

Yellowish  
Silt  
Mud.

1343 E 114 1-4  
Site Hole Core Section Top Depth

Expedition 323  
Bering Sea

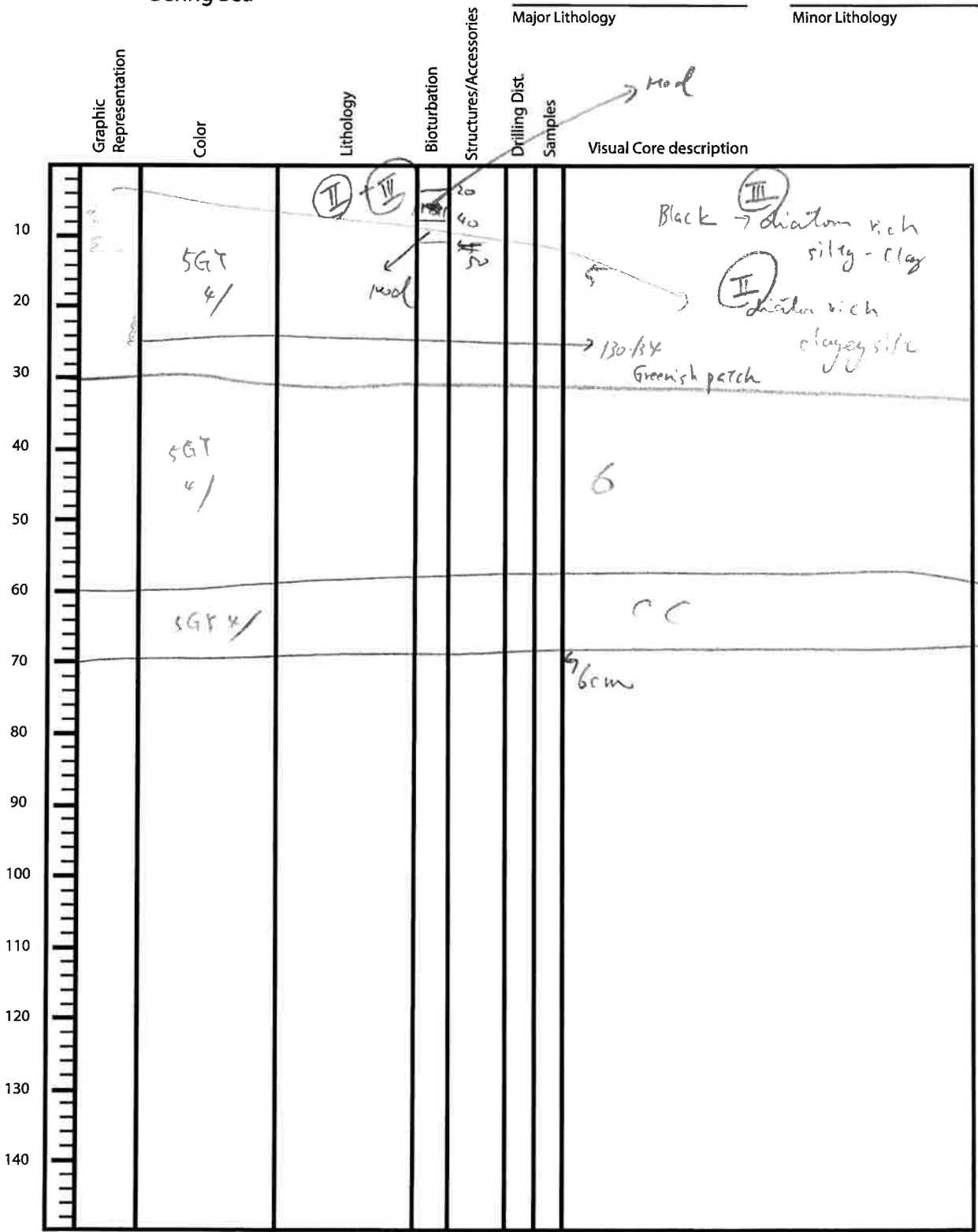
(I) Chert site

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
					Visual Core description	
	SY 4/3	20 (I)				20 → tilted Bed?
	SGT 4	(II)	sl			1 <del>96</del> → Puncture?
				105	Mott	
				36		→ black.
				50		
			sl	105	Mott	2 → ash
				122		
				130	Mott	→ ash
				60		→ 33 Black ash Mott
			sl	62		
				80		→ 60, 62 (1cm) x 2 ash N 4/
						o 120 Mottle ashy perch
			sl		Mott	46 - 51 → Burrow
						4 107 → ash N 5/
						109 - 112 → N 4/
						→ Bottom

Observer: Hino Date: \_\_\_\_\_

Expedition 323  
Bering Sea

1343 Site      E Hole      1/H Core      5-CC Section      Top Depth



Observer: H. vo      Date: \_\_\_\_\_

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1343	E	1	H	1	10	

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

Comments: Greenish silt

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

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

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1343	E	1	M	4	40	

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

Comments:

Main lith.

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

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

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1343	E	1	H	5	10	

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

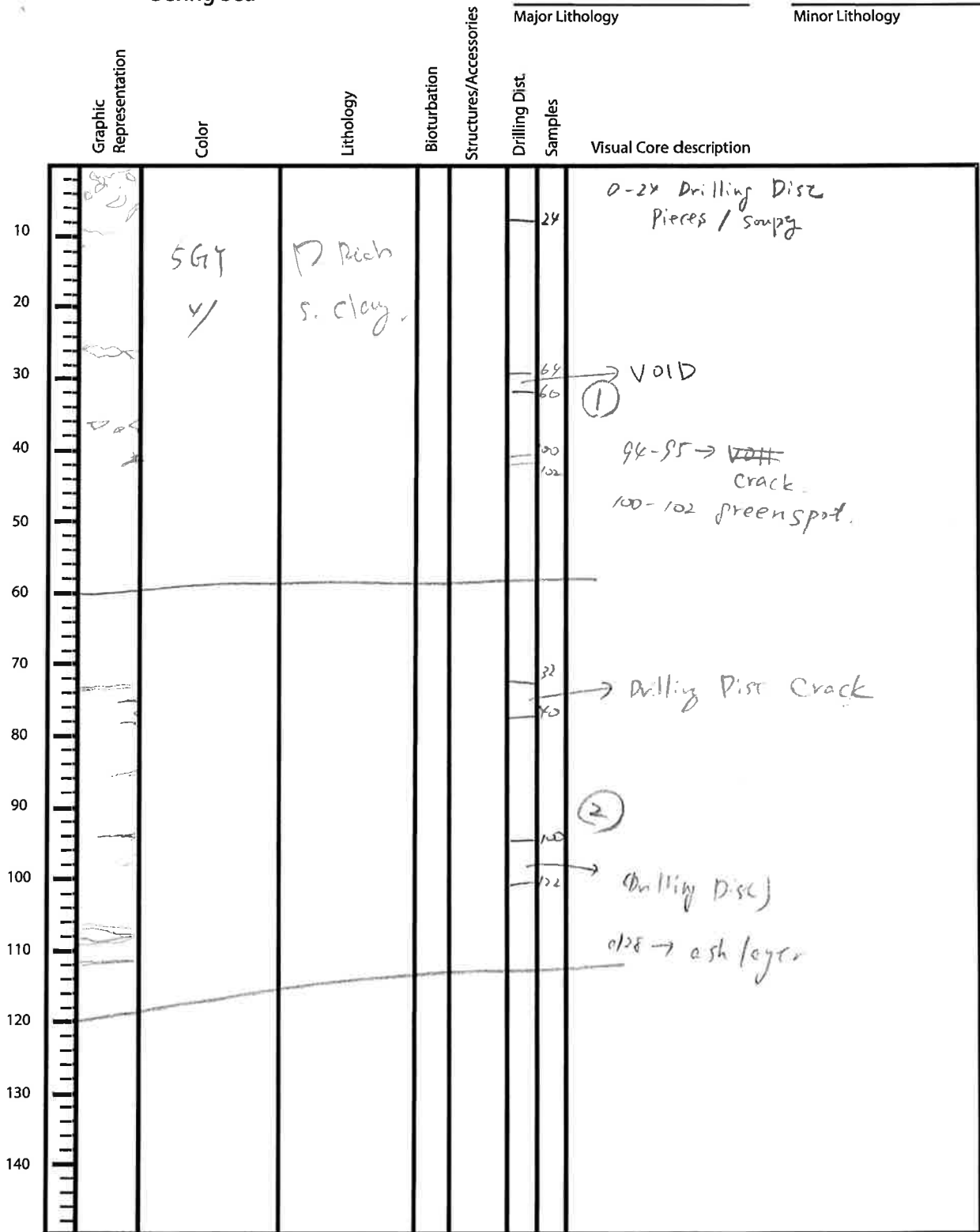
Comments: Blackish patch/mottle

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
30	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

1334 Site      E Hole      2H Core      1-2 Section      Top Depth



Observer: Hino      Date: \_\_\_\_\_

Expedition 323  
Bering Sea

3-4

Site \_\_\_\_\_ Hole \_\_\_\_\_ Core \_\_\_\_\_ Section \_\_\_\_\_ Top Depth \_\_\_\_\_

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
							Visual Core description	
				14				
				34				
					34			
					40			
				70				
				140				
				140				
				140				

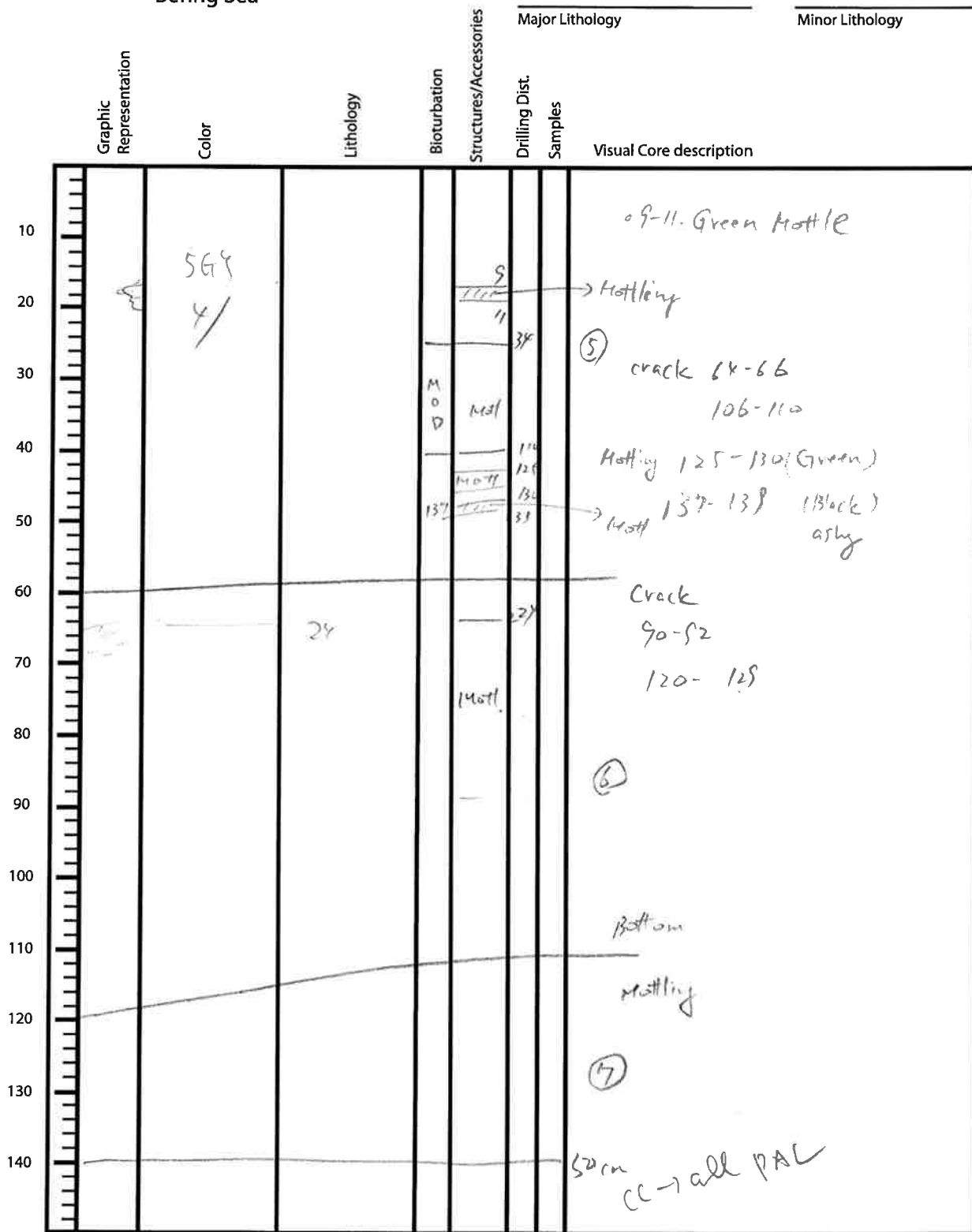
14 crack  
 → Mottling (Black) (14-24)  
 → crack (34-42)  
 34-44 (crack)  
 57-90cm ( " )  
 85 (crack)

→ Green  
 Mo  
 tling  
 Crack. 34-44cm  
 Crack 57-90cm  
 cracks 1cm  
 12-14cm  
 78cm  
 58-68cm

Observer: A:10 Date: \_\_\_\_\_

Expedition 323  
Bering Sea

Site \_\_\_\_\_ Hole \_\_\_\_\_ Core \_\_\_\_\_ Section 5-67 Top Depth \_\_\_\_\_



Observer: Hino Date: \_\_\_\_\_



IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1343	E	2H		7A	50	50

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

Comments: Main Litho.

84

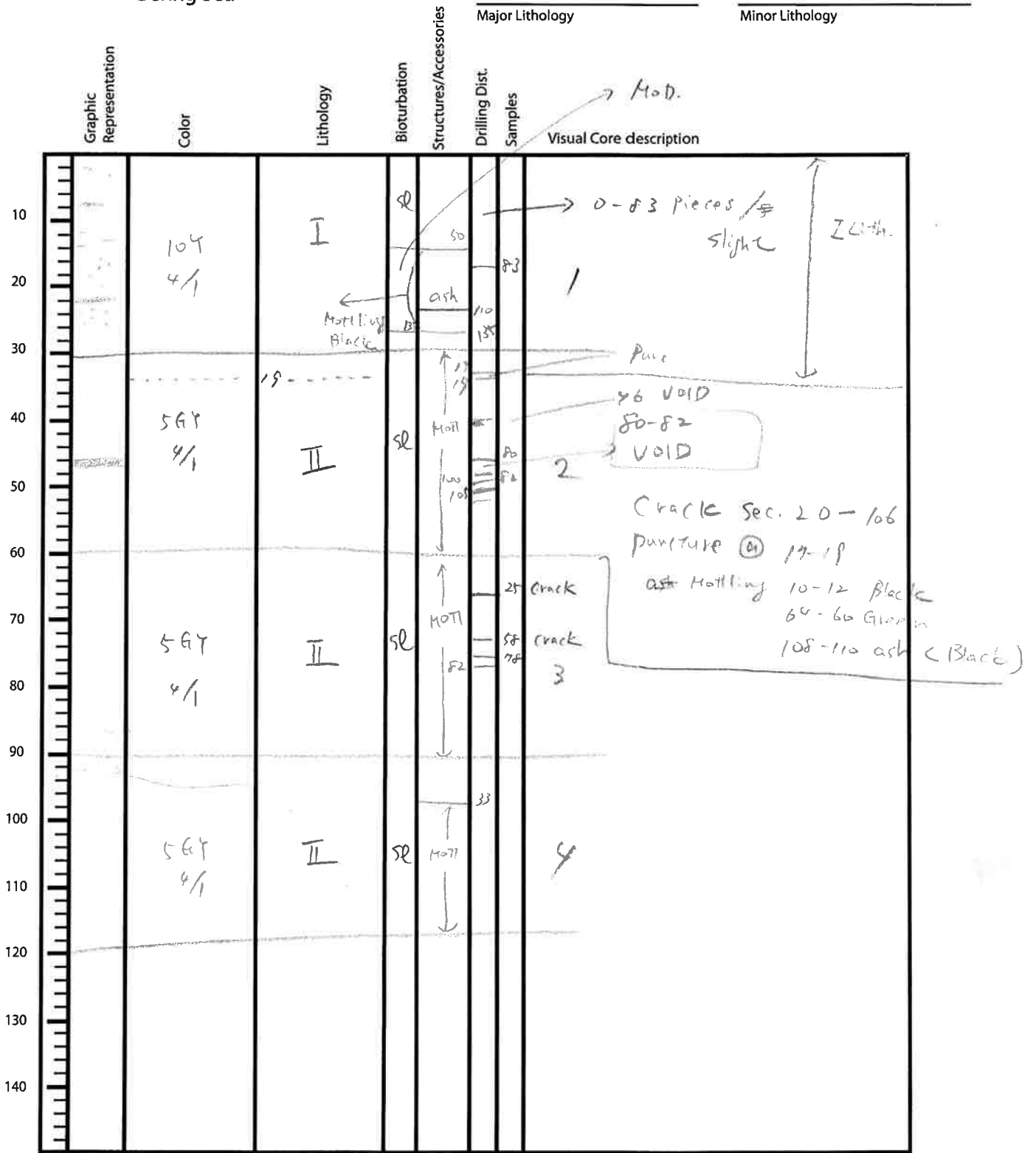
69  
15

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b> 87 87	
Framework minerals	
<del>15 45</del>	Quartz 10
<del>14 75</del>	Feldspar 3
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
5 15	Biotite 1
	Muscovite
15	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
15 15	Ferromagnesium minerals 3
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS</b> 16	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
2	05 Radiolarians
	Spumellaria
	Nassellaria
14 15	3 Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Expedition 323  
Bering Sea

