

Expedition 323
Bering Sea

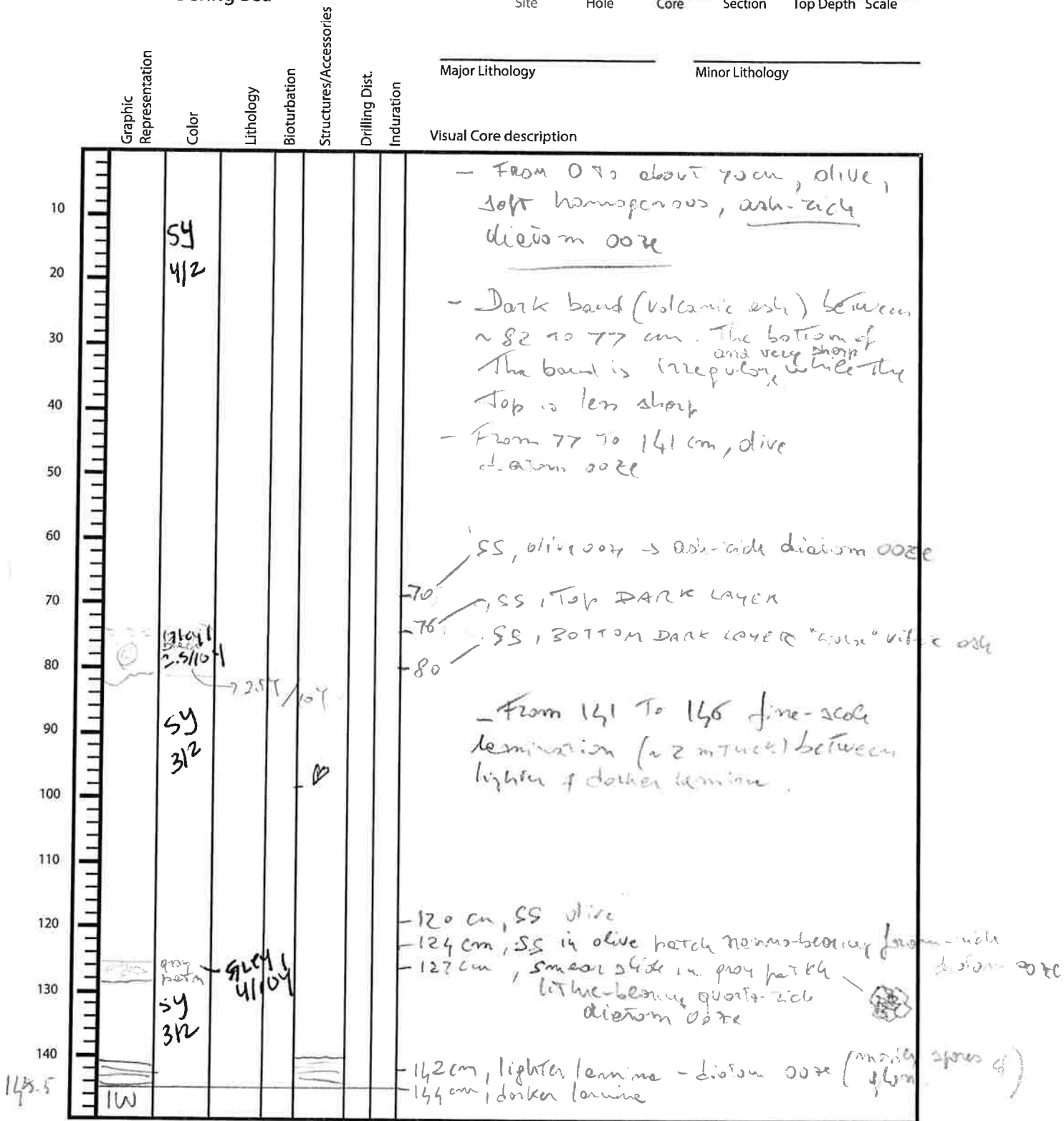
1339 A 1 1 0
Site Hole Core Section Top Depth Scale

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
							Visual Core description	
	57 3/2 MAY 12						0 cm, SS	olive, quartz-bearing diatom ooze mainly homogeneous and soft. the upper ~10 cm are darker (redox boundary?) & soufier
	54 4/2						lighter burrow (?) @ 36 cm	light olive burrow (?) @ ~36 cm
							70 cm, SS	

Observer: _____ Date: _____

Expedition 323
Bering Sea

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



Observer: _____ Date: _____

SD: smear slide

Expedition 323
Bering Sea

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

	Graphic Representation	Color	Lithology	Biurbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
10		6/10/1							
20		4/1							
30		10/1							
40		10/1							
50		4/1							
60									
70									
80									
90									
100									
110									
120									
130									
140									

Major Lithology _____ Minor Lithology _____

Visual Core description

10 cm, SD

Observer: _____ Date: _____

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

in S.M.

