

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1341	A	1	H	1	1	

Sediment/Rock Name	Diatom silt	Observer	
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Percent Texture		
Sand	Silt	Clay
5	10	85
		5

Comments:

Percent	Component
40	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
15	Quartz
26	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
5	Fe-oxide
	Carbonates
	Calcite
	Dolomite
5	VOLCANICLASTIC GRAINS
	Crystal grain
10	Vitric grain
	Lithic grain

Percent	Component
55	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
1	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
1	✓ Nassellaria
	Diatoms
18	Centric
32	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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1341	A	1	H	1	39	39

Sediment/Rock Name	Foraminifer- and sponge - spicule - bearing diatom ooze	Observer	
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Percent Texture		
Sand	Silt	Clay

Comments: Main lithology

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

Percent	Component
(67)	BIOGENIC GRAINS
	Calcareous
8	Foraminifera fragments + whole
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
3	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
1	Nassellaria
	Diatoms
25	Centric
25	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
5	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	U1341	A	1	H	1	138	138

Sediment/Rock Name	Diatom-bearing foram ooze	Observer	
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Percent Texture		
Sand	Silt	Clay

Comments: White sandy blob

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

Percent	Component
83	BIOGENIC GRAINS
	Calcareous
	Foraminifera
63	Planktonic foraminifera
20	Benthic foraminifera
	Nannofossils
2	✓ Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
5	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	U1341	A	1	H	2	13	13

Sediment/Rock Name	Foram - and nanno-rich diatom ooze	Observer
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Percent Texture		
Sand	Silt	Clay

Comments: *Laull*
Alga Lamina

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

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

1341 Site A Hole 2H Core 1+2 Section _____ Top Depth _____ Scale

	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology	Visual Core description
10		10/10/10		slight		shaly				blueish-greyish brownish.
20										
30										
40										
50										
60										
70										
80			5/14/12							10-20 grad.
90										
100					40					
110										65-70 grad.
120			10/14/11							67-68 fish scales
130										
140			5/14/12							90-110 grad.

Observer: _____ Date: _____

Expedition 323
Bering Sea

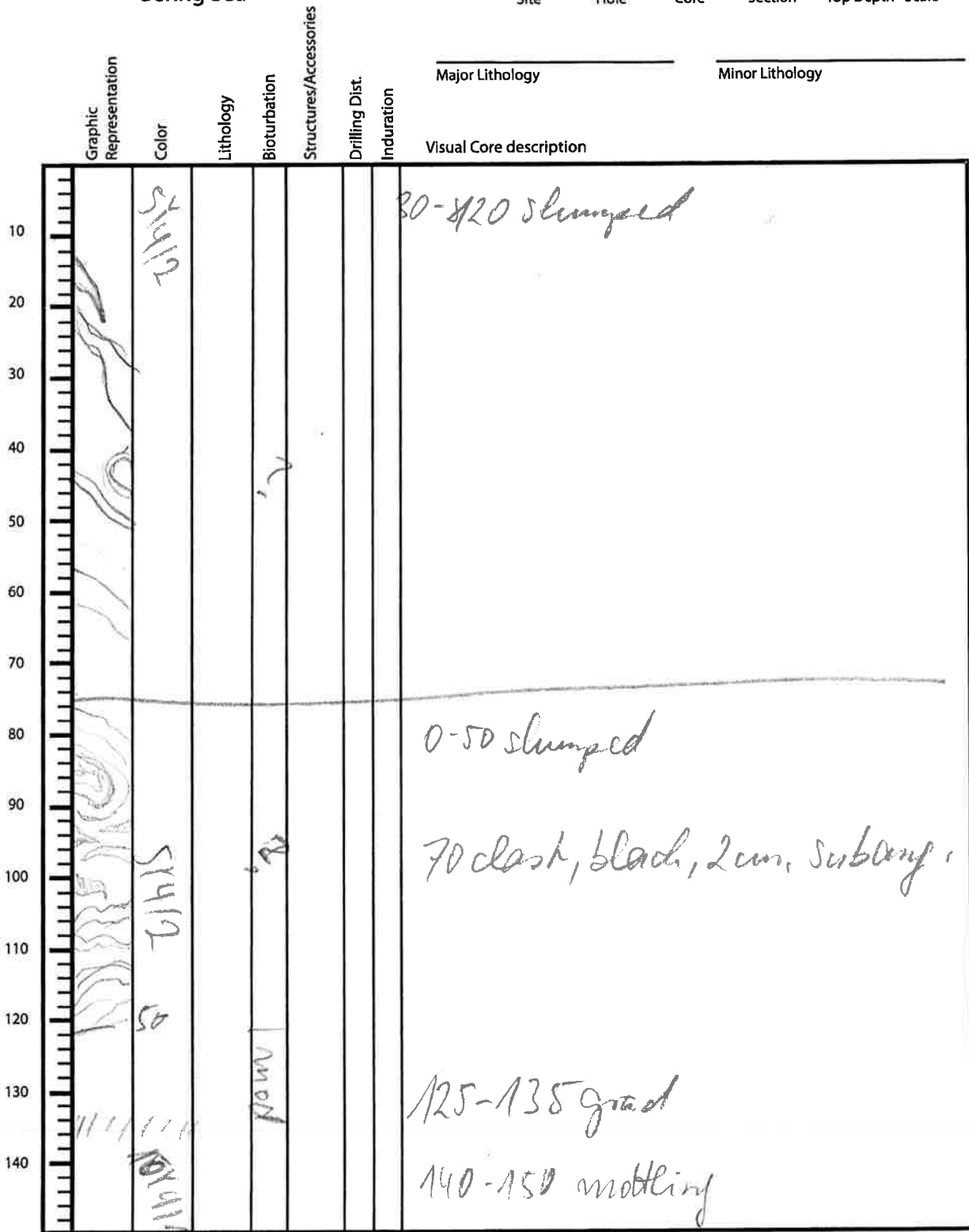
1341 A 2H 3+4
Site Hole Core Section Top Depth Scale

	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
10		grey		slight mod.					
20		grey		slight				17 clast, black, 1cm, subrounded	
30		grey						40-50 grad	
40		grey						75-120 slumped	
50		grey						101-102 clast, grey, 2cm, rounded	
60		grey						122 clast, grey, 0.5cm	
70		grey							
80		grey						20-140 slumped, distorted	
90		grey						mix of SY412 (20%) + 10Y411 (80%)	
100		grey						16, 101, 127 clasts	
110		grey							
120		grey							
130		grey							
140		grey							

Observer: _____ Date: _____

Expedition 323
Bering Sea

1341 Site A Hole 2H Core 5+6 Section _____ Top Depth _____ Scale



Observer: _____ Date: _____

Expedition 323
Bering Sea

1341 A 2H 7+00 _____
Site Hole Core Section Top Depth Scale

Depth (cm)	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
								Visual Core description	
10		NOXON		light					
20		↓							
30								50	
35		PAL							
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	U1341	A	7	H	2	90	90

Sediment/Rock Name	Diatom silt	Observer	MSC
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Percent Texture		
Sand	Silt	Clay
0	95	5

Comments:

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

Percent	Component
40	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
3	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
22	Centric
15	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	U1341	A	2	H	4	45	45

SM

Sediment/Rock Name	Diatomite	Observer	MSC
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Percent Texture		
Sand	Silt	Clay

Comments:



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

Percent	Component
(40)	BIOGENIC GRAINS
	Calcareous
3	Foraminifera <i>fragments</i>
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
36	Diatoms
25	Centric
11	Pennate
	<i>Chaetoceros</i> 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

7341 A. 3
Site Hole Core Section Top Depth Scale



Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
							Visual Core description	
1	30 80 130	✓ x ✓	g s				109 mill 115 holes	
2	38 120	✓ ✓	u s					
3	60 110	✓ x	g g	74 73 110				
4	24 175	✓ x	g					34-100 diatom clay
5		✓ x						57-60
6	57 80 130	✓ ✓ ✓	ug g				16-68 moll. 111 moll. ash	
7	40	✓ x	mv g	74 73			11 spicules 50-62 skol. thos	
		✓ x					8-10 PAL	
							 57 5/4 ✓ diatom silts	
							 107 4/1 diatom clay (2nd)	

Observer: _____ Date: _____

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	1341	A	3		5	60m	

SM

Sediment/Rock Name	DLATOM CLAY	Observer	JWH
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Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
5%	Quartz
5%	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	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
	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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	1341	A	3		3	100m	

SM

Sediment/Rock Name	DIATOM SLT	Observer	lwr
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Percent Texture		
Sand	Silt	Clay

Comments:

Major

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

50% 30

Expedition 323
Bering Sea

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1341 Site A Hole 4 Core Section Top Depth Scale

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
							Visual Core description	
1	54 5/2	110	R-140M		60		Major Lithology	Minor Lithology
	54 3/1	110			110			
2	5/2	120					Major Lithology	Minor Lithology
3	3/1						Major Lithology	Minor Lithology
4	5/2	17					Major Lithology	Minor Lithology
	95	28						
5	3/1	80	BOTTLE IN ENTRY CORE				Major Lithology	Minor Lithology
	5/2	105						
6	3/1						Major Lithology	Minor Lithology
	5/2							
7	5/2						Major Lithology	Minor Lithology
CC							Major Lithology	Minor Lithology

Major Lithology: faint lamination, framoid-like, 10µm 11-15µm
 Minor Lithology: Main lithology very dark gray, diatom ooze, det

54 5/2 dark gray diatom ooze
 54 3/1 very dark gray diatom ooze

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	B41	A	4	H	7A	79	

50A

Sediment/Rock Name: diatom-rich silt

Observer: Abira

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
15	Framework minerals
10	Quartz 3
	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
2	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 ✓
15	Vitric grain ✓ 3
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
37	✓ Diatoms 7
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
5	Sponge spicules 1
	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	1341	A	4	H	6A	110	

57-

Sediment/Rock Name: *diatom ooze*

Observer: *akira*

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
<i>8</i>	Quartz <i>2</i>
<i>4</i>	Feldspar <i>T</i>
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
<i>2</i>	Rock fragments <i>0.5</i>
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
<i>4</i>	Pyrite <i>1</i>
	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
<i>81</i>	Diatoms <i>20</i>
	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

1341 A 5H
Site Hole Core Section Top Depth Scale

Depth (m)	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
								Visual Core description	
1-10		25 46	✓ ✓	10 30				738-160 mott. brown	1A-100m diatom site
2-30		55 123	✓ ✓ ✓	5 0				42-45 mott.	2A-80cm clay diatom core
3-40			✓						
4-50		49 80 143	✓ ✓ ✓	42 54				43-53 mott. scatter	
5-70		36 146 32	✓ ✓ ✓					42-50 mott. 50-55 mott. 168 black pebbles	5A-110cm clay diatom core
6-90			✓ ✓ ✓	134 143				1-6 pebbles 7.5cm grains 10-23 pebbles grain	
7-100			✓	0				52 20	
100-140								20-31 PAL	
								<div style="border: 1px solid black; display: inline-block; padding: 2px;">xyx</div> 57 3/4 <div style="border: 1px solid black; display: inline-block; padding: 2px;">xy</div> 57 4/2 <div style="border: 1px solid black; display: inline-block; padding: 2px;">x</div> 57 4/1	

CSV

Observer: _____ Date: _____

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1341	A	S	M	1	100	cm

SM

Sediment/Rock Name Diatom Silt	Observer G.B
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(Main lithology)
 2nd

Percent Texture		
Sand	Silt	Clay

Comments:

Pleistocene
 + ~~Carbonate~~ Diatom ~~Quartzites~~

65

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
10	Quartz
5	X Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	X Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
10	Clay Minerals
	Chlorite
	Glaucanite
	Chert
	Zircon
5	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
10	Pyrite
	Magnetite
	Fe-oxide
5	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 radiolarians
30 55	X Centric
20 35	X 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

1341 A. 114 1
Site Hole Core Section Top Depth Scale

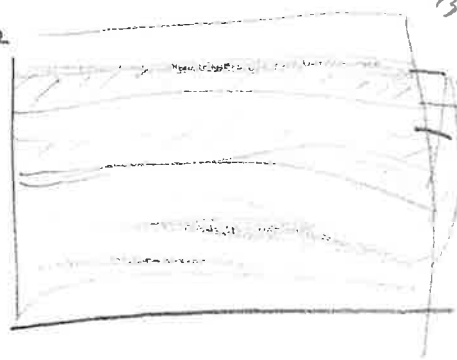
Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
							Visual Core description	
	5YR 3/1 5Y 4/2		AS mod 24				<p>5YR 3/1 90-108 80% 5YR 3/1 Thickly laminated 50% 5Y 4/2</p> <p>8-24 5YR 3/1 5Y 4/2 Mod. B.T Mottled @ 23-24cm</p> <p>93-100 5Y 4/2 grad. 90-96 grad.</p> <p>93-120 5Y 4/3 120 → Sharp</p>	
	5Y 4/3		SL				<p>102-103 Mottling @ 102 Foram concentration</p>	
	5Y 4/2				117 120		<p>117-120 Mottled SL B.T</p> <p>120-130 grad 128-132 5Y 4/2</p> <p>130- Sec. 2 Foram shell visible</p> <p>141cm 5Y 4/3 5/4 @ 132-133 → 80% 135-140</p>	
	5Y 5/4							

Observer: 76no

Date: _____

Expedition 323
Bering Sea

1341 / A / 117 / 2 /
Site / Hole / Core / Section / Top Depth / Scale

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
							Visual Core description	
	5Y 5/4		sb				Cond. — $\frac{1}{2}$ cm 5Y 5/4	
	5Y 4/3		AB				12cm — 21cm Thickly laminated iteration of 5Y 5/4 $\frac{4}{3}$ 2.5Y 4/3 (Foram)	
	10Y 4/1		SL					
							21 — CC Bottom.	
							10Y 4/1	
							SL. P. 7.	
							131	

Observer: Theresa C. Date: _____

Expedition 323
Bering Sea

Site 1381 Hole A Core 1 Section CC Top Depth _____ Scale _____

Depth (cm)	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
								Visual Core description	
10		10Y 4/1							
15									
20	PAL								← 15
25									
30									
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	U1341	A	1	H	2	18	18

Sediment/Rock Name	foraminifer- and nanno-rich diatom ooze	Observer	
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Percent Texture		
Sand	Silt	Clay

Comments: *Light Dark lamina*

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	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
100 BIOGENIC GRAINS	
Calcareous	
Foraminifera	
22	✓ Planktonic foraminifera
5	Benthic foraminifera
Nannofossils	
23	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
40	Centric
10	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	41341	A	1	H	2	75	75

Sediment/Rock Name	foram and nanno bearing diatom rich clayey silt	Observer	
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Percent Texture		
Sand	Silt	Clay
5	65	30

Comments: Main lithology

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

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

1341 A 6
Site Hole Core Section Top Depth Scale

Depth (m)	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
								Visual Core description	
1-10		20 54 4 1/2	✓	S				32-34 mott skolithos? ✓	1A-80 diatom clay
2-30		123 129	✓ ✓	S					
3-40		70 76 77	✓ ✓ ✓	S				133-134 sandy lens. 136. green layer ✓ 70-74 pebbles ✓	
4-50		8 7	✓	M				134-137. black ash 2.5/1 ✓ 139-145. brown ash. 10YR 3/2 ✓	4A-70 diatom silts
5-70		124 129 33 52 104	✓ ✓ ✓ ✓ ✓	S				146-149 laminated dark grey ash 2.5Y 3/1 ✓ 48-52 ash brown 10YR 3/2 ✓ 91-92 mott ash ✓	
6-80		31 120	✓ ✓	S				120-721 mott ✓	
7-100			✓	S					
9-110			✓	S					
10-140			✓	S					

- 9 XXX 5Y 5/4 diatom ooze
- A 5Y 4/2 diatom clay
- 10Y 4/1 diatom silts

Observer: _____ Date: _____

X
 IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1341	A	6	H	1	80 cm	

SM

Sediment/Rock Name	Diatom Clay	Observer	G.B.
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Rain lithology

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
10	X Quartz
10	X 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
20	X 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
60	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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1341	A	G	H	4	70 cm	

SM

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

Comments: Grain (biology) (2nd)

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
5	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
25	X Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
25	X 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
45	X Diatoms
	50 Centric
	50 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

