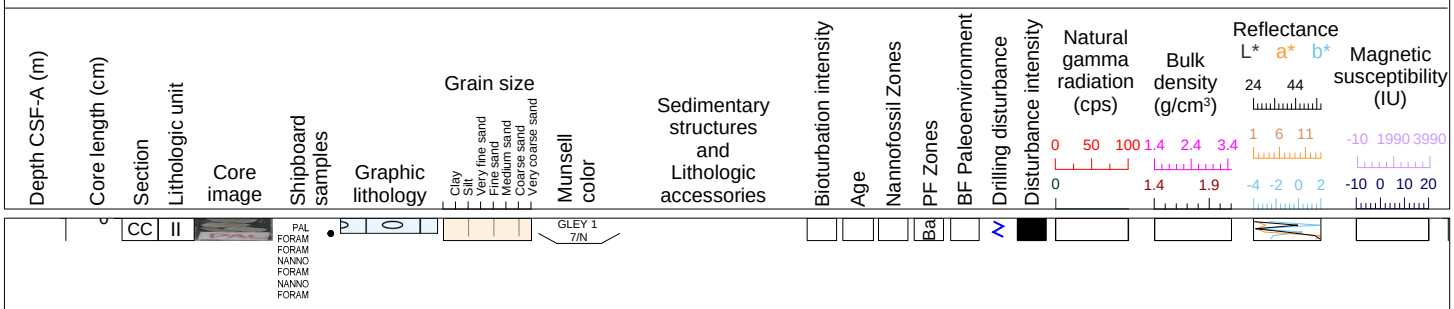
Hole 369-U1513D Core 2R, Interval 95.0-96.52 m (CSF-A)

Core 2R is dominated by a pale orange calcareous chalk interbedded with silicified limestone layers. Bioturbation is low. Recognized ichnofacies include chondrites-planolites-zoophycos. The core presents different types and intensities of drilling disturbance. In Section 1 at 115 cm is an inoceramid. Munsell color notations for this core are as follows: GLEY 1 6/N– gray, GLEY 1 7/N– light gray, 10YR 7/2– light gray, 10YR 8/1– white, 10YR 8/2– very pale brown.



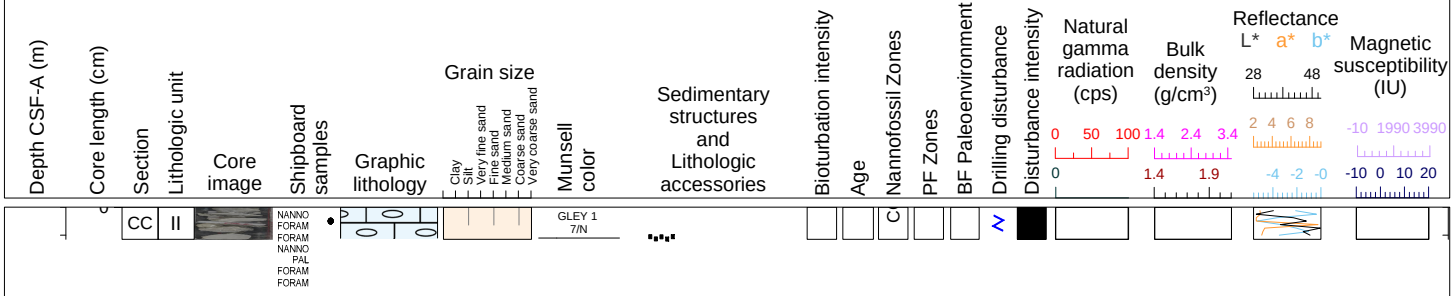
Hole 369-U1513D Core 3R, Interval 104.6-104.76 m (CSF-A)

Core 3R is comprised of severely fragmented pieces of light gray silicified limestone. The Munsell color notation for this core is as follows: GLEY 1 7/N– light gray.



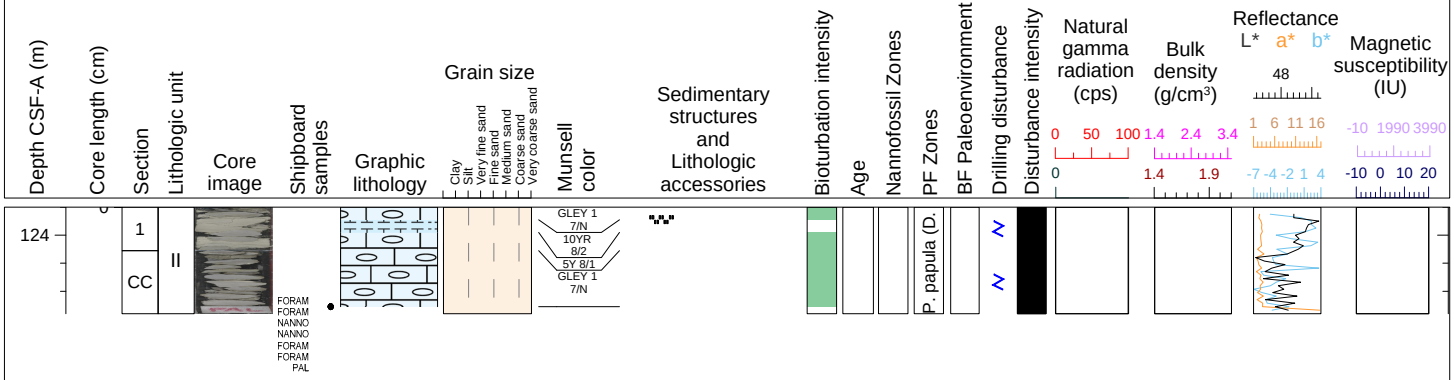
Hole 369-U1513D Core 4R, Interval 114.2-114.43 m (CSF-A)

Core 4R is comprised of severely fragmented pieces of light gray silicified limestone. Very low levels of bioturbation were observed. The Munsell color notation for this core is as follows: GLEY 1 7/N– light gray.



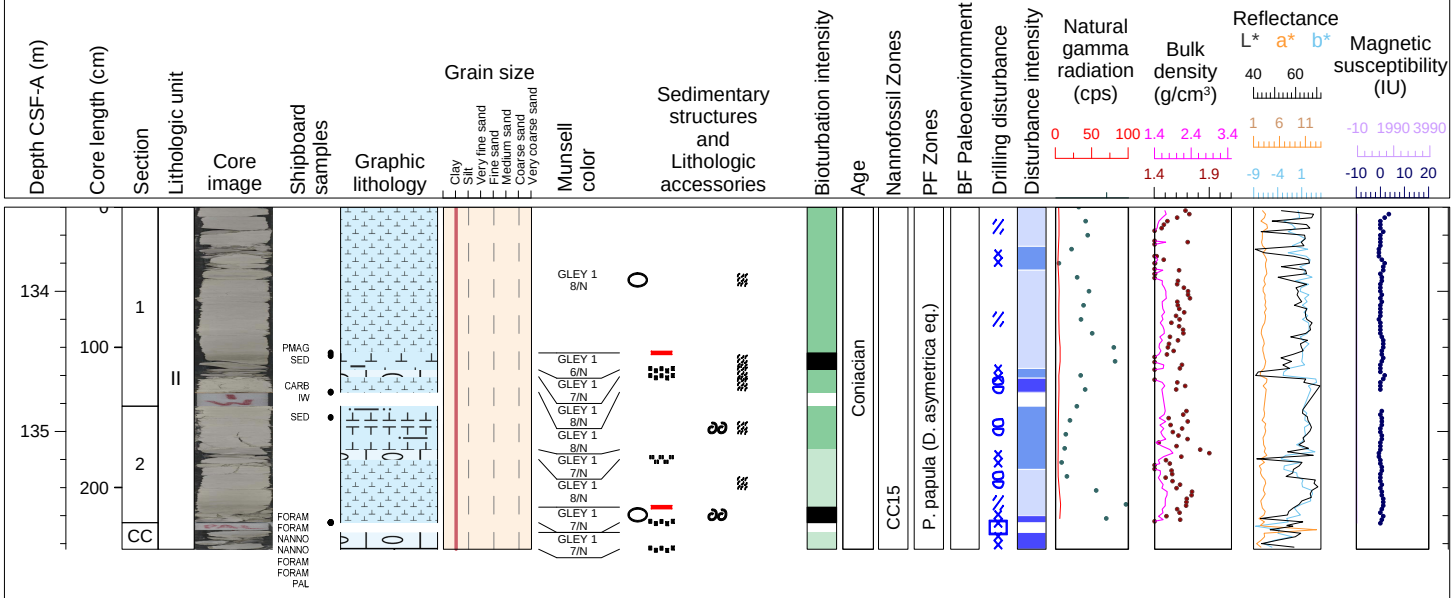
Hole 369-U1513D Core 5R, Interval 123.8-124.56 m (CSF-A)

Core 5R is comprised of severely fragmented pieces of light gray silicified limestone and pale orange calcareous chalk. Bioturbation is low. Recognized ichnofacies include chondrites-planolites-zoophycos. Munsell color notations for this core are as follows: GLEY 1 7/N– light gray, 5Y 8/1–white, and 10YR 8/2– very pale brown.



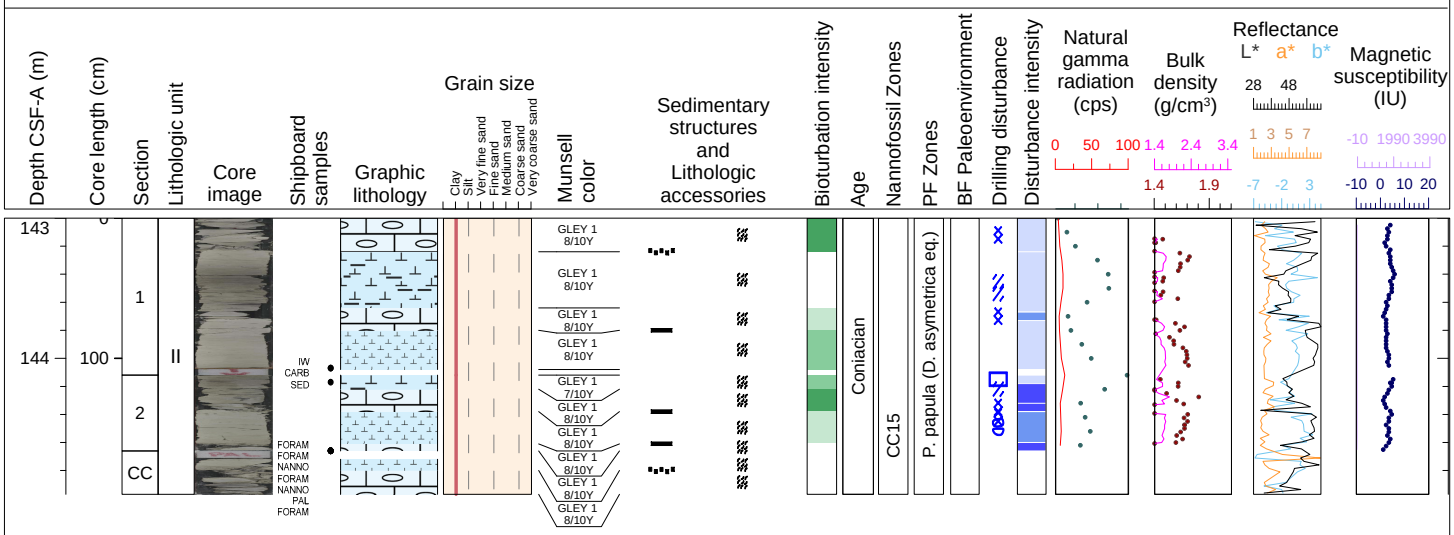
Hole 369-U1513D Core 6R, Interval 133.4-135.84 m (CSF-A)

Core 6R is comprised of nannofossil chalk with thin beds of silicified limestone. Bioturbation is sparse to high, Nodules of silicified limestone are present in Section1 (18 and 28-34 cm) and Section 2 (81-86 cm). Shell fragments are present Section 2 (10-15 cm), and inoceramid shells are present in Section 2 (75-76 cm). Drilling disturbance is various ranging from biscuit to brecciated. Munsell color notations for this core are as follows: GLEY 1 6/N– gray, GLEY 1 7/N– light gray, and GLEY 1 8/N– white.



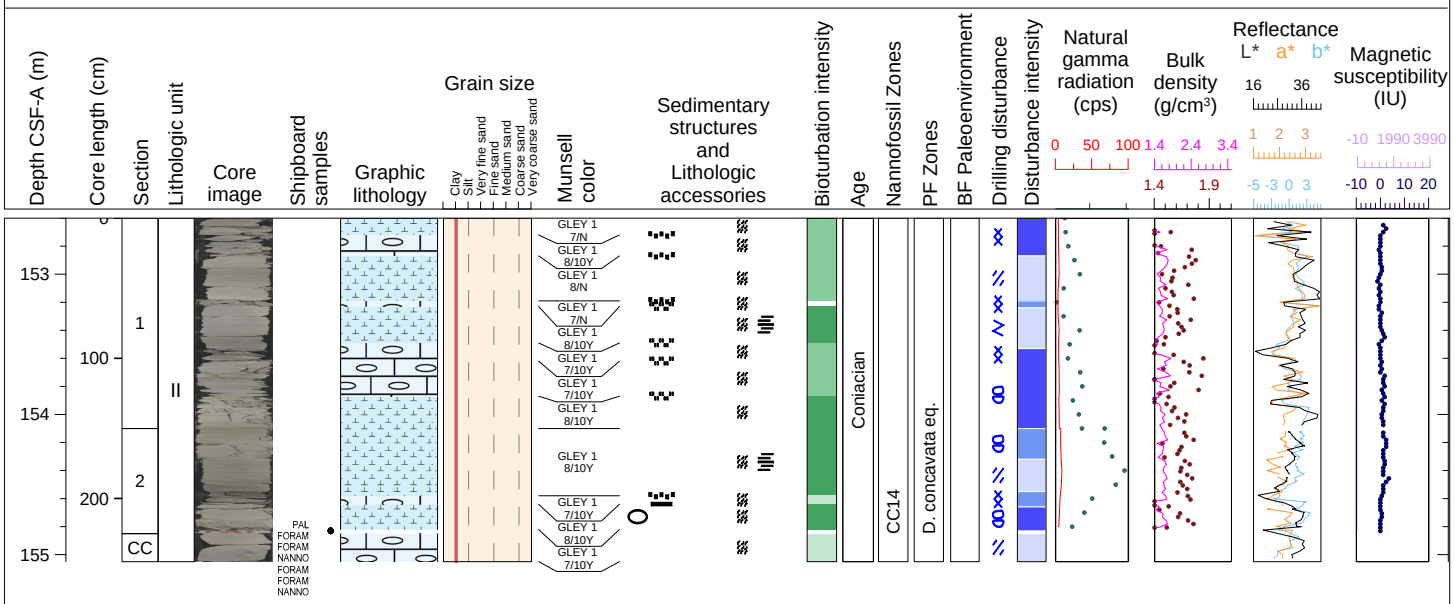
Hole 369-U1513D Core 7R, Interval 143.0-144.97 m (CSF-A)

Core 7R is comprised of nannofossil chalk with medium beds of silicified limestone. There are gradational changes in color throughout the core from greenish gray, to white, to light greenish gray. Bioturbation is absent to moderate, Drilling disturbance is various ranging from fractured to brecciated. Munsell color notations for this core are as follows: GLEY 1 7/10Y– light greenish gray, and GLEY 1 8/10Y– light greenish gray.



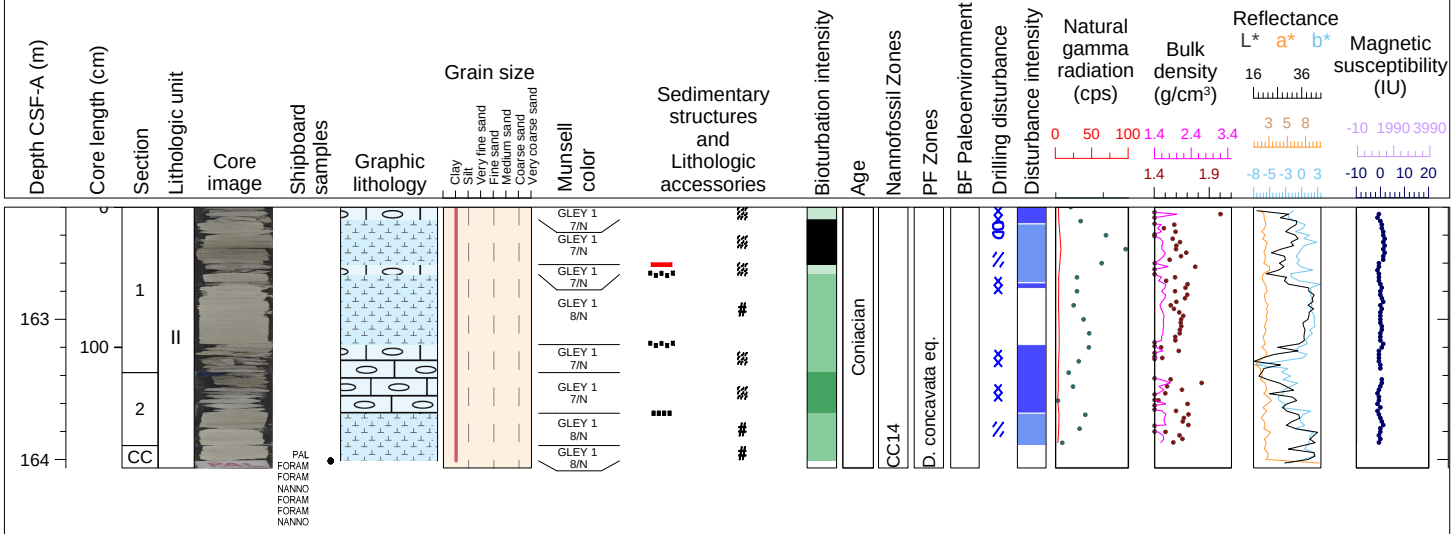
Hole 369-U1513D Core 8R, Interval 152.6-155.05 m (CSF-A)

Core 8R is comprised of nannofossil chalk with medium beds of silicified limestone. Bioturbation is sparse to moderate, Silicified limestone nodules are present in Section 2 (68 and 70 cm). Sporadic thin laminations of claystone are present in Sections 1 and 2. Drilling disturbance is various ranging from brecciated to biscuited. Munsell color notations for this core are as follows: GLEY 1 7/N– light gray, GLEY 1 8/N– white, GLEY 1 7/10Y– light greenish gray, and GLEY 1 8/10Y– light greenish gray.



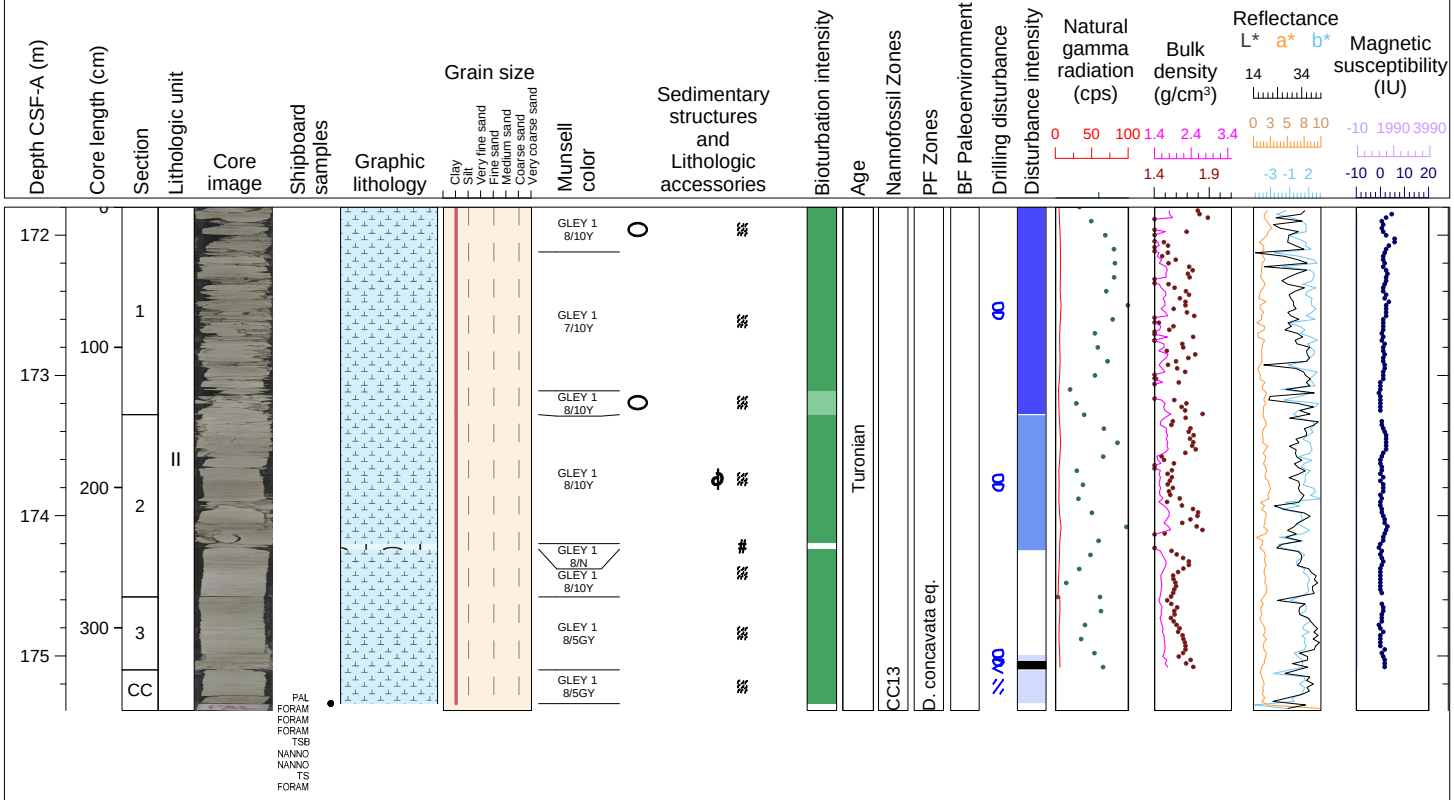
Hole 369-U1513D Core 9R, Interval 162.2-164.06 m (CSF-A)

Core 9R is comprised of nannofossil chalk with medium beds of silicified limestone. Bioturbation is sparse to moderate, A thin bed with high bioturbation is present in Section 2 (36-38 cm). Drilling disturbance is various ranging from brecciated to fragmented. Munsell color notations for this core are as follows: GLEY 1 7/N– light gray, and GLEY 1 8/N– white.



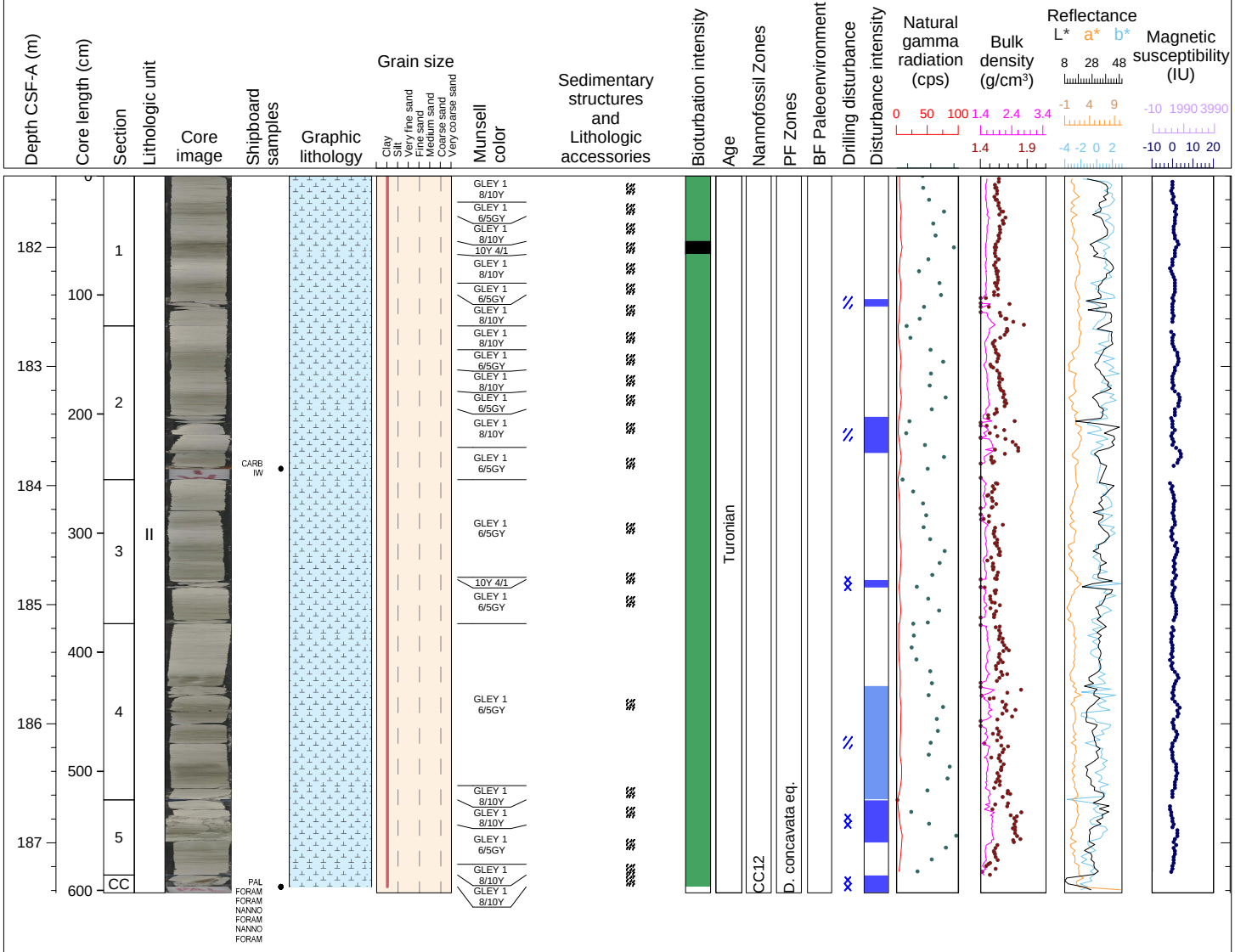
Hole 369-U1513D Core 10R, Interval 171.8-175.39 m (CSF-A)

Core 10R is dominated by nannofossil chalk with nodules of silicified limestone. Bioturbation ranges from being absent to moderate, A thin bed with high bioturbation is present in Section 2 (79-83 cm). Drilling disturbance is various ranging from brecciated to fragmented. Munsell color notations for this core are as follows: GLEY 1 8/N– white, GLEY 1 7/10Y– light greenish gray, GLEY 1 8/10Y– light greenish gray, and GLEY 1 8/5GY– light greenish gray.



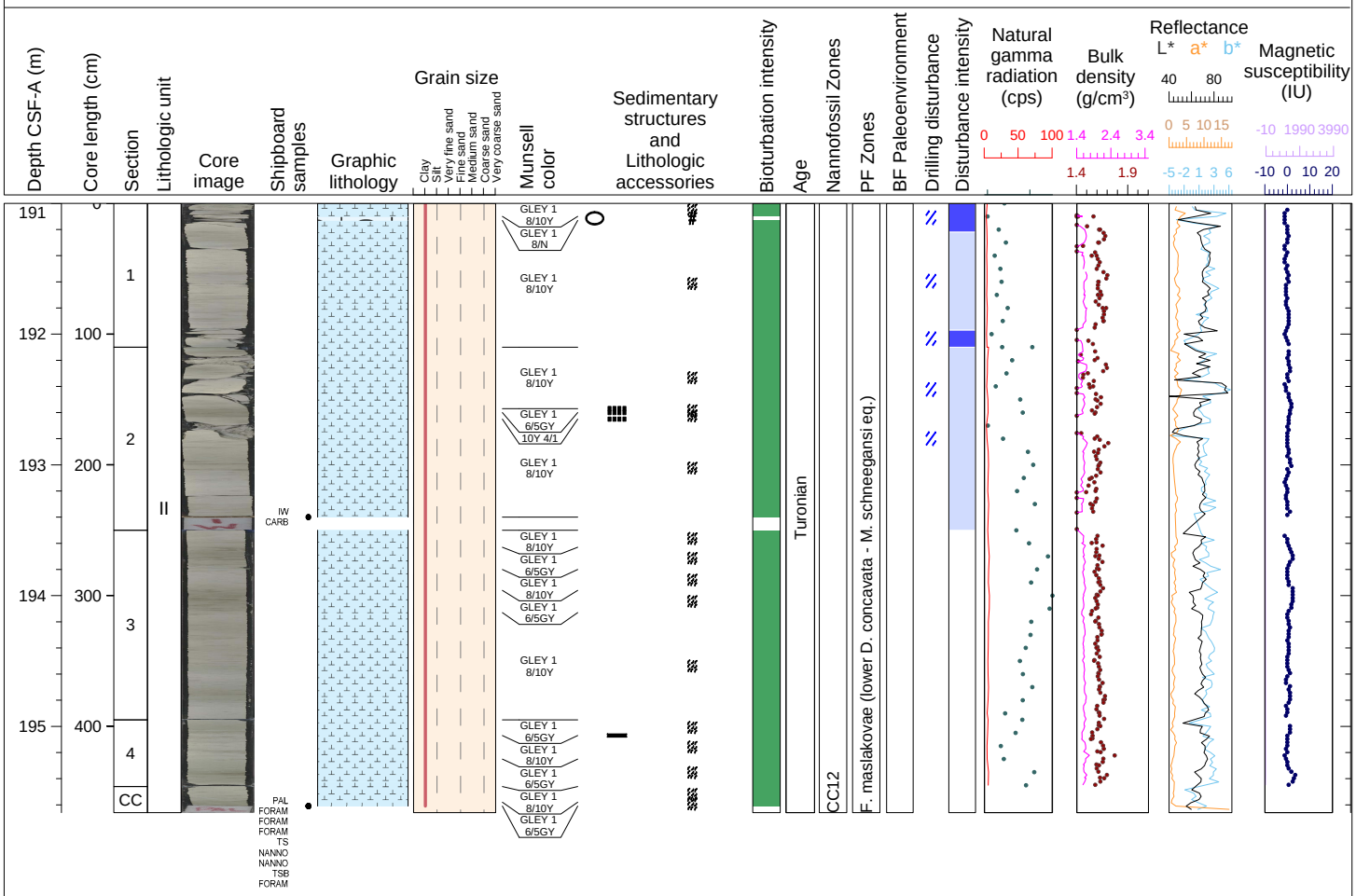
Hole 369-U1513D Core 11R, Interval 181.4-187.42 m (CSF-A)

Core 11R is a greenish-grey nannofossil chalk with recurring intervals of pale greenish-gray and dark greenish gray nannofossil chalk. The overall grain size is clay. Bioturbation moderate throughout. The core exhibits intervals with moderate to severe fractured and brecciated drilling disturbance. Munsell color notations for this core are as follows: GLEY 1 8/10Y– light greenish gray, GLEY 1 6/5GY– greenish gray, and 10Y 4/1– dark greenish gray.



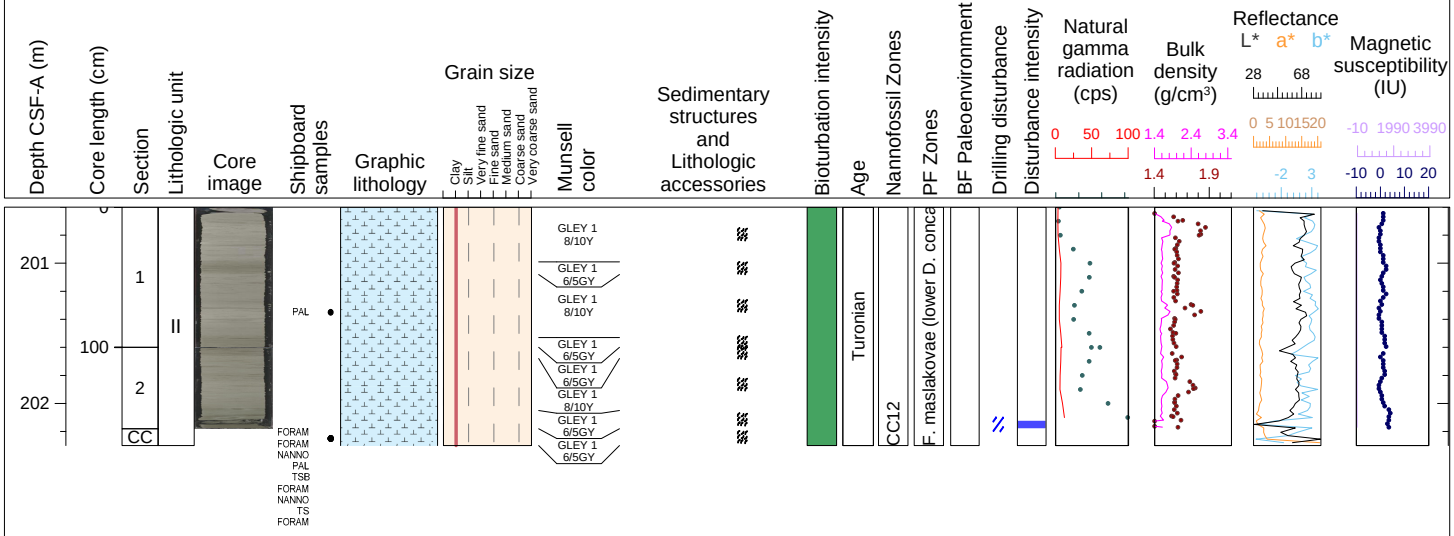
Hole 369-U1513D Core 12R, Interval 191.0-195.66 m (CSF-A)

Core 12R is a greenish-gray nannofossil chalk with recurring intervals of light greenish-gray nannofossil chalk. The overall grain size is clay. Bioturbation moderate throughout. The core exhibits intervals with slight to severe fractured drilling disturbance. Munsell color notations for this core are as follows: GLEY 1 8/N– white, GLEY 1 8/10Y– light greenish gray, GLEY 1 6/5GY– greenish gray, and 10Y 4/1– dark greenish gray.



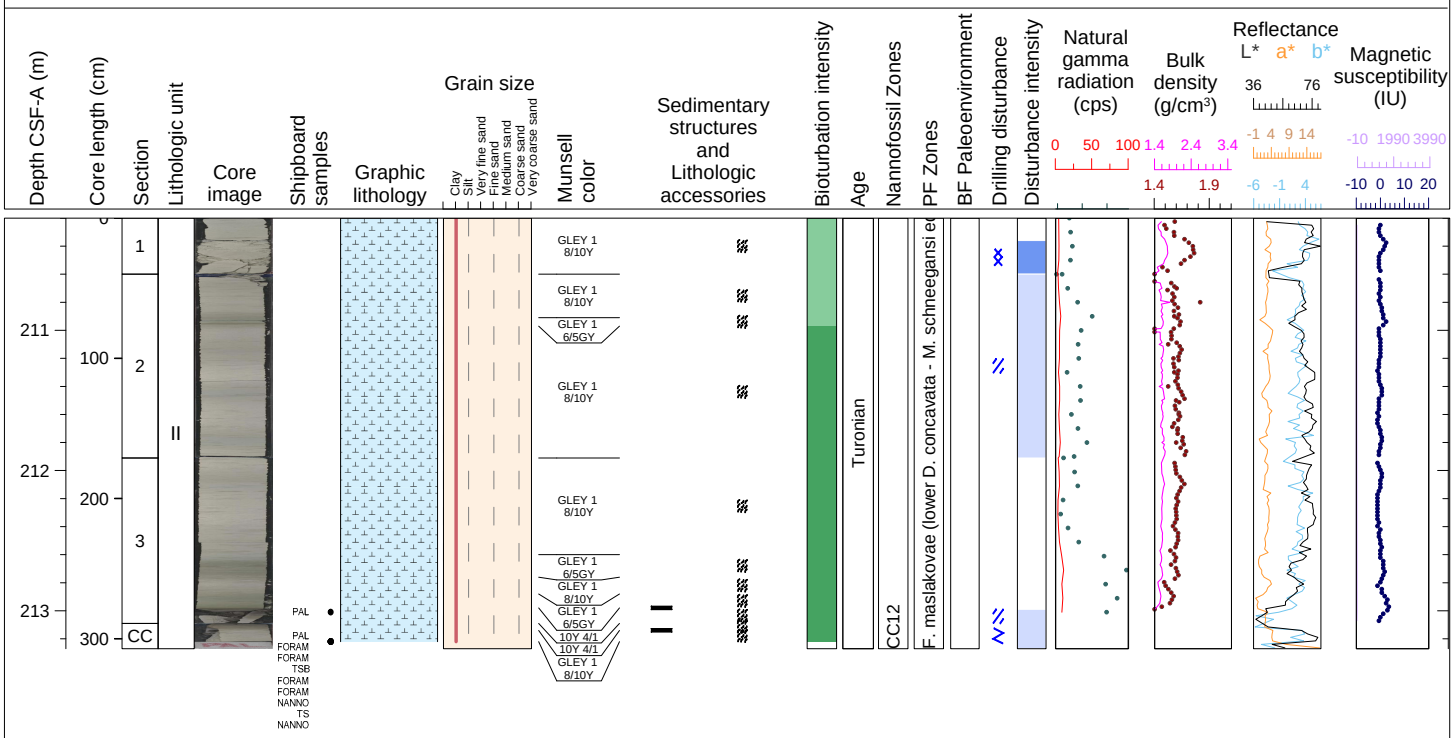
Hole 369-U1513D Core 13R, Interval 200.6-202.3 m (CSF-A)

Core 13R is a greenish-gray nannofossil chalk with recurring intervals of light greenish-gray nannofossil chalk. The overall grain size is clay. Bioturbation moderate throughout. The core exhibits intervals with slight to severe fractured drilling disturbance. Munsell color notations for this core are as follows: GLEY 1 8/10Y– light greenish gray, and GLEY 1 6/5GY–greenish gray.



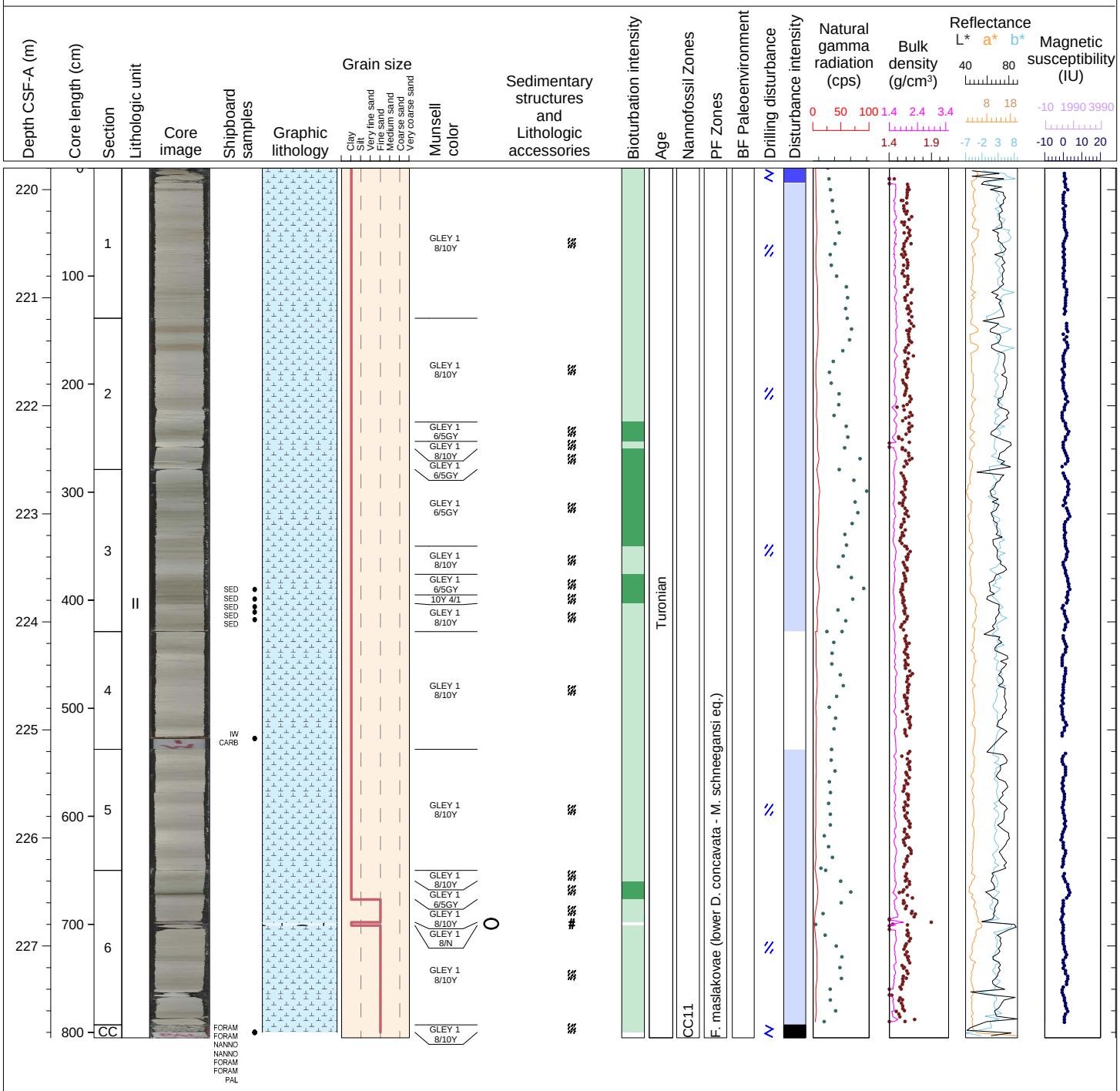
Hole 369-U1513D Core 14R, Interval 210.2-213.27 m (CSF-A)

Core 14R is a greenish-gray nannofossil chalk with recurring intervals of light greenish-gray and dark greenish grey nannofossil chalk. The overall grain size is clay. Bioturbation moderate throughout. The core exhibits intervals with different types of moderate to severe drilling disturbance. Munsell color notations for this core are as follows: GLEY 1 8/10Y– light greenish gray, GLEY 1 6/5GY– greenish gray, and 10Y 4/1– dark greenish gray.



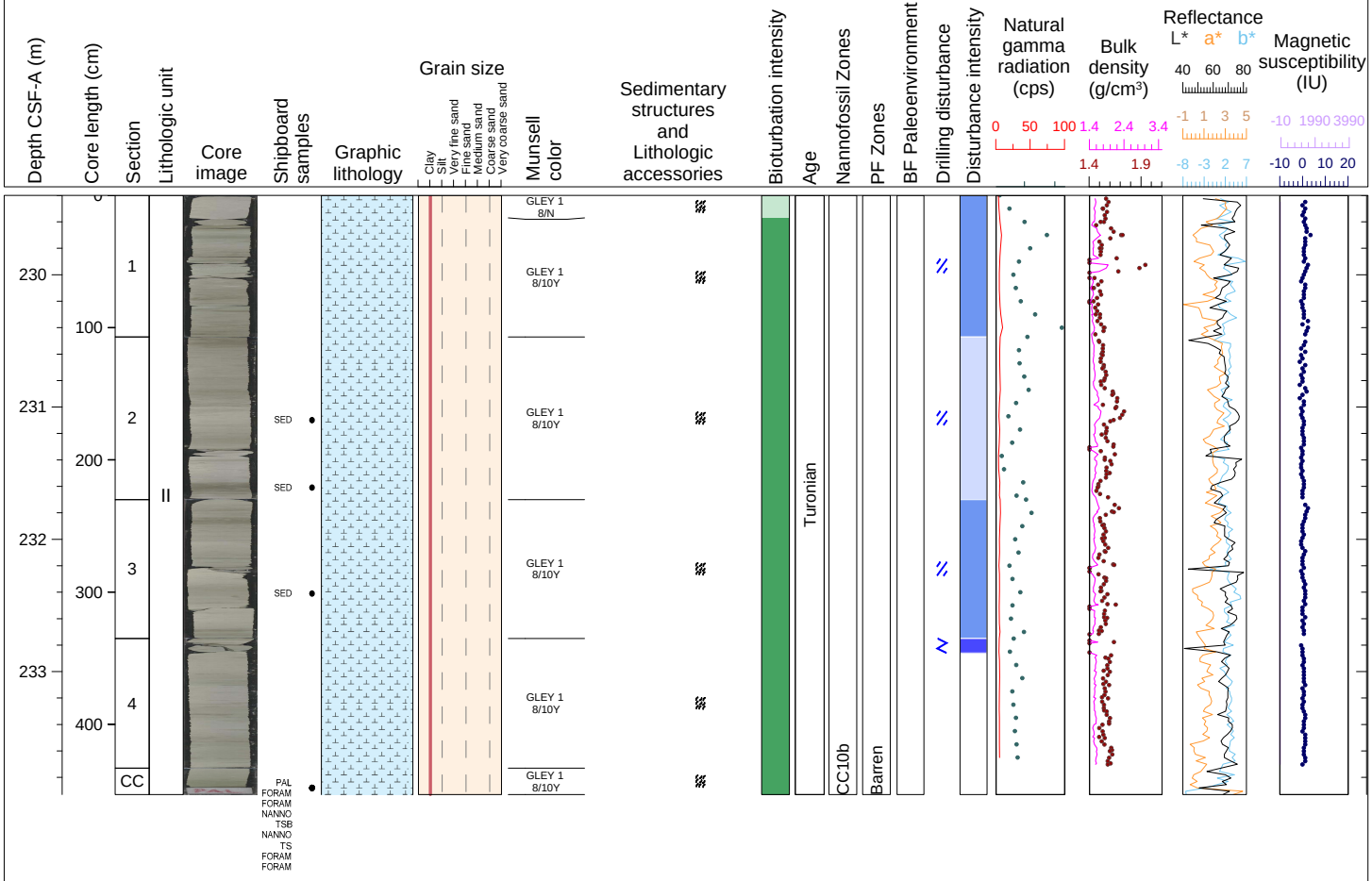
Hole 369-U1513D Core 15R, Interval 219.8-227.85 m (CSF-A)

Core 15R is a light greenish-gray nannofossil chalk with recurring intervals of greenish-gray and dark greenish gray nannofossil chalk. The overall grain size is clay. Bioturbation sparse to moderate throughout. The core exhibits intervals with different degrees of fractured and fragmented drilling disturbance. Munsell color notations for this core are as follows: GLEY 1 8/N– white, GLEY 1 8/10Y– light greenish gray, GLEY 1 6/5GY– greenish gray, and 10Y 4/1– dark greenish gray.



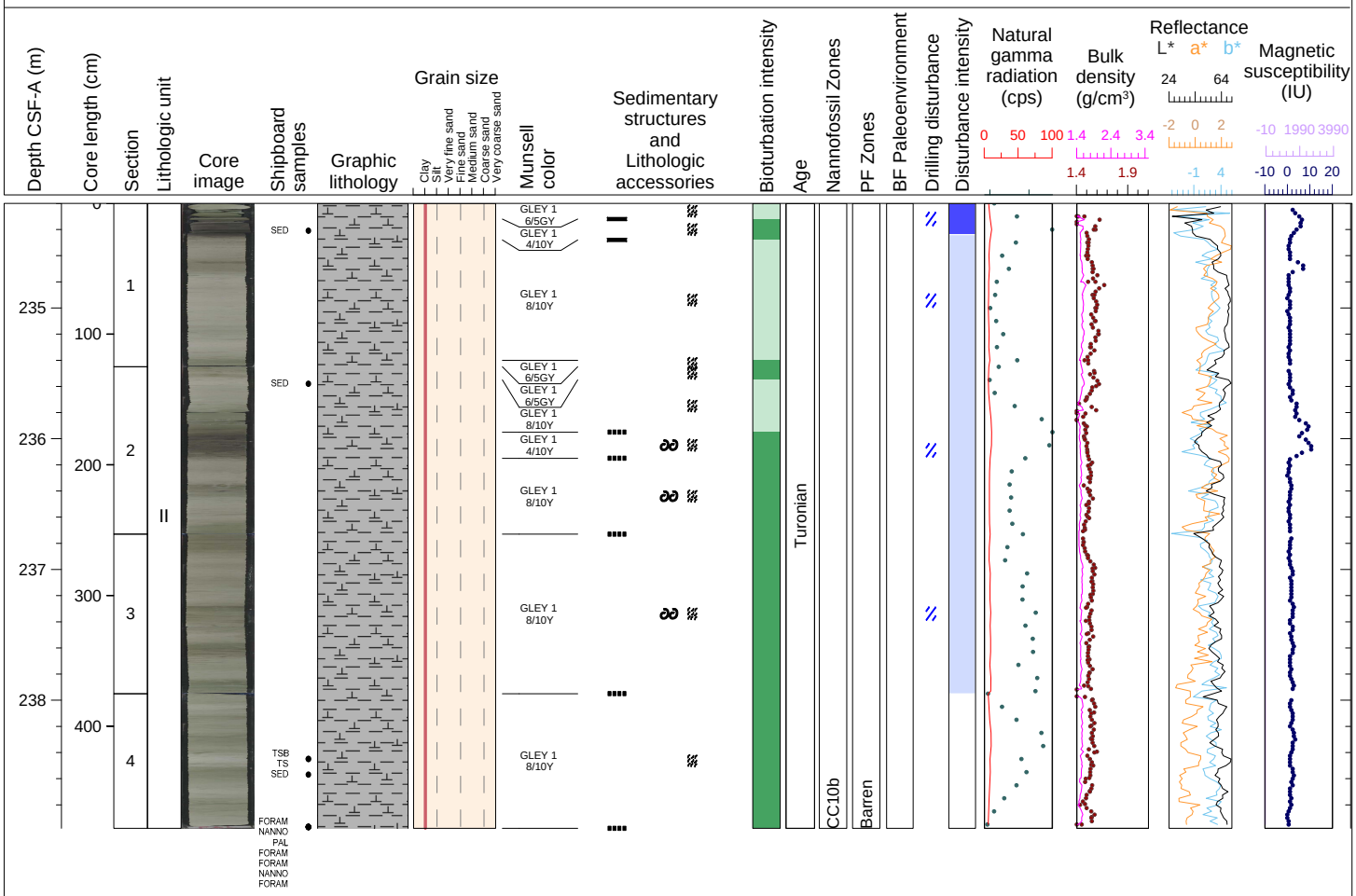
Hole 369-U1513D Core 16R, Interval 229.4-233.93 m (CSF-A)

Core 16R is a light greenish-gray nannofossil chalk. In Section 1, inoceramid fragments were observed between 45 cm and 64 cm. The overall grain size is clay. Thin laminations are observed within the dark greenish-gray intervals. Bioturbation is sparse to moderate throughout. The core exhibits intervals with different degrees of fractured and fragmented drilling disturbance. Munsell color notations for this core are as follows: GLEY 1 8/N– white, and GLEY 1 8/10Y– light greenish gray.



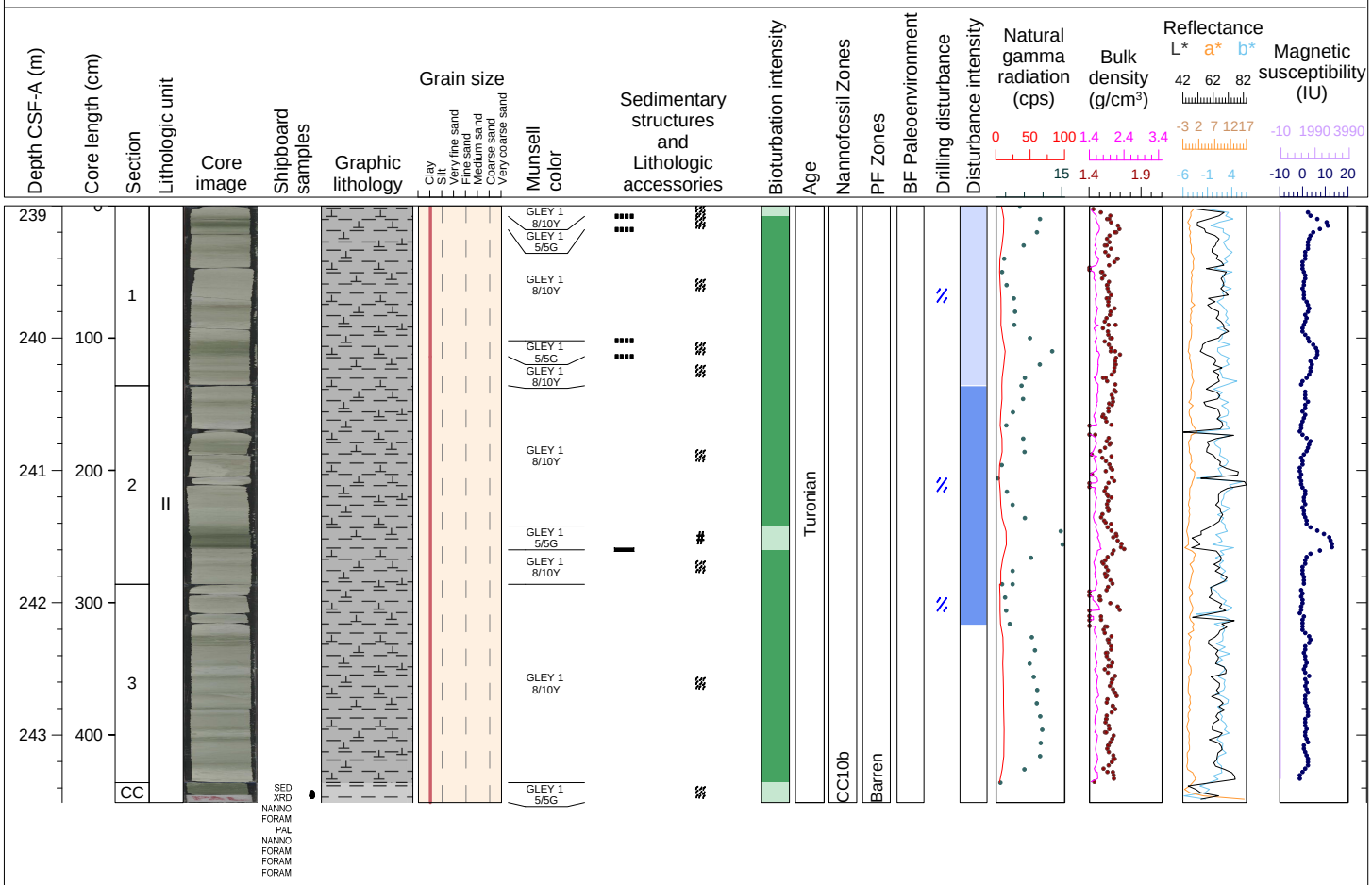
Hole 369-U1513D Core 17R, Interval 234.2-238.98 m (CSF-A)

Core 17R is a light greenish-gray nannofossil-rich claystone with recurring intervals of greenish gray and dark nannofossil-rich claystone. Thin laminations are observed within the greenish gray nannofossil-rich claystone intervals. The overall grain size is clay. Bioturbation sparse to moderate throughout. The core exhibits slight to severe fractured drilling disturbance. Munsell color notations for this core are as follows: GLEY 1 4/10Y– dark greenish gray, GLEY 1 6/5GY– greenish gray, and GLEY 1 8/10Y– light greenish gray.



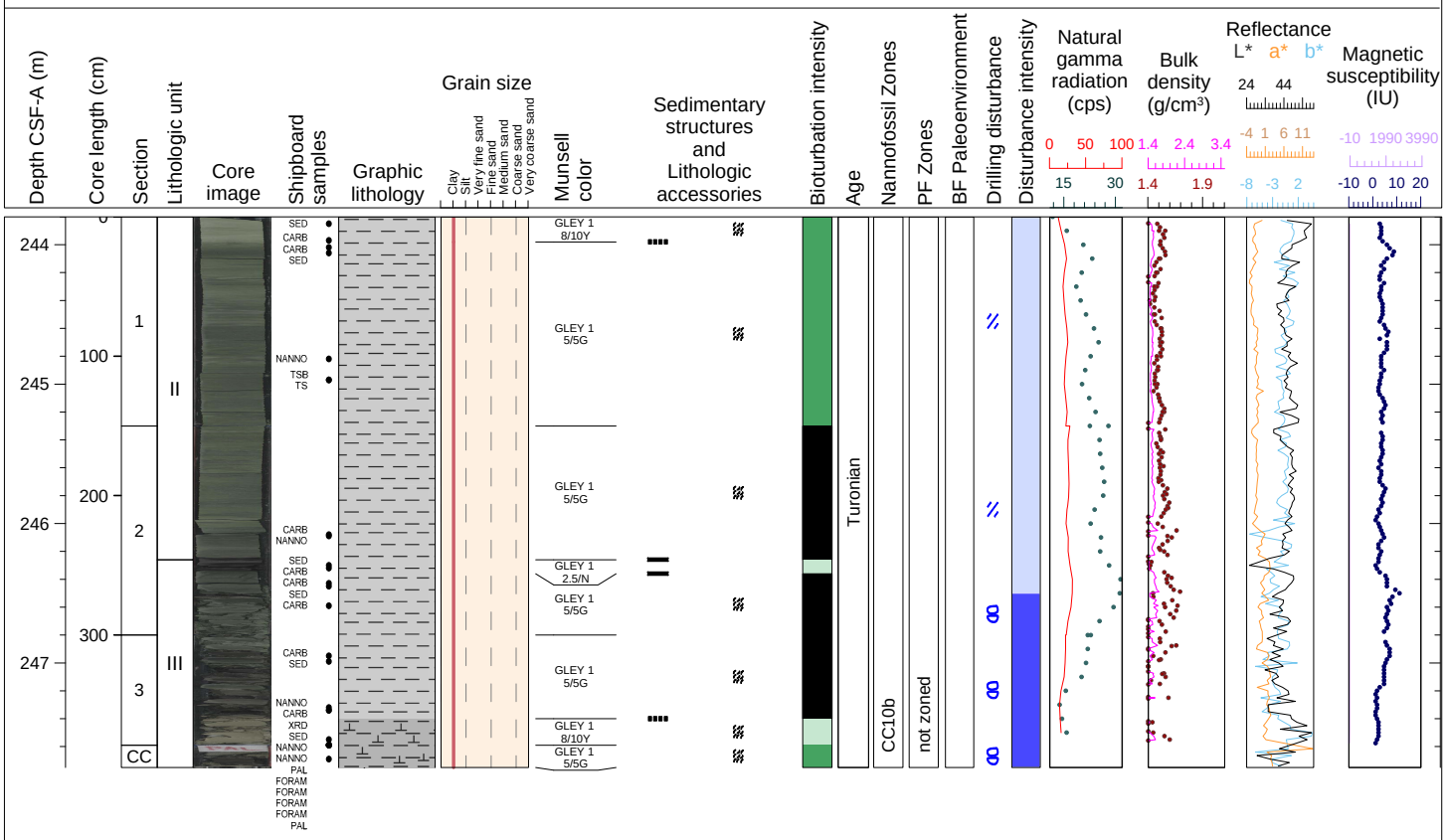
Hole 369-U1513D Core 18R, Interval 239.0-243.51 m (CSF-A)

Core 18R is a light greenish-gray nannofossil-rich claystone with recurring intervals of grayish green nannofossil-rich claystone. Thin laminations are observed within the grayish green nannofossil-rich claystone intervals. The overall grain size is clay. Bioturbation is sparse to moderate throughout. In Section 3, between 80 and 88 cm, a soft-sedimentary fault was observed. The core exhibits slight to moderate fractured drilling disturbance. Munsell color notations for this core are as follows: GLEY 1 5/5G– greenish gray, and GLEY 1 8/10Y– light greenish gray.



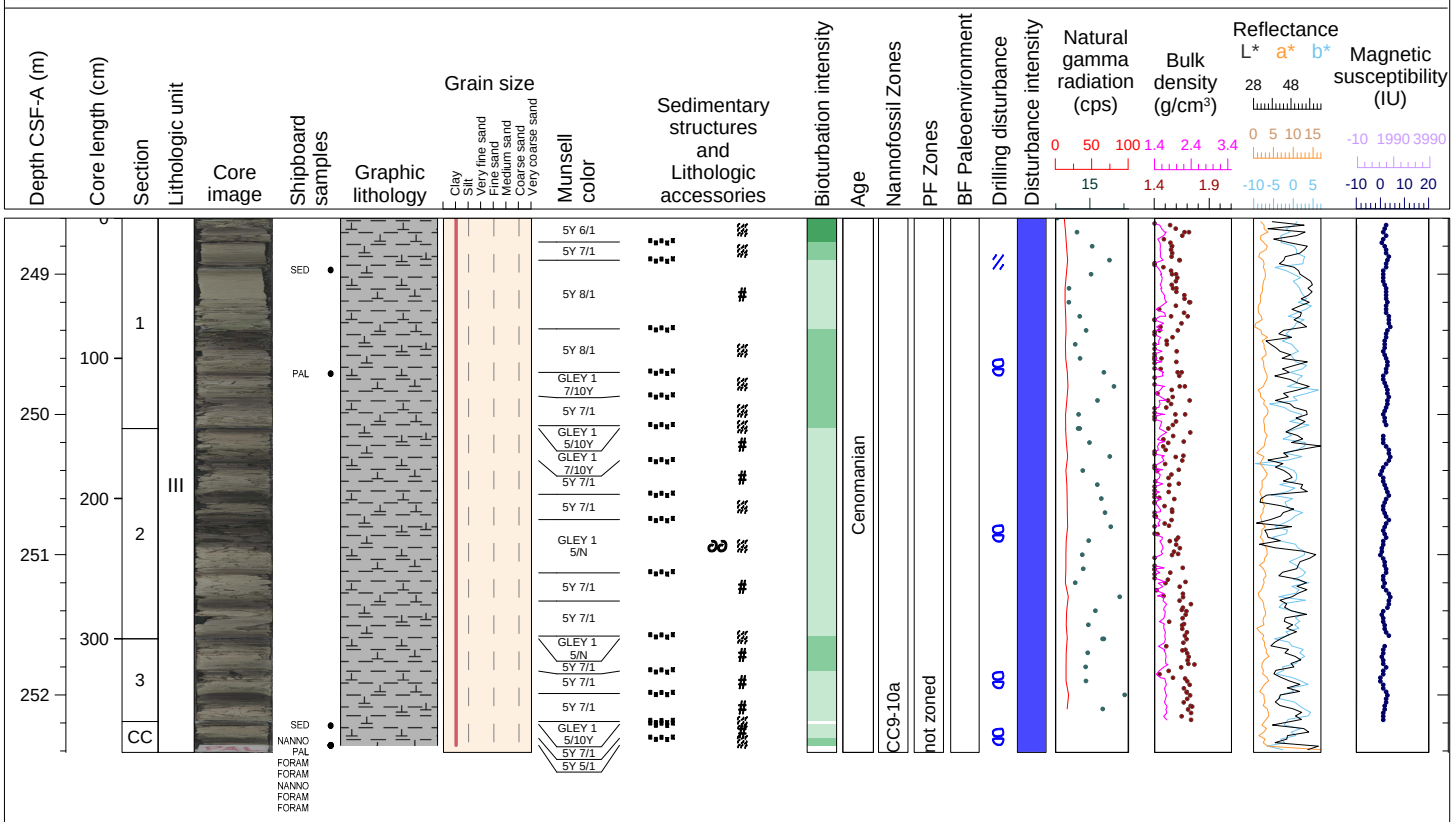
Hole 369-U1513D Core 19R, Interval 243.8-247.75 m (CSF-A)

Core 19R is a greenish gray nannofossil-rich claystone. Thin black layers and laminations are present within the greenish gray nannofossil-rich claystone. The overall grain size is clay. Bioturbation sparse to high. In Section 2, between 95 and 105 cm, there is a a back claystone interval . Within this interval, the upper half is moderately bioturbated while the lower half has thin laminations. The core exhibits slight fractured and severe biscuit drilling disturbance. Munsell color notations for this core are as follows: GLEY 1 2.5/N– black, GLEY 1 5/5G– greenish gray, and GLEY 1 8/10Y– light greenish gray.



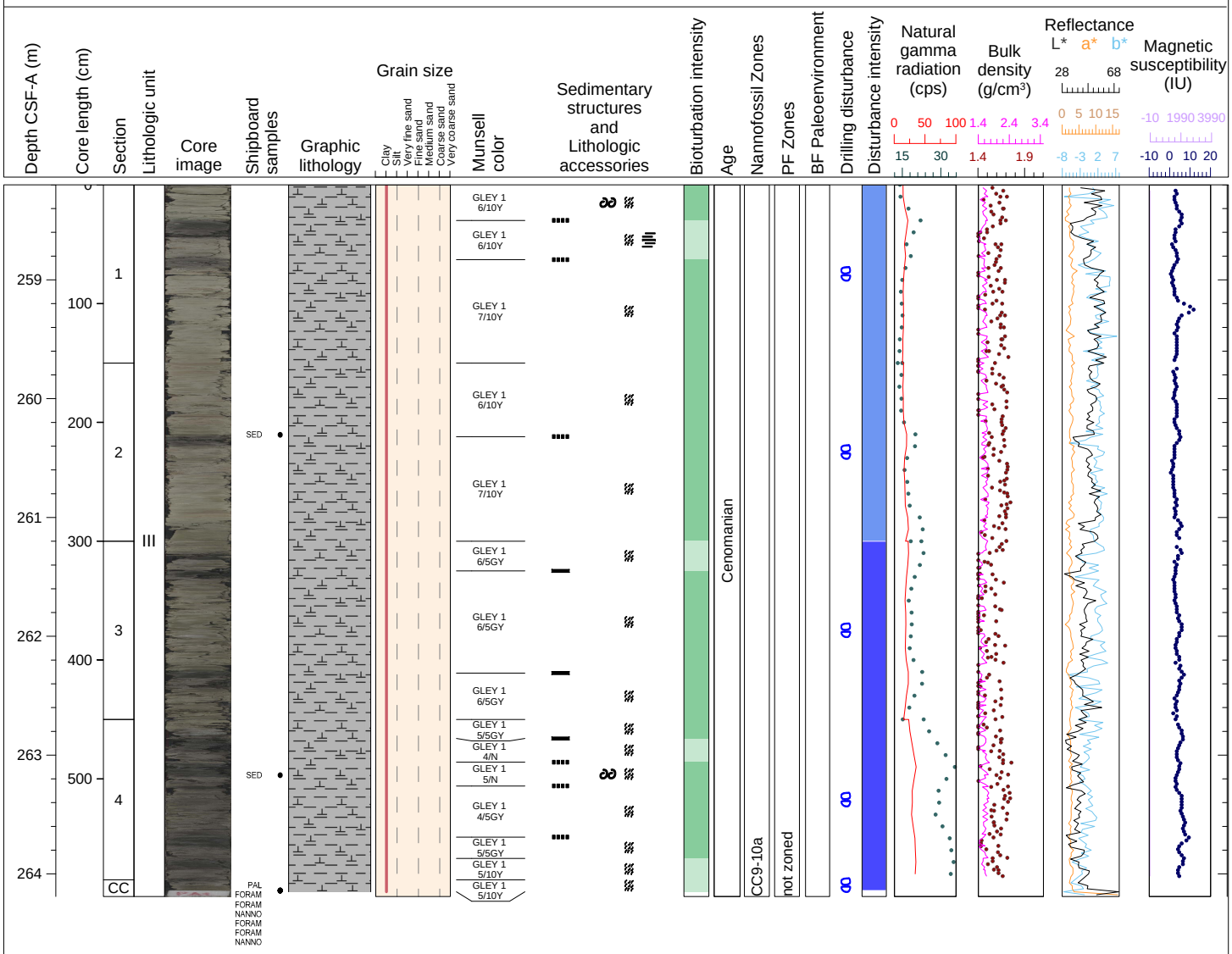
Hole 369-U1513D Core 20R, Interval 248.6-252.41 m (CSF-A)

Core 20R consists of recurring sequences of greenish gray, light gray and gray nannofossil-rich claystones. The thickness of each triplet ranges from ~50-15 cm. The overall grain size is clay. Bioturbation is sparse to low. There are shell fragments in Section 1 at 20 cm and in Section 4 at 47 cm. The core exhibits severe fractured to biscuited drilling disturbance. Munsell color notations for this core are as follows: 5Y 5/1– gray, 5Y 6/1– gray, 5Y 7/1– light gray, 5Y 8/1–white, GLEY 1 5/10Y– greenish gray, and GLEY 1 7/10Y– light greenish gray.



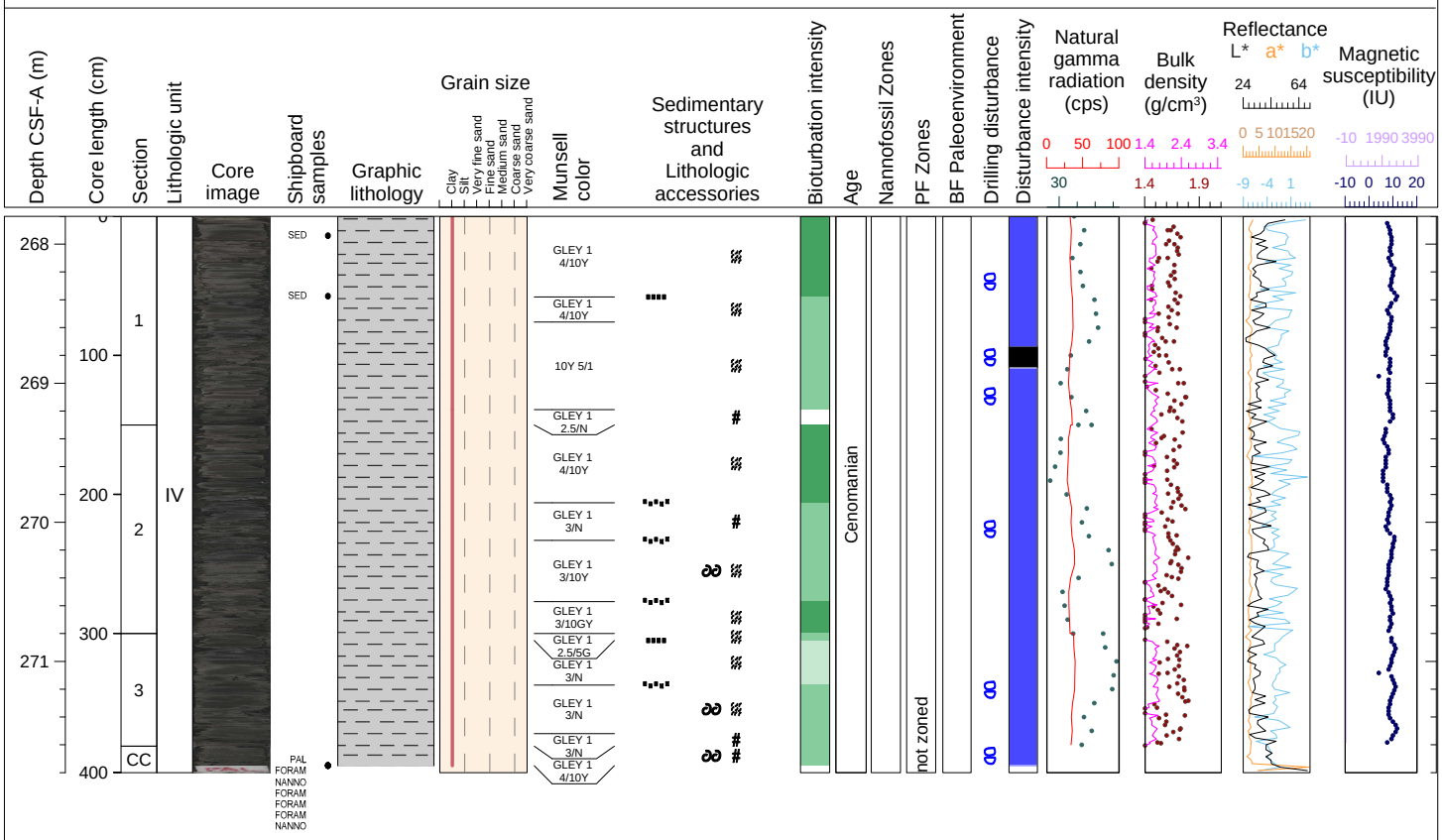
Hole 369-U1513D Core 21R, Interval 258.2-264.19 m (CSF-A)

Core 21R consists of recurring sequences of dark greenish gray, light greenish gray and dark gray nannofossil-rich claystones. The thickness of each triplet varies between ~90-15 cm. The overall grain size is clay. Bioturbation is sparse to moderate. There are shell fragments in Section 4 at 37 cm. The core exhibits slight moderate to severe biscuit drilling disturbance. Munsell color notations for this core are as follows: GLEY 1 4/N– dark gray, GLEY 1 5/N– gray, GLEY 1 5/10Y– greenish gray, GLEY 1 6/10Y– greenish gray, GLEY 1 7/10Y– light greenish gray, GLEY 1 4/5GY– dark greenish gray, GLEY 1 5/5GY– greenish gray, and GLEY 1 6/5GY– greenish gray.



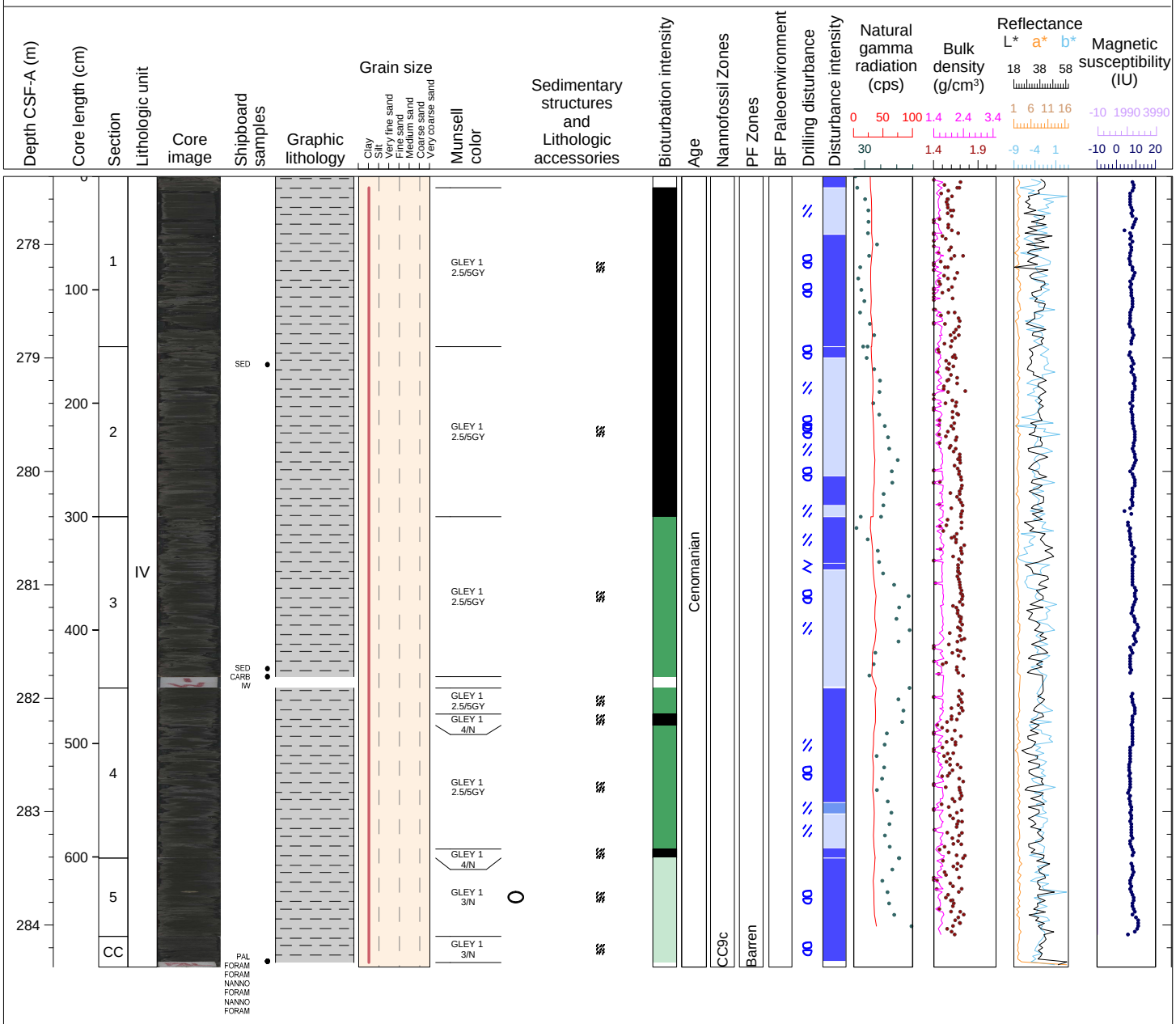
Hole 369-U1513D Core 22R, Interval 267.8-271.8 m (CSF-A)

Core 22R is a gray nannofossil rich claystone with reoccurring intervals of dark greenish gray claystone. The overall grain size is clay. Bioturbation is sparse to moderate. There are also very dark greenish gray thin beds of claystone, Shell fragments are present in Section 2 (98-99 cm), Section 3 (68, 77, 78, and 81 cm) and in the CC (4, 9 cm). The core exhibits serve to destroyed biscuit drilling disturbance. Munsell color notations for this core are as follows: GLEY 1 3/N– very dark gray, GLEY 1 3/10Y– very dark greenish gray, GLEY 1 4/10Y– dark greenish gray, 10Y 5/1– greenish gray, and GLEY 1 3/10GY– very dark greenish gray.



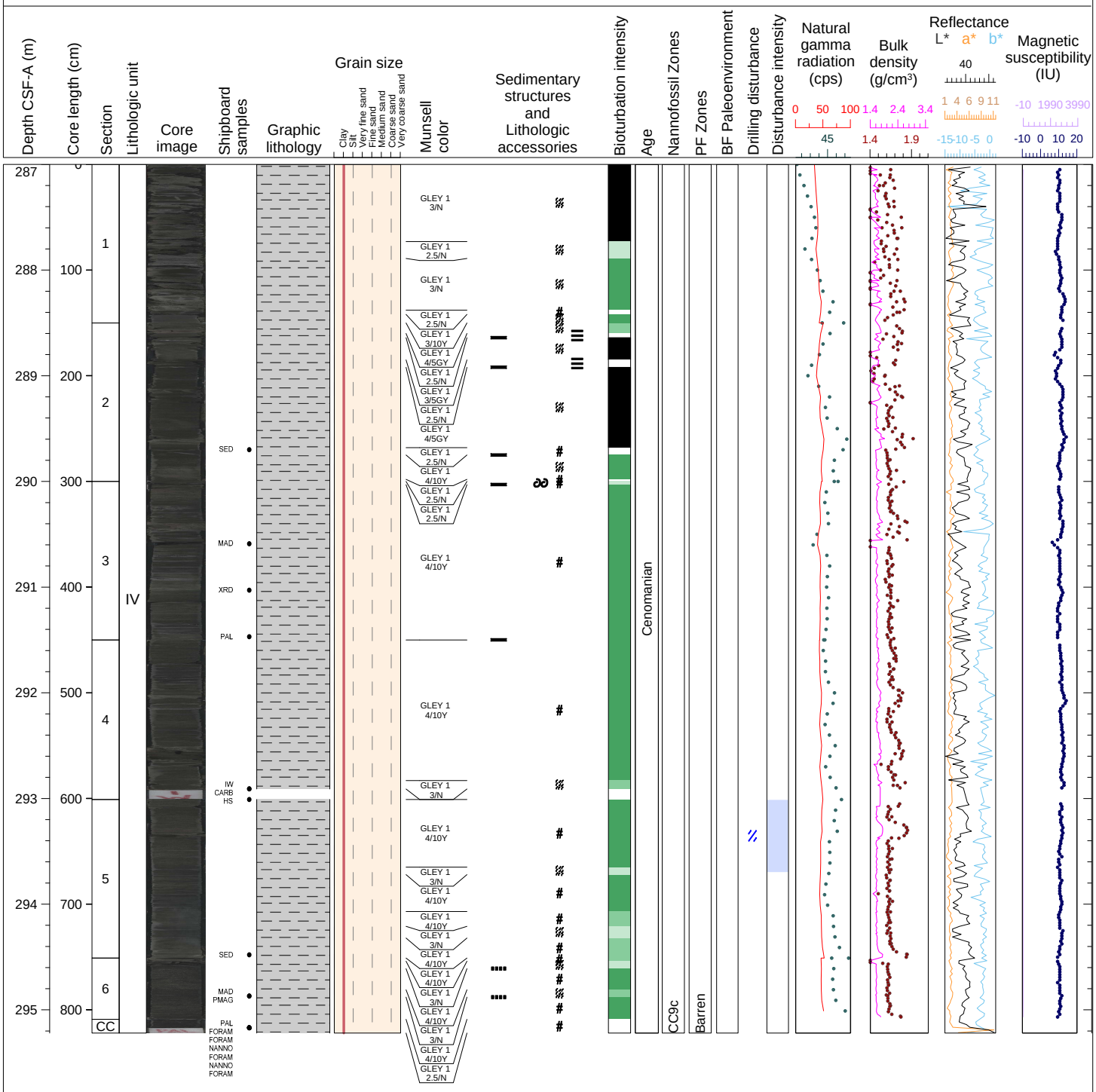
Hole 369-U1513D Core 23R, Interval 277.4-284.37 m (CSF-A)

Core 23R is a greenish black claystone with two thick beds of dark gray claystone in Section 4 (23-33 and 142-150 cm). The overall grain size is clay. Bioturbation is sparse to high. There are glauconitic horizons present in Section 1 (30, 42, 82, 108, 133 and 149 cm), Section 2 (16, 35, 53, 75, 101 and 125 cm), and Section 3 (36 and 107 cm). There is also a pyrite nodule present in Section 5 (31 cm), The core exhibits serve biscuit drilling disturbance and the first ten centimeters of Section 1 is completely destroyed. Munsell color notations for this core are as follows: GLEY 1 3/N– very dark gray, GLEY 1 4/N– dark gray, and GLEY 1 2.5/5GY– greenish black.



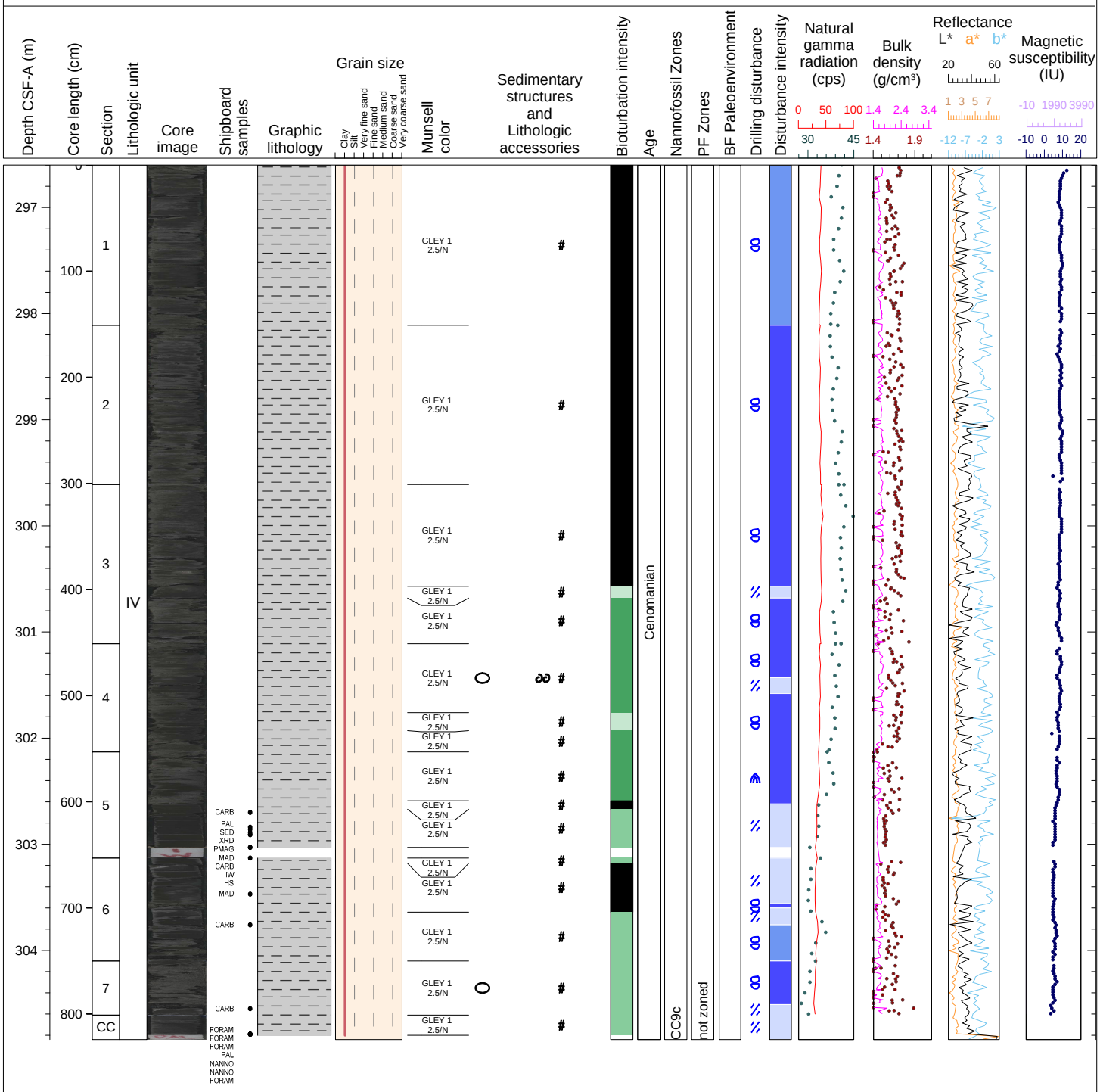
Hole 369-U1513D Core 24R, Interval 287.0-295.22 m (CSF-A)

Core 24R is a dark greenish gray to black claystone. The overall grain size is clay. Bioturbation is absent to high. There are glauconitic horizons present in Section 2 (115-116 and 143-144 cm), Section 3 (18-19 and 113-151 cm), and Section 5 (42 and 54 cm). The core exhibits fractured and biscuited drilling disturbances. Munsell color notations for this core are as follows: GLEY 1 2.5/N– black, GLEY 1 3/N– very dark gray, GLEY 1 3/10Y– very dark greenish gray, GLEY 1 4/10Y– dark greenish gray, GLEY 1 3/5GY– very dark greenish gray, and GLEY 1 4/5GY– dark greenish gray.



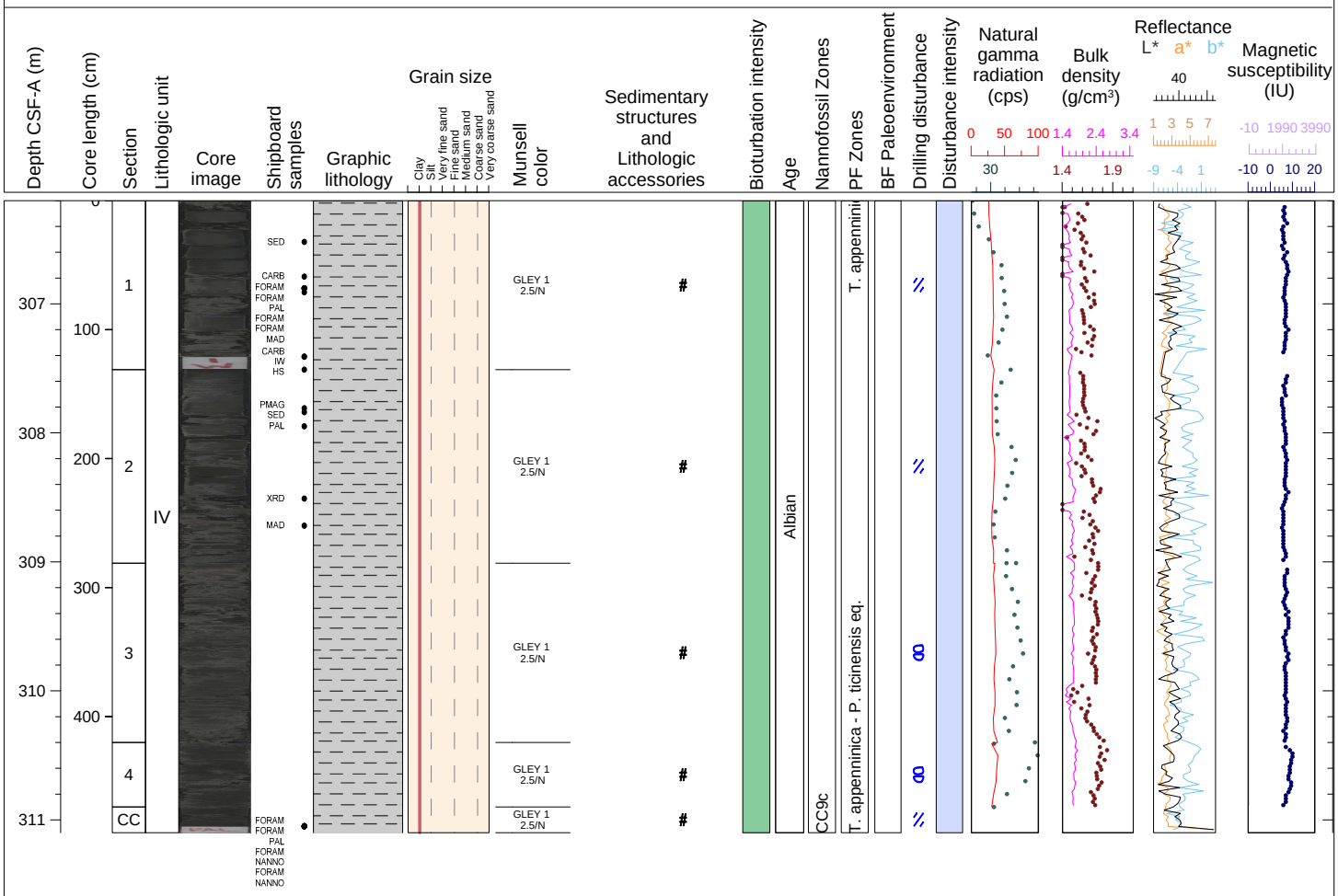
Hole 369-U1513D Core 25R, Interval 296.6-304.84 m (CSF-A)

Core 25R is a black claystone. The overall grain size is clay. Bioturbation is sparse to high. Nodules of pyrite are present in Section 4 (47 cm) and Section 7 (43 cm) The core exhibits fractured and severe biscuit drilling disturbances. The Munsell color notation for this core is as follows: GLEY 1 2.5/N– black.