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1339	A	1	4	1	0	cm

Sediment/Rock Name	Diatom ooze	Observer	GB.
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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 ✓
30	Diatoms ✓
	70 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

Name

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

INSR.

Sediment/Rock Name	Diatom ooze	Observer	G.B.
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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

None ✓

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

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

Sediment/Rock Name	diatom ooze diatom ooze	Observer	Akora
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Percent Texture		
Sand	Silt	Clay
0	50	50

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
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
22	22/4 Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
	Calcareous
	✓ Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
80	5% 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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1339A		1	H	2A	76	76

Sediment/Rock Name	Fine Volc. Ash	Observer	Okura
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Percent Texture		
Sand	Silt	Clay
31	63	6
10	20	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	
33%	10. Crystal grain Quartz
	Feldspar
67%	70+ Vitric grain ~70µm.
	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	Bottom
323	U1339	B	1	H	2A	120cm	

Sediment/Rock Name	LIMM, COCCO, ASH BEARING DIATOM Ooze	Observer	BETH
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S- 24
B- 70

Nannofossil-bearing diatom
ooze

Percent Texture		
Sand	Silt	Clay
3	85	12

Comments:

V- 6

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
62	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	V1334	A	1	H	2	124	

Sediment/Rock Name	Nanno-bearing Foraminifera Diatom ooze	Observer	Beth
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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	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
5	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
	Calcareous
7	Foraminifera
3	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	Silicoflagellates
1	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	Bottom
323	U1339	A	1	H	2A	127	

Sediment/Rock Name	<i>limonite clayey silt with diatom ooze</i>	Observer	BETH
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B-54
S-39

Diatom clayey silt

Percent Texture		
Sand	Silt	Clay
15	70	15

Comments: *V-5*

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	<i>Chaetoceros</i> Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

in 5.12.

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

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

Sediment/Rock Name	<i>Siliciclastic ooze</i>	Observer	<i>AKIRA</i>
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Percent Texture		
Sand	Silt	Clay
5	90	5

Comments:

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

Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	<input checked="" type="checkbox"/> Radiolarians
	Spumellaria
	Nassellaria
19.7	<input checked="" type="checkbox"/> Diatoms
6.1	<input checked="" type="checkbox"/> Centric
	<input checked="" type="checkbox"/> Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
10.2	<input checked="" type="checkbox"/> Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

in S. 17.

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	11339	A	1	H	2	144	

Sediment/Rock Name	<i>Diatomaceous</i>	Observer	BETH
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B - 69
 S - 14
 V - 15

Diatomaceous

Percent Texture		
Sand	Silt	Clay
	95	5

Comments:

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
	Glaucanite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
10	Zeolite
Opaque minerals	
5	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
Crystal grain	
15	Vitric grain <i>green</i>
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
Calcareous	
2	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
25	Centric <i>girdles</i>
10	Pennate
30	<i>Chaetoceros</i> 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	Bottom
323	U133A	A	1	H	3A	70	10

Sediment/Rock Name	Fine Vitric Ash	Observer	AKO
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Percent Texture		
Sand	Silt	Clay
2	97	5

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
8.5	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
8.5	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glaucanite
	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
	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	B39	A	1	H3A		36	38

Sediment/Rock Name	Diatom rich silt ✓	Observer	akira
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Percent Texture		
Sand	Silt	Clay
2	90	8

Comments:

B 23
S 28
✓ 0

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
47	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
9	Rock fragments <i>granite</i>
Accessory/trace minerals	
9	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
9	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
	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
	Centric
	Pennate
	<i>Chaetoceros</i> 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	UB39	A	1	H	3A	112	112

in 5.17.

Sediment/Rock Name	Diatom rich silt ✓	Observer	AKIRA
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B 52
S -48
✓ -0

Percent Texture		
Sand	Silt	Clay
2	90	8

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
25% ✓	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
B 5% ✓	Plagioclase
%	Rock fragments
Accessory/trace minerals	
	Micas
5% ✓	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
125% ✓	Centric ← fragment
125% ✓	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

1339
Site

A
Hole

2H
Core

1
Section

~~1~~
Top Depth

Scale

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
							Visual Core description	
							0-2 slightly Bioturbated	
							3-7 SY 4/3 Diatom ooze with ash ↳ foran. (swear slides)	
							33-150 ash patchy (Barrows?) Particulate	
							33-37 Park ash (SY 2.5/1) Barrow ↳ Patch like	
	SY 4/2						44-48 Dark ash (SY 2.5/1) Same color	
							53-61 Dark ash (SY 2.5/1)	
							63-81 Dark ash patches	
							75-86 62.5-64.5 Ash layer?	
							98-100 Hole? (IRD)	
							108-118 Vertical Stic like crack	
							130-137 Vertical Stic like crack @ edge	
							Gas expansion?	
							(150) end of section	

Observer: Hiro A.

