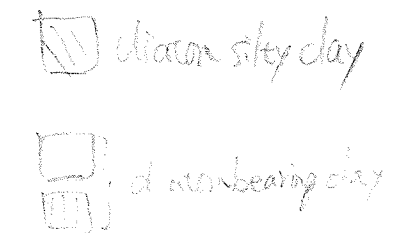


Expedition 323
Bering Sea

13/A A 1
Site Hole Core Section Top Depth

Depth (cm)	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
							Visual Core description	
0-10	-V	5Y 4/3 60					Worm tube 0-3 cm ✓	-1A 2 cm diatom silty clay
10-20		5Y 4/2						
20-30								
30-40							28 speck sponge ✓	
40-50							126-128 moll ash - 3/1 ✓	
50-60		5Y 3/1 ✓					145-148 moll ash ✓	
60-70		10Y 4/1					72-75 ash 5-11 moll ash ✓	-4A-66
70-80		5Y 3/2					75-82 lam. silt - 5Y 4/4	
80-90		5Y 4/1					82-85 moll ash 8-20 speck ash ✓	
90-100		10Y 4/1					110-118 moll.	
100-110							60-73 speck ash 107-111 speck ash ✓	
110-120							118-120 coral 35 shells	-6A-100 diatomaceous clay
120-130							132-133 shells 127-150 speck partic. ✓	
130-140							6-14 PAL	



Observer: _____ Date: _____

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	1345	A	1	H	1	2cm	

SM

Sediment/Rock Name	DIATOM SILTY CLAY	Observer	IWA
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Percent Texture		
Sand	Silt	Clay
15	20	65

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
18.10	Framework minerals
9.5	Quartz
7.4	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
2.1	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
27.15	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
54.30	Diatoms
36.20	Centric
18.10	Pennate
	Chaetoceros Resting Spores
	<input checked="" type="checkbox"/> 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
	1344	A	1	6	6	100m	

SM

Sediment/Rock Name	DIATOM-BEARING CLAY	Observer	CUA
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Percent Texture		
Sand	Silt	Clay
5	25	70

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
15%	5 Quartz
9%	3 Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
6%	2 Micas
	Biotite
	Muscovite
61%	20 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
9%	Diatoms
6%	2 Centric
3%	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

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	B44	A	1		4	55m	

SM

Sediment/Rock Name	<i>LANESEA</i>	Observer	<i>WNA</i>
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SILTY CLAY

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
10%	Framework minerals
10%	3 Quartz
6%	2 Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
16%	5 Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
48%	15 Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
6%	2 Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

32

48%

Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
6%	2 Centric
3%	1 Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
3%	1 Sponge spicules (<i>adenomy</i>)
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Expedition 323
Bering Sea

1344 A R All
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
					Visual Core description	
1 2 3 4 5 6 7 CC	104 2.5/1	104 2.5/1 Diatom - diatom Diatom - diatom	POW SS. 100	87 23-84 Worm Tube 45-46 Wood fragment	steel paper 23-84 Worm Tube	greenish black diatom-rich clayey s.s.

Observer: _____ Date: _____

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	A	2	H	5	90	

SP7

Sediment/Rock Name	diatom-rich clayey silt	Observer	
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Percent Texture		
Sand	Silt	Clay
3	40	60

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
11	Quartz 3
7	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
36	Clay Minerals 7/10
	Chlorite
	Glaucanite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
7	Pyrite 2
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
Crystal grain	
11	Vitric grain 3
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians ✓
	Spumellaria
	Nassellaria
25	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

Expedition 323
Bering Sea

1344 A 3
Site Hole Core Section Top Depth

Depth (m)	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
							Visual Core description	
10		SGT 4/1					49-50	
20							102-103 mott. Ksh?	
30							12-13 sponge speck ✓ 131. mott ash ✓ 93-101 mott burrow ✓ sks?	2A-50 diatom-site
40							121 mott ash ✓	
50		97 40					seal ~ cc speck p. white	
70		10Y 4/1						
80							140-147 speck. dend.?	6A-50 clayey site
90							54-58 mott 32-38 mott 80-81 ash layer with crack	
100						44 45 51	90 16	
120							SGT 4/1 diatom site	
130							10Y 4/1 clayey site	

Observer: _____ Date: _____

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	1344	A	3	4	6	50cm	

SM

Sediment/Rock Name	CLAY SILT	Observer	LWA
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Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
25	Framework minerals
17	Quartz
15	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
15	Rock fragments
Accessory/trace minerals	
2	Micas
	Biotite
	Muscovite
57	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
2	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
2	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

Expedition 323
Bering Sea

1344 A 44
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
					Visual Core description	
1	ky 4/1	I D-bear clayey silt	90-100 Bl. Mot. 34 68 Bl. Mot.	M 32		
2			114-5 Wood 148 149	S	15-25 Bl. Mot. 72-100 Bl. Mot. 122-137 Bl. Mot. 50 SS	
3			95-8 Pink 94K 144W 92W	M 17	56-71 Bl. Mot. 22-34 "	97 SS mottle
4			76-7 144W 34 50 45 11 83 103		Ash layer DK Gray 33-40 Green Mot. 141 - Peb. Arg.	
5	18	50/50	23W 114-21 87-101 6r. Mot.	M 72	Gas exp. 49-59 Bl. Mot.	
6	V. dk 35 56y 311 146	I/II Drich silt II I	25 Wood 6-7 87-101	M 11 60		80 SS
7	56y 3 411	50/50				
u	DK greenish gray					

Observer: _____ Date: _____

7

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1348	A	4	H	2	50	

SM

Sediment/Rock Name	diatom-bearing clayey site	Observer	Alina
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Percent Texture		
Sand	Silt	Clay
9	45	45
2	70	10

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
23	Quartz 7
17	Feldspar 5
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
7	Rock fragments ✓ 2
Accessory/trace minerals	
3	Micas
	Biotite
	Muscovite
23	Clay Minerals 7
	Chlorite
	Glauconite
	Chert
	Zircon
3	Ferromagnesium minerals 1
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
7	Pyrite 2
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
Crystal grain	
10	Vitric grain 2.3
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
10	Diatoms ✓ 3
	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

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1384	A	4	H/3A	97		

SM

Sediment/Rock Name	pyrite-rich diatom rich silt	Observer	Alena
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Percent Texture		
Sand	Silt	Clay
0	60	50

Comments:

black spot

⊙ ⊙

← sea ice diatom!
Bacterosira fragilis

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
15	Quartz 3
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments 1
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
5	Clay Minerals 1
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
25	Pyrite 5
	Magnetite
	Fe-oxide
Carbonates	
5	Calcite 1
	Dolomite
VOLCANICLASTIC GRAINS	
Crystal grain	
10	Vitric grain 2
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians ✓
	Spumellaria
	Nassellaria
35	Diatoms 7
	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

R

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	A	4	H	6	130	

SM

Sediment/Rock Name	diatom-rich site	Observer	akoy
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Percent Texture		
Sand	Silt	Clay
41	41	18

Comments:

7. 7 3

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
20	Quartz 7
11	Feldspar 4
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
9	Rock fragments 3
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
14	Clay Minerals 5
	Chlorite
	Glaucanite
	Chert
	Zircon
3	Ferromagnesium minerals 1
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
9	Pyrite 3
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
Crystal grain	
14	Vitric grain 5
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
20	Diatoms 7
	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

Expedition 323
Bering Sea

1344 Site A Hole SH Core 1+2 Section _____ Top Depth

Depth (cm)	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
							Visual Core description	
0-10		10G+ 4/1						
10-20						100V		
20-30		↓						
30-50				100W		100V		50 mottled thr, bluish-greenish burrows + pyrite nodules
50-70								106 large greenish burrows
70-100								130, 137 sponge agg.
100-140								

U1344A
SH

Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 Site A Hole 5H Core 3+4 Section _____ Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	10G-Y4/1						
10							bluish-greenish nodules thru + pyrite nodules
20							
30							
40							7.5 thin sandy layer
50							
60							
70							
80							
90							27 sponge agg.
100							
110							
120							
130							
140							

Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 A 5H 5+6
Site Hole Core Section Top Depth

Major Lithology	Minor Lithology	Drilling Dist.	Samples	Visual Core description	Bioturbation Structures/Accessories	Lithology	Color	Graphic Representation
				7 sponge agg. 17-32 sandy mottles 64 sponge agg. 75 " " 121, 126, 133 " "				
				7-9 sandy layer				
				119-120 sandy layer 97-104 pyrite mottles 128 large blueish burrow 100-130 grad.				

Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 Site
A Hole
5H Core
7+cc Section
Top Depth

	Major Lithology	Minor Lithology
Graphic Representation		
Color		
Lithology		
Bioturbation		
Structures/Accessories		
Drilling Dist. Samples		
Visual Core description		

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

10G7
41A

/// /// ///
41N

↕

39 sandy layer

80-82 large sandy,
blueish burrow
80-100 grad.

71-122 sandy nodules

46

19000

19000

Observer: _____ Date: _____

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	1244	K	SH		2A	70	70

SM

Sediment/Rock Name	Diatom rich site	Observer	H.A
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Percent Texture		
Sand	Silt	Clay
20	67.5	5

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
73	Quartz 20
	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
	Diatoms
18	5 Centric
7	2 Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
2	Sponge spicules 0.5
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	1314	A	5H		7	110	

SM

Sediment/Rock Name	Diatom-bearing sandy silt	Observer	HA
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Percent Texture		
Sand	Silt	Clay
70	70	10
7	25	3

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 92	
Framework minerals	
60	Quartz 30
4	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
26	Rock fragments 3
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
11	Clay Minerals 5
	Chlorite
	Glaucanite
	Chert
	Zircon
11	Ferromagnesium minerals 5
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 8	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
1	Radiolarians 0.25
	Spumellaria
	Nassellaria
7	Diatoms
1	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

Expedition 323
Bering Sea

1344 A 6H 142
 Site Hole Core Section Top Depth

Major Lithology Minor Lithology

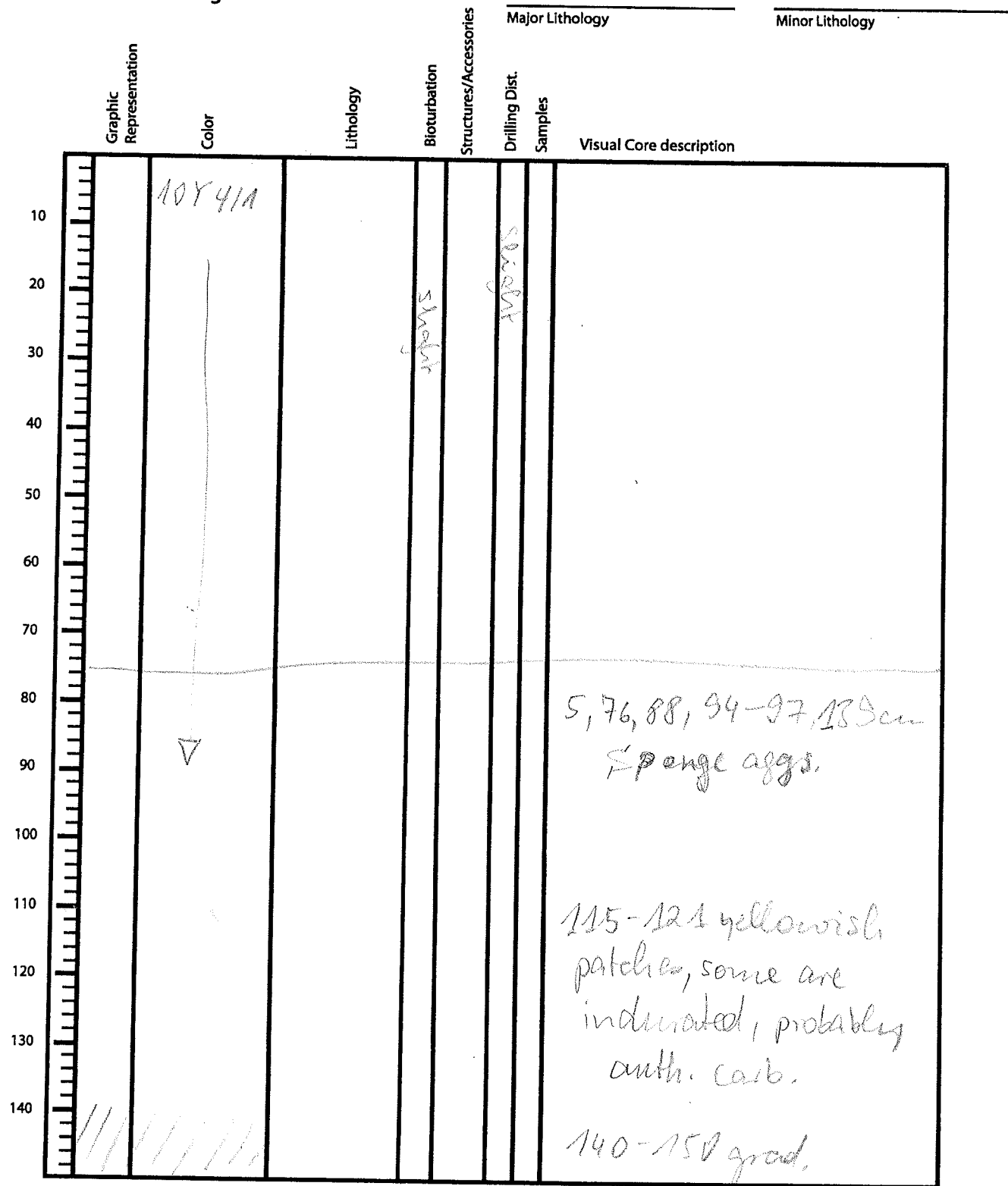
Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Visual Core description
	10GY 4/1					pyrite nodules thr.
			slight		seawin	sponge aggs. 71, 78-79, 99, 111 cm
					slight	sponge aggs. 17, 63 cm sandy nodules thr.

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

Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 Site A Hole 6H Core 3+4 Section _____ Top Depth



Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 A 6H 5+6
Site Hole Core Section Top Depth

Graphical Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
					Visual Core description	
	10Y3/1		mod.			0-101 sandy mollus 36 shell frags. 65 ash patch
	5Y4/2	114	slight			126-128 grad
	10GY4/1	132	mod.			128-132 foram-rich interval 132 sharp
						44-54 sandy mollus
		86	slight			121-133 sandy mollus

Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 Site A Hole 6H Core 7+cc Section _____ Top Depth

Major Lithology _____
Minor Lithology _____

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Visual Core description
	90GY 4/11 ↓		spores	spores		48 sponge agg. 70-81 sandy agg. 96 30

Observer: _____ Date: _____

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	A	6	H	2	45	45

SM

Sediment/Rock Name	Diatom-rich silt	Observer	Kelsie
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Percent Texture		
Sand	Silt	Clay
0	80	20

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
20	Quartz
20	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
20	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glaucanite
	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	
1	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	1344	A	6	H	4	50	50

SM

Sediment/Rock Name	Diatom silt	Observer	Kelsie
--------------------	-------------	----------	--------

Percent Texture		
Sand	Silt	Clay

Comments: Main silt

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
20	Quartz
20	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
10	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	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
Calcareous	
	✓ Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	1 Radiolarians
	Spumellaria
	Nassellaria
50	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

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	A	6	H	5	130	130

SM

Sediment/Rock Name	Foram - r diatom-rich clayey silt	Observer	Kelsie
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Percent Texture		
Sand	Silt	Clay

Comments: Light - col section.

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
15	Quartz
10	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
20	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
	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
Calcareous	
15	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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	A	6	H	7	80	

SM

Sediment/Rock Name	Diatom-b clayey silt	Observer	Kelsie
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Percent Texture		
Sand	Silt	Clay

Comments: Main lithology

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
20	Quartz
20	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
10	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
40	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	
2	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
Calcareous	
1	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
1	Radiolarians
	Spumellaria
	Nassellaria
10	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

Expedition 323
Bering Sea

1344 Site A Hole 7H Core 1+2 Section _____ Top Depth

Depth (cm)	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
								Visual Core description	
10		SGY4/A							
20								40-50 grad.	
30				mod.					
40		10GY 4/A						91-96 sandy nodules	
50									
60		SGY4/A		mod.					
70								28 sponge agg.	
80									
90								68-71 clast, gray,	
100		10GY4/A		Coarse nodules				Coarse pebble, sub-angular	
110								65-75 grad.	
120									
130									
140									

Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 A 7H 3+4
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
							Visual Core description	
	<p>10G4 411</p>		<p>mod. Chondritol</p>		<p>skat</p>		<p>20-55 sandy nodules</p> <p>52-72 sandy nodules</p> <p>96-97 shell frags.</p> <p>145 sponge agg.</p>	

Observer: _____ Date: _____

Expedition 323
Bering Sea

1844 Site A Hole 7H Core 5+6 Section _____ Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	10GY 4/1						
	10Y 5/2		mod.		Shale		
	10GY 4/1						
							80-82 grad. 81-87 light interval, calc. 87-88 grad carb.

Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 A 7H 7+CC
 Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	10GY 4/11		100%		100%		
					83		sandy mottled pyrite mottled
					56		

Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
			74		2	26	26

SM

Sediment/Rock Name: Diatom rich silty clay

Observer: Hiv. A

Percent Texture		
Sand	Silt	Clay
10	20	70

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 82
55	Framework minerals
	Quartz 3
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
18	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 0.5
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS 18
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
18	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
			7H		4	73	

SM

Sediment/Rock Name	Diatom bearing sandy silt	Observer	Hins
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Percent Texture		
Sand	Silt	Clay
30	60	10

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 92	
Framework minerals	
60	Quartz 10
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
11	Rock fragments 2
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
5	Clay Minerals 1
	Chlorite
	Glauconite
	Chert
	Zircon
11	Ferromagnesium minerals 2
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
5	Pyrite 1
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS 8	
Calcareous	
Foraminifera	
Planktonic foraminifera	
Benthic foraminifera	
Nannofossils	
Coccoliths	
Discoasters	
Pteropods	
Siliceous	
Radiolarians	
Spumellaria	
Nassellaria	
Diatoms	
6	Centric
2	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	1344	A	574		6	30	

SM

Sediment/Rock Name	Diatom rich silty clay	Observer	Hino.
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Percent Texture		
Sand	Silt	Clay
10	30	50
	40	

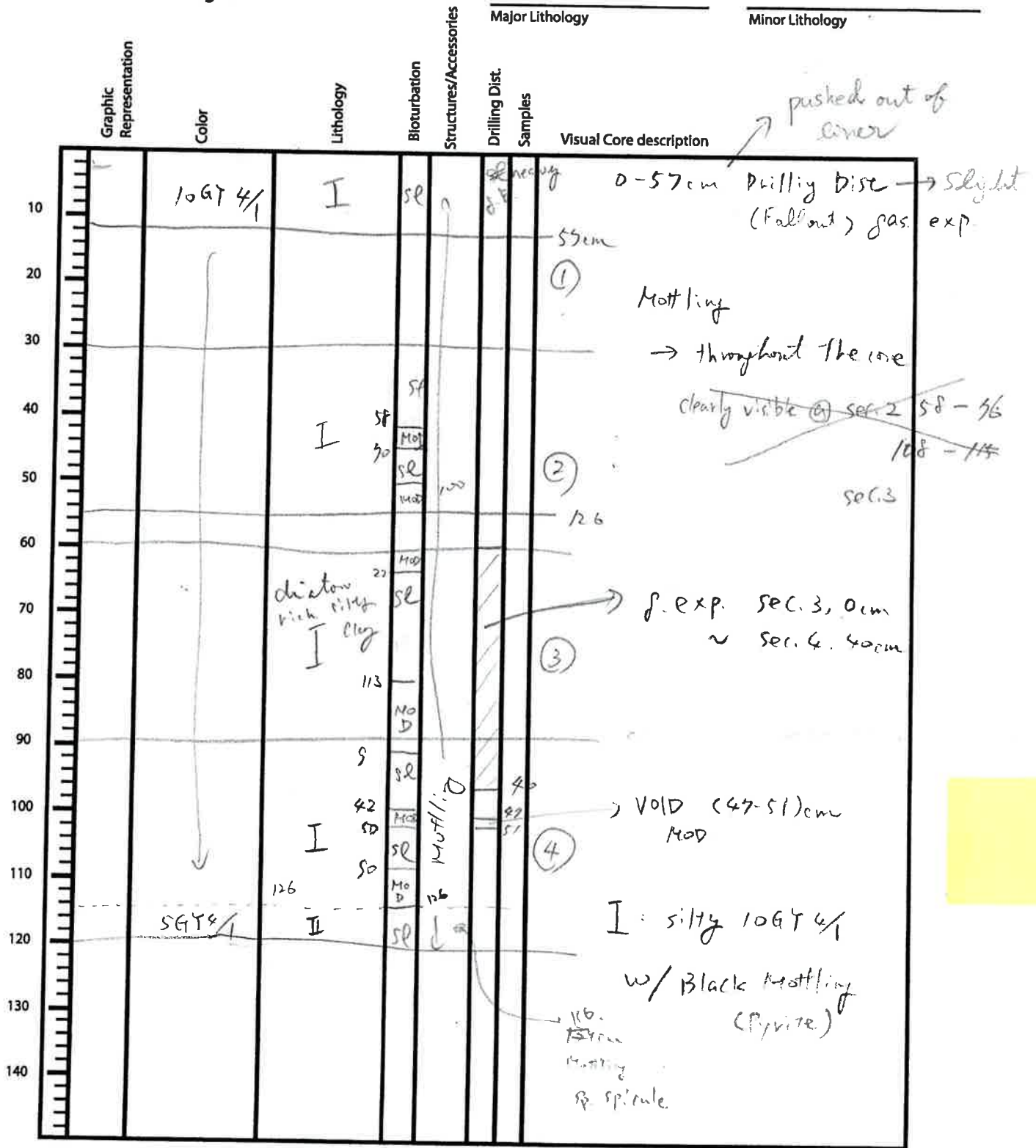
Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 78 83	
Framework minerals	
17 #9	Quartz 3
11 #2	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
39 #4	Clay Minerals 7
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals 5
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
11 #9	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS 17	
Calcareous	
Foraminifera	
Planktonic foraminifera	
Benthic foraminifera	
Nannofossils	
Coccoliths	
Discoasters	
Pteropods	
Siliceous	
Radiolarians	
Spumellaria	
Nassellaria	
17 3	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	