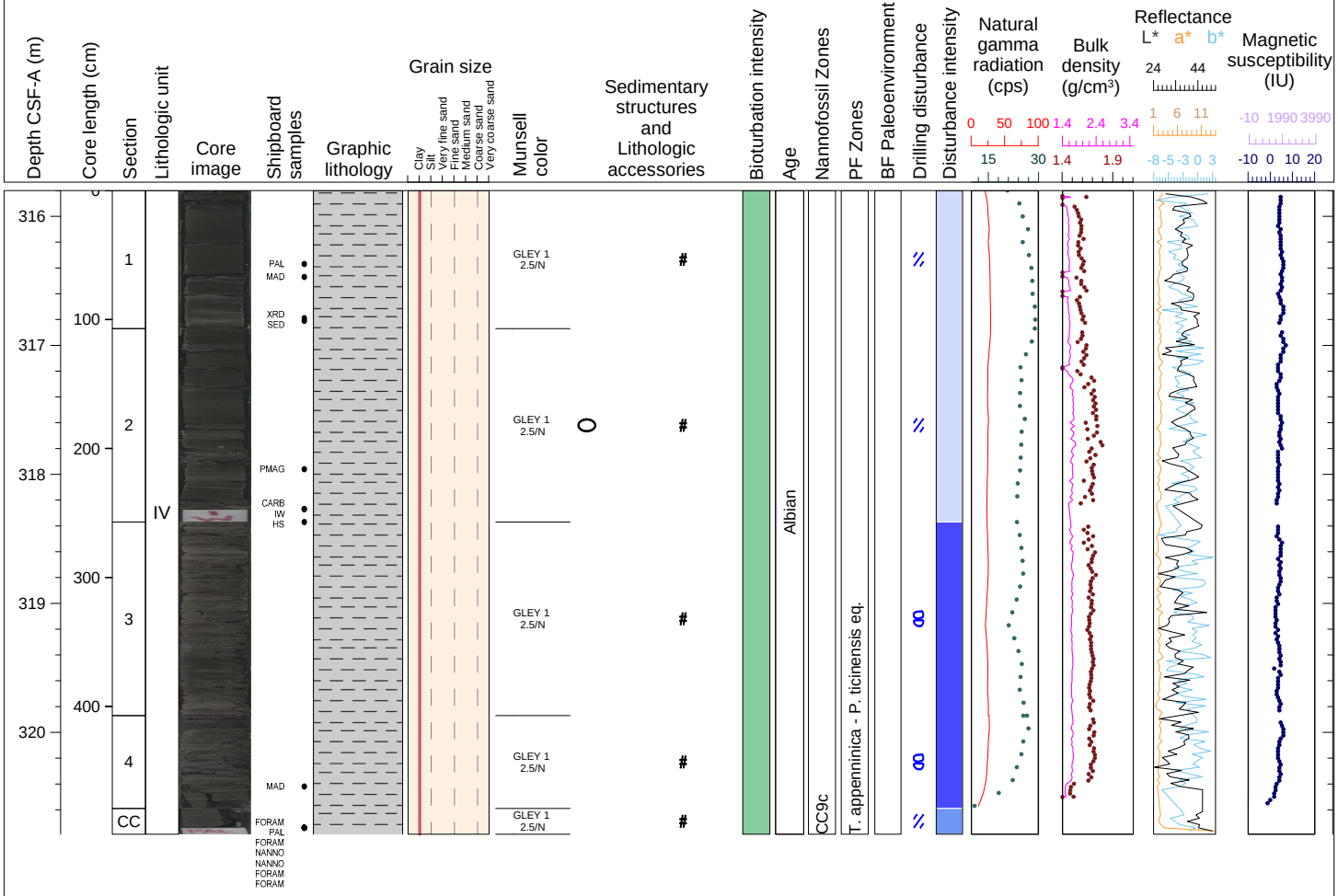
Hole 369-U1513D Core 26R, Interval 306.2-311.1 m (CSF-A)

Core 26R is a black claystone. The overall grain size is clay. Bioturbation is low. The core exhibits slight fractured and biscuit drilling disturbances. The Munsell color notation for this core is as follows: GLEY 1 2.5/N– black.



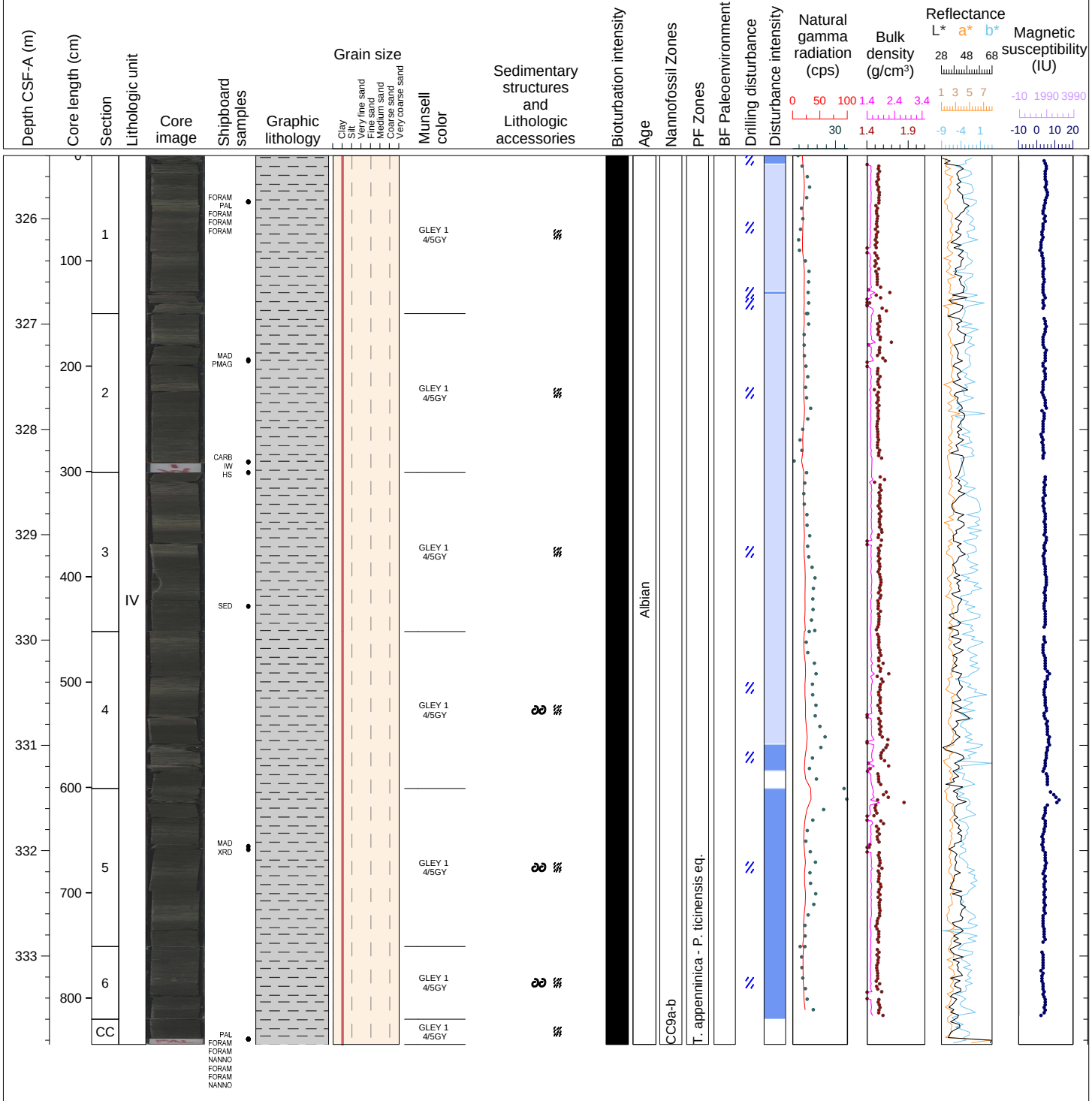
Hole 369-U1513D Core 27R, Interval 315.8-320.79 m (CSF-A)

Core 27R is a black claystone. The overall grain size is clay. Bioturbation is low. Nodules of pyrite are present throughout. The core exhibits slight to severe fractured and biscuit drilling disturbances. The Munsell color notation for this core is as follows: GLEY 1 2.5/N– black.



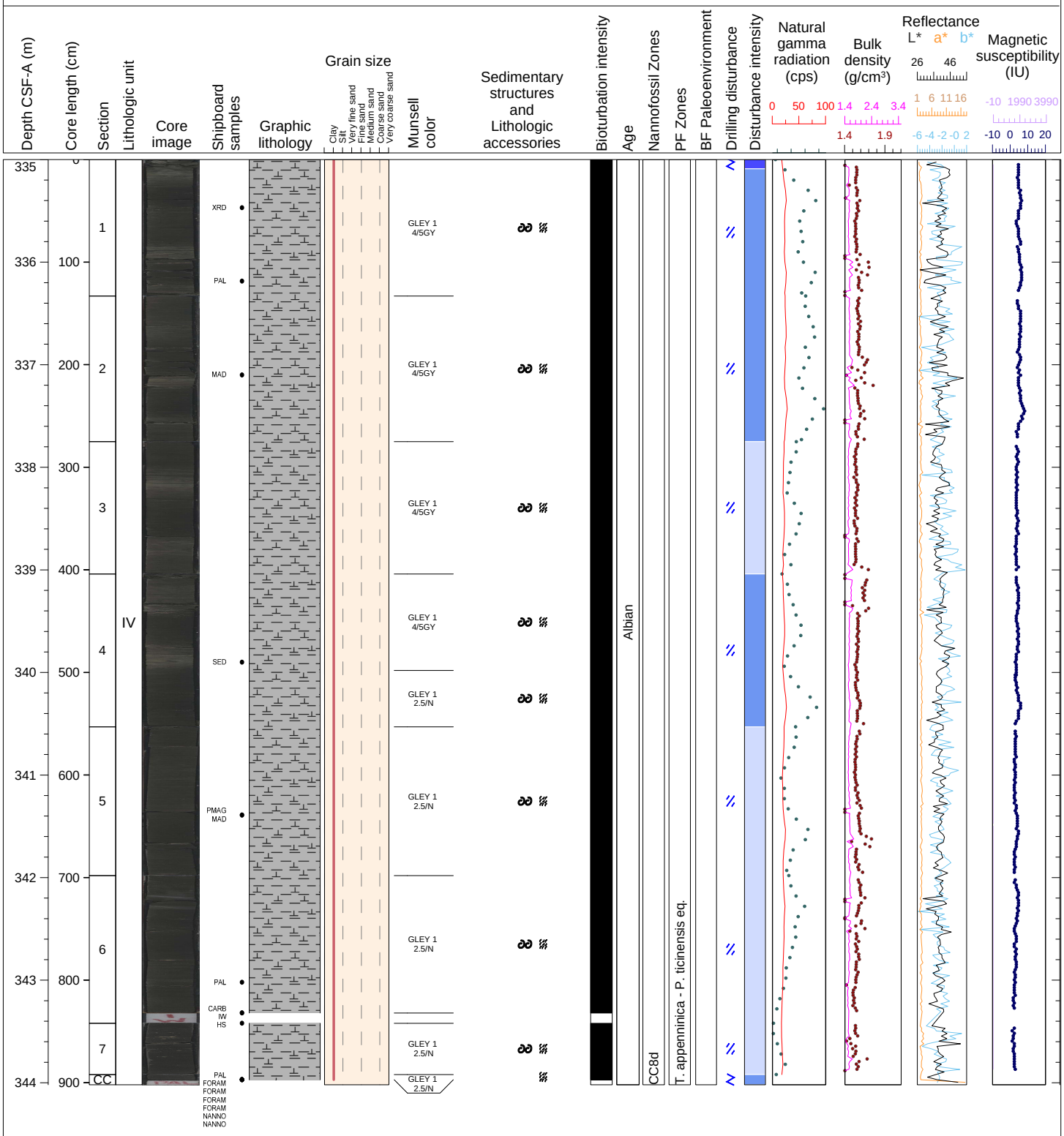
Hole 369-U1513D Core 28R, Interval 325.4-333.84 m (CSF-A)

Core 28R is a dark greenish grey claystone. The overall grain size is clay. Bioturbation is generally intense. Lighter greenish intervals recur throughout the core and present a lesser degree of bioturbation. Shell fragments are present in Sections 3, 4 and 6. The trace fossil assemblage includes chondrites, thalassinoides, planolites, zoophycos and teichichnus. Three soft sedimentary faults are present in Section 1 between 25 and 57 cm. The core exhibits slight to moderate fractured drilling disturbances. The Munsell color notation for this core is as follows: GLEY 1 4/5GY– dark greenish gray.



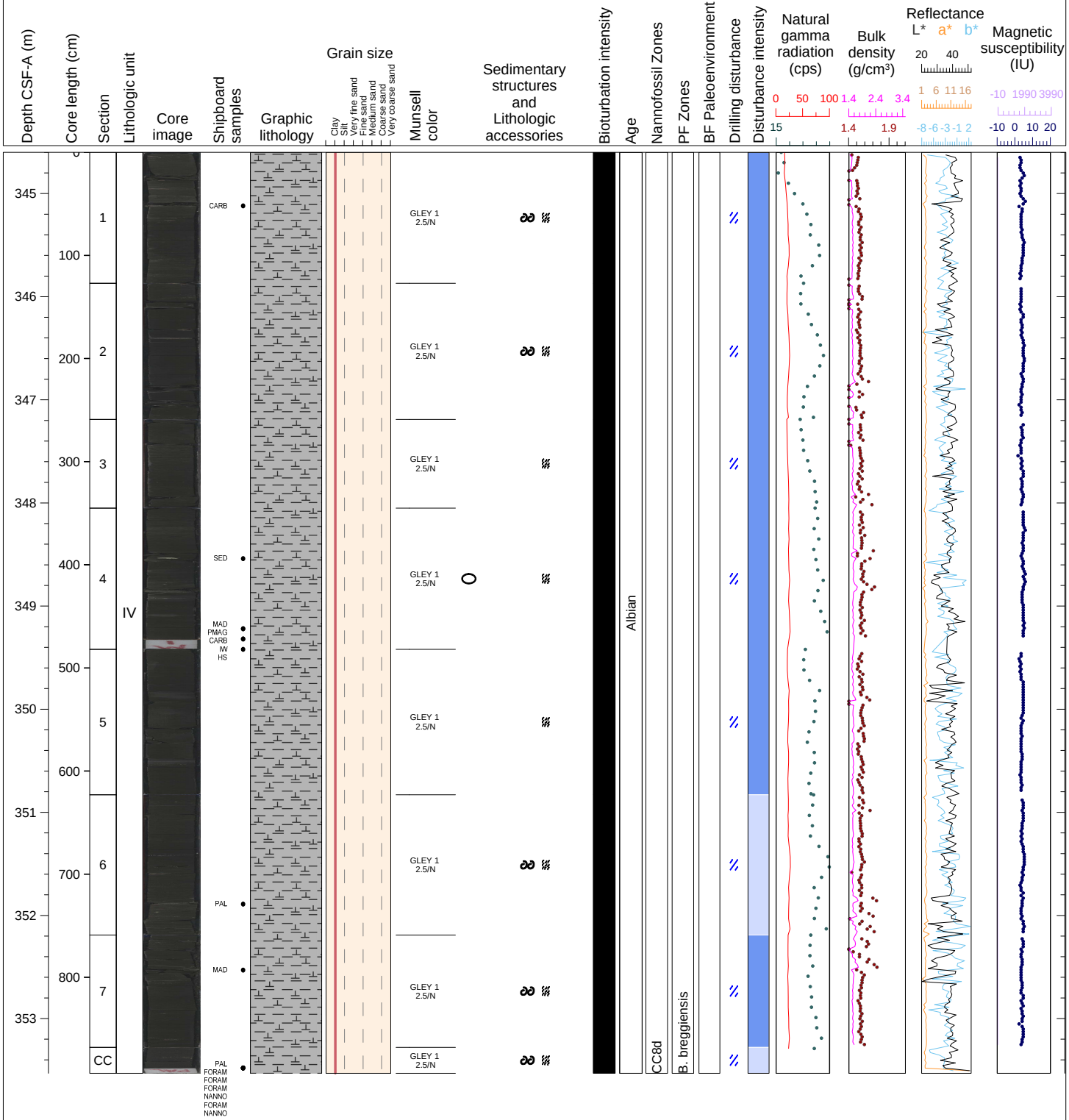
Hole 369-U1513D Core 29R, Interval 335.0-344.02 m (CSF-A)

Core 29R is a dark greenish grey and black claystone. The overall grain size is clay. Bioturbation is generally intense. Lighter greenish intervals recur throughout the core and exhibits a lesser degree of bioturbation. Shell fragments are present throughout. The trace fossil assemblage includes thalassinoides, planolites, zoophycos and teichichnus. Soft sedimentary faults are present in Section 1 between 8 and 22 cm. The core exhibits slight to moderate fractured and fragmented drilling disturbances. Munsell color notations for this core are as follows: GLEY 1 2.5/N– black, and GLEY 1 4/5GY– dark greenish gray.



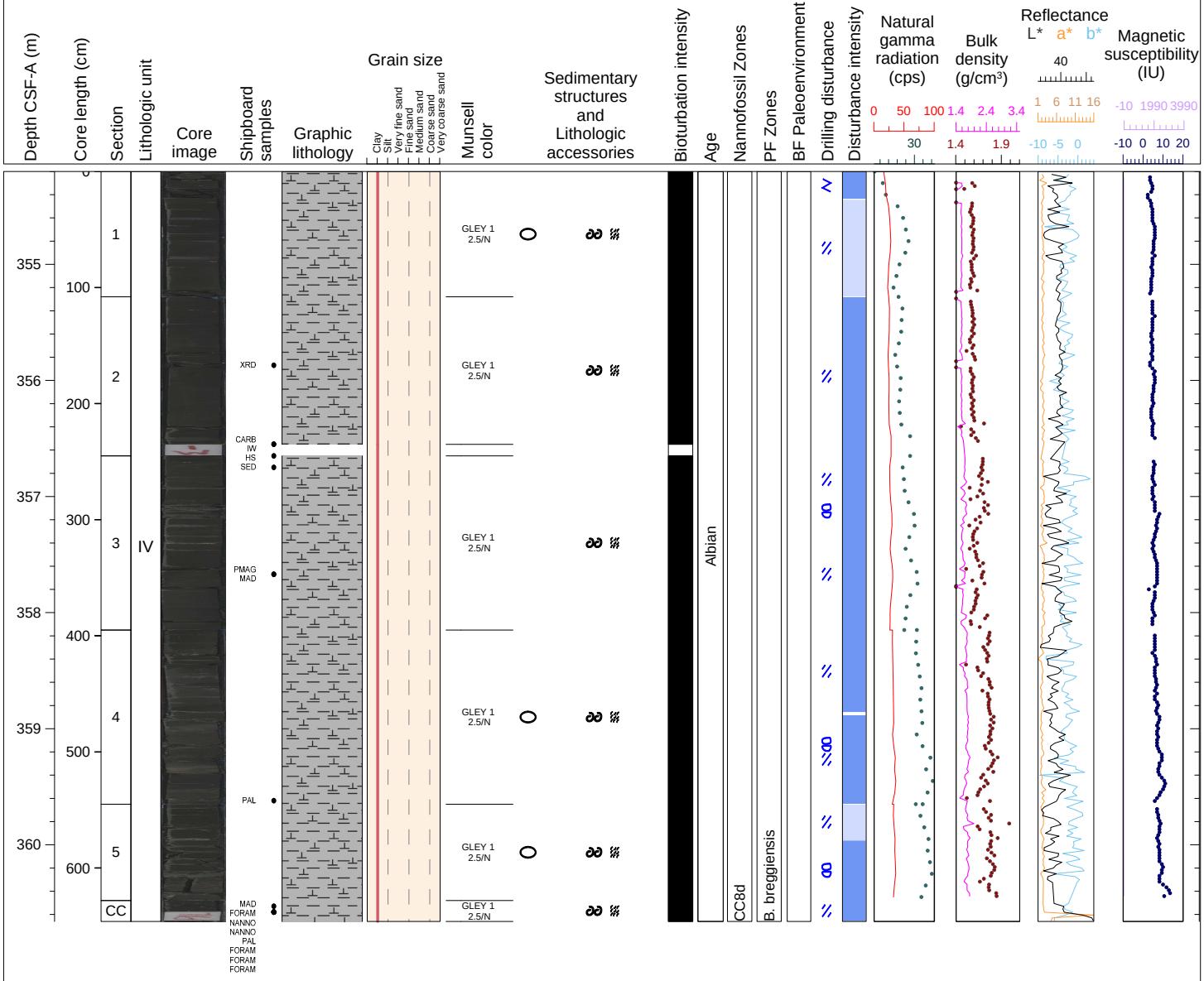
Hole 369-U1513D Core 30R, Interval 344.6-353.53 m (CSF-A)

Core 30R is a black claystone. The overall grain size is clay. Bioturbation is generally high to intense. Shell fragments are common throughout. The trace fossil assemblage includes thalassinoides, planolites, zoophycos and teichichnus. Soft sedimentary faults are common. A nodule of pyrite is present in Section 4 (19 cm). The core exhibits slight to moderate fractured drilling disturbance. The Munsell color notation for this core is as follows: GLEY 1 2.5/N– black.



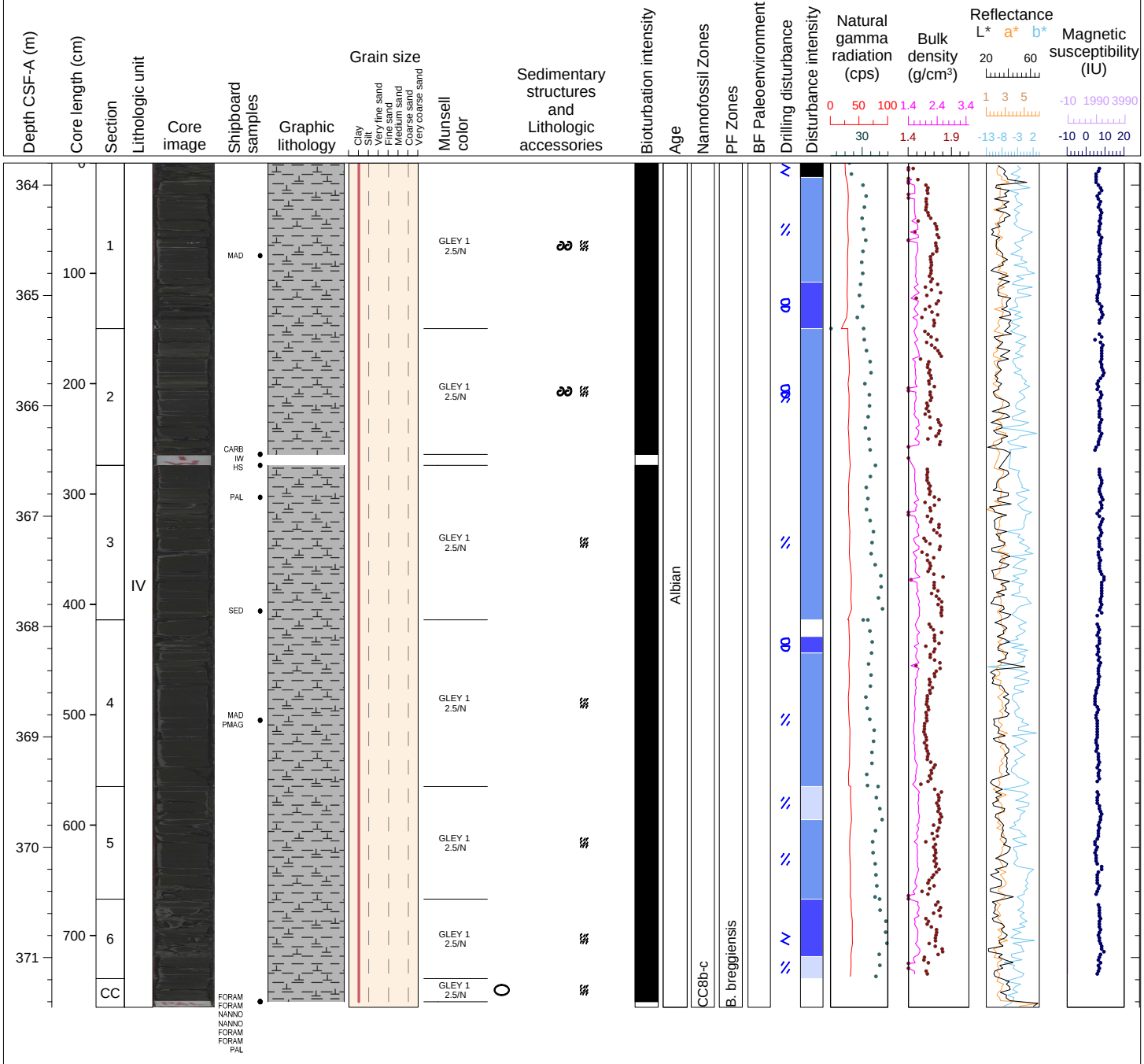
Hole 369-U1513D Core 31R, Interval 354.2-360.66 m (CSF-A)

Core 31R is a black claystone. The overall grain size is clay. Bioturbation is intense. Shell fragments are common throughout. The trace fossil assemblage includes thalassinoides, planolites, zoophycos and teichichnus. Soft sedimentary faults and pyrite nodules are common. The core exhibits slight to moderate fractured and biscuited drilling disturbance. The Munsell color notation for this core is as follows: GLEY 1 2.5/N– black.



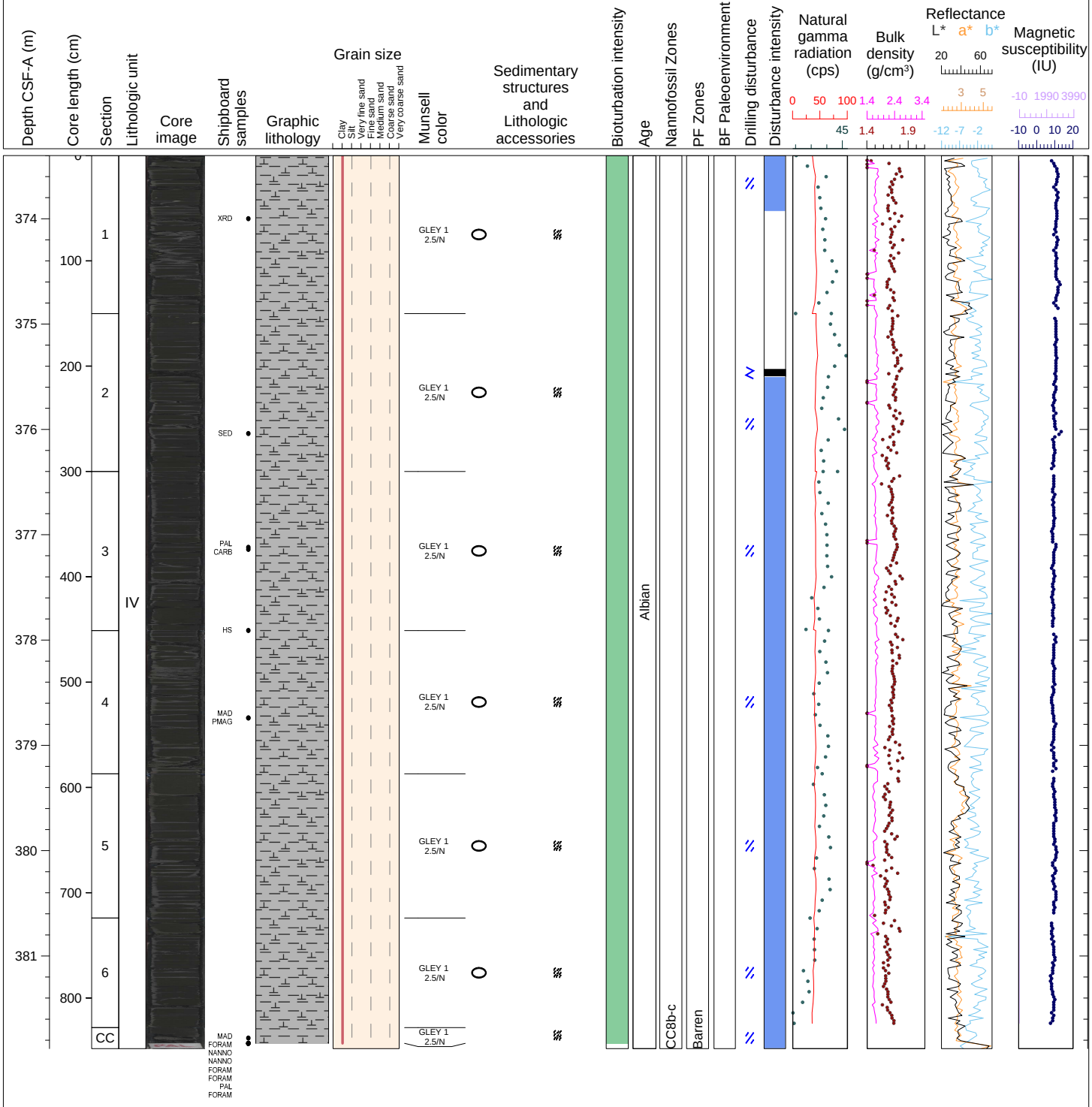
Hole 369-U1513D Core 32R, Interval 363.8-371.45 m (CSF-A)

Core 32R is a black claystone. The overall grain size is clay. Bioturbation is intense. Shell fragments are present in trace abundance and are only present in Sections 1 and 2. The trace fossil assemblage includes thalassinoides, planolites, zoophycos and teichichnus. A soft sedimentary fault is present in Section 2 at 45-51 cm. The core exhibits slight to moderate fractured and biscuited drilling disturbance. The Munsell color notation for this core is as follows: GLEY 1 2.5/N– black.



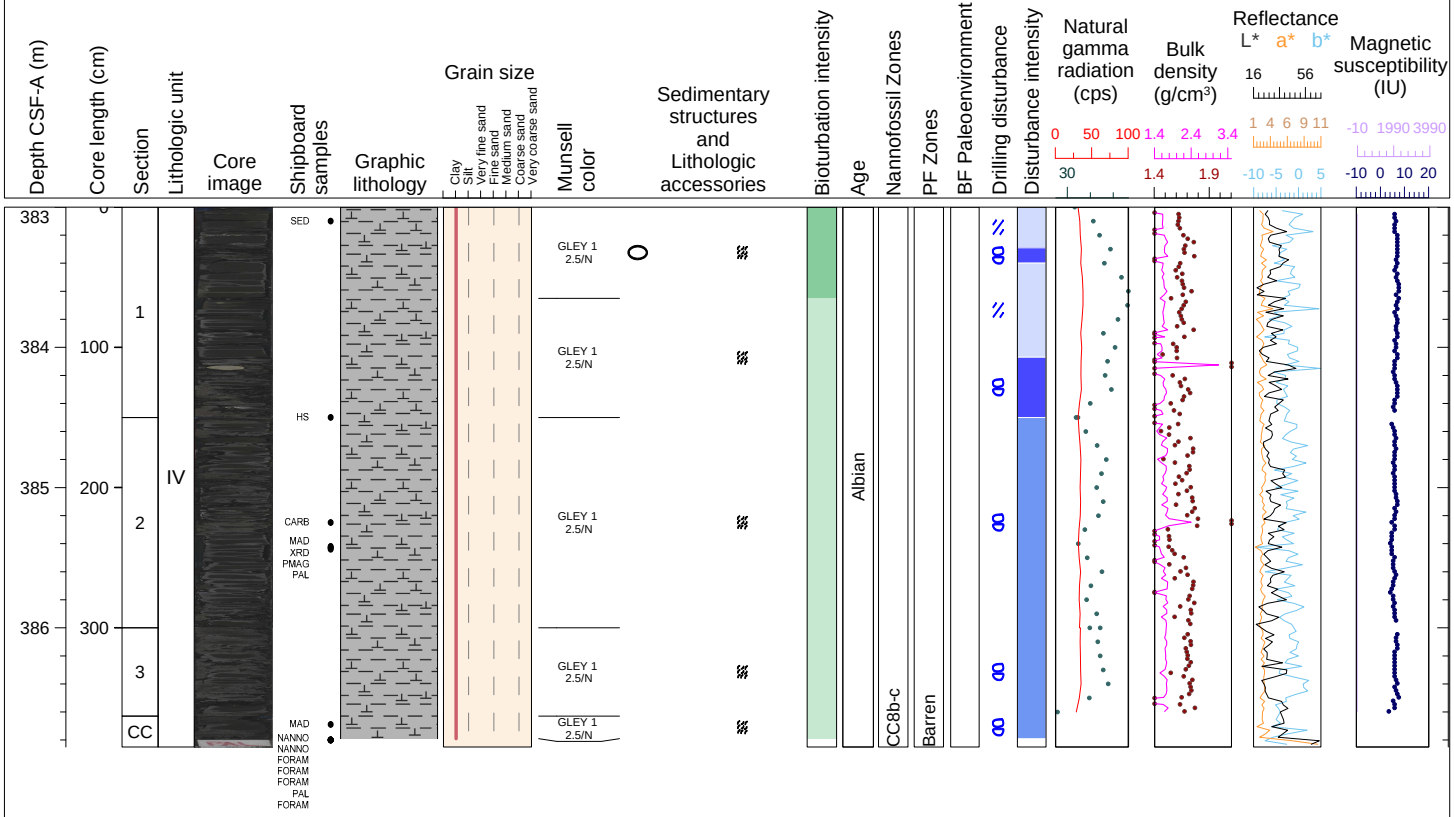
Hole 369-U1513D Core 33R, Interval 373.4-381.88 m (CSF-A)

Core 33R is a black claystone. The overall grain size is clay. Bioturbation is intense. In Section 2, between 112 and 140 cm, a green layer with black burrows and shell fragments was observed. This interval is barren and contains common pyrite. The core exhibits moderate to destroyed fractured and fragmented drilling disturbance. The Munsell color notation for this core is as follows: GLEY 1 2.5/N– black.



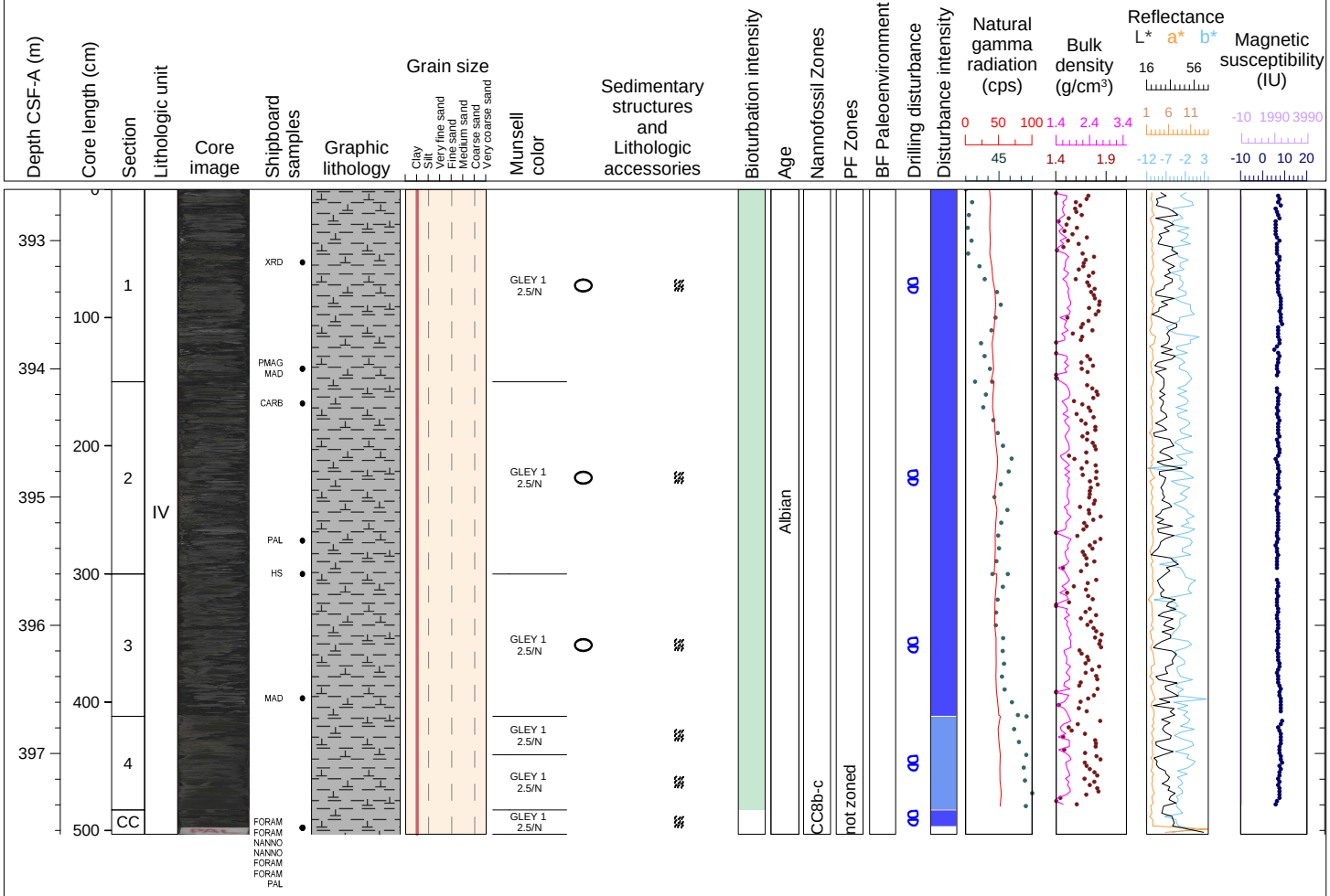
Hole 369-U1513D Core 34R, Interval 383.0-386.85 m (CSF-A)

Core 34R is a black claystone. The overall grain size is clay. Bioturbation is sparse to low. Rare pyrite nodules are present in Section 1 (69 cm,113-116 cm). The core exhibits moderate biscuited and fragmented drilling disturbances. The Munsell color notation for this core is as follows: GLEY 1 2.5/N– black.



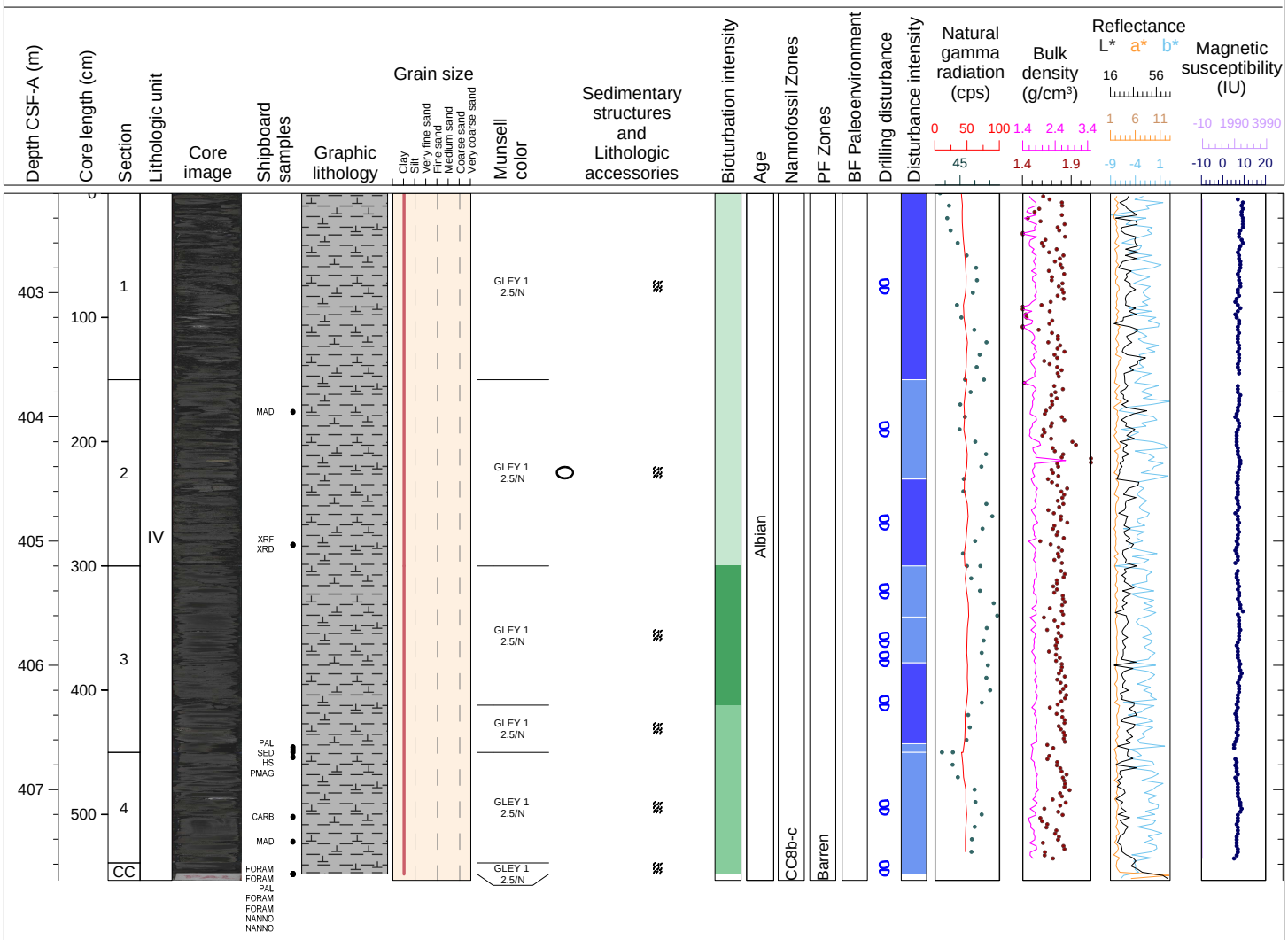
Hole 369-U1513D Core 35R, Interval 392.6-397.63 m (CSF-A)

Core 35R is a black claystone. The overall grain size is clay. Bioturbation is sparse. Rare pyrite nodules are present in Section 1 (39 cm). Section 2 (85 cm), and Section 3 (50 cm). The core exhibits severe to moderate biscuit drilling disturbances. The Munsell color notation for this core is as follows: GLEY 1 2.5/N– black.



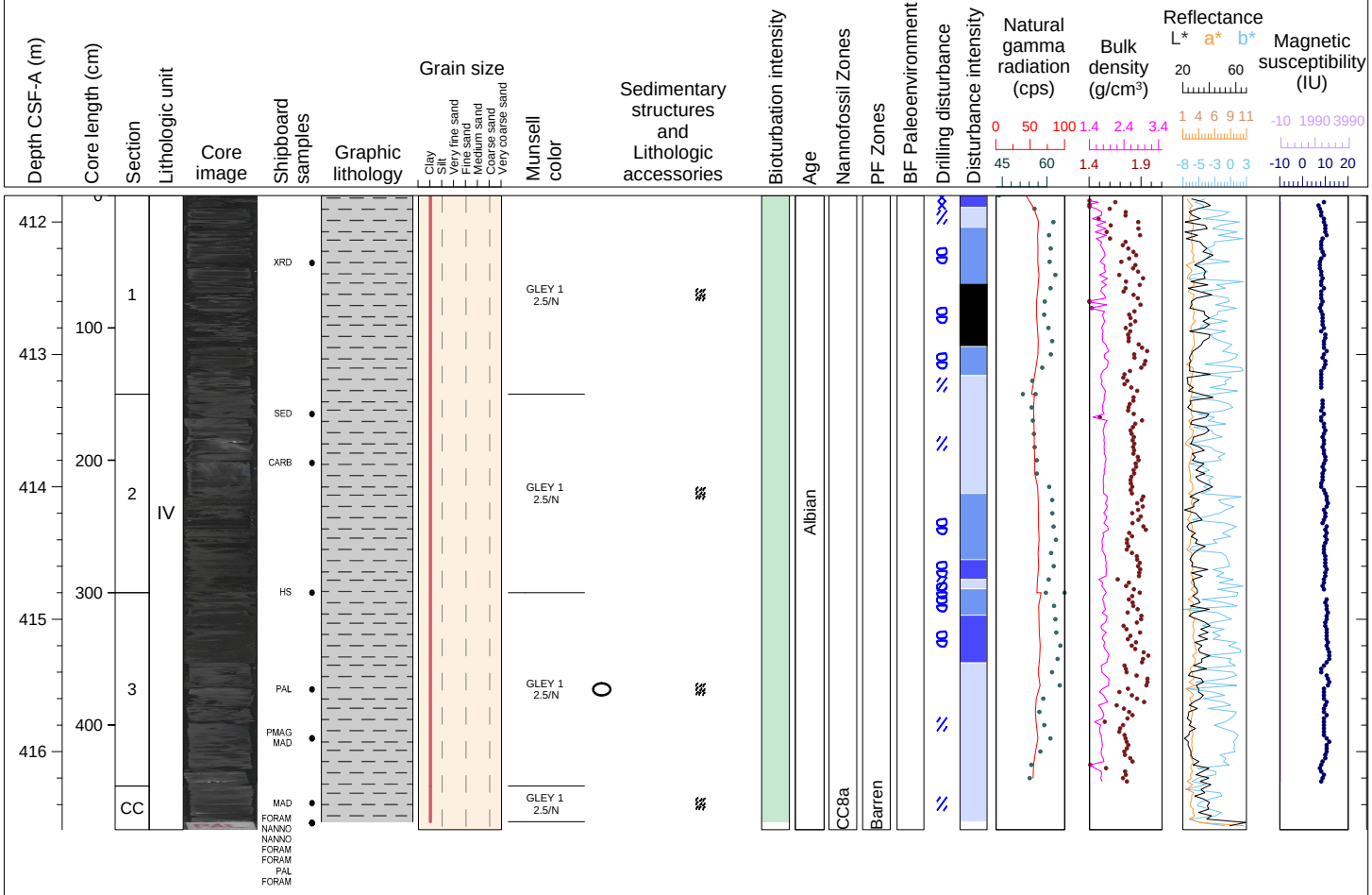
Hole 369-U1513D Core 36R, Interval 402.2-407.73 m (CSF-A)

Core 36R is a black claystone. The overall grain size is clay. Bioturbation is moderate to sparse. Rare pyrite nodules are present in Section 2 (51-53 and 65-66 cm). The core exhibits severe to moderate biscuited drilling disturbances. The Munsell color notation for this core is as follows: GLEY 1 2.5/N– black.



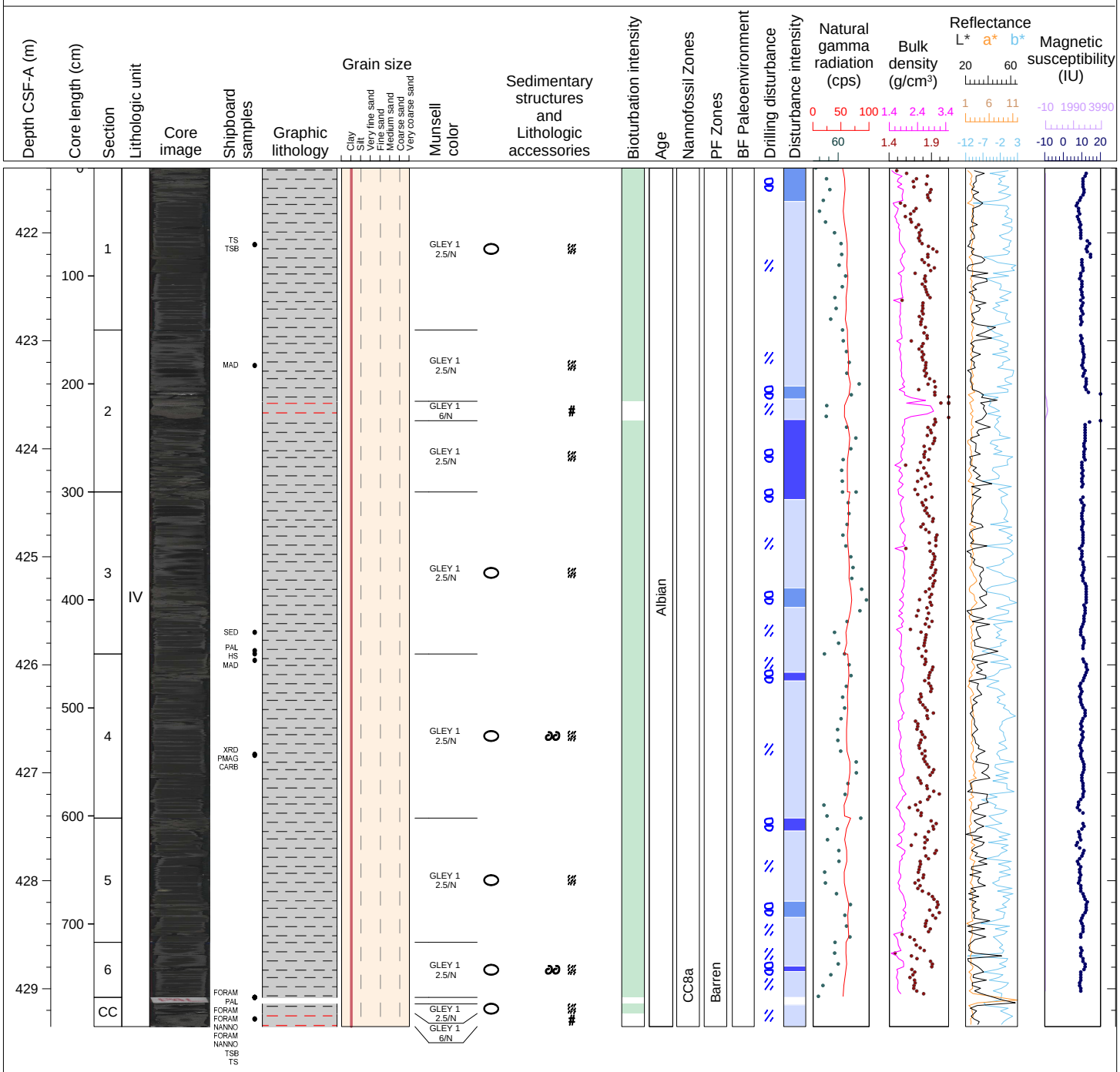
Hole 369-U1513D Core 37R, Interval 411.8-416.59 m (CSF-A)

Core 37R is a black claystone. The overall grain size is clay. Bioturbation is sparse. A chlorite lense is present in section 1 (70 cm). A pyrite nodule is present in Section 2 (25 cm). The core exhibits slight fractured to destroyed biscuit drilling disturbances. The Munsell color notation for this core is as follows: GLEY 1 2.5/N– black.



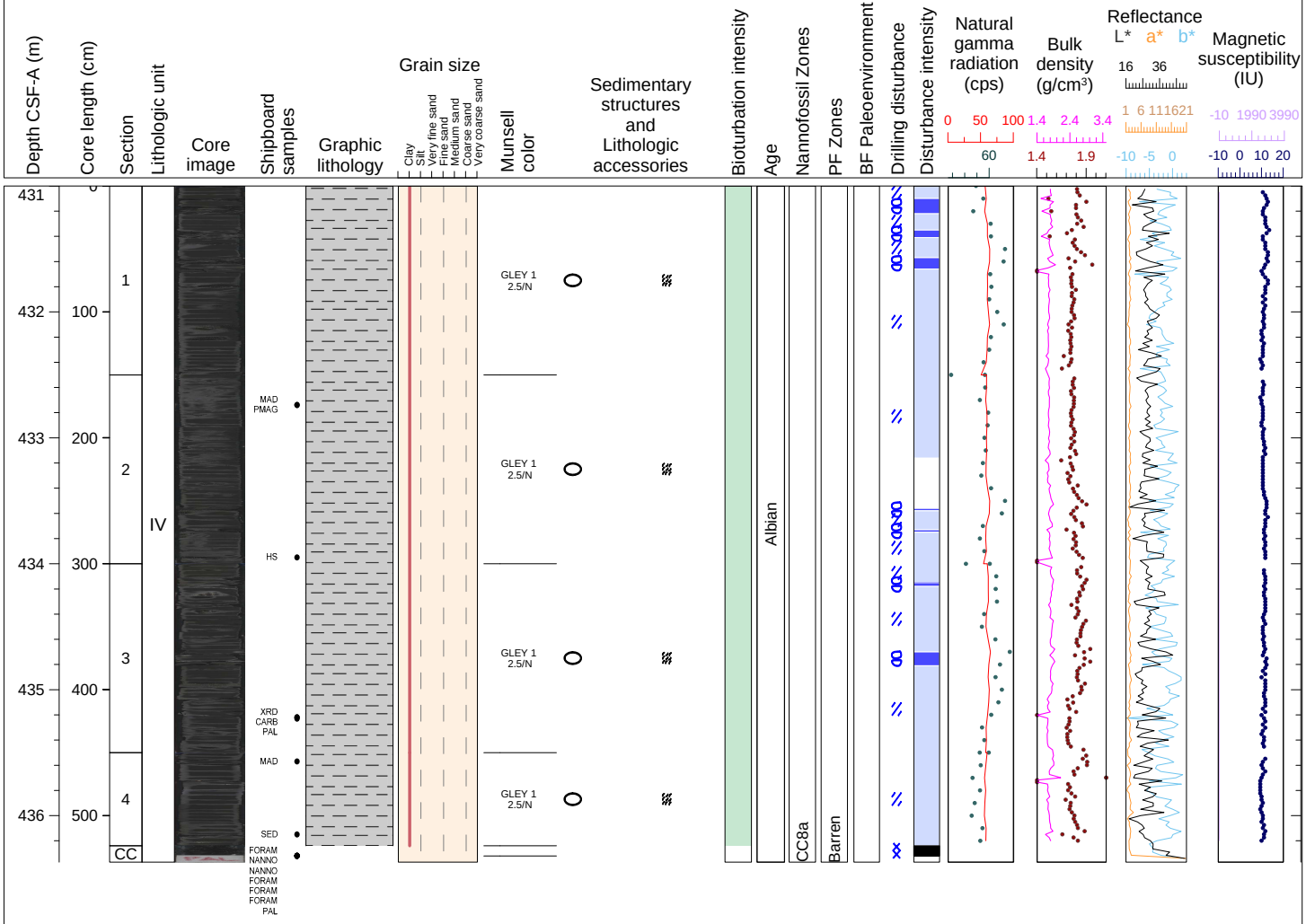
Hole 369-U1513D Core 38R, Interval 421.4-429.35 m (CSF-A)

Core 38R is a black claystone. Two medium beds of sideritic claystone are present in Section 2 (64-83 cm) and in the CC (16-27 cm). The overall grain size is clay. Bioturbation is sparse. Pyrite nodules are present in Section 1 (108, 115 cm), Section 3 (42, 56, 114-116 cm), Section 4 (67, 112 cm), and Section 5 (51, 66-68 cm). Shell fragments are present in Section 4 (112, 139 cm), and Section 6 (10 cm). The core exhibits slight fractured to severe biscuited drilling disturbances. Munsell color notations for this core are as follows: GLEY 1 2.5/N– black, and GLEY 1 6/N– gray.



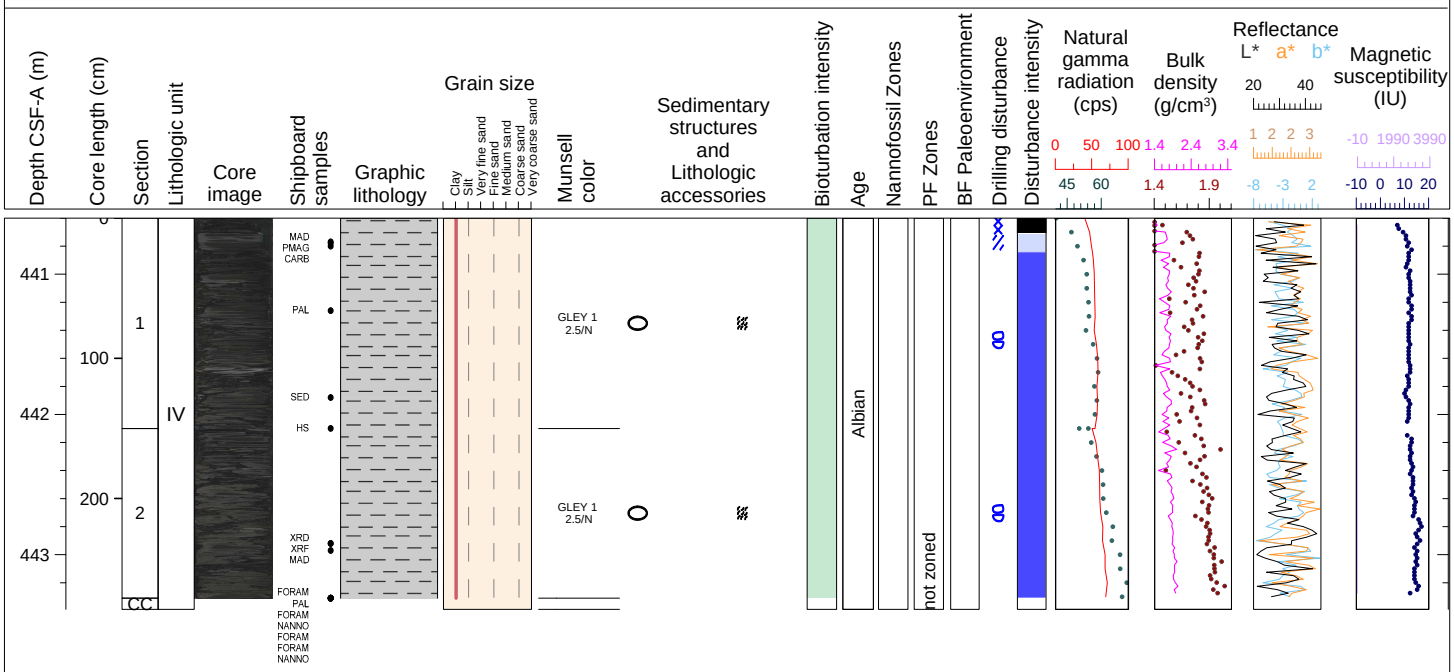
Hole 369-U1513D Core 39R, Interval 431.0-436.37 m (CSF-A)

Core 39R is a black claystone. The overall grain size is clay. Bioturbation is sparse. Pyrite nodules are present in Section 1 (139-141 cm), Section 2 (41 cm), Section 3 (147 cm), and Section 4 (23 cm), The core exhibits slight fractured to severe biscuited drilling disturbances. The CC section is destroyed. The Munsell color notation for this core is as follows: GLEY 1 2.5/N– black.



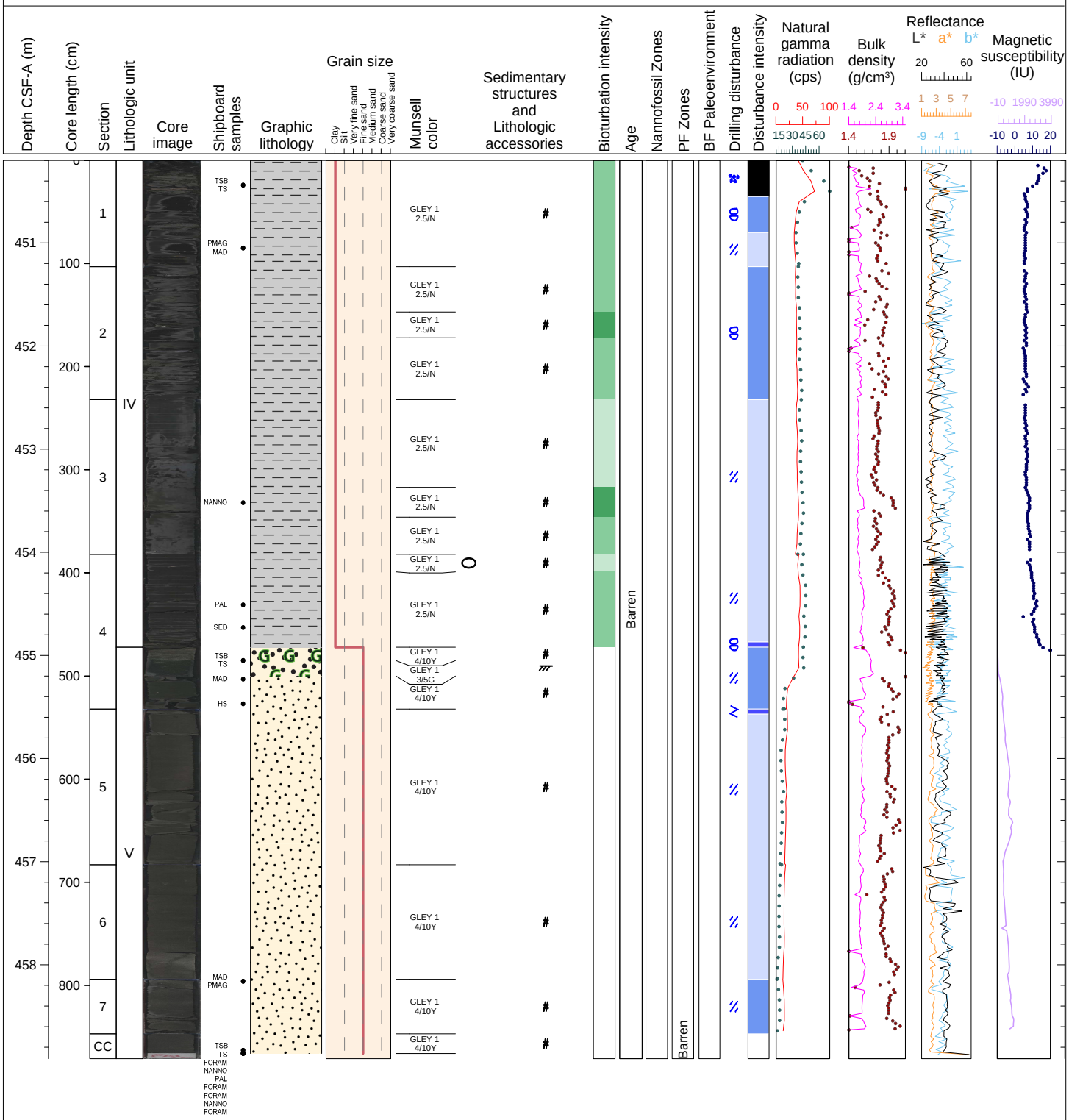
Hole 369-U1513D Core 40R, Interval 440.6-443.39 m (CSF-A)

Core 40R is a black claystone. The overall grain size is clay. Bioturbation is sparse. Pyrite nodules are present in Section 1 (31, 129 cm), Section 2 (12, 16 cm). A chlorite horizon is present in Section 2 (82 cm). The core exhibits slight fractured to severe biscuited drilling disturbances. The CC is a void and is not described. The Munsell color notation for this core is as follows: GLEY 1 2.5/N– black.



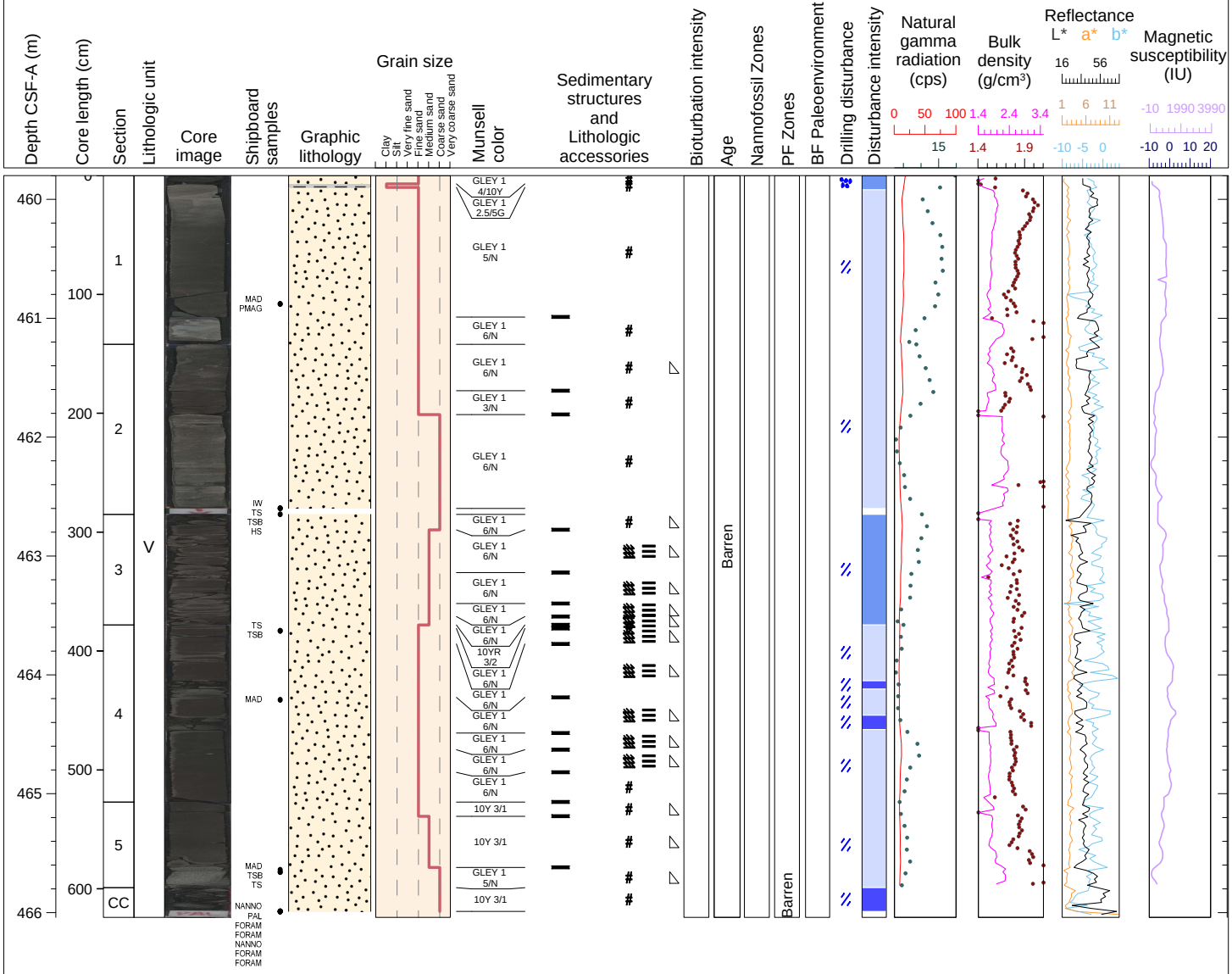
Hole 369-U1513D Core 41R, Interval 450.2-458.91 m (CSF-A)

Core 41R is a black claystone overlying very dark greenish gray fine sandstone. The grains of sandstone are mainly dominated by volcanic clasts of basalt and feldspar and cemented by calcite. A 5 cm volcanic clasts is present in Section 1 (8 cm). Pyrite nodules are present in both sandstone and claystone intervals. Bioturbation is sparse. The core is slightly fractured. Munsell color notations for this core are as follows: GLEY 1 2.5/N– black, GLEY 1 4/10Y– dark greenish gray, and GLEY 1 3/5G– very dark greenish gray.



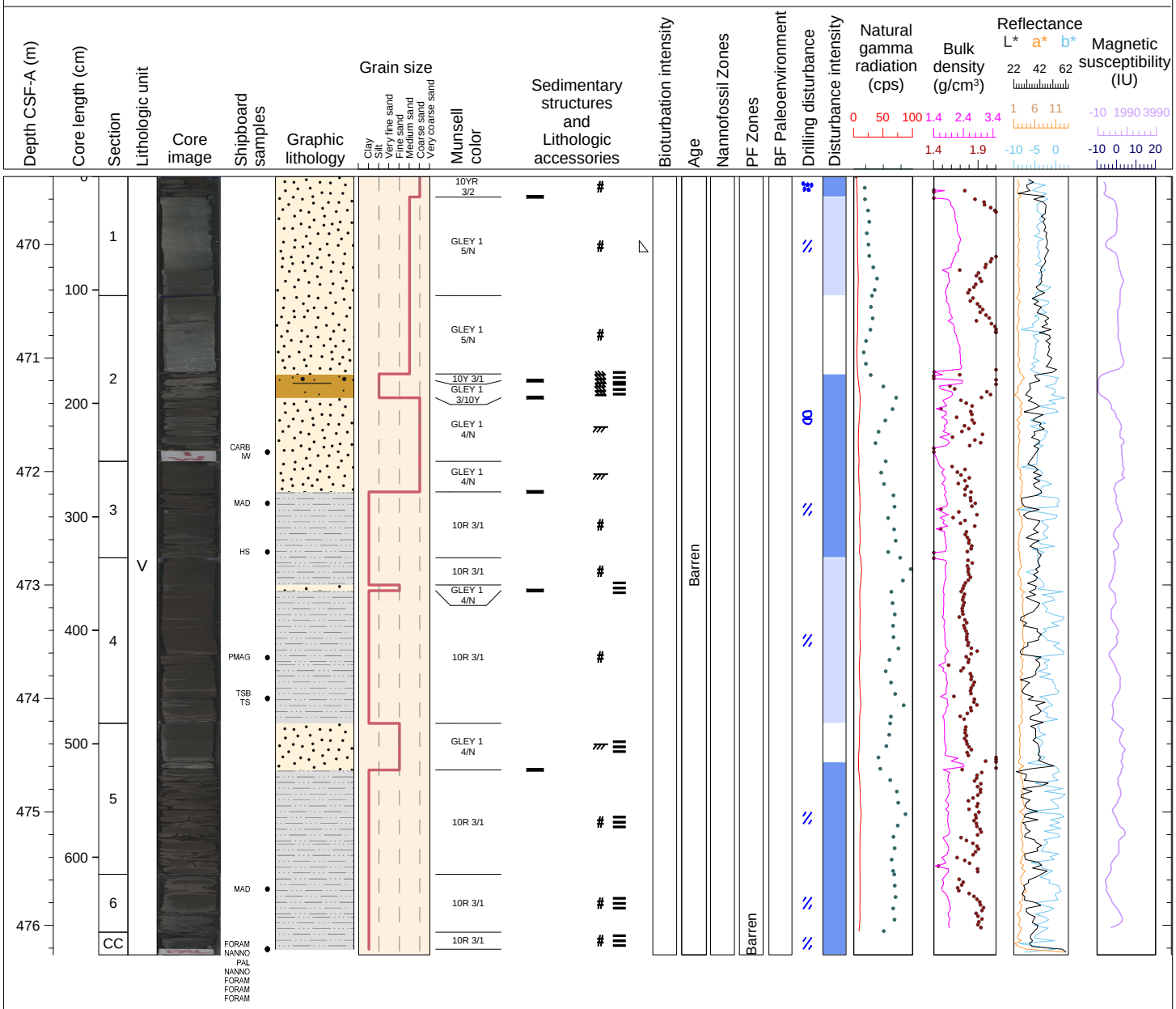
Hole 369-U1513D Core 42R, Interval 459.8-466.04 m (CSF-A)

Core 42R consists of several cycles of gray to very dark greenish gray sandstones with erosive bases and normal grading. Subangular claystone, volcanic clasts and pyrite are common throughout. Several irregular veins are present in Sections 1 and 2. The core is slightly to moderately fractured. Munsell color notations for this core are as follows: GLEY 1 3/N– very dark gray, GLEY 1 5/N– gray, GLEY 1 6/N– gray, GLEY 1 2.5/5G– greenish black, GLEY 1 4/10Y– dark greenish gray, 10Y 3/1– very dark greenish gray, and 10YR 3/2– very dark grayish brown.



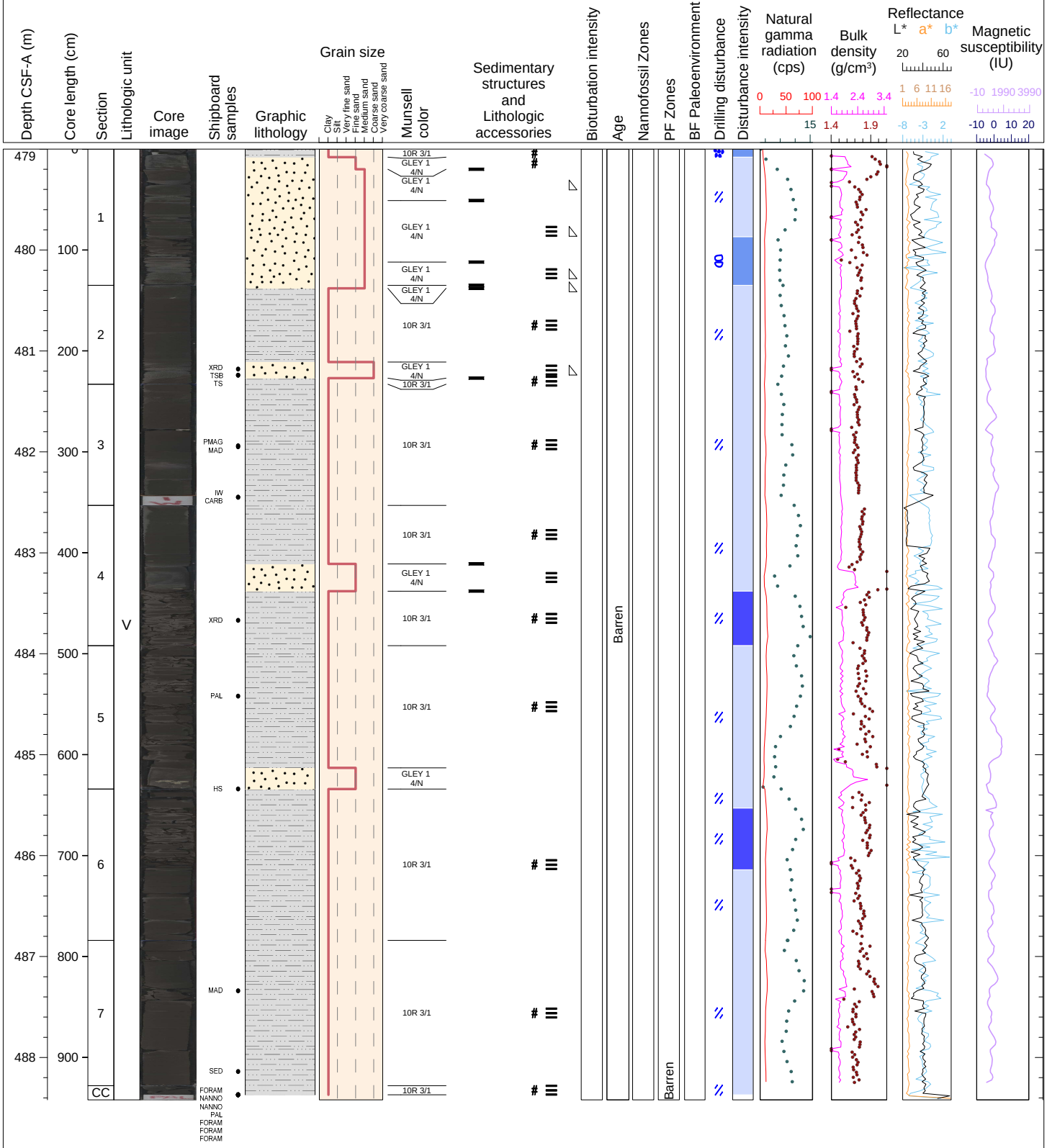
Hole 369-U1513D Core 43R, Interval 469.4-476.26 m (CSF-A)

Core 43R consists of several cycles of gray to dark reddish gray sandstones and very dark grayish brown silty claystone layers. The sandstone layers are generally normal graded with planar or curved bases. Pyrites are common throughout. The core is slight to moderately fractured. Munsell color notations for this core are as follows: GLEY 1 4/N– dark gray, GLEY 1 5/N– gray, GLEY 1 3/10Y– very dark greenish gray, 10Y 3/1– very dark greenish gray, 10YR 3/2– very dark grayish brown, and 10R 3/1– dark reddish gray.



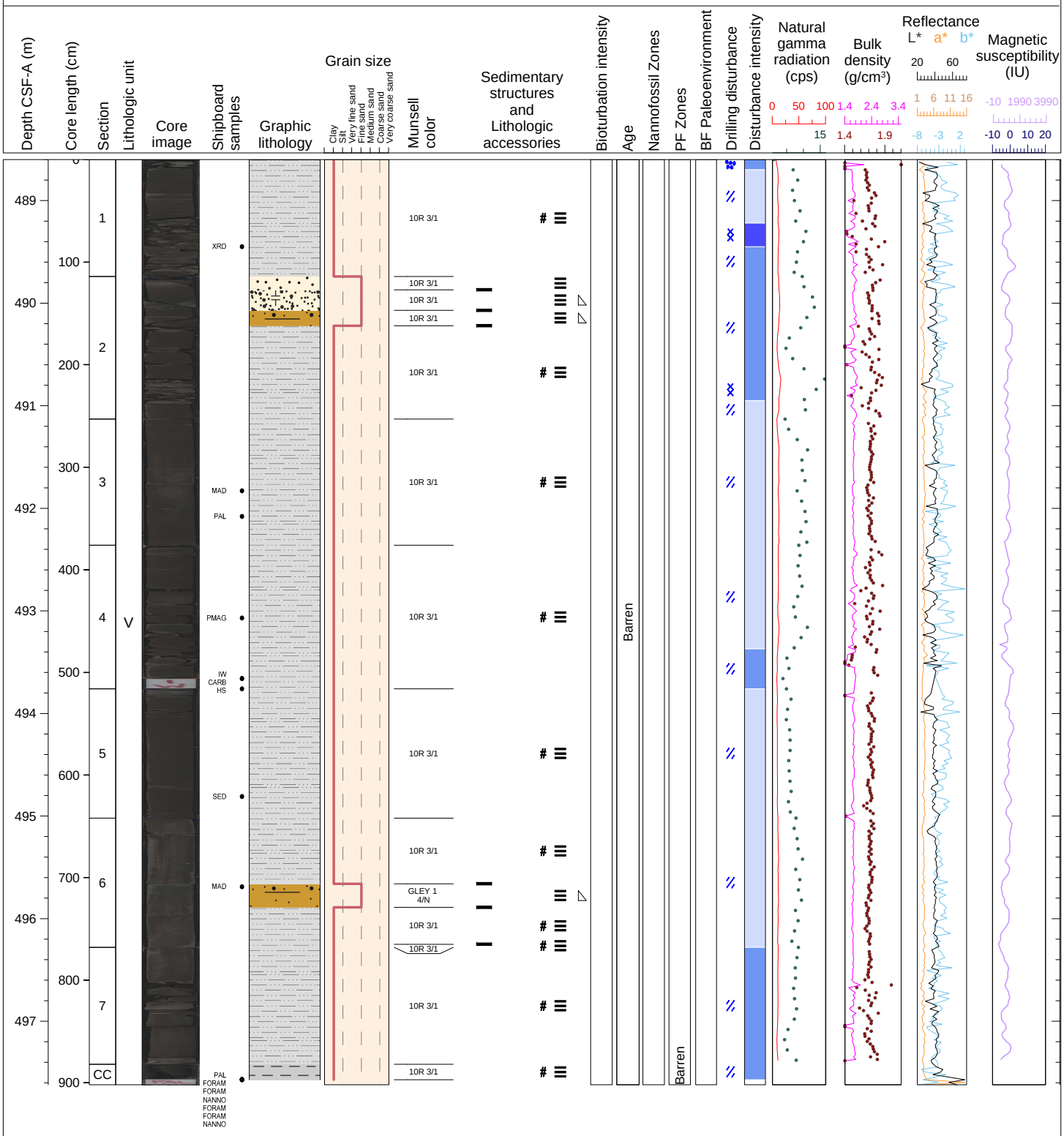
Hole 369-U1513D Core 44R, Interval 479.0-488.42 m (CSF-A)

Core 44R is dominated by a dark reddish gray silty claystone, interbedded with several thin dark gray fine sandstone layers. Pyrite nodules are common throughout. The core is slightly to moderately fractured. Munsell color notations for this core are as follows: GLEY 1 4/N– dark gray, and 10R 3/1– dark reddish gray.



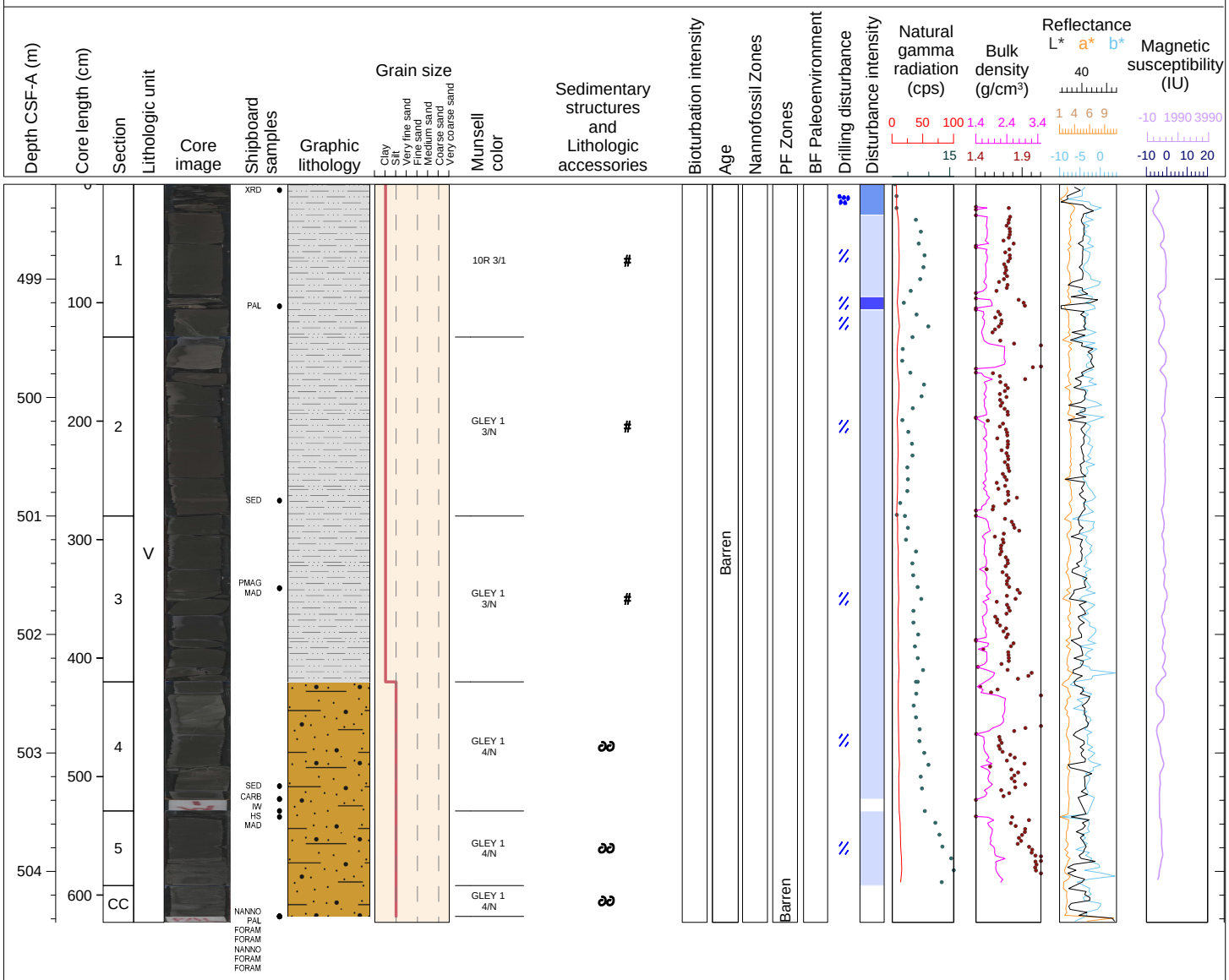
Hole 369-U1513D Core 45R, Interval 488.6-497.62 m (CSF-A)

Core 45R is dominated by a dark reddish gray silty claystone, interbedded with several thin dark gray fine sandstone layers with sharp boundaries. Pyrite nodules are common throughout. The core is slightly to moderately fractured. Munsell color notations for this core are as follows: GLEY 1 4/N– dark gray, and 10R 3/1– dark reddish gray.



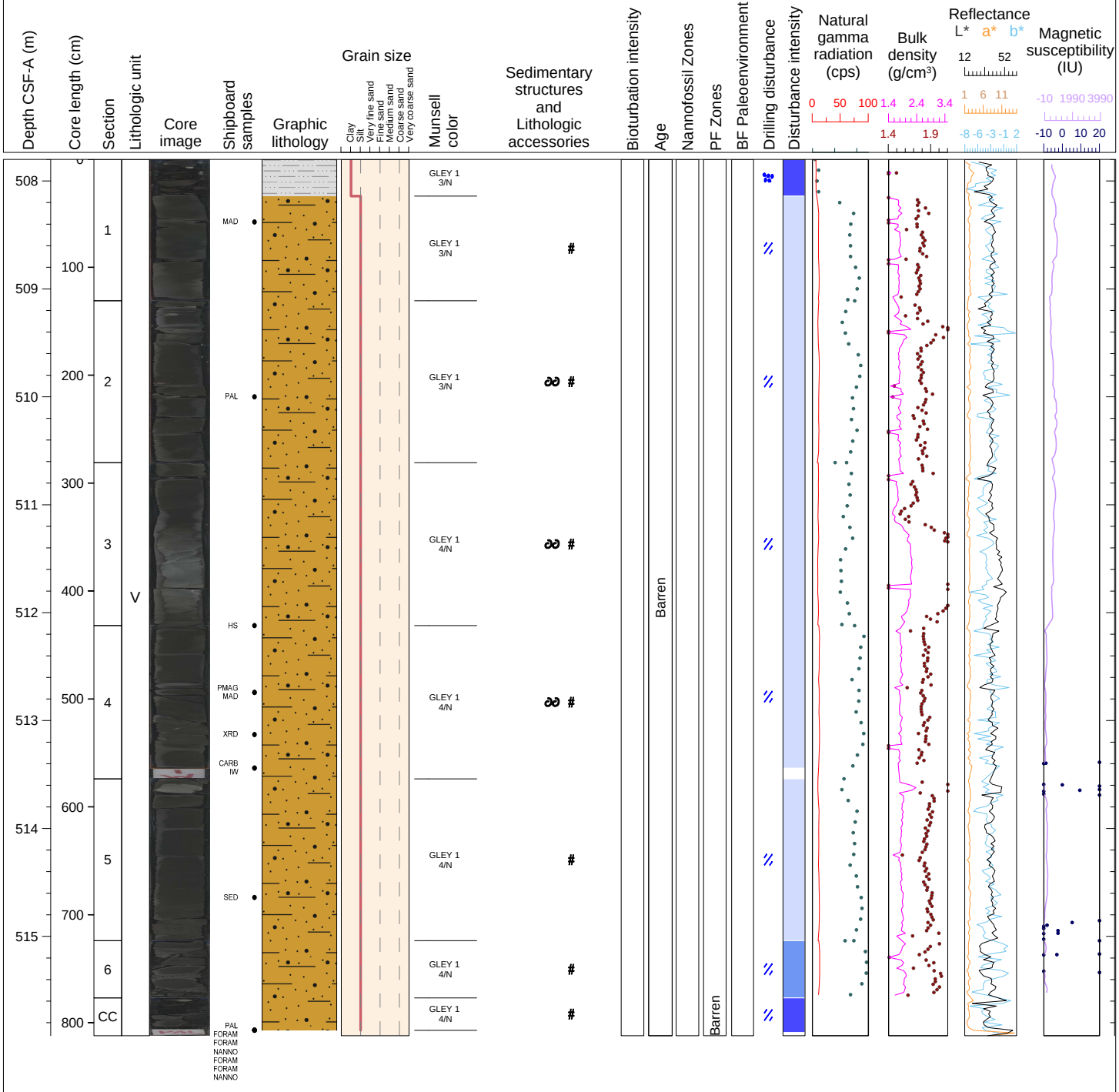
Hole 369-U1513D Core 46R, Interval 498.2-504.43 m (CSF-A)

Core 46R is dominated by a dark a gray silty claystone and clayey siltstone which are cemented by calcites. A small fault occurs in Section 2. Irregular veins infilled with calcites are common nearby the fault. The core is slightly to moderately fractured. Munsell color notations for this core are as follows: GLEY 1 3/N– very dark gray, GLEY 1 4/N– dark gray, and 10R 3/1– dark reddish gray.



