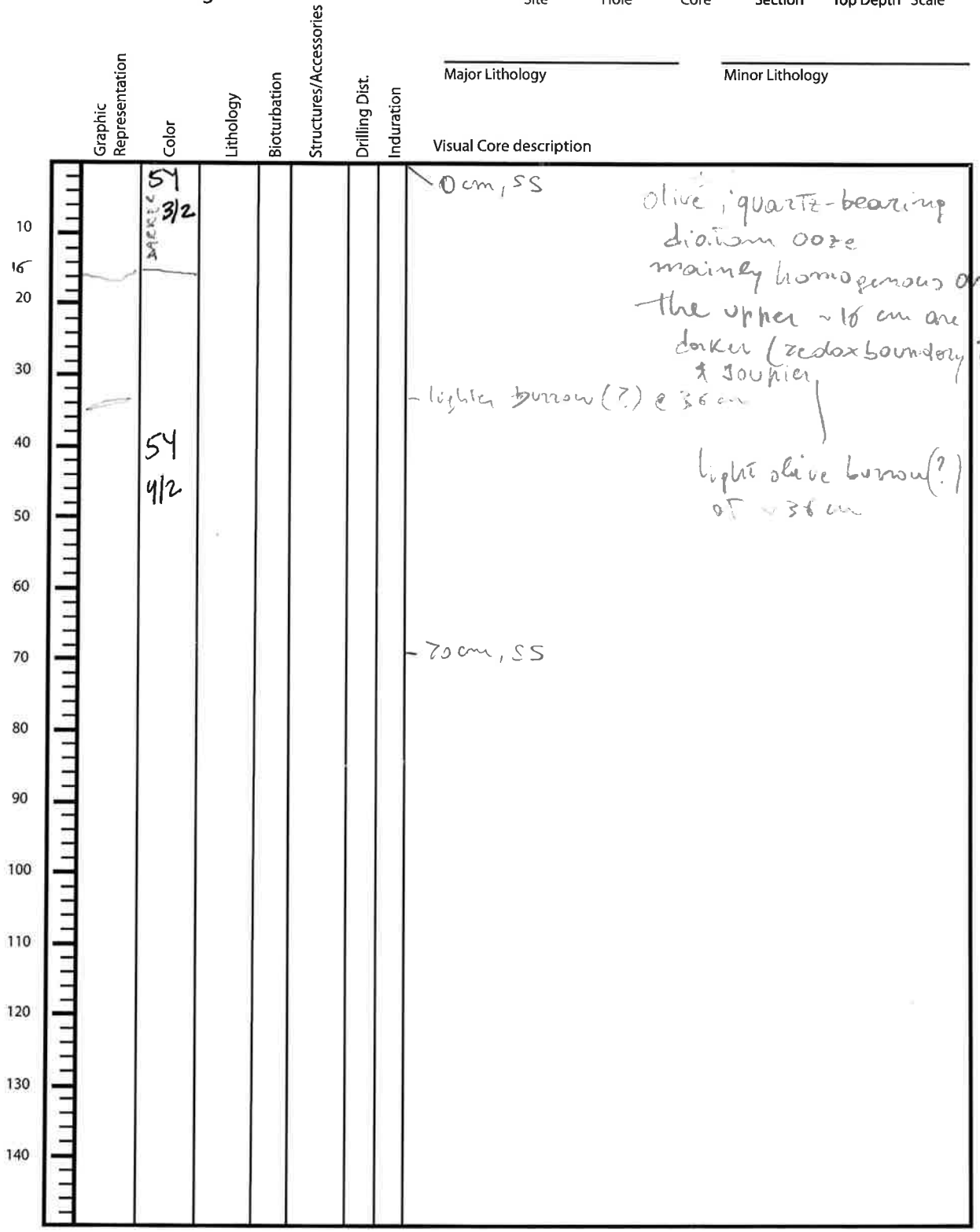
Expedition 323
Bering Sea

1339 (Site) A (Hole) 1 (Core) 1 (Section) 0 (Top Depth) ____ (Scale)

Major Lithology ____ Minor Lithology ____

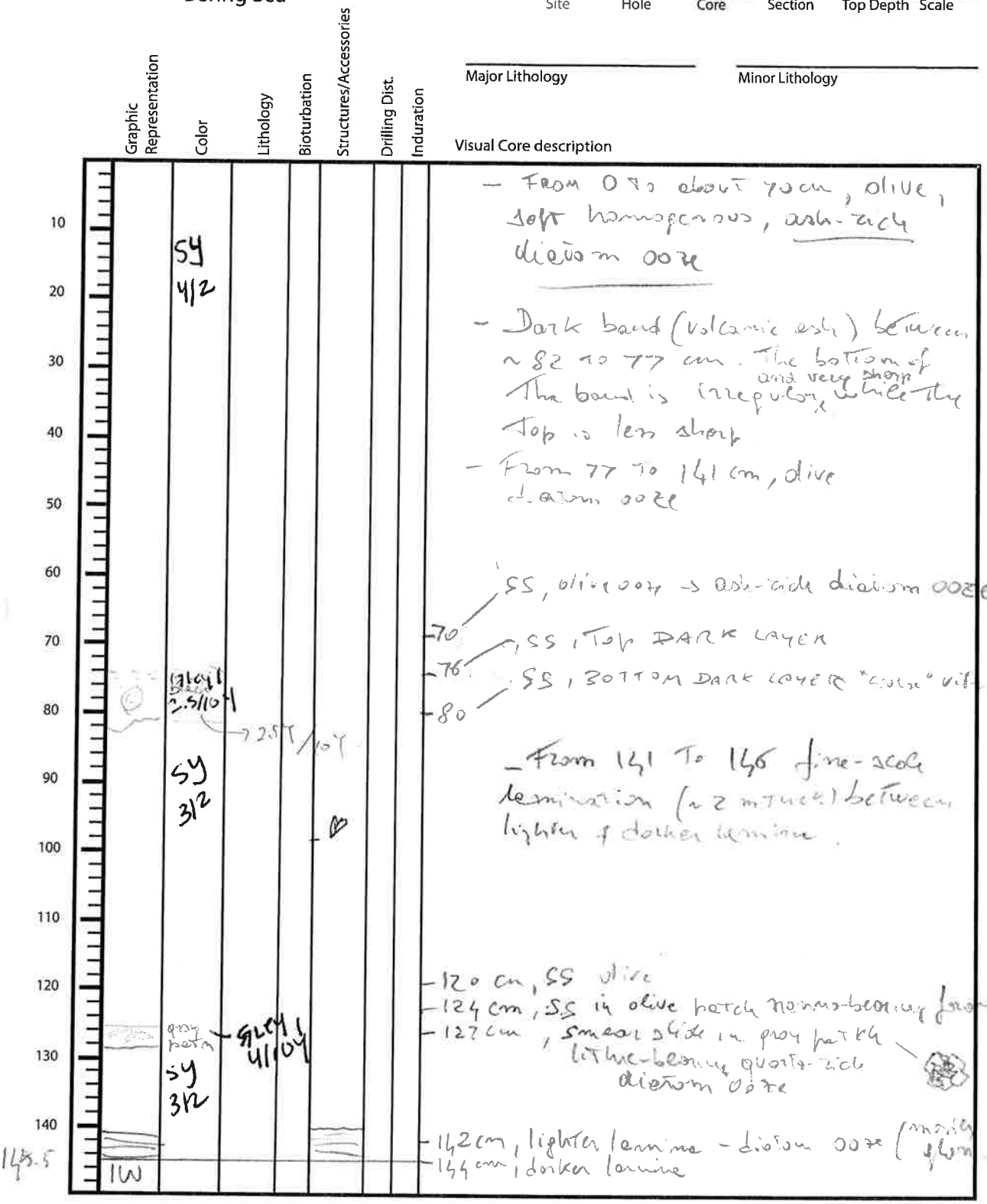


Observer: ____ Date: ____

Expedition 323
Bering Sea

U1339 | A | 1 | 2 | 1.5 |
Site | Hole | Core | Section | Top Depth | Scale

Major Lithology | Minor Lithology



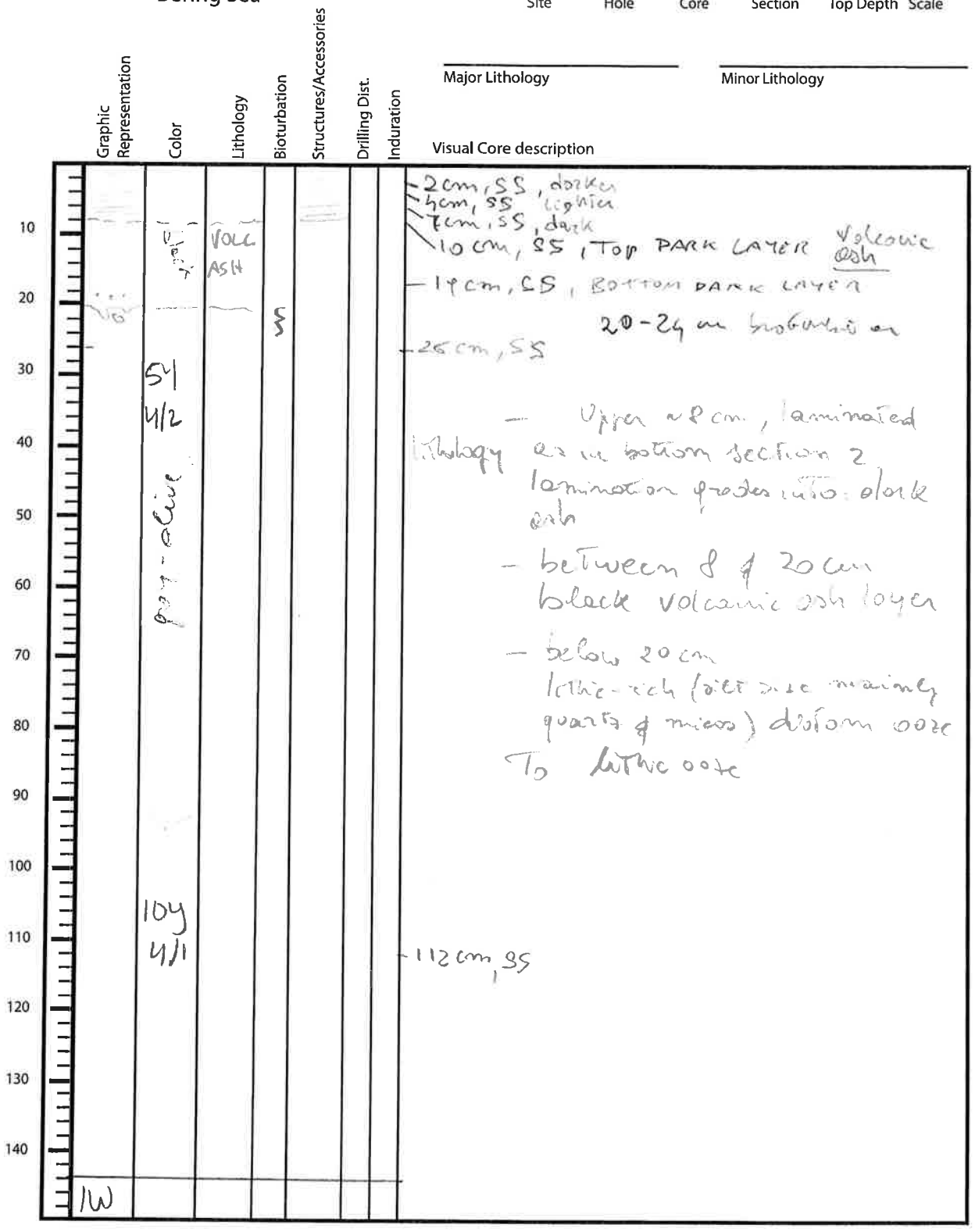
Observer: _____ Date: _____

SD: smear slide

Expedition 323
Bering Sea

U1339 | A | 1 | 3 | 3.0 | _____
Site | Hole | Core | Section | Top Depth | Scale

Major Lithology _____ Minor Lithology _____

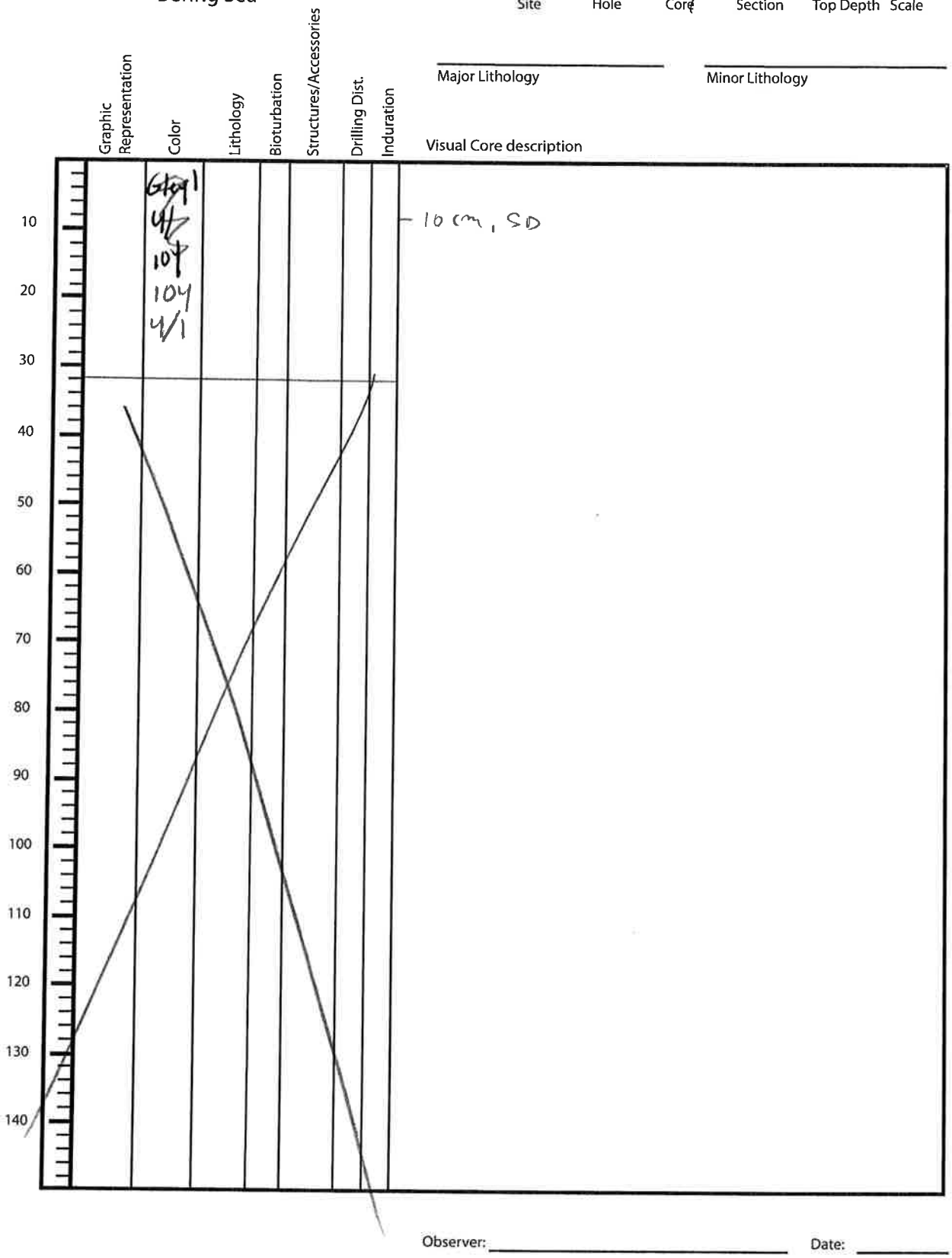


Observer: _____ Date: _____

Expedition 323
Bering Sea

Site ____ Hole ____ Core 4 Section ____ Top Depth ____ Scale ____

Major Lithology ____ Minor Lithology ____



Observer: ____ Date: ____

X ✓ in S.M.

