

Expedition 323
Bering Sea

1344 Site D Hole 1H Core 1+2 (shorty) Section Top Depth



111

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
					Visual Core description	
	5Y4/3		slight			
						ropy 0-70 2-8 dark mottling 70-... soft
						63, 77, 83, 101 sponge aggs.
						114

Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

SMU

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1244	D	1H		1	70	70

Sediment/Rock Name	Diatom ooze	Observer	H.A.
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Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 39	
Framework minerals	
27	Quartz 10 H 13
6	Feldspar 3
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
2	Rock fragments 1
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glaucinite
	Chert
4	Zircon
4	Ferromagnesium minerals 2
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS 61	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
41	Diatoms 20
20	Centric 10
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1348	D	114		2	80	80

Sediment/Rock Name	Diatom ooze	Observer	H.W.
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Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 30
2	Framework minerals
25	Quartz 20
3	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glaucinite
	Chert
	Zircon
27	Ferromagnesium minerals 1
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite 5
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS 69 70
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
1	Radiolarians 1
	Spumellaria
	Nassellaria
	Diatoms
	Centric 50
63	Pennate 5
6	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Expedition 323
Bering Sea

1344 D 2H 1+2
Site Hole Core Section Top Depth



Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Visual Core description
	5Y4/3		21				0-40 s.o.p.
	5Y4/3 + 5Y4/1		26				21-26 mottled
	5Y4/2		70				26 dark ad./sand layer, sharp base
	5Y4/1		82				74-76 grad
	5Y4/1 + 5Y4/2 (50/50)						78-82 med. lam., parallel, including two thin dark ash layers (78, 79 cm)
							136-80 (sect. 2) sandy mottles
	5Y4/2						78-85
	10Y4/1						125-7 (sect. 3) sandy mottles

Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 D 2H 3+4
Site Hole Core Section Top Depth

Major Lithology _____
Minor Lithology _____

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Visual Core description
	10Y4/1		mod		50-60 grad.
	5G14/1		heavy		67-44 (sect. 4) sandy mudfls
					24-27 vertical thin cracks, honey-like liquor leaking out.

Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 D 2H 576
Site Hole Core Section Top Depth

Major Lithology Minor Lithology

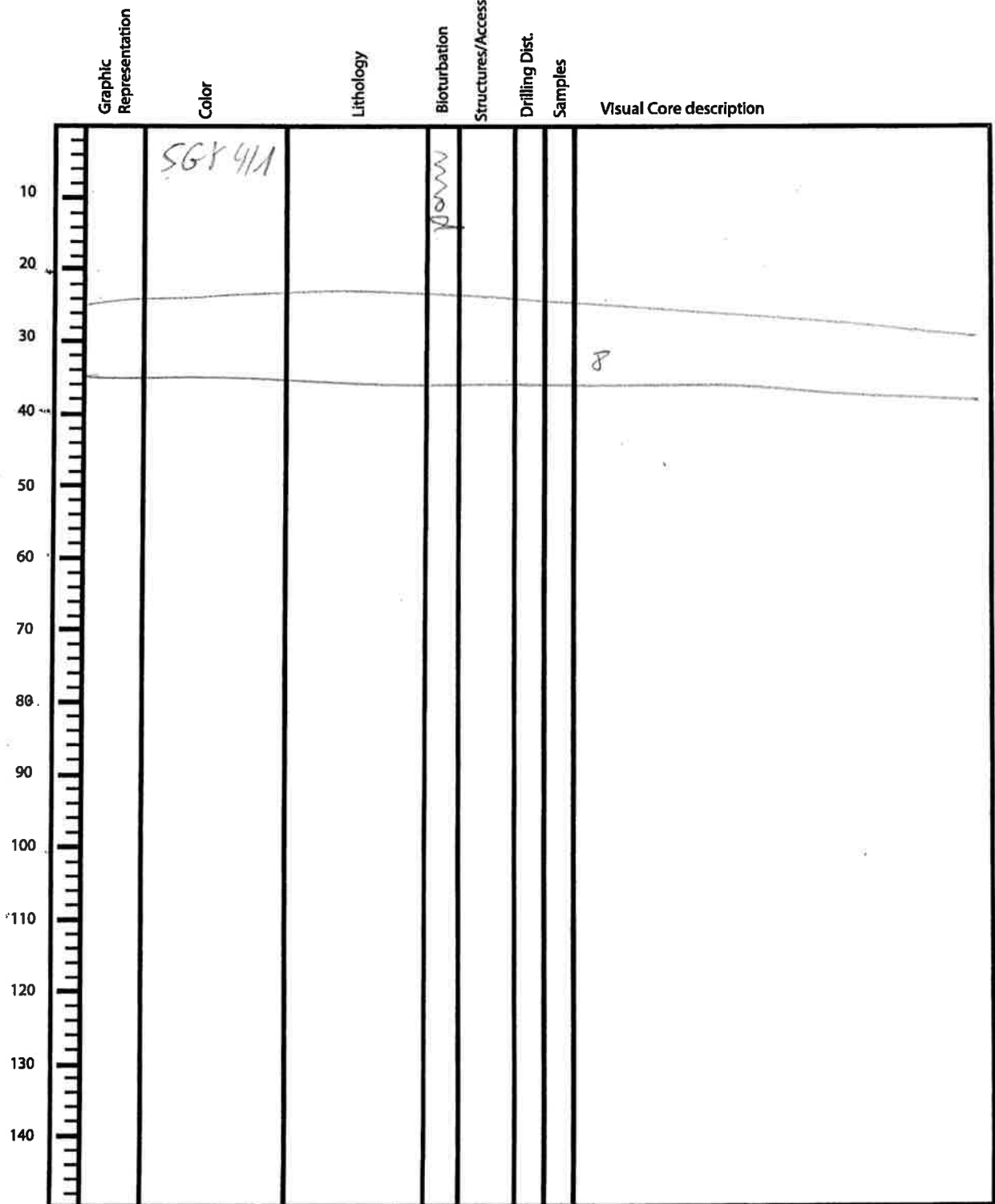
Graphic Representation	Color	Lithology	Biurbation	Structures/Accessories	Drilling Dist. Samples	Visual Core description
	5G-Y4/A		Wavy			<p>53 shell</p> <p>120-28 (sect. 5) pyrite nodules</p> <p>29-105 pyrite specks up to 1 cm φ</p> <p>53-55 large greenish-blueish burrow</p> <p>105-30 (sect. 7) pyrite nodules</p>

Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 D 2H 7+cc
Site Hole Core Section Top Depth

Major Lithology _____
Minor Lithology _____



Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	D	2H		1A	15	15

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

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 47	
Framework minerals	
29	Quartz 70/20
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
2	Rock fragments 2
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
12	Clay Minerals 10
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
4	Pyrite 3
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS 53%	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
35 43	30/30 Centric
18 27	15 Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

X

D 24

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	24	D		1	26	

Sediment/Rock Name	Sand	Observer	Hlw
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Percent Texture		
Sand	Silt	Clay
90	10	0

Comments:

68
26
84
52

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

Percent	Component
BIOGENIC GRAINS 2	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
2	Diatoms
	Centric
16	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

79 SM
79

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	D	2H		A	44	45

Sediment/Rock Name	Diatom bearing sand	Observer	H.A.
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Percent Texture		
Sand	Silt	Clay
80	15	5

Comments: Laminated layer ^{sandy}

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

Percent	Component
BIOGENIC GRAINS	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
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	1344	P	2H		2A	30	30

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Sediment/Rock Name	Diatom rich clay	Observer	Hiro
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^
silty

Percent Texture		
Sand	Silt	Clay
10	FF 20	FF

90

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 69	
	Framework minerals 6
11	Quartz 4
5	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
16	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
53	Clay Minerals 20
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS 31	
	Calcareous
	Foraminifera
<1	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
26	10 Centric
5	2 Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	B44	D	2H		5A	50	50

Sediment/Rock Name	Diatom rich silty clay	Observer	H. W.
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Percent Texture		
Sand	Silt	Clay
10	30	60

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 89	
Framework minerals	
42	Quartz 25 15
6	Feldspar 5 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
28 28	Clay Minerals 10
	Chlorite
	Glauconite
	Chert
	Zircon
6	Ferromagnesium minerals 5 2
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
7 8	Pyrite 3
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

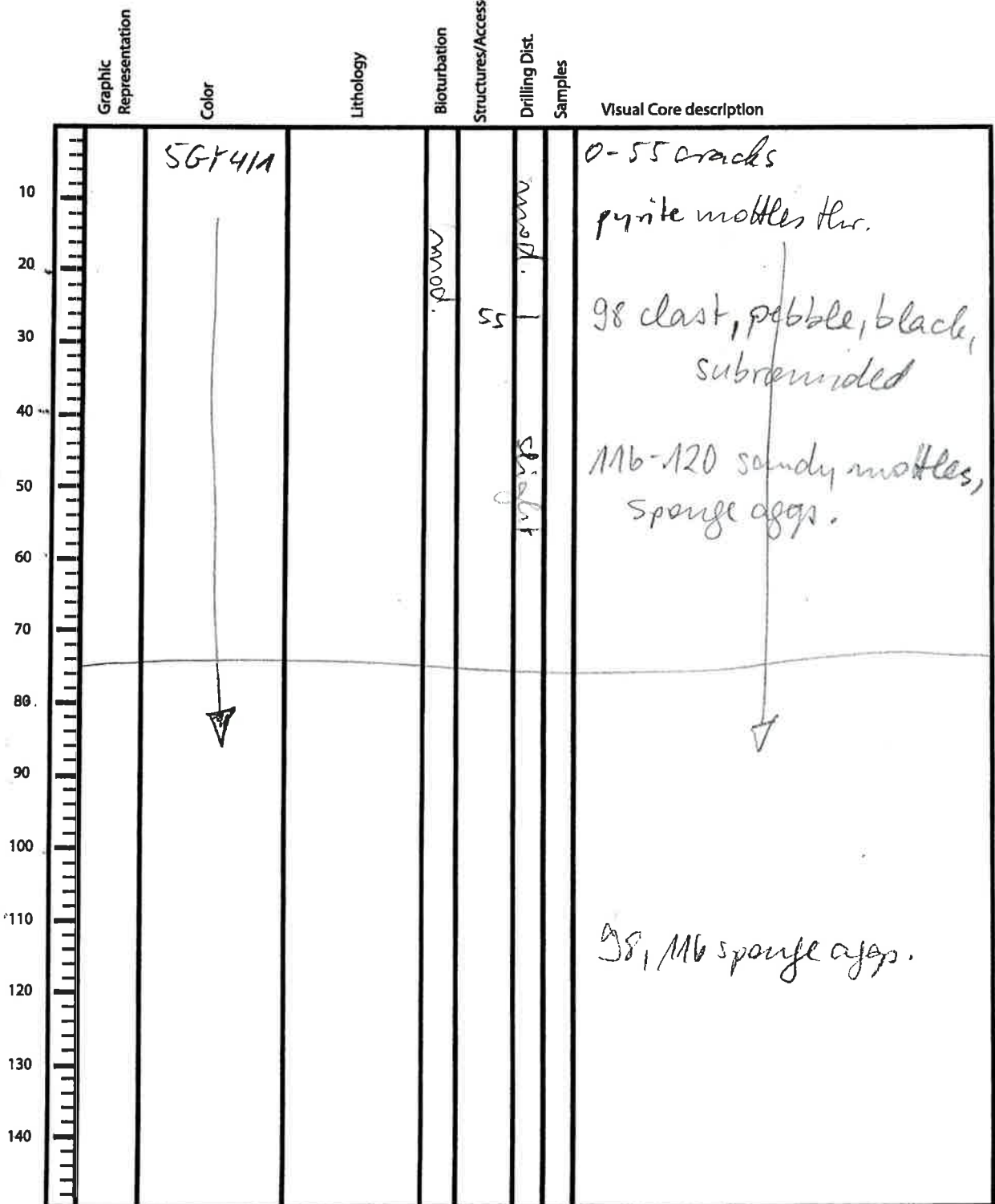
Percent	Component
BIOGENIC GRAINS 11	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
8 7	11 Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

SM

Expedition 323
Bering Sea

1344 Site 0 Hole 3H Core 1+2 Section _____ Top Depth

Major Lithology _____
Minor Lithology _____

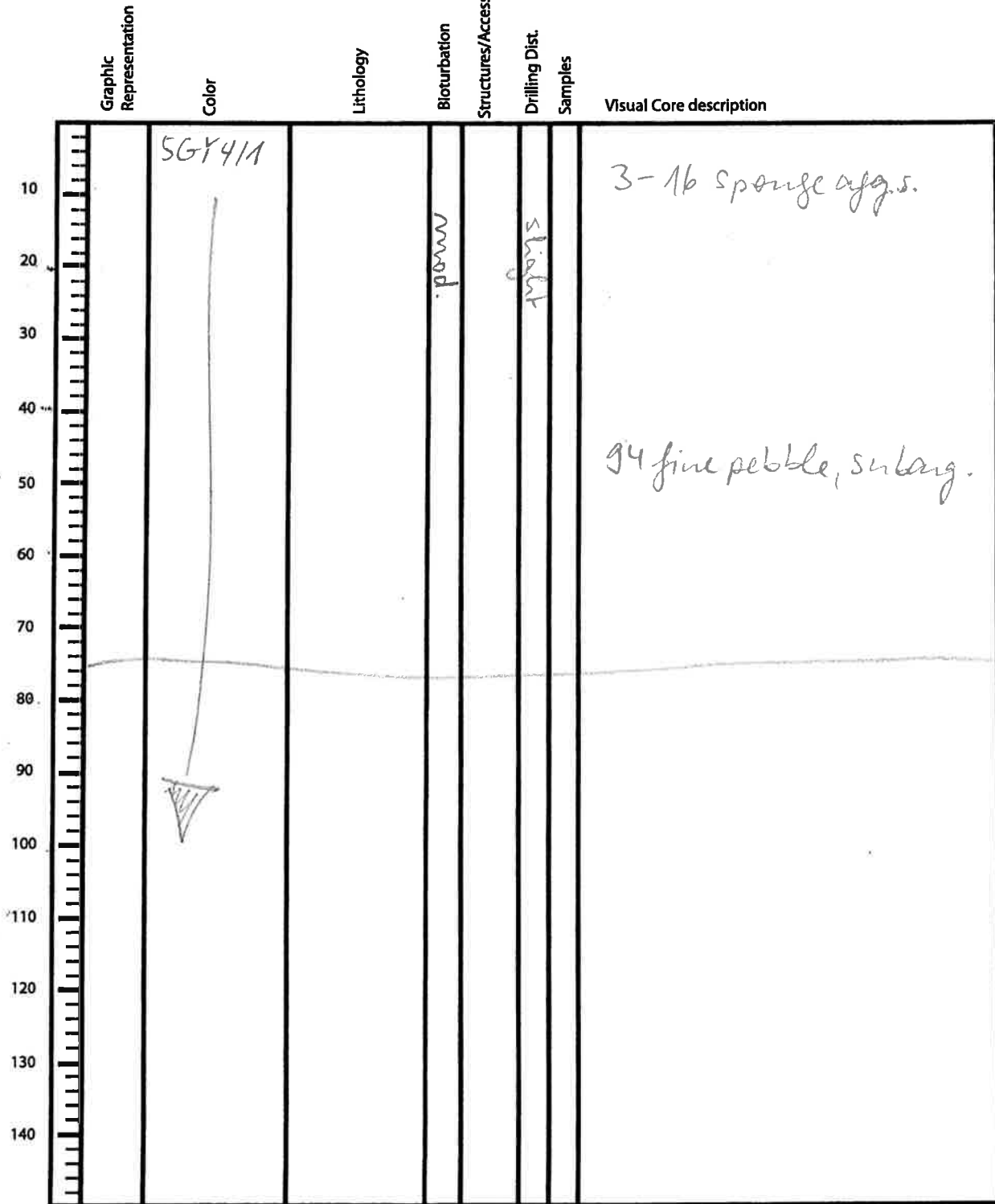


Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 D 3H 3+4
Site Hole Core Section Top Depth