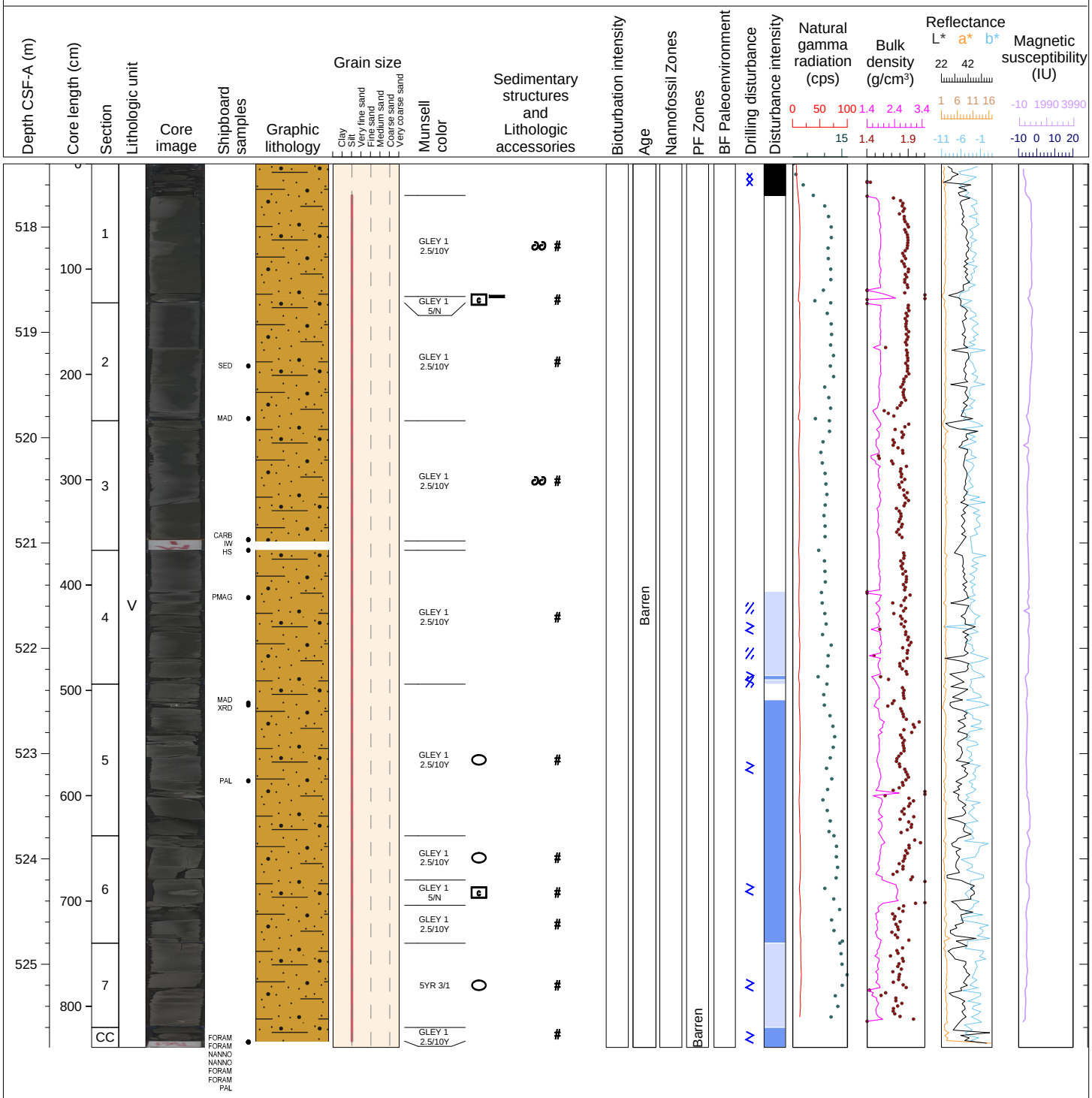
Hole 369-U1513D Core 47R, Interval 507.8-515.92 m (CSF-A)

Core 47R is dominated by a dark gray siltstone, which are cemented by calcite. Several small faults are present throughout the core and are infilled with calcite. The core is slightly to moderately fractured. Munsell color notations for this core are as follows: GLEY 1 3/N– very dark gray, and GLEY 1 4/N– dark gray.



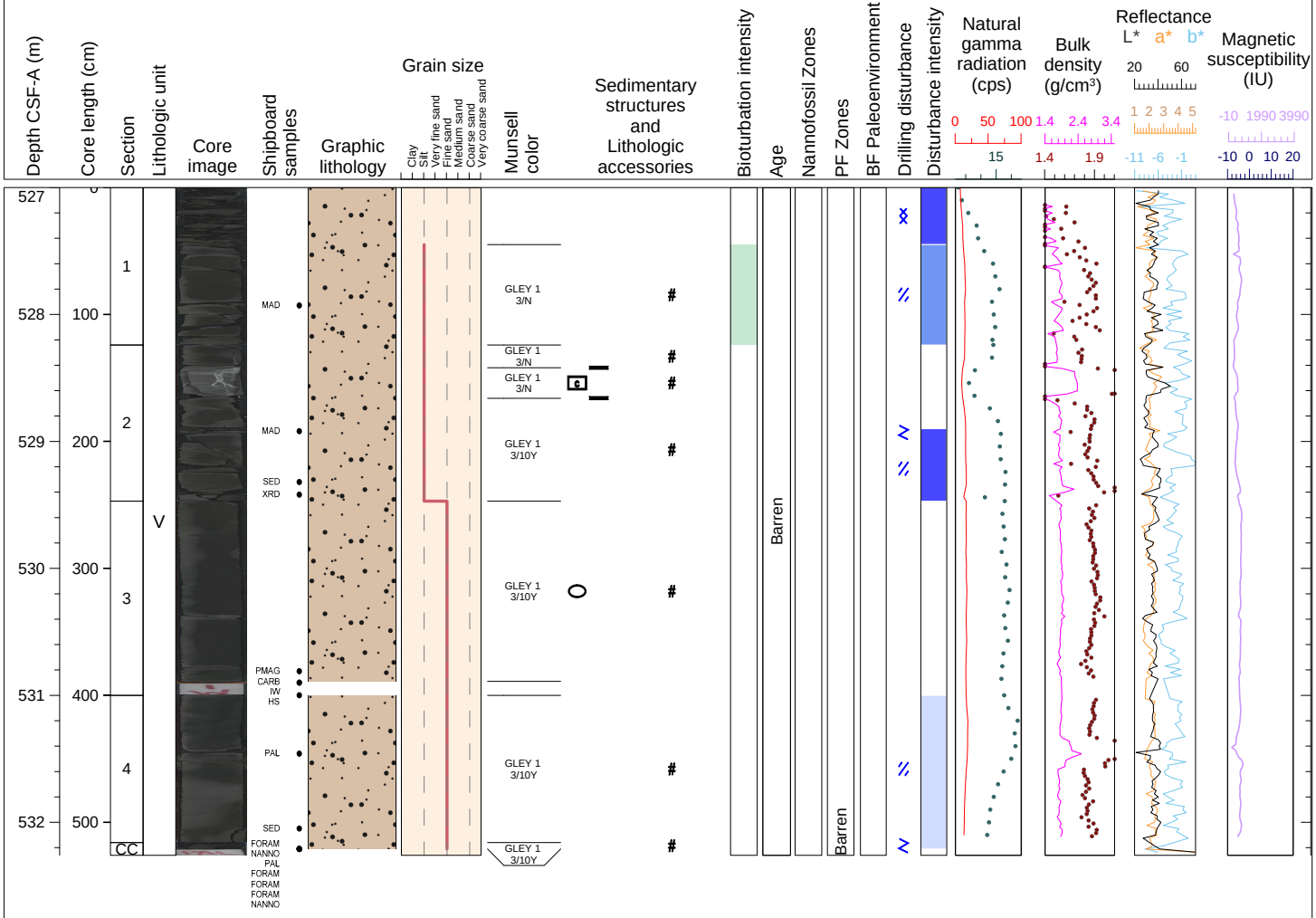
Hole 369-U1513D Core 48R, Interval 517.4-525.79 m (CSF-A)

Core 48R is dominated by a greenish black to very dark gray siltstone with intervals of thin beds of calcite cemented siltstone and carbonate nodules. Bioturbation is absent. Slickenslides are present Sections 2, 3 and 5, Shell fragments are present in Sections 1 and 3. The core exhibits slight to moderate fragmented/fractures drilling disturbance. Munsell color notations for this core are as follows: GLEY 1 5/N– gray, GLEY 1 2.5/10Y– greenish black, and 5YR 3/1– very dark gray.



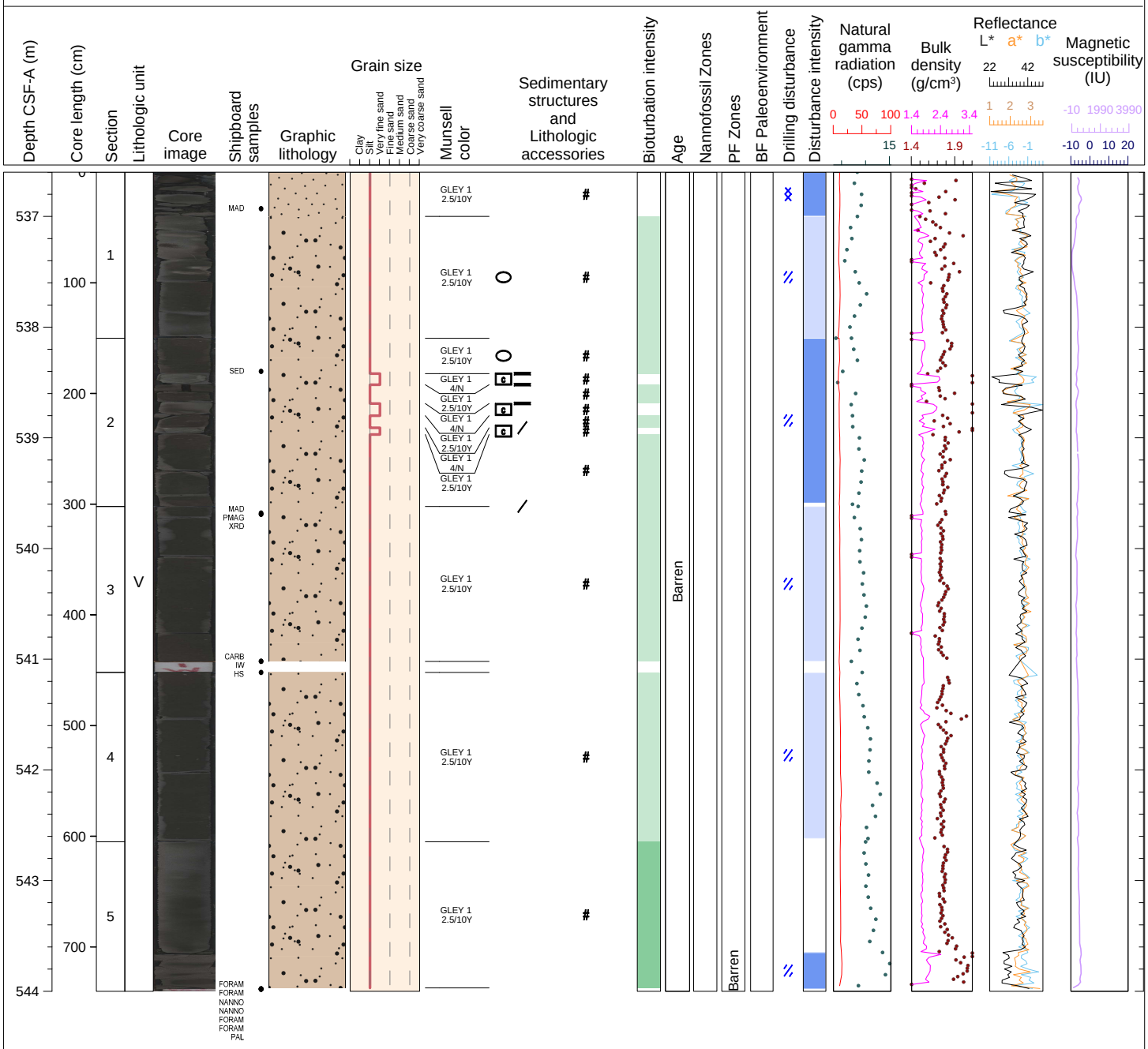
Hole 369-U1513D Core 49R, Interval 527.0-532.26 m (CSF-A)

Core 49R is dominated by very dark gray sandy siltstone to very dark gray sandy siltstone. Normal grading is present from Section 1 to the CC. Bioturbation is sparse to absent. Slickenslides are present in Sections 1 and veins of calcite are present within a thick bed of calcareous sandy siltstone in Section 2 (18-42 cm). Injections of sand are present in Section 4 (55, 91-95 and 98 cm). The core exhibits slightly to moderately fragmented/fractures drilling disturbance. Munsell color notations for this core are as follows: GLEY 1 3/N– very dark gray, and GLEY 1 3/10Y– very dark greenish gray.



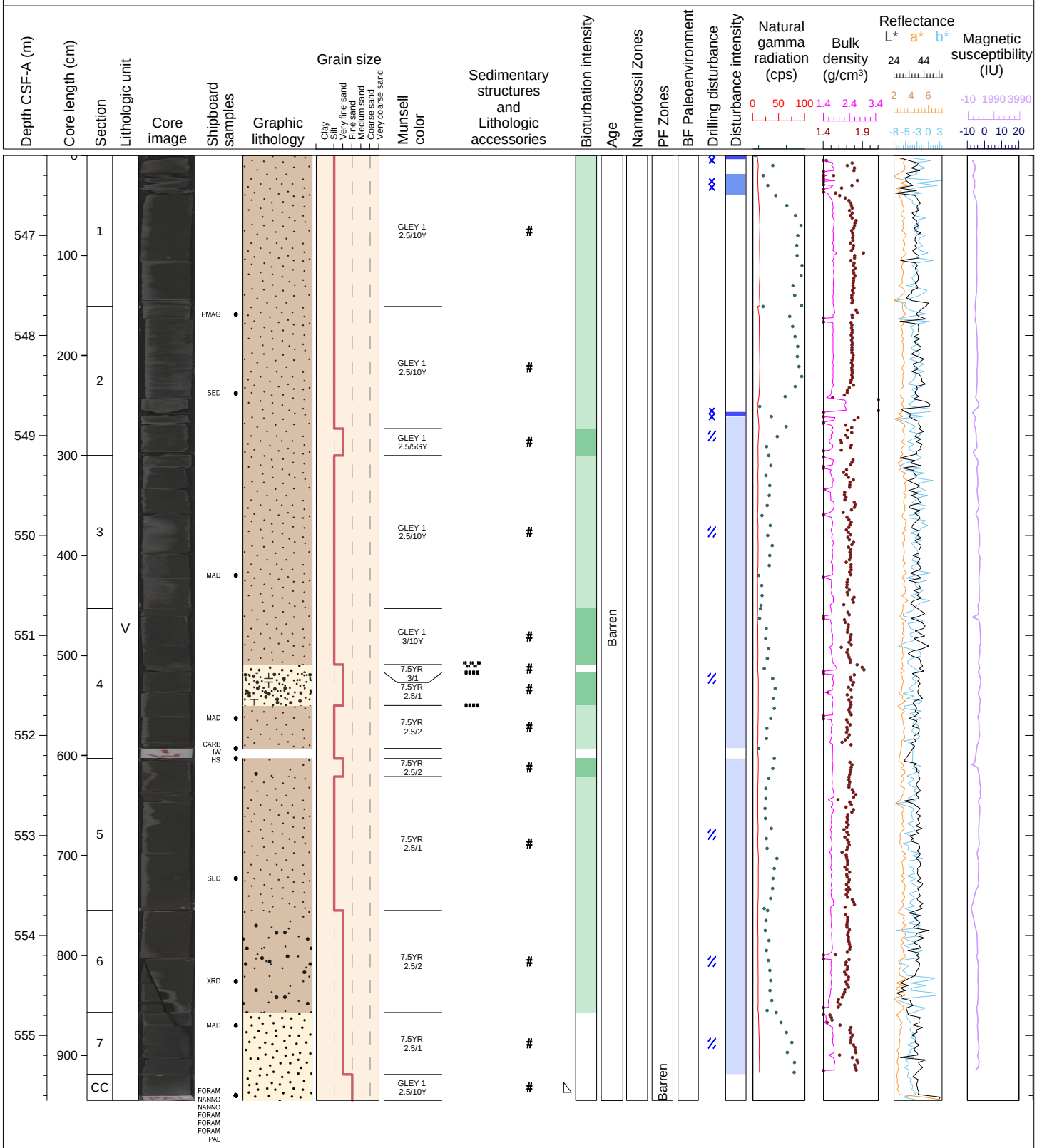
Hole 369-U1513D Core 50R, Interval 536.6-544.0 m (CSF-A)

Core 50R is dominated by a greenish black to dark gray sandy siltstone with 3 calcite cemented thin to medium beds in Section 2 (32-42, 59-70 and 81-87 cm). Pyrite and shell fragments are disseminated through the core. Carbonate nodules are present in Section 1. The core exhibits slightly to severely fractured and fragmented drilling disturbance. Munsell color notations for this core are as follows: GLEY 1 4/N– dark gray, and GLEY 1 2.5/10Y– greenish black.



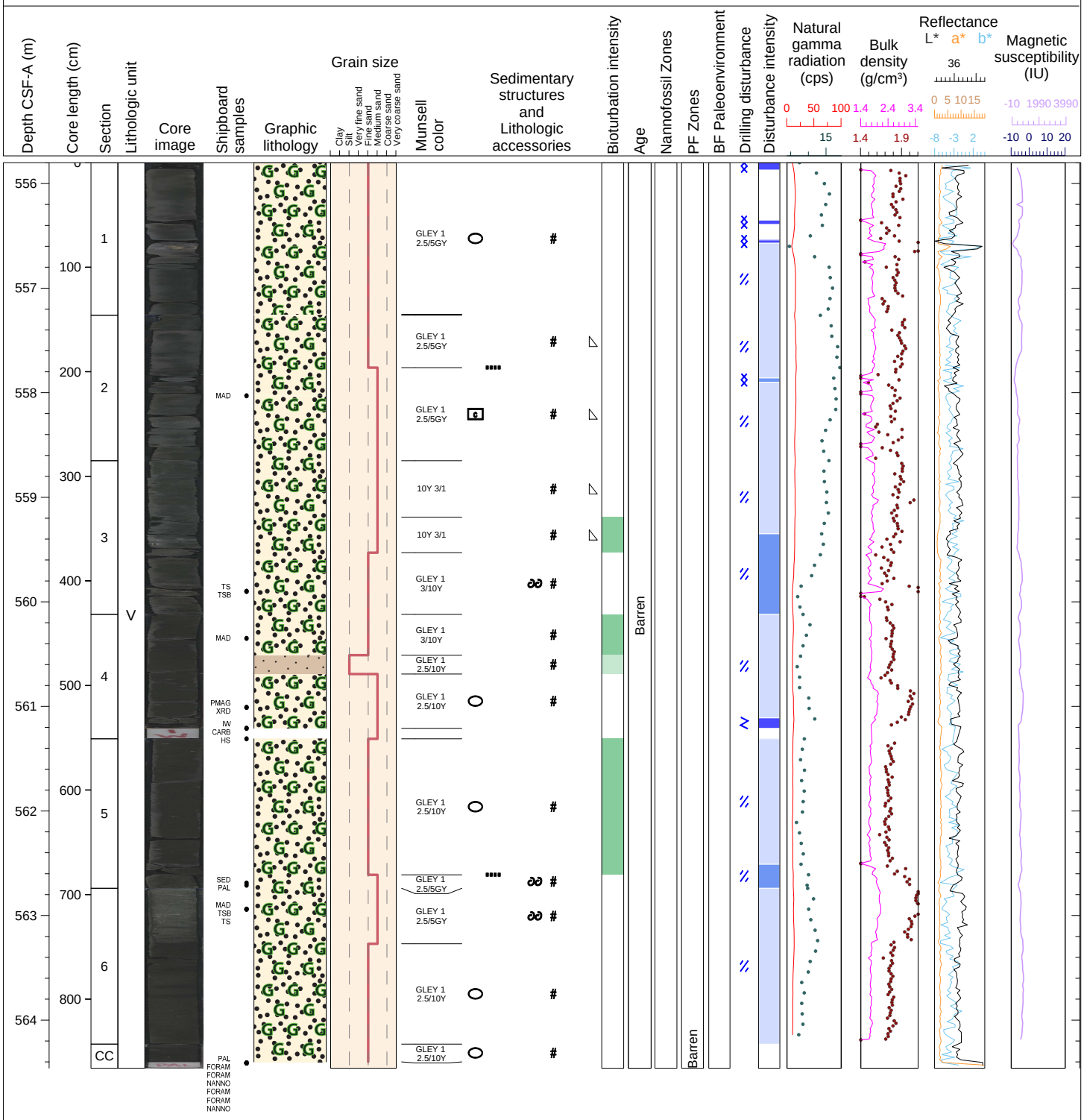
Hole 369-U1513D Core 51R, Interval 546.2-555.65 m (CSF-A)

Core 51R is dominated greenish black to very dark brown sandy siltstone and very thin black sandstone. Pyrite is disseminated throughout the core. Organic material is disseminated and present from Section 2 to Section 6. A fault is present from the Section 5 (51 cm) to Section 6 (14 cm). Normal grading is present in the CC. The core is slightly to severely fractured with some severely brecciated drilling disturbances. Munsell color notations for this core are as follows: GLEY 1 2.5/10Y– greenish black, GLEY 1 3/10Y– very dark greenish gray, 7.5YR 2.5/1– black, 7.5YR 2.5/2– very dark brown, and 7.5YR 3/1– very dark gray.



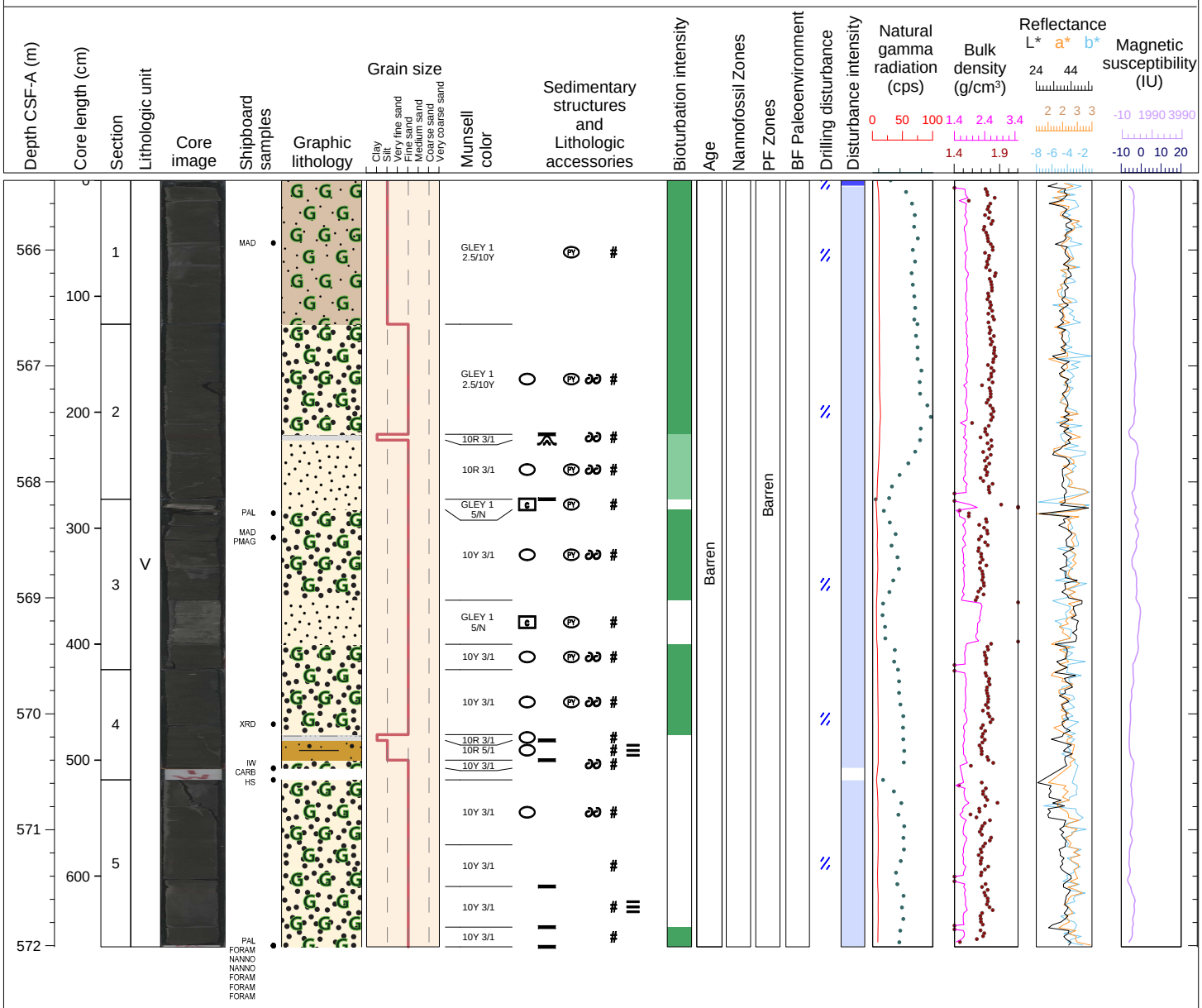
Hole 369-U1513D Core 52R, Interval 555.8-564.46 m (CSF-A)

Core 52R is dominated by very fine to medium greenish black glauconitic sandstone. A calcite nodule is present in Section 1 (77-84 cm). A calcite cemented interval is present in Section 2 (60-64 cm). Mud clast are present in Sections 3 and 4. Abundant shell fragments are present in Sections 5 and 6. Pyrites are present throughout. Bioturbation is absent to low. The core exhibits slightly fractured to severely brecciated drilling disturbances. Munsell color notations for this core are as follows: GLEY 1 2.5/10Y– greenish black, 10Y 3/1– very dark greenish gray, GLEY 1 2.5/10Y– greenish black, and GLEY 1 3/10Y– very dark greenish gray.



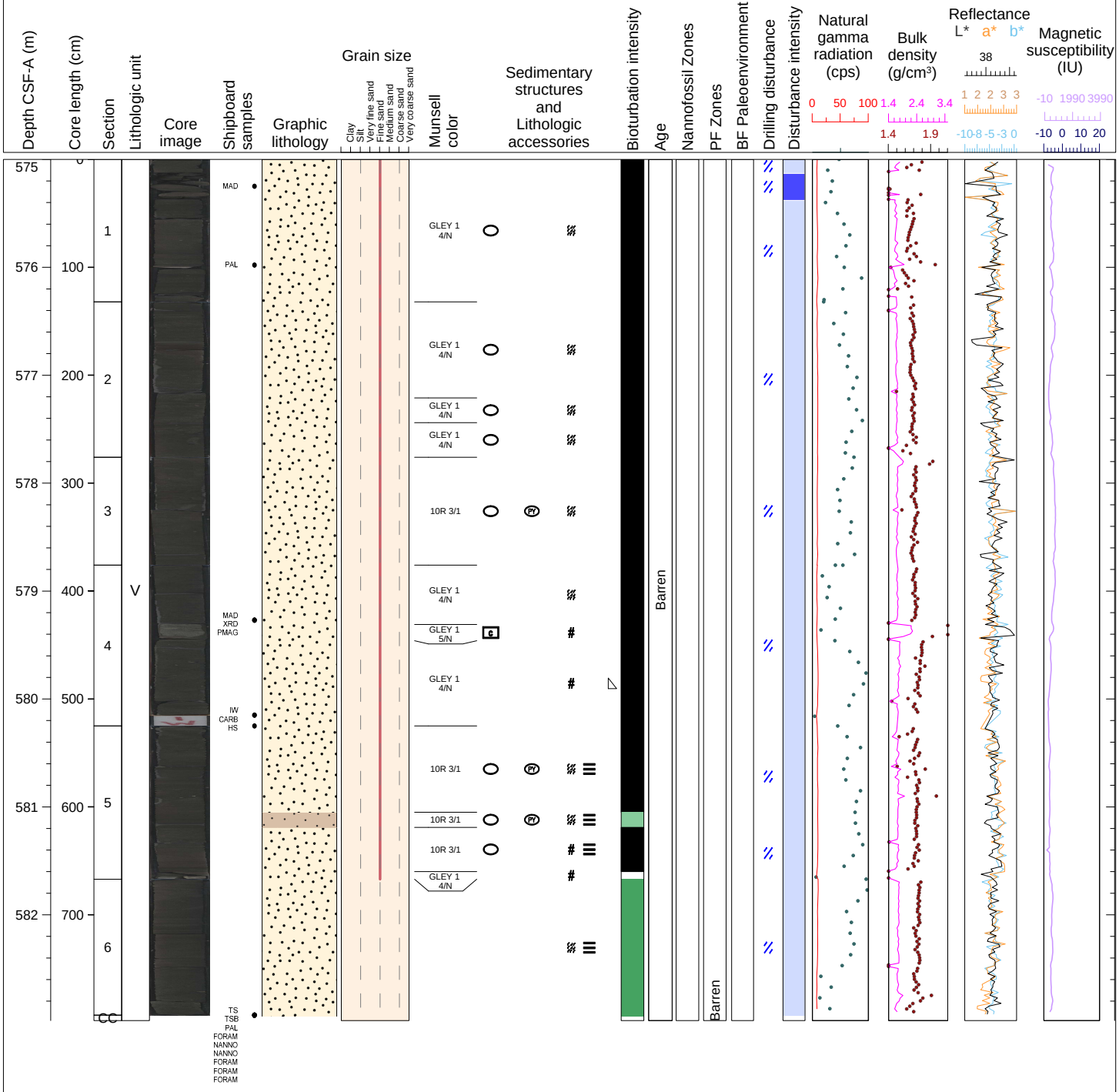
Hole 369-U1513D Core 53R, Interval 565.4-572.01 m (CSF-A)

Core 53R is dominated by very dark greenish gray glauconitic sandstones. Calcite cemented intervals are present in Section 3. Pyrite is present throughout. Bioturbation is absent to low. The core exhibits slight fractured drilling disturbance. Munsell color notations for this core are as follows: GLEY 1 5/N– gray, GLEY 1 2.5/10Y– greenish black, 10Y 3/1– very dark greenish gray, 10R 3/1– dark reddish gray, and 10R 5/1–reddish gray.



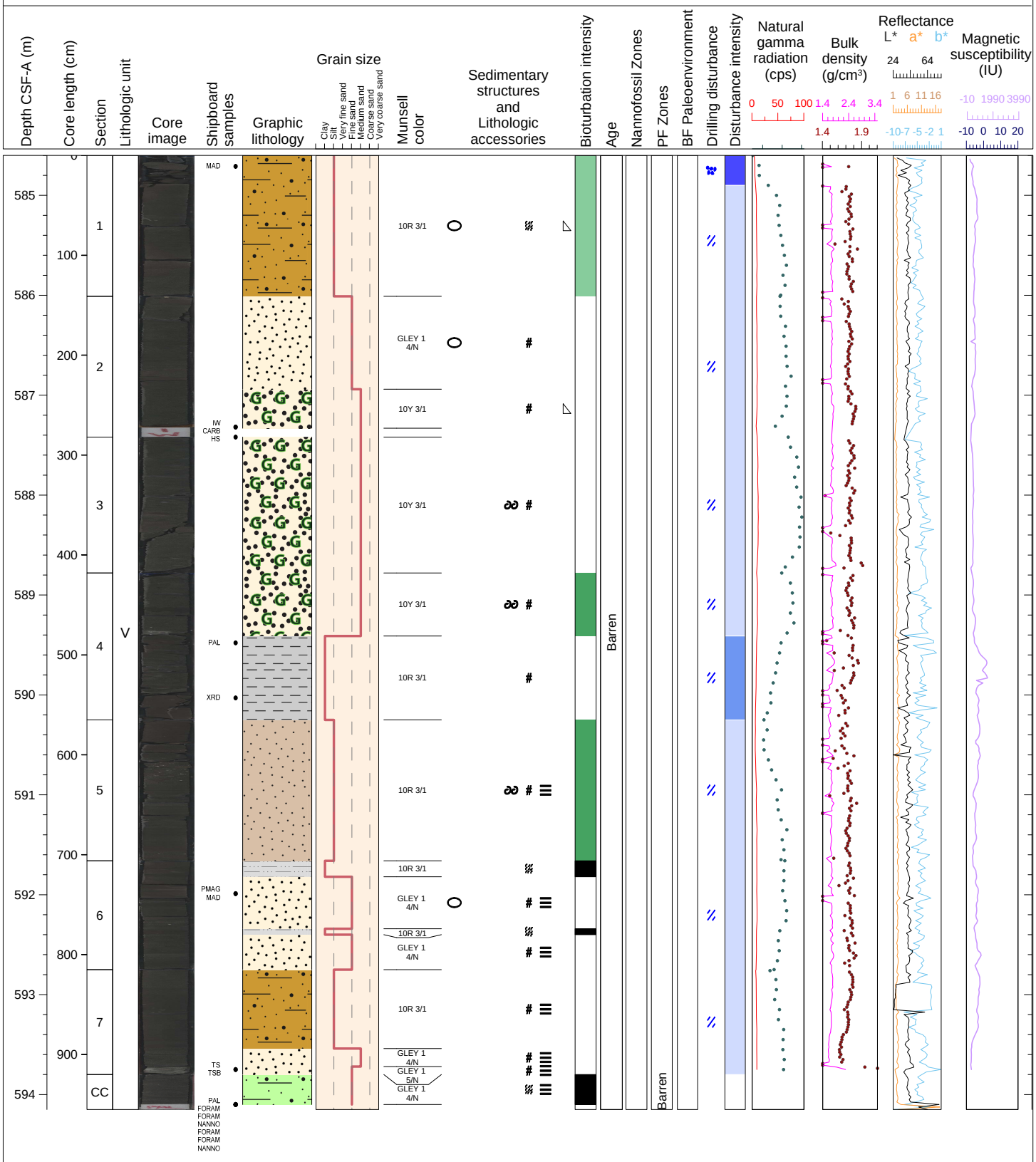
Hole 369-U1513D Core 54R, Interval 575.0-582.98 m (CSF-A)

Core 54R is dominated by very dark gray sandstones and siltstones. A calcite cemented interval is present in Section 3 (55-70 cm). Pyrite nodules are common throughout. Bioturbation is moderate to intense. In Section 6 (110-126 cm) there are shell fragments. The core exhibits slight fractured drilling disturbance. Munsell color notations for this core are as follows: GLEY 1 4/N– dark gray, GLEY 1 5/N– gray, and 10R 3/1– dark reddish gray.



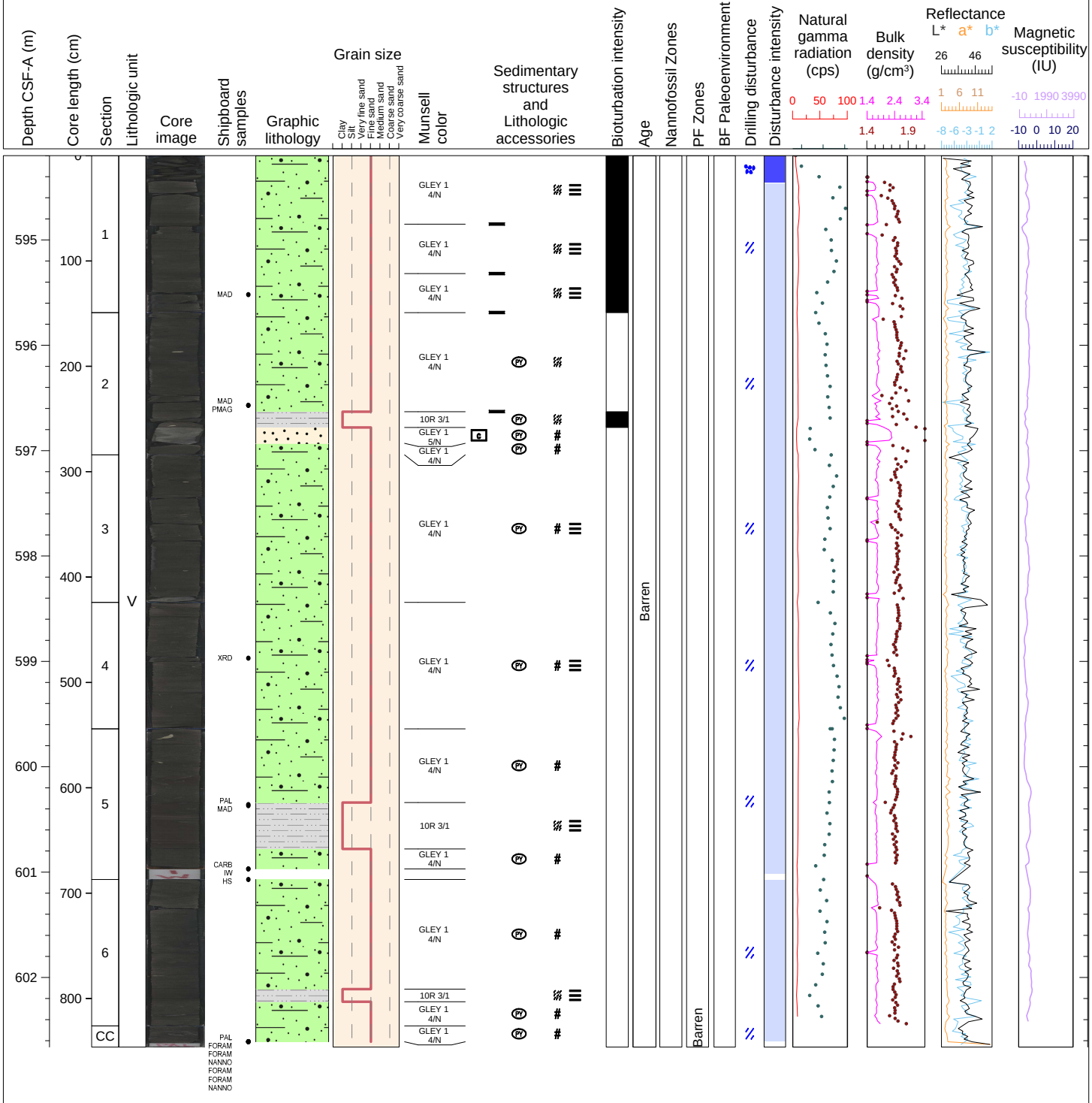
Hole 369-U1513D Core 55R, Interval 584.6-594.15 m (CSF-A)

Core 55R is dominated by very dark gray sandstones and siltstones. A calcite cemented interval is present in Section 3 (97-103 cm). Pyrite is common throughout. Abundant shell fragments occur in Section 4 (57-59 cm) and Section 5 (38-60 cm). Bioturbation is moderate to intense. The core exhibits slight fractured drilling disturbance. Munsell color notations for this core are as follows: GLEY 1 4/N– dark gray, GLEY 1 5/N– gray, 10Y 3/1– very dark greenish gray, and 10R 3/1– dark reddish gray.



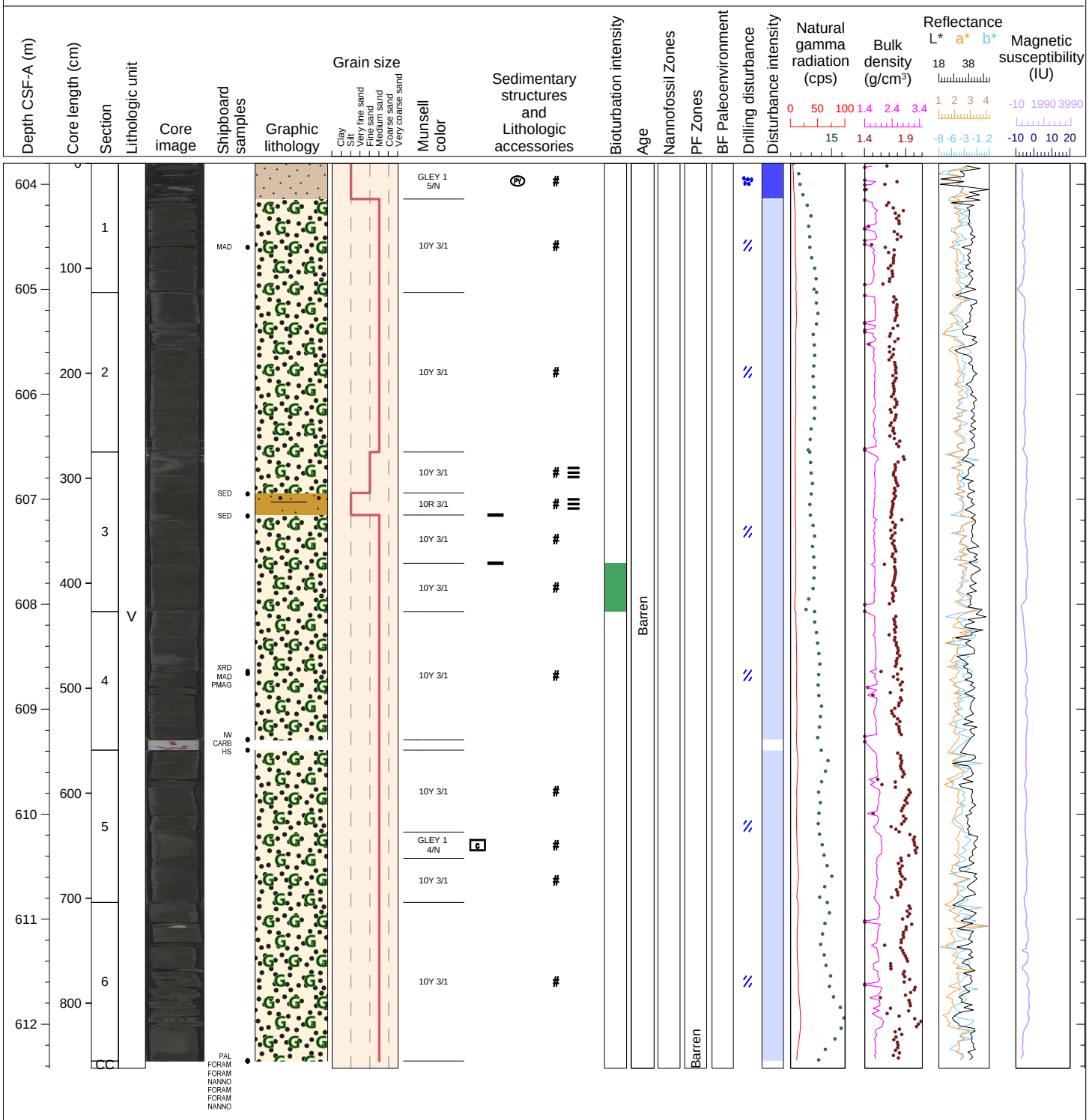
Hole 369-U1513D Core 56R, Interval 594.2-602.66 m (CSF-A)

Core 56R is dominated by very dark gray sandstones and siltstones. A calcite cemented interval is present in Section 2 (109-124 cm). Pyrite is common throughout. Bioturbation is moderate to intense. The core exhibits slight fractured drilling disturbance. Munsell color notations for this core are as follows: GLEY 1 4/N– dark gray, GLEY 1 5/N– gray, and 10R 3/1– dark reddish gray.



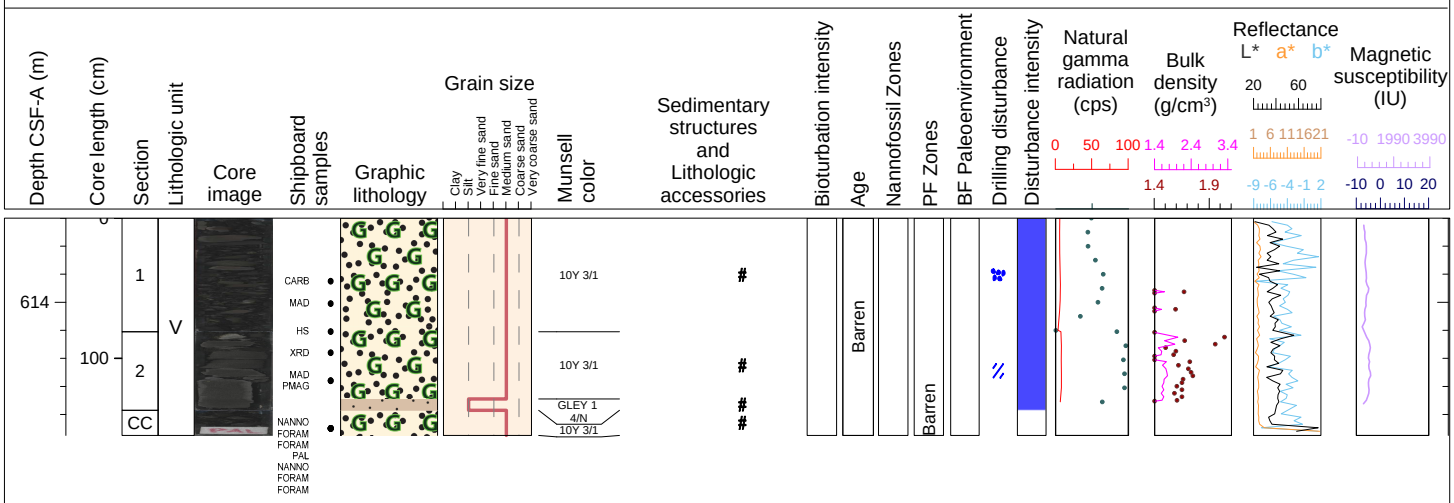
Hole 369-U1513D Core 57R, Interval 603.8-612.42 m (CSF-A)

Core 57R is dominated by very dark gray sandstones. Pyrite nodules and organic materials are common throughout. An interval cemented by calcite occurs at 77-102 cm of Section 5. A coral fragment is present at 62-66 cm of Section 6. The core exhibits slight fractured drilling disturbance.



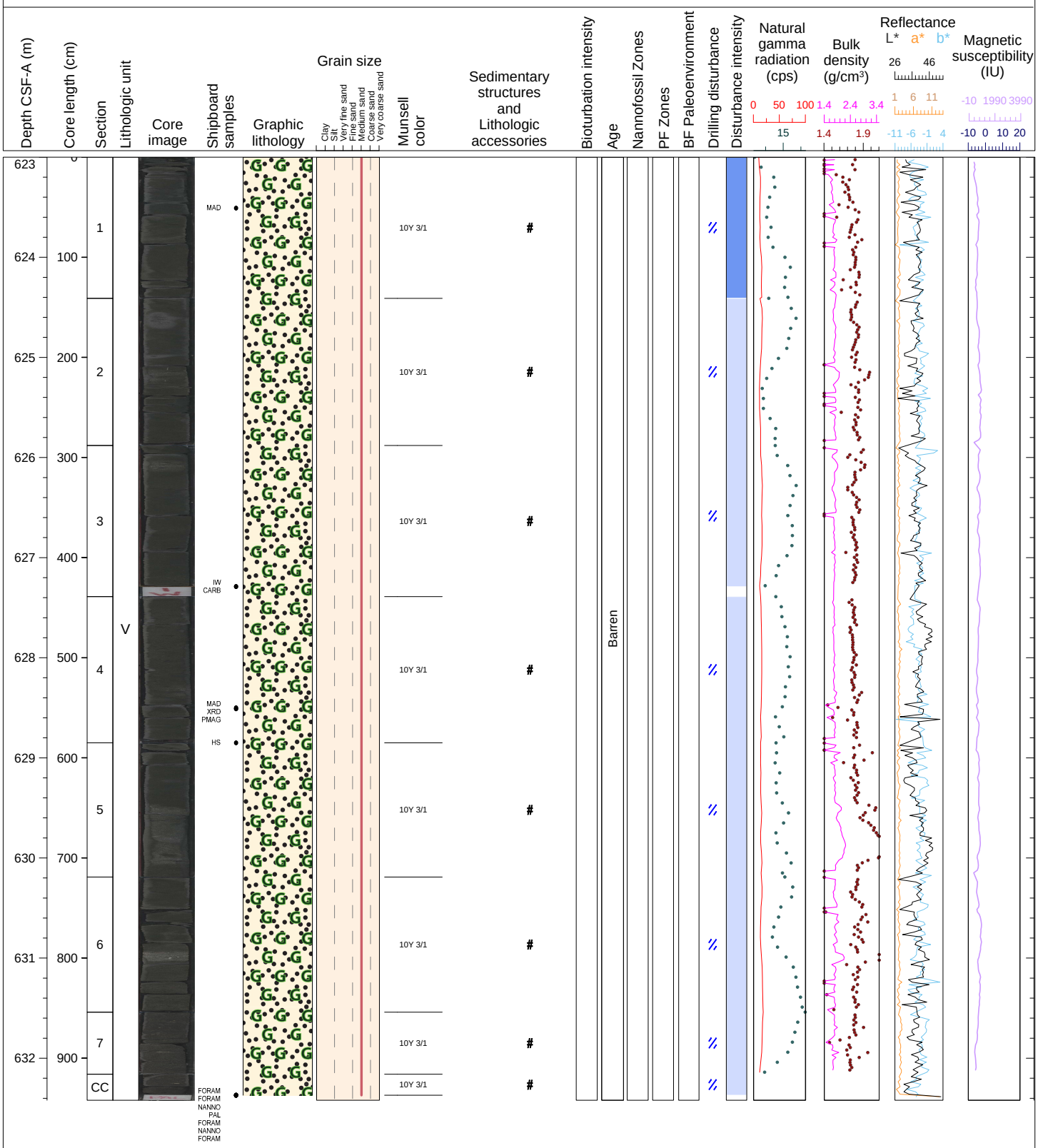
Hole 369-U1513D Core 58R, Interval 613.4-614.95 m (CSF-A)

Core 58R is dominated by very dark gray sandstones. Pyrite nodules and organic materials are common throughout. The core exhibits severe fractured and fall-in drilling disturbance in Section 1.



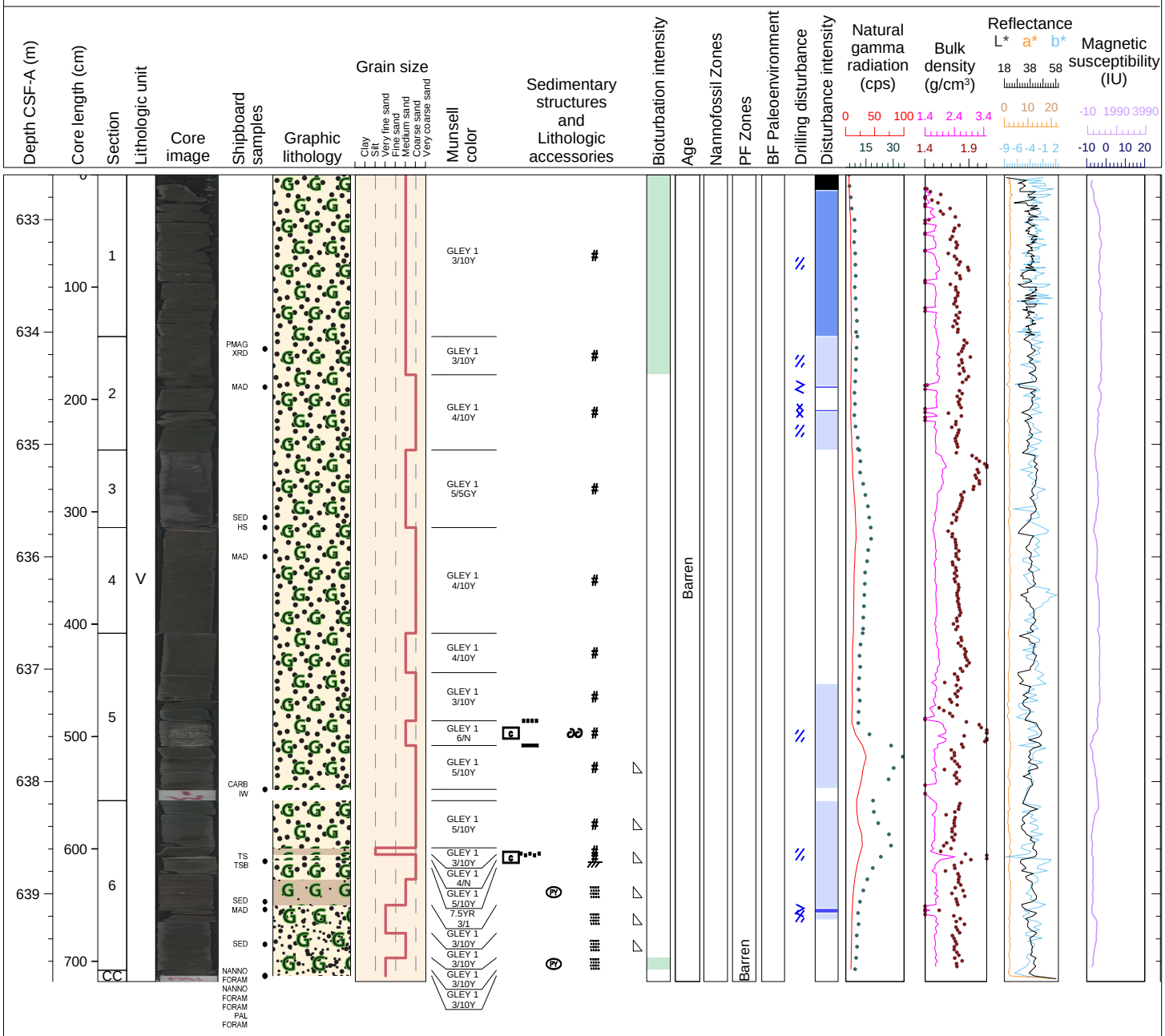
Hole 369-U1513D Core 59R, Interval 623.0-632.42 m (CSF-A)

Core 59R is dominated by very dark greenish gray glauconitic sandstones with clasts. Pyrite nodules and organic materials are common throughout. Several ~10 cm thick intervals are cemented by calcite. The core exhibits slight fracturing.



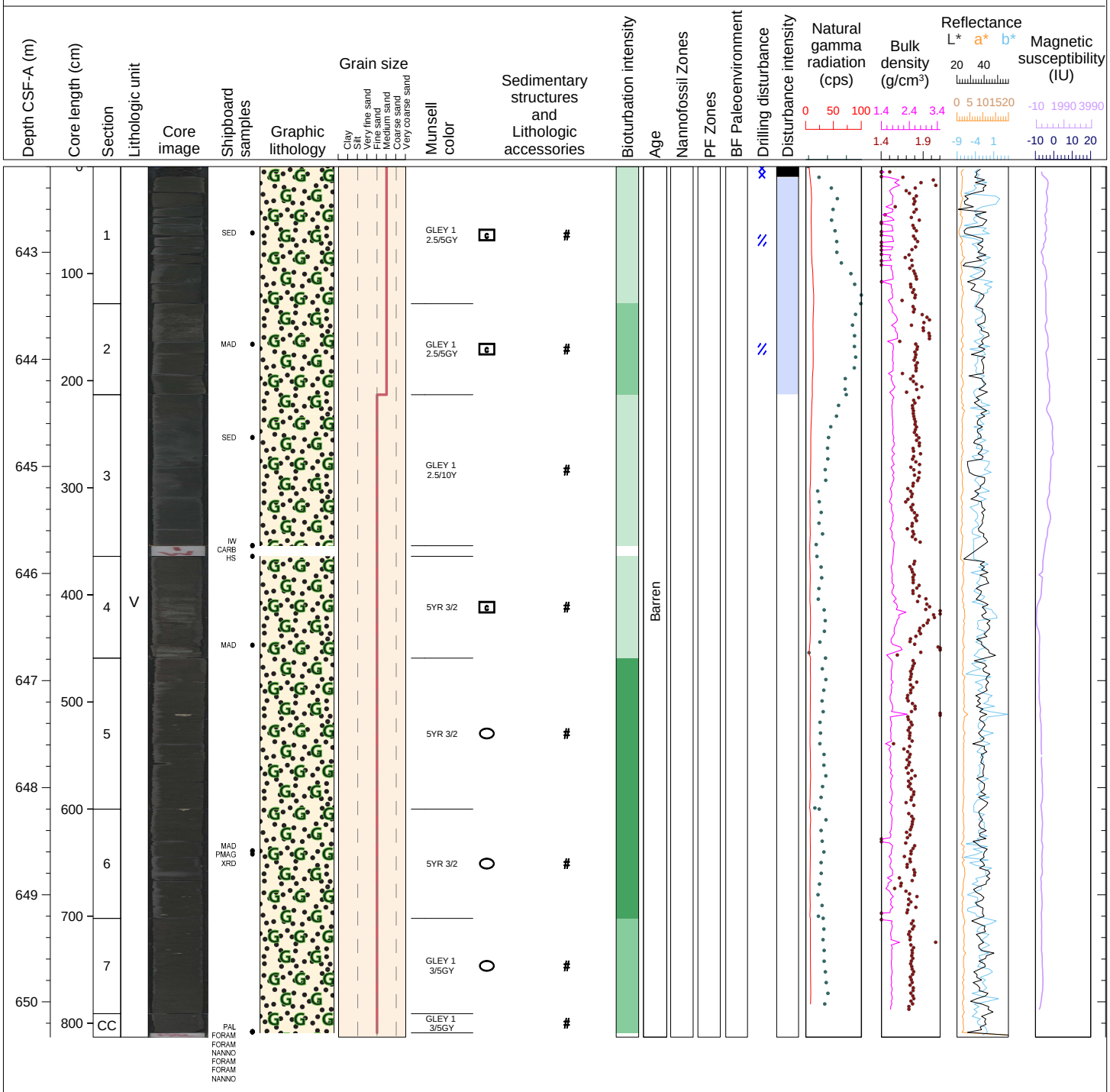
Hole 369-U1513D Core 60R, Interval 632.6-639.78 m (CSF-A)

Core 60R is dominated by a heterolithic very dark gray to greenish gray sandstone with intervals of silty sandstone and sandy siltstone. Grain size varies throughout the core and is between silt and medium sand. A range of sedimentary structures are present throughout including current ripples, cross bedding and mud drapes (or double mud drapes); however, most intervals are massive and structureless. Abundant shell fragments are present between 78 and 100 cm in Section 5. Bioturbation is either absent or sparse throughout the core. The core exhibits slight to moderate fractured and fragmented drilling disturbance.



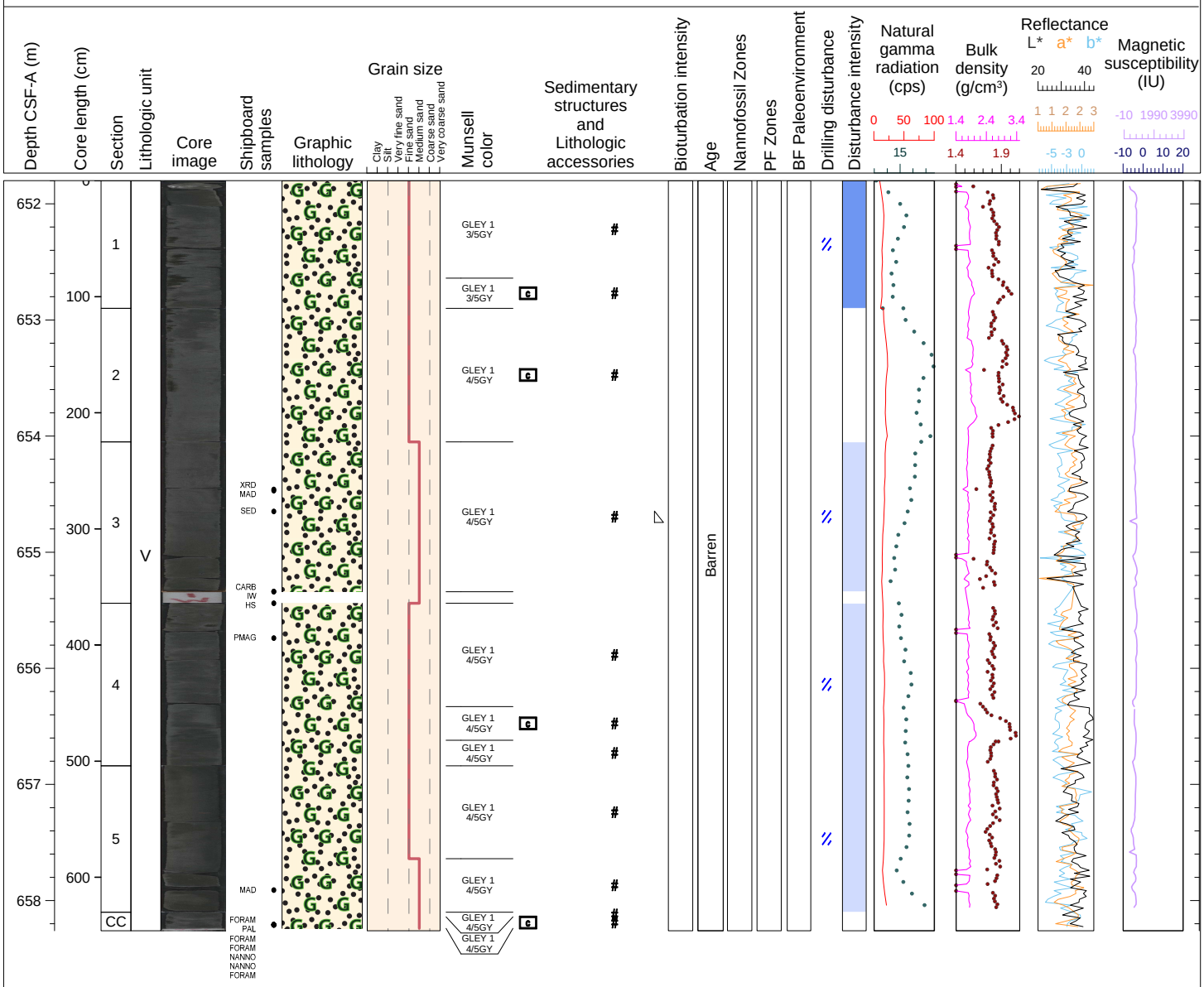
Hole 369-U1513D Core 61R, Interval 642.2-650.33 m (CSF-A)

Core 61R is dominated by greenish black glauconitic sandstone and grayish brown sandstone. Grain size varies from medium sand (Section 1 and 2) to fine sand (Section 3 to CC). Lenses of sideritic cements are present in Section 4 (48-50, 56-60, 62-63, 89-90 cm). Organic material and pyrite are common in Sections 5 and 6. Bioturbation is sparse to moderate throughout the core. The core does not exhibits drilling disturbance, except for Sections 1 and 2 that have slight fractured drilling disturbance



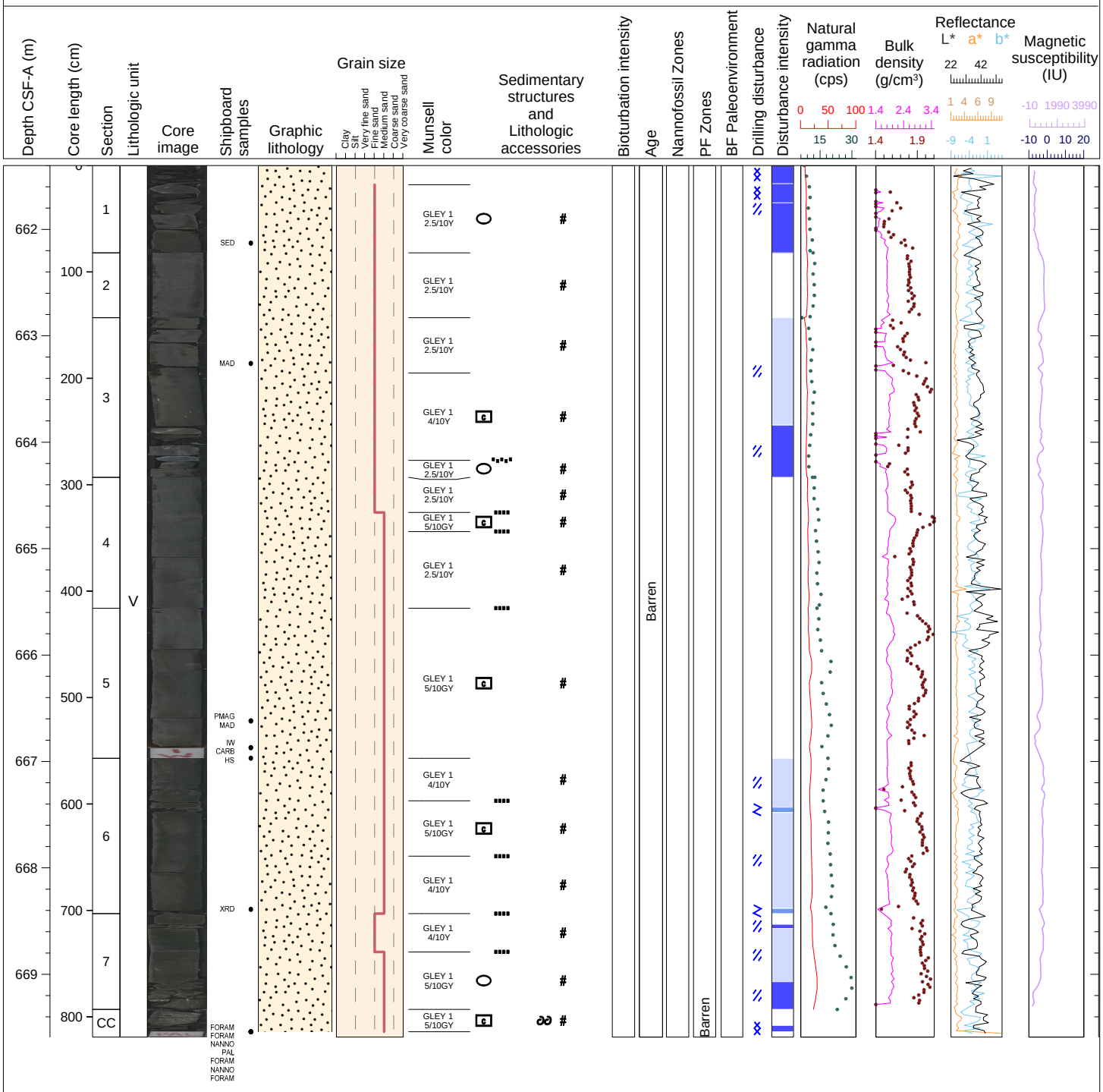
Hole 369-U1513D Core 62R, Interval 651.8-658.26 m (CSF-A)

Core 62R is dominated by a very dark to dark greenish gray glauconitic sandstones that are fine to medium grained sand. Calcite cemented intervals are present in Sections 1, 2, 4 and CC. Organic fragments are rare throughout the core. Lithic clasts are present in Section 1 (89-90 cm) and Section 5 (41 cm). Bioturbation is absent. The core exhibits slight to moderate fractured drilling disturbance.



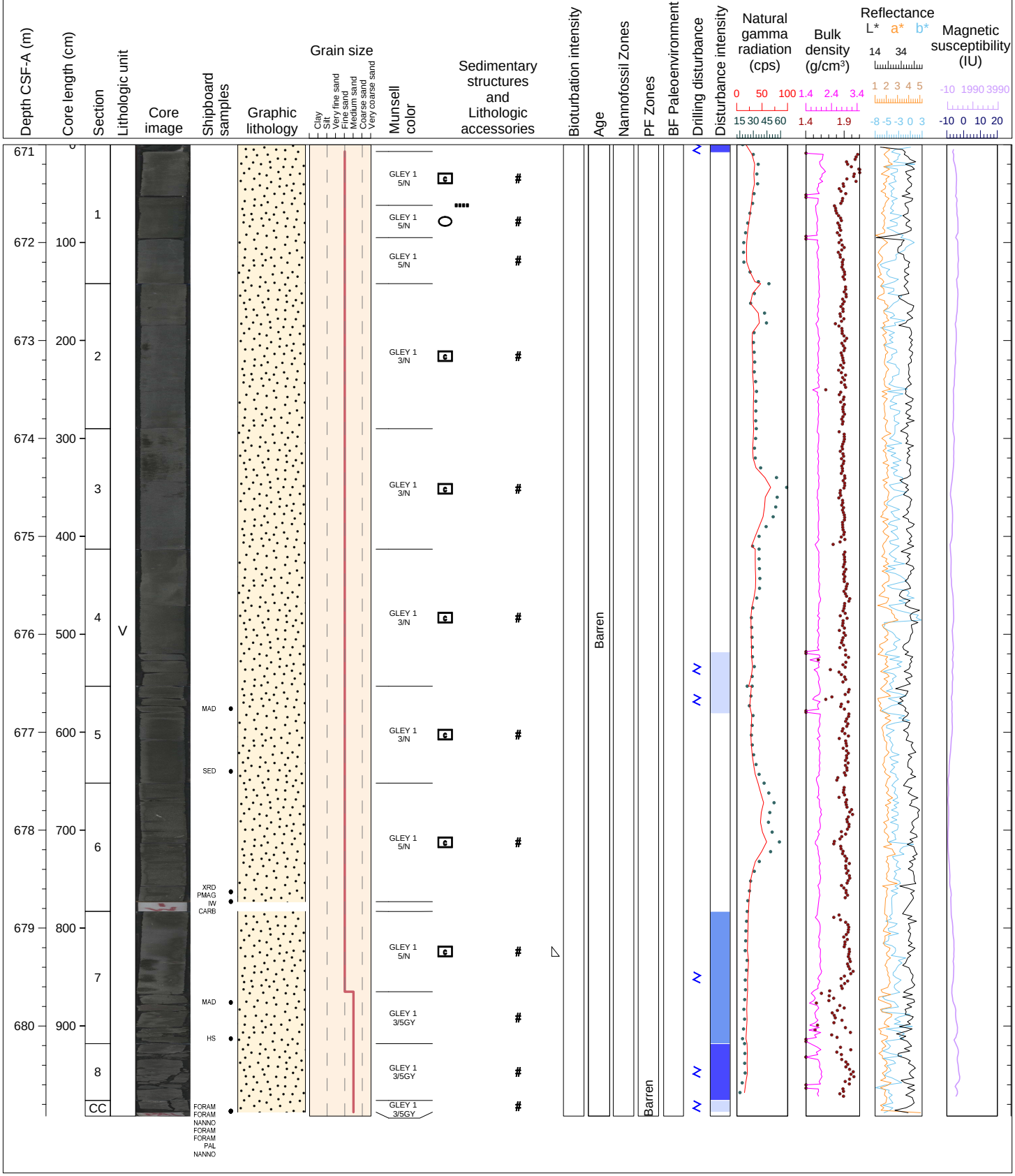
Hole 369-U1513D Core 63R, Interval 661.4-669.59 m (CSF-A)

Core 63R is dominated by a dark to greenish gray sandstone with glauconite that is fine to medium grained sand. Lithic clasts are present in Section 7. Calcite veining and circular holes (2 mm wide by 2 cm in length) are present in Sections 3, 5 and 7 - these maybe a drilling relict. Organic materials are disseminated throughout where as pyrite nodules are only present in Sction 7. Bioturbation is absent. The core exhibits brecciated, fragmented and fractured drilling disturbance.



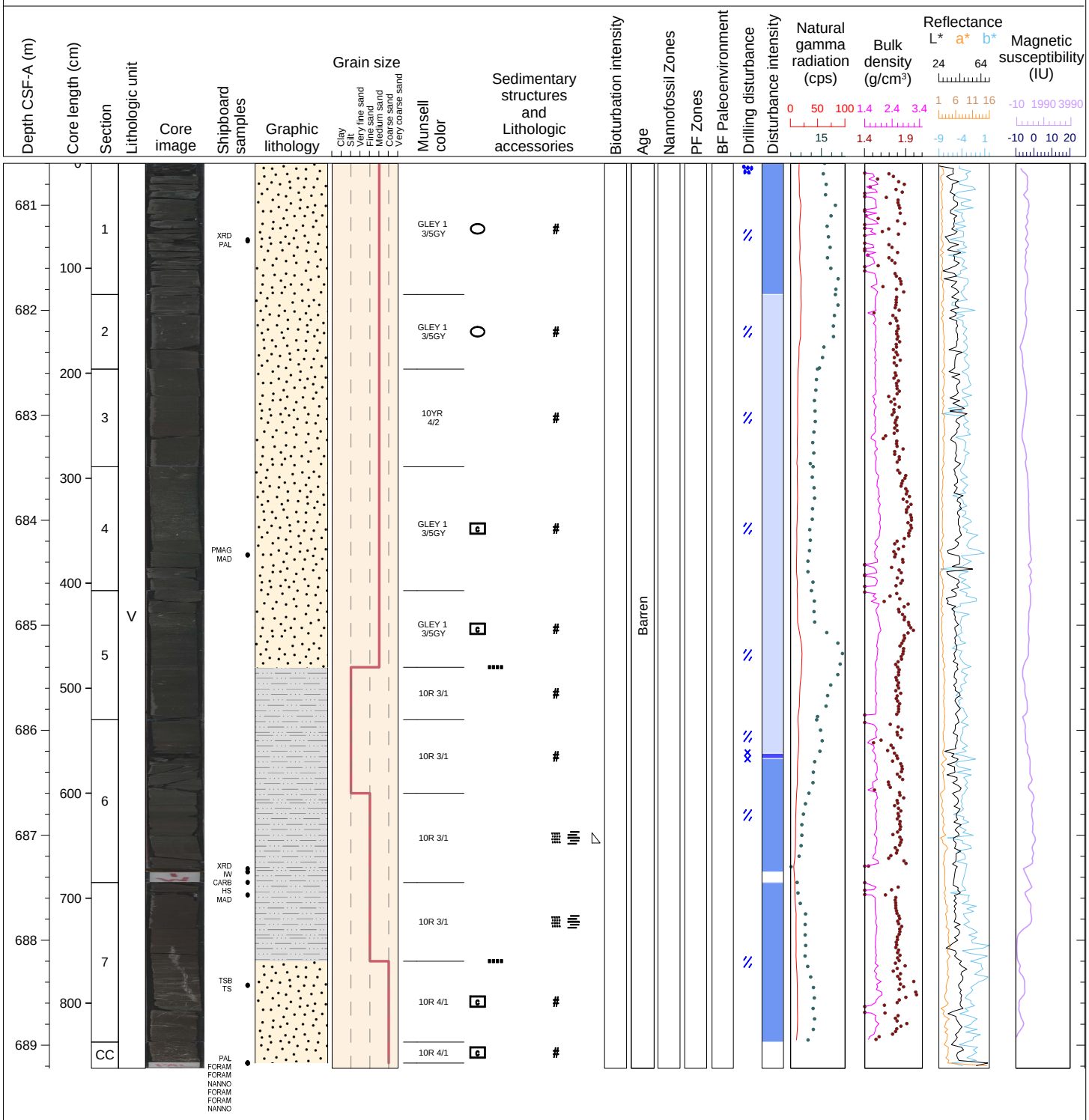
Hole 369-U1513D Core 64R, Interval 671.0-680.92 m (CSF-A)

Core 64R is dominated by a very dark greenish gray to gray sandstone that is fine to medium grained. Calcite cemented intervals are present from Section 1 to 7. Calcite veins are present in Sections 1 and 6. Organic materials are disseminated throughout with woody fragments in Section 6. Shell fragments are only present in Section 1. Pyrite nodules are present in Sections 1, 2 and 6. Bioturbation is absent. The core exhibits brecciated, fragmented and fractured drilling disturbance in Sections 1, 4, and 7.



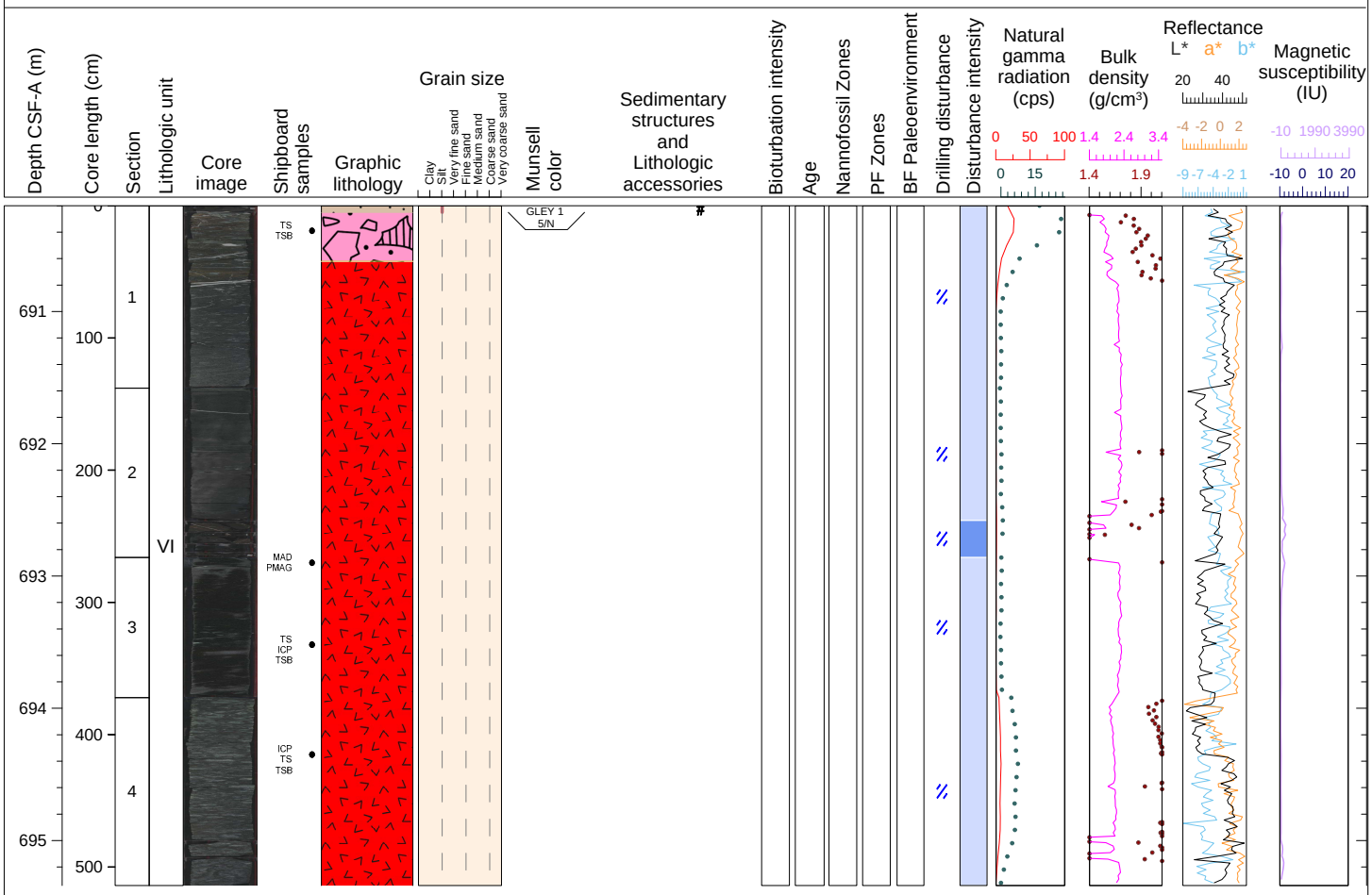
Hole 369-U1513D Core 65R, Interval 680.6-689.22 m (CSF-A)

Core 65R is dominated by a very dark greenish gray sandstone with clasts, which progressively changes to a dark reddish gray claystone-siltstone-sandstone in Section 5 (73 cm). Grain size varies from silt to coarse sand. Organic matter is rare. Calcite cemented intervals are present in Sections 4, 5, 7 and the CC. Calcite veins are common in Section 7 and in the CC. In Section 7, there is an increase in amount and size of clasts of variable composition and in calcite veins. Bioturbation is absent. The core mainly exhibits slightly to moderately fractured and fragmented drilling disturbances.

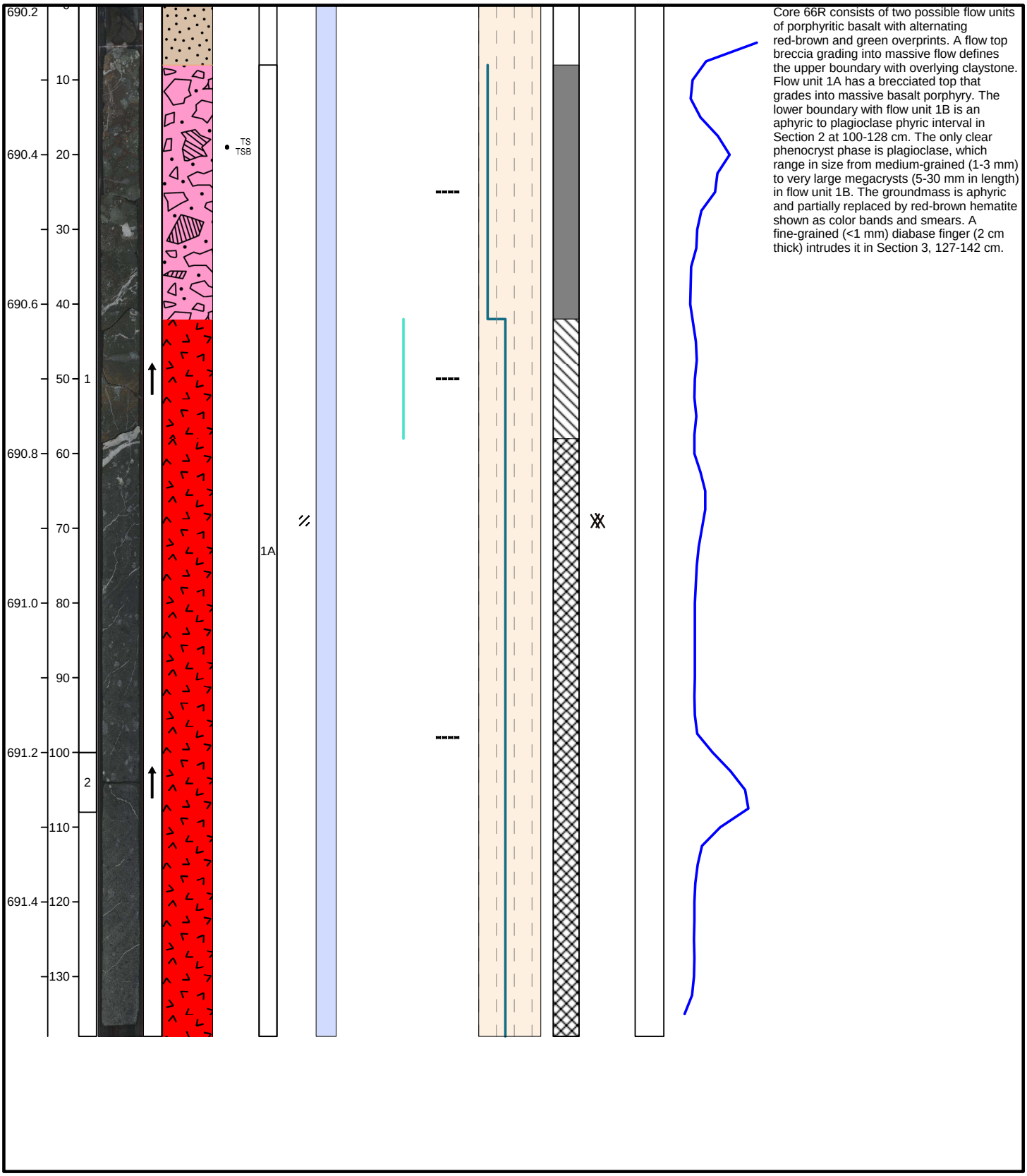


Hole 369-U1513D Core 66R, Interval 690.2-695.34 m (CSF-A)

Core 66R consists of two possible flow units of porphyritic basalt with alternating red-brown and green overprints. A flow top breccia grading into massive flow defines the upper boundary with overlying claystone. Flow unit 1A has a brecciated top that grades into massive basalt porphyry. The lower boundary with flow unit 1B is an aphyric to plagioclase phyric interval in Section 2 at 100-128 cm. The only clear phenocryst phase is plagioclase, which range in size from medium-grained (1-3 mm) to very large megacrysts (5-30 mm in length) in flow unit 1B. The groundmass is aphyric and partially replaced by red-brown hematite shown as color bands and smears. A fine-grained (<1 mm) diabase finger (2 cm thick) intrudes it in Section 3, 127-142 cm.

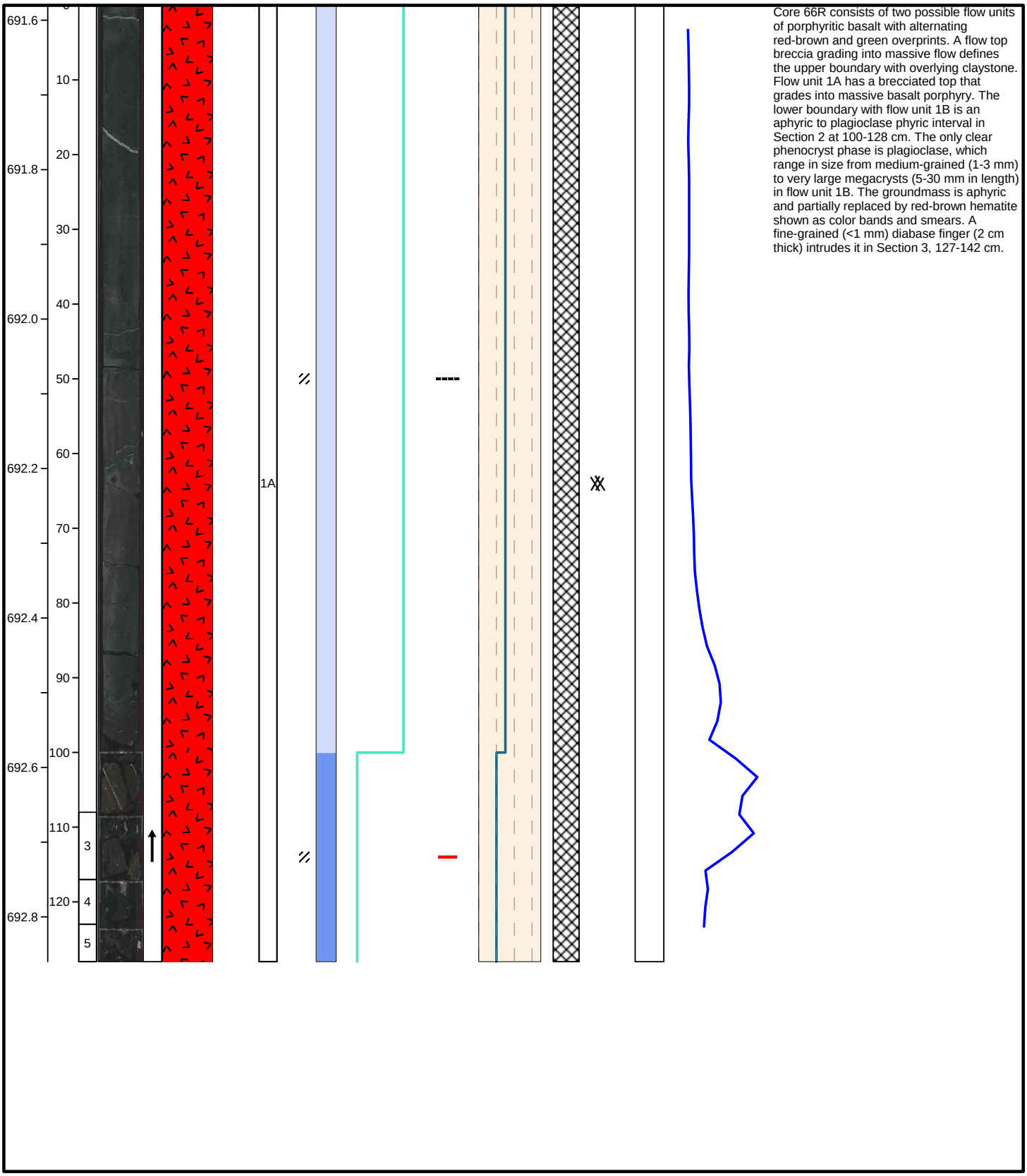


Hole 369-U1513D-66R Section 1, Top of Section: 690.2 m (CSF-A)



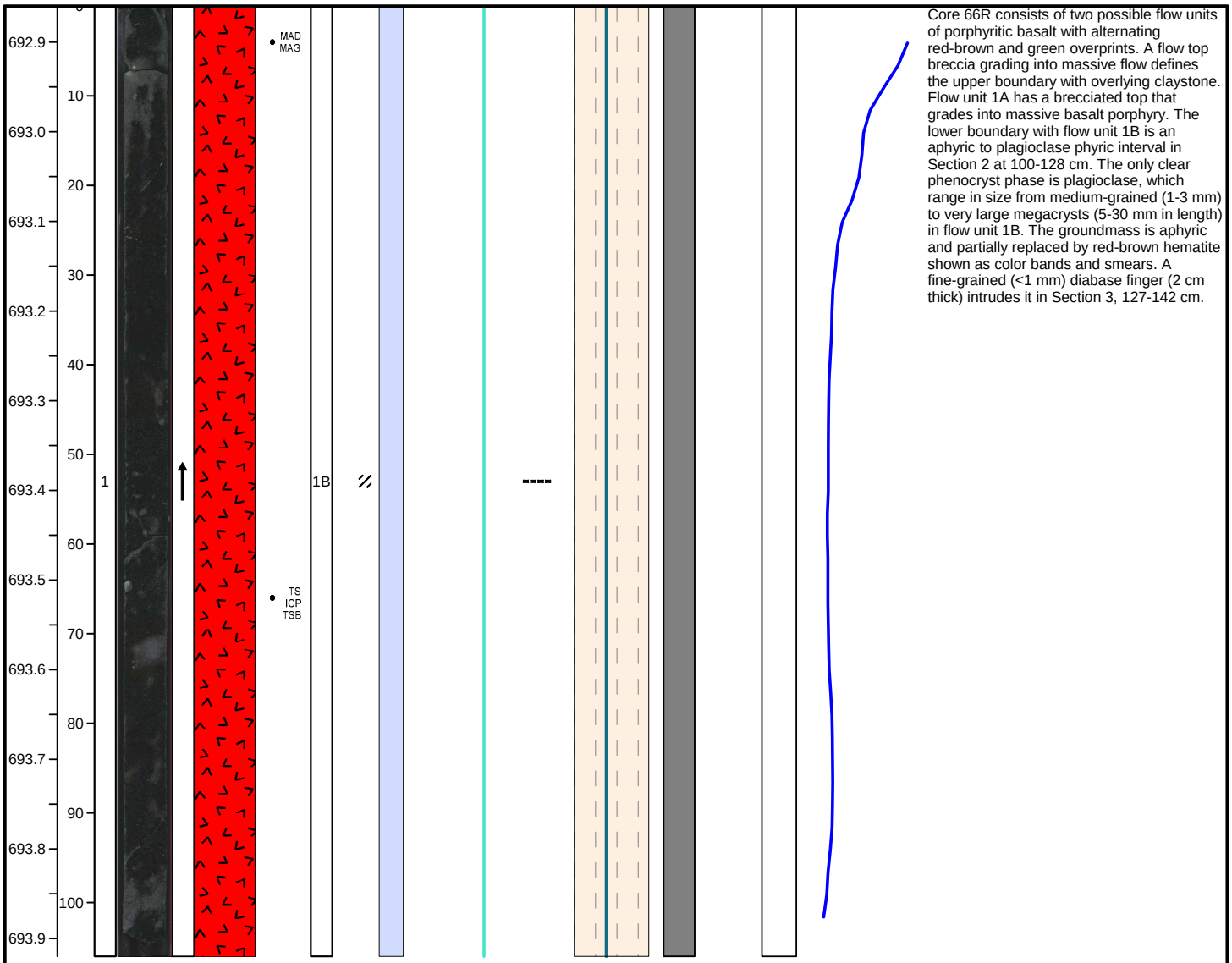
Core 66R consists of two possible flow units of porphyritic basalt with alternating red-brown and green overprints. A flow top breccia grading into massive flow defines the upper boundary with overlying claystone. Flow unit 1A has a brecciated top that grades into massive basalt porphyry. The lower boundary with flow unit 1B is an aphyric to plagioclase phyric interval in Section 2 at 100-128 cm. The only clear phenocryst phase is plagioclase, which range in size from medium-grained (1-3 mm) to very large megacrysts (5-30 mm in length) in flow unit 1B. The groundmass is aphyric and partially replaced by red-brown hematite shown as color bands and smears. A fine-grained (<1 mm) diabase finger (2 cm thick) intrudes it in Section 3, 127-142 cm.

