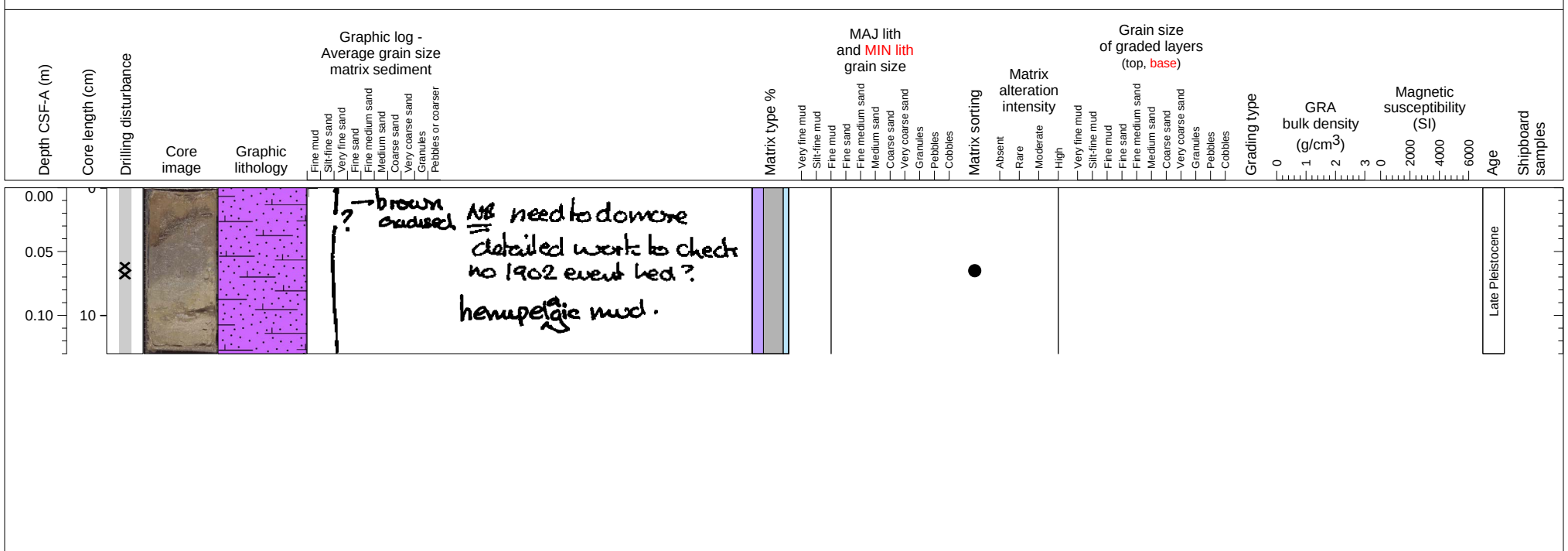
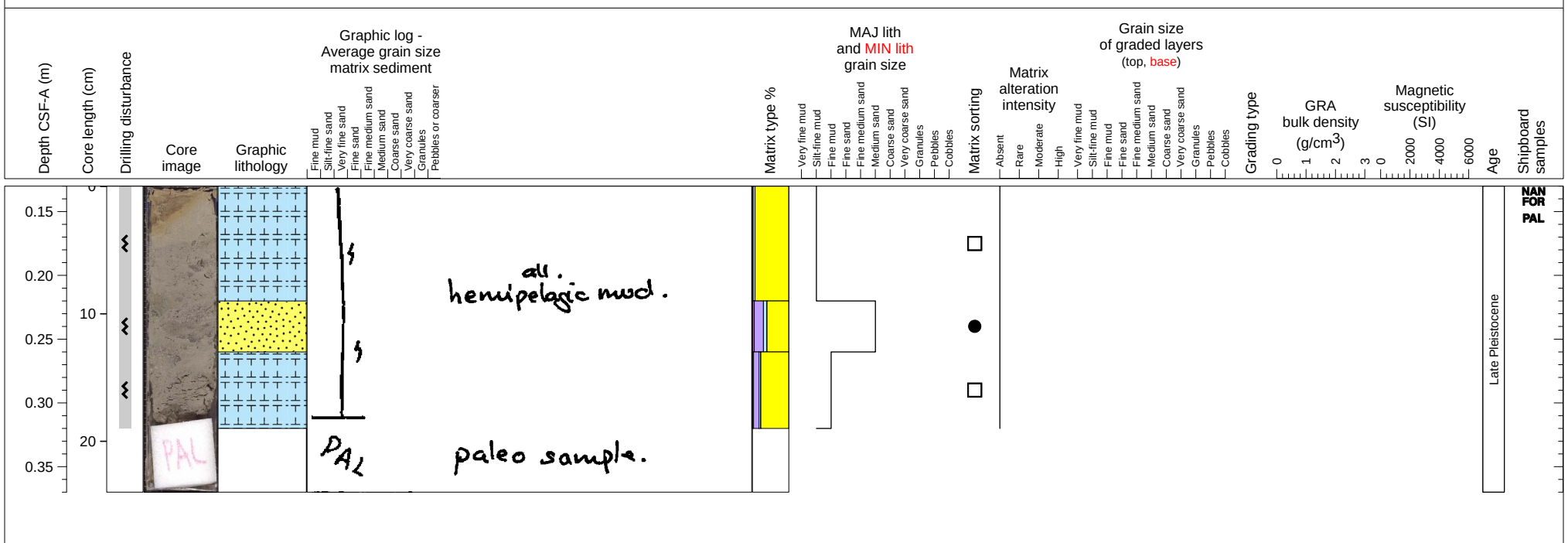
Hole 340-U1397A-1H Section 1, Top of Section: 0.0 CSF-A (m)

Heavily oxidized volcaniclastic mud.



Hole 340-U1397A-1H Section CC, Top of Section: 0.13 CSF-A (m)

Unconsolidated ooze with some sandy layer containing crystals and minor amount of lithics.



Hole 340-U1397A-2H Section 1, Top of Section: 0.3 CSF-A (m)

Mix of hemipelagic sediments and fine ash layers. Thick normally graded pumice-rich unit 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/cm3)
Magnetic susceptibility (SI)
Age
Shipboard samples

Small very fine volcanic sand (30% crystals 70% carbonate matrix)

Grey to brown hemipelagic mud with few shells

void

Turbidite deposit with pumices (up to 1cm) Normally graded (matrix: 5% pumices 5% lava 80% crystals 10% carbonates)

Late Pleistocene

MADC

Hole 340-U1397A-2H Section 2, Top of Section: 1.8 CSF-A (m)

Mottled hemipelagic sediments 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)
Magnetic susceptibility (SI)
Age
Shipboard samples

volcanic sand (80% cryst. 10% lava 10 carb)
Volc. sand
volcanic sand (80% cryst. 20% lava)
volc. sand
brown to grey hemipelagic mud
2 volcanic sand layers (cryst. 70% lava 20% carb. 10%)
grey - brown hemipelagic mud
→ pods of volcanic sand
hemipelagic mud
volcanic sand (cryst. 50% lava 20% carb. 30%)

Late Pleistocene

Hole 340-U1397A-2H Section 3, Top of Section: 3.31 CSF-A (m)

Hemipelagic fine mud sediments with 1 pumice fall layer and several mms to cms thick ash fall layers, part of which is bioturbated.

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

3.35
3.40
3.45
3.50
3.55
3.60
3.65
3.70
3.75
3.80
3.85
3.90
3.95
4.00
4.05
4.10
4.15
4.20
4.25
4.30
4.35
4.40
4.45
4.50
4.55
4.60
4.65
4.70
4.75
4.80

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

Coarse volcanic sand with pumice granule

volcanic sand (ash-lab 95%)

Grey hemipelagic mud

pods of volcanic sand

volcanic ash (dominantly crystals)

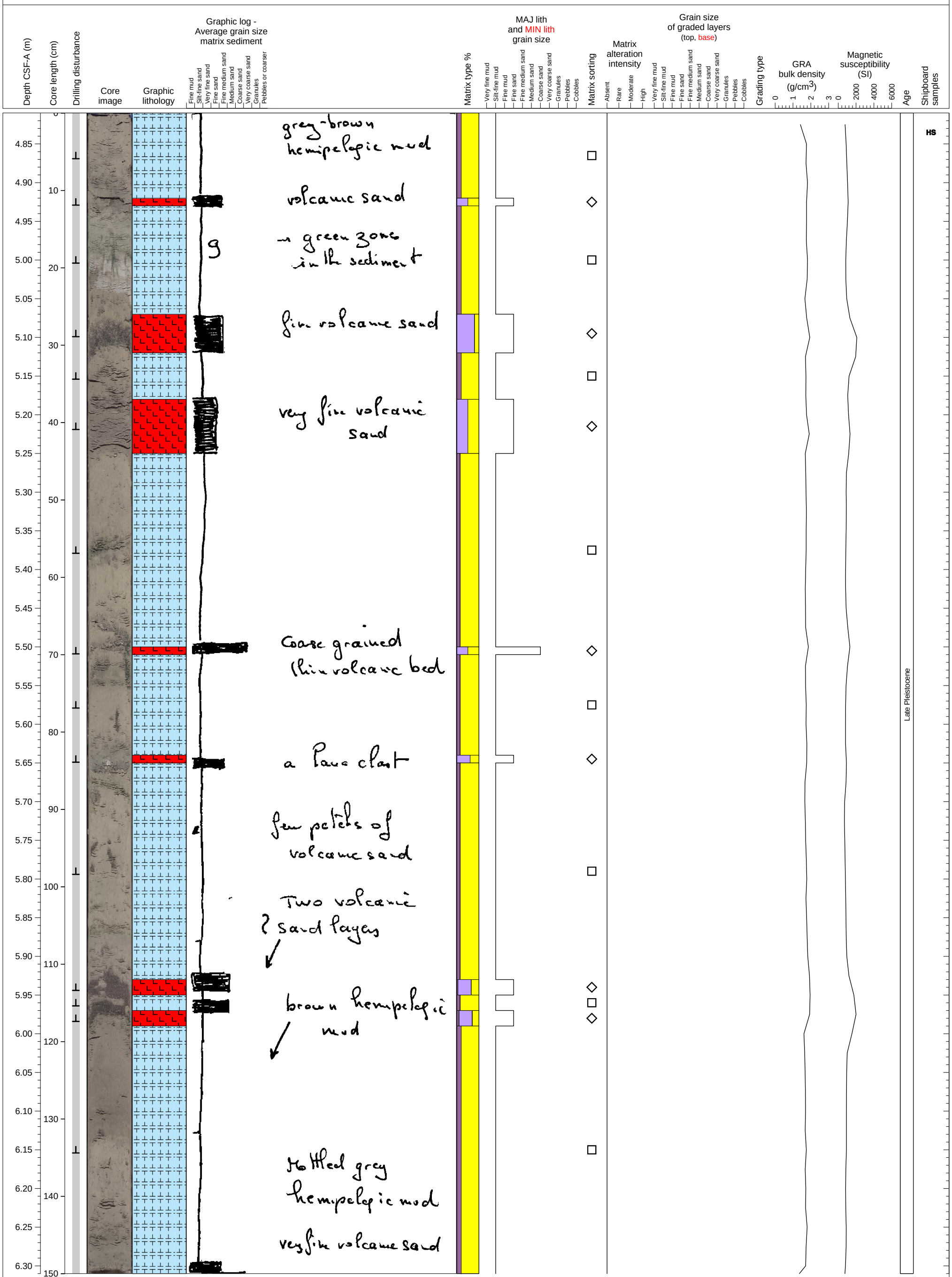
hemipelagic mud

Late Pleistocene

CRB
XRD
MADC

Hole 340-U1397A-2H Section 4, Top of Section: 4.81 CSF-A (m)

Silty hemipelagic sediments with seven ash layers.



Hole 340-U1397A-2H Section 5, Top of Section: 6.31 CSF-A (m)

Mottled hemipelagic sediments with several intercalated thin 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/cm3)
Magnetic susceptibility (SI)
Age
Shipboard samples

Muddy light grey hemipelagic sediment

bedded volcanic sand (fine sand to medium sand) (tephra) (dark reddish grey)

bedded volcanic sand

volcanic sand

volcanic sand

volcanic sand (dark reddish grey)

volc. sand (30% lavas 70% crystal)

volc. sand

Late Pleistocene

Hole 340-U1397A-2H Section 6, Top of Section: 7.81 CSF-A (m)

Hemipelagic fine mud with volcaniclastic sand beds

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

Succession of volcanic ashes (reddish grey) with fine sand beds and very fine beds (numerous eruptions)

Medium volcanic sand (massive) (Scorias 10% crystals: 80% Carbonats 10%)

Grey to brown Hemipelagic mud with few green zones

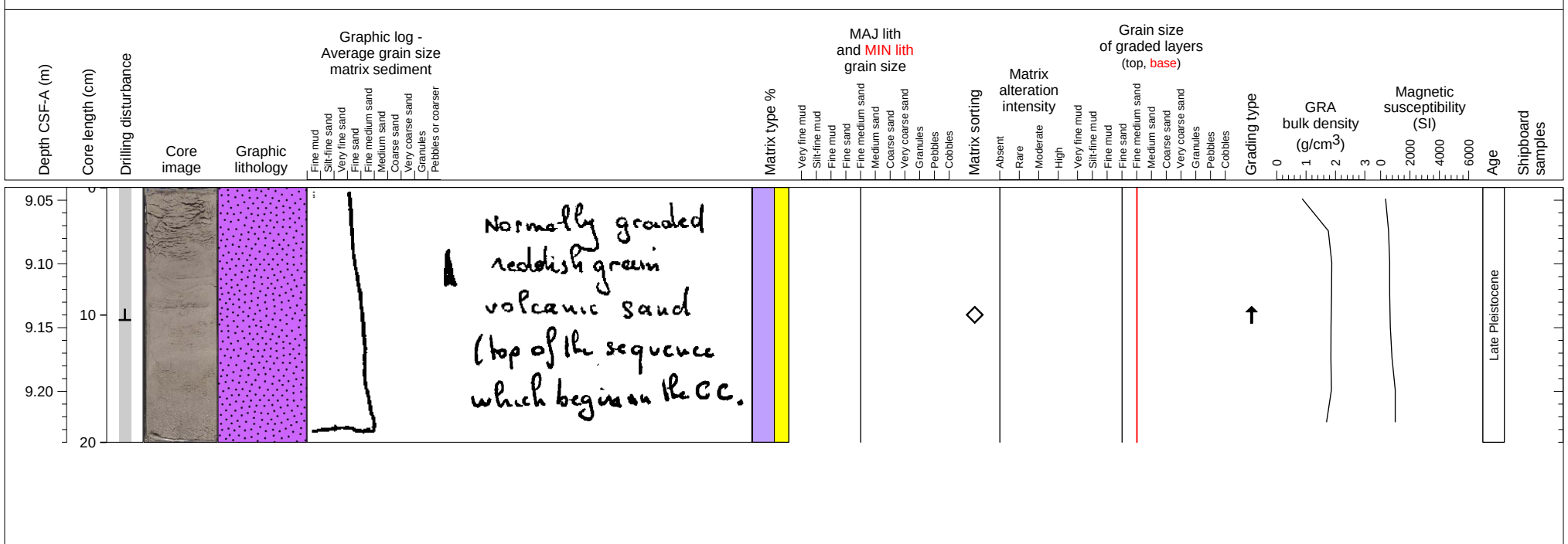
Late Pleistocene

CRB XRD

MADC

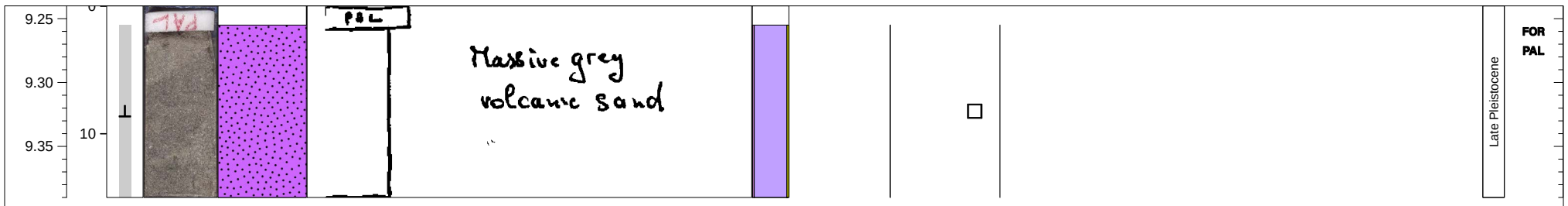
Hole 340-U1397A-2H Section 7, Top of Section: 9.04 CSF-A (m)

Volcaniclastic sand, may be part of turbidite sequence.



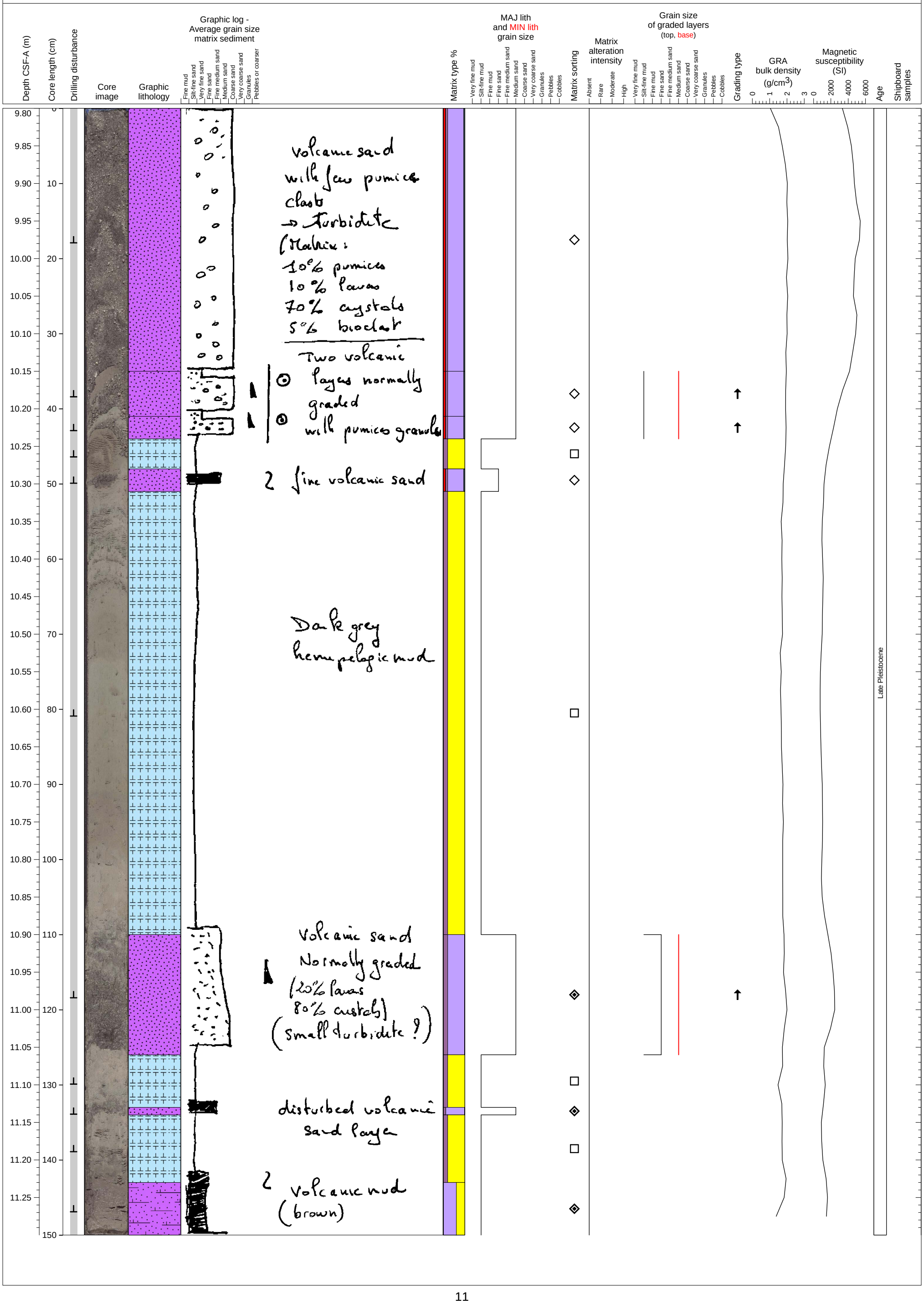
Hole 340-U1397A-2H Section CC, Top of Section: 9.24 CSF-A (m)

Massive volcaniclastic sand.



Hole 340-U1397A-3H Section 1, Top of Section: 9.8 CSF-A (m)

Hemipelagic sediment with several tephra and volcaniclastic sand layers.



Hole 340-U1397A-3H Section 2, Top of Section: 11.3 CSF-A (m)

Silty hemipelagic sediments 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 %
Very fine mud
Silt-fine mud
Fine mud
Fine sand
Fine medium sand
Medium sand
Coarse sand
Very coarse sand
Granules
Pebbles
Cobbles

MAJ lith and MIN lith grain size

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

11.30 – 0
11.35
11.40 – 10
11.45
11.50 – 20
11.55
11.60 – 30
11.65
11.70 – 40
11.75
11.80 – 50
11.85
11.90 – 60
11.95
12.00 – 70
12.05
12.10 – 80
12.15
12.20 – 90
12.25
12.30 – 100
12.35
12.40 – 110
12.45
12.50 – 120
12.55
12.60 – 130
12.65
12.70 – 140
12.75
150

dark volcanic sand

Grey volcanic sand layer

Thick volcanic sand bedded at the base (bed white and dark) more massive in the middle very fine at the top

hemipelagic mud grey with pods of reddish grey volcanic sand

Dark to reddish grey volcanic sand

Two dark volcanic sand

Hemypelagic mud brown-grey with green zones

2 volcanic sand bioturbated

Late Pleistocene

Hole 340-U1397A-3H Section 3, Top of Section: 12.8 CSF-A (m)

Hemipelagic sediments 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/cm3)
Magnetic susceptibility (SI)
Age
Shipboard samples

12.80 – 0
12.85
12.90 – 10
12.95
13.00 – 20
13.05
13.10 – 30
13.15
13.20 – 40
13.25
13.30 – 50
13.35
13.40 – 60
13.45
13.50 – 70
13.55
13.60 – 80
13.65
13.70 – 90
13.75
13.80 – 100
13.85
13.90 – 110
13.95
14.00 – 120
14.05
14.10 – 130
14.15
14.20 – 140
14.25
150

brown hemipelagic mud mixed with fine volcanic sand

grey - brown hemipelagic mud

highly bioturbated volcanic sand (with few shells)

Massive volcanic sand layer dark at the base, grey at the top

hemipelagic mud grey to green

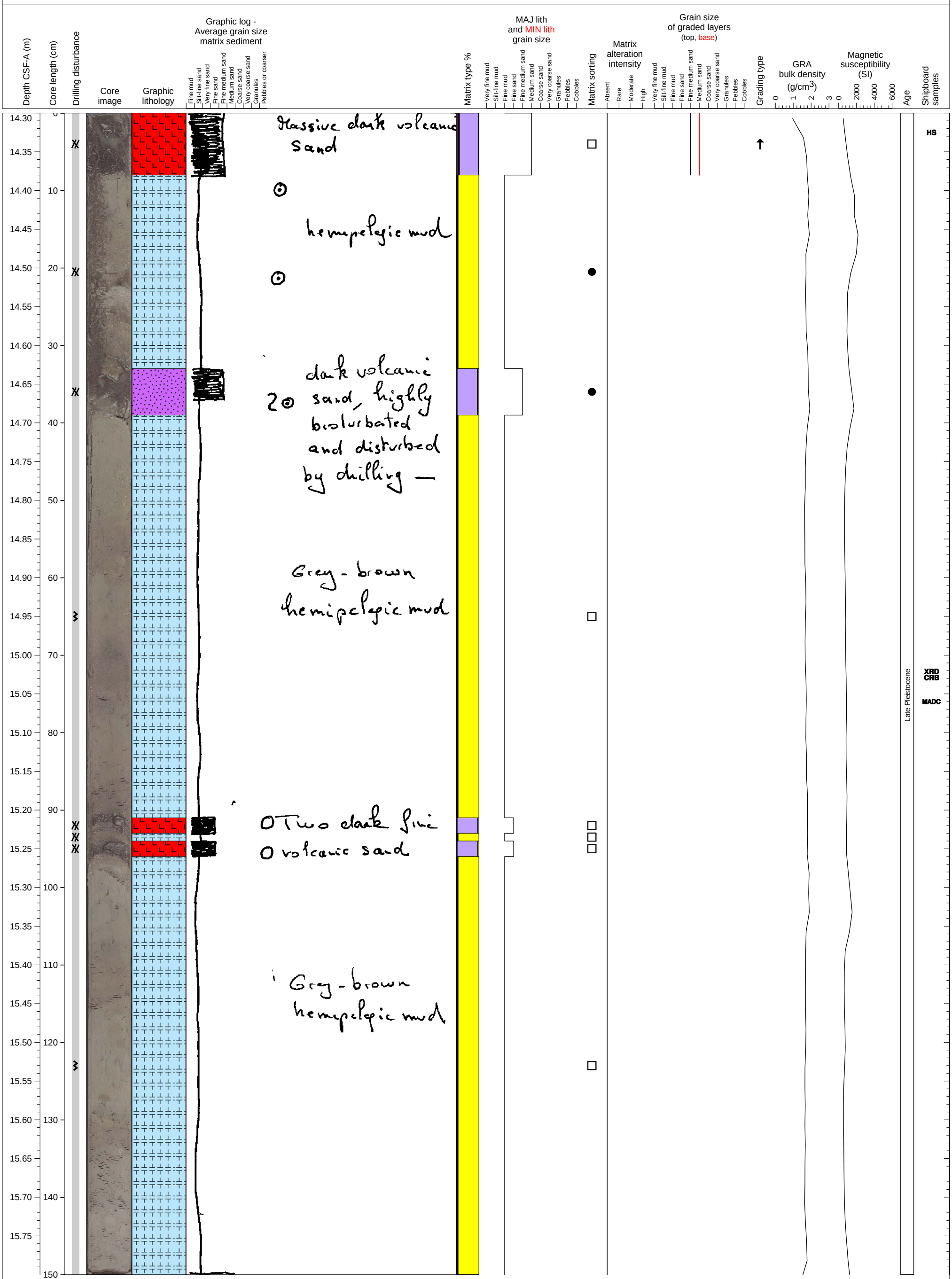
pods of volcanic sand

Reddish brown volcanic sand

Late Pleistocene

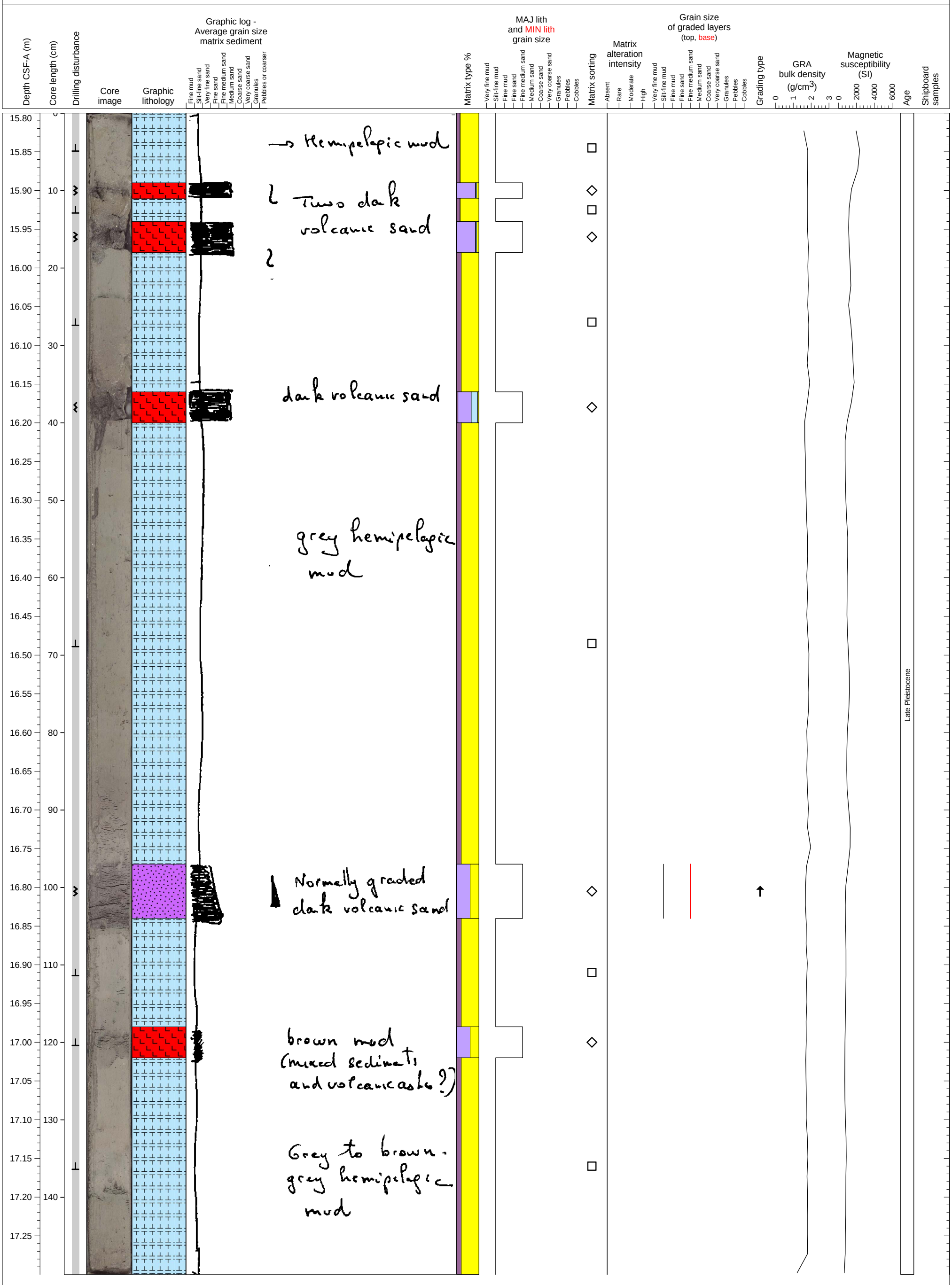
Hole 340-U1397A-3H Section 4, Top of Section: 14.3 CSF-A (m)

Hemipelagic fine mud with a couple of cms thick ashfall layers



Hole 340-U1397A-3H Section 5, Top of Section: 15.8 CSF-A (m)

Hemipelagic sediment with four thin ash layers and a normally graded volcaniclastic sand.



Hole 340-U1397A-3H Section 6, Top of Section: 17.3 CSF-A (m)

Hemipelagic sediments with volcaniclastic turbidite and 1 ashfall? 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/cm3)
0
1
2
3
Magnetic susceptibility (SI)
0
2000
4000
6000
Age
Shipboard samples

17.30
17.35
17.40
17.45
17.50
17.55
17.60
17.65
17.70
17.75
17.80
17.85
17.90
17.95
18.00
18.05
18.10
18.15
18.20
18.25
18.30
18.35
18.40
18.45
18.50
18.55
18.60
18.65
18.70
18.75

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

light brownish grey hempelagic mud

volcanic sand

hempelagic mud (light brownish grey)

brown hempelagic mud with probable very fine volcanic ashes

Massive volcanic sand layer → turbidite

brown mud

→ hempelagite

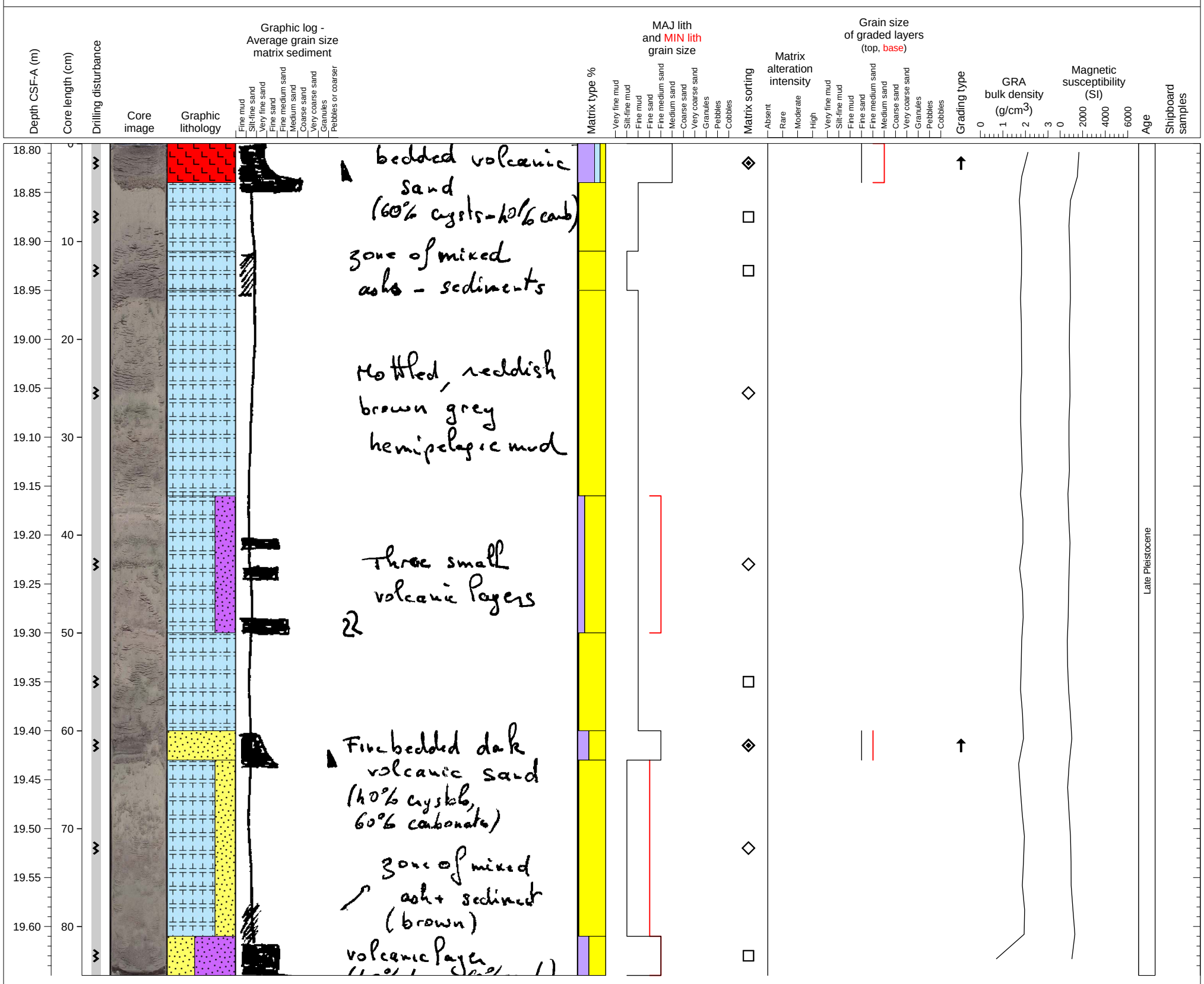
brown mud (probably sediments mixed with very fine ashes)

Late Pleistocene

MADC

Hole 340-U1397A-3H Section 7, Top of Section: 18.8 CSF-A (m)

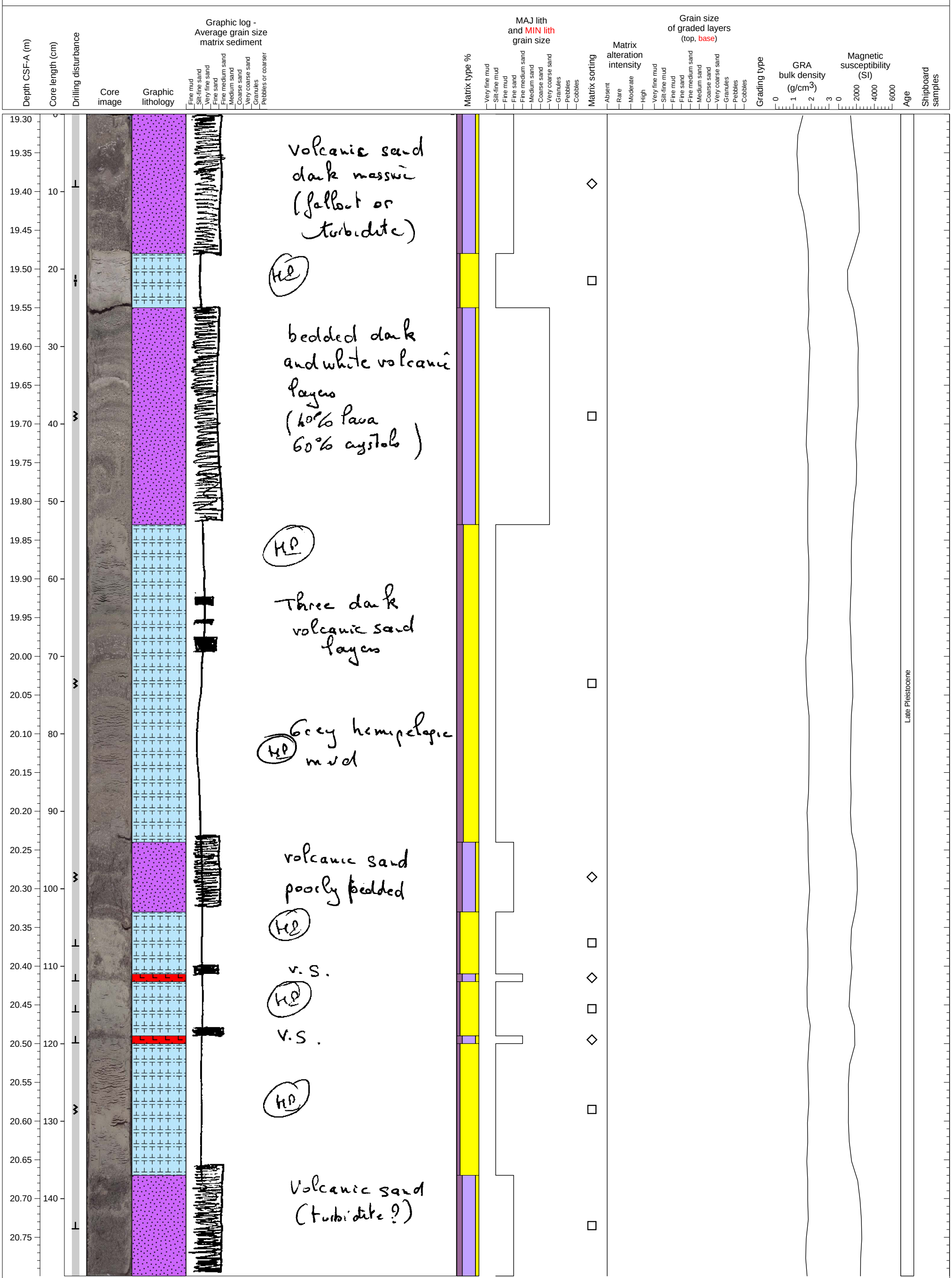
Hemipelagic sediments with 1 ashfall layer at the top of the section



U1397A-3H-CC ALL TO PALEO

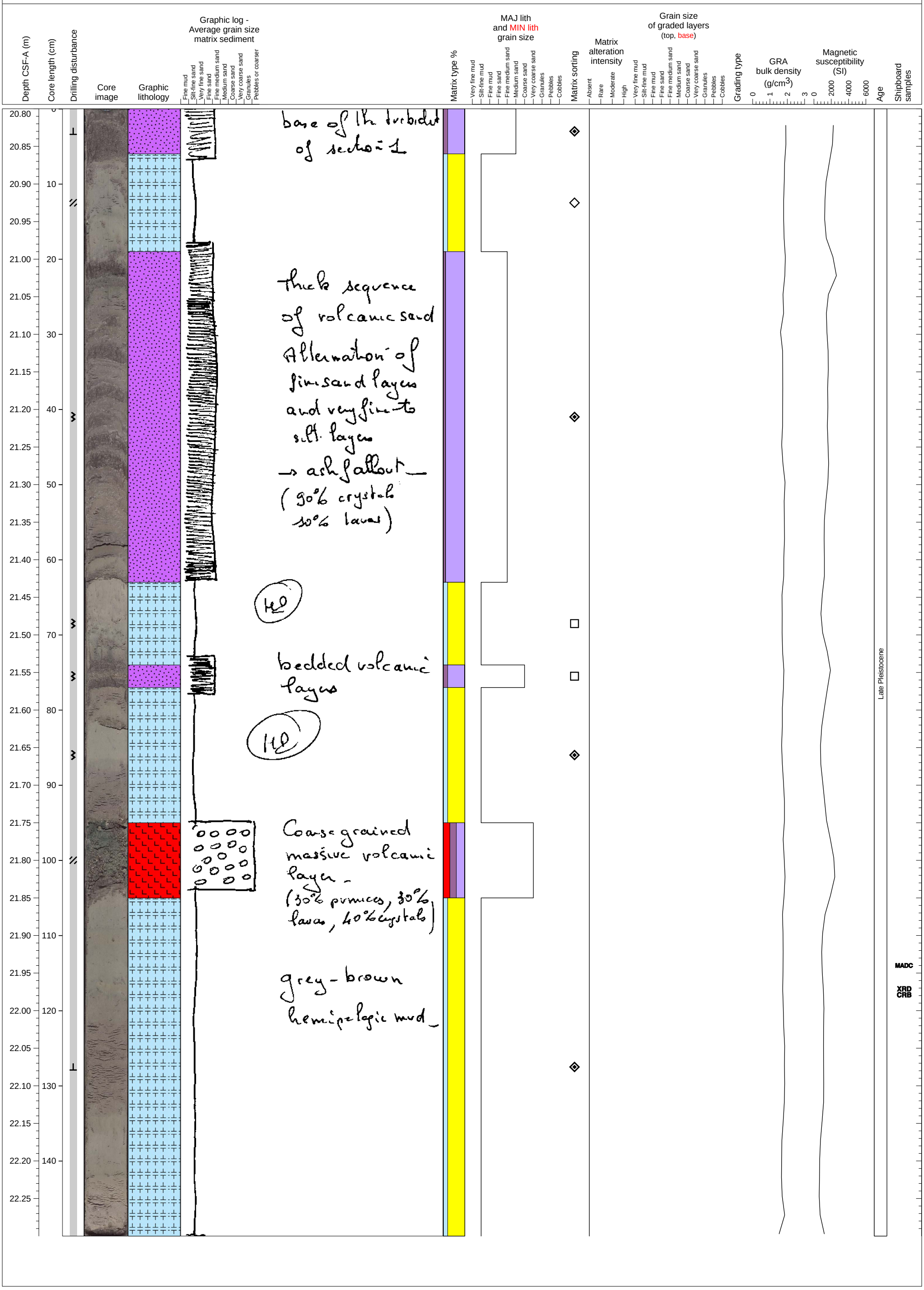
Hole 340-U1397A-4H Section 1, Top of Section: 19.3 CSF-A (m)

Hemipelagic sediment and volcaniclastic sands with two ash layers.



Hole 340-U1397A-4H Section 2, Top of Section: 20.8 CSF-A (m)

Hemipelagic sediments with intercalated volcanic ash layers



Hole 340-U1397A-4H Section 3, Top of Section: 22.3 CSF-A (m)

Hemipelagic sediments interbedded with thin ash layers and two volcaniclastic sands (turbidites?)

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

22.30
22.35
22.40
22.45
22.50
22.55
22.60
22.65
22.70
22.75
22.80
22.85
22.90
22.95
23.00
23.05
23.10
23.15
23.20
23.25
23.30
23.35
23.40
23.45
23.50
23.55
23.60
23.65
23.70
23.75

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

volcanic ash
dark volcanic sand thick sequence (fallout or turbidite)?
Brown hemipelagic mud
volcanic fine ash
volcanic fine ash
volcanic fine ash
volcanic fine ash
volcanic fine ash

0 1 2 3
0 2000 4000 6000

Late Pleistocene

Hole 340-U1397A-4H Section 4, Top of Section: 23.8 CSF-A (m)

Hemipelagic sediments with at least 12 intercalations of volcaniclastic sand layers (many are probably of ashfall origin)

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

Brown to Grey hemipelagic mud

volcanic sand (V.S)

V.S.

V.S

V.S

V.S

V.S

V.S

Brown hemipelagic mud

V.S

V.S

V.S

Thick sequence of very fine sand layers intercalated with mud

V.S

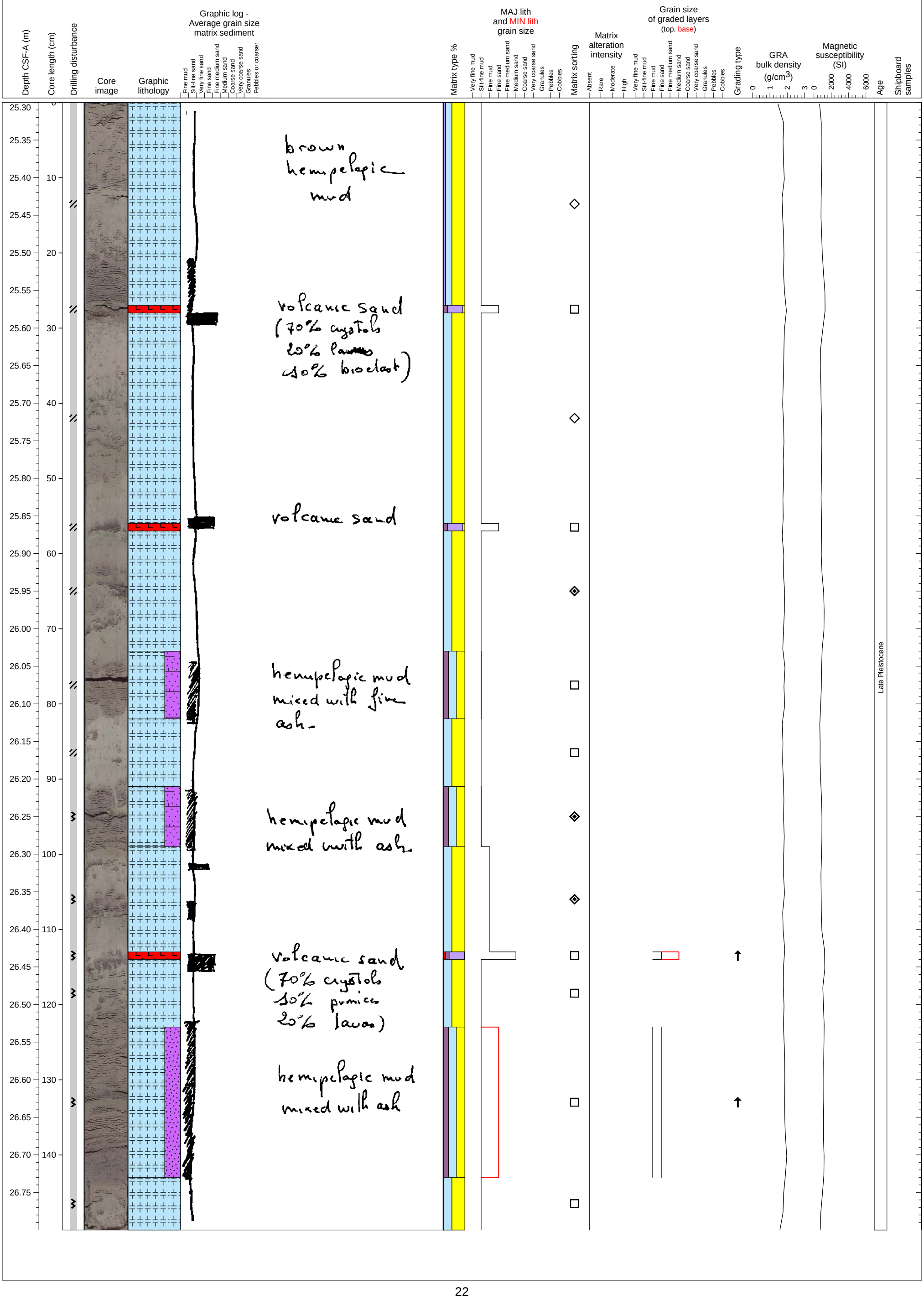
V.S

HS

Late Pleistocene

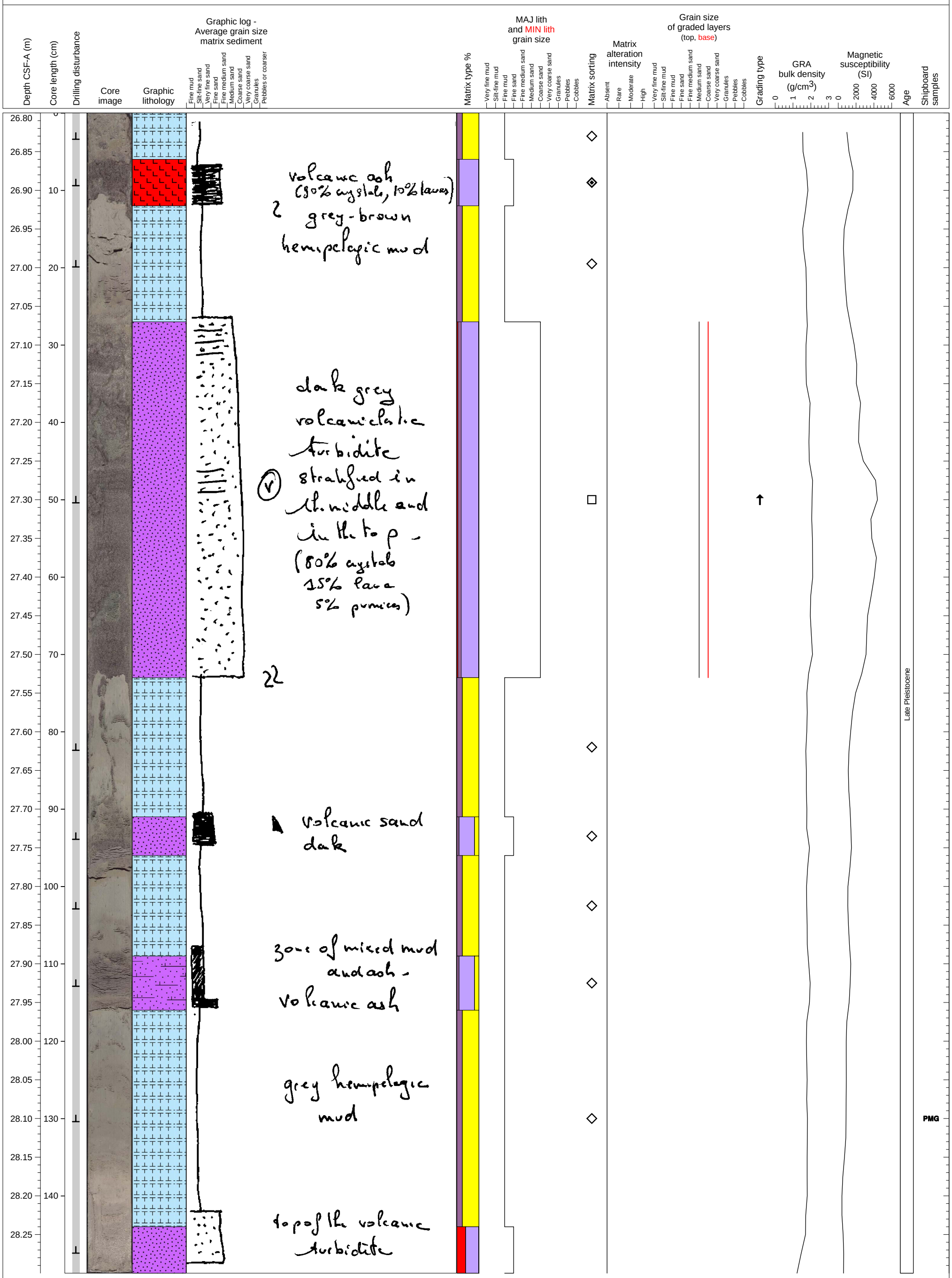
Hole 340-U1397A-4H Section 5, Top of Section: 25.3 CSF-A (m)

Hemipelagic sediments with intercalation of several volcanic ash layers



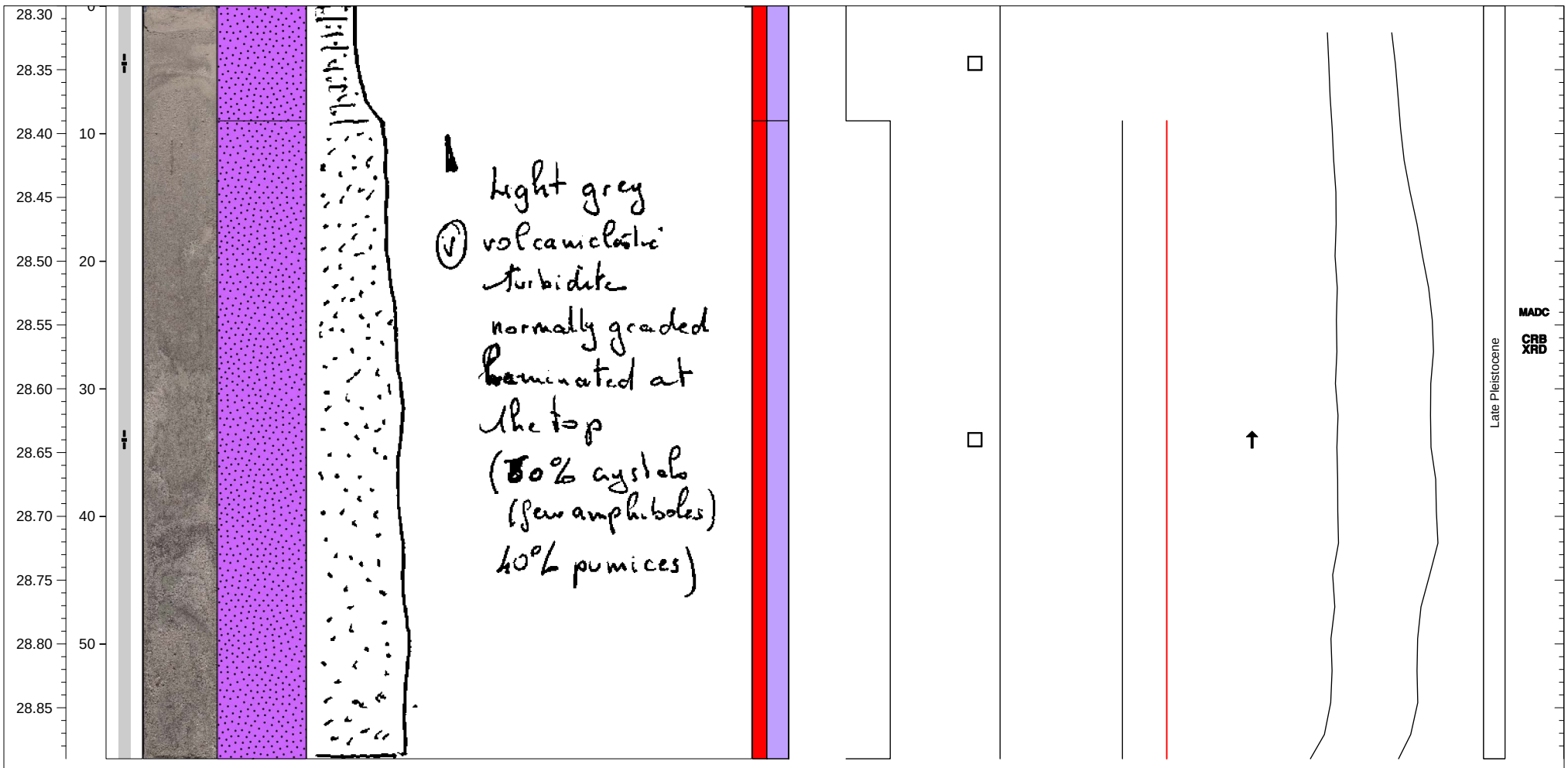
Hole 340-U1397A-4H Section 6, Top of Section: 26.8 CSF-A (m)

Hemipelagic sediments with several coarse volcaniclastic sands, one normally graded



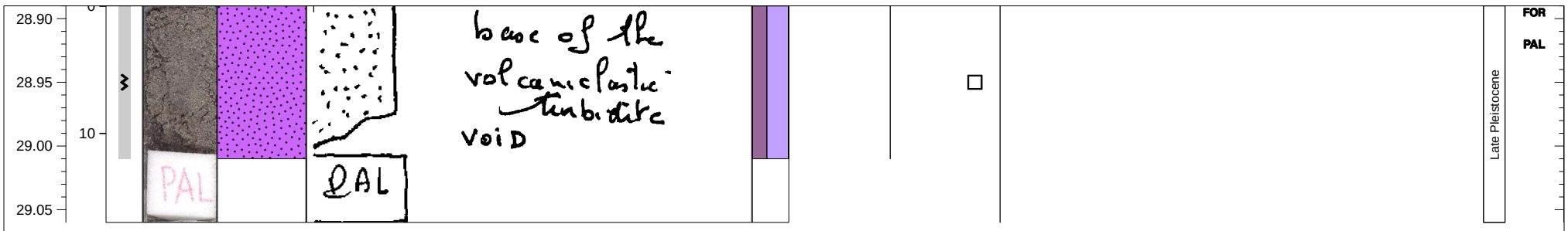
Hole 340-U1397A-4H Section 7, Top of Section: 28.3 CSF-A (m)

Volcaniclastic sand, normally graded - turbidite?



