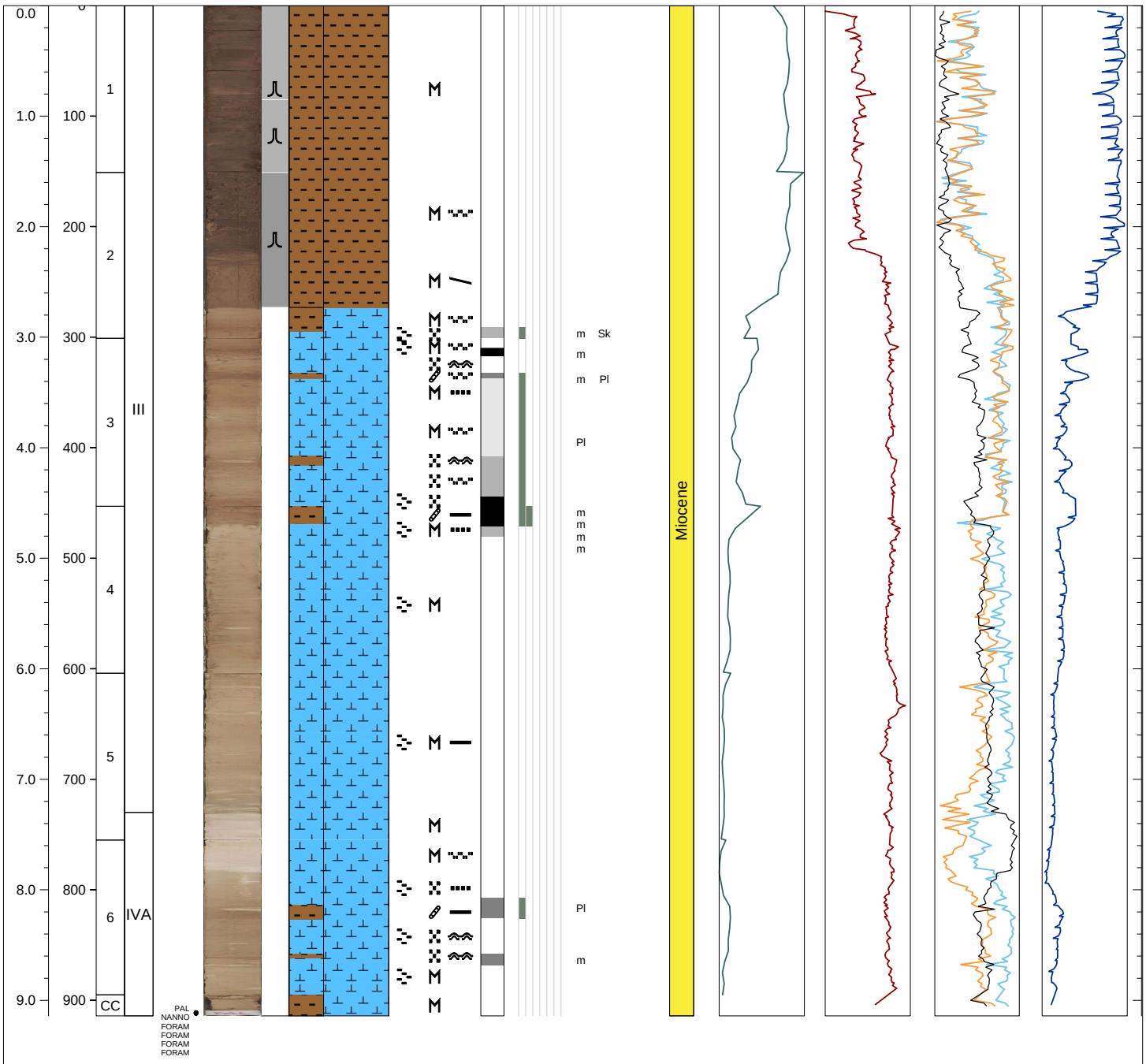
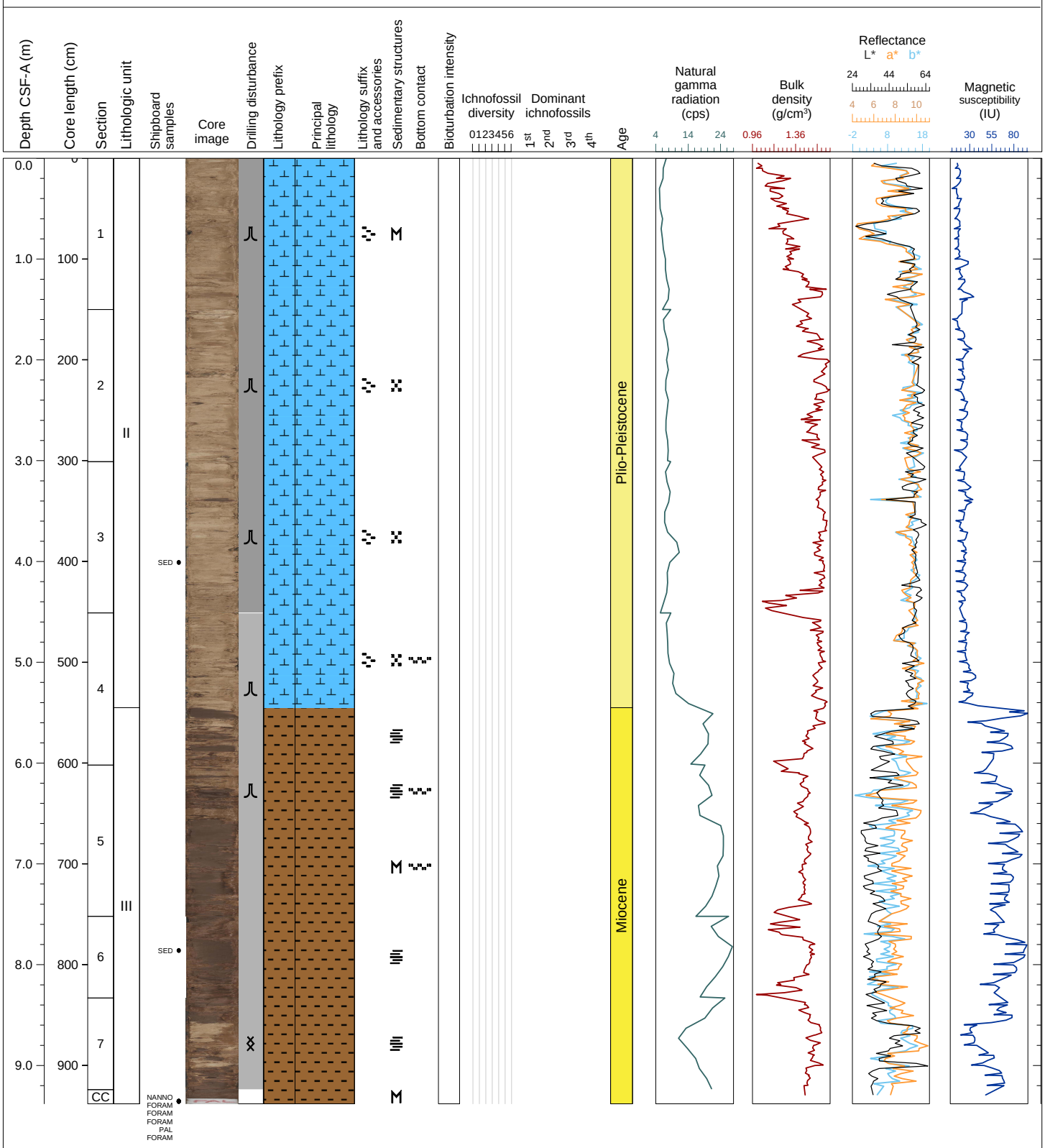
Hole 393-U1583A Core 1H, Interval 0.0-9.14 m (CSF-A)

Core 1H in Hole U1583A consists of pink (7.5YR 7/3) nannofossil ooze with clay from the top of the core to section 4 at 94 cm where it changes to a dark brown (7.5YR 3/3) clay that extends to the bottom of this core. Lithologic contacts are irregular and inclined. Mottling and pinkish white and light brown blebs are common. Biogenic mottling occurs in discrete decimeter thick beds with rare distinct ichnogenera identified such as Planolites, Chondrites, Thalassinoides and Zoophycos. Severe to destroyed drilling disturbances occurred in the upper 2.7 meters of the core.



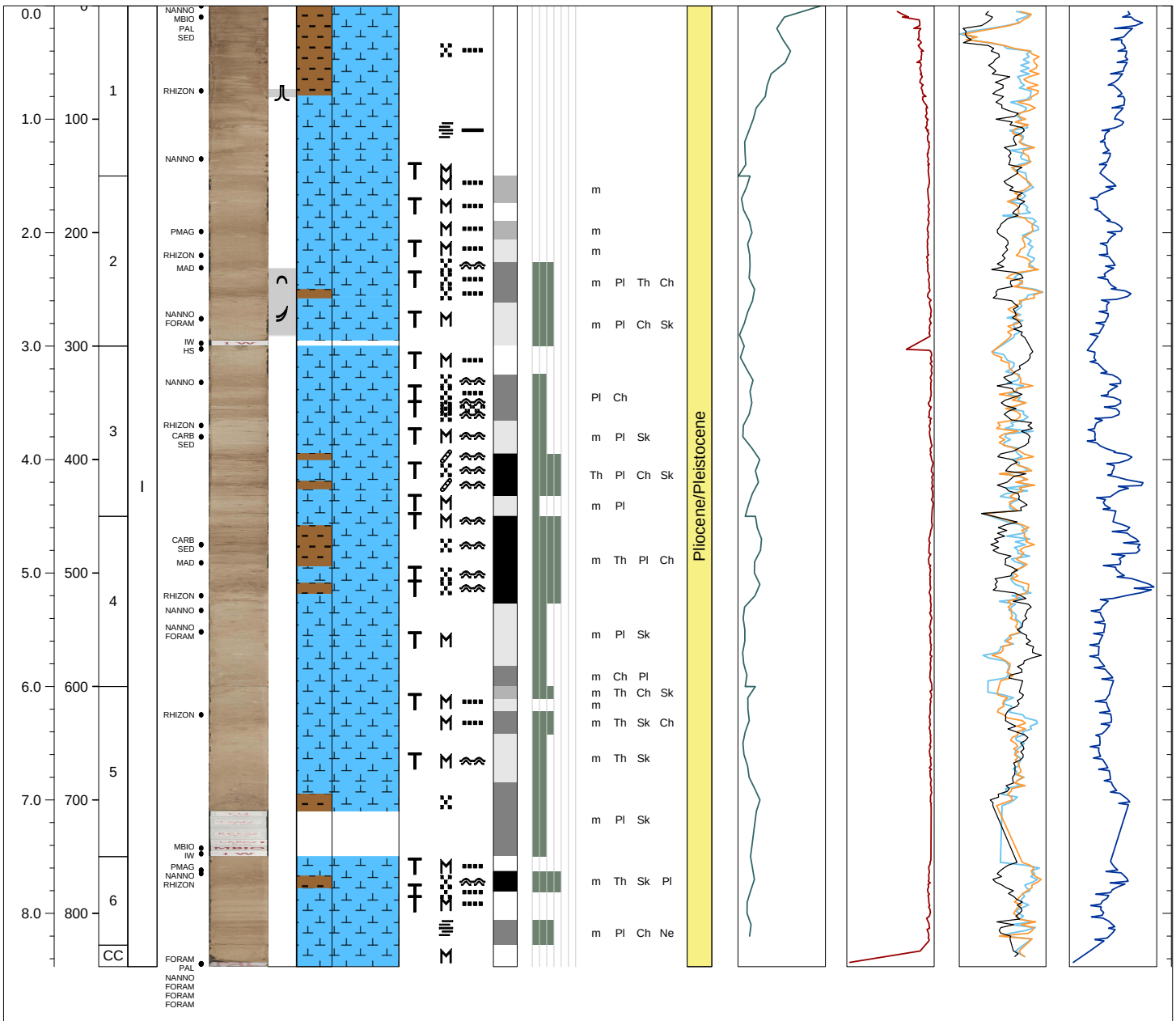
Hole 393-U1583B Core 1H, Interval 0.0-9.38 m (CSF-A)

Core 1H in Hole U1583B contain extensive drilling disturbances that severely to destroyed nearly the entire core. Only a 14 cm section at the bottom of the core appeared not to be disturbed. The upper 5.45 m consists of pink (7.5YR 7/3) nannofossil ooze with clay with the rest of the core consisting of dark brown (7.5YR 3/3) clay.



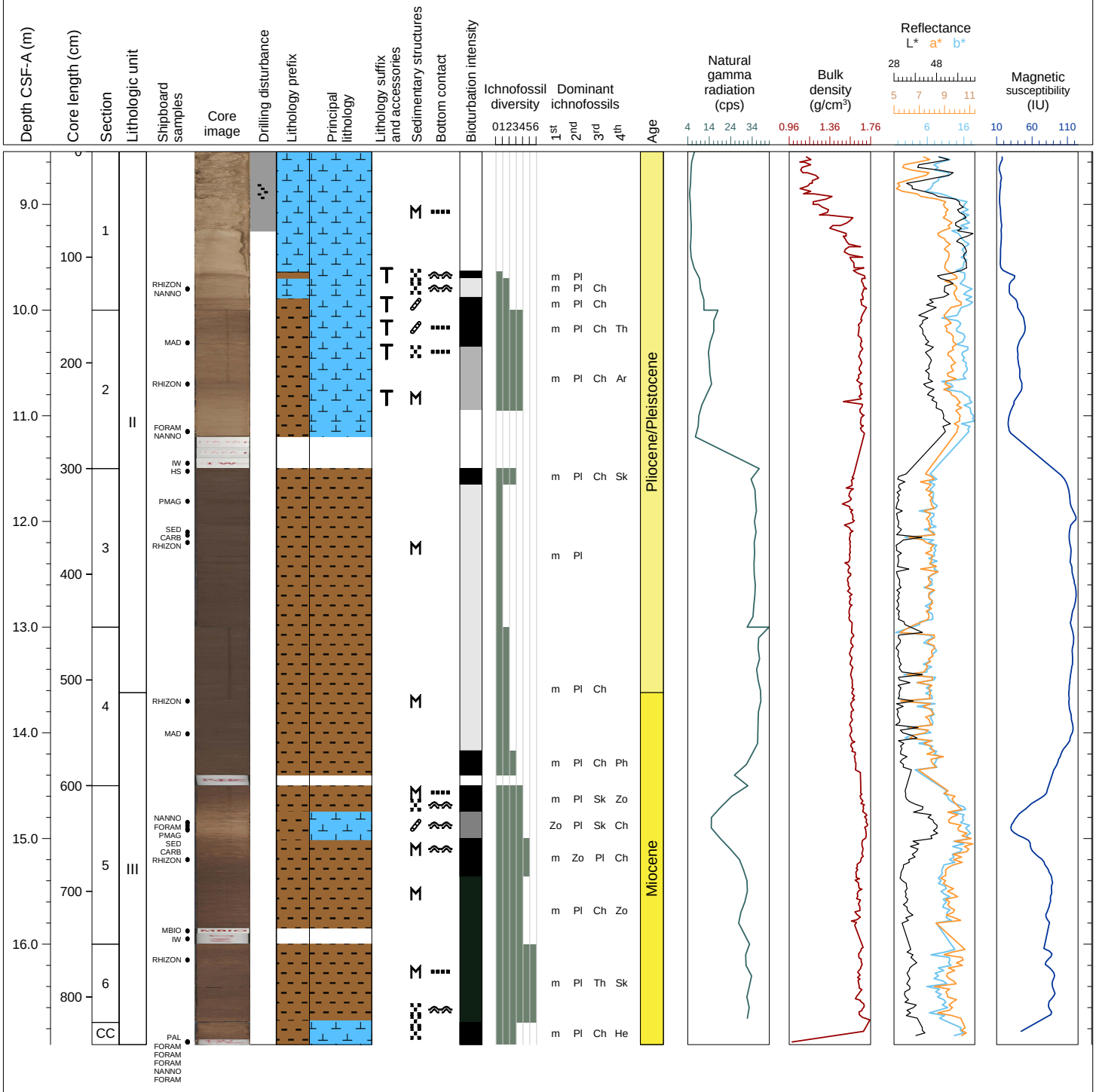
Hole 393-U1583C Core 1H, Interval 0.0-8.47 m (CSF-A)

Core 1H in Hole U1583C consists of pink (7.5YR 7/3) to light brown (7.5YR 6/4) nannofossil ooze with clay with varying amounts of foraminifera ranging from rare to common. Lithologic contacts are predominately bioturbated and horizontal. Most intervals contain mottling as well as biogenic mottling with distinct ichnofossil genera that include Thalassinoides, Planolites, Chondrites, Skolithos and rare Nerites. Diversity ranges from 1 to 4 ichnogenera with the maximum diameter ranging from 3 to 20 mm. Drilling disturbances occur throughout the core ranging up to moderate and include fall in, arching up and mid core flow in.



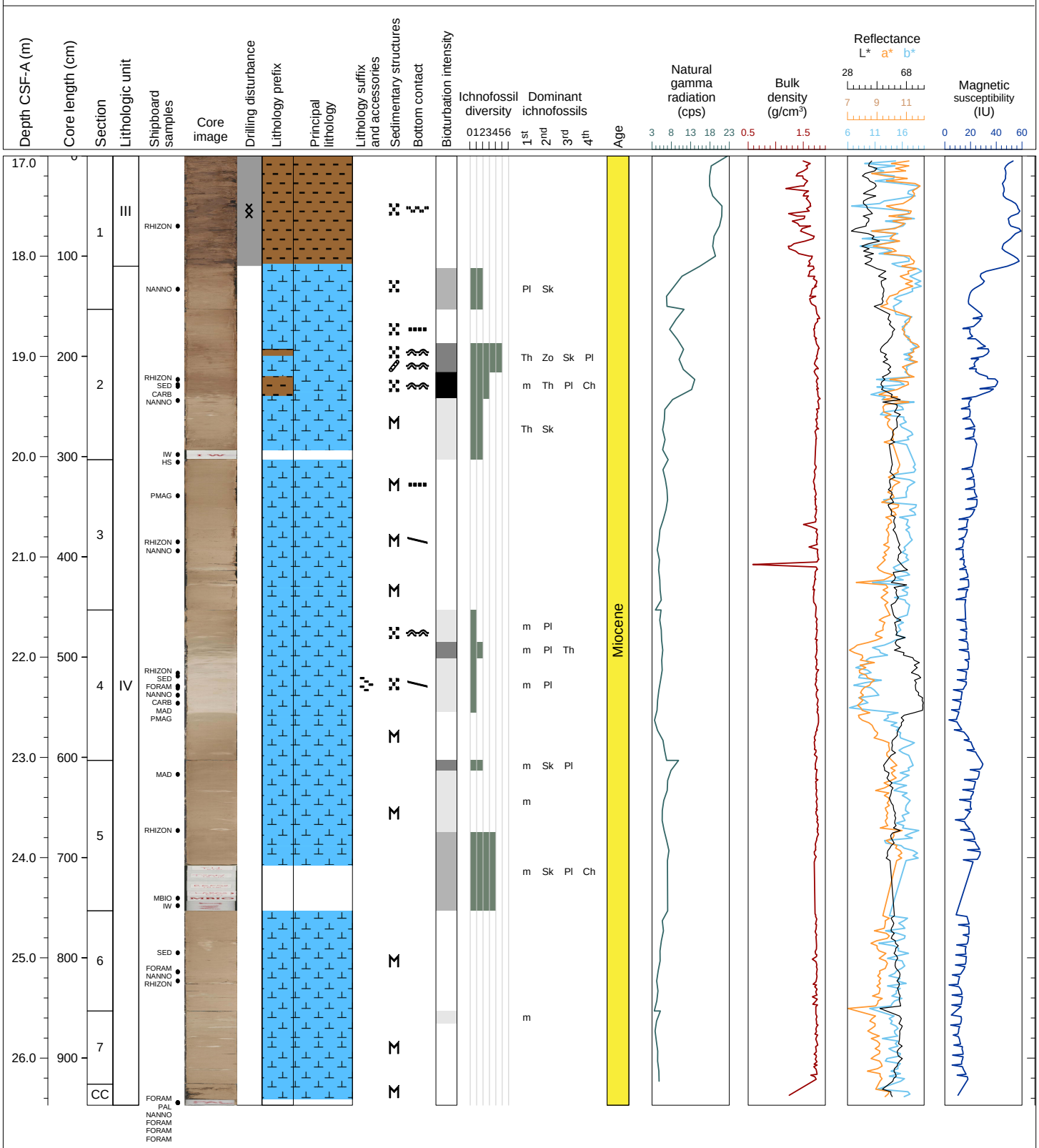
Hole 393-U1583C Core 2H, Interval 8.5-16.95 m (CSF-A)

Core 2H consists of nannofossil ooze with clay and foraminifera from the top of the core to section 3 at 0 cm where it changes to a brown (7.5YR 4/4) to dark brown (7.5YR 3/3-3/4) clay. Two brown beds of clayey nannofossil ooze occur in sections 5 and 6. Contacts between the lithologic units are bioturbated. Bedding is massive except when mottling occurs. Rare small (0.5 cm) round black blebs occur. Biogenic mottling is common throughout the core with distinct ichnogenera identified and include Planolites, Chondrites, Thalassinoides, Arenicolites, and Skolithos. Diversity ranges from 1 to 6 ichnogenera with the maximum diameter ranging from 4 to 22 mm.



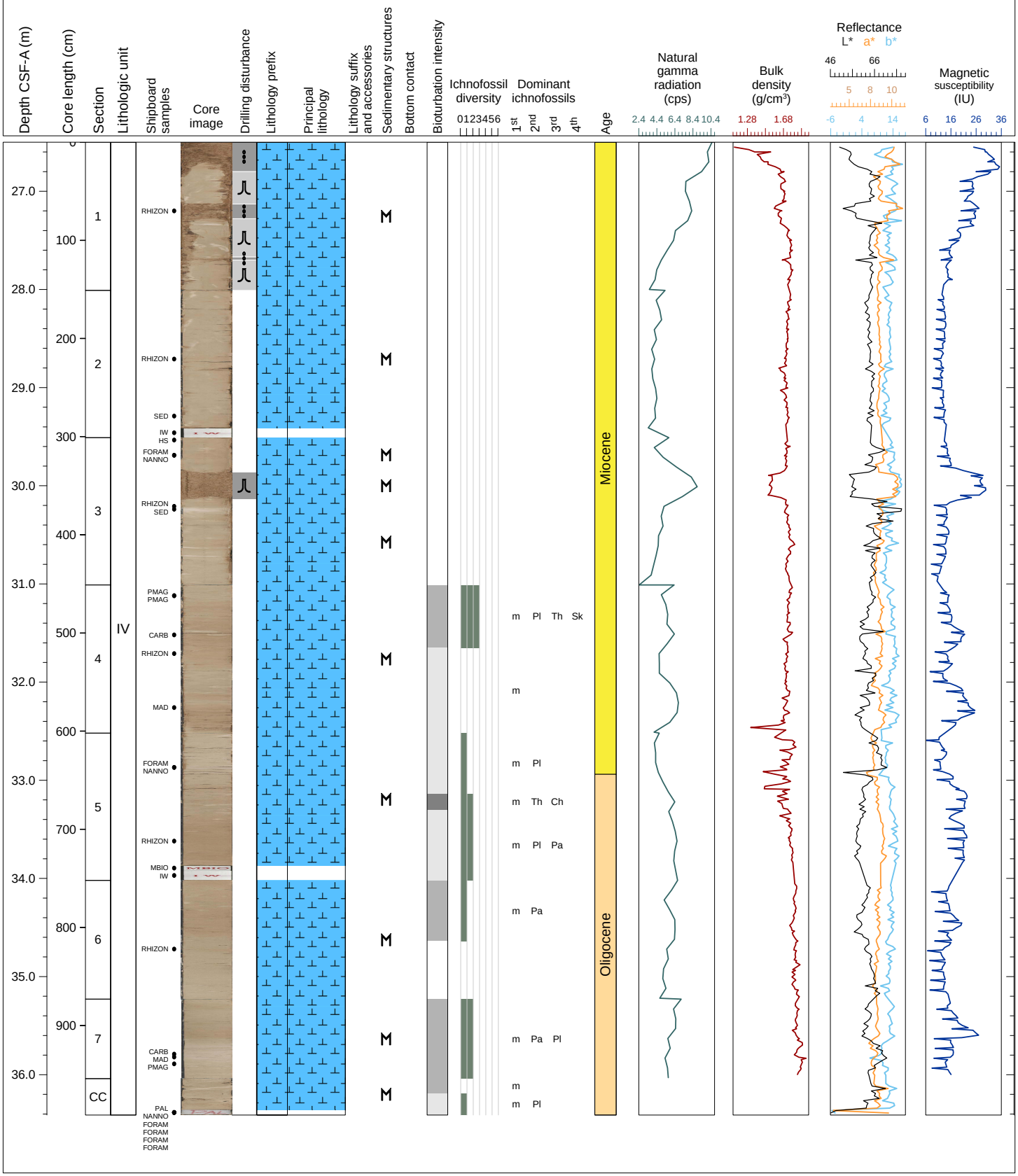
Hole 393-U1583C Core 3H, Interval 17.0-26.47 m (CSF-A)

Core U1583C-3H consists of a brown clay in the first 107 cm in section one. This is followed by pink (7.5YR 7/4) nannofossil ooze with foraminifera and clay, with two thin beds of brown clayey nannofossil ooze. Lithologic contacts are bioturbated and sedimentary structures consist of massive bedding. Mottling is minor in this core. Pinkish white thin (3-4 cm) lenses occur sporadically throughout the core. Bioturbation ranges from none to moderate with distinct ichnogenera observed and include Thalassinoides, Skolithos, Planolites and Chondrites. Diversity ranges from 1 to 5 and the maximum diameter ranges from 5 to 20 mm. The upper 110 cm of section 1 is heavily brecciated and is destroyed. The rest of the core does not have any core disturbances.



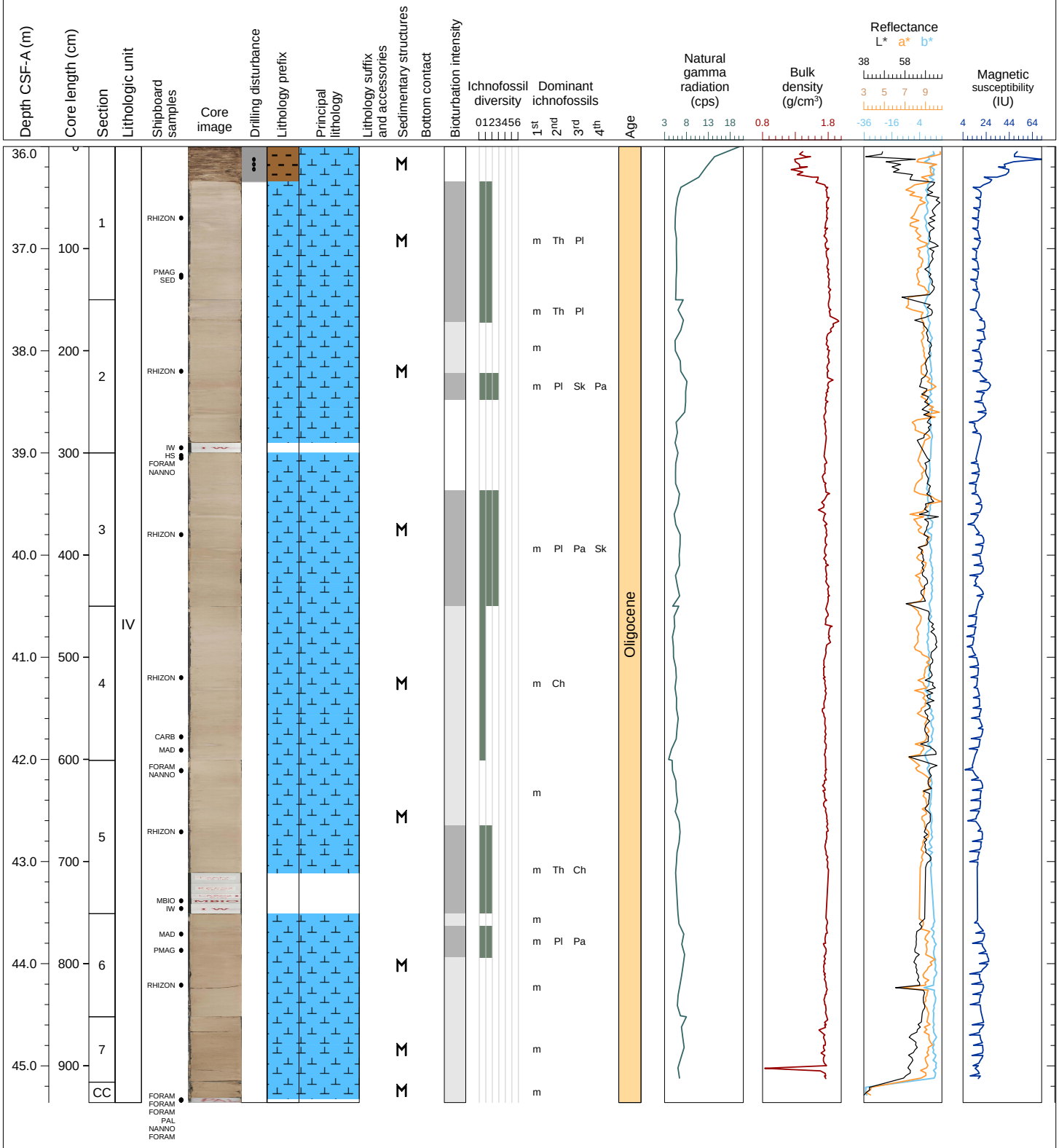
Hole 393-U1583C Core 4H, Interval 26.5-36.41 m (CSF-A)

Core U1583C-4H consists of very pale brown (10YR 8/2) nannofossil ooze with foraminifera and brown (7.5YR 6/4) nannofossil ooze with clay and foraminifera. Lithologic contacts are gradational and the beds are massive. Bioturbation is muted in this core with biogenic mottling occurring in decimeter scale beds. Distinct ichnogenera include Planolites, Thalassinoides, Chondrites, Palaeophycus and Skolithos. Diversity ranges from 1 to 3 genera and the maximum diameter ranges from 4 to 20 mm. Drilling disturbances occur extensively in sections 1 through 3 with significant lengths of core being destroyed.



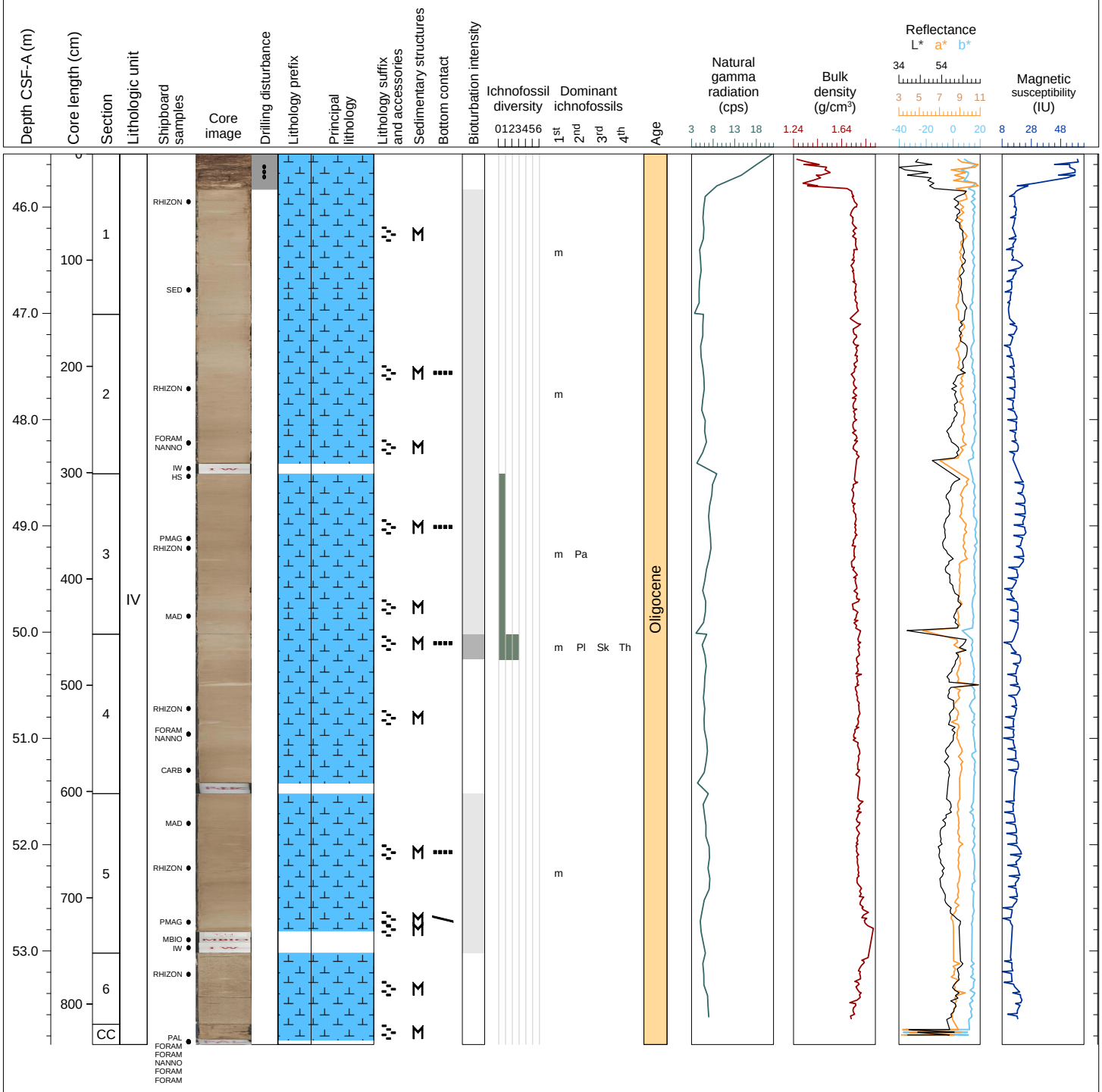
Hole 393-U1583C Core 5H, Interval 36.0-45.36 m (CSF-A)

Core U1583C-5H consists very pale brown (10YR 8/2) nannofossil ooze with clay and foraminifera, with one 34 cm thick bed of nannofossil ooze at the top of section one. The bedding is massive with occasional pinkish white halos and irregular lenses occurring throughout the core. Biogenic mottling occurs in decimeter to meter scale beds throughout this core. Distinct ichnogenera include Planolites, Thalassinoides, Palaeophycus and rare Chondrites and Skolithos. The diversity ranges from 1 to 3 ichnogenera and the maximum diameter ranges from 4 to 20 mm. The first 34 cm in section 1 was destroyed by drilling disturbances, otherwise the core was not disturbed by from drilling.



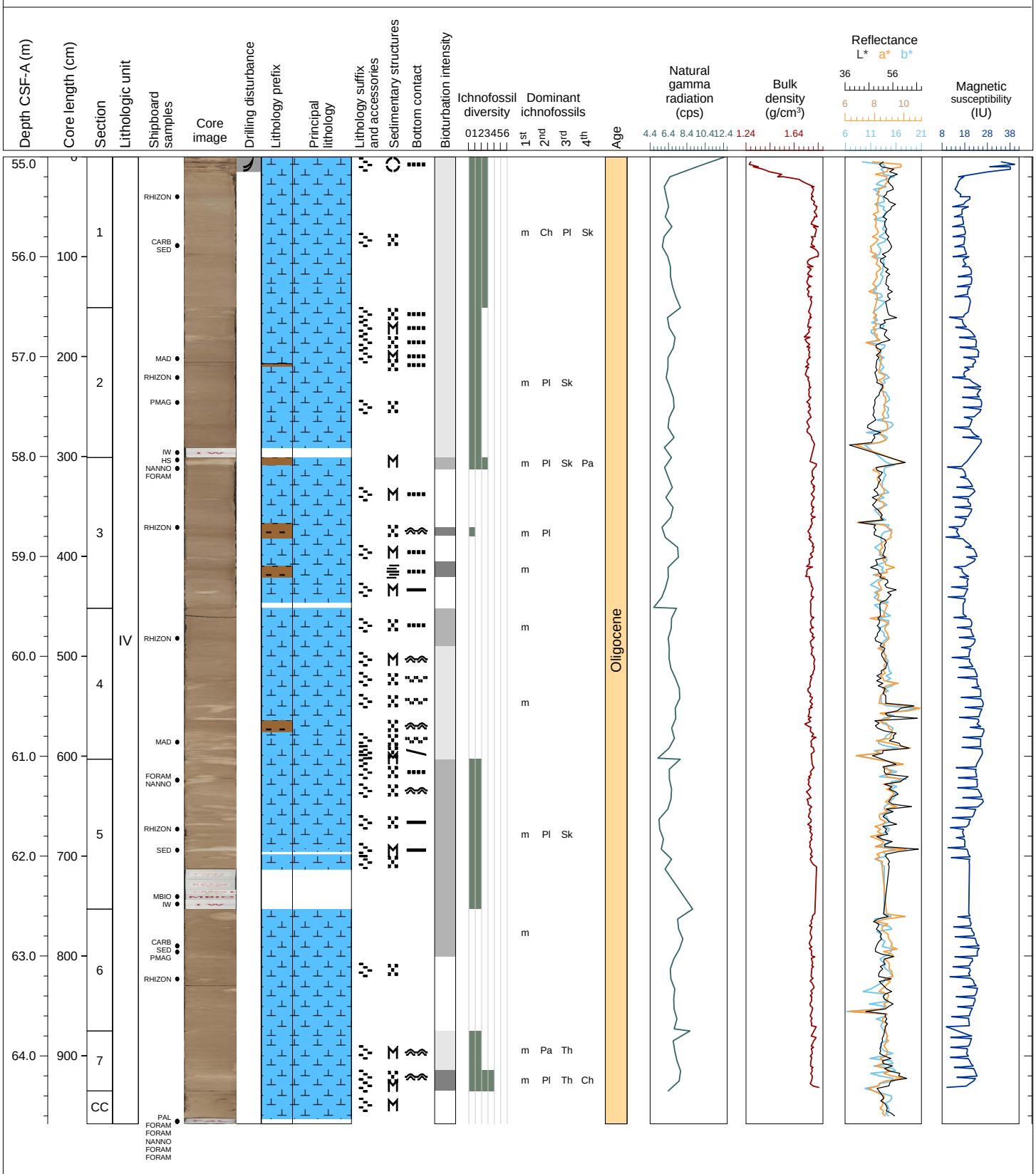
Hole 393-U1583C Core 6H, Interval 45.5-53.88 m (CSF-A)

Core U1583C-6H consists of very pale brown (10YR 8/2) to pink (7.5YR 7/3) nannofossil ooze with clay. The slight changes in color are gradational and the sedimentary structures are dominated by massive bedding. Pinkish white halos and irregular lenses occur sporadically throughout this core. Biogenic mottling occurs throughout sections 1 to 5 with distinct ichnogenera occurring such as Planolites Palaeophycus, Skolithos, and Thalassinoides. The upper 34 cm of the core in section was destroyed, otherwise no drilling disturbances were noted.