Date: _____

Expedition 323
Bering Sea

1339 Site A Hole 2H Core 2 Section ~~1~~ Top Depth Scale

Major Lithology	Minor Lithology	Visual Core description	Induration	Drilling Dist.	Structures/Accessories	Bioturbation	Lithology	Color	Graphic Representation
		0-150 ashy patch homogeneous							
		24-25 crack (Gas expansion)						5Y 4/2	
		48-49 horizontal lamina (blueish yellow)							
		49-55 vertical crack							
		125-129 ash layer						5Y 4/2	
								5Y 3/1	

Observer: _____ Date: _____

Expedition 323
Bering Sea

1339 Site A Hole 214 Core 3 Section 310 Top Depth Scale

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology	Visual Core description
	5Y 4/2		S						<p>0-150 slight Bioturbation</p> <p>67-74 Crack (Gas expansion?)</p> <p>136 → Sharp boundary</p> <p>136-146 ash (10YR 4/1)</p> <p>137-139 gravel gravel-sized Hole</p> <p>140-142 gravel-sized Hole</p> <p>146-Sharp</p>

Observer: Hiro A. Date: _____

Expedition 323
Bering Sea

Site 1339 Hole A Core 2H Section 4 Top Depth 6.0 Scale 1:10

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
							Visual Core description	
10	5F							
20	4/1						sub-angular	
30							22-26 gravel size grain	
40							very (40mm)	
50							47-56	
60							vertical & horizontal crack	
70								
80							80-90 Moderate bioturbation	
90							88-96 Crack	
100							90 gradational	
110							101-128 slight Bioturbation	
120							106-120 Crack	
130							→ 128 rounded (2mm) gravel sized	
140							133-135 Crack	

Observer: Hiro Oshida Date: 7/18

Expedition 323
Bering Sea

Site ## Hole 211 Core 5 Section ## Top Depth 60 Scale

Graphic Representation	Color	Lithology	Biocurbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
	5Y 4/1						B. 30 5Y 4/1 - 4 gravel size (4.5mm) 15-16 crack	subangular
	5						- 12 gravel size (3mm) ↳ subangular - 18 gravel size (2mm)	Small particles (1mm) are present throughout
	5Y 4/2			Slight through out			30-77 5Y 4/2 35 crack	white particle (4-5mm)
	5Y 4/1						54 crack	
							- 38 gravel sized (5mm) → subrounded	
							77 sharp contact	
							77-180 5Y 4/1	
							99-87 95 crack	
							→ 120 gravel size (8mm) subangular	

Observer: Christian Date: 7/18

Expedition 323
Bering Sea

323 1A 2 6 ~~7~~
 Site Hole Core Section Top Depth Scale

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
							Visual Core description	
	SY 412							
				IRD			42.5-45cm subrounded grains	
			slight throughout					
				IRD			101-113cm gravel-size, sub-rounded	
	SY 311	ash					← Gradational boundary	
	SY 412							
	SY 413			IRD			126-128cm gravel, sub-rounded	
IW							145cm IW	

Observer: _____ Date: _____

Expedition 323
Bering Sea

323 Site 1A Hole 2 Core 7 Section ~~10~~ Top Depth Scale

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
							Visual Core description	
10	5 4/2						7-8cm	
20								
30								
40							24-65	
50							pumice appeared was not recognized (< 1mm)	
60								
70							65a end of section	
80								
90								
100								
110								
120								
130								
140								

Observer: _____ Date: _____

Expedition 323
Bering Sea

323 1A 2 PCC ~~XXX~~
Site Hole Core Section Top Depth Scale

	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
10	SY 412								
20	PAL								
30									
40									
50									
60									
70									
80									
90									
100									
110									
120									
130									
140									

Observer: _____ Date: _____

in Sm

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

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

Sediment/Rock Name	Fine ash-bearing Diatom ooze	Observer	Kelsie
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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 <i>fine</i>
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	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
	Glaucanite
	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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

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

Sediment/Rock Name: ~~silty~~ diatom rich ^{silty} fine ash

Observer: Kelsie

Percent Texture		
Sand	Silt	Clay
25	60	15

Comments: Dark - coloured burrows 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
	<i>Chaetoceros</i> Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

in SM

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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	49cm	