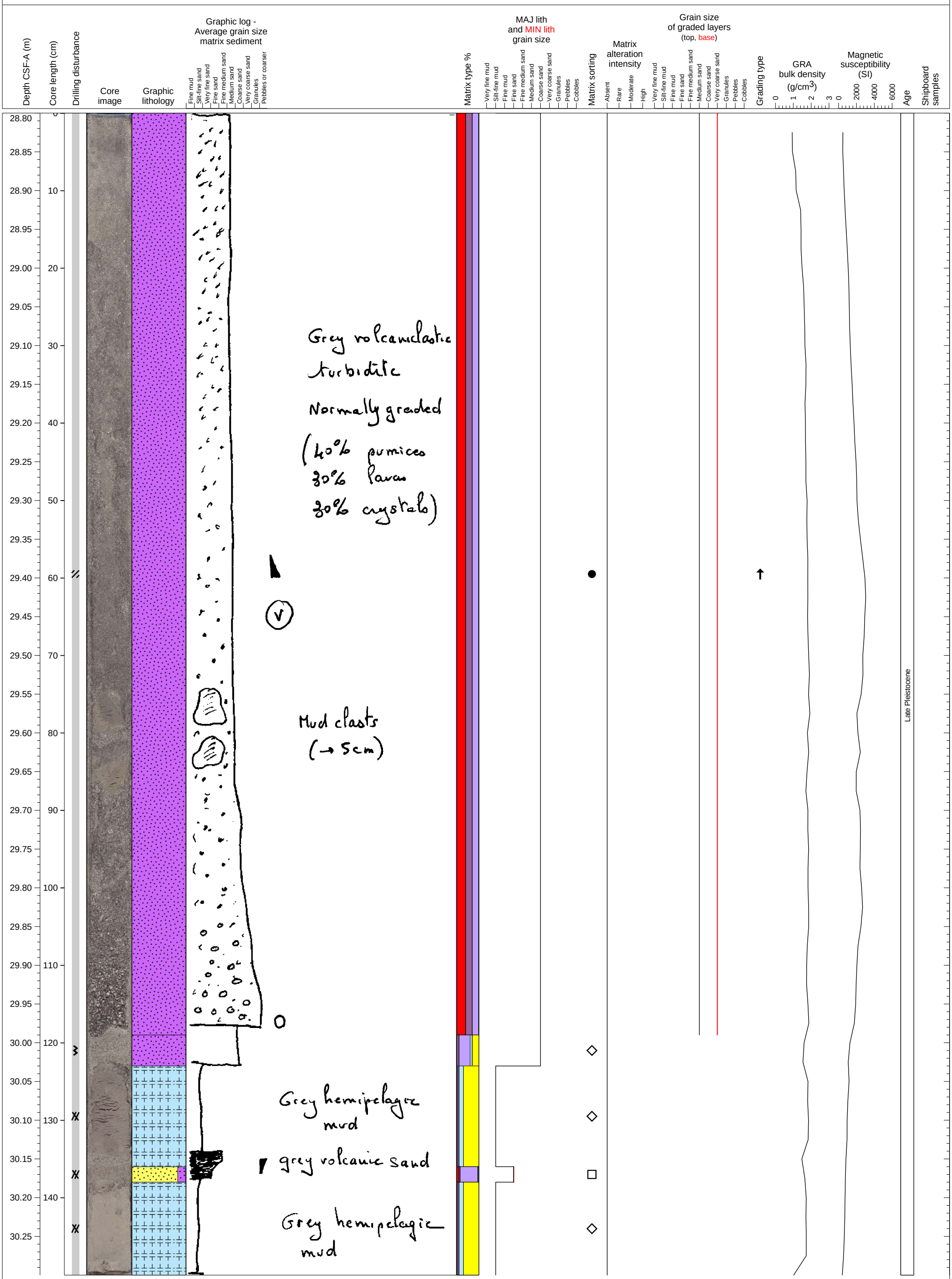
Hole 340-U1397A-4H Section CC, Top of Section: 28.89 CSF-A (m)

Volcaniclastic sand



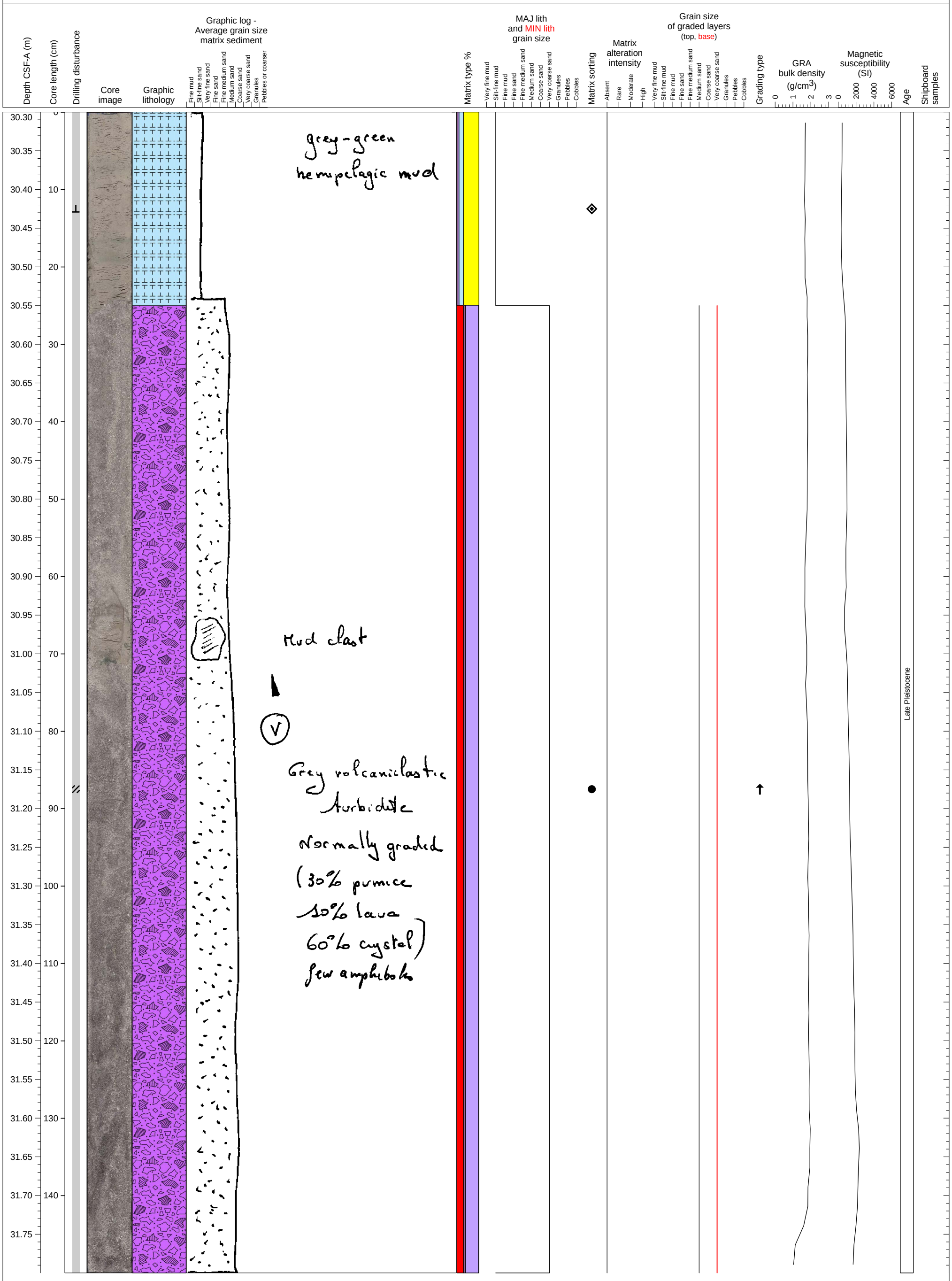
Hole 340-U1397A-5H Section 1, Top of Section: 28.8 CSF-A (m)

Hemipelagic sediment and volcaniclastic tubidite



Hole 340-U1397A-5H Section 2, Top of Section: 30.3 CSF-A (m)

Hemipelagic mud at top. Normally graded volcaniclastic turbidite below



Hole 340-U1397A-5H Section 3, Top of Section: 31.8 CSF-A (m)

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

31.80 – 0
31.85
31.90 – 10
31.95
32.00 – 20
32.05
32.10 – 30
32.15
32.20 – 40
32.25
32.30 – 50
32.35
32.40 – 60
32.45
32.50 – 70
32.55
32.60 – 80
32.65
32.70 – 90
32.75
32.80 – 100
32.85
32.90 – 110
32.95
33.00 – 120
33.05
33.10 – 130
33.15
33.20 – 140
33.25

volcanic ash

dark volcanic sand thick sequence (fallout or turbidite) ?

Brown hemipelagic mud

Pl2

volcanic fine ash

volcanic fine ash

volcanic fine ash

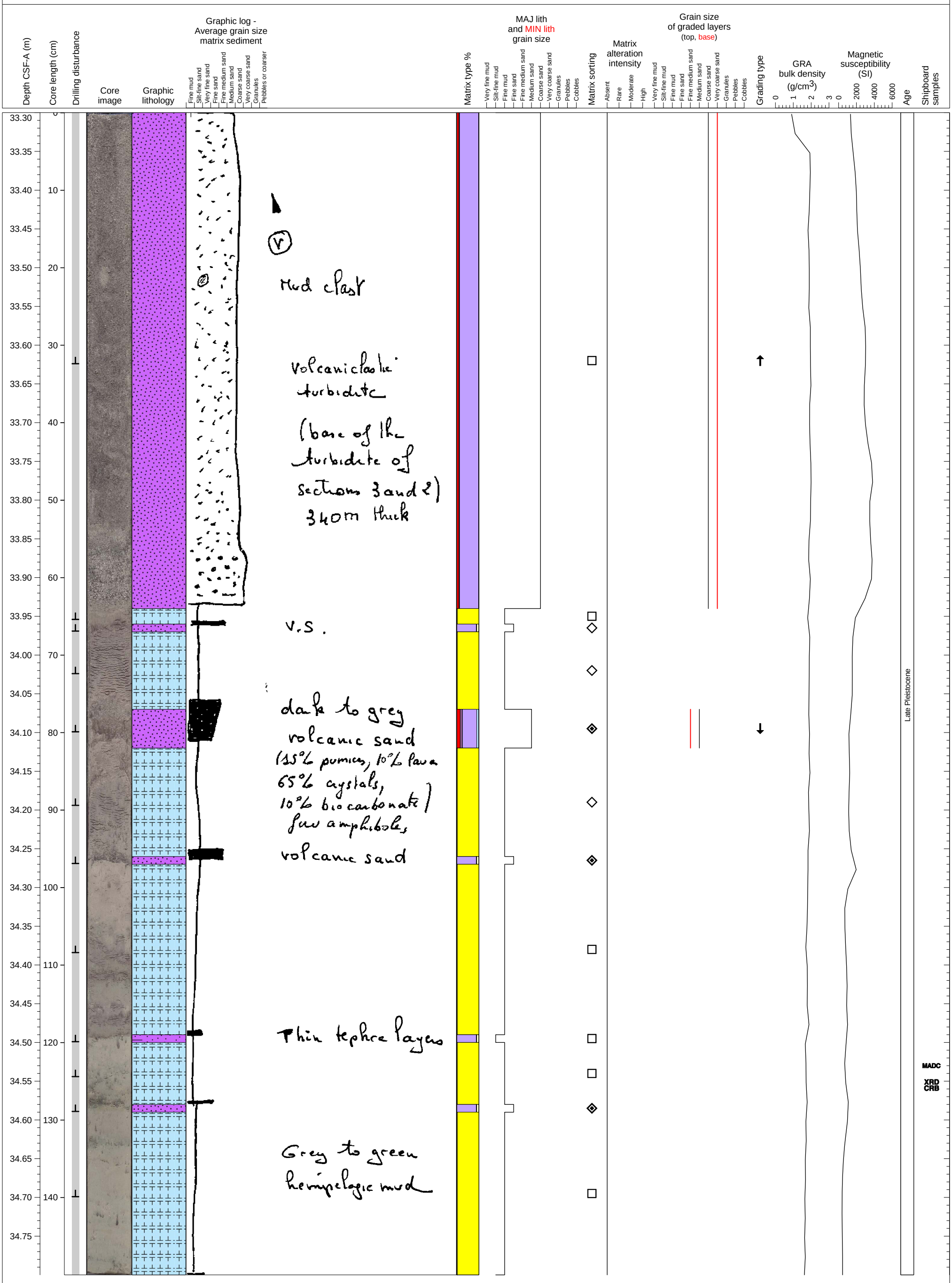
volcanic fine ash

volcanic fine ash

Late Pleistocene

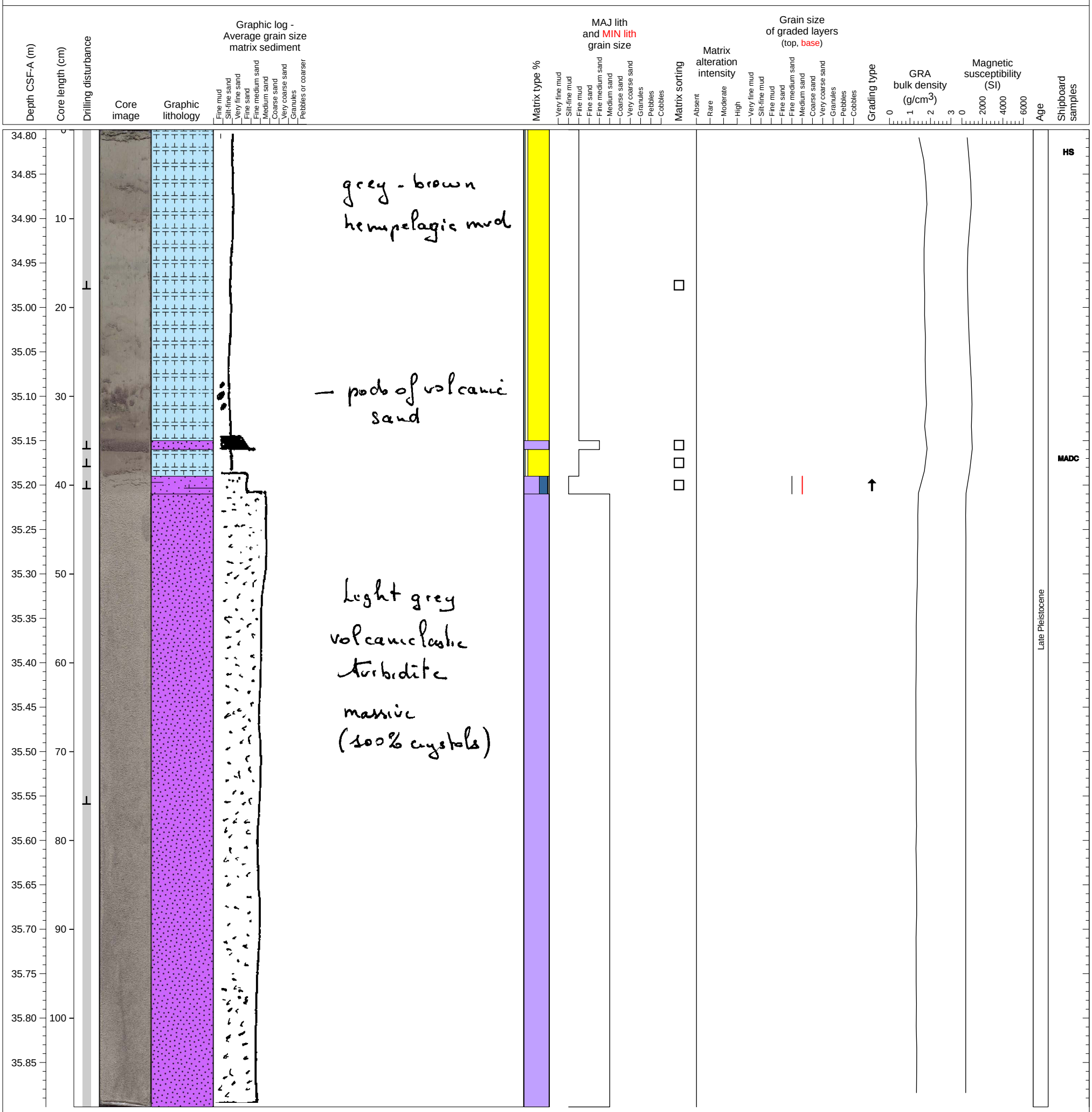
Hole 340-U1397A-5H Section 4, Top of Section: 33.3 CSF-A (m)

Lower half is composed of hemipelagic sediments with several thin ash fall (but bioturbated) layers, and upper half volcaniclastic turbidite.



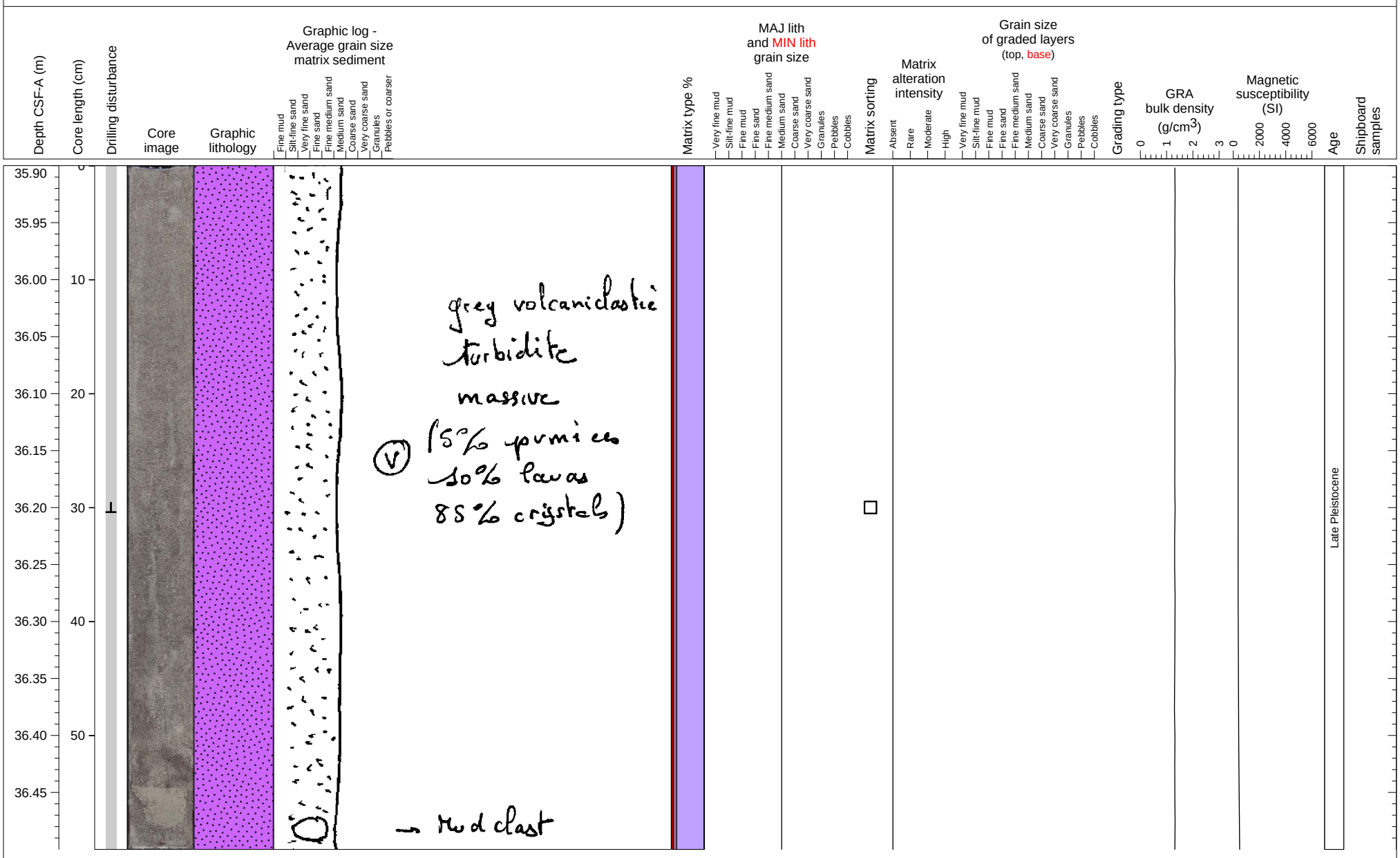
Hole 340-U1397A-5H Section 5, Top of Section: 34.8 CSF-A (m)

Top part of volcaniclastic turbidite which is overlain by hemipelagic sediments



Hole 340-U1397A-5H Section 6, Top of Section: 35.9 CSF-A (m)

Sandy volcaniclastic turbidite layer?



U1397A-5H-CC ALL TO PALEO

Hole 340-U1397A-6H Section 1, Top of Section: 36.5 CSF-A (m)

Thick volcaniclastic turbidite overlyuing thin hemipelagic sediment

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

36.50 – 0
36.55
36.60 – 10
36.65
36.70 – 20
36.75
36.80 – 30
36.85
36.90 – 40
36.95
37.00 – 50
37.05
37.10 – 60
37.15
37.20 – 70
37.25
37.30 – 80
37.35
37.40 – 90
37.45
37.50 – 100
37.55
37.60 – 110
37.65
37.70 – 120
37.75
37.80 – 130
37.85
37.90 – 140
37.95
38.00

Normally graded grey volcaniclastic turbidite

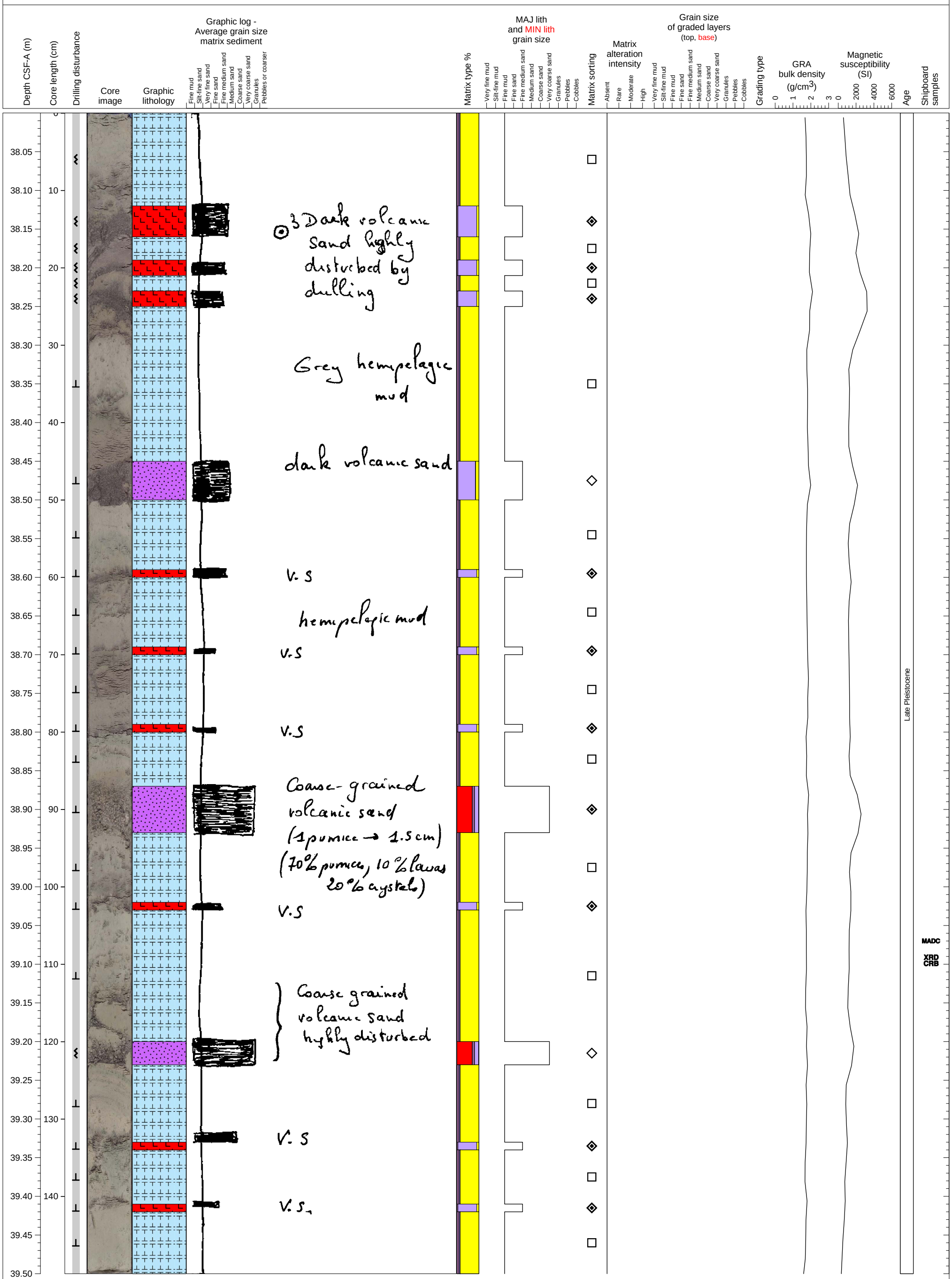
(10% pumice
20% lavas
70% crystals)

Grey-brown hemipelagic mud

Late Pleistocene

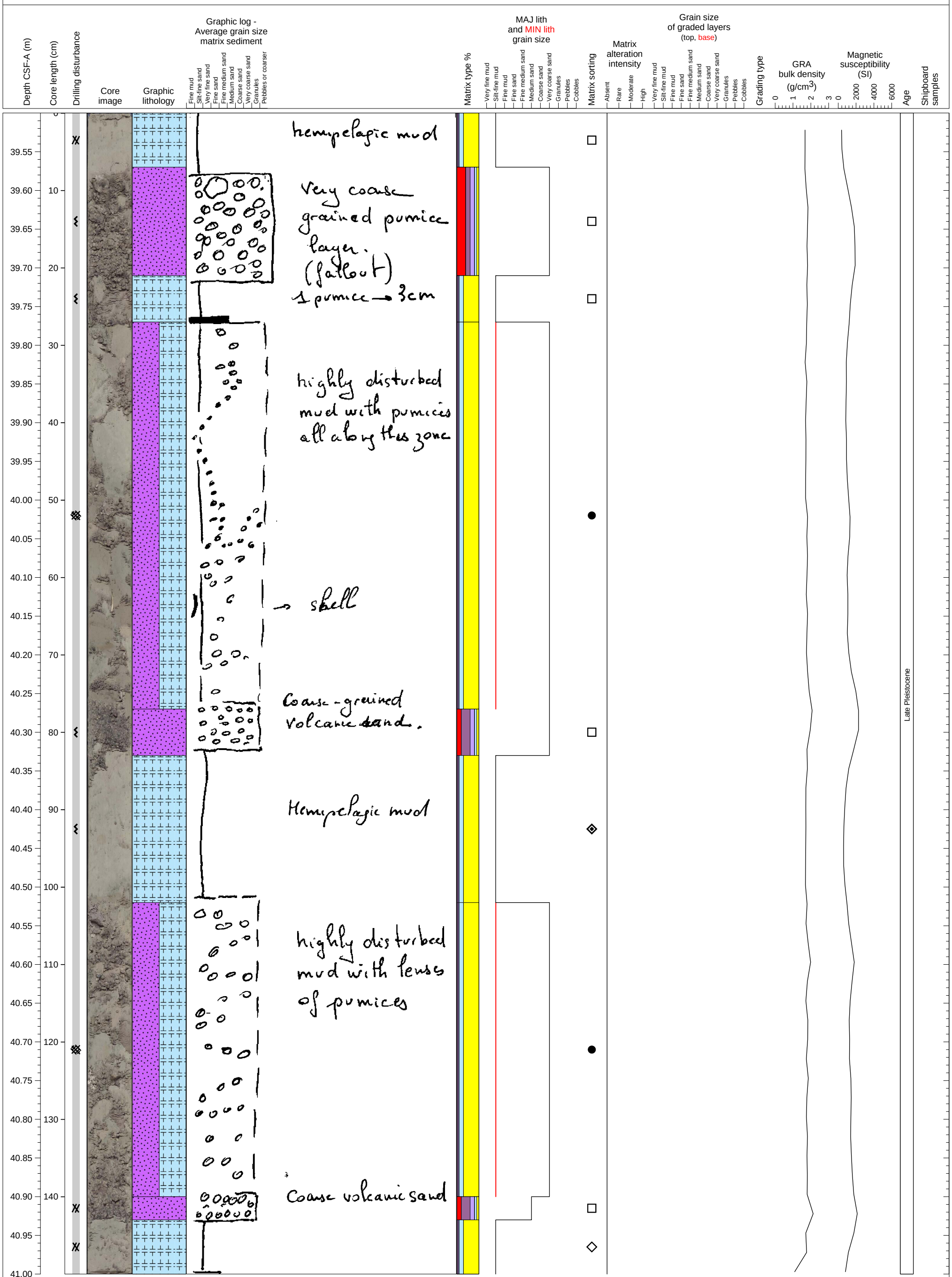
Hole 340-U1397A-6H Section 2, Top of Section: 38.0 CSF-A (m)

Muddy hemipelagic sediments with multiple thin ash layers and two pumice-rich layers



Hole 340-U1397A-6H Section 3, Top of Section: 39.5 CSF-A (m)

Hemipelagic sediments with intercalated volcanicash layers, highly disturbed



Hole 340-U1397A-6H Section 4, Top of Section: 41.0 CSF-A (m)

Hemipelagic sediments 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)
Magnetic susceptibility (SI)
Age
Shipboard samples

41.05 – 10
41.10
41.15
41.20 – 20
41.25
41.30 – 30
41.35
41.40 – 40
41.45
41.50 – 50
41.55
41.60 – 60
41.65
41.70 – 70
41.75
41.80 – 80
41.85
41.90 – 90
41.95
42.00 – 100
42.05
42.10 – 110
42.15
42.20 – 120
42.25
42.30 – 130
42.35

HS

fine volcanic sand

bedded volcanic layer (dark-grey) (dark sand) 120% lavas, 75% crystals 10% biocarb, 5% detritic)

grey - brown green hemipelagic mud

Late Pleistocene

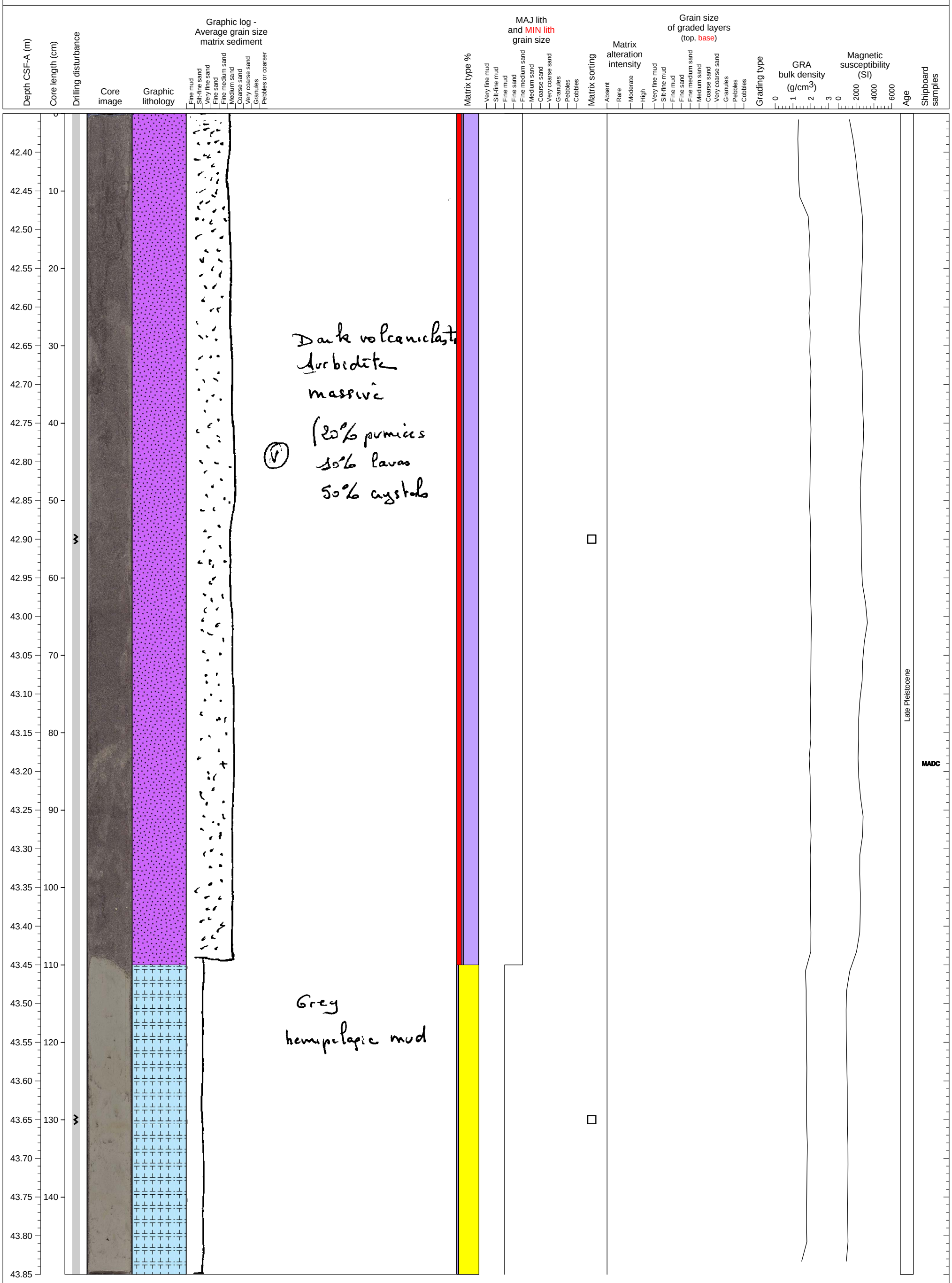
Dark bedded fine volcanic sand 120% lava 80% crystals)

Hemipelagic mud

very fine volcanic sand

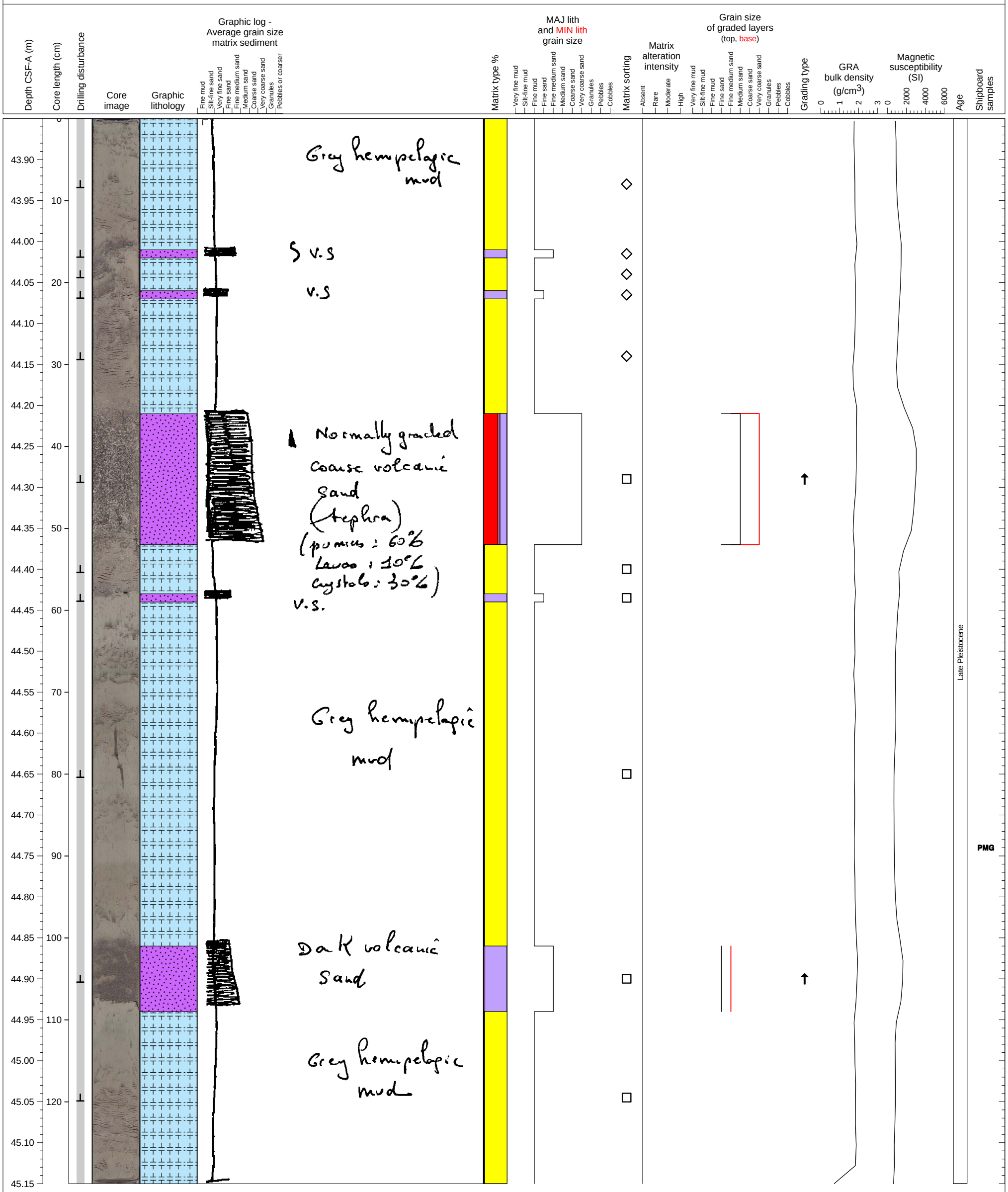
Hole 340-U1397A-6H Section 5, Top of Section: 42.35 CSF-A (m)

Hemipelagic fines overlain by 1.1 m thick volcaniclatic tubidite



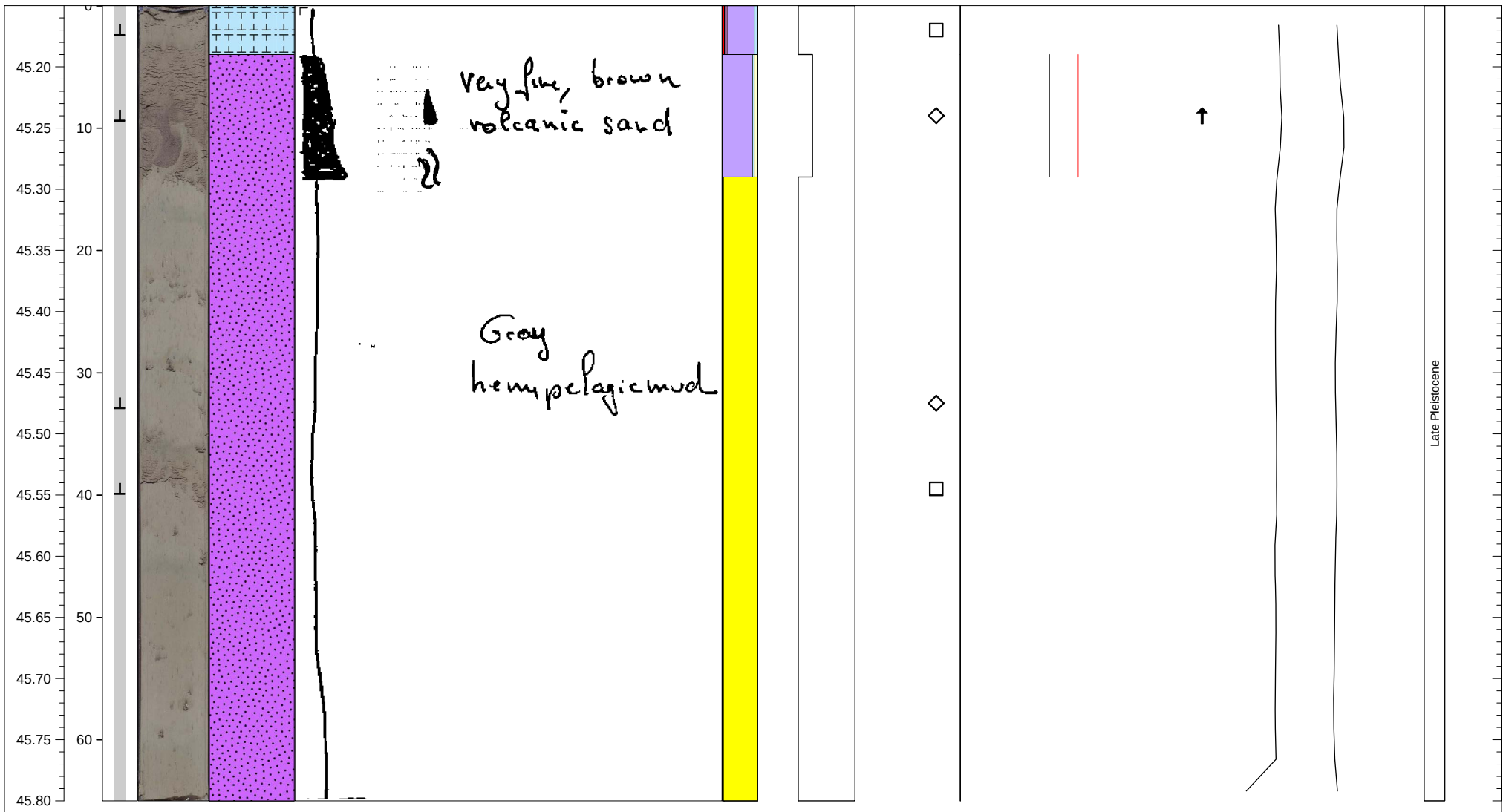
Hole 340-U1397A-6H Section 6, Top of Section: 43.85 CSF-A (m)

Hemipelagic fines with several thin volcaniclastic sand layers (bioturbated, and probably ashfall origin), and 1 pumiceous 15 cm thick volcaniclastic bed



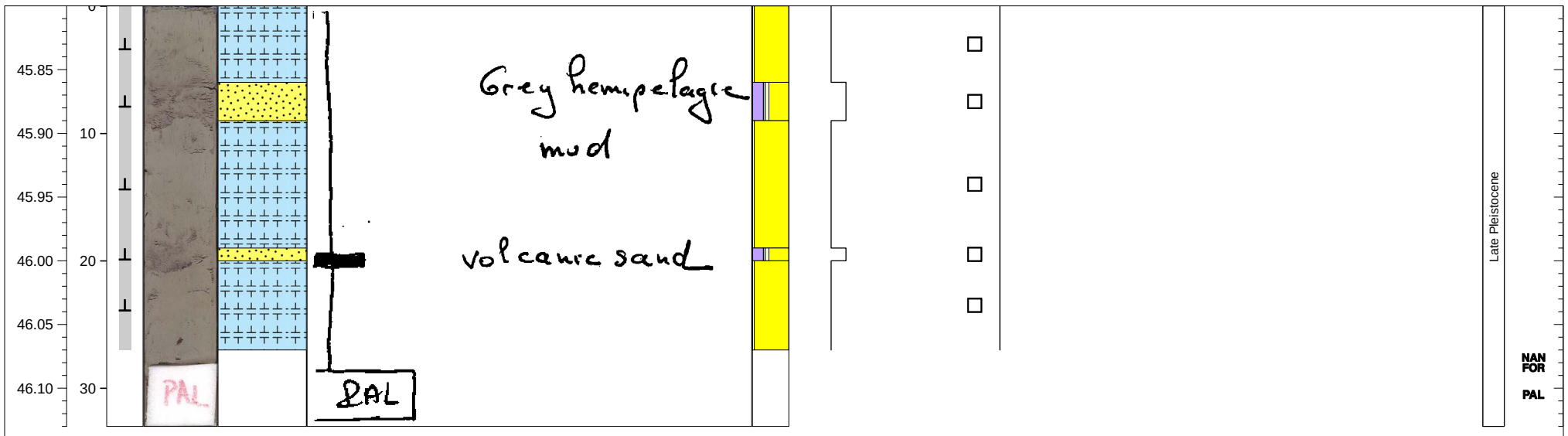
Hole 340-U1397A-6H Section 7, Top of Section: 45.15 CSF-A (m)

Hemipelagic fine sediments with 1 volcaniclastic sand (ashfall?) layer



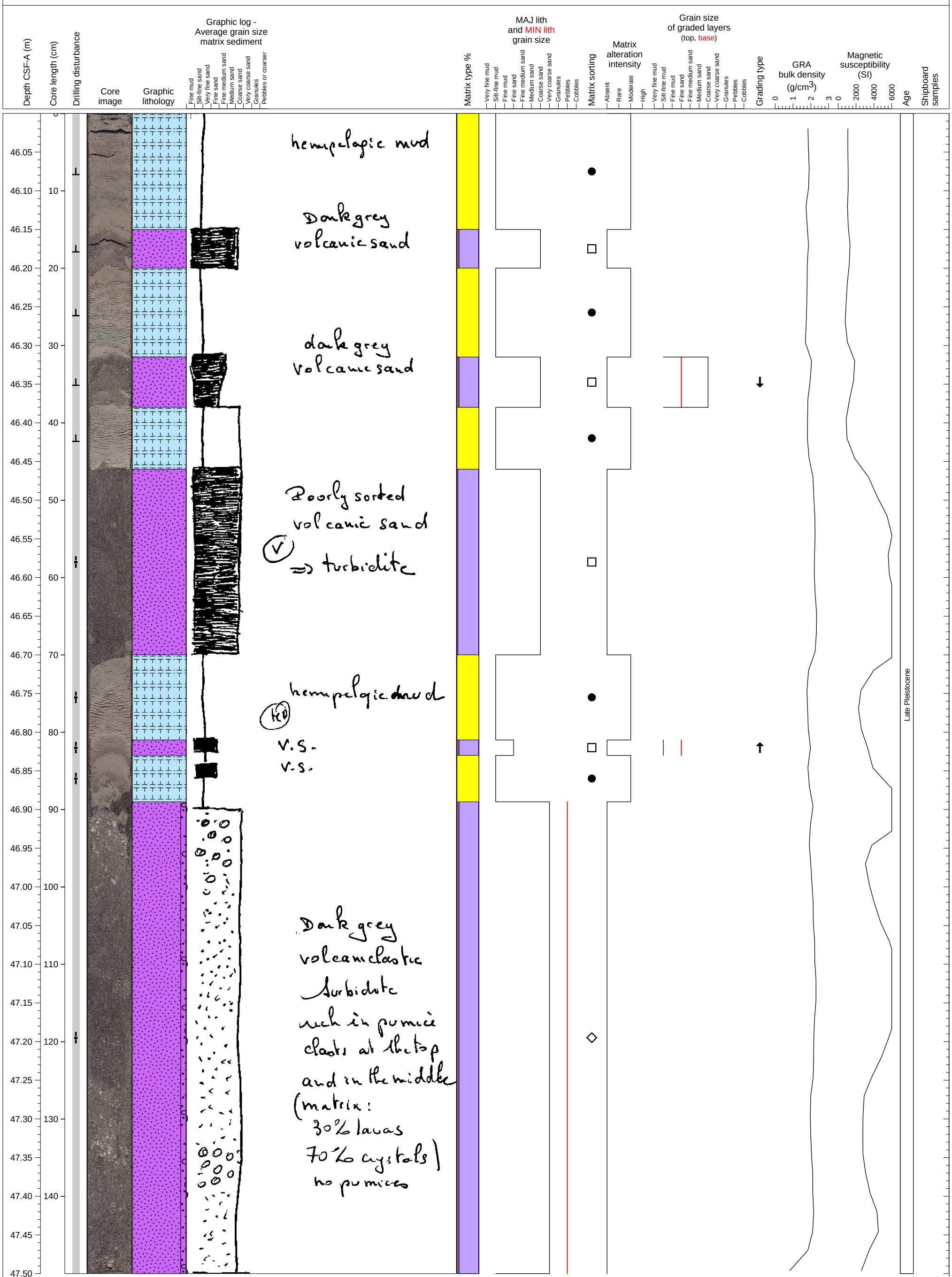
Hole 340-U1397A-6H Section CC, Top of Section: 45.8 CSF-A (m)

Hemipelagite in core catcher



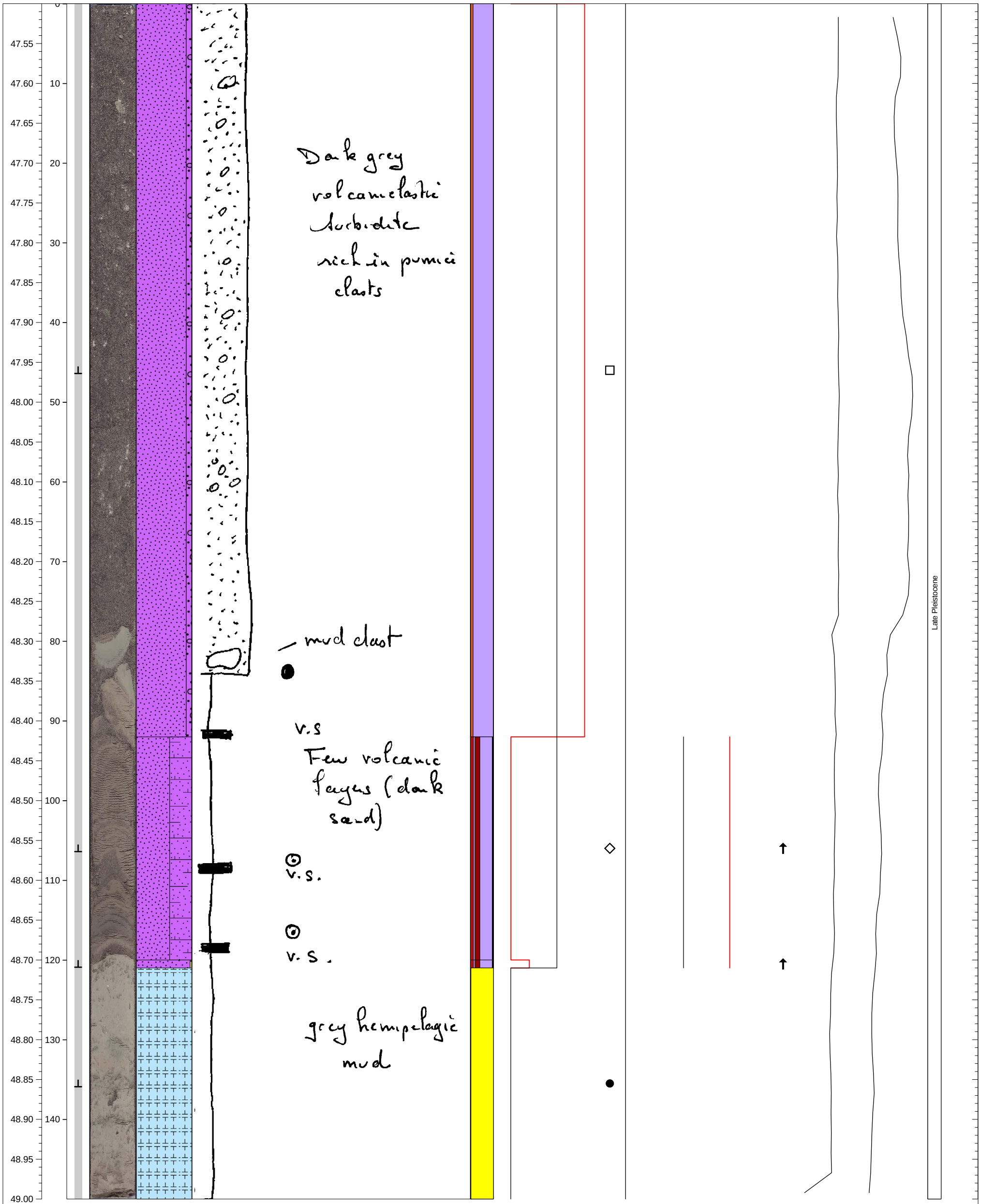
Hole 340-U1397A-7H Section 1, Top of Section: 46.0 CSF-A (m)

Massive crystal-rich sandy layers and some tephra layers interlayered by hemipelagic sediments. In the lowermost layer some granule to pebble sized pumice concentration parts are present.



