

# NGHP - Expedition 1

## Cored Interval - Site 18 - Hole A

Seafloor 1386 (m)

### Barrel Sheet Key

#### Cored & Recovered:

-  Core Recovery
-  Cored Interval No Recovery

#### Lithology:

-  Clay
-  Foraminifera Bearing Clay
-  Foraminifera Rich Clay
-  Nannofossil Bearing Clay
-  Nannofossil Rich Foram Bearing Clay
-  Volcanic Glass Bearing Clay
-  Volcanic Glass Rich Clay
-  Nannofossil & Volcanic Glass Bearing Clay
-  Nannofossil & Volcanic Glass Rich Clay
-  Nannofossil, Diatom, & Volcanic Glass Bearing Clay
-  Biosiliceous Bearing Clay
-  Biosiliceous Rich Clay
-  Foraminifera Bearing Nannofossil Ooze
-  Biosiliceous Bearing Nannofossil Ooze
-  Catwalk Sampled Core

#### Bioturbation:

-  Rare
-  Moderate
-  Common
-  Abundant

#### Diagenesis:

-  PY Pyrite
-  FeS
-  FeS Nodule
-  Authigenic Carbonate Micro-Nodule

#### Structures:

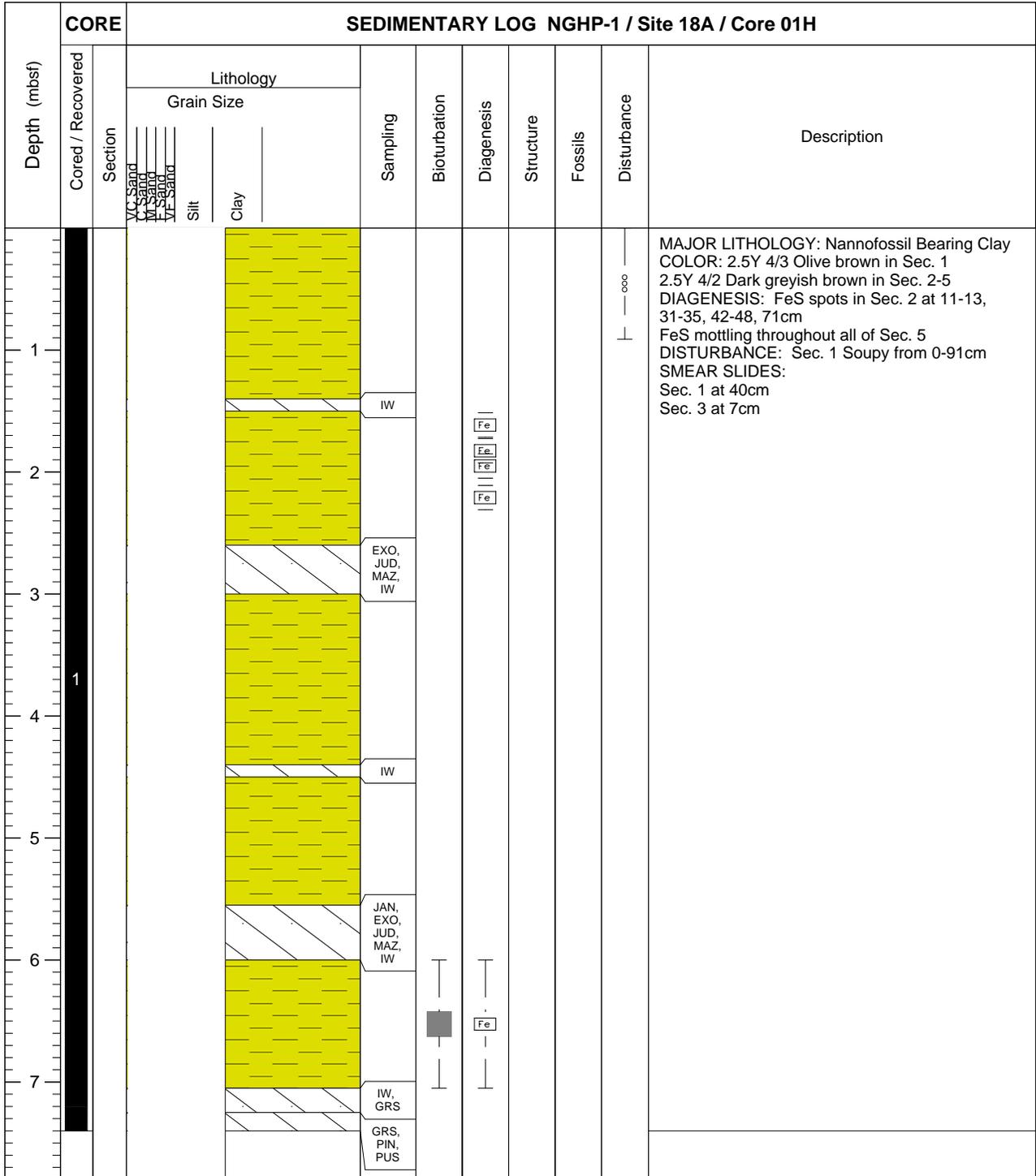
-  Fining Upward Bedding
-  Planar Lamination