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

Percent Texture		
Sand	Silt	Clay
10	70	20

Comments: Slightly darker red-colored 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	VOLCANICLASTIC GRAINS
	Crystal grain
30 ✓	Vitric grain
	Lithic grain

Percent	Component
54	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



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
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Percent Texture		
Sand	Silt	Clay
50	40	10

Comments:

Thin dark-coloured bed

Percent	Component
60 (65)	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
20 (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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

in SM

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

Sediment/Rock Name	Fine vitric ash	Observer	Kelsie
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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



IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

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

Sediment/Rock Name	Silt-bearing oolitic diatom ooze	Observer	Kelsic

Percent Texture		
Sand	Silt	Clay
10	70	20

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
19	Quartz
4	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



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
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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

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	
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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
40	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 #		6	11cm	

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



IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1330	A	2	H	7A	30	30

Sediment/Rock Name	diatom ooze	Observer	MEA COOK
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Percent Texture		
Sand	Silt	Clay
2%	90%	8%

Comments:

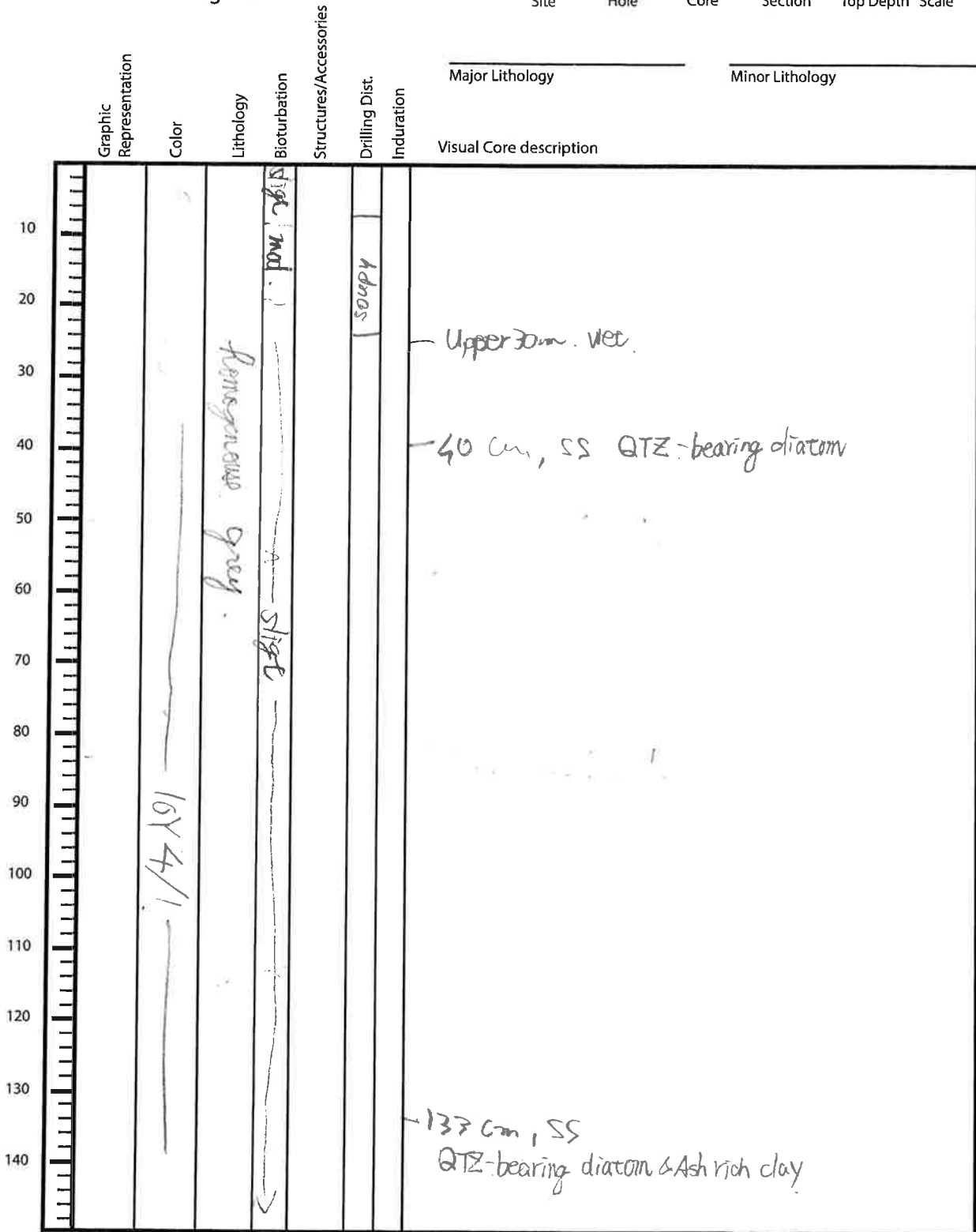
Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glaucinite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	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	✓ Cocoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	✓ Nassellaria
	Diatoms
75	✓ Centric
19	✓ Pennate
2	✓ <i>Chaetoceros</i> Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

