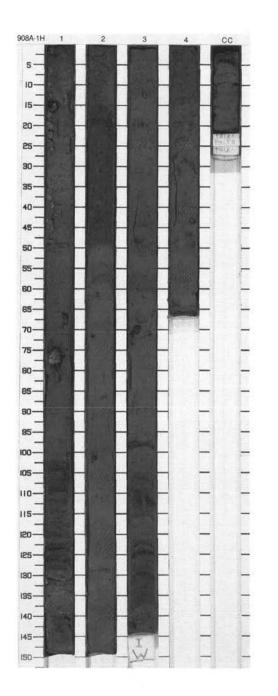
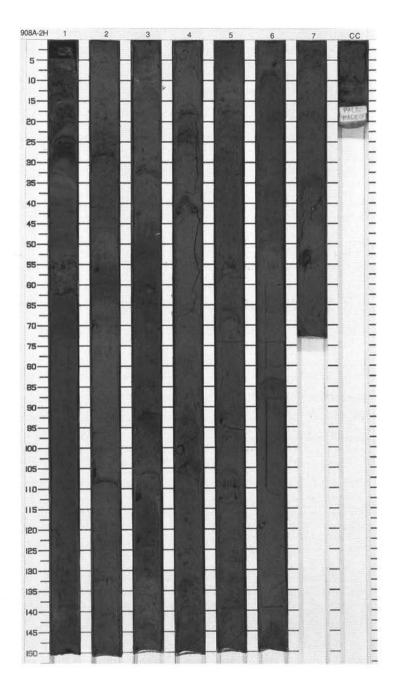
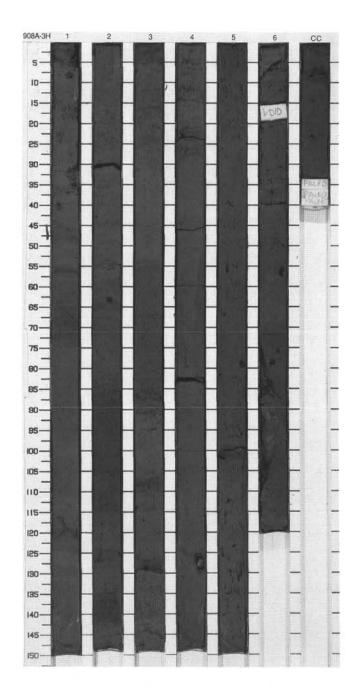
1	TE 908 H	-		A CORE	-	0		CORED 0.0 - 5.4 mbsf
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
	<b>.</b> 20000			٥	1	S P	10YR 3/3	CLAYEY MUD Major Lithology:
	<b>-</b> \$-8885	1		\$		S	10YR 4/2	CLAYEY MUD dark grayish brown to dark gray (10YR 4/2 to 5Y 3/1). There are gradational contacts between
and the second		-				S <sub>P</sub>	5Y 4/3	colored layers which vary in thickness from 10 cm to 1 m. Quartz and feldspar grains dominate the sand and
2	tetooo	2				s s	5Y 4/1	silt.
1	+`+` <b>₽</b> :-:-:-		Quaternary				5Y 4/3	Minor Lithologies: FORAMINIFER-BEARING SILTY MUD and FORAMINIFER-BEARING
3			Quat	◊ }	sP	10YR 4/2 To 7.5R	CLAYEY MUD dark gray to dark brown (10YR 4/2 to 5Y 4/1) Sections 1, 2, and 3 (not shown). SILTY CLAY	
4		3		◇ <sup>33</sup> ◇◇		S S	N4/0	(10YR 4/2) very dark brown Section 5. General Description:
1000						1	10YR 3/2	Sediment in Section 1 is very soft, even soupy along the liner. Other
5	(2)2222	4 CC		0		S P S	5Y 4/2	sections contain somewhat firmer sediment. Tension gashes in Section 1 may be due to splitting process. Dark
				<u>×</u>	ł	S S M	5Y 4/1	colored sand grains and foraminifer tests are visible along the sediment surface throughout Section 1 and in
								Section 2 from 60 to 62 cm. Dropstones occur in all sections and include fine-grained clastic sedimentary and medium- to coarse-
								grained metamorphic rocks.
								Dropstones: Section 1, 14 cm, Ø 3.0 cm, black siltstone;
								Section 1, 67 cm, Ø 1.0 cm, sandstone; Section 1, 77 cm, Ø 4.0 cm, dark
								sandstone; Section 2, 72 cm, Ø 1.5 cm, shale siltstone;
								Section 3, 12 cm, Ø 1.0 cm, metamorphic; Section 3, 70 cm, Ø 2.0 cm, dark
								siltstone; Setion 3, 70 cm, Ø 1.0 cm, black
								shale; Section 3, 70 cm, Ø 1.0 cm, black shale;
								Section 4, 45 cm, Ø 1.0 cm, shale siltstone; Section 4, 48 cm, Ø 7.0 cm, black
								shale; Section 4, 50 cm, Ø 6.0 cm black
								shale; Section 1, 14 cm, Ø 3 cm, black siltstone; 67 cm , Ø 1 cm, sandstone,

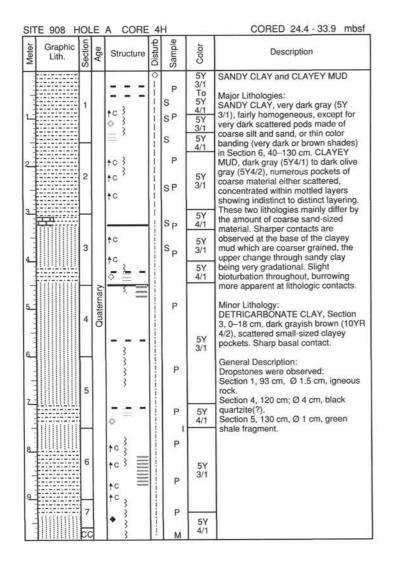


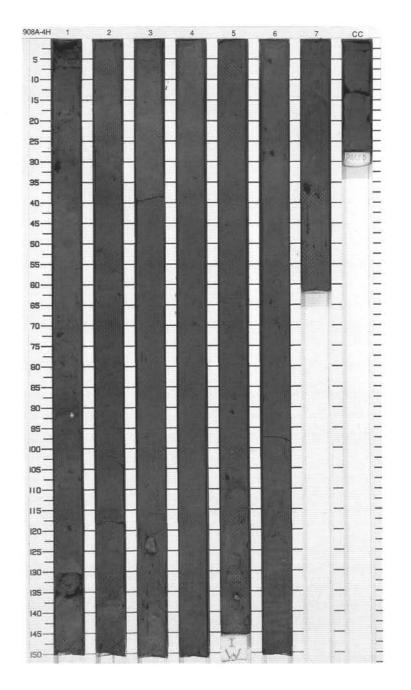
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1111				33	N N	SP	2.5Y 4/2	SILTY CLAY AND CLAYEY SILT
		1			>	S	5Y 3/2	SILTY CLAY and CLAYEY SILT, with cyclic color and grain-size variations.
		_		<b>†</b> C	1	S	5Y 3/1	Minor Lithologies: SILTY MUD, in thin beds, 1–8 cm thick The thicker beds are shown in the
		2				s P S S S	5Y 4/1	graphic lithology column. Although mostly shades of gray (dark olive gray (10Y 5/0), very dark gray (2.5Y 3/0), they are also dark grayish brown (2.5Y 4/2), FORAMINIFER-BEARING SILTY
-				<b>†</b> ¢		Р	10Y 5/1	MUD, gray (2.5Y 5/0), in Section 4, 132–138 cm.
		3		tc ◆		s	5Y 4/2 2.5Y	General Description: The sediments in this core display cyclic changes in color which also
	,teeee			to ◊	ł	s	2.5 Y N3/0 5Y	correspond to grain-size changes. Cycles range from about 30 to 100 cm.
			Quaternary	tc tc ≎	i	SP	3/1 5Y 4/2	The base contains silty mud, and in one bed foraminifers are also present, overlying a sharp and probably
1		4	Quat	tc	i		2.5Y N5/0	erosional contact. Gray (dark gray (5Y 4/1), very dark gray (5Y 3/1; 2.5Y 3/0), gray (10Y 5/0; 2.5Y 5/0)) SILTY CLAY
				<b>↑</b> C <sup>◇</sup>	į.	S S	10Y 4/2	and CLAYEY SILT overlie the SILTY MUD and in turn are overlain by olive
		5		+c +c 3		SΡ	2.5Y N4/0	gray (dark olive gray (5Y 3/2; 10Y 4/2); olive gray (5Y 4/2; 10Y 5/2) SILTY CLAY and CLAYEY SILT. The lighter colored layers, whether olive gray or gray appear to be finer-grained. The
-				<b>↑</b> ⊂ }	li	s	10Y 4/2	distinctness of the color layers suggest that bioturbation was minimal, although
				tc 3		Р	2.5Y N4/0	burrows are observed in some, particularly finer grained areas.
1		6		- 3 -	1	S	5Y 4/2	Dropstones: Section 2, 106 cm, Ø 1.5 cm crumbly
				<b>†</b> ¢		s	2.5Y N5/0	black coal; Section 3, 112 cm, Ø 1 cm crumbly coal;
1111		7		<b>†</b> C	Ì	P S	5Y 3/1	Section 4, 42 cm, Ø 1.2 cm schist and 1.2 cm quartzite;
-		cc		†C	3	м	5Y 4/2	Section 4, 101 cm, Ø 2 cm sandstone.



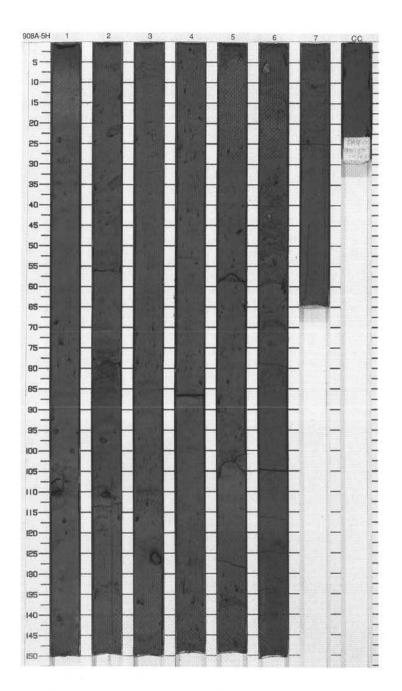
Sľ	TE 908 H	101	E	A	COR	E 3		_		CORED 14.9 - 24.4 mbsf
Meter	Graphic Lith.	Section	Age	St	ructure	Disturb	Sample		Color	Description
1		1		I◊ ◊I		1	P S P	P	5Y 2/1 To 2.5Y 4/2	SILTY CLAY Major Lithology: SILTY CLAY, color varies from black (5Y 4/1) over dark gray (5Y 3/1) to dark grayish brown (2.5Y 4/20), is
and the		_		-					10Y 4/1	mostly homogeneous and shows gradational contacts. The darker layers seem to be poorly sorted.
2		2		10 10 to			SPS		5Y 2.5/1	Fining-upward sequences are present in Section 2, 65–139 cm and in Section 3, 68 to 129 cm. Sandy lenses (<1 cm) or pockets of sands are present in Section 1, 75–124 cm,
3		3		=	= =		P P S		To 2.5Y 4/2	and Section 3, 27–45 cm. Minor Lithologies: CLAY, very dark gray (5Y 3/1), occurs in Section 3 and contains several small lenses of coarser
4			Quaternary		22		S		5Y 3/1	material (silt/sand). General Description:
5		4	Qua	-	= =		Ρ		5Y 2.5/1	Particles of <2-mm size of black color (?coal fragments) are present throughout the core. Dropstones:
6				~			S P S			Section 1, 8 cm, Ø 1.4 cm, 41 cm. Section 2, 63 cm, Ø 1 cm, shale. Section 4, 24 cm, Ø 5 cm, siltstone; 127 cm, Ø 1 cm.
1		5		=	= =		P		5Y 3/1	Section 6, 79 cm, Ø 1.5 cm, sandy mudstone. Section CC, 22 cm, Ø 1 cm.
8	Void	6		00		1	Ρ		3/1	
Prese and		cc		4			P N	1		