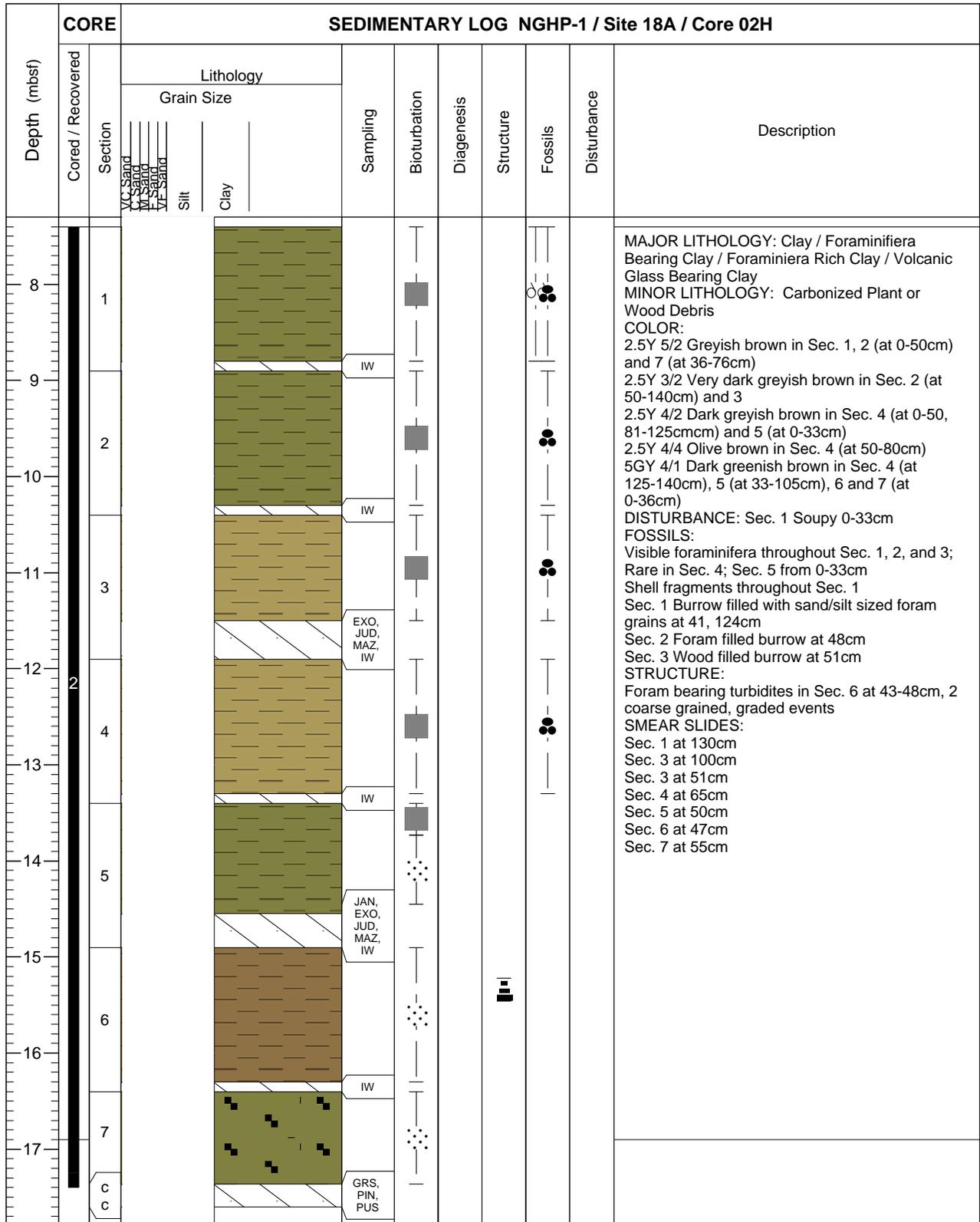
#### Fossils:

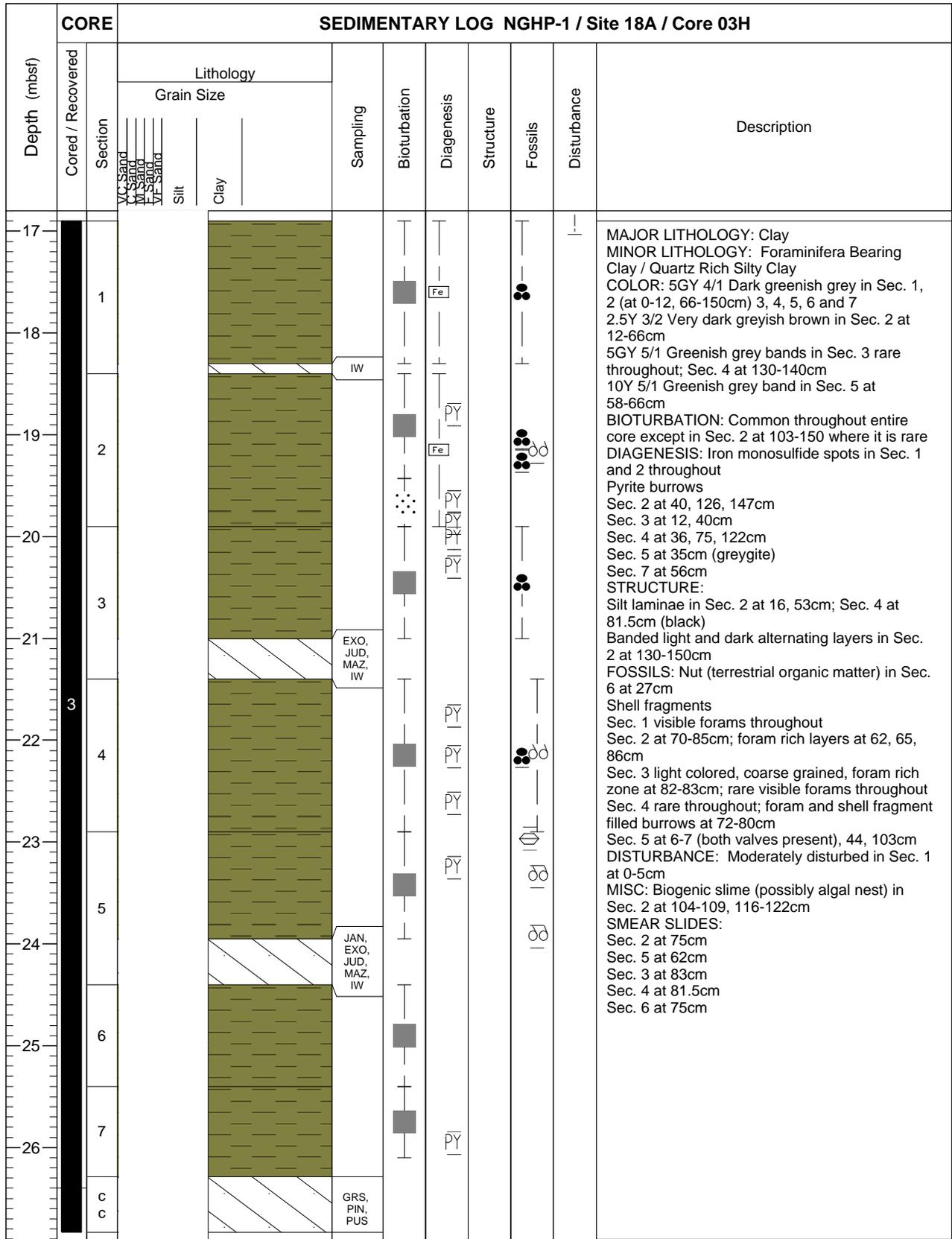
-  Shell Fragments
-  Foraminifera
-  Woody Debris
-  Mollusk

