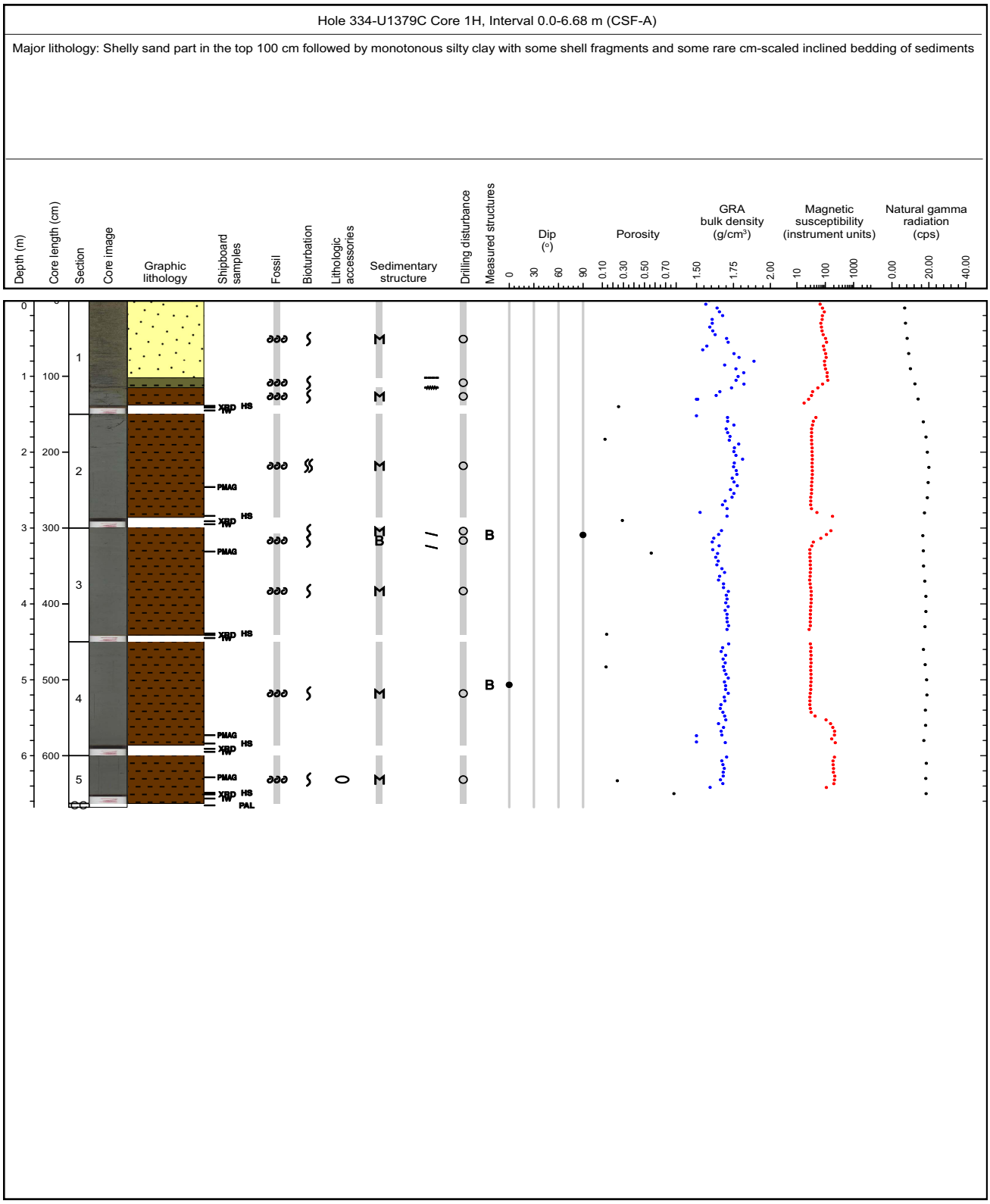
Core Photo

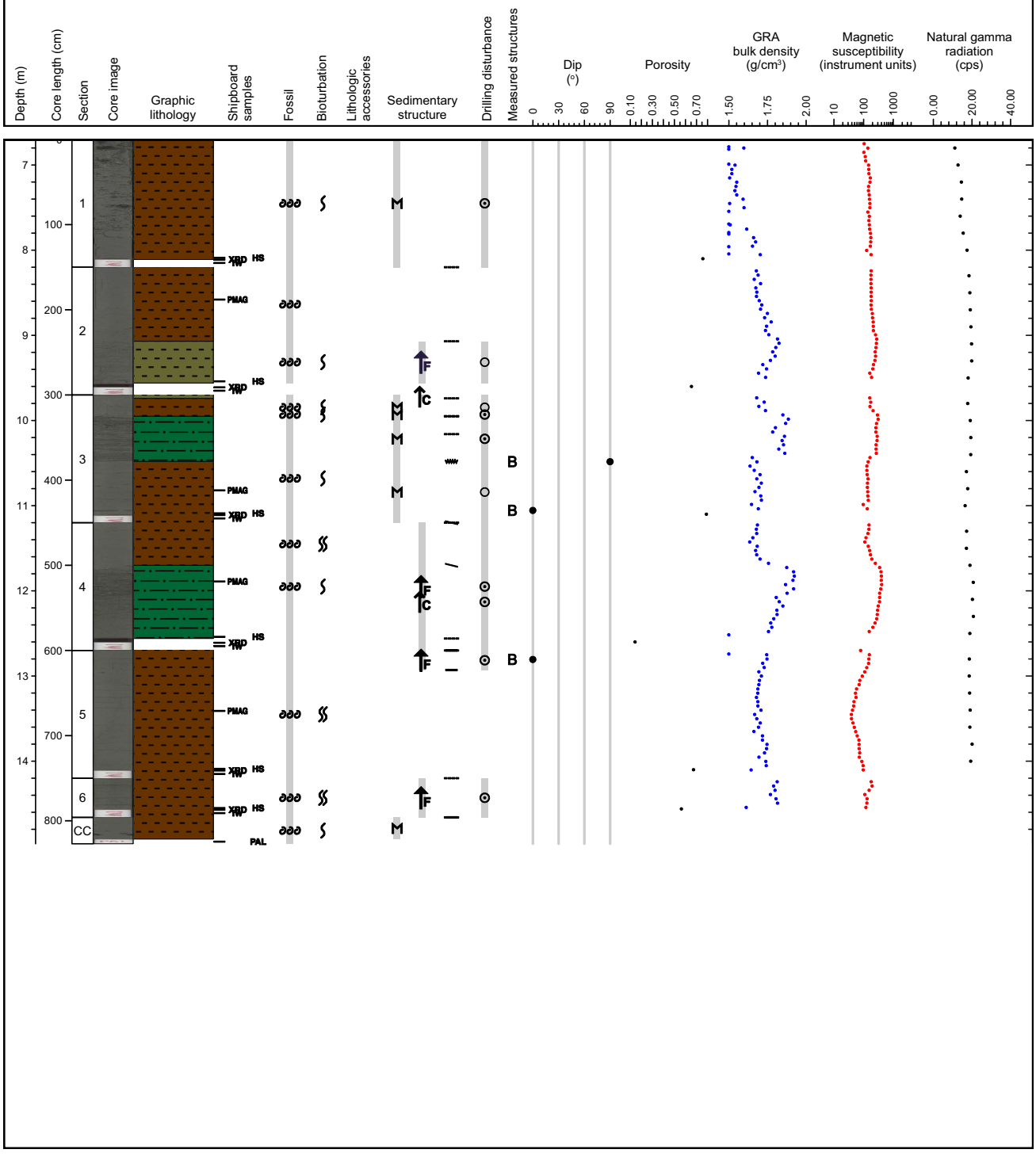
U1379A-11 Drilled interval
U1379B-1H All to sampling
U1379B-2H All to sampling



Core Photo

Hole 334-U1379C Core 2H, Interval 6.7-14.97 m (CSF-A)

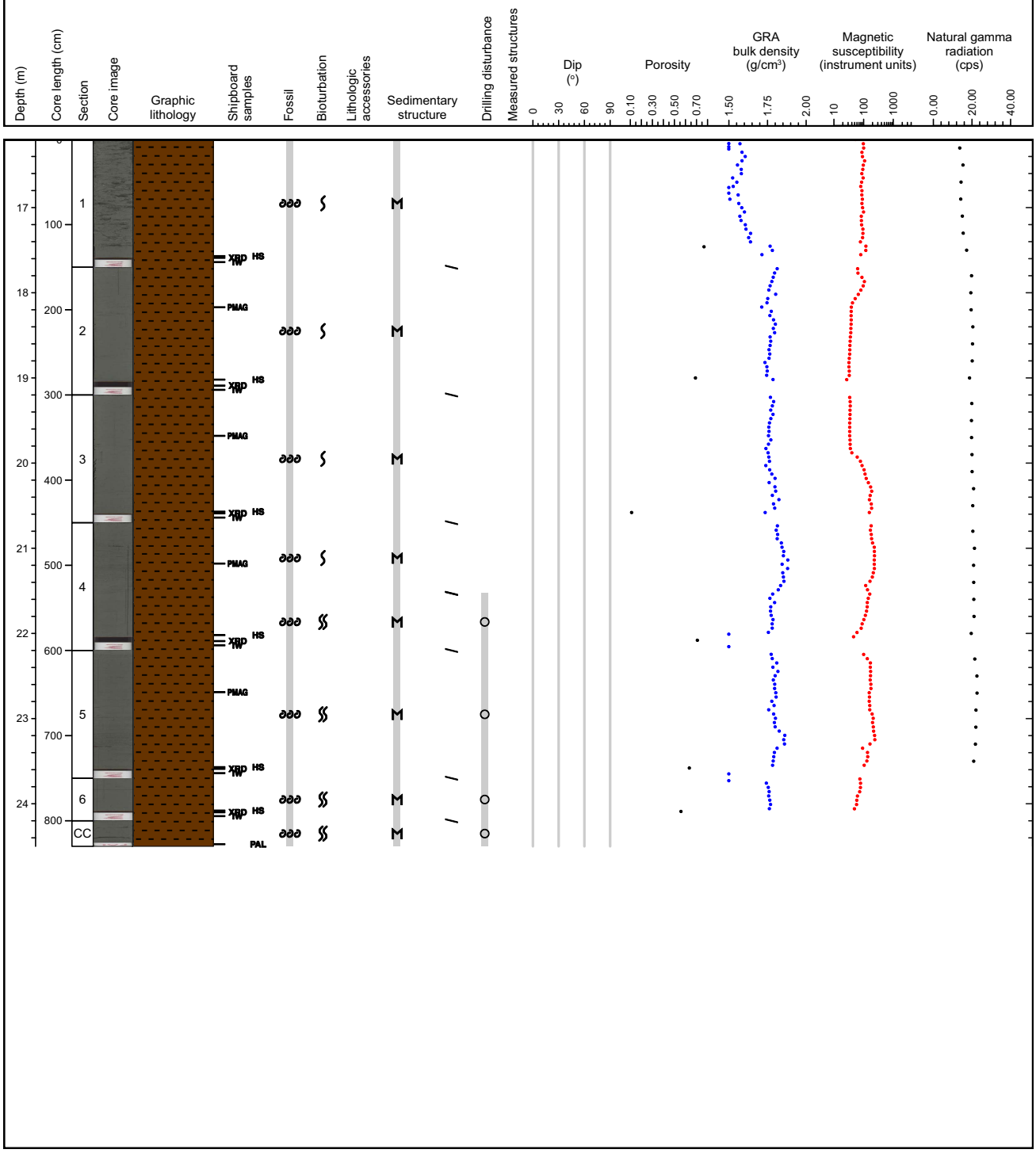
Major lithology: Alternating layers of consolidated clay, silty clay, and sandy clay. Fining-upwards clays towards the core top. In the middle of the core, the coarser layers coarsen upward. Shell fragments present throughout all layers.



Core Photo

Hole 334-U1379C Core 3H, Interval 16.2-24.5 m (CSF-A)

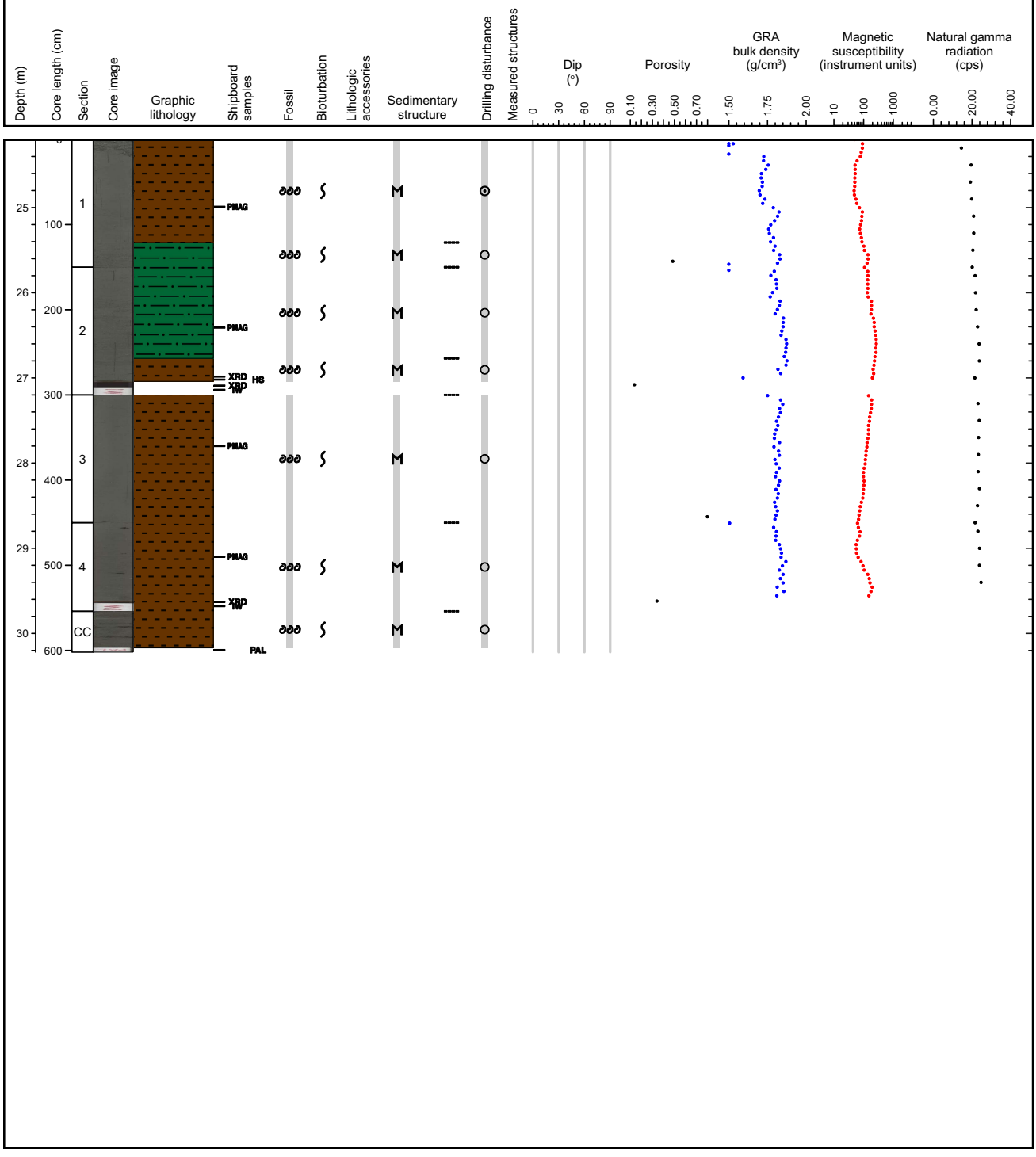
Major lithology: Gray massive clay with shell fragments and, towards the bottom of the core, localized woody debris.



Core Photo

Hole 334-U1379C Core 4H, Interval 24.2-30.22 m (CSF-A)

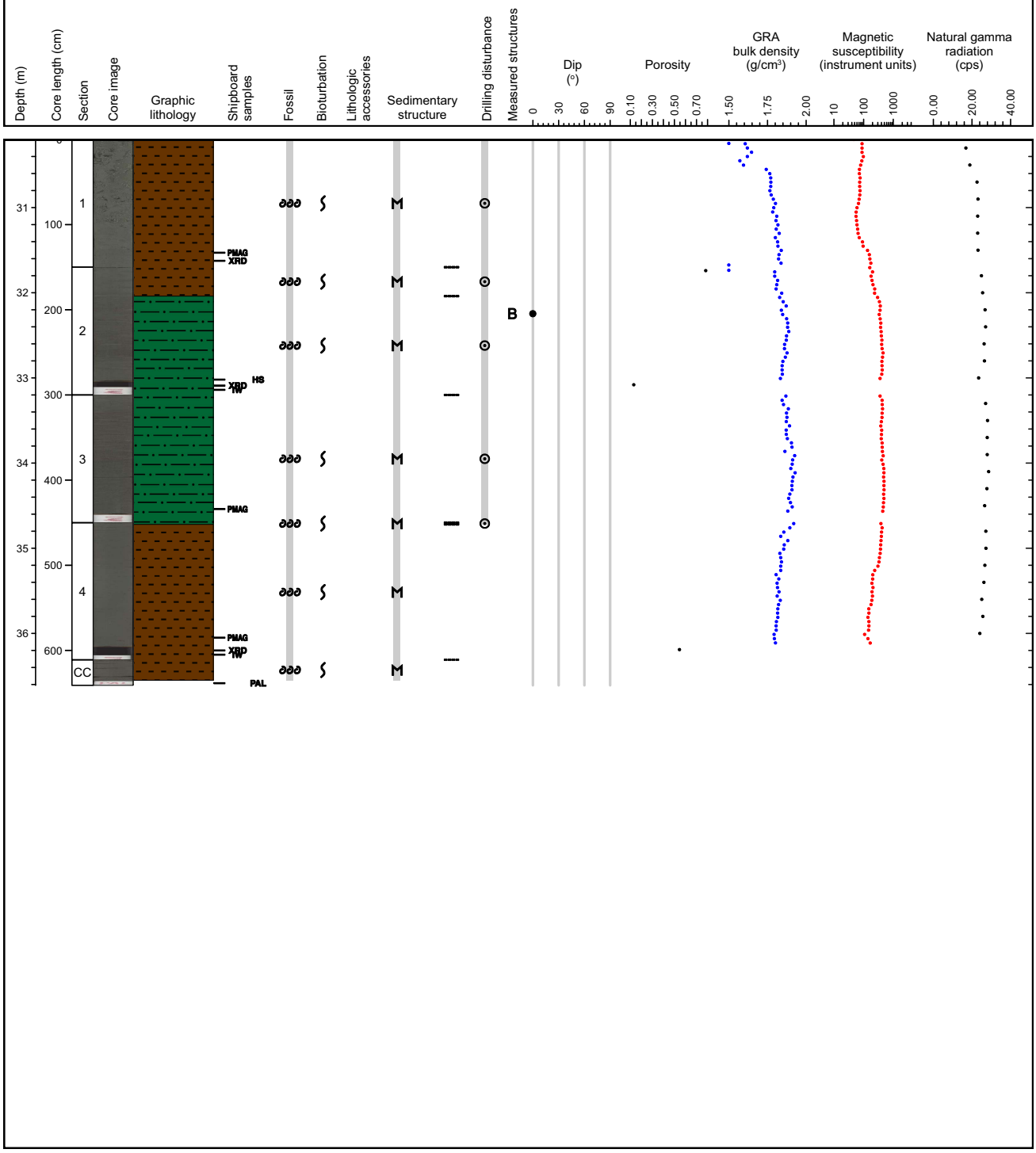
Major lithology: Dray massive clay and sandy clay with shell fragments and localized woody debris.



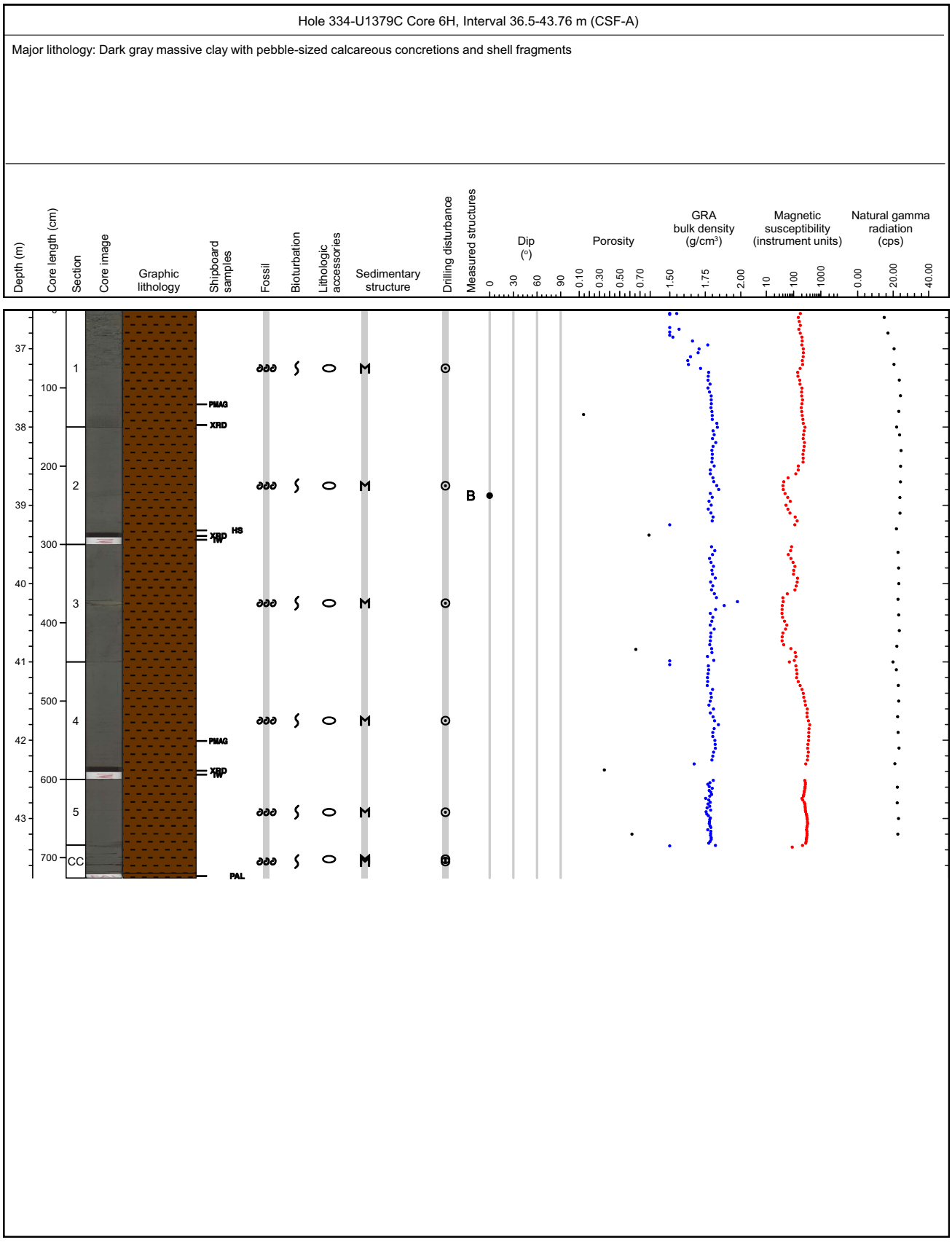
Core Photo

Hole 334-U1379C Core 5H, Interval 30.2-36.61 m (CSF-A)

Major lithology: Dark gray massive clays at the top of the core wich coarse downwards to sandy clays in the middle and then fine downwards back to clays towards the bottom. Frequent shell fragments and localized woody debris.



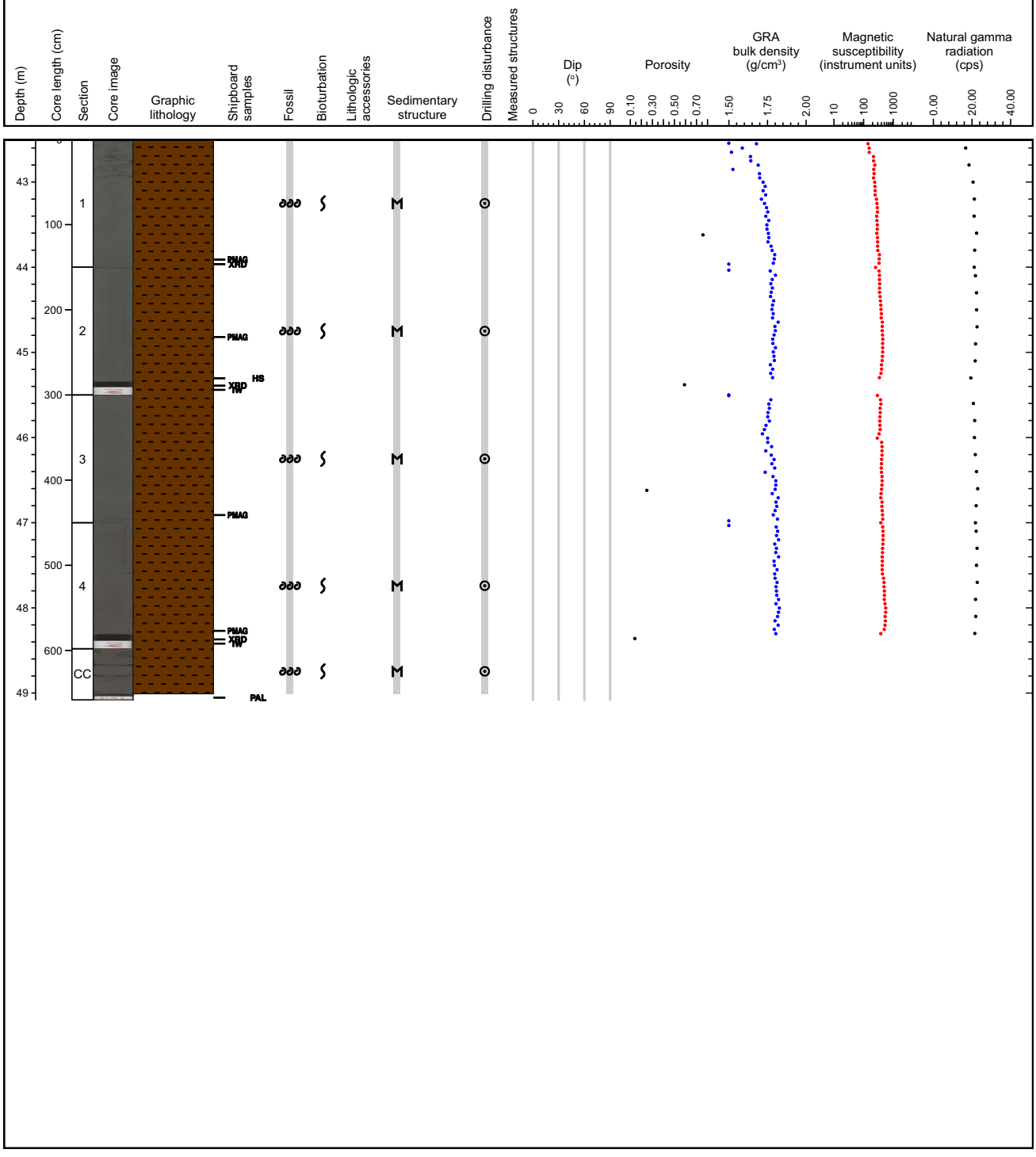
Core Photo


Hole 334-U1379C Core 6H, Interval 36.5-43.76 m (CSF-A)
Major lithology: Dark gray massive clay with pebble-sized calcareous concretions and shell fragments
Depth (m)
Core length (cm)
Section
Core image
Graphic lithology
Shipboard samples
Fossil
Bioturbation
Lithologic accessories
Sedimentary structure
Drilling disturbance
Measured structures
Dip (°)
Porosity
GRA bulk density (g/cm³)
Magnetic susceptibility (instrument units)
Natural gamma radiation (cps)
PMAG
XRD
HS
PAL
B

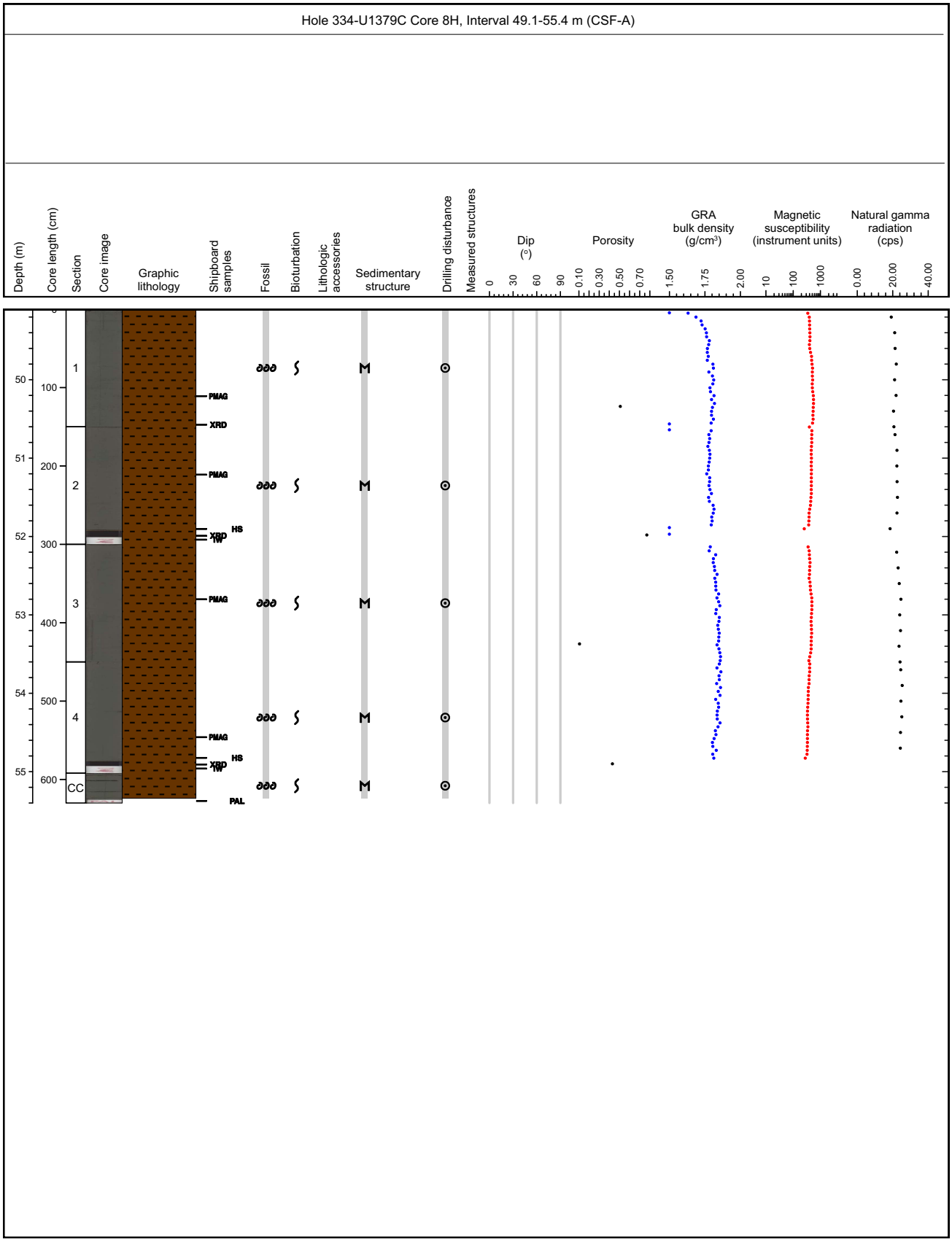
Core Photo

Hole 334-U1379C Core 7H, Interval 42.5-49.08 m (CSF-A)

Major lithology: Dark gray massive clay with few pebble-sized calcareous concretions and shell fragments



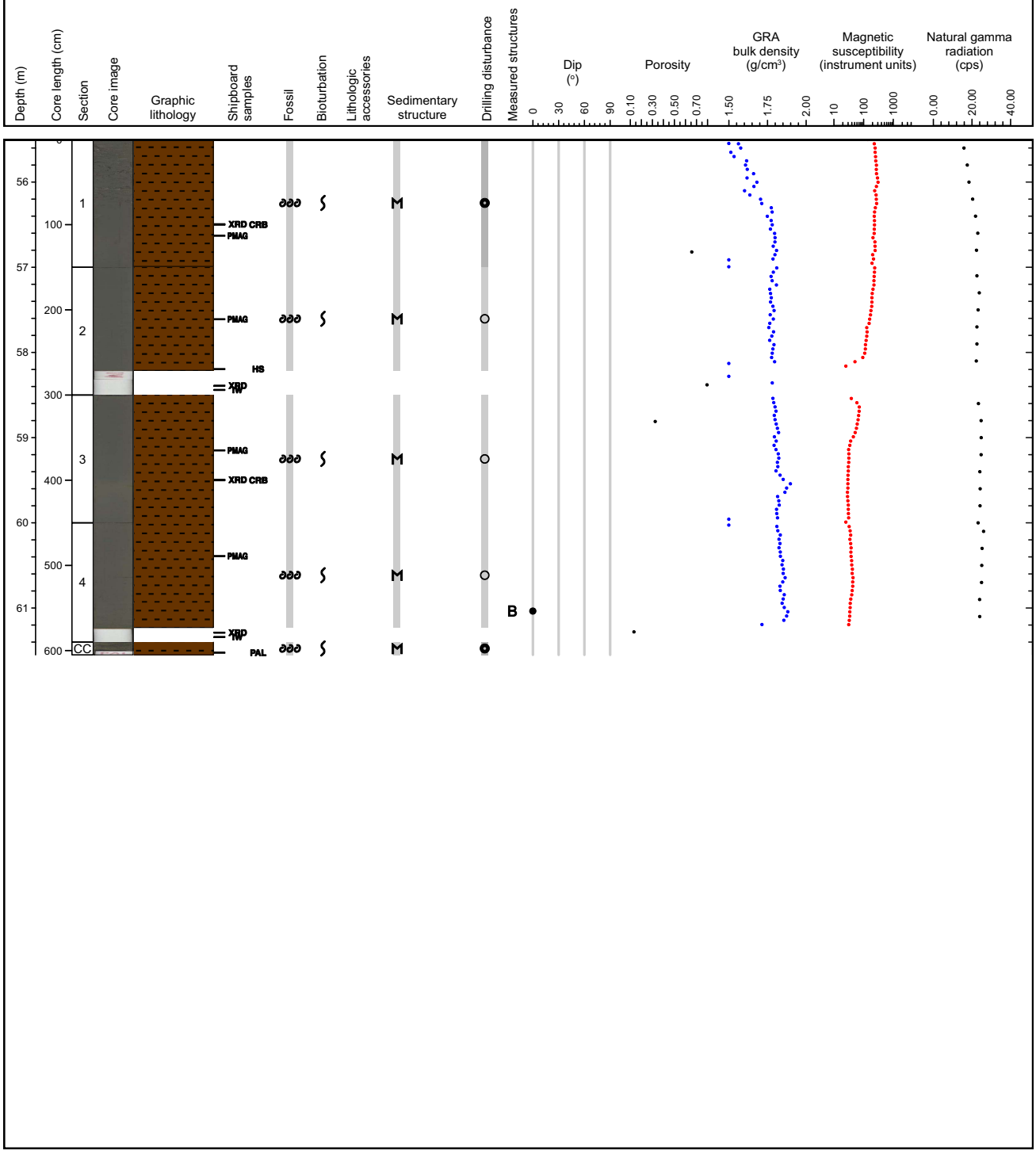
Core Photo


Hole 334-U1379C Core 8H, Interval 49.1-55.4 m (CSF-A)
Depth (m)
Core length (cm)
Section
Core image
Graphic lithology
Shipboard samples
Fossil
Bioturbation
Lithologic accessories
Sedimentary structure
Drilling disturbance
Measured structures
Dip (°)
Porosity
GRA bulk density (g/cm³)
Magnetic susceptibility (instrument units)
Natural gamma radiation (cps)
PMAG
XRD
HS
PAL
CC

Core Photo

Hole 334-U1379C Core 9H, Interval 55.5-61.55 m (CSF-A)

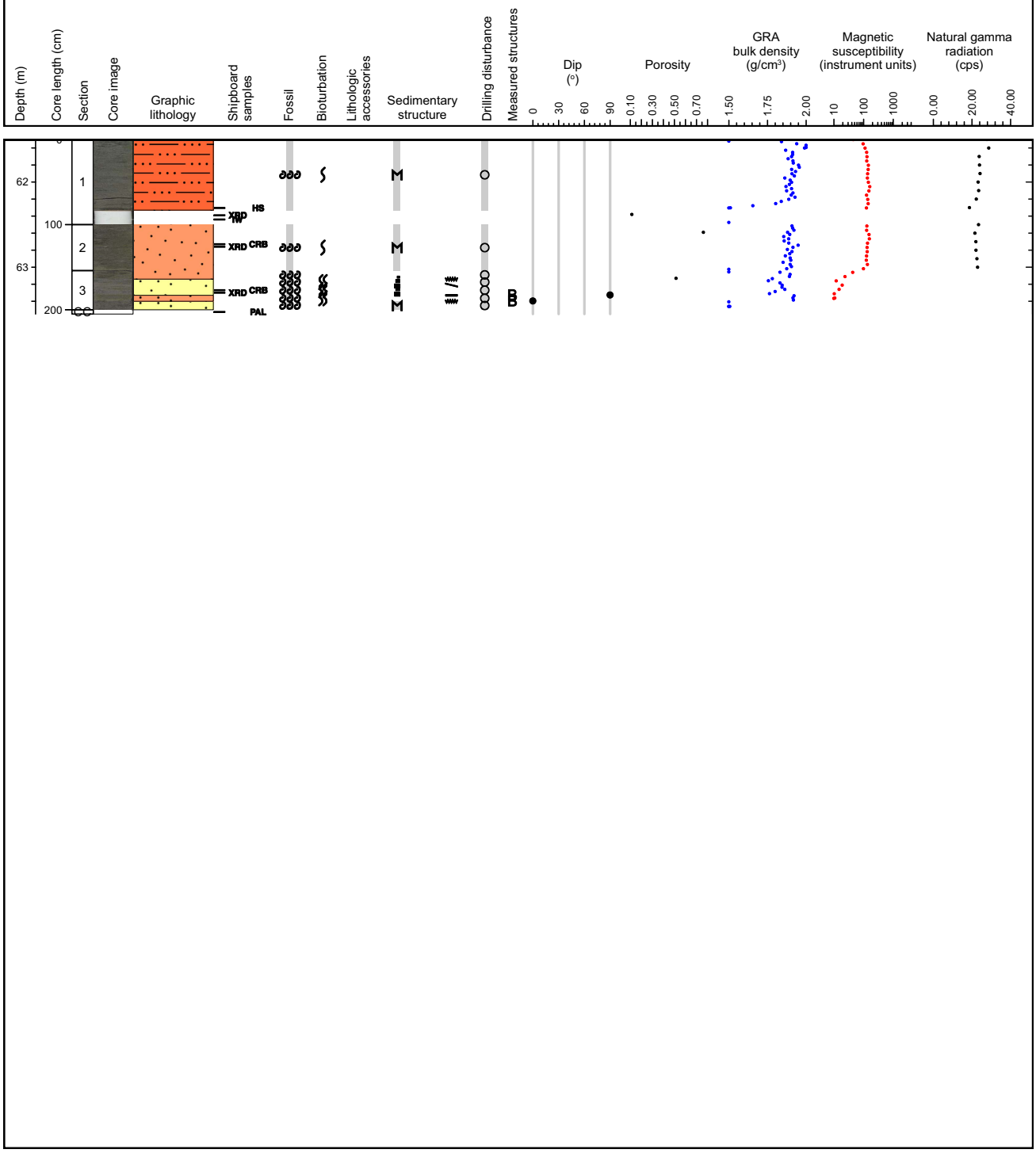
Major lithology: Massive silty-clay layer, Very dark Greenishgray in color. Occational shelly fragments present. Little to no bioturbation. Some drilling distrubance in the first 73cm of core.



Core Photo

Hole 334-U1379C Core 10H, Interval 61.5-63.55 m (CSF-A)

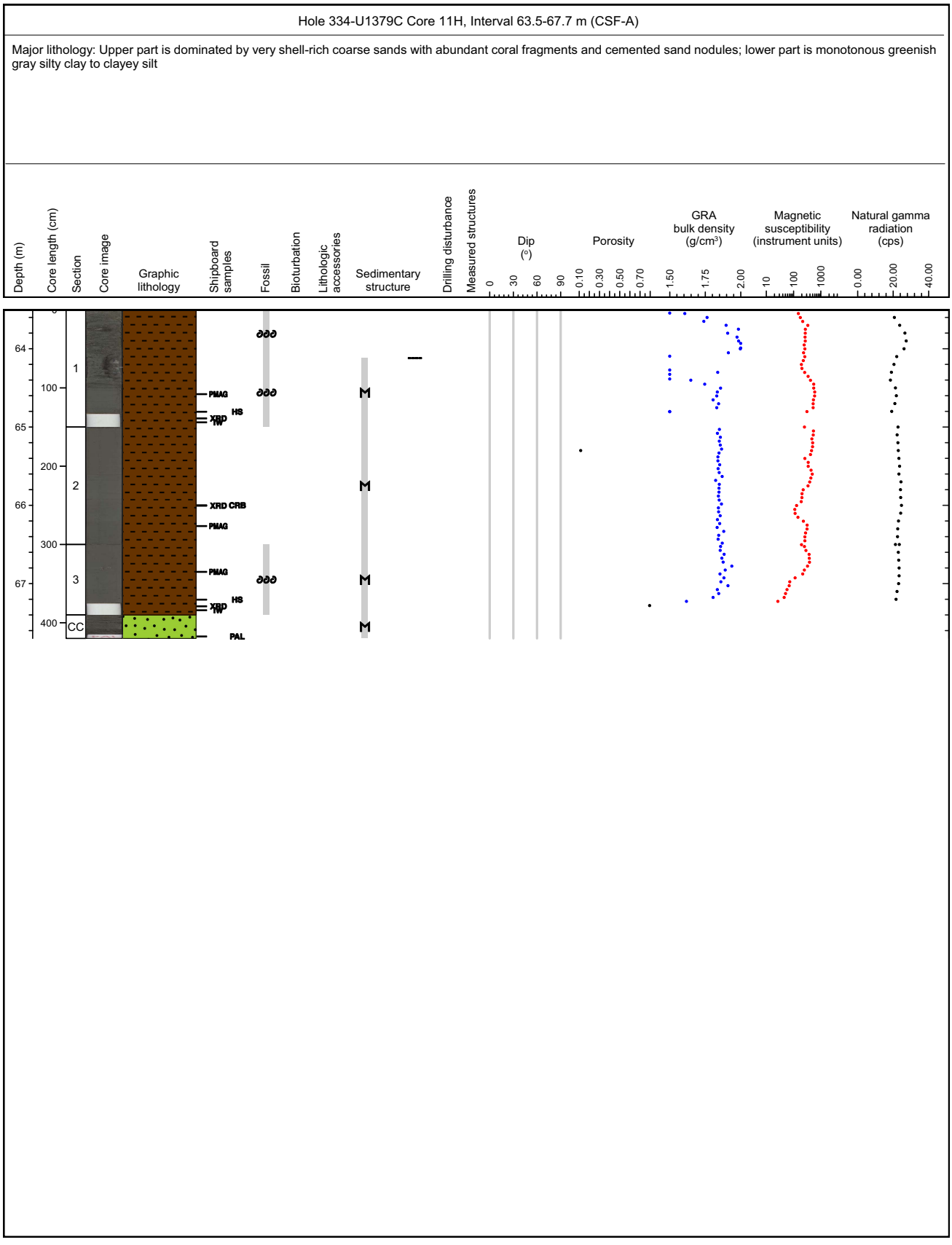
Major lithology: Sequence of shell rich sand layers. Some layers display fining upwards sequences. Varies in color from dark greenish gray to dark gray. Some larger Gastropod specimen occur



Core Photo

Hole 334-U1379C Core 11H, Interval 63.5-67.7 m (CSF-A)

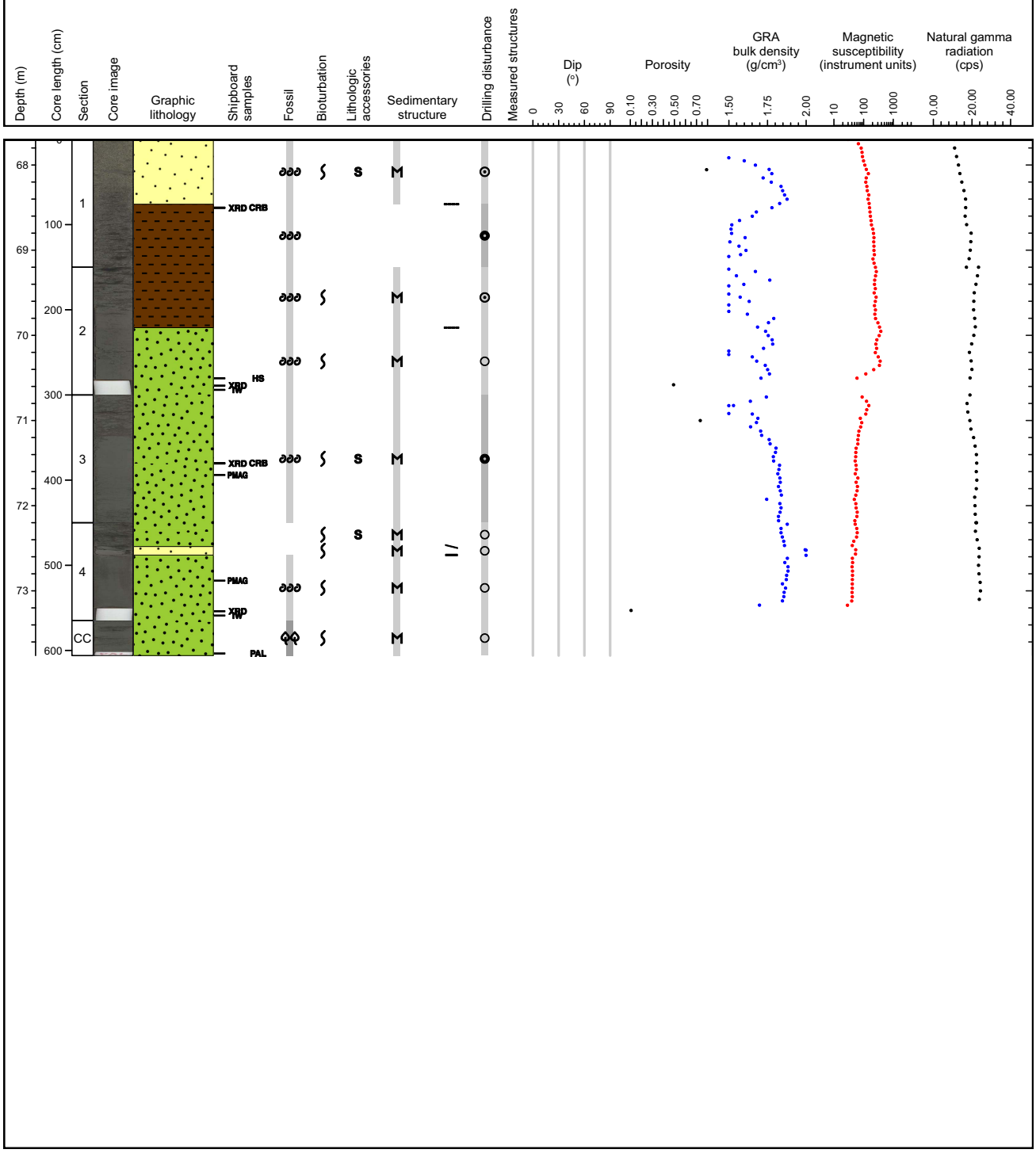
Major lithology: Upper part is dominated by very shell-rich coarse sands with abundant coral fragments and cemented sand nodules; lower part is monotonous greenish gray silty clay to clayey silt



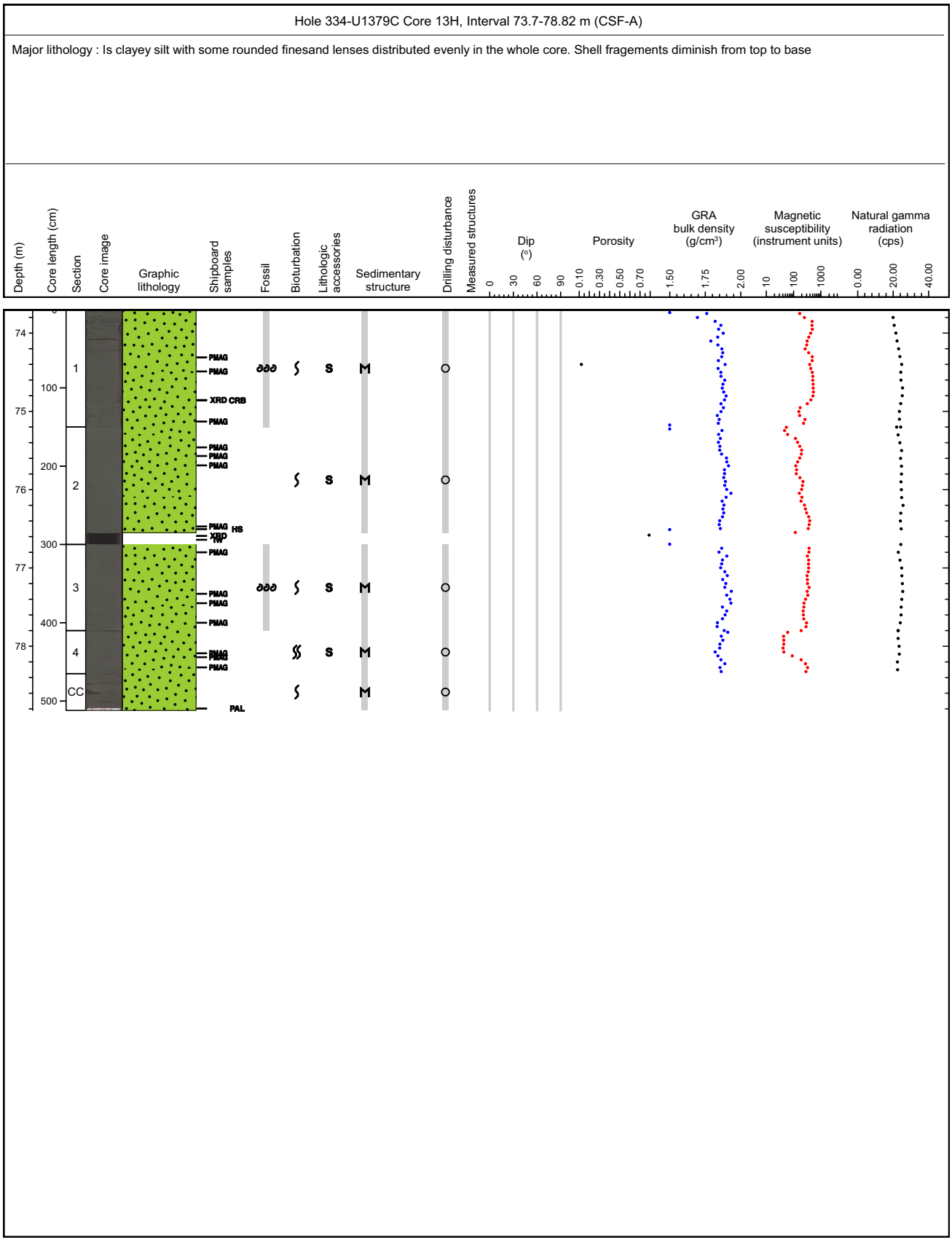
Core Photo

Hole 334-U1379C Core 12H, Interval 67.7-73.76 m (CSF-A)

Major lithology: Coarser sequence with shell-dominated coarse sand at the top and more terrigenous silt up to fine sandstone at the base. Shell fragemnts are still observable but getting more and more rare. Sediments are consolidated exept when drilling disturbance occurs.



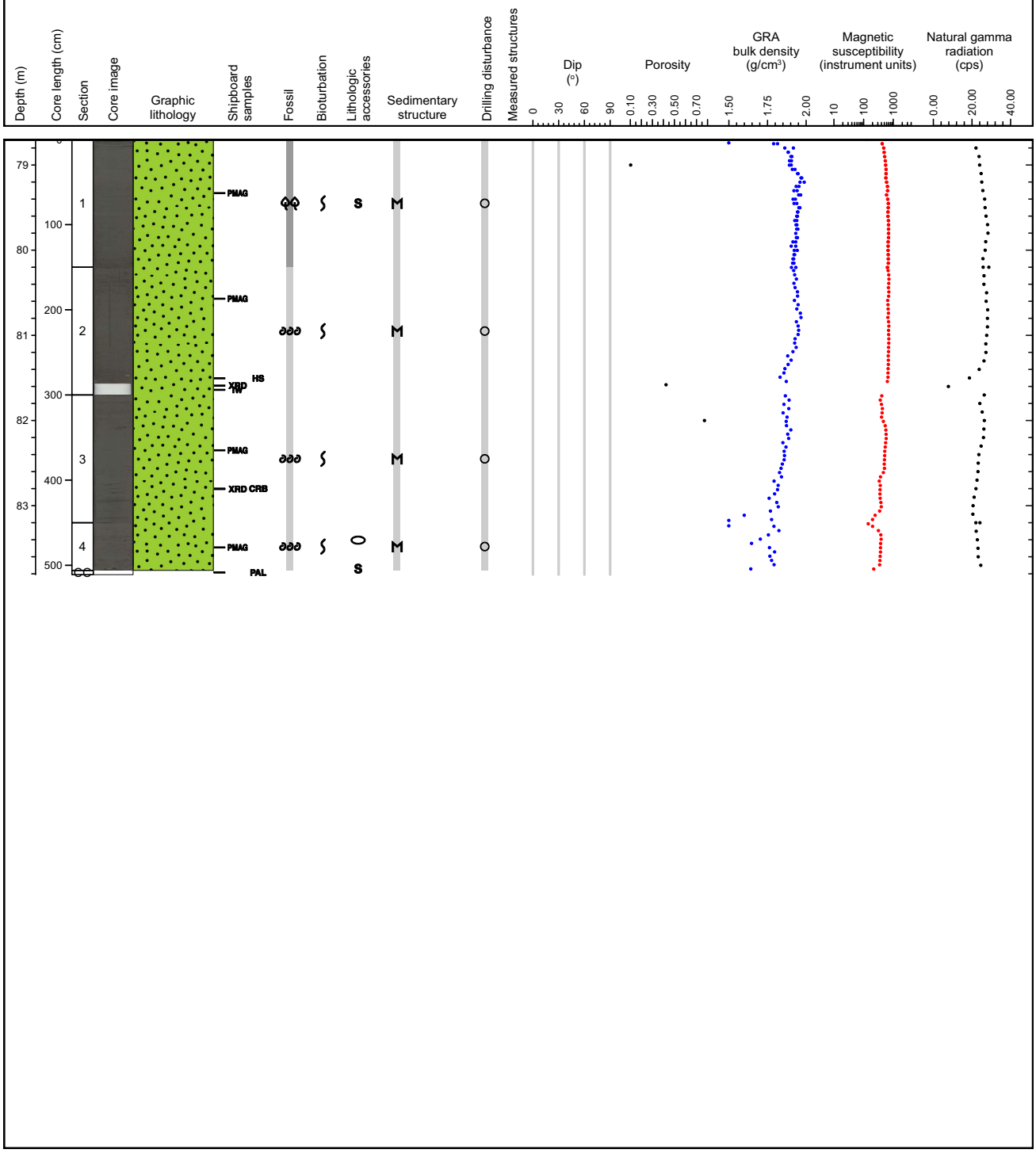
Core Photo


Hole 334-U1379C Core 13H, Interval 73.7-78.82 m (CSF-A)
Major lithology : Is clayey silt with some rounded finesand lenses distributed evenly in the whole core. Shell fragements diminish from top to base
Depth (m)
Core length (cm)
Section
Core image
Graphic lithology
Shipboard samples
Fossil
Bioturbation
Lithologic accessories
Sedimentary structure
Drilling disturbance
Measured structures
Dip (°)
Porosity
GRA bulk density (g/cm³)
Magnetic susceptibility (instrument units)
Natural gamma radiation (cps)
PMAG
XRD CRB
HS
XRD
TW
PAL
1
2
3
4
CC

Core Photo

Hole 334-U1379C Core 14H, Interval 78.7-83.81 m (CSF-A)

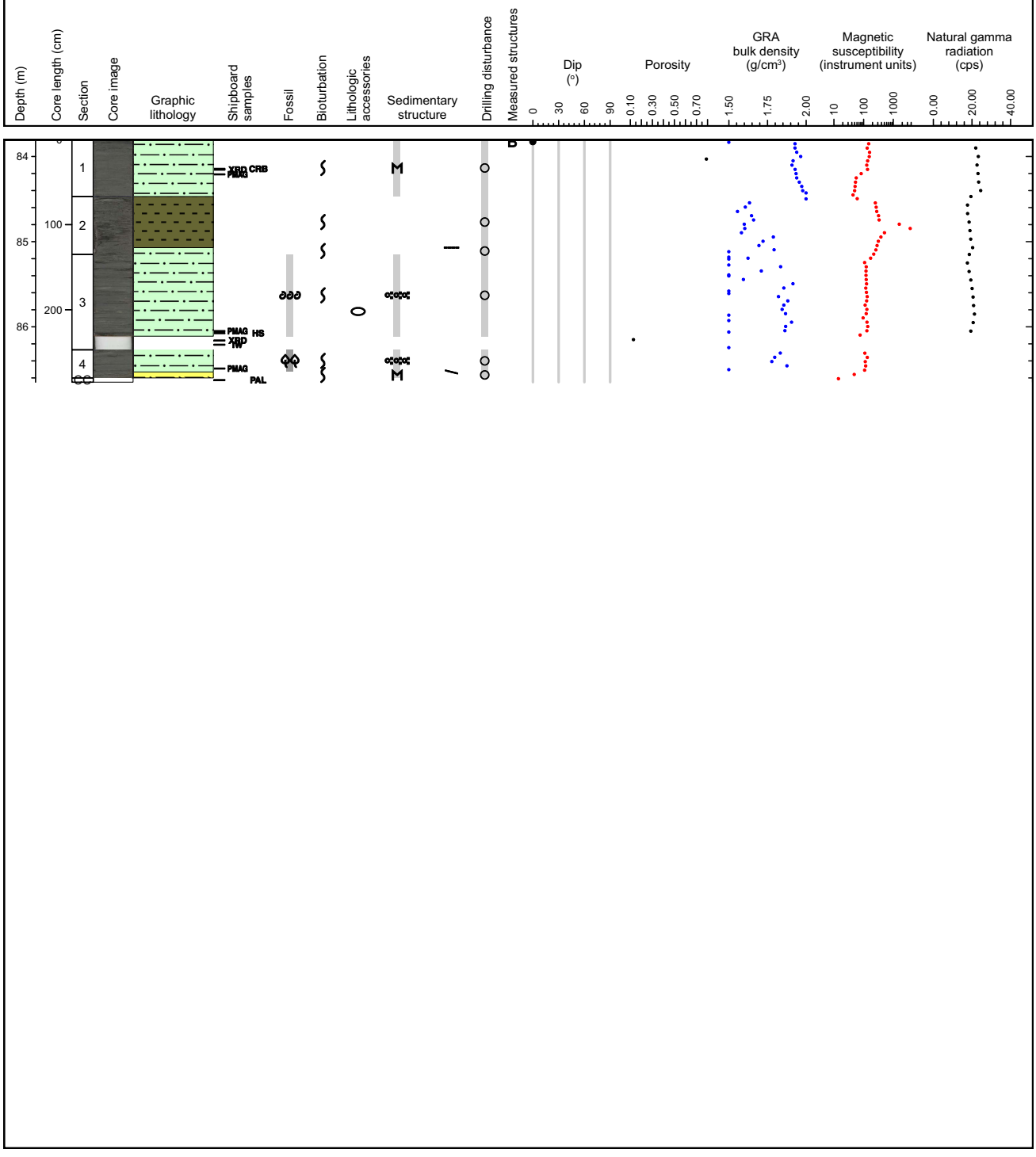
Major lithology: Massive deposit of clayey silt, Greenish gray in color. Contains little to no bioturbation. Shelly fragments apparent in some areas, but relatively rare. One small pyrite concretion between 19cm and 22cm. Carbonate concretion present 52cm to 56cm.