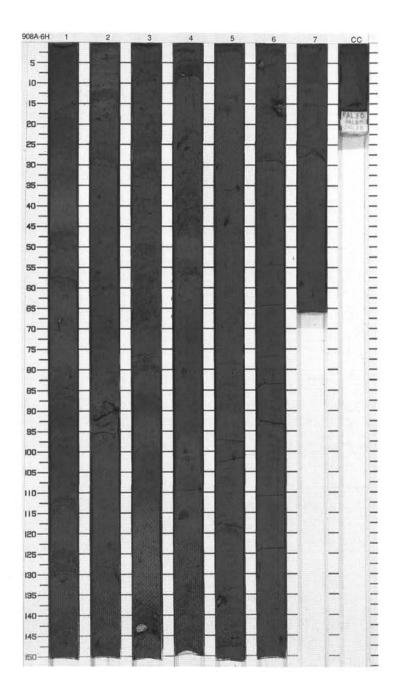




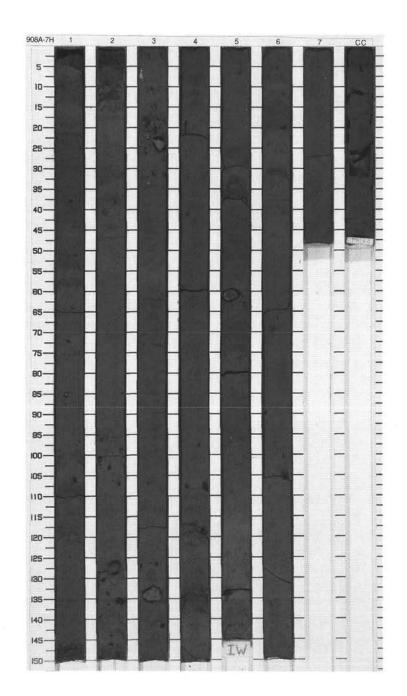
Grap Lith	hic .	Section	Age	Structure	Disturb	Sample	Color	Description
		1		0 0	1	s P	5Y 3/1 To 5Y 4/1	CLAYEY MUD and SILTY CLAY Major Lithologies: CLAYEY MUD and SILTY CLAY, very dark gray (5Y 3/1), is relatively homogeneous throughout the core. Section 1 exhibits alternating very dark
2		2		*	Ţ	s <sup>P</sup> S <sub>P</sub>		gray (5Y 3/1) and dark gray (5Y 3.5/1) layers. Both lithologies contain mm- to cm-size pockets filled with either very dark gray (5Y 3/1) sandy sediment or black (5Y 2.5/1) sediment (possibly coaly and/or rich in opaques); these may be after burrow structures. Laminae and lenses of sandy sediment
		3	sene			P		are in Section 2, 109–120 and 132–136 cm; Section 3, 4–9, 83–85, and 109–115 cm; Section 4, 83–87 cm; Section 5, 58 and 136–138 cm. Mm- size pods of white sand are scattered throughout probably burrow fills. Silt- and sand-sized grains comprising both
	4	4	Pliocene-Pleistocene	ан 		P S P	5Y 3/1	CLAYEY MUD and SILTY CLAY include quartz (2%–40%), feldspar (5%–10%), accessory minerals (2%–6%), and opaques (<3%). Minor Lithology: CLAY, dark gray (5Y 4.5/1), Section 1, 6–20 cm. It is composed of clay-sized
				=		Ρ		grains of detrital carbonate (80%) and minor amounts of quartz, accessory minerals, and opaques.
				=		sP		General Description: Dropstones: Section 1, 24 cm, Ø 1 cm, siltstone; 95 cm, Ø 1 cm, siltstone;
	6	5		\$ \$		Р		Section 3, 126 cm, Ø 3 cm, sandstone; Section 6, 10 cm, Ø 1 cm, silstone; Section 7, 10 cm. Mud clasts occur in Section 1, 100–101
				0		s <sub>P</sub>		cm, 141–142 cm; Section 2, 111–112 cm.
-	7					P M		



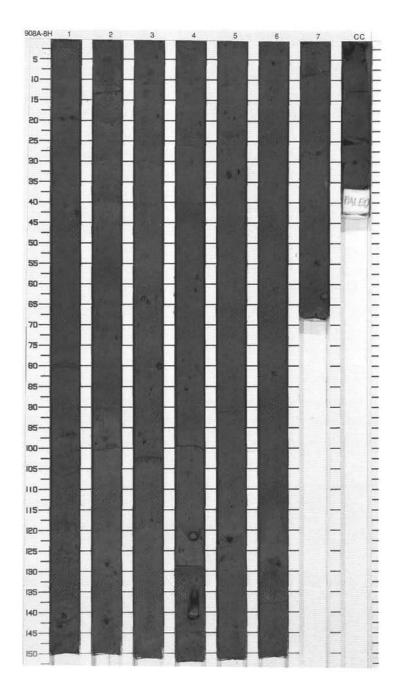
		C				-	H o	1.200	
Meter	Graphic Lith.	Section	Age	Struc	ture	Disturb	Sample	Color	Description
1				11	: =		SP	5Y 3/1	SILTY MUD and SILTY CLAY
11111		1		- '-	-		Р	5Y 3/2	Major Lithologies: SILTY MUD, very dark gray (5Y 3/1) to dark gray (5Y 4/1) is present in the
adherro				22	ţ¢		P	5Y 3/1	interval, Section 1, 0 cm to Section 4, 10 cm. Throughout this interval, very dark gray (5Y 3/1) layers of sand and
111 111 111		2		_ 3	-		P S	5Y 4/1	sandy mud are common. Most layers have gradational contacts, but a few have a sharp lower boundary. Thickness ranges from a few mm to
1.1.1.1.1.1				3			P		15 cm. One layer is marked in the lithology column. Two layers
True I				= =	=		sP	5Y 3/1	comprised of gray (5Y 5/1) clay-sized calcite?-crystals are present in Section 1, 37–45 cm and Section 3, 91–95 cm. In Section 2, 35–80 cm alternating
1.1.1.1.1		3	Pliocene-Pleistocene	= =	=		Р		bands of very dark gray (5Y 3/1) and dark gray are present. Sand-filled burrows are seen in Section 1.
or how				00	ţc		S	5Y 4/1	Homogeneous SILTY CLAY, very dark gray (5Y 3/1) is present from Section
COLUMN TO		4		0		H	P S		4, 10 cm to bottom of core catcher. A few coarser grained layers are seen in the top of this interval. Up to 2-cm- thick greenish gray (5GY 4/1) and reddish gray (2.5YR 4/2) color bands in the bottom of Section 4. Mud clasts (or coal?) are common in this lithology.
ALCONT			Pliocen				Ρ		
A ST DOLLARD		5					s P		Minor Lithology: CLAYEY MUD, Section 3, 114–136 cm, dark gray (5Y /1).
LITTLE 1		10000000		ö		Р	5Y 3/1	General Description: Dropstones:	
and from the				00	8		P S		Section 2, 122 cm, Ø 1 cm, sedimentary. Section 3, 138 cm, Ø 1.2 cm, sandstone; 145 cm, Ø 2.5 cm,
COLORED IN COLORED		6					Ρ		carbonate; Section 5, 135 cm; Ø 1.5 cm, amphibolite(?);
11111		7					Р		Section 6, 5 cm, Ø 1 cm, siltstone; 14 cm, Ø 3 cm, slate.
1		cc					м		



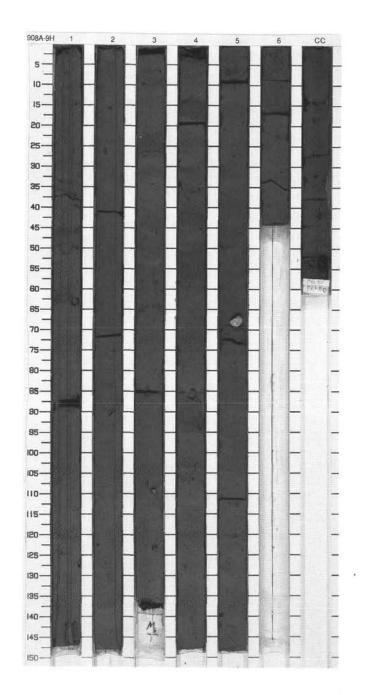
Meter	Graphic Lith.	Section	Age	Stru	ucture	Disturb	Sample	Color	Description
10000							Р		CLAYEY SILT Major Lithology:
1		1		•	>>> >>>		P S S	5Y 3/1	CLÁYEY SILT, homogeneous very dark gray (5Y 3/1) throughout most of the core. Faintly interbedded very dark gray to dark greenish gray (5GY 4/1)
2		2		•		1	P S		CLAYEY SILT in Section 1, top of core to 70 cm, Section 2, 10–57 and 100–150 cm, Section 3, 60–115 cm, and Section 5, 63–88 cm.
3				00			Ρ	5Y	Minor Lithologies: Distinctive, (reddish) very dark gray (5YR 3/1) DETRICARBONATE-
11111				-	***		Sp	3/1 To 5GY 4/1	BEARING CLAYEY MUD appears in Section 3, 16–24 cm, accompanied by numerous dropstones.
4		3	ЭЦ				Ρ	4/1	DETRICARBONATE CLAY appears in Section 5, 120–133 cm.
5			leistoce	~	333 333		Ρ		General Description: Dropstones found at: Section 2, 134 cm, Ø 1.8 cm (?), Section 2, 148 cm, Ø 1.5 cm Fe-rich
in the second		4	Pliocene-Pleistocene	3			S P		claystone, Section 3, 6 cm, Ø 3 cm(?), Section 3, 14 cm, 1 cm shale, Section 3, 6 cm, Ø 3 cm; 21 cm, Ø 1
6				3	>>> 		SP	5Y 3/1	cm red sandstone; 23 cm, Ø 4 cm, sandstone; 133 cm, Ø 3.5, sandstone; 141 cm, Ø 1 cm, shale;
2		5		◊ .			Р		Section 5, 62 cm, Ø 3 cm shale, Section 5, 135 cm, Ø 1.5 cm shale.
den han				0	\$		S I S P	5Y	
8		6		•	† F			4/1	
9				٠	}}}		Р	5Y 3/1	
111111		7			333		Ρ	0/1	
1				3	333		М		



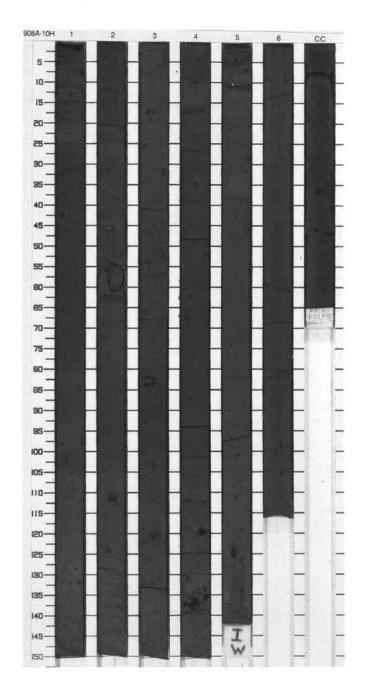
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
Meter Meter		1 2 Section 4	Pliocene-Pleistocene Age	Structure		A A S P A S P A S P P P P P P P P P P P	5Y 3/1 5Y 4/1 5Y 3/1	SILTY CLAY Major Lithology: SILTY CLAY, very dark gray (5Y 3/1), is homogeneous, containing mm-size white pumice(?) pods and pockets of black (5Y 2.5/1) sediment and gray (5Y 5/1) sand, <1 cm in diameter. Sandy laminae or lenses are present in Section 1, 78–81 cm; Section 2, 90–100 cm; Section 3, 102–103 cm; Section 4, 40–46 cm; Section 7, 7–9 cm. Dark greenish gray (5GY 4/1) layers occur in Section 1, 27–36 cm; Section 3, 55–62 cm, 120–123 cm. Silt- and sand-sized grains in SILTY CLAY include quartz (10%–30%), feldspar (2%–10%), and accessory and opaque minerals (<5%); traces of glauconite are present. Minor Lithology: CLAY, very dark gray (5Y 3/1, 10YR 3/1), in Sections 1, 2, and 7. It contains well-sorted and rounded, mud-sized particles of carbonate (20%–90%), which are probably
Logit and so the state of the second second		5	Plioc	\$	W	P S P P		detrital in origin; other silt- and sand- sized components include quartz (10%-20%), feldspar (<2%), and minor to trace amounts of accessory minerals, opaques, and glauconite. General Description: Dropstones: Section 4, 121 cm, Ø 2.5 cm, dark sandstone; 139 cm, Ø 3.0 cm, dark shale; Section 7, 62 cm, Ø 1 cm, brown siltstone? Pebble-sized grains are present in Section 1, 83–116 and 41 cm; Section 2, 128–143 cm; Section 3, 63–65 and 96–99 cm; Section 4, 121–123 and 139–141 cm; Section 6,
		7				SΡ	10YR 3/1	5 and 81 cm; Section 7, 62 and 27 cm.
0		cc				м	5Y 2/1	



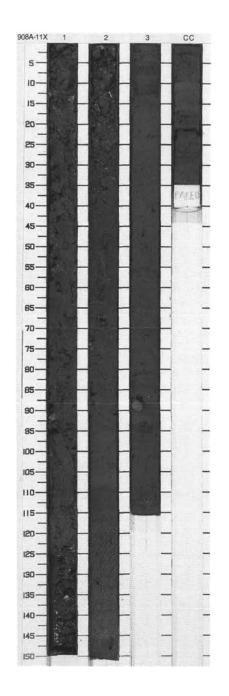
-	Craphia	L			ę	e		
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
d'room					1	SP	5Y 3/1	SILTY MUD and SILTY CLAY Major Lithologies:
1		1		* • <b>=</b>	1	s P	10Y 3/1	SILTY MUD, very dark gray (5Y 3/1 and 10Y 3/1) is present from Section 1, 60 cm to Section 4, 0 cm. The mud is homogeneous with dispersed pockets
		2		•	•	Р		of coarser material and color bands. Color bands are black or dark olive gray (5Y 3/2) and consist of silty clay or clayey mud. Mud clasts up to 3.0 cm
Line he				•		Р	EV.	in diameter are seen throughout this lithology. SILTY CLAY, very dark gray (5Y 3/1) or dark greenish gray (10Y 4/2) is present from Section 4, 0 cm to
red more		3	cene	*		SP	5Y 3/1	bottom of core catcher. The clay is homogeneous, although color bands, pockets of coarser material (dark grayish brown, 10YR 4/2) and burrows are present in some intervals. Color bands are dark gray (5Y 4/1) or dark reddish gray (5YR 3/1) with
The second second			Pliocene-Pleistocene	<b>◇</b> •		s P		
1. I.I.I.I.I.I.I.I.I.I.I.I.I.I.I.I.I.I.I		4	Pliocen			sP		thicknesses up to 3 cm. Mud clasts are present in the core catcher, 50–55 cm. One clast, 3 cm in diameter includes 30% clay-sized detricarbonate.
a states a				۰ •		Ρ	10Y 4/2	Minor Lithology: CLAYEY SILT, very dark gray (5Y 3/1)
Lines -		_		。—		Ρ		is present in Section 1, 0–60 cm. The uppermost 10 cm of this lithology is dark gray (10YR 4/1) clay.
		5				Ρ	5Y 3/1	General Description: Dropstones: Section 1, 58–59 cm, Ø 2.0 cm, schist;
a la		6		ž		Ρ		Section 3, 108–109 cm, Ø 1.5 cm, porphyritic basalt; Section 4, 85–86 cm, Ø 2.0 cm, sandstone;
1 1 1	(	cq		• 3		s <sub>M</sub>		Section 5, 48-50 cm, Ø 2.7 cm, quartz.