Expedition 323
Bering Sea

1344 Site A Hole 8H Core 1-4 Section Top Depth



Observer: H. V. Date: _____

Expedition 323
Bering Sea

1344 Site A Hole 8H Core 5-CC Section _____ Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	5G7 4/1	II 62 69	SR			III	62-65 deuter heavy sand Sandy (or ashy) Mottling (2/1/1) 3
	50619 4/1	Diatom clayey rilt					II. sandy, rough surface (sandy mottling)
	10617 4/1	56 II I	SR SR		113	6)	I. smooth (silty)
		I	SR				113-150. gas. exp.
		I	SR			7)	50 cm
		I	SR			CC →	G. exp. SE
					5200		

Observer: Hins Date: _____

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	A	8	H	3	70	70

SM

Sediment/Rock Name: Diatom-rich silty clay

Observer: Kelsie

Percent Texture		
Sand	Silt	Clay

Comments: Main lithology

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
15	Quartz
10	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
10	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
45	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
1	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
20	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	1344	A	8	H	5	67	

SM

Sediment/Rock Name: Diatom-bearing sand

Observer: Kelsie

Percent Texture		
Sand	Silt	Clay
80	20	

Comments: Sandy area

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
40	Quartz
15	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
40	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
	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
2	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	1344	A	8	H	5	90	90

SM

Sediment/Rock Name	Diatom clayey silt	Observer	Kelsie
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Percent Texture		
Sand	Silt	Clay

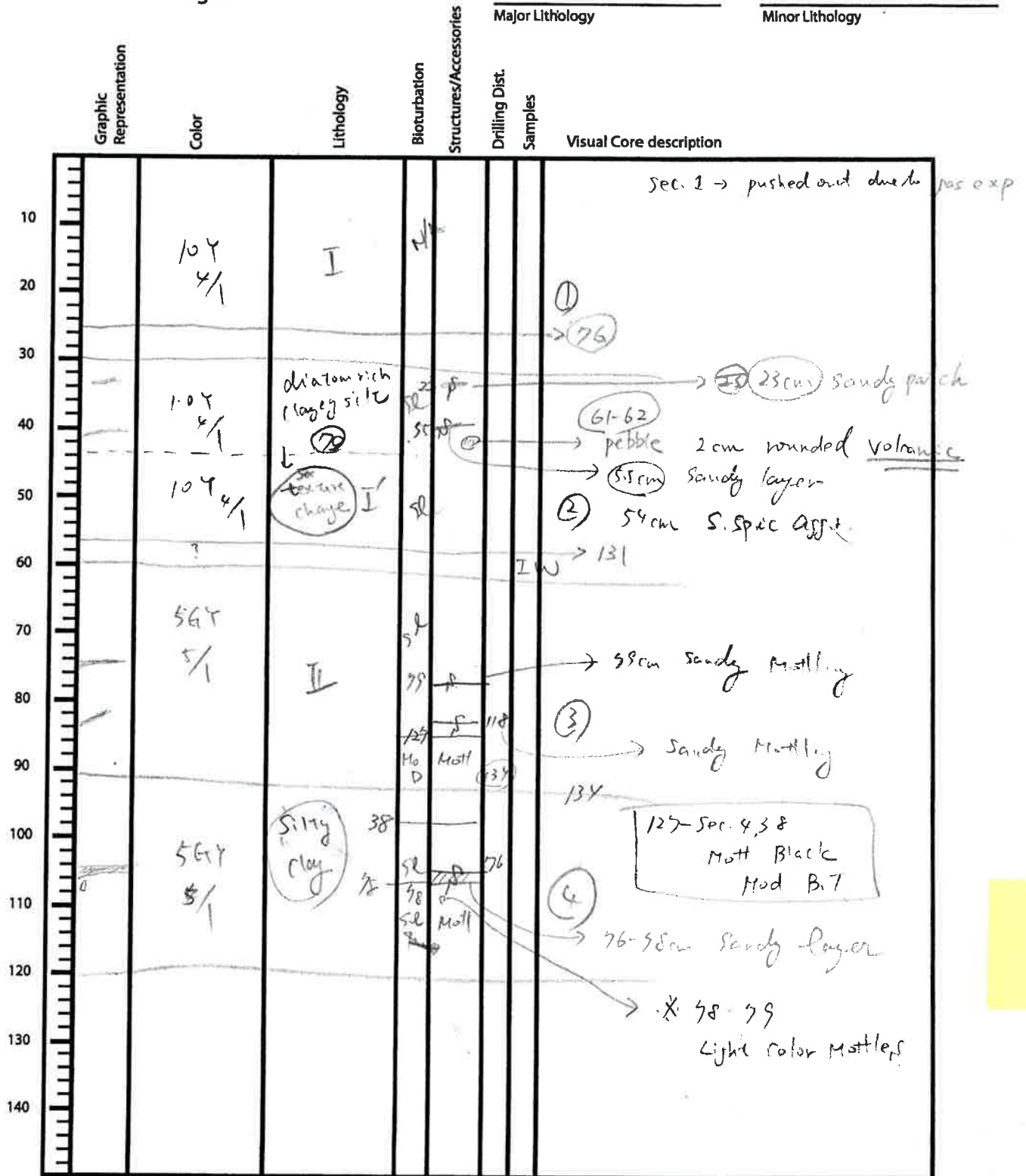
Comments: Main lith.

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
20	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments
	Accessory/trace minerals
1	Micas
	Biotite
	Muscovite
20	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
1	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
45	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

Expedition 323
Bering Sea

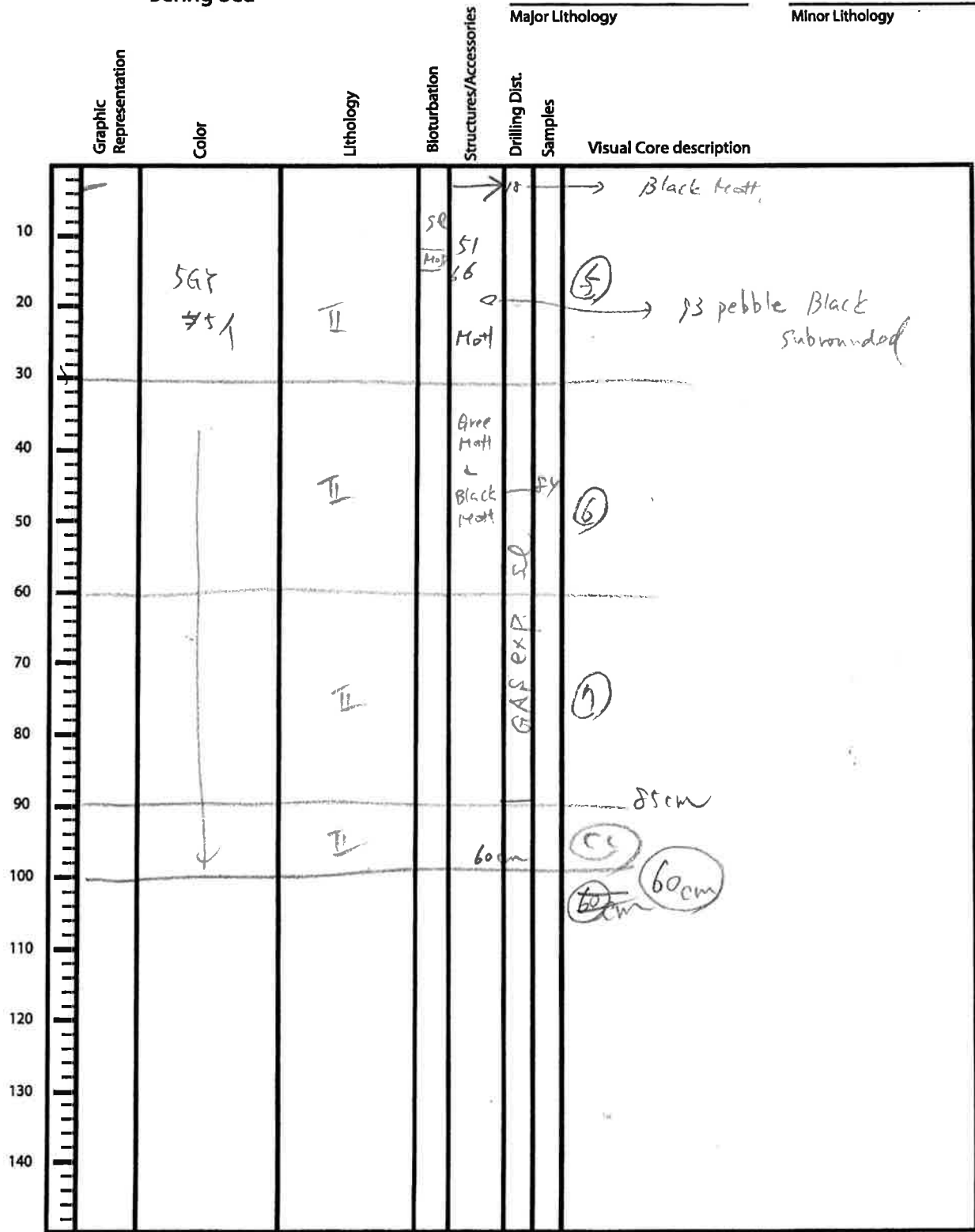
1344 A 914 1-Y
Site Hole Core Section Top Depth



Observer: Zhao D Date: _____

B4Y A 9M 5-02
 Site Hole Core Section Top Depth

Expedition 323
 Bering Sea



Observer: _____ Date: _____

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	A	9	H	2	10	10

Sediment/Rock Name	Diatom-rich clayey silt	Observer	Kelsie
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Percent Texture		
Sand	Silt	Clay
10	60	30

Comments: Main lith.

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
15	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
15	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
1	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
35	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	1344	A	9	H	4	67	

SM

Sediment/Rock Name	silty clay	Observer	Kelsie
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Percent Texture		
Sand	Silt	Clay
0	25	75

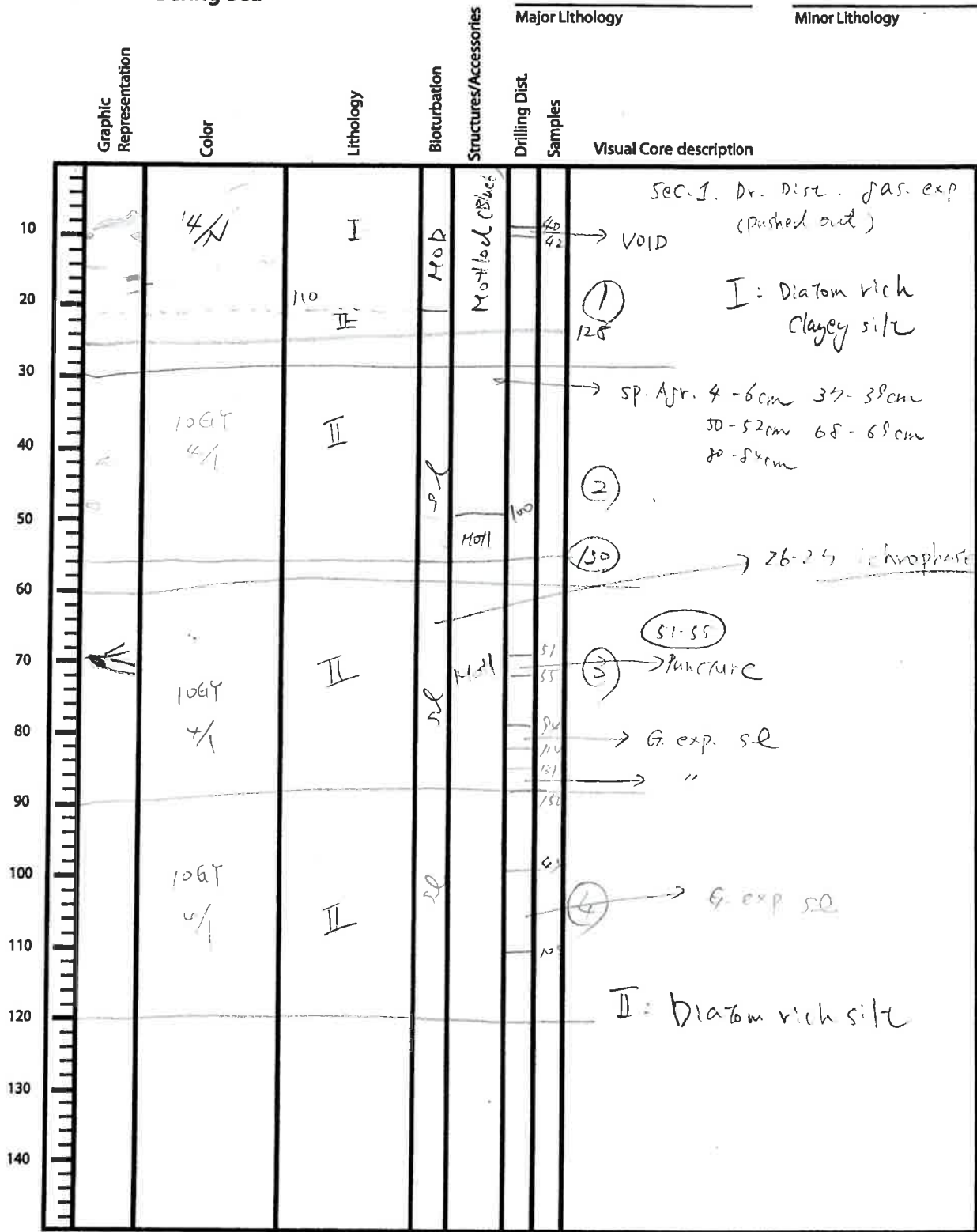
Comments: Main lithology

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
10	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
75	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
2	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
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
2	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

Expedition 323
Bering Sea

Site B48 Hole 10A Core 1017 Section _____ Top Depth _____



Observer: H. V. A Date: _____

Expedition 323
Bering Sea

Site _____ Hole _____ Core 1017 Section _____ Top Depth _____

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Visual Core description	
					Major Lithology	Minor Lithology
	106Y 4/1	II	sp 10-11 cm	59 132	Sp. Agr. (30cm), 93cm, 99cm G. exp. Mod. se 6ff. <u>sec. 6, 19 S. Layer</u>	
	106Y 4/1	II	sp	36 11	29cm Sp. Agr 34 36-115 G exp sl 105-109 void 73 puncture	19. S Layer
	106Y 4/1	II	sp		30-32 Mottling white	20, 23, 42 SD S. Layer
					cc	
					43cm	

Observer: Aino Date: _____

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1344	A	10	1	A	31	31

SM

Sediment/Rock Name	Diatom-rich clayey silt	Observer	MSC
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Percent Texture		
Sand	Silt	Clay
5	65	30

S

Comments: Main Petrology (grey)

Percent	Component
85	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
25	Quartz
22	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
20	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
15	Muscovite
7	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
	✓ Vitric grain
	Lithic grain

Percent	Component
15	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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1344	A	10	H	5	38	38

SM

Sediment/Rock Name: *diatom-rich silt*

Observer: *MSE*

Percent Texture		
Sand	Silt	Clay
<i>10</i>	<i>70</i>	<i>20</i>

S

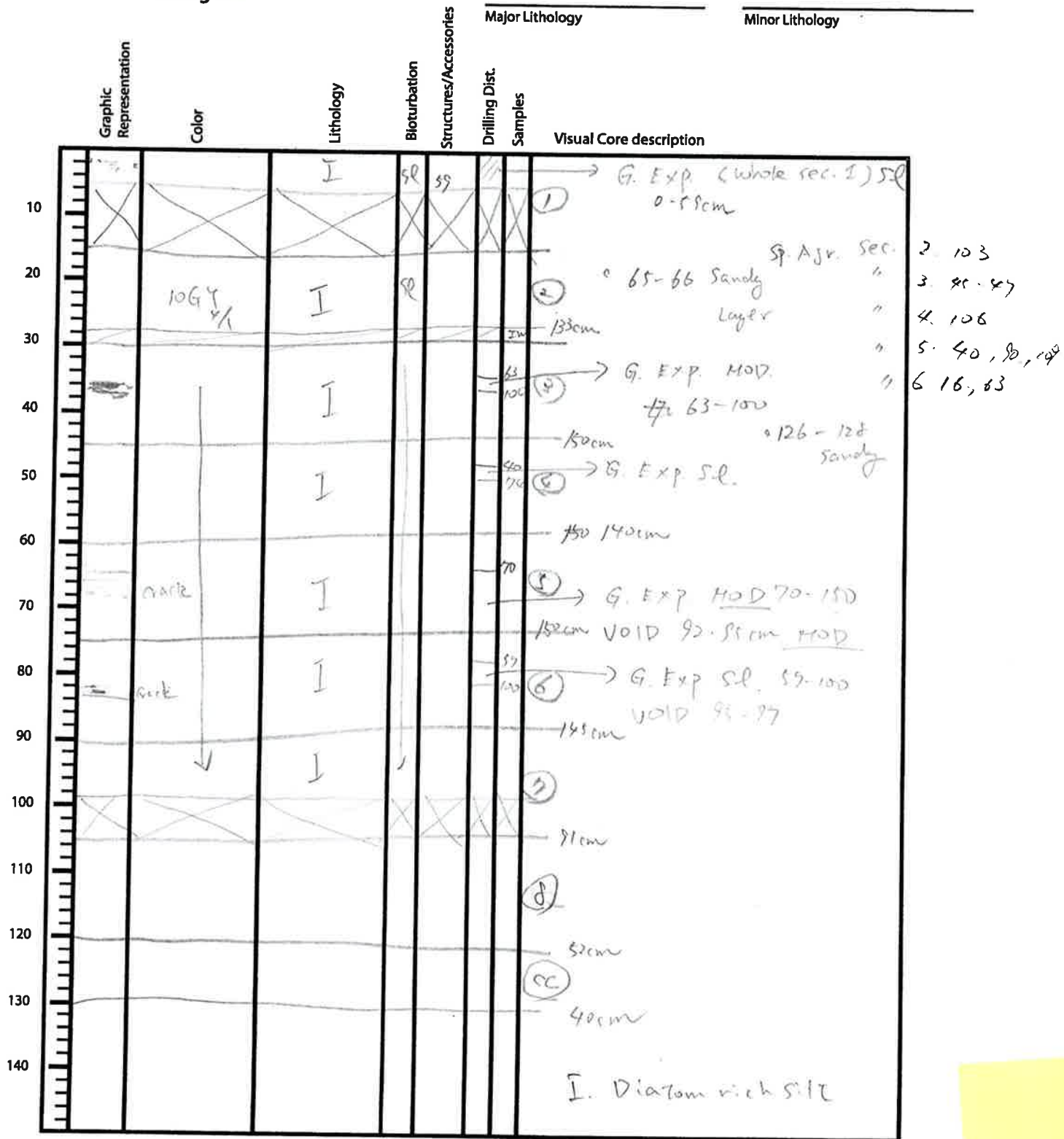
Comments: *Main lithology (quartz grey)*

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

Percent	Component
20	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
<i>10</i>	Centric
<i>10</i>	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