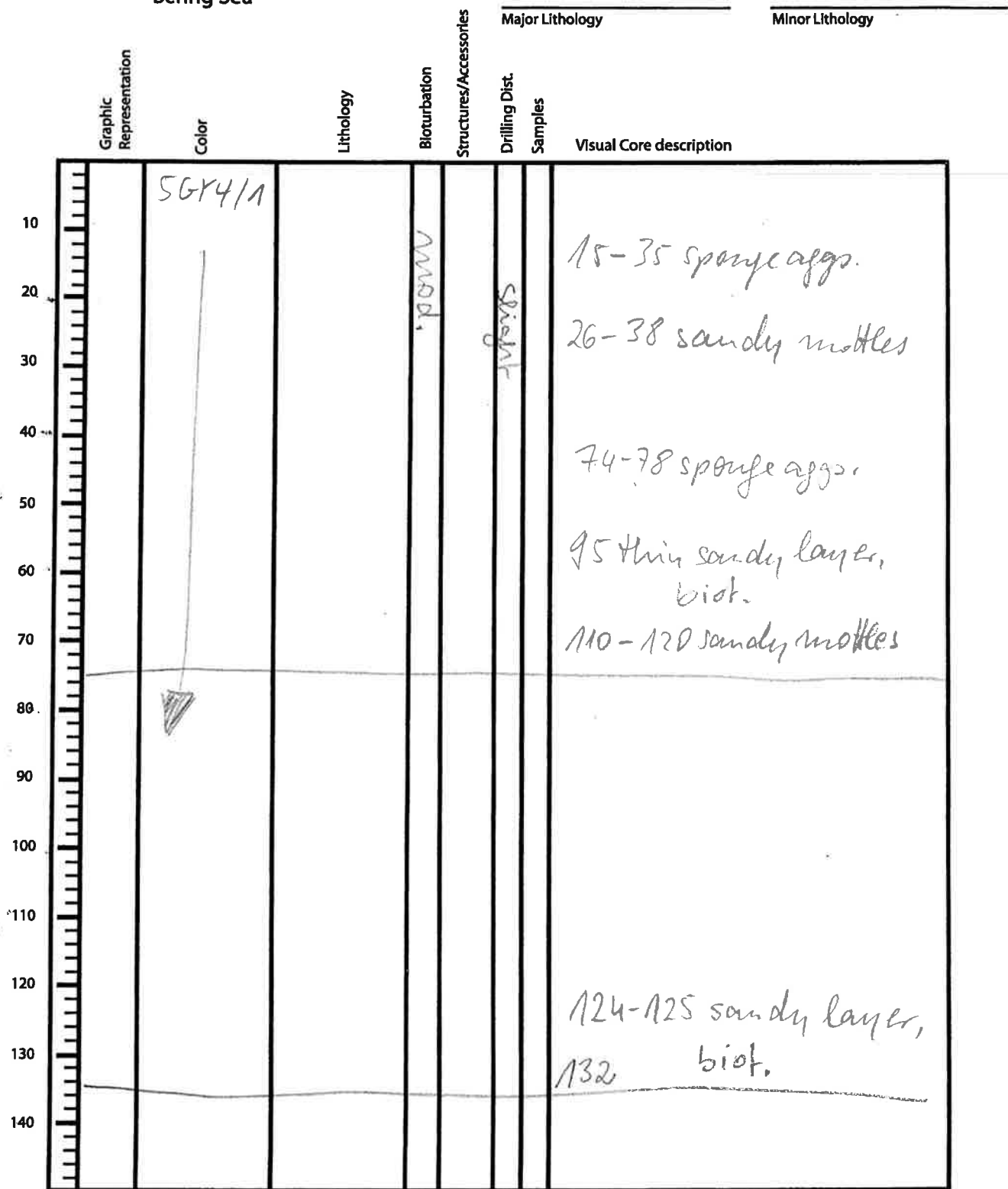
Major Lithology _____
Minor Lithology _____



Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 D 3H 5+6
Site Hole Core Section Top Depth



Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 D 3H 7+cc
Site Hole Core Section Top Depth

Major Lithology _____
Minor Lithology _____

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Visual Core description
	SGY411 ↓ ▲		low		8 45	

Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1344	D	3	H	3	20	20

Sediment/Rock Name	Diatom-rich silty clay	Observer	MSC
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S	Percent Texture		
	Sand	Silt	Clay
0	33	66	

Comments: Main lith (fily)

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

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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1344	D	3	H	6	20	20

Sediment/Rock Name	Diatom-rich silty clay	Observer	MSC
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S	Percent Texture		
	Sand	Silt	Clay
0	40	60	

Comments: Main lith (grey)

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

Percent	Component
40	BIOGENIC GRAINS
	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

SM

Expedition 323
Bering Sea

1344 D 4H
Site Hole Core Section Top Depth

Depth (m)	Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
1-10		↑		S		6 mott sand.	
2-30					45 L 107 130	56-59 burrow plane? 143 mott sand. 142 gravel zone	
3-40		10GY 9/1			70 110 140	148-149 mott sand	
4-60					24 60 130	0-46 speck sand. 66-78 speck pyrite 46-50 mott sand 10T 3/1 86-90. green layer.	
5-70				46		47-52 mott sand. 137-134. 137-139 mott pyrite	
6-90				58	50 C	Speck 1-40. pyrite 1-10 sko? 143-145 mott sand	
7-100		↓		22	80	26-70 green burrow sko? solid. sediments	
100-110					70 20	15-20. mott green. clast 20-27 PAL.	



Observer: _____ Date: _____

X
 IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	1344	D	4		4	48 cm	

SM

Sediment/Rock Name	SAND	Observer	IWA
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Percent Texture		
Sand	Silt	Clay
80	20	

SAND LAYER

Comments: coarse silt to very fine sand

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
50%	7 Quartz
	Feldspar
7%	1 K-feldspar (Orthoclase, Microcline...)
7%	1 Plagioclase
36%	5 Rock fragments (METAMORPHIC)
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	1344	D	4		5	57cm	

DM

Sediment/Rock Name	SILT	Observer	WJ
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Percent Texture		
Sand	Silt	Clay
7	88	5

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
42%	5 Quartz
	Feldspar
8%	1 K-feldspar (Orthoclase, Microcline...)
8%	1 Plagioclase
17%	2 Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
17%	2 Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
58%	1 Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	1346	D	4		7	42m	

SM

Sediment/Rock Name	CLAY	Observer	LWA
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Sand	Percent Texture	
	Silt	Clay
	30	70

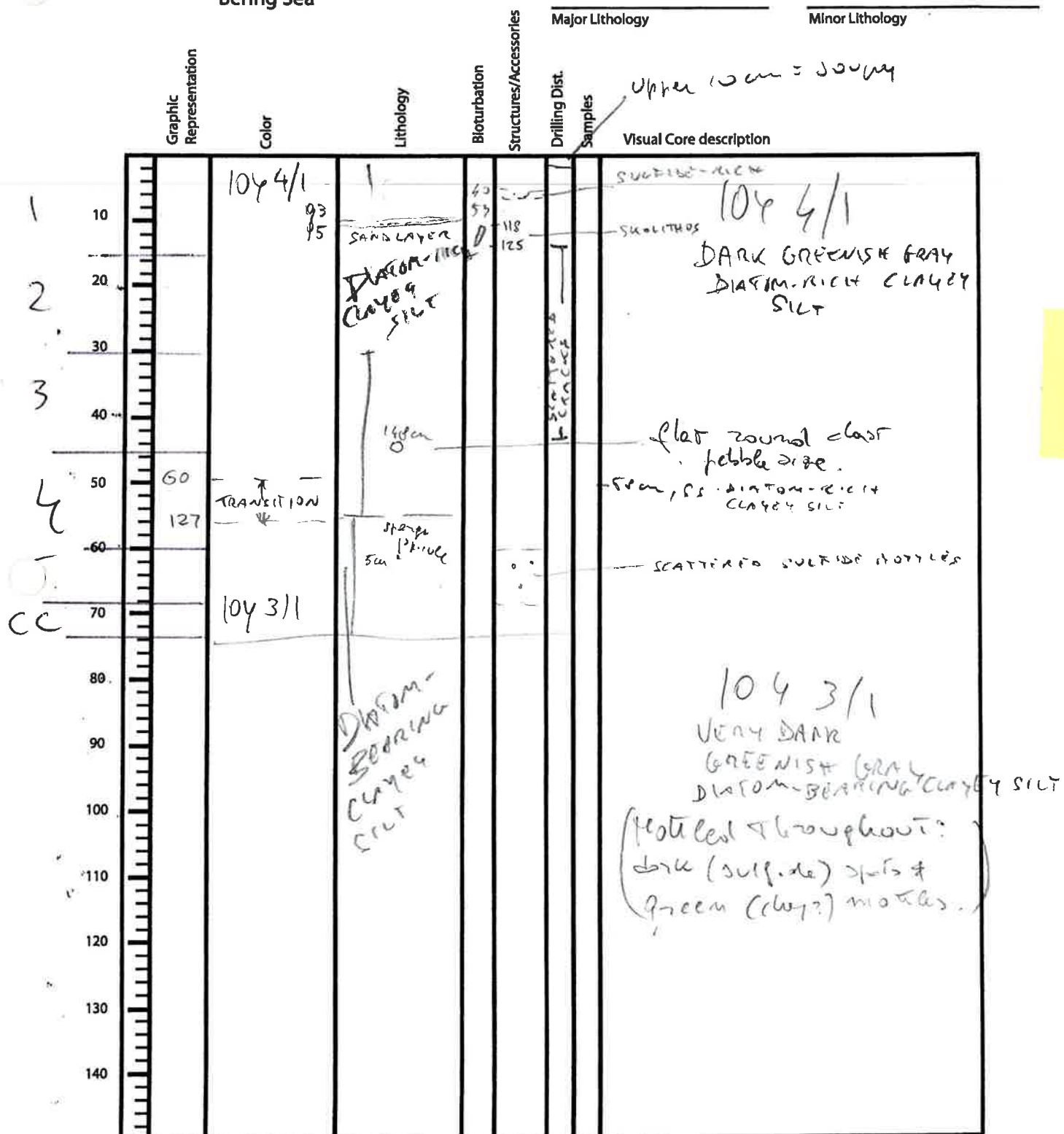
Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
9%	≥ Quartz
49%	Feldspar
5%	K-feldspar (Orthoclase, Microcline...)
5%	Plagioclase
5%	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
68%	15 Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
5%	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
Crystal grain	
	Vitric grain
	Lithic grain

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

Expedition 323
Bering Sea

1344 D 5H
Site Hole Core Section Top Depth



1344 D
SD
1344 D

Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	BK4D	5	H14	08			

SM

Sediment/Rock Name	diatom-rich clayey silt.	Observer	akvra
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Percent Texture		
Sand	Silt	Clay
9	45	45
3	15	15

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
14	Quartz 5
19	Feldspar 7
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
27	Clay Minerals 10
	Chlorite
	Glauconite
	Chert
	Zircon
1	Ferromagnesium minerals 0.5
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
5	Pyrite 2
	Magnetite
	Fe-oxide
Carbonates	
3	Calcite 1
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
3	Vitric grain 1
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
27	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

1344 D 6
Site Hole Core Section Top Depth

Major Lithology Minor Lithology

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Visual Core description
1074/1			S			80 42-43 sand 103-106 mott - layer
			M			150 83-84 green layer 85 sandy layer 96-137 speck sand 131-132 mott sand 138-140 pebble brown sand stone
5074/1						150 39-55 speck 70-90 speck pyrite 121-126, 140-149, 144-146 pyrite mott.
						6-15 mott pyrite 75-76 sandy patch 31-32 pyrite mott 81-140 speck pyrite
80						60-126 sandy spots speck
1074/1			S			84 32

2A-80 diatom clay silt
silty clay high pyrite
3A 55 cm

1344D
604

7A-80cm diatom ooze

Observer: _____ Date: _____

X
IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1344	D	6	H	2A	80cm	

Sediment/Rock Name	Diatom clayey silt
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Observer	Beth
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Comments:
B-50
S-50
V-0

Percent Texture		
Sand	Silt	Clay
2	50	48

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

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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1344	D	6	H	3A	88cm	

SM

Sediment/Rock Name	Silty clay (v. high ^{botryoidal} pyrite)	Observer	Beth
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Percent Texture		
Sand	Silt	Clay

Comments:

Accessory: green sand ^{layer.} (bottom?)

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

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

X
coralatesb
at=3

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1344	D	6	H	7A	80cm	

Sediment/Rock Name: Diatom ooze!

Observer: BETH

Percent Texture		
Sand	Silt	Clay

Comments:

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

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

Expedition 323
Bering Sea

U1344 Site D 7H Core ALL Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology	Visual Core description
1	v. dark greyish black 10y 3/1	D-rich silty clay		43-70 41m 38m 45-50 41m	SS 4A:18 D-rich silty clay	7H 2A 4S F. bear diatom silty clay - lots Nannos: 4%	snopy extruded into rig floor. carb-rich clayey silt (aragonite) 100-118 Sand. Chm.
2	42 47 olive grey	F. bear diatom silty clay D-rich silty clay		107-8 111-5 114-5 84-5 100-1			14-19 Sand Mot 114-126 Pyrite smears med. med. basalt?
3				45-109 P. sm. ch. 26-9 Clay Mot Mat.			110-115 - Chm w/ sharp sand layer bottom boundary 123-4 Mot. 46 W
4				21-4 5201 32-7 Sand Mot.			redox clay/pyrite 30-33 W 48 W 120W 86 W 140, 145W 117-131 Mot.
5	122 125 129 109 4/1 104 2/1			6-120 P. sm. ch. 56-57 56-58 70-U Sand Mot 132 Sand			cracks
6	10y 3/1 goldenish black	D-rich silty clay		42W 58-60 Mot DEB.			
7				1-26 Sand Mot.			

