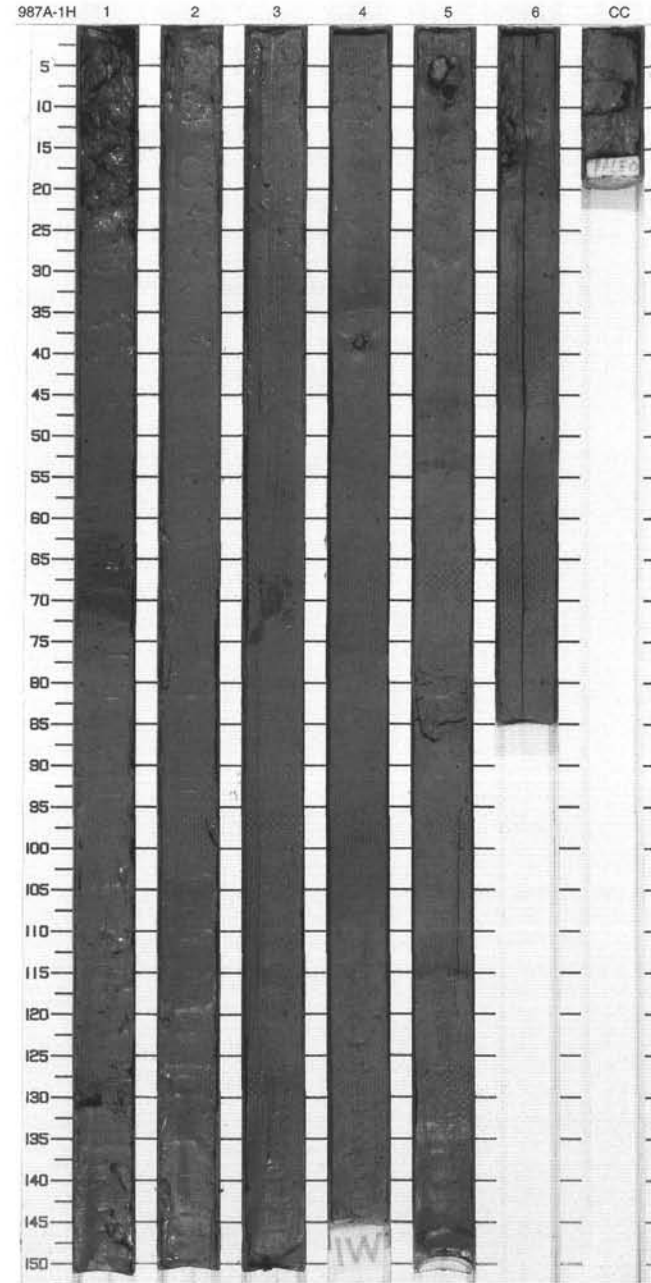


SITE 987 HOLE A CORE 1H

CORED 0.0 - 8.5 mbsf

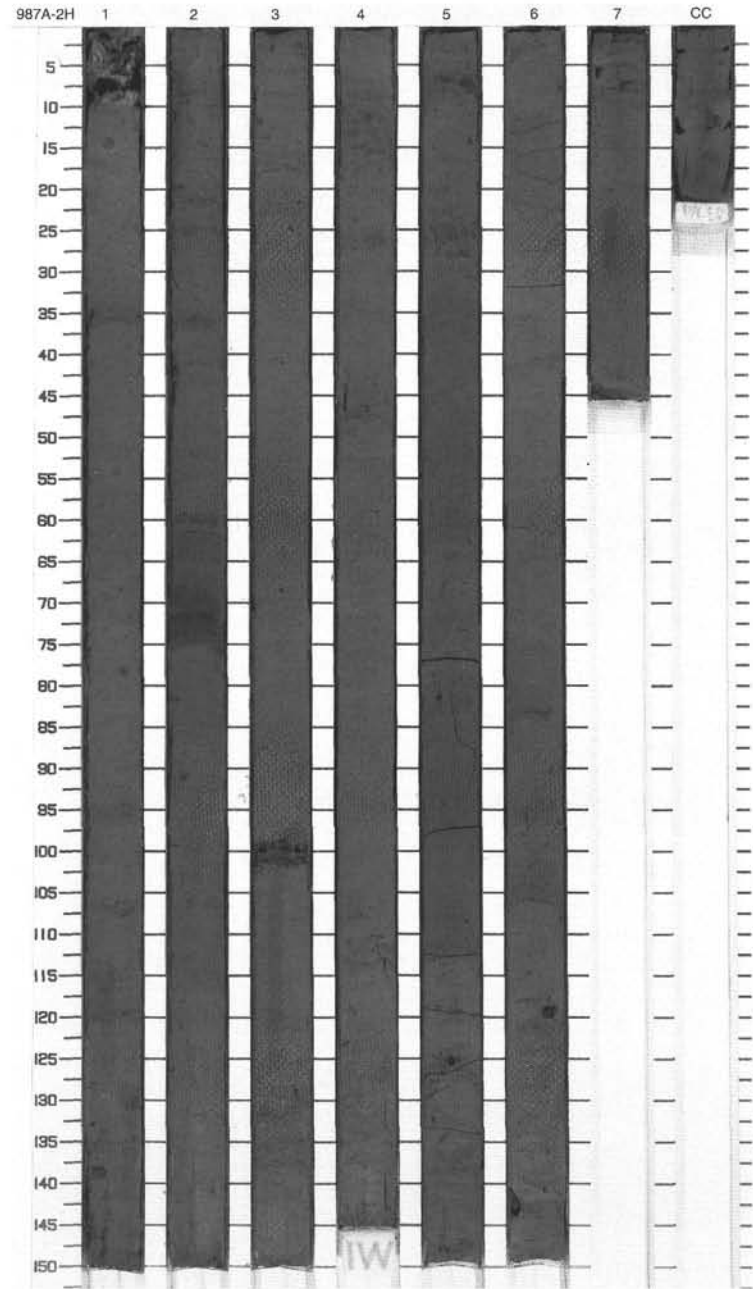
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	Pleistocene	~	○	S	5YR 4/1	<p>SILTY CLAY</p> <p>General Description: This core contains dark gray (5YR 4/1), dark gray (10YR 4/1), dark gray (5R 4/1), and dusky red (2.5YR 3/2) SILTY CLAY. A SANDY SILT WITH CLAY layer is present in Section 5, 77-86 cm. Sediment is soft. Color changes are gradational. A concretion is present in Section 4, 38 cm.</p> <p>Dropstones: Section 5, 5 cm: 2.8-cm-long subrounded granite; Section 5, 7 cm: 1.8-cm-long subangular siltstone.</p>
2	[Hatched pattern]	2					2.5YR 3/2	
3	[Hatched pattern]	3					5YR 4/1	
4	[Hatched pattern]	4					10YR 4/1	
5	[Hatched pattern]	5					10YR 4/1 To 5YR 4/1	
6	[Hatched pattern]	6					5R 4/1	
7	[Dotted pattern]	5		◇				
8	[Hatched pattern]	6		◇				
CC					I	M		



SITE 987 HOLE A CORE 2H CORED 8.5 - 18.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	Pleistocene	} S	W			<p>SILTY CLAY</p> <p>General Description: This core contains dark greenish gray (5Y 4/1, 10Y 4/1) SILTY CLAY. The sediment is soft and moist throughout. Bioturbation is slight to moderate, with color mottling and discrete burrows. Some of the burrows, particularly within Section 5, are filled with loose silt and sand grains. Slight, gradational color changes occur throughout, as do thin black and yellow-green color bands. Sulfides occur in black bands and as pods in all sections. Inorganic carbonate occurs as a minor component within the SILTY CLAY. Coring disturbance is limited to the upper 20 cm of Section 1.</p>
2	[Hatched pattern]	2		} S				
3	[Hatched pattern]	3		} S		S		
4	[Hatched pattern]	4		} A*			5Y 4/1 To 10Y 4/1	
5	[Hatched pattern]	5		} S				
6	[Hatched pattern]	6		} I				
7	[Hatched pattern]	7		} S		S		
8	[Hatched pattern]	8		} S				
9	[Hatched pattern]	9		} S				
CC	[Hatched pattern]	CC				M		