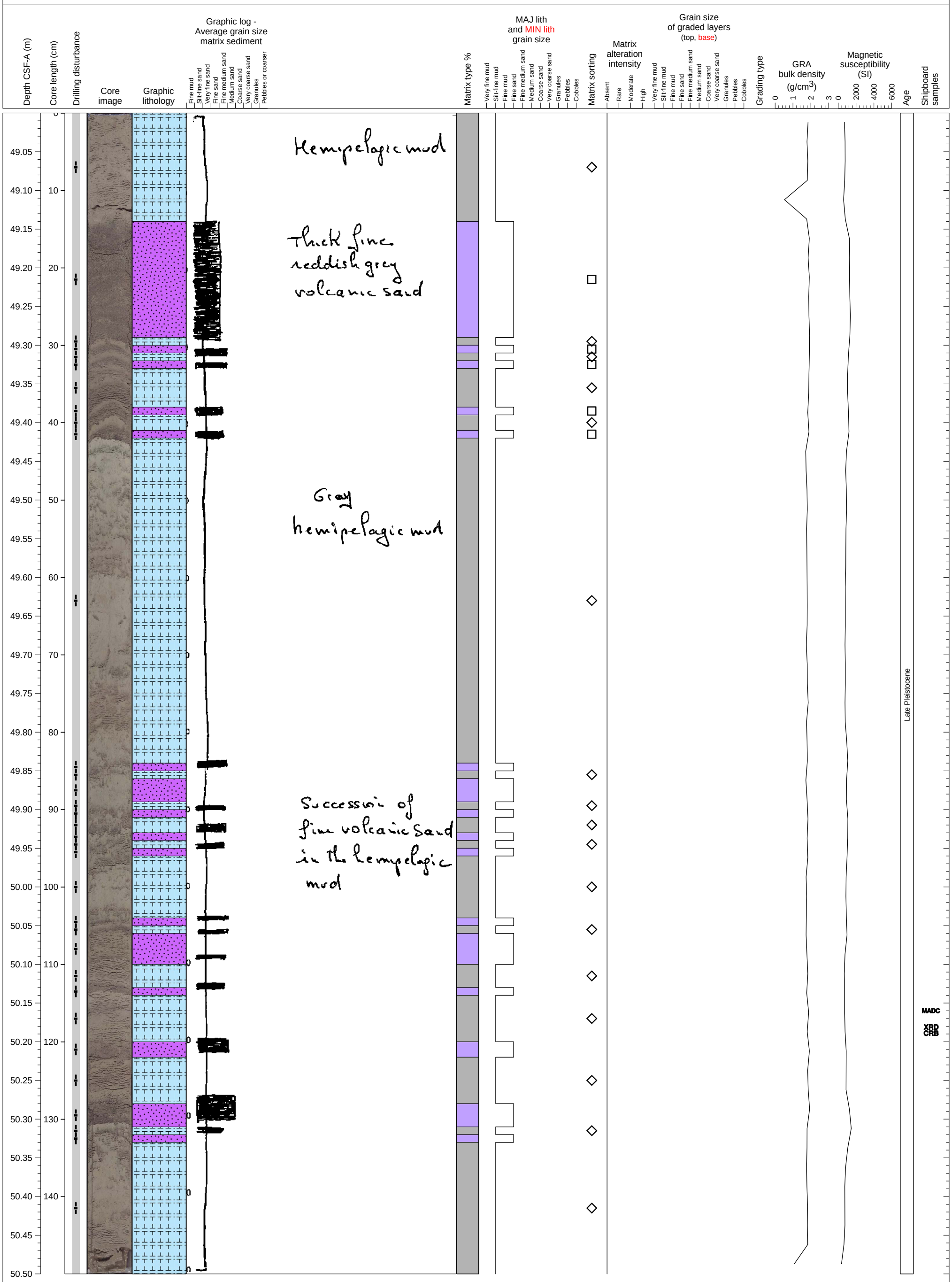
Hole 340-U1397A-7H Section 2, Top of Section: 47.5 CSF-A (m)

The upper part is composed of volcaniclastic sand with some pumice fragments and the lower part is composed of layering of silty-mud and coarse sandy layers with normal grading of each.



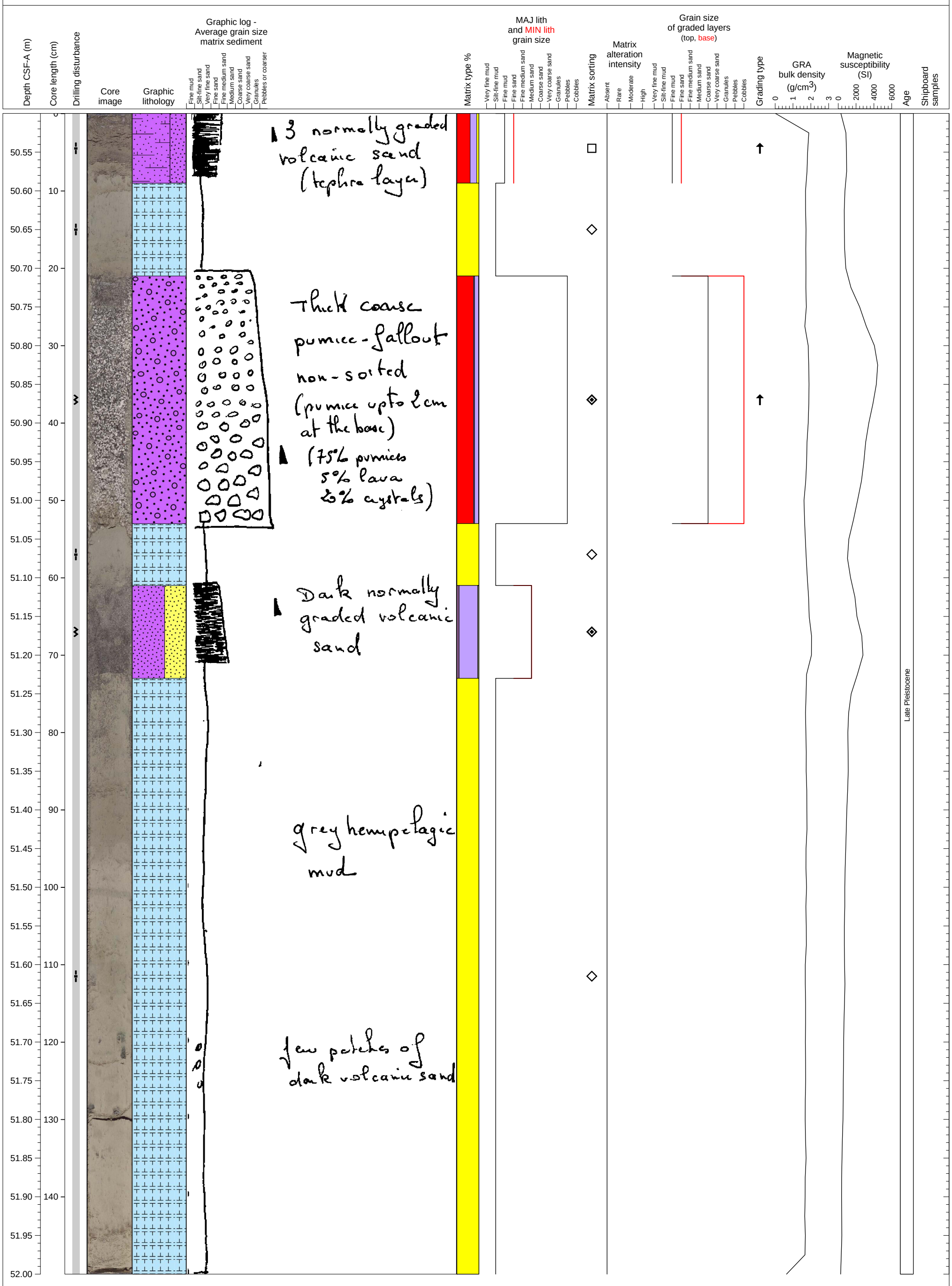
Hole 340-U1397A-7H Section 3, Top of Section: 49.0 CSF-A (m)

Hemipelagic mud with 17 individual ash layers



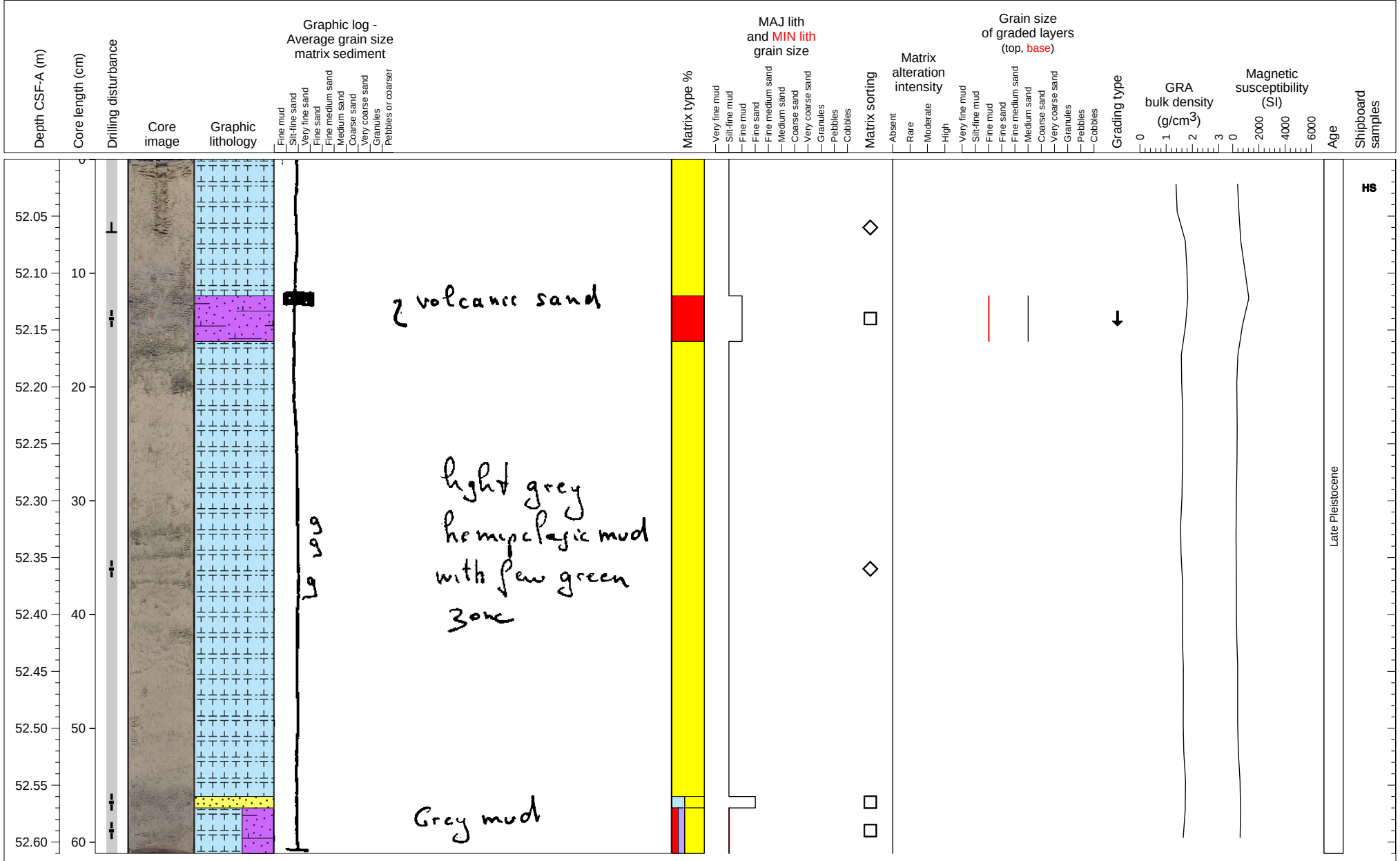
Hole 340-U1397A-7H Section 4, Top of Section: 50.5 CSF-A (m)

Hemipelagic clay interlayered with a massive pumice turbidaite deposit and several tephra deposits.



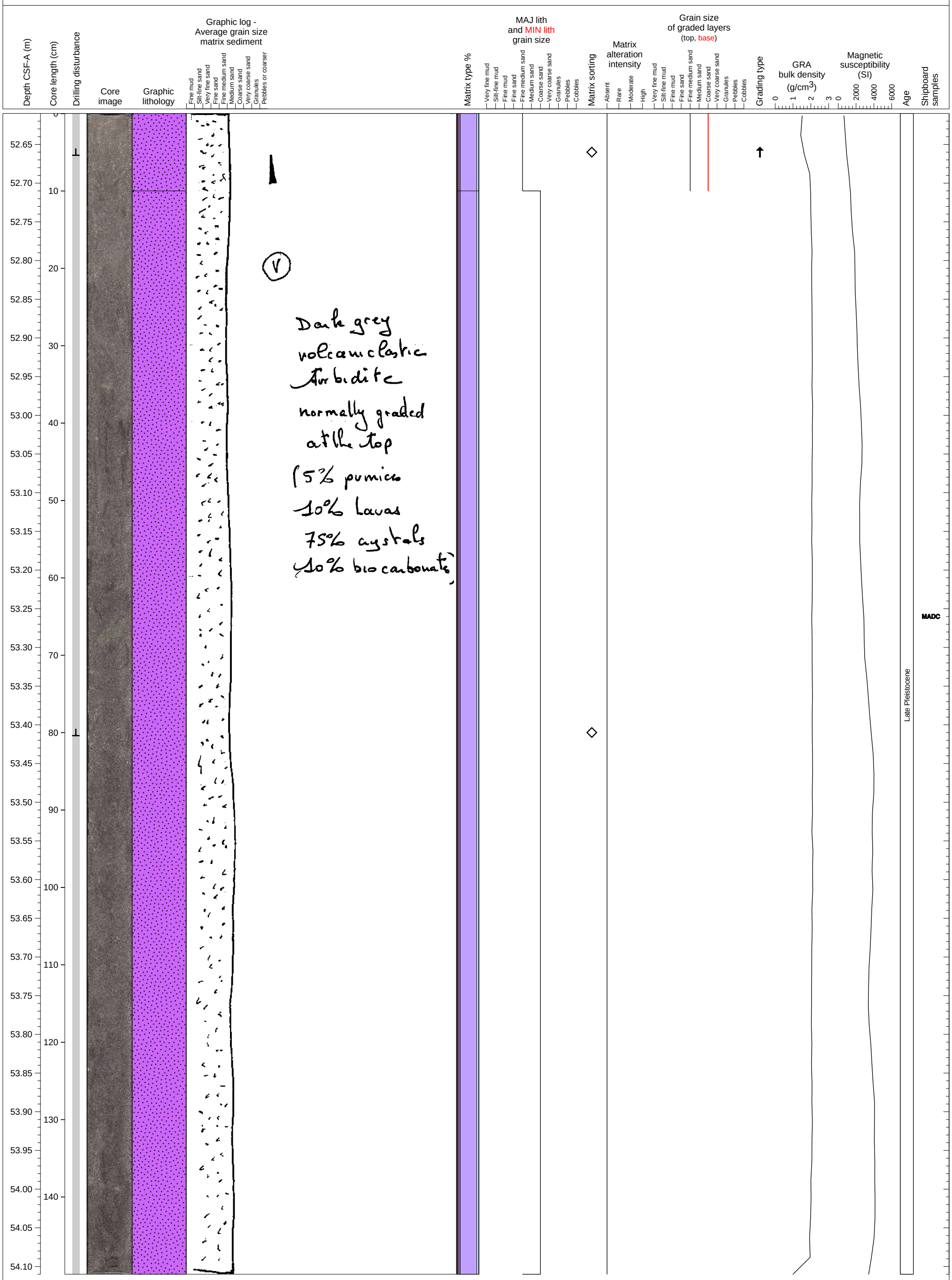
Hole 340-U1397A-7H Section 5, Top of Section: 52.0 CSF-A (m)

Hemipelagic clay interlayered with volcaniclastic deposits.



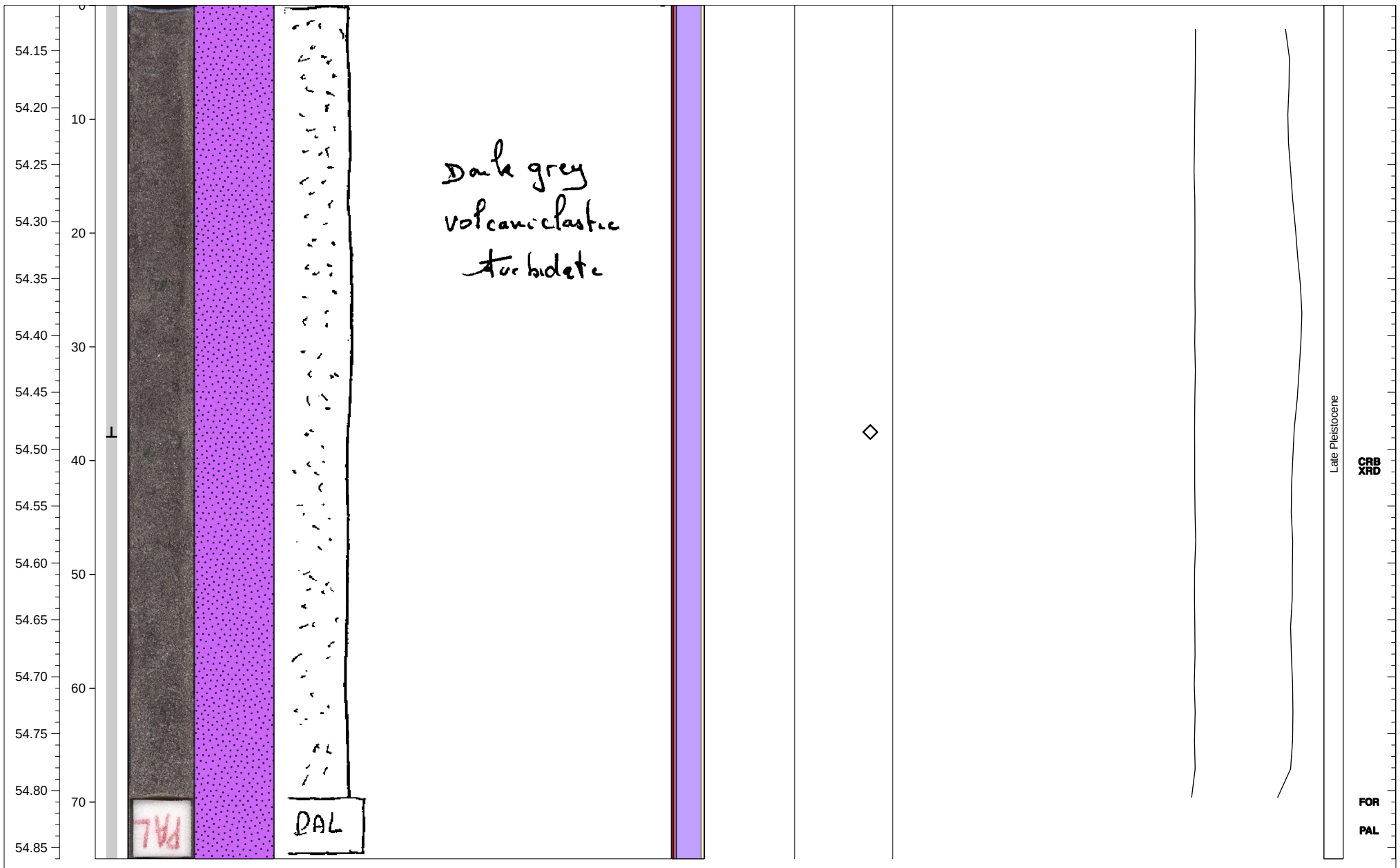
Hole 340-U1397A-7H Section 6, Top of Section: 52.61 CSF-A (m)

Volcaniclastic turbidite, rich in crystals. Graded top 10 centimeters.



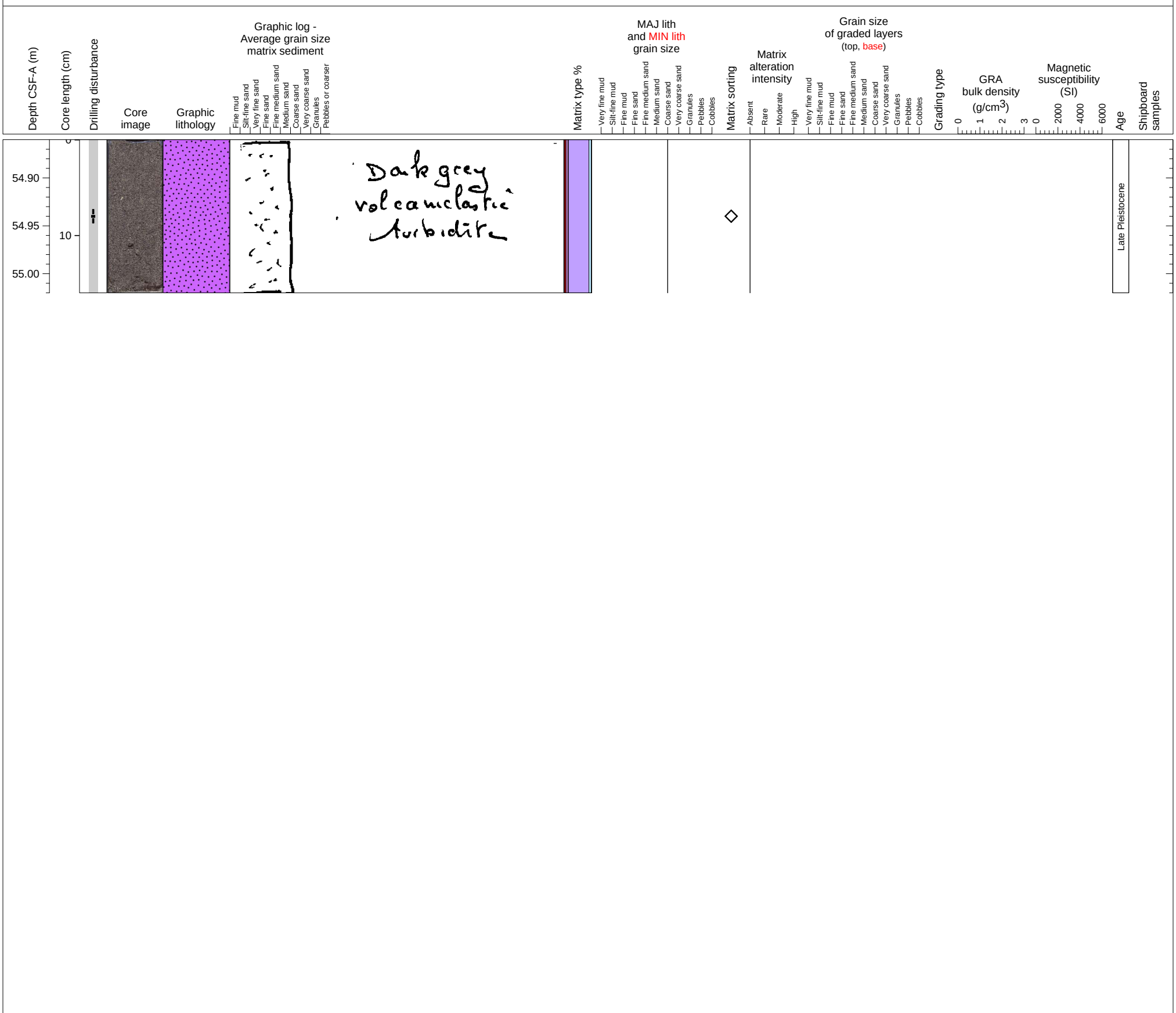
Hole 340-U1397A-7H Section 7, Top of Section: 54.11 CSF-A (m)

Dark volcaniclastic turbidite sand



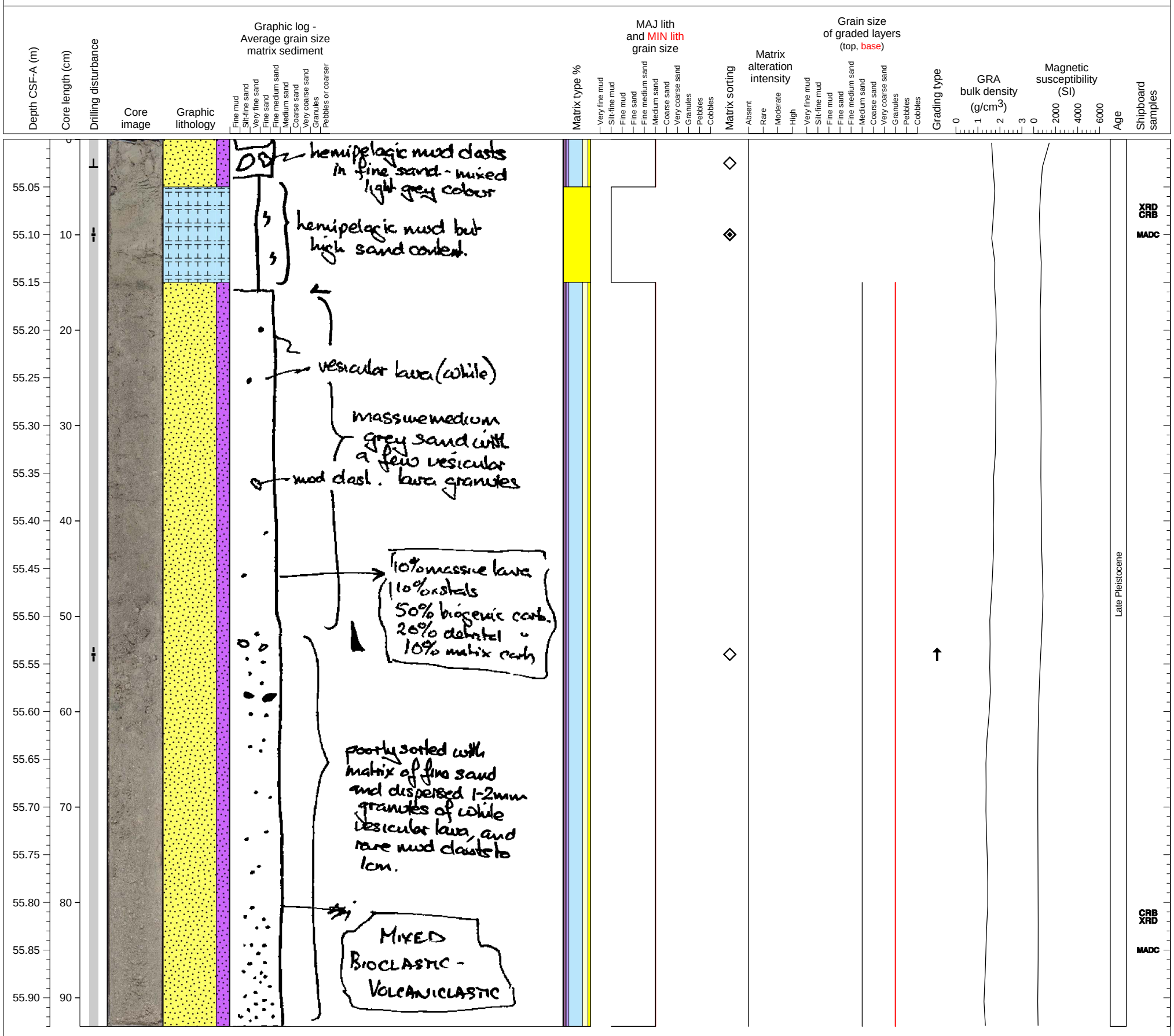
Hole 340-U1397A-7H Section CC, Top of Section: 54.86 CSF-A (m)

Coarse volcaniclastic sand turbidite deposit.



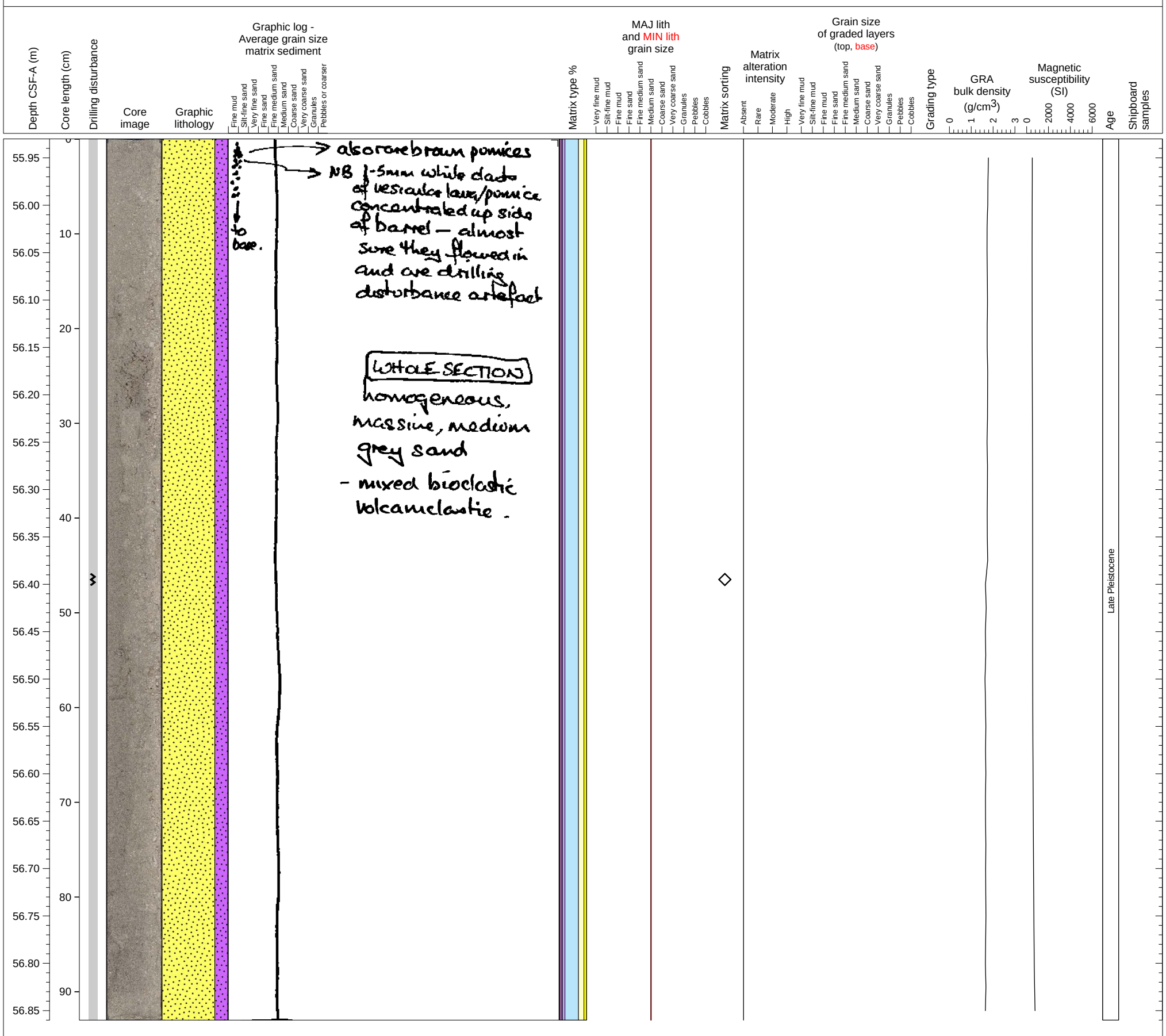
Hole 340-U1397A-8H Section 1, Top of Section: 55.0 CSF-A (m)

Mixed bioclastic/volcaniclastic turbidite units, noramlly graded, interlayered with hemipelagic clay.



Hole 340-U1397A-8H Section 2, Top of Section: 55.93 CSF-A (m)

Bioclastic/volcaniclastic medium sand turbidite deposit with high percentage of pumice clasts.



Hole 340-U1397A-8H Section 3, Top of Section: 56.86 CSF-A (m)

Bioclastic/volcaniclastic medium sand turbidite deposit with high percentage of pumice 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

56.90
56.95
57.00
57.05
57.10
57.15
57.20
57.25
57.30
57.35
57.40
57.45
57.50
57.55
57.60
57.65
57.70
57.75
57.80
57.85
57.90
57.95

0
10
20
30
40
50
60
70
80
90
100

but rare 2-5mm white lava/pumice granules in center of

clasts concentrated vertically up the side of the barrell.
→ drilling disturbance

WHOLE SECTION

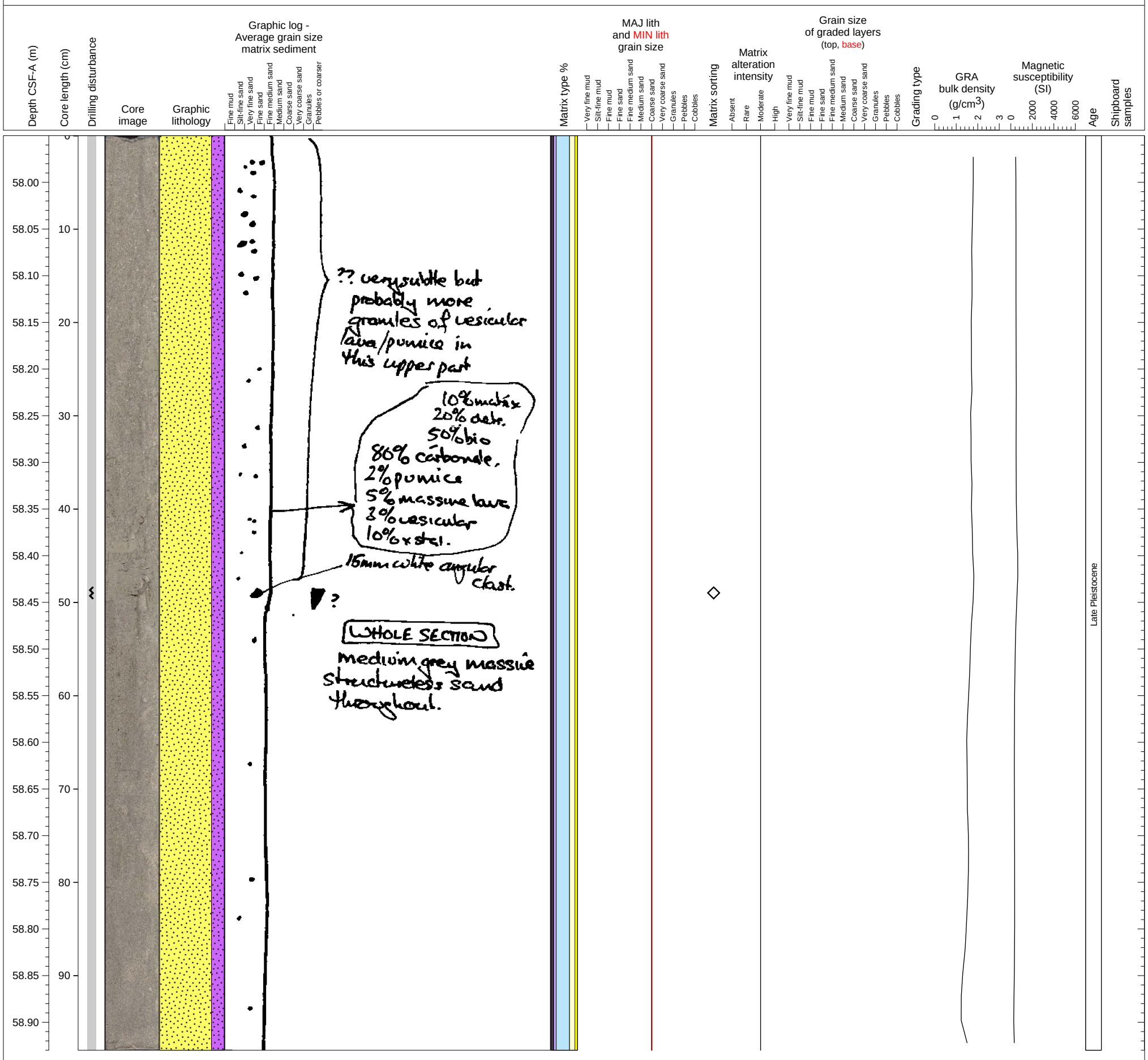
medium grey massive
(mixed volcaniclastic,
- bioclastic - probably not
- white component more likely vesicular lava?)

bioclastic

Late Pleistocene

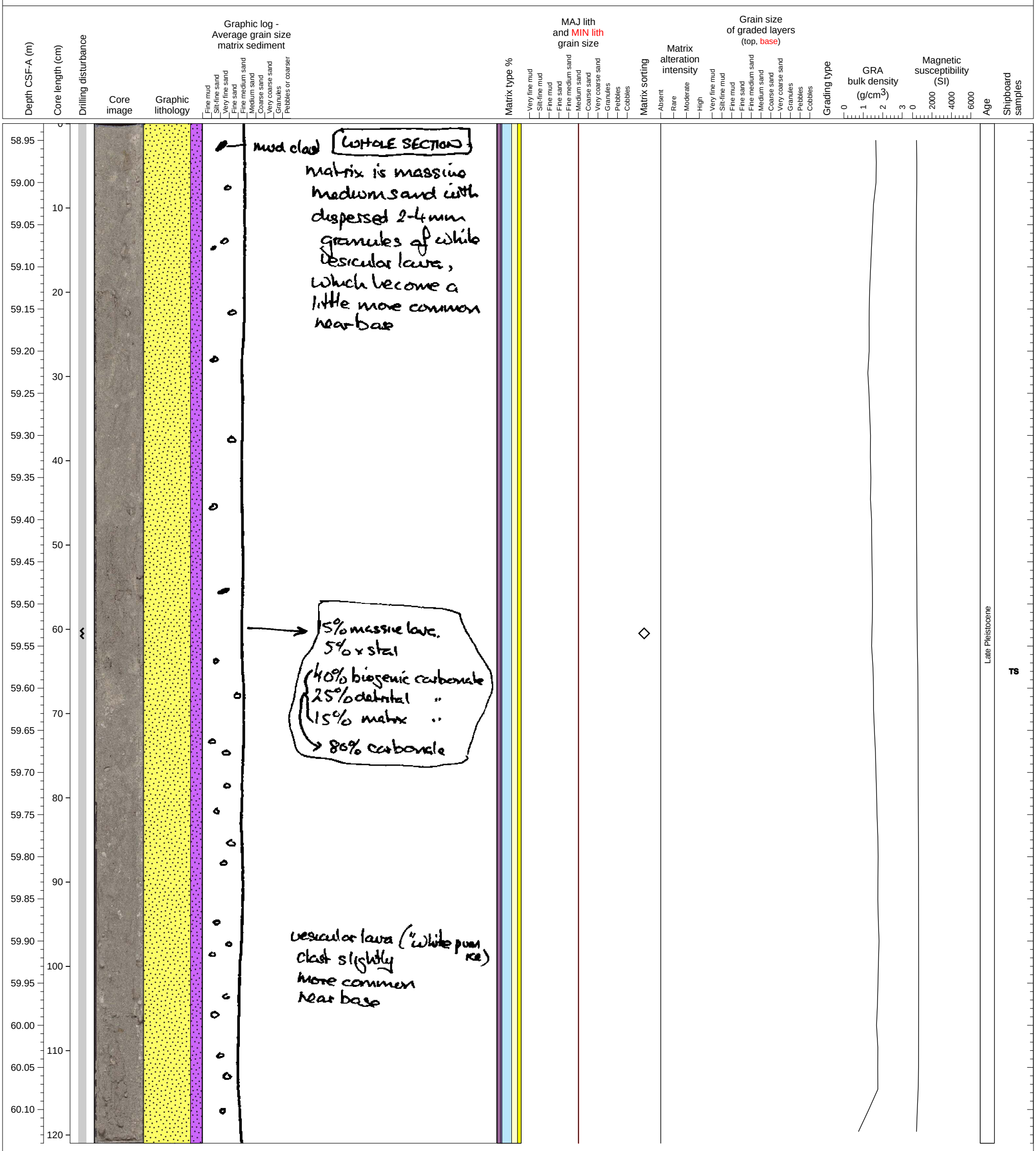
Hole 340-U1397A-8H Section 4, Top of Section: 57.95 CSF-A (m)

A part of turbidite with mixed calcareous and volcaniclastic sand containing some pebble-sized pumice and mud clasts



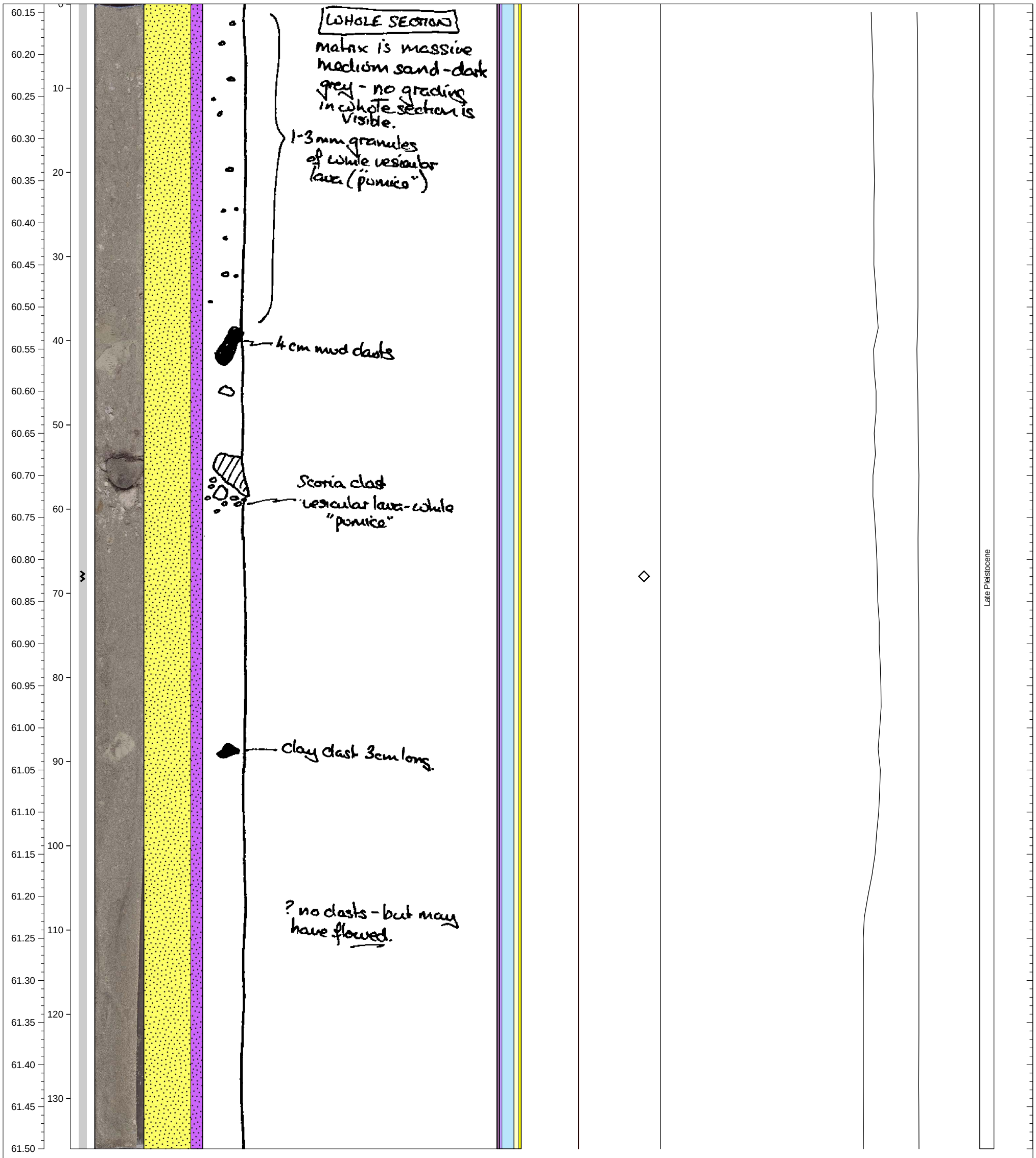
Hole 340-U1397A-8H Section 5, Top of Section: 58.93 CSF-A (m)

A part of turbidite with mixed calcareous and volcaniclastic sand containing some pebble-sized pumice and mud clasts



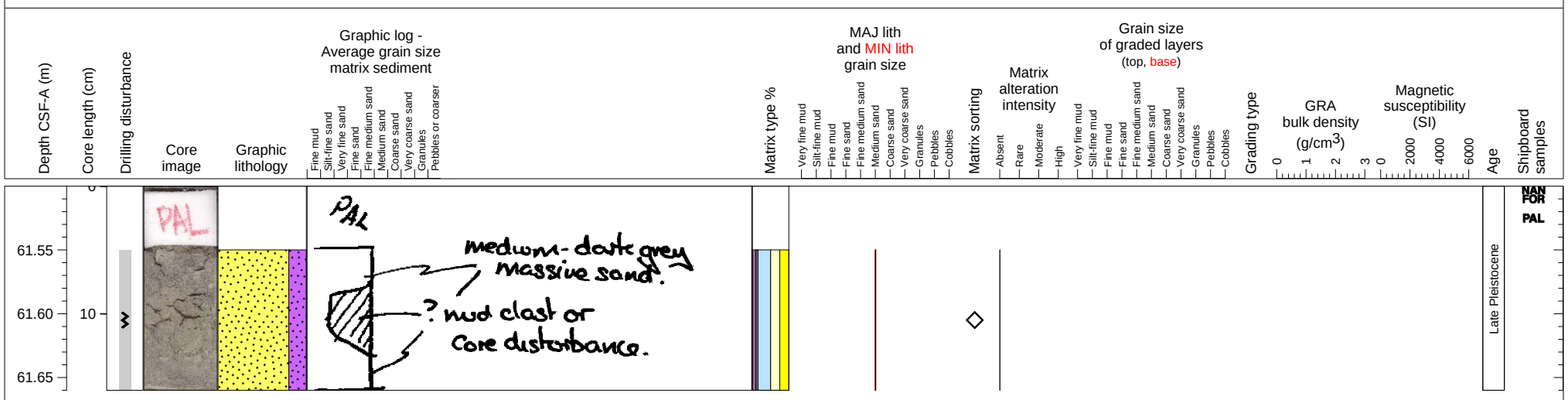
Hole 340-U1397A-8H Section 6, Top of Section: 60.14 CSF-A (m)

Bioclastic/volcaniclastic medium sand turbidite deposit with high percentage of pumice/scoria clasts.