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1339	A	1	H	1	0 cm	

Sediment/Rock Name	Diatom ooze	Observer	G.B.

Percent Texture		
Sand	Silt	Clay
	25	75

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
10	Quartz ✓
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite ✓
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
x	Pyrite ✓
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
x	Vitric grain ✓
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
~	Radiolarians ✓
	Spumellaria
	Nassellaria ✓
90	Diatoms ✓
	~~70~~ 60 Centric ✓
	30 Pennate ✓
x	*Chaetoceros* Resting Spores ✓
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

NANNO ✓

X

✓ in S.M.

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1339	A	1	H	1	70 cm	

Sediment/Rock Name	Diatom ooze	Observer	G.B.

Percent Texture		
Sand	Silt	Clay
	25	75

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
10	Quartz ✓
~	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
X	Biotite ✓
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
X	Ferromagnesium minerals ✓
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
X	Pyrite ✓
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
90	Diatoms ✓
70	Centric ✓
30	Pennate ✓
	Chaetoceros Resting Spores
X	Silicoflagellates ✓
X	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Name ✓

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1339	A	1	H	2A	70	76

Sediment/Rock Name	Observer
~~Clay~~ Diatom ooze	Akira

Percent Texture		
Sand	Silt	Clay
0	5	5

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
80	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Named

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1339	A	1	H	2A	78	76

Sediment/Rock Name	Fine Vitric. Ash	Observer	Akira

Percent Texture		
Sand	Silt	Clay
31 / 10	63 / 20	6 / 2

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
✓	Quartz
✓	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
✓	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
10.	Crystal grain Quartz
	Feldspar
70+ ✓	Vitric grain ~40μm.
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
✓	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
✓	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

X ✓ in S.M.

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1339A	A	1	H	2	80cm	

Sediment/Rock Name	~~Litric-bearing vitric Ash~~ Silty Fine Ash

Observer	Beth

Percent Texture		
Sand	Silt	Clay
20	75	5

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
7	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
20	Rock fragments
	Accessory/trace minerals
1	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
2	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
70	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
1	Centric
1	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

✓ Name ✓

X

In S.T.

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1339	B	1	H	2A	120cm	

Sediment/Rock Name	Observer
~~LITHIC, COCCO, ASH BEARING~~ DIATOM OOZE	BETH

S- 24
B- 70
V- 6

Nannofossil-bearing diatom ooze

Percent Texture		
Sand	Silt	Clay
3	85	12

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
5	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
9	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
5	Zeolite
	Opaque minerals
3	Pyrite
	Magnetite
2	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
6	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
1	Benthic foraminifera w/pyrite
	Nannofossils
7	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
2	Diatoms
1	Centric
1	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

✓

in S.M.

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1339	A	1	H	2	124	

Sediment/Rock Name	Nanno-bearing Foraminifera Diatom Ooze

Observer	Beth

Percent Texture		
Sand	Silt	Clay
15	80	5

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
5	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
5 A	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
5 A	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
7 A	Foraminifera
3 A	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
5	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
30	40 Centric
13	20 Pennate
30	40 *Chaetoceros* Resting Spores
1 A	Silicoflagellates
1 A	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Name

X

✓

in S.M.

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1339	A	1	H	2A	127	

Sediment/Rock Name	lithic bearing ~~glauconite~~ diatom ooze

Observer	BETH

B - 54
S - 39

Diatom Clayey silt

Percent Texture		
Sand	Silt	Clay
15	70	15

Comments: V - S

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
10	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
1	Plagioclase
5	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
5	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
5	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
10	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
3	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
5	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
3	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
2	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
1	Spumellaria
	Nassellaria
	Diatoms
25	Centric
10	Pennate
15	*Chaetoceros* Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

✓

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1339	A	1	H	2A	142	142

Sediment/Rock Name	Diatom ooze

Observer	Akira

Percent Texture		
Sand	Silt	Clay
5	90	5

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
✓	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
✓	Plagioclase
	Rock fragments
	Accessory/trace minerals
✓	Micas
?	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
✓	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
10 ✓	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
✓	Radiolarians
	Spumellaria
	Nassellaria
15 ✓	Diatoms
✓	Centric
✓	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
10 ✓	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

in S.T.

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1339	A	1	H	2	144	

Sediment/Rock Name	[illegible] Diatom ooze

Observer	BETH

B - 69
S - 16
V - 15

Comments:

Percent Texture		
Sand	Silt	Clay
	95	5

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
V	Zeolite
	Opaque minerals
5	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
15	Vitric grain green
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
2	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
25	Centric girdles
10	Pennate
30	*Chaetoceros* Resting Spores
2	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1339	A	1	H	3A	70	10

Sediment/Rock Name	Fine Mafic Ash

Observer	[illegible]

Percent Texture		
Sand	Silt	Clay
2	93	5

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
8%	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
8%	Plagioclase
	Rock fragments
	Accessory/trace minerals
✓	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
✓	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
✓	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
84%	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1339	A	1	H	3A	36	38

Sediment/Rock Name	Diatom rich silt ✓

Observer	Oliva

B 23
S 28
V 0

Comments:

Percent Texture		
Sand	Silt	Clay
2	90	8

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
47	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
9	Rock fragments granite
	Accessory/trace minerals
9	Micas
	Biotite
A	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
9	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
A	Zeolite
	Opaque minerals
A	Pyrite
4	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
93	Diatoms
A	Centric
✓	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
/	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1339	A	1	H	3A	112	112

Sediment/Rock Name	Diatom rich silt ✓	Observer	Okina

B 52
S - 48
V - 0

Comments:

Percent Texture		
Sand	Silt	Clay
2	90	8

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
25%	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
B %	Plagioclase
%	Rock fragments
	Accessory/trace minerals
	Micas
3%	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
5%	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
25%	Diatoms
12.5%	Centric ← fragment
12.5%	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
20%	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Expedition 323
Bering Sea

U1339 | A | 2H | 1 | [redacted] | Scale
Site | Hole | Core | Section | Top Depth

Major Lithology | Minor Lithology

Graphic Representation | Color | Lithology | Bioturbation | Structures/Accessories | Drilling Dist. | Induration | Visual Core description

Fine [redacted] clay?

0-7 slightly Bioturbated
0-7 5Y 4/3 [redacted] Diatom [redacted] ooze with ash.
↳ foram (smear slides)

33-150 ash patchy (Burrows ?) Dark olive

33-37 Burrow
@ Dark ash (5Y 2.5/1)
↳ Patch like

44-48 same color
Dark ash (5Y 2.5/1)

53-61
Dark ash (5Y 2.5/1)

[redacted] 63-81
Dark ash patches
[redacted]
62.5-64.5
ash layer?

95-100 Hole ? (IRD)

Vertical
105-118 Slit like crack

Gas [redacted]

Vertical
130-137 Slit like crack @ edge

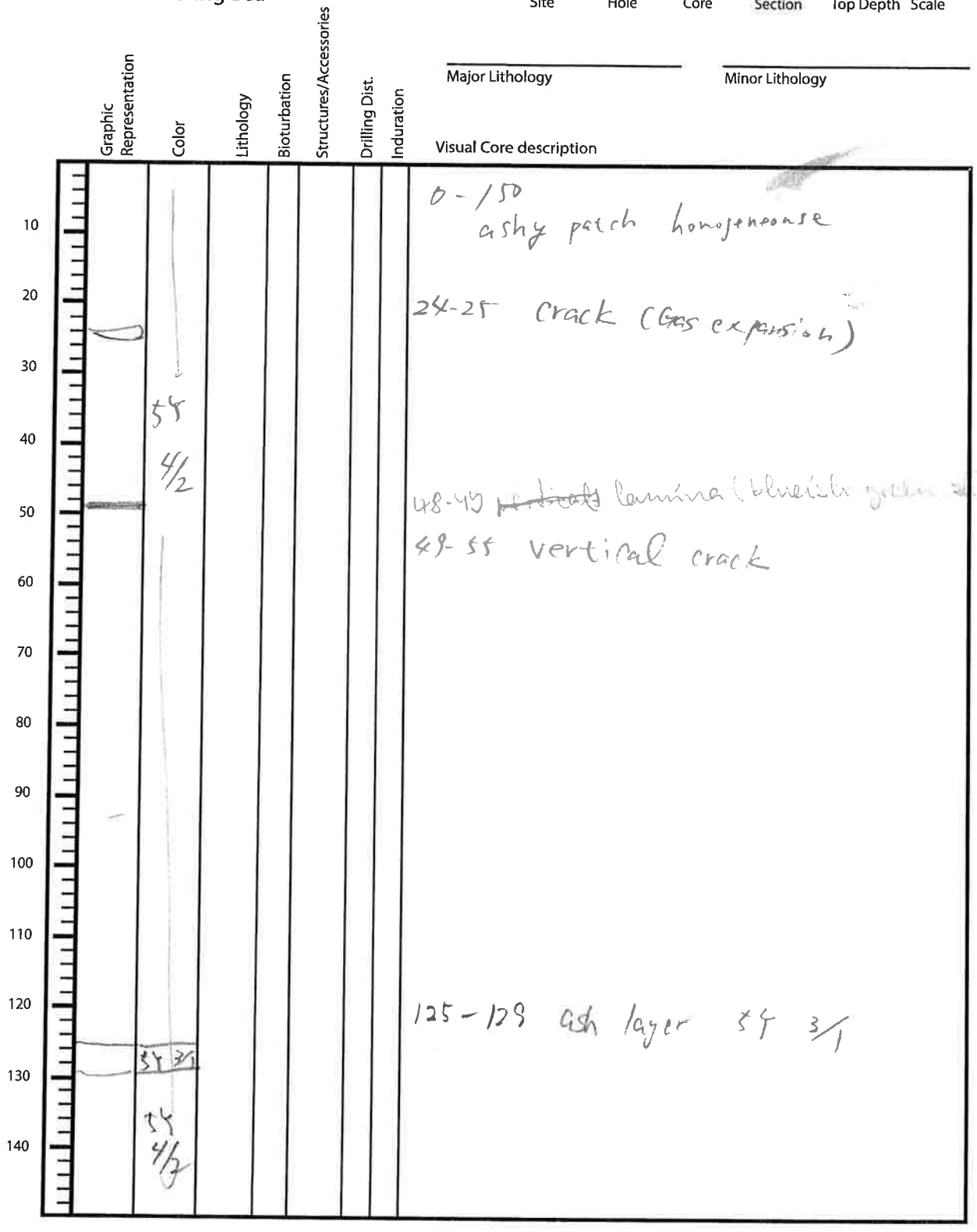
150 end of section

Observer: Hina A. | Date:

Expedition 323
Bering Sea

1339 Site | A Hole | 24 Core | 2 Section | ~~1.5~~ Top Depth | Scale

Major Lithology | Minor Lithology

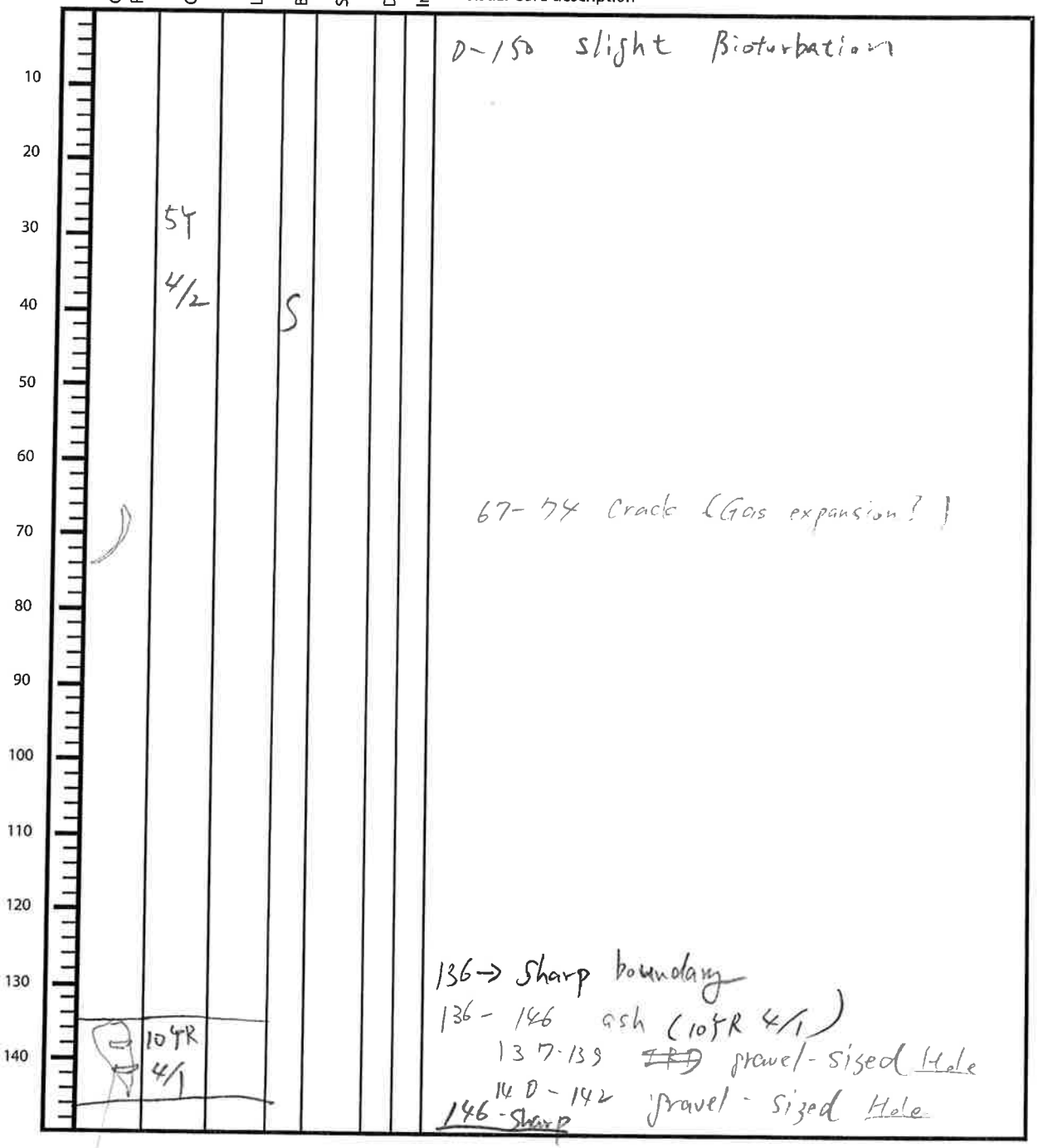


Observer: _____ Date: _____

Expedition 323
Bering Sea

1339 | A | 2H | 3 | ~~3~~ 0 |
Site | Hole | Core | Section | Top Depth | Scale

Major Lithology | Minor Lithology

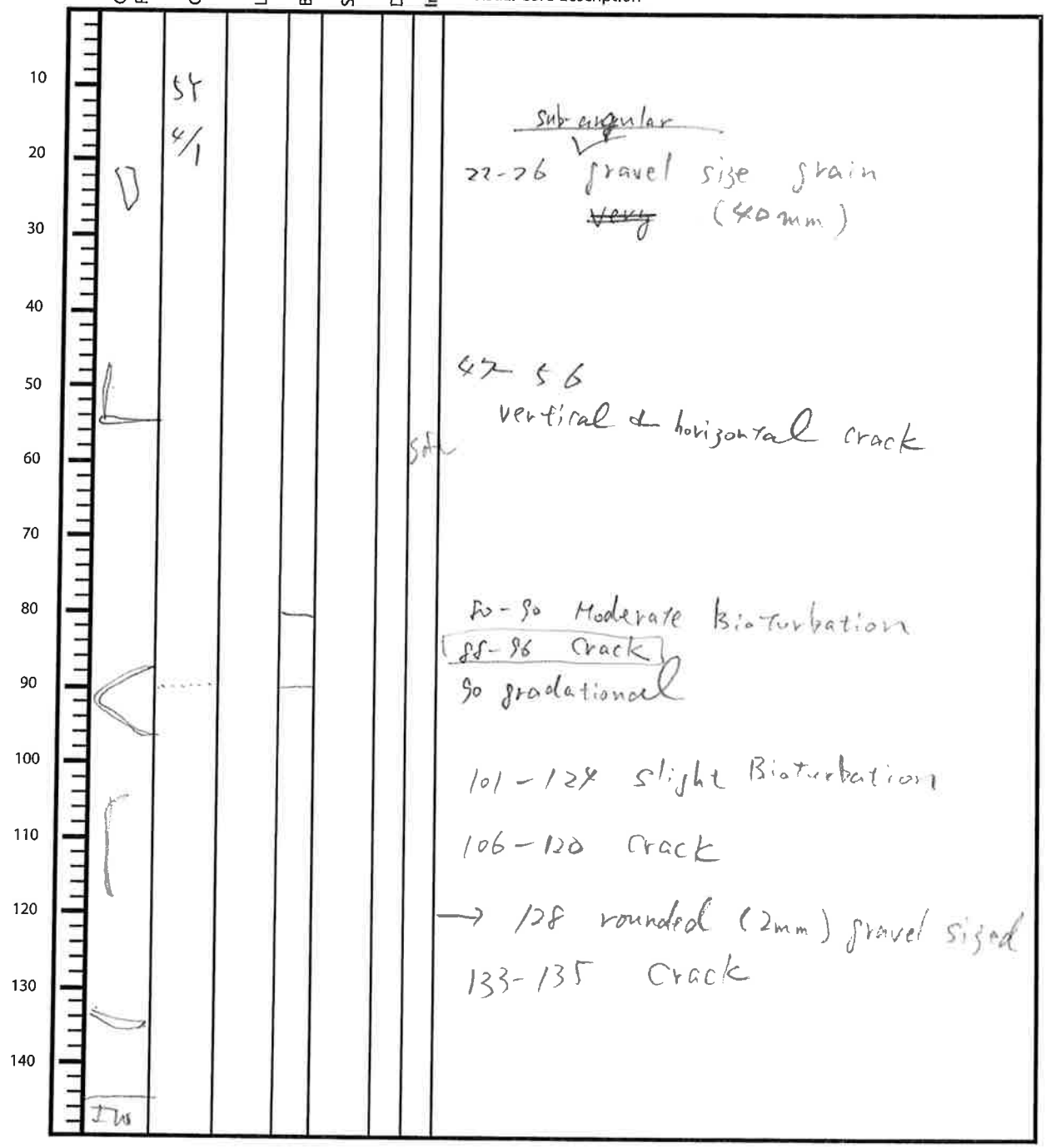


Observer: Hino A. Date:

Expedition 323
Bering Sea

1335 | A | 24 | 4 | ~~60~~ | Site | Hole | Core | Section | Top Depth | Scale

Major Lithology | Minor Lithology

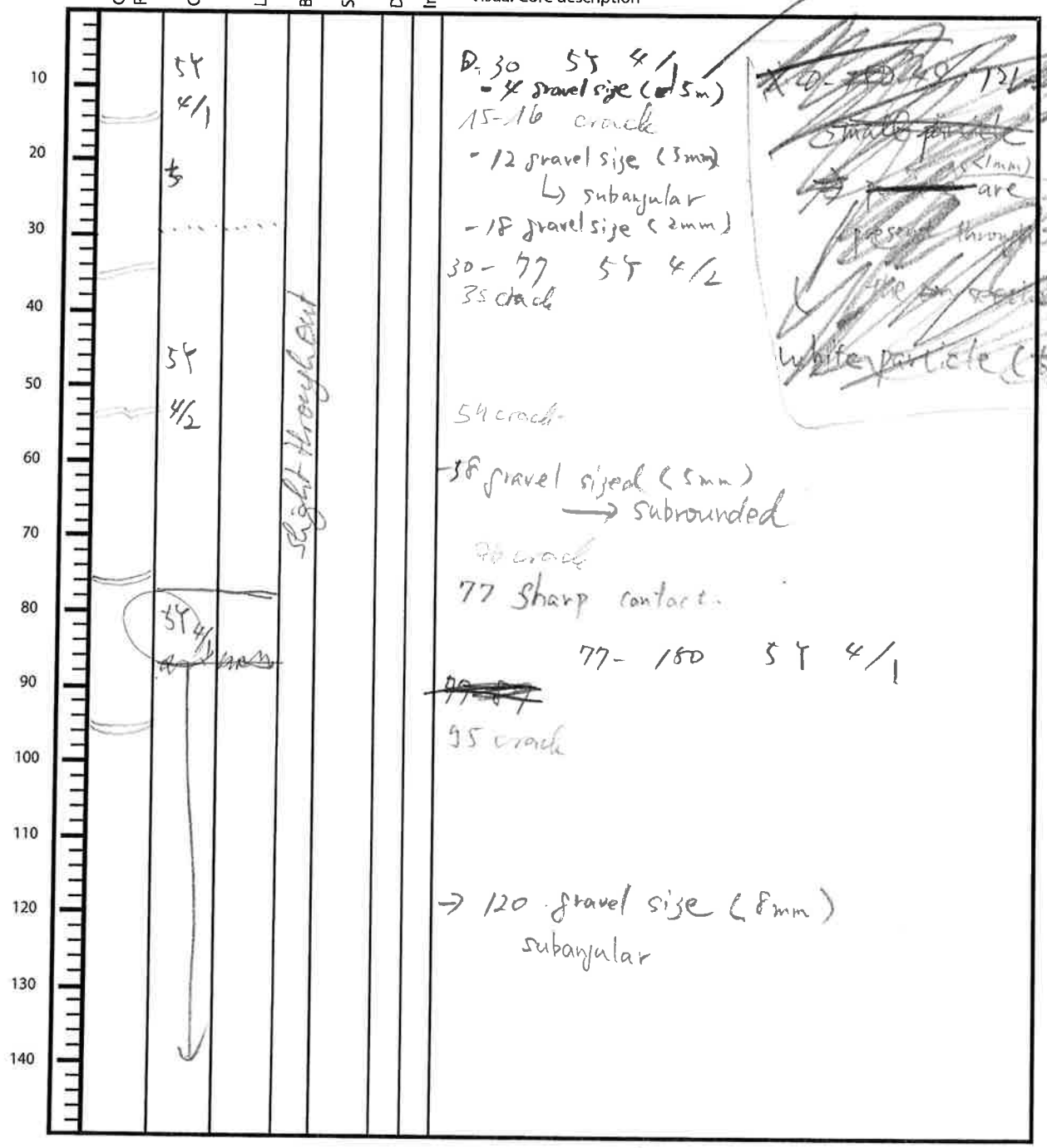


Observer: Hiro Arai Date: 7/18

Expedition 323
Bering Sea

Site ~~##~~ Hole 214 Core 5 Section ~~3E~~ Top Depth Scale

Major Lithology | Minor Lithology

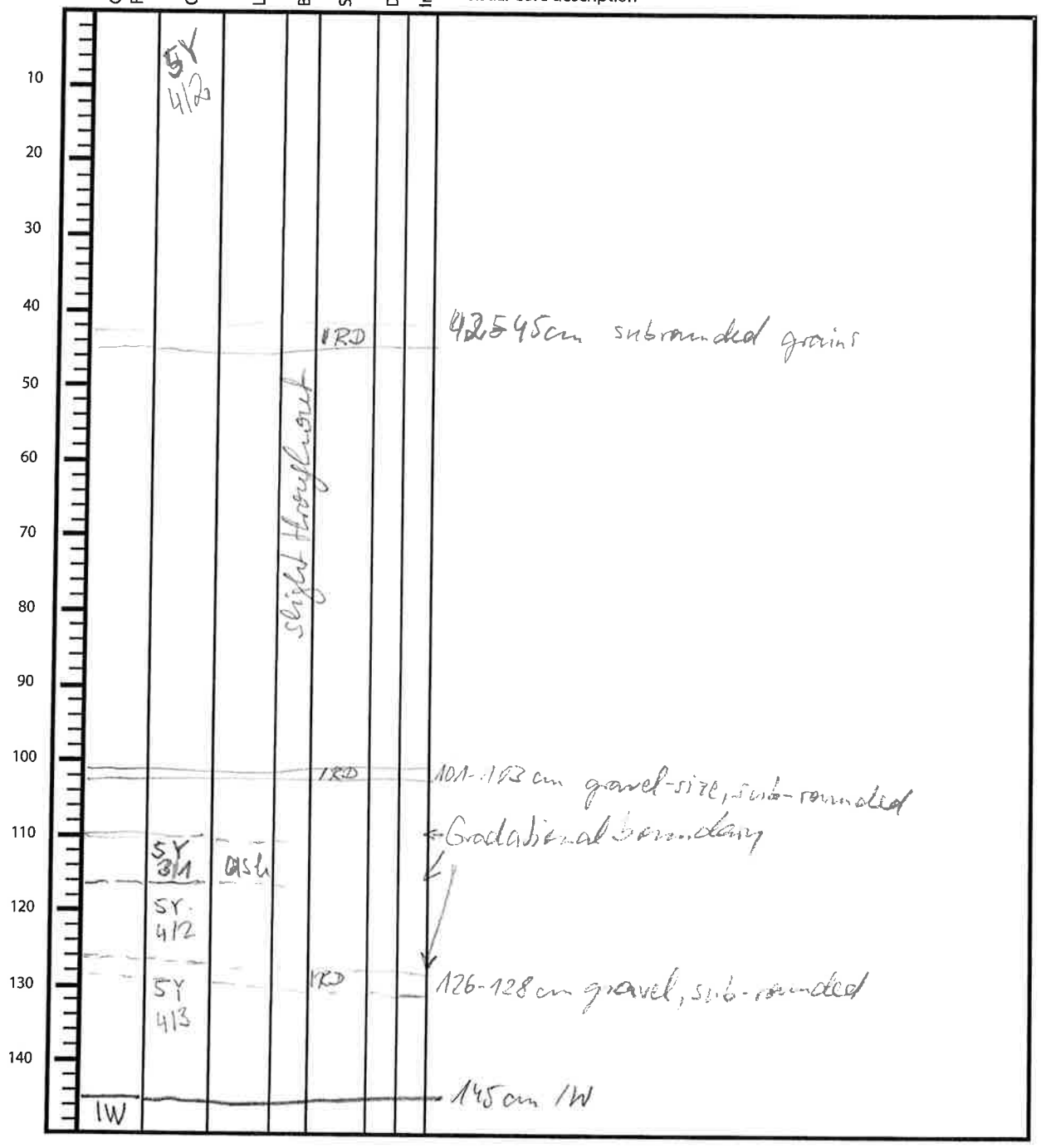


Observer: Christian Date: 7/18

Expedition 323
Bering Sea

323 Site | 1A Hole | 2 Core | 6 Section | [redacted] Top Depth | Scale

Major Lithology | Minor Lithology

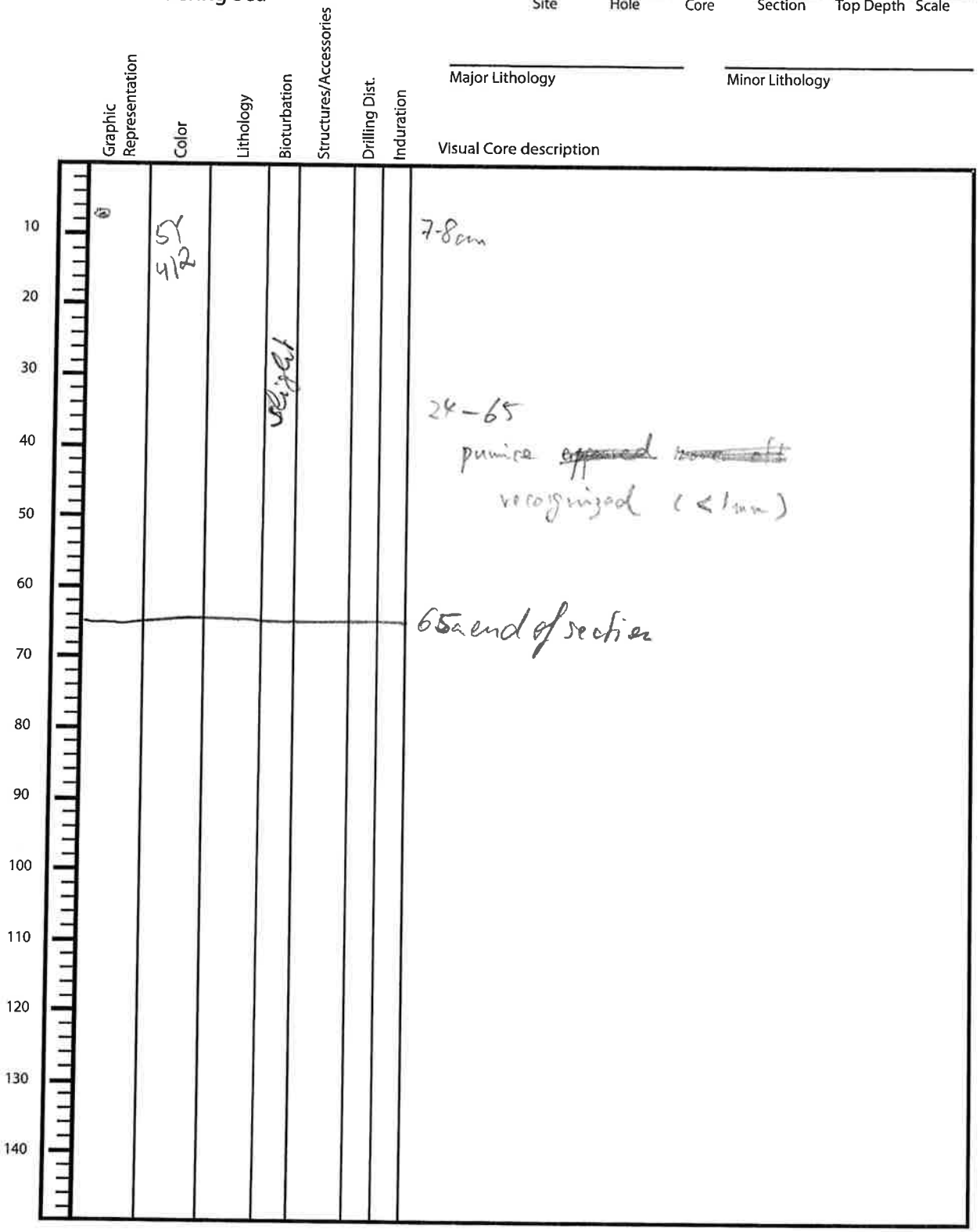


Observer: _____ Date: _____

Expedition 323
Bering Sea

323 Site | 1A Hole | 2 Core | 7 Section | [illegible] Top Depth | Scale

Major Lithology | Minor Lithology

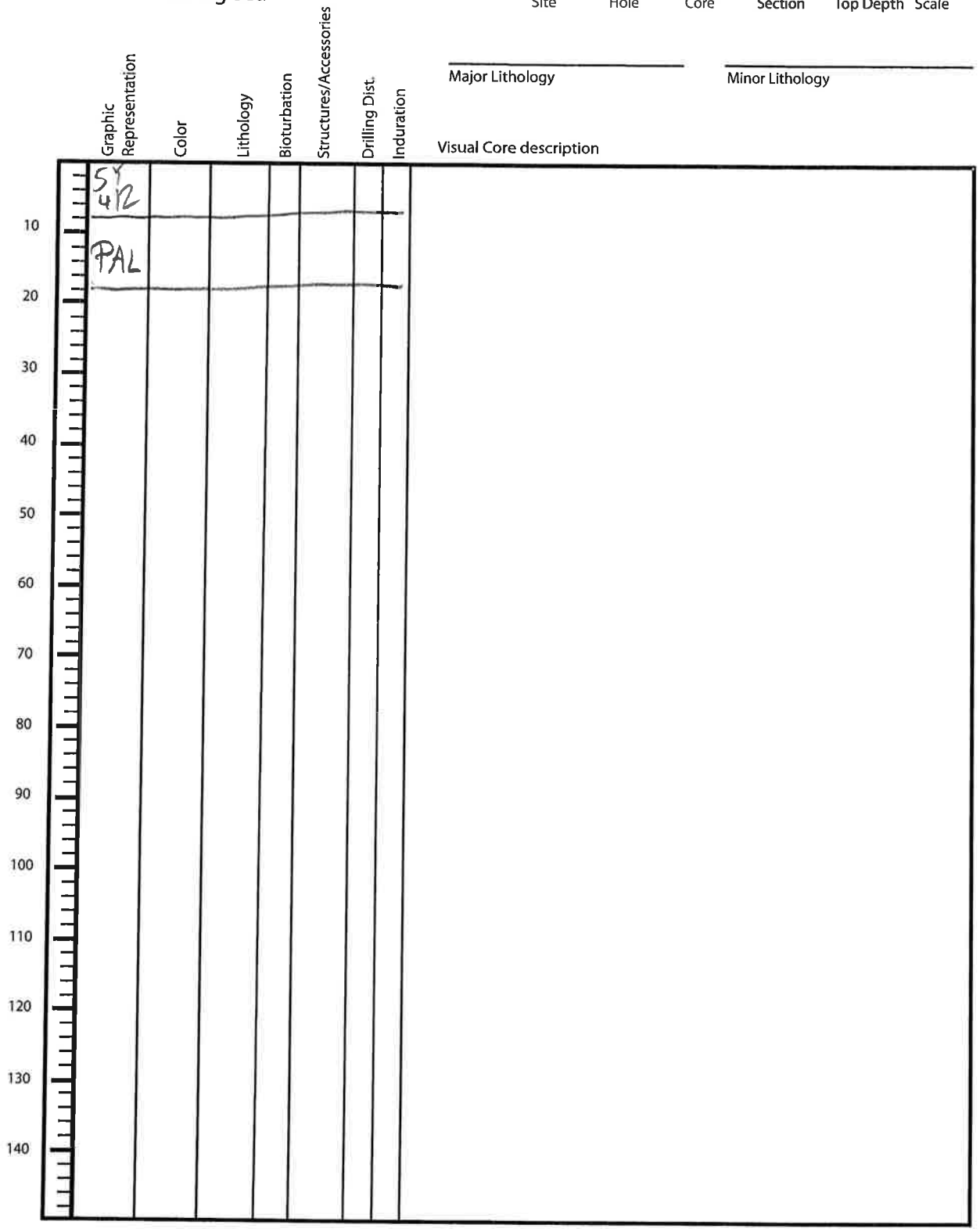


Observer: _____ Date: _____

Expedition 323
Bering Sea

323 (Site) 1A (Hole) 2 (Core) CC (Section) [redacted] (Top Depth) ____ (Scale)

Major Lithology ____ Minor Lithology ____



Observer: ____ Date: ____

in SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1339	A	2	H	1	5 cm	

Sediment/Rock Name	~~Fine-ash-bearing~~ Diatom ooze

Observer	Kelsie

Percent Texture		
Sand	Silt	Clay
tr	90	10

Comments: Greenish bed at top of core

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
1	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
1	Crystal grain
5	Vitric grain Fine
2	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
1	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
60	Centric
10	Pennate
20	*Chaetoceros* Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1339	A	2	H	1	23cm	

Sediment/Rock Name	~~Ash-bearing~~ Diatom silt

Observer	Kelsie

Percent Texture		
Sand	Silt	Clay
10	75	15

Comments:
Main lithology

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
40	Framework minerals
20	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
15	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
5	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
✓	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
10	**VOLCANICLASTIC GRAINS**
✓	Crystal grain
10 ✓	Vitric grain
✓	Lithic grain

Percent	Component
40	**BIOGENIC GRAINS**
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
✓	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
20 ✓	Centric
20 ✓	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

✓

X

in SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1339	A	2	H	1	46cm	burrow

Sediment/Rock Name	Observer
~~Lithic bearing~~ diatom rich silty fine ash	Kelsie

Percent Texture		
Sand	Silt	Clay
25	60	15

Comments: Dark - coloured burrow in middle of core

Percent	Component
17	**SILICICLASTIC GRAINS/MINERAL**
	Framework minerals
1 ✓	Quartz
1 ✓	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
15 ✓	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
58	**VOLCANICLASTIC GRAINS**
	Crystal grain
58 ✓	Vitric grain
	Lithic grain

Percent	Component
25	**BIOGENIC GRAINS**
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
15	Centric
10	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

✓

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1339	A	2	H	2	35cm	

Sediment/Rock Name	~~Silt-bearing~~ diatom ooze	Observer	Kelsie

Percent Texture		
Sand	Silt	Clay
	70	30

Comments: Main lithology

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
10	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
3	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
2	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
10	Vitric grain
	Lithic grain

Percent	Component
90	**BIOGENIC GRAINS**
	Calcareous
✓	Foraminifera
	Planktonic foraminifera
✓	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
50	Centric
25	Pennate
5	*Chaetoceros* Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

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in SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1339	A	2	H	2	49 cm	

Sediment/Rock Name	~~Ash-rich diatom ooze~~ Diatom fine ash

Observer	Kelsie

Percent Texture		
Sand	Silt	Clay
10	70	20

Comments: Slightly darker - reworked bed

Percent	Component
89	**SILICICLASTIC GRAINS/MINERAL**
	Framework minerals
2	Quartz
2	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
2	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
2 ✓	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
34 ~~39~~	**VOLCANICLASTIC GRAINS**
	Crystal grain
30 ✓	Vitric grain
	Lithic grain

Percent	Component
5~~7~~	**BIOGENIC GRAINS**
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
40 ✓	Centric
10 ✓	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

✓

X

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IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1339	A	2	H	2	127cm	

Sediment/Rock Name	Diatom-rich silty sand	Observer	Kelsie

Percent Texture		
Sand	Silt	Clay
50	40	10

Comments: Thin dark-coloured bed

Percent	Component
60 (66)	**SILICICLASTIC GRAINS/MINERAL**
	Framework minerals
5	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
50	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
✓	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
✓	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
10 (11)	**VOLCANICLASTIC GRAINS**
	Crystal grain
10	Vitric grain
	Lithic grain

Percent	Component
30 (22)	**BIOGENIC GRAINS**
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
15	Centric
5	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

X

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IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1339	A	2	H	3	80cm	

Sediment/Rock Name	~~Silt-bearing~~ diatom ooze

Observer	Kelsie

Percent Texture		
Sand	Silt	Clay
<5	80	20

Comments: Main lithology

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
2	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
2	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
1	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
5	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
60	Centric
30	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

✓

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IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1339	A	2	H	3	143 cm	

Sediment/Rock Name	Fine ~~vitric~~ ash	Observer	Kelsie

Percent Texture		
Sand	Silt	Clay
20	65	15

Comments: Large light-coloured burrow.

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
98	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
2	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

✓

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IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1339	A	2	H	4	52 cm	

Sediment/Rock Name	~~Silt-bearing arkosic~~ diatom ooze	Observer	Kelsie

Percent Texture		
Sand	Silt	Clay
10	70	20

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
10	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
2	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
1	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
1	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
20	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
40	Centric
25	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

✓

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IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1339	A	2	H	5	60cm	

Sediment/Rock Name	~~Silt-bearing~~ diatom ooze	Observer	Kelsie

Percent Texture		
Sand	Silt	Clay
5	80	15

Comments: Main lithology

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
5	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
3	Rock fragments
	Accessory/trace minerals +garnet
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
5	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
2	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
10	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
35	Centric
35	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

✓

X

in SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1339	A	2	H	5	130cm	

Sediment/Rock Name	~~Silt-bearing~~ diatom ooze	Observer	Kelsie

Percent Texture		
Sand	Silt	Clay
2	80	20

Comments: Main lithology

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
10	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
10	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
50	Centric
30	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

X

in SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1339	A	2A		6	70cm	

Sediment/Rock Name	Diatom ooze	Observer	

Percent Texture		
Sand	Silt	Clay
20	70	10

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
2	Quartz
2	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
5	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
2	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
90	Diatoms
60	Centric
30	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1339	A	2 H		6	111cm	

Sediment/Rock Name	~~ash~~ rich diatom ooze	Observer	

Percent Texture		
Sand	Silt	Clay
5	60	35

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
2	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
3	Pyrite
	Magnetite
2	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
30	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
60	Diatoms
35	Centric
25	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

X

in SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1339	A	2	H	7A	30	30

Sediment/Rock Name	diatom ooze

Observer	MEA Cook

Percent Texture		
Sand	Silt	Clay
2%	90%	8%

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
2	✓ Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

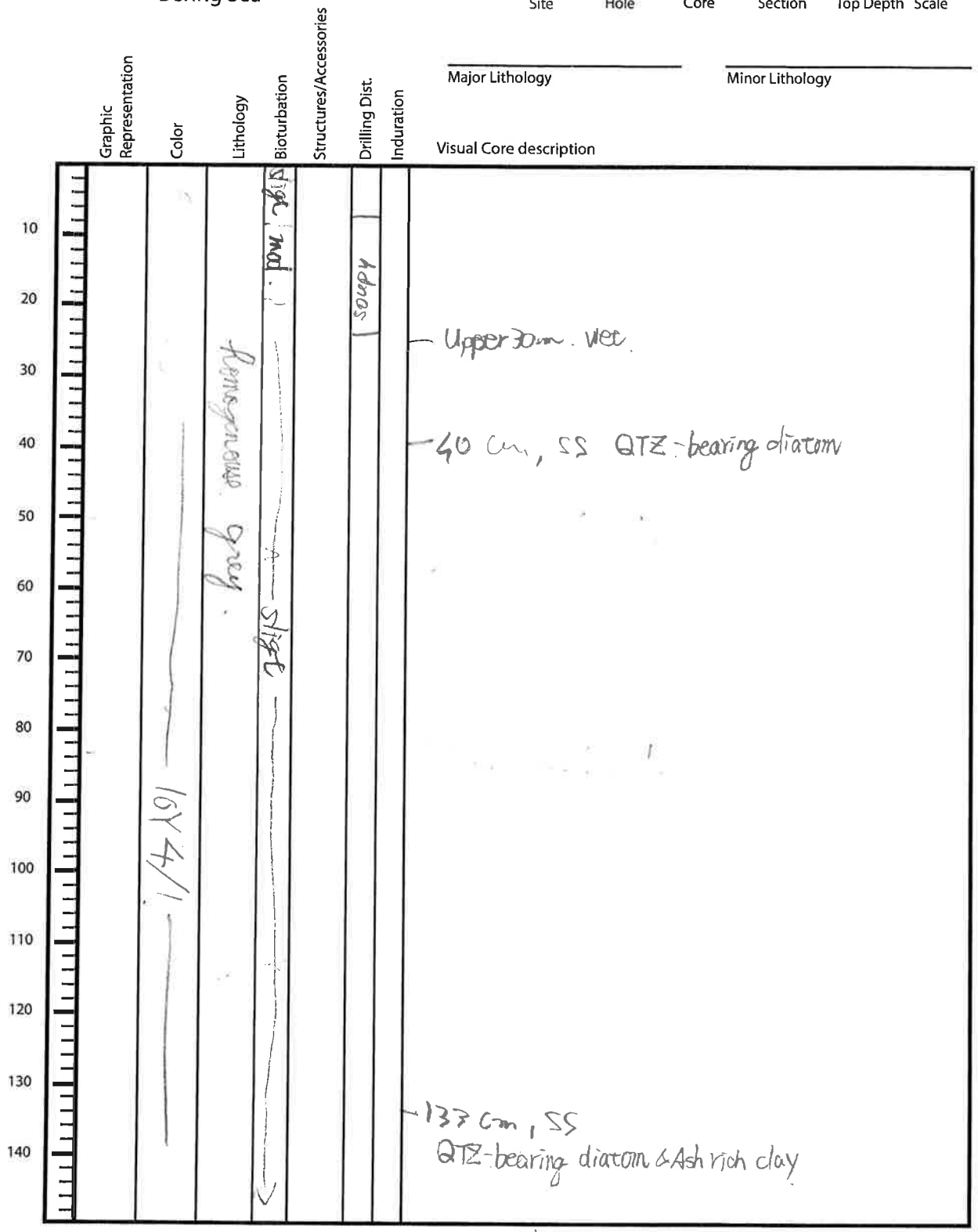
Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
2	✓ Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	✓ Nassellaria
	Diatoms
75	✓ Centric
19	✓ Pennate
2	✓ *Chaetoceros* Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Expedition 323
Bering Sea

