

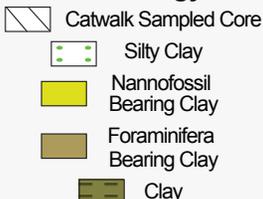
NGHP Expedition 1
Cored Interval Site 16 - Hole A
 Seafloor 1264.5 (m)

Barrel Sheet Key

Cored & Recovered:



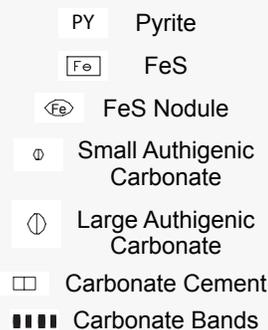
Lithology:



Bioturbation:



Diagenesis:



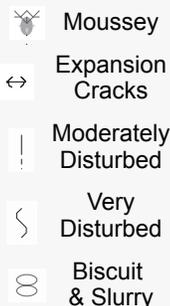
Structures:

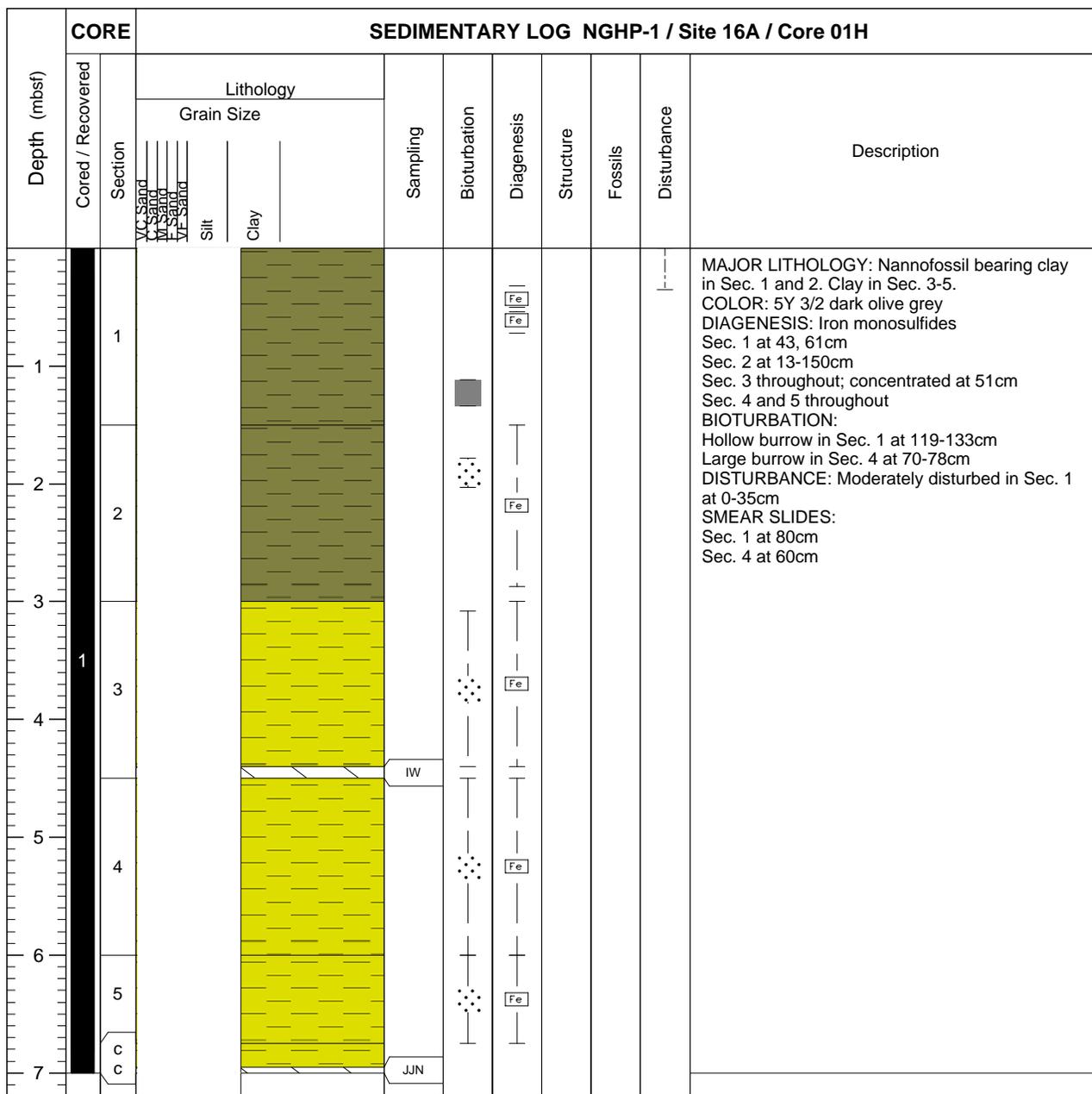


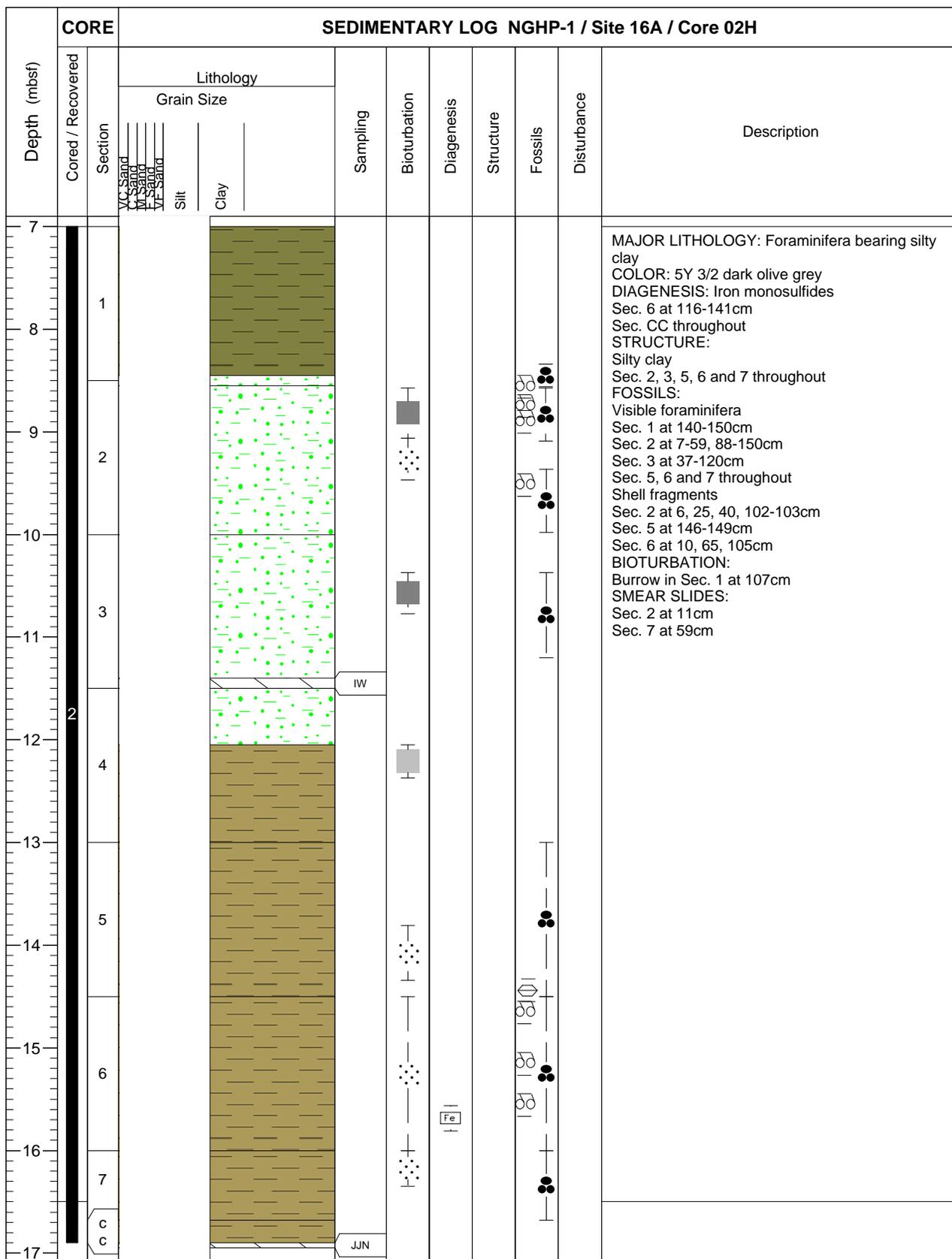
Fossils:

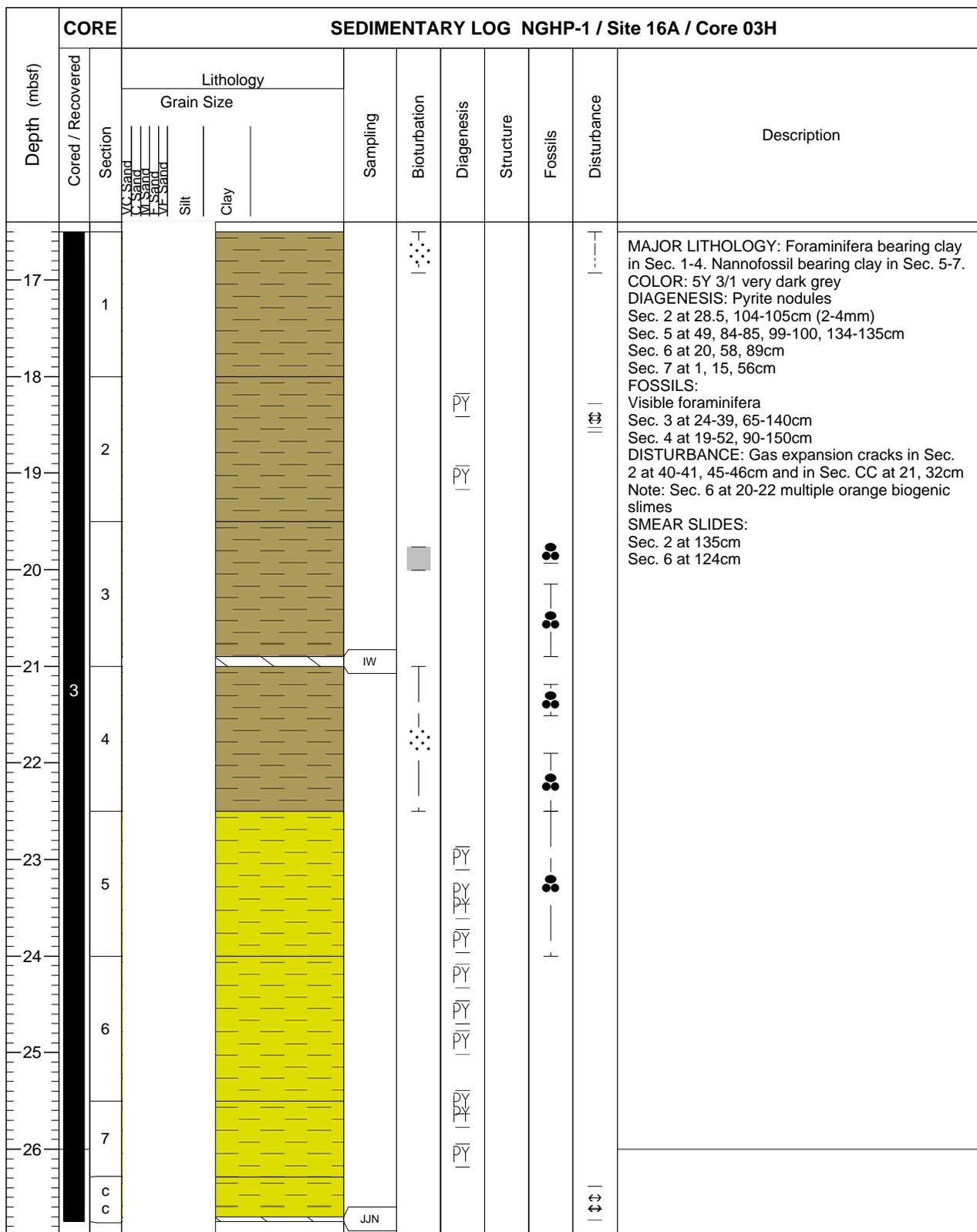


Disturbance:



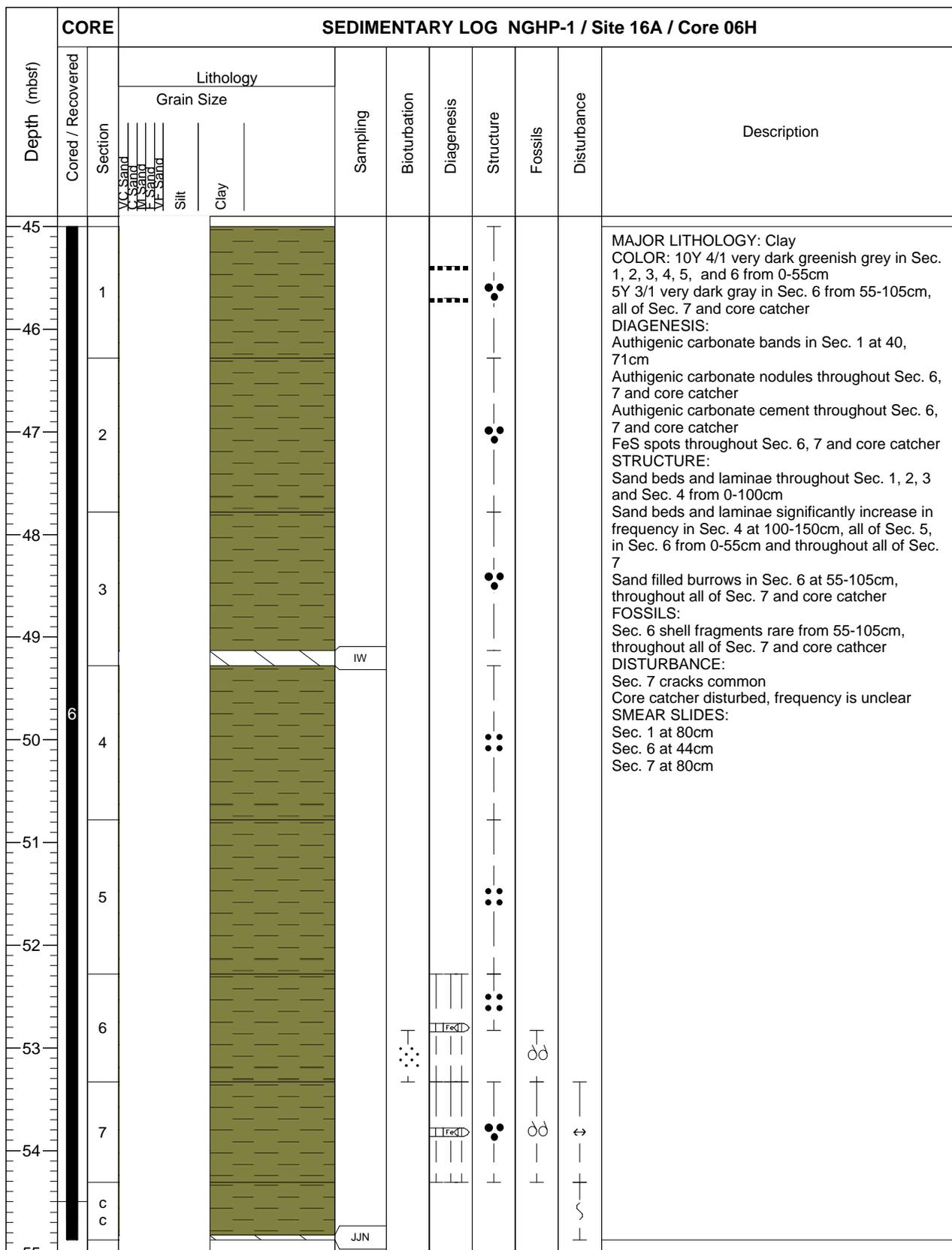






Depth (mbsf)	CORE		SEDIMENTARY LOG NGHP-1 / Site 16A / Core 04H							Description	
	Cored / Recovered	Section	Lithology		Sampling	Bioturbation	Diagenesis	Structure	Fossils		Disturbance
			Grain Size								
			VC Sand	Clay							
26											<p>MAJOR LITHOLOGY: Nannofossil bearing clay until 60cm in Sec. 4, changing to clay</p> <p>COLOR: 5Y 3/1 very dark grey until 60cm in Sec. 4, changing to 5GY 3/1 very dark greyish green</p> <p>DIAGENESIS: Pyrite nodules</p> <p>Sec.1 at 57, 78-79cm</p> <p>Sec. 2 at 27cm and burrows at 85-89, 106-110cm</p> <p>Sec. 3 at 124-125, 126cm and burrows at 30, 48-49, 64cm</p> <p>Sec. 4 at 24cm</p> <p>Authigenic carbonate nodules in Sec. 7 at 11, 27, 28cm</p> <p>Authigenic carbonate micronodules</p> <p>Sec. 4 at 89, 106, 110, 112, 116, 120cm</p> <p>Sec. 5 at 2-3, 25-27, 67, 123-124, 128-129cm</p> <p>Sec. 6 at 3cm</p> <p>STRUCTURE: Silt laminae in Sec. 7 at 62cm (pyrite rich)</p> <p>FOSSILS:</p> <p>Shell fragments</p> <p>Sec. 2 at 4cm</p> <p>Sec. 3 at 126cm (sea urchin spines)</p> <p>Sec. 6 at 128cm (sea urchin spines)</p> <p>DISTURBANCE: Gas expansion cracks in Sec. 3 at 26-27, 54-56cm and Sec. 6 at 30, 95, 130-131cm</p> <p>Note: Sec. 3 at 120 multiple orange biogenic slimes</p> <p>SMEAR SLIDES:</p> <p>Sec. 2 at 65cm</p> <p>Sec. 6 at 125cm</p>
27		1				PY PY					
28		2				PY PY					
29		3				PY PY PY					
30		4			IW	PY PY					
31		4									
32		5									
33		6									
34		7									
35											
36		c c			JUN						

CORE		SEDIMENTARY LOG NGHP-1 / Site 16A / Core 05H								
Depth (mbsf)	Cored / Recovered	Lithology		Sampling	Bioturbation	Diagenesis	Structure	Fossils	Disturbance	Description
		Grain Size								
	Section	VC Sand	Clay							
		W Sand								
		MF Sand								
		Silt								
36	1									<p>MAJOR LITHOLOGY: Clay COLOR: 10Y 3/1 very dark greenish grey DIAGENESIS: Iron monosulfides Sec. 2 spots throughout STRUCTURE: Sand laminae Sec. 1 at 142cm Sec. 4 at 12, 17cm Sec. 6 throughout Sand beds Sec. 4 at 120-122cm Sec. 5 at 60, 94, 144cm Sand-filled burrows Sec. 1 at 24cm Sec. 4 at 38, 60, 63, 78, 103, 123-140cm Sec. 5 at 45, 49, 54, 77, 136-142cm Sec. 6 throughout DISTURBANCE: Very disturbed in Sec. 1 and CC throughout SMEAR SLIDES: Sec. 3 at 89cm Sec. 7 at 130cm</p>
	2									
37										
	3									
38										
	4									
39										
	5			IW						
40										
	5									
41										
	5									
42										
	6									
43										
	7									
44										
	8									
45										
	c									
46	c			JUN						