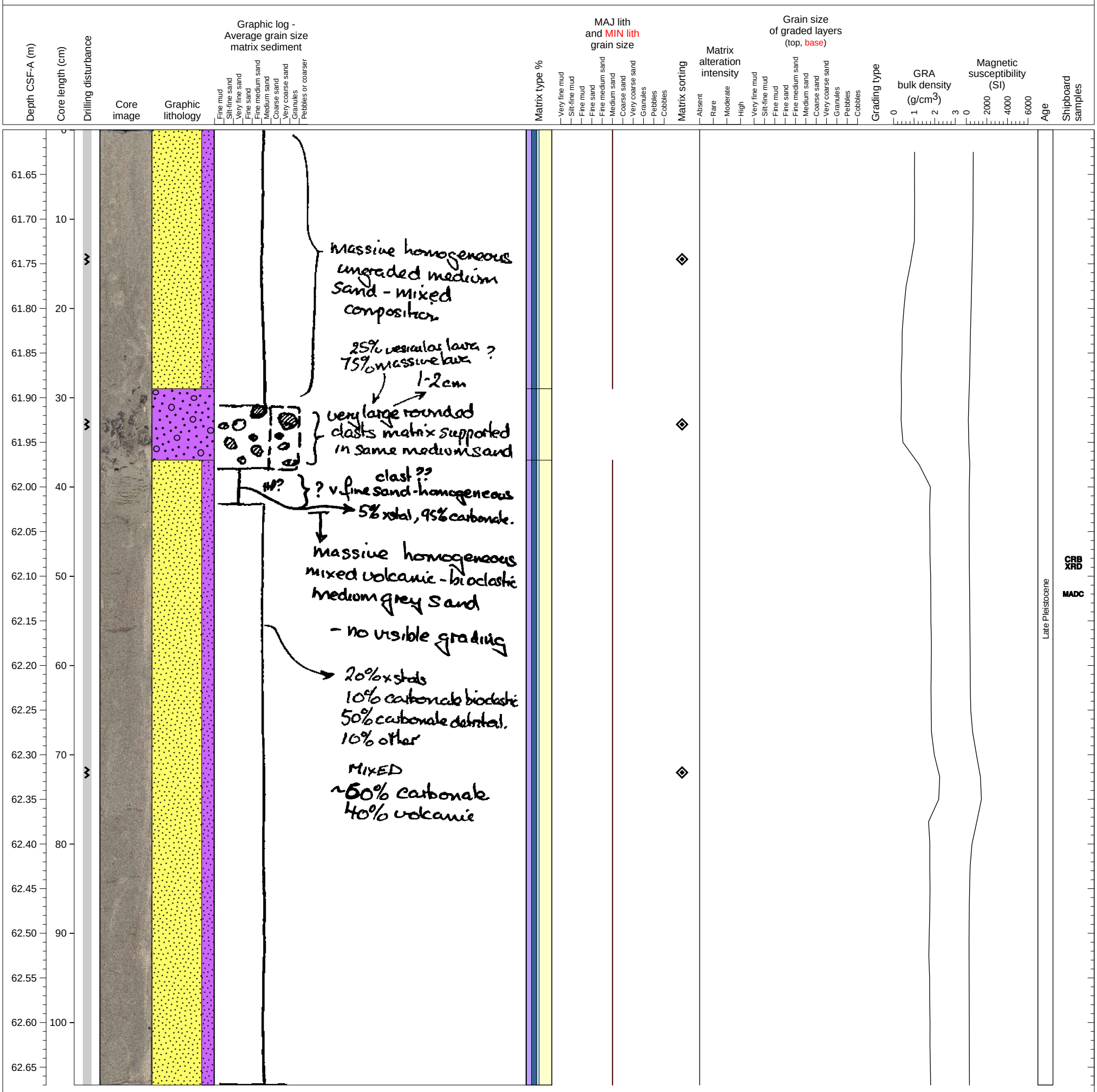
Hole 340-U1397A-8H Section CC, Top of Section: 61.5 CSF-A (m)

Bioclastic/volcaniclastic medium sand turbidite deposit with high percentage of pumice clasts.



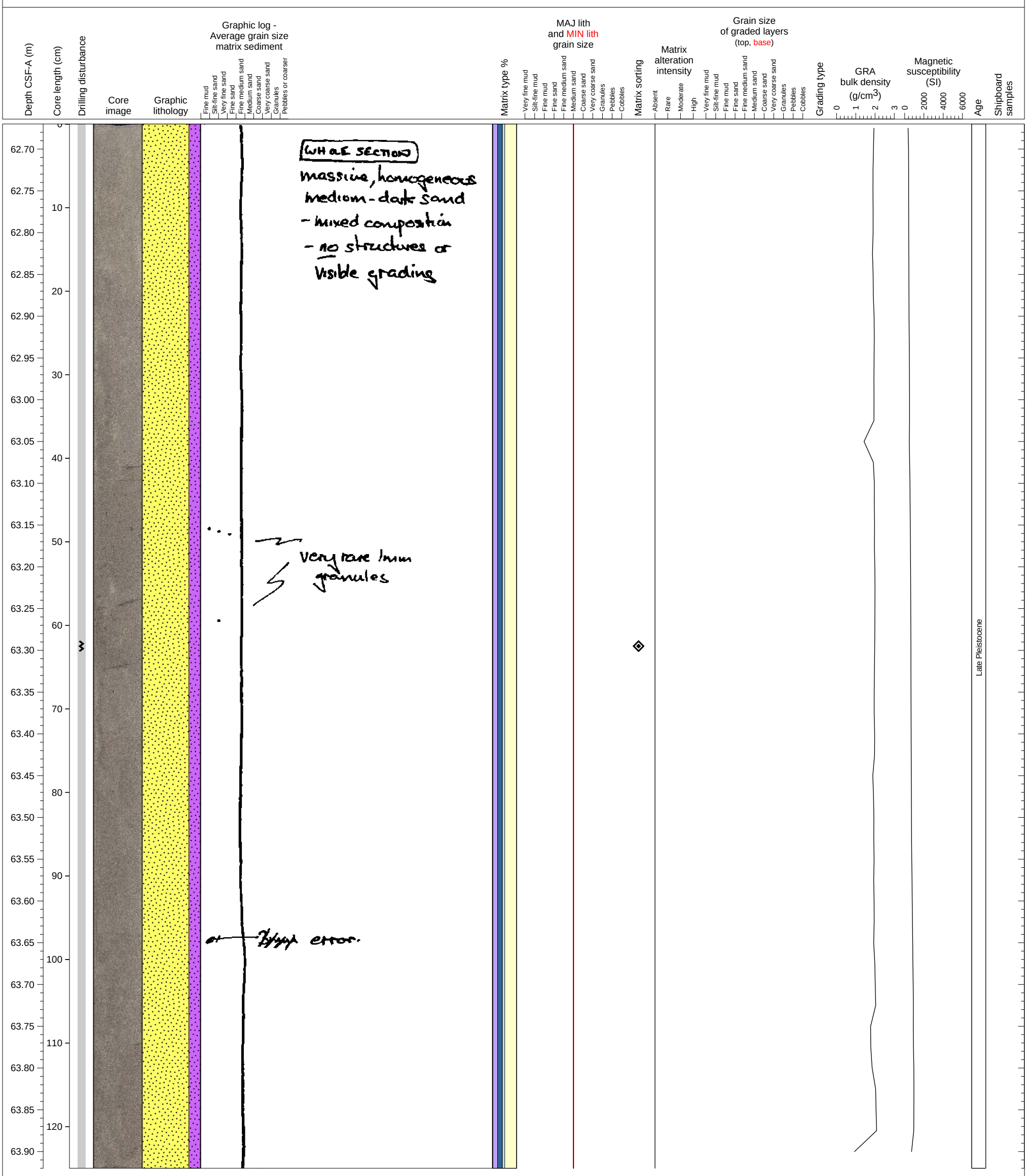
Hole 340-U1397A-9H Section 1, Top of Section: 61.6 CSF-A (m)

Bioclastic/volcaniclastic medium sand turbidite deposit containing a mafic igneous clast pebble-rich layer.



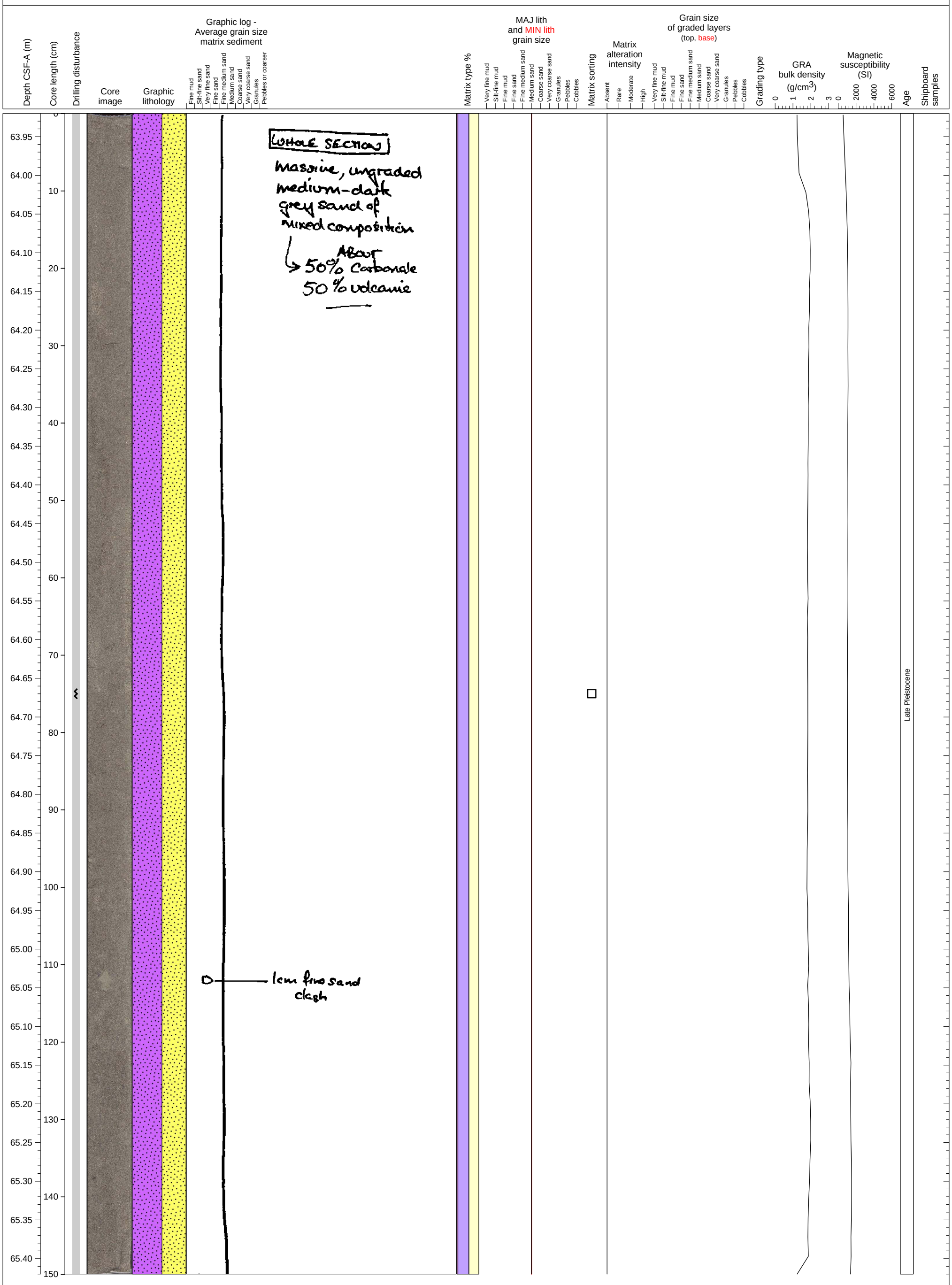
Hole 340-U1397A-9H Section 2, Top of Section: 62.67 CSF-A (m)

Bioclastic/volcaniclastic medium sand turbidite deposit.



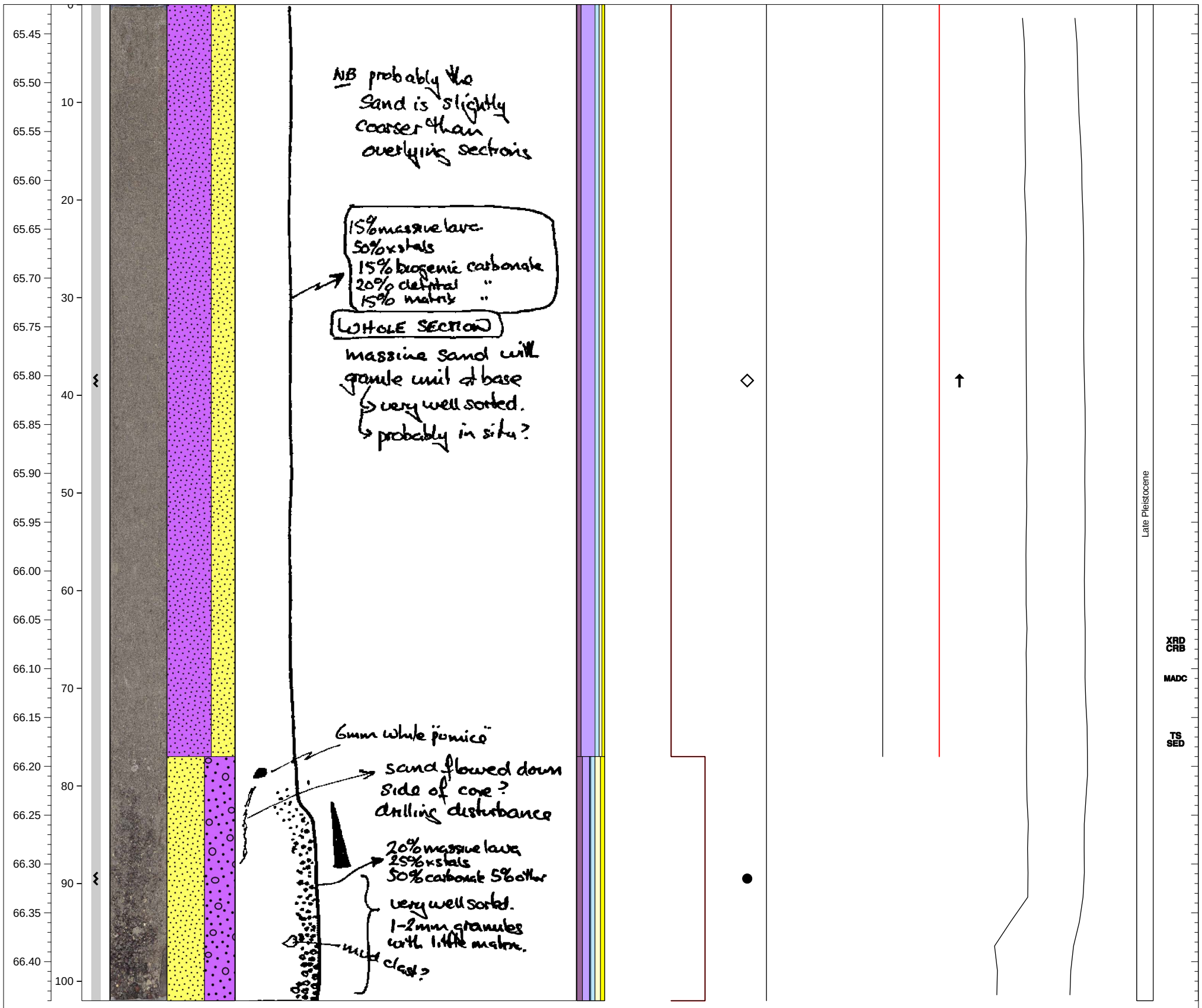
Hole 340-U1397A-9H Section 3, Top of Section: 63.92 CSF-A (m)

A part of turbidite with mixed calcareous and volcaniclastic sand containing minor mud clasts.



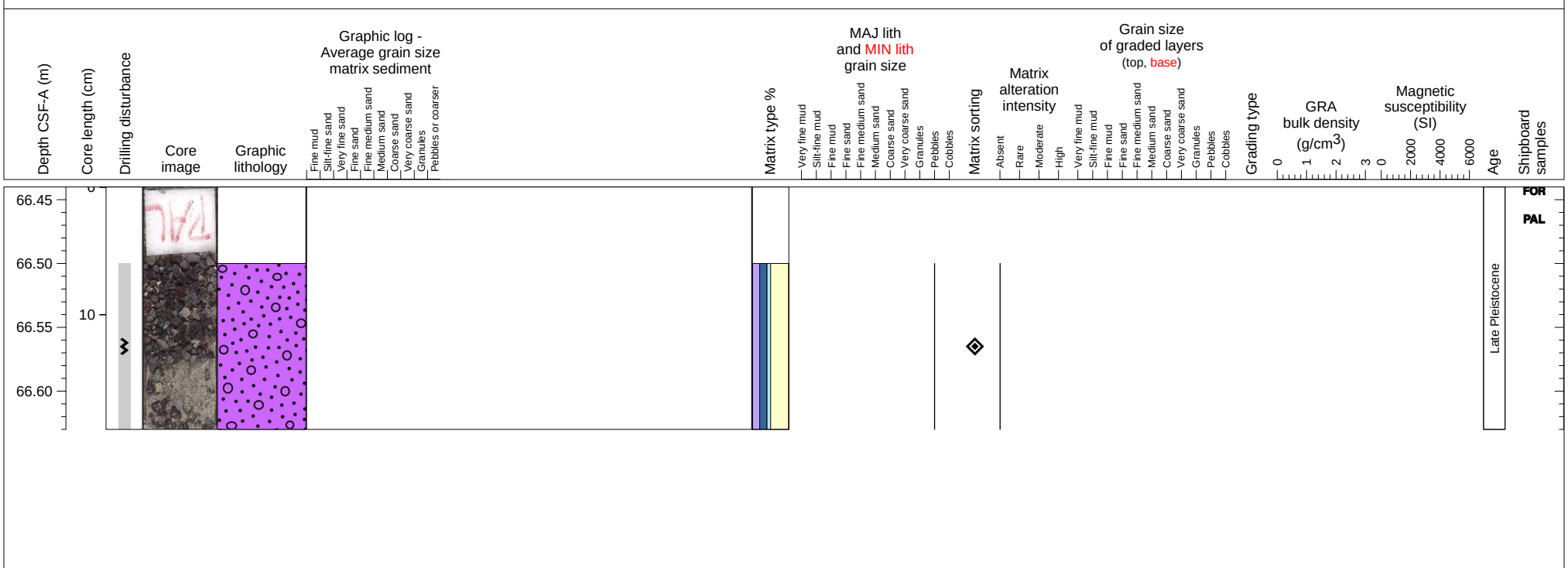
Hole 340-U1397A-9H Section 4, Top of Section: 65.42 CSF-A (m)

A (basal) part of turbidite with mixed calcareous and volcaniclastic sand. The lowermost is very coarse up to pebble size.



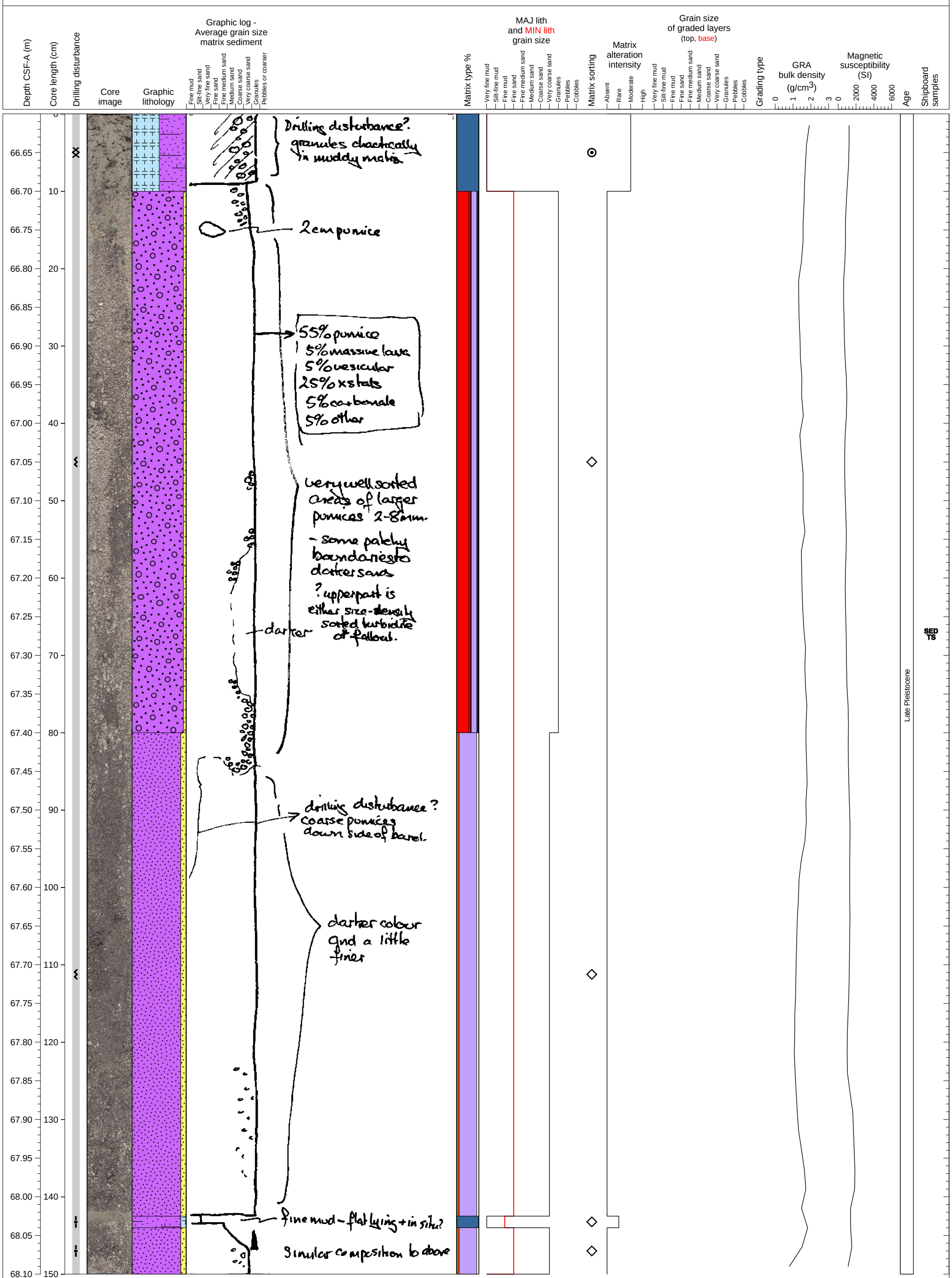
Hole 340-U1397A-9H Section CC, Top of Section: 66.44 CSF-A (m)

Volcaniclastic gravel; potentially base of above turbidite.



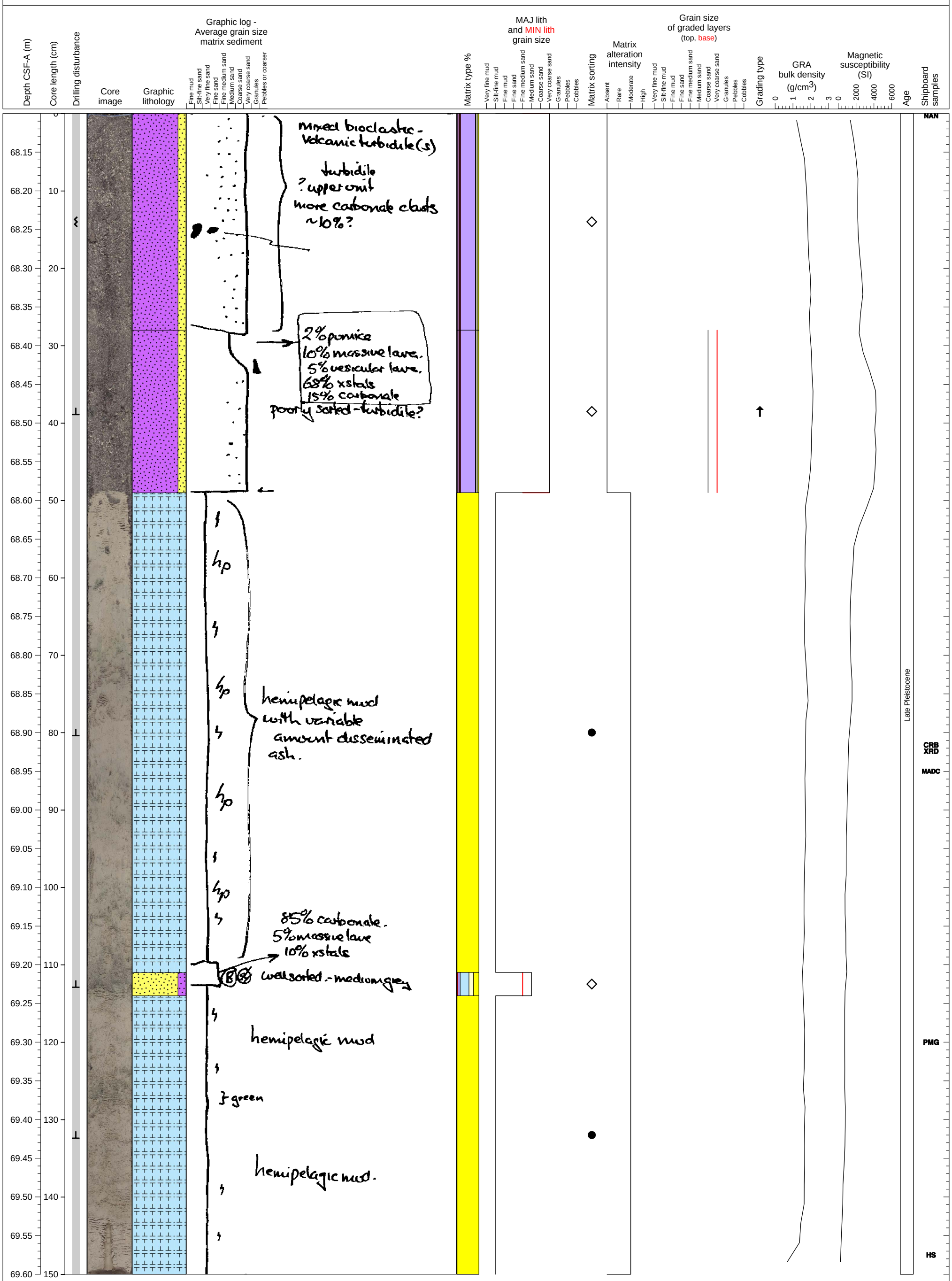
Hole 340-U1397A-10H Section 1, Top of Section: 66.6 CSF-A (m)

Pumiceous top and sandy bottom of turbidite.



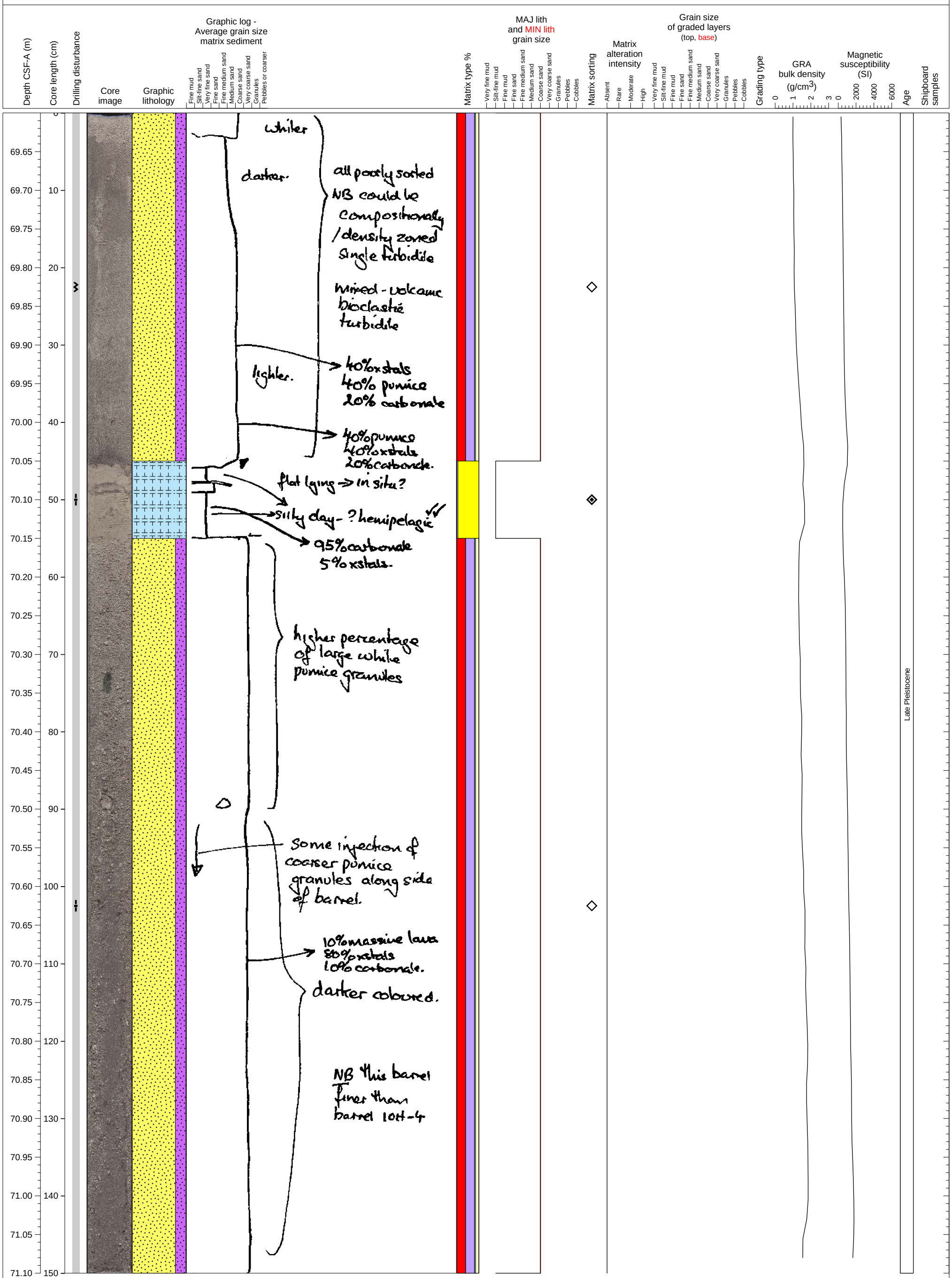
Hole 340-U1397A-10H Section 2, Top of Section: 68.1 CSF-A (m)

The upper part is turbidite and the lower part is hemipelagic sediments intercalating a volcanic-bioclastic sand layer.



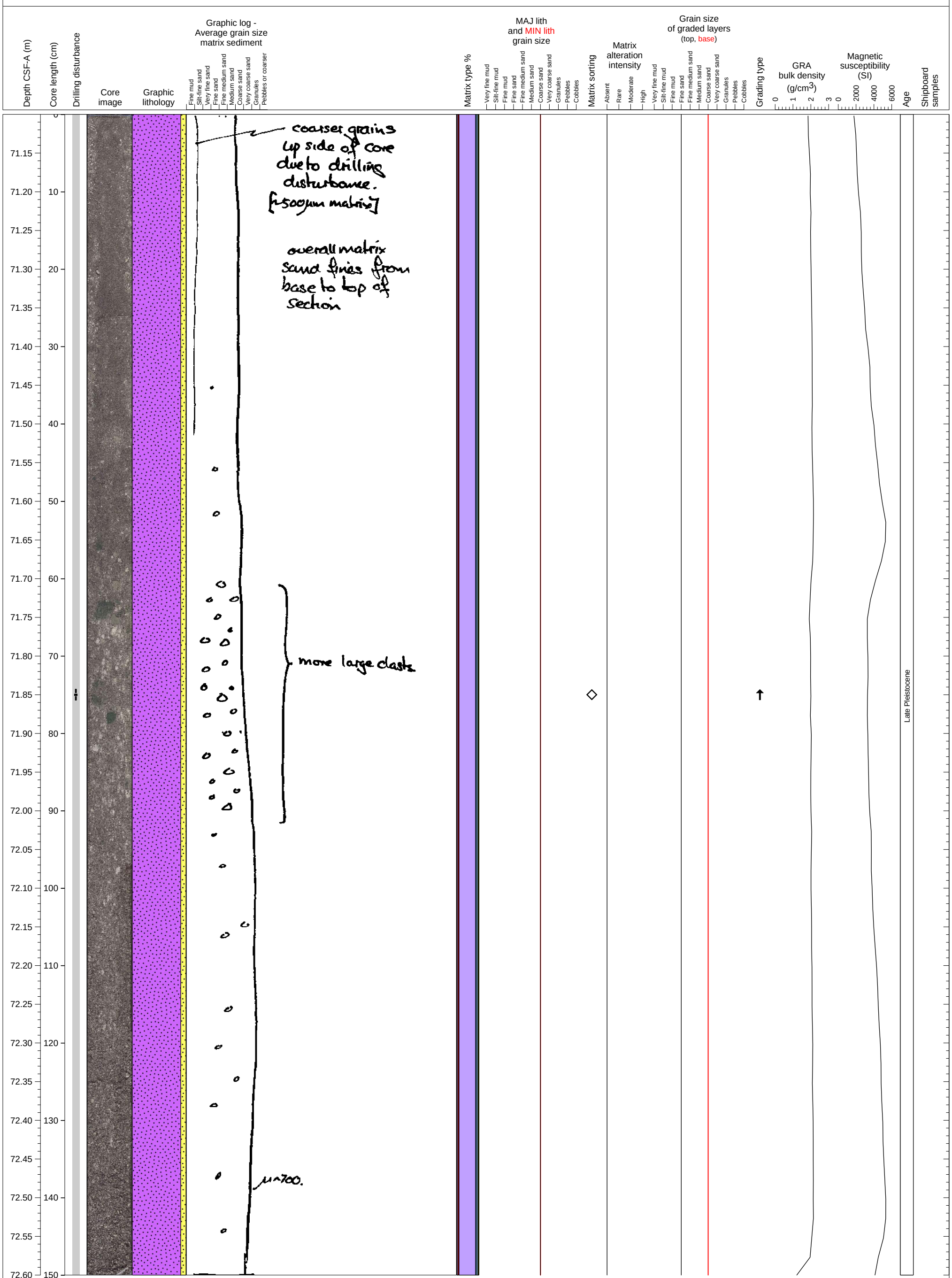
Hole 340-U1397A-10H Section 3, Top of Section: 69.6 CSF-A (m)

Bioclastic/volcaniclastic coarse sand turbidite interlayered with hemipelagic clay.



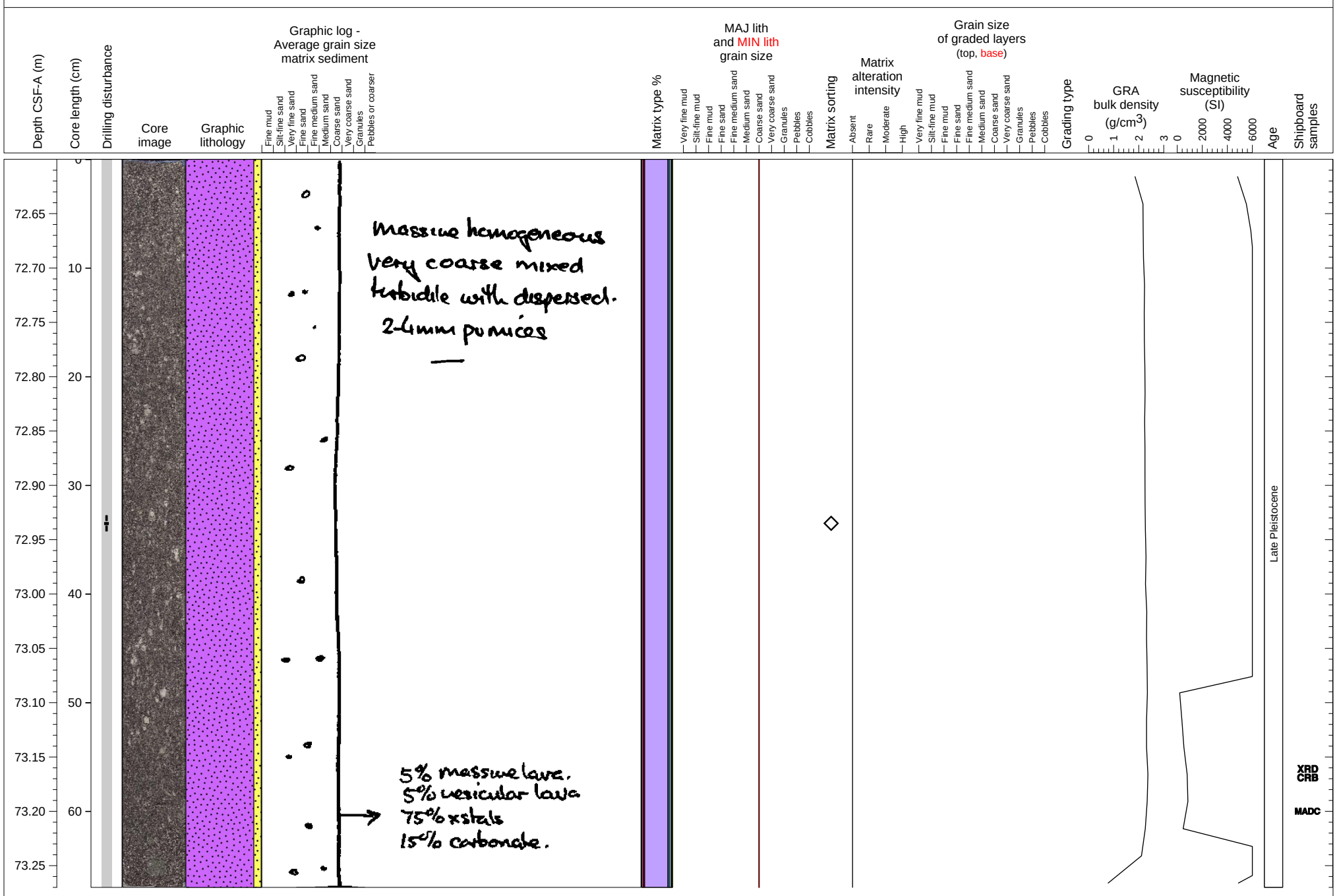
Hole 340-U1397A-10H Section 4, Top of Section: 71.1 CSF-A (m)

Normally graded volcaniclastic/bioclastic coarse sand turbidite.



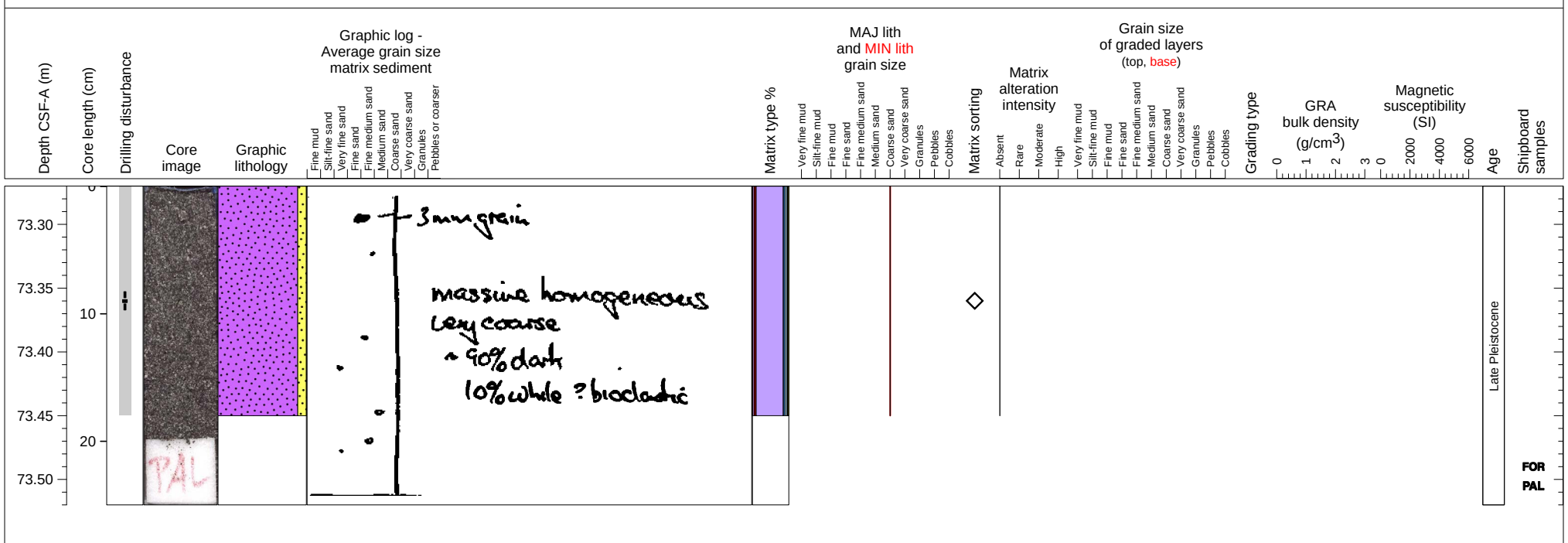
Hole 340-U1397A-10H Section 5, Top of Section: 72.6 CSF-A (m)

Volcaniclastic/bioclastic coarse sand turbidite deposit.



Hole 340-U1397A-10H Section CC, Top of Section: 73.27 CSF-A (m)

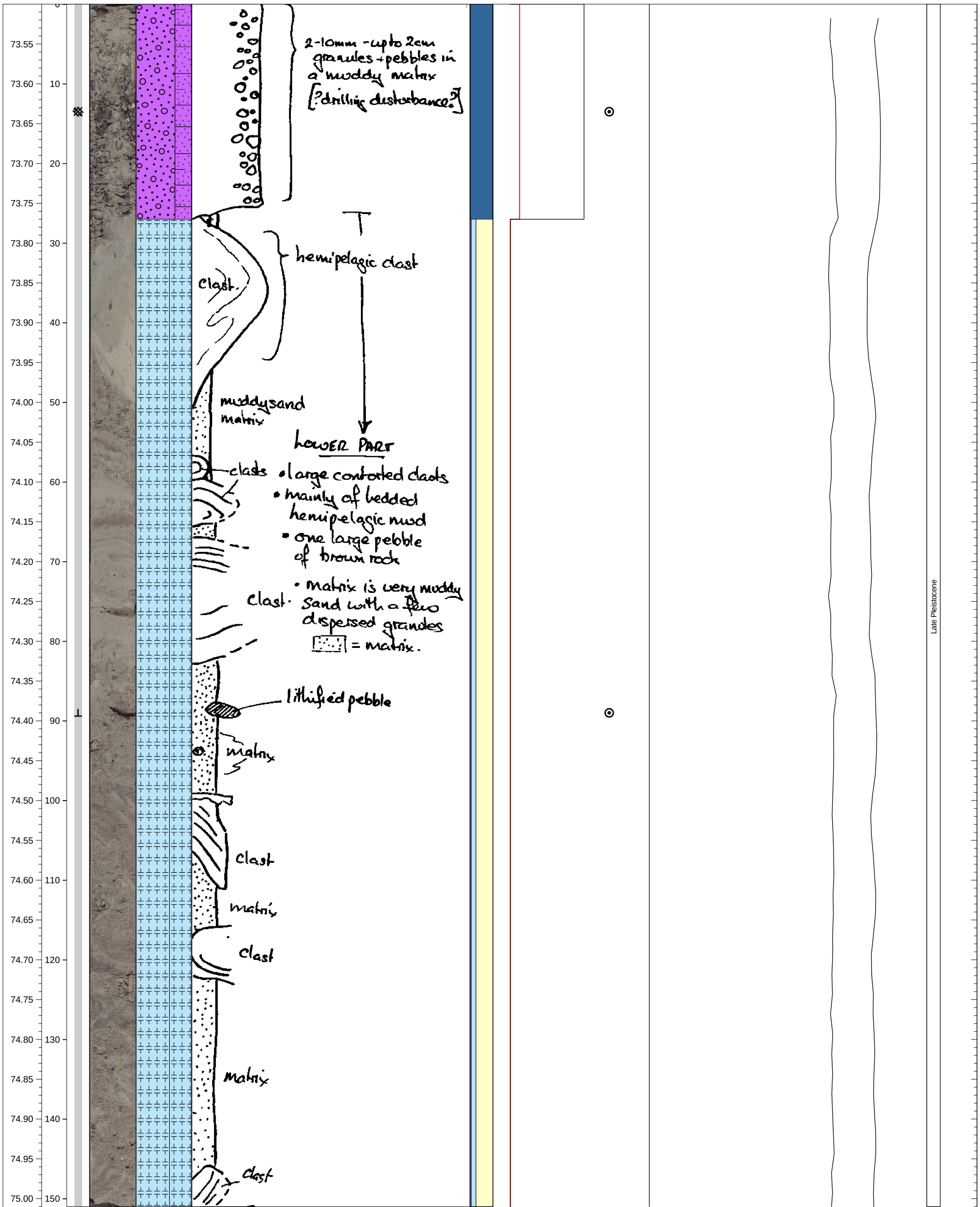
Coarse sand volcaniclastic/bioclastic turbidite deposit.



Hole 340-U1397A-11H Section 1, Top of Section: 73.5 CSF-A (m)

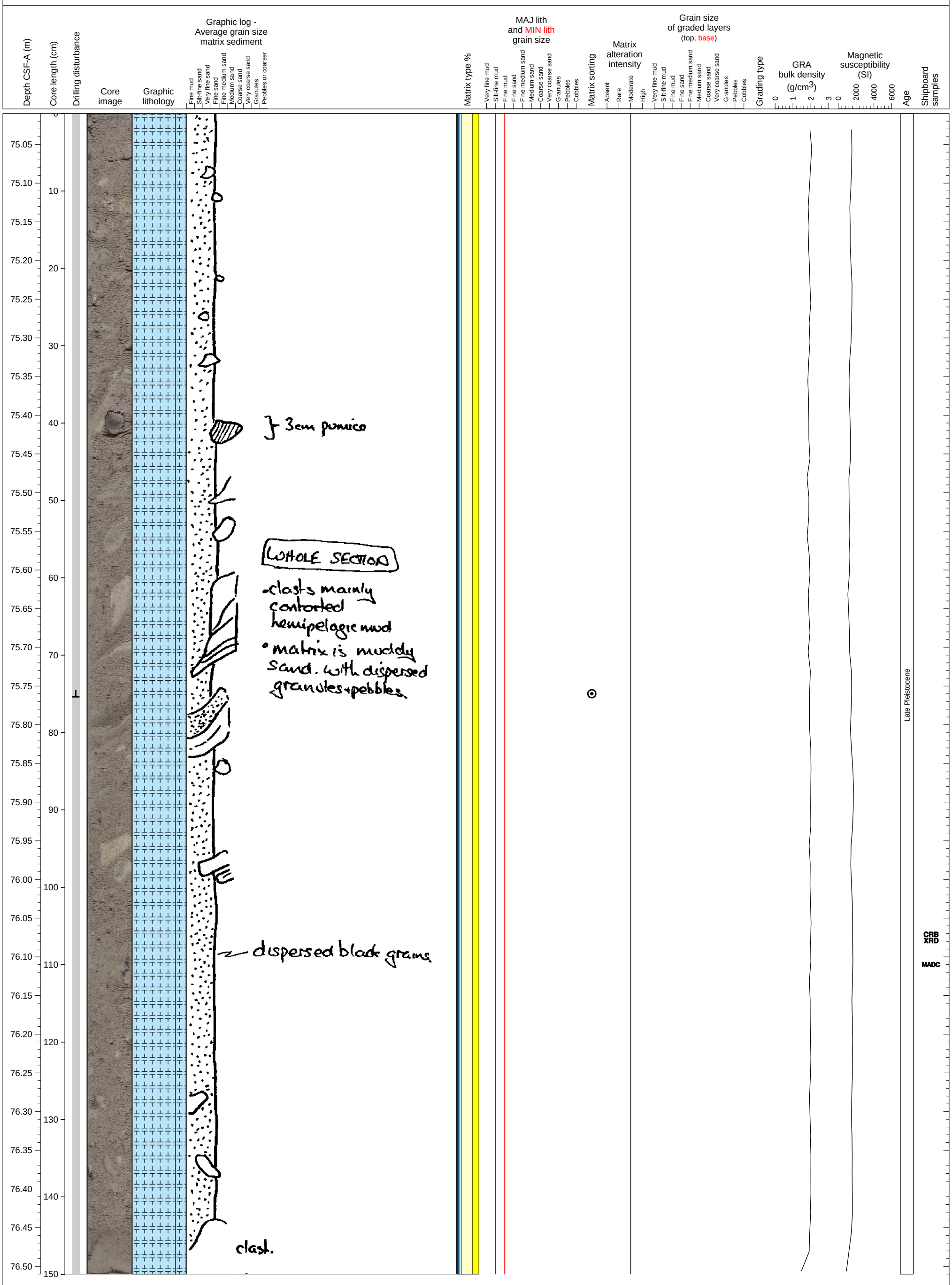
This section is composed of clasts and matrix of debris avalanche deposit. Clast size is up to >20 cm and composed of silty to muddy calcareous materials and volcaniclastic mud. Occasionally fragments of sandy tephra layers are present. The matrix component is mudy to silty carbonate materials, and some parts are mixture of carbonate and volcanic materials.