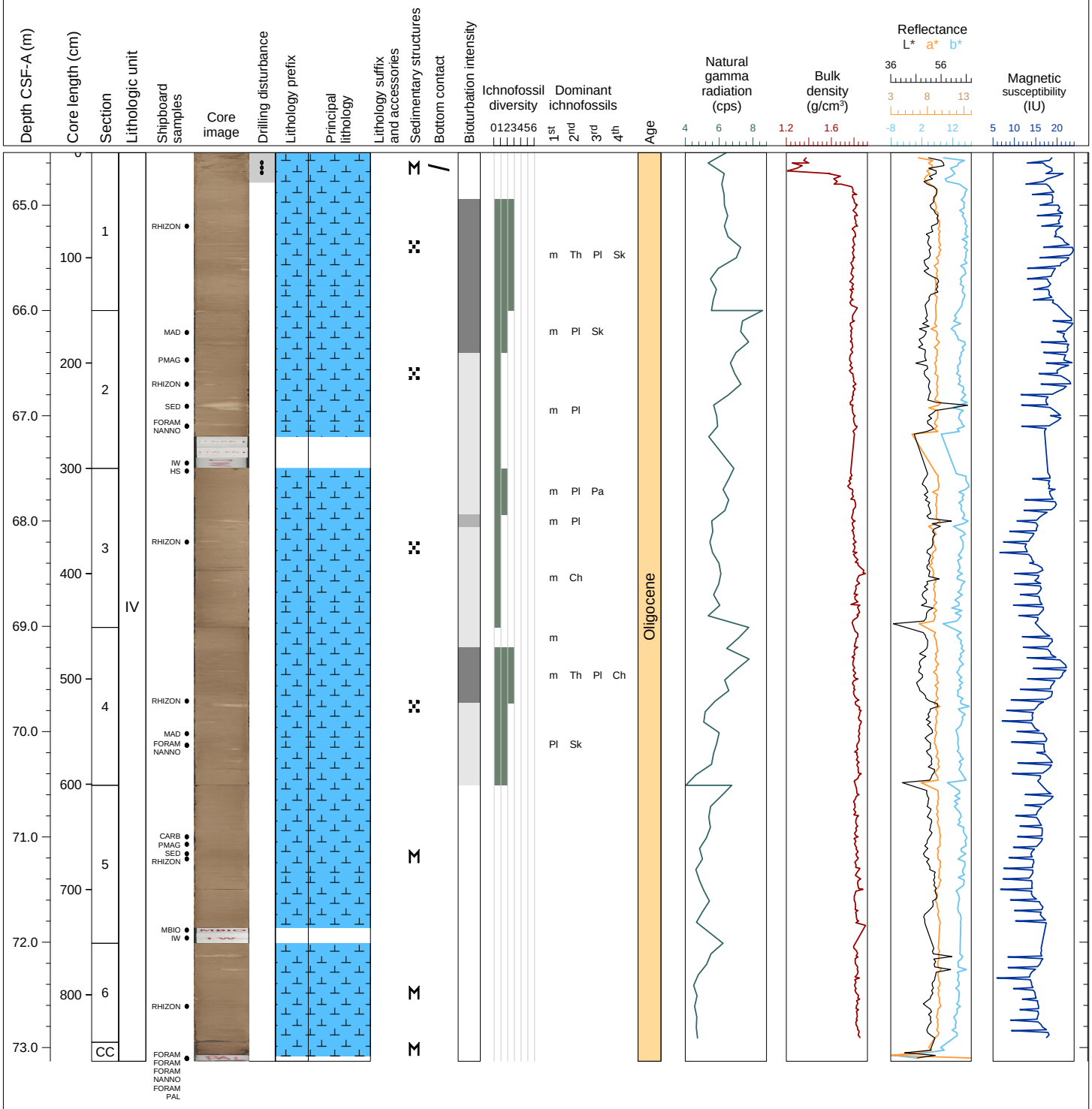
Hole 393-U1583C Core 7H, Interval 55.0-64.68 m (CSF-A)

Core U1583C-7H consists of very pale brown (10YR 6/4) to light yellowish brown (10YR 6/4) nannofossil ooze with clay that is interbedded by decimeter-thick beds of yellowish brown clayey (10YR 5/4) nannofossil ooze. Lithologic contacts are predominately bioturbated with a few being gradational and irregular. Mottling is the dominant sedimentary structure with massive bedding occurring sporadically in the core. Biogenic mottling occurs through the majority of this core with distinct ichnogenera occurring that include: Planolites, Chondrites, Skolithos, and Palaeophycus. Diversity ranges from 1 to 3 and the maximum diameter ranges from 3 to 15 mm. The upper 15 cm of the core in section 1 was destroyed, otherwise no drilling disturbances were observed.



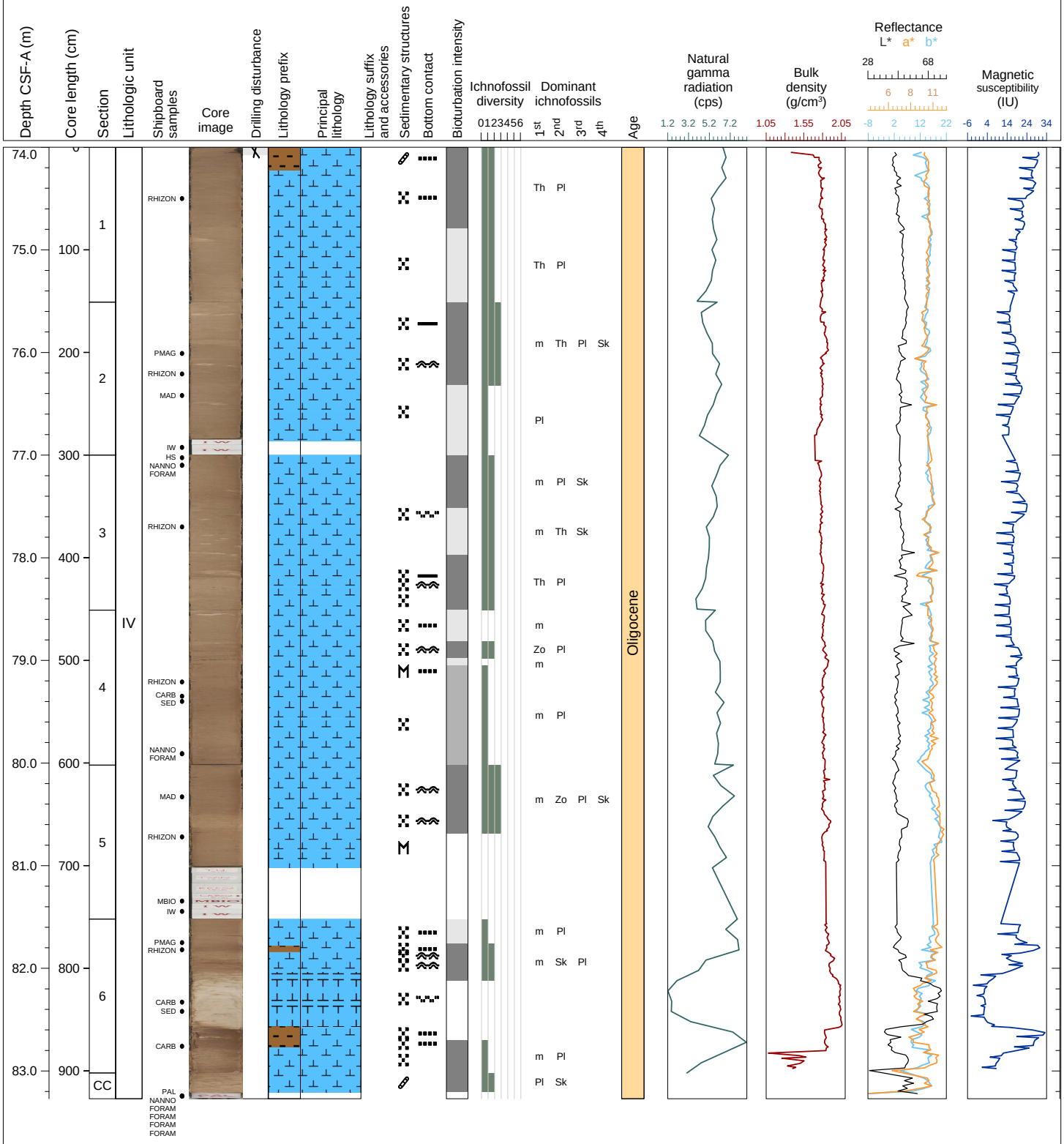
Hole 393-U1583C Core 8H, Interval 64.5-73.13 m (CSF-A)

Core U1583C-8H consists of very pale brown (10YR 7/4) nannofossil ooze with clay and foraminifera. Massive bedding and mottling are the two types of sedimentary structures observed. Small to medium-size (0.5-4 cm) pinkish white halos and blebs occurred sporadically through out this core. Biogenic mottling was observed in sections 1 to 4, with the bioturbation intensity dropping to none in sections 5 and 6. Within the intervals with biogenic mottling, distinct ichnogenera were identified and include: Planolites, Thalassinoides, Chondrites, Skolithos, and Palaeophycus. Diversity ranges from 1 to 3 ichnogenera and the maximum diameter ranges from 3 to 15 mm. The upper 65 cm of section 1 was destroyed by drilling disturbances, while the rest of the core contained no drilling disturbances.



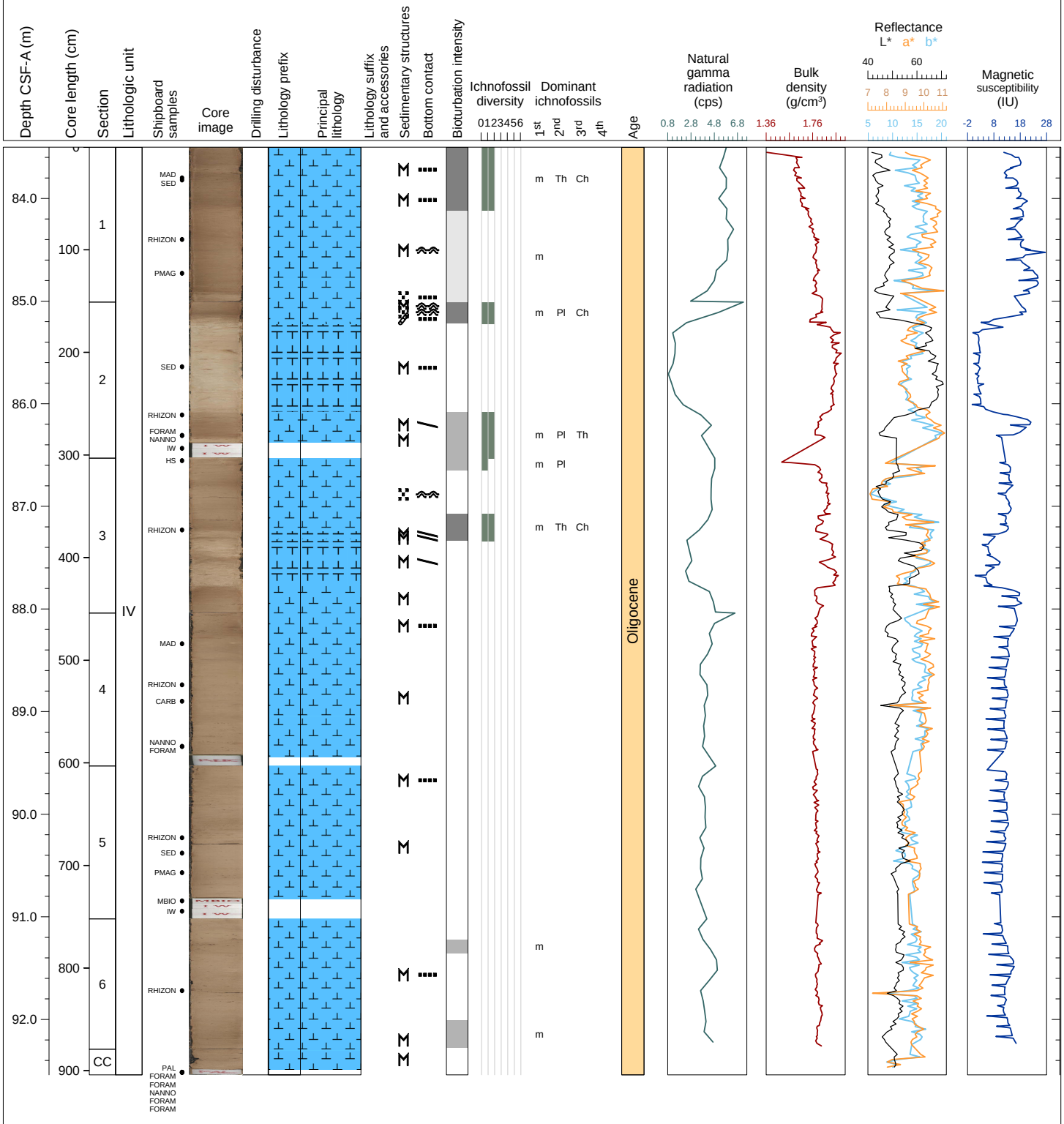
Hole 393-U1583C Core 9H, Interval 74.0-83.27 m (CSF-A)

Core U1583C-9H consists of predominately pink (7.5YR 7/4), light yellowish brown (10YR 6/4), light brown (7.5YR 6/4), reddish brown (7.5YR 6/6) nannofossil ooze with clay and foraminifera. In addition, decimeter thick beds of strong brown (7.5YR 5/6) clayey nannofossil ooze and (7.5YR 4/4) clay occur at the top and bottom of this core as well as a white (7.5YR 8.5/1) calcareous ooze in section 6 between 51 and 105 cm. Lithologic contacts are typically bioturbated, with a few being gradational in nature. Bioturbation intensity ranges from sparse to moderate with distinct ichnogenera occurring that include Planolites, Thalassinoides, Zoophycos, and Skolithos. Diversity ranges from 1 to 3 ichnogenera and the maximum diameter ranges from 3 to 18 mm. With the exception of void in the upper 8 cm of section 1, no drilling disturbances were observed.



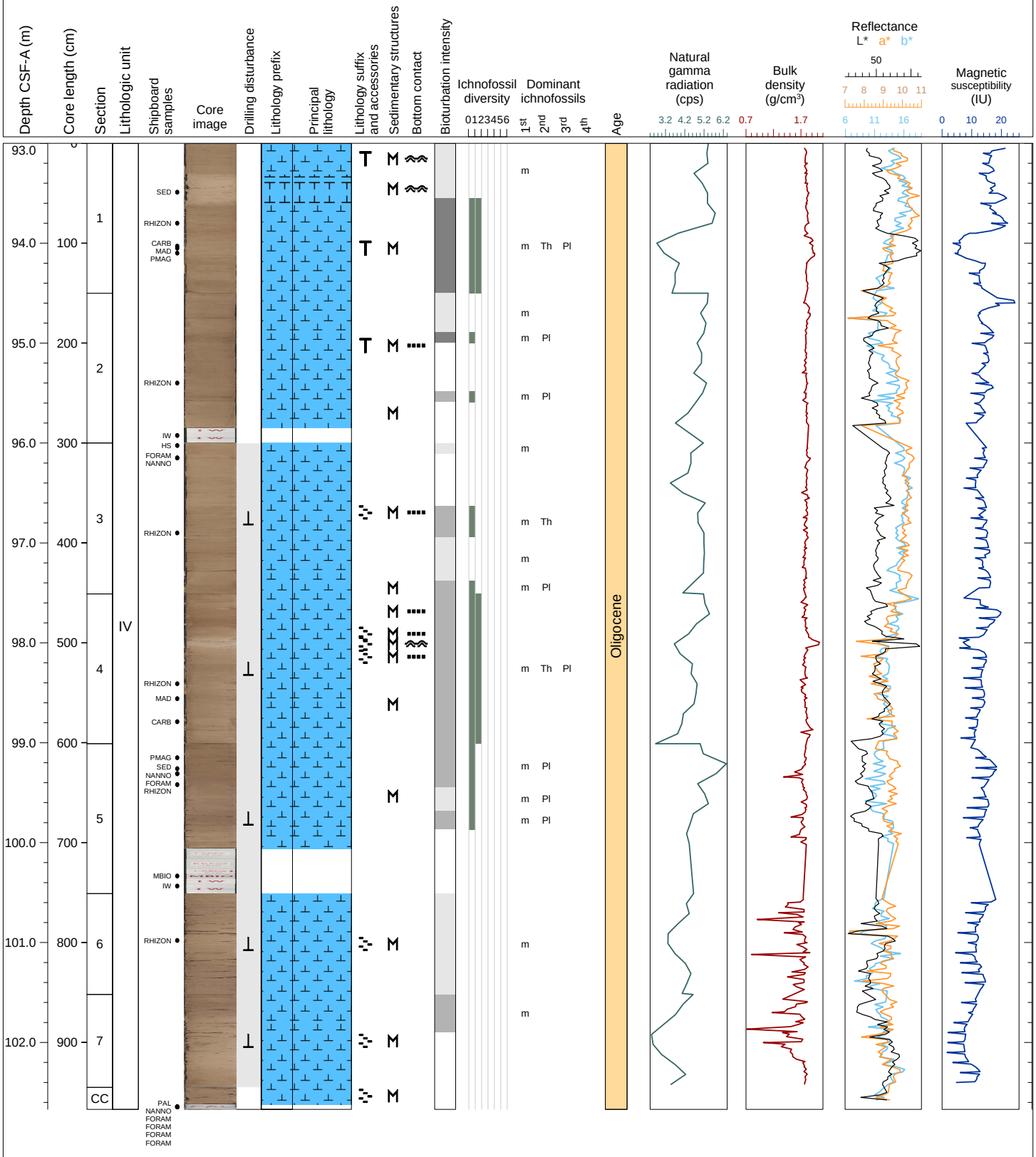
Hole 393-U1583C Core 10H, Interval 83.5-92.54 m (CSF-A)

Core U1583C-10H consists of predominately pink (7.5YR 7/4) to light brown (7.5YR 6/4) nannofossil ooze with clay and foraminifera. Decimeter-thick beds of pinkish white (7.5YR 8/2) calcareous ooze occur in sections 2 and 3. Lithologic contacts are gradational within the nannofossil ooze and clay an foraminifera and are sharp when the calcareous ooze occurs. Sedimentary structures are typically massive bedding with occasional decimeter thick beds that are mottled. Biogenic mottling occurs throughout sections 1 to 3 and is rare in sections 4 through 6. Within the intervals that biogenic mottling occur, distinct ichnogenera were identified and include: Planolites, Thalassinoides, and Chondrites. Diversity range from 1 to 2 and the maximum diameter ranges from 4 to 20 mm. No drilling disturbances were identified in this core.



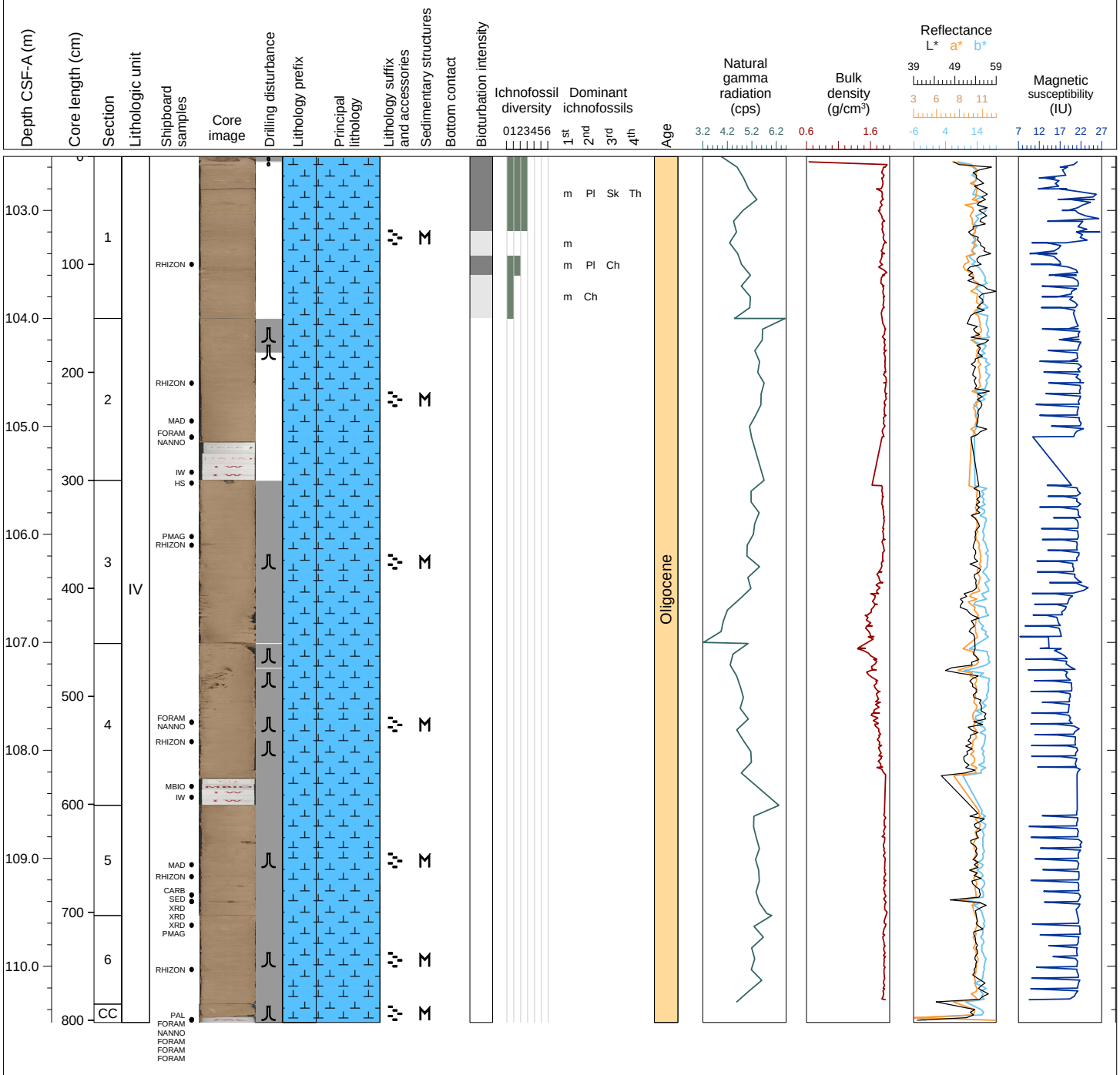
Hole 393-U1583C Core 11H, Interval 93.0-102.67 m (CSF-A)

Core U1583C-11H consists of pink (7.5YR 7/4) to light brown (7.5YR 6/4) nannofossil ooze with clay and varying amounts of foraminifera. The bedding is massive. The subtle color changes occur gradually throughout this core. Biogenic mottling occurs in the majority of the core with distinct ichnogenera occurring and include: Planolites and Thalassinoides. Diversity is low ranging from 1 to 2 ichnogenera and the maximum diameter ranges from 4 to 12 mm. There are slight fracturing occurring in sections 3 to 7, otherwise, no other drilling disturbances were observed.

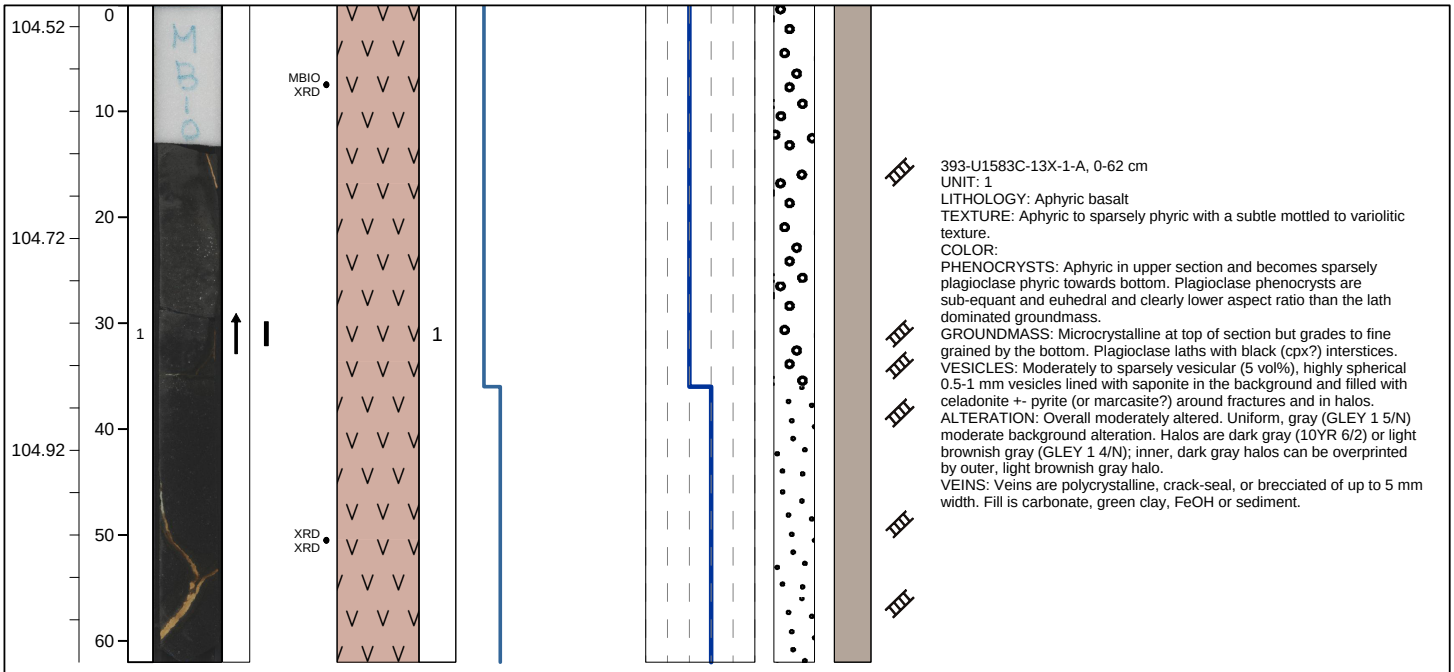


Hole 393-U1583C Core 12H, Interval 102.5-110.52 m (CSF-A)

Core U1583C-12H consists of light brown (7.5YR 6/4) nannofossil ooze with clay. Bedding is massive. Biogenic mottling and ichnofossils are confined to decimeter-thick beds. Distinct ichnogenera include Planolites, Thalassinoides, Chondrites, and Arenicolites. Drilling disturbances include a soupy destroyed 5 cm interval at the top of section 1 and several significant fractures occurring in section 2 at 32 cm and in section between 23 an 45 cm.

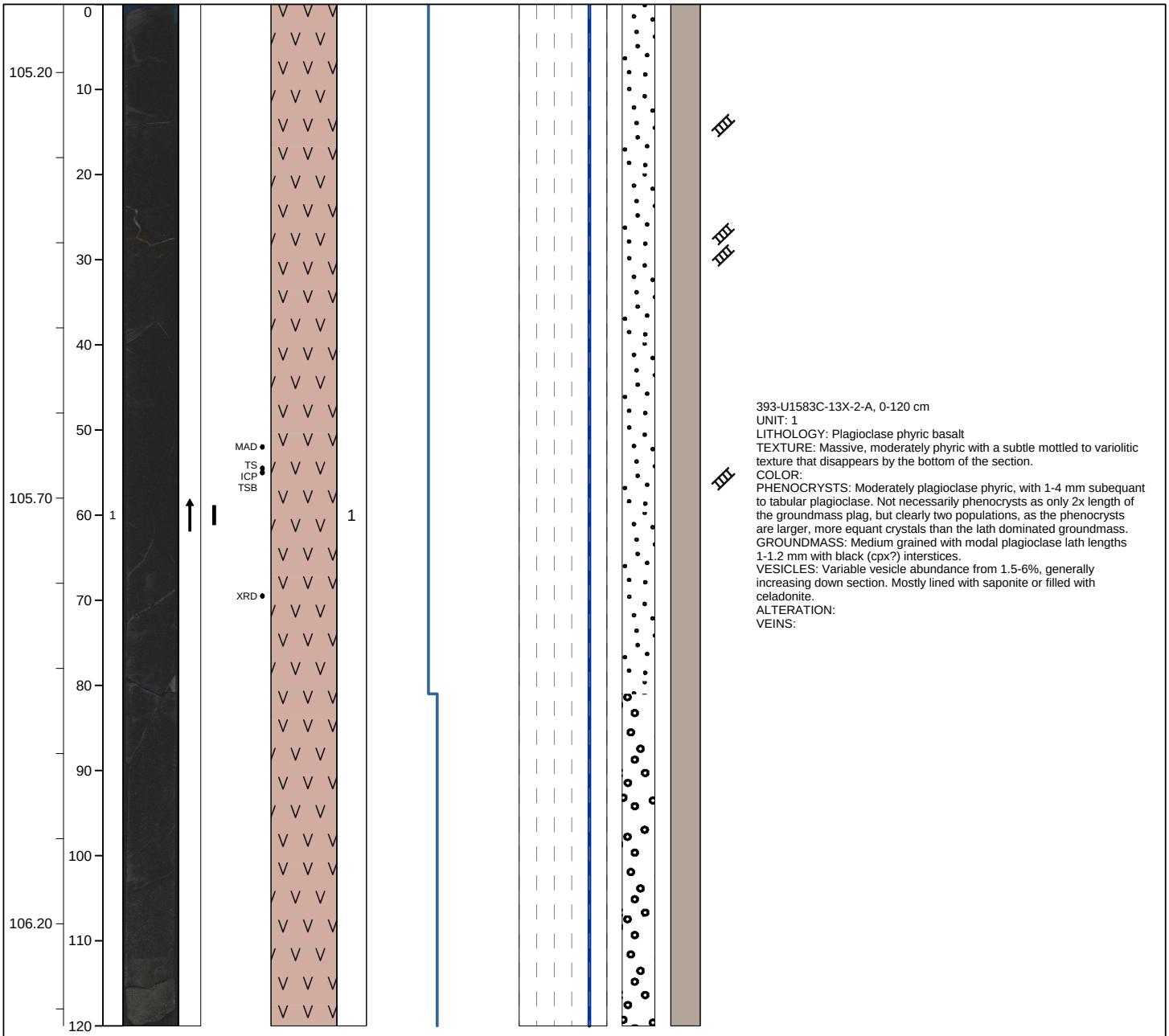


Hole 393-U1583C-13X Section 1, Top of Section: 104.5 m (CSF-A)



393-U1583C-13X-1-A, 0-62 cm
UNIT: 1
LITHOLOGY: Aphyric basalt
TEXTURE: Aphyric to sparsely phyric with a subtle mottled to variolitic texture.
COLOR:
PHENOCRYSTS: Aphyric in upper section and becomes sparsely plagioclase phyric towards bottom. Plagioclase phenocrysts are sub-equant and euhedral and clearly lower aspect ratio than the lath dominated groundmass.
GROUNDMASS: Microcrystalline at top of section but grades to fine grained by the bottom. Plagioclase laths with black (cpx?) interstices.
VESICLES: Moderately to sparsely vesicular (5 vol%), highly spherical 0.5-1 mm vesicles lined with saponite in the background and filled with celadonite +- pyrite (or marcasite?) around fractures and in halos.
ALTERATION: Overall moderately altered. Uniform, gray (GLEY 1 5/N) moderate background alteration. Halos are dark gray (10YR 6/2) or light brownish gray (GLEY 1 4/N); inner, dark gray halos can be overprinted by outer, light brownish gray halo.
VEINS: Veins are polycrystalline, crack-seal, or brecciated of up to 5 mm width. Fill is carbonate, green clay, FeOH or sediment.

Hole 393-U1583C-13X Section 2, Top of Section: 105.12 m (CSF-A)

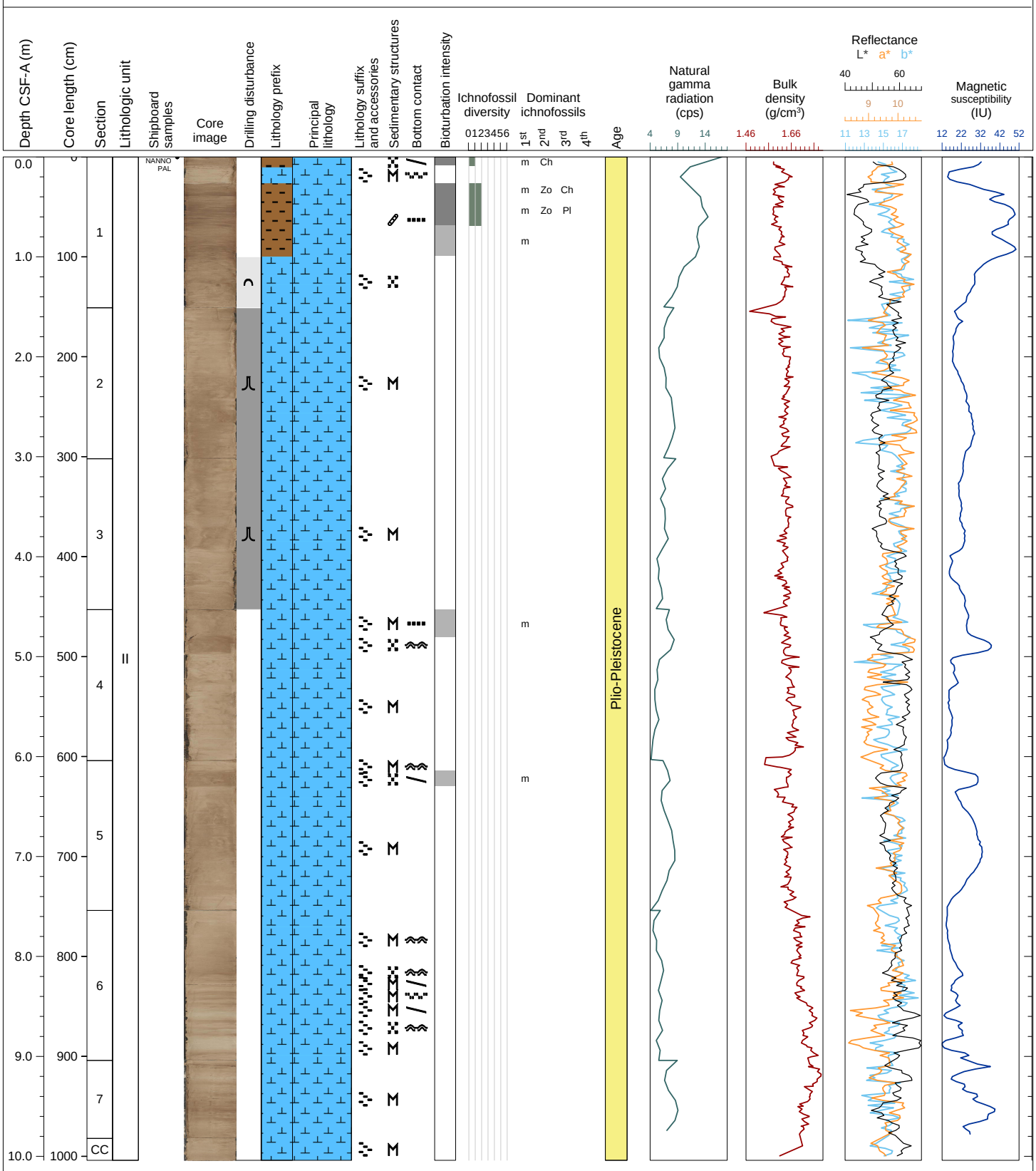


Description

393-U1583C-13X-2-A, 0-120 cm
UNIT: 1
LITHOLOGY: Plagioclase phyric basalt
TEXTURE: Massive, moderately phyric with a subtle mottled to variolitic texture that disappears by the bottom of the section.
COLOR:
PHENOCRYSTS: Moderately plagioclase phyric, with 1-4 mm subequant to tabular plagioclase. Not necessarily phenocrysts as only 2x length of the groundmass plag, but clearly two populations, as the phenocrysts are larger, more equant crystals than the lath dominated groundmass.
GROUNDMASS: Medium grained with modal plagioclase lath lengths 1-1.2 mm with black (cpx?) interstices.
VESICLES: Variable vesicle abundance from 1.5-6%, generally increasing down section. Mostly lined with saponite or filled with celadonite.
ALTERATION:
VEINS:

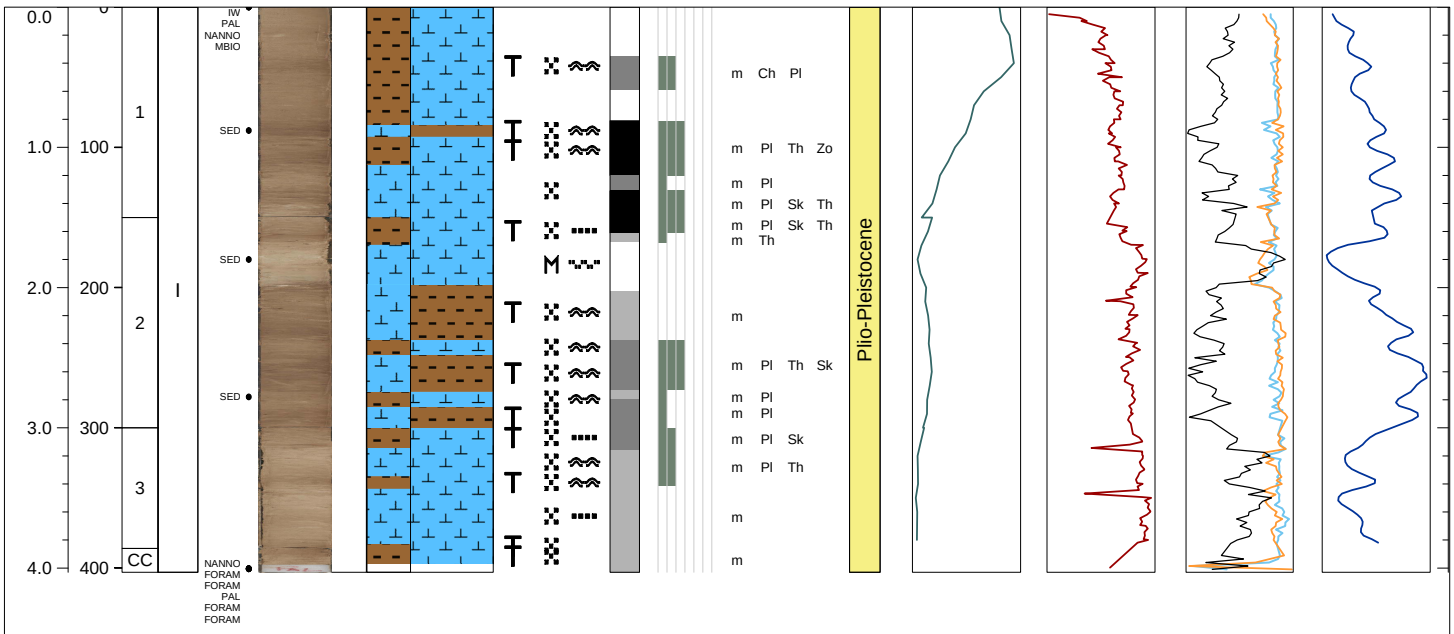
Hole 393-U1583D Core 1H, Interval 0.0-10.04 m (CSF-A)

Core U1583D-1H consists interbedded light brown (7.5YR 6/4) clayey nannofossil ooze and pinkish white (7.5YR 8/2) nannofossil ooze with clay in the upper meter of the core followed by mainly pink (7.5YR 7/3) to light brown (7.5YR 6/4) nannofossil ooze with clay. Lithologic contacts range from bioturbated to gradational. Bedding is typically massive with mottling occurring at the decimeter scale. Biogenic mottling is generally low in this core occurring in decimeter thick beds. Distinct ichnogenera observed within these beds include Zoophycos, Chondrites and Planolites. Ichnofossil diversity ranges from 1 to 2 and the maximum diameter ranges from 2 to 5 mm. The core is destroyed from drilling disturbances include the entire second and third sections of the core.



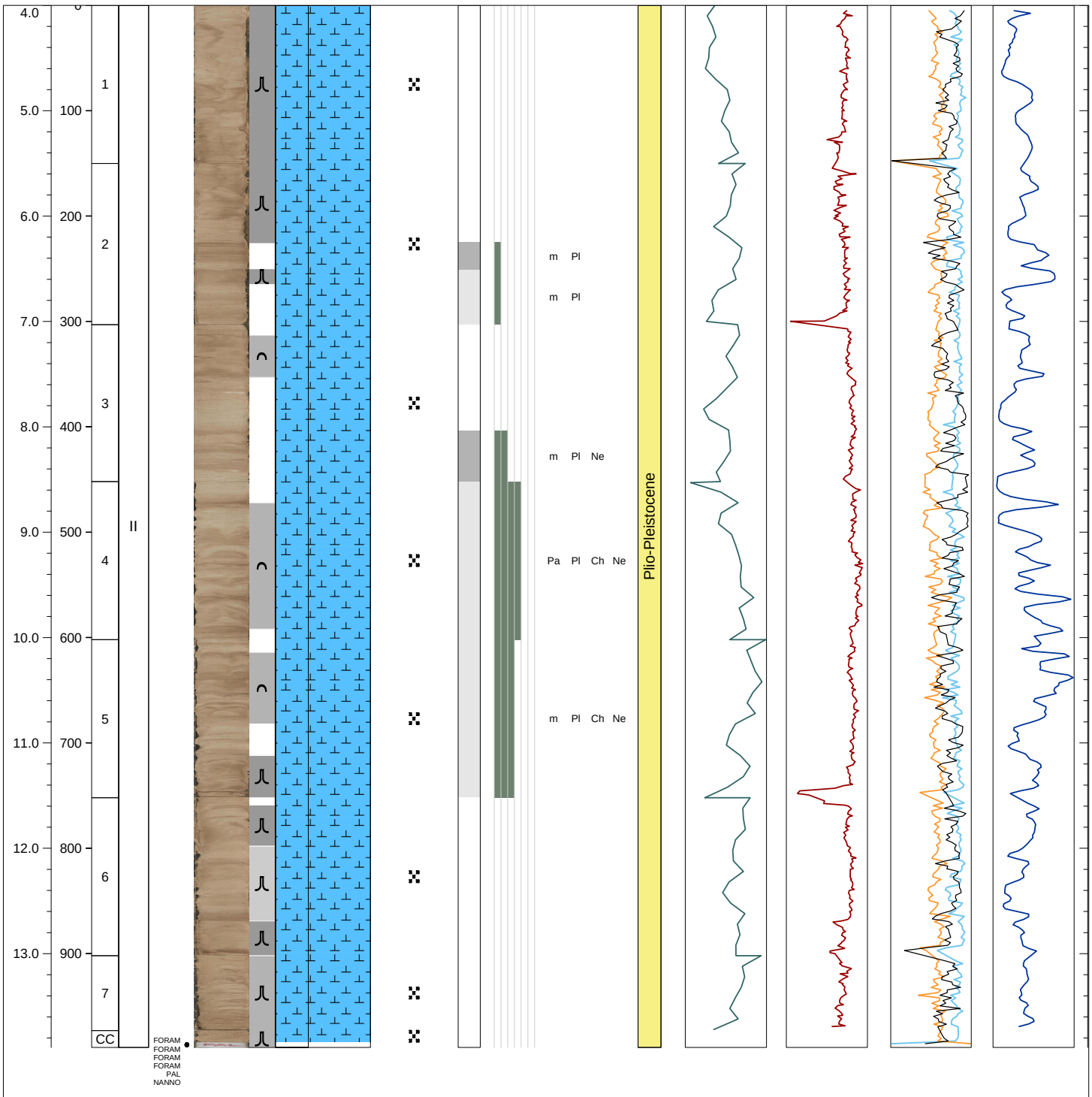
Hole 393-U1583E Core 1H, Interval 0.0-4.03 m (CSF-A)

Core U1583E-1H consists of interbedded light brown (7.5YR 6/4) clayey nannofossil ooze with varying amounts of foraminifera, brown (7.5YR 5/4)nannofossil-rich clay with foraminifera, pink (7.5YR 7/3) nannofossil ooze with clay and foraminifera. The lithologic contacts are typically bioturbated. Mottling is pervasive throughout this core. Distinctive ichnogenera include Planolites, Skolithos, Chondrites, Thalassinoides, and Zoophycos. Diversity ranges from 1 to 3 and the maximum ichnofossil diameter ranges from 4 to 14 mm. No drilling disturbances occurred in this core.



