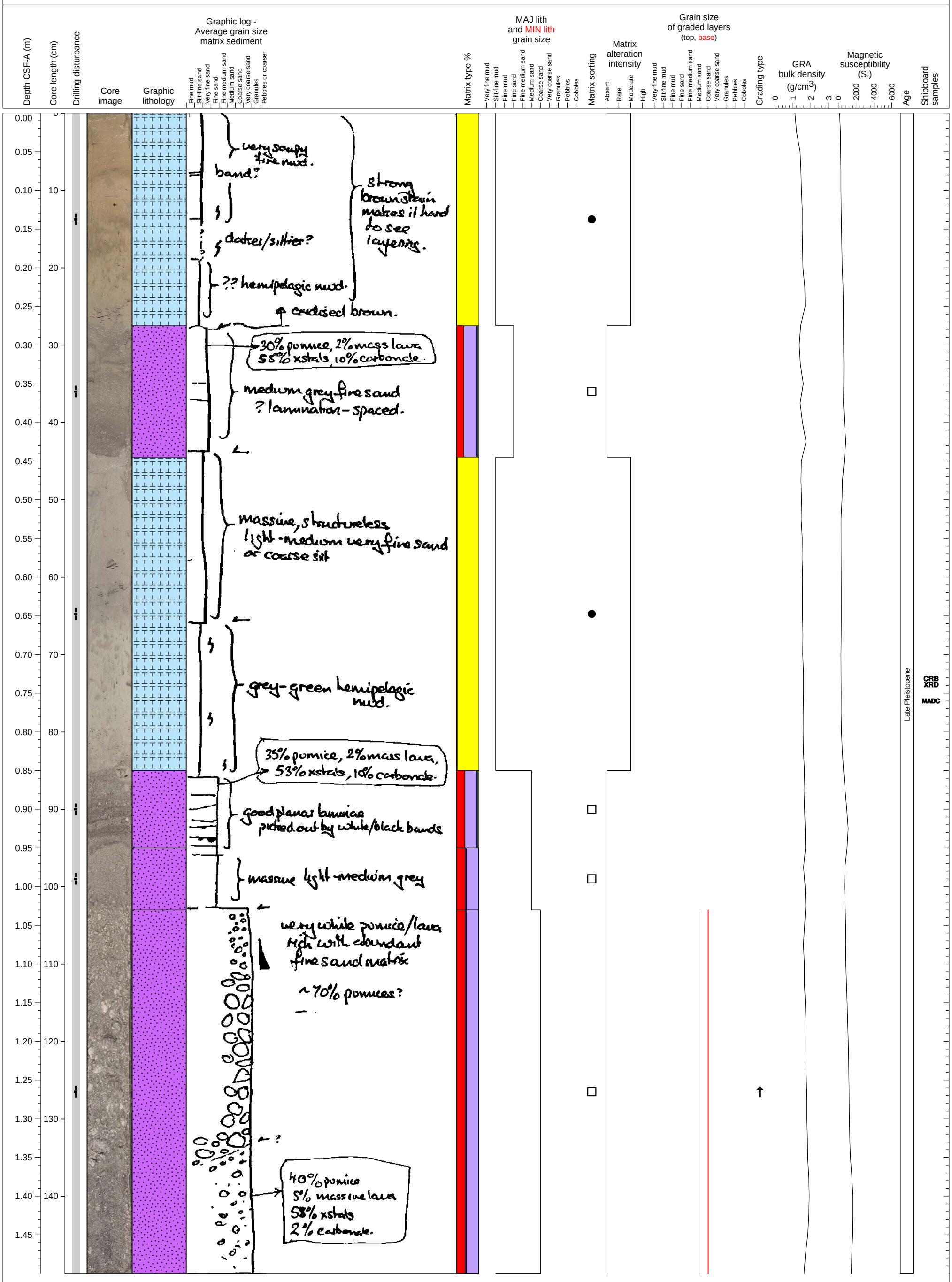
Hole 340-U1399A-1H Section 1, Top of Section: 0.0 CSF-A (m)

Hemipelagic sediment interbedded a thin volcaniclastic turbidite and a upper part of thick pumiceous turbidite with normal grading and compositional layering at the top.



Hole 340-U1399A-1H Section 2, Top of Section: 1.5 CSF-A (m)

Lower part of massive pumiceous turbidite and hemipelagic sediments interbedded at least 4 thin volcanic sand layers and a pumicious turbidite with a compositionally laminated top.

Depth CSF-A (m)

Core length (cm)

Drilling disturbance

Core image

Graphic lithology

Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser

Matrix type %

MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles

Matrix sorting

Matrix alteration intensity
Absent
Rare
Moderate
High

Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles

Grading type

GRA bulk density (g/cm^3)
0
1
2
3

Magnetic susceptibility (SI)
0
2000
4000
6000

Age

Shipboard samples
XRD
CRB
MADC

(turbidite)
visually massive
light- to medium grey
sand
- massive/no structures
- no visible grading (?)
- very poor sorting with some ~1mm-2mm white grains

deformed base.

30% pumice, 2% lithics, 63% xtals, 5% carbonate

dark grey, well sorted (a?)

hp

30% pumice, 2% mass lava, 65% xtals, 3% carbonate

light grey (a?)

16% pumice, 70% xtals, 13% carbonate.

good compositional planar lamin.

horizon of 1-2cm white lava clasts (rounded) and mud clast(?)

white pumice clasts

50% pumice, 5% mass lava, 32% xtals, 13% carbonate

compositional banding

not HP

(a?) dark brown well sorted. 20% pumice 75% xtals 5% mass lava 10% carbonate.

white - xtals?

dark brown - well sorted.

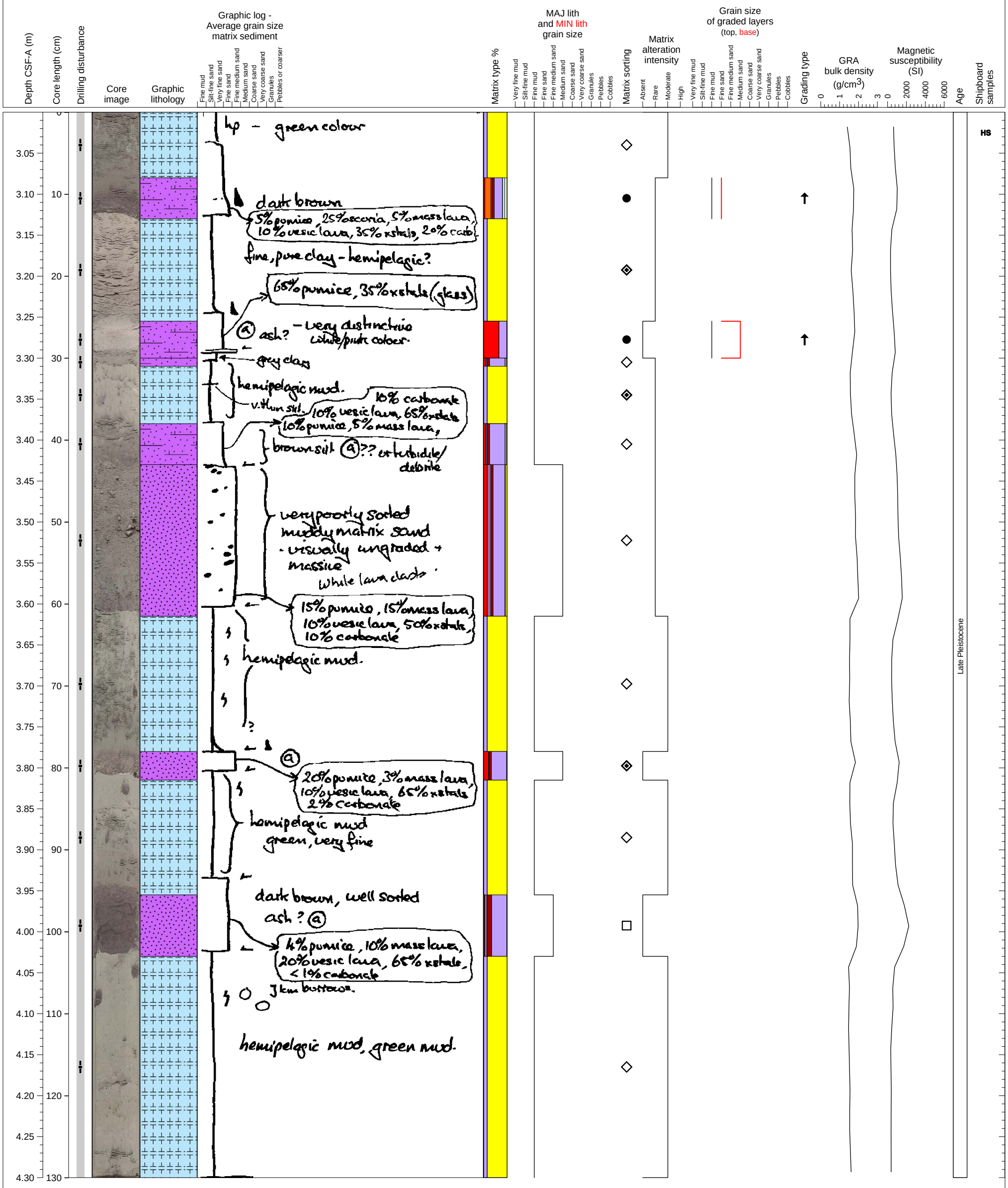
hemipelagic mud.

grey.

Late Pleistocene

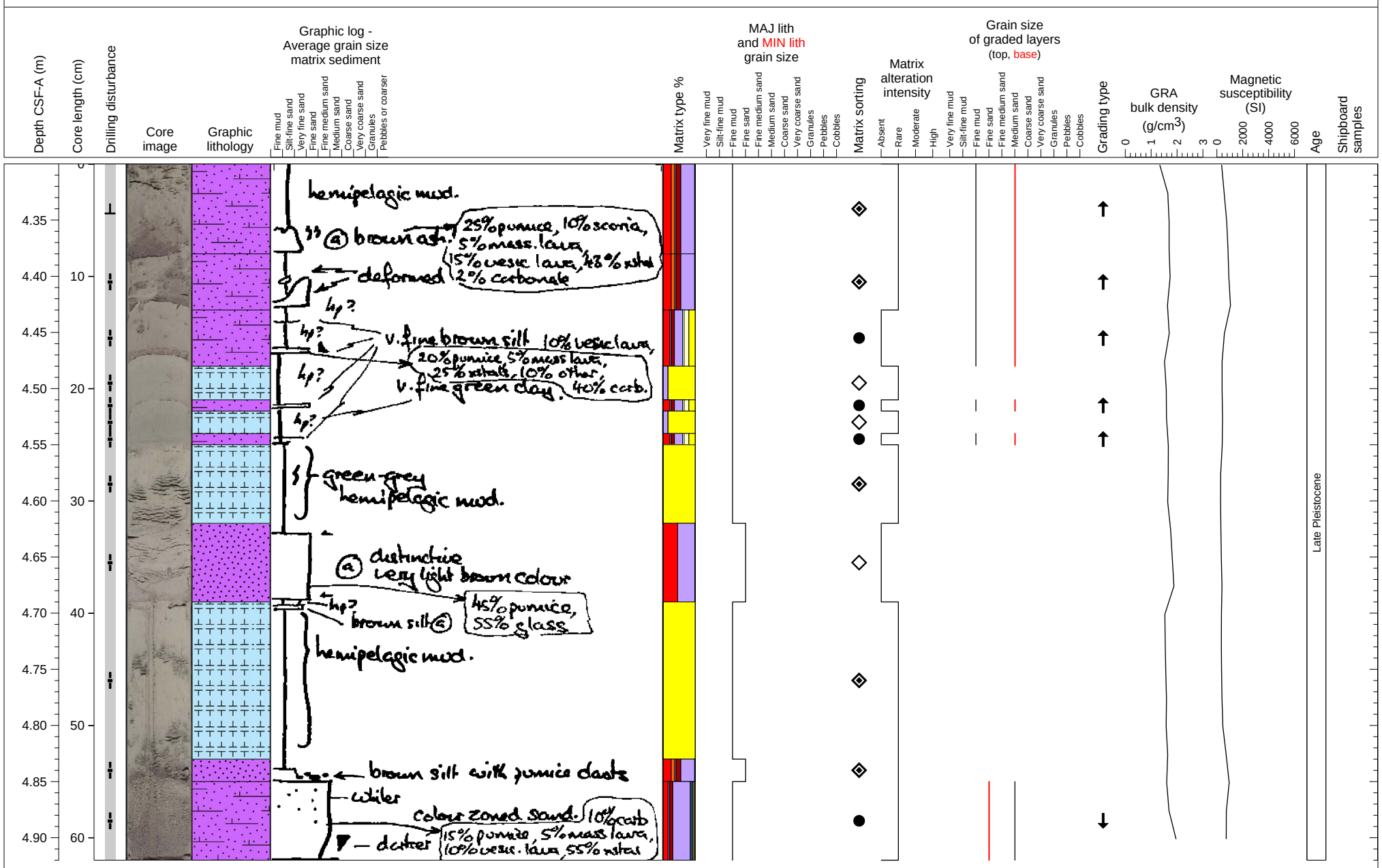
Hole 340-U1399A-1H Section 3, Top of Section: 3.0 CSF-A (m)

Hemipelagic clay interlayered with abundant volcaniclastic sand-mud units, several of which exhibit normal grading.



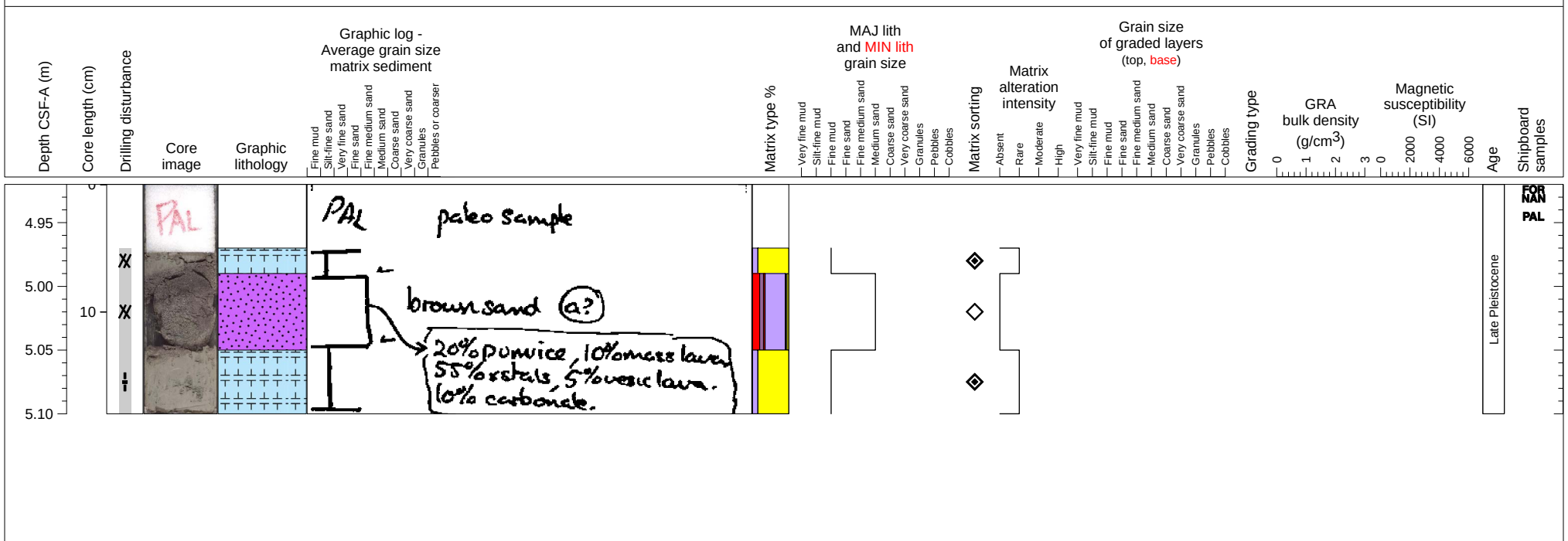
Hole 340-U1399A-1H Section 4, Top of Section: 4.3 CSF-A (m)

Volcaniclastic sand-mud units, many of which exhibit normal gradation, interlayered with volcaniclastic fine sand (maybe ash?) units and hemipelagic clay.



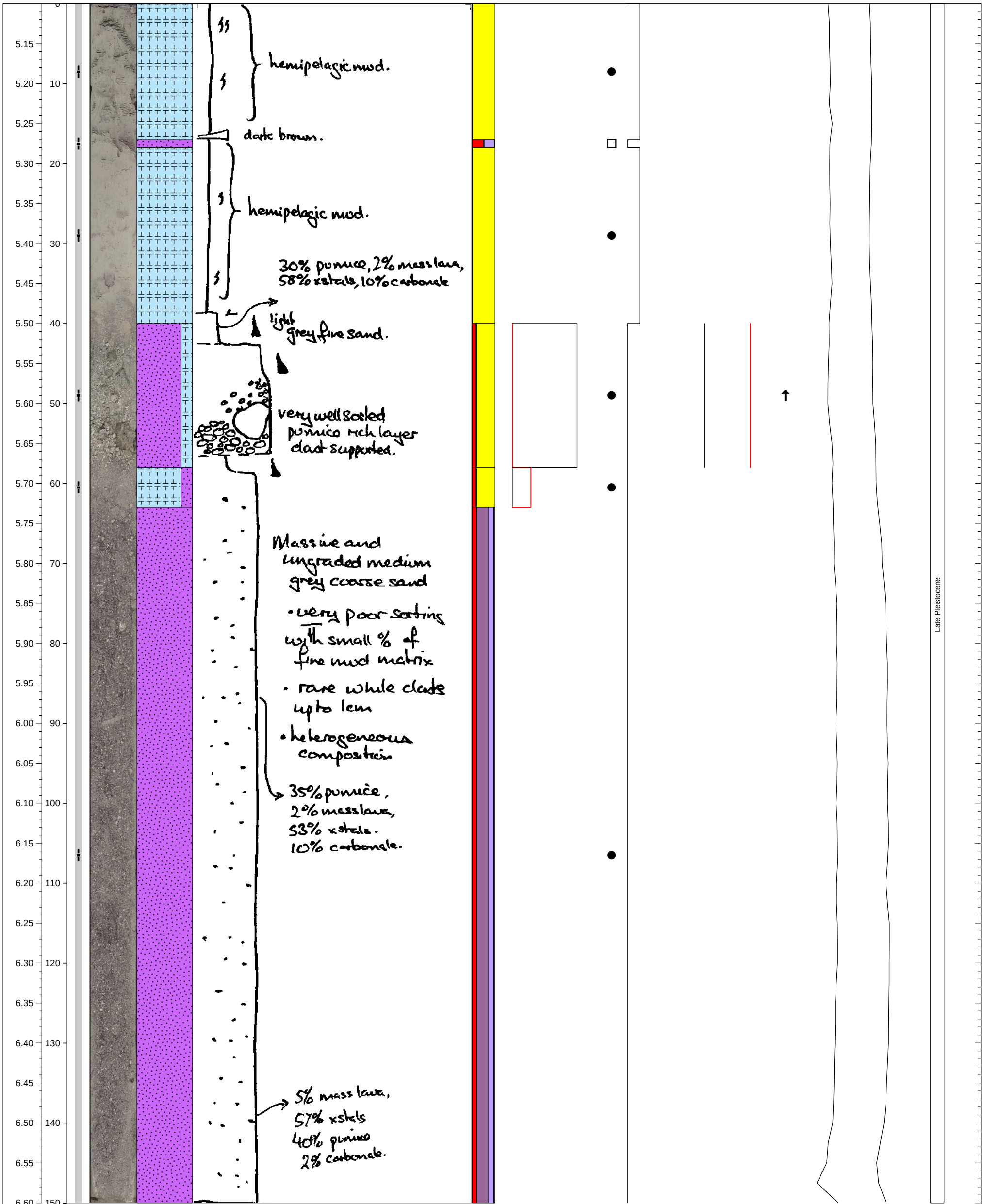
Hole 340-U1399A-1H Section CC, Top of Section: 4.92 CSF-A (m)

Hemipelagic clay interlayered with volcaniclastic sand unit. PAL sample from section top.



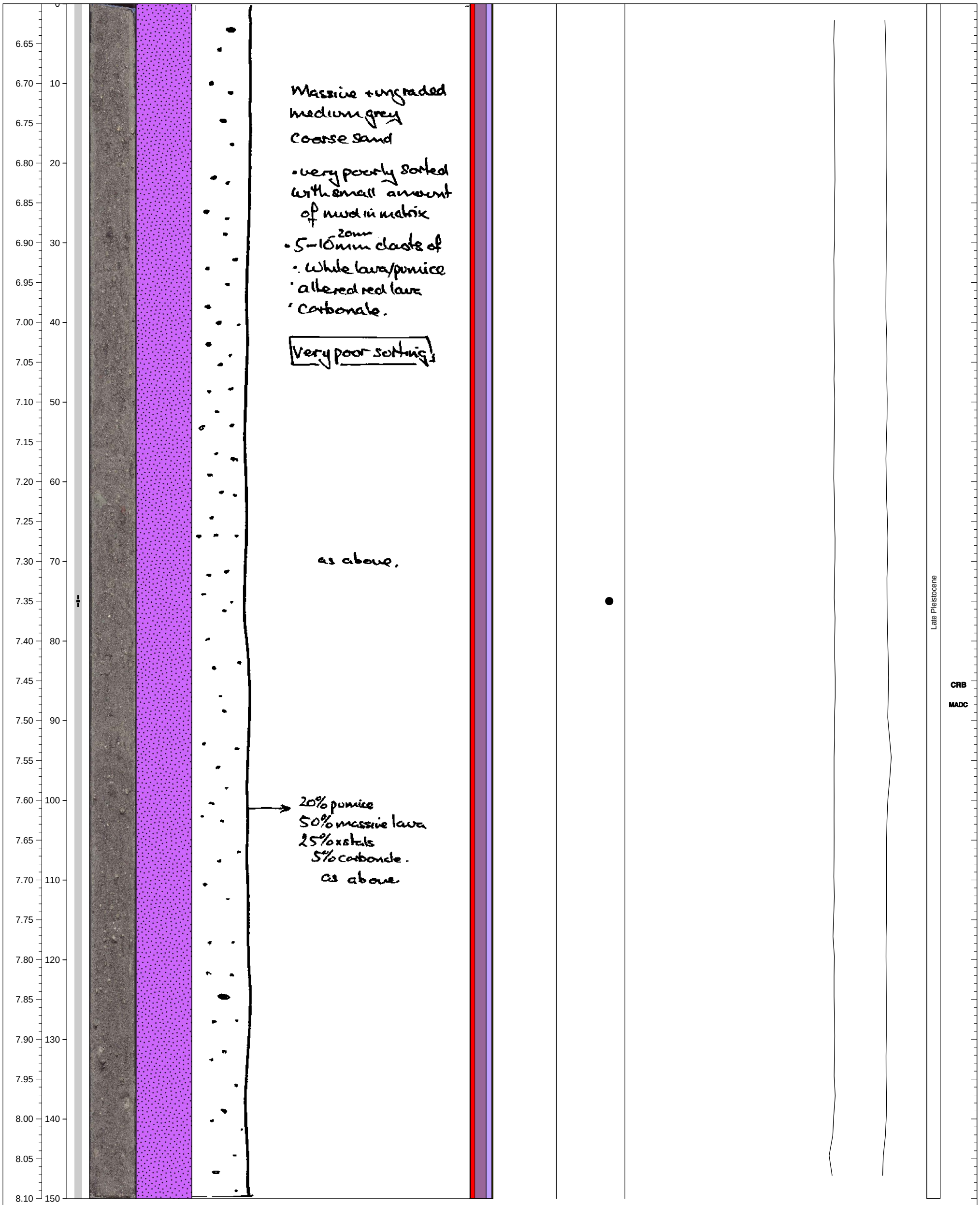
Hole 340-U1399A-2H Section 1, Top of Section: 5.1 CSF-A (m)

Hemipelagic clay at top and upper part of massive pumiceous turbidite.



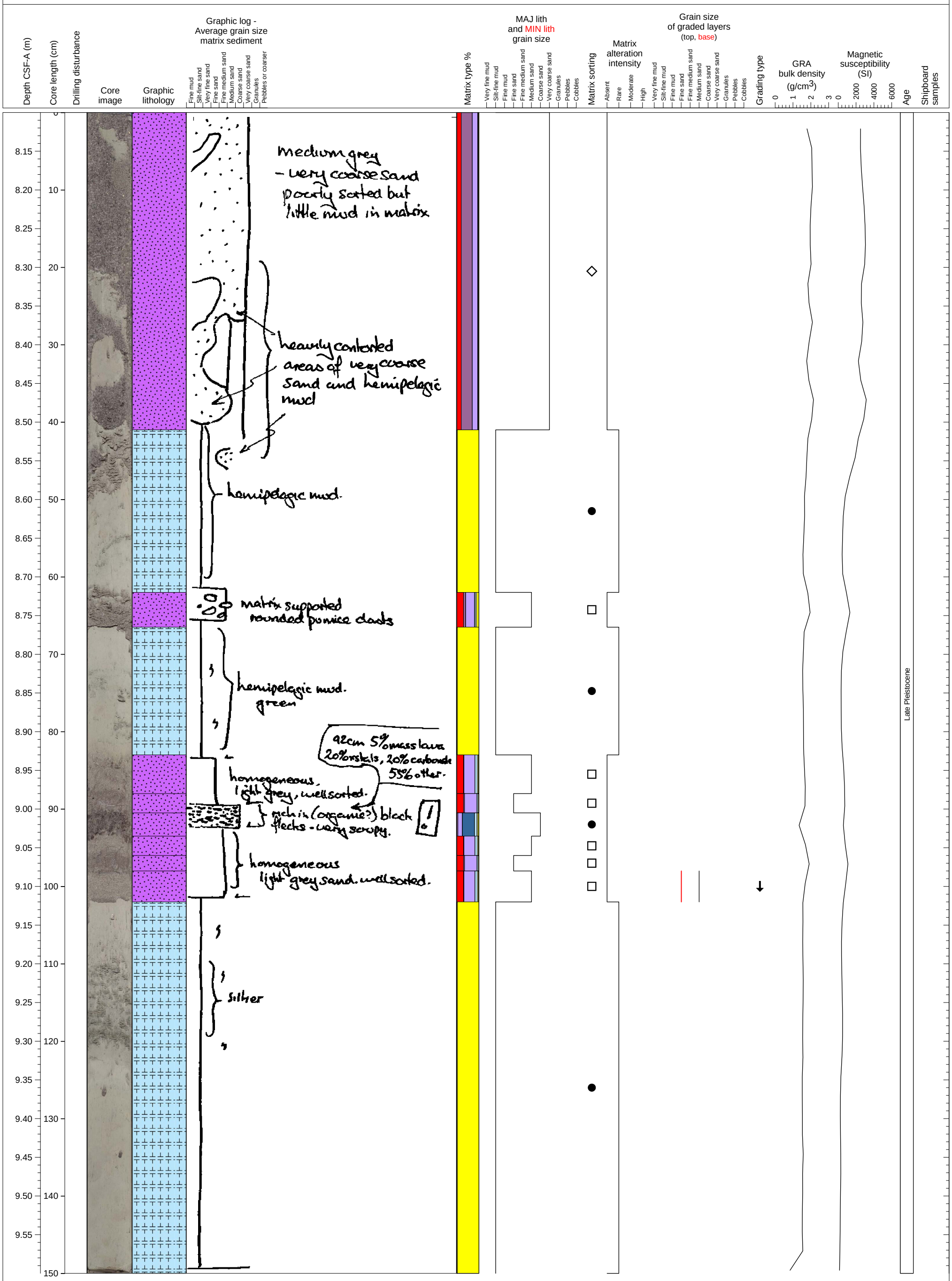
Hole 340-U1399A-2H Section 2, Top of Section: 6.6 CSF-A (m)

Massive pumiceous volcaniclastic turbidite with minor shell fragments.



Hole 340-U1399A-2H Section 3, Top of Section: 8.1 CSF-A (m)

Lower part of massive volcaniclastic turbidite at the top and hemipelagic sediments interbedded volcanic sand layers (probably turbidites) and a black colored organic (?) layer.



Hole 340-U1399A-2H Section 4, Top of Section: 9.6 CSF-A (m)

Hemipelagic clay interlayered with volcaniclastic sand and mud units.

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm^3)
0
1
2
3
Magnetic susceptibility (SI)
0
2000
4000
6000
Age
Shipboard samples

9.60
9.65
9.70
9.75
9.80
9.85
9.90
9.95
10.00
10.05
10.10
10.15
10.20
10.25
10.30
10.35
10.40
10.45
10.50
10.55
10.60
10.65
10.70
10.75
10.80
10.85
10.90
10.95
11.00
11.05

0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150

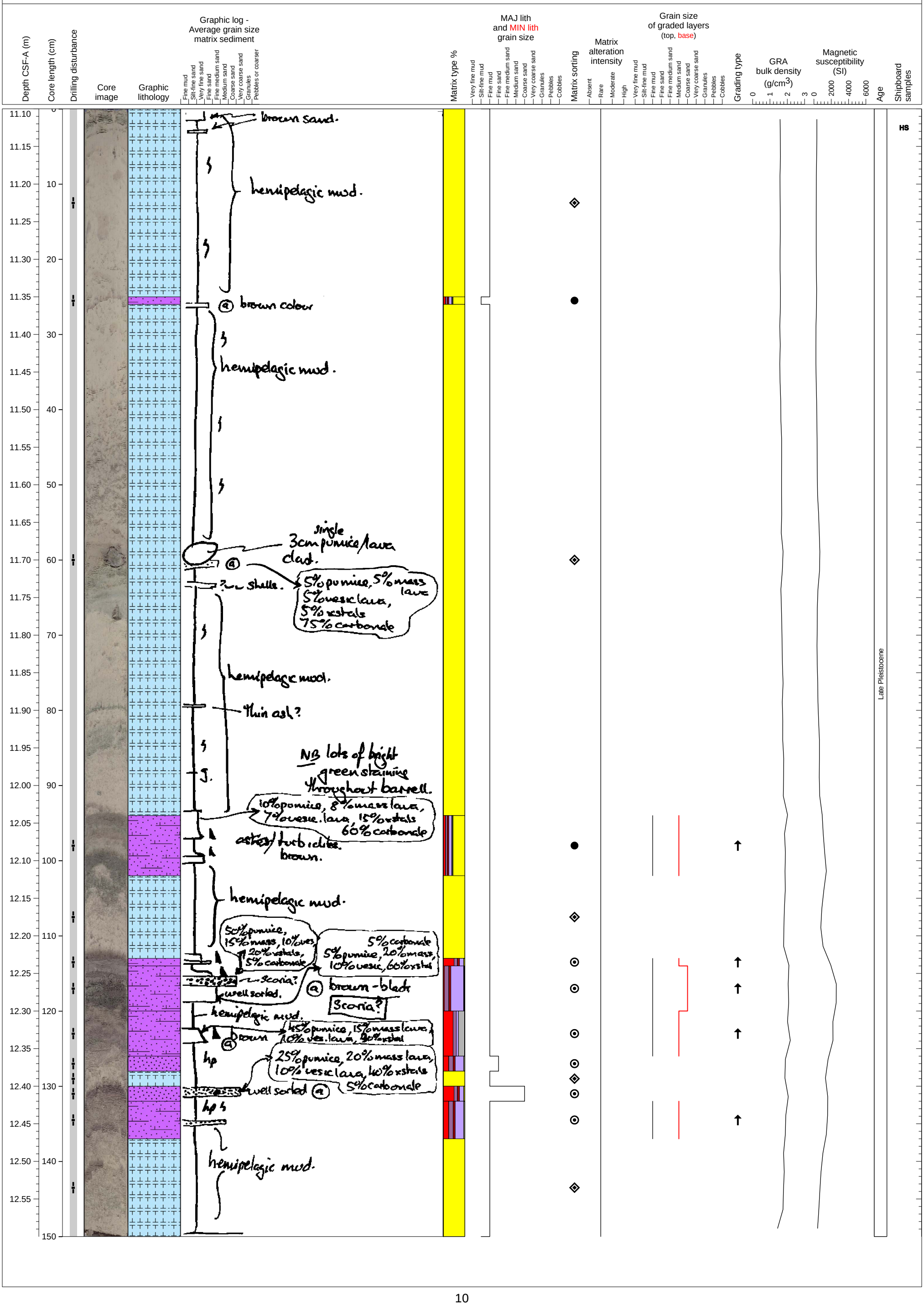
shells
hemipelagic fine mud.
hemipelagic mud.
2-7cm mud clasts.
1-2cm white lava clasts.
massive, ungraded medium grey sand
• clasts in upper part
• poorly sorted - some mud in matrix.
10% massive lava
15% vesicle lava.
35% crystals.
30% carbonate.
hemipelagic mud.
light green mud.

Late Pleistocene

CRB
XRD
MADC

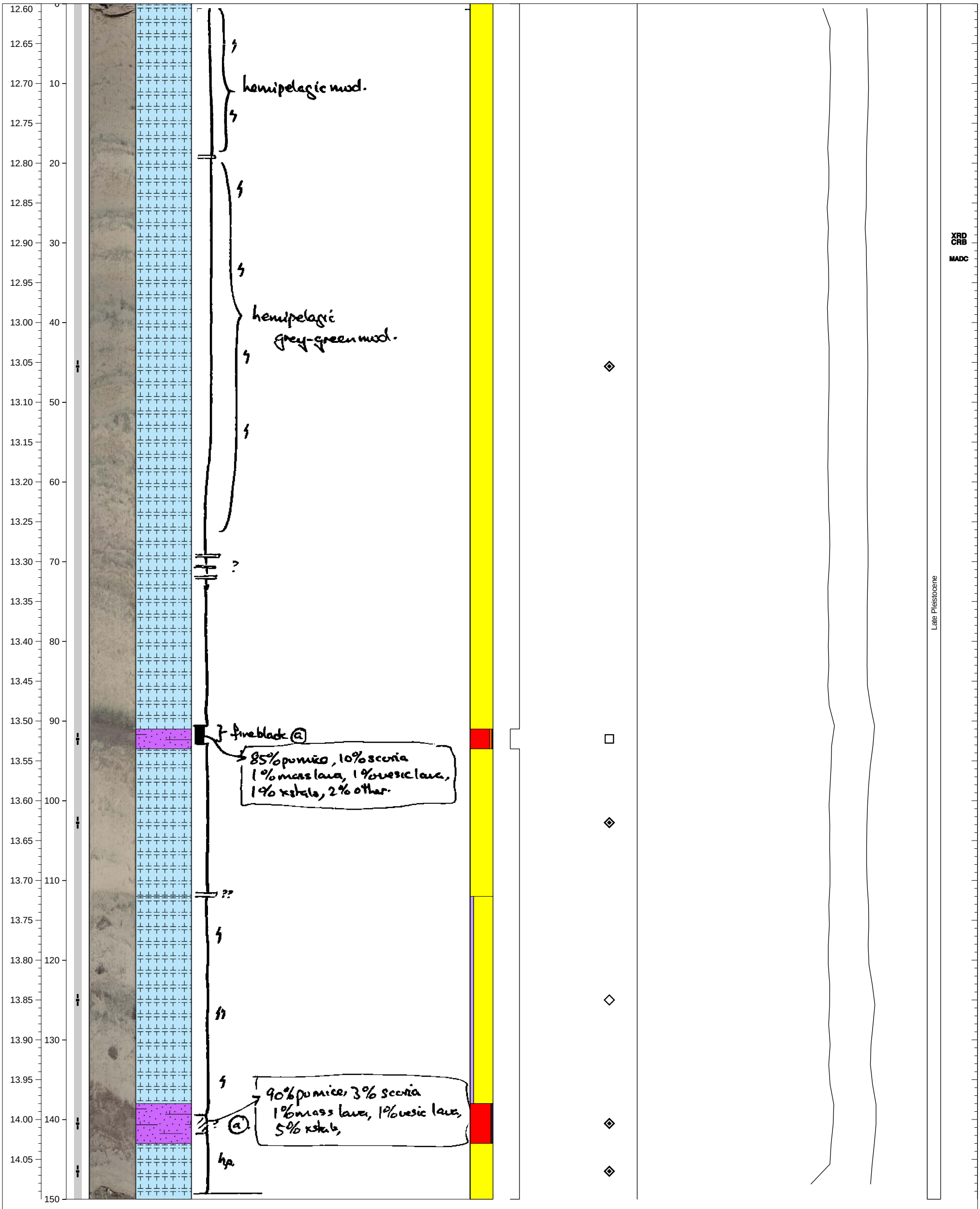
Hole 340-U1399A-2H Section 5, Top of Section: 11.1 CSF-A (m)

Hemipelagic clay interlayered with abundant volcaniclastic sand and mud units, many displaying normal grading.



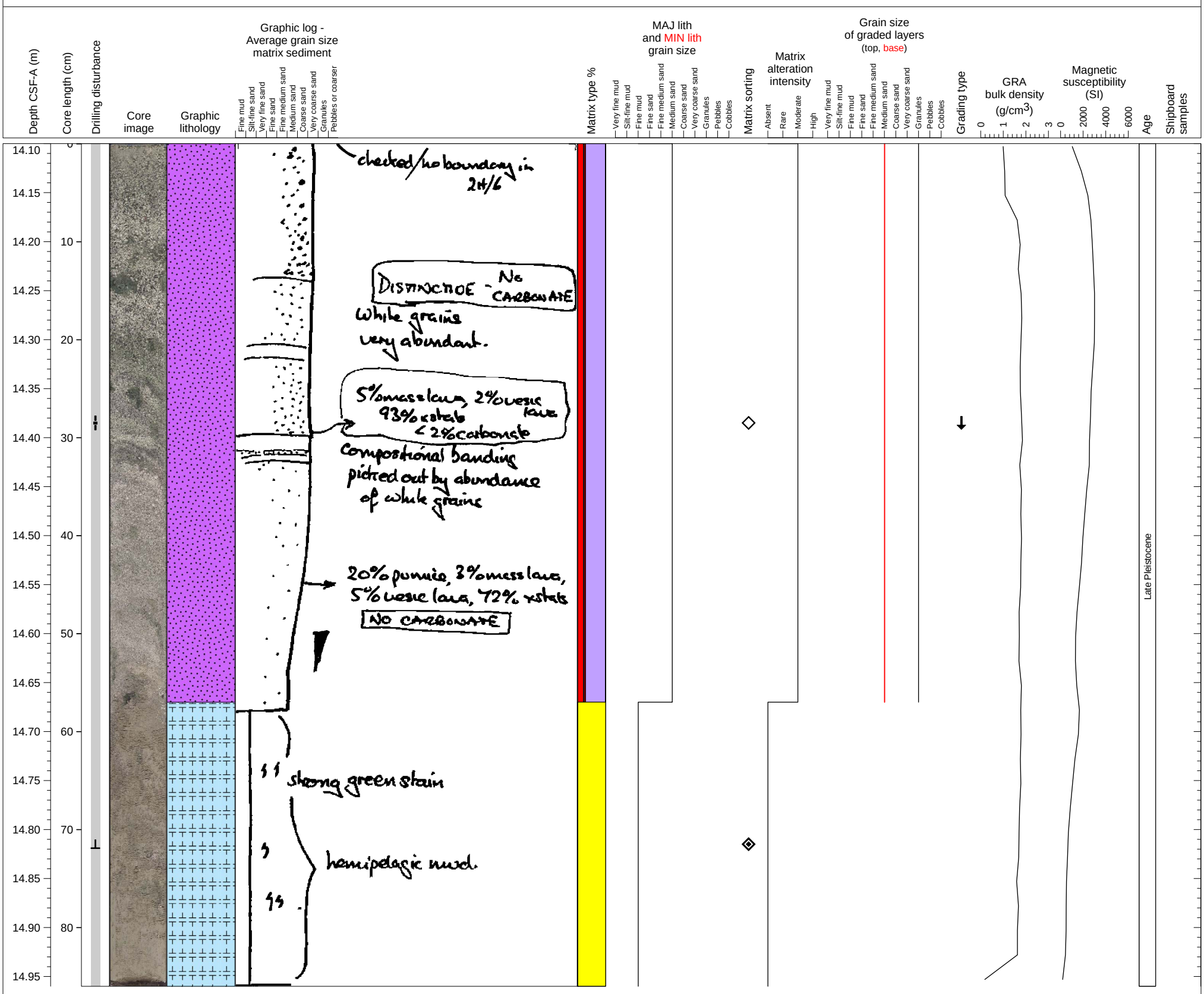
Hole 340-U1399A-2H Section 6, Top of Section: 12.6 CSF-A (m)

Hemipelagic clay interlayered with volcaniclastic mud units.



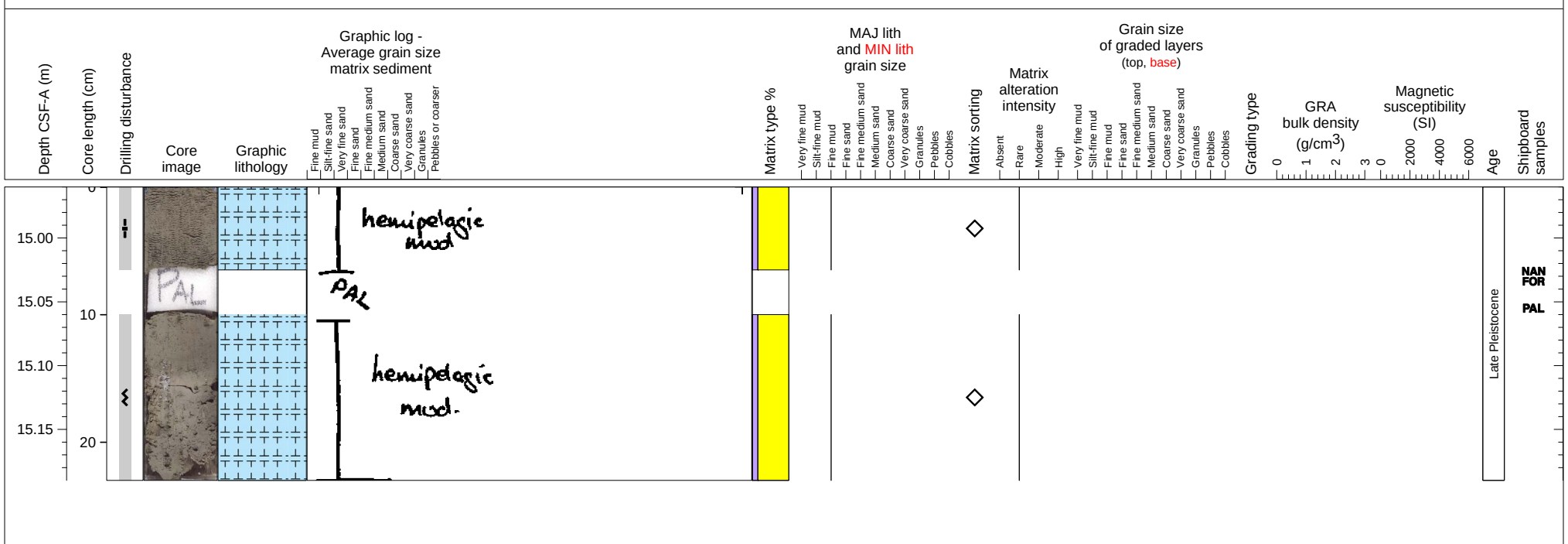
Hole 340-U1399A-2H Section 7, Top of Section: 14.1 CSF-A (m)

Reversely graded volcaniclastic sand (pumice) overlying hemipelagic clay.



Hole 340-U1399A-2H Section CC, Top of Section: 14.96 CSF-A (m)

Hemipelagic clay. PAL sample from middle of section.



Hole 340-U1399A-3H Section 1, Top of Section: 14.6 CSF-A (m)

Massive volcaniclastic turbidite containing pumice and hemipelagic mud clasts.

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm^3)
0
1
2
3
Magnetic susceptibility (SI)
0
2000
4000
6000
Age
Shipboard samples

14.60
14.65
14.70
14.75
14.80
14.85
14.90
14.95
15.00
15.05
15.10
15.15
15.20
15.25
15.30
15.35
15.40
15.45
15.50
15.55
15.60
15.65
15.70
15.75
15.80
15.85
15.90
15.95
16.00
16.05

0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150

? fell in during coring
clast supported
1-3mm granules
and fewer 3cm
andesitic clasts
with smeared
mud

pumice granules

in situ? 7cm
brown or green
mud clasts
nest of pumice granules.

WHOLE UNIT
massive coarse
medium grey sand
with no structure and
occassional pumice
granules.

50% pumice, 44% xstals,
6% carbonate

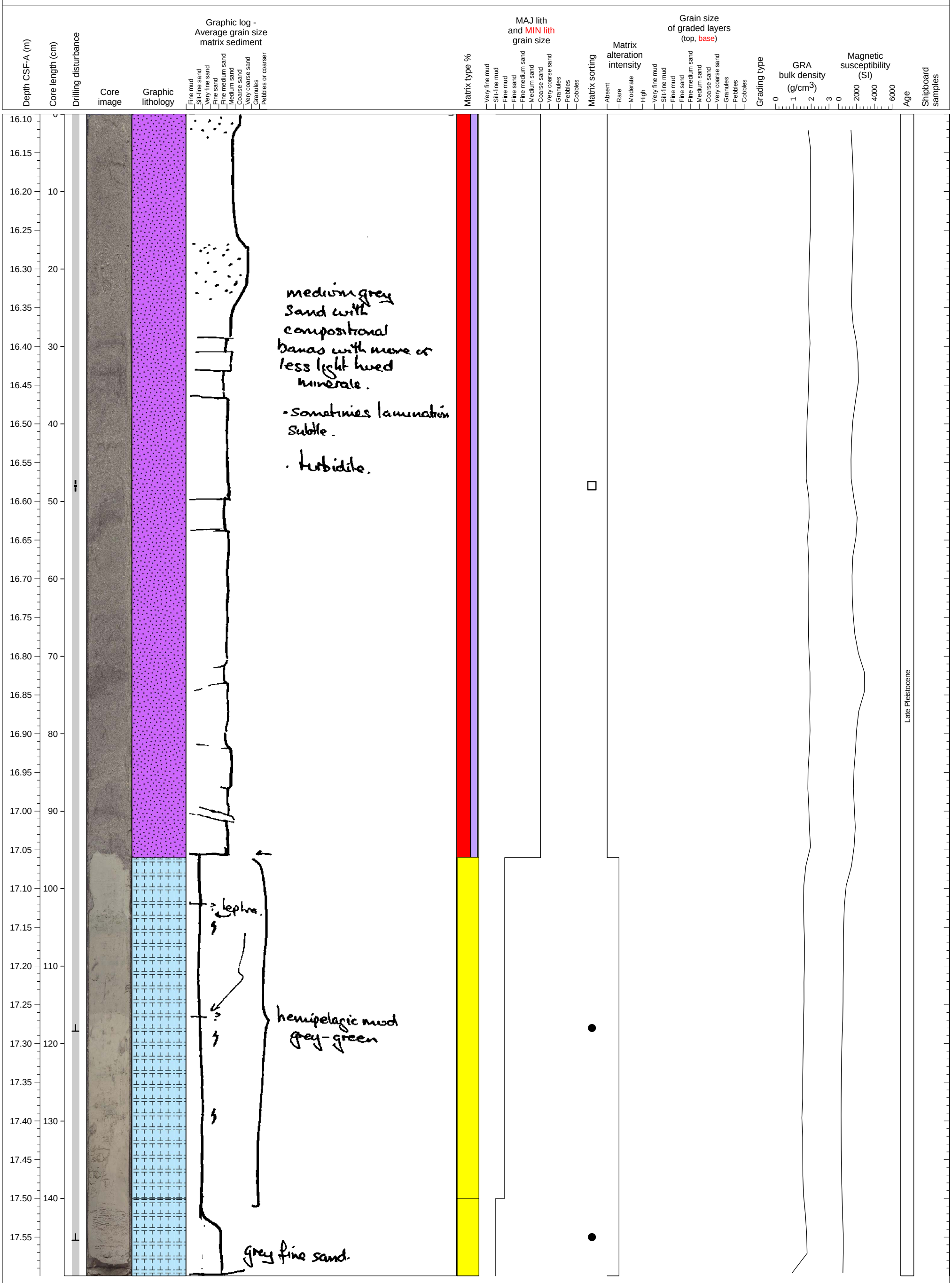
30% pomice, 64% xstals,
6% carbonate

Late Pleistocene

CRB
XRD
MADC

Hole 340-U1399A-3H Section 2, Top of Section: 16.1 CSF-A (m)

Massive volcaniclastic turbidite overlying hemipelagic clay.



Hole 340-U1399A-3H Section 3, Top of Section: 17.6 CSF-A (m)

Hemipelagic clay interbedded multiple tephra layers and turbidites. Turbidites are characterized by normal grading and parallel stratification.

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm^3)
0
1
2
3
Magnetic susceptibility (SI)
0
2000
4000
6000
Age
Shipboard samples

17.60 0
17.65
17.70 10
17.75
17.80 20
17.85
17.90 30
17.95
18.00 40
18.05
18.10 50
18.15
18.20 60
18.25
18.30 70
18.35
18.40 80
18.45
18.50 90
18.55
18.60 100
18.65
18.70 110
18.75
18.80 120
18.85
18.90 130
18.95
19.00 140
19.05

grey medium-light faint planar lamination

31% pumice, 1% mass lava, 60% xstals, 8% carbonate.

hemipelagic mud.

dark ash

30% pumice, 52% xstals, 18% Carbonate

hemipelagic mud.

20% pumice, 50% xstals 30% carbonate

calcite grains

shell fragments

hemipelagic mud.

hemipelagic mud.

very faint planar lamination

medium grey sand.

planar spaced lamination due to composition

hemipelagic mud.

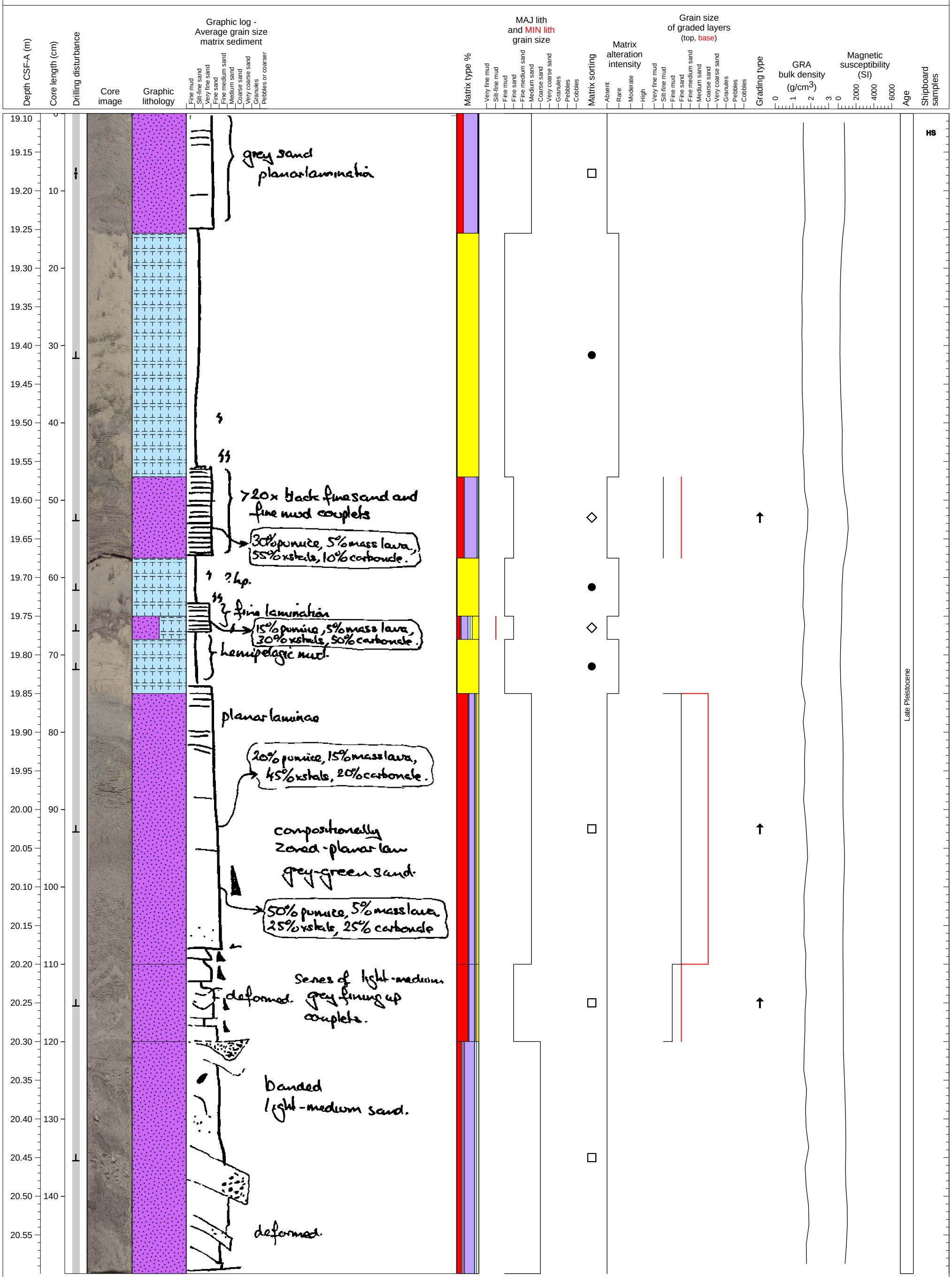
medium and darker grey (compositional) spaced lamination.

CRB
XRD
MADC

Late Pleistocene

Hole 340-U1399A-3H Section 4, Top of Section: 19.1 CSF-A (m)

Multiple tephra layers with parallel stratification and volcaniclastic turbidites with grain-size layering. These layers interbedded hemipelagic sediments.



Hole 340-U1399A-3H Section 5, Top of Section: 20.6 CSF-A (m)

Hemipelagic clay interlayered with volcaniclastic/bioclastic sand layers.

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm^3)
0
1
2
3
Magnetic susceptibility (SI)
0
2000
4000
6000
Age
Shipboard samples

20.60
20.65
20.70
20.75
20.80
20.85
20.90
20.95
21.00
21.05
21.10
21.15
21.20
21.25
21.30
21.35
21.40
21.45
21.50
21.55
21.60
21.65
21.70
21.75
21.80
21.85
21.90
21.95
22.00
22.05

0
10
20
30
40
50
60
70
80
90
100
110
120
130
140

steeply inclined and deformed compositional planar lamination

medium grey-brown.

medium grey

planar lamination

more white (pumice?) grains

light-medium grey massive sand.

compositional planar lamination

medium grey sand.

lem clasts of pumice

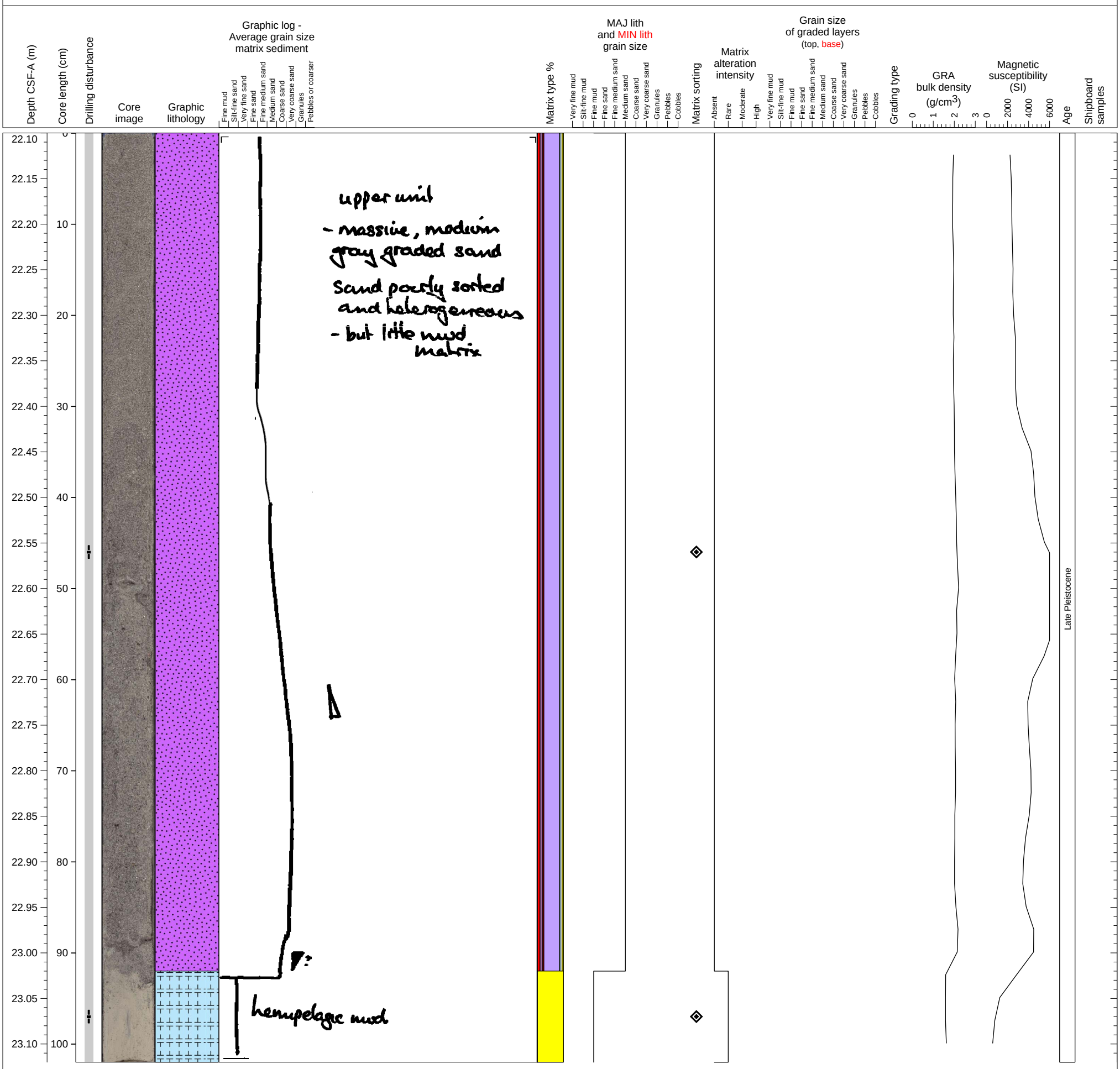
hemipelagic mud ? clast

2-5mm pumice clasts Common

Late Pleistocene

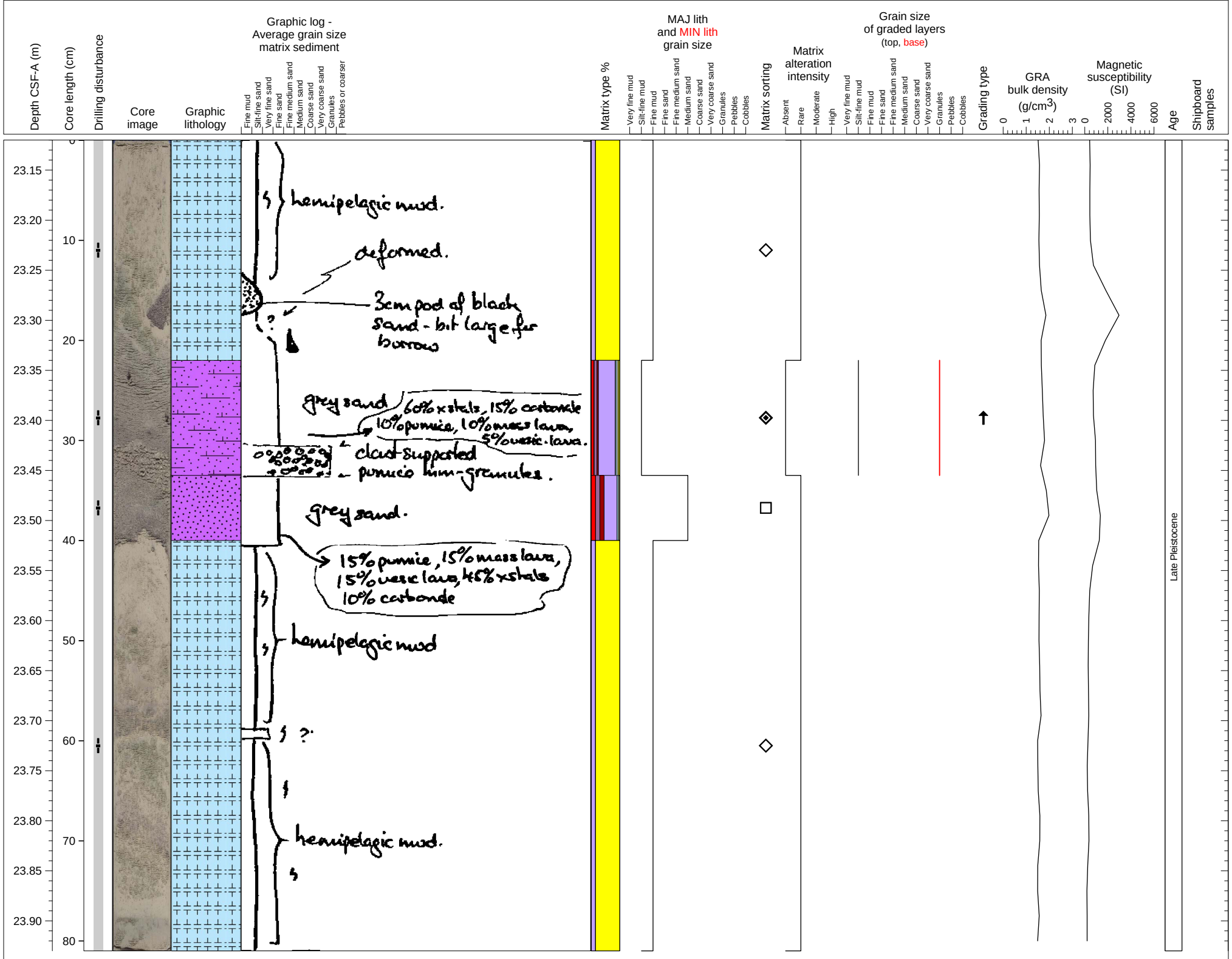
Hole 340-U1399A-3H Section 6, Top of Section: 22.1 CSF-A (m)

Mixed volcaniclastic/bioclastic sand overlying hemipelagic clay.



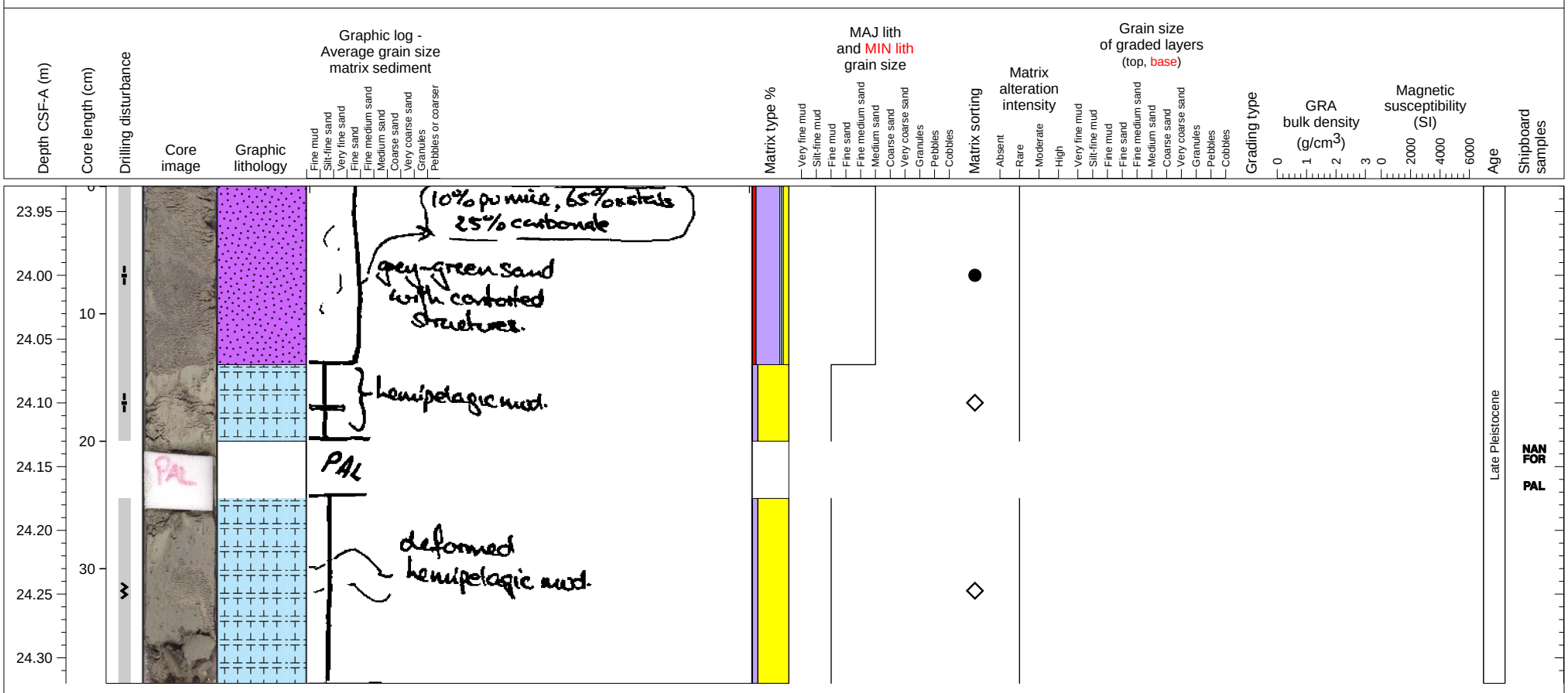
Hole 340-U1399A-3H Section 7, Top of Section: 23.12 CSF-A (m)

Hemipelagic clay interlayered with volcaniclastic sand and mud units, one of which displays normal gradation in pumice component.



Hole 340-U1399A-3H Section CC, Top of Section: 23.93 CSF-A (m)

Hemipelagic clay overlain by volcaniclastic sand. PAL from section middle.