Observer: _____ Date: _____



IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	134D	7	H	2A	45		

SM

Sediment/Rock Name	foram-bearing, diatom silty clay	Observer	Akiva
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Percent Texture		
Sand	Silt	Clay
	40	60

Comments:

yellowish layer

B-51
S-49
V-D

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

Percent	Component
BIOGENIC GRAINS	
Calcareous	
8	Foraminifera 2
	Planktonic foraminifera
	Benthic foraminifera
4	Nannofossils 1
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
39	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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344b	7	H	2A	100		

SM

Sediment/Rock Name	diatom-bearing clayey silt	Observer	Alcorta
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Percent Texture		
Sand	Silt	Clay
	60	50

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
29	Quartz
18	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
3	Rock fragments 0.5
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
18	Clay Minerals 3
	Chlorite
	Glaucanite
	Chert
	Zircon
6	Ferromagnesium minerals 1
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
6	Calcite 1 (needs 0.1)
	Dolomite
VOLCANICLASTIC GRAINS	
Crystal grain	
3	Vitric grain 0.5
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
18	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	1344	D	7	H	4	80	

SM

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

Comments:

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

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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	D	7	H	SA	125	

SM

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

Comments: authigenic carbonate.
rice shape. 50%

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

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

Expedition 323
Bering Sea

1344 D 8H 111
Site Hole Core Section Top Depth

Major Lithology _____
Minor Lithology _____

Graphic Representation	Color	Lithology	Biurbation	Structures/Accessories	Drilling Dist. Samples	Visual Core description
1	1043/1					1043/1 - 20 cm ss
2	32	SAND MOTTLE				- 100 cm ss
3	5	DOLOMITE 1046/1				LIT KILOM: DIATOM-BEARING CLAYEY SILT
4	9	SAND MOTTLE				LIGHTER BANDS CHARACTERIZED BY HIGHER CONCENTRATIONS OF MICRO-ACICULAR AUTHIGENIC CA.
5	113-90			SULFIDE BOTTLES THROUGHOUT		
CC	29					

Observer: _____ Date: _____



10642.511

V1344 D 9H 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	10y 4/1 dark greenish gray	diatom clayey silt	17-23 P. speck	H			extruded motoring flow.
2	8D 1064 2.5/1 greenish black	d-rich clayey silt	18W 40-46 Sand Mot 56-7 Sand 90W Mot	S			98- Sand Mot. 111- " 125- P. speck. discontinuous layer 126-9 Sand Mot
3			3-15-26W 23-50 60-89 92 Sand 141 Sand	PR G. Mot.			39-45- Lt. Mot. Layer mm scale
4			43-7W 70W 89W 128-50 PR Mot. 75 Sand 126W	102.5 A			
5	5D 10y 4/1		93 Sand 112 Sand 130 Sand Mot. 131-5 Sand Mot.	605.0 RP			
6			25-31 Sand Mot. 51-84 Sand 106W				109-113 Sand.
7	grad v. dark bdry greenish gray 56M silt		31-40 Sand Mot.				
8	10ey 2.5/1		20-3 Core K 15-17 Sand Mot.				

Observer: _____ Date: _____

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	D	9	H	3A	110	

Sediment/Rock Name	diatom-rich clayey silt	Observer	AKIWA
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Percent Texture		
Sand	Silt	Clay
13	53	26
5	20	10

Comments:

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

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

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	D	9	H	6A	60	

Sediment/Rock Name	diatom clayey silt	Observer	Kevin
--------------------	--------------------	----------	-------

Percent Texture		
Sand	Silt	Clay
15	50	35

Comments:

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

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

Expedition 323
Bering Sea

134D 10
Site Hole Core Section Top Depth

Depth (cm)	Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
1	✓ 12 ✓ 5/N					41, 42 sandy layer 3 mm	3-12 moll. pyrite?
10	✓ 10G4/1					65	
20	✓ 51		11		85	11-124 speck pyrite big 5mm	
25	✓ 120 4/N				142		
30						15-17 moll authigenic carbonate	34-80 cm diatom-bearing sil
40	✓ 10G4/1					142	
50						15-108 speck pyrite, big (5mm)	
60	✓ 60				60	78-80 pebble, basalt, 2cm rounded	
70	4/N				112	150	
80	✓ 25		25		60	Sect. 10-60	
90					84	Speck. big patch of pyrite 5mm	
100	✓ 1074/1				9	118-120 moll.	
110					41	172-77 moll.	74-60 cm diatom clay
120						135	
130						14-15	
140						27-30 sand moll	
						44 44-58 PAL	

- 10G4/1 diatom-bearing sil
- 4/N many pyrite speck or moll
- diatom clay

Observer: _____ Date: _____

X

SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	1344	D10	10	H	3	80cm	

Sediment/Rock Name	DIATOM-BEARING SLT	Observer	IWA
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Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
42	5 Quartz
17	2 Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
2	1 Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
15	1 Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
8	1 Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
10	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
	1344	D	#7	4	7	50cm	

SM

Sediment/Rock Name	LATOM CLAY	Observer	IWA
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Percent Texture		
Sand	Silt	Clay

Comments:

16%

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
8	5 Quartz
3	2 Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
5	3 Micas
	Biotite
	Muscovite
33	20 Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
3	2 Pyrite
	Magnetite
	Fe-oxide
	Carbonates
2	1 Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
45%	Diatoms
12	7 Centric
33	20 Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Expedition 323
Bering Sea

01344 D 11H All
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
							Visual Core description	
1				0-3 Sand 51 with # tube				Forams scattered over surface extruded auto rig flow
2	5 gy 3/1	D-NCH silt		23W 74W 91 Sand 122-3 Sand		25 119-123W 141 Grande		
3	5 63 roy 4/1	4.C?	*	38W 44W	1-3 91- 910			* Aragonite-rich diatom-bearing clayey silt
4	73			90-130 P. streak 40 W wavy tube		26 Sand Mat. 70 Sand Mat. 82 Sand Mat.		
5	5y 3/1	clayey silt		69W 134W				
6				31-27 35-61 30-61	23	47-134 Sand Mat. Sand Layers. P. streaks.		
7				2 Sand layer 16W 17-22 Sand		Sharp base; wavy lam		
8				55-7 Sand layer 7 Sand Mat.				
CC								

Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	D	11	H	2A	40	

SM

Sediment/Rock Name	diatom-rich site	Observer	Alvira
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Percent Texture		
Sand	Silt	Clay
10	60	30

Comments:

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

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

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	D	11	H	3A	60	

SM

Sediment/Rock Name	aragonite-rich diatom-bearing clayey silt	Observer	AKS
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Percent Texture		
Sand	Silt	Clay
20		

Comments:

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

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

8 8

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
	1344	D	11		5	48 m	

SM

Sediment/Rock Name	CLAYEY SILT	Observer	IWA
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Percent Texture		
Sand	Silt	Clay
	60	40

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
	Framework minerals
36%	8 Quartz
19%	5 Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
4%	1 Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
30%	7 Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
7	2 Pyrite
	Magnetite
	Fe-oxide
	Carbonates
4	1 Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
7	2 Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
	Centric
4	1 Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Expedition 323
Bering Sea

1344 D 12H 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	
	5GY4/1						
10							
20							
30							
40			slight		128		
50							
60							
70							
80							
90			mod.				32-35 sponge app.
100							119-121 biot. sandy layer
110							
120							
130							
140							

Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 Site D Hole 12H Core 3+4 Section _____ Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
10 20 30 40 50 60 70 80 90 100 110 120 130 140							13-36 sandy nodules
							13-18 sponge aggs.
			slight		slight		
	SG441						Sandy nodules thr.
							60-80 pyrite nodules
							116 sandy layers 116

Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 D 12H 5+6
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	5G/Y4/1		slight			0-2 biot. sandy layer	
	4/N		slight			64-105 cracks	
						107-108 biot. sandy layer	
						100-120 grad.	
						137-150 pyrite nodules	
						pyrite nodules thr. to bottom of CC	
						Sandy nodules thr.	
						130	

Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 D 12H 7+cc
 Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	4/N		to 100cm		100cm		
					25		
							sandy mottled blue

Observer: _____ Date: _____

X

SMV

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	D	12H		4A	50	50

Sediment/Rock Name <i>Diatom-rich silty clay</i>	Observer <i>Hind</i>
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Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
<i>77</i>	Quartz <i>10</i>
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
<i>8</i>	Rock fragments <i>1</i>
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

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

Expedition 323
Bering Sea

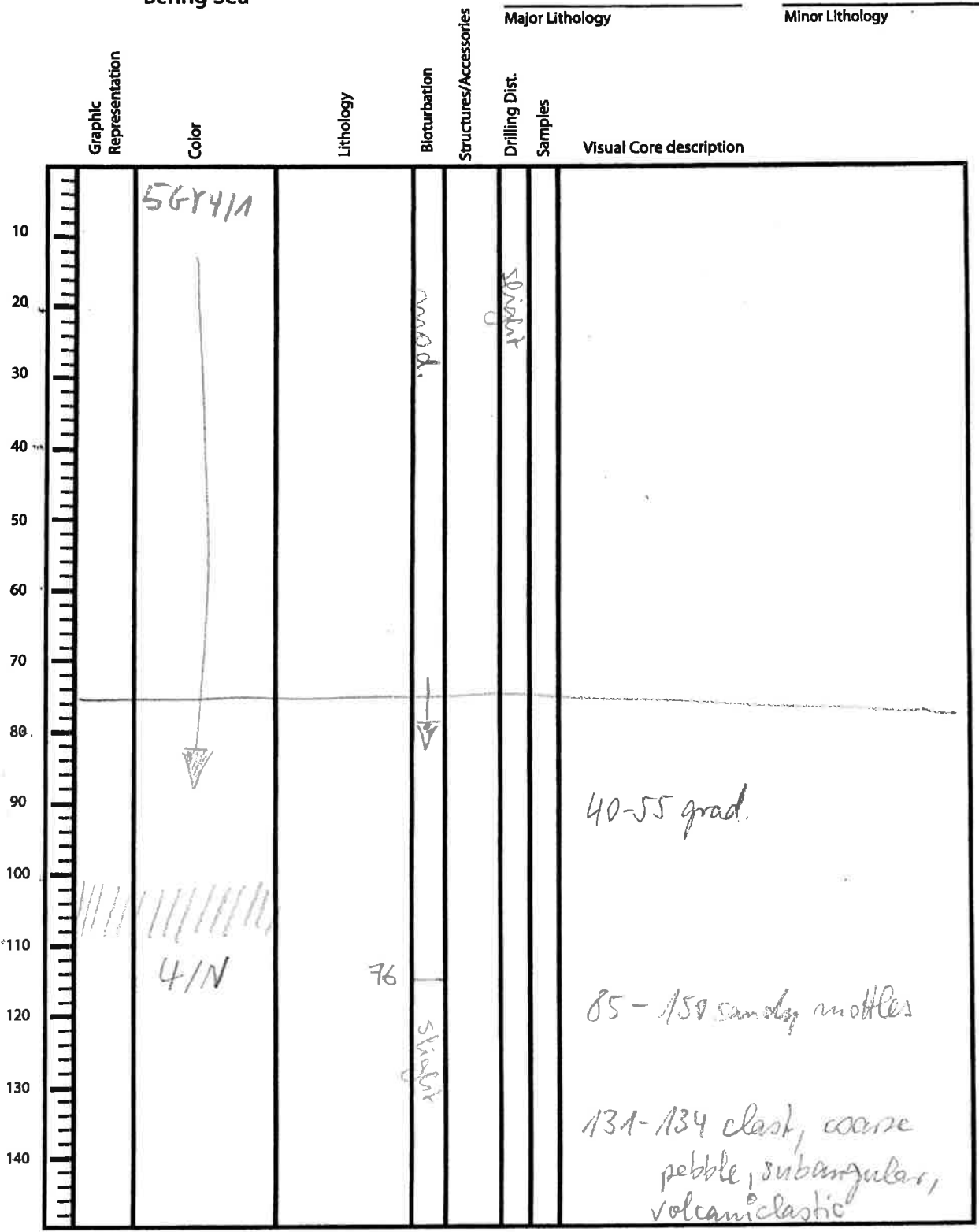
1344 D 13H 1+2
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	4/N		mod		green		pyrite nodules thr.
	↓		↓		slight		38
							0-25 sandy nodules
	5Y4/1						45-55 grad.
							66-4 (sect. 3)
					x 100		138-150 sandy nodules

Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 Site D Hole 13H Core 3+4 Section _____ Top Depth



Observer: _____ Date: _____

Expedition 323
Bering Sea

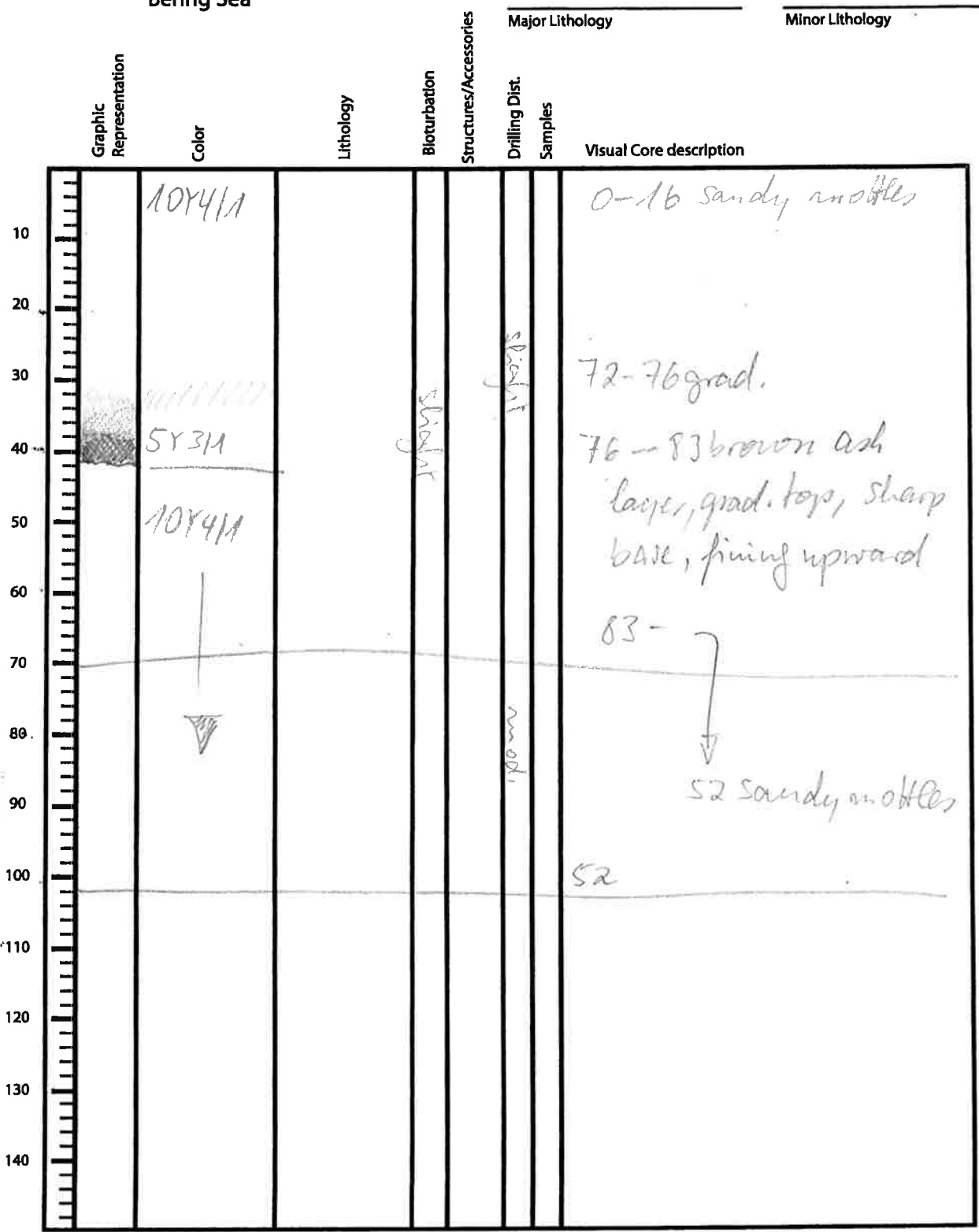
1344 13H 516
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Major Lithology	Minor Lithology
							Visual Core description	
	SGY 41A							
							55-70 grad.	
							10, 15 sandy layers	
							28-29 biot. sandy layer	
	41N		shale				31-57 sandy nodules	
							118 sponge aggr.	
	40Y 41A						abundant sandy nodules dir.	
							42-43 biot. sandy layer	

Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 D 13H 7+cc
 Site Hole Core Section Top Depth



Observer: _____ Date: _____

X
 IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

SMV

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	D	1314		2	100	100

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

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 80	
Framework minerals	
36	Quartz 20
4	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
36	Clay Minerals 20
	Chlorite
	Glauconite
	Chert
	Zircon
4	Ferromagnesium minerals 2
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS 20	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
2	1 Radiolarians
	Spumellaria
	Nassellaria
18	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	1344	D	134		5A	70	90

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

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 84	
Framework minerals	
44	Quartz 20
11	Feldspar 5
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
7	Rock fragments 3
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
18	Clay Minerals 8
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
4	Pyrite 2
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

SMV

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	134Y	D	13		7	30	30

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

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 64	
Framework minerals	
48	Quartz 20 25
4	Feldspar 2
11	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
15	Rock fragments 3
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
9	Pyrite 5
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
12	Vitric grain 1
	Lithic grain

Percent	Component
BIOGENIC GRAINS 36	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
36 20	Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

SMU

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	D	13H		7A	80	

Sediment/Rock Name	silty fine ash	Observer	Hina A
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Percent Texture		
Sand	Silt	Clay

Comments:

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

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

Expedition 323
Bering Sea

1344 D 14H 1-5
Site Hole Core Section Top Depth

		Major Lithology	Minor Lithology	
Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	
			Drilling Dist. Samples	
			Visual Core description	
1	50 10	I	SS	7-8 Sandy lamina 13-17 Sandy patches 42 "
	100 20	II		82 grad boundary 104
2	50 30	II	S	x SS
	100 40	Diatom-b silty clay		
	150 50	Authi carb diatom clay	SS	6 clast as at 4A 57cm 20-44 Sandy patches
3	50 60	III		60
	100 70	II	78 x	83
	150 80			93-130 "
	50 90		*	143 5-12 "
4	100 100	II	S	27 Sp spec egg 57 clast 6mm, blade, irregular
	150 110			114-130 Black streaky mottles
	50 120	Diatom-b clay II	S	133 0-7 "
5	100 130		*	25, 37 Sp spec egg 68, 73, 98 "
	150 140		SS	83-98 Sandy mottles 139-150 Green mineral-col burrow 143-150 Black streaky mottles

Observer: Kelsic Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

SMU

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	D	NH		2A	55	55

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

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 92	
Framework minerals	
56	Quartz 5
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
8	Rock fragments 1
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
24	Clay Minerals 3
	Chlorite
28	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
4	Pyrite 0.5
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS 8	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
8	Diatoms 7
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

SML

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	344	D	14		3A	78	98

Sediment/Rock Name	Auth. Carb. rich. Diatom rich clay	Observer	It:rw
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Percent Texture		
Sand	Silt	Clay

Comments:

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

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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

SMV

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	B44	D	14H		5	60	

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

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 94	
Framework minerals	
48	Quartz 15
6	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
32	Clay Minerals 10
	Chlorite
	Glauconite
	Chert
	Zircon
6	Ferromagnesium minerals 2
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS 6	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
6	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

1344 D 15H 1-5
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
					Visual Core description	
1	10Y 3/1	I	S	SSS GE		
2		A atom-rich clayey silt	S	* O	X	
3		I	S	* * * v	S	
4		I	S	* O * O	SSS GE	
5	5Y 5/2	Fine ash	f	* * +	21 26	

Observer: Kelsie Date: _____

1344 D 15H 6-CC
 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	
6		I		*	▽	10 Sandy lamina	
						18 Sandy patch	
7	5Y 5/2	I	SS	*	S	51, 61, 70 sp spc agg	
						70-78	
CL		I		*	SSS	103 sp spc agg	
						105 Sandy patch	
						134	
						7-36 "	
						28, 31 sp spc agg	
						38 Bioturbated top	
						43-49 Ash-filled burrows	
						69	
						4 sp spc agg	
						20, 28 "	
						46 "	
						106	

Observer: _____ Date: _____

SRV

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	D	15H		2	51	

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

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 84
	Framework minerals
49	Quartz 30
	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
25	Clay Minerals 15
	Chlorite
	Glauconite
	Chert
	Zircon
4 3	Ferromagnesium minerals 2
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
3	Pyrite 2
	Magnetite
	Fe-oxide
	Carbonates
3	Calcite 2
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS 16
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
16	10 Diatoms
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Expedition 323
Bering Sea

1344 D 16H 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	
	4/N						
			slight		heavy		
	56Y4/1					44	
					slight	0-44 Sandy mottles	44
	4/N					50-70 grad.	
						58-61 sponge agg.	
						130 sponge agg.	
	5						

Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 D 16H 7+8+CC
 Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
10 20 30 40 50 60 70 80 90 100 110 120 130 140	10Y4/1		shells	shells			Sandy mottles, Hs.
						100. 2 sandy layers, bot.	
						75	
						11	

Observer: _____ Date: _____

SUV

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	D	16H		3A	60	

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

Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 62
	Framework minerals
33	35 Quartz 7
14	15 Feldspar 3
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
5	5 Rock fragments /
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
5	5 Clay Minerals /
	Chlorite
	Glauconite
	Chert
	Zircon
5	5 Ferromagnesium minerals /
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS 40 38
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
25	5 24 Centric
15	3 14 Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

SMV

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	D	16H		9A	70	

Sediment/Rock Name	Diatom silty clay	Observer	Hino
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Percent Texture		
Sand	Silt	Clay
5	40	55

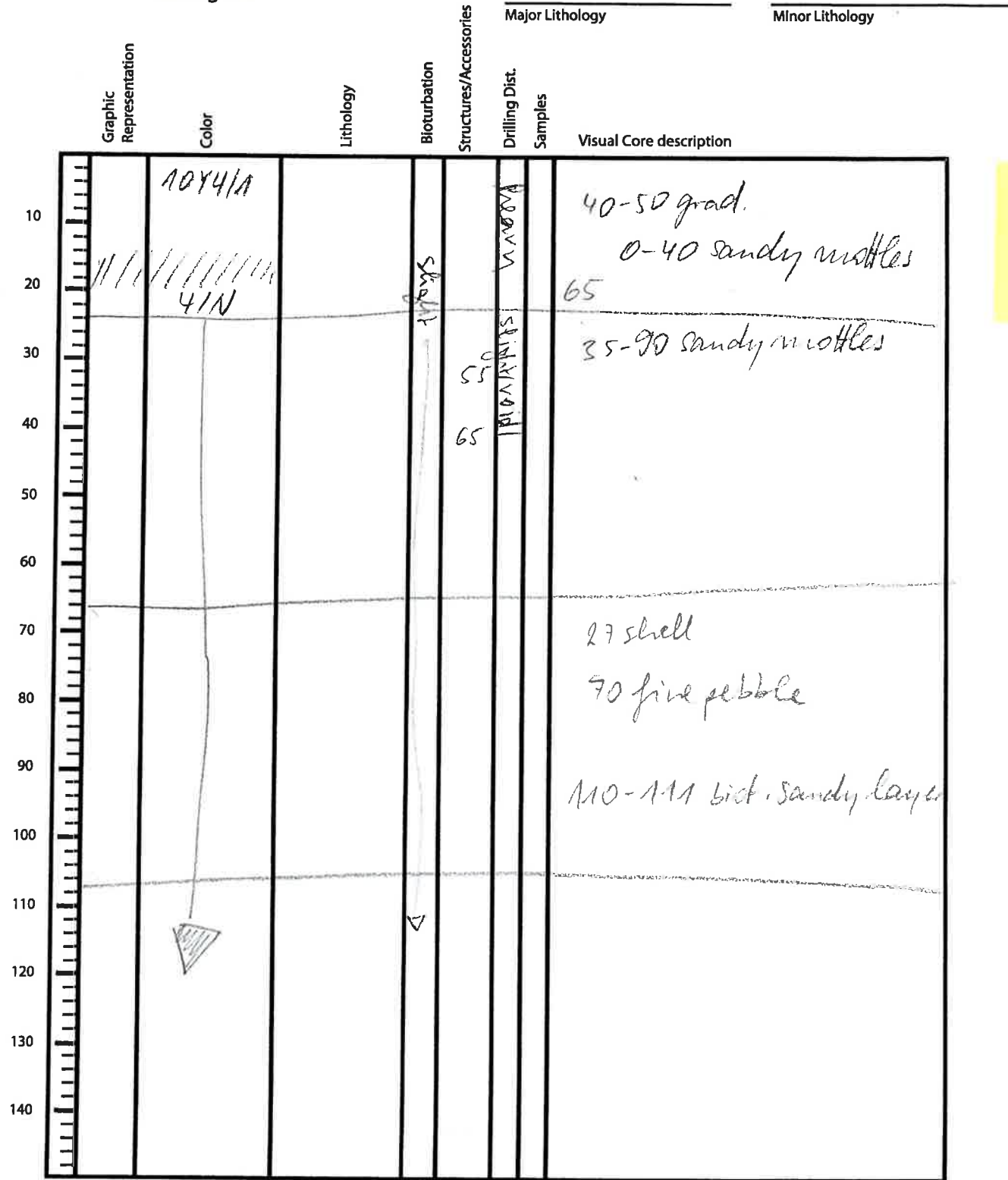
Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 50
	Framework minerals
28 35	Quartz 10 7
9 5	Feldspar 3 1
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glaucanite
	Chert
	Zircon
5 5	Ferromagnesium minerals /
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
5 5	Pyrite /
	Magnetite
	Fe-oxide
	Carbonates
	Calcite
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS 50
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
50 to 12 15	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

1344 ① 17H 1+2+3+4
Site Hole Core Section Top Depth



Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 0 17H 5+6+7+cc
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
					Visual Core description	
	4/N					
10				49	1 mott	107 fish scales
20				96	1 slight	
30						
40						
50				74	1 mott	5-31 sandy mottles
60				88	1 mott	32-33 coarse pebble, subrounded, sandstone
70						61-64 biot. sandy layer
80						104 fine pebble, well rounded
90				64	1 mott	No pyrite mottles
100				86	1 mott	58 sponge egg. 78 " " "
110						
120						
130						33
140						

Observer: _____ Date: _____

SMU

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	B44	D	17H		1	30	

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

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 75 96	
Framework minerals	
54	Quartz 15
7	Feldspar 2
4	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
40	Rock fragments 1
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
7	Ferromagnesium minerals 2
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
2	Pyrite 0.5
	Magnetite
	Fe-oxide
Carbonates	
2	Calcite 0.5
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS 24 24	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
17	5 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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	D	17H		2	40	

Sediment/Rock Name	Observer
Diatom-bearing clay	Hiro

Auth. carb. rich

Percent Texture		
Sand	Silt	Clay

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 99	
Framework minerals	
10	Quartz 5
2	Feldspar 1
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
1	Rock fragments 0.1
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
20	Clay Minerals 10
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
4	Pyrite 2
	Magnetite
60	Fe-oxide
Carbonates	
57	Calcite 30
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
2	1 Centric
4	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

SMU

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	D	17H		6	30	

Sediment/Rock Name	Aath. Carb. rich clay	Observer	Hino
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Percent Texture		
Sand	Silt	Clay

Comments:

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

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

SMU

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	D	1714		7A	92	

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

Comments:

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

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

Expedition 323
Bering Sea

1344 D 18H 3+4
Site Hole Core Section Top Depth

Major Lithology Minor Lithology

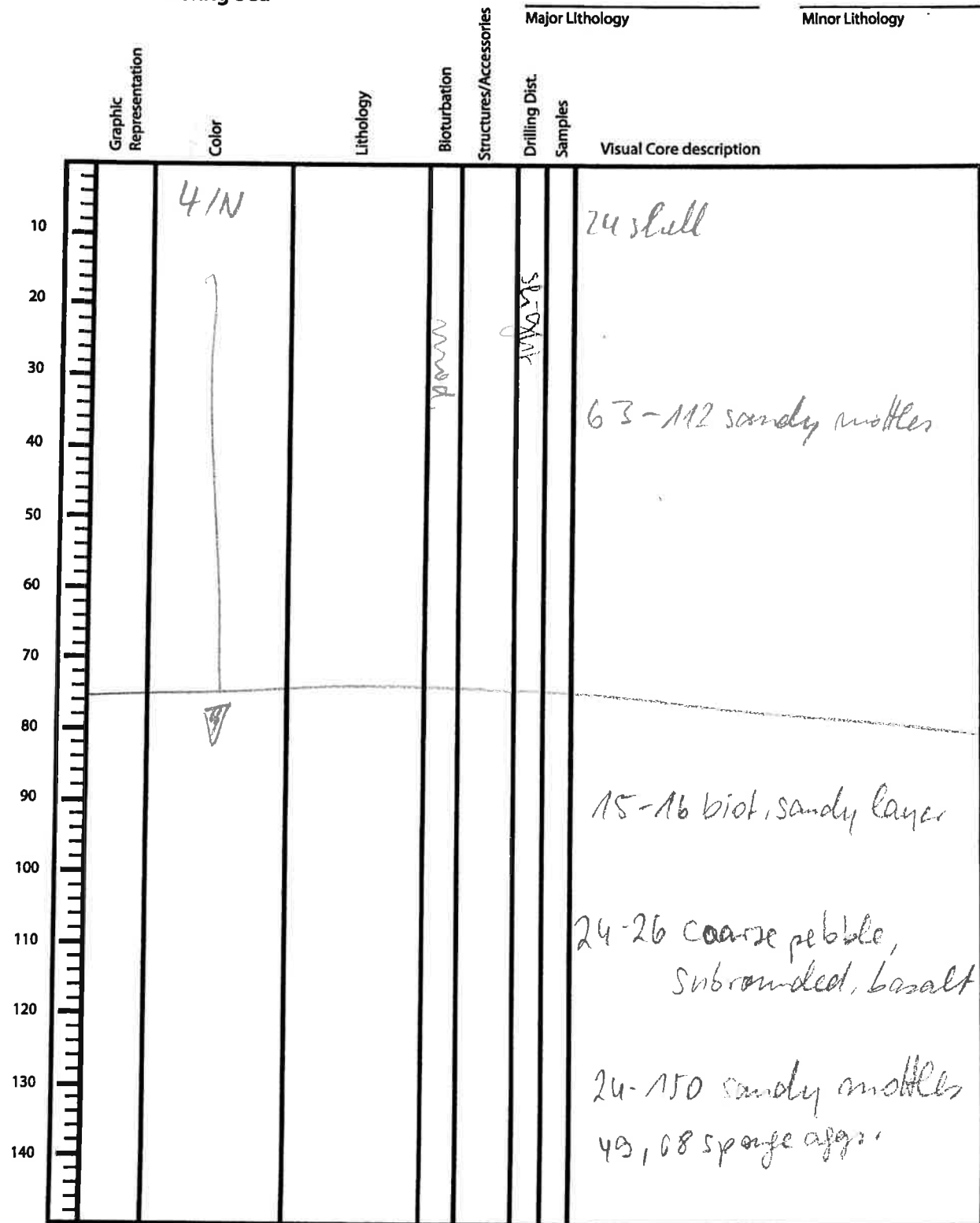
Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Visual Core description
	4/N		100W		
				56	78-81 tilted biot. sandy layer
				84	115-126 pyrite nodules
					10-24 pyrite nodules
					112-124 sandy nodules
					132-138 pyrite nodules
					139 fine pebble

Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 Site D Hole 18H 5+6 Core Section Top Depth

Major Lithology Minor Lithology

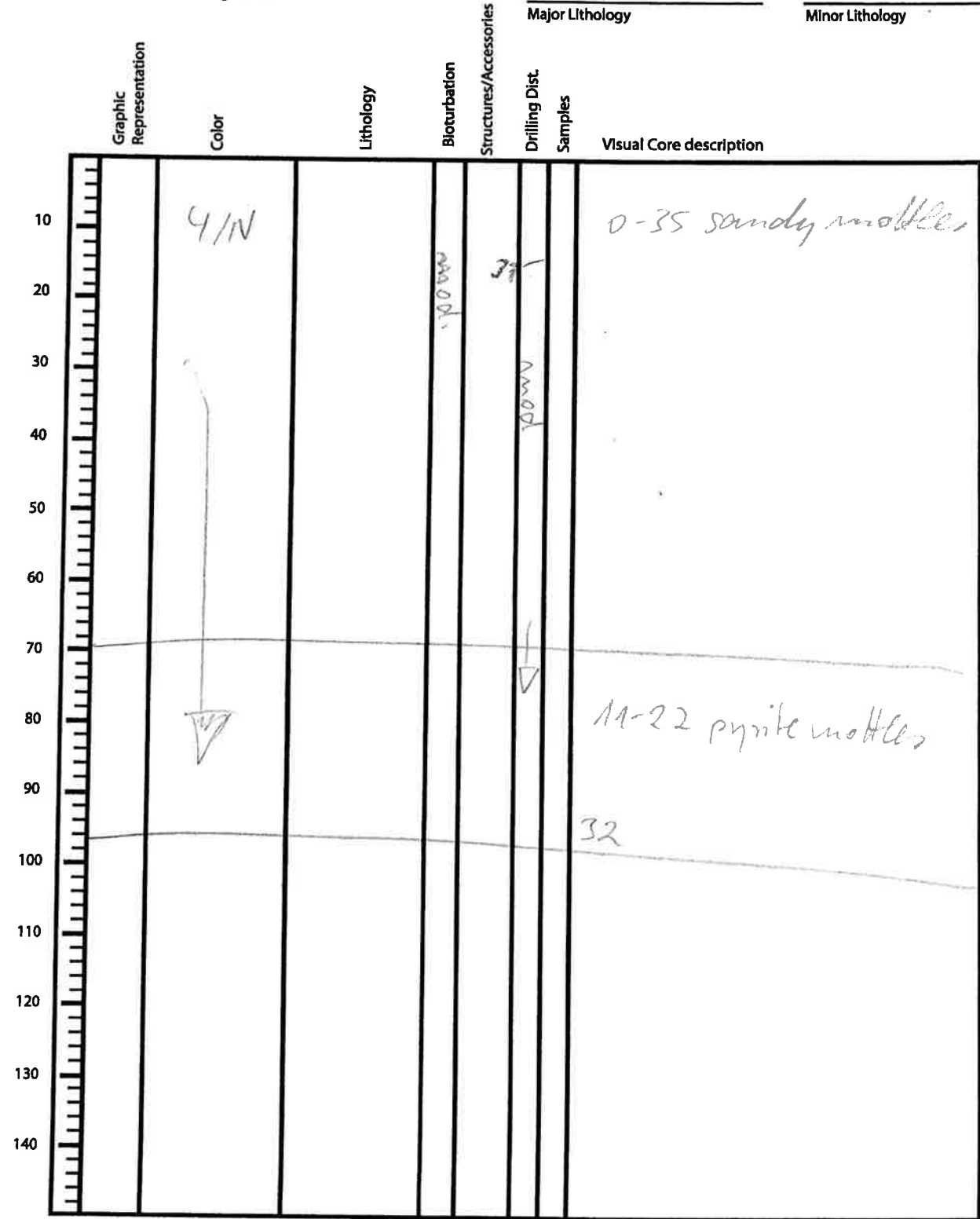


Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 D 18H 7+cc
Site Hole Core Section Top Depth

Major Lithology Minor Lithology



Observer: _____ Date: _____

SMV

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1347	D	1814		2A	50	50

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

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 85	
Framework minerals	
74	Quartz 10
7	Feldspar 1
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
7	Rock fragments 1
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
7	Vitric grain 1
	Lithic grain

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

SMW

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
33	1344	P	18		6	50	

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

Comments:

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

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

Expedition 323
Bering Sea

1344 D 19H 1+2
Site Hole Core Section Top Depth

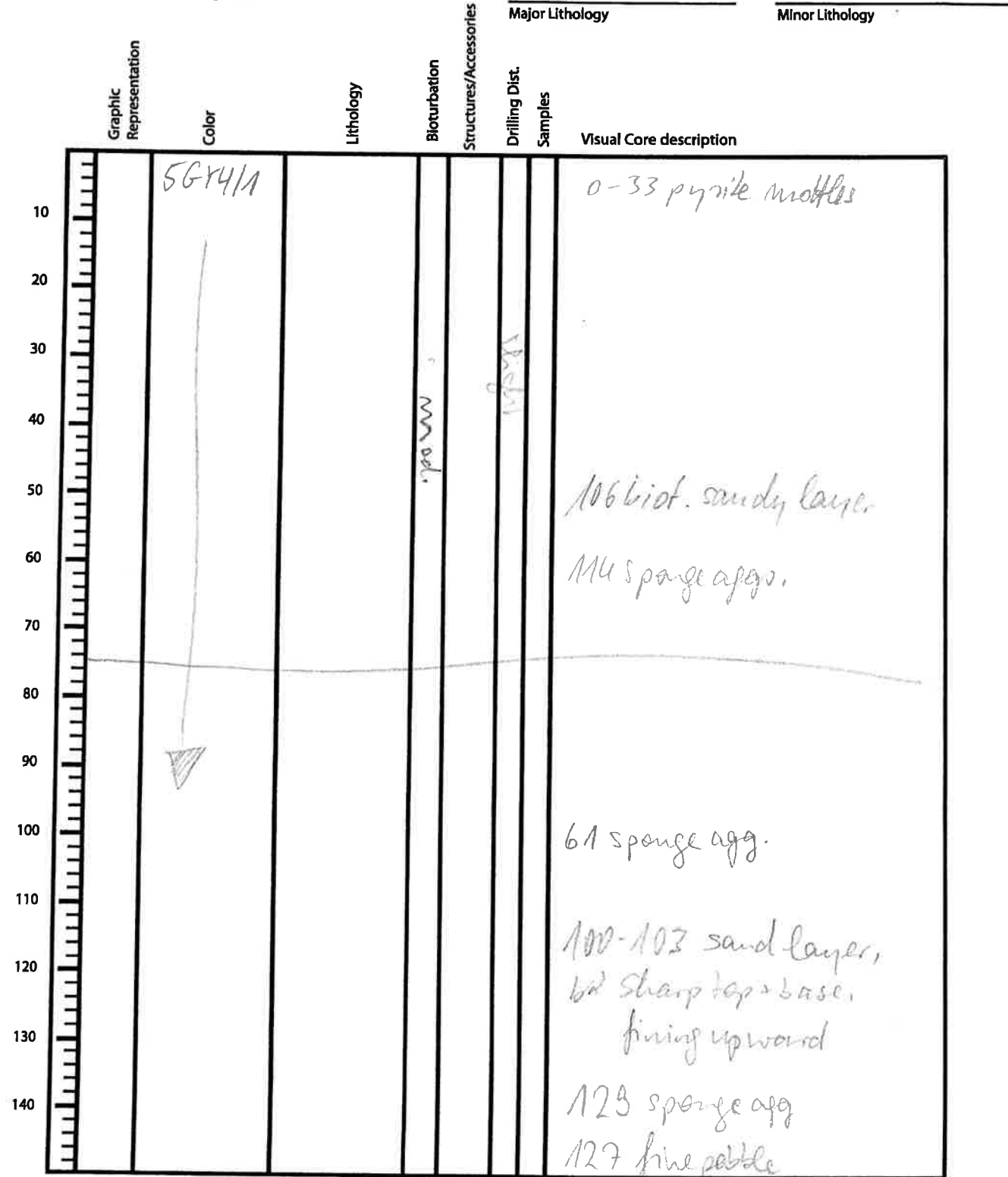


Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
					Visual Core description	
	4/N			10-20		0-30 pyrite nodules 47 sponge agg.
	5GY4/1			30-40		58
	4/N		Mod.	40-60		68-150 pyrite nodules 60-70 grad.
	4/N			60-70		93-94 biot. sandy layer
	3/N			70-90		120-130 grad.
				90-110		
				110-140		

Observer: _____ Date: _____

Expedition 323
Bering Sea

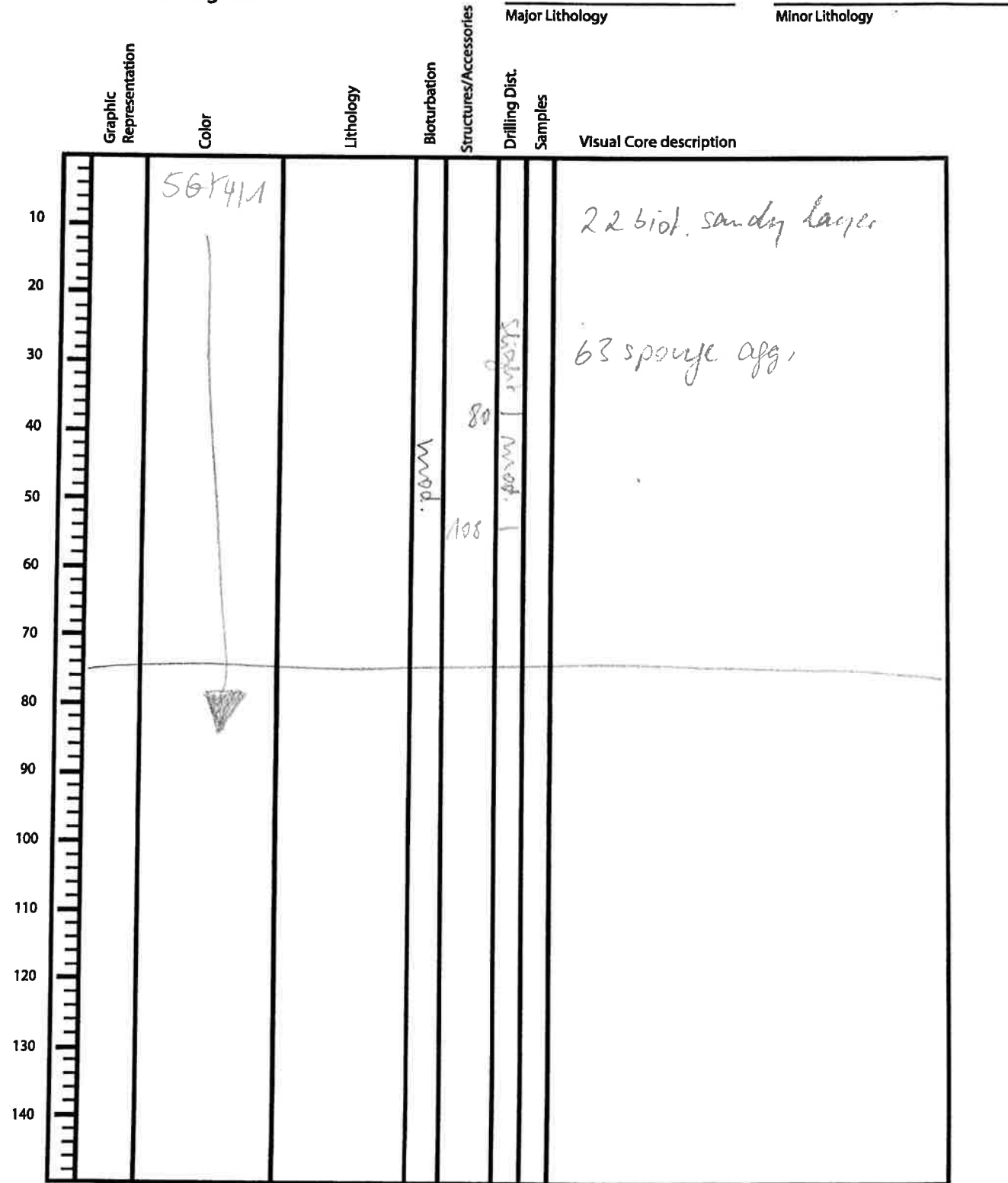
1344 Site D Hole 19H Core 3+4 Section _____ Top Depth