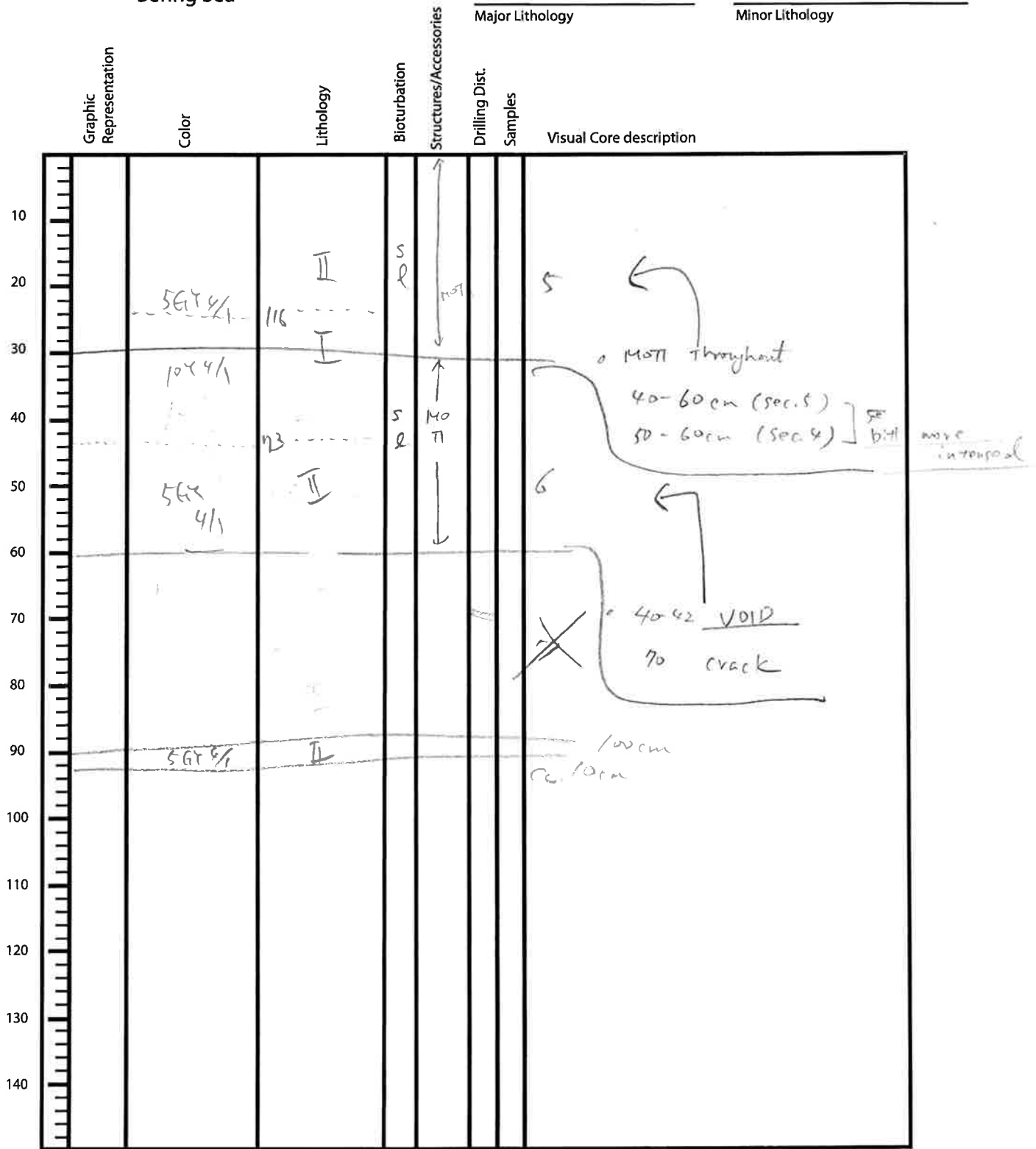
1373 Site    E Hole    3H Core    1-4 Section    \_\_\_\_\_ Top Depth



Observer: HA Date: \_\_\_\_\_

Expedition 323  
Bering Sea

1343 E 3H 5-CC  
Site Hole Core Section Top Depth



Observer: Hiro Date: \_\_\_\_\_



IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1343	E	3	H	4	80	

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

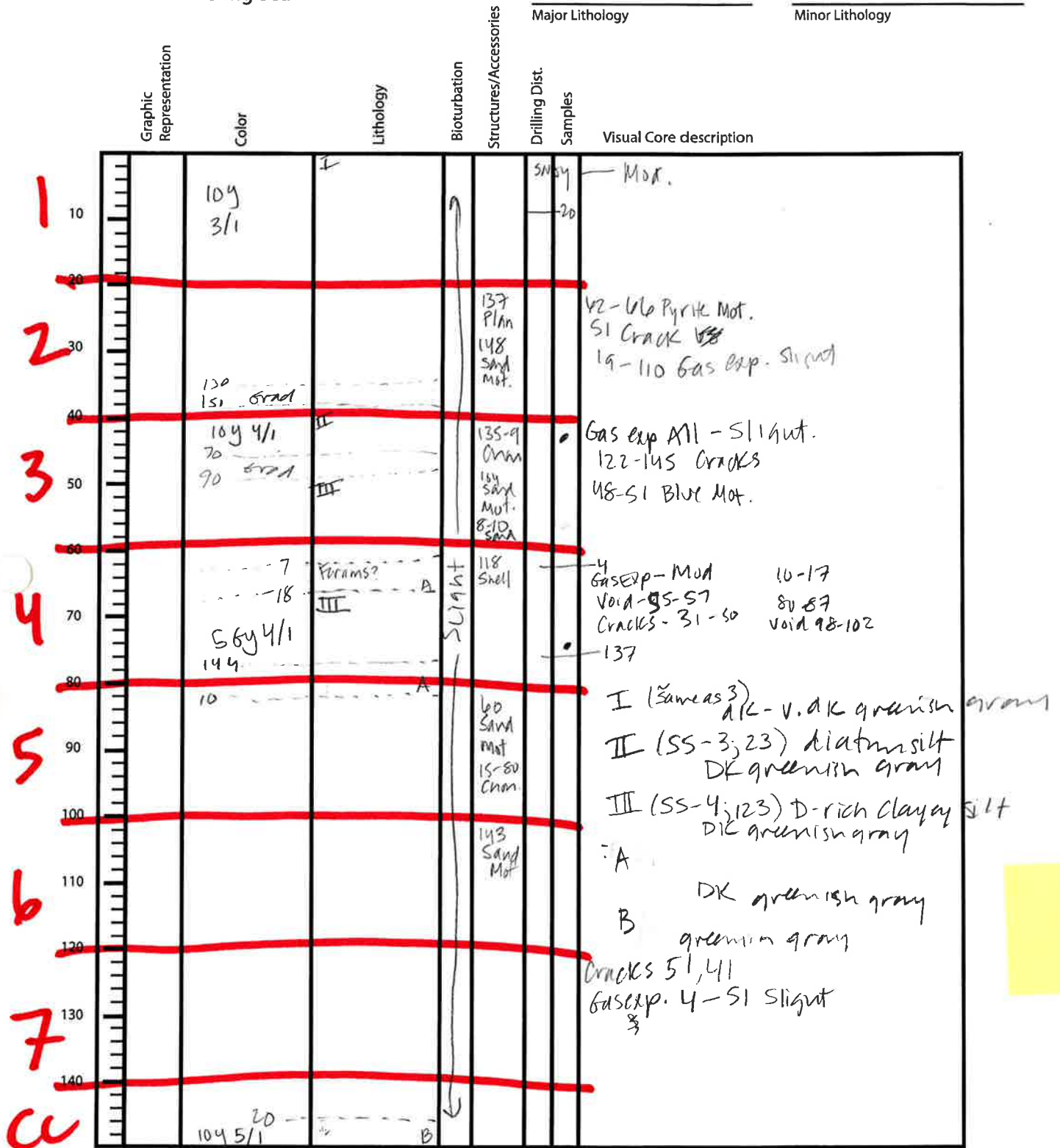
Comments: Main lithology

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
	Calcareous
2	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
40	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

V1343 Site E 4H Core ALL Section Top Depth



Observer: \_\_\_\_\_ Date: \_\_\_\_\_

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1343	<del>D</del> 4	4	H	4A	74	

SM

Sediment/Rock Name	<del>fo</del> E	Observer	akira
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diatom-bearing foraminifera site.

Percent Texture		
Sand	Silt	Clay
	70	30

Comments:

*Luminae*

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
40	Foraminifera 7
	Planktonic foraminifera
	Benthic foraminifera
3	Nannofossils 0.5
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
17	Diatoms 3
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	7343	2	4	H	4A	123	

JM

Sediment/Rock Name	diatom-rich clayey site	Observer	AKIRA
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Percent Texture		
Sand	Silt	Clay
3	77	20

Comments:

Major lithology

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
4	Foraminifera 0.1
	Planktonic foraminifera
	Benthic foraminifera
2	Nannofossils 0.5
	Coccoliths ✓
	Discoasters
	Pteropods
Siliceous	
	Radiolarians ✓
	Spumellaria
	Nassellaria
21	Diatoms 5
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others



SM

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1343	C	4	H	3A	23	

Sediment/Rock Name	diatom site	Observer	Akioza
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Percent Texture		
Sand	Silt	Clay
5	90	5
2	20	

only for siliciclastics

Comments:

Major lithology

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

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

Expedition 323  
Bering Sea

1343 E 5 Section Top Depth

Depth (m)	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
							Visual Core description	
10		↑				21	~27 slaty 60 shell	81-83 97-100 } void 79-149 clacks 26-30 void 175-187 } 120-150 pyrite patch Sec 3.1 28
20								130/mtl
30								
40		10GY 4/1		5			48-69 lam	3A-100 clayey silt
50		48 69					54 4/2 10Y 4/1 10GY 5/1	
60							101	
70							59 18	4A-52. clay. Foram-bearing diatom clayey silt 4A-67
80								
90								
100								
110							□ 10GY 4/1	clayey silt
120								
130								
140								

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	UB43	E	S	K	3	100 cm	

SM

Sediment/Rock Name	Clayey-silt.	Observer	G.B
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Percent Texture		
Sand	Silt	Clay
5	40	55

Comments:

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

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

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1343	E	S	H	4	52cm	

SM

Sediment/Rock Name	Clay	Observer	G.B.
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Percent Texture		
Sand	Silt	Clay
2	38	60

Comments:

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
3	x Foraminifera (fragments)
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
5	x Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
2	x 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	V1343	E	S	H	4A	67	

Sediment/Rock Name	Foram-bearing diatom clayey silt	Observer	Behr
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Percent Texture		
Sand	Silt	Clay
	60	40

Comments: V-0

B-45  
S-55

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

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

1343 E 6H ALL  
 Site Hole Core Section Top Depth

Expedition 323  
 Bering Sea

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
							Visual Core description	
1	6y 5/1		I	13R pin			54-56 Green Mot.	110-113 diagonal coarse layer
	75 116		IF I	38P			72 Sand Mot. 115-126 chm. 117-119 Sand Mot.	
2				54-55			51 crack	
				Plan Sow			42-44 crack 60 14.2 gas exp. Si. 8-51 gas exp M	
3	60 5y 3/2 128		II	45-46			45-46	113-116 sand layer
				34-7 Sand Mot. 145 grain			60 crack	
4			I	47-100			23-4	pebble; angular sand mot.
				Sand Mot. 91-100			40-70 Pyrite Mot. 75-34 Sand Mot.	30 gram
5			H				57-128 Gas exp. Mot.	76, 79; 51.5 Cracks
							107-115 Sand Mot. 131-4 Pyrite Mot. 142-4 Pyrite Mot.	
6	55 65 - 10y 4/1		A				15-84 Gas exp. Slight 30 crack	
			I				Sand Mot: 10, 14-15 48 crack	
7							I gray clayey silt II dk olive gray D-rich silt	
							A DK greenish gray Aragnite(?) rich diatom clay	

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1343	E	6	H	3	92cm	

Sediment/Rock Name	Diatom-rich silt.	Observer	G.B
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Percent Texture		
Sand	Silt	Clay
10	60	30

Comments:

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

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

X

SM

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1343	E	6	11	4	90 cm	

Sediment/Rock Name	Clayey silt	Observer	G.B.
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Percent Texture		
Sand	Silt	Clay
5	45	50

Comments:

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
2	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



X

SM

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1343	E	6	H	6A	60	

Sediment/Rock Name	aragonite-rich? diatom-clay	Observer	AKOJA
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Percent Texture		
Sand	Silt	Clay

30 70

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b>	
	Framework minerals
	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
13	Clay Minerals 85
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
8	Calcite 3
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS</b>	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
13	Diatoms 5
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
66%	Others aragonite? 25

Expedition 323  
Bering Sea

1343 E 7 1-CC  
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
					Visual Core description	
1	10	DIATOM BEARING SILTY CLAY	25	5	GLAY 3/N VERY DARK GRAY	CLAY SILT
2	20	GLAY 3/N	10	10	10Y 3/1 VERY DARK BROWN SH LENS	DIATOM-RICH SILT
3	30	DIATOM-RICH SANDY SILT			SANDY	60 0 PEBBLE
4	40	65 60 0 PEBBLE			52	60 0 PEBBLE
5	50	10Y 3/1			59	106
6	60					
7	70					
8	80					
9	90					
10	100					
11	110					
12	120					
13	130					
14	140					

↑ VERY DISTURBED  
↑ EXPANSION CRACKS  
↓

CC  
45cm

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1343	E	7	H	2A	70	

SM

Sediment/Rock Name	diatom-bearing clayey silt	Observer	AKITA
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Percent Texture		
Sand	Silt	Clay
10	60	30
3	75	5

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b>	
Framework minerals	
21	Quartz 27
9	Feldspar 3
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
21	Rock fragments 7
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
30	Clay Minerals 10
	Chlorite
	Glaucanite
	Chert
	Zircon
1	Ferromagnesium minerals 0.5
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
3	Pyrite 1
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain 2
	Lithic grain

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

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1343	E	7	H	3A	70	

SM

Sediment/Rock Name	diatom-bearing sandy silt	Observer	AK van
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Percent Texture		
Sand	Silt	Clay
28	40	12
<del>17</del>	<del>10</del>	3

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b>	
Framework minerals	
28	Quartz 57
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
20	Rock fragments 5
Accessory/trace minerals	
	Micas 5
	Biotite
	Muscovite
8	Clay Minerals 2
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
4	Pyrite 1
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
8	Crystal grain 2
	Vitric grain
	Lithic grain

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

Expedition 323  
Bering Sea

1343 Site ~~1343~~ Hole ~~1343~~ Core ~~1343~~ Section 1-CC Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
1	4/N	DIATOM-BEARING CLAYEY SILT					4/N DARK GRAY DIATOM-BEARING CLAYEY SILT
2							10Y 3/1 VERY DARK GREENISH GRAY DIATOM-RICH SILT
3							60 cm ss
4	3.5 4/N	DIATOM-RICH SILT		blue ash			
5	8.0	DIATOM-RICH SILT			100 = void		
6	10Y 3/1	DIATOM-RICH SILT					
7	4/N 10Y 3/1	DIATOM-BEARING CLAYEY SILT					
CC	4/N	DIATOM-BEARING CLAYEY SILT					130 cm, ss
		12 15 brown patch (zoocrite like layer)					

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

X

SM

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1343	E	8	H12	60		

Sediment/Rock Name	diatom-bearing clayey silt	Observer	AKIWA
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Percent Texture		
Sand	Silt	Clay
17	56	28
3	15	10

Comments:

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

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

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1343	E	8	H/CC	13		

Sediment/Rock Name	fine ash	Observer	AKIRA
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Percent Texture		
Sand	Silt	Clay
29	59	6

5 10 04

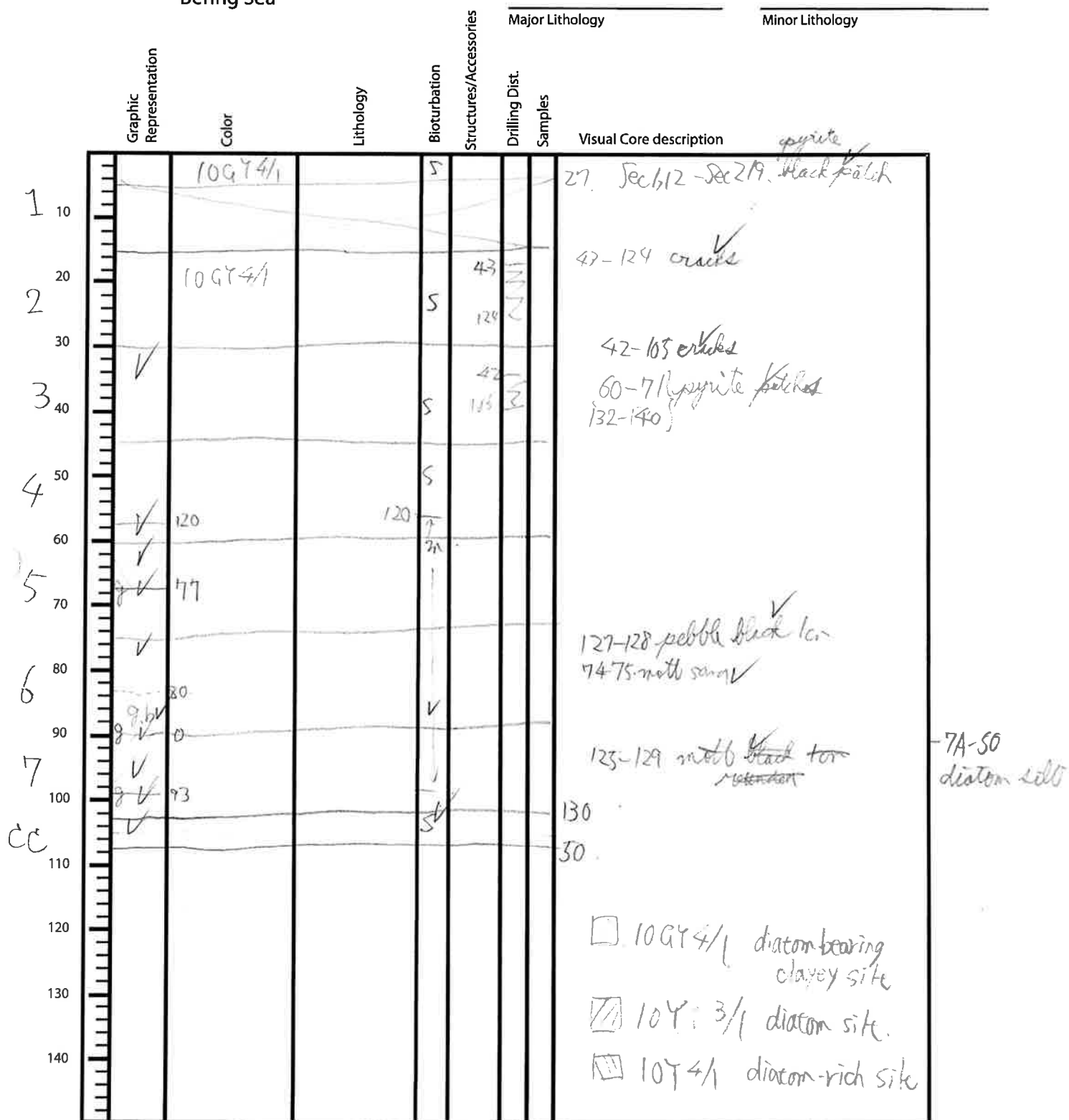
Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b>	
	Framework minerals
	Quartz
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glaucanite
	Chert
	Zircon
5	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
30	Pyrite 7
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
65	Vitric grain 15
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS</b>	
	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