Core Photo

Hole 334-U1379C Core 15H, Interval 83.8-86.65 m (CSF-A)

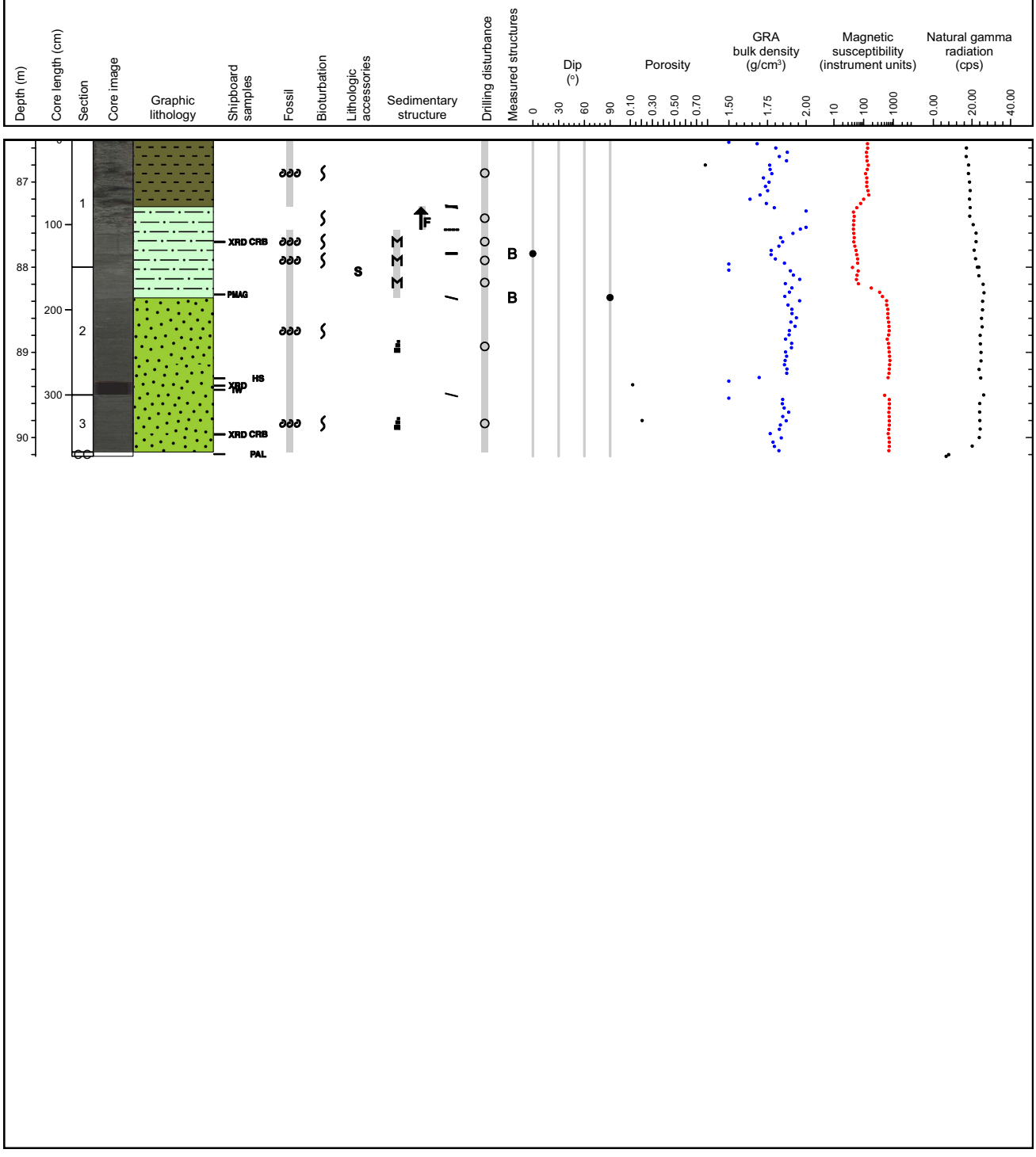
Major lithology: Greenish gray to grayish clayey silt to silty clay sediments that have abundant discontinous beds consisting out of carbonate mud. Between 84.47 and 84.57 cm there is an enrichment of hardend carbonate mud clasts within in a horizon. The abundance of thoses hardend clasts decrease toward the base of the core. Some rare shell fragments and wood fragments occur in section 3 and 4, respectively



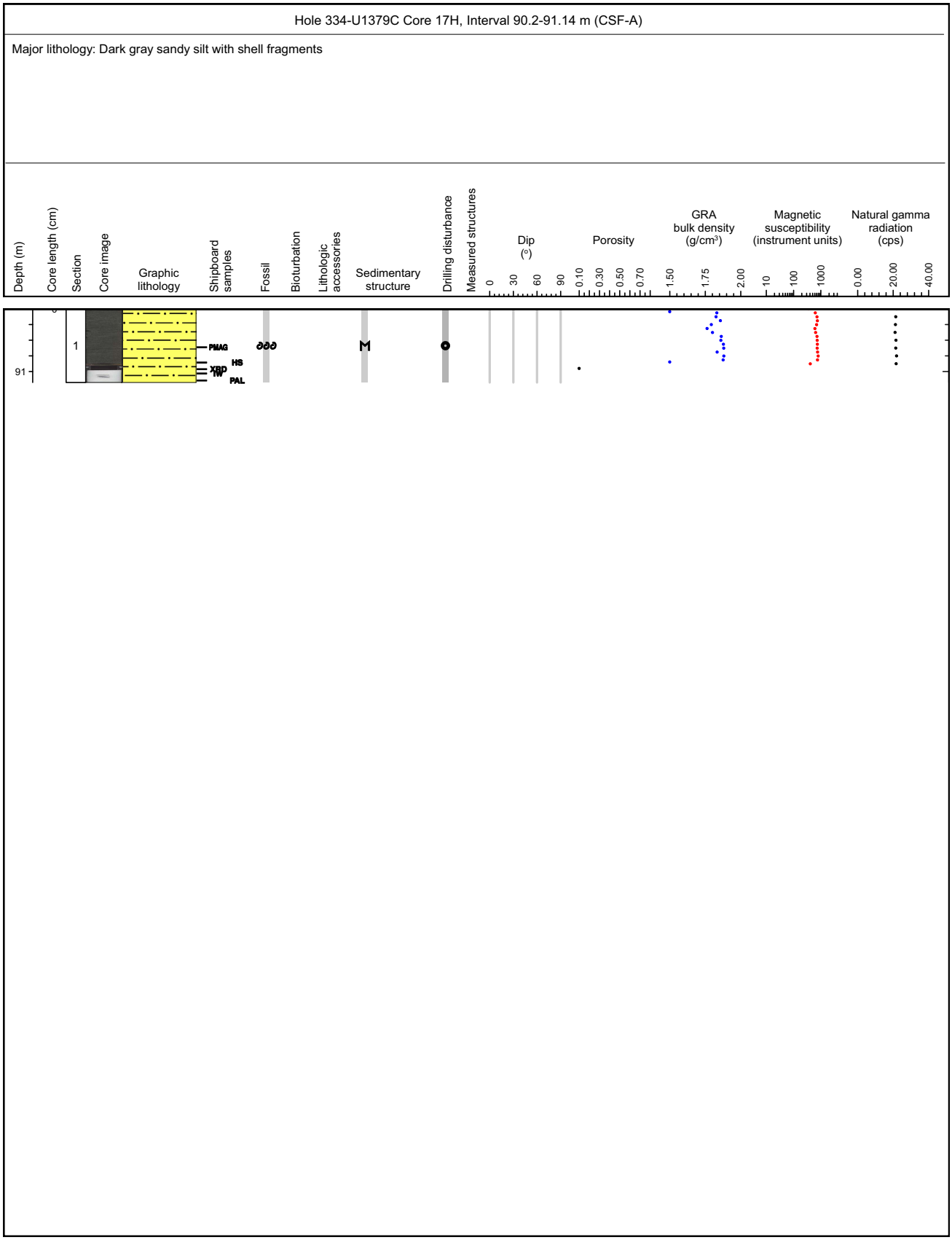
Core Photo

Hole 334-U1379C Core 16H, Interval 86.5-90.22 m (CSF-A)

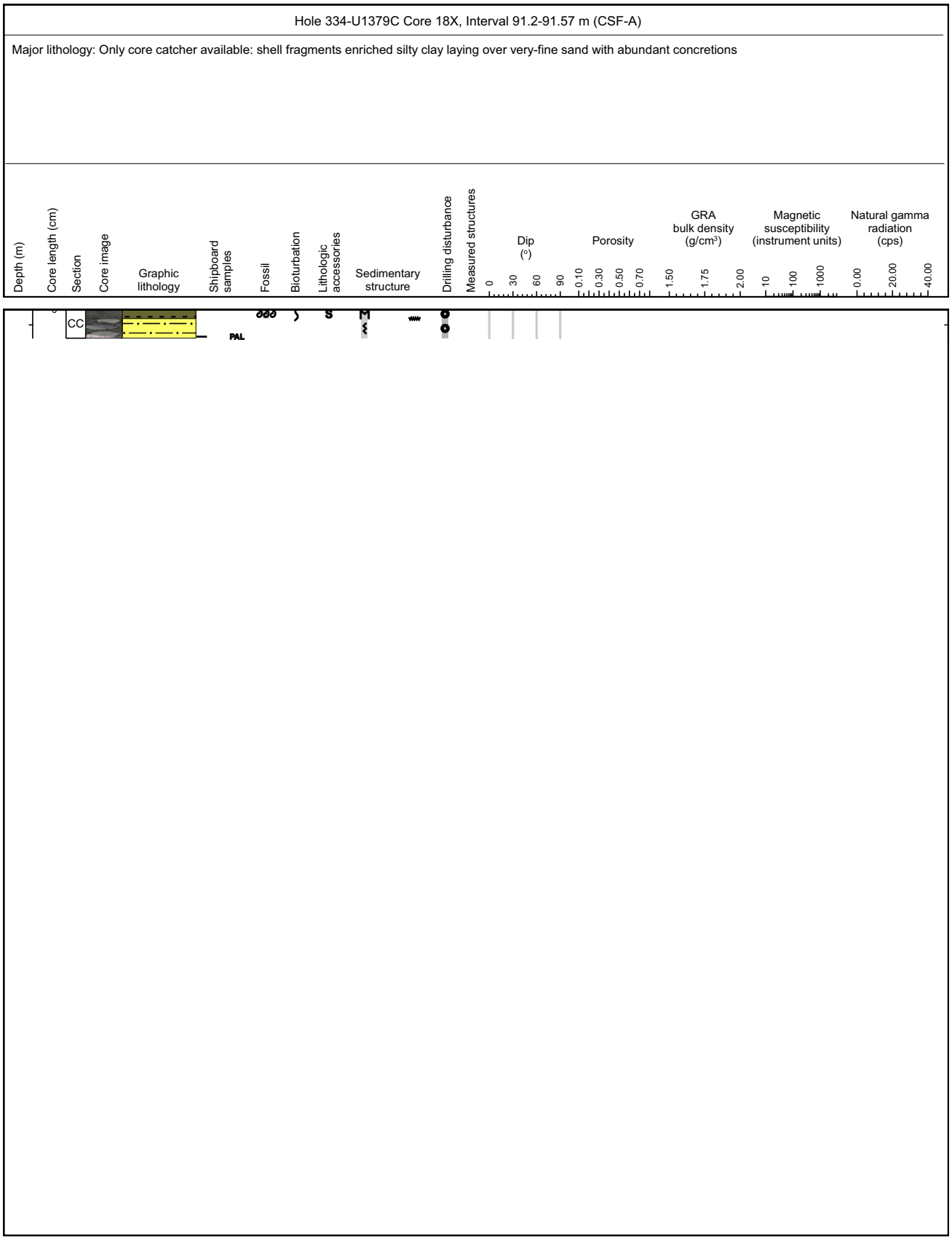
Major lithology: Greenish gray to grayish clayey silt to silty clay sediments that have abundant discontinous beds consisting out of carbonate mud. Between 87.29cm and 87.56cm there is an enrichment of hardend carbonate mud clasts within in a horizon. The abundance of thoses hardend clasts decrease toward the base of the core. Some rare shell fragments occur thoughout the core. lower part of the core is dominated by coarser (Sandy silt to fine sand) sediment.



Core Photo


Hole 334-U1379C Core 17H, Interval 90.2-91.14 m (CSF-A)
Major lithology: Dark gray sandy silt with shell fragments
Depth (m)
Core length (cm)
Section
Core image
Graphic lithology
Shipboard samples
Fossil
Bioturbation
Lithologic accessories
Sedimentary structure
Drilling disturbance
Measured structures
Dip (°)
Porosity
GRA bulk density (g/cm³)
Magnetic susceptibility (instrument units)
Natural gamma radiation (cps)
0
30
60
90
0.10
0.30
0.50
0.70
1.50
1.75
2.00
10
100
1000
0.00
20.00
40.00
91
1
PMAG
HS
XRD
PAL

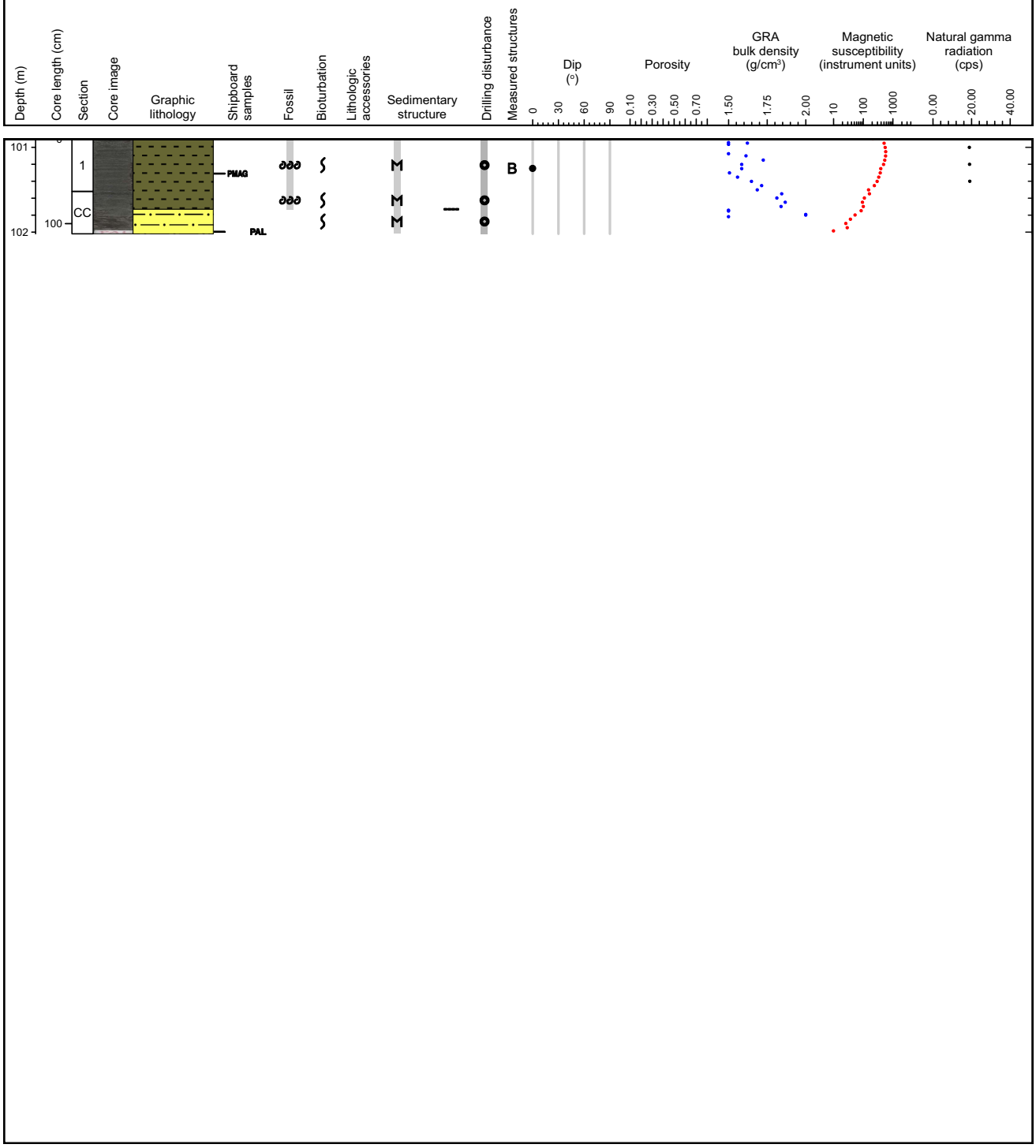
Core Photo


Hole 334-U1379C Core 18X, Interval 91.2-91.57 m (CSF-A)
Major lithology: Only core catcher available: shell fragments enriched silty clay laying over very-fine sand with abundant concretions
Depth (m)
Core length (cm)
Section
Core image
Graphic lithology
Shipboard samples
Fossil
Bioturbation
Lithologic accessories
Sedimentary structure
Drilling disturbance
Measured structures
Dip (°)
0
30
60
90
Porosity
0.10
0.30
0.50
0.70
GRA bulk density (g/cm³)
1.50
1.75
2.00
Magnetic susceptibility (instrument units)
10
100
1000
Natural gamma radiation (cps)
0.00
20.00
40.00
CC
PAL

Core Photo

Hole 334-U1379C Core 19X, Interval 100.9-102.02 m (CSF-A)

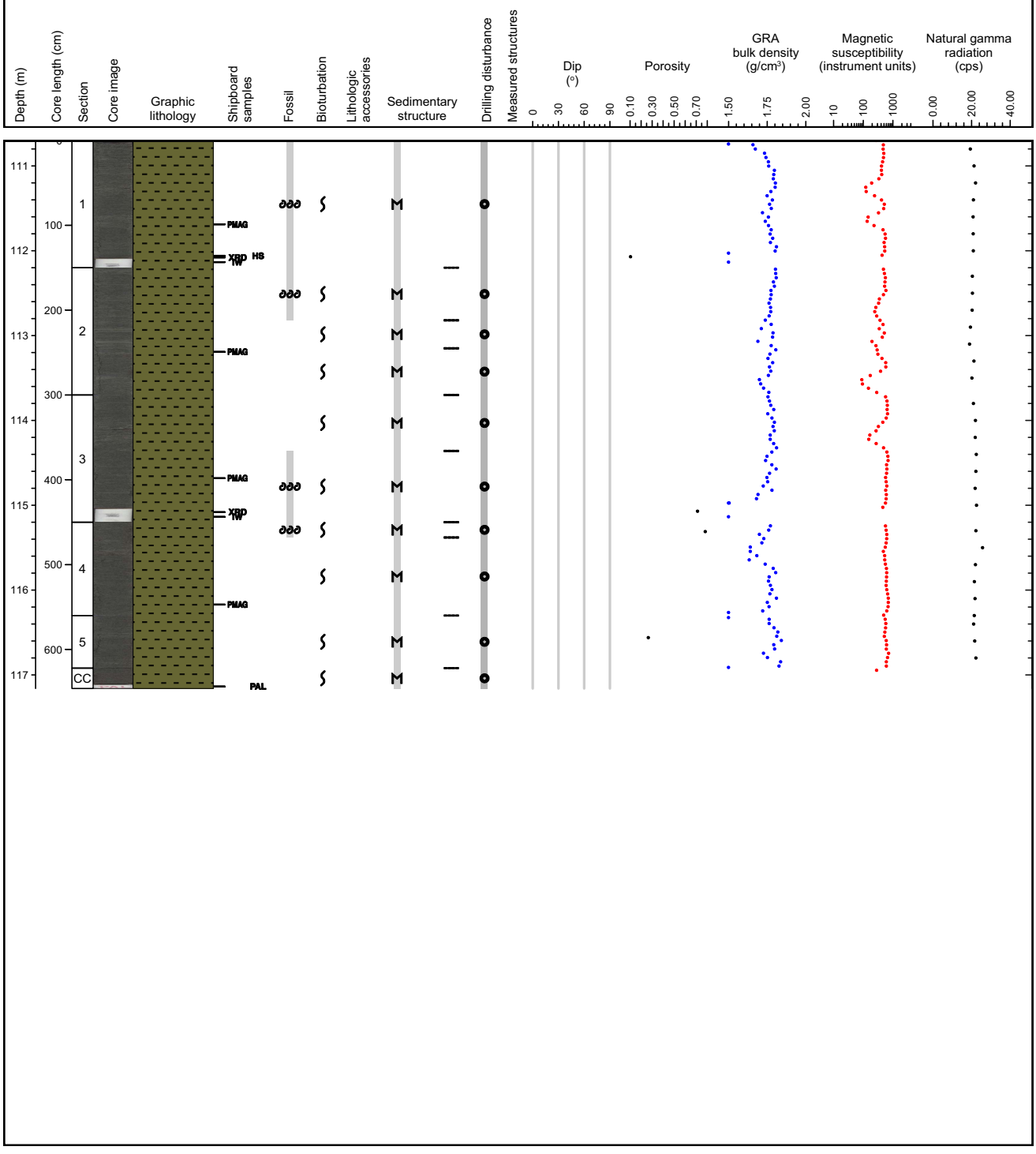
Major lithology: Very dark silty clay with shell fragments (section 1). Sections 2-7 missing. Core catcher consists of sandy silt with carbonate cemented concretions more frequent towards the bottom.



Core Photo

Hole 334-U1379C Core 20X, Interval 110.7-117.16 m (CSF-A)

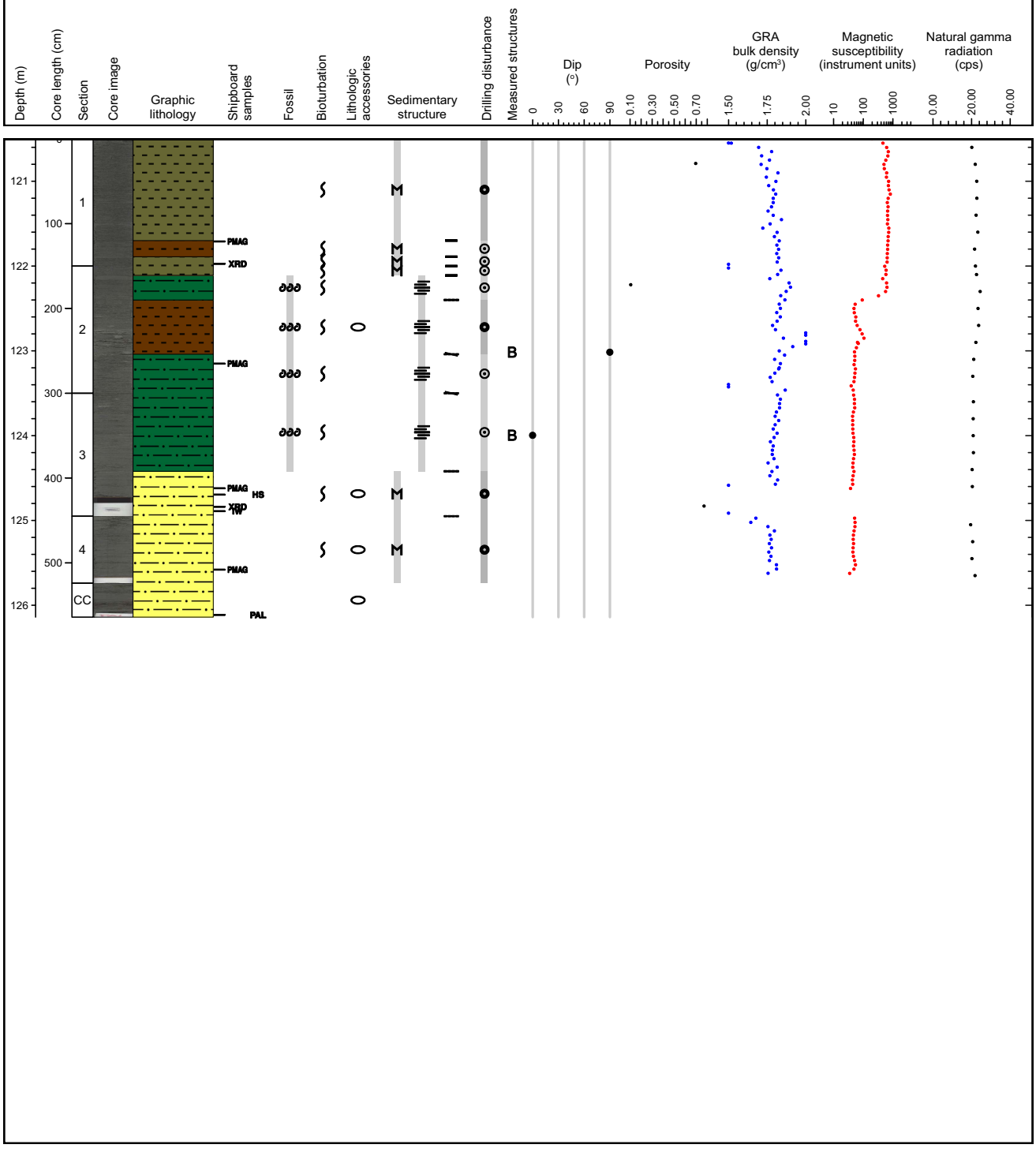
Major lithology: Alternating silty clay layers with very sparse shell fragments and silty clay layers including carbonate cemented concretions and ocasional pirite



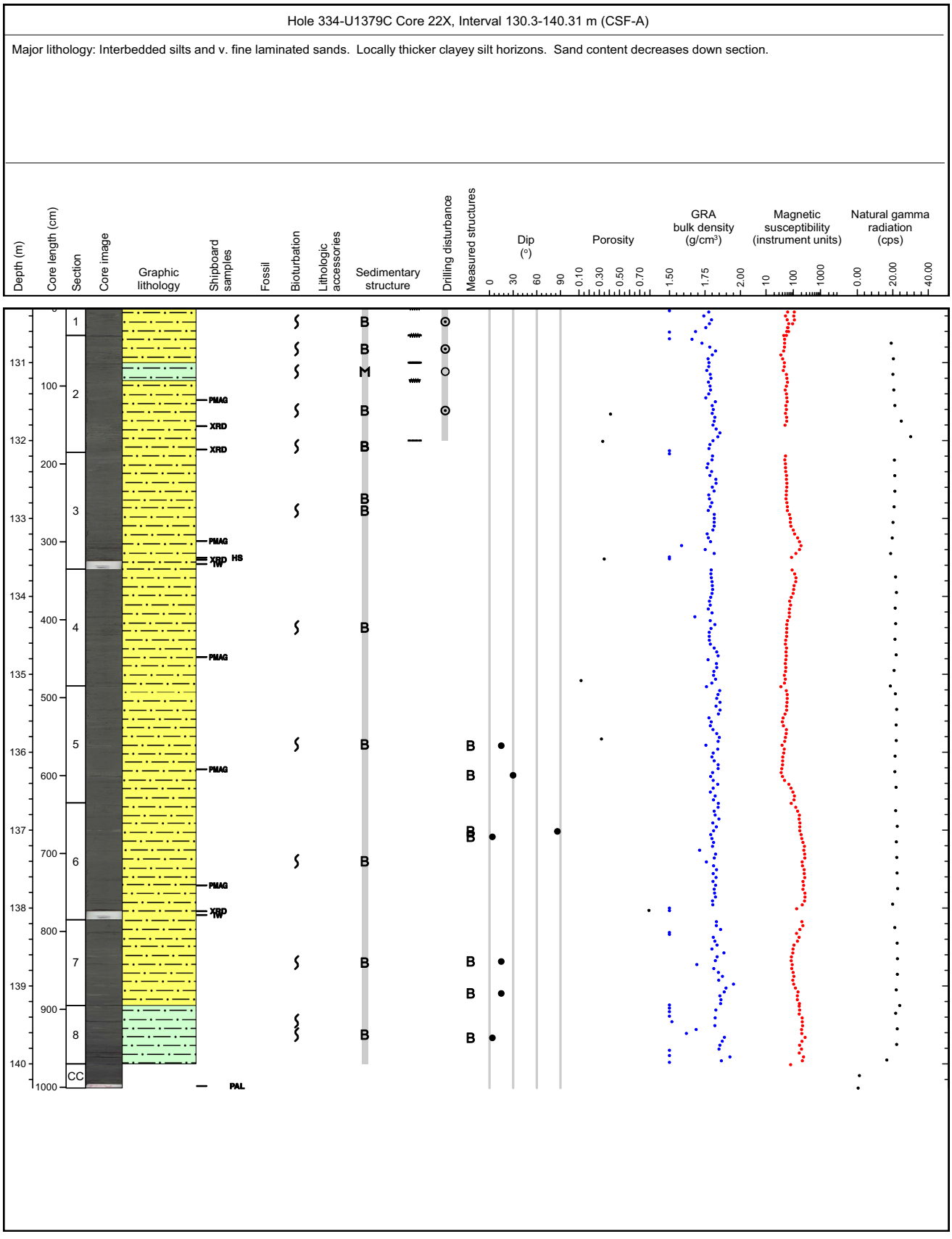
Core Photo

Hole 334-U1379C Core 21X, Interval 120.5-126.14 m (CSF-A)

Major lithology: Interbedding of silts and laminated sands. Some sand layers contain shell fragments. Silty layers are typically thicker (~10 cm) and locally contain small (<2 cm) carbonate-cemented concretions.



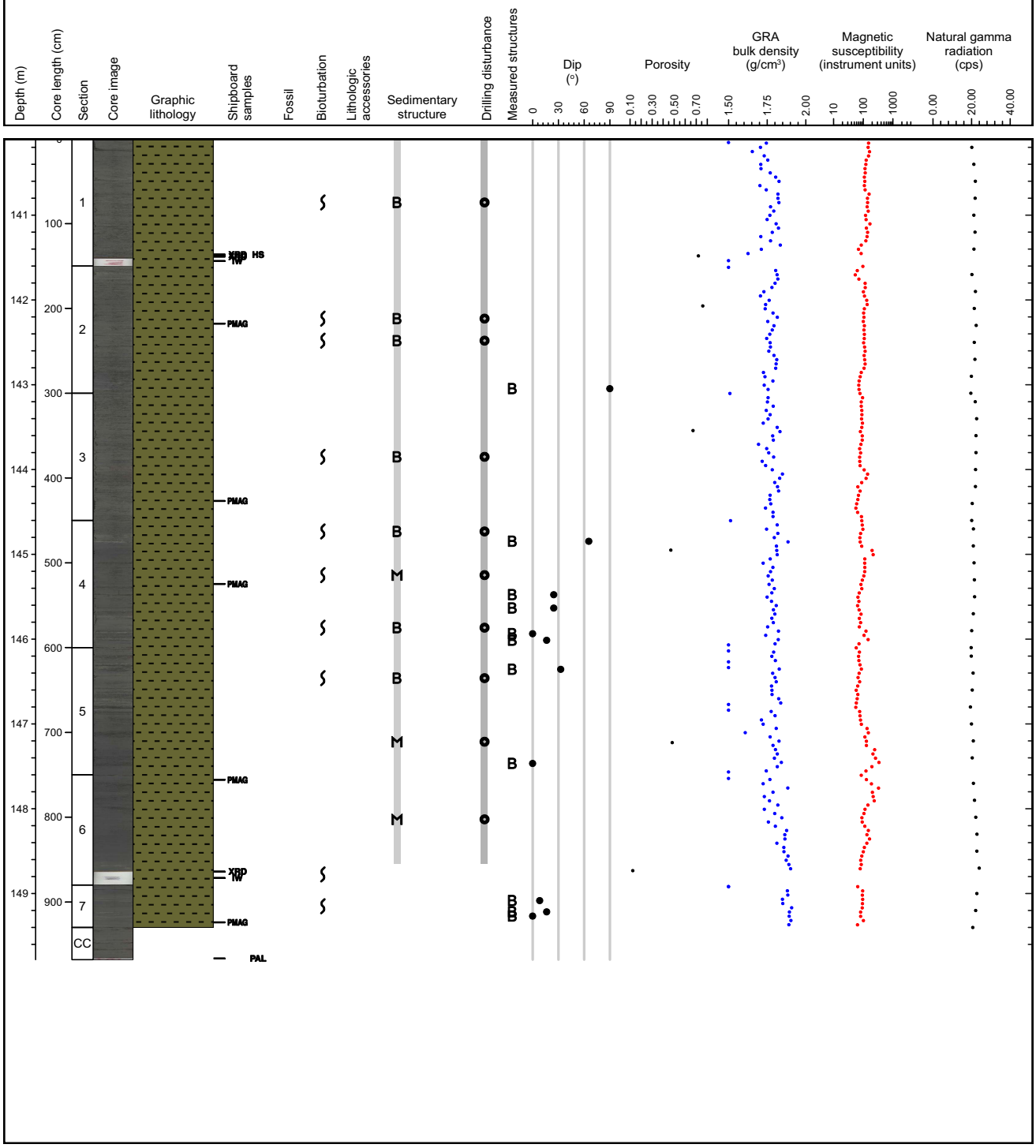
Core Photo


Hole 334-U1379C Core 22X, Interval 130.3-140.31 m (CSF-A)
Major lithology: Interbedded silts and v. fine laminated sands. Locally thicker clayey silt horizons. Sand content decreases down section.
Depth (m)
Core length (cm)
Section
Core image
Graphic lithology
Shipboard samples
Fossil
Bioturbation
Lithologic accessories
Sedimentary structure
Drilling disturbance
Measured structures
Dip (°)
Porosity
GRA bulk density (g/cm³)
Magnetic susceptibility (instrument units)
Natural gamma radiation (cps)
PMAG
XRD
HS
PAL
CC

Core Photo

Hole 334-U1379C Core 23X, Interval 140.1-149.78 m (CSF-A)

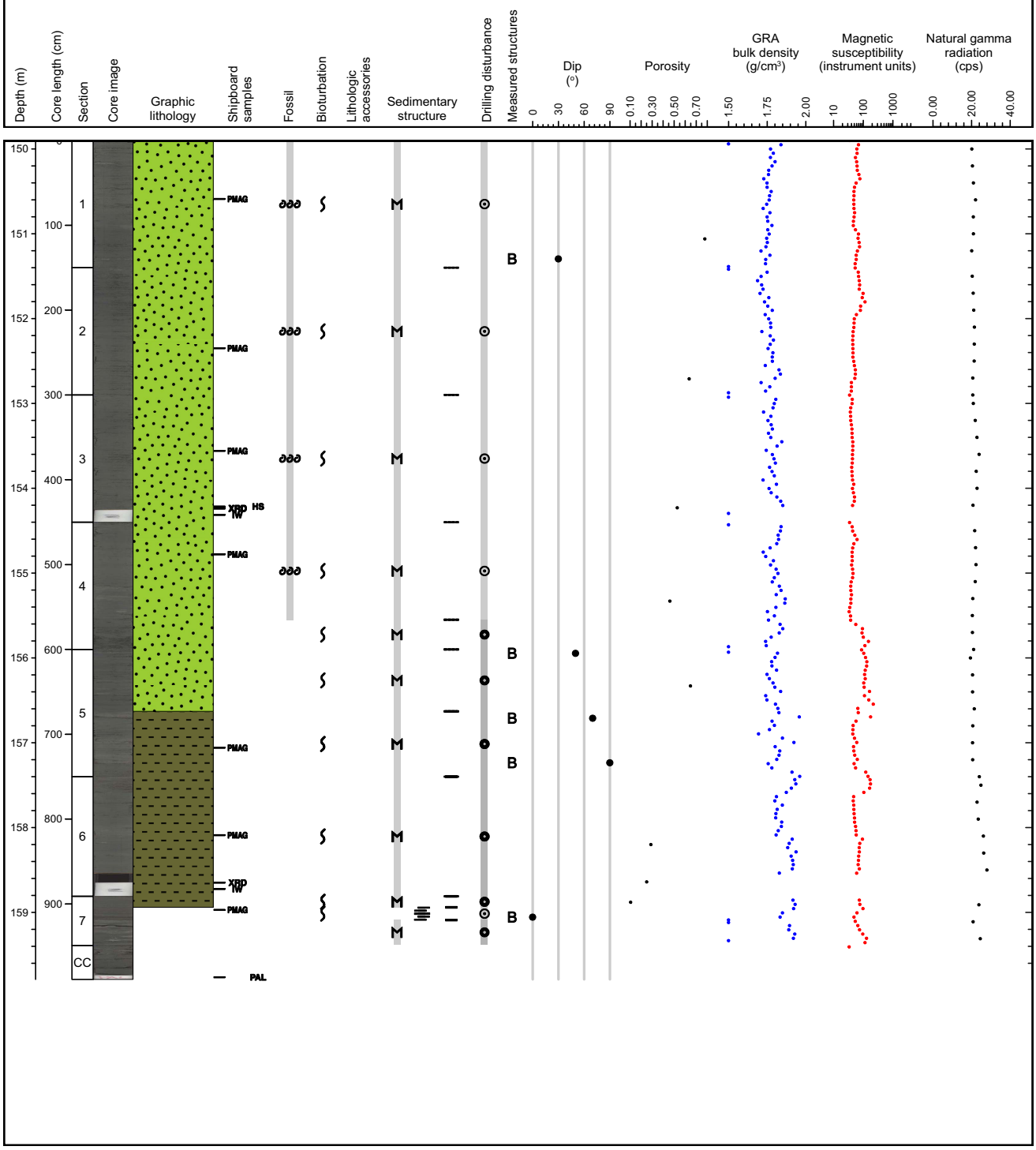
Major lithology: Interbedded silts and sands. In general the abundance of silt decreases with depth in the section. Localized concretions (section 5).



Core Photo

Hole 334-U1379C Core 24X, Interval 149.9-159.79 m (CSF-A)

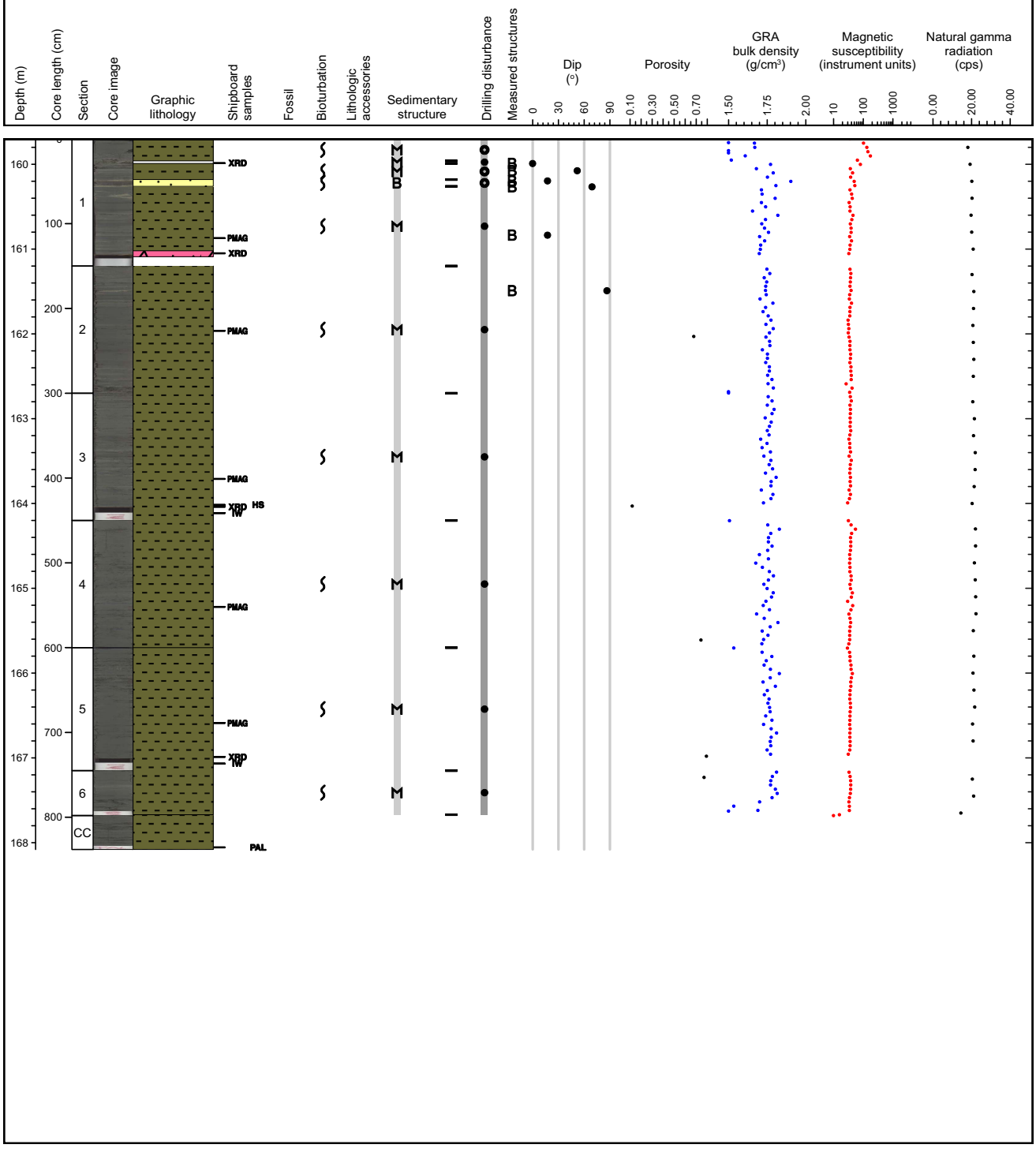
Major lithology: Interbedded silts and silty clays. The abundance of clay increases with depththrough the core. Parallel lamination present towards the core bottom (section 7).



Core Photo

Hole 334-U1379C Core 25X, Interval 159.7-168.08 m (CSF-A)

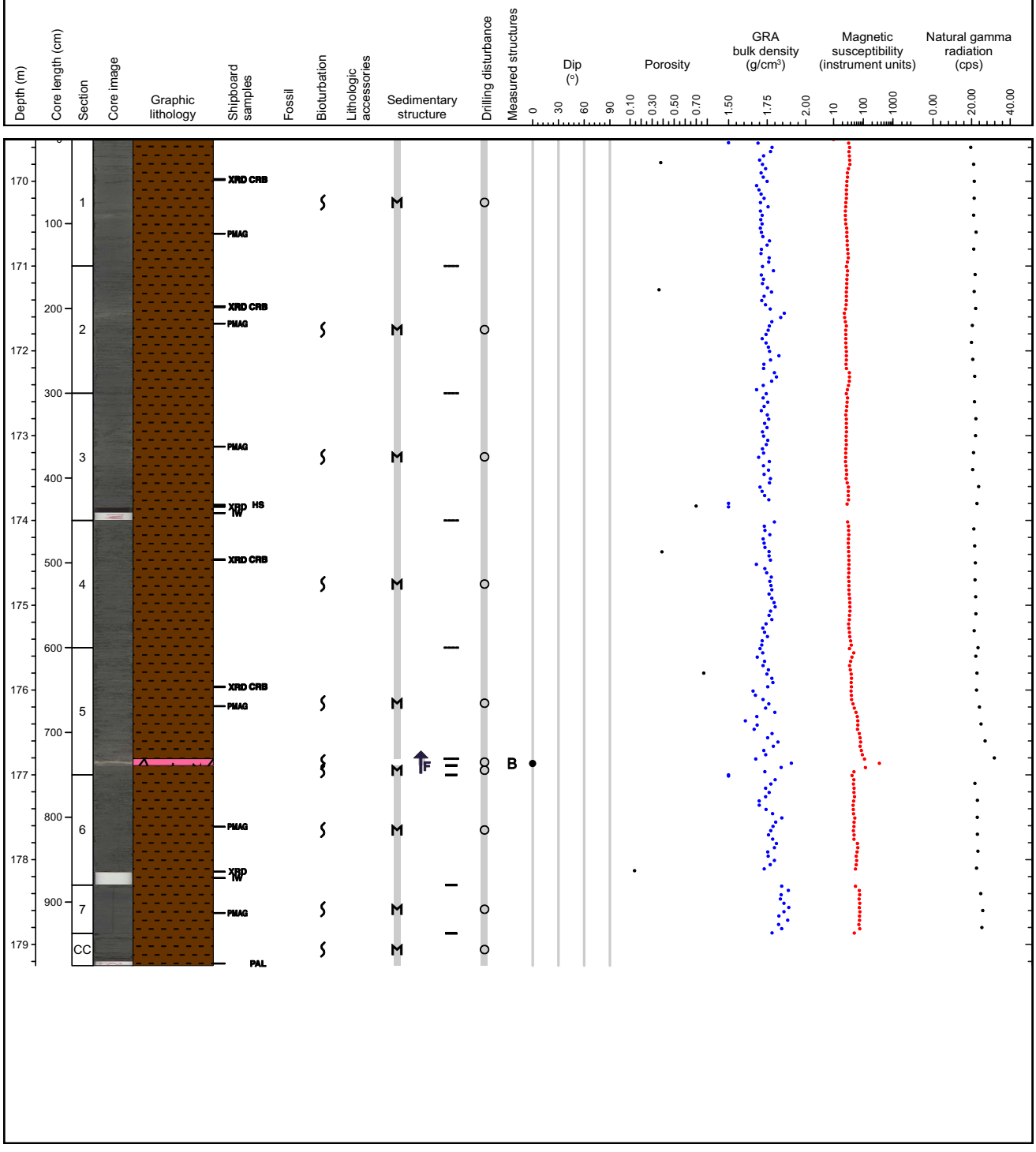
Major lithology: Core is uniform consisting of silty clay with localized clay rich horizons at the top of seciton 1 (24-30 cm) and occasional weathered carbonate horizons.



Core Photo

Hole 334-U1379C Core 26X, Interval 169.5-179.25 m (CSF-A)

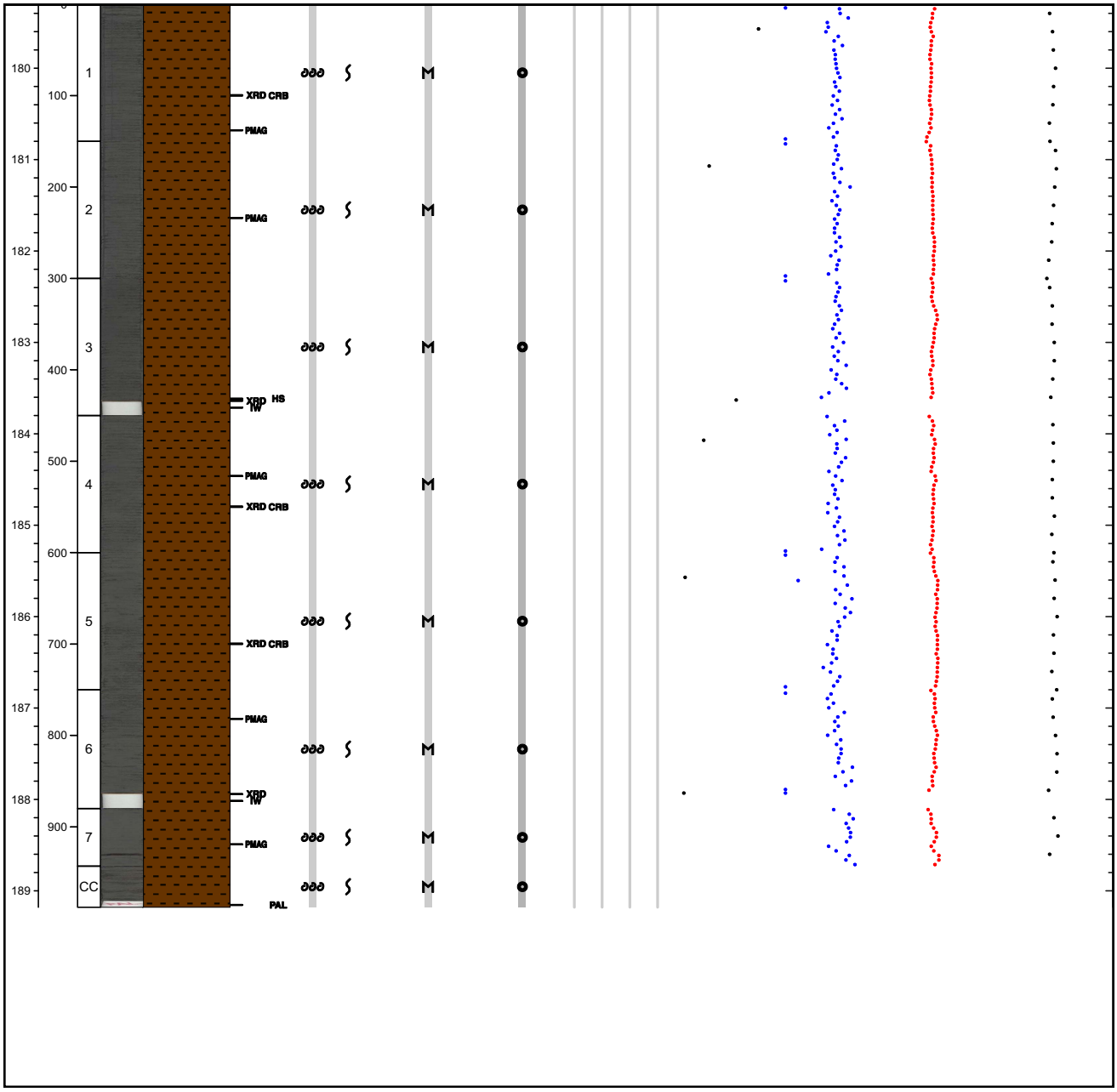
Major lithology: Core is composed of homogenous very dark greenish gray clay. Only slight color variation to dark greenish gray clay. No structures or bioturbation is apparent. A single ash layer is present in 334-U1379C-26X-5-A from 132cm to 139cm. This is light to medium gray in color and is a fining upwards sequence.



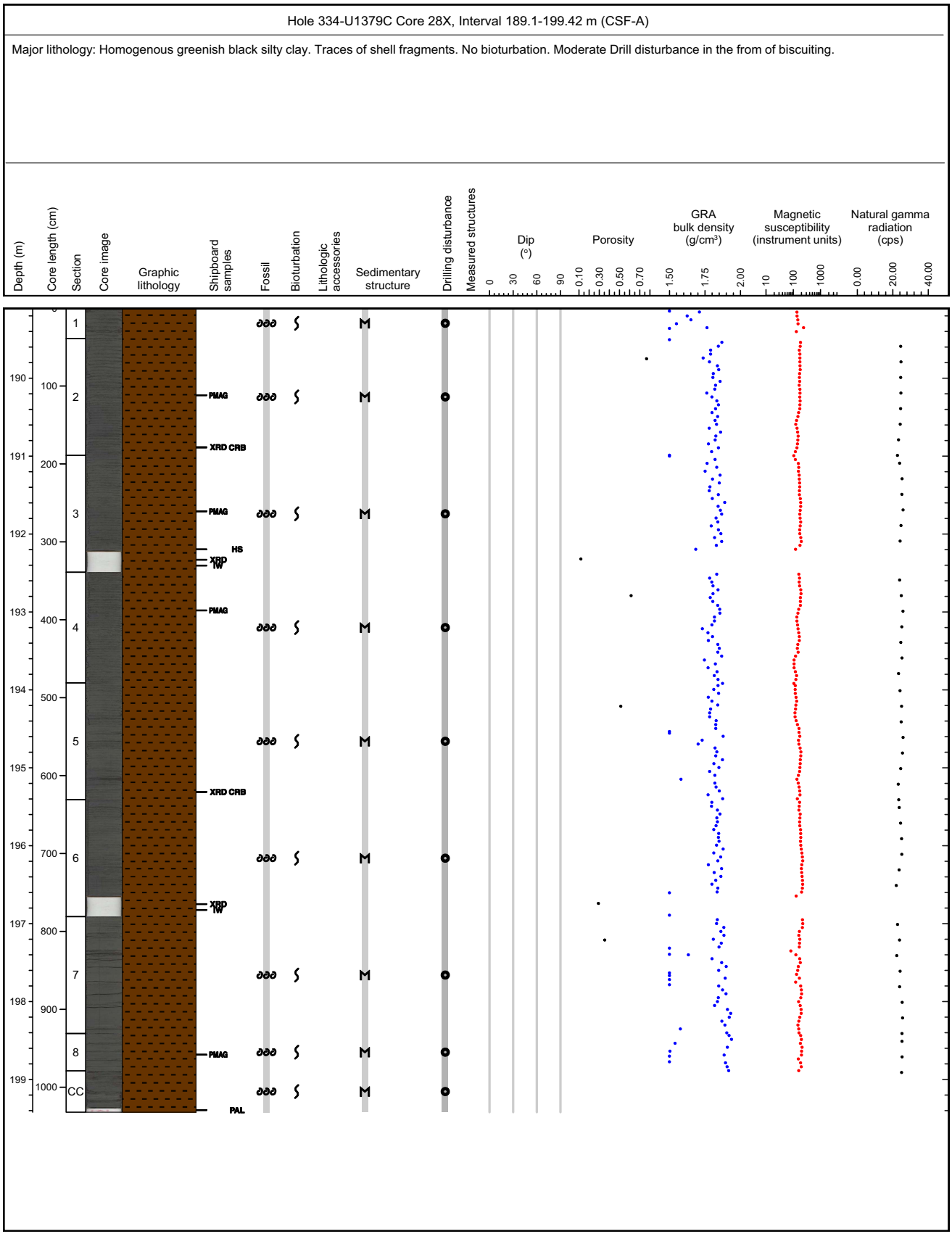
Core Photo

Hole 334-U1379C Core 27X, Interval 179.3-189.18 m (CSF-A)

Major lithology: Homogenous Core of Blueish to greenish Black clay. No bioturbation evident. Moderate drilling distrubance in the from of biscuiting. One small horizon comtaining possible shelly fragments in Section 5 (104-105cm). One small horizon containing possible ash pods in Section 1 (14-15cm)



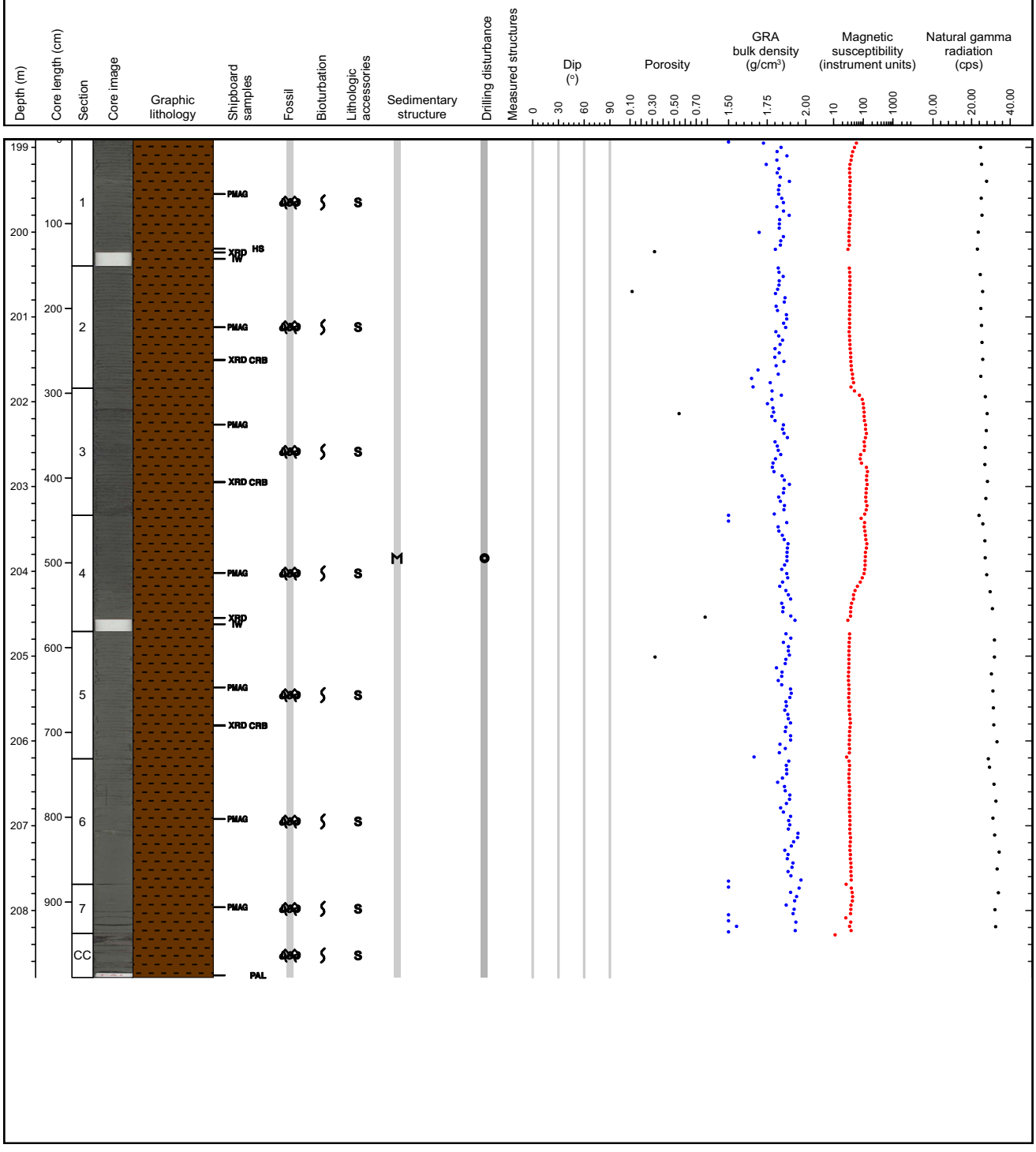
Core Photo


Hole 334-U1379C Core 28X, Interval 189.1-199.42 m (CSF-A)
Major lithology: Homogenous greenish black silty clay. Traces of shell fragments. No bioturbation. Moderate Drill disturbance in the from of biscuiting.
Depth (m)
Core length (cm)
Section
Core image
Graphic lithology
Shipboard samples
Fossil
Bioturbation
Lithologic accessories
Sedimentary structure
Drilling disturbance
Measured structures
Dip (°)
Porosity
GRA bulk density (g/cm³)
Magnetic susceptibility (instrument units)
Natural gamma radiation (cps)
PMAG
XRD CRB
HS
XRD IW
PAL

Core Photo

Hole 334-U1379C Core 29X, Interval 198.9-208.79 m (CSF-A)

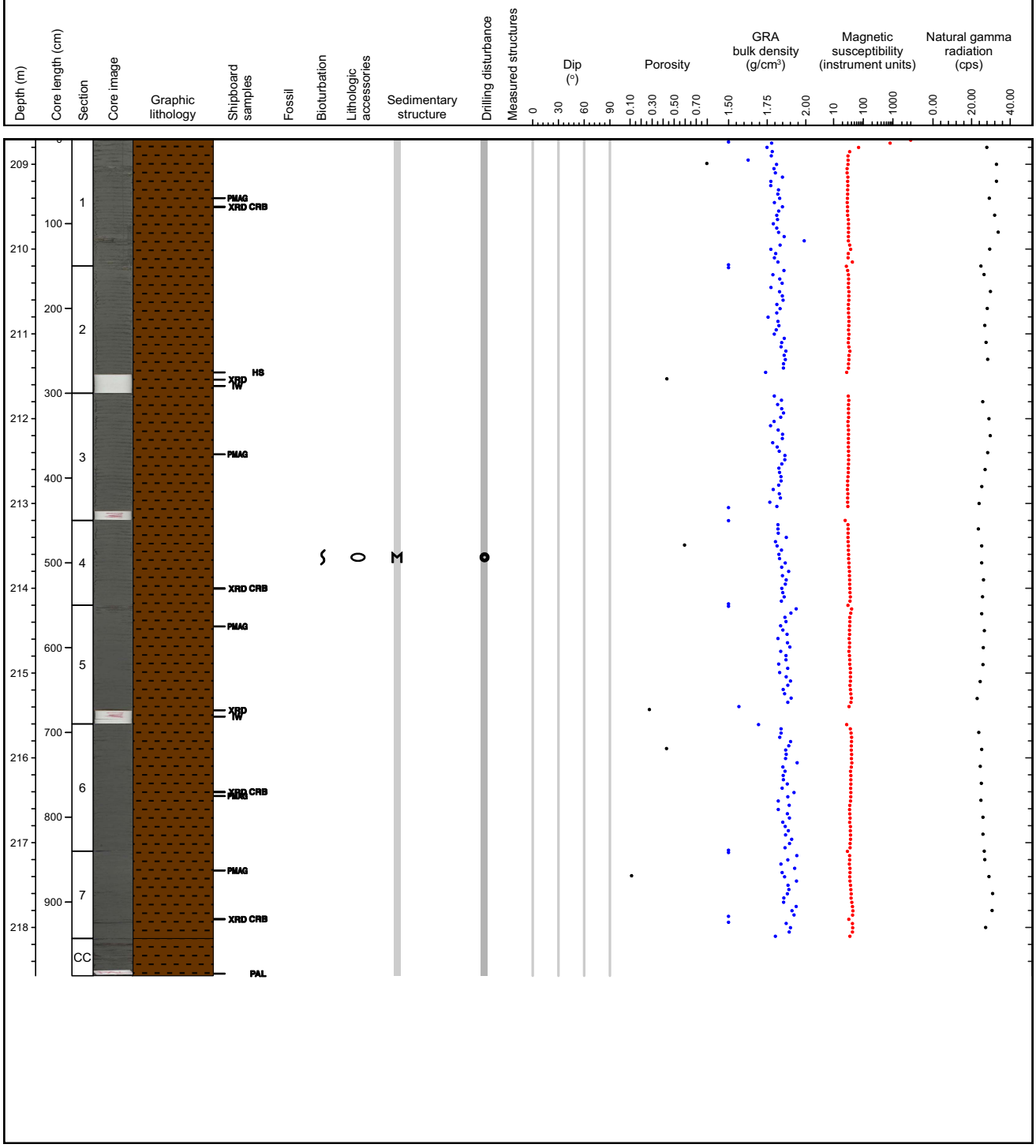
Major lithology: Core composed of Green black to dark greenish gray silty clay. Moderate drill distrubance and increasing consolidation towards the base; Several horizons with hardened carbonate muds observed.