1341 A 7
Site Hole Core Section Top Depth Scale

Depth (cm)	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
								Visual Core description	
10		29	✓					63 pebble 2-3mb	
17-40		140	✓					25 pebble ✓	
70-100		170	✓		76				
100-110		100	✓		100				
110-140		110	✓		30			724 2mm pebble	21-23 mott.
140-150		140	✓					101-102 mott. light color	28-32)
50-60		50	✓					39 2mm pebble ✓	
60-70		18	✓					37-38 mott ash	
70-80			✓					22-23 mott ash	
80-90			✓					11-12 mott. &	
90-100			✓					73	
100-110			✓					18.	cc 6-13 fractured ✓
110-120			✓					18-29 PAL	
120-130			✓					□ 10Y 4/1 diatom silt	
130-140			✓					□ 5Y 4/2 fine diatom silty clay	

53
2A-120
diatom site

55
5A-80
diatom
silty clay

Observer: _____ Date: _____

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	1341	A	7		2	120 cm	

SM

Sediment/Rock Name: DIATOM SILT

Observer: LWA

Percent Texture		
Sand	Silt	Clay

100 / 65
 350 / 15

Comments:

2nd

Percent	Component
	SILICICLASTIC GRAINS/MINERAL
75.20	Framework minerals
15	Quartz
10	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	Rock fragments
	Accessory/trace minerals
5.2	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
1.5	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
40.20	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	14f1	A	7		5	10m	

SM

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

Comments:

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

1341 A 8
Site Hole Core Section Top Depth Scale

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology	Visual Core description
	104 5/1		59						50004 104 5/1 greenish gray - DIFAM SILT
1	104 5/1		90						104 4/1 dark greenish gray - DIFAM-RICH SILT
2									
3									
4		ash?	0	0 120					
5	104 3/1	70 75 94	0	large burrows					104 3/1 very dark greenish gray
6	104 5/1								59 5/1 white layer (gray)
7	104 5/1	20 35							10cm DIFAM RICH NANNO 1025 w/ below 100
									104 3/1

Observer: _____ Date: _____

burrows

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1341	A	8	H	7	10 cm	

SM

Sediment/Rock Name	diatom. rich, siliceous , marino ooze	Observer	G.B.
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w/ a lot of dolomitic carbonate -

Percent Texture		
Sand	Silt	Clay

Comments: Minor lithology -

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
5	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
10	x Carbonates
	x Calcite probably broken forams
	x Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

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

Expedition 323
Bering Sea





Site BH Hole A Core 9 Section _____ Top Depth _____ Scale _____

Depth (cm)	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
								Visual Core description	
10		70	✓	✓					
20		70	✓	✓					
30		130	✓	✓					
40		100	✓	✓					
50		5	✓	✓					
60								70-25 ranging barrow	
70		48	✓	✓					
80		70	✓	✓					
90									
100									
110									
120									
130									
140									

2A-40
non-rich
diatom ooze

4A-45
diatom site

7A-40
diatom clay

- Major  5Y4/2 } diatom site
-  10Y4/1 } diatom site
- Minor  5Y4/4 } diatom ooze
- Second  5Y4/3 } diatom clay

Observer: _____ Date: _____

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	01341	A	9	H	2	40 cm	

574

Sediment/Rock Name: *Nanno. rich diatom ooze*

Observer: *G.B.*

Percent Texture		
Sand	Silt	Clay

Comments: *Timor lithology -*

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
<i>1</i>	Quartz
<i>2</i>	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
<i>9</i>	<input checked="" type="checkbox"/> 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
<i>2</i>	<input checked="" type="checkbox"/> Foraminifera <i>broken</i>
	Planktonic foraminifera
	Benthic foraminifera
<i>20</i>	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
<i>5</i>	<input checked="" type="checkbox"/> Radiolarians
	Spumellaria
	Nassellaria
<i>50</i>	<input checked="" type="checkbox"/> Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
<i>5</i>	<input checked="" type="checkbox"/> Silicoflagellates
<i>5</i>	<input checked="" type="checkbox"/> 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	U1341	A	9	H	7	40	cm

SM

Sediment/Rock Name	Diatom Clay
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Observer	GB
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foram-bearing.
 Nanno- "

Percent Texture		
Sand	Silt	Clay

Comments:

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

Percent	Component
BIOGENIC GRAINS	
	Calcareous
10 X	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
10 X	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
45 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

Expedition 323
Bering Sea

1341 Site A Hole 10 Core Section Top Depth Scale

Depth (cm)	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
								Visual Core description	
10		90							
15		15	✓					42 ash mottled ✓	
20		35	✓					104 blue pebbles ✓	
25		100	✓					30-31 pebble 7cm ✓	
30		37	✓		24			90-thin ash ✓	
35		50	✓		50				
40					m				
45					140				
50			✓	✓					
55									
60					50				
65					m				
70								Sec 5	
75								50 - cl	
80		170	✓		m			many barrows ✓	
85			✓						
90		20	✓		m				
95			✓		m				
100					m			75	
105								28	
110								28-39 PAL	
115									
120								Major	
125								10Y 4/1	
130								2nd 5Y 4/3 nano-bearing diatom ooze	
135								5Y 4/4 nano-red diatom ooze	
140								5Y 4/4	

50-1A-40 nano-bearing diatom ooze

3A-140 diatom ooze

Observer: _____ Date: _____

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	1341	A	10		1	50 cm	

SM

Sediment/Rock Name	NANNO-BEARING DIATOM Ooze	Observer	1411
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Percent Texture		
Sand	Silt	Clay

Comments:

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

Percent	Component
BIOGENIC GRAINS	
	Calcareous
2	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
10%	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
70%	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	1341	A	10	3		140	

SM

Sediment/Rock Name	DIATOM SILT	Observer	LCR
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Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
10%	Quartz
10%	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
2%	Rock fragments
	Accessory/trace minerals
5%	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
2%	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
25%	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
60%	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

134 11 _____
Site Hole Core Section Top Depth Scale

	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
1		8	✓						
10		137	✓						
2		20	✓						
20		54	✓						
		110	✓						
3		40	✓						
40		147	✓						
4			✓						
50		105	✓						
60		10	✓						
5		80	✓						
70			✓						
6		20	✓						
80		91	✓						
7			✓			100			
90			✓						
91									
100			✓						
100			✓						
110									
120									
130									
140									

Visual Core description

82 thin calc / 1 mm.

57-58 wood fragment

19. pebble 5 mm

78 16-26 PGL.

cc 0-5 chondrites

□ 10Y 4/1

⊗ 5Y 5/3 olive } silico-rich

▨ 5Y 4/2 dark olive } diatom ooze

3A-70 diatom-rich spicule-rich site

4A-70 silico-rich diatom ooze

Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	0841	A	11	H	4	70 cm	

Sediment/Rock Name	Silicof - rich diatom ooze	Observer	G.B.
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Percent Texture		
Sand	Silt	Clay

Thin lithology (interglacial?)

Comments:

30

100
25
75
30
10

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
3 2	X Quartz
	X Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
25 20	X Clay Minerals
	Chlorite
	Glaucanite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
2	X Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
Calcareous	
5 X	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
2	X Radiolarians
	Spumellaria
	Nassellaria
45 X	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
15 20	X Silicoflagellates
2	X Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

35 39 + 46 = 85 -

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	D41	A	11	H	3	70 cm	

5787

Sediment/Rock Name	diatom silt	Observer	G.B.
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diatom-rich, spicule-rich, silt -

Percent Texture		
Sand	Silt	Clay

Comments: Rain lithology (glacial?)

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

Expedition 323
Bering Sea

1341 A 12 1-4
 Site Hole Core Section Top Depth Scale

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
							Visual Core description	
	10Y 4/1		SR				0-150 10Y 4/1	
	5Y 4/2		SR				140 5Y 4/2	
	5Y 4/3		SR				140 5Y 4/3	
	10Y 4/1		SR				140 10Y 4/1	

Observer: _____ Date: _____

Expedition 323
Bering Sea

Site BY1 Hole A Core 12 Section 5-CC Top Depth Scale

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
							Visual Core description	
	10Y 4/1						grad 36-44	
	5 10Y 4/3		SP				5 40-110 5Y 4/3 110-120 grad	
	10Y 4/1						0 110-10Y 4/1 10 sec. 6 to 10	
	5Y 4/3						0 sec. 6. 10 - 95 5Y 4/3	
	10Y 4/1		SP				0 95-100 10Y 4/1	
							6 * 108-109 ash (STR 6/1) pinkish	
	5Y 4/2						0-60 5Y 4/2	grad @ 58-62
	5Y 3/2		SP				0 60-58 5Y 3/2	
	5Y 3/2							
			SP		SI		CL 17.6cm # crack 51	

Observer: _____ Date: _____

Expedition 323
Bering Sea

1341 A 13H 1+2
 Site Hole Core Section Top Depth Scale

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
							Visual Core description	
	SY 215/216		Slight				0-70 biot. lam., patchy	
							70-90 grad.	
	101101		mod.				bluish-grayish burrows	
	▽							
							140-150 grad.	

Observer: _____ Date: _____

Expedition 323
Bering Sea

1341 A 13H 3+4
 Site Hole Core Section Top Depth Scale

Depth (cm)	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
								Visual Core description	
10		S1513		mod.					30-50 grad.
20									
30		N0411							
40									
50									
60		S1510		slight					
70									
80						5			
90		N0411		mod slight		75			5-15 grad.
100									
110									
120						115			
130		S1510				130			115-125
140									

Observer: _____ Date: _____

Expedition 323
Bering Sea

1341 Site A Hole 13H Core 5+6 Section _____ Top Depth _____ Scale

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

11-14 grad.

pink

slight

30

mod.

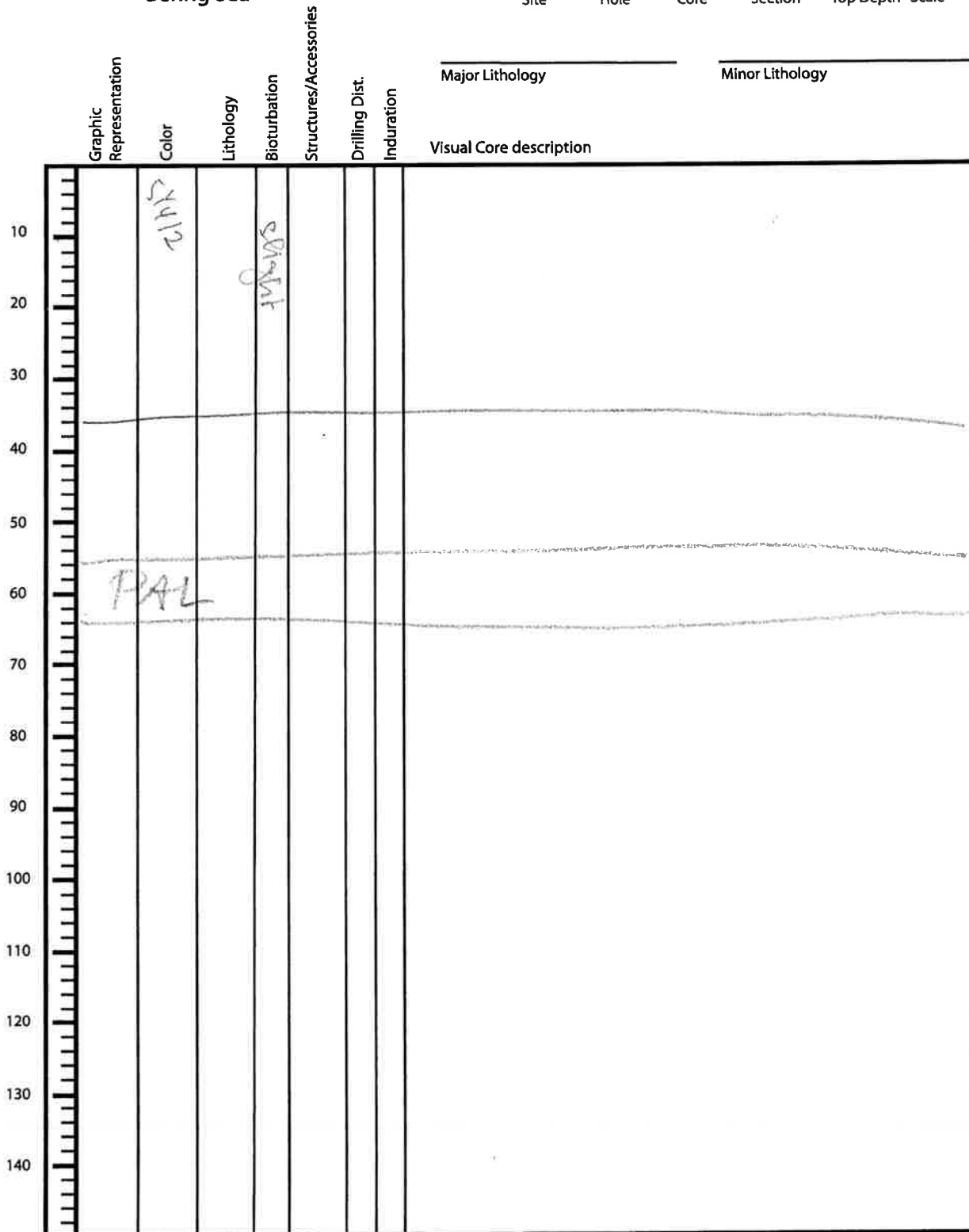
125

slight

Observer: _____ Date: _____

Expedition 323
Bering Sea

1341 A 13H 7+CC
Site Hole Core Section Top Depth Scale



Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
			13	H	5	70	70

SM

Sediment/Rock Name	Diatom ooze	Observer	MSC
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Percent Texture		
Sand	Silt	Clay

Comments:

Mainly Sphul...

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

Percent	Component
74	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
34	Centric
34	Pennate
	Chaetoceros Resting Spores
6	✓ 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
			13	H	2	100	100

SM

Sediment/Rock Name: *Diatom ooze*

Observer: *MSC*

Percent Texture		
Sand	Silt	Clay

Comments: *Main lithology*

Percent	Component
<i>20</i>	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
<i>9</i>	Quartz
<i>8</i>	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
<i>3</i>	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<i>80</i>	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
<i>37</i>	Centric
<i>40</i>	Pennate
	<i>Chaetoceros</i> Resting Spores
<i>3</i>	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

(Handwritten mark)

SM

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1341	A	13	H	6	17	17

Sediment/Rock Name	Diatom-bearing Sponge-spicule ooze	Observer	
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Percent Texture		
Sand	Silt	Clay

Comments: White spot

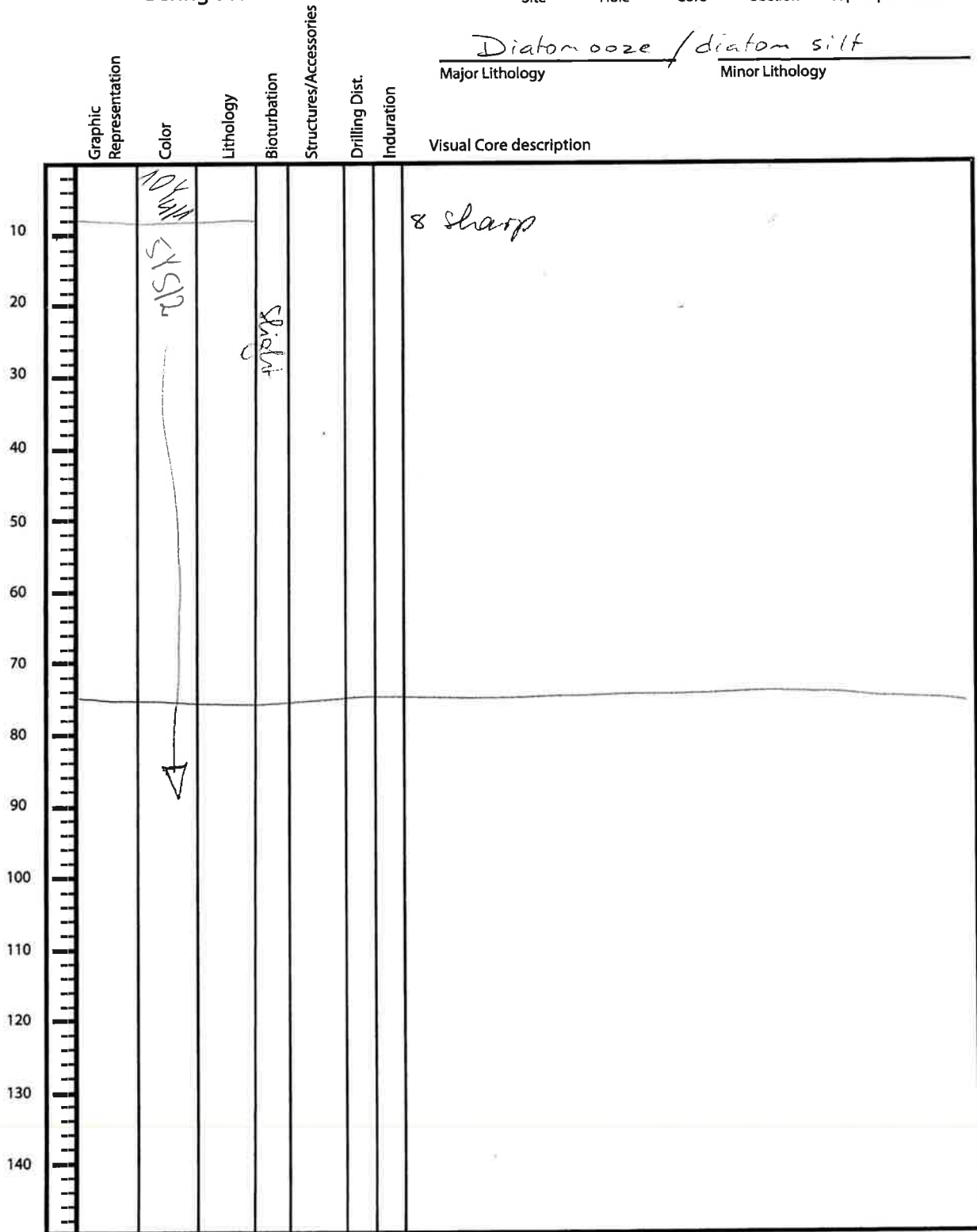
Percent	Component
20	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
20	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic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