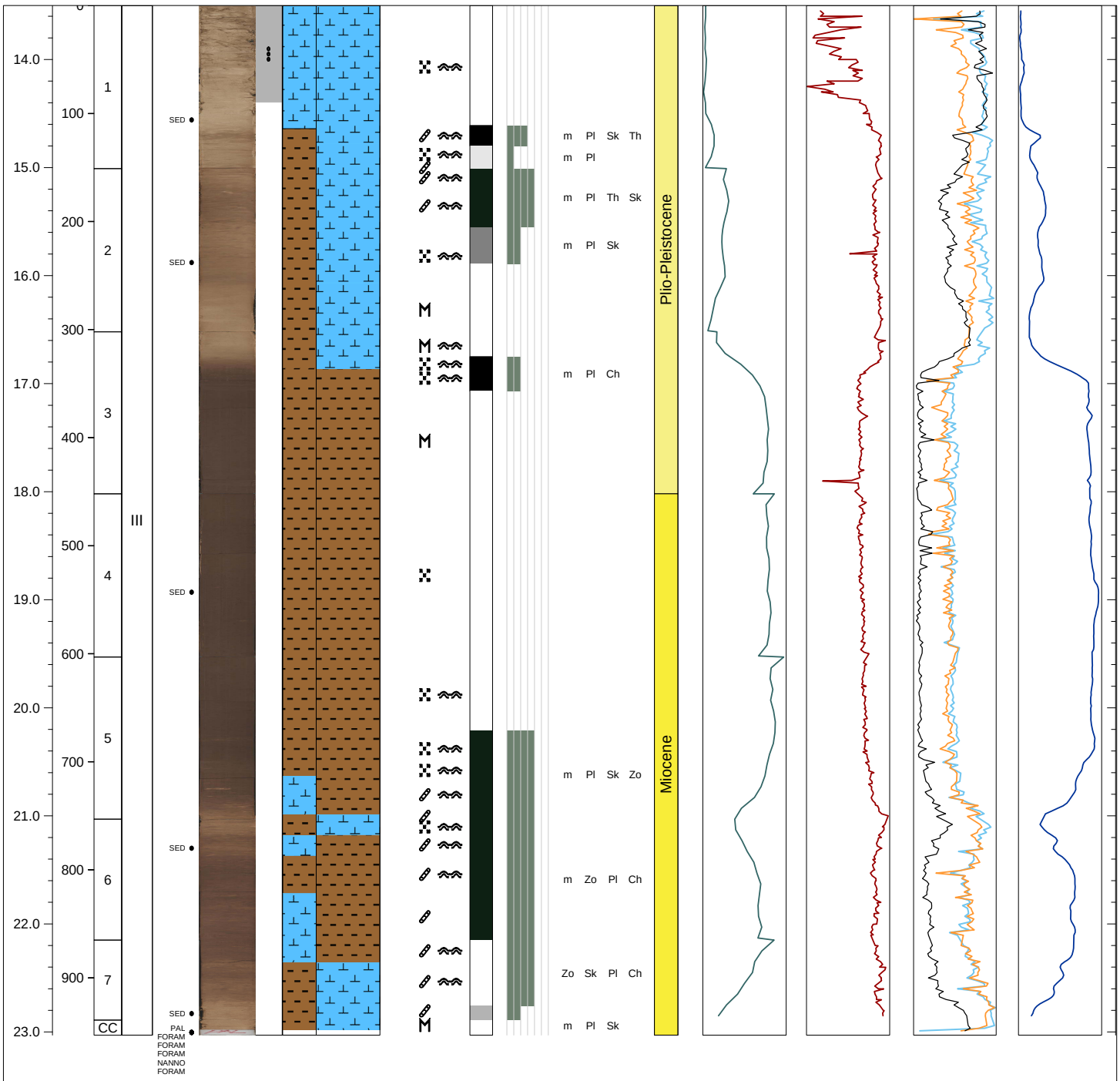
Hole 393-U1583E Core 2H, Interval 4.0-13.89 m (CSF-A)

Core U1583E-2H consists of pink (7.5YR 7/3) nannofossil ooze with clay and foraminifera. The lithologic contacts are typically bioturbated. Mottling is pervasive throughout this core. Distinctive ichnogenera include Planolites, Skolithos, Chondrites, Thalassinoides, and Zoophycos. Diversity ranges from 1 to 3 and the maximum ichnofossil diameter ranges from 4 to 14 mm. No drilling disturbances occurred in this core.



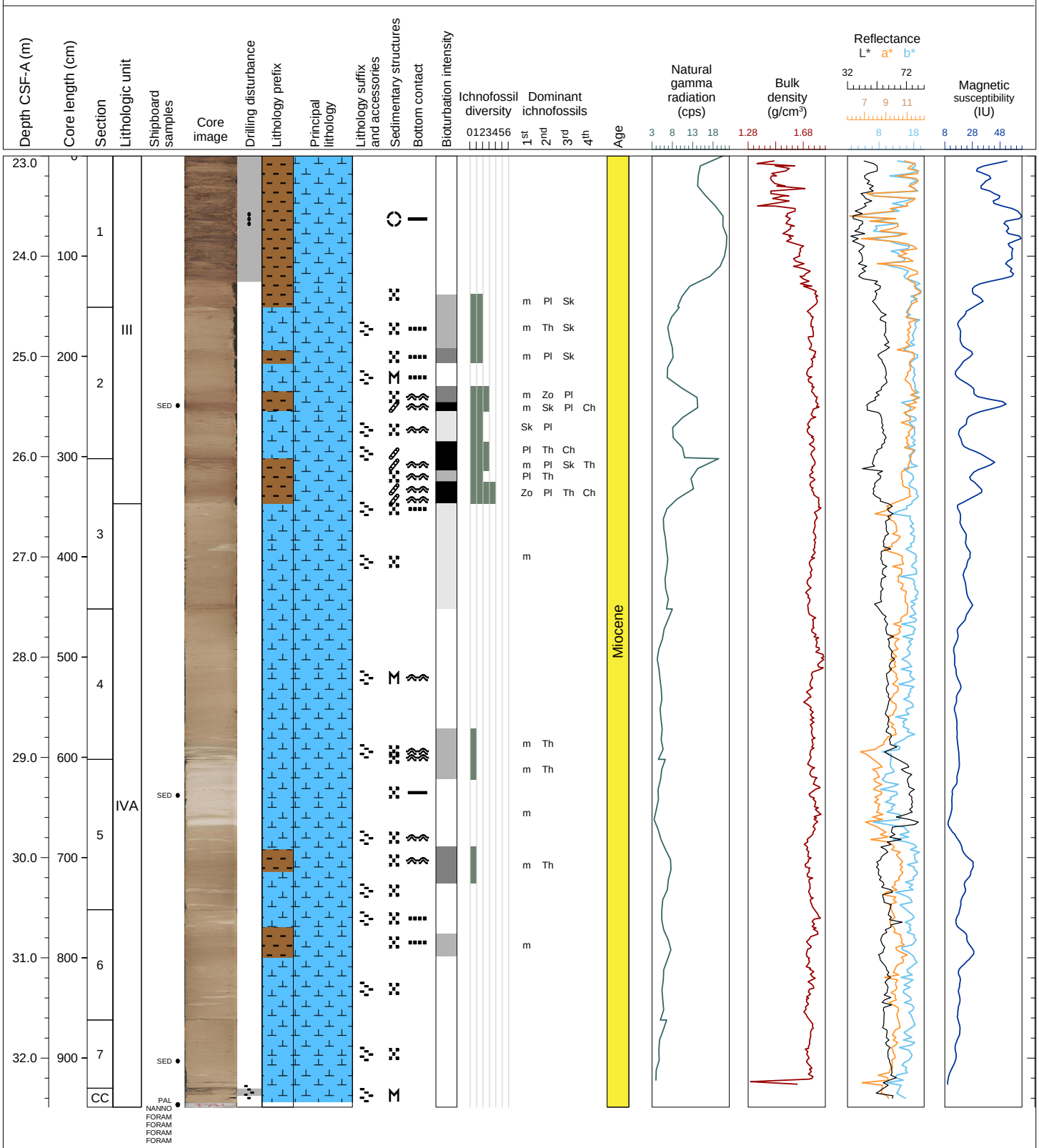
Hole 393-U1583E Core 3H, Interval 13.5-23.03 m (CSF-A)

Core U1583E-3H consists of brown (7.5YR 4/4) to light brown (7.5YR 6/4) clayey nannofossil ooze with spicules from the top of this core to section 3 at 34 cm where the lithology changes to very dark brown (7.5YR 2.5/2) clay and brown (7.5YR 4/4) clayey nannofossil ooze. Starting in section 4 at 0 cm down to the bottom of the core, the lithology becomes interbedded with brown (7.5YR 5/3) clayey nannofossil ooze and light brown (7.5YR 6/4) nannofossil ooze with clay. The contacts between the lithologic units are typically bioturbated and horizontal with a few lower contacts being sub-angular. Sedimentary structures range from massive bedding to mottling. Biogenic mottling and distinct ichnofossils are common to abundant in most of this core and include: Planolites, Skolithos, Thalassinoides, Zoophycos, and Chondrites. Ichnofossil diversity ranges from 1 to 4, and the maximum ichnofossil diameter is 3-23 mm. The upper 90 cm in section 1 is severely disturbed with soupy conditions. Otherwise, no drilling disturbances were observed in this core.



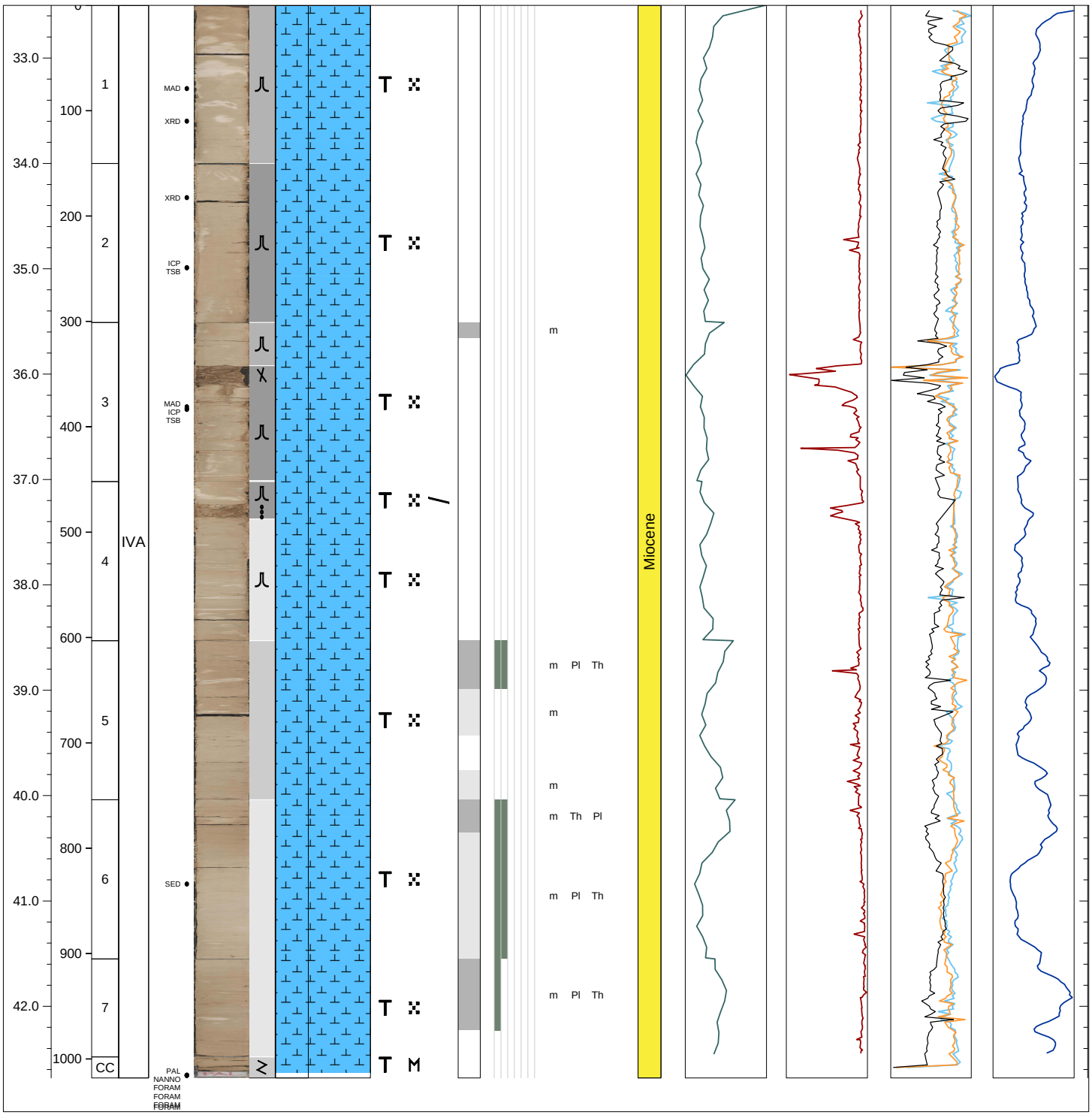
Hole 393-U1583E Core 4H, Interval 23.0-32.49 m (CSF-A)

Core U1583E-4H consists of interbedded pink (7.5YR 7/4) nannofossil ooze with clay and light brown (7.5YR 6/4) clayey nannofossil ooze. Decimeter-thick beds of pink (7.5YR 8/3) to pinkish white (7.5YR 8/2) nannofossil ooze occurs from section 4 at 147m to section 5 at 66.5 cm. The lithologic contacts are mainly bioturbated. Sedimentary structures are typically mottling with occasional decimeter-thick beds of tracks and burrows and massive bedding. Biogenic mottling occurs in decimeter- to meter-scale beds throughout this core. Distinct ichnogenera include Planolites, Skolithos,Thalassinoides, and more rarely Zoophycos and Chondrites. Diversity ranges from 1 to 3, and the maximum ichnofossil diameter ranges from 3 to 23 mm. The upper 110 cm of section 1 consist of soupy/slurry sediments with fragments of dark brown material. Otherwise, no drilling disturbances were observed in this core.



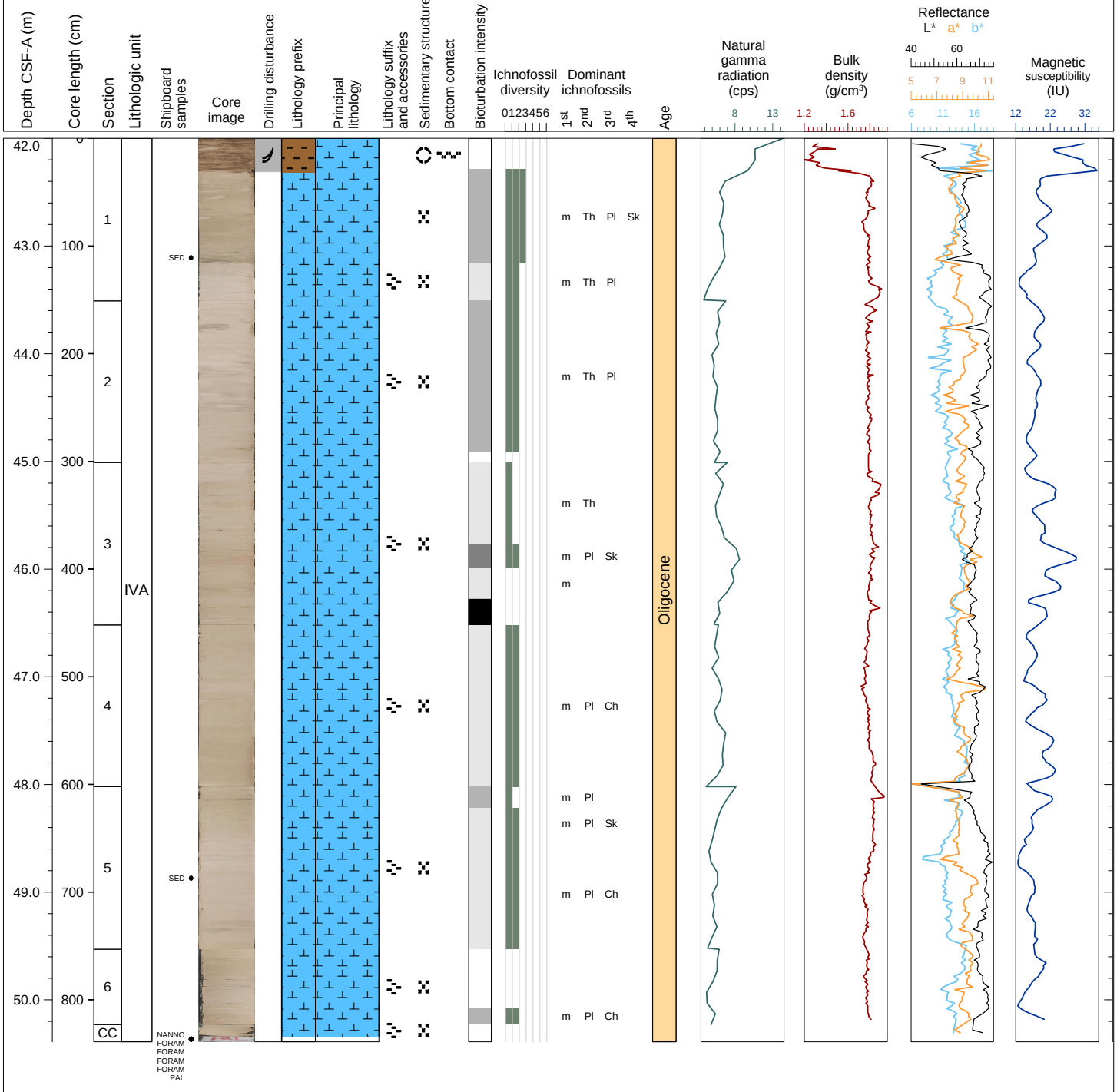
Hole 393-U1583E Core 5H, Interval 32.5-42.68 m (CSF-A)

Core U1583E-5H consists of pink (7.5YR 7/4) nannofossil ooze with foraminifera. Drilling disturbances occur throughout the core ranging from slight to destroyed and include mid core flow in, void, soupy sediments intervals and drilling-related cracks. Mottling was rarely observed. Bioturbation is absent to low, with distinct ichnogenera including Planolites and Thalassinoides. Diversity ranges from 1 to 2, and the maximum trace-fossil diameter ranges from 1 to 22 mm.



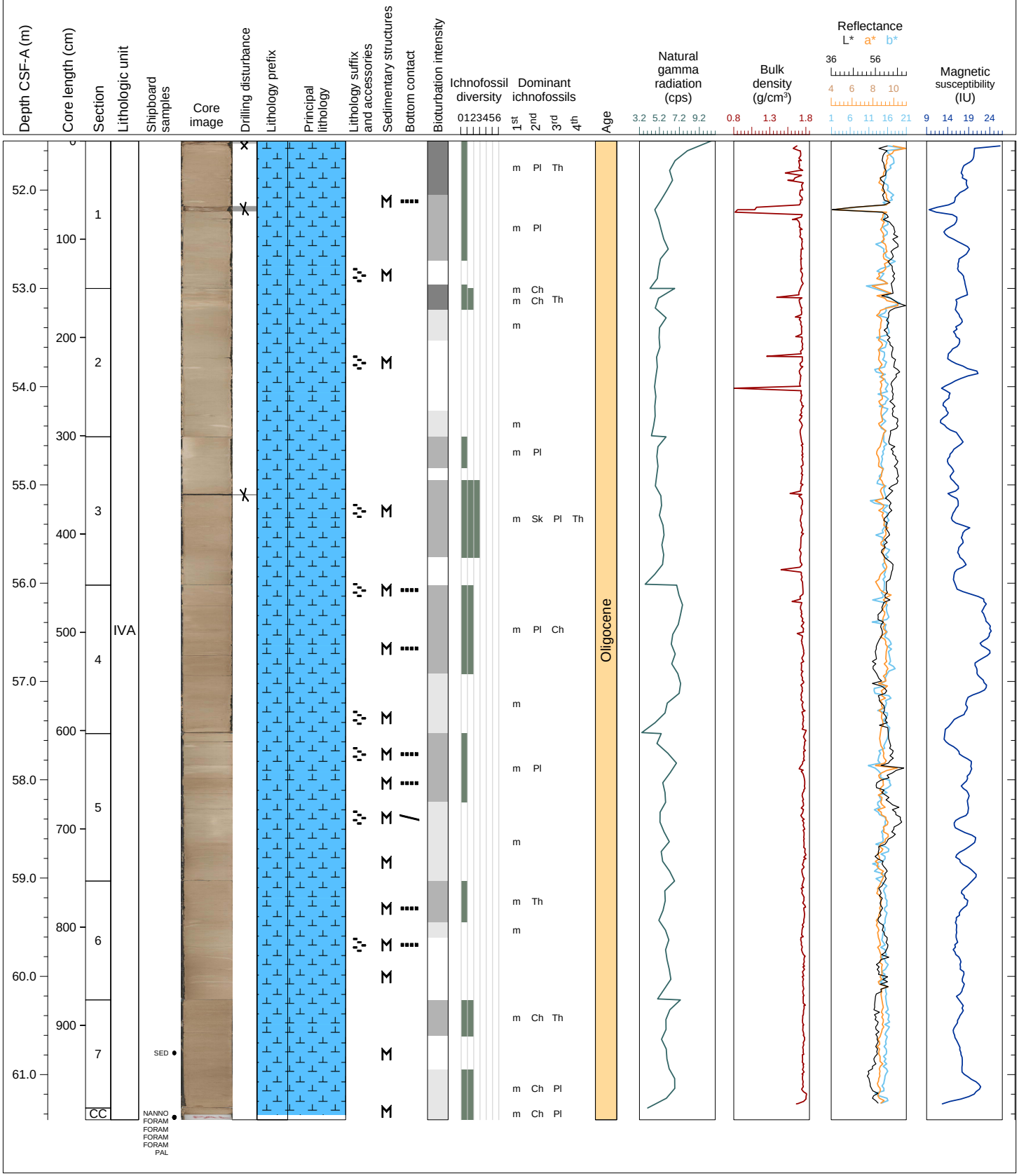
Hole 393-U1583E Core 6H, Interval 42.0-50.39 m (CSF-A)

Core U1583E-6H consists predominantly of mottled pinkish white (7.5YR 8/2) nannofossil ooze with a decimeter thick bed of pink (7.5YR 7/4) nannofossil ooze with foraminifera at section. The upper 31.5 cm of section 1 consist of light brown clayey nannofossil ooze and correspond to a severely disturbed interval (fall-in). Otherwise, no drilling disturbances were observed in this core. Biogenic disturbance is absent to moderate throughout the core and include Thalassinoides, Planolites, Chondrites, and Skolithos. Diversity ranges from 1 to 3,and the maximum ichnofossil diameter ranges from 2 to 14 mm.



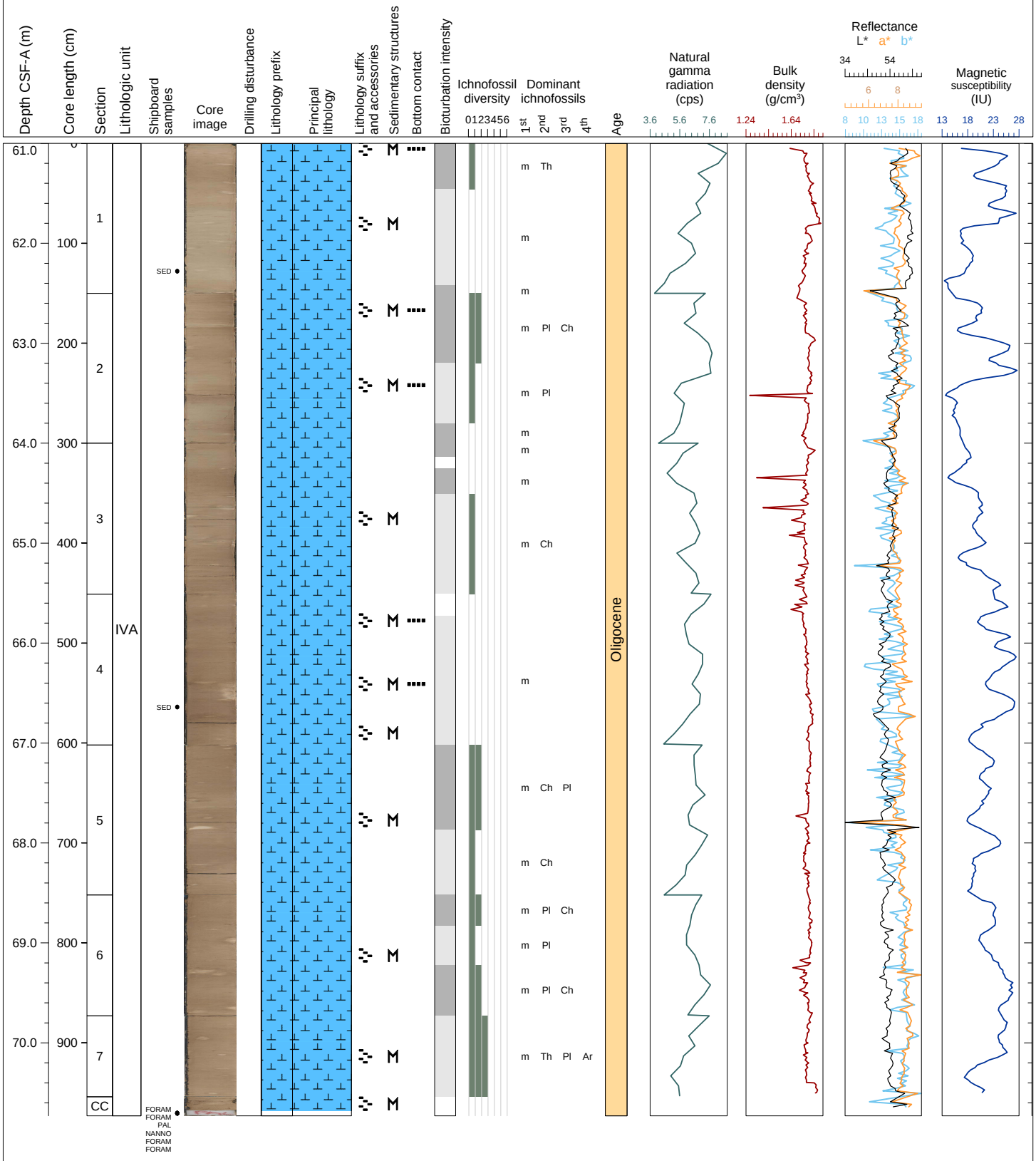
Hole 393-U1583E Core 7H, Interval 51.5-61.46 m (CSF-A)

Core U1583E-7H consists of interbedded pink (7.5YR 7/4) nannofossil ooze with foraminifera and pinkish white (7.5YR 8/2) nannofossil ooze. The bedding is mainly massive and the color changes occur gradually throughout the core. When biogenic mottling is present, bioturbation intensity is sparse to moderate, with distinct ichnogenera including Planolites, Chondrites, Thalassinoides, and Skolithos. Diversity ranges from 1 to 3, and the maximum ichnofossil diameter ranges from 2 to 20 mm. Centimeter-thick intervals are severely disturbed to destroyed in section 1 and section 3.



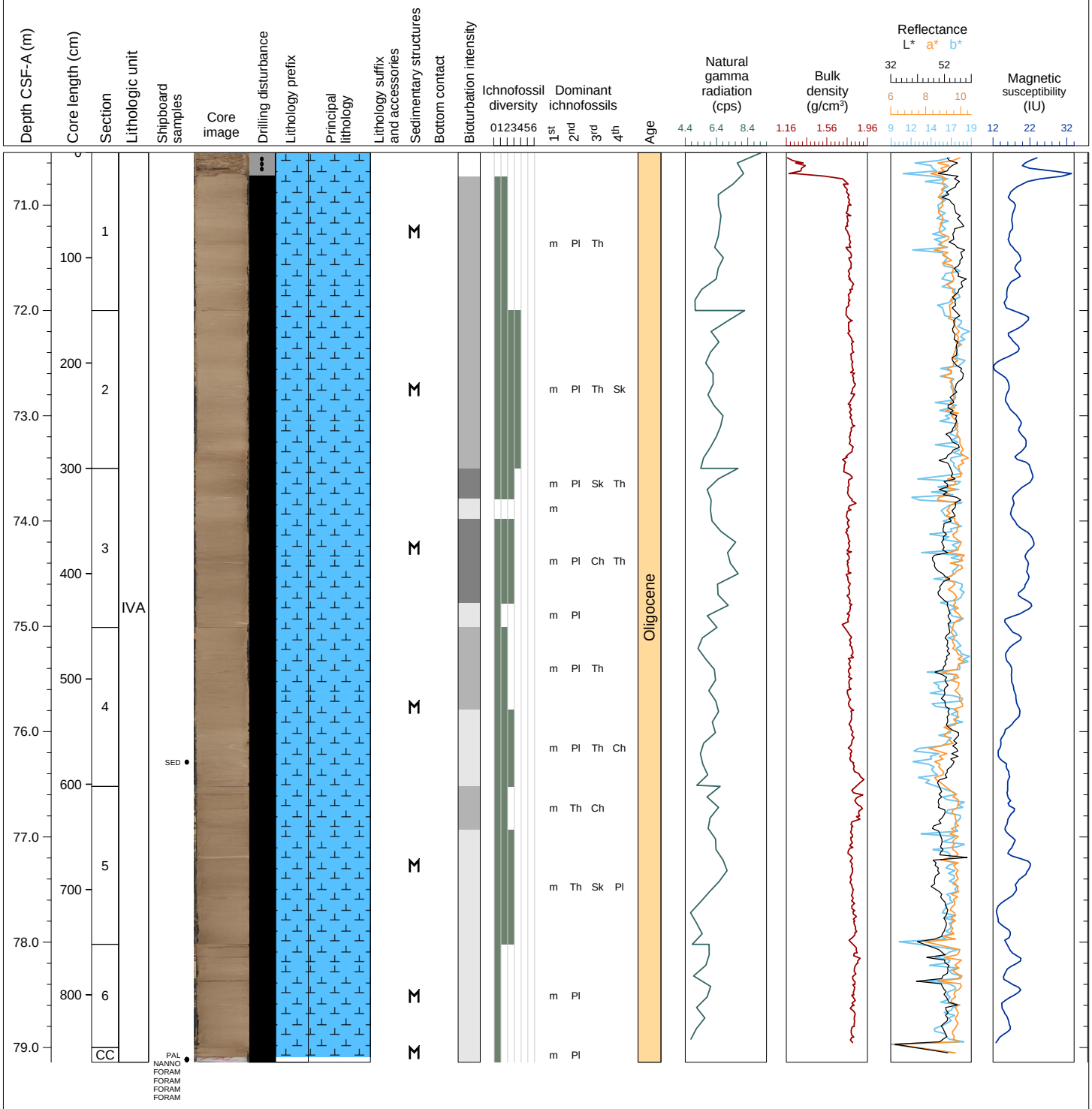
Hole 393-U1583E Core 8H, Interval 61.0-70.73 m (CSF-A)

Core U1583E-8H consists of pinkish white (7.5YR 8/2) and pink (7.5YR 7/4) nannofossil ooze with clay from the top of the core to section 2 at 34 cm where it changes to light brown (7.5YR 6/4) to brown (7.5YR 5/4) clay nannofossil ooze with clay. The bedding is mainly massive and the color changes are gradational. Bioturbation intensity is absent to low. Distinct ichnogenera include Planolites, Chondrites, rarely Thalassinoides and Arenicolites. Diversity ranges from 1 to 3, and the maximum ichnofossil diameter ranges from 2 to 18 mm. No drilling disturbances were observed in this core.



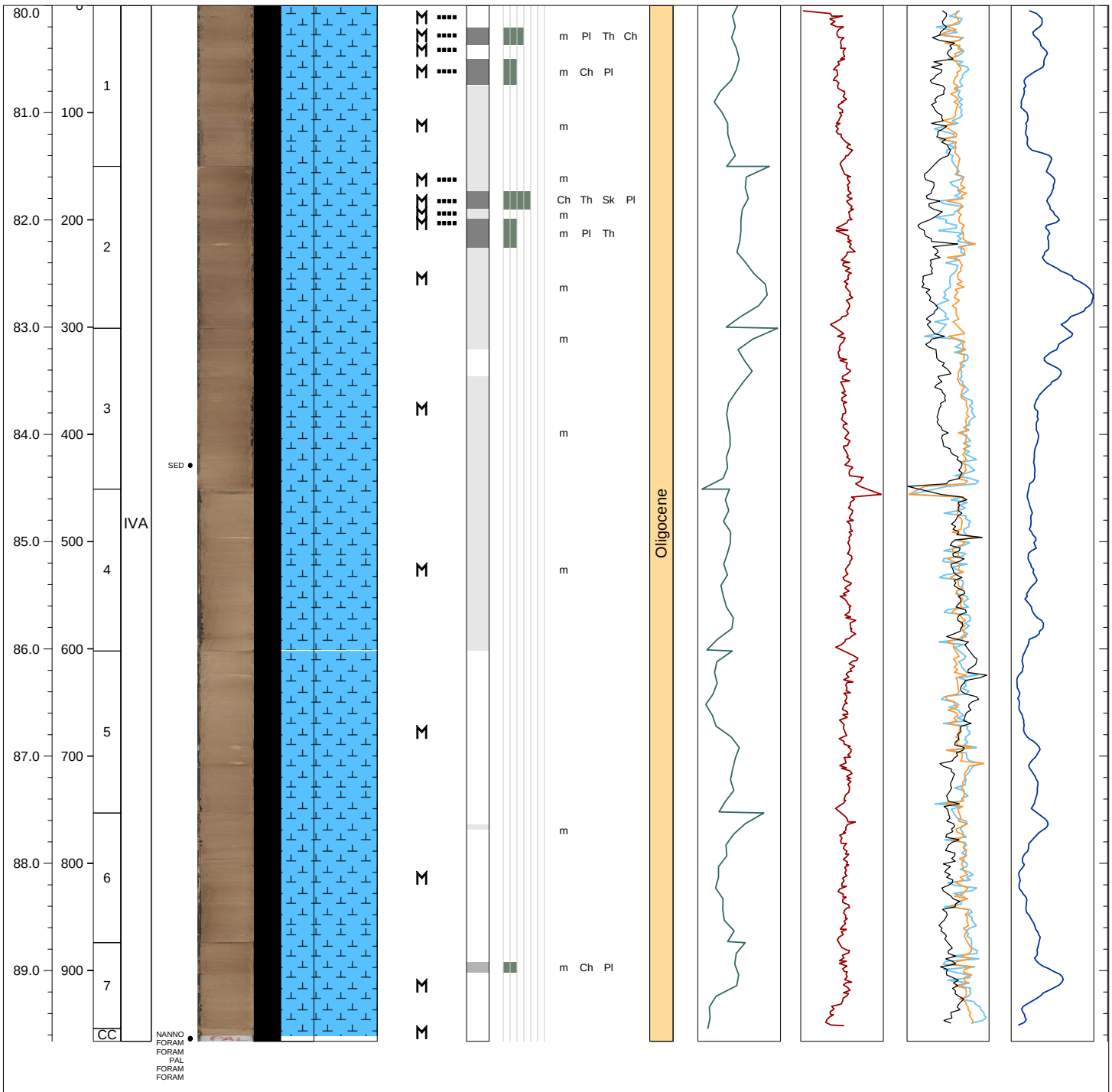
Hole 393-U1583E Core 9H, Interval 70.5-79.14 m (CSF-A)

Core U1583E-9H consists of light brown (7.5YR 6/4) nannofossil ooze with clay and foraminifera with a 1.5 m thick bed of brown (7.5YR 5/4) nannofossil ooze with clay and foraminifera in section 4 between 0 and 151 cm. The bedding is mainly massive. Sparse to moderate biogenic mottling with distinct ichnogenera, including Planolites, Thalassinoides, Skolithos, and Chondrites, is present. Diversity ranges from 1 to 4, and the maximum ichnofossil diameter ranges from 3 to 20 mm. The upper 22 cm of the section 1 consist of destroyed soupy sediments, otherwise, no other drilling disturbances were observed in this core.



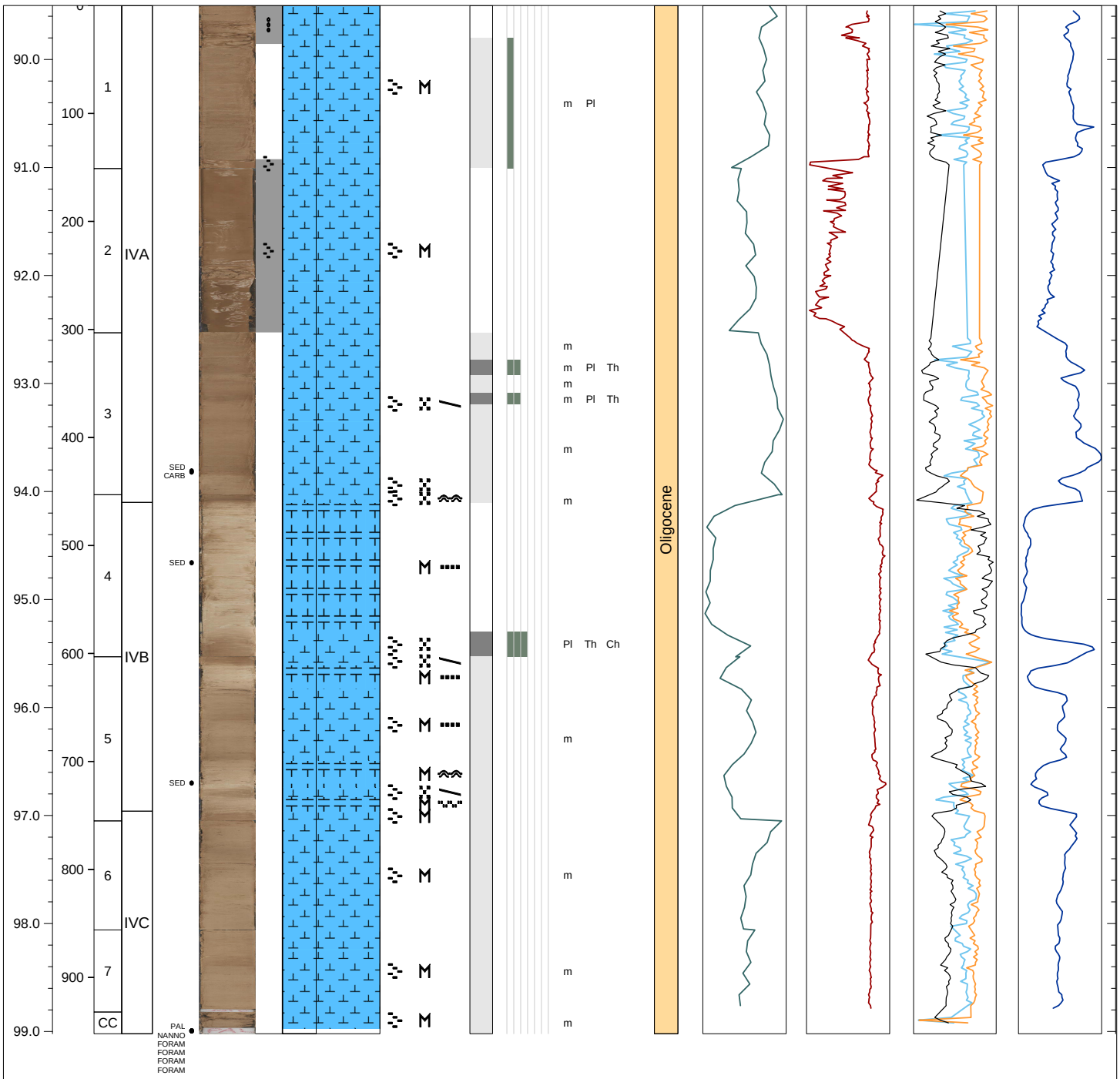
Hole 393-U1583E Core 10H, Interval 80.0-89.66 m (CSF-A)

Core U1583E-10H consists of light brown (7.5YR 6/4) nannofossil ooze with clay and foraminifera that is interbedded by decimeter-thick beds of brown (7.5YR 5/4) nannofossil ooze with clay and foraminifera between the top of the core and 58 cm at section 2. The bedding is massive and the color changes are gradational. Bioturbation is absent to moderate throughout sections 1 to 3 and predominantly absent in the rest of the core. Distinct ichnogenera includes Planolites, Thalassinoides, Skolithos, and Chondrites. Diversity ranges from 2 to 4, and the maximum ichnofossil diameter ranges from 4 to 17 mm. No drilling disturbances were observed in this core.