Expedition 323  
Bering Sea

1343 E 9  
Site Hole Core Section Top Depth



Observer: \_\_\_\_\_ Date: \_\_\_\_\_



SM

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1343	E	94		7	50cm	

Sediment/Rock Name	Diatom silt	Observer	Ben
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B-42  
 S-58

Percent Texture		
Sand	Silt	Clay
5	95	

Comments:

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
32	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

1343 E 10H AU  
Site Hole Core Section Top Depth

Expedition 323  
Bering Sea

Major Lithology Minor Lithology

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Visual Core description	
	10 loggy y/l		30 51 Sand Mot.		0-3 void 10-105 void 50-52 sand mot.	
	20	dark greenish gray	S all		77-80 void	
	30			120-4 Sand Mot.		120 SS;
	40			67-8 Sand Mot.		98-102 void
	50			12-14 Sand Mot.		
	60			26 Sand		
70						
80						
90						
100						
110						
120						
130						
140						

gas exp. Mod. bioturbation

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1343	E	10	E	3A	120	

Sediment/Rock Name	Silty clay	Observer	Akita
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Percent Texture		
Sand	Silt	Clay
0	40	60

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b>	
	Framework minerals
26	Quartz 10
	Feldspar?
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
5	Micas 2
	Biotite
	Muscovite
38	Clay Minerals 15
	Chlorite
	Glauconite
	Chert
	Zircon
5	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
5	Pyrite 2
	Magnetite
	Fe-oxide
	Carbonates
5	Calcite 2
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
10	Crystal grain 2
8	
	Vitric grain 13
	Lithic grain

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

1343 E 11  
 Site Hole Core Section Top Depth

Expedition 323  
 Bering Sea

		Major Lithology	Minor Lithology				
Graphic Representation	Color	Lithology	Bioturbation				
Color	Lithology	Bioturbation	Structures/Accessories				
Color	Lithology	Bioturbation	Drilling Dist.				
Color	Lithology	Bioturbation	Samples				
Color	Lithology	Bioturbation	Visual Core description				
1	10	12-19 fine ash	97	7	12-19 fine ash		
		93-140 cracks	10	10	93-140 cracks		
2	20	30-84 cracks	36	84	30-84 cracks 106 cracks		
		79-86 void	79	86	79-86 void		
3	30	14-18 pyrite patch dend?	5	36	14-18 pyrite patch dend?		
		33-35 red pebble len basalt			33-35 red pebble len basalt		
4	40	70-88 mott pyrite patch			70-88 mott pyrite patch		
		29-30 mott sand	20	40	29-30 mott sand		
5	50	40-98 cracks		98	40-98 cracks		
		16-17 sand layer < 5mm			16-17 sand layer < 5mm		
6	60	mott sand			mott sand		
cc	70	diatom clayey silt			diatom clayey silt		
	80						
	90						
	100						
	110						
	120						
	130						
	140						

□ 10GY 5/1

▨ 10Y 4/1

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1343	E	11		6	30 m	

Sediment/Rock Name	DIATOM CLAYEY SILT	Observer	Beh
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Percent Texture		
Sand	Silt	Clay
20	45	35

siliciclastic fraction only

Comments:

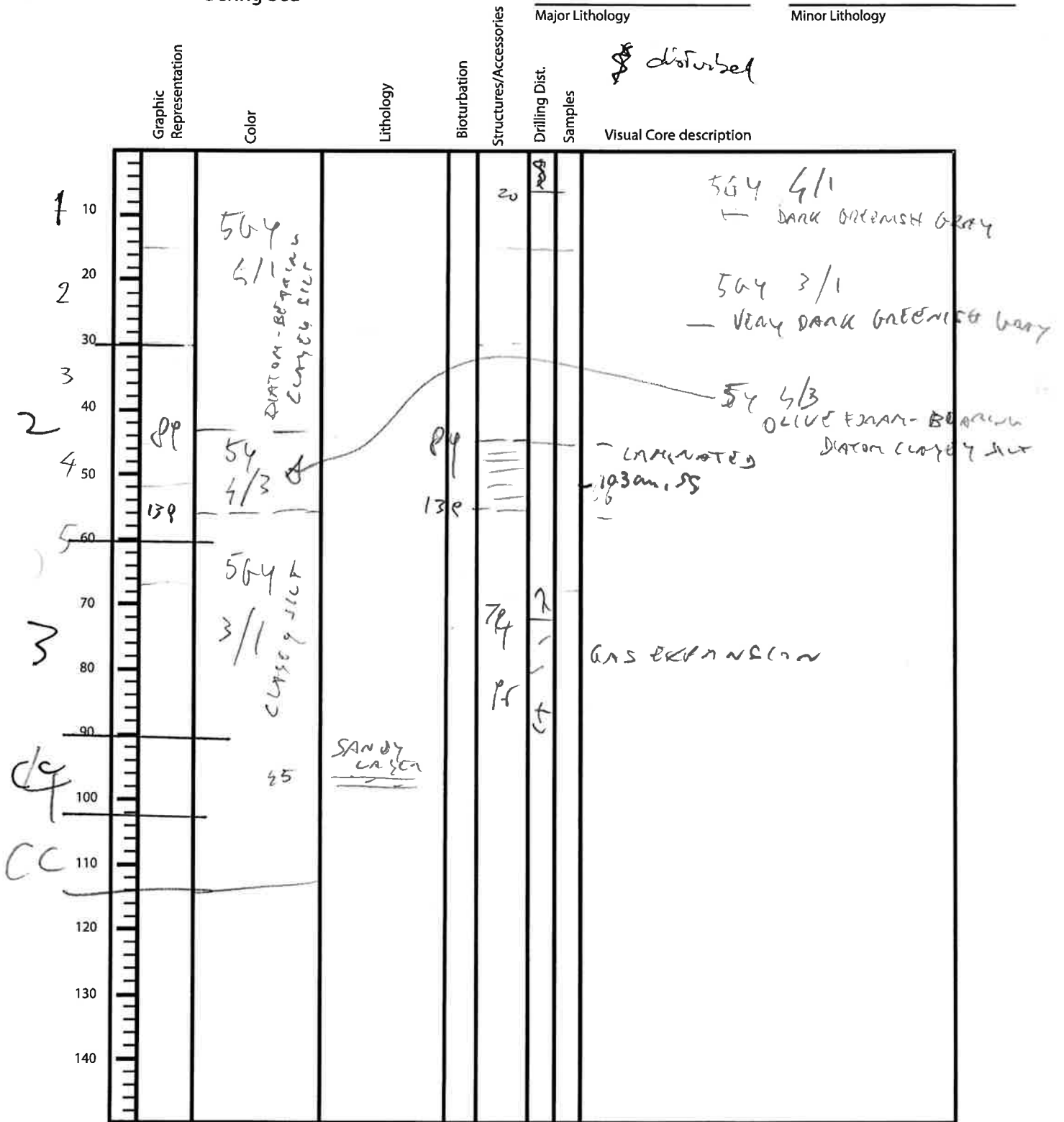
38%

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b>	
	Framework minerals
47.	Quartz
14% 10	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
14 10	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
7 5	Muscovite
3 1 15	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
3 2	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS</b>	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
35%	Diatoms
21 15	Centric
14 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

1343 E 12 1-CC  
 Site Hole Core Section Top Depth

Expedition 323  
 Bering Sea



Observer: \_\_\_\_\_ Date: \_\_\_\_\_

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1343	E	12	H	2A	103	

Sediment/Rock Name	foram-bearing diatom clayey site	Observer	Akio
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Percent Texture		
Sand	Silt	Clay
0	70	30

Comments:

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
9	Foraminifera P2 Fragment
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
45	Diatoms 15
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates ✓
	Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Expedition 323  
Bering Sea

1343 E 14H 112  
 Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	4/N				27-30	clast, coarse pebble angular, light	
					16-17	clast, pebble, angular, light	
			slight		19-22	clast, coarse pebble, angular, light	
	∇				52-73	sandy mottles	

Observer: \_\_\_\_\_ Date: \_\_\_\_\_



Expedition 323  
Bering Sea

1343 Site    E Hole    14H Core    3+4 Section    \_\_\_\_\_ Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	4/N						129-135 sandy mottles 132 fine ash layer
				101	101		101-120
				120	120		
	SGY 41A						
							A72

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

Expedition 323  
Bering Sea

1343 Site    E Hole    14H Core    51cc Section    \_\_\_\_\_ Top Depth

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
					Visual Core description	
	SGY41A			32		
				72		37-72 vertical crack
						77
						7

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

✓SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1343	E	14	H	4	30	30

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

Comments: Main lithology

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

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

Expedition 323  
Bering Sea

1343 E 15H 1+2  
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
					Visual Core description	
	10Y4/1					0-20 crads.
	10Y4/1					27-145 pyrite nodules
	5G4/1					60-70 grad.
	5G4/1					0-76 pyrite nodules
	10Y3/1					20-50 grad.
						130 fine ash layer

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

Expedition 323  
Bering Sea

1343 E 15H 3+4  
 Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology	
					Visual Core description		
	10Y4/1						
10							
20							
30							
40							
50							
60							
70							
80							
90							1-3 clast, coarse pebble, silicic pumice
100							14 clast, fine pebble
110							
120							116 white spot
130							
140							

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

Expedition 323  
Bering Sea

1343 E 15H 5+6+CC  
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
					Visual Core description	
	10Y4/1					sandy mottles thin.
	10Y3/1					70-100 grad.
	10Y5/2					white spots: 3, 27, 35, 38, 43 μm
	10Y3/1					116 clast, fine pebble
	10Y5/2					17-20 grad.
	10Y3/1					23-33 grad.
						33-91 sandy mottles
						75 clast, fine pebble
						91
						48

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

✓SM

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1343	E	15	H	1	30	

Sediment/Rock Name	Diatom rich clayey silt	Observer	Kelsie
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Percent Texture		
Sand	Silt	Clay
	50	50

Comments: Main lithology

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

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

✓ SM

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1343	E	15	H	6	12	

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

Comments: Main lith - outside carbonate area

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	✓ Radiolarians
	Spumellaria
	Nassellaria
45	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



✓SM

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1343	E	15	H	6	23	

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

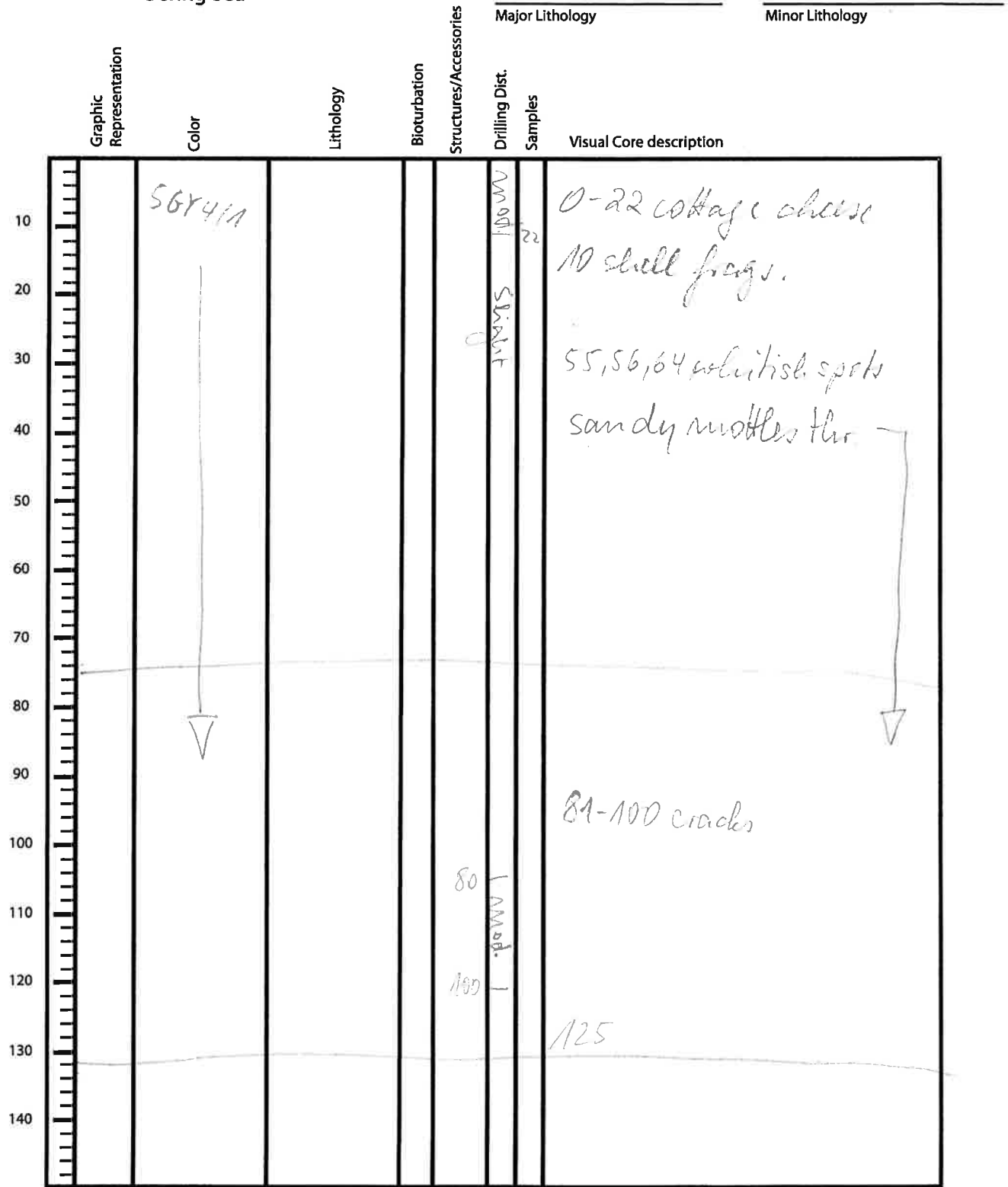
Comments: Lighter area

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

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

Expedition 323  
Bering Sea

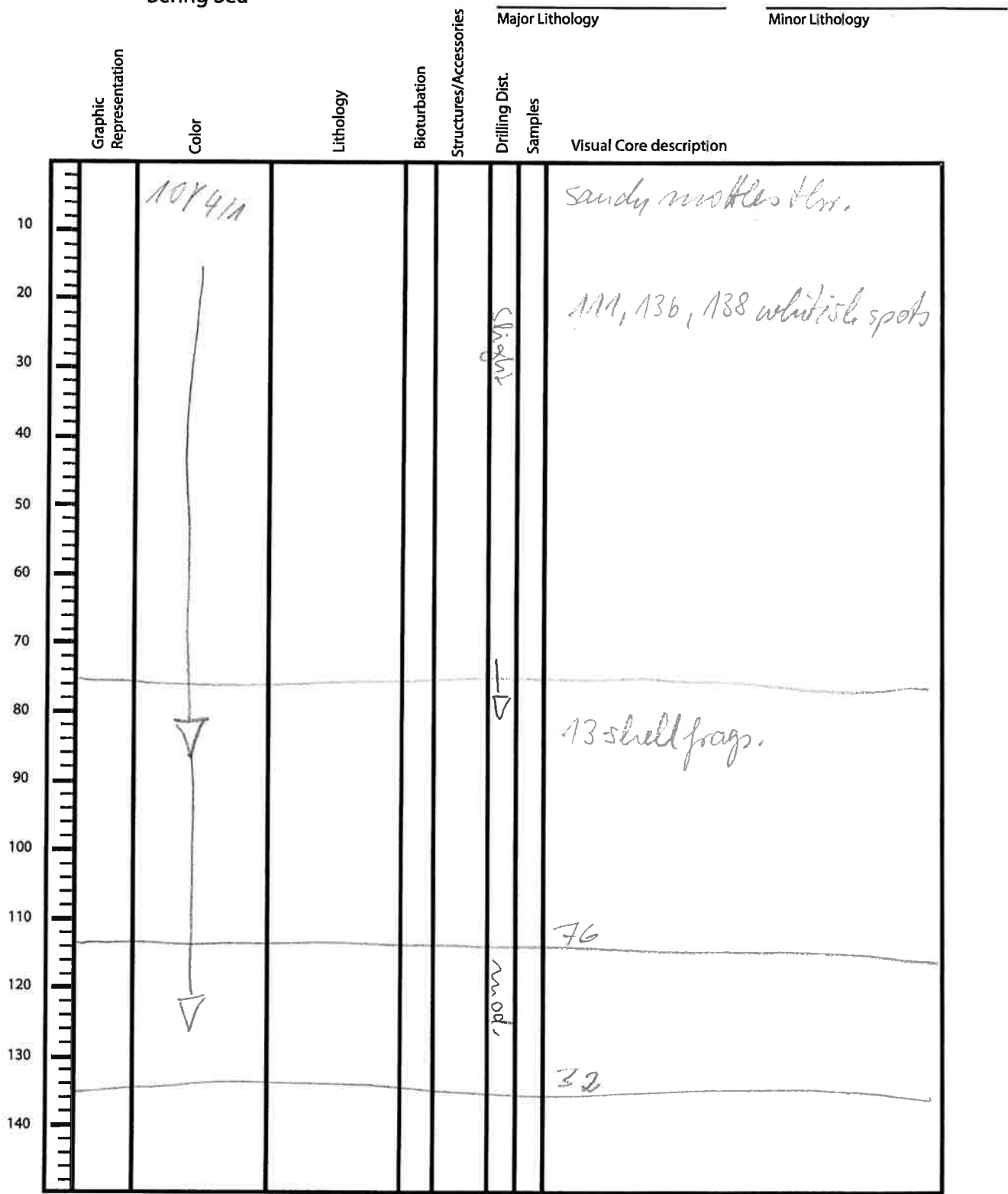
1343 E 16H 1+2  
 Site Hole Core Section Top Depth



Observer: \_\_\_\_\_ Date: \_\_\_\_\_

Expedition 323  
Bering Sea

1343 E 16H 3+4+cc  
Site Hole Core Section Top Depth



Observer: \_\_\_\_\_ Date: \_\_\_\_\_

✓ 5m

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1343	E	16	H	4	40	

Sediment/Rock Name	Diatom silt	Observer	Kelsie
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Percent Texture		
Sand	Silt	Clay
	70	30