Hole 369-U1513D-66R Section 2, Top of Section: 691.58 m (CSF-A)



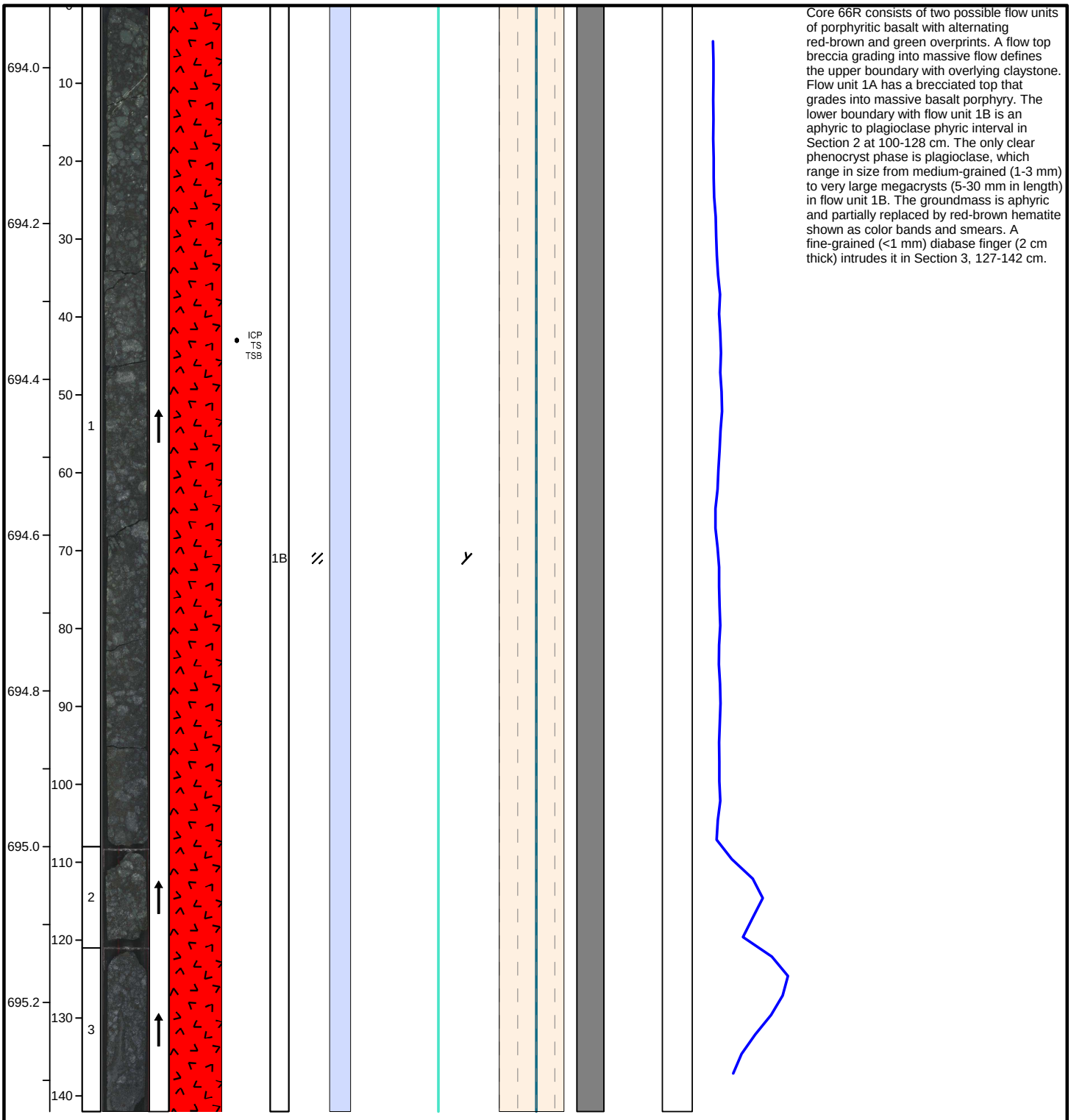
Core 66R consists of two possible flow units of porphyritic basalt with alternating red-brown and green overprints. A flow top breccia grading into massive flow defines the upper boundary with overlying claystone. Flow unit 1A has a brecciated top that grades into massive basalt porphyry. The lower boundary with flow unit 1B is an aphyric to plagioclase phyric interval in Section 2 at 100-128 cm. The only clear phenocryst phase is plagioclase, which range in size from medium-grained (1-3 mm) to very large megacrysts (5-30 mm in length) in flow unit 1B. The groundmass is aphyric and partially replaced by red-brown hematite shown as color bands and smears. A fine-grained (<1 mm) diabase finger (2 cm thick) intrudes it in Section 3, 127-142 cm.

Hole 369-U1513D-66R Section 3, Top of Section: 692.86 m (CSF-A)



Core 66R consists of two possible flow units of porphyritic basalt with alternating red-brown and green overprints. A flow top breccia grading into massive flow defines the upper boundary with overlying claystone. Flow unit 1A has a brecciated top that grades into massive basalt porphyry. The lower boundary with flow unit 1B is an aphyric to plagioclase phyric interval in Section 2 at 100-128 cm. The only clear phenocryst phase is plagioclase, which range in size from medium-grained (1-3 mm) to very large megacrysts (5-30 mm in length) in flow unit 1B. The groundmass is aphyric and partially replaced by red-brown hematite shown as color bands and smears. A fine-grained (<1 mm) diabase finger (2 cm thick) intrudes it in Section 3, 127-142 cm.

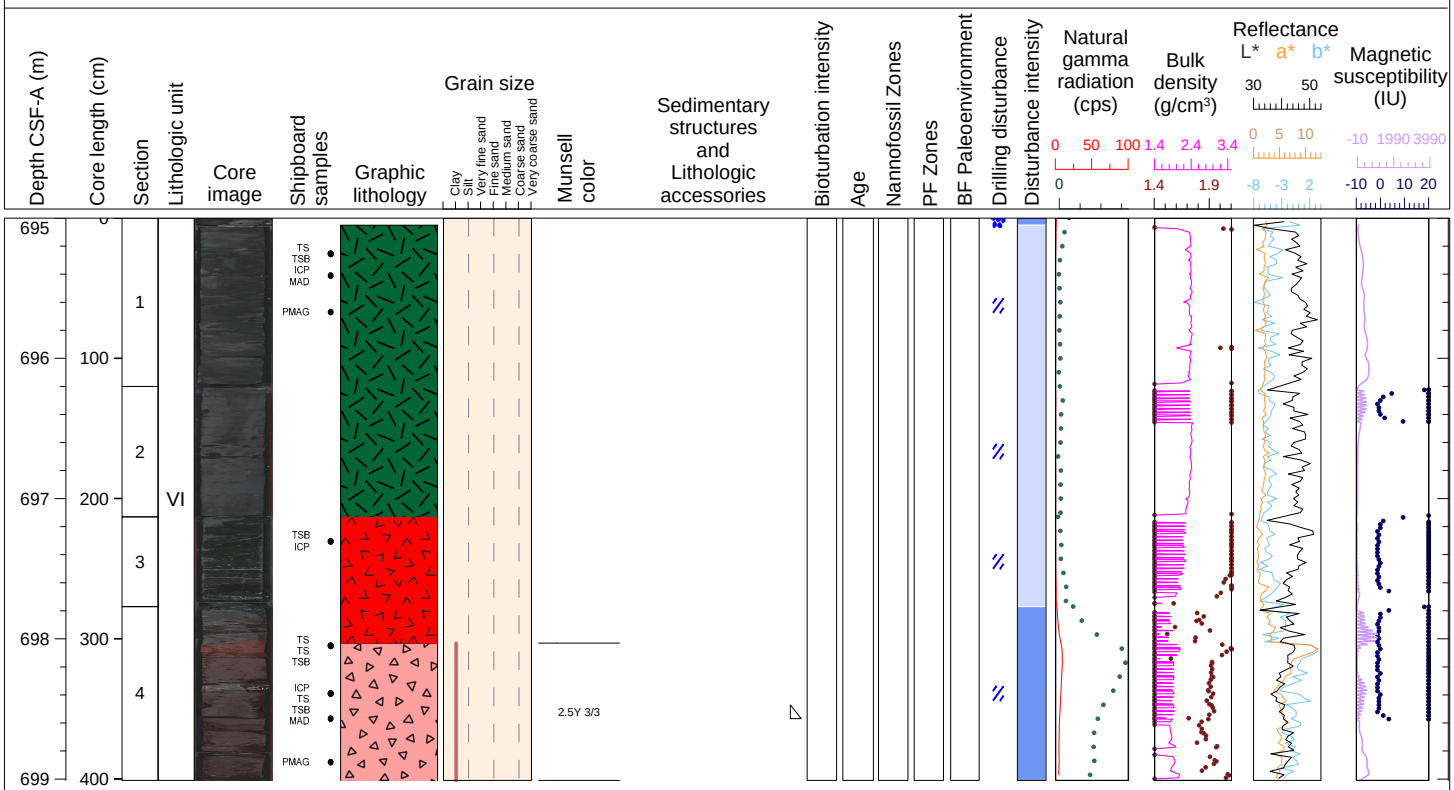
Hole 369-U1513D-66R Section 4, Top of Section: 693.92 m (CSF-A)



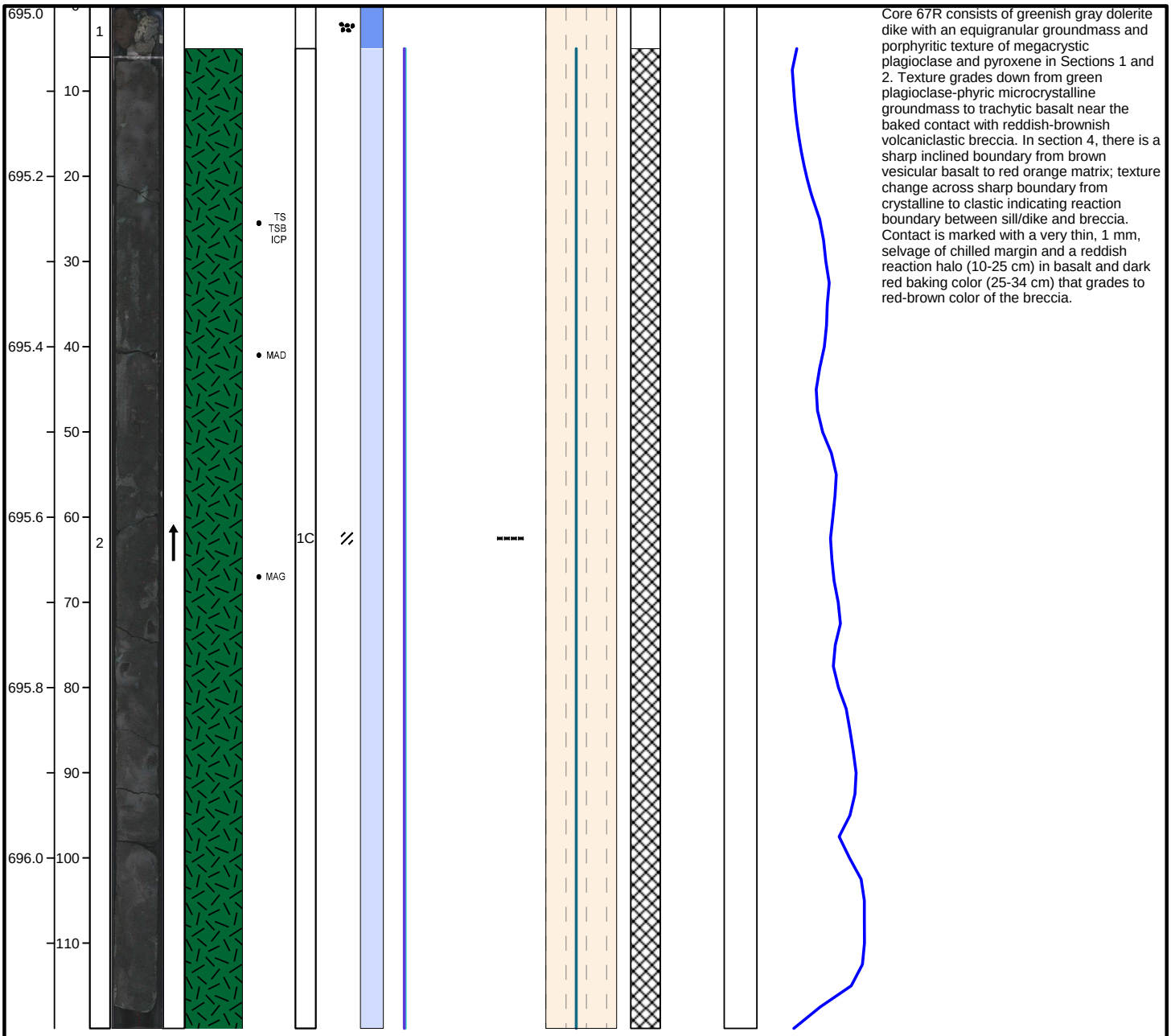
Core 66R consists of two possible flow units of porphyritic basalt with alternating red-brown and green overprints. A flow top breccia grading into massive flow defines the upper boundary with overlying claystone. Flow unit 1A has a brecciated top that grades into massive basalt porphyry. The lower boundary with flow unit 1B is an aphyric to plagioclase phyric interval in Section 2 at 100-128 cm. The only clear phenocryst phase is plagioclase, which range in size from medium-grained (1-3 mm) to very large megacrysts (5-30 mm in length) in flow unit 1B. The groundmass is aphyric and partially replaced by red-brown hematite shown as color bands and smears. A fine-grained (<1 mm) diabase finger (2 cm thick) intrudes it in Section 3, 127-142 cm.

Hole 369-U1513D Core 67R, Interval 695.0-699.01 m (CSF-A)

Core 67R consists of greenish gray dolerite dike with an equigranular groundmass and porphyritic texture of megacrystic plagioclase and pyroxene in Sections 1 and 2. Texture grades down from green plagioclase-phyric microcrystalline groundmass to trachytic basalt near the baked contact with reddish-brownish volcaniclastic breccia. In section 4, there is a sharp inclined boundary from brown vesicular basalt to red orange matrix; texture change across sharp boundary from crystalline to clastic indicating reaction boundary between sill/dike and breccia. Contact is marked with a very thin, 1 mm, selvage of chilled margin and a reddish reaction halo (10-25 cm) in basalt and dark red baking color (25-34 cm) that grades to red-brown color of the breccia.

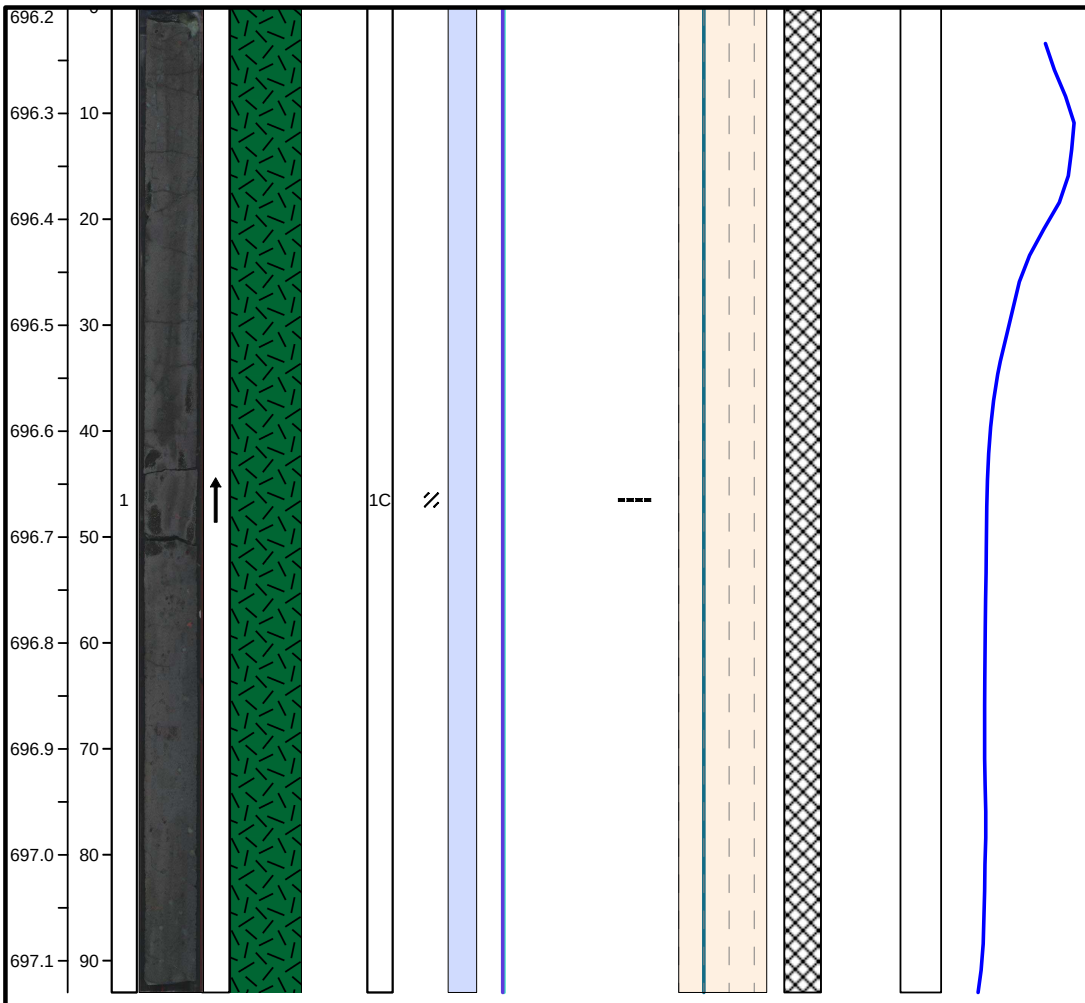


Hole 369-U1513D-67R Section 1, Top of Section: 695.0 m (CSF-A)



Core 67R consists of greenish gray dolerite dike with an equigranular groundmass and porphyritic texture of megacrystic plagioclase and pyroxene in Sections 1 and 2. Texture grades down from green plagioclase-phyric microcrystalline groundmass to trachytic basalt near the baked contact with reddish-brownish volcaniclastic breccia. In section 4, there is a sharp inclined boundary from brown vesicular basalt to red orange matrix; texture change across sharp boundary from crystalline to clastic indicating reaction boundary between sill/dike and breccia. Contact is marked with a very thin, 1 mm, selvage of chilled margin and a reddish reaction halo (10-25 cm) in basalt and dark red baking color (25-34 cm) that grades to red-brown color of the breccia.

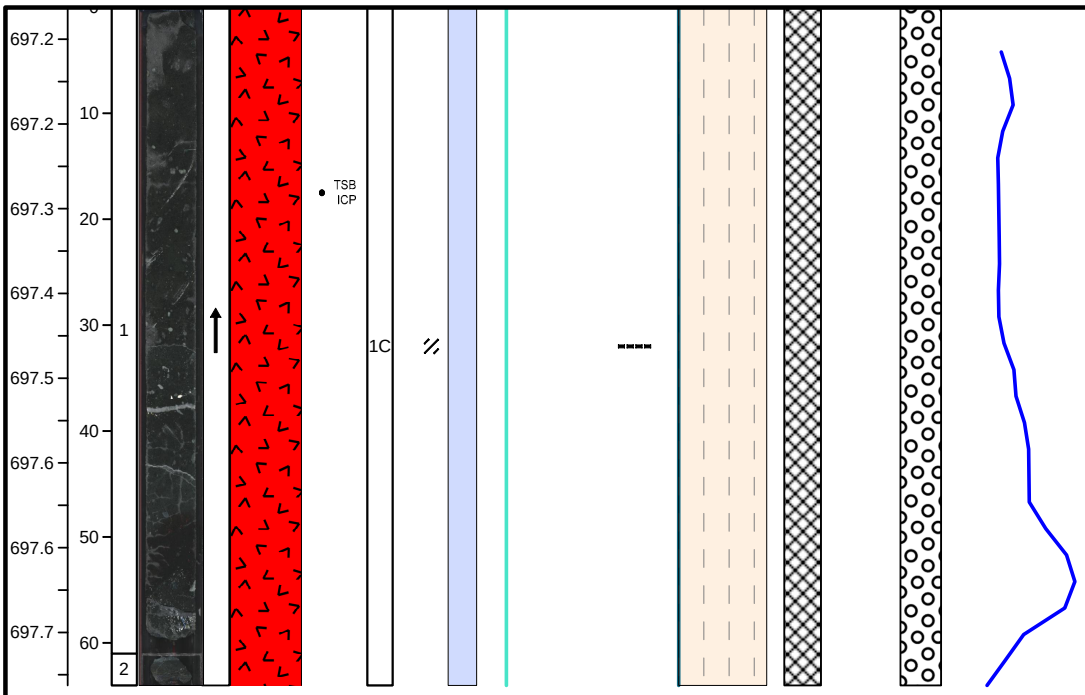
Hole 369-U1513D-67R Section 2, Top of Section: 696.2 m (CSF-A)



Description

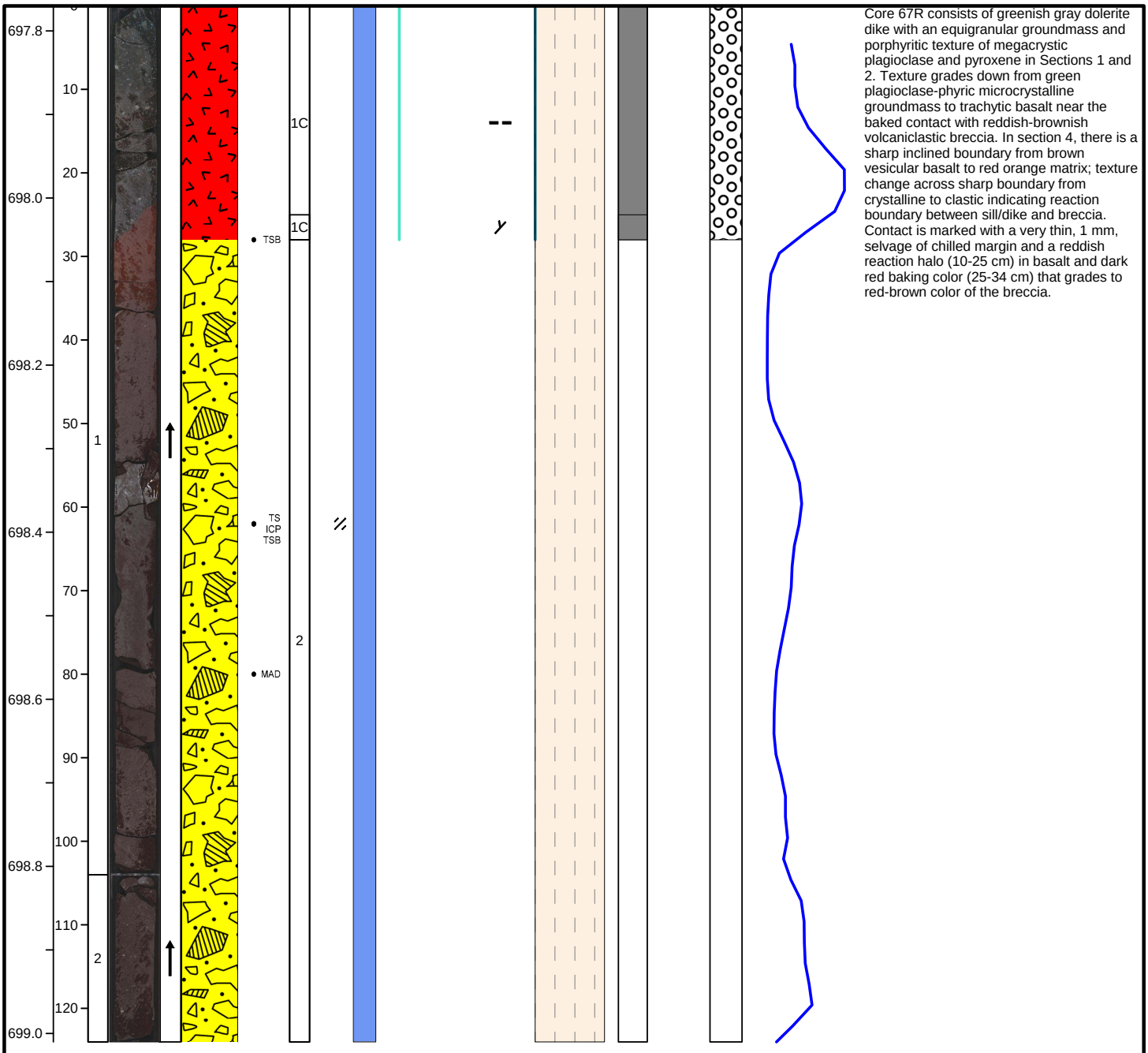
Core 67R consists of greenish gray dolerite dike with an equigranular groundmass and porphyritic texture of megacrystic plagioclase and pyroxene in Sections 1 and 2. Texture grades down from green plagioclase-phyric microcrystalline groundmass to trachytic basalt near the baked contact with reddish-brownish volcaniclastic breccia. In section 4, there is a sharp inclined boundary from brown vesicular basalt to red orange matrix; texture change across sharp boundary from crystalline to clastic indicating reaction boundary between sill/dike and breccia. Contact is marked with a very thin, 1 mm, selvage of chilled margin and a reddish reaction halo (10-25 cm) in basalt and dark red baking color (25-34 cm) that grades to red-brown color of the breccia.

Hole 369-U1513D-67R Section 3, Top of Section: 697.13 m (CSF-A)



Core 67R consists of greenish gray dolerite dike with an equigranular groundmass and porphyritic texture of megacrystic plagioclase and pyroxene in Sections 1 and 2. Texture grades down from green plagioclase-phyric microcrystalline groundmass to trachytic basalt near the baked contact with reddish-brownish volcaniclastic breccia. In section 4, there is a sharp inclined boundary from brown vesicular basalt to red orange matrix; texture change across sharp boundary from crystalline to clastic indicating reaction boundary between sill/dike and breccia. Contact is marked with a very thin, 1 mm, selvage of chilled margin and a reddish reaction halo (10-25 cm) in basalt and dark red baking color (25-34 cm) that grades to red-brown color of the breccia.

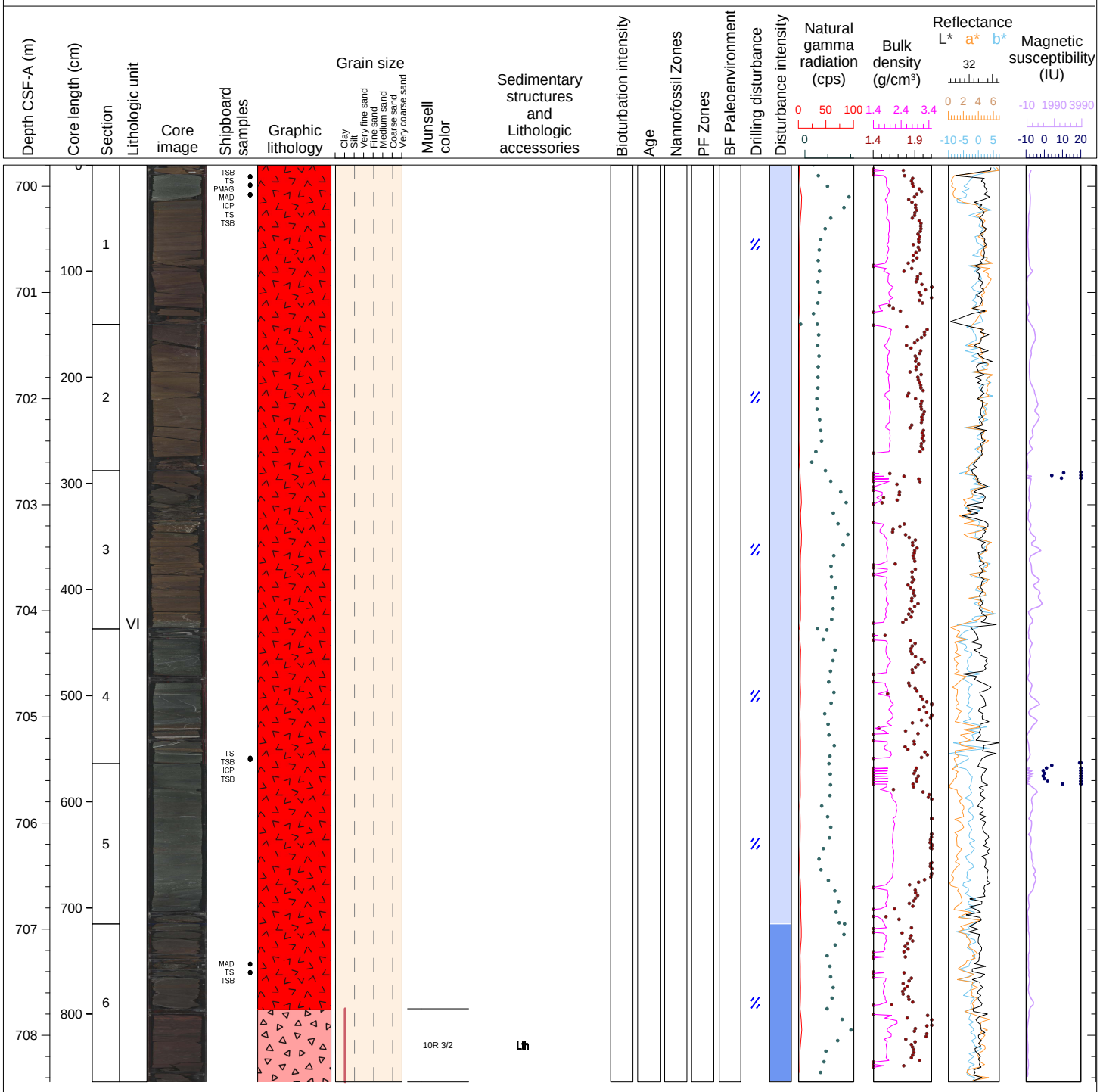
Hole 369-U1513D-67R Section 4, Top of Section: 697.77 m (CSF-A)



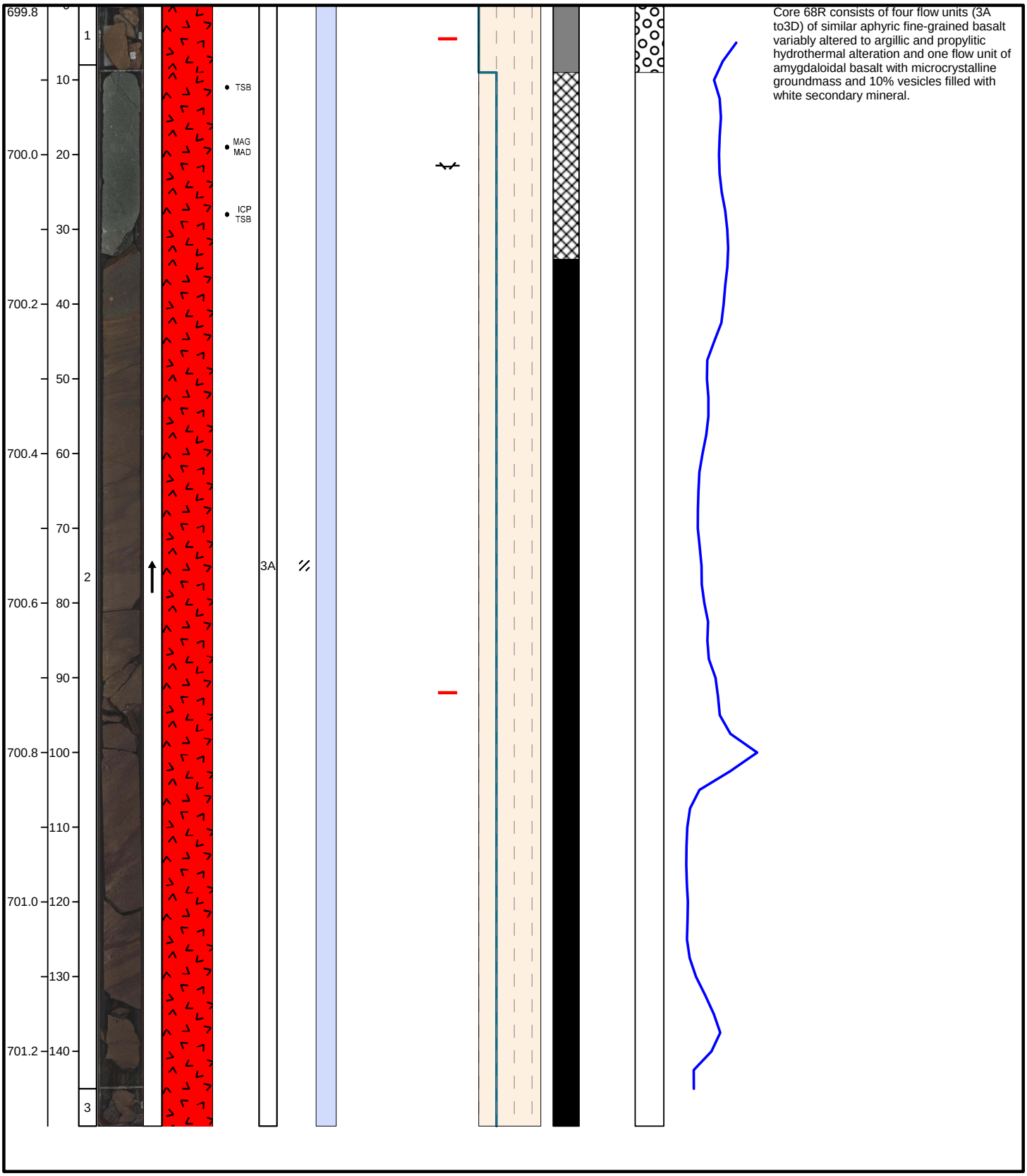
Core 67R consists of greenish gray dolerite dike with an equigranular groundmass and porphyritic texture of megacrystic plagioclase and pyroxene in Sections 1 and 2. Texture grades down from green plagioclase-phyric microcrystalline groundmass to trachytic basalt near the baked contact with reddish-brownish volcaniclastic breccia. In section 4, there is a sharp inclined boundary from brown vesicular basalt to red orange matrix; texture change across sharp boundary from crystalline to clastic indicating reaction boundary between sill/dike and breccia. Contact is marked with a very thin, 1 mm, selvage of chilled margin and a reddish reaction halo (10-25 cm) in basalt and dark red baking color (25-34 cm) that grades to red-brown color of the breccia.

Hole 369-U1513D Core 68R, Interval 699.8-708.44 m (CSF-A)

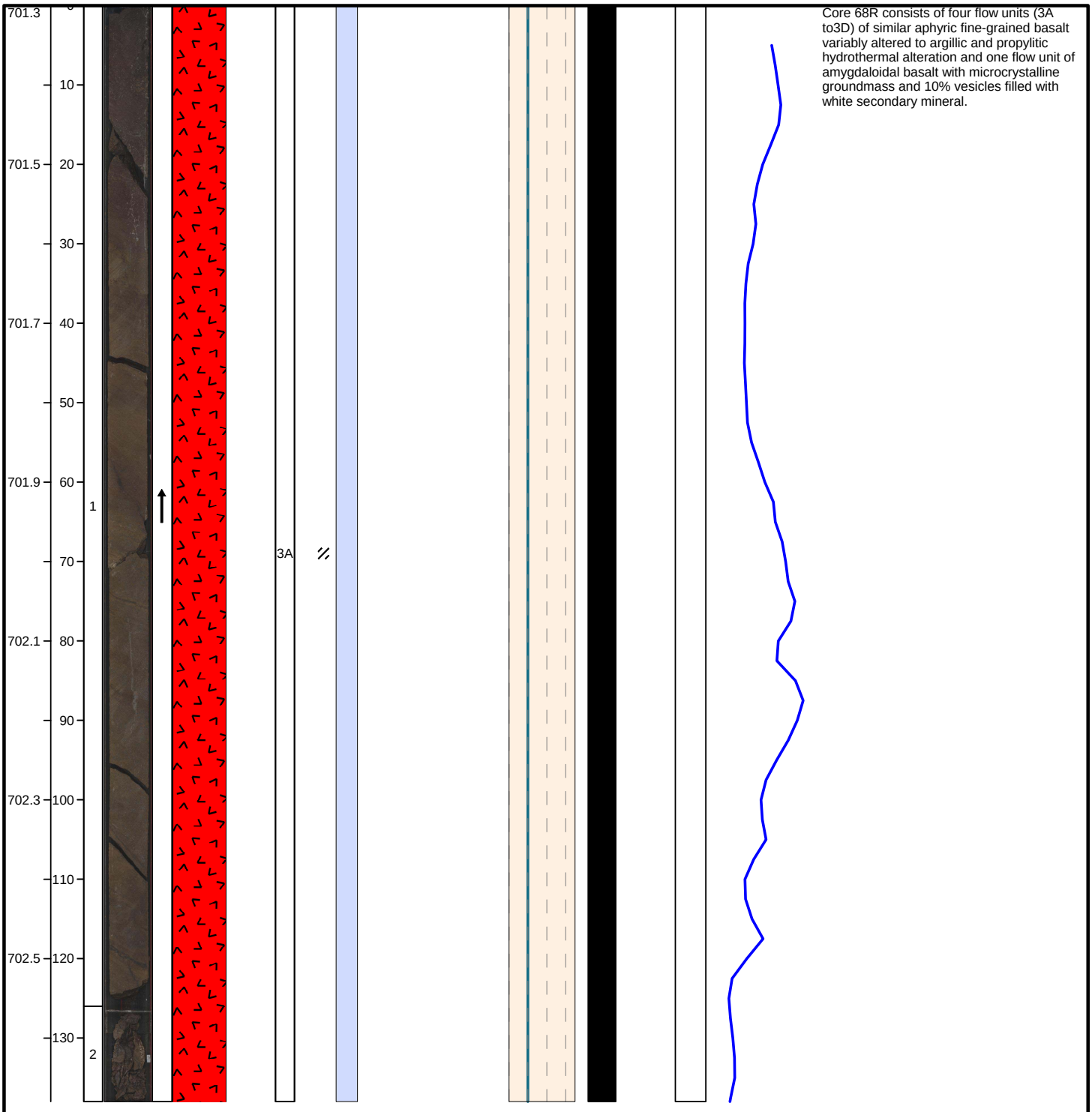
Core 68R consists of four flow units (3A to3D) of similar aphyric fine-grained basalt variably altered to argillic and propylitic hydrothermal alteration and one flow unit of amygdaloidal basalt with microcrystalline groundmass and 10% vesicles filled with white secondary mineral.



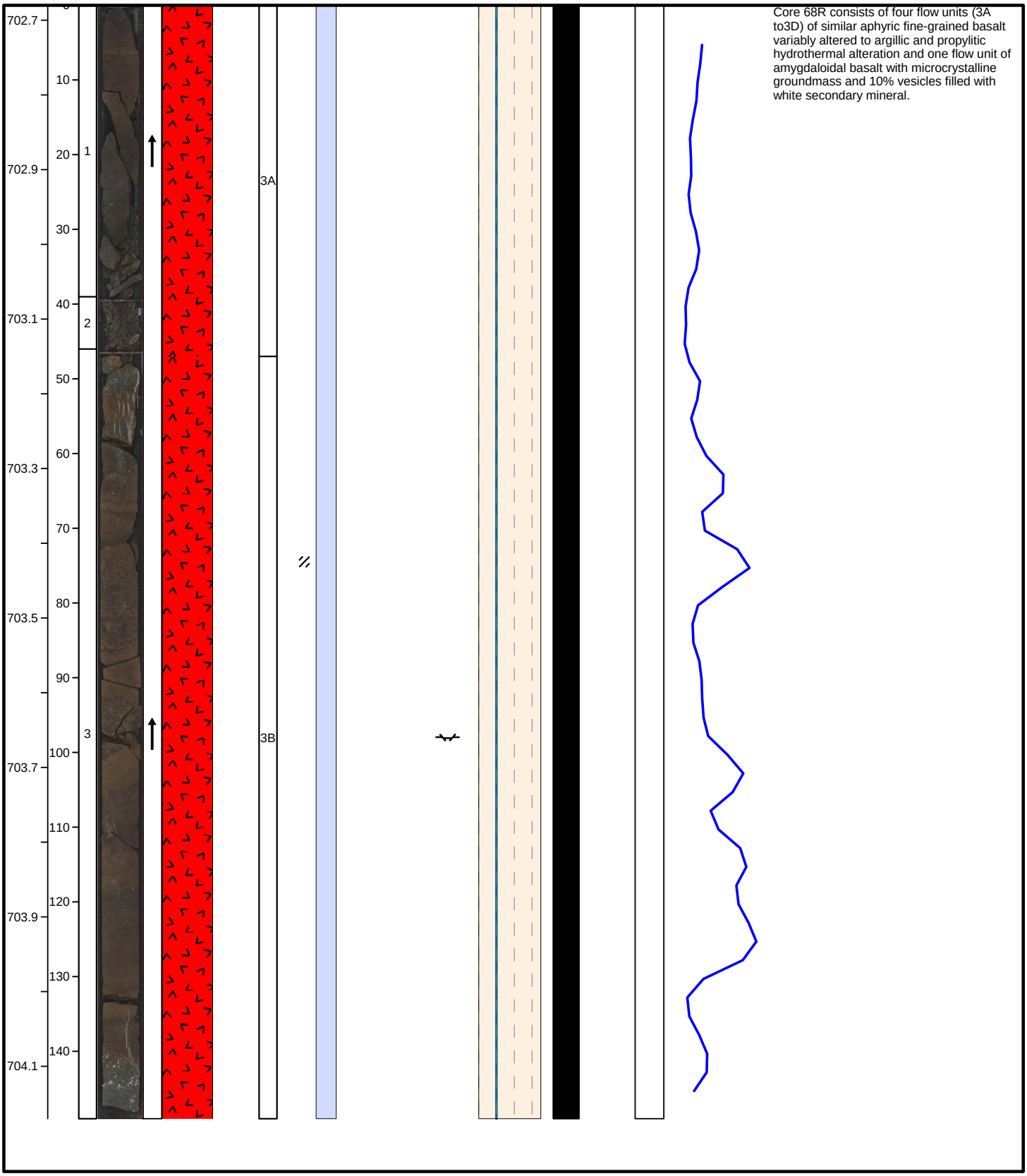
Hole 369-U1513D-68R Section 1, Top of Section: 699.8 m (CSF-A)



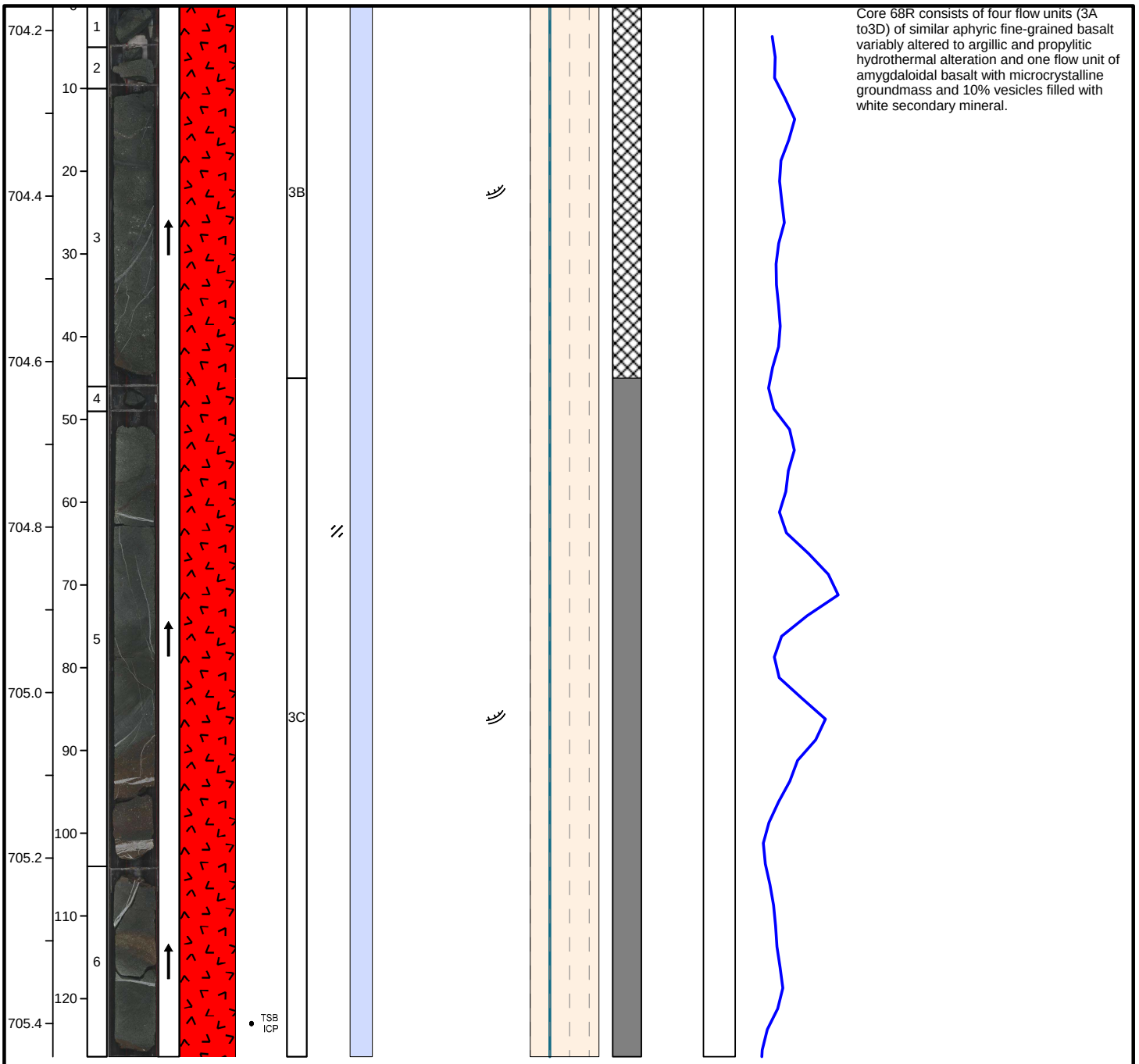
Hole 369-U1513D-68R Section 2, Top of Section: 701.3 m (CSF-A)



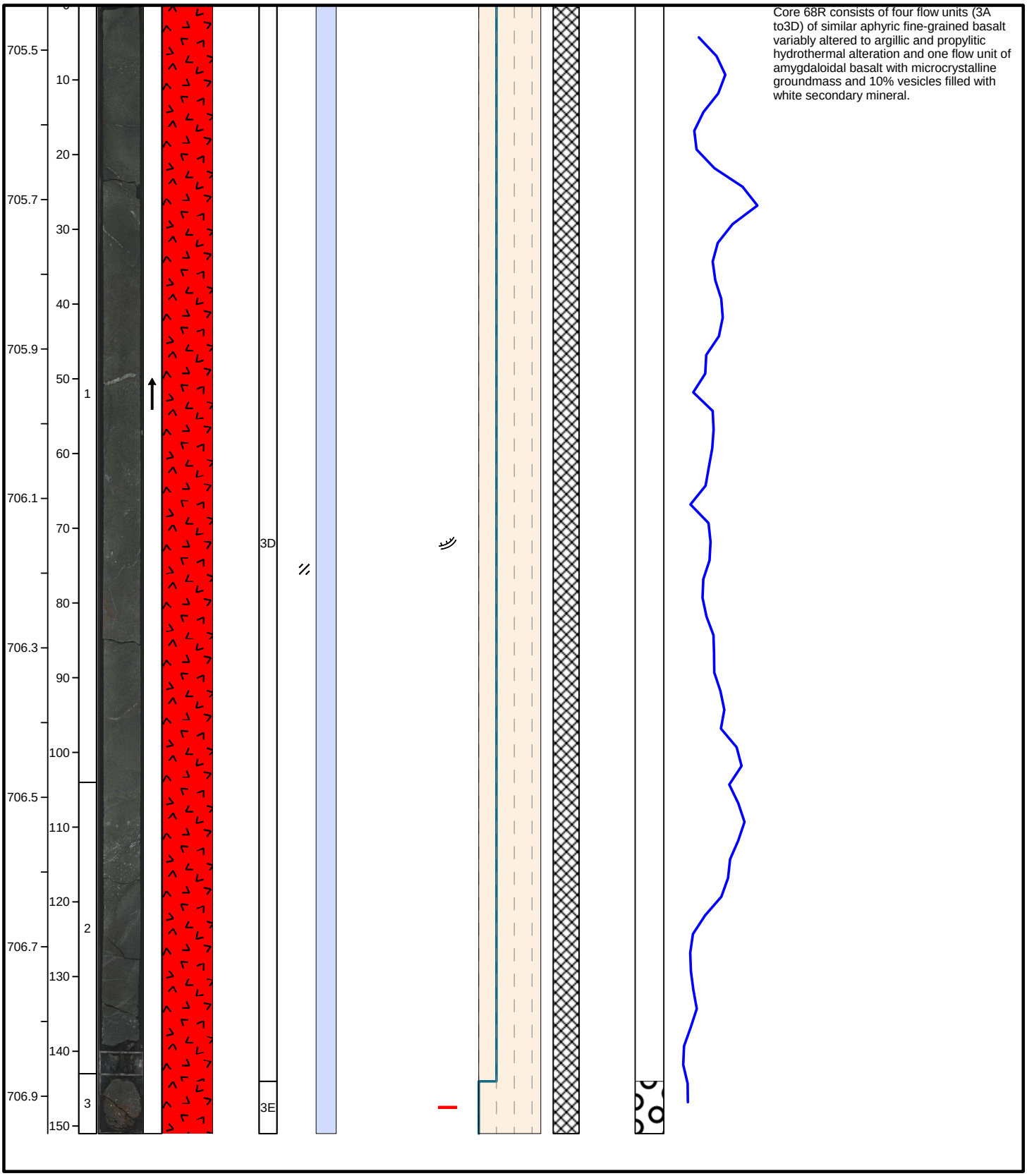
Hole 369-U1513D-68R Section 3, Top of Section: 702.68 m (CSF-A)



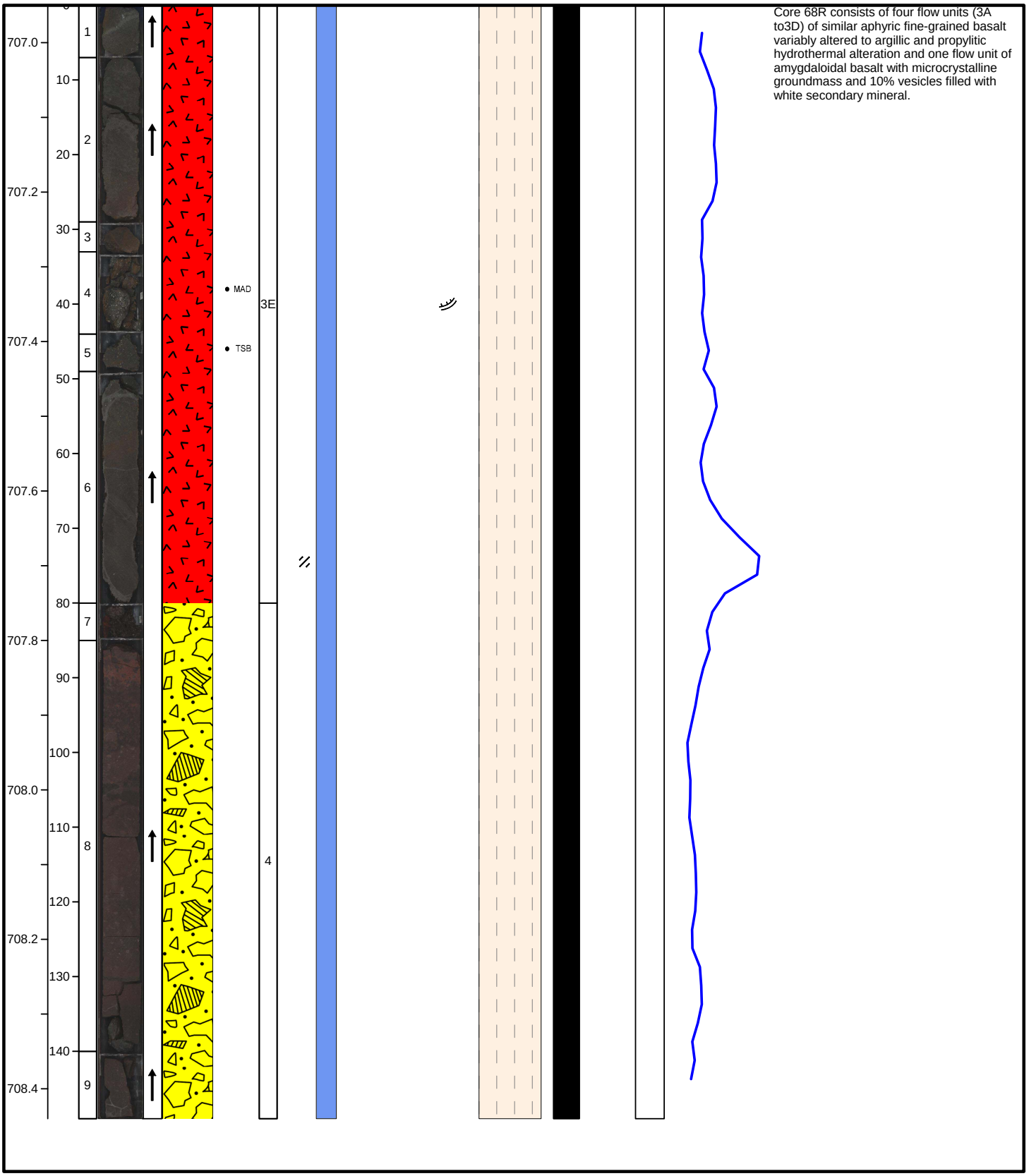
Hole 369-U1513D-68R Section 4, Top of Section: 704.17 m (CSF-A)



Hole 369-U1513D-68R Section 5, Top of Section: 705.44 m (CSF-A)

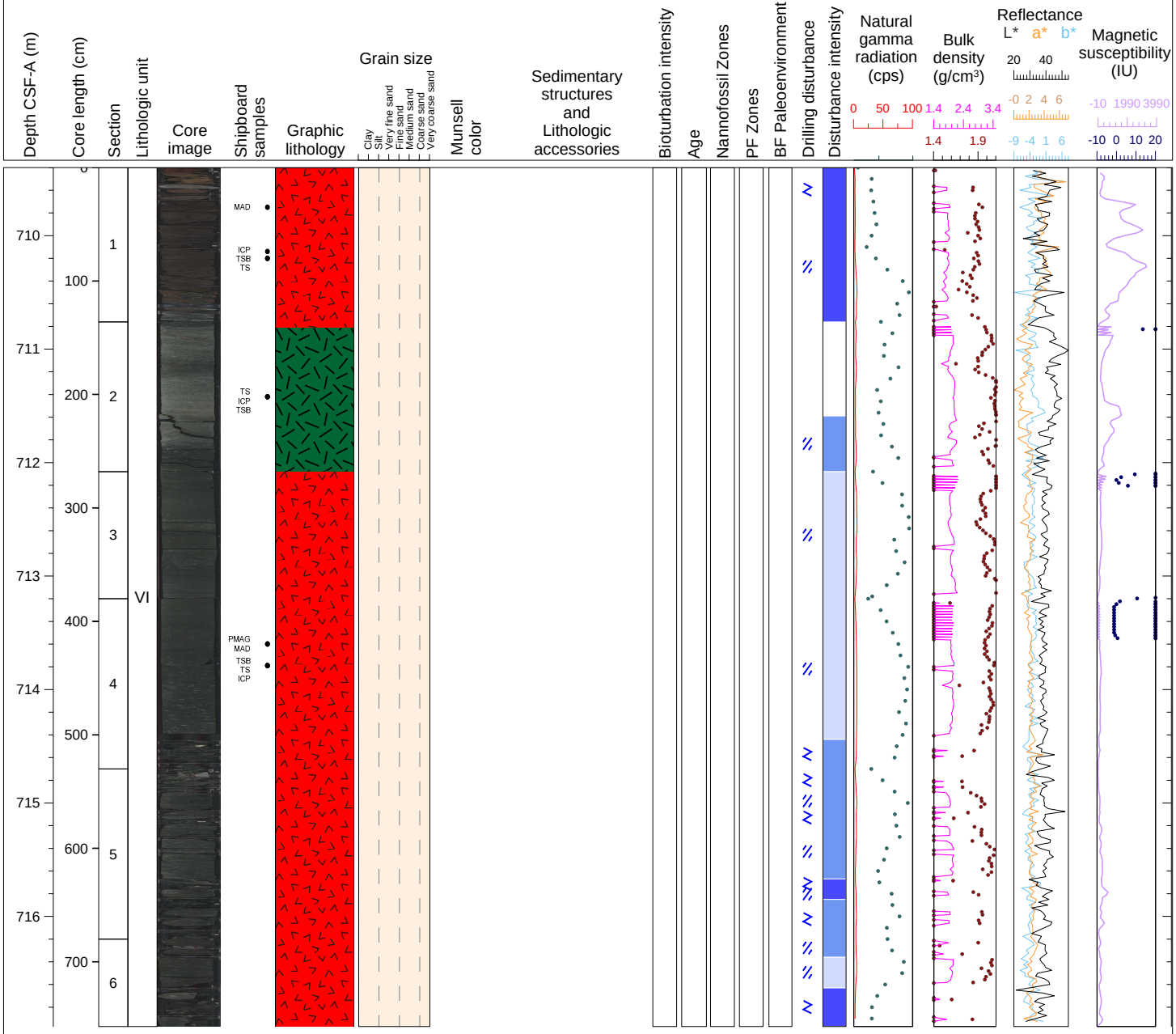


Hole 369-U1513D-68R Section 6, Top of Section: 706.95 m (CSF-A)

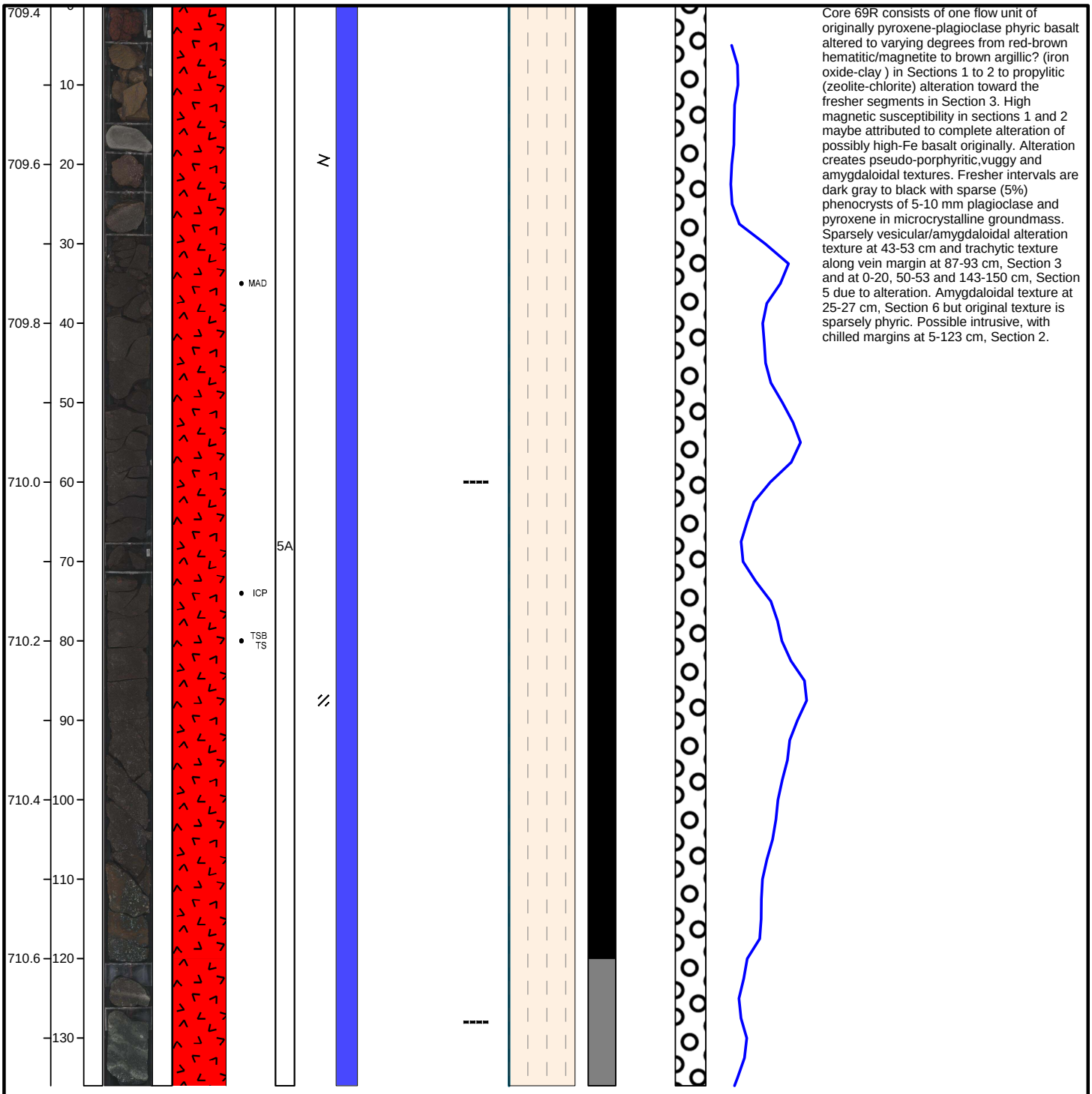


Hole 369-U1513D Core 69R, Interval 709.4-716.97 m (CSF-A)

Core 69R consists of one flow unit of originally pyroxene-plagioclase phyric basalt altered to varying degrees from red-brown hematitic/magnetite to brown argillic? (iron oxide-clay) in Sections 1 to 2 to propylitic (zeolite-chlorite) alteration toward the fresher segments in Section 3. High magnetic susceptibility in sections 1 and 2 maybe attributed to complete alteration of possibly high-Fe basalt originally. Alteration creates pseudo-porphyritic,vuggy and amygdaloidal textures. Fresher intervals are dark gray to black with sparse (5%) phenocrysts of 5-10 mm plagioclase and pyroxene in microcrystalline groundmass. Sparsely vesicular/amygdaloidal alteration texture at 43-53 cm and trachytic texture along vein margin at 87-93 cm, Section 3 and at 0-20, 50-53 and 143-150 cm, Section 5 due to alteration. Amygdaloidal texture at 25-27 cm, Section 6 but original texture is sparsely phyric. Possible intrusive, with chilled margins at 5-123 cm, Section 2.

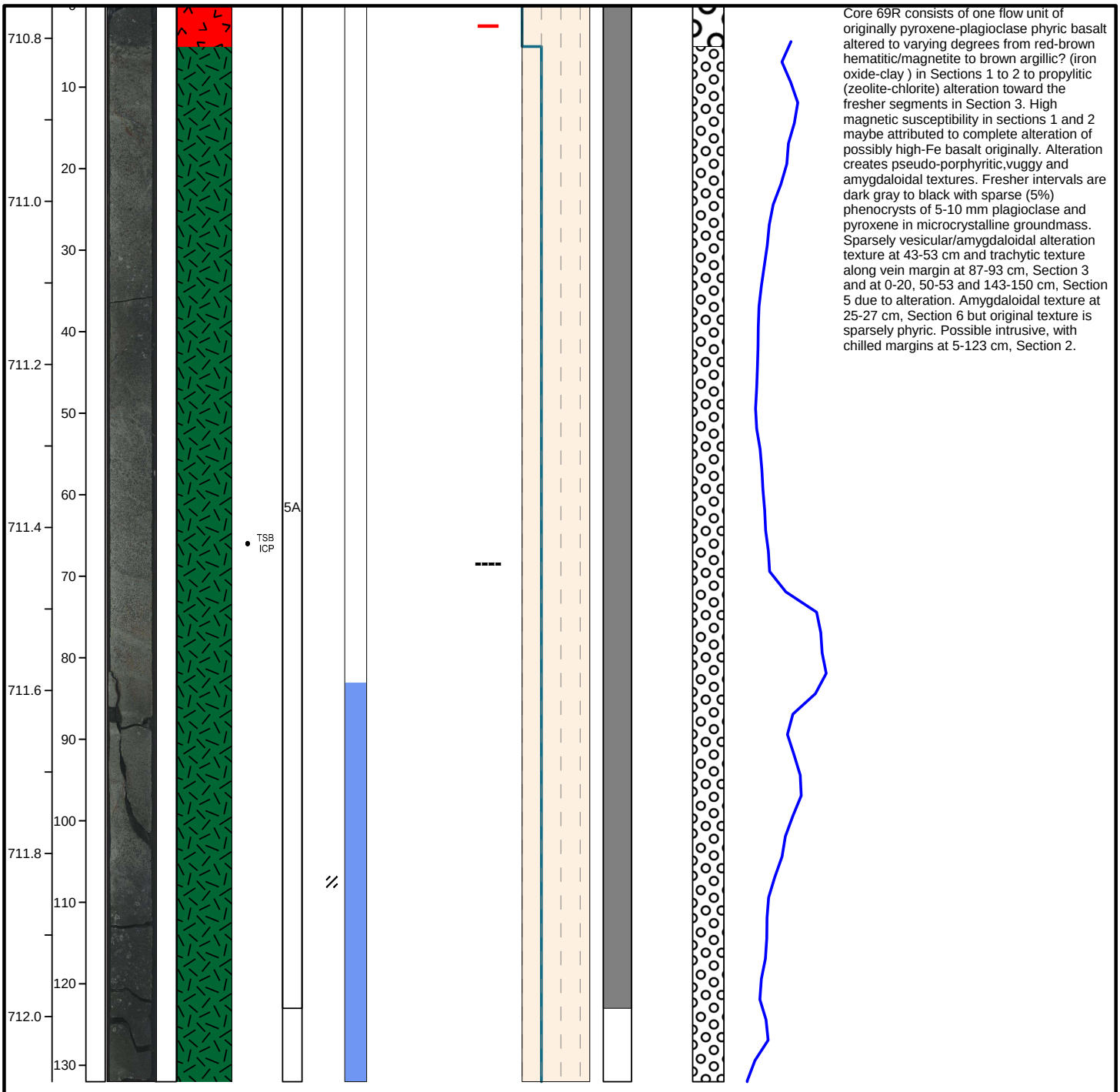


Hole 369-U1513D-69R Section 1, Top of Section: 709.4 m (CSF-A)



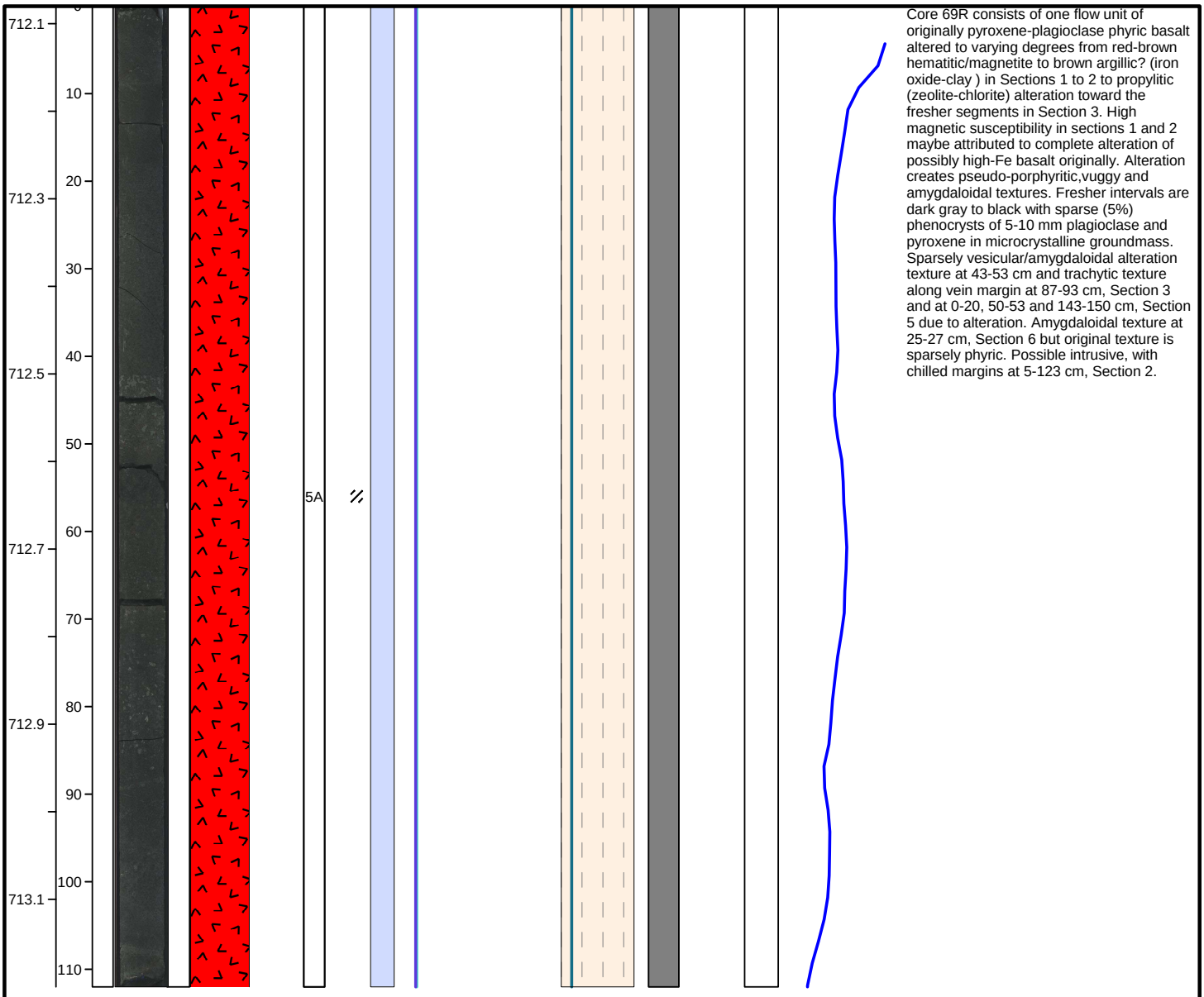
Core 69R consists of one flow unit of originally pyroxene-plagioclase phyric basalt altered to varying degrees from red-brown hematitic/magnetite to brown argillic? (iron oxide-clay) in Sections 1 to 2 to propylitic (zeolite-chlorite) alteration toward the fresher segments in Section 3. High magnetic susceptibility in sections 1 and 2 maybe attributed to complete alteration of possibly high-Fe basalt originally. Alteration creates pseudo-porphyritic,vuggy and amygdaloidal textures. Fresher intervals are dark gray to black with sparse (5%) phenocrysts of 5-10 mm plagioclase and pyroxene in microcrystalline groundmass. Sparsely vesicular/amygdaloidal alteration texture at 43-53 cm and trachytic texture along vein margin at 87-93 cm, Section 3 and at 0-20, 50-53 and 143-150 cm, Section 5 due to alteration. Amygdaloidal texture at 25-27 cm, Section 6 but original texture is sparsely phyric. Possible intrusive, with chilled margins at 5-123 cm, Section 2.

Hole 369-U1513D-69R Section 2, Top of Section: 710.76 m (CSF-A)



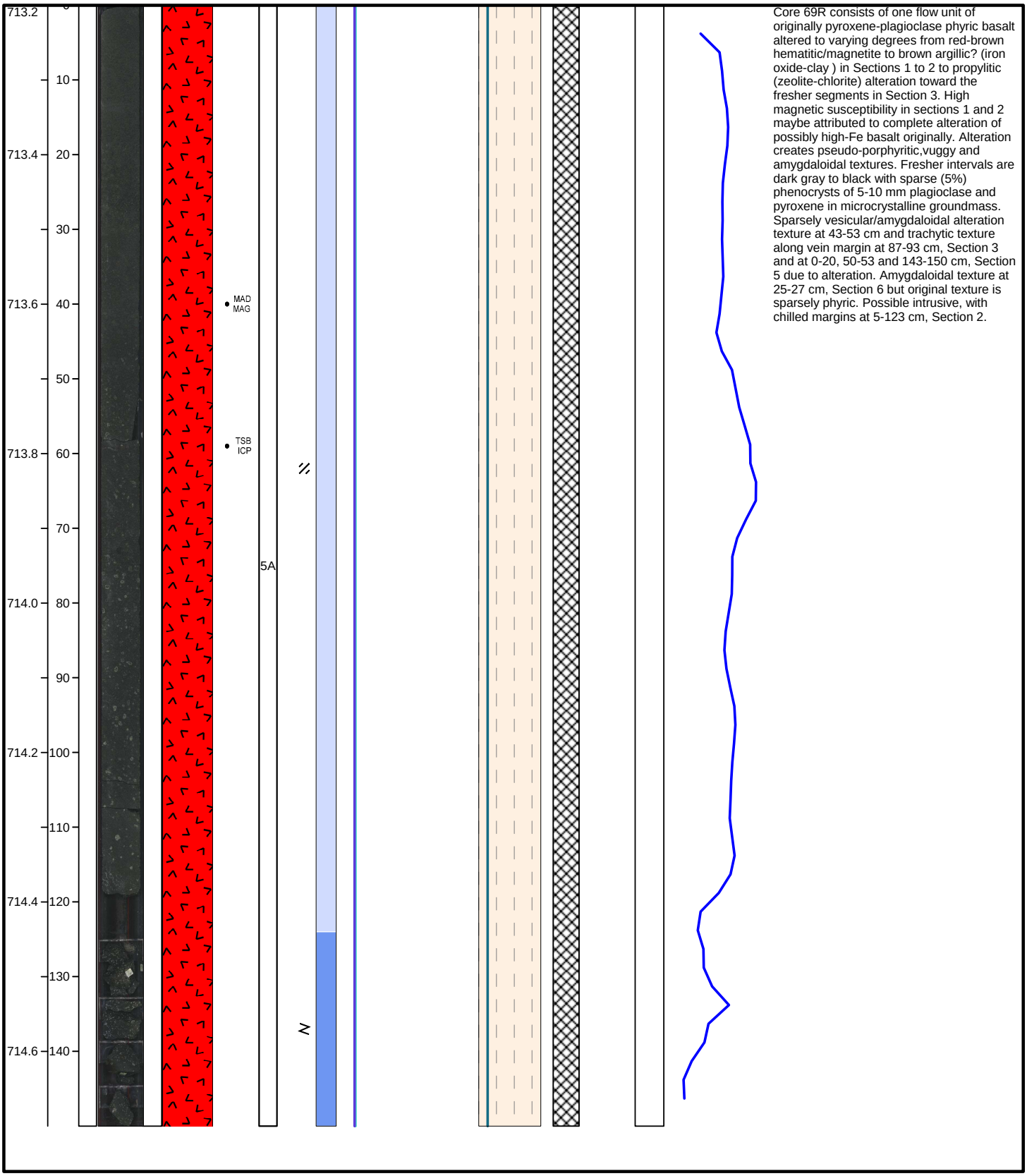
Core 69R consists of one flow unit of originally pyroxene-plagioclase phyric basalt altered to varying degrees from red-brown hematitic/magnetite to brown argillic? (iron oxide-clay) in Sections 1 to 2 to propylitic (zeolite-chlorite) alteration toward the fresher segments in Section 3. High magnetic susceptibility in sections 1 and 2 maybe attributed to complete alteration of possibly high-Fe basalt originally. Alteration creates pseudo-porphyritic,vuggy and amygdaloidal textures. Fresher intervals are dark gray to black with sparse (5%) phenocrysts of 5-10 mm plagioclase and pyroxene in microcrystalline groundmass. Sparsely vesicular/amygdaloidal alteration texture at 43-53 cm and trachytic texture along vein margin at 87-93 cm, Section 3 and at 0-20, 50-53 and 143-150 cm, Section 5 due to alteration. Amygdaloidal texture at 25-27 cm, Section 6 but original texture is sparsely phyric. Possible intrusive, with chilled margins at 5-123 cm, Section 2.

Hole 369-U1513D-69R Section 3, Top of Section: 712.08 m (CSF-A)



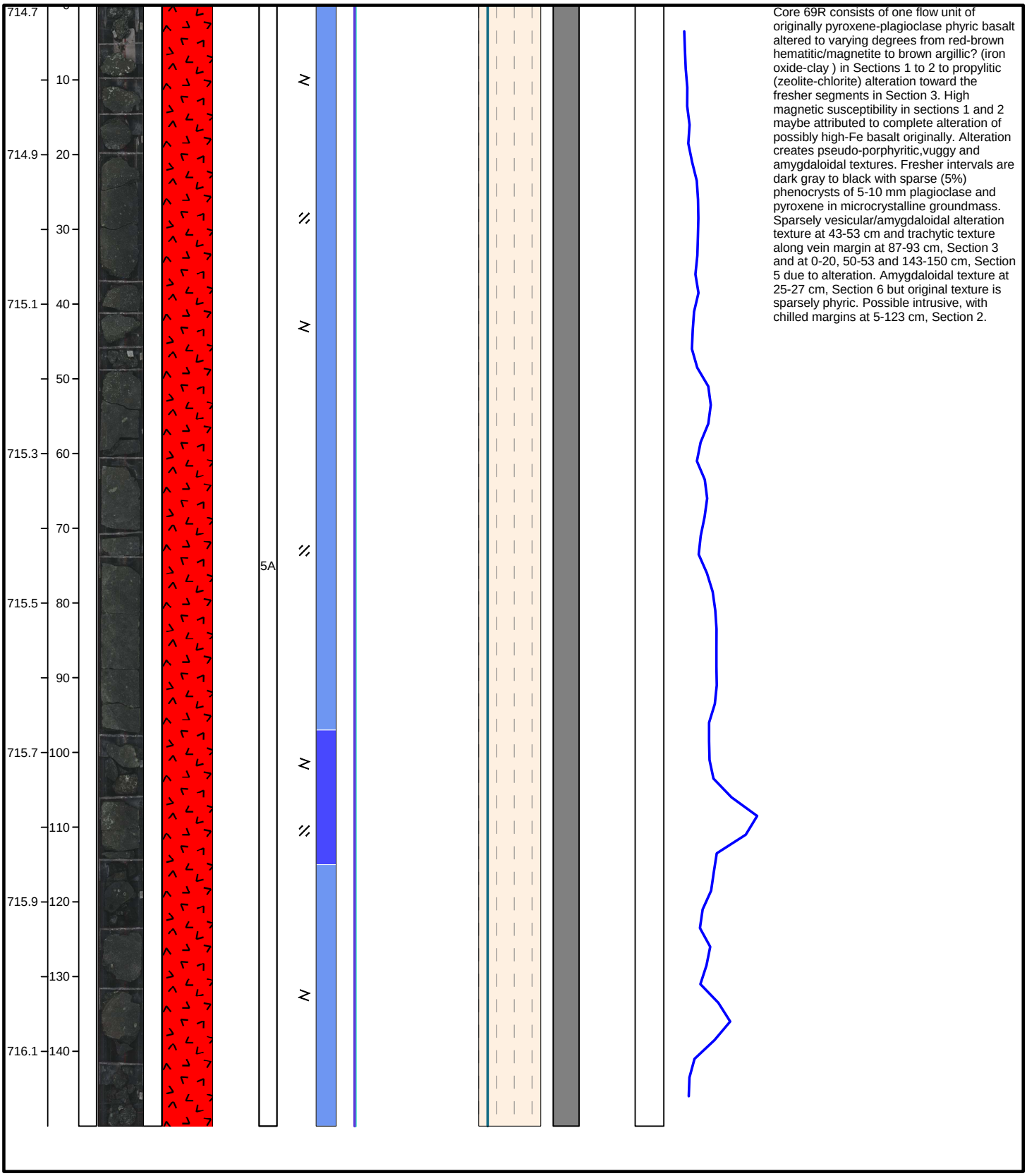
Core 69R consists of one flow unit of originally pyroxene-plagioclase phyric basalt altered to varying degrees from red-brown hematitic/magnetite to brown argillic? (iron oxide-clay) in Sections 1 to 2 to propylitic (zeolite-chlorite) alteration toward the fresher segments in Section 3. High magnetic susceptibility in sections 1 and 2 maybe attributed to complete alteration of possibly high-Fe basalt originally. Alteration creates pseudo-porphyritic,vuggy and amygdaloidal textures. Fresher intervals are dark gray to black with sparse (5%) phenocrysts of 5-10 mm plagioclase and pyroxene in microcrystalline groundmass. Sparsely vesicular/amygdaloidal alteration texture at 43-53 cm and trachytic texture along vein margin at 87-93 cm, Section 3 and at 0-20, 50-53 and 143-150 cm, Section 5 due to alteration. Amygdaloidal texture at 25-27 cm, Section 6 but original texture is sparsely phyric. Possible intrusive, with chilled margins at 5-123 cm, Section 2.

Hole 369-U1513D-69R Section 4, Top of Section: 713.2 m (CSF-A)

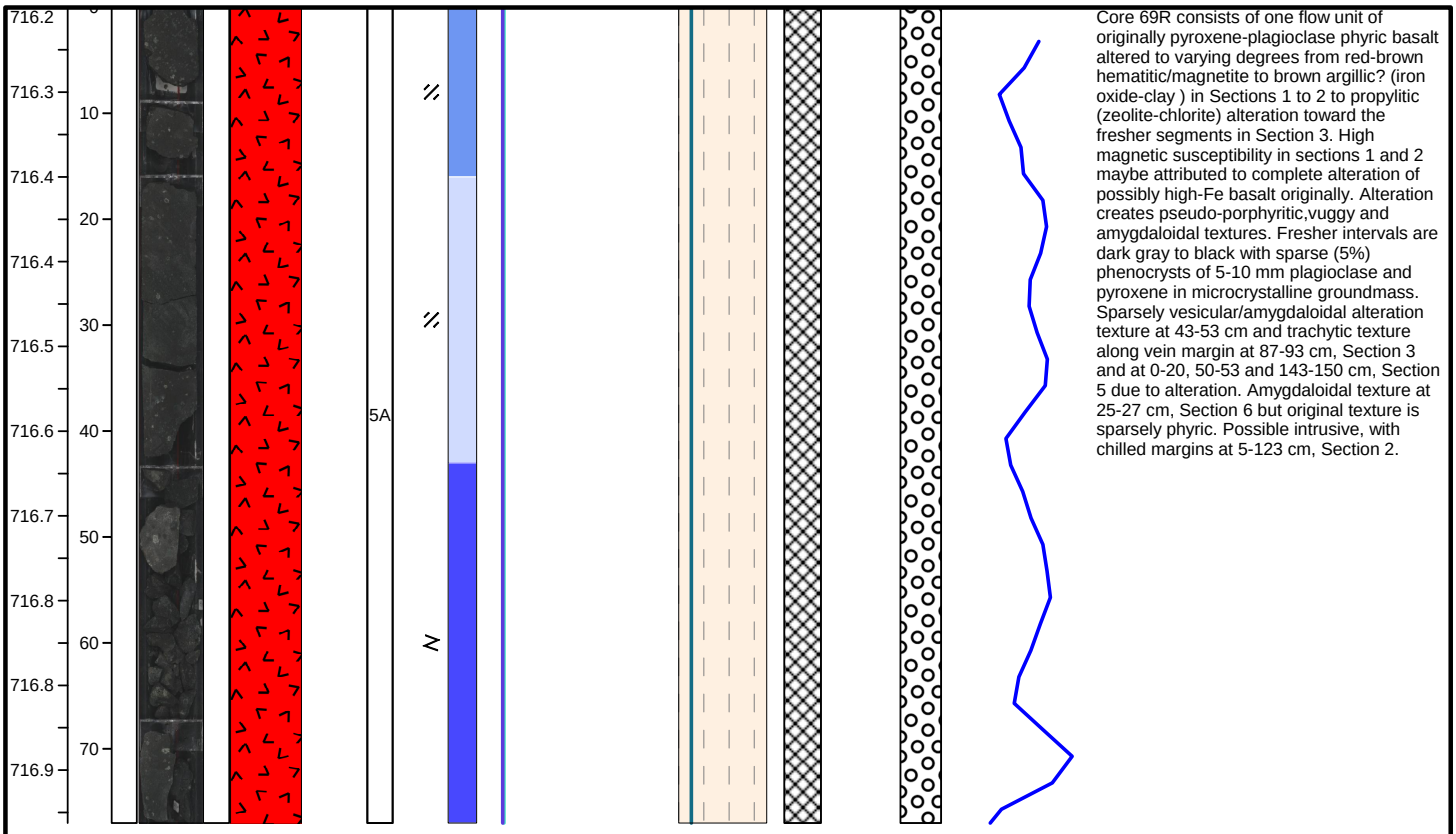


Core 69R consists of one flow unit of originally pyroxene-plagioclase phyric basalt altered to varying degrees from red-brown hematitic/magnetite to brown argillic? (iron oxide-clay) in Sections 1 to 2 to propylitic (zeolite-chlorite) alteration toward the fresher segments in Section 3. High magnetic susceptibility in sections 1 and 2 maybe attributed to complete alteration of possibly high-Fe basalt originally. Alteration creates pseudo-porphyritic,vuggy and amygdaloidal textures. Fresher intervals are dark gray to black with sparse (5%) phenocrysts of 5-10 mm plagioclase and pyroxene in microcrystalline groundmass. Sparsely vesicular/amygdaloidal alteration texture at 43-53 cm and trachytic texture along vein margin at 87-93 cm, Section 3 and at 0-20, 50-53 and 143-150 cm, Section 5 due to alteration. Amygdaloidal texture at 25-27 cm, Section 6 but original texture is sparsely phyric. Possible intrusive, with chilled margins at 5-123 cm, Section 2.