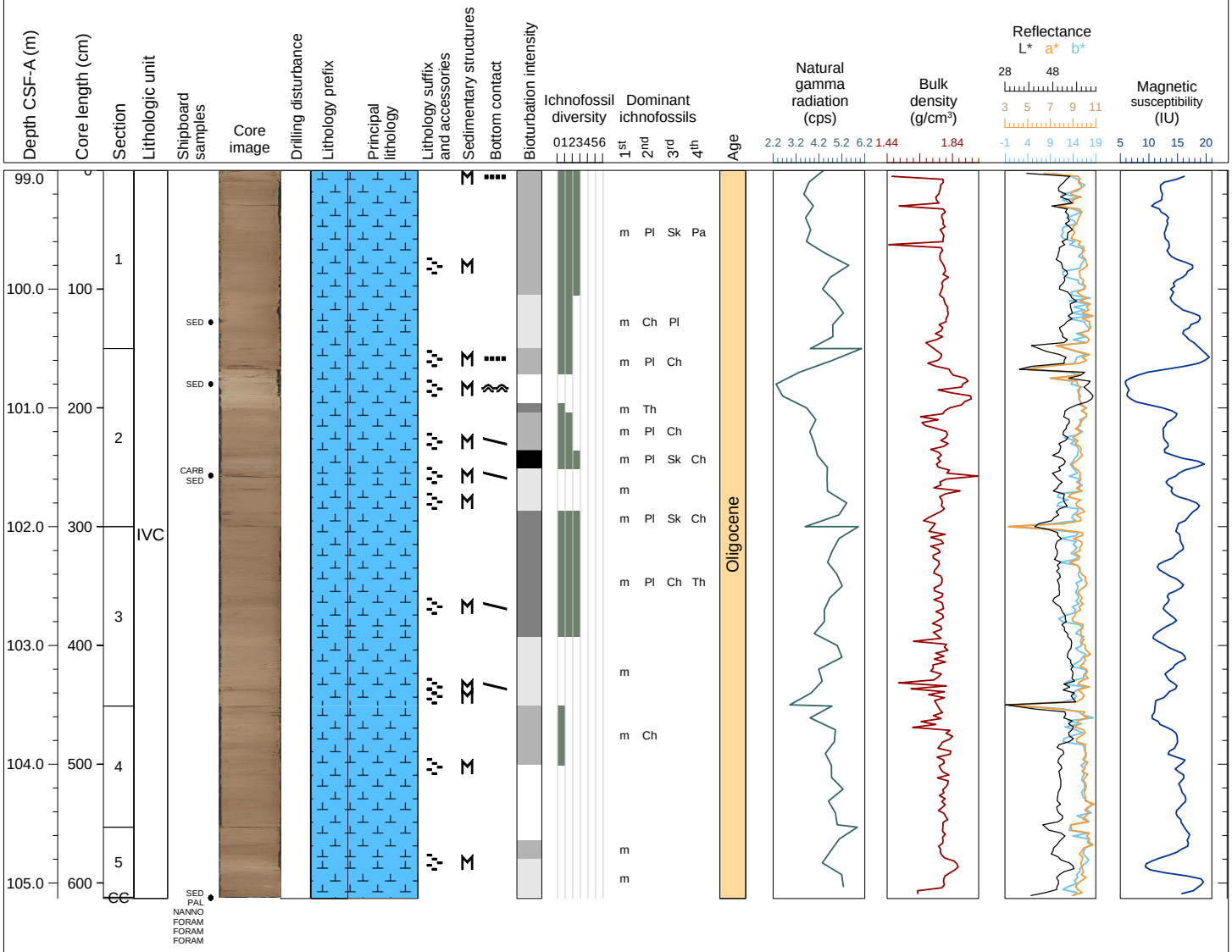
Hole 393-U1583E Core 11H, Interval 89.5-99.02 m (CSF-A)

Core U1583E-11H consists of a brown (7.5YR 5/4) nannofossil ooze with clay from the top to section 3 at 132 cm. This is followed by decimeter thick beds of pinkish white (7.5YR 8/2) to pink (7.5YR 7/4) calcareous ooze which alternates with decimeter-thick beds of calcareous ooze with clay of light brown color (7.5YR 6/4). Sedimentary structures alternate between meter-thick beds of massive bedding and mottling. Lithologic contacts are predominantly gradational with a few being sharp, bioturbated, and irregular. Biogenic disturbance is absent to moderate. Within the intervals with biogenic mottling, distinct ichnogenera were identified, such as Planolites, Thalassinoides, and Chondrites. Diversity ranges from 1 to 3, and the maximum trace-fossil diameter ranges from 5 to 12 mm. Severe drilling disturbances including soupy/slurry intervals and up arching occur throughout the section 1, 2 and 5 of the core, otherwise, no other drilling disturbances were observed.



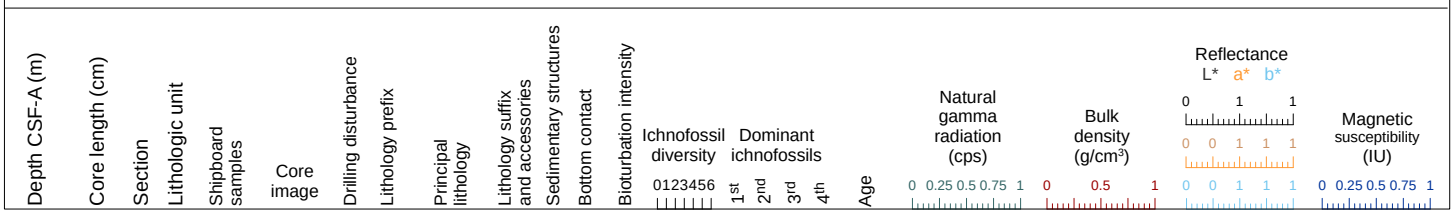
Hole 393-U1583E Core 12H, Interval 99.0-105.13 m (CSF-A)

Core U1583E-12H consists of light brown (7.5YR 6/4) nannofossil ooze with clay with two decimeter-thick beds of pink (7.5YR 7/3) nannofossil ooze in the upper part of sections 1 and 2. Two centimeter thick beds occurring in section 2 and 3 are semi-lithified. The bedding is mainly massive and the bottom lithological contacts are gradational, except for the semi-lithified, sharp, thin beds. Bioturbation intensity ranges from absent to high, with distinct ichnogenera including Planolites, Chondrites, Thalassinoides, and rarely Skolithos. Diversity ranges from 1 to 3, and the maximum trace-fossil diameter ranges from 2 to 10 mm. No drilling disturbances were observed in this core.



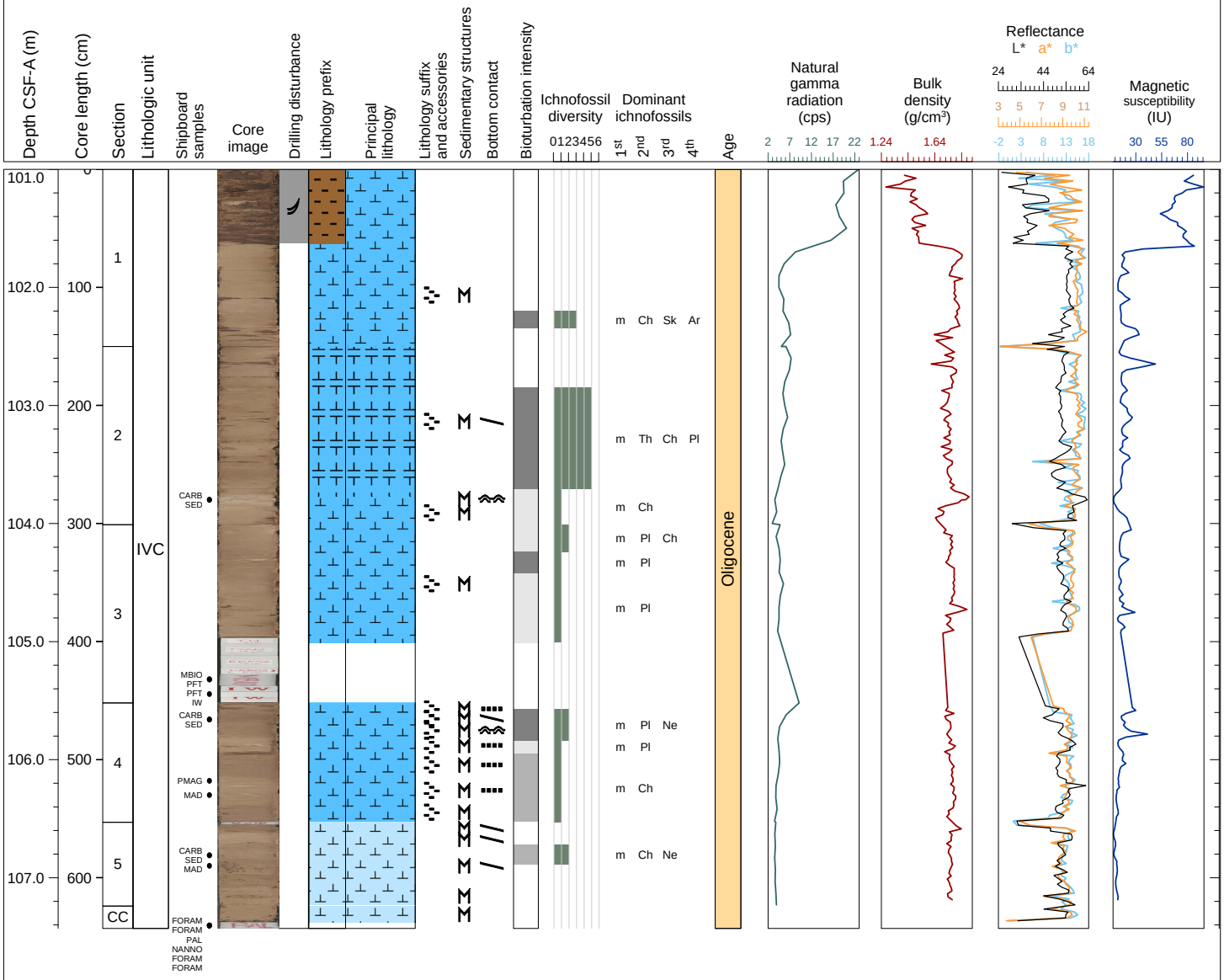
Hole 393-U1583F Core 11, Interval 0.0-0.0 m (CSF-A)

DRILLED INTERVAL 0-101 m

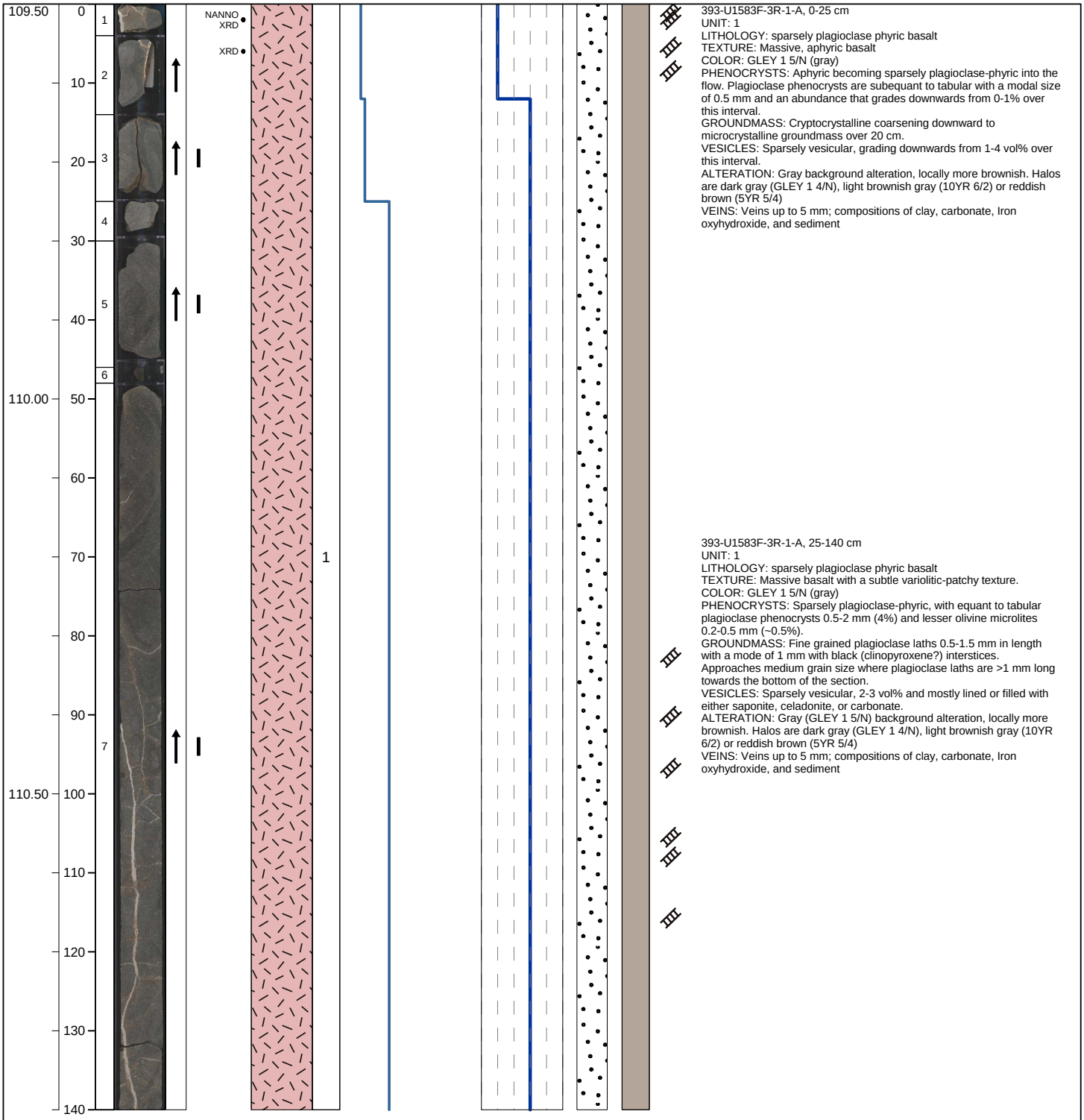


Hole 393-U1583F Core 2R, Interval 101.0-107.43 m (CSF-A)

Core U1583F-2R consists of a clayey nannofossil ooze in the upper 63 cm of this core. This is followed by light brown (7.5YR 6/4) nannofossil ooze with clay interbedded with thin to medium beds of light brown (7.5YR 6/4) to pink (7.5YR 7/3) nannofossil ooze down to section 4 at 100 cm, where the lithology appears to change to a pink (7.5YR 7/3) to light brown (7.5YR 6/4) nannofossil chalk. Lithologic contacts are gradational, bioturbated to sharp and the bedding is massive. Biogenic mottling occurs in discrete decimeter scale beds. The bioturbation intensity ranges from low to moderate with distinct ichnogenera occurring that include: Planolites, Chondrites, Thalassinoides, Skolithos, Arenicolites, and Nerites. The ichnofossil diversity ranges from 1 to 5 and the maximum diameter ranges from 2 to 15 mm. Drilling disturbances destroyed the upper 63 cm of sediment in section 1. Otherwise, no other drilling disturbance was observed.



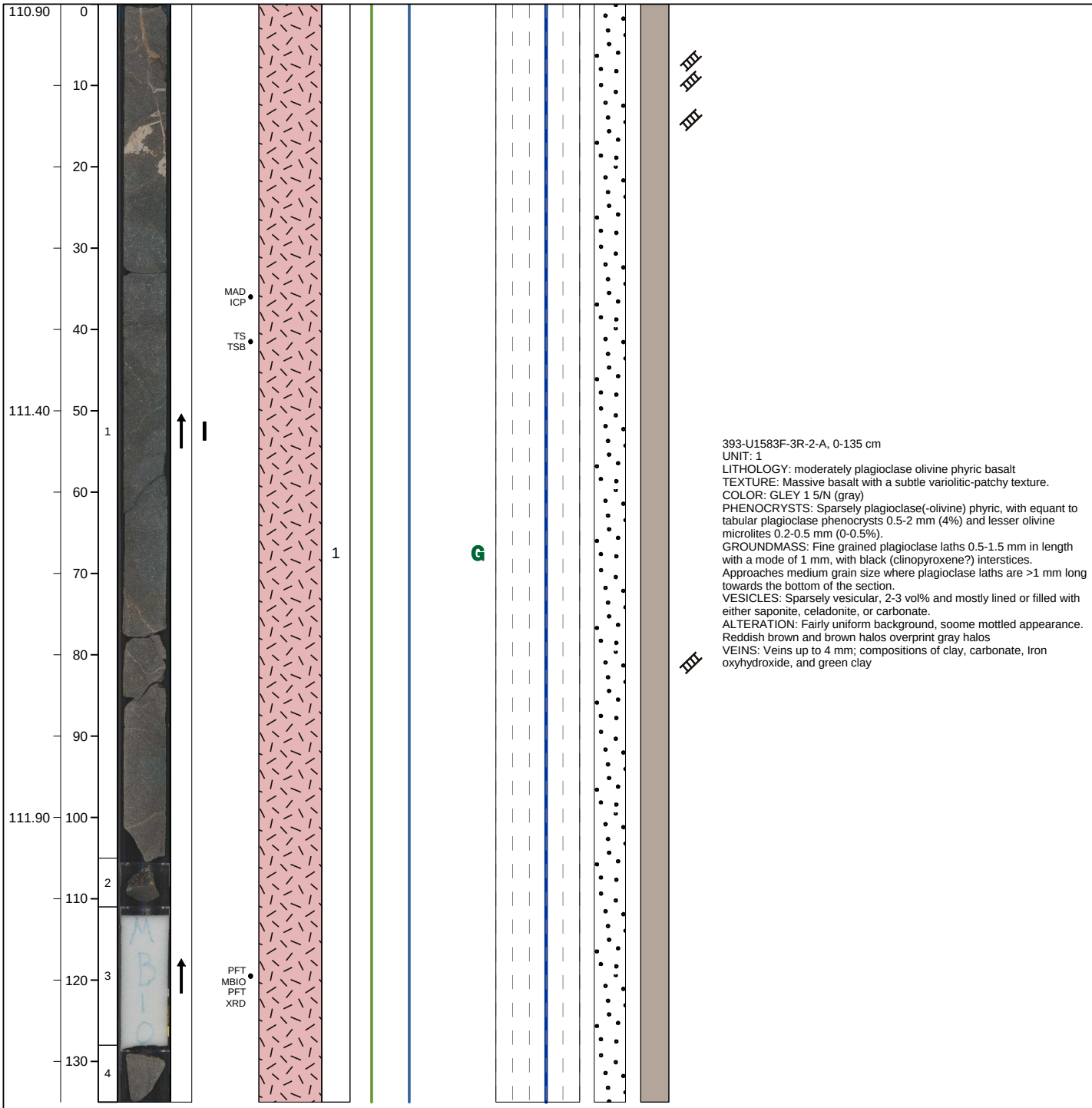
Hole 393-U1583F-3R Section 1, Top of Section: 109.5 m (CSF-A)



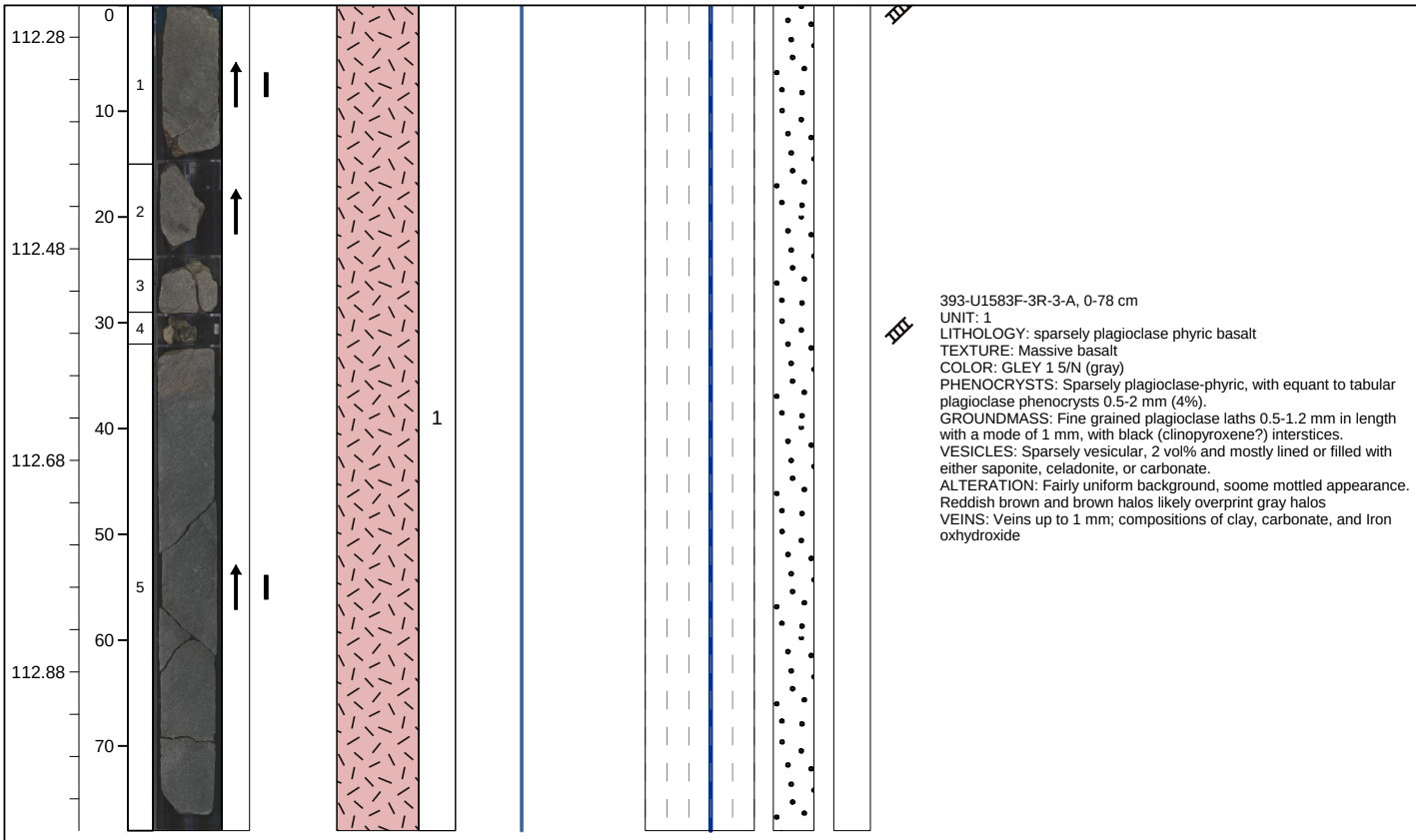
393-U1583F-3R-1-A, 0-25 cm
UNIT: 1
LITHOLOGY: sparsely plagioclase phyric basalt
TEXTURE: Massive, aphyric basalt
COLOR: GLEY 1 5/N (gray)
PHENOCRYSTS: Aphyric becoming sparsely plagioclase-phyric into the flow. Plagioclase phenocrysts are subequant to tabular with a modal size of 0.5 mm and an abundance that grades downwards from 0-1% over this interval.
GROUNDMASS: Cryptocrystalline coarsening downward to microcrystalline groundmass over 20 cm.
VESICLES: Sparsely vesicular, grading downwards from 1-4 vol% over this interval.
ALTERATION: Gray background alteration, locally more brownish. Halos are dark gray (GLEY 1 4/N), light brownish gray (10YR 6/2) or reddish brown (5YR 5/4)
VEINS: Veins up to 5 mm; compositions of clay, carbonate, Iron oxyhydroxide, and sediment

393-U1583F-3R-1-A, 25-140 cm
UNIT: 1
LITHOLOGY: sparsely plagioclase phyric basalt
TEXTURE: Massive basalt with a subtle variolitic-patchy texture.
COLOR: GLEY 1 5/N (gray)
PHENOCRYSTS: Sparsely plagioclase-phyric, with equant to tabular plagioclase phenocrysts 0.5-2 mm (4%) and lesser olivine microlites 0.2-0.5 mm (~0.5%).
GROUNDMASS: Fine grained plagioclase laths 0.5-1.5 mm in length with a mode of 1 mm with black (clinopyroxene?) interstices. Approaches medium grain size where plagioclase laths are >1 mm long towards the bottom of the section.
VESICLES: Sparsely vesicular, 2-3 vol% and mostly lined or filled with either saponite, celadonite, or carbonate.
ALTERATION: Gray (GLEY 1 5/N) background alteration, locally more brownish. Halos are dark gray (GLEY 1 4/N), light brownish gray (10YR 6/2) or reddish brown (5YR 5/4)
VEINS: Veins up to 5 mm; compositions of clay, carbonate, Iron oxyhydroxide, and sediment

Hole 393-U1583F-3R Section 2, Top of Section: 110.9 m (CSF-A)

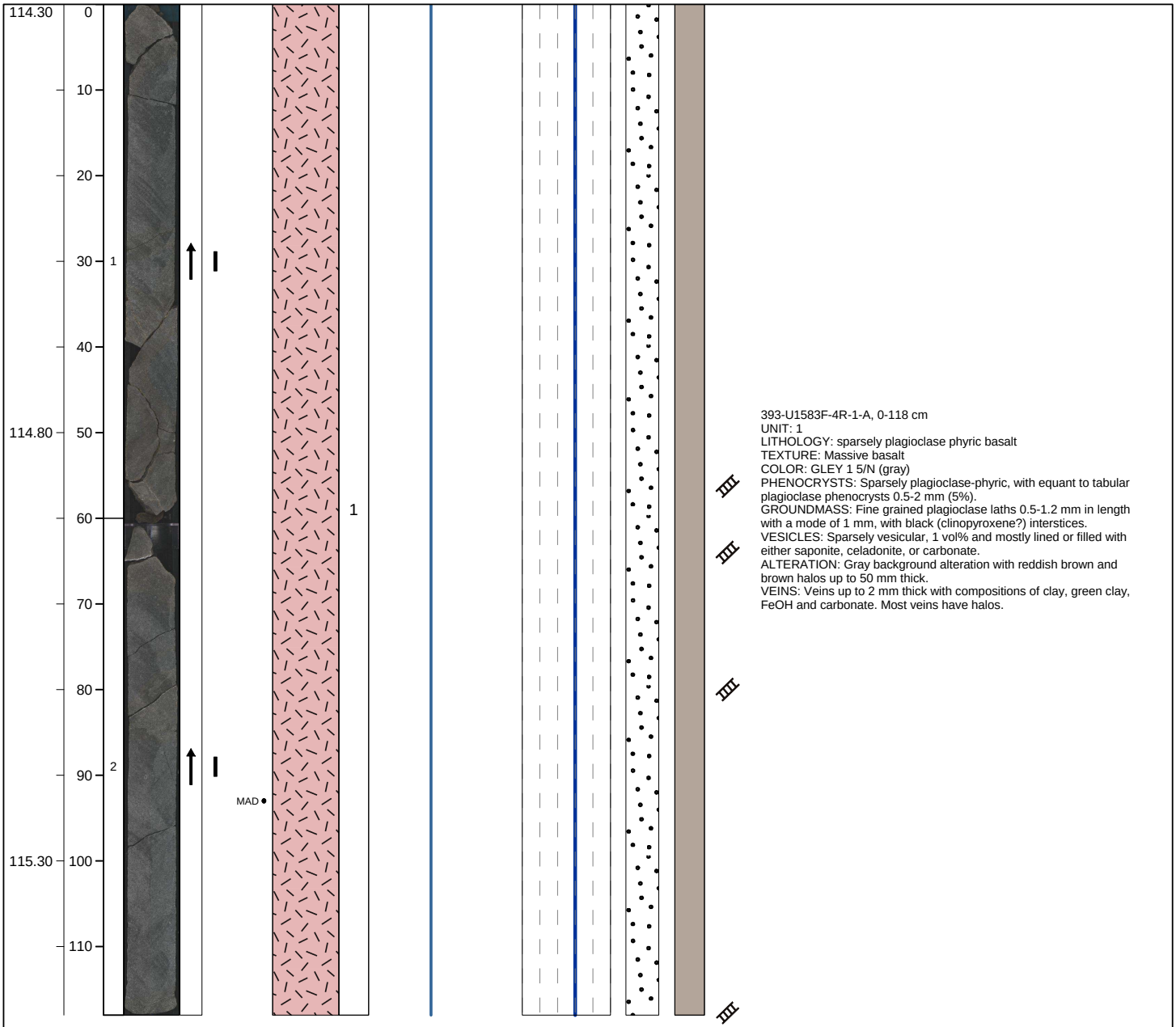


Hole 393-U1583F-3R Section 3, Top of Section: 112.25 m (CSF-A)

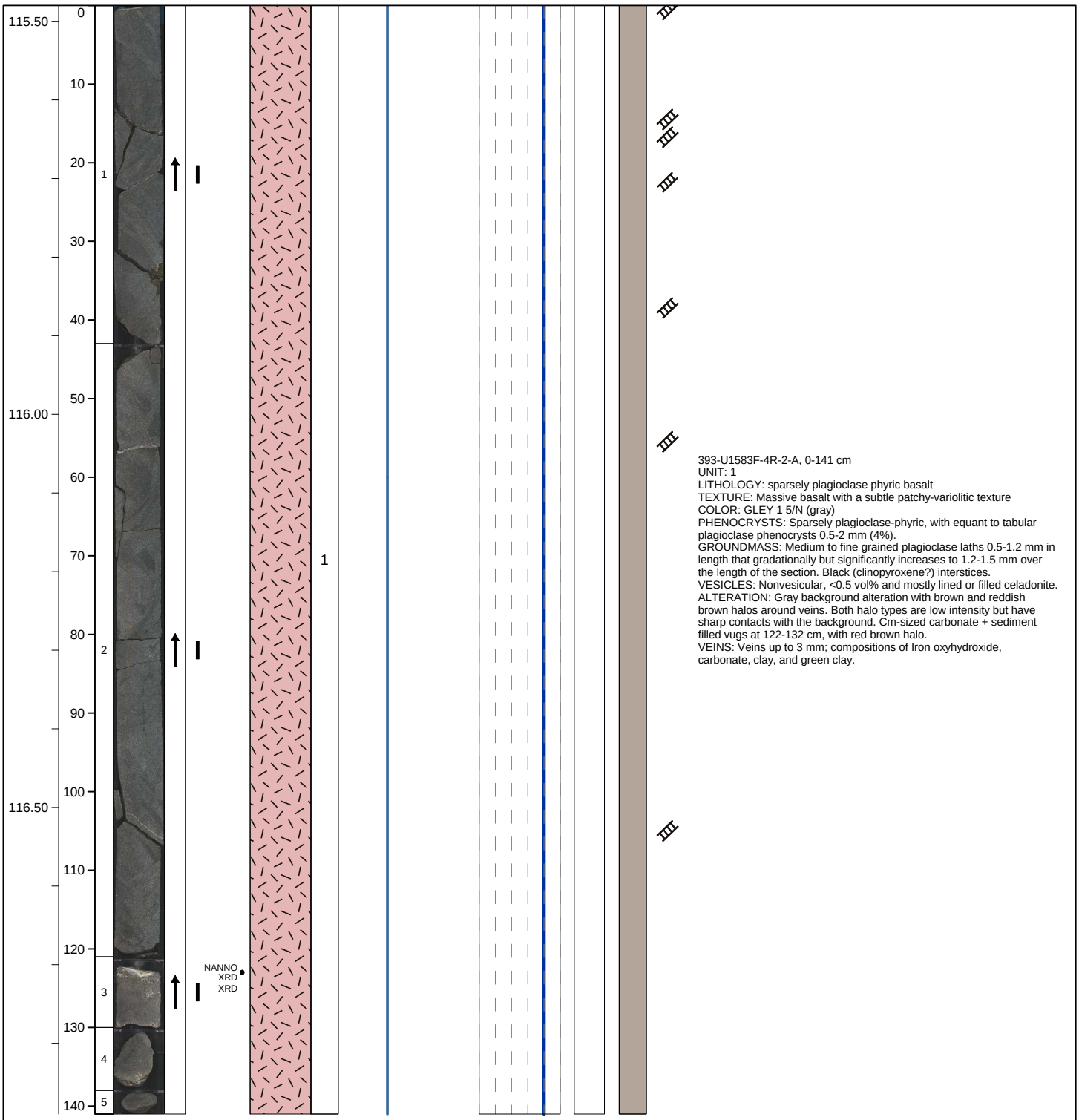


393-U1583F-3R-3-A, 0-78 cm
UNIT: 1
LITHOLOGY: sparsely plagioclase phyric basalt
TEXTURE: Massive basalt
COLOR: GLEY 1 5/N (gray)
PHENOCRYSTS: Sparsely plagioclase-phyric, with equant to tabular plagioclase phenocrysts 0.5-2 mm (4%).
GROUNDMASS: Fine grained plagioclase laths 0.5-1.2 mm in length with a mode of 1 mm, with black (clinopyroxene?) interstices.
VESICLES: Sparsely vesicular, 2 vol% and mostly lined or filled with either saponite, celadonite, or carbonate.
ALTERATION: Fairly uniform background, soome mottled appearance. Reddish brown and brown halos likely overprint gray halos
VEINS: Veins up to 1 mm; compositions of clay, carbonate, and Iron oxhydroxide

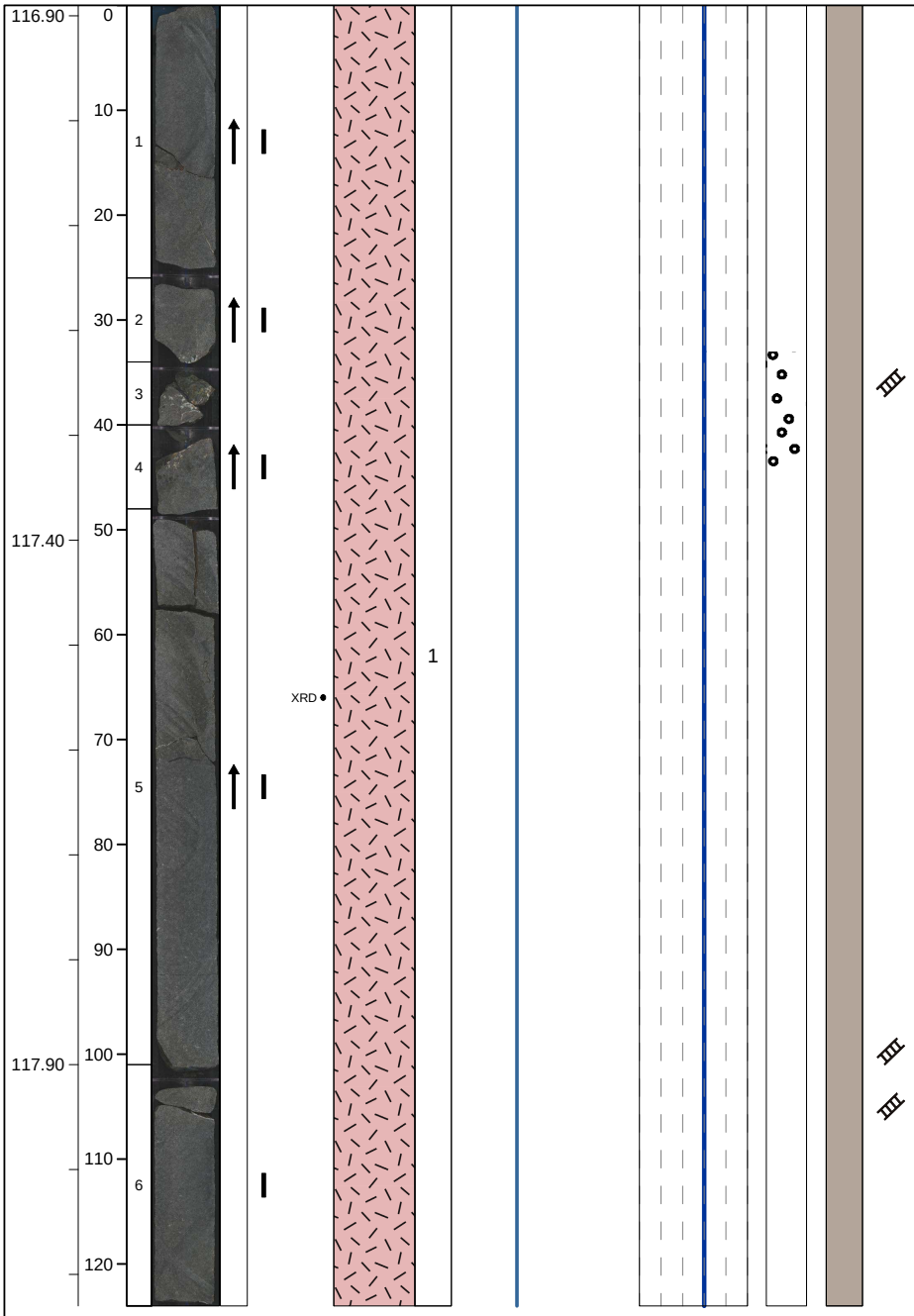
Hole 393-U1583F-4R Section 1, Top of Section: 114.3 m (CSF-A)



Hole 393-U1583F-4R Section 2, Top of Section: 115.48 m (CSF-A)



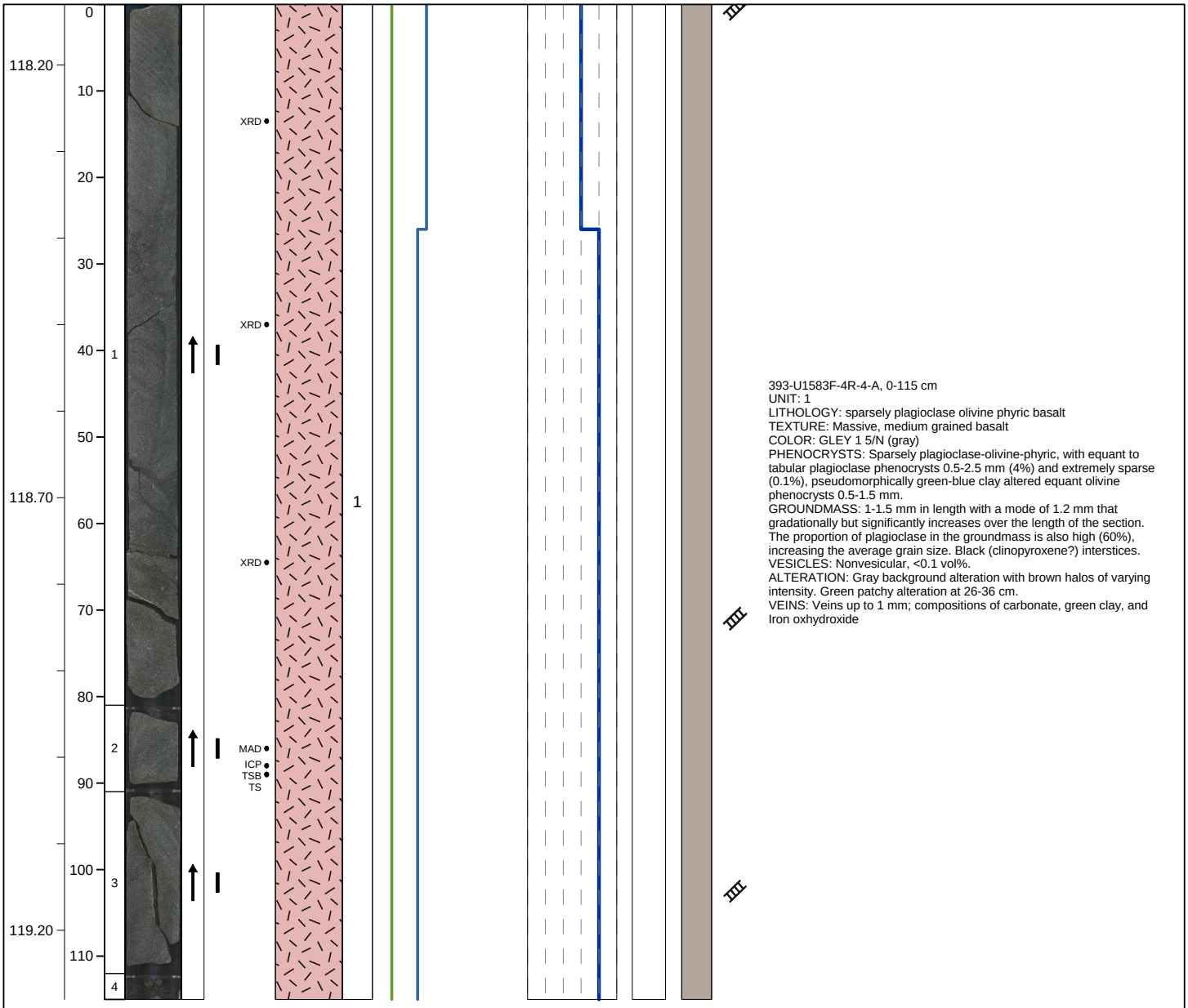
Hole 393-U1583F-4R Section 3, Top of Section: 116.89 m (CSF-A)



Description

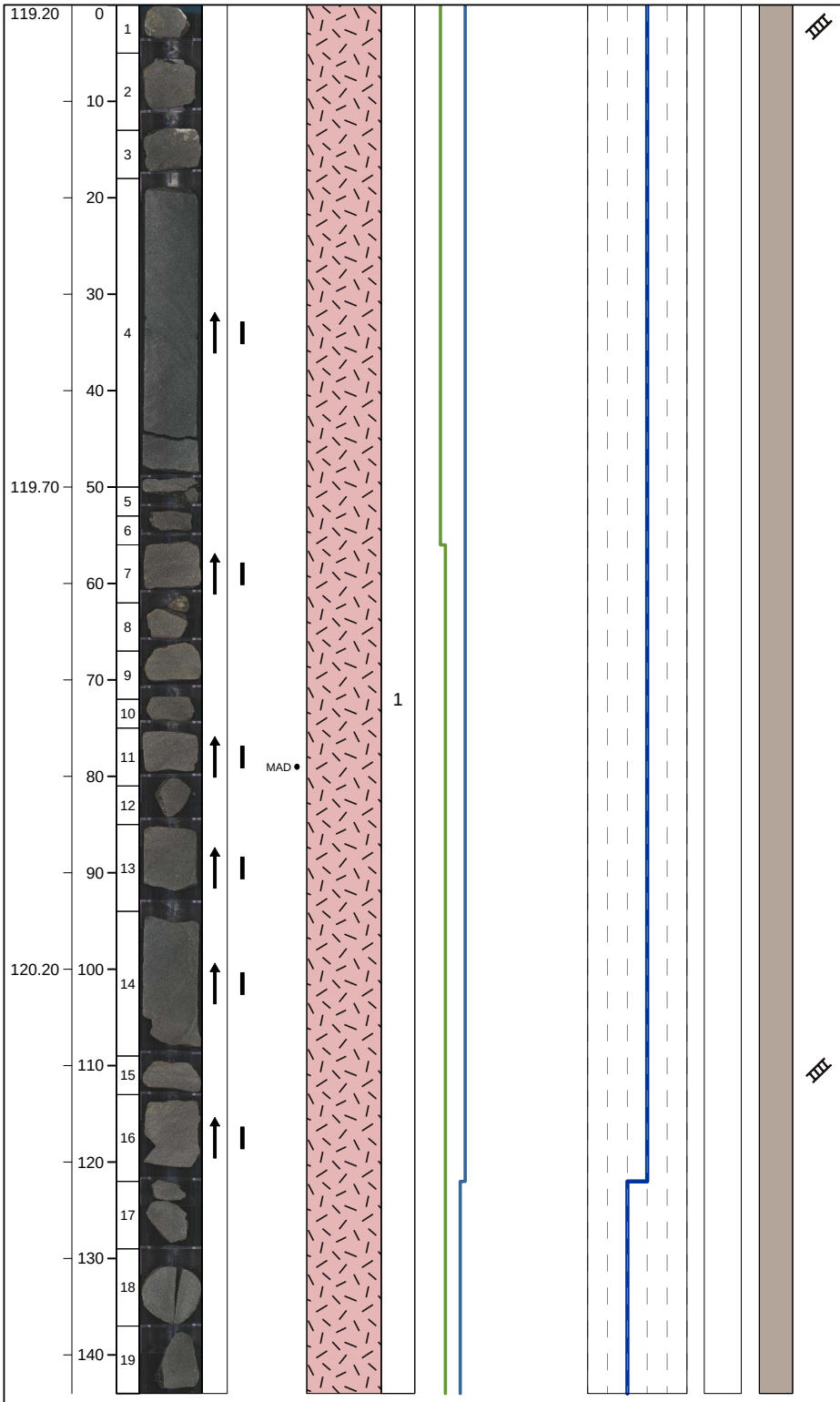
393-U1583F-4R-3-A, 0-124 cm
UNIT: 1
LITHOLOGY: sparsely plagioclase phyric basalt
TEXTURE: Massive basalt with a subtle patchy-variolitic texture
COLOR: GLEY 1 5/N (gray)
PHENOCRYSTS: Sparsely plagioclase-phyric, with equant to tabular plagioclase phenocrysts 0.5-2 mm (4%).
GROUNDMASS: Fine grained plagioclase laths 0.5-1.2 mm in length with a mode of 1 mm. Black (clinopyroxene?) interstices.
VESICLES: Nonvesicular, ~0.1 vol% and mostly filled with celadonitic clay.
ALTERATION: Gray background alteration with low intensity brown and reddish brown halos around veins. Carbonate + celadonite + FeOH in thin vug at 43-44 cm.
VEINS: Veins up to 1.5 mm; compositions of carbonate, green clay, Iron oxyhydroxide, and other clays.