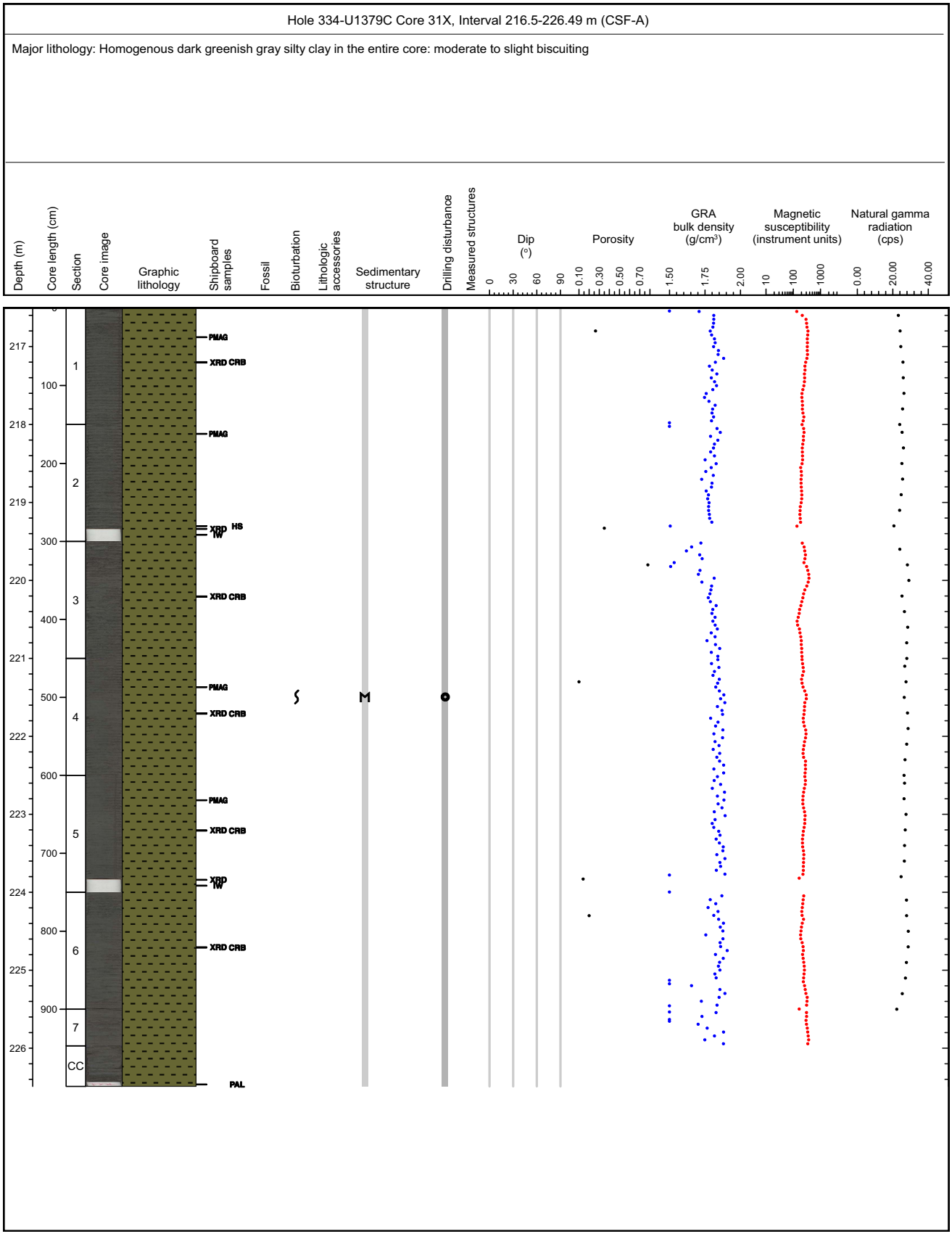
Core Photo

Hole 334-U1379C Core 30X, Interval 208.7-218.57 m (CSF-A)

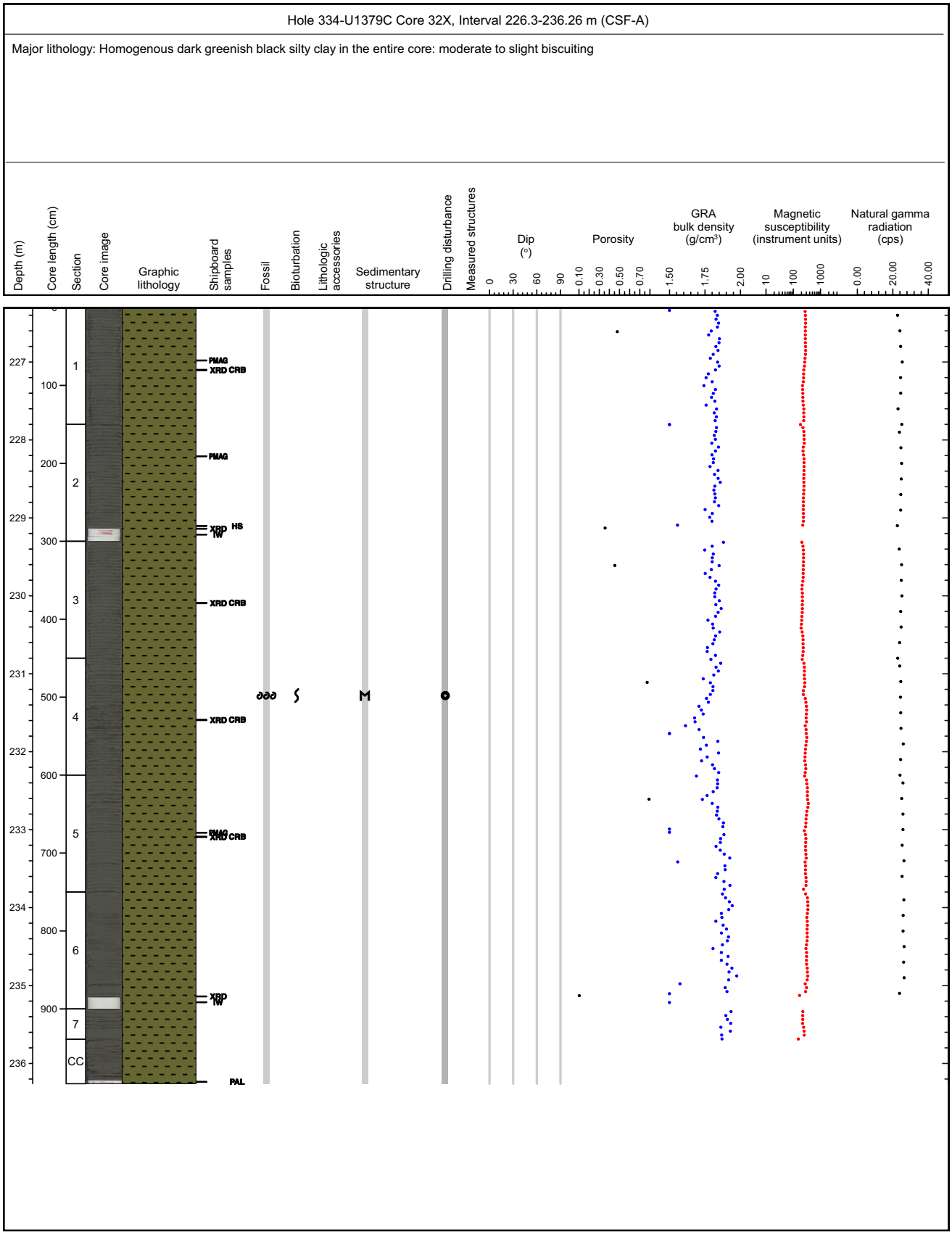
Major lithology: Monotonous, structurless sequence of mainly dark greenish gray silty clay that inhabits several carbonate mud concretions only within the first section



Core Photo


Hole 334-U1379C Core 31X, Interval 216.5-226.49 m (CSF-A)
Major lithology: Homogenous dark greenish gray silty clay in the entire core: moderate to slight biscuiting
Depth (m)
Core length (cm)
Section
Core image
Graphic lithology
Shipboard samples
Fossil
Bioturbation
Lithologic accessories
Sedimentary structure
Drilling disturbance
Measured structures
Dip (°)
Porosity
GRA bulk density (g/cm³)
Magnetic susceptibility (instrument units)
Natural gamma radiation (cps)
PMAG
XRD CRB
XRD HS
IW
PAL

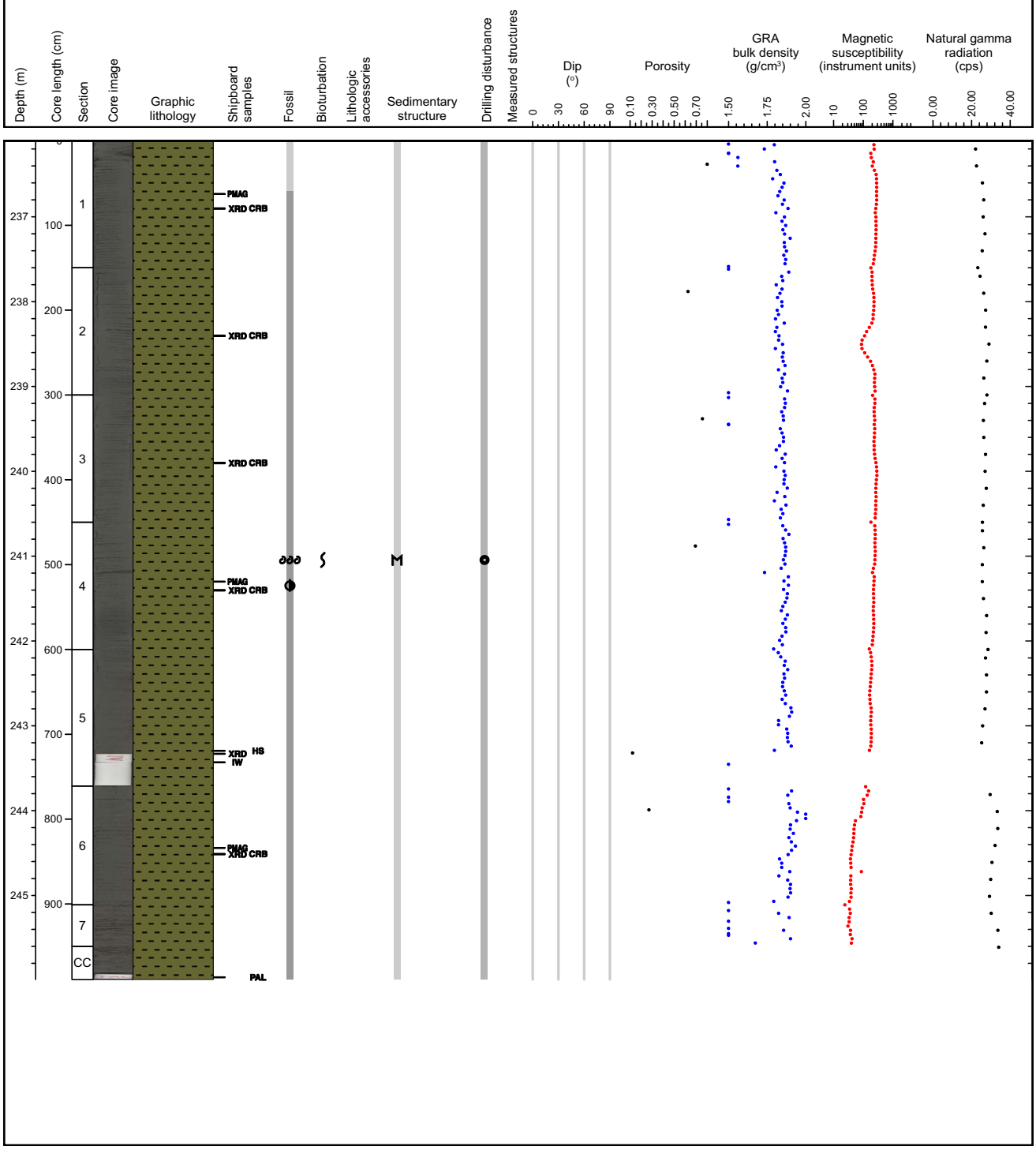
Core Photo


Hole 334-U1379C Core 32X, Interval 226.3-236.26 m (CSF-A)
Major lithology: Homogenous dark greenish black silty clay in the entire core: moderate to slight biscuiting
Depth (m)
Core length (cm)
Section
Core image
Graphic lithology
Shipboard samples
Fossil
Bioturbation
Lithologic accessories
Sedimentary structure
Drilling disturbance
Measured structures
Dip (°)
Porosity
GRA bulk density (g/cm³)
Magnetic susceptibility (instrument units)
Natural gamma radiation (cps)
PMAG
XRD CRB
XRD HS
IW
PAL

Core Photo

Hole 334-U1379C Core 33X, Interval 236.1-245.99 m (CSF-A)

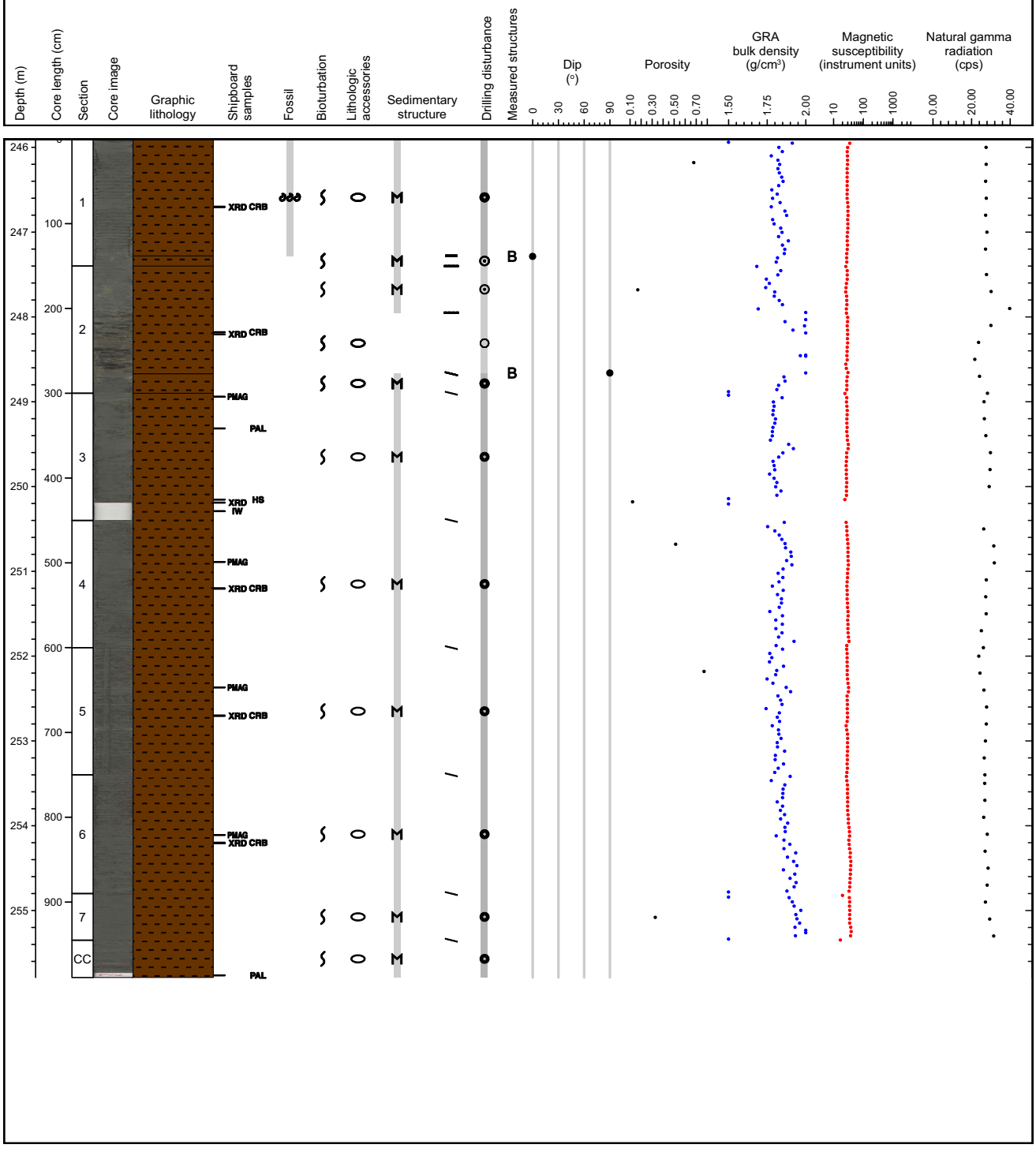
Major lithology: Homogenous dark greenish black silty clay in the entire core: moderate to slight biscuiting; Rare small shell fragments; Foaraminifers starting to be observable at section 6.



Core Photo

Hole 334-U1379C Core 34X, Interval 245.9-255.79 m (CSF-A)

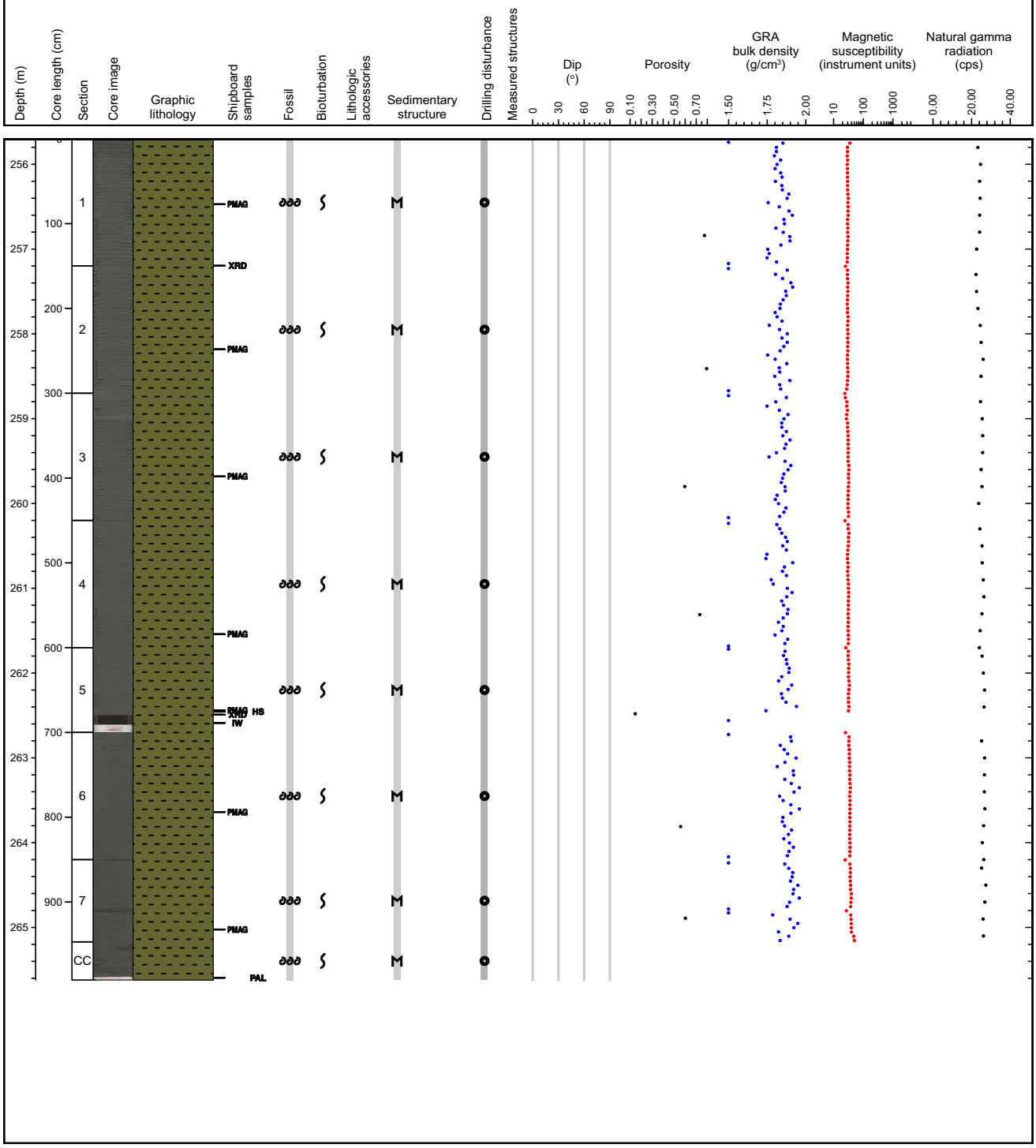
Major lithology: Core composed of very dark green to greenish gray, silty clay. Clay is variably calcareous throughtout the core, with some areas containing carbonate concretions of pebble size. One horizon inscetion 2 from 78 to 127cm is composed of hardened carbonate mud. No bioturbation. Slight to moderate drilling distrubance causes biscuiting in teh majority of the core. Rare Shell fragmetns are present in the upper 50cm of section 1.



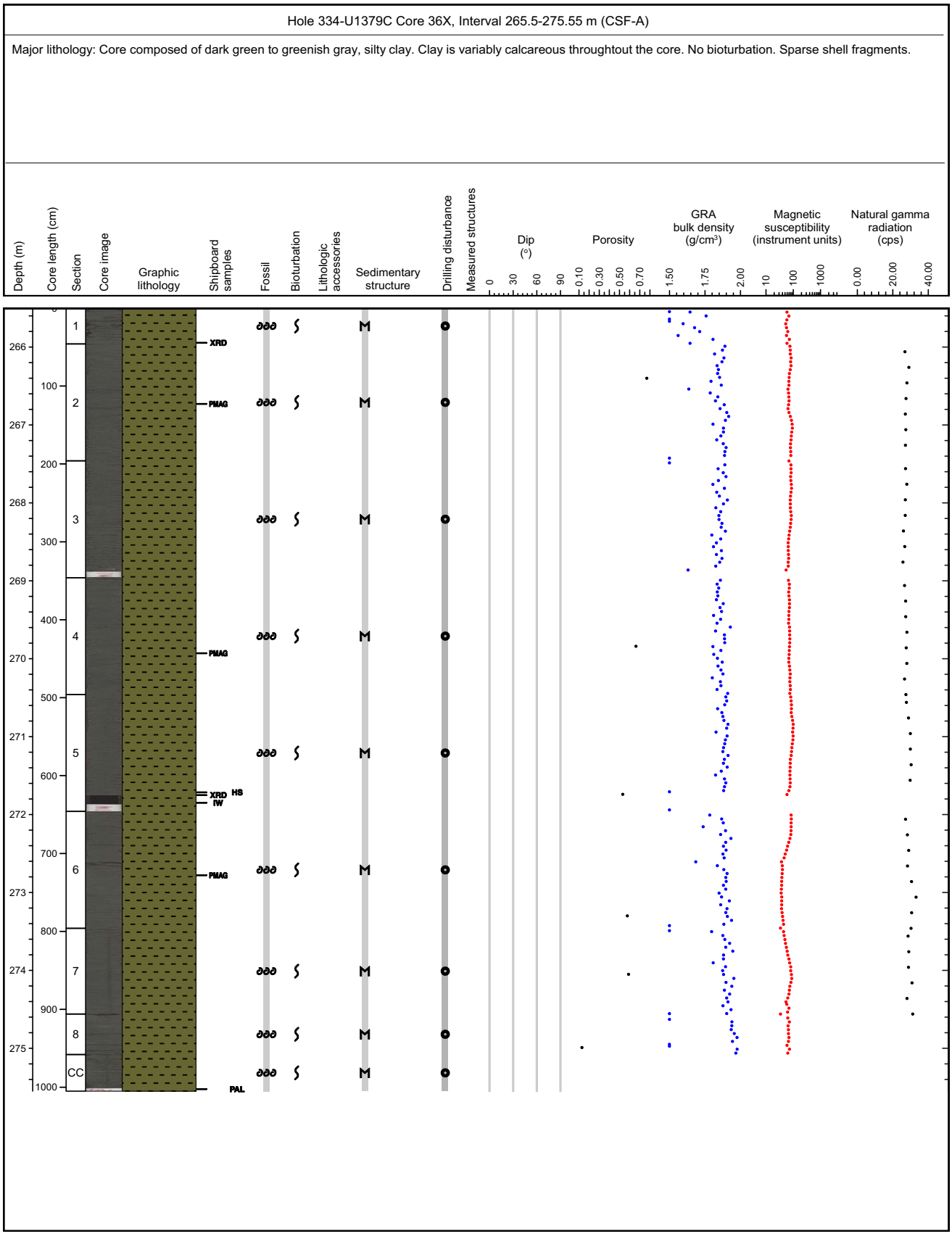
Core Photo

Hole 334-U1379C Core 35X, Interval 255.7-265.62 m (CSF-A)

Major lithology: Core composed of dark green to greenish gray, silty clay. Clay is variably calcareous throughtout the core. No bioturbation. Slight to moderate drilling distrubance causes biscuiting in teh majority of the core. Rare shell fragmetns and very rare woody debris are present throughout the core.



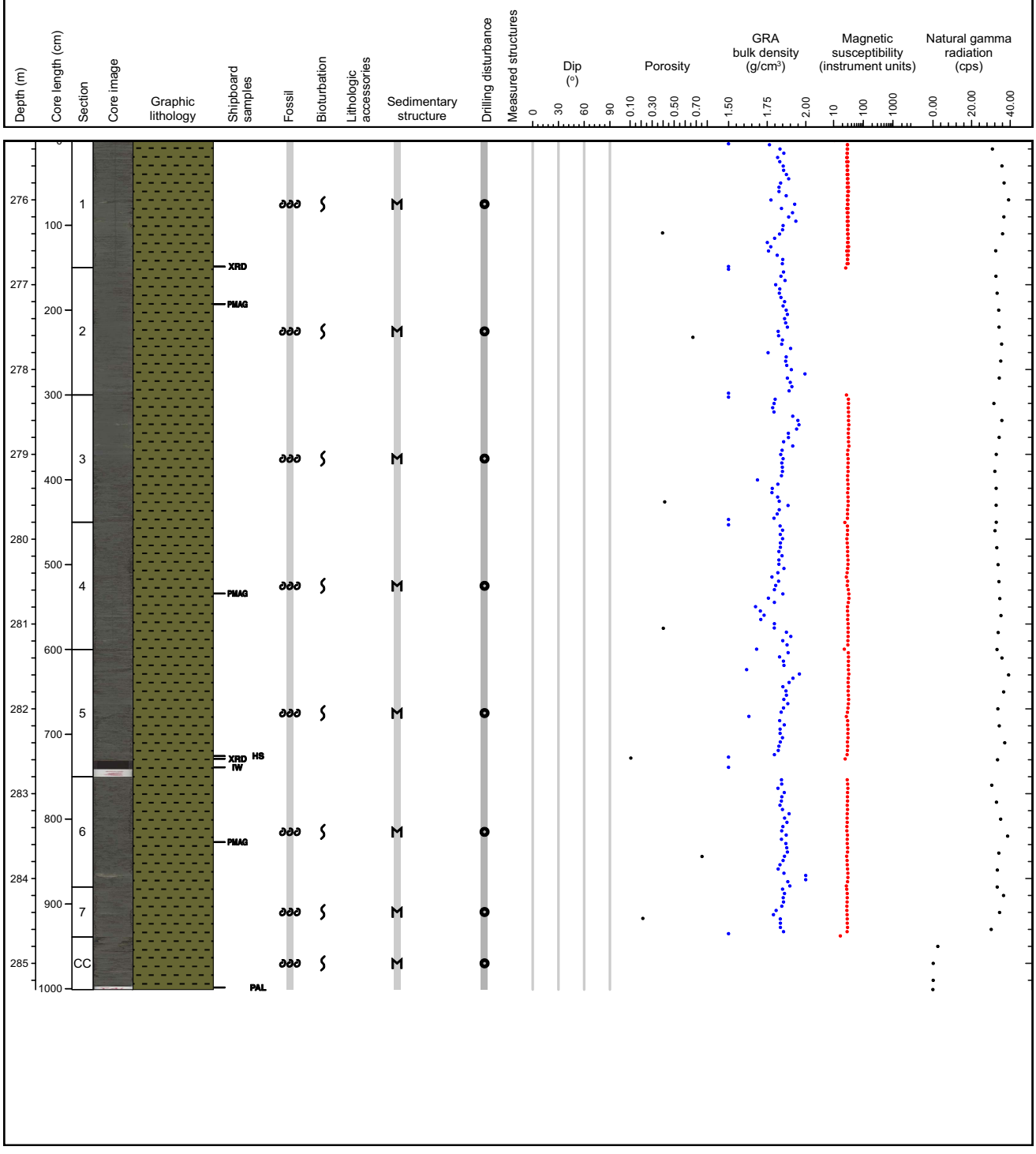
Core Photo


Hole 334-U1379C Core 36X, Interval 265.5-275.55 m (CSF-A)
Major lithology: Core composed of dark green to greenish gray, silty clay. Clay is variably calcareous throughtout the core. No bioturbation. Sparse shell fragments.
Depth (m)
Core length (cm)
Section
Core image
Graphic lithology
Shipboard samples
Fossil
Bioturbation
Lithologic accessories
Sedimentary structure
Drilling disturbance
Measured structures
Dip (°)
Porosity
GRA bulk density (g/cm³)
Magnetic susceptibility (instrument units)
Natural gamma radiation (cps)
XRD
PMAG
XRD
HS
IW
PMAG
PMAG
PAL

Core Photo

Hole 334-U1379C Core 37X, Interval 275.3-285.31 m (CSF-A)

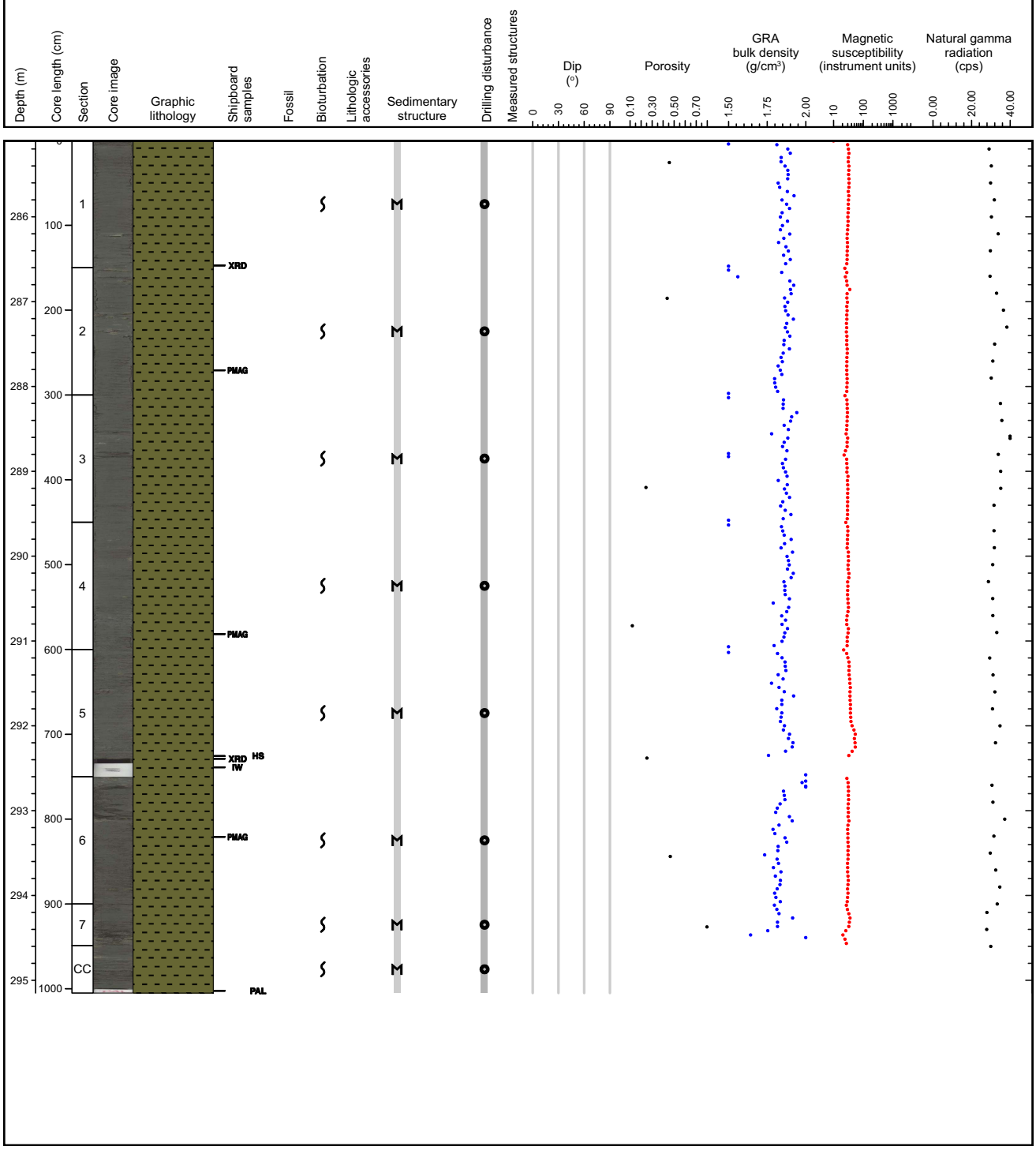
Major lithology: Core composed of dark green to greenish gray silty clay. Clay is variably calcareous throughtout the core and there are several calcareous concretions present. No bioturbation. Sparse shell fragments.



Core Photo

Hole 334-U1379C Core 38X, Interval 285.1-295.15 m (CSF-A)

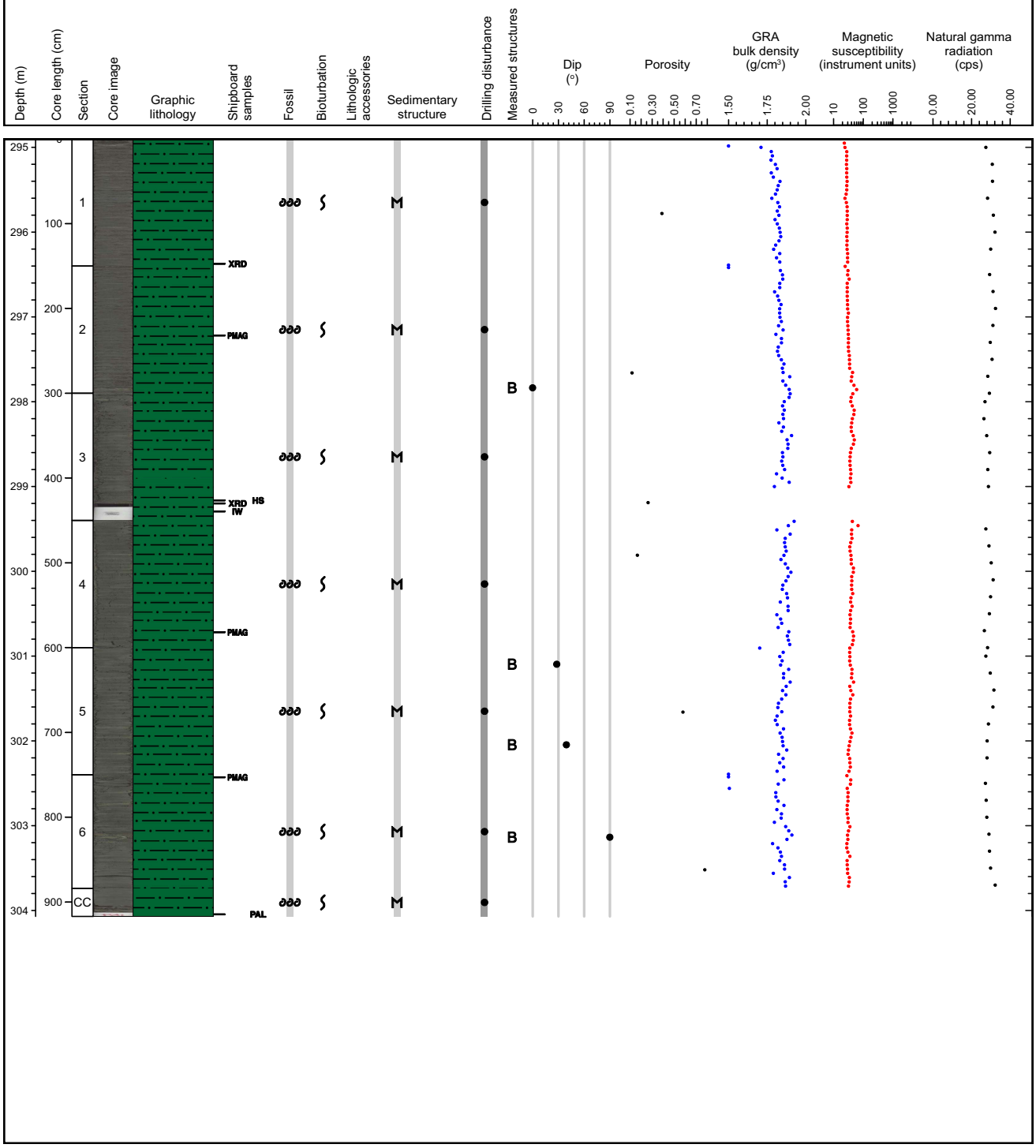
Major lithology: Massive, dark green to greenish gray silty clay. Clay is variably calcareous and there are abundant calcareous concretions . No bioturbation nor shell fragments observed.



Core Photo

Hole 334-U1379C Core 39X, Interval 294.9-304.07 m (CSF-A)

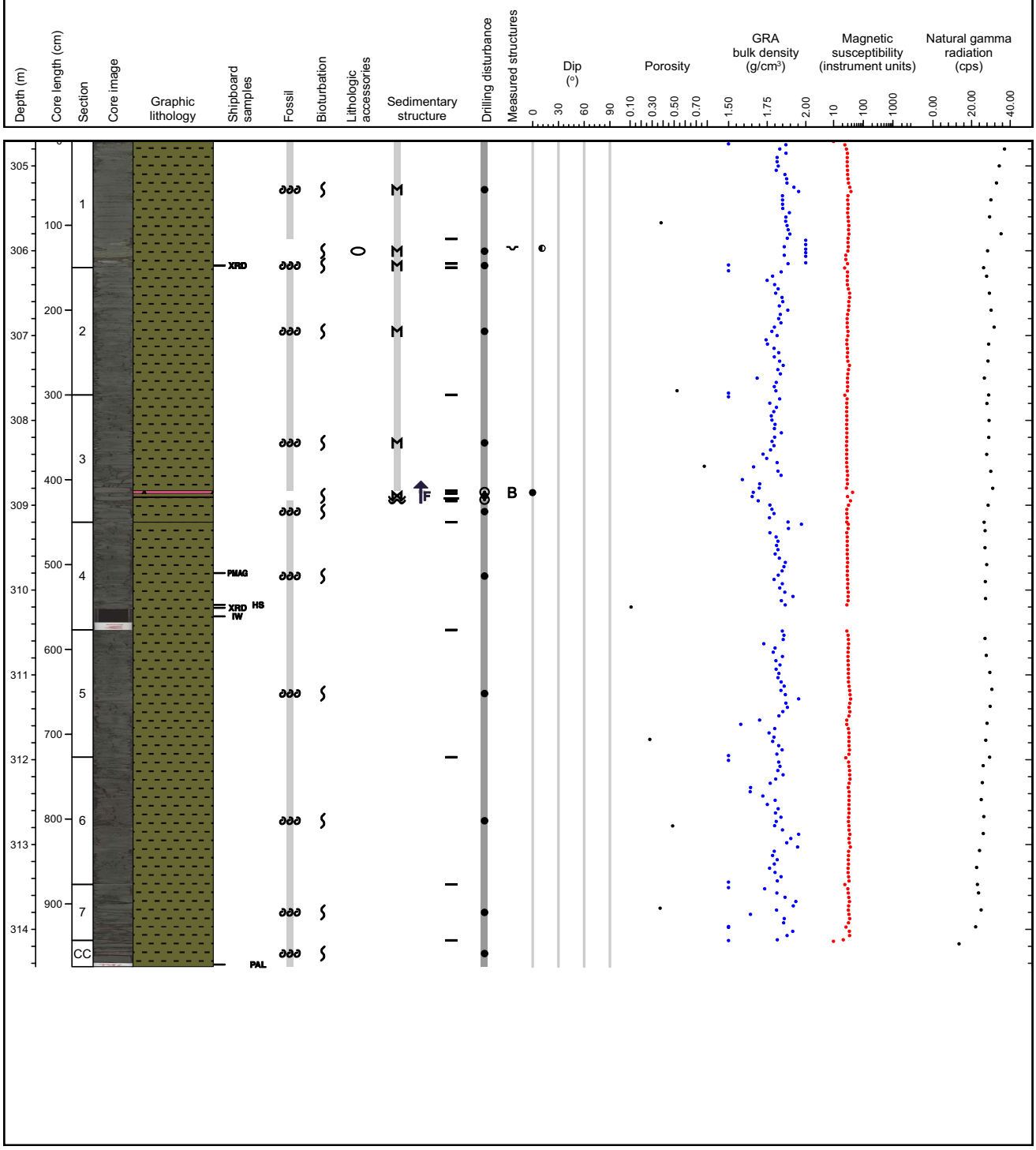
Major lithology: Massive, dark green to greenish gray silty clay. Clay is variably calcareous throughtout the core and there are several calcareous concretions present. No bioturbation. Sparse shell fragments.



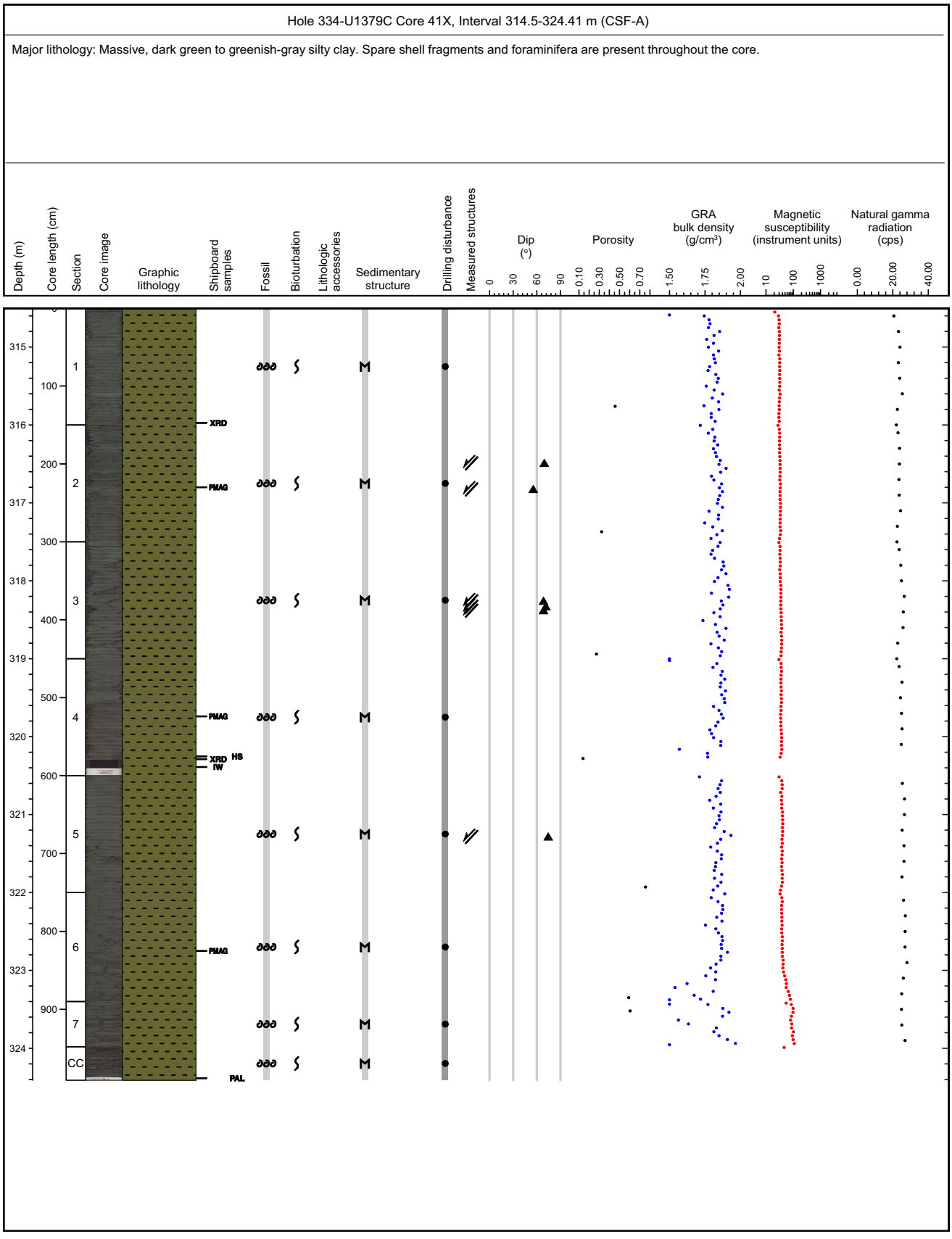
Core Photo

Hole 334-U1379C Core 40X, Interval 304.7-314.44 m (CSF-A)

Major lithology: Core is composed of homogenous very dark greenish gray silty clay. Sparse shell fragments throughout the core. A level enriched in calcareous concretions found at the bottom of the section 1. An upward fining ash layer is present in section 3 from 113cm to 116cm. A possibly reworked ash layer in the same section between 122-125 cm.



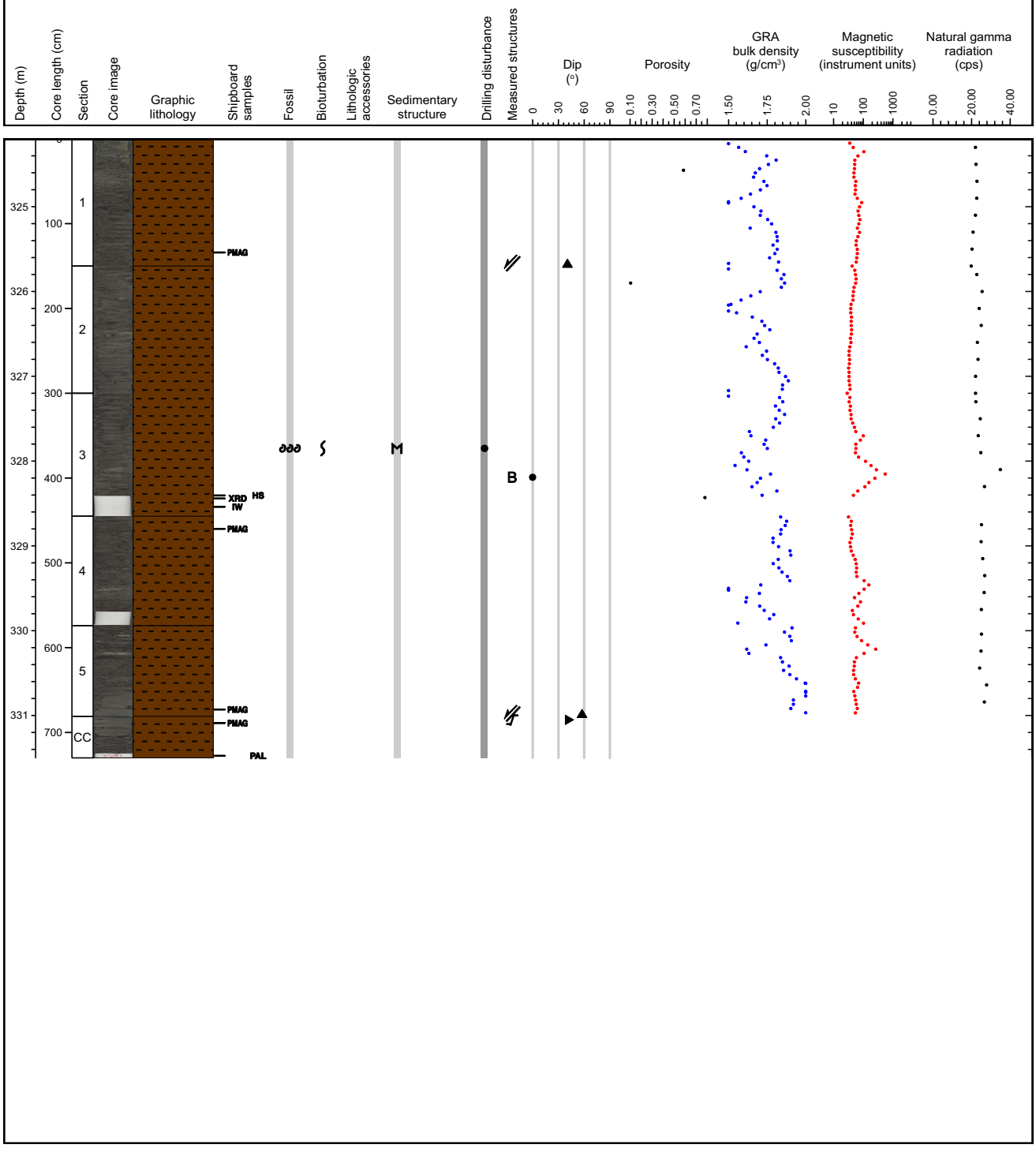
Core Photo


Hole 334-U1379C Core 41X, Interval 314.5-324.41 m (CSF-A)
Major lithology: Massive, dark green to greenish-gray silty clay. Spare shell fragments and foraminifera are present throughout the core.
Depth (m)
Core length (cm)
Section
Core image
Graphic lithology
Shipboard samples
Fossil
Bioturbation
Lithologic accessories
Sedimentary structure
Drilling disturbance
Measured structures
Dip (°)
Porosity
GRA bulk density (g/cm³)
Magnetic susceptibility (instrument units)
Natural gamma radiation (cps)
XRD
PMAG
XRD HS
IW
PAL

Core Photo

Hole 334-U1379C Core 42X, Interval 324.2-331.5 m (CSF-A)

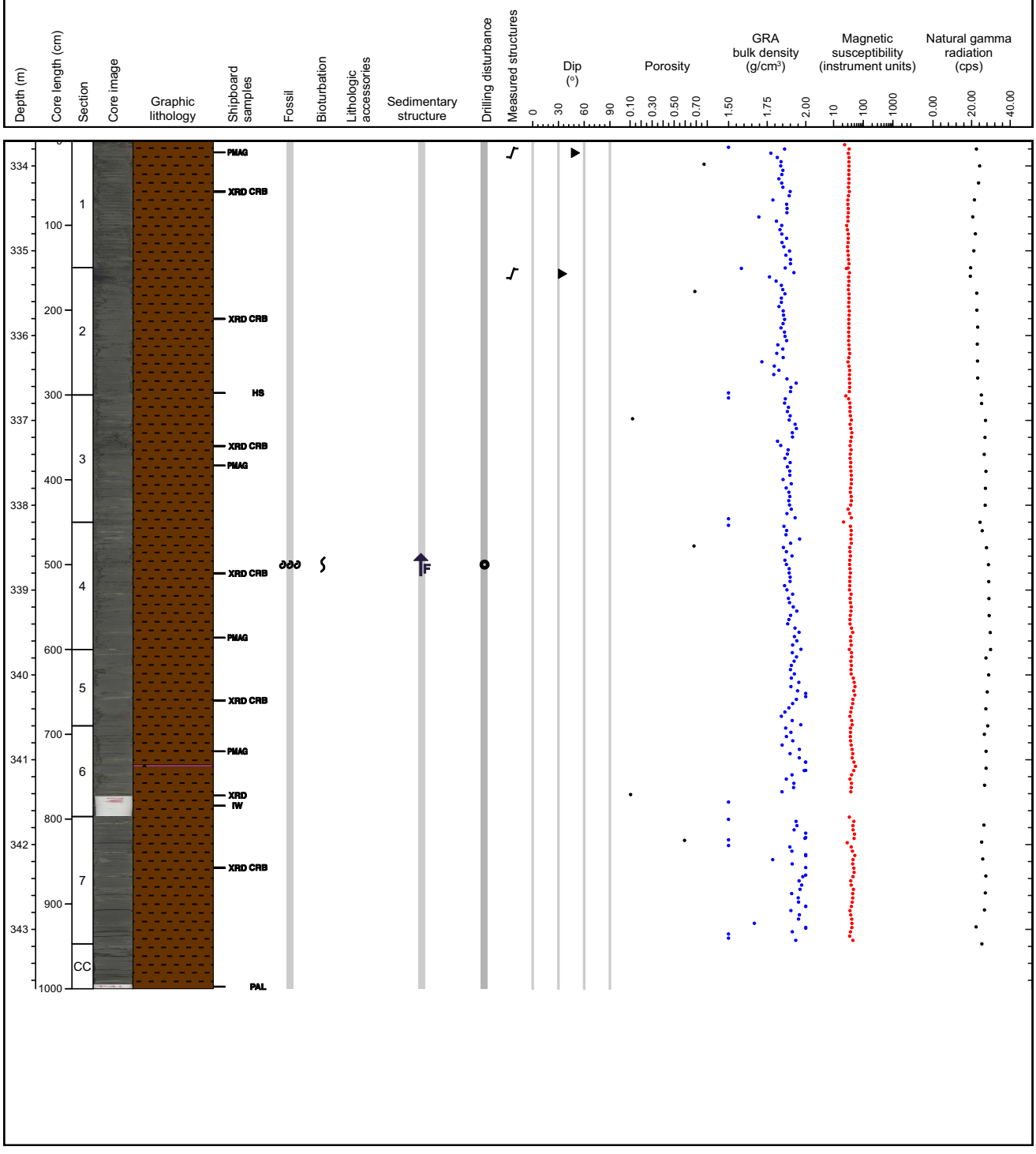
Major lithology: Strongly disturbed Greenish black Clay. Stongly hardened. Ash layers appear at: Section 1: 21 to 33cm; Section 3: 90 to 97cm, 99 to 102cm; Section 3: 101cm; Section 4: 95 to 101cm, 103 to 105cm; Section 5: 32 to 35cm.



Core Photo

Hole 334-U1379C Core 43X, Interval 333.7-343.7 m (CSF-A)

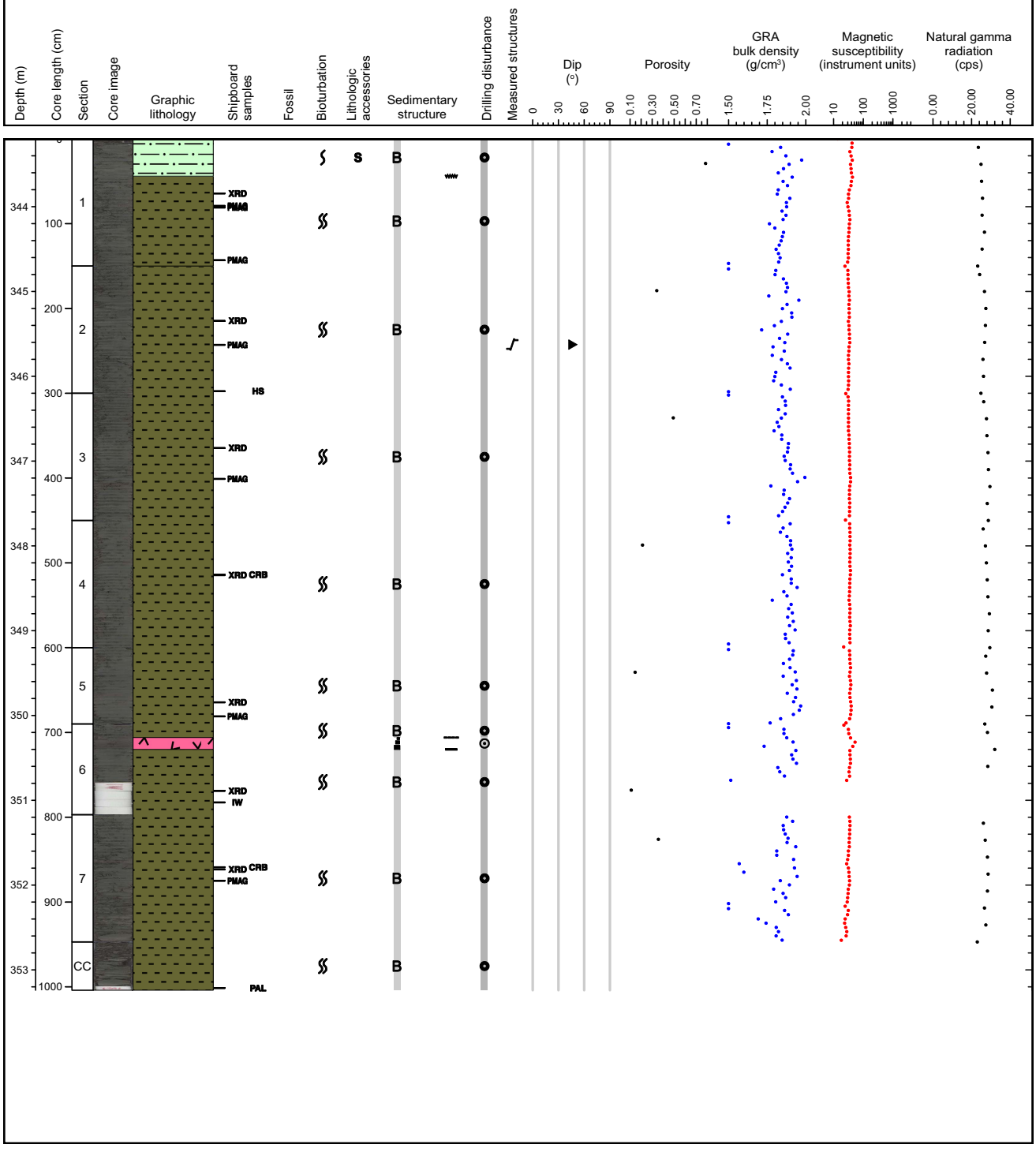
Major lithology: Green black in color with moderate drill disturbance present in the form of biscuiting. The core is composed of a Fining upward sequence. The bottom of the core is composed of fine silty Sand with some slightly more clay rich horizons (Secition 6 and 7 being most sandy). The middle of the core (Sections 3, 4, and 5) are composed of clayey silt to silty clay (although silty clay is dominamt). The upper sections of the core (sections 1 and 2) are clay rich, with only horizons of silty clay present. Some delicate inclined bedding is present within some of the biscuited sediment. Rare shell fragments are present in Section 2 (122cm) and Section 6 (15cm).



Core Photo

Hole 334-U1379C Core 44X, Interval 343.2-353.24 m (CSF-A)

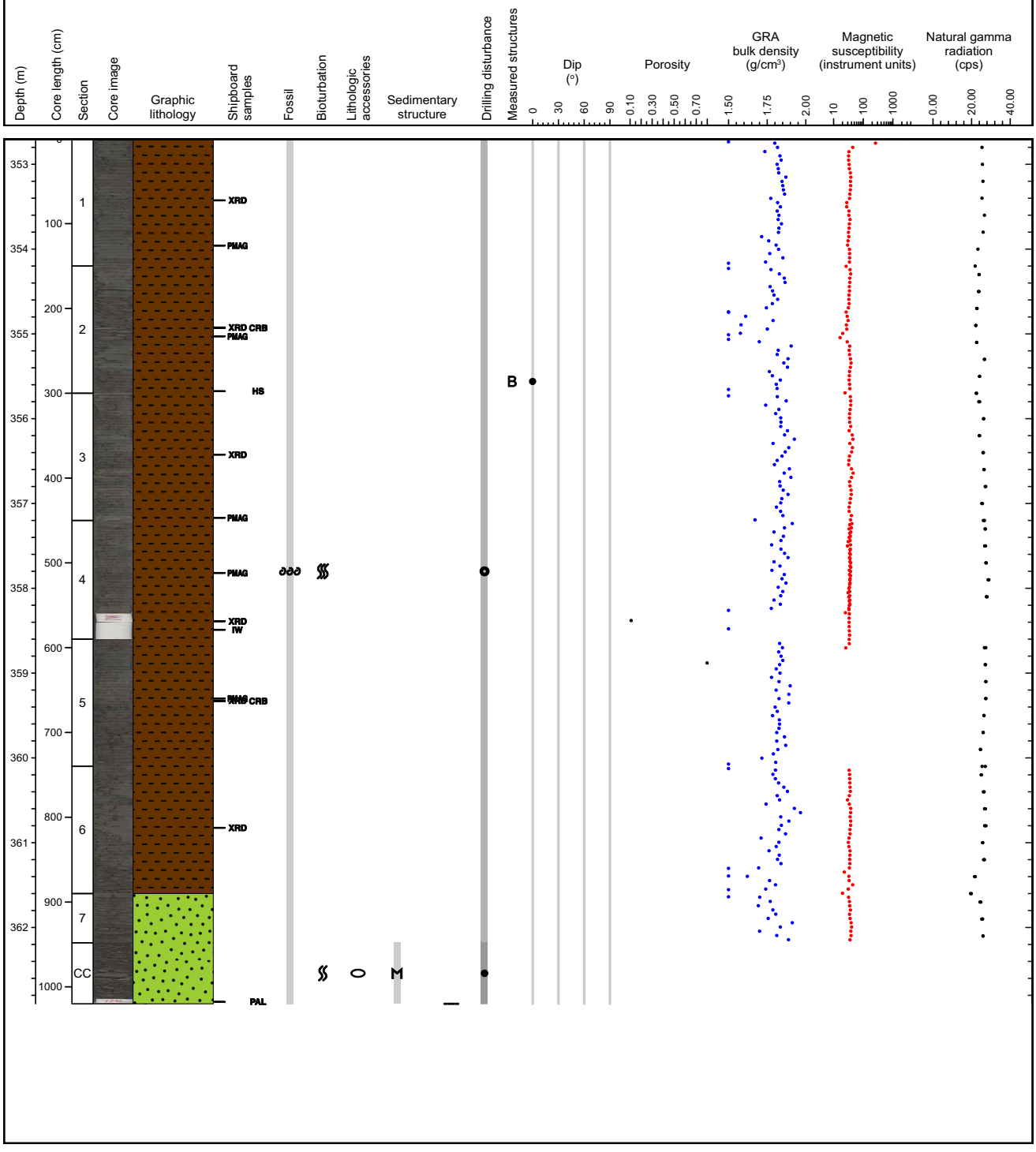
Major lithology: Sequence of alternating beds consisting in the upper part (section 1, 0 to 50 cm) out of sandy layers and silt; in the lower part this are alternatinglayers of silty clay and clay. Sandy layers show partly gradation and some ripp clasts. Within the lower part two dark brown to pinkish black ash layers can be observed at: section 1, 73 to 80 cm; section 6, 21 to 30 cm, that are partlt distrubed by the occuring biscuiting.



Core Photo

Hole 334-U1379C Core 45X, Interval 352.7-362.9 m (CSF-A)

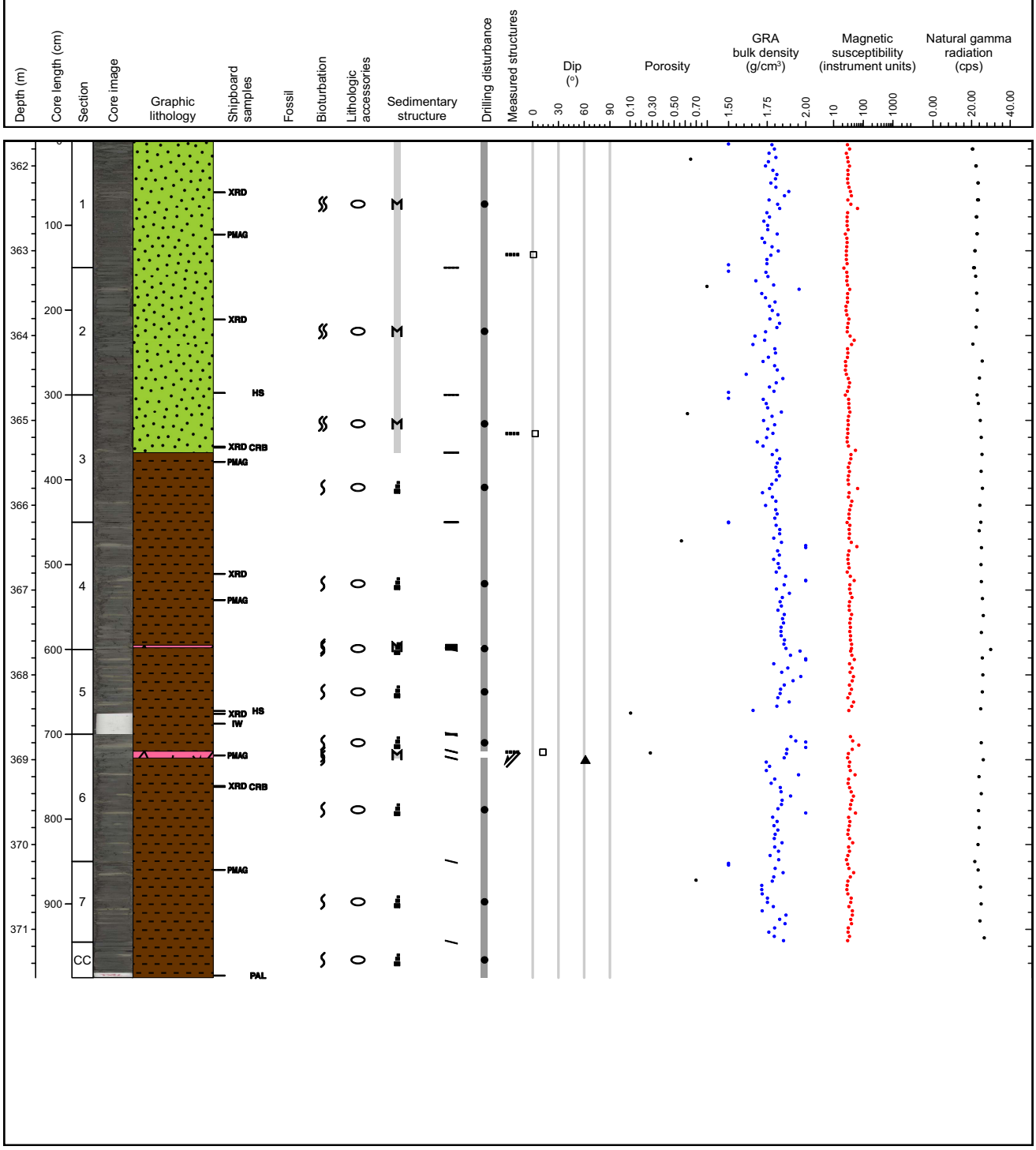
Major lithology: Monotonous sequence of clay. Lamination in mm-scale alternate with cm-sized massive clay beds; Lamination seem to reflect small changes in grain size; moderate bioturbation can be observed.



Core Photo

Hole 334-U1379C Core 46X, Interval 361.7-371.57 m (CSF-A)

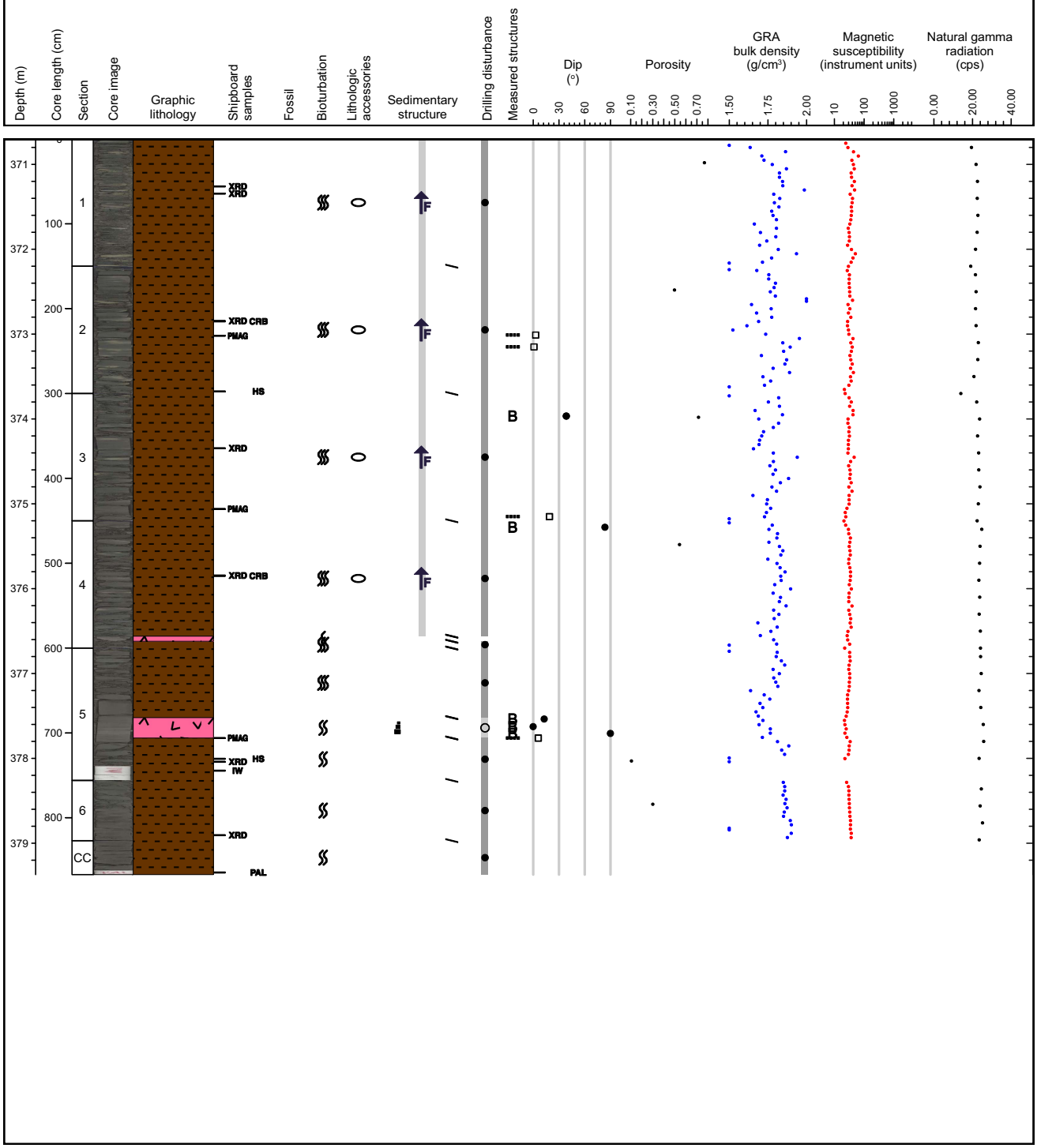
Major lithology: Core is composed of gray black sediment. A high level of Drilling disturbance is present in the from of biscuiting. Core is madde up of a series of fining upwards sequence. The upper part being completely composed of clay with the lower region becoming more silty clay. Dolomite concertions yelloish beige in color appear in this Sequences. Two Ash layers have been identified in Section 4, 145 to 148 cm and Section 6, 20 to 28 cm.