Comments: Main lith - slightly greener

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

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

Expedition 323  
Bering Sea

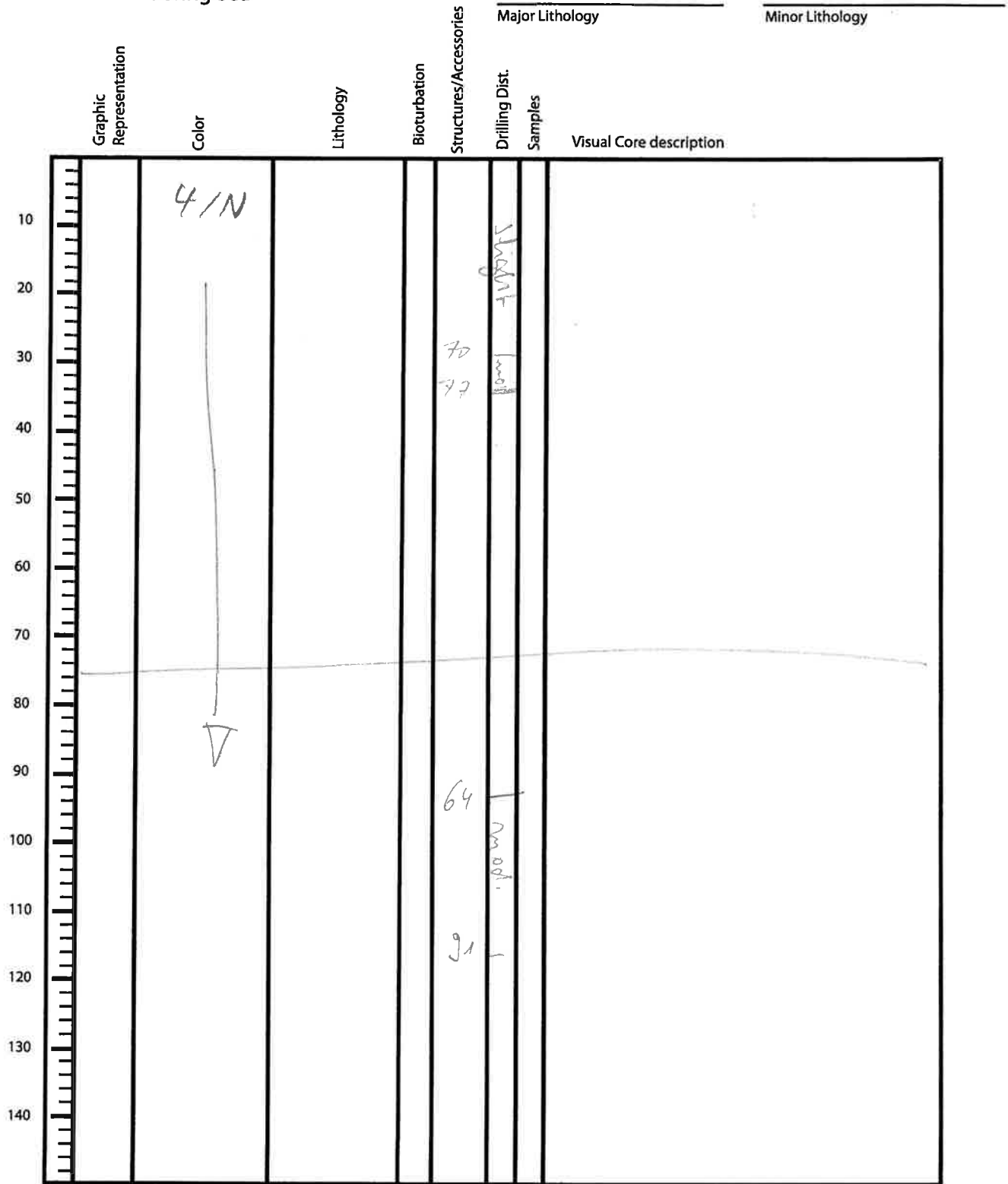
1343 E 17H 1+2  
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	10Y4/1				0-8 pieces		
					78-82 void		
	10YR 3/2				132-136 fine ash layer		
	10Y4/1				shapnose, grad. top (but not biot. (very dark grayish brown))		
					40-60 grad		
	5G4/1						

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

Expedition 323  
Bering Sea

1343 E 17H 3+4  
Site Hole Core Section Top Depth



Observer: \_\_\_\_\_ Date: \_\_\_\_\_

Expedition 323  
Bering Sea

1343 E 17H 5+6+CC  
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	SGX 4/1A				55		
					56		
					106		
					132		
					72		720-120 grad.
					82		
							110-140 pyrite nodules
	4/N						140

Observer: M.D.H.

Date:

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✓SM

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1343	E	17	H	1	90	90

Sediment/Rock Name	Diatom-rich silt	Observer	MSC
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Percent Texture		
Sand	Silt	Clay
S 5	85	10

Comments: Main lithology

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

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



✓SM

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1343	E	17'	H	3	90	90

Sediment/Rock Name	Diatom-rich silt	Observer	MSC
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Percent Texture		
Sand	Silt	Clay
S 4	80	16

Comments:

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

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

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1343	E	17	H	5	90	90

✓ SM

Sediment/Rock Name	Diatom silty clay	Observer	MEA
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Percent Texture		
Sand	Silt	Clay
5	30	65

S

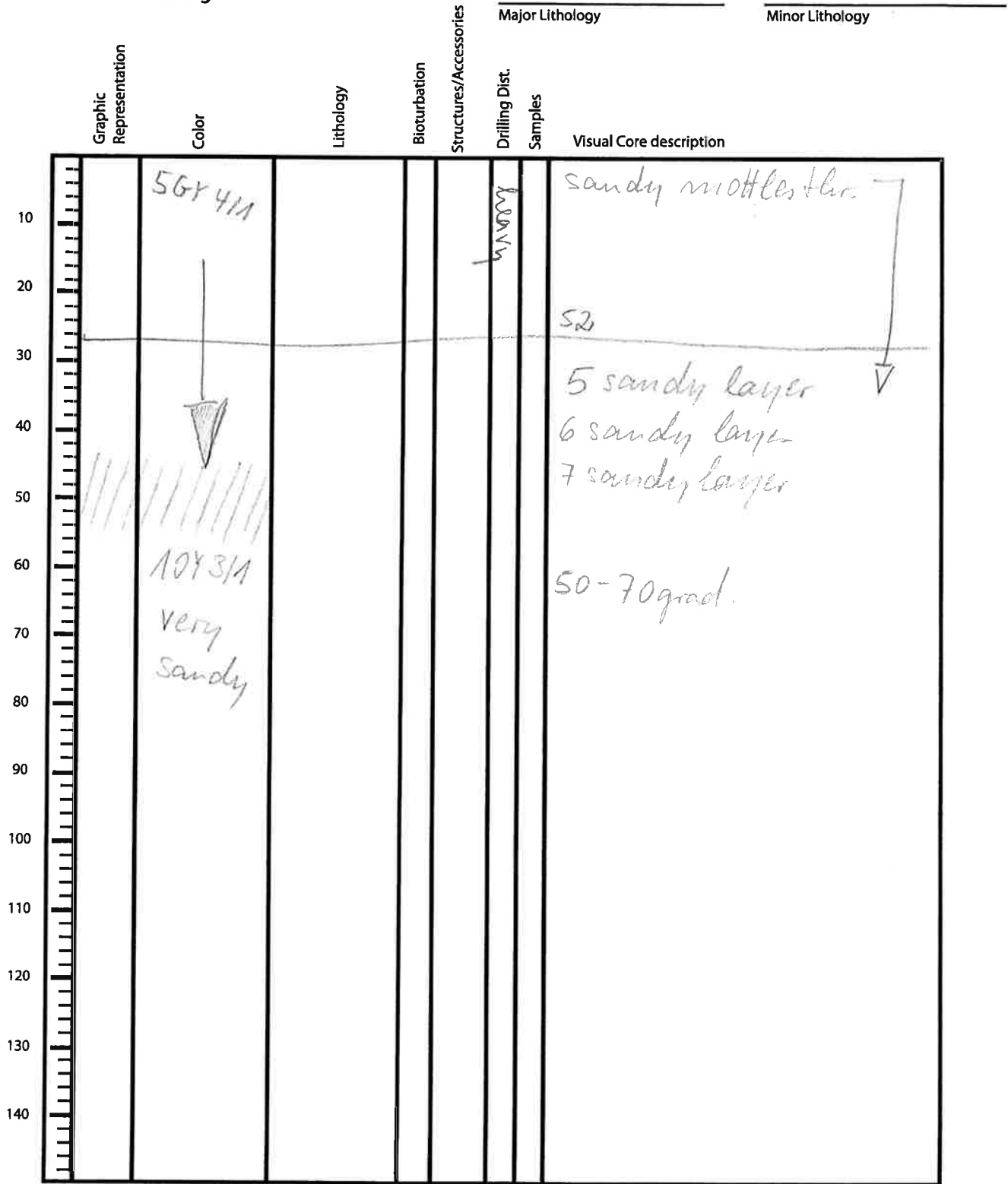
Comments:

Percent	Component
<b>60</b>	<b>SILICICLASTIC GRAINS/MINERAL</b>
	Framework minerals
<del>25</del>	Quartz
20	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
6	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
4	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	<b>VOLCANICLASTIC GRAINS</b>
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>40</b>	<b>BIOGENIC GRAINS</b>
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	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

1343 E 18H 1+2  
Site Hole Core Section Top Depth

Expedition 323  
Bering Sea



Observer: \_\_\_\_\_ Date: \_\_\_\_\_

Expedition 323  
Bering Sea

1343 E 18H 3+4  
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
							Visual Core description	
	10Y4/1							sandy mudless flr.
	5G4/1							15-25 grad.
								80-90 grad.
	10Y3/1							105-115 grad.
	5G4/1							
	↓							mudless sand

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

1343 E 18H 5+6  
 Site Hole Core Section Top Depth

Expedition 323  
 Bering Sea

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	5G-Y4/11						
				70			70-106 cracks
				106			
							87 cracks
							125

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



Observer: \_\_\_\_\_ Date: \_\_\_\_\_

Expedition 323  
Bering Sea

1343 E 18H 7+8  
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	10Y4/1						
							40-60 grad
	10Y3/1						4, 14, 18, 78 sponge agg.
	5GY						83 shell frags.
	9/1				100m		92
							103

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

✓ 5M

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	1343	323	1F		6	FF	FF

Sediment/Rock Name	Diatom Sandy silt	Observer	
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Percent Texture		
Sand	Silt	Clay
50	30	20

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b> 48%	
Framework minerals	
30	Quartz 7
9	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
4	Ferromagnesium minerals 1
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b> 4%	
	Crystal grain
4	Vitric grain 1
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS</b> 52%	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
20	Diatoms
12%	Centric
3	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

✓SM

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1343	E	18H		2A	130	130

Sediment/Rock Name	diatom Sandy silt	Observer	HA
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Percent Texture		
Sand	Silt	Clay
40	50	10

3                      12                      10

Comments:

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

Percent	Component
<b>BIOGENIC GRAINS 59 54</b>	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
3	Radiolarians 0.5
	Spumellaria
	Nassellaria
Diatoms	
36.38	* 7 Centric
15.46	3 Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others



VSM

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1343	E	18H		4	40	40

Sediment/Rock Name	diatom-bearing sandy silt	Observer	H.A
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Percent Texture		
Sand	Silt	Clay
30	60	10

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b> 88	
Framework minerals	
54	10 Quartz
	Feldspar
	<del>10</del> K-feldspar (Orthoclase, Microcline...)
	Plagioclase
16	Rock fragments 3
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glaucanite
	Chert
	Zircon
16	Ferromagnesium minerals 3
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
3	Pyrite 0.5
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS</b> 11	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
11	Diatoms
	Centric
	Pennate
	<i>Chaetoceros</i> Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

E 18 7 ✓ sm

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
		#	7			10	10

Sediment/Rock Name	Diatom-rich silty clay <del>plaggy silt</del>	Observer	,
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Percent Texture		
Sand	Silt	Clay
10	50 40	80

Comments:

Percent	Component	72%
<b>SILICICLASTIC GRAINS/MINERAL</b>		
Framework minerals		
39%	Quartz	7
11%	Feldspar	2
	K-feldspar (Orthoclase, Microcline...)	
	Plagioclase	
6%	Rock fragments	7
	Accessory/trace minerals	
	Micas	
	Biotite	
	Muscovite	
22%	Clay Minerals	3
	Chlorite	
	Glauconite	
	Chert	
	Zircon	
	Ferromagnesium minerals	
	Authigenic minerals	
	Barite	
	Phosphorite/Apatite	
	Zeolite	
	Opaque minerals	
	Pyrite	
	Magnetite	
	Fe-oxide	
	Carbonates	
	Calcite	
	Dolomite	
<b>VOLCANICLASTIC GRAINS</b>		
	Crystal grain	
	Vitric grain	
	Lithic grain	

Percent	Component	28
<b>BIOGENIC GRAINS</b>		
	Calcareous	
	Foraminifera	
	Planktonic foraminifera	
	Benthic foraminifera	
	Nannofossils	
	Coccoliths	
	Discoasters	
	Pteropods	
	Siliceous	
6%	Radiolarians	7
	Spumellaria	
	Nassellaria	
22%	Diatoms	3
	Centric	
	Pennate	
	Chaetoceros Resting Spores	
	Silicoflagellates	
	Sponge spicules	
	Dinoflagellates	
	Others	
	Pollen	
	Organic debris	
	Plant debris	
	Ebridians	
	Echinoderm	
	Fish remains (teeth, bones, scales)	
	Bryozoans	
	Bivalves	
	Others	

Expedition 323  
Bering Sea

1343 E 19 1+2  
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Major Lithology		Minor Lithology
				Drilling Dist. Samples	Visual Core description	
I	10 Y 3/1 v. dk. greenish grey	Diatom silty clay I	S	0-8	S	Sandy mottles and burrows
		10 Y 4/1 dk green grey	Diatom II silty sand	SS	S	109 Grad
II	See top of III	II	SS	S	S	Sandy mottles in top 20 cm
				SS	SS	90 Gas exp.
				S	S	56
				SS	SS	88 "
			S	S	102	
				S	S	138 Grad

Observer: Kelsie Date:

Expedition 323  
Bering Sea

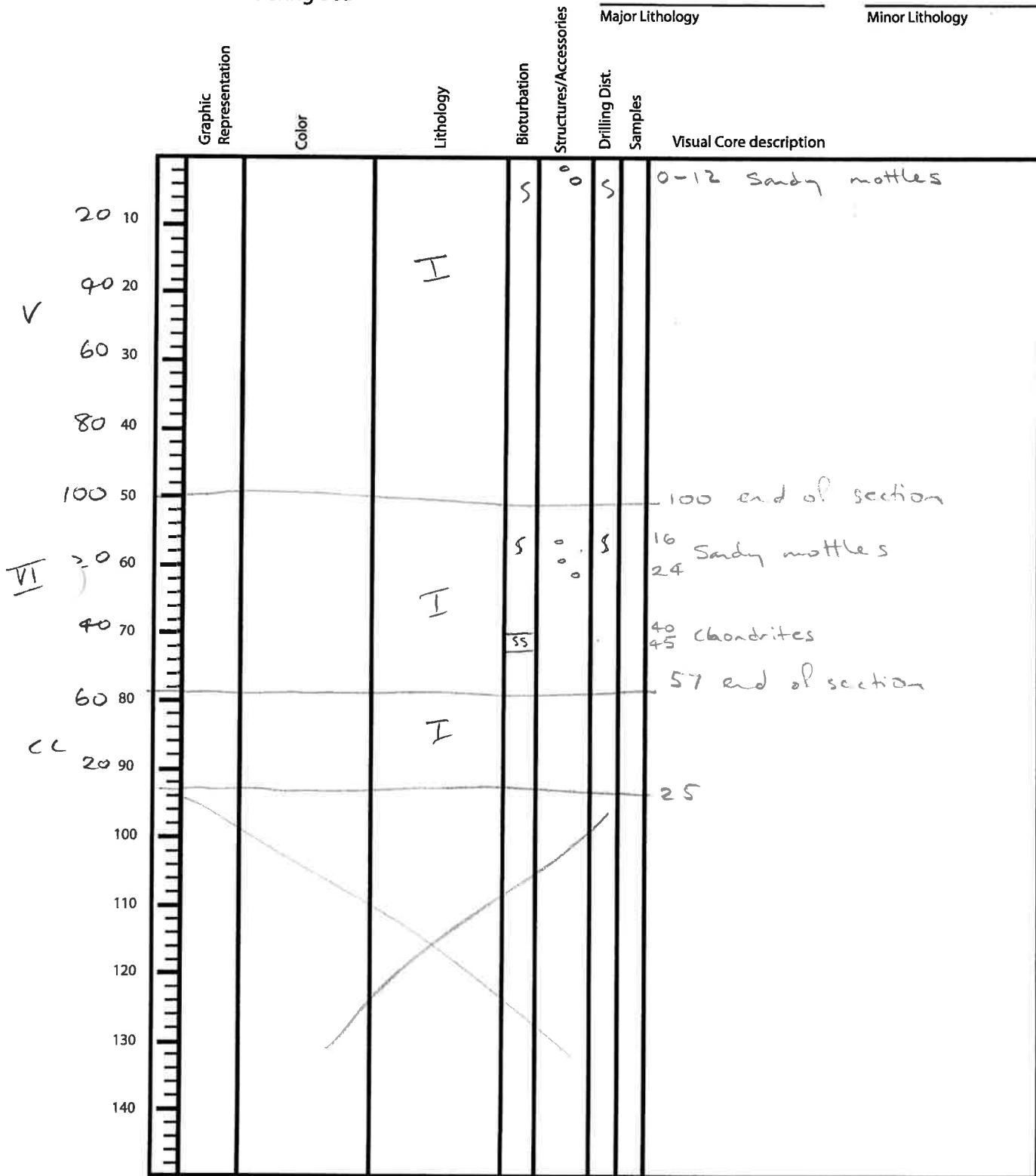
1343 E 19 3+4  
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	SY 3/2	Diatom silt	S		S		
20							Sandy mottles throughout. 9 Grad III - diatom-rich silty clay
40		I	S				Rare sandy patches
60		III	S				45 Grad 53 Grad
80		I	S	66	55		
100				84			
120		II	SS	00	89		87 Grad. Clasts - one is angular, black scoria 10mm, the other rounded white pumice
140		I	S				104 - sandy lamina 3mm thick 120
160		II					136 end of section
180							
200							
220		I	SS				38 Sandy lamina 2mm, bioturbated 40 More intense biot + skolithos 50-60
240							
260							
280							
300							
320							
340							
360							
380							
400							
420							
440							
460							
480							
500							
520							
540							
560							
580							
600							
620							
640							
660							
680							
700							
720							
740							
760							
780							
800							
820							
840							
860							
880							
900							
920							
940							
960							
980							
1000							

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

Expedition 323  
Bering Sea

1343 Site    E Hole    19 Core    5,6+cc Section    Top Depth



Observer: \_\_\_\_\_ Date: \_\_\_\_\_

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

✓ SM

Leg	Site	Hole F	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1343	#	19		2	50	50

Sediment/Rock Name	Diatom. Silty Sand	Observer	
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Percent Texture		
Sand	Silt	Clay
50	30	20

7      5      3

Comments:

Percent	Component	
	<b>SILICICLASTIC GRAINS/MINERAL</b>	51%
38	Framework minerals	
37%	Quartz	7 15
5%	Feldspar	2
	K-feldspar (Orthoclase, Microcline...)	
	Plagioclase	
2%	Rock fragments	1
	Accessory/trace minerals	
8	Micas	
	Biotite	
	Muscovite	
	Clay Minerals	
	Chlorite	
	Glauconite	
	Chert	
	Zircon	
1%	Ferromagnesium minerals	0.5
6		
	Authigenic minerals	
	Barite	
	Phosphorite/Apatite	
	Zeolite	
	Opaque minerals	
50%	Pyrite	2
	Magnetite	
	Fe-oxide	
	Carbonates	
	Calcite	
	Dolomite	
	<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain	
	Vitric grain	
	Lithic grain	

Percent	Component
	<b>BIOGENIC GRAINS</b>
	49%
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	<del>2-3%</del> 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

VSM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
			19H		3	4	4

Sediment/Rock Name	diatom-rich & silty clay	Observer	Hiro
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Percent Texture		
Sand	Silt	Clay
5	35	60

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b> 86.8	
Framework minerals	
70.6	Quartz 15
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
1.2	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
2	Biotite 0.5
1.1	Muscovite
9	Clay Minerals 2
	Chlorite
6.4	Glauconite
2.2	Chert
	Zircon
4.5	Ferromagnesium minerals 1
Authigenic minerals	
	Barite
8.2	Phosphorite/Apatite
	Zeolite
Opaque minerals	
9	Pyrite 2
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS</b> 12	
Calcareous	
Foraminifera	
2	0.5 Planktonic foraminifera
	Benthic foraminifera
Nannofossils	
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
Radiolarians	
2	0.5 Spumellaria
	Nassellaria
Diatoms	
10.9	2. Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1343		19		5	20	20

✓ SM

Sediment/Rock Name	Diatom-bearing silty clay	Observer	Hiro
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Percent Texture		
Sand	Silt	Clay
10	30	60

Comments:

3

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL 92</b>	
Framework minerals	
72 81	Quartz 30
5 5	Feldspar 1
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
5 5	Ferromagnesium minerals 2
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
3 5	Pyrite 1
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS 8</b>	
Calcareous	
Foraminifera	
Planktonic foraminifera	
Benthic foraminifera	
Nannofossils	
Coccoliths	
Discoasters	
Pteropods	
Siliceous	
Radiolarians	
Spumellaria	
Nassellaria	
8	3 Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others



Expedition 323  
Bering Sea

1343 E 20 I+II  
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
							Visual Core description	
	10Y 3/1	Diatom-b silty clay I						
			A		SSS			Drilling disturbance - core expanded out of liner and then was pushed back in
	10Y 4/1	Diatom-r clayey silt II	S		S			end of section
								Sandy mottles and lamina and burrow fills throughout
								-SS
	5Y 3/2	Diatom-r III sandy silt	SS					116
								end of section 140

Observer: Kelsie Date: \_\_\_\_\_

Expedition 323  
Bering Sea

1343 E 20 3+4  
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
					Visual Core description	
III		III	SS	S		-27 ss -50-55 of mottle Sandy mottles, lamina + burrows throughout
						125 end of section
IV		III				
	5Y 3/2	Diatom clayey silt IV		0	36-40 ss 55 - shell fragments Sandy mottles lamina and burrows throughout.	
		I		0	103 114-116 sandy mottle	
						148 end of section

Observer: \_\_\_\_\_ Date: \_\_\_\_\_



✓ SM

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1343	E	20H		2A	60	60

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

2. 63µm 4µm

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL 66%</b>	
Framework minerals	
45	Quartz 10
5	Feldspar 1
10	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
6	Biotite
	Muscovite
14	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
2	Pyrite 0.5
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>34% BIOGENIC GRAINS 34%</b>	
Calcareous	
Foraminifera	
Planktonic foraminifera	
Benthic foraminifera	
Nannofossils	
Coccoliths	
Discoasters	
Pteropods	
Siliceous	
Radiolarians	
Spumellaria	
Nassellaria	
34%	Diatoms
23	5 Centric
9	2 Pennate
2	0.5 Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

√SM

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1343	*E	20H		3	27	27

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

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL 71</b>	
Framework minerals	
54	Quartz 20
3	Feldspar 1
10	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
52	Rock fragments 2
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
3	1 Glauconite / chlorite ? Green color
	Chert
	Zircon
8	Ferromagnesium minerals 3
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS 27</b>	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
29	Diatoms
27/10	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
			204		3	50	50

✓5m

Sediment/Rock Name	Diatom rich site	Observer	1/11
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Percent Texture		
Sand	Silt	Clay
10	80	10

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b>	
Framework minerals	
50	Quartz 75 10
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
25	Rock fragments 5
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
5	Pyrite 1
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

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

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

✓SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
			20H		4	40	40

Sediment/Rock Name	Diatom silt clayey silt	Observer	Miro
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Percent Texture		
Sand	Silt	Clay
20	40	40

Comments:

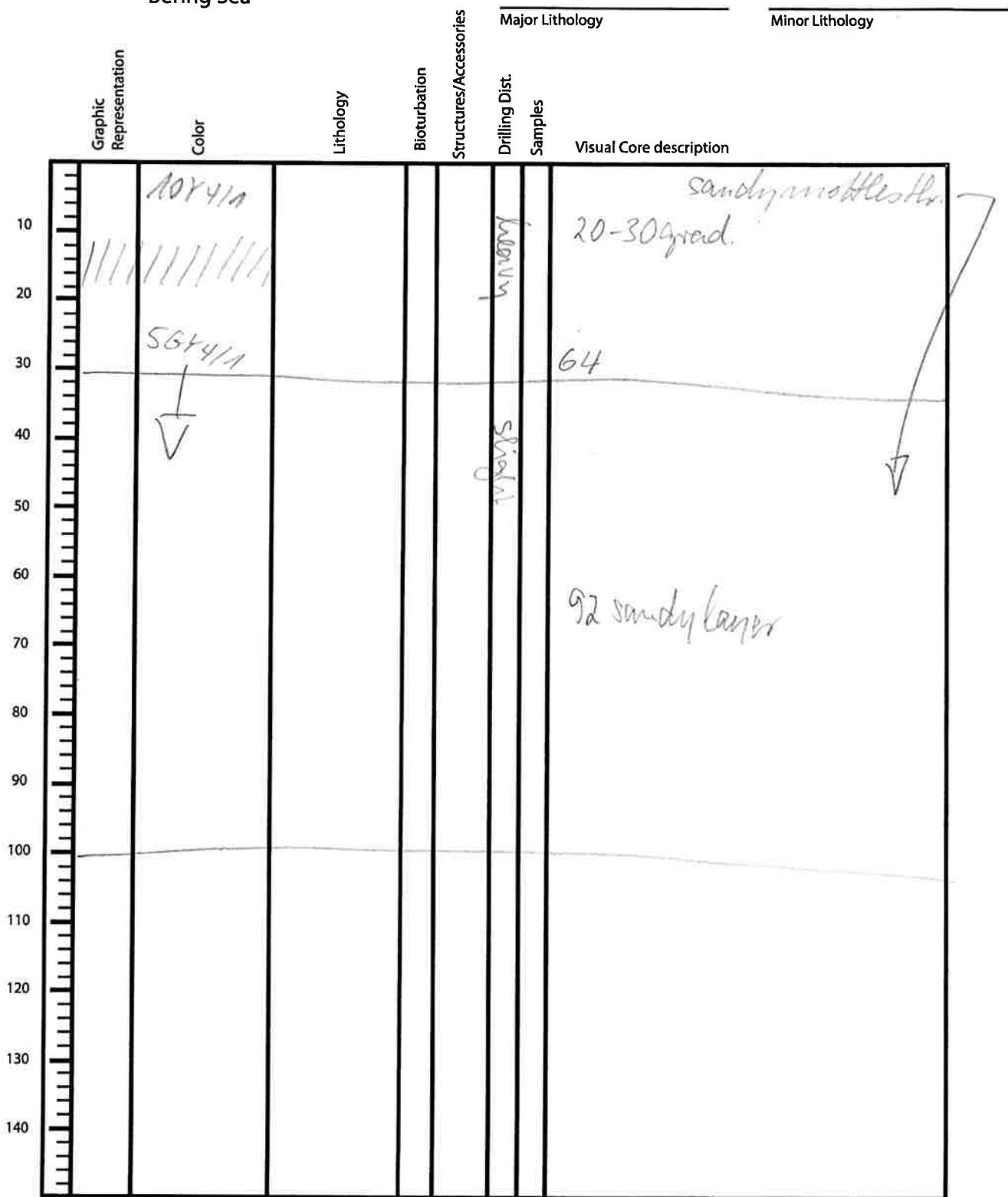
31%

Percent	Component
	<b>SILICICLASTIC GRAINS/MINERAL</b> <del>20%</del> <sup>30%</sup>
	Framework minerals
24%	Quartz 7
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
97	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
67	Chert
	Zircon
4/3	Ferromagnesium minerals 1
	Authigenic minerals <del>4</del>
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
3	Pyrite 1 %
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	<b>VOLCANICLASTIC GRAINS</b>
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	<b>BIOGENIC GRAINS</b> 69%
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
52 1/2	Centric 15
17%	Pennate 5
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Expedition 323  
Bering Sea

1343 E 21H 1+2  
 Site Hole Core Section Top Depth



Observer: \_\_\_\_\_ Date: \_\_\_\_\_



Expedition 323  
Bering Sea

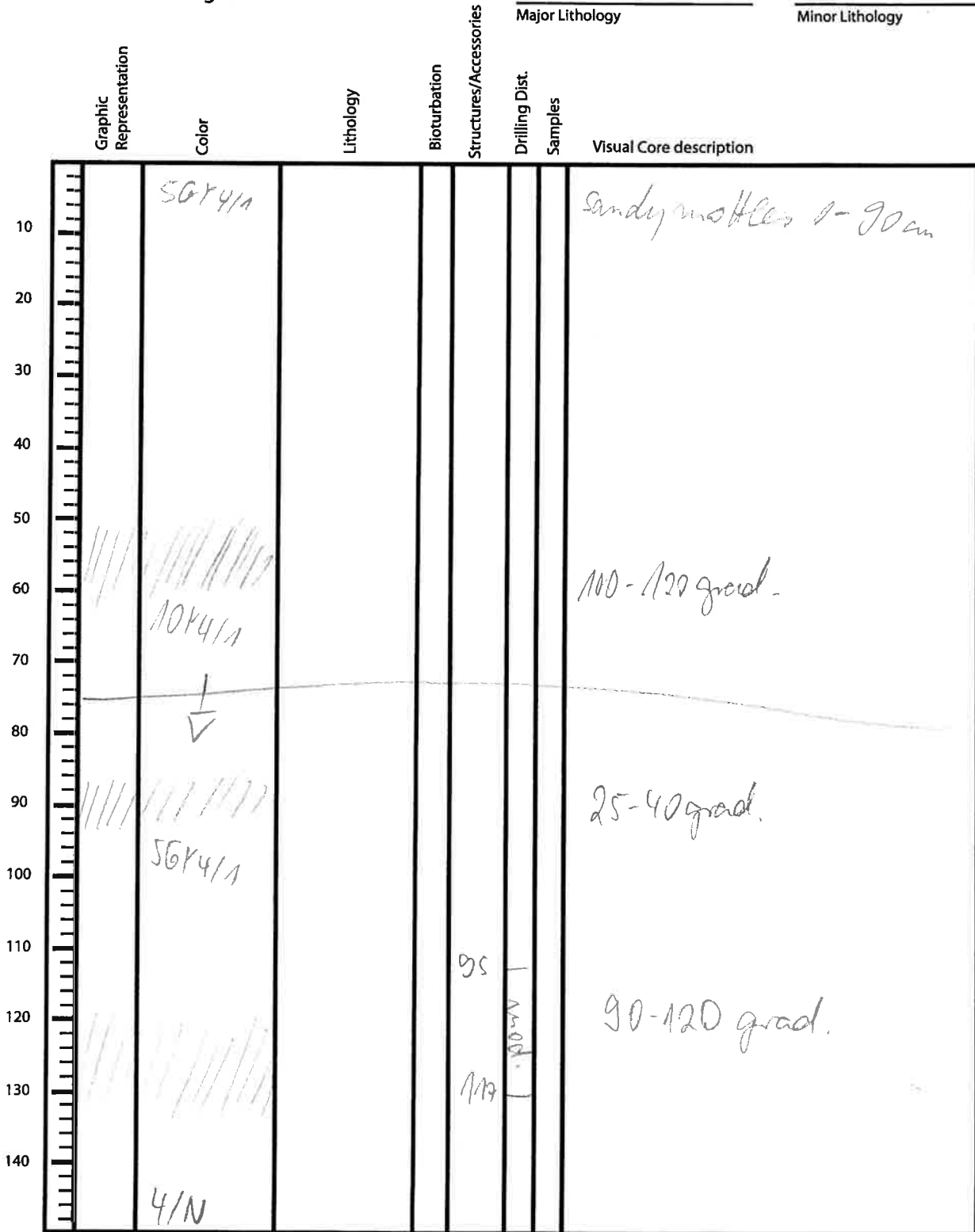
1343 E 21H 3+4  
 Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	56Y4/1						sandy muds 0-38cm
				71	100m		111 sand layer
				76			133-134 clast, pebble, black
							20-30 grad.
	10Y4/1						
	10Y3/1						100-120 grad.

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

Expedition 323  
Bering Sea

1343 E 21H 5+6  
Site Hole Core Section Top Depth



Observer: \_\_\_\_\_ Date: \_\_\_\_\_



✓SM

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	1343	E	21H		7	26	26

Sediment/Rock Name	Diatom silty clay	Observer	Hiro A
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Percent Texture		
Sand	Silt	Clay
10	40	50

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL 41%</b>	
Framework minerals	
18	Quartz 3
3	Feldspar 0.5
22	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
35	Biotite
	Muscovite
12	Clay Minerals 2
	Chlorite
	Glauconite
	Chert
36	Zircon
3	Ferromagnesium minerals 0.5
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
	Pyrite <del>0.5</del>
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
5%	Vitric grain <del>0.5</del>
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS 59%</b>	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
59%	Diatoms 70
	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	1343	E	21H		3	100	100

Sediment/Rock Name	Sponge Spicule-rich diatom ooze	Observer	H.A
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Percent Texture		
Sand	Silt	Clay
70 <sup>5</sup>	70	70

30 35 60

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL 30%</b>	
Framework minerals	
12%	Quartz 2
30%	Feldspar 0.5
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
12%	2 Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
3%	Pyrite 0.5
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS 70%</b>	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
7	41% Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
5	33 7
	Sponge spicules 29%
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Expedition 323  
Bering Sea

1343 E 22H 1+2  
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	10Y4/1						sandy mottles etc.
///	10Y3/1				start		60-70 grad.
	10Y4/1						35-55 very sandy
///	10Y4/1						100-120
	5G2/1						
	4/N						95-105 grad.

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

Expedition 323  
Bering Sea

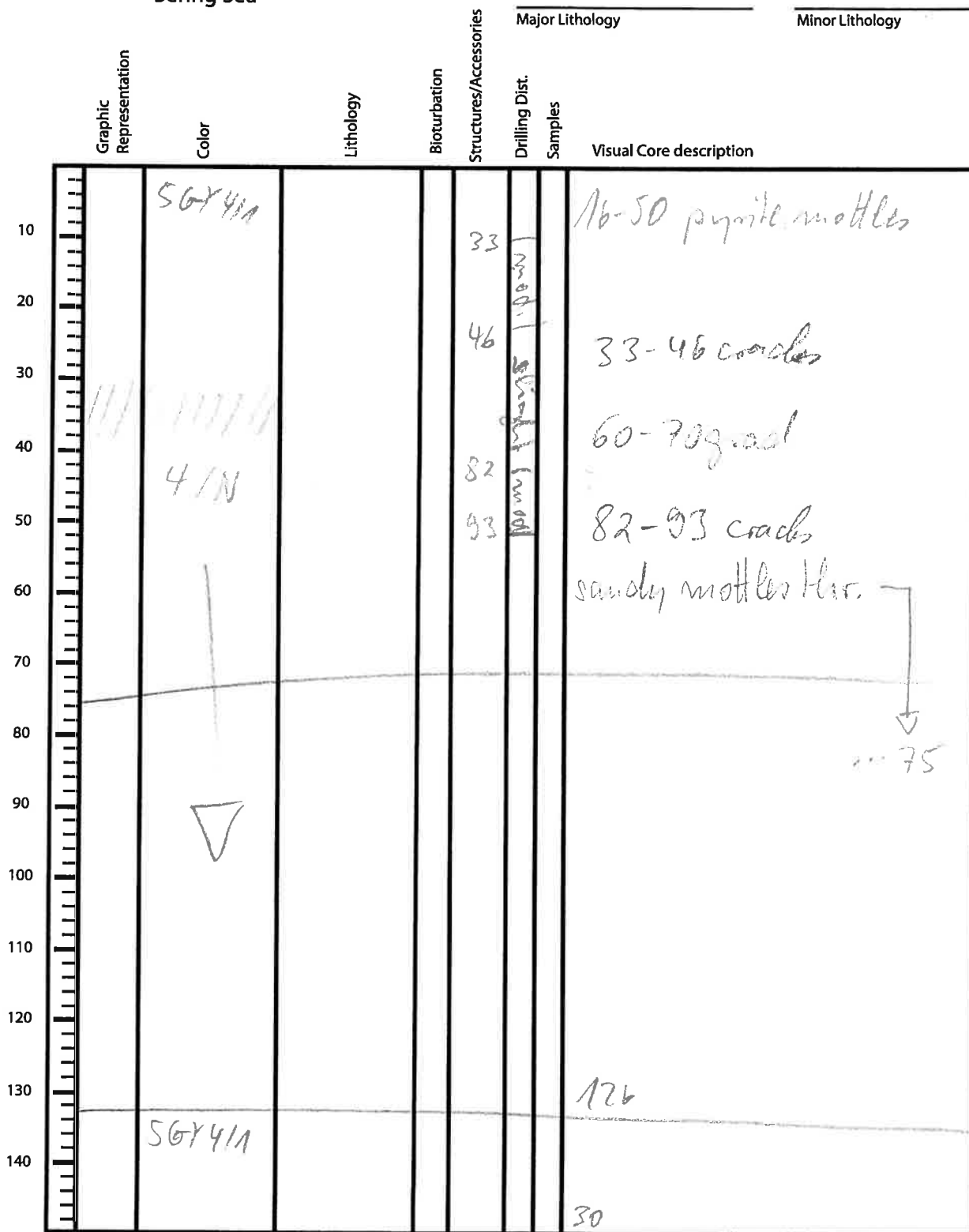
1343 E 22H 344  
 Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	4/N				31 33		
	 10Y9/1						25-35 grad.
	 4/N						36-150 sandy patches
							45-55 grad.