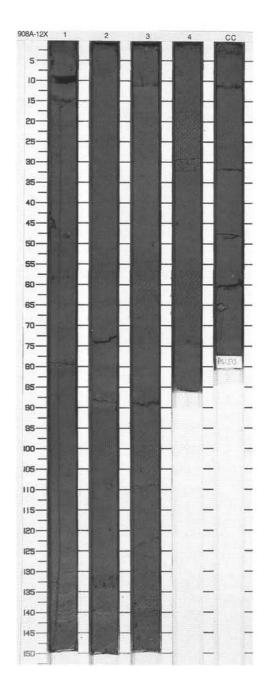
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
Inter Frederice		1		 		P S P	2.5Y N3/0	SILTY CLAY Major Lithology: SILTY CLAY, homogeneous, and scattered with small (2–5-mm) mud clasts and coal fragments. Color varies from very dark gray (5Y 3/1) to dark gray (2.5Y N4/0). Lower portion
2		2		÷ _		Р		of the core (below Section 5, 40 cm) is highly disturbed due to flow-in. Minor Lithology:
				\$		P	2.5YR N4/0	Thin, gray (10YR 5/1) SANDY MUD layers are recognized in Section 4, 17–17.5 cm, and Section 5, 10–10.5 cm.
Lun Lun L		3	eistocene	*		P		General Description: Dropstone occuurrence: Section 1, 42 cm, Ø 1 cm, sandstone Section 2, 45 cm, Ø 1.5 cm, quartzite 60 cm, Ø 6 cm, basalt; 124 cm, Ø 1 cm, basalt.
interesting.		4	Pliocene-Pleistocene	•		<sup>S</sup> Р Р	5Y 3/1	un, Jasan.
in the second second		5		• =	ww	Ρ		
11111					MMMM.	P I	2.5Y	
3		6			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Р	N4/0	
		cc			V W W V	P		



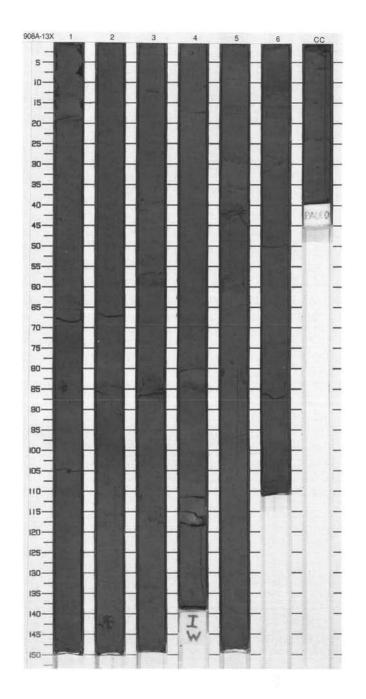
SIT	E 908 H	101	_E	Α	CC	ORE	1	1X		CORED 90.9 - 100.6 mbsf
Meter	Graphic Lith.	Section	Age	St	ruct	lure	Disturb	Sample	Color	Description
			SILTY CLAY Major Lithology: SILTY CLAY, homogeneous, with scattered small (2–3-mm) siltstone and coal fragments, color varies from very dark gray (5Y 3/1) to dark gray (5Y 4/1), Section 1, 0 cm to Section 2, 0–96 cm are highly disturbed. Minor Lithologies:							
1		2	ene-P					s	2.5Y N4/0	CLAYEY SILT is present in Section 2, 128–150 cm; Section 3, 0–13 cm.
3			Pliocene-	Ξ	Ξ	Ξ		s	5Y 3/1 To	Colors alternating from dark gray (5Y 4/1) to olive gray (5Y 4/2). Silty detrital
-				-	-	-		s	5Y	carbonate is present in the olive gray layer.
		3		-	-	-			4/1	Conoral Departmention:
4				2	2	3			2.5Y	General Description: Dropstones: Section 3, 89 cm, Ø 3 cm, siltstone.
1		cc		-	-	-		м	N4/0	Section 6, 63 cm, 9 3 cm, sitistone.

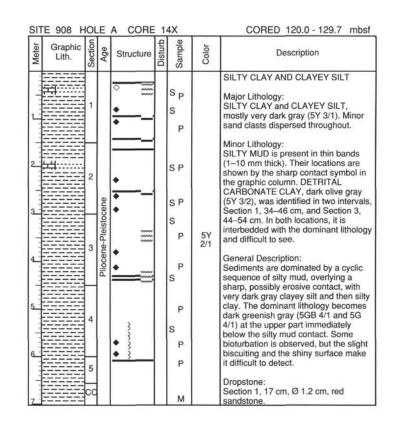


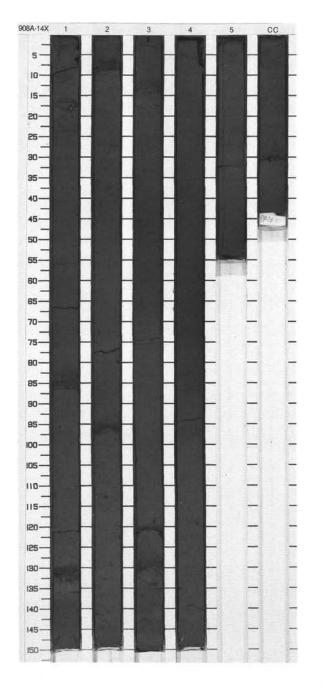
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
an fastan fastar fastra fasten fastra l		3 3	Pliocene-Pleistocene			S P P S S P S P P	2.5Y N3/0	CLAYEY MUD AND CLAY Major Lithology: SILTY CLAY and CLAY, mostly very dark gray (2.5Y 3/0), with thin bands of dark gray (2.5Y 3/0), with thin bands of dark greenish gray (5GY 4/1). Minor Lithology: SILTY MUD and CLAYEY MUD, very dark gray (2.5Y 3/0) and dark greenish gray (5GY 4/1) as thin, 1–10-mm-thick layers, commonly just above the dark greenish gray layers. General Description: Fairly homogeneous core with slight color gradations and three layers of silty mud. The silty mud lies above the dark greenish gray, which grades into gray. In Section 2, 88 cm, the contact between the silty mud is sharp, possibly erosive. There are several minor color-banded intervals within these two colors. Dropstones: Section 1, 43 cm, Ø 1 cm, black
1		cc		° –		MP		cool/clayey slate; Section CC, 64 cm, Ø 2.2 cm, quartzite.



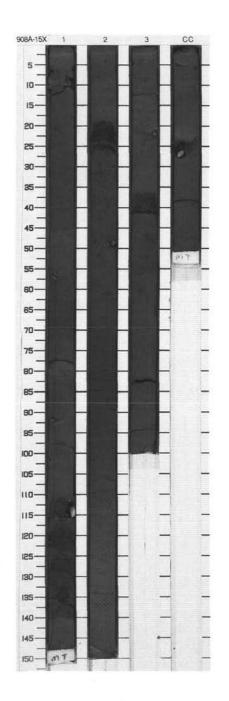
SIT	FE 908 H	IOL	E	A CORE	-			CORED 110.4 - 120.0 mbsf
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
and an a	-101 -101	1			1	Р	5Y 3/1 5BG 4/1	SILTY CLAY and CLAYEY SILT Major Lithologies: Dark gray, (2.5Y 4/0), SILTY CLAY
1				*		sP	2.5Y	and CLAYEY SILT. Surface is firm, smooth, and homogeneous throughout. Includes 40%-55% each, silt and clay, with approximately 5%
2		2		• <del></del>		SP	N4/0	sand grains. Quartz is the dominant mineral, but substantial amounts of feldspar, opaques, and accessory minerals occur. Sediment is barren of
Self.	1/:/1					Р	5BG 4/1	biogenic material.
3			2	ō		sP	2.5Y N4/0	Minor Lithologies: Dark gray, (2.5Y 4/0), DETRITAL CARBONATE-BEARING SILTY CLAY
		3	ane			S	5BG 4/1	and DETRITAL CARBONATE- BEARING CLAYEY SILT. Sediments containing 30% to 50% fine (<5-µm)
5	1.11	4	Pliocene-Pleistocene			P P	2.5Y N4/0	well-sorted carbonate grains are disseminated throughout the major lithologies. The use of the term detrital here is intended to make the distinction with biogenic carbonate, and not to exclude a possible
111	-121		e.			sP	5BG 4/1	authigenic origin. CLAYEY MUD occurs in discrete 1- to 7-cm layers
6				@		1	2.5Y N4/0	throughout the core. These layers are characterized by higher sand content (approximately 25%) while having similar composition to the dominant
111	1-444	5				s	5BG 4/1	lithologies.
2				'C		Ρ		General Description: Dominant lithologies are homogeneous throughout most of the
8		6				Р	2.5Y N4/0	core. Minor lithologies are only distinguishable in smear slides. Mud clasts occur in Section 1, 84 and 105 cm. A large (6-cm) carbonate
to be the second		cc		33		s p		concretion, containing trace fossils, occurs in Section 4, 115–121 cm. CLAYEY MUD layers have scoured
9.			-			М		basal contacts and gradational tops.





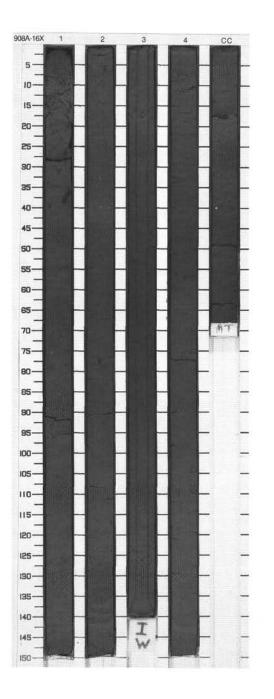


Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		Pliocene-Pleistocene	● ● ● ● ● ● ● ● ● ● ● ●	1	P SP P S P S P S P M	5Y 3/1 5Y 4/1 5Y 4/2 5Y 4/1 5Y 3/1 5Y 4/1 5Y 3/1	SILTY CLAY Major Lithology: SILTY CLAY, structureless and homogeneous, color varies from very dark gray (5Y 3/1) to dark gray (5Y 4/1), several pods of slightly coarser material in Section 2, 26–82 cm, and Section 3, 57–99 cm. Minor Lithologies: SILTY MUD, structureless and homogenous, contains pyrite concretion (2 cm Ø). General Description: Dropstones: Section 1, 115 cm, Ø 3 cm, siltstone; Section CC, 26 cm, Ø 2 cm, siltstone.