Core Photo

Hole 334-U1379C Core 47X, Interval 370.7-379.37 m (CSF-A)

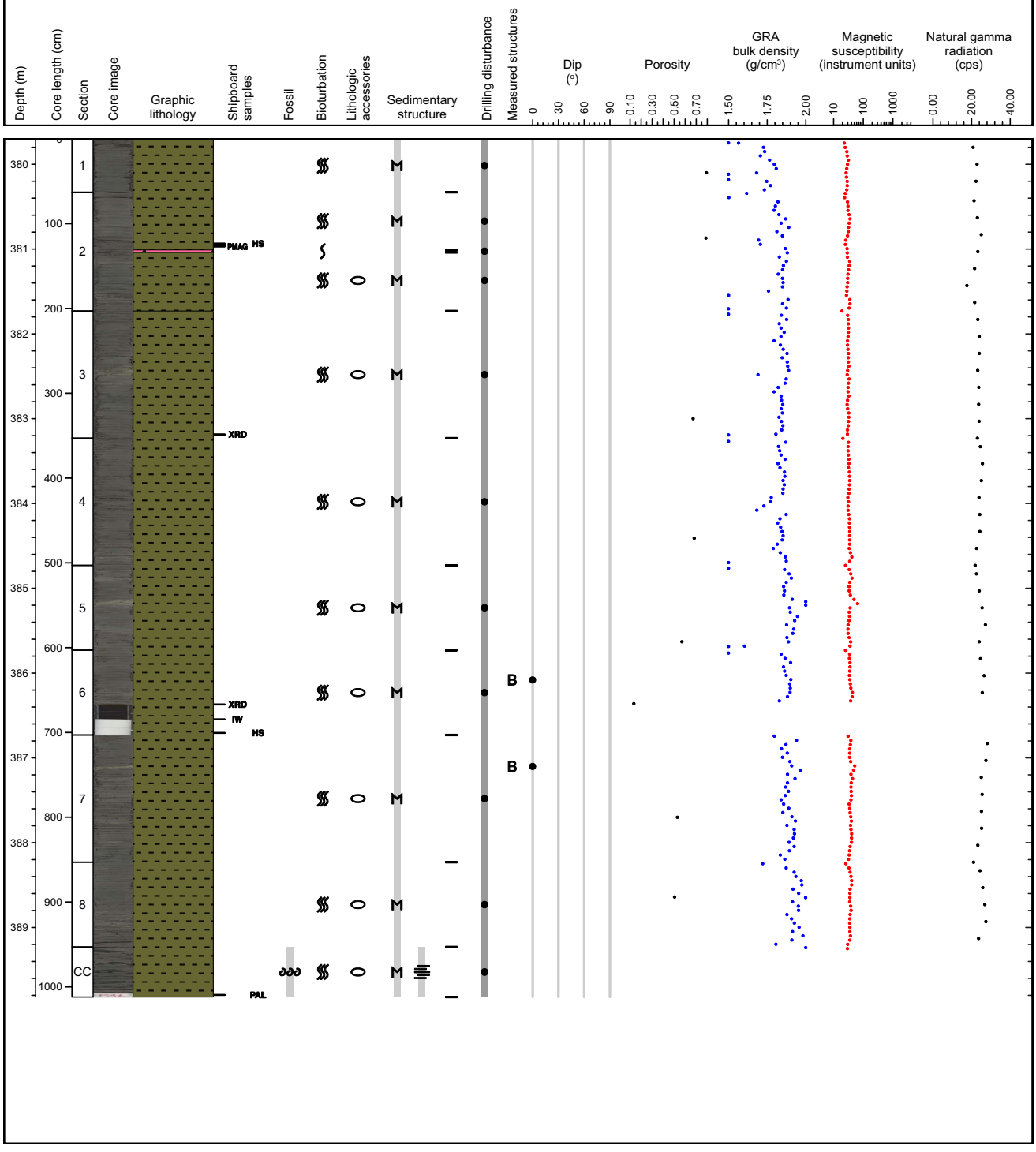
Major lithology: The upper part is built of fining upwards sequences but completely composed of clay whereas the lower section becomes more silty clay. The upper part has also abundant concretions. Three horzons with light pinkish ash layers can be identified at: section 4 0 to 7 cm; 136 to 141 cm, section 5 between 81 and 107 cm.



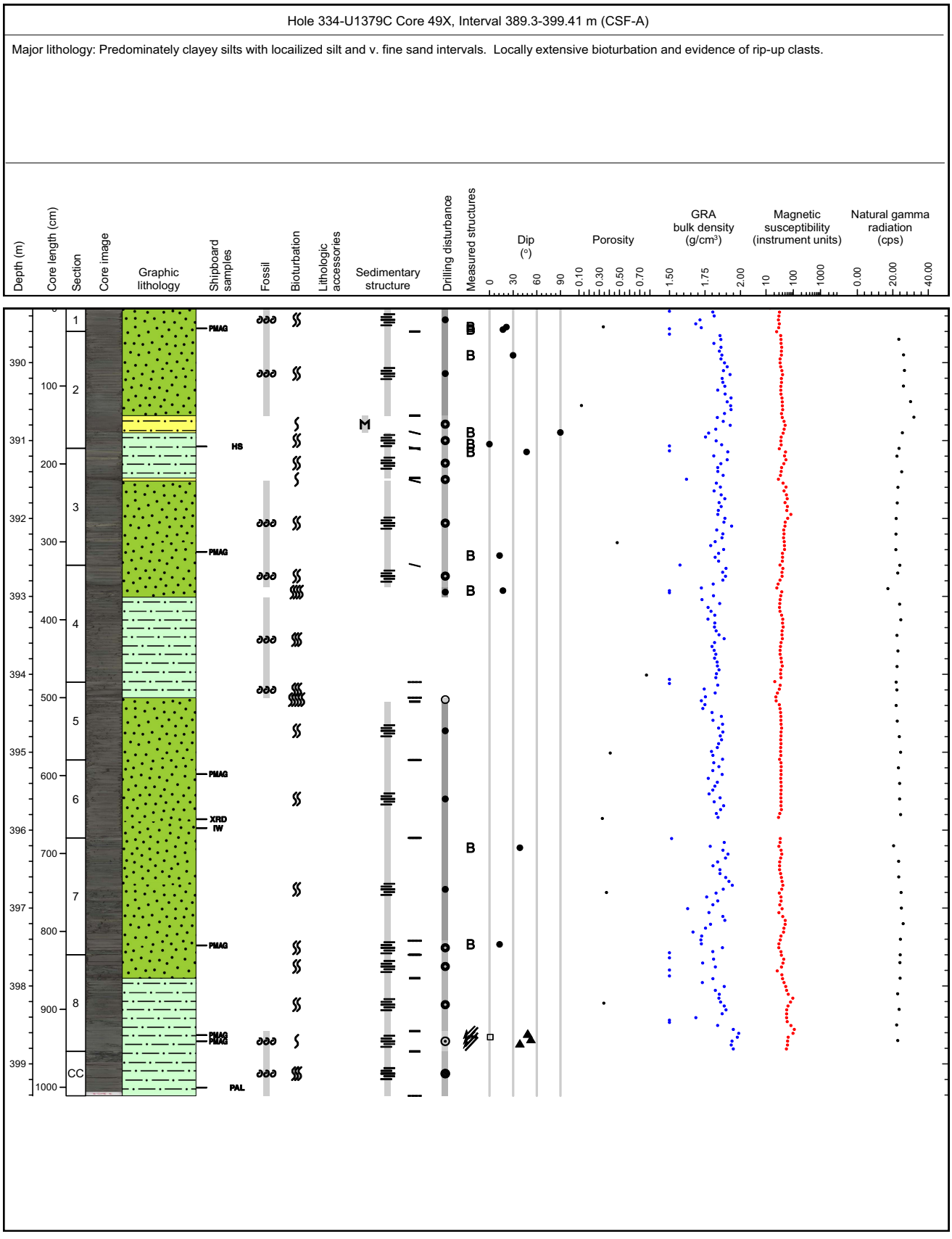
Core Photo

Hole 334-U1379C Core 48X, Interval 379.7-389.82 m (CSF-A)

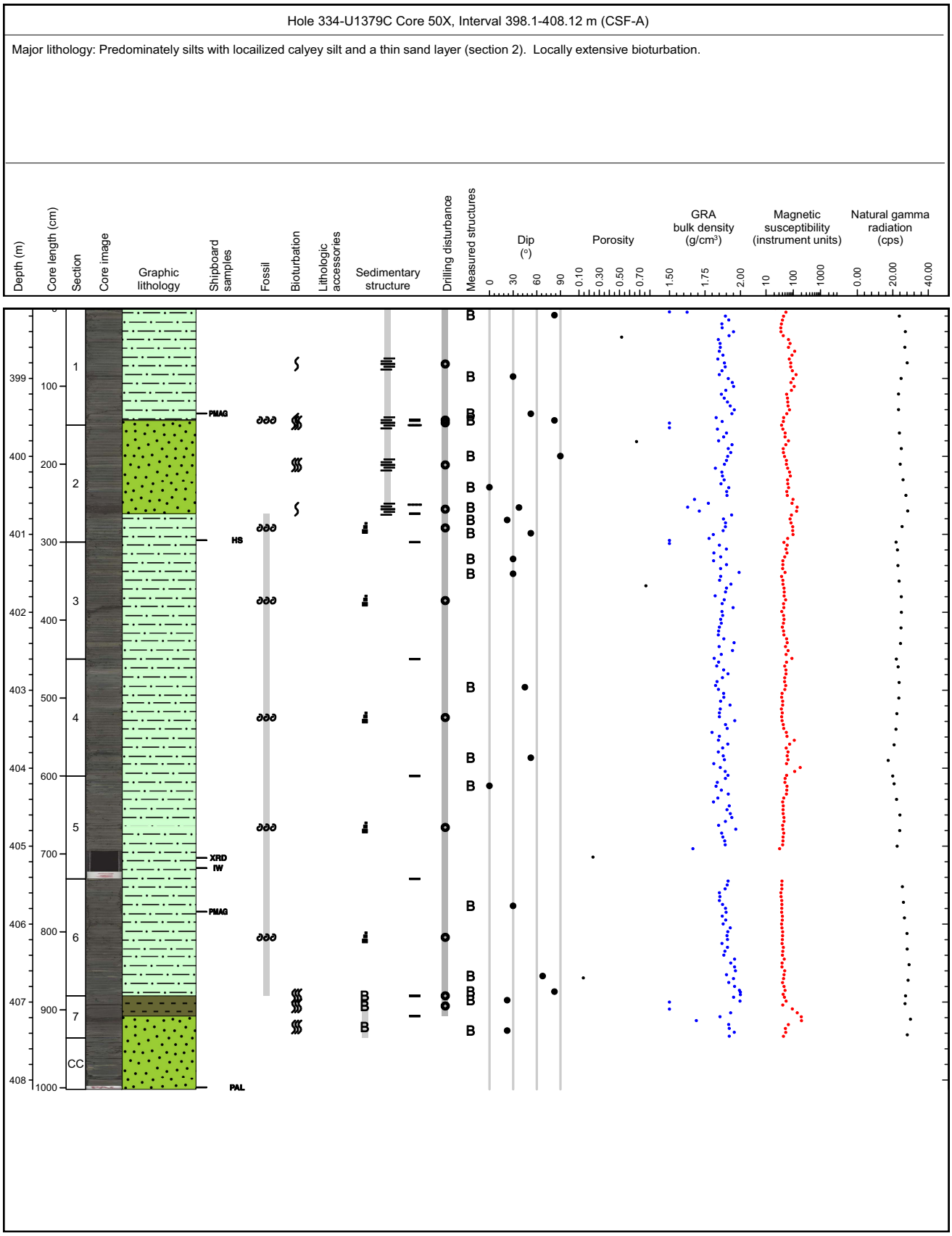
Major lithology: Dark gray silty clay with abundant bioturbation and concretions, the latter more frequent towards the bottom. An ash layer is intercalated in section 2, 68 to 71 cm.



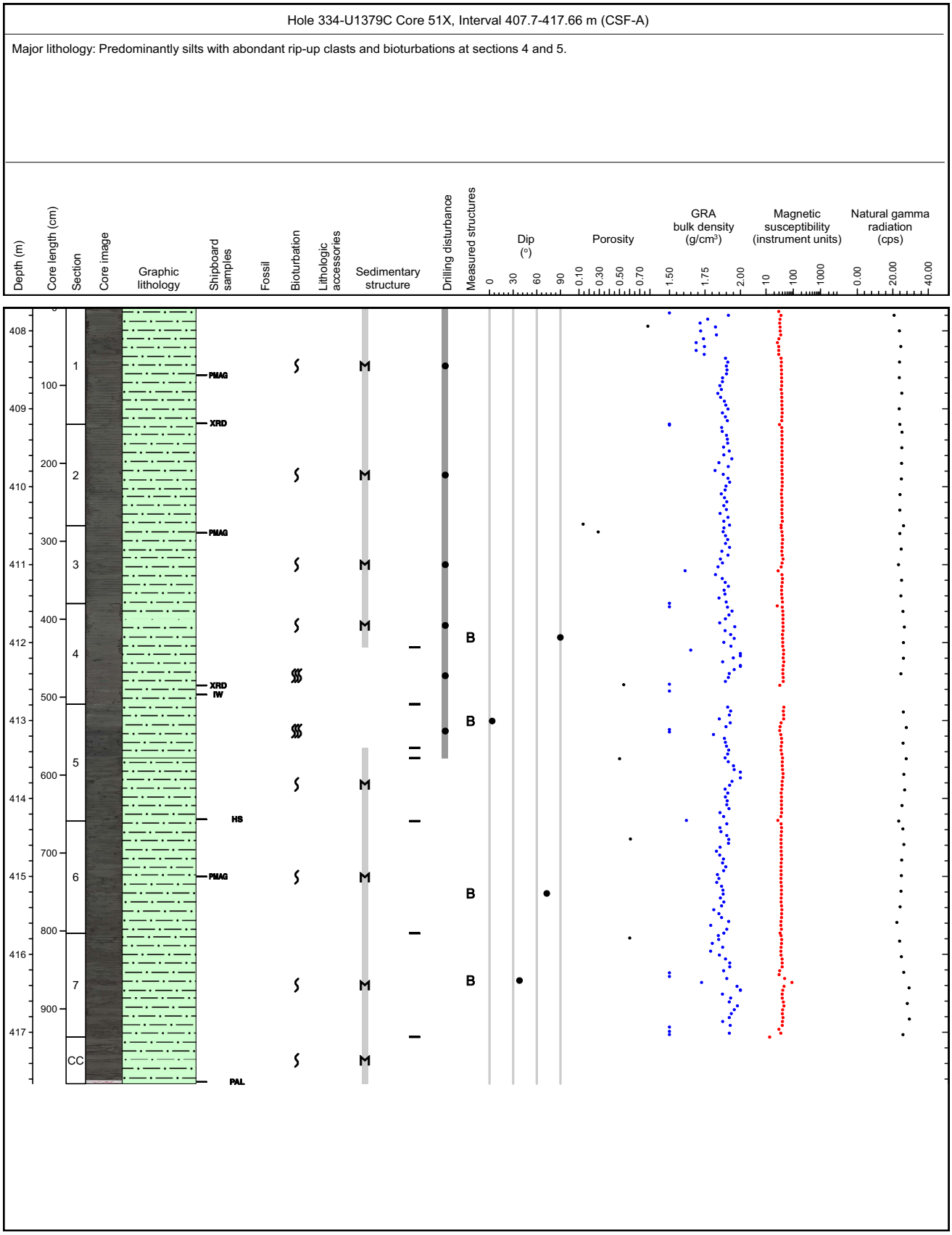
Core Photo


Hole 334-U1379C Core 49X, Interval 389.3-399.41 m (CSF-A)
Major lithology: Predominately clayey silts with locailized silt and v. fine sand intervals. Locally extensive bioturbation and evidence of rip-up clasts.
Depth (m)
Core length (cm)
Section
Core image
Graphic lithology
Shipboard samples
Fossil
Bioturbation
Lithologic accessories
Sedimentary structure
Drilling disturbance
Measured structures
Dip (°)
Porosity
GRA bulk density (g/cm³)
Magnetic susceptibility (instrument units)
Natural gamma radiation (cps)
PMAG
HS
XRD
IW
PAL
CC

Core Photo


Hole 334-U1379C Core 50X, Interval 398.1-408.12 m (CSF-A)
Major lithology: Predominately silts with localized calyey silt and a thin sand layer (section 2). Locally extensive bioturbation.
Depth (m)
Core length (cm)
Section
Core image
Graphic lithology
Shipboard samples
Fossil
Bioturbation
Lithologic accessories
Sedimentary structure
Drilling disturbance
Measured structures
Dip (°)
Porosity
GRA bulk density (g/cm³)
Magnetic susceptibility (instrument units)
Natural gamma radiation (cps)
PMAG
HS
XRD
IW
PMAG
PAL

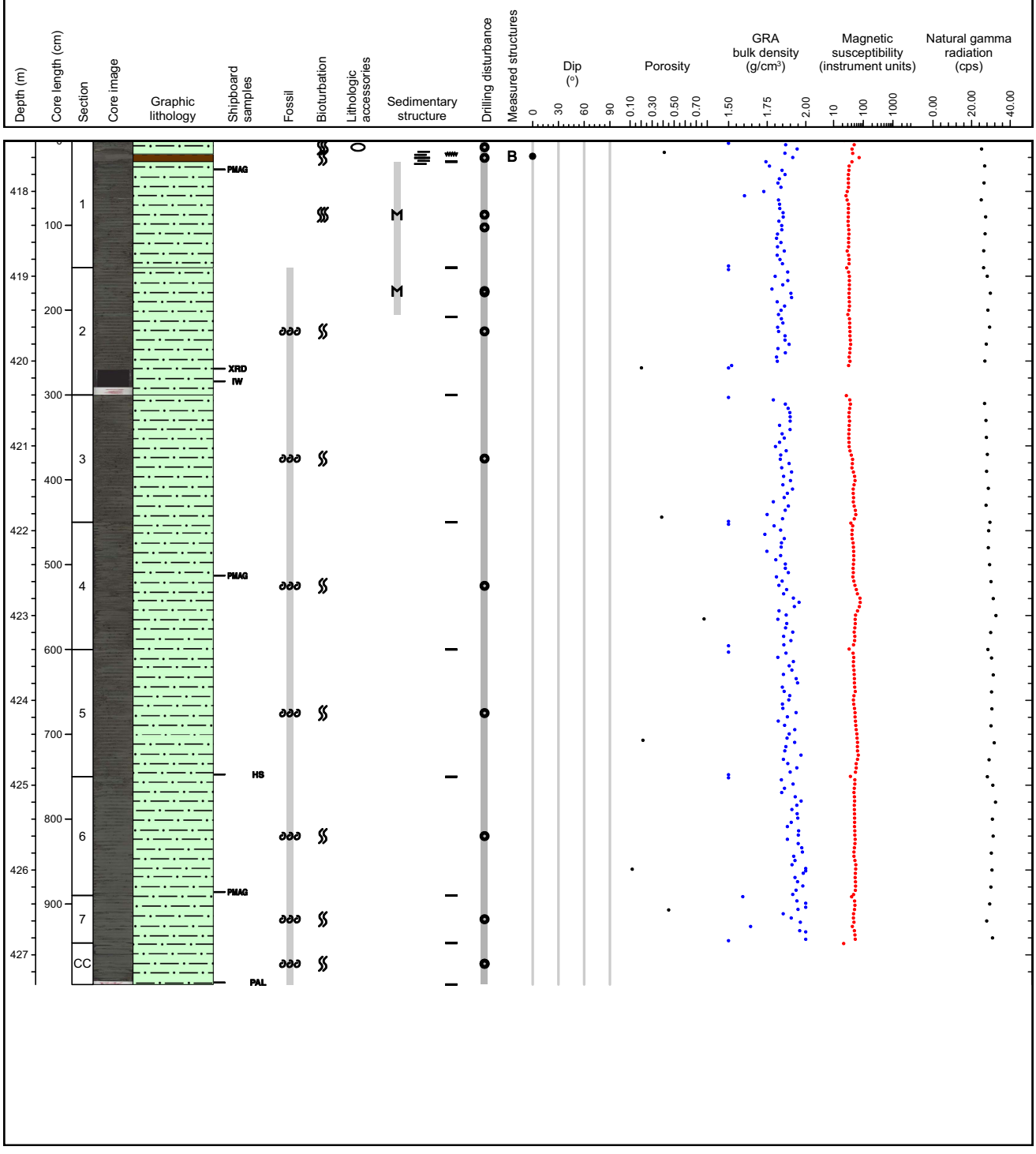
Core Photo


Hole 334-U1379C Core 51X, Interval 407.7-417.66 m (CSF-A)
Major lithology: Predominantly silts with abondant rip-up clasts and bioturbations at sections 4 and 5.
Depth (m)
Core length (cm)
Section
Core image
Graphic lithology
Shipboard samples
Fossil
Bioturbation
Lithologic accessories
Sedimentary structure
Drilling disturbance
Measured structures
Dip (°)
Porosity
GRA bulk density (g/cm³)
Magnetic susceptibility (instrument units)
Natural gamma radiation (cps)
PMAG
XRD
PMAG
XRD
IW
HS
PMAG
PAL
B
B
B
B
CC

Core Photo

Hole 334-U1379C Core 52X, Interval 417.4-427.35 m (CSF-A)

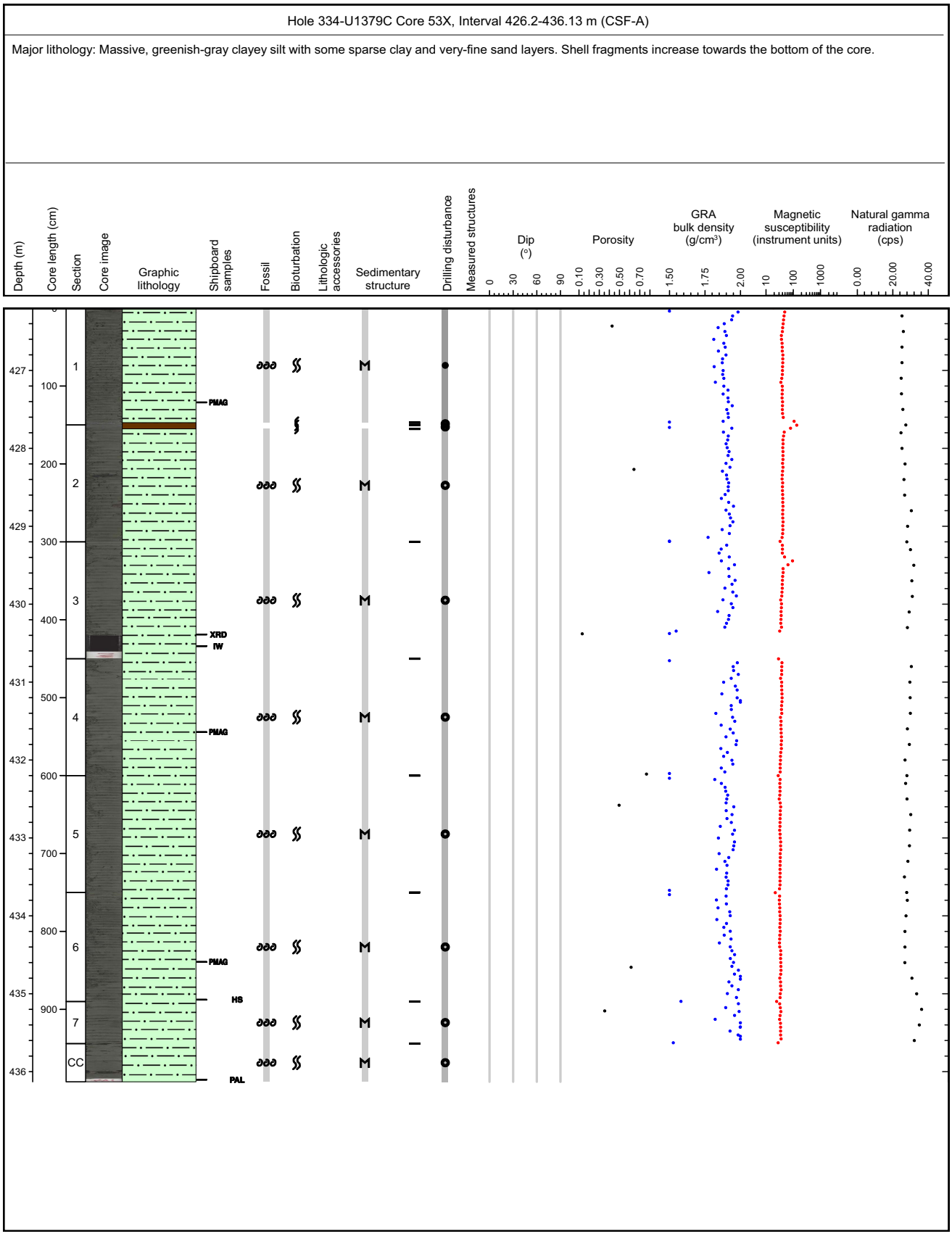
Major lithology: Slight calcareous clayey silt, with few clay layers intercalated. Bioturbation present throughout the core, and some sparse shell fragments towards the bottom of the core.



Core Photo

Hole 334-U1379C Core 53X, Interval 426.2-436.13 m (CSF-A)

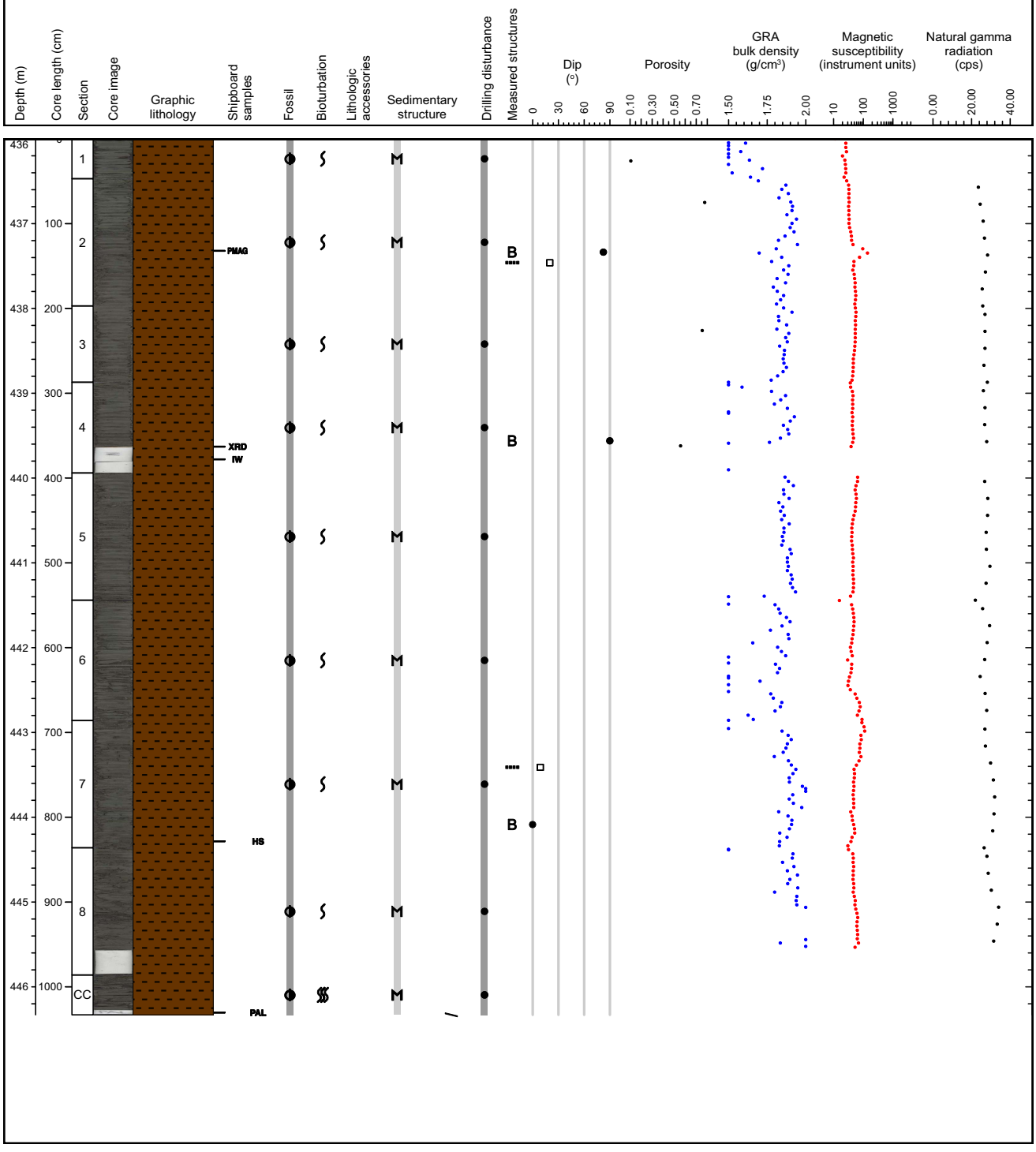
Major lithology: Massive, greenish-gray clayey silt with some sparse clay and very-fine sand layers. Shell fragments increase towards the bottom of the core.



Core Photo

Hole 334-U1379C Core 54X, Interval 436.0-446.33 m (CSF-A)

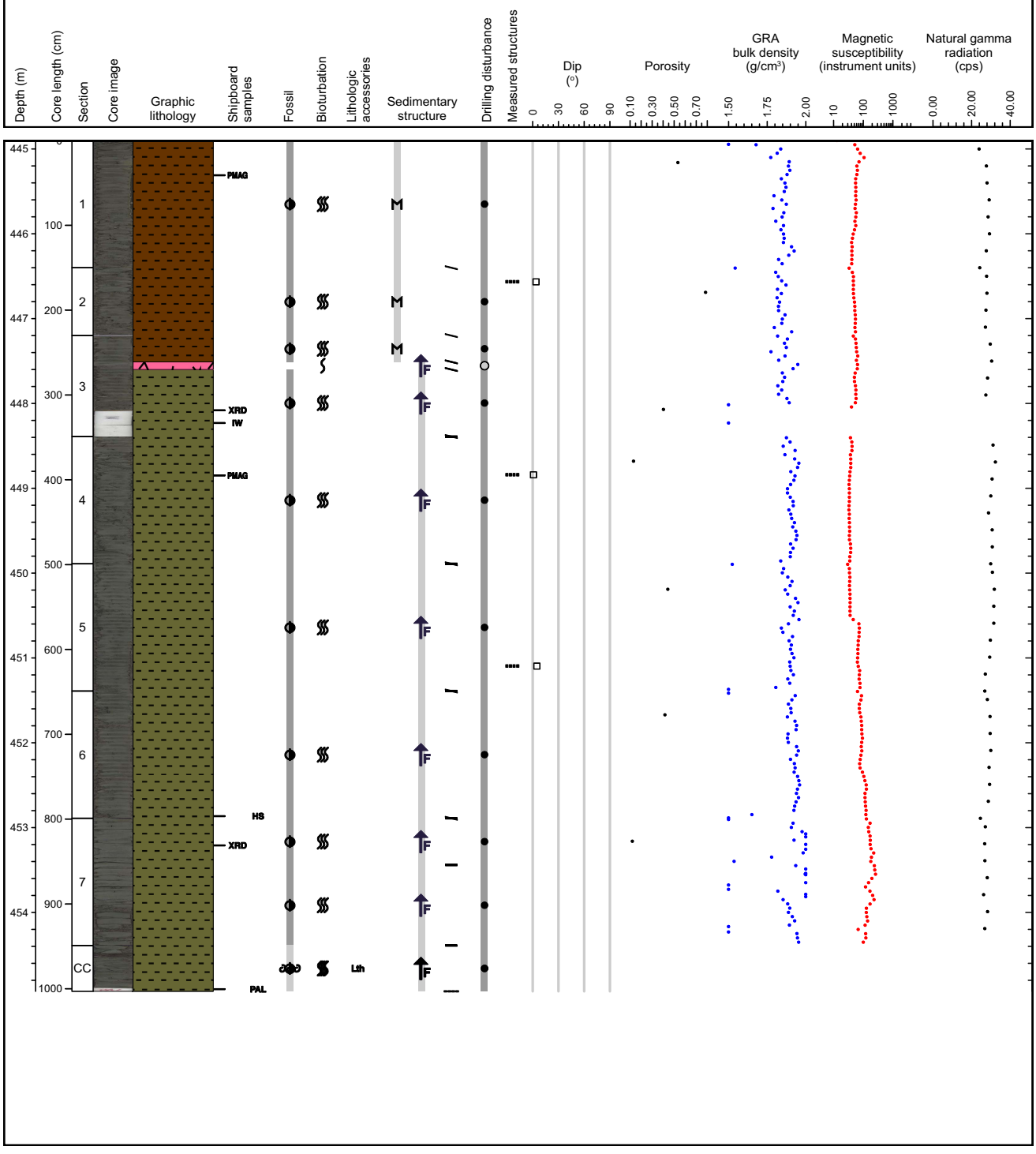
Major lithology: Core composed of very dark greenish gray, massive, silty clay. Drilling has caused biscuiting of core. Foraminifera are visible thoughtout the core. Some small shell fragmetns are also present in Section 1, 2, 3, 5, 6, 8. One magnetite rich horizon is present between section 2; 86 to 91cm.



Core Photo

Hole 334-U1379C Core 55X, Interval 444.9-454.93 m (CSF-A)

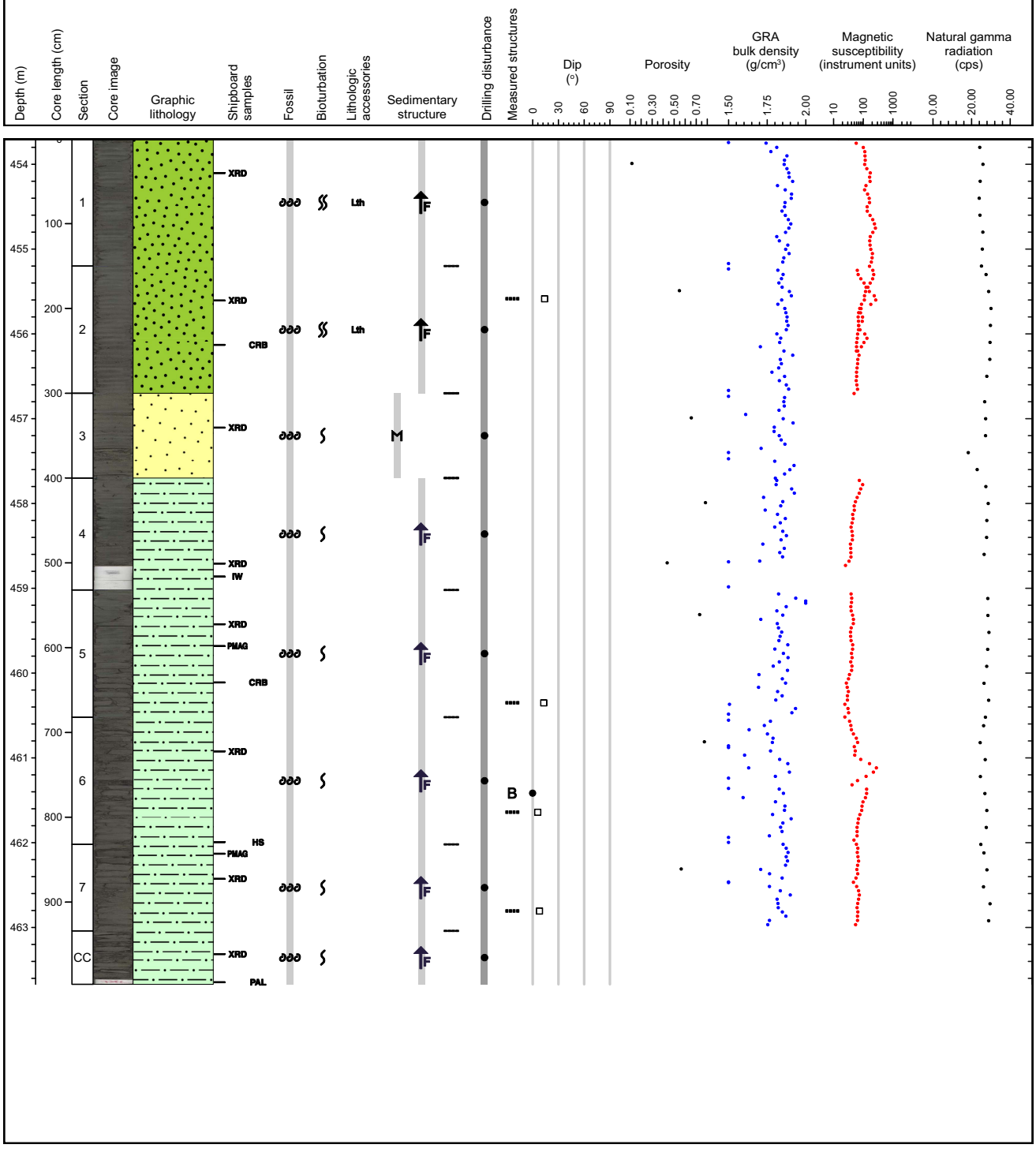
Major lithology: Core is composed of Silty clay and Sandy silt. Dark greenish gray in color. bioturbation is present. One ash layer is present in Section 3 (31 - 40cm) the ash appears to be layered with the lower coarser layer being composed of Dark gray materail. the upper layer is lighter in color and composed of finer material. Sediment above the ash layer appears to be once continous sequence of silty clay. while below the ash lay there is a fining upwards sequence. the bottom being sandy silty clay while the top is composed of silty clay. the lowest level of the core is composed of a seires of decimetre fining upward sequences. the base of the sequences are generally Sandy silt or sitly sand fining upwards to Silty clay. 5-6 of these sequences are present.



Core Photo

Hole 334-U1379C Core 56X, Interval 453.7-463.67 m (CSF-A)

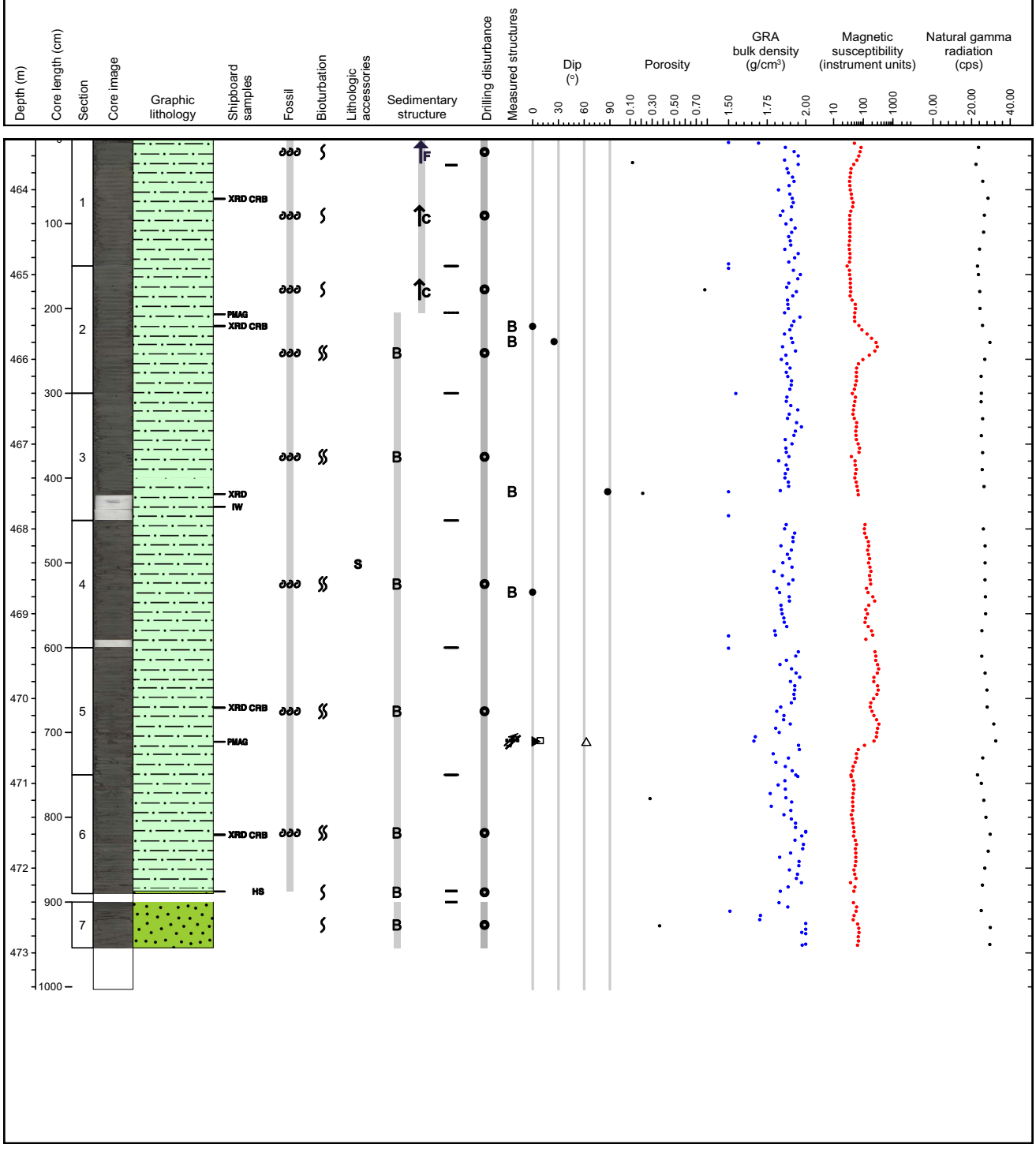
Major lithology: Biscuiting present from drilling. Dark greensih gray in color. Upper most Unit (Section 1 and 2) composed of a seires of decimetre scale fining upward sequences. the base of the sequences are generally Sandy silt or sitly sand fining upwards to Silty clay. 5-6 of these sequences are present. Small rip up clasts present at 12cm. Section 3, The layer is primarily composed of Shelly fragments ranging in size from fine sand to a 2-3 mm in size. Shell Fragments are courser than the over laying unit. Some complete speciments can be seen that are up to 3/4mm in size. Small wood fragments are also prestn in Section 3, at 95cm. Section 4 to CC: Layer is composed of Fineing upward sequence of Sandy clayey silt. Occationally there are more shelly horizons present; section 5 and 6, the core catcher is composed of meduim to coarse sand.



Core Photo

Hole 334-U1379C Core 57X, Interval 463.4-473.43 m (CSF-A)

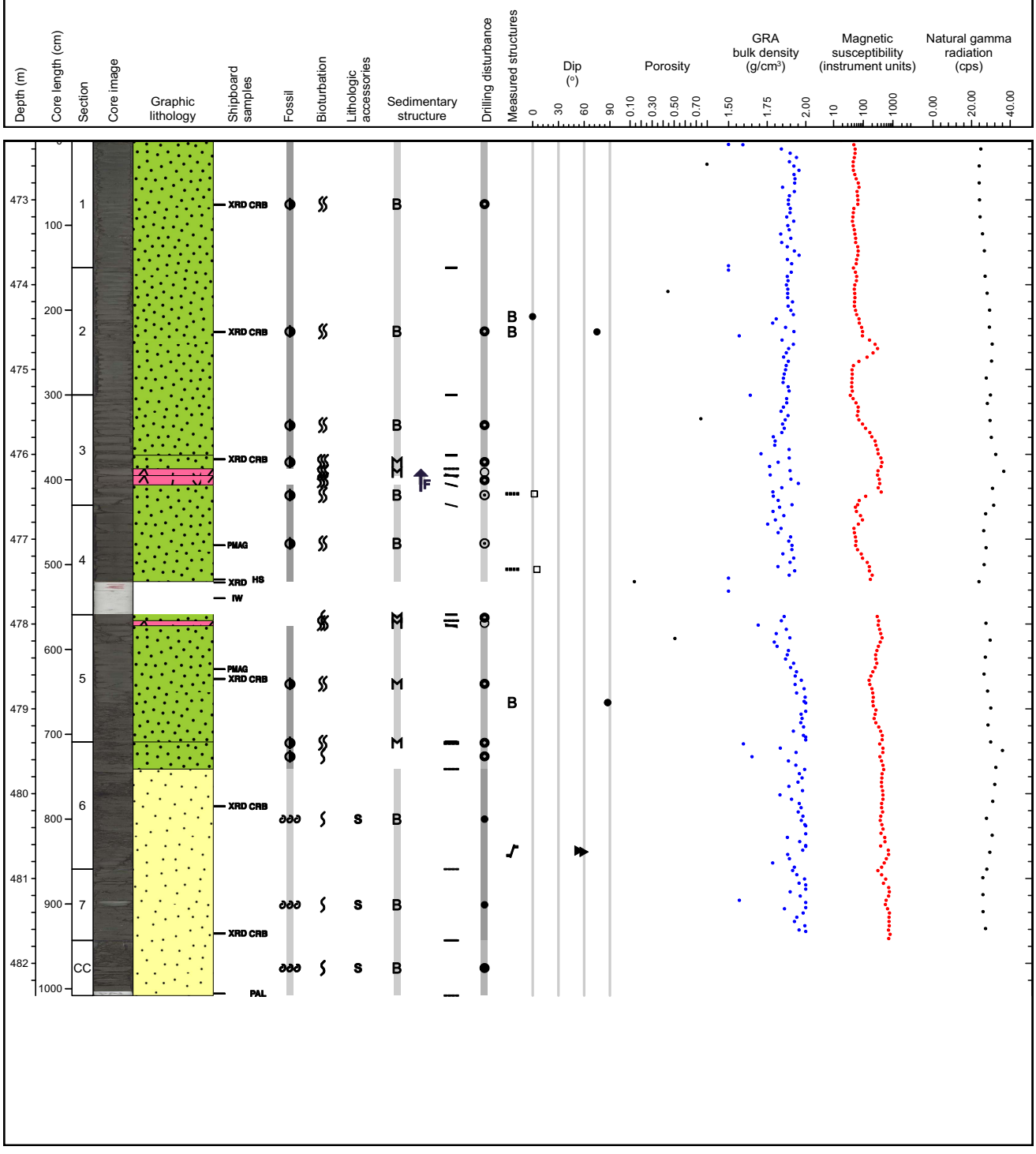
Major lithology: Sequence of greenish black coarsening and fining upward layers/beds in cm to dm scale. General grain-size is silt with variations to clayey or sandy silt. Coarsest grain-size is medium sand within the graded layers. Some shell fragments and one coral fragment is observed; in the sand layers black sedimentary lithics are abundant. At the bottom of the core (section 6 to CC) the sediments are getting coarser



Core Photo

Hole 334-U1379C Core 58X, Interval 472.3-482.38 m (CSF-A)

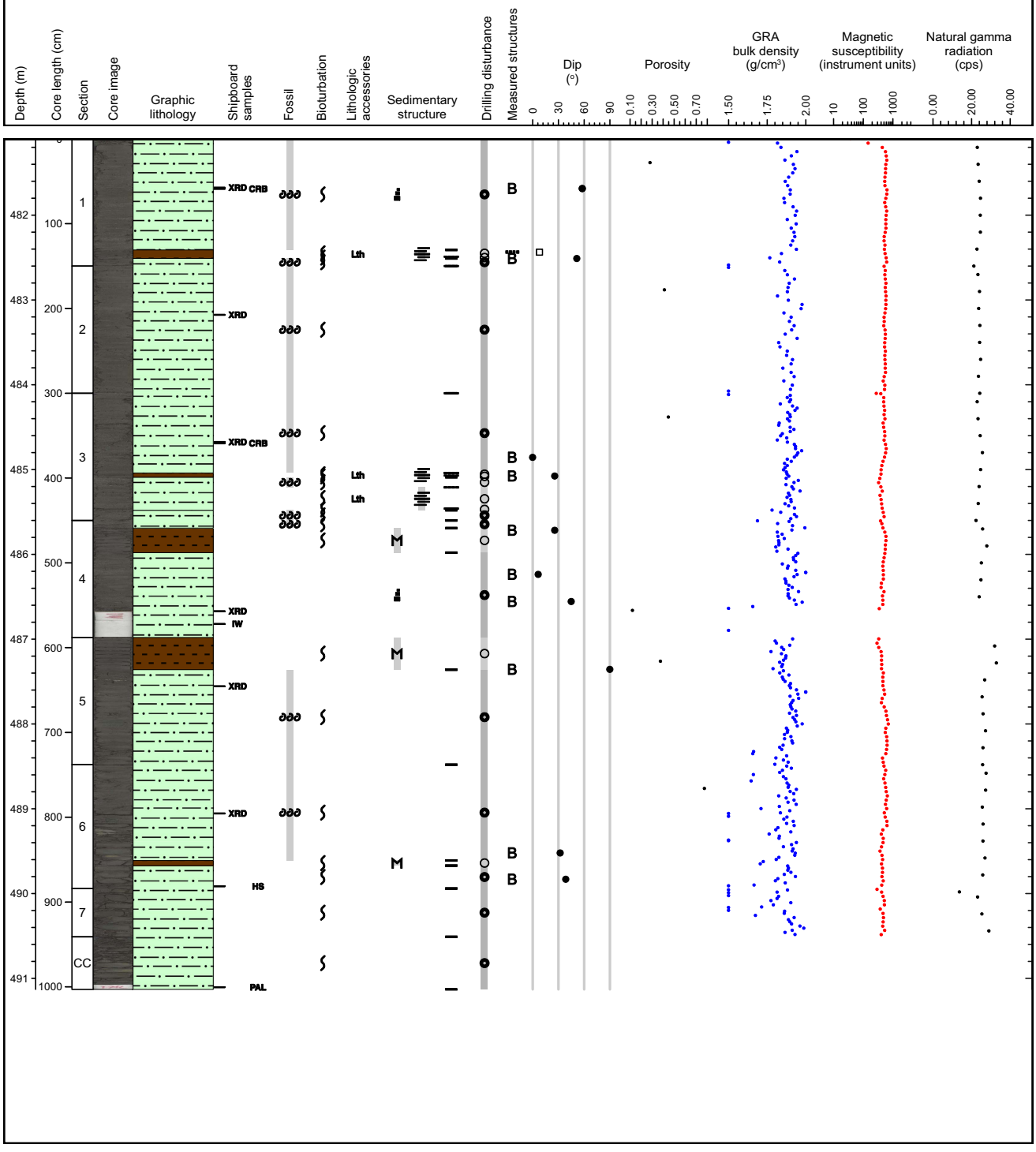
Major lithology: Sequence of fining upward beds composed out of greenish black fine-sand to sandy silt in cm-scaled beds that is interupt by several pinkish green ash layers. In the layers between the ash layers abundant ash pods occur. Toward the base the deposits are getting coarser and end up with a sequence of more sandy deposits (med-sand to silty sand). Ash layers are at: section 3: 87 to 95 cm; 101 to 106 cm; section 5 7 to 13 cm.



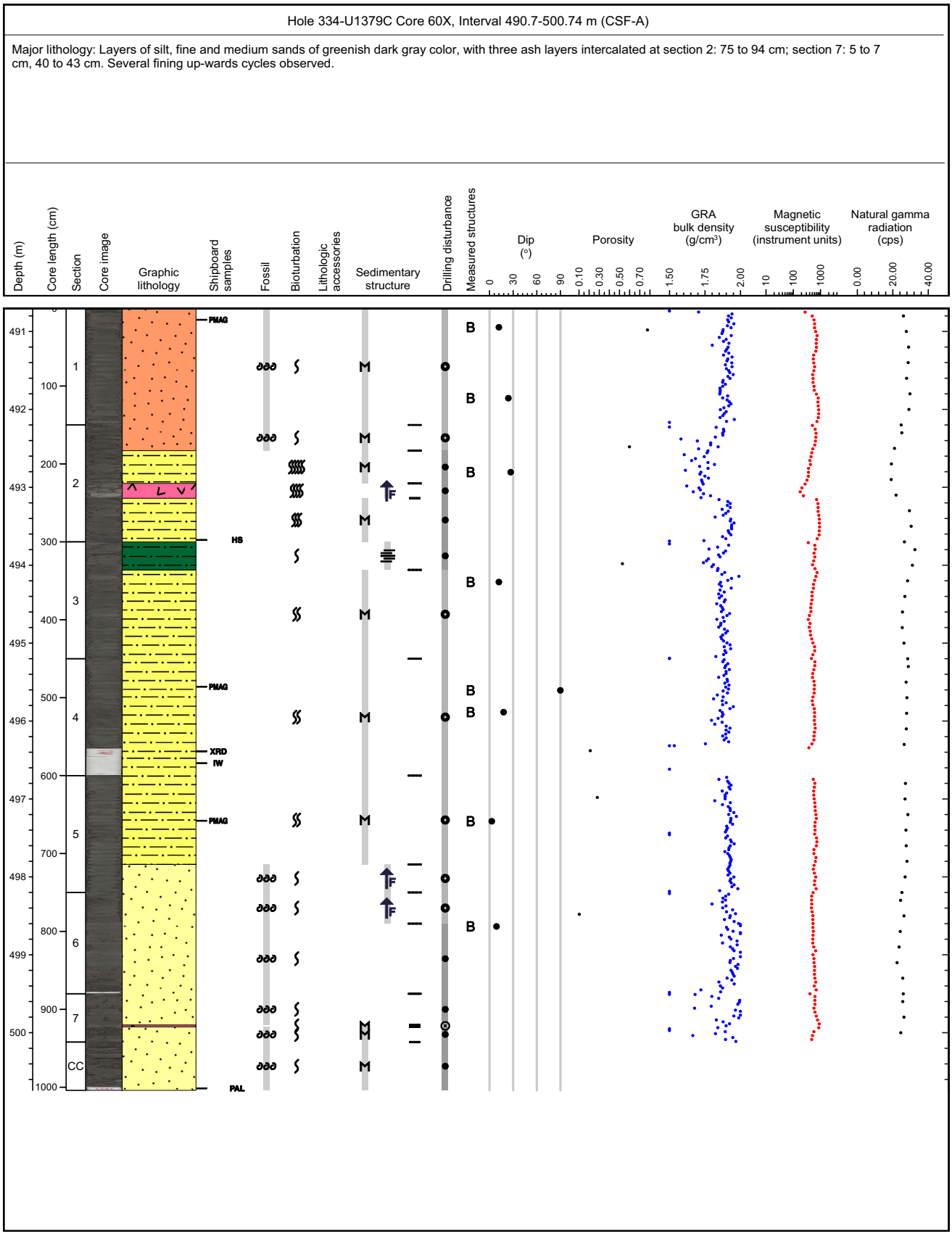
Core Photo

Hole 334-U1379C Core 59X, Interval 481.1-491.13 m (CSF-A)

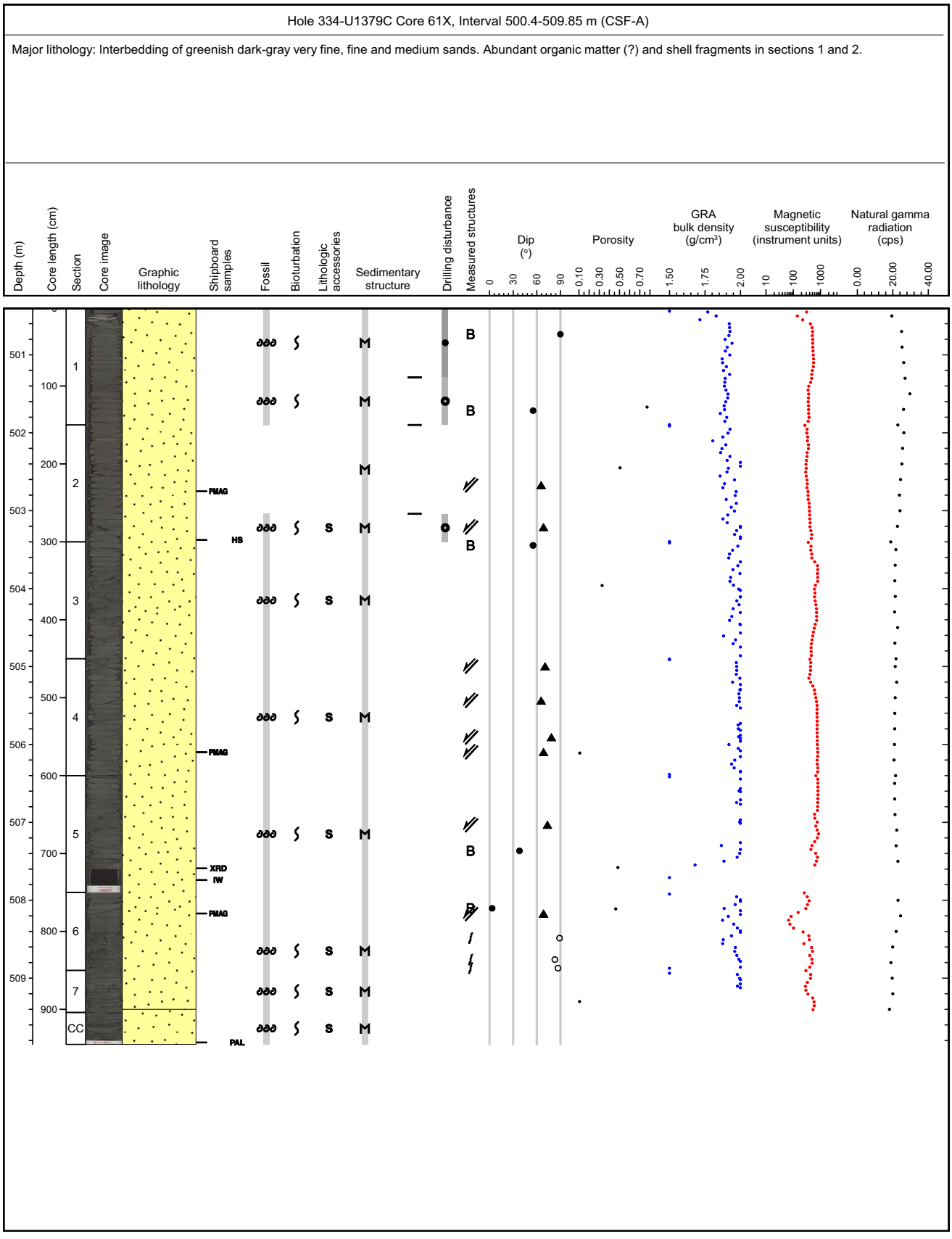
Major lithology: Sequence of Sandy Clayey silt. the sandy component is predominantly composed of Shelly material (bivalves and gastropods). The shell fragments are variable in size from 4-5mm in size to less than 1mm. Sequence contains a number of graded sequences. these are poorly defined. there appears to be both coarsening upward packages and fining upward packages. There are also units composed of silty clay, containing planer laminetion. these lamination are highlighted by black coloration and occur on a mm scale. the black lithic materail appears to be volcanic ash in smear slides. There are a number of poorly defined graded packages. Coaurse tail grading. Rip-up clasts are present and appear to take a number of forms, some are well rounded while others are nore sub angular. occational stretched/deformed horizons are also present. There are 3 units of massive gray brown clay beds defined as tephra layers at section 1:139 to 141 cm; section 3: 97 to 99 cm, 136 to 138 cm



Core Photo


Hole 334-U1379C Core 60X, Interval 490.7-500.74 m (CSF-A)
Major lithology: Layers of silt, fine and medium sands of greenish dark gray color, with three ash layers intercalated at section 2: 75 to 94 cm; section 7: 5 to 7 cm, 40 to 43 cm. Several fining up-wards cycles observed.
Depth (m)
Core length (cm)
Section
Core image
Graphic lithology
Shipboard samples
Fossil
Bioturbation
Lithologic accessories
Sedimentary structure
Drilling disturbance
Measured structures
Dip (°)
Porosity
GRA bulk density (g/cm³)
Magnetic susceptibility (instrument units)
Natural gamma radiation (cps)
PMAG
HS
XRD
IW
PAL
CC

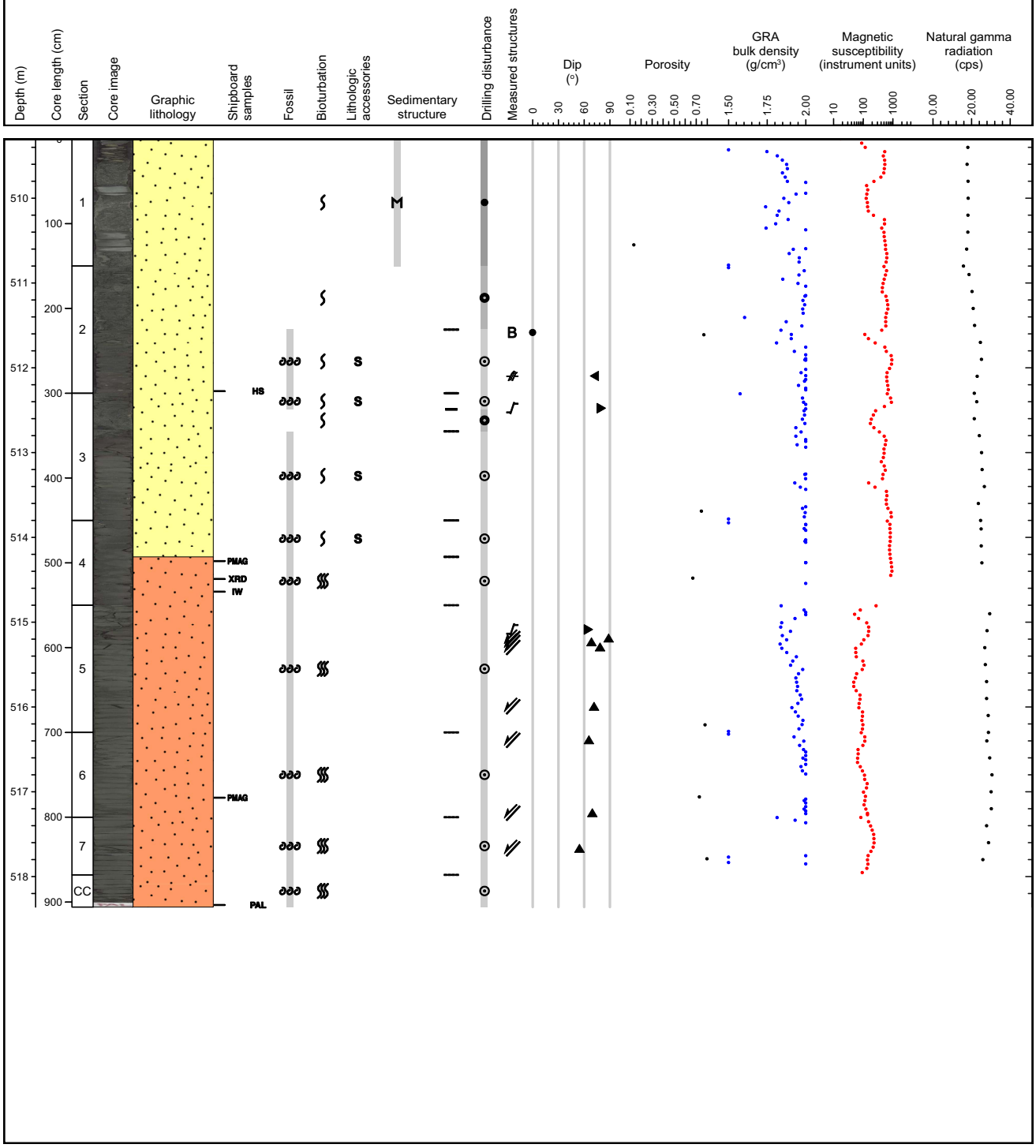
Core Photo


Hole 334-U1379C Core 61X, Interval 500.4-509.85 m (CSF-A)
Major lithology: Interbedding of greenish dark-gray very fine, fine and medium sands. Abundant organic matter (?) and shell fragments in sections 1 and 2.
Depth (m)
Core length (cm)
Section
Core image
Graphic lithology
Shipboard samples
Fossil
Bioturbation
Lithologic accessories
Sedimentary structure
Drilling disturbance
Measured structures
Dip (°)
Porosity
GRA bulk density (g/cm³)
Magnetic susceptibility (instrument units)
Natural gamma radiation (cps)
PMAG
HS
XRD
IW
PAL
CC

Core Photo

Hole 334-U1379C Core 62X, Interval 509.3-518.36 m (CSF-A)

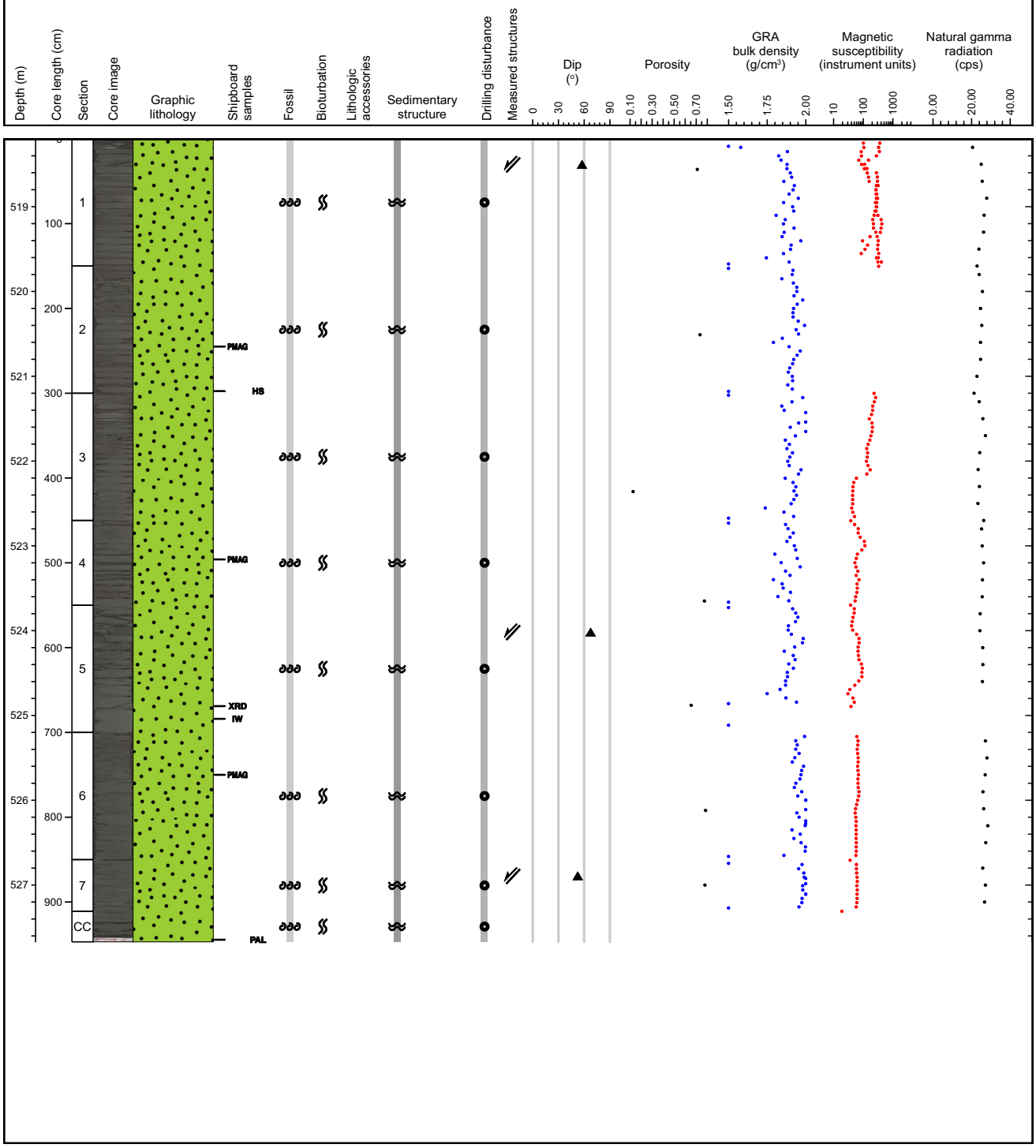
Major lithology: Core consists predominately of consolidated silts overlain by fine sands. The sands are consolidated and contain abundant gravel-sized silt and siltstone clasts. Locally the fine sands are dissected by clastic dikes. Clastic dike filling includes shell fragments. The subjacent siltstones are intensely bioturbated and contain isolated shell fragments.