Hole 393-U1583F-4R Section 4, Top of Section: 118.13 m (CSF-A)



393-U1583F-4R-4-A, 0-115 cm
UNIT: 1
LITHOLOGY: sparsely plagioclase olivine phyric basalt
TEXTURE: Massive, medium grained basalt
COLOR: GLEY 1 5/N (gray)
PHENOCRYSTS: Sparsely plagioclase-olivine-phyric, with equant to tabular plagioclase phenocrysts 0.5-2.5 mm (4%) and extremely sparse (0.1%), pseudomorphically green-blue clay altered equant olivine phenocrysts 0.5-1.5 mm.
GROUNDMASS: 1-1.5 mm in length with a mode of 1.2 mm that gradationally but significantly increases over the length of the section. The proportion of plagioclase in the groundmass is also high (60%), increasing the average grain size. Black (clinopyroxene?) interstices.
VESICLES: Nonvesicular, <0.1 vol%.
ALTERATION: Gray background alteration with brown halos of varying intensity. Green patchy alteration at 26-36 cm.
VEINS: Veins up to 1 mm; compositions of carbonate, green clay, and Iron oxhydroxide

Hole 393-U1583F-5R Section 1, Top of Section: 119.2 m (CSF-A)

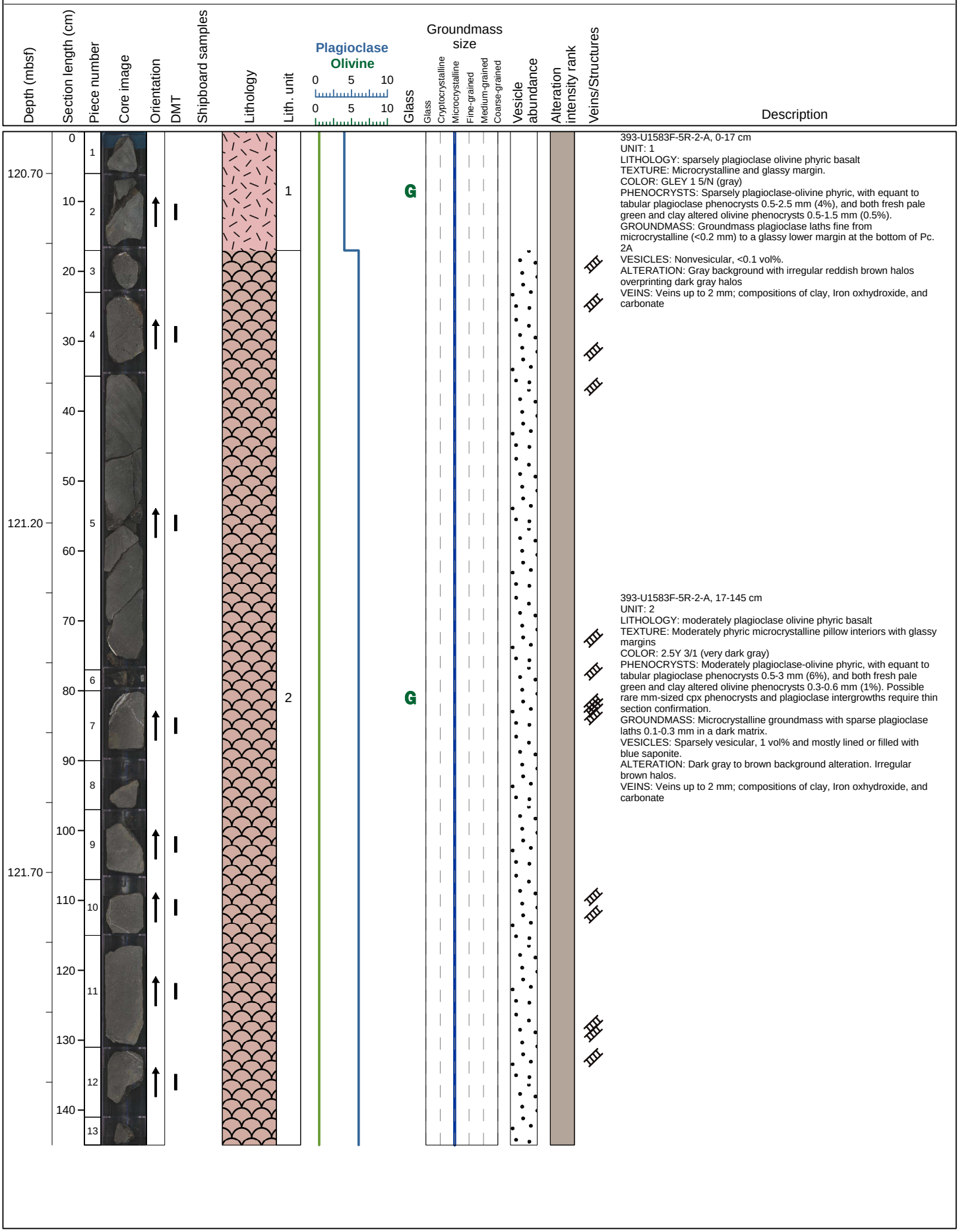


Description

393-U1583F-5R-1-A, 0-122 cm
UNIT: 1
LITHOLOGY: sparsely plagioclase olivine phyric basalt
TEXTURE: Massive, fine grained grained basalt that fines to microcrystalline over the 90-122 cm interval.
COLOR: GLEY 1 5/N (gray)
PHENOCRYSTS: Sparsely plagioclase-olivine phyric, with equant to tabular plagioclase phenocrysts 0.5-2.5 mm (4%), and both fresh pale green and clay altered olivine phenocrysts 0.5-1.5 mm (0.5-1%).
GROUNDMASS: Groundmass is dominated by plagioclase laths 1-0.2 mm in length with a mode of 0.7 mm that gradationally decreases over the length of the section to microcrystalline texture within a few 10s of cm of the lower flow contact.
VESICLES: Nonvesicular, <0.1 vol%.
ALTERATION: Gray background alteration with extensive brown halos from 51-122 cm.
VEINS: Veins up to 1.5 mm; compositions of carbonate, clay, and Iron oxyhydroxide. Iron oxyhydroxide veins become more abundant at base of interval.

393-U1583F-5R-1-A, 122-144 cm
UNIT: 1
LITHOLOGY: sparsely plagioclase olivine phyric basalt
TEXTURE: Massive, microcrystalline basalt.
COLOR: GLEY 1 5/N (gray)
PHENOCRYSTS: Sparsely plagioclase-olivine phyric, with equant to tabular plagioclase phenocrysts 0.5-2.5 mm (4%), and both fresh pale green and clay altered olivine phenocrysts 0.5-1.5 mm (0.5-1%).
GROUNDMASS: Groundmass is dominated by plagioclase laths 0.1-0.4 mm in length with a mode of 0.2 mm that gradationally decreases over the length of the interval.
VESICLES: Nonvesicular, <0.1 vol%.
ALTERATION: Gray background alteration with minor reddish brown halos.
VEINS: Veins up to 0.2 mm; compositions of carbonate, clay and Iron oxyhydroxide

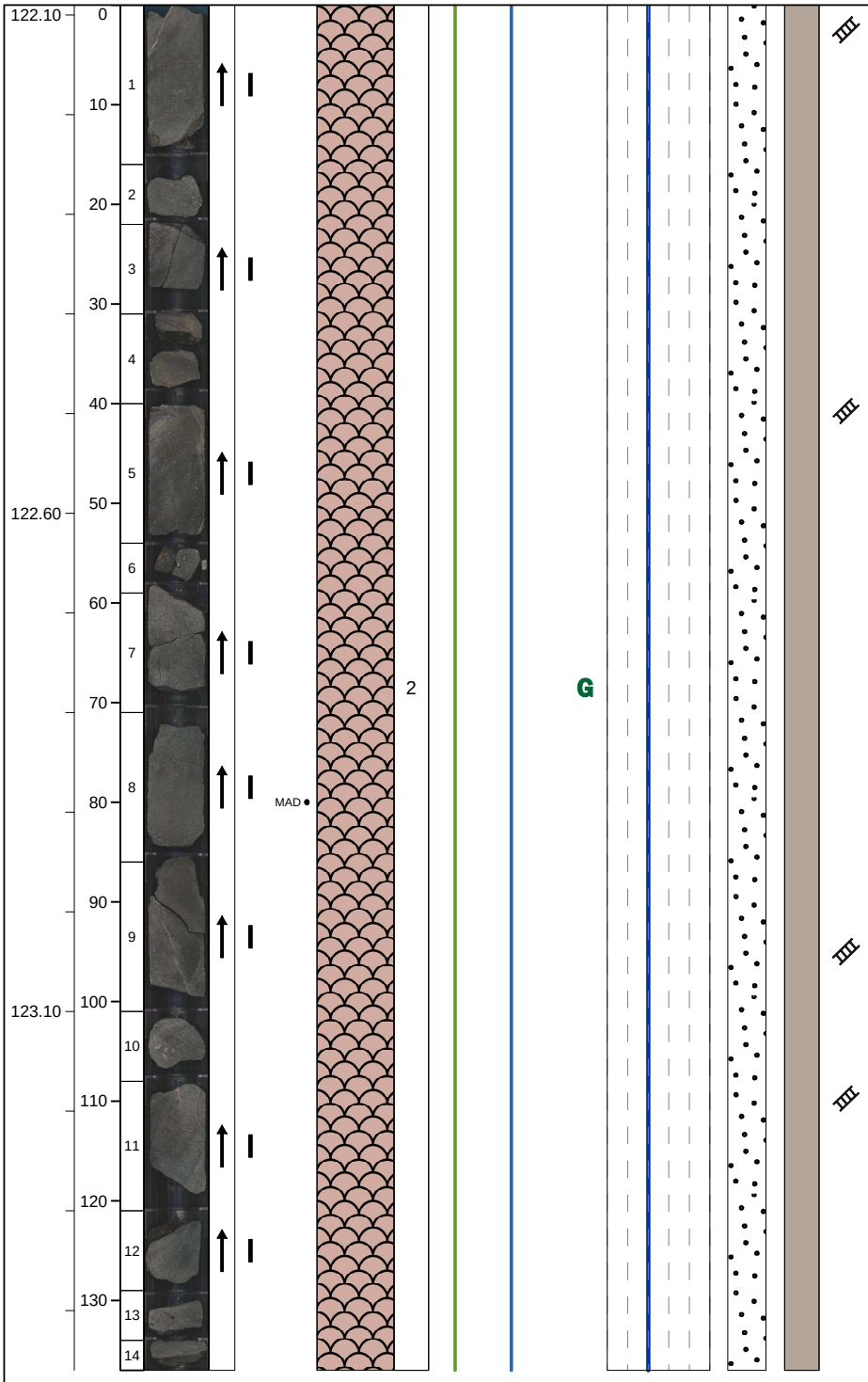
Hole 393-U1583F-5R Section 2, Top of Section: 120.64 m (CSF-A)



393-U1583F-5R-2-A, 0-17 cm
UNIT: 1
LITHOLOGY: sparsely plagioclase olivine phyric basalt
TEXTURE: Microcrystalline and glassy margin.
COLOR: GLEY 1 5/N (gray)
PHENOCRYSTS: Sparsely plagioclase-olivine phyric, with equant to tabular plagioclase phenocrysts 0.5-2.5 mm (4%), and both fresh pale green and clay altered olivine phenocrysts 0.5-1.5 mm (0.5%).
GROUNDMASS: Groundmass plagioclase laths fine from microcrystalline (<0.2 mm) to a glassy lower margin at the bottom of Pc. 2A
VESICLES: Nonvesicular, <0.1 vol%.
ALTERATION: Gray background with irregular reddish brown halos overprinting dark gray halos
VEINS: Veins up to 2 mm; compositions of clay, Iron oxhydroxide, and carbonate

393-U1583F-5R-2-A, 17-145 cm
UNIT: 2
LITHOLOGY: moderately plagioclase olivine phyric basalt
TEXTURE: Moderately phyric microcrystalline pillow interiors with glassy margins
COLOR: 2.5Y 3/1 (very dark gray)
PHENOCRYSTS: Moderately plagioclase-olivine phyric, with equant to tabular plagioclase phenocrysts 0.5-3 mm (6%), and both fresh pale green and clay altered olivine phenocrysts 0.3-0.6 mm (1%). Possible rare mm-sized cpx phenocrysts and plagioclase intergrowths require thin section confirmation.
GROUNDMASS: Microcrystalline groundmass with sparse plagioclase laths 0.1-0.3 mm in a dark matrix.
VESICLES: Sparsely vesicular, 1 vol% and mostly lined or filled with blue saponite.
ALTERATION: Dark gray to brown background alteration. Irregular brown halos.
VEINS: Veins up to 2 mm; compositions of clay, Iron oxhydroxide, and carbonate

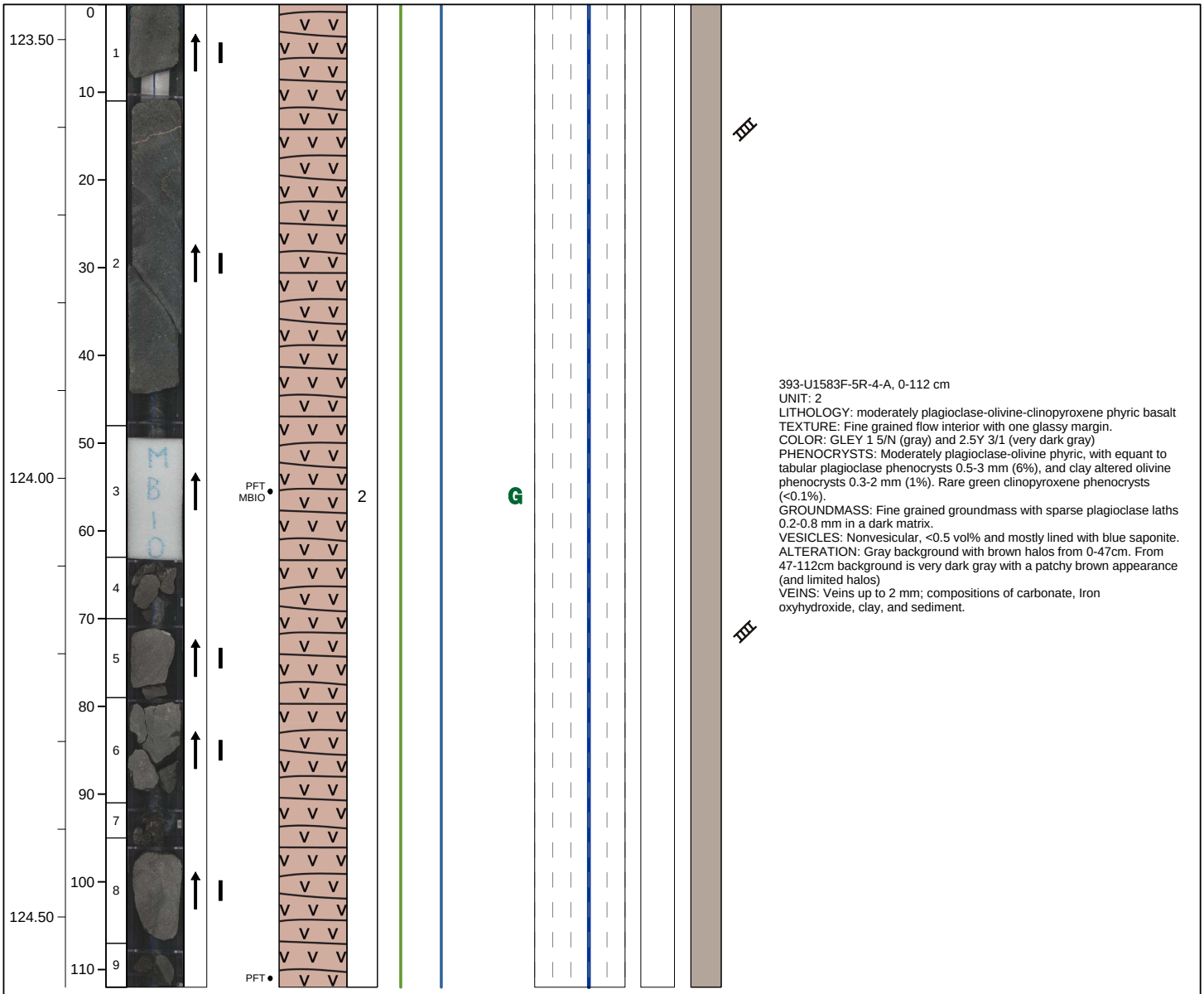
Hole 393-U1583F-5R Section 3, Top of Section: 122.09 m (CSF-A)



Description

393-U1583F-5R-3-A, 0-137 cm
UNIT: 2
LITHOLOGY: moderately plagioclase-olivine-clinopyroxene phyric basalt
TEXTURE: Microcrystalline pillow interiors and glassy margins
COLOR: GLEY 1 5/N (gray)
PHENOCRYSTS: Moderately plagioclase-olivine phyric, with equant to tabular plagioclase phenocrysts 0.5-3 mm (6%), and both fresh pale green and clay altered olivine phenocrysts 0.3-0.6 mm (1%). Rare black prismatic clinopyroxene (<0.1%).
GROUNDMASS: Microcrystalline groundmass with sparse plagioclase laths 0.1-0.3 mm in a dark matrix.
VESICLES: Sparsely vesicular, 1 vol% and mostly lined or filled with blue saponite.
ALTERATION: Gray background alteration with brown halos of varying intensity. Chilled margin at 40-53cm shows oxidative halo. Dark blue gray halo around vein 90-100 cm.
VEINS: Veins up to 2 mm; compositions of carbonate, Iron oxyhydroxide, clay, and sediment.

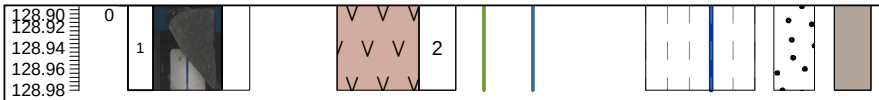
Hole 393-U1583F-5R Section 4, Top of Section: 123.46 m (CSF-A)



Description

393-U1583F-5R-4-A, 0-112 cm
UNIT: 2
LITHOLOGY: moderately plagioclase-olivine-clinopyroxene phyric basalt
TEXTURE: Fine grained flow interior with one glassy margin.
COLOR: GLEY 1 5/N (gray) and 2.5Y 3/1 (very dark gray)
PHENOCRYSTS: Moderately plagioclase-olivine phyric, with equant to tabular plagioclase phenocrysts 0.5-3 mm (6%), and clay altered olivine phenocrysts 0.3-2 mm (1%). Rare green clinopyroxene phenocrysts (<0.1%).
GROUNDMASS: Fine grained groundmass with sparse plagioclase laths 0.2-0.8 mm in a dark matrix.
VESICLES: Nonvesicular, <0.5 vol% and mostly lined with blue saponite.
ALTERATION: Gray background with brown halos from 0-47cm. From 47-112cm background is very dark gray with a patchy brown appearance (and limited halos)
VEINS: Veins up to 2 mm; compositions of carbonate, Iron oxyhydroxide, clay, and sediment.

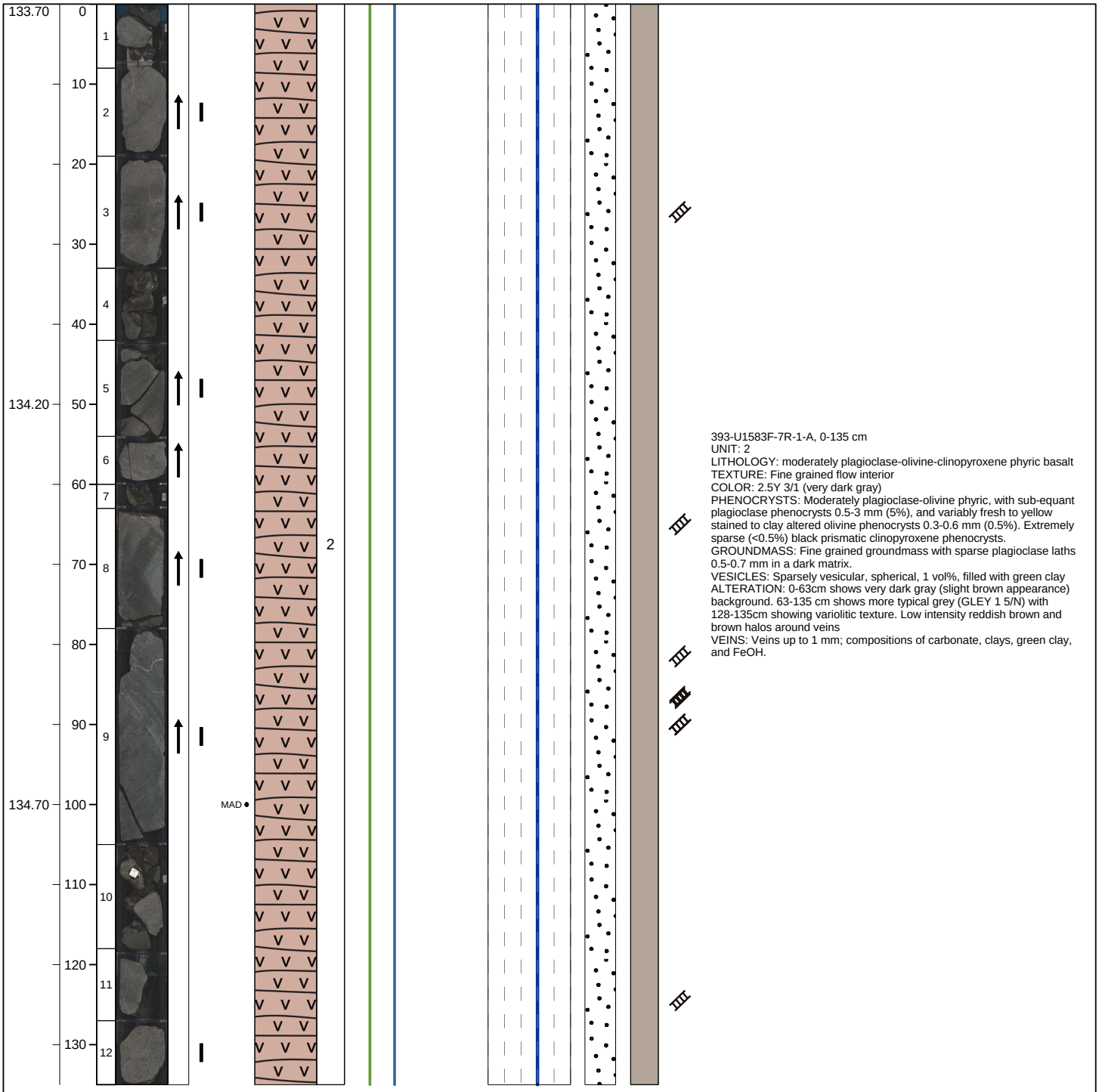
Hole 393-U1583F-6R Section 1, Top of Section: 128.9 m (CSF-A)



Description

393-U1583F-6R-1-A, 0-8 cm
UNIT: 2
LITHOLOGY: moderately plagioclase-olivine-clinopyroxene phyric basalt
TEXTURE: Fine grained flow interior with incipient glassy margin.
COLOR: GLEY 1 5/N (gray)
PHENOCRYSTS: Moderately plagioclase-olivine phyric, with sub-equant plagioclase phenocrysts 0.5-3 mm (5%), and variably fresh to yellow stained to clay altered olivine phenocrysts 0.3-0.6 mm (0.5%). Extremely sparse (<0.5%) black prismatic clinopyroxene phenocrysts.
GROUNDMASS: Fine grained groundmass with sparse plagioclase laths 0.3-0.8 mm in a dark matrix.
VESICLES: Sparsely vesicular, spherical, 1 vol% but heterogeneous within piece. Filled with brown clay
ALTERATION: Gray background with irregular reddish brown halo
VEINS: Veins up to 0.2 mm; compositions of clay and Iron oxyhydroxide

Hole 393-U1583F-7R Section 1, Top of Section: 133.7 m (CSF-A)

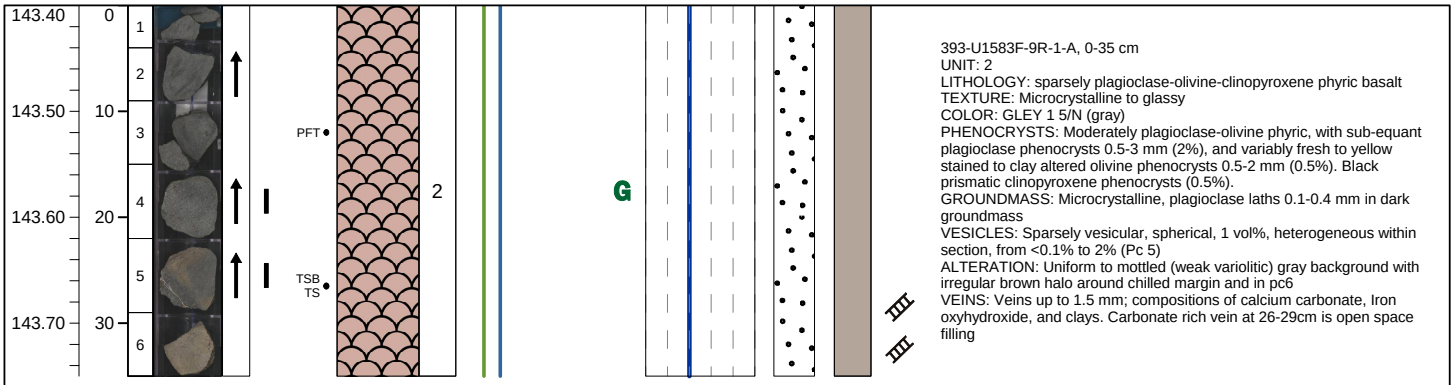


393-U1583F-7R-1-A, 0-135 cm
UNIT: 2
LITHOLOGY: moderately plagioclase-olivine-clinopyroxene phyric basalt
TEXTURE: Fine grained flow interior
COLOR: 2.5Y 3/1 (very dark gray)
PHENOCRYSTS: Moderately plagioclase-olivine phyric, with sub-equant plagioclase phenocrysts 0.5-3 mm (5%), and variably fresh to yellow stained to clay altered olivine phenocrysts 0.3-0.6 mm (0.5%). Extremely sparse (<0.5%) black prismatic clinopyroxene phenocrysts.
GROUNDMASS: Fine grained groundmass with sparse plagioclase laths 0.5-0.7 mm in a dark matrix.
VESICLES: Sparsely vesicular, spherical, 1 vol%, filled with green clay
ALTERATION: 0-63cm shows very dark gray (slight brown appearance) background. 63-135 cm shows more typical grey (GLEY 1 5/N) with 128-135cm showing variolitic texture. Low intensity reddish brown and brown halos around veins
VEINS: Veins up to 1 mm; compositions of carbonate, clays, green clay, and FeOH.

Hole 393-U1583F-8R Section 1, Top of Section: 138.6 m (CSF-A)

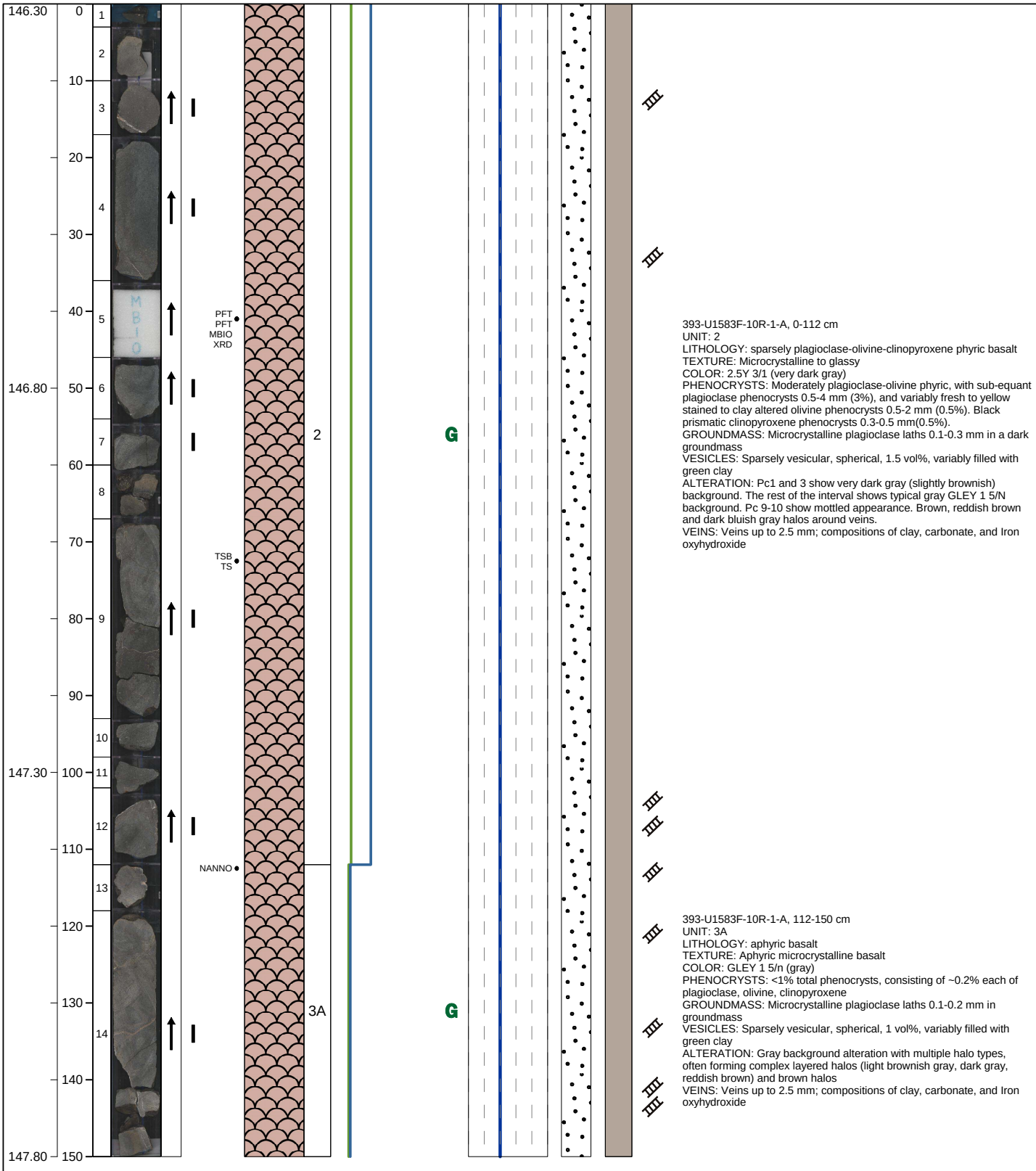
Depth (mbsf)	Section length (cm)	Piece number	Core image	Orientation	DMT	Shipboard samples	Lithology	Lith. unit	Plagioclase / Olivine 0 5 10	Glass	Groundmass size: Glass / Cryptocrystalline / Microcrystalline / Fine-grained / Medium-grained / Coarse-grained	Vesicle abundance	Alteration intensity rank	Veins/Structures	Description
NO RECOVERY 138.6-143.4 m															

Hole 393-U1583F-9R Section 1, Top of Section: 143.4 m (CSF-A)



393-U1583F-9R-1-A, 0-35 cm
UNIT: 2
LITHOLOGY: sparsely plagioclase-olivine-clinopyroxene phyric basalt
TEXTURE: Microcrystalline to glassy
COLOR: GLEY 1 5/N (gray)
PHENOCRYSTS: Moderately plagioclase-olivine phyric, with sub-equant plagioclase phenocrysts 0.5-3 mm (2%), and variably fresh to yellow stained to clay altered olivine phenocrysts 0.5-2 mm (0.5%). Black prismatic clinopyroxene phenocrysts (0.5%).
GROUNDMASS: Microcrystalline, plagioclase laths 0.1-0.4 mm in dark groundmass
VESICLES: Sparsely vesicular, spherical, 1 vol%, heterogeneous within section, from <0.1% to 2% (Pc 5)
ALTERATION: Uniform to mottled (weak variolitic) gray background with irregular brown halo around chilled margin and in pc6
VEINS: Veins up to 1.5 mm; compositions of calcium carbonate, Iron oxyhydroxide, and clays. Carbonate rich vein at 26-29cm is open space filling

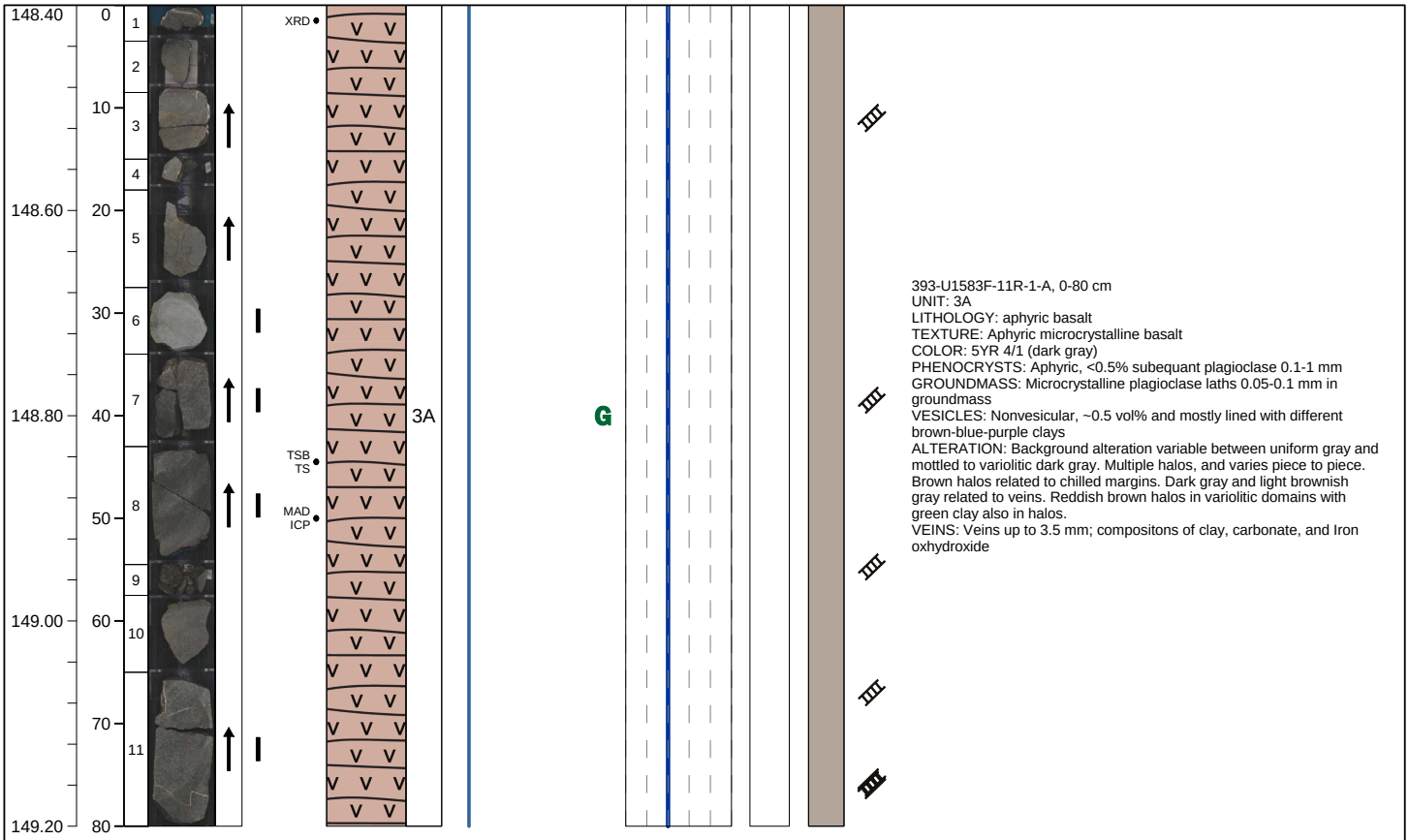
Hole 393-U1583F-10R Section 1, Top of Section: 146.3 m (CSF-A)



393-U1583F-10R-1-A, 0-112 cm
UNIT: 2
LITHOLOGY: sparsely plagioclase-olivine-clinopyroxene phyric basalt
TEXTURE: Microcrystalline to glassy
COLOR: 2.5Y 3/1 (very dark gray)
PHENOCRYSTS: Moderately plagioclase-olivine phyric, with sub-equant plagioclase phenocrysts 0.5-4 mm (3%), and variably fresh to yellow stained to clay altered olivine phenocrysts 0.5-2 mm (0.5%). Black prismatic clinopyroxene phenocrysts 0.3-0.5 mm(0.5%).
GROUNDMASS: Microcrystalline plagioclase laths 0.1-0.3 mm in a dark groundmass
VESICLES: Sparsely vesicular, spherical, 1.5 vol%, variably filled with green clay
ALTERATION: Pc1 and 3 show very dark gray (slightly brownish) background. The rest of the interval shows typical gray GLEY 1 5/N background. Pc 9-10 show mottled appearance. Brown, reddish brown and dark bluish gray halos around veins.
VEINS: Veins up to 2.5 mm; compositions of clay, carbonate, and Iron oxyhydroxide