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



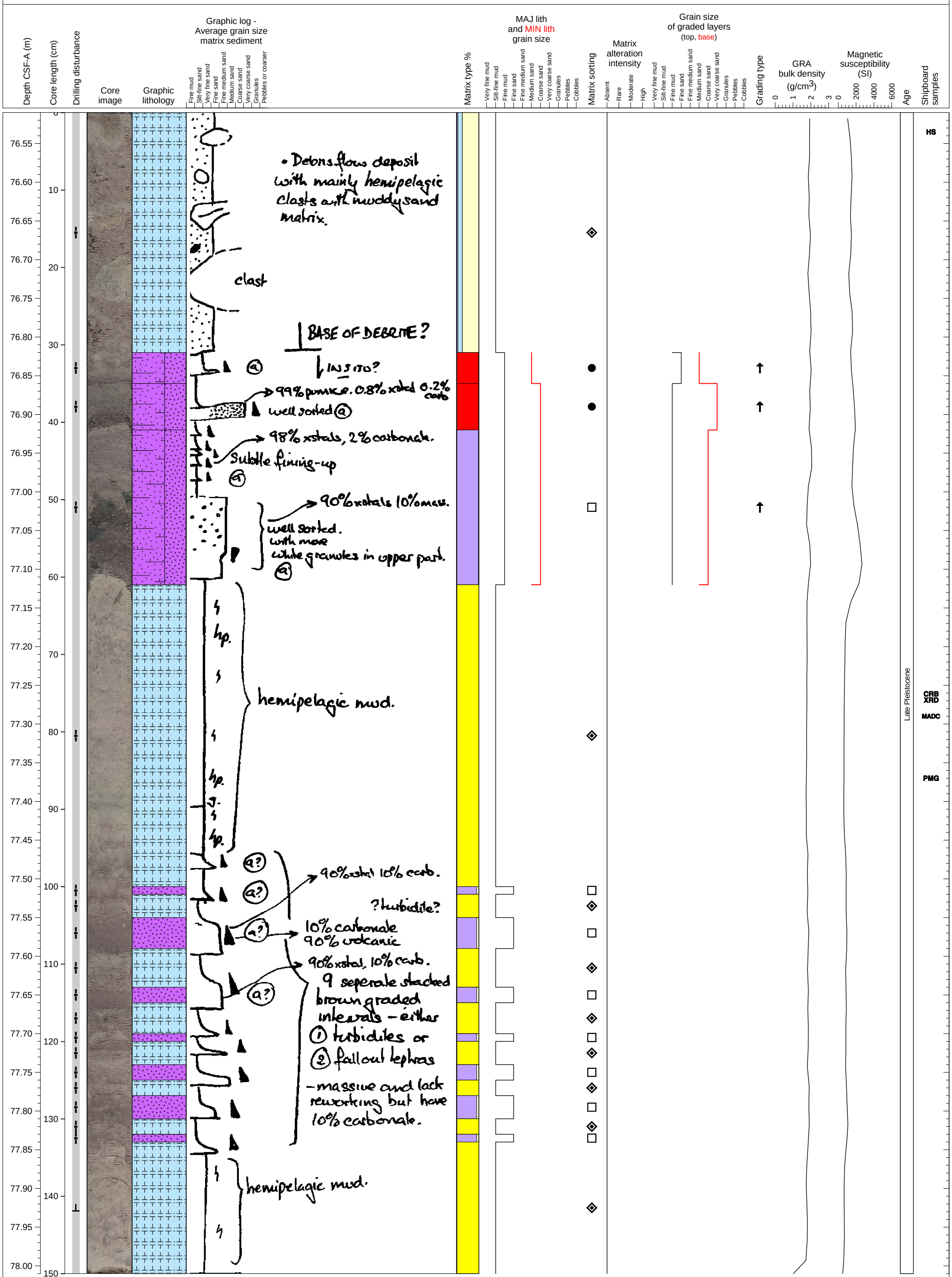
Hole 340-U1397A-11H Section 2, Top of Section: 75.01 CSF-A (m)

This chaotic section represents debris avalanche deposit, consisting of cobble size clasts and fine matrix. Clasts are composed of calcareous silt to mud and altered massive lava, and occasionally fragments of tephra layers. Matrix is composed of silt to mud of mixed carbonate and volcanic materials.



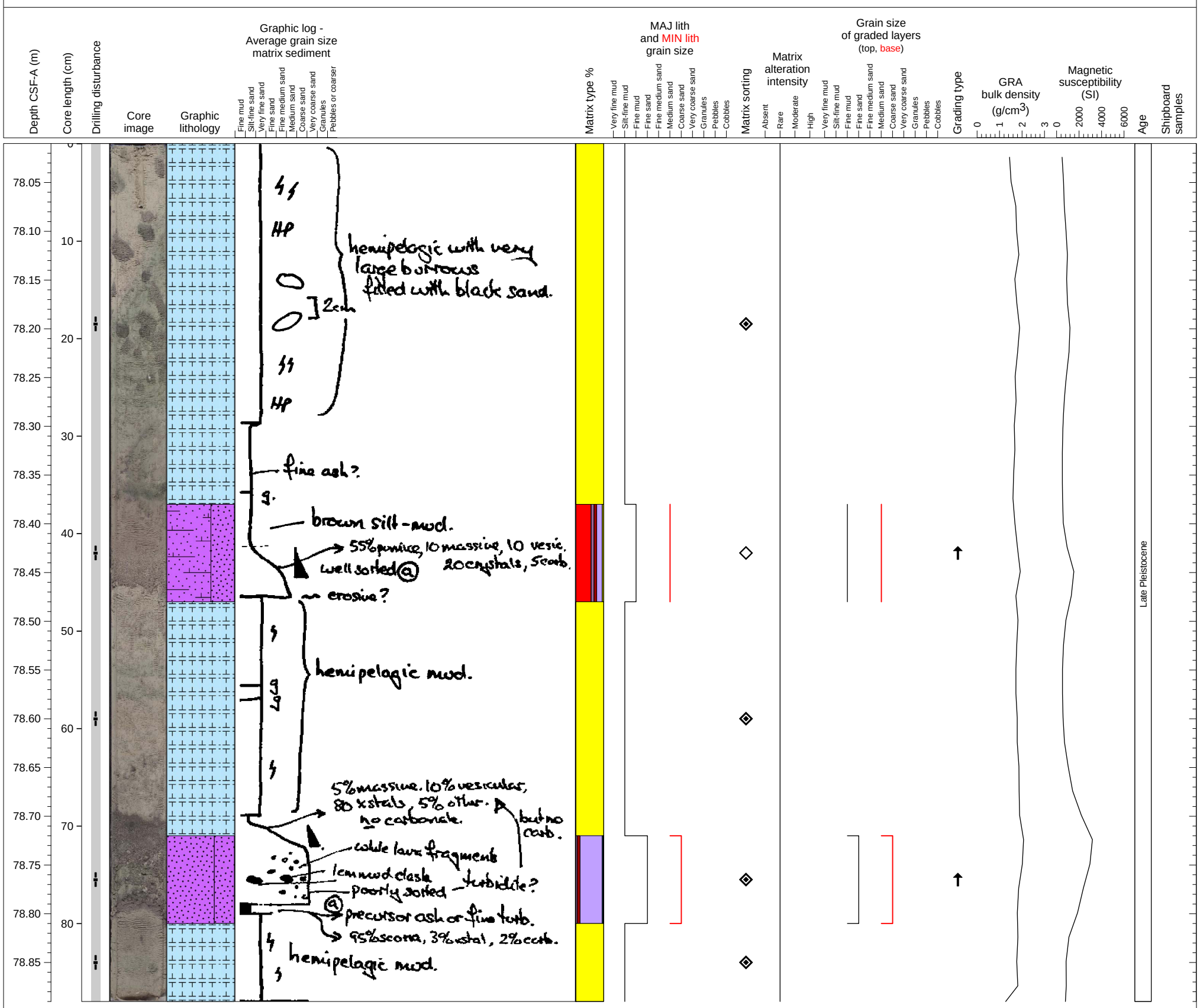
Hole 340-U1397A-11H Section 3, Top of Section: 76.51 CSF-A (m)

Complex mixture of stacked graded sand-mud units, and hemipelagic mud. Upper part is base of debris flow deposit



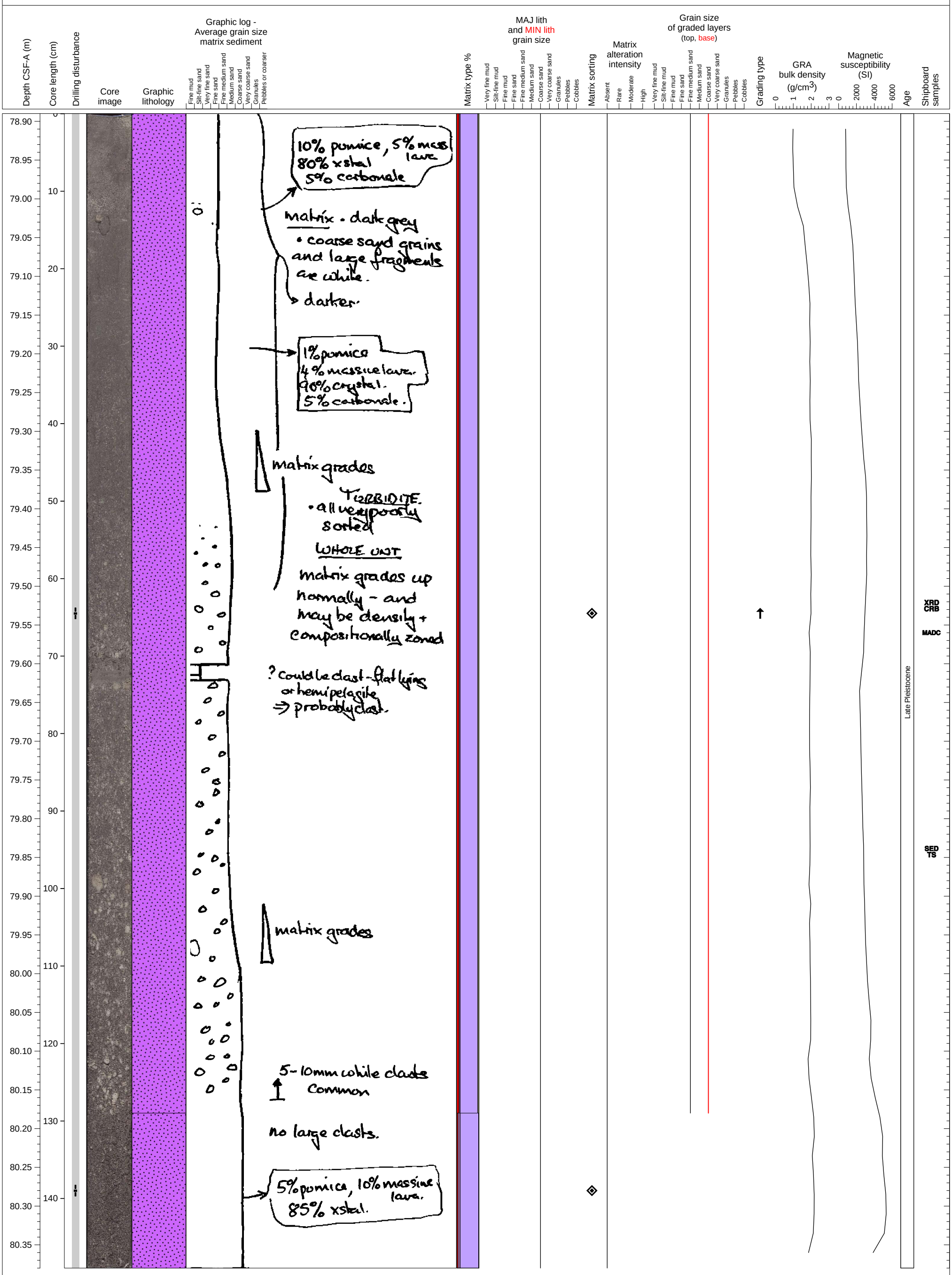
Hole 340-U1397A-11H Section 4, Top of Section: 78.01 CSF-A (m)

Hemipelagic mud with three graded tephra units.



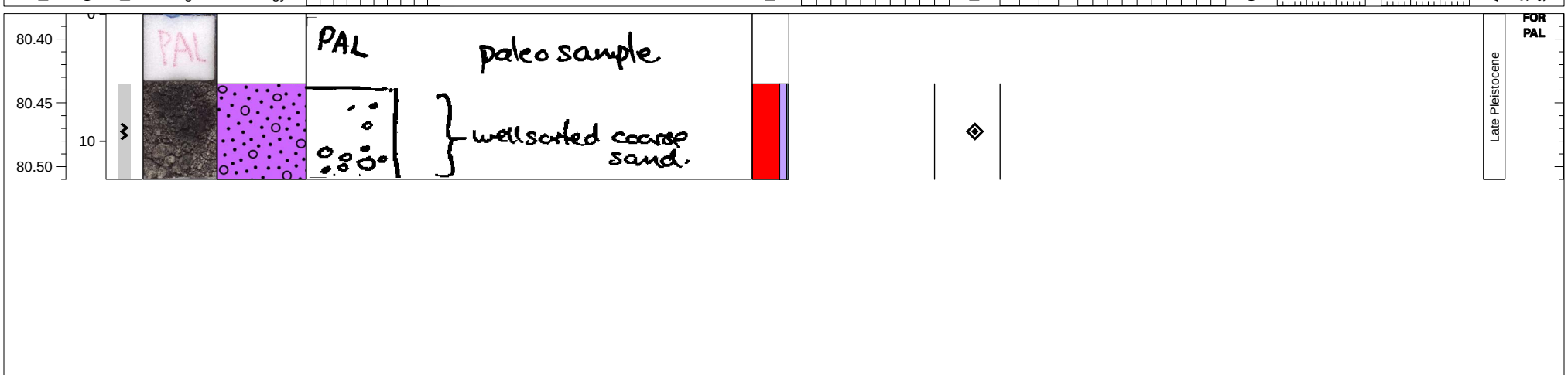
Hole 340-U1397A-11H Section 5, Top of Section: 78.89 CSF-A (m)

Normally graded volcaniclastic coarse sand turbidite unit.



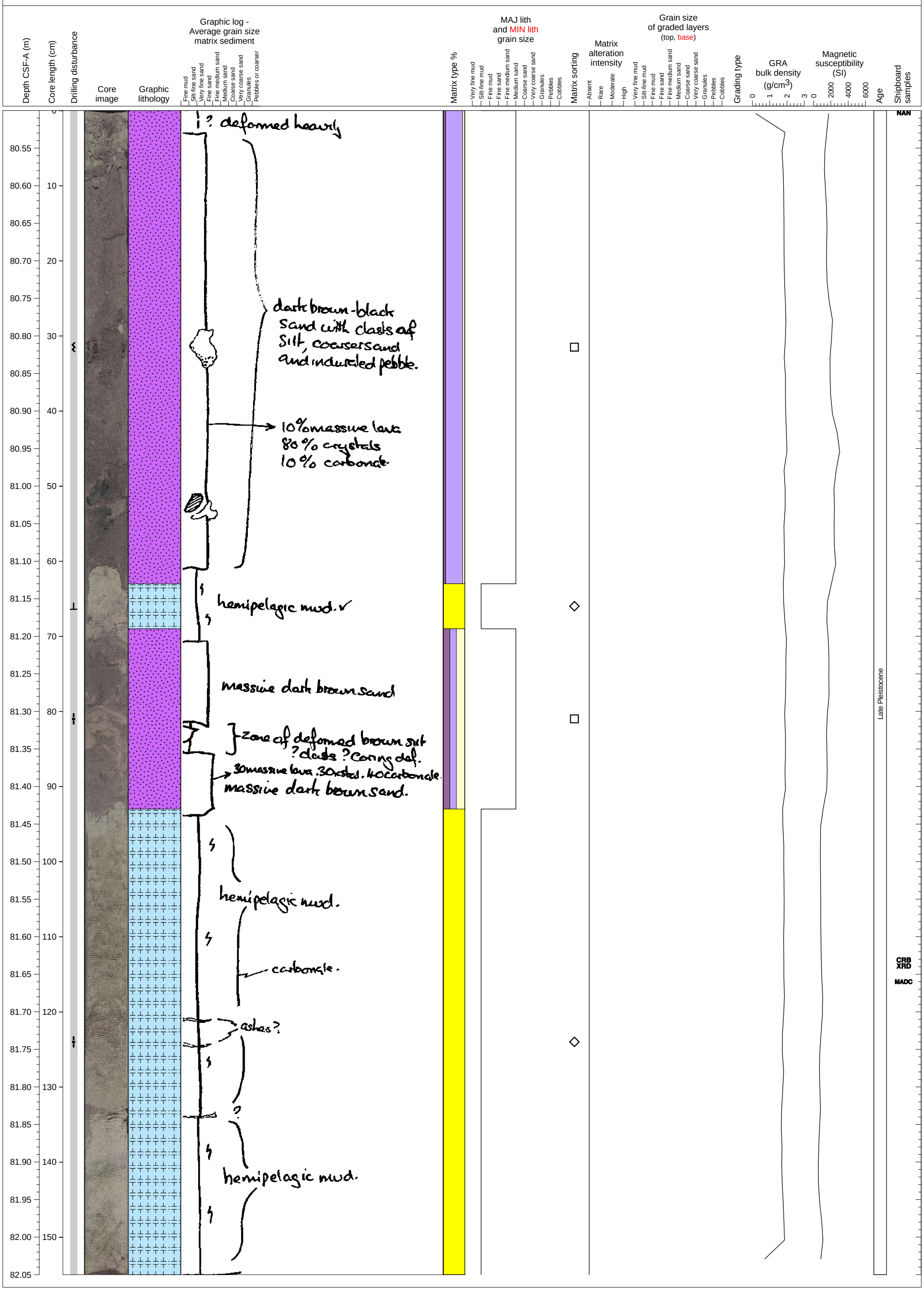
Hole 340-U1397A-11H Section CC, Top of Section: 80.38 CSF-A (m)

Volcaniclastic gravel with pebble-sized pumice clasts.



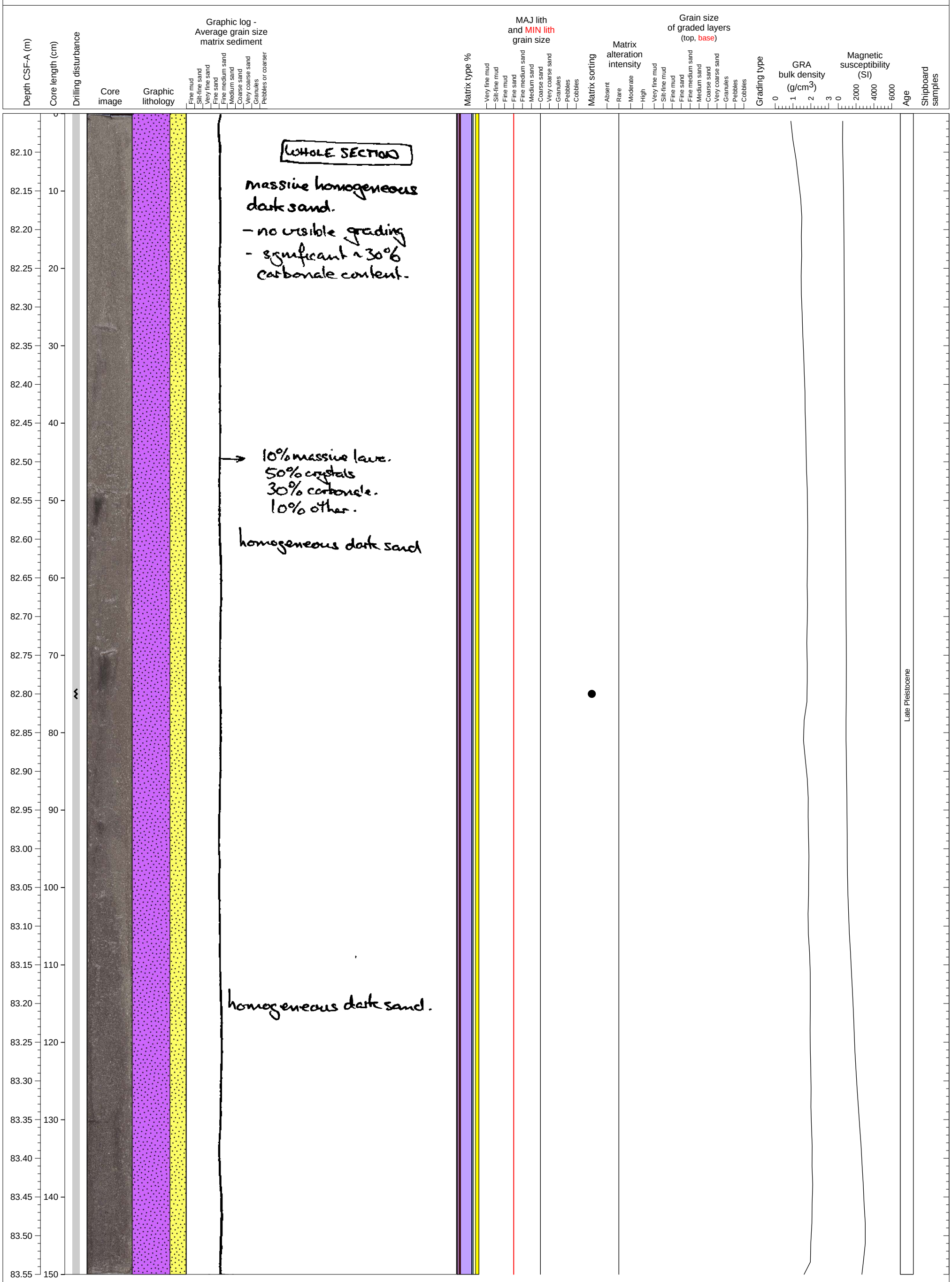
Hole 340-U1397A-12H Section 1, Top of Section: 80.5 CSF-A (m)

Volcaniclastic sand deposits interlayered with hemipelagic clay.



Hole 340-U1397A-12H Section 2, Top of Section: 82.05 CSF-A (m)

A part of volcaniclastic and bioclastic turbidite.



Hole 340-U1397A-12H Section 3, Top of Section: 83.55 CSF-A (m)

Alternation of volcaniclastic and bioclastic sandy layers and mud clast or layers. Mud layers include sandy patches or layers consisting of volcanic and bioclastic 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/cm^3)
0
1
2
3
Magnetic susceptibility (SI)
0
2000
4000
6000
Age
Shipboard samples

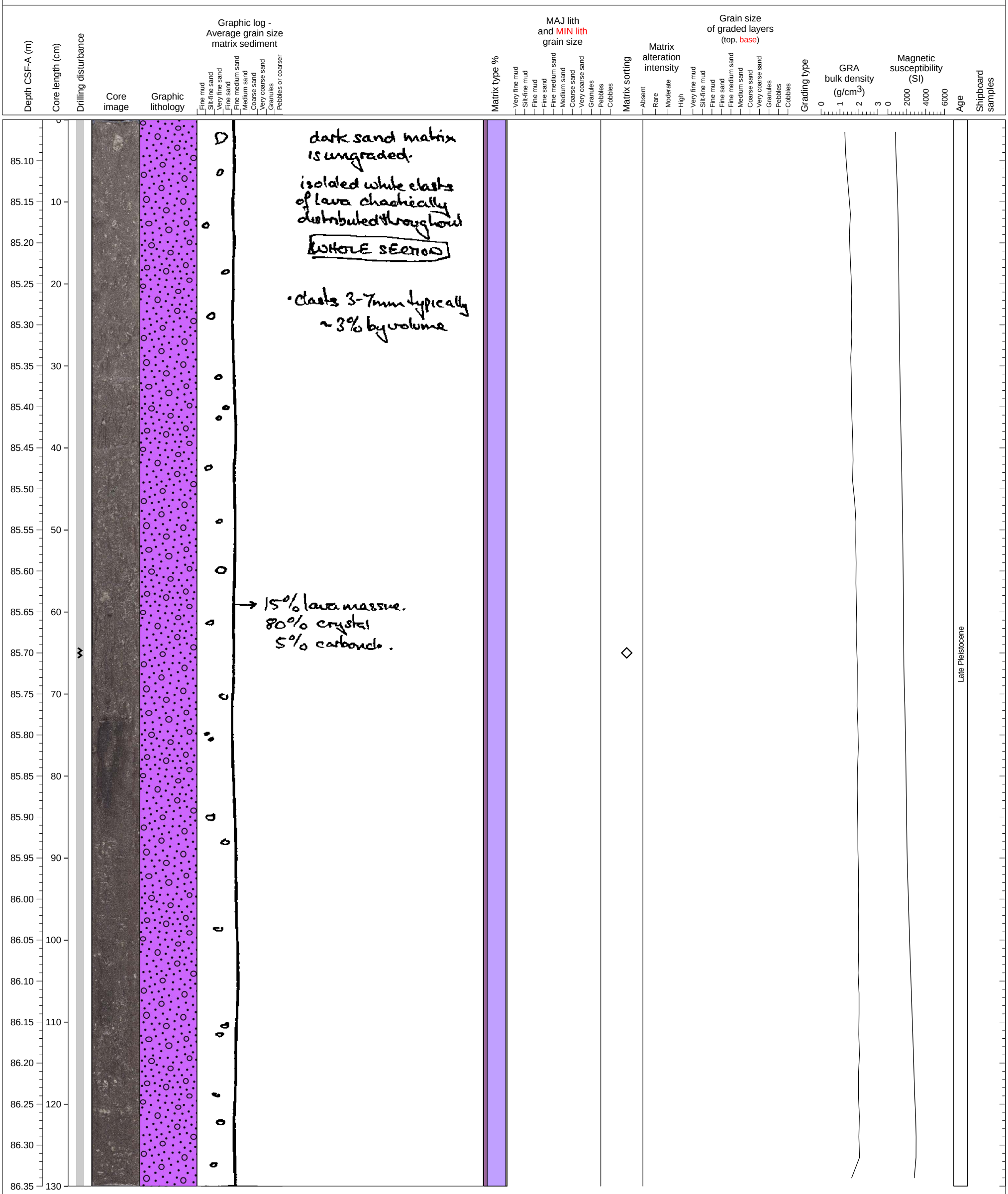
83.60 0
83.65 10
83.70
83.75 20
83.80
83.85 30
83.90
83.95 40
84.00
84.05 50
84.10
84.15 60
84.20
84.25 70
84.30
84.35 80
84.40
84.45 90
84.50
84.55 100
84.60
84.65 110
84.70
84.75 120
84.80
84.85 130
84.90
84.95 140
85.00
85.05 150

20% massive, 5% vesicular
60% xstals, 15% carbonate.
hemipelagic mud clasts
matrix-dark sand
deformed zone probably hemipelagic mud clasts in sand.
- could be partly coring disturbance.
very silty contorted mud. ? hemipelagic + burrows or debrite.
sand layer.
deformed blebs of sand and hemipelagite
hp
hemipelagic mud.
sharp
15% massive
5% vesicular
60% xstal.
15% carb.
dark massive sand with dispersed white clasts - upto 2cm typically ~3-5 mm.

Late Pleistocene

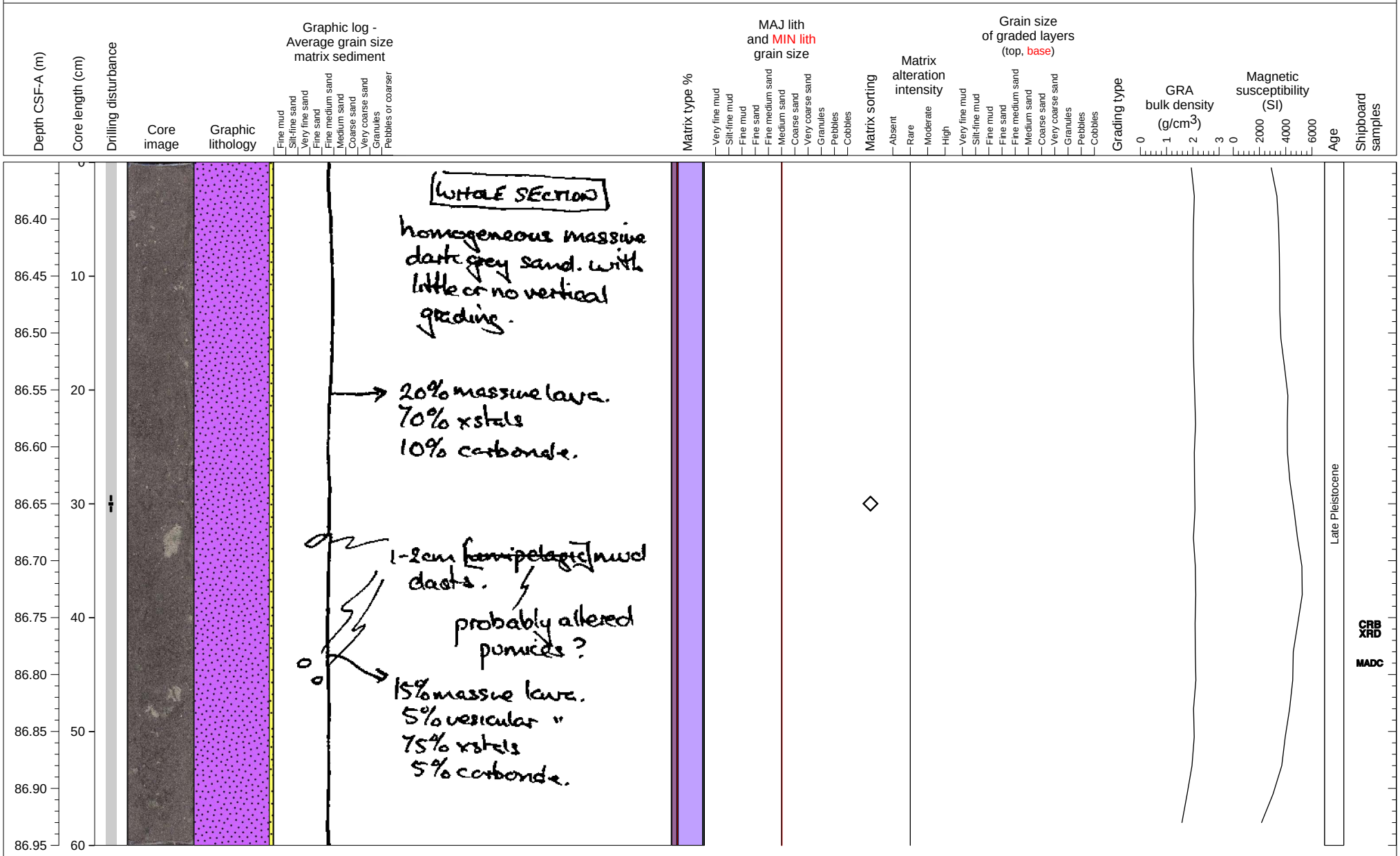
Hole 340-U1397A-12H Section 4, Top of Section: 85.05 CSF-A (m)

Massive dark gray medium sand with white pumices throughout. Low carboante content.



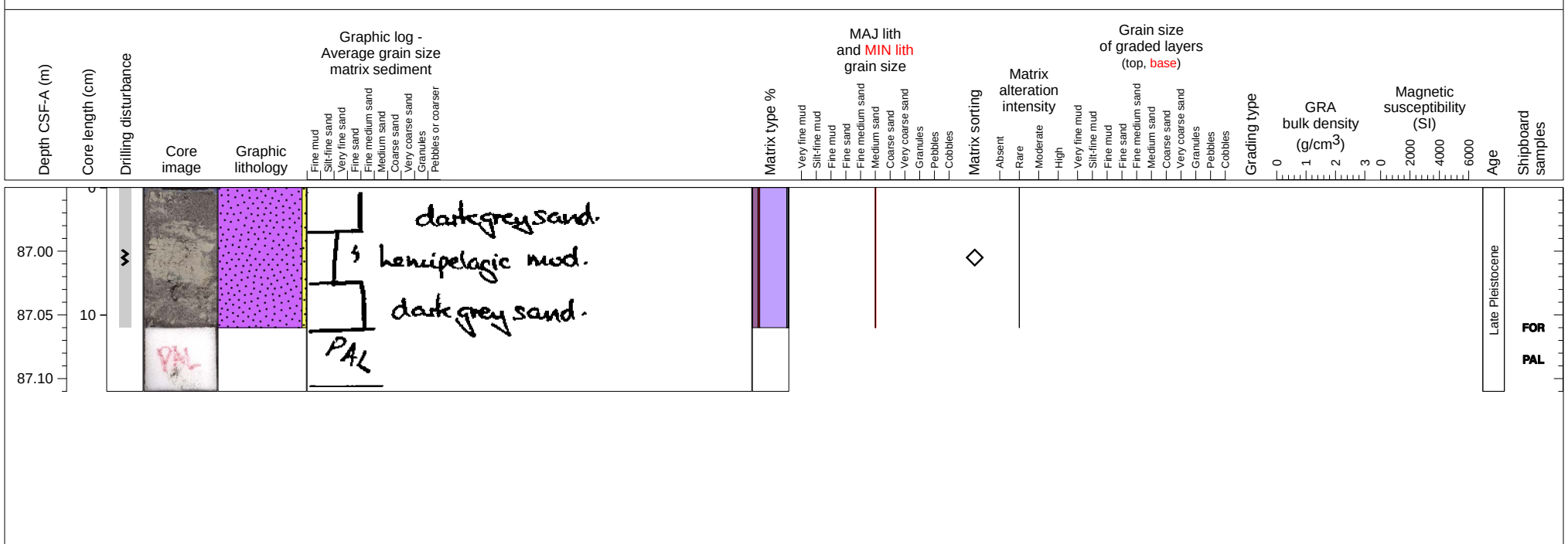
Hole 340-U1397A-12H Section 5, Top of Section: 86.35 CSF-A (m)

Massive volcaniclastic sand deposit (turbidite) with minor pumice clasts that have been completely altered to clay.



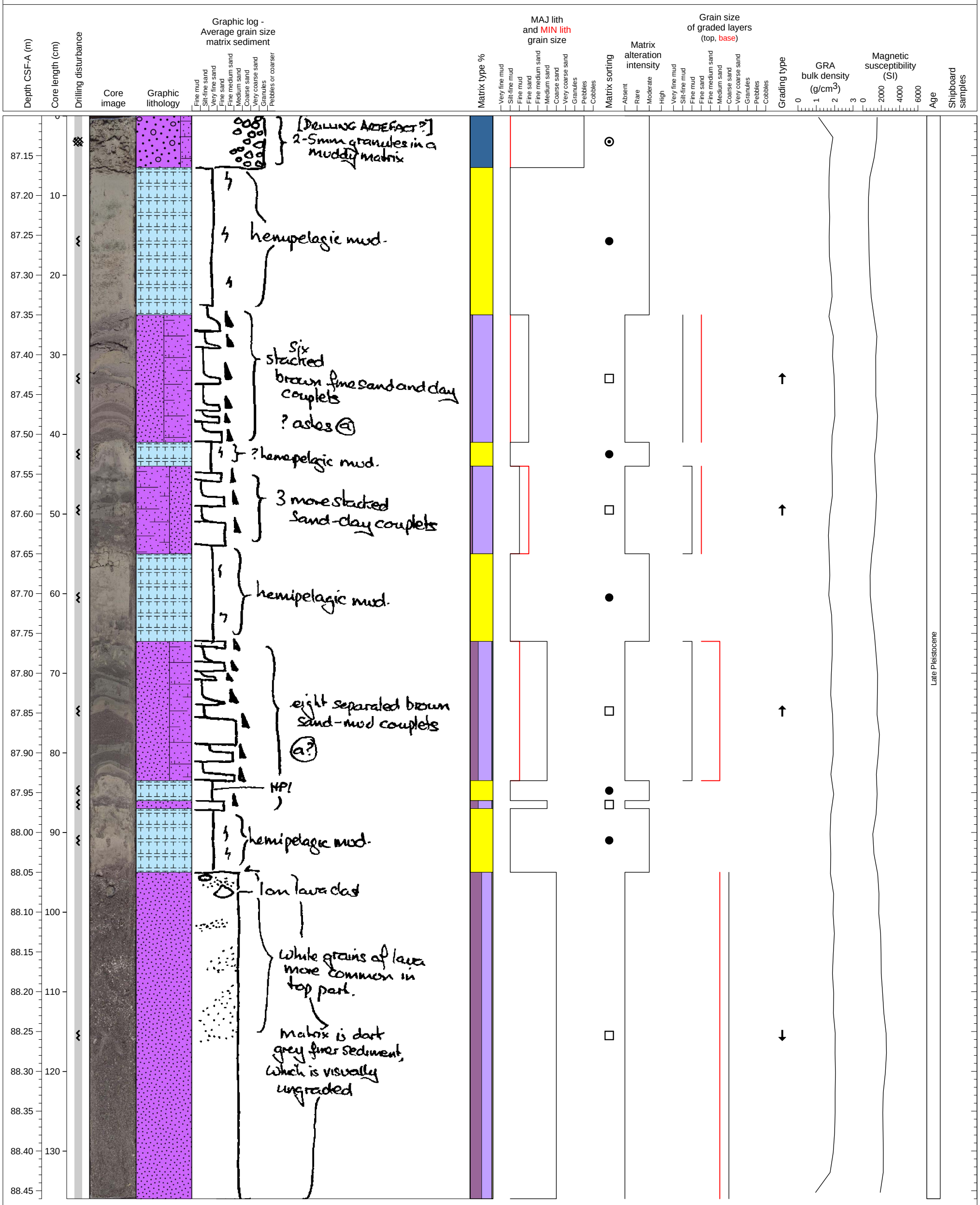
Hole 340-U1397A-12H Section CC, Top of Section: 86.95 CSF-A (m)

Volcaniclastic sand with single large mud clast. PAL sample from base.



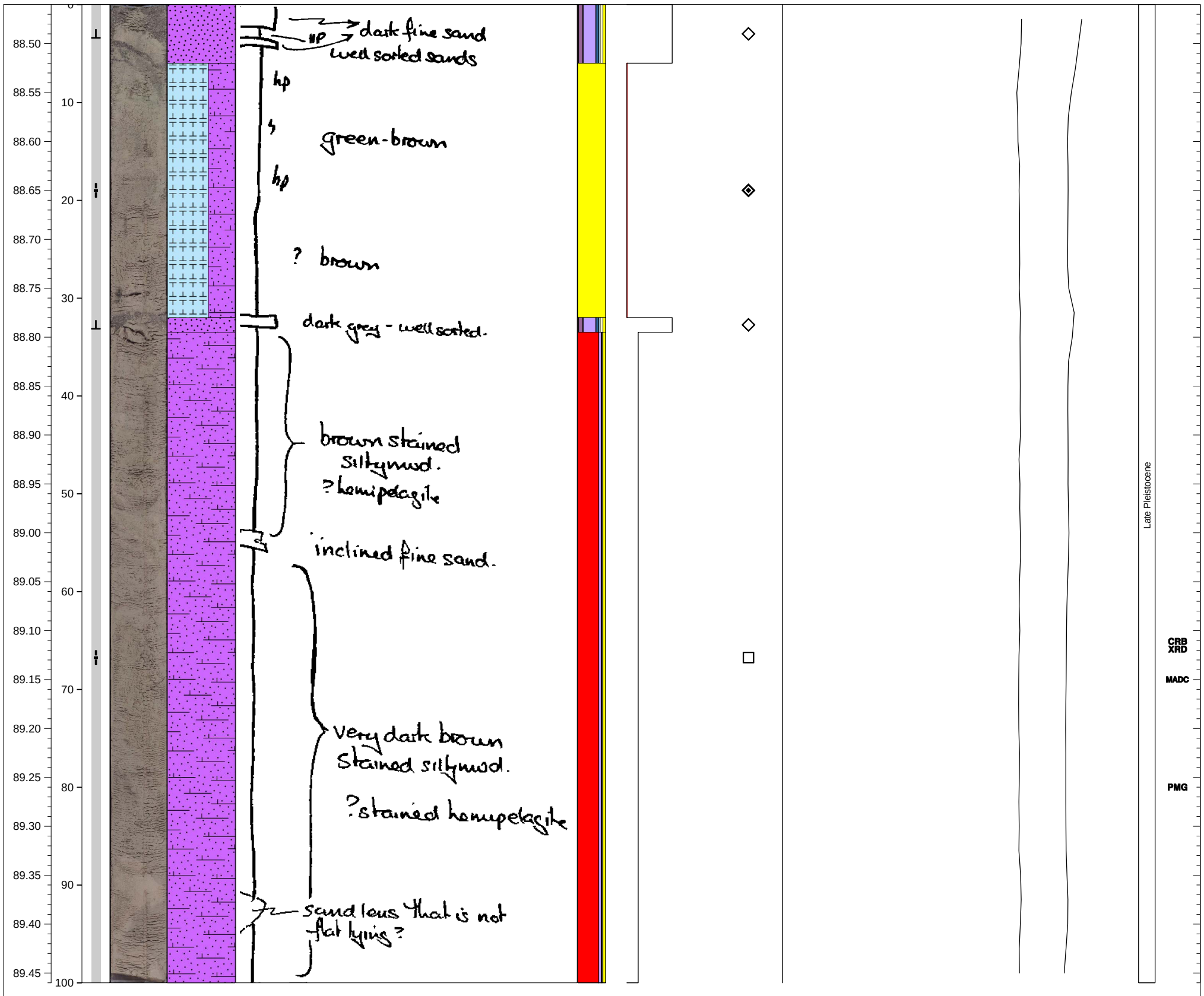
Hole 340-U1397A-13H Section 1, Top of Section: 87.1 CSF-A (m)

A lot tephra layers intercalating hemipelagic sediments. In the middle part of this section tephra layers repeatedly occur.



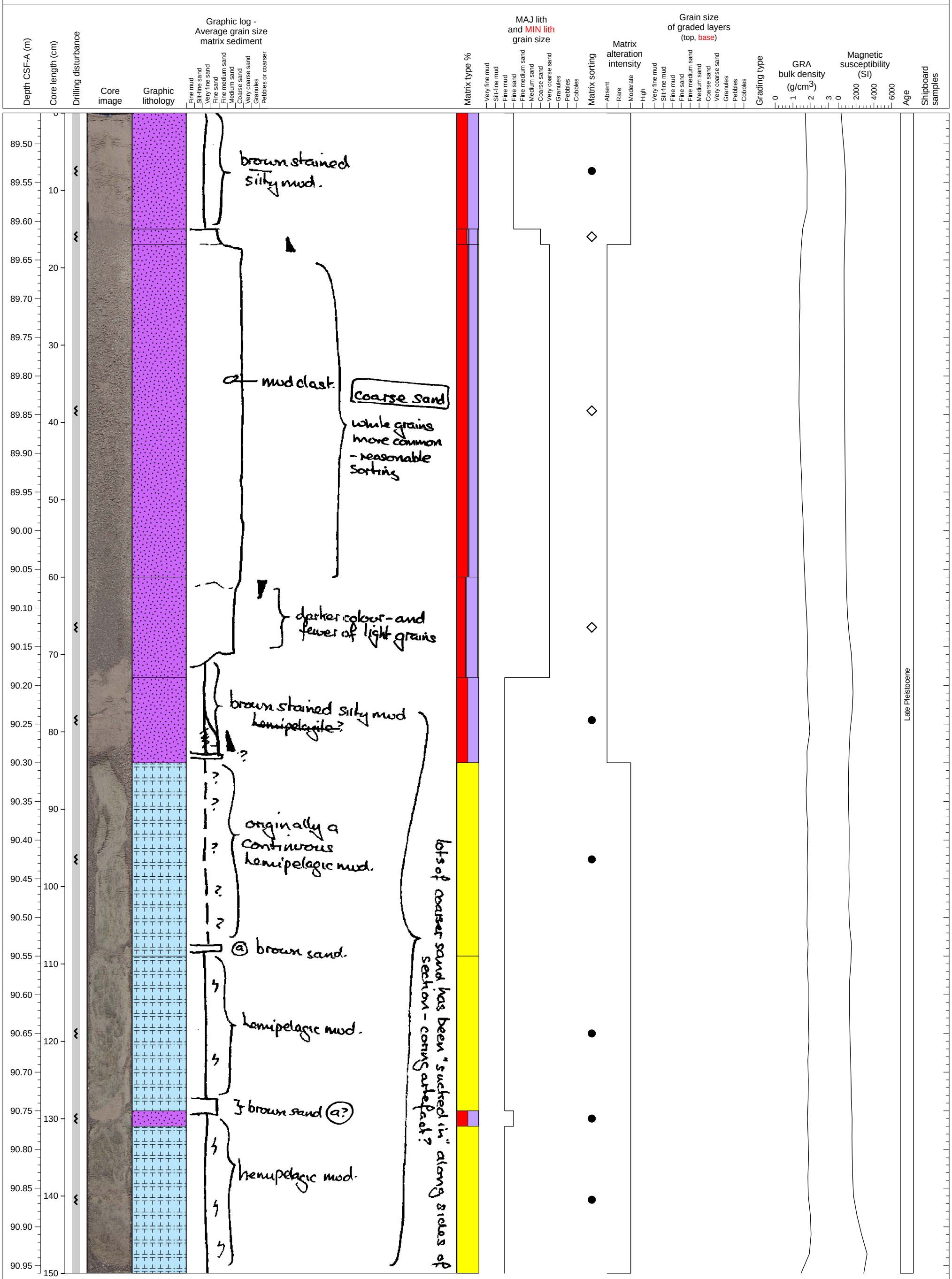
Hole 340-U1397A-13H Section 2, Top of Section: 88.46 CSF-A (m)

Volcaniclastic mud interlayered with volcaniclastic sand (ash) units.



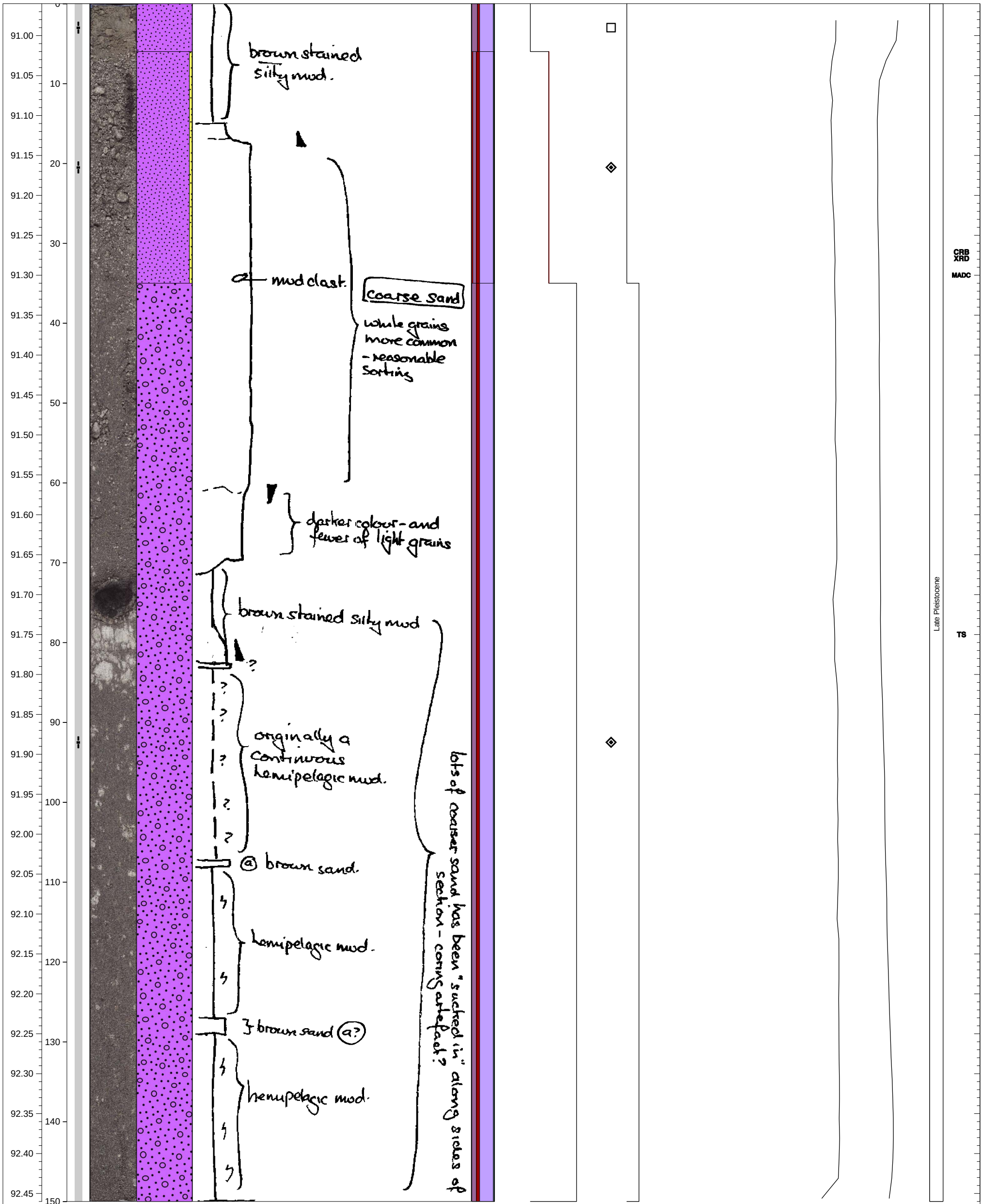
Hole 340-U1397A-13H Section 3, Top of Section: 89.46 CSF-A (m)

Potential tephra layers and turbidite on hemipelagic sediment highly disturbed.