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

Expedition 323
Bering Sea

01341 A 14 1+2 0
Site Hole Core Section Top Depth Scale

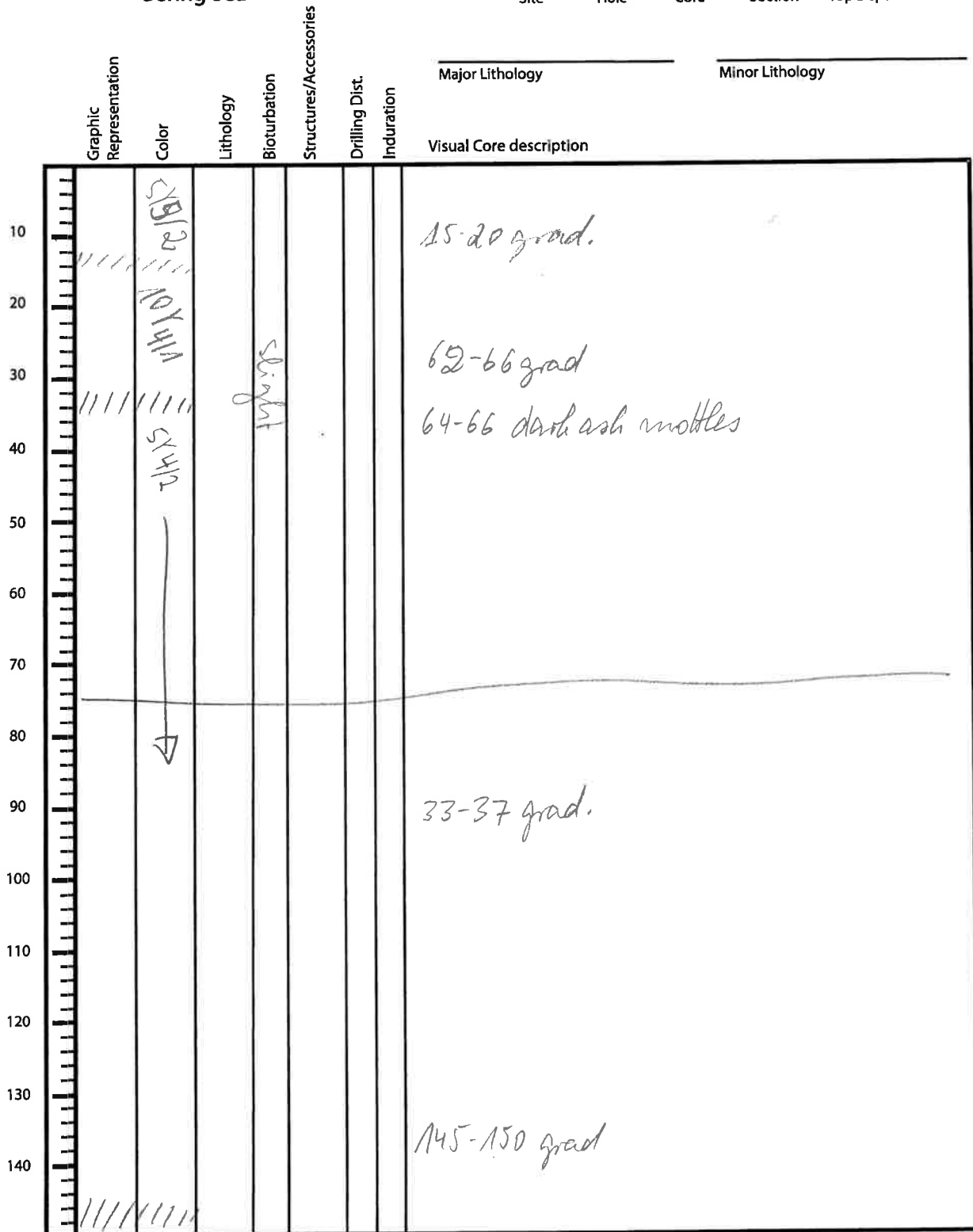
Diatom ooze / diatom silt
Major Lithology Minor Lithology



Observer: _____ Date: _____

Expedition 323
Bering Sea

1341 Site A Hole 14H Core 3+4 Section _____ Top Depth _____ Scale



Observer: _____ Date: _____

Expedition 323
Bering Sea

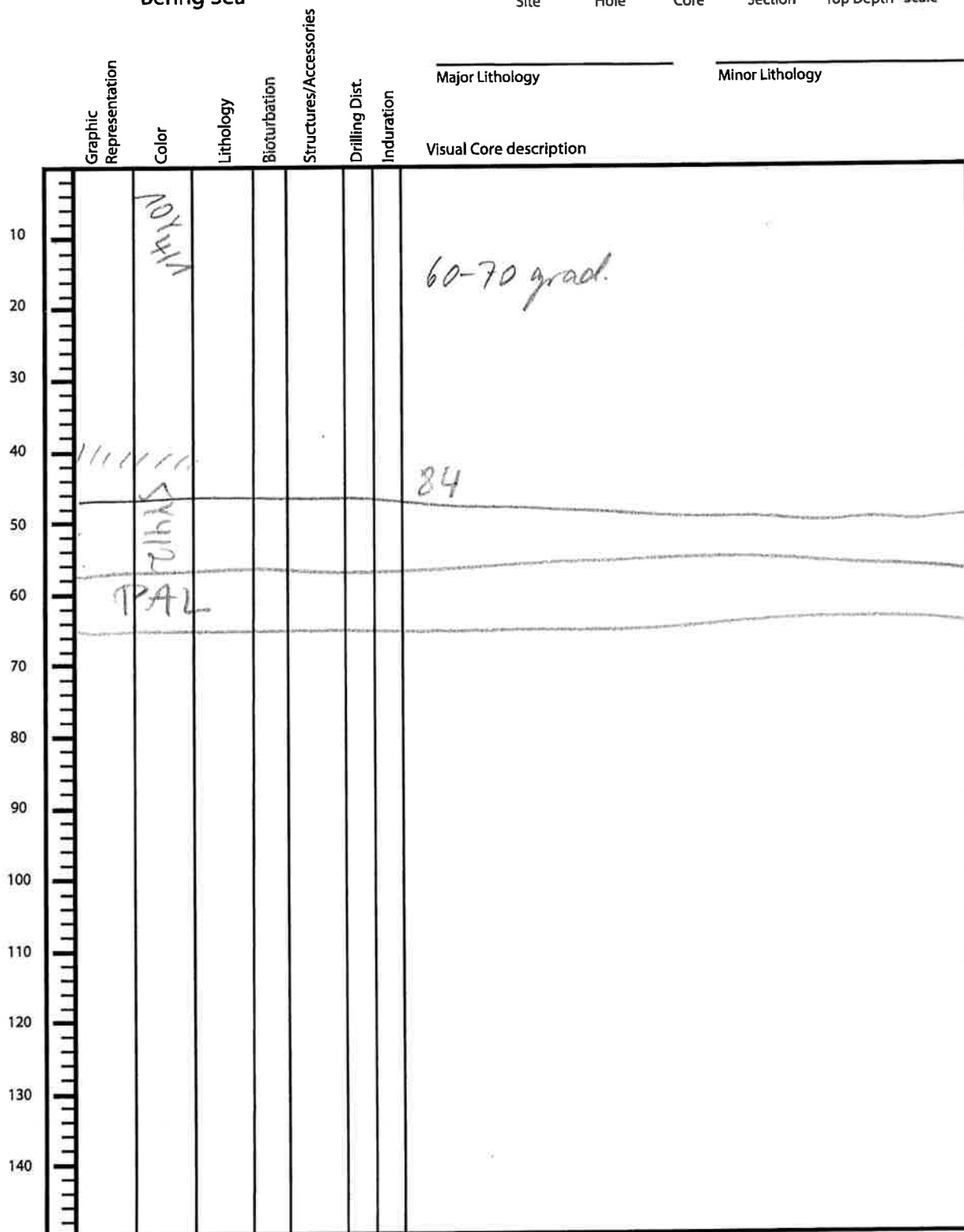
1341 A 14H 5+6 _____
Site Hole Core Section Top Depth Scale

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
	21415						69-75 sharp, tilted	
	101411						125-135 grad.	
	SKH12						25-35 grad.	
	101411							

Observer: _____ Date: _____

Expedition 323
Bering Sea

1341 A 14H 7+CC
 Site Hole Core Section Top Depth Scale



Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1341	A	14	H	1	55	55

Sediment/Rock Name: *Diatom ooze*

Observer: *MSC*

Percent Texture		
Sand	Silt	Clay

Comments: *Main lithology*

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

Percent	Component
(8)	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
38	Centric
37	Pennate
	<i>Chaetoceros</i> Resting Spores
3	Silicoflagellates
3	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	U1341	A	14	H	4	65	65

SM

Sediment/Rock Name	Silicoflagellate-bearing diatom ooze	Observer	MSC
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Percent Texture		
Sand	Silt	Clay

Comments: Main lithology

Percent	Component
29	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
15	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
7	Pyrite
	Magnetite
2	Fe-oxide
	Carbonates
	Calcite
	Dolomite
5	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
5	Lithic grain

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

Expedition 323
Bering Sea

134A A 15H 112
Site Hole Core Section Top Depth Scale

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
							Visual Core description	
	5Y1/2		slight					
	5Y5/2		↔				14 - 150 tilted	
							61-63 tilted gray-pinkish red layer, sharp	
							gap 145-150	

Observer: _____ Date: _____

Expedition 323
Bering Sea

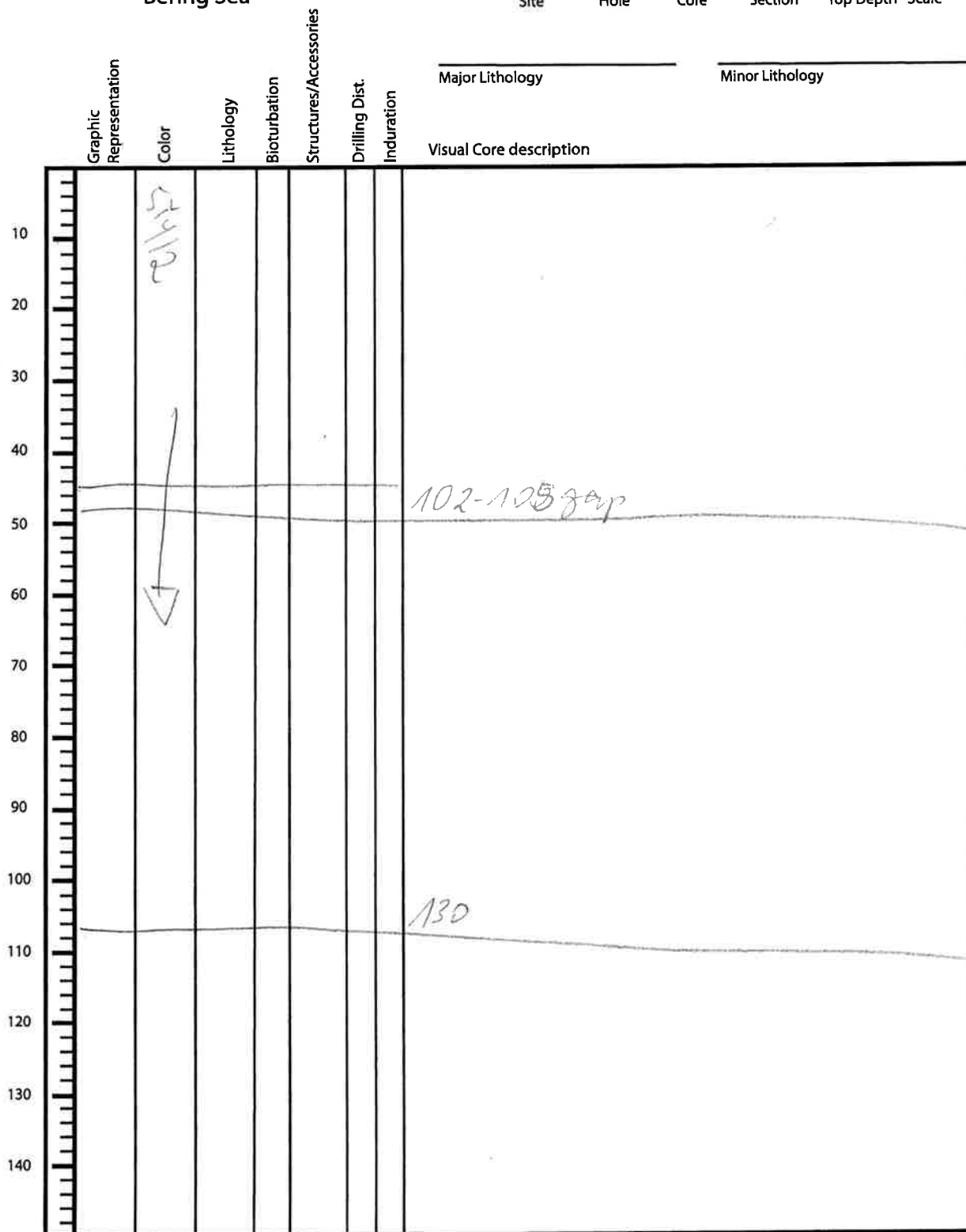
1341 A 15H B#4
Site Hole Core Section Top Depth Scale

	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
10		5Y 4/2							
20								41-44 sharp tilted	
30								15-45 tilted	
40		10Y 4/2							
50									
60		5Y 4/2						90-110 grad.	
70									
80		↓							
90								50-30 tilted	
100								55-70 grad.	
110		10Y 4/1						50-55 sharp tilted	
120									
130		5Y 4/2							
140									