U1339 A 3H 1 0
Site Hole Core Section Top Depth Scale

Major Lithology

Minor Lithology

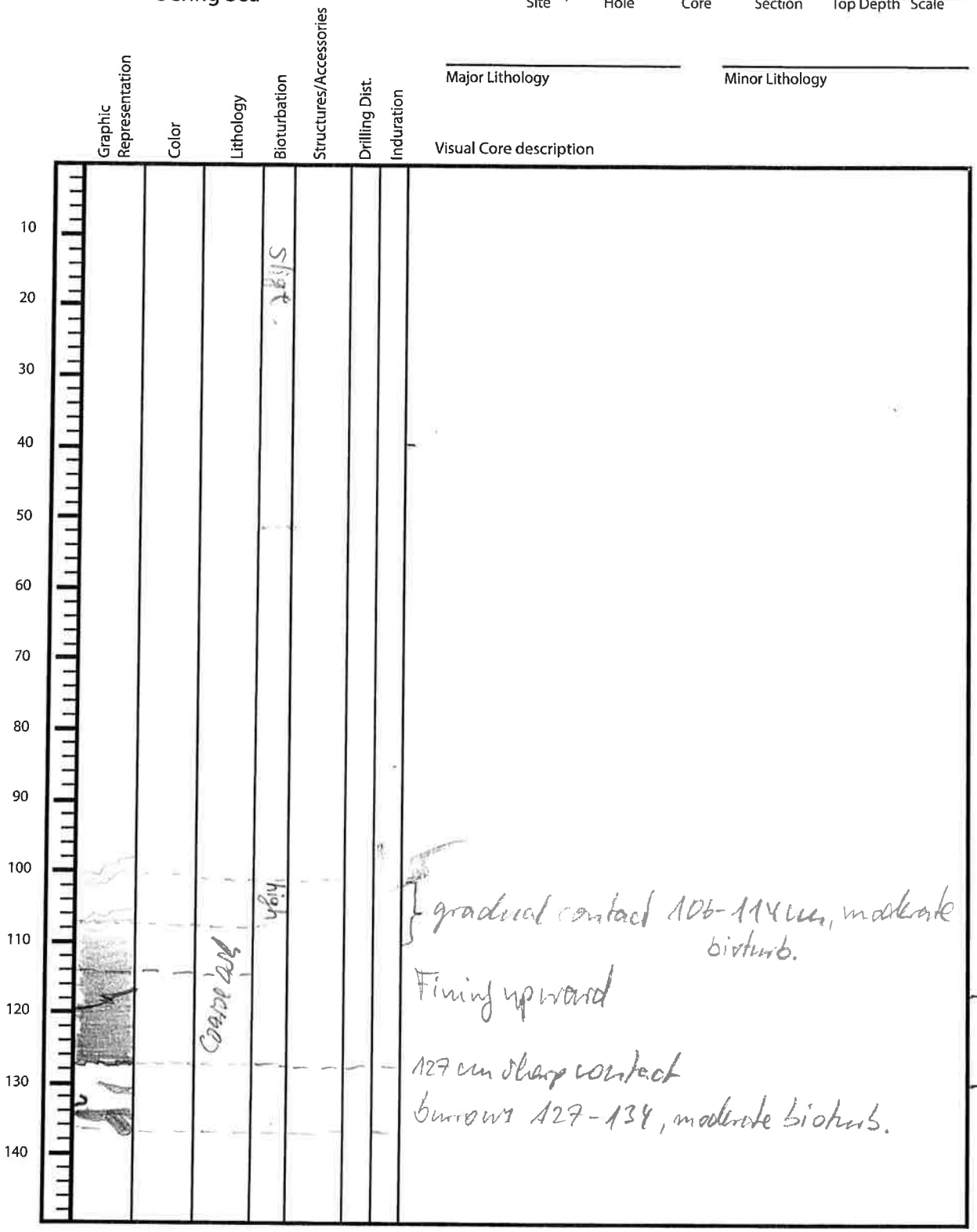


Observer: Mike Date: 7/15

Expedition 323
Bering Sea

U1339 A 3H 2 150 ____
Site Hole Core Section Top Depth Scale

Major Lithology ____ Minor Lithology ____

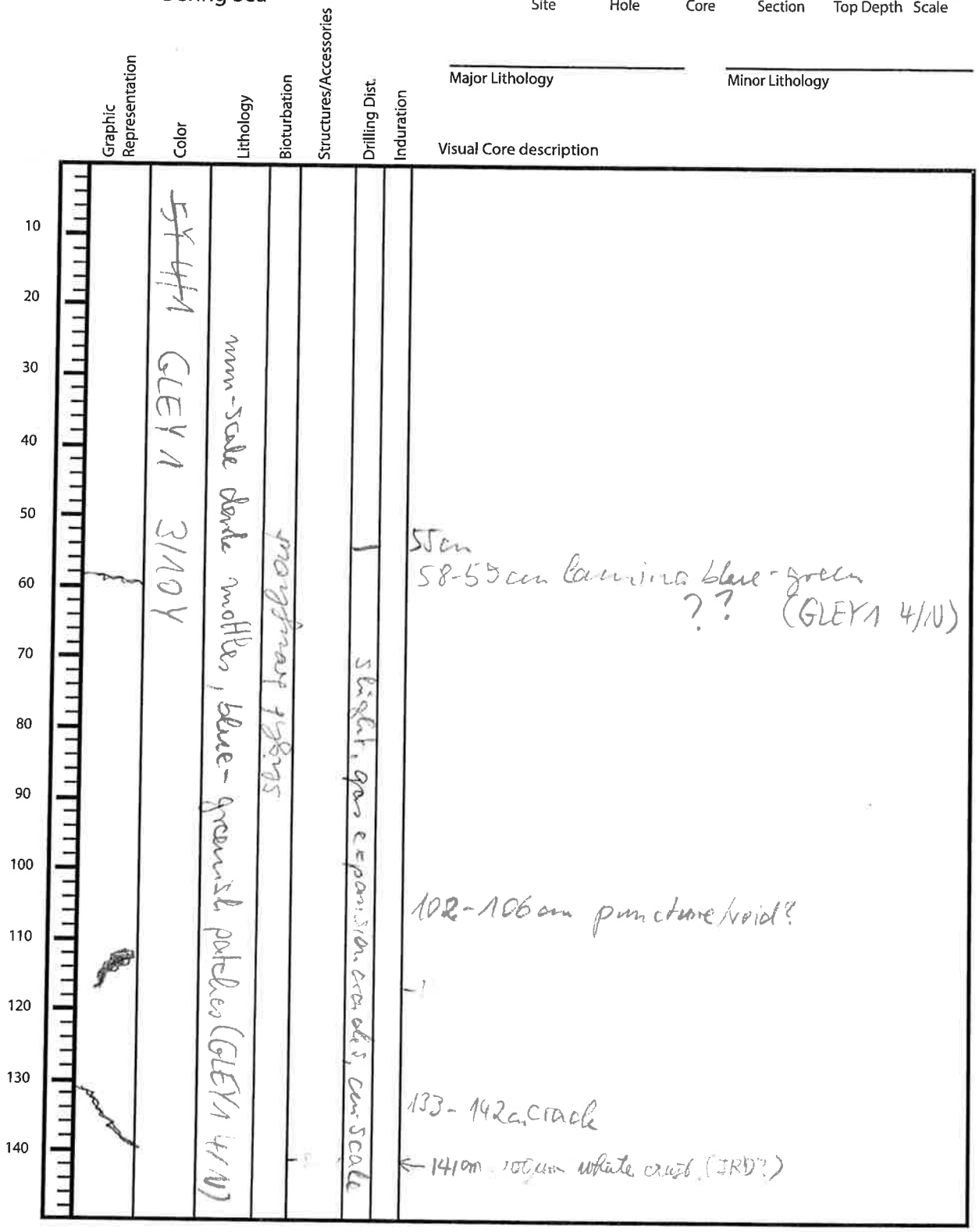


Observer: Mariz Date: 7/18

Expedition 323
Bering Sea

U1339 | A | 3H | 3 | 3.00 |
Site | Hole | Core | Section | Top Depth | Scale

Major Lithology | Minor Lithology



Observer: Mara Date: 7.13

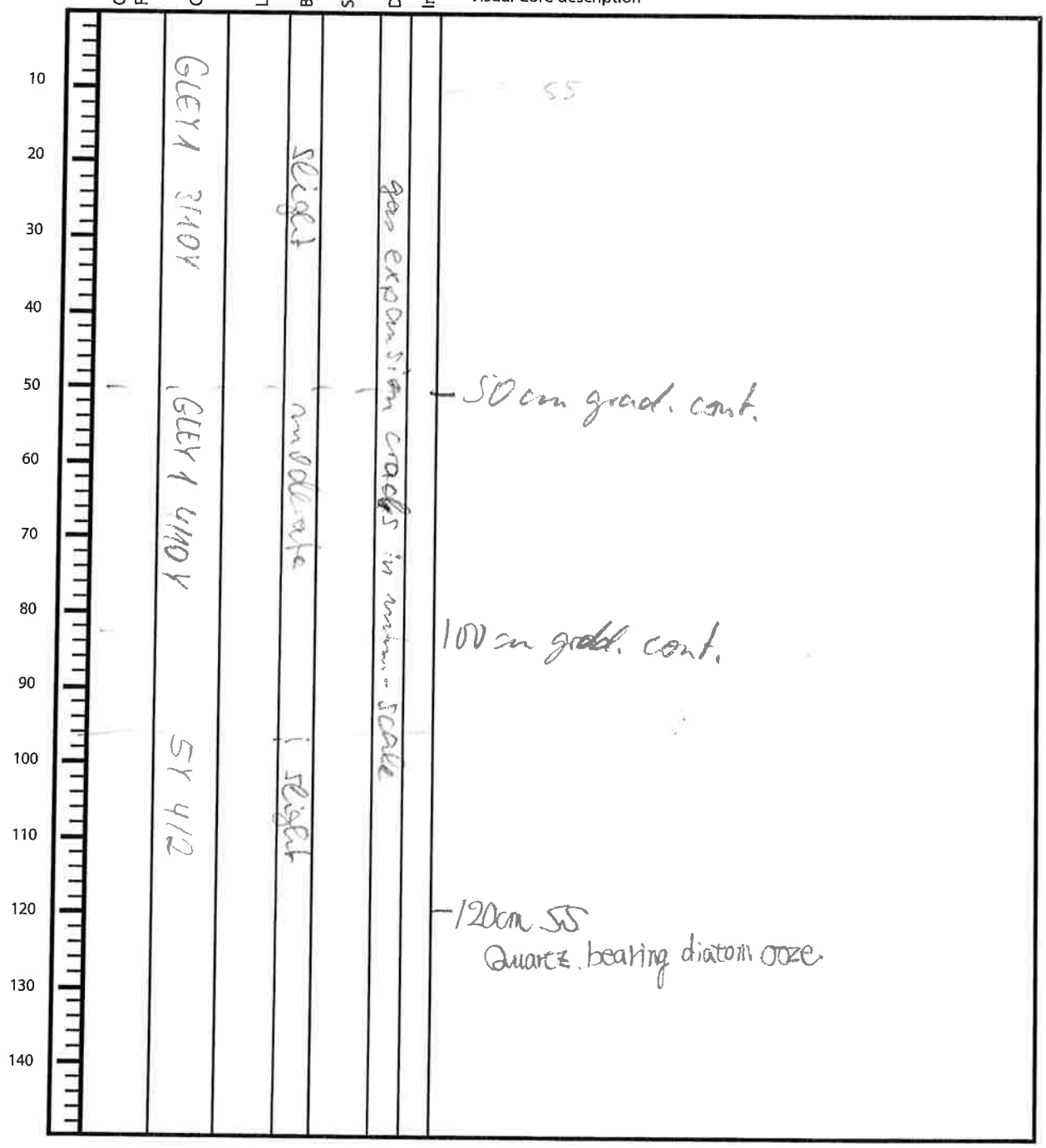
Expedition 323
Bering Sea

U1339 | A | 3H | 4 | 4.50
Site | Hole | Core | Section | Top Depth | Scale

Major Lithology

Minor Lithology

Graphic Representation | Color | Lithology | Bioturbation | Structures/Accessories | Drilling Dist. | Induration | Visual Core description