in SM

Expedition 323
Bering Sea

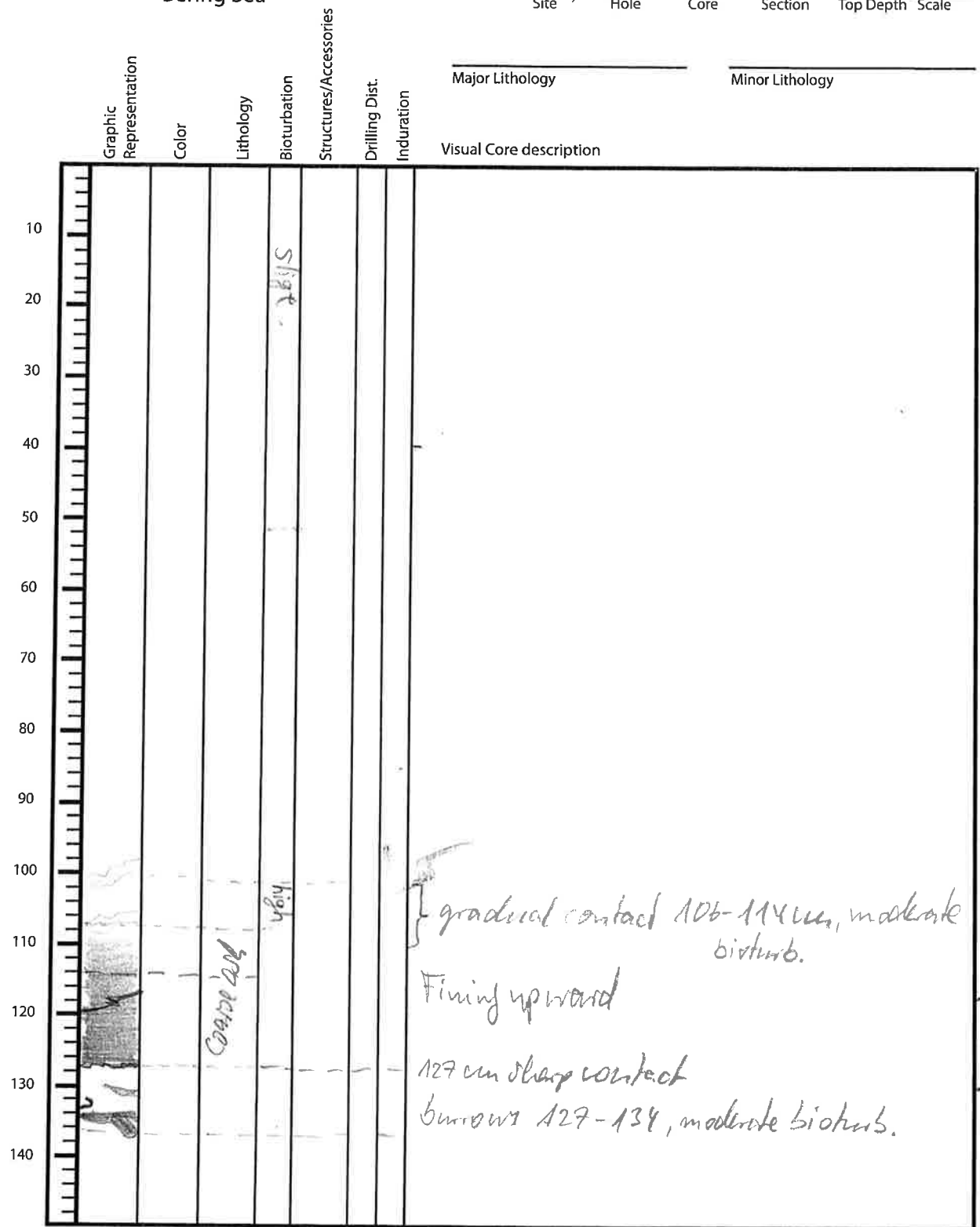
U1339 A 3H 1 0
Site Hole Core Section Top Depth Scale



Observer: Y. Lutz Date: 7/1/18

Expedition 323
Bering Sea

10 2009 1.2 2-4 7 2 4-5 5-6
U1339 A 3H 2 150
 Site Hole Core Section Top Depth Scale



Observer: M. Witz Date: 7/18

Expedition 323
Bering Sea

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

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
	58-55 cm GLEYN 310Y	mm-scale dark mottles, blue-greenish patches (GLEYN 4/U)	macrofaunal tracks					
							58-55 cm 58-55 cm laminar blue-green ?? (GLEYN 4/U)	
							102-106 cm puncture void?	
							133-142 cm crack	
							← 141 cm - 100 μm white crust (IRD?)	