CORE		SEDIMENTARY LOG NGHP-1 / Site 16A / Core 07H									
Depth (mbsf)	Cored / Recovered	Section	Lithology		Sampling	Bioturbation	Diagenesis	Structure	Fossils	Disturbance	Description
			Grain Size								
			VC Sand								
			W Sand								
			VF Sand								
			Silt								
			Clay								
54											
55		1									<p>MAJOR LITHOLOGY: Clay COLOR: 7.5YR 2.5/1 black DIAGENESIS: Authigenic carbonate bands in Sec. 1 at 67-83, 144-145cm; Sec. 2 at 0-30, 66-74, 109cm; Sec. 4 at 5-11cm Authigenic carbonate micro nodules in Sec. 1 at 122, 137, 140, 144cm; Sec. 4 at 38, 60, 85cm Authigenic carbonate cement in Sec. 3 at 92-96, 114-115cm FeS bands in Sec. 3 at 105-110cm STRUCTURE: Sand rich zone in Sec 1 at 126-134cm Sand laminae in Sec. 1 at 149cm; Sec. 2 at 0-30, 66, 109cm; Sec. 3 at 108-110, 130-132cm DISTURBANCE: Sec. 1 moderate drilling disturbance at 0-15cm Gas expansion cracks throughout all sections Core catcher moderately disturbed throughout SMEAR SLIDES: Sec. 2 at 20cm Sec. 4 at 100cm</p>
56											
56											
56		2									
57											
57											
57		3									
58											
58											
59											
59					IW						
59		4									
60											
60		c									
60		c									
61											
					JUN						

CORE		SEDIMENTARY LOG NGHP-1 / Site 16A / Core 08H								
Depth (mbsf)	Cored / Recovered	Lithology		Sampling	Bioturbation	Diagenesis	Structure	Fossils	Disturbance	Description
		Section	Grain Size							
		VC Sand								
		W Sand								
		VF Sand								
		Silt								
		Clay								
61	1					⊕ ⊕ ⊕	••			<p>MAJOR LITHOLOGY: Nannofossil Bearing Clay COLOR: 7.5YR 2.5/1 black DIAGENESIS: Authigenic carbonate micro nodules in Sec. 1 at 27, 31, 39, 67-70cm; Sec. 2 at 38, 40, 48, 56, 80, 84, 88, 94, 128cm; Sec. 3 at 20-21, 36-37, 54-60, 79cm; Sec. 4 at 28, 32cm; Sec. 5 at 53, 61cm; Sec. CC at 21, 31cm STRUCTURE: Silt/Sand laminae in Sec. 1 at 60-62cm; Sec. 2 at 10, 68cm Sand bed in Sec. 4 at 16-20cm with small pieces of wood throughout DISTURBANCE: Gas expansion cracks in Sec. 3 and 4 Very disturbed section in core catcher SMEAR SLIDES: Sec. 2 at 45cm Sec. 5 at 50cm</p>
62	2					⊕ ⊕ ⊕ ⊕ ⊕ ⊕	••			
63	3					⊕ ⊕ ⊕ ⊕ ⊕				
64	4			iw		⊕ ⊕	••	Wd		
65	5					⊕ ⊕				
66	cc			JJN		⊕ ⊕ ⊕				

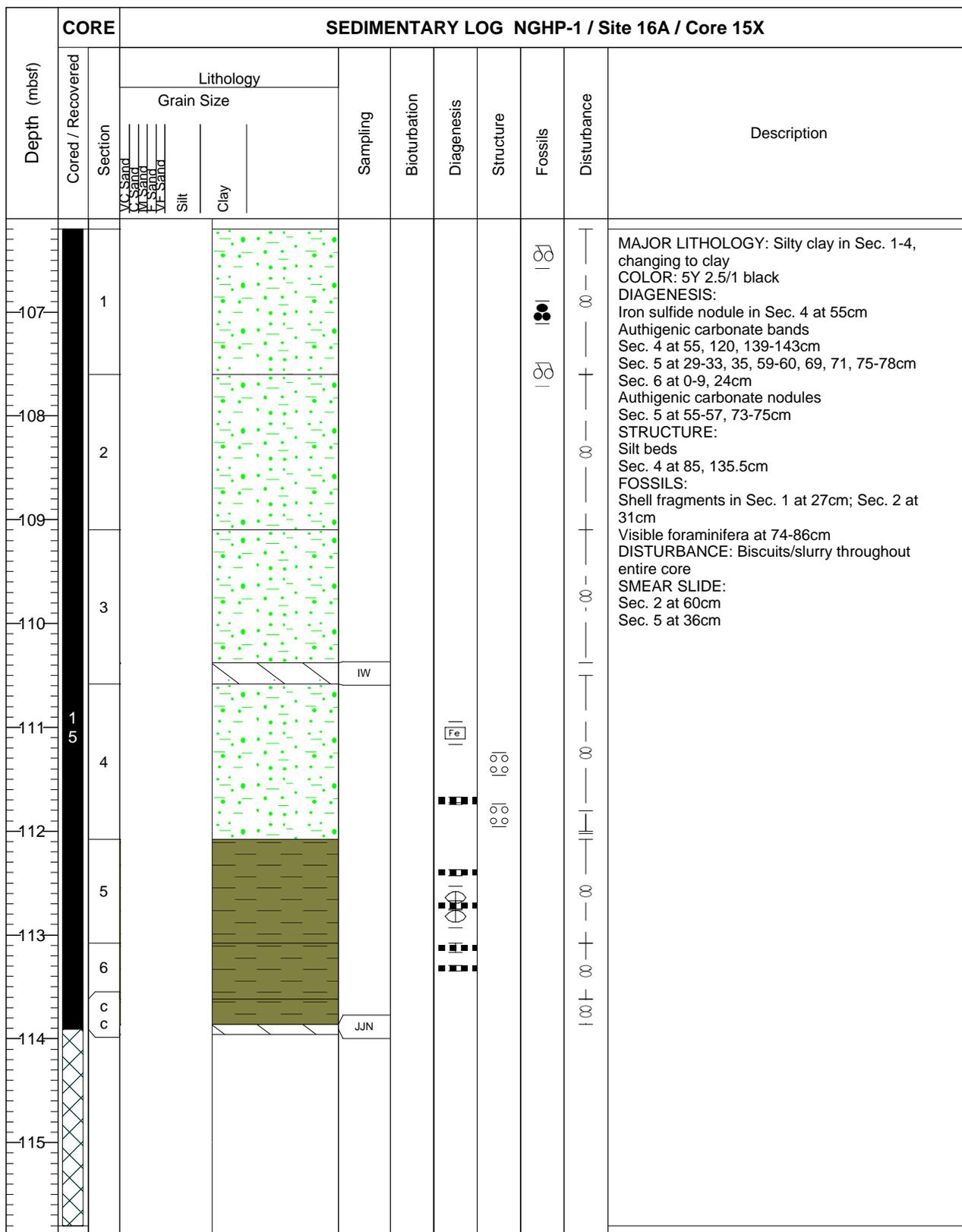
CORE		SEDIMENTARY LOG NGHP-1 / Site 16A / Core 09X								
Depth (mbsf)	Cored / Recovered	Lithology		Sampling	Bioturbation	Diagenesis	Structure	Fossils	Disturbance	Description
		Grain Size								
	Section	VC Sand	Clay							
		VC Sand								
		VC Sand								
		VC Sand								
		VC Sand								
		Silt								
66	1					Fe				<p>MAJOR LITHOLOGY: Clay</p> <p>COLOR: 7.5Y 3/1 very dark grey in Sec. 1, 3 and 4 (until 100cm) 7.5Y 2.5/1 black in Sec. 2 10YR 3/1 very dark grey in Sec. 4 (after 100cm) 10YR 4/2 dark greyish brown in Sec. 5</p> <p>DIAGENESIS: Authigenic carbonate micro nodules Sec. 1 at 34-150cm Sec. 2 at 10, 42, 81, 121cm Iron monosulfides Sec. 1 at 50-100cm; 100-150cm (mottles)</p> <p>STRUCTURE: Sand laminae Sec. 5 at 4, 52, 74cm Sand bed Sec. 3 at 40-130cm Sec. 4 at 0-80, 90, 109-112, 121, 129cm</p> <p>DISTURBANCE: Very disturbed throughout core catcher</p> <p>SMEAR SLIDES: Sec. 1 at 105cm Sec. 4 at 140cm</p>
67										
68	2									
69										
70	3									
71	4			IW						
72	5									
73	c c			JUN						
74										
75										