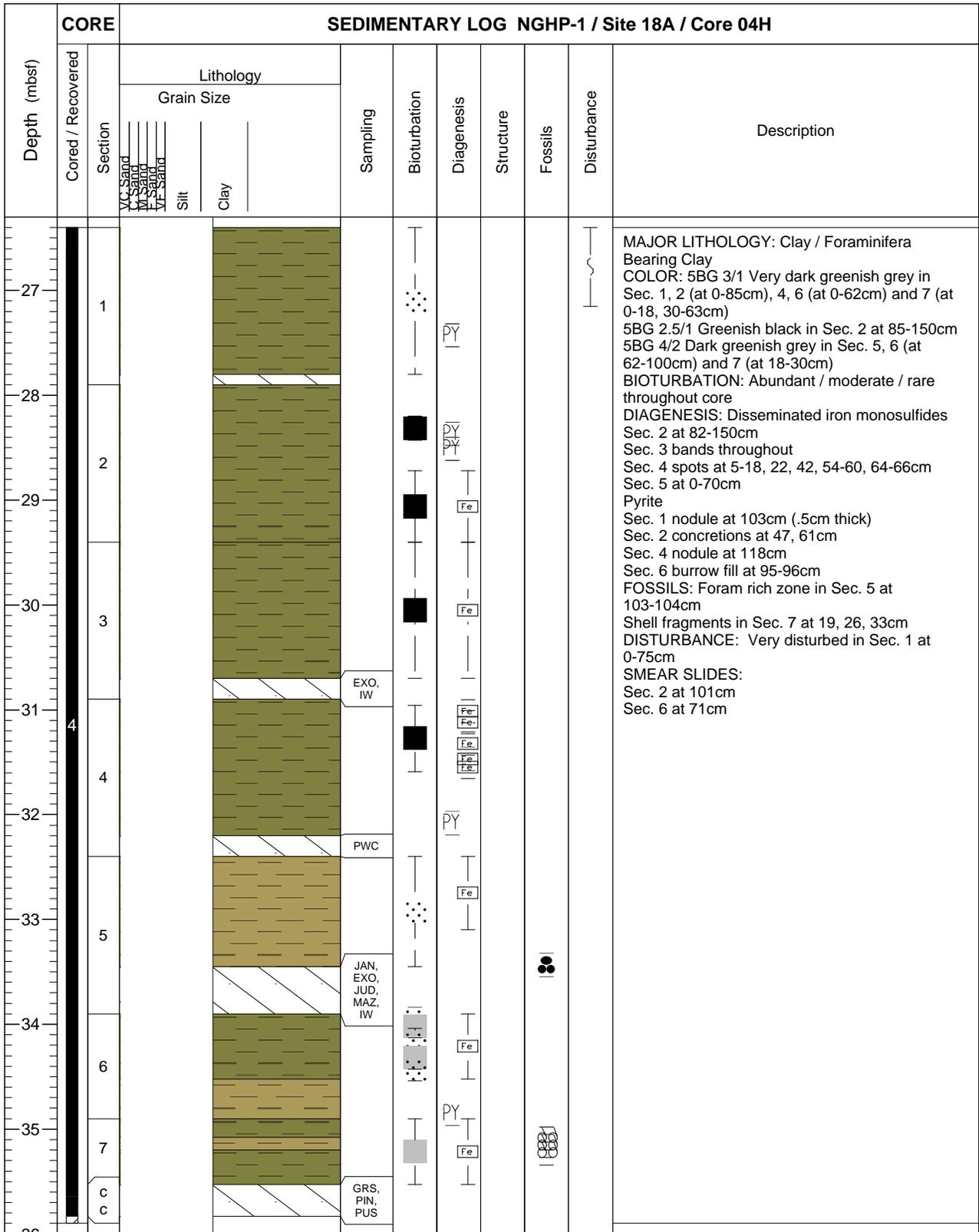
#### Disturbance:

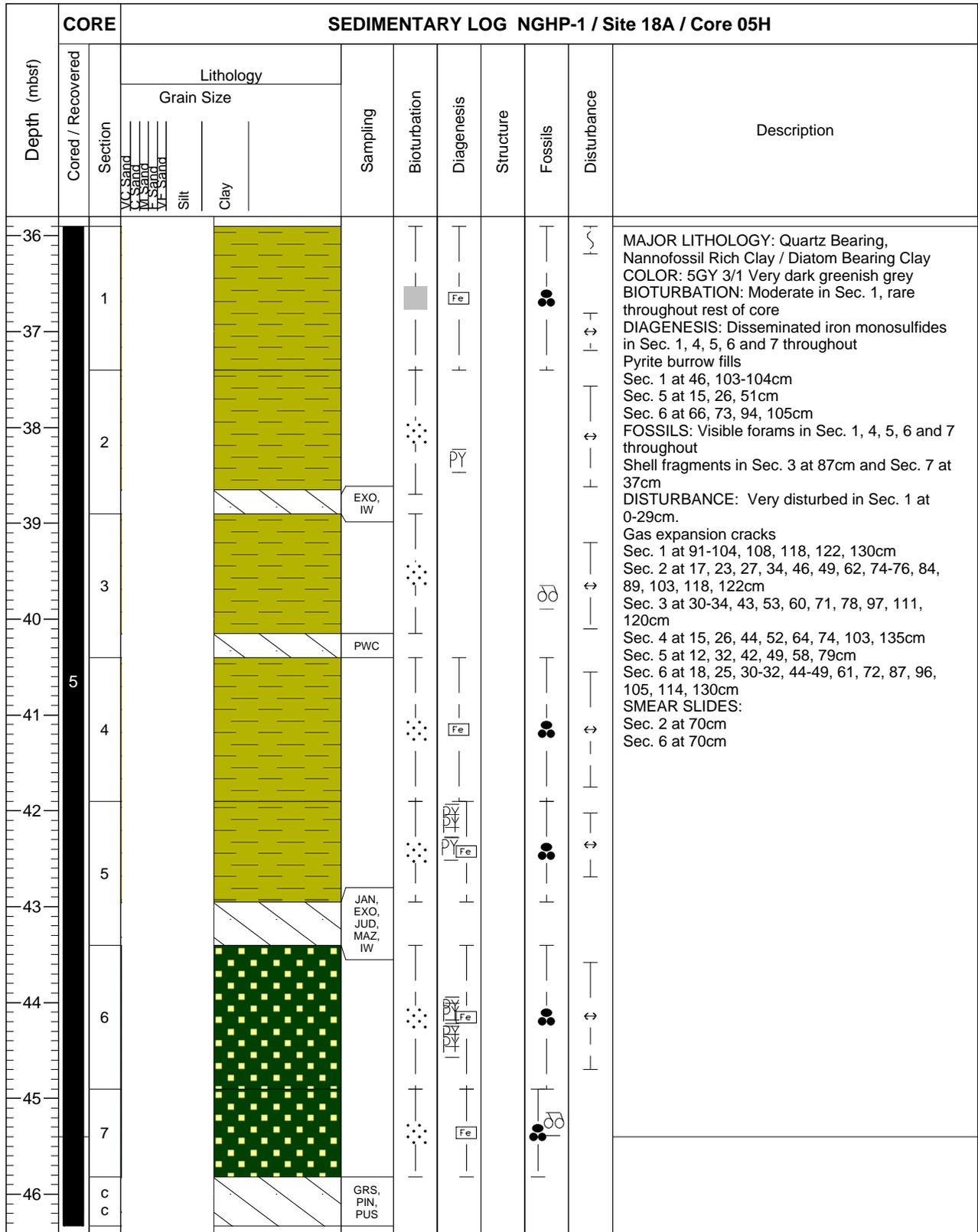
-  Moussey
-  Expansion Cracks
-  Moderately Disturbed
-  Very Disturbed
-  Biscuit & Slurry