Observer: _____ Date: _____

Expedition 323
Bering Sea

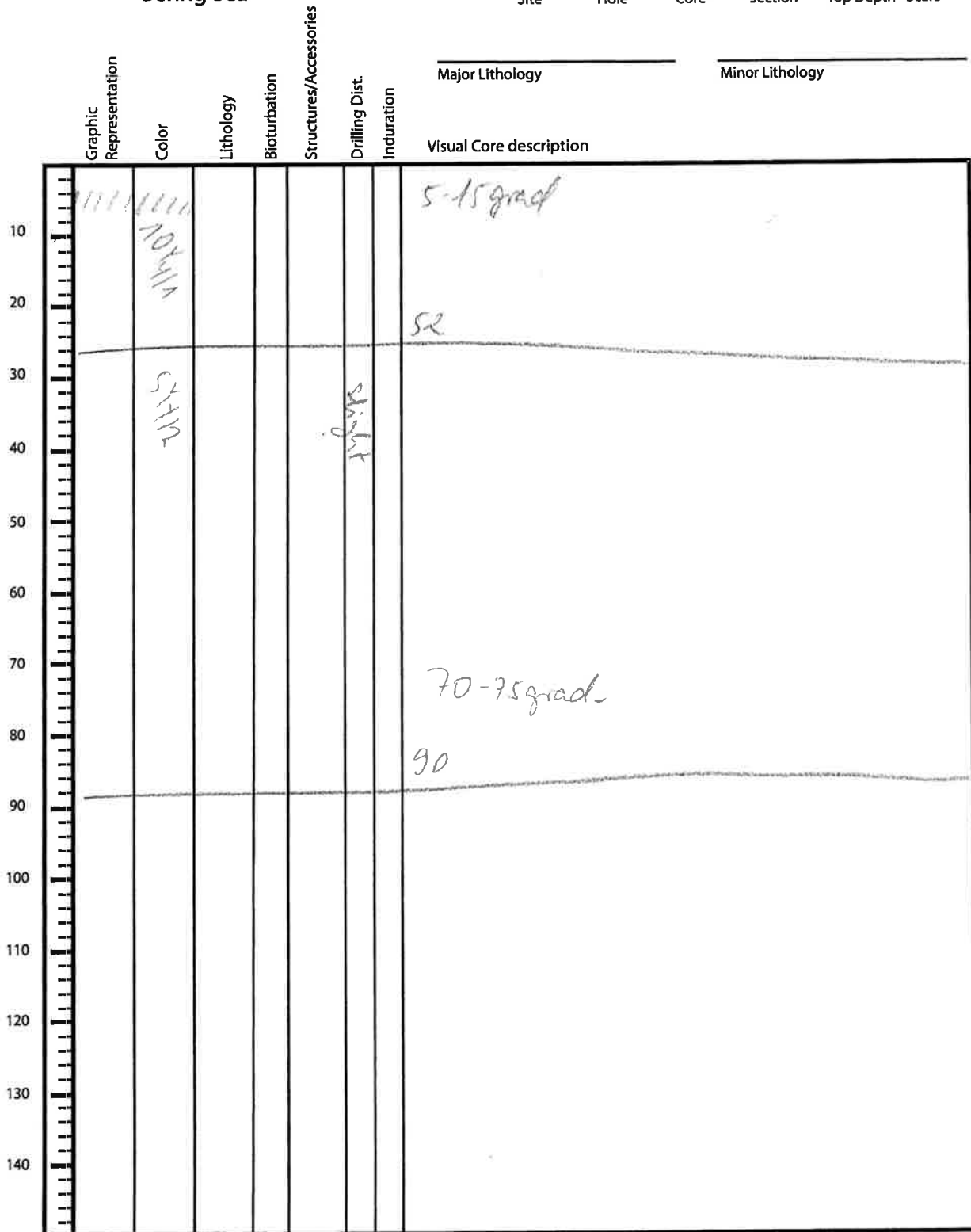
1541 A 15H 5+6
Site Hole Core Section Top Depth Scale



Observer: _____ Date: _____

Expedition 323
Bering Sea

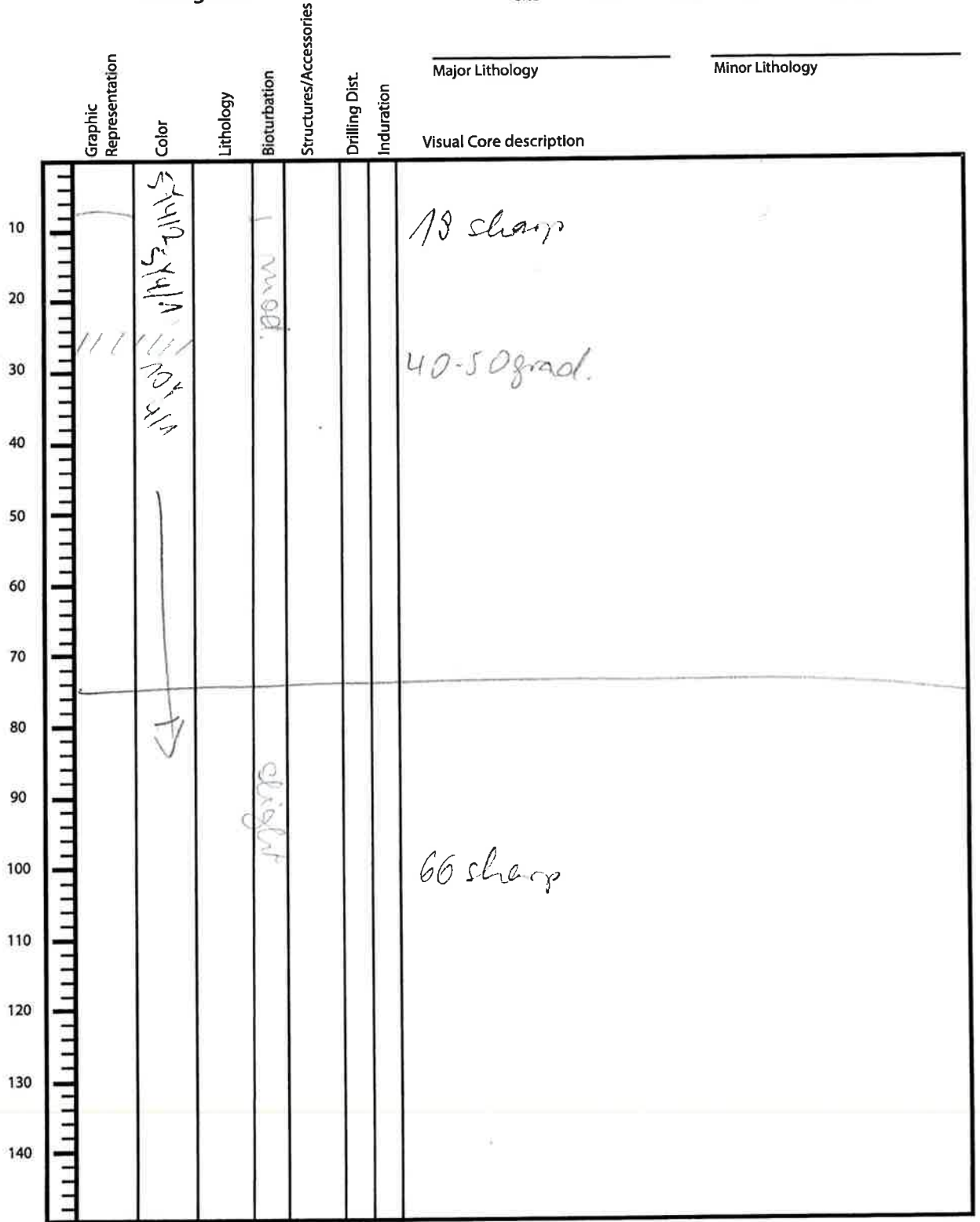
1341 A 15H 7+CC
 Site Hole Core Section Top Depth Scale



Observer: _____ Date: _____

Expedition 323
Bering Sea

1341 A 16H 1+2
Site Hole Core Section Top Depth Scale



Observer: _____ Date: _____

Expedition 323
Bering Sea

1341 A 16H 214
 Site Hole Core Section Top Depth Scale

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
							Visual Core description	
	white		shells					36-37 whitish shell frags.
	white							120-140 grad
	white							126 ad. layer 100-110 grad 100-150 light + dark greyish mottling

Observer: _____ Date: _____

Expedition 323
Bering Sea

1341 A 16H S+6
Site Hole Core Section Top Depth Scale

Depth (cm)	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
								Visual Core description	
10		10Y4/1						36 grad.	
20		10Y4/1						35-43 grad	
30		10Y6/1	stiff						
40		10Y4/1			70			52-62 grad	
50		5Y4/2						110-120	
60		5Y4/2							
70		5Y4/2							
80		5Y4/2						12-14 grad.	
90		5Y4/2							
100									
110									
120									
130									
140								135-140 grad.	

Observer: _____ Date: _____

Expedition 323
Bering Sea

1341 A 16H 7+CC
Site Hole Core Section Top Depth Scale

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
							Visual Core description	
	NOYH/V		light					
10								
20								32 clast, 0.5 cm
30	5Y5/1							30-45 grad.
40								72
50	NOYH/V				light			
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	U1341	A	16	H	1	80	80

Sediment/Rock Name	Diatom ooze	Observer	MSC
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Percent Texture		
Sand	Silt	Clay

Comments:

Main lith (green-grey ooze)

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

Percent	Component
82	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
1	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
45	Centric
33	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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1341	A	16	H	3	85	85

Sediment/Rock Name	Diatom ooze	Observer	MSC
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Percent Texture		
Sand	Silt	Clay
5	90	5

Comments: Main lith (silty grey)

Percent	Component
40 SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
18	Quartz
17	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
84	Pyrite
	Magnetite
1	Fe-oxide
	Carbonates
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1341	A	16	4	4	120	120

Sediment/Rock Name	Diatom ooze	Observer	MSC
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Percent Texture		
Sand	Silt	Clay

Comments: Main lith (purple)

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

Percent	Component
78	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
35	Centric
43	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	U1341	A	16	H	5	48	48

Sediment/Rock Name	<i>Diatom ooze (auth. cal. rich)</i>	Observer	MSC
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Percent Texture		
Sand	Silt	Clay

Comments: *Main lith (white/grey hard)*

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

Percent	Component
45	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
20	Centric
21	Pennate
	<i>Chaetoceros</i> Resting Spores
2	Silicoflagellates
2	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	U1341	A	16	H	6	95	95

Sediment/Rock Name	Diatom ooze	Observer	MSC
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Percent Texture		
Sand	Silt	Clay

Comments: Main Q7H (green ooze)

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

Percent	Component
65	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
40	Centric
23	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

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1341	A	17	H	5	100	100

S.O.

Sediment/Rock Name	Diatom ooze	Observer	MSC
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Percent Texture		
Sand	Silt	Clay

Comments: Only main lith @ MS anomaly

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

Percent	Component
10	BIOGENIC GRAINS
	Calcareous
1	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
3	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
21	Centric
40	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
5	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	U1341	A	17	H	5	82	82

SM

Sediment/Rock Name	Diatom ooze	Observer	MSC
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Percent Texture		
Sand	Silt	Clay

Comments: Grey main lth @ MS anomaly

Percent	Component
(12)	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
1	Quartz
2	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
1	Rock fragments
	Accessory/trace minerals
	Micas
2	Biotite
	Muscovite
	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
(87)	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
26	Centric
60	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	U1341	A	17	H	4A	95	95

5M

Sediment/Rock Name	Diatomooze	Observer	MSC
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Percent Texture		
Sand	Silt	Clay

Comments: *main lithology (green)*

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

Percent	Component
42	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
3	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
25	Centric
14	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	U1341A		17	H	6A	20	20

Sediment/Rock Name	Diatom clay	Observer	MSc
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Percent Texture		
Sand	Silt	Clay
0	15	85

Comments: Main lithology (grey)

Percent	Component
38	SILICICLASTIC GRAINS/MINERAL
	Framework minerals
15	Quartz
15	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
8	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
10	VOLCANICLASTIC GRAINS
	Crystal grain
10	Vitric grain
	Lithic grain

Percent	Component
52	BIOGENIC GRAINS
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
28	Centric
20	Pennate
	Chaetoceros Resting Spores
1	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

13411 Site A Hole 17H Core 1+2 Section _____ Top Depth _____ Scale

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
							Visual Core description	
	5/11/12		slight					
	5/11/12		mod.				6-12 grad.	
	10/1/11		↓				17-150 blueish-grayish burrows	
							also ↓	

Observer: _____ Date: _____

Expedition 323
Bering Sea

1342 A 17H 3+4
Site Hole Core Section Top Depth Scale

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
	10 20 30 40 50 60 70 80 90 100 110 120 130 140							
	10-15		mod				70-120 ash patches	
	80-85		slight				20-30 grad.	
	85-110						15-30 clast horizon, 0.5-1cm φ, angular, gray	
	110-115						80-87 ash layer, deformed, black + gray streaks, sharp comb., bottom cast	
	115-140						75-110 slump	

Observer: _____ Date: _____

Expedition 323
Bering Sea

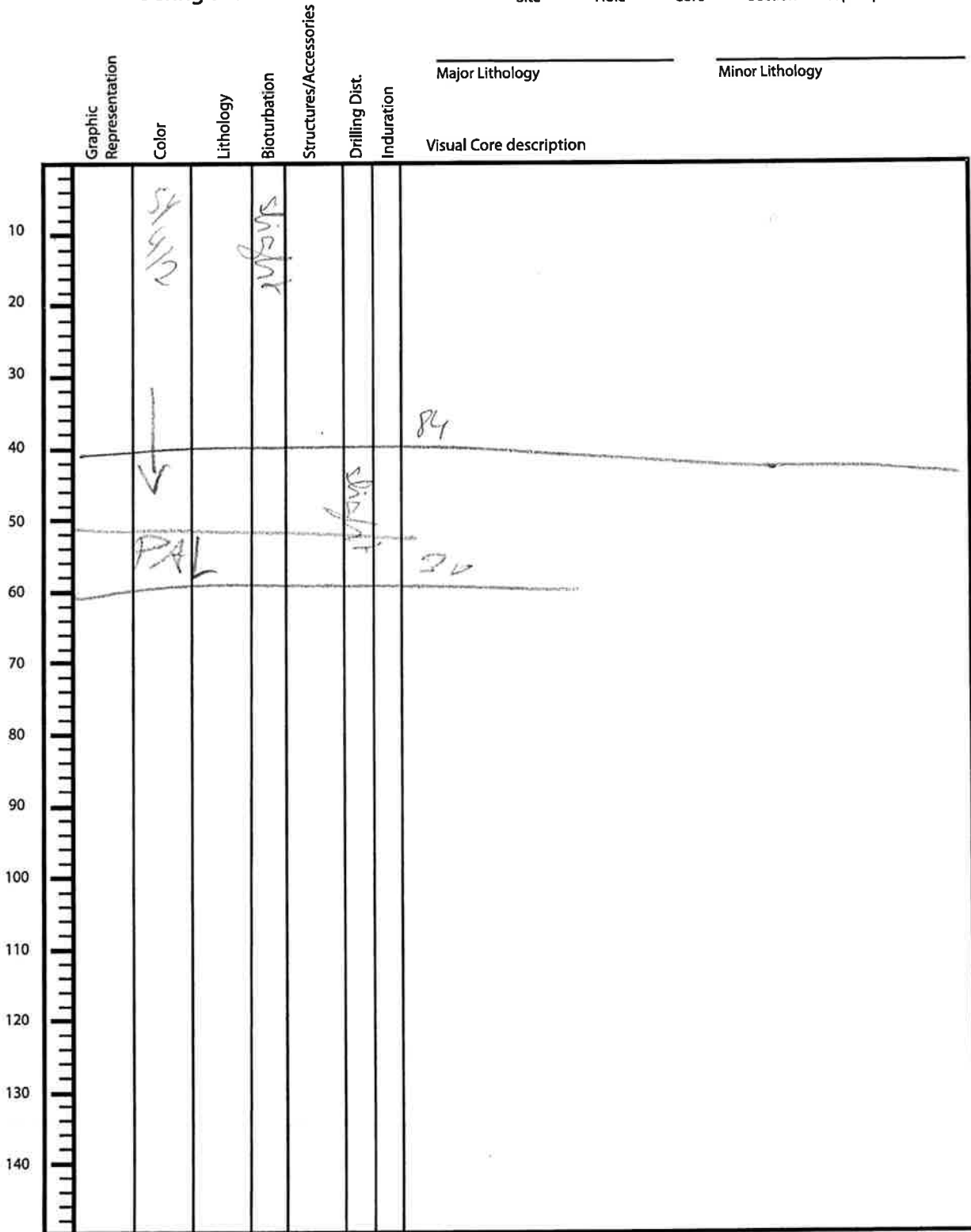
1341 A 17H 576
Site Hole Core Section Top Depth Scale

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
							Visual Core description	
	SF 4/2		Slight					
	10YR 5/1 10Y 4/1		mod.				75 sharp	
	10YR 5/1 10Y 4/1						100-130 grad	
	10YR 5/1 10Y 4/1						85-110 gray-pinkish ord. mottles	
	10YR 5/1 10Y 4/1		Slight				8-15 grad.	
	10YR 5/1 10Y 4/1						30-50 grad.	
	SF 4/2							

Observer: _____ Date: _____

Expedition 323
Bering Sea

1341 A 17H 7+CC
 Site Hole Core Section Top Depth Scale



Observer: _____ Date: _____

Expedition 323
Bering Sea

134.1 A 18H 112 _____
Site Hole Core Section Top Depth Scale

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
	Light		slight				29-40 bluish brown	