Hole 340-U1399A-4H Section 1, Top of Section: 24.1 CSF-A (m)

Hemipelagic sediments, one a muddy sand, and a sequnce of thinly bedded ash falls

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm^3)
0
1
2
3
Magnetic susceptibility (SI)
0
2000
4000
6000
Age
Shipboard samples

24.10
24.15
24.20
24.25
24.30
24.35
24.40
24.45
24.50
24.55
24.60
24.65
24.70
24.75
24.80
24.85
24.90
24.95
25.00
25.05
25.10
25.15
25.20
25.25
25.30
25.35
25.40
25.45
25.50
25.55

0
10
20
30
40
50
60
70
80
90
100
110
120
130
140

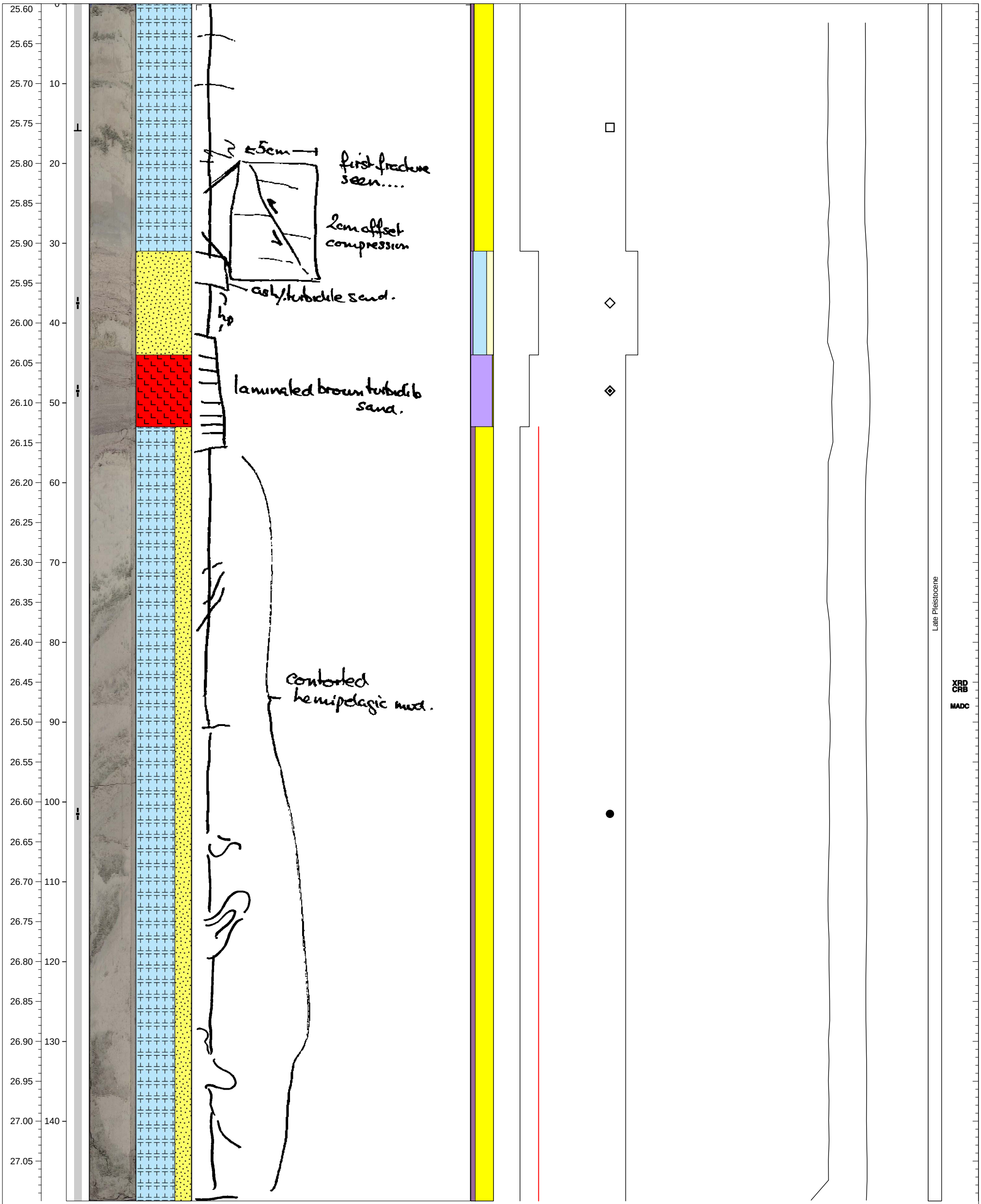
Soupy-coring deformation?
?? ? top of debrite
in situ???
Inclined.
Whole section
deformed hemipelagic mud with areas of inclined or convoluted banding
laminated brown ash
deformed hp

Late Pleistocene

Hole 340-U1399A-4H Section 2, Top of Section: 25.6 CSF-A (m)

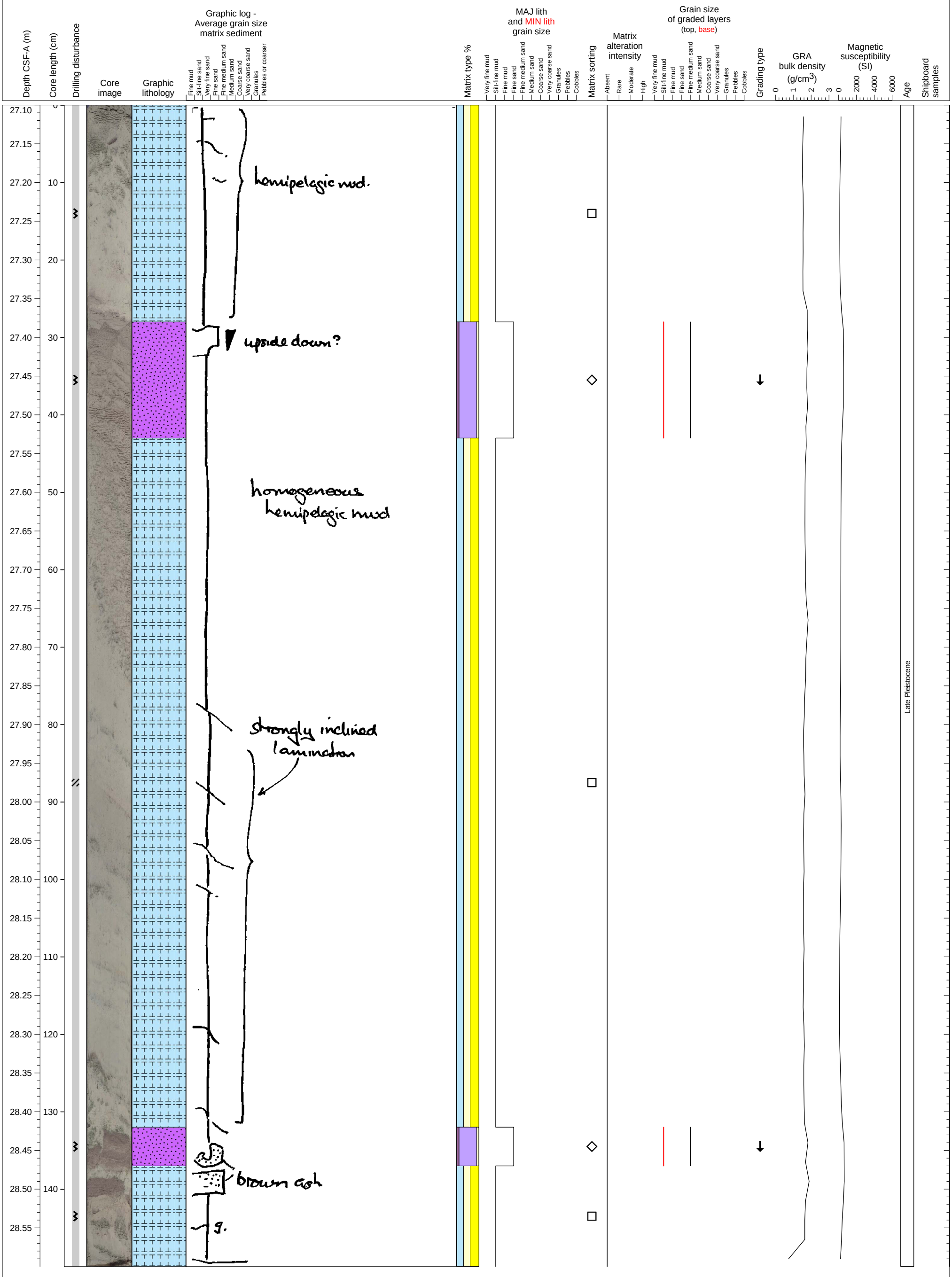
Hemipelagic sediments, one a muddy sand, and a sequnce of thinly bedded ash falls

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm3)
Magnetic susceptibility (SI)
Age
Shipboard samples



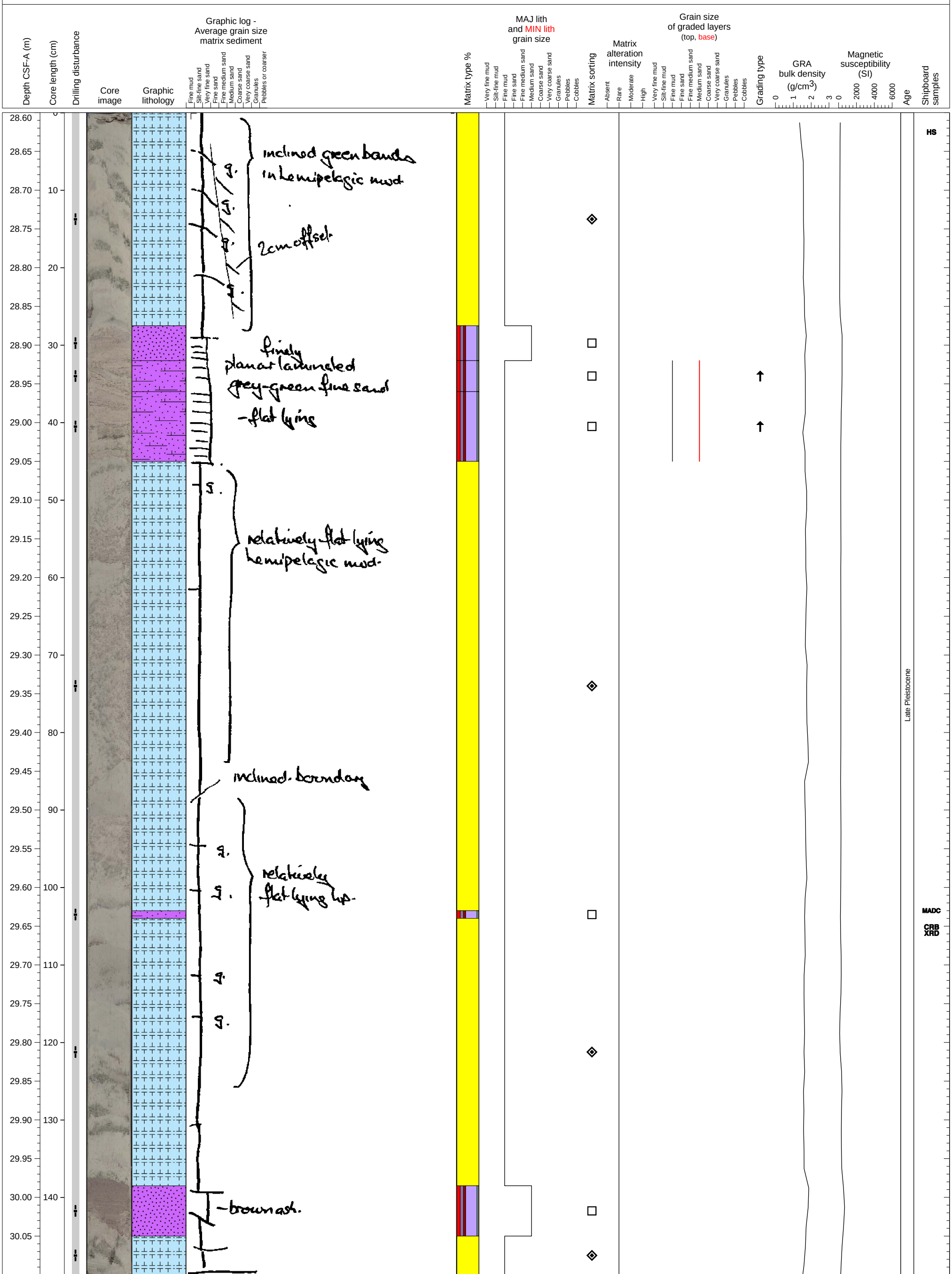
Hole 340-U1399A-4H Section 3, Top of Section: 27.1 CSF-A (m)

Hemipelagic sediment with volcaniclastic sand clasts?



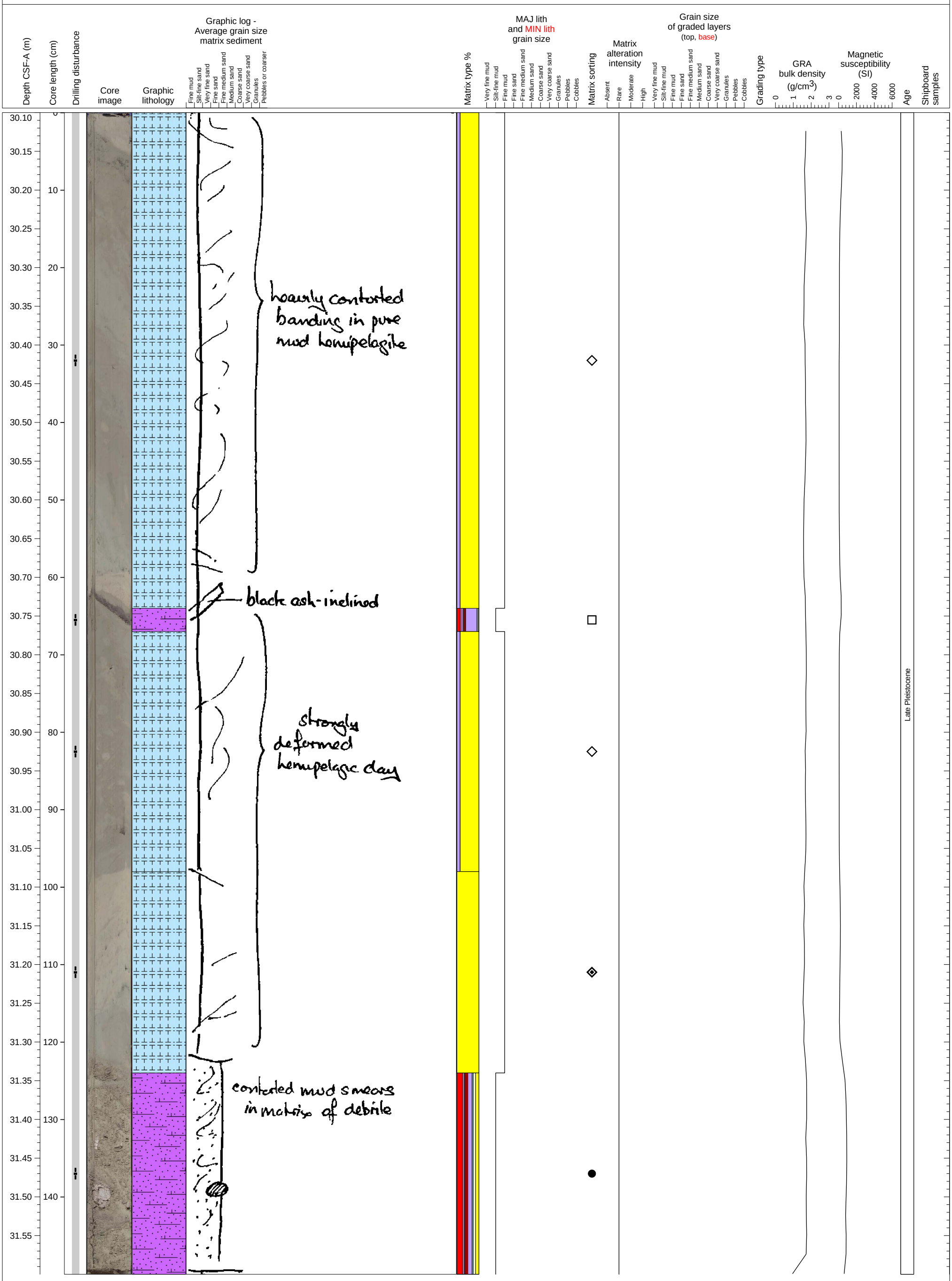
Hole 340-U1399A-4H Section 4, Top of Section: 28.6 CSF-A (m)

Hemipelagic clay with abundant volcaniclastic mud and sand layers, several of which display normal grading.



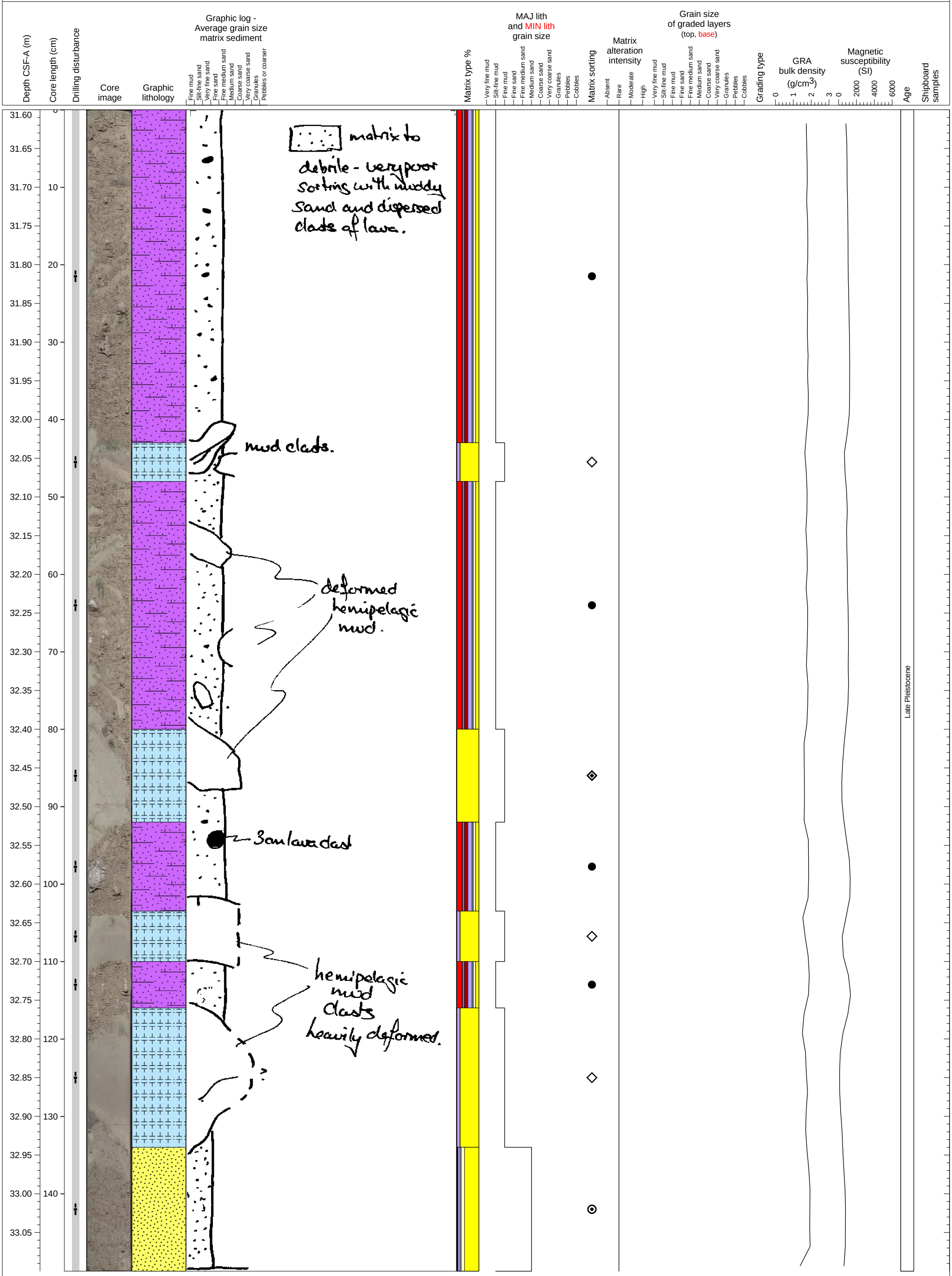
Hole 340-U1399A-4H Section 5, Top of Section: 30.1 CSF-A (m)

Hemipelagic clay overlying the top of a clast-rich chaotic unit.



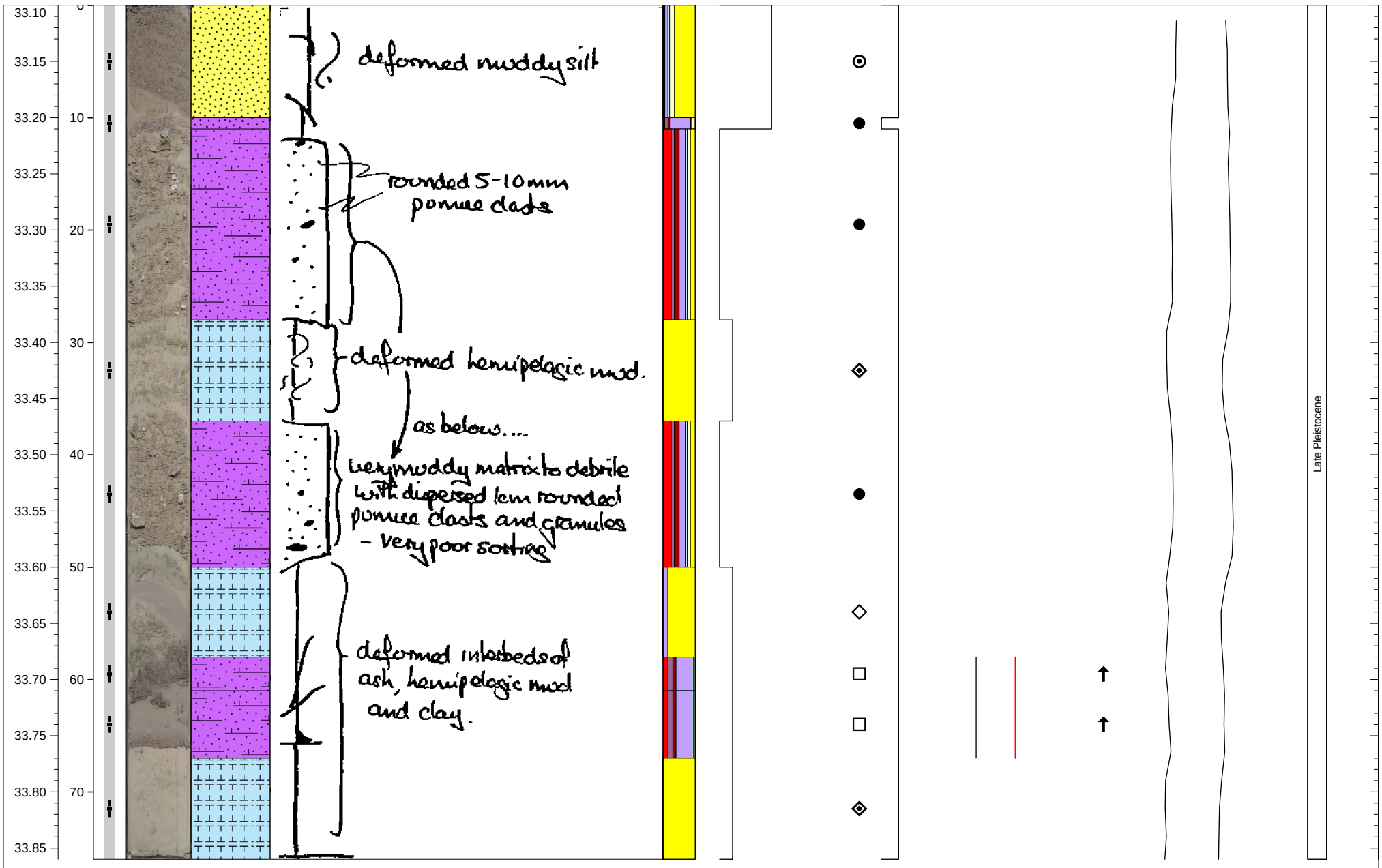
Hole 340-U1399A-4H Section 6, Top of Section: 31.6 CSF-A (m)

Clast-rich chaotic unit interlayered with hemipelagic clay. The clay units may be clasts, not actual units.



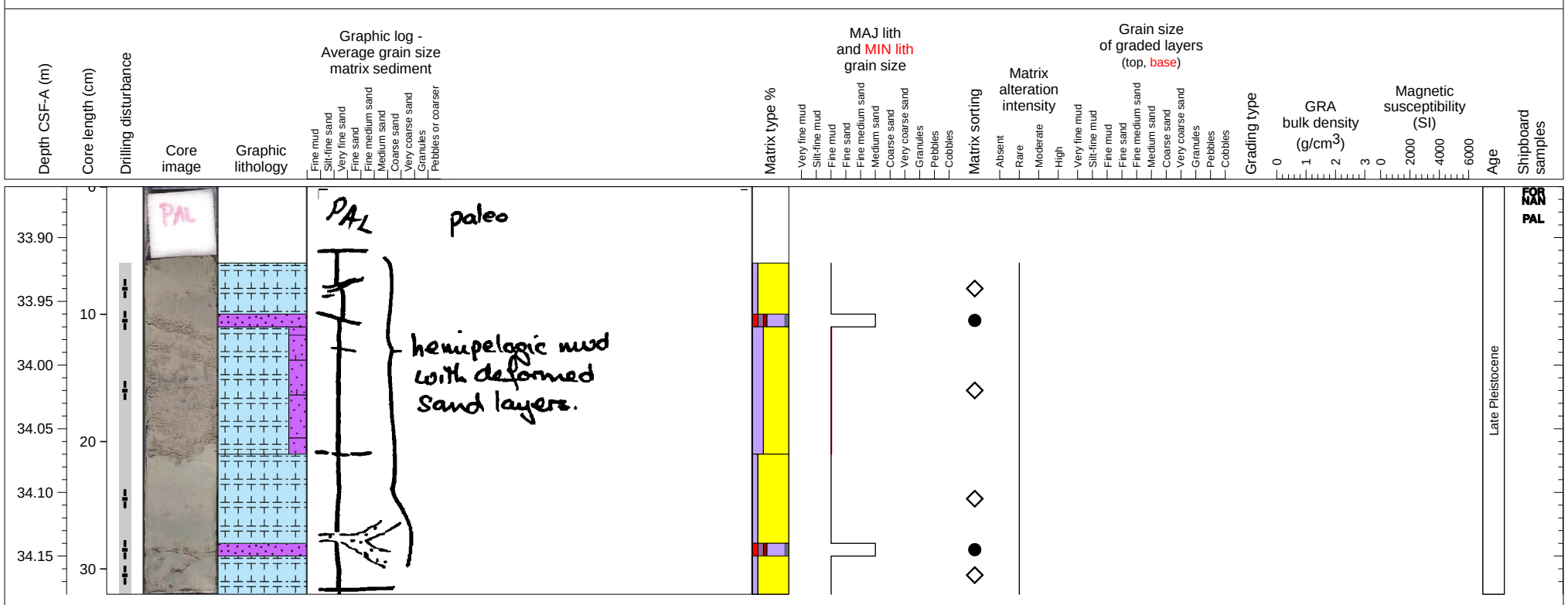
Hole 340-U1399A-4H Section 7, Top of Section: 33.1 CSF-A (m)

Clast-rich chaotic unit interlayered with hemipelagic clay. Normally graded volcaniclastic sand-mud units are found at the base of the section.



Hole 340-U1399A-4H Section CC, Top of Section: 33.86 CSF-A (m)

Hemipelagic clay interlayered with volcaniclastic sand units. PAL sample from top of section.



Hole 340-U1399A-5H Section 1, Top of Section: 33.6 CSF-A (m)

Mottled hemipelagic sediments with intercalated volcanic sand layers

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment (Fine mud, Silt-fine sand, Very fine sand, Fine sand, Fine medium sand, Medium sand, Coarse sand, Very coarse sand, Granules, Pebbles or coarser)
Matrix type %
MAJ lith and MIN lith grain size (Very fine mud, Silt-fine mud, Fine mud, Fine sand, Fine medium sand, Medium sand, Coarse sand, Very coarse sand, Granules, Pebbles, Cobbles)
Matrix sorting
Matrix alteration intensity (Absent, Rare, Moderate, High)
Grain size of graded layers (top, base) (Very fine mud, Silt-fine mud, Fine mud, Fine sand, Fine medium sand, Medium sand, Coarse sand, Very coarse sand, Granules, Pebbles, Cobbles)
Grading type
GRA bulk density (g/cm^3) (0, 1, 2, 3)
Magnetic susceptibility (SI) (0, 2000, 4000, 6000)
Age
Shipboard samples

33.60 / 0
33.65
33.70 / 10
33.75
33.80 / 20
33.85
33.90 / 30
33.95
34.00 / 40
34.05
34.10 / 50
34.15
34.20 / 60
34.25
34.30 / 70
34.35
34.40 / 80
34.45
34.50 / 90
34.55
34.60 / 100
34.65
34.70 / 110
34.75
34.80 / 120
34.85
34.90 / 130
34.95
35.00 / 140
35.05

weakly deformed hemipelagic mud with few 3cm of grey-green sandy sediment

volcanic sand → tephra layer (95% crystals 5% carbonate)

hemipelagic mud deformed with green sandy patches - and a deformed volcanic layer

- deformed volcanic layer (95% crystals 5% carbonates)

debrite - very poorly sorting. sandy matrix

Late Pleistocene

Hole 340-U1399A-5H Section 2, Top of Section: 35.1 CSF-A (m)

Hemipelagic sediment with eight ash layers, four of which are graded.

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud | Silt-fine sand | Very fine sand | Fine sand | Fine medium sand | Medium sand | Coarse sand | Very coarse sand | Granules | Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud | Silt-fine mud | Fine mud | Fine sand | Fine medium sand | Medium sand | Coarse sand | Very coarse sand | Granules | Pebbles | Cobbles
Matrix sorting
Matrix alteration intensity
Absent | Rare | Moderate | High
Grain size of graded layers (top, base)
Very fine mud | Silt-fine mud | Fine mud | Fine sand | Fine medium sand | Medium sand | Coarse sand | Very coarse sand | Granules | Pebbles | Cobbles
Grading type
GRA bulk density (g/cm^3)
0 | 1 | 2 | 3
Magnetic susceptibility (SI)
0 | 2000 | 4000 | 6000
Age
Shipboard samples

35.10 | 0
35.15
35.20 | 10
35.25
35.30 | 20
35.35
35.40 | 30
35.45
35.50 | 40
35.55
35.60 | 50
35.65
35.70 | 60
35.75
35.80 | 70
35.85
35.90 | 80
35.95
36.00 | 90
36.05
36.10 | 100
36.15
36.20 | 110
36.25
36.30 | 120
36.35
36.40 | 130
36.45
36.50 | 140
36.55

very fine hemipelagic mud
Mottled grey-brown

Two volcanic layers → tephra

Light grey hemipelagic mud

Succession of four tephra layers reddish-grey. (10% pumice 80% crystals 10% carbonate)

hemipelagic mud with few green zones

Two tephra layers

hemipelagic mud grey-green

Late Pleistocene
SED

Hole 340-U1399A-5H Section 3, Top of Section: 36.6 CSF-A (m)

Hemipelagic sediments at the top of the section, ovelying highly deformed deposits (could be debrite)

Depth CSF-A (m)

Core length (cm)

Drilling disturbance

Core image

Graphic lithology

Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser

Matrix type %

MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles

Matrix sorting

Matrix alteration intensity
Absent
Rare
Moderate
High

Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles

Grading type

GRA bulk density (g/cm^3)
0
1
2
3

Magnetic susceptibility (SI)
0
2000
4000
6000

Age

Shipboard samples
CRB XRD
MADC

dark grey - green hemipelagic mud with few sand patches

Two volcanic sand layer

muddy clast.

debrite - Muddy - sand with abundant mud clasts, pumice clasts and also deformed volcanic sand layer.

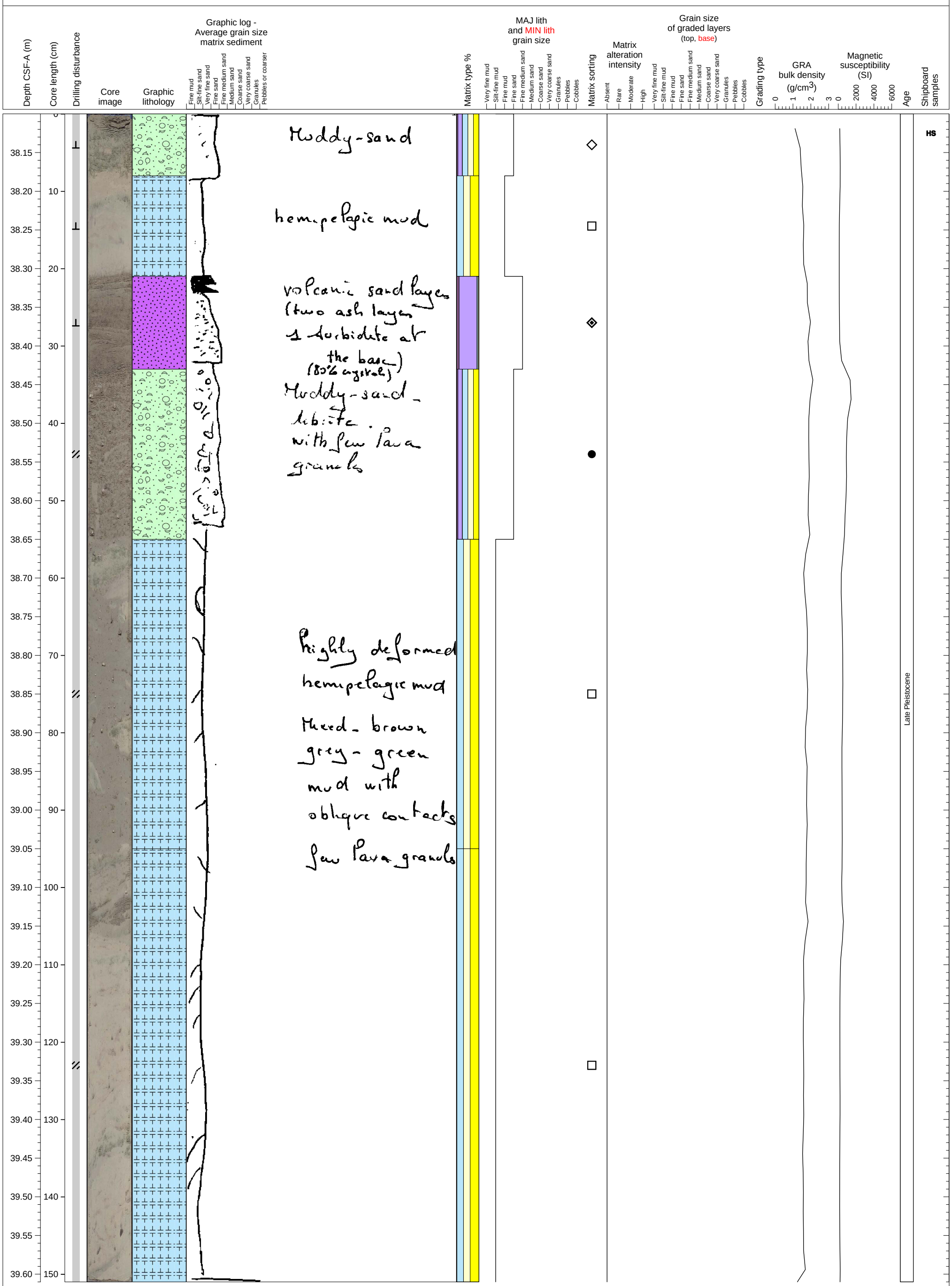
mud clasts

- deformed volcanic layer

Late Pleistocene

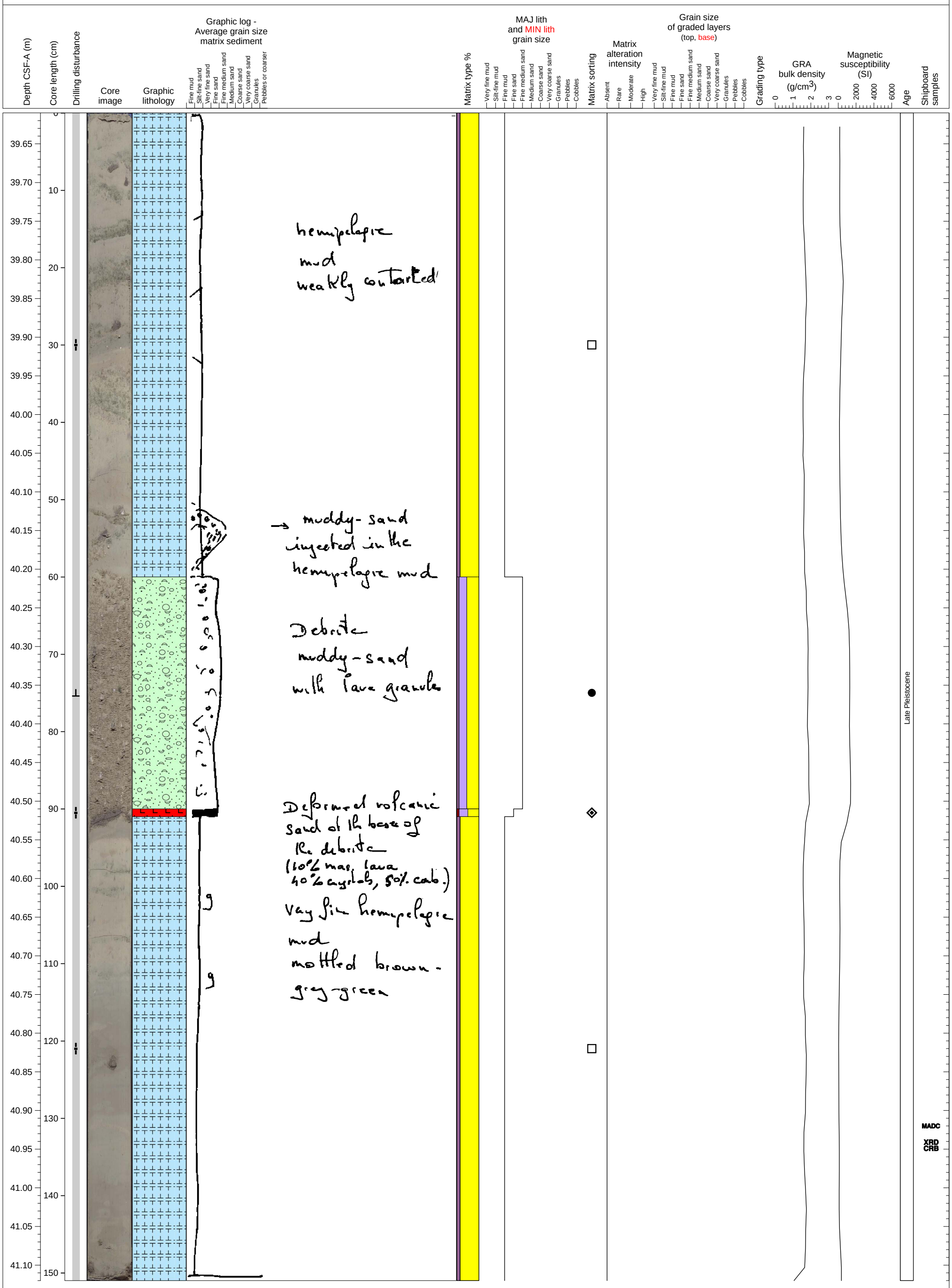
Hole 340-U1399A-5H Section 4, Top of Section: 38.1 CSF-A (m)

Hemipelagic sediment with intercalated debrite and volcaniclastic sediment



Hole 340-U1399A-5H Section 5, Top of Section: 39.61 CSF-A (m)

Hemipelagic sediment with a muddy sand unit (debrite) and a thin ash fall layer.



Hole 340-U1399A-5H Section 6, Top of Section: 41.12 CSF-A (m)

Hemipelagic sediment intercalated with volcaniclastic sand layers

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm^3)
Magnetic susceptibility (SI)
Age
Shipboard samples

→ Deformed volcanic sand layer

– volcanic sand layer

HP highly mottled hemipelagic mud grey-green-brown

M bedded volcanic sand, reddish grey with fine sand layers and silty layers (5% mass. lava 60% cryst.fr. 35% carbonate.

HP Grey hemipelagic mud with numerous green layers –

Reddish-grey volcanic sand (20% lava, 75% cryst.fr., 5% carb.)

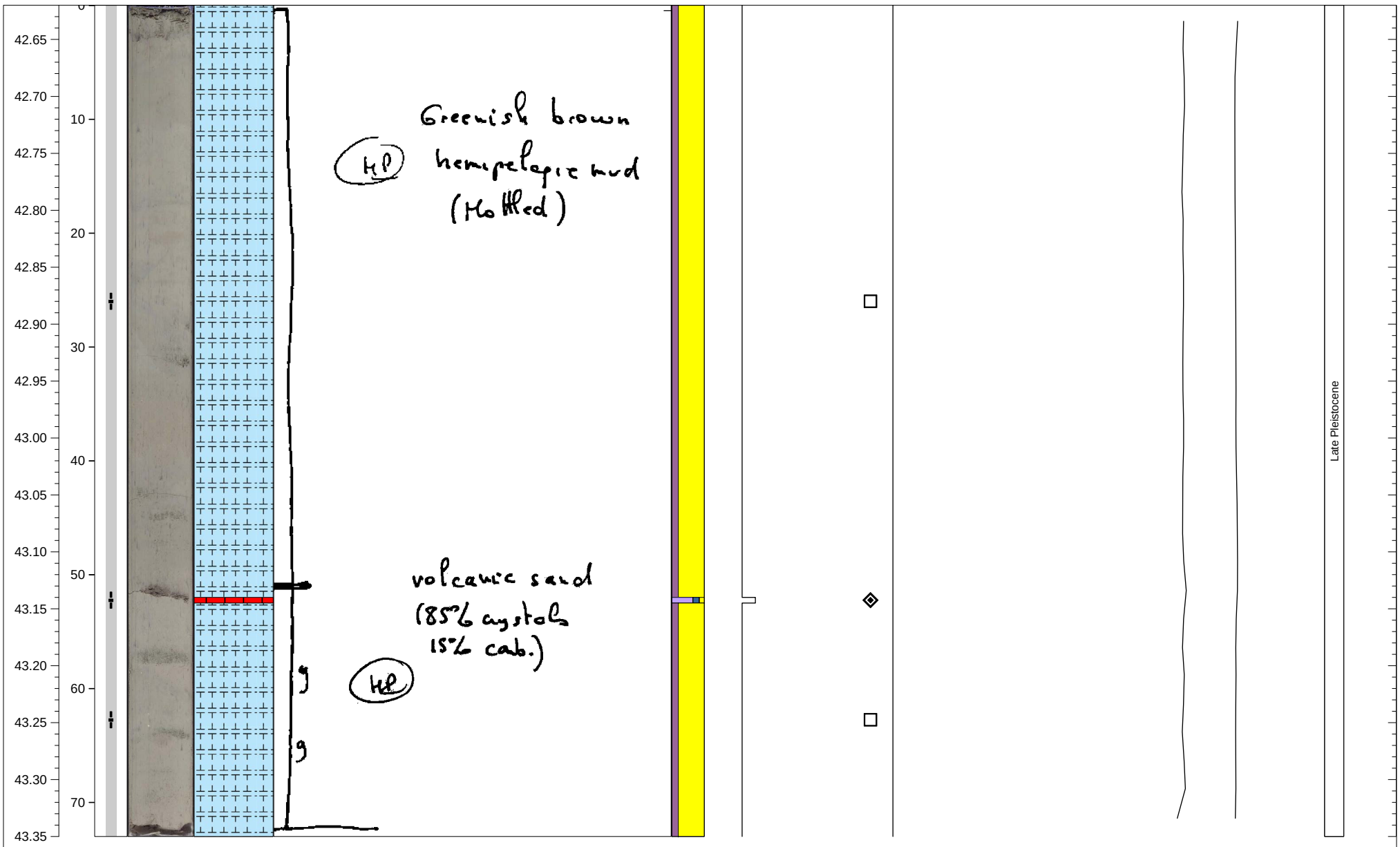
HP hemipelagic mud

SED
SED

Late Pleistocene

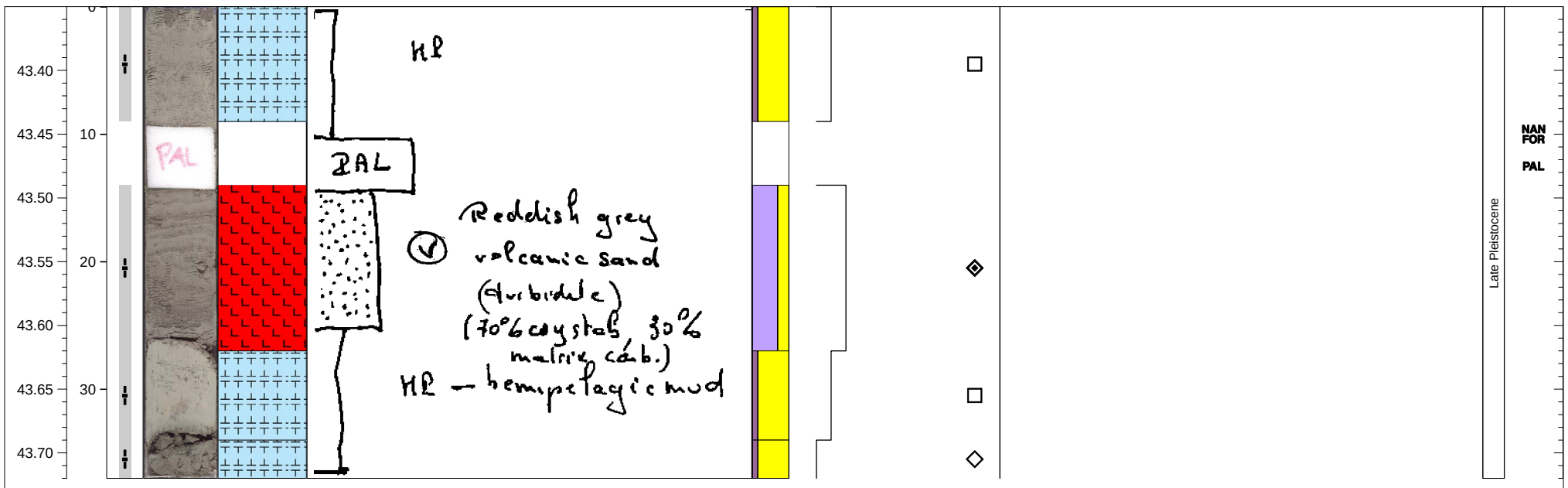
Hole 340-U1399A-5H Section 7, Top of Section: 42.62 CSF-A (m)

Hemipelagic sediment with a thin ash fall layer



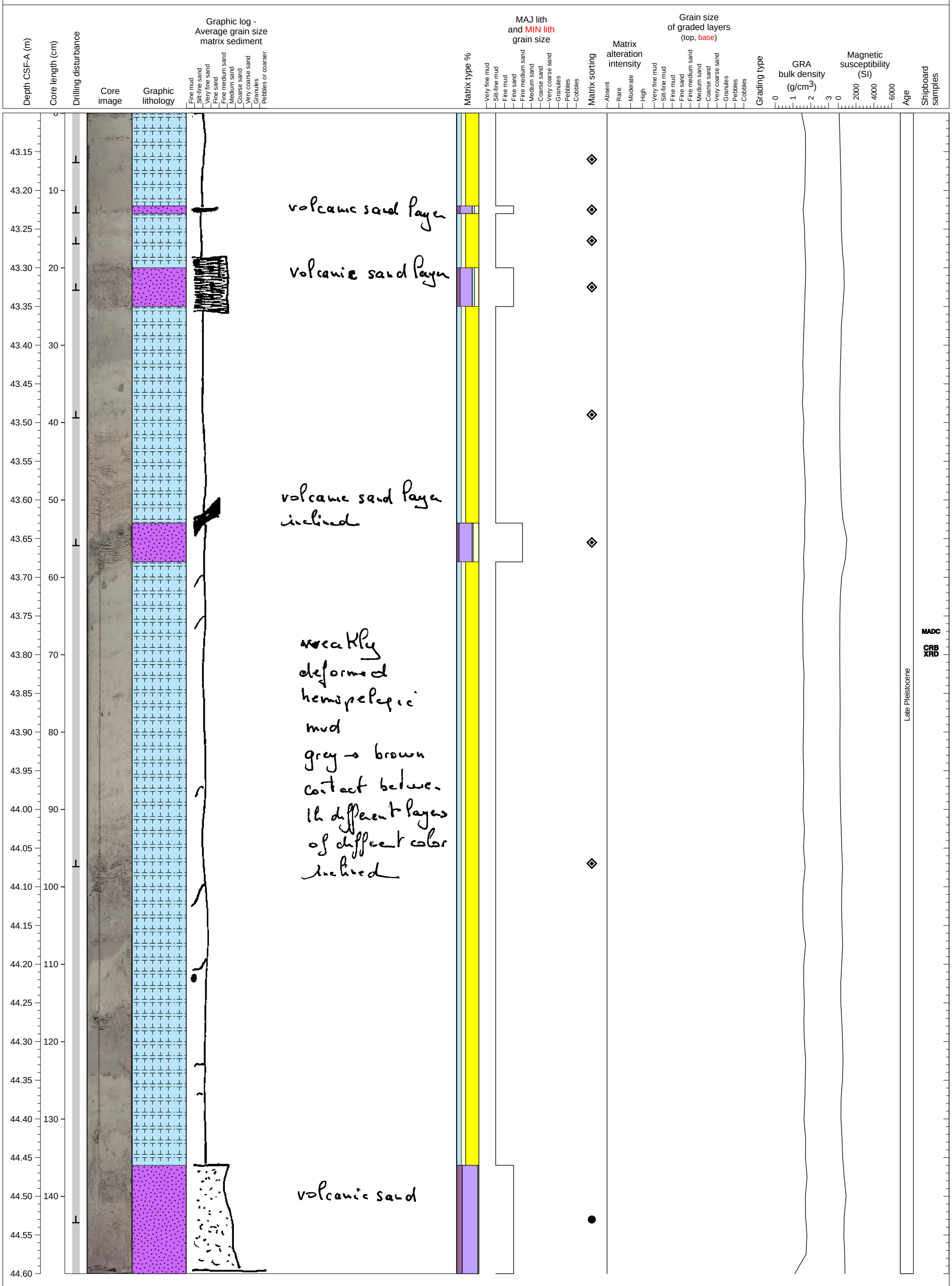
Hole 340-U1399A-5H Section CC, Top of Section: 43.35 CSF-A (m)

Silty and fine mud hemipelagic sediment wih a thick ash layer



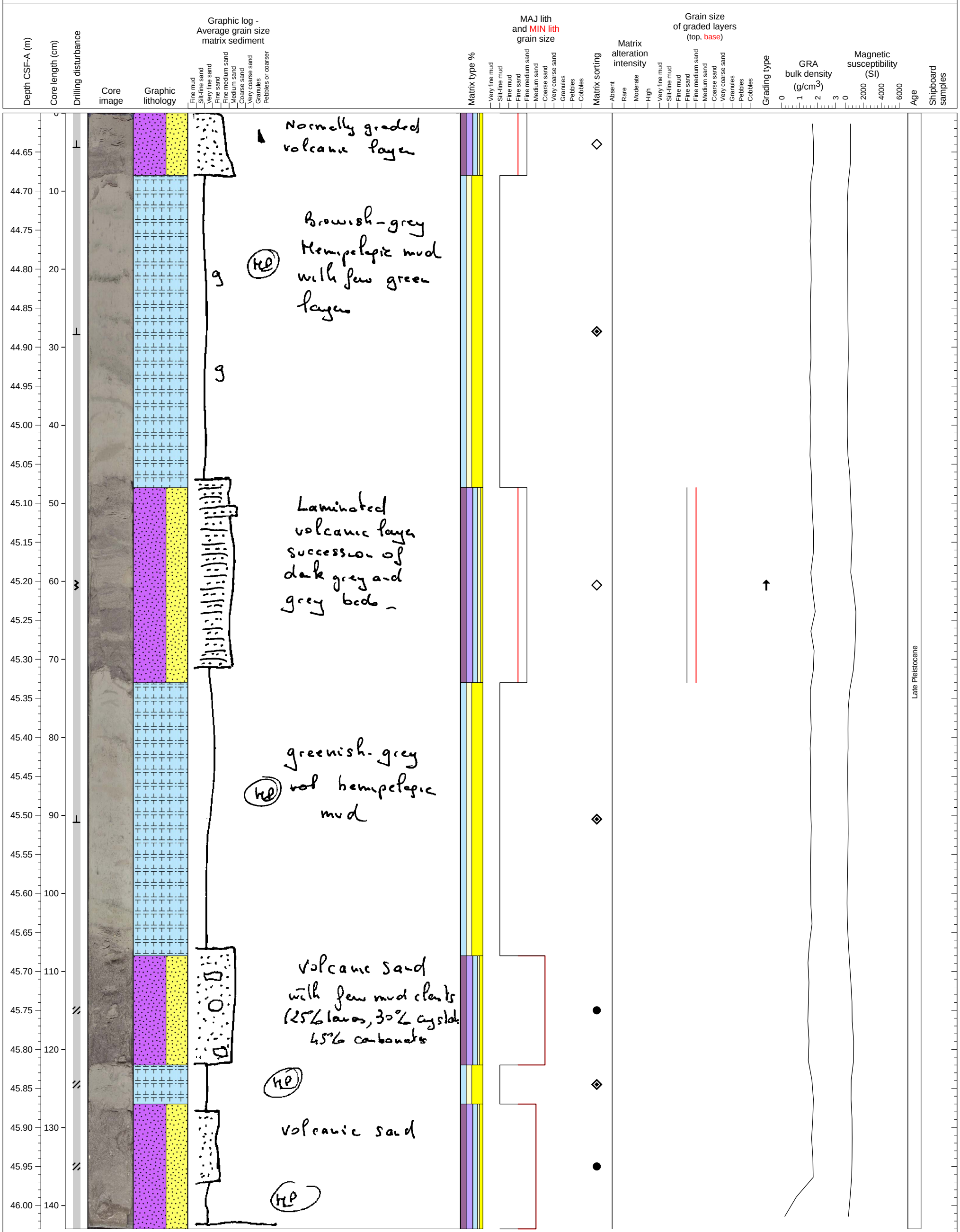
Hole 340-U1399A-6H Section 1, Top of Section: 43.1 CSF-A (m)

Hemipelagic sediments with intercalted volcaniclastic sand layers



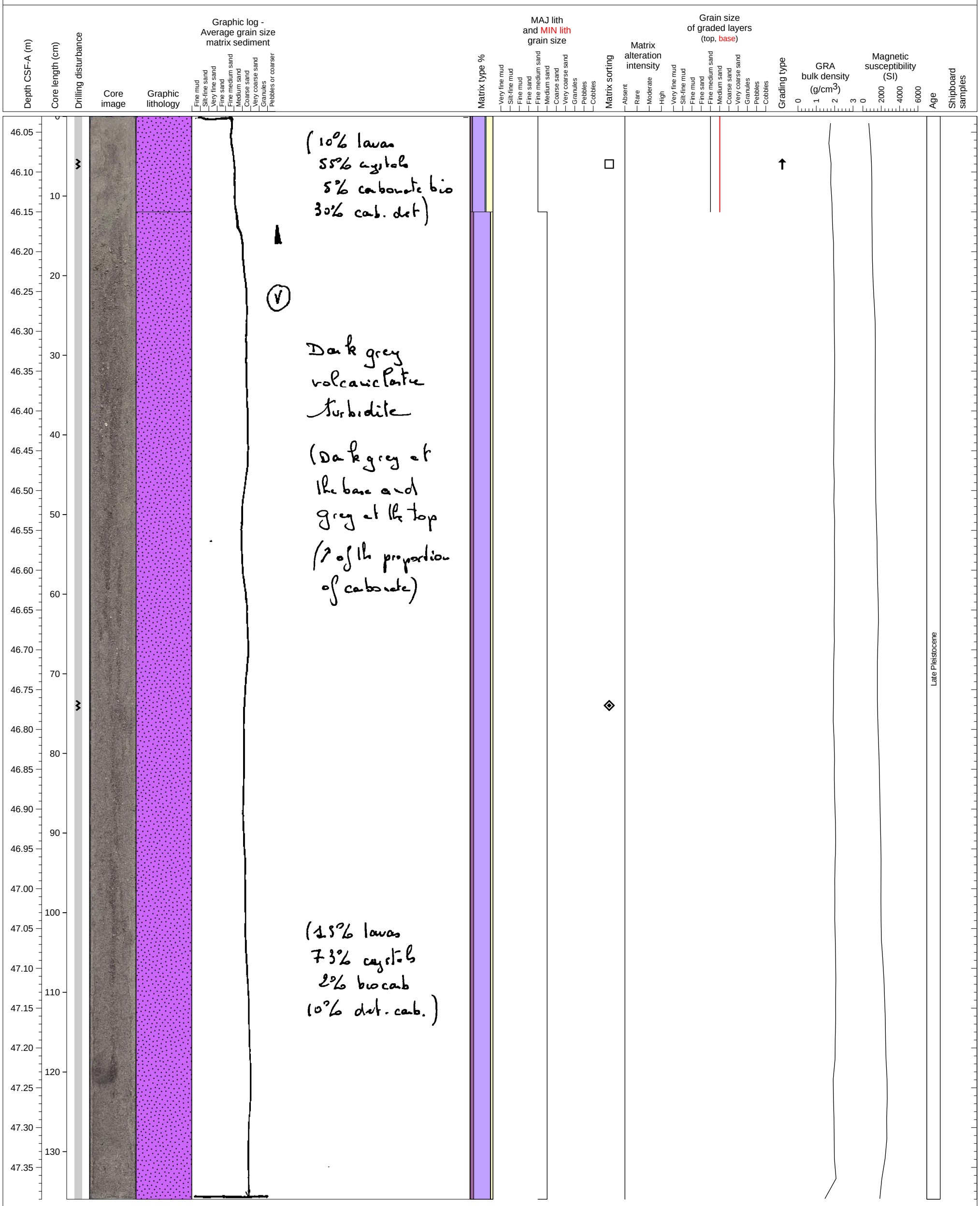
Hole 340-U1399A-6H Section 2, Top of Section: 44.6 CSF-A (m)

Hemipelagic sediment with intercalation of mixed volcaniclastic and bioclastic sediments



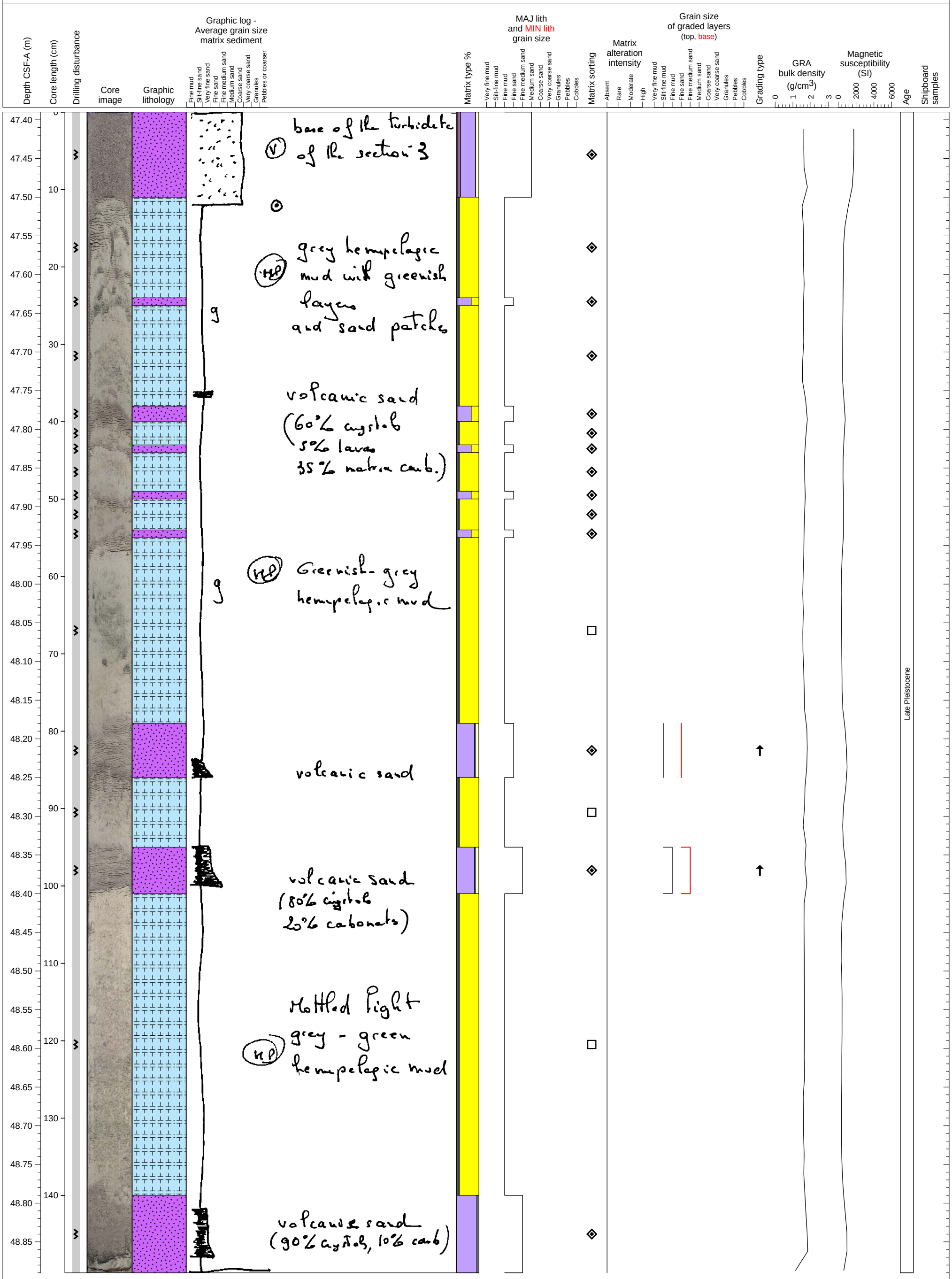
Hole 340-U1399A-6H Section 3, Top of Section: 46.03 CSF-A (m)

Part of volcaniclastic turbidite, with bioclasts and pumice, soupy massive



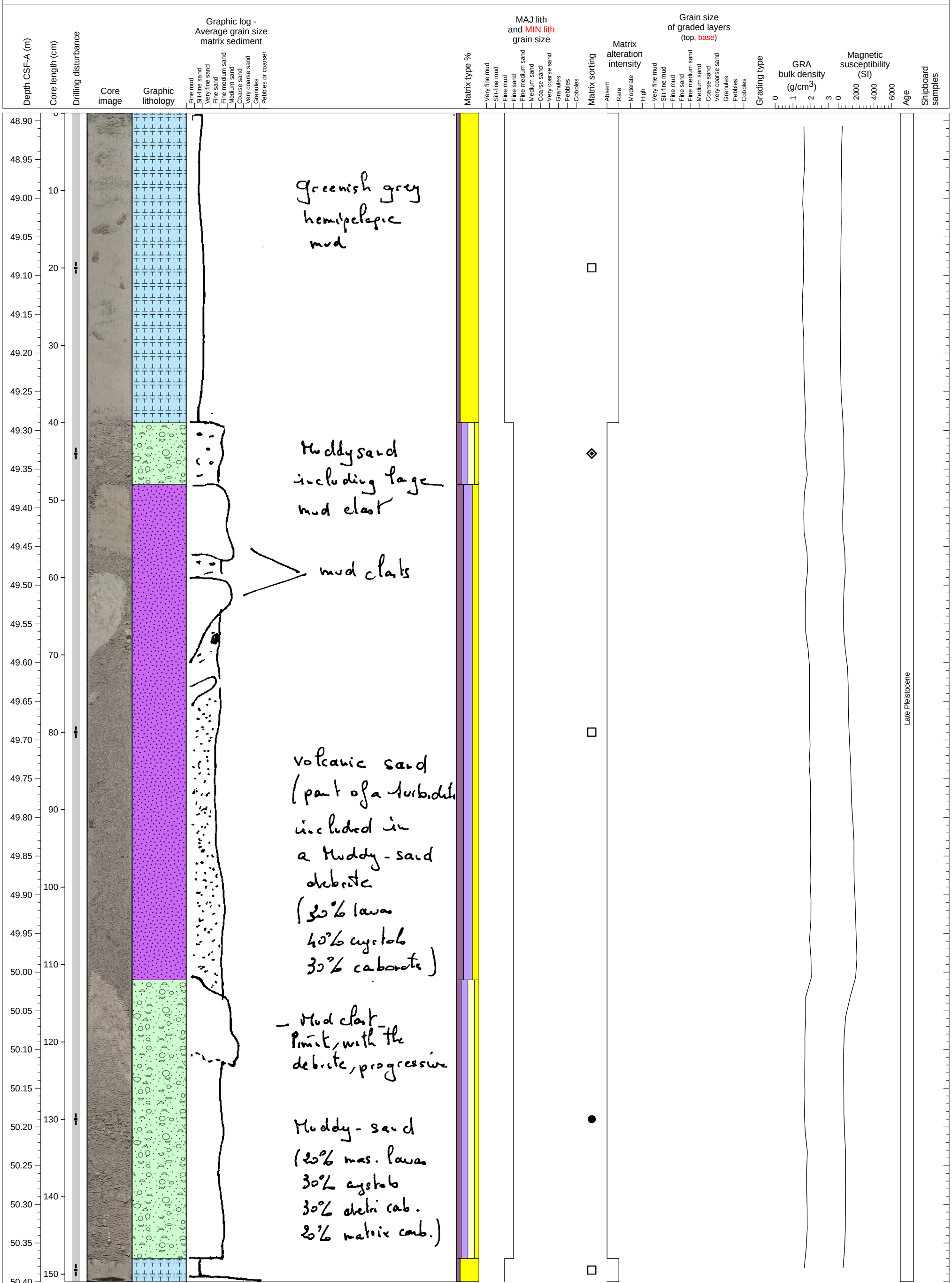
Hole 340-U1399A-6H Section 4, Top of Section: 47.39 CSF-A (m)

Bioturbated hemipelagite with several thin volcaniclastic sand layers



Hole 340-U1399A-6H Section 5, Top of Section: 48.89 CSF-A (m)

Hemipelagic sediment at top, with muddy sands (Debrite) and volcaniclastic sands (tubidite) below.



Hole 340-U1399A-6H Section 6, Top of Section: 50.4 CSF-A (m)

Hemipelagite with thin volcaniclastic sand (ashfall? or turbidite?) layers. One debris flow facies is intercalated.