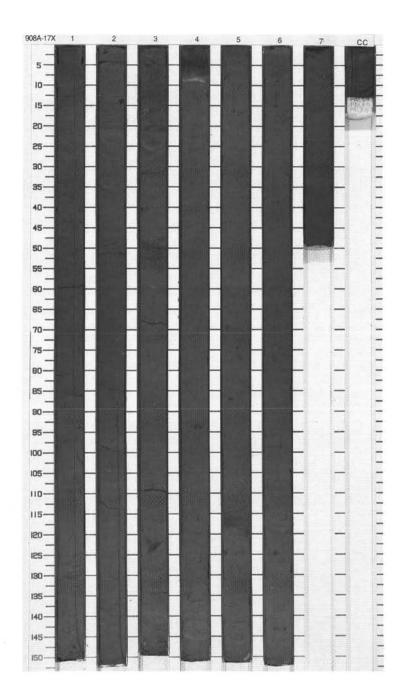


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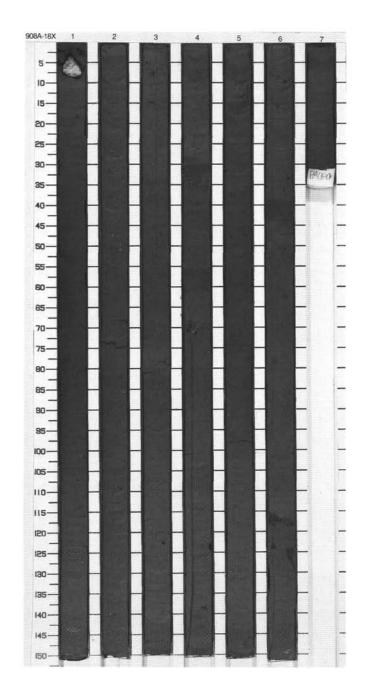
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
The second se		1			Φ	S S P		SILTY CLAY Major Lithology: Homogeneous SILTY CLAY, very dark gray (5Y 3/1), stiff. Very few scattered burrow infillings by coarser sediment (clayey mud ). Silt bed dispersed by
Surface Surface		2	ue	3		Ρ		bioturbation in Section 1, 22–28 cm. Incipient drilling biscuit.
the Contraction of		3	early Pliocene	3		P	5Y 4/1	
Inter Line		4		3		s P		
Lund		cc		3		м		



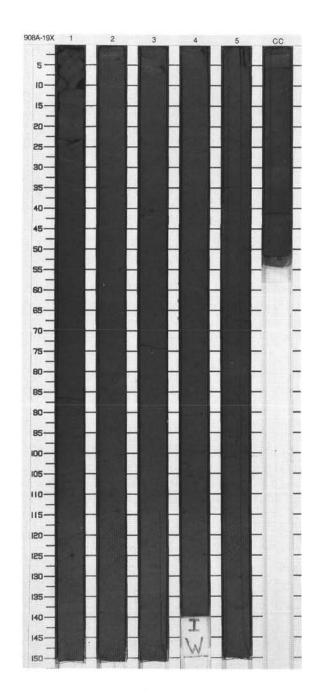
-				A CORE	-		1.40	CORED 148.7 - 158.2 mbs
	aphic ith.	Section	Age	Structure	Disturb	Sample	Color	Description
		1		5000000 2000000 2000000		s S p		SILTY CLAY Major Lithology: SILTY CLAY, very dark gray (5Y 3/1), is homogeneous, containing mm-sized white pods of sand scattered throughout the core. They are irregular in shape and <1 cm in size; some may
		2				Ρ		be burrows. Incipient, pyritic concretions were noted in sandy pockets in Section 3, 122–124 cm; Section 4, 93–94 cm; and Section 6. Silt- and sand-sized grains in SILTY CLAY include quartz (25%–30%) and minor amounts of feldspar, accessory
		3		P	s	S P		minerals, and opaques; glauconite is present in trace amounts. Minor Lithologies: CLAYEY MUD, very dark gray (5Y 3/1), is present as discontinuous laminae in Section 2, 49 cm; Section 3, 9–21 and 48–55 cm; Section 4, 3–9 cm; Section 5, 115–119 cm. An ASH layer in Section 4, 3–9 cm, is light gray (5Y 6/1) in the lower 1 cm and grades up into very dark gray (5Y 3/1). It has a sharp basal contact and a gradational top contact. Volcanic glass
		4	early Pliocene	⊕ -• *** @		S P	5Y 3/1	
		5				P		shards are colorless and predominantly flat and angular with minor ridged grains.
		6				Ρ		
		7		1000000 2000000		м		



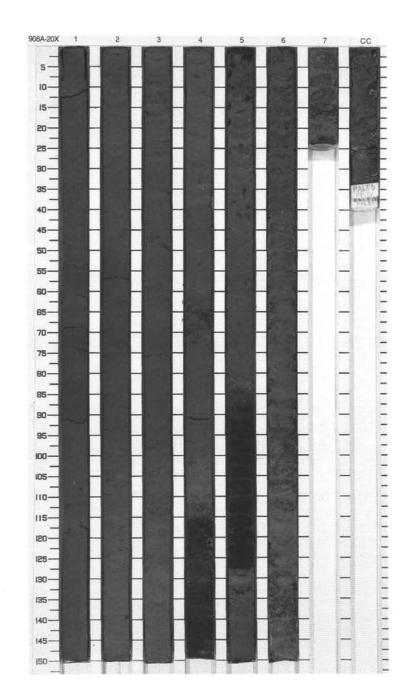
-	A	E.				P.	Φ		
Meter	Graphic Lith.	Section	Age	Stru	cture	Disturb	Sample	Color	Description
1						0	i.		SILTY CLAY
Erenter		1		Ρ }			S P		Major Lithology: Homogeneous SILTY CLAY, very dark gray (5Y 3/1), stiff. A few burrows, some are filled by triable white sand, others are brown and
Inter Print		2		P }			s S P	5Y 3/1	pyrite cemented. A very faint color banding with more greenish shades (10Y 4/1) occur in Section 3, 25–70 cm. Traces or a few percent of biosilica.
3									Minor Lithology: CLAYEY MUD, dark olive gray (5Y 4/1) and dark greenish gray (5GY 4/1 occurs as discrete intervals in Sectio
Turnin		3		P = 3	3 =		sP	5Y 3/1 To 10Y	occurs as discrete intervals in Sectio 3, 77–82 cm, Section 4, 30–33 and 56–60 cm and Section 6, 38–44 cm. These beds are strongly bioturbated.
distri			early Pliocene					3/1	
5		4	early P	•	8 =		SP		
6				3					
2		5		P			S P	5Y 3/1	
8				P 200	2 -				
1.1.1.1.1		6		= 4	. =		S P		
9		7		3		1			
-		1		>		1	MP	-	



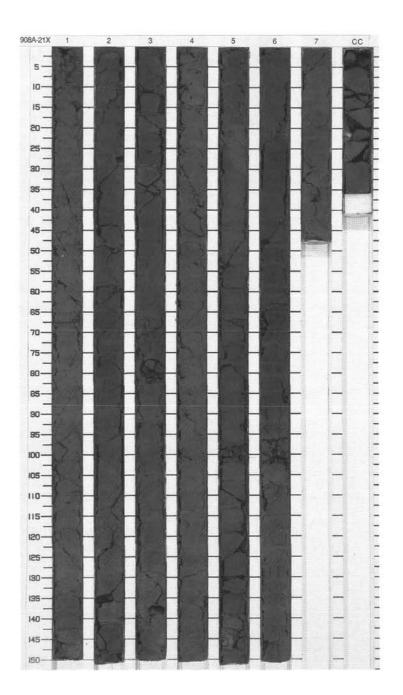
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
					1	Р		SILTY CLAY
Lon Lond		1		P		Р		Major Lithology: SILTY CLAY, very dark gray (5Y 3/1), nearly homogeneous and featureless. Pyritized burrows and small (mm) sand pockets present throughout core.
2						SP		Minor Lithology: Very dark gray (10Y 3/1) PYRITE-
		2		Р _	li	s		BEARING CLAYEY SILT in Section 2, 79–81 cm, containing 30% silt-sized
3					1	Р		pyrite rhombs.
			au	P		Ρ	5Y	
4		3	Miocene-Pliocene			Р	5Y 3/1	
Luni			ocene	P		F		
5			W	P		Ρ		
and and		4		P	i.	Ρ		
6		_				1		
of the		5				Ρ		
2		Ŭ		Ρ		s <sub>P</sub>	5Y	
in line		сс					3/1 To 10Y 3/1	



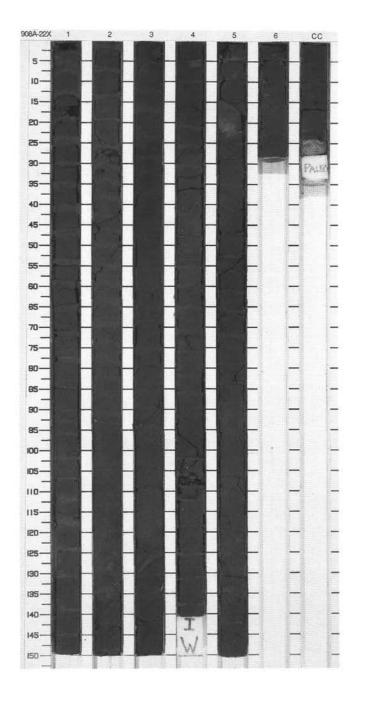
17	FE 908 H	OL	E	A CORE	2			CORED 177.4 - 187.1 mbsf
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
The Links		1		@ @ @	1	P P Sp		SILTY CLAY AND CLAYEY SILT Major Lithology: Homogeneous, very dark gray (5Y 3/1) SILTY CLAY AND CLAYEY SILT, with common pyritized burrows and pyrite pods from top of core through Section 4, 110 cm.
3		2		P P P		Ρ	5Y 3/1	Minor Lithology: SILTY SAND in Section 4, 111 cm to Section 5, 2 cm, and from Section 5, 84–150 cm. The unit in Section 4 grades from (brownish) very dark gray (5Y 3/1) to (greenish) very dark gray (10Y 3/1). The unit in Section 5 is a
4		3	ene	P P		P		(deep greenish) very dark gray (10Y 3/1), bounded at base and top by 2–4- cm-thick (yellowish) olive (5Y 4/4) silty muds. Both units contain 60%–70% glauconite.
1		4	Miocene-Pliocene	Р (Р) Р		P P S	5Y 3/1 To 10Y 3/1	
6		5				S P	5Y 3/1	
2						P S	10Y 3/1	
8		6				S S P P	5Y 3/1	
9		7 CC		-		м		



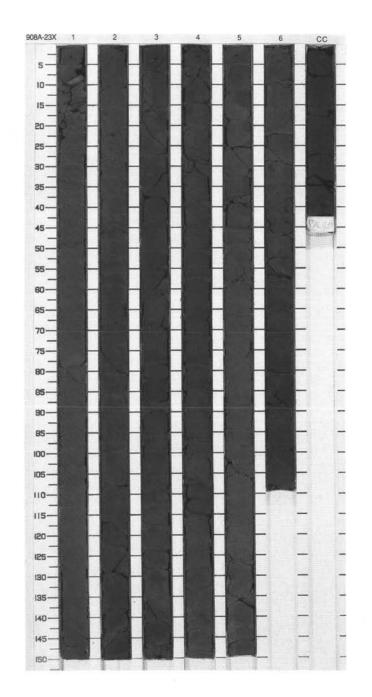
SI	FE 908 H	101	E	A CORE	-			CORED 187.1 - 196.7 mbsf
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1		~ ~ ~ ~		S P S	5Y 3/2	DIATOM SILTY CLAY, DIATOM-BEARING SILTY CLAY and DIATOM-BEARING CLAY Major Lithologies: Homogeneous or slightly bioturbated DIATOM SILTY CLAY and DIATOM- BEARING SILTY CLAY, dark olive gray (5Y 3/2). Includes minor amounts of sponge spicules and volcanic glass (brown, green, and white shards). Homogeneous or slightly bioturbated DIATOM-BEARING CLAY, dark gray (5Y 4/1) is present in the interval from Section 4, 0 cm to Section 5, 40 cm.
4		3	iocene	~ ~ ~		S P		General Description: The clay is firm and had been moderately fractured (drilling biscuits) by drilling disturbance. The heavy drill disturbance made identification of primarily sediment structures difficult.
5		4	Oligocene-early Miocene	3		S P	5Y 4/1	
L'ALLAN		5		3		Ρ		
8		6		3		SP	5Y 3/2	
		7 CC		3		м		



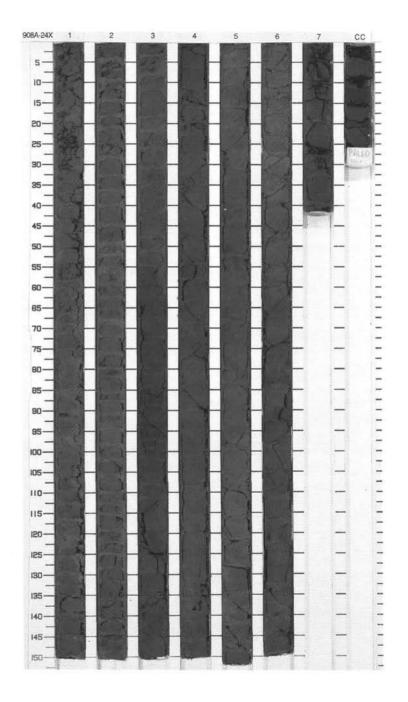
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
Line Contraction		1		P ⊙		S P S		CLAY, BIOSILICA-BEARING SILTY CLAY, and SILTY CLAY Major Lithologies: CLAY, SILTY CLAY, and BIOSILICA- BEARING SILTY CLAY, dark gray (5Y 4/1) are firm and commonly disrupted into drilling biscuits. Faint, subhorizontal, wavy laminae are commonly disrupted by bioturbation. Coaly fragments, <5 mm in diameter, are scattered throughout. Incipient concretions, pyritic(?) and <1 cm in
true for a long of the second second		3	Oligocene-early Miocene	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		P S P	5Y 4/1	Section 3, 62–63 cm; Section C, 15 cm, Silt- and sand-sized siliciclastic grains in BIOSILICA-BEARING SILTY CLAY and SILTY CLAY include quartz (10%–20%) and minor amounts of feldspar, volcanic glass, opaques, and inorganic calcite. Biogenic components are diatoms and sponge spicules.
		4 5	Oligo	P ●		s P S S		Minor Lithology: DETRITAL CARBONATE CLAY, pale olive (5Y 6/3), occurs in Section 5, 18–23 cm, and Section CC, 23–28 cm. In Section 5, it shows distorted laminae which may be a slump structure. Mm-size pods of DETRITAL CARBONATE CLAY are scattered through Sections 6 and CC. Clay-sized particles of rounded carbonate comprise 70%–80% of the carbonate clay, with the remaining components being clay, quartz, opaques, and accessory minerals.
111		cc		●		SM		15 0.21 150