Observer: _____ Date: _____

Expedition 323
Bering Sea

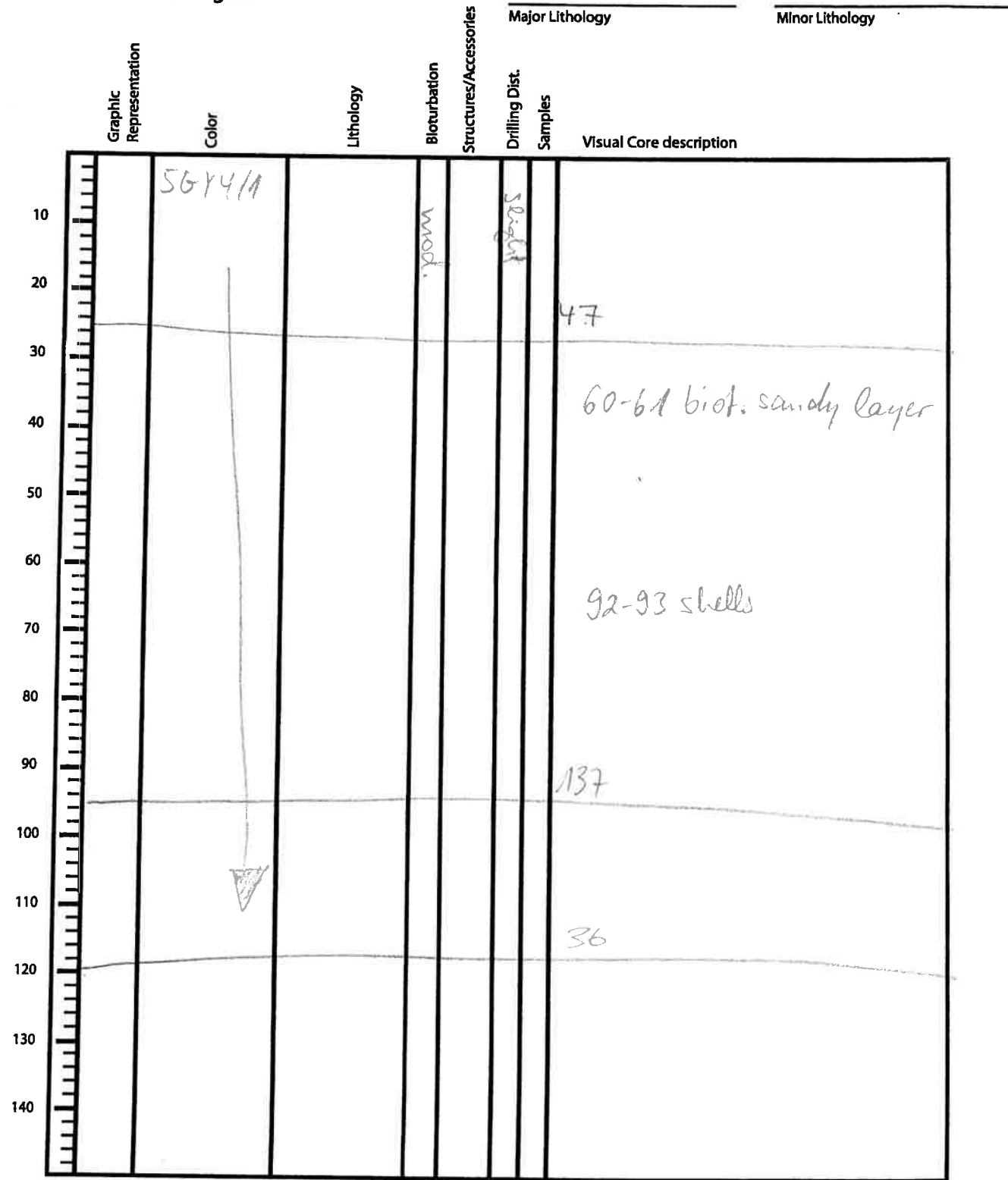
1844 Site D Hole 19H Core 5+6 Section _____ Top Depth



Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 D 19H 7+8+CC
 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	1344	D	19	H	2	50	

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

Comments: Main litho.

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

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

Expedition 323
Bering Sea

1344 D 204 1-45
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
	10Y 4/1	I	SL		9	D. D. se 0-49 severe G. exp Fall out	acc
	10Y 4/1	I	SL		80	(2) "	S.S. Apr 27, 50, 100, 130, 134, 137,
	10Y 4/1	I	SL		110	(3) Crack S.E. 76-85 MOD	S.S. Apr 22, 73, 91, 110, 113, 117, 120, 124
					128	26-127 pebble Black rounded	1. Dec
					127	(4) 40-127 S. Layer S. Layer	S.S. Apr 30, 32, 62, 73, 99
					129	(5) 29-95 G.F. Mod	S.S. Apr 32, 69, 78-98 101-112

Observer: Hind A Date: _____

Expedition 323
Bering Sea

1344 D 20H 6-CC
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Visual Core description	Major Lithology	Minor Lithology
				8 E	26-80 S.E. SL	S.S. Agr.	6.13.21 26. 42-46 53 75
				9 E	27-100 f.E. SL	S.S. Agr.	10.15.50 .58
				100	102		S.S. 3. 4. 35
				104 P	33-35 punctate sl		
				105 P	10-38 MOD Drilling Disc		
				106 P	PAC ← 39		

Observer: H. A. Date: _____

SMV

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1347	D	264		2A	30	

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

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL 77	
Framework minerals	
54	Quartz 7
15	Feldspar 2
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
8	Rock fragments 1
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
	Pyrite
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

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

SMU

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	D	20H		5	85	88

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

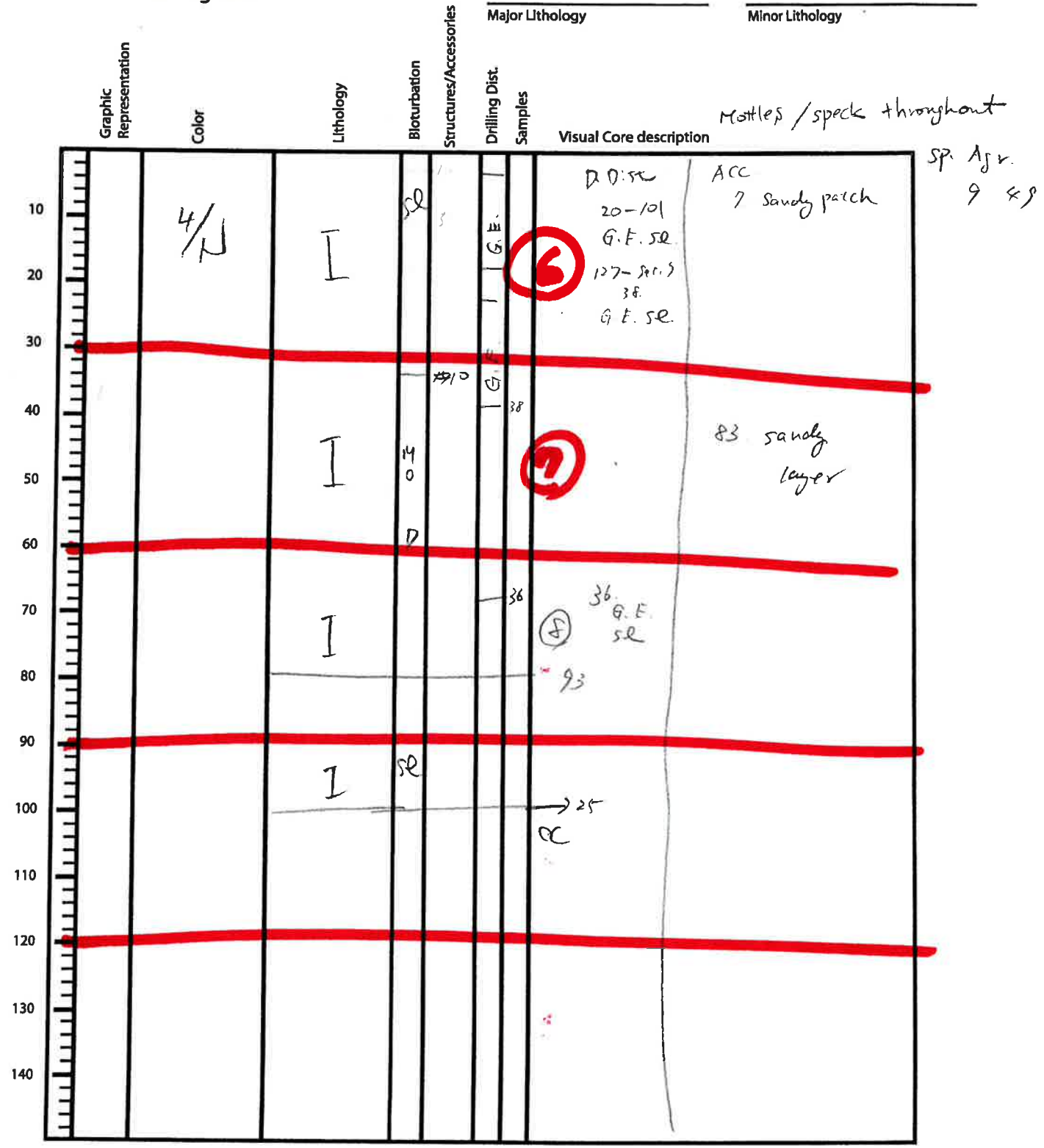
Comments:

Percent	Component
	SILICICLASTIC GRAINS/MINERAL 73
	Framework minerals
48	Quartz 5
10	Feldspar 1
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments ±
	Accessory/trace minerals
	Micas
	Biotite
	Muscovite
	Clay Minerals
	Chlorite
	Glauconite
	Chert
	Zircon
10	Ferromagnesium minerals 1
	Authigenic minerals
	Barite
	Phosphorite/Apatite
	Zeolite
	Opaque minerals
	Pyrite
	Magnetite
	Fe-oxide
	Carbonates
5	Calcite 0.5
	Dolomite
	VOLCANICLASTIC GRAINS
	Crystal grain
	Vitric grain
	Lithic grain

Percent	Component
	BIOGENIC GRAINS 27
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
27	Diatoms 3
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
	Sponge spicules
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Expedition 323
Bering Sea

1344 Site D Hole 21H Core 6-CC Section Top Depth



Observer: _____ Date: _____

✓ SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	D	21	H	3	75	

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

Comments: Brown patch

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

Percent	Component
BIOGENIC GRAINS	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
5	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	1344	D	21	H	4	39	

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

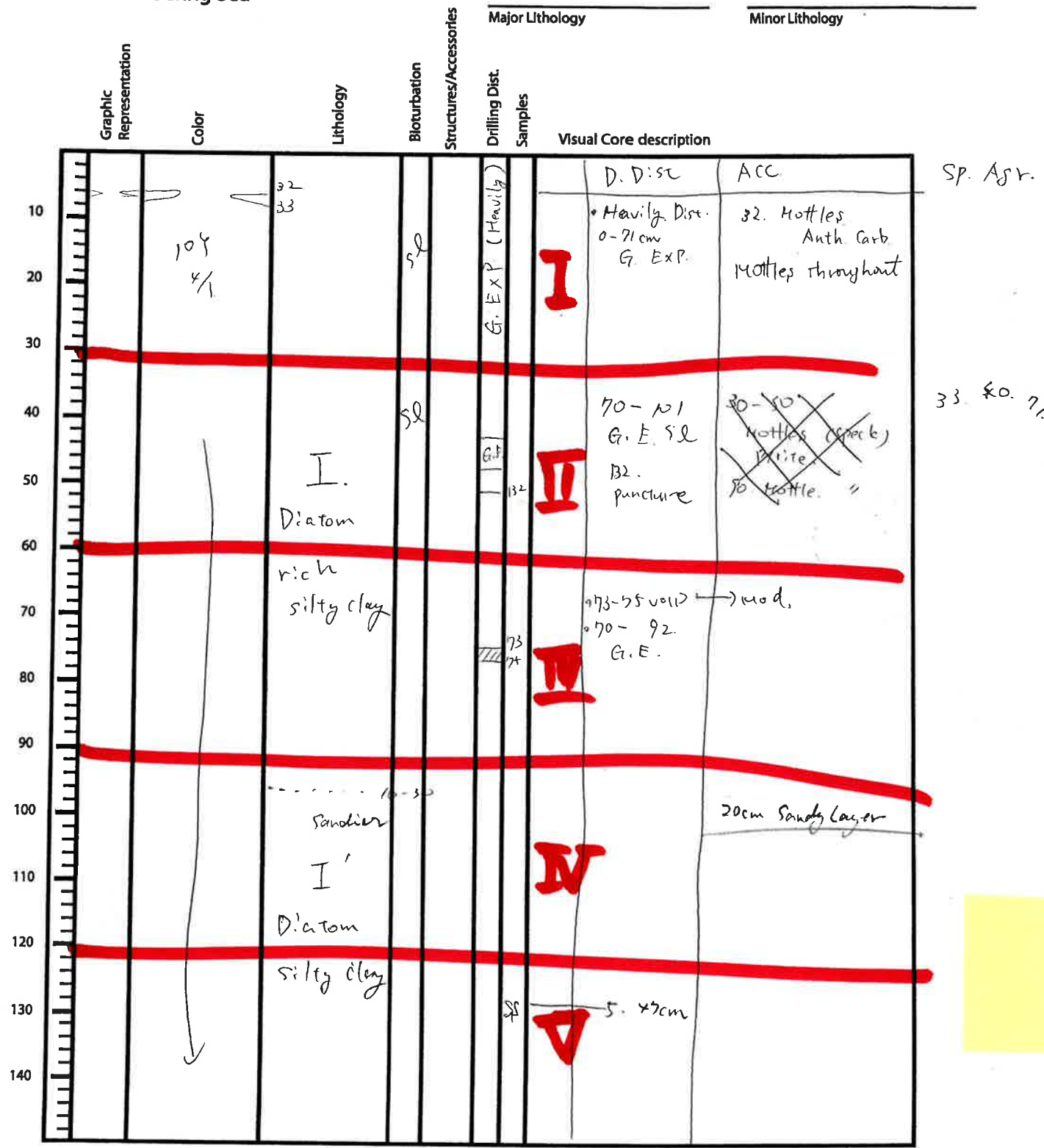
Comments: Main lithology

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

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

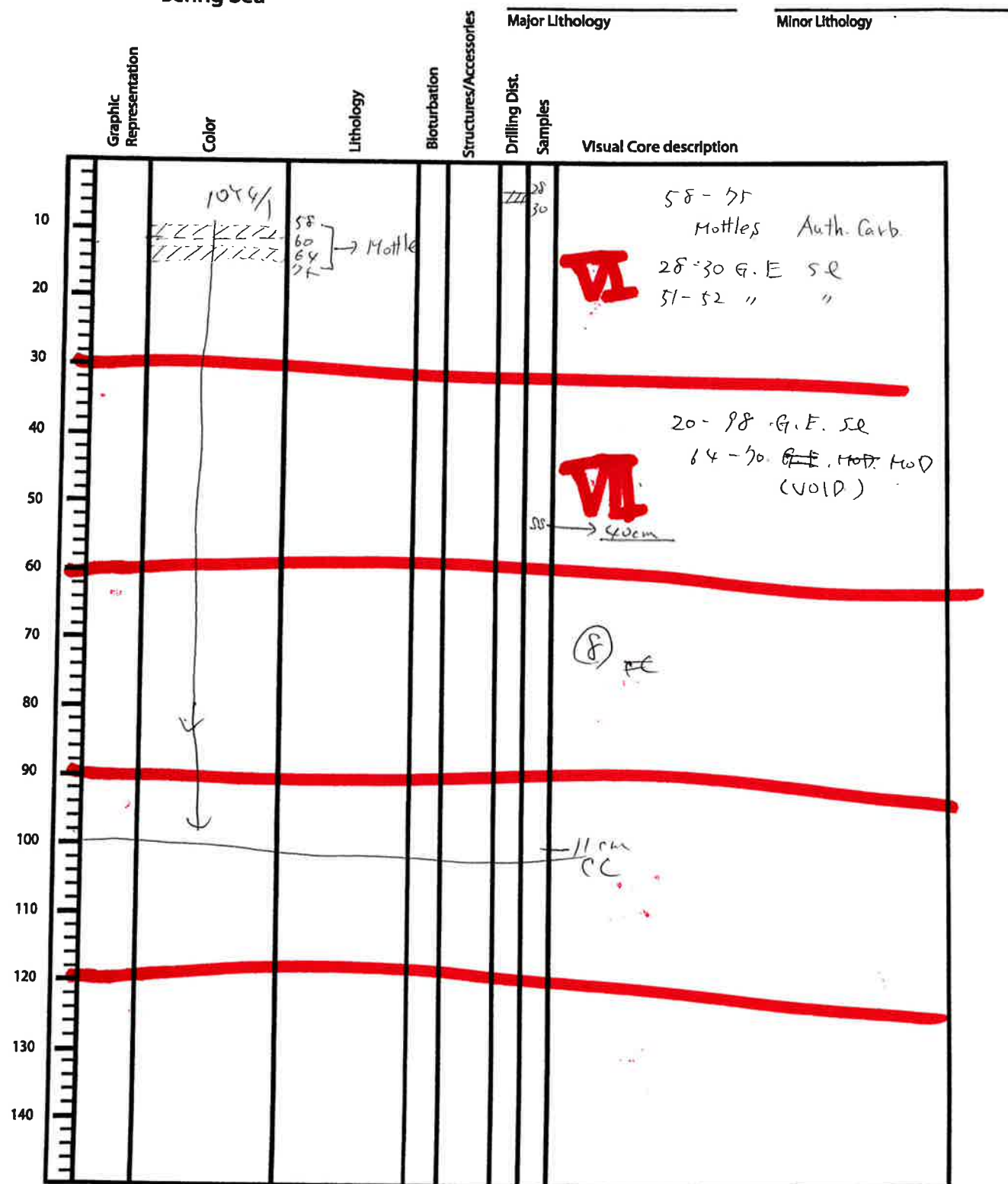
1348 D 22H 1-5
Site Hole Core Section Top Depth