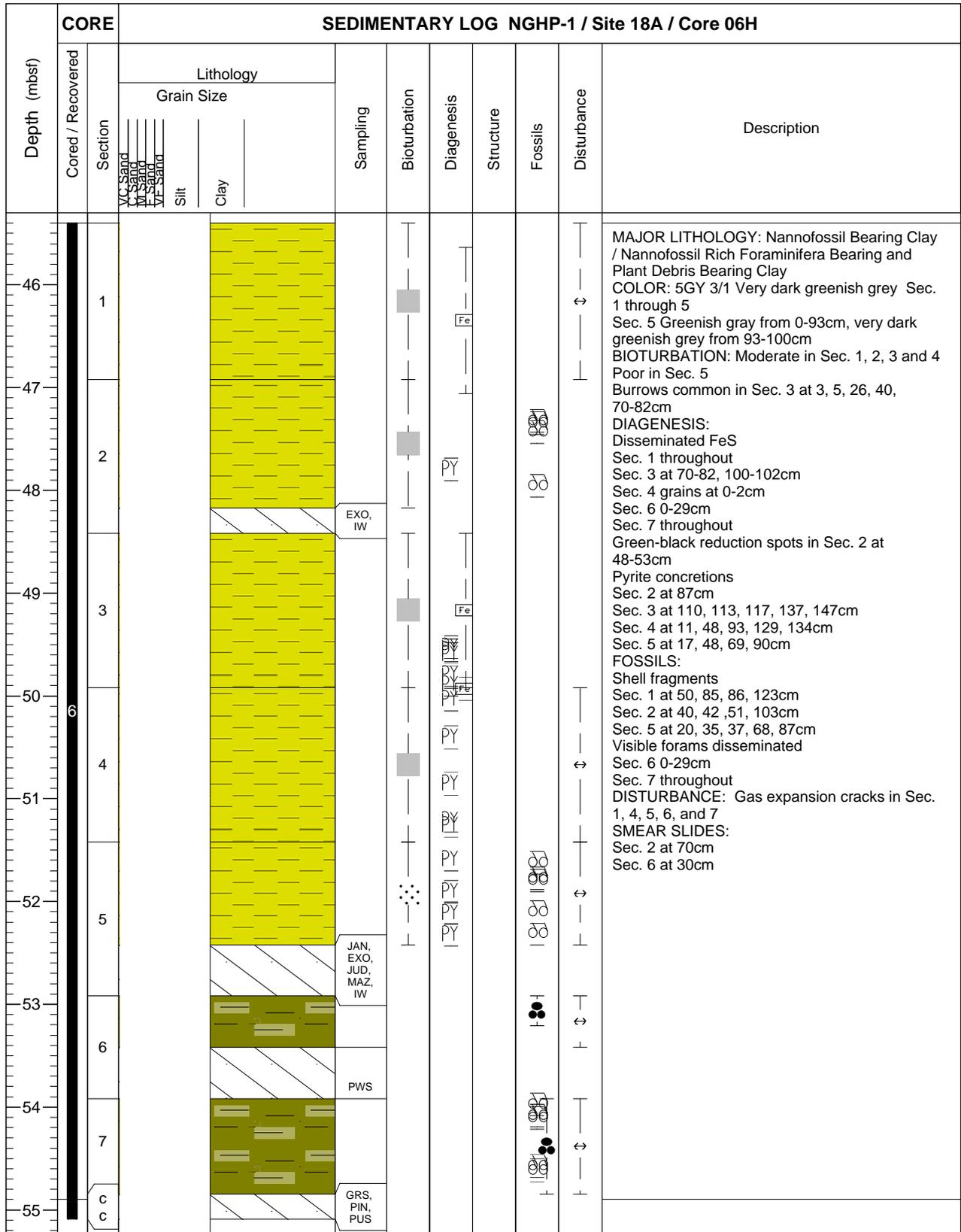


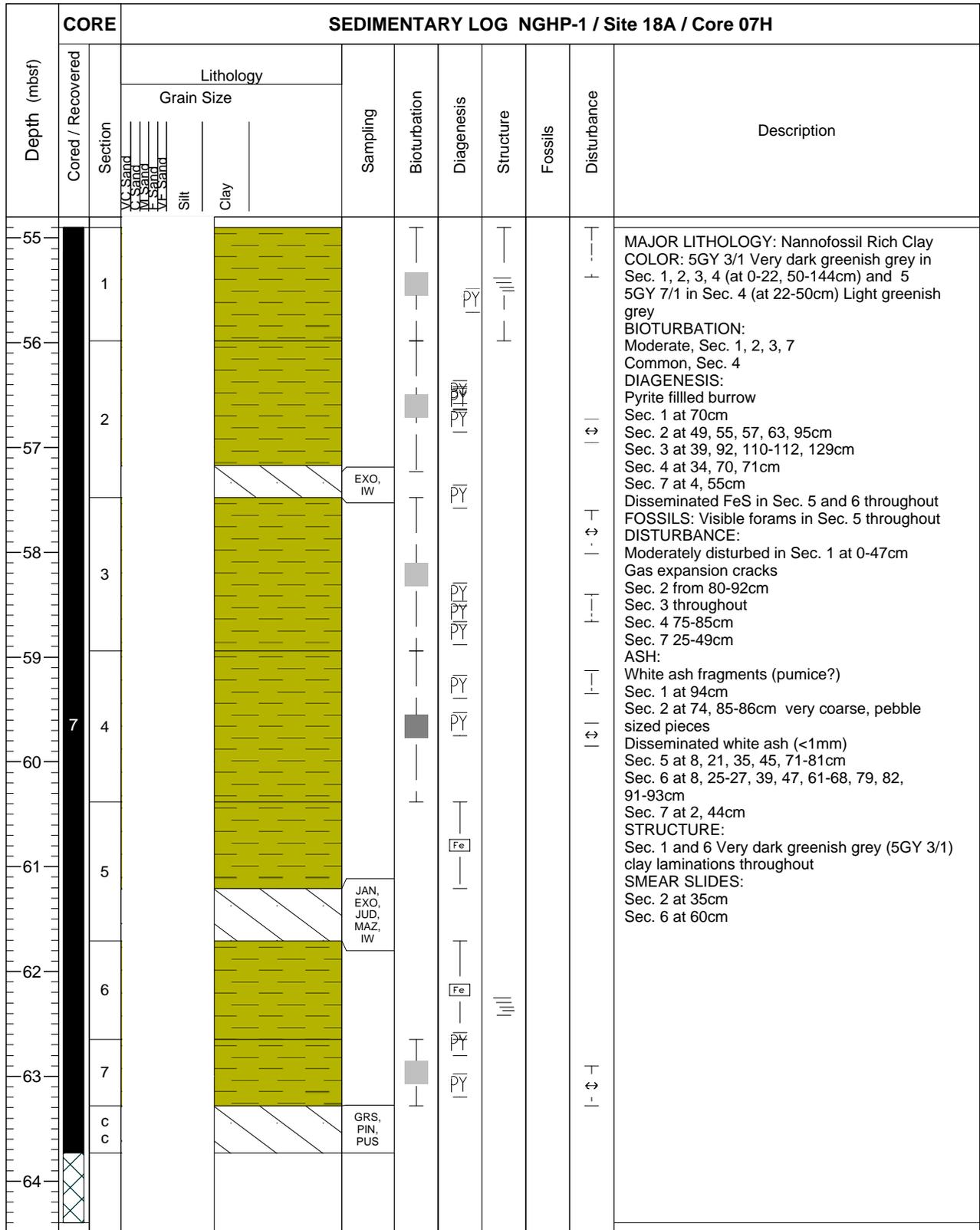






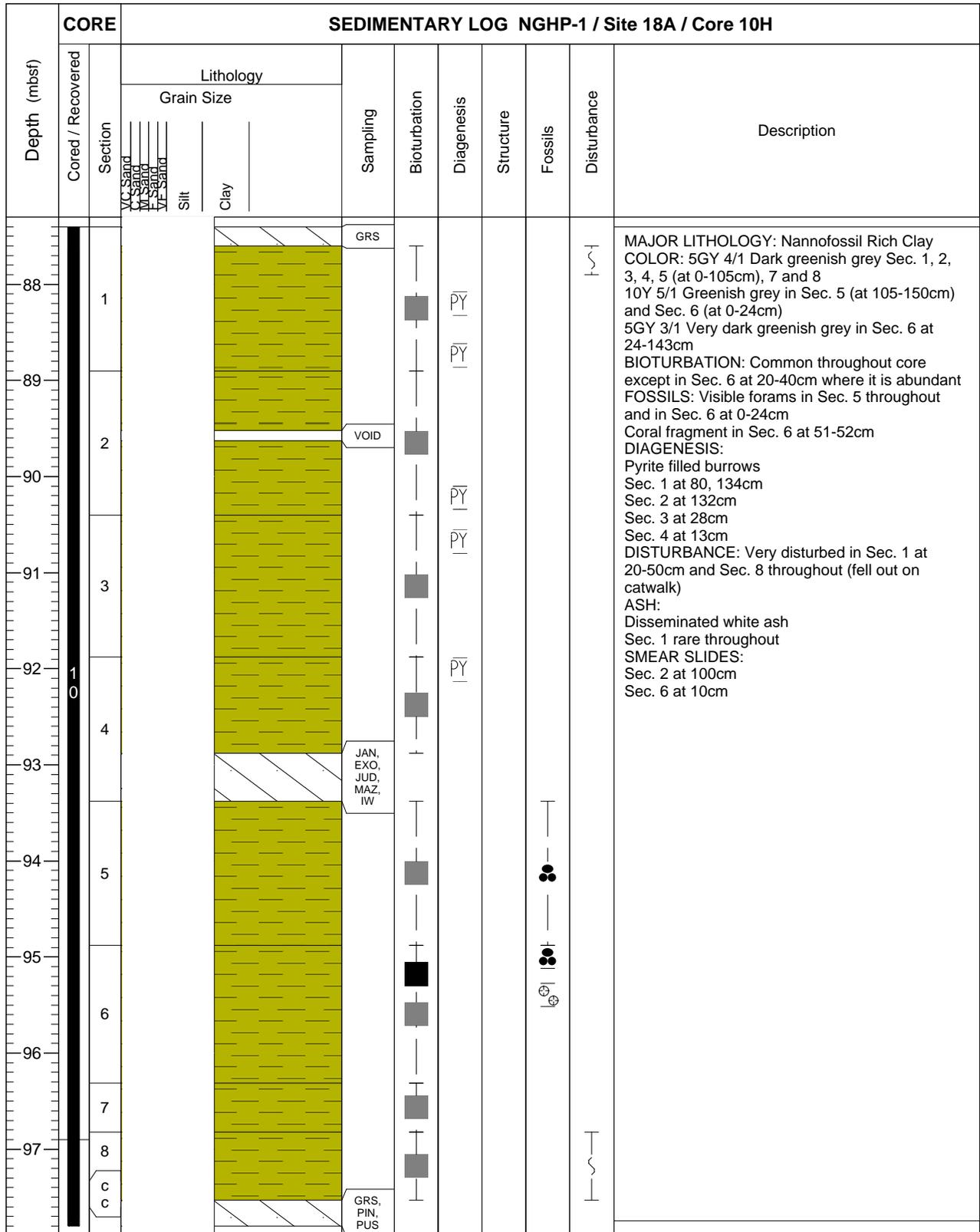


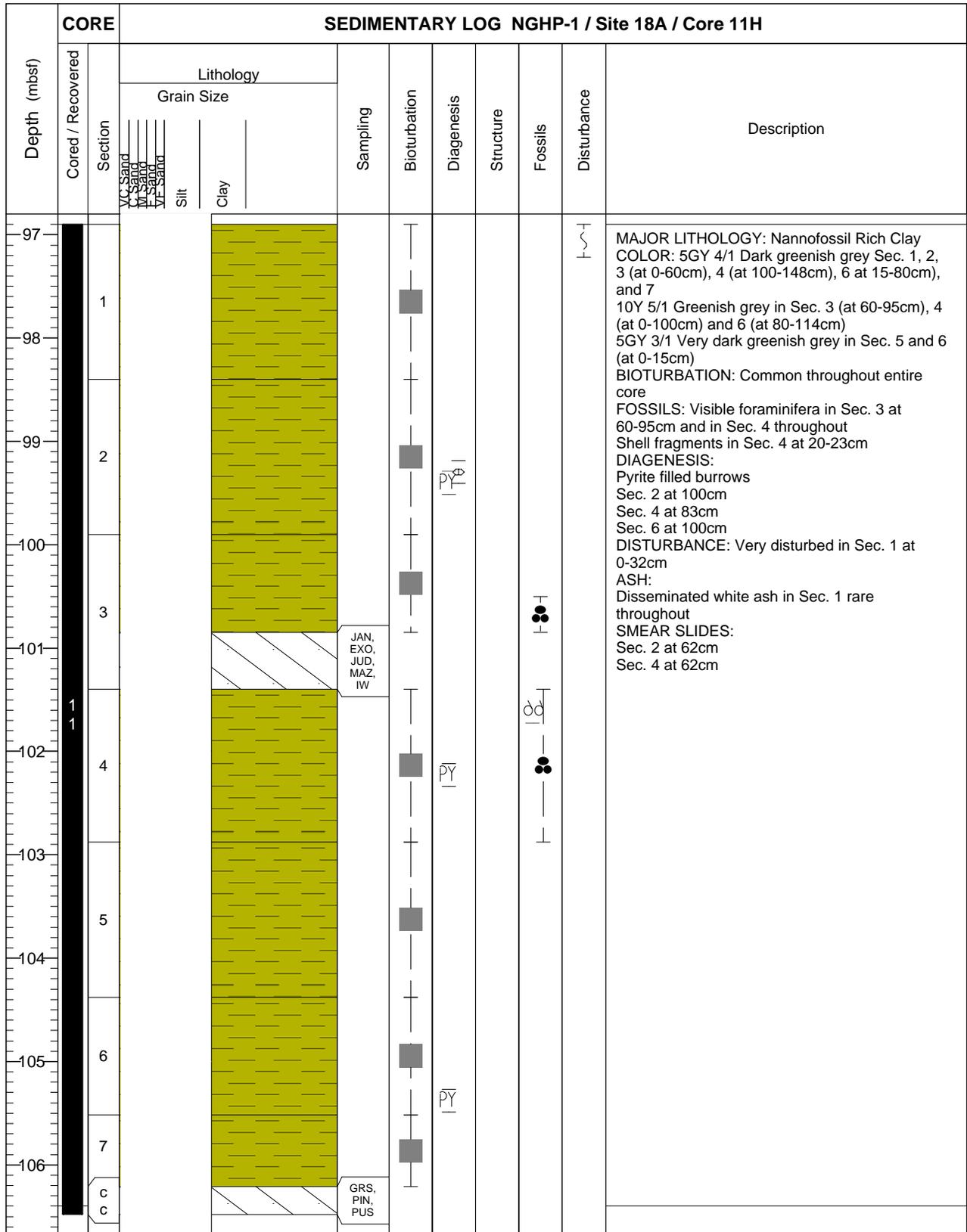




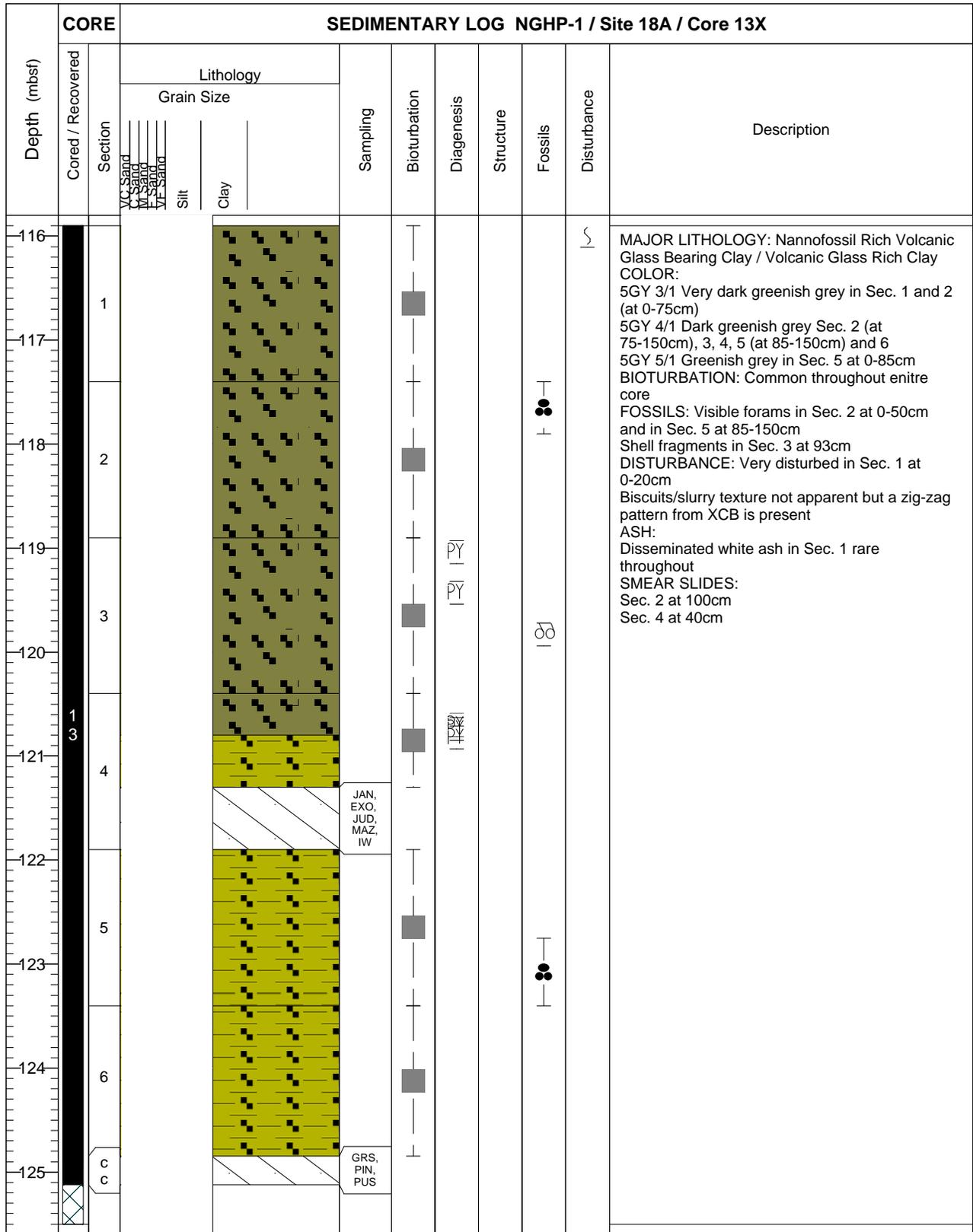
CORE		SEDIMENTARY LOG NGHP-1 / Site 18A / Core 08H								
Depth (mbsf)	Cored / Recovered	Lithology		Sampling	Bioturbation	Diagenesis	Structure	Fossils	Disturbance	Description
		Section	Grain Size							
		VC Sand V Sand M Sand F Sand	Silt Clay							
65	1					PY				<p><b>MAJOR LITHOLOGY:</b> Nannofossil Rich Clay / Clay  <b>COLOR:</b>                      5GY 7/1 Light greenish gray 0-82cm in Sec. 1                      5GY 4/1 Dark greenish gray 82-150cm Sec. 1 (bottom half), 5 and 6                      5GY Very dark greenish gray Sec. 