Hole 369-U1513D-69R Section 5, Top of Section: 714.7 m (CSF-A)



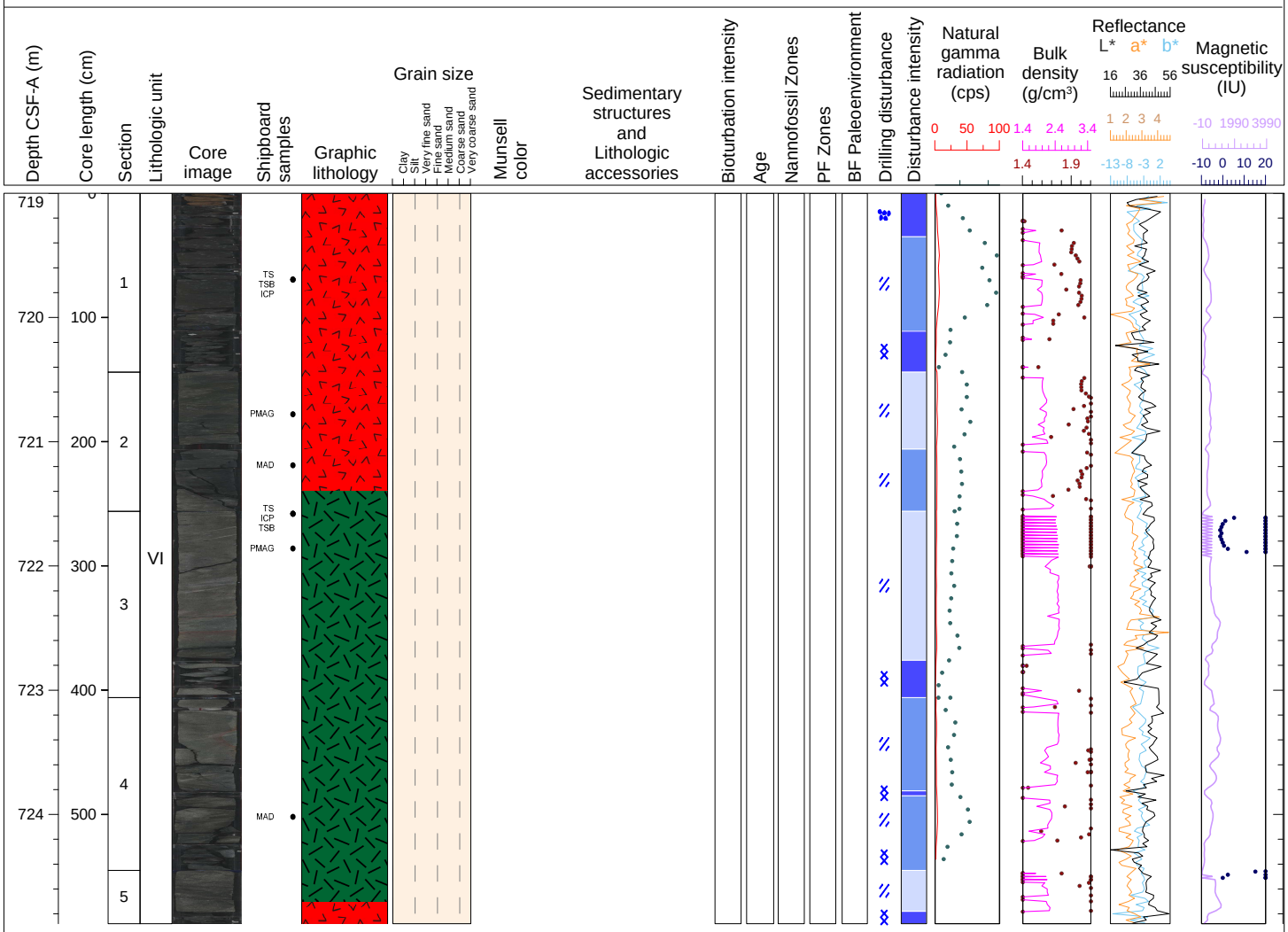
Hole 369-U1513D-69R Section 6, Top of Section: 716.2 m (CSF-A)



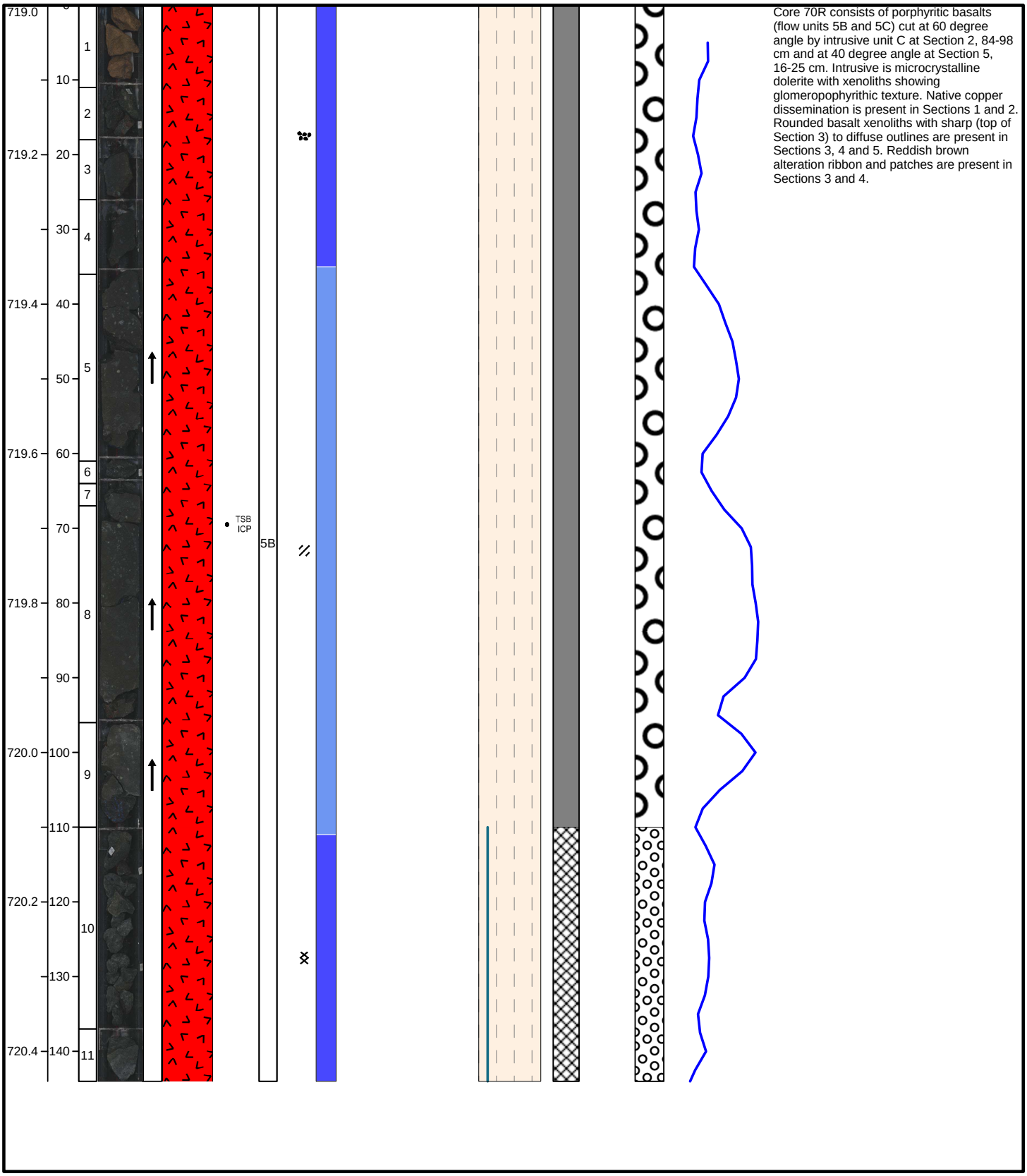
Core 69R consists of one flow unit of originally pyroxene-plagioclase phyric basalt altered to varying degrees from red-brown hematitic/magnetite to brown argillic? (iron oxide-clay) in Sections 1 to 2 to propylitic (zeolite-chlorite) alteration toward the fresher segments in Section 3. High magnetic susceptibility in sections 1 and 2 maybe attributed to complete alteration of possibly high-Fe basalt originally. Alteration creates pseudo-porphyritic,vuggy and amygdaloidal textures. Fresher intervals are dark gray to black with sparse (5%) phenocrysts of 5-10 mm plagioclase and pyroxene in microcrystalline groundmass. Sparsely vesicular/amygdaloidal alteration texture at 43-53 cm and trachytic texture along vein margin at 87-93 cm, Section 3 and at 0-20, 50-53 and 143-150 cm, Section 5 due to alteration. Amygdaloidal texture at 25-27 cm, Section 6 but original texture is sparsely phyric. Possible intrusive, with chilled margins at 5-123 cm, Section 2.

Hole 369-U1513D Core 70R, Interval 719.0-724.88 m (CSF-A)

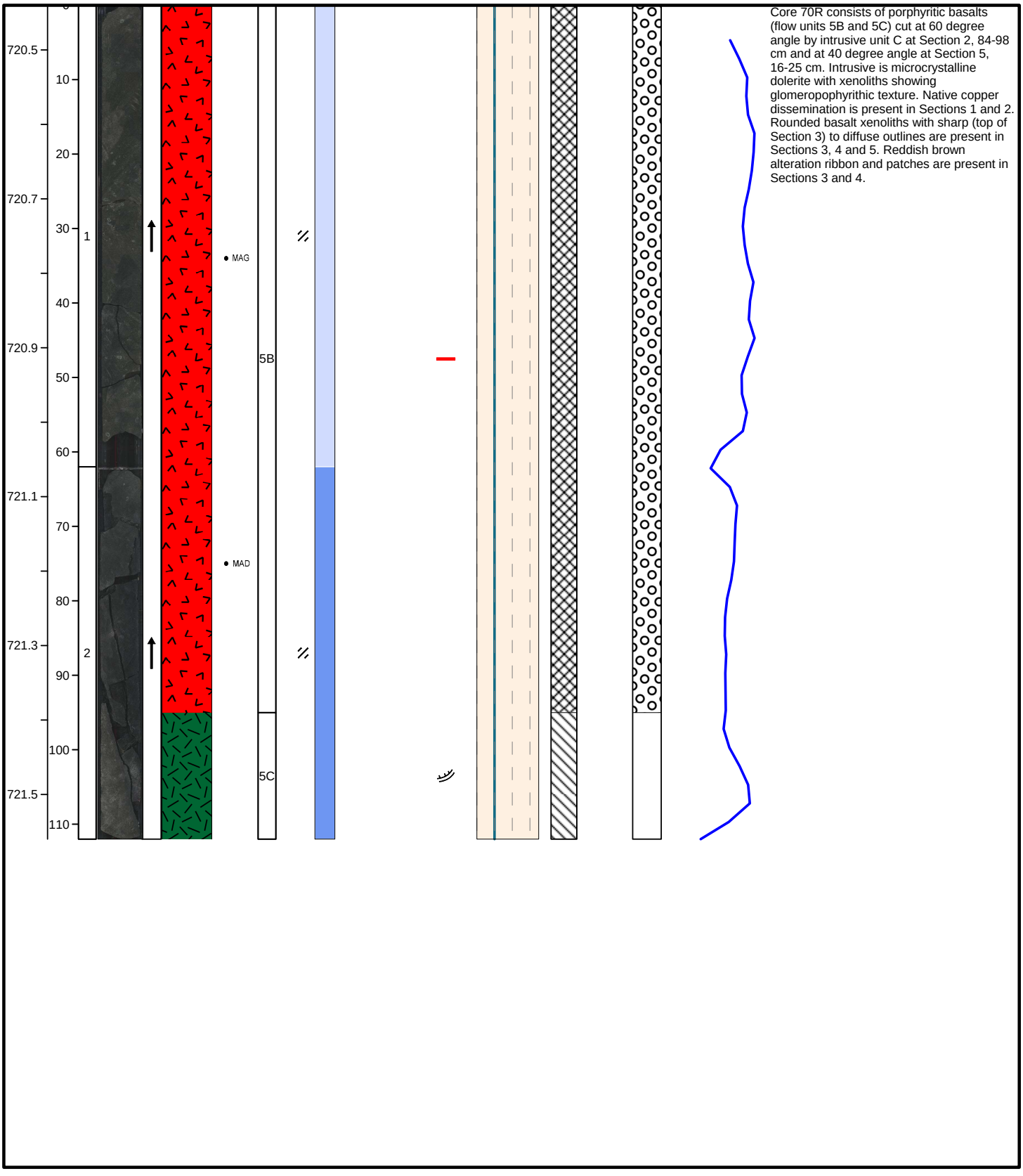
Core 70R consists of porphyritic basalts (flow units 5B and 5C) cut at 60 degree angle by intrusive unit C at Section 2, 84-98 cm and at 40 degree angle at Section 5, 16-25 cm. Intrusive is microcrystalline dolerite with xenoliths showing glomeropophyrithic texture. Native copper dissemination is present in Sections 1 and 2. Rounded basalt xenoliths with sharp (top of Section 3) to diffuse outlines are present in Sections 3, 4 and 5. Reddish brown alteration ribbon and patches are present in Sections 3 and 4.



Hole 369-U1513D-70R Section 1, Top of Section: 719.0 m (CSF-A)

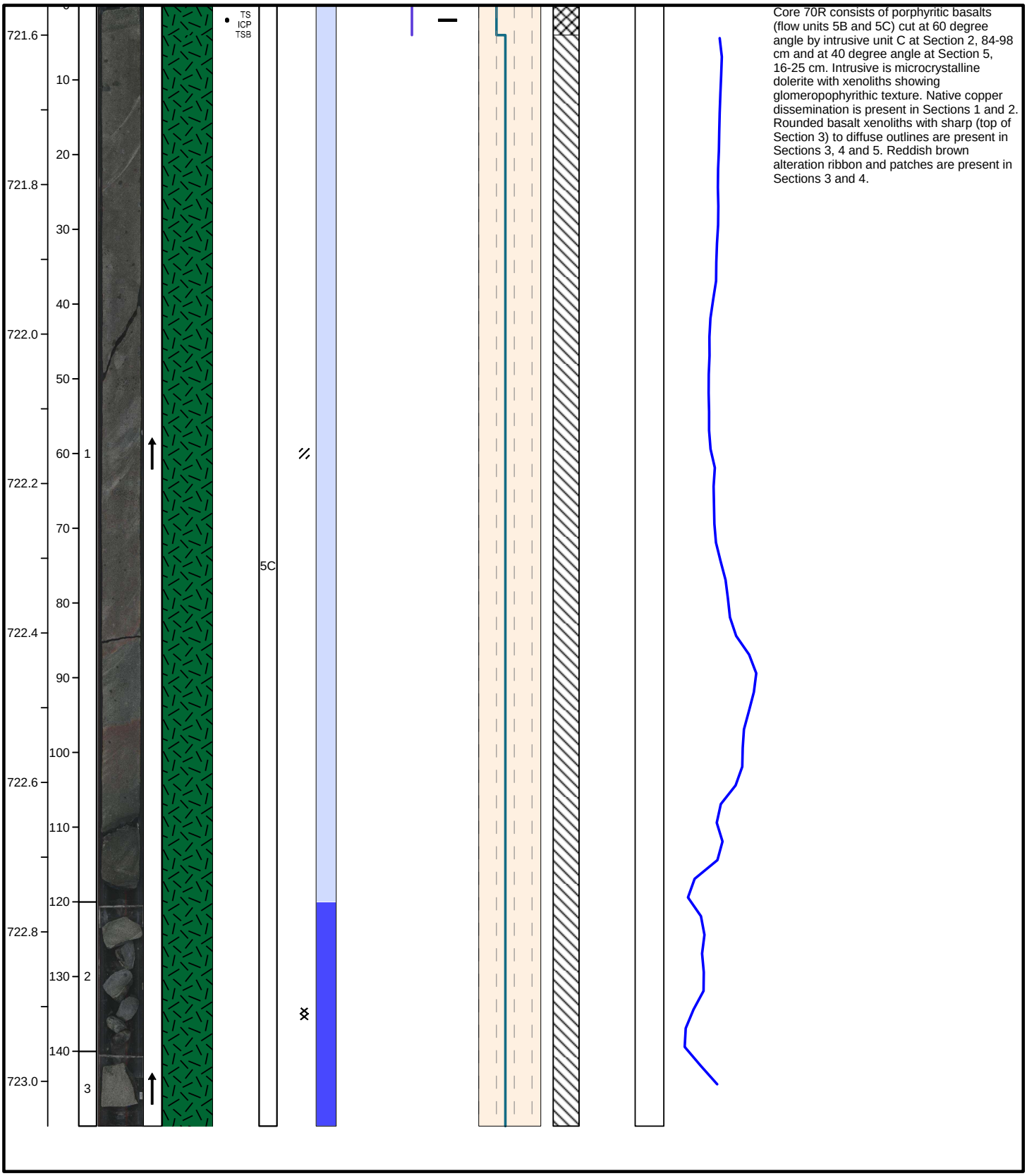


Hole 369-U1513D-70R Section 2, Top of Section: 720.44 m (CSF-A)



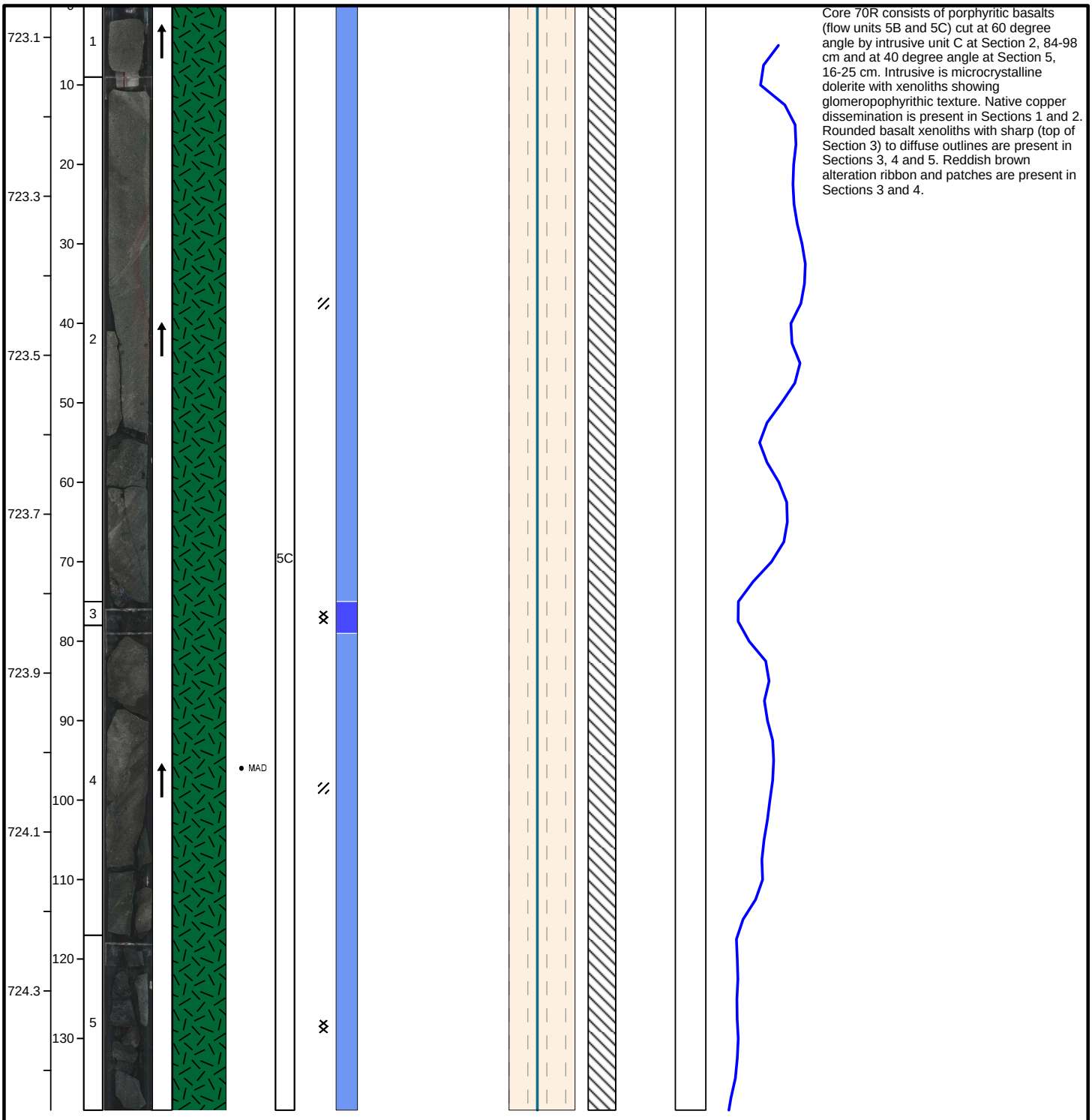
Core 70R consists of porphyritic basalts (flow units 5B and 5C) cut at 60 degree angle by intrusive unit C at Section 2, 84-98 cm and at 40 degree angle at Section 5, 16-25 cm. Intrusive is microcrystalline dolerite with xenoliths showing glomeropophyritic texture. Native copper dissemination is present in Sections 1 and 2. Rounded basalt xenoliths with sharp (top of Section 3) to diffuse outlines are present in Sections 3, 4 and 5. Reddish brown alteration ribbon and patches are present in Sections 3 and 4.

Hole 369-U1513D-70R Section 3, Top of Section: 721.56 m (CSF-A)



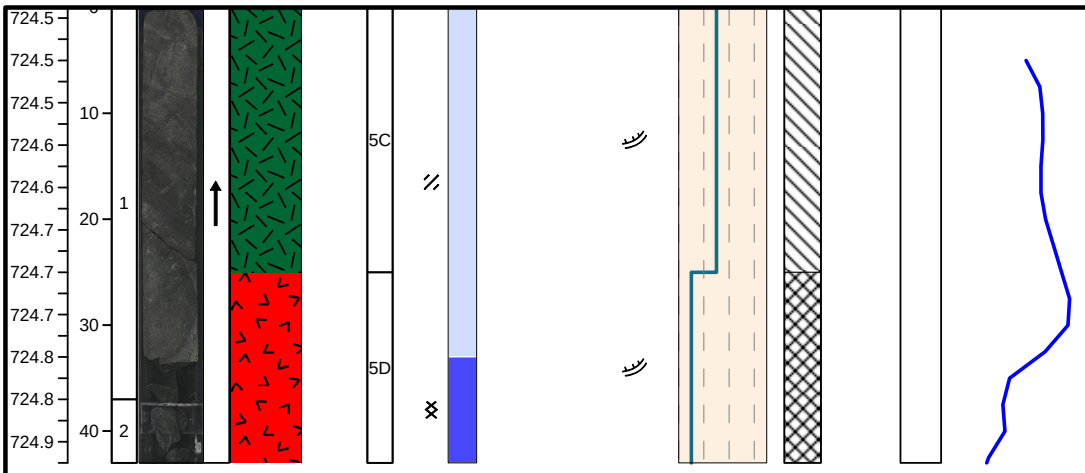
Core 70R consists of porphyritic basalts (flow units 5B and 5C) cut at 60 degree angle by intrusive unit C at Section 2, 84-98 cm and at 40 degree angle at Section 5, 16-25 cm. Intrusive is microcrystalline dolerite with xenoliths showing glomeropophyrithic texture. Native copper dissemination is present in Sections 1 and 2. Rounded basalt xenoliths with sharp (top of Section 3) to diffuse outlines are present in Sections 3, 4 and 5. Reddish brown alteration ribbon and patches are present in Sections 3 and 4.

Hole 369-U1513D-70R Section 4, Top of Section: 723.06 m (CSF-A)



Core 70R consists of porphyritic basalts (flow units 5B and 5C) cut at 60 degree angle by intrusive unit C at Section 2, 84-98 cm and at 40 degree angle at Section 5, 16-25 cm. Intrusive is microcrystalline dolerite with xenoliths showing glomeropophyritic texture. Native copper dissemination is present in Sections 1 and 2. Rounded basalt xenoliths with sharp (top of Section 3) to diffuse outlines are present in Sections 3, 4 and 5. Reddish brown alteration ribbon and patches are present in Sections 3 and 4.

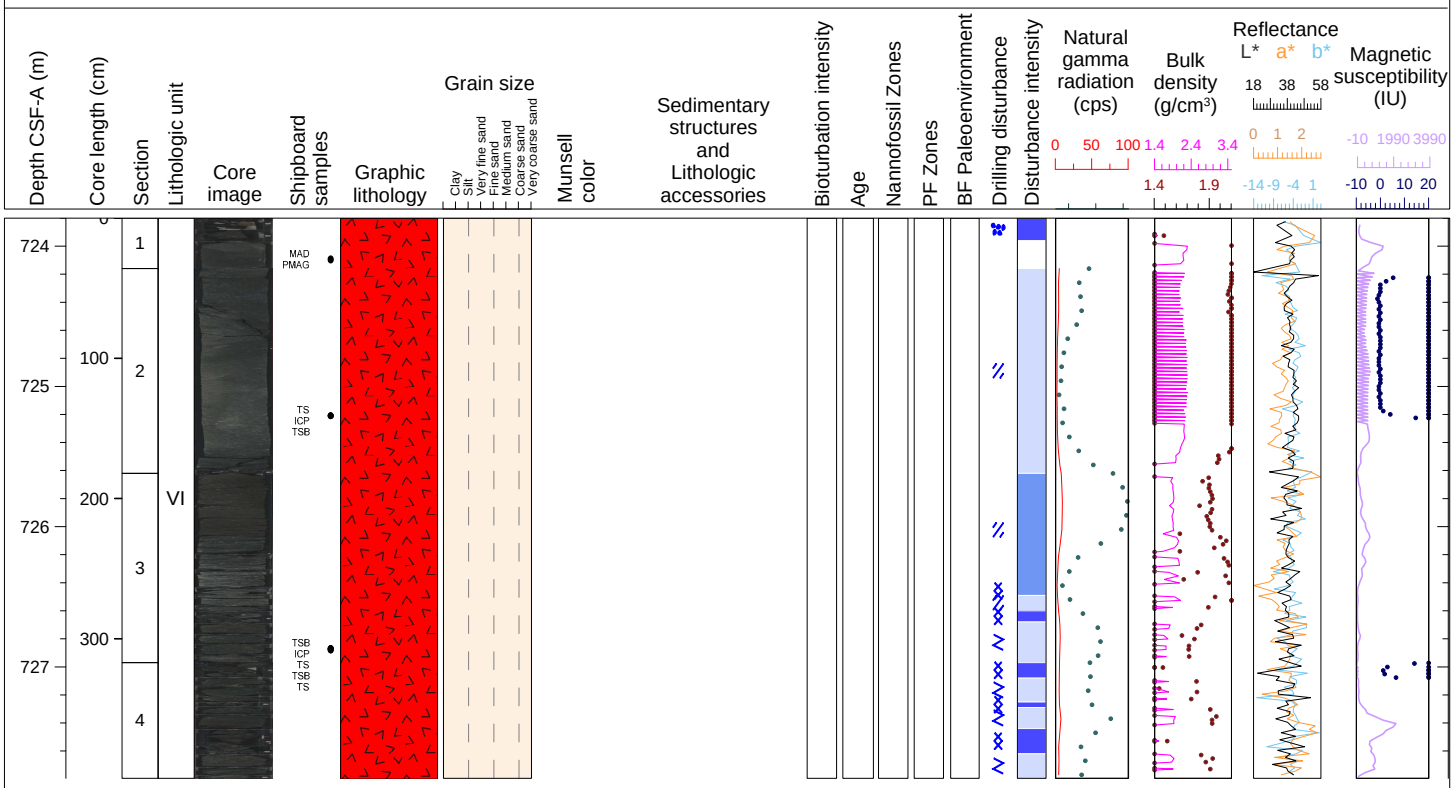
Hole 369-U1513D-70R Section 5, Top of Section: 724.45 m (CSF-A)



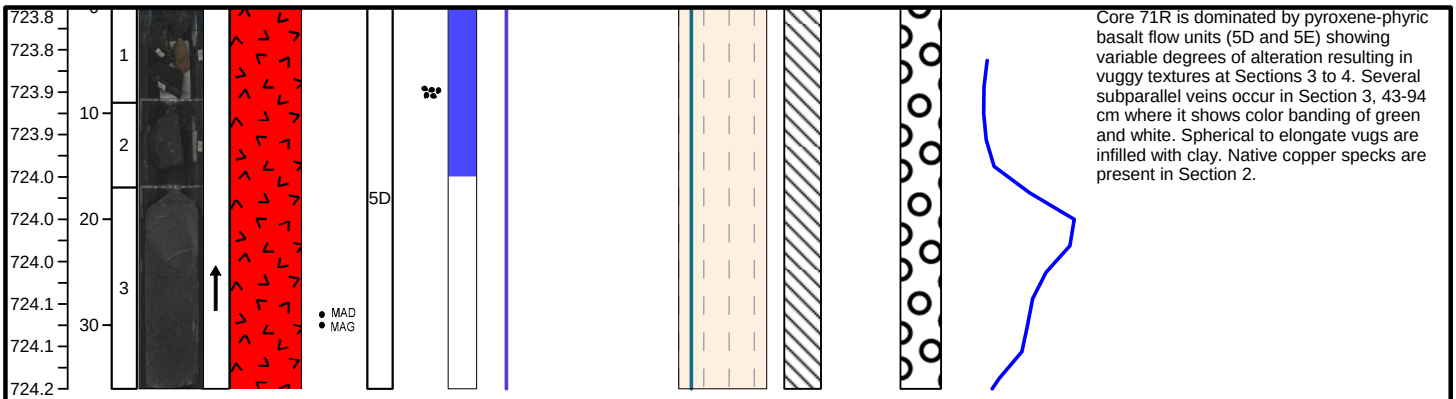
Core 70R consists of porphyritic basalts (flow units 5B and 5C) cut at 60 degree angle by intrusive unit C at Section 2, 84-98 cm and at 40 degree angle at Section 5, 16-25 cm. Intrusive is microcrystalline dolerite with xenoliths showing glomeropophyritic texture. Native copper dissemination is present in Sections 1 and 2. Rounded basalt xenoliths with sharp (top of Section 3) to diffuse outlines are present in Sections 3, 4 and 5. Reddish brown alteration ribbon and patches are present in Sections 3 and 4.

Hole 369-U1513D Core 71R, Interval 723.8-727.795 m (CSF-A)

Core 71R is dominated by pyroxene-phyric basalt flow units (5D and 5E) showing variable degrees of alteration resulting in vuggy textures at Sections 3 to 4. Several subparallel veins occur in Section 3, 43-94 cm where it shows color banding of green and white. Spherical to elongate vugs are infilled with clay. Native copper specks are present in Section 2.

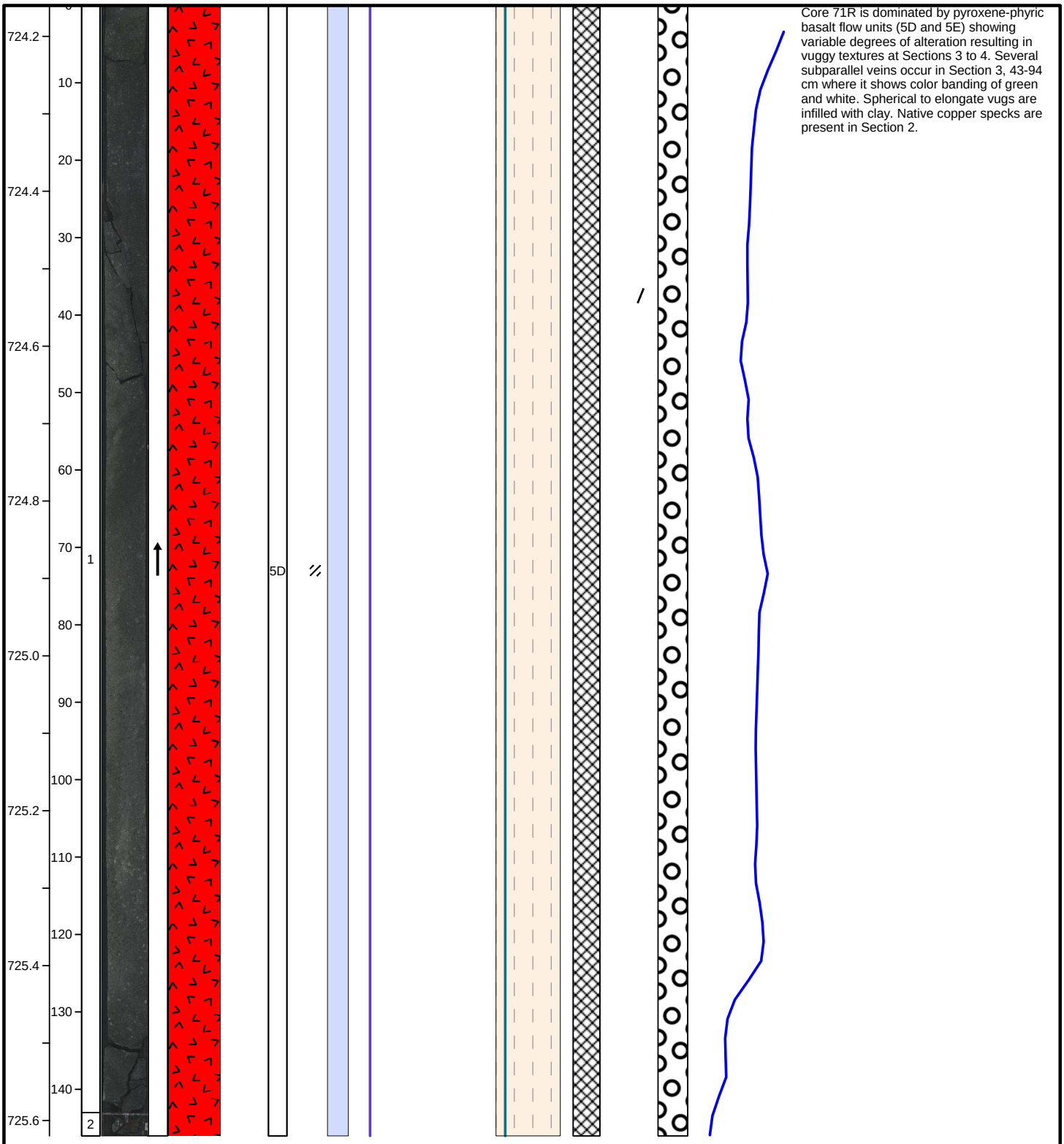


Hole 369-U1513D-71R Section 1, Top of Section: 723.8 m (CSF-A)

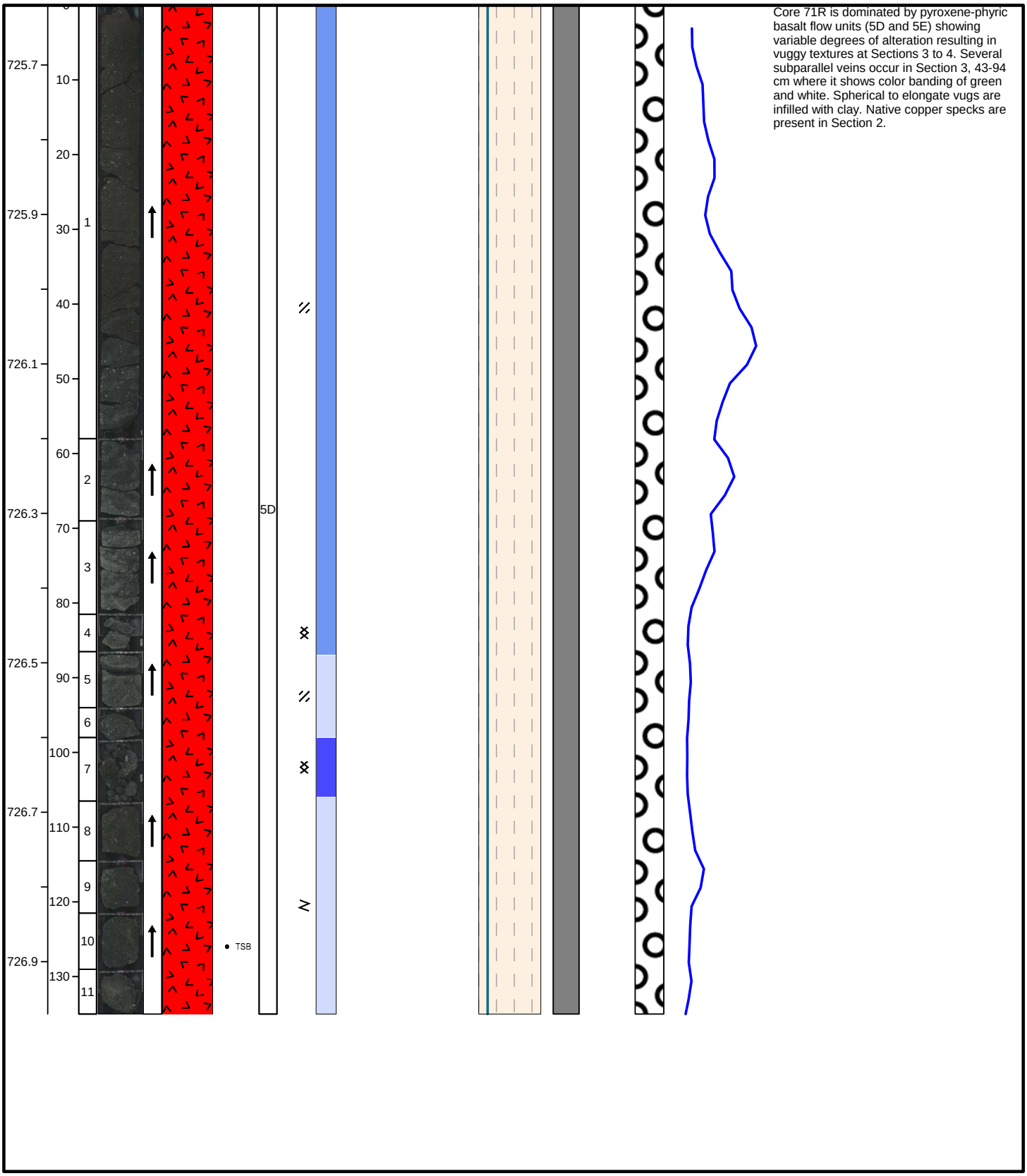


Core 71R is dominated by pyroxene-phyric basalt flow units (5D and 5E) showing variable degrees of alteration resulting in vuggy textures at Sections 3 to 4. Several subparallel veins occur in Section 3, 43-94 cm where it shows color banding of green and white. Spherical to elongate vugs are infilled with clay. Native copper specks are present in Section 2.

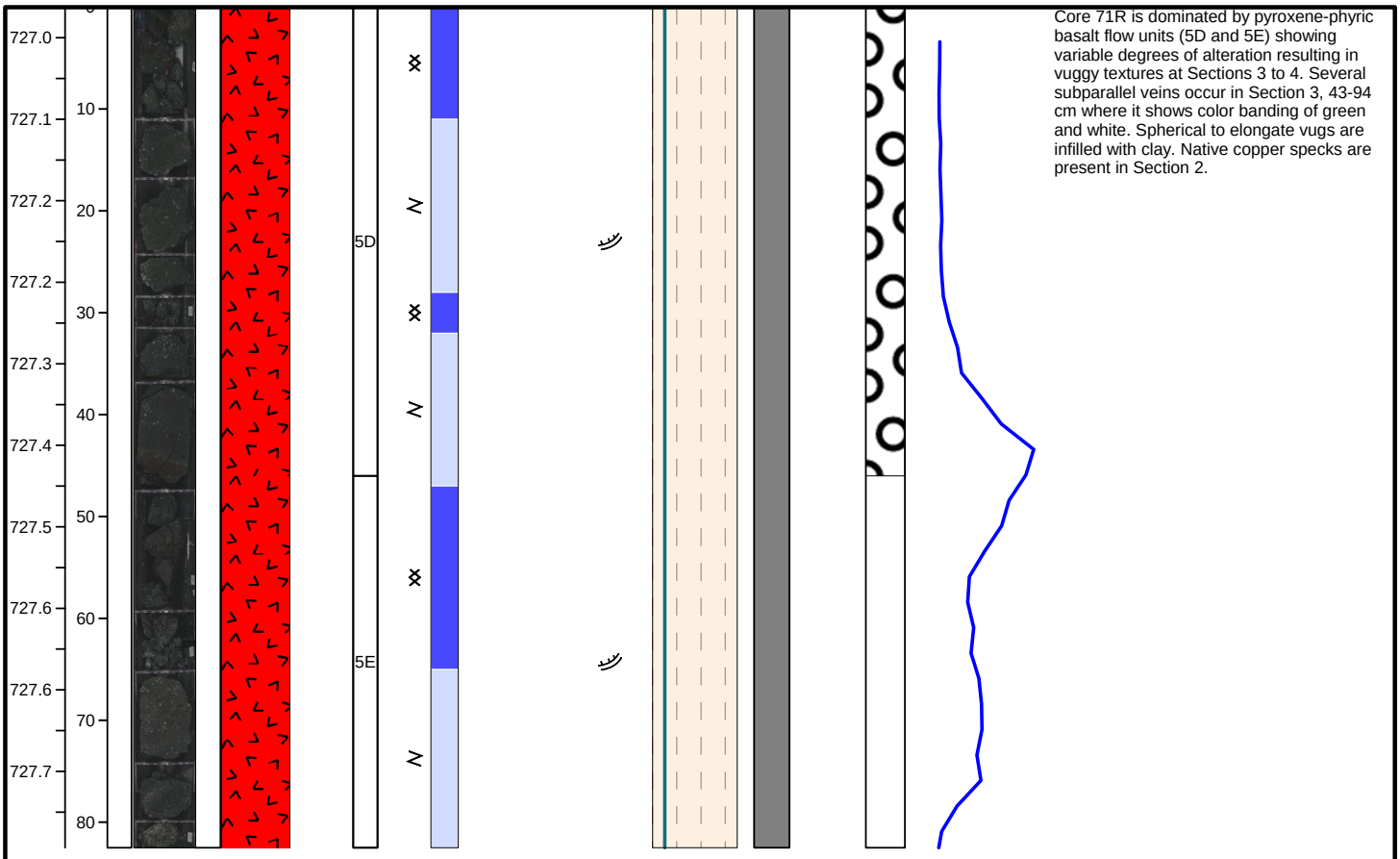
Hole 369-U1513D-71R Section 2, Top of Section: 724.16 m (CSF-A)



Hole 369-U1513D-71R Section 3, Top of Section: 725.62 m (CSF-A)



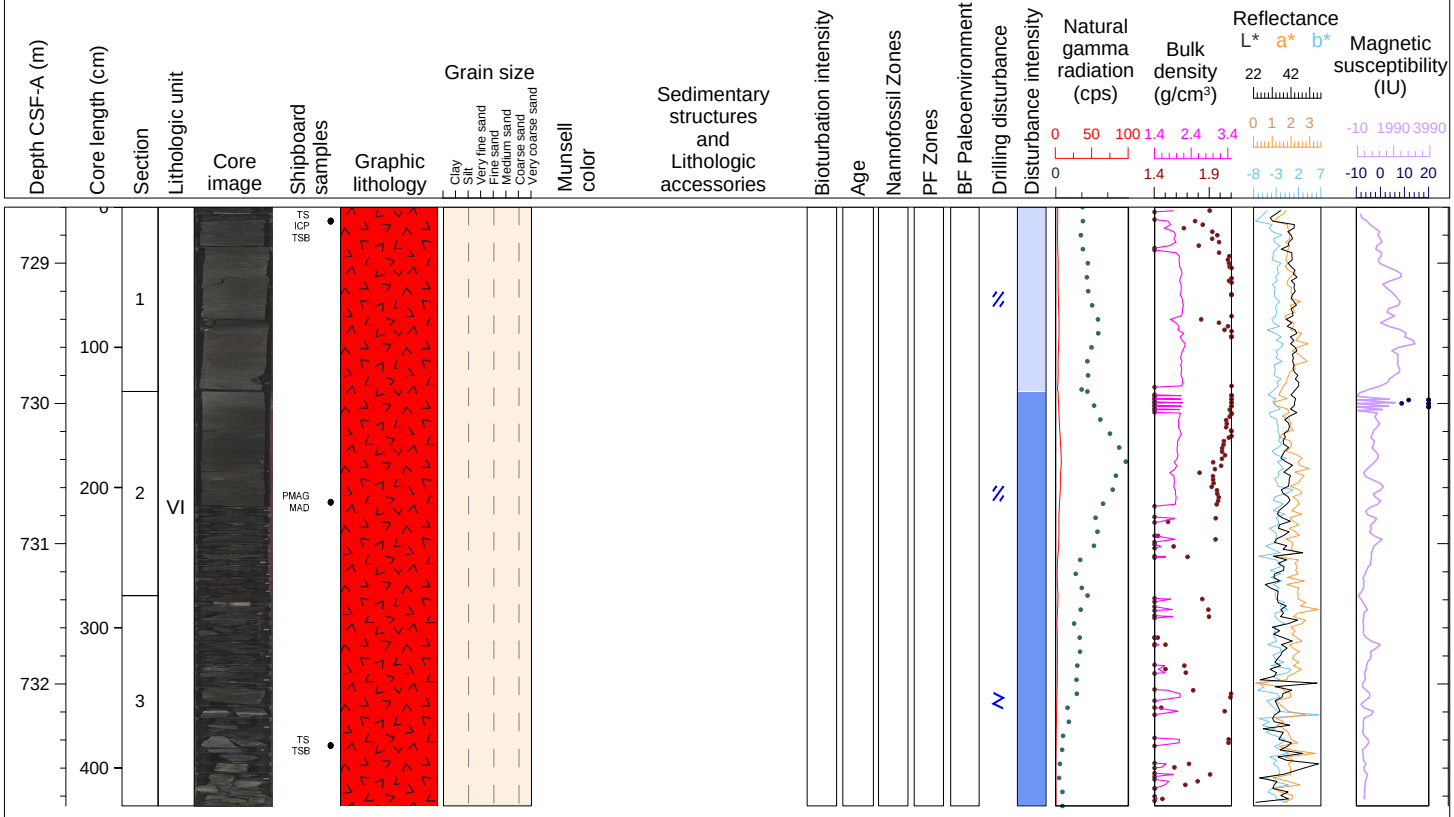
Hole 369-U1513D-71R Section 4, Top of Section: 726.97 m (CSF-A)



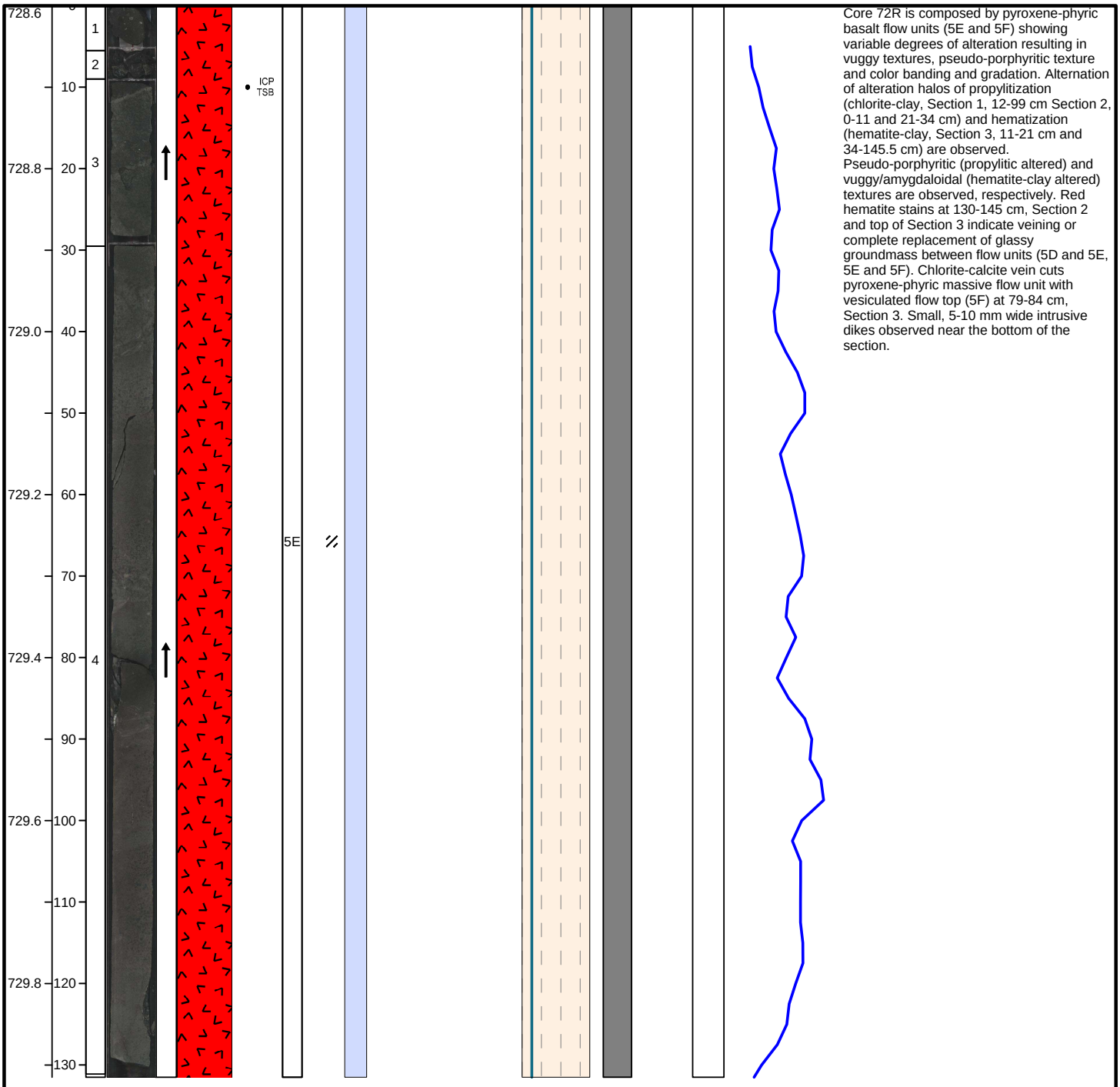
Core 71R is dominated by pyroxene-phyric basalt flow units (5D and 5E) showing variable degrees of alteration resulting in vuggy textures at Sections 3 to 4. Several subparallel veins occur in Section 3, 43-94 cm where it shows color banding of green and white. Spherical to elongate vugs are infilled with clay. Native copper specks are present in Section 2.

Hole 369-U1513D Core 72R, Interval 728.6-732.87 m (CSF-A)

Core 72R is composed by pyroxene-phyric basalt flow units (5E and 5F) showing variable degrees of alteration resulting in vuggy textures, pseudo-porphyritic texture and color banding and gradation. Alternation of alteration halos of propylitization (chlorite-clay, Section 1, 12-99 cm Section 2, 0-11 and 21-34 cm) and hematization (hematite-clay, Section 3, 11-21 cm and 34-145.5 cm) are observed. Pseudo-porphyritic (propylitic altered) and vuggy/amygdaloidal (hematite-clay altered) textures are observed, respectively. Red hematite stains at 130-145 cm, Section 2 and top of Section 3 indicate veining or complete replacement of glassy groundmass between flow units (5D and 5E, 5E and 5F). Chlorite-calcite vein cuts pyroxene-phyric massive flow unit with vesiculated flow top (5F) at 79-84 cm, Section 3. Small, 5-10 mm wide intrusive dikes observed near the bottom of the section.

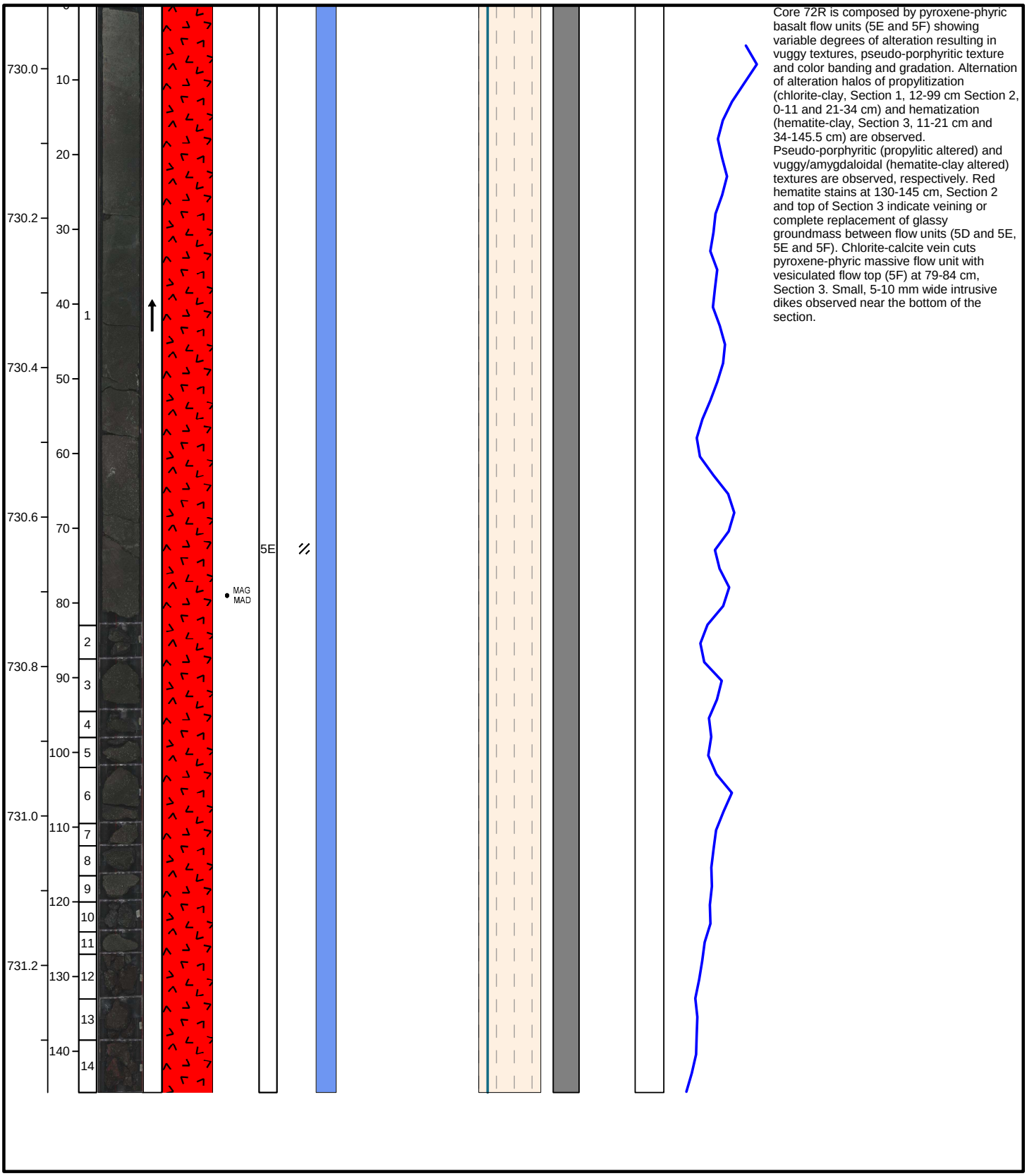


Hole 369-U1513D-72R Section 1, Top of Section: 728.6 m (CSF-A)

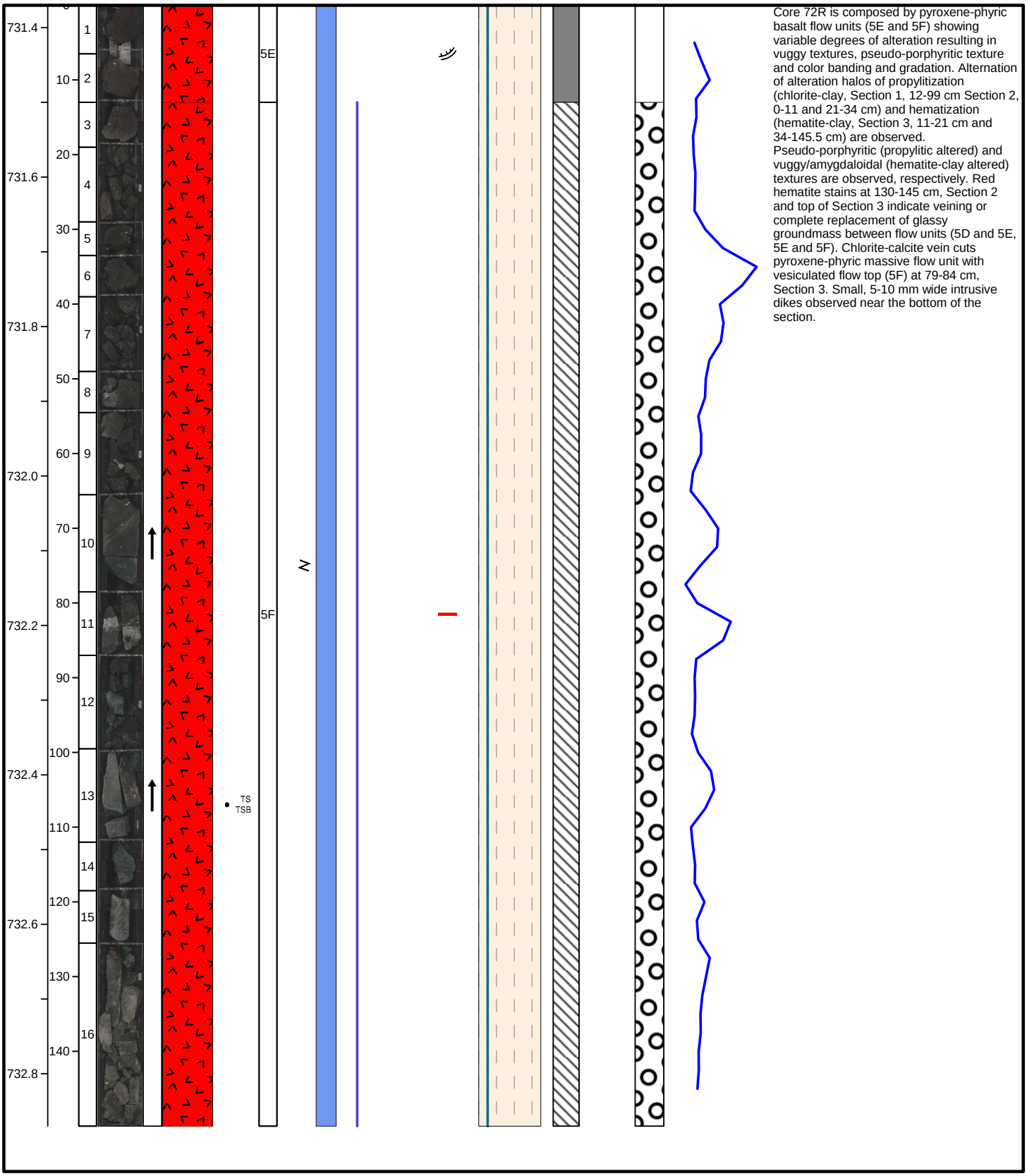


Core 72R is composed by pyroxene-phyric basalt flow units (5E and 5F) showing variable degrees of alteration resulting in vuggy textures, pseudo-porphyritic texture and color banding and gradation. Alternation of alteration halos of propylitization (chlorite-clay, Section 1, 12-99 cm Section 2, 0-11 and 21-34 cm) and hematization (hematite-clay, Section 3, 11-21 cm and 34-145.5 cm) are observed. Pseudo-porphyritic (propylitic altered) and vuggy/amygdaloidal (hematite-clay altered) textures are observed, respectively. Red hematite stains at 130-145 cm, Section 2 and top of Section 3 indicate veining or complete replacement of glassy groundmass between flow units (5D and 5E, 5E and 5F). Chlorite-calcite vein cuts pyroxene-phyric massive flow unit with vesiculated flow top (5F) at 79-84 cm, Section 3. Small, 5-10 mm wide intrusive dikes observed near the bottom of the section.

Hole 369-U1513D-72R Section 2, Top of Section: 729.915 m (CSF-A)

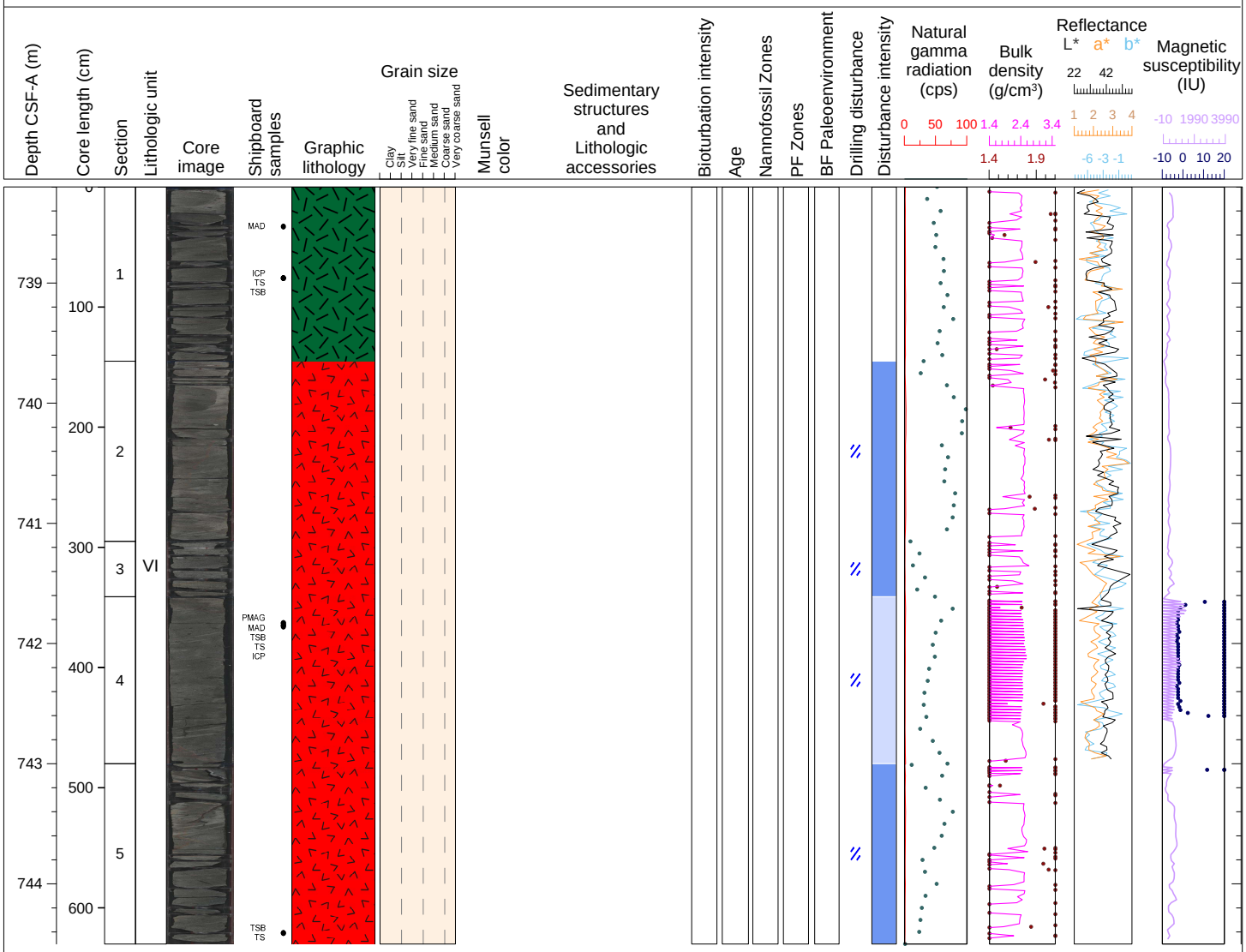


Hole 369-U1513D-72R Section 3, Top of Section: 731.37 m (CSF-A)

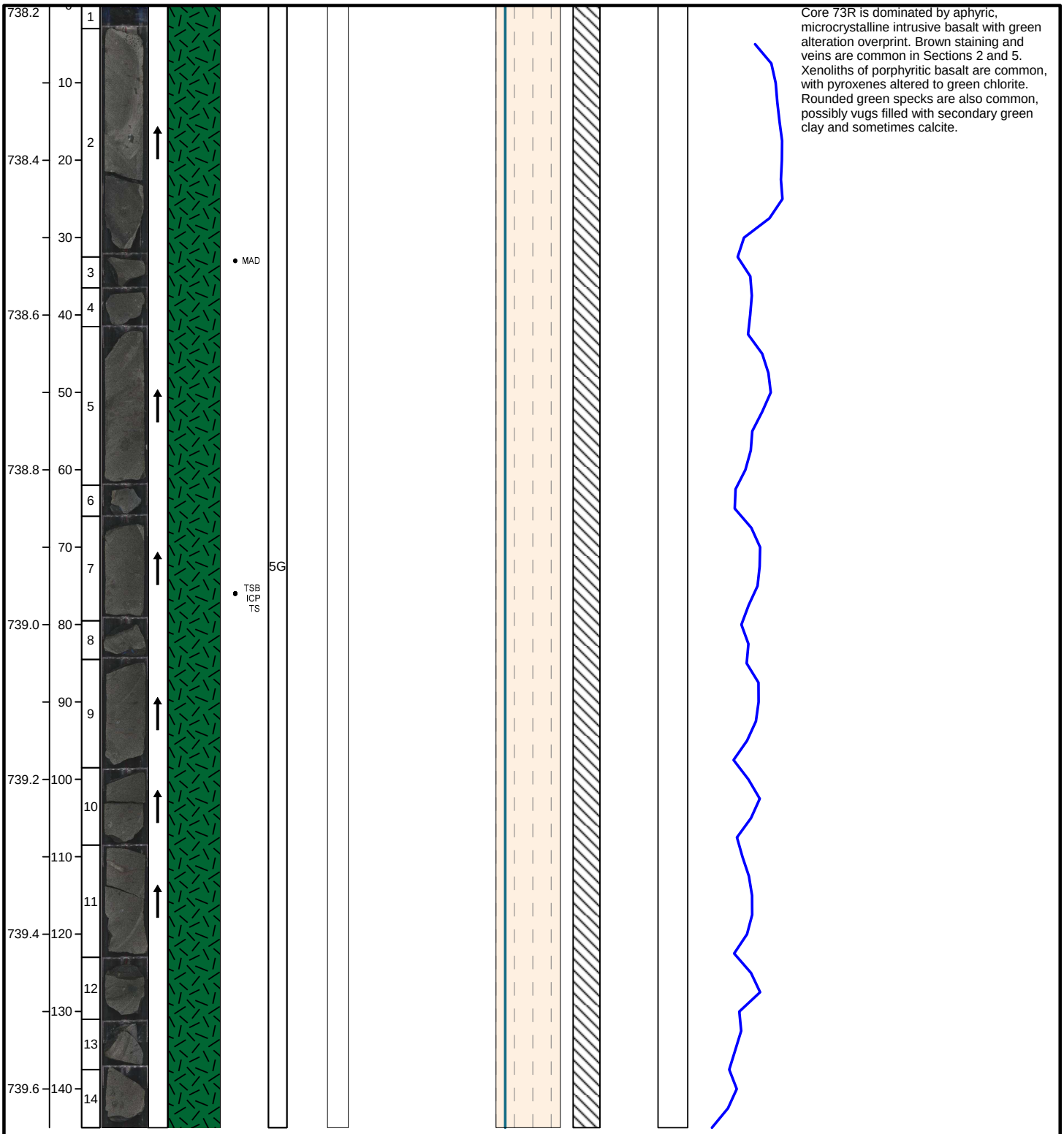


Hole 369-U1513D Core 73R, Interval 738.2-744.5 m (CSF-A)

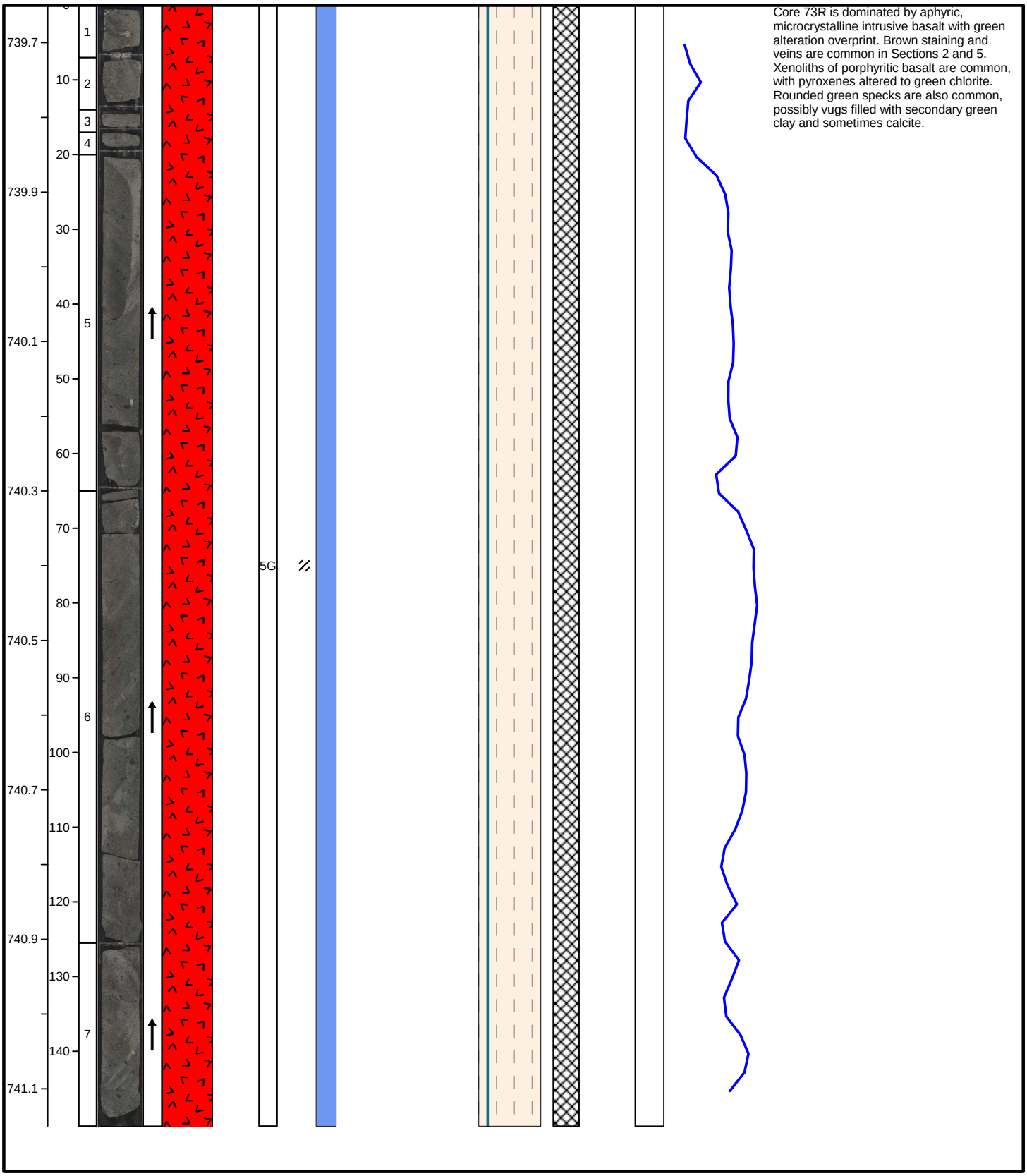
Core 73R is dominated by aphyric, microcrystalline intrusive basalt with green alteration overprint. Brown staining and veins are common in Sections 2 and 5. Xenoliths of porphyritic basalt are common, with pyroxenes altered to green chlorite. Rounded green specks are also common, possibly vugs filled with secondary green clay and sometimes calcite.



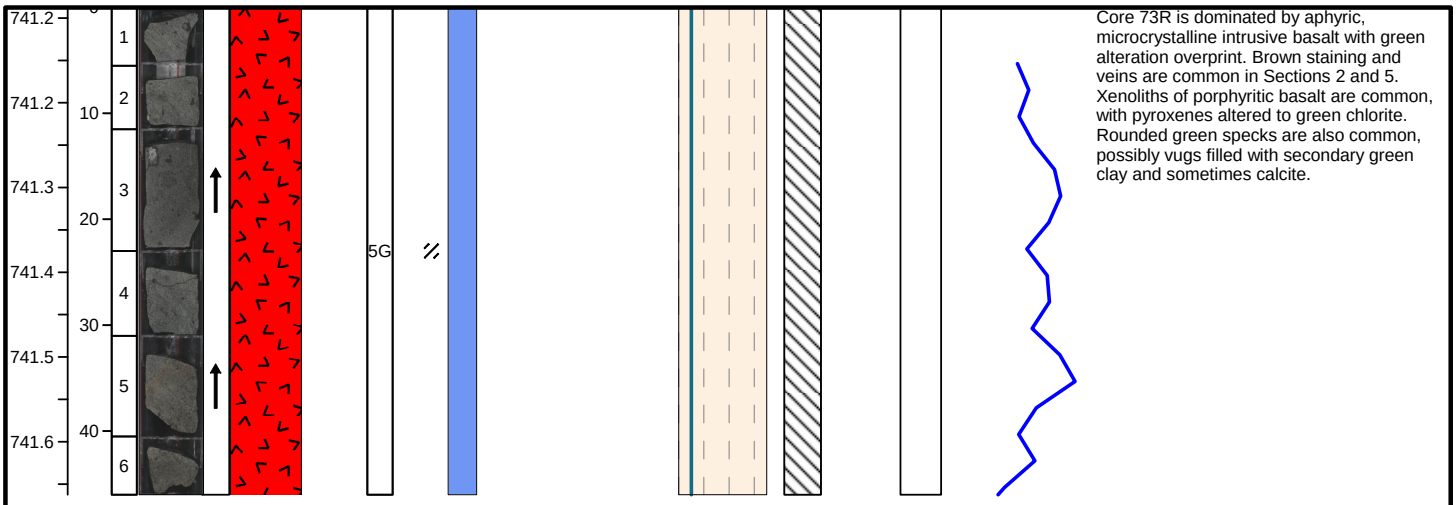
Hole 369-U1513D-73R Section 1, Top of Section: 738.2 m (CSF-A)



Hole 369-U1513D-73R Section 2, Top of Section: 739.65 m (CSF-A)

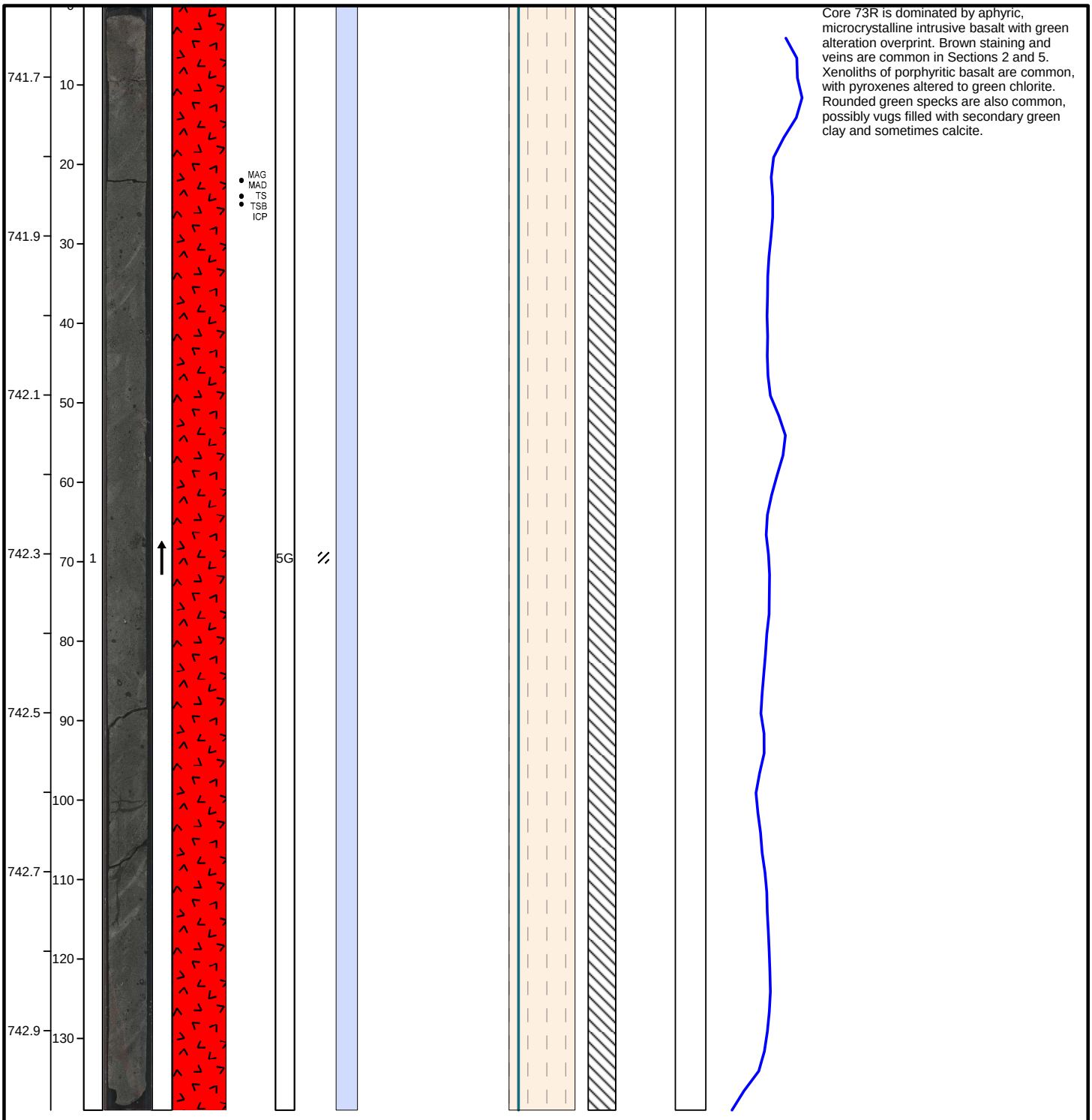


Hole 369-U1513D-73R Section 3, Top of Section: 741.15 m (CSF-A)

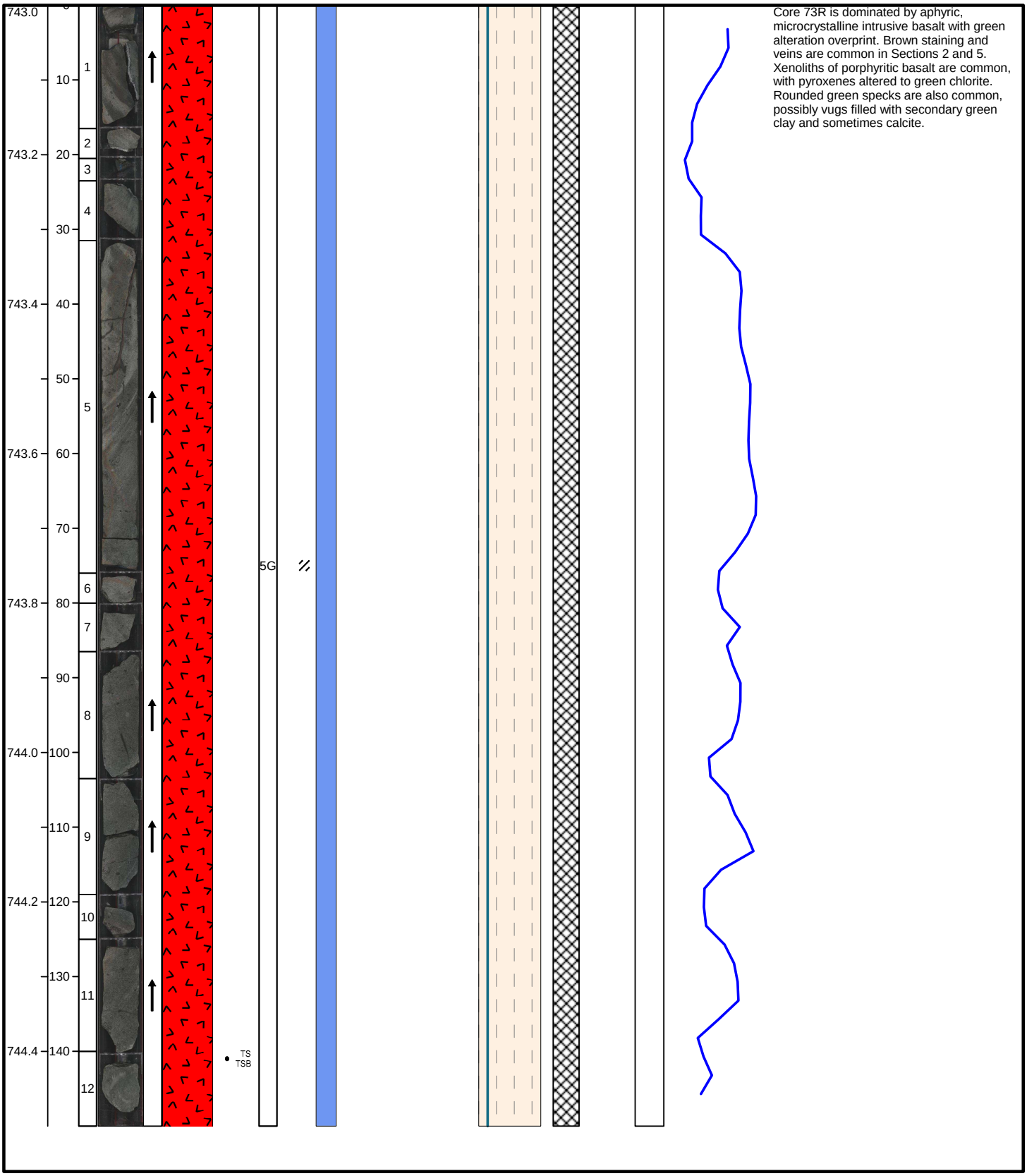


Core 73R is dominated by aphyric, microcrystalline intrusive basalt with green alteration overprint. Brown staining and veins are common in Sections 2 and 5. Xenoliths of porphyritic basalt are common, with pyroxenes altered to green chlorite. Rounded green specks are also common, possibly vugs filled with secondary green clay and sometimes calcite.

Hole 369-U1513D-73R Section 4, Top of Section: 741.61 m (CSF-A)

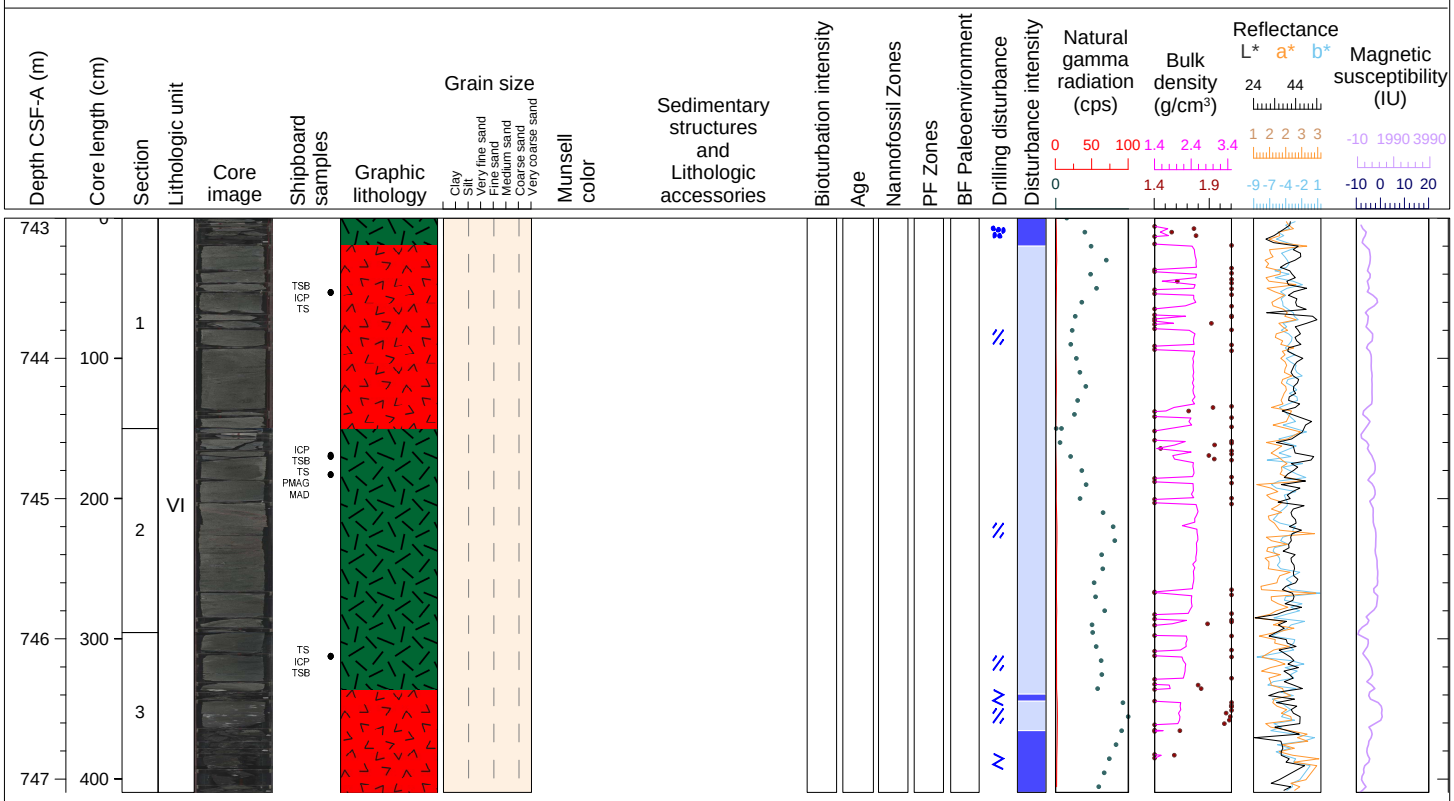


Hole 369-U1513D-73R Section 5, Top of Section: 743.0 m (CSF-A)

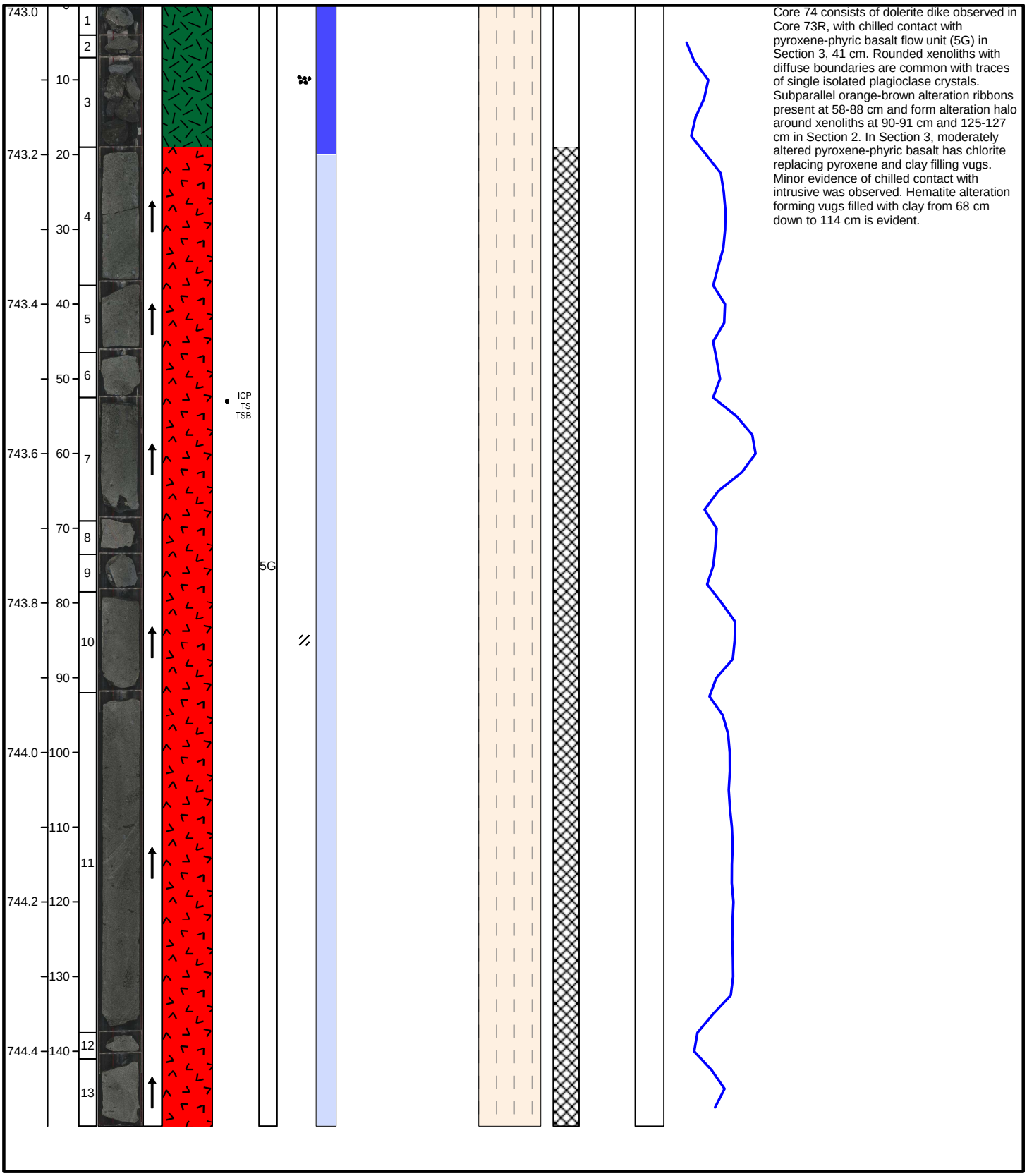


Hole 369-U1513D Core 74R, Interval 743.0-747.095 m (CSF-A)

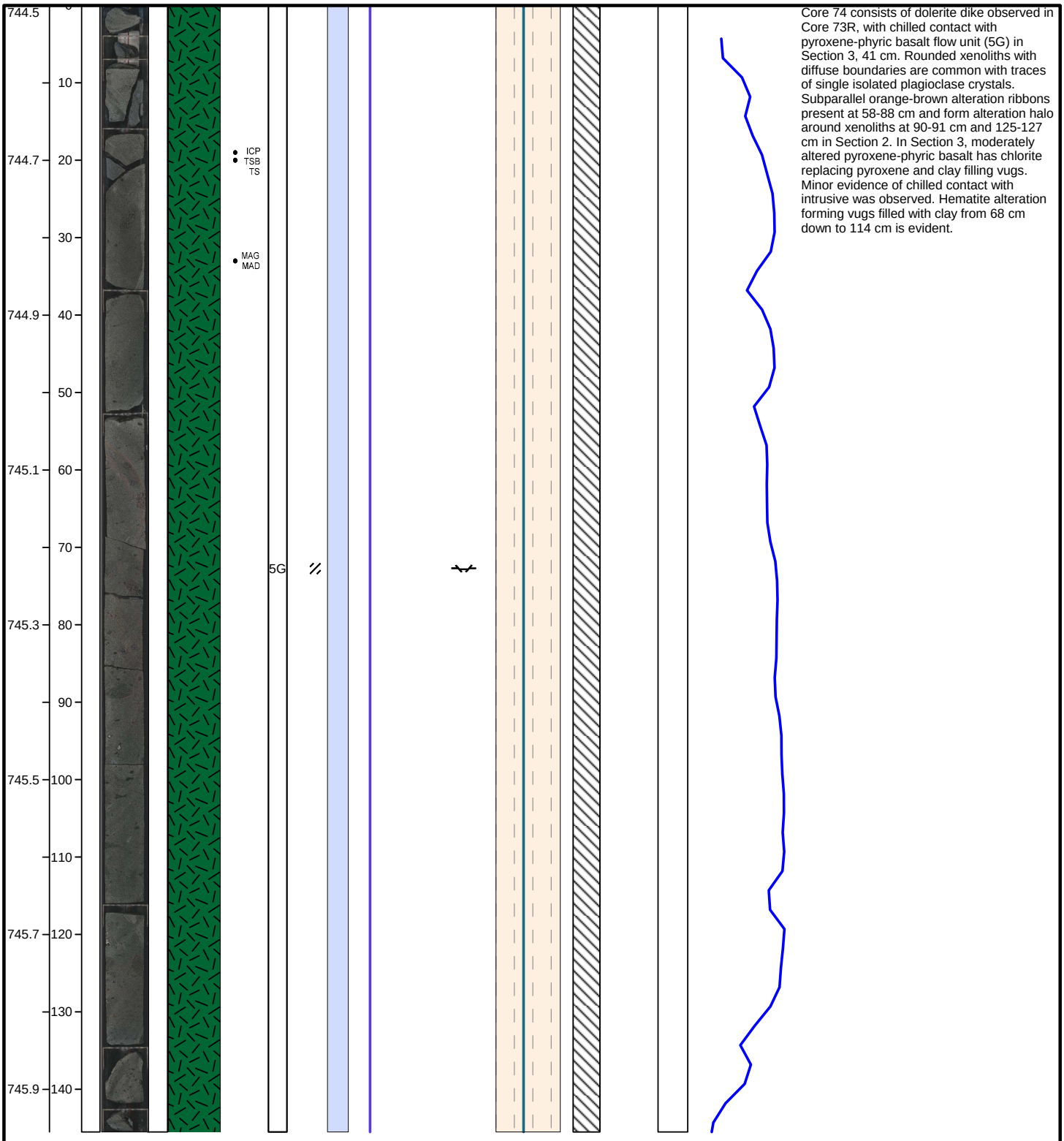
Core 74 consists of dolerite dike observed in Core 73R, with chilled contact with pyroxene-phyric basalt flow unit (5G) in Section 3, 41 cm. Rounded xenoliths with diffuse boundaries are common with traces of single isolated plagioclase crystals. Subparallel orange-brown alteration ribbons present at 58-88 cm and form alteration halo around xenoliths at 90-91 cm and 125-127 cm in Section 2. In Section 3, moderately altered pyroxene-phyric basalt has chlorite replacing pyroxene and clay filling vugs. Minor evidence of chilled contact with intrusive was observed. Hematite alteration forming vugs filled with clay from 68 cm down to 114 cm is evident.