CORE		SEDIMENTARY LOG NGHP-1 / Site 16A / Core 10X									
Depth (mbfs)	Cored / Recovered	Section	Lithology		Sampling	Bioturbation	Diagenesis	Structure	Fossils	Disturbance	Description
			Grain Size								
			VC Sand VF Sand VF Sand VF Sand	Silt Clay							
76	10	1 c c			JUN			•••			MAJOR LITHOLOGY: Clay COLOR: 10YR 4/2 dark greyish brown STRUCTURE: Sand laminae and burrows throughout Sec. 1 SMEAR SLIDE: Sec. 1 at 10cm
77											
78											
79											
80											
81											
82											
83											
84											
85											

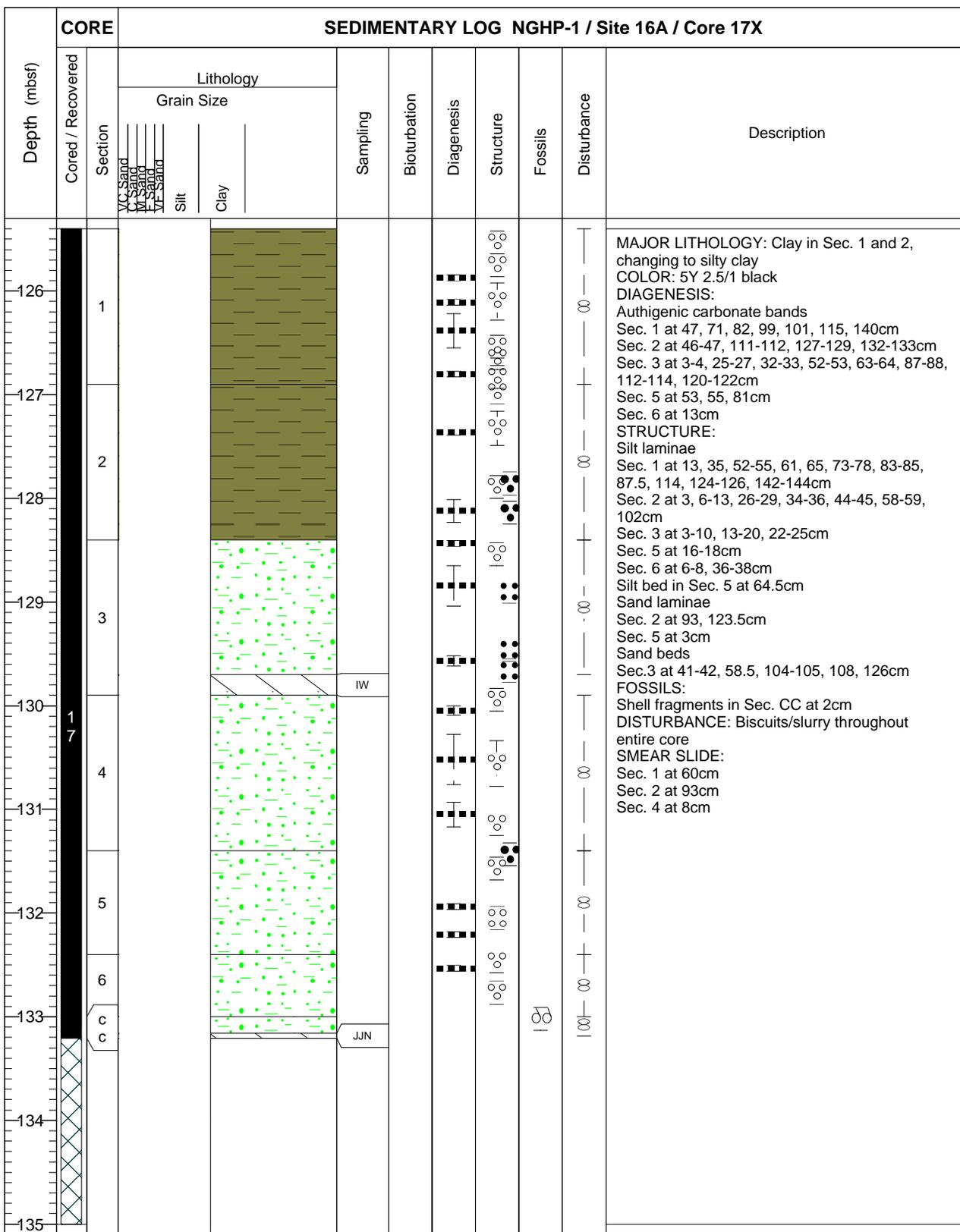
CORE		SEDIMENTARY LOG NGHP-1 / Site 16A / Core 11X								
Depth (mbsf)	Cored / Recovered	Lithology		Sampling	Bioturbation	Diagenesis	Structure	Fossils	Disturbance	Description
		Grain Size								
	Section	VC Sand	VC Sand							
		W Sand	W Sand							
		VF Sand	VF Sand							
		Silt								
		Clay								
85	1					⊕				MAJOR LITHOLOGY: Clay COLOR: 10Y 2.5/1 greenish black DIAGENESIS: Authigenic carbonate nodules Sec. 1 at 33, 75, 82, 124cm Sec. 2 at 16, 82, 147cm (micronodules) Sec. 4 at 75cm (micronodules) SMEAR SLIDE: Sec. 1 at 10cm Sec. 4 at 10cm
86						⊕				
87	2					⊕				
88						⊕				
89	3					⊕				
90	4			IW		⊕				
91	c			JUN						
92										
93										
94										