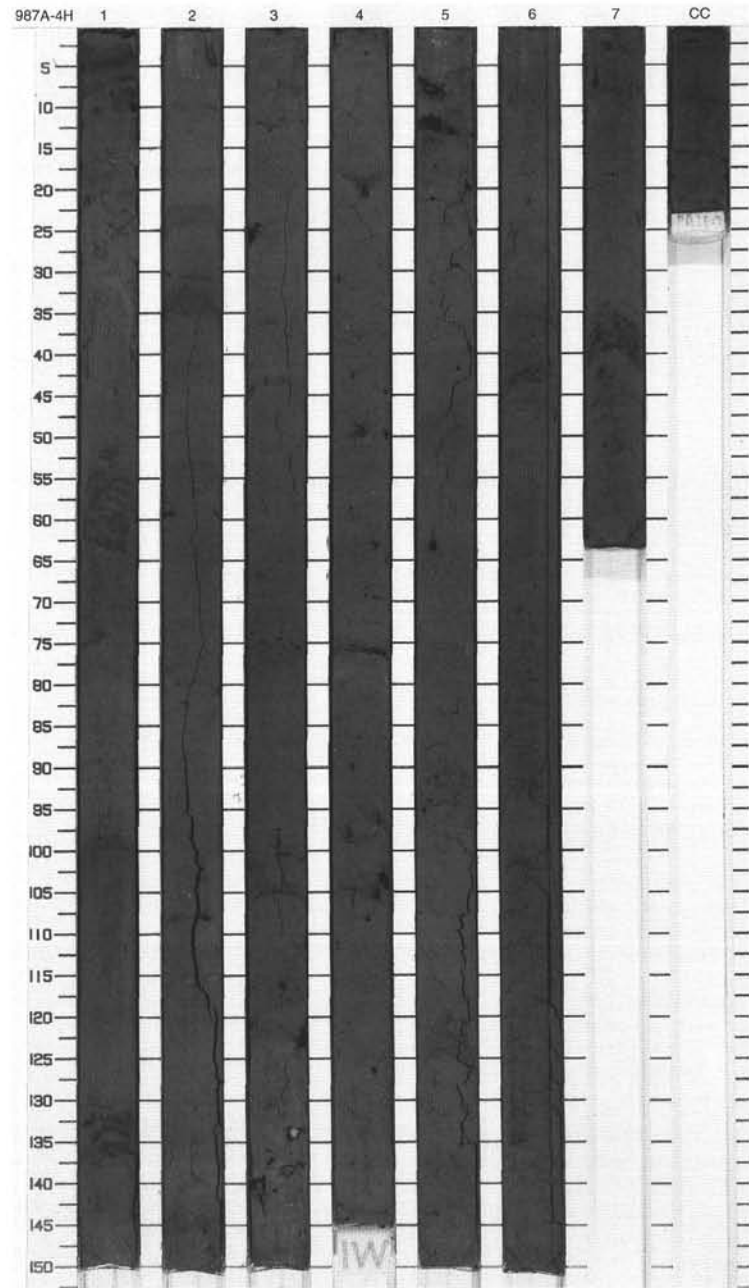
987A-03H NO RECOVERY



SITE 987 HOLE A CORE 4H

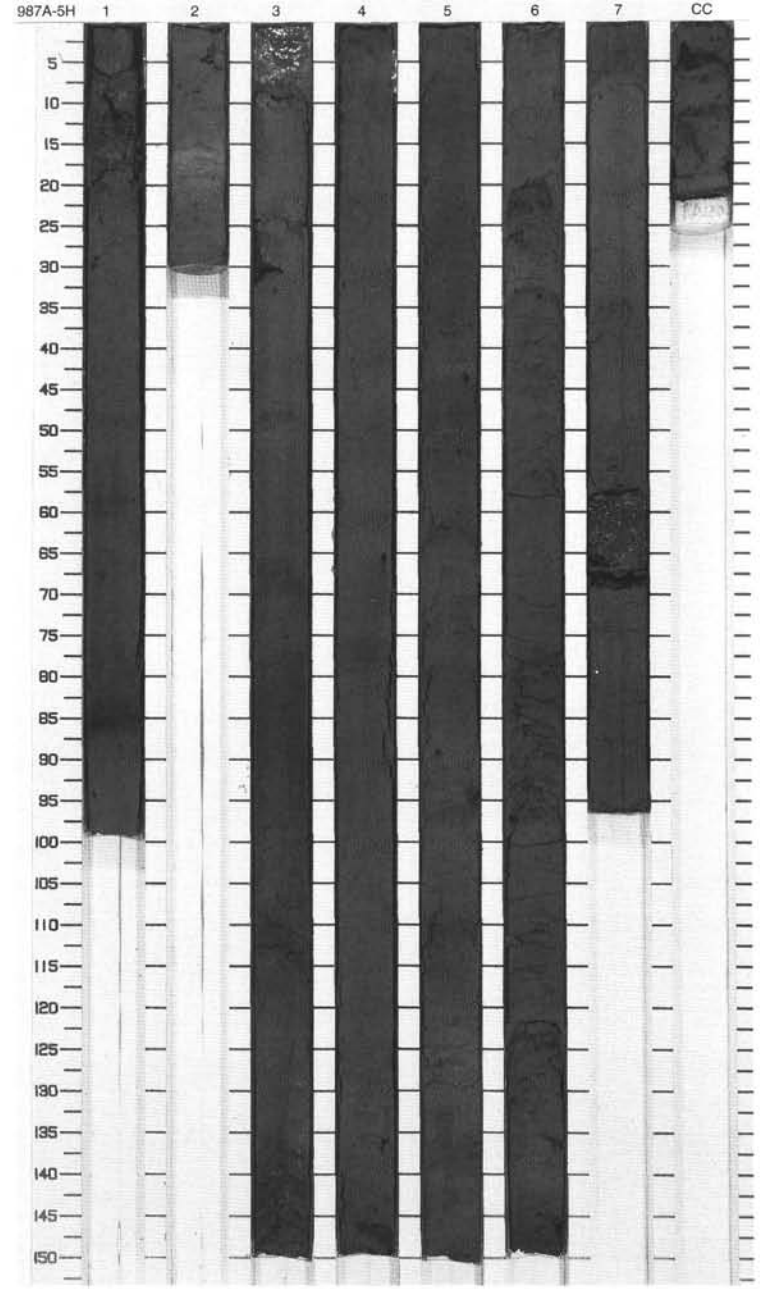
CORED 27.5 - 37.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1		[Symbol]	W			<p>SILTY CLAY</p> <p>General Description: This core contains very dark greenish gray (10Y 3/1) and very dark gray (5Y 4/1) SILTY CLAY. Sediment is soft, sticky, and homogeneous. Slight bioturbation and disseminated sulfides occur throughout. This core is slightly disturbed in several places due to gas presence. Section 1, 14—50 cm is very disturbed due to flow-in. A normal graded SANDY CLAY turbidite is present in Section 1, 50—65. Thin to thick sandy layers are present in Section 1, 130, 135, and 138 cm, in Section 3, 106 cm, in Section 6, 41—43, 82, and 102 cm and in Section 7, 34—40 cm.</p> <p>Dropstones: Section 3, 134—135: 1-cm-long white subrounded fossiliferous limestone; Section 3, 138—139 cm: 1.3-cm-long gray subangular granite; Section 3, 140—142 cm: 1.8-cm-long subangular quartzic syenite; Section 3, 23—24 cm: 1.2-cm-long dark fine-grained diorite; Section 5, 7—8 cm: 1.8-cm-long dark angular diorite.</p>
2	[Hatched pattern]	2		[Symbol]		S	5Y 4/1	
3	[Hatched pattern]	3		[Symbol]				
4	[Hatched pattern]	4		[Symbol]				
5	[Hatched pattern]	5	Pleistocene	[Symbol]		S		
6	[Hatched pattern]	6		[Symbol]		I		
7	[Hatched pattern]	7		[Symbol]		S	10Y 3/1	
CC	[Hatched pattern]	CC		[Symbol]		M		