Observer: _____ Date: _____

Expedition 323
Bering Sea

1341 A 18H 3+4 _____
Site Hole Core Section Top Depth Scale

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
							Visual Core description	
	5x 4/2							
	 20x 4/1		mod.				30-110 grad.	
							bluish burrows	
							↓	
							32-55 gray bioturb. layer	

Observer: _____ Date: _____

Expedition 323
Bering Sea

1341 A 18H 5+6
Site Hole Core Section Top Depth Scale

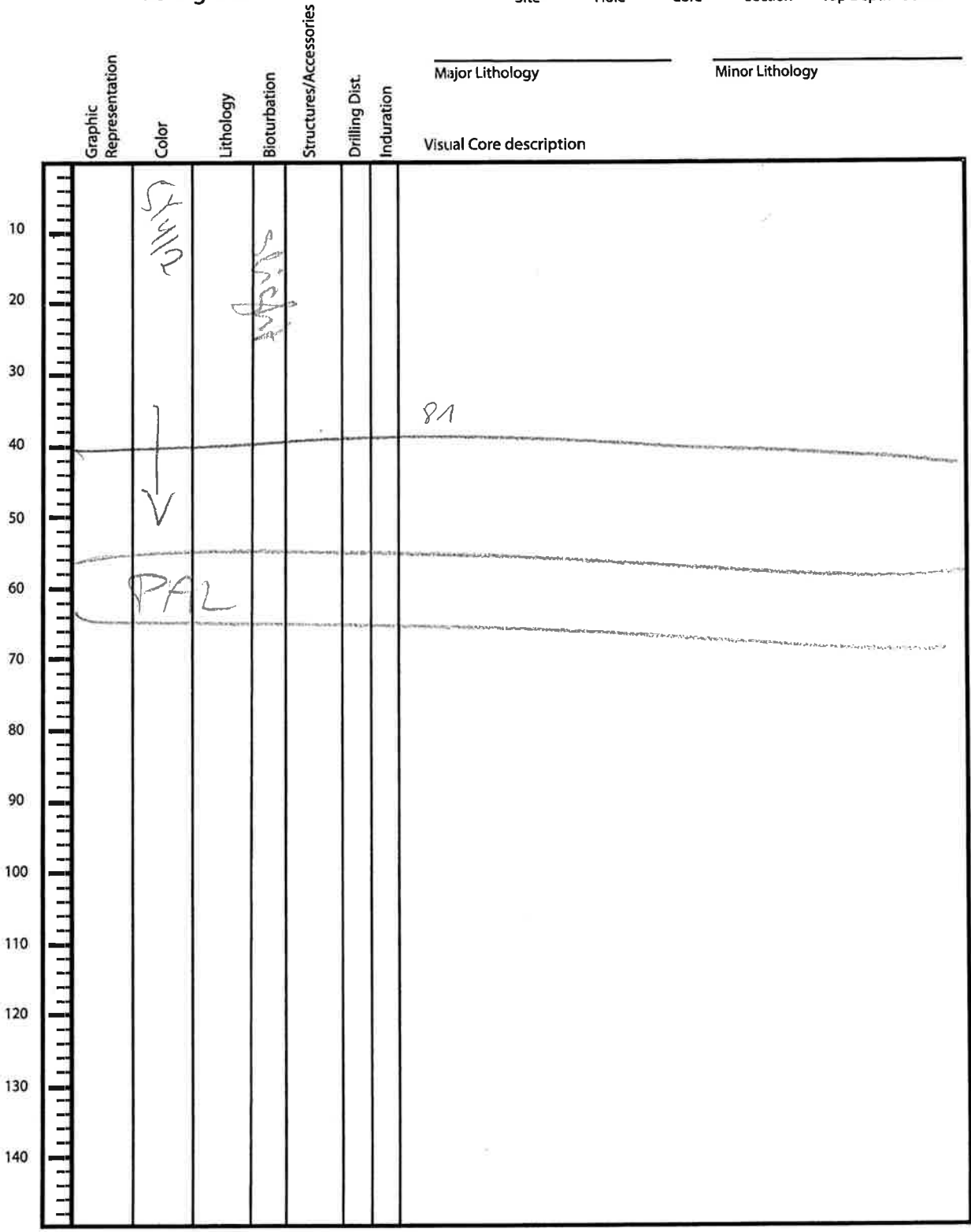
Depth (cm)	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
								Visual Core description	
10		10Y 4/1							
20		5Y 6/1							
30		6/2							
40		10Y 4/1							
50		5Y 6/1			nod				
60									
70									
80									
90									
100									
110									
120									
130									
140									

blueish
33-36 grad.
36-72 yellowish nodules,
up to 4 cm ϕ , carbonates,
dispersed in sed.
75-80 grad.

Observer: _____ Date: _____

Expedition 323
Bering Sea

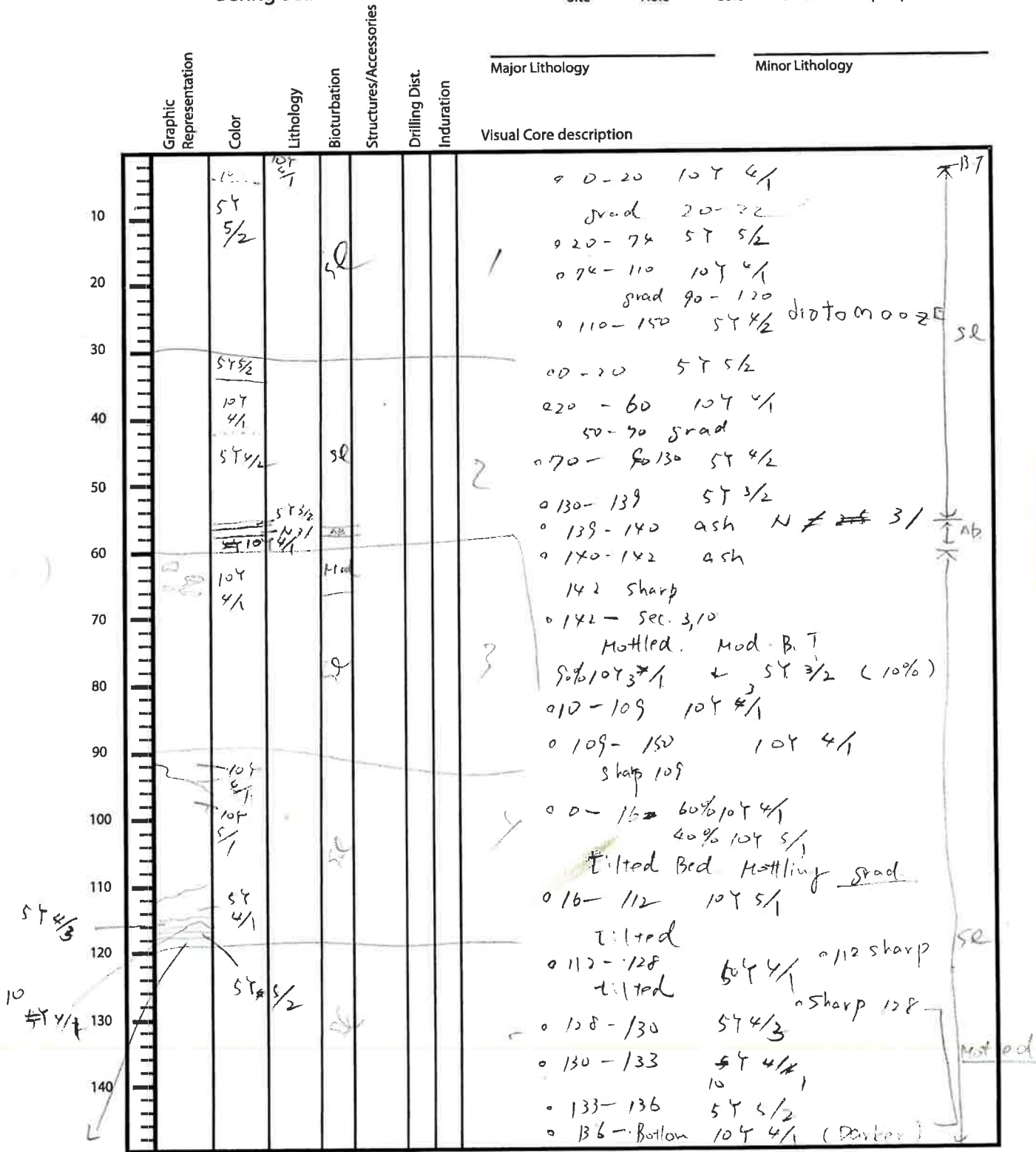
1341 A 18H 7+CC
Site Hole Core Section Top Depth Scale



Observer: _____ Date: _____

Expedition 323
Bering Sea

1341 A 1917 1-8
Site Hole Core Section Top Depth Scale



Observer: Bliss Date: _____

Expedition 323
Bering Sea

323 1341 19H 5-CC
Site Hole Core Section Top Depth Scale

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
							Visual Core description	
	5Y 5/2	10Y 4/1					00-65 5Y 4/2 41-42 10Y 4/1 Matting ← 65 sharp	
	10Y 4/1						5 065 - 501 5Y 5/2 10Y 4/1 B0-132 Pebble ⊗ Subround N 4/1	
	10Y 5/1						00-82 10Y 4/1 82 - 107 5Y 3/2 109-150 10Y 5/1	
	5Y 5/2						6 white Matte ⊗ 112cm	
	10Y 5/1						00-35 5Y 5/2 35-50 10Y 4/1 50-57 5Y 3/2 57-78 10Y 4/1	
	5Y 5/2						CC 0 - Bottom 5Y 5/2	

Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	01341	A	19	H	S	64	64

S.N.

Sediment/Rock Name	Dolostone
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Observer	KD
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Percent Texture		
Sand	Silt	Clay

Comments: Lumpy whitish sections

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
	Quartz
3	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
50	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
1	Nassellaria
30	Diatoms
	Centric
	Pennate
	<i>Chaetoceros</i> Resting Spores
	Silicoflagellates
10	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
✓	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Expedition 323
Bering Sea

1341 Site A Hole 2017 Core 1-Y Section Top Depth Scale

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
							Visual Core description	
	5Y 4/2							<p>0-6 - sec 2.62 3.1 3.220</p> <p>5Y 4/2</p>
	5Y 4/2		50					<p>120 - sec 3.10 sec 4.1 Mottled with 5Y 4/2 Mod. B.T. condrites.</p> <p>46-88 ash patch (black)</p> <p>sec. 4 0-40</p>
	5Y 4/2							<p>62 - sec 4.0 120 10Y 4/1</p>
	10Y 4/1							<p>sec. x 30 - 50 10Y 3/1</p> <p>70 - sec. 5 5Y 4/2</p> <p>Mottled 127-131 white</p>
	5Y 4/2							

Observer: AAA

Date: _____

Expedition 323
Bering Sea

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

Depth (cm)	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
								Visual Core description	
10		ST 4/2						Mottled 36-40 ST 3/1	
20								Mottled 50-57 white	
30								57 4/2 67 67 50 Sec. 6, 110	
40		ST 4/2						57 4/2 110 - 57 4/2 Bottom	
50								Sec. 7, 6	
60		ST 4/2						6 ~ 11. Mottled Mod B. white (10YR 8/1)	
70		ST 5/2						811 - Bottom ST 5/2	
80									
90									
100								cc	
110									
120									
130									
140									

Observer: _____ Date: _____

fine grain
graffito

Expedition 323
Bering Sea

134/ A 21
Site Hole Core Section Top Depth Scale

Depth (m)	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
								Visual Core description	
1-10		4 5Y 4/2	✓	✓				2 pebbly black. 2mr ✓	
20	10Y 4/4	85	✓	✓					2-40 diatom-rich site
30-40		5Y 4/2	✓	✓				Sec 4 135- moth ash ✓	3A-100 diatom silts
40-50		90	✓	✓				96- moth ash ✓	
50-60		7	✓	✓					
60-70		6	✓	✓				26- pebbly 2mr ✓	
70-80			✓	✓				53-54. light lan.	
80-90			✓	✓				69 8-18 PAL	7A-20 diatom-rich clayey silts
90-100			✓	✓					
100-110			✓	✓					
110-120			✓	✓					
120-130			✓	✓					
130-140			✓	✓					

5Y 4/4 diatom silts
 10Y 4/1 diatom rich site
 5Y 4/2 diatom-rich clayey site

Observer: _____ Date: _____

5.0.

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	(34)	A	Z1	A	2	40cm	

Sediment/Rock Name	DIATOM-RICH SILT (minor)	Observer	lwk
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Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
100%	Framework minerals
15%	Quartz
20%	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5%	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
5%	Muscovite
10%	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
10%	Pyrite
	Magnetite
	Fe-oxide hematite?
	Carbonates
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
5%	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
35%	Diatoms
70%	Centric
30%	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

gray grey

S.S.

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1341	A	2C	H	7	20m	

Sediment/Rock Name: DIAION-RICH CLAYEY SILT

Observer: IWA

(2nd) dark gray

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
40 35%	Framework minerals
15%	Quartz
20%	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
5% 10%	Muscovite
20%	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
12	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
30%	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

S.N.

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	1241A		21	H	3	100cm	

Sediment/Rock Name	DIATOM SILT	Observer	JWA
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Percent Texture		
Sand	Silt	Clay

Major

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
30%	Framework minerals
10%	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
<2%	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
5%	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
65%	Diatoms
	Centric
	Pennate
	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

1441 A 22 1-CC
Site Hole Core Section Top Depth Scale

Flashed boundary

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
10	104 4/1						110 cm ss DILATOM-RICH SLT	
20	104 4/1						110 cm ss DILATOM SLT	
30								
40	po 4/1						diatom 80-99 cm diatom 111-117 cm 99-95 = hard part	light greenish gray
50								
60								
70								
80								
90	104 5/2							
98.5								
110								
120								
130								
140								



104 4/1
dark greenish gray

104 5/2
greenish gray

54 4/1 dark
gray

Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	1341	A	22	§	.1	4.0	4.1

SN

Sediment/Rock Name	Diatom-rich silt	Observer	CLK
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Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
45%	Framework minerals
15%	Quartz
30%	Feldspar
X	K-feldspar (Orthoclase, Microcline...)
X	Plagioclase
X	Rock fragments
Accessory/trace minerals	
5%	Micas
X	Biotite
5%	Muscovite
10%	Clay Minerals
	Chlorite
	Glaucanite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
22%	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
X	Lithic grain

Percent	Component
BIOGENIC GRAINS	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
X	Radiolarians
	Spumellaria
	Nassellaria
30%	Diatoms
10%	Centric
20%	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	1341	A	22		4	110cm	

50

Sediment/Rock Name	ALTON SILT	Observer	WZ
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Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
35%	Framework minerals
10%	Quartz
25%	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
5%	Micas
	Biotite
	Muscovite
15%	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
45%	Diatoms
30%	Centric
14%	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

1341 A 23
Site Hole Core Section Top Depth Scale

Depth (cm)	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
								Visual Core description	
1-10		5Y 4/2	✓					3cm pebble 2mm med. white?	
20				S					
30								257/1	
40		110	✓	110				70-110g.b	Sec 3110 - Sec 495 many barites
50		5Y 4/1 95	✓ ✓ ✓					34-38 white ash	55 4A. 10gr spindle site.
60		30	✓					95 131-132 shell	
70									
80		5Y 4/3	✓					119 shell 59 pebble 2mm black	
90									
100			✓					89 16. 16-26 PAL.	7A-40 spindle rich diatom clay.
110									
120									
130									
140									

Observer: _____ Date: _____

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	01341	A	22	H	1	90 cm	

Sediment/Rock Name	diatom ooze	Observer	G.B.
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Percent Texture		
Sand	Silt	Clay

Comments:

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

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

X

S.P.

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U134	A	23	H	7	60 cm	

Sediment/Rock Name	Spicule-rich diatom clay	Observer	G.D.
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Percent Texture		
Sand	Silt	Clay

Comments:

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

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

15
25
40

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	01341	A	23	H	4	10 cm	

S.N.