CORE		SEDIMENTARY LOG NGHP-1 / Site 16A / Core 12X								
Depth (mbsf)	Cored / Recovered	Lithology		Sampling	Bioturbation	Diagenesis	Structure	Fossils	Disturbance	Description
		Section	Grain Size							
		VC Sand								
		CC Sand								
		IV Sand								
		VF Sand								
		Silt								
		Clay								
95	1									<p>MAJOR LITHOLOGY: Clay in Sec. 1-3, changing to nannofossil bearing clay COLOR: 10Y 2.5/1 greenish black DIAGENESIS: Authigenic carbonate band in Sec. CC at 15.5cm STRUCTURE: Silt laminae in Sec. 2 at 68, 86, 100cm; Sec. 4 at 32, 57, 100cm; Sec. 5 at 90-94cm FOSSILS: Shell fragments in Sec. 3 at 27, 43cm DISTURBANCE: Biscuits/slurry throughout entire core SMEAR SLIDE: Sec. 1 at 63cm Sec. 4 at 80cm</p>
96										
97	2									
98	3			IW						
99	4									
100	5									
101	CC			JUN						
102										
103										
104										

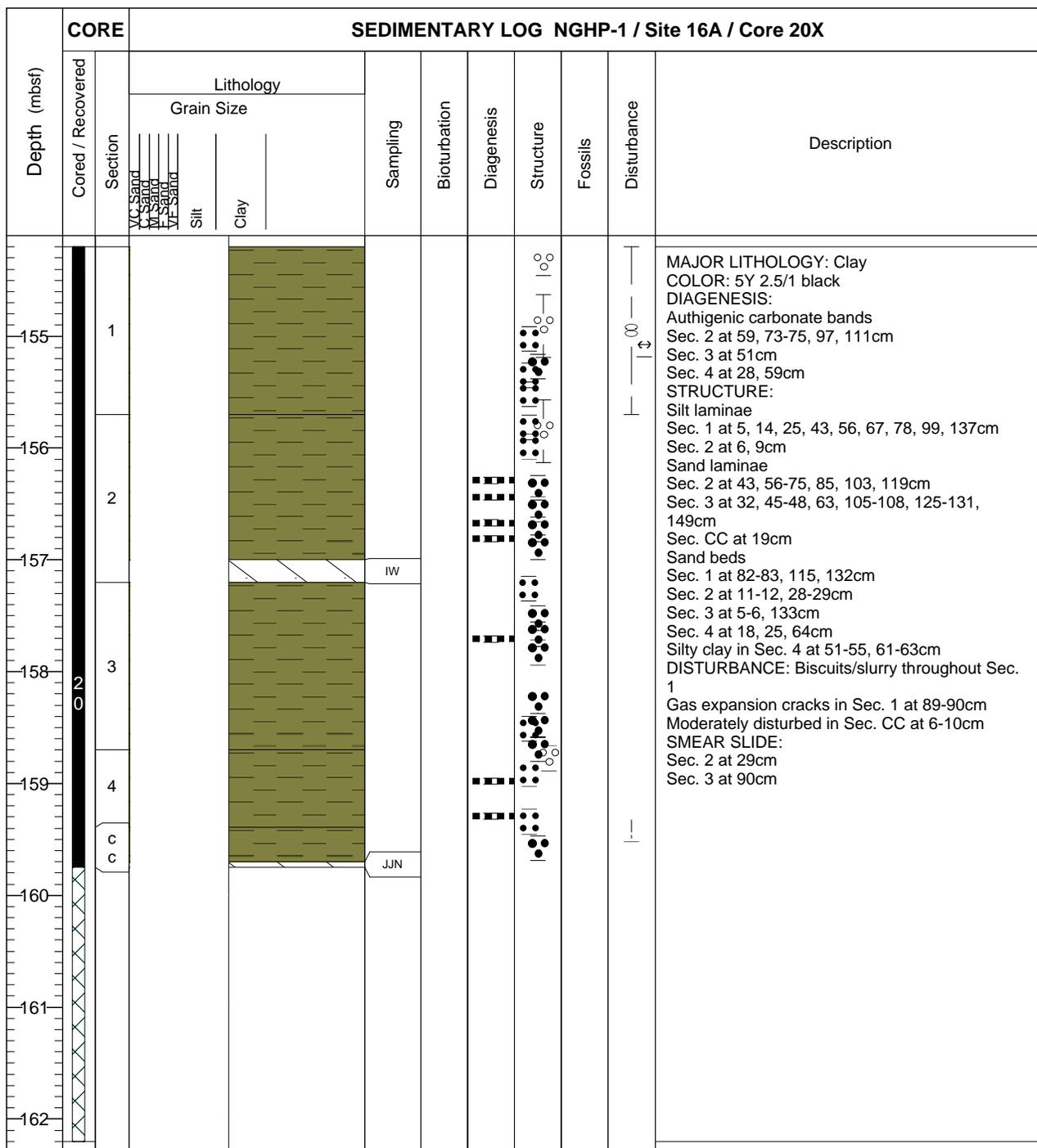
CORE		SEDIMENTARY LOG NGHP-1 / Site 16A / Core 13P									
Depth (mbstf)	Cored / Recovered	Section	Lithology		Sampling	Bioturbation	Diagenesis	Structure	Fossils	Disturbance	Description
			Grain Size								
			VC Sand								
			MS Sand								
			MF Sand								
			Silt								
			Clay								
105	1 3				IW						<p>MAJOR LITHOLOGY: Clay COLOR: 5Y 2.5/1 black FOSSILS: Shell fragments at 4.5cm Visible foraminifera at 52-91cm DISTURBANCE: Very disturbed throughout core SMEAR SLIDE: Sec. 1 at 69cm</p>



Depth (mbfs)	CORE		SEDIMENTARY LOG NGHP-1 / Site 16A / Core 16X							Description										
	Cored / Recovered	Section	Lithology		Sampling	Bioturbation	Diagenesis	Structure	Fossils		Disturbance									
			Grain Size																	
			VC Sand																	
116	X																			No core recovered
117	X																			
118	X																			
119	X																			
120	X																			
121	X																			
122	X																			
123	X																			
124	X																			
125	X																			