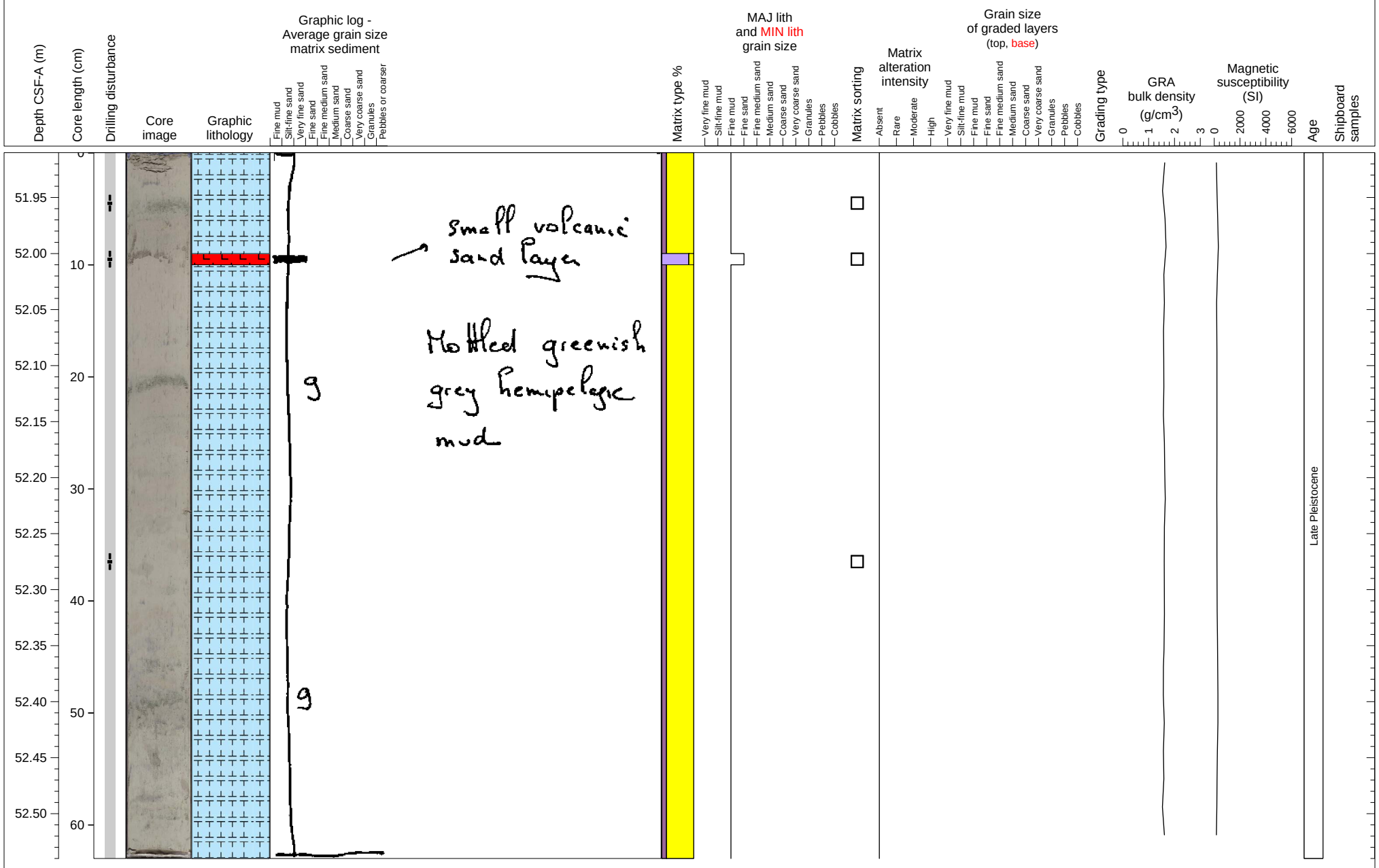
Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm3)
Magnetic susceptibility (SI)
Age
Shipboard samples

50.45 10 — weakly contorted hemipelgic mud
50.60 20 — Debrite muddy-sand with mud and pumice clasts included
50.80 40 — Mixed bioclastic volcaniclastic turbidite (5% pumices 40% cryst.fr 25% carb. bio 20% carb. det.)
51.10 70 — Mixed volcaniclastic bioclastic turbidite normally graded (40% cryst.fr 45% bio carbon. 15% det.-carb.)
51.40 100 — g
51.50 110 — Mottled greenish grey hemipelagic mud
51.70 130 — HB
51.75 — g
51.90 150

HS
Late Pleistocene
MADC
XRD
CRB

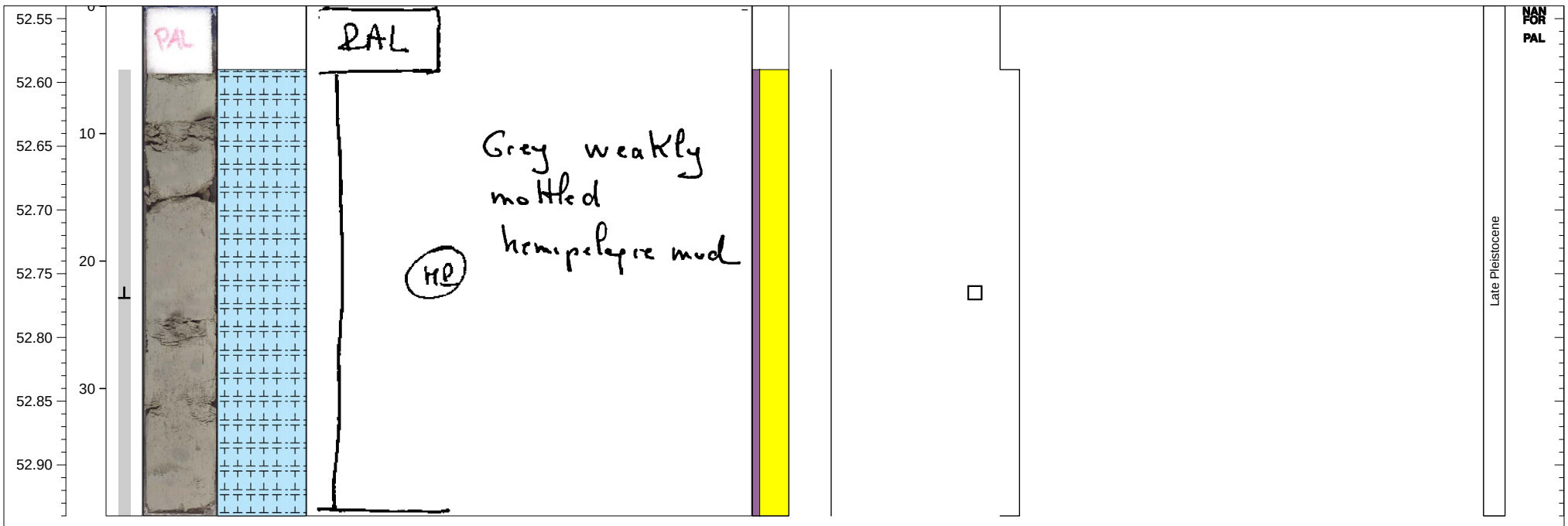
Hole 340-U1399A-6H Section 7, Top of Section: 51.91 CSF-A (m)

Hemipelagic sediment with a thin ash fall layer



Hole 340-U1399A-6H Section CC, Top of Section: 52.54 CSF-A (m)

Hemipelagic sediment



Hole 340-U1399A-7H Section 1, Top of Section: 52.6 CSF-A (m)

Hemipelagic sediment with two thin ash layers

Depth CSF-A (m)

Core length (cm)

Drilling disturbance

Core image

Graphic lithology

Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser

Matrix type %

MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles

Matrix sorting

Matrix alteration intensity
Absent
Rare
Moderate
High

Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles

Grading type

GRA bulk density (g/cm^3)
0
1
2
3

Magnetic susceptibility (SI)
0
2000
4000
6000

Age

Shipboard samples

52.65
52.70
52.75
52.80
52.85
52.90
52.95
53.00
53.05
53.10
53.15
53.20
53.25
53.30
53.35
53.40
53.45
53.50
53.55
53.60
53.65
53.70
53.75
53.80
53.85
53.90
53.95
54.00
54.05
54.10

10
20
30
40
50
60
70
80
90
100
110
120
130
140

Highly mottled grey to light grey with patchs of green hemipelagic mud

HD

small volcanic sand bioturbated (60% crystals 10% mas. lavas 30% carbonates) → ash fall

HD

Mottled grey-green-brown hemipelagic mud

volcanic sand (70% crystal 10% mas. lava 20% carb.) → ash fall

Late Pleistocene

XRD
CRB

MADC

Hole 340-U1399A-7H Section 2, Top of Section: 54.1 CSF-A (m)

Hemipelagic sediment with 6 ash layers, two normally graded

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm^3)
0
1
2
3
Magnetic susceptibility (SI)
0
2000
4000
6000
Age
Shipboard samples

54.15
54.20
54.25
54.30
54.35
54.40
54.45
54.50
54.55
54.60
54.65
54.70
54.75
54.80
54.85
54.90
54.95
55.00
55.05
55.10
55.15
55.20
55.25
55.30
55.35
55.40
55.45
55.50
55.55
55.60

0
10
20
30
40
50
60
70
80
90
100
110
120
130
140

Mottled light grey - dark grey hemipelagic mud

HP

Mottled grey - green hemipelagic mud

HP

Reddish-grey volcanic sand (→ tephra)

very small volcanic layer

HP

very small volcanic layer

HP

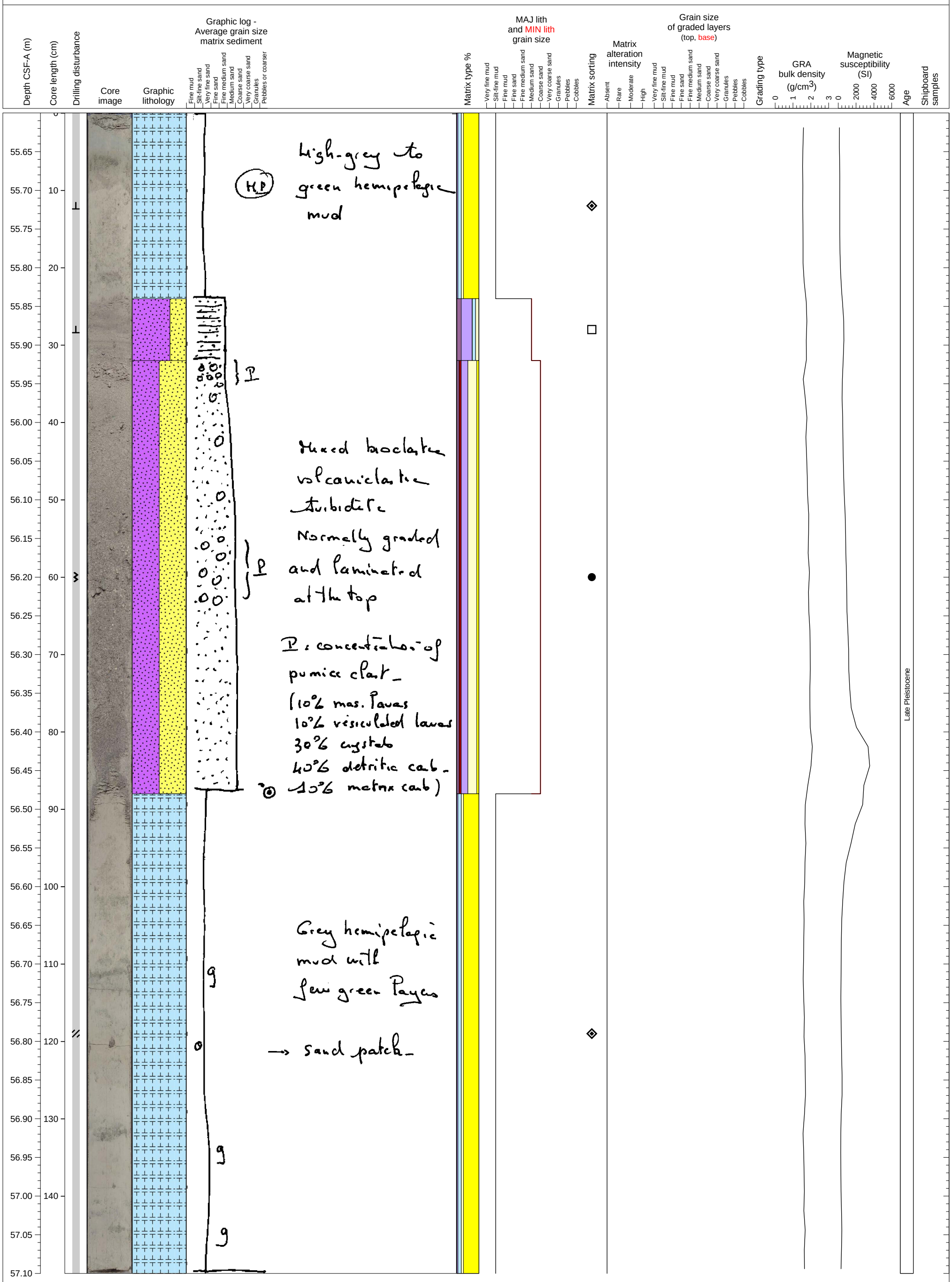
Two volcanic sand layers
(10% mas. lavas
85% crystals, 5% bio)

2 volcanic sand
2 10% mass. lavas
85% crystals
5% biocarbonate)

Late Pleistocene

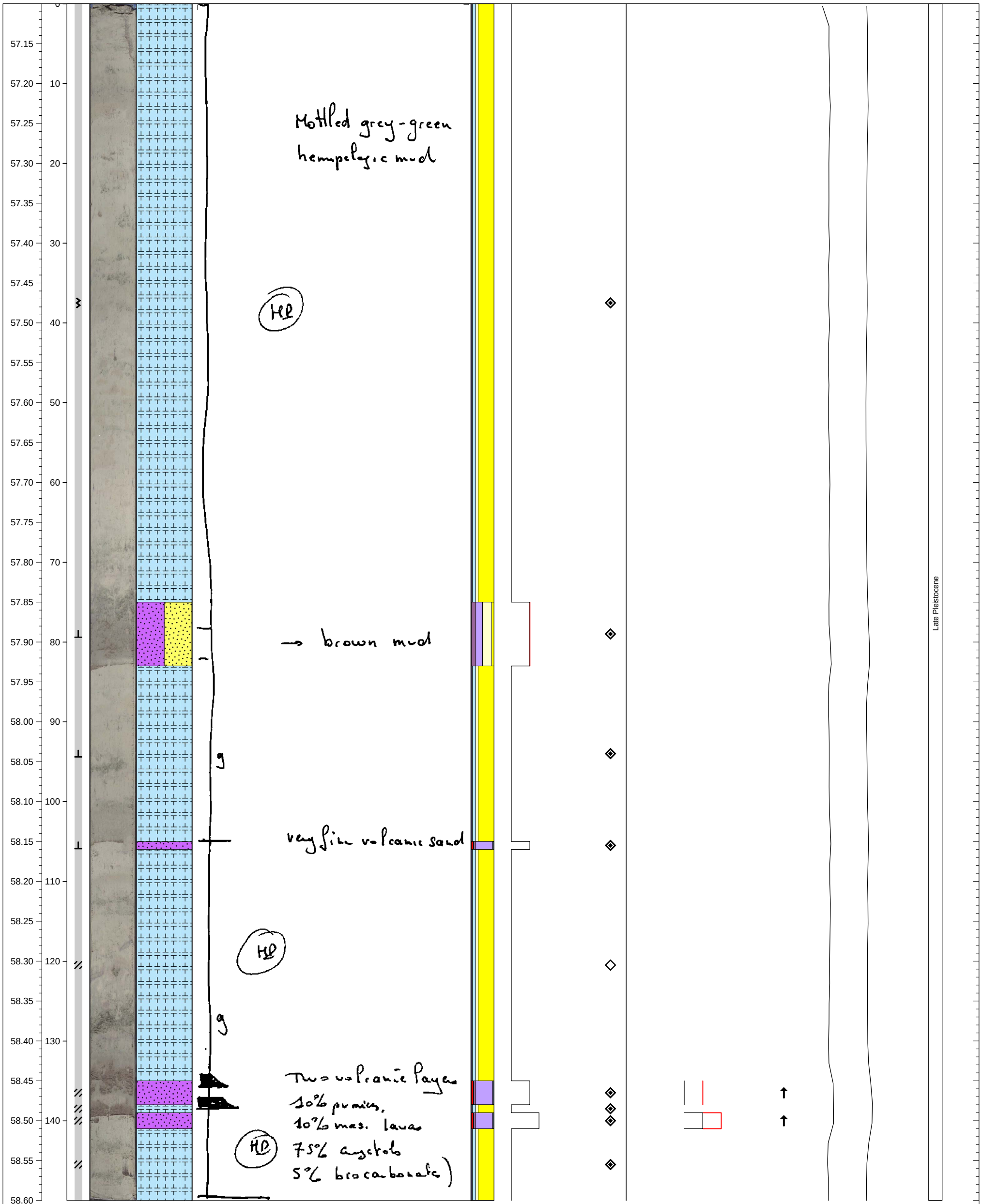
Hole 340-U1399A-7H Section 3, Top of Section: 55.6 CSF-A (m)

Hemipelagic sediment with intercalating mixed volcaniclastic biolcastic turbidte



Hole 340-U1399A-7H Section 4, Top of Section: 57.1 CSF-A (m)

Mottled hemipelagic sediment with intercalated volcaniclastic sand layers



Hole 340-U1399A-7H Section 5, Top of Section: 58.6 CSF-A (m)

Hemipelagic sediment with intercalating volcanic ash layers

Depth CSF-A (m)

Core length (cm)

Drilling disturbance

Core image

Graphic lithology

Graphic log - Average grain size matrix sediment
Fine mud | Silt-fine sand | Very fine sand | Fine sand | Fine medium sand | Medium sand | Coarse sand | Very coarse sand | Granules | Pebbles or coarser

Matrix type %

MAJ lith and MIN lith grain size
Very fine mud | Silt-fine mud | Fine mud | Fine sand | Fine medium sand | Medium sand | Coarse sand | Very coarse sand | Granules | Pebbles | Cobbles

Matrix sorting

Matrix alteration intensity
Absent | Rare | Moderate | High

Grain size of graded layers (top, base)
Very fine mud | Silt-fine mud | Fine mud | Fine sand | Fine medium sand | Medium sand | Coarse sand | Very coarse sand | Granules | Pebbles | Cobbles

Grading type

GRA bulk density (g/cm^3)
0 | 1 | 2 | 3

Magnetic susceptibility (SI)
0 | 2000 | 4000 | 6000

Age

Shipboard samples

58.65 — 10
Mottled grey green Hemipelagic mud
HP
HS
58.80 — 20
58.85
58.90 — 30
Volcanic sand bioturbated 10% mass. lavas 60% crystals 30% matrix (calc.)
58.95
59.00 — 40
59.05
59.10 — 50
volcanic sand
59.15
59.20 — 60
Small volcanic sand (10% lavas, 60% crystals 30% biocalc. 60% detritic calc.)
59.25
59.30 — 70
Mottled brownish grey — green Hemipelagic mud
59.35
HP
59.40 — 80
59.45
59.50 — 90
59.55
59.60 — 100
59.65
59.70 — 110
59.75
XRD
CRB
59.80 — 120
MADC
59.85
59.90 — 130
Light grey volcanic sand (60% pumices 40% crystals)
59.95
HP
Greenish grey hemipelagic mud
60.00 — 140
60.05
60.10

Late Pleistocene

Hole 340-U1399A-7H Section 6, Top of Section: 60.1 CSF-A (m)

One sequence of volcaniclastic turbidite from the depth of 125 to 29 cm within hemipelagic mud.

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm^3)
Magnetic susceptibility (SI)
Age
Shipboard samples

60.15 – 10
60.20 – 10
60.25 –
60.30 – 20
60.35 –
60.40 – 30
60.45 –
60.50 – 40
60.55 –
60.60 – 50
60.65 –
60.70 – 60
60.75 –
60.80 – 70
60.85 –
60.90 – 80
60.95 –
61.00 – 90
61.05 –
61.10 – 100
61.15 –
61.20 – 110
61.25 –
61.30 – 120
61.35 –
61.40 – 130
61.45 –
61.50 – 140
61.55 –
61.60

Hemipelagic mud (grey) –

HD

Mixed bioclastic volcaniclastic turbidite

M

. base of the turbidite rich in volcanic grains top rich in detritic carbonate

(10% mas. lava
60% agit-el
30% carbonate
at the middle
of the deposit)

Reversely graded

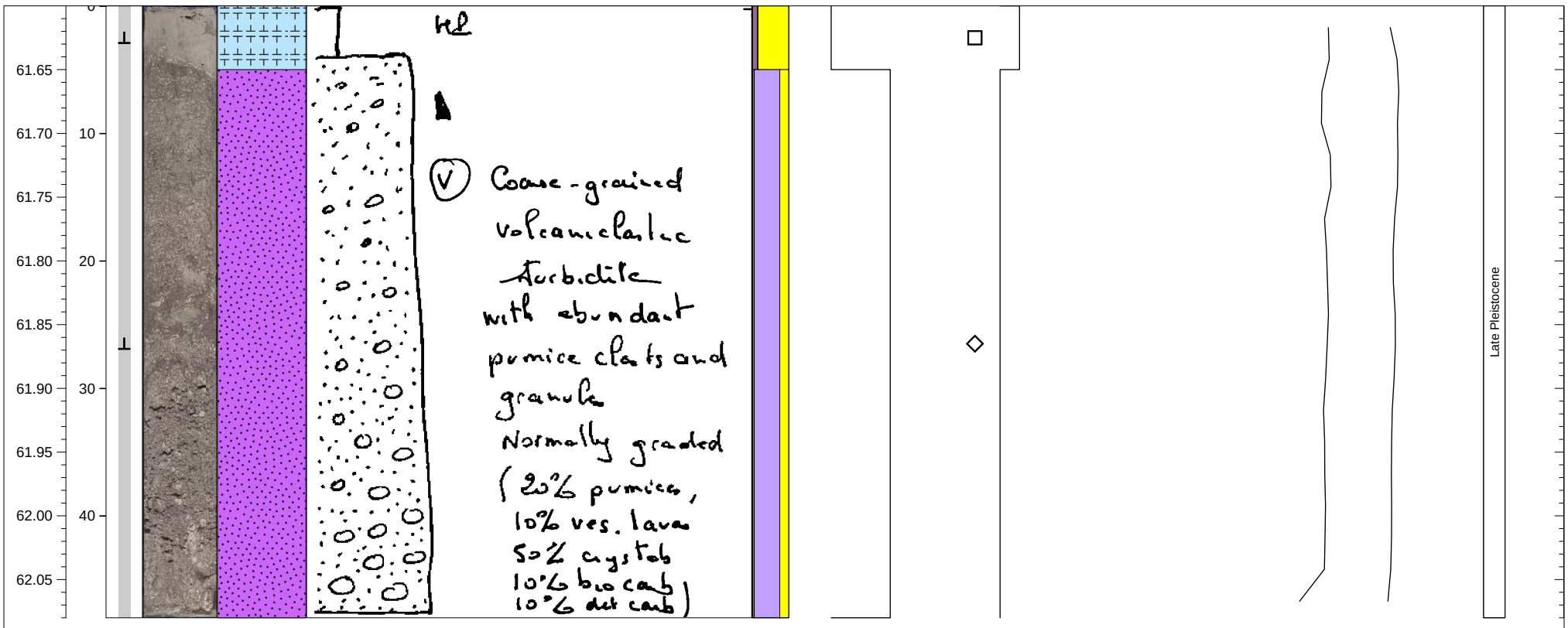
HD

Mottled light grey - grey hemipelagic mud

Late Pleistocene

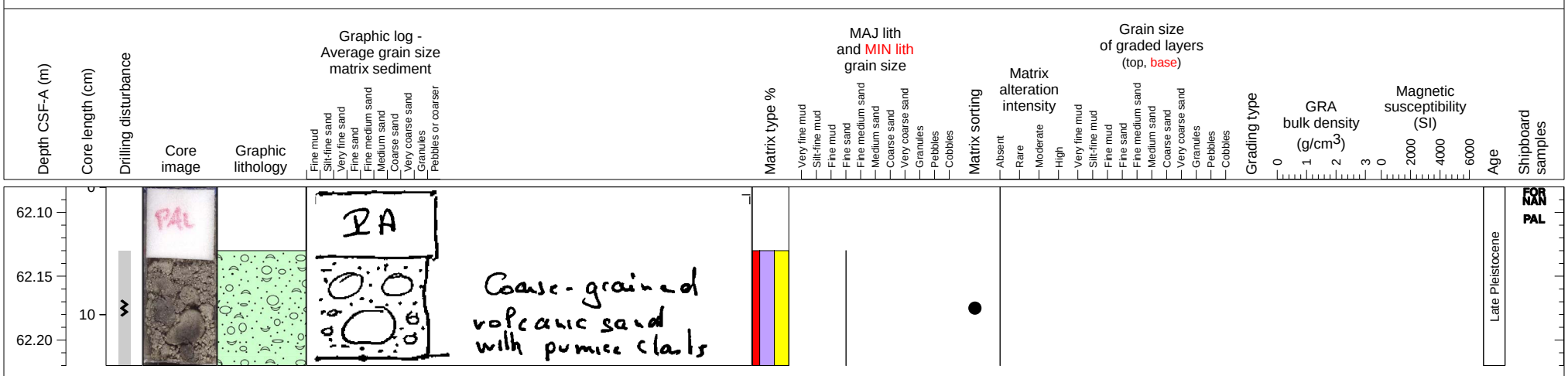
Hole 340-U1399A-7H Section 7, Top of Section: 61.6 CSF-A (m)

Thin hemipelagic sediment overlying a volcaniclastic turbidite with pumice clasts.



Hole 340-U1399A-7H Section CC, Top of Section: 62.08 CSF-A (m)

Muddy sand (Debrite) with several large andesitic clasts.



Hole 340-U1399A-8H Section 1, Top of Section: 62.1 CSF-A (m)

Hemipelagic sediment at top with three ash layers interbedded, one reverse, one normally graded. Top of a volcaniclastic tubidite at base.

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm^3)
0
1
2
3
Magnetic susceptibility (SI)
0
2000
4000
6000
Age
Shipboard samples

62.15
62.20
62.25
62.30
62.35
62.40
62.45
62.50
62.55
62.60
62.65
62.70
62.75
62.80
62.85
62.90
62.95
63.00
63.05
63.10
63.15
63.20
63.25
63.30
63.35
63.40
0
10
20
30
40
50
60
70
80
90
100
110
120

Hl
Grey hemipelagic mud

volcanic layer
(5% mass. lava
85% cryst ab
10% matrix carb.)

Grey hemipelagic mud with sand pods.

5% pumices
15% mass. lavas
70% cryst ab
10% biocarb
5% detritic carb.

volcanic sand layer normally graded at the base and reversely graded at the top.

5% pumices
15% mass. lavas
70% cryst ab
5% biocarb.
5% detr.-carb.)

Top of the thick volcaniclastic turbidite

V

Normally graded in this section with abundant pumice clasts at the base.

mud clasts.

HS
MADC
CRB XRD
Late Pleistocene

Hole 340-U1399A-8H Section 2, Top of Section: 63.4 CSF-A (m)

Reversely graded volcaniclastic turbidite

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm^3)
0
1
2
3
Magnetic susceptibility (SI)
0
2000
4000
6000
Age
Shipboard samples

63.45
63.50
63.55
63.60
63.65
63.70
63.75
63.80
63.85
63.90
63.95
64.00
64.05
64.10
64.15
64.20
64.25
64.30
64.35
64.40
64.45
64.50
64.55
64.60

0
10
20
30
40
50
60
70
80
90
100
110
120

Grey volcaniclastic turbidite
Reversely graded with abundant pumice clasts in the middle upper part
→ pumice clasts (→ 2 cm)
→ a mud clast
(V) (10% pumices
5% scorias
10% mass. lava
65% crystals
5% biocalc.
5% detritic calc'

Late Pleistocene

Hole 340-U1399A-8H Section 3, Top of Section: 64.63 CSF-A (m)

Part of a thick volcaniclastic turbidite

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm^3)
0
1
2
3
Magnetic susceptibility (SI)
0
2000
4000
6000
Age
Shipboard samples

64.65
64.70
64.75
64.80
64.85
64.90
64.95
65.00
65.05
65.10
65.15
65.20
65.25
65.30
65.35
65.40
65.45
65.50
65.55
65.60
65.65
65.70
65.75
65.80
65.85
65.90
65.95

0
10
20
30
40
50
60
70
80
90
100
110
120
130

Dark grey volcaniclastic turbidite (increasing of the proportion of pumice clasts from base to top)
(10% mass. lavas
70% crystals
20% carbonate)

V

Late Pleistocene

Hole 340-U1399A-8H Section 4, Top of Section: 65.97 CSF-A (m)

Part of thick turbidite unit

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm^3)
Magnetic susceptibility (SI)
Age
Shipboard samples

66.00
66.05
66.10
66.15
66.20
66.25
66.30
66.35
66.40
66.45
66.50
66.55
66.60
66.65
66.70
66.75
66.80
66.85
66.90
66.95
67.00
67.05
67.10
67.15
67.20
67.25

0
10
20
30
40
50
60
70
80
90
100
110
120
130

Dark grey volcaniclastic turbidite

massive

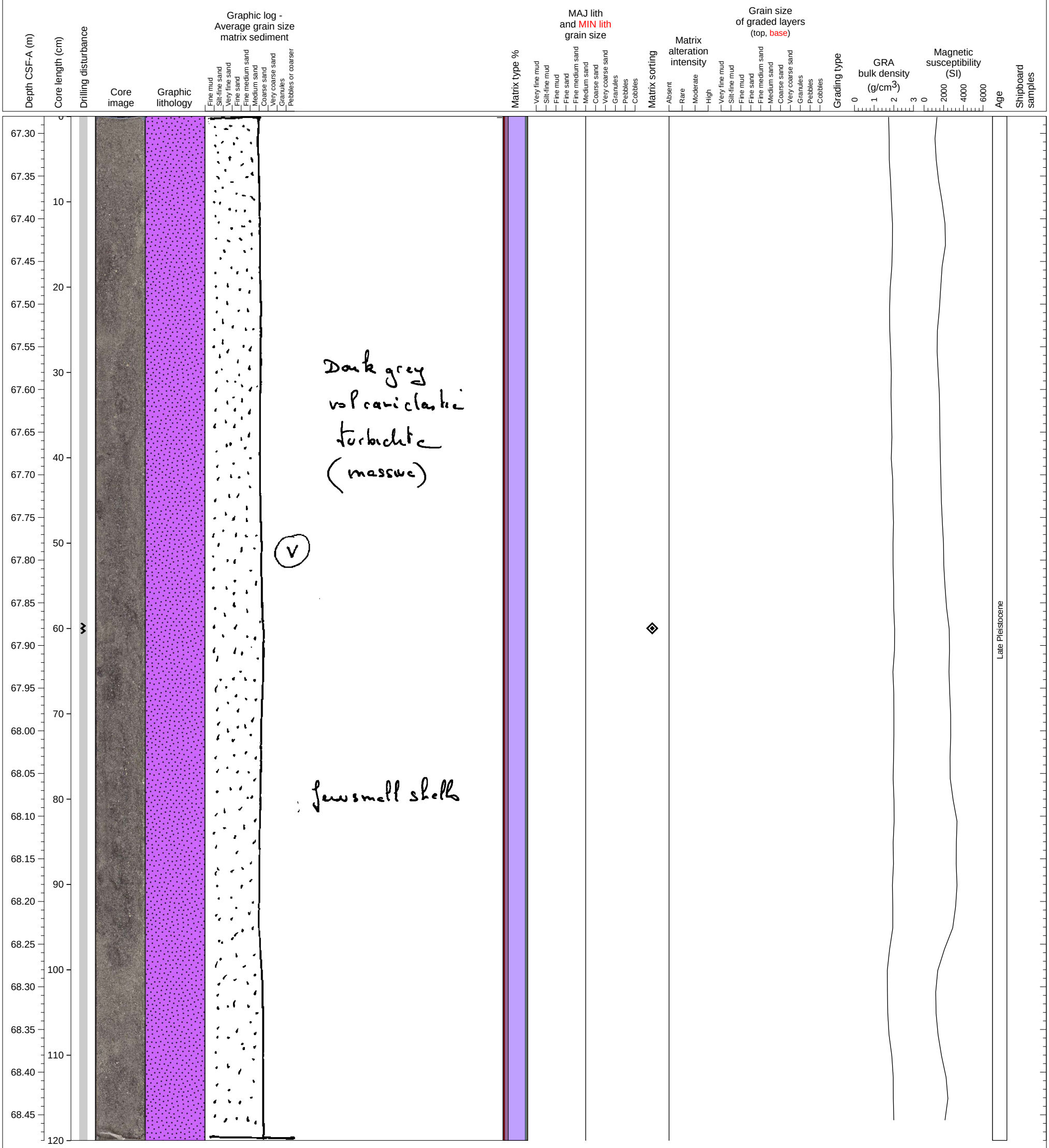
V

few pumice clasts at the top

Late Pleistocene

Hole 340-U1399A-8H Section 5, Top of Section: 67.28 CSF-A (m)

Part of thick turbidite unit



Hole 340-U1399A-8H Section 6, Top of Section: 68.48 CSF-A (m)

Part of a thick volcaniclastic turbidite

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm^3)
Magnetic susceptibility (SI)
Age
Shipboard samples

Massive
Dark grey
volcaniclastic
turbidite
(75% crystals
5% mass. Lava
5% pumice
15% carbonates)

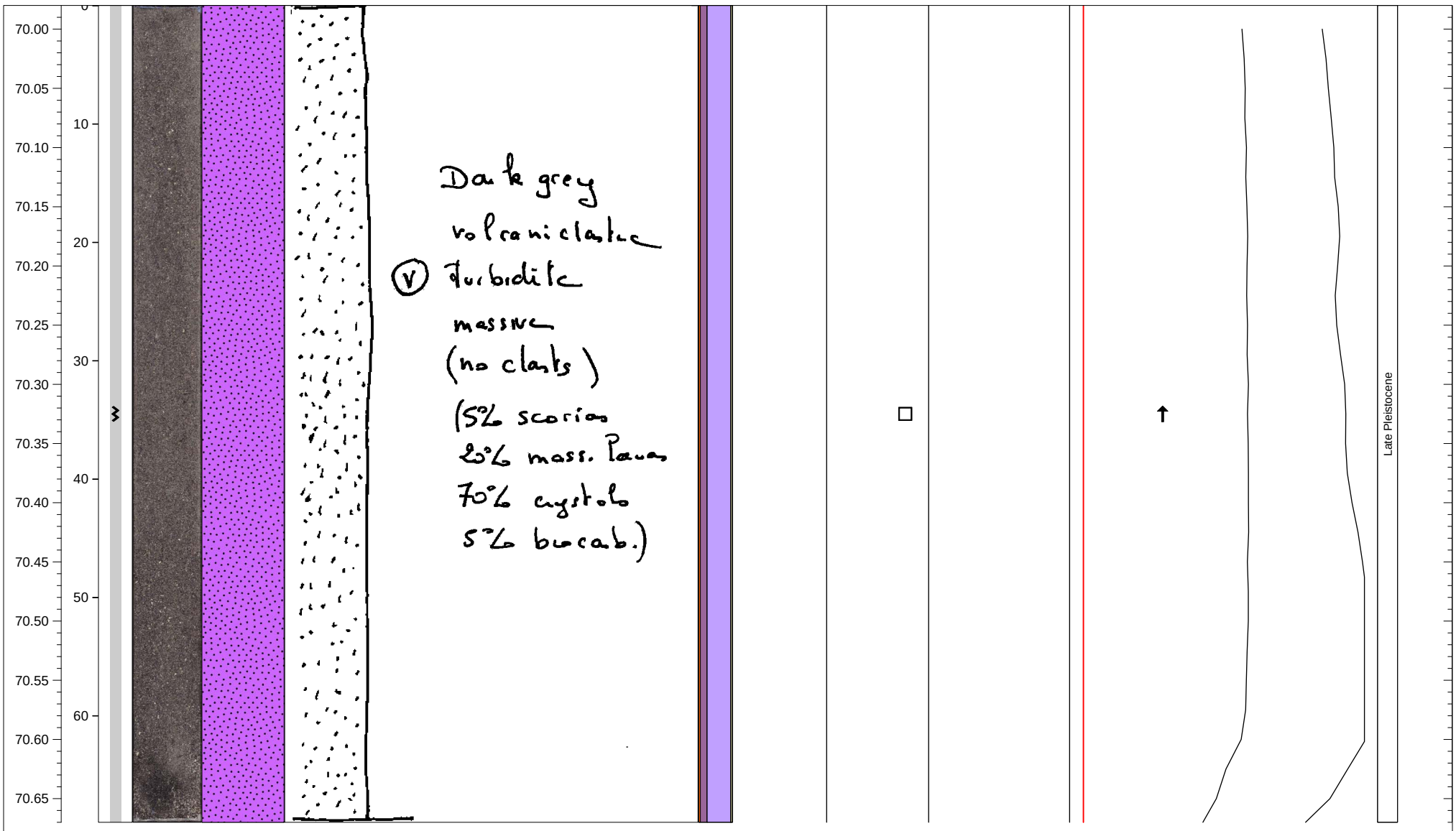
V

Few small shells

Late Pleistocene

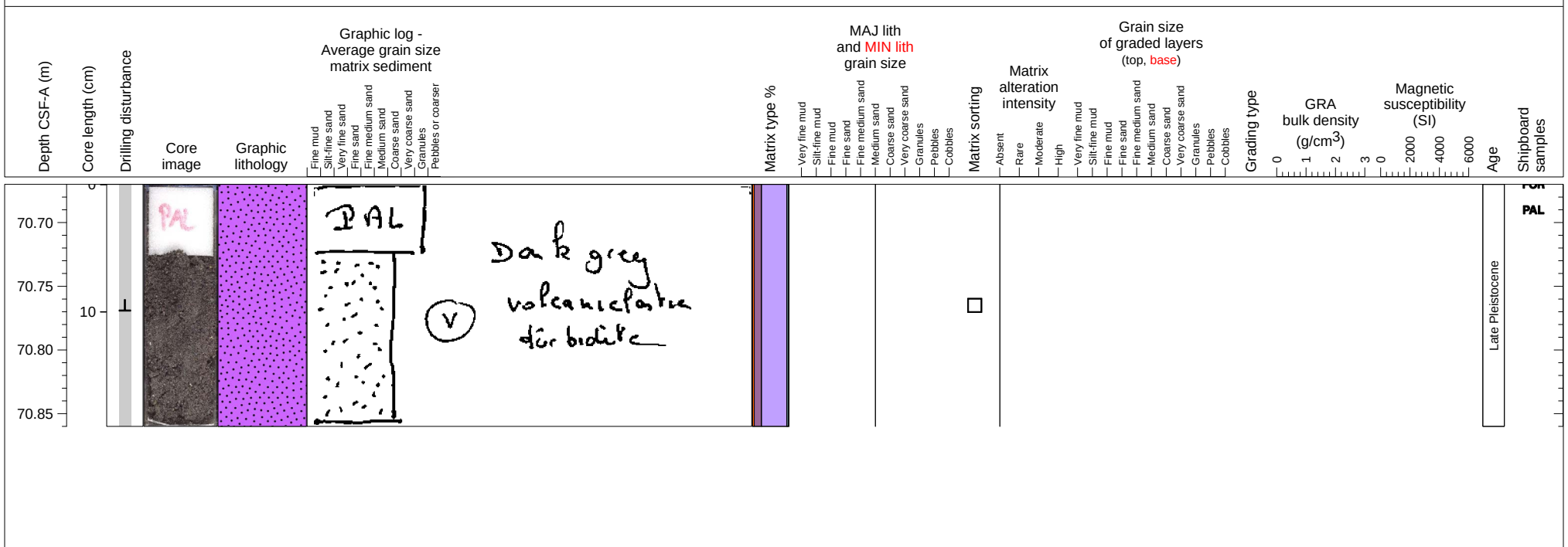
Hole 340-U1399A-8H Section 7, Top of Section: 69.98 CSF-A (m)

Part of thick turbidite unit



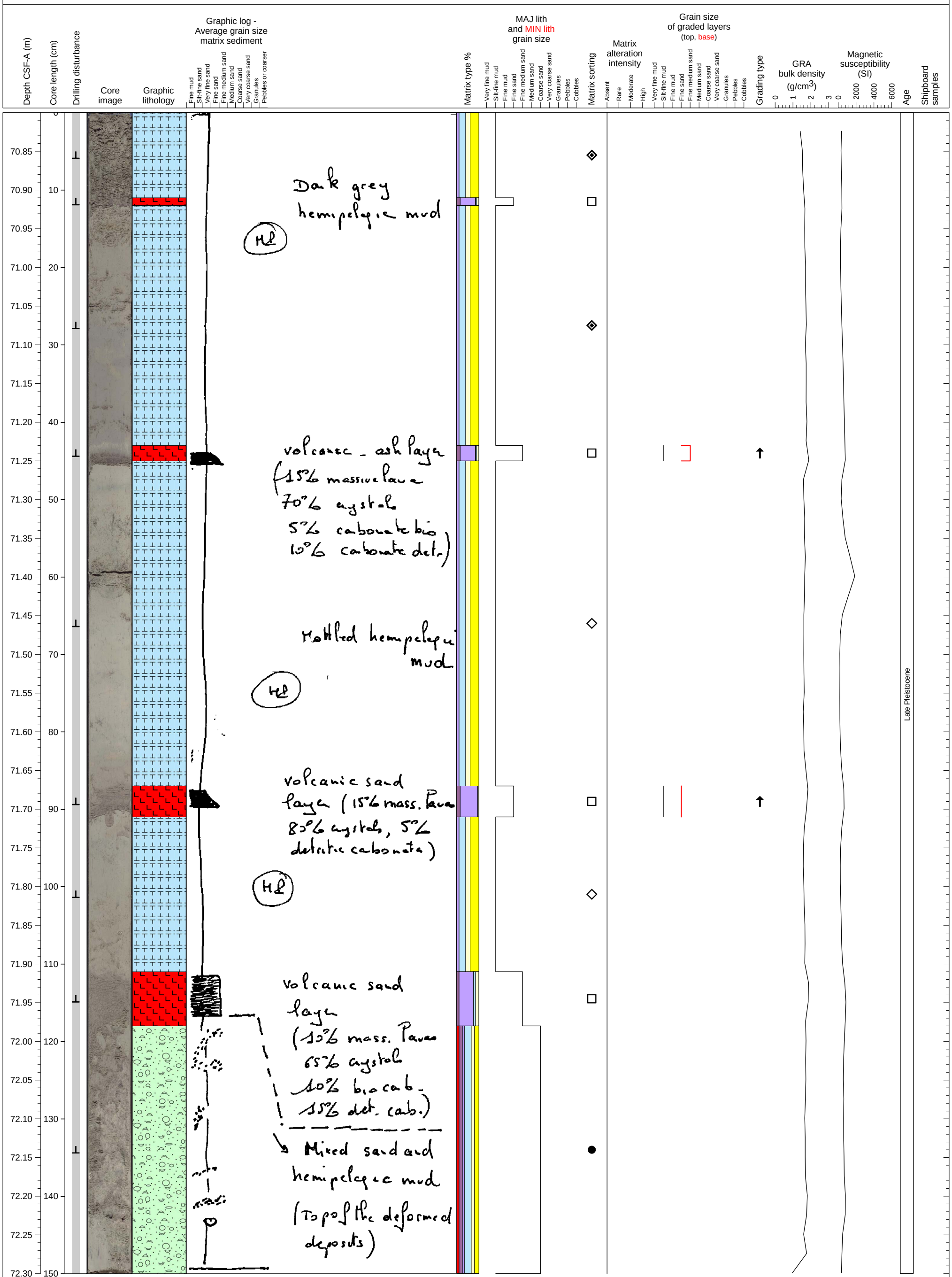
Hole 340-U1399A-8H Section CC, Top of Section: 70.67 CSF-A (m)

Part of thick turbidite unit



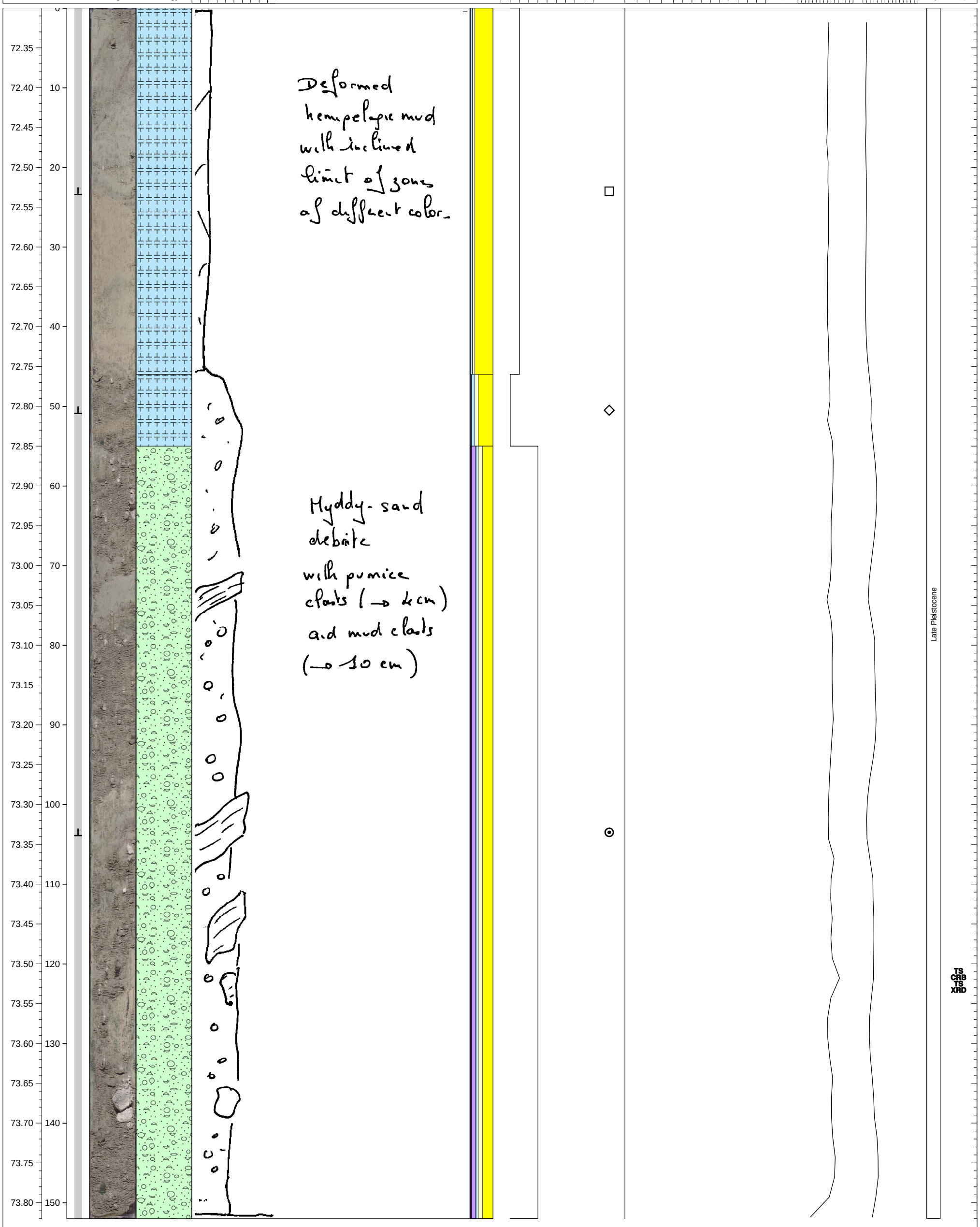
Hole 340-U1399A-9H Section 1, Top of Section: 70.8 CSF-A (m)

Hemipelagic sediments with intercalated tephra layers and debris flow deposit at the base



Hole 340-U1399A-9H Section 2, Top of Section: 72.3 CSF-A (m)

Debris flow facies occupies the most of this section.



Hole 340-U1399A-9H Section 3, Top of Section: 73.82 CSF-A (m)

Debris flow deposit

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm3)
Magnetic susceptibility (SI)
Age
Shipboard samples

73.85 / 10
73.90
73.95
74.00 / 20
74.05
74.10 / 30
74.15
74.20 / 40
74.25
74.30 / 50
74.35
74.40 / 60
74.45
74.50 / 70
74.55
74.60 / 80
74.65
74.70 / 90
74.75
74.80 / 100
74.85
74.90 / 110
74.95
75.00 / 120
75.05
75.10 / 130
75.15
75.20 / 140
75.25
75.30 / 150

Muddy sand debrite with pumice clasts

Highly deformed hemipelagic mud with inclined contact between zon of different color

Muddy sand debrite with large rounded pumice clasts

pumice clasts

Late Pleistocene

SED

Hole 340-U1399A-9H Section 4, Top of Section: 75.32 CSF-A (m)

Debris flow deposit overlying hemipelagite intercalated with 1 thin reddish grey ash layer

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm^3)
Magnetic susceptibility (SI)
Age
Shipboard samples

Muddy-sand debrite with abundant pumice clasts and mud clasts

mud clasts

base of the deformed zone

Highly mottled hemipelagic mud (grey-brown green)

Mottled hemipelagic mud

top of the volcanic layer of section 5

Late Pleistocene

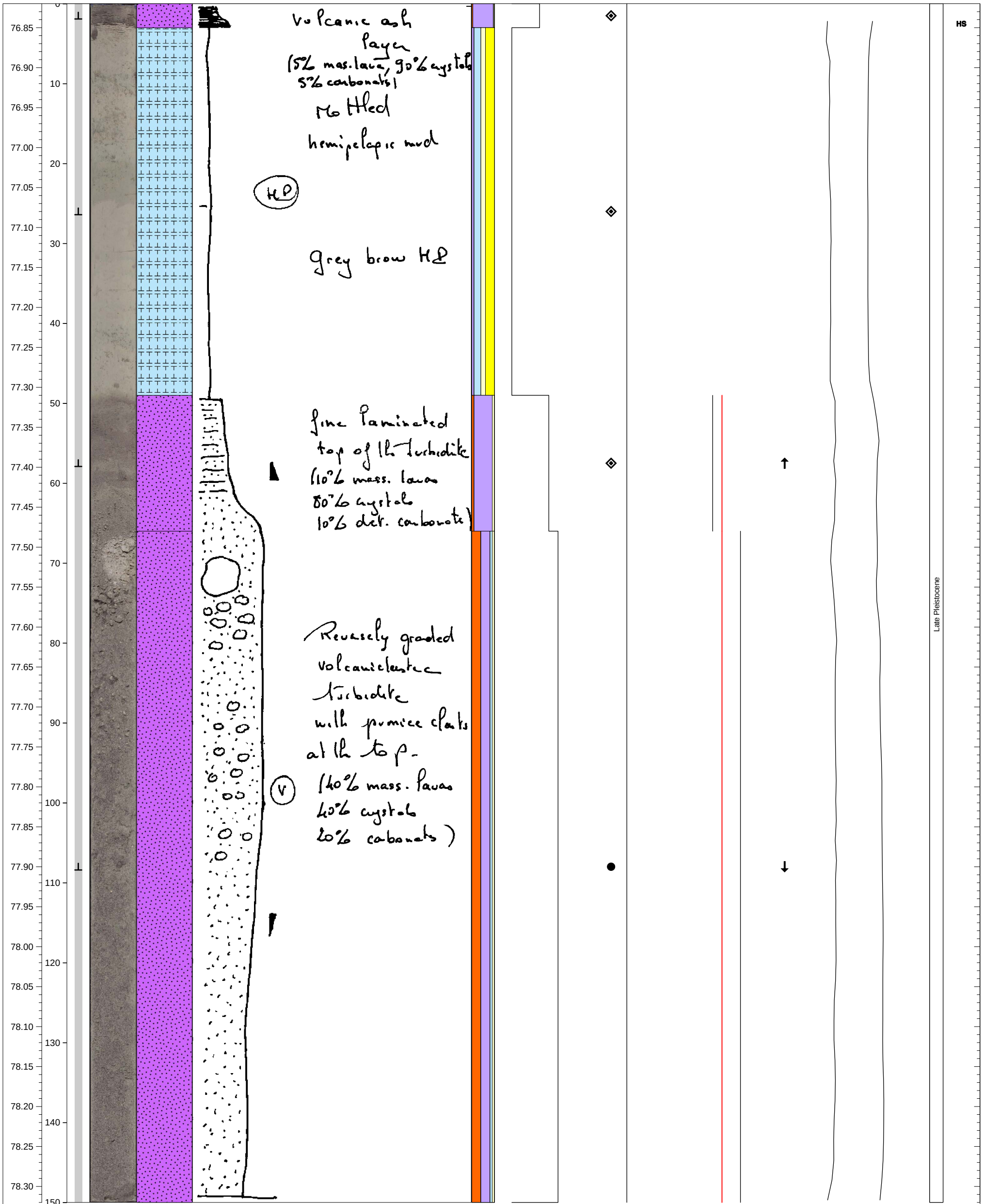
SED

MADC

XRD
CRB

Hole 340-U1399A-9H Section 5, Top of Section: 76.82 CSF-A (m)

Volcaniclastic turbidite intercalated with hemipelagic sediment and volcanic ash layers



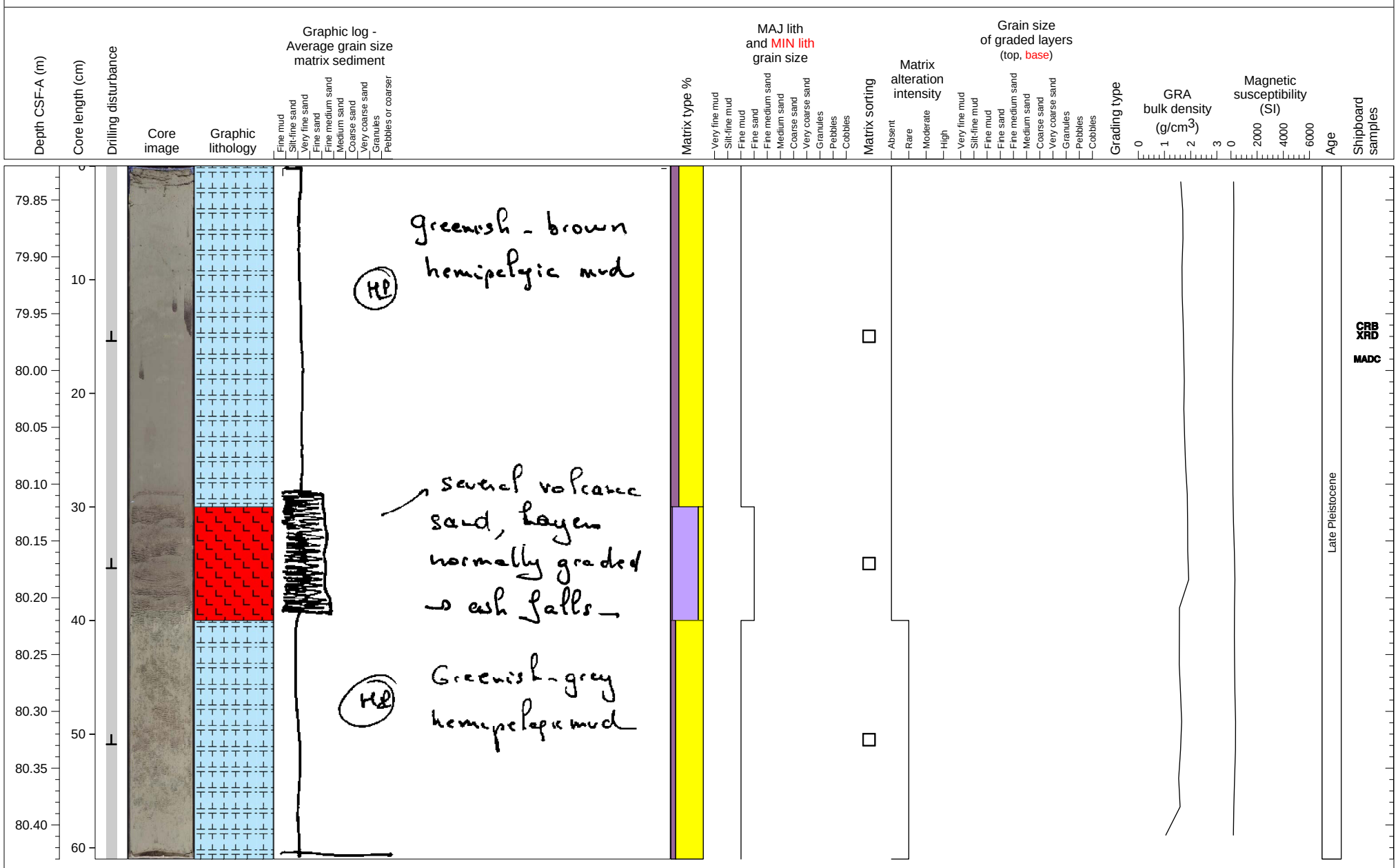
Hole 340-U1399A-9H Section 6, Top of Section: 78.32 CSF-A (m)

Hemipelagic sediments with several thin, bioturbated volcaniclastic sand (ashfall) layers. Top of the section is base of a turbidite unit.

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm^3)
0
1
2
3
Magnetic susceptibility (SI)
0
2000
4000
6000
Age
Shipboard samples
PMG
78.35
78.40
78.45
78.50
78.55
78.60
78.65
78.70
78.75
78.80
78.85
78.90
78.95
79.00
79.05
79.10
79.15
79.20
79.25
79.30
79.35
79.40
79.45
79.50
79.55
79.60
79.65
79.70
79.75
79.80
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
base of the volcaniclastic turbidite
V
HP
Mottled greenish grey - brown hemipelagic mud
volcanic sand layer → ash fall
(5% massive lacus)
85% cryst lob
10% mafic carb)
Mottled greenish grey - brown hemipelagic mud
HP
volcanic sand layer → ash fall
PMG
Late Pleistocene

Hole 340-U1399A-9H Section 7, Top of Section: 79.82 CSF-A (m)

Hemipelagic sediment with a bedded ashfall unit.



Hole 340-U1399A-9H Section CC, Top of Section: 80.43 CSF-A (m)

Hemipelagic mud

Hole 340-U1399A-10H Section 1, Top of Section: 80.3 CSF-A (m)

Hemipelagic sediment with intercalated volcanic ash layers

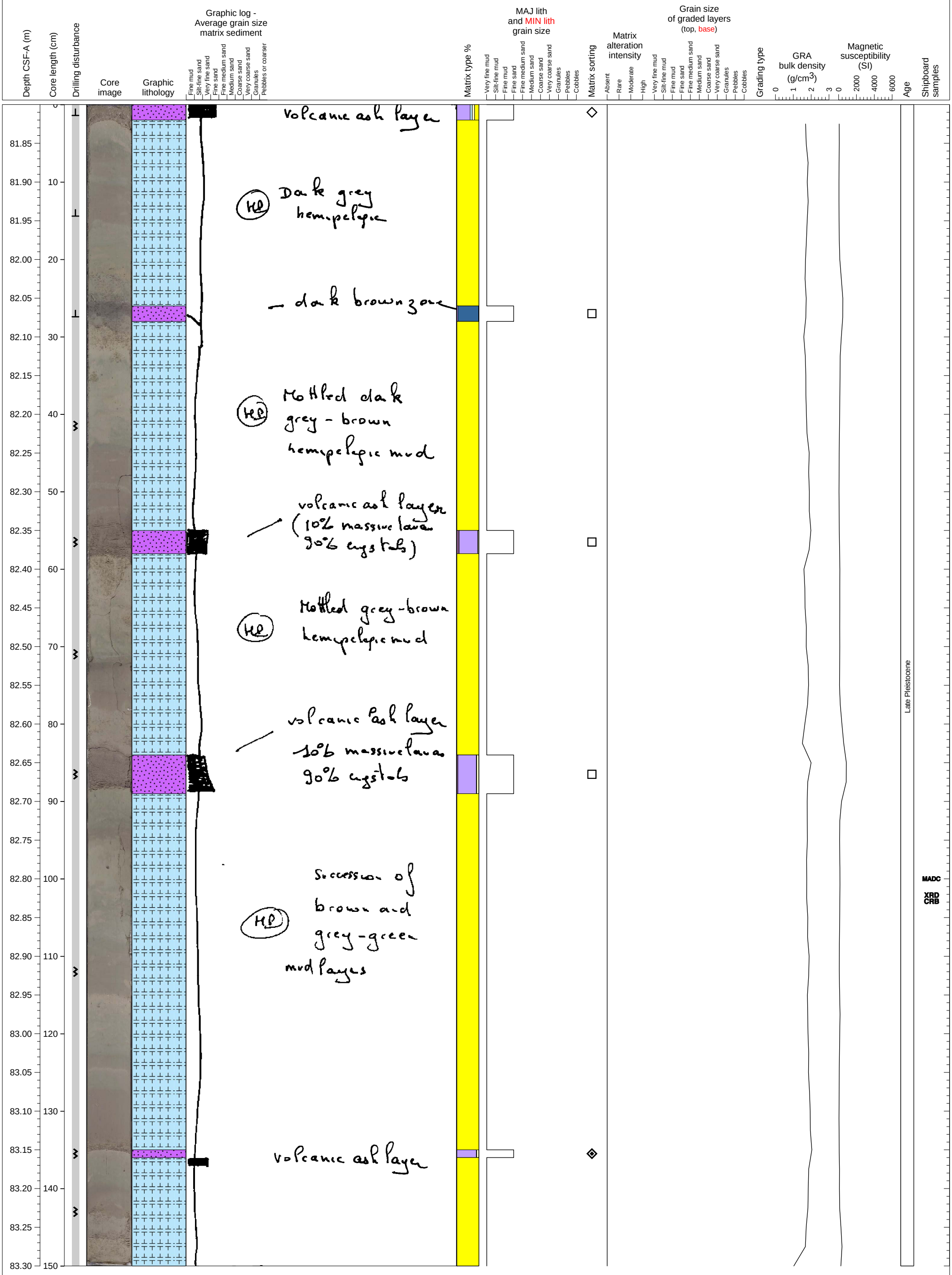
Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud | Silt-fine sand | Very fine sand | Fine sand | Fine medium sand | Medium sand | Coarse sand | Very coarse sand | Granules | Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud | Silt-fine mud | Fine mud | Fine sand | Fine medium sand | Medium sand | Coarse sand | Very coarse sand | Granules | Pebbles | Cobbles
Matrix sorting
Matrix alteration intensity
Absent | Rare | Moderate | High
Grain size of graded layers (top, base)
Very fine mud | Silt-fine mud | Fine mud | Fine sand | Fine medium sand | Medium sand | Coarse sand | Very coarse sand | Granules | Pebbles | Cobbles
Grading type
GRA bulk density (g/cm^3)
0 | 1 | 2 | 3
Magnetic susceptibility (SI)
0 | 2000 | 4000 | 6000
Age
Shipboard samples

80.35 / 10 — HP — Dark grey hemipelagic mud
80.40 / 10 — volcanic ash layer (70% crystals 30% matrix carb.)
80.45
80.50 / 20
80.55
80.60 / 30 — Grey hemipelagic mud
80.65
80.70 / 40
80.75
80.80 / 50 — → very fine dark grey mud
80.85
80.90 / 60 — → Mottled - grey dark grey HP
80.95
81.00 / 70
81.05 — HP
81.10 / 80
81.15
81.20 / 90
81.25 — → green layer
81.30 / 100
81.35
81.40 / 110
81.45 — volcanic ash layer (inclined contact) 10% mass. layer 70% crystals 20% matrix carb.)
81.50 / 120 — Mottled grey - dark
81.55
81.60 / 130 — HP — grey - green hemipelagic mud
81.65
81.70 / 140
81.75
81.80 / 150

Late Pleistocene

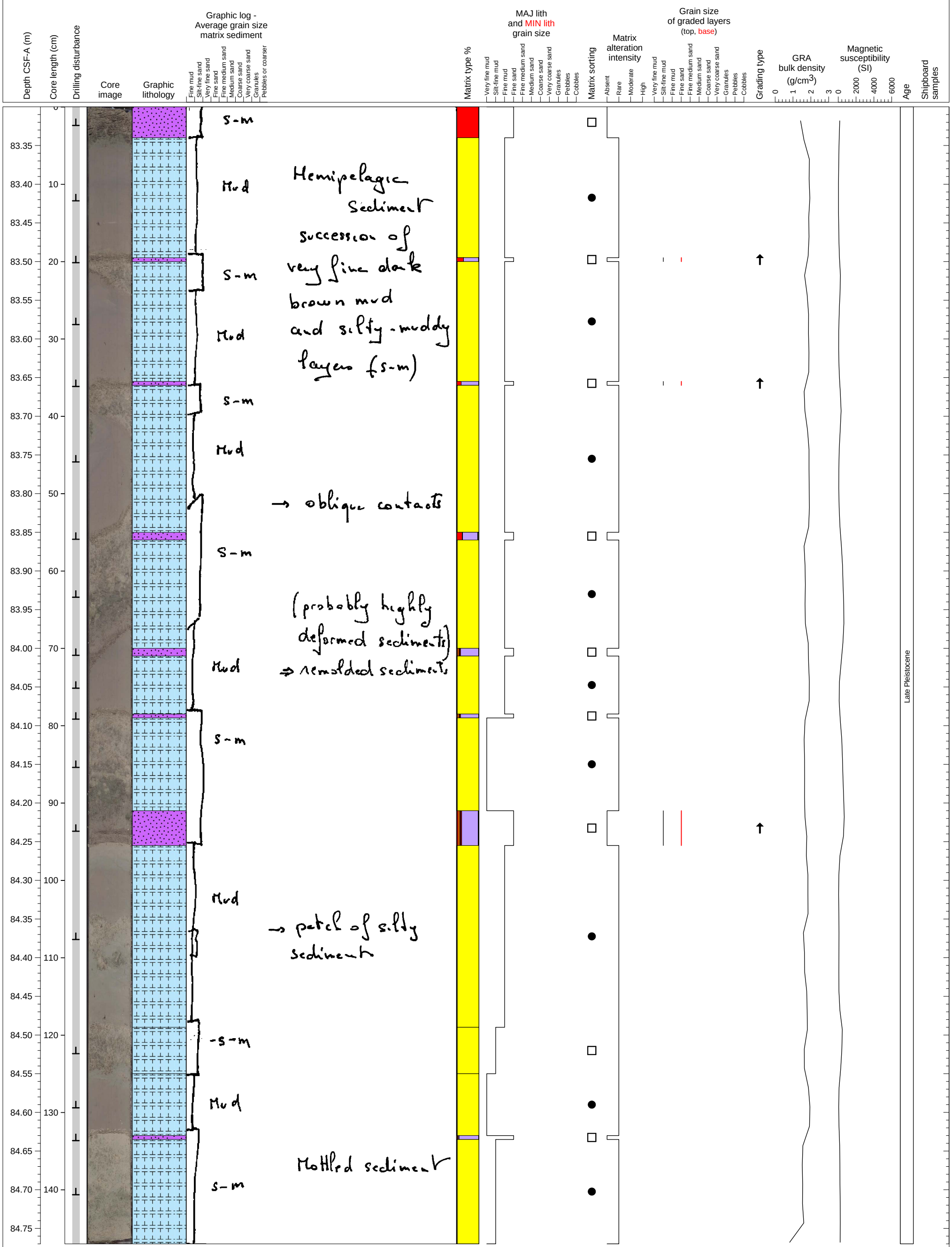
Hole 340-U1399A-10H Section 2, Top of Section: 81.8 CSF-A (m)

Hemipelagic very fine mud with several thin ashfall layers.



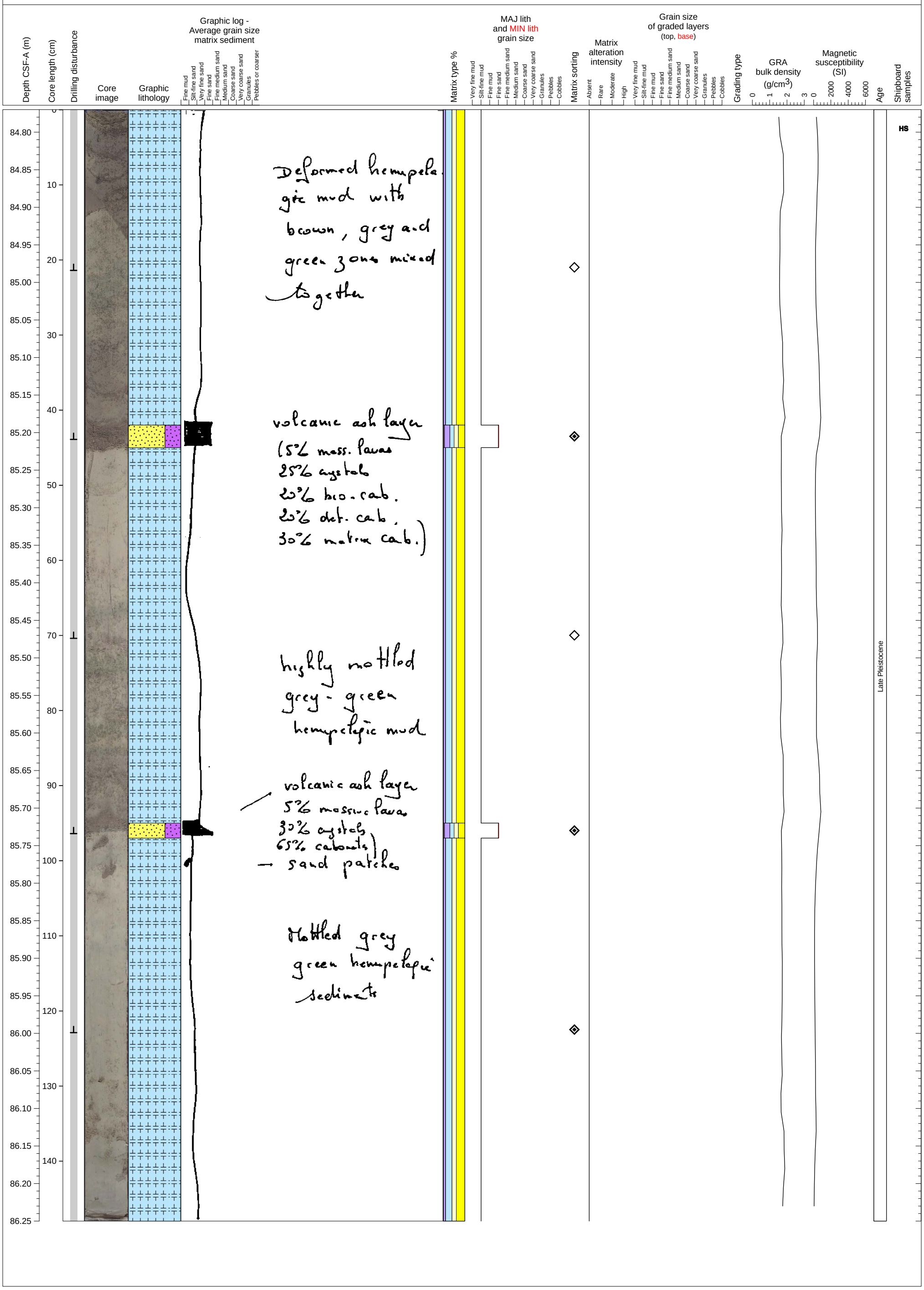
Hole 340-U1399A-10H Section 3, Top of Section: 83.3 CSF-A (m)

Hemipelagic clay interlayerd with multiple thin tephra layers.



Hole 340-U1399A-10H Section 4, Top of Section: 84.77 CSF-A (m)

Alternation of hemipelagic ooze and calcareous sand. Sand layers contain about 30 % of volcanic materials.



Hole 340-U1399A-10H Section 5, Top of Section: 86.25 CSF-A (m)

Hemipelagic clay interlayered with multiple thin tephra.

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm3)
Magnetic susceptibility (SI)
Age
Shipboard samples

86.30 – 10
86.35
86.40
86.45 – 20
86.50
86.55 – 30
86.60
86.65 – 40
86.70
86.75 – 50
86.80
86.85 – 60
86.90
86.95 – 70
87.00
87.05 – 80
87.10
87.15 – 90
87.20
87.25 – 100
87.30
87.35 – 110
87.40
87.45 – 120
87.50
87.55 – 130
87.60
87.65 – 140
87.70

very dark grey fine hemipelagic mud (→ clay)

HL

Three fine volcanic ash layers

Mixed dark grey and grey hemipelagic mud (→ deformation?)