2, 3 and 4  <b>BIOTURBATION:</b>                      Common in Sec. 1, 2, 3, 4                      Moderate in Sec. 5  <b>DIAGENESIS:</b>                      Pyrite filled burrows                      Sec. 1 at 123cm                      Sec. 2 at 36, 50, 76, 83cm                      Sec. 3 at 6, 13-15cm                      Sec. 4 at 44, 60cm                      Sec. 5 at 33, 68, 76, 81, 91cm                      FeS disseminated                      Sec. 2 from 59-124cm                      Sec. 6 throughout  <b>FOSSILS:</b> Visible forams in Sec. 2 disseminated from 59-124cm  <b>DISTURBANCE:</b>                      Gas expansion cracks                      Sec. 3 at 74-99cm                      Sec. 4 72-100cm                      Sec. 5 rare throughout                      Sec. 6 at 13, 26, 65cm  <b>ASH:</b>                      White ash fragments                      Sec. 1 at 146cm                      Sec. 4 at 27, 31, 37, 45, 90, 96-97, 126-128cm                      Sec. 6 at 15, 16, 29, 80, 101cm                      Disseminated white ash                      Sec. 2 at 45, 60, 79cm                      Sec. 3 at 32-38, 51-63cm                      Sec. 5 at 11, 34, 36, 48, 56-57, 69, 84cm  <b>SMEAR SLIDES:</b>                      Sec. 2 at 50cm                      Sec. 6 at 75cm</p>
66	2			EXO, IW		PY PY PY				
67	3					PY PY				
68	4			PWC		PY PY				
69	5					PY PY PY PY				
70	6			JAN, EXO, JUD, MAZ, IW						
71										
72										
73				GRS, PIN, PUS						
74										