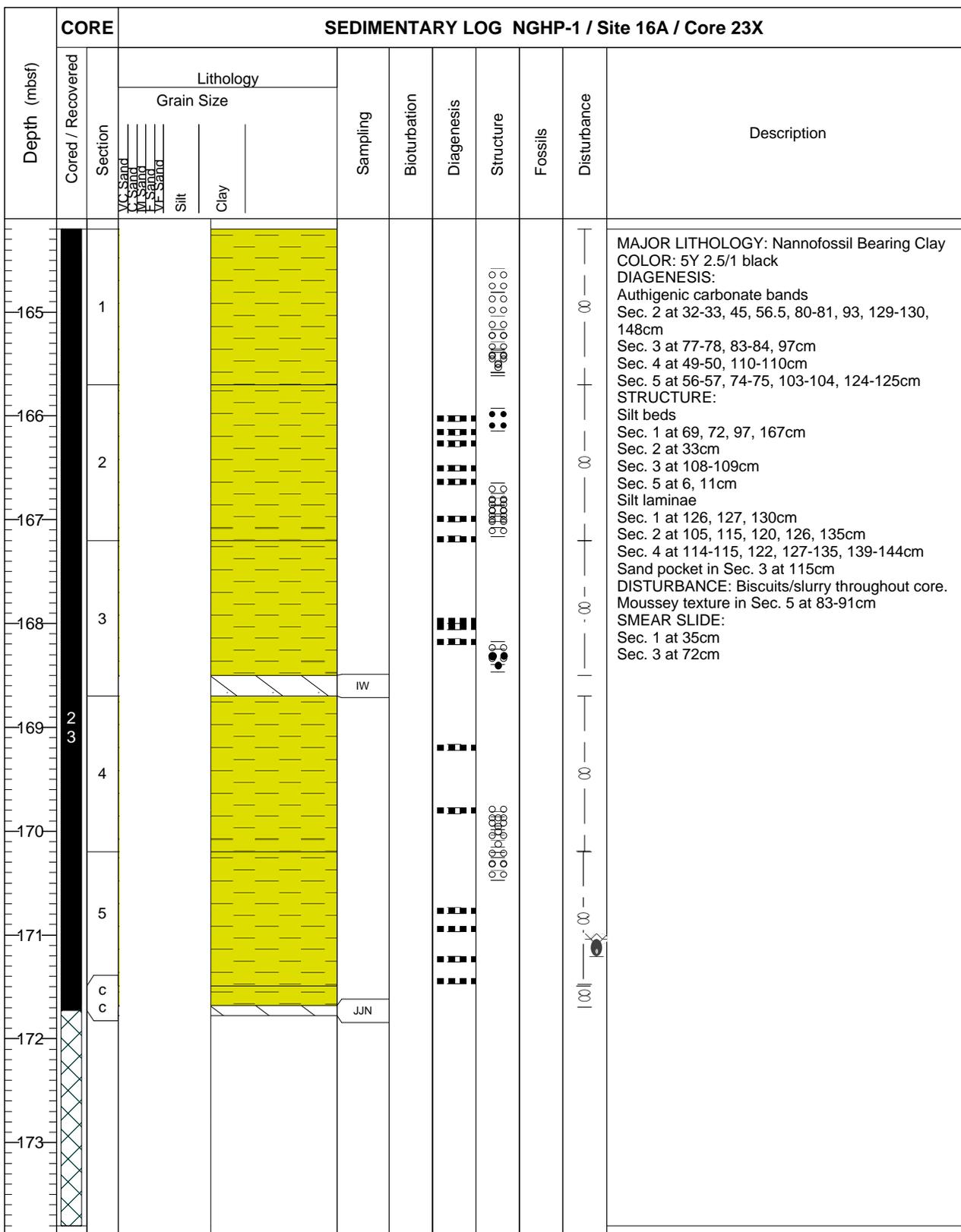


CORE		SEDIMENTARY LOG NGHP-1 / Site 16A / Core 18X								
Depth (mbsf)	Cored / Recovered	Lithology		Sampling	Bioturbation	Diagenesis	Structure	Fossils	Disturbance	Description
		Grain Size								
	Section	VC Sand	Clay							
		VC Sand								
		VC Sand								
		VC Sand								
		VC Sand								
		Silt								
135	1									<p>MAJOR LITHOLOGY: Clay COLOR: 5Y 2.5/1 black DIAGENESIS: Authigenic carbonate bands Sec. 1 at 33m 50m 106-109cm Sec. 2 at 64-65cm Sec. 3 faint throughout STRUCTURE: Silt beds Sec. 16cm Silt laminae Sec. 28, 63-66, 74-77, 90, 95, 103-106cm Sec. 2 at 4, 23, 31, 40, 63, 73, 80, 84-88, 100, 110, 116cm Sec. 3 at 3, 7, 30, 33, 37, 40, 45-46, 60, 63, 67, 71cm Sec. 4 at 16-17, 21-22, 26, 28-29, 42-43, 56-57cm FOSSILS: Visible foraminifera Sec. 2, 3 and 4 throughout DISTURBANCE: Biscuits/slurry throughout entire core SMEAR SLIDE: Sec. 2 at 60cm Sec. 4 at 24cm</p>
136	1									
137	2									
138	3									
139	4									
140	c			JUN						
141										
142										
143										
144										



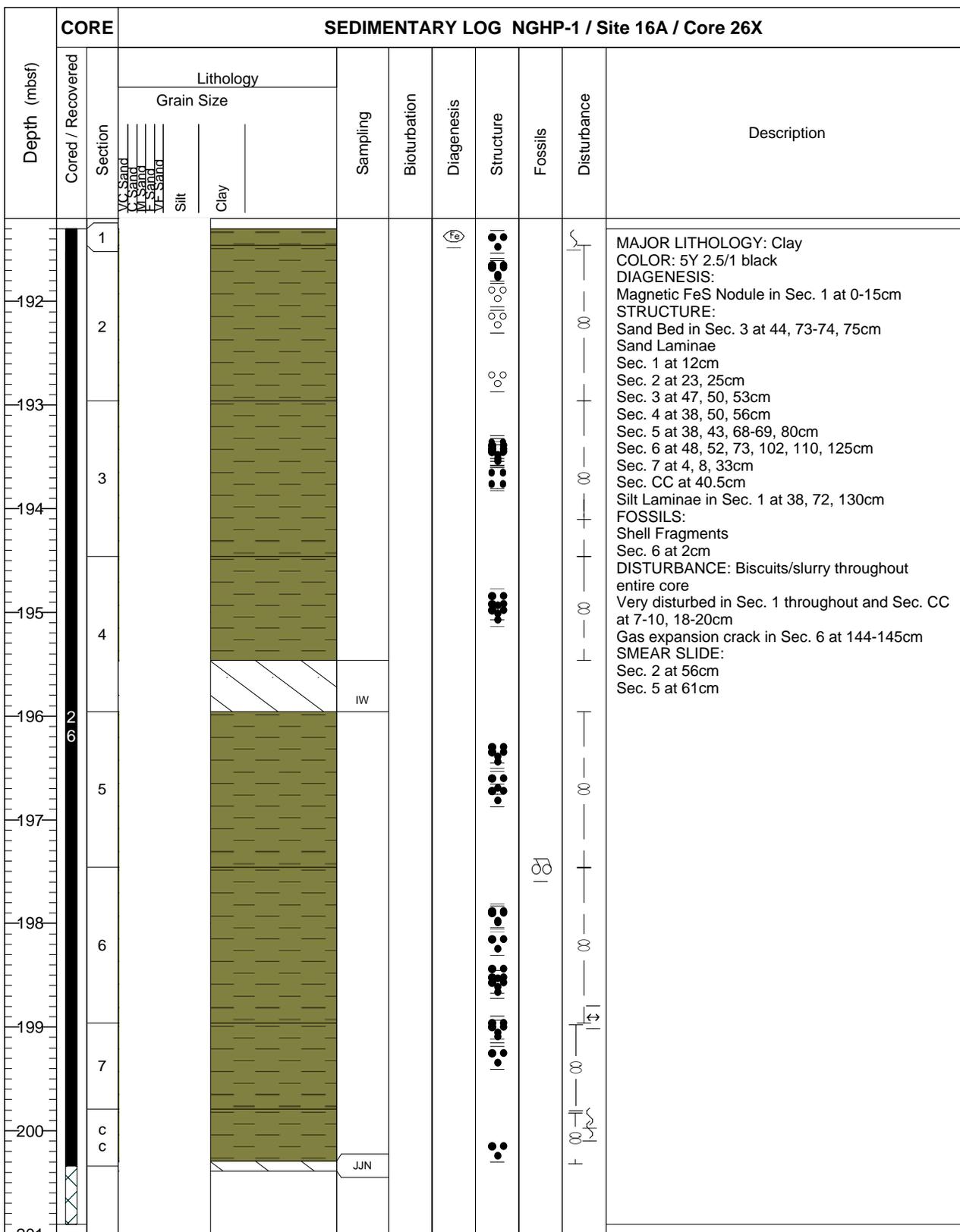
CORE		SEDIMENTARY LOG NGHP-1 / Site 16A / Core 21P									
Depth (mbstf)	Cored / Recovered	Section	Lithology		Sampling	Bioturbation	Diagenesis	Structure	Fossils	Disturbance	Description
			Grain Size	Clay							
163	2 1	1	VC Sand VF Sand VF Sand VF Sand VF Sand Silt Clay		IW						<p>MAJOR LITHOLOGY: Silty clay in Sec. 1-4, changing to clay COLOR: 5Y 2.5/1 black STRUCTURE: Sand laminae at 52cm Sand beds at 87, 89cm DISTURBANCE: Moderately disturbed throughout entire core. SMEAR SLIDE: Sec. 1 at 9cm</p>