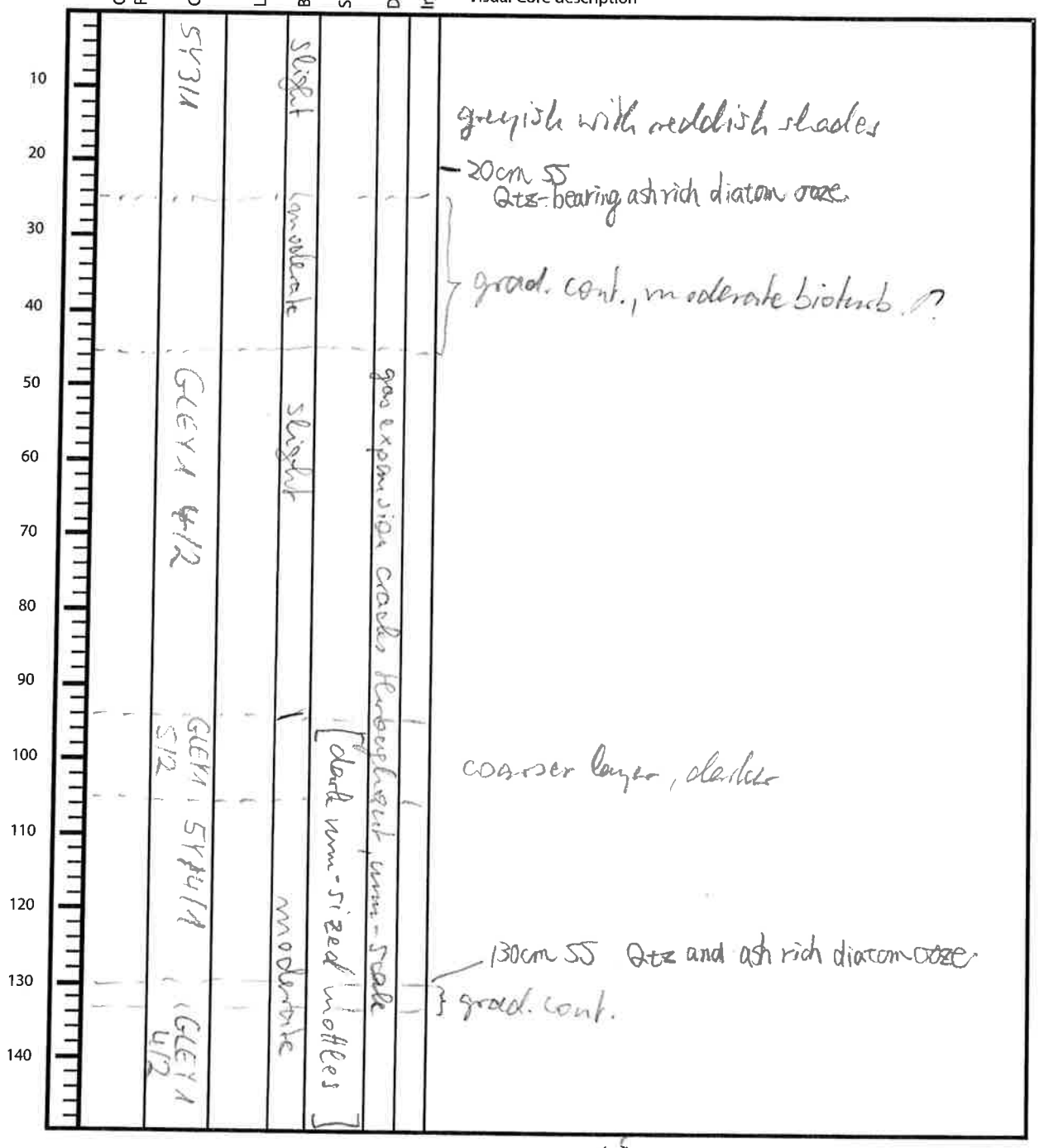
Observer: Mar

Date: 2/18

Expedition 323
Bering Sea

U1339 | A | 3H | 5A | 6.00 |
Site | Hole | Core | Section | Top Depth | Scale

Major Lithology | Minor Lithology



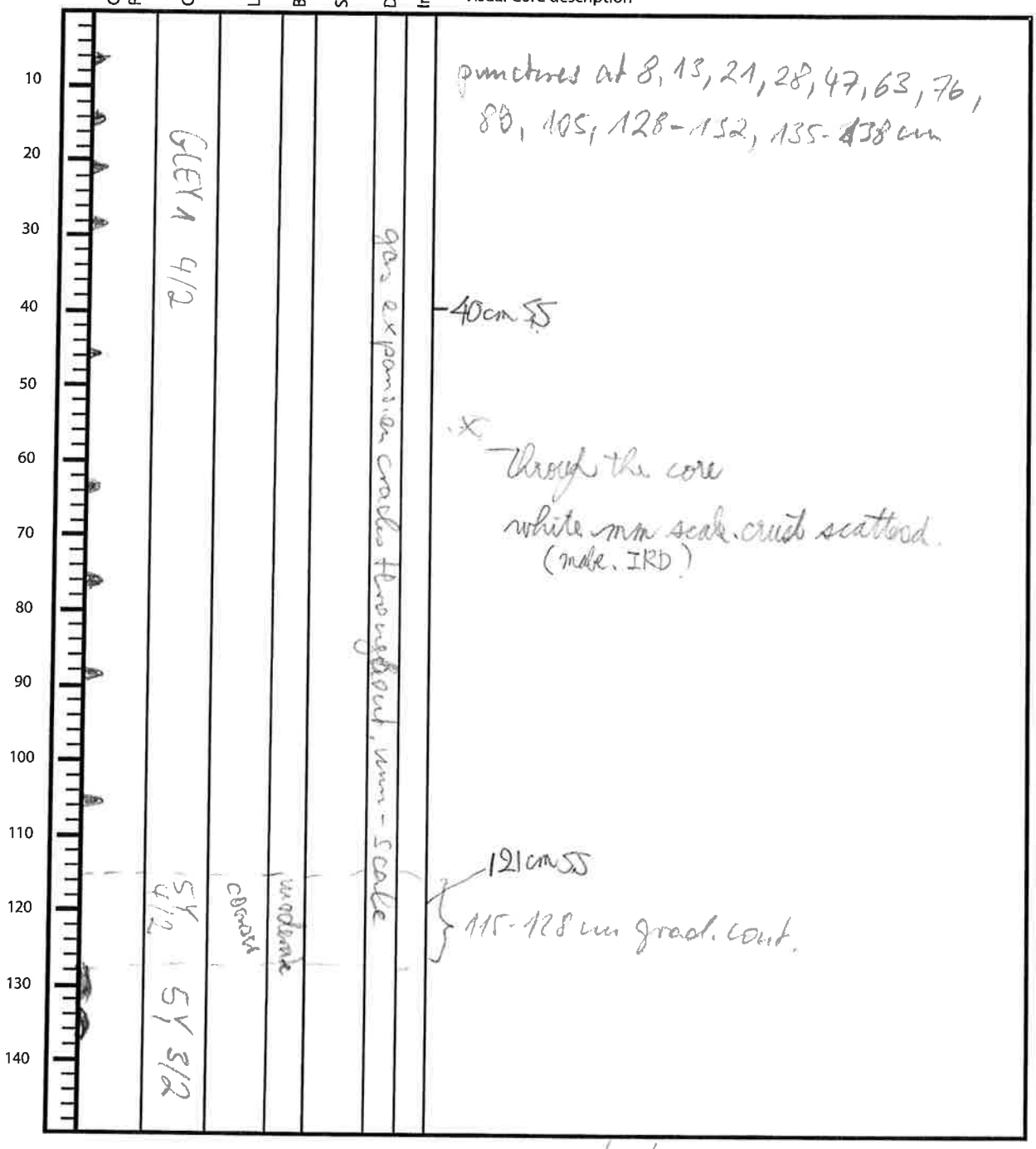
Observer: Mare

Date: 7/18

Expedition 323
Bering Sea

U1339 | A | 3H | 6 | 7.50 | ____
Site | Hole | Core | Section | Top Depth | Scale

Major Lithology ____ Minor Lithology ____



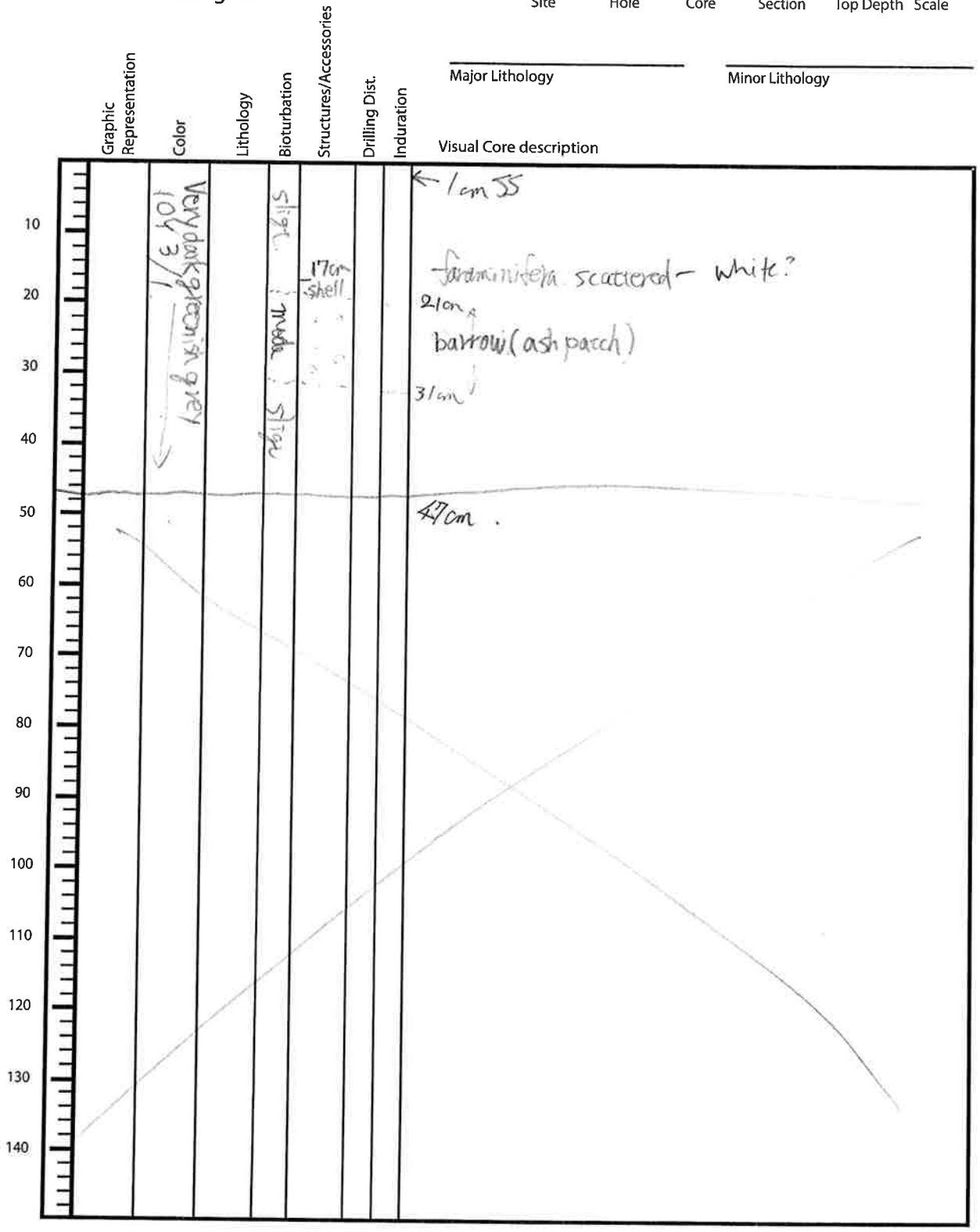
Observer: Clare Date: 7/18

Expedition 323
Bering Sea

U1339 A 34 7 9cm
Site Hole Core Section Top Depth Scale

Major Lithology

Minor Lithology



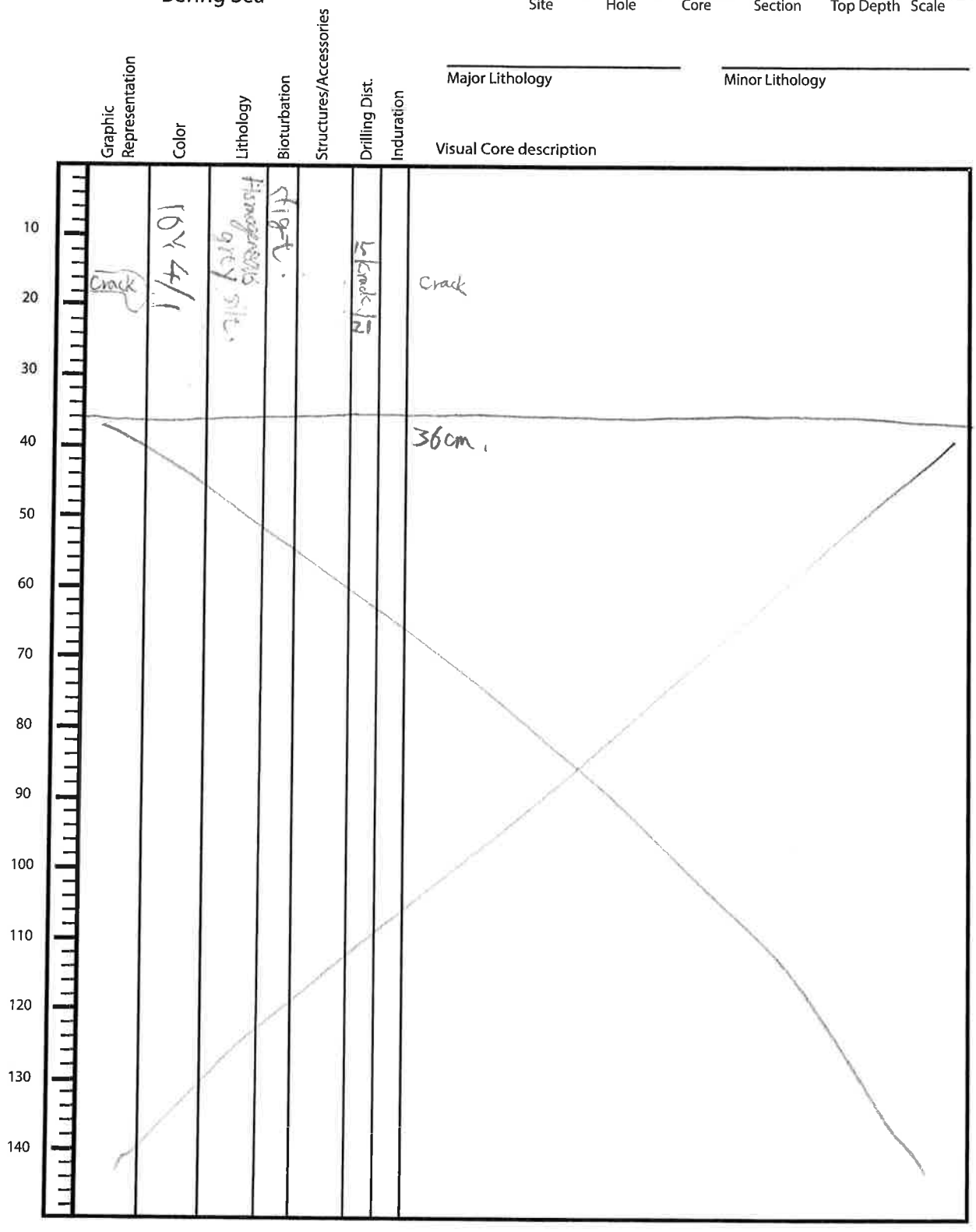
Observer: _____ Date: _____

Expedition 323
Bering Sea

U1339 A 3H C.C. 9.47m
Site Hole Core Section Top Depth Scale

Major Lithology

Minor Lithology



Observer: _____ Date: _____

inSM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1339	A	3	H	CC	18cm	

Sediment/Rock Name	Diatom rich [illegible] clay	Observer	Beth

Percent Texture		
Sand	Silt	Clay
	30	70

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
15	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
50	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
10	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
10	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
10	Centric
5	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

50 clay
25 silt
Normalize → 67 clay
33 silt

✓

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1339	A	3	H	7A	1cm	

Sediment/Rock Name	diatom silt

Observer	Beth

Diatom-rich fine-ashy silt

Percent Texture		
Sand	Silt	Clay
	90	10

Comments: very thin slide

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
25 A	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
15 A	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
10 A	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
20 A	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
15 A	Centric
5 A	Pennate
10 A	*Chaetoceros* Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1339	A	3	H	SA	20cm	

Sediment/Rock Name	~~Qtz bearing ash rich Diatomooze~~ Diatom five ash	Observer	Beth

Percent Texture		
Sand	Silt	Clay
	90	10

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
8	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
2	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
5	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
3	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
30	Vitric grain Silt-sized
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
32	Centric
20	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

mSM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1339	A	3	H	SA	130cm	

Sediment/Rock Name	Clay ~~T. rich~~ Diatom ooze	Observer	Beth

Percent Texture		
Sand	Silt	Clay
	70	30

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
10	Quartz
	Feldspar
2	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
10	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
3	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
10	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms - All fragments
30	Centric
35	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

✓

in S.W.