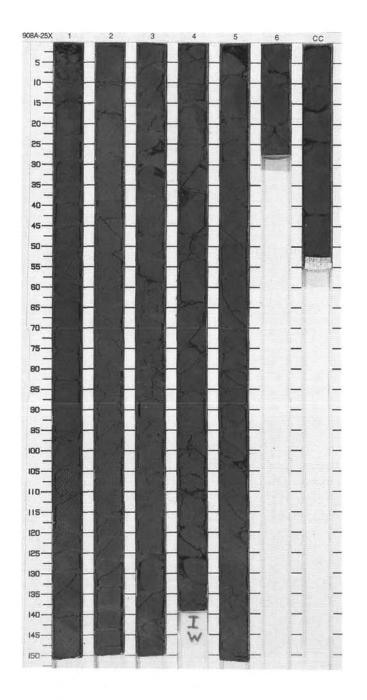
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
and the second		1		۲	XX ww	Sp		SILTY CLAY, BIOSILICA-BEARING SILTY CLAY and BIOSILICEOUS SILTY CLAY
1 1 1 1 1 1 1 1					WWW/	Р		Major Lithologies: Dark olive gray (5Y 3/2) SILTY CLAY from top of core to Section 3, 14 cm.
11111				P	www	S P P S P S P S P	Dark olive gray (5Y 3/2) BIOSILICA- BEARING SILTY CLAY from Section 3, 14 cm to Section 5, 100 cm, with faint laminations preserved. Laminae	
TALLER		2			WWWW			are obscured by biotrobation, including extensive horizontal burrowing, and found to bottom of core. Dark olive gray (5Y 3/2) BIOSILICEOUS SILTY CLAY from Section 5, 100 cm to bottom of core. Biosiliceous content increases from ~10% to 30% through core. Sediment formed into biscuits throughout core by drilling disturbance.
A town in					www.			
11.1.1.1.1.1.1		3	Oligocene		vwwwwww			
1 1 2 1 2 1 1		8	late Olig				5Y 3/2	
1.1.1.1.1.1		4			www	Ρ		
1 1 2 1 1 1 1				Ø	ММММММММММММММММММММММММММММММММММММММ	S P P S P		
1.1.1.1.1.1.1		5						
1 1 1 1 1 1 1 1		6						
2.2.2. 2.2.2		CC			WWW	Р S <sub>M</sub>		



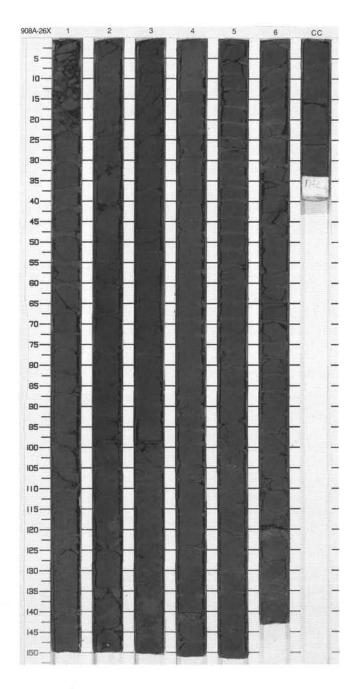
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
and methods		1		Ρ	M	P S		BIOSILICA-BEARING SILTY CLAY, BIOSILICEOUS SILTY CLAY and SILTY CLAY Major Lithologies: BIOSILICA-BEARING SILTY CLAY, BIOSILICEOUS SILTY CLAY and
2		2		3		S <sub>P</sub>	5Y 4/2	SILTY CLAY, dark grayish brown (2.5Y 4/2) to olive gray (5Y 4/2), are firm and commonly disrupted into drilling biscuits. Faint, subhorizontal laminae with small burrows (Chondrites and Planolites?) beginning in Section 3. Dominant biogenic components are diatoms (6%–20%) and sponge spicules (1%–8%). Small molluscan fragments (length: 5–10 mm; 2–3 mm Ø, tubular shape) are present in Sections 4, 5, and 6. Pyrite grains are sparsely scattered in Section 1.
and market and		3	le	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				
and some read		4	late Oligocene			S P		General Description: Small sand patches in Section 4, 88–89 cm, contain fragmented echinoid spines, large spicules, molluscan shells, benthic forams, and diatoms.
and first starts		5				S P	2.5Y 4/2	
the second second		6				Ρ		
1	v v	7		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	1	P		



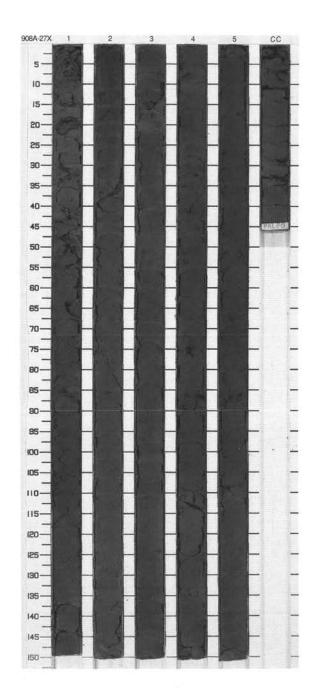
Meter	Graphic Lith.	Section	Age	Stru	ucture	Disturb	Sample	Color	Description				
		1			**************************************	M	S S S S	5Y 3/2	BIOSILICEOUS-BEARING SILTY CLAY and BIOSILICEOUS SILTY CLAY Major Lithologies: BIOSILICEOUS-BEARING SILTY CLAY and BIOSILICEOUS-BEARING SILTY CLAY, dark gray (5Y 4/1) and				
2		2	late Oligocene	late Oligocene	late Oligocene	33 33 33 33	333		P S		dark olive gray (5Y 3/2), with small and gradational size variations. Bioturbation within the core is seen as mottles of olive gray (5Y 4/2).		
		3				late	4 late				P	5Y 4/1	Minor Lithologies: CARBONATE-BEARING BIOSILICEOUS SILTY MUD, dark olive gray (5Y 3/2) is present in Section 1, 96–98 cm. This layer has more clay-sized carbonate grains than the other silty mud layers. BIOSILICEOUS SILTY MUD, dark olive gray (5Y 3/2) and dark gray (5Y 4/1) is present in 1–5-cm-thick layers. Both upper and lower contacts are gradational. Their location is shown in the structure column.
L.L.		4						-	~~~-		Р		
												No.	11
Lun Lun		5			- ** - - ** -		S	312	Shell fragments (>1 cm in length), were seen in Section 4, 106 cm, and Section 6, 5 cm.				
8		6 CC		\$ 3	\$		P M						

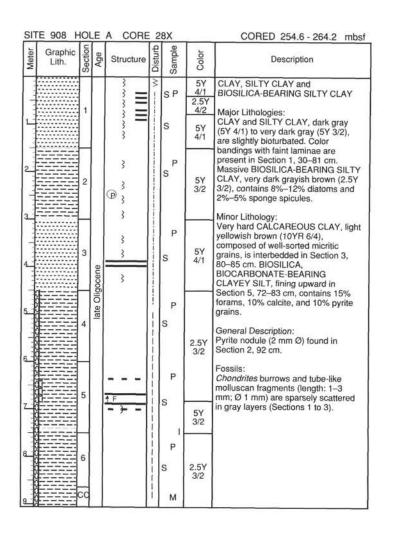


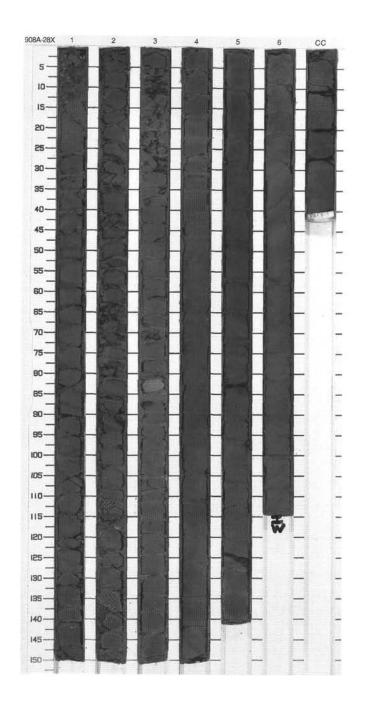
Meter	Graphic Lith.	Section	Age	Structure	ä	Sample	Color	Description			
		1		 ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	M	S P		BIOSILICEOUS SILTY CLAY Major Lithology: BIOSILICEOUS SILTY CLAY, dark olive gray (5Y 3/2), laminated (<2 mm thick); color of laminae slightly more brownish. Slight to moderately			
2				3 3 2		s <sub>P</sub>		bioturbated; from Section 6, 20 cm to base of core heavily bioturbated. Entire core moderately disturbed (biscuits).			
يتبليني		2		ااا @¢@     سسسسسسسسسس		s		Minor Lithologies: BIOSILICA-BEARING SILTY MUD, dark olive gray (5Y 3/2), present from Section 3, 140 cm to Section 4, 10 cm. DETRITAL CARBONATE-BEARING			
1111		3	Oligocene		1		3		Р	5Y 3/2	SILTY CLAY, dark olive gray (5Y 3/2), present in Section 2, 0–15 cm. General Description:
Land and a				• • •		S P	0/2	Shell fragments (1 cm) occur at Section 2, 148 cm and Section 5, 57 cm and Section 6, 20 and 144 cm. Pyrite concretions (1 cm) are present at Section 2, 110 and 140 cm.			
and and		4	late	л     Р				throughout with slightly larger ones at Section 3, 142 cm, Section CC, 10 and 25 cm, and at Section 4, 108 cm where pyrite replaces shell fragment. Diatoms and sponge spicules are abundant:			
J		5		₩ ₽ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩ ₩		Ρ		silicoflagellates are rare.			
بيدايد بالريد		6			s P						
Level and a second s		cc		۵ ۵ ۵	м	5Y 3/1					



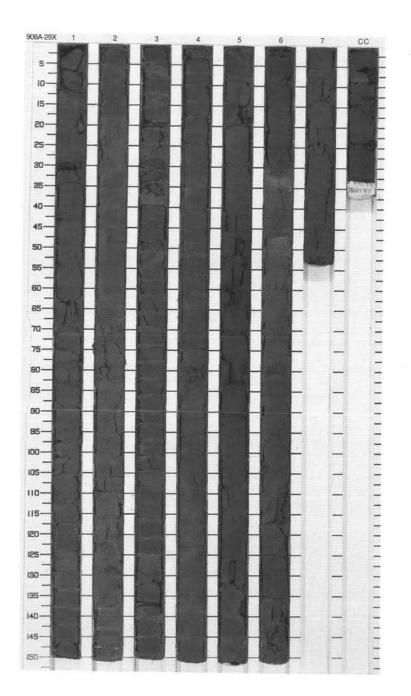
5	Graphic	5			e	ole	L	
Meter	Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
Taxa Taxa Internal		1		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	MM	s <sub>P</sub>		BIOSILICA-BEARING SILTY CLAY Major Lithology: Dark gray (5Y 3/2), firm, BIOSILICA- BEARING SILTY CLAY. Contains 70% clay, 30% silt, and almost no sand. Silt sized fraction dominated by quartz grains, minor feldspar, glauconite, and
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		2		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		P S		opaques locally. Biogenic particles constitute from 12% to 26% of the total sediment, including diatoms, sponge spicules, and calcareous nannofossils, in descending order of abundance.
LICERTRACE DATES		3	late Oligocene	0 0 www.www.www.www.www.ww		s <sup>P</sup> s	5Y 3/2	Minor Lithologies: Dark olive gray (5Y 3/2), CARBONATE SANDY MUD, dominated by inorganic calcite sand and silt. BIOSILICEOUS SILTY MUD, dark olive gray (5Y 3/2) contains 25% siliceous microfossils, including 18% diatom fragments and frustules. It is characterized by a substantial (22%) quartz sand
TALL TALL TALL		4		с » 		P S		component. General Description: Drilling disturbance is severe at the top of Section 1 and in Section CC. Throughout the core, relatively undisturbed sediments are present in
LAND DALLARD		5		0 0 0		SP		the form of 2- to 7-cm drilling biscuits. Carbonate is disseminated throughout Sections 4 and 5.
a la sere	0000	cc		c 3	M -	м		