Hole 369-U1513D-74R Section 1, Top of Section: 743.0 m (CSF-A)

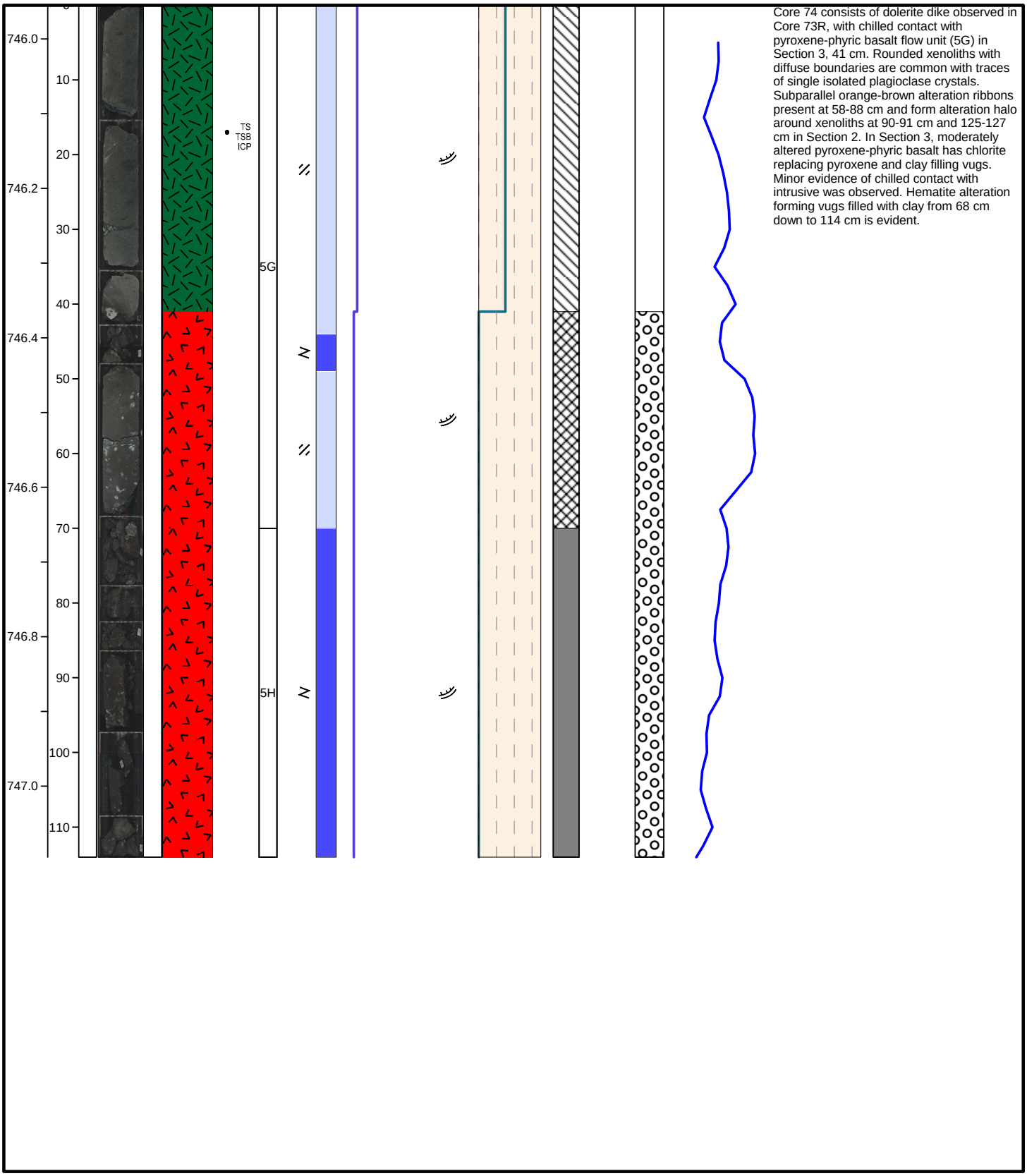


Hole 369-U1513D-74R Section 2, Top of Section: 744.5 m (CSF-A)



Core 74 consists of dolerite dike observed in Core 73R, with chilled contact with pyroxene-phyric basalt flow unit (5G) in Section 3, 41 cm. Rounded xenoliths with diffuse boundaries are common with traces of single isolated plagioclase crystals. Subparallel orange-brown alteration ribbons present at 58-88 cm and form alteration halo around xenoliths at 90-91 cm and 125-127 cm in Section 2. In Section 3, moderately altered pyroxene-phyric basalt has chlorite replacing pyroxene and clay filling vugs. Minor evidence of chilled contact with intrusive was observed. Hematite alteration forming vugs filled with clay from 68 cm down to 114 cm is evident.

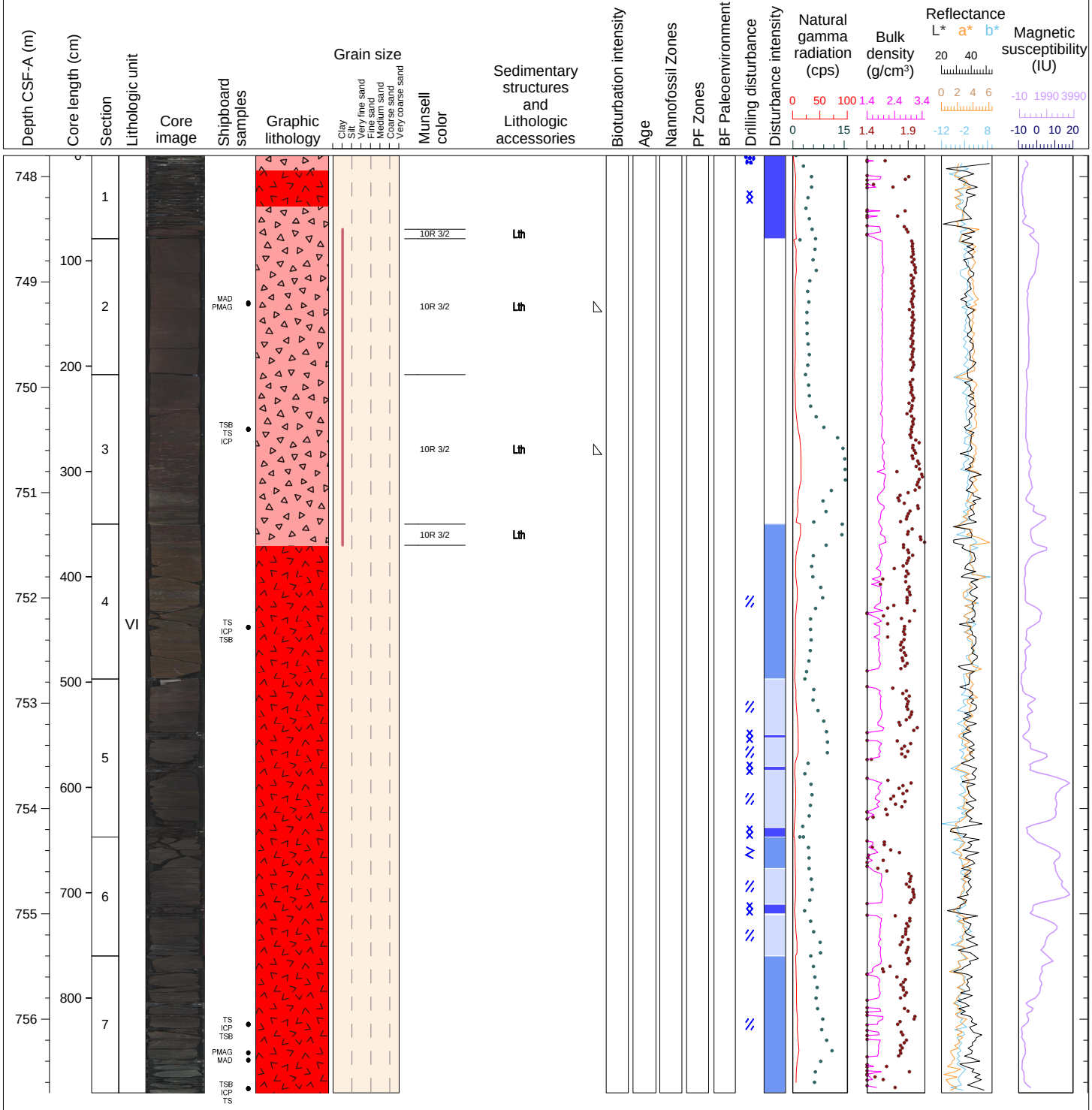
Hole 369-U1513D-74R Section 3, Top of Section: 745.955 m (CSF-A)



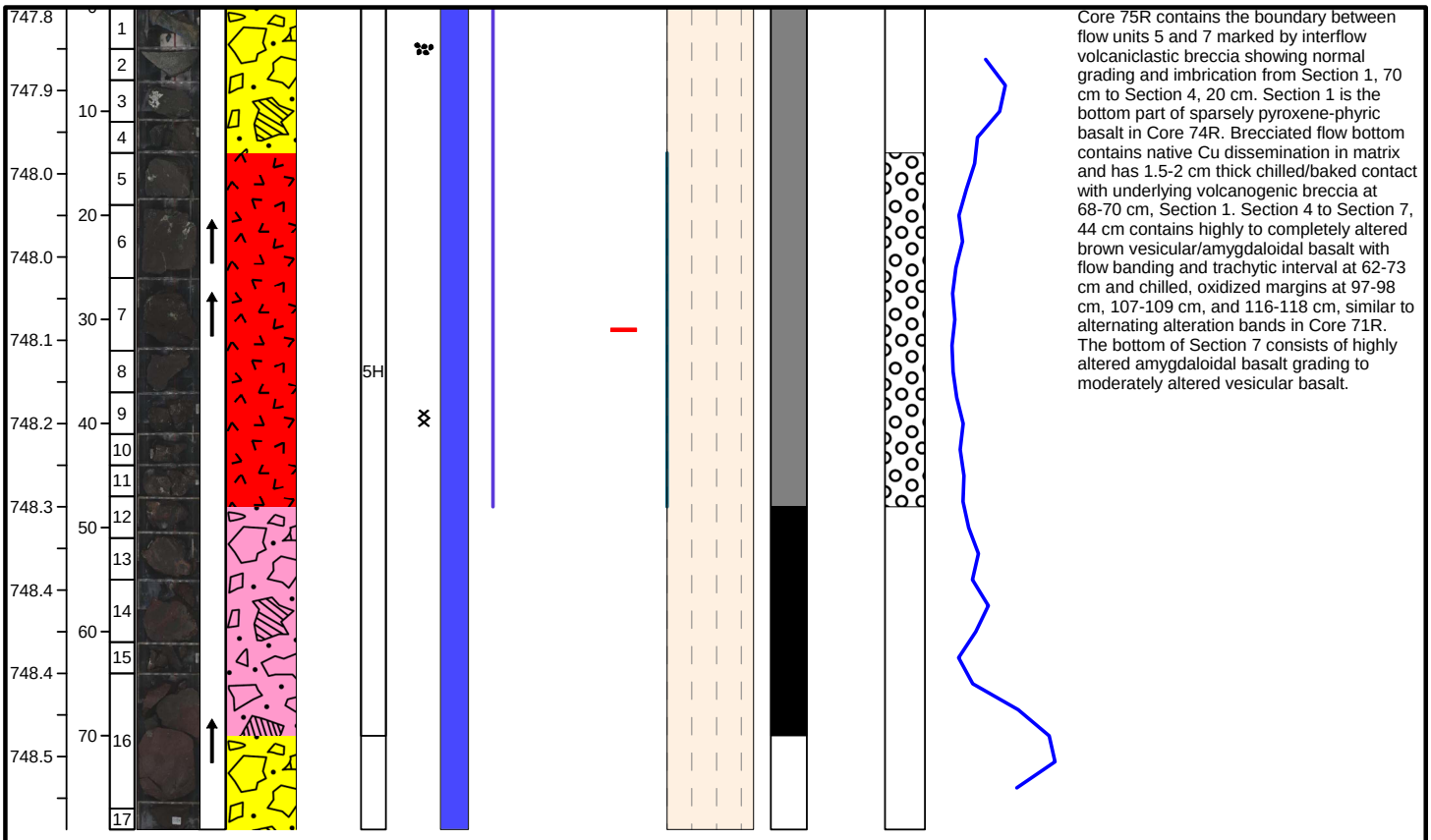
Core 74 consists of dolerite dike observed in Core 73R, with chilled contact with pyroxene-phyric basalt flow unit (5G) in Section 3, 41 cm. Rounded xenoliths with diffuse boundaries are common with traces of single isolated plagioclase crystals. Subparallel orange-brown alteration ribbons present at 58-88 cm and form alteration halo around xenoliths at 90-91 cm and 125-127 cm in Section 2. In Section 3, moderately altered pyroxene-phyric basalt has chlorite replacing pyroxene and clay filling vugs. Minor evidence of chilled contact with intrusive was observed. Hematite alteration forming vugs filled with clay from 68 cm down to 114 cm is evident.

Hole 369-U1513D Core 75R, Interval 747.8-756.7 m (CSF-A)

Core 75R contains the boundary between flow units 5 and 7 marked by interflow volcaniclastic breccia showing normal grading and imbrication from Section 1, 70 cm to Section 4, 20 cm. Section 1 is the bottom part of sparsely pyroxene-phyric basalt in Core 74R. Brecciated flow bottom contains native Cu dissemination in matrix and has 1.5-2 cm thick chilled/baked contact with underlying volcanogenic breccia at 68-70 cm, Section 1. Section 4 to Section 7, 44 cm contains highly to completely altered brown vesicular/amygdaloidal basalt with flow banding and trachytic interval at 62-73 cm and chilled, oxidized margins at 97-98 cm, 107-109 cm, and 116-118 cm, similar to alternating alteration bands in Core 71R. The bottom of Section 7 consists of highly altered amygdaloidal basalt grading to moderately altered vesicular basalt.

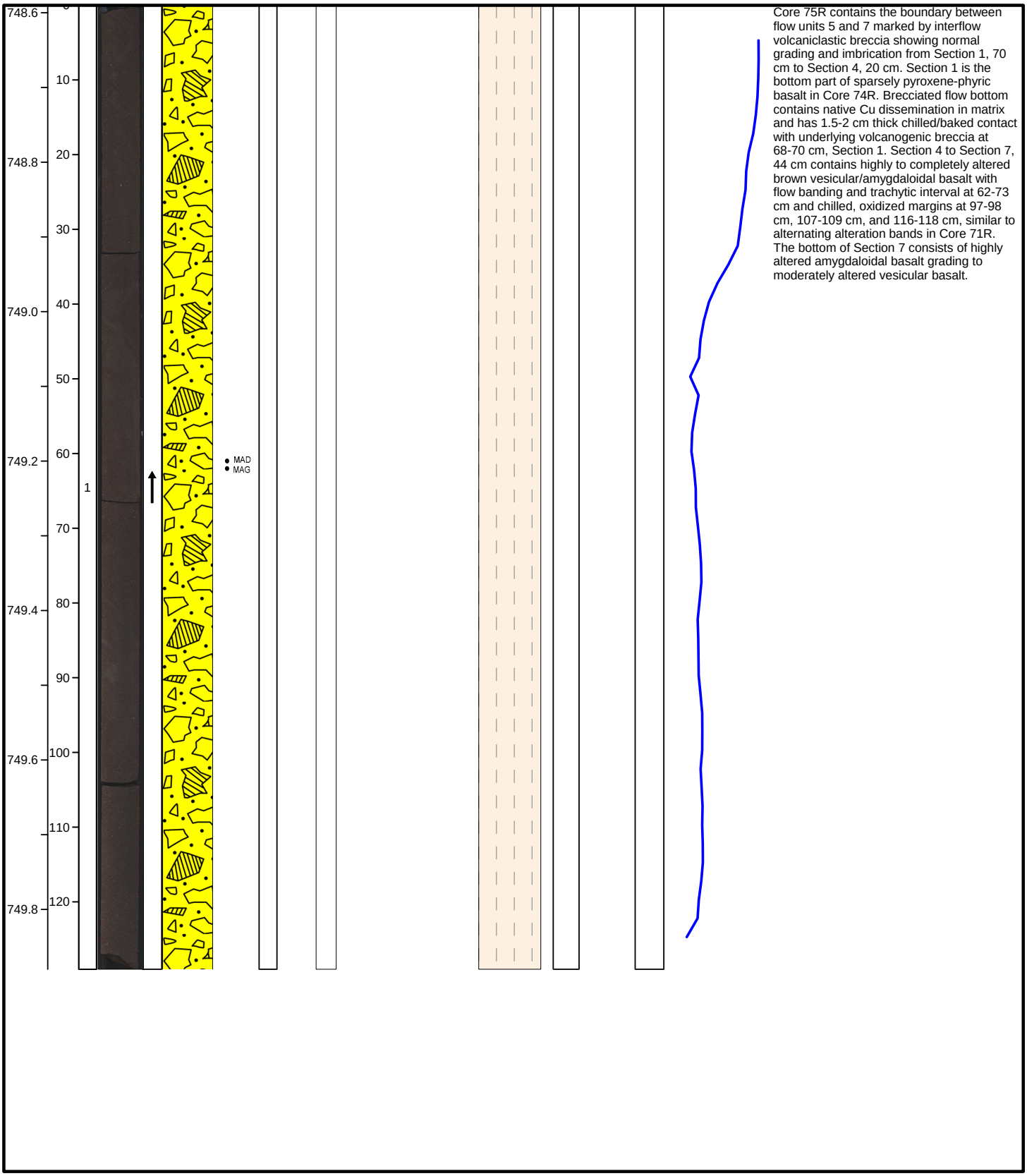


Hole 369-U1513D-75R Section 1, Top of Section: 747.8 m (CSF-A)

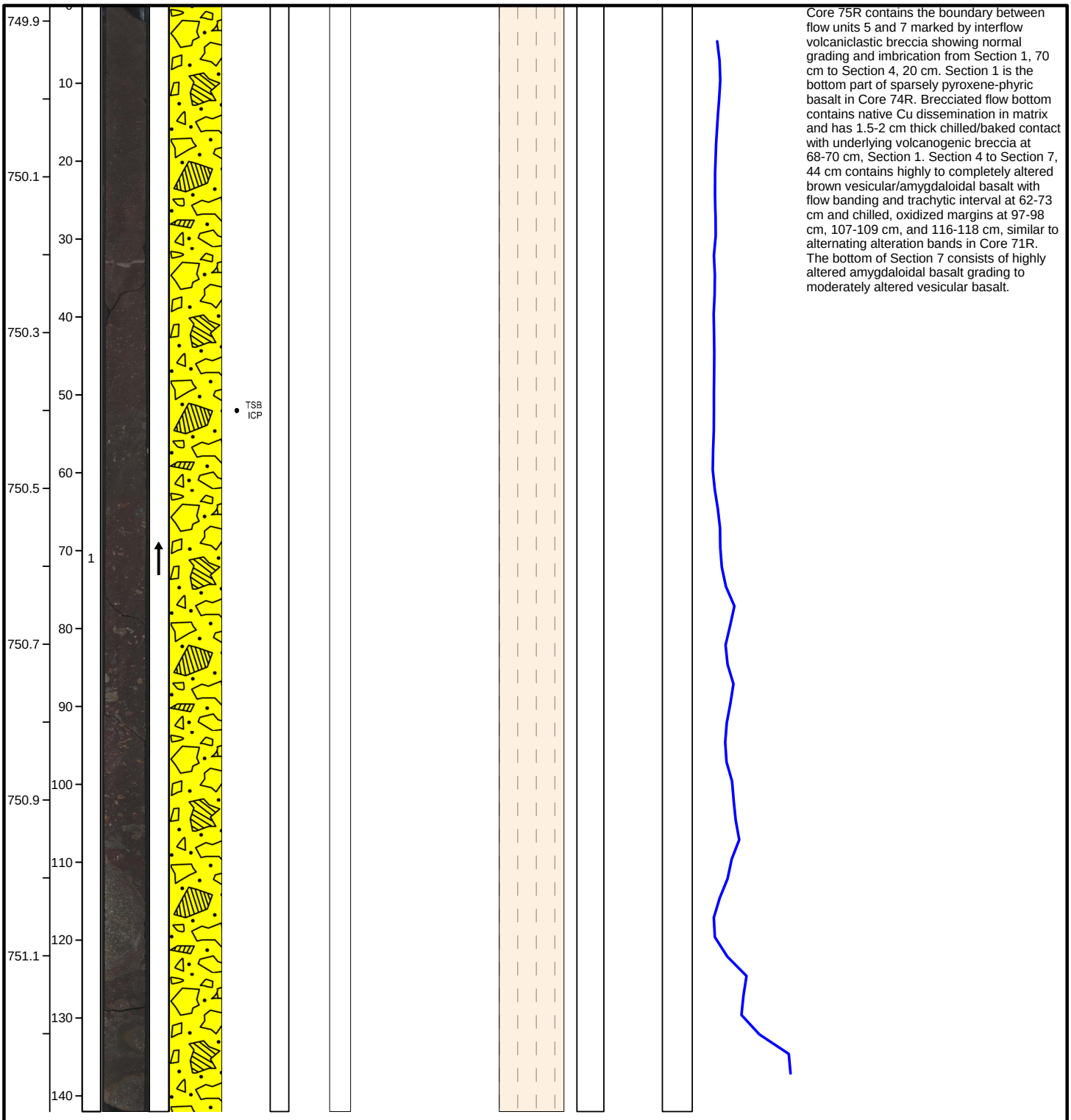


Core 75R contains the boundary between flow units 5 and 7 marked by interflow volcaniclastic breccia showing normal grading and imbrication from Section 1, 70 cm to Section 4, 20 cm. Section 1 is the bottom part of sparsely pyroxene-phyric basalt in Core 74R. Brecciated flow bottom contains native Cu dissemination in matrix and has 1.5-2 cm thick chilled/baked contact with underlying volcanogenic breccia at 68-70 cm, Section 1. Section 4 to Section 7, 44 cm contains highly to completely altered brown vesicular/amygdaloidal basalt with flow banding and trachytic interval at 62-73 cm and chilled, oxidized margins at 97-98 cm, 107-109 cm, and 116-118 cm, similar to alternating alteration bands in Core 71R. The bottom of Section 7 consists of highly altered amygdaloidal basalt grading to moderately altered vesicular basalt.

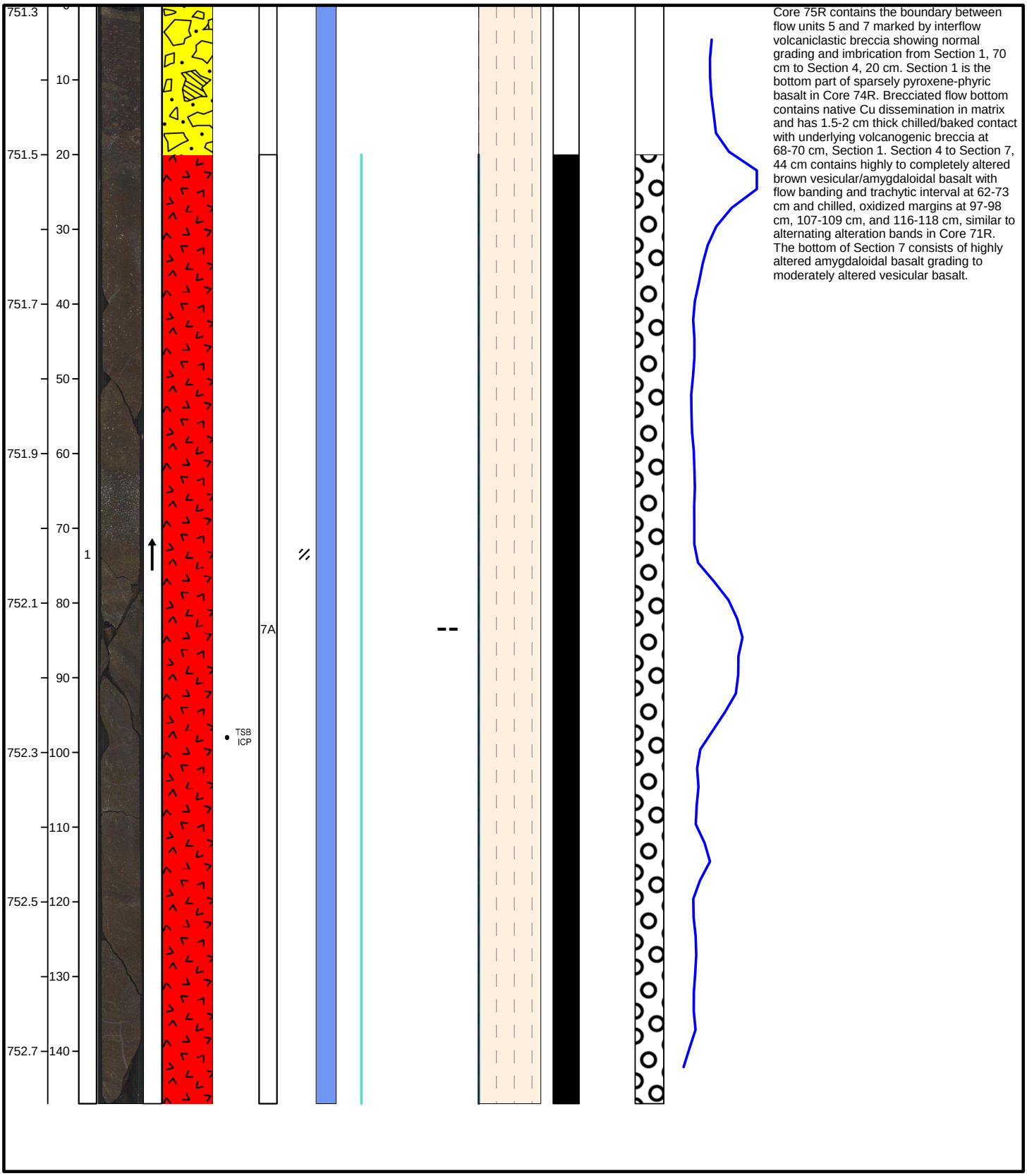
Hole 369-U1513D-75R Section 2, Top of Section: 748.59 m (CSF-A)



Hole 369-U1513D-75R Section 3, Top of Section: 749.88 m (CSF-A)

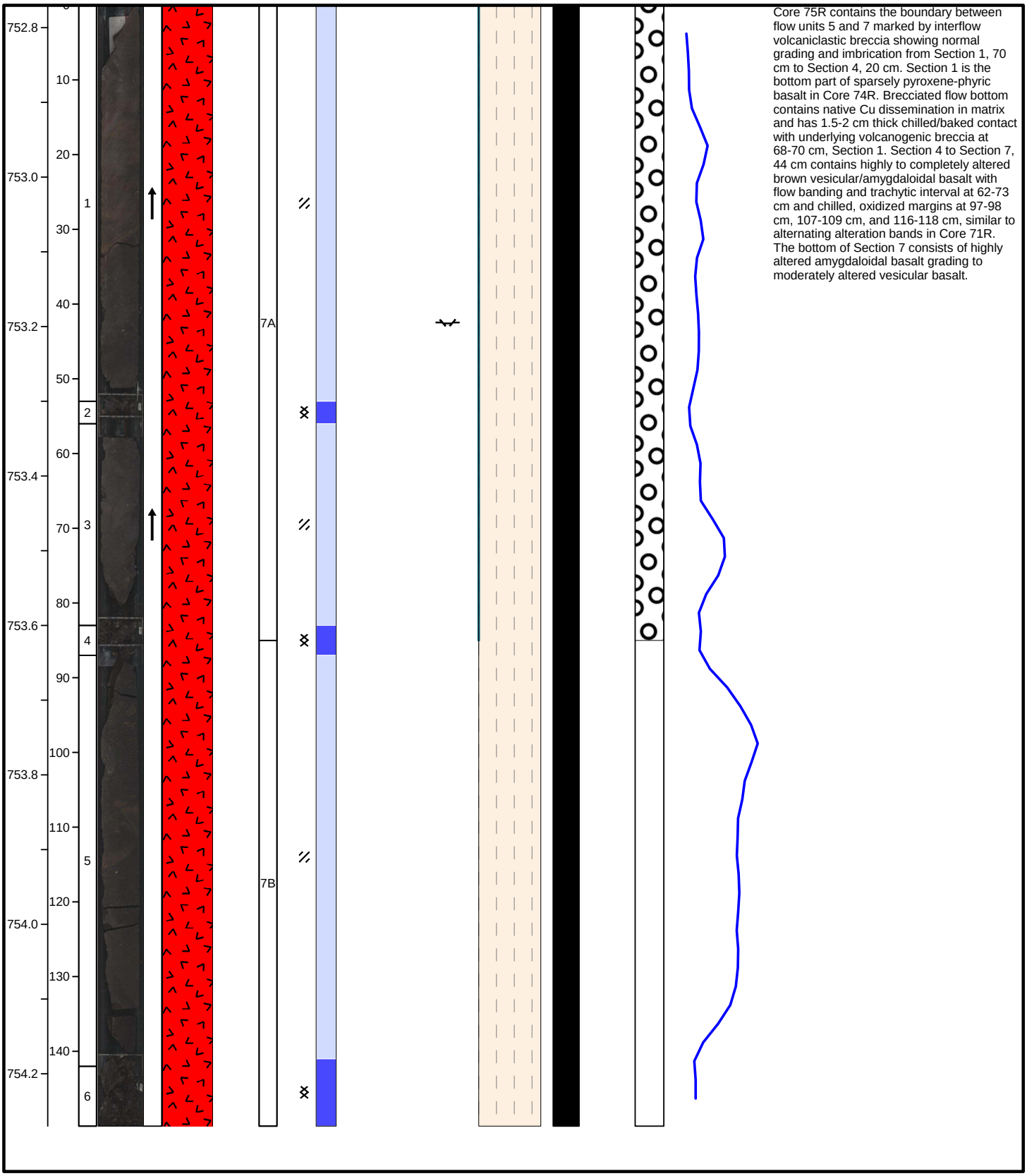


Hole 369-U1513D-75R Section 4, Top of Section: 751.3 m (CSF-A)



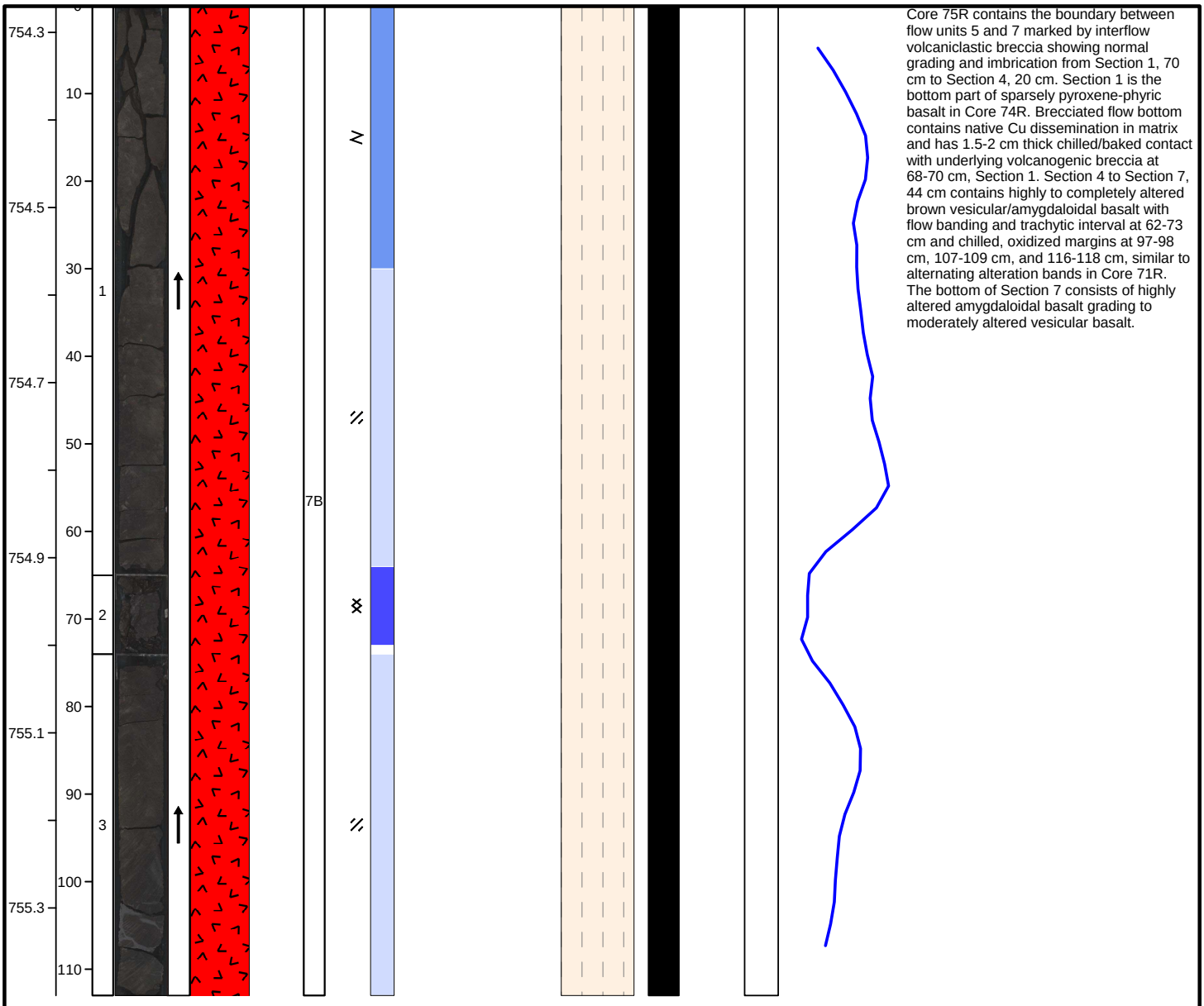
Core 75R contains the boundary between flow units 5 and 7 marked by interflow volcaniclastic breccia showing normal grading and imbrication from Section 1, 70 cm to Section 4, 20 cm. Section 1 is the bottom part of sparsely pyroxene-phyric basalt in Core 74R. Brecciated flow bottom contains native Cu dissemination in matrix and has 1.5-2 cm thick chilled/baked contact with underlying volcanogenic breccia at 68-70 cm, Section 1. Section 4 to Section 7, 44 cm contains highly to completely altered brown vesicular/amygdaloidal basalt with flow banding and trachytic interval at 62-73 cm and chilled, oxidized margins at 97-98 cm, 107-109 cm, and 116-118 cm, similar to alternating alteration bands in Core 71R. The bottom of Section 7 consists of highly altered amygdaloidal basalt grading to moderately altered vesicular basalt.

Hole 369-U1513D-75R Section 5, Top of Section: 752.77 m (CSF-A)



Core 75R contains the boundary between flow units 5 and 7 marked by interflow volcaniclastic breccia showing normal grading and imbrication from Section 1, 70 cm to Section 4, 20 cm. Section 1 is the bottom part of sparsely pyroxene-phyric basalt in Core 74R. Brecciated flow bottom contains native Cu dissemination in matrix and has 1.5-2 cm thick chilled/baked contact with underlying volcanogenic breccia at 68-70 cm, Section 1. Section 4 to Section 7, 44 cm contains highly to completely altered brown vesicular/amygdaloidal basalt with flow banding and trachytic interval at 62-73 cm and chilled, oxidized margins at 97-98 cm, 107-109 cm, and 116-118 cm, similar to alternating alteration bands in Core 71R. The bottom of Section 7 consists of highly altered amygdaloidal basalt grading to moderately altered vesicular basalt.

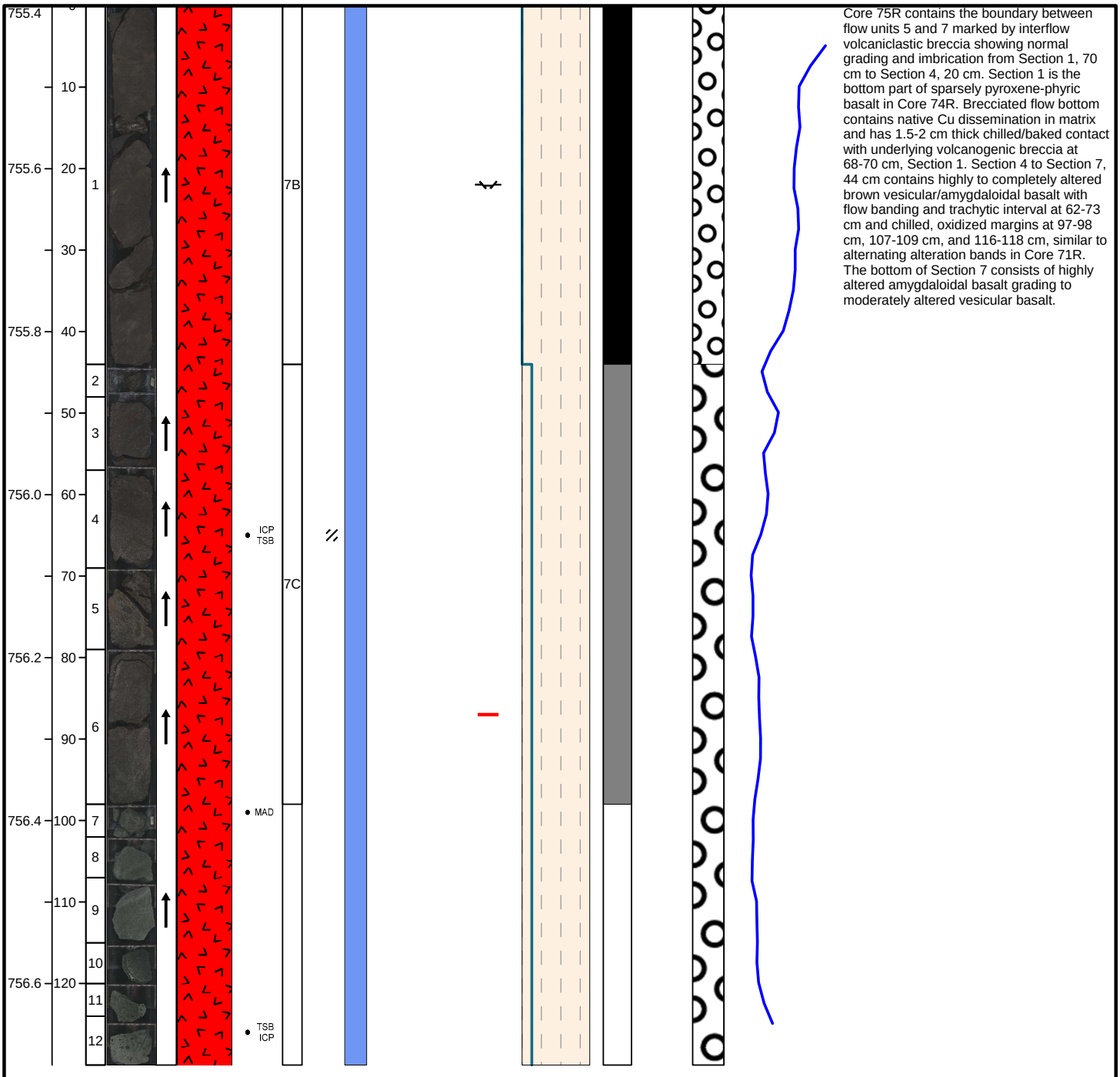
Hole 369-U1513D-75R Section 6, Top of Section: 754.27 m (CSF-A)



Description

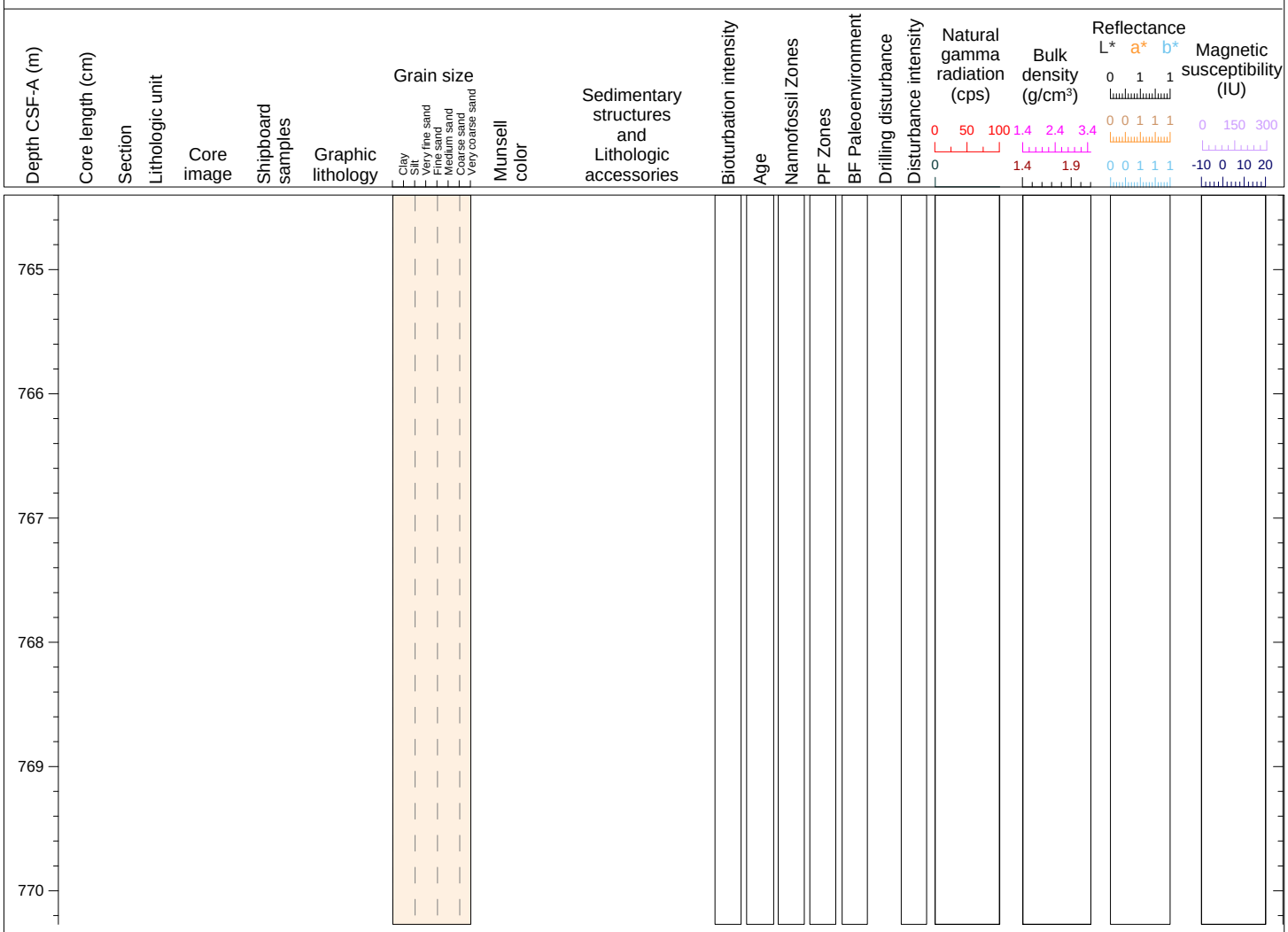
Core 75R contains the boundary between flow units 5 and 7 marked by interflow volcaniclastic breccia showing normal grading and imbrication from Section 1, 70 cm to Section 4, 20 cm. Section 1 is the bottom part of sparsely pyroxene-phyric basalt in Core 74R. Brecciated flow bottom contains native Cu dissemination in matrix and has 1.5-2 cm thick chilled/baked contact with underlying volcanogenic breccia at 68-70 cm, Section 1. Section 4 to Section 7, 44 cm contains highly to completely altered brown vesicular/amygdaloidal basalt with flow banding and trachytic interval at 62-73 cm and chilled, oxidized margins at 97-98 cm, 107-109 cm, and 116-118 cm, similar to alternating alteration bands in Core 71R. The bottom of Section 7 consists of highly altered amygdaloidal basalt grading to moderately altered vesicular basalt.

Hole 369-U1513D-75R Section 7, Top of Section: 755.4 m (CSF-A)



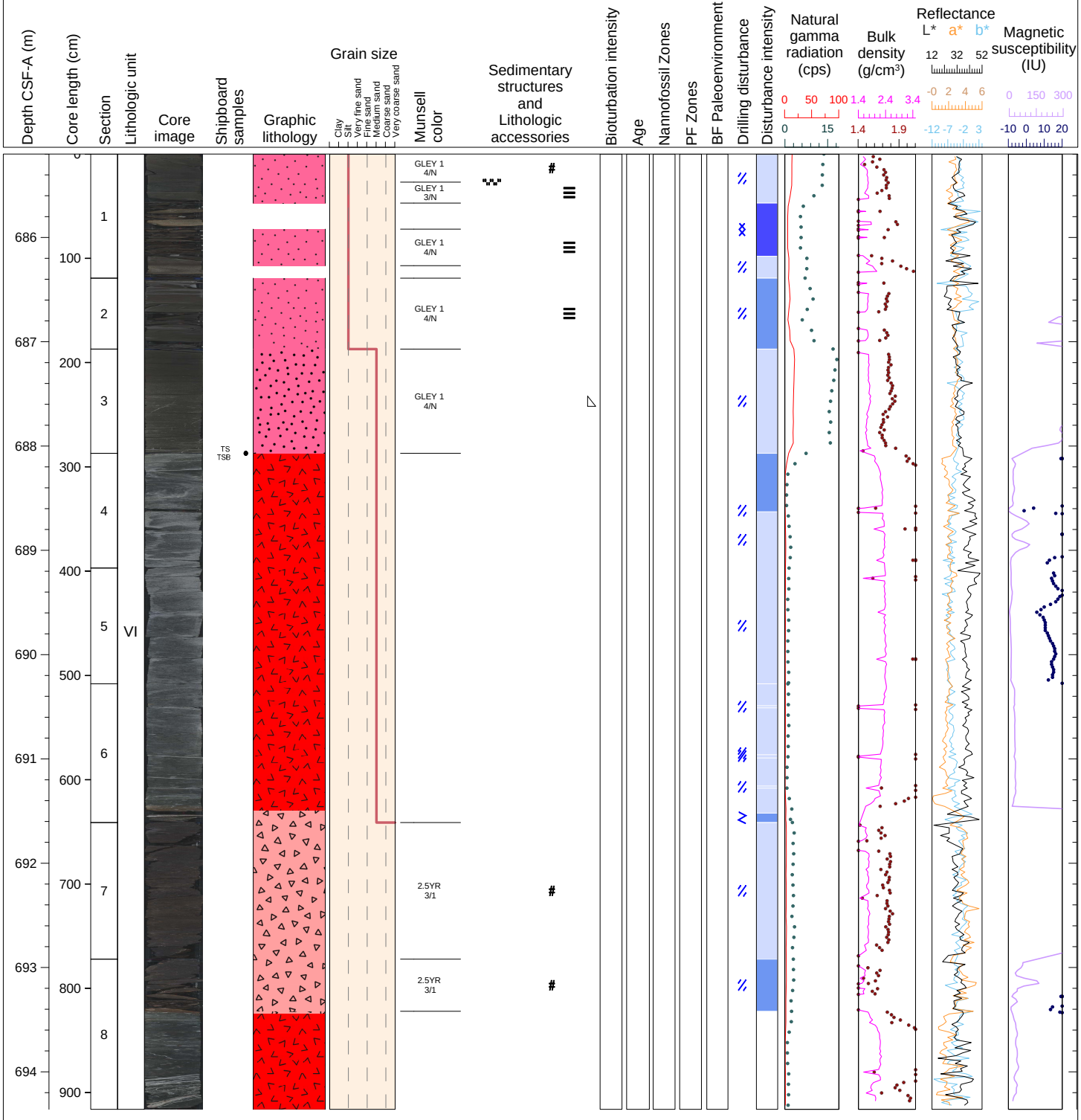
Hole 369-U1513E Core 11, Interval 0.0-0.0 m (CSF-A)

Drilled interval

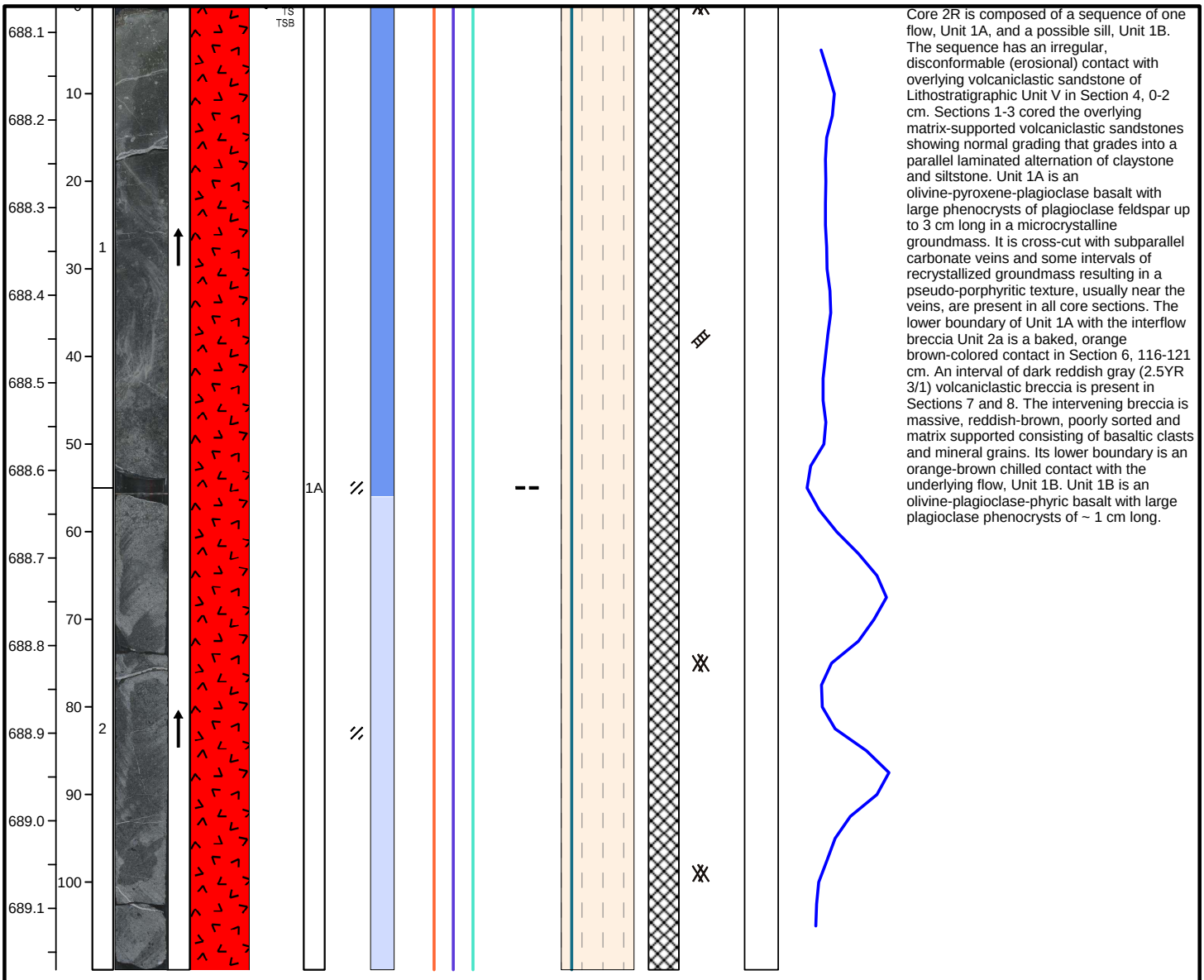


Hole 369-U1513E Core 2R, Interval 685.2-694.36 m (CSF-A)

Core 2R is composed of a sequence of one flow, Unit 1A, and a possible sill, Unit 1B. The sequence has an irregular, disconformable (erosional) contact with overlying volcaniclastic sandstone of Lithostratigraphic Unit V in Section 4, 0-2 cm. Sections 1-3 cored the overlying matrix-supported volcaniclastic sandstones showing normal grading that grades into a parallel laminated alternation of claystone and siltstone. Unit 1A is an olivine-pyroxene-plagioclase basalt with large phenocrysts of plagioclase feldspar up to 3 cm long in a microcrystalline groundmass. It is cross-cut with subparallel carbonate veins and some intervals of recrystallized groundmass resulting in a pseudo-porphyritic texture, usually near the veins, are present in all core sections. The lower boundary of Unit 1A with the interflow breccia Unit 2a is a baked, orange brown-colored contact in Section 6, 116-121 cm. An interval of dark reddish gray (2.5YR 3/1) volcaniclastic breccia is present in Sections 7 and 8. The intervening breccia is massive, reddish-brown, poorly sorted and matrix supported consisting of basaltic clasts and mineral grains. Its lower boundary is an orange-brown chilled contact with the underlying flow, Unit 1B. Unit 1B is an olivine-plagioclase-phyric basalt with large plagioclase phenocrysts of ~ 1 cm long.

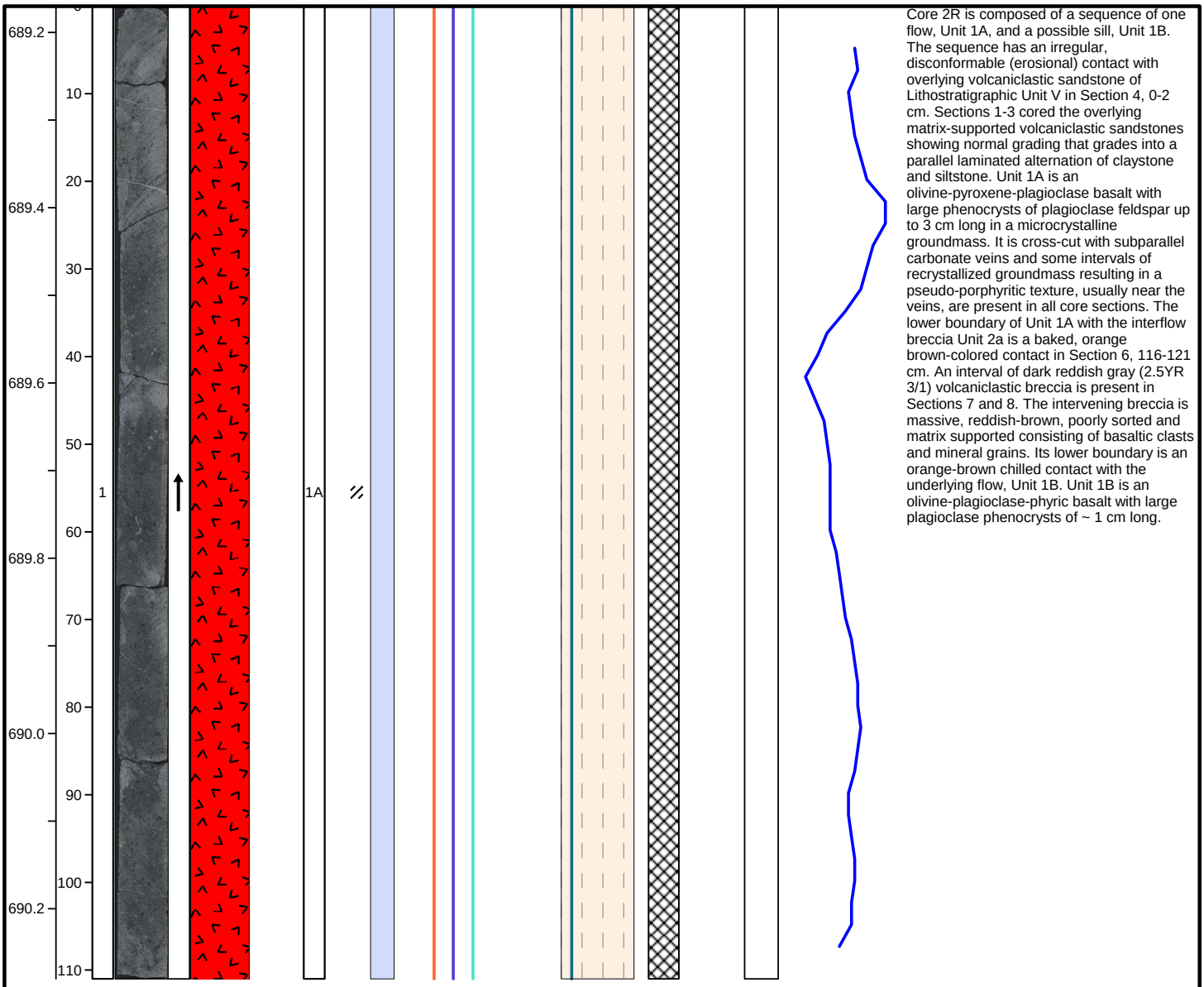


Hole 369-U1513E-2R Section 4, Top of Section: 688.07 m (CSF-A)



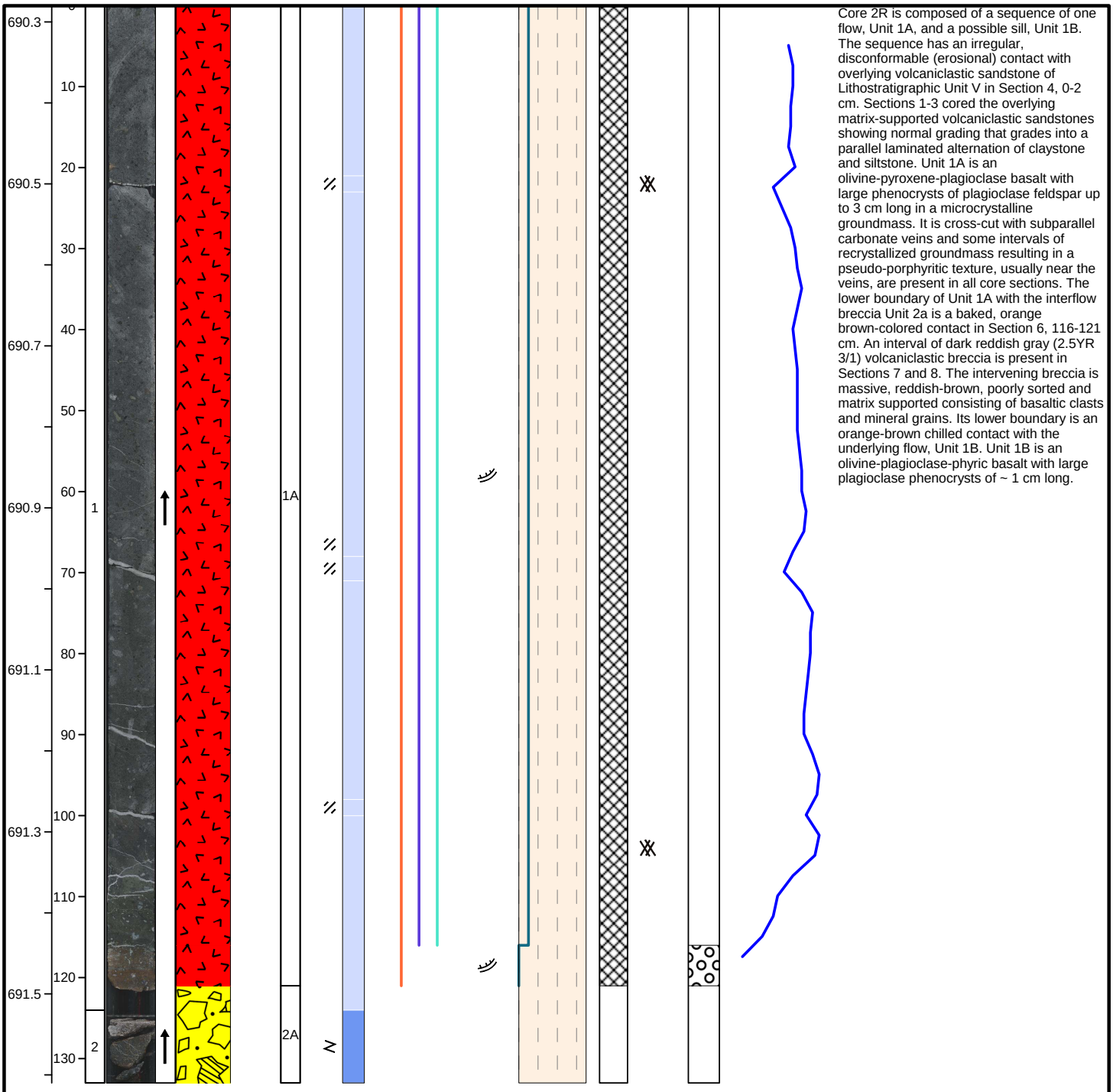
Core 2R is composed of a sequence of one flow, Unit 1A, and a possible sill, Unit 1B. The sequence has an irregular, disconformable (erosional) contact with overlying volcaniclastic sandstone of Lithostratigraphic Unit V in Section 4, 0-2 cm. Sections 1-3 cored the overlying matrix-supported volcaniclastic sandstones showing normal grading that grades into a parallel laminated alternation of claystone and siltstone. Unit 1A is an olivine-pyroxene-plagioclase basalt with large phenocrysts of plagioclase feldspar up to 3 cm long in a microcrystalline groundmass. It is cross-cut with subparallel carbonate veins and some intervals of recrystallized groundmass resulting in a pseudo-porphyritic texture, usually near the veins, are present in all core sections. The lower boundary of Unit 1A with the interflow breccia Unit 2a is a baked, orange brown-colored contact in Section 6, 116-121 cm. An interval of dark reddish gray (2.5YR 3/1) volcaniclastic breccia is present in Sections 7 and 8. The intervening breccia is massive, reddish-brown, poorly sorted and matrix supported consisting of basaltic clasts and mineral grains. Its lower boundary is an orange-brown chilled contact with the underlying flow, Unit 1B. Unit 1B is an olivine-plagioclase-phyric basalt with large plagioclase phenocrysts of ~ 1 cm long.

Hole 369-U1513E-2R Section 5, Top of Section: 689.17 m (CSF-A)



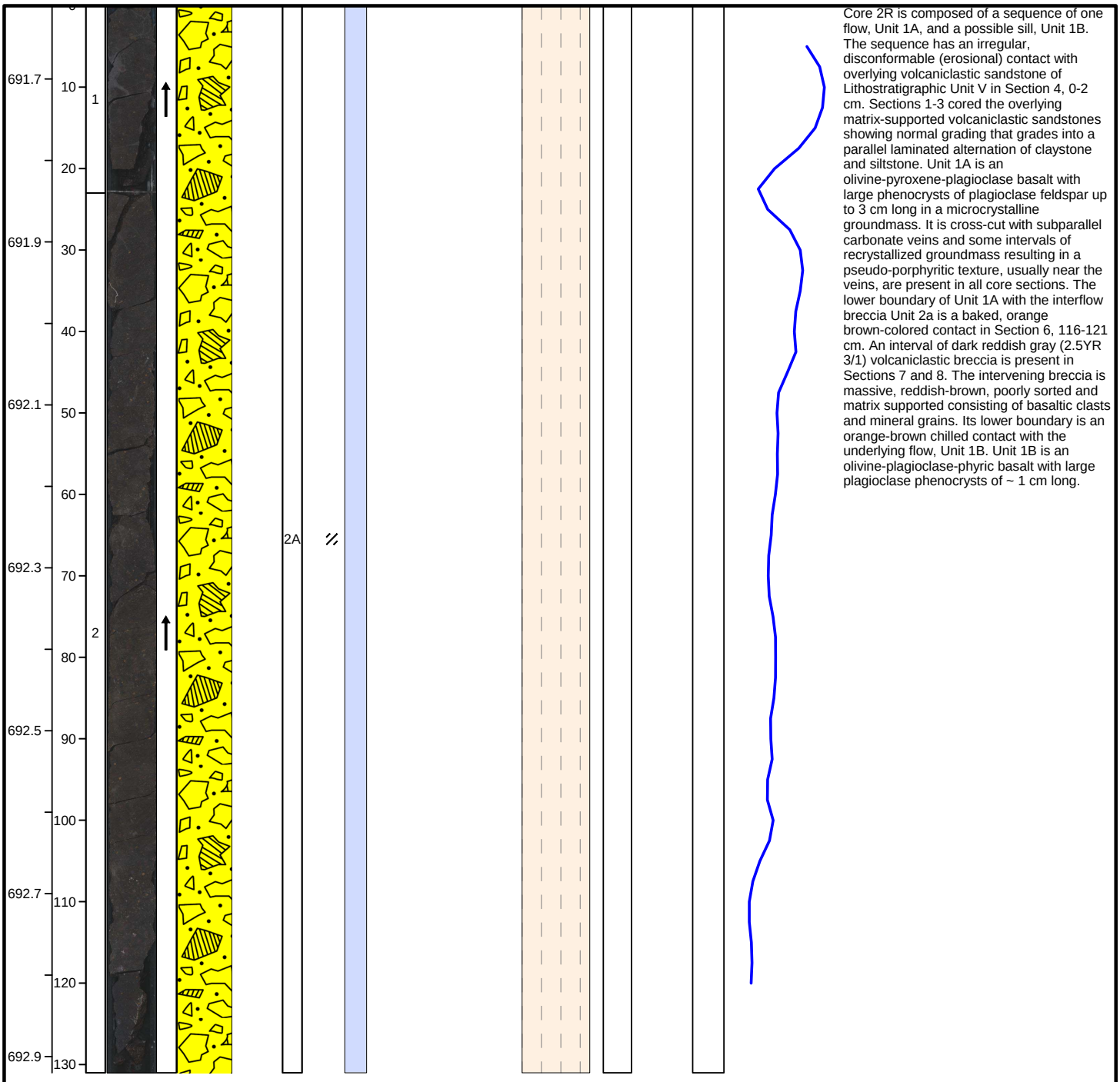
Core 2R is composed of a sequence of one flow, Unit 1A, and a possible sill, Unit 1B. The sequence has an irregular, disconformable (erosional) contact with overlying volcaniclastic sandstone of Lithostratigraphic Unit V in Section 4, 0-2 cm. Sections 1-3 cored the overlying matrix-supported volcaniclastic sandstones showing normal grading that grades into a parallel laminated alternation of claystone and siltstone. Unit 1A is an olivine-pyroxene-plagioclase basalt with large phenocrysts of plagioclase feldspar up to 3 cm long in a microcrystalline groundmass. It is cross-cut with subparallel carbonate veins and some intervals of recrystallized groundmass resulting in a pseudo-porphyritic texture, usually near the veins, are present in all core sections. The lower boundary of Unit 1A with the interflow breccia Unit 2a is a baked, orange brown-colored contact in Section 6, 116-121 cm. An interval of dark reddish gray (2.5YR 3/1) volcaniclastic breccia is present in Sections 7 and 8. The intervening breccia is massive, reddish-brown, poorly sorted and matrix supported consisting of basaltic clasts and mineral grains. Its lower boundary is an orange-brown chilled contact with the underlying flow, Unit 1B. Unit 1B is an olivine-plagioclase-phyric basalt with large plagioclase phenocrysts of ~ 1 cm long.

Hole 369-U1513E-2R Section 6, Top of Section: 690.28 m (CSF-A)



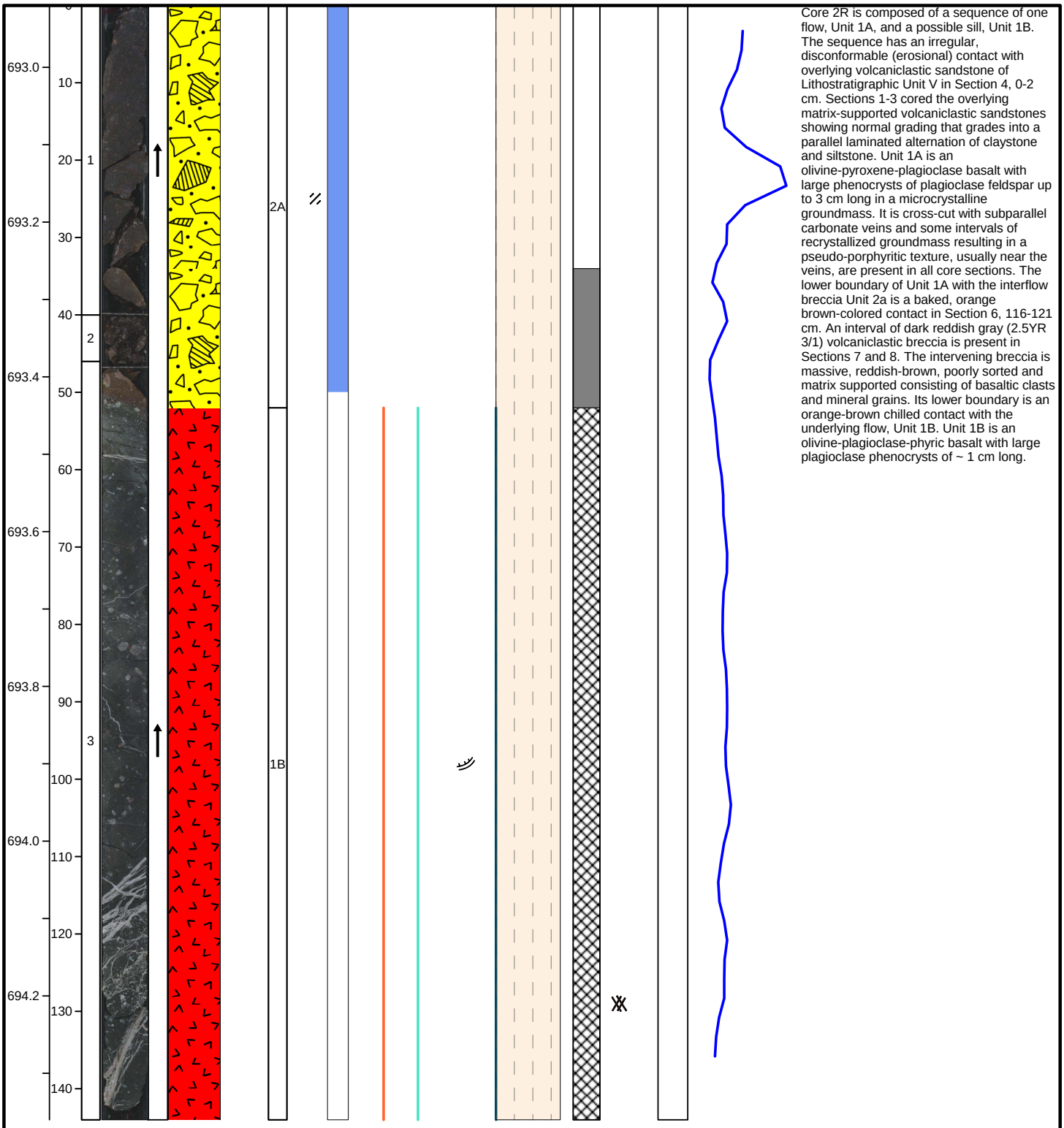
Core 2R is composed of a sequence of one flow, Unit 1A, and a possible sill, Unit 1B. The sequence has an irregular, disconformable (erosional) contact with overlying volcaniclastic sandstone of Lithostratigraphic Unit V in Section 4, 0-2 cm. Sections 1-3 cored the overlying matrix-supported volcaniclastic sandstones showing normal grading that grades into a parallel laminated alternation of claystone and siltstone. Unit 1A is an olivine-pyroxene-plagioclase basalt with large phenocrysts of plagioclase feldspar up to 3 cm long in a microcrystalline groundmass. It is cross-cut with subparallel carbonate veins and some intervals of recrystallized groundmass resulting in a pseudo-porphyritic texture, usually near the veins, are present in all core sections. The lower boundary of Unit 1A with the interflow breccia Unit 2a is a baked, orange brown-colored contact in Section 6, 116-121 cm. An interval of dark reddish gray (2.5YR 3/1) volcaniclastic breccia is present in Sections 7 and 8. The intervening breccia is massive, reddish-brown, poorly sorted and matrix supported consisting of basaltic clasts and mineral grains. Its lower boundary is an orange-brown chilled contact with the underlying flow, Unit 1B. Unit 1B is an olivine-plagioclase-phyric basalt with large plagioclase phenocrysts of ~ 1 cm long.

Hole 369-U1513E-2R Section 7, Top of Section: 691.61 m (CSF-A)



Core 2R is composed of a sequence of one flow, Unit 1A, and a possible sill, Unit 1B. The sequence has an irregular, disconformable (erosional) contact with overlying volcaniclastic sandstone of Lithostratigraphic Unit V in Section 4, 0-2 cm. Sections 1-3 cored the overlying matrix-supported volcaniclastic sandstones showing normal grading that grades into a parallel laminated alternation of claystone and siltstone. Unit 1A is an olivine-pyroxene-plagioclase basalt with large phenocrysts of plagioclase feldspar up to 3 cm long in a microcrystalline groundmass. It is cross-cut with subparallel carbonate veins and some intervals of recrystallized groundmass resulting in a pseudo-porphyritic texture, usually near the veins, are present in all core sections. The lower boundary of Unit 1A with the interflow breccia Unit 2a is a baked, orange brown-colored contact in Section 6, 116-121 cm. An interval of dark reddish gray (2.5YR 3/1) volcaniclastic breccia is present in Sections 7 and 8. The intervening breccia is massive, reddish-brown, poorly sorted and matrix supported consisting of basaltic clasts and mineral grains. Its lower boundary is an orange-brown chilled contact with the underlying flow, Unit 1B. Unit 1B is an olivine-plagioclase-phyric basalt with large plagioclase phenocrysts of ~ 1 cm long.

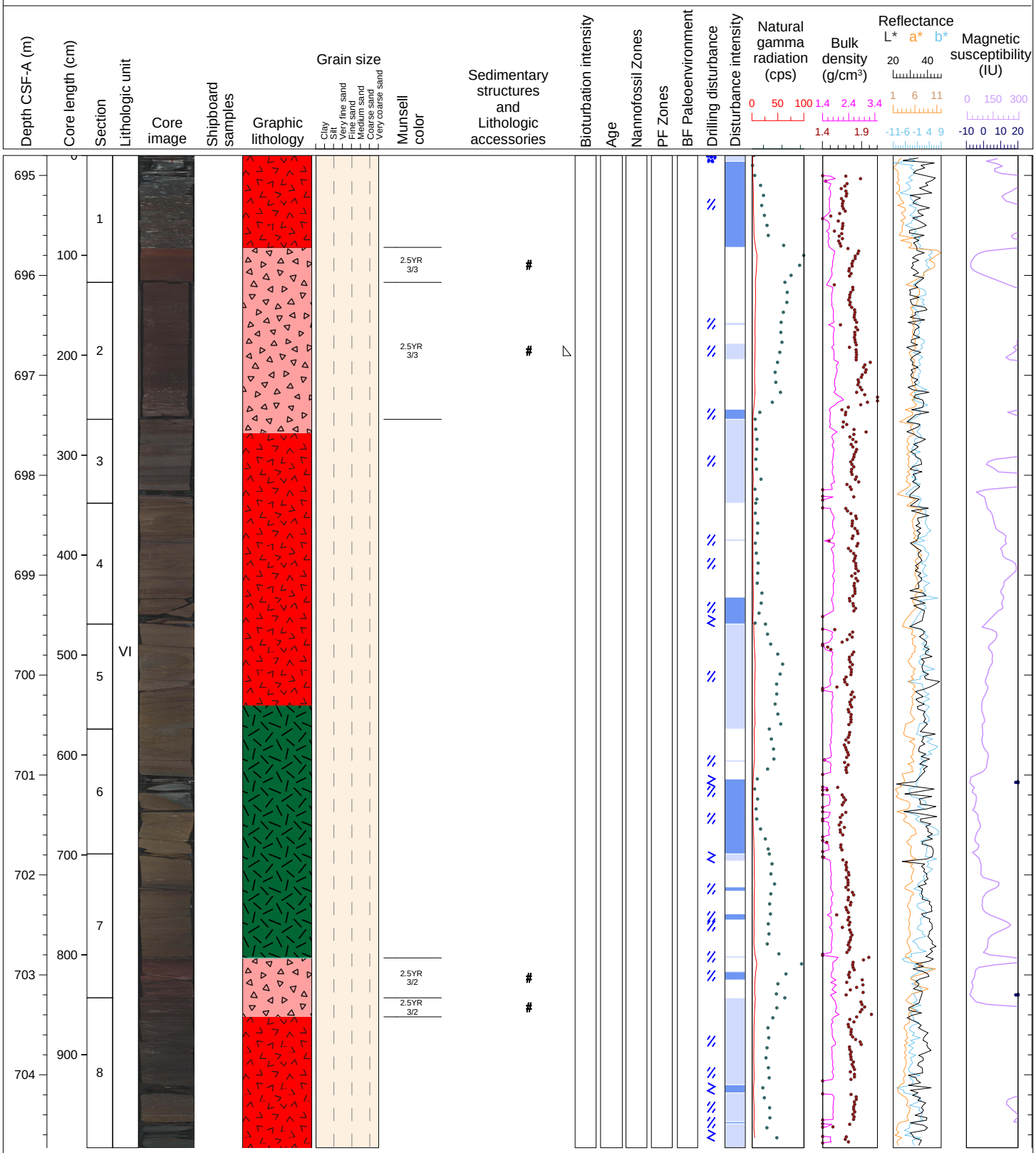
Hole 369-U1513E-2R Section 8, Top of Section: 692.92 m (CSF-A)



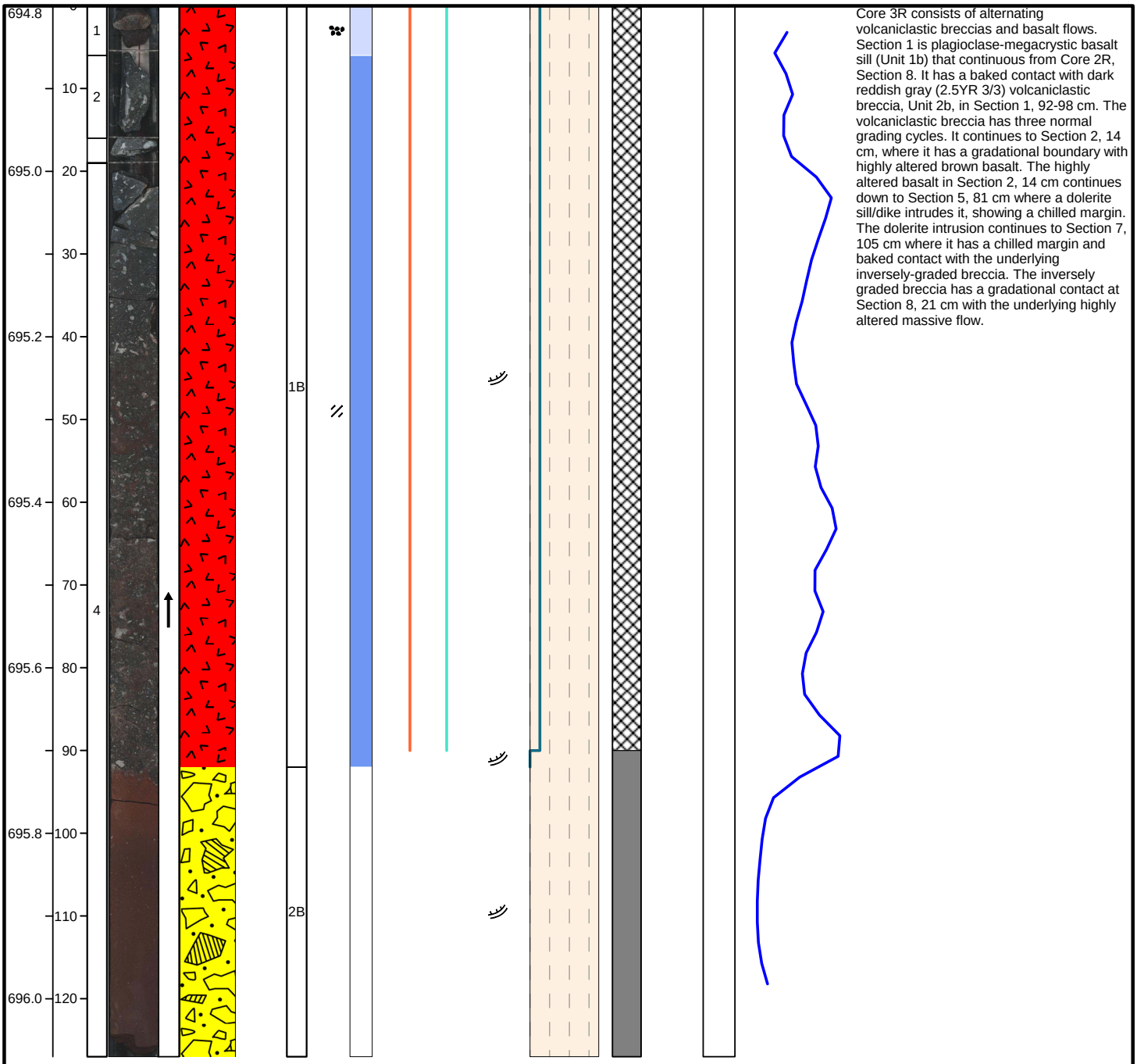
Core 2R is composed of a sequence of one flow, Unit 1A, and a possible sill, Unit 1B. The sequence has an irregular, disconformable (erosional) contact with overlying volcaniclastic sandstone of Lithostratigraphic Unit V in Section 4, 0-2 cm. Sections 1-3 cored the overlying matrix-supported volcaniclastic sandstones showing normal grading that grades into a parallel laminated alternation of claystone and siltstone. Unit 1A is an olivine-pyroxene-plagioclase basalt with large phenocrysts of plagioclase feldspar up to 3 cm long in a microcrystalline groundmass. It is cross-cut with subparallel carbonate veins and some intervals of recrystallized groundmass resulting in a pseudo-porphyritic texture, usually near the veins, are present in all core sections. The lower boundary of Unit 1A with the interflow breccia Unit 2a is a baked, orange brown-colored contact in Section 6, 116-121 cm. An interval of dark reddish gray (2.5YR 3/1) volcaniclastic breccia is present in Sections 7 and 8. The intervening breccia is massive, reddish-brown, poorly sorted and matrix supported consisting of basaltic clasts and mineral grains. Its lower boundary is an orange-brown chilled contact with the underlying flow, Unit 1B. Unit 1B is an olivine-plagioclase-phyric basalt with large plagioclase phenocrysts of ~ 1 cm long.

Hole 369-U1513E Core 3R, Interval 694.8-704.73 m (CSF-A)

Core 3R consists of alternating volcaniclastic breccias and basalt flows. Section 1 is plagioclase-megacrystic basalt sill (Unit 1b) that continuous from Core 2R, Section 8. It has a baked contact with dark reddish gray (2.5YR 3/3) volcaniclastic breccia, Unit 2b, in Section 1, 92-98 cm. The volcaniclastic breccia has three normal grading cycles. It continues to Section 2, 14 cm, where it has a gradational boundary with highly altered brown basalt. The highly altered basalt in Section 2, 14 cm continues down to Section 5, 81 cm where a dolerite sill/dike intrudes it, showing a chilled margin. The dolerite intrusion continues to Section 7, 105 cm where it has a chilled margin and baked contact with the underlying inversely-graded breccia. The inversely graded breccia has a gradational contact at Section 8, 21 cm with the underlying highly altered massive flow.