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1339	A	3	H	6A	40cm	

Sediment/Rock Name		Observer	
	~~Qfz~~ DIATOM OOZE		Beth

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
18	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
5	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
7	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
5	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
65	Diatoms
	Centric
	Pennate
4	*Chaetoceros* Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1339	A	3	H	6A	121 cm	

Sediment/Rock Name	Observer
Fine Ash diatom silt	Beth

Diatom-rich fine-ashy silt

Percent Texture		
Sand	Silt	Clay
20	70	10

Comments:

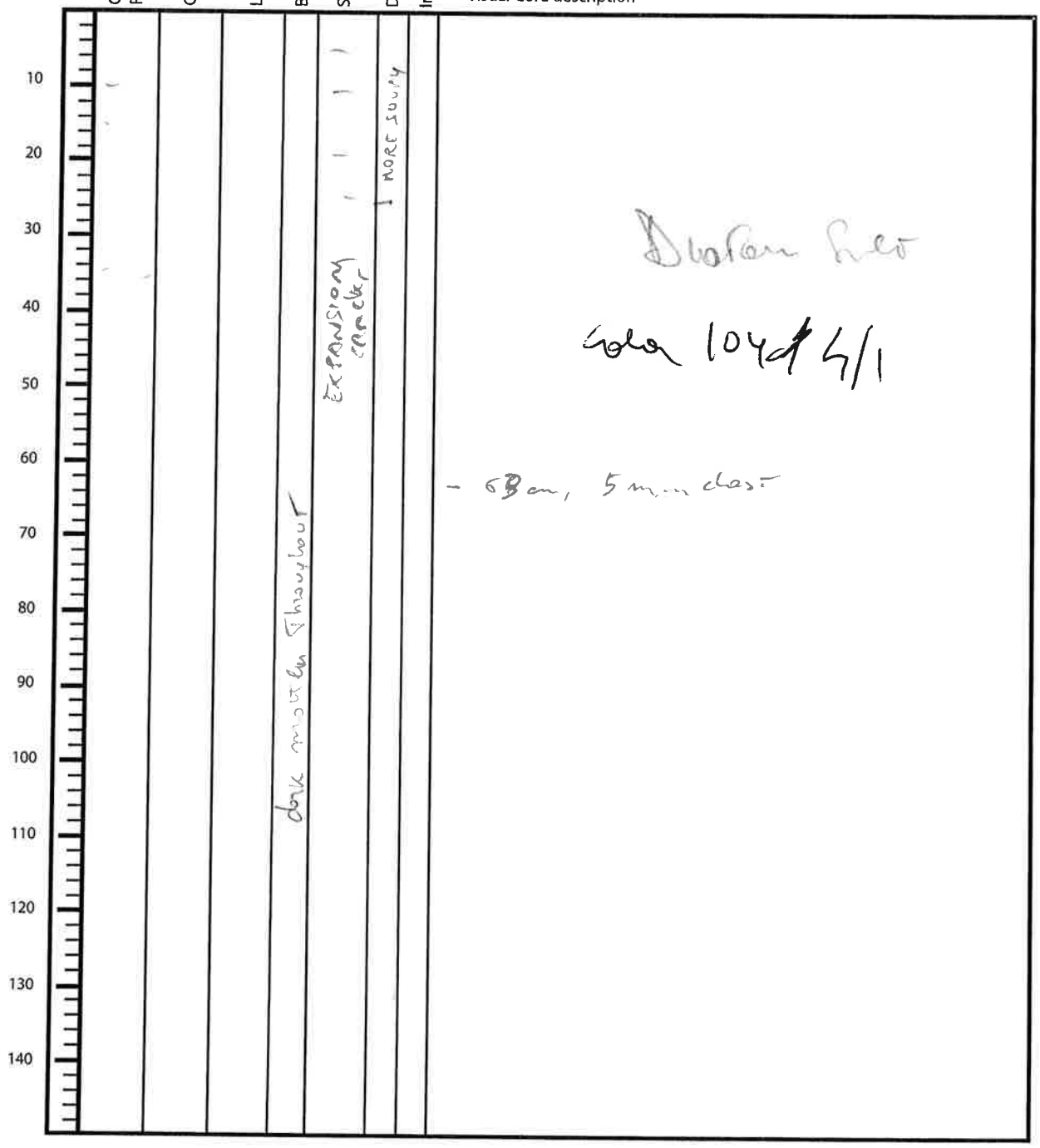
Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
30	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
30	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
15	Centric
5	Pennate
15	*Chaetoceros* Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Expedition 323
Bering Sea