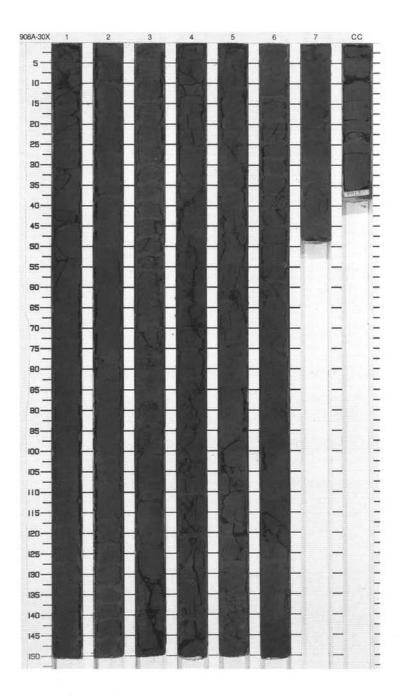




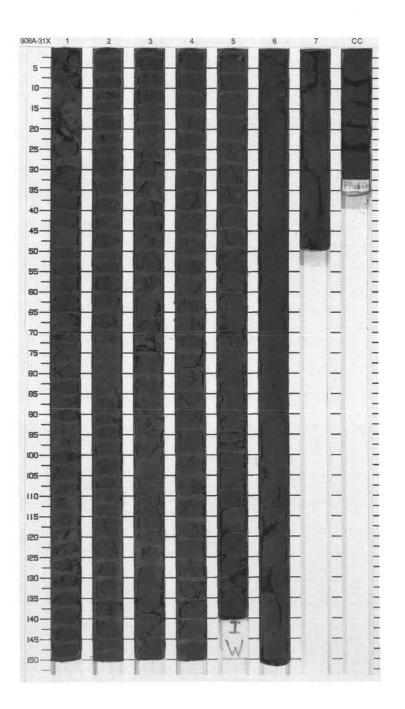
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	CORED 264.2 - 273.9 mbs Description
Freedory.		1		3 33	X	S P	5Y 3/2 To 5Y 4/1	SILTY CLAY, BIOSILICA-BEARING SILTY CLAY Major Lithology: SILTY CLAY and BIOSILICA- BEADING CII TY OLAY
A Principal and a second second second		2		3 33	1144444444	S P	5Y	BEARING SILTY CLAY, are either very dark gravish brown (5Y 3/2) or dark grav (5Y4/1). The former are fairly homogeneous. The latter, more clayey, showing some distinct burrows in light shade, a few pyritized burrows, and a more pervasive 'laminae-like structure' ( <i>Planolites</i> ?) with very thin discontinuous to continuous color banding. Such a structure is better
Science and		3	ane	» ≫ ∭	1111111111111	Ρ	4/1	expressed within Sections 3 and 4. Biosilca content up to 11%. Minor Lithology: Section 6, 25–48 cm: coarse turbidite layer, scoured lower contact, progressive upper contact, planar and cross laminae. Granules, shell
20000000000		4	late Oligocene	» »	111111111111	S P S		fragments, very coarse quartz are found at its base and within the coarsest laminae, while detricarbonate is the dominant matrix constituent.
000000000000		5		3	11111111111111	S P	5Y 3/2	
20000 1.2020	1	6	-	<u>A 77</u>	111111111	S S P	5Y 4/1	
2000000000		7			11111111	м	5Y 3/2	



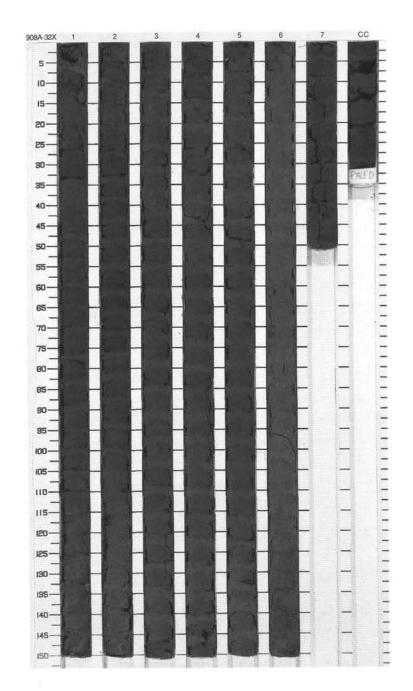
SIT	TE 908 H	-	E	A CORE	3			CORED 273.9 - 283.5 mbsf
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
these Freedomen		1		» Ⅲ · Ⅲ	11111111111111	S P	2.5Y 3/2	BIOSILICEOUS SILTY CLAY, BIOSILICA-BEARING SILTY CLAY, SILTY CLAY and CLAY Major Lithologies: BIOSILICEOUS SILTY CLAY, very dark grayish brown (2.5Y 3/2), faintly laminated, some intervals slightly
		2		~~ =	1111111111	S P		bioturbated. The clay is firm and disrupted into drilling biscuits in many parts of the core. In Sections 1 and 2, the biosilica content is almost 50%, in Sections 3, 4, and 5 only 35%–40%. Burrows cemented by pyrite are common in this lithology. BIOSILICA-
and here a	004	3		3 3 ≡ 3	//////	S P	5Y 3/2	BEARING SILTY CLAY and SILTY CLAY, very dark grayish brown (2.5Y 3/2) or dark olive gray (5Y 3/2) are present in the intervals, Section 6, 78 cm to bottom of core catcher and Section 2, 128 cm to Section 3, 100
and and find the		4	late Oligocene	» > ≡	////	Sp	2.5Y 3/2	cm, respectively. Slightly bioturbated lamination is common in some intervals. The biosilica content ranges from 5%–15%. Moderately bioturbated CLAY, alternating very dark gray (5Y 3/1) and dark olive gray (5Y 3/2), is present from Section 5, 85 cm to Section 6, 78 cm.
and the second		5		3 ≡	///	s	5Y 3/2	Minor Lithology: NANNOFOSSIL-BEARING BIOSILICEOUS SILTY CLAY, dark olive gray (5Y 3/2), is present in
of avera				33	·/	s S	5Y 3/1	Section 5, 40–85 cm. Contains about 40% biosilica and 10% nannofossils.
The second second	a	6		3	11/1/-	SP	5Y 3/2	
L. C. L.				→ = >>	\/	s s	2.5Y 3/2	
and the second		7 CC			11111	P M	5Y 3/2	



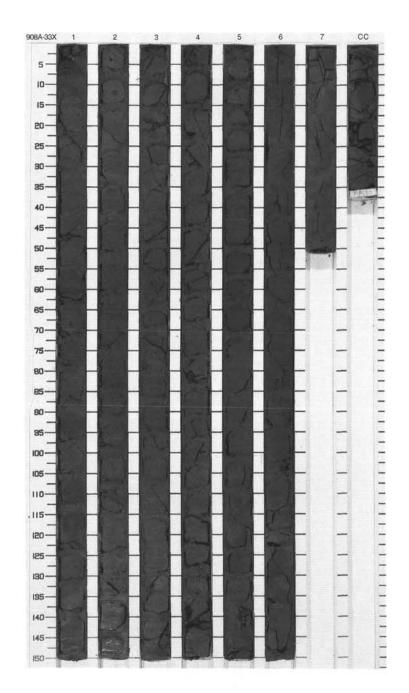
-	Graphic	5			2	le	-	
Meter	Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
the factor of the second		1		~~~~~~~~~	X ///////////	sP	5Y 3/1	CLAY, BIOSILICA-BEARING CLAYEY SILT and BIOSILICA-BEARING SILTY MUD Major Lithologies: CLAY, very dark gray (5Y 3/1), in Sections 1 and 2 is homogeneous but locally mottled due to bioturbation.
2 I I I I I I I I I I I I I I I I I I I		2		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	11111111111	Ρ		CLAY, dark gray (5Y 4/1), in Sections 3 to 5 contains olive (5Y 5/3, 5Y 4/3) lenses and pods, distorted by bioturbation. Laminae, low-angle and horizontal, are present in Section 5, 74–117 cm. Both CLAY types contain mm-sized, black (5Y 2.5/1) pods,
The second second		3	8	~ ~ ~ ~ ~ ~ ~ ~	11111111111	S		possibly coaly. Silt-sized grains include quartz (10%–15%) and minor/trace amounts of feldspar, accessory minerals, opaques, and glauconite. BIOSILICA-BEARING CLAYEY SILT and BIOSILICA-BEARING SILTY MUD, dark gravish brown (2.5Y 3/2),
instant finds		4	late Oligocene	۹ ۱      ۱	11111111111	Sp	5Y 4/1	occur in Sections 6 to CC and are homogeneous, showing faint mottling due to bioturbation. Silt- and sand- sized siliciclastic grains include quartz and feldspar (20%–40%) and minor amounts of glauconite and opaques. Section 6, 127–136 cm, shows very dark gray mottling due to abundant
11111111111		5			11111111111	S P		(30%) opaques (pyrite?). Biogenic components include diatoms (20%) and sponge spicules (2%). Minor Lithologies: CLAY-BEARING NANNOFOSSIL
111 111	4			3	11111	I S		OOZE and CARBONATE CLAY, olive, occurs as discontinuous lenses and burrows, mm-scale in size, in CLAY.
		6			111111111	P S	2.5Y 3/2	Clay-sized carbonate grains and nannofossils are the major components (60%–80%). General Description: The entire core is firm and disrupted
frait		7			1111	P		into drilling biscuits. A pyrite concretion was noted in Section 5, 106–108 cm.



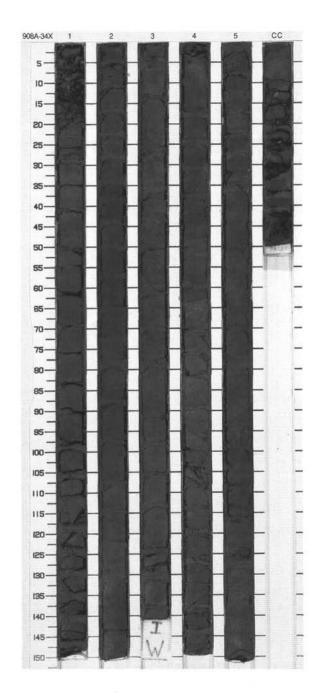
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		1 2 3 4 5	late Oligocene	د. (۹) ۲. (۹) ۲. (۹) ۲. (۹)		P S P S P S P S P S P S P S P S P	10YR 2/2	BIOSILICEOUS CLAY, BIOSILICEOUS CLAY, BIOSILICEOUS SILTY CLAY and NANNOFOSSIL- BEARING BIOSILICEOUS CLAY Major Lithologies: Section 1 is largely composed of very dark gray (10YR 2/2) BIOSILICEOUS CLAY, from top of core to Section 1, 125 cm, from Section 3, 125 cm to Section 5, 110 cm, and from Section 6, 132 cm to the bottom of the core. Very dark gray (10YR 2/2) BIOSILICEOUS SILTY CLAY occurs from Section 1, 125 cm to Section 3, 125 cm. Olive gray (5Y 4/2) NANNOFOSSIL-BEARING BIOSILICEOUS CLAY occurs from Section 5, 110 cm to Section 6, 132 cm. General Description: Lithologic subdivisions of the core and based primarily on smear slide analysis. The only visibly distinct unit is the NANNOFOSSIL-BEARING BIOSILICEOUS CLAY. Faint thin laminations occur throughout core, obscured by slight bioturbation.
and a second		6		· · · · · · · · · · · · · · · · · · ·		P S P	5Y 4/2	
9		7		3		SP	10YR 2/2	



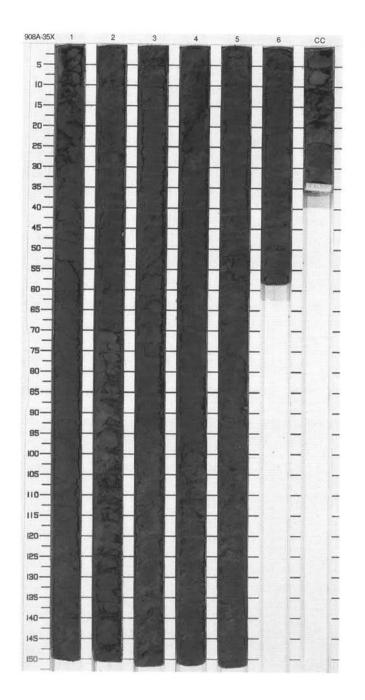
517	E 908 H	OL	E	A CORE	_			CORED 302.8 - 312.5 mbsf
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
second for a brought for so here a free of here of here of the		1 2 3 4 5 6	late Oligocene	*	X	S P S P S P S P S S P S S S S S S S S S	5Y 3/2	BIOSILICEOUS SILTY CLAY, BIOSILICA-BEARING SILTY CLAY Major Lithology: BIOSILICA-US SILTY CLAY and BIOSILICA-BEARING SILTY CLAY, dominantly dark olive gray (5Y 4/2) are homogeneous except faint change in bioturbation: pervasive very fine, mm-scale bioturbation, only observed on wet surface, larger dark burrows in Sections 1 and 7. Pyrite grains are scattered or concentrated within lenticular pockets. Diatoms range from 10%-40 %. Minor nannofossils are present throughout. General Description: Section 6, 100-145 cm, several color patches, dark gray (5Y 4/1) and very dark gray (5Y 3/1) minic elongated soft mud clasts, 1-2 cm thick, dispersed in a very dark grayish brown (2.5Y 3/2) matrix. A similar but indistinct feature occurs in Section 3, 130 cm. As smear slides show only slight difference between matrix and "mud clasts", the latter are interpreted to be diagenetic features associated with large burrows. Carbonate concretion Section 5, 10 cm, 0.8 cm Ø.
and found for		7		• 3 • 3 33	1	s P s	5Y 3/2 To 5Y 4/1	
a la la la		cc		3	1	м	5Y 3/2	