HD

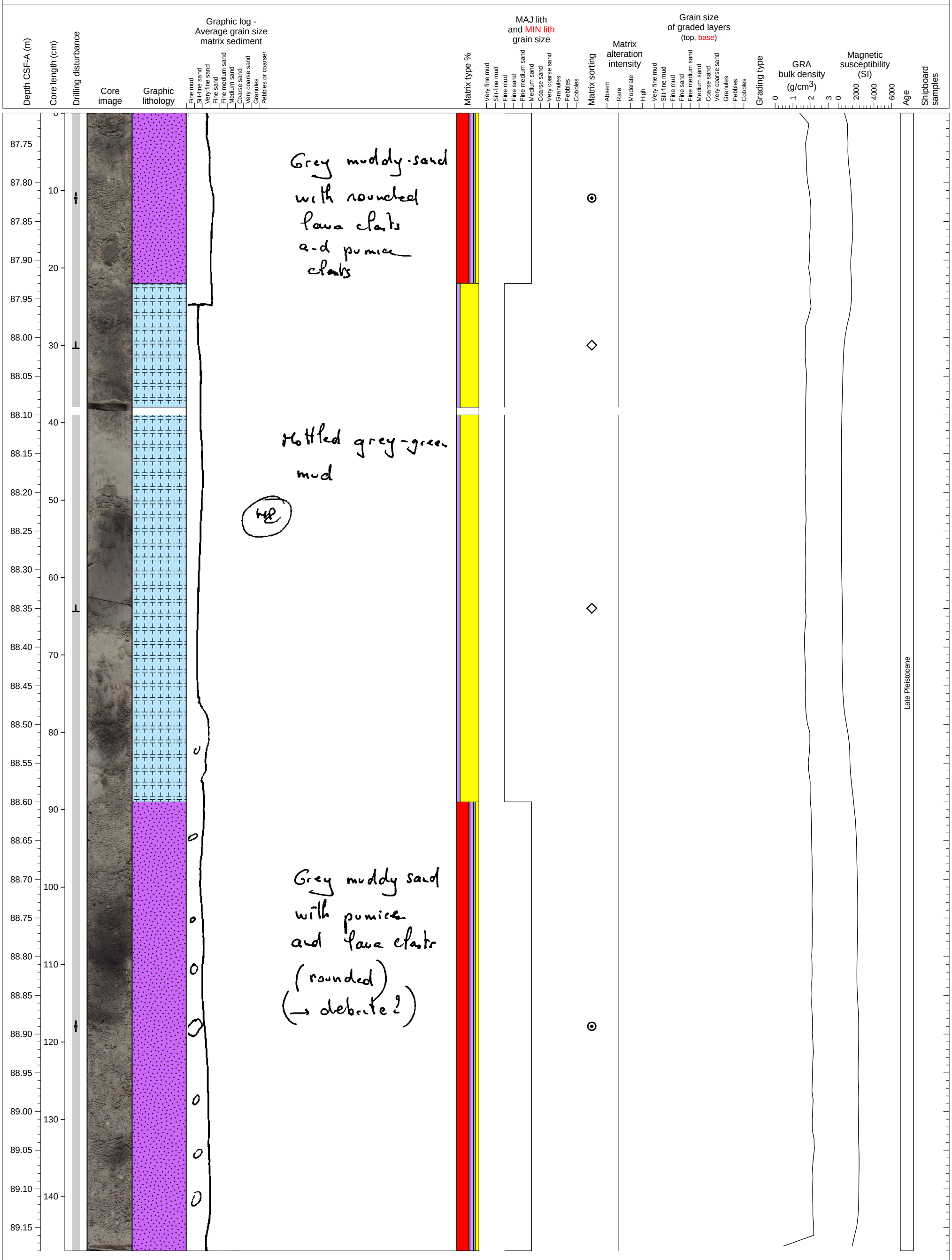
More silty hemipelagic sediment

Late Pleistocene

XRD
CRB
MADC
PMG

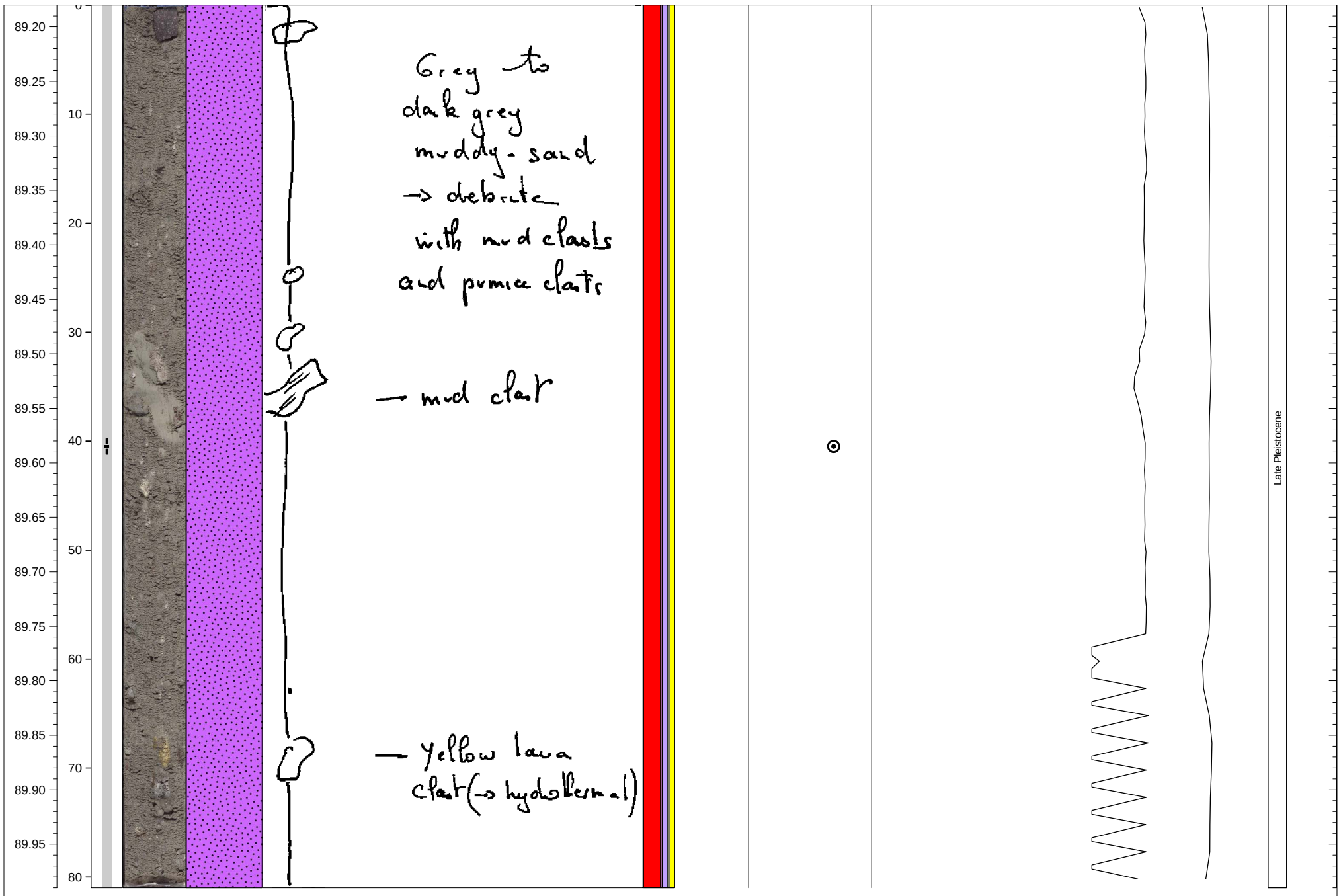
Hole 340-U1399A-10H Section 6, Top of Section: 87.71 CSF-A (m)

Clast-rich volcaniclastic sand unit interlayered with hemipelagic mud.



Hole 340-U1399A-10H Section 7, Top of Section: 89.18 CSF-A (m)

Volcaniclastic sand unit with abundant igneous and sedimentary clasts.

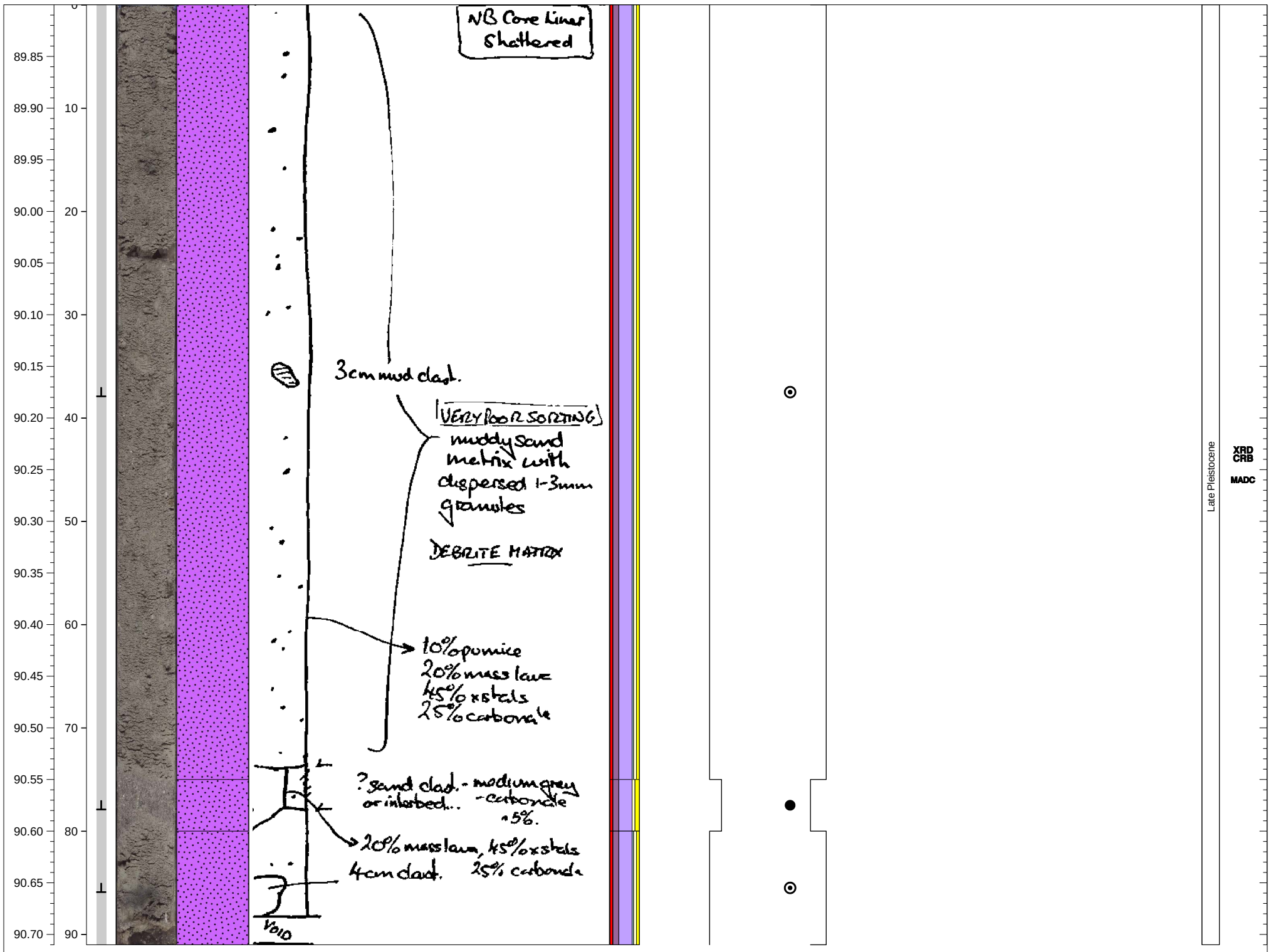


Hole 340-U1399A-10H Section CC, Top of Section: 89.99 CSF-A (m)

Clast-rich volcaniclastic sand unit. PAL sample from top.

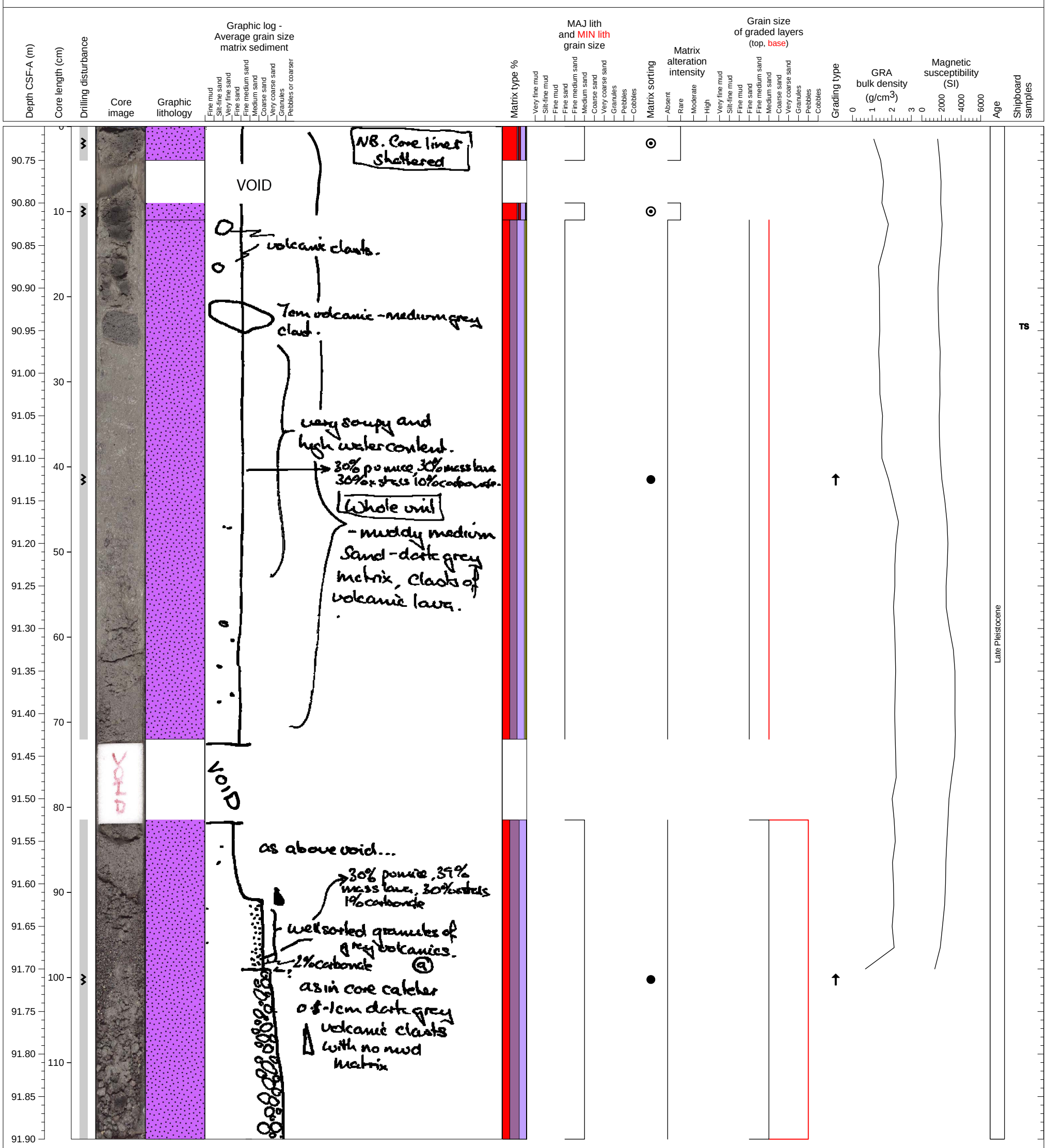
Hole 340-U1399A-11H Section 1, Top of Section: 89.8 CSF-A (m)

Massive poor-sorted volcaniclastic sand interlayerd with a relatively well-sorted sand layer.



Hole 340-U1399A-11H Section 2, Top of Section: 90.71 CSF-A (m)

Volcaniclastic sand units, some normally graded.

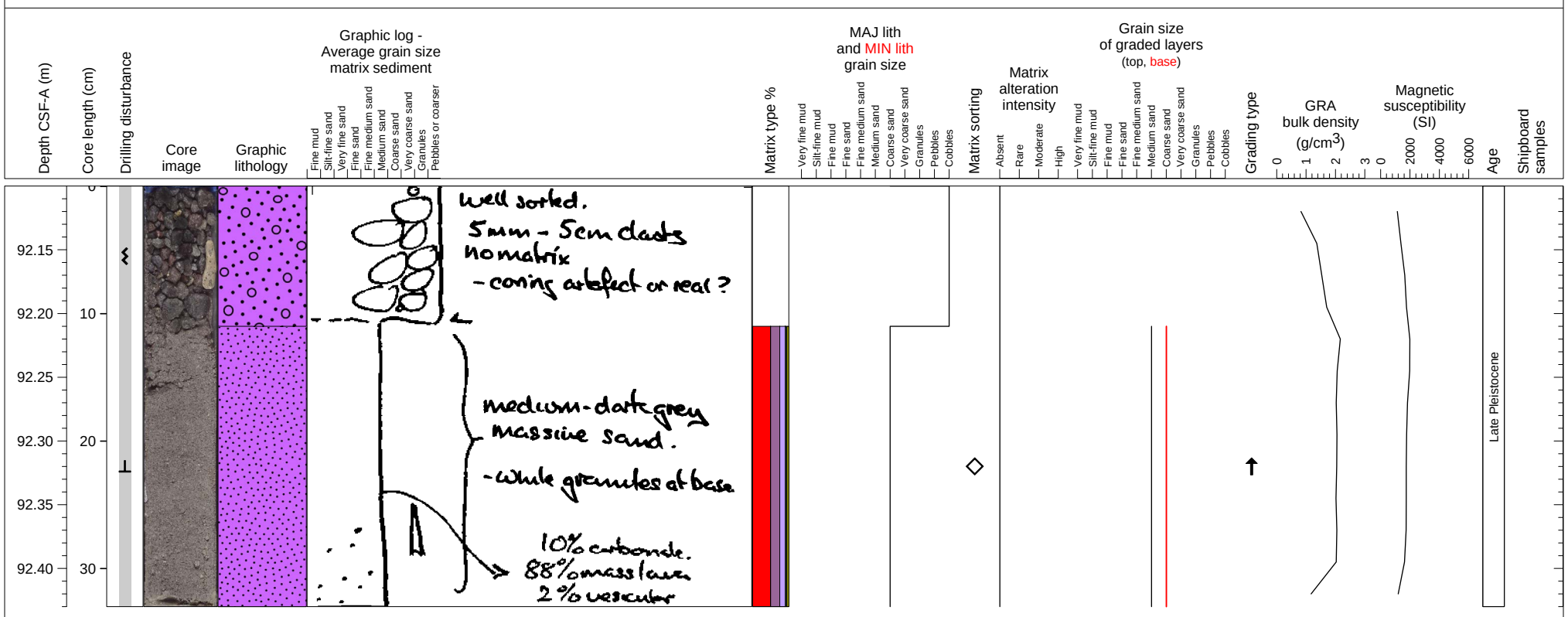


Hole 340-U1399A-11H Section CC, Top of Section: 91.9 CSF-A (m)

Volcaniclastic gravel composed mainly of volcanic clasts.

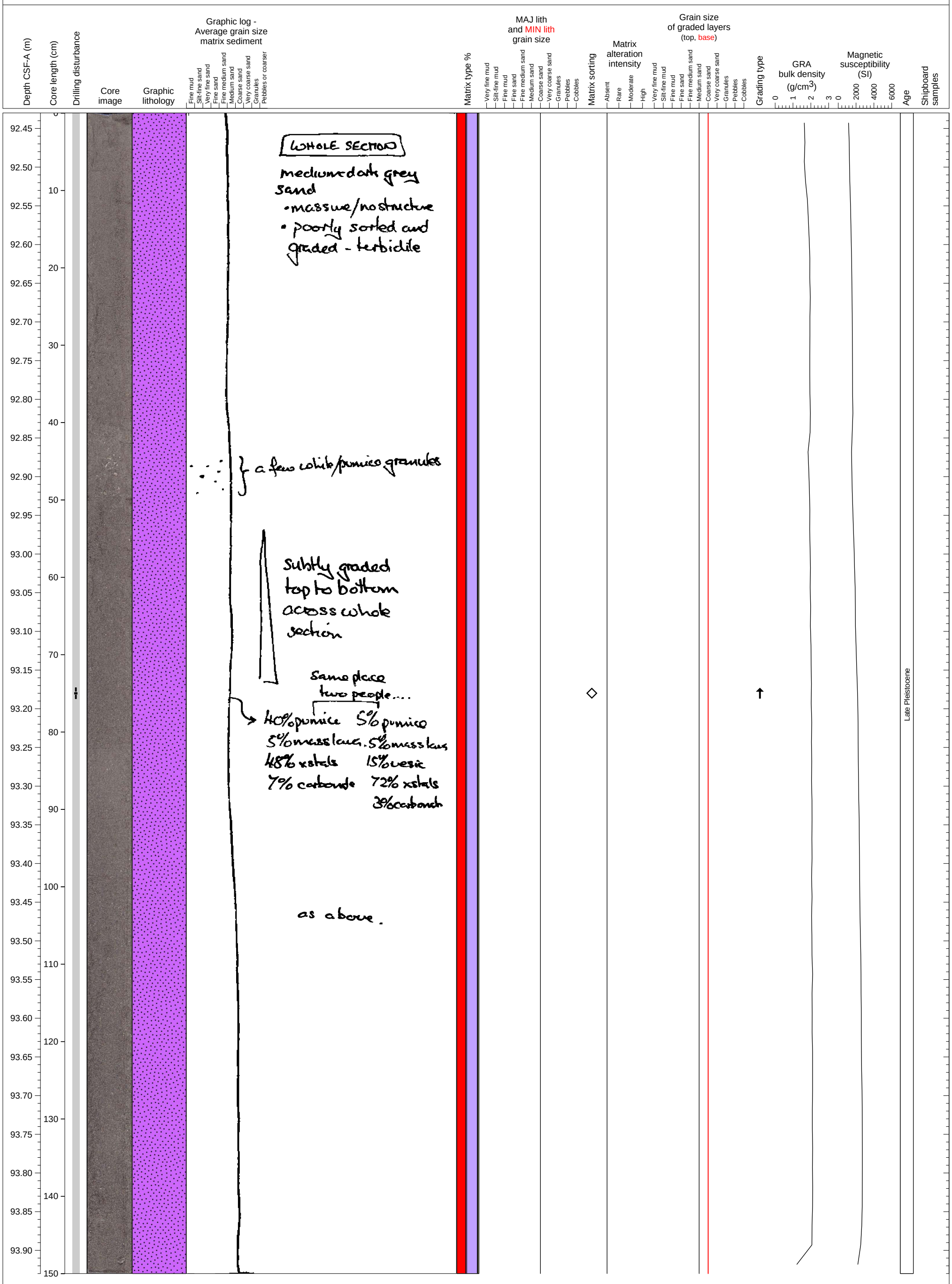
Hole 340-U1399A-12H Section 1, Top of Section: 92.1 CSF-A (m)

Massive volacniclastic sand overlied by volcaniclastic gravel caused by drilling disturbance.



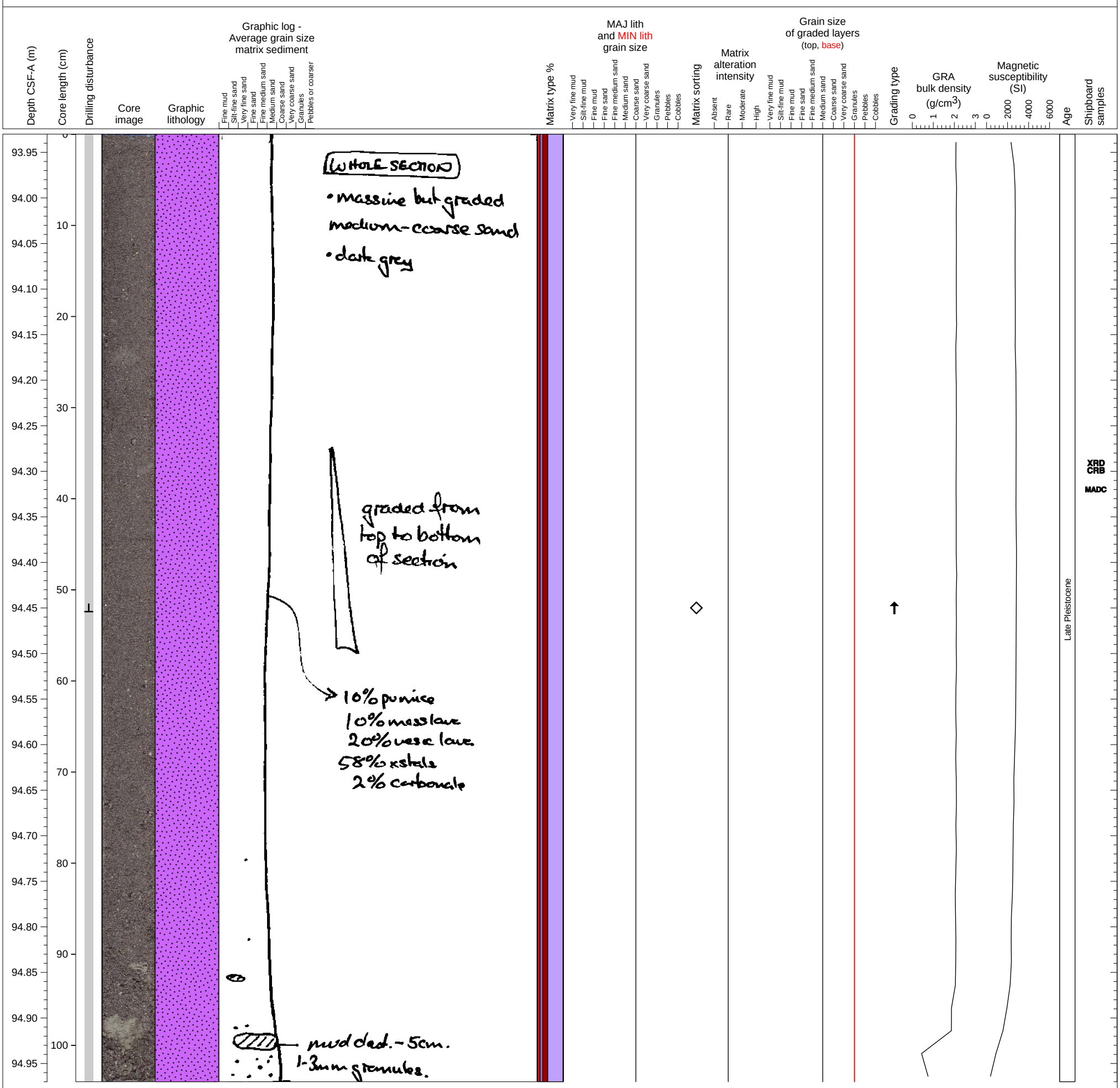
Hole 340-U1399A-12H Section 2, Top of Section: 92.43 CSF-A (m)

Normally graded massive volcaniclastic turbidite.



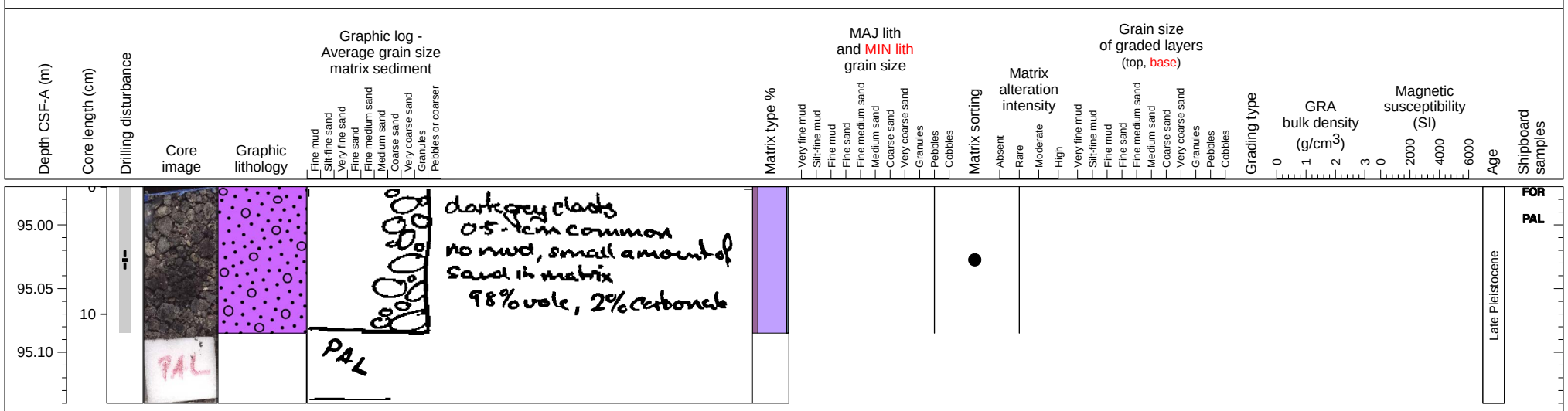
Hole 340-U1399A-12H Section 3, Top of Section: 93.93 CSF-A (m)

Normally graded volcaniclastic sand unit; grading from granule to medium sand.



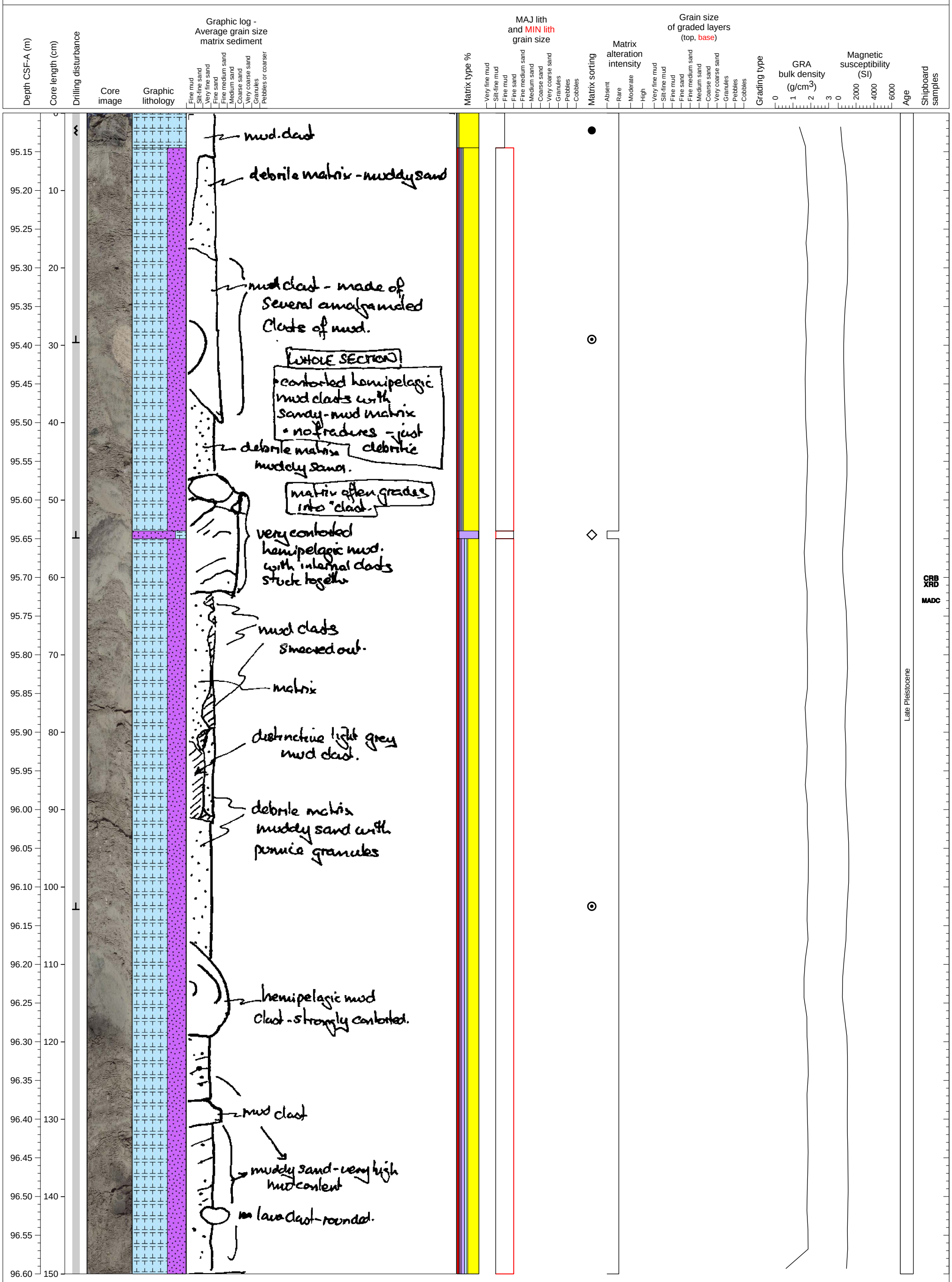
Hole 340-U1399A-12H Section CC, Top of Section: 94.97 CSF-A (m)

Volcaniclastic gravel deposit. PAL sample from base.



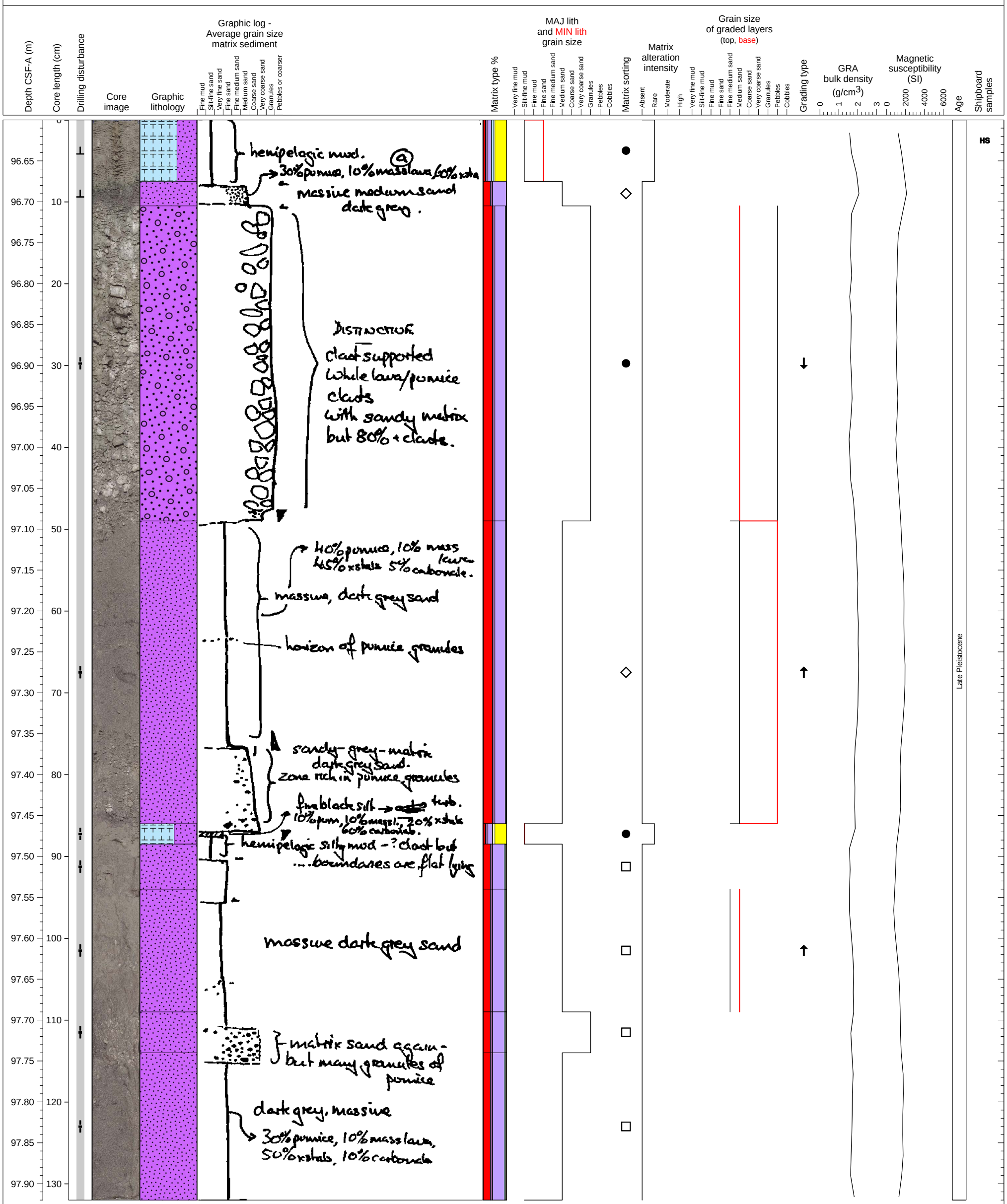
Hole 340-U1399A-13H Section 1, Top of Section: 95.1 CSF-A (m)

Debris flow deposit containing abundant deformed hemipelagic clay clasts. Pumice and massive lave clasts are also contained.



Hole 340-U1399A-13H Section 2, Top of Section: 96.6 CSF-A (m)

Pumiceous turbidites with grain-size layering.



Hole 340-U1399A-13H Section 3, Top of Section: 97.92 CSF-A (m)

Clast-rich volcaniclastic sand unit.

Depth CSF-A (m) | Core length (cm) | Drilling disturbance | Core image | Graphic lithology | Graphic log - Average grain size matrix sediment (Fine mud, Silt-fine sand, Very fine sand, Fine sand, Fine medium sand, Medium sand, Coarse sand, Very coarse sand, Granules, Pebbles or coarser) | Matrix type % | MAJ lith and MIN lith grain size (Very fine mud, Silt-fine mud, Fine mud, Fine sand, Fine medium sand, Medium sand, Coarse sand, Very coarse sand, Granules, Pebbles, Cobbles) | Matrix sorting | Matrix alteration intensity (Absent, Rare, Moderate, High) | Grain size of graded layers (top, base) (Very fine mud, Silt-fine mud, Fine mud, Fine sand, Fine medium sand, Medium sand, Coarse sand, Very coarse sand, Granules, Pebbles, Cobbles) | Grading type | GRA bulk density (g/cm^3) (0, 1, 2, 3) | Magnetic susceptibility (SI) (0, 2000, 4000, 6000) | Age | Shipboard samples

97.95 / 0
98.00 / 10
98.05
98.10 / 20
98.15
98.20 / 30
98.25
98.30 / 40
98.35
98.40 / 50
98.45
98.50 / 60
98.55
98.60 / 70
98.65
98.70 / 80
98.75
98.80 / 90
98.85
98.90 / 100
98.95
99.00 / 110
99.05
99.10 / 120
99.15
99.20

WHOLE SECTION

dark grey massive sand forms matrix
- usually ungraded

- more abundant pumice granules than 13H-4 - sometimes concentrated

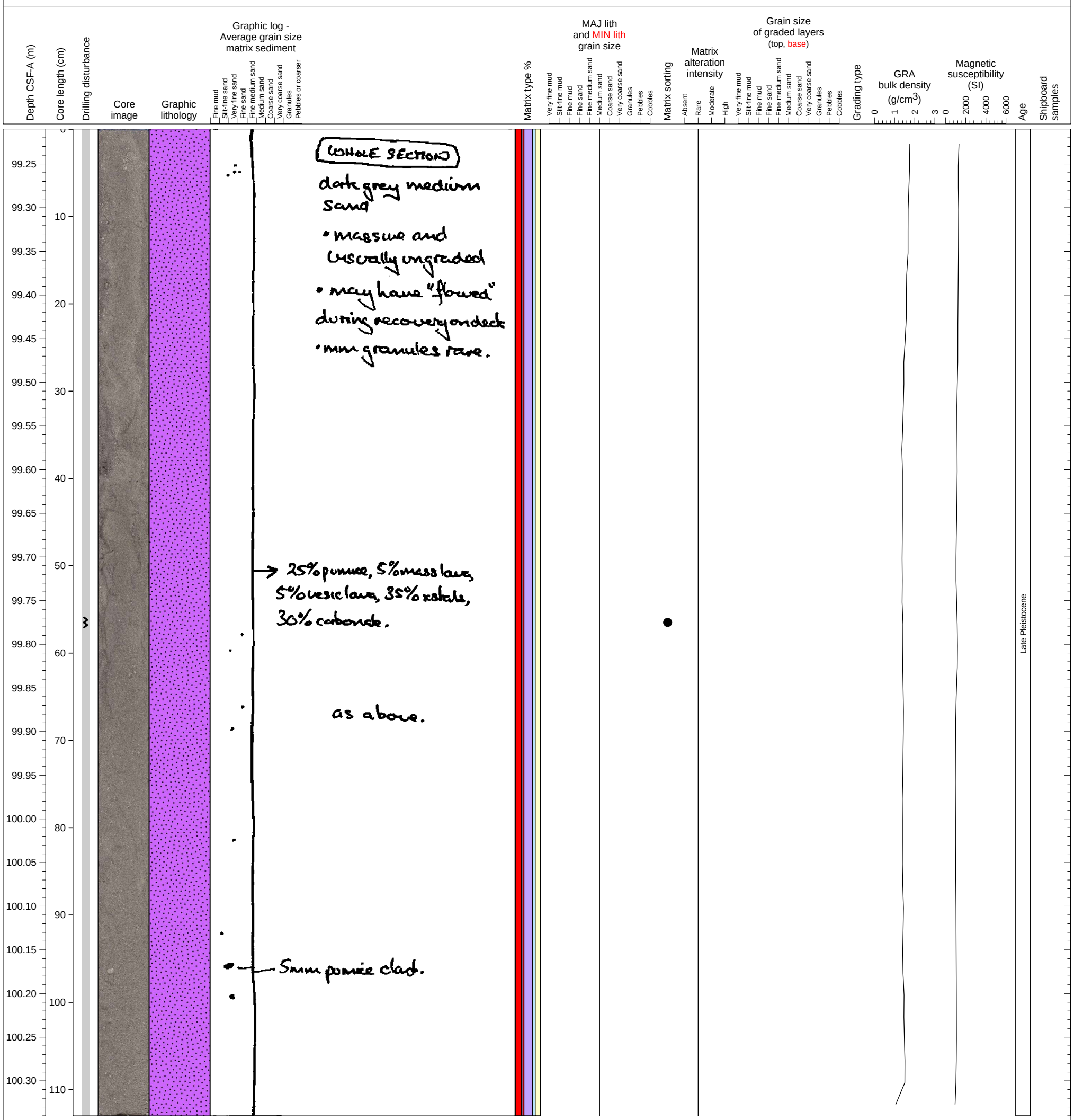
- may have flowed during drilling

20% punice, 10% mass lava, 10% vesic lava, 25% xstals, 35% carbonate.

Late Pleistocene

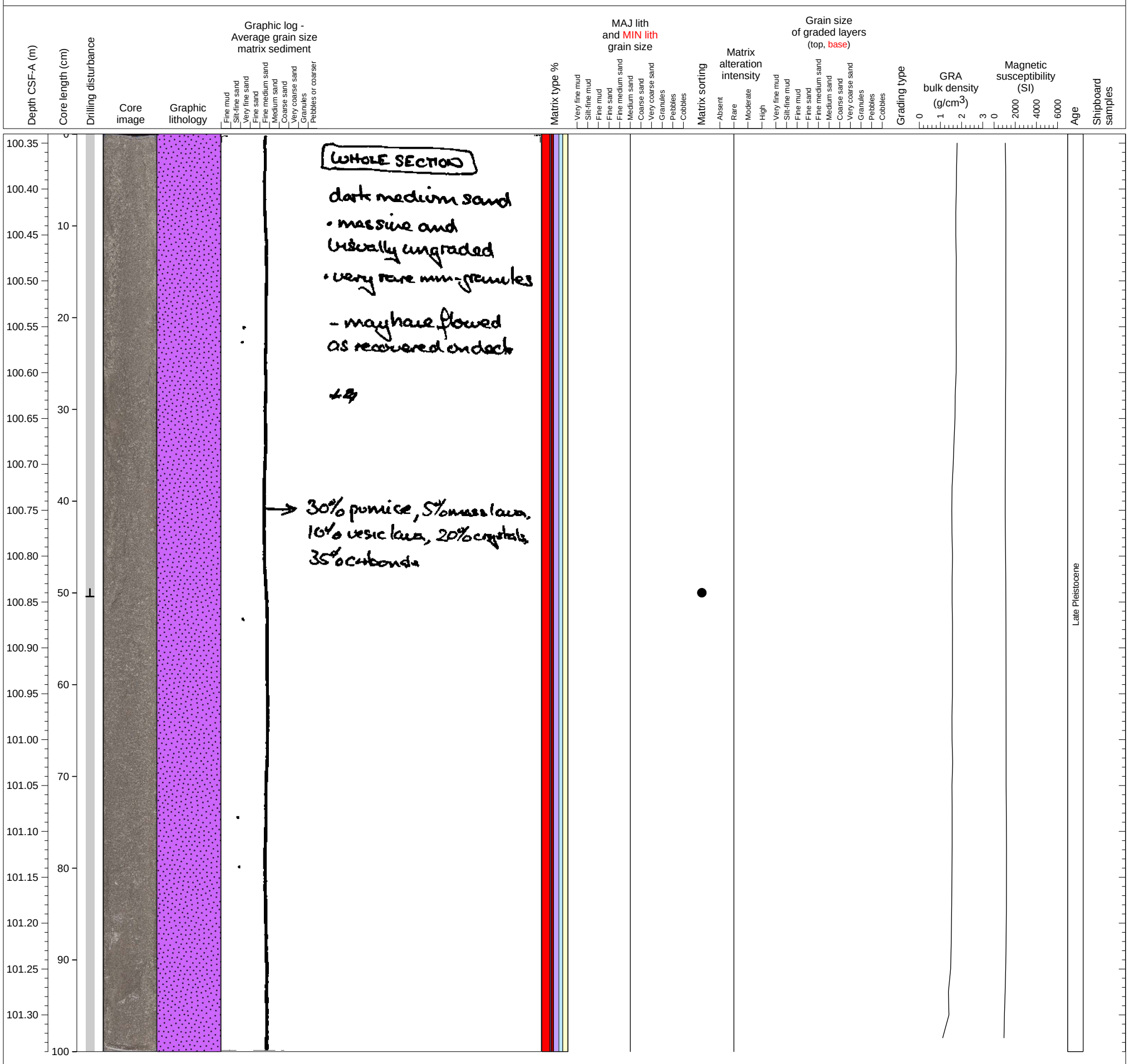
Hole 340-U1399A-13H Section 4, Top of Section: 99.21 CSF-A (m)

Clast-rich volcaniclastic sand unit.



Hole 340-U1399A-13H Section 5, Top of Section: 100.34 CSF-A (m)

Clast-rich volcaniclastic sand unit.



Hole 340-U1399A-13H Section 6, Top of Section: 101.34 CSF-A (m)

Clast-rich volcaniclastic sand unit.

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm^3)
0
1
2
3
Magnetic susceptibility (SI)
0
2000
4000
6000
Age
Shipboard samples

101.35
101.40
101.45
101.50
101.55
101.60
101.65
101.70
101.75
101.80
101.85
101.90
101.95
102.00
102.05
102.10
102.15
102.20
102.25
102.30
102.35
102.40
102.45
102.50
102.55
102.60
102.65
102.70
102.75
102.80

0
10
20
30
40
50
60
70
80
90
100
110
120
130
140

WHOLE SECTION
after 13H-5....
dark medium sand
- massive and visually ungraded
- very rare mm granules - mainly in one interval.
- may have flowed during recovery

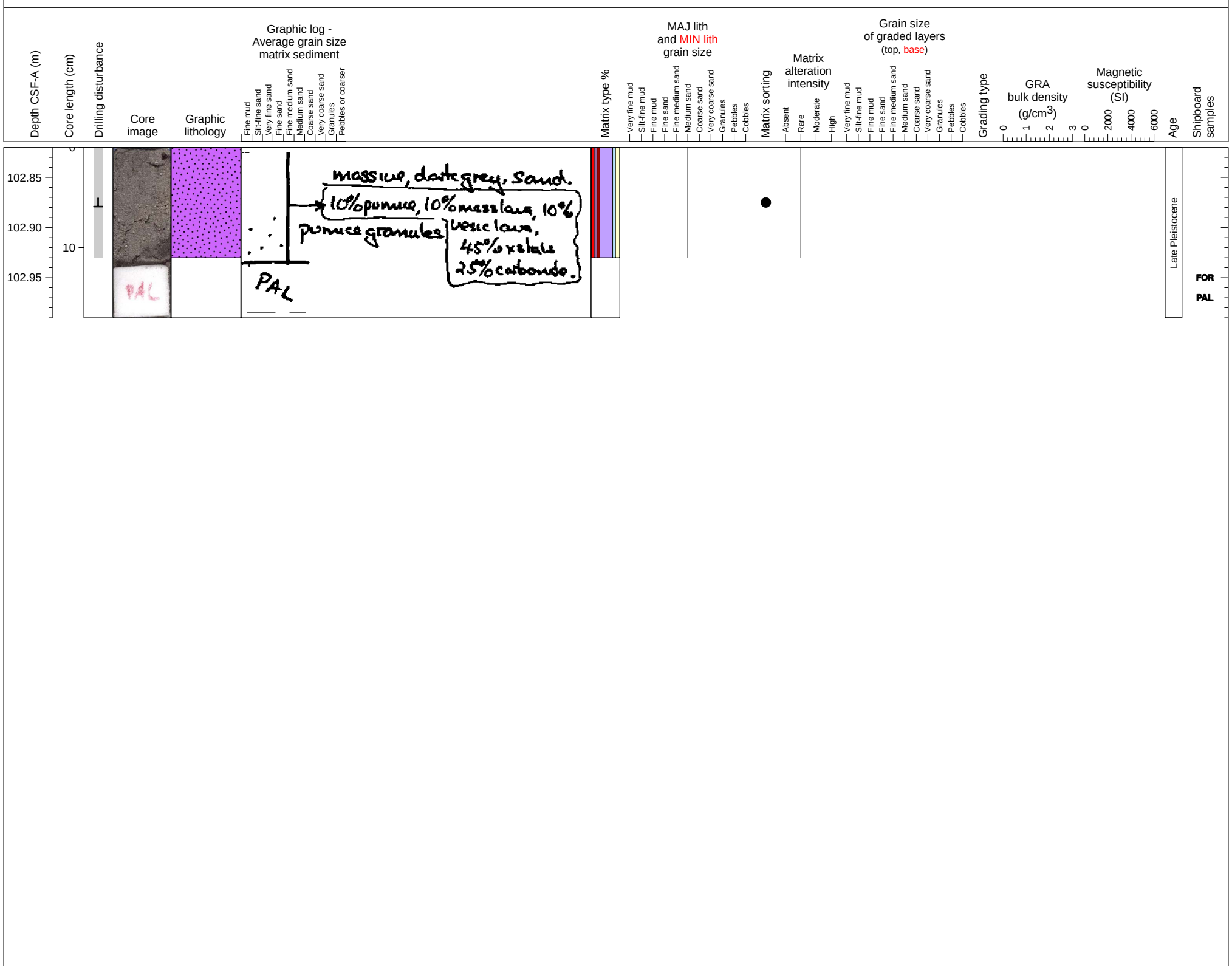
10% pumice, 10% massive lava,
10% vesicular lava,
→ 50% xstals, 2% carbonate

T

Late Pleistocene

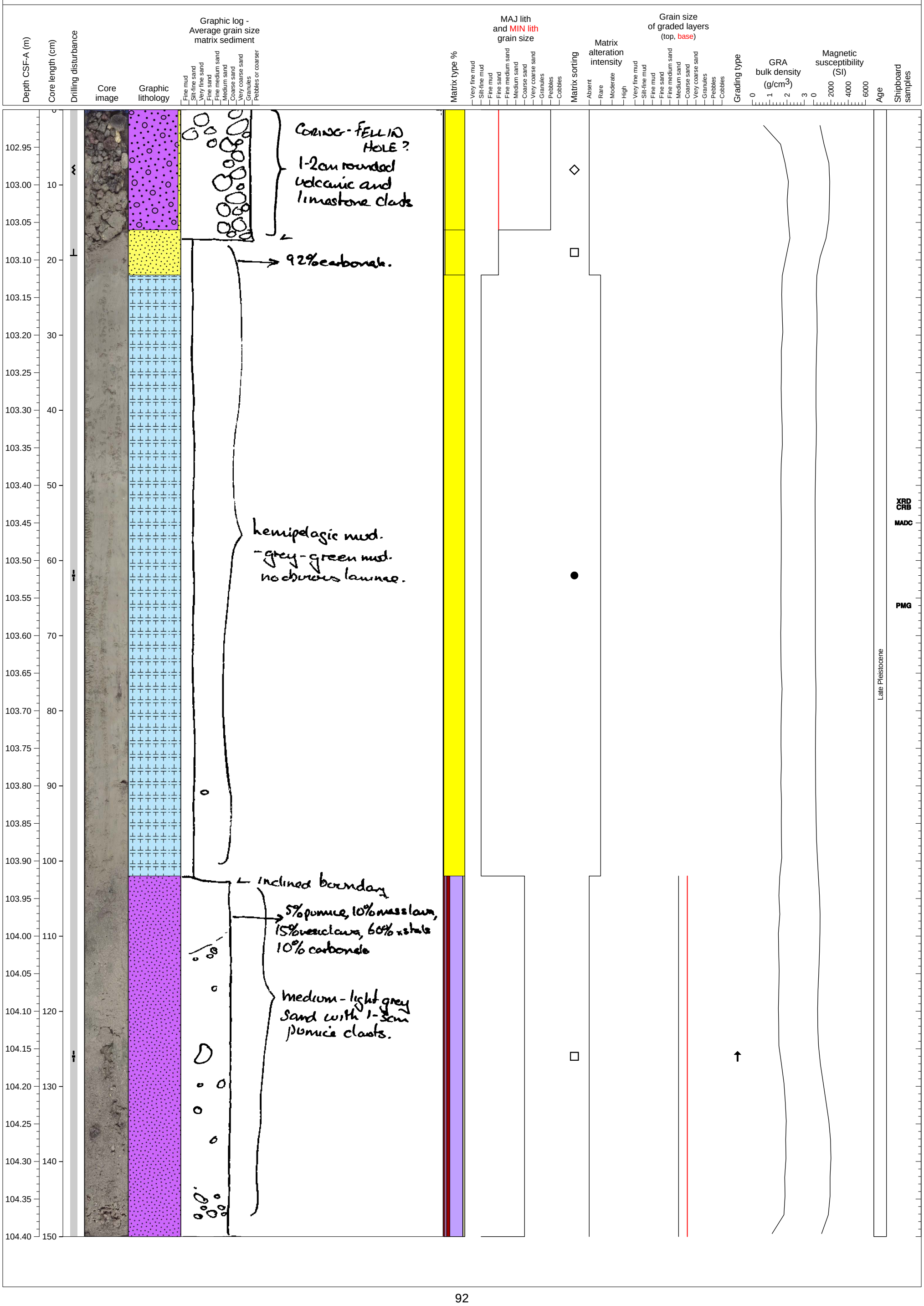
Hole 340-U1399A-13H Section CC, Top of Section: 102.82 CSF-A (m)

Clast-rich volcaniclastic sand unit. PAL sample from base.



Hole 340-U1399A-14H Section 1, Top of Section: 102.9 CSF-A (m)

Hemipelagic clay/sand and the top of massive volcaniclastic turbidite.



Hole 340-U1399A-14H Section 2, Top of Section: 104.4 CSF-A (m)

Part of massive volcaniclastic turbidite unit with pumice and massive lava clasts up to 3 cm in diameter.

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm^3)
0
1
2
3
Magnetic susceptibility (SI)
0
2000
4000
6000
Age
Shipboard samples

104.45
104.50
104.55
104.60
104.65
104.70
104.75
104.80
104.85
104.90
104.95
105.00
105.05
105.10
105.15
105.20
105.25
105.30
105.35
105.40
105.45
105.50
105.55
105.60
105.65
105.70
105.75
105.80
105.85
105.90

0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150

WHOLE SECTION
• medium grey coarse sand (coarser than barrel 14H-1) with large - abundant pumice
larger 4cm clasts
• clasts 1-4cm pumice/volcanic clasts in matrix
• very poor sorting
30% pumice, 5% mass lithics, 47% relicts, 18% carbonate.

Late Pleistocene

CRB XRD
MADC

Hole 340-U1399A-14H Section 3, Top of Section: 105.9 CSF-A (m)

Part of massive volcaniclastic turbidite unit with pumice and massive lava clasts up to 2 cm in diameter.

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm^3)
0
1
2
3
Magnetic susceptibility (SI)
0
2000
4000
6000
Age
Shipboard samples

WHOLE SECTION

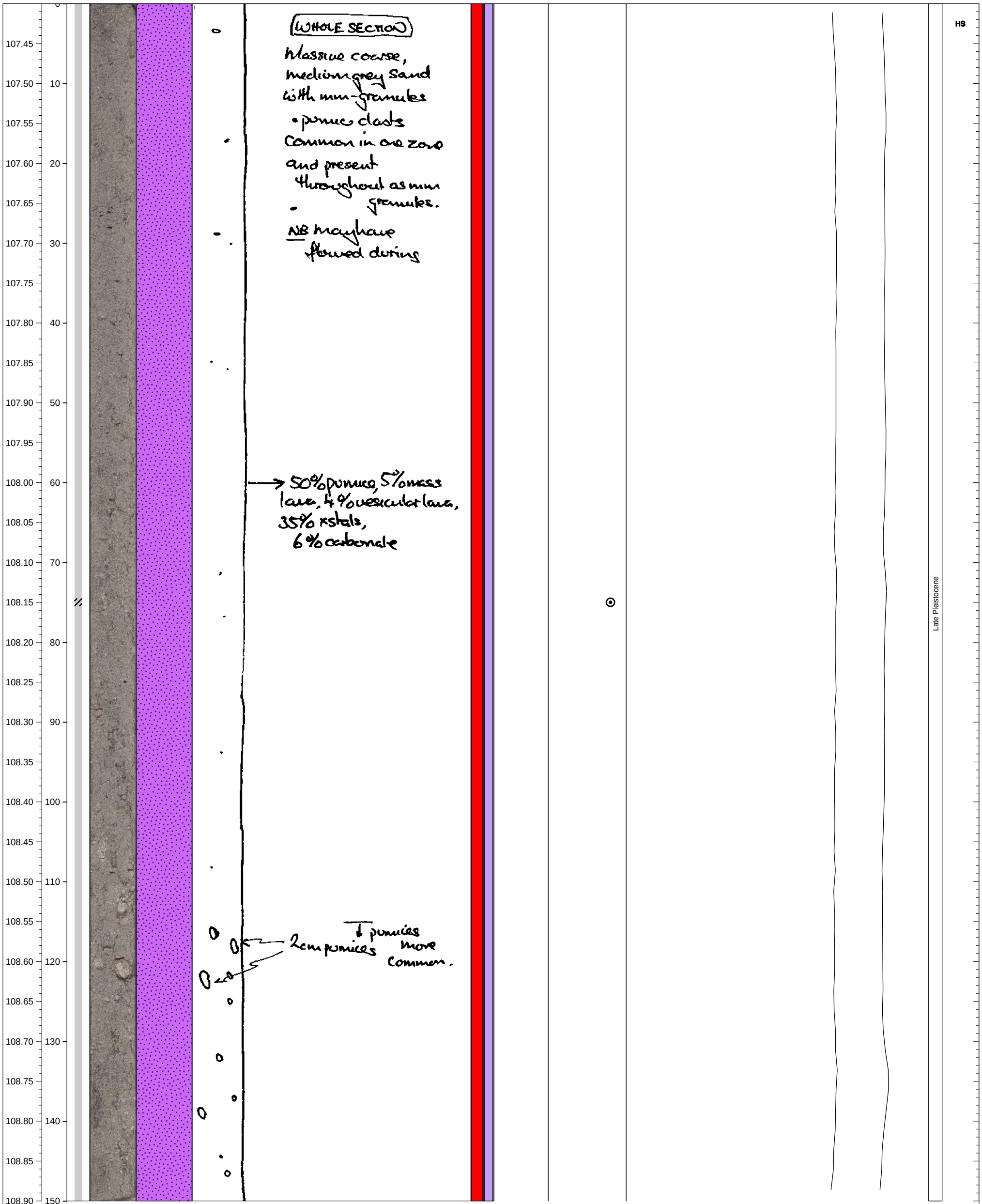
Massive coarse medium grey sand with pumice clasts up to 3cm - common

10% pumice
10% lithics,
67% matrix,
13% carbonate.

Late Pleistocene

Hole 340-U1399A-14H Section 4, Top of Section: 107.4 CSF-A (m)

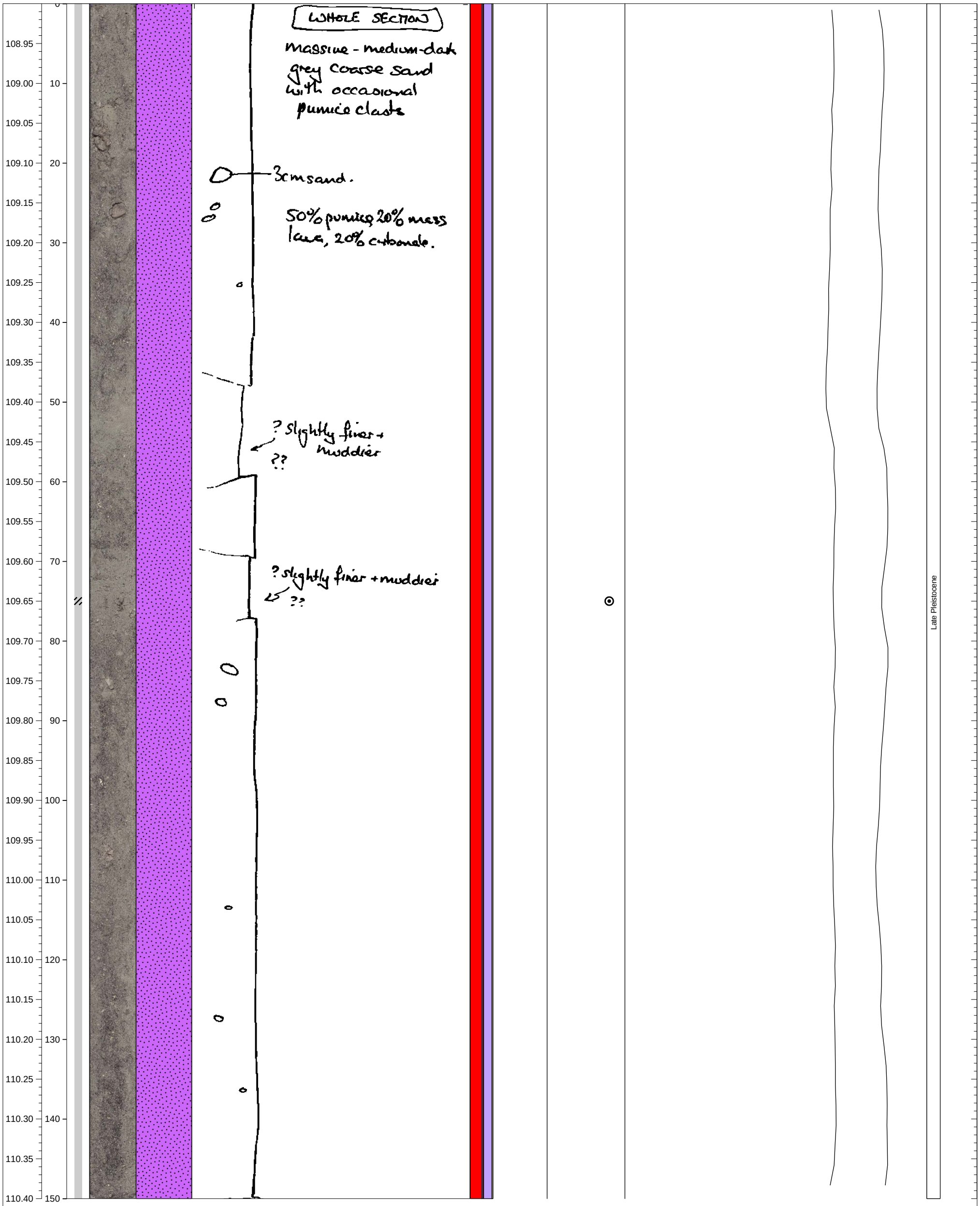
Clast-rich volcaniclastic sand unit. Grain size and compositional variations within the sand are due to drilling disturbance.



Hole 340-U1399A-14H Section 5, Top of Section: 108.9 CSF-A (m)

Clast-rich volcaniclastic sand unit. Some compositional layering is partially evident, but due to drilling disturbances this is likely not in situ.

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm^3)
0
1
2
3
Magnetic susceptibility (SI)
0
2000
4000
6000
Age
Shipboard samples



Hole 340-U1399A-14H Section 6, Top of Section: 110.4 CSF-A (m)

Clast-rich volcaniclastic sand unit.

Depth CSF-A (m)

Core length (cm)

Drilling disturbance

Core image

Graphic lithology

Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser

Matrix type %

MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles

Matrix sorting

Matrix alteration intensity
Absent
Rare
Moderate
High

Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles

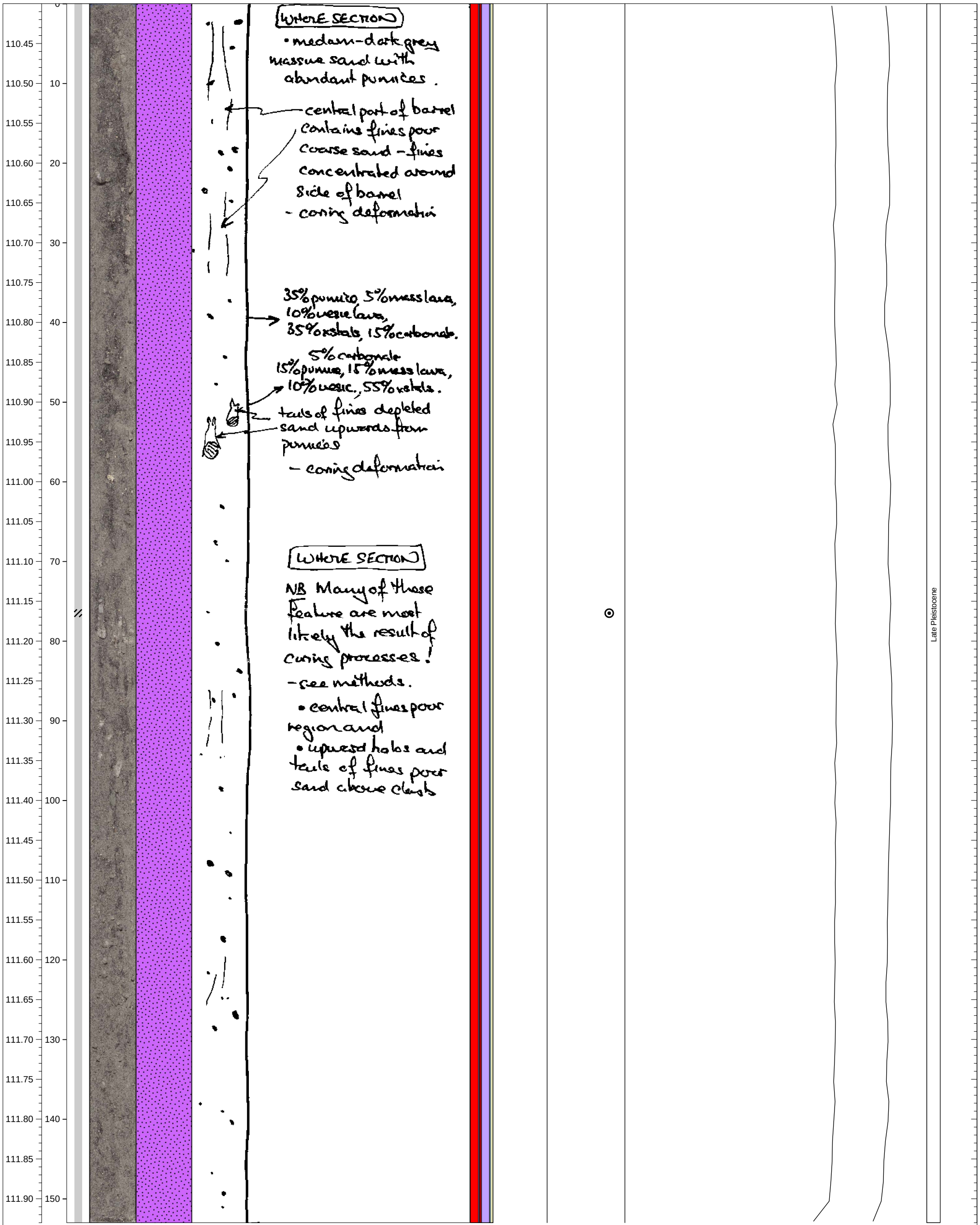
Grading type

GRA bulk density (g/cm^3)
0
1
2
3

Magnetic susceptibility (SI)
0
2000
4000
6000

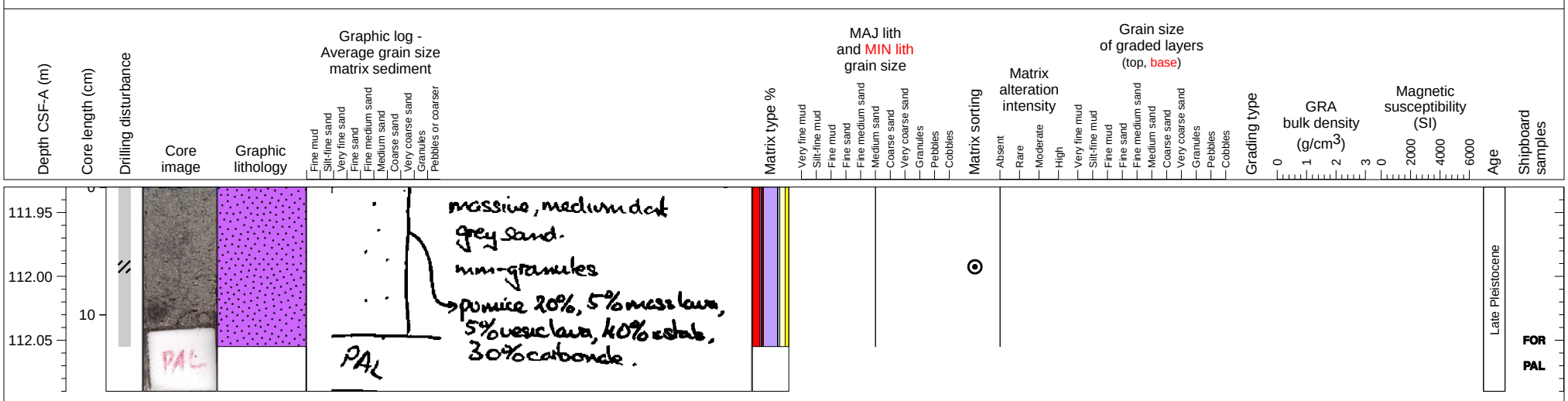
Age

Shipboard samples



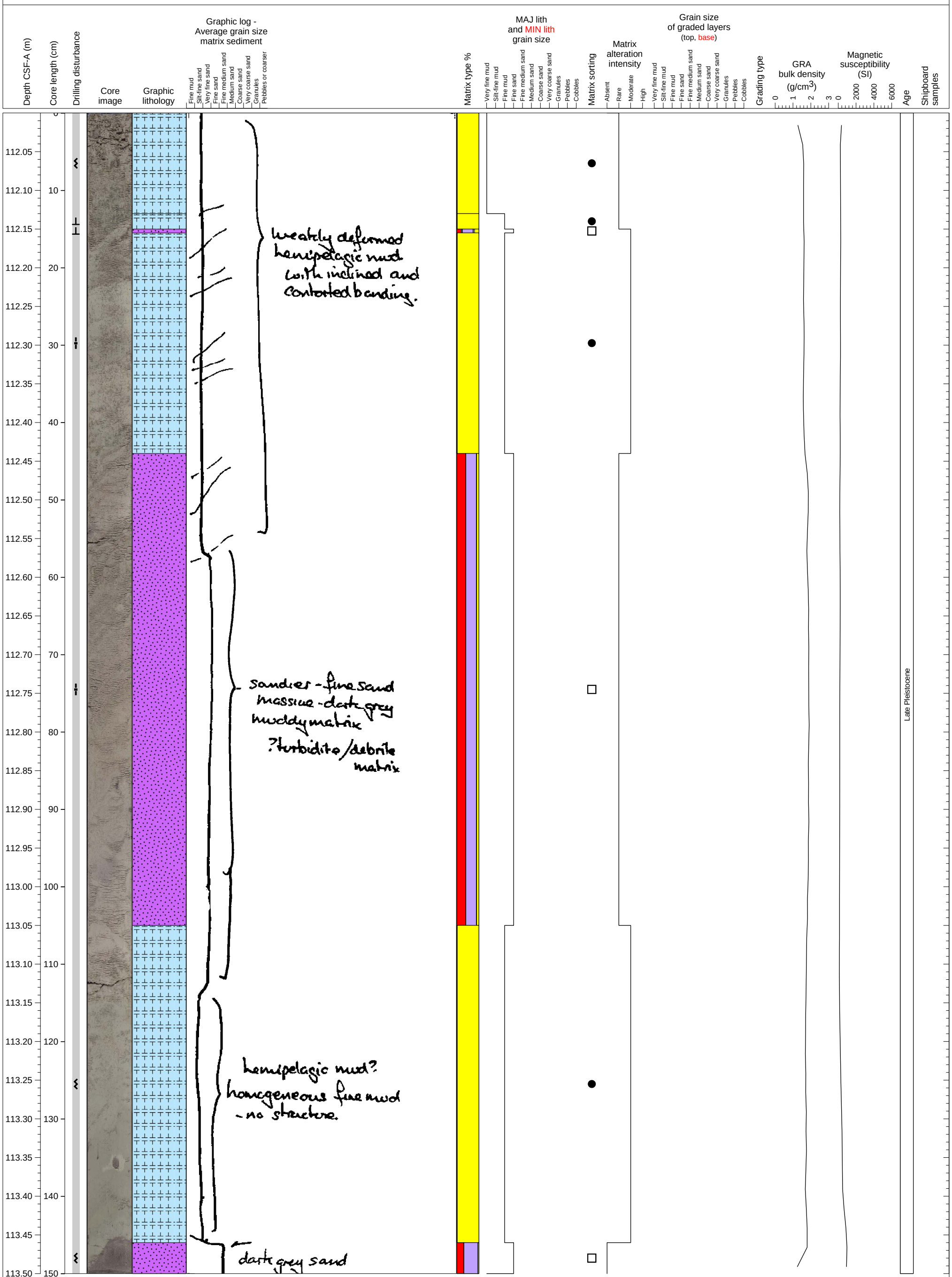
Hole 340-U1399A-14H Section CC, Top of Section: 111.93 CSF-A (m)

Volcaniclastic sand unit. PAL sample from base.