1339 | A | 4 | 1 | | |
Site | Hole | Core | Section | Top Depth | Scale

Major Lithology | Minor Lithology

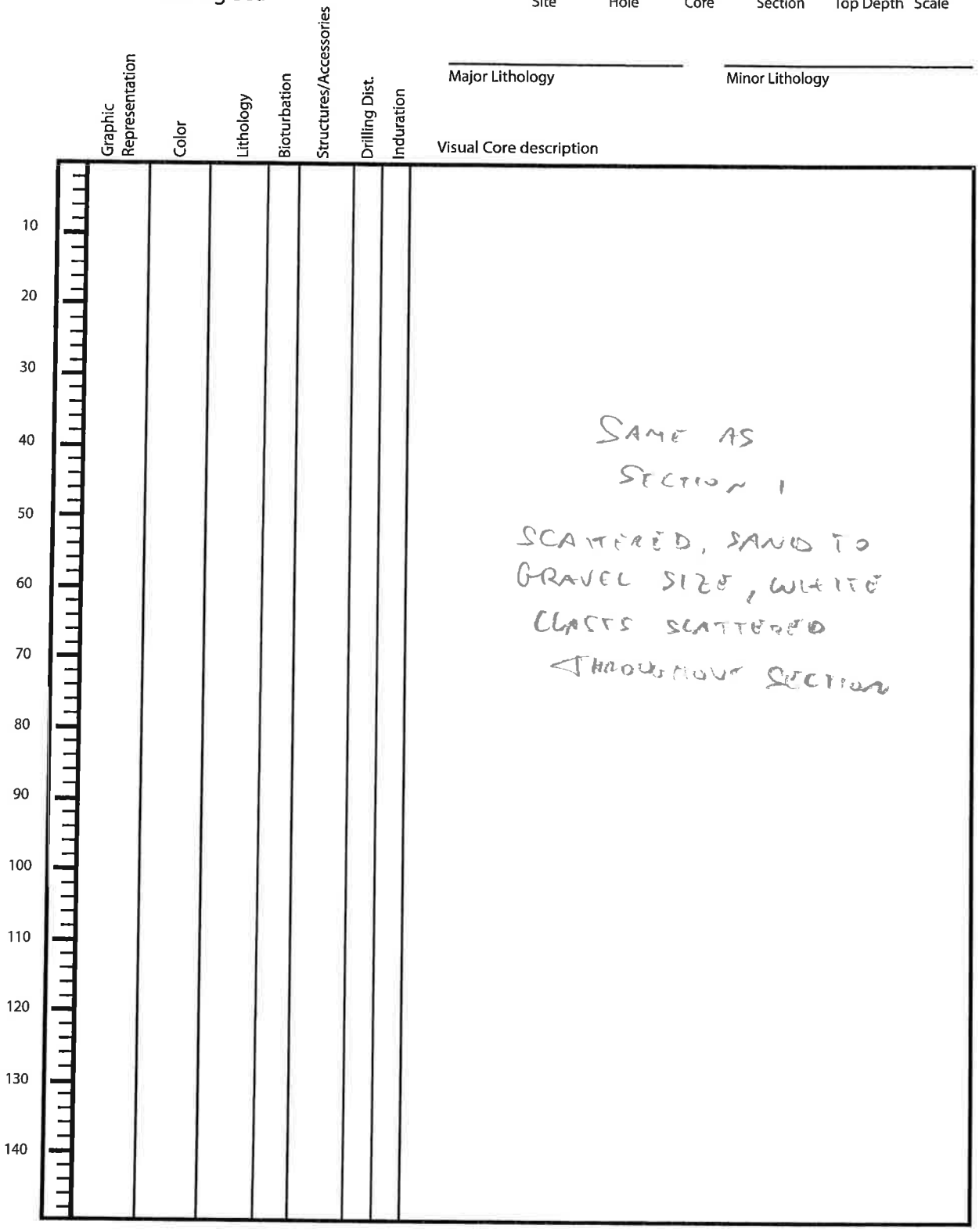


Observer: _____ Date: _____

Expedition 323
Bering Sea

1339 A 4 2 ____ ____
Site Hole Core Section Top Depth Scale

Major Lithology ____ Minor Lithology ____

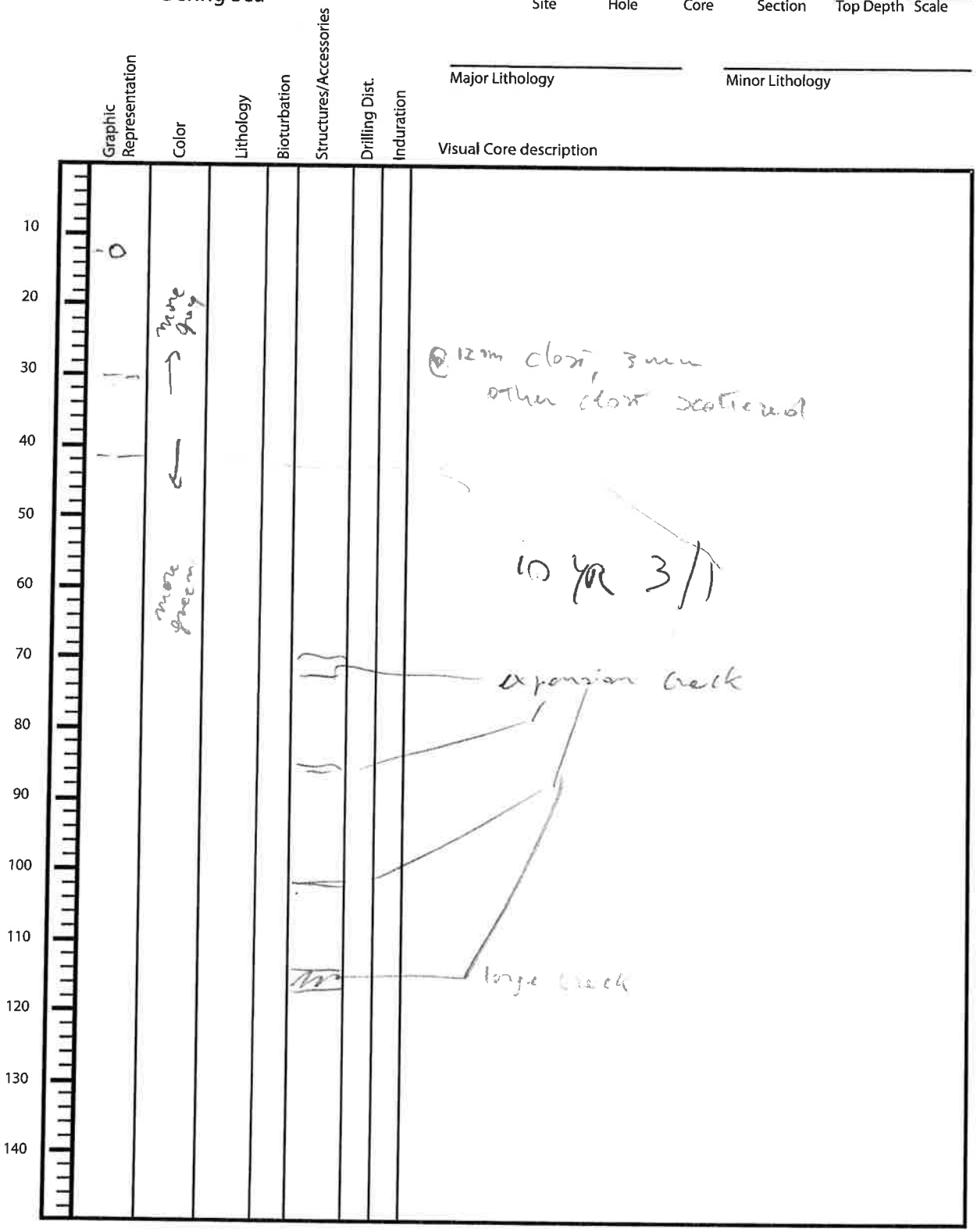


Observer: _____ Date: _____

Expedition 323
Bering Sea

1339 A 4 3 ____ ____
Site Hole Core Section Top Depth Scale

Major Lithology ____ Minor Lithology ____

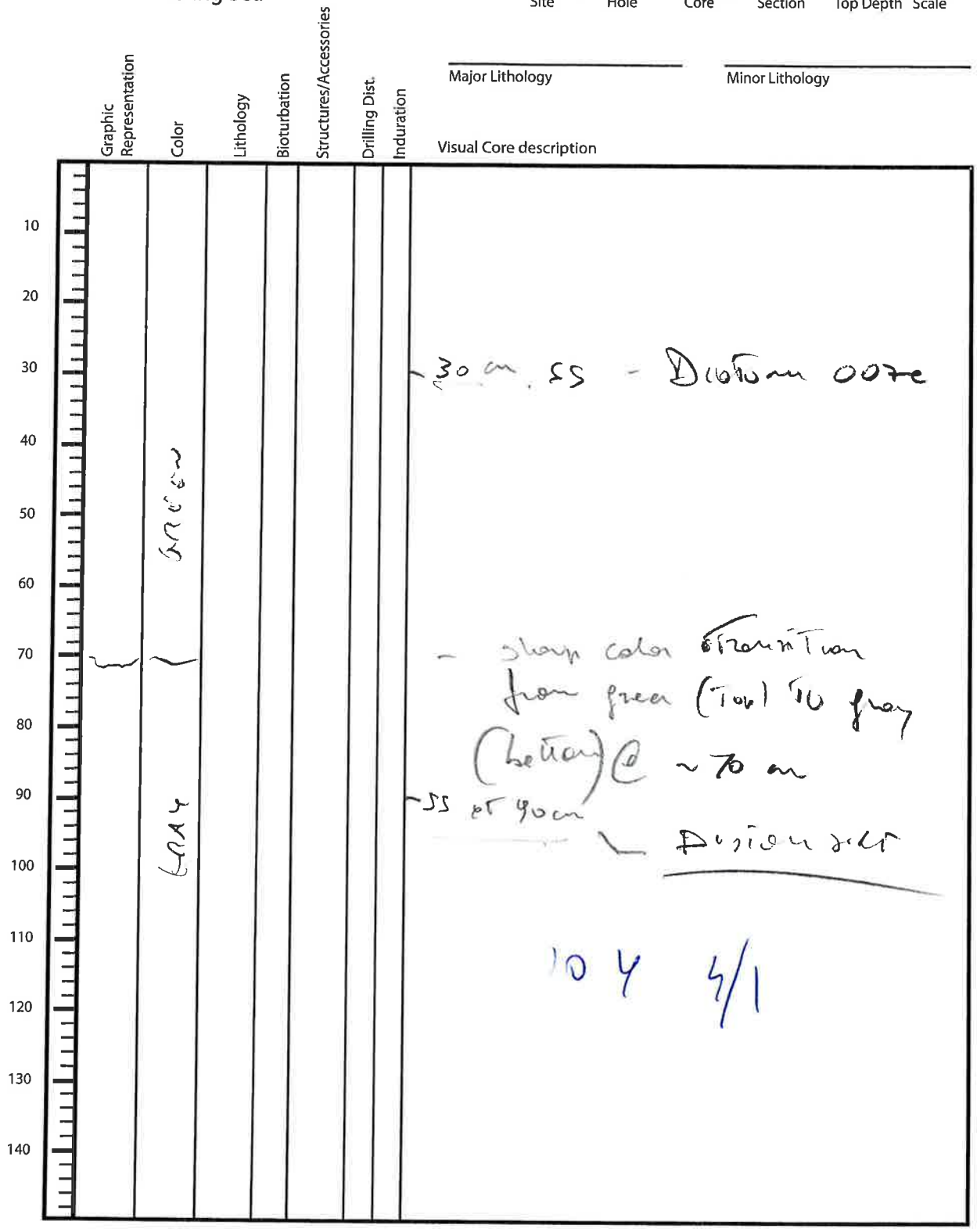


Observer: ____ Date: ____

Expedition 323
Bering Sea

1334 | A | 4 | 4 | | |
Site | Hole | Core | Section | Top Depth | Scale

Major Lithology | Minor Lithology

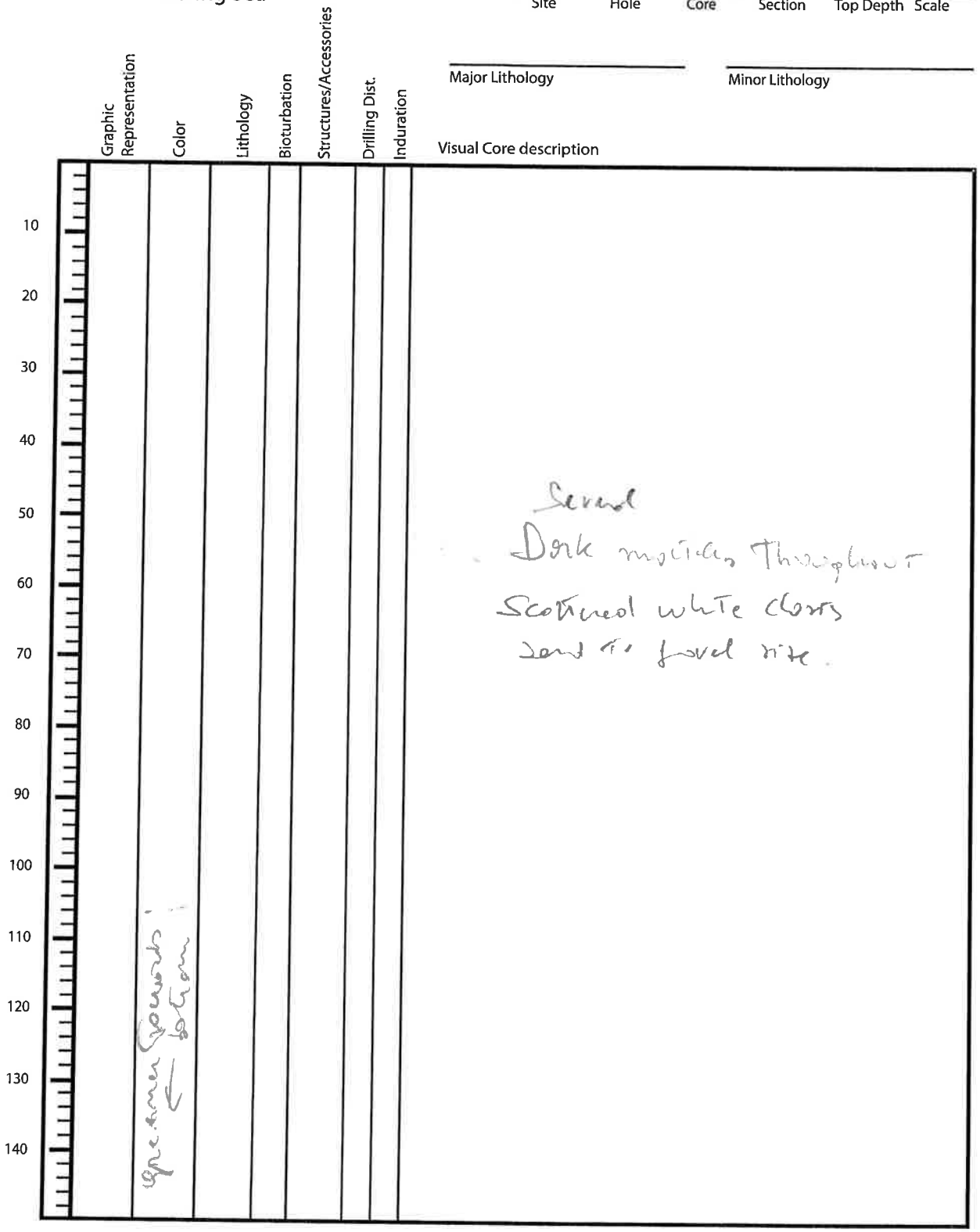


Observer: _____ Date: _____

Expedition 323
Bering Sea

U1339 A 4 5 ____ ____
Site Hole Core Section Top Depth Scale

Major Lithology ____ Minor Lithology ____

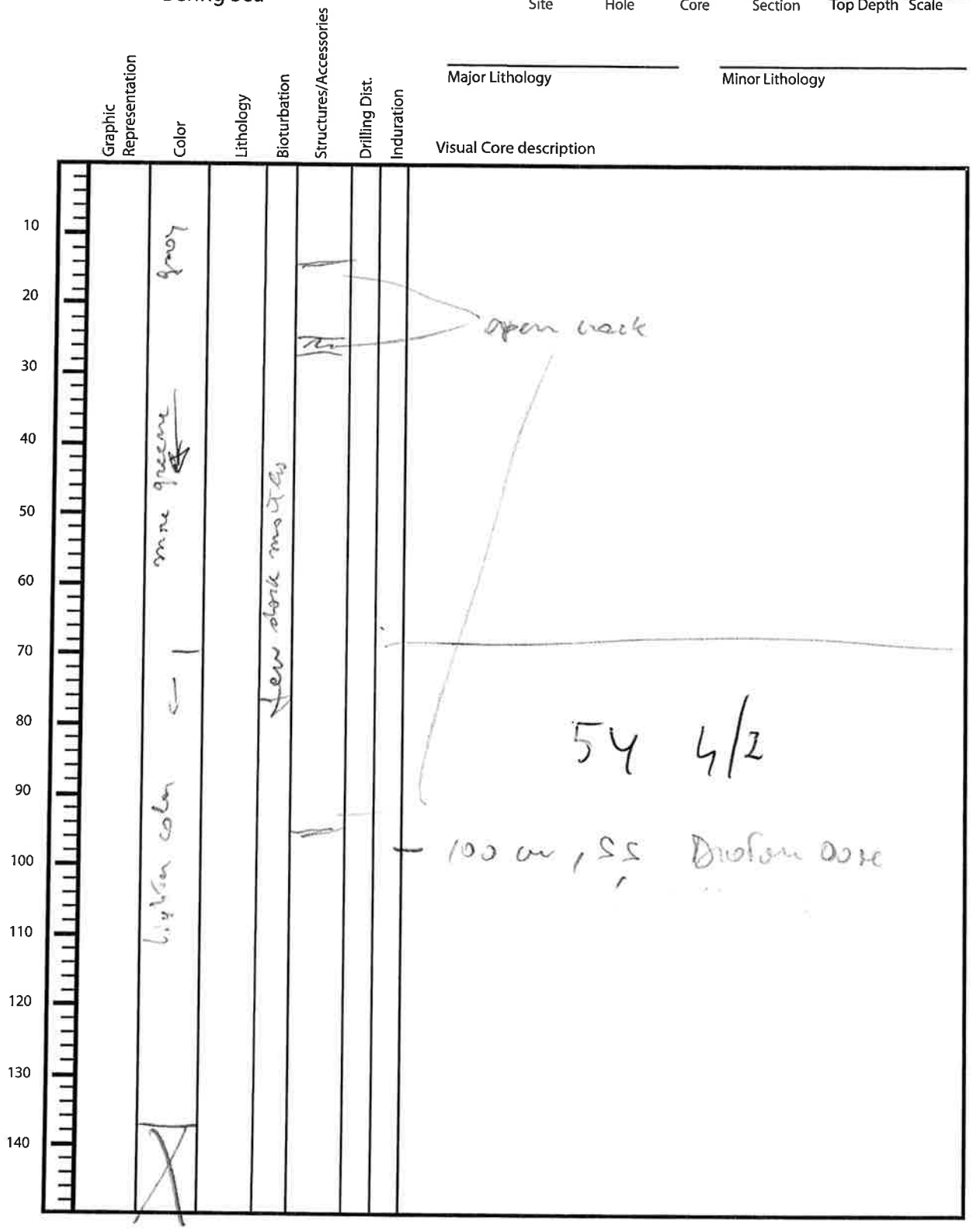


Observer: ____ Date: ____

Expedition 323
Bering Sea

U1331 | A | 4 | 5 | | |
Site | Hole | Core | Section | Top Depth | Scale

Major Lithology | Minor Lithology

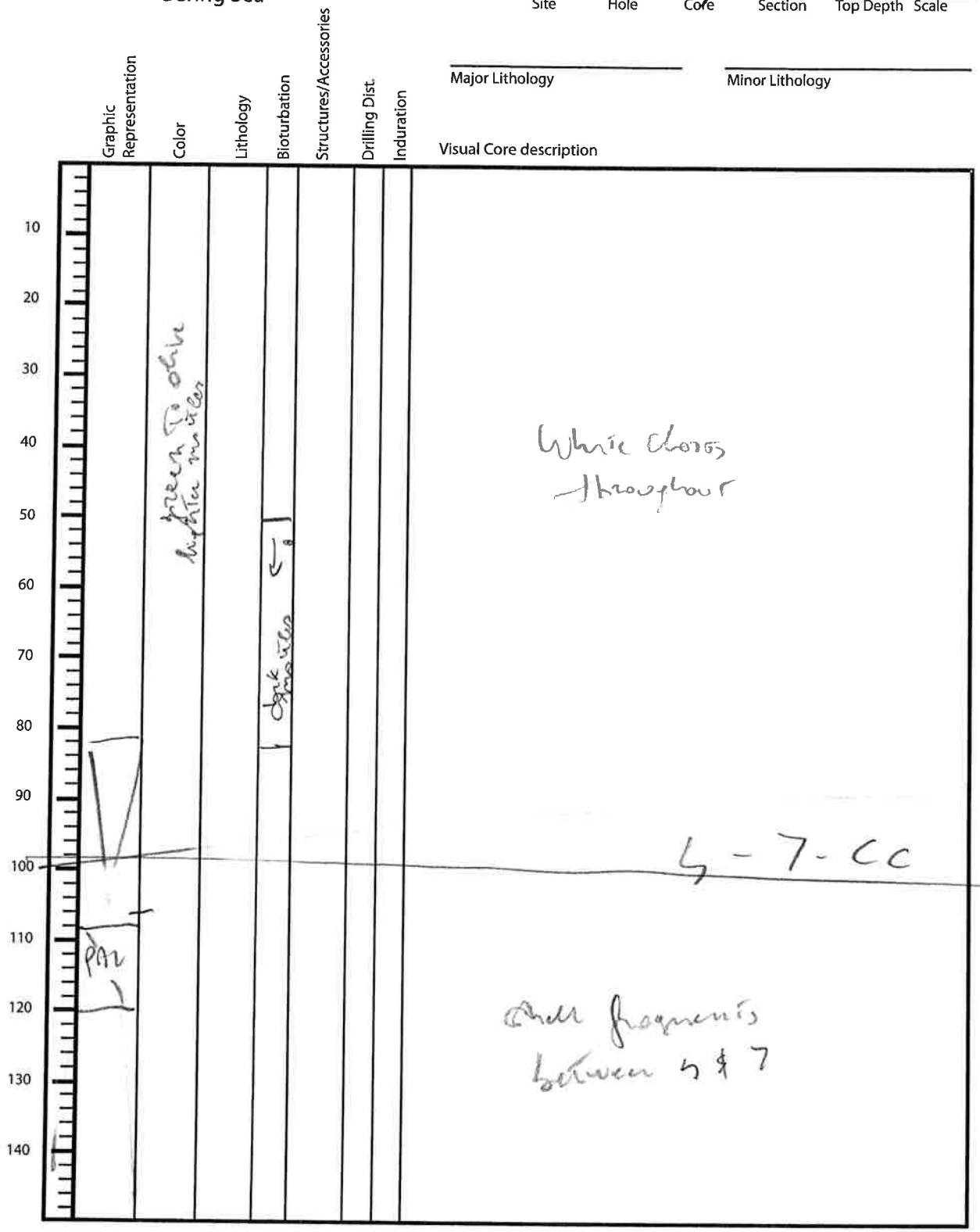


Observer: _____ Date: _____

Expedition 323
Bering Sea

U1339 A 5 7 ____ ____
Site Hole Core Section Top Depth Scale

Major Lithology ____ Minor Lithology ____



Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	1339	A	4		4	30 cm	

Sediment/Rock Name	Diatom Ooze	Observer	IWA

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
15 %	Quartz
5 %	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
X	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
5 %	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
X	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
75 %	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	1333P	A	4		4	90cm	

Sediment/Rock Name	Diatom Set	Observer	IWA

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
35%	Quartz
10%	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
R	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
R	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
5%	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
25%	Centric
25%	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
	1334	A	4		6	100 cm	

Sediment/Rock Name	Volcanic Ooze

Observer	

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
15 %	Framework minerals
	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
5 %	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
70 %	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1339	A	3	H	1A	40cm	

Sediment/Rock Name	~~QUARTZ BEARING~~ DIATOM CLAYEY SILT	Observer	BCM

Percent Texture		
Sand	Silt	Clay
	70	30

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
10	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
30	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
2	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
1	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
1	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
50	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
1	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1339	A	3	H	1A	133cm	

Sediment/Rock Name: DIATOM-RICH silty CLAY ~~CLAY~~
~~QUARTZ-BEARING DIATOM & ASH-RICH CLAY~~

Observer: Beth

Percent Texture		
Sand	Silt	Clay
	30	70

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
10	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
50	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
5	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
15	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
20	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

X

in S.T.

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1339	A	3	H	2A	118cm	

Sediment/Rock Name	~~Quartz rich~~ vitric fine ash	Observer	Beth

fine ash

Percent Texture		
Sand	Silt	Clay
10	70	20

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
◢	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
15 ◢	Crystal grain QUARTZ
5 ◢	Plag
80 ◢	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

✓

45 - Silt
30 - D
2 - Vit.

in S.P.

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Interval (cm) Bottom
323	U1339	A	3	H	4A	10cm	

Sediment/Rock Name	Observer
~~Qtz-bearing vitric diatom clay~~ Diatom-rich fine-ashy clay	Beth

Percent Texture		
Sand	Silt	Clay
	25	75

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
7	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
30	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
3	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
25	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
30	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

X

in S.T.

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top	Bottom
323	U1339	A	3	H	4A	120 cm	

Sediment/Rock Name	~~Mud/Clay~~ diatom ooze

Observer	Beth

Percent Texture		
Sand	Silt	Clay
0	90	10

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
7 A	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
5 A	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
3 A	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
42 A	~~90~~ Centric
35 A	40 Pennate
8	10 *Chaetoceros* Resting Spores
A	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

✓