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

Expedition 323  
Bering Sea

1343 Site    E Hole    22H Core    S+b+cc Section    Top Depth



Observer: \_\_\_\_\_ Date: \_\_\_\_\_



✓SM

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
			22		/	90	90

Sediment/Rock Name	diatom sandy silt	Observer	W.A.
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Percent Texture		
Sand	Silt	Clay
10/15	80	5

3  
20  
29  
22

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL 47</b>	
Framework minerals	
28	Quartz 6
3	Feldspar 1
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
6	Rock fragments 2
Accessory/trace minerals	
	Micas
38	Biotite
	Muscovite
1	Clay Minerals 0.5
	Chlorite
	Glauconite
11	Chert
	Zircon
3	Ferromagnesium minerals 1
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
6	Pyrite 2
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS 57 3</b>	
Calcareous	
3	Foraminifera 1
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
80	Nassellaria
	Diatoms 2
42	Centric 15
8	Pennate 3
	Chaetoceros Resting Spores
	Silicoflagellates
1	Sponge spicules 0.25
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

VSM

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
		F 22	22		1	95-	95

Sediment/Rock Name	Sand	Observer	Hiro
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Percent Texture		
Sand	Silt	Clay
100	0	0

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL 90</b>	
	Framework minerals
25	Quartz 5
25	Feldspar 5
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
15	Rock fragments 3
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
25	Ferromagnesium minerals 5
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS 10</b>	
	Crystal grain
10	Vitric grain 2
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS</b>	
	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	1343	E	22H		4	P2	P2

Sediment/Rock Name	diatom bearing silty sand.	Observer	H. A.
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Percent Texture		
Sand	Silt	Clay
20 <del>30</del> <sup>40</sup>	40 <del>40</del>	20 <del>30</del>

Comments: Under cross polarization. tiny (<1um) shiny particle observed → seems to be frag. of Rocks or Minerals Heavy

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b> 85	
Framework minerals	
10#	Quartz 2
5#	Feldspar 2/1
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
24#	Rock fragments 5
24#	Other: 5 (shiny particle under cross nicote)
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
14#	Clay Minerals 3
	Chlorite
	Glaucanite
	Chert
	Zircon
10#	Ferromagnesium minerals 2
8	
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS</b> 15%	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
10	2 Centric
5	1 Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Expedition 323  
Bering Sea

1343 E 23  
Site Hole Core Section Top Depth

		Major Lithology				Minor Lithology	
Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Visual Core description	
1			5				
10							
2	0		5		106	41. f. abbb black 4mm	
20	40		5		106-118	106-118 Void 123-125 Void	2A-70 diatom site
3	80				134	50-53 shell?	
30	52		5				
4					145		
40			5				
4	60						
50			5				
5	45		5		150	0-58 cracks	4A-130 diatom clayey site
60					58	131-132. calc layer	
6	51 5/2						
70					156		
7	90		5				
80					140		
8			5				
90			5		45		
CC					52	52-69 PAL	
100							
110							
120							
130							
140							

- Major
- 100T 4/1 diatom-rich site
  - 5T 3/2 diatom clayey site
  - 10T 4/1 diatom site

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

SM

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1343	E	23	H	2A	70cm	

Sediment/Rock Name	Diatom silt	Observer	Beth
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Percent Texture		
Sand	Silt	Clay
2	98	

Comments:

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

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

SM

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1343	E	23	H	4A	130 cm	

Sediment/Rock Name	diatom clayey silt	Observer	Beth
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Percent Texture		
Sand	Silt	Clay
15	55	30

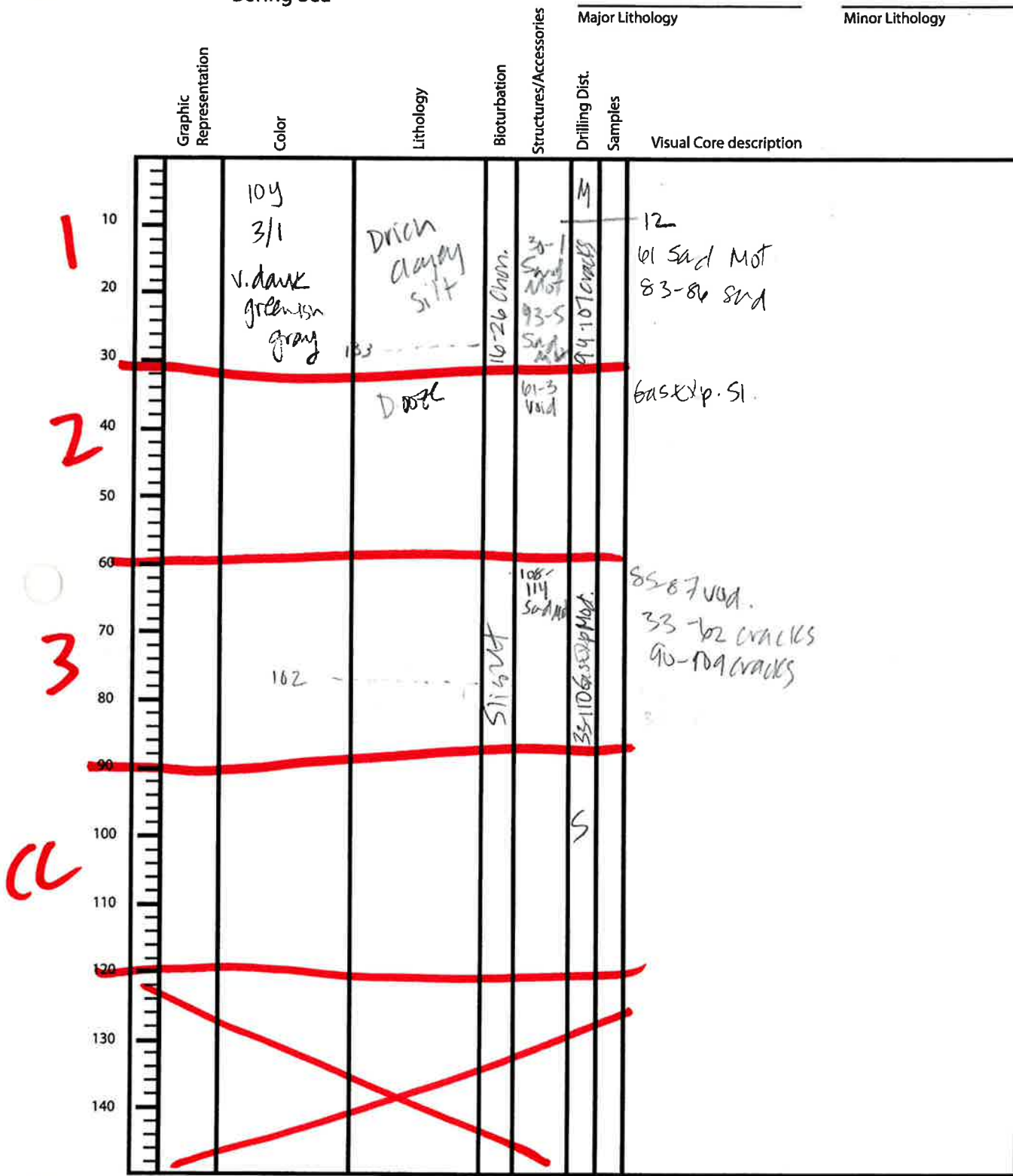
Comments:

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
	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

U1343 E 24H  
Site Hole Core Section Top Depth



Observer: \_\_\_\_\_ Date: \_\_\_\_\_

SM

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1343	E	24	H	1A	90cm	

Sediment/Rock Name	Diatom-rich clayey silt	Observer	BETH
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B - 20  
 S - 68  
 V - 12

Percent Texture		
Sand	Silt	Clay
10	60	30

Comments:

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
10	Centric
4	Pennate
6	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	U1343	E	24	H	2A	110 cm	

SM

Sediment/Rock Name	DIATOM ooze!	Observer	BETH
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S-29

V-5

Comments:

B-66

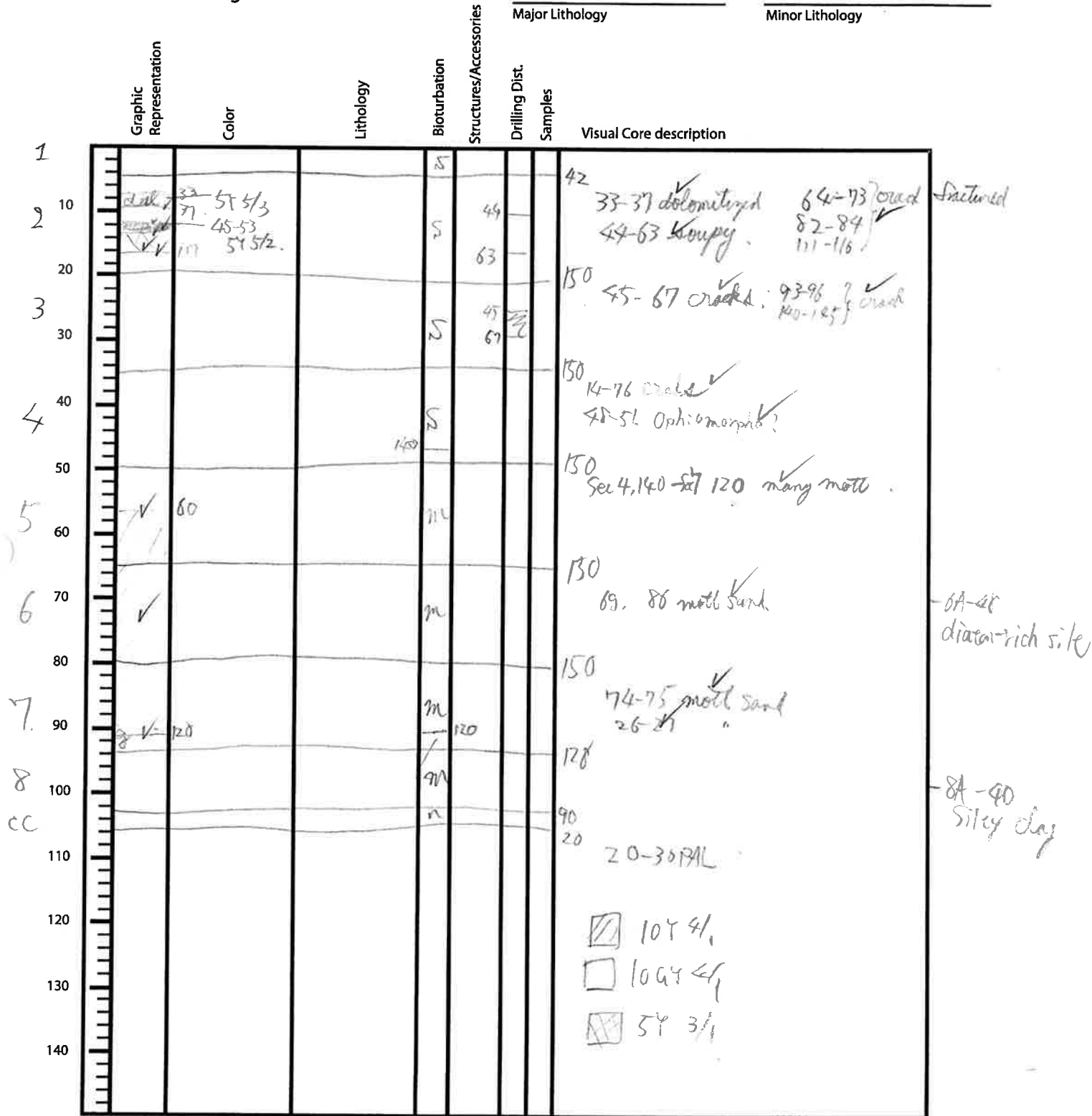
Percent Texture		
Sand	Silt	Clay

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

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

Expedition 323  
Bering Sea

1343 Site    E Hole    25 Core    Section    Top Depth



Observer: \_\_\_\_\_ Date: \_\_\_\_\_

SM

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	1343	C	25		6	48 cm	

Sediment/Rock Name	PLATON RICH SILT	Observer	ICWA
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Percent Texture		
Sand	Silt	Clay
40%	30%	30%

7      5      5

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b>	
	Framework minerals
20% <del>19%</del>	5 Quartz
12%	3 Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
12%	3 Rock fragments
	Accessory/trace minerals
4%	1 Micas
4%	X Biotite
4%	Muscovite
20% <del>19%</del>	5 Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
4%	1 Pyrite
	Magnetite
	Fe-oxide
	Carbonates
8%	2 Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS</b>	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
20%	5 Diatoms
12%	3 Centric
8%	2 Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

SM

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	1343	E	25		8	40m	

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

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b>	
	Framework minerals
15% (10%)	5 Quartz
15%	5 Feldspar K-feldspar (Orthoclase, Microcline...)
	Plagioclase
6%	2 Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
39%	1/2 Clay Minerals Chlorite
	X Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
3%	1 Pyrite Magnetite Fe-oxide
	Carbonates
	5 Calcite Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

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

Expedition 323  
Bering Sea

1384 Site E 26 Core ALL Section Top Depth

Major Lithology		Minor Lithology	
Graphic Representation	Color	Lithology	Visual Core description
1	3/N	DIATOM-RICH CLAYEY SILT	{ 3/N VERY DARK GRAY DIATOM-RICH CLAYEY SILT 104 3/1 VERY DARK GREENISH GRAY DIATOM-RICH CLAYEY SILT w/ ARAGONITE 104 4/1 DARK GREENISH GRAY DIATOM-RICH SILT ARAGONITE SILT
2	104 3/1		
3	70	DIATOM-RICH CLAYEY SILT w/ ARAGONITE CONTENT	99 SS 120 SS several mm-sized white specks made of agglutinated mineral material. These white agglomerates were those the core but are more abundant in this section.
4	3/N 104 3/1		
5	25	DIATOM-RICH CLAYEY SILT	125cm SS CC is very disturbed
6	104 4/1		
7	GREENISH		
8			
9			
10			
11			
12			
13			
14			

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

SM

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1343	E	26	H	4A	59cm	

Sediment/Rock Name	Aragonite silt	Observer	Beth
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Percent Texture		
Sand	Silt	Clay

Comments:

Accessory

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

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

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1343	E	26	H	4A	122cm	

Sediment/Rock Name	Diatom rich clayey silt	Observer	BETIT
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B - 20  
 S - 75  
 V - 5

Comments:

Percent Texture		
Sand	Silt	Clay
15	45	40

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

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

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1343	E	26	H	7A	70cm	

Sediment/Rock Name	DIATOM-RICH SILT	Observer	BETH
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B-40  
S-SS  
V-S

Percent Texture		
Sand	Silt	Clay
5	80	15

Comments:

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

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



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IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1343	E	26	H	7A	125cm	

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

Comments:

Bwe Motne

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

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

Expedition 323  
Bering Sea

1343 Site    E Hole    27 Core    Section    Top Depth

		Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
1	10	✓	10Y 4/1						21-43 moll ✓	1A-50. diatom-rich silt
2	20	✓	30 5Y 5/2 85						60 moll sand ✓	
3	40								2.5T 5/2 37-38 ash layer 1cm 18-146 cracks. 733-144 crack fracture	97-98 burrow sand 3A-90. clayey silt
4	50	✓	10GY 4/1						32-139 cracks	
5	70									
6	80								81-86	
7	90	✓	10Y 4/1						132 46 6	
CC	100									
	110									
	120									
	130									
	140									

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

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IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	0043	E	27	H	1	50 cm	

Sediment/Rock Name	Diatom-rich silt	Observer	G.B.
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Percent Texture		
Sand	Silt	Clay
	40	60

Comments:

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

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

65

SM

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	01343	E	27	H	3	90 cm	

Sediment/Rock Name	Clayey - Silt	Observer	G.B.
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Percent Texture		
Sand	Silt	Clay
	30	70

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b>	
	Framework minerals
30	x Quartz
10	x Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
3	x 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
20	y Pyrite
	Magnetite
	Fe-oxide
	Carbonates
10	x Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

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

Expedition 323  
Bering Sea

1343 E 28 ALL  
Site Hole Core Section Top Depth

Major Lithology		Minor Lithology	
Graphic Representation	Color	Lithology	Visual Core description
1	5Y 3/2	DIATOM-RICH SILTY CLAY	SEVERAL VOIDS
	28 25		
2	5Y 3/1	DIATOM-BEARING SILT	
3			
4		50cm white sandy layer	
5		SOLUBLE SPECKLES	
6			
CC			

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1343	E	28	H	31	80	

Sediment/Rock Name

Observer *Wesley*

*DIATOM-RICH SILTY CLAY  
GREEN*

Percent Texture		
Sand	Silt	Clay
<i>14</i>	<i>50</i>	<i>38</i>
<i>82</i>	<i>9</i>	<i>5</i>

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b>	
Framework minerals	
<i>12</i> <del><i>12</i></del>	Quartz <i>3</i>
<i>12</i> <del><i>12</i></del>	Feldspar <i>3</i>
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
<i>12</i> <del><i>12</i></del>	Rock fragments <i>3</i>
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
<i>38</i> <del><i>38</i></del>	Clay Minerals <i>8</i>
	Chlorite
	Glaucanite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
Foraminifera	
Planktonic foraminifera	
Benthic foraminifera	
Nannofossils	
Coccoliths	
Discoasters	
Pteropods	
Siliceous	
Radiolarians	
Spumellaria	
Nassellaria	
<i>29</i> <del><i>30</i></del>	Diatoms <i>7</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

SM

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1343	E	28	H	X3	80	

Sediment/Rock Name: Clayey silt  
diatom-bearing

Observer: Okita

Percent Texture		
Sand	Silt	Clay
0	50	50

3

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b>	
Framework minerals	
36	Quartz 77
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
15	Rock fragments 3
Accessory/trace minerals	
3	Micas 0.5
	Biotite
	Muscovite
15	Clay Minerals 3
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
5	Pyrite 1
	Magnetite
	Fe-oxide
10	Carbonates 2
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

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

Expedition 323  
Bering Sea

1343 E 29  
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
					Visual Core description	
1	20 5Y 3/2					14-97 pinnacled
2			S	98	108	41-46, 70-75, 99-107 void
3			S		125	29-31, crack 66-67 white ash 37-57 } void fracture 97-107 } 117-140 subvertical cracks
4			S	69 81		69-82 } void 87-94 } 101-117 }
5			m			0-150 moll pyrite patch
6	13 105		m			
7	10 44		m		120	0-99 moll pyrite patch
8	17 28				15	28-44 void 44-72 several cracks
9					72	
10					31	31-40 PAL
						5Y 3/2 diatom-chrys site
						10T 4/1
						10G 4 1/1 diatom-bearing clayey site