Depth (mbfs)	CORE		SEDIMENTARY LOG NGHP-1 / Site 16A / Core 22E									
	Cored / Recovered	Section	Lithology		Sampling	Bioturbation	Diagenesis	Structure	Fossils	Disturbance	Description	
			Grain Size									
			VC Sand	Clay								
164	2 2	1										MAJOR LITHOLOGY: Silty clay COLOR: 5Y 2.5/1 black DISTURBANCE: Moderately disturbed throughout core SMEAR SLIDE: Sec. 1 at 25cm



CORE		SEDIMENTARY LOG NGHP-1 / Site 16A / Core 24X							Description	
Depth (mbsf)	Cored / Recovered	Lithology		Sampling	Bioturbation	Diagenesis	Structure	Fossils		Disturbance
		Grain Size								
	Section	VC Sand	UV Sand							
		UV Sand	UV Sand							
		UV Sand	UV Sand							
		UV Sand	UV Sand							
		Silt								
		Clay								
174	1									<p>MAJOR LITHOLOGY: Clay COLOR: 5Y 2.5/1 black STRUCTURE: Silt laminae Sec. 1 at 98cm Sec. 4 at 35-36, 71cm Sec. CC at 29cm Sand bed Sec. 1 at 127.5cm Sec. 2 at 10.5-11cm Silty clay Sec. 1 at 69-84cm Sec. 4 throughout, very small percentage of silt FOSSILS Shell fragments Sec. 1 at 34cm Sec. 4 at 13-14, 72cm DISTURBANCE: Biscuits/slurry throughout entire core SMEAR SLIDE: Sec. 1 at 111cm Sec. 3 at 88cm</p>
175										
176	2									
177	3									
178	2 4			IW						
179	4 5									
180	c c			JUN						
181										
182										

CORE		SEDIMENTARY LOG NGHP-1 / Site 16A / Core 25X							Description	
Depth (mbstf)	Cored / Recovered	Lithology		Sampling	Bioturbation	Diagenesis	Structure	Fossils		Disturbance
		Grain Size								
	Section	VC Sand	Clay							
183	1						●●	○	∞	<p>MAJOR LITHOLOGY: Clay COLOR: N/2.5 black STRUCTURE: Sand pocket Sec. 1 at 70cm Sec. 3 at 8, 18cm Sec. 4 at 136, 145cm Sec. 5 at 39cm Sec. CC at 12cm FOSSILS: Shell Fragments Sec. 1 rare throughout Sec. 3 at 43cm Sec. 4 at 18, 90cm DISTURBANCE: Biscuits/slurry throughout entire core Horizontal cracks in Sec. 1 at 42cm Moderately disturbed in Sec. 5 at 34-37cm and throughout core catcher SMEAR SLIDE: Sec. 2 at 84cm Sec. 3 at 63cm</p>
184										
185	2									
186	3						●●	○	∞	
187	2 5			IW				○	∞	
188	4						●●	○	∞	
189	5						●●	○	∞	
190	c c			JUN			●●	○	∞	
191										



CORE		SEDIMENTARY LOG NGHP-1 / Site 16A / Core 27X								
Depth (mbsf)	Cored / Recovered	Lithology		Sampling	Bioturbation	Diagenesis	Structure	Fossils	Disturbance	Description
		Grain Size								
	Section	VC Sand	Clay							
		VC Sand								
		VC Sand								
		VC Sand								
		VC Sand								
		Silt								
201	1									<p>MAJOR LITHOLOGY: Clay COLOR: 5Y 2.5/1 black STRUCTURE: Very disturbed silt laminae in Sec. 3 at 22, 30cm FOSSILS: Shell fragments Sec. 2 at 2, 67cm Sec. 3 rare at 23, 50-70cm Sec. 4 rare at 28-32cm Clay throughout entire core is more consolidated than previous cores DISTURBANCE: Biscuits/slurry throughout entire core Moderately disturbed in Sec. 5 throughout Very disturbed in Sec. CC throughout SMEAR SLIDE: Sec. 2 at 110cm Sec. 5 at 70cm</p>
202										
203	2									
204										
205	3									
206	4			IW						
207	5									
208	cc									
209				JJN						

Depth (mbsf)	CORE SEDIMENTARY LOG NGHP-1 / Site 16A / Core 28X										
	Cored / Recovered	Section	Lithology		Sampling	Bioturbation	Diagenesis	Structure	Fossils	Disturbance	Description
			Grain Size								
210	28	1									MAJOR LITHOLOGY: Clay COLOR: 5Y 2.5/1 black STRUCTURE: Silt laminae Sec. 2 at 87, 120cm Sec. 3 at 13-15cm Sec. 5 at 81cm Sec. 6 at 8-12, 51cm Sec. 7 at 50-51cm Sec. CC at 12, 20-23, 29-32, 38cm Clay throughout entire core is more consolidated than previous cores SMEAR SLIDE: Sec. 4 at 70cm Sec. 5 at 81cm
211		2									
212		3									
213					IW						
214		4									
215		5									
216		6									
217		7									
218											
219		cc			JJN						