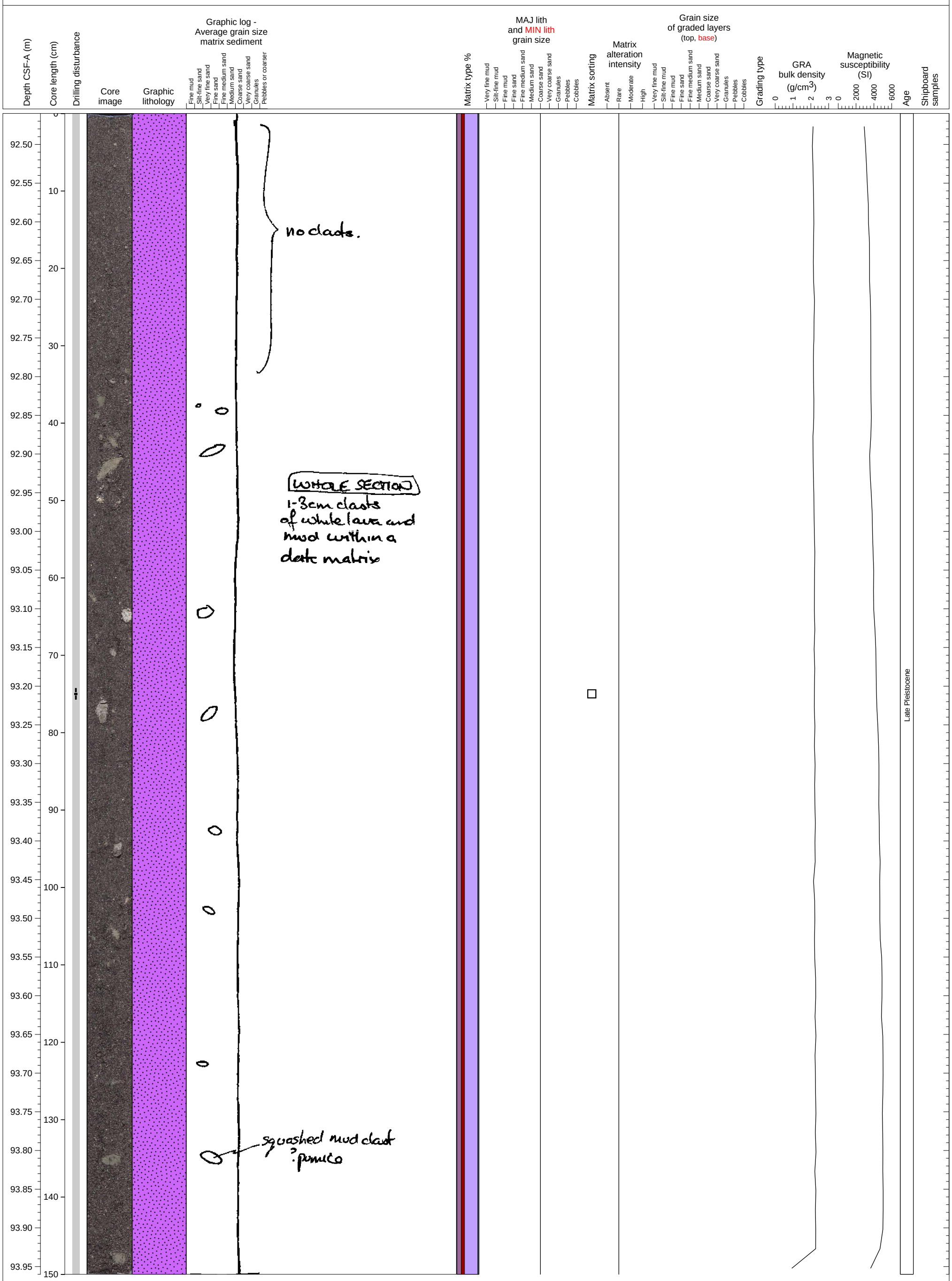
Hole 340-U1397A-13H Section 4, Top of Section: 90.96 CSF-A (m)

Massive volcaniclastic sand unit (turbidite) containing unsorted pumice clasts of pebble size.



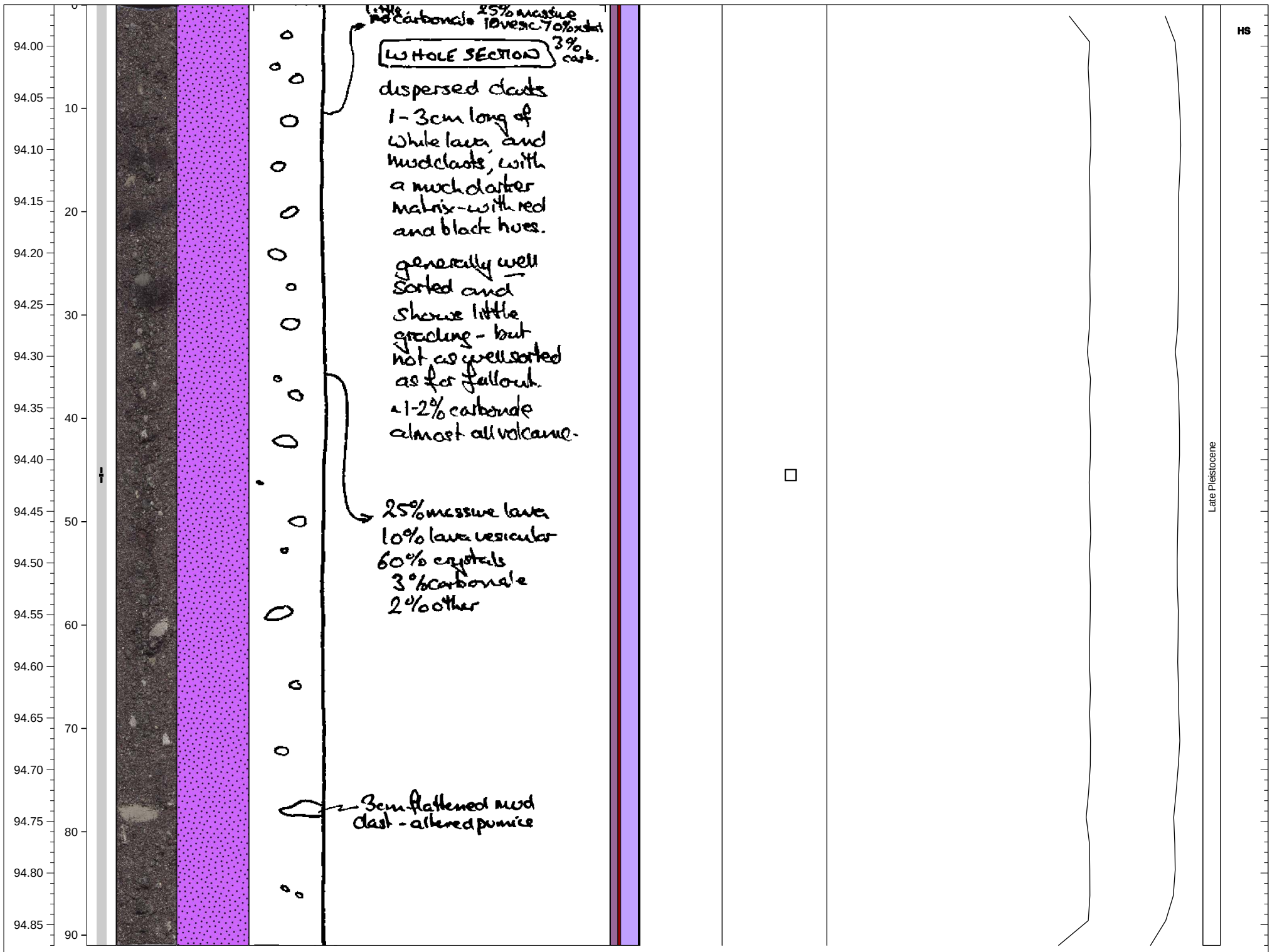
Hole 340-U1397A-13H Section 5, Top of Section: 92.46 CSF-A (m)

Volcaniclastic coarse sand turbidite deposit with large pebbles of pumice and clay that may have once been pumice distributed in a poorly sorted fashion.



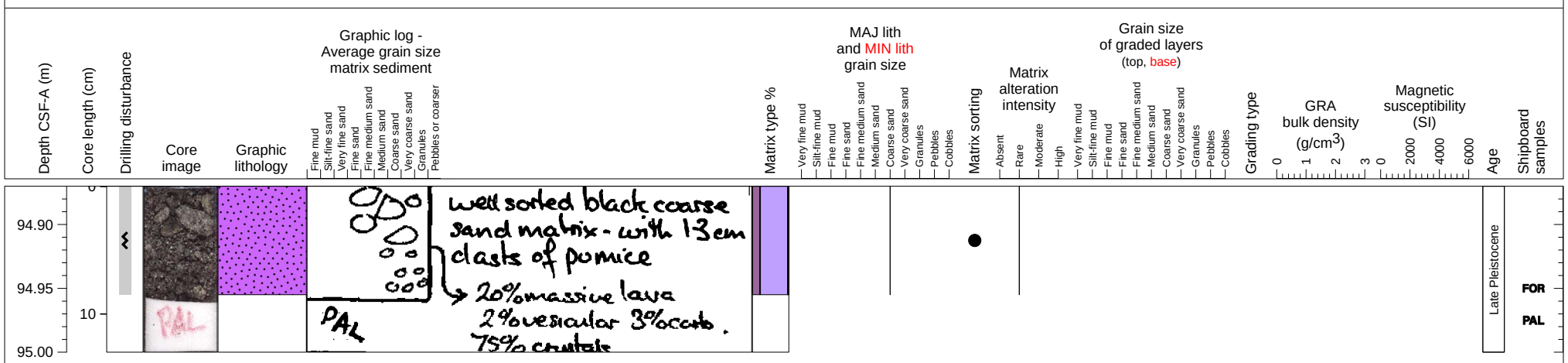
Hole 340-U1397A-13H Section 6, Top of Section: 93.96 CSF-A (m)

Coarse-grained volcaniclastic sand deposit (turbidite) with dispersed pebble-sized clasts of pumice, mud, and igneous material.



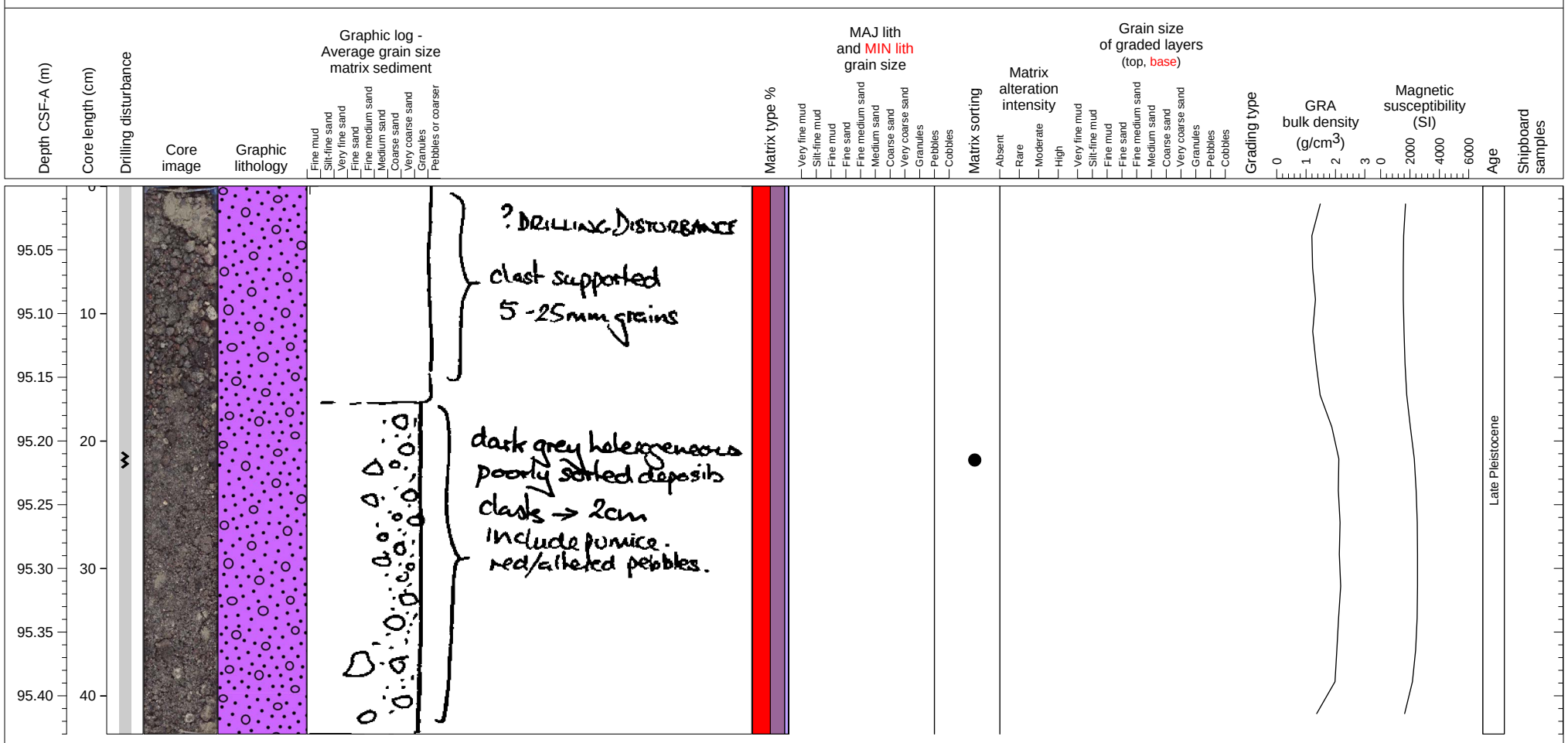
Hole 340-U1397A-13H Section CC, Top of Section: 94.87 CSF-A (m)

Volcaniclastic sand, coarse-grain sized, with pebble dominated texture.



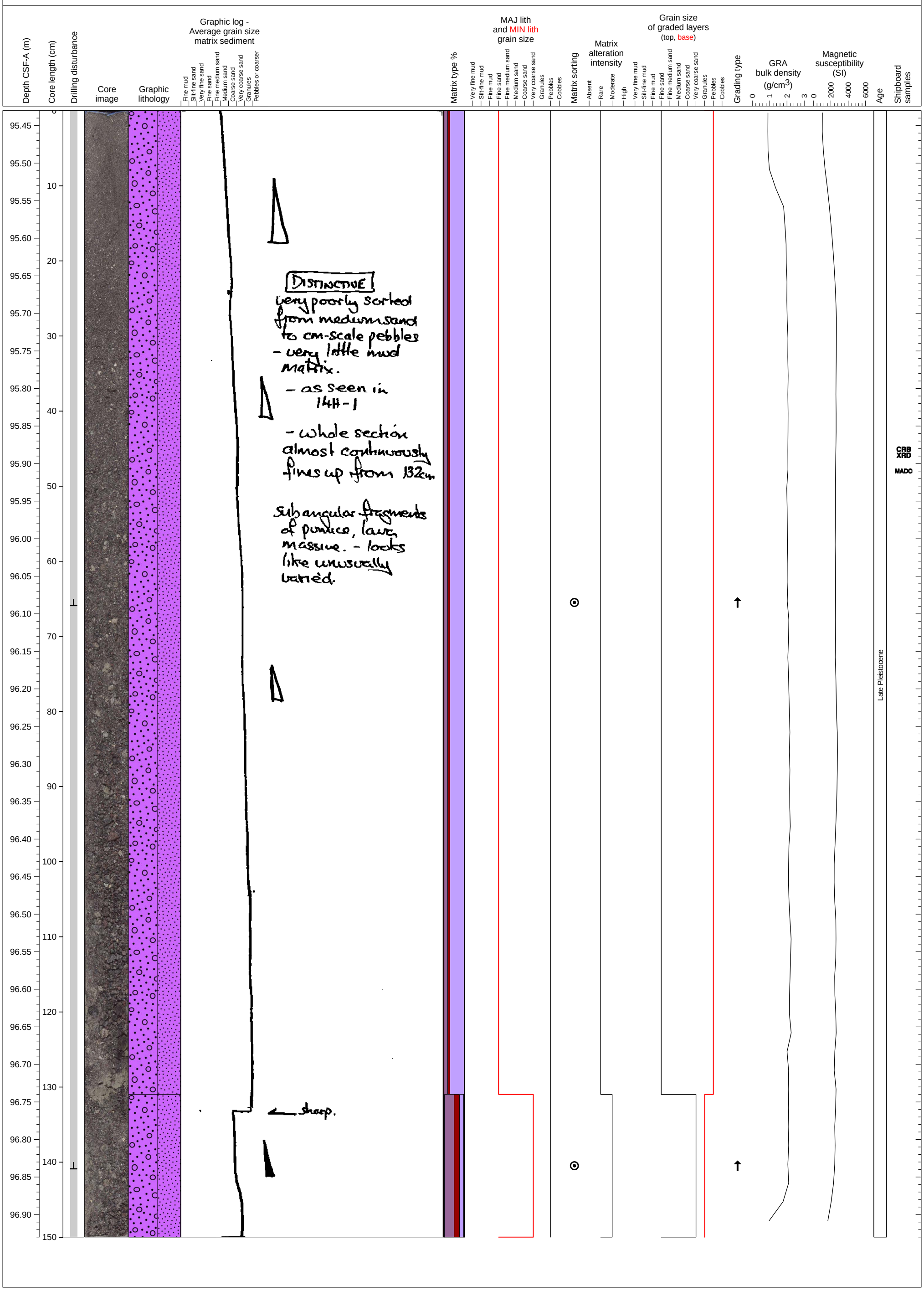
Hole 340-U1397A-14H Section 1, Top of Section: 95.0 CSF-A (m)

Poorly sorted volcaniclastic gravel.



Hole 340-U1397A-14H Section 2, Top of Section: 95.43 CSF-A (m)

Two fining upward volcaniclastic gravel deposits.



Hole 340-U1397A-14H Section 3, Top of Section: 96.93 CSF-A (m)

Two normally graded volcaniclastic gravel 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/cm^3)
Magnetic susceptibility (SI)
Age
Shipboard samples

96.95
97.00
97.05
97.10
97.15
97.20
97.25
97.30
97.35
97.40
97.45
97.50
97.55
97.60
97.65
97.70
97.75
97.80
97.85
97.90
97.95
98.00
98.05
98.10
98.15
98.20
98.25
98.30
98.35
98.40

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

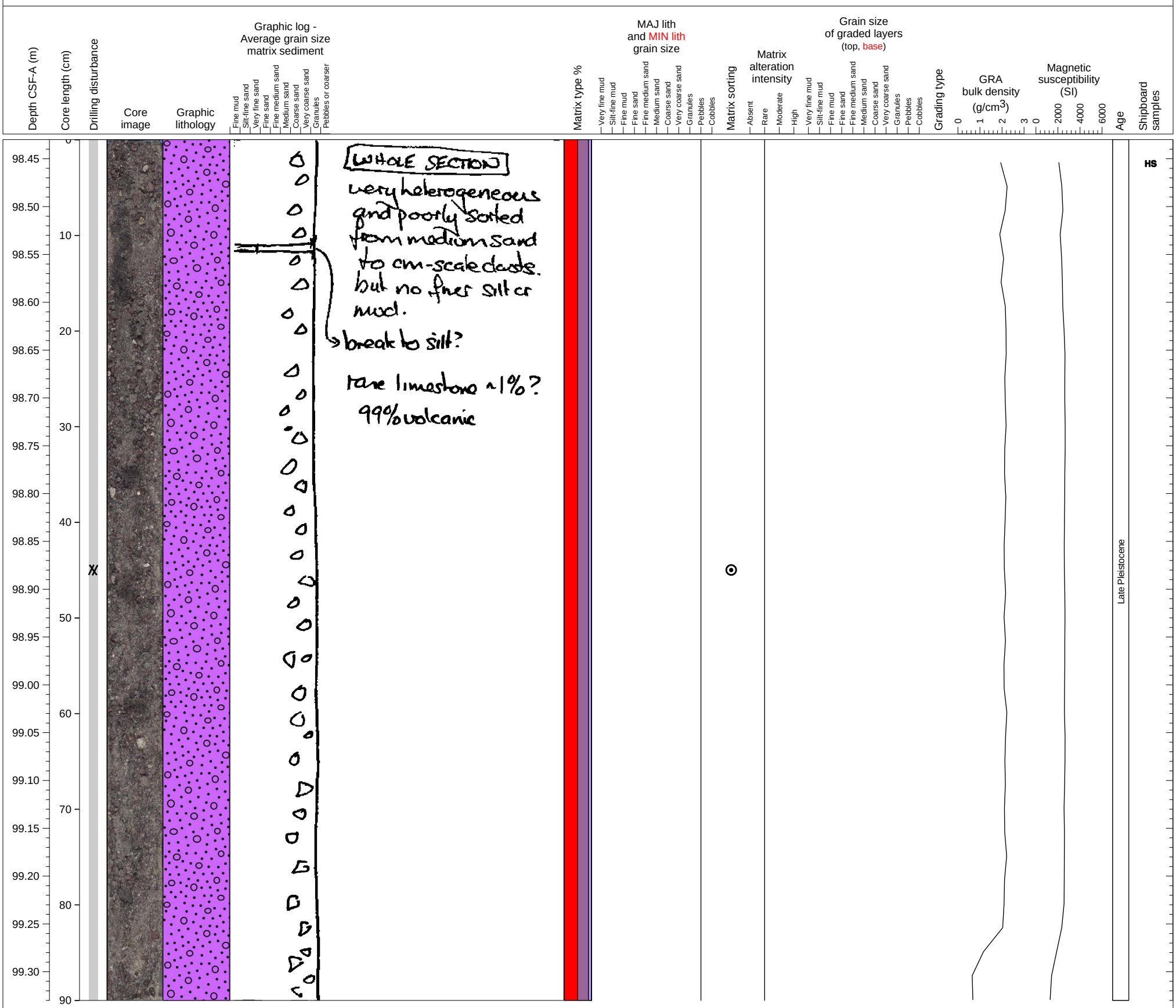
WHOLE SECTION
very heterogeneous and poorly sorted from medium sand to cm clast, but almost no silt or finer mud.

whole break.

Late Pleistocene

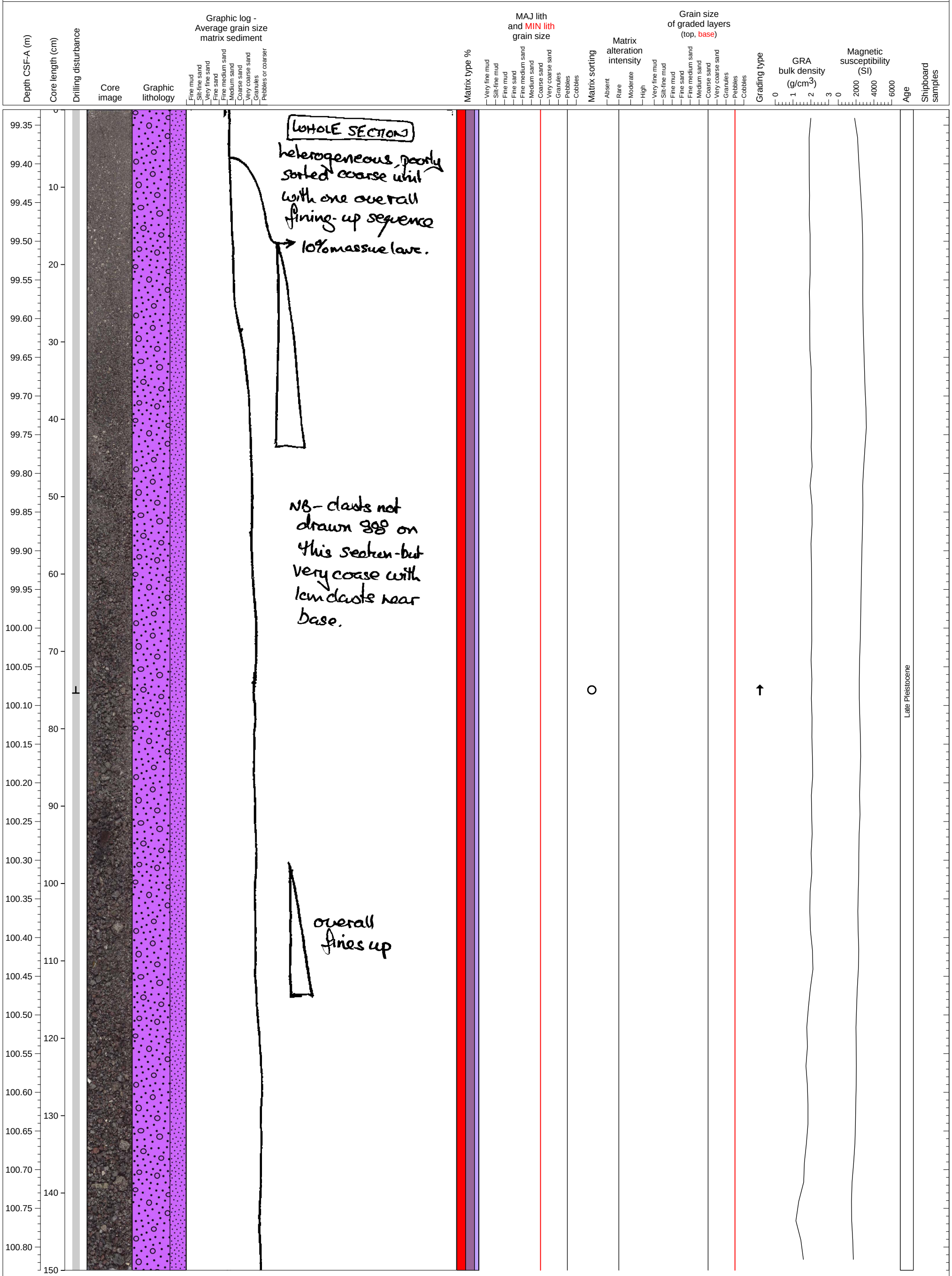
Hole 340-U1397A-14H Section 4, Top of Section: 98.43 CSF-A (m)

Massive volcaniclastic gravel deposit; no grading observed.



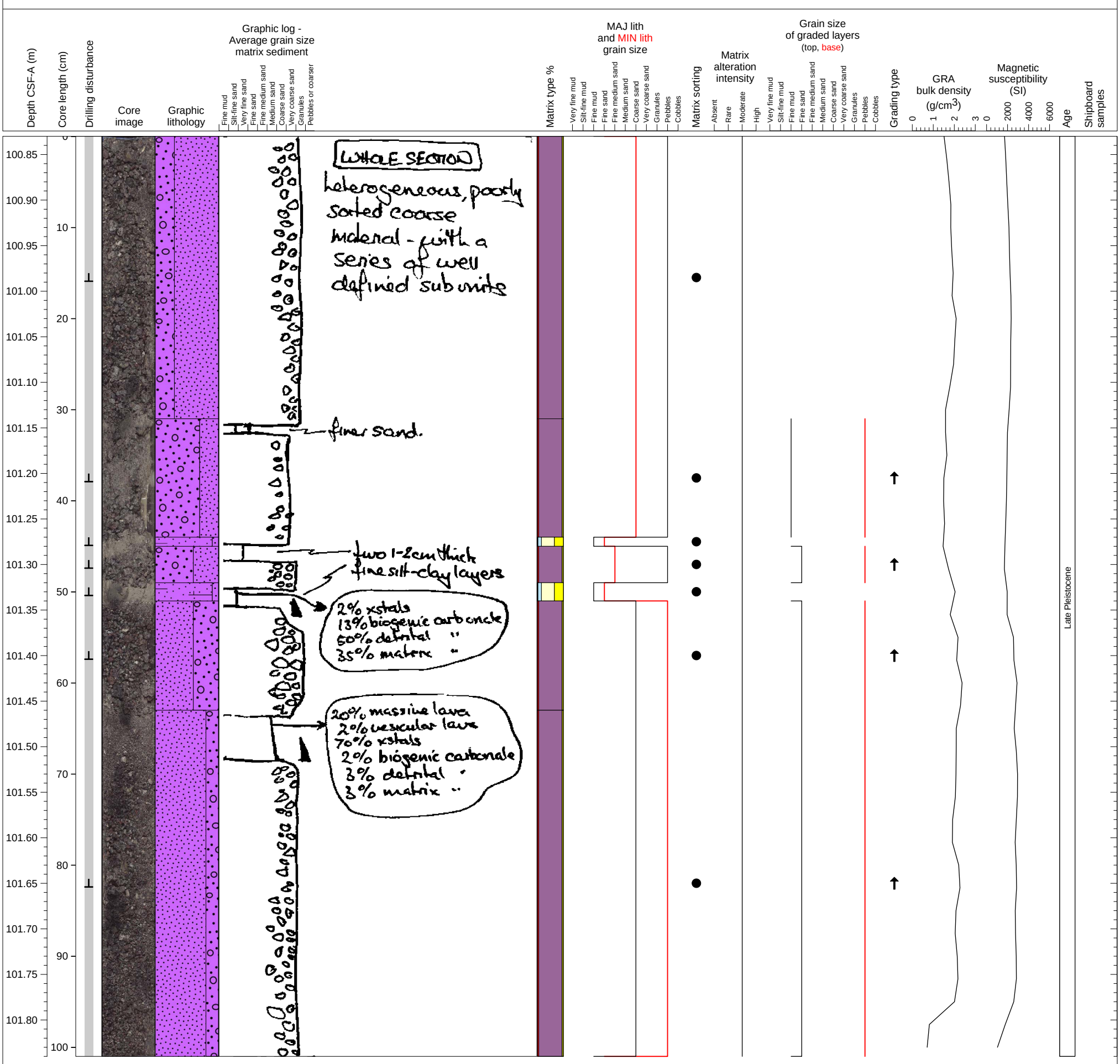
Hole 340-U1397A-14H Section 5, Top of Section: 99.33 CSF-A (m)

Massive normally grading mixed volcaniclastic gravel and sand.



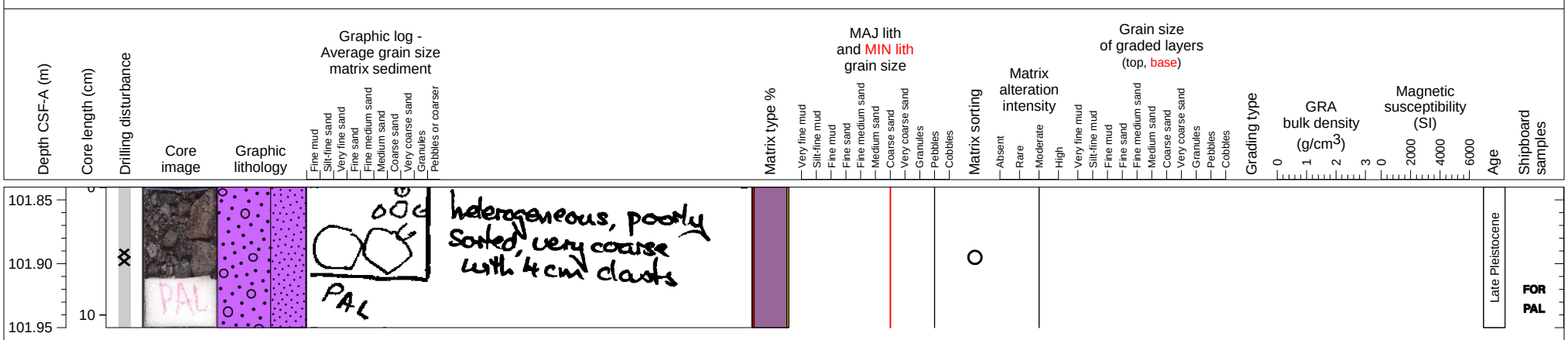
Hole 340-U1397A-14H Section 6, Top of Section: 100.83 CSF-A (m)

Repeating normally graded volcaniclastic gravel and sand.



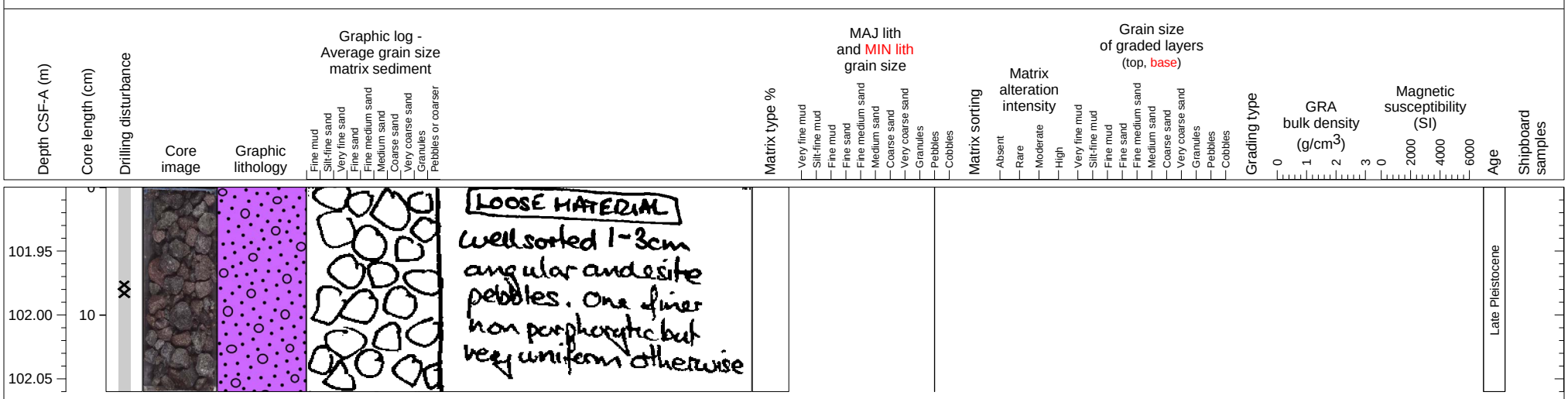
Hole 340-U1397A-14H Section CC, Top of Section: 101.84 CSF-A (m)

Mixture of volcanic gravel and sand.



Hole 340-U1397A-15H Section CC, Top of Section: 101.9 CSF-A (m)

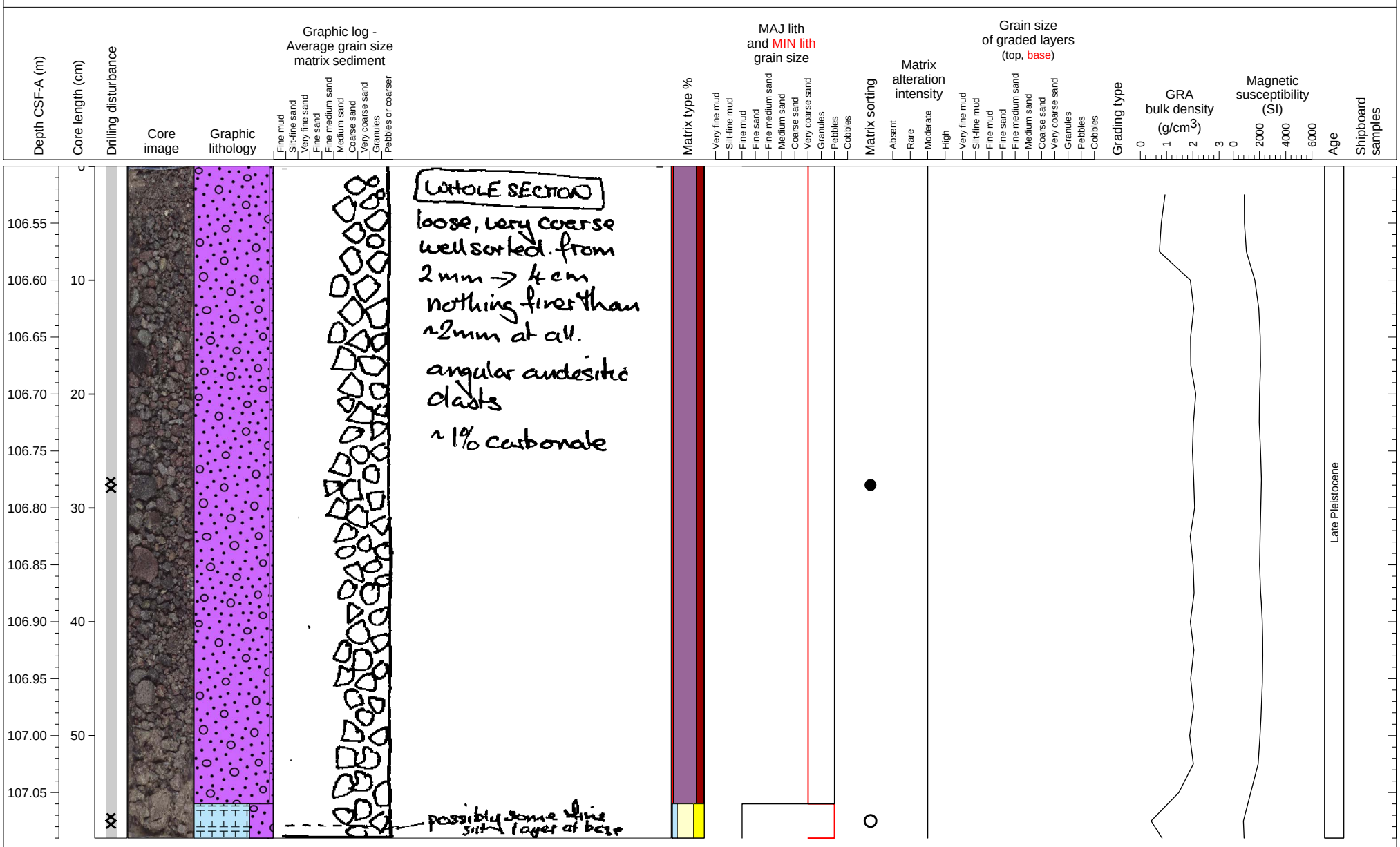
Volcaniclastic gravel composed primarily of andesitic pebbles.



U1397A-16 WASH CORE

Hole 340-U1397A-17H Section 1, Top of Section: 106.5 CSF-A (m)

Massive volcaniclastic gravel. At the bottom, calcareous mud is mixed.



Hole 340-U1397A-17H Section 2, Top of Section: 107.09 CSF-A (m)

Normally graded volcaniclastic sandy 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

107.10 – 0
107.15
10
107.20
107.25
20
107.30
107.35
30
107.40
107.45
40
107.50
107.55
50
107.60
107.65
60
107.70
107.75
70
107.80
107.85
80
107.90
107.95
90
108.00
108.05
100
108.10
108.15
110
108.20
108.25
120
108.30
108.35
130
108.40
108.45
140
108.50
108.55
150

NB graded dark volcaniclastic sand

very little carbonate ≪ 1%

overall normal grading

20 massive lava
10 vesicular lava
70 crystals

< 0.5% carbonate

partly altered pumice

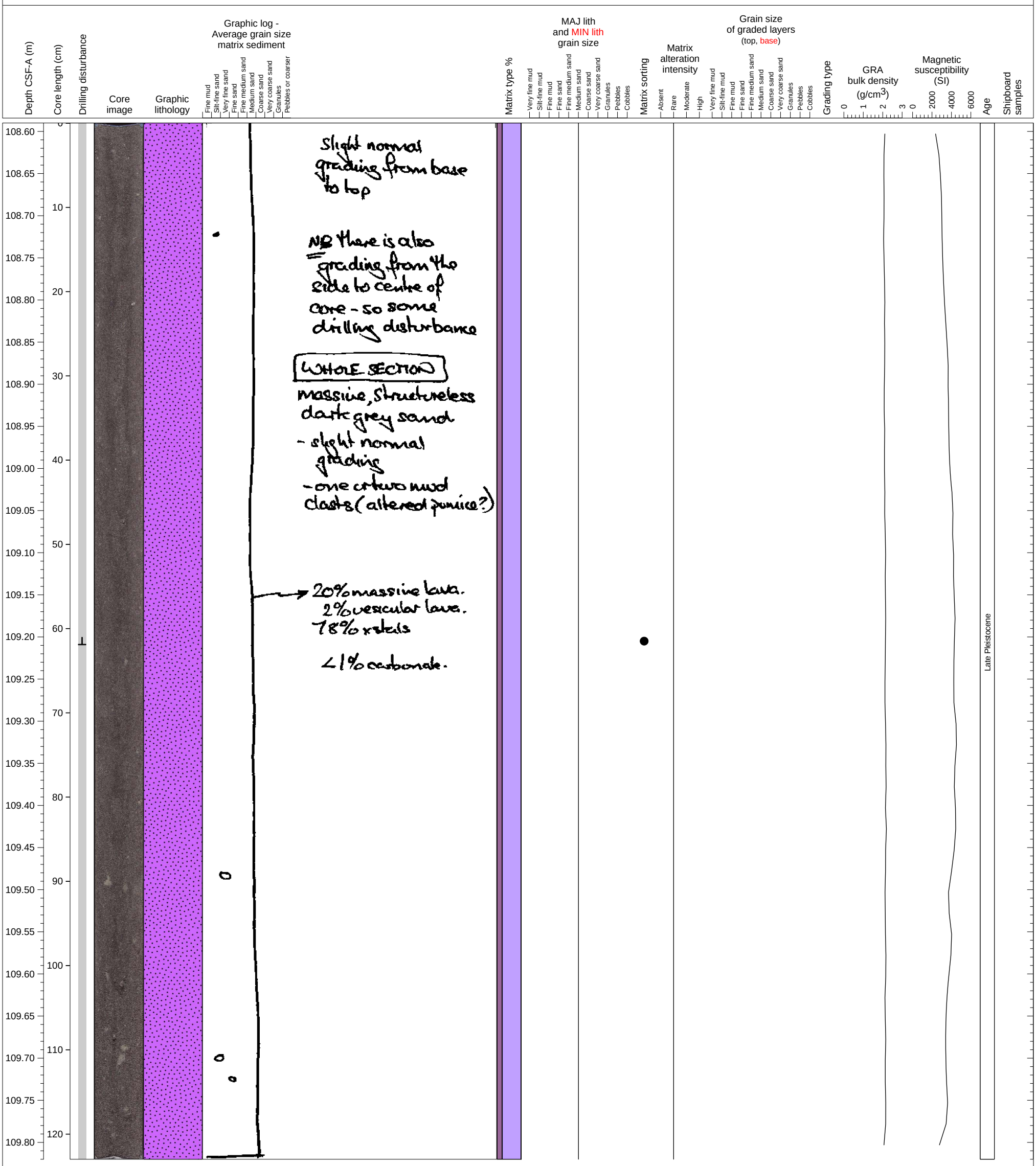
Late Pleistocene

XRD
CRB

MADC

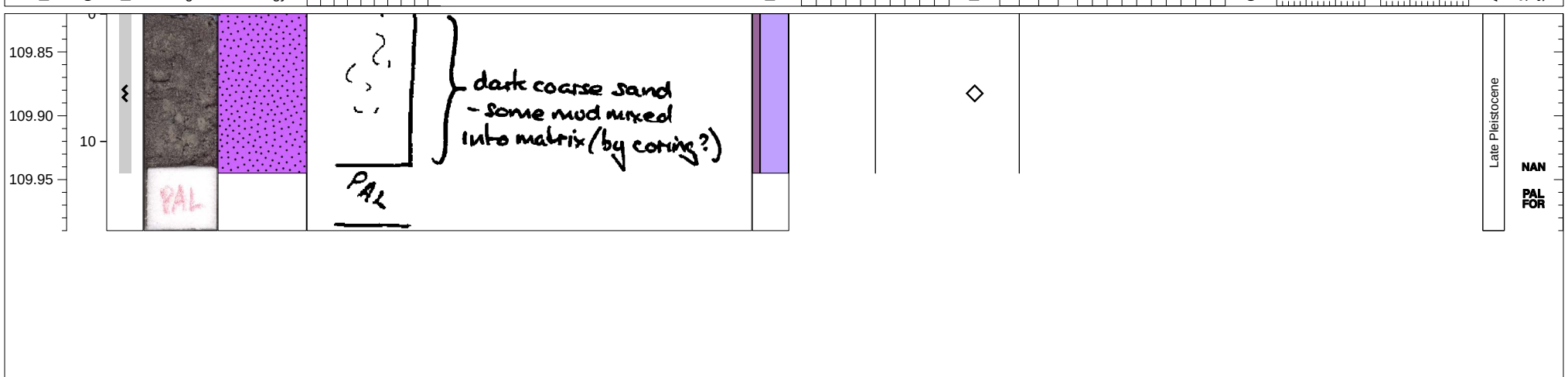
Hole 340-U1397A-17H Section 3, Top of Section: 108.59 CSF-A (m)

Massive volcaniclastic sand.



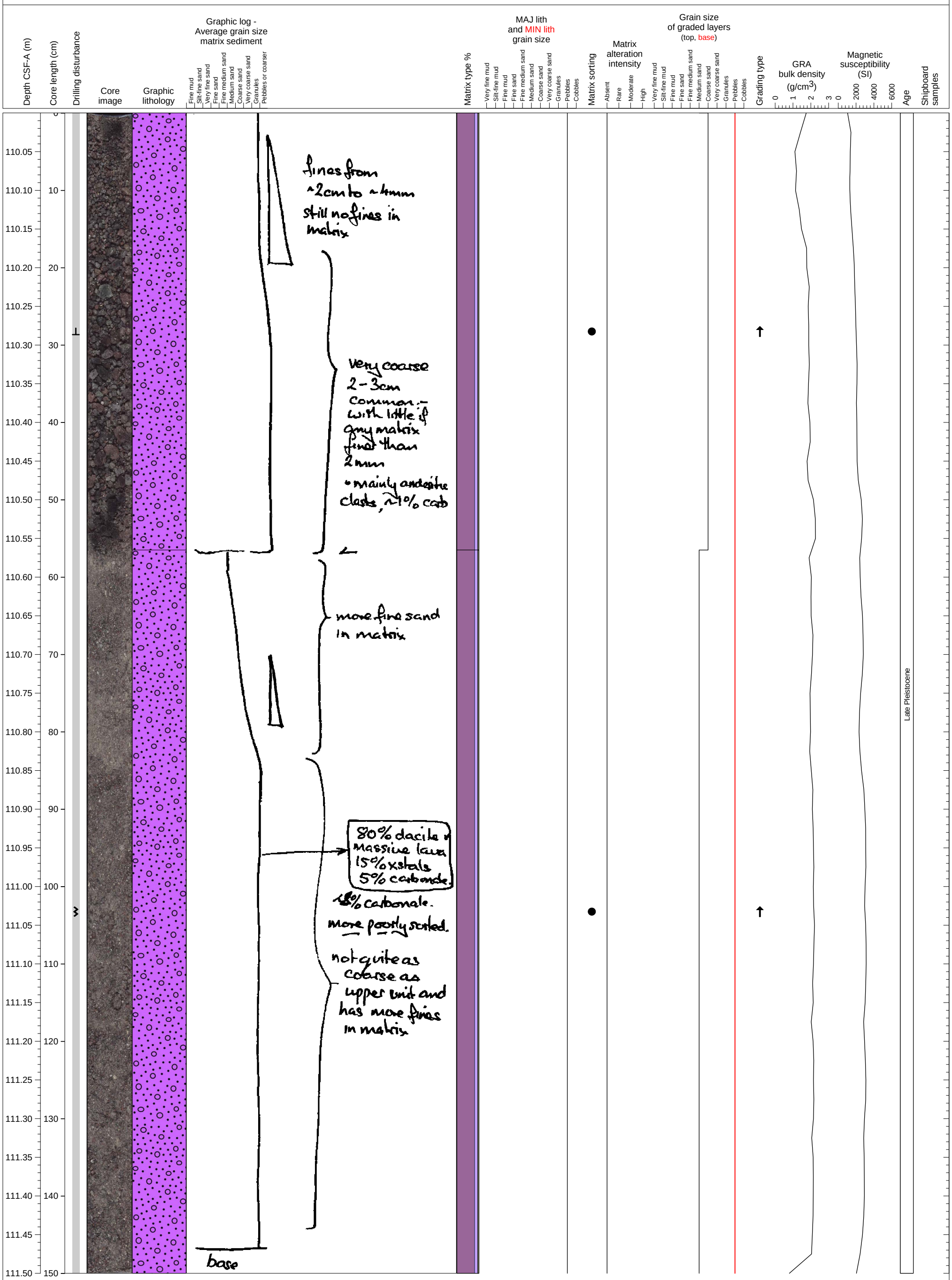
Hole 340-U1397A-17H Section CC, Top of Section: 109.82 CSF-A (m)

Volcaniclastic sand with pumice and mud clasts.



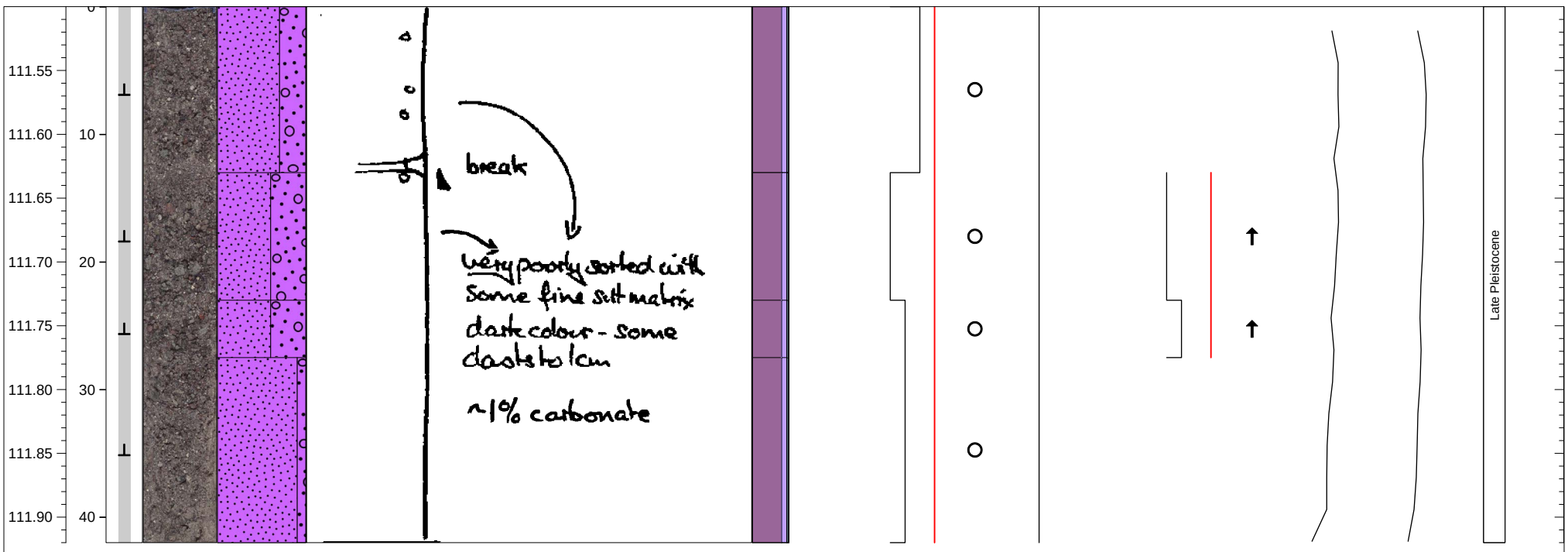
Hole 340-U1397A-18H Section 1, Top of Section: 110.0 CSF-A (m)

Three volcaniclastic normally graded gravels.



Hole 340-U1397A-18H Section 2, Top of Section: 111.5 CSF-A (m)

Weakly normally graded volcaniclastic sand to gravel layers.