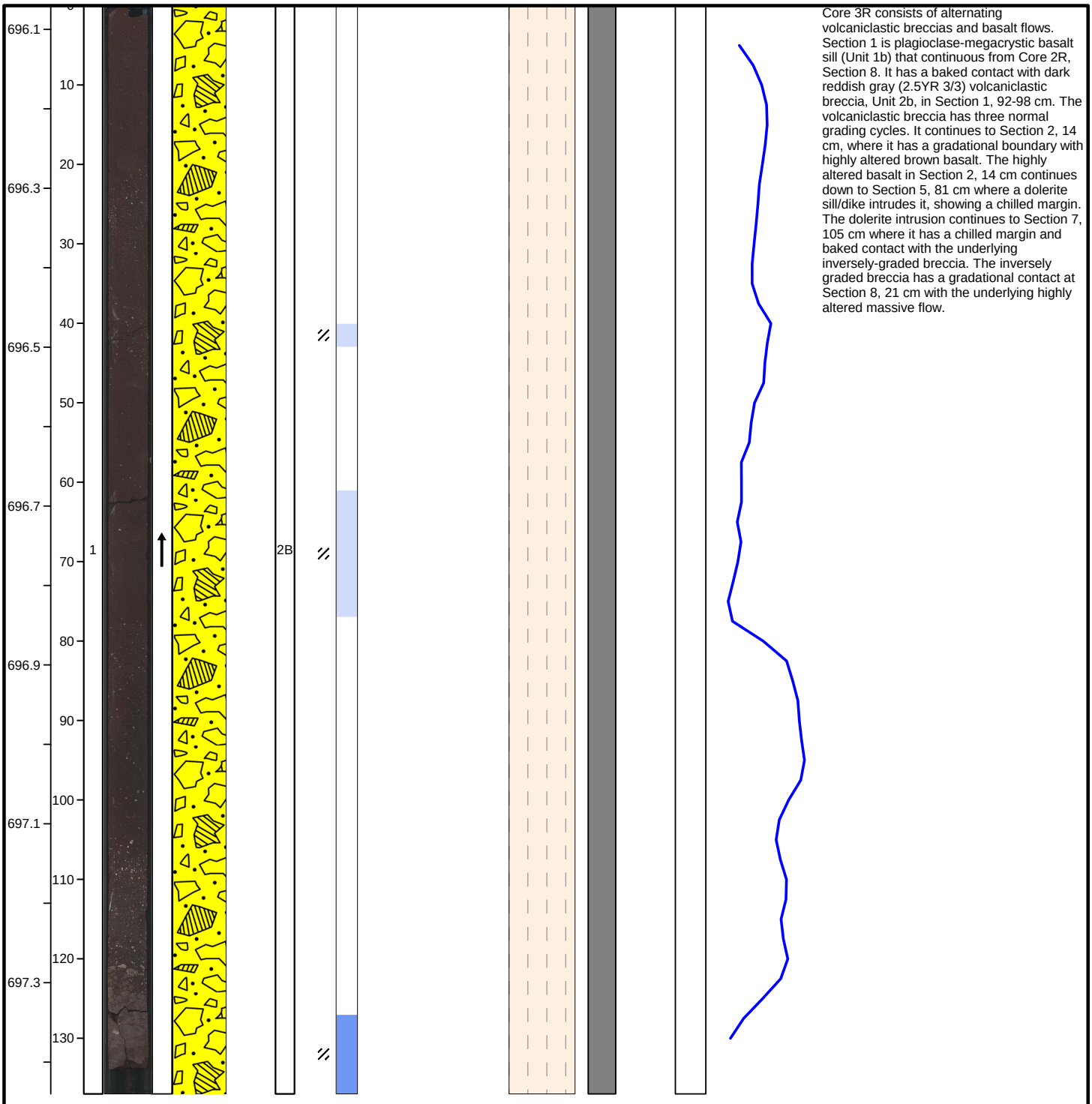


Hole 369-U1513E-3R Section 1, Top of Section: 694.8 m (CSF-A)



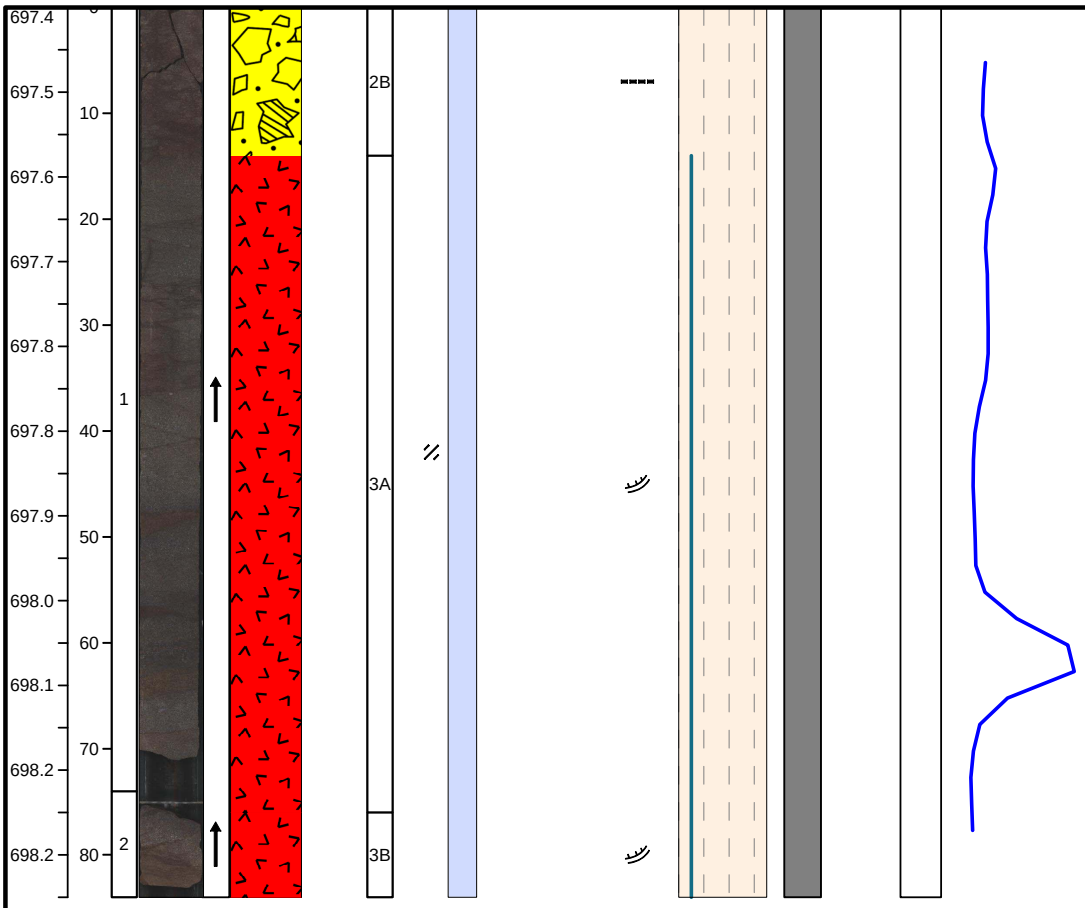
Core 3R consists of alternating volcaniclastic breccias and basalt flows. Section 1 is plagioclase-megacrystic basalt sill (Unit 1b) that continuous from Core 2R, Section 8. It has a baked contact with dark reddish gray (2.5YR 3/3) volcaniclastic breccia, Unit 2b, in Section 1, 92-98 cm. The volcaniclastic breccia has three normal grading cycles. It continues to Section 2, 14 cm, where it has a gradational boundary with highly altered brown basalt. The highly altered basalt in Section 2, 14 cm continues down to Section 5, 81 cm where a dolerite sill/dike intrudes it, showing a chilled margin. The dolerite intrusion continues to Section 7, 105 cm where it has a chilled margin and baked contact with the underlying inversely-graded breccia. The inversely graded breccia has a gradational contact at Section 8, 21 cm with the underlying highly altered massive flow.

Hole 369-U1513E-3R Section 2, Top of Section: 696.07 m (CSF-A)



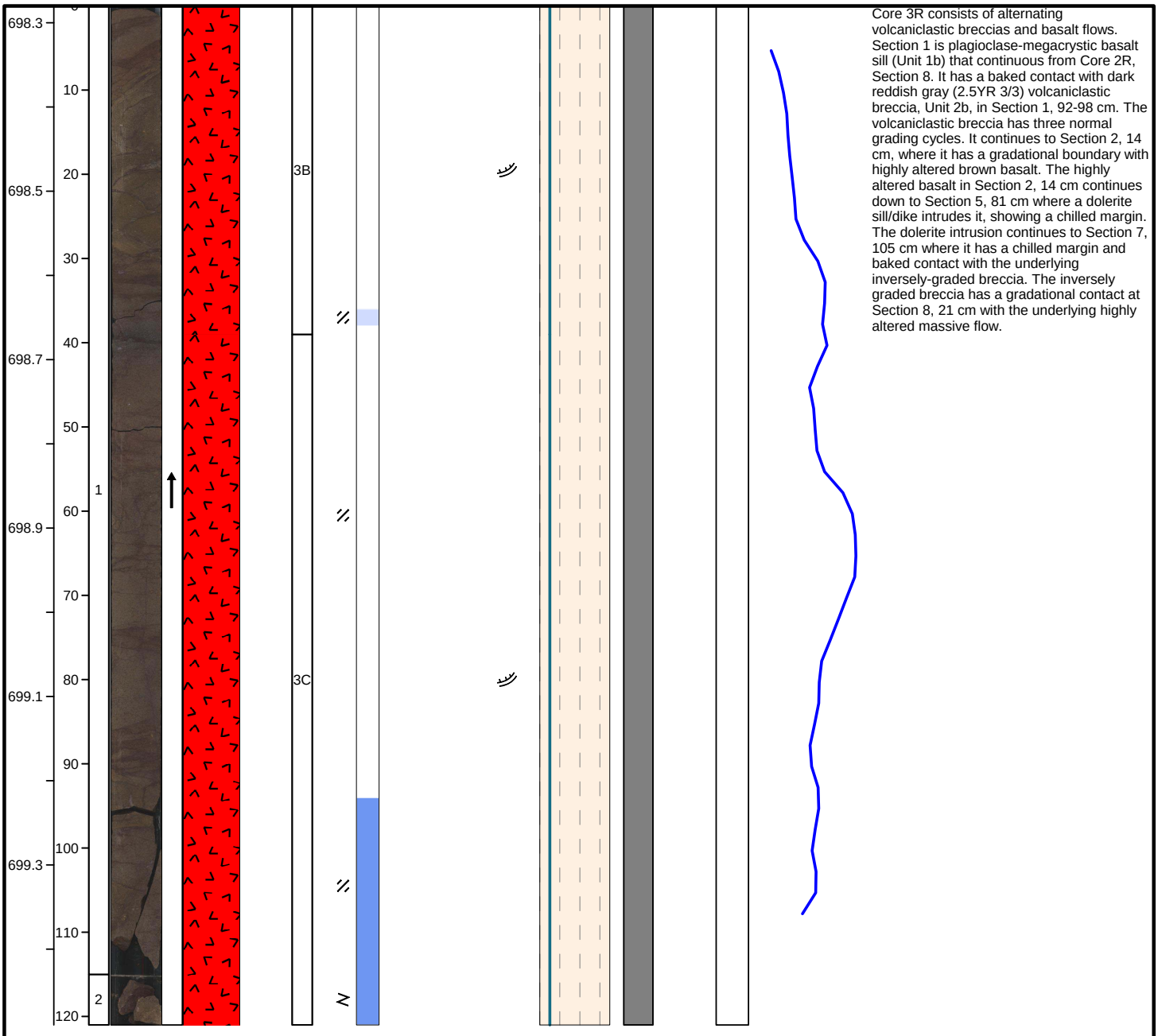
Core 3R consists of alternating volcaniclastic breccias and basalt flows. Section 1 is plagioclase-megacrystic basalt sill (Unit 1b) that continuous from Core 2R, Section 8. It has a baked contact with dark reddish gray (2.5YR 3/3) volcaniclastic breccia, Unit 2b, in Section 1, 92-98 cm. The volcaniclastic breccia has three normal grading cycles. It continues to Section 2, 14 cm, where it has a gradational boundary with highly altered brown basalt. The highly altered basalt in Section 2, 14 cm continues down to Section 5, 81 cm where a dolerite sill/dike intrudes it, showing a chilled margin. The dolerite intrusion continues to Section 7, 105 cm where it has a chilled margin and baked contact with the underlying inversely-graded breccia. The inversely graded breccia has a gradational contact at Section 8, 21 cm with the underlying highly altered massive flow.

Hole 369-U1513E-3R Section 3, Top of Section: 697.44 m (CSF-A)



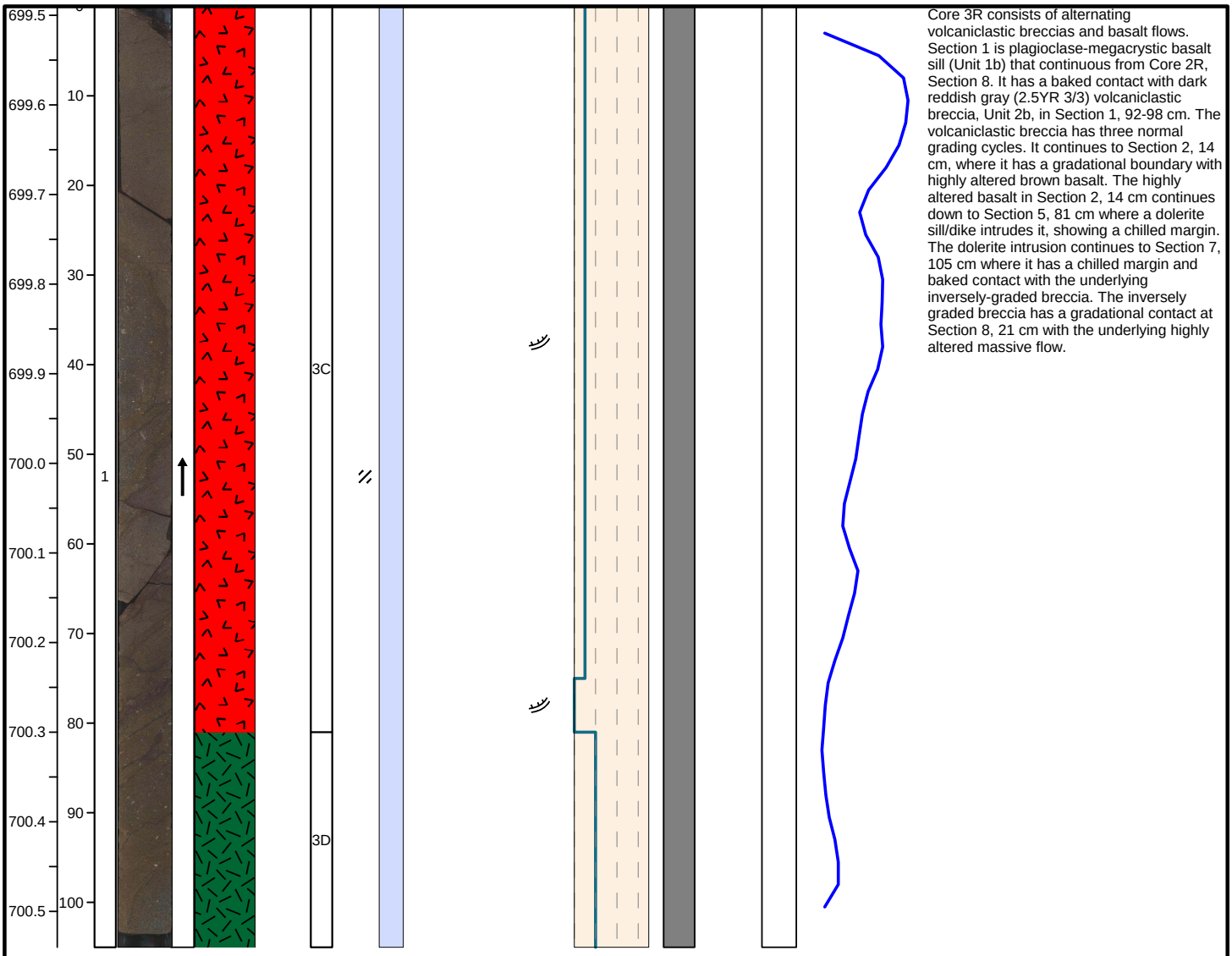
Core 3R consists of alternating volcaniclastic breccias and basalt flows. Section 1 is plagioclase-megacrystic basalt sill (Unit 1b) that continuous from Core 2R, Section 8. It has a baked contact with dark reddish gray (2.5YR 3/3) volcaniclastic breccia, Unit 2b, in Section 1, 92-98 cm. The volcaniclastic breccia has three normal grading cycles. It continues to Section 2, 14 cm, where it has a gradational boundary with highly altered brown basalt. The highly altered basalt in Section 2, 14 cm continues down to Section 5, 81 cm where a dolerite sill/dike intrudes it, showing a chilled margin. The dolerite intrusion continues to Section 7, 105 cm where it has a chilled margin and baked contact with the underlying inversely-graded breccia. The inversely graded breccia has a gradational contact at Section 8, 21 cm with the underlying highly altered massive flow.

Hole 369-U1513E-3R Section 4, Top of Section: 698.28 m (CSF-A)



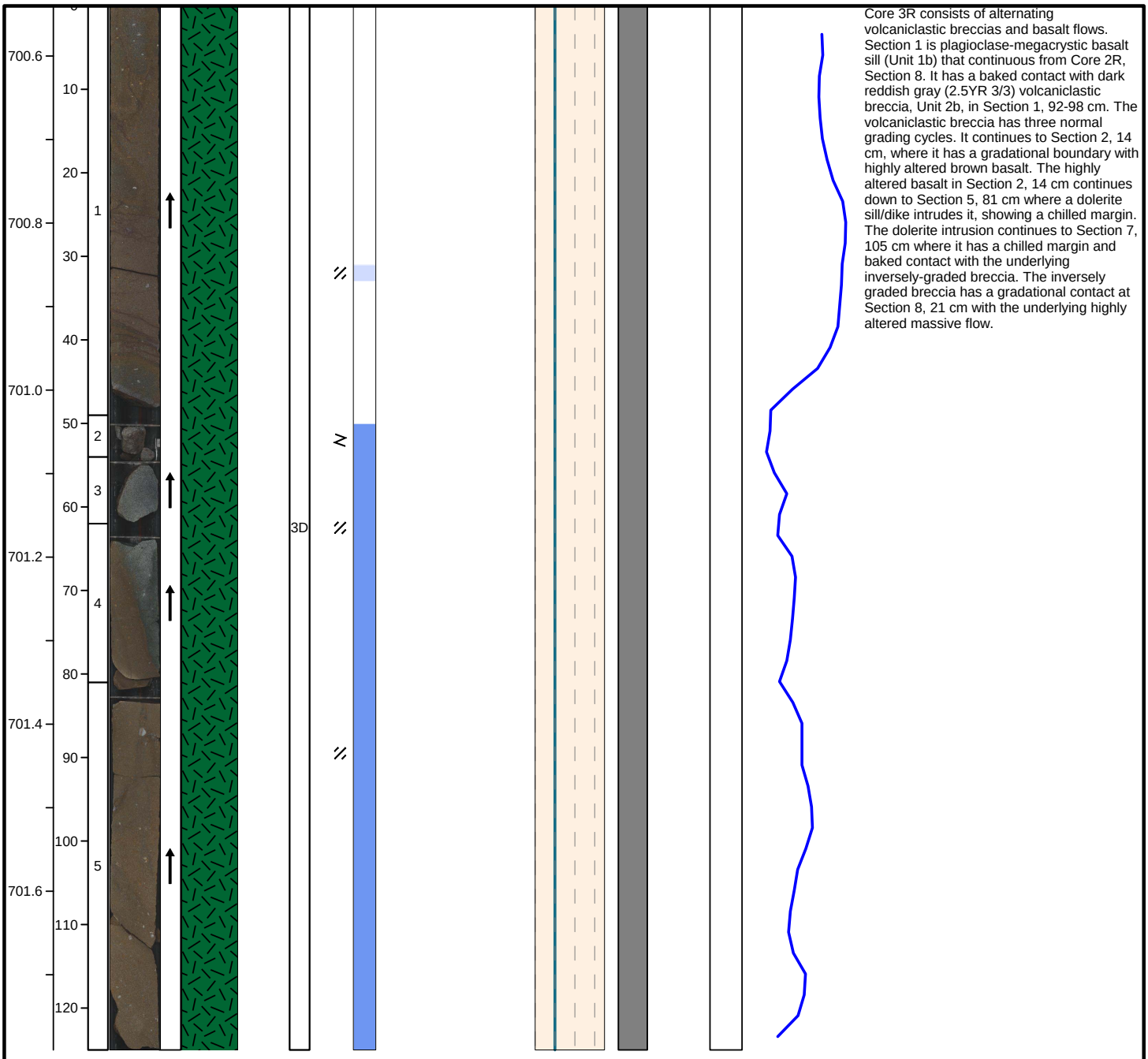
Core 3R consists of alternating volcaniclastic breccias and basalt flows. Section 1 is plagioclase-megacrystic basalt sill (Unit 1b) that continuous from Core 2R, Section 8. It has a baked contact with dark reddish gray (2.5YR 3/3) volcaniclastic breccia, Unit 2b, in Section 1, 92-98 cm. The volcaniclastic breccia has three normal grading cycles. It continues to Section 2, 14 cm, where it has a gradational boundary with highly altered brown basalt. The highly altered basalt in Section 2, 14 cm continues down to Section 5, 81 cm where a dolerite sill/dike intrudes it, showing a chilled margin. The dolerite intrusion continues to Section 7, 105 cm where it has a chilled margin and baked contact with the underlying inversely-graded breccia. The inversely graded breccia has a gradational contact at Section 8, 21 cm with the underlying highly altered massive flow.

Hole 369-U1513E-3R Section 5, Top of Section: 699.49 m (CSF-A)



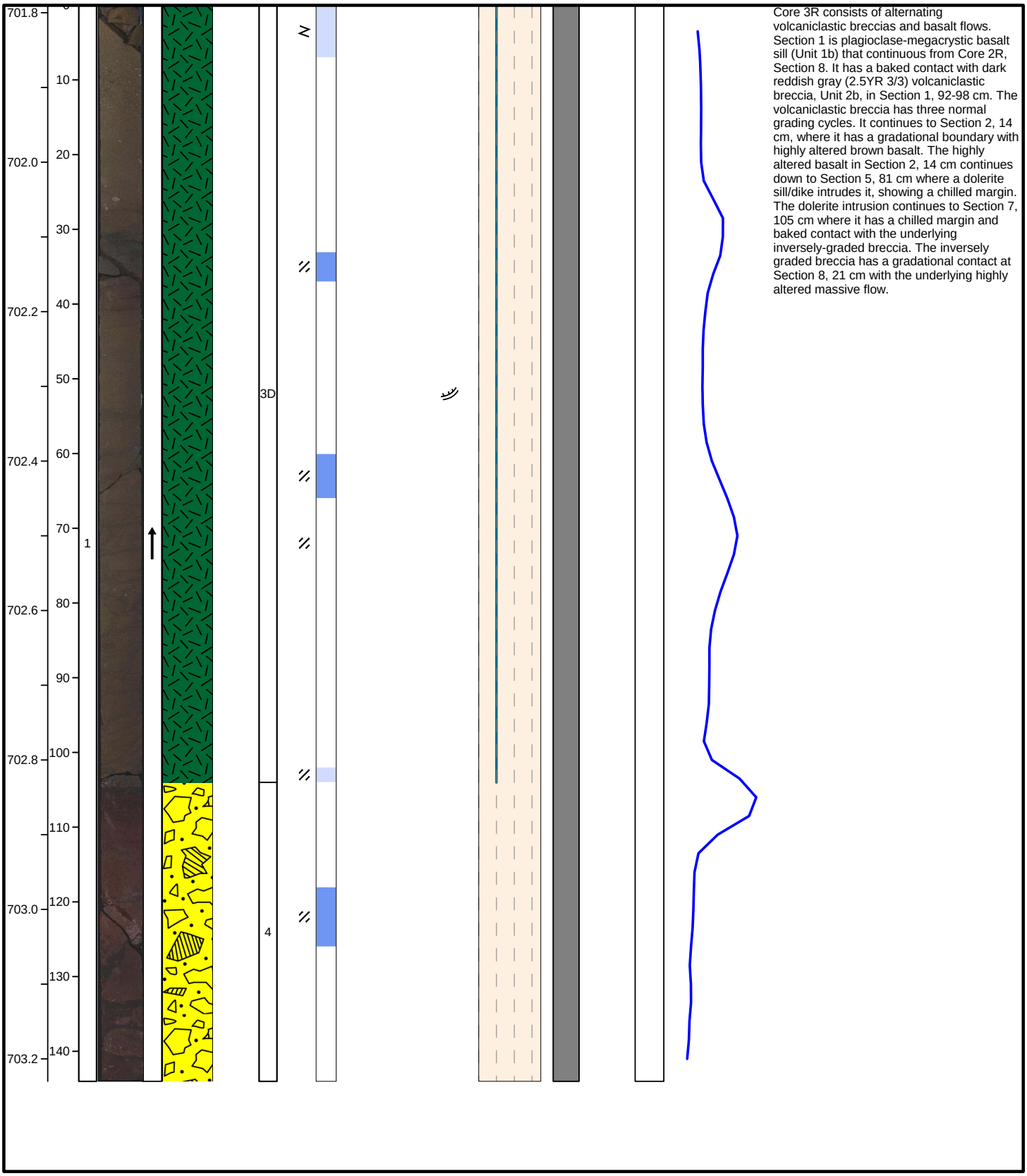
Core 3R consists of alternating volcaniclastic breccias and basalt flows. Section 1 is plagioclase-megacrystic basalt sill (Unit 1b) that continuous from Core 2R, Section 8. It has a baked contact with dark reddish gray (2.5YR 3/3) volcaniclastic breccia, Unit 2b, in Section 1, 92-98 cm. The volcaniclastic breccia has three normal grading cycles. It continues to Section 2, 14 cm, where it has a gradational boundary with highly altered brown basalt. The highly altered basalt in Section 2, 14 cm continues down to Section 5, 81 cm where a dolerite sill/dike intrudes it, showing a chilled margin. The dolerite intrusion continues to Section 7, 105 cm where it has a chilled margin and baked contact with the underlying inversely-graded breccia. The inversely graded breccia has a gradational contact at Section 8, 21 cm with the underlying highly altered massive flow.

Hole 369-U1513E-3R Section 6, Top of Section: 700.54 m (CSF-A)



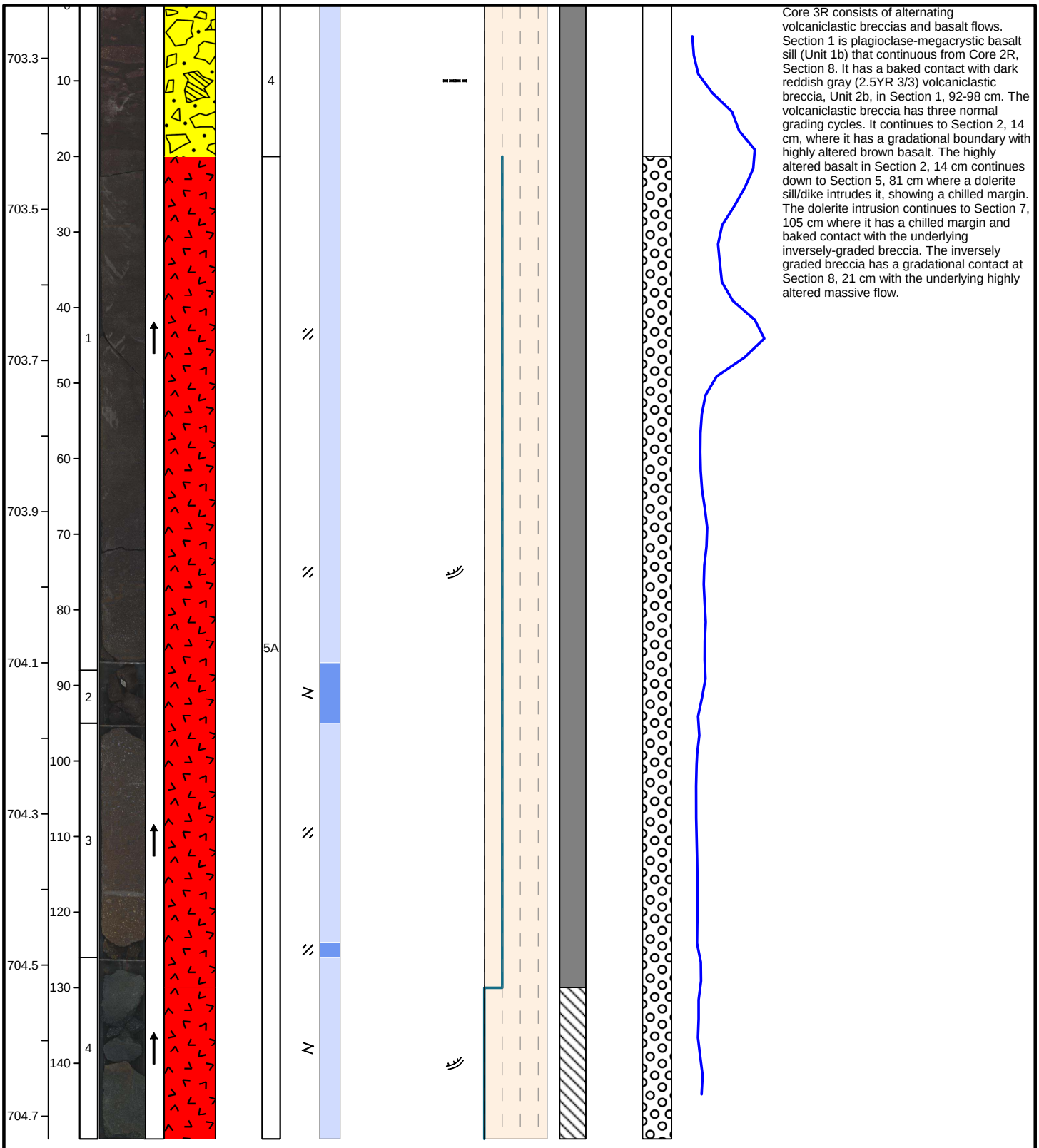
Core 3R consists of alternating volcaniclastic breccias and basalt flows. Section 1 is plagioclase-megacrystic basalt sill (Unit 1b) that continuous from Core 2R, Section 8. It has a baked contact with dark reddish gray (2.5YR 3/3) volcaniclastic breccia, Unit 2b, in Section 1, 92-98 cm. The volcaniclastic breccia has three normal grading cycles. It continues to Section 2, 14 cm, where it has a gradational boundary with highly altered brown basalt. The highly altered basalt in Section 2, 14 cm continues down to Section 5, 81 cm where a dolerite sill/dike intrudes it, showing a chilled margin. The dolerite intrusion continues to Section 7, 105 cm where it has a chilled margin and baked contact with the underlying inversely-graded breccia. The inversely graded breccia has a gradational contact at Section 8, 21 cm with the underlying highly altered massive flow.

Hole 369-U1513E-3R Section 7, Top of Section: 701.79 m (CSF-A)



Core 3R consists of alternating volcaniclastic breccias and basalt flows. Section 1 is plagioclase-megacrystic basalt sill (Unit 1b) that continuous from Core 2R, Section 8. It has a baked contact with dark reddish gray (2.5YR 3/3) volcaniclastic breccia, Unit 2b, in Section 1, 92-98 cm. The volcaniclastic breccia has three normal grading cycles. It continues to Section 2, 14 cm, where it has a gradational boundary with highly altered brown basalt. The highly altered basalt in Section 2, 14 cm continues down to Section 5, 81 cm where a dolerite sill/dike intrudes it, showing a chilled margin. The dolerite intrusion continues to Section 7, 105 cm where it has a chilled margin and baked contact with the underlying inversely-graded breccia. The inversely graded breccia has a gradational contact at Section 8, 21 cm with the underlying highly altered massive flow.

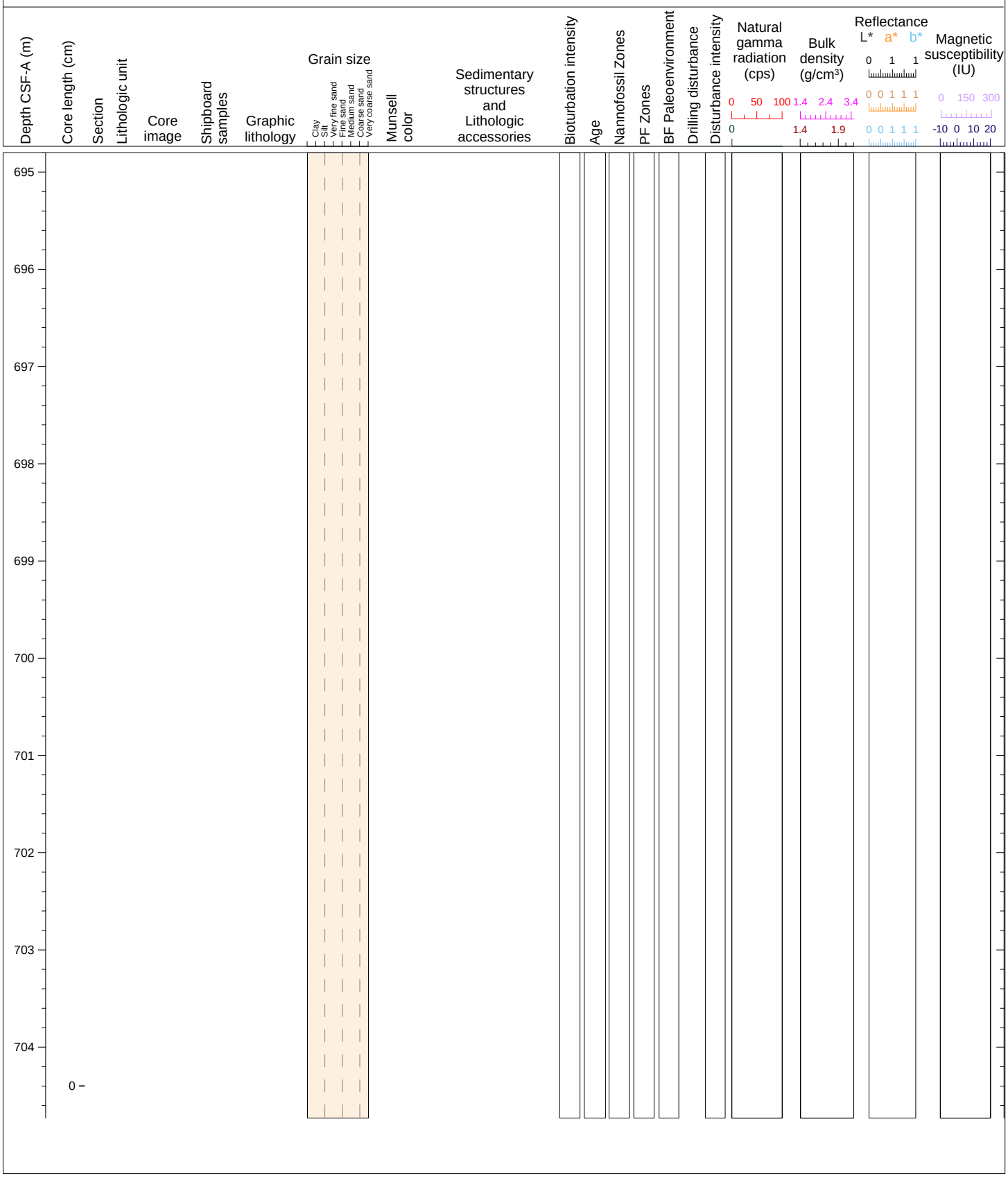
Hole 369-U1513E-3R Section 8, Top of Section: 703.23 m (CSF-A)



Core 3R consists of alternating volcaniclastic breccias and basalt flows. Section 1 is plagioclase-megacrystic basalt sill (Unit 1b) that continuous from Core 2R, Section 8. It has a baked contact with dark reddish gray (2.5YR 3/3) volcaniclastic breccia, Unit 2b, in Section 1, 92-98 cm. The volcaniclastic breccia has three normal grading cycles. It continues to Section 2, 14 cm, where it has a gradational boundary with highly altered brown basalt. The highly altered basalt in Section 2, 14 cm continues down to Section 5, 81 cm where a dolerite sill/dike intrudes it, showing a chilled margin. The dolerite intrusion continues to Section 7, 105 cm where it has a chilled margin and baked contact with the underlying inversely-graded breccia. The inversely graded breccia has a gradational contact at Section 8, 21 cm with the underlying highly altered massive flow.

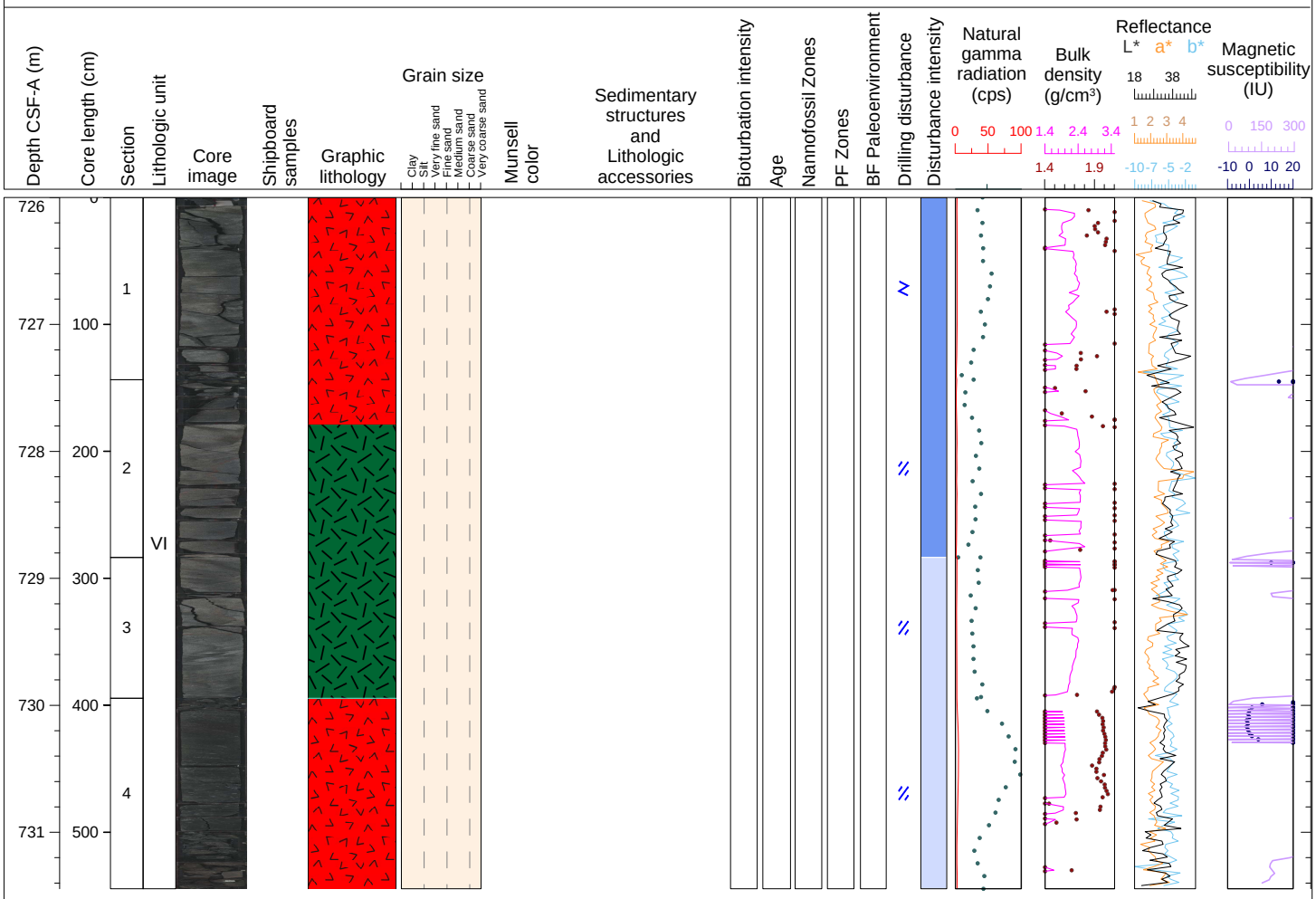
Hole 369-U1513E Core 41, Interval 704.4-704.4 m (CSF-A)

Drilled interval

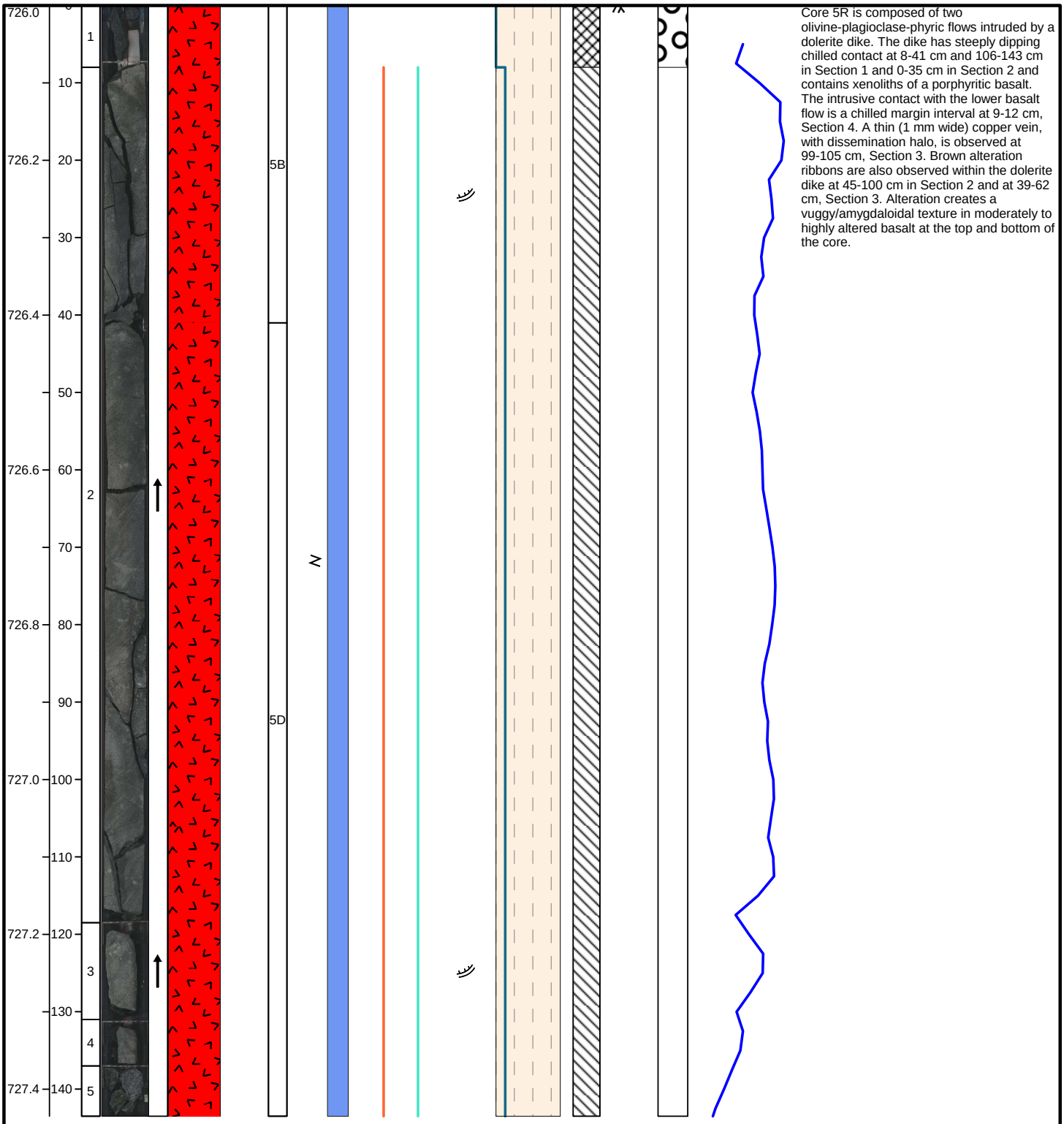


Hole 369-U1513E Core 5R, Interval 726.0-731.445 m (CSF-A)

Core 5R is composed of two olivine-plagioclase-phyric flows intruded by a dolerite dike. The dike has steeply dipping chilled contact at 8-41 cm and 106-143 cm in Section 1 and 0-35 cm in Section 2 and contains xenoliths of a porphyritic basalt. The intrusive contact with the lower basalt flow is a chilled margin interval at 9-12 cm, Section 4. A thin (1 mm wide) copper vein, with dissemination halo, is observed at 99-105 cm, Section 3. Brown alteration ribbons are also observed within the dolerite dike at 45-100 cm in Section 2 and at 39-62 cm, Section 3. Alteration creates a vuggy/amygdaloidal texture in moderately to highly altered basalt at the top and bottom of the core.

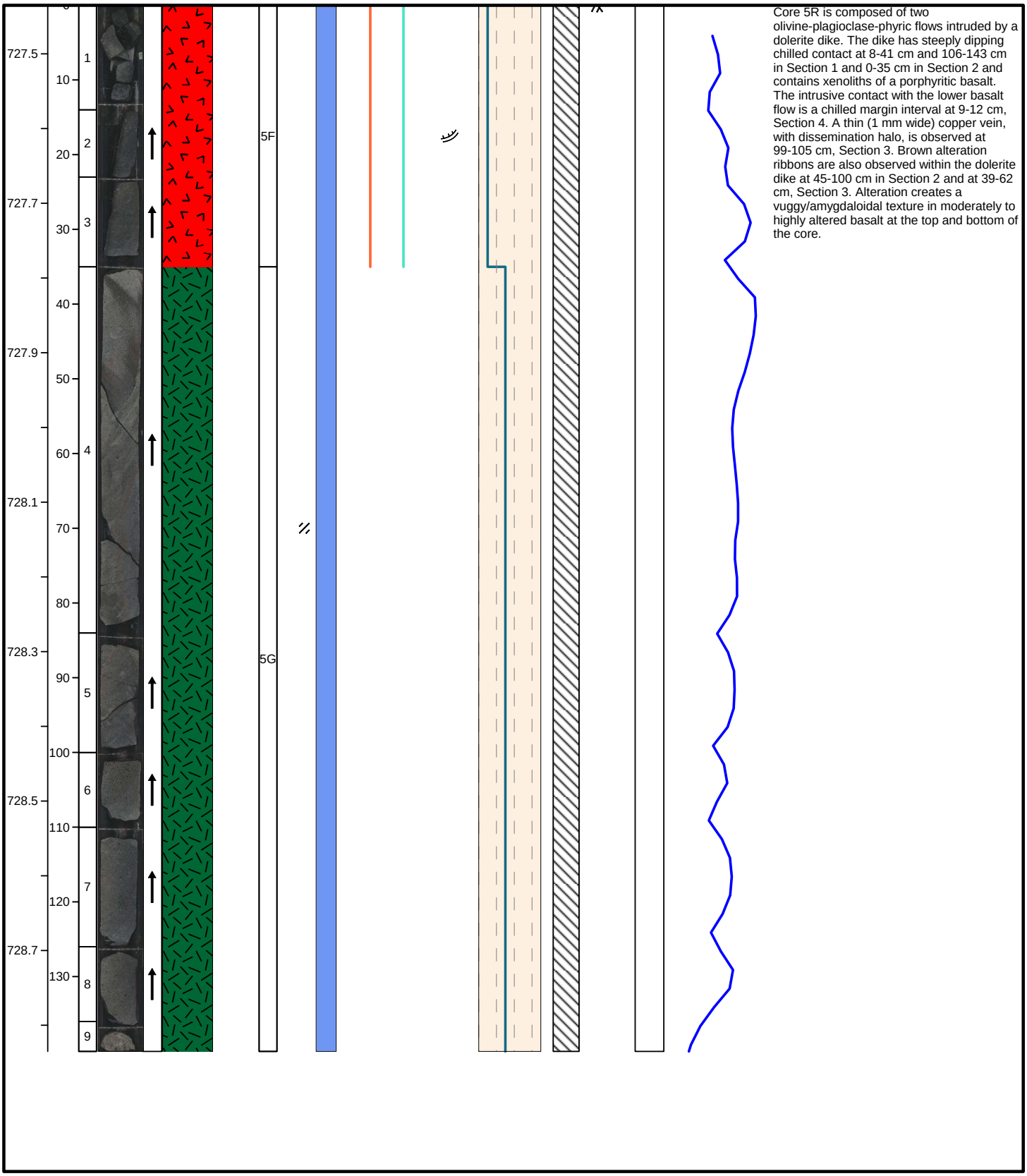


Hole 369-U1513E-5R Section 1, Top of Section: 726.0 m (CSF-A)



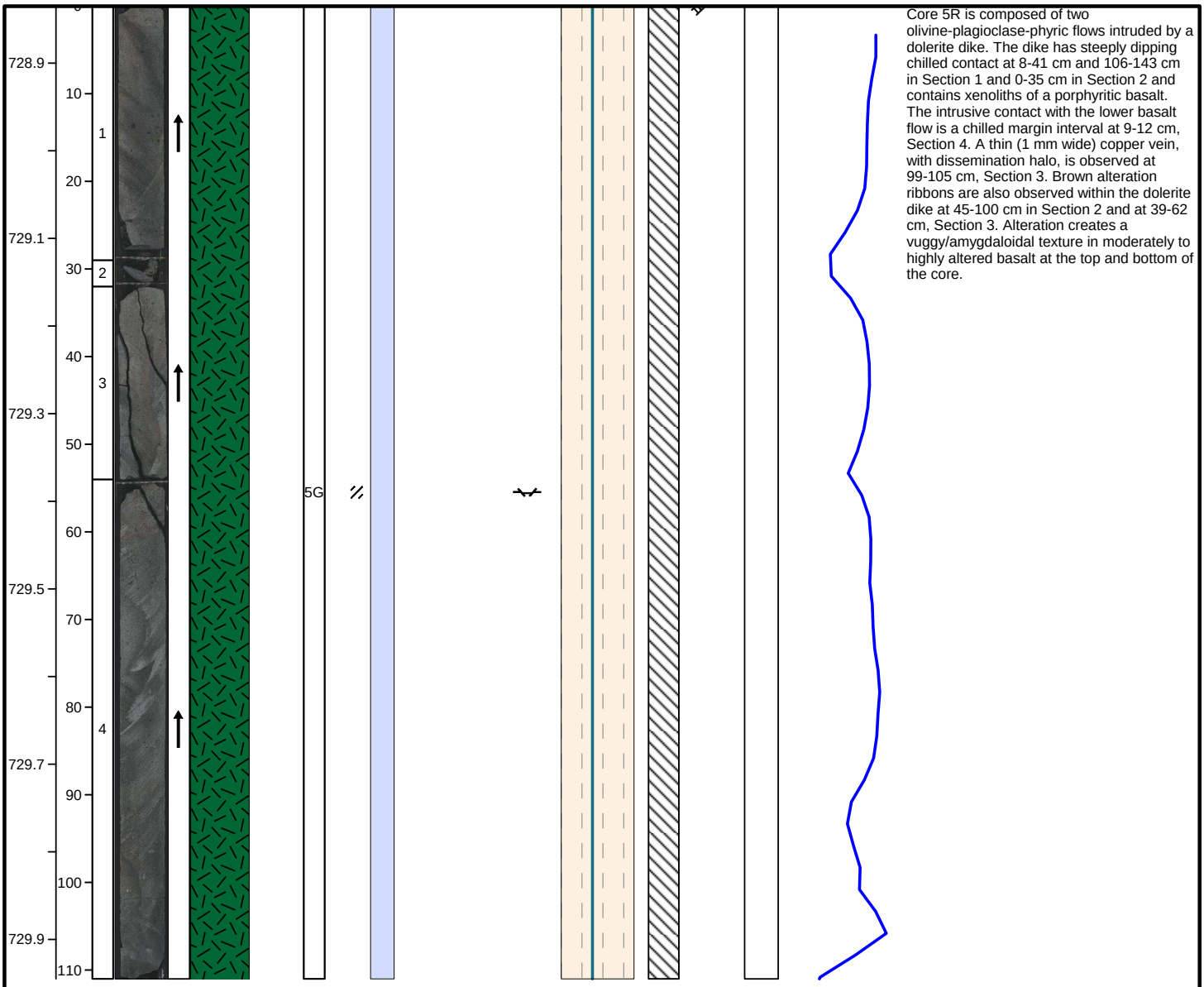
Core 5R is composed of two olivine-plagioclase-phyric flows intruded by a dolerite dike. The dike has steeply dipping chilled contact at 8-41 cm and 106-143 cm in Section 1 and 0-35 cm in Section 2 and contains xenoliths of a porphyritic basalt. The intrusive contact with the lower basalt flow is a chilled margin interval at 9-12 cm, Section 4. A thin (1 mm wide) copper vein, with dissemination halo, is observed at 99-105 cm, Section 3. Brown alteration ribbons are also observed within the dolerite dike at 45-100 cm in Section 2 and at 39-62 cm, Section 3. Alteration creates a vuggy/amygdaloidal texture in moderately to highly altered basalt at the top and bottom of the core.

Hole 369-U1513E-5R Section 2, Top of Section: 727.435 m (CSF-A)



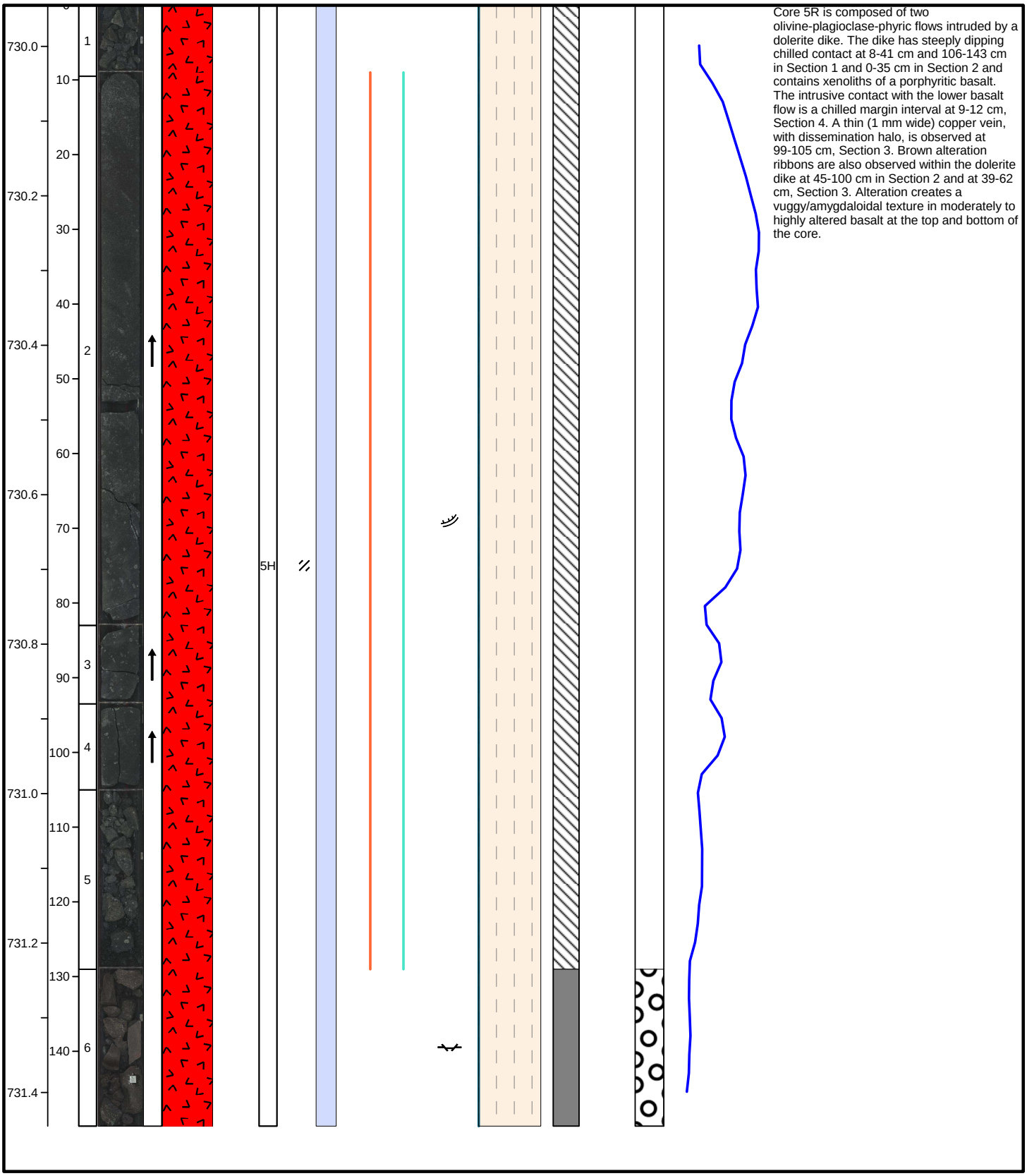
Core 5R is composed of two olivine-plagioclase-phyric flows intruded by a dolerite dike. The dike has steeply dipping chilled contact at 8-41 cm and 106-143 cm in Section 1 and 0-35 cm in Section 2 and contains xenoliths of a porphyritic basalt. The intrusive contact with the lower basalt flow is a chilled margin interval at 9-12 cm, Section 4. A thin (1 mm wide) copper vein, with dissemination halo, is observed at 99-105 cm, Section 3. Brown alteration ribbons are also observed within the dolerite dike at 45-100 cm in Section 2 and at 39-62 cm, Section 3. Alteration creates a vuggy/amygdaloidal texture in moderately to highly altered basalt at the top and bottom of the core.

Hole 369-U1513E-5R Section 3, Top of Section: 728.835 m (CSF-A)



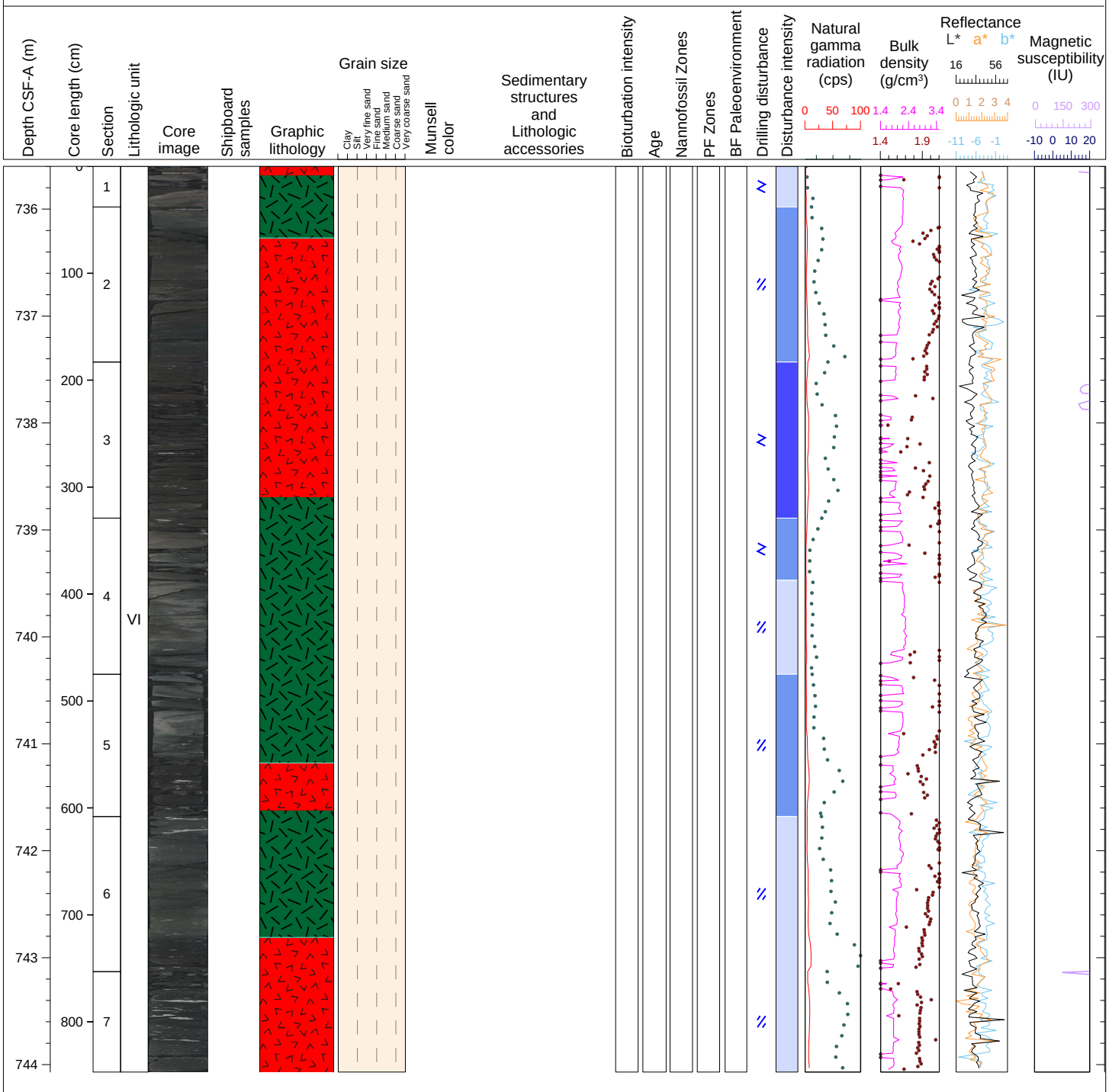
Core 5R is composed of two olivine-plagioclase-phyric flows intruded by a dolerite dike. The dike has steeply dipping chilled contact at 8-41 cm and 106-143 cm in Section 1 and 0-35 cm in Section 2 and contains xenoliths of a porphyritic basalt. The intrusive contact with the lower basalt flow is a chilled margin interval at 9-12 cm, Section 4. A thin (1 mm wide) copper vein, with dissemination halo, is observed at 99-105 cm, Section 3. Brown alteration ribbons are also observed within the dolerite dike at 45-100 cm in Section 2 and at 39-62 cm, Section 3. Alteration creates a vuggy/amygdaloidal texture in moderately to highly altered basalt at the top and bottom of the core.

Hole 369-U1513E-5R Section 4, Top of Section: 729.945 m (CSF-A)

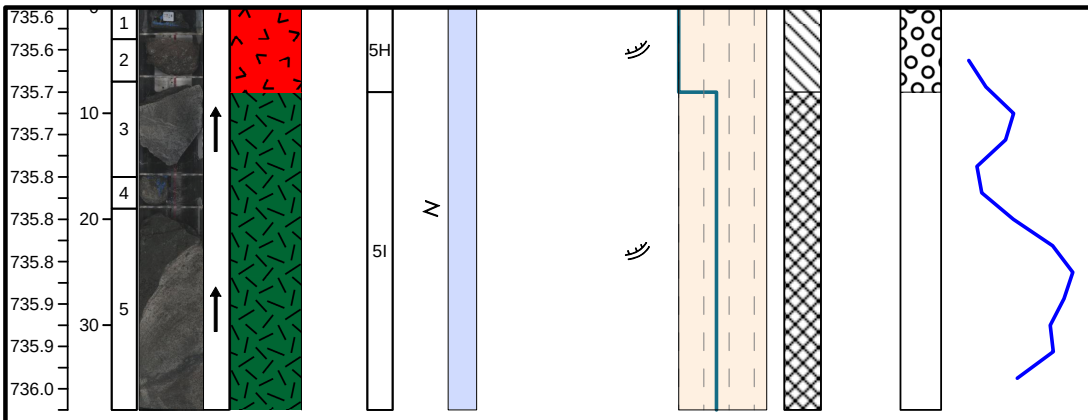


Hole 369-U1513E Core 6R, Interval 735.6-744.07 m (CSF-A)

Core 6R consists of three flow units 5H, 5I, and 5J intruded by a dolerite dike in Sections 1 (29-38 cm), Section 2 (0-21 cm), Section 3, 126 cm to Section 5, 83 cm, and at Section 6 (0-113 cm). Flow Unit 5H is an olivine-pyroxene-phyric basalt with propylitic alteration overprint from 18-117 cm, Section 2, inducing amygdaloidal texture. The dolerite dike intrusion contains xenoliths of the basalt showing diffuse margins. Units 5I and 5J are black, sparsely pyroxene-plagioclase-phyric basalt with round to elongated vugs and with amygdaloidal texture near their chilled margin boundary at 75-82 cm, Section 3. Some cavities are lined with calcite and malachite that show very well-developed crystal forms.

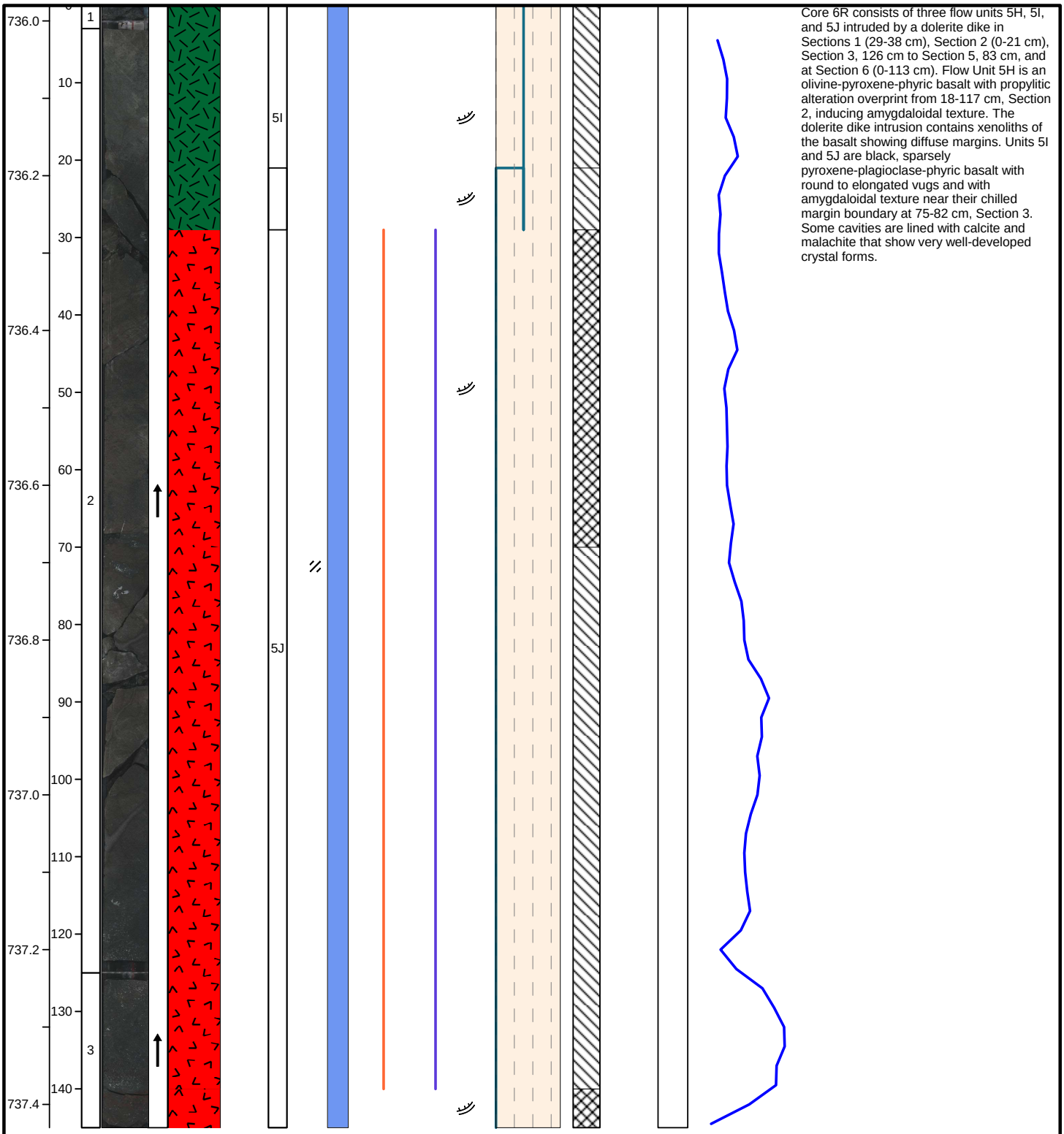


Hole 369-U1513E-6R Section 1, Top of Section: 735.6 m (CSF-A)



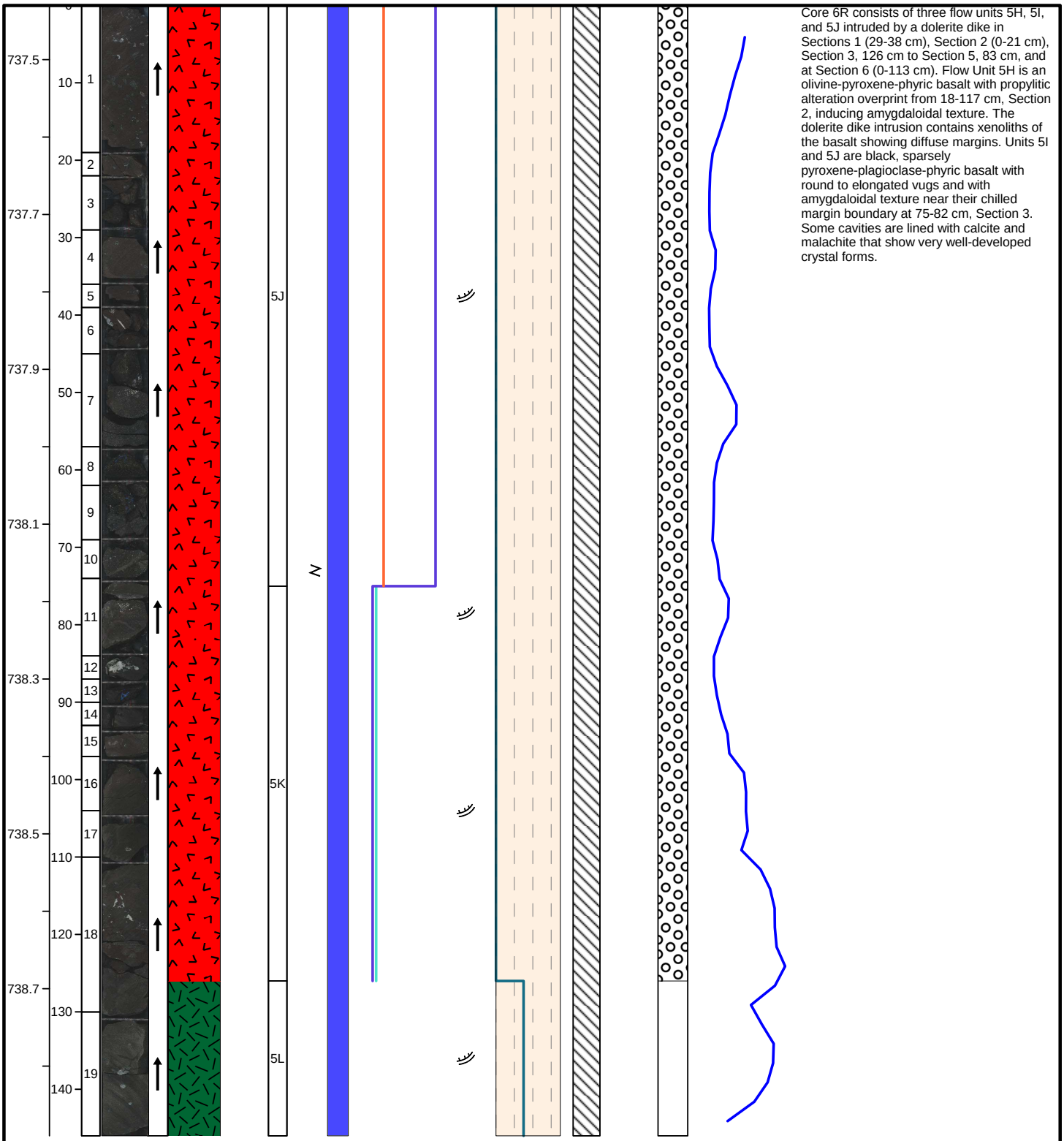
Core 6R consists of three flow units 5H, 5I, and 5J intruded by a dolerite dike in Sections 1 (29-38 cm), Section 2 (0-21 cm), Section 3, 126 cm to Section 5, 83 cm, and at Section 6 (0-113 cm). Flow Unit 5H is an olivine-pyroxene-phyric basalt with propylitic alteration overprint from 18-117 cm, Section 2, inducing amygdaloidal texture. The dolerite dike intrusion contains xenoliths of the basalt showing diffuse margins. Units 5I and 5J are black, sparsely pyroxene-plagioclase-phyric basalt with round to elongated vugs and with amygdaloidal texture near their chilled margin boundary at 75-82 cm, Section 3. Some cavities are lined with calcite and malachite that show very well-developed crystal forms.

Hole 369-U1513E-6R Section 2, Top of Section: 735.98 m (CSF-A)



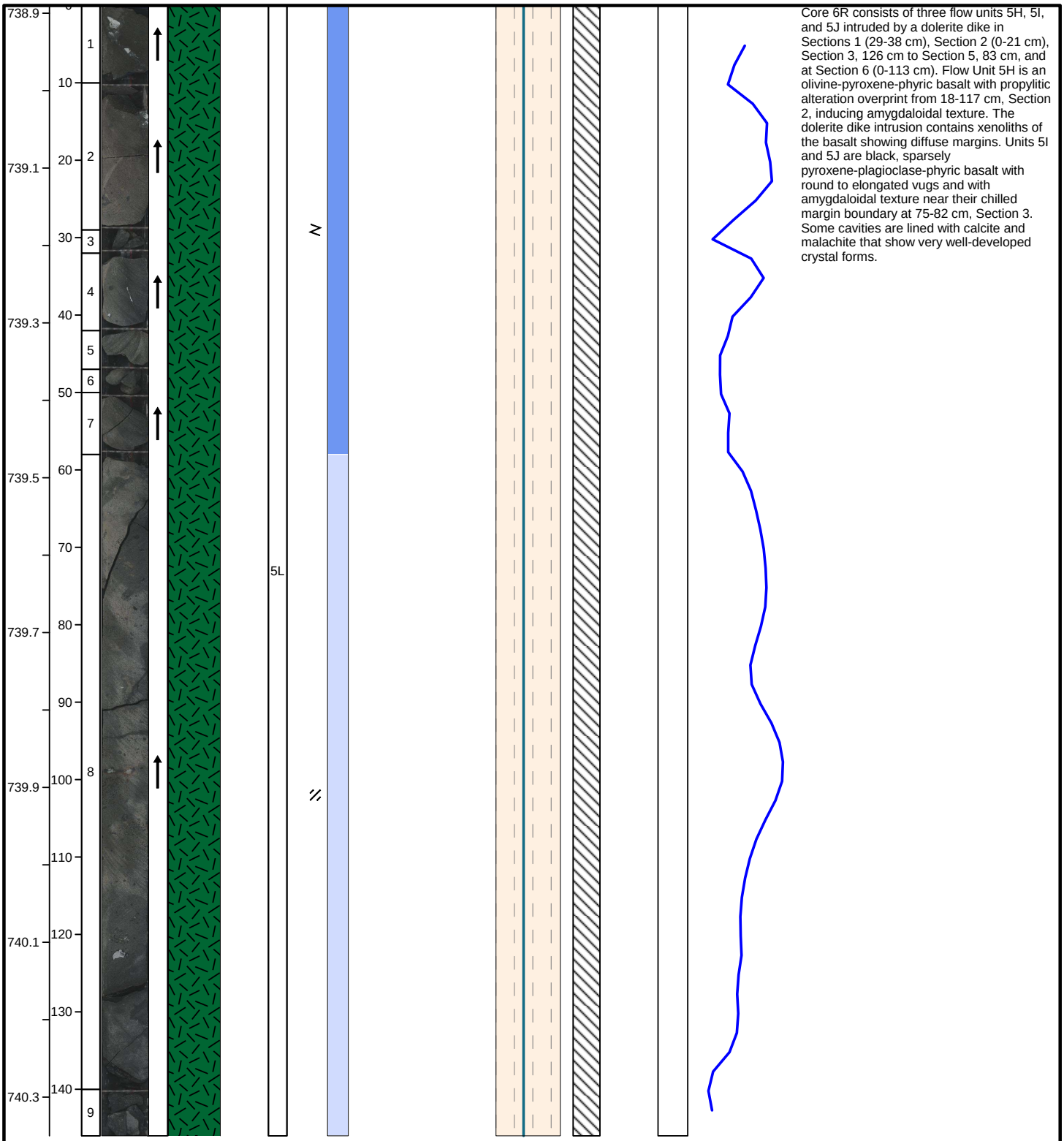
Core 6R consists of three flow units 5H, 5I, and 5J intruded by a dolerite dike in Sections 1 (29-38 cm), Section 2 (0-21 cm), Section 3, 126 cm to Section 5, 83 cm, and at Section 6 (0-113 cm). Flow Unit 5H is an olivine-pyroxene-phyric basalt with propylitic alteration overprint from 18-117 cm, Section 2, inducing amygdaloidal texture. The dolerite dike intrusion contains xenoliths of the basalt showing diffuse margins. Units 5I and 5J are black, sparsely pyroxene-plagioclase-phyric basalt with round to elongated vugs and with amygdaloidal texture near their chilled margin boundary at 75-82 cm, Section 3. Some cavities are lined with calcite and malachite that show very well-developed crystal forms.

Hole 369-U1513E-6R Section 3, Top of Section: 737.43 m (CSF-A)

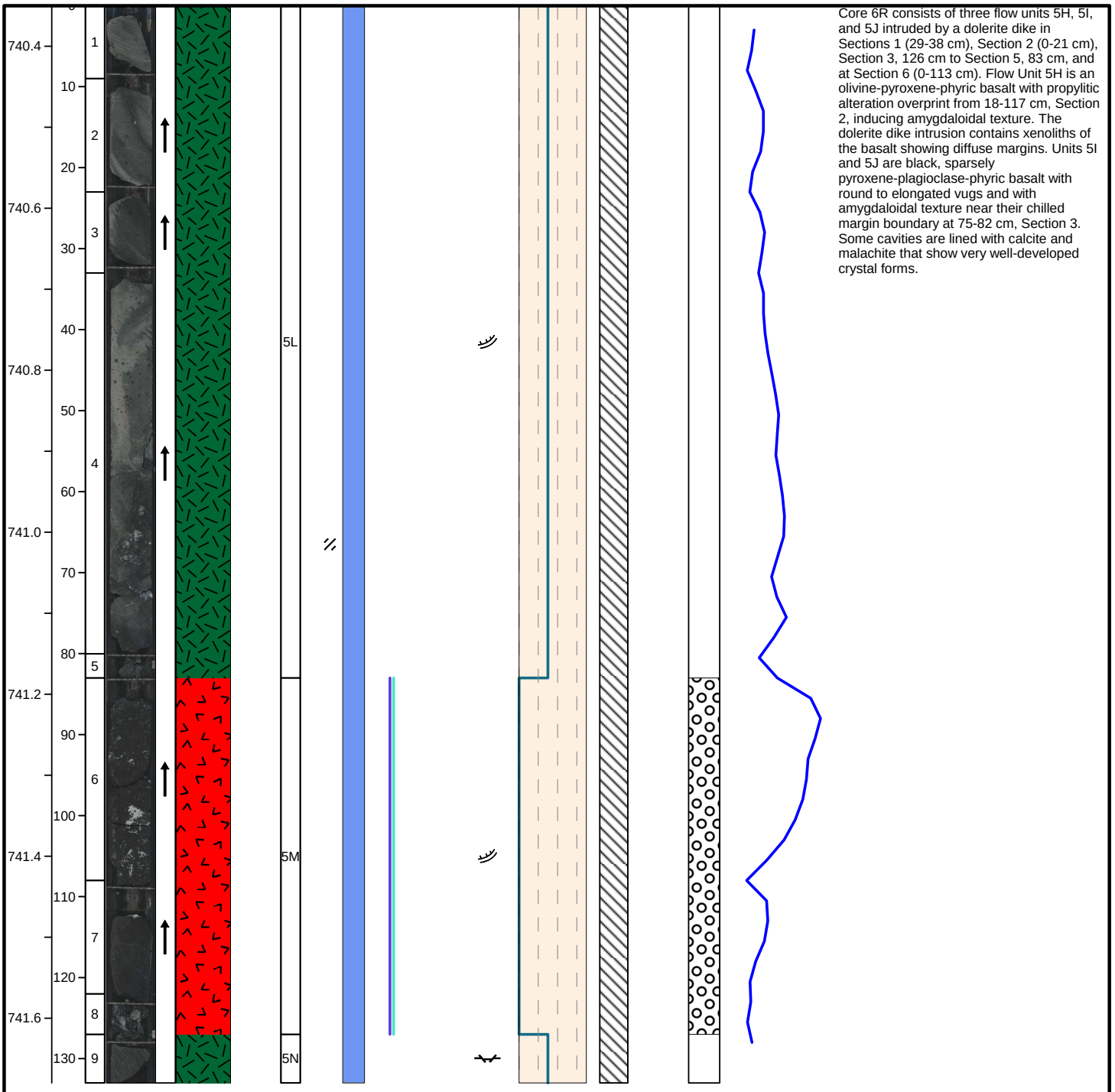


Core 6R consists of three flow units 5H, 5I, and 5J intruded by a dolerite dike in Sections 1 (29-38 cm), Section 2 (0-21 cm), Section 3, 126 cm to Section 5, 83 cm, and at Section 6 (0-113 cm). Flow Unit 5H is an olivine-pyroxene-phyric basalt with propylitic alteration overprint from 18-117 cm, Section 2, inducing amygdaloidal texture. The dolerite dike intrusion contains xenoliths of the basalt showing diffuse margins. Units 5I and 5J are black, sparsely pyroxene-plagioclase-phyric basalt with round to elongated vugs and with amygdaloidal texture near their chilled margin boundary at 75-82 cm, Section 3. Some cavities are lined with calcite and malachite that show very well-developed crystal forms.

Hole 369-U1513E-6R Section 4, Top of Section: 738.89 m (CSF-A)

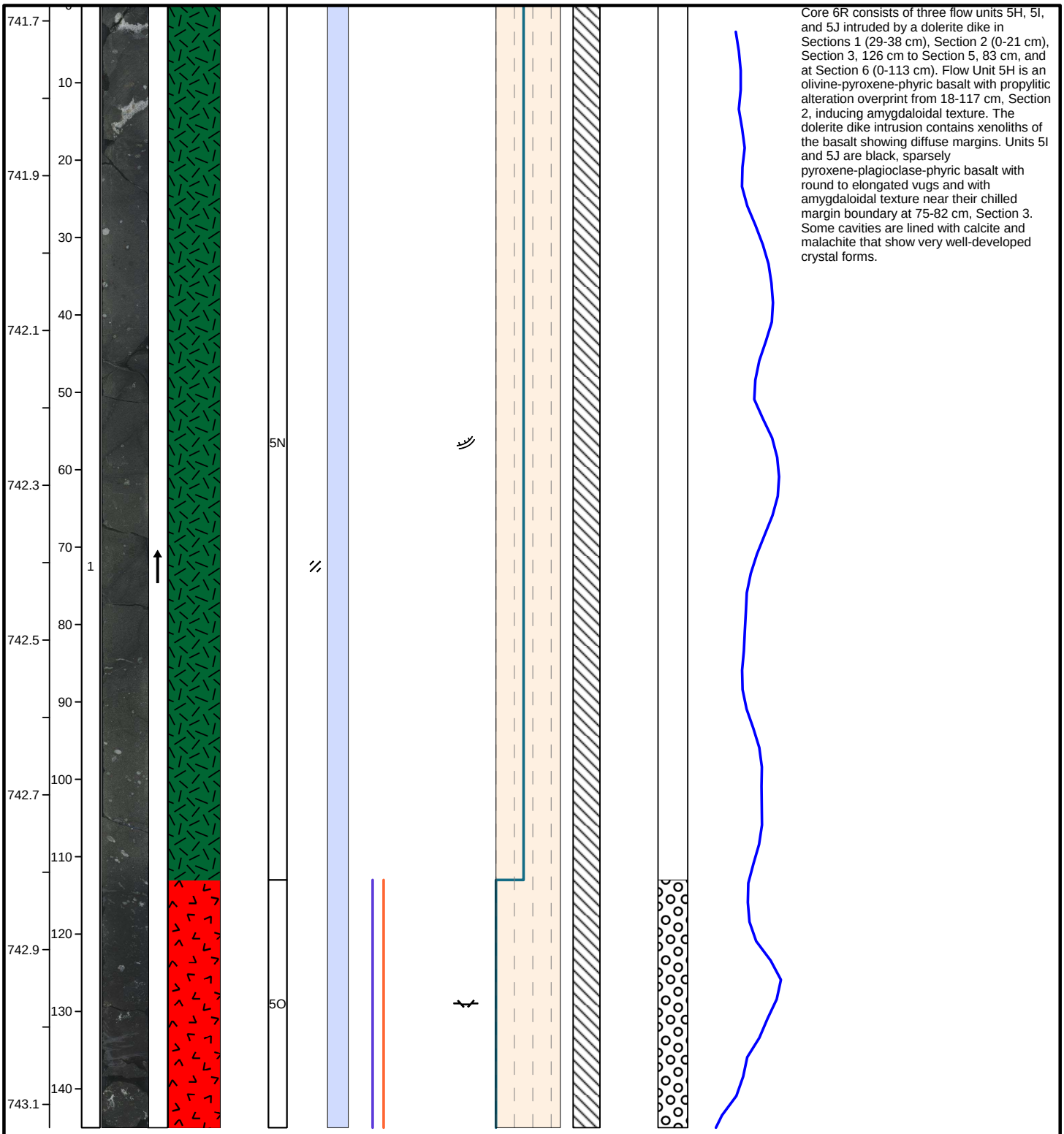


Hole 369-U1513E-6R Section 5, Top of Section: 740.35 m (CSF-A)



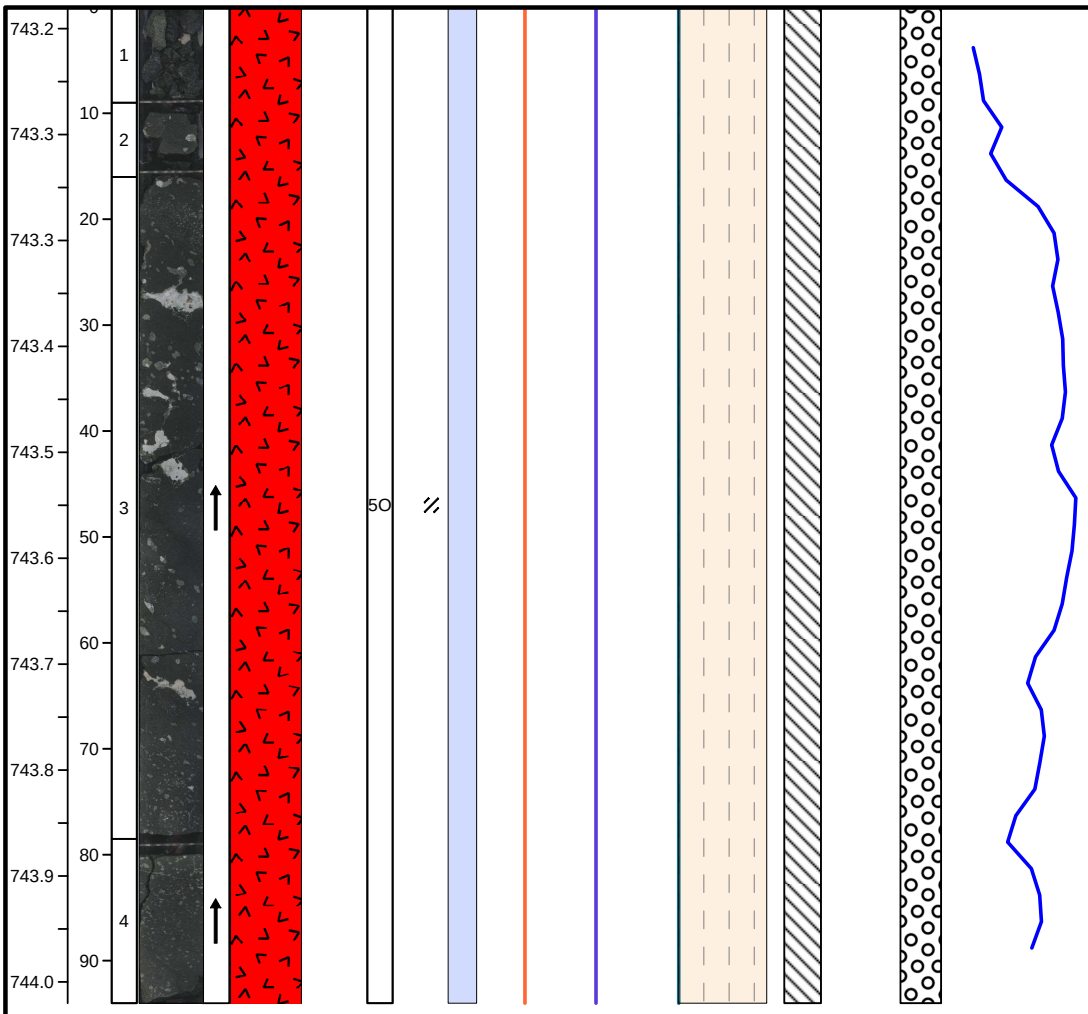
Core 6R consists of three flow units 5H, 5I, and 5J intruded by a dolerite dike in Sections 1 (29-38 cm), Section 2 (0-21 cm), Section 3, 126 cm to Section 5, 83 cm, and at Section 6 (0-113 cm). Flow Unit 5H is an olivine-pyroxene-phyric basalt with propylitic alteration overprint from 18-117 cm, Section 2, inducing amygdaloidal texture. The dolerite dike intrusion contains xenoliths of the basalt showing diffuse margins. Units 5I and 5J are black, sparsely pyroxene-plagioclase-phyric basalt with round to elongated vugs and with amygdaloidal texture near their chilled margin boundary at 75-82 cm, Section 3. Some cavities are lined with calcite and malachite that show very well-developed crystal forms.