-21-16 diatom-bearing clayey site

7A-22 diatom clayey site

Observer: \_\_\_\_\_ Date: \_\_\_\_\_



SM

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	1323	E	29		2	15m	

Sediment/Rock Name	Uniform-Bedded CLAYDY SILT	Observer	IWA
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Percent Texture		
Sand	Silt	Clay
10	80	30

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b>	
Framework minerals	
15%	5 Quartz
30	10 Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
30%	10 Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
9%	3 Pyrite
	Magnetite
	Fe-oxide
9%	3 Carbonates (dolomite?)
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

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

X

SM

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	1343	0	29		7	22	m

Sediment/Rock Name	Diatom clay silt	Observer	JWR
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Percent Texture		
Sand	Silt	Clay
5	95	50

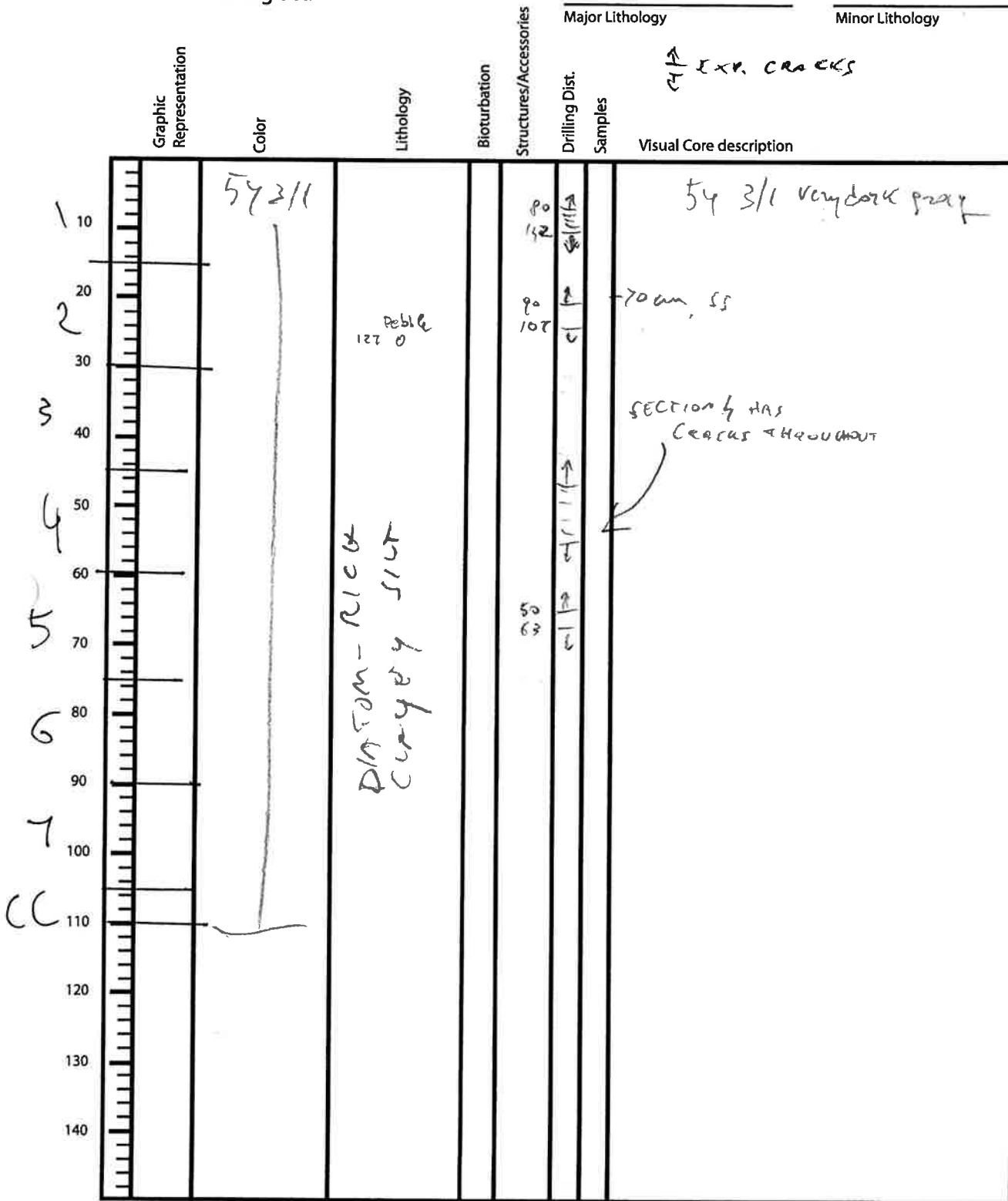
Comments:

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
Foraminifera	
	Planktonic foraminifera
	Benthic foraminifera
Nannofossils	
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
Radiolarians	
	Spumellaria
	Nassellaria
35.1	25 Diatoms
21.15	Centric
14.10	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

1343 E 30 ALL  
Site Hole Core Section Top Depth



Observer: \_\_\_\_\_ Date: \_\_\_\_\_

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1343	E	30	H	2A	70	

Sediment/Rock Name	diatom-rich clayey silt	Observer	Akira
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Percent Texture		
Sand	Silt	Clay
14	36.50	36
2	9.5	5

Comments:

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

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

4A-120  
7A-40

1343 E 31  
Site Hole Core Section Top Depth

Expedition 323  
Bering Sea

Depth (m)	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
							Visual Core description	
10	g	10Y 4/1				59, 79, 87, 83		40-128 pyrite patches ✓
15	g	B/N				32, 83		
20	g	128				121, 102, 107		
30	g					134, 7		
40	g	10Y 4/1				75		
50	g			m		15, 30, 45, 50		84-91 dolomitized ✓ many Sec 4 105 - Sec 6 130 pyrite patches
60	g	5Y 6/2						4A-130 diatom-rich site
70	g							
80	g	120		m				
90	g							
100	g							7A-40 diatom-rich clay
110								
120								
130								
140								

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

3/N  
5Y 3/2  
10Y 4/1

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	1343	E	31		4	130cm	

Sediment/Rock Name	DIATOM-RICH SILT	Observer	IWA
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Percent Texture		
Sand	Silt	Clay
10	70	20

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b>	
49%	Framework minerals
12%	Quartz
37%	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
12%	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
2%	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS</b>	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
36%	15 Diatoms
24%	10 Centric
12%	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
	1343	E	S1	H	7	40	

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

Comments:

28%

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b>	
	Framework minerals
12%	8 Quartz
11%	7 Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5%	3 Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
38%	25 Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
3%	2 Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS</b>	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
31%	20 Diatoms
23	15 Centric
8	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

1343 E 32  
 Site Hole Core Section Top Depth

Expedition 323  
 Bering Sea

Depth (m)	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
							Visual Core description	
1								
2		5G4/1						
10							20	20-24 mott. dolomitic? ✓ 53-56 mott. sand ✓
20	✓					23 36		3A-40 diatom silt
30	g ✓	12		12		14 17	130	40-60 cracked
40		10G4/1				15		
50				S		130		
60				S		30	125 } mott. sand ✓ 29 } 31 } 81 }	6A-70 diatom clay
70				S		122		
80				S			18-23. mott. dolomitic? or micritic? ✓	
90				S			134	
100	cc ✓			S			86	
110							15	15-26 Pal.
120								5G4/1
130								
140								

Observer: \_\_\_\_\_ Date: \_\_\_\_\_



SM

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	1343	E	32	A	3	40m	

Sediment/Rock Name	SLATE SILT	Observer	lwa
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Percent Texture		
Sand	Silt	Clay
20	40	40

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b>	
Framework minerals	
7%	2 Quartz
42% } 18%	5 Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
18%	5 Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
18%	5 Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
4%	1 Pyrite
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
Foraminifera	
Planktonic foraminifera	
Benthic foraminifera	
Nannofossils	
Coccoliths	
Discoasters	
Pteropods	
Siliceous	
Radiolarians	
Spumellaria	
Nassellaria	
36%	10 Diatoms
2%	1 Centric
7%	2 Pennate
Chaetoceros Resting Spores	
Silicoflagellates	
Sponge spicules	
Dinoflagellates	
Others	
Pollen	
Organic debris	
Plant debris	
Ebridians	
Echinoderm	
Fish remains (teeth, bones, scales)	
Bryozoans	
Bivalves	
Others	

SM

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	1342	E	<del>1342</del> 32		B	70 cm	

Sediment/Rock Name	SLATON clay	Observer	LWA
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Percent Texture		
Sand	Silt	Clay

Comments:

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
45%	Diatoms
39%	20 Centric
6%	3 Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Expedition 323  
Bering Sea

1343 E 33 1-3  
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology	Visual Core description
I	3/N	Diatomaceous silty clay I		S			All stiff
		I	S				20 end of section
II	5Y 3/2	Aull. - L. - r II		S			17 II - diatomaceous silty clay
		I					27 Black mottles throughout section
III	5Y 7/1	F. ash III					78 G.E.
		I					95
		I					122 end of section
							14 II
							29 Bioturbated upper + lower contacts. Sharp base at 34
							35

Observer: Kelsie Date: \_\_\_\_\_

Expedition 323  
Bering Sea

1343 E 33 4+5  
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
					Visual Core description	
	1043/1	IV Diatom-b clayey silt			31 36	Very subtle boundary between greenish greyish sediment
			o		82	clast, black rounded 3mm
IV						
					7 26	Sandy nodules
V		IV	x		37	shell fragments
			A	S		
			o		86	Sandy nodules.
					136 150	Sandy nodules

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

Expedition 323  
Bering Sea

1343 E 33 6+7+cc  
Site Hole Core Section Top Depth

115

VI

VII

cc 0-90

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
					Visual Core description	
		IV				
		Diatom-b clayey silt				Sandy mottles throughout
				x	SS	50
					SS	80
					SS	85
						102
						18 heavy gas expansion
						34
		IV			SS	56
						Sandy mottles throughout lith IV
					SSS	
					SS	100
					SS	108
					SSS	115
		I				
						142
		I			SSS	Sandy mottles ← sediment reassembled.

Observer: \_\_\_\_\_ Date: \_\_\_\_\_

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1343	E	334		2A	60	50

Sediment/Rock Name	Diatom-rich silty clay	Observer	H. W. A
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Percent Texture		
Sand	Silt	Clay
15	40	45

3 10 10

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL 69</b>	
Framework minerals	
32-37%	Quartz 5
6%	Feldspar 1
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
18%	Clay Minerals 3
	Chlorite
	Glauconite
	Chert
6%	Zircon
60%	Ferromagnesium minerals 1
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
6%	Pyrite 1
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS 31%</b>	
Calcareous	
Foraminifera	
Planktonic foraminifera	
Benthic foraminifera	
Nannofossils	
Coccoliths	
Discoasters	
Pteropods	
Siliceous	
Radiolarians	
Spumellaria	
Nassellaria	
31%	5 Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

SM

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1343	E	33		4	35	35

Sediment/Rock Name: Diatom rich silty clay

Observer: Hib A

Percent Texture		
Sand	Silt	Clay
5	25	70
/	.5	15

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL 69</b>	
Framework minerals	
45	Quartz 10
	Feldspar → φ
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
4	Rock fragments 1
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
15	Clay Minerals 3
	Chlorite
	Glauconite
	Chert
	Zircon
4	Ferromagnesium minerals 1
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
Crystal grain	
1	Vitric grain 0.25
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS 31</b>	
Calcareous	
Foraminifera	
Planktonic foraminifera	
Benthic foraminifera	
Nannofossils	
Coccoliths	
Discoasters	
Pteropods	
Siliceous	
Radiolarians	
Spumellaria	
Nassellaria	
31	5 Diatoms
Centric	
Pennate	
Chaetoceros Resting Spores	
Silicoflagellates	
Sponge spicules	
Dinoflagellates	
Others	
Pollen	
Organic debris	
Plant debris	
Ebridians	
Echinoderm	
Fish remains (teeth, bones, scales)	
Bryozoans	
Bivalves	
Others	

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1345	E	33H		6	50	50

SM

Sediment/Rock Name	Diatom-bearing clayey silt	Observer	Hiro.
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Percent Texture		
Sand	Silt	Clay
5	70	25
1	25	10

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL 92%</b>	
Framework minerals 20	
51	Quartz
3	Feldspar 1
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
3	Micas 1
	Biotite 4
	Muscovite
26.25	Clay Minerals 10
	Chlorite
	Glauconite
	Chert
	Zircon
3	Ferromagnesium minerals 1
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
7	Pyrite 3
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS 8%</b>	
Calcareous	
Foraminifera	
Planktonic foraminifera	
Benthic foraminifera	
Nannofossils	
Coccoliths	
Discoasters	
Pteropods	
Siliceous	
Radiolarians	
Spumellaria	
Nassellaria	
8	3 Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others



Expedition 323  
Bering Sea

1343 Site    E Hole    34 Core    1+2 Section    Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
							Visual Core description	
	3/N	H				5		
	107 3/2	H				10		
						28		
						33		Bioturbated dark red ash
	3/N	Aiston clayey silt				51		
						6E		
						117		
						142		
						20		Sandy mottles
						28		
						66		
						74		
						81		
						127		
						140		

Black mottling throughout  
116 II

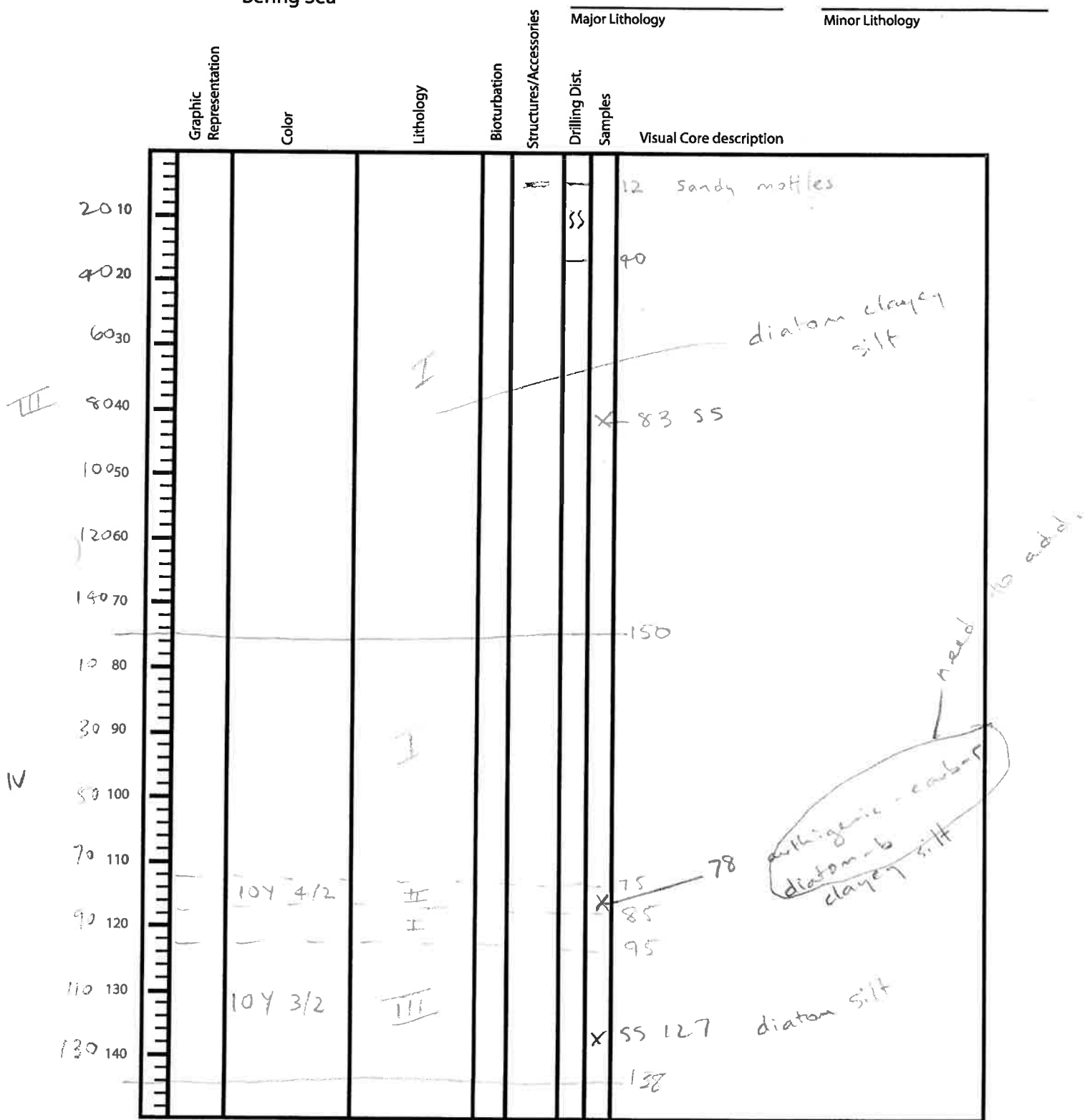
I

II

Observer: Kelsie Date: \_\_\_\_\_

Expedition 323  
Bering Sea

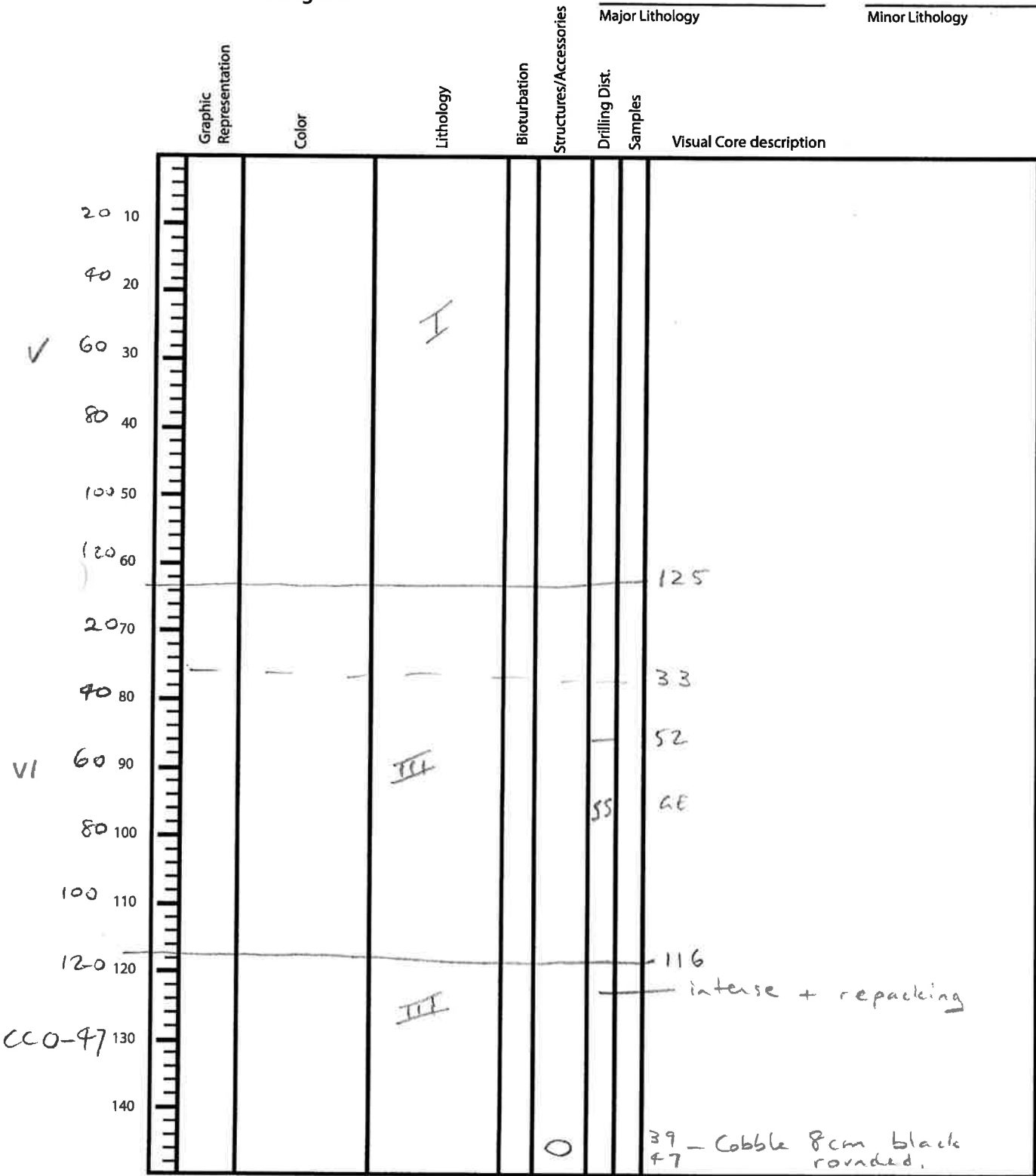
1343 E 34 3+4  
Site Hole Core Section Top Depth