393-U1583F-10R-1-A, 112-150 cm
UNIT: 3A
LITHOLOGY: aphyric basalt
TEXTURE: Aphyric microcrystalline basalt
COLOR: GLEY 1 5/n (gray)
PHENOCRYSTS: <1% total phenocrysts, consisting of ~0.2% each of plagioclase, olivine, clinopyroxene
GROUNDMASS: Microcrystalline plagioclase laths 0.1-0.2 mm in groundmass
VESICLES: Sparsely vesicular, spherical, 1 vol%, variably filled with green clay
ALTERATION: Gray background alteration with multiple halo types, often forming complex layered halos (light brownish gray, dark gray, reddish brown) and brown halos
VEINS: Veins up to 2.5 mm; compositions of clay, carbonate, and Iron oxyhydroxide

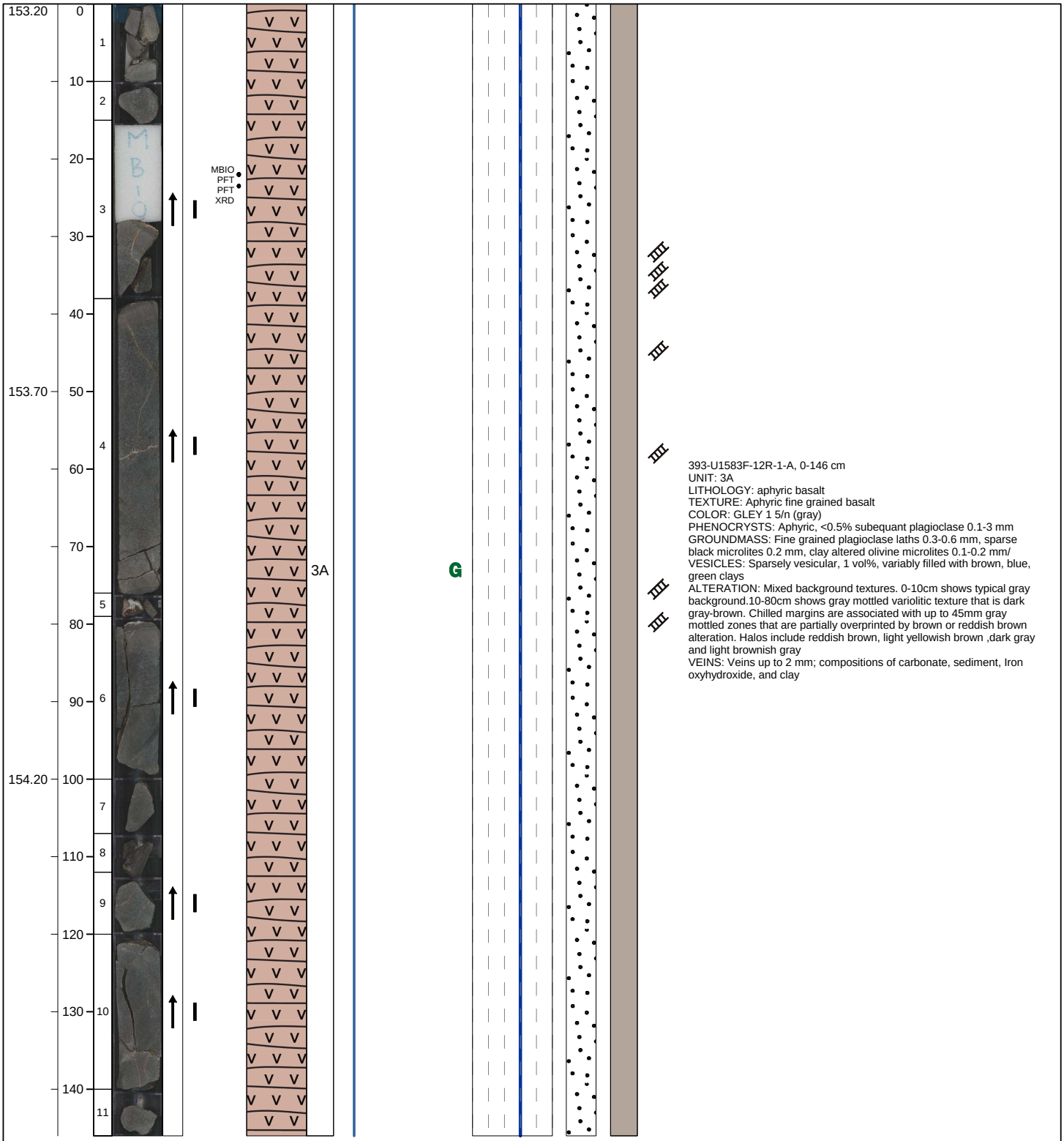
Hole 393-U1583F-11R Section 1, Top of Section: 148.4 m (CSF-A)



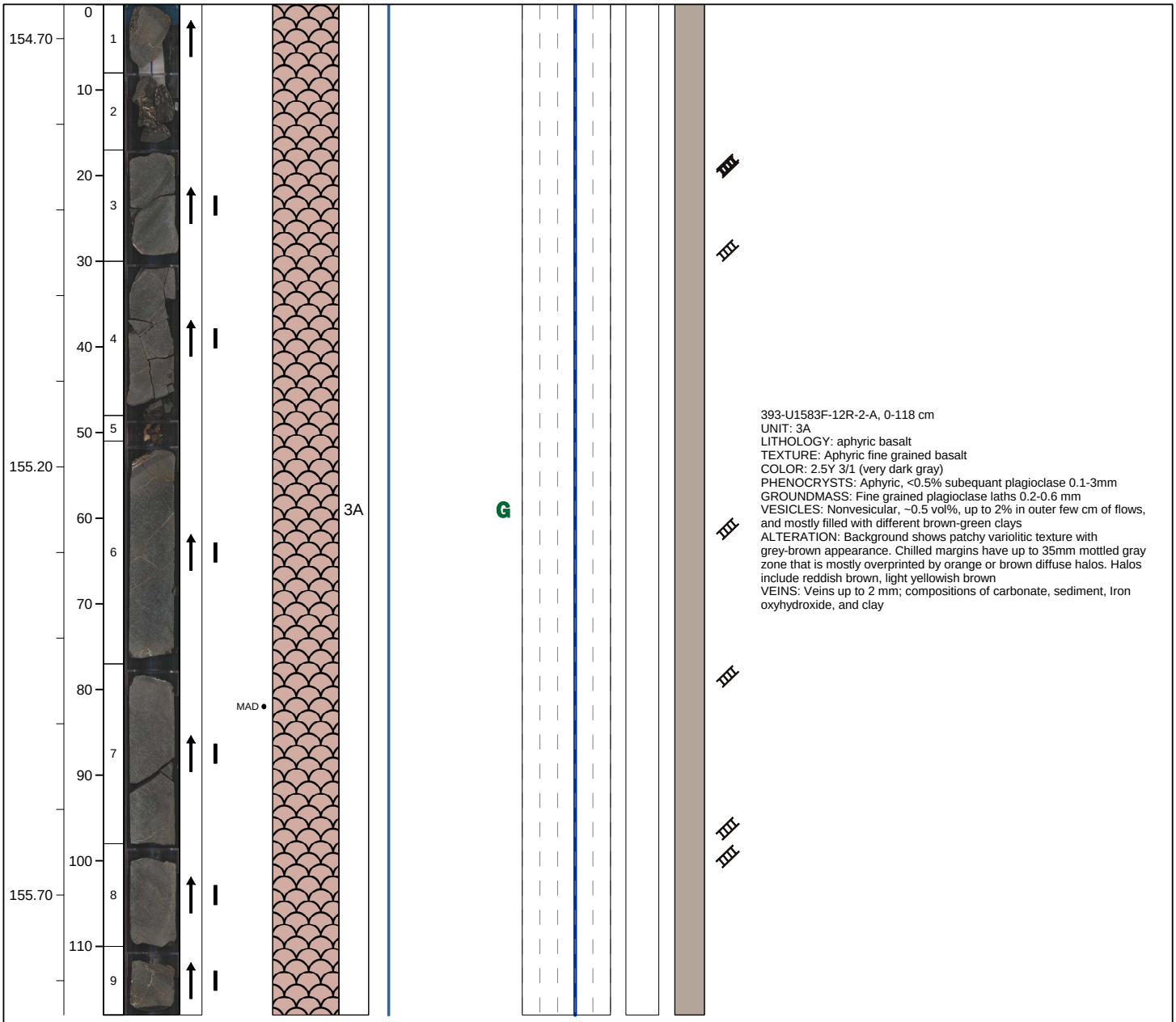
Description

393-U1583F-11R-1-A, 0-80 cm
UNIT: 3A
LITHOLOGY: aphyric basalt
TEXTURE: Aphyric microcrystalline basalt
COLOR: 5YR 4/1 (dark gray)
PHENOCRYSTS: Aphyric, <0.5% subequant plagioclase 0.1-1 mm
GROUNDMASS: Microcrystalline plagioclase laths 0.05-0.1 mm in groundmass
VESICLES: Nonvesicular, ~0.5 vol% and mostly lined with different brown-blue-purple clays
ALTERATION: Background alteration variable between uniform gray and mottled to variolitic dark gray. Multiple halos, and varies piece to piece. Brown halos related to chilled margins. Dark gray and light brownish gray related to veins. Reddish brown halos in variolitic domains with green clay also in halos.
VEINS: Veins up to 3.5 mm; compositons of clay, carbonate, and Iron oxhydroxide

Hole 393-U1583F-12R Section 1, Top of Section: 153.2 m (CSF-A)

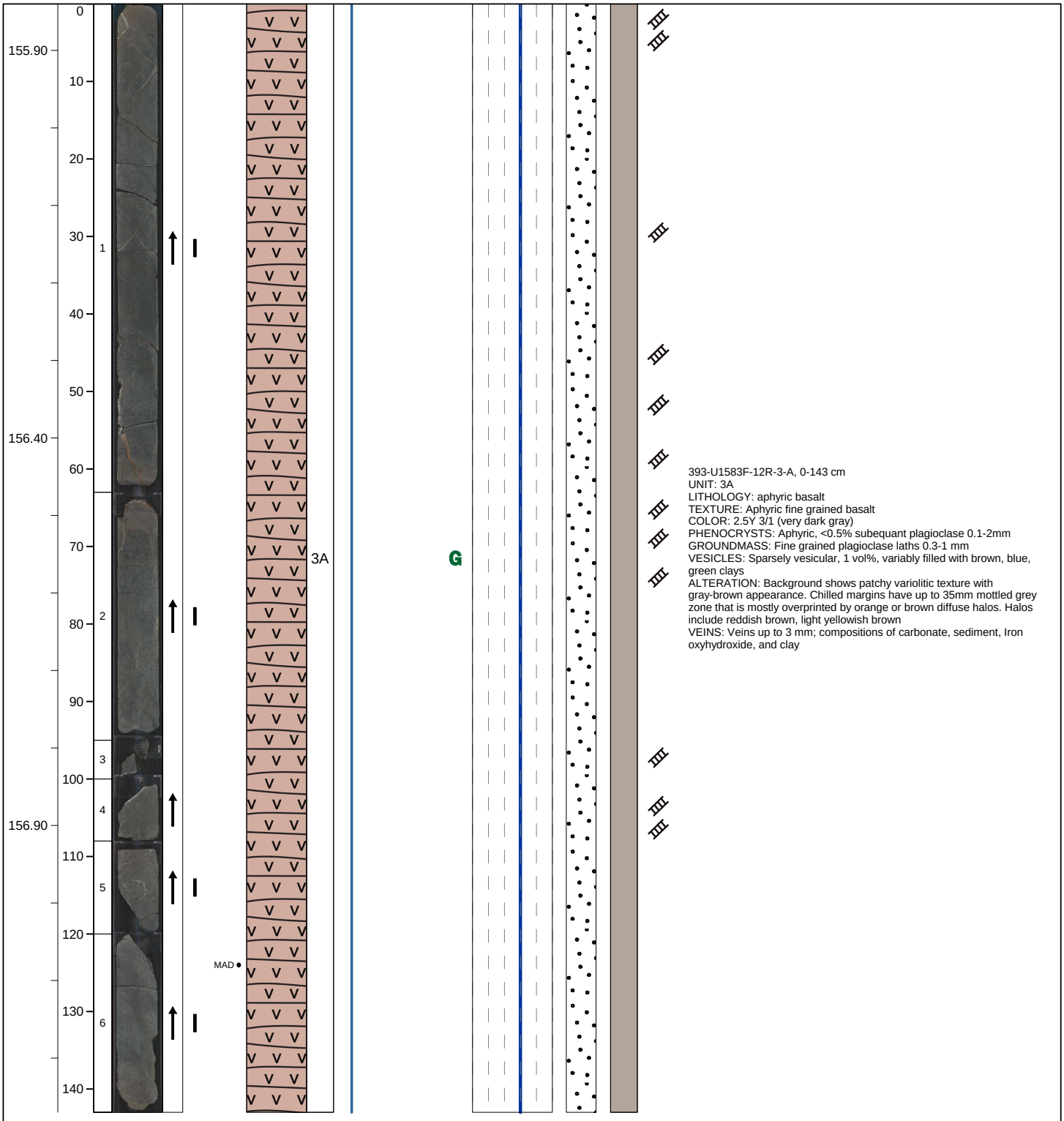


Hole 393-U1583F-12R Section 2, Top of Section: 154.66 m (CSF-A)

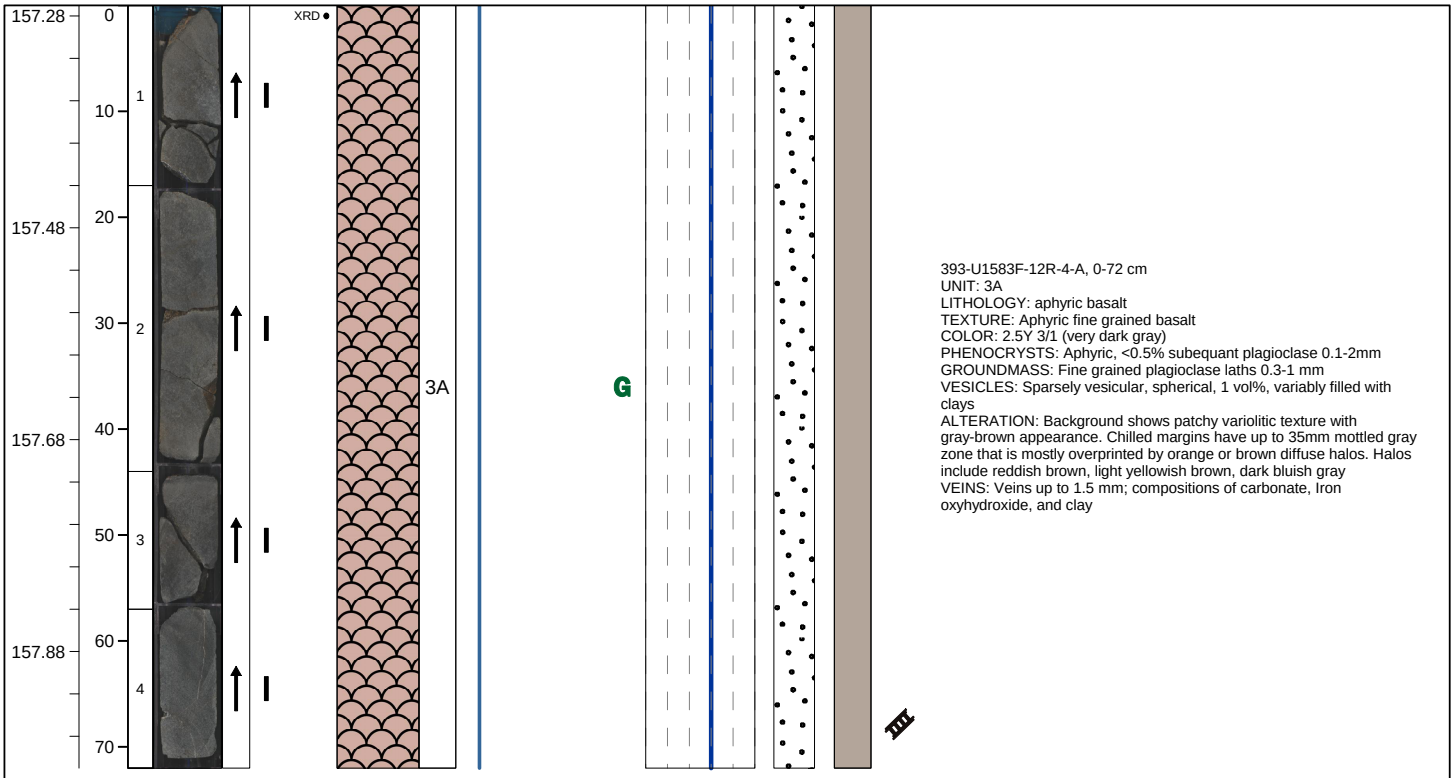


393-U1583F-12R-2-A, 0-118 cm
UNIT: 3A
LITHOLOGY: aphyric basalt
TEXTURE: Aphyric fine grained basalt
COLOR: 2.5Y 3/1 (very dark gray)
PHENOCRYSTS: Aphyric, <0.5% subequant plagioclase 0.1-3mm
GROUNDMASS: Fine grained plagioclase laths 0.2-0.6 mm
VESICLES: Nonvesicular, ~0.5 vol%, up to 2% in outer few cm of flows, and mostly filled with different brown-green clays
ALTERATION: Background shows patchy variolitic texture with grey-brown appearance. Chilled margins have up to 35mm mottled gray zone that is mostly overprinted by orange or brown diffuse halos. Halos include reddish brown, light yellowish brown
VEINS: Veins up to 2 mm; compositions of carbonate, sediment, Iron oxyhydroxide, and clay

Hole 393-U1583F-12R Section 3, Top of Section: 155.84 m (CSF-A)

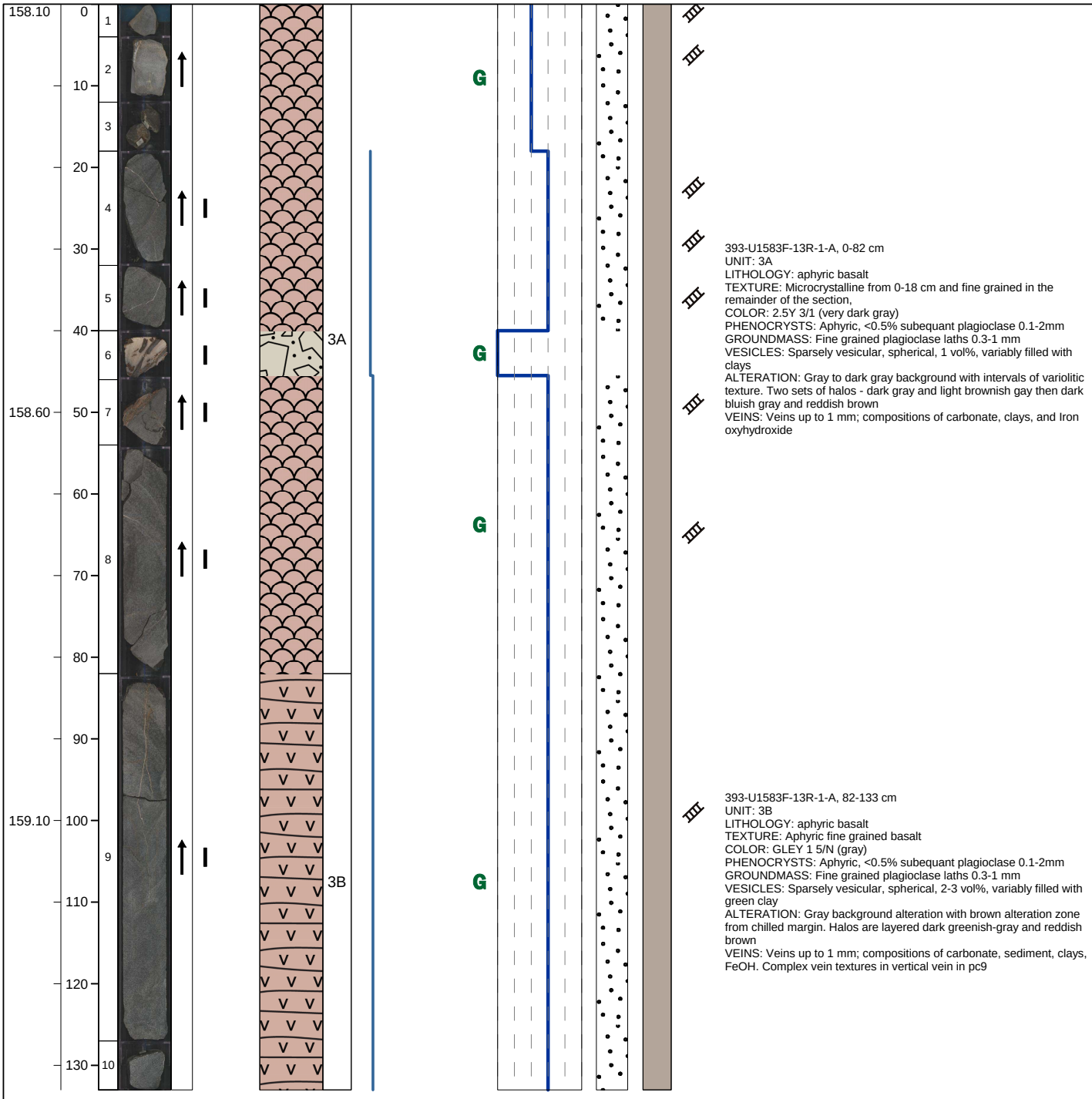


Hole 393-U1583F-12R Section 4, Top of Section: 157.27 m (CSF-A)



393-U1583F-12R-4-A, 0-72 cm
UNIT: 3A
LITHOLOGY: aphyric basalt
TEXTURE: Aphyric fine grained basalt
COLOR: 2.5Y 3/1 (very dark gray)
PHENOCRYSTS: Aphyric, <0.5% subequant plagioclase 0.1-2mm
GROUNDMASS: Fine grained plagioclase laths 0.3-1 mm
VESICLES: Sparsely vesicular, spherical, 1 vol%, variably filled with clays
ALTERATION: Background shows patchy variolitic texture with gray-brown appearance. Chilled margins have up to 35mm mottled gray zone that is mostly overprinted by orange or brown diffuse halos. Halos include reddish brown, light yellowish brown, dark bluish gray
VEINS: Veins up to 1.5 mm; compositions of carbonate, Iron oxyhydroxide, and clay

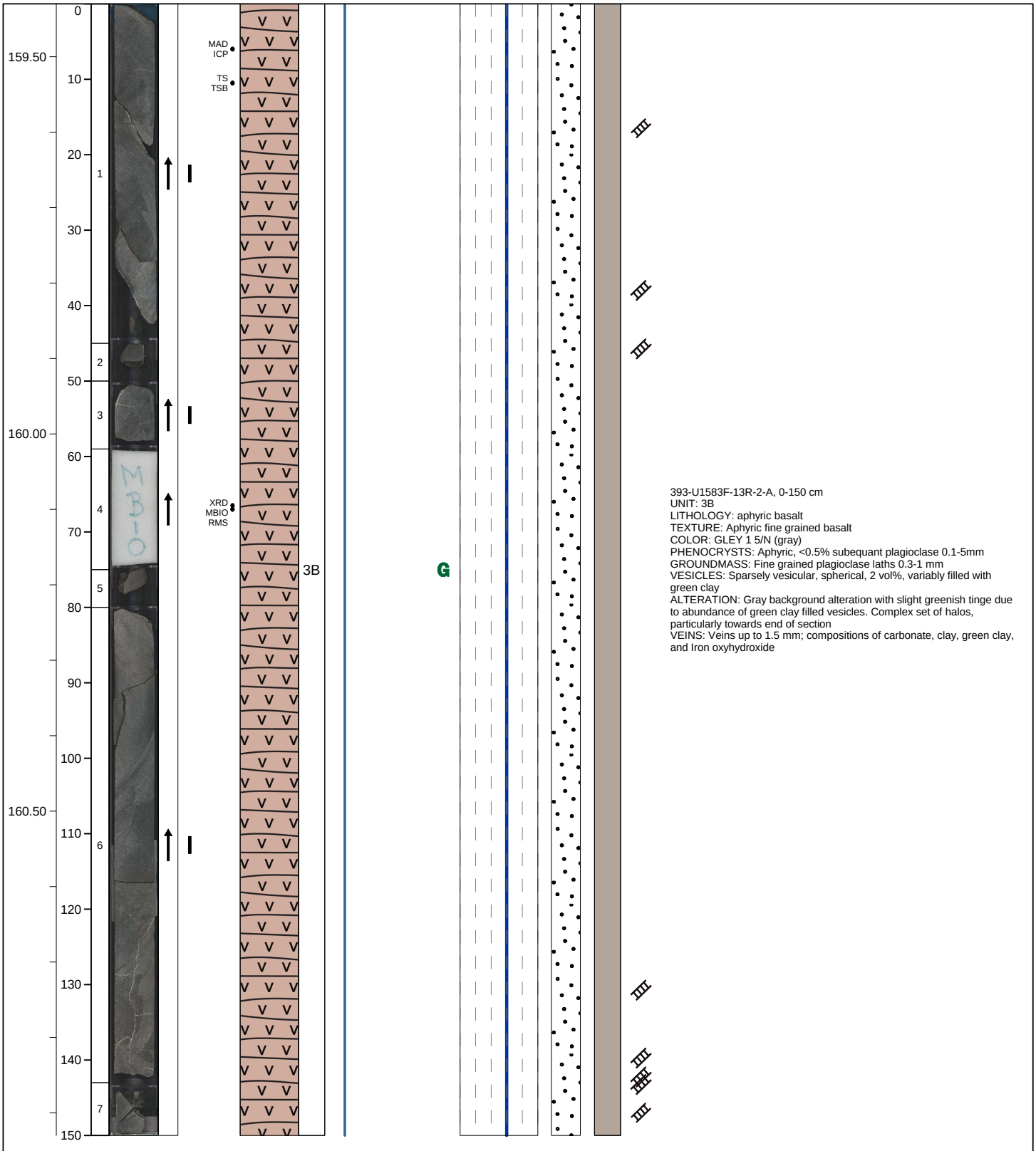
Hole 393-U1583F-13R Section 1, Top of Section: 158.1 m (CSF-A)



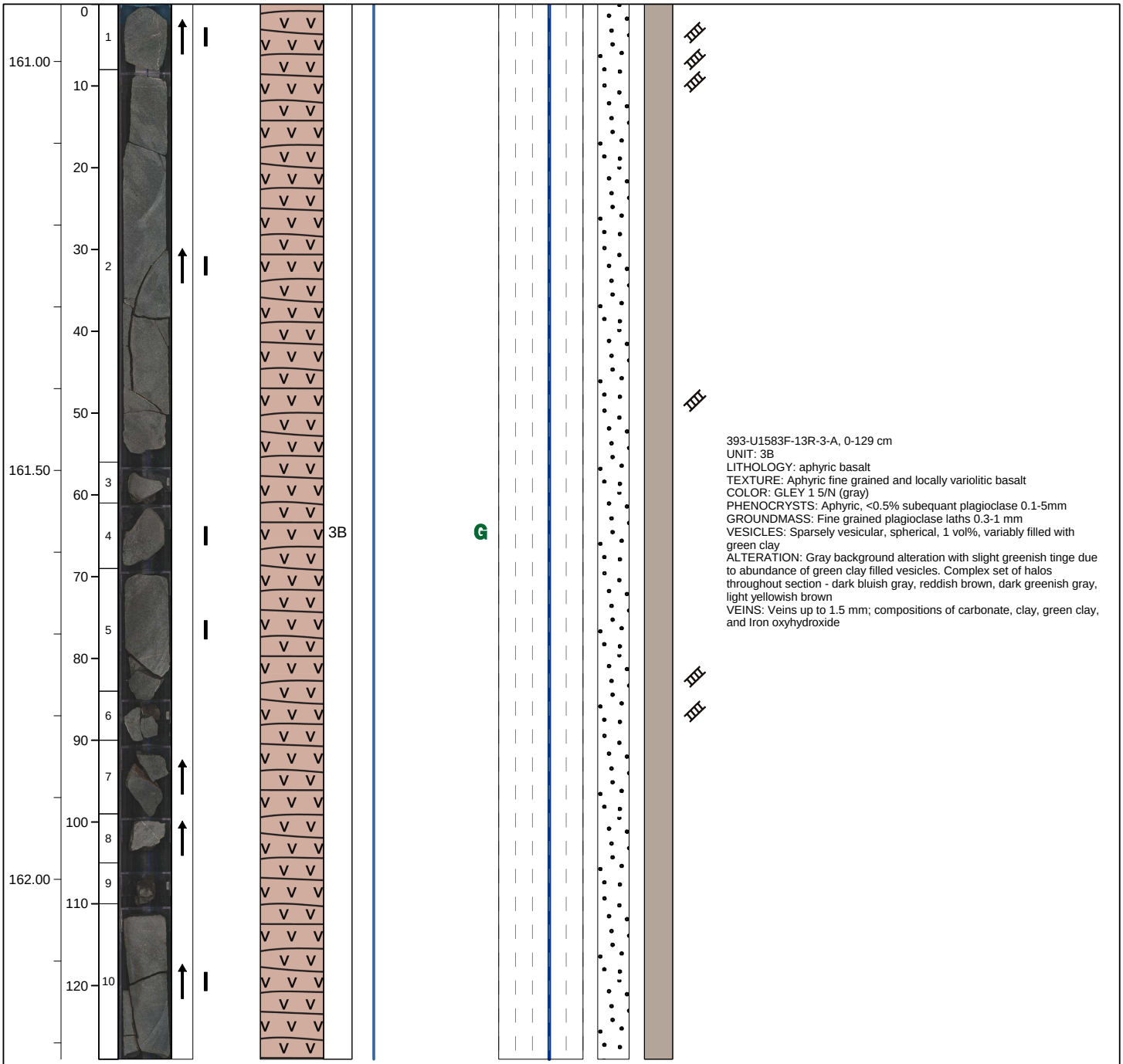
393-U1583F-13R-1-A, 0-82 cm
UNIT: 3A
LITHOLOGY: aphyric basalt
TEXTURE: Microcrystalline from 0-18 cm and fine grained in the remainder of the section,
COLOR: 2.5Y 3/1 (very dark gray)
PHENOCRYSTS: Aphyric, <0.5% subequant plagioclase 0.1-2mm
GROUNDMASS: Fine grained plagioclase laths 0.3-1 mm
VESICLES: Sparsely vesicular, spherical, 1 vol%, variably filled with clays
ALTERATION: Gray to dark gray background with intervals of variolitic texture. Two sets of halos - dark gray and light brownish gay then dark bluish gray and reddish brown
VEINS: Veins up to 1 mm; compositions of carbonate, clays, and Iron oxyhydroxide

393-U1583F-13R-1-A, 82-133 cm
UNIT: 3B
LITHOLOGY: aphyric basalt
TEXTURE: Aphyric fine grained basalt
COLOR: GLEY 1 5/N (gray)
PHENOCRYSTS: Aphyric, <0.5% subequant plagioclase 0.1-2mm
GROUNDMASS: Fine grained plagioclase laths 0.3-1 mm
VESICLES: Sparsely vesicular, spherical, 2-3 vol%, variably filled with green clay
ALTERATION: Gray background alteration with brown alteration zone from chilled margin. Halos are layered dark greenish-gray and reddish brown
VEINS: Veins up to 1 mm; compositions of carbonate, sediment, clays, FeOH. Complex vein textures in vertical vein in pc9

Hole 393-U1583F-13R Section 2, Top of Section: 159.43 m (CSF-A)

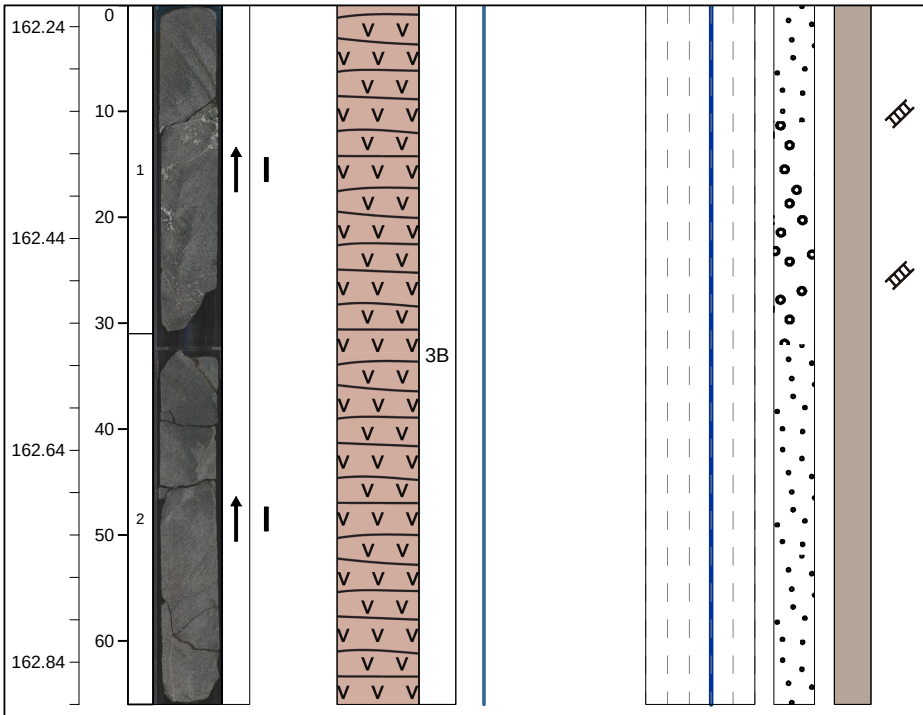


Hole 393-U1583F-13R Section 3, Top of Section: 160.93 m (CSF-A)



393-U1583F-13R-3-A, 0-129 cm
UNIT: 3B
LITHOLOGY: aphyric basalt
TEXTURE: Aphyric fine grained and locally variolitic basalt
COLOR: GLEY 1 5/N (gray)
PHENOCRYSTS: Aphyric, <0.5% subequant plagioclase 0.1-5mm
GROUNDMASS: Fine grained plagioclase laths 0.3-1 mm
VESICLES: Sparsely vesicular, spherical, 1 vol%, variably filled with green clay
ALTERATION: Gray background alteration with slight greenish tinge due to abundance of green clay filled vesicles. Complex set of halos throughout section - dark bluish gray, reddish brown, dark greenish gray, light yellowish brown
VEINS: Veins up to 1.5 mm; compositions of carbonate, clay, green clay, and Iron oxyhydroxide

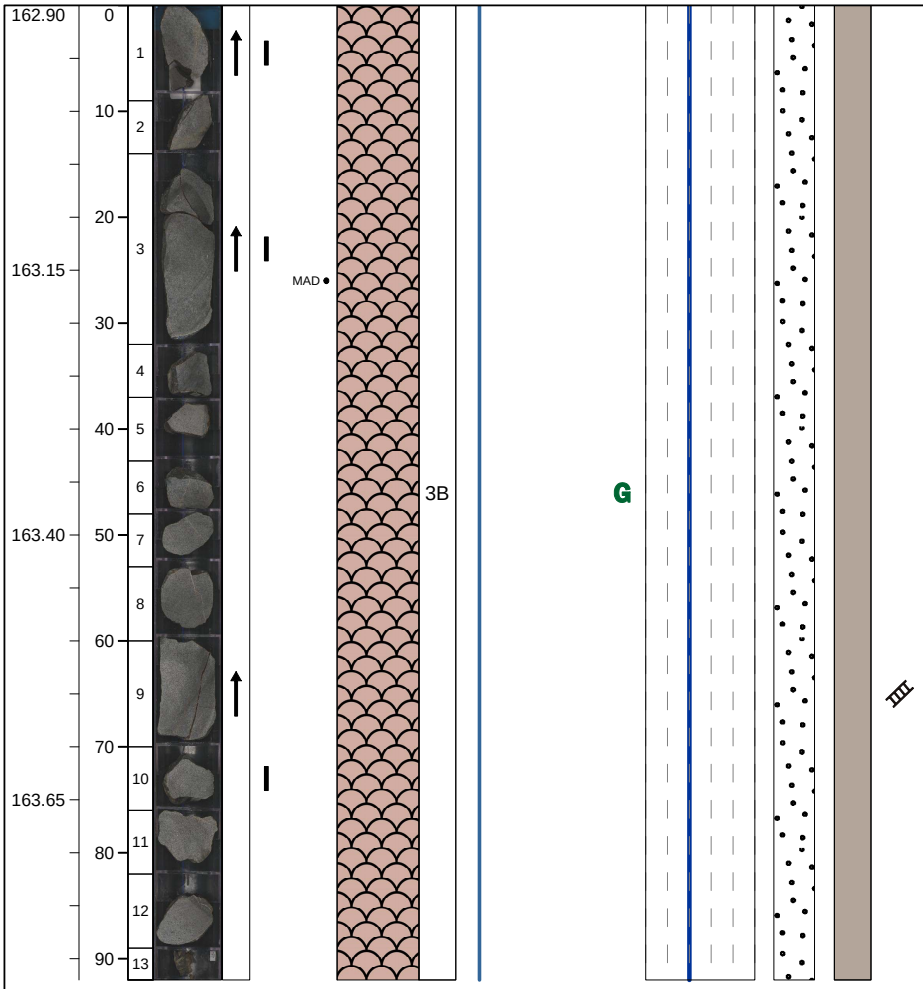
Hole 393-U1583F-13R Section 4, Top of Section: 162.22 m (CSF-A)



Description

393-U1583F-13R-4-A, 0-66 cm
UNIT: 3B
LITHOLOGY: aphyric basalt
TEXTURE: Aphyric fine grained basalt
COLOR: GLEY 1 5/N (gray)
PHENOCRYSTS: Aphyric, <0.5% subequant plagioclase 0.1-5mm
GROUNDMASS: Fine grained plagioclase laths 0.3-1 mm
VESICLES: Sparsely vesicular, spherical 1 vol%, variably filled with green clay, except for vuggy interval with 4-5% vesicles, at Interval 11-32 cm, where the vugs are 1-6 mm, irregularly shaped
ALTERATION: Gray background alteration with slight greenish tinge due to abundance of green clay filled vesicles. Multiple halo types. Dark greenish gray halos have inner and outer boundary of reddish brown. Light yellowish brown as diffuse patch in pc1. Reddish brown halo also around carbonate-green clay vugs in pc2
VEINS: Veins up to 1 mm; compositions of carbonate, clay, green clay, and Iron oxyhydroxide

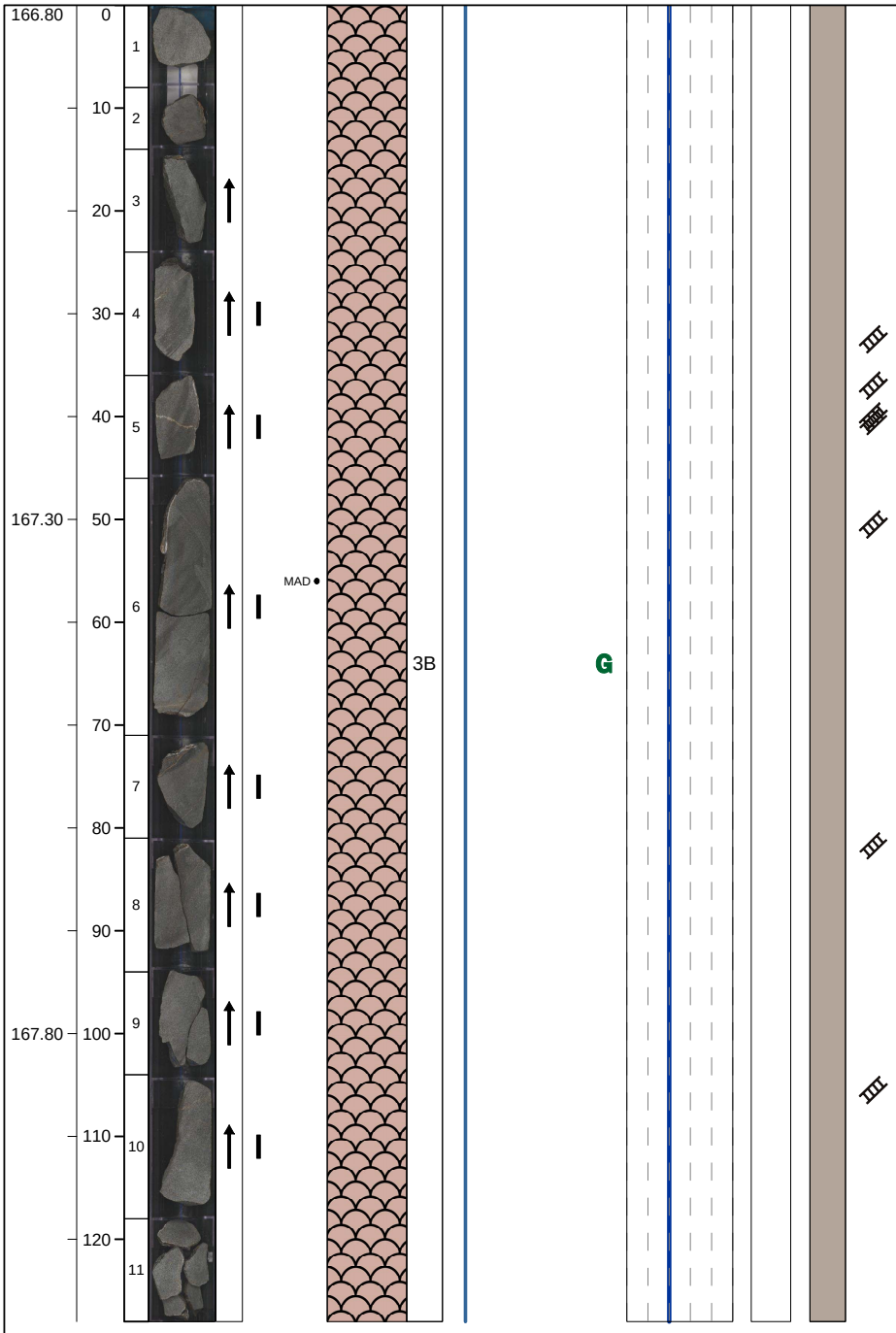
Hole 393-U1583F-14R Section 1, Top of Section: 162.9 m (CSF-A)