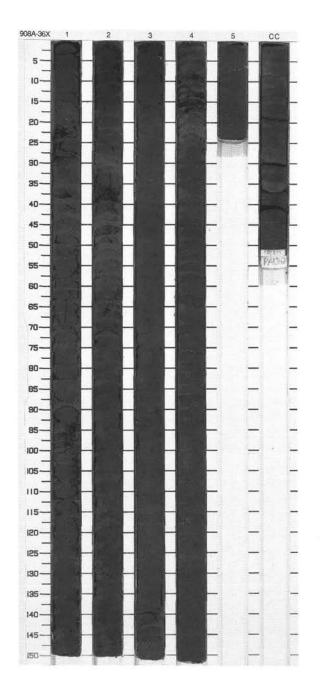
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
200000000000000000000000000000000000000		1 2 3 4 5 CC	late Oligocene		M / MM	S P S P S P S S P S N	5Y 3/2	BIOSILICA-BEARING CLAYEY MUD, BIOSILICA-BEARING SILTY CLAY and BIOSILICEOUS SILTY CLAY Major Lithologies: Dark olive gray (5Y 3/2) BIOSILICA- BEARING CLAYEY MUD, BIOSILICA- BEARING SILTY CLAY, and BIOSILICEOUS SILTY CLAY. Lithologies are distinguished based on biosilica content, which is as much as 40% in the BIOSILICEOUS SILTY CLAY, and quartz sand, which constitutes as much as 15% of the BIOSILICA-BEARING CLAYEY MUD. General Description: Core consists of 2–10-cm drilling biscuits. The combination of similar characteristics, dark coloration, and drilling disturbance render the major lithologies indistinguishable except in smear slides. An overall trend is apparent, with higher sand content at the top of the core and more siliceous microfossils in the middle. The sediment is mottled throughout all sections, with subhorizontal elongate sediment pods. Section 4, 60–90 cm and Section 5, 0–30 cm, contain contorted slump structures and imbricate pods. A sharp contact occurs at Section C, 10 cm. Below this horizon, the sediment is very dark gray (2.5Y 3/2), homogeneous, and brittle.



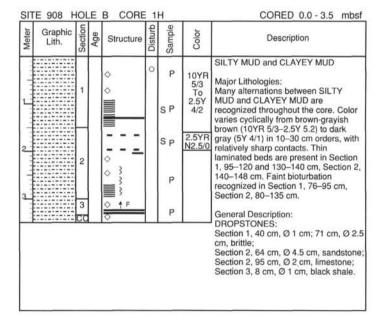
ter	Graphic	lo			6 82	P	ple	5	a 192
Meter	Lith.	Section	Age	St	ructure	Disturb	Sample	Color	Description
Constraints		1			***	M	s		SILTY CLAY Major Lithology: SILTY CLAY, dark olive gray (5Y
and a second					****		Р	5Y 3/2	3/2) seems to be originally laminated (mm scale), laminae show color changes to more brownish color; moderate to highly bioturbated;
2					333 333		Ρ		whole core moderately disturbed due to drilling.
ine lare		2		-			s	5Y 4/2	Minor Lithologies: SILTY CLAY, olive gray (5Y 4/2), present in Section 2, 70–90 cm.
3					∭ ∭				nannofossils abundant. CALCAREOUS CLAY, olive (5Y
4		3	ene						5/3), with high dolomite content, is present in Section CC, 4–9 cm.
The second			Oligocene		*		Р		
		4			»» »»		S	5Y 3/2	
Ti ti ti				-	*-		Р	5.2	
and the second		5			***	M			
					***		Р		
-		6		-	»»-		Р S	5Y	
ŧ		cq			>>	1	M	4/3	

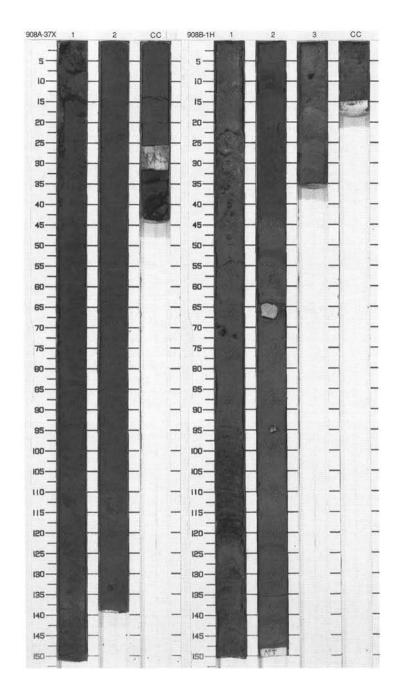


Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description		
The second second		1		****	M	s P S	5Y 3/2	SILTY CLAY Major Lithology: SILTY CLAY, dark olive gray (5Y 3/2), seems to be originally laminated on mm scale, lamination disturbed by moderate to heavy bioturbation.		
2		2		= ***		s P	5Y 4/2	Minor Lithologies: SILTY MUD, olive gray (5Y 4/2), moderately bioturbated; glauconite grains are present.		
a state of the sta		3	Oligocene	Oligocene	Oligocene	© 0 I I II0 ≈≈≈≈≈≈≈≈≈≈≈≈≈≈≈≈≈≈≈≈≈≈≈≈≈≈≈≈≈		Р	5Y 3/2	General Description: Glauconite-rich layers are present in Section 3, 36–56 cm; Section 4, 50–52 cm; Section 5, 19–23 cm.
and and				* ■ - ** -	M	s	5Y 4/2	-		
Lin P.		4				Р	5Y 3/2			
6		5		©≋≋ ©≋≋		s <sup>P</sup>	5Y	-		
1		cc		33	1	SM	4/2			

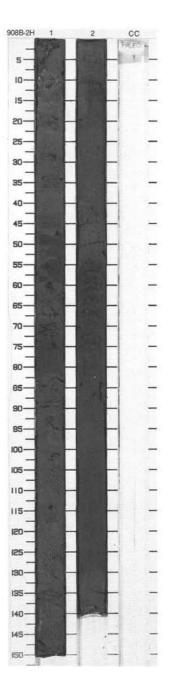


Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		1	Oligocene	33	M	S P S S P	5Y 3/1	SILTY CLAY Major Lithology: SILTY CLAY, dark olive gray (5Y 3/1), structureless, moderately bioturbated. General Description: Glauconite rich layer in Section 1, 23–25 cm; siltstone fragments up to 1.5 cm are present in Sections 2, 94–150 cm; CC, 0–44 cm.
						s	5Y 4/1 5Y	

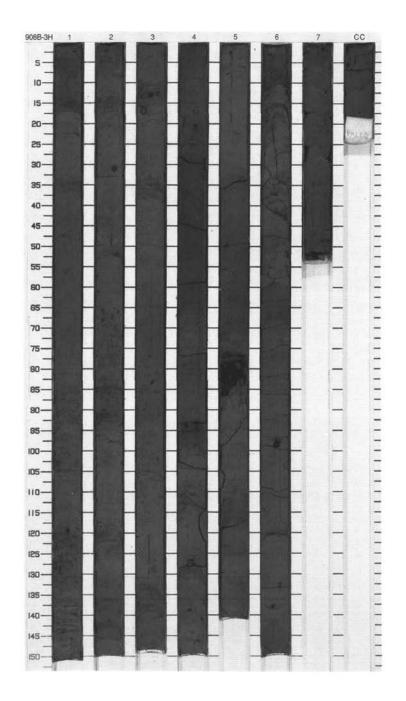


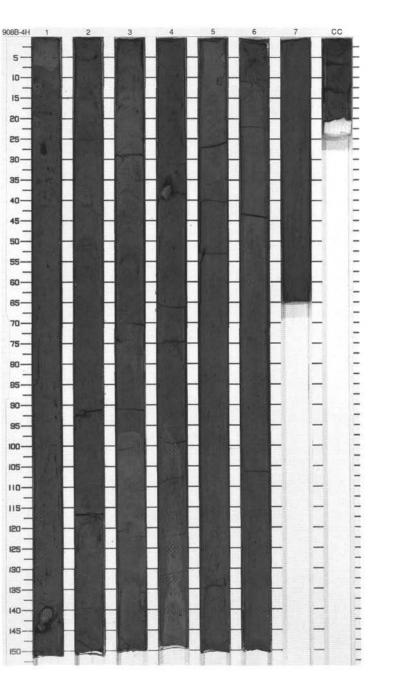


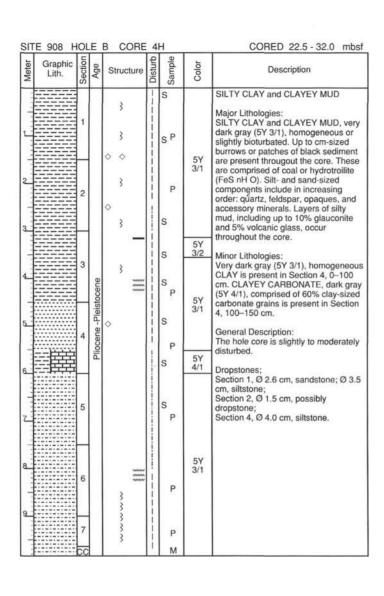
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
2		2	Quaternary			S S P S P S P S M	5Y 3/1 To 5Y 4/2	SILTY MUD Major Lithology: SILTY MUD, homogeneous, alternation of different colors from olive gray (5Y 4/1), dark olive gray (5Y 3/2), olive (5Y 4/3), and olive gray (5Y 4/2), poorly sorted. General Description: Reddish gray mud clast present in Section 1, 114 cm (1.5 cm Ø), color bands are present in Section 1, 20–30 cm; Section 2, 10–19 cm; Section 2, 50–74 cm.



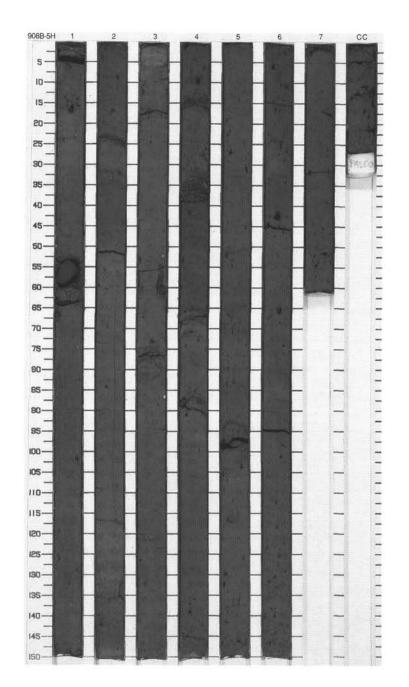
	TE 908 H	-	-	B CORE	1	r	-	CORED 13.0 - 22.5 mbsf
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1		<b></b>		Sp	5Y 4/2 To 5Y 3/1	FORAMINIFER-BEARING SILTY CLAY, SILTY CLAY, CLAYEY SILT and CLAYEY MUD Major Lithologies:
and a second						P	5Y 4/2	Olive gray (5Y 4/2) to very dark gray (5Y 3/1) SILTY CLAY, FORAMINIFER-BEARING SILTY CLAY, and CLAYEY SILT. Dark gray
2		2				s	5Y 5/2	(10Y 4/1) CLAYEY MUD. FORAMINIFER-BEARING SILTY CLAY contains 8% to 18% benthic agglutinated foraminifers. SILTY
3				· · ·			10Y 5/4	CLAY and CLAYEY SILT contain between 13% and 25% quartz grains,
a familia				۵ ۵		s P	5Y 4/2	and a more variable amount of feldspar (3%–18%). These lithologies also include minor amounts of
4		3	V	3			2.5Y N4/0	glauconite and accessory minerals. CLAYEY MUD occurs in the lower sections of the core, and is characterized by higher sand content
5		4	Quaternary	•		Ρ	5Y 4/1	and lower silt content than the overlying sediment. General Description: Gradual color changes characterize
i la c							5Y 5/1	the core. Bioturbation is light through much of the sediment, resulting in a
6		5		→ → → →		P	5Y 4/1	mottled appearance. Thin color bands are apparent in Section 3, 30–60 and 130–150 cm and Section 5, 30–50 cm. Well-preserved laminations occur in Section 2, 125–145 cm. A 10-cm-
2				◇ ◇ 1 F			10Y 3/1 To 5Y	thick, very dark brown (10YR 2/2) layer in Section 3, 82 cm, contains fine dolomite, five dropstones, and sulfides.
8-				~ ~ ~		Ρ	4/1	Dropstones:
		6 7 CC		\$		P	10Y 4/1	Section 2, 30 cm, Ø 1 cm, black shale; Section 3, 12 cm, Ø 1.5 cm; 15 cm, Ø 1.5 cm; Section 4, 127 cm, Ø 1 cm, fine- grained; Section 5, 79 cm, Ø 2.1 cm, black shale; 79 cm, Ø 1.2, black shale; 80 cm, Ø 1.0, black shale; 84 cm, Ø 1.0 black shale; 90 cm, Ø 1.0 cm, black