Sediment/Rock Name	Sponge spicule silt (diatom-bearing)	Observer	G.B.
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Minor lithology (purple layer)

Percent Texture		
Sand	Silt	Clay

Comments:

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

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

65-70

Expedition 323
Bering Sea

Site 1441-A24 Hole Core Section Top Depth Scale

	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
1		54 4/2						DLATOM CLAY	
2									
3		54 5/2	20m					2 mm to 5 mm thick laminar dine, black, light gray	
4								N 7/ high gray - ss, 80 cm DLATOM etc	
5								N 7/ - 69 cm, ss DLATOM - Bottom BEWO ASK	
6								Down tilted drusem clay	
7		17 SS						2.57 7/2 7 cm SS	2.54 7/2 light gray
CL								54 4/2 olive gray	
								54 5/2 olive gray	

Observer: _____ Date: _____

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	1241	A	24		5	6	7

Sediment/Rock Name	Diatom-bearing fine ash	Observer	LUK
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Percent Texture		
Sand	Silt	Clay

Comments:

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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1341	A	26	H	1A	81cm	

SM

Sediment/Rock Name	Spicule - Diatom ooze	Observer	Belm
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Percent Texture		
Sand	Silt	Clay

Comments:

B-25
S-75
V-D

Main lithology

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
15	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
5	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
5	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
35	Centric
10	Pennate
	<i>Chaetoceros</i> Resting Spores
	Silicoflagellates
30	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		24		4	80 cm	

Sediment/Rock Name	Dutton Port	Observer	lwf
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Percent Texture		
Sand	Silt	Clay

Comments:



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

Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
75%	Diatoms
40%	Centric
35%	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Expedition 323
Bering Sea

1341 A 25
Site Hole Core Section Top Depth Scale

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
							Visual Core description	
1		x x x					13-27 lam 78-86 1-3 27 thin ash layer 7m	
2		x x x					125 mott with ash 132 mott black ad 70-74 mott white ash	2A-30 diatom ooze
3		x x x				110	Sec 3 110 - Sec 7 71 faint lam ✓ 132 thin ash in lam	
4		x x x					36-41 grade ✓ 104-106	
5		x x x						
6		x x x						
7		x x x						
CC		x x x						
100		x x x						
110		x x x						
120		x x x						
130		x x x						
140		x x x						

 5T 5/2 olive gray.
 5T 6/2 light olive gray

7A-30
diatom ooze

Observer: _____ Date: _____

Expedition 323
Bering Sea

U1341 Site A Hole 264 Core 12, CC Section Top Depth Scale

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
							Visual Core description	
1	dk greenish gray						0-10. Many granules to pebbles present only on outside of core (not in center of core).	
	10y 4/1					64-123 Mot. pa.	Hyp - hit gravel layer, did not recover, gravel dragged down w/ core, then fall into hole, subsequent contamination	
2	glauconitic gray						pebs - dolomite - ang. broken	
	10y 5/1					32- P6m	dk green; volcanic well round.	
CC								

Observer: _____ Date: _____

Expedition 323
Bering Sea

Site 1441A-27 Hole _____ Core _____ Section _____ Top Depth _____ Scale _____

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology	Visual Core description
1	104 5/1								Provels other 15m outside
2									stone spirals 3 of 4 cm aggregate
3									50 cm SS, spiracle-bearing diatom ooze
4	54 5/2								
5									50 cm diatom ooze
6		10							104 5/1 dark greenish gray
cc									faint lamination ~1-2 cm thick
									104 5/1 greenish gray
									54 5/2 olive gray

Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1341A		27	H	SA	50cm	

SM

Sediment/Rock Name	Diatom ooze	Observer	BETH
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B-78
S-12
V-10

Comments:

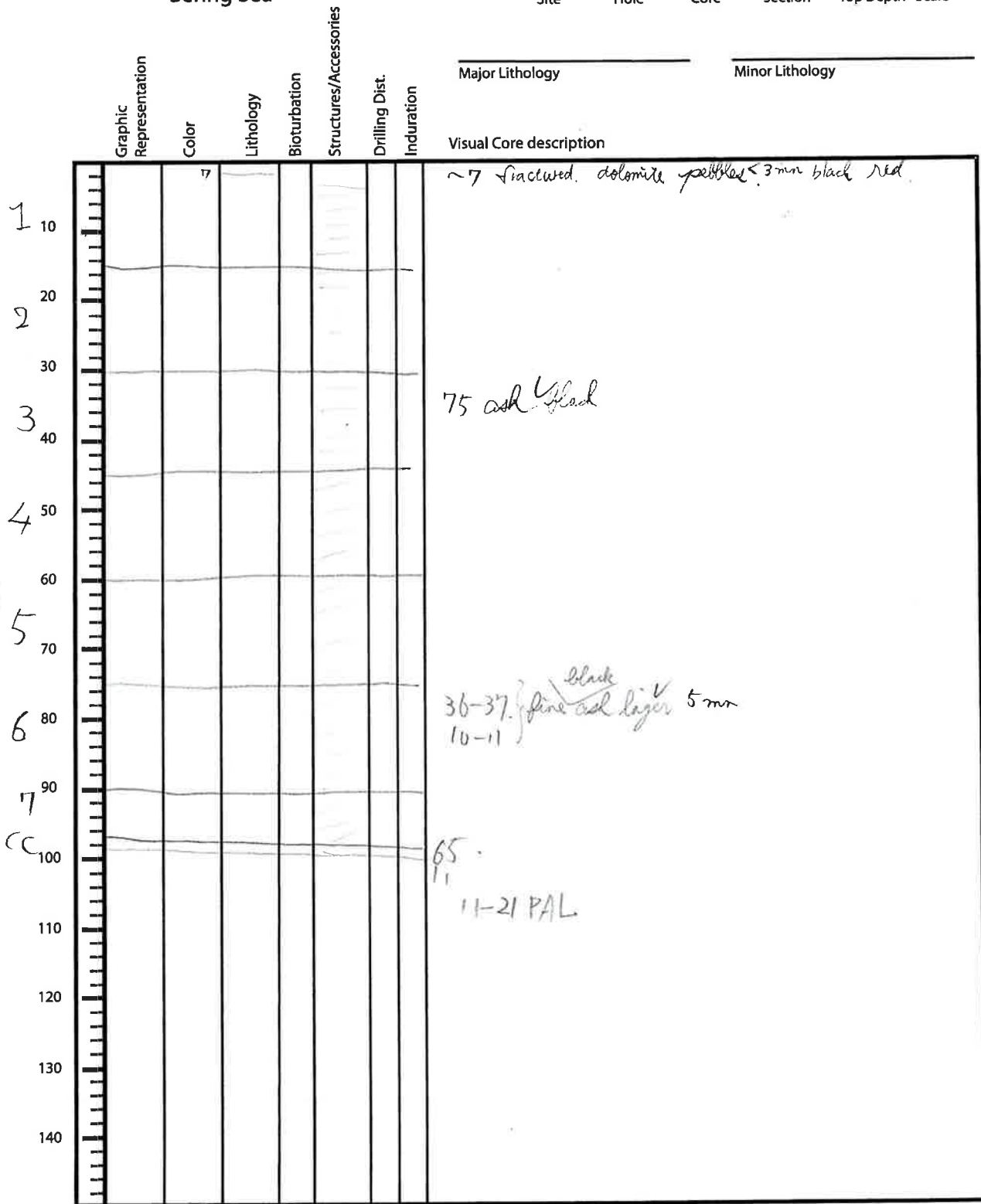
Percent Texture		
Sand	Silt	Clay

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

Expedition 323
Bering Sea

134 28
Site Hole Core Section Top Depth Scale



4A-25 light
4A-27 dark

Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1341	A	28	H	4	24.5	

SM

Sediment/Rock Name	diatom ooze.	Observer	Akira
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light laminae

Percent Texture		
Sand	Silt	Clay

Comments:

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

Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	✓ Cocoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
69	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
23	Others 10

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1341	A	28	H	4	27	

SM

Sediment/Rock Name	diatom ooze	Observer	
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dark (olive) laminae

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
6	Quartz 2
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glaucanite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
1	Pyrite 0.5
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	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
86	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	

Expedition 323
Bering Sea

1341 A 29
Site Hole Core Section Top Depth Scale

	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology	Visual Core description
1						2				15 cm gravel.
2										13 cm sponge thick?
3										The core is fairly homogeneous.
4										Faint laminae / mottling throughout.
5										50 cm SS-Diatom ooze
6							0			1000/pack 10 y 5/1
7							0			greenish grey diatom ooze
CC										

Observer: _____ Date: _____

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	134/A		29	H	6	40	

SM

Sediment/Rock Name	diatom ooze	Observer	ORERA
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Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
9	Quartz
9	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
6	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
3	Crystal grain
9	✓ Vitric grain
	Lithic grain

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

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	1341	A	20	Z		93m	

SM

Sediment/Rock Name: SPONGE SPICULE ooze

Observer: [Signature]

white spot.

Percent Texture		
Sand	Silt	Clay

Comments:

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

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

Expedition 323
Bering Sea

1341 30.
Site Hole Core Section Top Depth Scale

Depth (cm)	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
								Visual Core description	
1-10		6						78-79 black ~6 fractured	
20								68 mott with ?	
30								99-100 ash, black 128 ash brown	
40									
50								111 brown ash 1mm black 5mm 142-143	
60								77-78 brown ash 79 mott ash	
70		57 4/2 54 5/2 51 4/2						108 brown ash 5mm 47-48 white lam.	
80								46-47. 25cm pebble, basalt? 72-73 white lam.	
90								79 . 15-19 fractural	
100									
110									
120									
130									
140									

2
6
1341
6A-78
spindle-bearing
diatom ooze

Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1341A		30	H	SA	77	

571

Sediment/Rock Name: Fine Ash

Observer: _____

Percent Texture		
Sand	Silt	Clay

Comments:

Ash layer 1cm

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
5	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
90	Vitric grain
	Lithic grain

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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1341	304	304		2	138	138

Sediment/Rock Name	Pennate Diatom Doze	Observer	Hiro A
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Percent Texture		
Sand	Silt	Clay

Comments: white clayey spot

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

Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
25%	Centric 7
73%	Pennate 20
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Expedition 323
Bering Sea

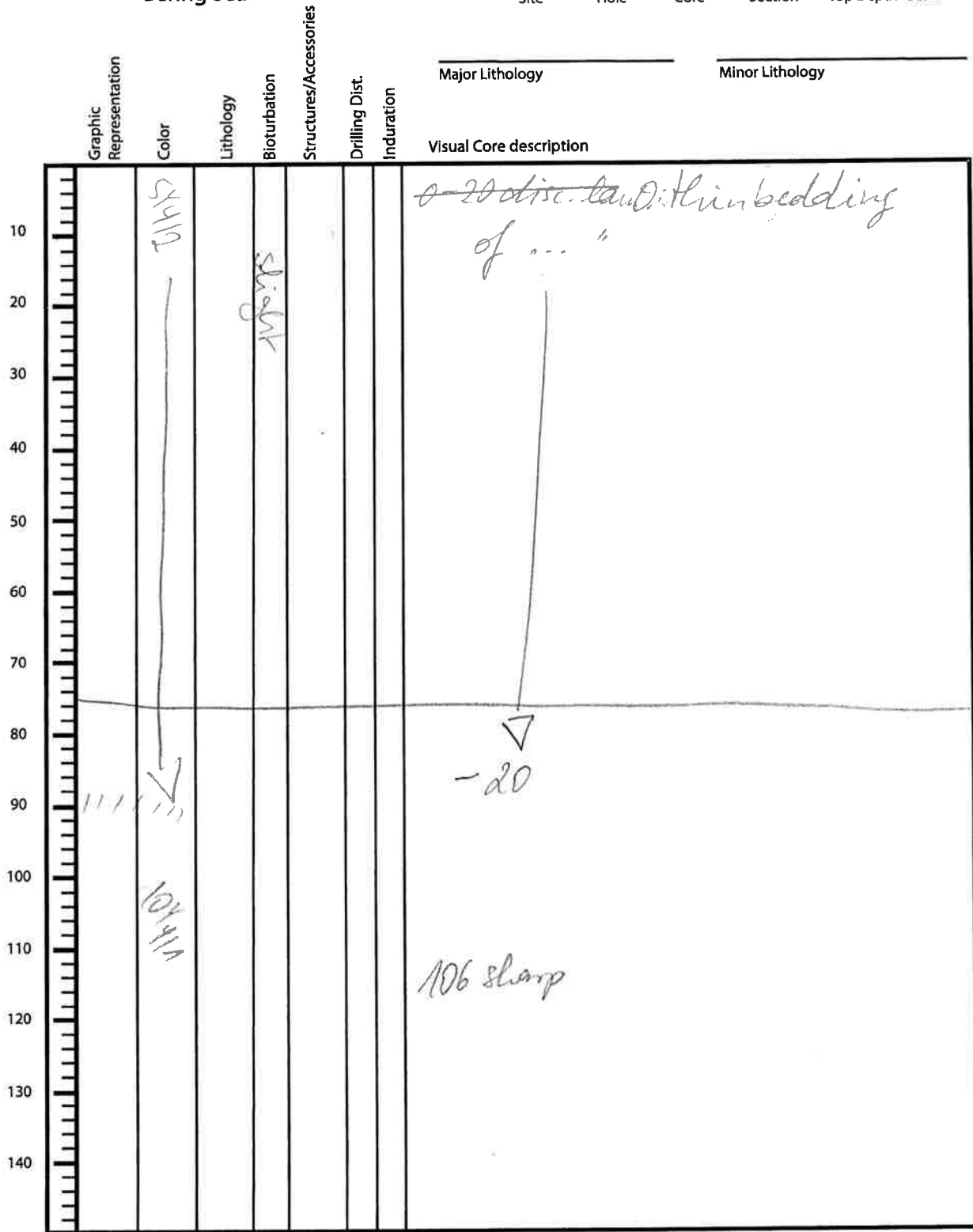
1341 Site A Hole 3AH Core 1+2 Section _____ Top Depth _____ Scale

	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology	Visual Core description
10		Sy 4/2		skat						<p>mothling thr. disc. lam. thin bedding of more or less gray mat.</p>
20										
30										
40										70-80 grad.
50		70-111								
60										
70										
80		8-114								8-114 (sec. 3) isolated whitish laminar of pennates
90										
100										
110										107-110 intermixed dark ast.
120										disc. lam. thin bedding of more or less gray mat. with isolated laminae of pennates.
130										
140										

Observer: _____ Date: _____

Expedition 323
Bering Sea

1341 A 3AH 3+4
 Site Hole Core Section Top Depth Scale



Observer: _____ Date: _____

Expedition 323
Bering Sea

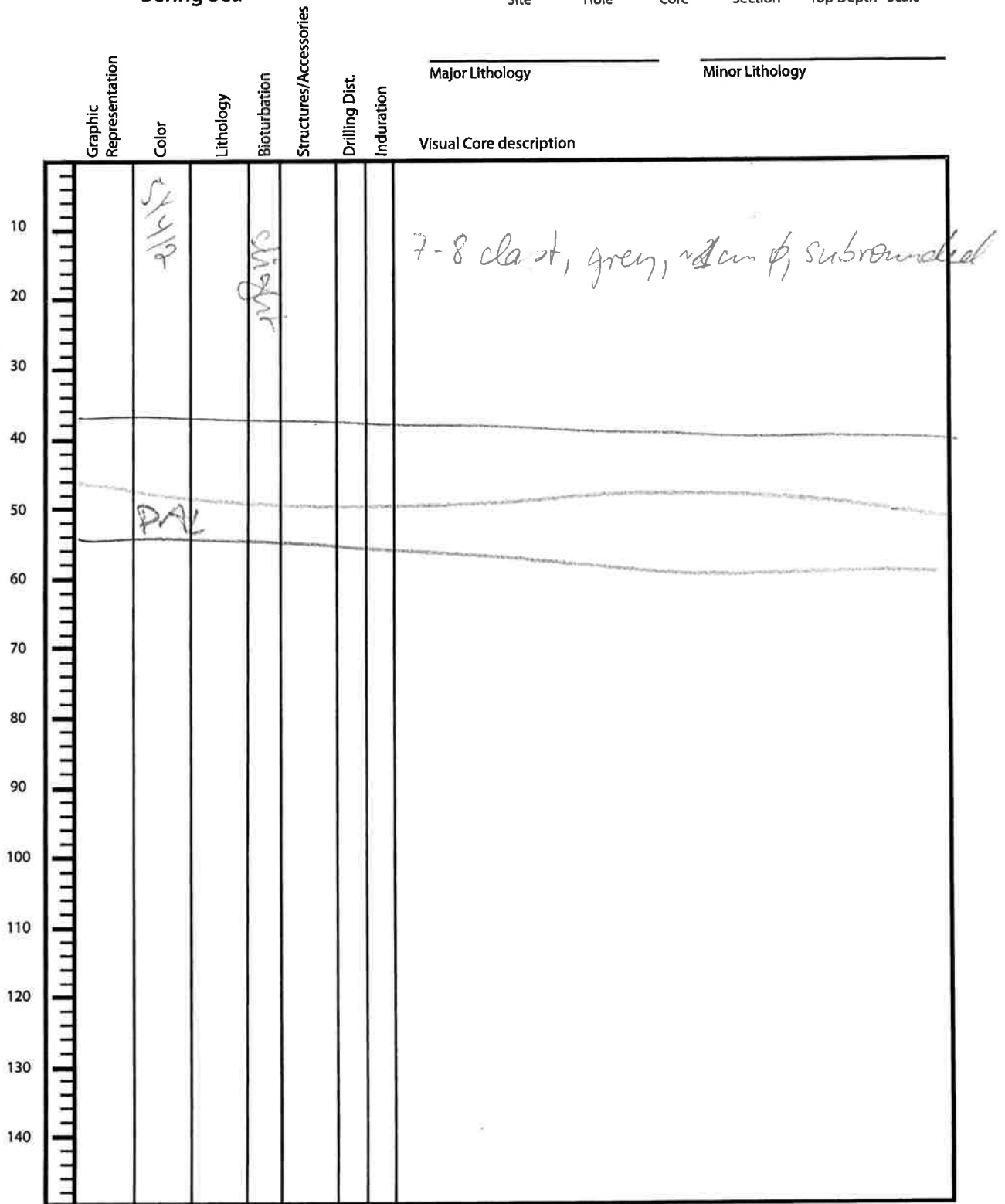
1341 A 31H 5+6
Site Hole Core Section Top Depth Scale