Observer: \_\_\_\_\_ Date: \_\_\_\_\_

Expedition 323  
Bering Sea

1393 Site    E Hole    34 Core    5+6+CC Section    Top Depth



Observer: \_\_\_\_\_ Date: \_\_\_\_\_

IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

514

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1343	E	34H		3A	83	83

Sediment/Rock Name	Diatom <del>clayey</del> clayey silt	Observer	M <sup>n</sup> Morz
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Percent Texture		
Sand	Silt	Clay
5	60	35

Comments: Main lith., gray

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
35	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	1343	E	34	H	4	78	78

Observer: *Marz*

Sediment/Rock Name

*Auth. carbonate-rich diatom-bearing clayey silt*

Sand	Percent Texture	
	Silt	Clay

Comments:

*Lighter layer*

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b>	
	Framework minerals
8	Quartz
4	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
5	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
75	Carbonates ( <i>fine silt-sized, elongate, uniform size dist.</i> )
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

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



Expedition 323  
Bering Sea

1343 E 35 1-5  
Site Hole Core Section Top Depth

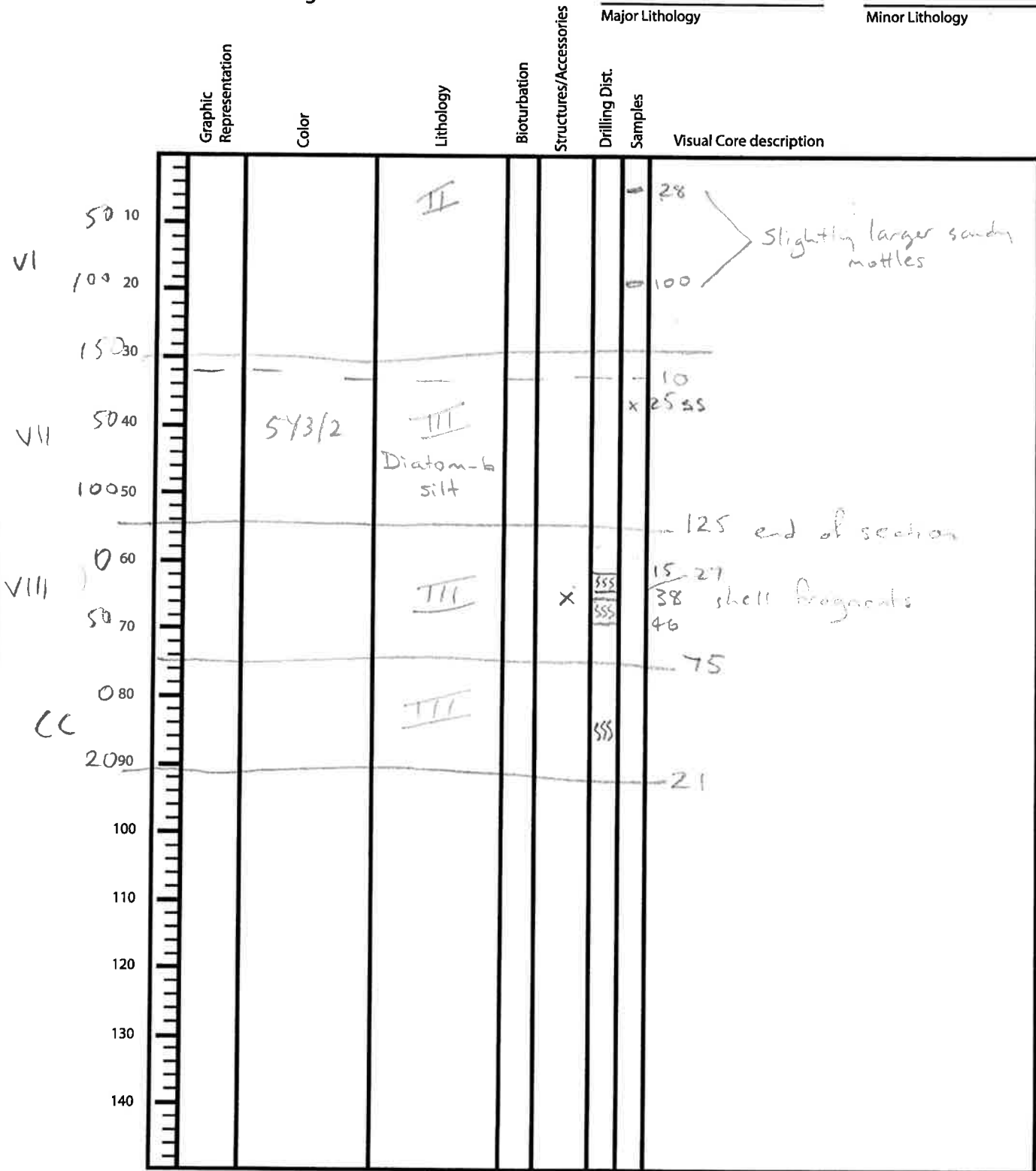
Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
							Visual Core description	
I	5Y 3/2	I Diatom silt	-		SSS	6E		
	10Y 3/1	Diatom-r silt	x	x		12 Sandy mottle		
II		II	x			18		
			x			30-55		
III		II	x			60 Small sandy mottles		
			x			65		throughout core
IV		II	x			95		minor authigenic carb
			x			105		+ gas expansion - severe
V		II	x			150		
			x			35		
						54		
						75		
						81		
						SSS		
						13		
						24		
						SSS		
						86		
						93		

Firm throughout

Observer: Kelsie Date: \_\_\_\_\_

Expedition 323  
Bering Sea

1343 Site    E Hole    35 Core    VI-CC Section    Top Depth



Observer: \_\_\_\_\_ Date: \_\_\_\_\_



IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1343	E	35	H	2	30	30

Sediment/Rock Name	Diatom <del>silt</del> - rich silt	Observer	Maiz
--------------------	------------------------------------	----------	------

Percent Texture		
Sand	Silt	Clay
5	80	15

Comments:

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
Calcareous	
Foraminifera	
Planktonic foraminifera	
Benthic foraminifera	
Nannofossils	
Coccoliths	
Discoasters	
Pteropods	
Siliceous	
Radiolarians	
Spumellaria	
Nassellaria	
Diatoms	
35	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

SM

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1843	E	35	H	7	25	25

Sediment/Rock Name	Diatom-bearing silt	Observer	Mare
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Percent Texture		
Sand	Silt	Clay
15	80	5

Comments:

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

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

Expedition 323  
Bering Sea

1343 E 36 Sections I-V  
Site Hole Core Section Top Depth

		Major Lithology	Minor Lithology			
Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories			
			Drilling Dist. Samples			
			Visual Core description			
I	10Y 3/1	I	SSS	26 10	26	
II		Diatom-r silty clay	x	SS	50 20	Small sandy mottles throughout but more abundant 52-56 cm
				SSS	100 30	
				SS	150 40	
III		I	x	SS	50 50	Small sandy mottles throughout
				SS	100 60	
				SS	150 70	144 Sponge spicule aggregate
IV		I	A	x	50 80	Arthi-carb-r diatom silty clay
				SS	100 90	64 - black rounded pebble 10mm
	10Y 2.5/1	II	S	x x	150 100	113 115-122 sandy patches + burrow 140-146
V		Diatom-r silty clay	A	S	50 110	Small sandy mottles throughout
				SS	100 120	
				SS	150 130	SS Diatom-b sandy silt
					140	



Observer: Kelsie Date:

Expedition 323  
Bering Sea

13F3 E 36 6-CC  
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
							Visual Core description	
50 10		II			S			Black + small sandy mottles
VI 100 20					SSS			96
150 30					S			107
					S			130-137 SSS - DD
VII 50 40		II			S			20
100 50					S			25
V. 150 60		II		x	SS			12 - sandy patch
60 70					SSS			24
CC 50 80		II			S			46
90					SSS			96
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	1343	E	36	H	3	30	30

Sediment/Rock Name	Authigenic Carbonate - rich diatom rich silty clay	Observer	HT-A
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Percent Texture		
Sand	Silt	Clay
10	30	60

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b> 76 94	
Framework minerals	
26	Quartz 10
5	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
79	Muscovite
8	Clay Minerals 3
	Chlorite
	Glauconite
	Chert
52	Zircon
3	Ferromagnesium minerals 1
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
8	Pyrite 3
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
24 26	Dolomite 10
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS</b> 26	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
26 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

SM

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1343	E	36	H	7	70	90

Sediment/Rock Name	Diatom rich silt clayey silt	Observer	H.A
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Percent Texture		
Sand	Silt	Clay
20	45	35
70	720	15

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL 82</b>	
Framework minerals	
48	Quartz 10
10	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
14	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
24	Clay Minerals 5
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite *
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS 18</b>	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
18	Diatoms
4	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

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1343	E	36	H	4	135	135

Sediment/Rock Name	Diatom bearing Sandy Silt	Observer	HWA
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Percent Texture		
Sand	Silt	Clay
35	50	15

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL</b> 94%	
Framework minerals	
56 57%	Quartz 20
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
44	Accessory/trace minerals
	Micas
	Biotite
20	Muscovite
8 4%	Clay Minerals 3
	Chlorite
	Glauconite
	Chert
	Zircon
28 29%	Ferromagnesium minerals 10
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
2 3%	Pyrite 1
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
<b>BIOGENIC GRAINS</b>	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
6 3%	24 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	1313	E	36H		5	134	

SM

Sediment/Rock Name	Diatom clay - rich silty clay	Observer	Air.
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Percent Texture		
Sand	Silt	Clay
5	40	55
1	7	10

Comments:

Percent	Component
<b>SILICICLASTIC GRAINS/MINERAL 87</b>	
Framework minerals	
67	Quartz 3 10
7	Feldspar 1
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
13	Clay Minerals 2
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
<b>VOLCANICLASTIC GRAINS</b>	
	Crystal grain
	Vitric grain
	Lithic grain

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



(S2) shelf

1343 Site    E Hole    37 Core    1-4 Section    Top Depth

### Expedition 323 Bering Sea

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
	3/N <del>N 3/4</del>	I				
	Draining D. bearing silty clay			120 136 172	116-118 pebble 2.0cm rounded	4/N <del>N 3/4</del>
		I			151	
					120-140 crack	Mod. disc ↓ VOID
					148	
					60-70	
	N 4/N Diatom rich clay	II		60 70	0.31-136 Bit yellowish	
	→ silty 135					
	SS Diatom bearing silty clay	I			150	P. disc 60-90 VOID severe 52-91 jar exp severe
	66 67	I		66 67	0.23-21 pebble 2cm rounded (K12)	
		I		72-76	2cm pebble 4/N rounded	
	103 110 112	I		103 110 112	88-96 Drilling Disc Jar exp. mod	
					150	
					124-130	"

III  
E  
II  
N 4/N

Observer: H. W. A. Date: \_\_\_\_\_

Expedition 323  
Bering Sea

Site 1343 Hole E Core 37 Section 5-CC Top Depth \_\_\_\_\_

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Major Lithology		Minor Lithology
					Drilling Dist.	Samples	Visual Core description
	I	I			30-63		GAS expansion slight
	I	I			30-48		Pieces severe
	I	I			50-60		VOLD severe
	III	III			12-43		Dr. Disc Pieces. Severe
	I	I					
	I	I					
	I	I					
	I	I					
	III	III					
	III	III					
	III	III					
	III	III					
	III	III					

Observer: Hiro. fs Date: \_\_\_\_\_



IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1343	E	37	H	4	44	

Sediment/Rock Name	Diatom-b silty clay	Observer	Kelsie
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Percent Texture		
Sand	Silt	Clay
10	40	50

Comments: Main lithology

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
	Calcareous
5	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	1343	E	37	H	CC	15	15

SM

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

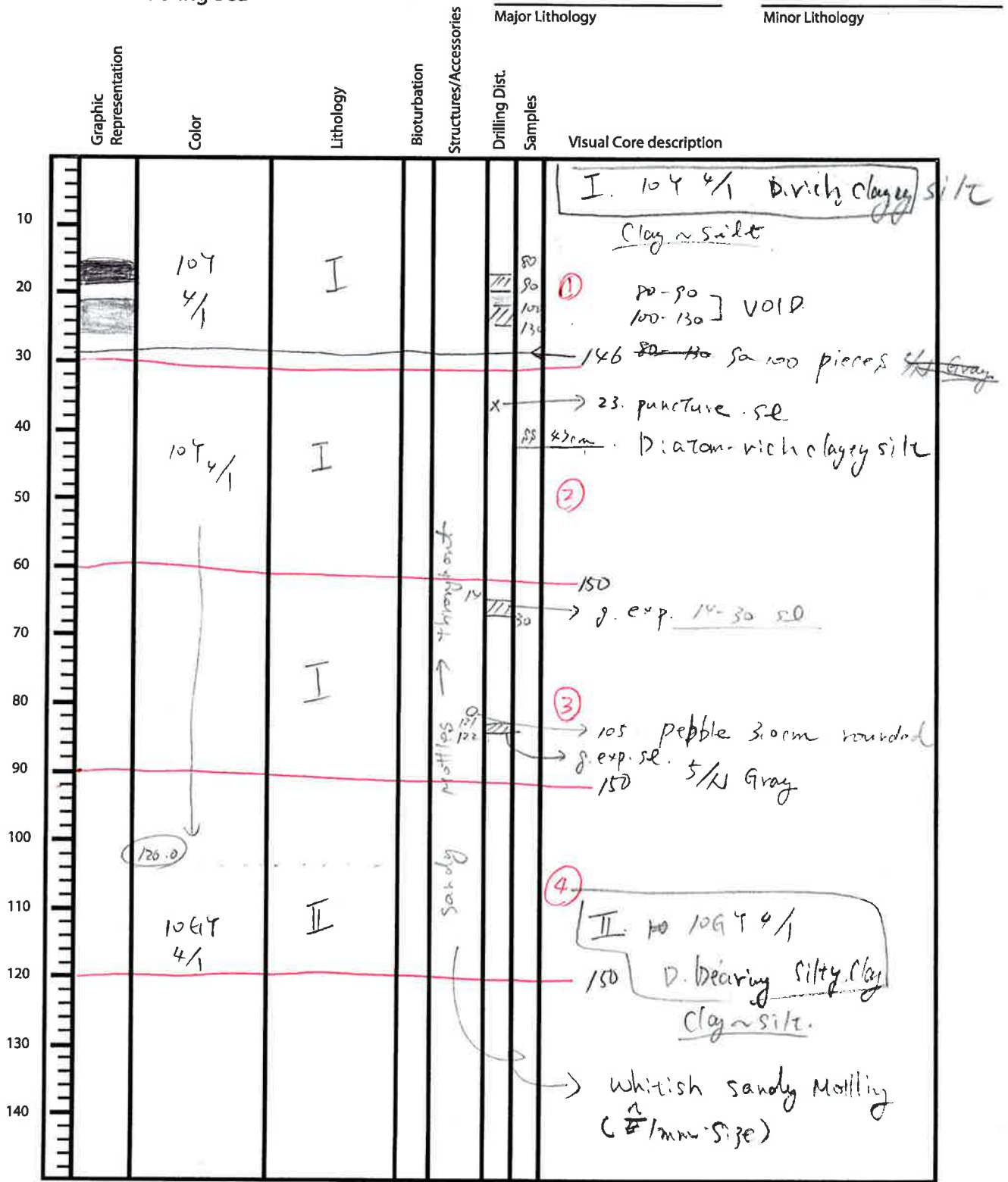
Comments: Slightly greener lithology

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
	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

1343 Site      E Hole      38H Core      1-4 Section      Top Depth



Observer: Hind. A      Date: \_\_\_\_\_

Expedition 323  
Bering Sea

1343 Site    E Hole    384 Core    5-CC Section    Top Depth

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
					Visual Core description	
	10GY 5/1	II				→ D. b. Silty clay
	<del>10GY</del>					(5) 35 102 Diatom bearing Silty clay 35 132 → white patch (sandy) → Acith. C. ?
	<del>10GY</del>	II	throughout	51 52		→ Sandy silt 51 54 → white patch (sandy)
	4/1			56		(6) → crack se.
	IW + M B10		Billow	57		→ g. exp se.
		II	Sandy			
		II	Billow			(7) 82
						cc 24
						0-2% D. Dist. puncture Mud
						Diatom rich clay ~ Diatom rich clayey silt gradual changes

10GY  
4/1

Observer: Hiro. A    Date: \_\_\_\_\_

SM

IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1343	C	38	H	2	47	

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

Comments:

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

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



IODP Expedition 323  
SEDIMENT SMEAR SLIDE WORKSHEET

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1343	E	38	H	5	102	102

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

Comments:

Main lith.

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

Percent	Component
<b>BIOGENIC GRAINS</b>	
	Calcareous
1	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



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IODP Expedition 323  
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1343	E	38	H	6	64	

Sediment/Rock Name	Sandy silt	Observer	Kelsie
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Percent Texture		
Sand	Silt	Clay
30	70	

Comments: sandy patches

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

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