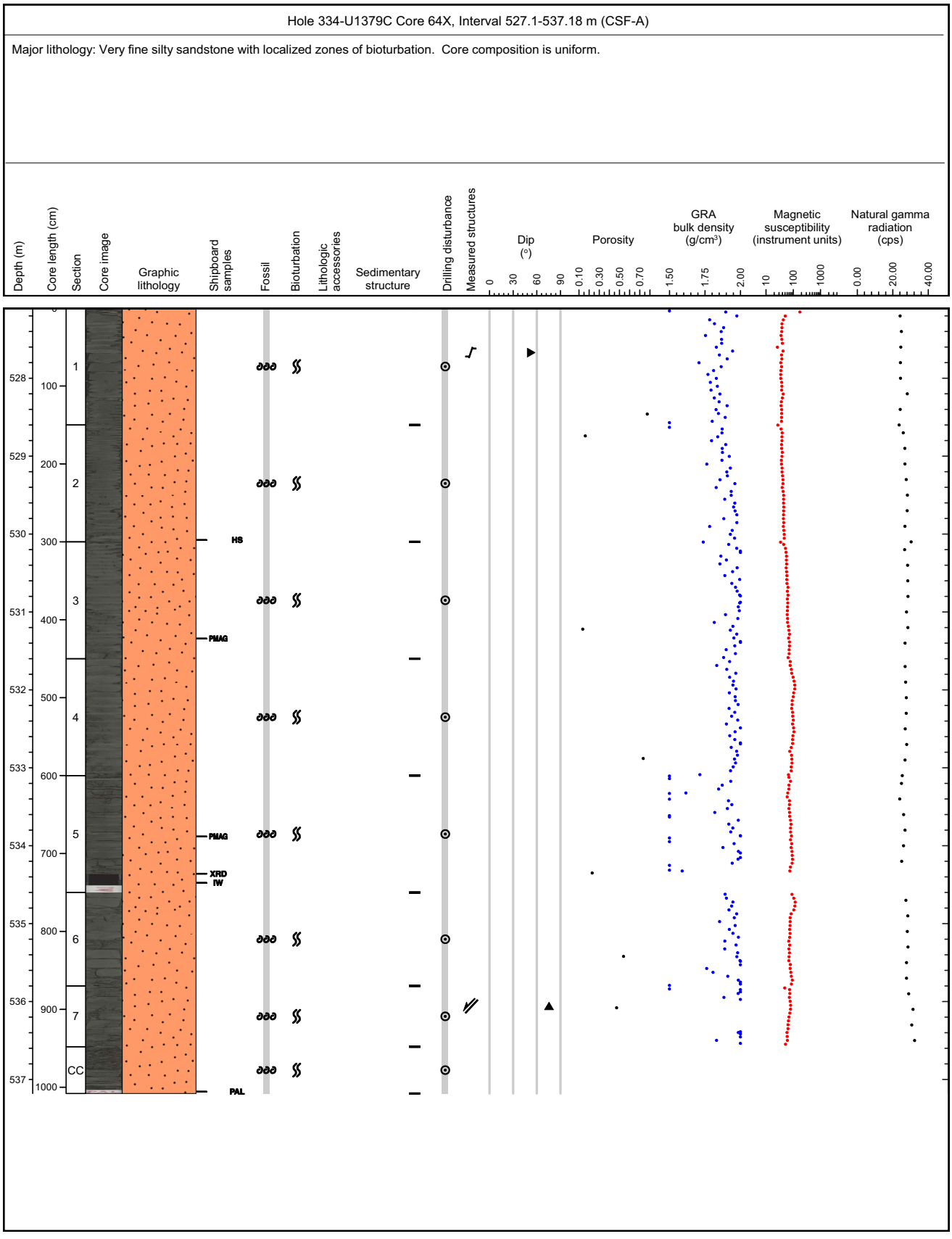
Core Photo

Hole 334-U1379C Core 63X, Interval 518.2-527.67 m (CSF-A)

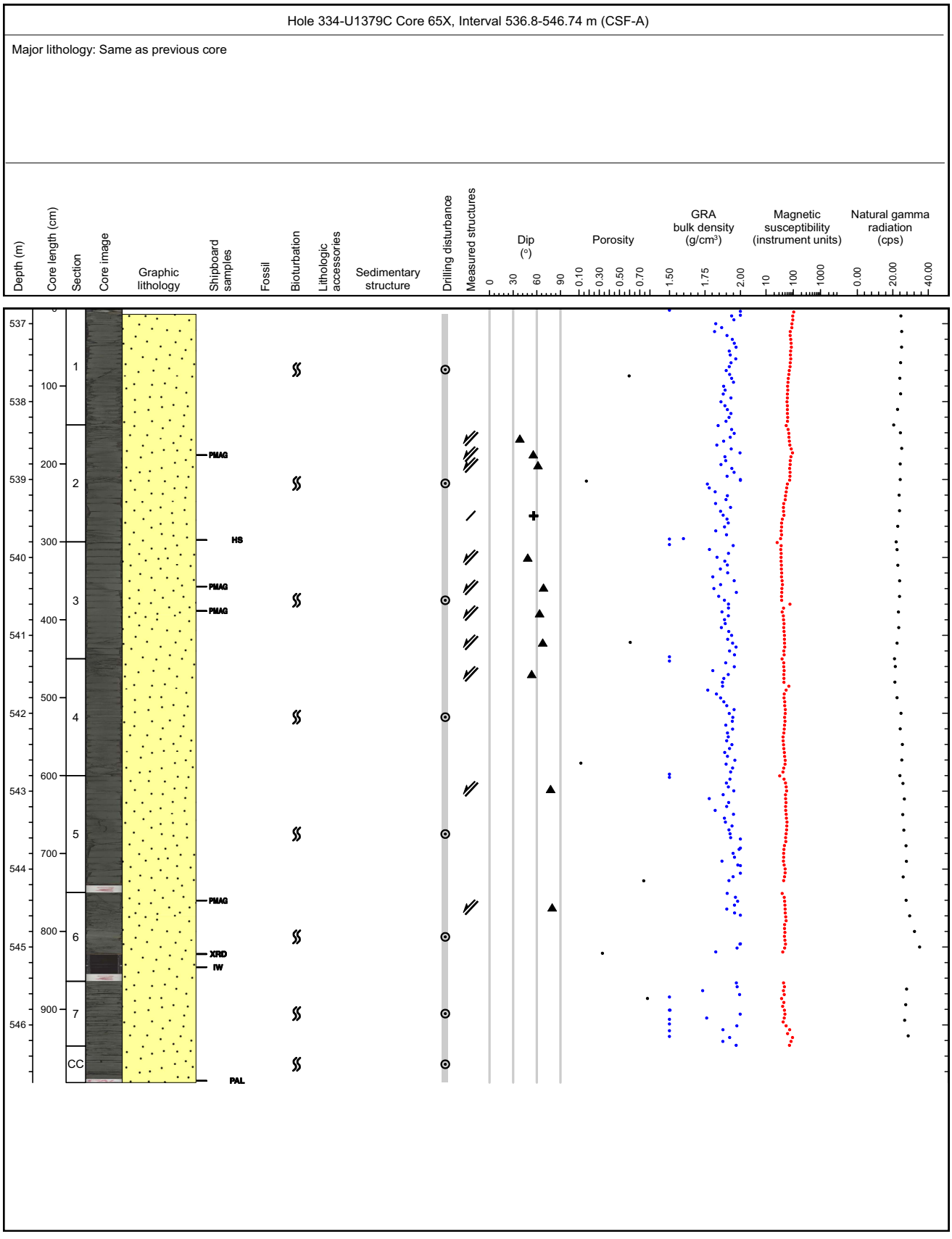
Major lithology: Olive dark gray consolidated siltstone showing localized wavy lamination and shell fragments.



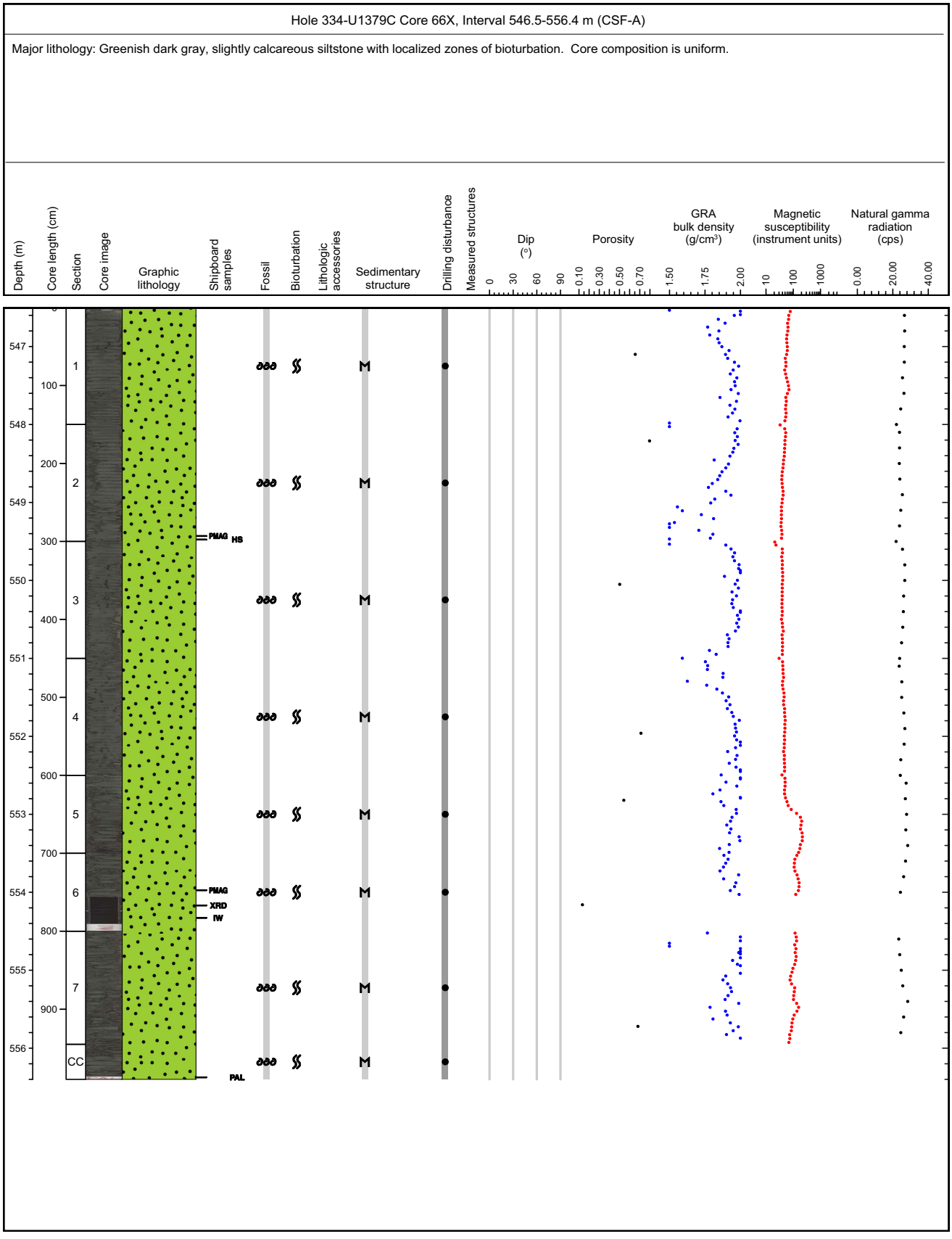
Core Photo


Hole 334-U1379C Core 64X, Interval 527.1-537.18 m (CSF-A)
Major lithology: Very fine silty sandstone with localized zones of bioturbation. Core composition is uniform.
Depth (m)
Core length (cm)
Section
Core image
Graphic lithology
Shipboard samples
Fossil
Bioturbation
Lithologic accessories
Sedimentary structure
Drilling disturbance
Measured structures
Dip (°)
Porosity
GRA bulk density (g/cm³)
Magnetic susceptibility (instrument units)
Natural gamma radiation (cps)
HS
PMAG
PMAG
XRD
IW
PAL
528
529
530
531
532
533
534
535
536
537
1
2
3
4
5
6
7
CC

Core Photo


Hole 334-U1379C Core 65X, Interval 536.8-546.74 m (CSF-A)
Major lithology: Same as previous core
Depth (m)
Core length (cm)
Section
Core image
Graphic lithology
Shipboard samples
Fossil
Bioturbation
Lithologic accessories
Sedimentary structure
Drilling disturbance
Measured structures
Dip (°)
Porosity
GRA bulk density (g/cm³)
Magnetic susceptibility (instrument units)
Natural gamma radiation (cps)
PMAG
HS
PMAG
PMAG
PMAG
XRD
IW
PAL

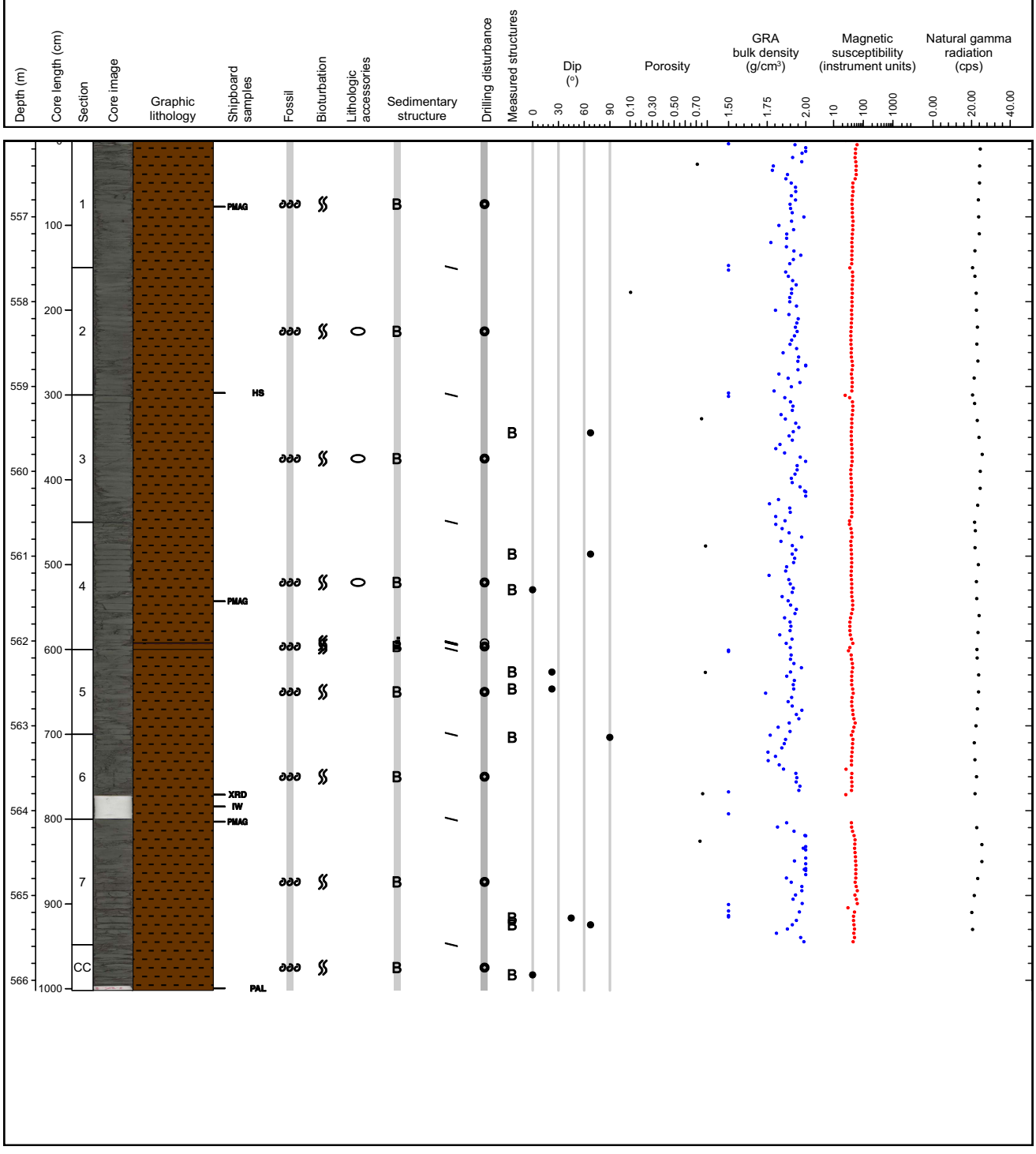
Core Photo


Hole 334-U1379C Core 66X, Interval 546.5-556.4 m (CSF-A)
Major lithology: Greenish dark gray, slightly calcareous siltstone with localized zones of bioturbation. Core composition is uniform.
Depth (m)
Core length (cm)
Section
Core image
Graphic lithology
Shipboard samples
Fossil
Bioturbation
Lithologic accessories
Sedimentary structure
Drilling disturbance
Measured structures
Dip (°)
Porosity
GRA bulk density (g/cm³)
Magnetic susceptibility (instrument units)
Natural gamma radiation (cps)
PMAG
HS
PMAG
XRD
IW
PAL
CC

Core Photo

Hole 334-U1379C Core 67X, Interval 556.1-566.12 m (CSF-A)

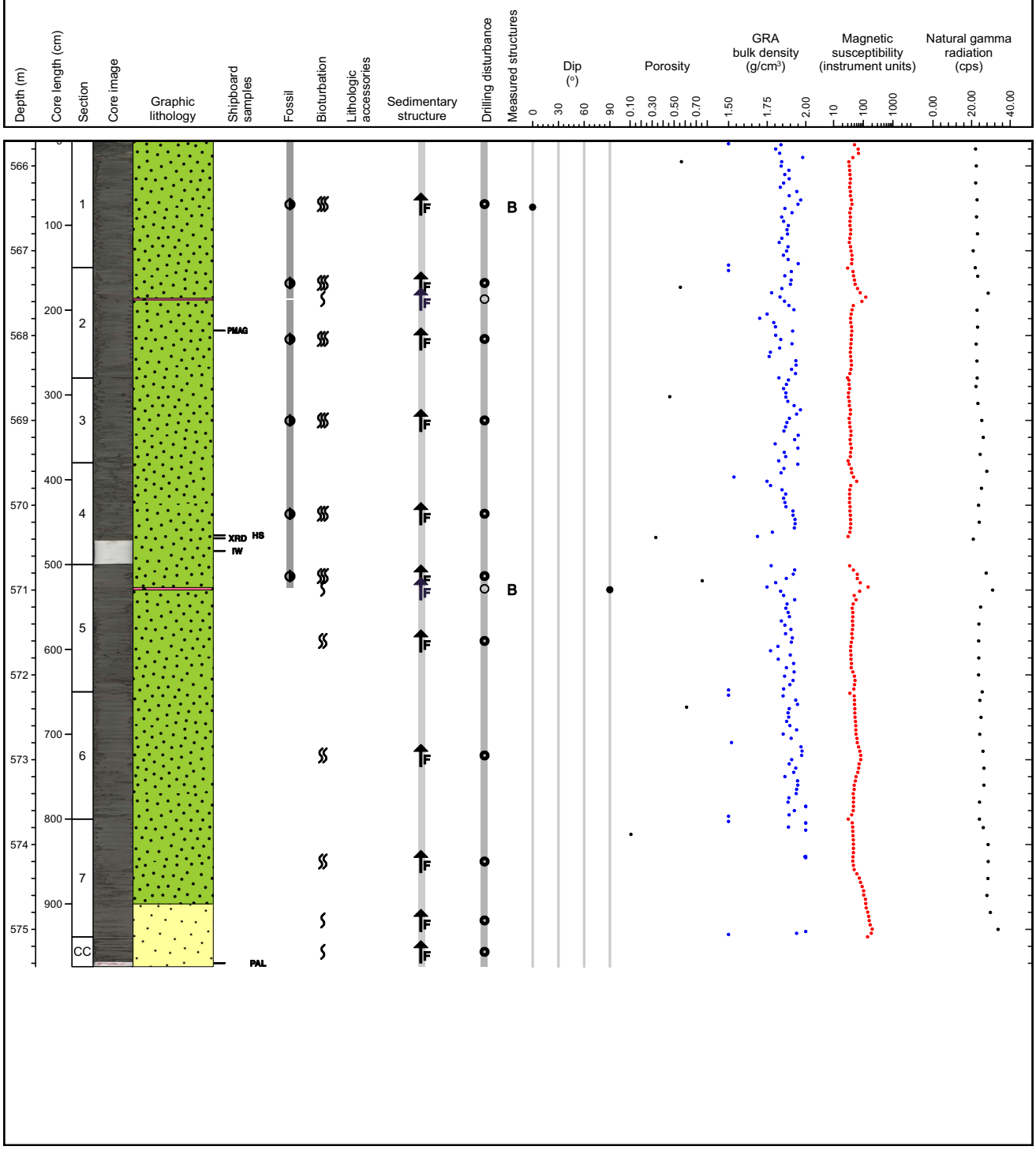
Major lithology: Sequences alternating between silty clay and clayey Silt. Dark greenish gray in color. Rare shell fragments occur throughout core. One ash layer is present in Section 4 between 143 and 144cm.



Core Photo

Hole 334-U1379C Core 68X, Interval 565.7-575.44 m (CSF-A)

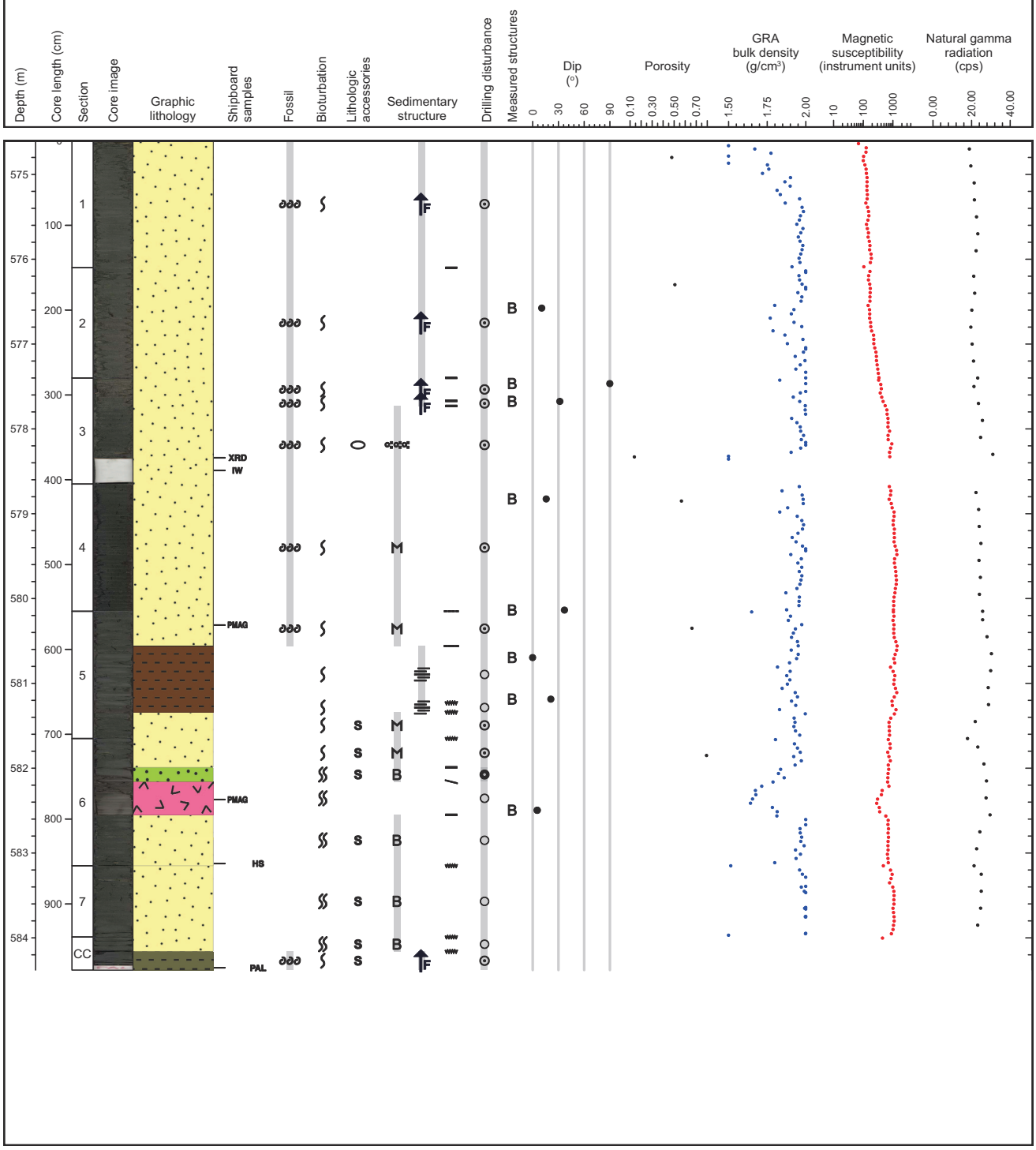
Major lithology: Entire core is domionated by dar greenish gray like alternating beds in cm scale that have changes in grains sizes and generally a fining upward from very fine sand to silty clay at the top. Whereas at the base some small beds of sand are present at the top small laminaes of clay can ve observed.In the finer upper part cross and parallel laminations are present occationally. Two black ash layers/tuff are present at section 2: 36 to 38 cm and section 5: 27 to 30cm. In the finer upper part cross and parallel laminations are present occationally. Two black ash layers/tuff are present at section 2: 36 to 38 cm and section 5: 27 to 30cm.



Core Photo

Hole 334-U1379C Core 69X, Interval 574.6-584.38 m (CSF-A)

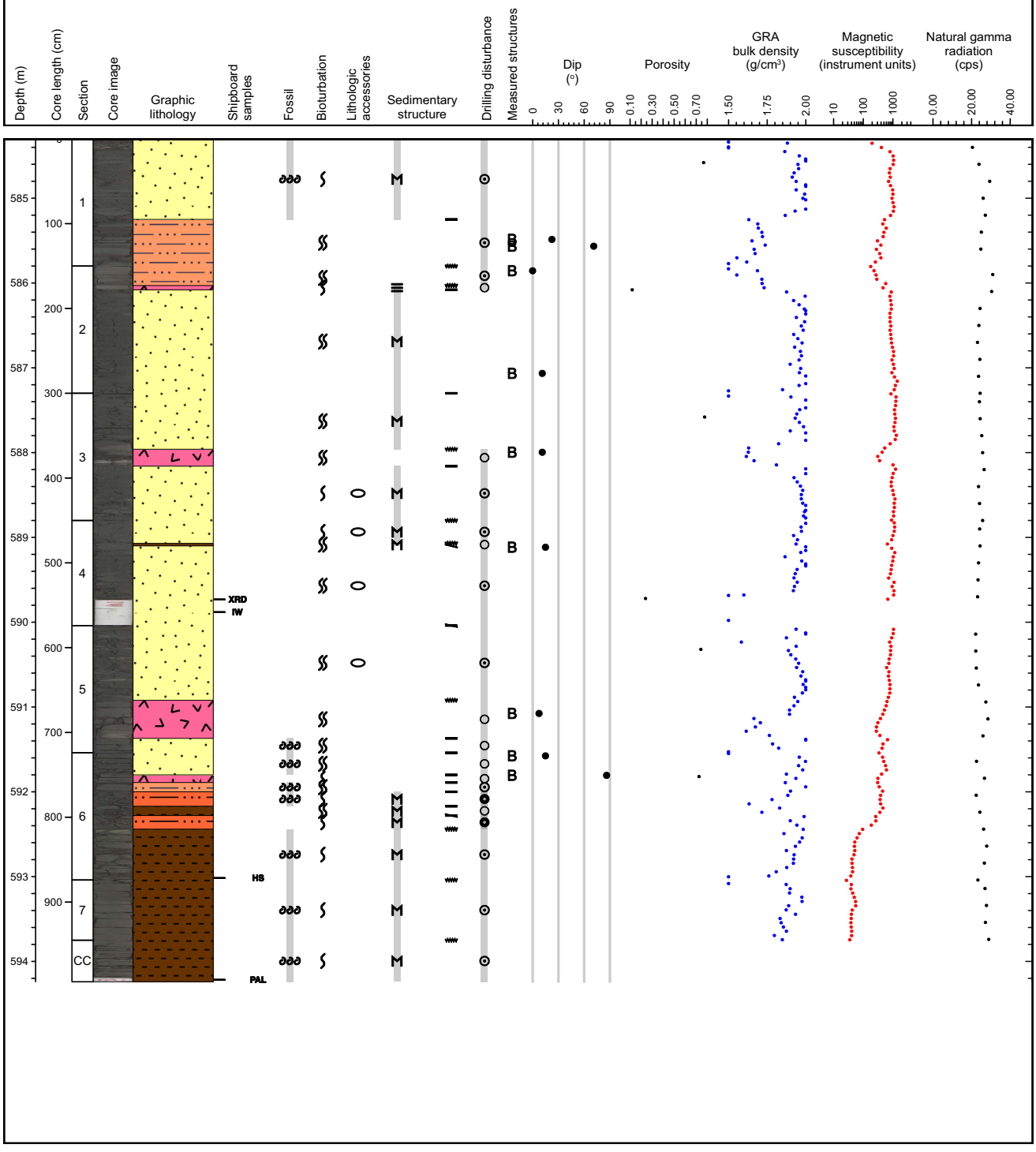
Major lithology: The core is dominated by greenish gray sandy to sily sediments that are deposited mostly in fining upward sequences reaching coarse sand in the upper part of the core that are enriched in shell fragments with components that are subangular to subrounded. In the middle of the core there are two units of mixed layers that show bedding and rip up clasts from sand to silty clay as well rounded carbonate and dolomite clasts. One probable ash layer at section 6; 117 to 199 cm is present and one large tuff layer in section 6; 51 to 90 cm Major lithology: Core is dominated by coarser sediments of the typical greenish gray color; fining upward sequences are interupted by 4 tuff layers at section 2: 23 to 28 cm: section 3: 66 to 86 cm; section 5: 88 to 133 cm; section 6: 26 to 35 cm. Internally the single finer beds are strongly laminated and show cross and parallel laminaes. The coarser beds include carbonate clasts as well as abundant shell fragments as well as rip up clasts. The lower most part shows a transition into a monotonous silty clay to clay sequence from section 5 at 90 cm



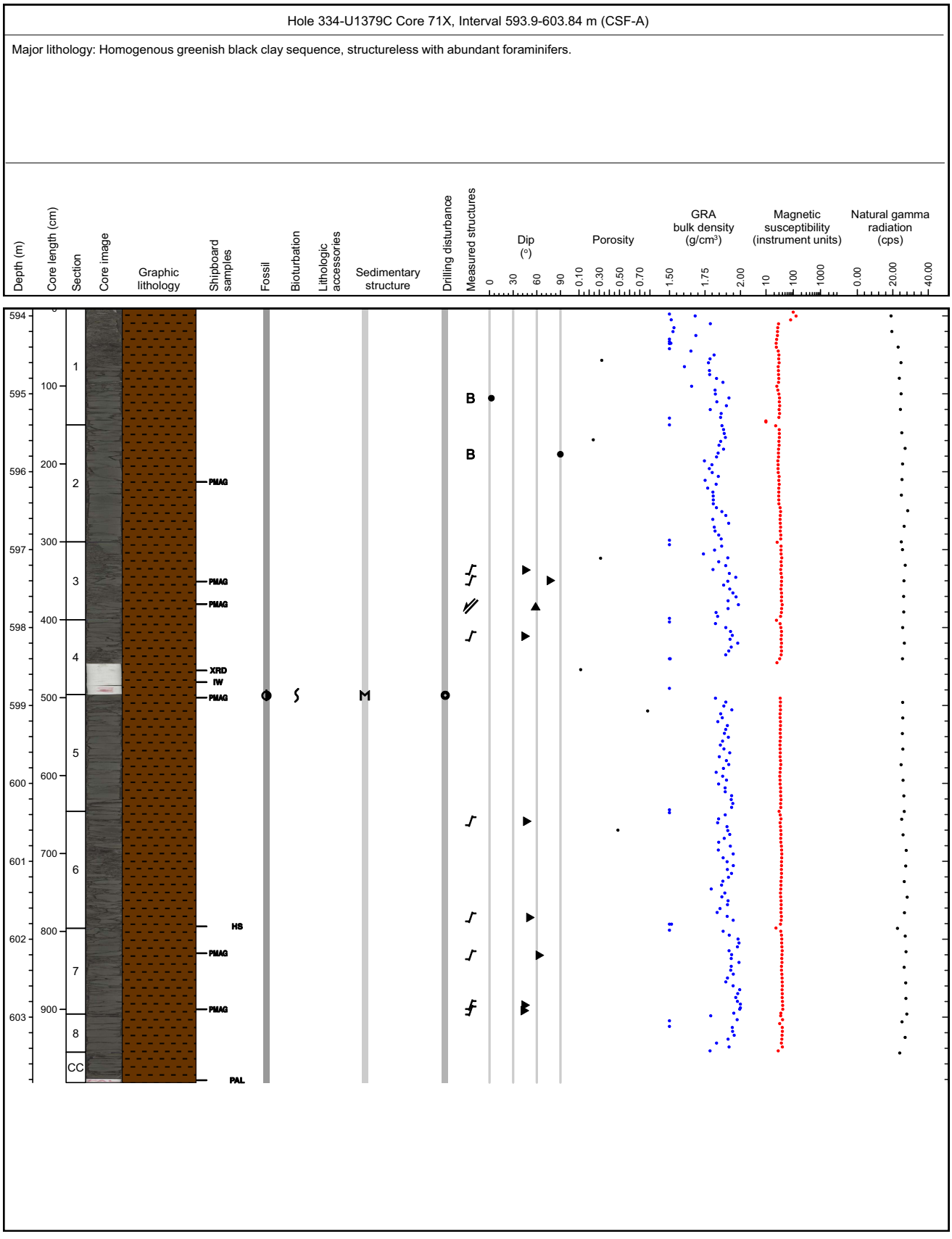
Core Photo

Hole 334-U1379C Core 70X, Interval 584.3-594.24 m (CSF-A)

Major lithology: Core is dominated by coarser sediments of the typical greenish gray color; fining upward sequences are interupted by 4 tuff layers at section 2: 23 to 28 cm: section 3: 66 to 86 cm; section 5: 88 to 133 cm; section 6: 26 to 35 cm. Internally the single finer beds are strongly laminated and show cross and parallel laminaes. The coarser beds include carbonate clasts as well as abundant shell fragments as well as rip up clasts. The lower most part shows a transition into a monotonous silty clay to clay sequence from section 5 at 90 cm to the CC



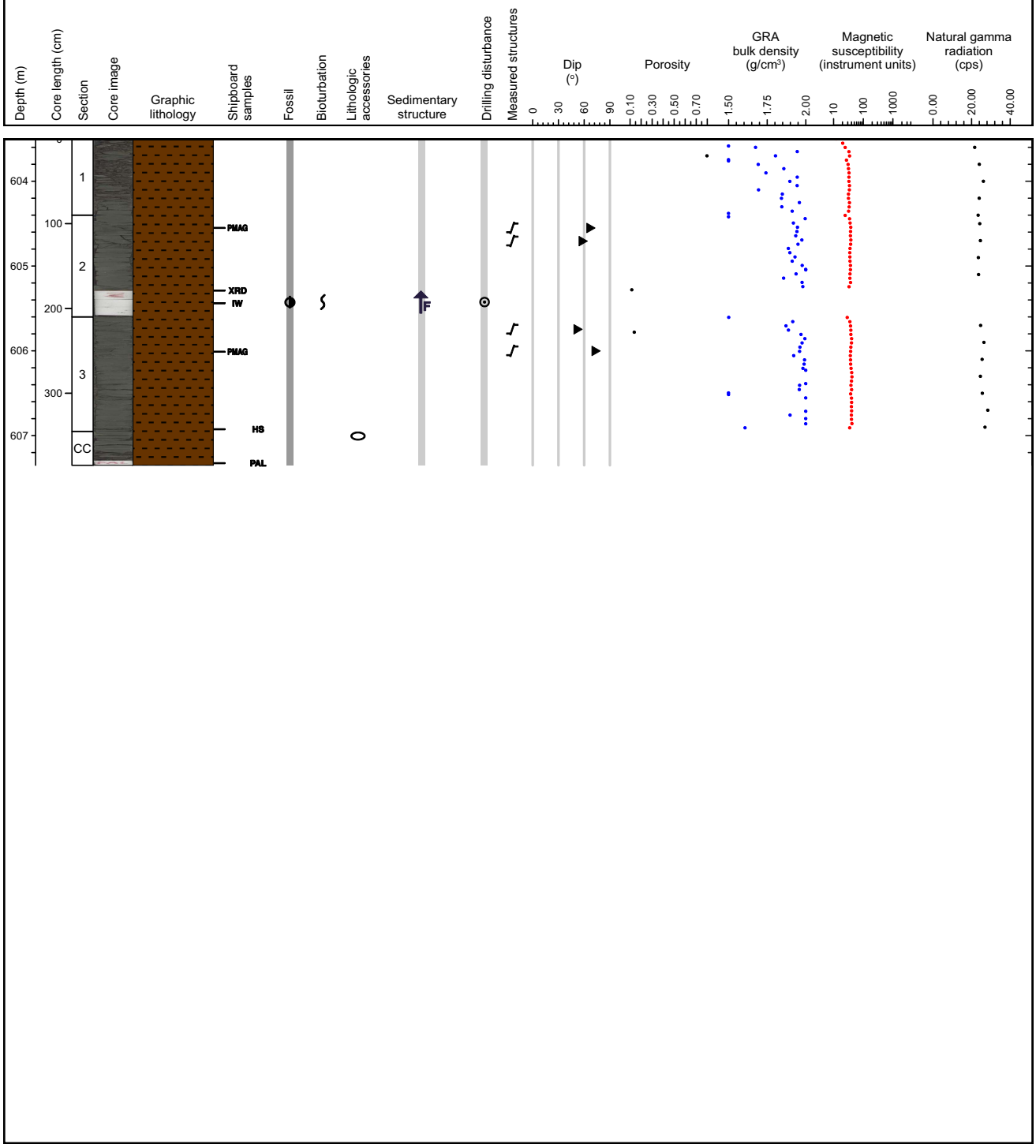
Core Photo


Hole 334-U1379C Core 71X, Interval 593.9-603.84 m (CSF-A)
Major lithology: Homogenous greenish black clay sequence, structureless with abundant foraminifers.
Depth (m)
Core length (cm)
Section
Core image
Graphic lithology
Shipboard samples
Fossil
Bioturbation
Lithologic accessories
Sedimentary structure
Drilling disturbance
Measured structures
Dip (°)
Porosity
GRA bulk density (g/cm³)
Magnetic susceptibility (instrument units)
Natural gamma radiation (cps)
PMAG
XRD
IW
HS
PAL
B
CC

Core Photo

Hole 334-U1379C Core 72X, Interval 603.5-607.35 m (CSF-A)

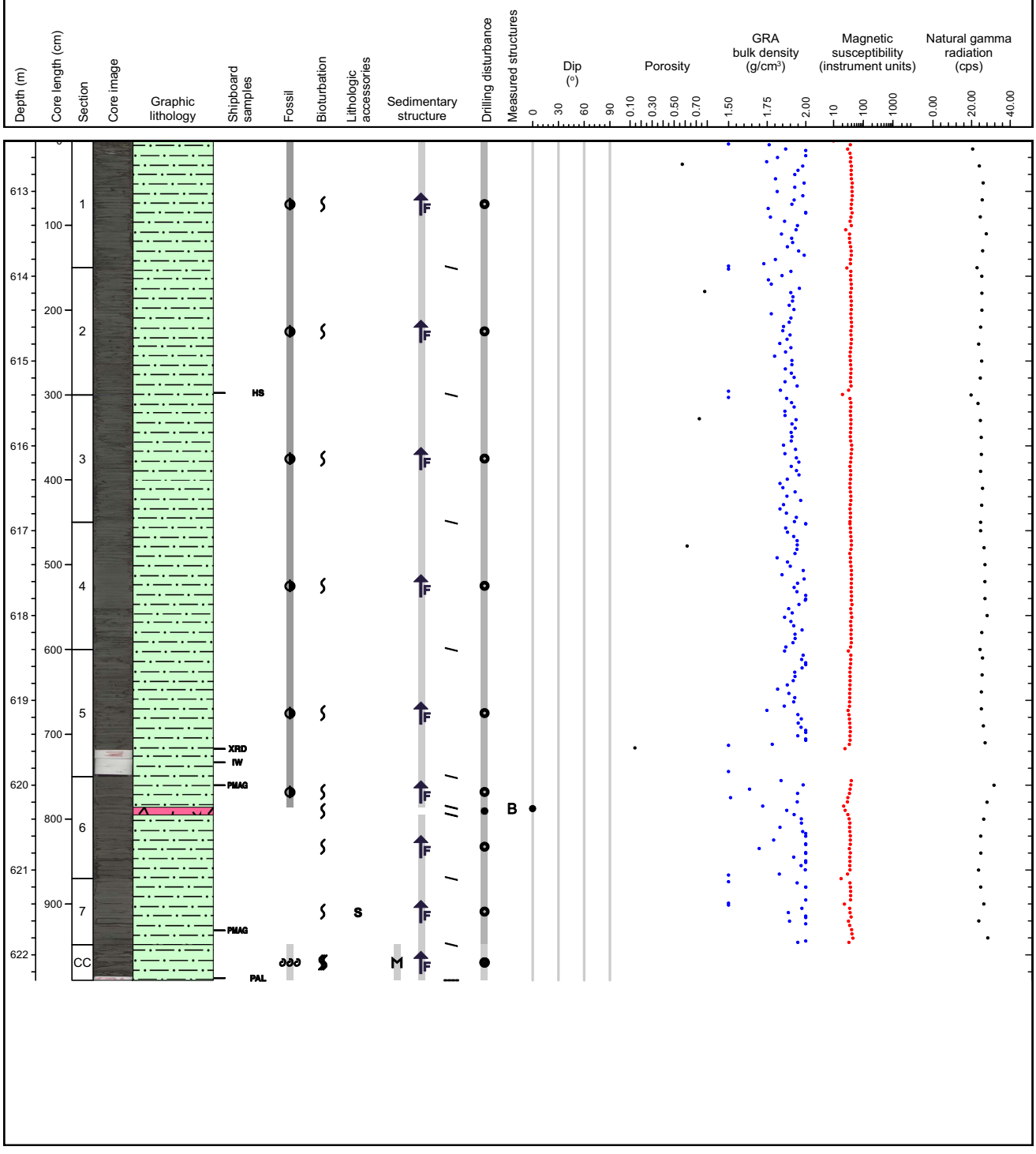
Major lithology: One unit of fining upwards silty clay. Dark grennish gray in color. No bioturbation. Foraminifera are present thought out the core, also some rare shelly fragments are present. One concertion in the core catcher.



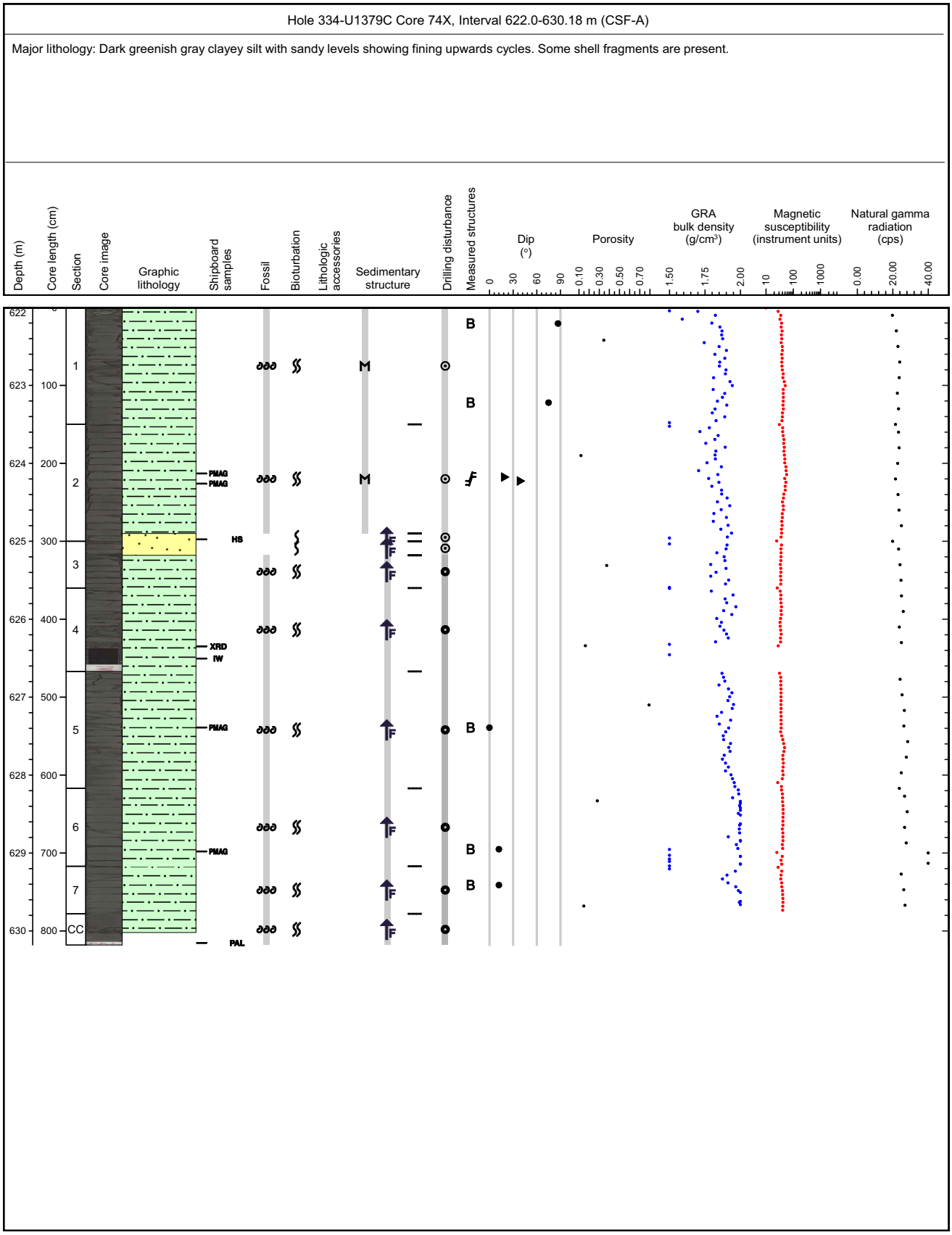
Core Photo

Hole 334-U1379C Core 73X, Interval 612.4-622.3 m (CSF-A)

Major lithology: Core is composed of dark greenish gray sandy clayey silt. The upper part of the core is a fining upward unit ranging from sandy clayey silt at the base to silty clay at the top, No bioturbation and few foraminifera. An ash layer (Section 6) of variable thickness is present, pinching out at one side. The lower half of the ash layer is fining upwards, While the upper half is coarsening upwards. The upper layer is possibly a folded over part the lower layer? Possibly through drill disturbance. The lower unit is again composed of dark greenish gray, Sandy clayey silt. this unit is massive. thunit contains an ash pod (Section 7: 39-41cm) 2cmx4cm in size. well rounded edge. Dark gray with a pinkish tinge.



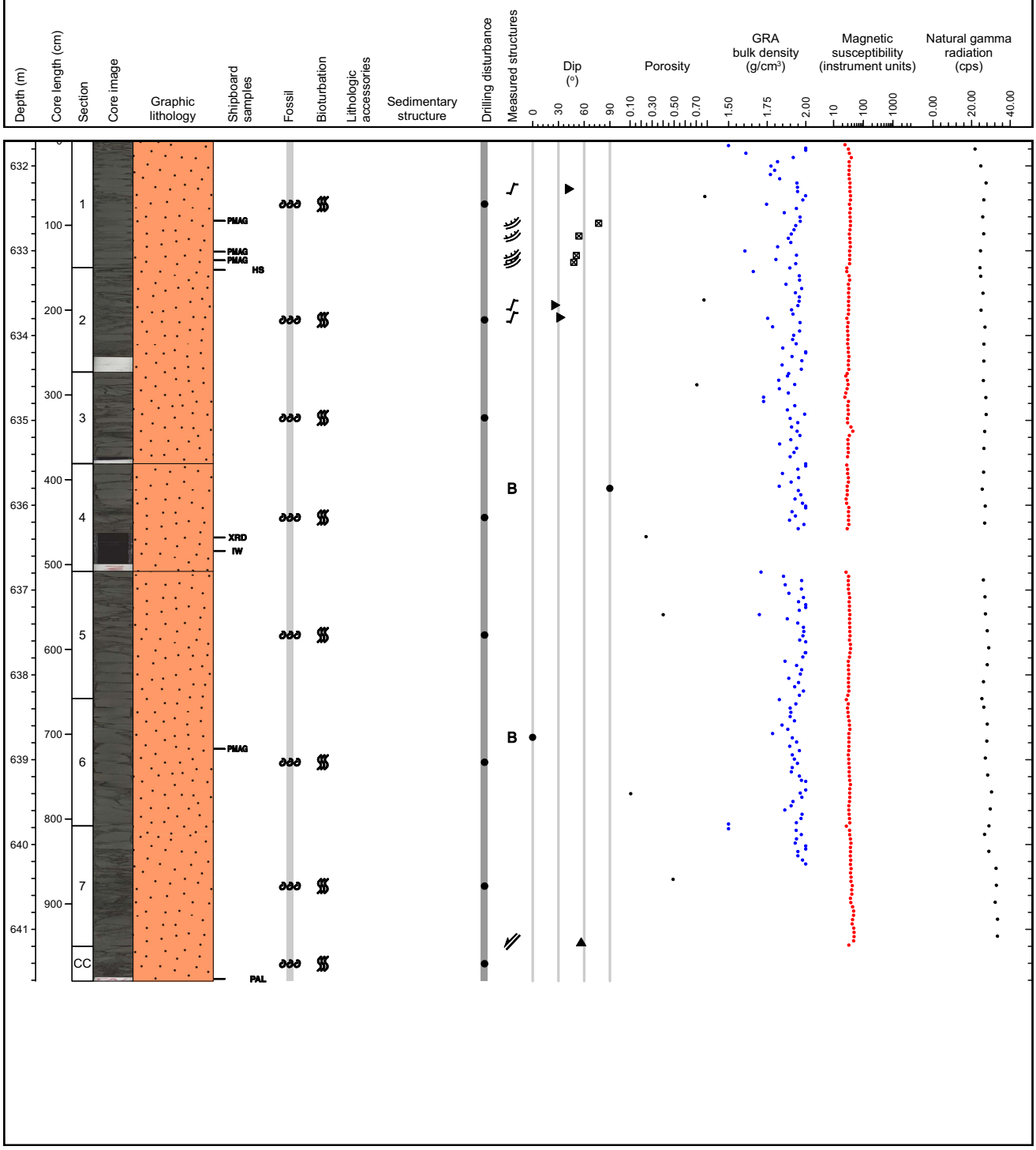
Core Photo


Hole 334-U1379C Core 74X, Interval 622.0-630.18 m (CSF-A)
Major lithology: Dark greenish gray clayey silt with sandy levels showing fining upwards cycles. Some shell fragments are present.
Depth (m)
Core length (cm)
Section
Core image
Graphic lithology
Shipboard samples
Fossil
Bioturbation
Lithologic accessories
Sedimentary structure
Drilling disturbance
Measured structures
Dip (°)
Porosity
GRA bulk density (g/cm³)
Magnetic susceptibility (instrument units)
Natural gamma radiation (cps)
PMAG
HS
XRD
IW
PAL

Core Photo

Hole 334-U1379C Core 75X, Interval 631.7-641.61 m (CSF-A)

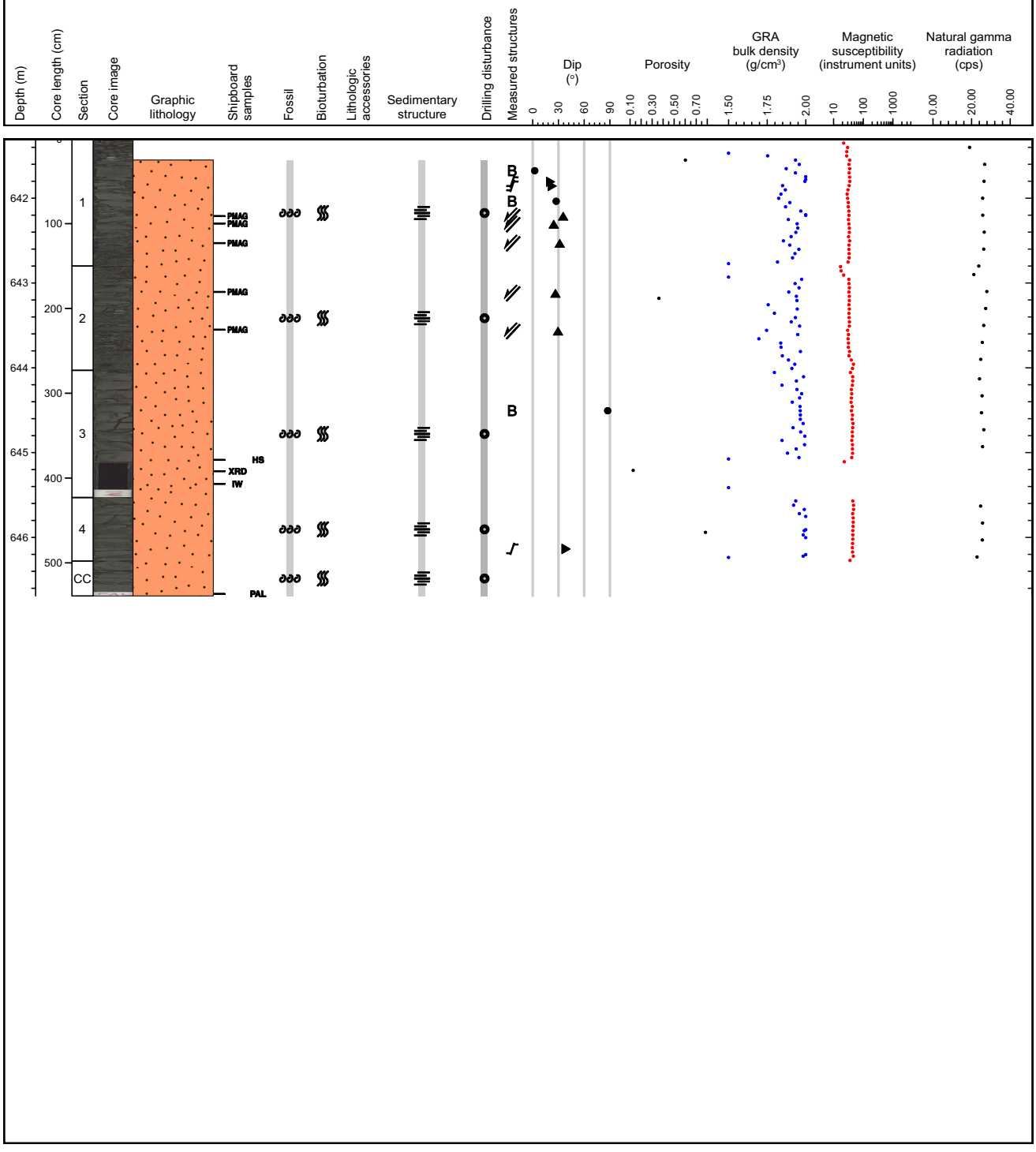
Major lithology: Olive green to dark gray calcareously cemented very fine sand with interbedded lenses of fine- to medium- grained sand. Two mafic tephra pods in sections 3 and 4. This core has moderate bioturbation.



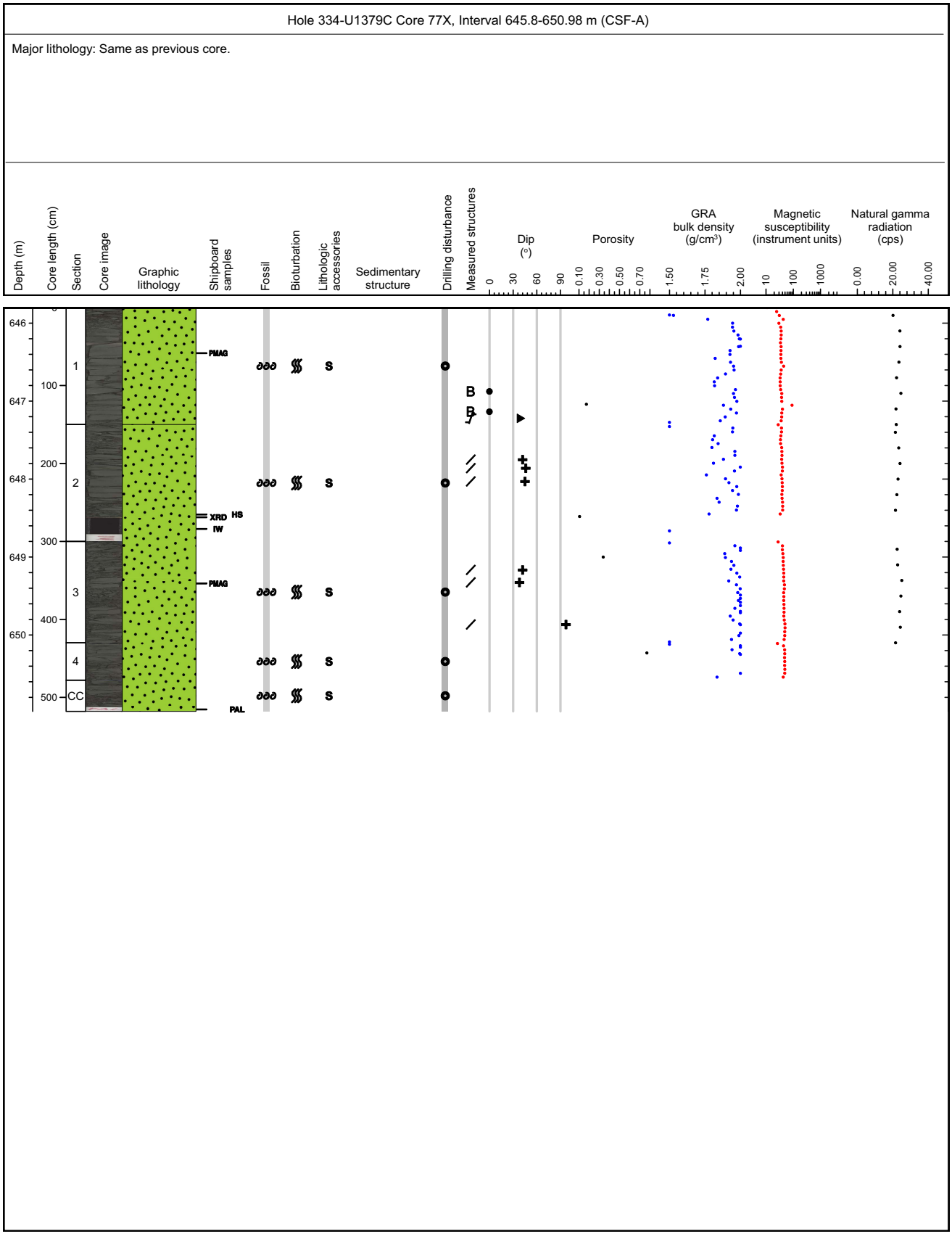
Core Photo

Hole 334-U1379C Core 76X, Interval 641.3-646.69 m (CSF-A)

Major lithology: Predominately fine silty sand with localized coarse layers. Coherent sections of the core and seperated by localized zones of extensive drilling disturbance that are characterized by a scaly fabric. Coarse layers are locally bioturbated.