CORE		SEDIMENTARY LOG NGHP-1 / Site 18A / Core 09H								
Depth (mbsf)	Cored / Recovered	Lithology		Sampling	Bioturbation	Diagenesis	Structure	Fossils	Disturbance	Description
		Grain Size								
	Section	VC Sand	Clay							
		VC Sand								
		VC Sand								
		VC Sand								
		Silt								
78	1									<p><b>MAJOR LITHOLOGY:</b> Nannofossil Rich Clay / Nannofossil Bearing Clay  <b>COLOR:</b> 5GY 3/1 Very dark greenish grey, slightly lighter shade in Sec. 1 (at 114-150cm), 2, 3 and 4  <b>BIOTURBATION:</b> Rare throughout Sec. 2, 3 and 5  <b>DIAGENESIS:</b>                      Pyrite filled burrows                      Sec. 3 at 41-42cm                      Iron monosulfides                      Sec. 2 nodules at 16, 59cm                      Sec. 3 nodules at 4-6cm (multiple)                      Sec. 4 disseminated at 85-89cm                      Sec. 6 disseminated at 18, 44, 97cm; inclined band of nodules at 83-84cm  <b>DISTURBANCE:</b>                      Gas expansion cracks                      Sec. 1 throughout                      Sec. 2 at 60-125cm                      Sec. 3 at 57-86cm                      Sec. 4 at 85-89cm                      Sec. 5 at 25-114cm  <b>ASH:</b>                      Disseminated white ash                      Sec. 2 burrow fill at 104cm (&lt;1mm thick)                      Sec. 3 burrow fill at 101cm (&lt;1mm thick)                      Sec. 4 pockets at 14, 47, 49, 52cm (&lt;1mm thick)                      Sec. 5 patches at 107, 128cm (&lt;1mm thick)                      Sec. 6 patches at 101, 107, 110cm  <b>SMEAR SLIDES:</b>                      Sec. 1 at 110cm and 120cm                      Sec. 5 at 60m</p>
79										
80	2			EXO, IW		Fe				
81	3					Fe				
82										
83	4			JAN, EXO, JUD, MAZ, IW		Fe				
84	5									
85						Fe				
86	6			VOID		Fe				
87	c			GRS, PIN, :US		Fe				





CORE		SEDIMENTARY LOG NGHP-1 / Site 18A / Core 12H							Description	
Depth (mbsf)	Cored / Recovered	Lithology		Sampling	Bioturbation	Diagenesis	Structure	Fossils		Disturbance
		Grain Size								
		VC Sand	Clay							
107	1									<p>MAJOR LITHOLOGY: Nannofossil Rich Clay            COLOR: 5GY 4/1 Dark greenish grey Sec. 1, 2, 3, 4 (at 0-110cm)            5GY 3/1 Very dark greenish grey in Sec. 4 (at 110-130cm) 5, 6 and 7            BIOTURBATION: Rare throughout core except in Sec. 3 at 20-80cm where it is abundant            FOSSILS: Foram rich burrow in Sec. 5 at 23-24cm            DISTURBANCE: Gas expansion cracks throughout Sec. 1, 6 and 7            Moussey texture in Sec. 6 at 50-52cm            ASH:            Disseminated white ash in Sec. 1 rare throughout            SMEAR SLIDES:            Sec. 2 at 100cm            Sec. 5 at 80cm</p>
108	2			VOID						
109	3									
110	4									
111	4									
112	5			PWC						
113	6			JAN, EXO, JUD, MAZ, IW						
114	6									
115	7			VOID						
116	c c			GRS, PIN, PUS						



Depth (mbsf)	CORE		SEDIMENTARY LOG NGHP-1 / Site 18A / Core 14X							Description		
	Cored / Recovered	Section	Lithology		Sampling	Bioturbation	Diagenesis	Structure	Fossils		Disturbance	
			Grain Size	Clay								
			VC Sand C Sand M Sand VF Sand	Silt Clay								
126		1										<p>MAJOR LITHOLOGY: Nannofossil, Diatom and Volcanic Glass Bearing Clay / Nannofossil and Volcanic Glass Rich Clay</p> <p>COLOR: 5GY 4/1 Dark greenish grey Sec. 1, 2 and 3 5GY 3/1 Very dark greenish grey in Sec. 4, 5, 6 and 7</p> <p>DISTURBANCE: Biscuits/slurry throughout entire core Mousse texture in Sec. 6 at 143-150cm</p> <p>ASH: Disseminated white ash in Sec. 1 rare throughout</p> <p>SMEAR SLIDES: Sec. 2 at 60cm Sec. 5 at 130cm</p>
127												
128		2			JAN, EXO, JUD, MAZ, IW							
129		3										
130		4										
131		5										
132		6										
133		7										
134												
135		c			GRS, PIN, PUS							

CORE		SEDIMENTARY LOG NGHP-1 / Site 18A / Core 15X							Description	
Depth (mbsf)	Cored / Recovered	Lithology		Sampling	Bioturbation	Diagenesis	Structure	Fossils		Disturbance
		Grain Size								
	Section	VC Sand	W Sand	IF Sand	Silt	Clay				
136	1	[Yellow pattern]						●●	∞	<p><b>MAJOR LITHOLOGY:</b> Nannofossil Rich Volcanic Glass Bearing Clay  <b>COLOR:</b> 5GY 3/1 Very dark greenish grey  <b>DIAGENESIS:</b> Iron monosulfides in Sec. 2 at 55cm and Sec. 5 at 44cm            Pyrite nodule in Sec. 6 at 35-36cm (2cm long and 1cm wide)  <b>FOSSILS:</b> Visible forams throughout Sec. 1, 2, 4, 5 and 7            Shell fragments in Sec. 2 at 30, 48cm  <b>DISTURBANCE:</b> Biscuits/slurry throughout Sec. 1            Mildly disturbed in Sec. 7            Moussey texture in Sec. 6 at 16-27, 104, 133cm  <b>ASH:</b>            Volcanic ash burrows (&lt;1mm thick)            Sec. 3 at 16-21, 24-29, 44, 123-140cm            Sec. 4 at 18, 25cm            Sec. 5 at 33cm            Sec. 6 at 48, 65cm  <b>SMEAR SLIDES:</b>            Sec. 2 at 80cm            Sec. 6 at 60cm</p>
137	2	[Yellow pattern]				Fe		●●		
138	3	[Yellow pattern]								
139	4	[Yellow pattern]						●●		
140	5	[Yellow pattern]				Fe		●●		
141	5	[Diagonal lines]		JAN, EXO, JUD, MAZ, IW						
142	6	[Yellow pattern]				PY		●●	☞	
143	7	[Yellow pattern]						●●		
143	c	[Diagonal lines]		IW, GRS						
144	c	[Diagonal lines]		GRS, PIN, PUS						
144		[Cross-hatch]								