Hole 369-U1513E-6R Section 6, Top of Section: 741.68 m (CSF-A)



Core 6R consists of three flow units 5H, 5I, and 5J intruded by a dolerite dike in Sections 1 (29-38 cm), Section 2 (0-21 cm), Section 3, 126 cm to Section 5, 83 cm, and at Section 6 (0-113 cm). Flow Unit 5H is an olivine-pyroxene-phyric basalt with propylitic alteration overprint from 18-117 cm, Section 2, inducing amygdaloidal texture. The dolerite dike intrusion contains xenoliths of the basalt showing diffuse margins. Units 5I and 5J are black, sparsely pyroxene-plagioclase-phyric basalt with round to elongated vugs and with amygdaloidal texture near their chilled margin boundary at 75-82 cm, Section 3. Some cavities are lined with calcite and malachite that show very well-developed crystal forms.

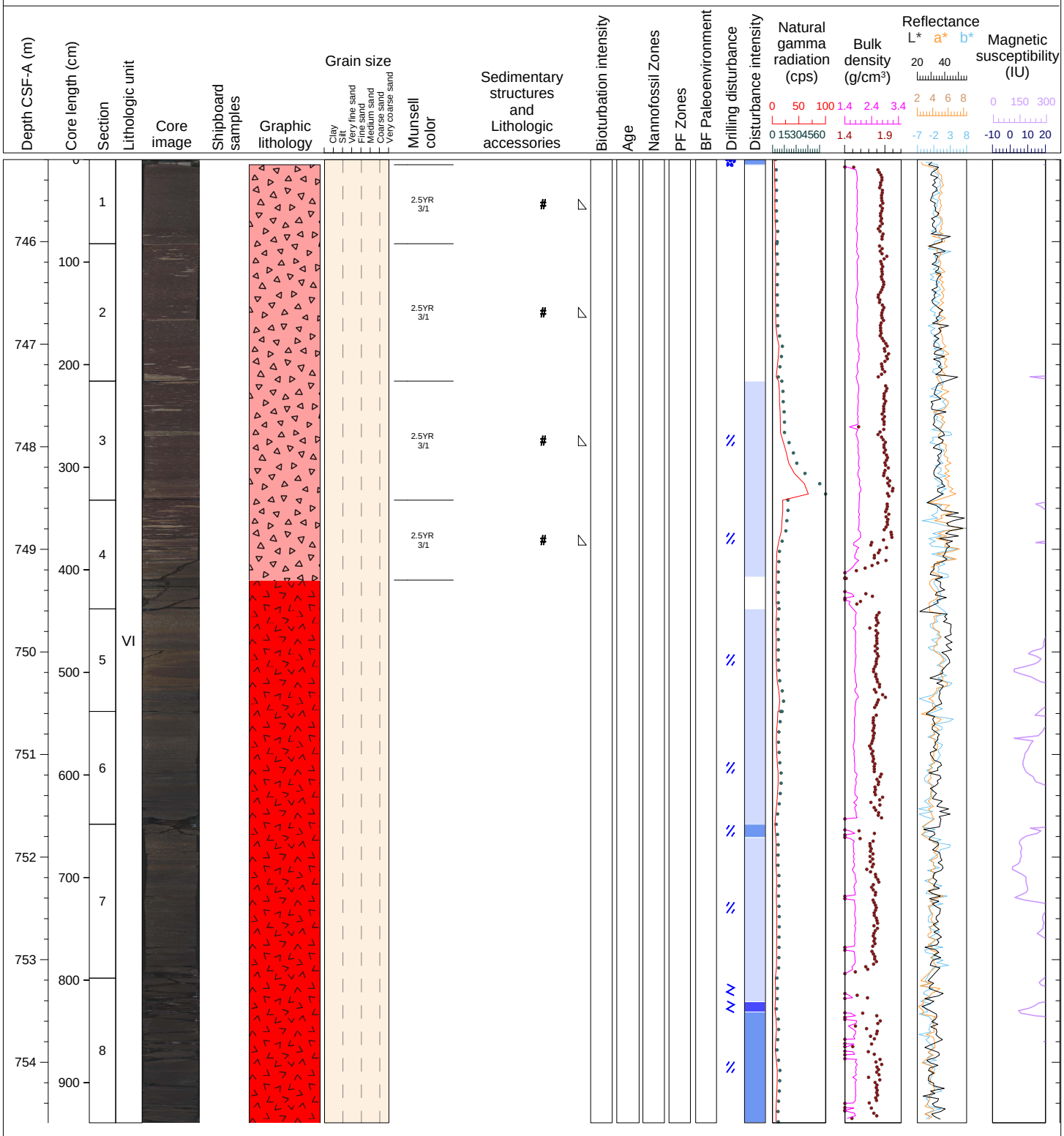
Hole 369-U1513E-6R Section 7, Top of Section: 743.13 m (CSF-A)



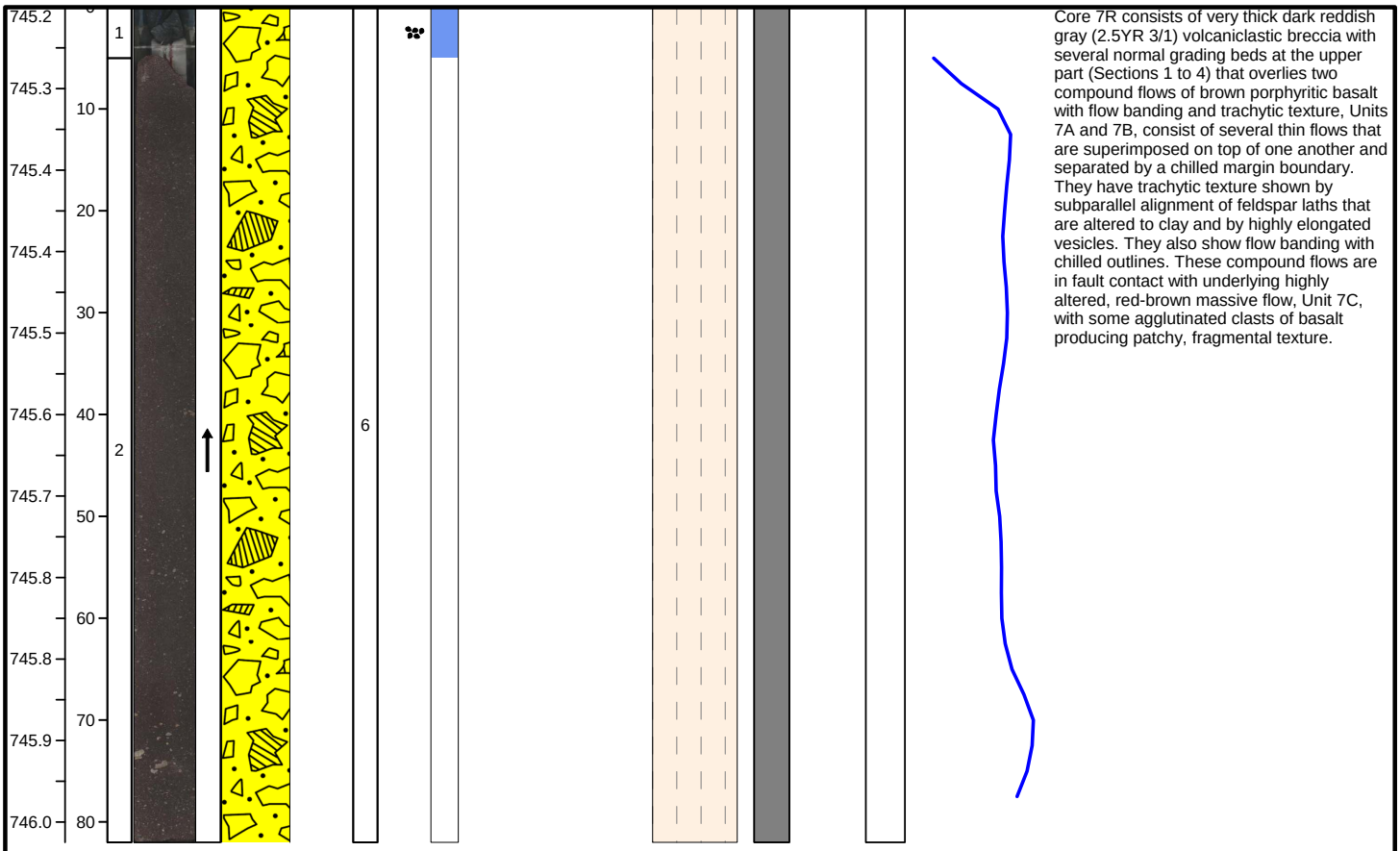
Core 6R consists of three flow units 5H, 5I, and 5J intruded by a dolerite dike in Sections 1 (29-38 cm), Section 2 (0-21 cm), Section 3, 126 cm to Section 5, 83 cm, and at Section 6 (0-113 cm). Flow Unit 5H is an olivine-pyroxene-phyric basalt with propylitic alteration overprint from 18-117 cm, Section 2, inducing amygdaloidal texture. The dolerite dike intrusion contains xenoliths of the basalt showing diffuse margins. Units 5I and 5J are black, sparsely pyroxene-plagioclase-phyric basalt with round to elongated vugs and with amygdaloidal texture near their chilled margin boundary at 75-82 cm, Section 3. Some cavities are lined with calcite and malachite that show very well-developed crystal forms.

Hole 369-U1513E Core 7R, Interval 745.2-754.59 m (CSF-A)

Core 7R consists of very thick dark reddish gray (2.5YR 3/1) volcaniclastic breccia with several normal grading beds at the upper part (Sections 1 to 4) that overlies two compound flows of brown porphyritic basalt with flow banding and trachytic texture, Units 7A and 7B, consist of several thin flows that are superimposed on top of one another and separated by a chilled margin boundary. They have trachytic texture shown by subparallel alignment of feldspar laths that are altered to clay and by highly elongated vesicles. They also show flow banding with chilled outlines. These compound flows are in fault contact with underlying highly altered, red-brown massive flow, Unit 7C, with some agglutinated clasts of basalt producing patchy, fragmental texture.

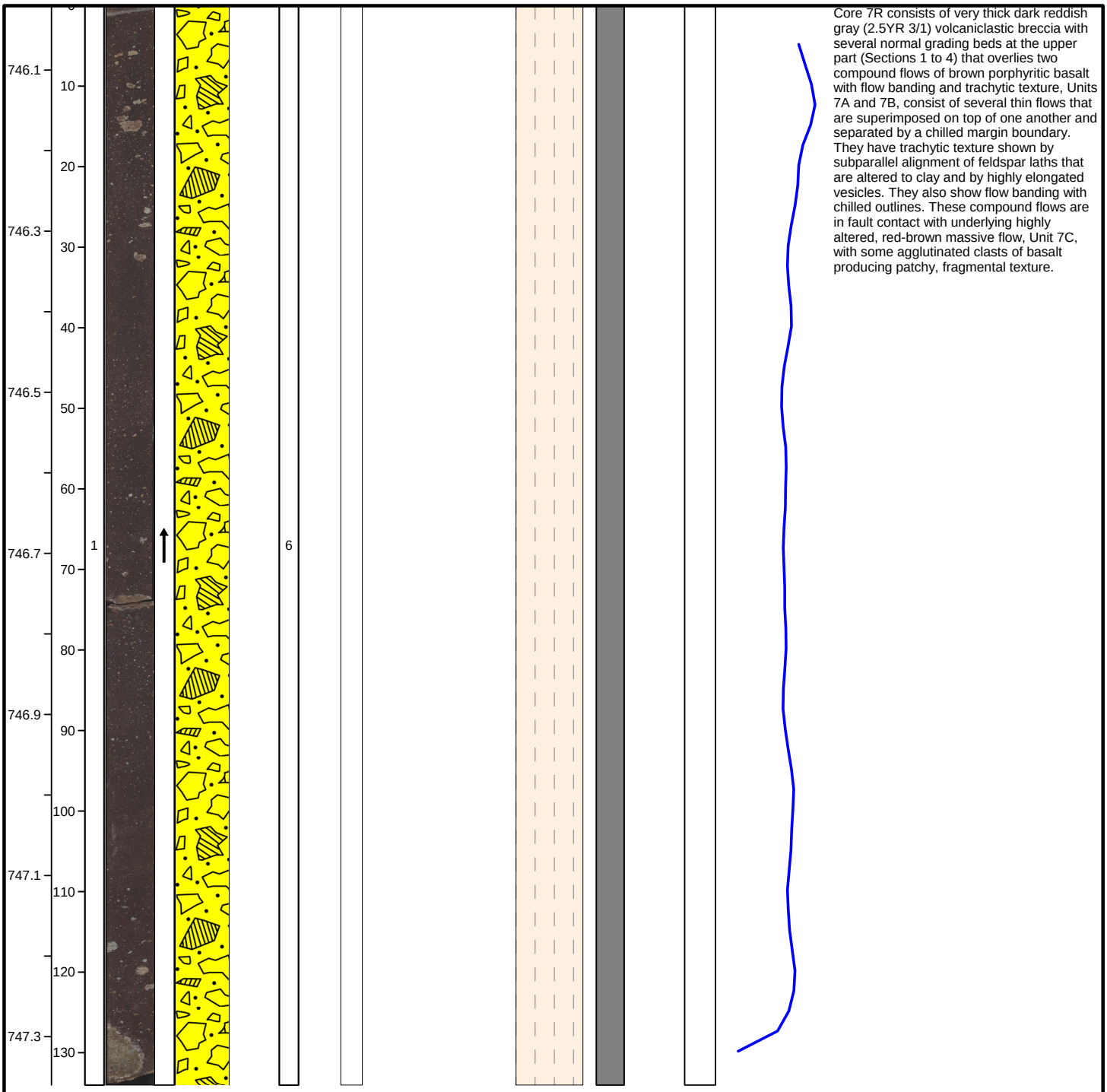


Hole 369-U1513E-7R Section 1, Top of Section: 745.2 m (CSF-A)



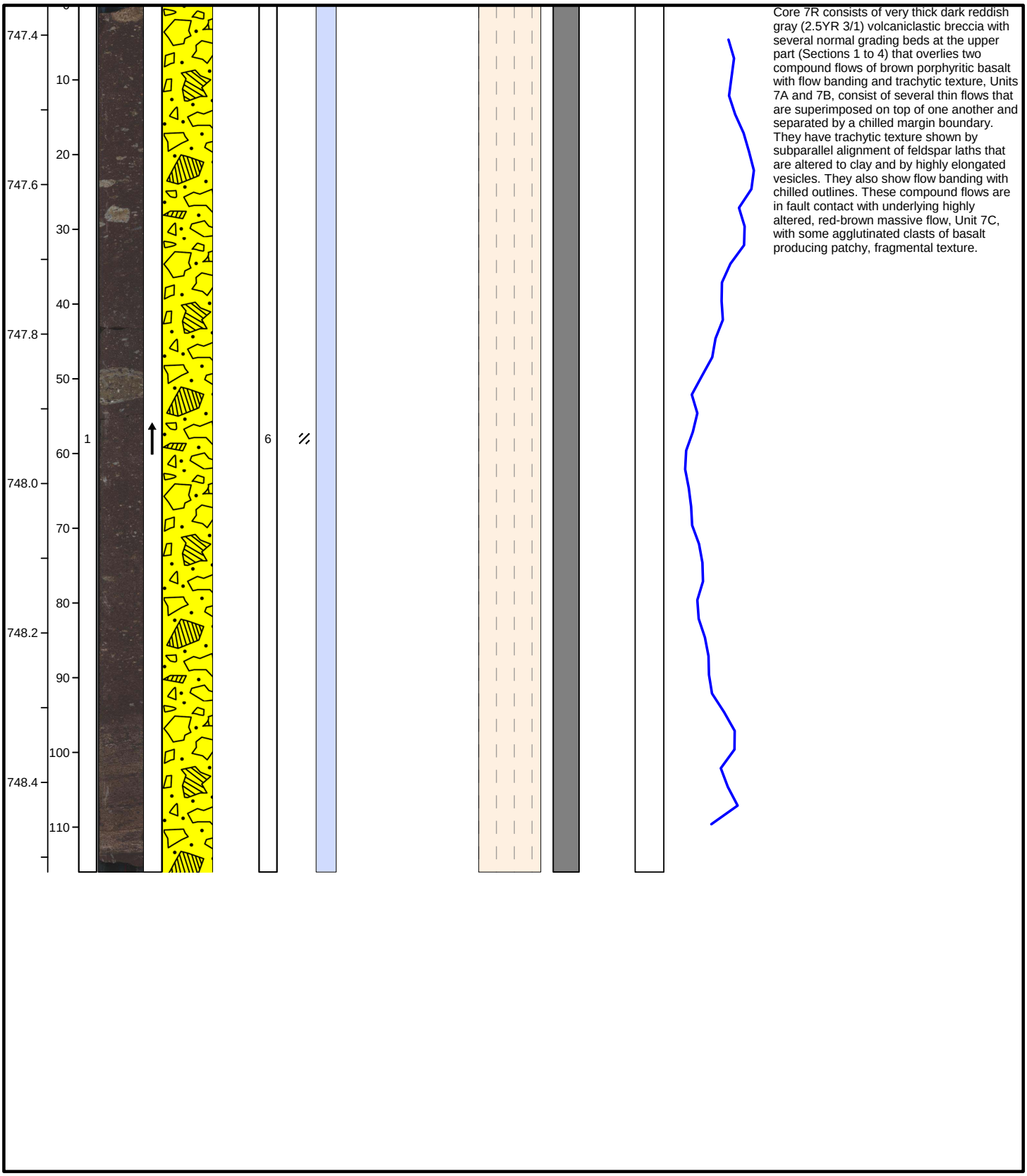
Core 7R consists of very thick dark reddish gray (2.5YR 3/1) volcaniclastic breccia with several normal grading beds at the upper part (Sections 1 to 4) that overlies two compound flows of brown porphyritic basalt with flow banding and trachytic texture, Units 7A and 7B, consist of several thin flows that are superimposed on top of one another and separated by a chilled margin boundary. They have trachytic texture shown by subparallel alignment of feldspar laths that are altered to clay and by highly elongated vesicles. They also show flow banding with chilled outlines. These compound flows are in fault contact with underlying highly altered, red-brown massive flow, Unit 7C, with some agglutinated clasts of basalt producing patchy, fragmental texture.

Hole 369-U1513E-7R Section 2, Top of Section: 746.02 m (CSF-A)



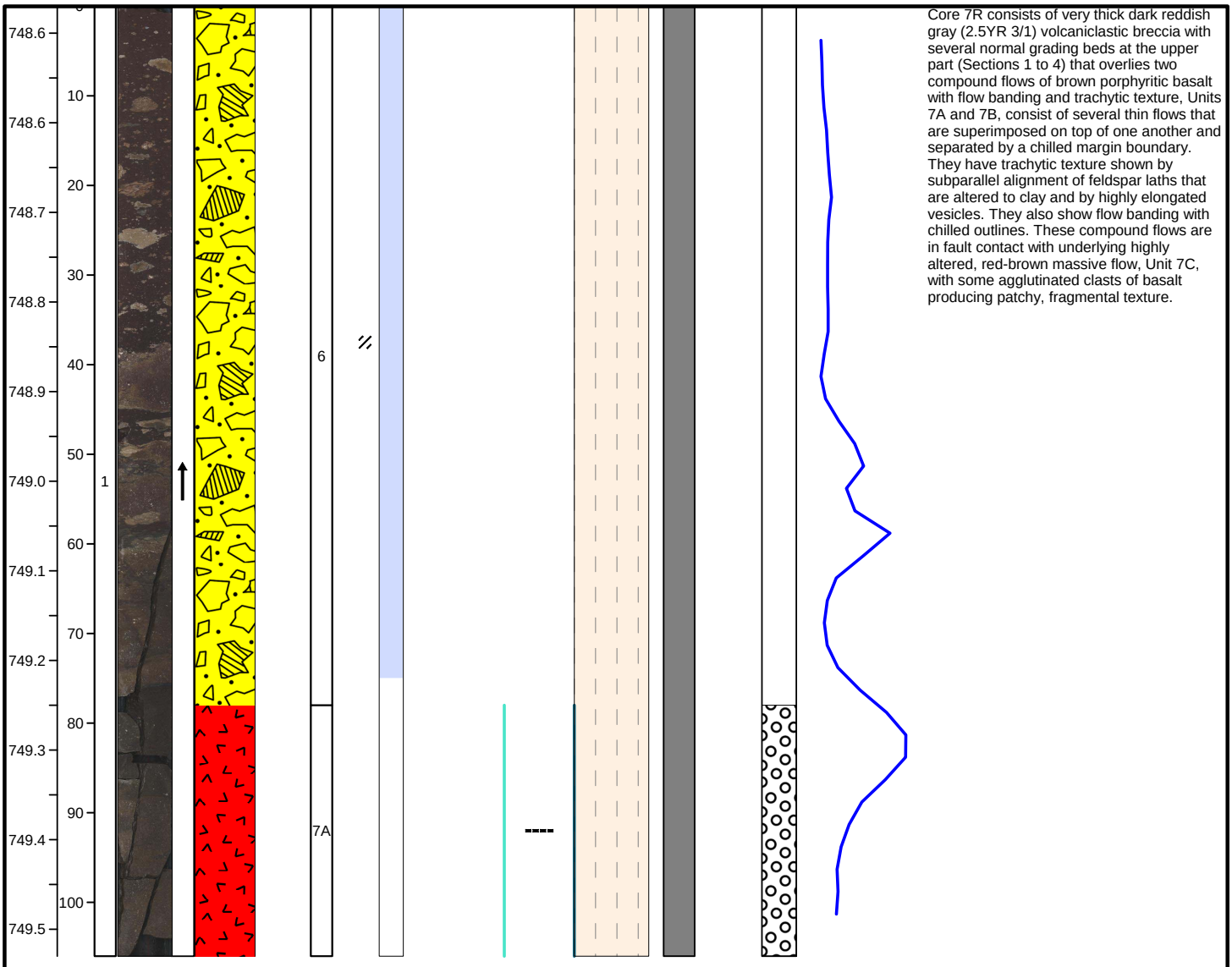
Core 7R consists of very thick dark reddish gray (2.5YR 3/1) volcaniclastic breccia with several normal grading beds at the upper part (Sections 1 to 4) that overlies two compound flows of brown porphyritic basalt with flow banding and trachytic texture, Units 7A and 7B, consist of several thin flows that are superimposed on top of one another and separated by a chilled margin boundary. They have trachytic texture shown by subparallel alignment of feldspar laths that are altered to clay and by highly elongated vesicles. They also show flow banding with chilled outlines. These compound flows are in fault contact with underlying highly altered, red-brown massive flow, Unit 7C, with some agglutinated clasts of basalt producing patchy, fragmental texture.

Hole 369-U1513E-7R Section 3, Top of Section: 747.36 m (CSF-A)



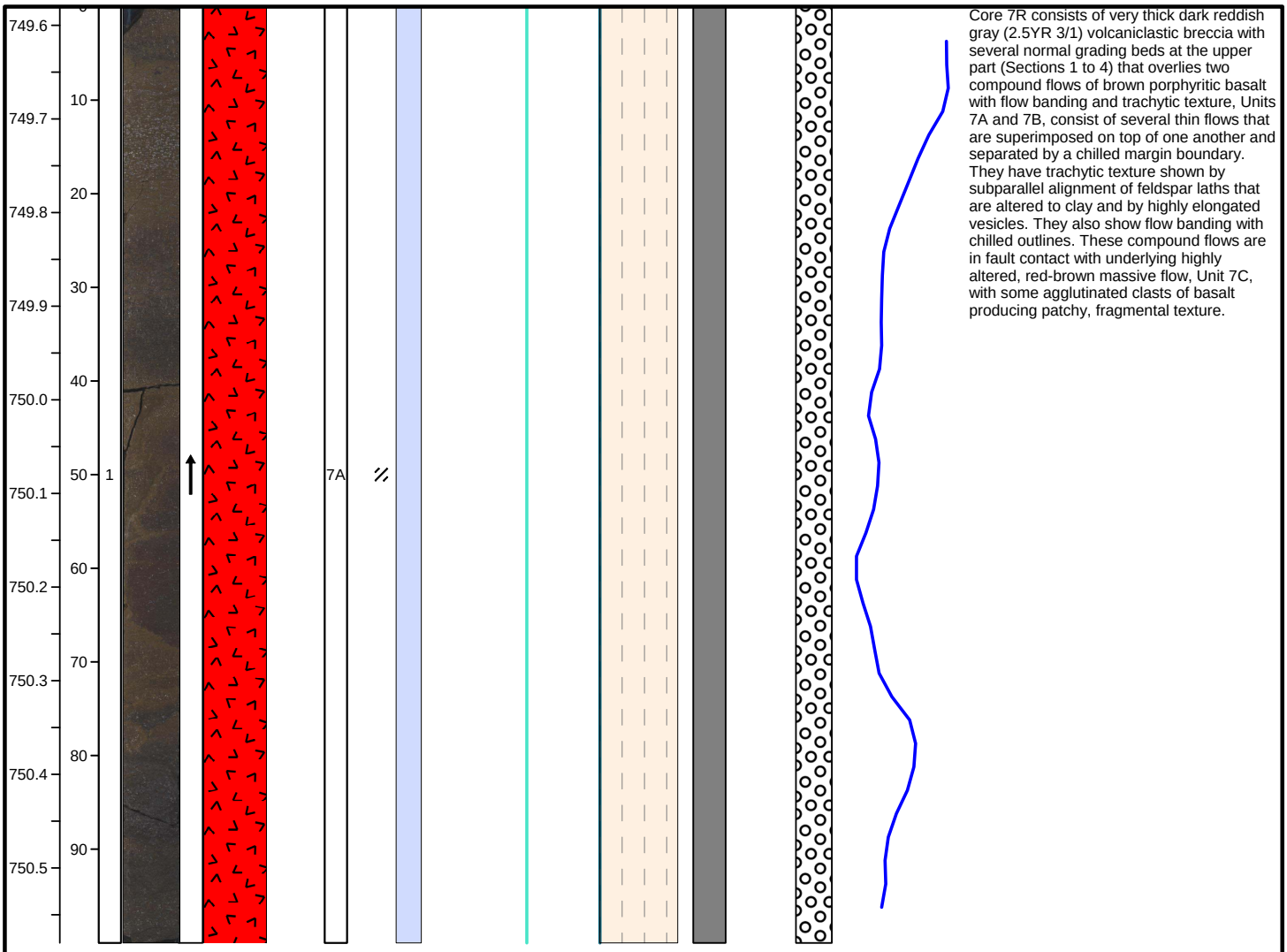
Core 7R consists of very thick dark reddish gray (2.5YR 3/1) volcaniclastic breccia with several normal grading beds at the upper part (Sections 1 to 4) that overlies two compound flows of brown porphyritic basalt with flow banding and trachytic texture, Units 7A and 7B, consist of several thin flows that are superimposed on top of one another and separated by a chilled margin boundary. They have trachytic texture shown by subparallel alignment of feldspar laths that are altered to clay and by highly elongated vesicles. They also show flow banding with chilled outlines. These compound flows are in fault contact with underlying highly altered, red-brown massive flow, Unit 7C, with some agglutinated clasts of basalt producing patchy, fragmental texture.

Hole 369-U1513E-7R Section 4, Top of Section: 748.52 m (CSF-A)



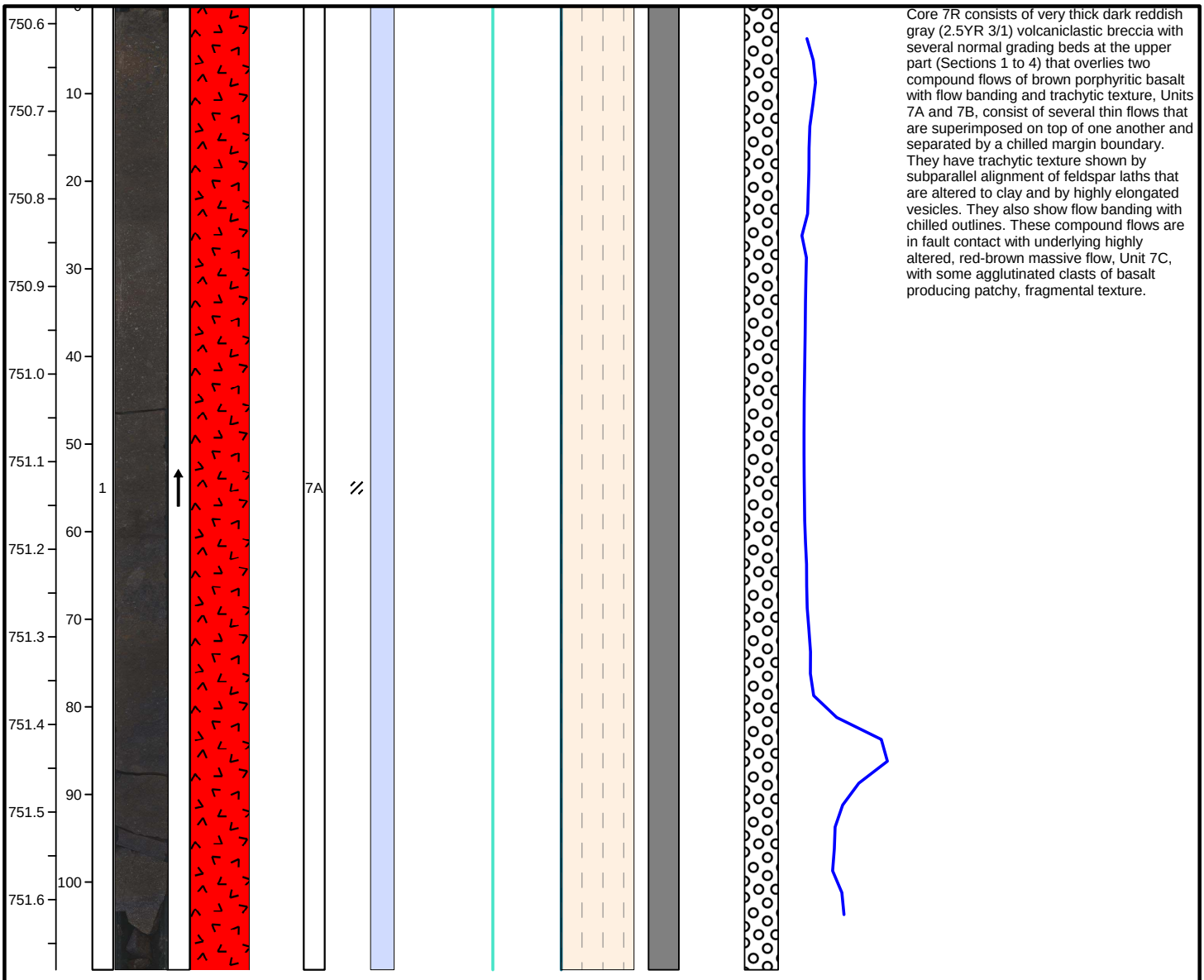
Core 7R consists of very thick dark reddish gray (2.5YR 3/1) volcaniclastic breccia with several normal grading beds at the upper part (Sections 1 to 4) that overlies two compound flows of brown porphyritic basalt with flow banding and trachytic texture, Units 7A and 7B, consist of several thin flows that are superimposed on top of one another and separated by a chilled margin boundary. They have trachytic texture shown by subparallel alignment of feldspar laths that are altered to clay and by highly elongated vesicles. They also show flow banding with chilled outlines. These compound flows are in fault contact with underlying highly altered, red-brown massive flow, Unit 7C, with some agglutinated clasts of basalt producing patchy, fragmental texture.

Hole 369-U1513E-7R Section 5, Top of Section: 749.58 m (CSF-A)



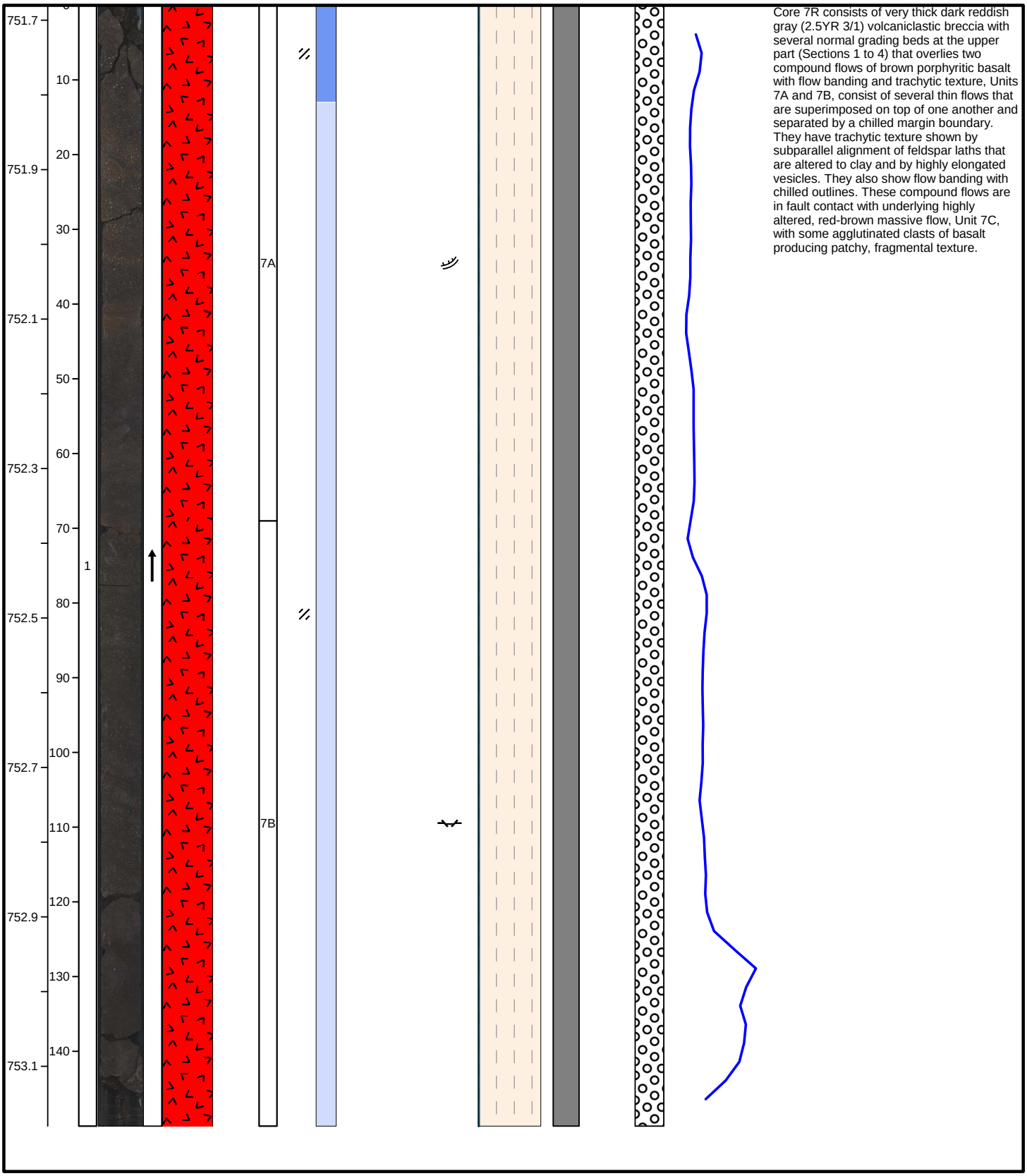
Core 7R consists of very thick dark reddish gray (2.5YR 3/1) volcaniclastic breccia with several normal grading beds at the upper part (Sections 1 to 4) that overlies two compound flows of brown porphyritic basalt with flow banding and trachytic texture, Units 7A and 7B, consist of several thin flows that are superimposed on top of one another and separated by a chilled margin boundary. They have trachytic texture shown by subparallel alignment of feldspar laths that are altered to clay and by highly elongated vesicles. They also show flow banding with chilled outlines. These compound flows are in fault contact with underlying highly altered, red-brown massive flow, Unit 7C, with some agglutinated clasts of basalt producing patchy, fragmental texture.

Hole 369-U1513E-7R Section 6, Top of Section: 750.58 m (CSF-A)

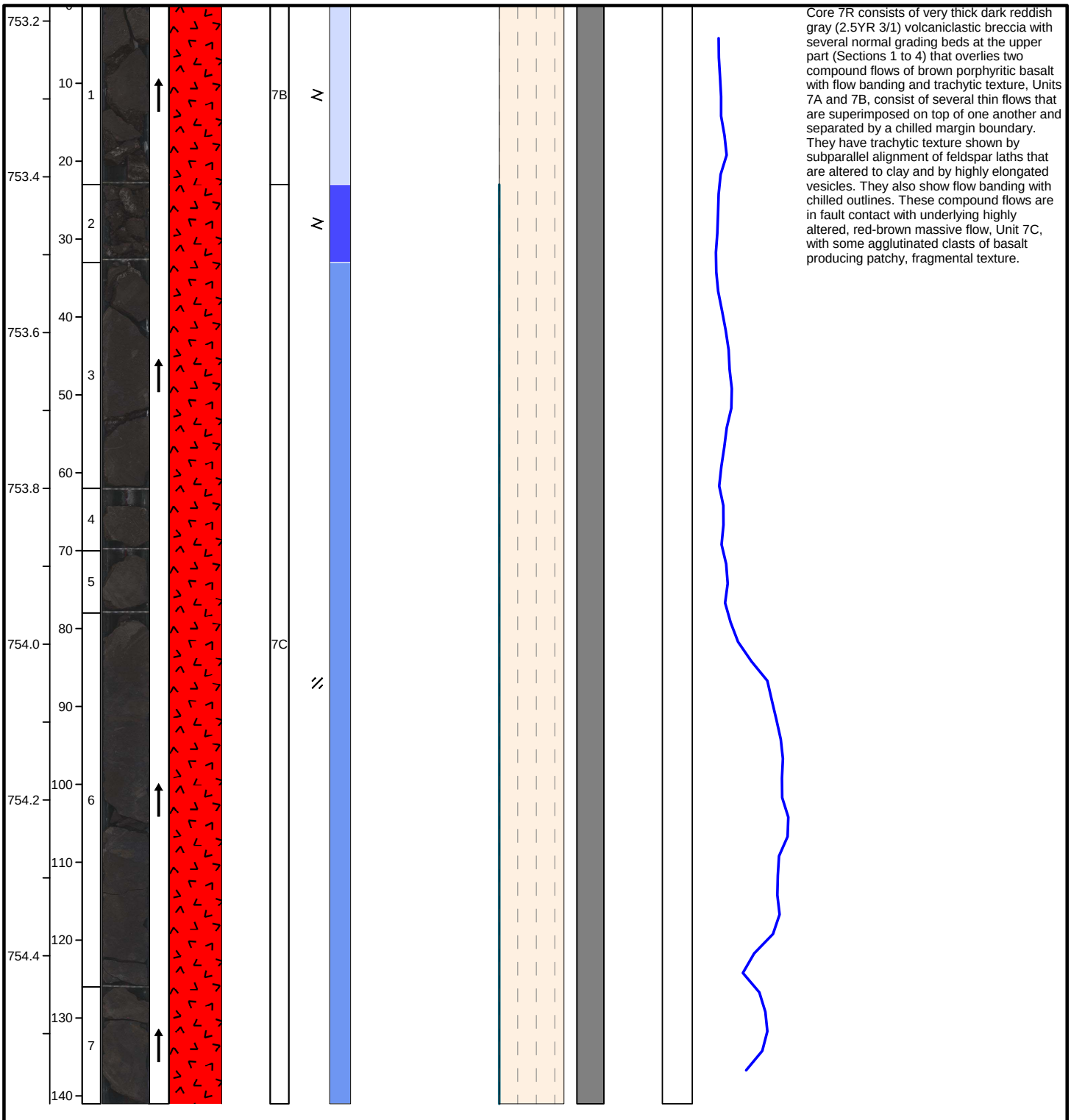


Core 7R consists of very thick dark reddish gray (2.5YR 3/1) volcaniclastic breccia with several normal grading beds at the upper part (Sections 1 to 4) that overlies two compound flows of brown porphyritic basalt with flow banding and trachytic texture, Units 7A and 7B, consist of several thin flows that are superimposed on top of one another and separated by a chilled margin boundary. They have trachytic texture shown by subparallel alignment of feldspar laths that are altered to clay and by highly elongated vesicles. They also show flow banding with chilled outlines. These compound flows are in fault contact with underlying highly altered, red-brown massive flow, Unit 7C, with some agglutinated clasts of basalt producing patchy, fragmental texture.

Hole 369-U1513E-7R Section 7, Top of Section: 751.68 m (CSF-A)

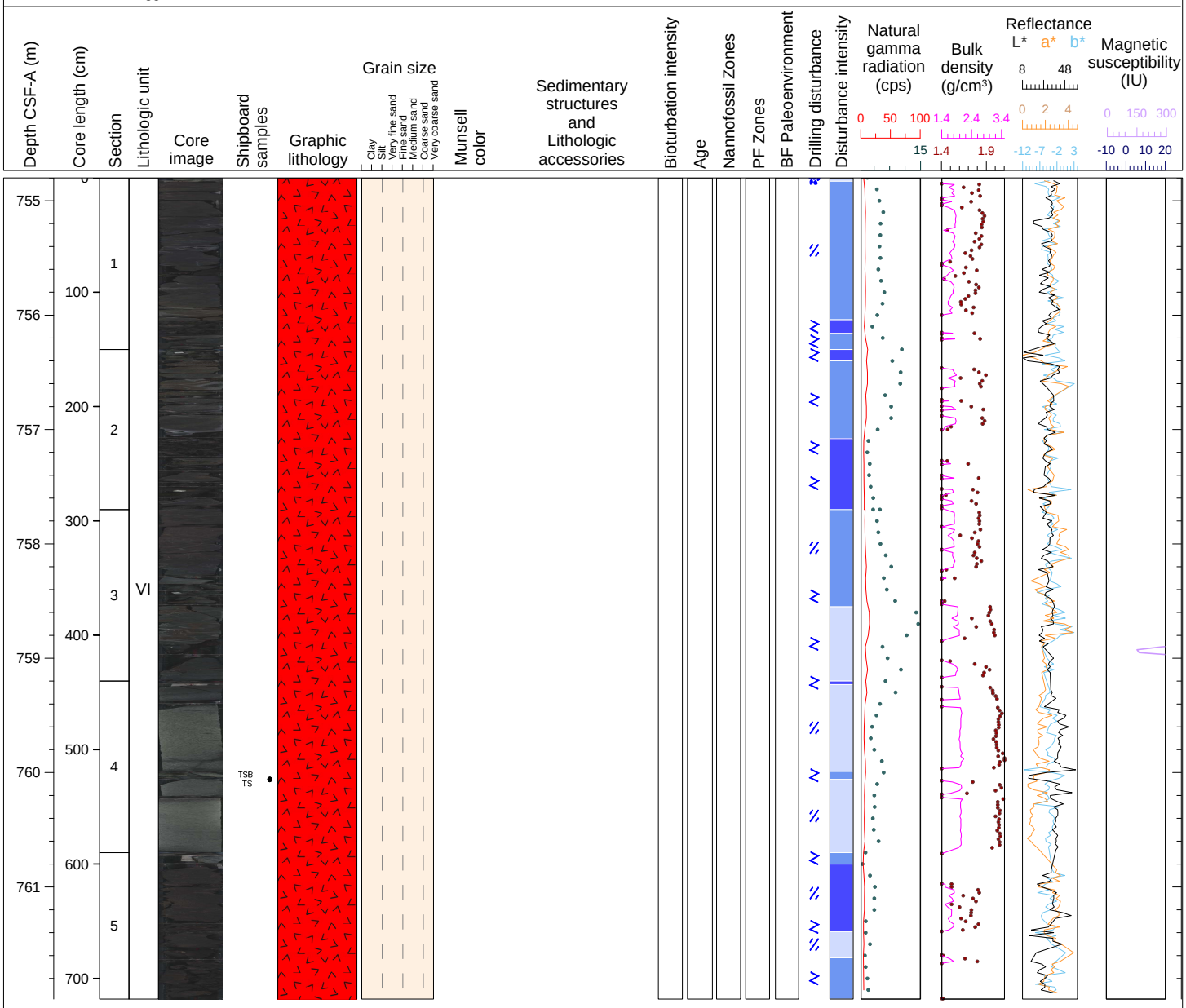


Hole 369-U1513E-7R Section 8, Top of Section: 753.18 m (CSF-A)

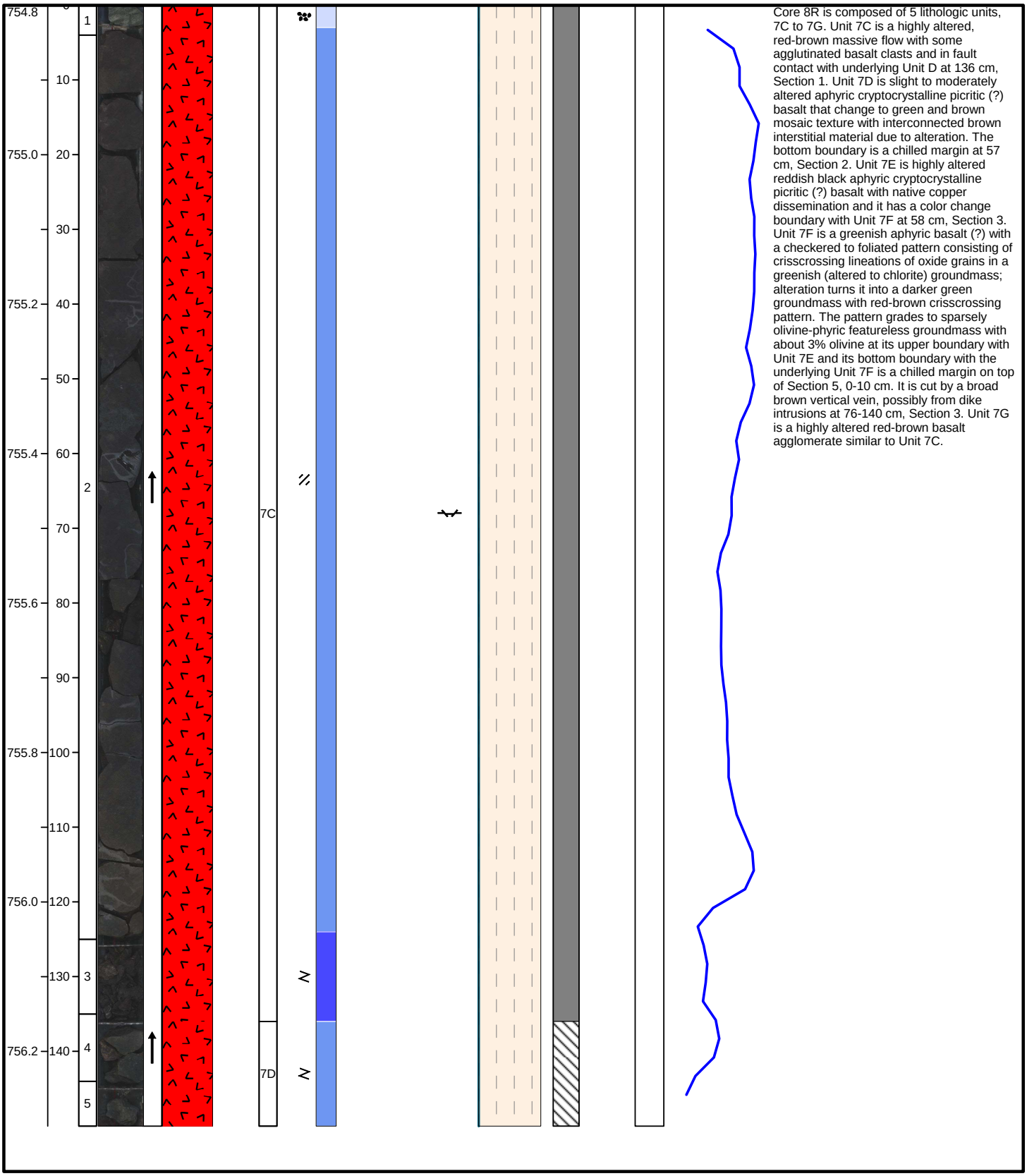


Hole 369-U1513E Core 8R, Interval 754.8-761.98 m (CSF-A)

Core 8R is composed of 5 lithologic units, 7C to 7G. Unit 7C is a highly altered, red-brown massive flow with some agglutinated basalt clasts and in fault contact with underlying Unit D at 136 cm, Section 1. Unit 7D is slight to moderately altered aphyric cryptocrystalline picritic (?) basalt that change to green and brown mosaic texture with interconnected brown interstitial material due to alteration. The bottom boundary is a chilled margin at 57 cm, Section 2. Unit 7E is highly altered reddish black aphyric cryptocrystalline picritic (?) basalt with native copper dissemination and it has a color change boundary with Unit 7F at 58 cm, Section 3. Unit 7F is a greenish aphyric basalt (?) with a checkered to foliated pattern consisting of crisscrossing lineations of oxide grains in a greenish (altered to chlorite) groundmass; alteration turns it into a darker green groundmass with red-brown crisscrossing pattern. The pattern grades to sparsely olivine-phyric featureless groundmass with about 3% olivine at its upper boundary with Unit 7E and its bottom boundary with the underlying Unit 7F is a chilled margin on top of Section 5, 0-10 cm. It is cut by a broad brown vertical vein, possibly from dike intrusions at 76-140 cm, Section 3. Unit 7G is a highly altered red-brown basalt agglomerate similar to Unit 7C.

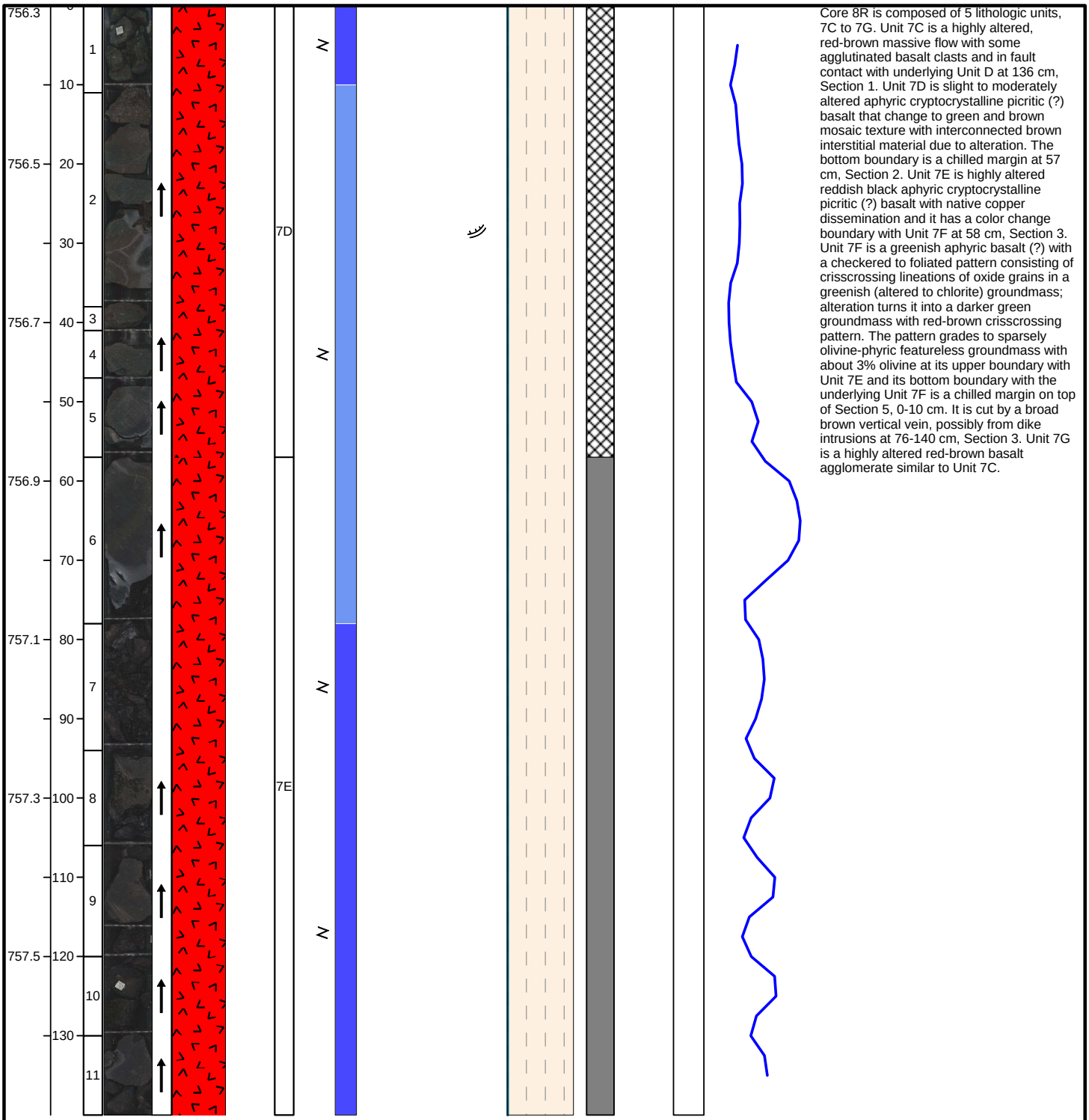


Hole 369-U1513E-8R Section 1, Top of Section: 754.8 m (CSF-A)



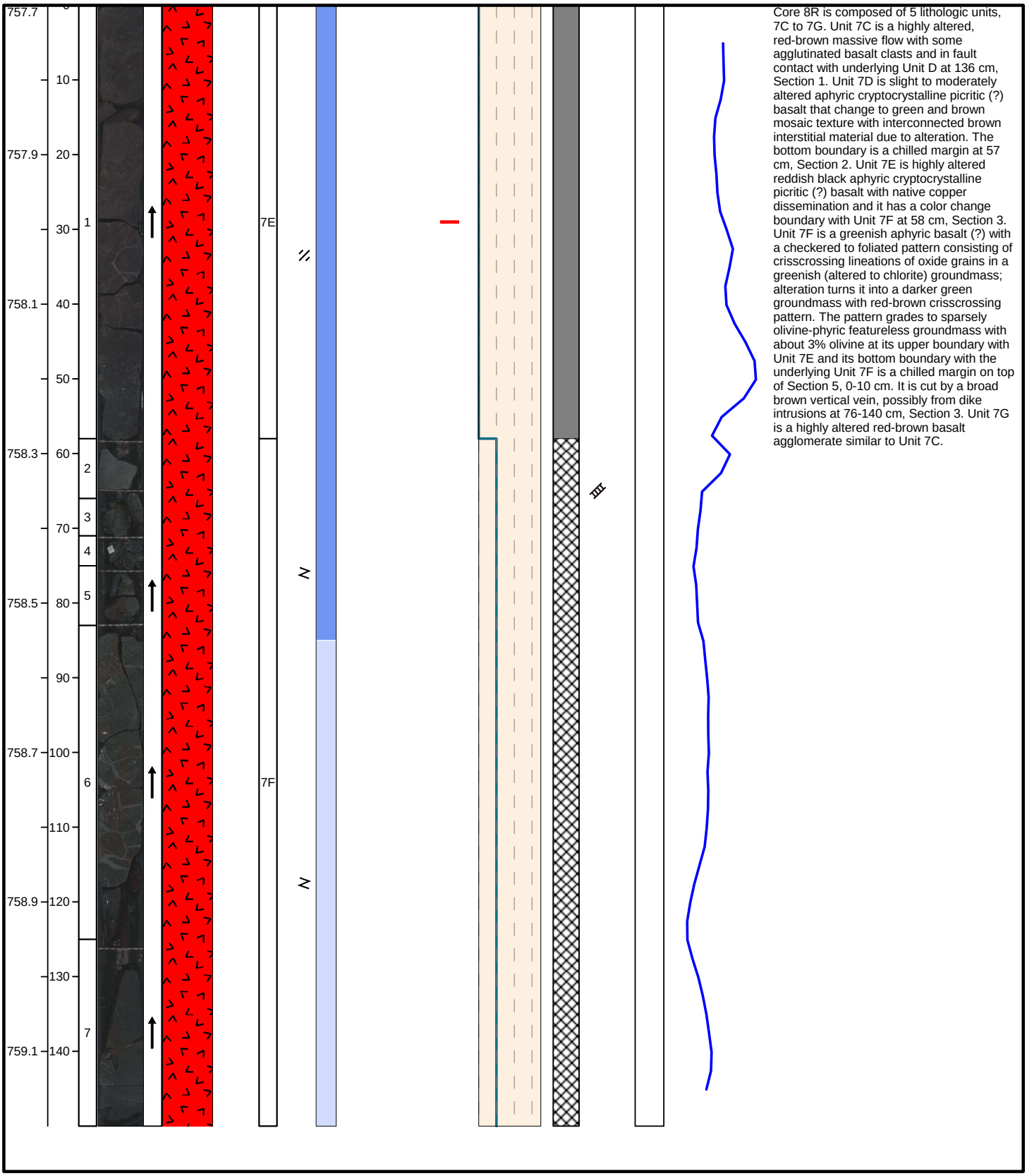
Core 8R is composed of 5 lithologic units, 7C to 7G. Unit 7C is a highly altered, red-brown massive flow with some agglutinated basalt clasts and in fault contact with underlying Unit D at 136 cm, Section 1. Unit 7D is slight to moderately altered aphyric cryptocrystalline picritic (?) basalt that change to green and brown mosaic texture with interconnected brown interstitial material due to alteration. The bottom boundary is a chilled margin at 57 cm, Section 2. Unit 7E is highly altered reddish black aphyric cryptocrystalline picritic (?) basalt with native copper dissemination and it has a color change boundary with Unit 7F at 58 cm, Section 3. Unit 7F is a greenish aphyric basalt (?) with a checkered to foliated pattern consisting of crisscrossing lineations of oxide grains in a greenish (altered to chlorite) groundmass; alteration turns it into a darker green groundmass with red-brown crisscrossing pattern. The pattern grades to sparsely olivine-phyric featureless groundmass with about 3% olivine at its upper boundary with Unit 7E and its bottom boundary with the underlying Unit 7F is a chilled margin on top of Section 5, 0-10 cm. It is cut by a broad brown vertical vein, possibly from dike intrusions at 76-140 cm, Section 3. Unit 7G is a highly altered red-brown basalt agglomerate similar to Unit 7C.

Hole 369-U1513E-8R Section 2, Top of Section: 756.3 m (CSF-A)



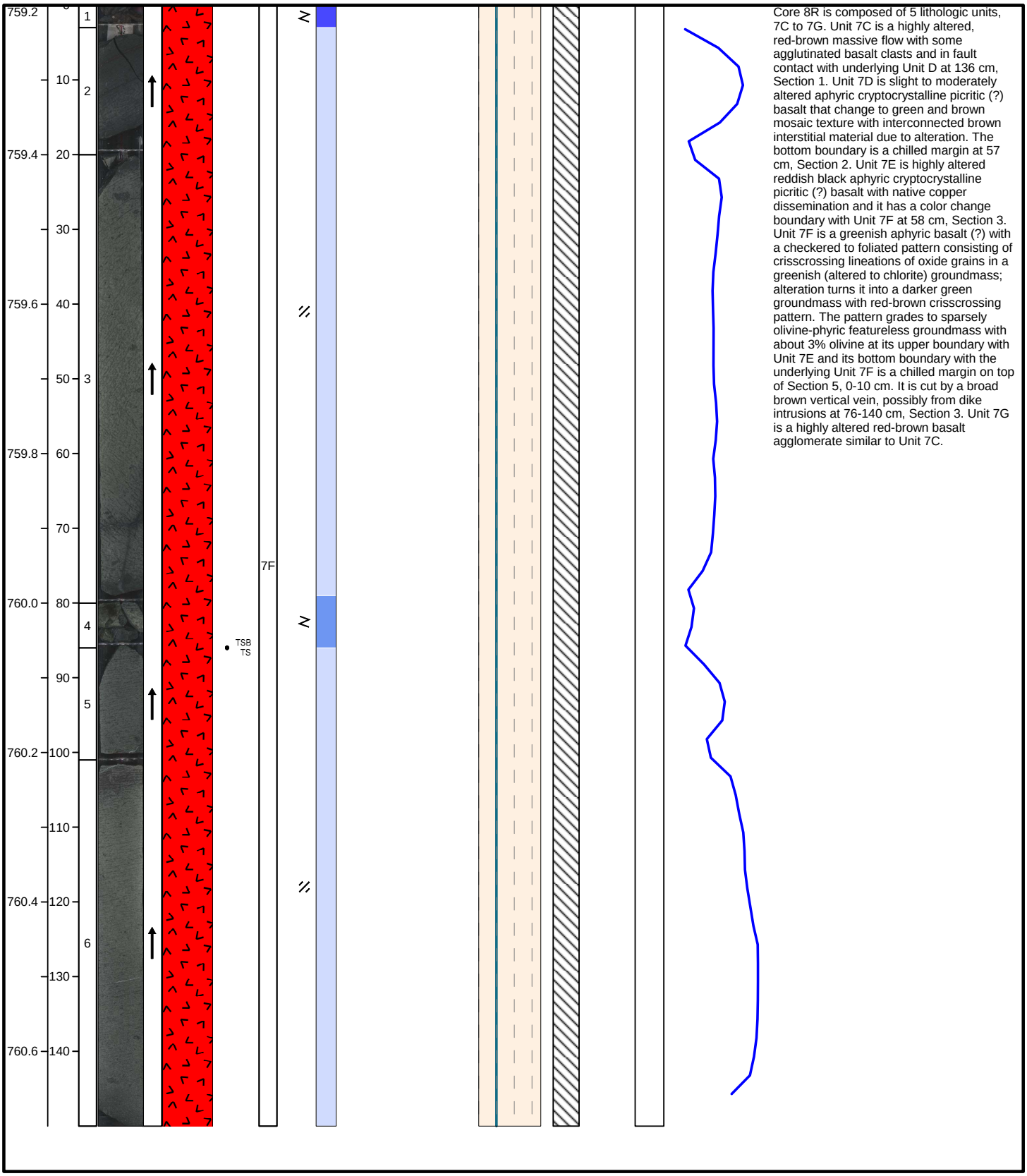
Core 8R is composed of 5 lithologic units, 7C to 7G. Unit 7C is a highly altered, red-brown massive flow with some agglutinated basalt clasts and in fault contact with underlying Unit D at 136 cm, Section 1. Unit 7D is slight to moderately altered aphyric cryptocrystalline picritic (?) basalt that change to green and brown mosaic texture with interconnected brown interstitial material due to alteration. The bottom boundary is a chilled margin at 57 cm, Section 2. Unit 7E is highly altered reddish black aphyric cryptocrystalline picritic (?) basalt with native copper dissemination and it has a color change boundary with Unit 7F at 58 cm, Section 3. Unit 7F is a greenish aphyric basalt (?) with a checkered to foliated pattern consisting of crisscrossing lineations of oxide grains in a greenish (altered to chlorite) groundmass; alteration turns it into a darker green groundmass with red-brown crisscrossing pattern. The pattern grades to sparsely olivine-phyric featureless groundmass with about 3% olivine at its upper boundary with Unit 7E and its bottom boundary with the underlying Unit 7F is a chilled margin on top of Section 5, 0-10 cm. It is cut by a broad brown vertical vein, possibly from dike intrusions at 76-140 cm, Section 3. Unit 7G is a highly altered red-brown basalt agglomerate similar to Unit 7C.

Hole 369-U1513E-8R Section 3, Top of Section: 757.7 m (CSF-A)



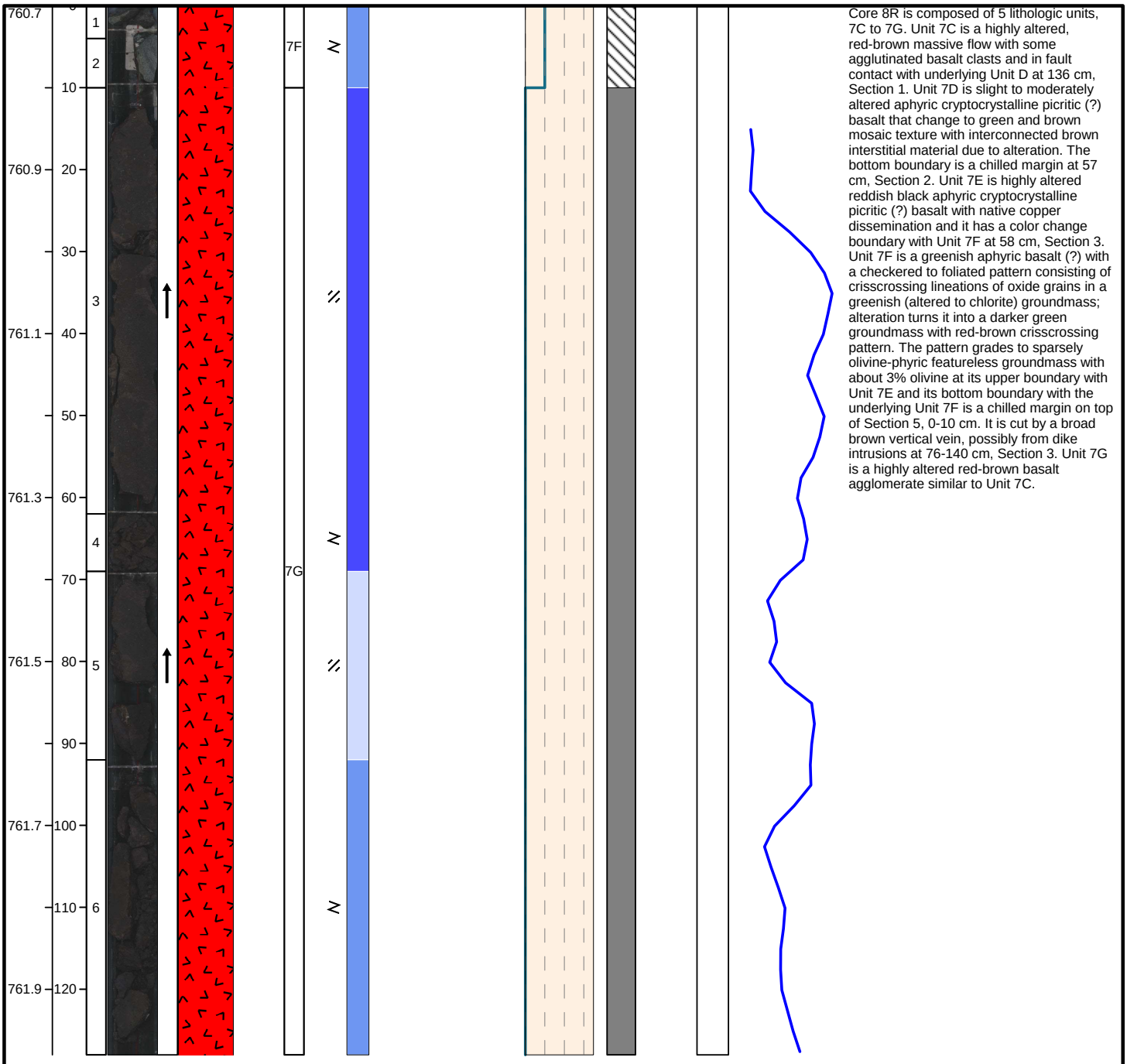
Core 8R is composed of 5 lithologic units, 7C to 7G. Unit 7C is a highly altered, red-brown massive flow with some agglutinated basalt clasts and in fault contact with underlying Unit D at 136 cm, Section 1. Unit 7D is slight to moderately altered aphyric cryptocrystalline picritic (?) basalt that change to green and brown mosaic texture with interconnected brown interstitial material due to alteration. The bottom boundary is a chilled margin at 57 cm, Section 2. Unit 7E is highly altered reddish black aphyric cryptocrystalline picritic (?) basalt with native copper dissemination and it has a color change boundary with Unit 7F at 58 cm, Section 3. Unit 7F is a greenish aphyric basalt (?) with a checkered to foliated pattern consisting of crisscrossing lineations of oxide grains in a greenish (altered to chlorite) groundmass; alteration turns it into a darker green groundmass with red-brown crisscrossing pattern. The pattern grades to sparsely olivine-phyric featureless groundmass with about 3% olivine at its upper boundary with Unit 7E and its bottom boundary with the underlying Unit 7F is a chilled margin on top of Section 5, 0-10 cm. It is cut by a broad brown vertical vein, possibly from dike intrusions at 76-140 cm, Section 3. Unit 7G is a highly altered red-brown basalt agglomerate similar to Unit 7C.

Hole 369-U1513E-8R Section 4, Top of Section: 759.2 m (CSF-A)



Core 8R is composed of 5 lithologic units, 7C to 7G. Unit 7C is a highly altered, red-brown massive flow with some agglutinated basalt clasts and in fault contact with underlying Unit D at 136 cm, Section 1. Unit 7D is slight to moderately altered aphyric cryptocrystalline picritic (?) basalt that change to green and brown mosaic texture with interconnected brown interstitial material due to alteration. The bottom boundary is a chilled margin at 57 cm, Section 2. Unit 7E is highly altered reddish black aphyric cryptocrystalline picritic (?) basalt with native copper dissemination and it has a color change boundary with Unit 7F at 58 cm, Section 3. Unit 7F is a greenish aphyric basalt (?) with a checkered to foliated pattern consisting of crisscrossing lineations of oxide grains in a greenish (altered to chlorite) groundmass; alteration turns it into a darker green groundmass with red-brown crisscrossing pattern. The pattern grades to sparsely olivine-phyric featureless groundmass with about 3% olivine at its upper boundary with Unit 7E and its bottom boundary with the underlying Unit 7F is a chilled margin on top of Section 5, 0-10 cm. It is cut by a broad brown vertical vein, possibly from dike intrusions at 76-140 cm, Section 3. Unit 7G is a highly altered red-brown basalt agglomerate similar to Unit 7C.

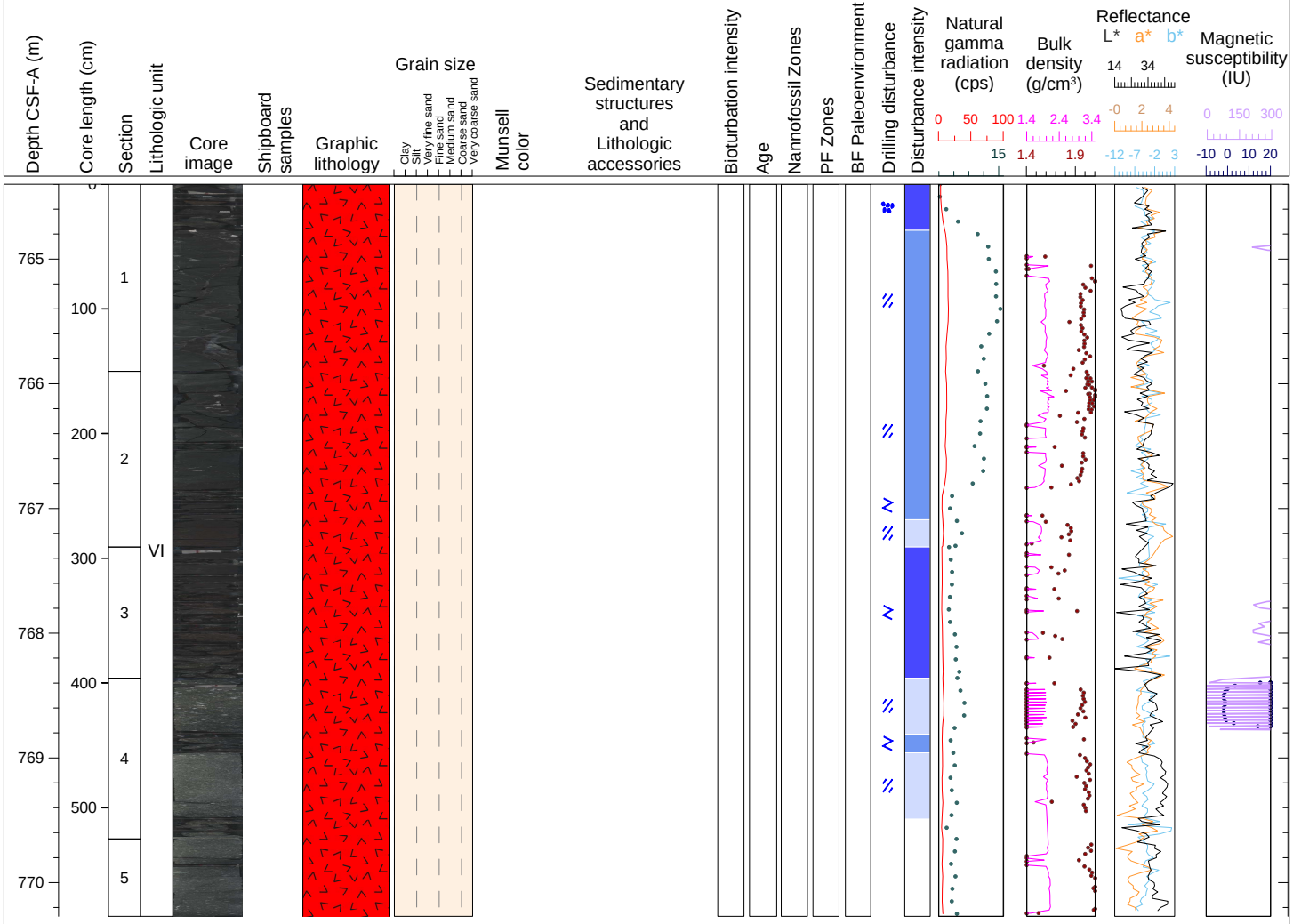
Hole 369-U1513E-8R Section 5, Top of Section: 760.7 m (CSF-A)



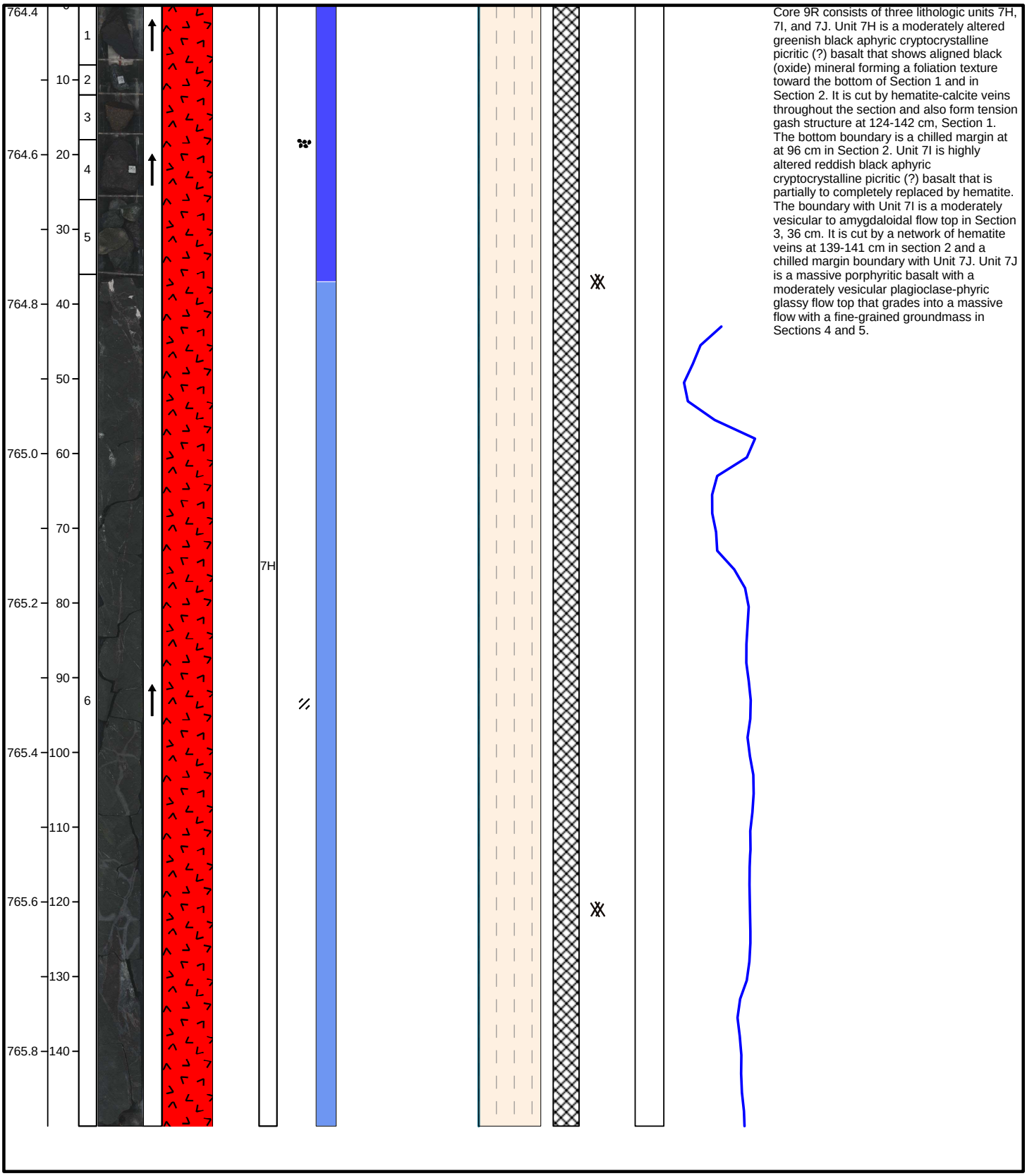
Core 8R is composed of 5 lithologic units, 7C to 7G. Unit 7C is a highly altered, red-brown massive flow with some agglutinated basalt clasts and in fault contact with underlying Unit D at 136 cm, Section 1. Unit 7D is slight to moderately altered aphyric cryptocrystalline picritic (?) basalt that change to green and brown mosaic texture with interconnected brown interstitial material due to alteration. The bottom boundary is a chilled margin at 57 cm, Section 2. Unit 7E is highly altered reddish black aphyric cryptocrystalline picritic (?) basalt with native copper dissemination and it has a color change boundary with Unit 7F at 58 cm, Section 3. Unit 7F is a greenish aphyric basalt (?) with a checkered to foliated pattern consisting of crisscrossing lineations of oxide grains in a greenish (altered to chlorite) groundmass; alteration turns it into a darker green groundmass with red-brown crisscrossing pattern. The pattern grades to sparsely olivine-phyric featureless groundmass with about 3% olivine at its upper boundary with Unit 7E and its bottom boundary with the underlying Unit 7F is a chilled margin on top of Section 5, 0-10 cm. It is cut by a broad brown vertical vein, possibly from dike intrusions at 76-140 cm, Section 3. Unit 7G is a highly altered red-brown basalt agglomerate similar to Unit 7C.

Hole 369-U1513E Core 9R, Interval 764.4-770.27 m (CSF-A)

Core 9R consists of three lithologic units 7H, 7I, and 7J. Unit 7H is a moderately altered greenish black aphyric cryptocrystalline picritic (?) basalt that shows aligned black (oxide) mineral forming a foliation texture toward the bottom of Section 1 and in Section 2. It is cut by hematite-calcite veins throughout the section and also form tension gash structure at 124-142 cm, Section 1. The bottom boundary is a chilled margin at at 96 cm in Section 2. Unit 7I is highly altered reddish black aphyric cryptocrystalline picritic (?) basalt that is partially to completely replaced by hematite. The boundary with Unit 7I is a moderately vesicular to amygdaloidal flow top in Section 3, 36 cm. It is cut by a network of hematite veins at 139-141 cm in section 2 and a chilled margin boundary with Unit 7J. Unit 7J is a massive porphyritic basalt with a moderately vesicular plagioclase-phyric glassy flow top that grades into a massive flow with a fine-grained groundmass in Sections 4 and 5.

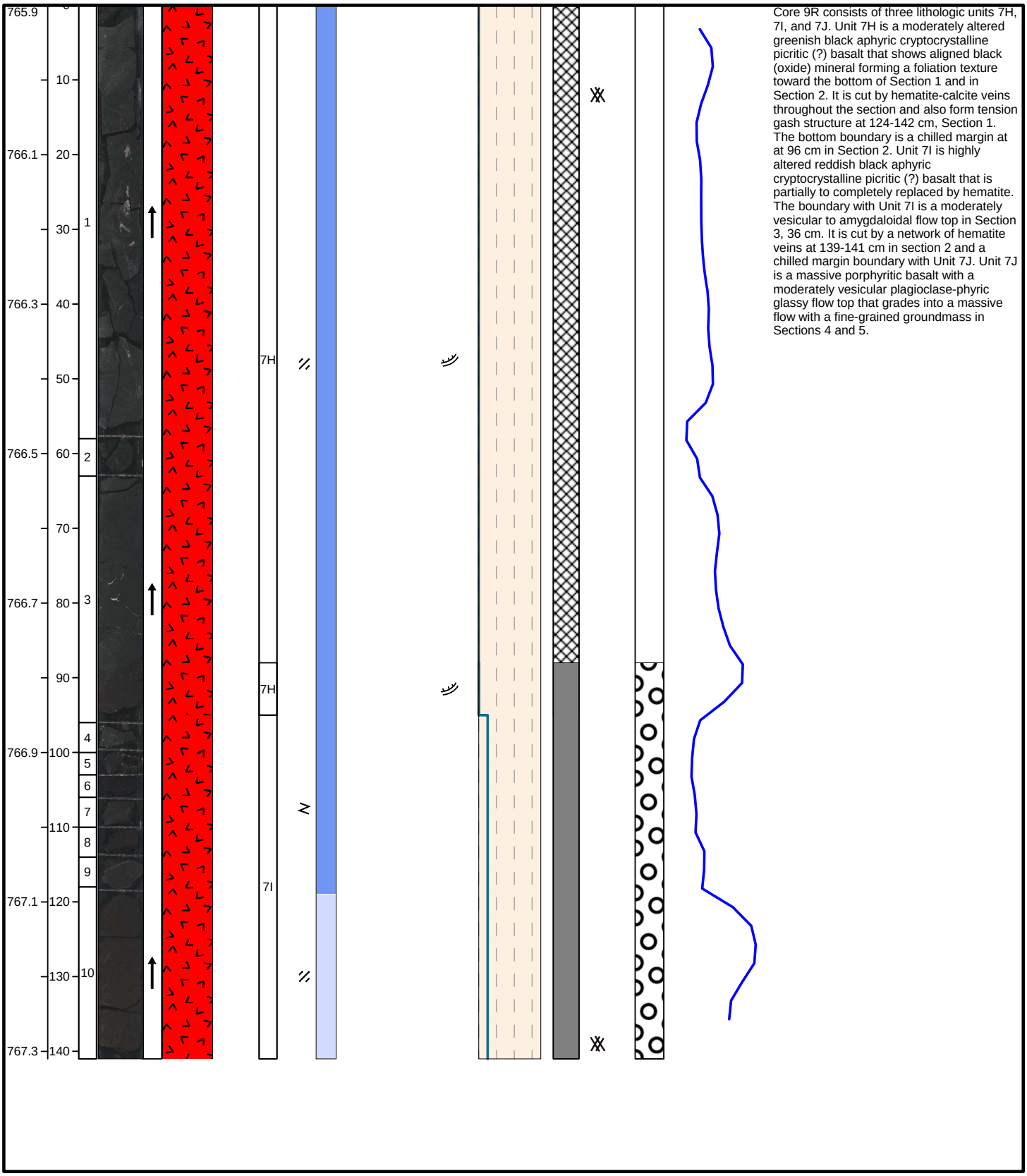


Hole 369-U1513E-9R Section 1, Top of Section: 764.4 m (CSF-A)

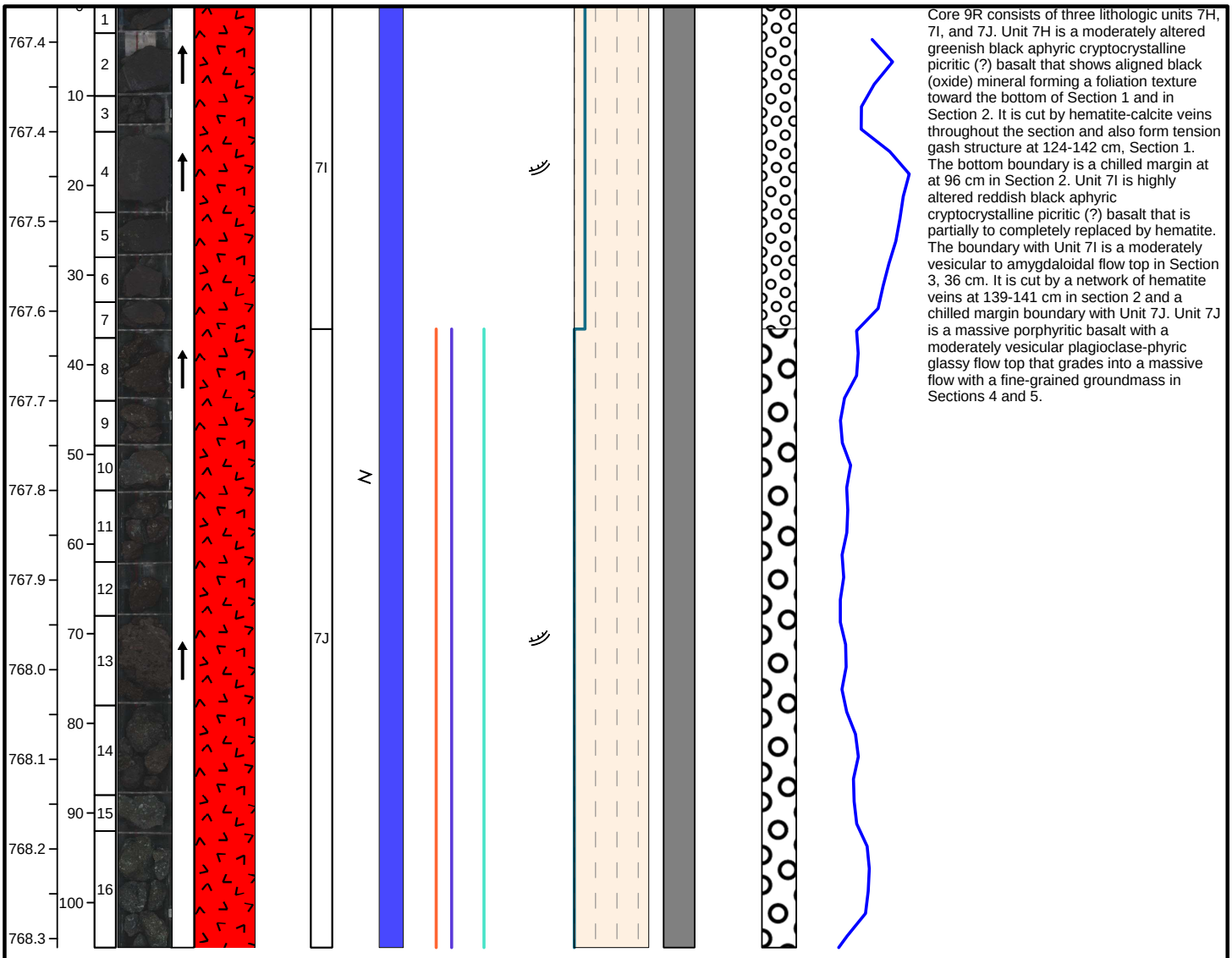


Core 9R consists of three lithologic units 7H, 7I, and 7J. Unit 7H is a moderately altered greenish black aphyric cryptocrystalline picritic (?) basalt that shows aligned black (oxide) mineral forming a foliation texture toward the bottom of Section 1 and in Section 2. It is cut by hematite-calcite veins throughout the section and also form tension gash structure at 124-142 cm, Section 1. The bottom boundary is a chilled margin at at 96 cm in Section 2. Unit 7I is highly altered reddish black aphyric cryptocrystalline picritic (?) basalt that is partially to completely replaced by hematite. The boundary with Unit 7I is a moderately vesicular to amygdaloidal flow top in Section 3, 36 cm. It is cut by a network of hematite veins at 139-141 cm in section 2 and a chilled margin boundary with Unit 7J. Unit 7J is a massive porphyritic basalt with a moderately vesicular plagioclase-phyric glassy flow top that grades into a massive flow with a fine-grained groundmass in Sections 4 and 5.

Hole 369-U1513E-9R Section 2, Top of Section: 765.9 m (CSF-A)



Hole 369-U1513E-9R Section 3, Top of Section: 767.31 m (CSF-A)



Core 9R consists of three lithologic units 7H, 7I, and 7J. Unit 7H is a moderately altered greenish black aphyric cryptocrystalline picritic (?) basalt that shows aligned black (oxide) mineral forming a foliation texture toward the bottom of Section 1 and in Section 2. It is cut by hematite-calcite veins throughout the section and also form tension gash structure at 124-142 cm, Section 1. The bottom boundary is a chilled margin at at 96 cm in Section 2. Unit 7I is highly altered reddish black aphyric cryptocrystalline picritic (?) basalt that is partially to completely replaced by hematite. The boundary with Unit 7I is a moderately vesicular to amygdaloidal flow top in Section 3, 36 cm. It is cut by a network of hematite veins at 139-141 cm in section 2 and a chilled margin boundary with Unit 7J. Unit 7J is a massive porphyritic basalt with a moderately vesicular plagioclase-phyric glassy flow top that grades into a massive flow with a fine-grained groundmass in Sections 4 and 5.

Hole 369-U1513E-9R Section 4, Top of Section: 768.36 m (CSF-A)