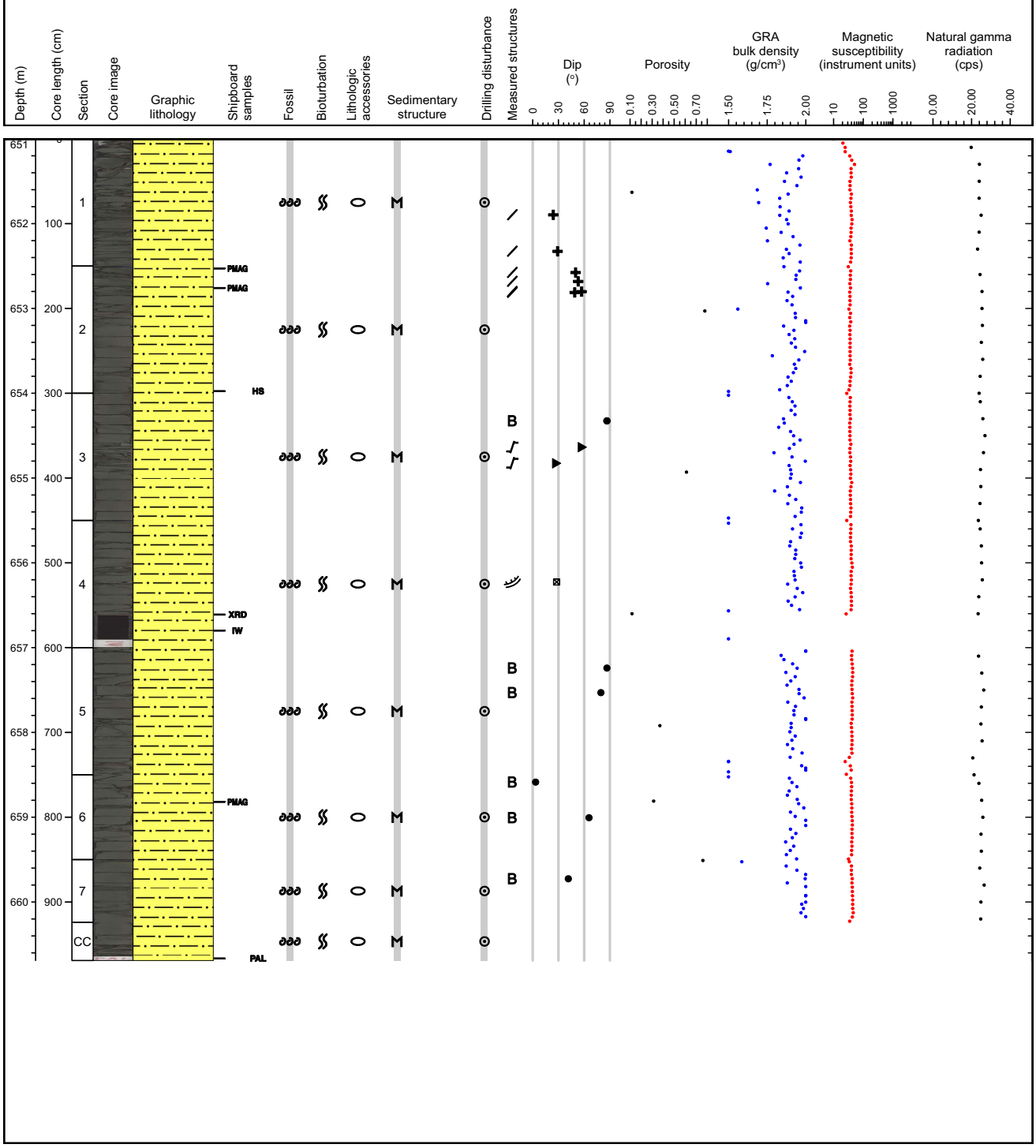
Core Photo


Hole 334-U1379C Core 77X, Interval 645.8-650.98 m (CSF-A)
Major lithology: Same as previous core.
Depth (m)
Core length (cm)
Section
Core image
Graphic lithology
Shipboard samples
Fossil
Bioturbation
Lithologic accessories
Sedimentary structure
Drilling disturbance
Measured structures
Dip (°)
Porosity
GRA bulk density (g/cm³)
Magnetic susceptibility (instrument units)
Natural gamma radiation (cps)
646
647
648
649
650
1
2
3
4
CC
PMAG
XRD
HS
IW
PMAG
PAL
B
B

Core Photo

Hole 334-U1379C Core 78X, Interval 651.0-660.69 m (CSF-A)

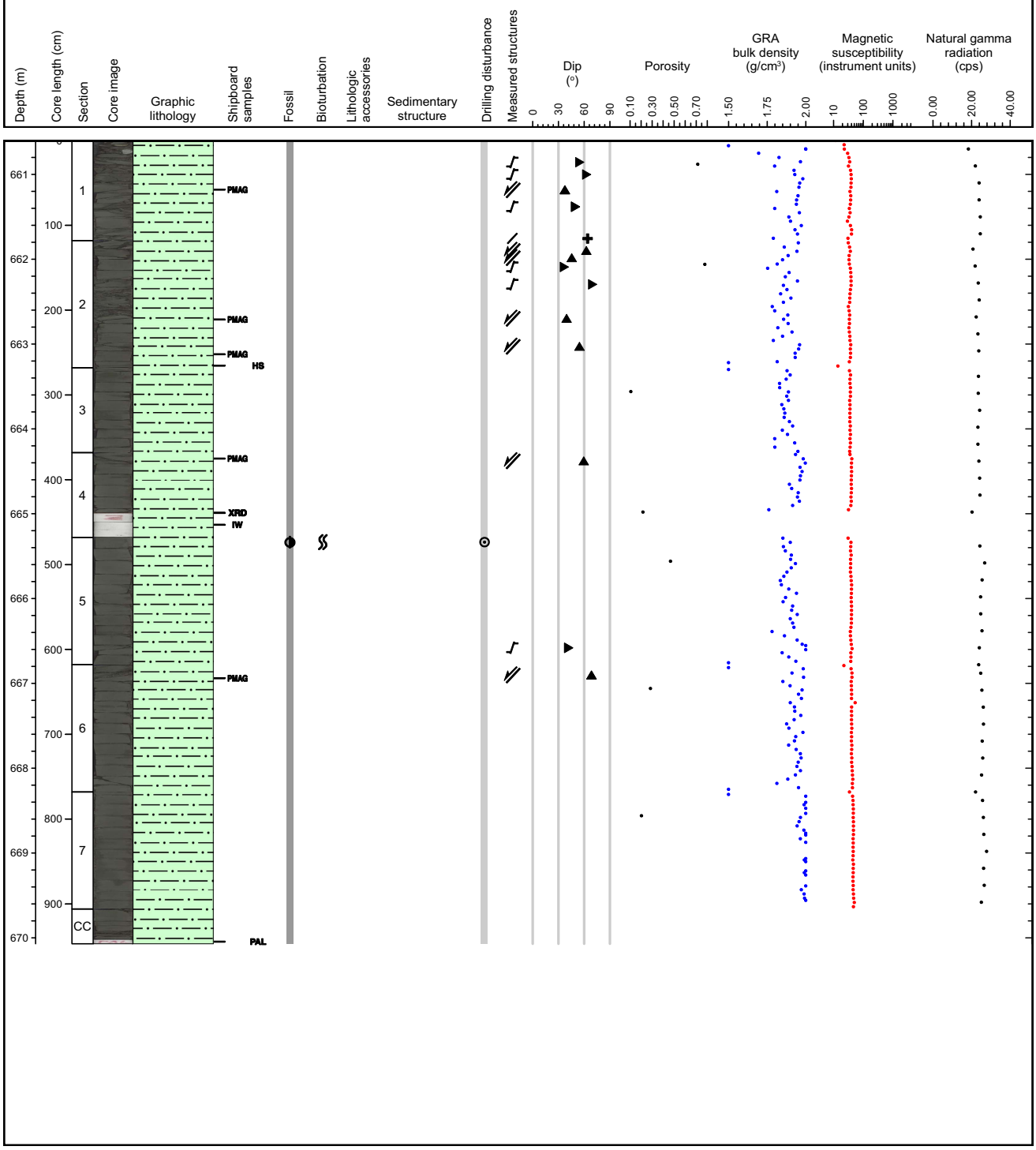
Major lithology: Olive dark gray calcareous cemented silt with interbedded lenses of fine to medium-grained sand, which are thicker than in previous core. Shell fragments present throughout the core.



Core Photo

Hole 334-U1379C Core 79X, Interval 660.6-670.07 m (CSF-A)

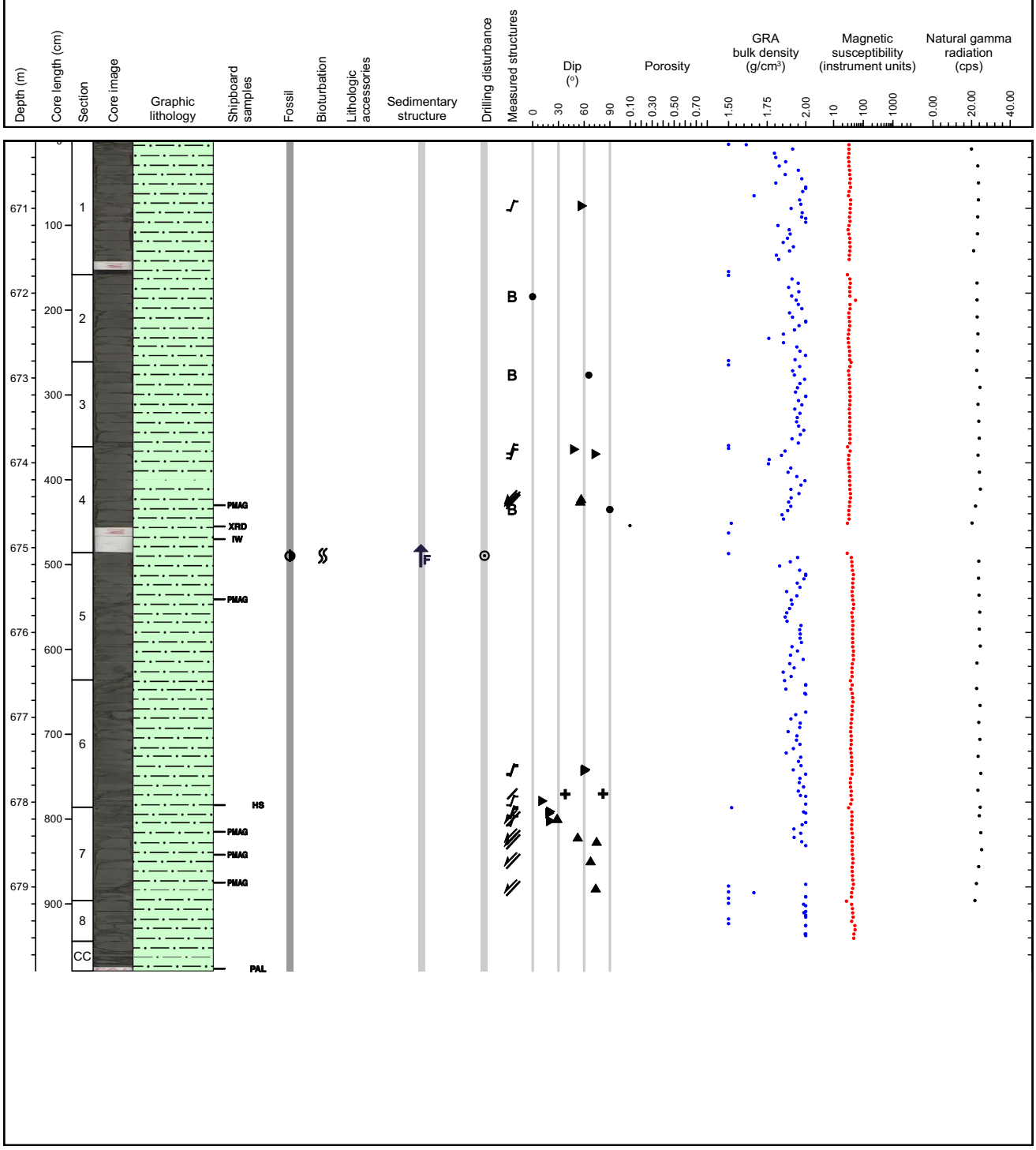
Major lithology: Dark greenish gray clayey silt, with some areas of noticable bioturbation (level 2). Foraminifera are present throughout the section. Some wavy structures possibly convolute bedding in Section 1 between 96 and 102cm. Slightly sandyer horizons in Section 5 from 5 - 11cm and 111 - 115cm, CC from 4 - 16cm. Rare shelly fragments in Section 4 (66cm) Section 5 (66cm) Section 7 (104 - 105cm).



Core Photo

Hole 334-U1379C Core 80X, Interval 670.2-679.99 m (CSF-A)

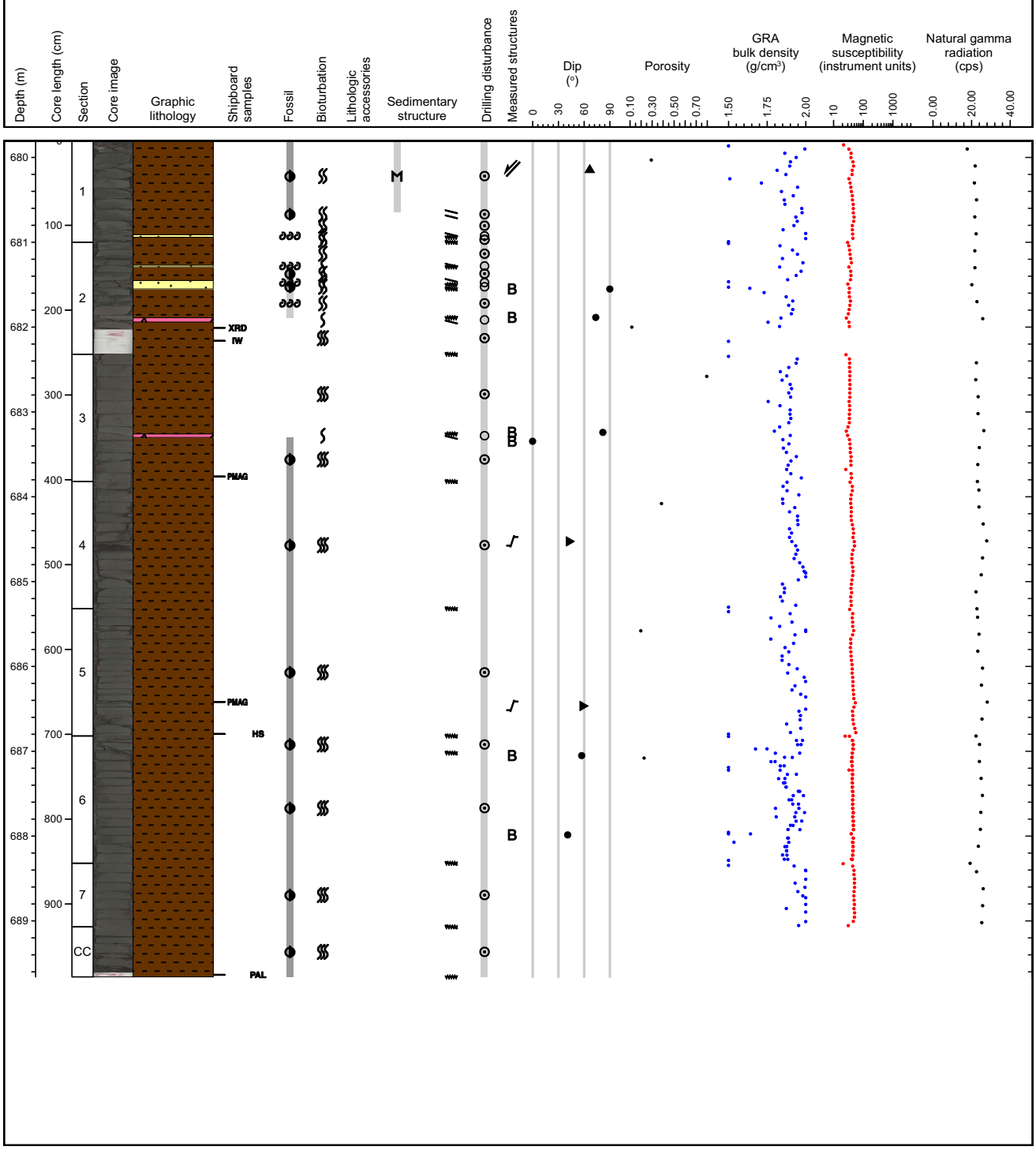
Major lithology: Dark greenish gray colored, fining upward unit ranging from sandy clayey silt to silty clay. However, the majority of the unit is clayey silt. There are a few areas where the sediment becomes slightly coarser than the background sedimentation rate. Foraminifera are present throughout the core. Rare shelly fragments are present.



Core Photo

Hole 334-U1379C Core 81X, Interval 679.8-689.66 m (CSF-A)

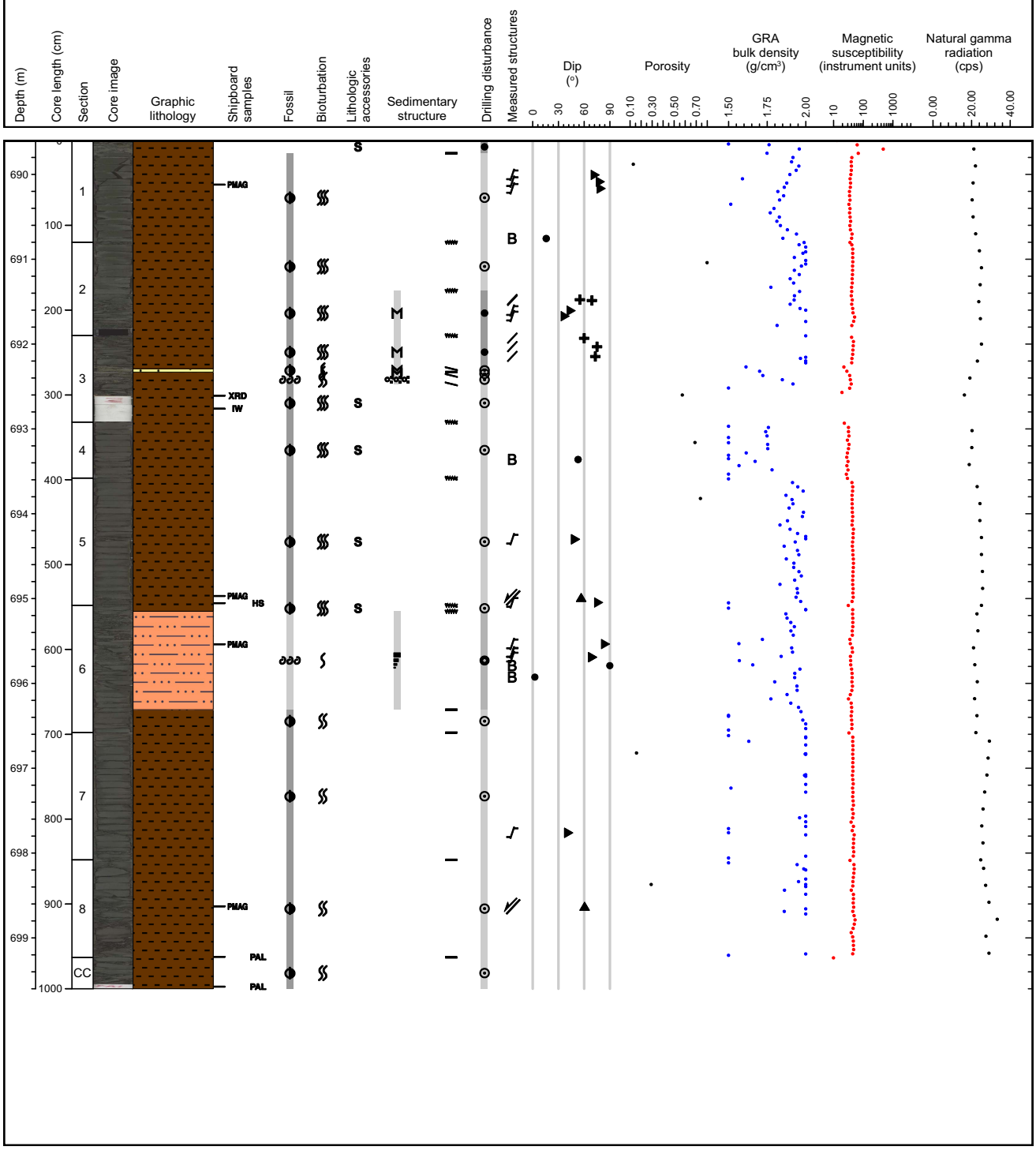
Major lithology: Sequence of fining upward bedding. Changes in grain sizes are very small and range from clayey silt to clay. Those layers are interupted by some rare 2 to 5 cm thick fine sands. Overall, formainifers are the dominant fossils and the bedding is generally inclined. Two hardend tephra layers (tuffs) occur in section 2: 89 to 94 and section 3: 94 to 98 cm. Normal graded ash layers are deposited within the normal bedding inclionation but show reworking within the soft stage at the top.



Core Photo

Hole 334-U1379C Core 82X, Interval 689.6-699.6 m (CSF-A)

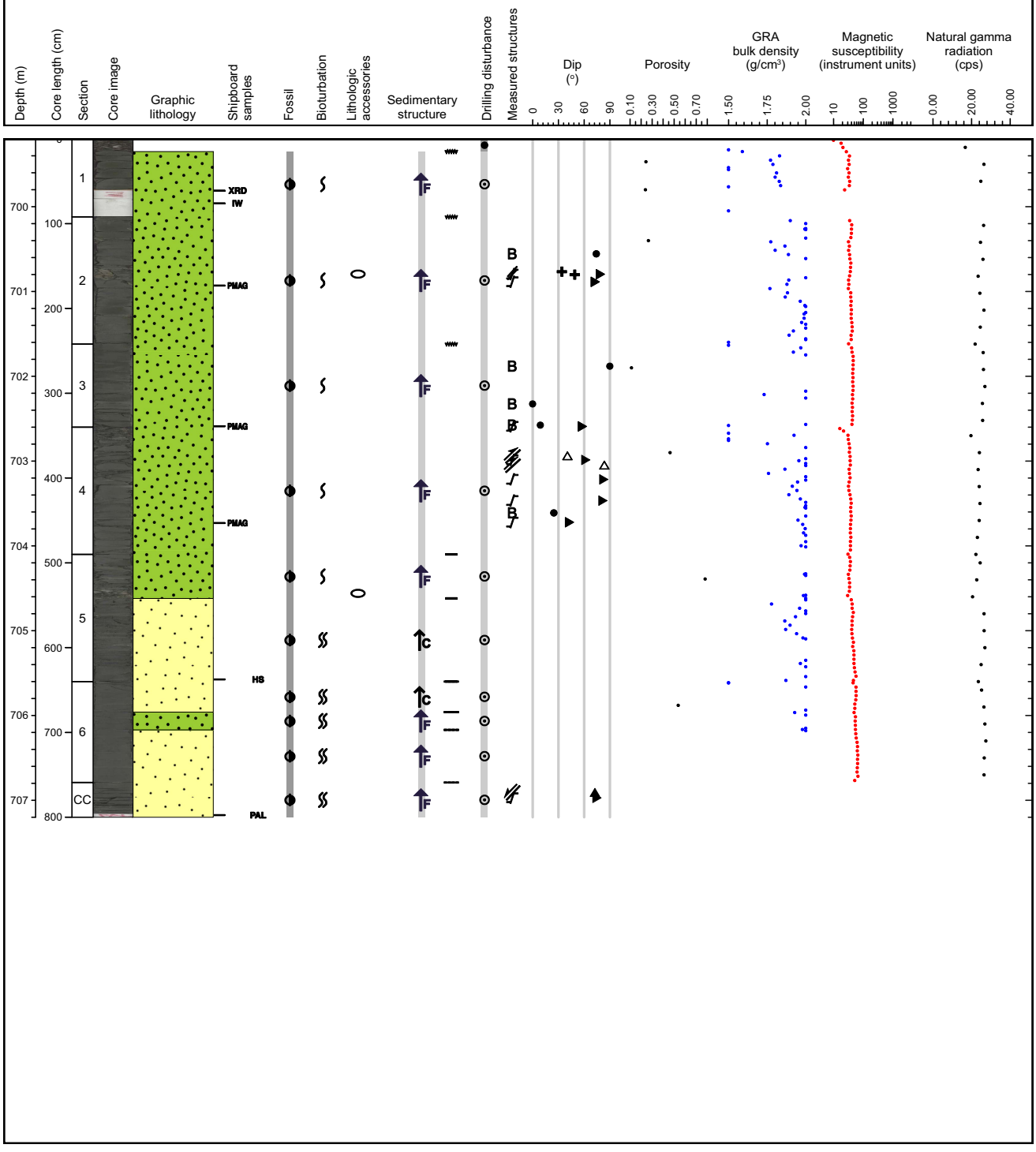
Major lithology: Core shows a monotonous sequence of silty clay at the uppermost 150 cm and the lowermost 300 cm. In the upper part between, a sequence of sandy layers interupts the silty clay sequence between 35 and 58 of section 3. In the lower part, in section 6, 4 coarsening upward units are present that starts with the silty clay matrix and end with a conglomerate at the boundary to the next unit. Boundaries between these units are erosive and the whole sequence show normal faulting represented by clay sediments next to conglomerates. Foraminifers are still enriched in some sandy layers and rare shell fragments are present. Only in section 3 at 38 to 40 cm and 53 to 56 cm a horizon with enriched shell fragments exists.



Core Photo

Hole 334-U1379C Core 83X, Interval 699.2-707.2 m (CSF-A)

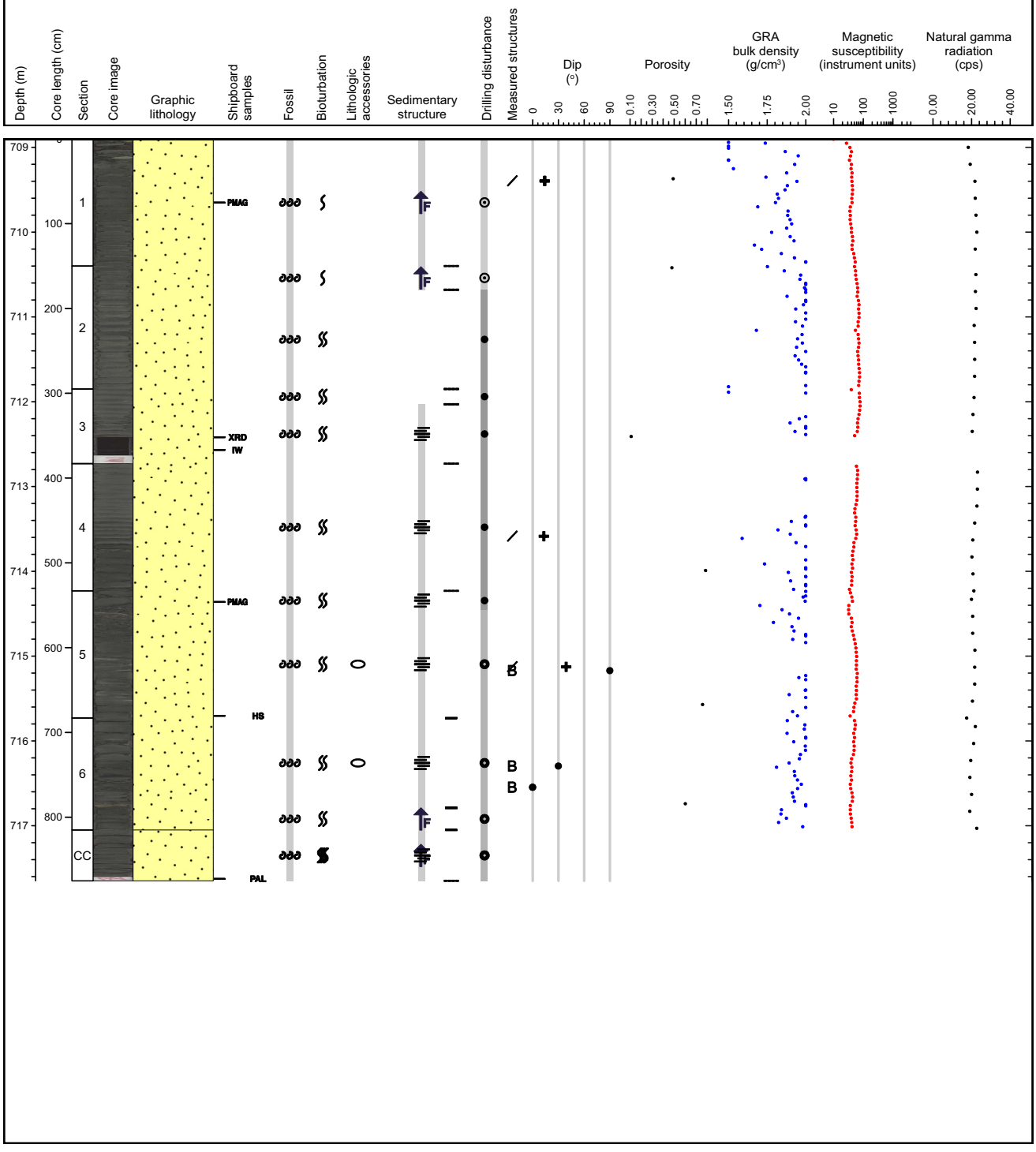
Major lithology: Series of graded units (both fining and coarsening upwards present) of sandy silt. In fining upward sequences the base of the sequence is composed of fine - medium sand and silt, while the top of the sequence is composed of clayey silt. In coarsening upward units. The base of the sequence is composed of clayey silt. The top of the sequence is composed of fine sand and silt. Much of the sand sized components are composed of foraminifera. Some shelly fragments are present.



Core Photo

Hole 334-U1379C Core 84X, Interval 708.9-717.65 m (CSF-A)

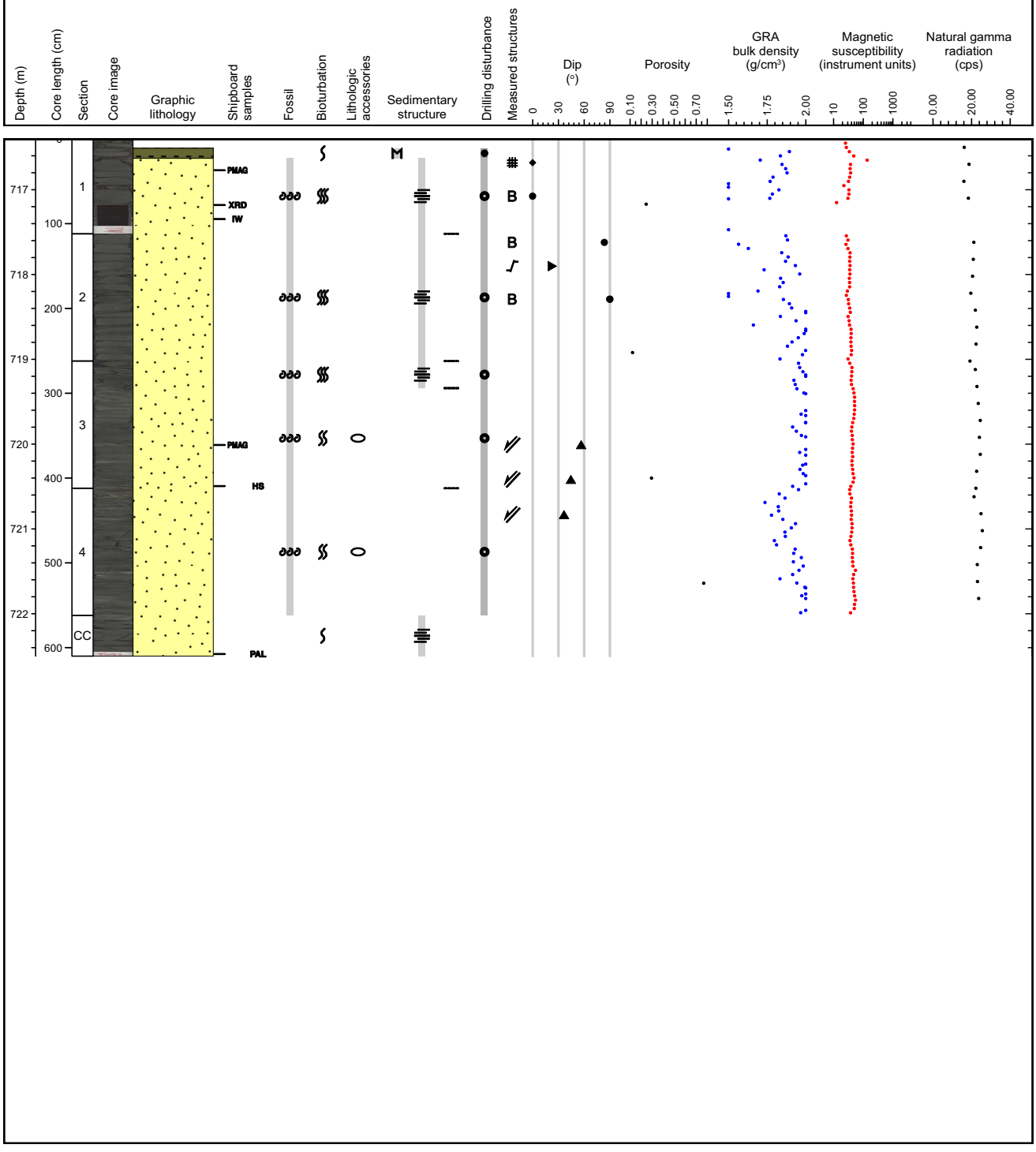
Major lithology: The upper part of the core consists of dark gray fine sands which gradate downwards to medium sands with levels of abundant calcite concretions.



Core Photo

Hole 334-U1379C Core 85X, Interval 716.4-722.5 m (CSF-A)

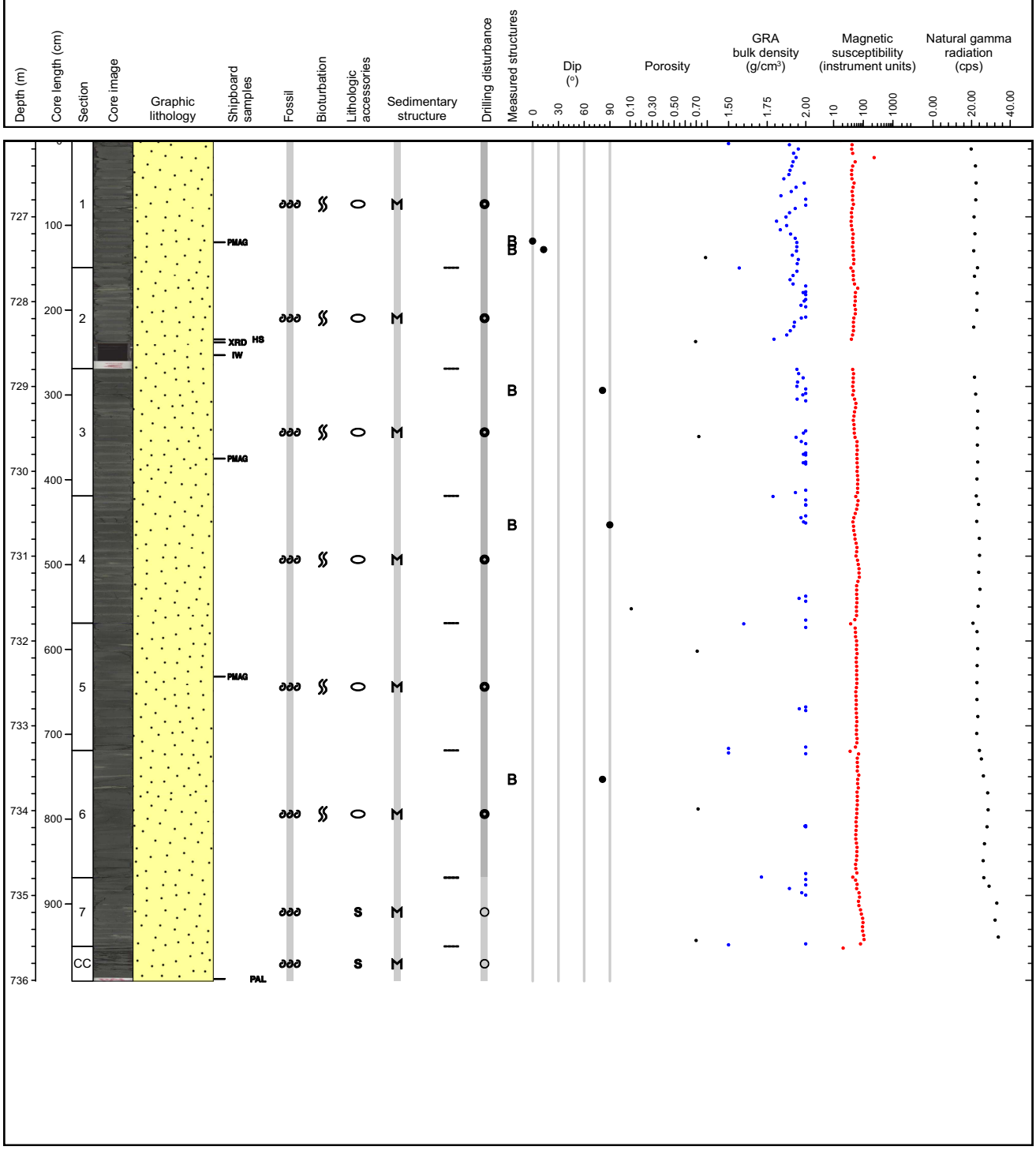
Major lithology: Dark gray medium-grain sandstone with abundant calcareous concretions from section3 to 4. Sparse shell fragments.



Core Photo

Hole 334-U1379C Core 86X, Interval 726.1-736.01 m (CSF-A)

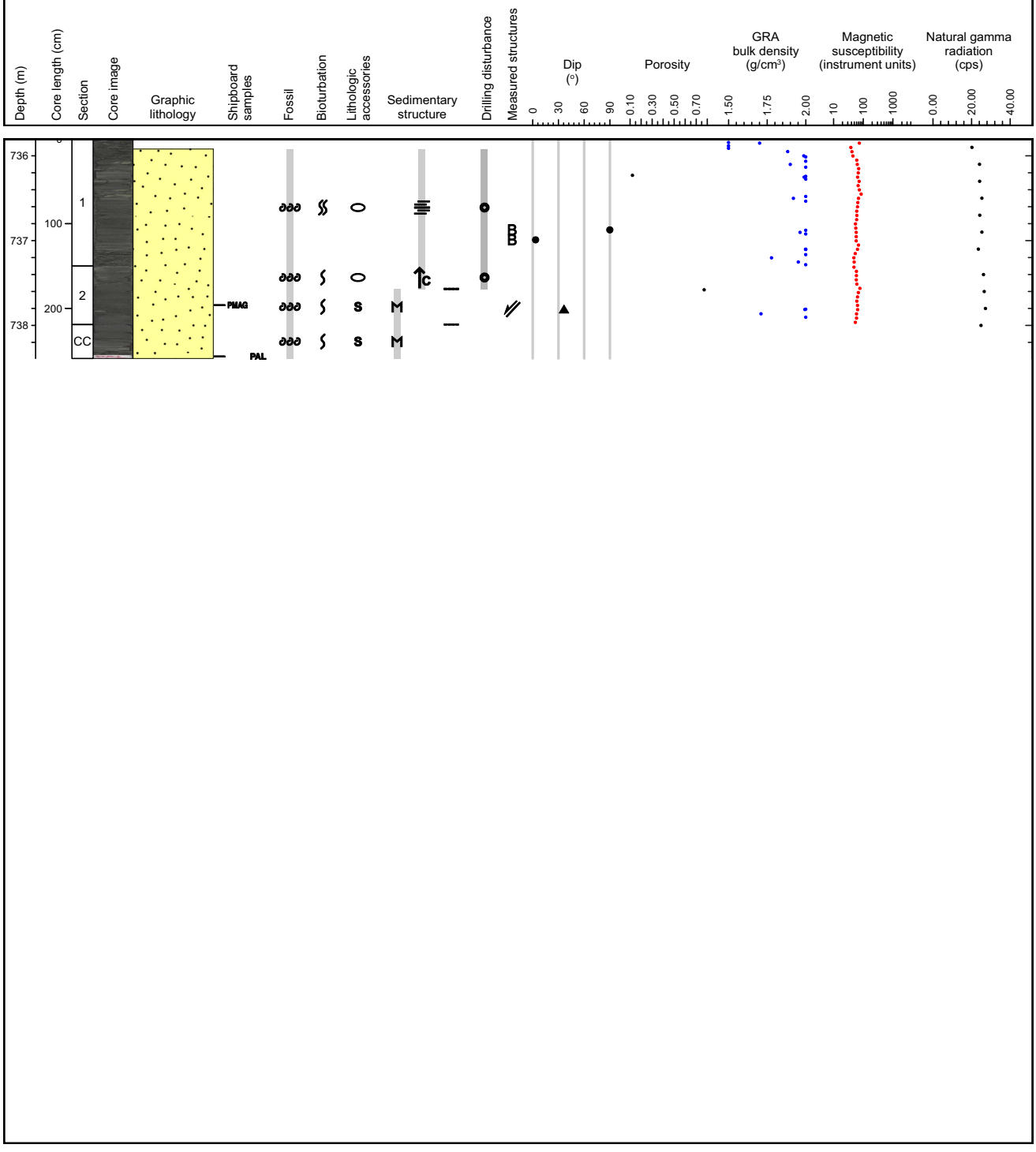
Major lithology: Dark gray massive sandstone, fining upwards, with abundant dolomitic concretions. Sandy clasts and frequent shell fragments towards the bottom of the core.



Core Photo

Hole 334-U1379C Core 87X, Interval 735.8-738.39 m (CSF-A)

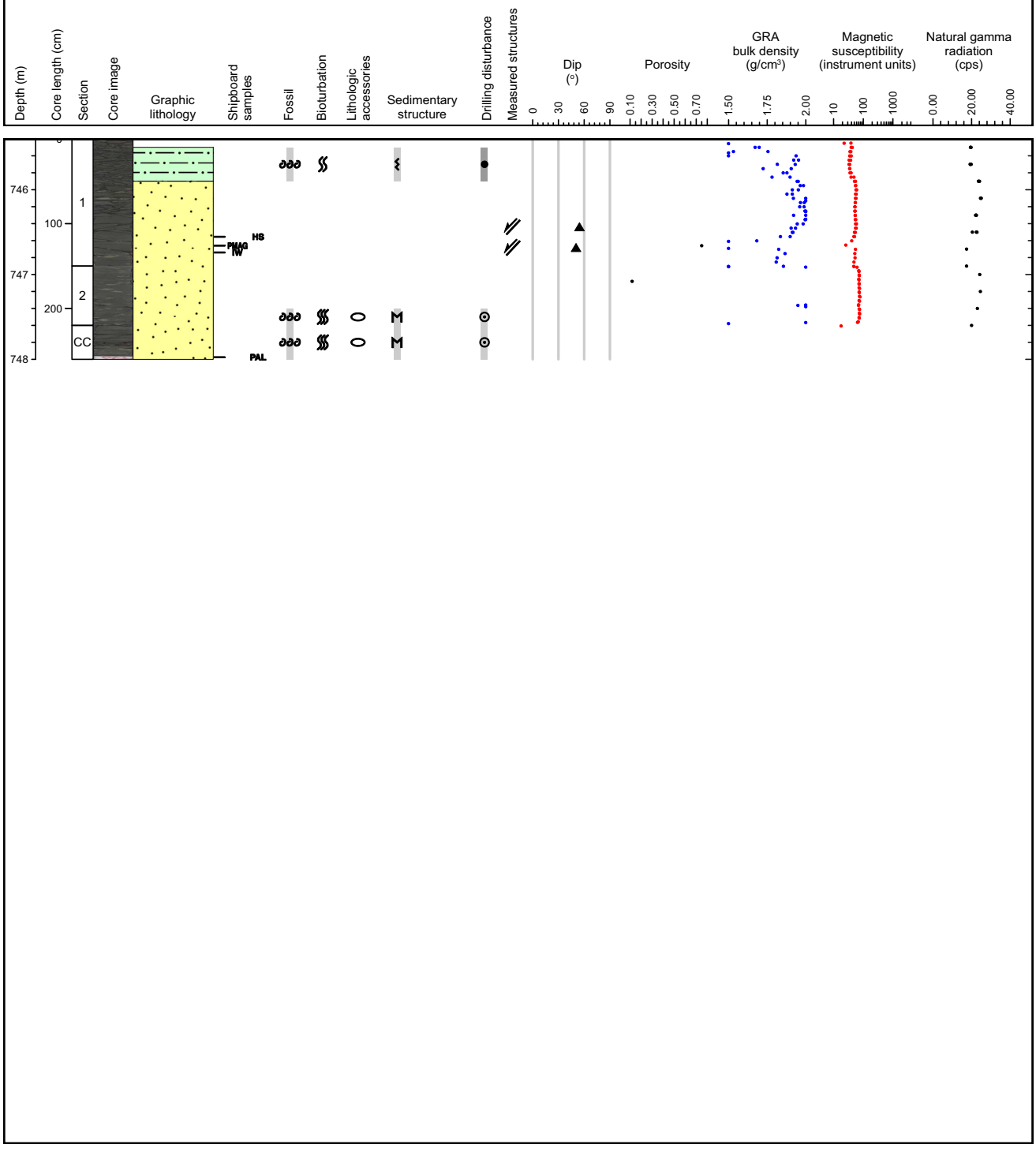
Major lithology: Dark gray medium-grain sandstone with abundant dolomitic concretions. Coarse sand to granules at the top of the section 2, Shell fragments are present throughout the core.



Core Photo

Hole 334-U1379C Core 88X, Interval 745.4-748.0 m (CSF-A)

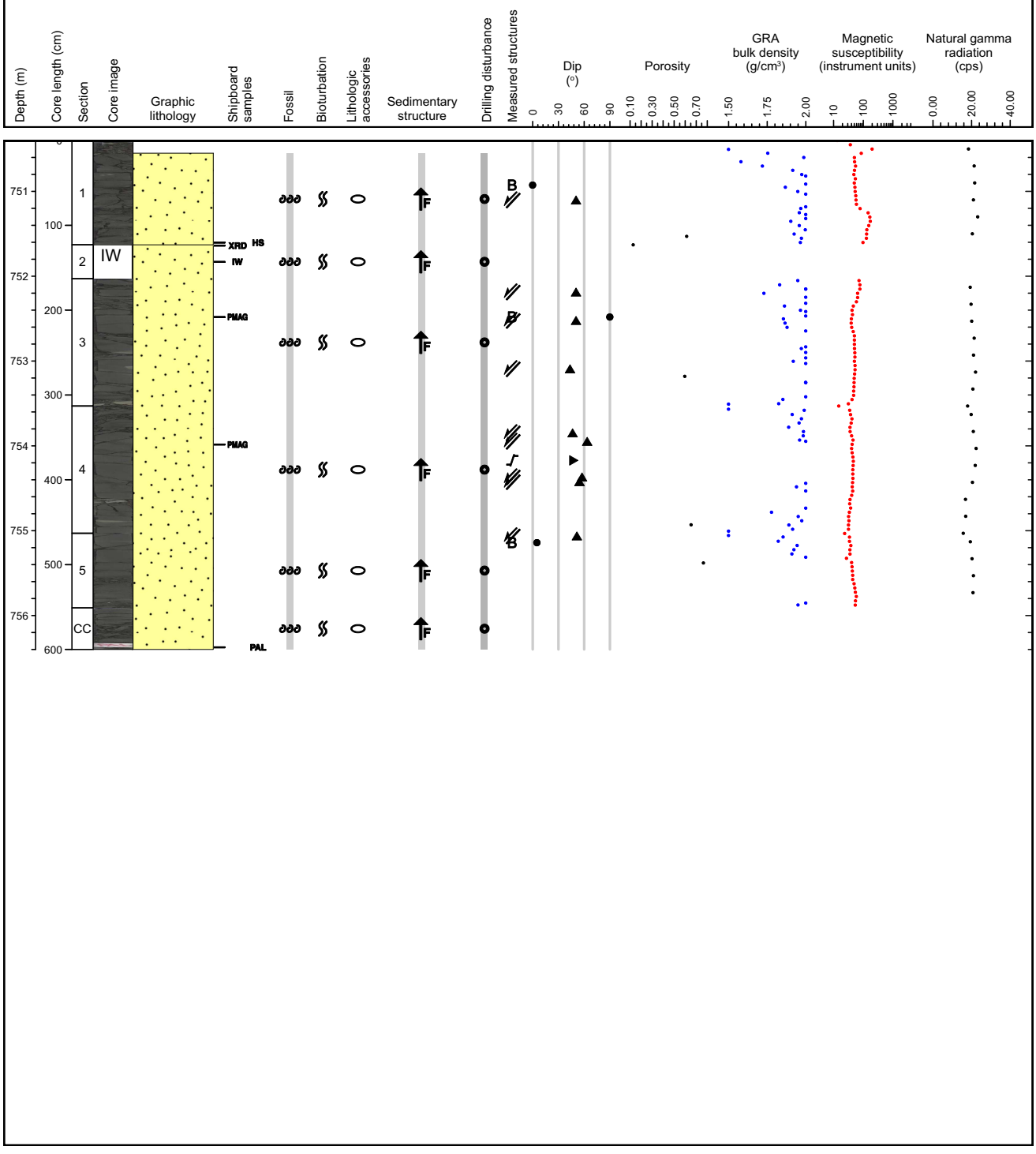
Major lithology: Dark gray medium-grain sandstone with abundant dolomitic concretions and organic matter. Fractured dark gray clayey siltstone at the top of the section 1, Shell fragments.



Core Photo

Hole 334-U1379C Core 89X, Interval 750.4-756.4 m (CSF-A)

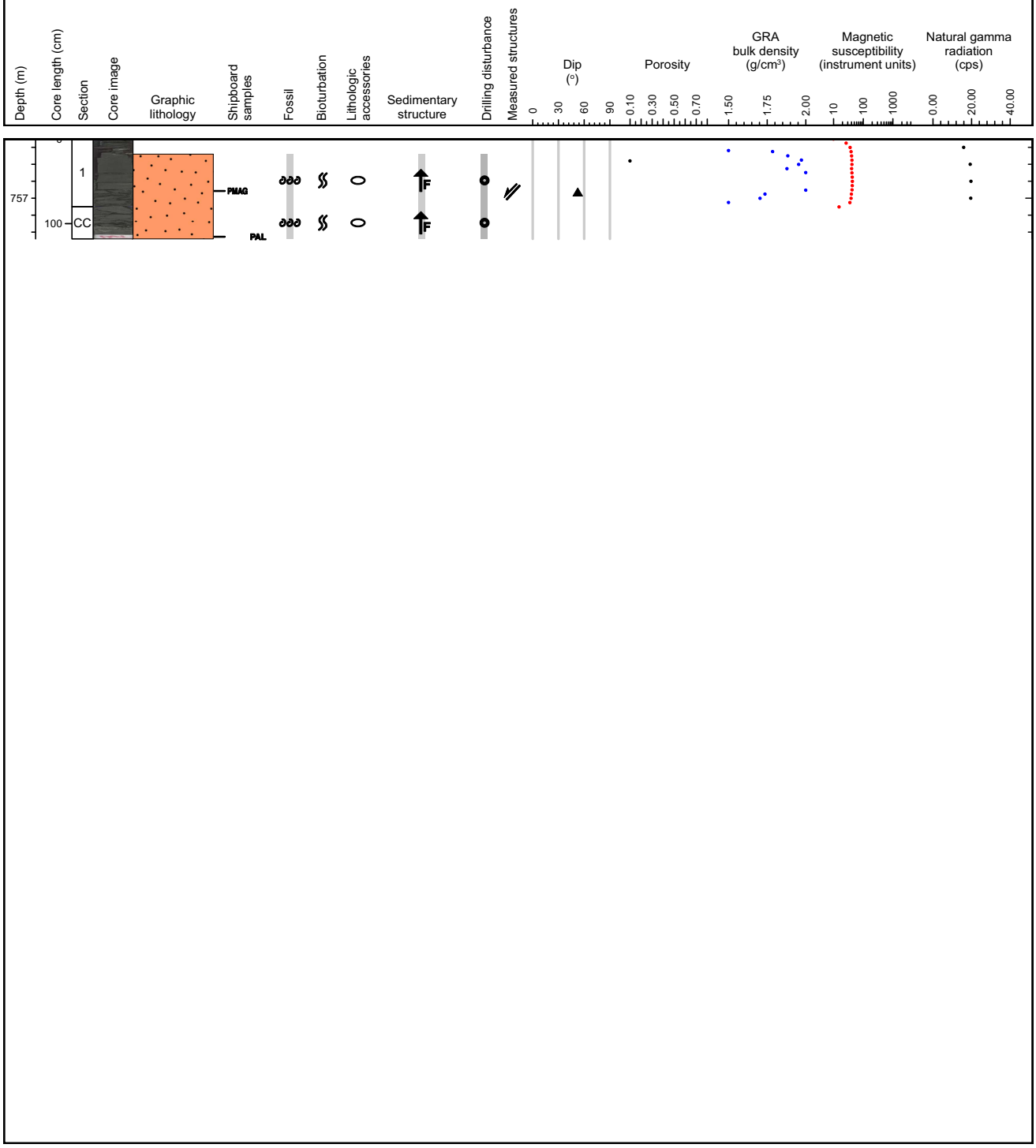
Major lithology: Dark gray fine-grain sandstone with some medium-grain sand horizons. Abundant calcitic/dolomitic concretions. Sparse shell fragments.



Core Photo

Hole 334-U1379C Core 90X, Interval 756.3-757.48 m (CSF-A)

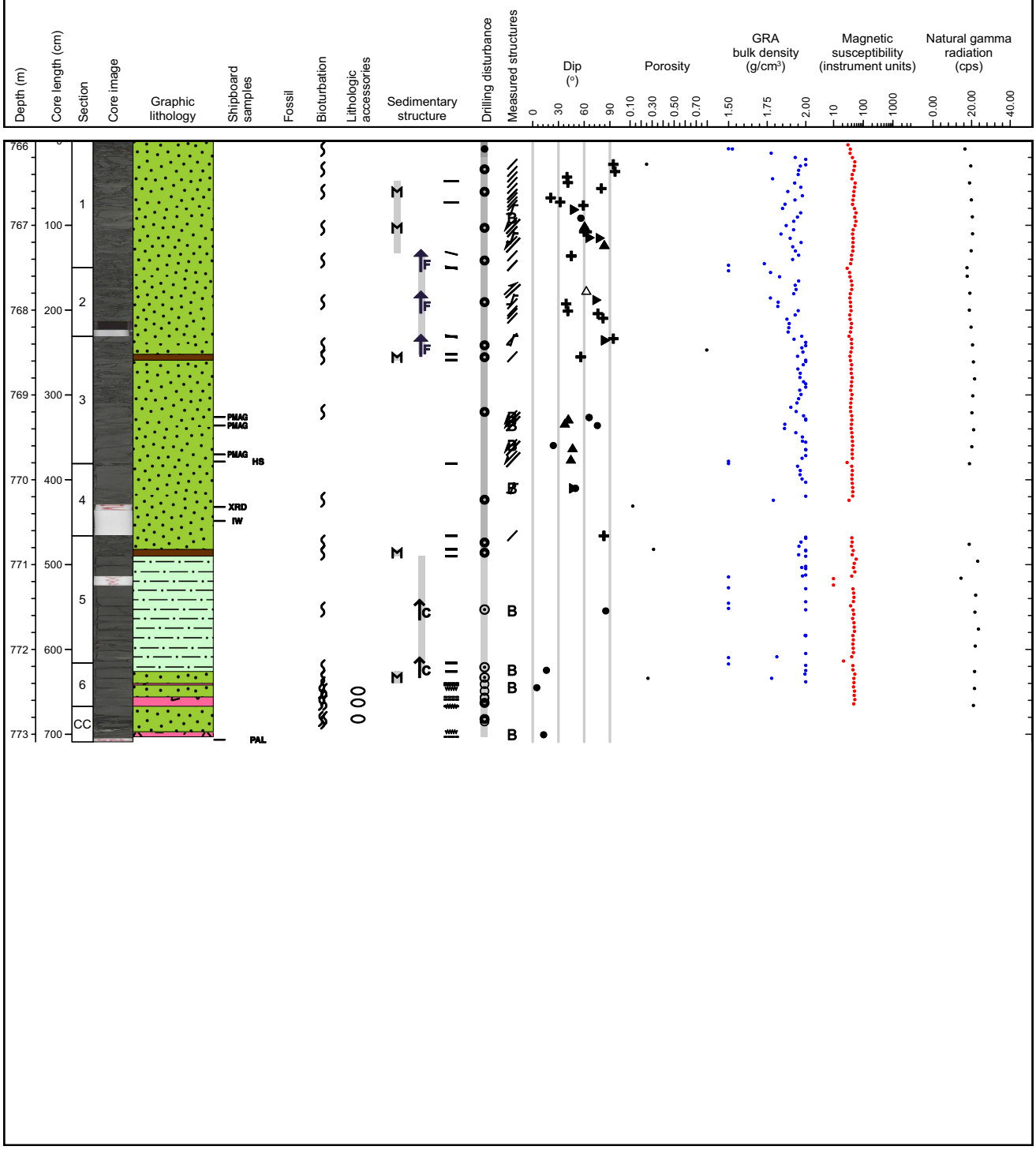
Major lithology: Dark gray bedded silty sandstone. Calcitic breccias at the bottom of the CC. Sparse shell fragments.



Core Photo

Hole 334-U1379C Core 91X, Interval 766.0-773.09 m (CSF-A)

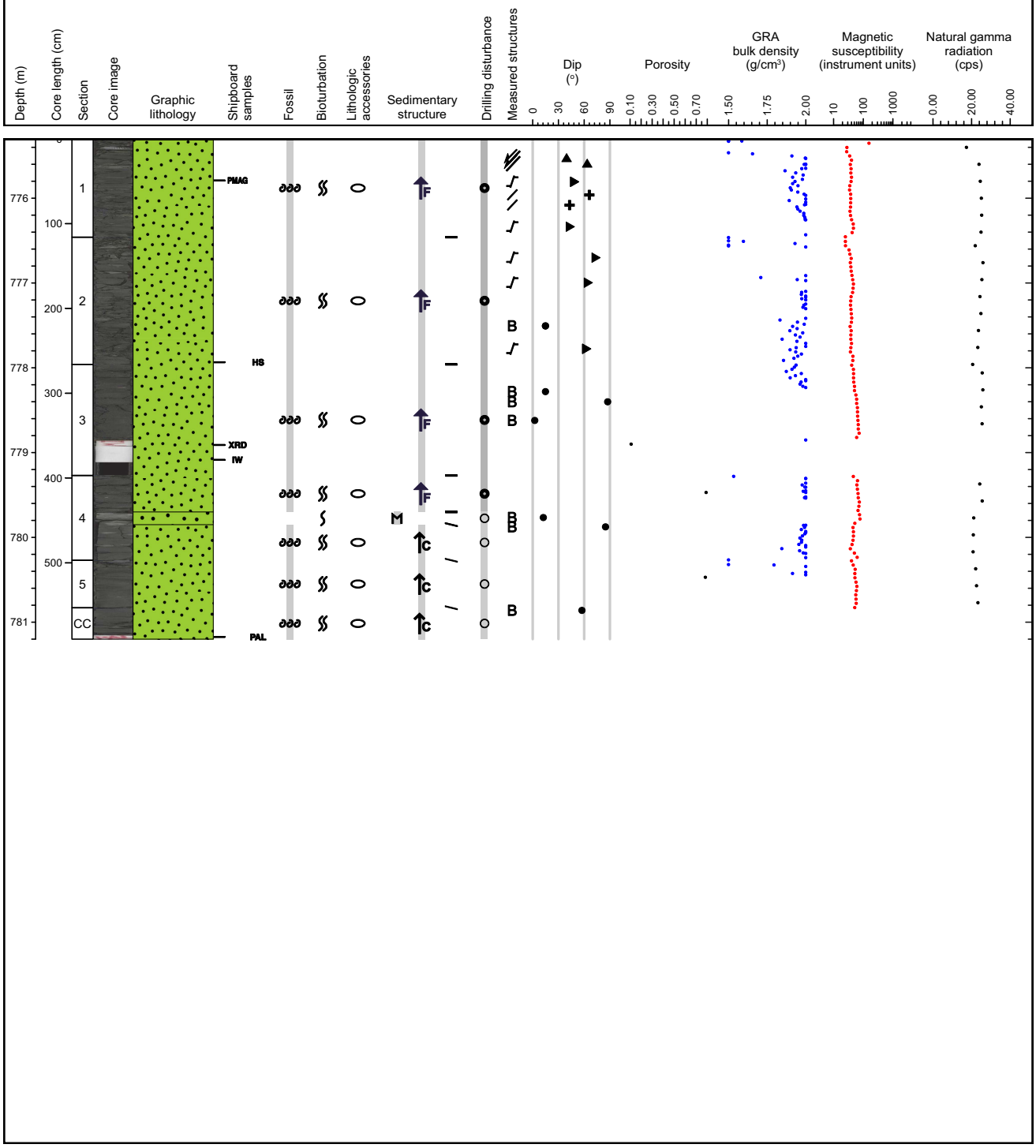
Major lithology: Sequence of dark greenish gray silty clay to sandy clayey silt. Varying for massive to fining/coarsening upward units. Little to no bioturbation. The base of the core is characterised by some disturbed layers including rip-up clasts. Tephra layers are also present in Section 6: 24 - 26cm, 40 - 43cm; CC: 30 - 36cm.



Core Photo

Hole 334-U1379C Core 92X, Interval 775.3-781.2 m (CSF-A)

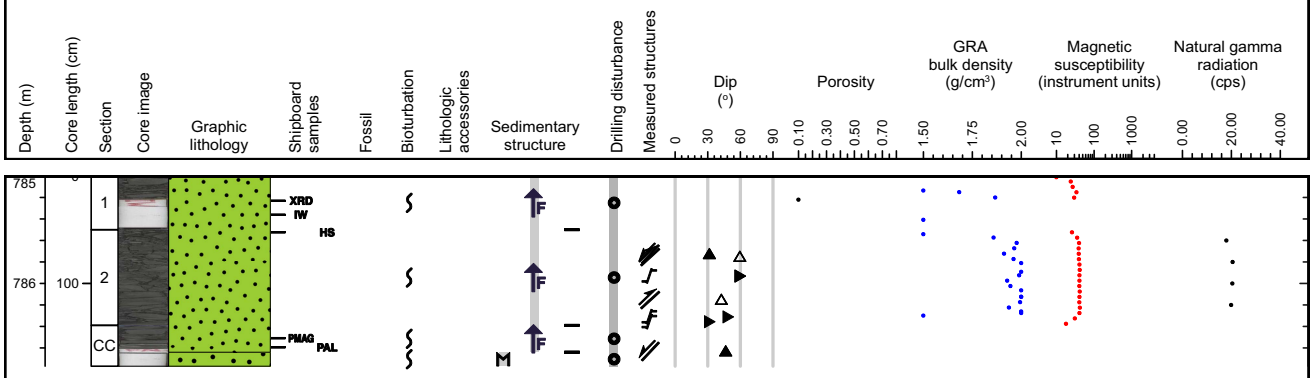
Major lithology: The core is primarily composed of dark greenish gray silt. Grading is present, both fining upward (the base of which is composed of ine sandy silt and the top of which is composed clayey silt) and coarsening upwards (silty clay at the base to silt at the top). ther is one unit of cemented siltstone (carbonate cement). Some inclined laminations visble due to grain size variations, most visible in Section 4, 5, and CC. Some convolute lamination present inside these lamianted sequences. Shelly fragments are present Section 2, 3, 4, 5, CC. The unit contains a number of concretions, most of which are arouind 2-4 cm in size. These occur in Section 1,2, 4, 5 and CC.