Expedition 323
Bering Sea

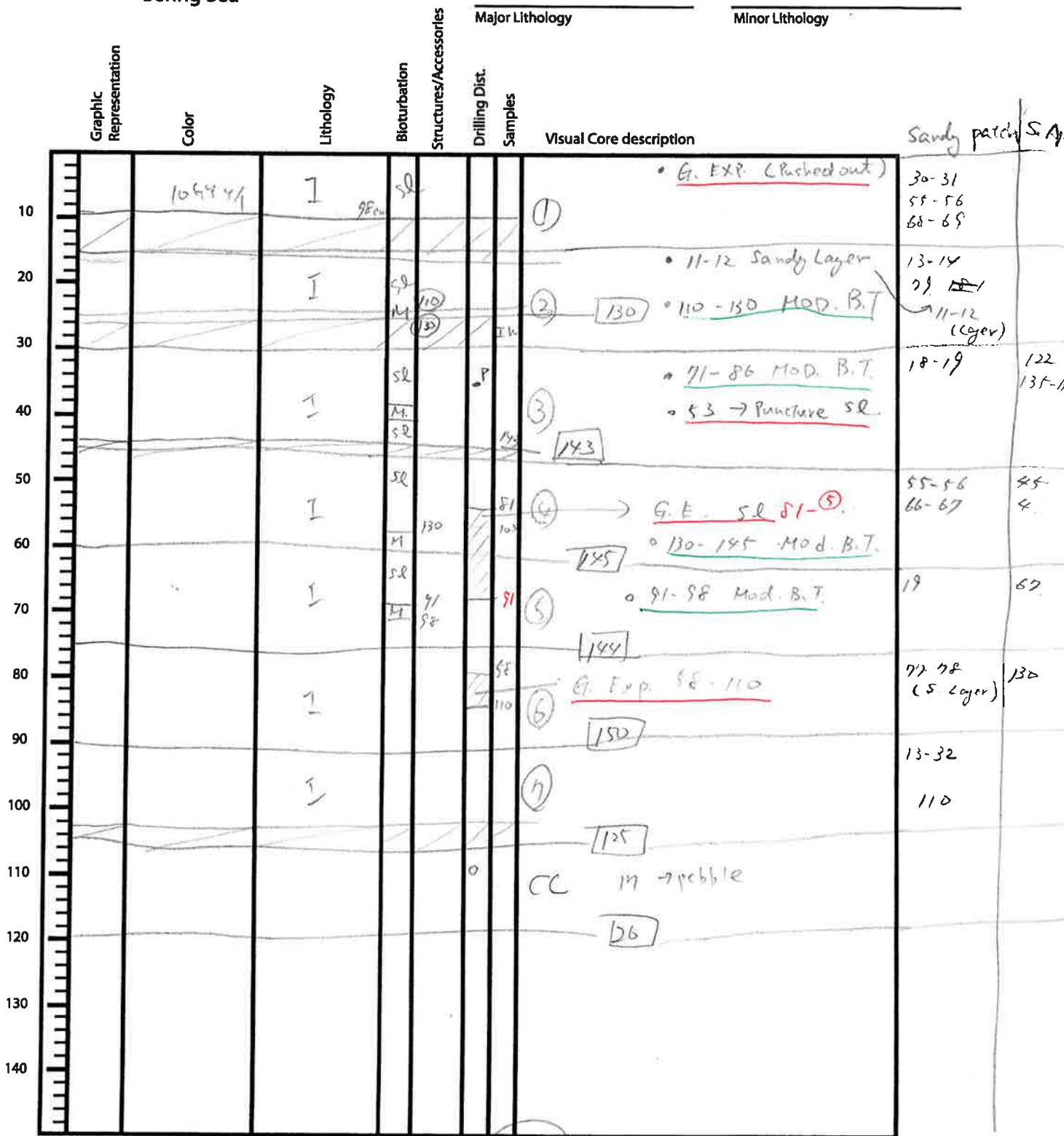
1344 Site A Hole 11H Core 1-CC Section Top Depth



Observer: Hino. Date: _____

Expedition 323
Bering Sea

1344 Site A Hole 12H Core 1-CC Section Top Depth



Observer: Hiro Date: _____

~~not uploaded~~

1344 A 13
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Depth (m)	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
								Visual Core description	
1		5G44/1							
10	✓	92		M				98-99 ash layer mottling like 3/N.	1A-60 diatom site
20				M				102-103 ash 6mm	
30								129-? ash? 254 3/2	
35	✓	70		M				95-96 mats	3A-32 diatom site
40	✓	148	14F						
45	✓			S		51		2-3 sand layer lim fi 4/N	
50				✓		91			
60	✓			S					
65	✓	150	150	M		53			
70	✓					78			
75	✓					81			
80				S					
85				✓		3		109-110 ash withered	6A-30
90									
95	✓	90							
100	✓	110							
105	✓			J					
110								90	
120									
130									
140									

- 5G44/1
 - 104 4/1
 - 107 3/1
- } diatom site

Observer: _____ Date: _____

X

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1314	A	13	H	1A	60cm	

Sediment/Rock Name	Diatom silt	Observer	Beth
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Percent Texture		
Sand	Silt	Clay
10	80	10

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
15	Quartz
10	Feldspar
	K-feldspar (Orthoclase, Microcline...)
5	Plagioclase
10	Rock fragments
	Accessory/trace minerals
3	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
5	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
5	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
2	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
4	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
25	Centric inc. <i>P. curvirostris</i>
15	Pennate
	Chaetoceros Resting Spores
1	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	V1344	A	13	H	3A	30cm	

Sediment/Rock Name: *diatom silt*

Observer: *BETH*

Percent Texture		
Sand	Silt	Clay
8	80	12

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
10	Quartz
2	Feldspar
	K-feldspar (Orthoclase, Microcline...)
3	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
9	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
1	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 <i>many sea ice forms</i>
40	Centric
15	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	1344	A	13	4	6A	30cm	

SM

Sediment/Rock Name	Diatom rich clayey silt	Observer	Beth
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Percent Texture		
Sand	Silt	Clay
2	68	30

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
15	Quartz
10	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
20	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
15	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
3	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
15	Centric
10	Pennate
	Chaetoceros Resting Spores
2	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Expedition 323
Bering Sea

1344 A 14 All
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology	
					Visual Core description		
10	5Y 4/1						
20	DIATOM-BEARING SILTY CLAY						
30							
40							
50							
60		112	laminated sand layer		83 110		SOIL IS "KAW MASH" 5Y 4/1 Silty clay scattered sponge shells aggregates specks throughout the core.
70			35 -		109 110		100 cm is DIATOM-RICH SILTY CLAY
80			50				SKOLITHOS
90							
100			laminated sand layer				50 cm is DIATOM-BEARING SILTY CLAY
110		140					
120	37						
130							
140							

Observer: _____ Date: _____

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	A	14	H14	100		

SM

Sediment/Rock Name: diatom-rich silty clay

Observer: *AR*

(bearing) 3

Percent Texture		
Sand	Silt	Clay
5	35	60

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
20	Quartz 5
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
17	Rock fragments 3
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
39	Clay Minerals 10
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
2	Pyrite 0.5
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
4	Crystal grain 1
4	Vitric grain 1
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
20	Diatoms 5
	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	134A	A	14	H	7A	50	

SM

Sediment/Rock Name	diatom-bearing silty clay	Observer	Abira
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Percent Texture		
Sand	Silt	Clay
10	40	50

Comments:

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

Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians ✓
	Spumellaria
	Nassellaria
12	Diatoms 3
	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

Expedition 323
Bering Sea

1344 A 15
Site Hole Core Section Top Depth

Depth (m)	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist	Samples	Major Lithology	Minor Lithology
								Visual Core description	
1-20									
20-30				S	50 35				
30-40				V					
40-50				W					
50-60		10GY 4/1 ✓		S	8				
60-70				↑	110				
70-80				m	54 90				
80-90				m					
90-100		10Y 4/1 ✓		↓					
100-110				↑					
110-120				S					
120-130				↓					
130-140				↓					

102

114

61-77 ~~sp. pyrite~~ 8-92 0-4 milt ash

16-17 pebble ~~underwater origin~~ 4cm

44-45 pebble rounded, metabasalt 1.5 cm

75-76 77-78 sandy

132-134 sandy layer lam ↑

58-59 ~~not~~ green

135

10-20 PAL

3A-50
diatom-bearing
clayey silt

7A-110
diatom silt

Observer: _____ Date: _____

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1344	A	15	H	7A	110cm	

SM

Sediment/Rock Name	Diatom-rich silt	Observer	BETH
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B-32
 S-58
 V-10

Percent Texture		
Sand	Silt	Clay
5	95	

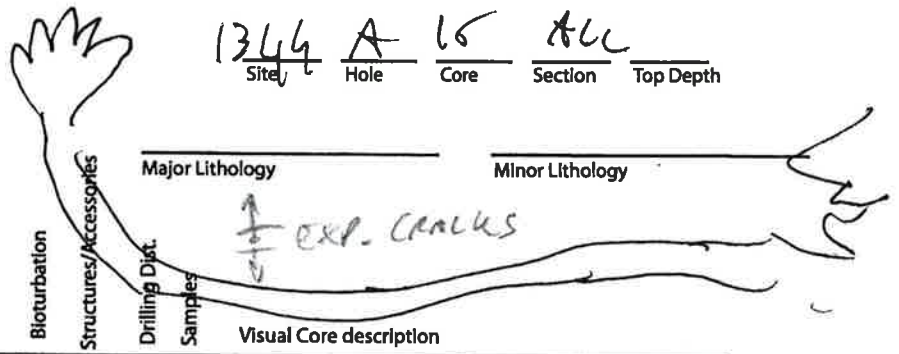
Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
10	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
25	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
10	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
5	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
10	Lithic grain

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

Expedition 323
Bering Sea

1344 A 15 ALL
Site Hole Core Section Top Depth



Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Visual Core description
1	10y 3/1	Dark- light CLAYEY SILT					10y 3/1
2							
3							10y 5/1
4	40 45	SANDY LAYER			24 70		chondrites
5	30				43	1	
6	10y 4/1	Dk. T. SEMI-CLAYEY SILT			120 38 70	2 103 122	
7					68 75	1 2	
8							
CC	25cm						

Observer: _____ Date: _____

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1344	A	16	H	3A	60cm	

SM

Sediment/Rock Name: diatom-rich clayey silt

Observer: akira

Percent Texture		
Sand	Silt	Clay
3	15	10

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
18	Quartz 5
11	Feldspar 3
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
7	Rock fragments 2
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
25	Clay Minerals 7
	Chlorite
	Glauconite
	Chert
	Zircon
2	Ferromagnesium minerals 0.5
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
7	Pyrite 2
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
Crystal grain	
4	Vitric grain 1
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
25	Diatoms 7
	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	134	A	16	H	7A	50	

SM

Sediment/Rock Name	diatom-bearing clayey silt	Observer	Okvira
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Percent Texture		
Sand	Silt	Clay
8	54	38

1 7 5

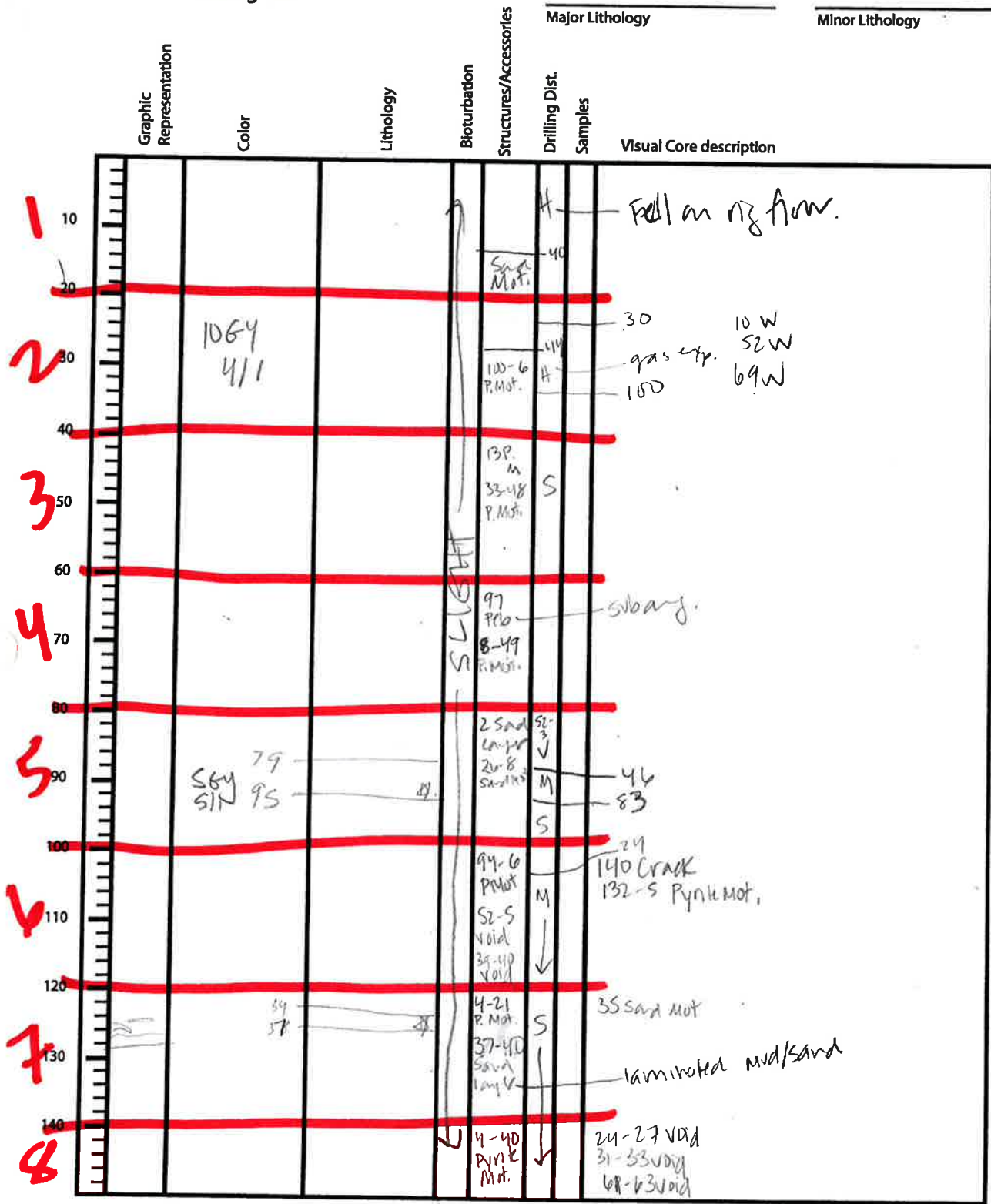
Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
21	Quartz 5
9	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
13	Rock fragments 3
Accessory/trace minerals	
4	Micas 1
	Biotite
	Muscovite
21	Clay Minerals 5
	Chlorite
	Glauconite
	Chert
	Zircon
4	Ferromagnesium minerals 1
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
9	Pyrite 2
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
Crystal grain	
9	Vitric grain 2
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
Calcareous	
Foraminifera	
Planktonic foraminifera	
Benthic foraminifera	
Nannofossils	
Coccoliths	
Discoasters	
Pteropods	
Siliceous	
Radiolarians	
Spumellaria	
Nassellaria	
13	Diatoms 3
	Centric
	Pennate
	Chaetoceros Resting Spores
Silicoflagellates	
2	Sponge spicules 0.5
	Dinoflagellates
Others	
Pollen	
Organic debris	
Plant debris	
Ebridians	
Echinoderm	
Fish remains (teeth, bones, scales)	
Bryozoans	
Bivalves	
Others	

Expedition 323
Bering Sea

323U1344A 17 AU
Site Hole Core Section Top Depth



Observer: _____ Date: _____

CU

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	7344A	17	H3		120		

SM

Sediment/Rock Name	diatom-bearing clayey silt	Observer	Akron

Percent Texture		
Sand	Silt	Clay

3 15 10

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
30	Quartz 7
13	Feldspar 3
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
9	Rock fragments 2
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
30	Clay Minerals 7
	Chlorite
	Glauconite
	Chert
	Zircon
2	Ferromagnesium minerals 0.5
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
4	Pyrite 1
	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
13	Diatoms 3
	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

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	134A	A	77	H	5	87	

SM

Sediment/Rock Name: *Oragonite filling diatom ooze*

Observer: *Aleira*

Percent Texture		
Sand	Silt	Clay
5	30	65
0	30	70

Comments:

2ndary lithology

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
6	Quartz 3
2	Feldspar 1
	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 1
	Magnetite
	Fe-oxide
Carbonates	
61	Calcite 30 <i>oragonite</i>
	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
20	Diatoms 10
	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

Expedition 323
Bering Sea

1344 A 18 All
 Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology	Visual Core description
1									
2	1043/1	Diatom-bearing clayey silt							104 3/1
3									104
4									
5									
6									
7	104 2.5/1	Diatom silt clayey silt							104 2.5/1
8									
CC 22cm									
10									
20									
30									
40									
50									
60									
70									
80									
90									
100									
110									
120									
130									
140									

↑
↓
6.5 EXP.

Observer: _____ Date: _____

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	134A	A	18	H	3A	30	

SM

Sediment/Rock Name	diatom-bearing clayey silt	Observer	AKING
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Percent Texture		
Sand	Silt	Clay

23 15 15

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
27	Quartz 7
12	Feldspar 3
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
8	Rock fragments 2
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
19	Clay Minerals 5
	Chlorite
	Glaucanite
	Chert
	Zircon
4	Ferromagnesium minerals 1
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
8	Pyrite 2
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
4	Vitric grain 1
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
19	Diatoms 5
	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	1344	A	18	H1	7A	120	

SM

Sediment/Rock Name	diatom-rich clayey silt	Observer	Akira
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Percent Texture		
Sand	Silt	Clay

3 15 7

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
10	Quartz 3
7	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
10	Rock fragments 3
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
17	Clay Minerals 5
	Chlorite
	Glauconite
	Chert
	Zircon
2	Ferromagnesium minerals 0.5
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
7	Pyrite 2
	Magnetite
	Fe-oxide
Carbonates	
7	Calcite 2
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
17	Vitric grain 2
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
34	Diatoms 10
	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

~~not updated~~

Expedition 323
Bering Sea

1344 A 19
Site Hole Core Section Top Depth

Depth (cc)	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
							Visual Core description	
1-10						70 ✓		
20-30								2A-3a diatom-rich clayey site
30-40						65 ✓ 107 ✓		
40-50		10Y 4/1		5		76 ✓ 80 ✓		
50-60		15				52 ✓ 66 ✓	26-28 sandy layers	
60-70		148 3/N ash				107 ✓ 110 ✓	28-29 sandy layers	5A-8a diatom-rich clays
70-80								
80-90								
90-100						57 ✓ 52 ✓	62-63 mths ash 73-74 sandy	
100-110						110 ✓ 42 ✓		
110-120								
120-130								
130-140								

Observer: _____ Date: _____

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1344	A	19	H	2A	40cm	

SM

Sediment/Rock Name	Diatom-rich clayey silt	Observer	BETH
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Percent Texture		
Sand	Silt	Clay
10	70	20

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
25	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
10	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
10	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
3	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
5	Zeolite
Opaque minerals	
10	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
5	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	
2	Radiolarians
	Spumellaria
	Nassellaria
Diatoms	
10	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	U1344	A	19	H	SA	80cm	

SM

Sediment/Rock Name	Diatom-rich clayey-silt	Observer	BETH
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Percent Texture		
Sand	Silt	Clay
10	50	40

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
15	Quartz
10	Feldspar
	K-feldspar (Orthoclase, Microcline...)
5	Plagioclase
	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	
10	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
10	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
	Diatoms
20	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

Expedition 323
Bering Sea

Site: 344 A Hole: 20 Core: ALL Section: _____ Top Depth: _____

Major Lithology _____ Minor Lithology _____

V = VOID
A = EXP. CRACKS
L =
Visual Core description

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

10 by 4/1

PP shale
104 fragments

SAND PATCH
29

78
80

SAND
LAYER

101
102

83
130

32
49

54
73

48
60

76-77

40
60

26

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V
W
X
Y
Z

89
108

10 by 4/1

DARK GREENISH GRAY

- 60m, SS BITUM. BEARING SILTY CLAY

Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	1344	A	20	H	7	60cm	

SM

Sediment/Rock Name	DIATOM-BEARING SILTY CLAY	Observer	KWA
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Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	7 Framework minerals
16%	3 Quartz
32%	16% 3 Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5%	1 Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
53%	10 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
16%	2 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

Expedition 323
Bering Sea

323 Site 1344 Hole A Core 21 Section 1-CC Top Depth

		Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
1	50 10		10Y2.5/1	I					6 Sand laminae 14 mm thick	
	100 20			I						
2	50 30						55	68 75 GE		Small sandy + black mottles + sp sp eggs throughout
	100 40									
	50 50			I						
3	100 60									
	150 70								108 Sand mottle	
4	50 80			I				55 60		
	100 90									
	50 100		5Y 5/2	I	S	↑ f		123 23 25		sand bed.
5	100 110			II	S			74 76		
	150 120			I						
	50 130			I						
6-CC	100 140									
	150									

Observer: Kelsie Date: _____

2-21

Expedition 323
Bering Sea

1344 A 22H 1+2
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
							Visual Core description	
	10GY 411							
	↓							
	10Y 5/1				slight			2, 56, 60, 70 sponge aggs.
	10GY 411				mod.			85
					slight			23-25 grad. 24-34 lighter auth. carb. 33-35 grad. rich interval
					slight			40, 57, 88, 93, 106, 109, 119 sponge aggs.
								131

Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 A 22H 3+4
 Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	10Y4/1				shd		0-50 sandy nodules
	5G4/1				89 mod.		48-52 grad.
					118 shd		105-115 sandy texture
	3/N		mod.				120-130 grad. 130-20 (sect. 4) sandy nodules

Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 Site A Hole 22H Core 5+6 Section _____ Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
							Visual Core description	
	56Y4/1							
				Mad.	50	70		50-70
								58-100 pyrite nodules
								59, 95 sponge aggs.

Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 A 22H 7+8+CC
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
10 20 30 40 50 60 70 80 90 100 110 120 130 140			.p.m.	44	.p.m.	44-70	
				70	.p.m.	13-80 pyrite nodules	
						101	
					.p.m.	7-54 sandy nodules	
						29	

Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
			22H		3	50	

SM

Sediment/Rock Name	Diatom rich sandy silt	Observer	H.A
--------------------	------------------------	----------	-----

Percent Texture		
Sand	Silt	Clay
30	50	20

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 89	
Framework minerals	
72	Quartz 20
4	Feldspar 1
17	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
7	Rock fragments 2
13	
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
4	Ferromagnesium minerals 1
6	
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
2	Pyrite 0.5
	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
	Diatoms
4	Centric 1
7	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

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
		A	224		6A	48	48

SM

Sediment/Rock Name	Diatom bearing Sandy Clay	Observer	H.A
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Percent Texture		
Sand	Silt	Clay
20	10	70

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 95 84	
Framework minerals	
64	Quartz 5
2	Feldspar 1
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
4	Rock fragments 2
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
22	Clay Minerals 10
	Chlorite
	Glauconite
	Chert
	Zircon
3	Ferromagnesium minerals 1
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 5	
Calcareous	
Foraminifera	
Planktonic foraminifera	
Benthic foraminifera	
Nannofossils	
Coccoliths	
Discoasters	
Pteropods	
Siliceous	
Radiolarians	
Spumellaria	
Nassellaria	
5	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	

Expedition 323
Bering Sea

1344 A 23 1-5
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
							Visual Core description	
1	10Y 2.5/1	I Diatom-b clayey silt		○	SSS GE S	37 40	sp sp-agg throughout Sandy mottle	
							Black streaky mottles throughout	
2		I		* x	S	113 143	sandy mottles	
							46 - abundant sp sp aggs 49 86 Sandy lamina 92-99 sp sp aggs 119 125	
3		I			SSS S S	63 74 106 111	sp-sp aggs, small sandy mottles + black streaks	
							57 100 134	
4		I			S	57 100 134	"	
							"	
5		I			S	57 100 134	"	
							"	

Observer: Kelsie Date: _____

Expedition 323
Bering Sea

1344 Site A Hole 23 Core 6-CC Section Top Depth

		Major Lithology	Minor Lithology	
Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	
Color	Lithology	Drilling Dist.	Samples	
Visual Core description				
50 10		I	S	As for 5
100 20				
150 30				132
7	104 3/1	II	S	13
40		II	SS	48 13 sandy laminae
CC				35
50				
60				
70				
80				
90				
100				
110				
120				
130				
140				

Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	A	23	H	CC	8	

SM

Sediment/Rock Name	Diatom-rich silty clay	Observer	Kelsie
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Percent Texture		
Sand	Silt	Clay

Comments: Main lithology

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
15	Quartz
10	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments
	Accessory/trace minerals
1	Micas
	Biotite
	Muscovite
50	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	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
1	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

Expedition 323
Bering Sea

1344 A 24H 1-5
Site Hole Core Section Top Depth

		Major Lithology	Minor Lithology			
Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories			
			Drilling Dist. Samples			
Visual Core description						
1	50 10	I	A	S	Sandy mottles + lamina throughout; occasional sp. spc agg	
	100 20					10Y 2.5/1
2	150 30	I	◇	GE	" "	
	50 40					56
	100 50					60 clast, tan, dolomite, rounded
3	150 60	I	◇	SSS	102	
	50 70					125
	100 80					Acc. as above
4	150 90	I	◇	SSS	128 Sandy lamina	
	50 100					136
	100 110					16
5	150 120	I	◇	SSS	48	
	50 130					84
	100 140					94
5	150 120	I	◇	SSS	20	
	50 130					66
	100 140					125 clast, black, angular, flat 8mm
	150	I	◇	SSS	130	
			◇		132	
			◇		146	
			S		Brown ash-filled burrow	

Observer: Kelsie Date: _____

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	13x4	A	24H		3A	56	56

SM

Sediment/Rock Name	Diatom rich sandy silt	Observer	H.A.
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Percent Texture		
Sand	Silt	Clay
30	50	20

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
60	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments
Accessory/trace minerals	
5	Micas
	Biotite
	Muscovite
3	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	
Foraminifera	
	Planktonic foraminifera
	Benthic foraminifera
Nannofossils	
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
17.5	Diatoms
5	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	1344	A	244		5	30	50

SM

Sediment/Rock Name	Auth. Carb. rich Sandy silt	Observer	H.A
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diatom-rich

Percent Texture		
Sand	Silt	Clay
35	40	25

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 76	
Framework minerals	
45	Quartz 15
	Feldspar
51	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
3	Rock fragments 1
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glaucanite
11	Chert
3	Zircon
	Ferromagnesium minerals 1
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
3	Pyrite 1
	Magnetite
	Fe-oxide
22.71	Carbonates 7 (Auth. Carb.)
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS 24	
Calcareous	
Foraminifera	
Planktonic foraminifera	
Benthic foraminifera	
Nannofossils	
Coccoliths	
Discoasters	
Pteropods	
Siliceous	
Radiolarians	
Spumellaria	
Nassellaria	
Diatoms	
15	5 Centric
9	3 Pennate
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

1344 A 25H 1-CC
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Major Lithology	Minor Lithology	Drilling Dist. Samples	Visual Core description
1	3/N	I	A				45	Sp spec aggreg + black streaky mottles
							5	
2		I					130	36-39 Soupy
							5	
3		Diatom-rich I silty clay					127	Section 3 → + small sandy mottles
							x 80 ss	
4	3/N	Diatom-silt II					140	Slightly sandier appearance but very similar to I v. few sandy mottles
5		II					150	

6 → CC (41)

II

Observer: Kelsie Date:

x ss 7A 31 cm

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	A	2TH		2F3	2	80

SM
 BE

Sediment/Rock Name	Diston - rich silty clay	Observer	K.A
--------------------	--------------------------	----------	-----

Percent Texture		
Sand	Silt	Clay
0	30	70

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 77	
Framework minerals	
40	Quartz 7
	Feldspar
41	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
3	Rock fragments 0.5
Accessory/trace minerals	
	Micas
	Biotite
50	Muscovite
28	Clay Minerals 5
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
58	Pyrite 1
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS 23	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
23	4 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

SM

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344		25H		7A	31	

SM
 5
 2

Sediment/Rock Name	Diatom site	Observer	H.A
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Percent Texture		
Sand	Silt	Clay
10	80	10

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 60
	Framework minerals
49	Quartz 15
	Feldspar
50	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
3	Rock fragments /
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
10 2	Clay Minerals 3
	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 40
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
31 10	Centric
9 3	Pennate
	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

1344 A 26H 1-CC
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Major Lithology		Minor Lithology
					Drilling Dist.	Samples	Visual Core description
0							
1	10Y 3/1	I			SSS	30	Sandy mottles and sp. spc agg Sect 1+2
2		I Diatom silt			S x SS	92	more abundant sand-sized yellow forams(?)
3	5Y 3/2	II			X	40 51 70	authigenic carbon- diatom silty clay
		I					
4		II				14 26	
		I					
						178	
5	3/N	III				63	authigenic carbonate -rich III
	5Y 3/2	IV			70	90	Sandy mottles, sp. spc aggs + black streaks
		III			106		
6		III				X SS	- diatom-b clayey silt

7-CC(40)
severe drill disturbance III

Observer: Kelsie Date: _____

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	A	26		2	39	59

SM

Sediment/Rock Name	Diatom site	Observer	H.A
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Percent Texture		
Sand	Silt	Clay
20	75	5

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
50 60	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	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
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
40 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	1344	A	26		3	50	

SM

Sediment/Rock Name	Auth. Carbon. rich Diatom Silty Clay	Observer	
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Percent Texture		
Sand	Silt	Clay
5	25	70

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
20	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
30	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
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

X
IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
233	BV4	A	261-4		6A	50	

SM

Sediment/Rock Name	Diatom-bearing clayey silt	Observer	
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Percent Texture		
Sand	Silt	Clay
20	40 ⁵⁰	30

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 10	
Framework minerals	
44	Quartz 15
7	Feldspar 2
56	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
21	Muscovite
22-23	Clay Minerals 7
	Chlorite
	Glauconite
	Chert
	Zircon
10	Ferromagnesium minerals 3
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
2	Pyrite 0.5
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS 10	
Calcareous	
Foraminifera	
Planktonic foraminifera	
Benthic foraminifera	
Nannofossils	
Coccoliths	
Discoasters	
Pteropods	
Siliceous	
Radiolarians	
Spumellaria	
Nassellaria	
10 3	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

Expedition 323
Bering Sea

1344 A 27H 1-6
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
1 50 100	1043/1	I Diatom-r clayey silt		x	SS	11	sp spe agg
						67, 72	92
2 50 100		I		x	SS	73	occ sandy patches
						78	Black, rounded clast 12mm
3 50 100		I		x	SS	28	Black, rounded clast 15mm
						58	sp spe agg
4 50 100	1043/2	II		x	SS	122	Black, rounded clast 14mm
						5	
5 50 100		III		x	SS	139	Black ash patch
						144	
6 50 100	10425/1	III		x	SS	117	Authigenic or diatom-r clay
						135	abundant sandy mottles
		II		x	SS	18	
						24	
		III		x	SS	50	
						83	

7/20
Diatom-r
clay.

Observer: Kelsie Date: _____

Expedition 323
Bering Sea

1344 A 27H 7-CC
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
							Visual Core description	
50		Diatom-r clay		x		0		
7 100				x		20		28 sp spe agg sandy mottles
150						105		86 sp spe agg
8 50						121		145 Sandy mottles
50								20 Sandy mottles
100				x				45
50								24 sp spe agg
100								51
70								
80								
90								
100								
110								
120								
130								
140								

Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
			27H		2A	30	

SM

Sediment/Rock Name	Auth. Carb. rich & diatom rich silty clay	Observer	H-A
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Percent Texture		
Sand	Silt	Clay
10	30	60

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 84	
Framework minerals	
11	Quartz 5
2	Feldspar 1
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glaucanite
	Chert
	Zircon
2	Ferromagnesium minerals 1
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
4	Pyrite 2
	Magnetite
	Fe-oxide
65	Carbonates 30
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS 16	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
11	5 Centric
5	2 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	13M4	A	27		3	45	

SM

Sediment/Rock Name	Diatom-rich silty clayey silt	Observer	H.W.
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Percent Texture		
Sand	Silt	Clay
25	35	40

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 70	
Framework minerals	
56	Quartz 29
3	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
36	Rock fragments 2
Accessory/trace minerals	
62	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
88	Pyrite 3
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS 28 30	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
28 to 7 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	B44	A	27H		5	70	

SM

Sediment/Rock Name	<i>D</i>	Observer	H.A
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*Auth. Carb. rich
 Diatom-rich clay*

Percent Texture		
Sand	Silt	Clay
5	5	90

Comments:

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

Percent	Component
BIOGENIC GRAINS <i>15</i>	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
15	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	1344	A	27		6	20	

SM

Sediment/Rock Name	Diatom-rich clay	Observer	UA
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Percent Texture		
Sand	Silt	Clay
5	10	85

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 65	
Framework minerals	
47	Quartz 4
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
12	Rock fragments 1
Accessory/trace minerals	
15	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glaucanite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
6	Pyrite 0.5
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS 35	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
35	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

Expedition 323
Bering Sea

1344 A 28x 1-5
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
							Visual Core description	
	5G 4/1 10GT 4/1	I diatom rich site	AB			①		D.D:ST 0-10 (Pieces) Heavyly 0-10 (Biscuits) 15 Sec. 2.0 ~ cc (B...
		I	SR			②	032 Pebbles rounded 065-66 Mottles (Pyrites)	slight Black
		I	SR			③	0119 S. aggr.	
	110	I Auth. Carb.	SR			④	058-59 Mottles (Bl. Pyrites)	
	10GT 4/1 (Slightly Greener)	II diatom rich silty clay	AB SR			⑤	0131-134 Mott. Black (Pyrites)	
	5G 4/1	I	AB					
	10GT 4/1	II	SR AB					

Observer: H:vo Date: _____

Expedition 323
Bering Sea

1344 Site A 28x Core Section Top Depth

		Major Lithology					Minor Lithology
Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Visual Core description
	50	10 G ⁴ 1/1	II				
		59 1/1	I	SR			
		56 1/1	I				⑥ 91cm
		56 1/1	I				CC 24cm

Observer: H.ivo Date: _____

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	A	2FX		3A	40	60

Sediment/Rock Name	diatom - rich silt	Observer	HA
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Percent Texture		
Sand	Silt	Clay
10	85	5

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 68	
Framework minerals	
48	Quartz 10
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments 1
Accessory/trace minerals	
	Micas
6	Biotite
	Muscovite
10	Clay Minerals 2
	Chlorite
	Glauconite
	Chert
	Zircon
5	Ferromagnesium minerals 1
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 32	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
32	32 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	1344	A	25X	4A		90	90

SM

Sediment/Rock Name	Auth. Carb. rich Diatom rich silty clay	Observer	HA
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Percent Texture		
Sand	Silt	Clay
10	30	60

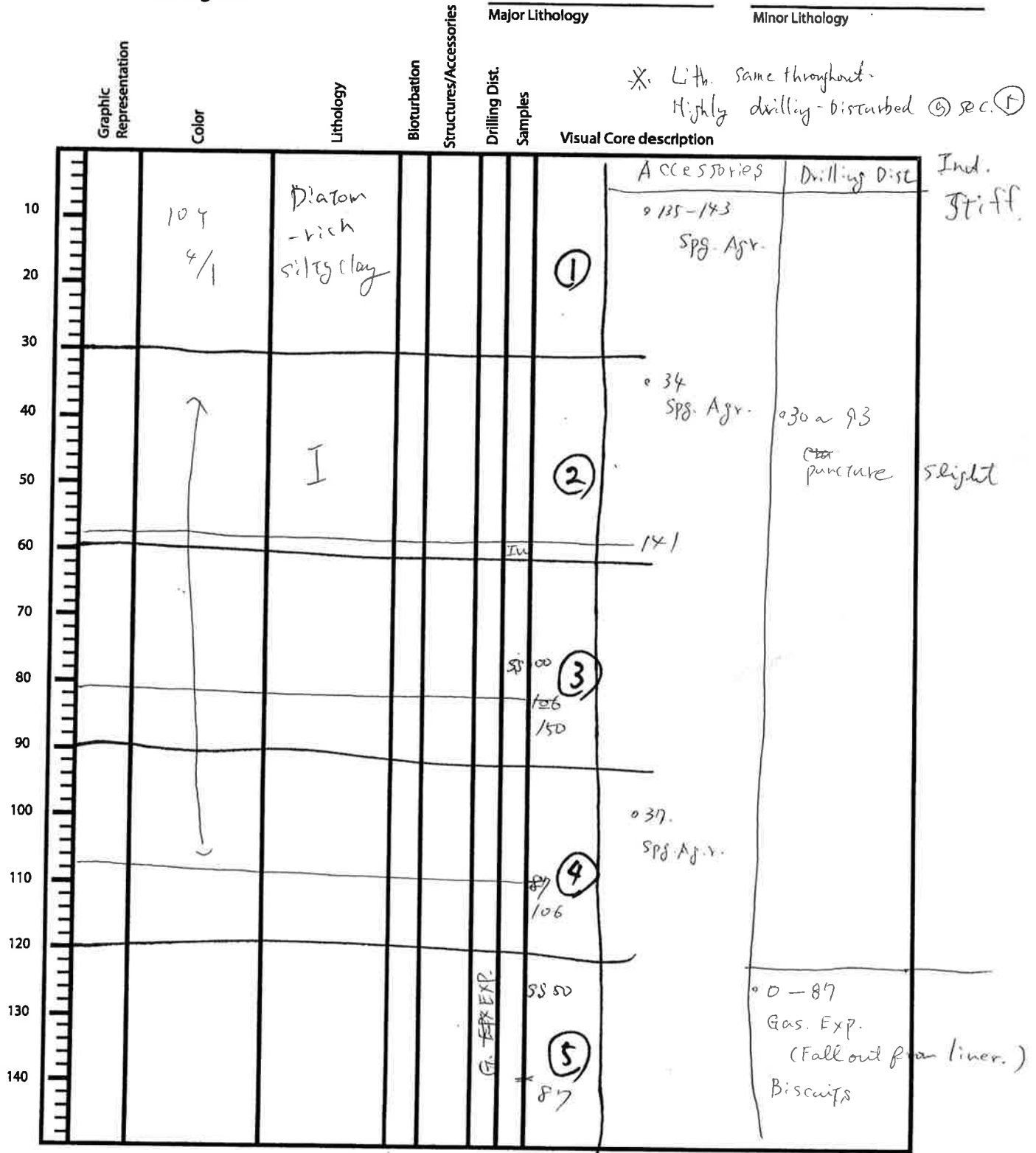
Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 88%	
Framework minerals	
13	Quartz 5
3	Feldspar 7
	K-feldspar (Orthoclase, Microcline...)
11	Plagioclase
3	Rock fragments 1
Accessory/trace minerals 7	
	Micas
	Biotite
14	Muscovite
5	Clay Minerals 2
	Chlorite
	Glauconite
27	Chert
	Zircon
3	Ferromagnesium minerals 1
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
	Pyrite
	Magnetite
	Fe-oxide
51	Carbonates Auth. Carb. 20
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS 22	
Calcareous	
Foraminifera	
Planktonic foraminifera	
Benthic foraminifera	
Nannofossils	
Coccoliths	
Discoasters	
Pteropods	
Siliceous	
Radiolarians	
Spumellaria	
Nassellaria	
Diatoms	
12	5 Centric
10	34 Pennate
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

1344 Site A Hole 29X Core Section Top Depth



* Lith. same throughout -
Highly drilling-disturbed (6) sec. (5)

Observer: Hiro Date: _____

Heavily Dist. G. EXP. ← CC 23cm

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	A	29X	28	3	100	100

SM

Sediment/Rock Name	Diatom-rich silty clay ^{29X}	Observer	Hiro. A
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Percent Texture		
Sand	Silt	Clay
5	45	50

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
40	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	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	
5	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
40	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
	1344	A	29X		5	50	50

SM

Sediment/Rock Name	Diatom-rich silty clay	Observer	Hew
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Percent Texture		
Sand	Silt	Clay
5	30	65
	45	50

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals 53
40 58	Quartz 50
	Feldspar 10
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
3	Rock fragments 0.5
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
8	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
2	Pyrite 0.5
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS 47	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
33	7 Centric
14	3 Pennate
	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

U1344A - 30X - A11
Site Hole Core Section Top Depth

Diatom-bearing clayey silt
Major Lithology Minor Lithology

	Graphic Representation	Color	Lithology	Biorturbation	Structures/Accessories	Drilling Dist.	Samples	Visual Core description
①								pieces, severe
②								bisuits, moderate
			132 spsp aggregate					
③			64 spsp aggregate					
			46 spsp aggregate					
④			83 spsp aggregate					
⑤			31 "					
			32 "				125	125 soupy moderate
⑥			43 "					
CC								pieces, severe
								all: soft 54 3/2 biorturbation slight

Observer: _____ Date: _____

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1344	A	30	X	4	60	60

SM

Sediment/Rock Name	Diatom-rich clayey silt	Observer	MSC
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Percent Texture		
Sand	Silt	Clay
3	57	40

Comments:

Percent	Component
78	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
20	Quartz
21	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
20	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
5	Pyrite
	Magnetite
1	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
22	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
22	Diatoms
15	Centric
7	Pennate
	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

1344 A 31X
Site Hole Core Section Top Depth

Depth (m)	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
							Visual Core description	
1								
10								
20								
30		10Y 3/1	diatom-bearing clay site				60	47-48 molybdenite
40								105-106 clay sand
50		5 10Y 4/1	diatom-rich site					3A-106 Sand
60							20	54-32 diatom-rich site
70								
80								
90								
100								
110								
120								
130								
140								

Observer: _____ Date: _____

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U344	A	31	X	3A	106	

SM

Sediment/Rock Name: Sand

Observer: Beth

Percent Texture		
Sand	Silt	Clay

Comments:

Sand Layer

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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	01344	A	31	X	SA	32 ^{cm}	

SM

Sediment/Rock Name: Diatom-rich silt

Observer: Bck

Percent Texture		
Sand	Silt	Clay
5	80	15

Comments:



Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
15	Quartz
10	Feldspar
	K-feldspar (Orthoclase, Microcline...)
5	Plagioclase
10	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glaucinite
	Chert
	Zircon
3	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
5	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
7	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
25	Centric
10	Pennate
10	<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

Expedition 323
Bering Sea

1344 A 32X
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
					Visual Core description	
1	10Y 4/1 10Y 3/1					
2						
3	10Y 4/1		S	8	112-113 mott.	3A-20 diatom site
4						
5	60 10Y 3/1				22-23 mott. sand.	diatom-rich clayey site
60					90	
70					70	
80						
90						
100						
110						
120						
130						
140						

 - diatom-site
 - diatom-rich clayey site

Observer: _____ Date: _____

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	A	32	X	3	20	

SM

Sediment/Rock Name	diatom site	Observer	Okura
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Percent Texture		
Sand	Silt	Clay
5	80	15

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
29	Quartz 10
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
3	Rock fragments 2
Accessory/trace minerals	
2	Micas 1
	Biotite
	Muscovite
7	Clay Minerals 3
	Chlorite
	Glauconite
	Chert
	Zircon
2	Ferromagnesium minerals 1
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
12	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
48	Diatoms 20
	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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	A	32	X	5A	30	

SM

Sediment/Rock Name: *diatom-bearing clayey silt rich*

Observer: *Abira*

Percent Texture		
Sand	Silt	Clay
0	60	40

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
13	Quartz 5
8	Feldspar 3
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
8	Rock fragments 3
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
25	Clay Minerals 10
	Chlorite
	Glauconite
	Chert
	Zircon
3	Ferromagnesium minerals 1
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
13	Pyrite 5
	Magnetite
	Fe-oxide
Carbonates	
3	Calcite 1
	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
38	Diatoms 20 15
	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

Expedition 323
Bering Sea

1344 A 33X
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
							Visual Core description	
1	10Y 3/1							
2	V						88-89 sandy moll.	1A-110 g diatom-rich clay
3	10Y 4/1							
4	70							6A-55 40
5	10Y 3/1				15 32	58 25	20-70 sandy moll.	

Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	1344	A	33	X	1	110m	

SM

Sediment/Rock Name ALUM - RICH CLAY	Observer 1WA
---	------------------------

Percent Texture		
Sand	Silt	Clay
10	25	65

Comments:

23

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
10	Framework minerals
7	3 Quartz
16	7 Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
47	20 Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
5	2 Pyrite
	Magnetite
	Fe-oxide
	Carbonates
2	1 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
23%	10 Diatoms
16	7 Centric
7	3 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
	1344	A	33	E	4	60 cm	

SM

Sediment/Rock Name	DIATOM-RICH CLAY	Observer	CUY
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Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
7%	Quartz
3%	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
3%	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
40	Clay Minerals
	Chlorite
	Glaucanite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
3%	Calcite
	Dolomite
10%	ACCUMULATED CARBONATE
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
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

Expedition 323
Bering Sea

1344 A 34X All
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Major Lithology		Minor Lithology												
				Drilling Dist.	Samples	Visual Core description												
1	56y 311	Diatm- rich clayey silt		M B ₁	93													
							2	V. dark greenish- gray	22-4 Peb.	S	subround metamorphic							
												3	91 6cm Pv. not smeared	Biscuits	24 band			
																4	41-3 Peb.	well round, buff soil
CL				1-3 Sand M.S.	62 Grain	H	extruded on rig floor											
											H							

Observer: _____ Date: _____

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	V1344	A	34	X	2A	80cm	

SM

Sediment/Rock Name	Diatom-rich clayey silt	Observer	Beth
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B-25
 S-65
 V-10

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
20	Quartz
15	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
4	Micas
	Biotite
	Muscovite
15	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
47	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
7	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
15	Centric
5	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

Expedition 323
Bering Sea

U1344 A 35X ALL
 Site Hole Core Section Top Depth

Major Lithology _____
 Minor Lithology _____

Graphic Representation	Color	Lithology	Biorturbation Structures/Accessories	Drilling Dist. Samples	Visual Core description
	S64 311	Diatom- rich clayey silt	508 Mot P. 123 S Snd Mot 65- 70 G. Mot	1- 40 B5 H 40 M 32-4 106. Mot. 14-17 Peb 54 W H A	sub volcanic and Breccia extruded rhyolite

Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 A 30X ALL
 Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
					Visual Core description	
1	3/N	SILTY CLAY				3/N VERY DARK GRAY SILTY CLAY
2						80cm, SS
3						
4						104 3/1 VERY DARK GREENISH GRAY DIATOM-BEARING SILTY CLAY
5	39 70	GRAVEL		45 50		45cm, SS 90cm, SS
6	104 3/1			57 57		
CC						
		lighter colored AUTHIGENIC CARBONATE-RICH DIATOM-BEARING SILTY CLAY				

Observer: _____ Date: _____

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
B23	1344	A	36	X	24	80	

Sediment/Rock Name: *diatom-bearing silty clay*

Observer: *akira*

Percent Texture		
Sand	Silt	Clay
14	43	43
5	15	15

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
11	Quartz 2
5	Feldspar 1
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
16	Rock fragments 3
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
38	Clay Minerals 7
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
5	Pyrite 1
	Magnetite
	Fe-oxide
Carbonates	
3	Calcite 0.5
	Dolomite
VOLCANICLASTIC GRAINS	
Crystal grain	
11	Vitric grain 2
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
11	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

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	A	36	H/3A	90		

Sediment/Rock Name: diatom-rich silty clay

Observer: Akira

Percent Texture		
Sand	Silt	Clay
5	30	65

Comments:

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

Percent	Component
BIOGENIC GRAINS	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
33	Diatoms 10
	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

Expedition 323
Bering Sea

~~134~~ A 37
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
					Visual Core description	
1						
2	3/N					
3			G	m	29-30 mott sand	
4	32 10/9/1 53				46-48 sandy layer 38-39 mott sand	4A 4cm authentic carbonat 4A 87cm diatom-bearing clayey site
5	3/N				100 31-32 mott green layer	
CC				50 26		
60						
70						
80						
90						
100						
110						
120						
130						
140						

Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	1344	A	37	X	4	87m	

SM

Sediment/Rock Name	DIATOM-BEARING CLAY SILT	Observer	run
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Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
25%	6 Quartz
17%	4 Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
4%	1 Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
42%	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
127%	3 Diatoms
	2 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

Expedition 323
Bering Sea

3 ~~PT~~ ALU

Site _____ Hole _____ Core _____ Section _____ Top Depth _____

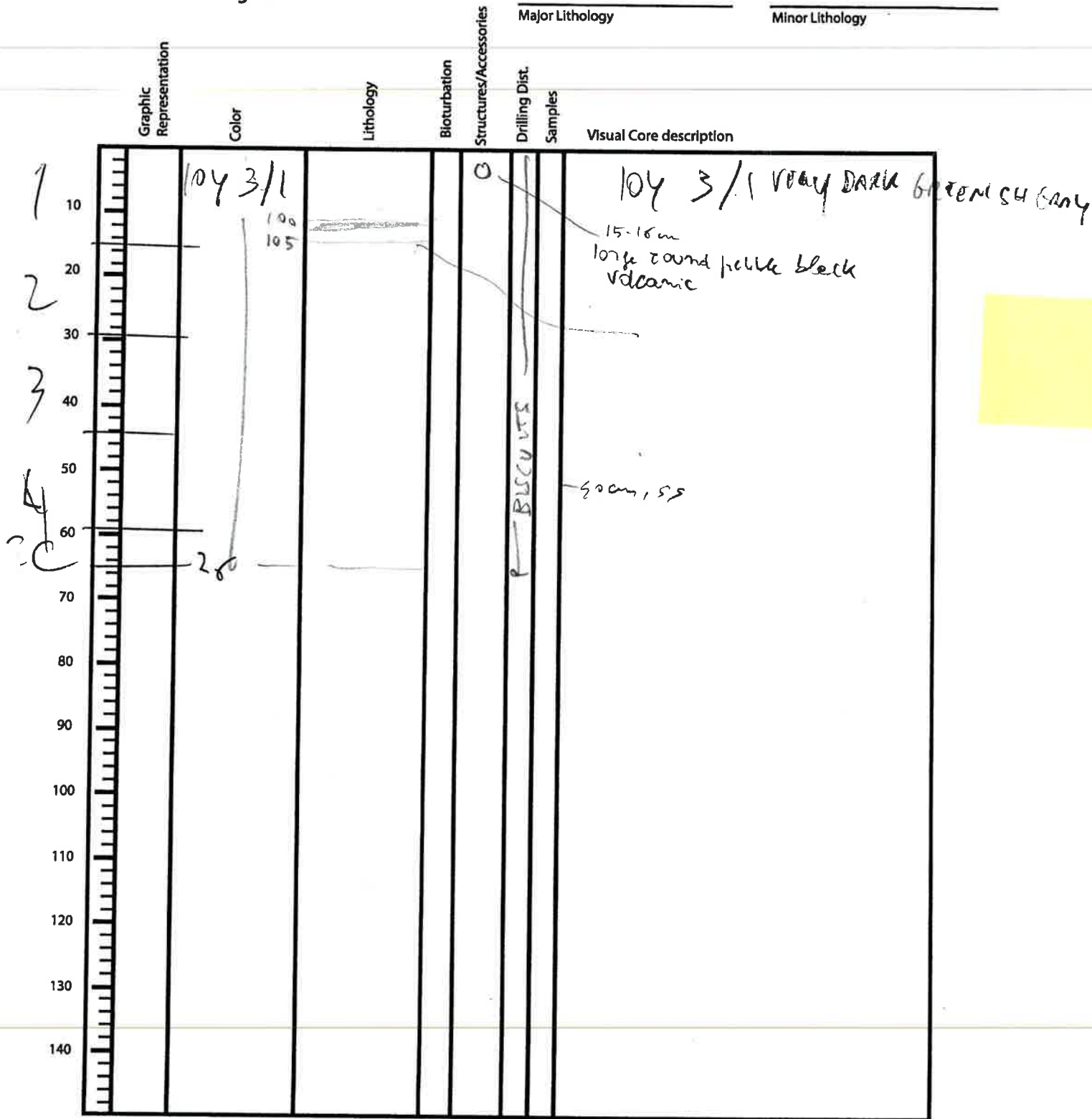
Major Lithology _____
Minor Lithology _____

Graphic Representation	Color	Lithology	Biurbation	Structures/Accessories	Drilling Dist.	Samples	Visual Core description
	<p>3/N</p>	<p>Diatom bearing clay sil</p>			<p>50-60-70-80</p>		<p>SOOPY between 50 & 20 cm</p>

Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 A 3PX ALL
Site Hole Core Section Top Depth



Observer: _____ Date: _____

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1344	A	39	X	4A	40cm	

SM

Sediment/Rock Name: Diatom-rich silty clay

Observer: Beth

Percent Texture		
Sand	Silt	Clay
10	25	65

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
21	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
14	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
11	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
6	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
3	Zeolite
Opaque minerals	
14	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
7	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
14	Centric
7	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
1	Sponge spicules <i>Calcareous</i>
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Expedition 323
Bering Sea

U1344 A 40X All
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Visual Core description
	2.5/N						
1	lv vs 10441			45-57 P. Mot.			10055
2				10-11 P. Mot.			
3	4y10/1 IS						
4				14-64 P. Mot.			extruded on rig floor.
cc							

Observer: _____ Date: _____

X

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	13K	A	40	X	1	100	

SM

Sediment/Rock Name: diatom-bearing clayey silt

Observer: A. R. R. R.

Percent Texture		
Sand	Silt	Clay
3	40	57

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
22	Quartz 7
10	Feldspar 3
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
6	Rock fragments 2
Accessory/trace minerals	
2	Micas 0.5
	Biotite
	Muscovite
32	Clay Minerals 10
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
10	Pyrite 3
	Magnetite
	Fe-oxide
Carbonates	
3	Calcite 1
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
6	Vitric grain 2
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
10	Diatoms 3
	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	B44	A	40	X	3A	12	

SM

Sediment/Rock Name: *diatom-rich clayey silt.*

Observer: *Akira*

aragonitized

Percent Texture		
Sand	Silt	Clay
9	30	61
3	10	20

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
3	Quartz 1
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
9	Rock fragments 3
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
9	Clay Minerals 3
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
2	Pyrite 0.5
	Magnetite
	Fe-oxide
62	Carbonates 20
	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
15	Diatoms 5
	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

Expedition 323
Bering Sea

1344 A 41
Site Hole Core Section Top Depth

Depth (m)	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
							Visual Core description	
1	✓	SGT 3/1						
2	✓							
3	8 ✓	20 100					17-19 sponge rock 27-29 mottled authigenic carbonates	24-100 diatom-rich clayey silt
4	✓	3/N		α		5 ✓	43-44 mottled pyrite 76-81 72-73	
5	✓						27-29 pebbles black 2cm rounded	
6							34-35 sandy layer #	
7						85	24-25 sandy mottled	6A-70 diatom-bearing clayey silt
CC						66 37		

□ 3/N
▨ SGT 3/1

Observer: _____ Date: _____

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1344	A	41	H	6	A	70cm

SM

Sediment/Rock Name: Diatom-bearing clayey silt

Observer: Beth

Percent Texture		
Sand	Silt	Clay
10	65	25

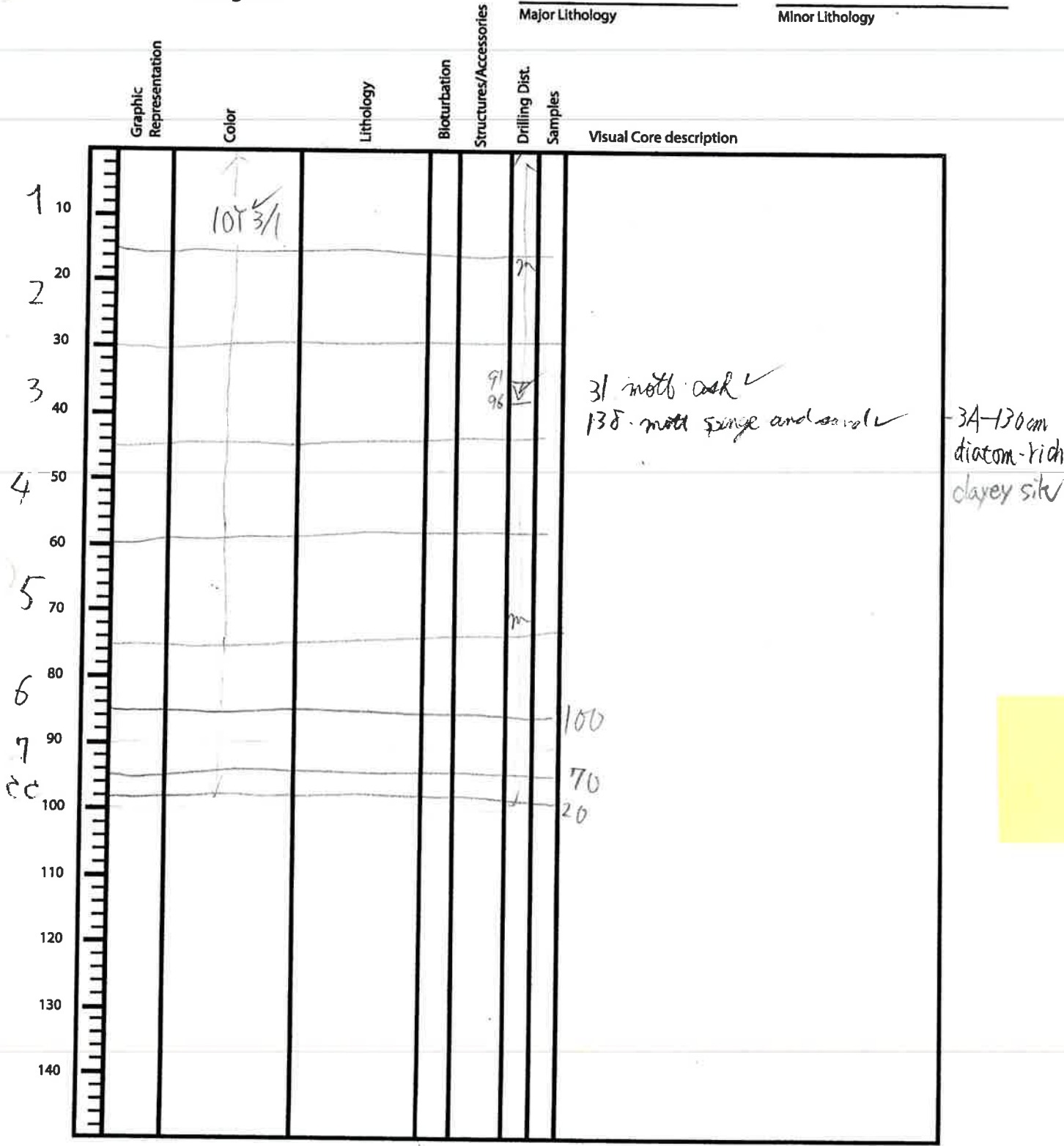
Comments:

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

Expedition 323
Bering Sea

1344 A 42X
Site Hole Core Section Top Depth



Observer: _____ Date: _____

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1344	A	42	X	3A	130cm	

SM
 ✓

Sediment/Rock Name	Diatom-rich clayey silt	Observer	Bet...
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Percent Texture		
Sand	Silt	Clay
10	50	40

Comments:

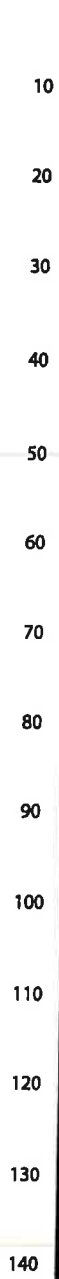
Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
15	Quartz
10	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
20	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
13	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
10	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
10	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
7	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
15	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

Expedition 323
Bering Sea

1344 Site A Hole 43x Core 1+2 Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	3/N		soft visible		mod.		soft
							4, 36 sponge aggs.

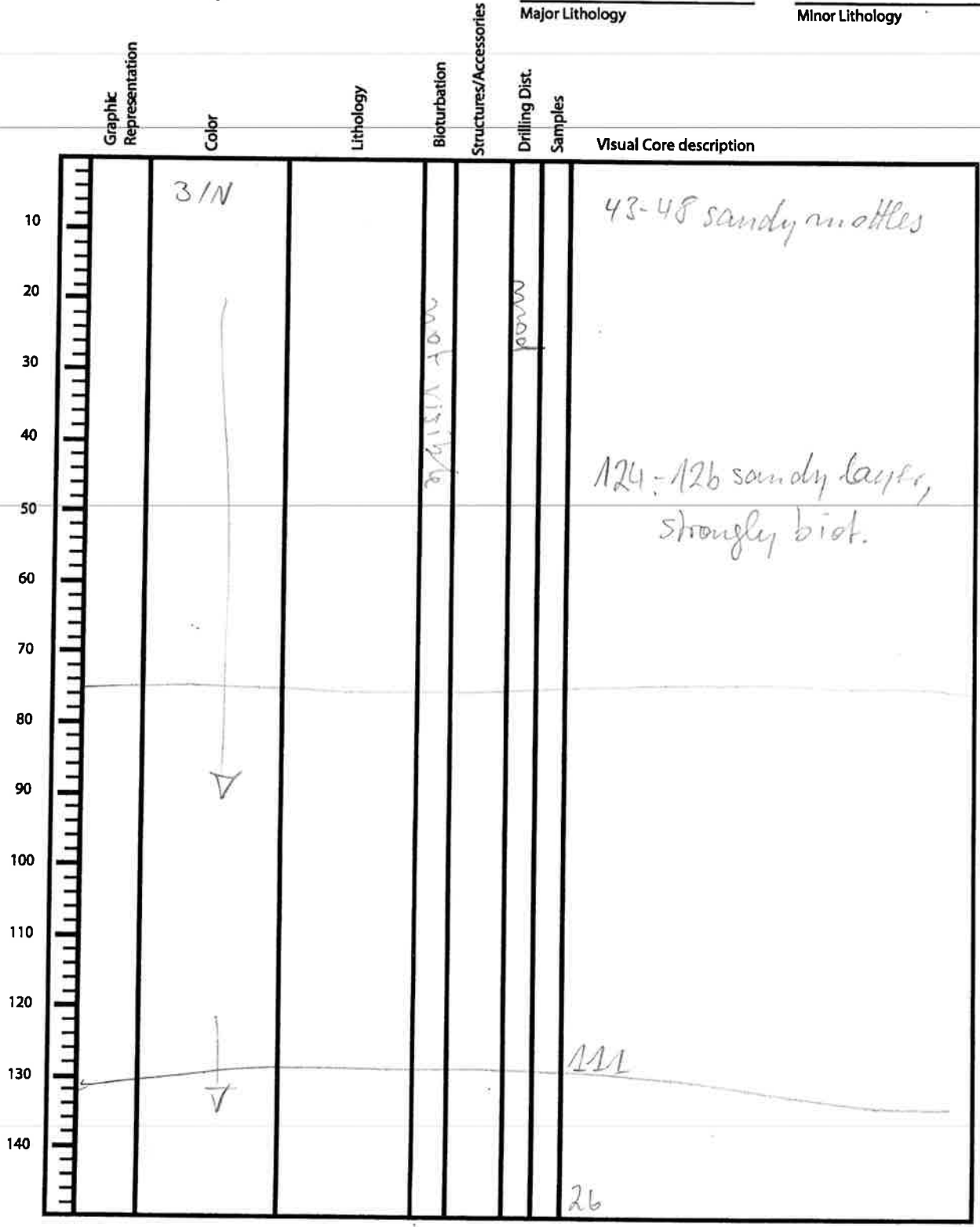


Observer: _____ Date: _____



Expedition 323
Bering Sea

1344 Site A Hole 43X Core 3+4+CC Section Top Depth



Observer: _____ Date: _____

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
223	1344	A	43X		4	55	

SM ✓

Sediment/Rock Name	Aath Carb rich	Observer	
--------------------	----------------	----------	--

Diatom rich Silty Clay

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
31%	Quartz
	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
8%	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
56	Carbonates Aath Carb
	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	
31%	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
83	1344	A	43X	'	/	120	

SM
✓

Sediment/Rock Name	Diatom bearing silt	Observer	
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Percent Texture		
Sand	Silt	Clay
10	80	10

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
83	Quartz 20
4	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	
4	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
8	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

Expedition 323
Bering Sea

1844 A 44X 1+2+3+4
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	10GY 4/1						4, 76 sponge aggr.
	10Y 4/1			slight			18, 69, 116, 122 sponge aggr.
	↓						10, 14, 21, 102, 142 sponge aggr.
							19-20 sandy patch
	10GY 4/1						0-10 grad.

Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 Site A Hole 44X Core 5+6+CC Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
10 20 30 40 50 60 70 80 90 100 110 120 130 140	10G7911				10-12		2-12 sandy mottles 9, 14, 48, 57, 66, 76 sponge aggs.
					49-50		49-50 sandy layer, biot.
					80		80
					48		48 sponge aggs.
					55		55
					4		4 sponge aggs.
					41		41

Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344		44X		3	60	

SM
✓

Sediment/Rock Name	Diatom-rich silt ↑ clayey	Observer	
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Percent Texture		
Sand	Silt	Clay
5	60	35

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 66	
Framework minerals	
15	Quartz 3
	Feldspar
17	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
2	Rock fragments 0.15
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
49	Clay Minerals 10
	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 34	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
34 7	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	1344	A	44X		5	35	

SM
✓

Sediment/Rock Name	Diatom-rich silt	Observer	H.A
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Percent Texture		
Sand	Silt	Clay
10	20	10

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals 54
20	Quartz 3
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
34 33	Rock fragments 5
	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 46	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	5 Diatoms
33	5 Centric
13	2 Pennate
	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

1344 Site A Hole 45X Core 172 Section _____ Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
							Visual Core description	
	10G-Y 411							
				33	33			
								61, 110 sponge aggs.
								9, 37, 74, 88, 131 sponge aggs.

Observer: _____ Date: _____



Expedition 323
Bering Sea

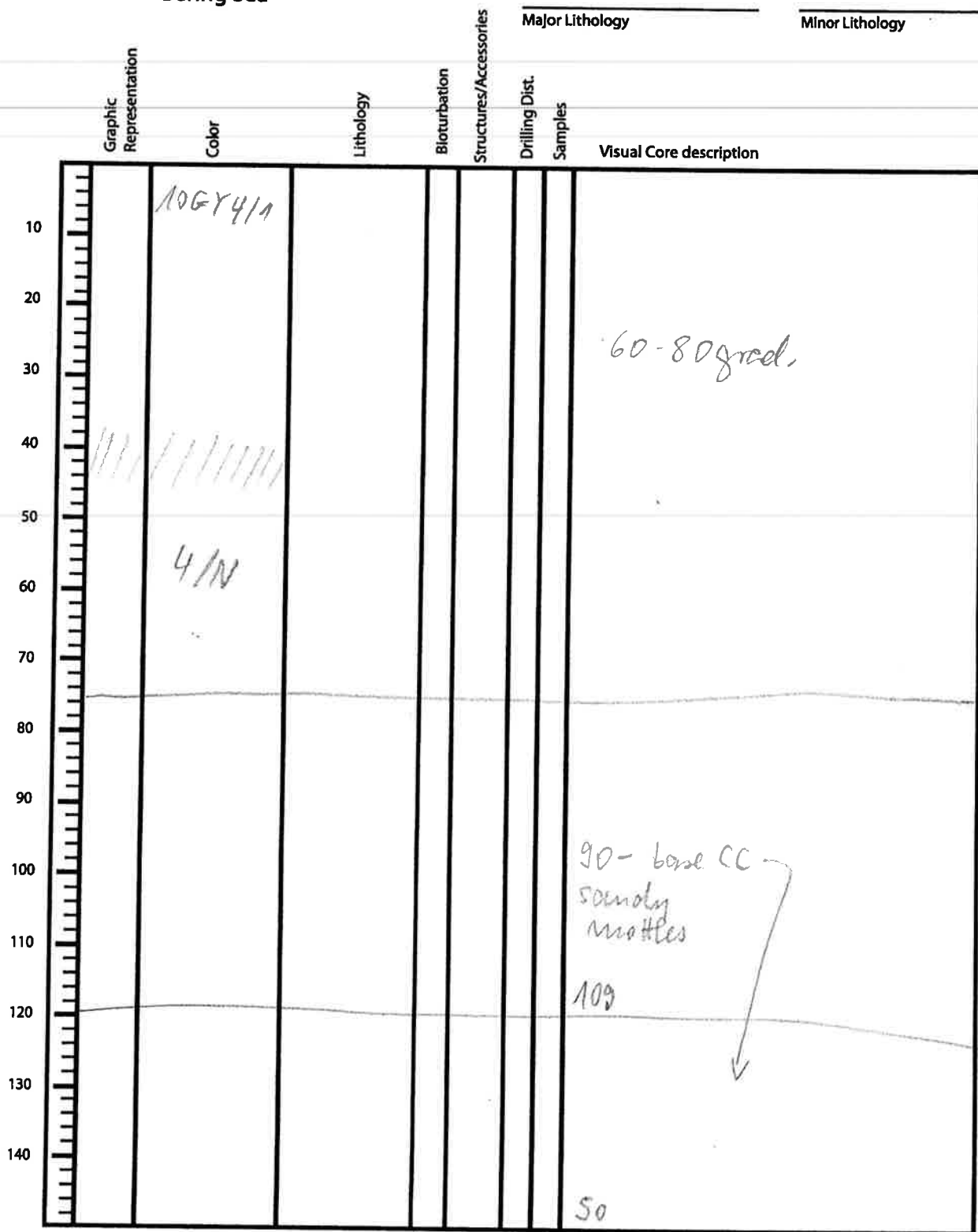
1344 Site A Hole 45X Core 3+4 Section _____ Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology	Visual Core description
	10GY 4/1				93-96			93-96 sponge aggs.
								128-131 pyrite nodules

Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 A 45X 5+6+CC
Site Hole Core Section Top Depth



Observer: _____ Date: _____

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	A	45	X	5	70	

SM ✓

Sediment/Rock Name	Diatom-rich silty clay.	Observer	Kelsie
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Percent Texture		
Sand	Silt	Clay

Comments: Main lith - more greyish

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
15	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
35	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	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
	Calcareous
1	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
40	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	1344	A	45	X	2	70	

SM
✓

Sediment/Rock Name	Diatom-rich clayey silt	Observer	Kelsie

Percent Texture		
Sand	Silt	Clay

Comments: Main lith - more greenish

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
20	Quartz
10	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
10	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
20	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	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
40	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

Expedition 323
Bering Sea

1344 A 46X 1-CC
Site Hole Core Section Top Depth

		Major Lithology	Minor Lithology	
Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	
			Drilling Dist. Samples	
Visual Core description				
1	50 10 100 20	3/N I	A * SS	17 sp spec agg 20 sp spec agg 21 sandy mottle
2	50 30 100 40	I	A S	73 6-12 Sandy mottles
3	50 50 100 60 150 70	I	A * S	125 sp spec agg 140 15, 27 " Sandy mottles 60-73 Authigenic carbonate
4	50 80 100 90 150 100	I	A * S	146 Sandy mottle Sp spec agg 20, 25 44 clast 3mm
5	50 110 100 120 150 130	I	A * S	98 Sandy mottle 144 15 43 68 90, 95, 97 Sp spec agg
6	50 140	I	A SS	32

CC 0-60

Observer: SSS Kelsie Date:

Expedition 323
Bering Sea

1344 A 47X 1-CC
Site Hole Core Section Top Depth

	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology	Visual Core description
0										
1		3/N	I Diatom. r silty clay		*	SS	30			60 - 60 sp spec agg
			II		*	S	82			"
		10Y 3/1		A	*	S	104			"
					*		121-124			"
			Diatom silty ooze II		*		7, 16, 31			"
2						S	68			Shell fragment
			II		*		4			sp spec agg
					*		49			"
					*	S	120-139			"
					*		22 + 46			"
4			II	A	*	S	77			Minor authigenic carb.
					*		81			
					*		84-90			Sp spec agg
					*		125-142			"
					*		145			
			II		*	SS	22-26			"
5				S			55			more sandy
							66			
							70			
CC			II			SS				
							27			

Observer: Kelsie Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1344	A	47	X	3	56	56

SM
✓

Sediment/Rock Name	Diatom oob silt	Observer	MSC
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Percent Texture		
Sand	Silt	Clay
2	78	20

Comments: Main lithology (green)

Percent	Component
50	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
15	Quartz
15	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
13	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	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
	Vitric grain
	Lithic grain

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

X IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	M1344	A	47	X	5	59	59

SM
✓

Sediment/Rock Name <i>Diatom-bearing Sandy Silt</i>	Observer MSC
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Percent Texture		
Sand	Silt	Clay
20	70	10

Comments: *Main lithology (ash?)*

Percent	Component
99	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
30	Quartz
32	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
30	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
3	VOLCANICLASTIC GRAINS
	Crystal grain
3	Vitric grain
	Lithic grain

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

Expedition 323
Bering Sea

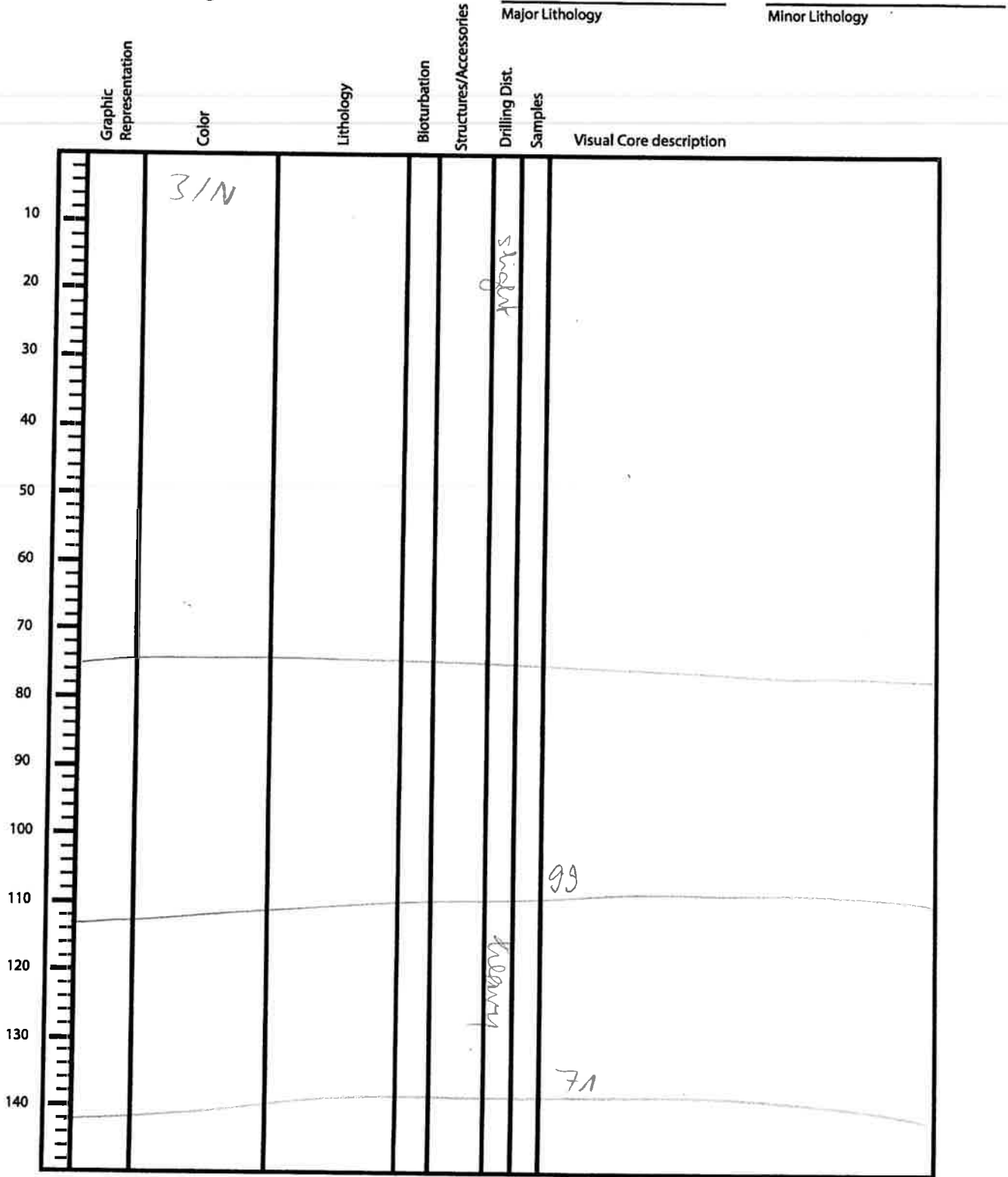
1344 Site A Hole 48X Core 1+2 Section _____ Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Visual Core description
	3/N		Abundant	0	Slight		

Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 A 48X 3+4+5
Site Hole Core Section Top Depth



Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 A 49X 1-CC
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
1	10Y 2.5/1	Diatom-rich sandy silt	A	C *	S *	21 Shell fragments	
						64 sp spec agg	
						137 "	
2		I		*	*	0-108 " every 10cm or so	
						117 Black mottle	
						144 soupy section	
3		I		*	*	16 Sp spec agg	
						52, 72, 80, 88 "	
4		I		* *	* *	23-34 Sp spec agg	
						104-130 "	
						130 Shell frags	
CC		I				63	

Observer: Kelsie Date: _____

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	A	48 X		3	50	

154 ✓

Sediment/Rock Name: Diatom-rich sandy silt

Observer: HWA

Percent Texture		
Sand	Silt	Clay
40	35	25

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 56	
Framework minerals	
60	Quartz ≈ 15
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
4	Rock fragments /
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
12	Clay Minerals 3
	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 24	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
12	3 Centric
12	3 Pennate
	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

1344 Site A Hole 50X Core 1-5 Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
1	3/N	I	A		S		
2	10Y 3/1	II	A		S	18	authigenic carbonate
						22	
3		I	A		S		141
4	10Y 4/1	I Diagonal silt/clay	A		S	x ss 60	
5		I	A		S	135	authigenic carbonate
						138	

Observer: Kelsie Date: _____

Expedition 323
Bering Sea

1344 Site A Hole 50X Core 6+CC Section Top Depth

		Major Lithology	Minor Lithology
Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories
			Drilling Dist.
			Samples
Visual Core description			
6	50	10	12, 25-27 Sp spec agg
			authigenic carbonate rich
			diatom rich sandy clay
	100	20	110
			SS
CC	30		9
	40		
	50		
	60		
	70		
	80		
	90		
	100		
	110		
	120		
	130		
	140		

Observer: _____ Date: _____

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	A	50 60x		6A	39	39

SM ✓

Sediment/Rock Name	Diatom-rich sandy clay	Observer	H.A
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Auth. Carb. rich

Percent Texture		
Sand	Silt	Clay
30	10	60

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 89	
Framework minerals	
7	Quartz 3
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
7	Rock fragments 3
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
73	Carbonates Auth. Carb.
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS 13	
Calcareous	
Foraminifera	
Planktonic foraminifera	
Benthic foraminifera	
Nannofossils	
Coccoliths	
Discoasters	
Pteropods	
Siliceous	
Radiolarians	
Spumellaria	
Nassellaria	
13	Diatoms
13	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	1344	A	10x		4	60	



Sediment/Rock Name	Diatom-bearing silty clay	Observer	
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Percent Texture		
Sand	Silt	Clay
20	30	50

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 99	
Framework minerals	
94	Quartz 15
3	Feldspar 1
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
9	Rock fragments 3
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
29	Clay Minerals 10
	Chlorite
	Glauconite
	Chert
	Zircon
9	Ferromagnesium minerals 3
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 6	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
6	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

Expedition 323
Bering Sea

1344 A 51X 1-5
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
							Visual Core description	
1	10Y 3/1	I	A	*	SS	15-30	sp spic agg	
					S	35		
						59-72		"
2		I		*		16	"	
						70-71	sandy lamina	
						79-71	clast - black, rounded 10mm sp spic agg	
3	10Y 2.5/1	II		*		127		
						31		
						35		
4				*		148	"	
						26	"	
						56	"	
5				*		66	sandy mottle	
						77	clast - black rounded 15mm	
						92	ssagg	
				*		139	"	
			C			145	shell frags	

Observer: Kelsie Date: _____

Expedition 323
Bering Sea

1344 A 51X 6+CC
 Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
6 50 10 CC		II		*			3, 12 Sp Spc agg
		II			SS		48 30

Observer: _____ Date: _____

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
P23	13KY	A	5/1		2A	10	10

SM

Sediment/Rock Name: Diatom-rich silty clay

Observer: H. W. A

Percent Texture		
Sand	Silt	Clay
25	35	40

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 70
	Framework minerals
50	Quartz 3-7 10
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
15	Clay Minerals 3
	Chlorite
	Glauconite
	Chert
	Zircon
5	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 30
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
30	Diatoms 6
	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	1344	A	51X		5A	90	90



Sediment/Rock Name	Diatom silt	Observer	LFA
--------------------	-------------	----------	-----

Percent Texture		
Sand	Silt	Clay
20	75	15

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 51%	
Framework minerals	
20	Quartz 10
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
70	Biotite
	Muscovite
29	Clay Minerals 15
	Chlorite
	Glauconite
	Chert
	Zircon
2	Ferromagnesium minerals 1
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 69%	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
39	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

Expedition 323
Bering Sea

1344 Site A Hole 52X Core 1+2+3+4 Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
							Visual Core description	
	3/N				heavy			
					slight		68	
							117	Sponge egg
							125	
							10-100	sandy mollus
							110	Sponge egg
							136-140	auth. carb. mollus (10x 512)
							144	
							150	

Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 A S2X 5+6+7+cc
 Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
							Visual Core description	
	3/N							
	10G-Y4/1				150		73-74 clast, black, well-rounded, 124 sponge agg. pebble	
					128		54-66 void	
					74		74 sponge agg.	
					98		92-94 clast, coarse pebble, rhyolite, subangular	
					6		6 sponge agg.	
					39			

Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	A	52	X	2	76	

SM

Sediment/Rock Name	Diatom-rich silty clay	Observer	Kelsie
--------------------	------------------------	----------	--------

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
5	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
2	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
3	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
5	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
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	1344	A	52	x	7	24	

SM

Sediment/Rock Name	Diatom-rich silty clay	Observer	Kelsie
--------------------	------------------------	----------	--------

Percent Texture		
Sand	Silt	Clay
	40	60

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
5	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
2	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
42	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
2	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
3	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
40	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

Expedition 323
Bering Sea

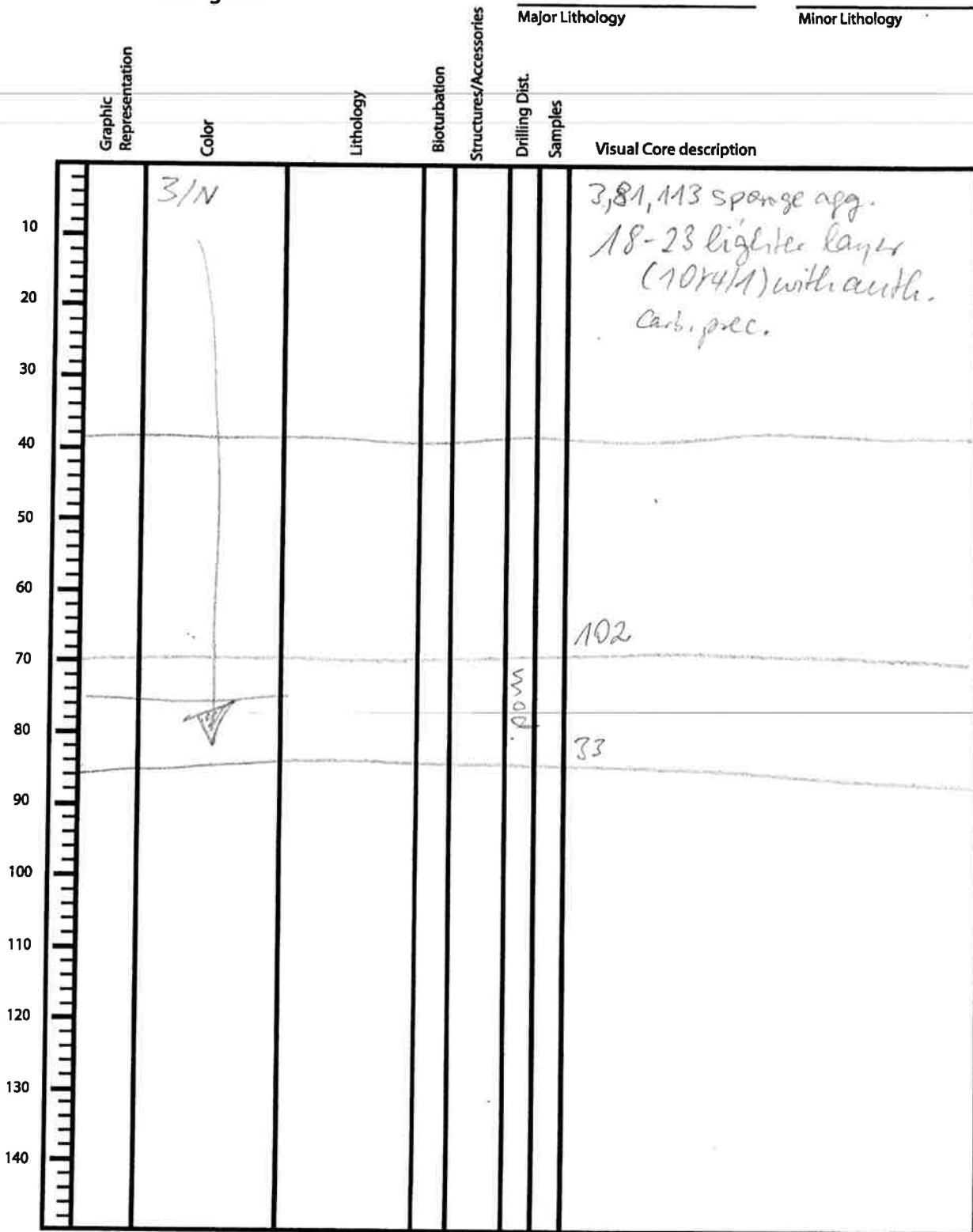
1344 Site A Hole 53X Core 1+2+3+4 Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
							Visual Core description	
	10GY 4/11							
	↓							30, 58, 77, 82, 123, 127 sponge aggs.
	3/N							
	↓							5, 17-18, 135 sponge aggs. 40-60 grad. 75 clast, fine pebble, clast
	↓							
	↓							17 sponge aggs.

Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 Site A Hole 53X Core 5+6+cc Section Top Depth



Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	A	53	X	1	86	86

SM

Sediment/Rock Name	Diatom-rich silty clay	Observer	Kelsie
--------------------	------------------------	----------	--------

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
15	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
40	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
1	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
4	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
30	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	Bottom
323	1344	A	53	X	5	72	

✓
SM

Sediment/Rock Name: Diatom-bearing clayey silt

Observer: Kelsie

Percent Texture		
Sand	Silt	Clay
	60	40

Comments: Main lithology

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

Expedition 323
Bering Sea

1344 Site A Hole 54X Core 1+2+3+4 Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
							Visual Core description	
	10GY 4/1				slight			
	↓							
	↓							
	↓							25 sponge egg.
	↓							120-122 dolomite nodules (5x6/3), stiff
	↓							61 sponge egg.

Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 A 54X 5+6+CC
 Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
						Visual Core description	
	10G+ 4/1						102 shell frag.
				66 68	100 100		5-7 biot. sandy layer 12-57 sandy mottles 119 66 29

Observer: _____ Date: _____

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	A	54	X	4	50	50

✓ SM

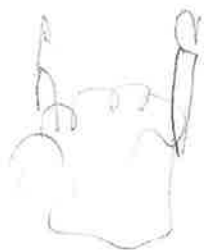
Sediment/Rock Name	Diatom silty clay	Observer	Kelsie
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Percent Texture		
Sand	Silt	Clay

Comments: M L

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



Expedition 323
Bering Sea

1344 A 55
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
1	10						
2	20						
3	30						
4	40						
5	50						
6	60						
7	70						
CC	80						
	90						
	100						
	110						
	120						
	130						
	140						

3/N

92-93 ash? sand? 257 3/1 ✓

125 mott.
126 mott.

XRD ←

5A.
84 cm
diatom-rich
clayey site

79.

107 4/1 ✓

37 37-47 PAL

Observer: _____ Date: _____

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	V1344	A	SS	X	3A	92cm	

Sediment/Rock Name: Silty Sand

Observer: Beh

Percent Texture		
Sand	Silt	Clay
60	46	

Comments:

accessory layer

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

X

→ XRD

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1344	A	SS	X	SA	84cm	

Sediment/Rock Name	Diatom-rich clayey silt	Observer	Beth
--------------------	-------------------------	----------	------

Percent Texture		
Sand	Silt	Clay
	60	40

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
13	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
3	Rock fragments
	Accessory/trace minerals
12	Micas
	Biotite
	Muscovite
30	Clay Minerals
	Chlorite
	Glaucconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
7	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
20	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

Expedition 323
Bering Sea

U1344 A S6 X AM
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
					Visual Core description	
1		D-bearing silty clay	10W 71W 83W	H M		0 Extended on log floor
2	56y 3/1 vidark grayish gray		14W 17W			Biscuiting
3			74-6 Sand Layer	FT		114-118 Cracks
4			76-80 S. Mol.			
5			136 Sand Mol.	146 Peb.		well ind. 5 cm - black
6	10y 3/1	D-rich silty clay	67-71 Sand Mol.			X 56x-5-20 cm → XRD.
CC			11P Spec			

Observer: _____ Date: _____

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1384	A	56	X	3A	75	

Sediment/Rock Name	sand	Observer	Abora
--------------------	------	----------	-------

Percent Texture		
Sand	Silt	Clay
80	20	

Comments: layer

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
30	Quartz 7
13	Feldspar 3
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
43	Rock fragments 10
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
13	Ferromagnesium minerals 3
	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

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	134A	A	56	X	5A	40	

Sediment/Rock Name	→ Silty clay (diatom-bearing?)	Observer	W. J. ...
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Percent Texture		
Sand	Silt	Clay
3	37	60

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
25	Quartz 5
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
3	Micas 0.5
	Biotite
	Muscovite
30	Clay Minerals 10
	Chlorite
	Glauconite
	Chert
3	Zircon
	Ferromagnesium minerals 0.5
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
10	Pyrite 2
	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
10	Diatoms 2
	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

X

→ TAD

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
393	B4A		56	X	6A	20	

Sediment/Rock Name	diatom-rich silty clay	Observer	Akira
--------------------	------------------------	----------	-------

Percent Texture		
Sand	Silt	Clay
0	40	60

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
12	Framework minerals
8	Quartz 3
	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
38	Clay Minerals 10
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
4	Pyrite 1
	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
38	Diatoms 10
	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

Expedition 323
Bering Sea

01344A 57X ALL
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Visual Core description
1	10y 3/1	D-NCH silty clay		18-20 S.Mt			
2	vidark greenish gray	Artn carb		128 6cm 97W 60W			57X-2-50 cm → XRD
3		Present int. w/lat					
4		Color shift!		62-73 Mt Br.			
5				140-3 18 Lt. Mt.			Artn Carb?
6				48-67 2			
7							
8				22-41 P.la.			Volcanic, well-sorted

Observer: _____ Date: _____

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	01344	A	S7	X	SA	49cm	

Sediment/Rock Name	Diatom-rich silty clay	Observer	Beth
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Percent Texture		
Sand	Silt	Clay
5	45	55

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
15	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
10	Plagioclase
10	Rock fragments
	Accessory/trace minerals
3	Micas
	Biotite
	Muscovite
30	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
10	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
2	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
15	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

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1314	A	S7	X	SA	143cm	

Sediment/Rock Name	Autn carb-rich diatom clay	Observer	BeM
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Percent Texture		
Sand	Silt	Clay

Comments: Carbonates 

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
20	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
60	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
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

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	W344	A	S7	X	6A	59cm	

Sediment/Rock Name	Auth-carb & diatom-rich silty clay	Observer	Beth
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Percent Texture		
Sand	Silt	Clay
15	40	45

Comments:

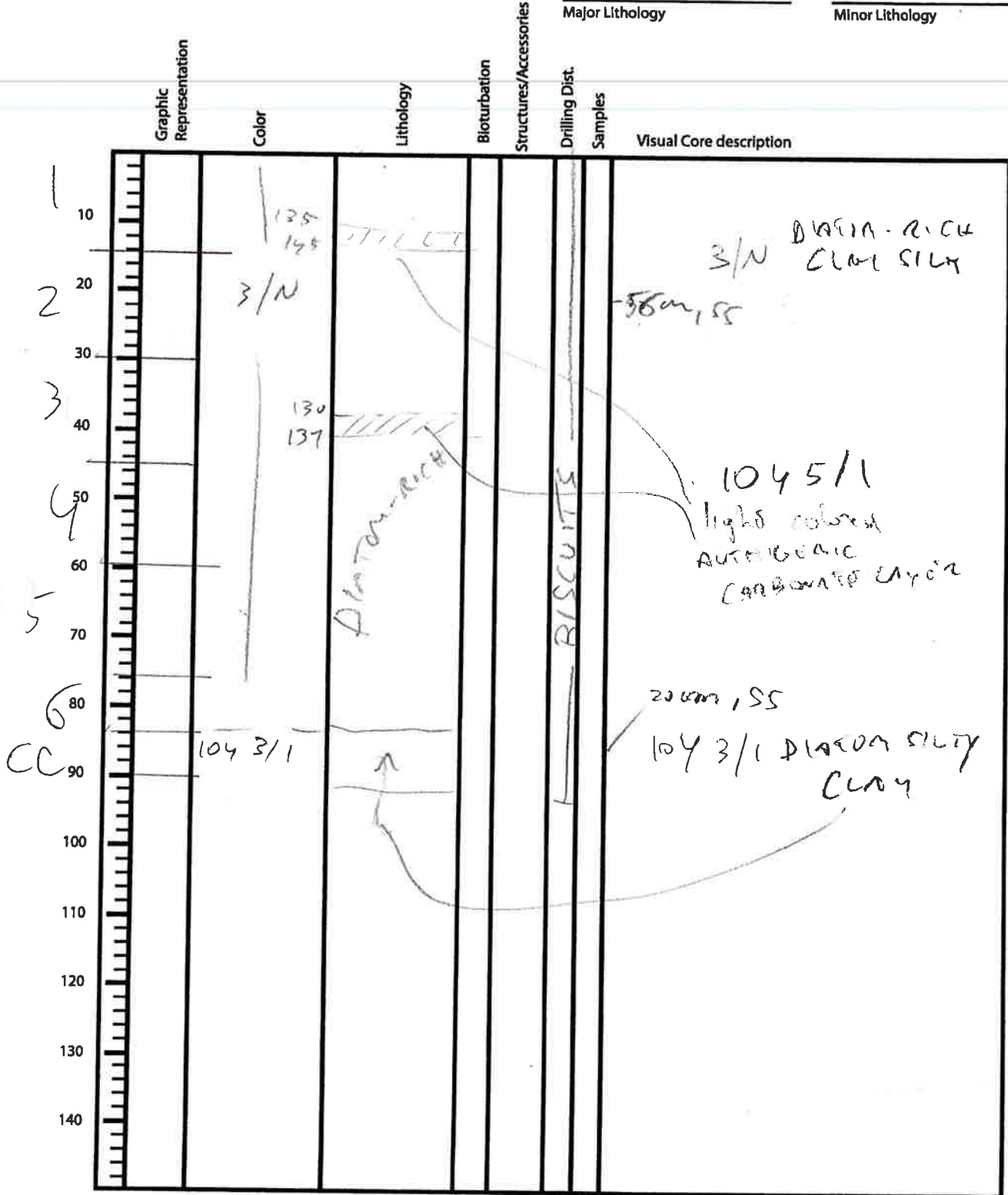
Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
10	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
15	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
2	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
16	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
15	Calcite
10	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
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
3	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Expedition 323
Bering Sea

1344 A 50X ALL
Site Hole Core Section Top Depth

Major Lithology Minor Lithology



Observer: _____ Date: _____

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	A	58	X	2A	56	

Sediment/Rock Name	diatom-rich clayey silt	Observer	Alvora
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Percent Texture		
Sand	Silt	Clay
4	38	58

1 10 15

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
24	Quartz 75
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments /
Accessory/trace minerals	
	Micas ✓
	Biotite
	Muscovite
24	Clay Minerals 5
	Chlorite
	Glauconite
	Chert
	Zircon
5	Ferromagnesium minerals /
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
5	Pyrite /
	Magnetite
	Fe-oxide
Carbonates	
2	Calcite 0.5
	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
34	Diatoms 7
	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

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344A		58	X	CC	20	

Sediment/Rock Name	diatom silty clay	Observer	Okura
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Percent Texture		
Sand	Silt	Clay
20	30	50

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
10	Quartz 4
8	Feldspar 3
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
3	Rock fragments 1
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
25	Clay Minerals 10
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
3	Pyrite 4
	Magnetite
	Fe-oxide
	Carbonates
3	Calcite 1
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
8	Vitric grain 3
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
43	Diatoms 17
	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

Expedition 323
Bering Sea

1344 A 59
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
					Visual Core description	
1 10	10Y 3/1 146					
2 20						58-69 sandy
3 30	3/N					
4 40			a			1-6 pebble 4cm rounded metal 63 shell small v
5 50						
6 60						
70						13-17 authigenic concretions 21-22 57-58
80						
90						
100						
110						
120						
130						
140						

3A-80cm silty clay.

10Y 3/1 diatom silty clay
3/N silty clay




Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 A 60X
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
							Visual Core description	
10							20-40	
10-20							80-89 authigenic	
20-30								
30-40							130-140 authigenic	
40-50							11-21 authigenic	133-135 XRB
50-60							36-37 sand layer	
60-70								
70-80							67	
80-90							15	
90-100								
100-110								
110-120								
120-130								
130-140								

3A-134 carbonate authigenic clay needs.
4A-40 diatom-rich silt.
4A-56 sand

-  10T 3/1
-  3/N
-  10T 5/1 authigenic carbonate-clay.

Observer: _____ Date: _____

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	01444	A	60	X	3	134	cm

Sediment/Rock Name	authigenic carbonate - clay	Observer	G.B.
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Percent Texture		
Sand	Silt	Clay

Comments: "needles"

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

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	01344	A	60	X	4	40 cm	

Sediment/Rock Name	Diatom-rich silty clay	Observer	G.B.
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Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
15	x Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
8	x Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
40	x Clay Minerals
	Chlorite
	Glaucanite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
?	x Pyrite
	Magnetite
	Fe-oxide
	Carbonates
2	x 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	x Diatoms (a lot broken)
	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

Expedition 323
Bering Sea

01344 Site A Hole 61X Core ALL Section Top Depth

Major Lithology Minor Lithology

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Visual Core description
1	10 GY 2.5/1	D-bear Clay	148 6SW	H	extruded on drill floor
2	greenish black		13W	M	38-42 lighter 87-91 lighter
3			48 82 72 60 236 82		
4	10 GY 4/1	D-rich silty clay	19-23 Faint	S	R/vite smear
5	dk greenish gray		123-42W 5W 45W		
6			31-2 13-15 Snd. 37-41 W		R/b well ind. 15-19 - Snd. hor. wavy
CC			14-16 R/b		vesiculated basalt well ind.

Observer: _____ Date: _____

P
4

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	1334	A	61	X	3	64cm	

Sediment/Rock Name	DIATOM-BEARING CLAY	Observer	lwr
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Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
10%	2 Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
75%	15 Clay Minerals
	Chlorite
	Glaucinite
	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
15%	Diatoms
10	2 Centric
5	1 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

SM

Duplicate

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	1344	X	61	X	3	64	

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

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
8%	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
77%	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
	Diatoms
15%	Centric
2	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

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	1341	A81	X5			60a	

Sediment/Rock Name	DIATOM-RICH SILTY CLAY	Observer	IWA
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Percent Texture		
Sand	Silt	Clay

Comments:

26

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
10%	5 Quartz
12%	5 Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
27%	1 Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
57%	20 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
	Diatoms
23%	10 Centric
5%	2 Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

3-70
5-25

1344 A 02
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
							Visual Core description	
1								
10								
2								
3		10Y 6.5/1					40 240 silt 0-1 ash? 2.5Y 5/2	
30							140 31-32 1P sand 44-47 1P sand 96-98 metab.	
4			a		m		100-103 1P sand 29-31 sponge spick	3A diatom silty clay
40								
5								
60		100						
6		3/N						
70								
CC							31 31-40 PAL	6A-78 diatom-rich clayey silt
80								
90								
100								
110							10Y 3/1	
120							3/N	
130								
140								

Observer: _____ Date: _____

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	124	A	62	X	3	80	cm

Sediment/Rock Name	DIAFOM-BEARING SILTY CLAY	Observer	
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Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
9%	2 Quartz
14%	2 Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
14%	3 Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
50%	7 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
	Diatoms
12%	3 Centric
5%	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

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	A	62	X	6	78	

Sediment/Rock Name	diatom clayey silt	Observer	Akers
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rich

Percent Texture		
Sand	Silt	Clay
10	60	30

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
8	Quartz >
12	Feldspar >
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
12	Rock fragments 3
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
8	Clay Minerals <
	Chlorite
	Glaucinite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
2	Pyrite 0.5
	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
29	Diatoms 7
	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

SM

Expedition 323
Bering Sea

1344 Site A Hole 63X Core ALL Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology	Visual Core description
1	10							
2	20							104 3/1 VERY DARK GREENISH GRAY
3	30							
4	40							70cm, SS
CC	50							
28cm	60							104 5/1 greenish gray
	70							25cm, SS
	80							
	90							
	100							
	110							
	120							
	130							
	140							

Observer: _____ Date: _____

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	A	63	X	3A	70	

Sediment/Rock Name	diatom-rich silty clay	Observer	Okora
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Percent Texture		
Sand	Silt	Clay
5	40	55

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
15	Quartz 3.
10	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
15	Rock fragments 3
Accessory/trace minerals	
	Micas 0.5
	Biotite
	Muscovite
50	Clay Minerals 10
	Chlorite
	Glaucanite
	Chert
	Zircon
3	Ferromagnesium minerals 0.5
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
5	Pyrite 1
	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
50	Diatoms 10
	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	1344	A	63	X	57	25	

Sediment/Rock Name	diatom-bearing silty clay	Observer	Akita
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Percent Texture		
Sand	Silt	Clay
3	40	57

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
9	Quartz 2
9	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
14	Rock fragments 3
Accessory/trace minerals	
2	Micas 0.5
	Biotite
	Muscovite
45	Clay Minerals 10
	Chlorite
	Glaucanite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
5	Pyrite 1
	Magnetite
	Fe-oxide
Carbonates	
2	Calcite 0.5
	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
14	Diatoms 3
	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

Expedition 323
Bering Sea

1344 Site A Hole 54x Core ALL Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology	Visual Core description
	1043/1							104 3/1 VERY DARK GREENISH GRAY DIATOM-BEARING SILTY CLAY
		131-135 large pebble (calcareous?)						104 4/1 DARK GREENISH GRAY AUTHIGENIC CARBONATE

Observer: _____ Date: _____

SMV

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	1344	A	64	X	2	110 cm	

Sediment/Rock Name	DIATOM BEARING SILTY CLAY	Observer	lwa
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Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
14%	3 Quartz
10%	2 Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
10%	2 Rock fragments
	Accessory/trace minerals
	X Micas
	Biotite
	Muscovite
48%	10 Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
5	1 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
10	2 Centric
5	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

Expedition 323
Bering Sea

1344 A 65X 1-
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
1 50 10 100 20 150 30	107 3/1	I	A	O *	S	1 Clast - igneous, plutonic, int. 40mm 21-23 mod angular 25 sandy mottle sp spe agg	
						140-145 sp spe agg	
						26 "	
						111-115 "	
						137 "	
2 100 50 150 60		I		O *		40-45 "	
						111-115 clast, quartzite 40mm rounded	
						140 sp spe agg	
3 50 70 100 80 150 90		I		O *		25 Authigenic = carb mottling	
						36	
						77 sp spe agg	
						106-112 "	
						127 "	
4 50 100 100 110 150 120		I		O *		57-59 Sandy layer	
						55 70	
						102 clast 4mm angular	
5 50 130 100 140 150		I		O *			

Observer: Kelsie Date: _____

Expedition 323
Bering Sea

1344 A 65x G-CC
 Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
							Visual Core description	
6 50 10		I		*				
7 50 30				* * * *			76	
							25-27	Vague authigenic carb
							31	" motting
							69	"
100 40				* *			82-86	"
							89	
CC 50				*			30	"
							31	"
60								
70								
80								
90								
100								
110								
120								
130								
140								

Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	A	65		5	50	

SM ✓

Sediment/Rock Name	Diatom-rich clayey silt	Observer	K-lins
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Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 76	
	Framework minerals
50	Quartz 20
5	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
8	Rock fragments 6
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
13	Ferromagnesium minerals 5
	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 24	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
2/25	10 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

Expedition 323
Bering Sea

1344 Site A Hole 68X Core 1+2+3+4 Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	31N						
	↓						
50 60	56Y4/1				10		40 0-10 spongy
	31N				slight		
120 130	56Y4/1						136
	31N						27, 38, 91, 116, sponge aggs.
	10Y3/1						6, 47, 65, sponge aggs.

Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 Site A Hole 68X Core 5+6+7+cc Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	<p>10 Y 4/1</p> <p> </p> <p>4IN</p> <p>↓</p> <p>↓</p>				<p>diaper</p>		<p>70-80 grad.</p> <p>117</p> <p>66</p> <p>37</p>

Observer: _____ Date: _____

SM ✓

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	BW	A	68		4	60	

Sediment/Rock Name	Diatom bearing silt	Observer	
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Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
50	Quartz
10	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
20	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
5	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
10	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

SMV

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	B44	A	68X		6	90	

Sediment/Rock Name	Diatom bearing Siltg Clay	Observer	
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Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
30	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
30	Rock fragments 30
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
27	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
55	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
8-25	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

Yuskey

1344 A 70X 1-5
Site Hole Core Section Top Depth

Expedition 323
Bering Sea

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
					Visual Core description	
1 50 100 150	5G4 A/1	H	A * * *	C * * *		48-83 Sp spec agg 49 Shell frag 135 Sp spec agg
						5542 authi carb-r d. silty clay
						40 Authigenic carbonate 41-43 Sandy lamina 85-90 Sp spec agg 111 Black sandy lamina
2 50 100 150		Diatom silty clay	A * *	S * *		125 7-10 Black sandy mottles 38-42 Sp spec agg 63-64 Black sand mottles
3 50 100 150		I	A * *	S * *		125 Sp spec agg
4 50 100 150	3/N	II	A * *	S * *		X 55 40 113 X 55 130
5 50 100 150		Diatom-rich silty clay	A * *	S * *		64 authigenic - carb rich layer 71 144 Sp spec agg

Observer: Kelsie Date:

1344 A 70X 6-CC
 Site Hole Core Section Top Depth

Expedition 323
 Bering Sea

						Major Lithology	Minor Lithology
Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Visual Core description	
6 50 10 100 20 150 30 7 50 40 CC		II	A		B S		
		II	A	*	S	57 26 sp spec agg	
100							
110							
120							
130							
140							

Observer: _____ Date: _____

SM ✓

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1844	A	20X		2	42	

Sediment/Rock Name	Diatom - rich sandy silt.	Observer	Hiro.
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Auth. Carb. rich

Percent Texture		
Sand	Silt	Clay
30	50	20

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 82	
Framework minerals	
35	Quartz 30
6	Feldspar 5
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
4	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glaucanite
	Chert
	Zircon
6	Ferromagnesium minerals 5
47	
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
	Pyrite
	Magnetite
	Fe-oxide
35	Carbonates 30
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS 18	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
12	10 Centric
6	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

SIMV

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	A	90x		4	60	

Sediment/Rock Name	Diatom silty clay	Observer	HA
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Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 82	
Framework minerals	
36	Quartz 15
12	Feldspar ←
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
7.5	Ferromagnesium minerals 2
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 48%	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
48%	Diatoms 20
	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	1244	A	70x		4	130	

Sediment/Rock Name	Diatom rich silty clay	Observer	H. Lind
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Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 77	
Framework minerals	
32	Quartz 30
5	Feldspar 5
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
21 22	Clay Minerals 20
	Chlorite
	Glaucinite
	Chert
	Zircon
5	Ferromagnesium minerals 5
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
5	Pyrite 5
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
5	Vitric grain 5
	Lithic grain

Percent	Component
BIOGENIC GRAINS 37 23	
Calcareous	
Foraminifera	
Planktonic foraminifera	
Benthic foraminifera	
Nannofossils	
Coccoliths	
Discoasters	
Pteropods	
Siliceous	
Radiolarians	
Spumellaria	
Nassellaria	
Diatoms	
17 15	Centric
6 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	

Expedition 323
Bering Sea

1344 A 7AX 1+2+3+4
 Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	5GY3M				known strat		
	↓						76
	↓						50 sponge agg.
							66
	10Y4/1						14 shell 15-30 grad, 42 sponge agg, 74, 98, 114 118-115 shell

Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 A 71X 5+6+7+cc
 Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
							Visual Core description	
10 20 30 40 50 60 70 80 90 100 110 120 130 140	10X411						65-67 biot. sandy layer	
							70-71 sand patch	
							115 sponge aggr	
							116 small pebble	
							105-135 sandy muds	
	SGY 3/1						29 fine pebble	
							45-60 grad.	
	10X411						126	
					100W		27	

Observer: _____ Date: _____

SMU

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	A	71X		5A	60	

Sediment/Rock Name	Diatom clay	Observer	
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Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 51	
	Framework minerals
38	Quartz 10
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
7	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
10	Calcite 3
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS 49	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
45 42 46	Centric 15
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
3	Sponge spicules 1
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Expedition 323
Bering Sea

1344 A 72X 1-CC
Site Hole Core Section Top Depth

		Major Lithology	Minor Lithology			
Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Visual Core description
1	50 10	10Y 3/1	I	A	◇	29 Sandy patch 50
	100 20				SS	
					B	
2	50 30		Diatom-r clay			110
	100 40		I		S	x 70 SS
	150 50					
	50 60				*	3 Grad 5 Sp spec agg
3	100 70	5G 4 3/1	II	A	*	56 "
	150 80				*	76 "
	50 90				*	100 "
4	100 100		Diatom-r silty clay	A	*	SS 63-98 "
	150 110				*	
5	50 120		II		*	2 "
	100 130				*	30 "
					*	64-68 "
					◇	99 Sandy mottle
					*	103 Sp spec agg
6	0 140		II			126
	50		I			32 -44
					◇	21 Sandy mottle Kelsie

CC-0-23

Observer: _____

Date: _____

SMV

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	A	72	X	2	70	

Sediment/Rock Name	Diatom-rich clay	Observer	fl: w
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Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 80	
Framework minerals	
60	Quartz 20
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
3	Rock fragments /
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
15	Clay Minerals 5
0	Chlorite
	Glaucanite
	Chert
	Zircon
2-2	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 20	
Calcareous	
Foraminifera	
Planktonic foraminifera	
Benthic foraminifera	
Nannofossils	
Coccoliths	
Discoasters	
Pteropods	
Siliceous	
Radiolarians	
Spumellaria	
Nassellaria	
20	7 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

A

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	72A	72X		4	70	

SMW

Sediment/Rock Name	Diatom - rich clay	Observer	HA
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silty

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 63	
Framework minerals	
16	Quartz 3
5	Feldspar 1
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
11	Rock fragments 2
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
26	Clay Minerals 5
	Chlorite
	Glauconite
	Chert
	Zircon
5	Ferromagnesium minerals 1
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 37	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
37	Diatoms 7
	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

Expedition 323
Bering Sea

1344 Site A Hole 73X Core 1+2+3+4 Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	3/N				Screen		
	↓				Slight		S2
	↓						64-66 biot. dark sandy layer
	↓						69 shell
	↓						87 sponge agg.
	↓						11, 48, 143 sponge agg.

Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 A 73x 5+6+7+CC
 Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	31N						
					84	4 clast, pebble, black, subrounded 49, 102, sponge eggs 112 shell	
					47	0-8 sandy nodule 70, 99, 106 fine pebbles, subangular	

Observer: _____ Date: _____

SMU

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	A	73	X	4A	77	

Sediment/Rock Name	Diatom silty clay	Observer	H. W. A
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Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 56%	
Framework minerals	
28-35% 30	Quartz 7
4 5%	Feldspar 1
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
13%	Clay Minerals 3
	Chlorite
	Glaucanite
	Chert
	Zircon
9%	Ferromagnesium minerals 2
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 44%	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
44 43%	10 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

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IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344		73x		6A	55	

Sediment/Rock Name	Diatom-rich silty clay	Observer	H. W. A
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Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 79.83	
Framework minerals	
46 48	Quartz 20
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
2	Rock fragments 1
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
12	Clay Minerals 5
	Chlorite
	Glauconite
	Chert
	Zircon
2	Ferromagnesium minerals 1
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
5	Pyrite 2
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS 23.17	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
23	7 17 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

Expedition 323
Bering Sea

1344 Site A Hole 74X Core 1+2 Section _____ Top Depth

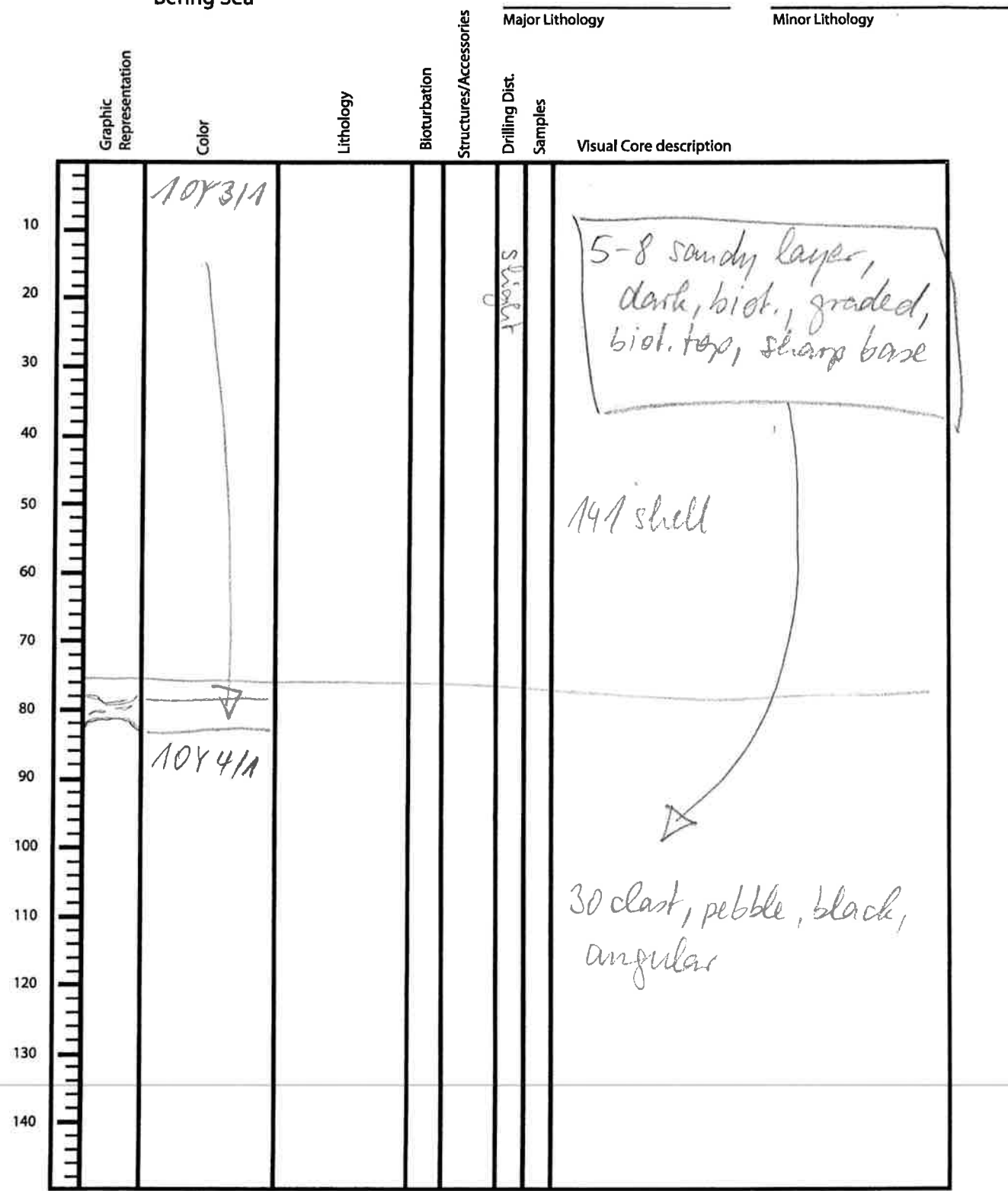


Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
					Visual Core description	
	10Y3M			30 60 shale / mud. 1 shale		
					soft?	30-60 sample
						stiff?

Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 Site
A Hole
74X Core
3+4 Section
Top Depth



Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 A 74X 5+6+CC
 Site Hole Core Section Top Depth

Major Lithology	Minor Lithology	Visual Core description	Drilling Dist. Samples	Structures/Accessories	Bioturbation	Lithology	Color	Graphic Representation
		56-60 grad.	56-60				10Y4/1	
		88-91 grad.	88-91				10Y5/1	
		101 clast/shell	101				10Y4/1	
		31-33 shell frags,	31-33				↓	
		38 clast, coarse pebble, subangular, black	38				▽	
		82- 20 sandy nodules	82- 20					
		23	23					

Observer: _____ Date: _____

SMU

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	A	74X		2A	80	

Sediment/Rock Name	Diatom-rich silty clay	Observer	Hin
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Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 65	
Framework minerals	
33	Quartz 7
5	Feldspar 1
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
9	Rock fragments 2
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
14	Clay Minerals 3
	Chlorite
	Glaucinite
	Chert
	Zircon
4	Ferromagnesium minerals 1
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 35	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
33	Diatoms 7
	Centric
	Pennate
	Chaetoceros Resting Spores
2	Silicoflagellates 0.7
	Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

SMU

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	134Y	A	7FX		4	10	

Sediment/Rock Name	Diatom-rich silt	Observer	H. v. A
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Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 40	
Framework minerals	
50	Quartz 25
10	Feldspar 5
	K-feldspar (Orthoclase, Microcline...)
60	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
4	Ferromagnesium minerals 2
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
6	Pyrite 3
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS 30	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
30	Diatoms 15
	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

SMU

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	A	44X		5A	20	

Sediment/Rock Name	Auth. Carb. rich, Diatom rich	Observer	Hiro. A
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Sandy clay

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 76	
Framework minerals	
16	Quartz 10
3	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
2	Rock fragments 1
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
8	Clay Minerals 5
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
	Pyrite
	Magnetite
	Fe-oxide
48	Carbonates Auth. carb 30
	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 15
	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

Expedition 323
Bering Sea

1344 Site A Hole 75 Core Section Top Depth

Depth (m)	Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
1-20					h		
20-30					h		20-30 mts authigenic CO ₂ 5/1
30-40		3/N			h		2A-60 diatom-rich clayey site
40-50				a	h		
50-60					h		
60-70		20			h		5A-37 diatom-rich clayey site
70-80		10T 3/1			h		
80-90					h		
90-100					h		
100-110					h		
110-120					h		
120-130					h		
130-140					h		

Observer: _____ Date: _____



20-30 mts authigenic CO₂ 5/1

2A-60 diatom-rich clayey site

5A-37 diatom-rich clayey site

D 3/N

D 10T 3/1

33

135
150

1 10
2 20
3 30
4 40
5 50
6 60
7 70
8 80
9 90
10 100
11 110
12 120
13 130
14 140

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1344	A	75	X	2A	29	

Sediment/Rock Name	Authigenic carbonate rich diatom silt	Observer	Beth
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Percent Texture		
Sand	Silt	Clay

Comments: Accessory - Motne

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
15	Clay Minerals
	Chlorite
	Glaucanite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
3	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
57	Calcite <i>Asicular Needles</i>
10	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
10	Centric
5	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

SM

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1344	A	7S	X	2A	60cm	

Sediment/Rock Name	Diatom-rich clayey silt	Observer	Beth
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Percent Texture		
Sand	Silt	Clay
15	60	25

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
20	Quartz
10	Feldspar
	K-feldspar (Orthoclase, Microcline...)
5	Plagioclase
10	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
10	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
5	Zeolite
	Opaque minerals
15	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
20	Centric
5	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

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	V1344	75	X	SA	370	cm	

Sediment/Rock Name	Diatom-rich clayey silt	Observer	Bet
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Percent Texture		
Sand	Silt	Clay
10	70	20

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
15	Quartz
10	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
10	Rock fragments
	Accessory/trace minerals
5	Micas
	Biotite
	Muscovite
15	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
5	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
3	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
5	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
2.2	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

U1344 A 76X All
 Site Hole Core Section Top Depth

Expedition 323
 Bering Sea

Major Lithology _____
 Minor Lithology _____

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Visual Core description
10	10Y 5/1	Diatom clayey silt	S	90-1 S.Mt.	
20	10Y 4/1	diatom clayey silt		129-133 S.Mt.	
30					
40					
50					
60					
70					
80					
90	86 DARK				
100					
110	52 LIGHT PINK CL.				
120					
130	63 LIGHT 84 DARK				
140					

Observer: _____ Date: _____



extracted on rig floor

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	1345	A	76	K	2	2.9	cm

Sediment/Rock Name	diatom clayey silt authigenic carbonate	Observer	W.A.
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Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
9	Quartz 3
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
3	Rock fragments 1
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
9	Clay Minerals 3
	Chlorite
	Glauconite
	Chert
	Zircon
1	Ferromagnesium minerals 0.5
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
3	Pyrite 2/1
	Magnetite
	Fe-oxide
45	Carbonates 15
	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
30	Diatoms 10
	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

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	A	76	X	6A	20	

Sediment/Rock Name	diatom clayey silt	Observer	AKIWA
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Percent Texture		
Sand	Silt	Clay
0	50	50

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
14	Quartz 3
10	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
14	Clay Minerals 3
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
5	Pyrite 1
	Magnetite
	Fe-oxide
5	Carbonates
	Calcite 1
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
5	Vitric grain 7
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
48	Diatoms 10
	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

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	B44	A	76	X	7	20	

Sediment/Rock Name	diatom clayey silt	Observer	Okora
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Percent Texture		
Sand	Silt	Clay
23	45	32
35	10	7

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
16	Quartz 10
8	Feldspar 5
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
8	Rock fragments 5
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
16	Clay Minerals 10
	Chlorite
	Glaucinite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
5	Pyrite 3
	Magnetite
	Fe-oxide
Carbonates	
2	Calcite 1
	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
47	Diatoms 30
	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

1344 77X ALL
 Site Hole Core Section Top Depth

Expedition 323
 Bering Sea

Major Lithology _____
 Minor Lithology _____

	Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Visual Core description
1			D-rich silty clay		147 P.	extended onto rig floor.
2						
3						
4						
5		1043/1			89-90 Sand	Silty sand.
6		80 - 1044/1	Diatom clayey silt		28-29 20	light layer
7		120 - 1043/1	dark D-rich silty clay		10-20 P. streak	Dark Ash(?) Mot. 109-P. streak
8		38 - 1044/1	light clayey silt		M S 40	80:55
9					M	

1344
 77X

Observer: _____ Date: _____

X

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IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1344	A	77	X	2	90cm	

Sediment/Rock Name	Diatom-rich silty-clay	Observer	G.B.
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Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
20 x	Quartz
	Feldspar
5 x	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
45 x	Clay Minerals
	Chlorite
	Glaucanite
	Chert
	Zircon
5 x	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
20 x	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

85

X

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IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1344	A	77	X	SA	89cm	

Sediment/Rock Name	Silty Sand	Observer	Beth
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Percent Texture		
Sand	Silt	Clay
60	40	

Comments: sand layer - accessory

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

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1344	A	77	X	6	19cm	

Sediment/Rock Name	Diatom-rich silty fine ash	Observer	BGM
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Percent Texture		
Sand	Silt	Clay
20	80	

Comments: Accessory-matrix

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	
10	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
5	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
Crystal grain	
65	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

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U344	A	77	X	7	80cm	

Sediment/Rock Name	Diatom clayey clayey silt	Observer	G.B
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Percent Texture		
Sand	Silt	Clay
	X	

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
15	X Quartz
	Feldspar
5	X K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
40	X 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
38	X Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
2	X Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Expedition 323
Bering Sea

1344 A 78
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
					Visual Core description	
1				20	131-136 mott 5Y5/3 139	
2	10T 3/1				61-62 Sand: 67 mott 5Y5/3 25-29 mott 5Y5/3	2-28cm authigenic calcite clay
3						
4	117 3/N				100 10 10-20 PAL	-4A-64 diat
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						

10T 3/1 diatom-rich silty clay
 3/N diatom rich clay

Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	0344	A	78	X	2	28 cm	

Sediment/Rock Name	authigenic calcare clay	Observer	G.D.
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Percent Texture		
Sand	Silt	Clay

Comments: Needles

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
2	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
18	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
80	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

SM

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	01344	478	X	4	64 cm		

Sediment/Rock Name	Diatom-rich clay.	Observer	G.B.
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Percent Texture		
Sand	Silt	Clay

Comments:

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

Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
30	x 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

77 - 720

U1344A 79X ALL
 Site Hole Core Section Top Depth

Expedition 323
 Bering Sea

Depth (cm)	Major Lithology	Minor Lithology	Drilling Dist. Samples	Visual Core description	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories
10						1064 2.5/1	D-rich clayey silt		
20									
30						63 104 5/1 67	Amn-carb rich diatom ooze	NOT visible due to disturbance	
40									
50									49P
60									
70									
80									
90									
100									
110									
120									
130									
140									

Observer: _____ Date: _____

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1314	A	79	X	2A	65cm	

Sediment/Rock Name	Authigenic carbonate-rich diatom ooze	Observer	Beth
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Percent Texture		
Sand	Silt	Clay

Comments: Secondary lithology

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
	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
80	Calcite <i>nudules</i>
	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
15	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	U1344	A	79	X	YA	60cm	

Sediment/Rock Name	diatom-rich clayey silt	Observer	BETH
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Percent Texture		
Sand	Silt	Clay
0	70	30

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals 10
20	Quartz
10	Feldspar 5
	K-feldspar (Orthoclase, Microcline...)
10	Plagioclase 5
4	Rock fragments 2
	Accessory/trace minerals
6	Micas 3
	Biotite
	Muscovite
10	Clay Minerals 5
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
12	Pyrite 6
	Magnetite
	Fe-oxide
	Carbonates
6	Calcite 3
	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
20	Diatoms 10
	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

SM