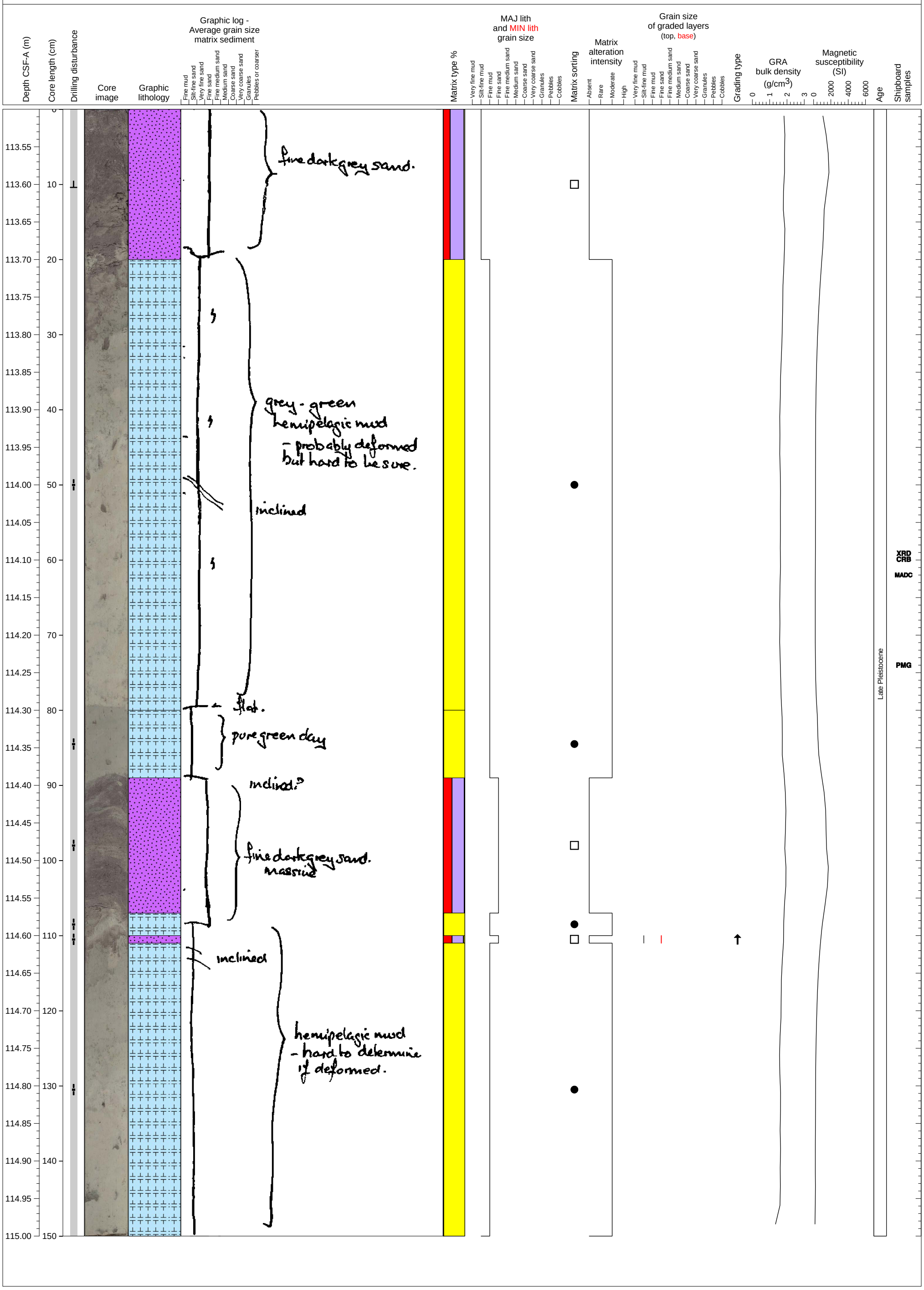
Hole 340-U1399A-15H Section 1, Top of Section: 112.0 CSF-A (m)

Hemipelagic clay interbedded thin and thick tephra layers. The unit boundaries are inclined.



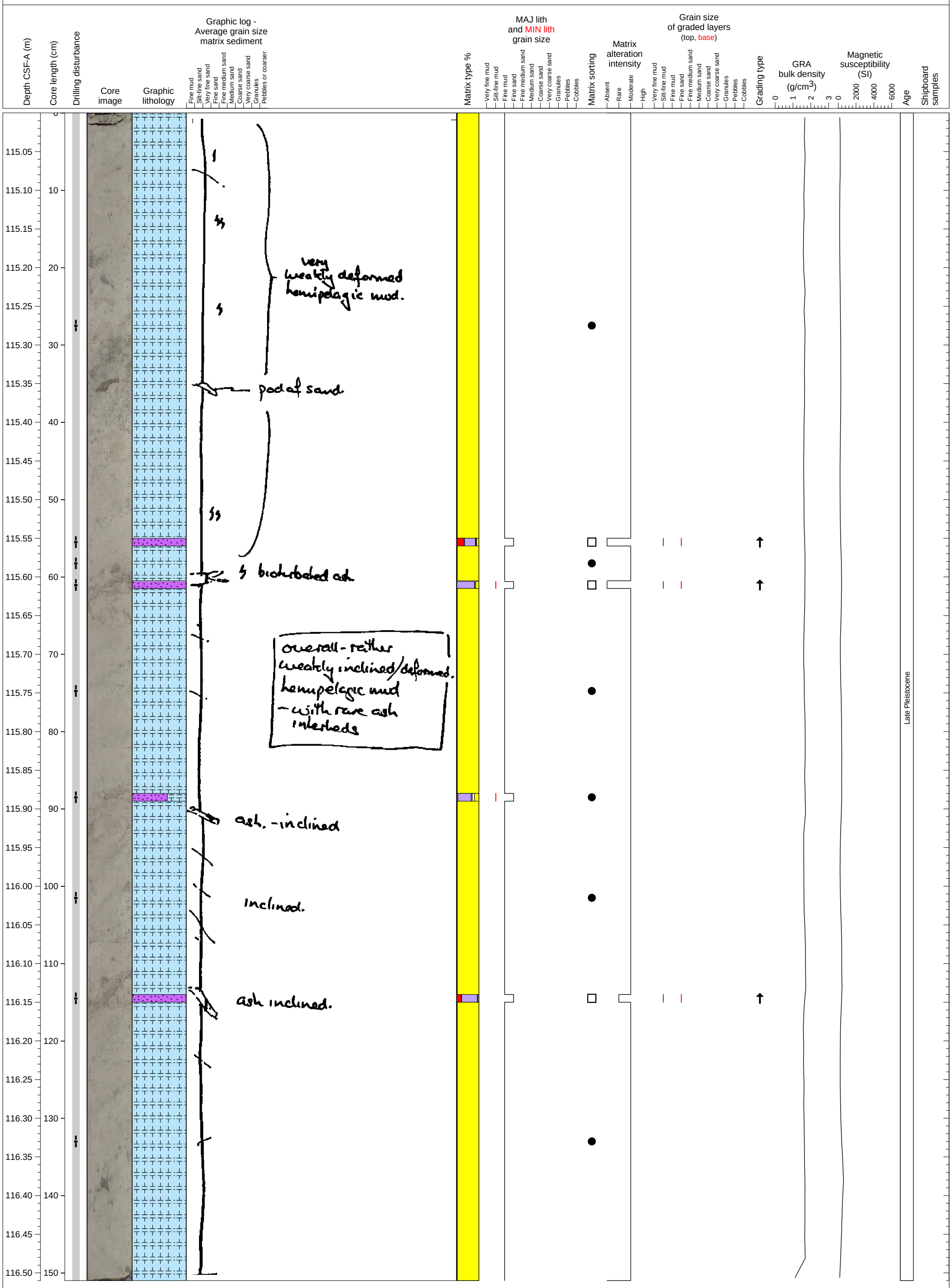
Hole 340-U1399A-15H Section 2, Top of Section: 113.5 CSF-A (m)

Hemipelagic clay interlayered with volcaniclastic sand units.



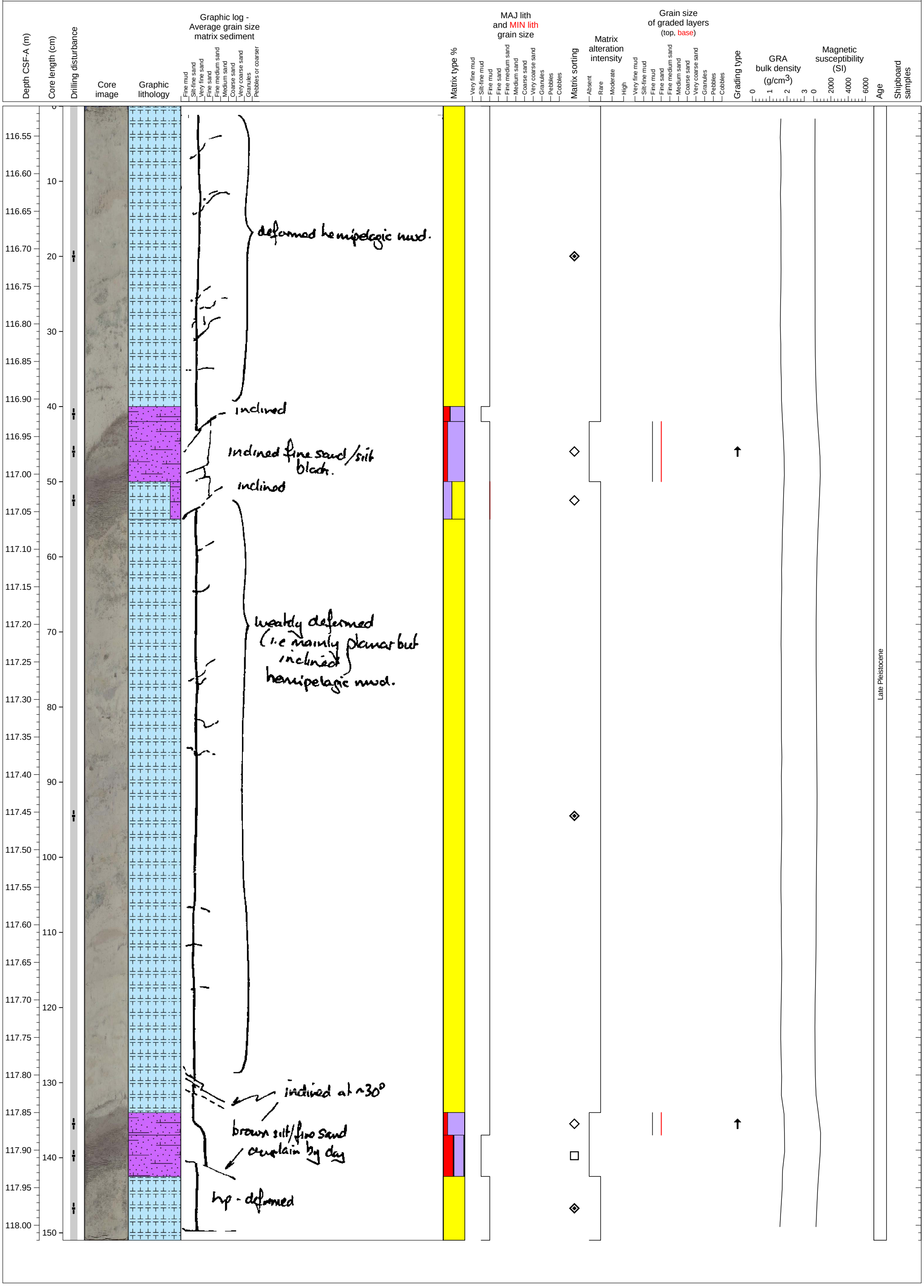
Hole 340-U1399A-15H Section 3, Top of Section: 115.0 CSF-A (m)

Hemipelagic clay interlayered with four thin tephra units.



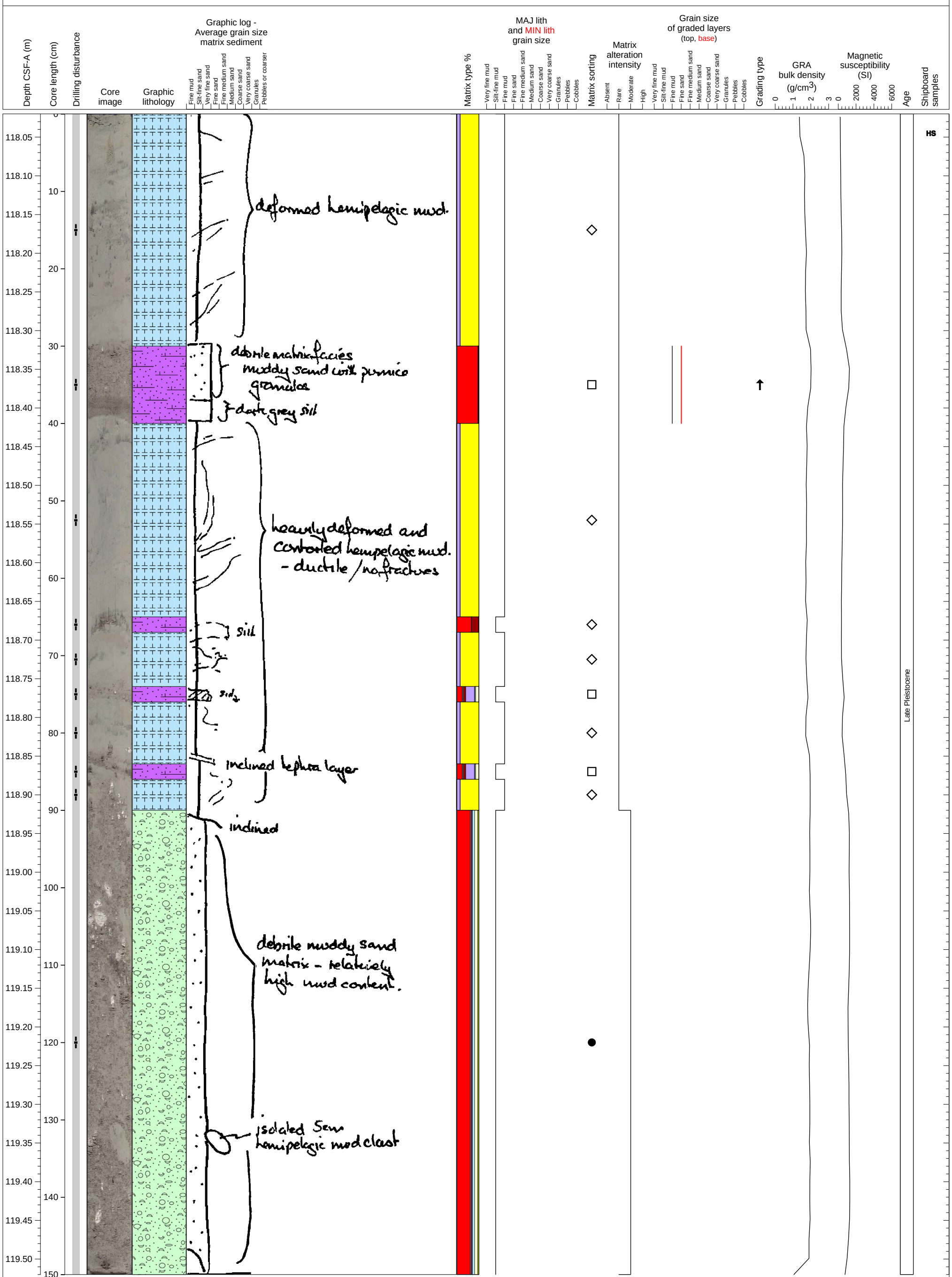
Hole 340-U1399A-15H Section 4, Top of Section: 116.51 CSF-A (m)

Hemipelagic clay interlayered with abundant volcaniclastic sand-mud units, several of which display normal grading.



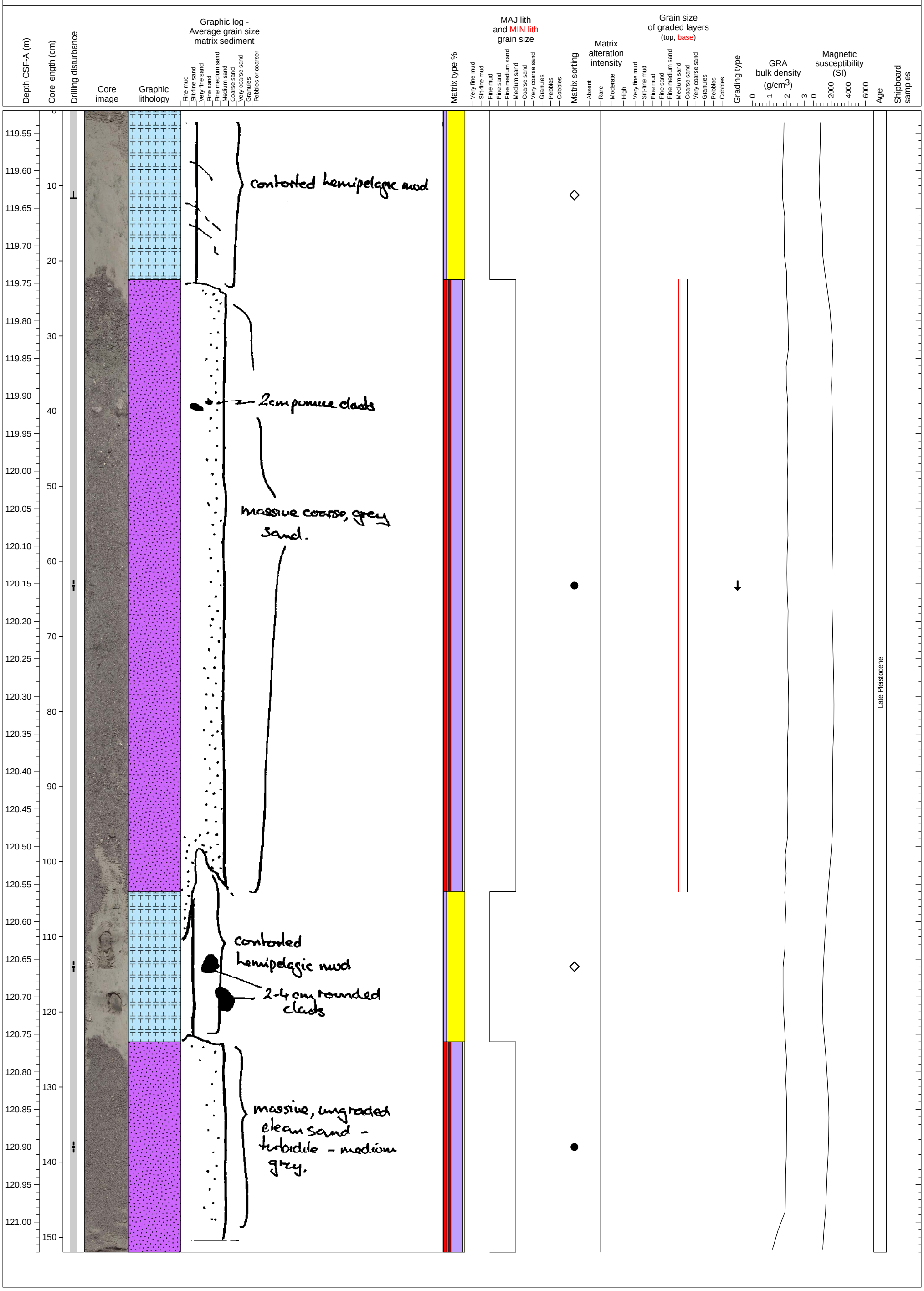
Hole 340-U1399A-15H Section 5, Top of Section: 118.02 CSF-A (m)

Hemipelagic clay interlayered with volcaniclastic sand-mud units, one of which displays normal grading. The base of the section is composed of a clast-rich muddy sand unit.



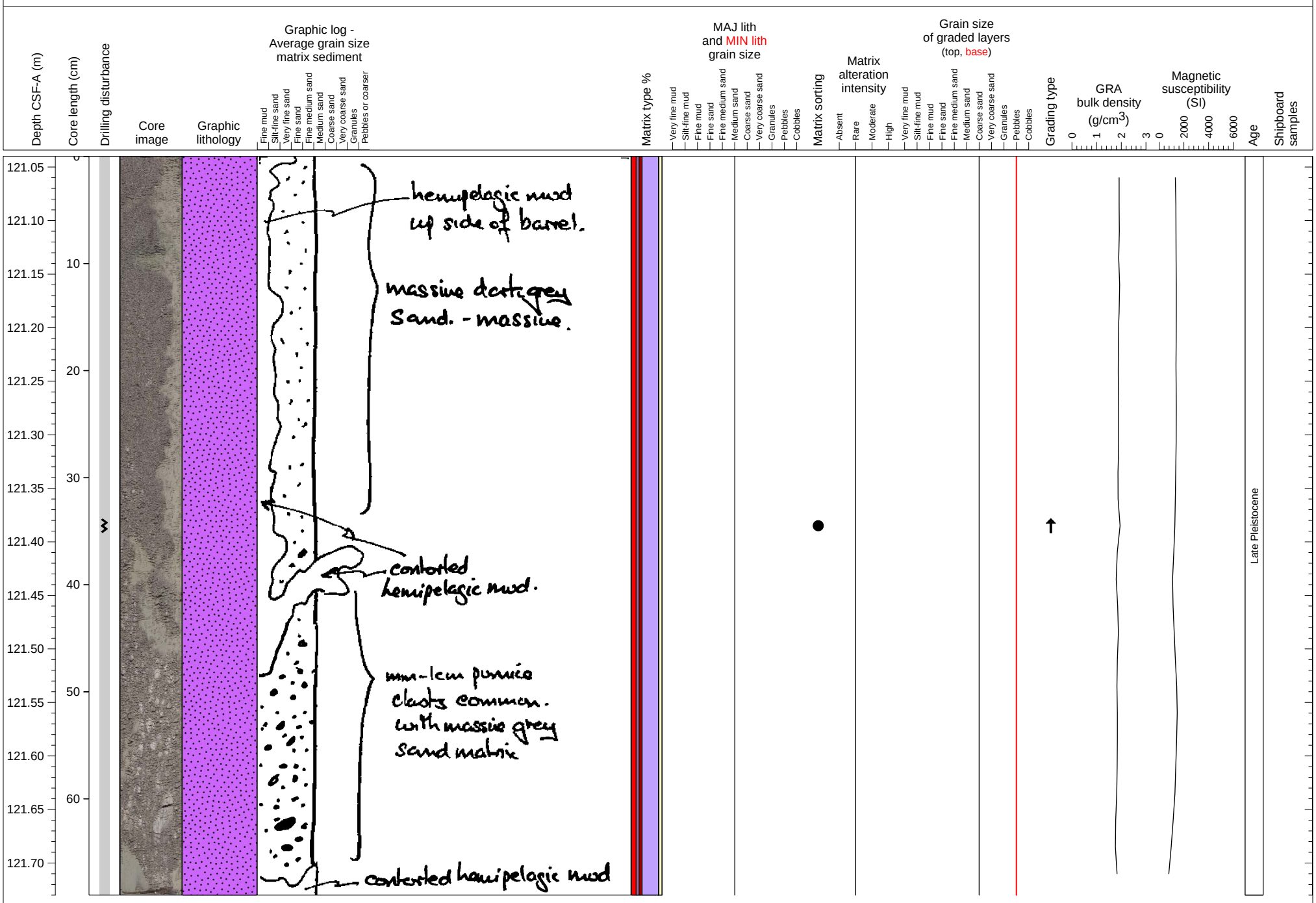
Hole 340-U1399A-15H Section 6, Top of Section: 119.52 CSF-A (m)

Hemipelagic clay interlayered with volcaniclastic sand units, one of which displays reverse grading.



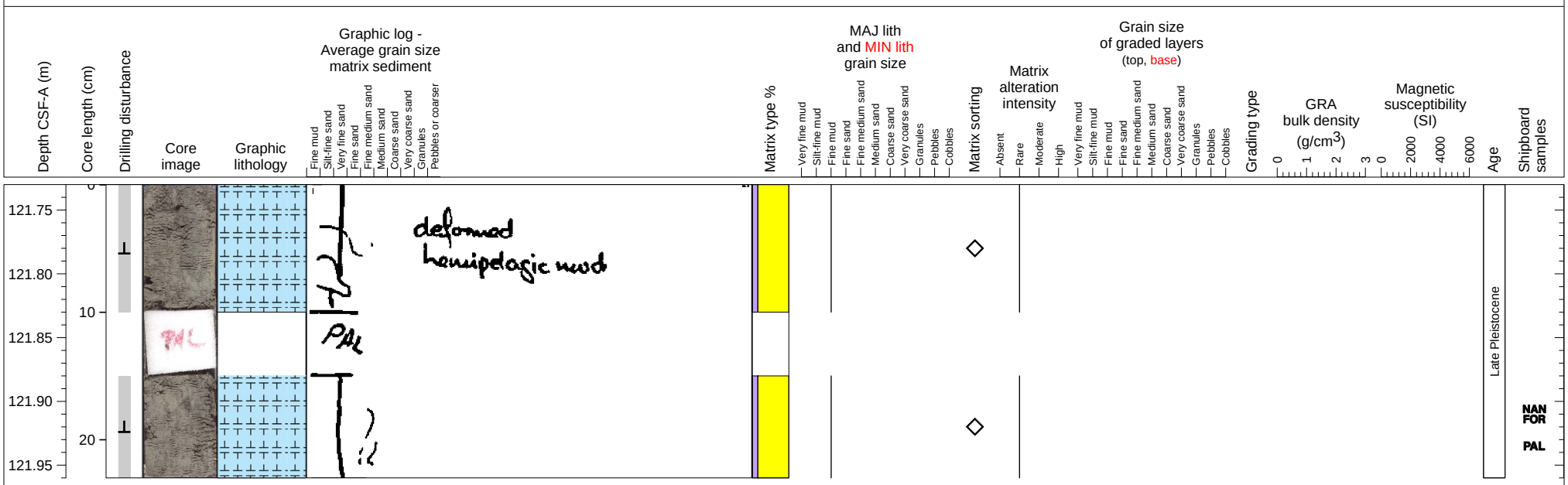
Hole 340-U1399A-15H Section 7, Top of Section: 121.04 CSF-A (m)

Volcaniclastic sand unit with normally graded pumice clasts. Hemipelagic mud injected vertically up core barrel.



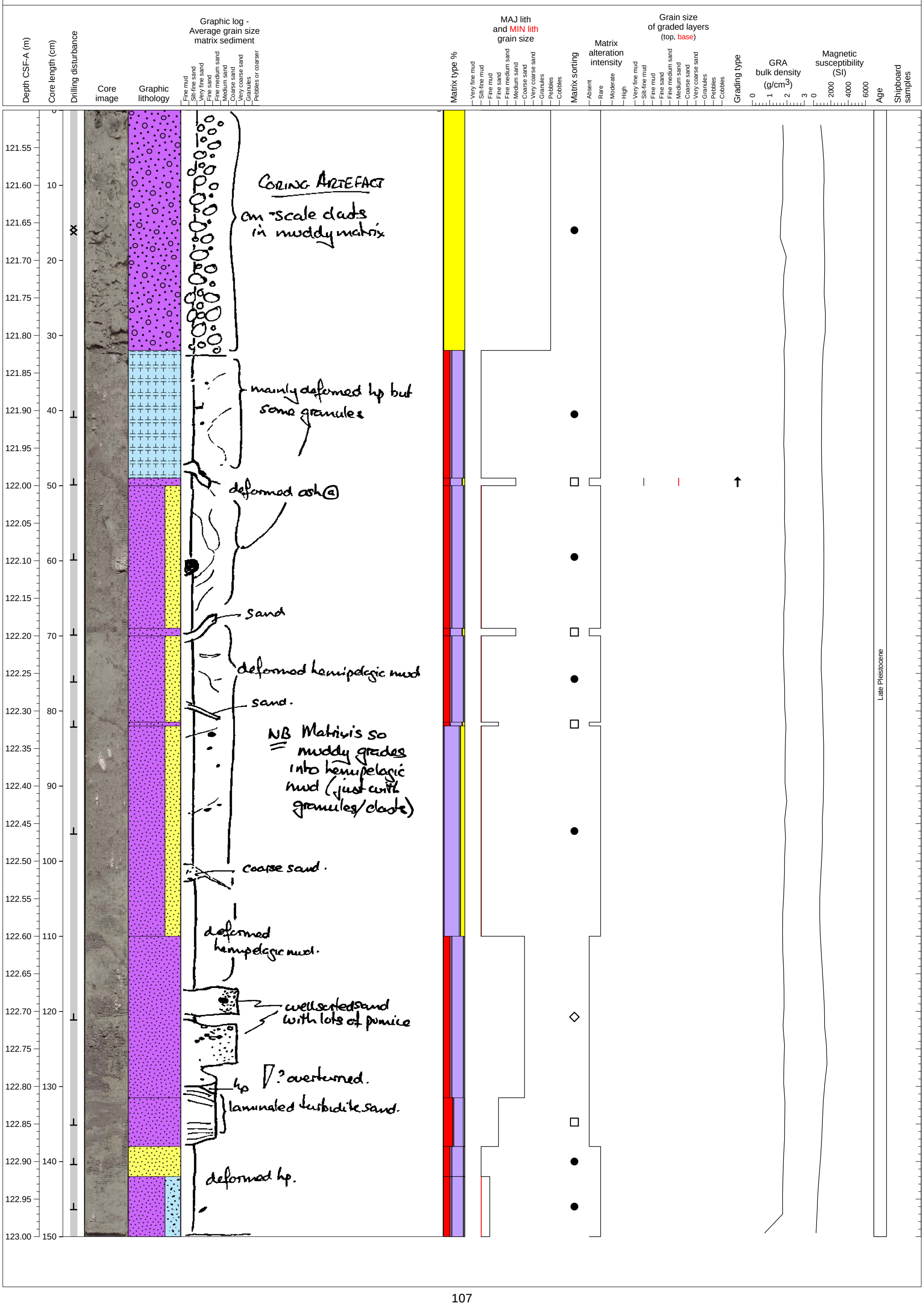
Hole 340-U1399A-15H Section CC, Top of Section: 121.73 CSF-A (m)

Heavily bioturbated hemipelagic clay. APL sample from center of section.



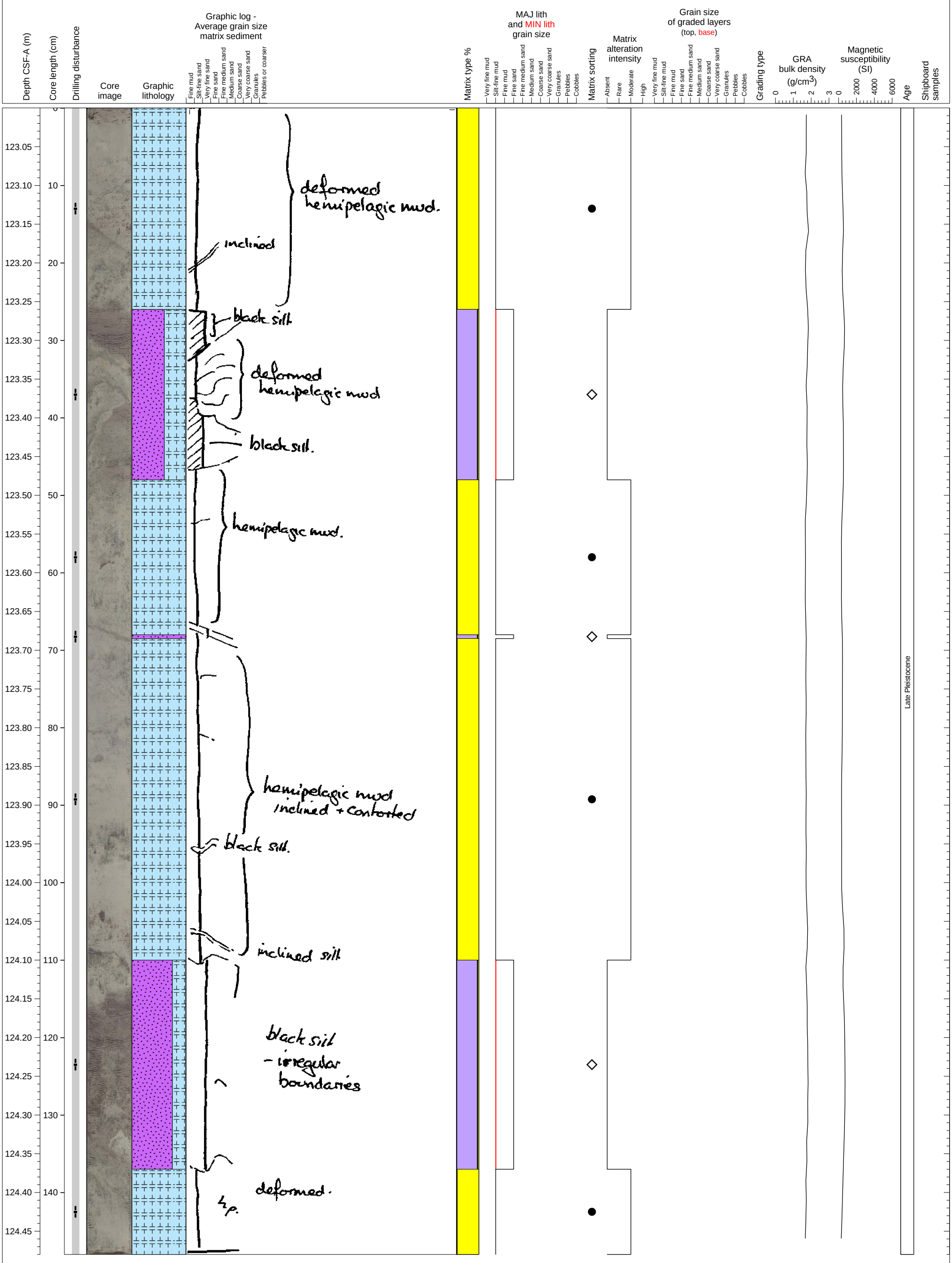
Hole 340-U1399A-16H Section 1, Top of Section: 121.5 CSF-A (m)

Debrite consisting of hemipelagic mud clasts, pumice clasts, and volcanic-calcareous sand matrix, and volcanic sand layers.



Hole 340-U1399A-16H Section 2, Top of Section: 123.0 CSF-A (m)

Hemipelagic clay interlayered with thin tephra layers. Layers are contorted and contains mud clasts chaotically.



Hole 340-U1399A-16H Section 3, Top of Section: 124.48 CSF-A (m)

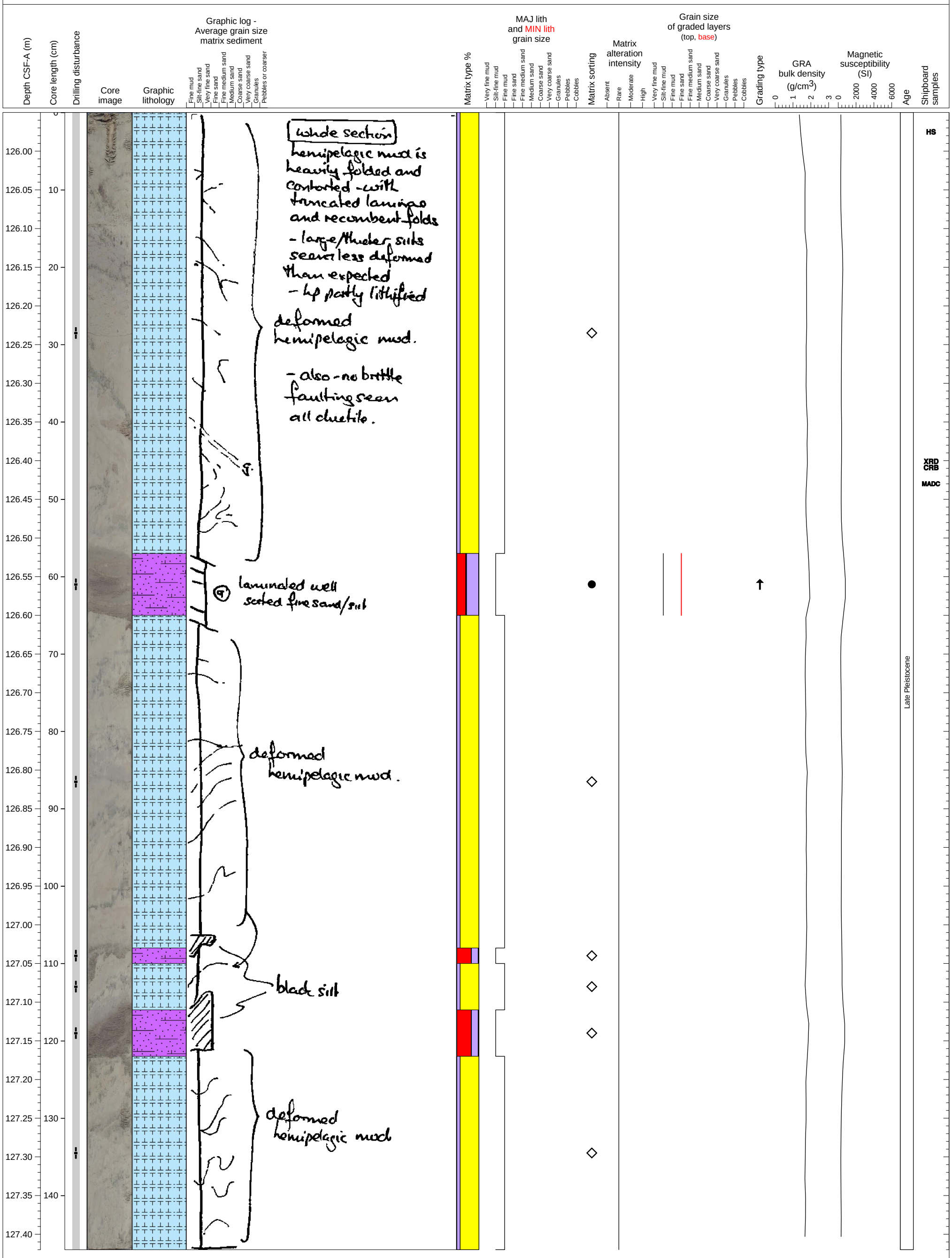
Hemipelagic sediment interlayered with at least four tephra layers. Some of the layers are inclined.

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm^3)
Magnetic susceptibility (SI)
Age
Shipboard samples

deformed/inclined hemipelagic mud
black sill
black sill
deformed hemipelagic mud
black silts
hp
hemipelagic mud.
black silt
hp - deformed.
Late Pleistocene

Hole 340-U1399A-16H Section 4, Top of Section: 125.95 CSF-A (m)

Hemipelagic clay interlayered with volcaniclastic sand-mud deposits, two of which show normal gradation.



Hole 340-U1399A-16H Section 5, Top of Section: 127.42 CSF-A (m)

Hemipelagic mud overlying clast-rich muddy sand chaotic unit. Large clasts of hemipelagic clay and pumice are included in this chaotic unit.

Depth CSF-A (m)

Core length (cm)

Drilling disturbance

Core image

Graphic lithology

Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser

Matrix type %

MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles

Matrix sorting

Matrix alteration intensity
Absent
Rare
Moderate
High

Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles

Grading type

GRA bulk density (g/cm^3)
0
1
2
3

Magnetic susceptibility (SI)
0
2000
4000
6000

Age

Shipboard samples

127.45
127.50
127.55
127.60
127.65
127.70
127.75
127.80
127.85
127.90
127.95
128.00
128.05
128.10
128.15
128.20
128.25
128.30
128.35
128.40
128.45
128.50
128.55
128.60
128.65
128.70
128.75
128.80
128.85

10
20
30
40
50
60
70
80
90
100
110
120
130
140

very tightly folded hemipelagic mud
• intricately folded but no fractures.

intricately folded hemipelagic mud

hp.

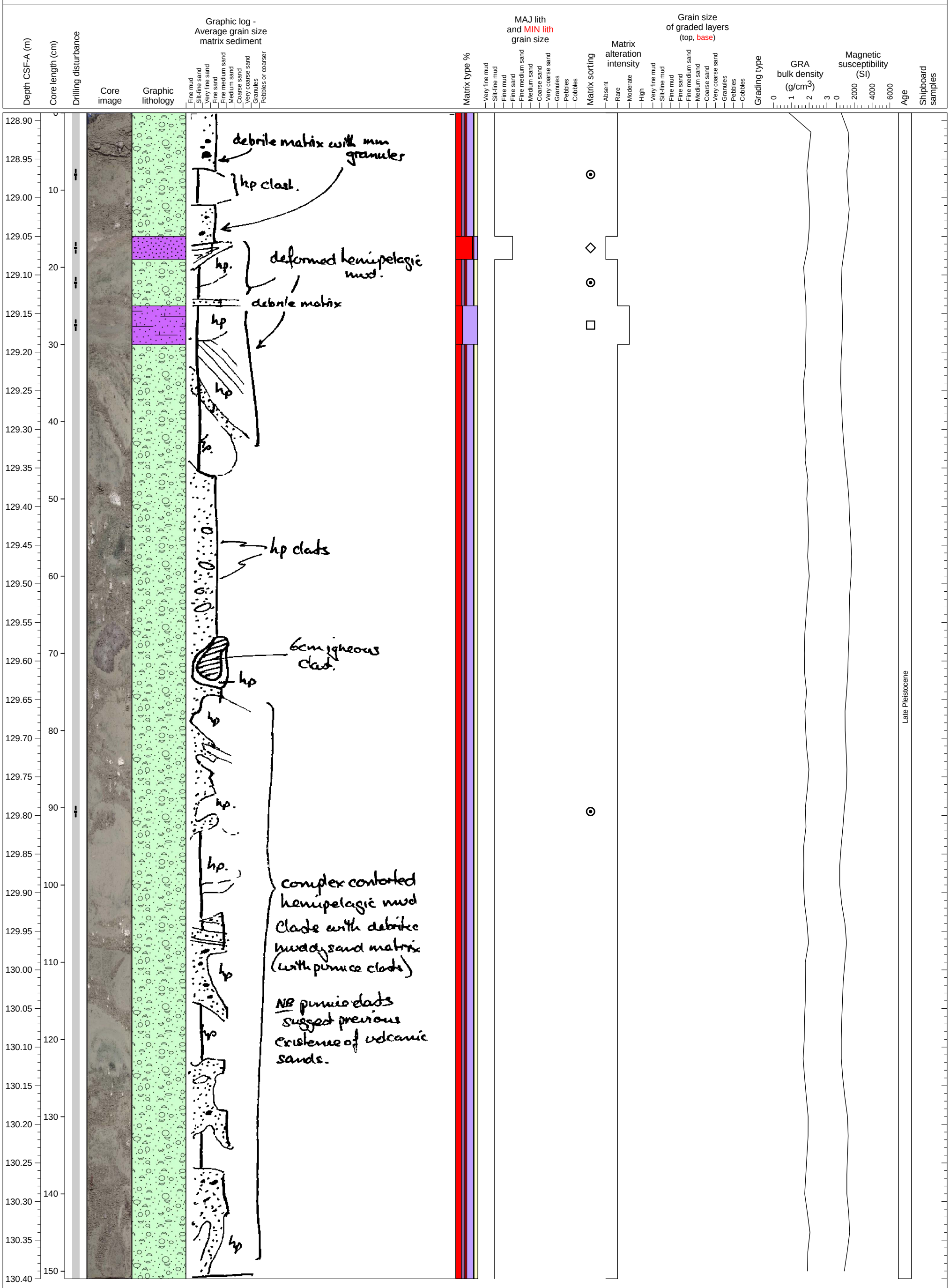
matrix throughout has mm-scale pumice granules
⇒ volcanic sands weaker material that flowed.

hemipelagic mud clasts

Late Pleistocene

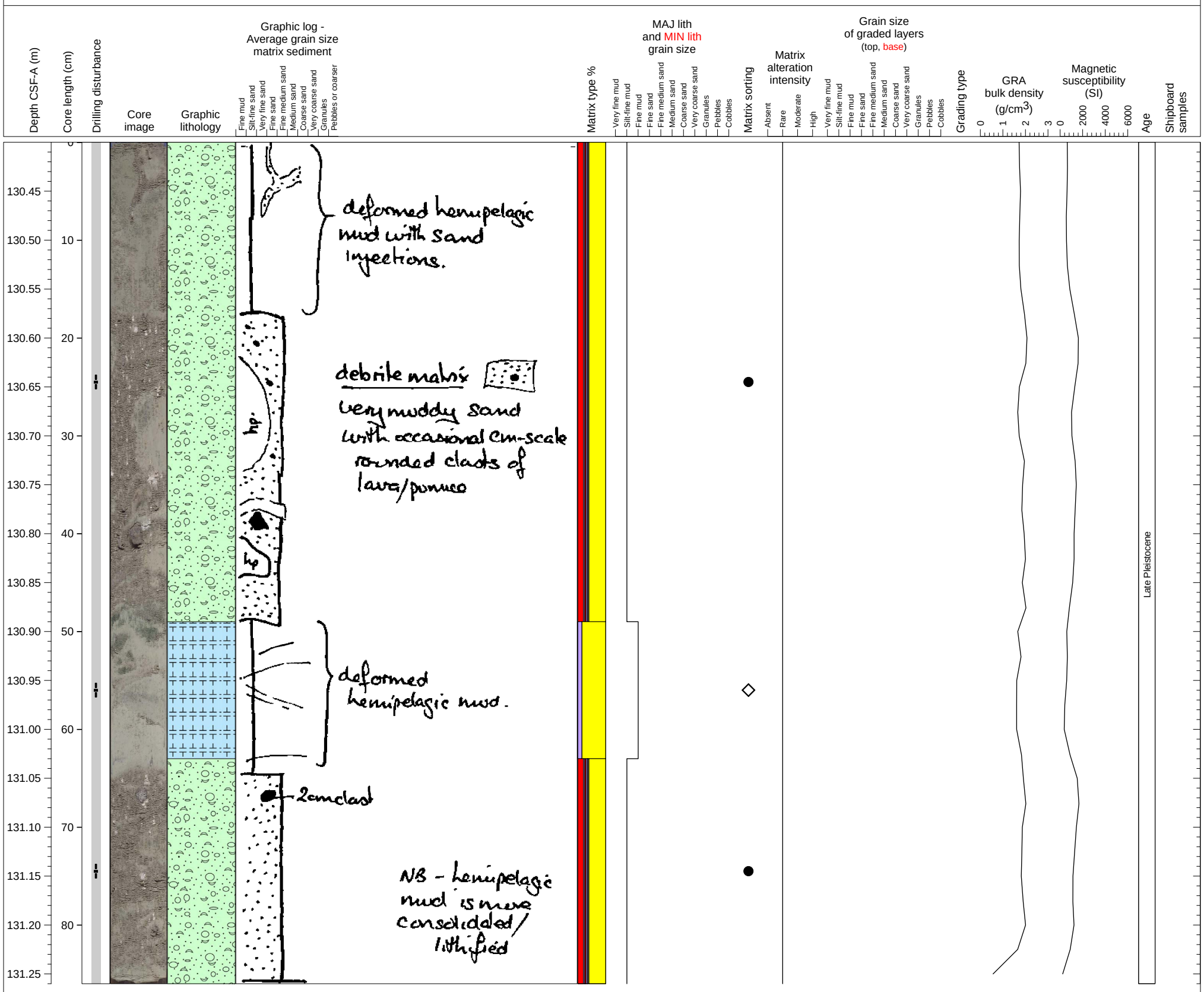
Hole 340-U1399A-16H Section 6, Top of Section: 128.89 CSF-A (m)

Clast-rich muddy sand unit with interspersed fine volcaniclastic units, possibly ash.



Hole 340-U1399A-16H Section 7, Top of Section: 130.4 CSF-A (m)

Clast-rich muddy sand unit; clasts consist of pumice and hemipelagic clay. Hemipelagic clay layer in middle of section might be a large clast.

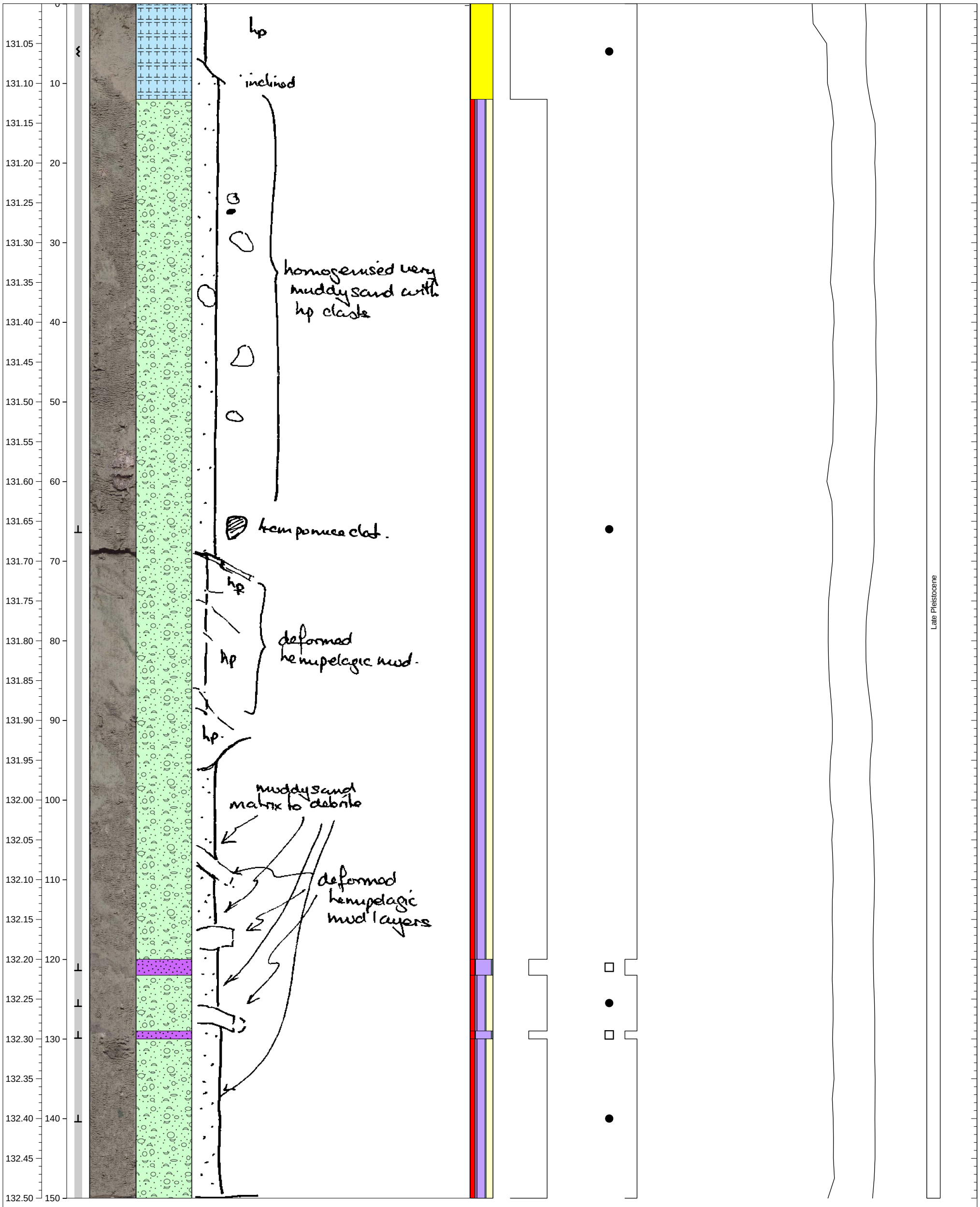


Hole 340-U1399A-16H Section CC, Top of Section: 131.26 CSF-A (m)

Hemipelagic clay, may be a clast in the chaotic unit up core. PAL sample from base.

Hole 340-U1399A-17H Section 1, Top of Section: 131.0 CSF-A (m)

Debris flow unit containing abundant mud and pumice clasts up to a few cm.



Hole 340-U1399A-17H Section 2, Top of Section: 132.5 CSF-A (m)

Massive debris flow unit containing abundant pumice and mud clasts.

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm^3)
0
1
2
3
Magnetic susceptibility (SI)
0
2000
4000
6000
Age
Shipboard samples

132.55
132.60
132.65
132.70
132.75
132.80
132.85
132.90
132.95
133.00
133.05
133.10
133.15
133.20
133.25
133.30
133.35
133.40
133.45
133.50
133.55
133.60
133.65
133.70
133.75
133.80
133.85
133.90
133.95

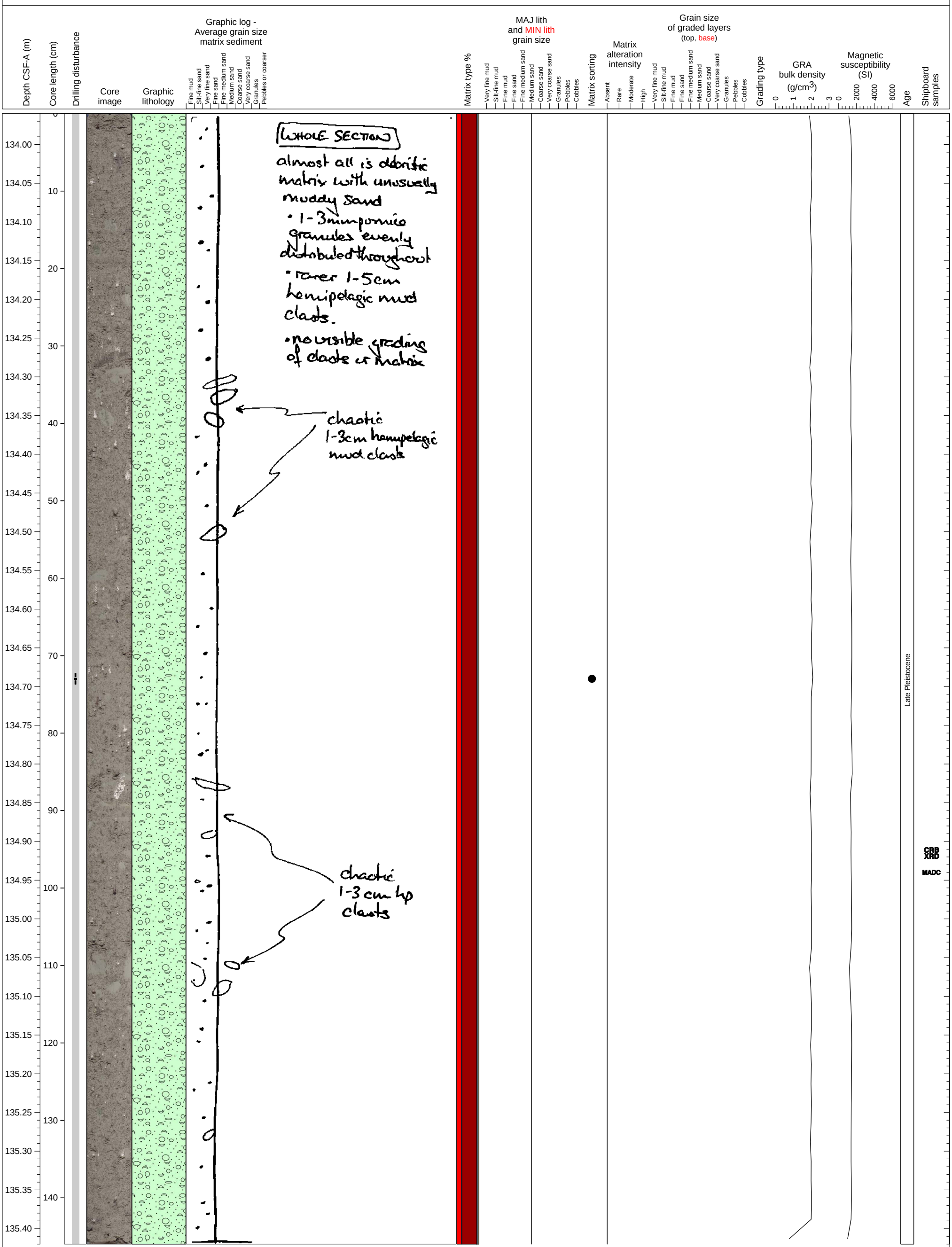
10
20
30
40
50
60
70
80
90
100
110
120
130
140

black sill
Whole section
matrix is homogenised and very mud rich
rarer pumice granules and clasts.
- very chaotically arranged turbidite mud clasts
= debrite matrix facies
black sill.
smeared out black ash.
hemipelagic mud clasts
hemipelagic mud clasts

Late Pleistocene

Hole 340-U1399A-17H Section 3, Top of Section: 133.96 CSF-A (m)

Massive debris flow unit containing abundant pumice and mud clasts.



Hole 340-U1399A-17H Section 4, Top of Section: 135.42 CSF-A (m)

Chaotic mix of volcaniclastic and bioclastic sands interlayered with hemipelagic clay.

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm^3)
Magnetic susceptibility (SI)
Age
Shipboard samples

135.45 / 0
135.50 / 10
135.55
135.60 / 20
135.65
135.70 / 30
135.75
135.80 / 40
135.85
135.90 / 50
135.95
136.00 / 60
136.05
136.10 / 70
136.15
136.20 / 80
136.25
136.30 / 90
136.35
136.40 / 100
136.45
136.50 / 110
136.55
136.60 / 120
136.65
136.70 / 130
136.75
136.80 / 140
136.85

debritic mclyp with pumice clasts – muddy sand

Volcanic fine sand. turbidite - planar lam - deformed.

well sorted pumice rich

hp.

massive medium-dark grey turbidite sand.

hp.

ash?

weakly deformed hp.

hp

Volcanic Sand turbidite?

hp

wellsort pumice rid

compositionally banded volc. turbidite

hp.

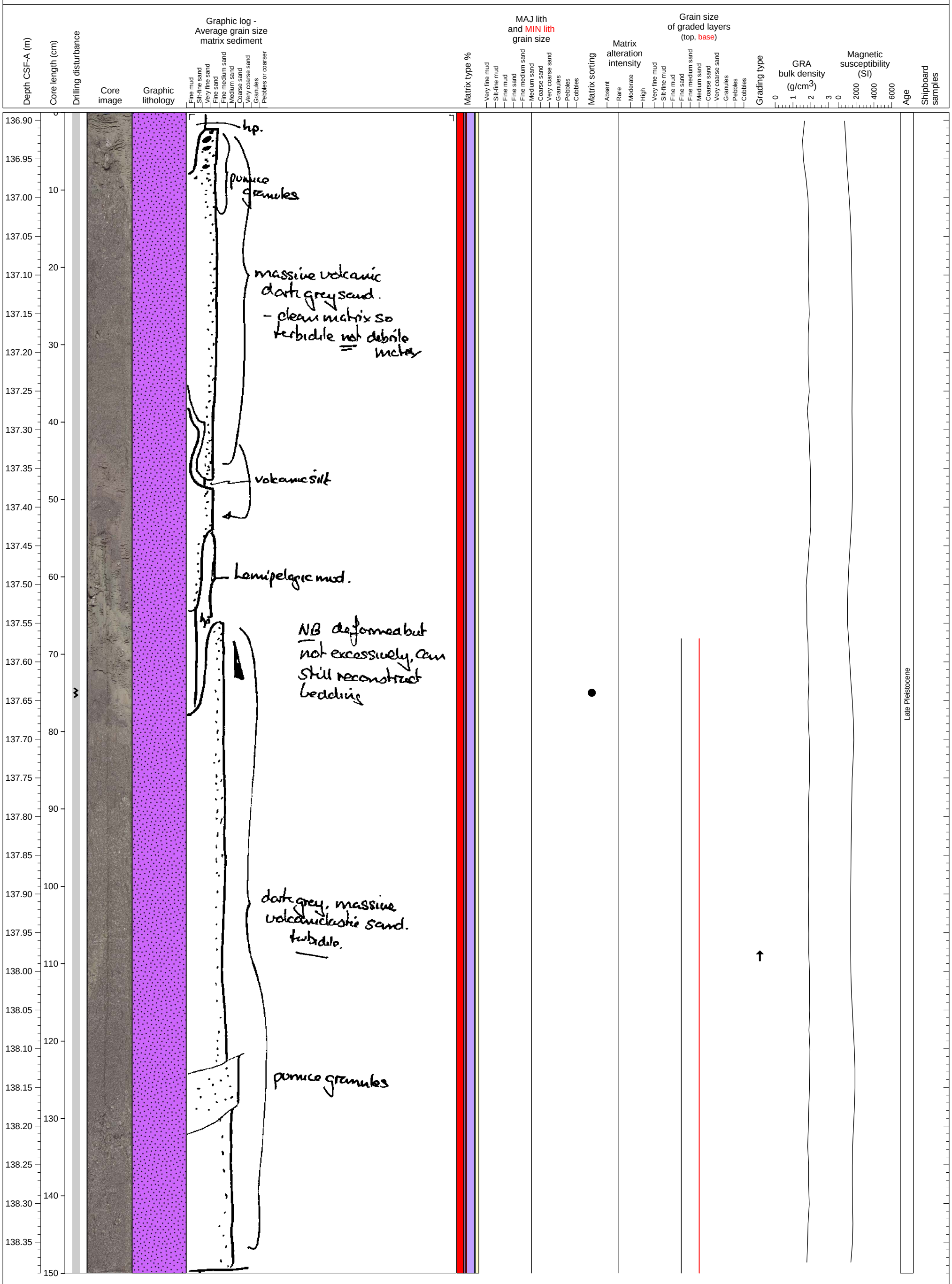
volcaniclastic turbidite

hp

Late Pleistocene

Hole 340-U1399A-17H Section 5, Top of Section: 136.89 CSF-A (m)

Clast-rich volcaniclastic sand. Clasts consist of pumice and hemipelagic mud.



Hole 340-U1399A-17H Section 6, Top of Section: 138.39 CSF-A (m)

Hemipelagic clay interlayered with volcaniclastic sand-mud units, several of which display normal grading.

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm^3)
0
1
2
3
Magnetic susceptibility (SI)
0
2000
4000
6000
Age
Shipboard samples

138.40
138.45
138.50
138.55
138.60
138.65
138.70
138.75
138.80
138.85
138.90
138.95
139.00
139.05
139.10
139.15
139.20
139.25
139.30
139.35
139.40
139.45
139.50
139.55
139.60
139.65
139.70
139.75
139.80
139.85
139.90

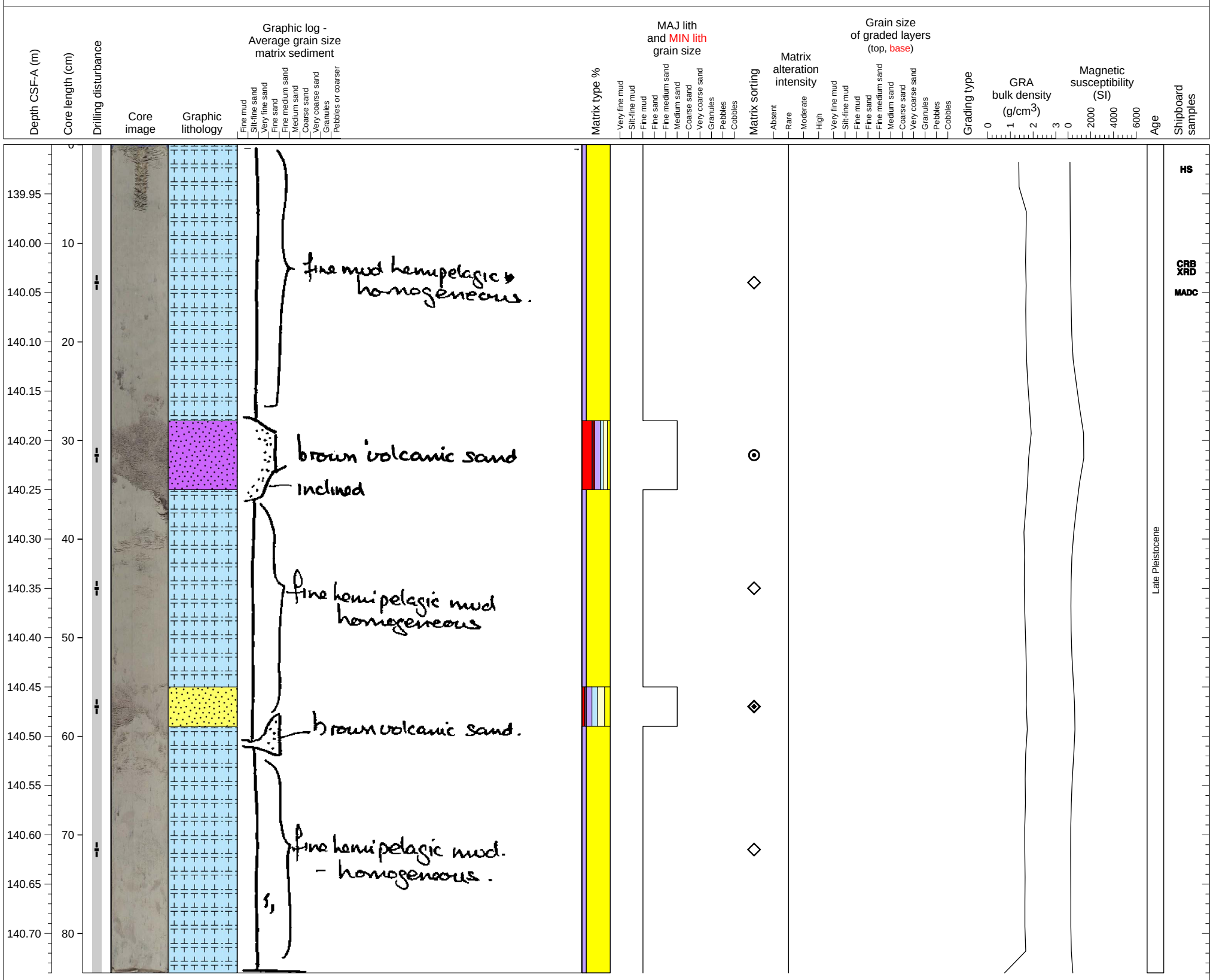
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150

grey volcanic sand.
fine hemipelagic mud
1cm black pumice
brown sand.
Whole Section
less deformation
and more flat
lying than 17H-5
fine
hemipelagic mud.
inclined
two black volcanic/ash? layers
hemipelagic mud.