Core Photo

Hole 334-U1379C Core 93X, Interval 785.0-786.77 m (CSF-A)

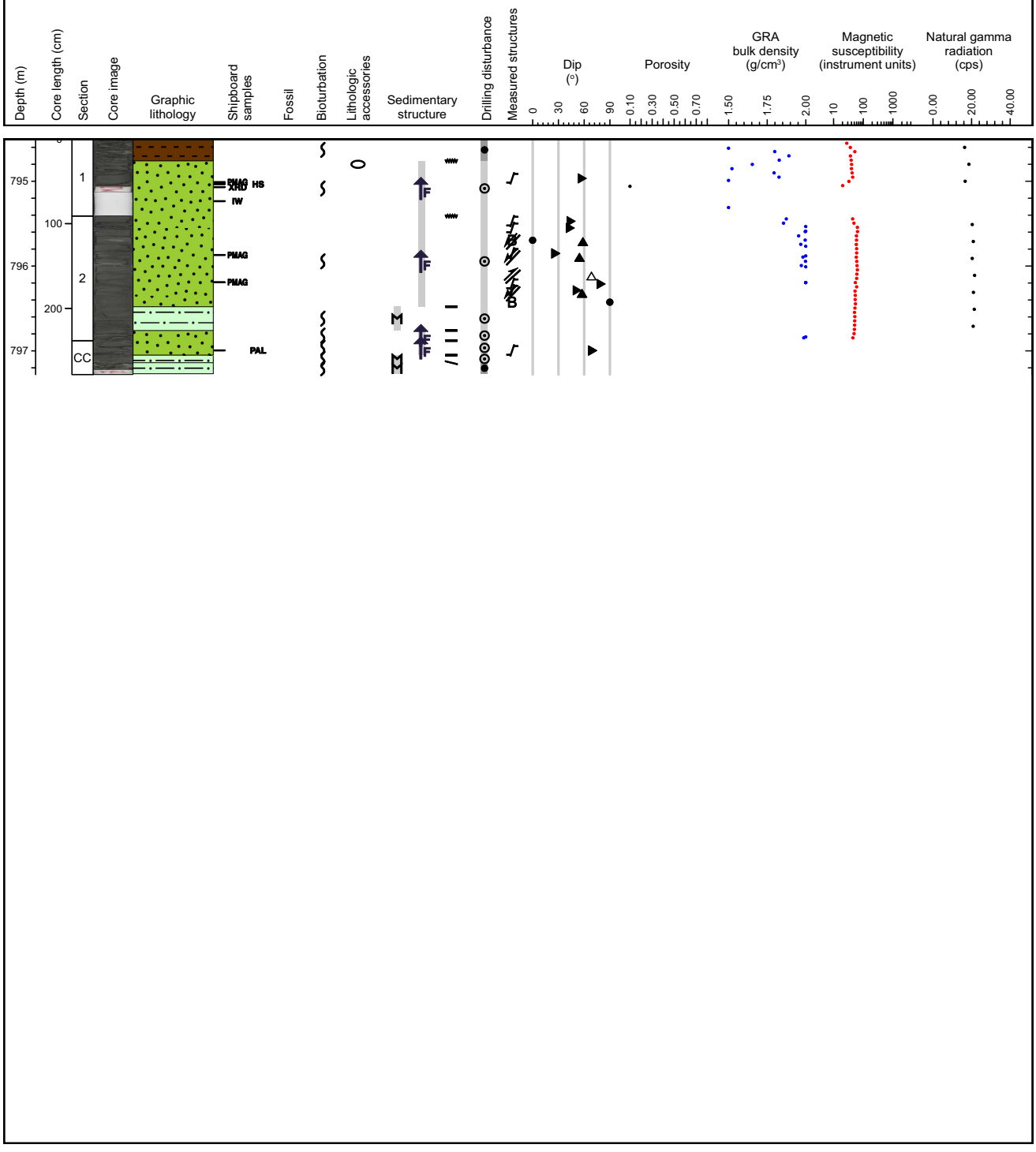
Major lithology: Dark greenish gray silt containing a fining upward seqence with clayey silt at the base and silty clay at the top. At the base is a small siltstone unit with is lithified with a strong calcite cement. No bioturbation. No shelly fragments.



Core Photo

Hole 334-U1379C Core 94X, Interval 794.5-797.28 m (CSF-A)

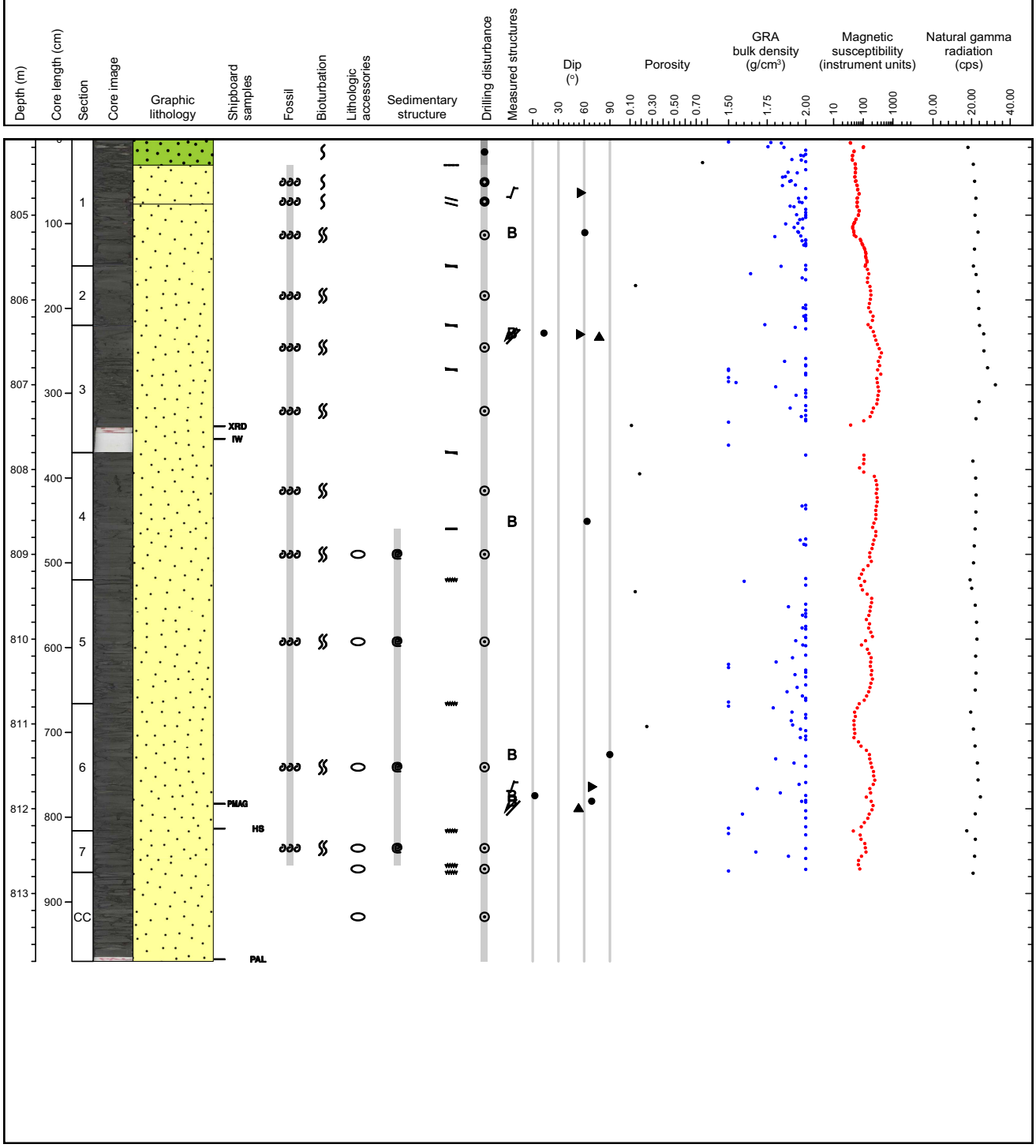
Major lithology: Dark greenish gray colored sequence of fining upwards units, the bases of which are composed of fine sandy clayey silt and the top of which is composed of silty clay. There is one cemented sandy clayey siltstone, present in the CC.



Core Photo

Hole 334-U1379C Core 95X, Interval 804.1-813.8 m (CSF-A)

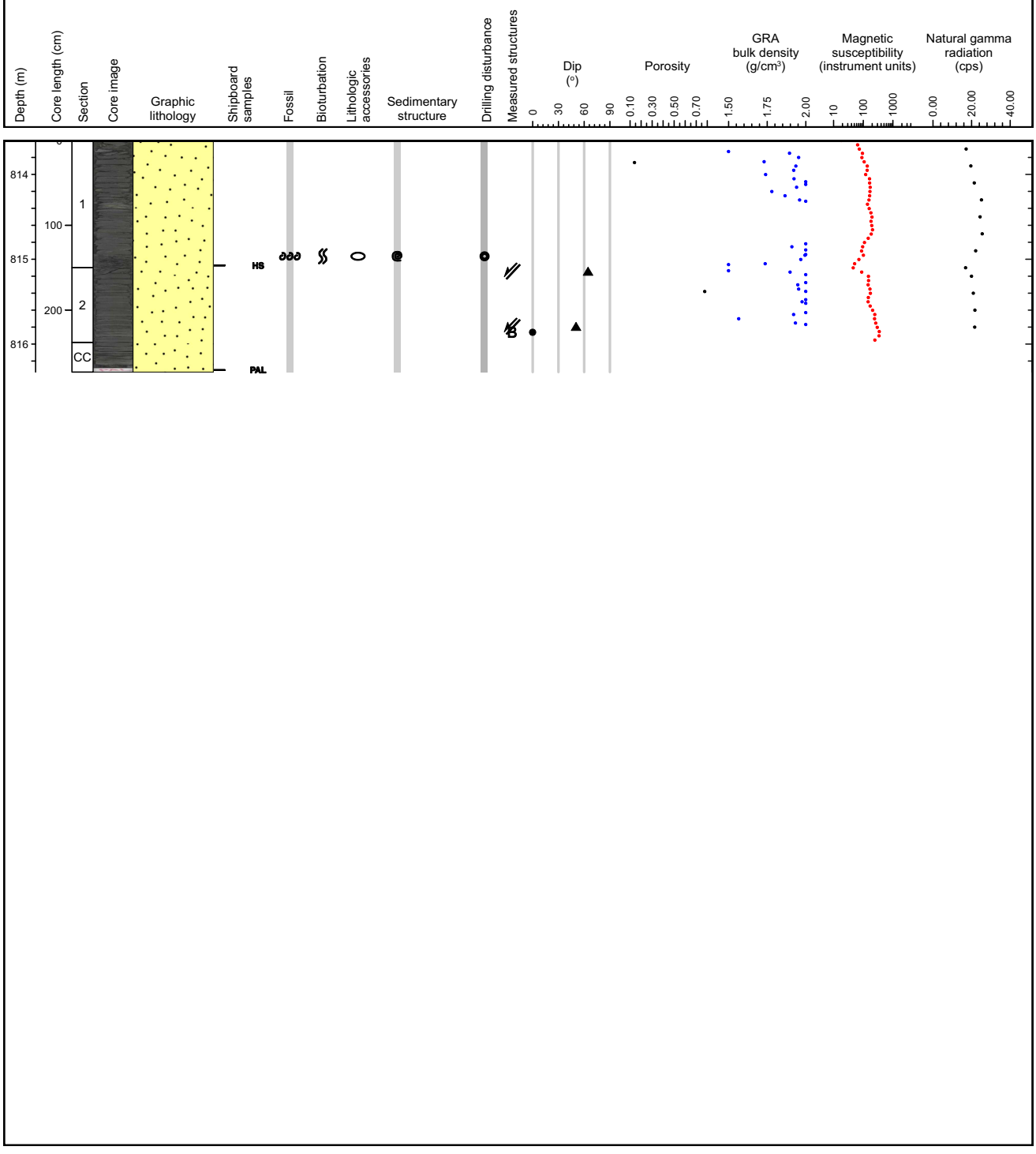
Major lithology: greenish black sanstone with normal graded units at the top, a major chaotic deposit in the middle and a coarse sanstone layer at the base. The chaotic deposit is made out of several coarsening and fining upward beds that are chaotically mixed with each other and some thin clayey layers.



Core Photo

Hole 334-U1379C Core 96X, Interval 813.6-816.33 m (CSF-A)

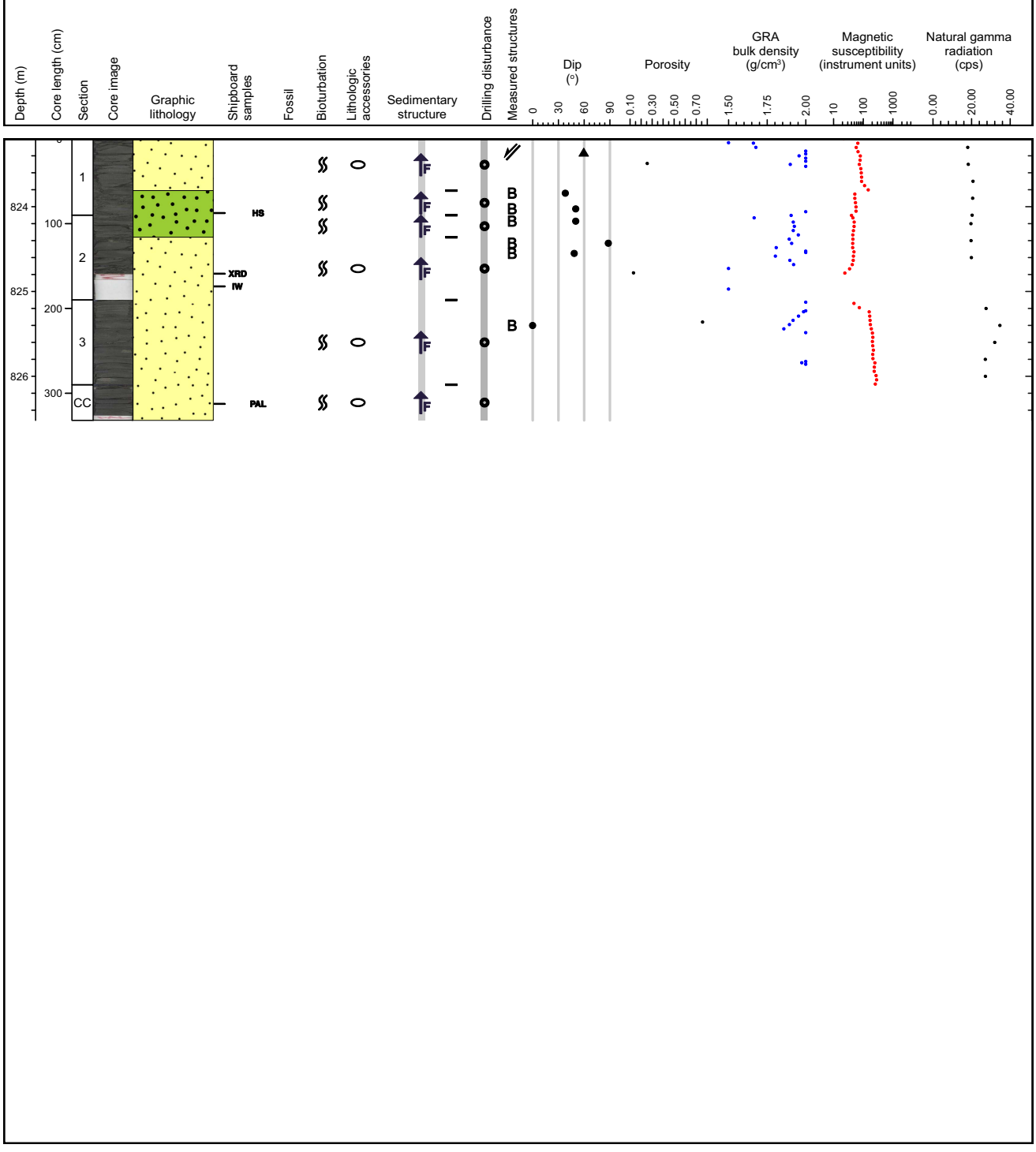
Major lithology: greenish black Sanstone in a chaotic deposit. The chaotic deposit is made out of several coarsening and fining upward beds that are chaotically mixed with each other.



Core Photo

Hole 334-U1379C Core 97X, Interval 823.2-826.52 m (CSF-A)

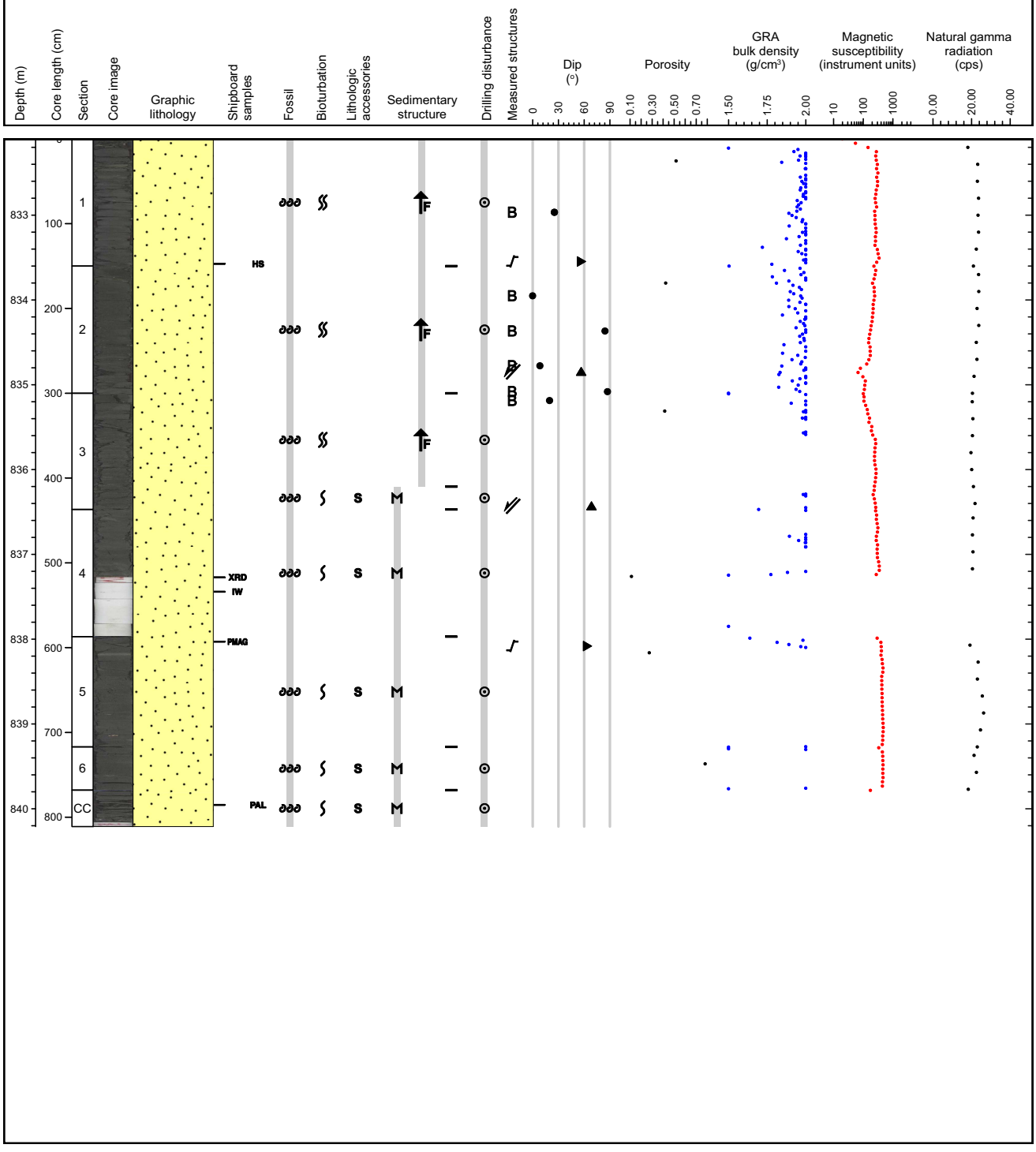
Major lithology: greenish black Sanstone in a chaotic deposit. The chaotic deposit is made out of several coarsening and fining upward beds that are chaotically mixed with each other. Major lithology: Dark greenish gray Sily clay to Medum sandy. Contains inclined bedding in the upper most part of the core. Two fining upward units from meduim sand to sandy silt. concretions present. Slight bioturbation.



Core Photo

Hole 334-U1379C Core 98X, Interval 832.1-840.21 m (CSF-A)

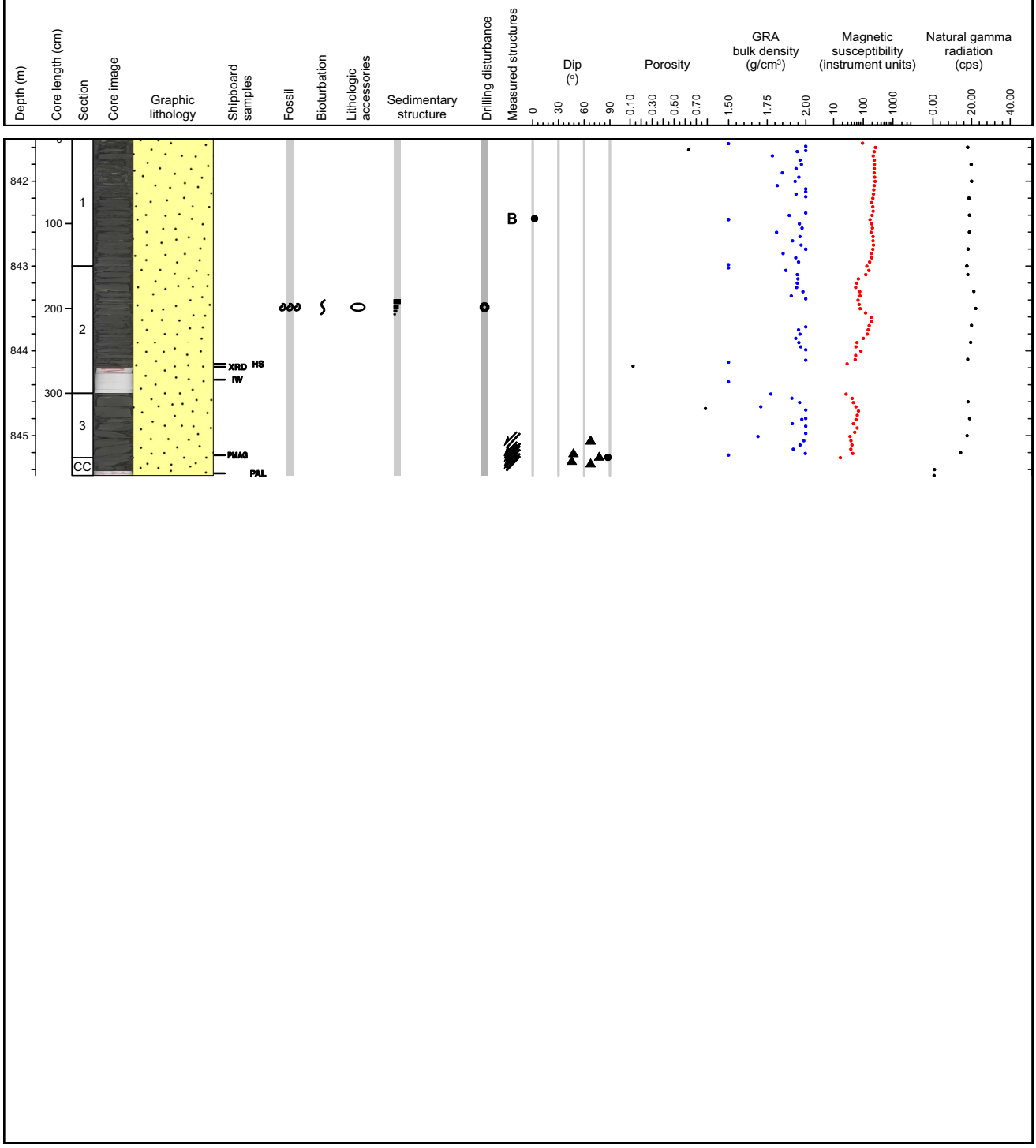
Major lithology: Dark greenish sand. No bioturbation. Upper part characterized by fining upward bedding ranging from fine sand at the base to a silty sand at the top. Lamination at the top and shell-rich sands, rounded clasts, rip-up clasts at the base are typically within the single beds



Core Photo

Hole 334-U1379C Core 99X, Interval 841.5-845.47 m (CSF-A)

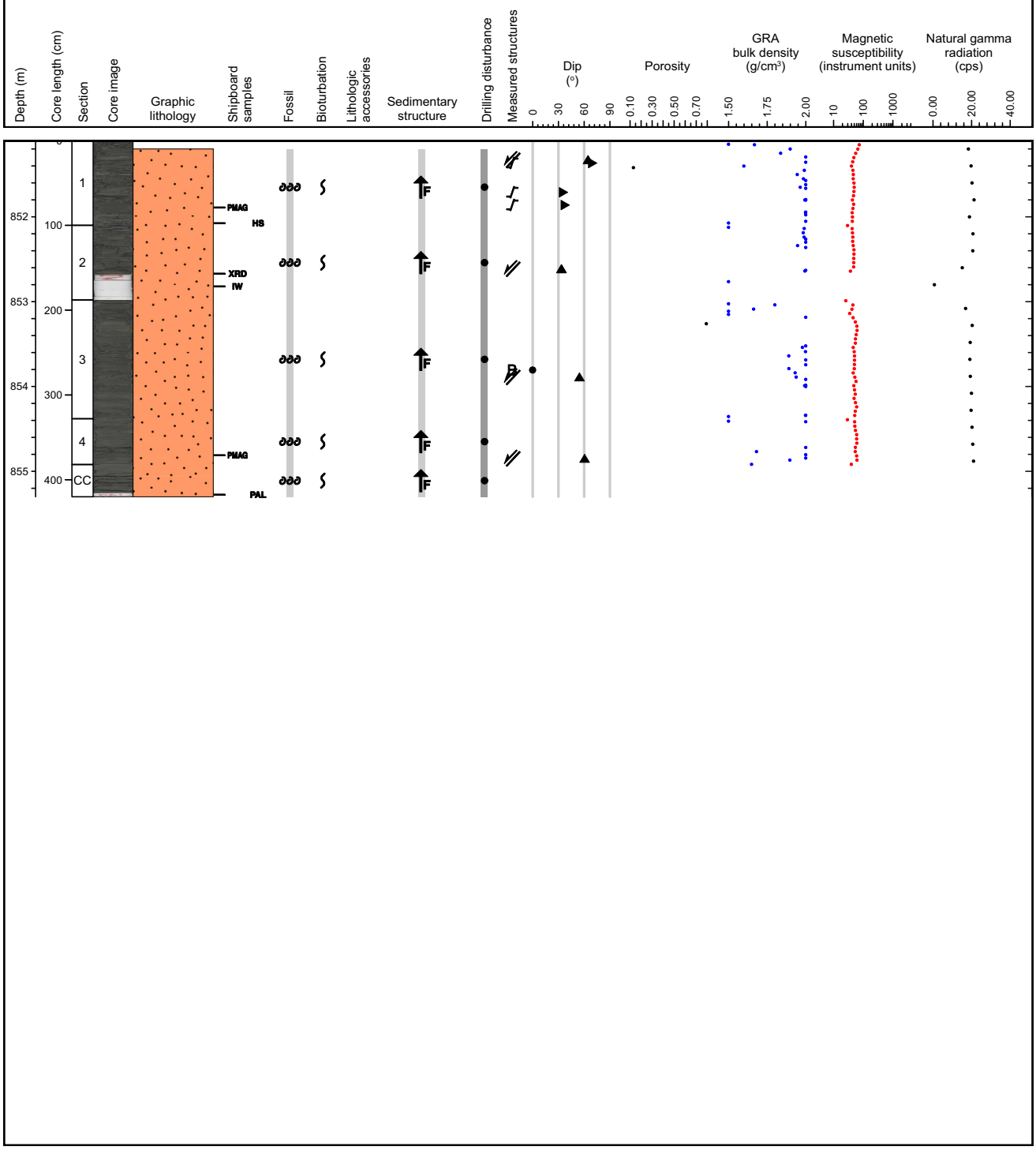
Major lithology: greenish black sandstone with no bioturbation and an overal coarsenig upward grading from sandy silt to medium sand. Some calcerous concretions are present



Core Photo

Hole 334-U1379C Core 100X, Interval 851.1-855.3 m (CSF-A)

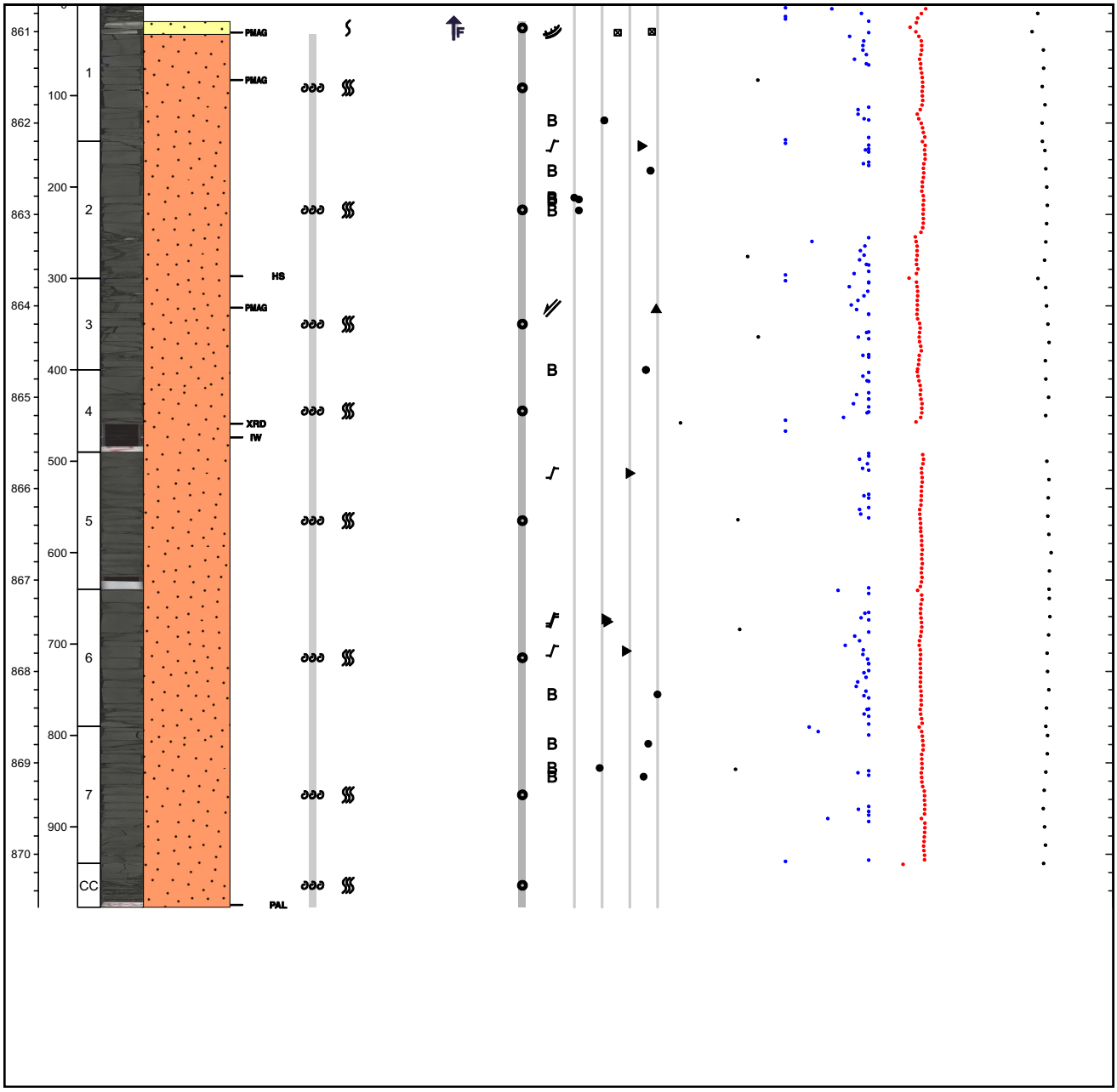
Major lithology: Upward-fining cycles of olive dark gray (10GY 2.5/1) fine sandstone to siltstone. Some sparse shell fragments present.



Core Photo

Hole 334-U1379C Core 101X, Interval 860.7-870.58 m (CSF-A)

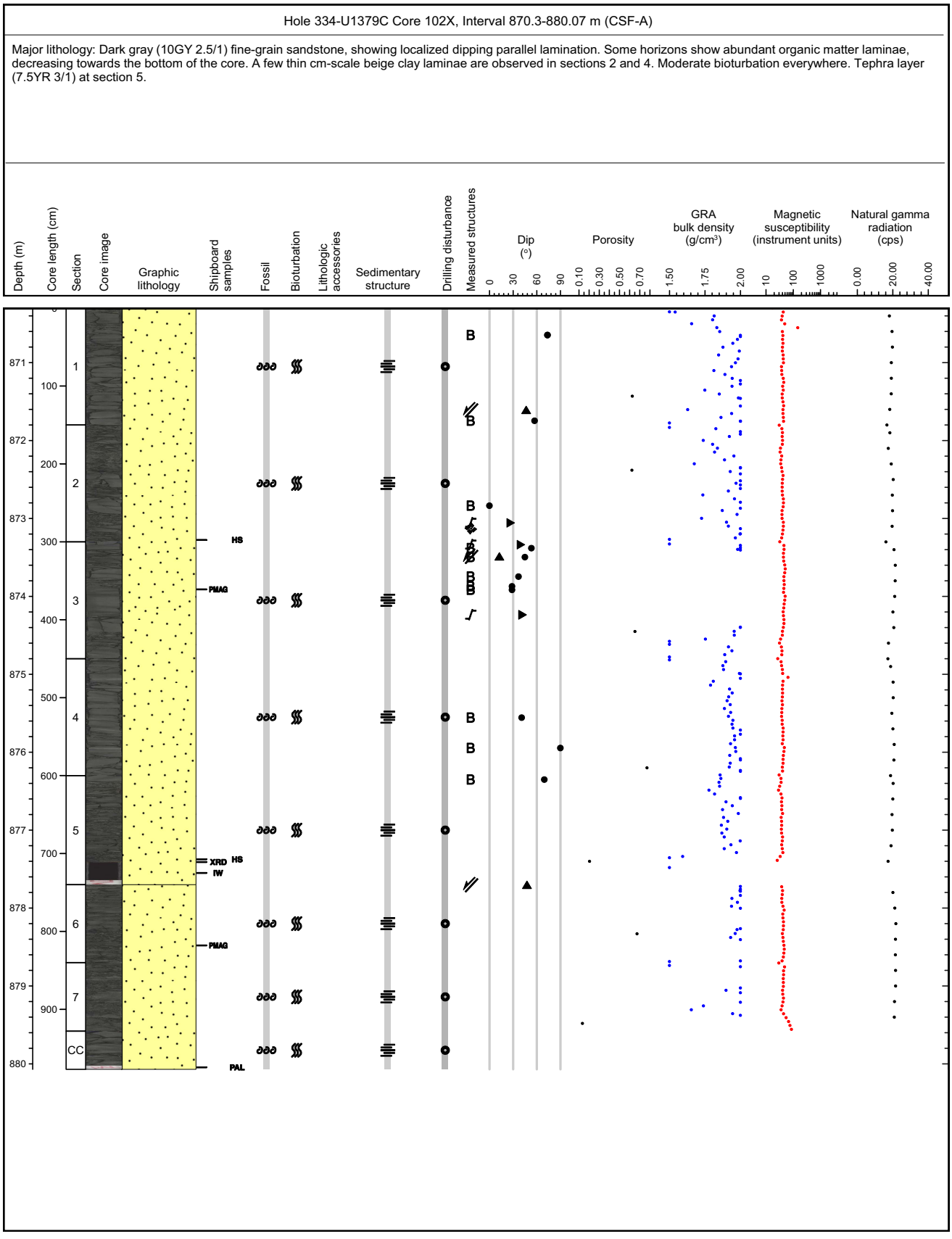
Major lithology: Dark gray (10GY 2.5/1) silty sandstone with variable calcareous cementation, shell fragments, and horizons with cm-scaled fining-upwards bedding. Some levels with moderate to strong bioturbation. Web-pattern veins developing from calcareous horizon observed at the top of the core (section 1).



Core Photo

Hole 334-U1379C Core 102X, Interval 870.3-880.07 m (CSF-A)

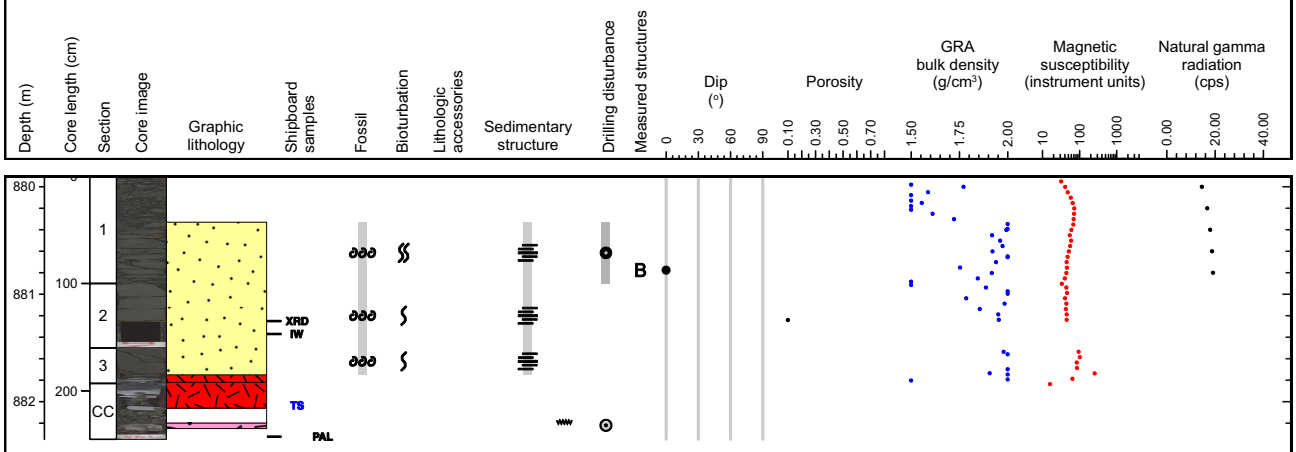
Major lithology: Dark gray (10GY 2.5/1) fine-grain sandstone, showing localized dipping parallel lamination. Some horizons show abundant organic matter laminae, decreasing towards the bottom of the core. A few thin cm-scale beige clay laminae are observed in sections 2 and 4. Moderate bioturbation everywhere. Tephra layer (7.5YR 3/1) at section 5.



Core Photo

Hole 334-U1379C Core 103X, Interval 879.9-882.35 m (CSF-A)

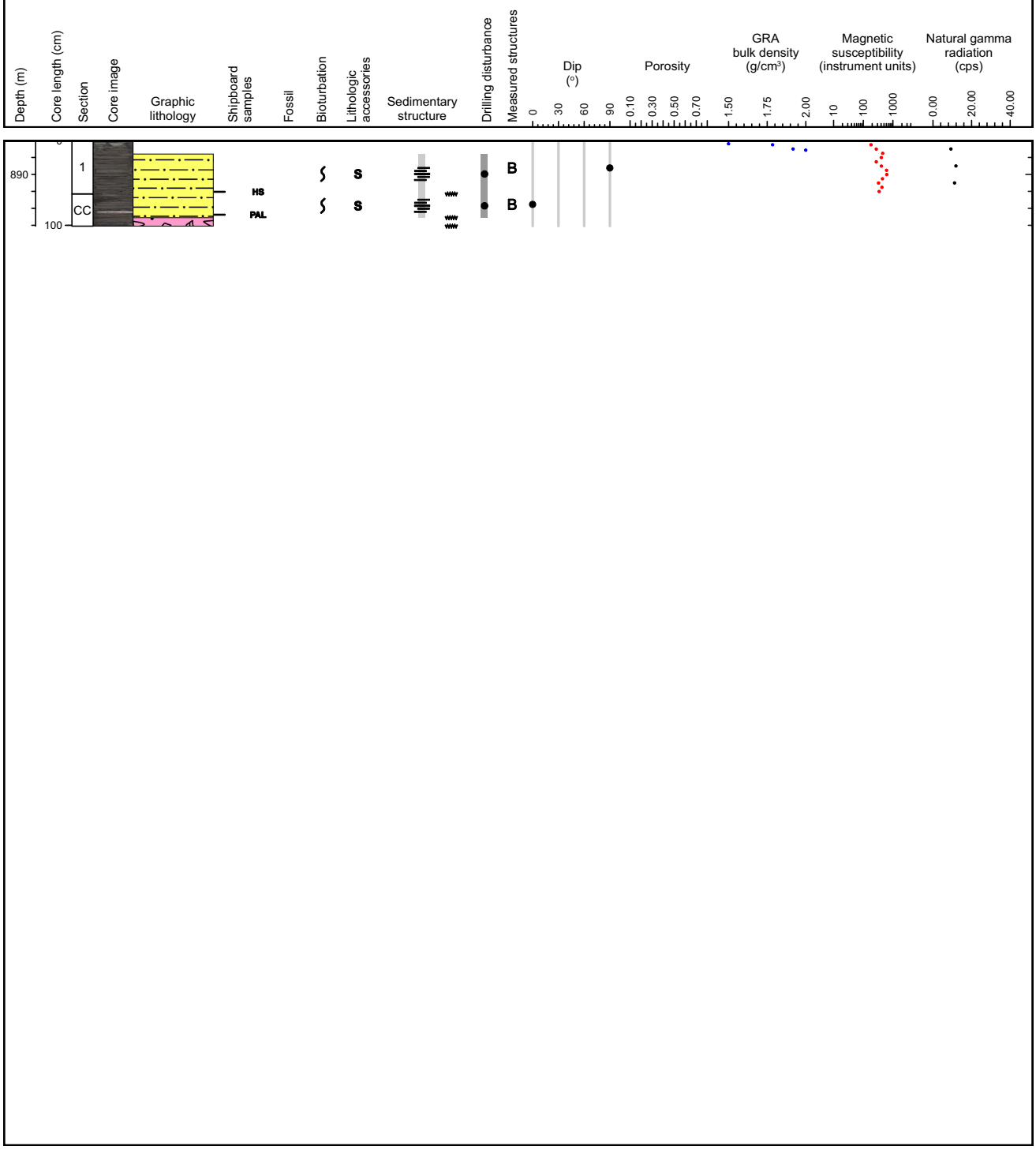
Major lithology: Section 1 consists of a dark gray (N 2.5) fine-grain sandstone with parallel lamination and two horizons of very-coarse sandstone with abundant shell fragments. Sections 2 and 3 consist of a greenish dark gray (10Y 2.5/1) medium-grain sandstone, with parallel lamination and very abundant shell fragments. Transition to basement in section 3 (see Igneous Petrology). At the bottom of the CC, a sedimentary breccia was recovered.



Core Photo

Hole 334-U1379C Core 104X, Interval 889.6-890.61 m (CSF-A)

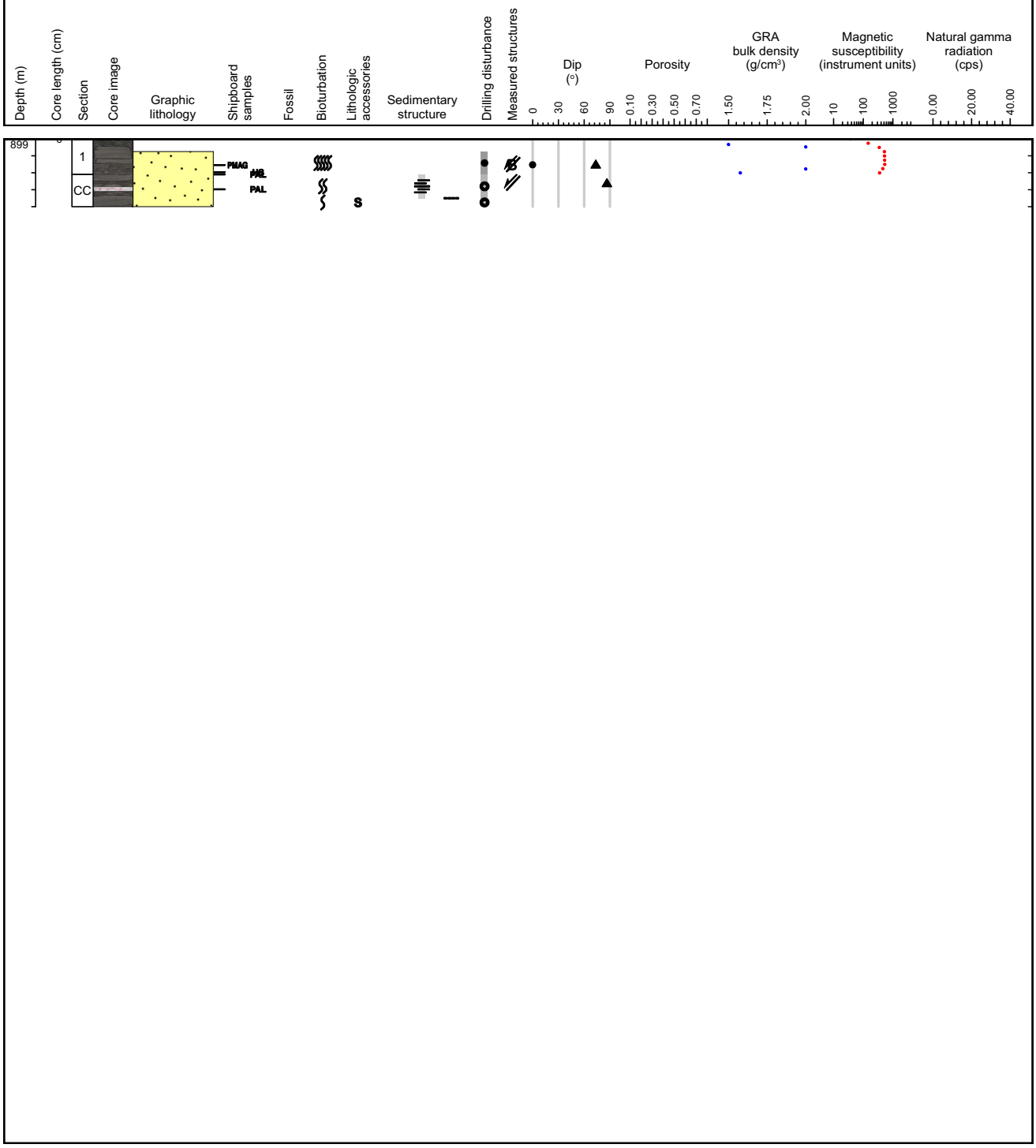
Major lithology: Volcaniclastic breccia (?) disconformably overlain by a pinkish brown (7.5YR 3/1) sandy siltstone showing parallel lamination.



Core Photo

Hole 334-U1379C Core 105X, Interval 899.0-899.8 m (CSF-A)

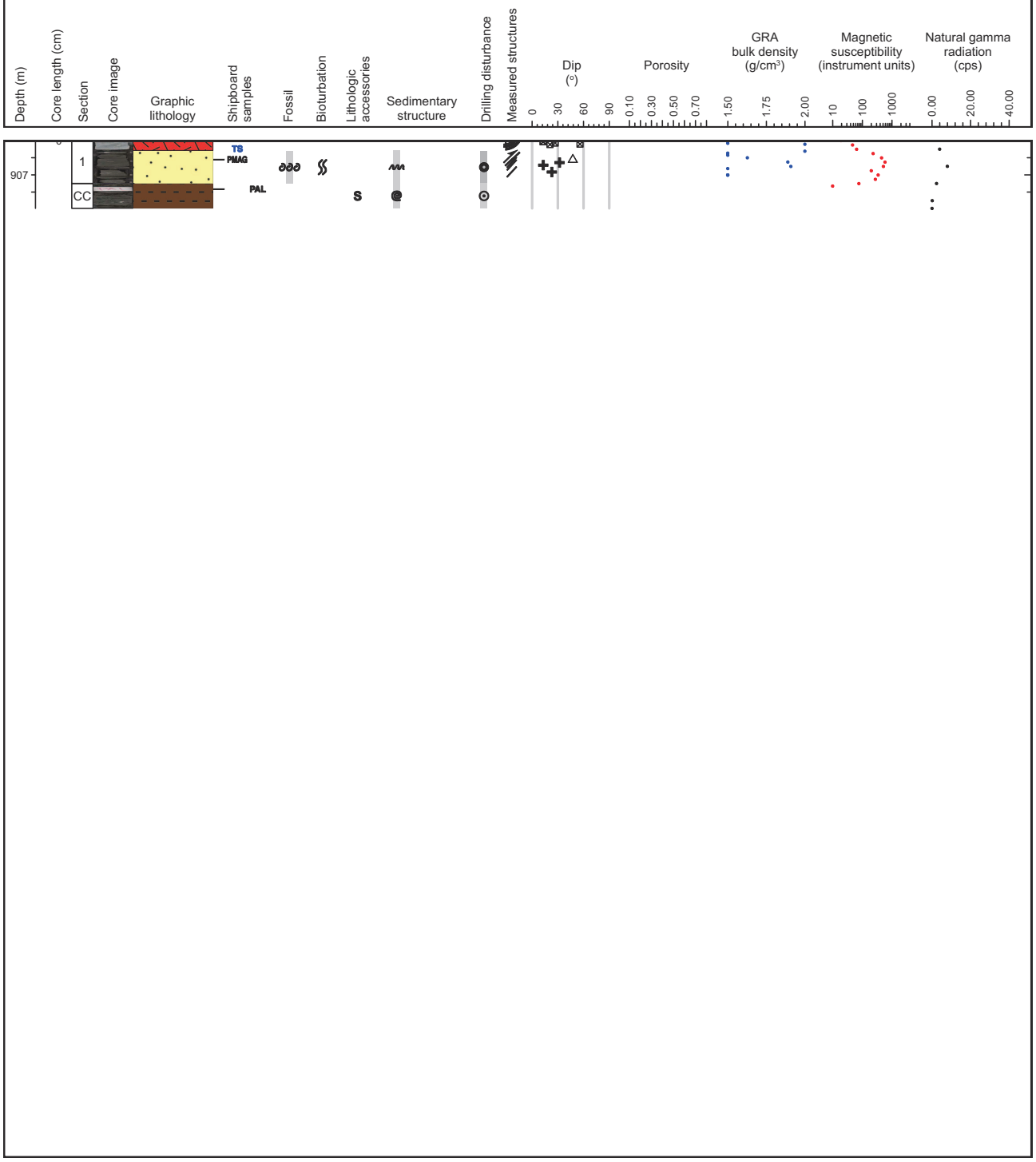
Major lithology: In section 1, a pinkish brown (7.5 YR 3/1) fine-grain sandstone with lenses of coarser sand. The CC consists of a pinkish brown (7.5 YR 3/1), parallel-laminated medium-grain sandstone which gradates to a medium-grain sandstone with abundant mafic (?) clasts (granules to < 1 cm).



Core Photo

Hole 334-U1379C Core 106X, Interval 906.6-907.39 m (CSF-A)

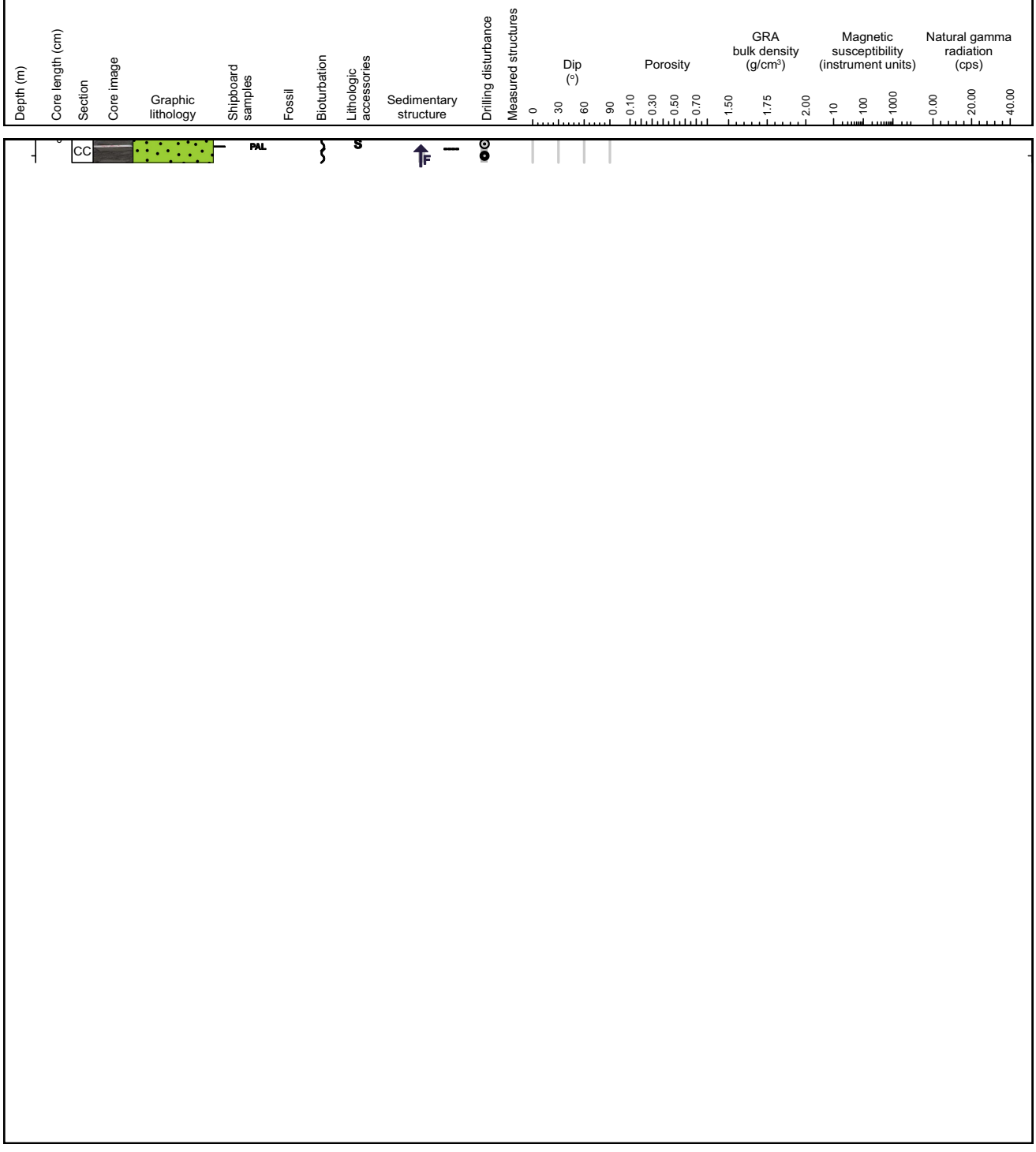
Major lithology: The plagioclase-pyroxene phyric basalt is moderately phyric, cut by series of veins and matrix is partly overprinted. The upper contact of the basalt is lost by drilling disturbance, whereas the lower contact with volcaniclastic breccia is evident. There is no chilled margin nor welded texture at the boundary. Plagiolcase phenocryst is euhedral to subhedral, with the size varying from 0.2 to 2 mm. Pyroxene phenocryst is subhedral, with the size varying from 0.1 to 0.7. Both phenocrysts are well preserved. There are at least three kinds of veins recognized base on their direction, colors and cross-cut relationship; Subvertical green veins, subvertical white veins and subhorizontal white veins. Subvertical green veins are cut by subhorizontal veins. Subvertical white veins cut the other two series of veins. Subhorizontal quartz vein consists of mainly quartz. Subvertical white veins consists of mainly quartz, with some cavity filled with calcite. Most of the veins are preferentially straight with some irregularities. Different kinds of alteration occurs along each series of veins. Along the subvertical green veins, matrix is altered to dark-green with the width of 0.5 mm from the vein wall. Along the subvertical white veins and subhorizontal white veins, surrounding matrix are partly overprinted to light-green.



Core Photo

Hole 334-U1379C Core 107X, Interval 916.4-916.68 m (CSF-A)

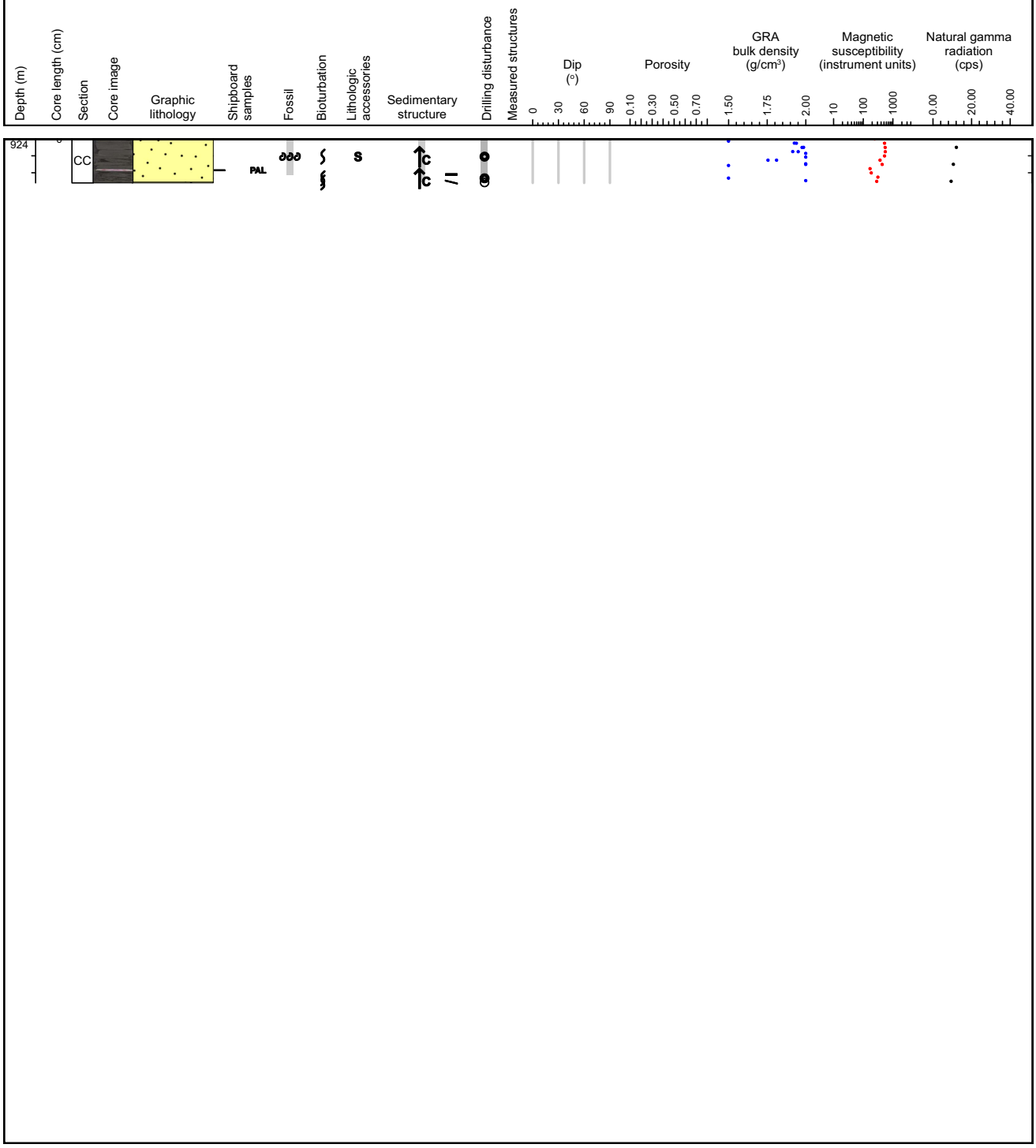
Major lithology: The core is composed of sandy clayey silt, which is greenish gray in color with no bioturbation. The upper unit is composed of sandy silt containing conglomeratic horizons. Clasts have a variabl compostion and range in size from 2mm to 10mm (granular - to small pebble). calst are composed of; radiolarite chert, claystone, basalt, possibly limestones. The underlying unit contains some grading. The top is sandy silt while the base is silty clay. At the base of the unit there are some slight color changes from greenish brown to brownish green.



Core Photo

Hole 334-U1379C Core 108X, Interval 924.0-924.52 m (CSF-A)

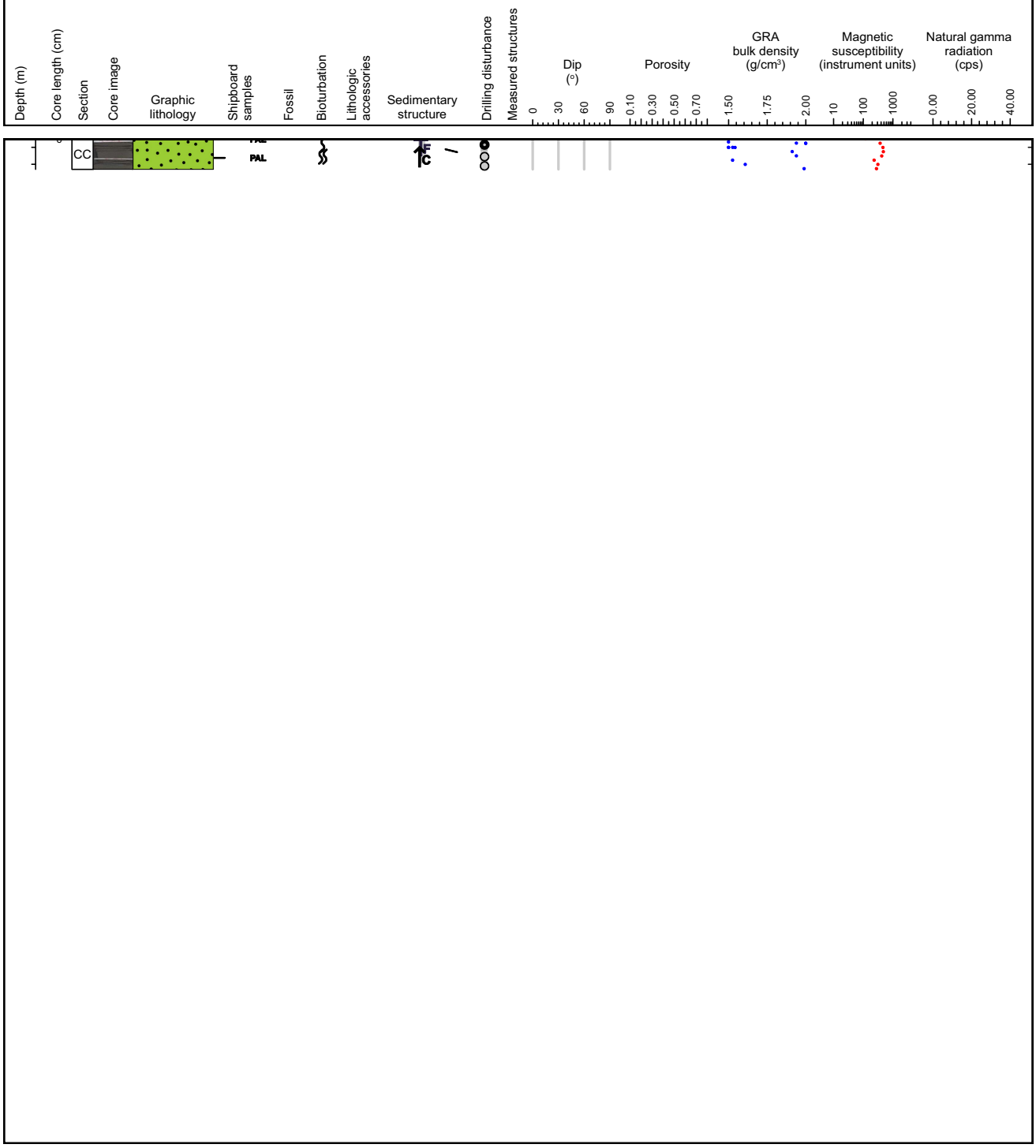
Major lithology: Coarsening upward unit of brownish silty sand to sandy silt. Clasts are present in the first 11cm of the core. The clasts are sub-angular to sub-rounded in shape. Clasts are composed of dark brown/blackish materail. possible some are basalt and some are mud stone. Small fragments of red chert. Small fragments of blueish material, possibly limestone. From 42 - 51cm there is a unit of soft sandy silt (brown in color) this contains coarse grains to granules at its base. Coarse grained deposit in the last cm of core. Grains seem to be composed of limestone basalt and chert.