Hole 340-U1397A-18H Section 3, Top of Section: 111.92 CSF-A (m)

Volcaniclastic sand with 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/cm3)
0
1
2
3
Magnetic susceptibility (SI)
0
2000
4000
6000
Age
Shipboard samples

111.95
112.00
112.05
112.10
112.15
112.20
112.25
112.30
112.35
112.40
112.45
112.50
112.55
112.60
112.65
112.70
112.75
112.80
112.85
112.90
112.95
113.00
113.05
113.10
113.15
113.20
113.25
113.30
113.35
113.40
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150

fine sand

strongly graded

very well sorted with little fine matrix (i.e no fine sand) ~1% carbonate.

fine sand

WHOLE CORE

very coarse units at base, mainly andesite clasts? very little carbonate

fines strongly

very well sorted with little fine matrix and good normal grading

muddier matrix clasts to 8mm

Late Pleistocene

Hole 340-U1397A-18H Section 4, Top of Section: 113.42 CSF-A (m)

Normally graded volcaniclastic deposits grading from pebble to medium sand-sized grains.

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

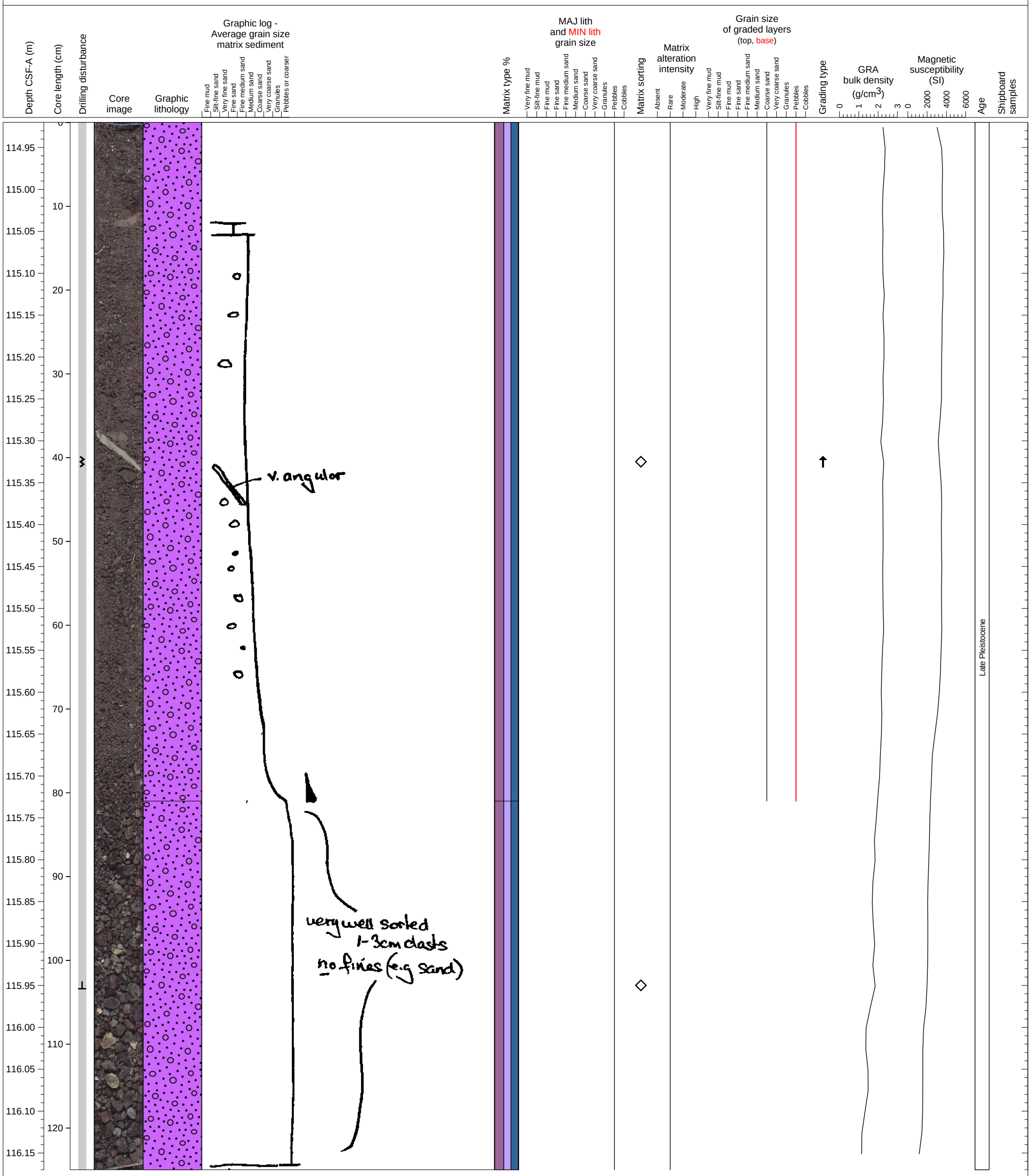
WHOLE SECTION
upper part is massive vertically graded dark sand - with an angular clast.
2cm, very angular lithified clast - probably of grey-green hemipelagite
coarse dark grey sand.
angular light green clast.
distinct subunit
Coarse dark grey sand.

113.45 113.50 113.55 113.60 113.65 113.70 113.75 113.80 113.85 113.90 113.95 114.00 114.05 114.10 114.15 114.20 114.25 114.30 114.35 114.40 114.45 114.50 114.55 114.60 114.65 114.70 114.75 114.80 114.85 114.90
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

XRD
CRB
MADC
Late Pleistocene

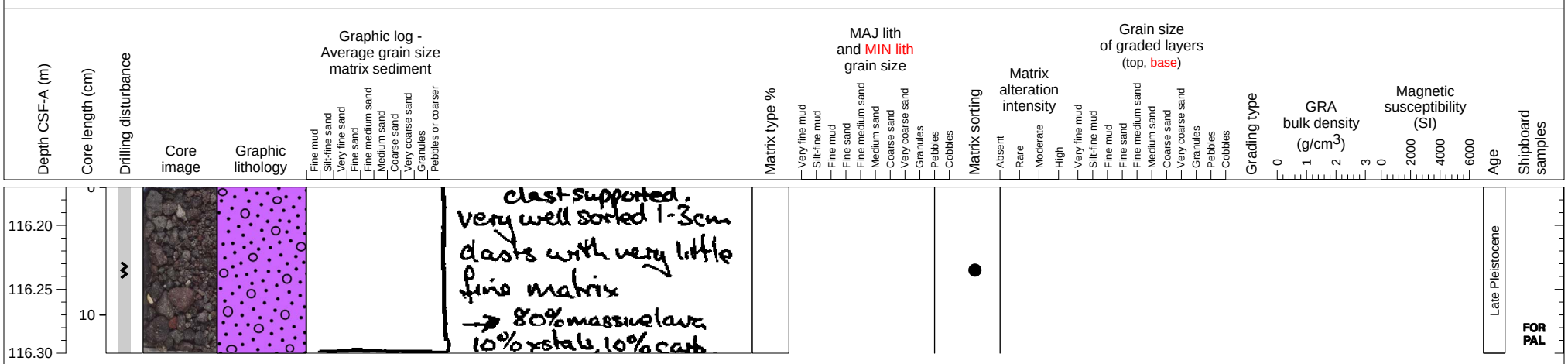
Hole 340-U1397A-18H Section 5, Top of Section: 114.92 CSF-A (m)

Normally graded volcaniclastic gravel unit on top of a massive volcaniclastic gravel.



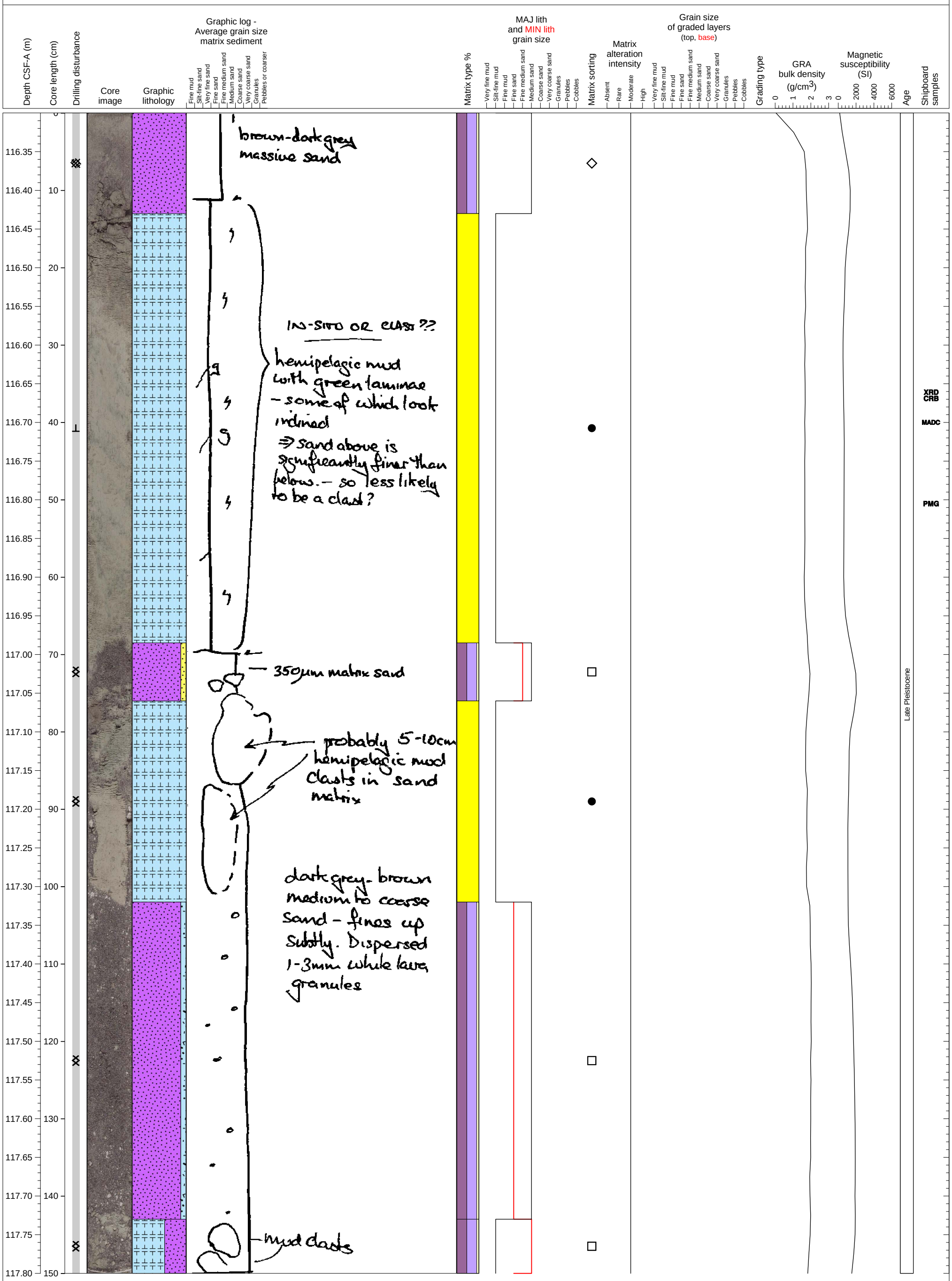
Hole 340-U1397A-18H Section CC, Top of Section: 116.17 CSF-A (m)

Volcaniclastic gravel composed predominantly of clasts.



Hole 340-U1397A-19H Section 1, Top of Section: 116.3 CSF-A (m)

The upper part is hemipelagic sediment and the lower part is the top of turbidite containing mud clasts and pumice clasts.



Hole 340-U1397A-19H Section 2, Top of Section: 117.8 CSF-A (m)

Volcaniclastic turbidite containing pebble sized 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

117.85
117.90
117.95
118.00
118.05
118.10
118.15
118.20
118.25
118.30
118.35
118.40
118.45
118.50
118.55
118.60
118.65
118.70
118.75
118.80
118.85
118.90
118.95
119.00
119.05
119.10
119.15
119.20
119.25
119.30

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

HS

Late Pleistocene

Zone with common pumice and mud clasts 1cm-3cm.

zone of mud clasts and less altered pumices clasts to 2cm.

WHOLE SECTION
- dark coarse sand with brown hue from brown/altered grains
- weakly graded from top to bottom
- chaotically dispersed 2-5mm white lava fragments throughout.

Hole 340-U1397A-19H Section 3, Top of Section: 119.3 CSF-A (m)

Volcaniclastic sand with 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

119.35
119.40
119.45
119.50
119.55
119.60
119.65
119.70
119.75
119.80
119.85
119.90
119.95
120.00
120.05
120.10
120.15
120.20
120.25
120.30
120.35
120.40
120.45
120.50
120.55
120.60
120.65
120.70
120.75
120.80

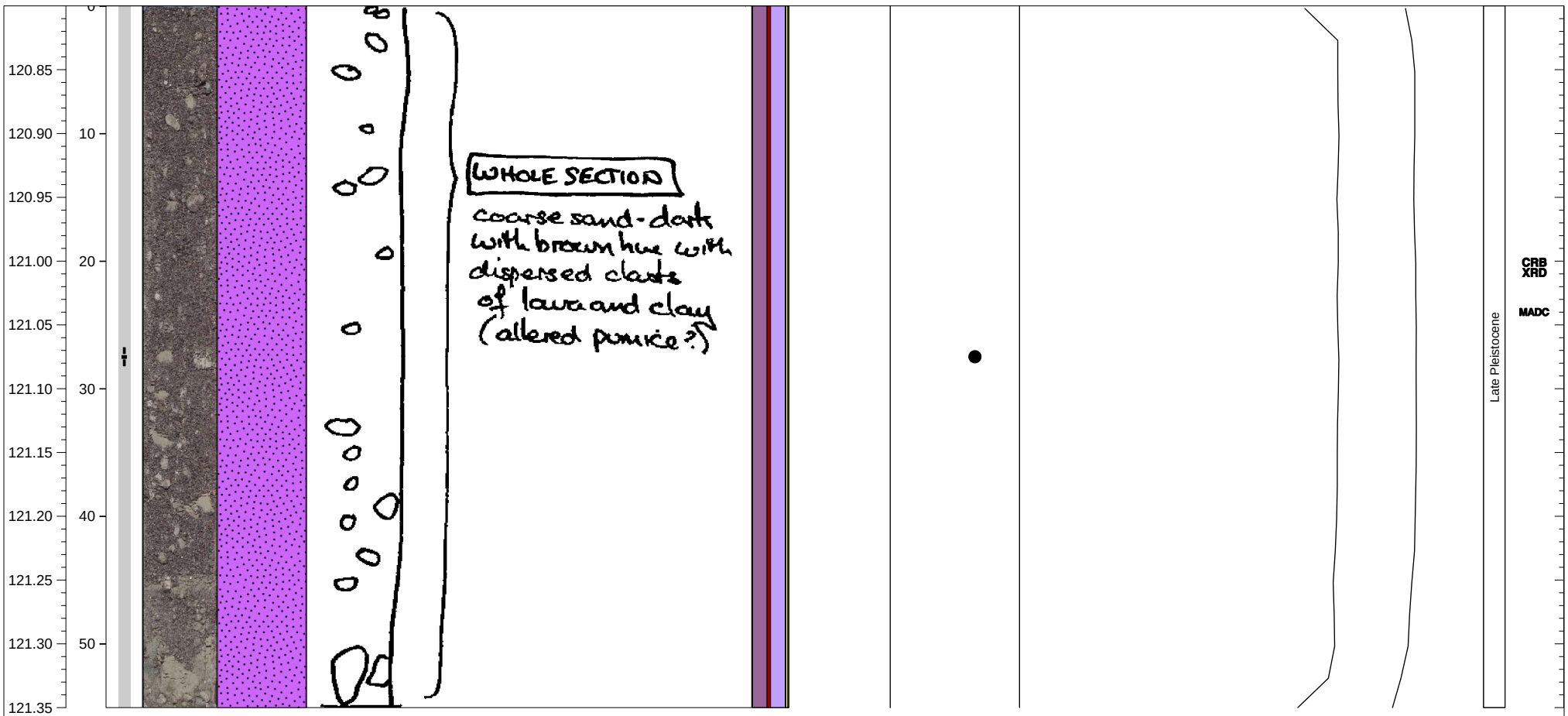
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150

LITHOLOGIC SECTION.
Coarse sand - dark with brown hue with dispersed clay and pumice clasts.

Late Pleistocene

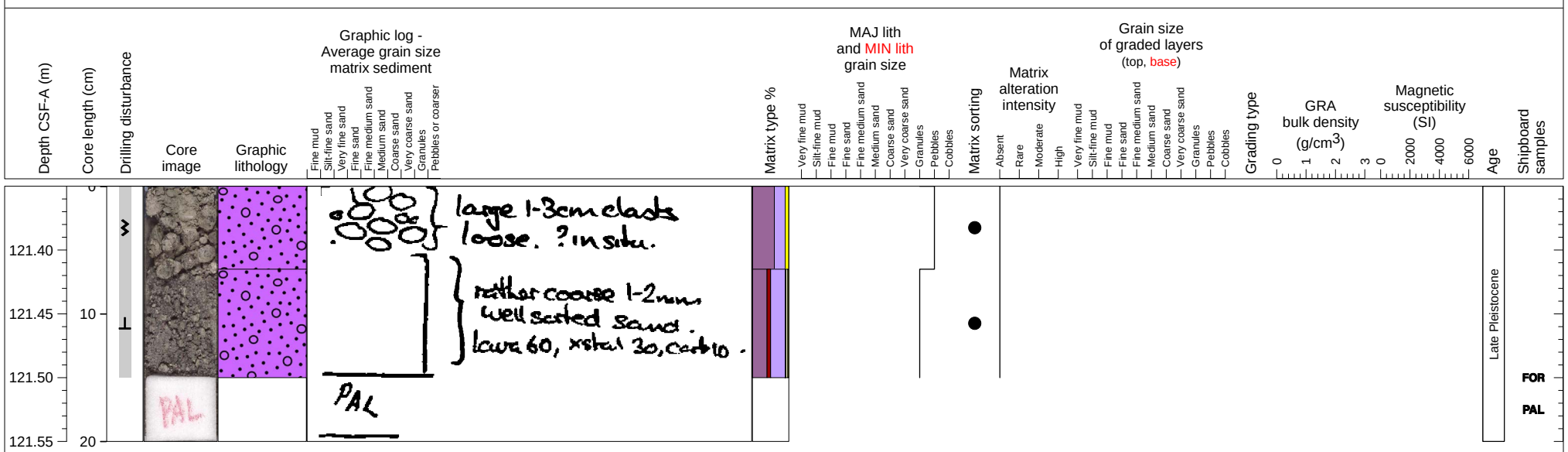
Hole 340-U1397A-19H Section 4, Top of Section: 120.8 CSF-A (m)

Volcaniclastic sand with poorly sorted pumice and mud clasts.



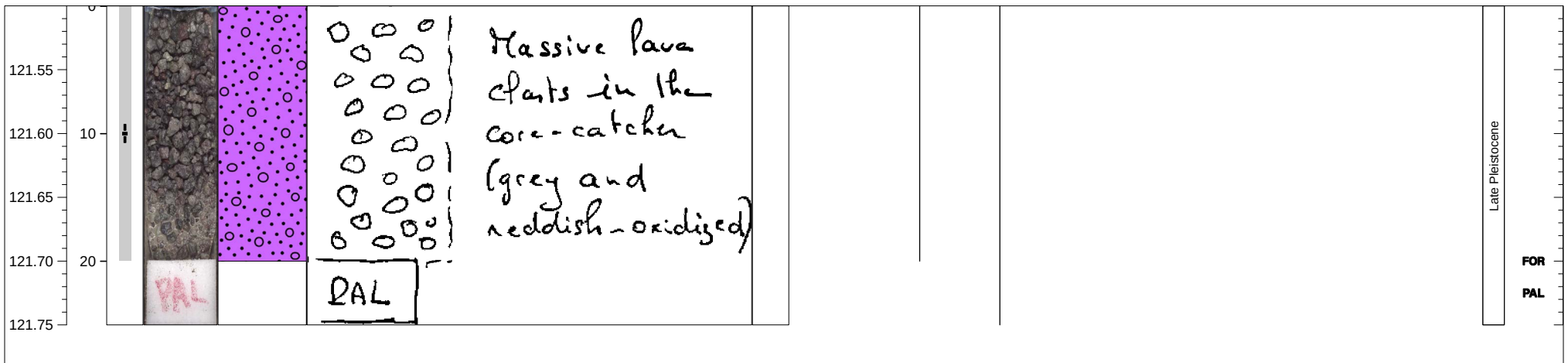
Hole 340-U1397A-19H Section CC, Top of Section: 121.35 CSF-A (m)

Volcaniclstic gravel overlain by a bed of pumice pebble clasts. PAL sample from base of section.



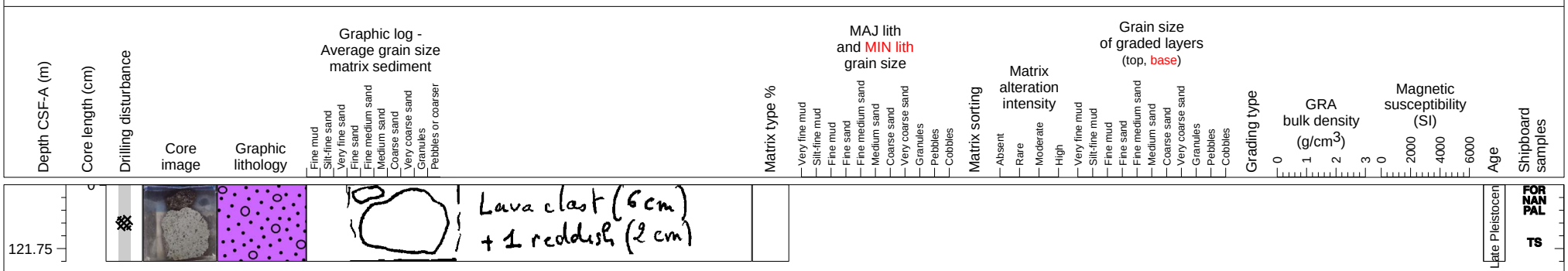
Hole 340-U1397A-20H Section CC, Top of Section: 121.5 CSF-A (m)

Loose clasts of andesite, mostly dense lava, some vesiculated ad a few pumice.



Hole 340-U1397A-21X Section CC, Top of Section: 121.7 CSF-A (m)

Two rounded volcanic gravels. Massive hornblende andesite clast and vesiculated black volcanic clast.

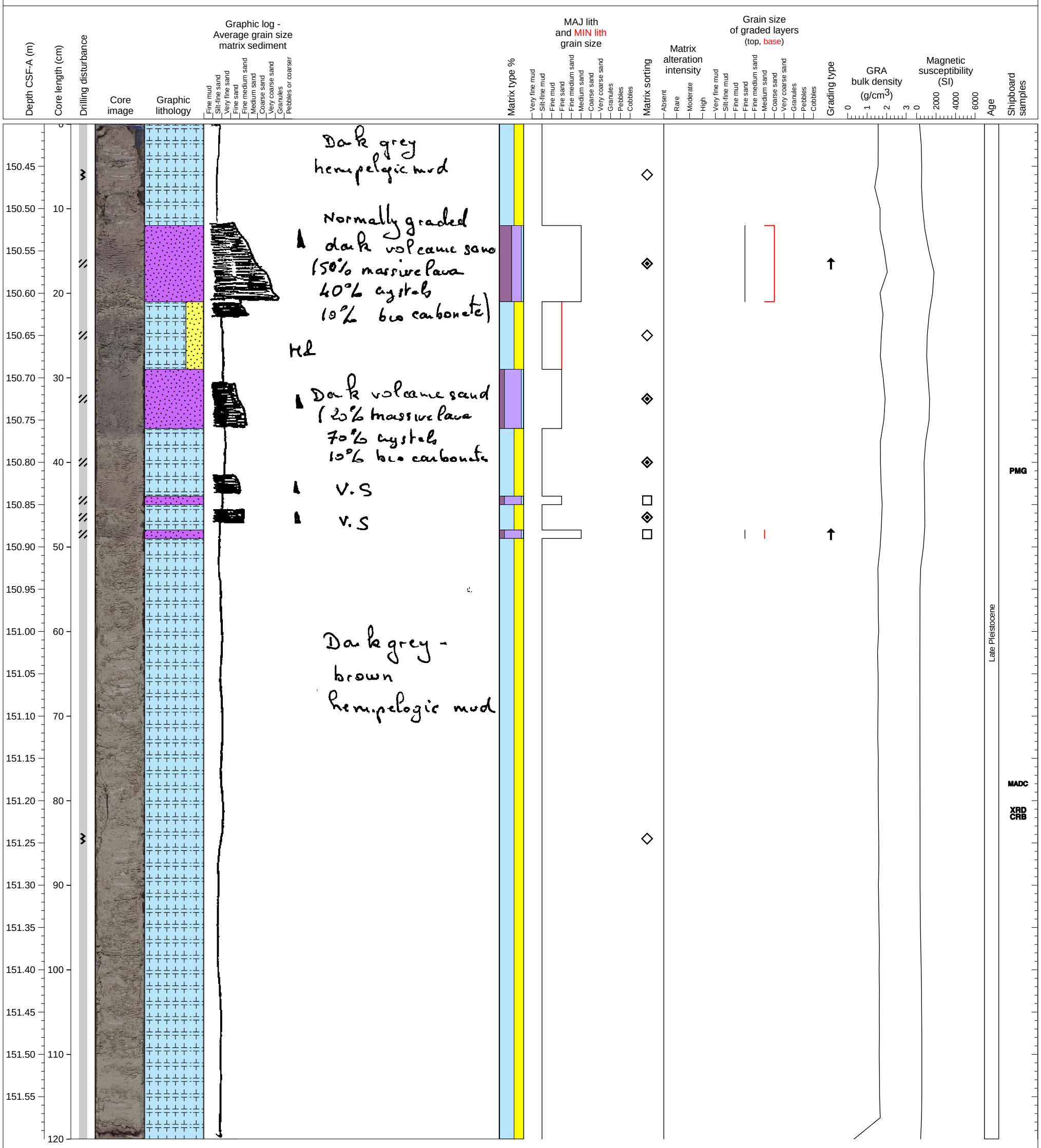


U1397A-22X NO RECOVERY

U1397A-23X NO RECOVERY

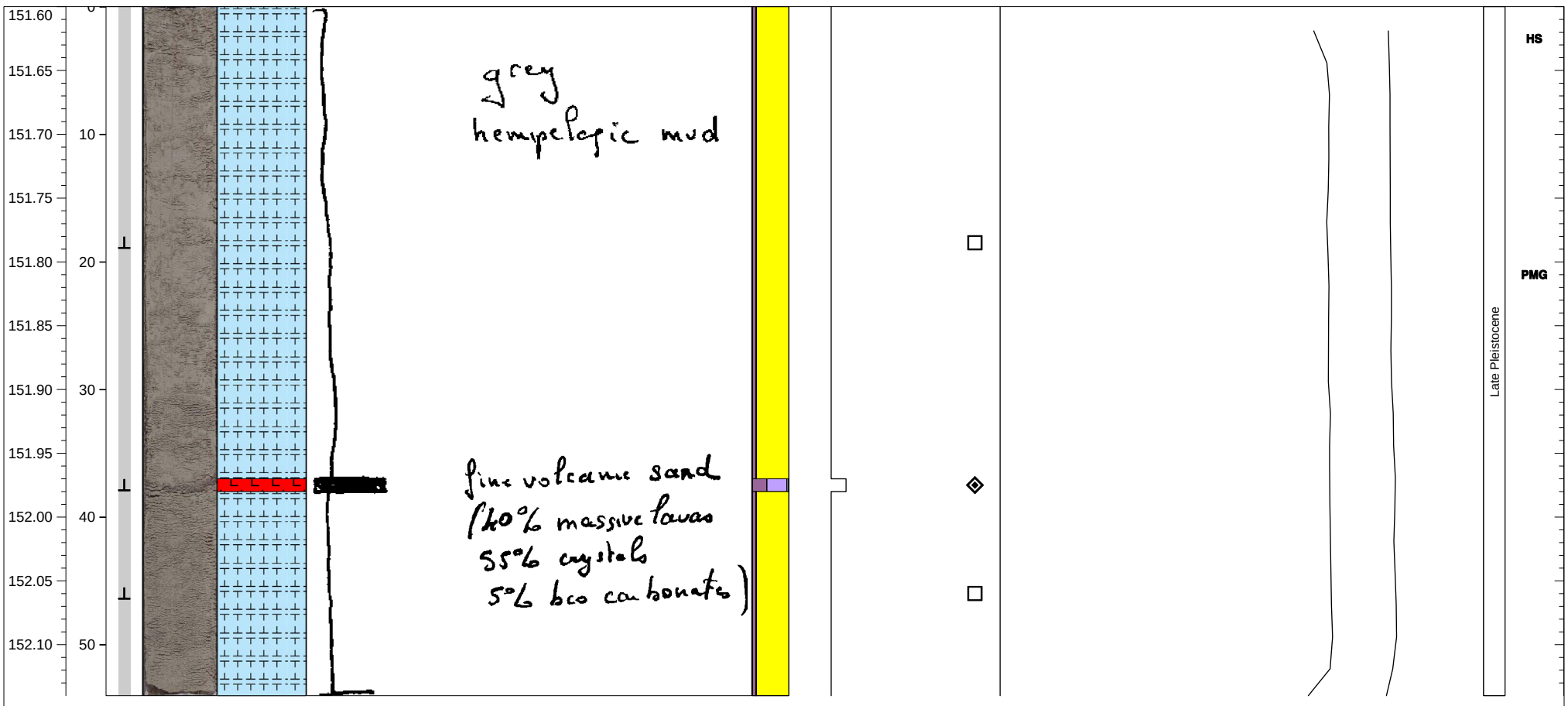
Hole 340-U1397A-24X Section 1, Top of Section: 150.4 CSF-A (m)

Hemipelagic sediments with intercalated volcanic sand layers



Hole 340-U1397A-24X Section 2, Top of Section: 151.6 CSF-A (m)

SIlty hemipelagic sediment with a thin ash layer.



Hole 340-U1397A-24X Section CC, Top of Section: 152.14 CSF-A (m)

Silty grey hemipelagic sediments

Hole 340-U1397A-25X Section 1, Top of Section: 160.0 CSF-A (m)

Moderately lithified hemipelagic sediment

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

160.00
160.05
160.10
160.15
160.20
160.25
160.30
160.35
160.40
160.45
160.50
160.55
160.60
160.65
160.70
160.75
160.80
160.85
160.90
160.95
161.00
161.05
161.10
161.15
161.20
161.25
161.30
161.35
161.40
161.45

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

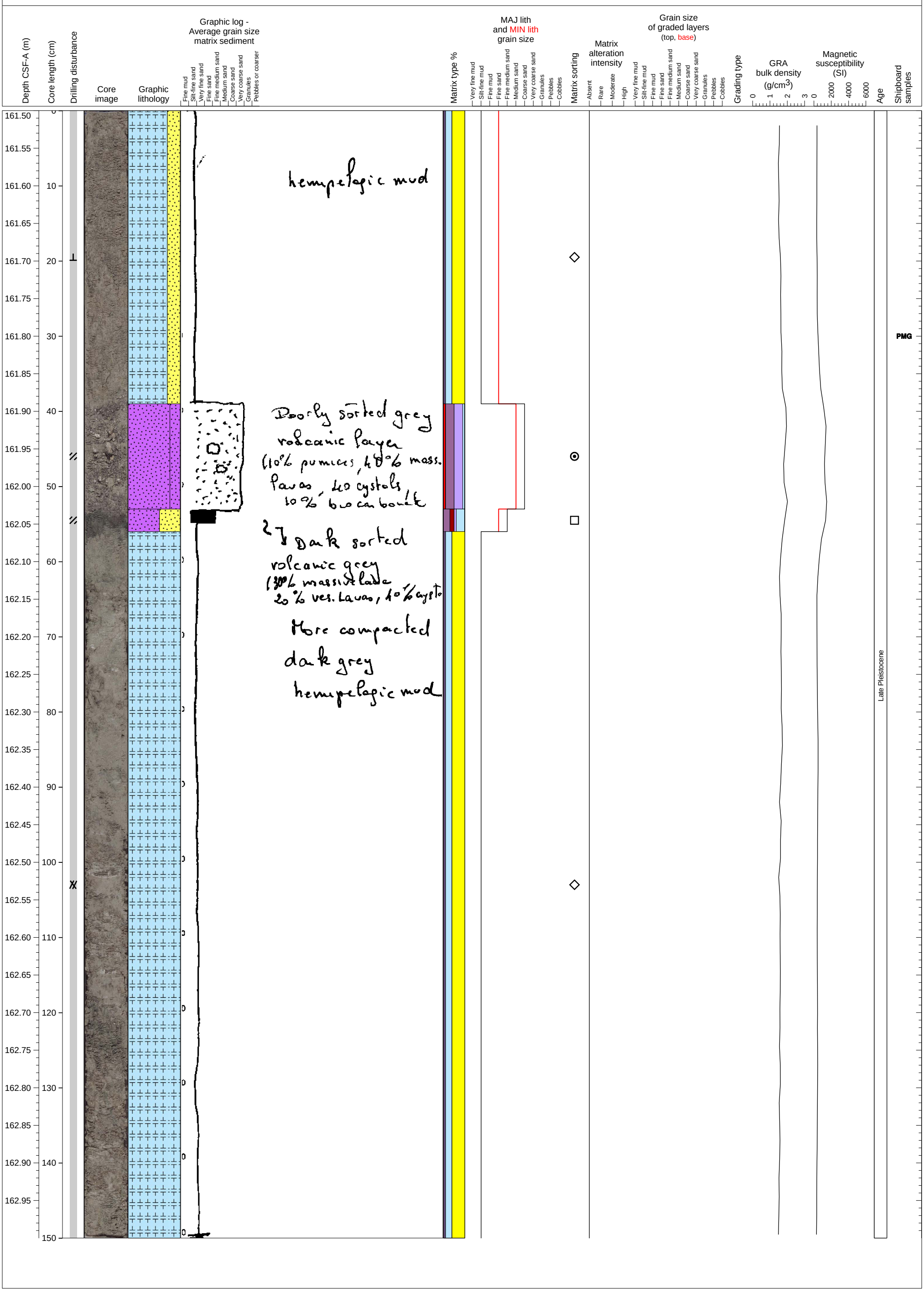
Light grey hemipelagic mud

Dark grey hemipelagic mud (beginning of the compaction)

Late Pleistocene

Hole 340-U1397A-25X Section 2, Top of Section: 161.5 CSF-A (m)

Hemipelagic sediments with intercalated volcanic layers



Hole 340-U1397A-25X Section 3, Top of Section: 163.0 CSF-A (m)

Moderately lithified hemipelagic sediment

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

163.00 – 0
163.05
163.10 – 10
163.15
163.20 – 20
163.25
163.30 – 30
163.35
163.40 – 40
163.45
163.50 – 50
163.55
163.60 – 60
163.65
163.70 – 70
163.75
163.80 – 80
163.85
163.90 – 90
163.95
164.00 – 100
164.05
164.10 – 110
164.15
164.20 – 120
164.25
164.30 – 130
164.35
164.40 – 140
164.45
150

Dark grey hemipelagic mud moderately compacted

(all the section is)

HS

Late Pleistocene

CRB
XRD

MADC

Hole 340-U1397A-25X Section 4, Top of Section: 164.5 CSF-A (m)

Poorly indurated mudstone.

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

Mudstone with numerous bioturbations (all the section)

Late Pleistocene

MADC
XRD
CRB

Hole 340-U1397A-25X Section 5, Top of Section: 166.0 CSF-A (m)

Poorly indurated mudstone with a slightly lithified volcaniclastic sand (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

166.00 – 0
166.05
166.10 – 10
166.15
166.20 – 20
166.25
166.30 – 30
166.35
166.40 – 40
166.45
166.50 – 50
166.55
166.60 – 60
166.65
166.70 – 70
166.75
166.80 – 80
166.85
166.90 – 90
166.95
167.00 – 100
167.05
167.10 – 110
167.15
167.20 – 120
167.25
167.30 – 130

Mudstones (all the section) with abundant bioturbations.

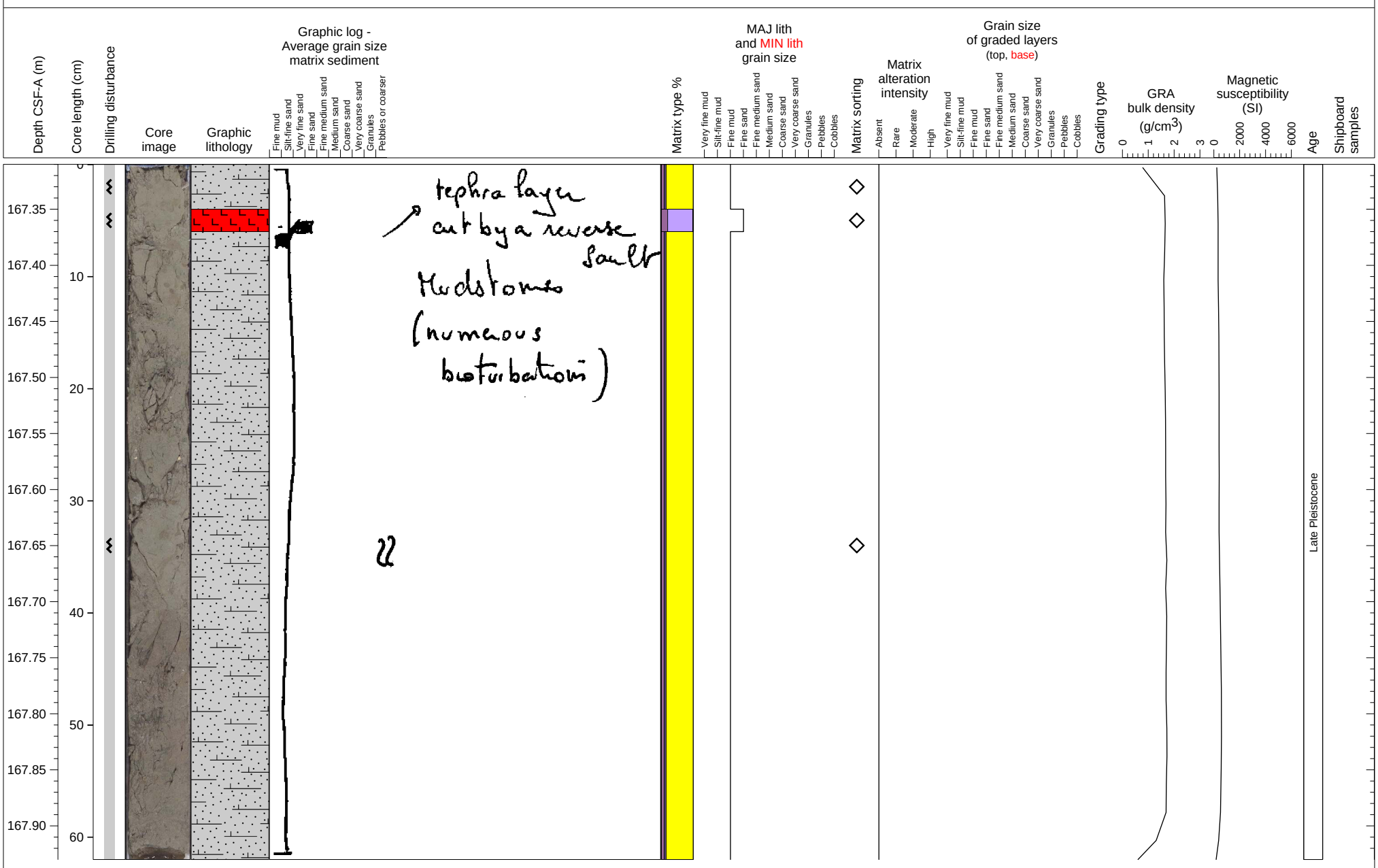
Dark volcanic sand (35% pumice, 30% lava, 30% crystals, 5% bio carbonates)

PMG

Late Pleistocene

Hole 340-U1397A-25X Section 6, Top of Section: 167.31 CSF-A (m)

Poorly indurated mudstone.



Hole 340-U1397A-25X Section CC, Top of Section: 167.93 CSF-A (m)

Poorly indurated mudstone.

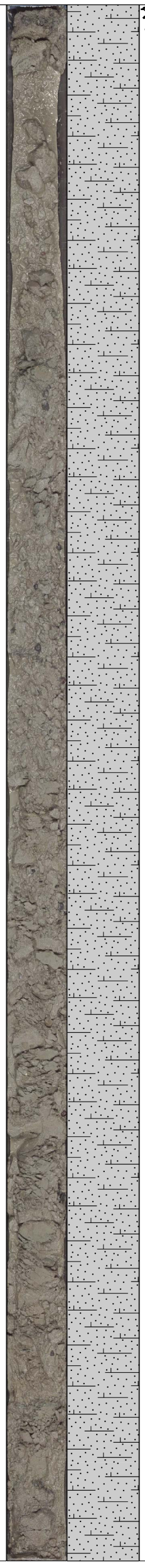
Hole 340-U1397A-26X Section 1, Top of Section: 169.6 CSF-A (m)

Hemipelagic mudstone

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

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
170.25
170.30
170.35
170.40
170.45
170.50
170.55
170.60
170.65
170.70
170.75
170.80
170.85
170.90
170.95
171.00
171.05

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



layer with 15% of volcanic sand

grey hemipelagic mud compacted with abundant dark lava granules

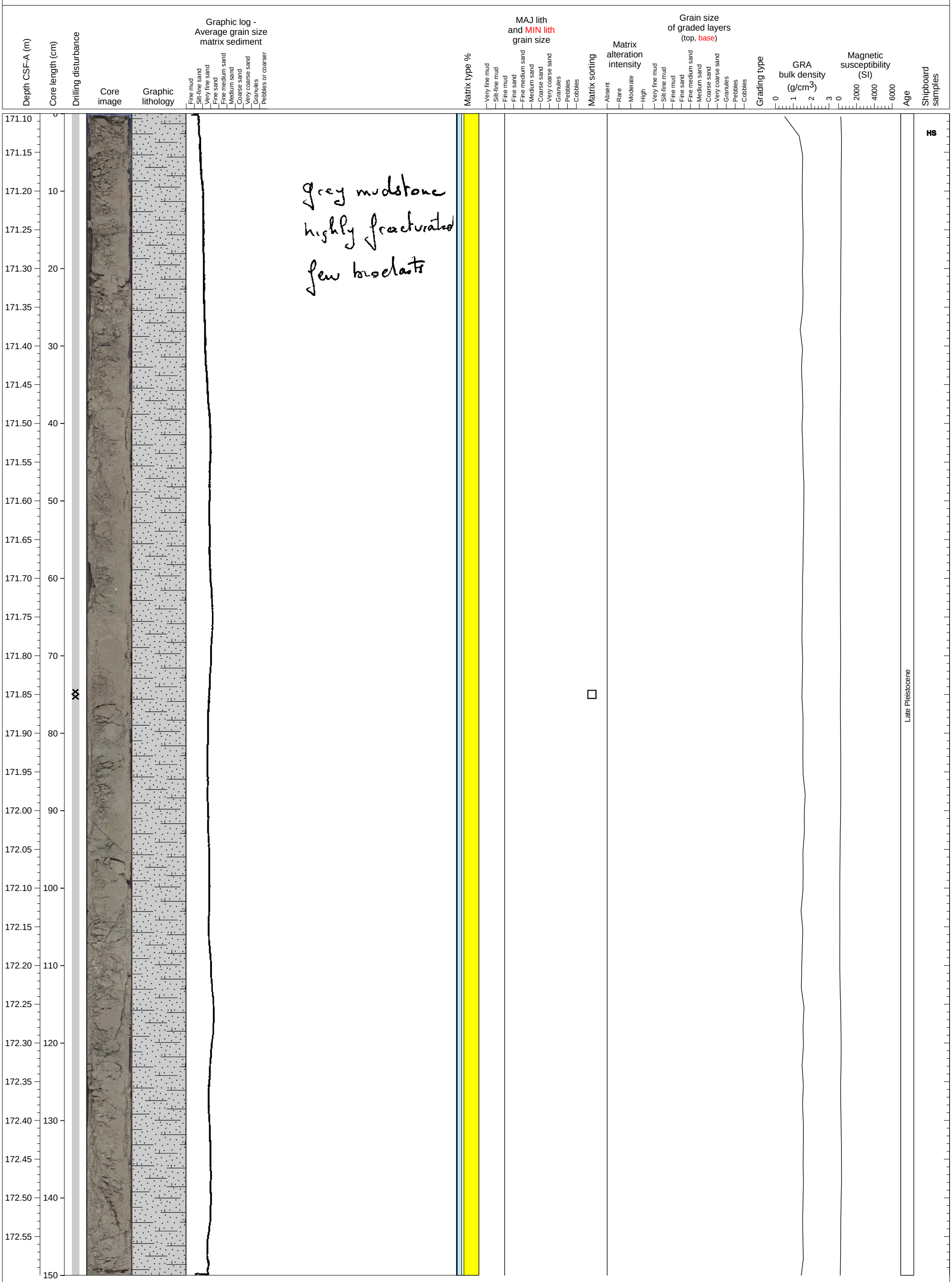
few bioclasts

highly fracturated

Late Pleistocene

Hole 340-U1397A-26X Section 2, Top of Section: 171.1 CSF-A (m)

Hemipelagic mudstone with shell fragments



Hole 340-U1397A-26X Section 3, Top of Section: 172.6 CSF-A (m)

Bedded hemipelagite with bioturbation

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

172.60
172.65
172.70
172.75
172.80
172.85
172.90
172.95
173.00
173.05
173.10
173.15
173.20
173.25
173.30
173.35
173.40
173.45
173.50
173.55
173.60

0
10
20
30
40
50
60
70
80
90
100

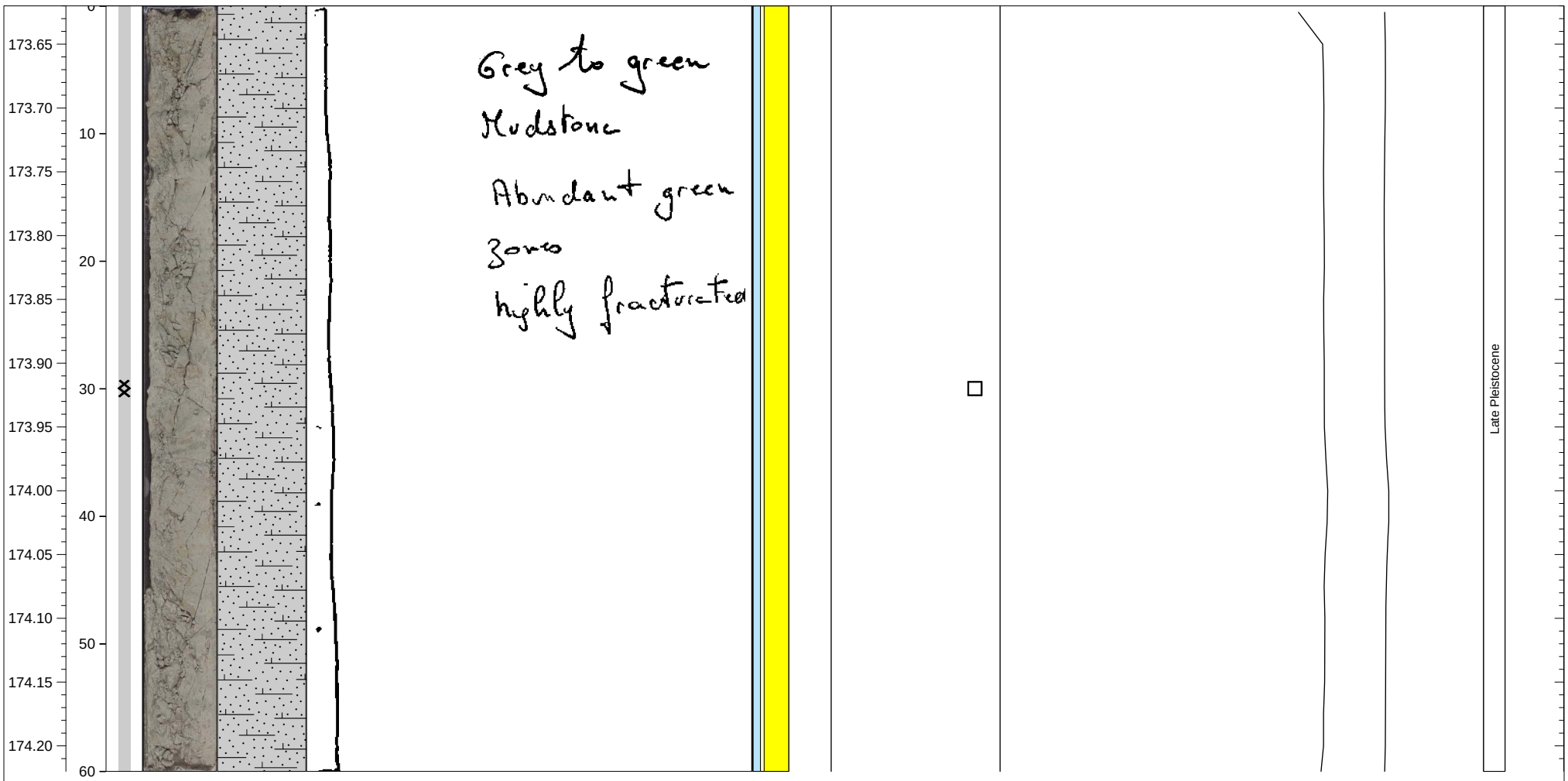
Grey to green mudstones with abundant bioturbations (highly fractured)

Late Pleistocene

CRB XRD
MADC

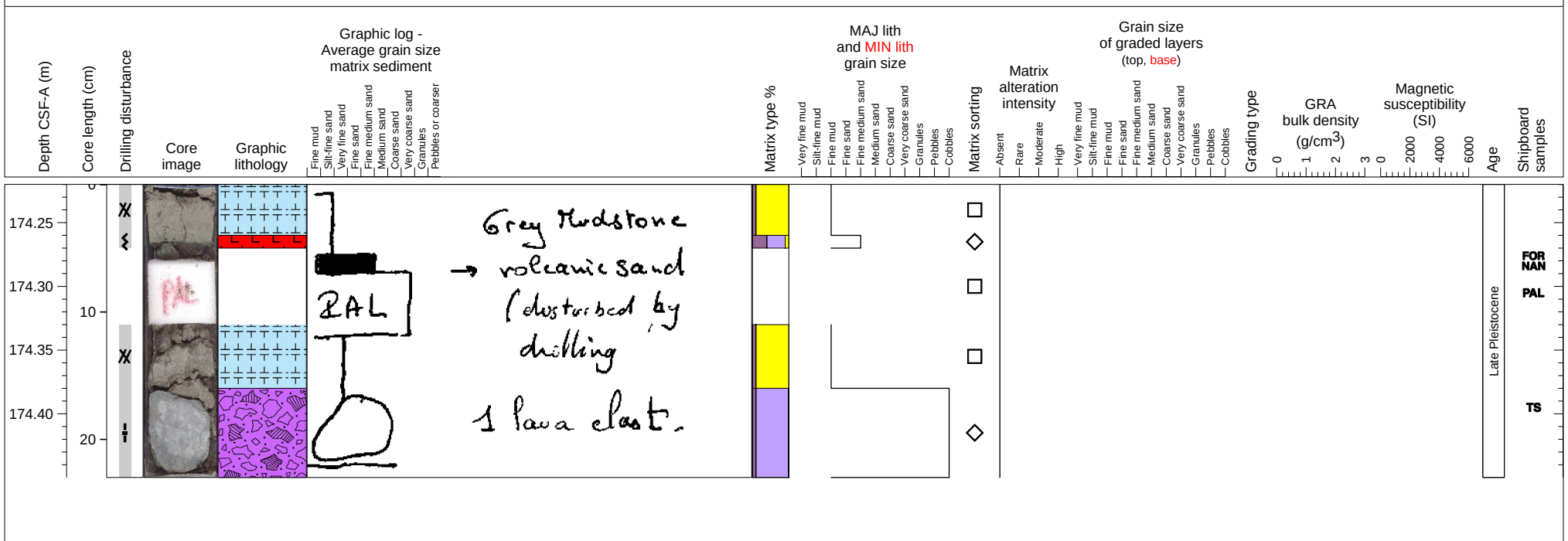
Hole 340-U1397A-26X Section 4, Top of Section: 173.62 CSF-A (m)

Hemipelagic mudstone



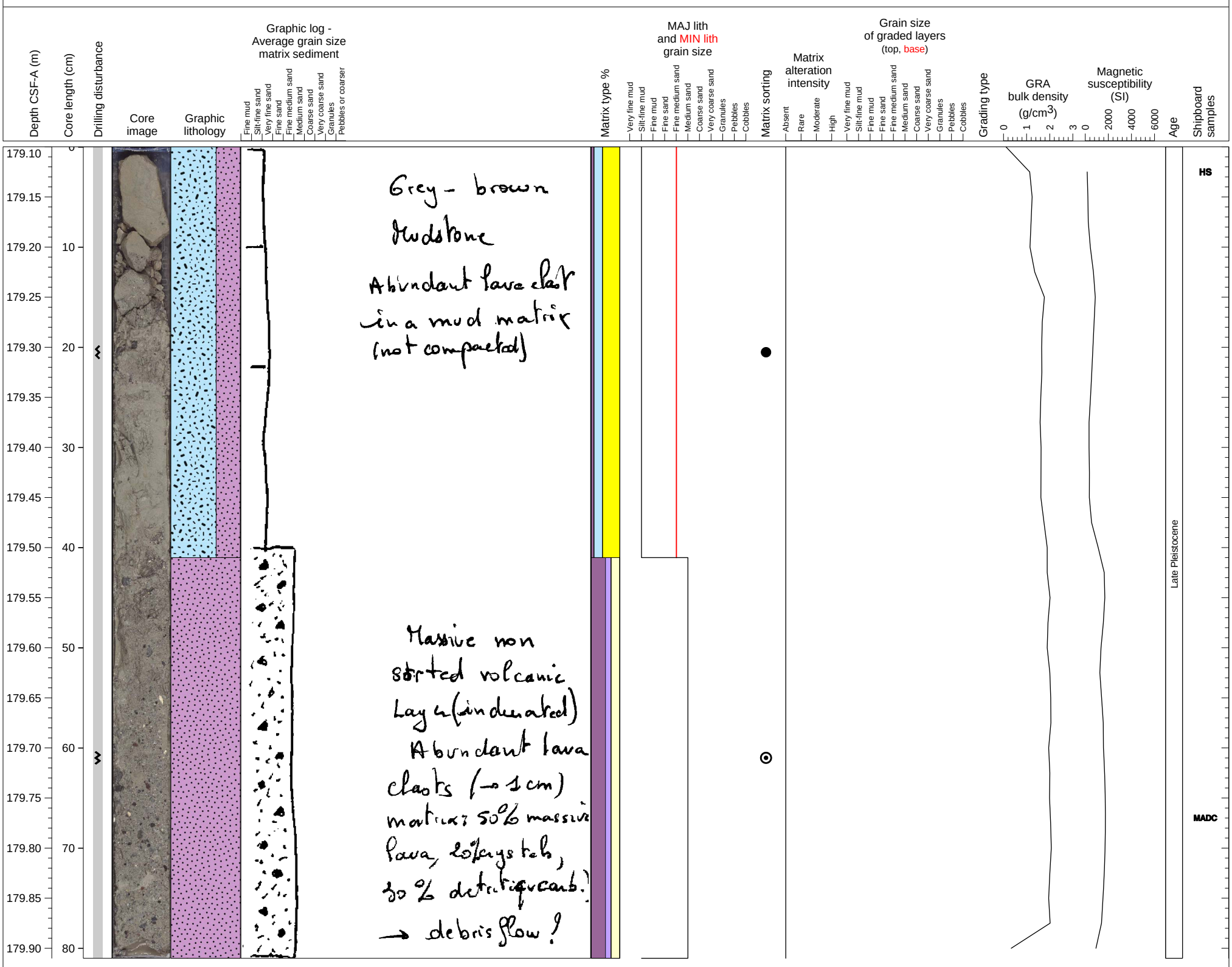
Hole 340-U1397A-26X Section CC, Top of Section: 174.22 CSF-A (m)

Muddy hemipelagic sediment with a thin ash layer and a single large clast of volcaic breccia contiaing umice and dense lava peices.