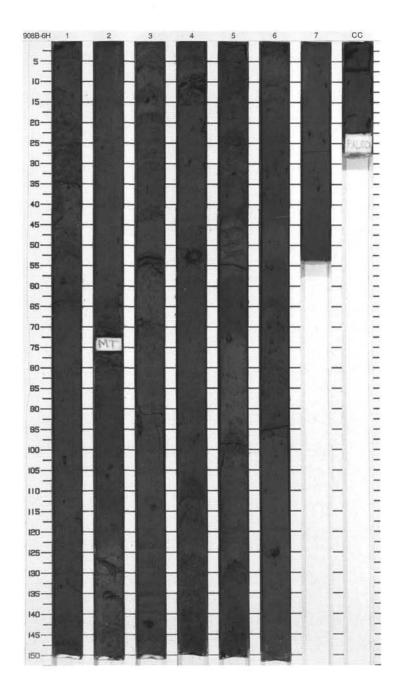




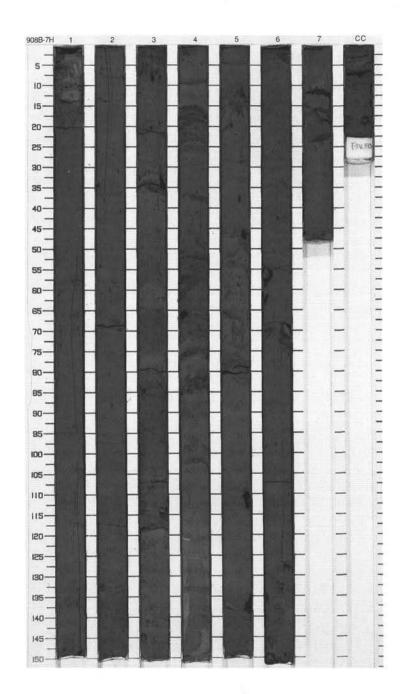
÷	Graphic	5		0	e	e	1.0	CORED 32.0 - 41.5 mbs					
Meter	Lith.	Section	Age	Structur	Disturb	Sample	Color	Description					
				+		Р		SILTY CLAY					
4				~		1.2		Major Lithology:					
		1		~		1		Very dark gray (5y 3/1), massive					
1						SP	1	SILTY CLAY with common mud					
6						P	1	clasts, most composed of iron-sulfide					
1		<u> </u>				[	1	blebs (probably pyritized burrows),					
-							1	some composed of coal.					
				-	-	P	1	Manual Manda at a start					
2		a ge				- C	1	Minor Lithologies:					
		2					1	Very dark grayish brown (2.5Y 3/2) CARBONATE CLAY occurs from					
1						P	1	Section 2, 148 cm to Section 3, 8 cm,					
						300		composed of ~80% inorganic calcite.					
3		_		12	_			Very dark gray (5Y 3/1) CLAYEY					
						S		MUD, occurs in visibly coarser layers					
3						P		in Section 2, 22 cm, Section 3, 72-80					
		3		÷ _				cm, Section 4, 25–39, 69–71, and 88 cm, Section 5, 95–100 cm.					
4		Ĭ			-	1.00	1	cm, Section 5, 95-100 cm.					
-			ø			P		General Description:					
-			Pliocene-Pleistocene					Small packages (~5 cm) of graded					
ALC: N		-	5			sP		coloration, from faintly greenish to					
			eis	0			- 2277	brownish very dark gray (5Y 3/1) (~5					
5			Ā	· -		S	5Y 3/1	cm), seen in non-massive sections.					
		4	8	-			3/1	Dropstones:					
-			ö	(P)	~	P		Section 1, 55 cm, Ø 6 cm, sandstone; Section 3, 70 cm, Ø 1 cm, guartz;					
-			Ē			~		Section 4, 40 cm, Ø 1 cm, basalt;					
6								Section 7, 52 cm, Ø 1 cm.					
-			1		1	P							
1		5											
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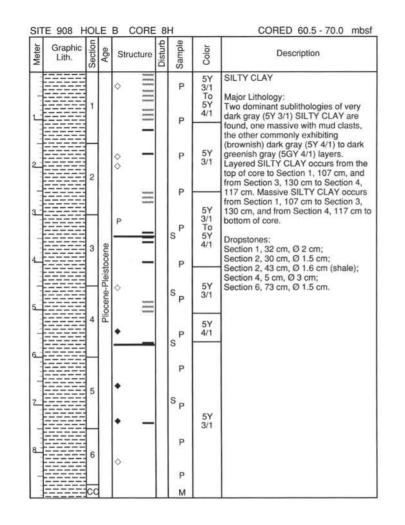


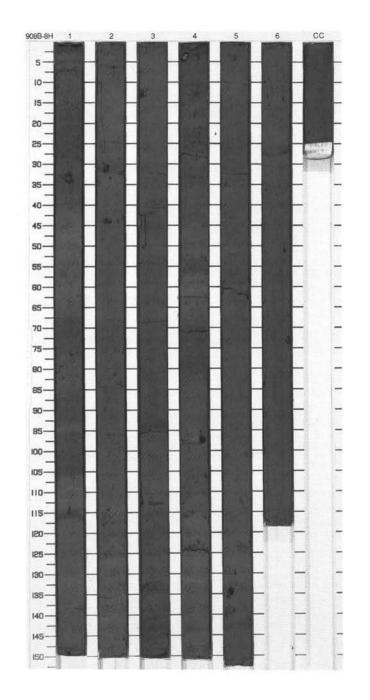
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1		<ul> <li></li> <li><!--</td--><td>T</td><td rowspan="3">P S<sub>P</sub> P P</td><td>5Y 3/1</td><td>CLAYEY MUD and SILTY CLAY Major Lithologies: CLAYEY MUD, dark gray to very dark gray (5Y 4/1, 5Y 3/1), dominates Sections 1 to 6. Medium to thick color banding can be distinguished locally and discontinuous laminae and lense:</td></li></ul>	T	P S <sub>P</sub> P P	5Y 3/1	CLAYEY MUD and SILTY CLAY Major Lithologies: CLAYEY MUD, dark gray to very dark gray (5Y 4/1, 5Y 3/1), dominates Sections 1 to 6. Medium to thick color banding can be distinguished locally and discontinuous laminae and lense:
2	VOID	2						of more sandy sediment are present throughout the core. Mm-size black (5Y 2.5/1) pockets (coaly?) and white
3	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						5Y 4/1	pods (quartz?) are scattered throughout. Silt- and sand-size grains comprising CLAYEY MUD include quartz (35%-50%), feldspar
Turk turk		3	tocene			S P	5Y 4/1 To 10Y 3/1	(5%–10%), and minor amounts of opaques, accessory minerals, and glauconite; clay content is 45%–55%. SILTY CLAY, very dark gray (5Y 3/1), occurs in Section 6 to CC and is homogeneous. Silt-sized grains include quartz, feldspar, opaques, and accessory minerals.
and and and		4	Pliocene-Pleistocene			S P	5Y 3/1	Minor Lithology: CLAYEY CARBONATE, olive gray (5Y 4/2), occurs in Section 5, 46–52 cm. It is indurated, and has sharp top and bottom contacts. Clay/silt-sized carbonate grains comprise approximately 60%; the remainder is clay, quartz, and opaques. General Description: Dropstones: Section 1, 102 cm, Ø 1 cm; Section 2, 135 cm, Ø 2.0 cm;
		5				S P S P		
Lun Bund		6				Р	5Y 3/1 To 10Y 3/1	Section 3, 143 cm, Ø 1.0 cm, basaltic?; Section 4, 51 cm, Ø 4.0 cm, mylonite?; Section 5, 72 cm, Ø 1.5 cm, sandstone.
9		7				s P P M	5Y 3/1	128 August - 1945 (2013)

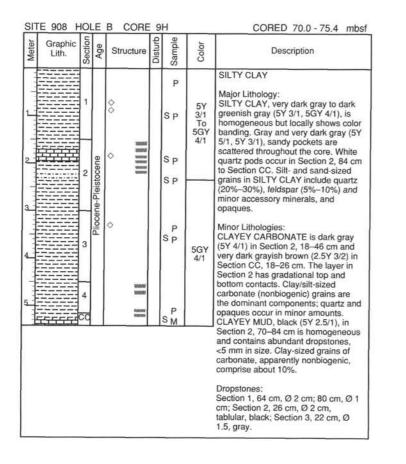


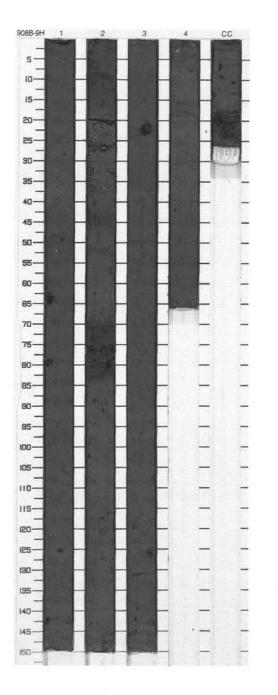
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		1	Pliocene-Pleistocene		1	Р	5Y 3/1 5Y 3/1 To 5Y 4/1 5Y 3/1	CLAYEY MUD and CLAY Major Lithologies: CLAYEY MUD, very dark gray (5Y 3/1), homogeneous, is present from top of Section 1 to Section 3, 28 cm. Patches of black or dark grayish brown (2.5Y 4/2) sediment are seen within this mud. Silt- and sand-sized components include in decreasing order, quartz, feldspar, and accessory minerals. CLAY, very dark gray (5Y 3/1), with dark gray (5Y 4/1) and dark olive gray (5Y 3/2) bands, is present below Section 3, 28 cm. The number of color bands decreases downsection. Dark gray color bands, layers, and patches of very dark gray (5Y 3/1) clayey mud is found. Burrows and patches filled with black and dark reddish brown (2.5YR 2.5/4) sediment are present in some intervals. The coarse fraction includes, quartz, feldspar, and accessory minerals. General Description: Dropstones: Section 3, 104, Ø 1.0 cm, quartz; 144 cm; Ø 2.0 cm, amphibolite; Section 6, 56 cm; Ø 2.0 cm, siltstone with pyrite; 69 cm; Ø 2.8 cm, sandstone; 69 cm; Ø 3.1 cm, sandstone.
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and		3		¢		S P		
territered freed		4				S S P		
Transford and		5		<		P P		
8		6		8 8 0		sP		
		7				P		











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Meter	Graphic Lith.	Section	Age	Structure	Distur	Sample	Color	Description
	िःःहिदेद							SILTY CLAY and CLAYEY MUD
Loss Frederic		1	Pliocene -Pleistocene	→     →		S P		Major Lithologies: Homogeneous SILTY CLAY, very dark gray (5Y 3/1) is present from Section 1, 20 cm to Section 5, 23 cm. Black (5Y 2.5/1), dark gray (5Y 4/1) and dark olive gray (5Y 3/2) color bands are comprised of clayey mud, all other color bands of silty clay. Patches of black and dark
2		2		♦		S S		
3				_	- P		brownish gray (2.5Y 4/2) sediment are present. Silt- and sand-sized components include quartz, feldspar, accessory minerals, and opaques.	
4		3		۰		Ρ	P Very dark gray (5Y 3/1), homogeneous CLAYEY MUD is present from Section 5, 23 cm to bottom of core catcher. Includes quartz, feldspar, accessory minerals opaques, and glauconite. Minor Lithology: CLAYEY CARBONATE, dark gray (5Y 4/1) is present in Section 1, 0–20 cm. General Description: Concretion, 2.5 cm in diameter, comprised of clay-sized material and sand-sized calcite grains was found in Section 5, 112 cm. S P Section 1, 48 cm; 1.5 cm, siltstone? Section 2, 10 cm; 3.6 cm, laminated	Very dark gray (5Y 3/1), homogeneous CLAYEY MUD is present from Section 5, 23 cm to bottom of core catcher. Includes quartz, feldspar, accessory minerals, opaques, and glauconite. Minor Lithology: CLAYEY CARBONATE, dark gray (5Y 4/1) is present in Section 1,
5		4		999999 200999 999999		s		
6						P		
Z		5		•				Section 1, 48 cm; 1.5 cm, siltstone?; Section 2, 10 cm; 3.6 cm, laminated
8		cc			i		clay/siltstone; Section 2, 43 cm; 1.0 cm, quartz; Section 5, 57 cm; 1.0 cm, coal.	