Late Pleistocene
PMG

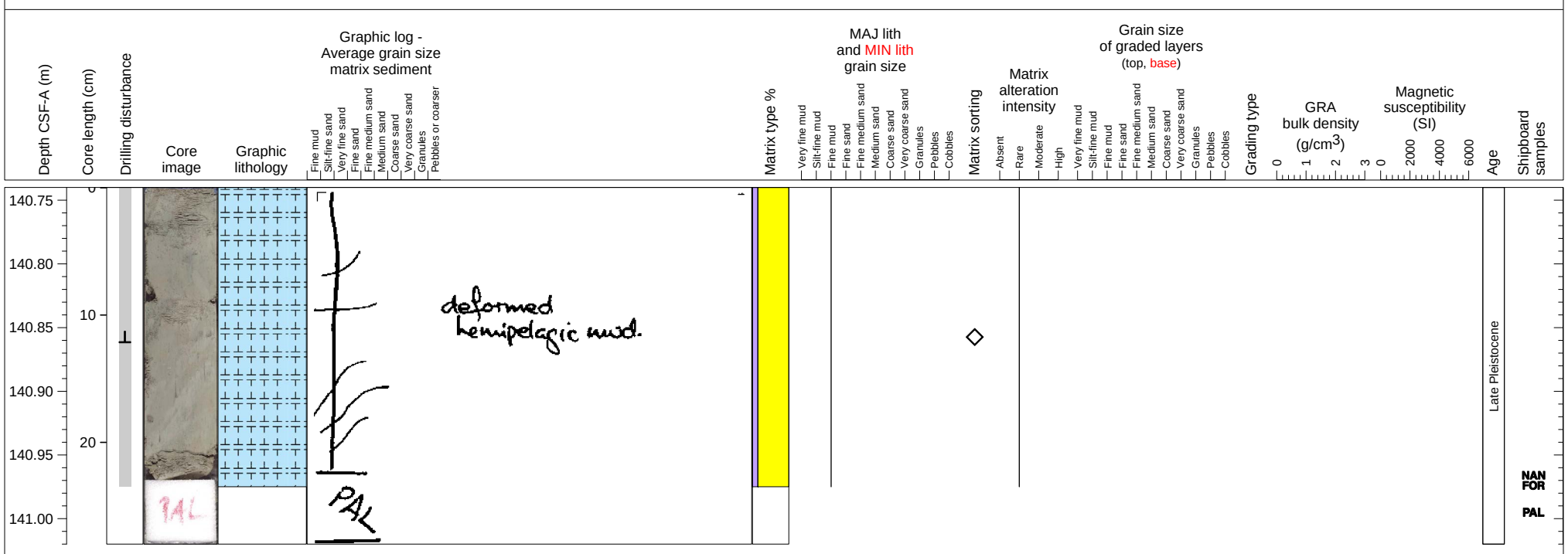
Hole 340-U1399A-17H Section 7, Top of Section: 139.9 CSF-A (m)

Hemipelagic clay interlayered with volcaniclastic and bioclastic sands.



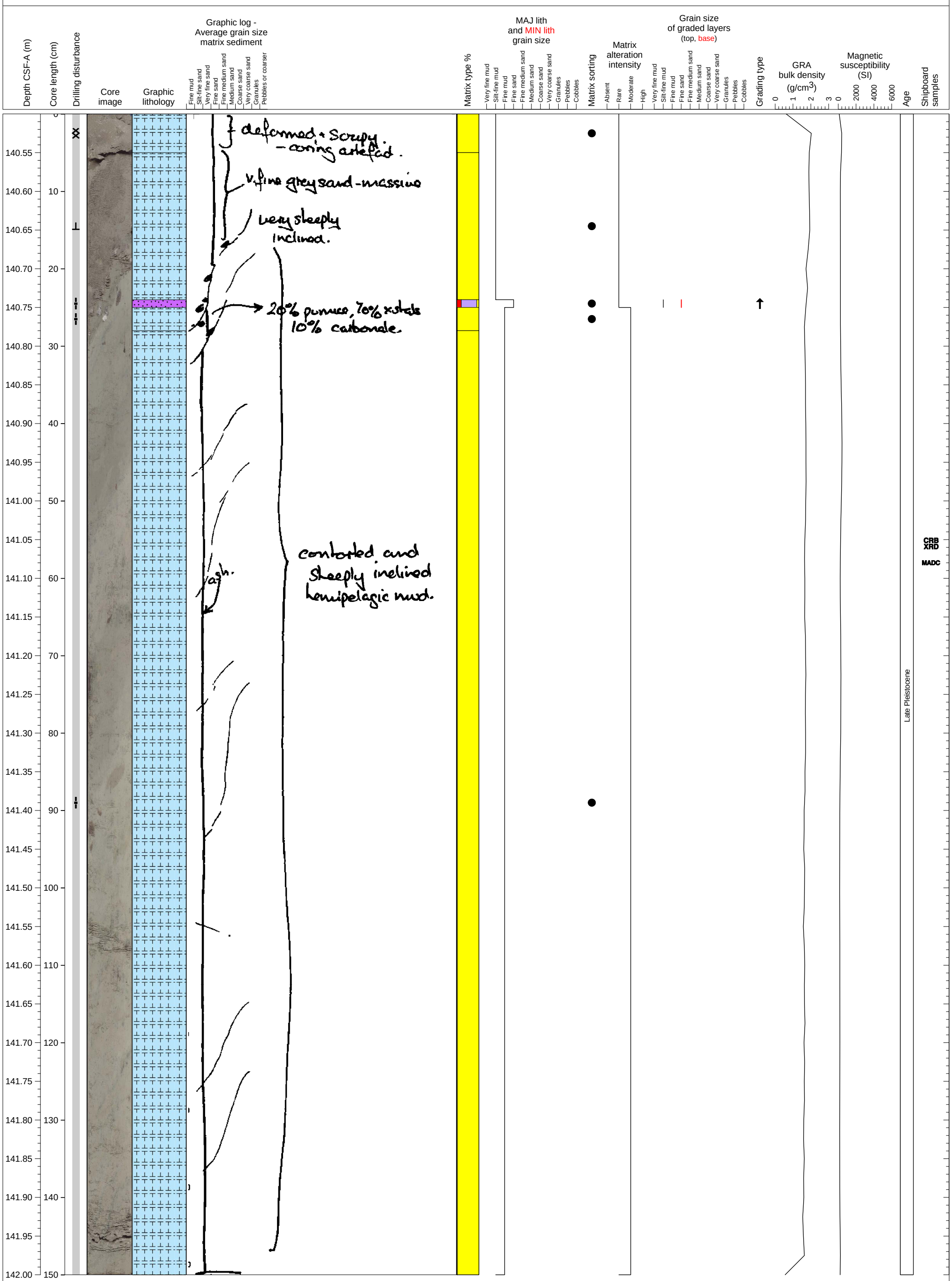
Hole 340-U1399A-17H Section CC, Top of Section: 140.74 CSF-A (m)

Hemipelagic clay unit. PAL sample from base.



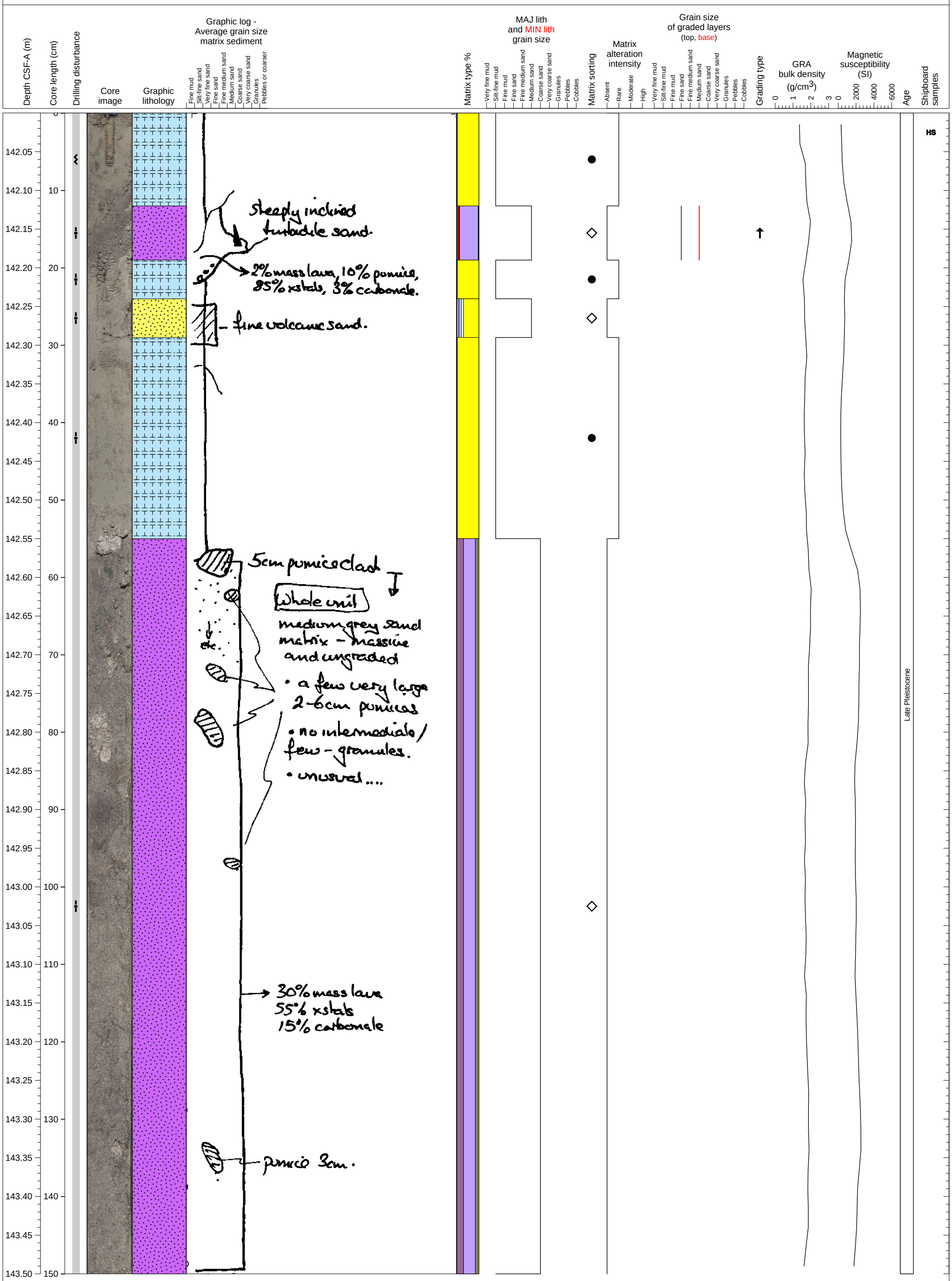
Hole 340-U1399A-18H Section 1, Top of Section: 140.5 CSF-A (m)

Hemipelagic clay interlayered with a pumice-rich tephra at the top. The layer is highly inclined.



Hole 340-U1399A-18H Section 2, Top of Section: 142.0 CSF-A (m)

Upper part is hemipelagic clay interbedded with volcaniclastic sand layers. Lower part is massive pumiceous turbidite.



Hole 340-U1399A-18H Section 3, Top of Section: 143.5 CSF-A (m)

Pumice clast-rich volcaniclastic sand deposit.

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm^3)
0
1
2
3
Magnetic susceptibility (SI)
0
2000
4000
6000
Age
Shipboard samples

143.55 – 0
143.60 – 10
143.65
143.70 – 20
143.75
143.80 – 30
143.85
143.90 – 40
143.95
144.00 – 50
144.05
144.10 – 60
144.15
144.20 – 70
144.25 – 75
144.30 – 80
144.35
144.40 – 90
144.45
144.50 – 100
144.55
144.60 – 110
144.65
144.70 – 120
144.75
144.80 – 130
144.85
144.90 – 140
144.95
145.00 – 150

WHOLE SECTION

medium-coarse medium grey sand with distributed pumice clasts from 1mm - to 2cm

- massive and ungraded
- probably flowed during coring
- similar to 18H-4

Late Pleistocene

Hole 340-U1399A-18H Section 4, Top of Section: 145.0 CSF-A (m)

Pumice clast-rich volcaniclastic sand deposit.

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm3)
0
1
2
3
Magnetic susceptibility (SI)
0
2000
4000
6000
Age
Shipboard samples

WHOLE SECTION

medium grey, very coarse sand with relatively abundant pumice clasts up to 2cm

- massive + ungraded
- probably flowed during coring.

Late Pleistocene

145.05 145.10 145.15 145.20 145.25 145.30 145.35 145.40 145.45 145.50 145.55 145.60 145.65 145.70 145.75 145.80 145.85 145.90 145.95 146.00 146.05 146.10 146.15 146.20 146.25 146.30 146.35 146.40 146.45 146.50

10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

Hole 340-U1399A-18H Section 5, Top of Section: 146.5 CSF-A (m)

Pumice clast-rich volcaniclastic sand deposit.

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm3)
0
1
2
3
Magnetic susceptibility (SI)
0
2000
4000
6000
Age
Shipboard samples

146.55
146.60
146.65
146.70
146.75
146.80
146.85
146.90
146.95
147.00
147.05
147.10
147.15
147.20
147.25
147.30
147.35
147.40
147.45
147.50
147.55
147.60
147.65
147.70
147.75
147.80
147.85
147.90
147.95
148.00

0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150

WHOLE SECTION

medium grey sand matrix, massive, visually ungraded

- one large pumice clast and 1-3mm granules
- probably flowed during core recovery

25% pumice
10% mass lava
5% vesic lava
25% xstals.
35% carbonate

large 7cm pumice clast.

as above

Late Pleistocene

Hole 340-U1399A-18H Section 6, Top of Section: 148.0 CSF-A (m)

Pumice clast-rich volcaniclastic sand deposit.

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm3)
0
1
2
3
Magnetic susceptibility (SI)
0
2000
4000
6000
Age
Shipboard samples

148.05
148.10
148.15
148.20
148.25
148.30
148.35
148.40
148.45
148.50
148.55
148.60
148.65
148.70
148.75
148.80
148.85
148.90
148.95
149.00
149.05
149.10
149.15
149.20
149.25
149.30
149.35
149.40
149.45
149.50

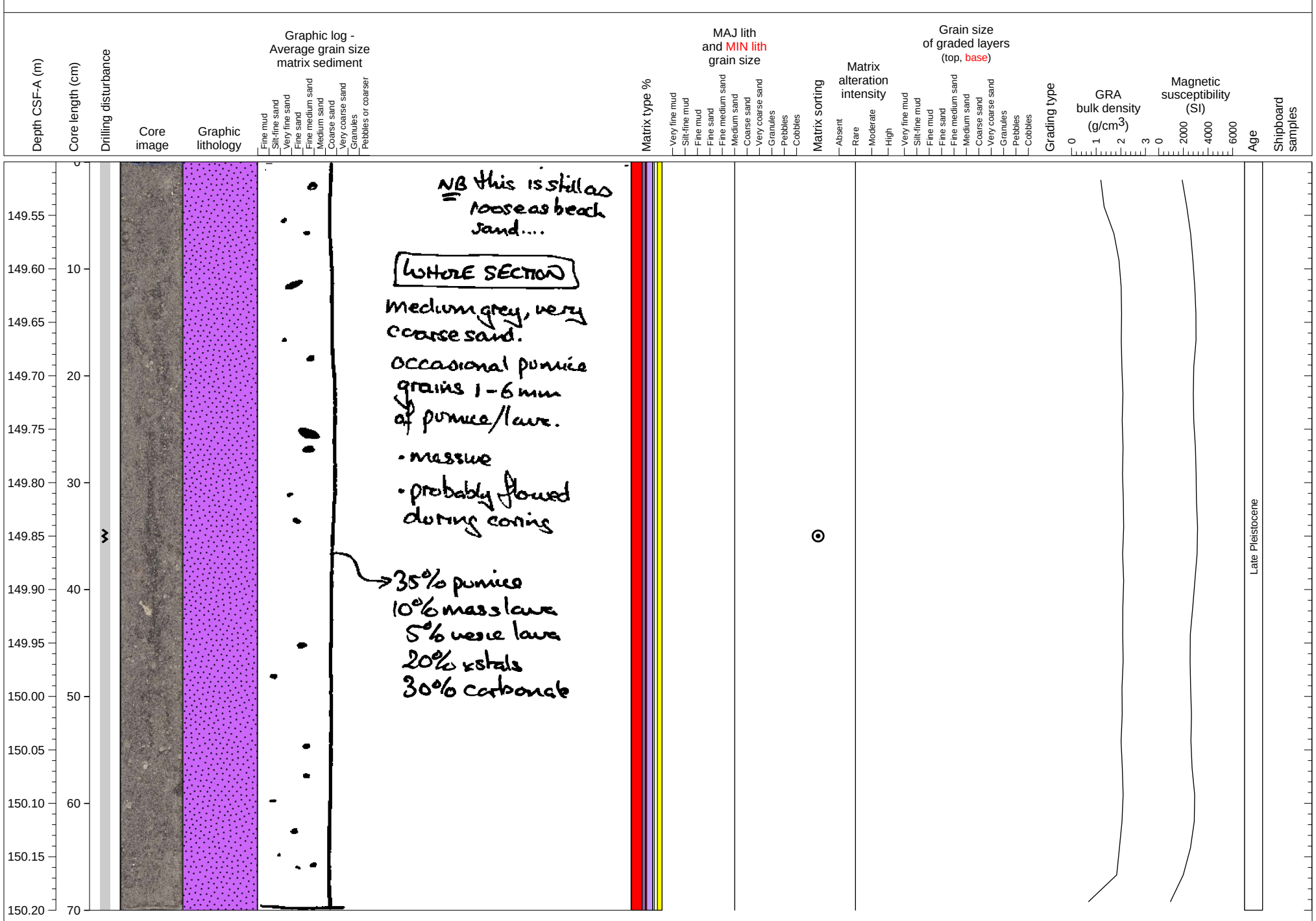
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150

WHOLE SECTION
medium grey sand matrix, massive and ungraded
- probably flowed during core recovery
- pumice clasts and granules dispersed chaotically.
35% pumice, 15% mass lava, 10% xstals, 40% carbonate.
3cm pumice
as above.
5% pumice
10% mass lava,
5% vesicle lava,
65% xstals.
15% carbonate.
as above

Late Pleistocene

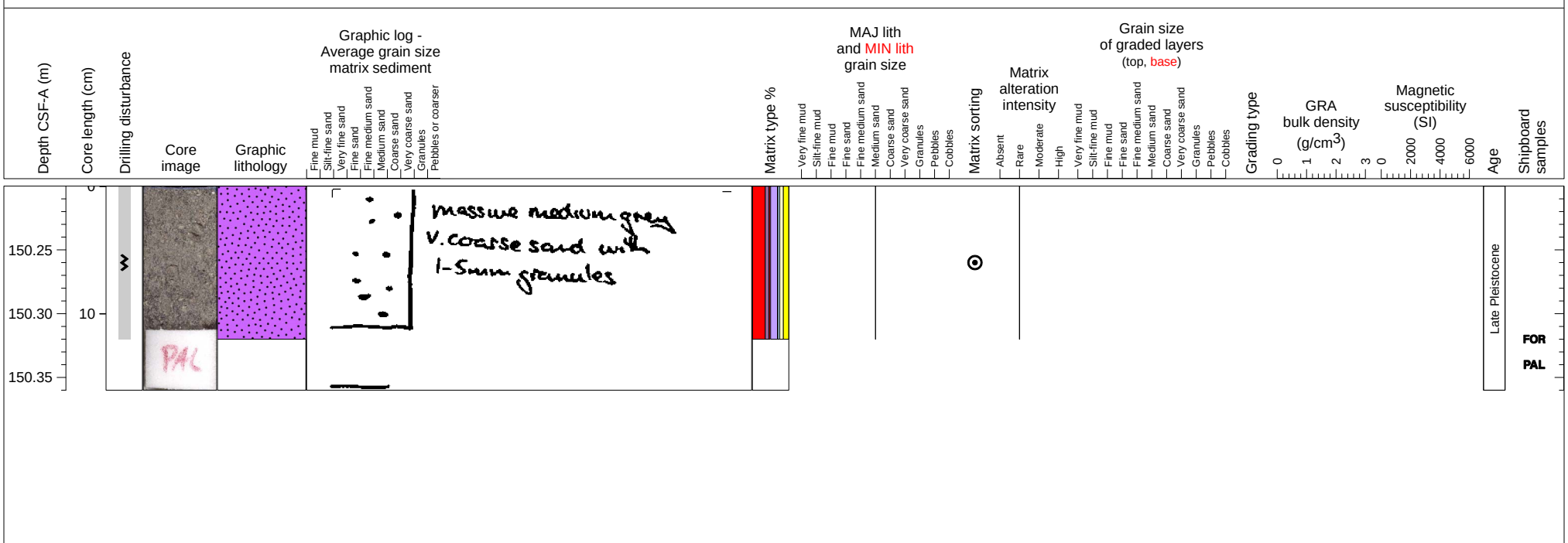
Hole 340-U1399A-18H Section 7, Top of Section: 149.5 CSF-A (m)

Pumice clast-rich volcaniclastic sand deposit.



Hole 340-U1399A-18H Section CC, Top of Section: 150.2 CSF-A (m)

Pumice clast-rich volcaniclastic sand deposit. PAL sample from base.



Hole 340-U1399A-19H Section 1, Top of Section: 150.0 CSF-A (m)

Volcanic gravels due to concentration during drilling.

U1399A-19H-CC ALL TO PALEO

Hole 340-U1399A-20H Section 1, Top of Section: 153.4 CSF-A (m)

Hemipelagic sediments intercalated with debrite, and volcaniclastic gravels concentrated at the top.

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm3)
0
1
2
3
Magnetic susceptibility (SI)
0
2000
4000
6000
Age
Shipboard samples

153.40
153.45
153.50
153.55
153.60
153.65
153.70
153.75
153.80
153.85
153.90
153.95
154.00
154.05
154.10
154.15
154.20
154.25
154.30
154.35
154.40
154.45
154.50
154.55
154.60
154.65
154.70
154.75
154.80
154.85

0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150

Concentration of granuls and clasts of dark, grey and oxidized lavas + carbonates

→ Granules mixed with matrix

→ collapse in the hole during the coring

Greenish grey hemipelagic mud

Greenish grey muddy sand with pumice and lava clasts

weakly deformed hemipelagic greenish grey mud (inclined contacts)

volcanic sand layer : ash fall (5% pumices 85% crystals 10% carbonate)

Greenish-grey HP

Late Pleistocene

CRB
XRD
MADC

Hole 340-U1399A-20H Section 2, Top of Section: 154.9 CSF-A (m)

Hemipelagic sediments

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm3)
Magnetic susceptibility (SI)
Age
Shipboard samples

154.90 – 155.95 – 155.00 – 155.05 – 155.10 – 155.15 – 155.20 – 155.25 – 155.30 – 155.35 – 155.40 – 155.45 – 155.50 – 155.55 – 155.60 – 155.65 – 155.70 – 155.75 – 155.80 – 155.85 – 155.90 – 155.95 – 156.00 – 156.05 – 156.10 – 156.15 – 156.20 – 156.25 – 156.30 – 156.35

0 – 10 – 20 – 30 – 40 – 50 – 60 – 70 – 80 – 90 – 100 – 110 – 120 – 130 – 140 – 150

Weakly contorted greenish grey hemipelagic mud

Contact between green zone and grey to brown zone, obliques

GRA bulk density (g/cm3): 0 1 2 3

Magnetic susceptibility (SI): 0 2000 4000 6000

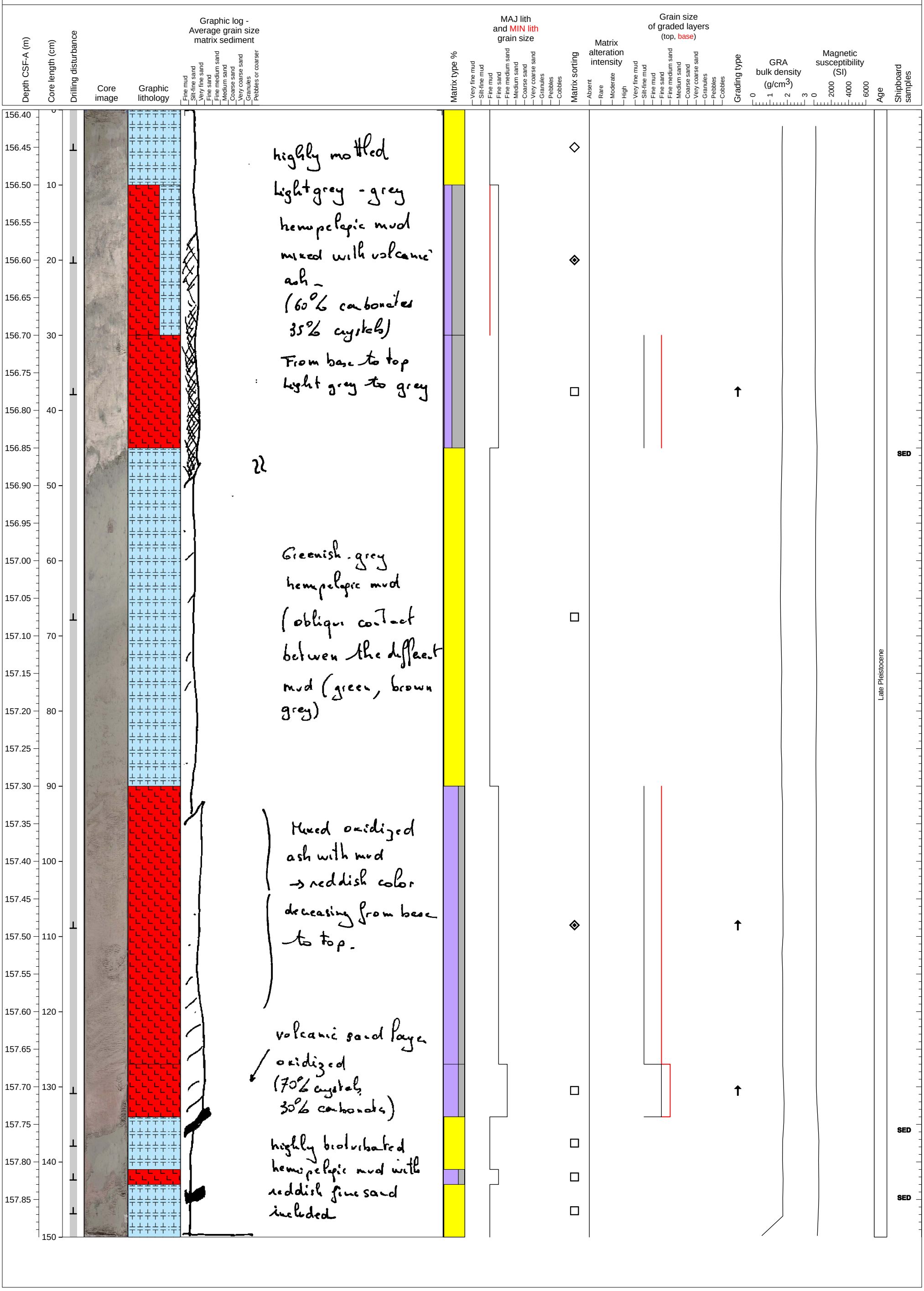
HS

Late Pleistocene

PMG

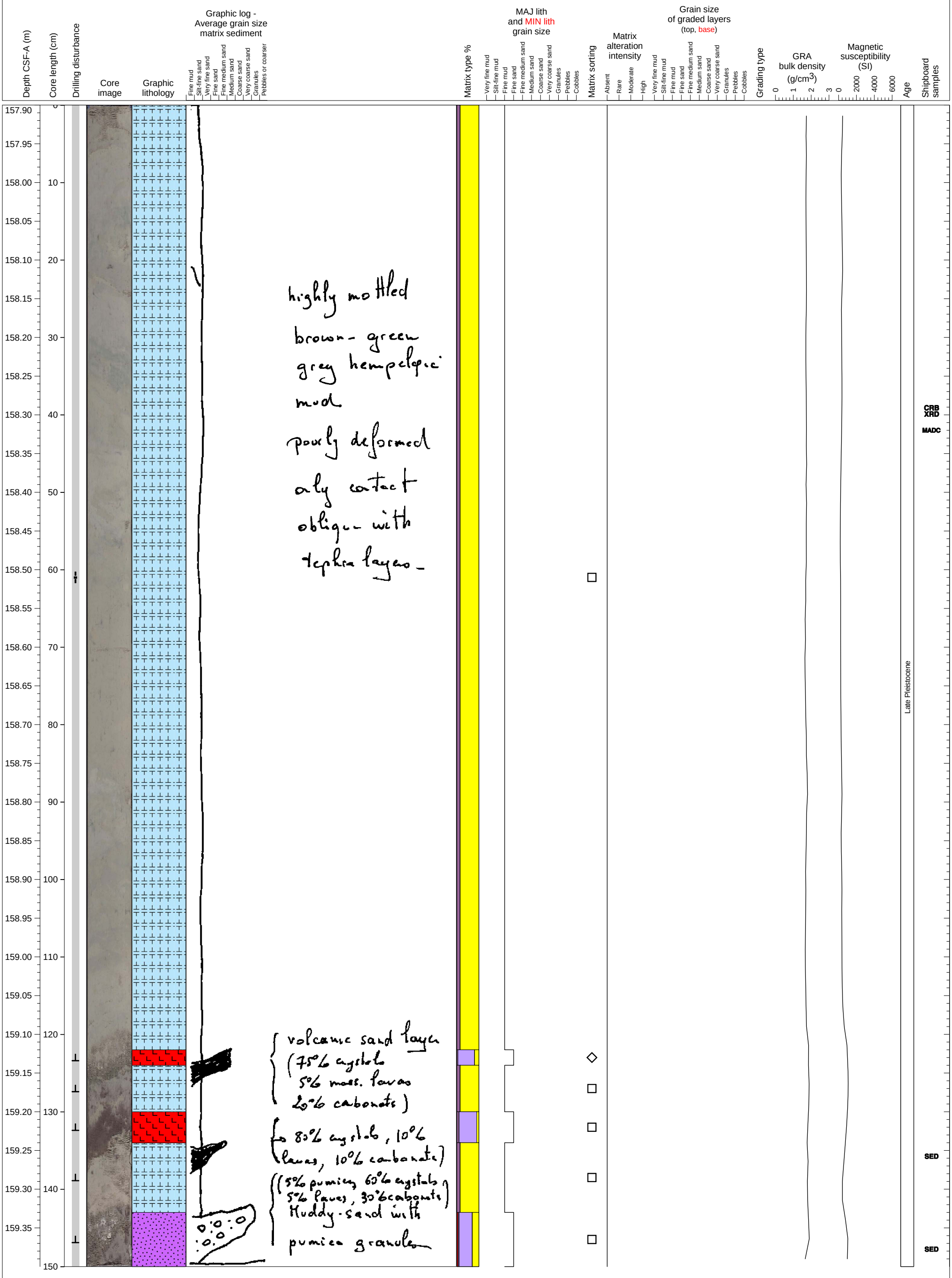
Hole 340-U1399A-20H Section 3, Top of Section: 156.4 CSF-A (m)

Hemipelagic sediments with 3 ashfall layers.



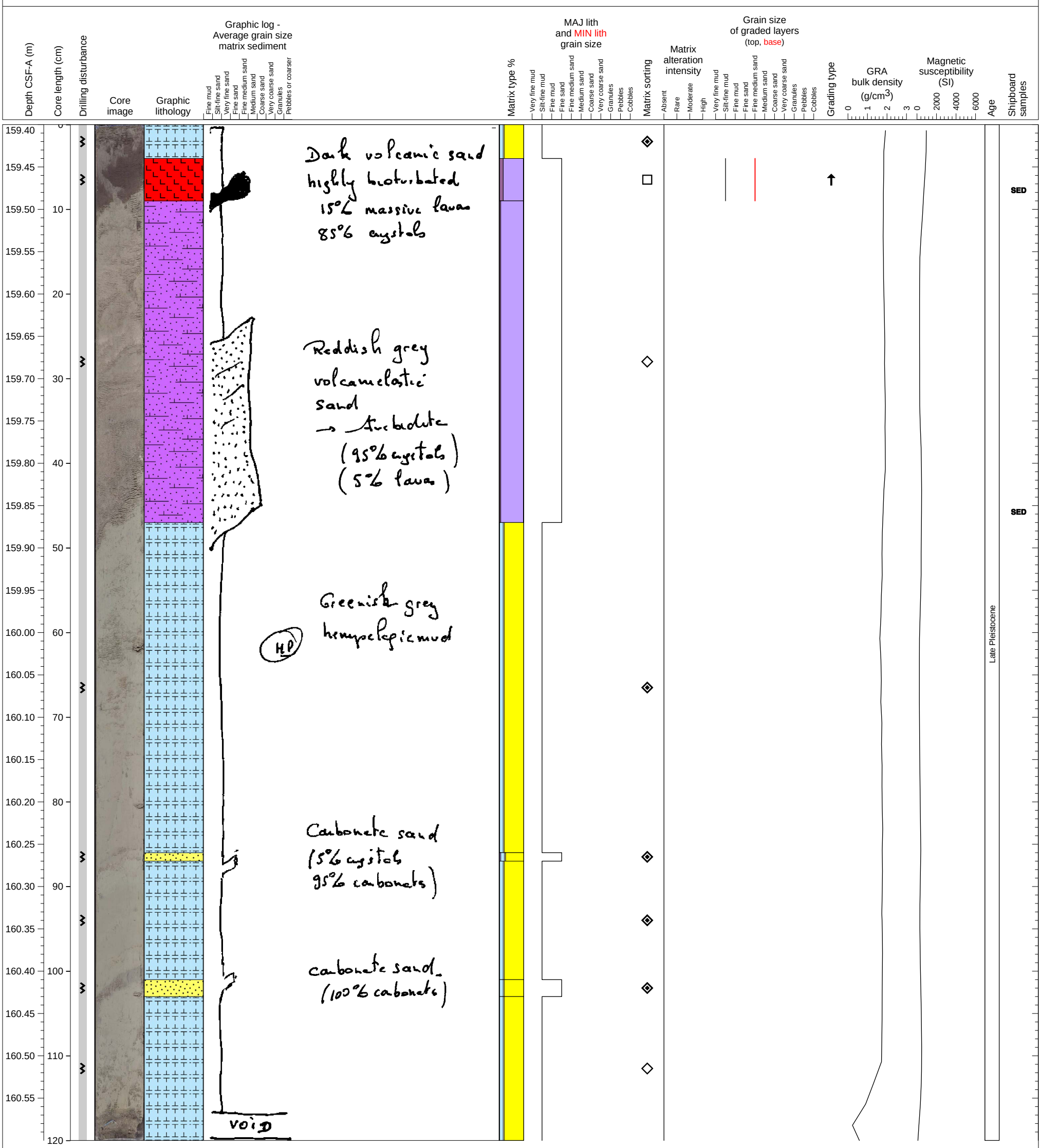
Hole 340-U1399A-20H Section 4, Top of Section: 157.9 CSF-A (m)

Hemipelagic sediment with two thin ash layers and a thin, pumice-bearing volcaniclastic sand at base.



Hole 340-U1399A-20H Section 5, Top of Section: 159.4 CSF-A (m)

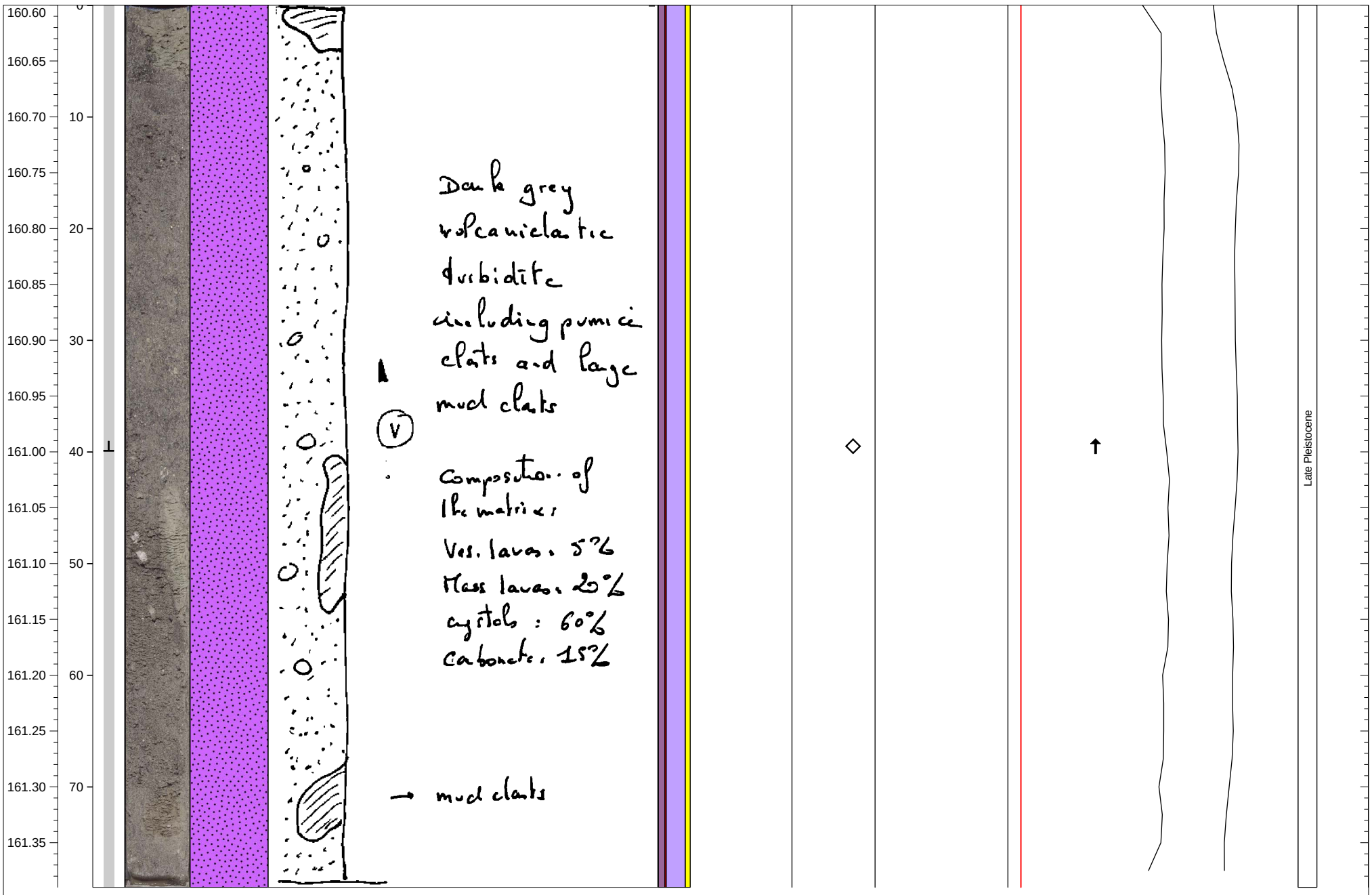
Hemipelagic sediments with deformed volcanic ash layers.



U1399A-20H-CC ALL TO PALEO

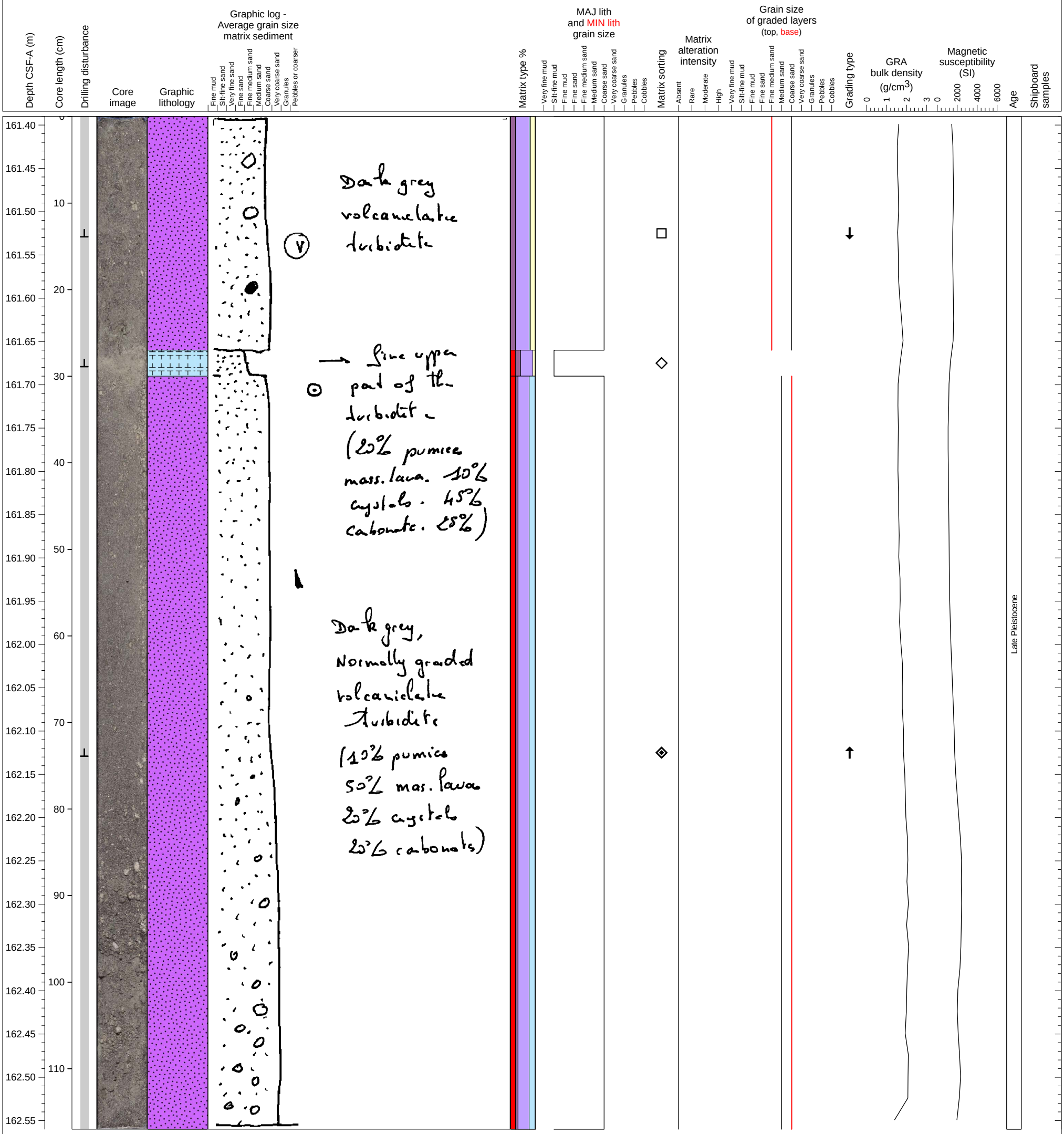
Hole 340-U1399A-21H Section 1, Top of Section: 160.6 CSF-A (m)

Part of a volcaniclastic turbidite.



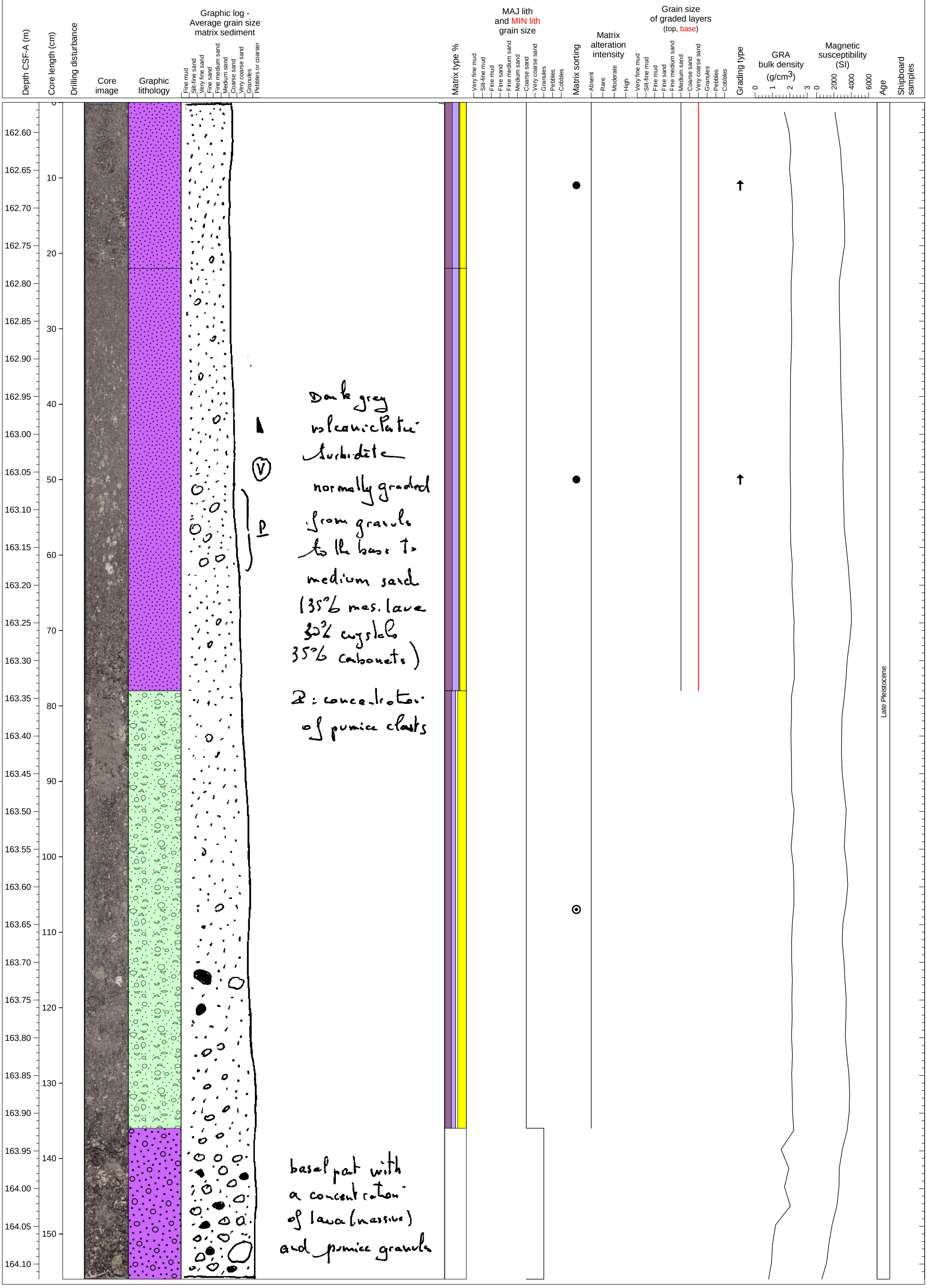
Hole 340-U1399A-21H Section 2, Top of Section: 161.39 CSF-A (m)

Part of thick volcaniclastic turbidite.



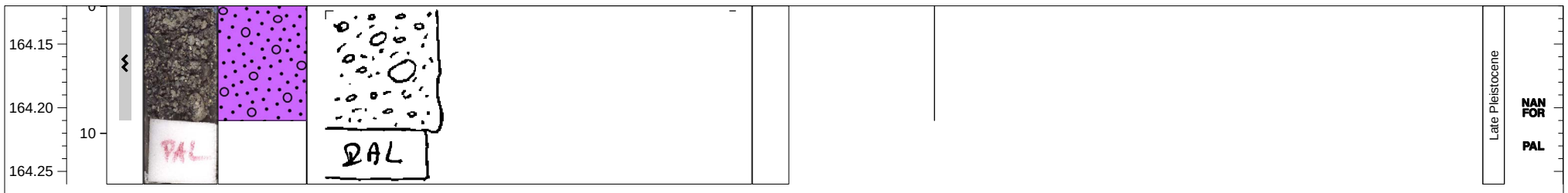
Hole 340-U1399A-21H Section 3, Top of Section: 162.56 CSF-A (m)

Normally graded volcaniclastic turbidite and debrite.



Hole 340-U1399A-21H Section CC, Top of Section: 164.12 CSF-A (m)

Volcanic gravels in CC



Hole 340-U1399A-22H Section 1, Top of Section: 164.2 CSF-A (m)

Part of a thick volcaniclastic turbidite

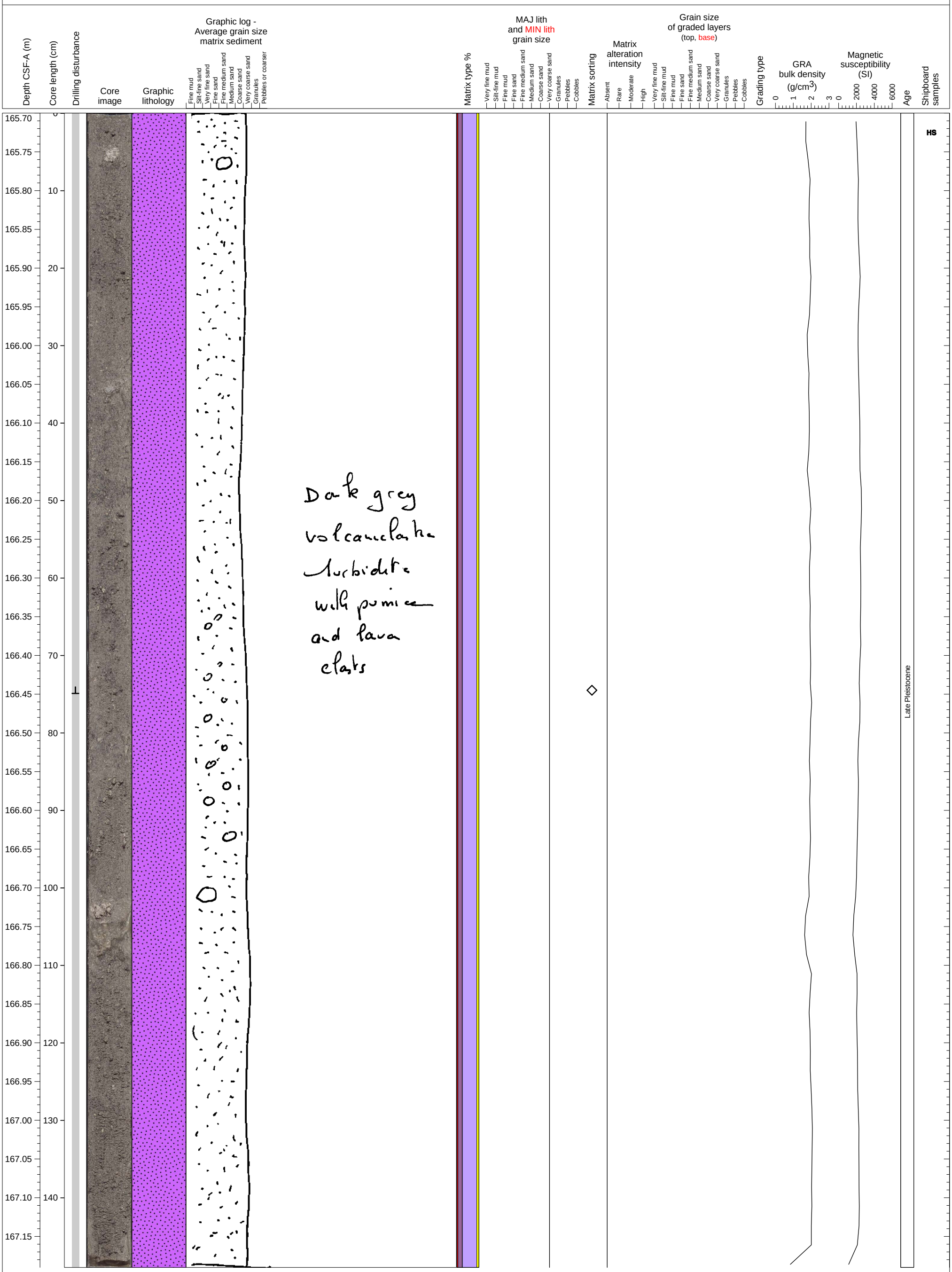
Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm^3)
Magnetic susceptibility (SI)
Age
Shipboard samples

Dark grey volcaniclastic turbidite with pumice clasts and lava clasts
(pumice: 5%
lava mass: 30%
crystals: 55%
carbonate: 10%

Late Pleistocene

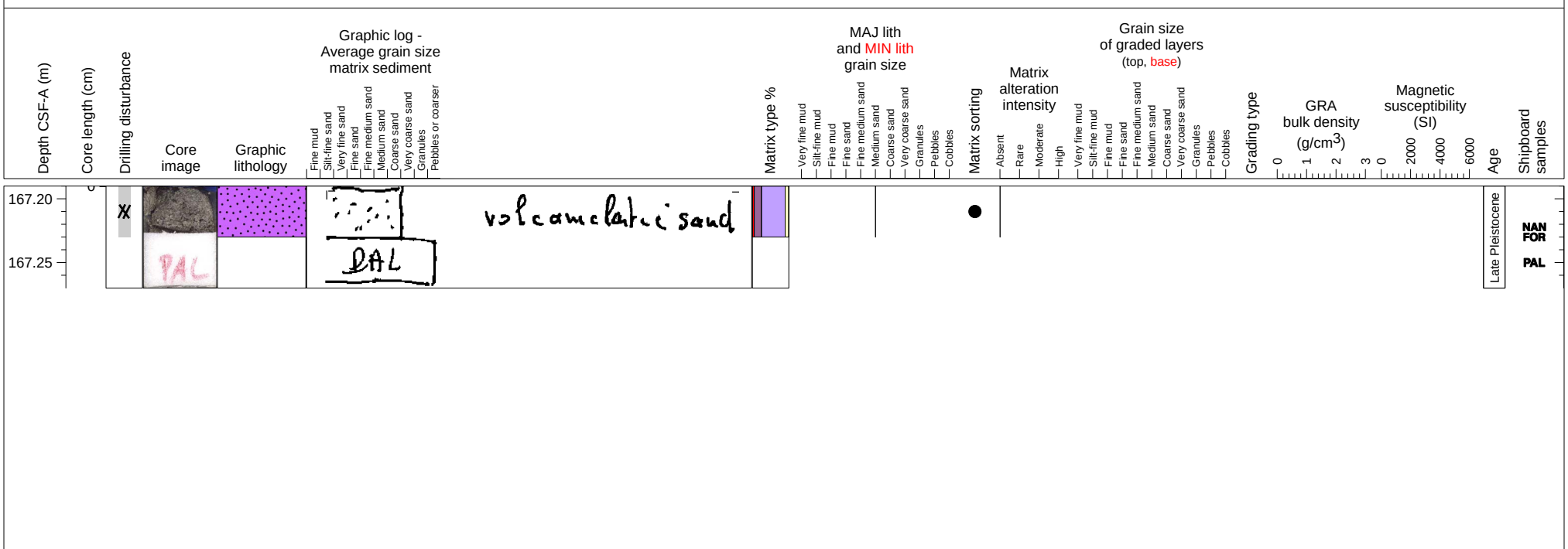
Hole 340-U1399A-22H Section 2, Top of Section: 165.7 CSF-A (m)

Part of a thick volcaniclastic turbidite, with pumice clasts.



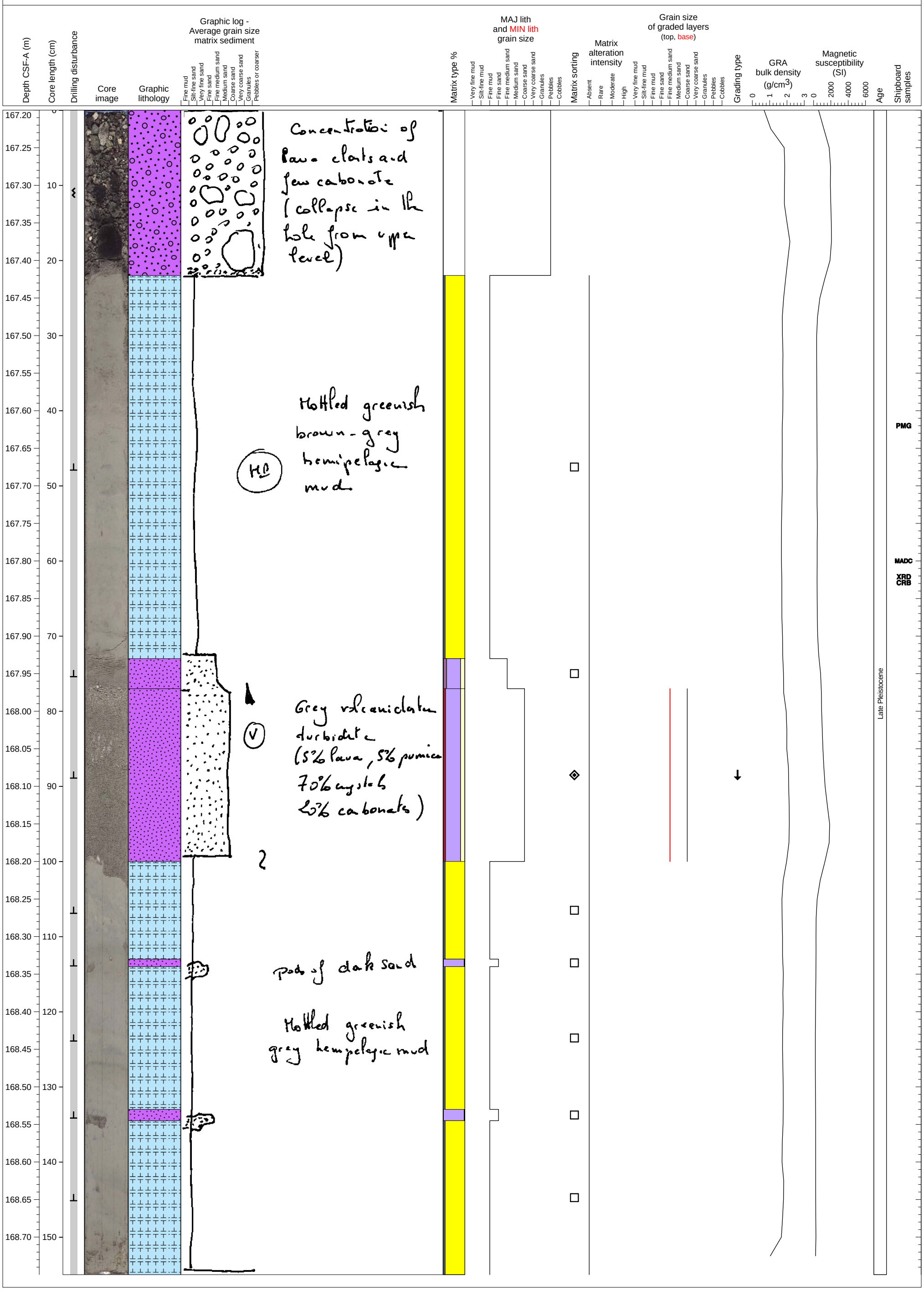
Hole 340-U1399A-22H Section CC, Top of Section: 167.19 CSF-A (m)

Volcanniclastic turbidite.



Hole 340-U1399A-23H Section 1, Top of Section: 167.2 CSF-A (m)

Hemipelagic sediment with volcaniclastic sand layers.



Hole 340-U1399A-23H Section 2, Top of Section: 168.75 CSF-A (m)

Hemipelagic sediment with a thin ash layer interbedded, overlying part of a volcaniclastic turidite.

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm^3)
0
1
2
3
Magnetic susceptibility (SI)
0
2000
4000
6000
Age
Shipboard samples

168.75
168.80
168.85
168.90
168.95
169.00
169.05
169.10
169.15
169.20
169.25
169.30
169.35
169.40
169.45
169.50
169.55
169.60
169.65
169.70
169.75
169.80
169.85
169.90
169.95
170.00
170.05
170.10
170.15
170.20

0
10
20
30
40
50
60
70
80
90
100
110
120
130
140

Brownish - grey hemipelagic mud with few green Payen

V.S

g
g

volcanic sand
Payen → ash fall
5% mass. Pavan
90% crystals
5% carbonate

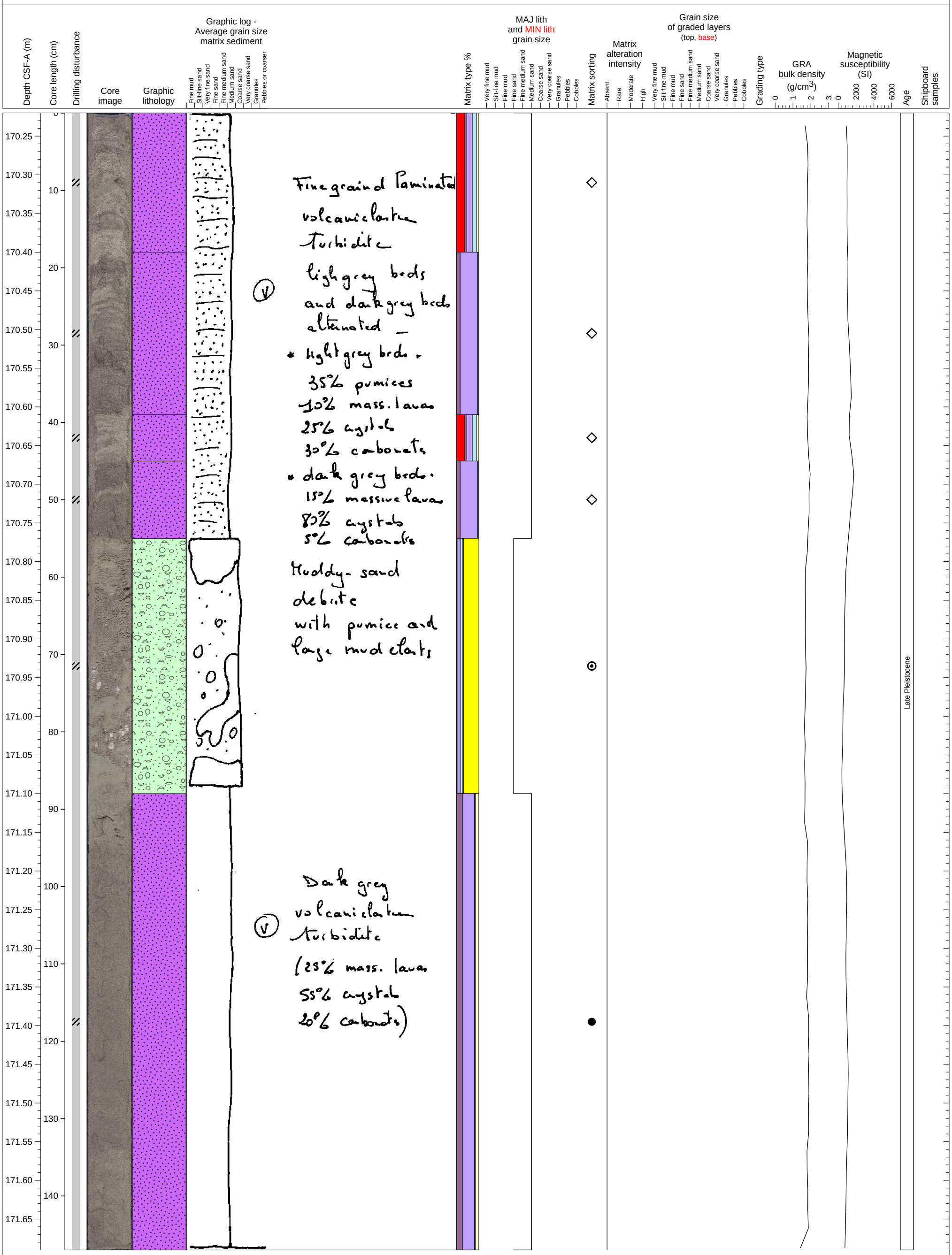
Dark grey volcaniclastic turbidite
Massive
(80% crystals
5% mass. Pavan
15% carbonate

V

Late Pleistocene

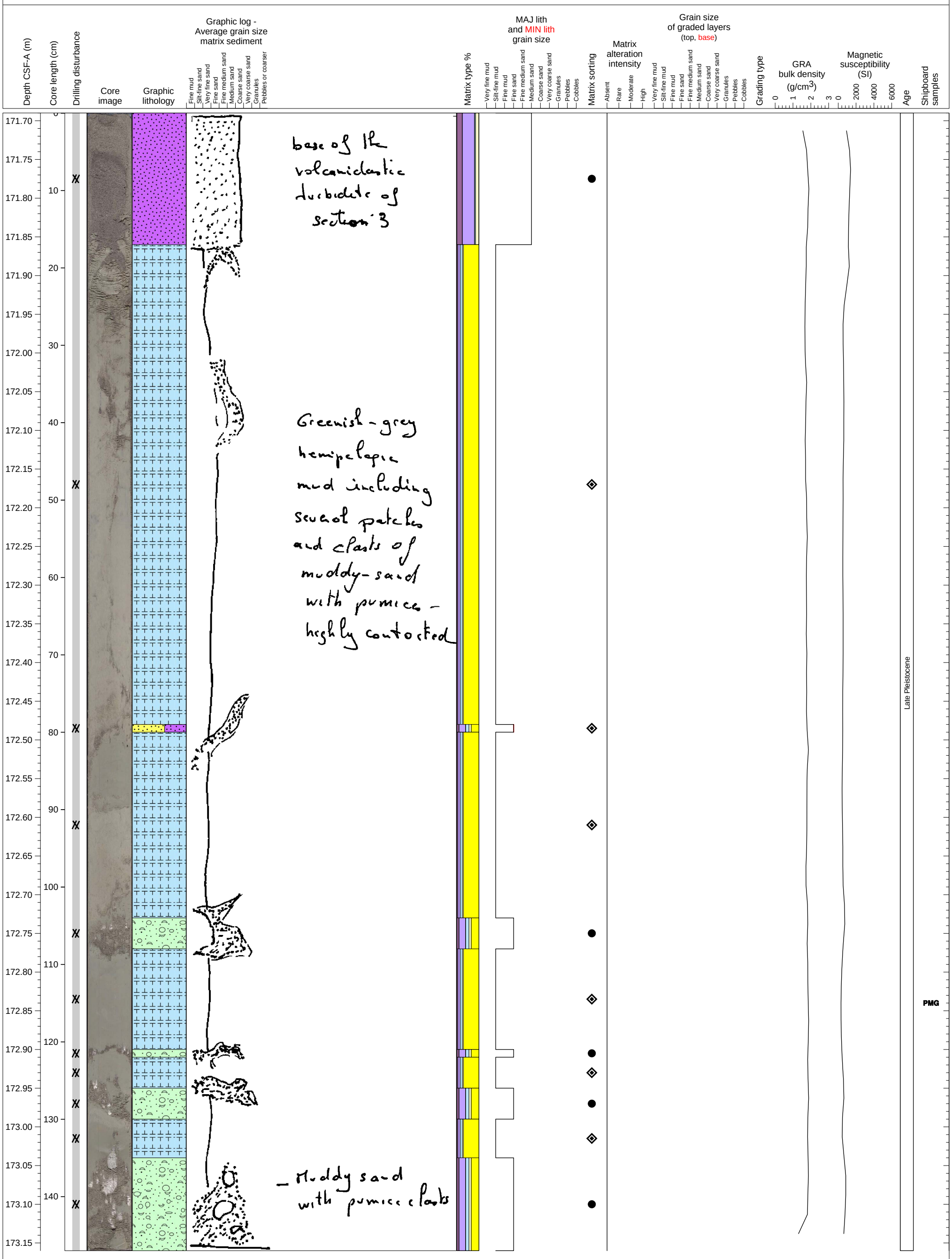
Hole 340-U1399A-23H Section 3, Top of Section: 170.22 CSF-A (m)

Layered turbidite, massive turbidite intercalated with debrite



Hole 340-U1399A-23H Section 4, Top of Section: 171.69 CSF-A (m)

Volcaniclastic turbidite with underlain mingled hemipelagic sediment and debrite.



Hole 340-U1399A-23H Section 5, Top of Section: 173.16 CSF-A (m)

Massive unsorted deposits (debrite?) occur at the top 80 cm of the section, that overly hemipelagic mud.