Observer: Marie Date: 7/18

Expedition 323
Bering Sea

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

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology	Visual Core description
	SY311		slight						greyish with reddish shades
			concrete						20cm SS Qtz-bearing ash rich diatom ooze
									grad. cont., moderate bioturb. ?
	GLEYA #12		slight			gas expansion cracks			
	GLEYA #12 S12								coarser layer, darker
	GLEYA SY311A								
	GLEYA #12								
									130cm SS Qtz and ash rich diatom ooze
									grad. cont.

Observer: Mare Date: 7/18

Expedition 323
Bering Sea

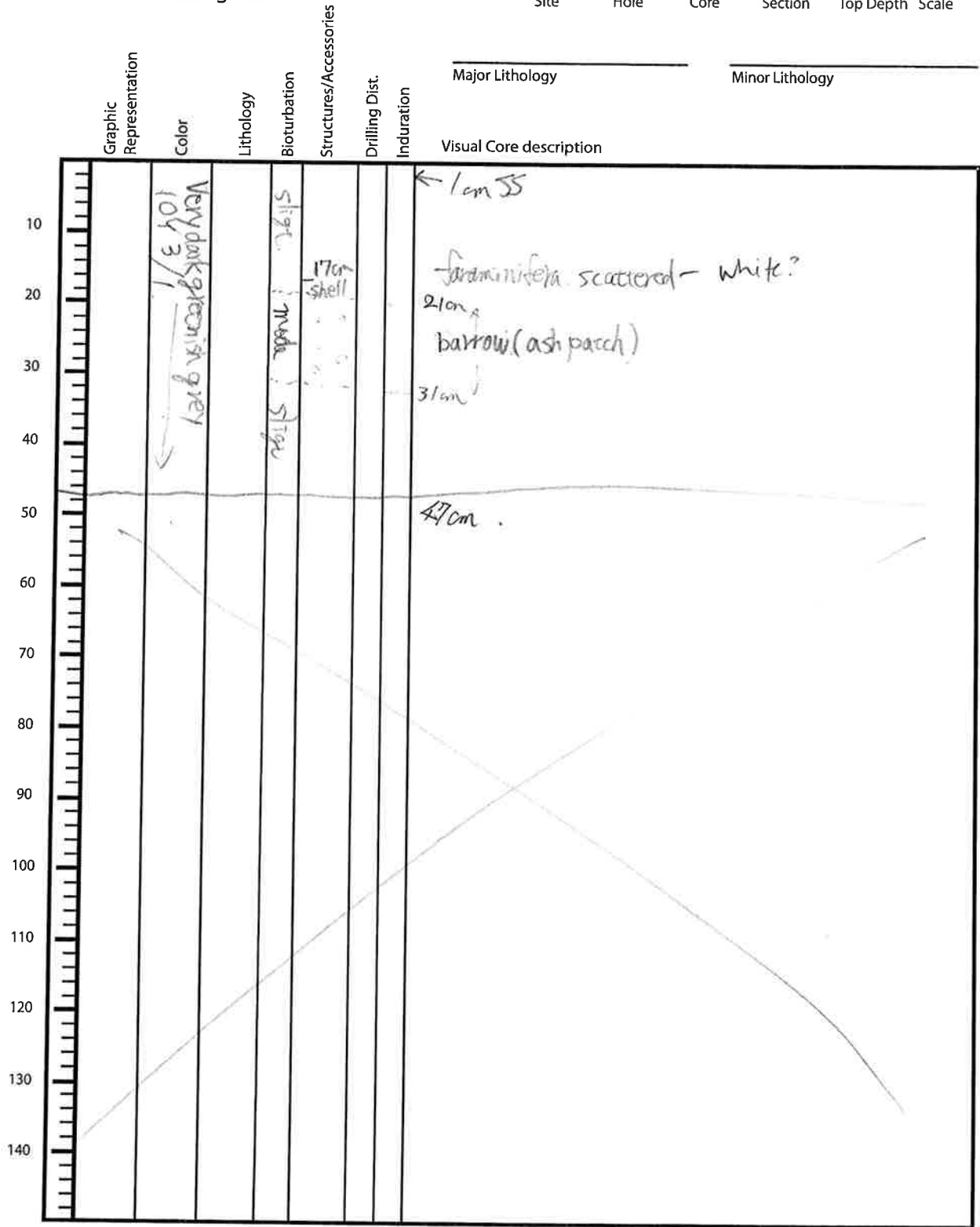
U1339 Site A Hole 3H Core 6 Section 7.50 Top Depth Scale