Observer: Alro Date: _____

Expedition 323
Bering Sea

1344 D 22H 6-CC
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	1344	D	22	H	4	47	

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

Comments: Main lithology - smooth

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

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

VSM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	D	22	H	7	40	

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

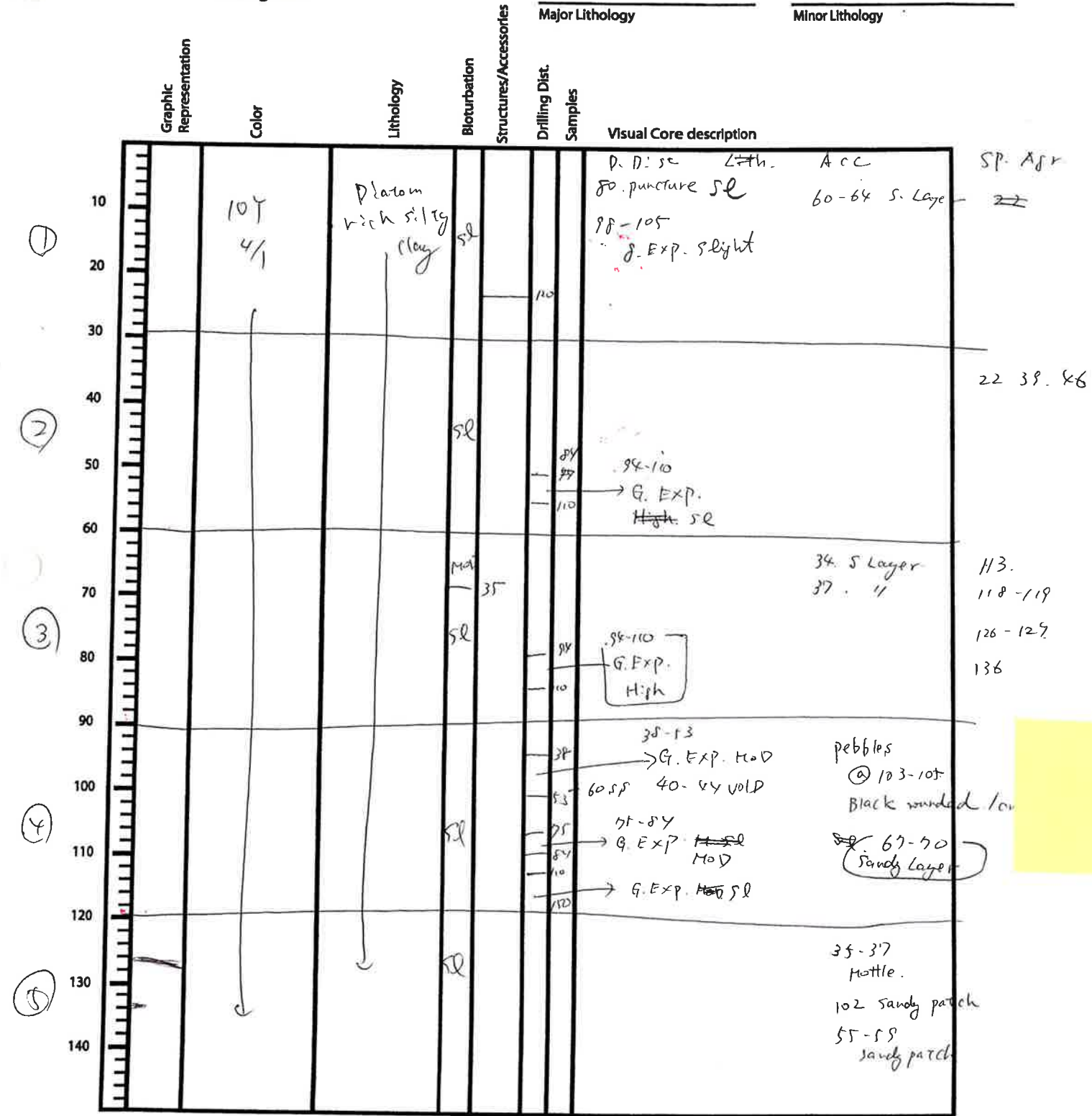
Comments: Main lithology - silty

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

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

Expedition 323
Bering Sea

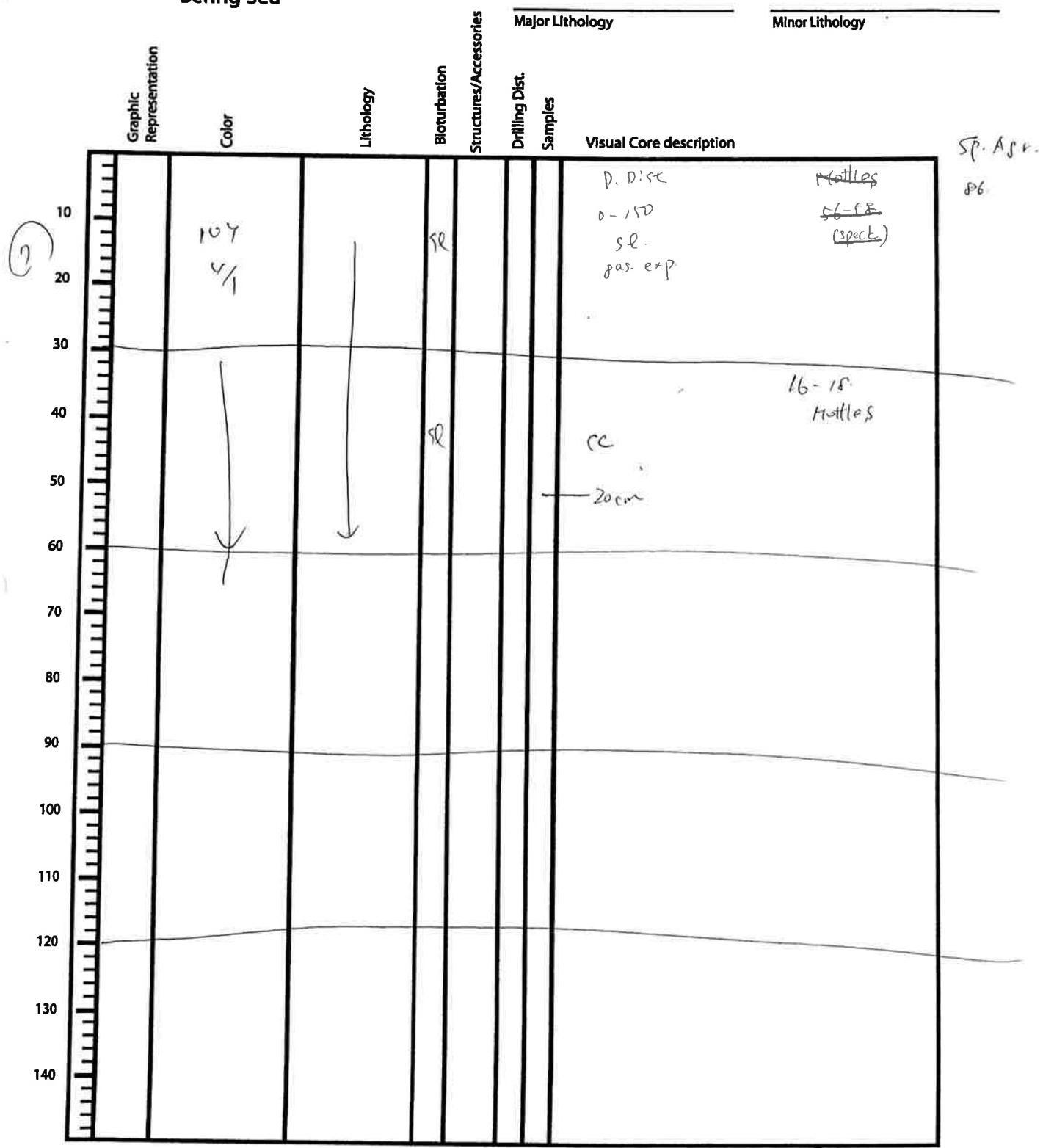
1344 Site D Hole 234 244 Core 1-5 Section Top Depth



Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 D 23H 6-CC
Site Hole Core Section Top Depth



Sp. App.
86

Observer: _____ Date: _____

✓SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	D	23	H	4	60	

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

Comments: Main lithology!

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

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

Expedition 323
Bering Sea

Site 1344 Hole 24H Core Section Top Depth

Depth (m)	Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
							Visual Core description	
10						93		
20	✓	5G4/1		S				2A 80 diatom-rich silty clay
30					49		13.0	21-22 pebble gray rounded
40	✓	20 5Y 4/2	20		21		150	34-41 chondo. 47-48 sandy layer. 68-78 sand streak. 98-99 100 shell. 111 sandy. 139-146 moll. althyporia 143 shell.
50	✓	121 10Y 3/1			20		150	103-104 moll sand. 117-118. 122-124. 93-94 shell?
60					83		127	24-25 moll sand. 32-33 sand layer. 65 pebble 5 mm. 85-88 sand layer.
70		5G4/1					116	
80					31		100	
90							1059	
100								
110								
120								
130								
140								

- ▨ 10Y 3/1 diatom-rich clayey silt
- ▩ 5Y 4/2 diatom-bearing silty clay
- 5G4/1 diatom-rich silty clay



Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

✓ SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	V1344	D	24	H	2A	80 cm	

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

Comments:

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

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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

✓ SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1344	D	24	H	4A	51	cm

Sediment/Rock Name	Diatom-bearing silty clay	Observer	BETH
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Percent Texture		
Sand	Silt	Clay
20	20	60

Comments:

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

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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1344	D	24	H	4A	106cm	

✓ SM

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

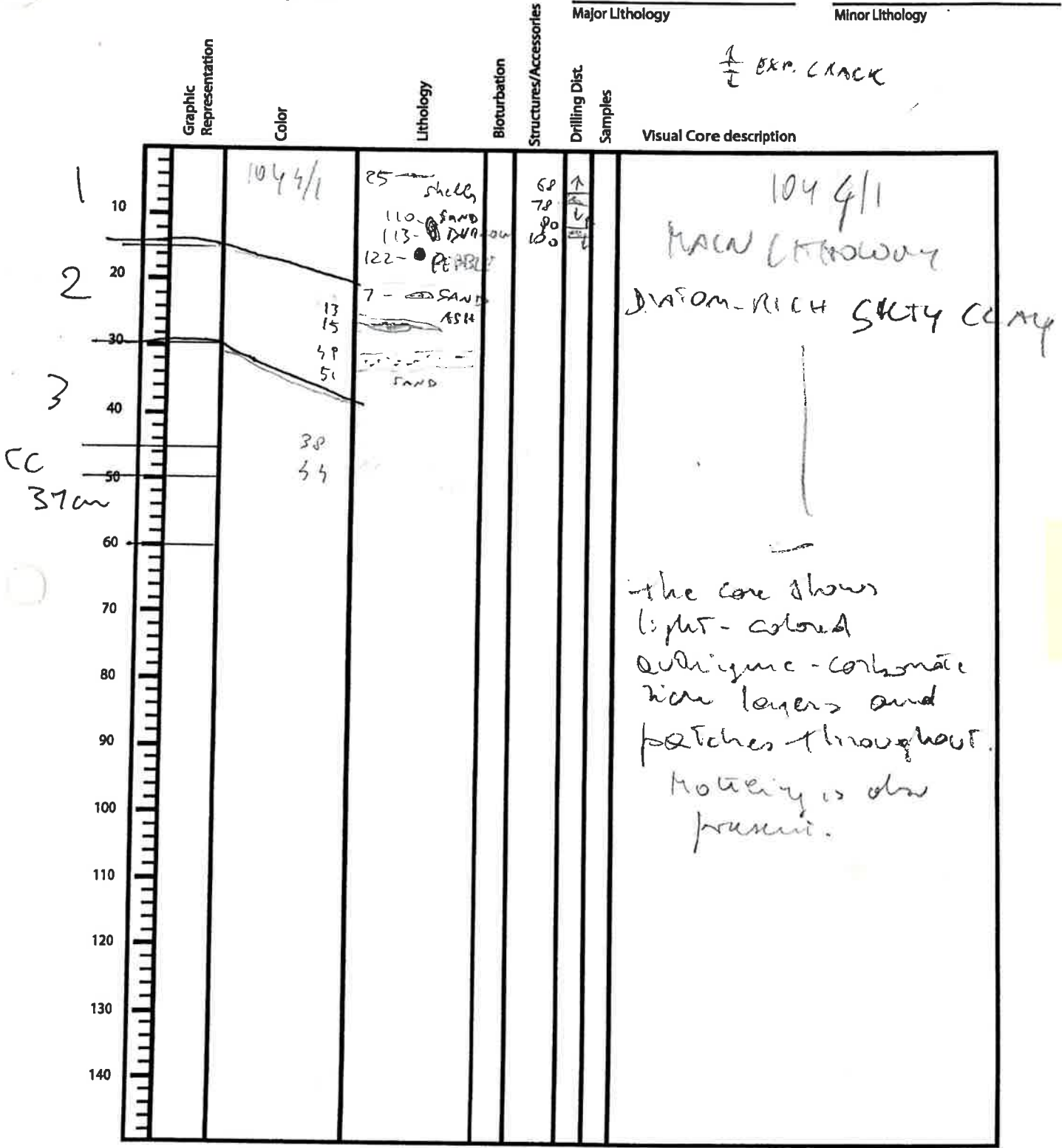
Comments:

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

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

Expedition 323
Bering Sea

1344 D 25 All
Site Hole Core Section Top Depth



the core shows
light-colored
oolitic-carbonate
rich layers and
patches throughout.
Mottling is also
present.