Depth (mbsf)	CORE		SEDIMENTARY LOG NGHP-1 / Site 18A / Core 16X							Description	
	Cored / Recovered	Section	Lithology		Sampling	Bioturbation	Diagenesis	Structure	Fossils		Disturbance
			Grain Size								
			VC Sand	Clay							
145		1									<p><b>MAJOR LITHOLOGY:</b> Volcanic Glass Rich Diatom Bearing Clay / Clay Rich Foraminifera Bearing Nannofossil Ooze</p> <p><b>COLOR:</b> 10Y 3/1 Very dark greenish grey in Sec. 1 at 0-77cm, changing to 10Y 4/1 Dark greenish grey throughout rest of core</p> <p><b>FOSSILS:</b> Visible forams Sec. 3 at 44-49cm Sec. 4 at 15, 32-50cm Shell fragments in Sec. 5 at 23cm <b>DISTURBANCE:</b> Mildly disturbed throughout entire core Moussey texture in Sec. 3 at 90-93cm</p> <p><b>ASH:</b> Volcanic ash burrows (&lt;1mm thick) Sec. 1 at 29, 102, 111cm Sec. 2 at 7, 12, 120cm Sec. 3 at 132cm Sec. 4 at 41cm Sec. 5 at 20, 36, 124cm</p> <p><b>SMEAR SLIDES:</b> Sec. 2 at 70cm Sec. 5 at 60cm</p>
146											
147		2									
148											
149		3									
150											
151		4									
152											
153		5									
154		6									
		c									
		c									
154											

CORE		SEDIMENTARY LOG NGHP-1 / Site 18A / Core 17X								
Depth (mbsf)	Cored / Recovered	Lithology		Sampling	Bioturbation	Diagenesis	Structure	Fossils	Disturbance	Description
		Grain Size								
		VC Sand	Clay							
155	1					PY		Wd		<p><b>MAJOR LITHOLOGY:</b> Nannofossil Rich Clay / Biosiliceous (Diatom and Sponge Spicule) Rich Clay  <b>COLOR:</b>                      5GY 3/1 Very dark greenish grey  <b>DIAGENESIS:</b>                      Pyrite filled burrows                      Sec. 2 at 46, 73, 82cm                      Sec. 3 at 83, 93, 105, 125cm                      Sec. 5 at 6cm                      Sec. 6 at 81cm  <b>FOSSILS:</b>                      Shell fragment                      Sec. 1 at 10cm                      Sec. 6 at 121cm                      Sec. 7 at 32, 33cm                      Carbonized wood debris in Sec. 1 at 3cm  <b>DISTURBANCE:</b> Moderately disturbed throughout entire core  <b>ASH:</b>                      White ash fragments                      Sec. 2 at 5, 49, 65, 86-88, 92, 131cm                      Sec. 3 at 65, 69, 75, 130cm                      Sec. 4 at 42, 68, 70, 79, 83, 105, 106cm                      Sec. 6 at 110cm                      Disseminated white ash                      Sec. 5 at 8, 10, 14, 50, 52, 56cm                      Sec. 7 at 10, 40, 51, 58cm                      White ash filled burrow in Sec. 6 at 117cm  <b>SMEAR SLIDES:</b>                      Sec. 2 at 87cm                      Sec. 5 at 40cm</p>
156	2					PY				
157	3					PY				
158	4					PY				
159	1 7					PY				
160	5			JAN, EXO, JUD, MAZ, IW						
161	6					PY				
162	7			PWC				Od		
163	c c			GRS, PIN, PUS				Od		
164										

Depth (mbsf)	CORE										Description	
	Cored / Recovered	Section	Lithology		Sampling	Bioturbation	Diagenesis	Structure	Fossils	Disturbance		
			Grain Size									
			VC Sand	Clay								
165	1											<p><b>MAJOR LITHOLOGY:</b> Biosiliceous (Diatom) Bearing Clay / Clay  <b>COLOR:</b> 5GY 3/1 Very dark greenish grey  <b>DIAGENESIS:</b>                      Pyrite filled burrows                      Sec. 2 at 60, 71, 79, 97cm                      Sec. 3 at 57, 66, 70cm                      Sec. 4 at 29cm                      Sec. 5 at 63cm  <b>DISTURBANCE:</b> Moderately disturbed                      Sec. 1 throughout                      Sec. 2 at 10-30, 110-115cm                      Sec. 3 throughout                      Sec. 6 throughout                      Highly disturbed                      Sec. 3 at 118-124cm                      Sec. 4 at 18-22, 68-70, 79-82cm  <b>ASH:</b>                      White ash fragments                      Sec. 1 at 64cm                      Sec. 2 at 15, 36, 63, 69, 87, 107cm                      Sec. 3 at 11, 56, 57, 70, 99, 113, 128cm                      Sec. 4 at 30, 45, 56, 62, 72cm                      Sec. 5 at 24, 29, 44, 46, 64cm (1mm diameters)                      Sec. 6 at 8, 9, 10, 14, 16cm  <b>SMEAR SLIDES:</b>                      Sec. 2 at 80cm                      Sec. 5 at 50cm</p>
166	2											
167	3											
168	4											
169	5											
170	6				JAN, EXO, JUD, MAZ, IW							
171	c				GRS, PIN, PUS							
172												
173												

CORE		SEDIMENTARY LOG NGHP-1 / Site 18A / Core 19X								
Depth (mbsf)	Cored / Recovered	Lithology		Sampling	Bioturbation	Diagenesis	Structure	Fossils	Disturbance	Description
		Grain Size								
		VC Sand								
		CS Sand								
		MS Sand								
		VF Sand								
		Silt								
		Clay								
174	1			SAM		PY				<p><b>MAJOR LITHOLOGY:</b>Nannofossil Rich Clay / Nannofossil Bearing Clay  <b>COLOR:</b> 5GY 3/1 Very dark greenish grey  <b>DIAGENESIS:</b>                      Pyrite filled burrows                      Sec. 2 at 12cm  <b>FOSSILS:</b>                      Shell fragment                      Sec. 3 at 63cm, large and filled with pyrite  <b>DISTURBANCE:</b>                      Moderately disturbed throughout entire core  <b>ASH:</b>                      White ash fragments                      Sec. 2 at 3, 21, 44, 49, 61cm (1-2mm diameter)                      Sec. 3 at 55, 66, 79, 80, 91, 103, 137, 146cm (1mm diameter)                      Sec. 4 at 9, 41, 61, 75, 82cm (1mm diameter)                      Sec. 5 at 17, 18, 67cm (1mm diameter)                      Sec. 7 at 16, 88cm (1mm diameter), 72, 82cm (2mm diameter)                      Sec. 8 at 22, 38, 42, 55cm (1mm diameter)  <b>SMEAR SLIDES:</b>                      Sec. 2 at 60cm                      Sec. 5 at 50cm</p>
	2									
175				IW						
	3							∞		
176										
	4									
177										
	5									
178										
179	6			JAN, EXO, JUD, MAZ, IW						
180	7									
181	8									
182	c c			GRS, PIN, PUS						
183										