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
	<p>GLYA 4/2</p> <p>SY 4/2</p> <p>SY 3/2</p>							<p>Visual Core description</p> <p>punctures at 8, 13, 21, 28, 47, 63, 76, 80, 105, 128-152, 135-138 cm</p> <p>40cm SS</p> <p>x through the core white mm scale crust scattered. (incl. IRD)</p> <p>121cm SS</p> <p>115-128 cm grad. cont.</p>

Observer: Glare Date: 7/18

Expedition 323
Bering Sea

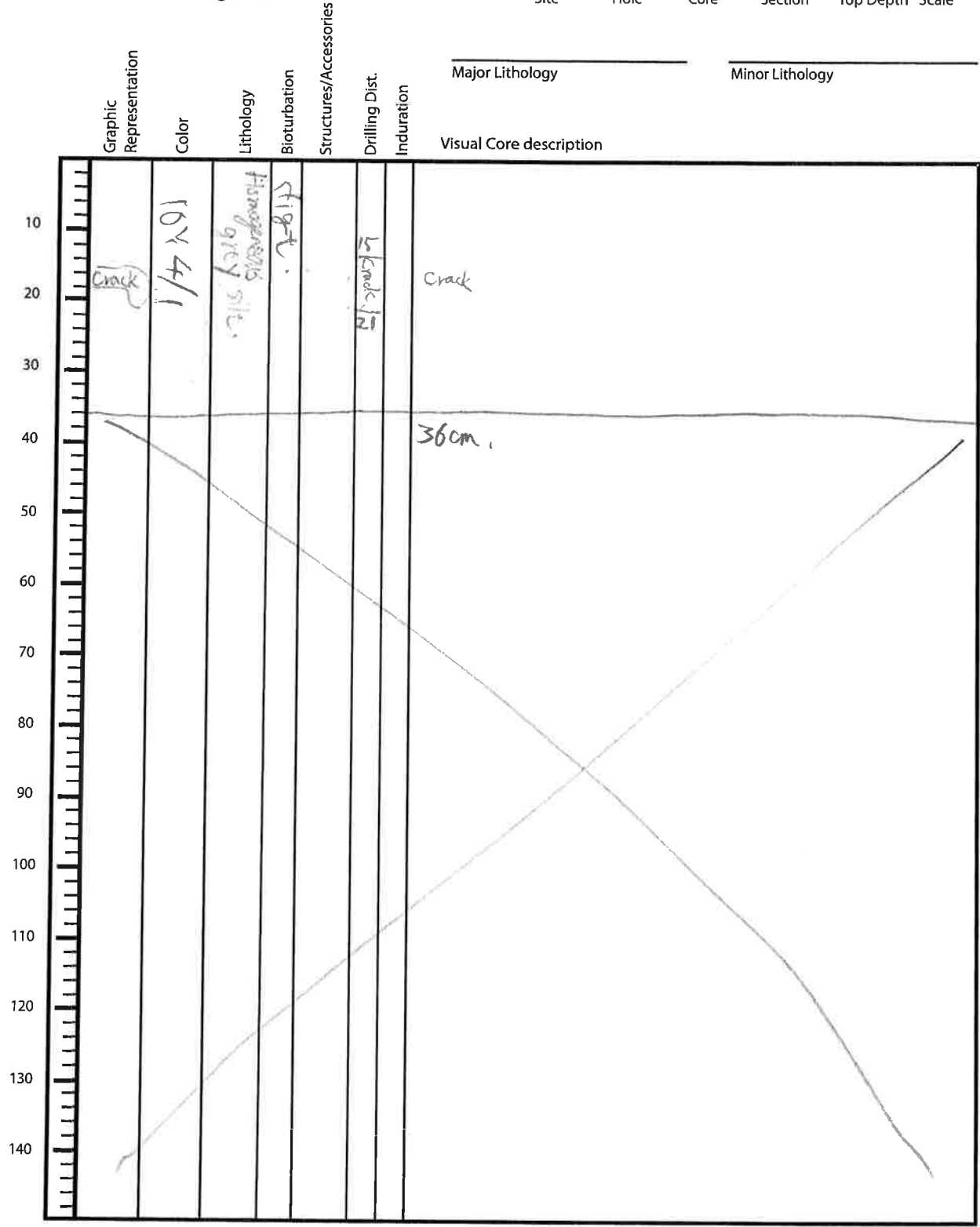
11339 Site A Hole 34 Core 7 Section 900m Top Depth Scale



Observer: _____ Date: _____

Expedition 323
Bering Sea

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



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 clay clay	Observer	Beth
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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	Bottom
323	U1339	A	3	H	7A	1cm	

in
5.5

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	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
15	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
20	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
10	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	Observer	Beth
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Diatom fine ash

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
	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	U133A	A	3	H	SA	130cm	

Sediment/Rock Name	<i>Clay rich</i>	Diatom ooze	Observer	Beth
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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
	Glaucinite
	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
30	Diatoms - All fragments
35	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



in S.F.