Core Photo

Hole 334-U1379C Core 109X, Interval 928.5-928.86 m (CSF-A)

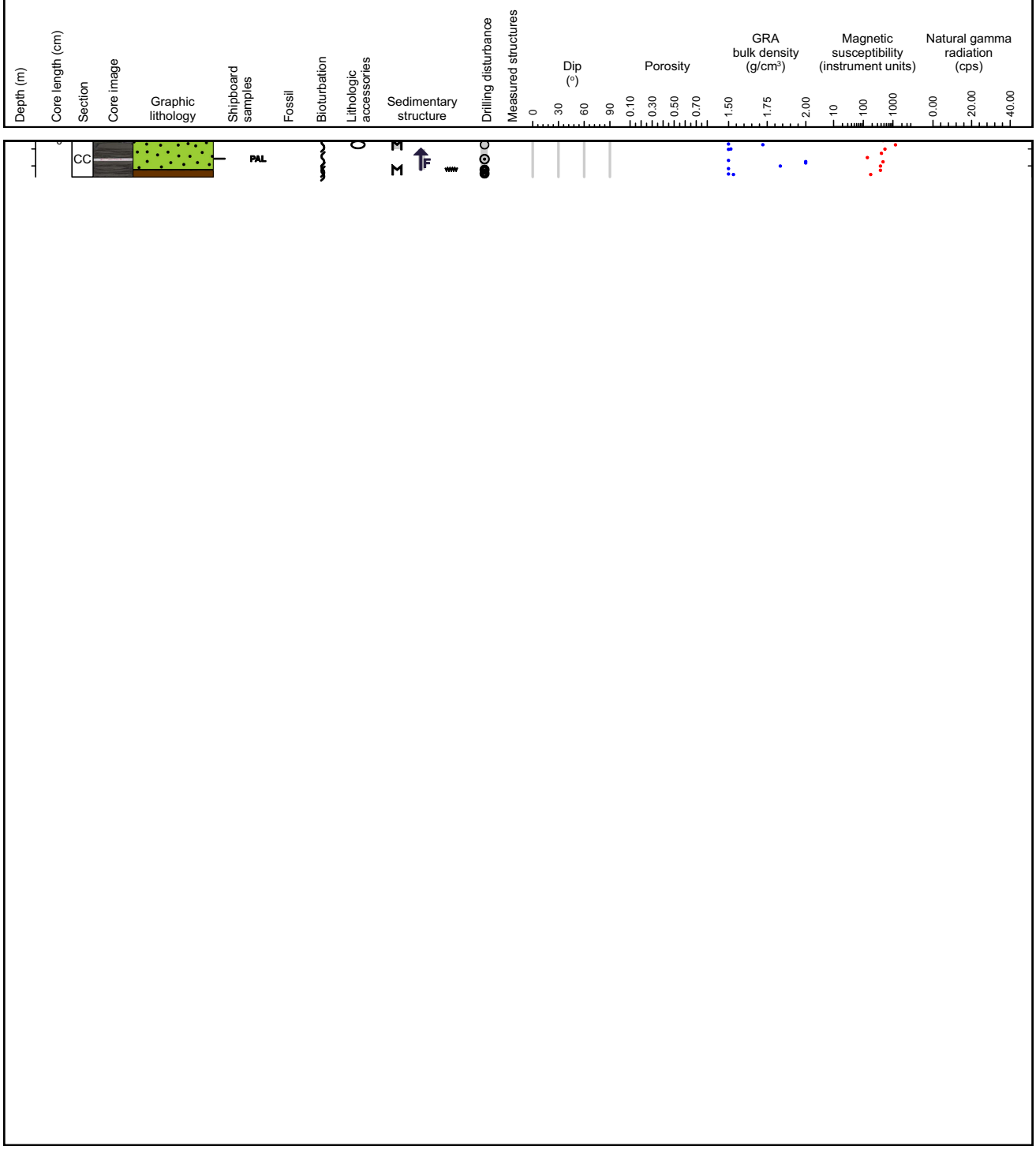
Major lithology: Sequence of dark greenish brown - dark greenish gray sandy silt. The first unit contains a fining upward unit from fine sandy silt to silt. The second unit is a coarsening upward unit from fine sandy silt to medium grained sandy silt. At the base of the core is a alternating series of horizons of more silty and sandy materail. the silt is dark greenish brown (10 2.5/1) in color, while the sand is gray black (N 2.5). Sands are fine to medium grained.



Core Photo

Hole 334-U1379C Core 110X, Interval 929.5-929.93 m (CSF-A)

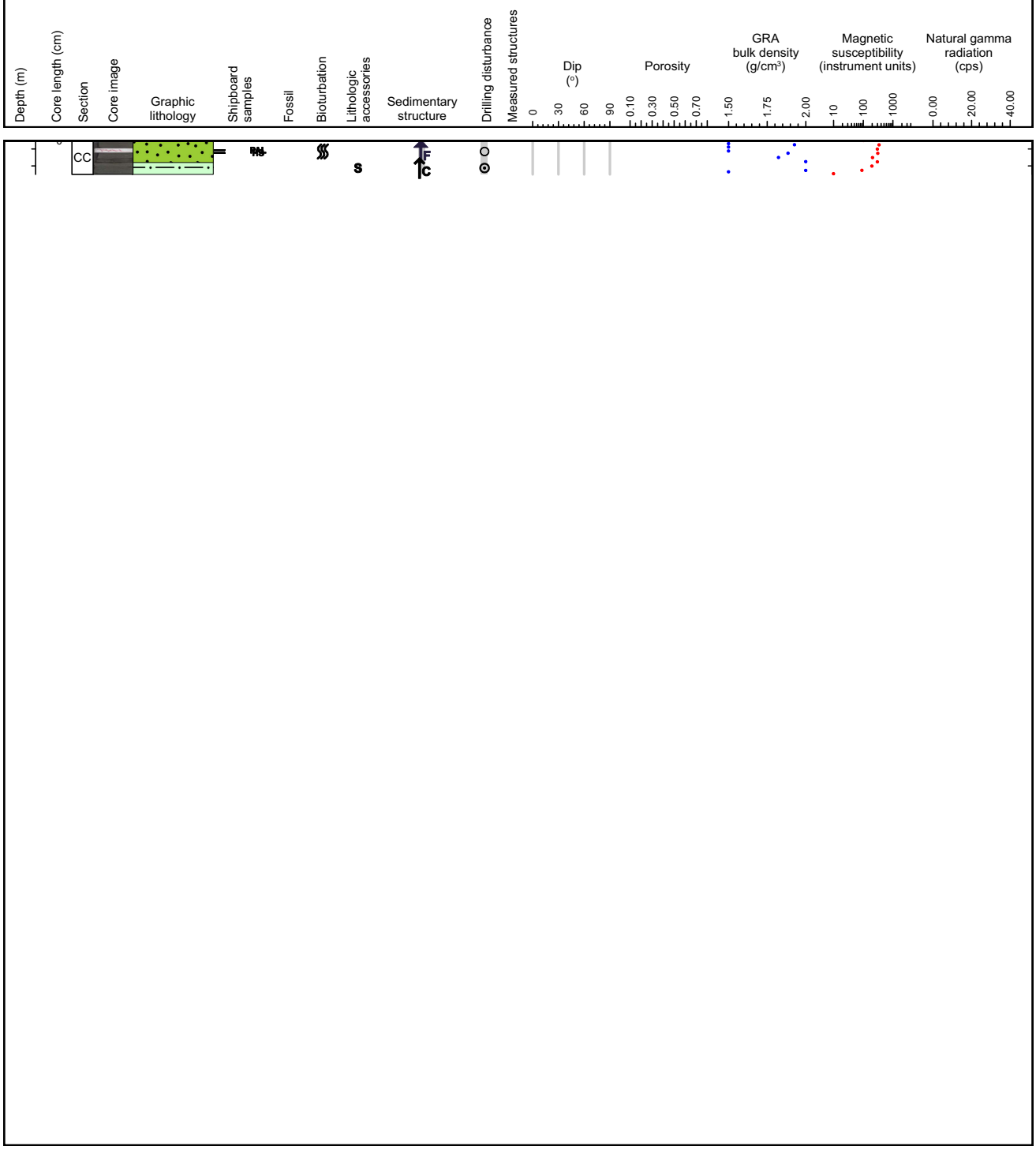
Major lithology: Greenish-brown sandy silt to silt. The first unit is massive. The second unit fines upwards from sandy silt to silt. Some laminations of darker materail at base (mud drapping). there ia a horizon of coarse sand. Grains are composed of what could possibly be basalt and red cherts, possibly some limestone. underlying this is a unit that seems to have laminations present within it that may have been planar but have been disturbed by drilling. Boundaries not visible because of drilling.



Core Photo

Hole 334-U1379C Core 111X, Interval 932.5-932.9 m (CSF-A)

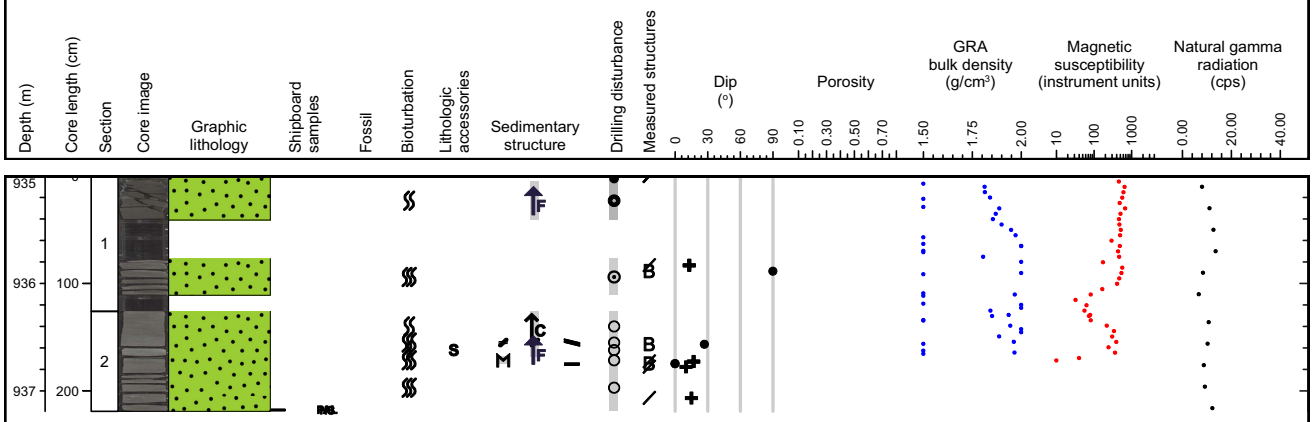
Major lithology: Two units of Greenish gray sandy silt. The first unit contains pods of coarser material present at 2 - 3cm.amd 15 - 16cm. Coarse sand grains are composed of blueish gray carbonate. This unit contains the remains to two fining upward sequences. However these have been bioturbated and reworked. the second unit is very dark greenish gray. The unit appears to coarsen upwards from clay fine silt to sandy silt. Clasts ranging from 2mm to 10mm in sizr are present at 31cm, 36cm to 37cm. Clast are subangular in shape.



Core Photo

Hole 334-U1379C Core 112X, Interval 935.0-937.19 m (CSF-A)

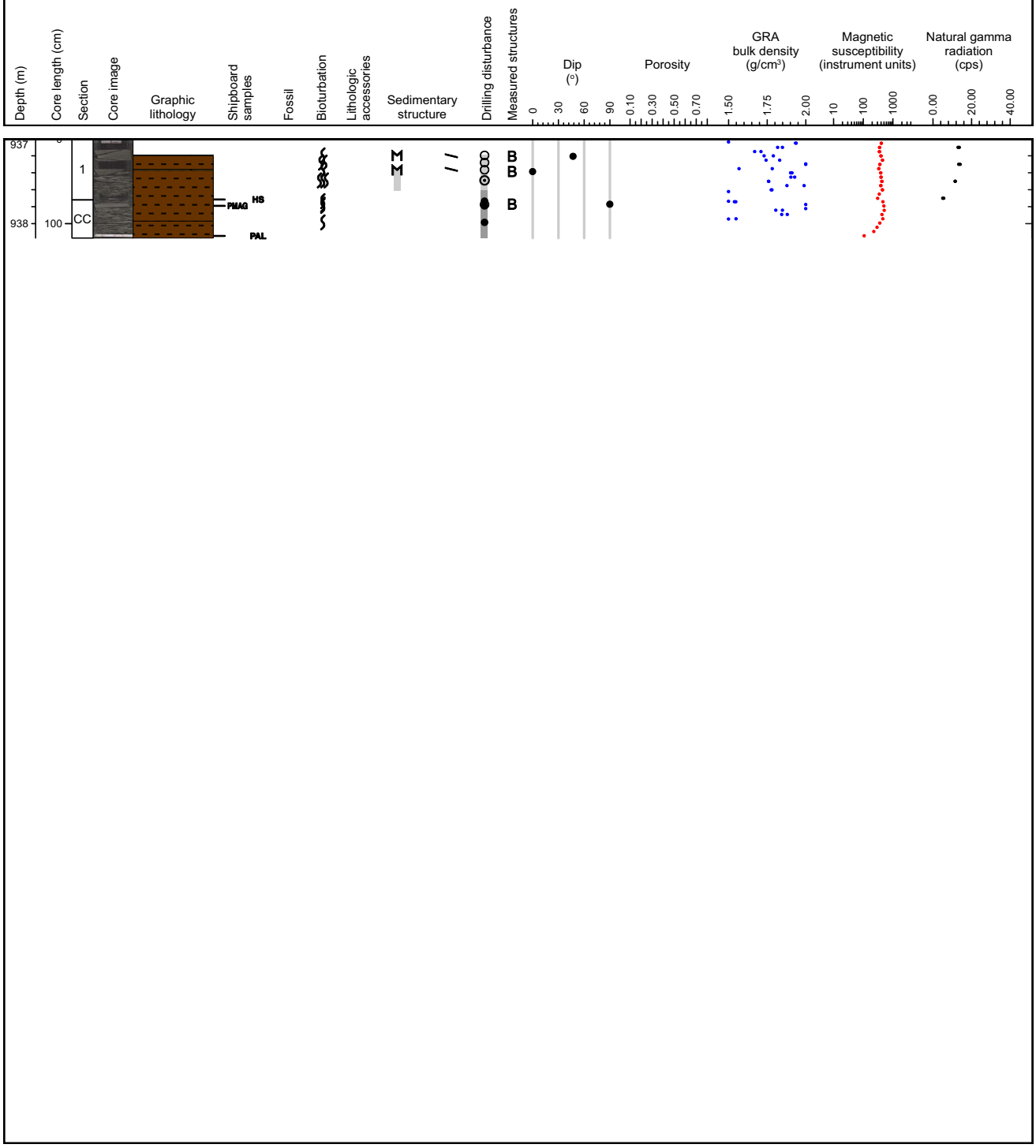
Major lithology: Core is composed of silt to sandy silt. Light to dark gray in color. There are a number of fining upward and coarsening upward untis present. Bioturbation is common and has an intensity of 2 to 3. Few clast are present.



Core Photo

Hole 334-U1379C Core 113X, Interval 937.0-938.17 m (CSF-A)

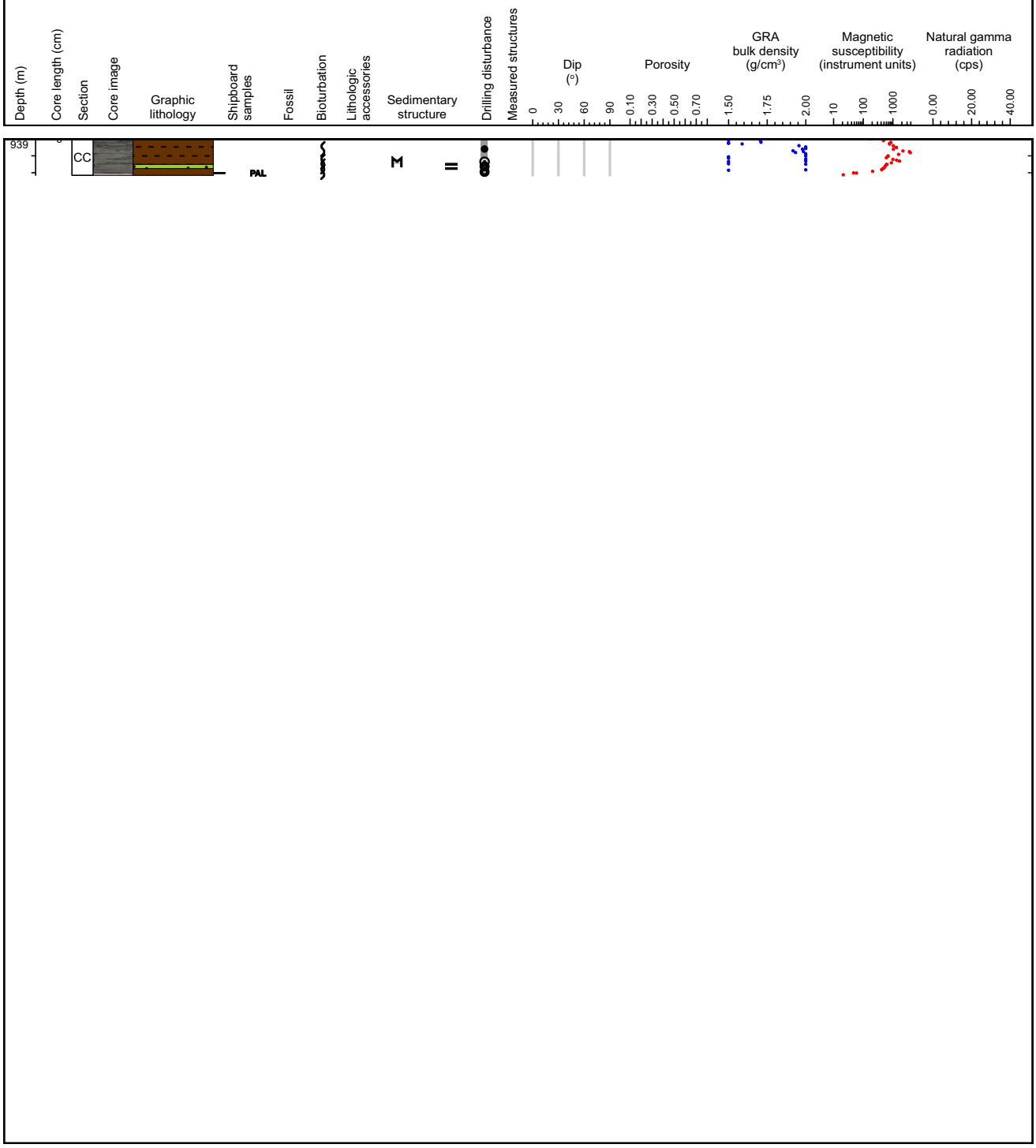
Major lithology: Silty clay which is variable in color. the upper units are variable in color from light to dark beige gray. Containing a few larger granules present within background silty clay. there is evidence that this sedimentation was punctated by thin deposits of coarse sand to granules (these are visible in the broken ends of the fragments). Lower in the core seidment is very dark greenish brown/gray unit containing parallel to slightly wavey laminations. Some small lenses of fine sand are present. There are a number of intervals in this core that have been completely disturbed and are now only fragments becasue of drilling.



Core Photo

Hole 334-U1379C Core 114X, Interval 939.0-939.43 m (CSF-A)

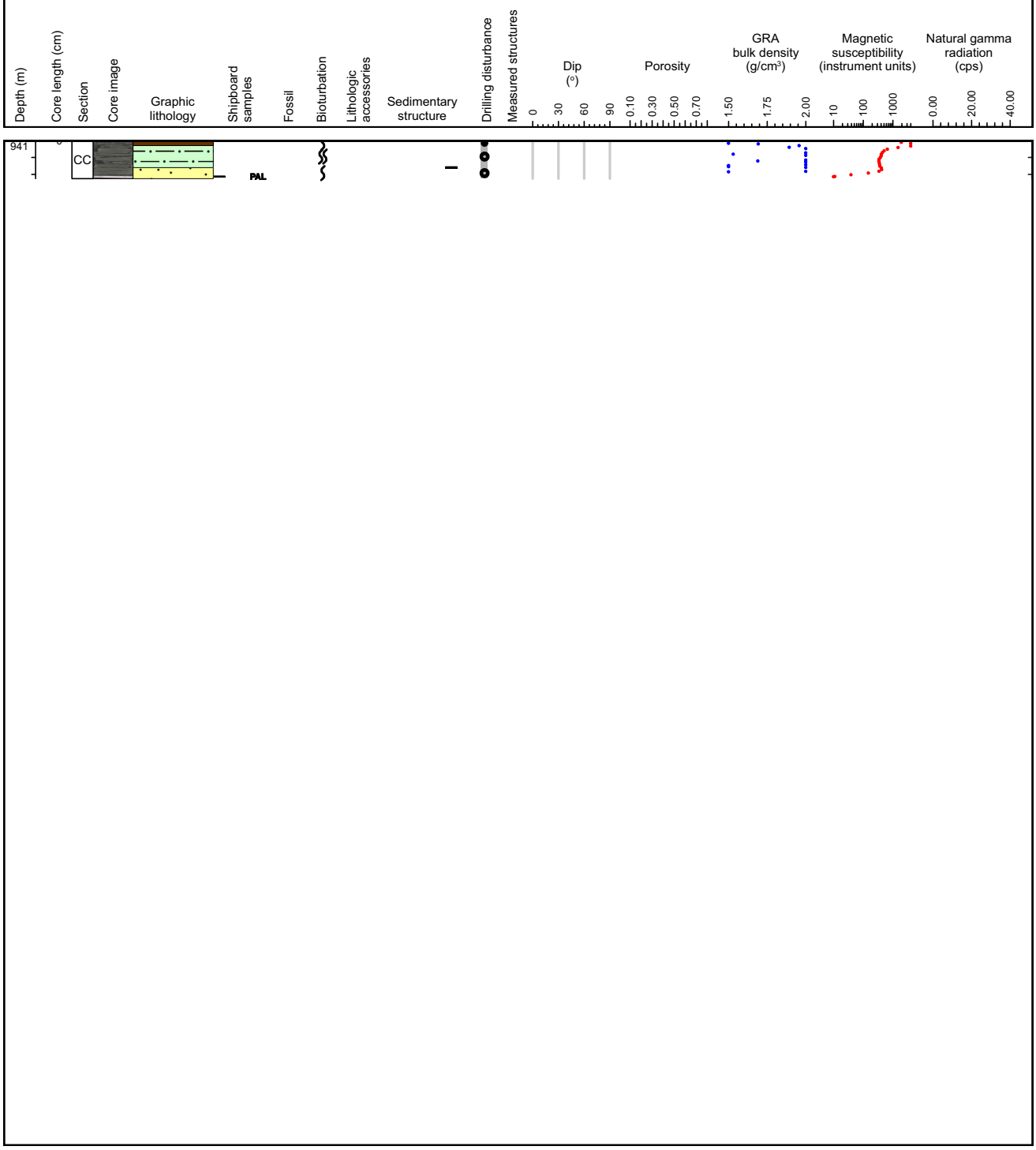
Major lithology: Clay to clayey silt, greenish gray to gray in color. No bioturbation. Undisturbed sections appear to have contained laminations but these have now been disturbed by drilling. Other sections have be completely churned up by drilling.



Core Photo

Hole 334-U1379C Core 115X, Interval 941.0-941.45 m (CSF-A)

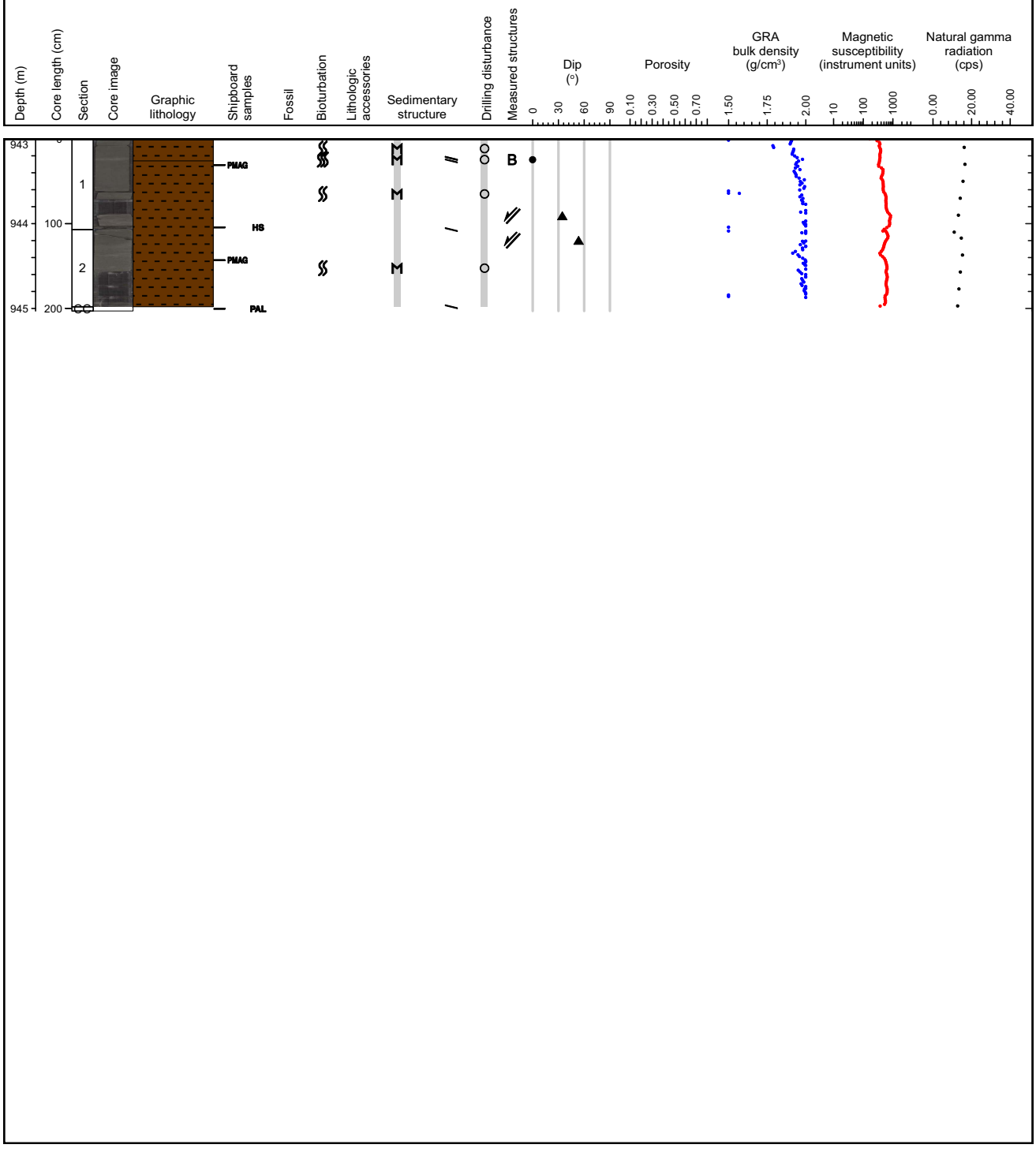
Major lithology: Clayey silt to silty sandstone, dark greenish gray to dark gray in color. Sands are composed of fine to medium grains. Silty sandstone which contains slight varations in compositon with some slightly more sandy and silty horizons. Little to no bioturbation.



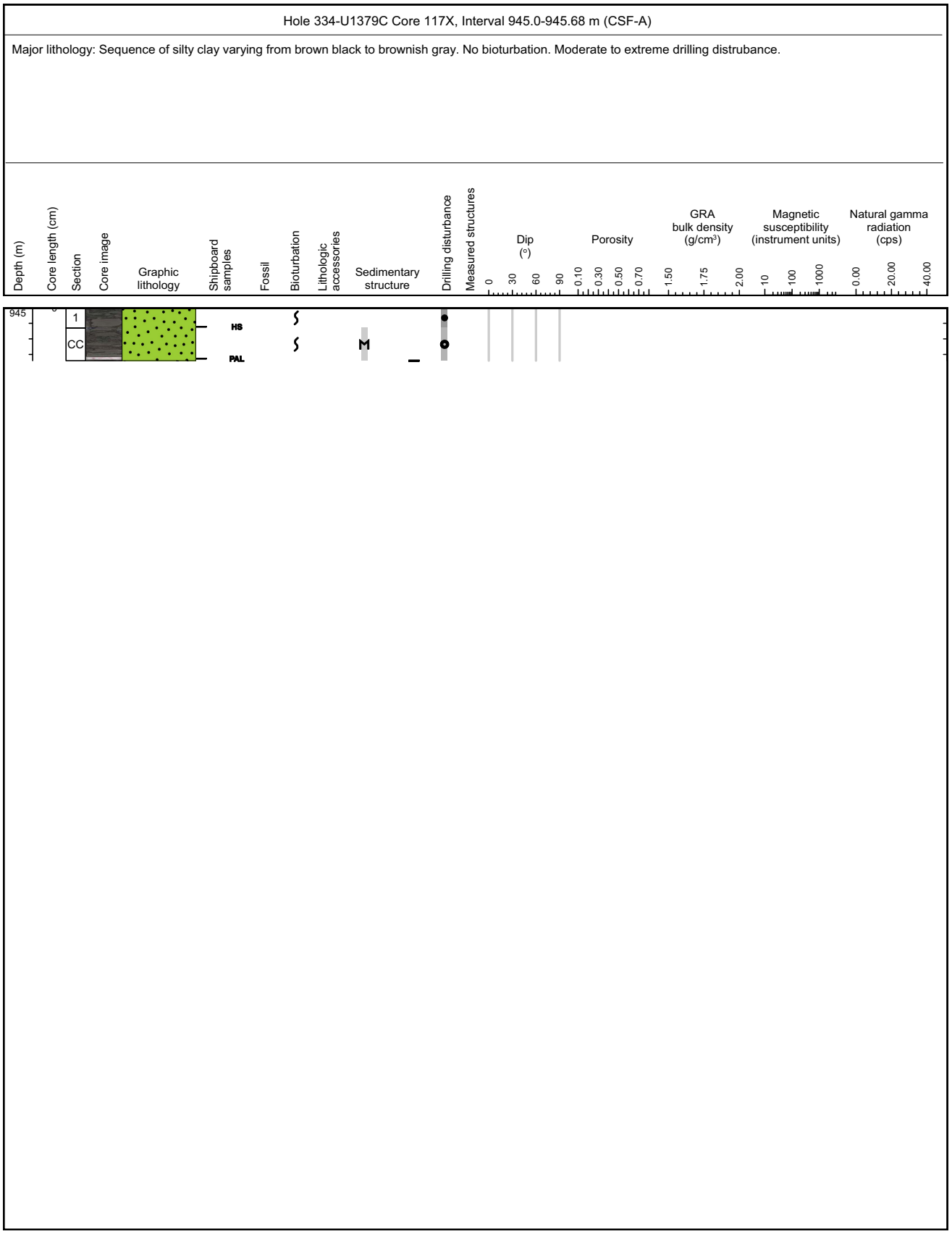
Core Photo

Hole 334-U1379C Core 116X, Interval 943.0-945.03 m (CSF-A)

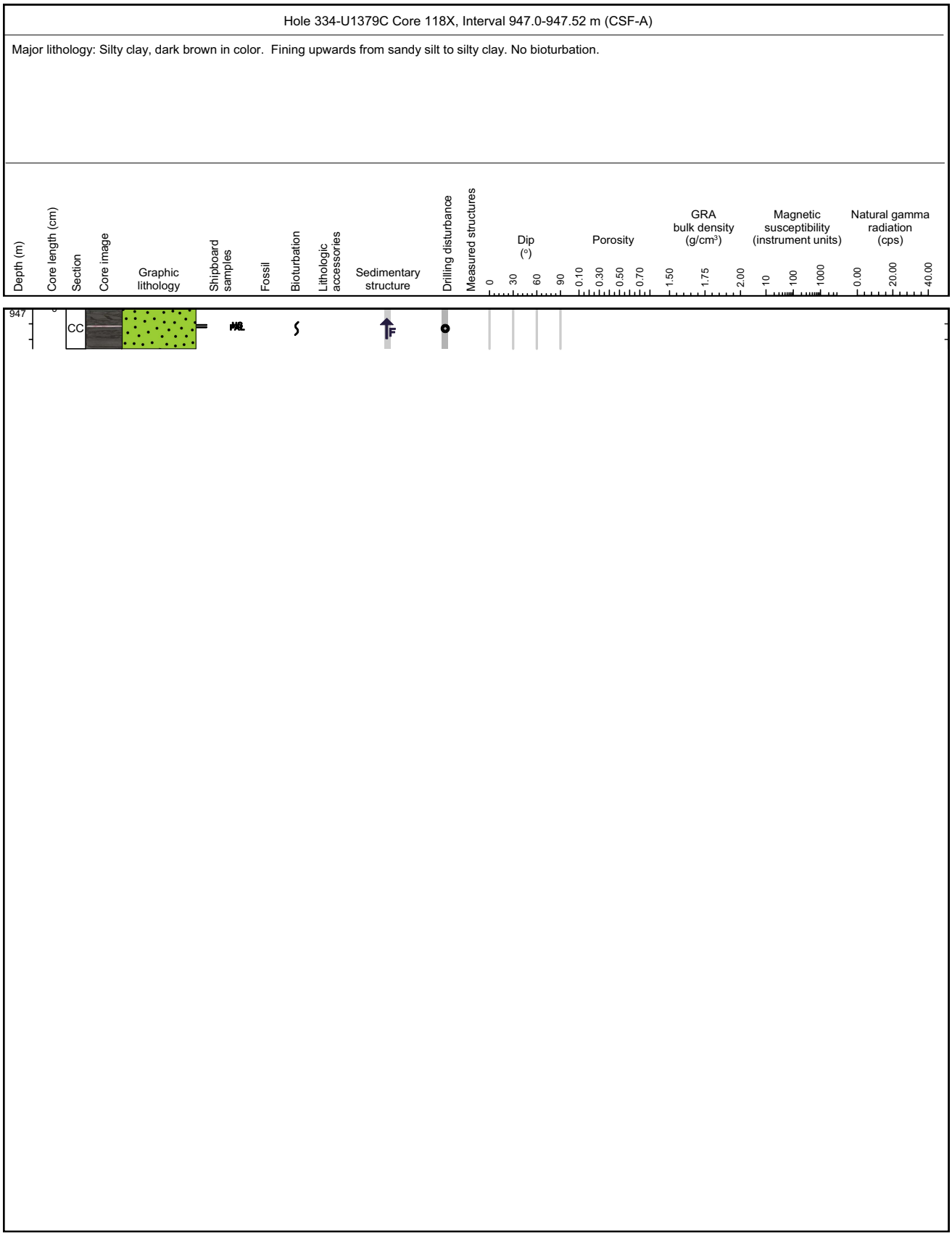
Major lithology: Gray colored silty clay with occasional sandy grains present. bioturbation is present through out but is particularly visible in a light gray bed between 23 and 26cm in Section 1.



Core Photo


Hole 334-U1379C Core 117X, Interval 945.0-945.68 m (CSF-A)
Major lithology: Sequence of silty clay varying from brown black to brownish gray. No bioturbation. Moderate to extreme drilling distrubance.
Depth (m)
Core length (cm)
Section
Core image
Graphic lithology
Shipboard samples
Fossil
Bioturbation
Lithologic accessories
Sedimentary structure
Drilling disturbance
Measured structures
Dip (°)
Porosity
GRA bulk density (g/cm³)
Magnetic susceptibility (instrument units)
Natural gamma radiation (cps)
945
1
CC
HS
PAL

Core Photo


Hole 334-U1379C Core 118X, Interval 947.0-947.52 m (CSF-A)
Major lithology: Silty clay, dark brown in color. Fining upwards from sandy silt to silty clay. No bioturbation.
Depth (m)
Core length (cm)
Section
Core image
Graphic lithology
Shipboard samples
Fossil
Bioturbation
Lithologic accessories
Sedimentary structure
Drilling disturbance
Measured structures
Dip (°)
Porosity
GRA bulk density (g/cm³)
Magnetic susceptibility (instrument units)
Natural gamma radiation (cps)
947
CC

Sample1	Top [cm]	Bottom [cm]	Top Depth [m]	Bottom Depth [m]	Sand texture (%)	Silt texture (%)	Clay texture (%)	Lithic grain	Volcanic glass	Quartz	Pyroxene	Feldspar	Mica	Oxide	Opaque minerals	Calcite	Dolomite	Glauconite	Pyrite	Chlorite	Clay	Mineral grains (undif.)	Nannofossils	Foraminifers	Radiolarians	Diatoms	Ostracods	Silicoflagellates	Sponge spicules	Shell fragments	Constituents comment
334-U1379C-1H-1-A	41.00	41.00	0.41	0.41	60	30	10	D[330]	F			C[330]		C[330]	F	C[330]		R[330]		R[330]		F	F	F							MINERAL GRAINS UNDIFF. ARE AMPHIBOLE
334-U1379C-1H-1-A	129.00	129.00	1.29	1.29		40	60	A[330]	F	F	R[330]	C[330]		R[330]	F	F			F	F		R[330]	R[330]	F							MINERAL GRAINS UNDIFF. ARE AMPHIBOLE
334-U1379C-4H-2-A	69.00	69.00	26.39	26.39	70	25	5	A[330]	F	F	F	C[330]	R[330]		C[330]	C[330]		F	F	C[330]		F	F	F					R[330]	C[330]	MINERAL GRAINS UNDIFF. ARE AMPHIBOLE
334-U1379C-2H-4-A	72.00	72.00	11.92	11.92	50	25	25	D[330]	R[330]	R[330]	R[330]	A[330]	R[330]		F	C[330]		F	R[330]	C[330]		C[330]	F	F					F	C[330]	MINERAL GRAINS UNDIFF. ARE AMPHIBOLE
334-U1379C-9H-2-A	5.00	5.00	57.05	57.05	10	40	50	C[330]	R[330]		R[330]	C[330]			C[330]	C[330]			F	F		R[330]	F	F					R[330]		MINERAL GRAINS UNDIFF. ARE AMPHIBOLE
334-U1379C-10H-1-A	20.00	20.00	61.70	61.70	60	30	10	A[330]	R[330]	R[330]	R[330]	C[330]			C[330]	C[330]	R[330]		R[330]	C[330]		F	F	C[330]					R[330]	A[330]	MINERAL GRAINS UNDIFF. ARE AMPHIBOLE
334-U1379C-10H-3-A	13.00	13.00	63.17	63.17	90		10	A[330]	R[330]			R[330]			R[330]	C[330]			R[330]	F		R[330]	F	C[330]					R[330]	D[330]	MINERAL GRAINS UNDIFF. ARE AMPHIBOLE
334-U1379C-10H-3-A	26.00	26.00	63.30	63.30	90		10	A[330]	R[330]			R[330]			R[330]	C[330]			R[330]	F		R[330]	F	C[330]					R[330]	D[330]	MINERAL GRAINS UNDIFF. ARE AMPHIBOLE
334-U1379C-10H-3-A	41.00	41.00	63.45	63.45	90		10	A[330]	R[330]			R[330]			R[330]	C[330]			R[330]	F		R[330]	F	C[330]					R[330]	D[330]	MINERAL GRAINS UNDIFF. ARE AMPHIBOLE
334-U1379C-11H-1-A	105.00	105.00	64.55	64.55	30	40	30	D[330]	F	R[330]	R[330]	C[330]	R[330]	R[330]	F	F			F	C[330]		R[330]	F	F					R[330]	F	MINERAL GRAINS UNDIFF. ARE AMPHIBOLE
334-U1379C-12H-1-A	24.00	24.00	67.94	67.94	90	10		D[330]	F	F	R[330]	C[330]			R[330]	A[330]			C[330]	C[330]		R[330]	R[330]	R[330]						A[330]	MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-12H-4-A	35.00	35.00	72.55	72.55	5	10	85	C[330]	R[330]			R[330]			C[330]	M			R[330]	R[330]			R[330]								MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-12H-CC-A	16.00	16.00	73.51	73.51	5	20	75	A[330]	F	R[330]		C[330]	R[330]	R[330]	F	R[330]			F	C[330]		R[330]	F	R[330]							MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-13H-2-A	46.00	46.00	75.66	75.66		70	30	A[330]	R[330]	F	R[330]	A[330]	R[330]	R[330]	F	F			C[330]	C[330]		R[330]	R[330]	F						R[330]	MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-16H-1-A	35.00	35.00	86.85	86.85	10	30	60	C[330]	C[330]	R[330]	R[330]	C[330]	R[330]	R[330]	F	F			F	C[330]		F	R[330]	F					R[330]		MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-16H-2-A	4.00	4.00	88.04	88.04	5	10	85	C[330]	R[330]			R[330]			C[330]	M			R[330]	R[330]			R[330]								MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-16H-2-A	150.00	150.00	89.50	89.50	50	30	20	A[330]	C[330]	F	F	A[330]	R[330]	R[330]	F	C[330]			C[330]	A[330]		C[330]	R[330]	R[330]						F	MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-18X-CC-A	6.00	6.00	91.26	91.26	70	20	10	D[330]	F	F	F	A[330]	R[330]	R[330]	F	C[330]			R[330]	A[330]		C[330]	R[330]	F						C[330]	MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-18X-CC-A	27.00	27.00	91.47	91.47	5	10	85	C[330]	R[330]			R[330]			C[330]	M			R[330]	R[330]			R[330]								MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-21X-2-A	48.00	48.00	122.48	122.48	50	20	30	A[330]	F	R[330]	R[330]	C[330]		F	F	C[330]			C[330]	A[330]		R[330]	R[330]	R[330]					R[330]	F	MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-22X-5-A	36.00	36.00	135.51	135.51		80	20	R[330]	R[330]			R[330]			R[330]	M			F	F				R[330]					R[330]		MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-23X-4-A	88.00	88.00	145.48	145.48	50	30	20	A[330]	C[330]	R[330]	F	C[330]		F	F	C[330]			A[330]	A[330]		R[330]	F								MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-23X-6-A	50.00	50.00	148.10	148.10	20	40	40	C[330]	F	C[330]	F	A[330]	R[330]	F	F	R[330]			F	F		R[330]	F	F					F	R[330]	MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-25X-1-A	54.00	54.00	160.24	160.24	50	30	20	A[330]	C[330]	F	R[330]	C[330]		F	F	F			C[330]	C[330]		R[330]	R[330]	R[330]					R[330]	R[330]	MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-25X-1-A	56.00	56.00	160.26	160.26		80	20	R[330]	R[330]			R[330]			R[330]	M			F	F				R[330]					R[330]		MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-26X-5-A	133.00	133.00	176.83	176.83																											TEPHRA
334-U1379C-26X-5-A	136.00	136.00	176.86	176.86																											TEPHRA
334-U1379C-26X-5-A	139.00	139.00	176.89	176.89																											TEPHRA
334-U1379C-27X-5-A	5.00	5.00	185.35	185.35	20	30	70	A[330]	C[330]	R[330]	R[330]	A[330]		F	F	A[330]			F	C[330]		F	R[330]	R[330]					R[330]	F	MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-34X-1-A	75.00	75.00	246.65	246.65	5	15	80	A[330]	C[330]	R[330]	R[330]	C[330]			F	A[330]			C[330]	C[330]		C[330]	F	C[330]					F		MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-34X-2-A	30.00	30.00	247.70	247.70	10	50	40	C[330]	R[330]		R[330]	F			R[330]	M			C[330]	R[330]			F	F						R[330]	MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-37X-2-A	75.00	75.00	277.55	277.55	20	60	20	A[330]	C[330]	F	R[330]	C[330]		F	F	F			C[330]	C[330]		F	C[330]	RC					R[330]	R[330]	MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-37X-3-A	75.00	75.00	279.05	279.05	50	30	20	A[330]	R[330]	R[330]	F	C[330]			C[330]	C[330]			C[330]	C[330]		R[330]	F	A[330]						A[330]	MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-39X-5-A	19.00	19.00	301.09	301.09	70	10	20	A[330]	C[330]	C[330]	C[330]	A[330]	R[330]	F	F	C[330]			C[330]	A[330]		F	R[330]	F					F	R[330]	MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-40X-1-A	52.00	52.00	305.22	305.22	30	30	40	A[330]	C[330]	R[330]	R[330]	C[330]	R[330]	R[330]	C[330]	C[330]			C[330]	C[330]		F	F	A[330]					C[330]	C[330]	MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-40X-1-A	120.00	120.00	305.90	305.90	60	20	20	A[330]	C[330]	F	F	C[330]	F	C[330]	C[330]	C[330]			C[330]	C[330]		F	R[330]	A[330]					C[330]	A[330]	MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-40X-1-A	126.00	126.00	305.96	305.96	20	40	40	A[330]	C[330]	R[330]	R[330]	A[330]		C[330]	C[330]	C[330]			C[330]	F		C[330]	F	R[330]					R[330]		MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-40X-3-A	116.00	116.00	308.86	308.86																											TEPHRA
334-U1379C-40X-3-A	119.00	119.00	308.89	308.89	50	30	20	A[330]	A[330]	R[330]	C[330]	A[330]	R[330]	R[330]	C[330]	C[330]			F	C[330]		C[330]	F	F					F		MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-40X-3-A	115.00	115.00	308.85	308.85																											TEPHRA
334-U1379C-40X-3-A	125.00	125.00	308.95	308.95																											TEPHRA

Sample1	Top [cm]	Bottom [cm]	Top Depth [m]	Bottom Depth [m]	Sand texture (%)	Silt texture (%)	Clay texture (%)	Lithic grain	Volcanic glass	Quartz	Pyroxene	Feldspar	Mica	Oxide	Opaque minerals	Calcite	Dolomite	Glauconite	Pyrite	Chlorite	Clay	Mineral grains (undif.)	Nannofossils	Foraminifers	Radiolarians	Diatoms	Ostracods	Silicoflagellates	Sponge spicules	Shell fragments	Constituents comment
334-U1379C-42X-1-A	22.00	22.00	324.42	324.42																											TEPHRA
334-U1379C-42X-1-A	83.00	83.00	325.03	325.03	50	30	20	A[330]	F	F	R[330]	C[330]	F	R[330]	F	F			C[330]	C[330]		C[330]	R[330]	F							MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-42X-2-A	79.00	79.00	326.49	326.49	5	10	85	C[330]	R[330]			R[330]			C[330]	M			R[330]	R[330]			R[330]								MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-42X-3-A	90.00	90.00	328.10	328.10																											TEPHRA
334-U1379C-42X-3-A	94.00	94.00	328.14	328.14																											TEPHRA
334-U1379C-42X-3-A	100.00	100.00	328.20	328.20																											TEPHRA
334-U1379C-42X-3-A	110.00	110.00	328.30	328.30																											TEPHRA
334-U1379C-42X-4-A	95.00	95.00	329.60	329.60																											TEPHRA
334-U1379C-42X-4-A	100.00	100.00	329.65	329.65																											TEPHRA
334-U1379C-42X-4-A	105.00	105.00	329.70	329.70																											TEPHRA
334-U1379C-43X-6-A	46.00	46.00	341.06	341.06																											TEPHRA
334-U1379C-43X-7-A	71.00	71.00	342.38	342.38	10	30	60				R[330]	F				M							F								MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-44X-1-A	43.00	43.00	343.63	343.63	40	20	40	A[330]	C[330]	F	F	A[330]	F	R[330]	F	R[330]			C[330]	A[330]		C[330]	F					R[330]			MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-44X-6-A	27.00	27.00	350.37	350.37																											TEPHRA
334-U1379C-45X-3-A	149.00	149.00	357.19	357.19	40	20	40	C[330]	A[330]	R[330]	R[330]	C[330]		C[330]	R[330]	C[330]			F	C[330]		R[330]	C[330]	C[330]					R[330]		MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-46X-4-A	27.00	27.00	366.47	366.47	10	30	60				R[330]	F				M							F	F							MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-46X-4-A	147.00	147.00	367.67	367.67																											TEPHRA
334-U1379C-47X-4-A	8.00	8.00	375.28	375.28																											TEPHRA
334-U1379C-47X-4-A	139.00	139.00	376.59	376.59																											TEPHRA
334-U1379C-47X-5-A	95.00	102.00	377.65	377.72																											TEPHRA
334-U1379C-48X-2-A	68.00	71.00	381.01	381.04																											TEPHRA
334-U1379C-49X-2-A	116.00	116.00	390.76	390.76	50	30	20	A[330]	A[330]	C[330]	F	A[330]		C[330]	C[330]	F			C[330]	C[330]		R[330]	R[330]						R[330]		MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-50X-1-A	143.00	143.00	399.53	399.53	5	10	85	C[330]	F			C[330]		R[330]	R[330]	A[330]			F	R[330]			C[330]	F					C[330]	F	MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-54X-1-A	15.00	15.00	436.15	436.15	20	20	60	C[330]	C[330]	F	R[330]	C[330]		F	C[330]	A[330]			F	F			C[330]	C[330]					F	F	MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-54X-2-A	87.00	87.00	437.34	437.34	50	30	20	A[330]	C[330]	R[330]		C[330]		R[330]	F	F			F	C[330]		C[330]	C[330]	C[330]					C[330]	R[330]	MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-55X-3-A	36.00	36.00	447.56	447.56																											TEPHRA
334-U1379C-55X-7-A	41.00	41.00	453.30	453.30	80	20		A[330]	F	F	C[330]	A[330]	F	R[330]	F	R[330]			R[330]	A[330]		C[330]	R[330]	C[330]					R[330]	A[330]	MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-55X-7-A	95.00	95.00	453.84	453.84	80	20		A[330]	F	F	C[330]	A[330]	F	R[330]	F	R[330]			R[330]	A[330]		C[330]	R[330]	C[330]					R[330]	A[330]	MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-56X-2-A	19.00	19.00	455.39	455.39	5	10	85	C[330]	F	R[330]		C[330]		R[330]	R[330]	C[330]			C[330]	F		R[330]	A[330]	C[330]						F	MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-56X-3-A	10.00	10.00	456.80	456.80	20	50	40	A[330]	C[330]	R[330]	R[330]	A[330]	F	R[330]	F	A[330]			C[330]	C[330]		C[330]	F	C[330]						C[330]	MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-56X-5-A	133.00	133.00	460.35	460.35	40	40	20	D[330]	F	F	R[330]	A[330]		F	C[330]	F			A[330]	F		A[330]	R[330]	F					F	C[330]	MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-57X-1-A	35.00	35.00	463.75	463.75	40	30	30	A[330]	F	F	R[330]	A[330]		R[330]	F	C[330]			C[330]	C[330]		C[330]	F	A[330]						A[330]	MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-57X-5-A	87.00	87.00	470.27	470.27	50	40	10	D[330]	A[330]	R[330]	R[330]	C[330]		F	F	C[330]			F	F		C[330]							F		MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-57X-5-A	108.00	108.00	470.48	470.48	40	30	30	A[330]	C[330]	F	R[330]	A[330]		R[330]	F	C[330]			C[330]	C[330]		C[330]	F	A[330]						A[330]	MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-58X-3-A	106.00	106.00	476.36	476.36																											TEPHRA
334-U1379C-58X-7-A	80.00	80.00	481.69	481.69	60	30	10	D[330]	F	R[330]	F	C[330]		F	R[330]	F			F	C[330]		A[330]	C[330]	C[330]						C[330]	MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-59X-1-A	9.00	9.00	481.19	481.19	30	30	40	A[330]	A[330]	F	R[330]	C[330]	R[330]	F	F	R[330]			F	C[330]		A[330]	F	F					C[330]		MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-59X-1-A	141.00	141.00	482.51	482.51																											TEPHRA
334-U1379C-59X-3-A	97.00	97.00	485.07	485.07																											TEPHRA
334-U1379C-59X-4-A	30.00	30.00	485.90	485.90	40	30	30	A[330]	A[330]	F	F	A[330]		F	F	C[330]			C[330]	C[330]		F	F	R[330]					R[330]		MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-59X-4-A	33.00	33.00	485.93	485.93	40	30	30	A[330]	A[330]	F	F	A[330]		F	F	C[330]			C[330]	C[330]		F	F	R[330]					R[330]		MINERAL GRAINS UNDIFF - AMPHIBOLE

Sample1	Top [cm]	Bottom [cm]	Top Depth [m]	Bottom Depth [m]	Sand texture (%)	Silt texture (%)	Clay texture (%)	Lithic grain	Volcanic glass	Quartz	Pyroxene	Feldspar	Mica	Oxide	Opaque minerals	Calcite	Dolomite	Glauconite	Pyrite	Chlorite	Clay	Mineral grains (undif.)	Nannofossils	Foraminifers	Radiolarians	Diatoms	Ostracods	Silicoflagellates	Sponge spicules	Shell fragments	Constituents comment
334-U1379C-60X-2-A	93.00	93.00	493.13	493.13																											TEPHRA
334-U1379C-60X-4-A	35.00	35.00	495.55	495.55	10	70	20	A[330]	A[330]	F	C[330]	A[330]	F	F	F	F			C[330]	F		R[330]	R[330]	R[330]					C[330]		MINERAL GRAINS - AMPHIBOLE
334-U1379C-60X-6-A	101.00	101.00	499.21	499.21	40	40	20	C[330]	C[330]	R[330]	F	A[330]	F	R[330]	F	R[330]			F	F		A[330]	F	C[330]					C[330]	C[330]	MINERAL GRAINS - AMPHIBOLE
334-U1379C-60X-7-A	6.00	6.00	499.56	499.56																											TEPHRA
334-U1379C-60X-7-A	42.00	42.00	499.92	499.92																											TEPHRA
334-U1379C-67X-4-A	68.00	68.00	561.28	561.28	30	40	30	A[330]	A[330]	F	C[330]	A[330]	F	F	F	F			C[330]	C[330]		R[330]	R[330]	R[330]					C[330]		MINERAL GRAINS - AMPHIBOLE
334-U1379C-67X-4-A	142.00	142.00	562.02	562.02																											TEPHRA
334-U1379C-66X-7-A	125.00	125.00	555.75	555.75	60	30	10	A[330]	F		R[330]	C[330]		F	F	C[330]			F	C[330]		R[330]	R[330]	C[330]						R[330]	MINERAL GRAINS - AMPHIBOLE
334-U1379C-68X-2-A	38.00	38.00	567.58	567.58																											TEPHRA
334-U1379C-68X-5-A	29.00	29.00	570.99	570.99																											TEPHRA
334-U1379C-69X-6-A	83.00	83.00	582.48	582.48																											TEPHRA
334-U1379C-81X-3-A	97.00	97.00	683.29	683.29																											TEPHRA
334-U1379C-81X-2-A	90.00	90.00	681.90	681.90																											TEPHRA
334-U1379C-91X-2-A	34.00	34.00	767.84	767.84																											TEPHRA
334-U1379C-89X-1-A	98.00	98.00	751.38	751.38																											TEPHRA
334-U1379C-102X-5-A	23.00	23.00	876.53	876.53																											TEPHRA
334-U1379C-75X-4-A	49.00	49.00	636.00	636.00																											TEPHRA
334-U1379C-75X-3-A	58.00	58.00	635.01	635.01																											TEPHRA
334-U1379C-73X-6-A	46.00	46.00	620.36	620.36																											TEPHRA
334-U1379C-70X-2-A	23.00	23.00	586.03	586.03																											TEPHRA
334-U1379C-70X-2-A	27.00	27.00	586.07	586.07																											TEPHRA
334-U1379C-70X-3-A	82.00	82.00	588.12	588.12																											TEPHRA
334-U1379C-70X-5-A	126.00	126.00	591.30	591.30																											TEPHRA
334-U1379C-70X-6-A	34.00	34.00	591.88	591.88																											TEPHRA
334-U1379C-73X-6-A	41.00	41.00	620.31	620.31																											TEPHRA
334-U1379C-69X-5-A	119.00	119.00	581.34	581.34	80	20		A[330]	C[330]	R[330]	F	A[330]	R[330]	F	F	R[330]			C[330]	F		C[330]	F									MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-69X-5-A	120.00	120.00	581.35	581.35	80	20		A[330]	C[330]	F	F	F	R[330]	F	F	R[330]			C[330]	C[330]		C[330]	F									MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-74X-1-A	117.00	117.00	623.17	623.17	50	20	30	D[330]	F	R[330]	R[330]	C[330]		F	F	C[330]			F	C[330]		R[330]	F						R[330]		MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-76X-1-A	70.00	70.00	642.00	642.00	70	20	10	A[330]	C[330]	F	R[330]	A[330]		F	F				A[330]	A[330]		C[330]	F									MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-76X-4-A	26.00	26.00	645.79	645.79	20	30	50	A[330]	F	R[330]	R[330]	C[330]		F	F	C[330]			C[330]	C[330]		R[330]	F	F								MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-83X-2-A	70.00	70.00	700.82	700.82	5	10	85				R[330]	R[330]			F	M			F				C[330]									MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-84X-5-A	92.00	92.00	715.15	715.15	5	10	85				R[330]	R[330]			F	M			F				C[330]									MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-84X-1-A	84.00	84	709.74	709.74	20	30	50	A[330]	F	R[330]	R[330]	C[330]		F	F	C[330]			C[330]	C[330]		R[330]	F	F								MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-85X-1-A	15.00	15.00	716.55	716.55	30	20	50	A[330]	A[330]	C[330]	R[330]	C[330]			R[330]	F			C[330]	C[330]			C[330]						F			MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-87X-CC-A	30.00	30.00	738.29	738.29	70	20	10	D[330]	C[330]	C[330]	R[330]	A[330]		R[330]	F	F			C[330]	C[330]												MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-88X-2-A	43.00	43.00	747.33	747.33	60	30	10	D[330]	F	F	F	C[330]		F	R[330]	R[330]			C[330]	C[330]		R[330]	F							R[330]		MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-102X-3-A	115.00	115.00	874.45	874.45	10	50	40	C[330]	R[330]		R[330]	F			R[330]	M			C[330]	R[330]			F							R[330]		MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-104X-1-A	38.00	38.00	889.98	889.98	70	20	10	D[330]	C[330]	F	F	C[330]		R[330]	F	F			C[330]	C[330]												MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-104X-1-A	53.00	53.00	890.13	890.13	60	30	10	A[330]	C[330]	F	C[330]	C[330]		F	F	A[330]			C[330]	F		R[330]	F							F		MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-104X-CC-	31.00	31.00	890.54	890.54	70	20	10	D[330]	C[330]	F	C[330]	C[330]		F	F	C[330]			C[330]	F		R[330]	F							F		MINERAL GRAINS UNDIFF - AMPHIBOLE
334-U1379C-105X-1-A	19.00	19.00	899.19	899.19	50	20	30	A[330]	C[330]	F	C[330]	C[330]		F	F	C[330]			F	F			F									MINERAL GRAINS UNDIFF - AMPHIBOLE

THIN SECTION: 334-U1379C-103X-CC-W 19/22-TS-TS 1 **Piece No:** **Unit:** **OBSERVER:THIN SECTION:SLIDE**

ROCK NAME:

WHERE SAMPLED: top of the basement, in fine-sand matrix

GRAINSIZE: fine crystalline

TEXTURE: fine crystalline I sparsely phyric

PRIMARY MINERALOGY	PERCENT ORIGINAL	REL. VOL. REPLACED	SIZE (mm) min.	SIZE (mm) max.	SIZE (mm) mode	MORPHOLOGY	VESICLE SPHERICITY	VESICLE Infilling [%]	COMMENTS
PHENOCRYSTS									
plagioclase	5	90		2	1				most of the plagioclase phenocrysts are altered into pumpellyite, prehnite, chlorite and numerous very fine-grained mineralogy.
magnetite				1.5	0.15				
MICROPHENOCRYST									
clinopyroxene		90		0.5					clinopyroxene phenocrysts are recognized by the small amount of relics and does not preserve original shapes. Most of them are altered into chlorite, pumpellyite and prehnite.
plagioclase	20	50			0.15				plagioclase microphenocrysts are relatively well preserved in the upper right part of the thinsection, whereas in the lower part they are altered into numerous very fine-grained mineralogy.
olivine		90		0.5					olivine phenocrysts are recognized by the small amount of relics and does not preserve the original shapes. Most of them are altered into chlorite, pumpellyite and prehnite.
VEINS									
quartz, phrenite chlorite group (tri-dioctahedral) quartz									the texture of the vein is blocky to elongate blocky.
smectite group (dioctahedral smectites)									this group of veins consists of very-fine grained mineral, branches in several directions and numerously cuts the matrix.
GROUNDMASS									

SECONDARY MINERALOGY	SIZE (mm) min.	SIZE (mm) max.	SIZE (mm) mode	REPLACING/FILLING	COMMENTS

STRUCTURE contact between basalt and underlying fine-grain sandstone.

COMMENTS

SUMMARY DESCRIPTION Phenocrysts of plagioclase, microphenocrysts of plagioclase, clinopyroxene and olivine are observed with large amount of alteration. These phenocrysts, as well as ground mass are altered into pumpellyite, prehnite, chlorite and very fine-graiened smectite. The phenocrysts and matrix are cut by quartz veins, numerous smectite veins and quartz-prehnite vein. The cross-cut relationship suggest the generation of these veins in the above order. Series of altered phenocrysts and alteration minerals suggests that original rock is basalt, which underwent prehnite-pumpellyite facies metamorphism.

THIN SECTION: 334-U1379C-106X-1-W 8/11-TS 2 | **Piece No:** | **Unit:** | **OBSERVER:THIN SECTION:SLIDE**

ROCK NAME: basalt [BGS-S78&79]
WHERE SAMPLED: top of the
GRAINSIZE: fine crystalline
TEXTURE: sparsely phyric

PRIMARY MINERALOGY	PERCENT ORIGINAL	REL. VOL. REPLACED	SIZE (mm) min.	max.	mode	MORPHOLOGY	VESICLE SPHERICITY	VESICLE Infilling [%]	COMMENTS
PHENOCRYSTS									
plagioclase	3	95		1.5	0.8				all most all the plagioclase phenocrysts are completely altered into zeolite.
MICROPHENOCRYST									
plagioclase	30	75		0.3	0.2				most of the plagioclase microphenocrysts are altered into very fine-grained mineral, probably zeolite.
clinopyroxene	60	60		0.4	0.2				most of the clinopyroxene microphenocrysts are partly altered into zeolite and very-fine grained minerals.
VEINS									
quartz, calcite									this group of veins consists of very-fine grained mineral, branches in several directions and numerously cuts the matrix.
calcite									fiberous texture
zeolite									stepped and pull-apart structure is filled with zeolite
GROUNDMASS									
brown clay	60	0							
quartz				0.12	0.08				
calcite					0.06				
basalt clast				0.4	0.35				consists of plagioclase, clinopyroxene and glass

SECONDARY MINERALOGY	SIZE (mm) min.	max.	mode	REPLACING/FILLING	COMMENTS

STRUCTURE contact between basalt and underlying fine-grain sandstone.

COMMENTS

SUMMARY DESCRIPTION Phenocrysts of plagioclase, microphenocrysts of plagioclase, clinopyroxene are observed with large amount of alteration. These phenocrysts are altered into mainly zeolite, very fine-grained mineral and chlorite. Phenocrysts and matrix are cut by numerous veins. There are at least five kinds of veins; quartz-calcite vein, clinopyroxene vein, high-angle zoicite-chlorite vein, low-angle zoicite-chlorite vein, calcite vein with numerous directions. Cross-cut relationship suggest the vein generation order as follows(from the oldest); crynopyroxene vein < zoicite-chlorite vein < quartz-calcite vein < calcite vein with numerous direction The presence of phenocrysts and alteration suggests that the original rock is basalt, subsequently suffered zeolite facies metamorphism. The underlying fine-grained sandstone is composed of quartz, calcite, plagioclase, glouconite, foraminifera, shell fragments and coarse grain of basalt clasts. Contact between altered basalt and underlying fine-grained sandstone is sharp, with no chilled margin or welded texture, indicating that this contact is sedimentary origin.