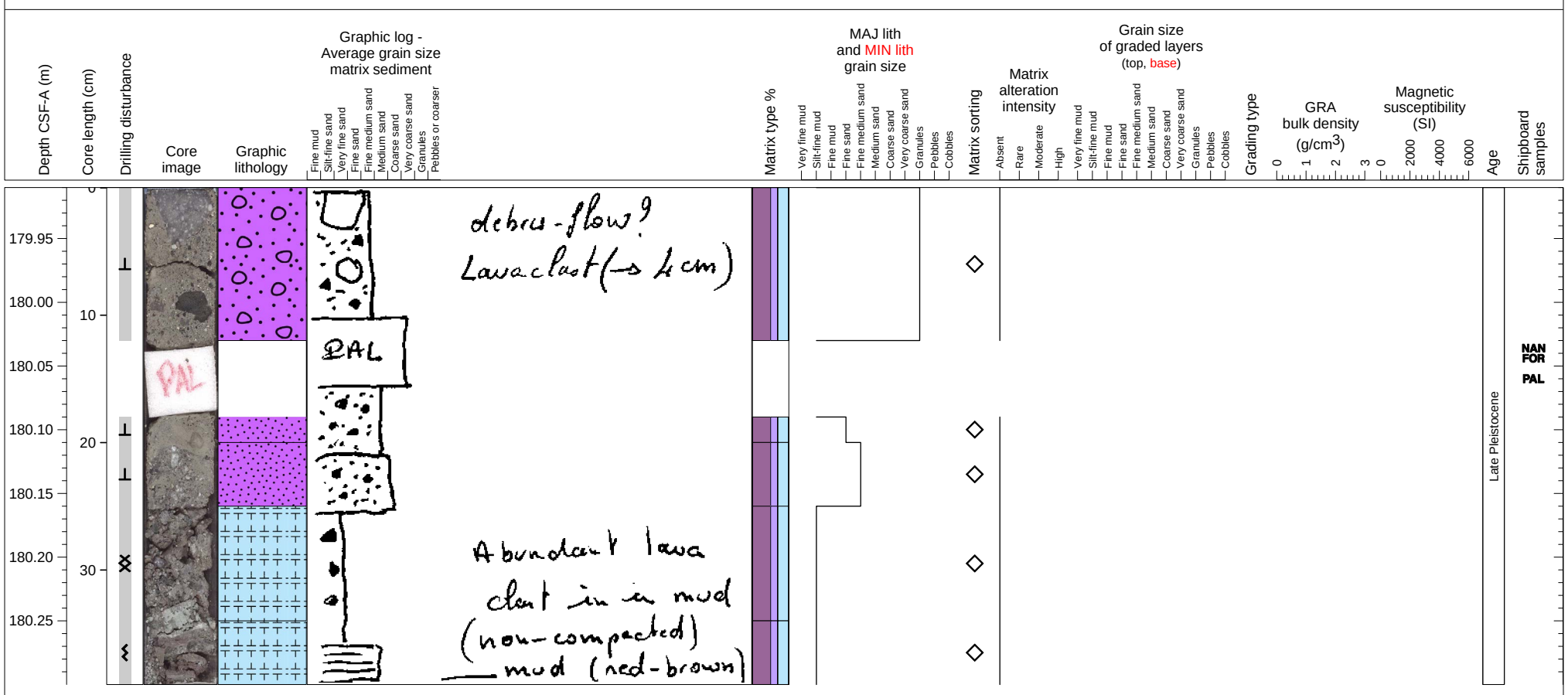
Hole 340-U1397A-27X Section 1, Top of Section: 179.1 CSF-A (m)

Poorly sorted volcaniclastic sandstone with highly deformed mudstone in part



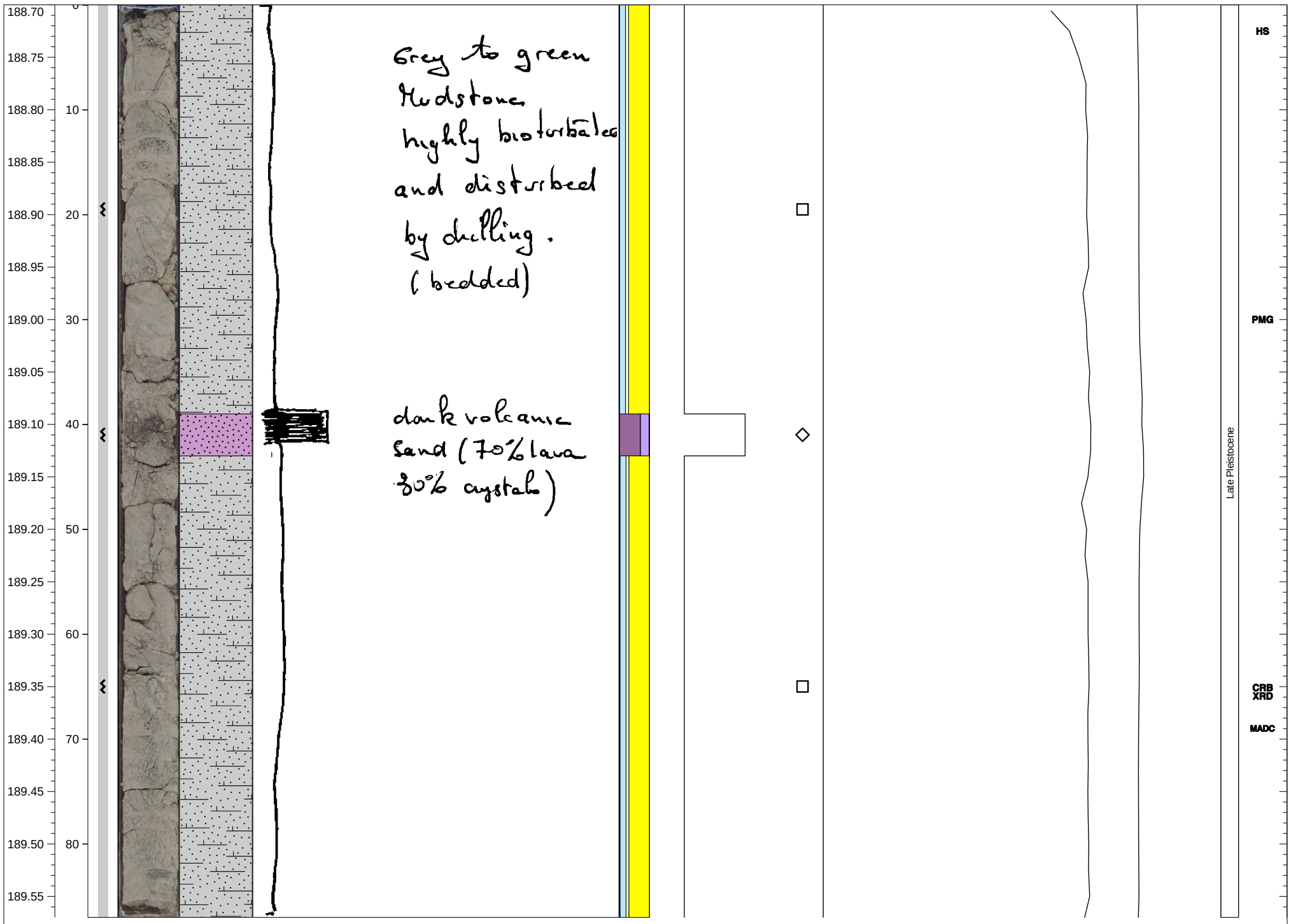
Hole 340-U1397A-27X Section CC, Top of Section: 179.91 CSF-A (m)

Debris flow unit at top overlying muddy unit rich in lava clasts and bedded fine mud.



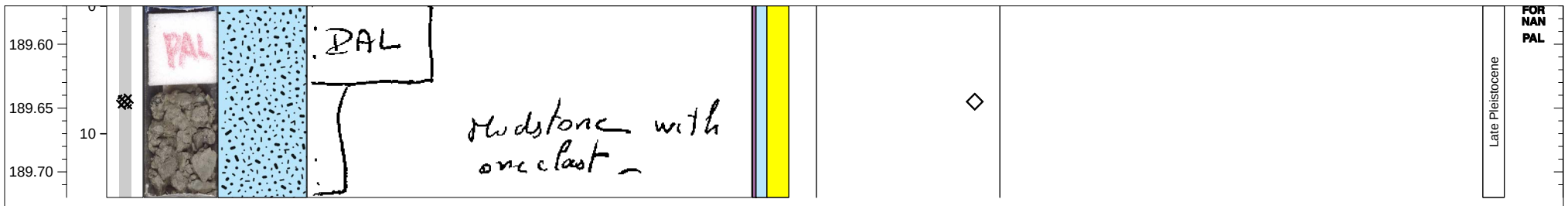
Hole 340-U1397A-28X Section 1, Top of Section: 188.7 CSF-A (m)

Hemipelagite



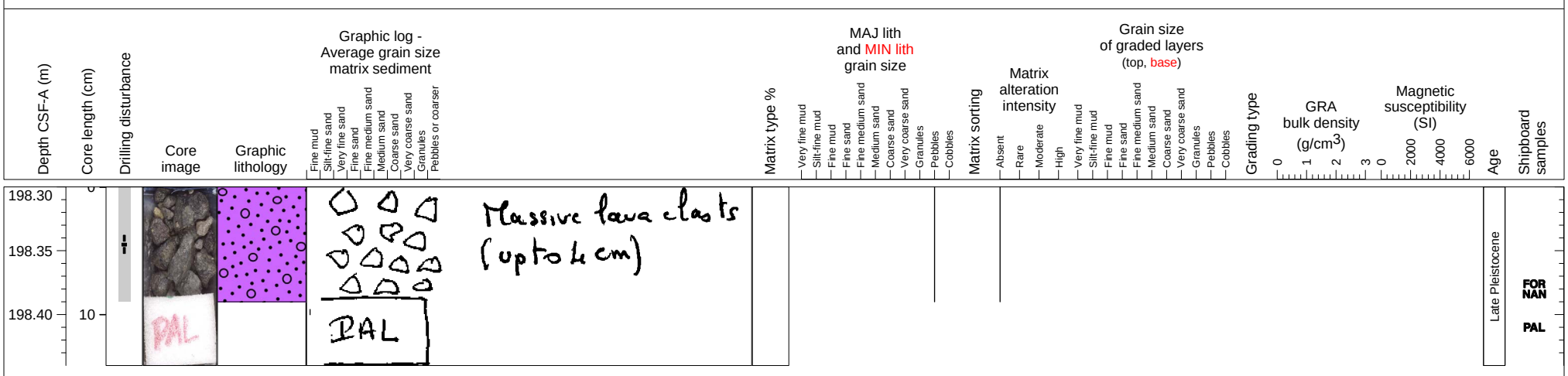
Hole 340-U1397A-28X Section CC, Top of Section: 189.57 CSF-A (m)

Fine grained hemipelagite



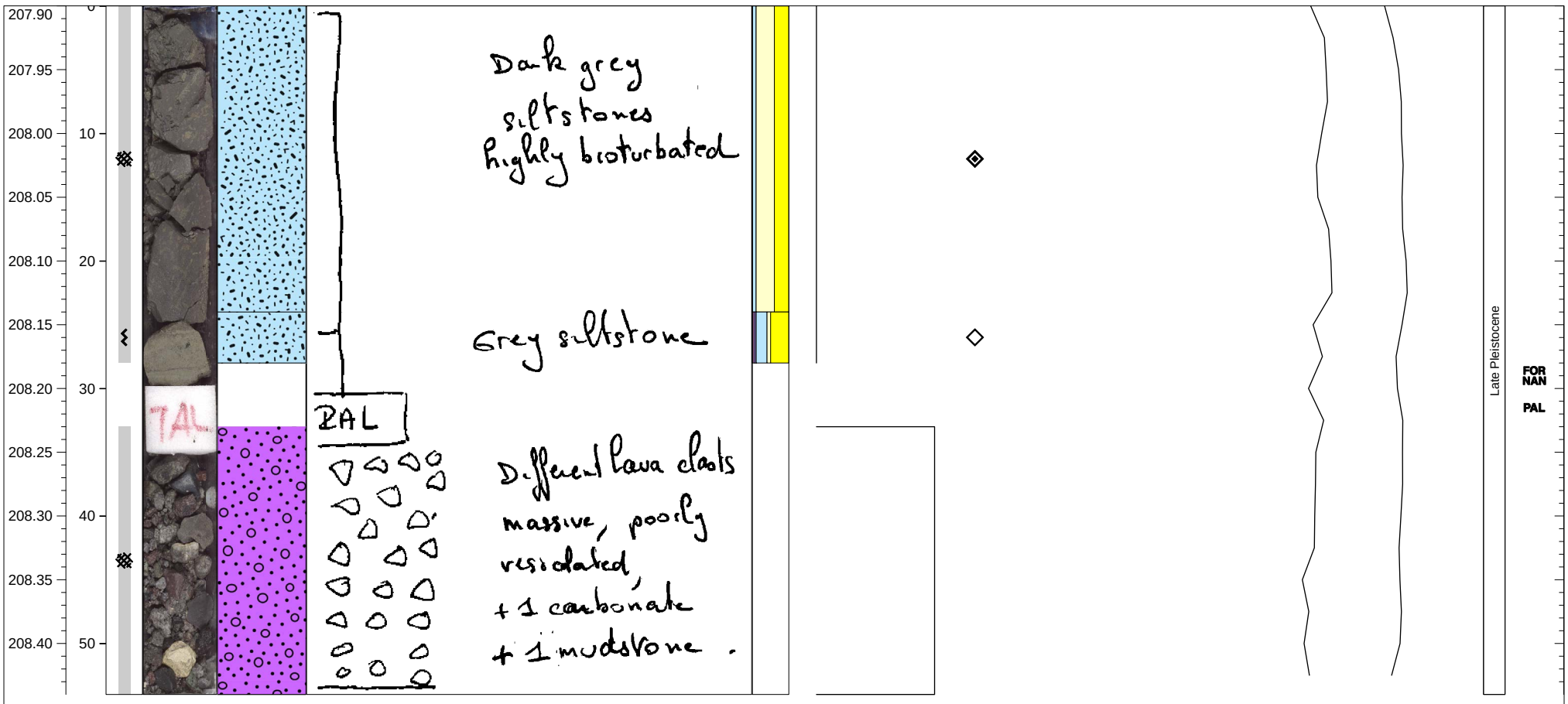
Hole 340-U1397A-29X Section CC, Top of Section: 198.3 CSF-A (m)

Loose andesitic pebbles and some limestone pieces



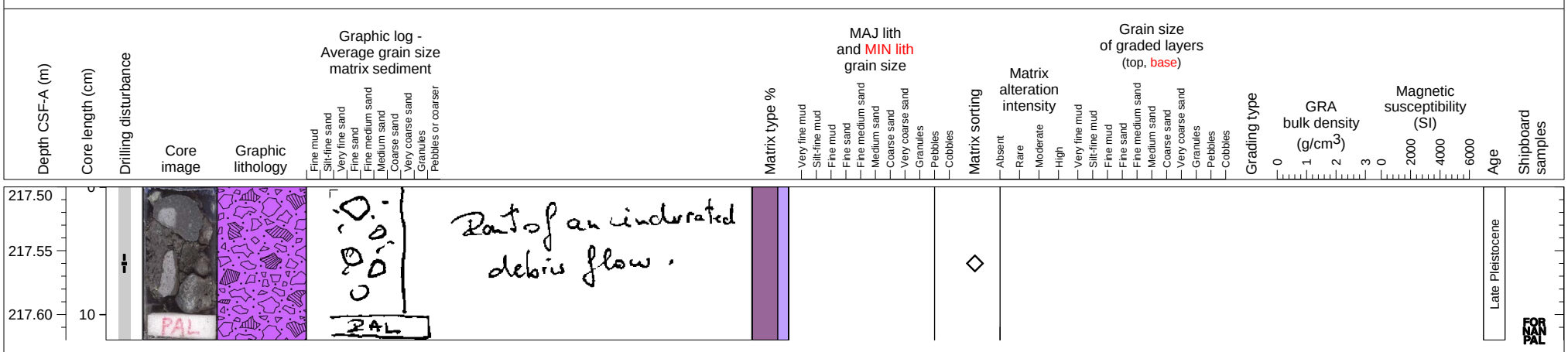
Hole 340-U1397A-30X Section 1, Top of Section: 207.9 CSF-A (m)

Hemipelagic siltstone and volcanic gravels



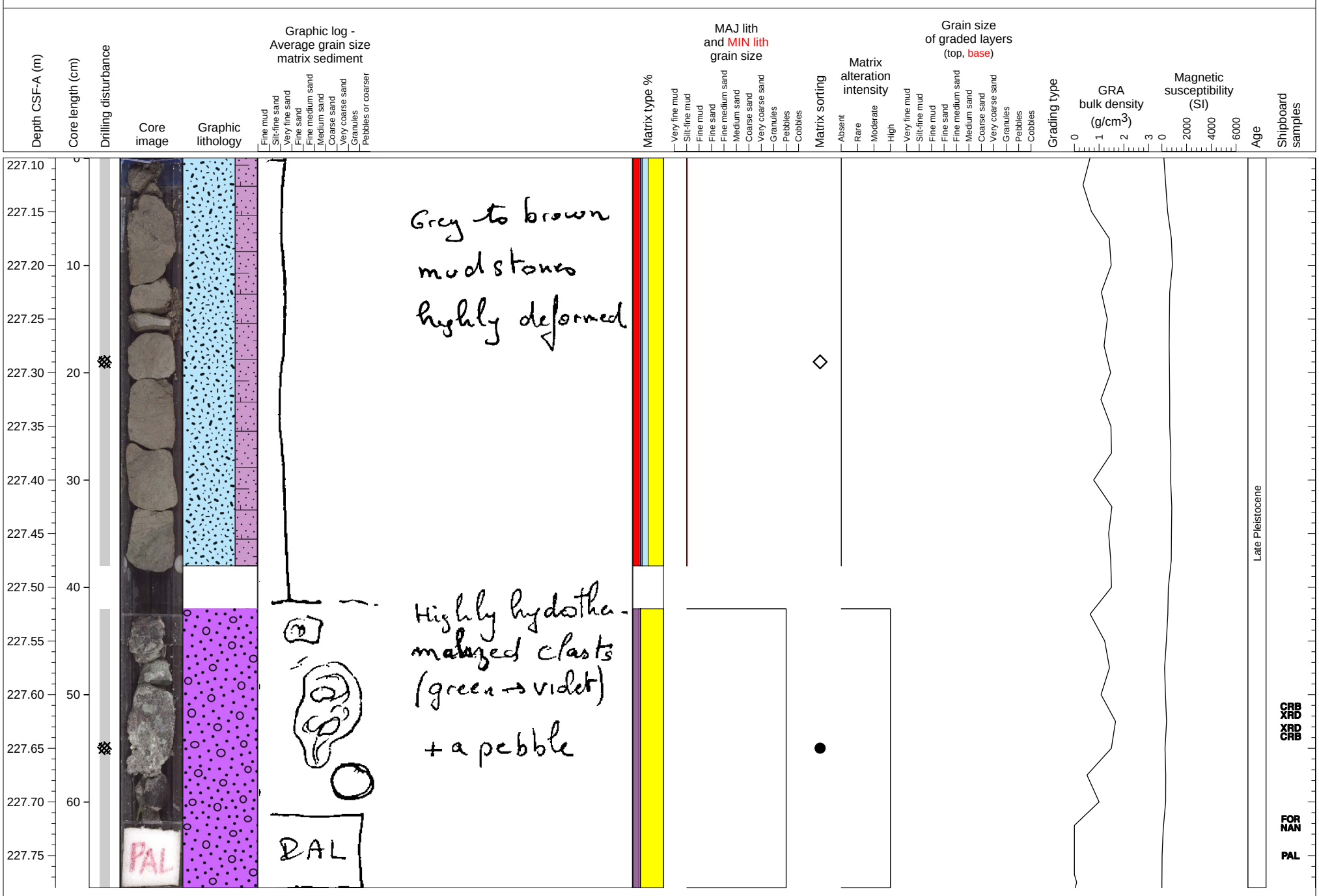
Hole 340-U1397A-31X Section CC, Top of Section: 217.5 CSF-A (m)

Slightly indurated debris flow deposit.



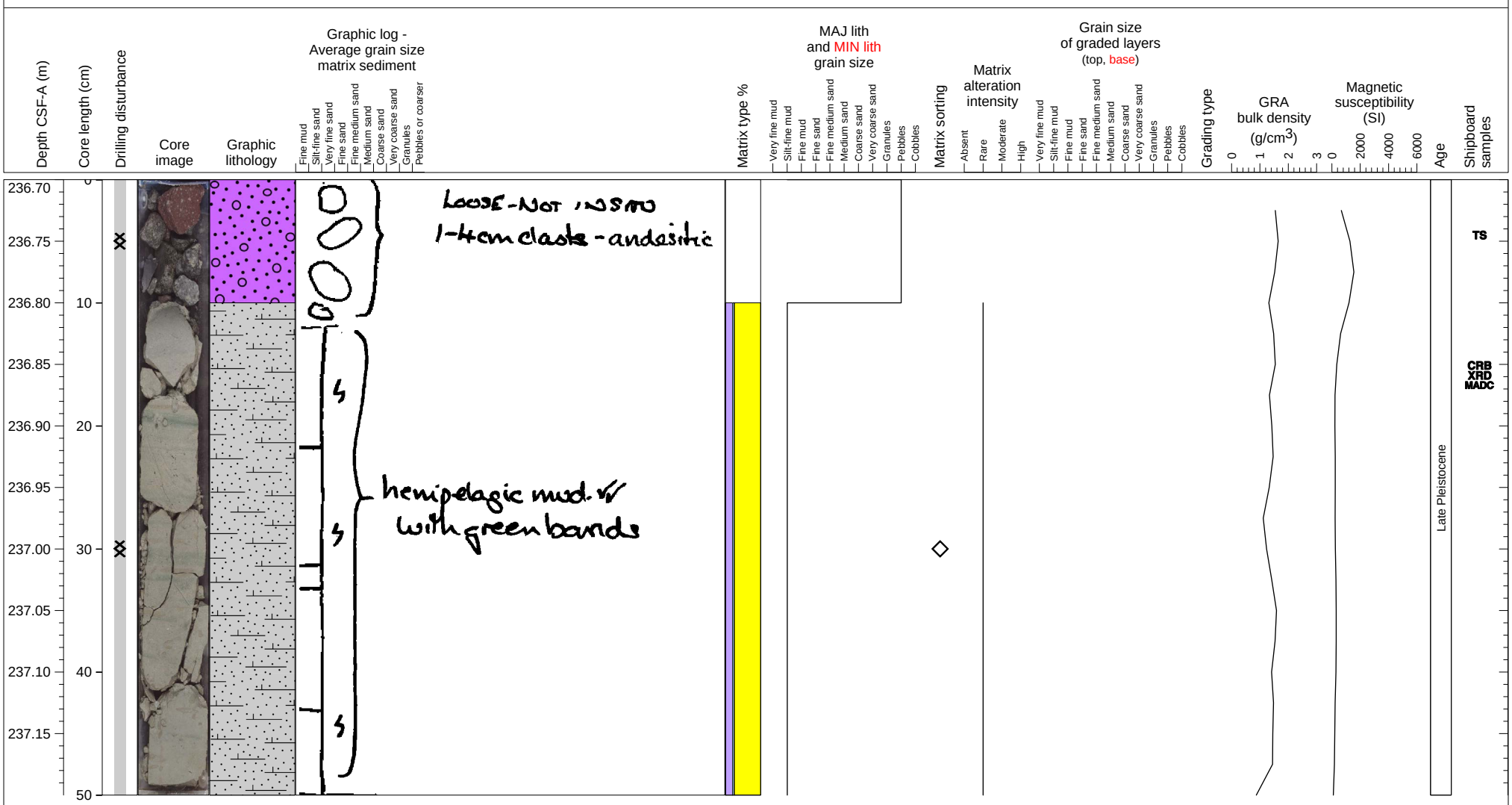
Hole 340-U1397A-32X Section 1, Top of Section: 227.1 CSF-A (m)

Highly deformed mudstone and hydrothermally altered tuff brecchia



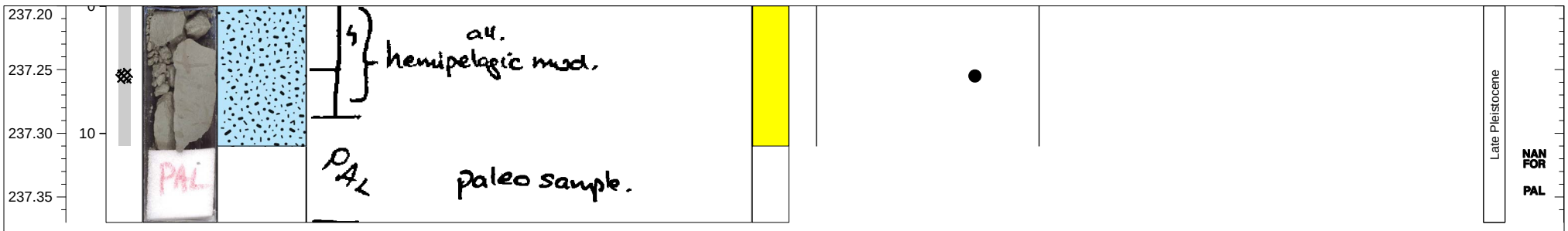
Hole 340-U1397A-33X Section 1, Top of Section: 236.7 CSF-A (m)

Mudstone composed of partially lithified hemipelagic clay topped with volcanic clasts that are not in place.



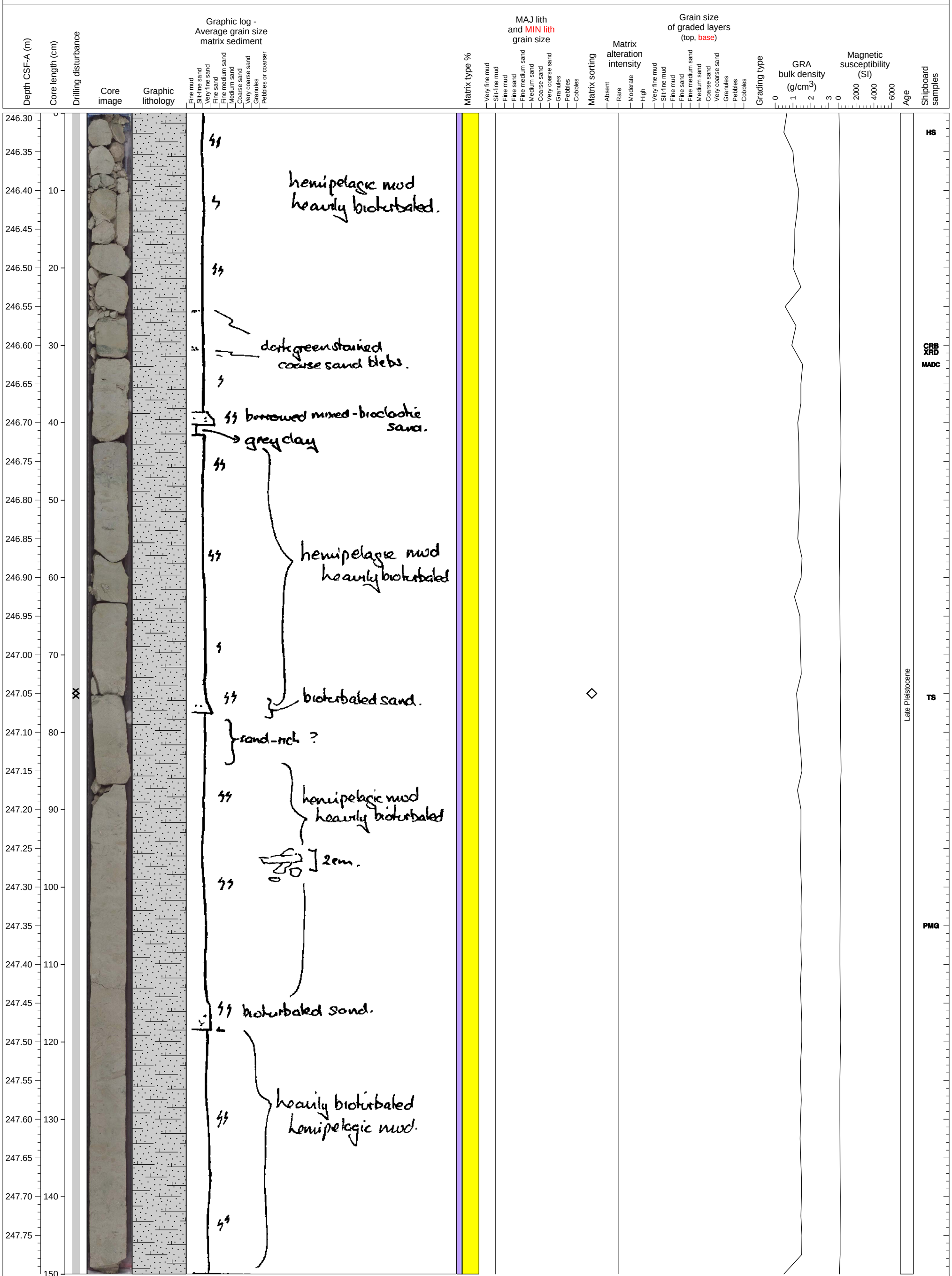
Hole 340-U1397A-33X Section CC, Top of Section: 237.2 CSF-A (m)

Heavily bioturbated and consolidated hemipelagic sediment, destroyed by drilling.



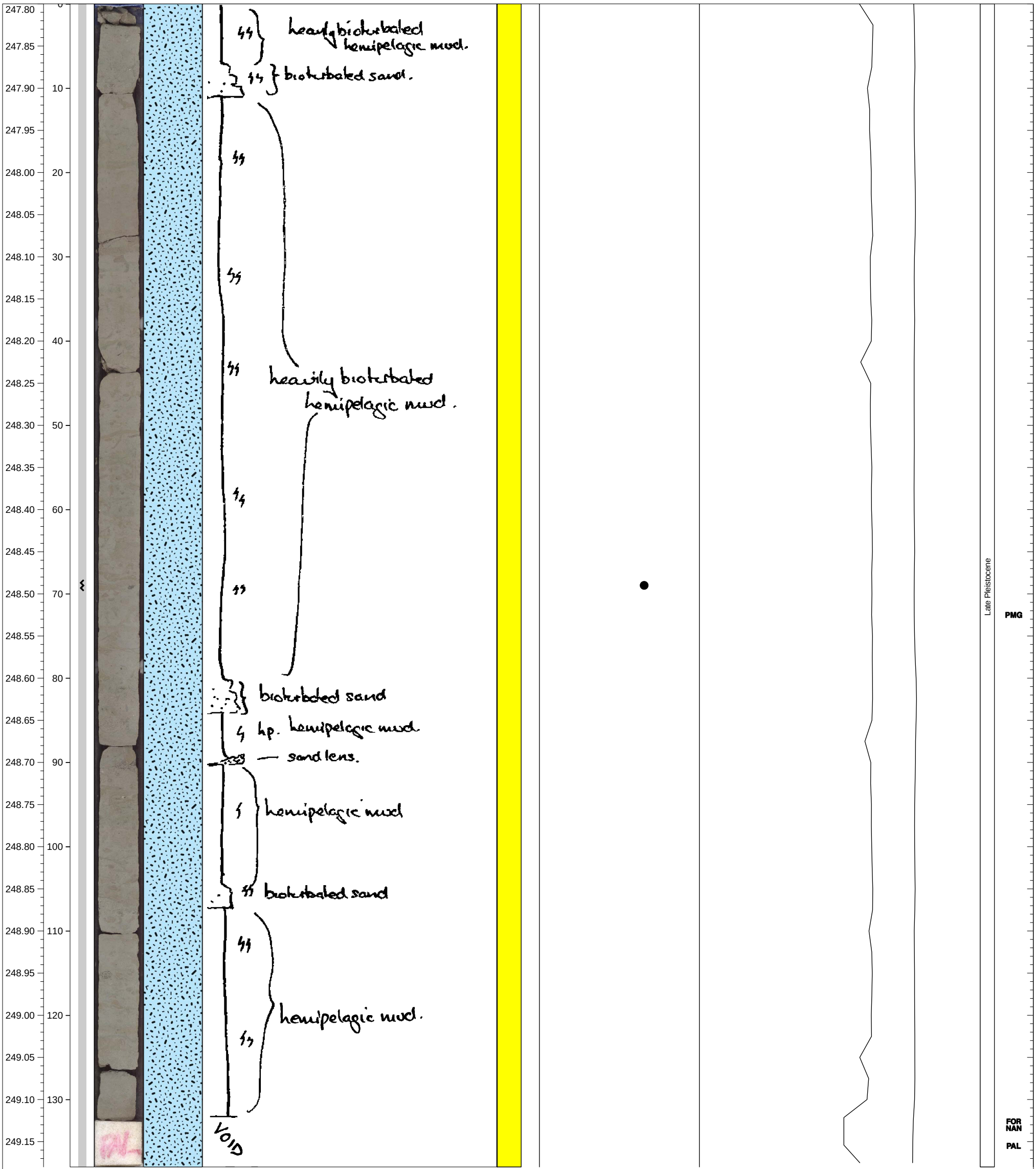
Hole 340-U1397A-34X Section 1, Top of Section: 246.3 CSF-A (m)

Mudstone composed of partially lithified hemipelagic clay. Exhibits heavy bioturbation.



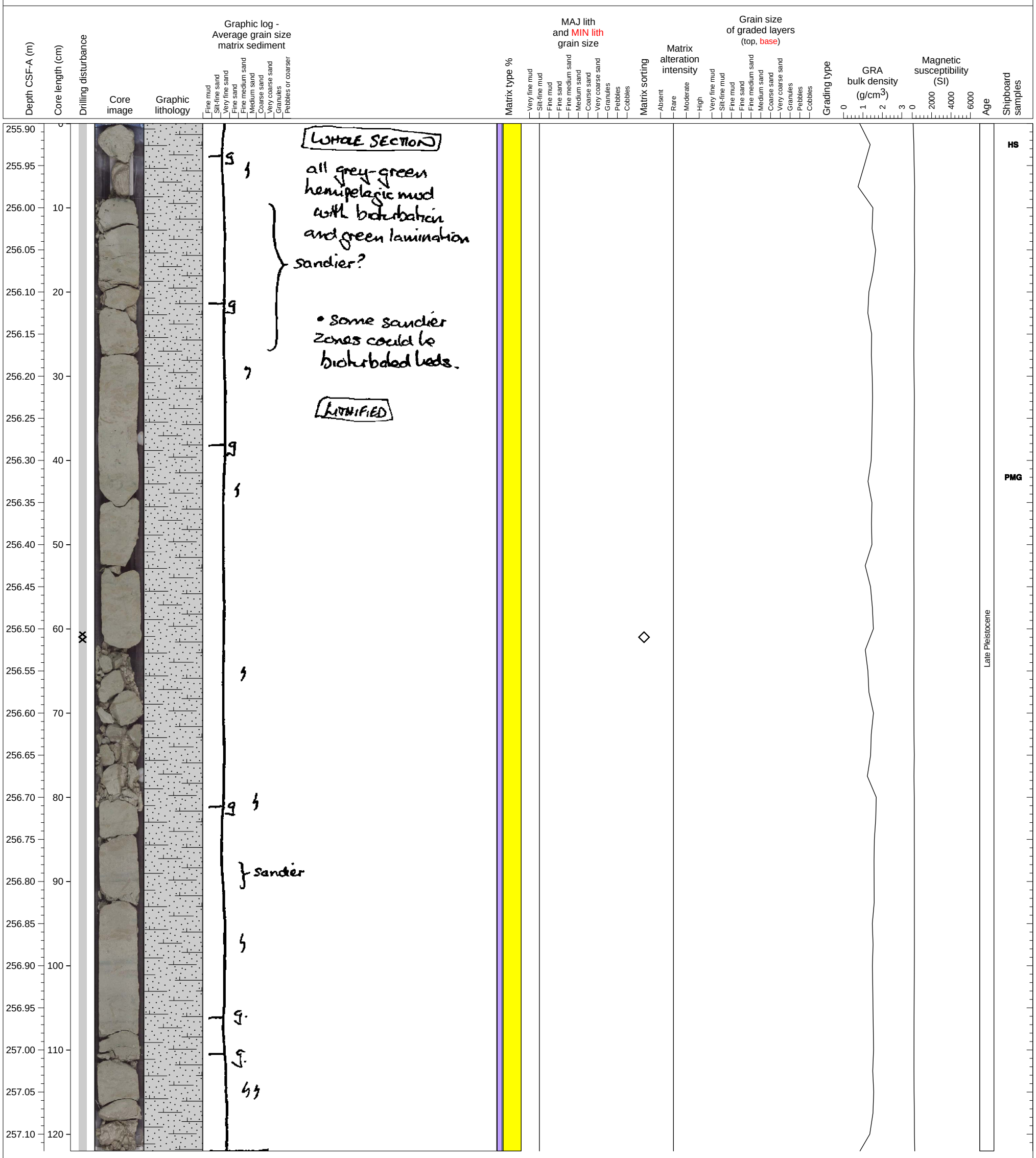
Hole 340-U1397A-34X Section 2, Top of Section: 247.8 CSF-A (m)

Heavily bioturbated and consolidated hemipelagic sediment.



Hole 340-U1397A-35X Section 1, Top of Section: 255.9 CSF-A (m)

Mudstone consisting of partially lithified hemipelagic clay. Heavy bioturbation is observed.



Hole 340-U1397A-35X Section 2, Top of Section: 257.12 CSF-A (m)

Heavily bioturbated and consolidated hemipelagic cray interlayering with a potential tephra with dark gray in color.

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

257.15 257.20 257.25 257.30 257.35 257.40 257.45 257.50 257.55 257.60 257.65 257.70 257.75 257.80 257.85 257.90 257.95 258.00 258.05 258.10 258.15 258.20 258.25 258.30 258.35 258.40 258.45 258.50

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

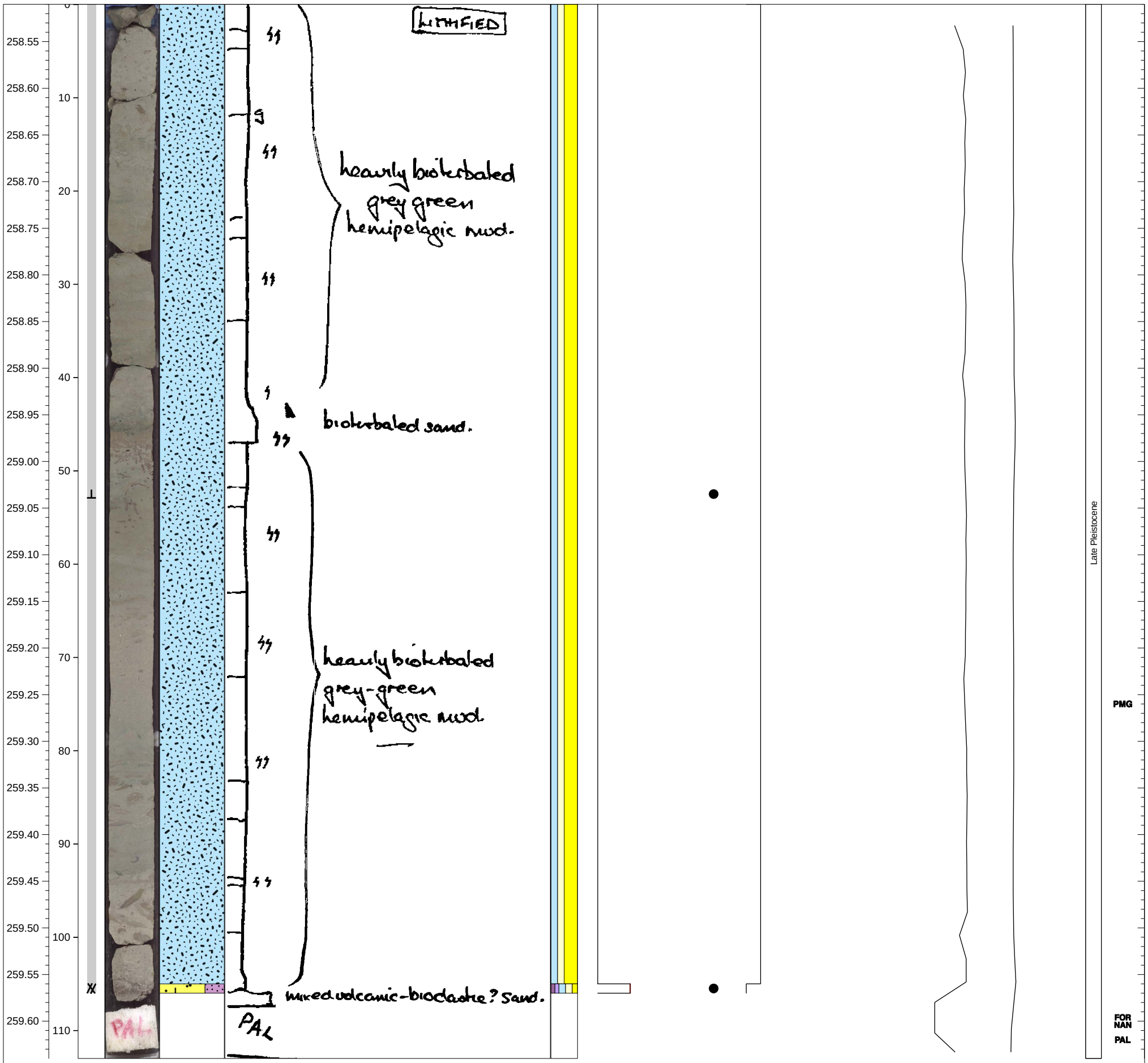
LITHFIED
hp
bioclastic? sand
hp
hemipelagite
bioclastic sand
hp
hemipelagic bioclastic sand
bioturbated
hemipelagic mud.
? boundary uncertain
shell laminae
all bioturbated hemipelagic mud.
Sand rich bioturbated sand layer

Late Pleistocene

TS
CRB
XRD
MADC

Hole 340-U1397A-35X Section 3, Top of Section: 258.51 CSF-A (m)

Hemipelagic mudstone with heavy bioturbation.



Thin sections

Sample	Top [cm]	Bottom [cm]	Top Depth [m]	Bottom Depth [m]	Groundmass percentage [%]	Groundmass modal grain size [mm]	Groundmass comments	Volcanic grain [%]	Volcanic grain modal size [mm]	Biogenic grain [%]	Mineral grain [%]	Mineral grain modal size [mm]	Lithic grain [%]	Lithic grain modal size [mm]	Olivine present [%]	Olivine size MIN [mm]	Olivine shape	Olivine comment	Plagioclase present [%]	Plagioclase size MAX [mm]	Plagioclase shape	Plagioclase habit	Plagioclase comment	Clinopyroxene present [%]	Clinopyroxene size MAX [mm]	Clinopyroxene shape	Clinopyroxene habit	Clinopyroxene special features	Orthopyroxene present [%]	Orthopyroxene size MAX [mm]	Orthopyroxene shape	Orthopyroxene habit	Orthopyroxene comments	Amphibolite present [%]	Amphibolite size MAX [mm]	Amphibolite shape	Amphibolite habit	Amphibolite comments	Oxides present [%]	Oxides size MAX [mm]	Oxides shape	Oxides habit	Oxides comments	Quartz present [%]	Quartz size MAX [mm]	Quartz shape	Quartz habit	Comment
340-U1397A-9H-4-W 75/76-TSB-TS#21	0	0.5	66.17	66.175						10	50	0.4	40	0.4					80					10										10														Sand grain mount.
340-U1397A-10H-1-W 67/68-TSB-TS#22	0	0.5	67.27	67.275				70	3		30	3							80					10										10														Volcaniclastic sand grain mount.
340-U1397A-11H-5-W 95/96-TSB-TS#23	0	0.5	79.84	79.845				30	2		70	2							85					15																								Volcaniclastic sand grain mount.
340-U1397A-13H-4-W 79/80-TSB-TS#24	0	1	91.745	91.755	70		Glassy matrix with flow features.				30								80	1	elongate	lath-shaped													20	2	euhedral	elongate											Pumice clast - too thin to properly describe.
340-U1397A-21X-CC-W 2/7-TSB-TS#25	0	5	121.72	121.77	60		Microcrystalline groundmass with microlites of plag, oxides, and pyroxenes.				40								60	2	elongate	lath		3	0.6	elongate	lath-shaped	Larger grains are involved in breakdown reactions.	10	0.6	equant	tabular		20	2	euhedral		Oxidized; contain thin reaction rims.	5	0.4	subrounded			2	0.2	equant		Andesite clast.
340-U1397A-26X-CC-W 15/20-TSB-TS#26	0	5	174.37	174.42	60		Microcrystalline plag, oxides, glass/clay						40																																			Breccia? Heavily oxidized lithic fragments to 4 mm.
340-U1397A-33X-1-W 4/5-TSB-TS#27	0	1	236.74	236.75	60		Microcrystalline with mircolites of plag, orthopyroxene, and oxides				40								60	3.6	euhedral	lath		30	3.6	lath	elongate								10	1	euhedral	elongate	Reacted and oxidized.										Vesicular clast - basaltic or basaltic andesitic.
340-U1397A-34X-1-W 75/76-TSB-TS#28	0	1	247.05	247.06			Matrix is oxidized fine mud.			50	50																																				Highly oxidized and lithified bioclastic/ volcaniclastic sand.
340-U1397A-35X-2-W 15/16-TSB-TS#29	0	1	257.27	257.28						40	40		20																																		Grain mount of mixed bioclastic/ volcaniclastic sand. Fragments <1mm.