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

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

Sediment/Rock Name	Diatom ooze DIATOM OOZE	Observer	Beth
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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
105	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	6A	121 cm	

Sediment/Rock Name	fine Ash diatom silt	Observer	Beth
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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

in S.R.



Expedition 323
Bering Sea

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

	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology	Visual Core description
10										
20										
30										
40										
50										
60										
70										
80										
90										
100										
110										
120										
130										
140										

EXPANSION CRACKS
MORE SUFFY

dark mudstone throughout

Major Lithology: _____
Minor Lithology: _____
Visual Core description:
Shale here
color 104 at 4/1
- 63 cm, 5 min dist

Observer: _____ Date: _____

Expedition 323
Bering Sea

1339 A 4 2
Site Hole Core Section Top Depth Scale

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology	Visual Core description
									SAME AS SECTION 1 SCATTERED, SAND TO GRAVEL SIZE, WHITE CLASTS SCATTERED THROUGHOUT SECTION

Observer: _____ Date: _____

Expedition 323
Bering Sea

1339 A 4 3
Site Hole Core Section Top Depth Scale

	Graphic Representation	Color	Lithology	Biurbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
10	0								
20		→ more grey							
30		→							
40		←							
50									
60		more green							
70									
80									
90									
100									
110									
120									
130									
140									

Visual Core description

12m clast, 3mm
other clast scattered

10 yr 3/1

expansion crack

large crack

Observer: _____ Date: _____

Expedition 323
Bering Sea

1334 Site 4 Hole 5 Core 5 Section _____ Top Depth _____ Scale

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
							Visual Core description	
10								
20								
30								30 m SS - Diatom ooze
40								
50								
60								
70								sharp color transition from green (100) to gray
80								(better) @ ~ 70 m
90								SS at 90 m
100								Diagenesis
110								
120								
130								
140								

Observer: _____ Date: _____

10 Y 4/1

Expedition 323
Bering Sea

V1339 A 4 5
Site Hole Core Section Top Depth Scale

Graphic Representation	Color	Lithology	Biurbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
							Visual Core description	
10							<p>Several Dark nodules throughout Scattered white clasts Send to fossil site.</p>	
20								
30								
40								
50								
60								
70								
80								
90								
100								
110								
120								
130								
140								

gravel towards bottom!

Observer: _____ Date: _____

Expedition 323
Bering Sea

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

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Visual Core description
	<p>green to olive lighter marl</p>		<p>dark marl ←</p>				<p>White clays throughout</p> <p>4-7-CC</p> <p>shell fragments between 5 & 7</p>

Observer: _____ Date: _____

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	123P	A	4		4	90m	

Sediment/Rock Name	Diatom Set	Observer	IWA
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Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
25%	Quartz
10%	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
X	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	100m	

Sediment/Rock Name	<i>Alveform ooze</i>	Observer	
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Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
<i>15%</i>	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
<i>5%</i>	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
<i>70%</i>	Diatoms
	Centric
	Pennate
	<i>Chaetoceros</i> 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	QZ BEARING DIATOM CLAYEY SILT	Observer	BETH
--------------------	--	----------	------

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
7	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
	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	133cm	

Handwritten initials/signature
257

Sediment/Rock Name	DIATOM-RICH ^{silty} CLAY CLAY	Observer	Beth
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~~QUARTZ BEARING DIATOM & ASH-RICH CLAY~~

Sand	Percent Texture	
	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



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 ash fine ash	Observer	Beth
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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



X

45-S111
30-P
25-Vit.

in S.P.

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1339A		3	H	4A	10cm	

Sediment/Rock Name	Grey-bearing vitric diatom clay Diatom-rich ^{fine-ashy} clay	Observer	Beth
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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
	Glaucanite
	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

✓

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	Quartz diatom ooze	Observer	Beth

Percent Texture		
Sand	Silt	Clay
0	90	10

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
7	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	
	Pyrite
	Magnetite
3	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	40 Centric
35	40 Pennate
8	10 Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