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm3)
0
1
2
3
Magnetic susceptibility (SI)
0
2000
4000
6000
Age
Shipboard samples

173.20
173.25
173.30
173.35
173.40
173.45
173.50
173.55
173.60
173.65
173.70
173.75
173.80
173.85
173.90
173.95
174.00
174.05
174.10
174.15
174.20
174.25
174.30
174.35
174.40
174.45
174.50
174.55
174.60

10
20
30
40
50
60
70
80
90
100
110
120
130
140

Muddy-sand with abundant pumice clasts and basic mud clasts
(pumice: 30%
mass. lava: 5%
argilite: 40%
carbonate: 10%
matrix carb. 35%)

mud clast including a pumice clast

Massive volcanic sand
(pumice 5%
mass. lava 10%
ves. lava: 30%
argilite, 65%
carbonate 10%)

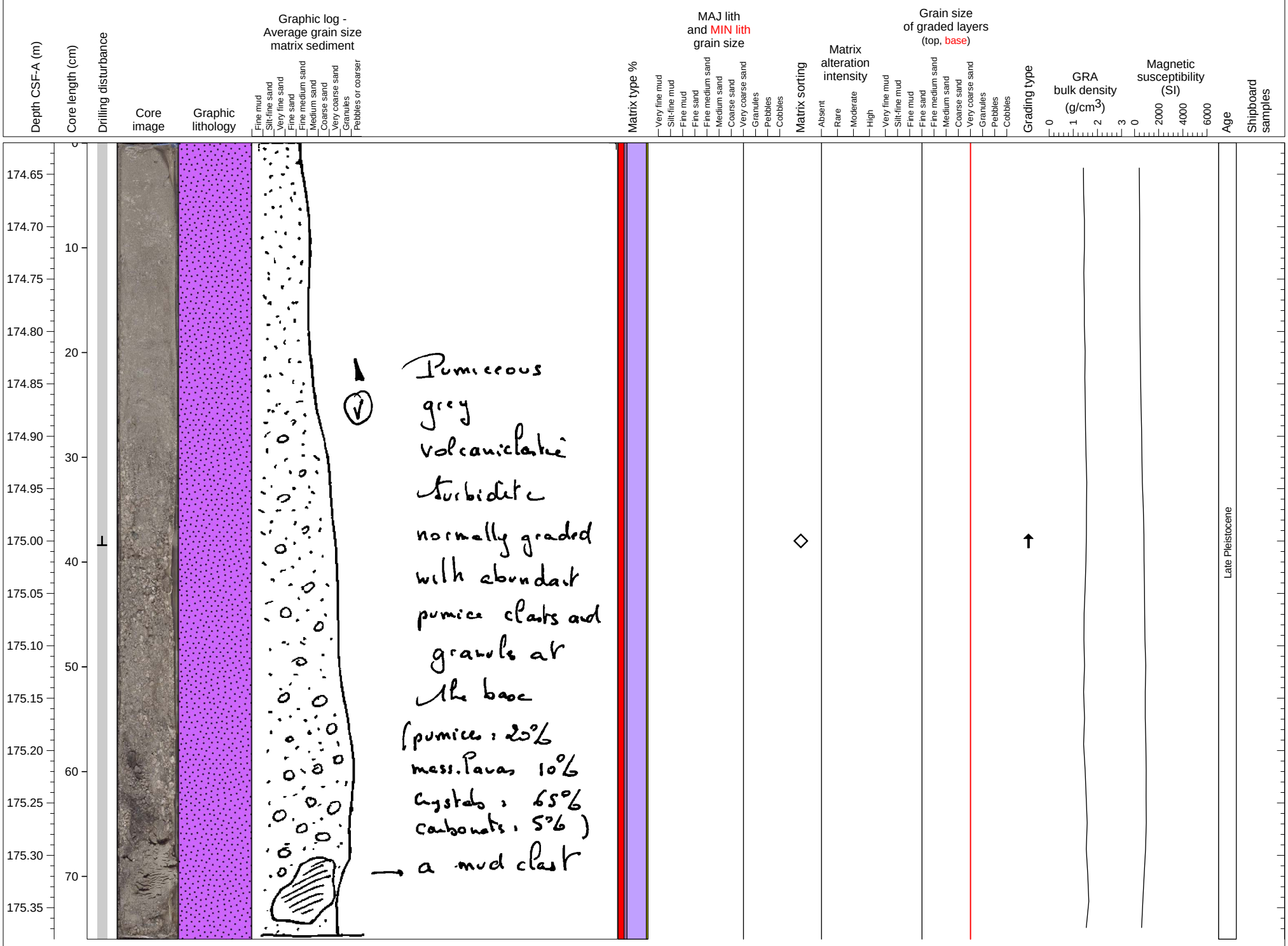
Very fine greenish grey hemipelagic mud including few zons of dark sand

Muddy-sand with pumice clasts

HS
Late Pleistocene
XRD
CRB
MADC

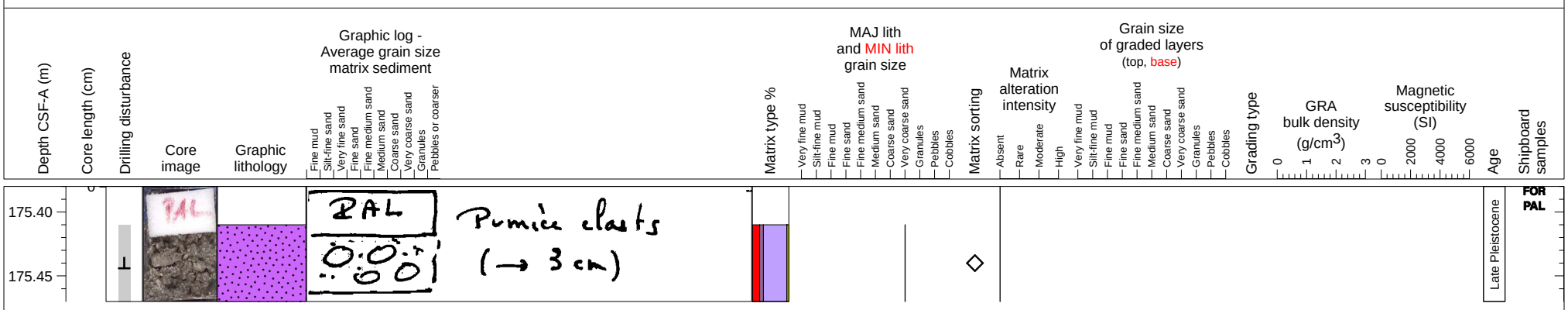
Hole 340-U1399A-23H Section 6, Top of Section: 174.62 CSF-A (m)

Part of a thick volcaniclastic turbidite, graded.



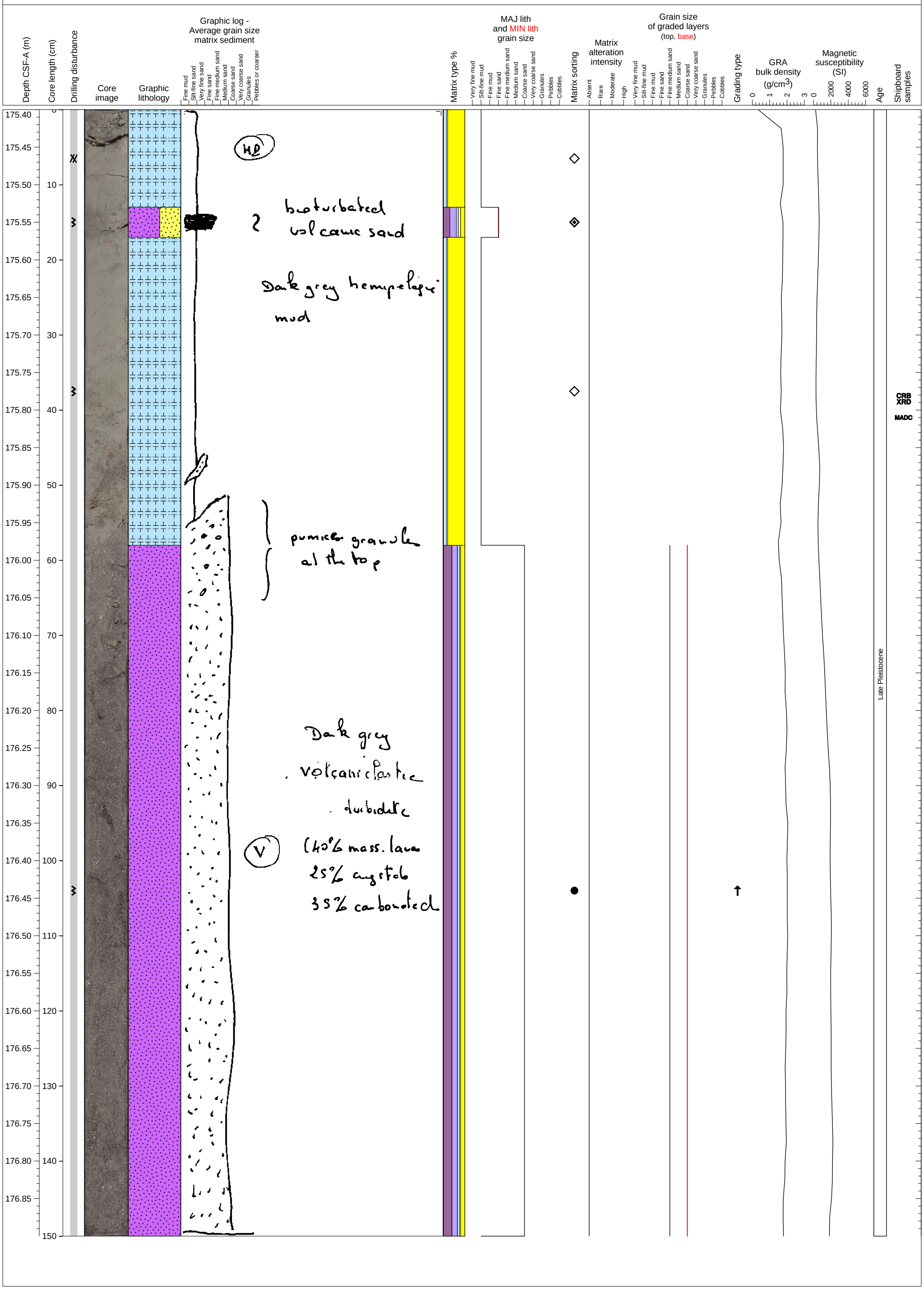
Hole 340-U1399A-23H Section CC, Top of Section: 175.38 CSF-A (m)

Volcaniclastic sand with large pumice clasts.



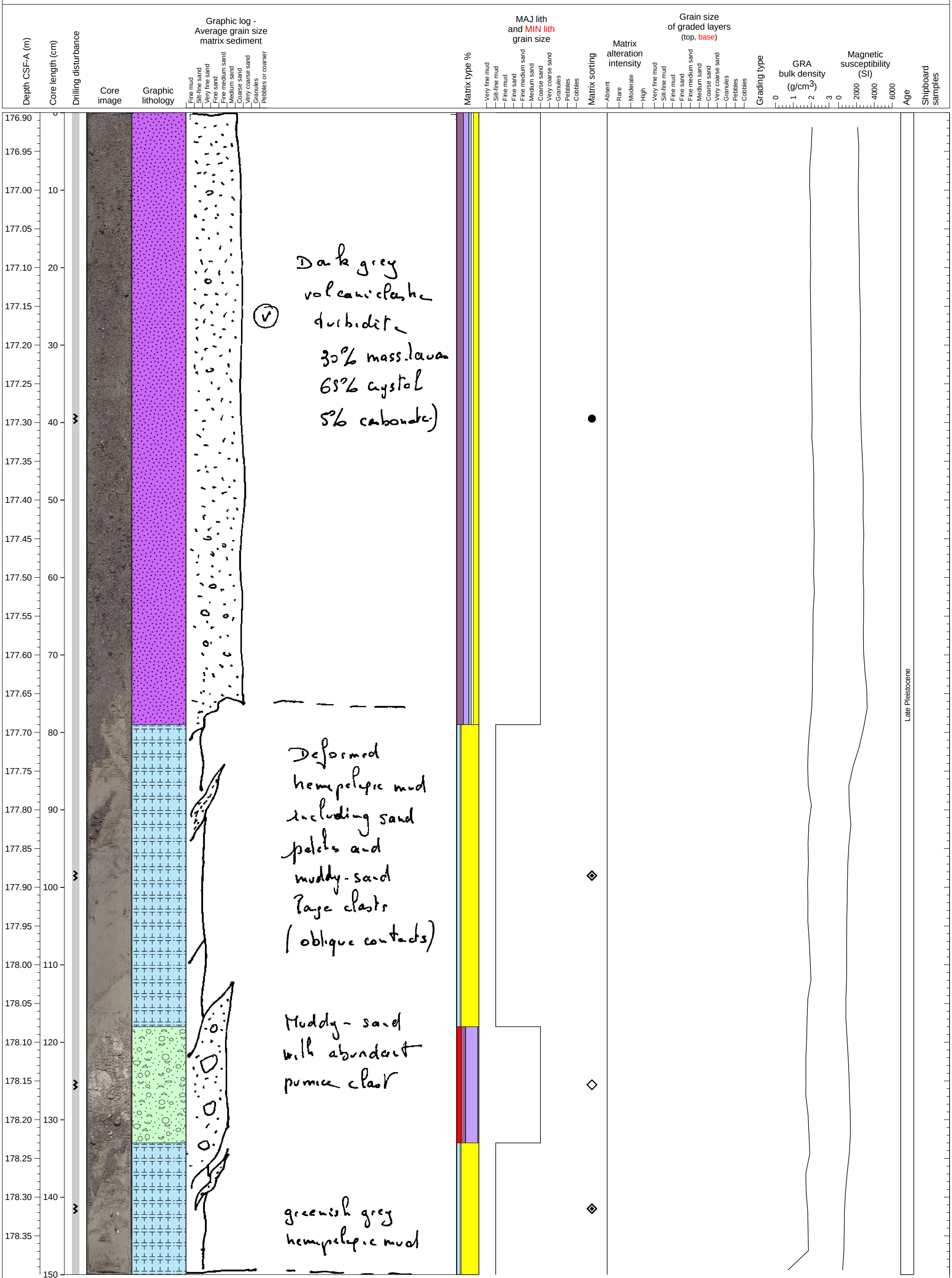
Hole 340-U1399A-24H Section 1, Top of Section: 175.4 CSF-A (m)

Hemipelagic sediment intercalated with volcaniclastic turbidite



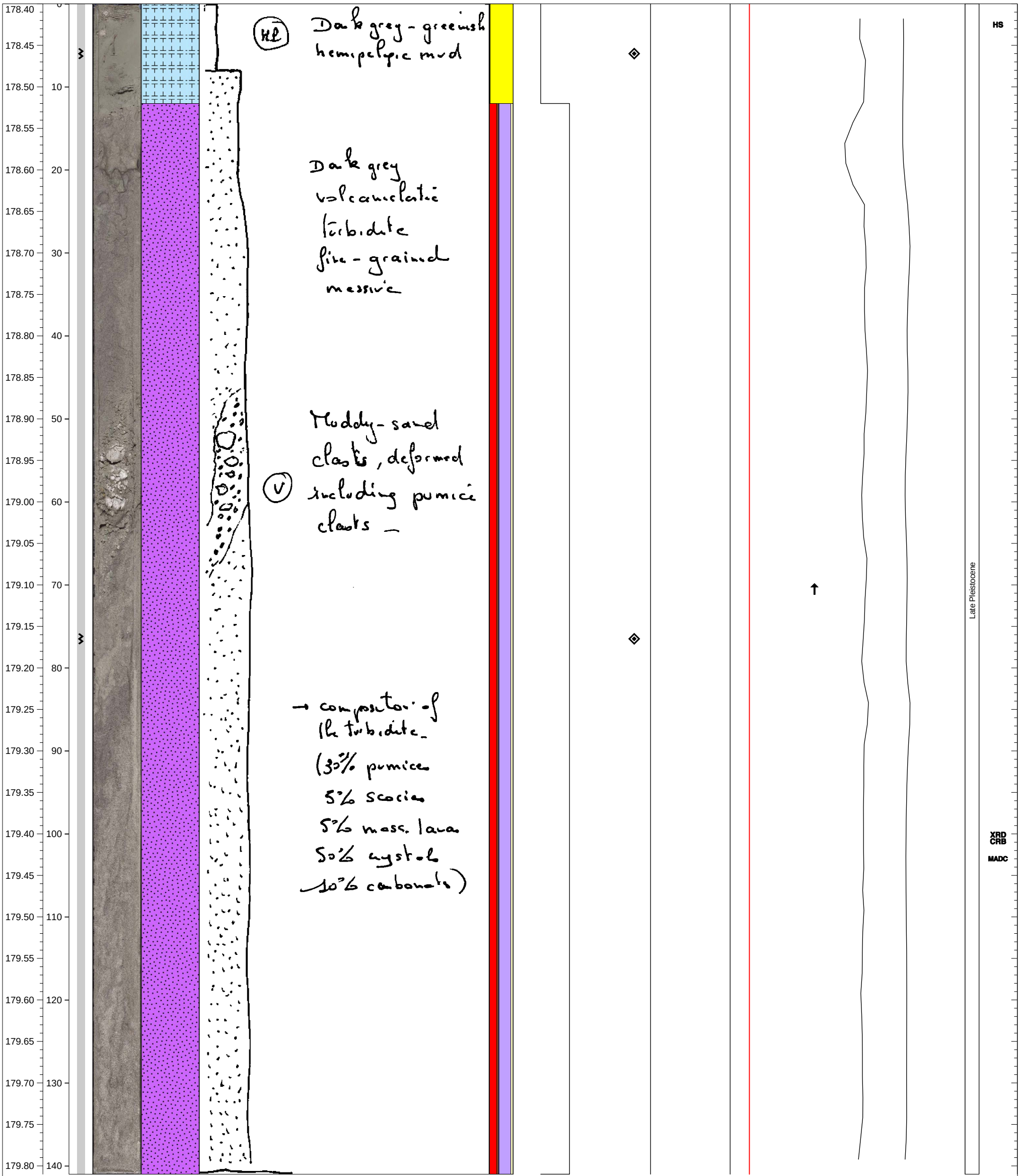
Hole 340-U1399A-24H Section 2, Top of Section: 176.9 CSF-A (m)

Volcaniclastic turbidite and debrite/hemipelagic sediment mixtures.



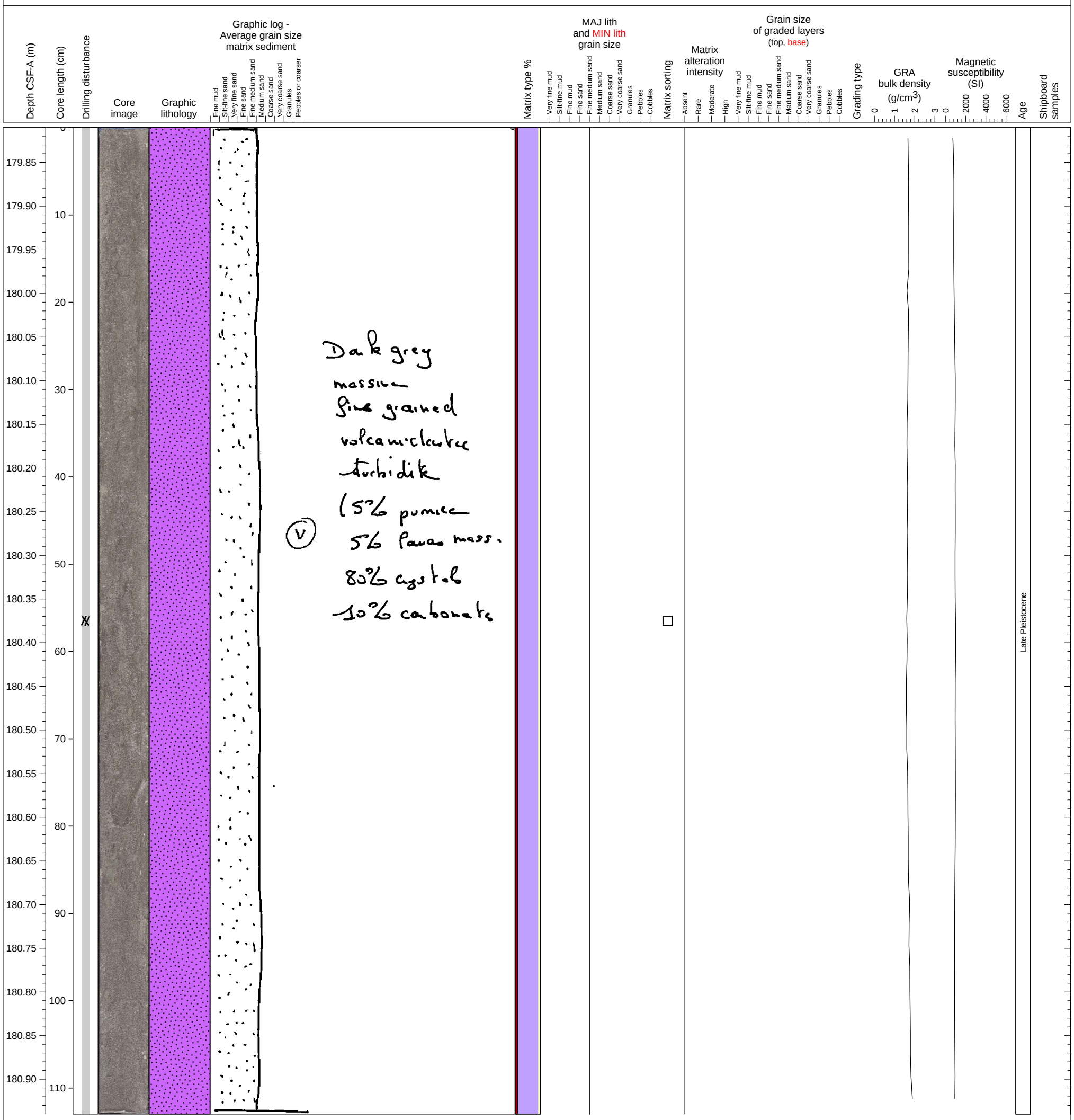
Hole 340-U1399A-24H Section 3, Top of Section: 178.4 CSF-A (m)

Top unit of thick volcaniclastic turbidite.



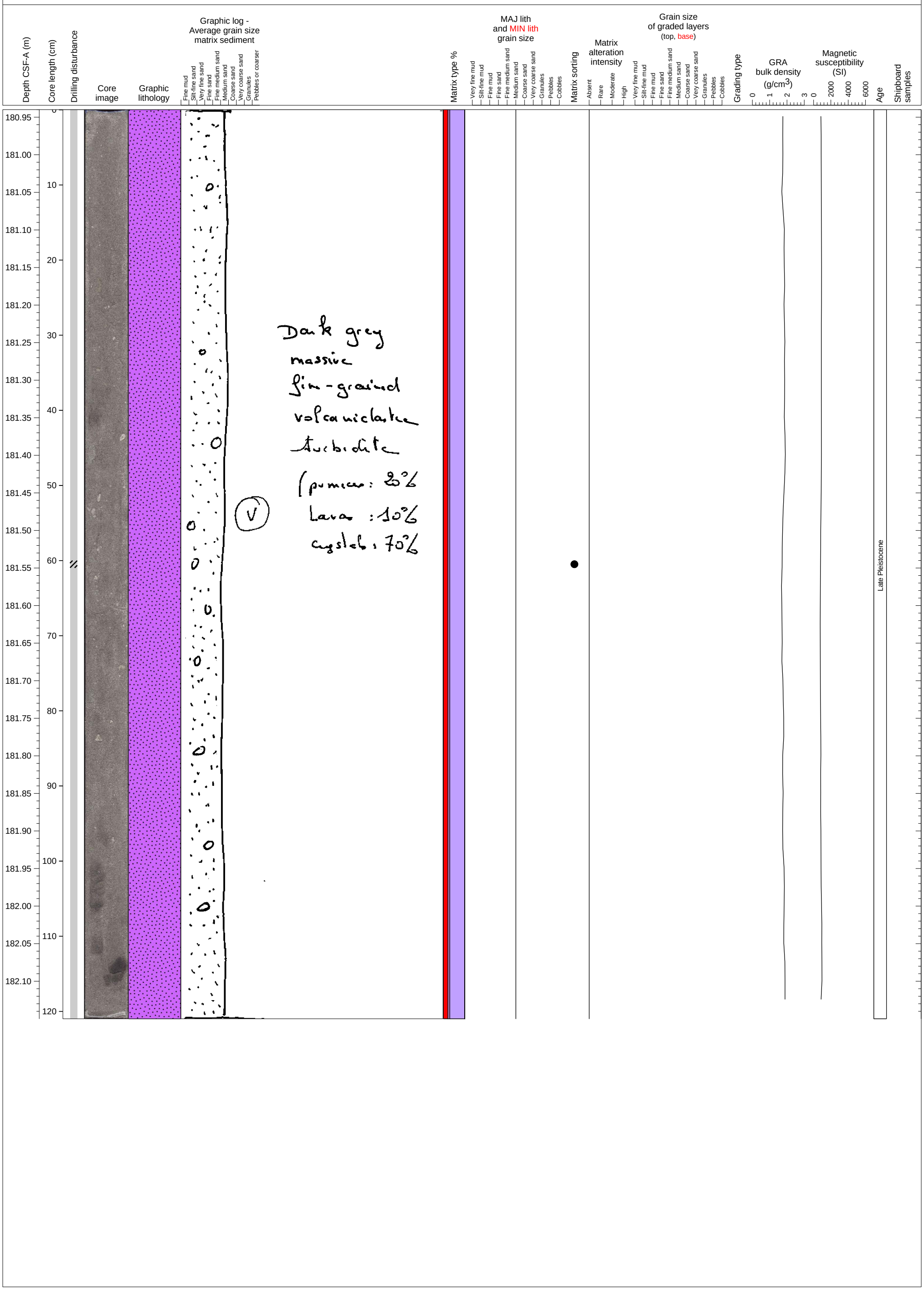
Hole 340-U1399A-24H Section 4, Top of Section: 179.81 CSF-A (m)

Part of thick volcaniclastic turbidite.



Hole 340-U1399A-24H Section 5, Top of Section: 180.94 CSF-A (m)

Part of thick volcaniclastic turbidite.



Hole 340-U1399A-24H Section 6, Top of Section: 182.15 CSF-A (m)

Part of thick volcaniclastic turbidite.

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm^3)
0
1
2
3
Magnetic susceptibility (SI)
0
2000
4000
6000
Age
Shipboard samples

182.15
182.20
182.25
182.30
182.35
182.40
182.45
182.50
182.55
182.60
182.65
182.70
182.75
182.80
182.85
182.90
182.95
183.00
183.05
183.10
183.15
183.20
183.25
183.30
183.35
183.40
183.45
183.50
183.55
183.60

0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150

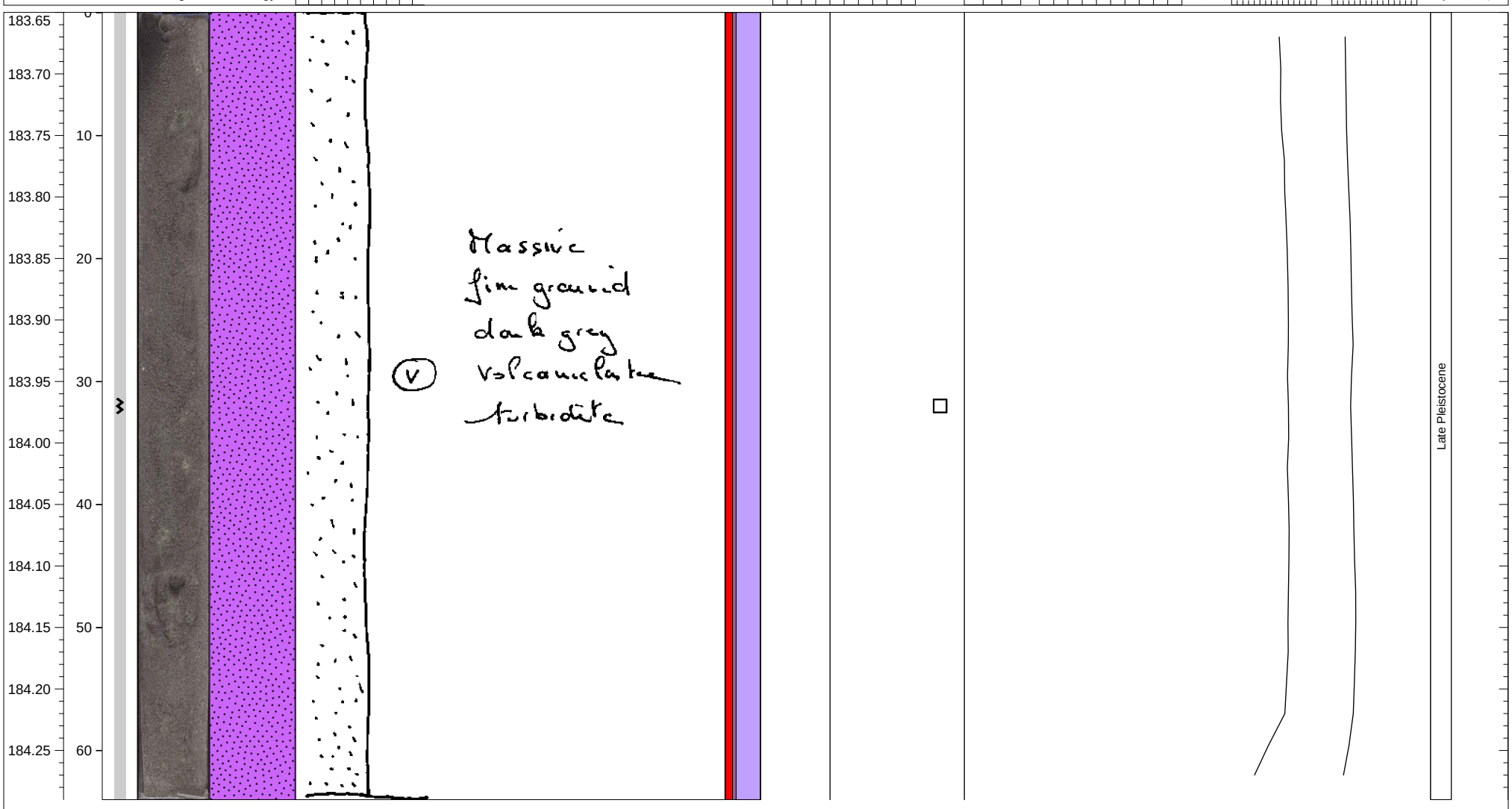
V

Dark grey volcaniclastic turbidite massive fine-grained

Late Pleistocene

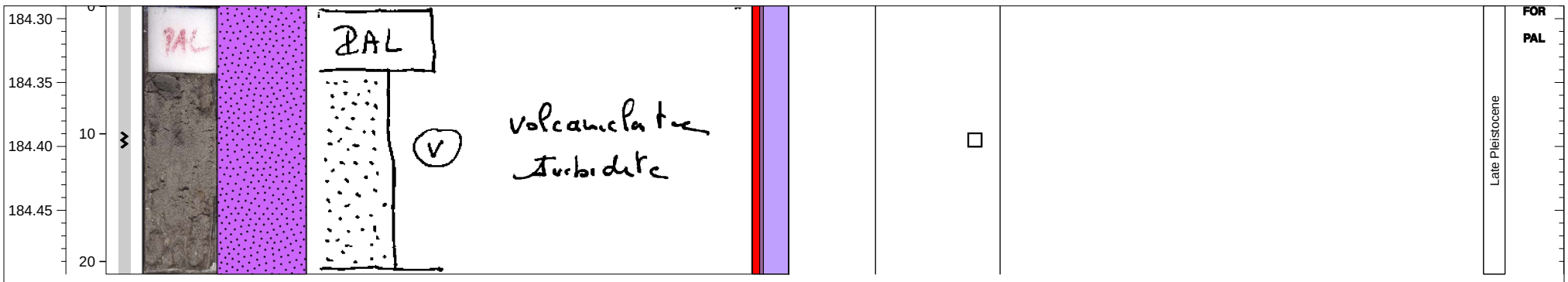
Hole 340-U1399A-24H Section 7, Top of Section: 183.65 CSF-A (m)

Part of thick volcaniclastic turbidite.



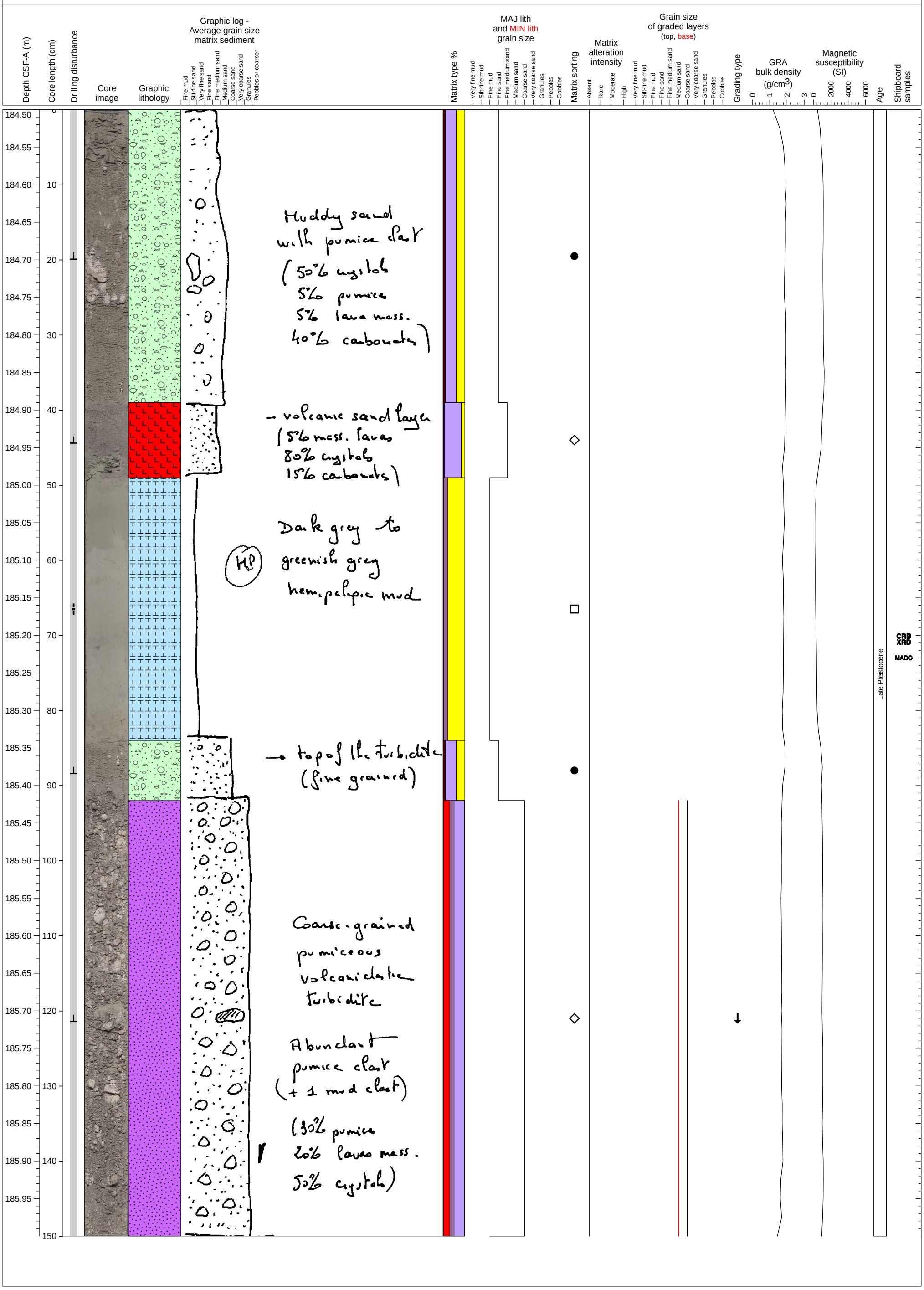
Hole 340-U1399A-24H Section CC, Top of Section: 184.29 CSF-A (m)

Part of thick volcaniclastic turbidite.



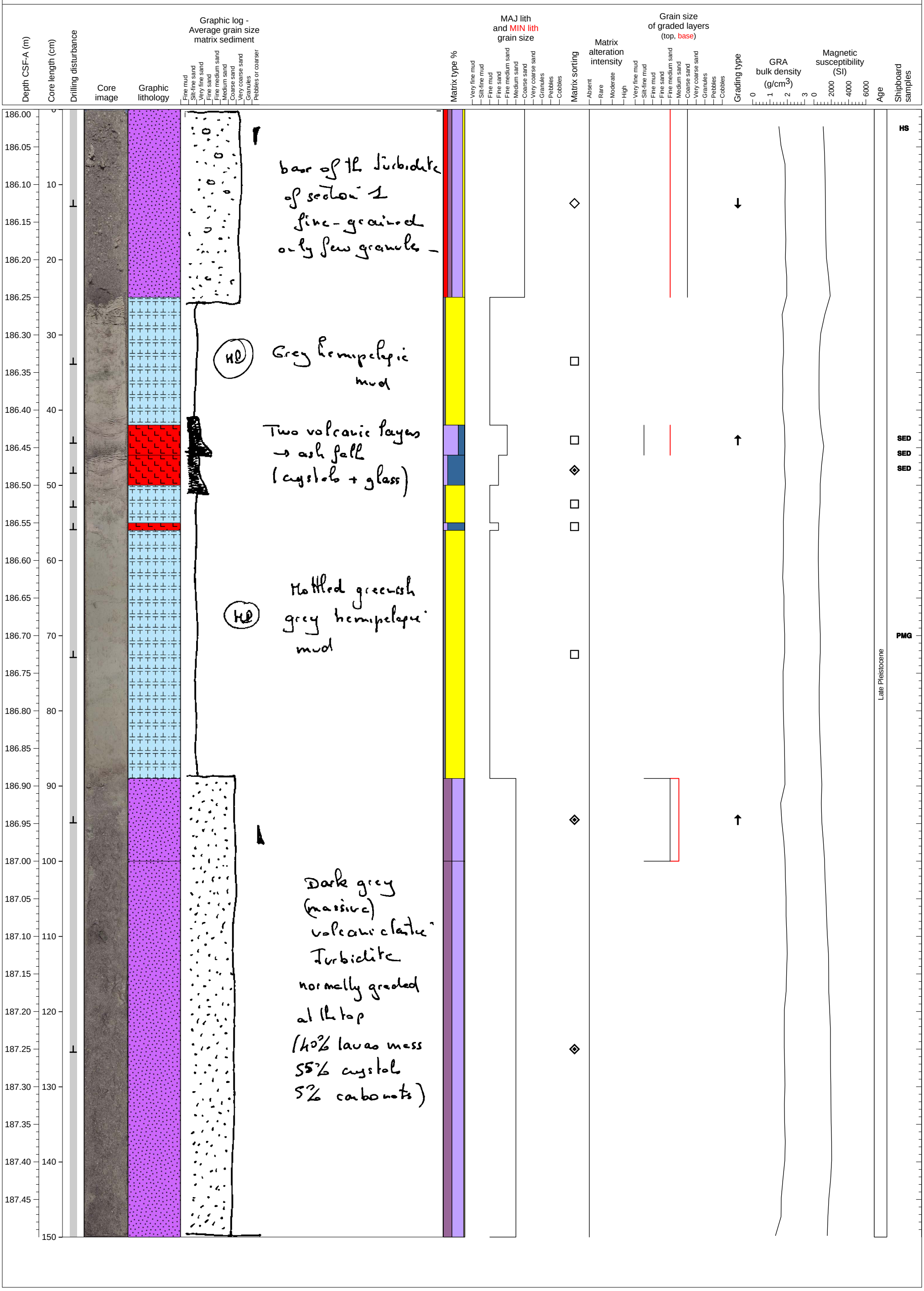
Hole 340-U1399A-25H Section 1, Top of Section: 184.5 CSF-A (m)

A mix of muddy sands with pumice clasts, one ash layer, and the top of a volcaniclastic turbidite.



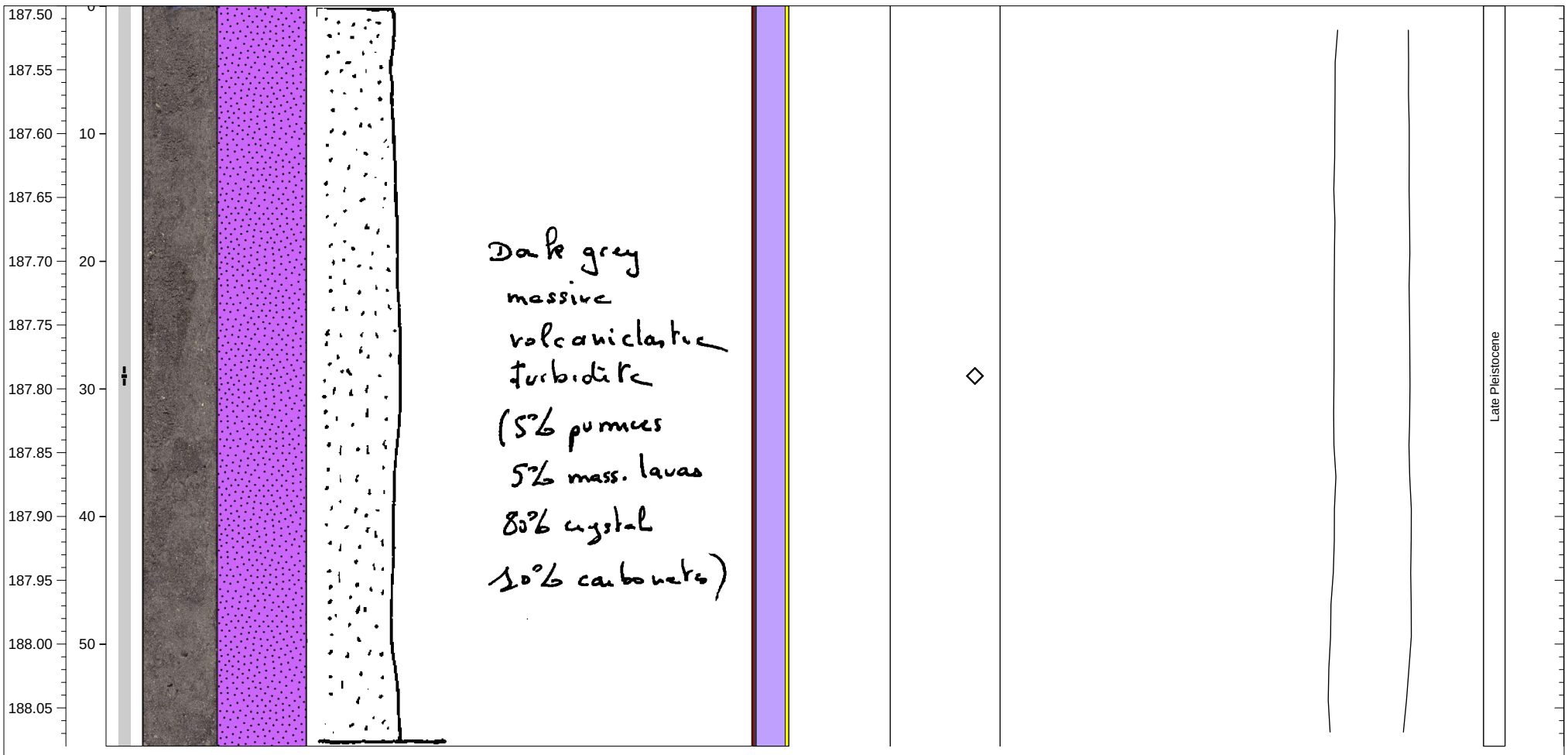
Hole 340-U1399A-25H Section 2, Top of Section: 186.0 CSF-A (m)

Volcaniclastic turbidite units and hemipelagite intercalated with vitric ash layers.



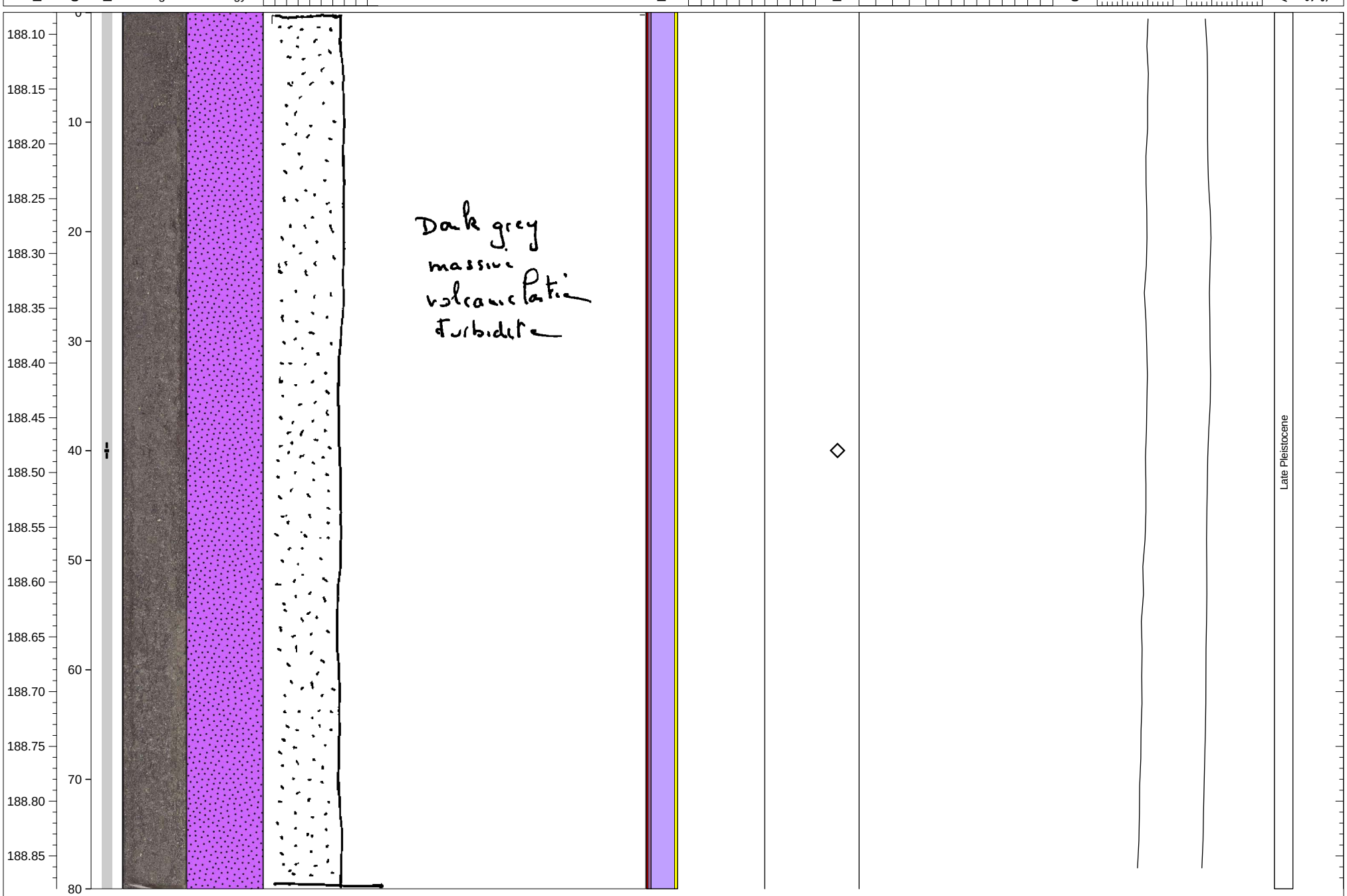
Hole 340-U1399A-25H Section 3, Top of Section: 187.5 CSF-A (m)

Part of a thick volcaniclastic turbidite



Hole 340-U1399A-25H Section 4, Top of Section: 188.08 CSF-A (m)

Part of a thick volcaniclastic turbidite



Hole 340-U1399A-25H Section 5, Top of Section: 188.88 CSF-A (m)

Part of massive volcaniclastic turbidite

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm^3)
0
1
2
3
Magnetic susceptibility (SI)
0
2000
4000
6000
Age
Shipboard samples

188.90
188.95
189.00
189.05
189.10
189.15
189.20
189.25
189.30
189.35
189.40
189.45
189.50
189.55
189.60
189.65
189.70
189.75
189.80
189.85
189.90
189.95
190.00

0
10
20
30
40
50
60
70
80
90
100
110

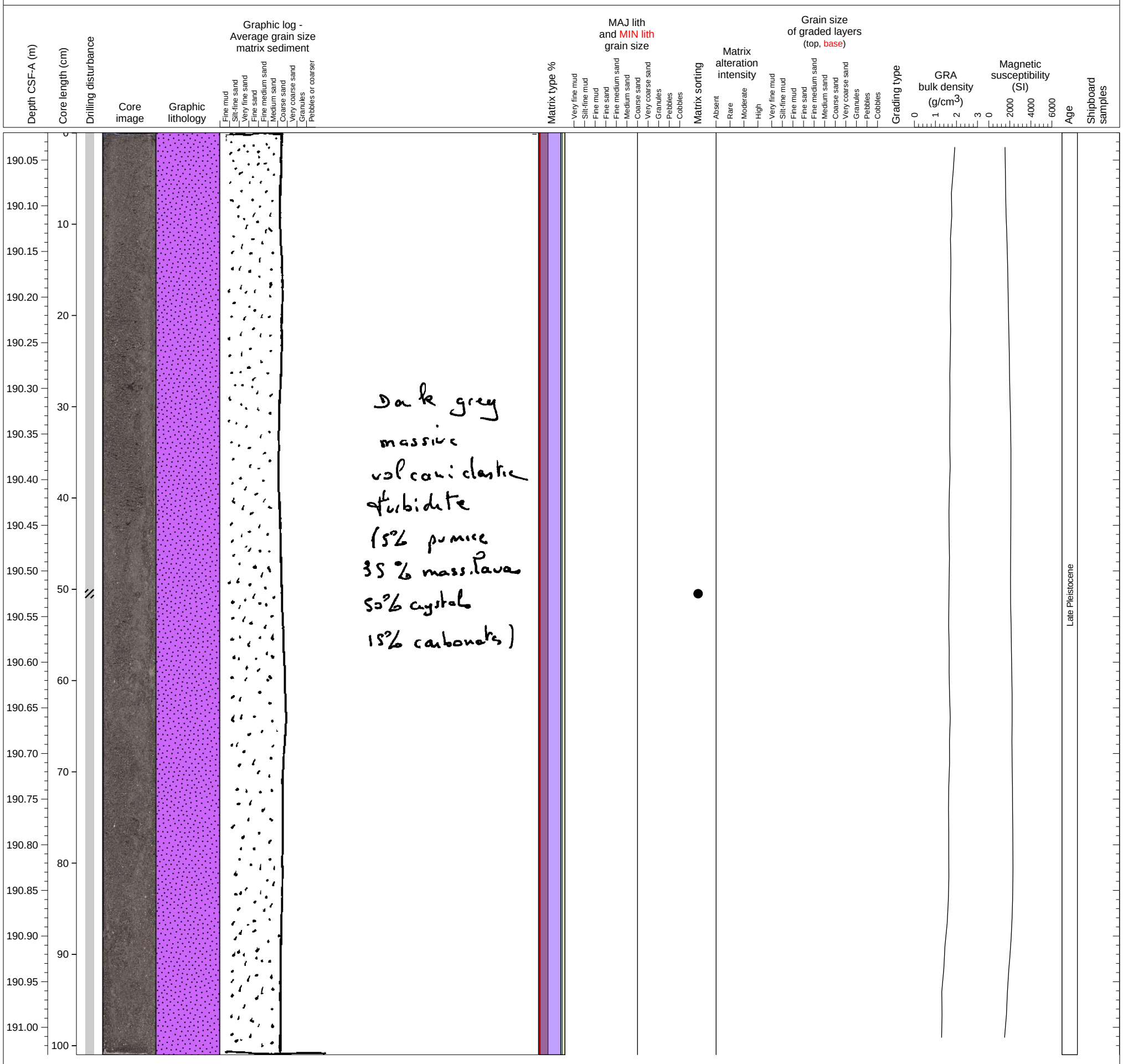
Dark grey massive volcaniclastic turbidite (10% pumice 40% mass. lava 60% crystals 20% carbonates)

as above

Late Pleistocene

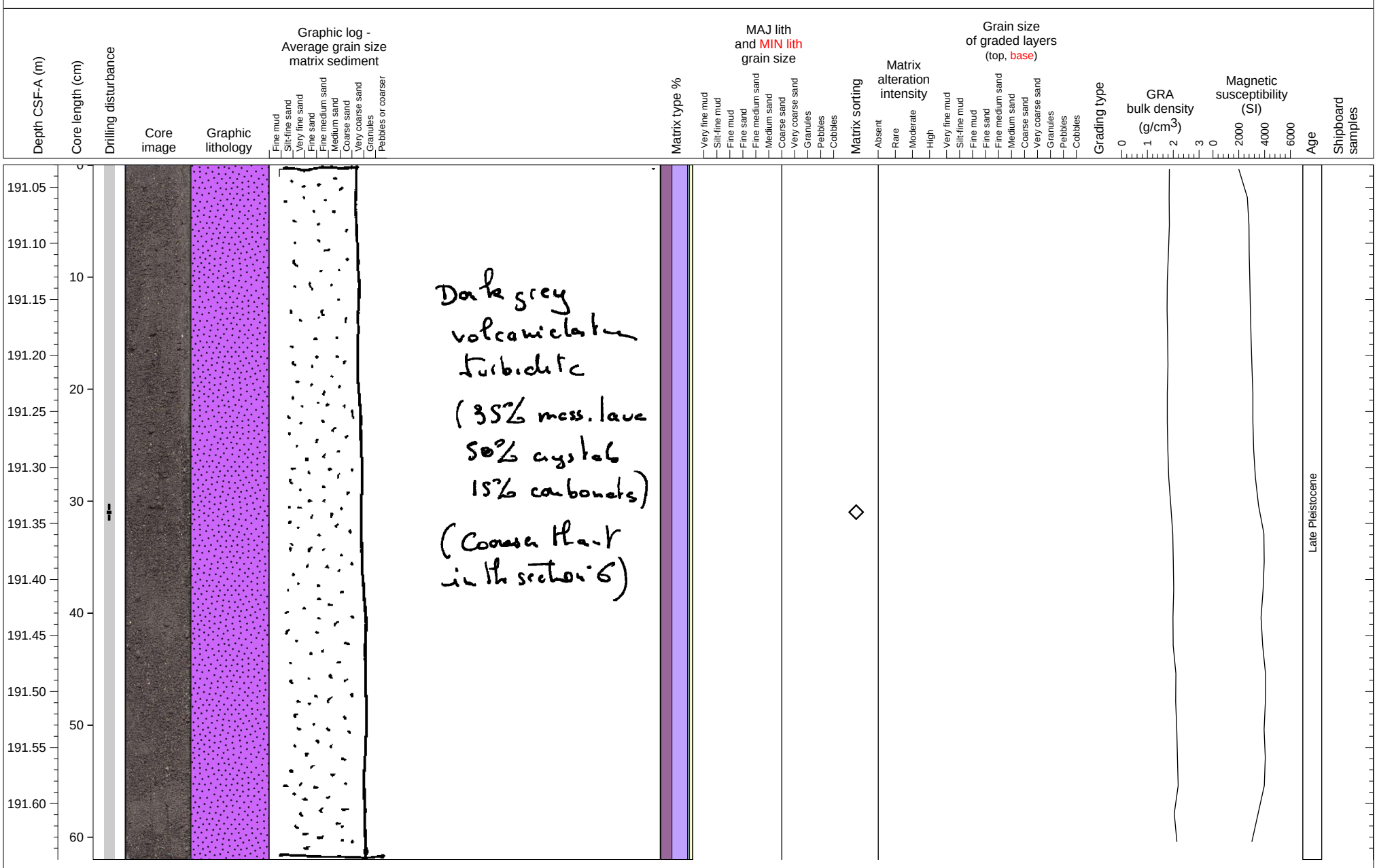
Hole 340-U1399A-25H Section 6, Top of Section: 190.02 CSF-A (m)

Part of massive volcaniclastid turbidite



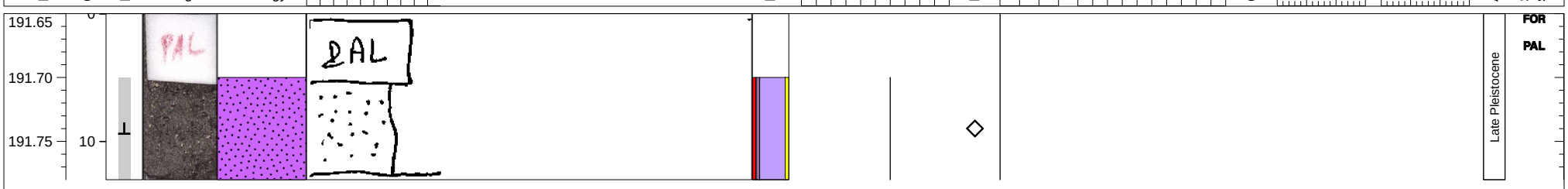
Hole 340-U1399A-25H Section 7, Top of Section: 191.03 CSF-A (m)

Part of a thick volcaniclastic turbidite



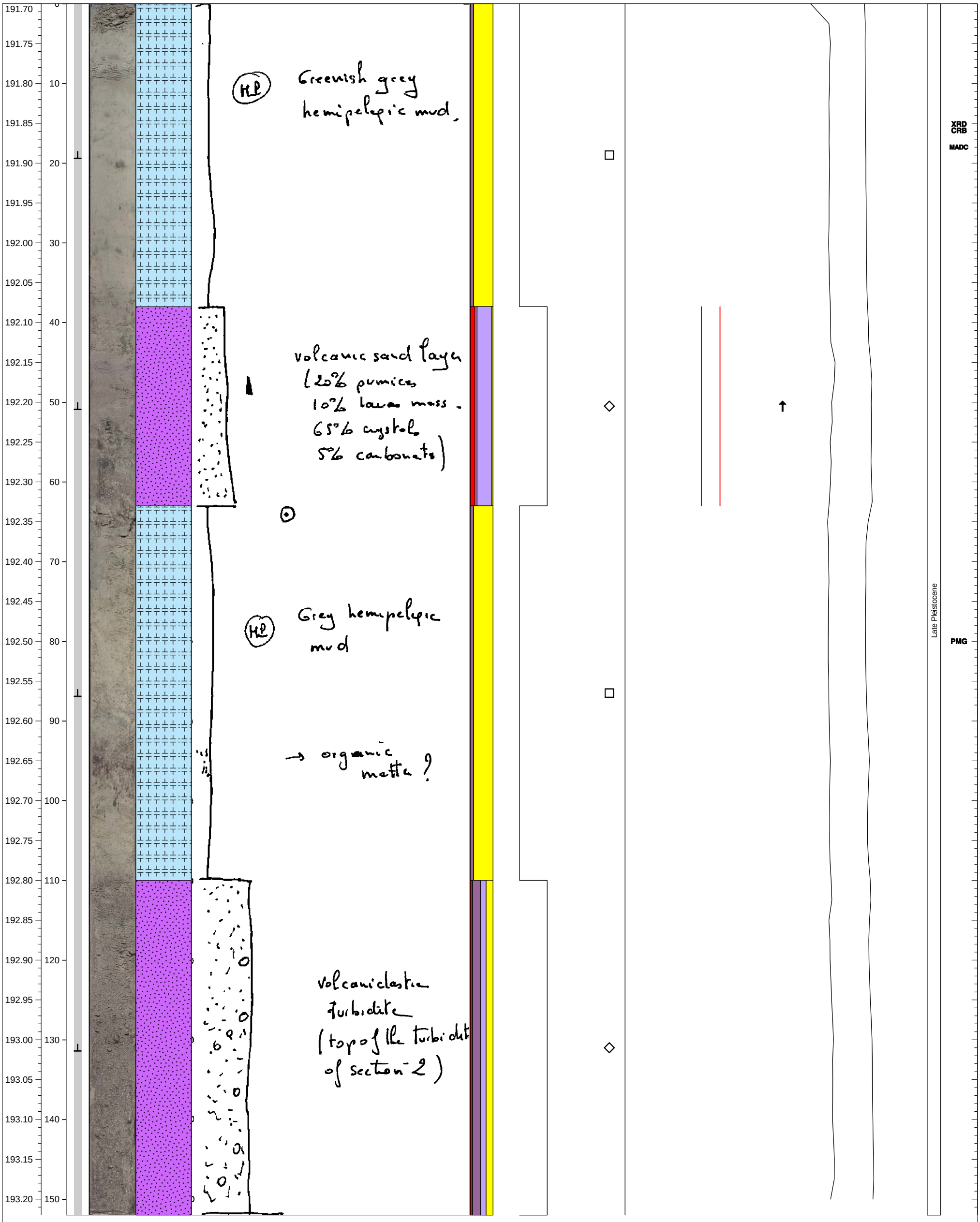
Hole 340-U1399A-25H Section CC, Top of Section: 191.65 CSF-A (m)

Part of a thick volcaniclastic turbidite



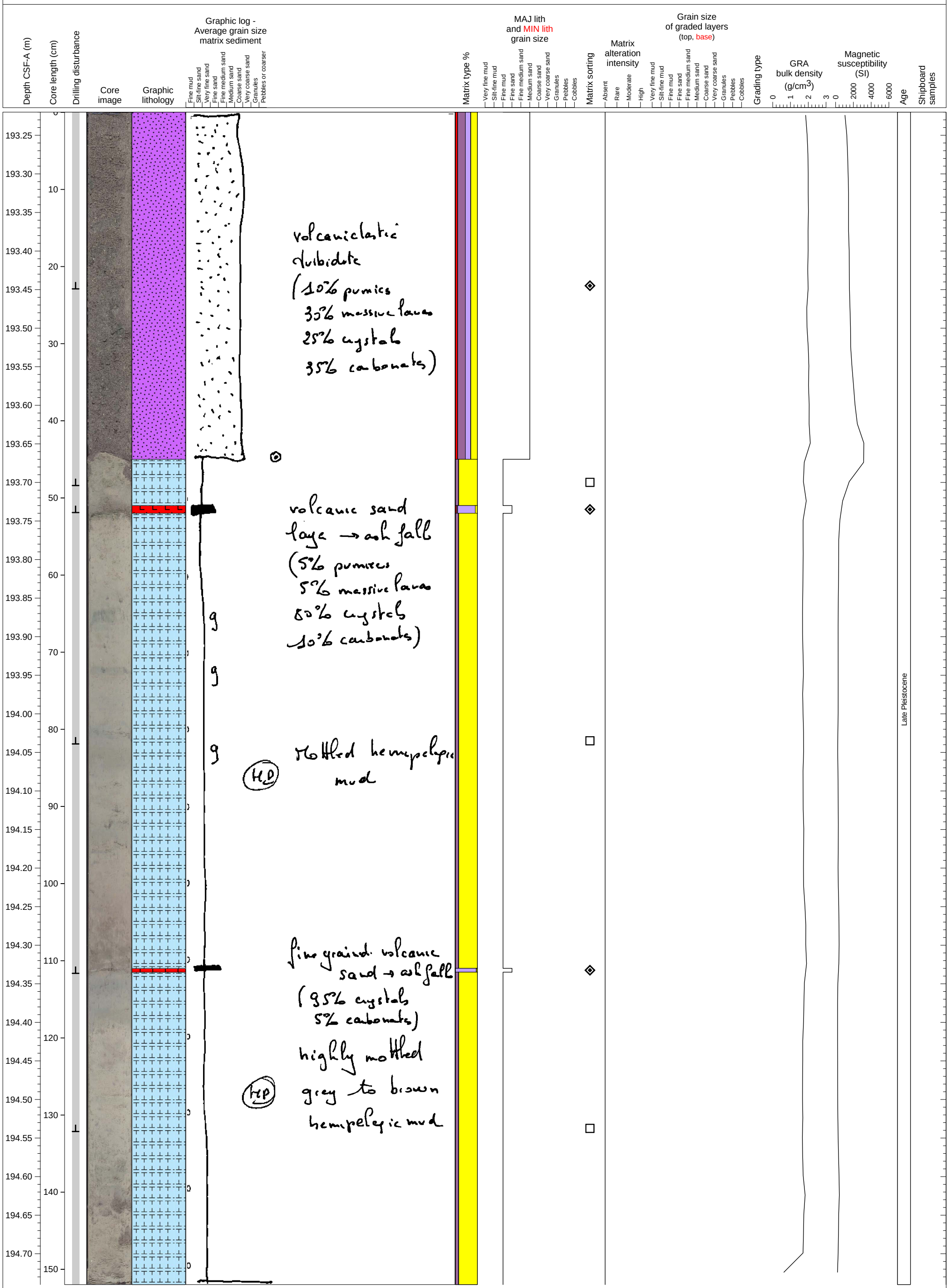
Hole 340-U1399A-26H Section 1, Top of Section: 191.7 CSF-A (m)

Hemipelagic sediment with two volcaniclastic turbidite units.



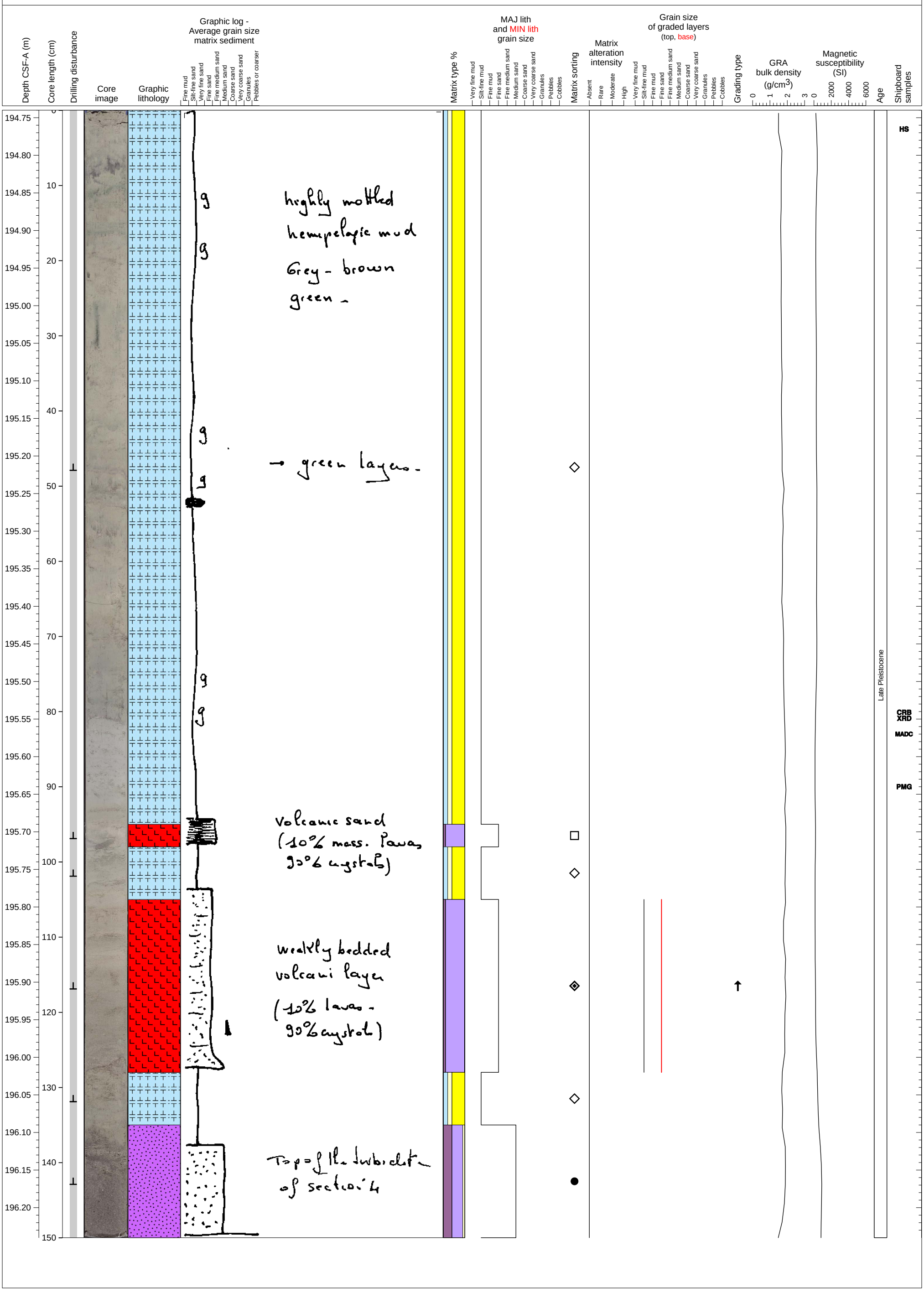
Hole 340-U1399A-26H Section 2, Top of Section: 193.22 CSF-A (m)

Hemipelagic sediment with two thin ash layers and a volcaniclastic turbidite.