Description

393-U1583F-14R-1-A, 0-92 cm
UNIT: 3B
LITHOLOGY: aphyric basalt
TEXTURE: Aphyric microcrystalline basalt with variolitic inner flow margins
COLOR: 2.5Y 3/1 (very dark gray)
PHENOCRYSTS: Aphyric, <0.5% subequant plagioclase 0.1-2mm
GROUNDMASS: Fine grained plagioclase laths 0.1-0.3 mm
VESICLES: Sparsely vesicular, spherical, 0.2-0.8 mm, 1 vol%, variably filled with green clay
ALTERATION: Most of the background shows patchy to mottled variolitic texture, alteration intensity increases down section. 4 halo colors in a range of combinations. Dark greenish gray halos have inner boundary of reddish brown and outer of either reddish brown or light yellowish brown. Halos of varying width
VEINS: Veins up to 1 mm; compositions of carbonate, sediment, clays, green clay, and Iron oxyhydroxide. Complex vein textures in vertical vein in pc9

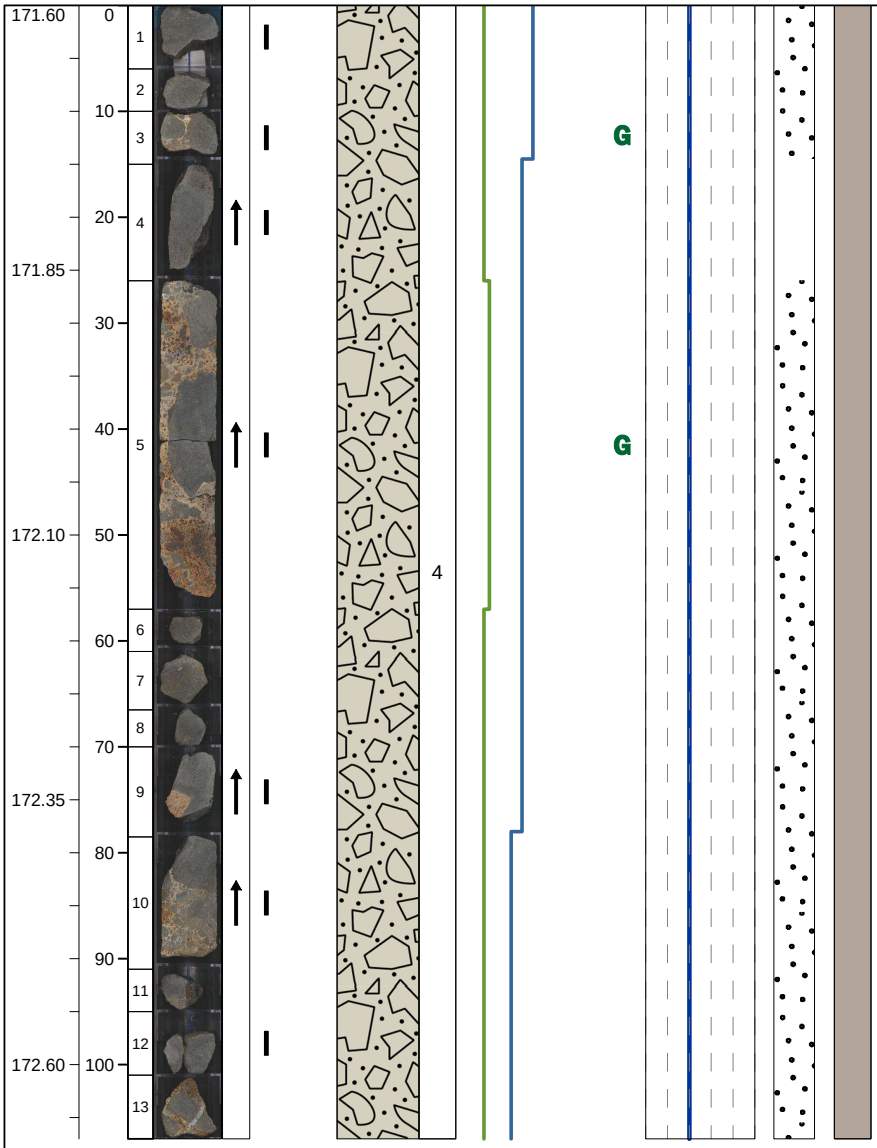
Hole 393-U1583F-15R Section 1, Top of Section: 166.8 m (CSF-A)



Description

393-U1583F-15R-1-A, 0-128 cm
UNIT: 3B
LITHOLOGY: aphyric basalt
TEXTURE: Aphyric microcrystalline basalt with variolitic inner flow margins
COLOR: GLEY 1 5/N (gray)
PHENOCRYSTS: Aphyric, <0.5% subequant plagioclase 0.1-1mm
GROUNDMASS: Fine grained plagioclase laths 0.1-0.3 mm
VESICLES: Nonvesicular, spherical, 0.2-0.8 mm, 0.1- 0.5 vol%, variably filled with clay
ALTERATION: Gray background alteration with mottled variolitic texture in some pieces. A variety of mixed halos: reddishbrown- dark bluish gray-light yellowish brown.
VEINS: Veins up to 2 mm; compositions of carbonate, sediment, clays, and Iron oxyhydroxide. Complex vein textures in vertical vein in pc9

Hole 393-U1583F-16R Section 1, Top of Section: 171.6 m (CSF-A)



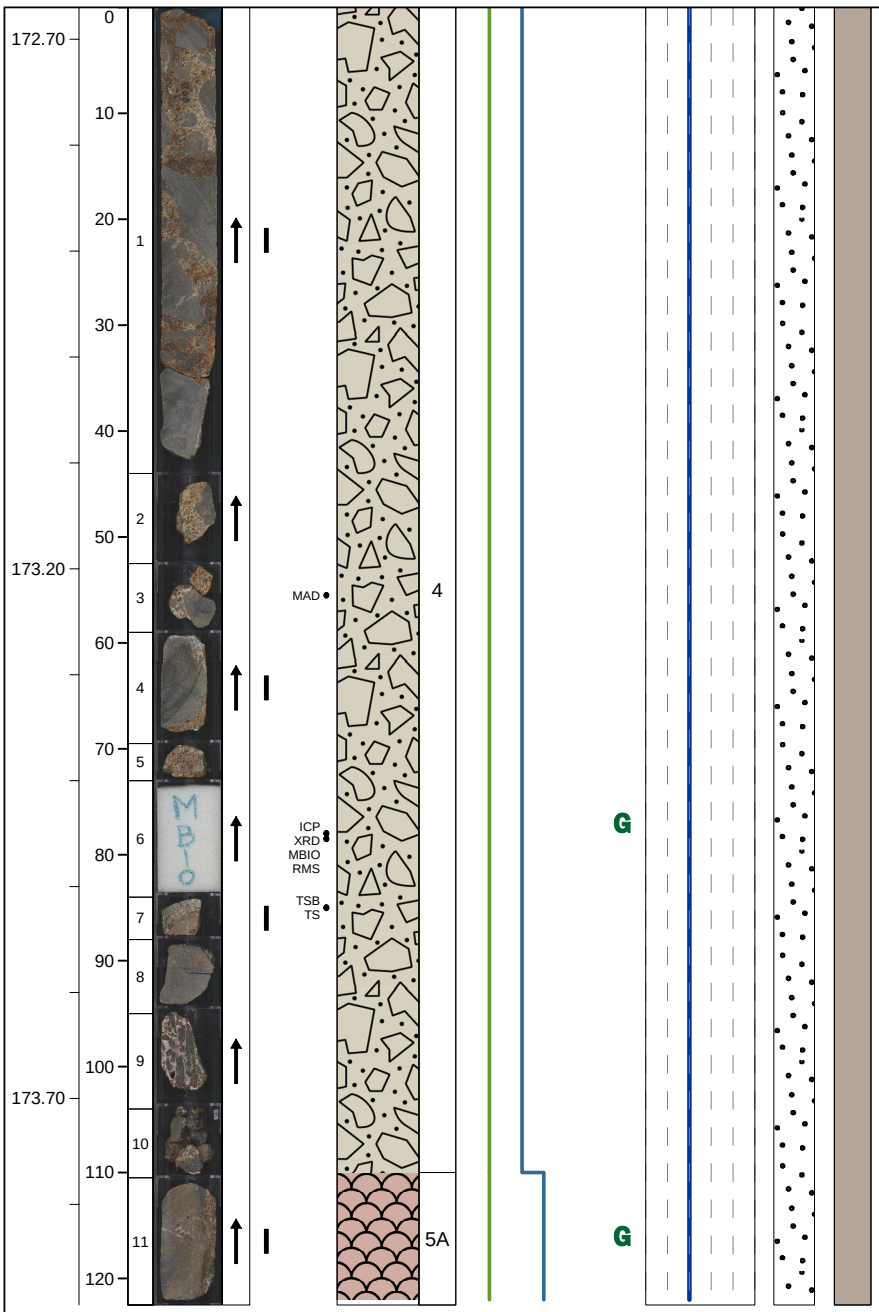
Description

393-U1583F-16R-1-A, 0-26 cm
UNIT: 4
LITHOLOGY: sedimentary breccia
TEXTURE: Clasts of microcrystalline basalt, variolitic and glassy pillow margin.
COLOR: GLEY 1 5/N (gray)
PHENOCRYSTS: Basalt clasts: Moderately plagioclase-olivine phyric (5.5%), 5% 1-4 mm plagioclase, 0.5% 1-1.5 mm olivine.
GROUNDMASS: Clasts: Microcrystalline groundmass plagioclase laths (0.1-0.3 mm)
VESICLES: Basalt clasts: sparsely vesicular, spherical, 0.2-1 mm, 2 vol%, variably filled with clay
ALTERATION: Clast alteration dominated by 30mm light brownish gray halo and 2-3mm dark gray halo
VEINS:

393-U1583F-16R-1-A, 26-57 cm
UNIT: 4
LITHOLOGY: sedimentary breccia
TEXTURE: Clasts of microcrystalline basalt, variolitic and glassy pillow margin.
COLOR: GLEY 1 5/N (gray), 10YR 8/3 (very pale brown)
PHENOCRYSTS: Basalt clasts: Moderately plagioclase-olivine phyric (5%), 4% 1-4 mm plagioclase, 1% 1-1.5 mm olivine.
GROUNDMASS: Clasts: Microcrystalline groundmass plagioclase laths (0.1-0.3 mm)
VESICLES: Basalt clasts: sparsely vesicular, spherical, 0.2-1 mm, 2 vol%, variably filled with clay
ALTERATION: Clast alteration dominated by 30mm light brownish gray halo and 2-3mm dark gray halo
VEINS:

393-U1583F-16R-1-A, 57-107 cm
UNIT: 4
LITHOLOGY: sedimentary breccia
TEXTURE: Clasts of microcrystalline basalt and glassy pillow margin.
COLOR: GLEY 1 5/N (gray), 10YR 8/3 (very pale brown)
PHENOCRYSTS: Basalt clasts: Sparsely plagioclase-olivine phyric (4%), 3% 1-4 mm plagioclase, 1% 1-1.5 mm olivine.
GROUNDMASS: Clasts: Microcrystalline groundmass plagioclase laths (0.1-0.3 mm)
VESICLES: Basalt clasts: sparsely vesicular, spherical, 0.2-1 mm, 1 vol%, variably filled with clay
ALTERATION: Clast alteration: Large clasts show light gray background with brown 7.5YR 5/2 halos around chilled margins and around veins. Smaller glass clasts show variable to complete replacement to yellowish red to yellow clays
VEINS:

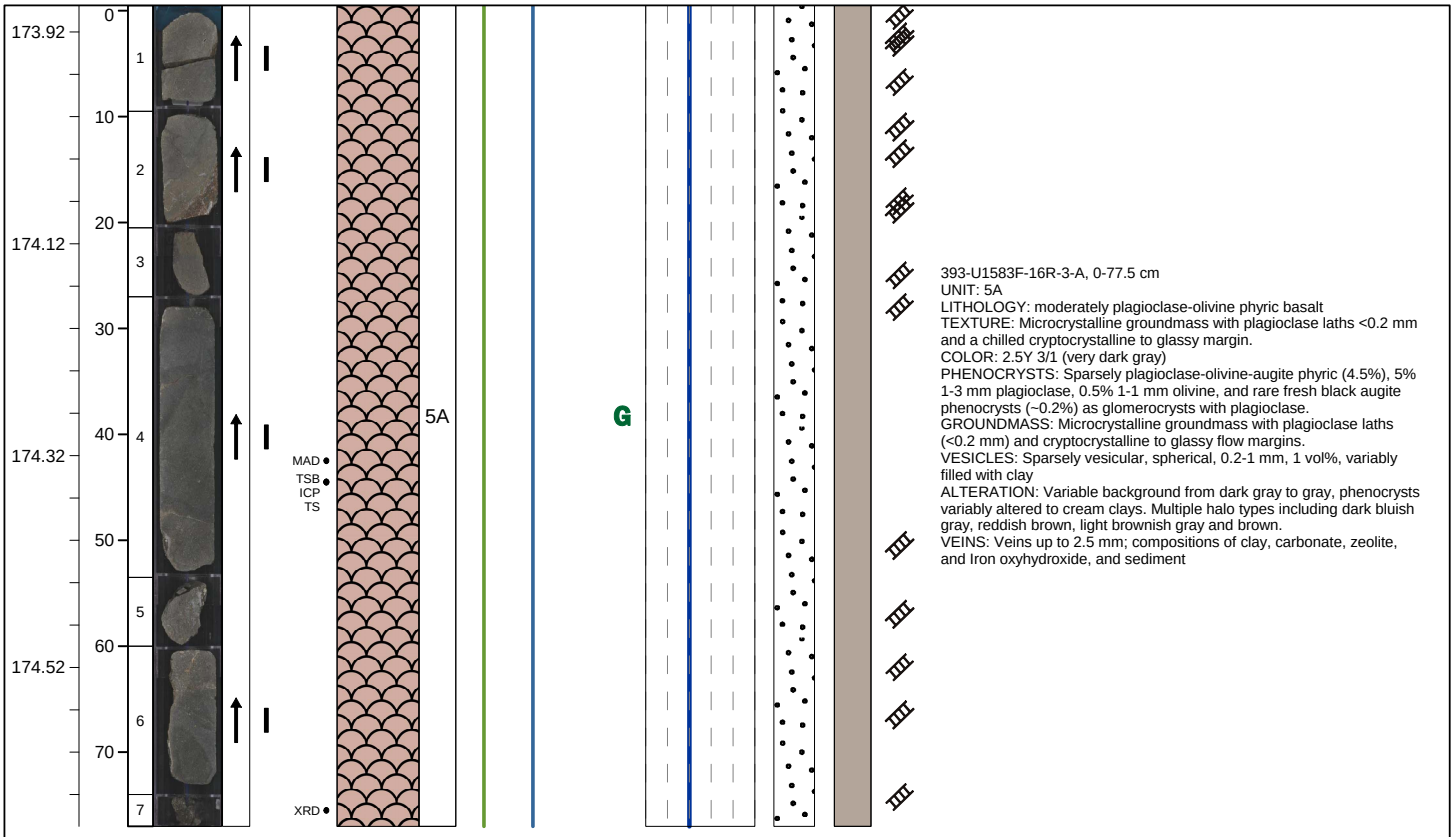
Hole 393-U1583F-16R Section 2, Top of Section: 172.67 m (CSF-A)



393-U1583F-16R-2-A, 0-110 cm
UNIT: 4
LITHOLOGY: Basaltic breccia with limestone matrix
TEXTURE: Clasts of microcrystalline basalt and glassy pillow margin.
COLOR: 2.5Y 3/1 (very dark gray)
PHENOCRYSTS: Basalt and glassy clasts: Sparsely plagioclase-olivine phyric (4%), 3% 1-4 mm plagioclase, 1% 1-1.5 mm olivine.
GROUNDMASS: Clasts: Microcrystalline groundmass plagioclase laths (0.1-0.3 mm) and crypto-crystalline to glassy flow margins.
VESICLES: Basalt clasts: sparsely vesicular, spherical, 0.2-1 mm, 1 vol%, mostly unfilled
ALTERATION: Clast alteration: Large clasts show light gray background with brown 7.5YR 5/2 halos around chilled margins and around veins. Smaller glass clasts show variable to complete replacement to yellowish red to yellow clays. Pc 9 preserves open space within carbonate cement.
VEINS:

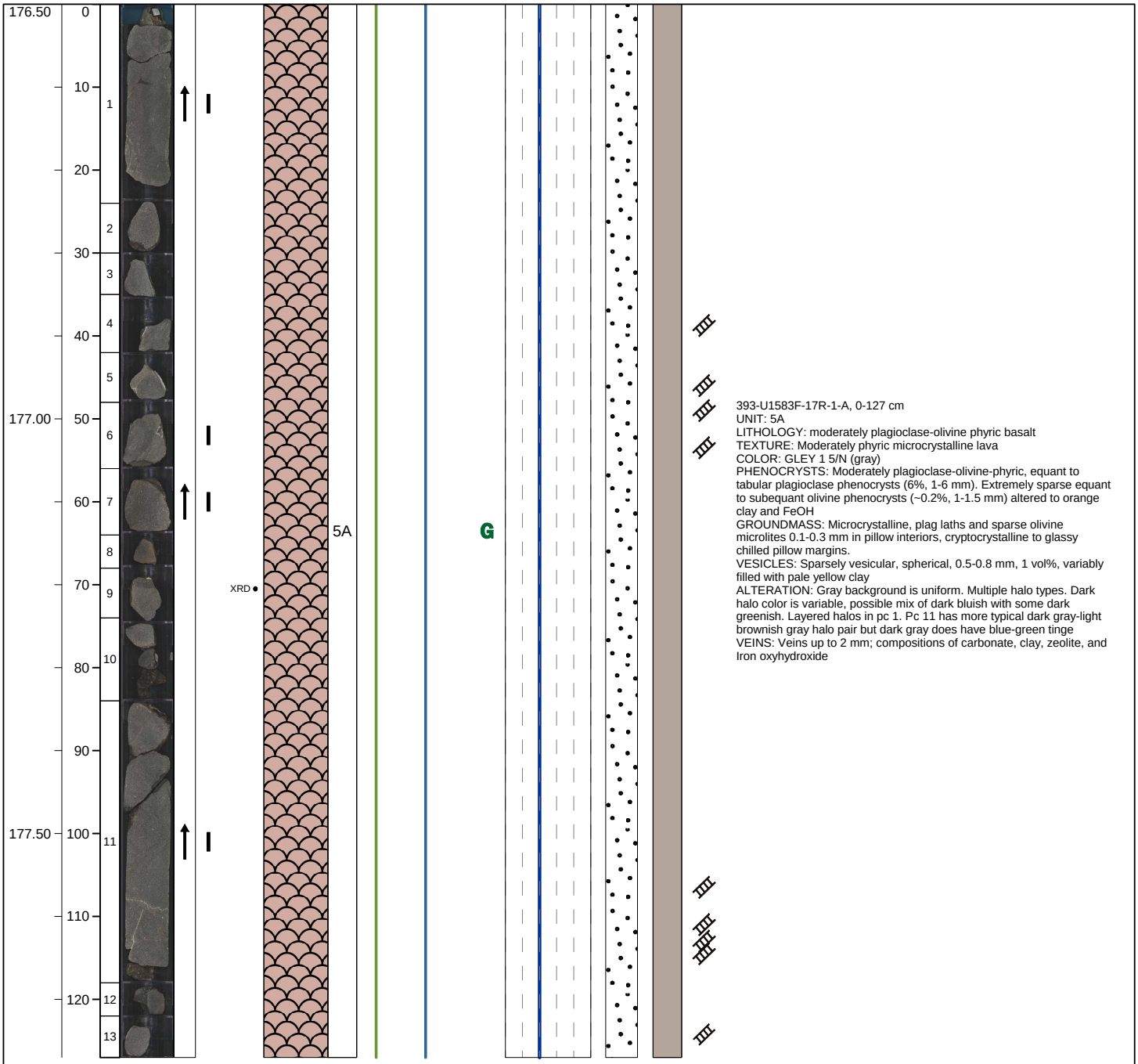
393-U1583F-16R-2-A, 110-122.5 cm
UNIT: 5A
LITHOLOGY: moderately plagioclase-olivine phyric basalt
TEXTURE: Microcrystalline groundmass with plagioclase laths 0.1-0.3 mm and a chilled cryptocrystalline to glassy margin.
COLOR: 5YR 5/4 (reddish brown)
PHENOCRYSTS: Sparsely plagioclase-olivine phyric (4.5%), 5% 1-4 mm plagioclase, 0.5% 1-1.5 mm olivine.
GROUNDMASS: Microcrystalline groundmass plagioclase laths (0.1-0.3 mm) and crypto-crystalline to glassy flow margins.
VESICLES: Sparsely vesicular, spherical, 0.2-1 mm, 1 vol%, mostly unfilled
ALTERATION: Clast is almost entirely consumed by brown halo. Glass clasts in brecciated edge are replaced to clays of various colors
VEINS:

Hole 393-U1583F-16R Section 3, Top of Section: 173.895 m (CSF-A)



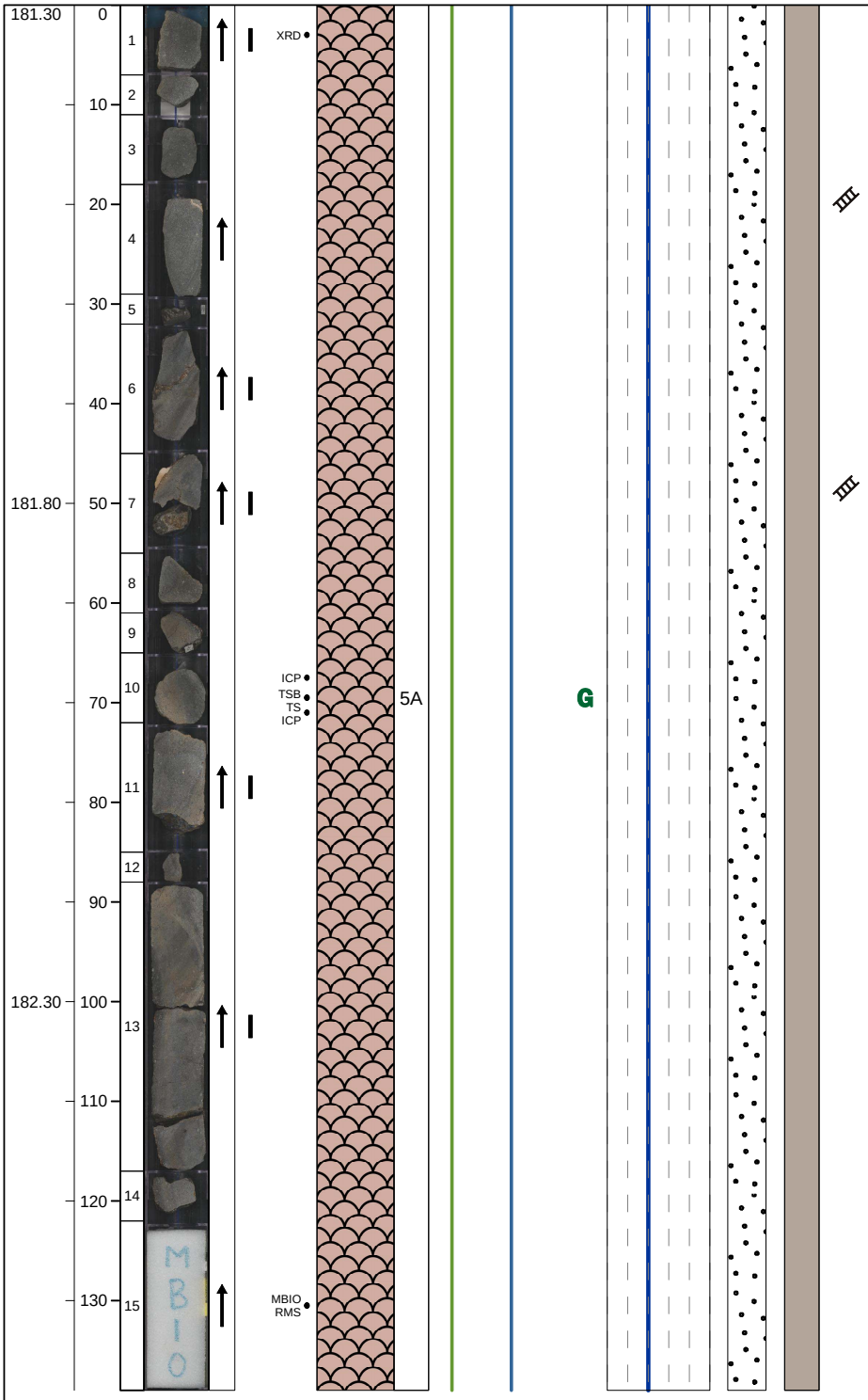
393-U1583F-16R-3-A, 0-77.5 cm
UNIT: 5A
LITHOLOGY: moderately plagioclase-olivine phyric basalt
TEXTURE: Microcrystalline groundmass with plagioclase laths <0.2 mm and a chilled cryptocrystalline to glassy margin.
COLOR: 2.5Y 3/1 (very dark gray)
PHENOCRYSTS: Sparsely plagioclase-olivine-augite phyric (4.5%), 5% 1-3 mm plagioclase, 0.5% 1-1 mm olivine, and rare fresh black augite phenocrysts (~0.2%) as glomerocrysts with plagioclase.
GROUNDMASS: Microcrystalline groundmass with plagioclase laths (<0.2 mm) and cryptocrystalline to glassy flow margins.
VESICLES: Sparsely vesicular, spherical, 0.2-1 mm, 1 vol%, variably filled with clay
ALTERATION: Variable background from dark gray to gray, phenocrysts variably altered to cream clays. Multiple halo types including dark bluish gray, reddish brown, light brownish gray and brown.
VEINS: Veins up to 2.5 mm; compositions of clay, carbonate, zeolite, and Iron oxyhydroxide, and sediment

Hole 393-U1583F-17R Section 1, Top of Section: 176.5 m (CSF-A)



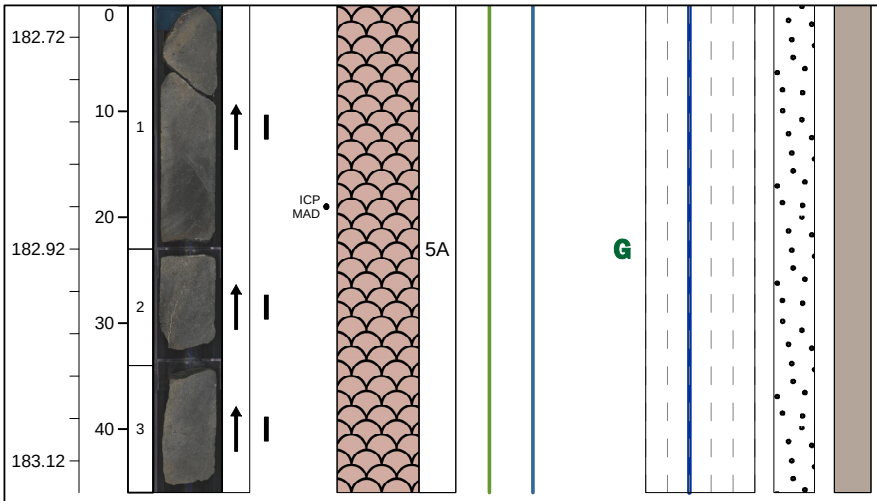
393-U1583F-17R-1-A, 0-127 cm
UNIT: 5A
LITHOLOGY: moderately plagioclase-olivine phyric basalt
TEXTURE: Moderately phyric microcrystalline lava
COLOR: GLEY 1 5/N (gray)
PHENOCRYSTS: Moderately plagioclase-olivine-phyric, equant to tabular plagioclase phenocrysts (6%, 1-6 mm). Extremely sparse equant to subequant olivine phenocrysts (~0.2%, 1-1.5 mm) altered to orange clay and FeOH
GROUNDMASS: Microcrystalline, plag laths and sparse olivine microlites 0.1-0.3 mm in pillow interiors, cryptocrystalline to glassy chilled pillow margins.
VESICLES: Sparsely vesicular, spherical, 0.5-0.8 mm, 1 vol%, variably filled with pale yellow clay
ALTERATION: Gray background is uniform. Multiple halo types. Dark halo color is variable, possible mix of dark bluish with some dark greenish. Layered halos in pc 1. Pc 11 has more typical dark gray-light brownish gray halo pair but dark gray does have blue-green tinge
VEINS: Veins up to 2 mm; compositions of carbonate, clay, zeolite, and Iron oxyhydroxide

Hole 393-U1583F-18R Section 1, Top of Section: 181.3 m (CSF-A)



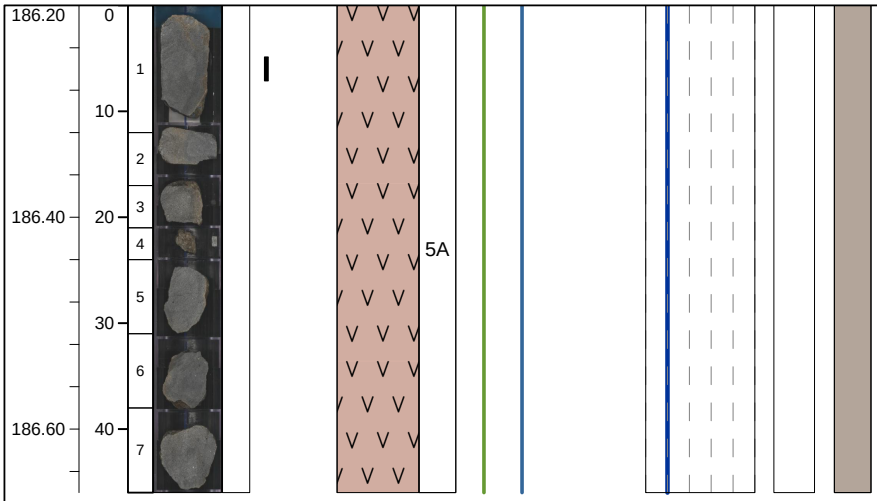
393-U1583F-18R-1-A, 0-139 cm
UNIT: 5A
LITHOLOGY: moderately plagioclase-olivine phyric basalt
TEXTURE: Moderately phyric microcrystalline lava
COLOR: GLEY 1 5/N (gray)
PHENOCRYSTS: Moderately plagioclase-olivine-phyric, equant to tabular plagioclase phenocrysts (6%, 1-6 mm). Extremely sparse equant to subequant olivine phenocrysts (~0.2%, 1-1.5 mm) variably altered including fresh pale green and yellow stained examples.
GROUNDMASS: Microcrystalline, plag laths and sparse olivine microlites 0.1-0.3 mm in pillow interiors, cryptocrystalline to glassy chilled pillow margins.
VESICLES: Sparsely vesicular, spherical, 0.5-0.8 mm, 1 vol%, variably filled with pale yellow clay
ALTERATION: Gray background of varying intensity. Irregular brown halos related to chilled margins and around veins. Dark gray halo shows bluish tinge still, particularly in pc 13 as a zone parallel to vertical chilled margin
VEINS: Veins up to 7 mm; compositions of carbonate, sediment, clays, Iron oxyhydroxide, and zeolites.

Hole 393-U1583F-18R Section 2, Top of Section: 182.69 m (CSF-A)



393-U1583F-18R-2-A, 0-46 cm
UNIT: 5A
LITHOLOGY: moderately plagioclase-olivine phyric basalt
TEXTURE: Moderately phyric microcrystalline lava
COLOR: 2.5Y 3/1 (very dark gray)
PHENOCRYSTS: Moderately plagioclase-olivine-phyric, equant to tabular plagioclase phenocrysts (4%, 1-6 mm). Extremely sparse equant to subequant olivine phenocrysts (~1%, 1-1.5 mm) variably altered including fresh pale green and yellow stained examples.
GROUNDMASS: Microcrystalline, plag laths and sparse olivine microlites 0.1-0.3 mm in pillow interiors, cryptocrystalline to glassy chilled pillow margins.
VESICLES: Sparsely vesicular, spherical, 0.5-0.8 mm, 1 vol%, variably filled with pale yellow clay. Variably filled with snow-white clay/zeolite.
ALTERATION: Patchy gray-brown background. Brown alteration halos related to chilled margins and veins. Pc 2 has reddish brown-dark bluish gray layered halo adjacent to extensive brown halos.
VEINS: Veins up to 7 mm; compositions of carbonate, clays, Iron oxyhydroxide, and zeolites.

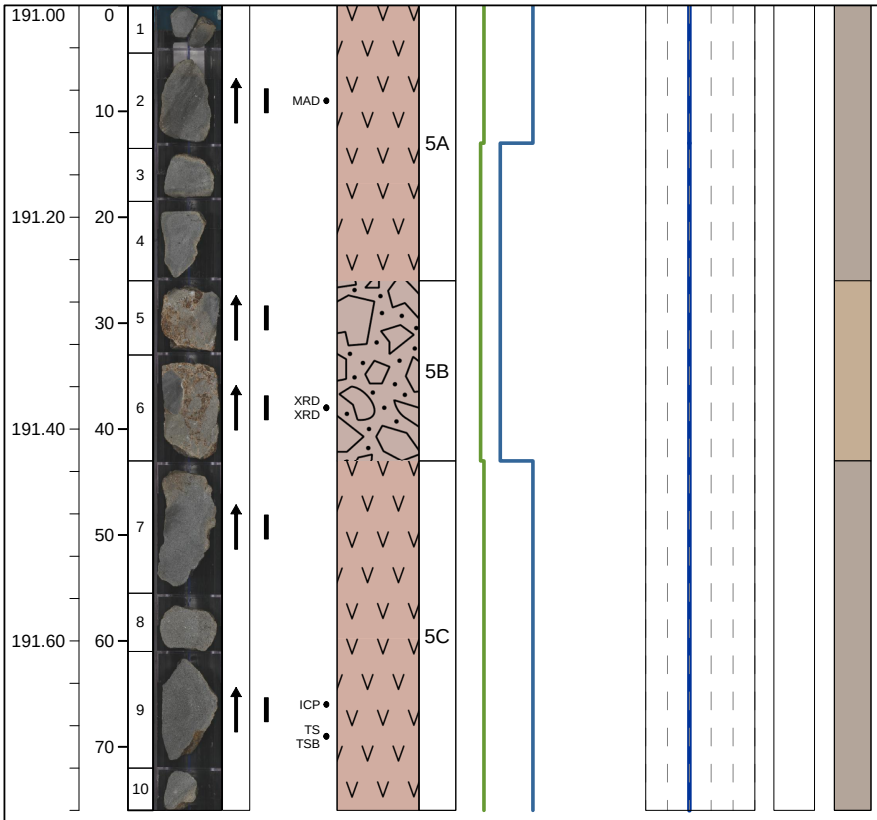
Hole 393-U1583F-19R Section 1, Top of Section: 186.2 m (CSF-A)



Description

393-U1583F-19R-1-A, 0-46 cm
UNIT: 5A
LITHOLOGY: sparsely plagioclase-olivine phyric basalt
TEXTURE: Sparsely phyric crypto- to microcrystalline lava
COLOR: GLEY 1 5/N (gray)
PHENOCRYSTS: Sparsely plagioclase-olivine-phyric, equant to tabular plagioclase phenocrysts (4%, 1-4 mm). Extremely sparse equant olivine phenocrysts (~0.2%, 1-1.5 mm) altered to orange clay and FeOH
GROUNDMASS: Cryptocrystalline to microcrystalline plagioclase laths and olivine <0.2 mm
VESICLES: Sparsely vesicular, spherical, 0.5-0.8 mm, 1 vol%, variably filled with pale yellow clay.
ALTERATION: Uniform background alteration. Light brownish gray-dark gray (slightly bluish) around veins and broken surfacess
VEINS: Veins up to 0.5 mm; compositions of carbonate, zeolite, clay, and Iron oxyhydroxide

Hole 393-U1583F-20R Section 1, Top of Section: 191.0 m (CSF-A)



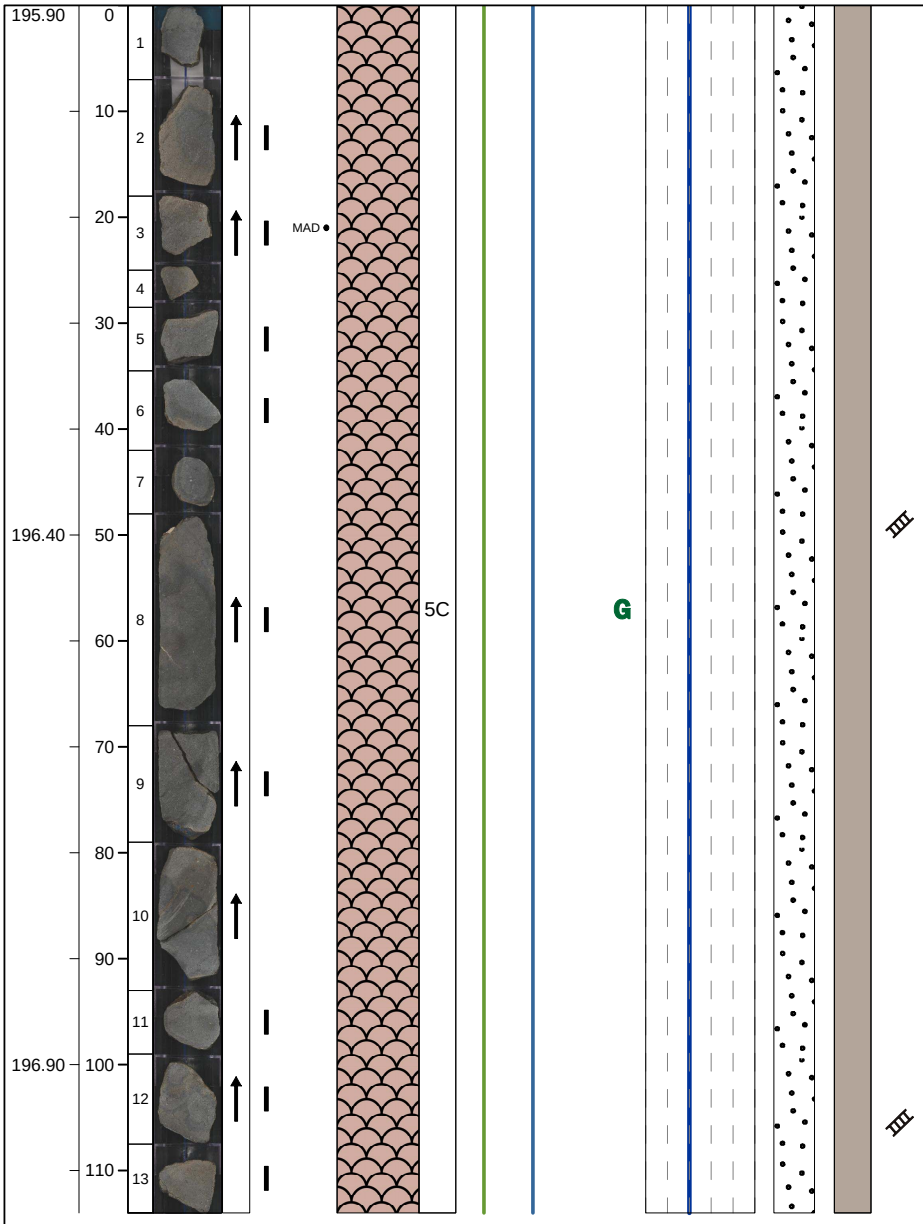
Description

393-U1583F-20R-1-A, 0-26 cm
UNIT: 5A
LITHOLOGY: sparsely plagioclase-olivine phyric basalt
TEXTURE: Microcrystalline.
COLOR: GLEY 1 5/N (gray)
PHENOCRYSTS: Sparsely to moderately plagioclase-olivine-phyric, equant to tabular plagioclase phenocrysts (2-5%, 1-4 mm), equant olivine phenocrysts (~0.2-0.5%, 1-1.5 mm) altered to pale or orange clay.
GROUNDMASS: Microcrystalline, plag laths 0.1-0.2 mm
VESICLES: Nonvesicular, spherical, 0.2-0.8 mm, 0.2 vol%, variably filled with clay
ALTERATION: Dark gray background with alteration of plagioclase phenocrysts. Irregular light brownish gray-dark gray halos around the edges of piecess
VEINS: Veins up to 0.5 mm; compositions of carbonate, zeolite, clay, and Iron oxyhydroxide

393-U1583F-20R-1-A, 36-43 cm
UNIT: 5B
LITHOLOGY: basaltic breccia
TEXTURE:
COLOR: 10YR 5/1 (gray)
PHENOCRYSTS:
GROUNDMASS:
VESICLES:
ALTERATION: Alteration of clasts mostly ranges from moderate to complete,with 2 clasts only slightly altered. Clear<1mm->10mm light brownish gray to dark gray halos as borders to clasts.
VEINS: Veins up to 1 mm; compositions of carbonate