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Induration	Major Lithology	Minor Lithology
							Visual Core description	
	5Y 4/2		slight					
10								mottling 0-55
20								
30								
40				73				73-84 parallel lam
50				84				
60			slight					115-125 grad.
70								
80	5Y 4/2							5- to bottom
90								undulated thin bedding of
100								more or less gray material
110								
120								
130								
140								

Observer: _____ Date: _____

Expedition 323
Bering Sea

1341 A 81H 7+cc
Site Hole Core Section Top Depth Scale



Observer: _____ Date: _____

X

SM

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top Bottom
323	M341	A	31	4	7	63

Sediment/Rock Name: Diatom ooze Observer: KD

(equal calcite sp)

Comments: light colored mottled lamina

Sand	Percent Volume	Clay

Percent	Component	Percent	Component
SILICICLASTIC GRAINS/MINERAL			
	Framework minerals		BIOGENIC GRAINS
3	Quartz		Calcareous
2	Feldspar		Foraminifera
	K-feldspar (Orthoclase, Microcline, J)		Planktonic foraminifera
	Plagioclase		Benthic foraminifera
	Rock fragments		Nannofossils
	Accessory/trace minerals		Coccoliths
	Micas		Discosasters
	Biotite		Pteropods
	Muscovite		Siliceous
	Clay Minerals	1	Radiolarians
	Chlorite		Spumellaria
	Glauconite		Nassellaria
	Chert	40	Diatoms
	Zircon	40	Centric
	Ferromagnesium minerals		Pennate
			Chaetoceros Resting Spores
	Authigenic minerals		Silicoflagellates
	Bamite	1	Sponge spicules
	Phosphorite/Apatite		Dinoflagellates
	Zeolite		
			Others
	Opaque minerals		Pollen
1	Pyrite		Organic debris
	Magnetite		Plant debris
	Fe-oxide		Ebridians
			Echinoderm
	Carbonates		Fish remains (teeth, bones, scales)
	Calcite		Bryozoans
	Dolomite		Bivalves
			Others
VOLCANICLASTIC GRAINS			
	Crystal grain		
10	Vitric grain		
	Lithic grain		

X

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top Bottom
323	U1341	A	31	H	7	75

Sediment/Rock Name: **Diatom ooze** Observer: **KB**

(more centric)

Darker red matter laminae

Percent Textures		
SAND	SILT	CLAY

Comments:

Percent	Component	Percent	Component
SILICICLASTIC GRAINS/MINERAL			
	Framework minerals		BIOGENIC GRAINS
5	Quartz		Calcareous
3	Feldspar	1	Foraminifera
	K-feldspar (Orthoclase, Microcline, J)		Planktonic foraminifera
	Plagioclase		Benthic foraminifera
1	Rock fragments		Nannofossils
	Accessory/trace minerals		Coccoliths
	Micas		Discostiers
	Biotite		Pteropods
	Muscovite		Siliceous
	Clay Minerals		Radiolarians
	Chlorite		Sponnellaria
	Glauconite		Nassellaria
	Chert	50	Diatoms
	Zircon	30	Centric
	Ferromagnesium minerals		Pennate
			Chaetoceros Resting Spores
			Silicoflagellates
	Authigenic minerals	4	Sponge spicules
	Bartite		Dinoflagellates
	Phosphorite/Apatite		Others
	Zeolite		
	Opaque minerals		
1	Pyrite		Pollen
	Magnetite		Organic debris
	Fe-oxide		Plant debris
			Ehrdlians
	Carbonates		Echinoderm
	Calcite		Fish remains (teeth, bones, scales)
	Dolomite		Bryozoans
			Bivalves
			Others
VOLCANICLASTIC GRAINS			
	Crystal grain		
5	Vitric grain		
	Lithic grain		

Sum

Expedition 323
Bering Sea

1341 A 3211 172
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
						00-6	5Y 3/4 2
						06-112	5Y 5/3
						9 112-150	5Y 4/2
							Thin Bedded E
		5Y 4/2	/				
		5Y 4/2					
		5Y 4/1					
			2				

Observer: Ated Date: _____

Expedition 323
Bering Sea

Site 1541 Hole A Core 323 Section 344 Top Depth _____

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
							Visual Core description	
	5Y 6/3							
	5Y 4/1							
	5Y 4/2							
	10Y 4/1							
	N 2.5				130			
	5Y 5/2				135			
	5Y 5/2							
	Mottled							
	5Y 5/2							

dolomite-rich diatom ooze

~10 cont.
 10-28
 white mottling
 ↳ Litho?
 28-106 5Y 4/2
 3 106-130 10Y 4/1
 130-137 ash N/2.5
 skip 137
 137 - sec. 4, 78
 5Y 5/2
 78-86 10 5Y 5/2 } Mottled
 30 5Y 7/2 }
 white
 86 - sec 5 to 90
 5Y 5/2
 4

Observer: _____ Date: _____

Expedition 323
Bering Sea

1341 A 324 426
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
10							070 - 107 10Y 4/1
							0 107 - 138 5Y 5/2
20							
30							
40							
50							
60							138-140 Black ash patch 10Y 3/1
70							140 - sec. 5, 5Y 5/3
80							140 sec. 5, 5Y 5/3 140 ~ 45 - sec. 5, 5Y 5/3
90							Thin bed.
100							
110							
120							
130							Drilling Dist. 50
140							

Observer: _____ Date: _____

Expedition 323
Bering Sea

134f A 3214 7xCC
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	Slu						7 CC

Observer: _____ Date: _____

Expedition 323
Bering Sea

1341 Site A Hole 3314 Core 142 Section Top Depth

Diatom Gage

Major Lithology Minor Lithology

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Visual Core description
	5Y 3/2				30 32		<p>2, 100 0 0 - sec. 2, 100 5Y 5/2 x 9sh patch @ 64-65 N/4 @ 40-41 W/4 Δ 30-32 drilling dist mark.</p>
							<p>0 110 - 144 10Y 4/1</p>
							<p>sec 2, 130 pebbles black N/4 subrounded 100</p>
	10Y 4/1						<p>0 144 - sec. 3, 144 5Y 5/2</p>
	5Y 5/6						<p>110 90</p>

Observer: Hins Date: _____

Expedition 323
Bering Sea

1341 A 334 347
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
							Visual Core description	
	5Y 5/2							<p>~ 34 144 90 5Y 5/2</p> <p>90-110 grad</p> <p>90-120 10Y 4/1</p> <p>120-140 5Y 5/3</p> <p>3 140- 10Y 4/1</p> <p>50-60 35</p>
	10Y 4/1							
	5Y 5/3							
	10Y 4/1							
	10Y 4/1							
								<p>< 35</p> <p>35- 40 80 5Y 4/2</p> <p>80-150</p> <p>5Y 5/2</p> <p>Thin bedded</p> <p>4 50 white (5Y 5/2)</p> <p>10 Black (10Y 3/1, pebbly)</p> <p>40 Olive (5Y 5/2)</p>

Observer: Hins Date: _____

Expedition 323
Bering Sea

Site 1377 Hole A Core 35H Section 77cc Top Depth _____

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
							Visual Core description	
	5Y 5/2						0 - Bottom 5Y 5/2 Thin bedded olive (5Y 5/2) white (5Y 7/2) black grey (10Y 9/1)	
	5Y 5/2					7	cc all cc Thin bedded Fairly seen olive (5Y 5/2) light olive (5Y 6/2)	

Observer: Hino Date: _____

SM

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)
323	U134	A	33	H	6	58
						Top
						Bottom

Sediment/Rock Name	Observer
Diatom ooze	KD

Percent Sand	Percent Silt	Percent Clay

Comments: Black, ~~light~~ colored laminae.

Percent	Component	Percent	Component
	SILICICLASTIC GRAINS/MINERAL		BIOGENIC GRAINS
	Framework minerals		Calcareous
10	Quartz		Foraminifera
5	Feldspar		Planktonic foraminifera
	K-feldspar (Orthoclase, Microcline...)		Benthic foraminifera
	Plagioclase		Nannofossils
	Rock fragments		Coccoliths
	Accessory/trace minerals		Discoasters
	Micas		Pteropods
	Biotite		
	Muscovite		Siliceous
	Clay Minerals		Radiolarians
	Chlorite		Spumellaria
	Glauconite		Nassellaria
	Chert		Diatoms
	Zircon	30	Centric
	Ferromagnesium minerals	50	Pennate
			Chaetoceros Resting Spores
	Authigenic minerals		Silicoflagellates
	Barite		Sponge spicules
	Phosphorite/Apatite		Dinoflagellates
	Zeolite		
	Opaque minerals		Others
7	Pyrite		Pollen
	Magnetite		Organic debris
	Fe-oxide		Plant debris
	Carbonates		Ebriolans
	Calcite		Echinoderm
	Dolomite		Fish remains (teeth, bones, scales)
			Brvozoans
	VOLCANICLASTIC GRAINS		Bivalves
	Crystal grain		Others
	Vitric grain		
	Lithic grain		

variation
bearing
fine clay
1:1/2

Expedition 323
Bering Sea

1341 Site A Hole 34H Core 1+2 Section Top Depth

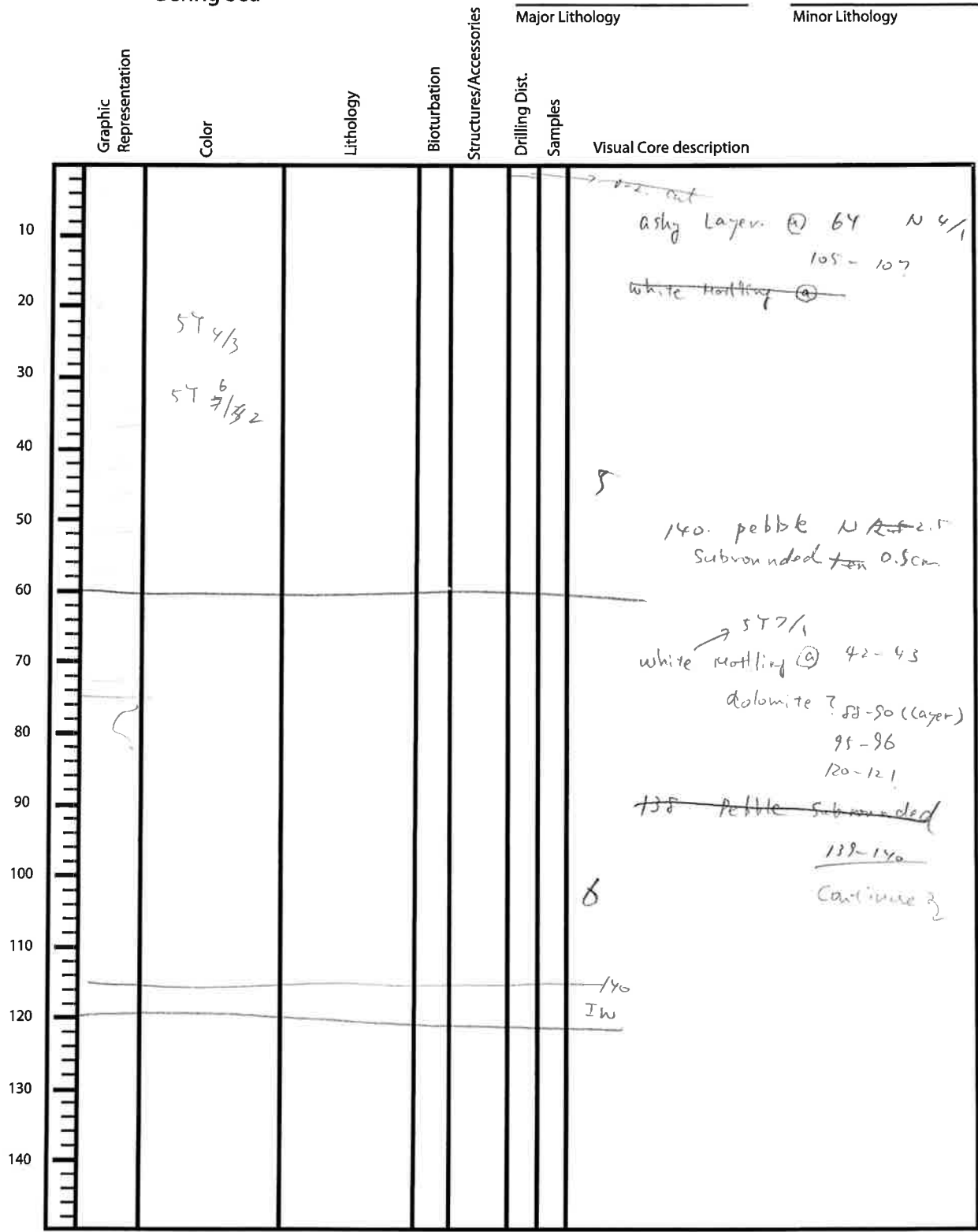
Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology	Visual Core description
	5Y 6/1							0-10 5Y 6/1
	5Y 4 1/2							5-6 white has clay?
								10- Sec 2, 40 → Dolomite
								thinly bed. thinly bed.
								white (5Y 6/2) 40
								olive (5Y 6/1) 60
	5Y 4/3							ash patch @ 81cm N/4
								Mottling @ +36-38 (white) 53-54 → 5Y 8/1
	5Y 4/3							40-87 slurry. 5Y 4/3
								88-97 Dolomite → Dolostone 5Y 7/2
	5Y 4/3	slurry						97- Sec. 3. 12 5Y 4/3
	5Y 7/2							thin bed. ? light olive (5Y 7/2) 100% 5Y 4/3 90%
	5Y 4/3							2

Dolomite

Observer: Hf: v Date: _____

Expedition 323
Bering Sea

1341 Site A Hole 3KH Core 576 Section Top Depth



Observer: Hiw Date: _____

Expedition 323
Bering Sea

1341 Site A Hole 344 Core 77 CC Section _____ Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
							00- 44 dolomite layer 5T 6/2
							04 4-13 green layer 5T 4/2
							013-63 → bottom 10T 4/1 thin bedded white Mt ⊙ 22. 4d.cm
							0 - bottom 5T 4/2 homogeneous CC

Observer: Hin Date: _____

New Lith
tell Jamie.