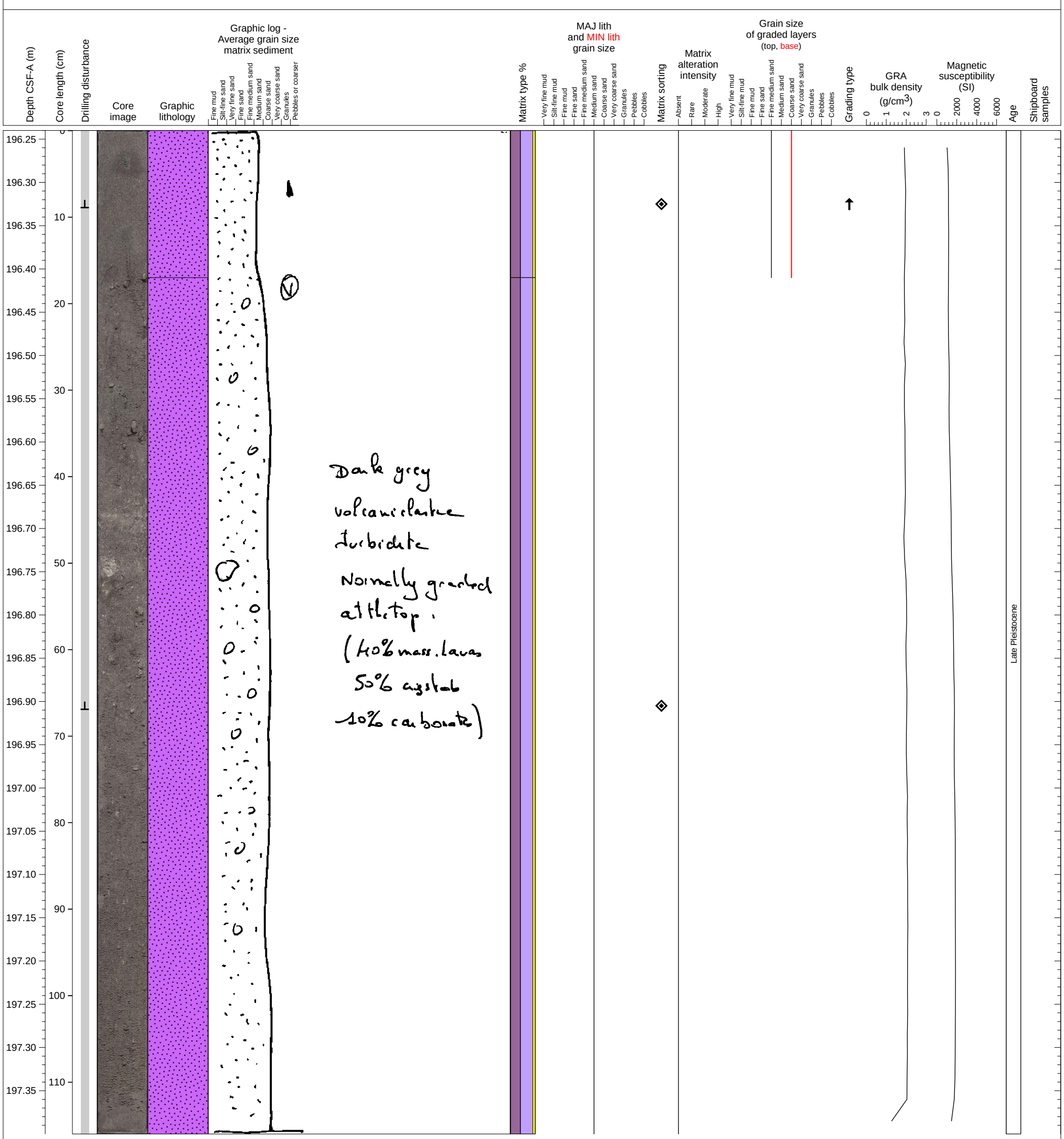
Hole 340-U1399A-26H Section 3, Top of Section: 194.74 CSF-A (m)

Hemipelagic sediment intercalated with volcanic ash layers, and volcaniclastic turbidite at the base.



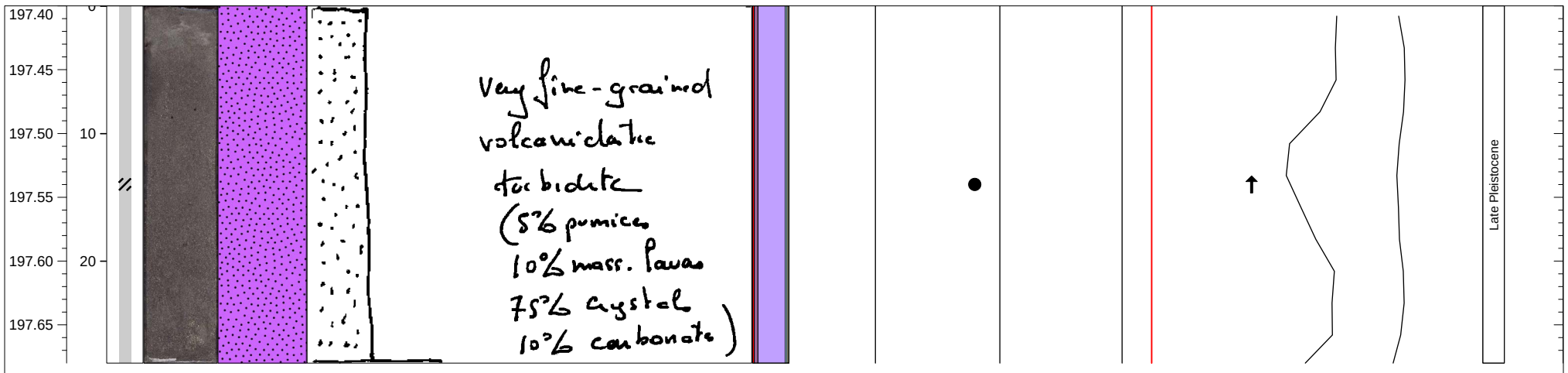
Hole 340-U1399A-26H Section 4, Top of Section: 196.24 CSF-A (m)

Part of a thick volcaniclastic turbidite.



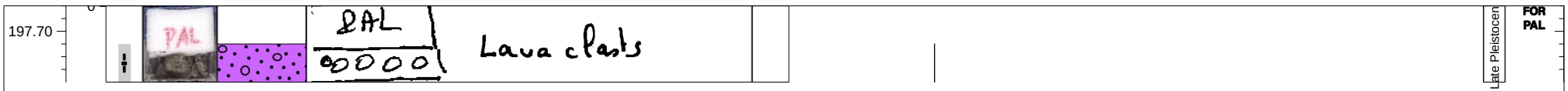
Hole 340-U1399A-26H Section 5, Top of Section: 197.4 CSF-A (m)

Part of massive volcaniclastic turbidite



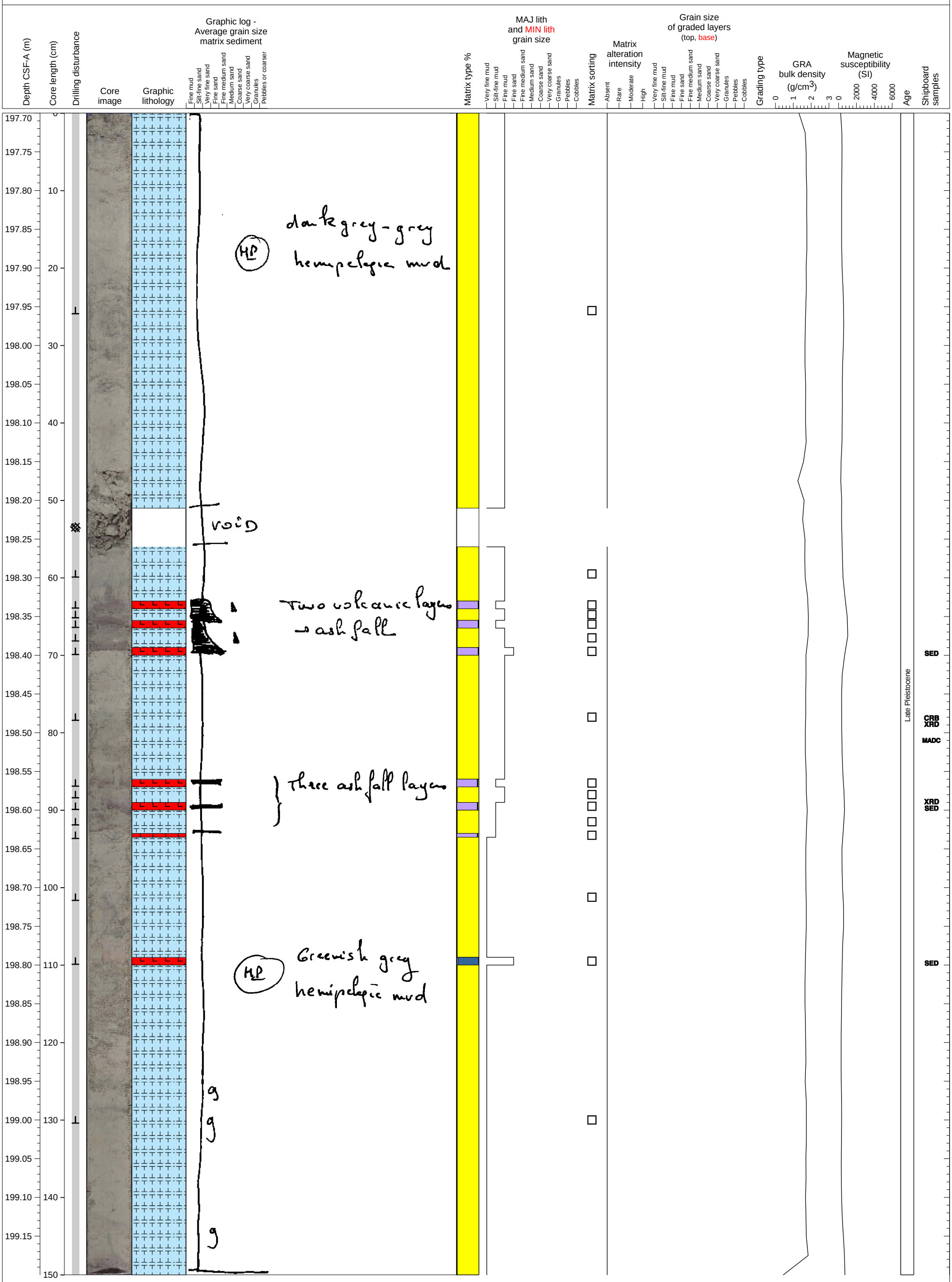
Hole 340-U1399A-26H Section CC, Top of Section: 197.68 CSF-A (m)

Pebbles of pumice and lava clasts in core catcher



Hole 340-U1399A-27H Section 1, Top of Section: 197.7 CSF-A (m)

Hemipelagic mud with 7 thin ashfall layers.



Hole 340-U1399A-27H Section 2, Top of Section: 199.2 CSF-A (m)

Hemipelagic sediments mingled with volcaniclastic sand deposits

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm3)
0
1
2
3
Magnetic susceptibility (SI)
0
2000
4000
6000
Age
Shipboard samples

199.20 0
199.25
199.30 10
199.35
199.40 20
199.45
199.50 30
199.55
199.60 40
199.65
199.70 50
199.75
199.80 60
199.85
199.90 70
199.95
200.00 80
200.05
200.10 90
200.15
200.20 100
200.25
200.30 110
200.35
200.40 120
200.45
200.50 130
200.55
200.60 140
200.65
200.70 150

HL

volcanic sand
5% pumices
10% mass. lava
70% cuspids
15% matrix carb..

HL

volcanic sand
(10% mass. lavas
70% cuspids
20% matrix carb.

Greenish-grey hemipelagic mud

HL

volcanic sand
15% pumices
5% mass. lava
75% cuspids
20% matrix carb.)

mud clast

pumices

=> volcaniclastic turbidite including Page mud clasts ??

Late Pleistocene

Hole 340-U1399A-27H Section 3, Top of Section: 200.73 CSF-A (m)

Interbedded sequence of muddy sands (with pumice clasts) and hemipelagic sediments.

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm3)
0
1
2
3
Magnetic susceptibility (SI)
0
2000
4000
6000
Age
Shipboard samples

200.75
10
200.80
200.85
200.90
20
200.95
201.00
30
201.05
201.10
40
201.15
201.20
50
201.25
201.30
60
201.35
201.40
70
201.45
201.50
80
201.55
201.60
90
201.65
201.70
100
201.75
201.80
110
201.85
201.90
120
201.95
202.00
130
202.05
202.10
140
202.15
202.20
150

Greenish grey H.P.

Massive dark grey volcaniclastic turbidite

V

H.P.

Greenish-grey hemipelagic mud

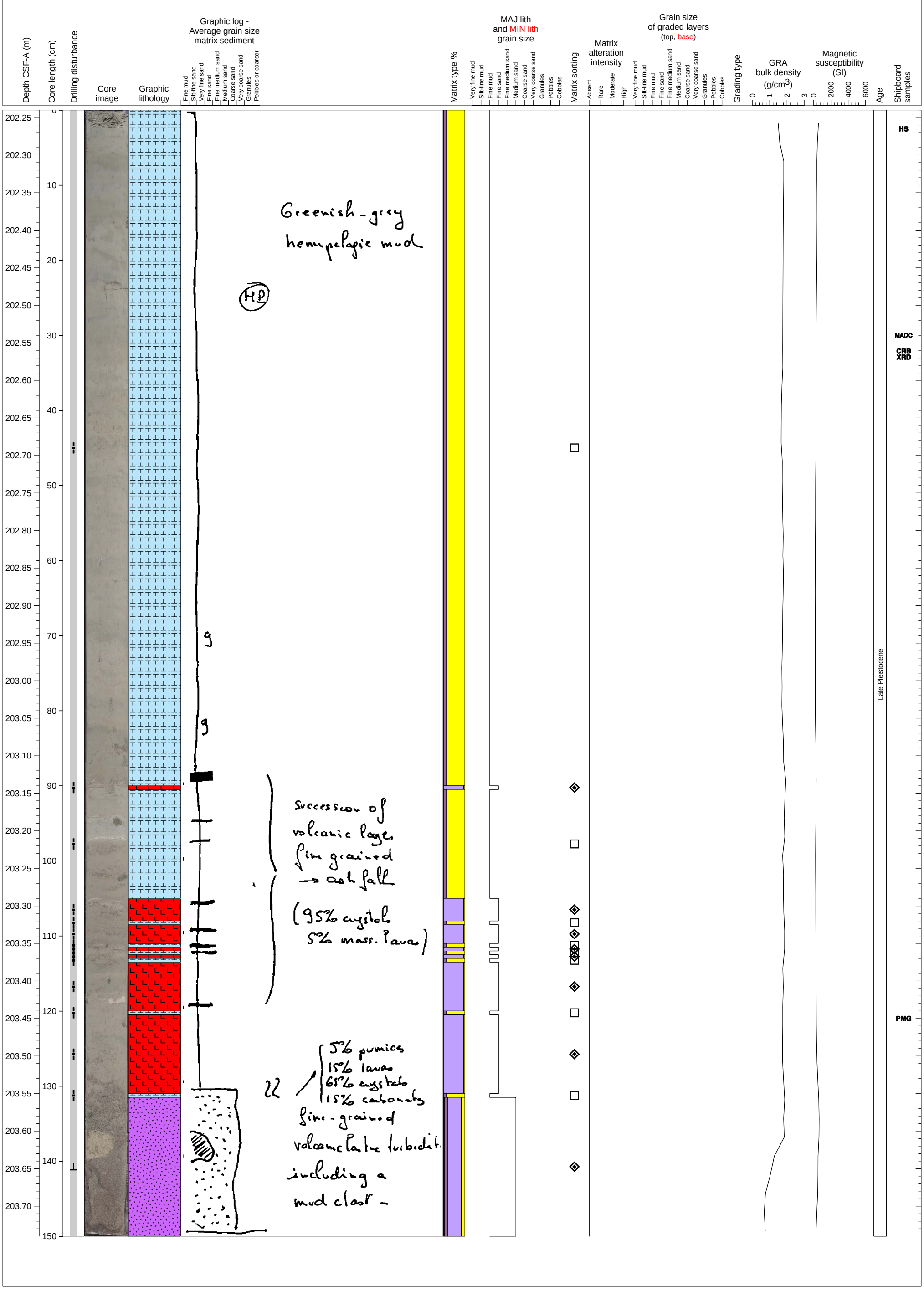
volcaniclastic turbidite including mud clasts and pumice clasts

Late Pleistocene

PMG

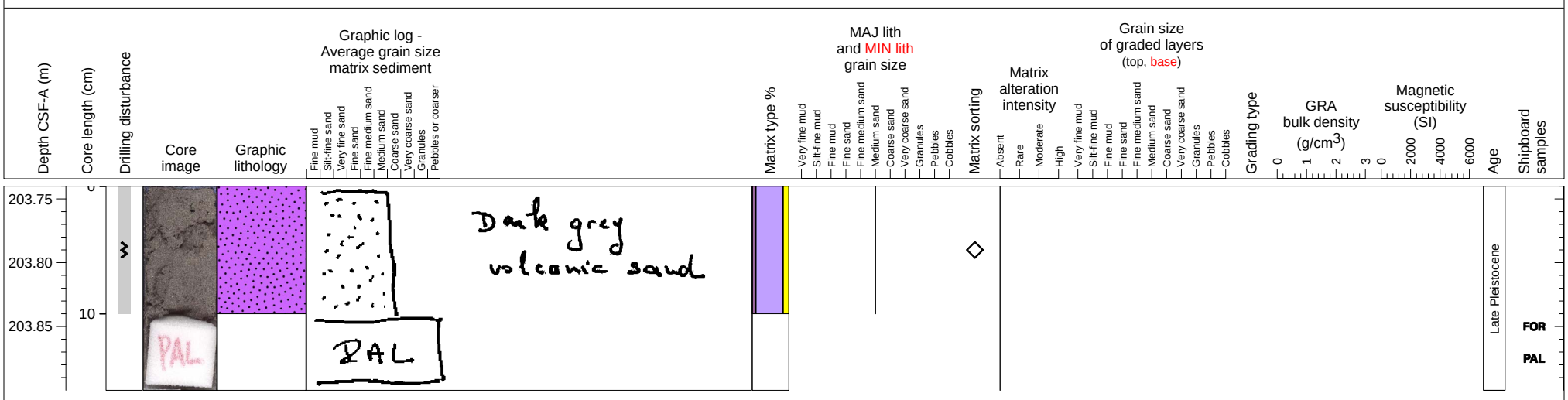
Hole 340-U1399A-27H Section 4, Top of Section: 202.24 CSF-A (m)

Hemipelagic sediment with seven thin ash layers, and the top of a volcaniclasic turbidite.



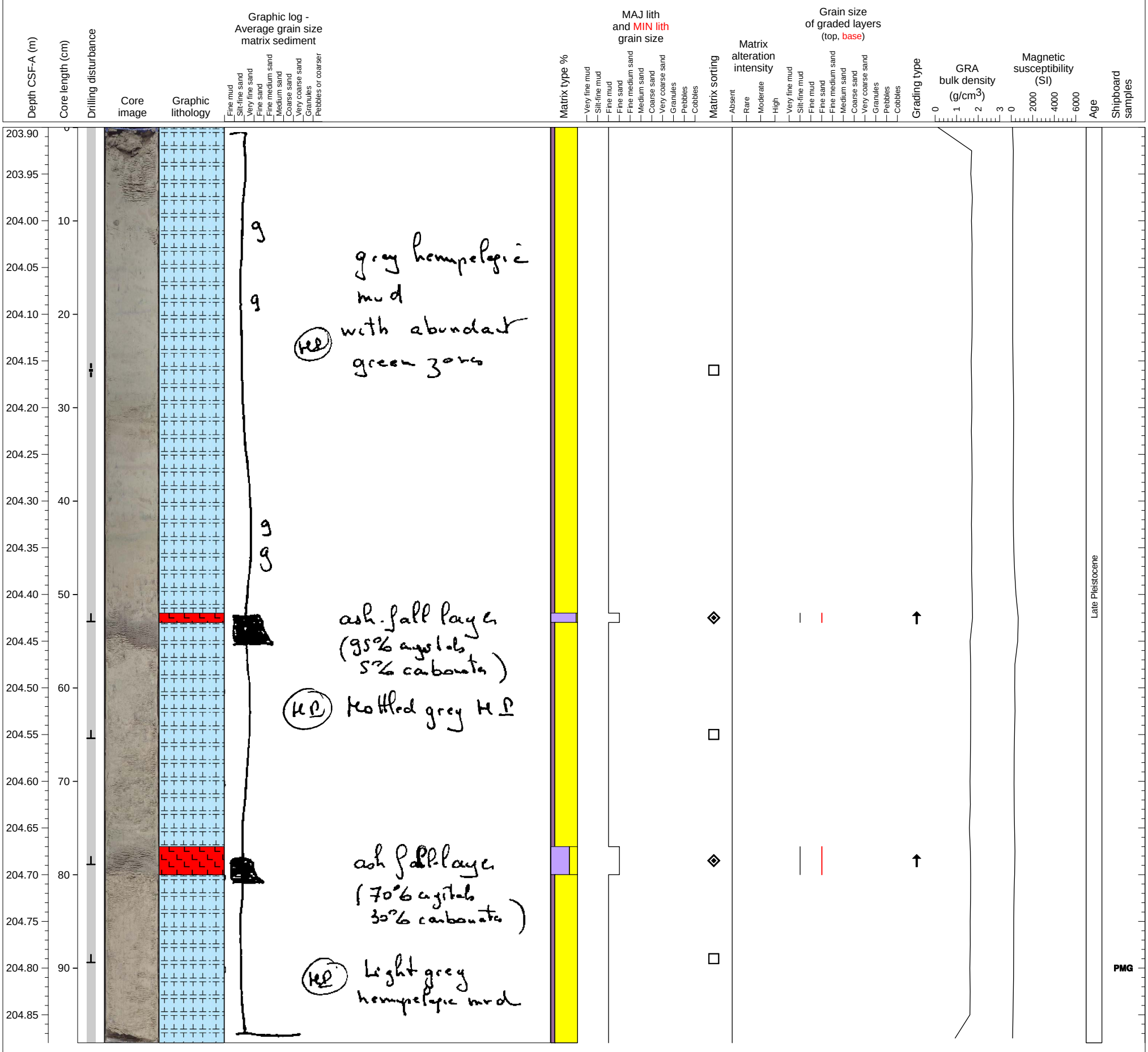
Hole 340-U1399A-27H Section CC, Top of Section: 203.74 CSF-A (m)

Part of a volcaniclastic turbidite



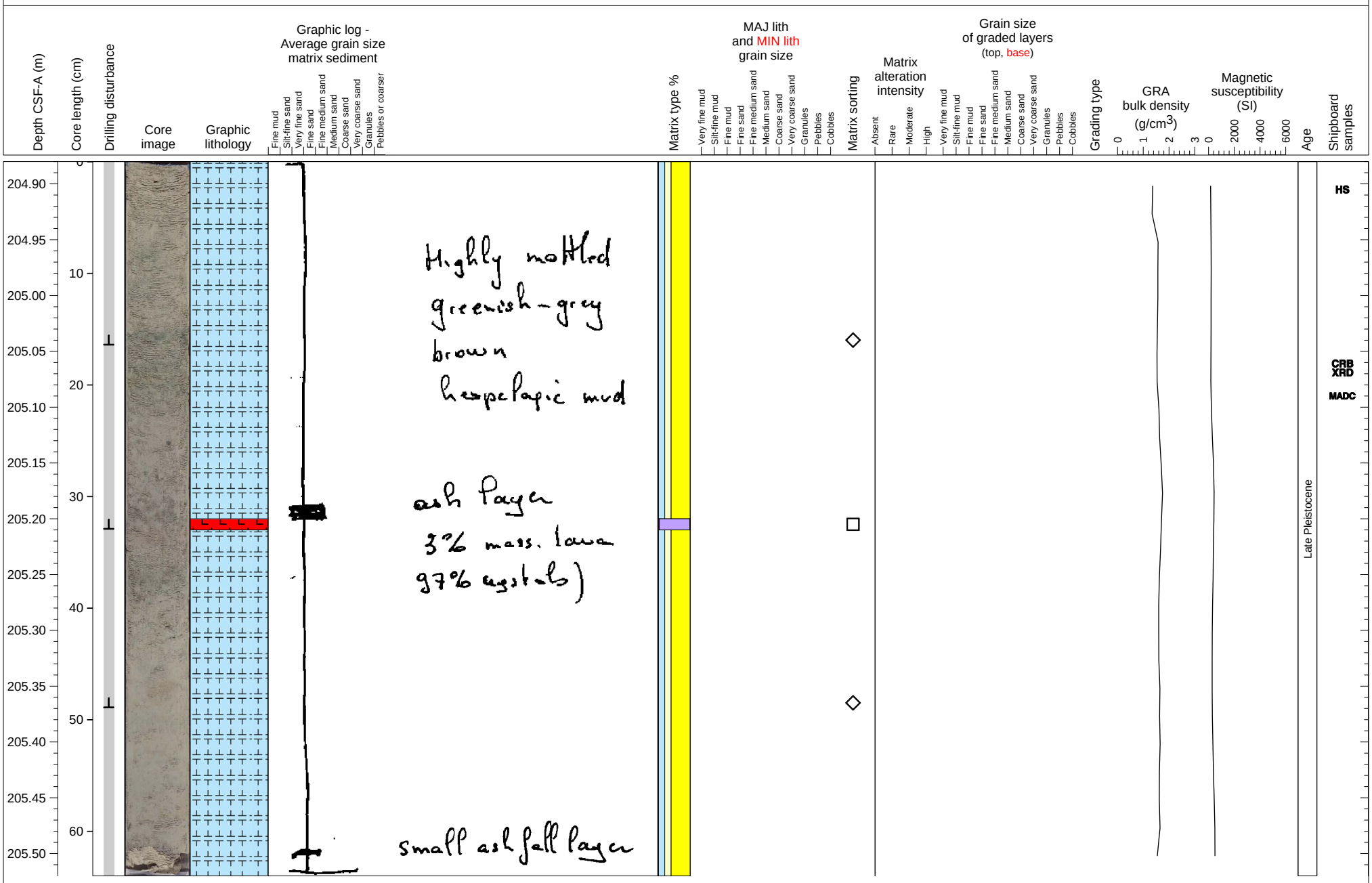
Hole 340-U1399A-28H Section 1, Top of Section: 203.9 CSF-A (m)

Hemipelagic sediment with two thin, normally graded ash layers



Hole 340-U1399A-28H Section 2, Top of Section: 204.88 CSF-A (m)

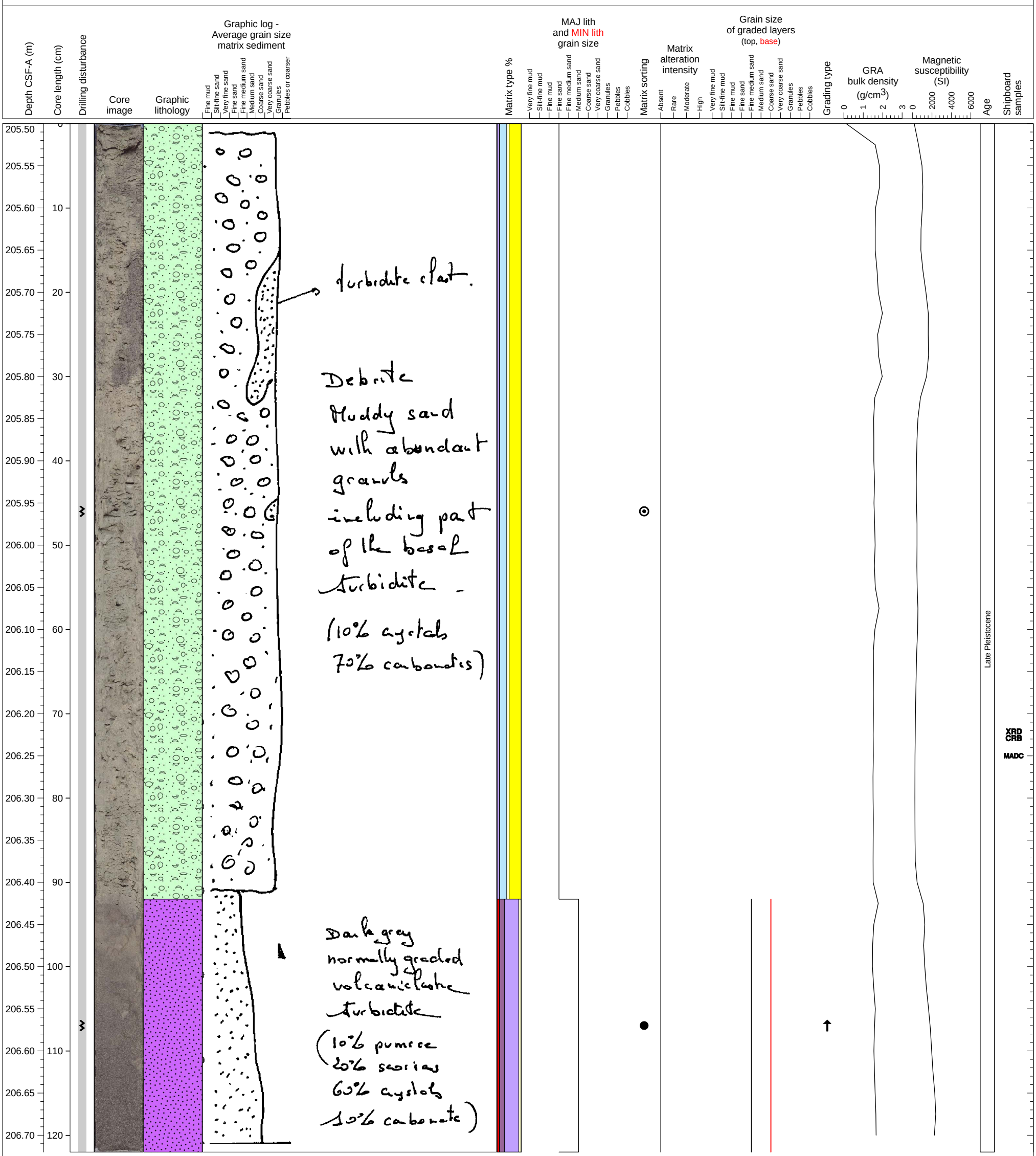
Mottled hemipelagic sediment with intercalated volcanic ash layer



U1399A-28H-CC ALL TO PALEO

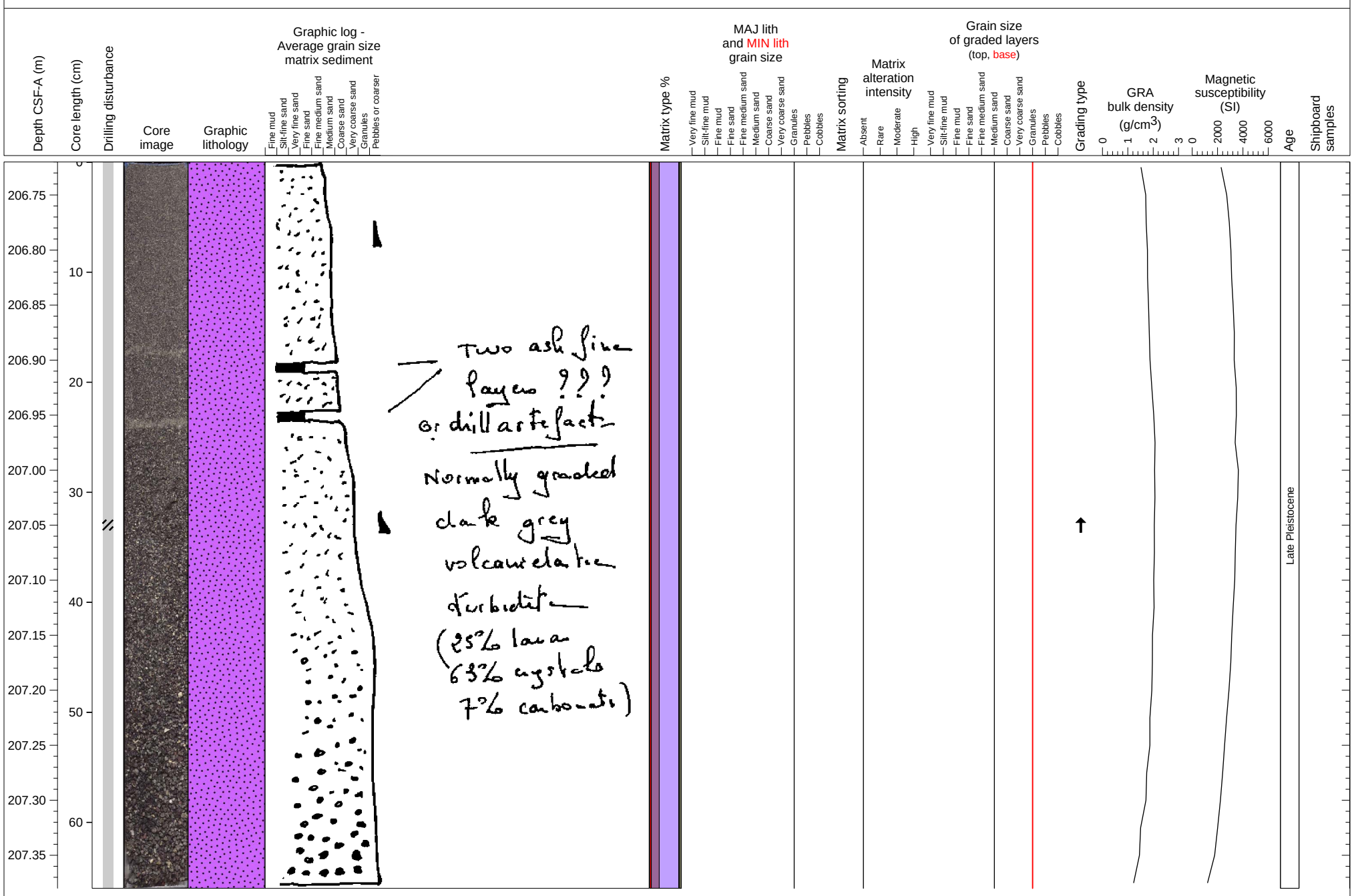
Hole 340-U1399A-29H Section 1, Top of Section: 205.5 CSF-A (m)

Debrite intercalated with graded volcaniclastic turbidite



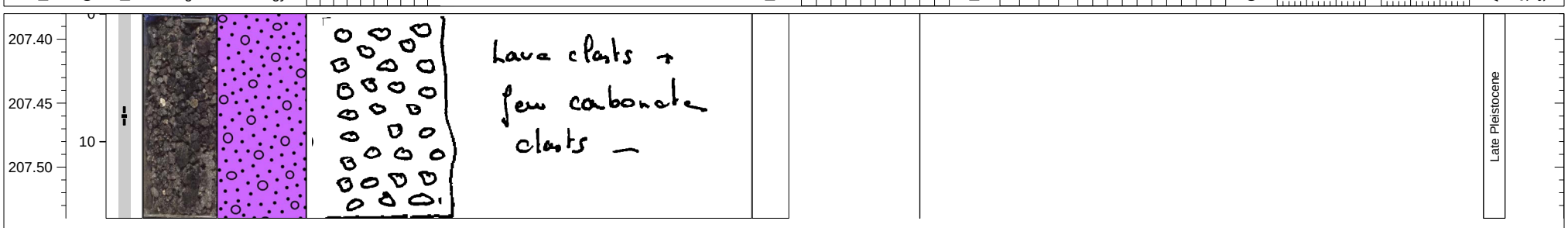
Hole 340-U1399A-29H Section 2, Top of Section: 206.72 CSF-A (m)

Part of volcaniclastic turbidite; at the depth of 17.5-17 cm and 23.5 -24 cm matrix filled with mud probably due to drilling disturbance.



Hole 340-U1399A-29H Section CC, Top of Section: 207.38 CSF-A (m)

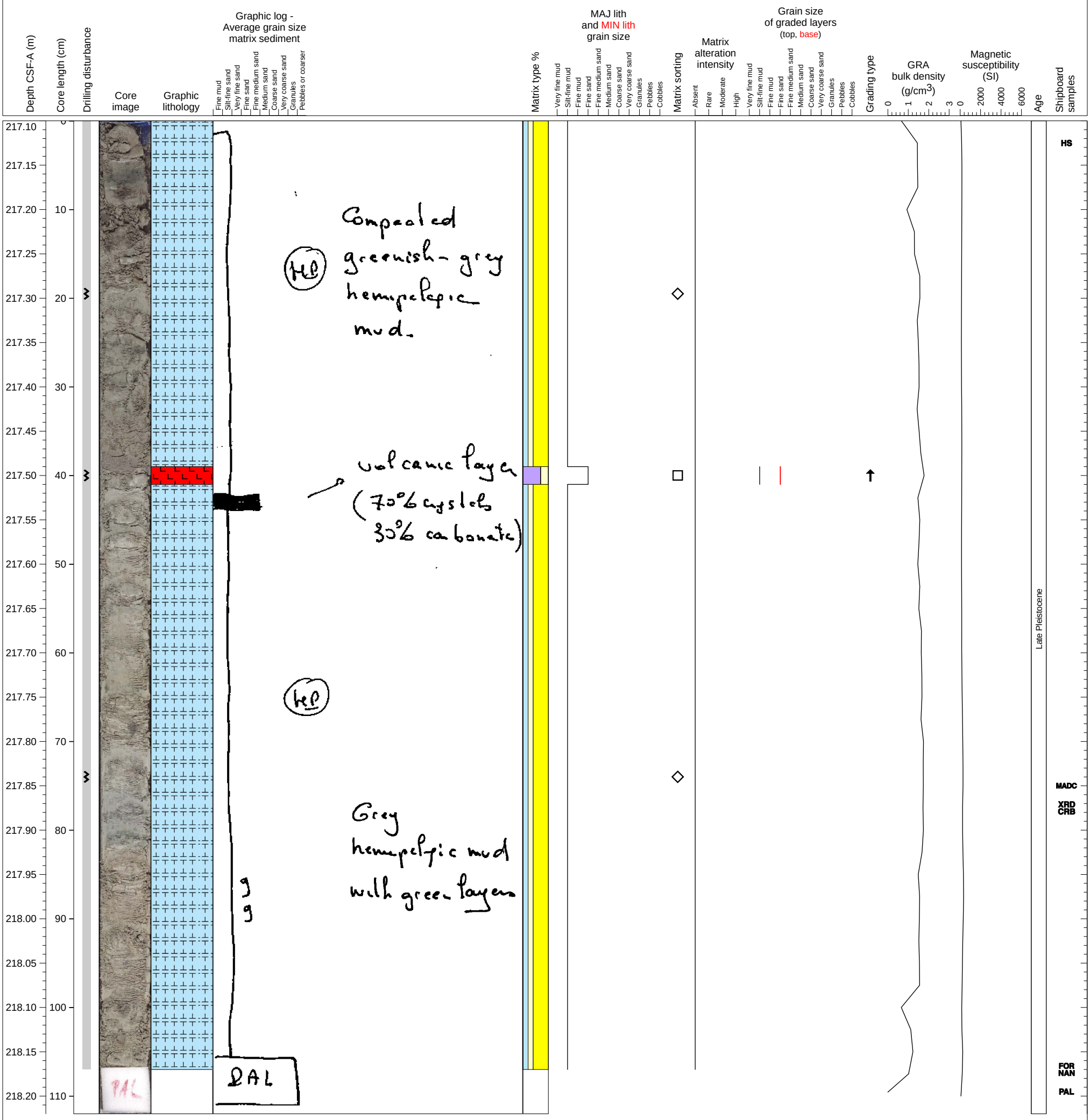
Lava clasts of granule to pebble in size



U1399A-30X NO RECOVERY

Hole 340-U1399A-31X Section 1, Top of Section: 217.1 CSF-A (m)

Mottled hemipelagic sediment with intercalated volcanic ash layer.



U1399A-32X NO RECOVERY

Hole 340-U1399A-33X Section 1, Top of Section: 236.3 CSF-A (m)

Heavily bioturbated hemipelagic mudstone interlayered with two cross-laminated volacniclastic sand.

Depth CSF-A (m)
Core length (cm)
Drilling disturbance
Core image
Graphic lithology
Graphic log - Average grain size matrix sediment
Fine mud
Silt-fine sand
Very fine sand
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles or coarser
Matrix type %
MAJ lith and MIN lith grain size
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Matrix sorting
Matrix alteration intensity
Absent
Rare
Moderate
High
Grain size of graded layers (top, base)
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles
Grading type
GRA bulk density (g/cm3)
Magnetic susceptibility (SI)
Age
Shipboard samples

236.30 – 236.35 – 236.40 – 236.45 – 236.50 – 236.55 – 236.60 – 236.65 – 236.70 – 236.75 – 236.80 – 236.85 – 236.90 – 236.95 – 237.00 – 237.05 – 237.10 – 237.15 – 237.20 – 237.25 – 237.30 – 237.35 – 237.40 – 237.45 – 237.50 – 237.55 – 237.60

0 – 10 – 20 – 30 – 40 – 50 – 60 – 70 – 80 – 90 – 100 – 110 – 120 – 130

Greenish-grey mudstone (fractured by drilling)

40% pumice, 1% massive, 30% xtals, 30% carbonate

volcanic layer with cross-bedding

Grey mudstone

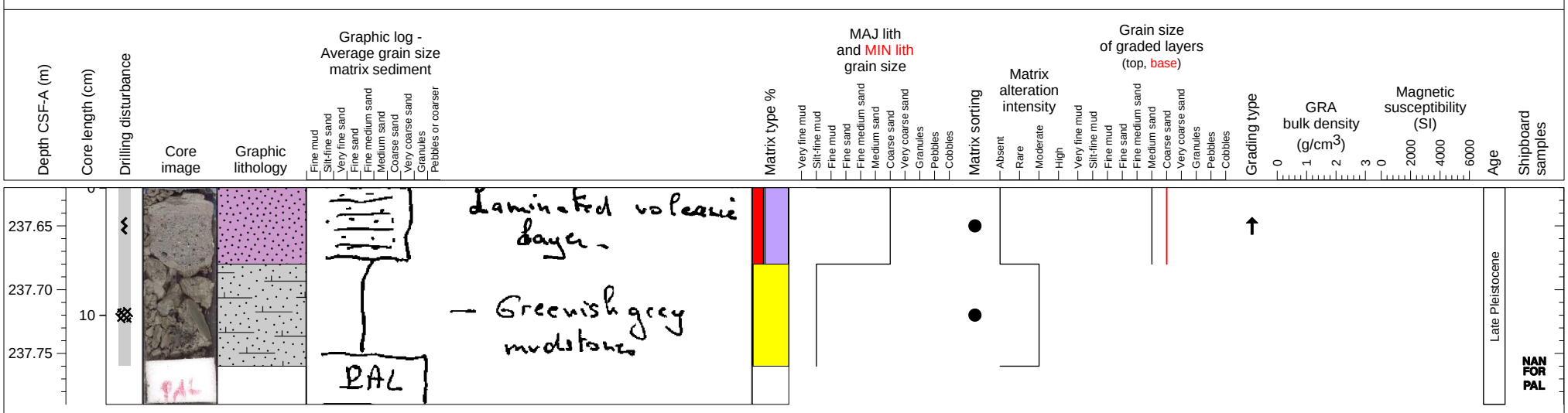
volcanic bedded layer
80% pumice
15% crystals
1% mass. lava
4% carbonate

Late Pleistocene

XRD
CRB
MADC

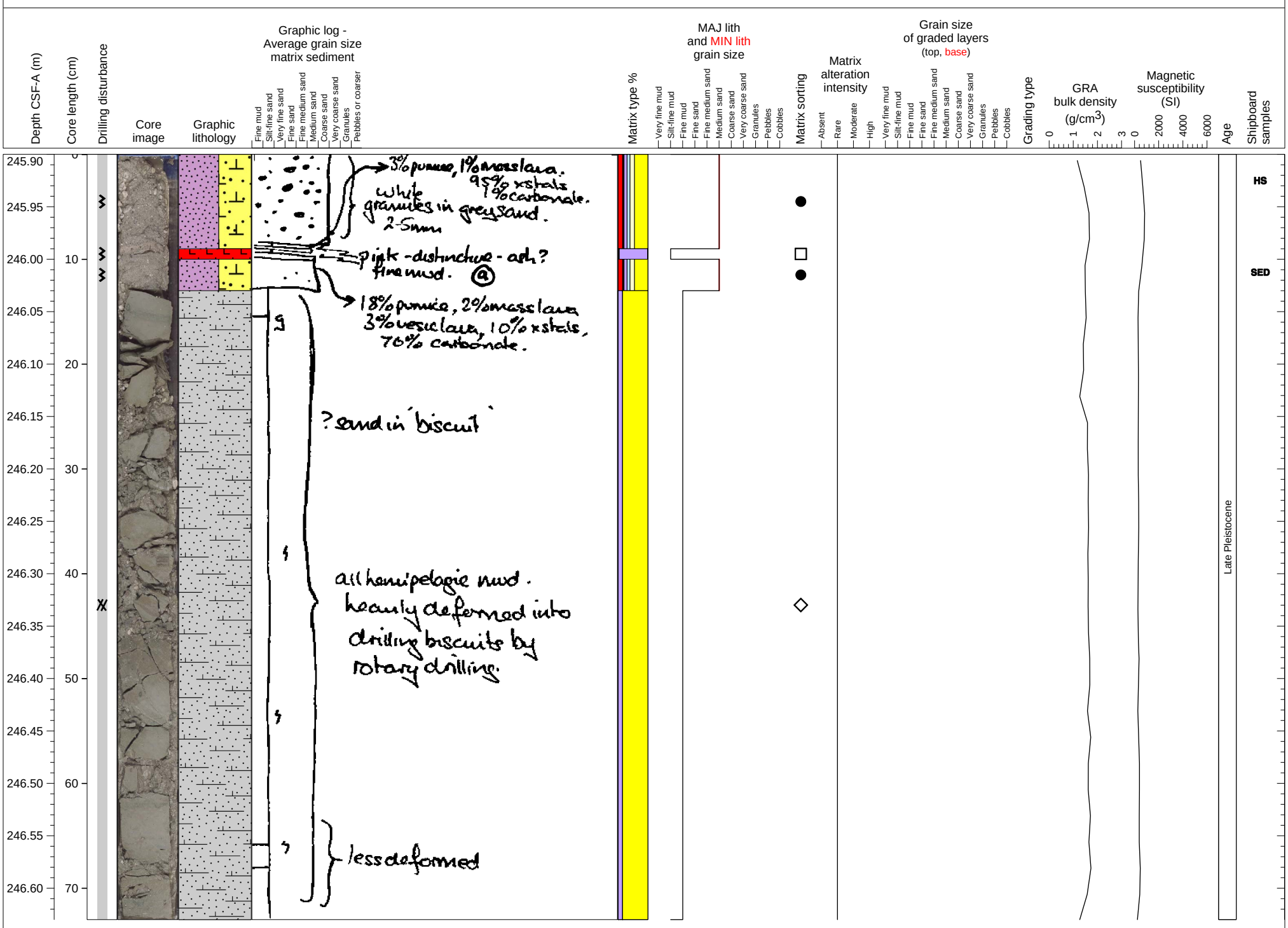
Hole 340-U1399A-33X Section CC, Top of Section: 237.62 CSF-A (m)

Laminated volacniclastic sand and hemipelagic mudstone.



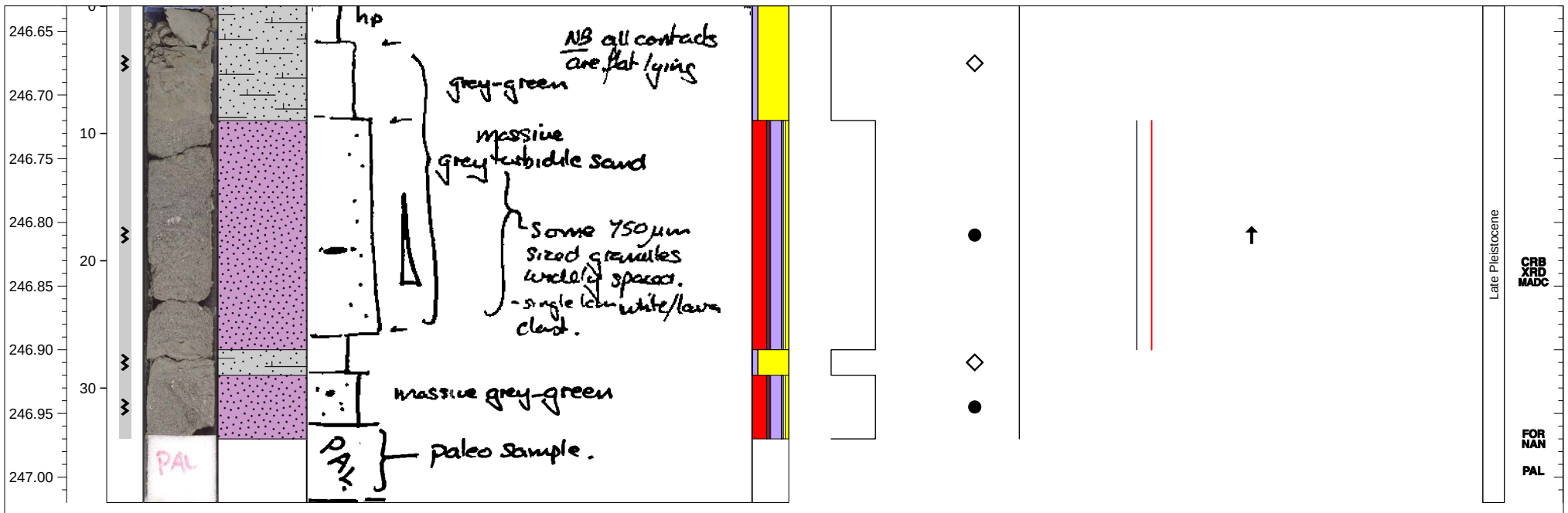
Hole 340-U1399A-34X Section 1, Top of Section: 245.9 CSF-A (m)

Volcaniclastic/bioclastic sandstone overlaying mudstone. Ash layer in the sandstone unit.



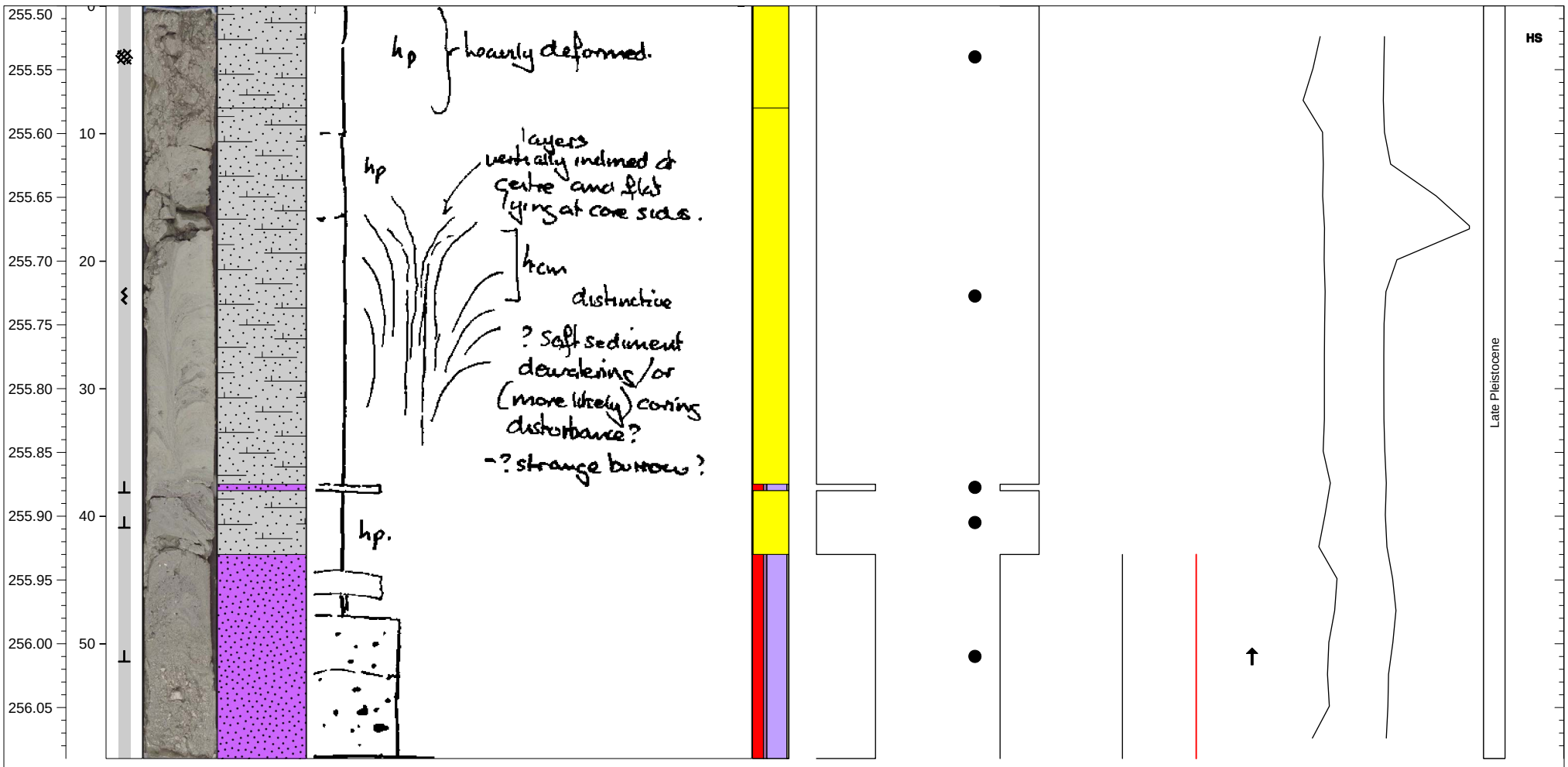
Hole 340-U1399A-34X Section CC, Top of Section: 246.63 CSF-A (m)

Interlayered mudstone and volcaniclastic sandstone, both partially lithified.



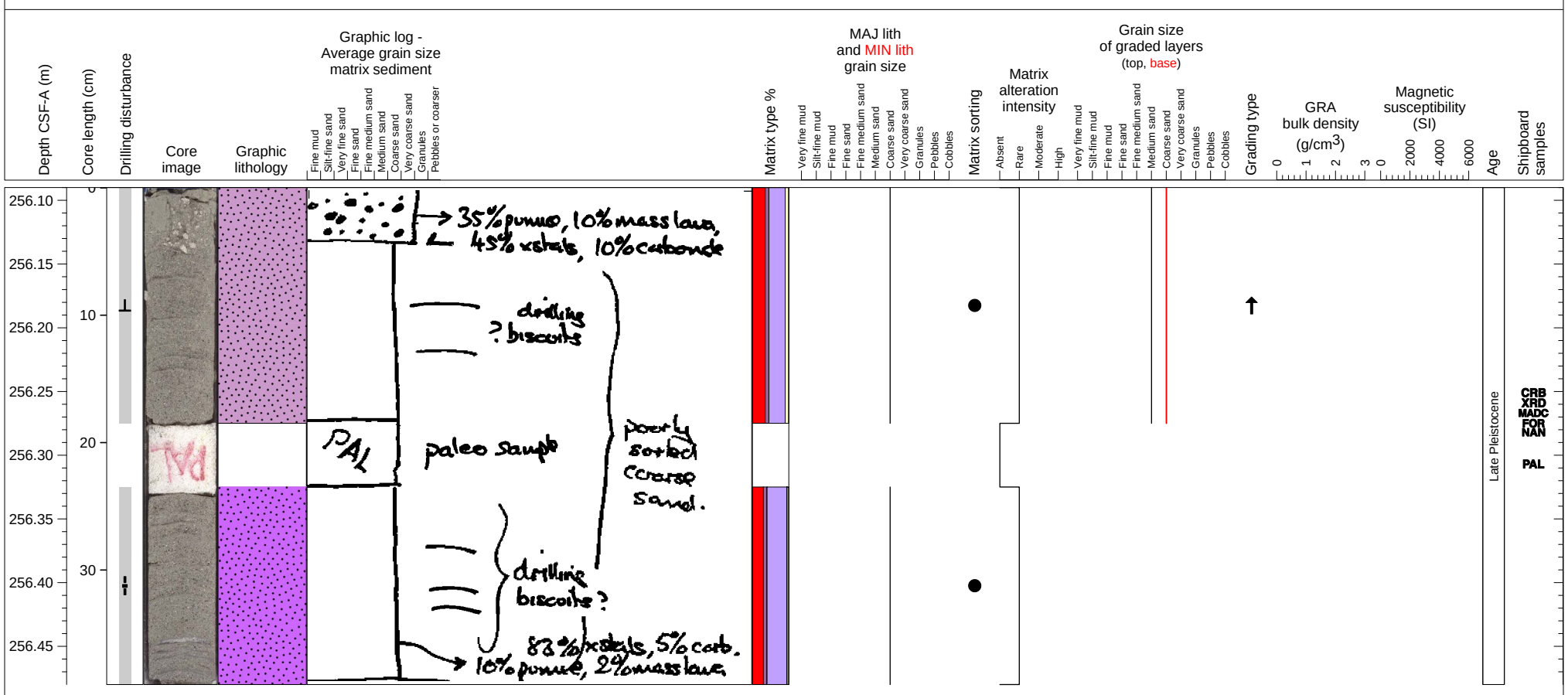
Hole 340-U1399A-35X Section 1, Top of Section: 255.5 CSF-A (m)

Heavily bioturbated hemipelagic mudstone overlying pumiceous sand unit.



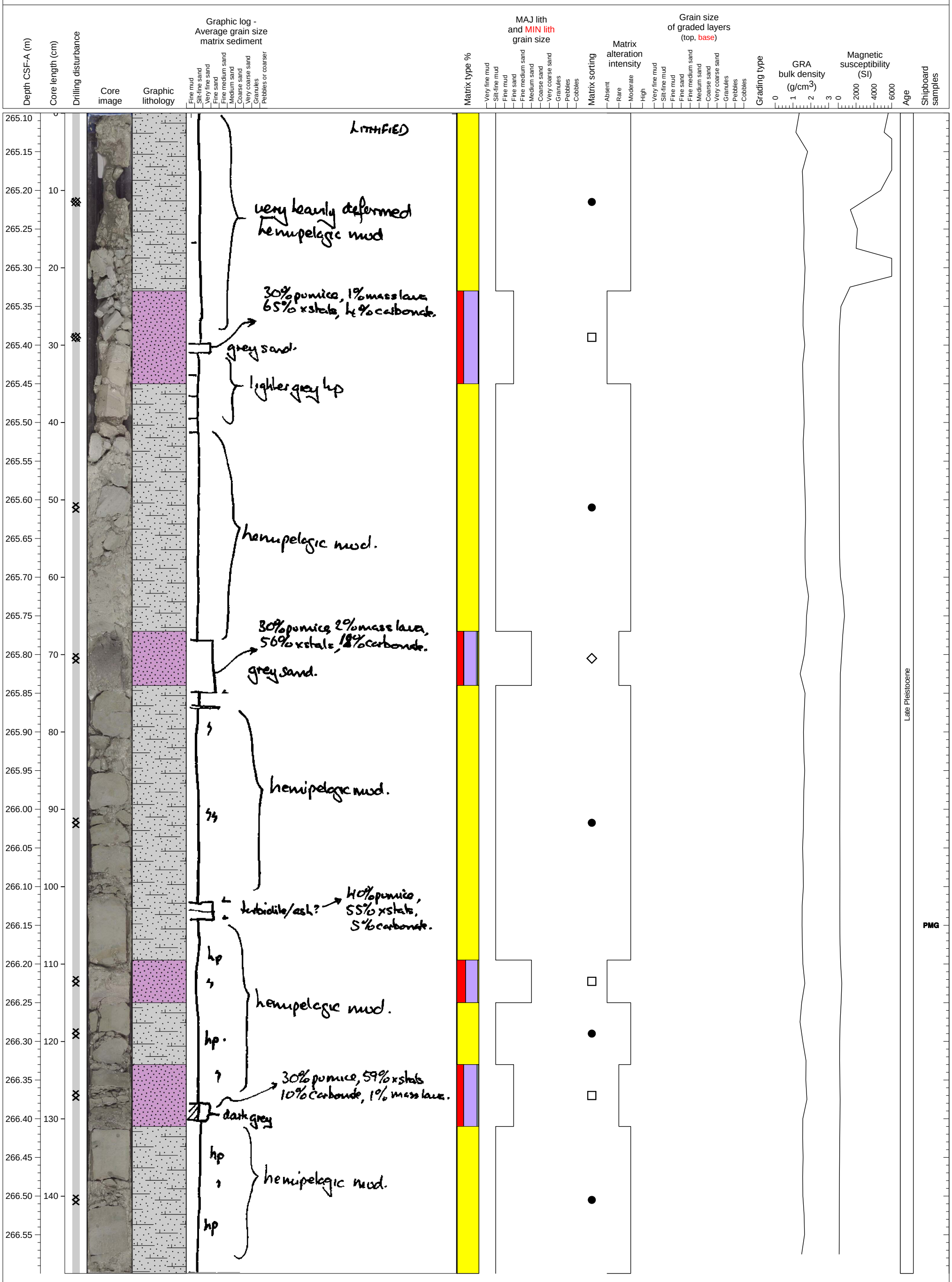
Hole 340-U1399A-35X Section CC, Top of Section: 256.09 CSF-A (m)

Volcaniclastic sandstone with parallel lamination.



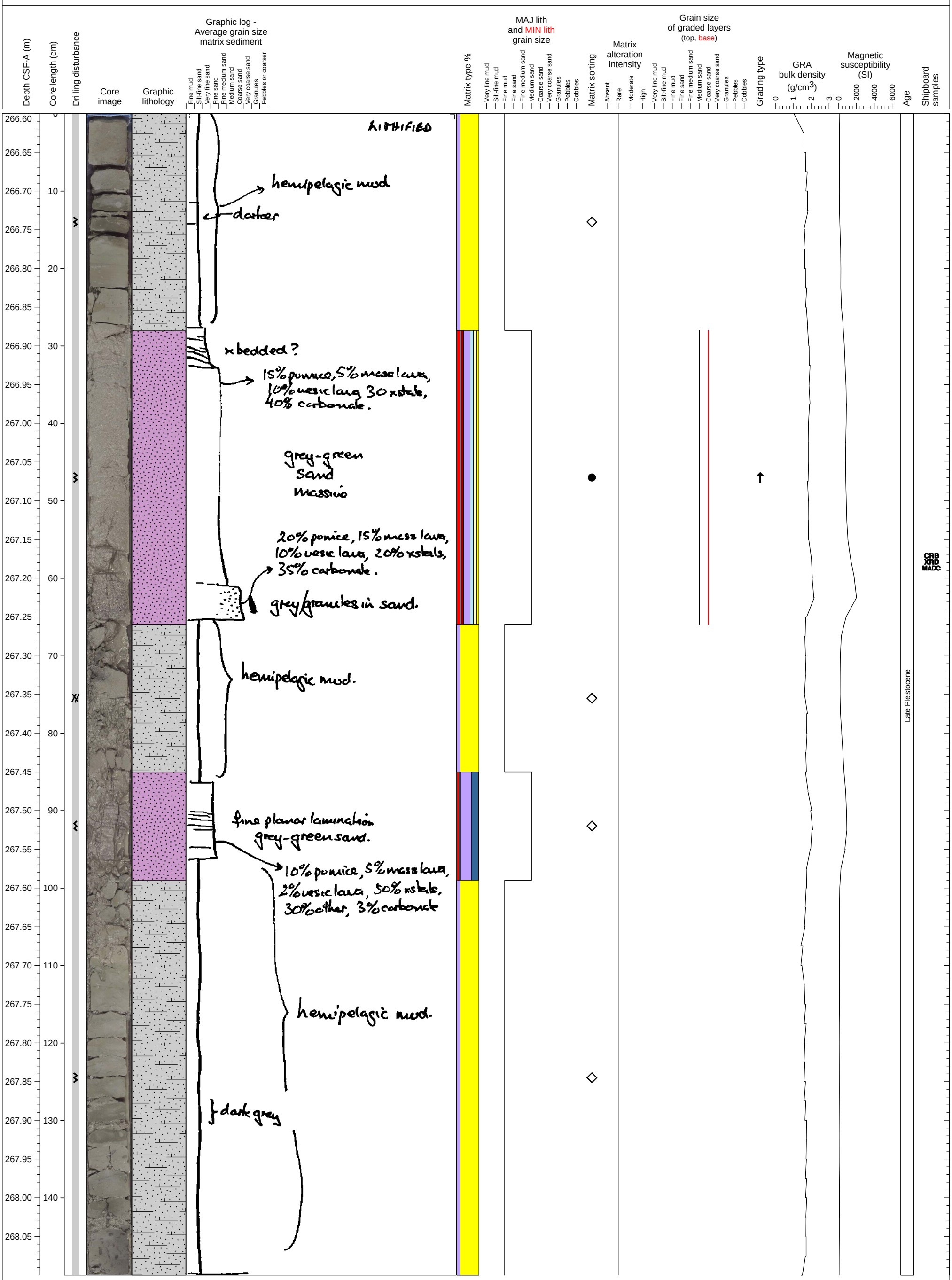
Hole 340-U1399A-36X Section 1, Top of Section: 265.1 CSF-A (m)

Heavily bioturbated hemipelagic mudstone interlayered with volcaniclastic sandstones.



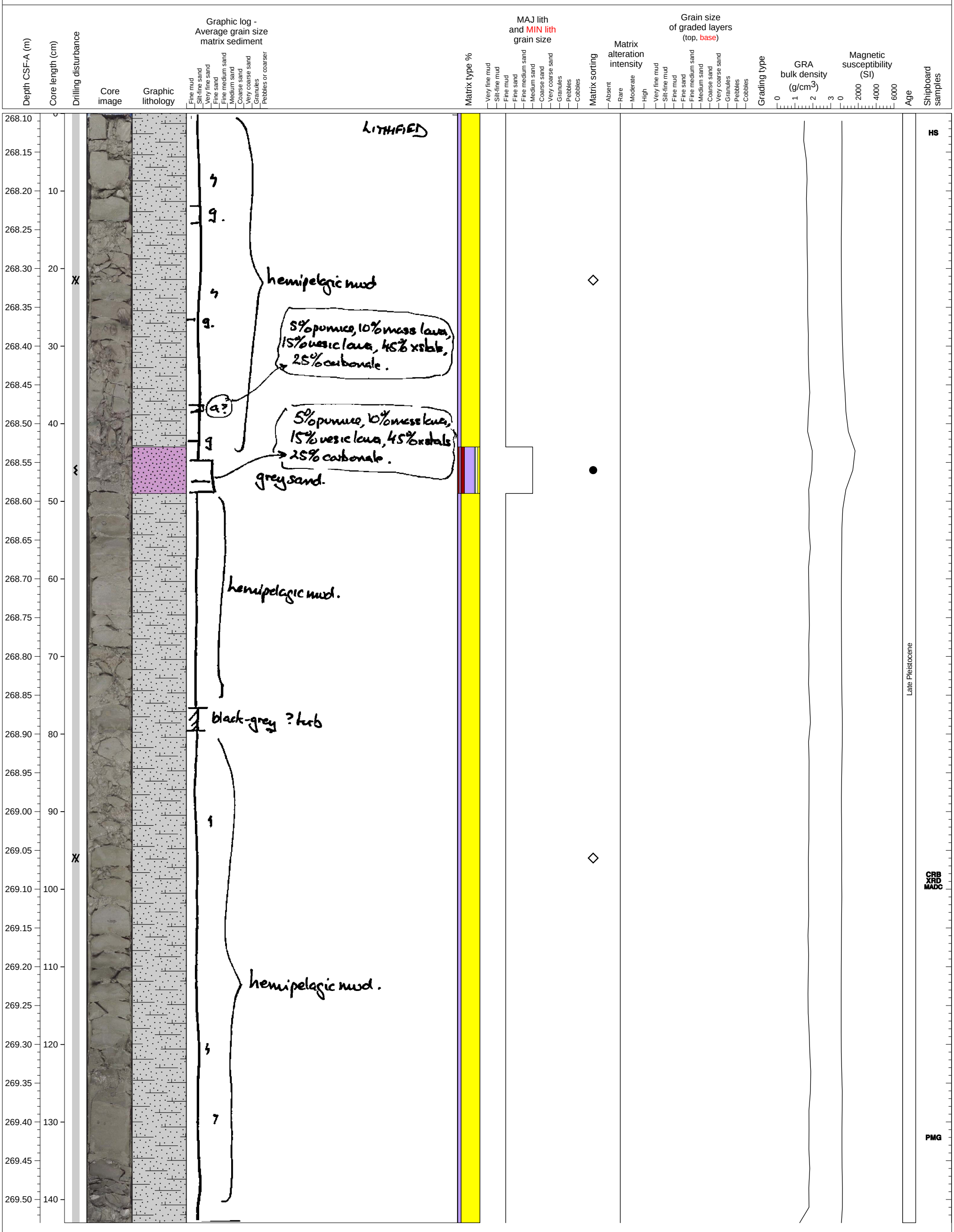
Hole 340-U1399A-36X Section 2, Top of Section: 266.6 CSF-A (m)

Mudstone interlayered with volcaniclastic sand units.



Hole 340-U1399A-36X Section 3, Top of Section: 268.1 CSF-A (m)

Heavily bioturbated mudstone. Volcaniclastic sandstone and sand layers often appear between mudstone layers, but these layers are likely drilling biscuits related to drilling disturbances.



Hole 340-U1399A-36X Section CC, Top of Section: 269.53 CSF-A (m)

Heavily bioturbated mudstone with thin volcaniclastic sandstone at base. PAL sample from section middle.