Observer: _____ Date: _____

Expedition 323
Bering Sea

1344 D 26
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Biurbation	Structures/Accessories	Drilling Dist	Samples	Major Lithology	Minor Lithology
							Visual Core description	
1								
10								
20	✓ 3/N						86	44-45 pebbly black 75-78 shell fragment 8-14 mott purple ✓ 24-103 speck purple ✓
30	107 3/1 ✓ 3/N						147	23 ash patch mott ✓
40	130 140	130	m		83 96		145	
50	✓ 107 3/1		m					
60			m		95 96		130	
70	10		m		49		115	
80	0		m				130	
90	107 4/1		s				133	
100							43	
110								
120								
130								
140								

SS coarse ash
2A 100 cm diatom-rich silty clay
3A-10 diatom rich clayey silt

CC-50m diatom clayey silt

- 3/N diatom-rich silty clay
- diatom rich clayey silt
- diatom clayey silt

Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U344	D	26	4	1	10cm	

✓
SM

Sediment/Rock Name	Coarse Ash	Observer	Bern
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Percent Texture		
Sand	Silt	Clay
80	20	

Comments:

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

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

✓ SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U13114	D	26	4	2A	100cm	

Sediment/Rock Name	Diatom-rich silty clay	Observer	BETH
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Percent Texture		
Sand	Silt	Clay
5	35	60

Comments:

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

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

✓ SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1344	D	26	H	3A	10cm	

Sediment/Rock Name	Diatom-rich clayey silt	Observer	Beth
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Percent Texture		
Sand	Silt	Clay
15	50	35

Comments:

Accessory - Carbonate? NO.

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

Percent	Component
BIOGENIC GRAINS	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
1	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
25	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	U1344	D	26	H	CCA	5cm	

Sediment/Rock Name	Diatom. clayey silt	Observer	BETH
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Percent Texture		
Sand	Silt	Clay
15	60	25

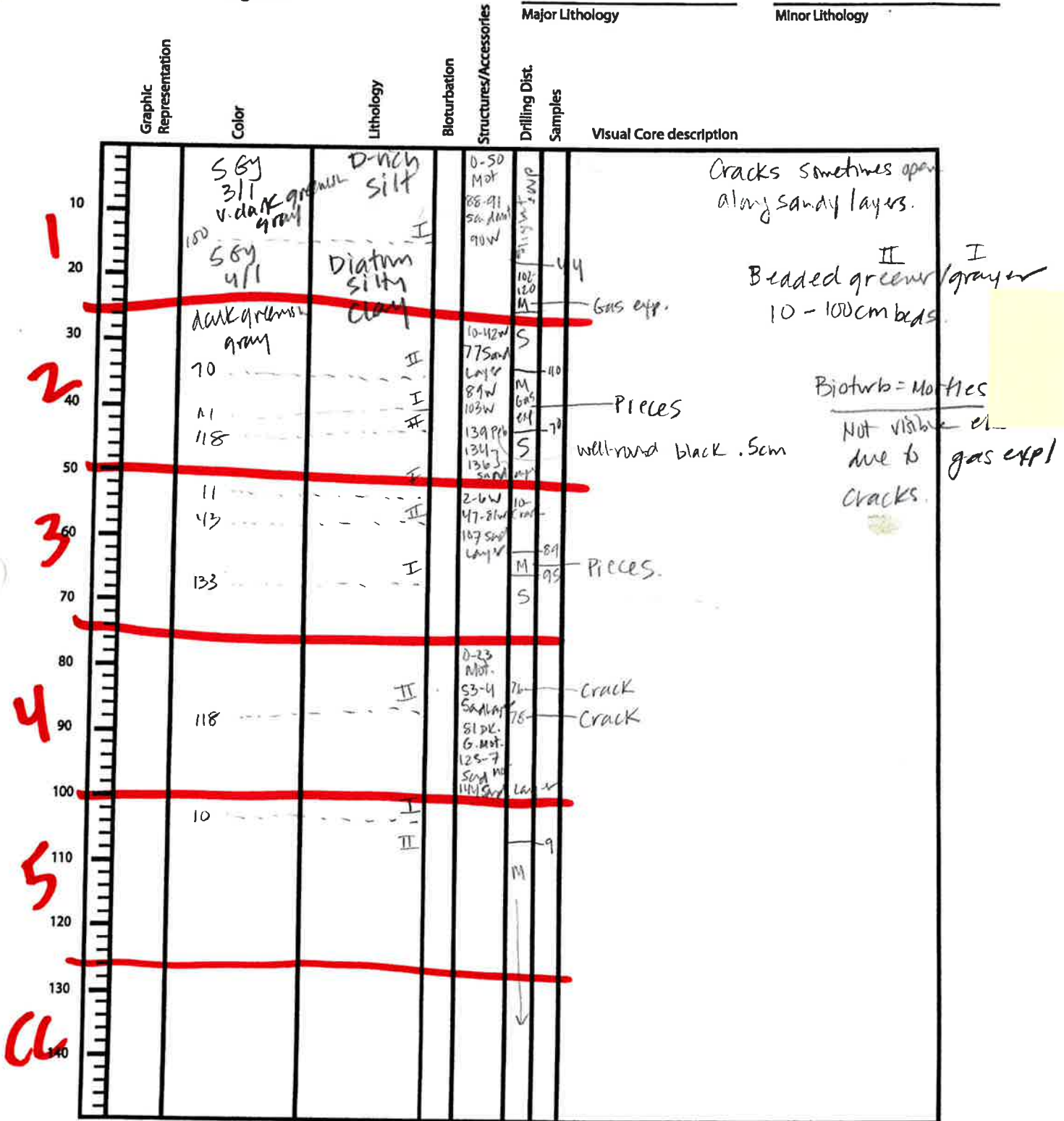
Comments:

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

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

Expedition 323
Bering Sea

U1344 Site D Hole 27# - ALL 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	1344	D	27	H/A	70		

Sediment/Rock Name	diatom-rich site	Observer	ARita
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Percent Texture		
Sand	Silt	Clay
15	80	5

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
19	Quartz 5
11	Feldspar 3
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
19	Rock fragments 5
Accessory/trace minerals	
	Micas
	Biotite
	Muscovite
4	Clay Minerals 1
	Chlorite
	Glauconite
	Chert
	Zircon
1	Ferromagnesium minerals 0.3
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
7	Pyrite 2
	Magnetite
	Fe-oxide
Carbonates	
	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

✓ SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	D	27	H	4A	20	

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

Comments:

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

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

Expedition 323
Bering Sea

1344 D 28 All
Site Hole Core Section Top Depth

Graphic Representation	Color	Lithology	Biurbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology	Visual Core description
10	10y 3/1	Diatom-Rich SILT						PUNCTURES
15	10y 3/1	Authigenic CARBONATE CONCRETIONS						SCATTERED SULFIDE SPECKS BETWEEN SECTIONS 314
20	(cleanest core)							
30	4/N	Diatom-Rich SILT			26 31			100 cm SP DISTURB. BEARING SILT
40		ASH, MOTTLED			32 34			SAND MOTTLE
50								chondrites
60								
70					95 103			VOID
80	10y 3/1	Diatom-Rich SILT						
90								
100								
110	55							PUNCTURES
120								
130								
140								

Observer: _____ Date: _____

✓ SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

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

Sediment/Rock Name	diatom-bearing silty clay	Observer	Okura
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Percent Texture		
Sand	Silt	Clay
	40	60

Comments:

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

Percent	Component
BIOGENIC GRAINS	
	Calcareous
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
	Siliceous
	Radiolarians
	Spumellaria
	Nassellaria
13	Diatoms 7.5
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
3	Sponge spicules 1
	Dinoflagellates
	Others
	Pollen
	Organic debris
	Plant debris ✓
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

Expedition 323
Bering Sea

1344 D 29
Site Hole Core Section Top Depth

Depth (m)	Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Major Lithology		Minor Lithology	Visual Core description
						Major Lithology	Minor Lithology		
7-10	✓ 45 574/1 ✓ 93 544/1 ✓ 115 544/1				94 112	101			
2	✓ 107 4/1 ✓ 60			S	95 108 135	101 101 101			9-10 sandy layer ✓ 107 sand moll ✓
3	✓ 4/N				44 58	✓ 101			
4	✓ 10			10	40	✓ 101			
5				2m	14 21 48	✓ 101 ✓ 101			97-98 sand moll 74 shell sponge! ✓
6	✓ 110 574/1 ✓ 120 574/1				115 123	✓ 101			5A-90 cm diatom-rich silty clay
7	✓ 4/N								
CC 100									51 39 39-49 PAL 20 sand moll patch ✓

A-45 diatom silty
1A-101 authigenic carbon diatom clay

107 4/1 diatom clayey silt
4/N diatom rich silty clay

Observer: _____ Date: _____

✓ SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1344	D	29	H	1A	45cm	

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

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
15	Quartz
5	Feldspar
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
2	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	
5	Calcite
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
	Vitric grain
	Lithic grain

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

✓ SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1344D		29	H	5A	90cm	

Sediment/Rock Name	Diatom-rich silty clay	Observer	BETH
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Percent Texture		
Sand	Silt	Clay
5	35	60

Comments:

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

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

Expedition 323
Bering Sea

1344 D 30
Site Hole Core Section Top Depth

Depth (cm)	Graphic Representation	Color	Lithology	Bioturbation Structures/Accessories	Drilling Dist. Samples	Visual Core description	
						Major Lithology	Minor Lithology
10	✓	77 82			97 101	122-123. moll ✓	1A-80cm diatom-rich clayey silt
20	✓	20 10Y4/1			90	78-79 G: sandy layer ✓	2A-85cm Authigenic carbonates - rich diatom silt
30	✓	15 10Y5/1			92		
40	✓	99			C		
50	✓	130			35 44 75	12-15 speck sponge ✓	
60	✓				C		
70	✓	80 10Y 3/1 112			75 20	97 shal ✓	5A-60cm diatom clayey silt
80					C		5A-80cm Auth. carb.-rich diatom-rich clayey silt
90					8 6		
100						34	
110							□ 3/1 diatom-rich clayey silt
120							□ 10Y4/1
130							□ 10Y 3/1 diatom clayey silt
140							

Observer: _____ Date: _____

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

✓ SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	U1344	D	30	H	1A	80 cm	

Sediment/Rock Name	Diatom-rich clayey-silt	Observer	Beh
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Percent Texture		
Sand	Silt	Clay
10	90	50

Comments:

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

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

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

✓ SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	01344	D	30	H	2A	85cm	

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

Comments:

Auth carbonates? ~~Auth~~ 2ndary lithology

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

Percent	Component
BIOGENIC GRAINS	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
10	Centric
	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
323	V1344	D	30	H	5A	60cm	

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

Comments:

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

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

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	V1344	D	30	H	SA	81cm	

✓ SM

Auth carbonate - rich

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

Comments:

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

Percent	Component
BIOGENIC GRAINS	
Calcareous	
1	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
	Diatoms
5	Centric
4	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

dark greenish gray
Auth Carb-rich
diatom clayey silt
Auth Carb
yes

Site V1344 Hole D Core 31H Section All (1-8, CC) Top Depth

Graphic Representation	Color	Lithology	Bioturbation	Structures/Accessories	Drilling Dist.	Samples	Visual Core description
	56y 2.5/1 greenish black	Diatom-rich clayey silt	All S	2-3 Sand layers	H		extruded auto ng firm
1							
2	104 412 → 78 413		12 26 11.5	115 Sand M 100M Sand	S4 65 47- 115 H		void 79-88 void 102-104 void
3	5 11 93 97		42 95		416 120 H		49-52 void 71-81 void 107-115 void
4			25 68 74	P. S.M 62 Sand lay			CS = sand chromites 103 Sand Mot.
5	96 118		137 178 12 40	54-105 32 38-44 Mot. lt. 85-85.5 clay	45- 112 H 10-20 M		well round basalt (~1cm) 123-137 Pyrite speck S void: 43.5-44 46-67 80.5-88 / crack-51.5 48-49.5 73-74 102-112 54-54.5 81-84 100W 63 Sand layer 118 Sand Layer
6			19 34 130 144	21-97 P. speck 70-88 Sand lay	111- 135 H 10-20 M		111-135 Pieces
7			3 34	50W 55M S.A 886m Mot.	38- 102 M 100 H		P = Pyrite Specks 107+109 void 11-26 Pyrite 54-54 DK grey motus 57-70 Pyrite 77-88 6m Mot.
8							4-26 Pyrite
CC							

Observer: _____ Date: _____

✓ SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344D		31	H	3A	6	

Sediment/Rock Name	authigenic carbonate-rich diatom. clayey silt	Observer	Alvira
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Percent Texture		
Sand	Silt	Clay
	40	60

Comments:

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

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

8

✓SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	D	31	H	3	90cm	

Sediment/Rock Name	diatom-rich clayey silt	Observer	AKW
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Percent Texture		
Sand	Silt	Clay
20	40	40

Comments:

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

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

Expedition 323
Bering Sea

1344 Site D Hole 32 Core ACC Section Top Depth

Graphic Representation	Color	Lithology	Bloturbation	Structures/Accessories	Drilling Dist. Samples	Major Lithology	Minor Lithology
						Visual Core description	
1	1043/1				10 60		
2	70 3/W	SAND MOTTLED	135 140		75 93 112		50 cm, SS DIATOM CLAY SILT
3							
4					65 90		
5							125 SAND 150 152 SAND LAYERS LAMINATED
6					28-30		40 cm, SS DIATOM-BEARING CLAY SILT
7		Small pieces 12 67			33		SAND PATCH
CC 8							

Observer: _____ Date: _____

✓ SM

IODP Expedition 323
SEDIMENT SMEAR SLIDE WORKSHEET

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	D	32	H	A	50	

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

Comments:

Percent	Component
SILICICLASTIC GRAINS/MINERAL	
Framework minerals	
16	Quartz 5
10	Feldspar 3
	K-feldspar (Orthoclase, Microcline...)
	Plagioclase
	Rock fragments
Accessory/trace minerals	
2	Micas 2.5
	Biotite
	Muscovite
16	Clay Minerals 5
	Chlorite
	Glauconite
	Chert
	Zircon
	Ferromagnesium minerals
Authigenic minerals	
	Barite
	Phosphorite/Apatite
	Zeolite
Opaque minerals	
3	Pyrite 1
	Magnetite
	Fe-oxide
Carbonates	
2	Calcite 0.5
	Dolomite
VOLCANICLASTIC GRAINS	
	Crystal grain
3	Vitric grain 1
	Lithic grain

Percent	Component
BIOGENIC GRAINS	
Calcareous	
	Foraminifera
	Planktonic foraminifera
	Benthic foraminifera
	Nannofossils
	Coccoliths
	Discoasters
	Pteropods
Siliceous	
	Radiolarians
	Spumellaria
	Nassellaria
15	Diatoms 15
	Centric
	Pennate
	Chaetoceros Resting Spores
	Silicoflagellates
2	Sponge spicules 0.5
	Dinoflagellates
Others	
	Pollen
	Organic debris
	Plant debris
	Ebridians
	Echinoderm
	Fish remains (teeth, bones, scales)
	Bryozoans
	Bivalves
	Others

IODP Expedition 323
 SEDIMENT SMEAR SLIDE WORKSHEET

✓ SM

Leg	Site	Hole	Core	Type	Sec	Interval (cm)	
						Top	Bottom
323	1344	D	32	H	6A	40	

Sediment/Rock Name	diatom-bearing clayey silt	Observer	Akira
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Percent Texture		
Sand	Silt	Clay
20	60	20

Comments:

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

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