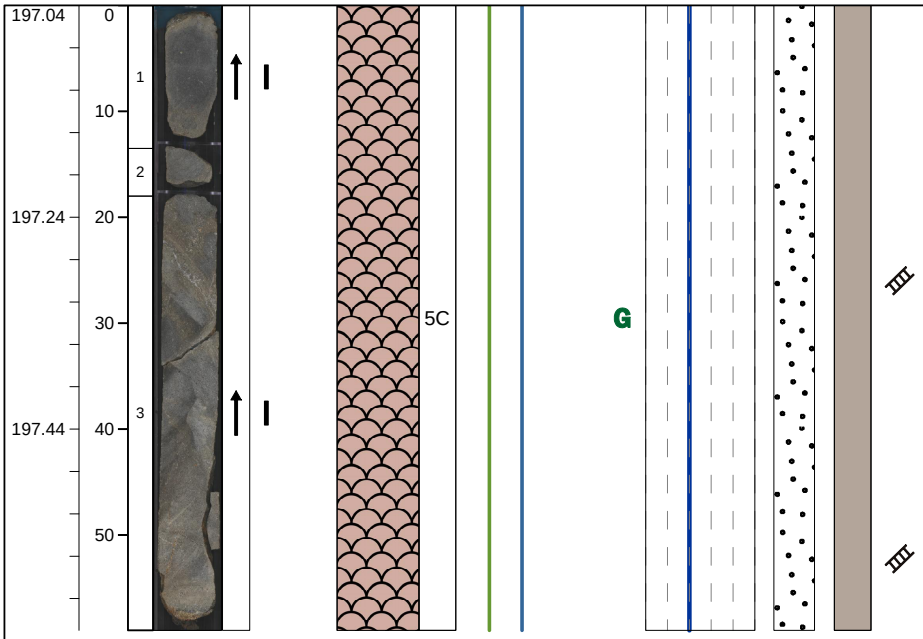
393-U1583F-20R-1-A, 43-76 cm
UNIT: 5C
LITHOLOGY: moderately plagioclase-olivine phyric basalt
TEXTURE: Moderately phyric microcrystalline lava
COLOR: 2.5Y 3/1 (very dark gray)
PHENOCRYSTS: Moderately plagioclase-olivine-phyric, equant to tabular plagioclase phenocrysts (5%, 1-3 mm). Equant olivine phenocrysts (~1%, 0.5-1 mm) altered to clay
GROUNDMASS: Microcrystalline, plag laths 0.1-0.2 mm
VESICLES: Nonvesicular, spherical, 0.2-0.8 mm, 0.5 vol%, variably filled with clay
ALTERATION: Dark gray background with alteration of plagioclase phenocrysts. Irregular light brownish gray-dark gray halos from 43-54cm. Reddish brown - dark bluish gray halos 61-71cm.
VEINS: Veins up to 0.5 mm; compositions of carbonate, zeolite, clays, and iron oxyhydroxide

Hole 393-U1583F-21R Section 1, Top of Section: 195.9 m (CSF-A)



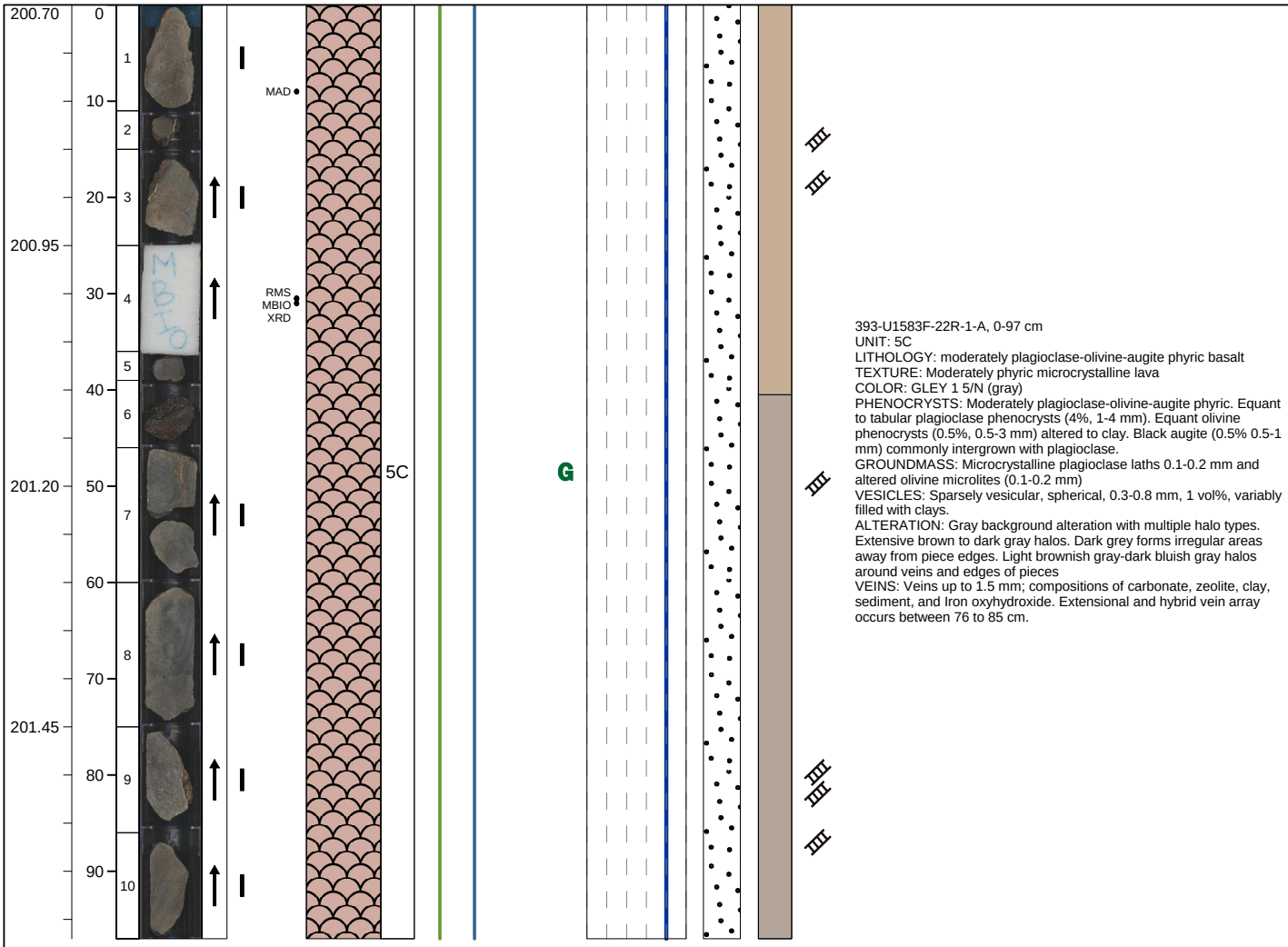
393-U1583F-21R-1-A, 0-114 cm
UNIT: 5C
LITHOLOGY: moderately plagioclase-olivine phyric basalt
TEXTURE: Moderately phyric microcrystalline lava
COLOR: GLEY 1 5/N (gray)
PHENOCRYSTS: Moderately plagioclase-olivine-phyric with rare augite. Equant to tabular plagioclase phenocrysts (5%, 1-8 mm). Equant olivine phenocrysts (0.5%, 0.5-2 mm) altered to clay. Rare 1 mm black, prismatic augite with plagioclase.
GROUNDMASS: Microcrystalline plagioclase laths 0.1-0.3mm and altered olivine microlites (0.1 mm)
VESICLES: Sparsely vesicular, spherical, 0.5-1 mm, 2 vol%, variably filled with clays.
ALTERATION: Some variation in background alteration intensity, some phenocrysts altered to cream-yellowish clay. Multiple halo types around veins and brown halos related to chilled margins.
VEINS: Veins up to 1 mm; compositions of carbonate, zeolite, clay, sediment, and Iron oxyhydroxide

Hole 393-U1583F-21R Section 2, Top of Section: 197.04 m (CSF-A)



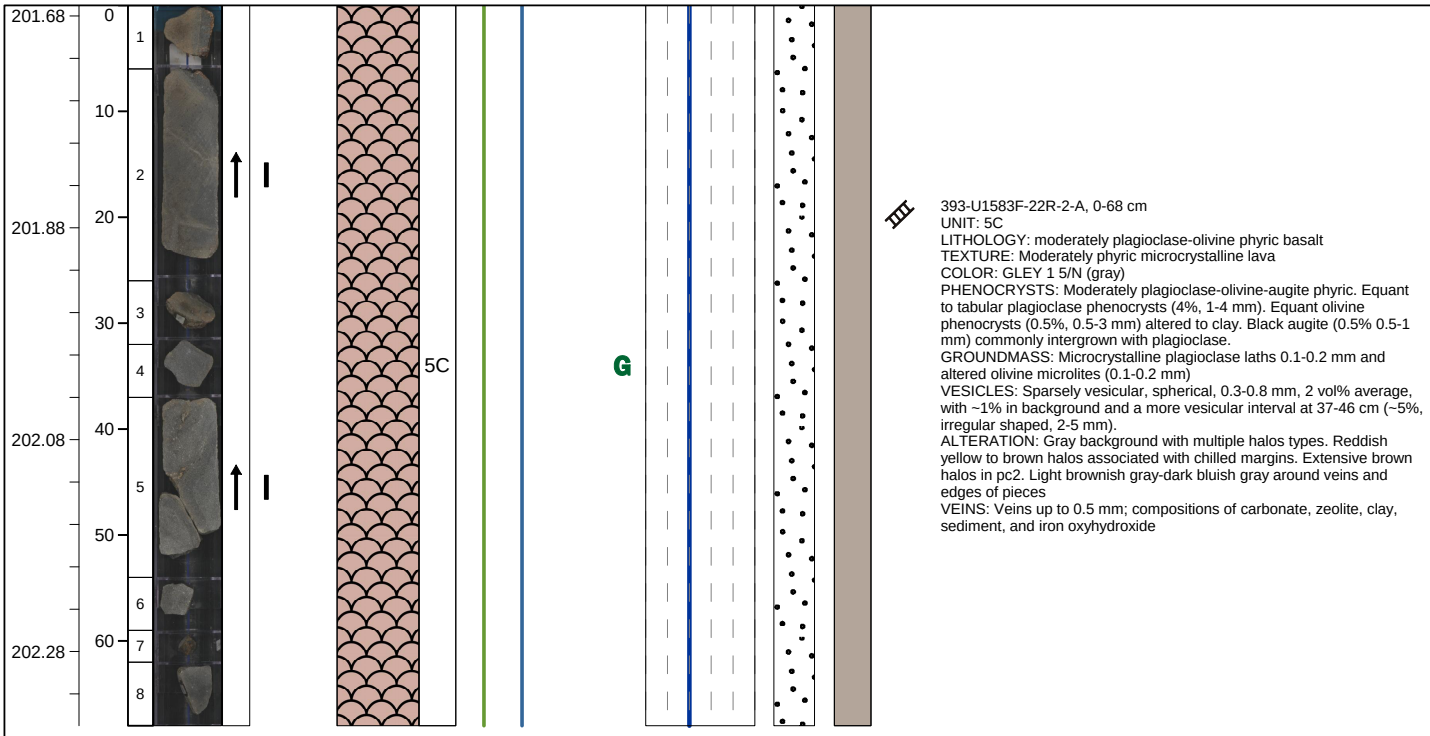
393-U1583F-21R-2-A, 0-59 cm
UNIT: 5C
LITHOLOGY: moderately plagioclase-olivine phyric basalt
TEXTURE: Moderately phyric microcrystalline lava
COLOR: GLEY 1 5/N (gray)
PHENOCRYSTS: Moderately plagioclase-olivine-phyric with rare augite. Equant to tabular plagioclase phenocrysts (4%, 1-4 mm). Equant olivine phenocrysts (1%, 0.5-3 mm) altered to clay. Rare black augite intergrown with plagioclase.
GROUNDMASS: Microcrystalline plagioclase laths 0.1-0.2 mm and altered olivine microlites (0.1-0.2 mm)
VESICLES: Sparsely vesicular, spherical, 0.3-0.8 mm, 1 vol%, variably filled with clays.
ALTERATION: Gray background alteration with extensive brown halos around edge of pieces, veins and as a fronts from chilled margins. Dark gray (bluish hint) with brown halos around veins.
VEINS: Veins up to 1 mm; compositions of carbonate, zeolite, clay, sediment, and Iron oxyhydroxide

Hole 393-U1583F-22R Section 1, Top of Section: 200.7 m (CSF-A)



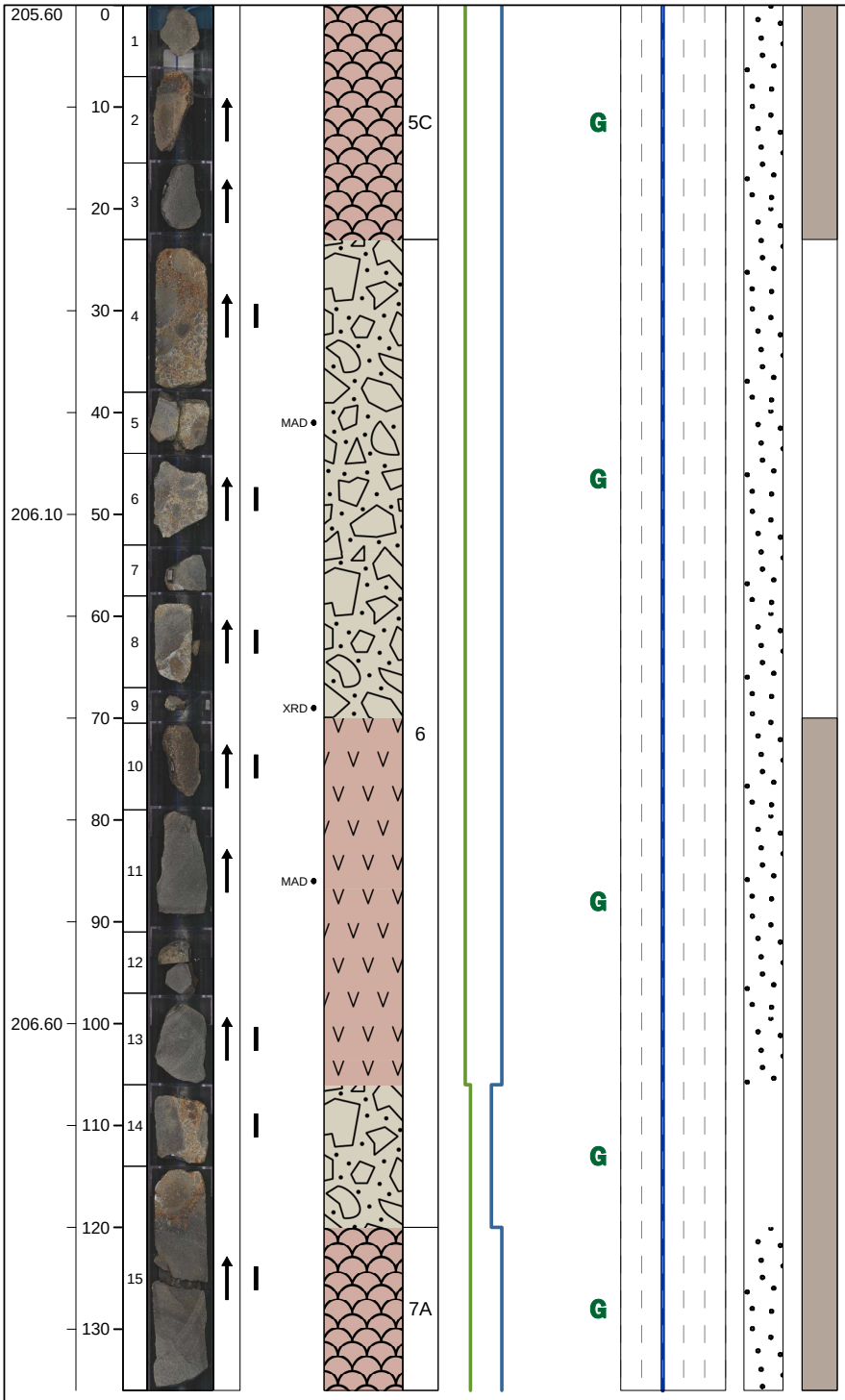
393-U1583F-22R-1-A, 0-97 cm
UNIT: 5C
LITHOLOGY: moderately plagioclase-olivine-augite phyric basalt
TEXTURE: Moderately phyric microcrystalline lava
COLOR: GLEY 1 5/N (gray)
PHENOCRYSTS: Moderately plagioclase-olivine-augite phyric. Equant to tabular plagioclase phenocrysts (4%, 1-4 mm). Equant olivine phenocrysts (0.5%, 0.5-3 mm) altered to clay. Black augite (0.5% 0.5-1 mm) commonly intergrown with plagioclase.
GROUNDMASS: Microcrystalline plagioclase laths 0.1-0.2 mm and altered olivine microlites (0.1-0.2 mm)
VESICLES: Sparsely vesicular, spherical, 0.3-0.8 mm, 1 vol%, variably filled with clays.
ALTERATION: Gray background alteration with multiple halo types. Extensive brown to dark gray halos. Dark grey forms irregular areas away from piece edges. Light brownish gray-dark bluish gray halos around veins and edges of pieces
VEINS: Veins up to 1.5 mm; compositions of carbonate, zeolite, clay, sediment, and Iron oxyhydroxide. Extensional and hybrid vein array occurs between 76 to 85 cm.

Hole 393-U1583F-22R Section 2, Top of Section: 201.67 m (CSF-A)



393-U1583F-22R-2-A, 0-68 cm
UNIT: 5C
LITHOLOGY: moderately plagioclase-olivine phyric basalt
TEXTURE: Moderately phyric microcrystalline lava
COLOR: GLEY 1 5/N (gray)
PHENOCRYSTS: Moderately plagioclase-olivine-augite phyric. Equant to tabular plagioclase phenocrysts (4%, 1-4 mm). Equant olivine phenocrysts (0.5%, 0.5-3 mm) altered to clay. Black augite (0.5% 0.5-1 mm) commonly intergrown with plagioclase.
GROUNDMASS: Microcrystalline plagioclase laths 0.1-0.2 mm and altered olivine microlites (0.1-0.2 mm)
VESICLES: Sparsely vesicular, spherical, 0.3-0.8 mm, 2 vol% average, with ~1% in background and a more vesicular interval at 37-46 cm (~5%, irregular shaped, 2-5 mm).
ALTERATION: Gray background with multiple halos types. Reddish yellow to brown halos associated with chilled margins. Extensive brown halos in pc2. Light brownish gray-dark bluish gray around veins and edges of pieces
VEINS: Veins up to 0.5 mm; compositions of carbonate, zeolite, clay, sediment, and iron oxyhydroxide

Hole 393-U1583F-23R Section 1, Top of Section: 205.6 m (CSF-A)

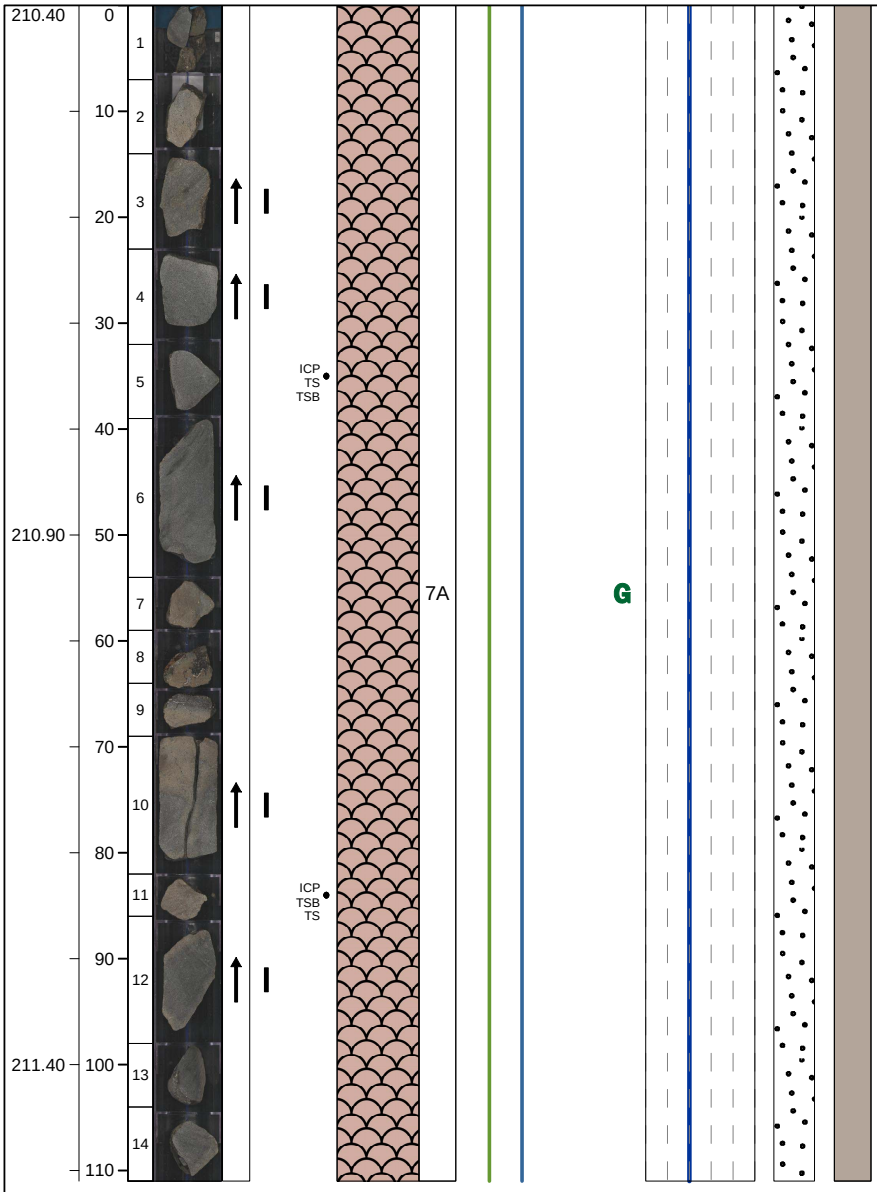


393-U1583F-23R-1-A, 0-23 cm
UNIT: 5C
LITHOLOGY: moderately plagioclase-olivine phyric basalt
TEXTURE: Sparsely phyric microcrystalline lava
COLOR: 2.5Y 3/1 (very dark gray)
PHENOCRYSTS: Sparsely to moderately plagioclase-olivine phyric. Equant to tabular plagioclase phenocrysts (4%, 1-4 mm). Equant olivine phenocrysts (0.5%, 0.5-3 mm) altered to clay.
GROUNDMASS: Microcrystalline plagioclase laths 0.1-0.2 mm and altered olivine microlites 0.1-0.2 mm
VESICLES: Sparsely vesicular, spherical, 0.3-0.8 mm, 1 vol%, variably filled with clays.
ALTERATION: Very dark gray to gray background with brown to reddish yellow halos in large clasts. Glass clasts in Pc 2 show variable replacement to yellowish red to reddish brown clays, larger fragments alteration restricted to edges.
VEINS: Veins up to 0.5 mm; compositions of carbonate, zeolite, clay, and Iron oxyhydroxide

393-U1583F-23R-1-A, 23-120 cm
UNIT: 6
LITHOLOGY: Sedimentary breccia
TEXTURE: Clasts and basalt interval: Moderately phyric microcrystalline to cryptocrystalline to glassy lavas
COLOR: 2.5Y 3/1 (very dark gray)
PHENOCRYSTS: Clasts and basalt interval: Moderately plagioclase-olivine-augite phyric. Equant to tabular plagioclase phenocrysts (4%, 1-4 mm). Equant olivine phenocrysts (0.5%, 0.5-3 mm) altered to clay. Black augite (0.5-1% 0.5-1 mm) commonly intergrown with plagioclase.
GROUNDMASS: Microcrystalline plagioclase laths 0.1-0.2 mm and altered olivine microlites (0.1-0.2 mm), cryptocrystalline chilled margins with glassy selvedges.
VESICLES: Variably nonvesicular to sparsely vesicular clasts and basalt, spherical, 0.3-0.8 mm, 0.5-2 vol%, variably filled with clays.
ALTERATION: Highly variable clast alteration. Most basaltic clasts show gray background with brown to light brownish gray halos. Pc 10 completed consumed by dark brown halo. Glass clasts variably altered to yellowish red, reddish yellow and yellow clays
VEINS:

393-U1583F-23R-1-A, 120-136 cm
UNIT: 7A
LITHOLOGY: moderately plagioclase-olivine-augite phyric basalt
TEXTURE: Moderately phyric glassy to microcrystalline lava
COLOR: GLEY 1 5/N (gray)
PHENOCRYSTS: Moderately plagioclase-olivine-augite phyric. Equant to tabular plagioclase phenocrysts (4%, 1-4 mm). Equant olivine phenocrysts (1%, 0.5-3 mm) altered to clay. Black augite (0.5% 0.5-1 mm) commonly intergrown with plagioclase.
GROUNDMASS: Microcrystalline plagioclase laths 0.1-0.2 mm and altered olivine microlites (0.1-0.2 mm), cryptocrystalline inner chilled margin with glassy selvedge.
VESICLES: Sparsely vesicular, spherical, 0.3-0.8 mm, 1 vol%, variably filled with clays.
ALTERATION: Slightly mottled background alteration. Multiple halos related to chilled margin- reddish yellow to dark bluish gray
VEINS: Veins up to 0.5mm; compositions of carbonate, clay, and Iron oxyhydroxide

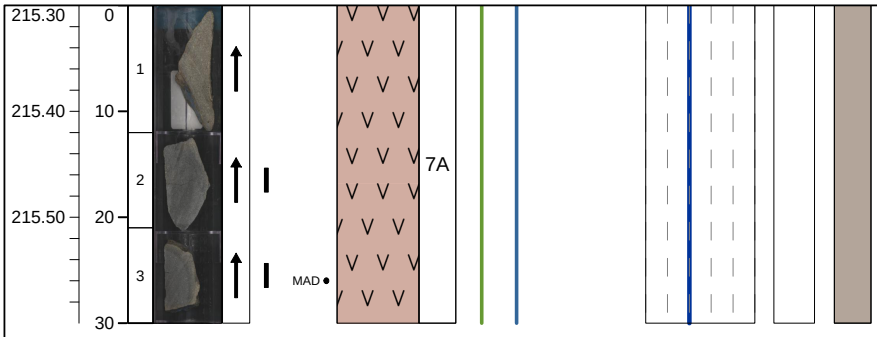
Hole 393-U1583F-24R Section 1, Top of Section: 210.4 m (CSF-A)



Description

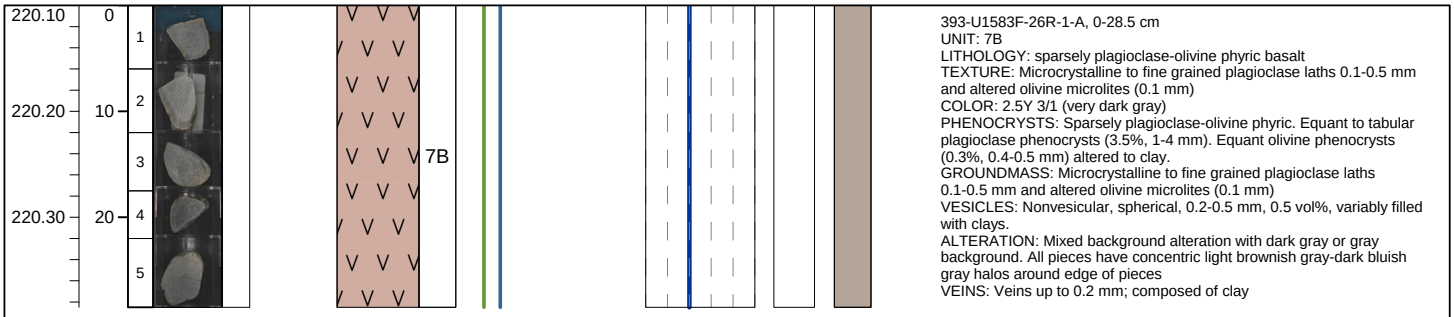
393-U1583F-24R-1-A, 0-111 cm
UNIT: 7A
LITHOLOGY: moderately plagioclase-olivine-augite phyric basalt
TEXTURE: Moderately phyric glassy to microcrystalline lava
COLOR: GLEY 1 5/N (gray)
PHENOCRYSTS: Moderately plagioclase-olivine-augite phyric. Equant to tabular plagioclase phenocrysts (4%, 1-4 mm). Equant olivine phenocrysts (1%, 0.5-3 mm) altered to clay. Black augite (0.5% 0.5-1 mm) commonly intergrown with plagioclase.
GROUNDMASS: Microcrystalline plagioclase laths 0.1-0.2 mm and altered olivine microlites (0.1-0.2 mm), cryptocrystalline inner chilled margin with glassy selvedge.
VESICLES: Sparsely vesicular, spherical, 0.2-0.5 mm, 1 vol%, variably filled with clays.
ALTERATION: Uniform gray background. Extensive brown to dark brown/dark gray halos with dark gray forming irregular areas away from piece edges. Light brownish gray-dark bluish grey around veins and edges of pieces
VEINS: Veins up to 0.5 mm; compositions of carbonate, zeolite, clay, sediment, and Iron oxyhydroxide

Hole 393-U1583F-25R Section 1, Top of Section: 215.3 m (CSF-A)



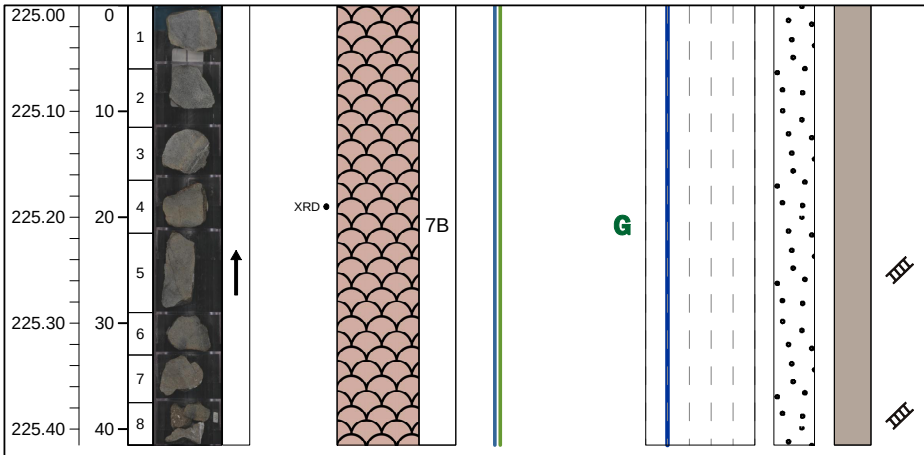
393-U1583F-25R-1-A, 0-30 cm
UNIT: 7A
LITHOLOGY: sparsely plagioclase-olivine phyric basalt
TEXTURE: Sparsely phyric microcrystalline lava
COLOR: GLEY 1 5/N (gray)
PHENOCRYSTS: Sparsely plagioclase-olivine phyric. Equant to tabular plagioclase phenocrysts (3.5%, 1-4 mm). Equant olivine phenocrysts (0.3%, 0.4-0.5 mm) altered to clay.
GROUNDMASS: Microcrystalline plagioclase laths 0.1-0.2mm and altered olivine microlites (0.1 mm)
VESICLES: Nonvesicular, spherical, 0.2-0.5 mm, 0.5 vol%, variably filled with clays.
ALTERATION: Gray background alteration with dark grey (brown) halo in pc 1. Light brownish gray-dark bluish grey halos around veins and edges in pc2-3
VEINS: Veins up to 0.5 mm; compositions of zeolite, clay, and Iron oxyhydroxide.

Hole 393-U1583F-26R Section 1, Top of Section: 220.1 m (CSF-A)



393-U1583F-26R-1-A, 0-28.5 cm
UNIT: 7B
LITHOLOGY: sparsely plagioclase-olivine phyric basalt
TEXTURE: Microcrystalline to fine grained plagioclase laths 0.1-0.5 mm and altered olivine microlites (0.1 mm)
COLOR: 2.5Y 3/1 (very dark gray)
PHENOCRYSTS: Sparsely plagioclase-olivine phyric. Equant to tabular plagioclase phenocrysts (3.5%, 1-4 mm). Equant olivine phenocrysts (0.3%, 0.4-0.5 mm) altered to clay.
GROUNDMASS: Microcrystalline to fine grained plagioclase laths 0.1-0.5 mm and altered olivine microlites (0.1 mm)
VESICLES: Nonvesicular, spherical, 0.2-0.5 mm, 0.5 vol%, variably filled with clays.
ALTERATION: Mixed background alteration with dark gray or gray background. All pieces have concentric light brownish gray-dark bluish gray halos around edge of pieces
VEINS: Veins up to 0.2 mm; composed of clay

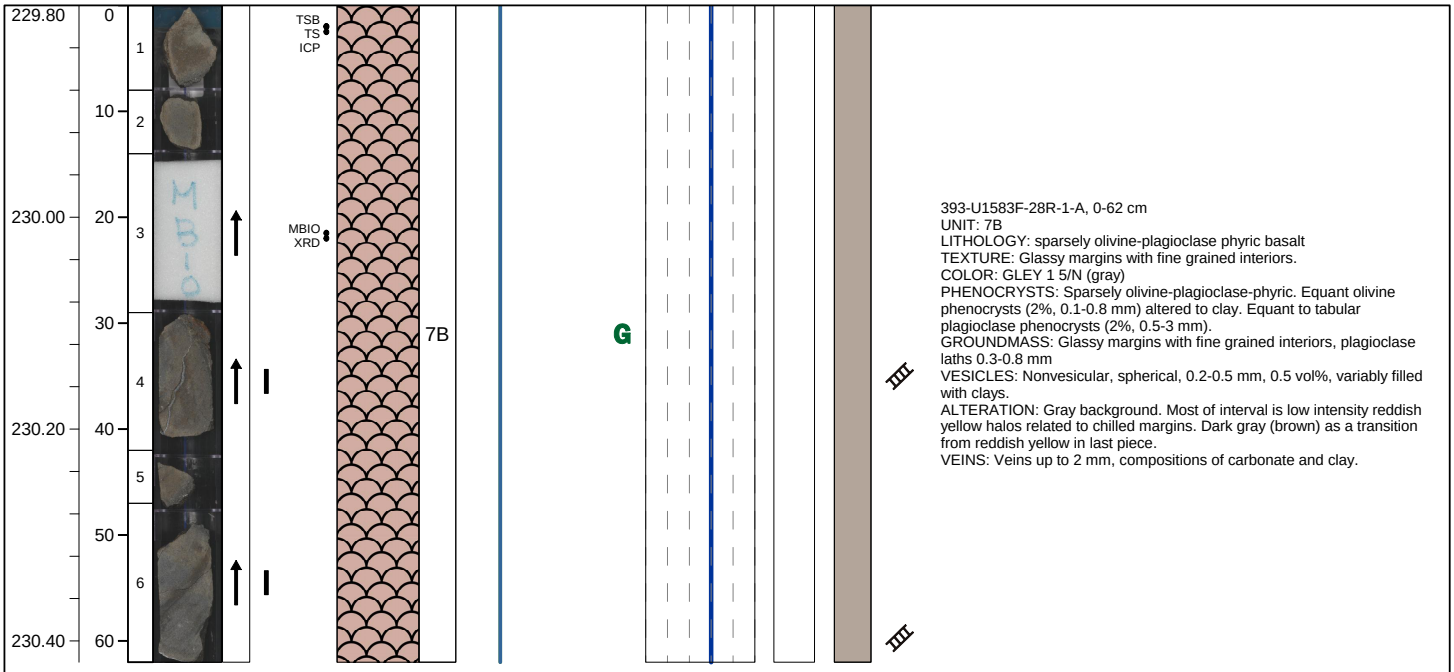
Hole 393-U1583F-27R Section 1, Top of Section: 225.0 m (CSF-A)



Description

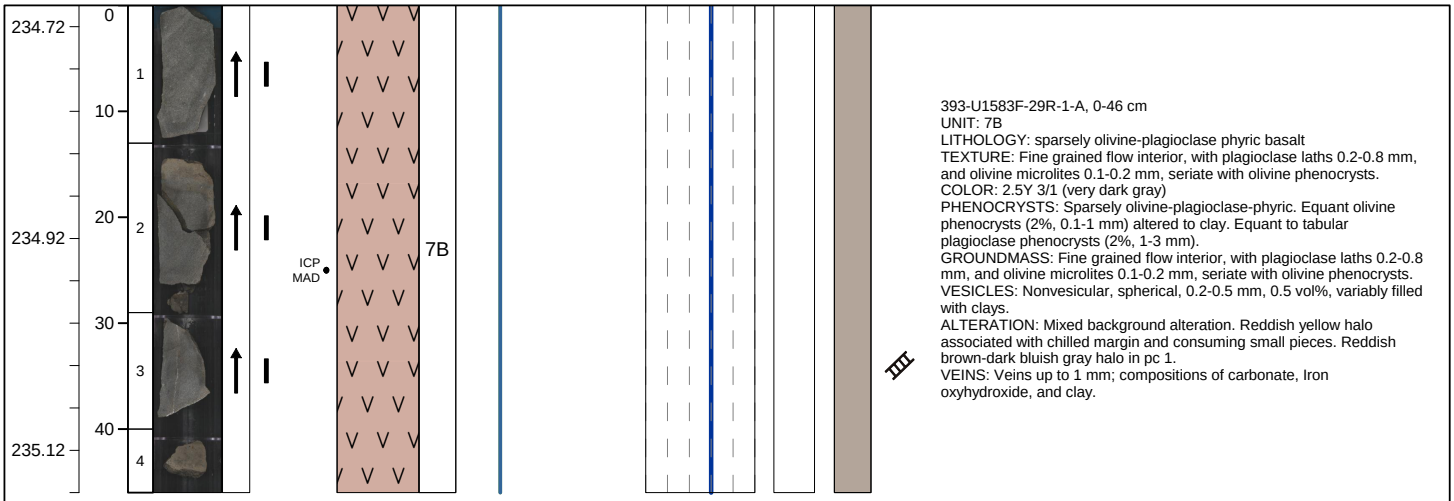
393-U1583F-27R-1-A, 0-41.5 cm
UNIT: 7B
LITHOLOGY: sparsely olivine-plagioclase phyric basalt
TEXTURE: Cryptocrystalline to microcrystalline interior groundmasses and glassy margins
COLOR: 2.5Y 3/1 (very dark gray)
PHENOCRYSTS: Sparsely olivine-plagioclase-phyric. Equant olivine phenocrysts (2%, 0.2-0.5 mm) mostly altered to clay, rare fresh examples. Equant to tabular plagioclase phenocrysts (1.5%, 0.3-1.5 mm).
GROUNDMASS: Cryptocrystalline to microcrystalline interior groundmasses and glassy margins
VESICLES: Sparsely vesicular, spherical, 0.2-0.5 mm, 1 vol% average but variable from piece to piece (0.5-2%), variably filled with clays.
ALTERATION: Mixed background alteration. Patchy reddish yellow halos in most pieces. Light brownish gray in pc1
VEINS: Veins up to 1 mm; compositions of carbonate, zeolite, clay and Iron oxyhydroxide.

Hole 393-U1583F-28R Section 1, Top of Section: 229.8 m (CSF-A)



393-U1583F-28R-1-A, 0-62 cm
UNIT: 7B
LITHOLOGY: sparsely olivine-plagioclase phyric basalt
TEXTURE: Glassy margins with fine grained interiors.
COLOR: GLEY 1 5/N (gray)
PHENOCRYSTS: Sparsely olivine-plagioclase-phyric. Equant olivine phenocrysts (2%, 0.1-0.8 mm) altered to clay. Equant to tabular plagioclase phenocrysts (2%, 0.5-3 mm).
GROUNDMASS: Glassy margins with fine grained interiors, plagioclase laths 0.3-0.8 mm
VESICLES: Nonvesicular, spherical, 0.2-0.5 mm, 0.5 vol%, variably filled with clays.
ALTERATION: Gray background. Most of interval is low intensity reddish yellow halos related to chilled margins. Dark gray (brown) as a transition from reddish yellow in last piece.
VEINS: Veins up to 2 mm, compositions of carbonate and clay.

Hole 393-U1583F-29R Section 1, Top of Section: 234.7 m (CSF-A)



Description

393-U1583F-29R-1-A, 0-46 cm
UNIT: 7B
LITHOLOGY: sparsely olivine-plagioclase phyric basalt
TEXTURE: Fine grained flow interior, with plagioclase laths 0.2-0.8 mm, and olivine microlites 0.1-0.2 mm, seriate with olivine phenocrysts.
COLOR: 2.5Y 3/1 (very dark gray)
PHENOCRYSTS: Sparsely olivine-plagioclase-phyric. Equant olivine phenocrysts (2%, 0.1-1 mm) altered to clay. Equant to tabular plagioclase phenocrysts (2%, 1-3 mm).
GROUNDMASS: Fine grained flow interior, with plagioclase laths 0.2-0.8 mm, and olivine microlites 0.1-0.2 mm, seriate with olivine phenocrysts.
VESICLES: Nonvesicular, spherical, 0.2-0.5 mm, 0.5 vol%, variably filled with clays.
ALTERATION: Mixed background alteration. Reddish yellow halo associated with chilled margin and consuming small pieces. Reddish brown-dark bluish gray halo in pc 1.
VEINS: Veins up to 1 mm; compositions of carbonate, Iron oxyhydroxide, and clay.