1341 Site A Hole 3517 Core 1-2 Section Top Depth

Expedition 323
Bering Sea

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
							Visual Core description	
	5Y 5/2 15Y 7/2 5Y 5/3						00-10 80% 5Y 5/2 20% dolostone 5Y 6/2	
							10-30 5Y 5/3 tilted thin bedded • light grey (5Y 7/2) 30 • olive (5Y 5/3) 70	
	5Y 1/6						40-60 3 sec. 3 Return 10Y 4/1 too no bed	
	10Y 4/1							

Observer: HA Date: _____

Expedition 323
Bering Sea

1381 Site A Hole 3514 Core 3-4 Section Top Depth

Major Lithology diatom ooze Minor Lithology _____

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Visual Core description
		diatom ooze				
	10Y 4/1					
	5Y 5/2	diatom ooze				0 - 80
	10Y 4/1	fine ash				5Y 5/2 to thin bed.
	5Y 7/1					5Y 5/2
		diatom ooze				40 - 80 - 90 5Y 4/1
	10Y 4/1					95 ~ 101 gravel layer pebbles
						5Y 7/1 v angular volcanic rocks
						101 ~ sec. 1cm 2y
						20cm 10Y 4/1
						5

Observer: HA Date: _____

Expedition 323
Bering Sea

1371 Site A Hole 374 Core 72cc Section _____ Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	<p>10Y 5/1</p>						<p>0 - Bottom</p> <p>Thin - thick laminated Bed</p> <p>10Y 5/1 R0</p> <p>5Y 6/2 20</p> <p>Mottled @ 8cm ash Black <u>N/A</u></p>

Observer: HA Date: _____

✓ SM

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	V1341	A	35	H	4	98	98

Sediment/Rock Name	Diatom-rich Fine ash	Observer	KD
--------------------	-------------------------	----------	----

Percent Texture		
Sand	Silt	Clay
30	70	

Comments: White patches near gravel.

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

1341 Site A Hole 3614 Core 1-4 Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
							Visual Core description	
							0 0 - 10 soft & soupy	
							9 10 - 118	
	10Y 4/1						118 77 pebble subangular Black (N 2.5)	
							118 = Sec. 1 grad	
							Bottom	
							Sec. 1	
							0 118 - 30 10Y 5/2	
	10Y						118 thin bed	
	5/2						30 - sec. 3 76	
	5Y 5/2		sl				thin bed.	
	+ 3Y 7/2						o 5Y 5/2 60	
							o 5Y 7/2 40	
							ash @ 135 - 140	
							(Sec. 2.)	
							white 5Y 8/1	
	10Y 4/1						3 Sec. 3 76	
							90 - 90 thin bed	
							(ABSENT.)	
	10Y 4/1						o 10Y 4/1 20 90	
	5G 4/1						o 5Y 7/1 20	
							o 5G 4/1 10	
	5Y 5/3						Sec. 3 90 ~ Sec. 4 40	
							10Y 4/1	
							40 pebble subangular loc	
							Black (N 2.5)	
							o 40 ~ 80 5G 4/1 Barnw	
							61 Black ash	
							o 80 - 110 5Y 5/3 grad	
							o 80 - sec 5 5Y 5/3	

Observer: 7/10 A

Date: _____

Expedition 323
Bering Sea

1341 / Site A / Hole 361 / Core 5-CC / Section / Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	5Y 5/3 5Y 5/3						
							ash @ 30cm ~ 40cm thin bed 5040-136 5Y 5/3 o 136-139 white patch 5Y 6/2 grad 139-150 139-bottom 10Y 4/1 6
							S
							cc

Observer: HL Date: _____

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

A

Leg	Site	Hole	Core	Type	Sec	Interval (cm) Top Bottom
323	1341	34	34	H	4	34

Sediment/Rock Name: **Diatom bearings from oozing silt** Observer: **KB**

Comments: *Diatom bearings*

STATE	TRACER RESIN	GLUE	CLAY
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

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

✓SM

Expedition 323
Bering Sea

1341 Site A Hole 37H Core all Section _____ Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	10Y 4/1						<p>0 D - 110 ^{bottom} 10Y 4/1 grad 100-120 110 ash patch @ 65-66 100</p>
	5Y 4/2						<p>0 - 80 5Y 4/2 80 - 90 grad 80 - bottom 10Y 4/1 2 Bottom ash patch 107-126 106-108 thin bed</p>
	5Y 5/2						<p>3 ash Sec. 3 52-53 Mod B.T</p>
	2 5Y 5/2						<p>130 cc. 5Y 5/2 25 pieces may contain Polowite</p>

Observer: K. A. Date: _____

Expedition 323
Bering Sea

1341 ^A 3FT7 384 1-2
Site Hole Core Section Top Depth

Dinosaur Dage
Major Lithology Minor Lithology

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Visual Core description
	10 Y 4/1						00-15 10 Y 4/1 80 Dolostone Drilling Disc Pieces 015- Bottom of sec 3 Sec. 4. 70 10 Y 4/1 Ash mottling 2Y - bottom 1 ash mottle (A) 0 - 150 2

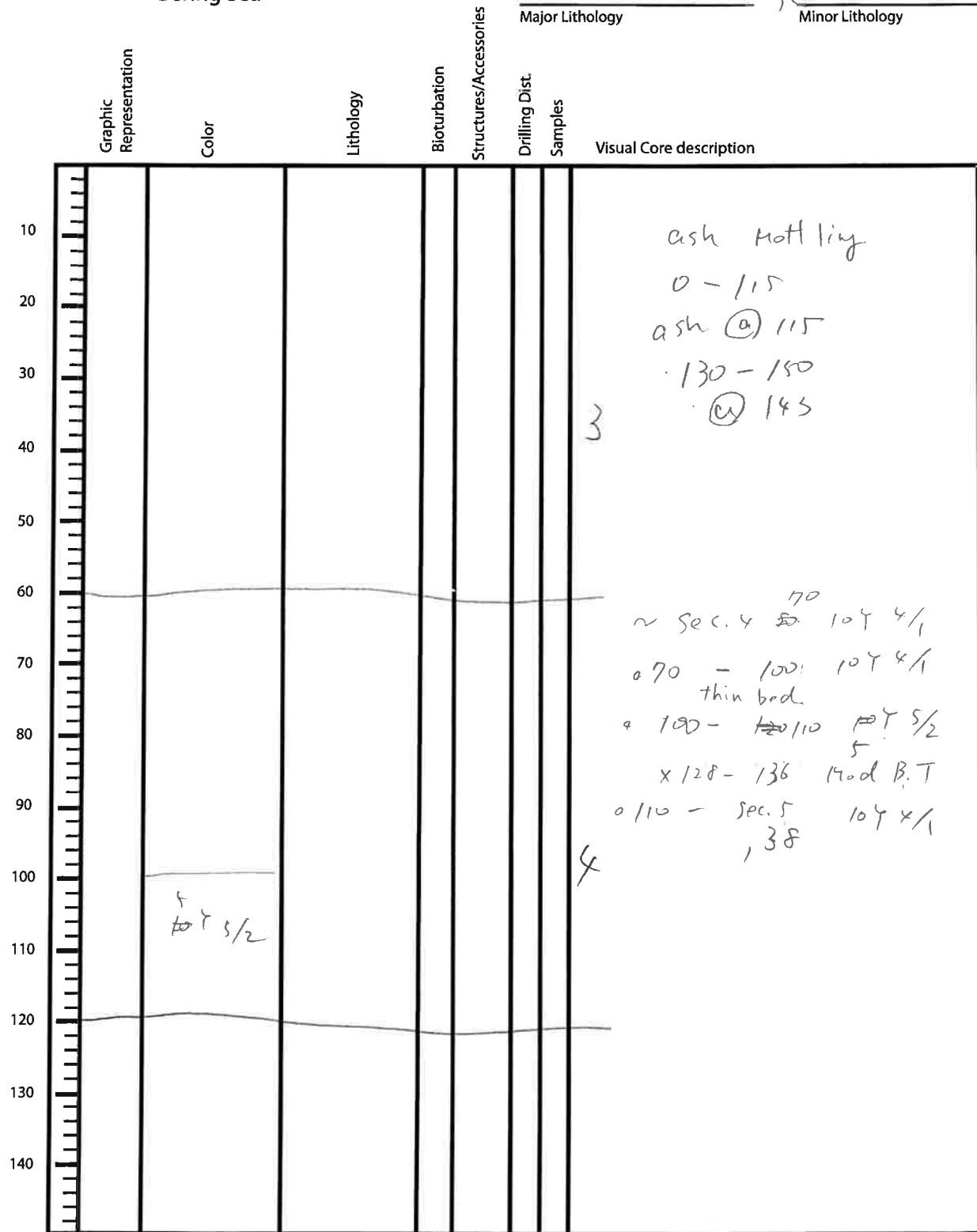
Observer: _____ Date: _____

Expedition 323
Bering Sea

1341 Site A Hole 35H Core 374 Section Top Depth

Diameter 0.32

Major Lithology Minor Lithology



Observer: _____ Date: _____

Expedition 323
Bering Sea

1341 Site
35H Hole
35H Core
5-6 Section
Top Depth

Diatom ooze

Major Lithology Minor Lithology

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Visual Core description
	5Y 5/2						<p>(5) ~ sec 4, 38 to 70 0 40-70 0 65 - sec 38 100 thin bed 0 5Y 5/1. 38% 0 5Y 5/2 70% 0 100 - sec. 5 5Y 6/2</p>
	5Y 6/2 5Y 5/2						<p>(6) ~ sec 6, 38 0 38-60 5Y 6/2 50% 5Y 5/2 50% 60-50 Grad. B 0 60-cc. Bottom 10Y 4/1</p>
							<p>(6)</p>

Mod. B.T. Matting

Observer: _____ Date: _____

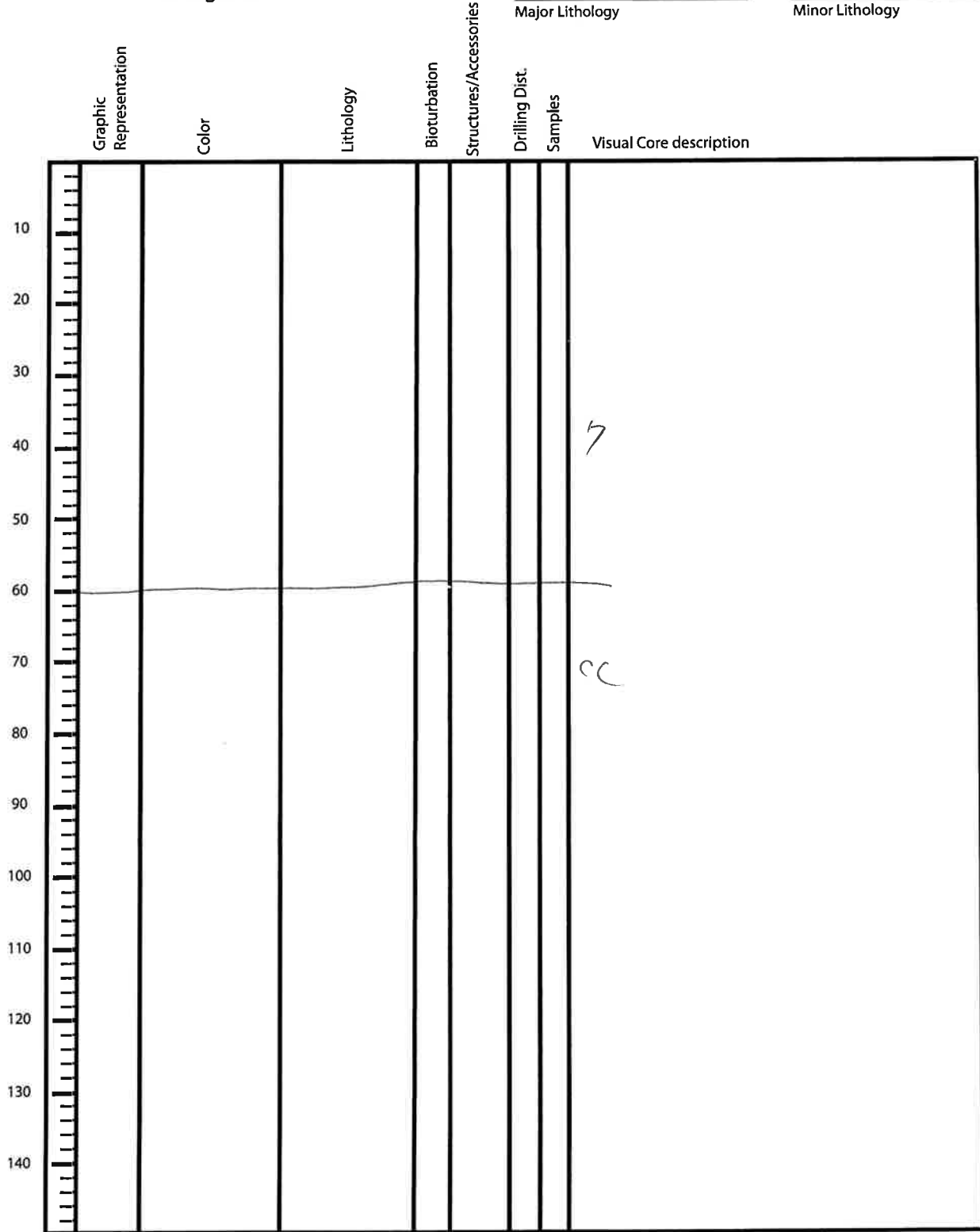
Expedition 323
Bering Sea

1371 A 35H 7400
Site Hole Core Section Top Depth

Diatom ooze

Major Lithology

Minor Lithology



Observer: _____ Date: _____

Expedition 323
Bering Sea

1341 Site A Hole 3914 Core 1+2 Section _____ Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
							Visual Core description	
	10Y 4/1							3 5 0 - Sec 5. 70 56 10Y 4/1 / 2
	10Y 4/1							

Observer: LSB Date: _____

Expedition 323
Bering Sea

1341 A 314 5+6
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
							Visual Core description	
	10Y 4/1						58	120 5Y 5/2 30 5Y 7/2
	5Y 5/2						056 - 5Y 5/2 80 5Y 5/2 (Thin Bedded (120-150))	Acidified Thin Bed Mottled
							50-120-150 90% 5Y 5/2 30% 5Y 7/2 b.c. 80-120 5Y 5/2 Mottled?	
							Sec. 6 00 - 126 83 5Y 5/2 Mod B.T. 40-49 (Mottled) Thin Bedded 74-83 6 053 - 126 100 5Y 5/3 150 Thin Bedded 100 - 126 106-109 5Y 5/3 + 5Y 7/3 150 150 (90% + 10%)	
							126 grad 140-150	

Observer: HA

Date:

Expedition 323
Bering Sea

Site 1141 Hole A Core 4014 Section 112 Top Depth _____

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
							Visual Core description	
	5Y 6/2 5/3							0 - 150 5Y 5/3
	5Y 5/3							00 - 150 5Y 5/3

Observer: H. W. Date: _____

Expedition 323
Bering Sea

1341 Site A Hole 40H Core 3+VRC Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
							Visual Core description	
	5Y						0-45 5Y 5/3 Mod. B.T	
							0 45-72 Thin Bed 5Y 7/2 40%	
	5/3						0 72-90 5Y 5/3 5Y 5/3 60%	
							0 90-110 5Y 5/3	
							0 5Y Thin Bed 5Y 7/2 60%	
							3 5/3 Mod B.T 5Y 5/3 60%	
							0 110- sec. 4. 33cm 5Y 6/2	
							Bottom	
							CC 4cm	
	5Y	diatom ooze					0 0-33cm 5Y 6/2 diatom ooze	
	6/2						0 33-53cm 5Y 5/2 (Bottom)	
							4	
							4 Bottom	
							CC 0-4 5Y 7/2	
							4 - Bottom 5Y 5/2	

0-110 same Litho

Observer: _____ Date: _____

✓ SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1340	A	40	H	4	31	

Sediment/Rock Name	Diatom ooze	Observer	KD
--------------------	-------------	----------	----

Percent Texture		
Sand	Silt	Clay

Comments: Lighter green section - main lithology

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	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
95	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

1341 Site A Hole 4/14 Core 1-CC Section _____ Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
							Visual Core description	
	5Y 6/3						<ul style="list-style-type: none"> 0-8 drilling soupy (pebbles subangular. 1cm) 8-76 5Y 6/3 76-82 5Y 5/2 82-88 5Y 6/3 88-90 5Y 5/2 120-140 mottled 	
							<ul style="list-style-type: none"> 69 60-69 90 6 60 50% 5Y 5/2 40 50% 5Y 5/2 69-90 " Thin bedded grad 90-100 	<ul style="list-style-type: none"> Mod B.T
							<ul style="list-style-type: none"> 90 100-110 119 5Y 4/2 	
							<ul style="list-style-type: none"> cc all 5Y 4/2 	

Observer: T. W. Date: _____