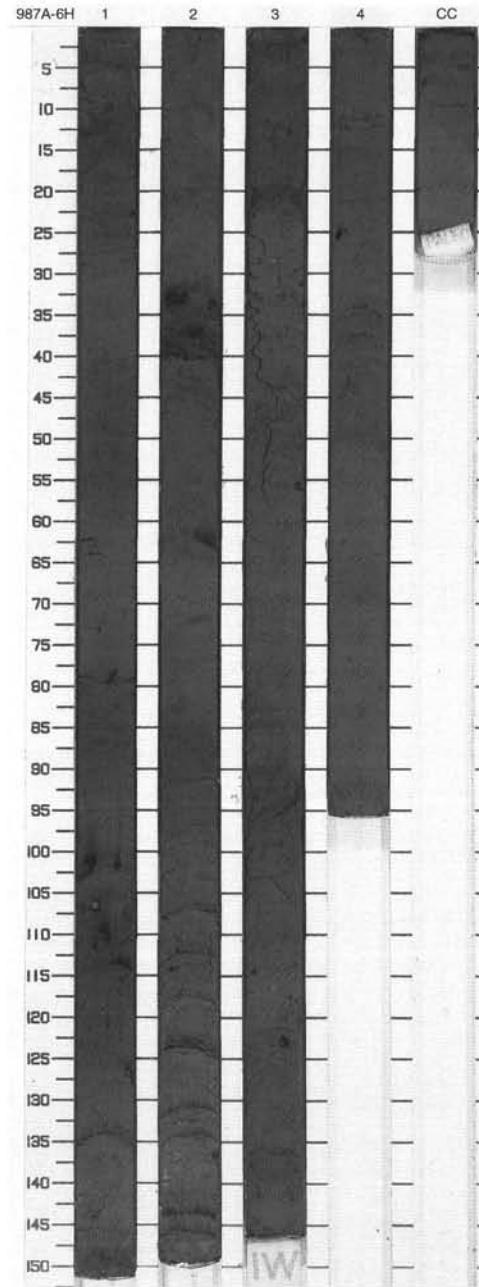


SITE 987 HOLE A CORE 5H CORED 37.0 - 46.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Symbol]	1	Pleistocene	[Symbol]	O O O	S	10Y 4/1	<p>SILTY CLAY</p> <p>General Description: This core contains very dark gray (5R 3/1), very dark greenish gray (5GY 3/1), dark gray (5Y 4/1, 5R 4/1), dark greenish gray (10Y 4/1) SILTY CLAY. SANDY CLAY intervals and layers are present throughout the entire core. Some of these intervals are clearly identified as turbidite (erosional lower contact and graded upper one) from Section 2, 20 cm to Section 3, 9 cm, in Section 3, 137-150 cm and in Section 6, 70-98 cm. Sandy layers are present in Section 1, 0-22 cm, in Section 3, 75-85 and 108-115 cm, in Section 4, 146-150 cm, in Section 6, 14-25, 42-44, 52-57 and 120-125 cm, and in Section 7, 57-70 cm. This core is slightly to moderately disturbed due to the presence of gas. The uppermost part of the core is soupy due to sediment grain-size and to coring disturbance. Color changes are gradual. A light INORGANIC CALCITE WITH CLAY color band is present in Section 2, 16-21 cm just above the turbiditic interval. Sulfide concretions are present in Section 4, 65 cm and in Section 5, 44 cm.</p>
1	[Symbol]	2		5Y 4/1				
2	[Symbol]	3		5R 3/1				
3	[Symbol]	4		5R 4/1				
4	[Symbol]	5		5GY 3/1				
6	[Symbol]	6		5Y 4/1				
7	[Symbol]	7		5R 4/1				
8	[Symbol]	CC				M		



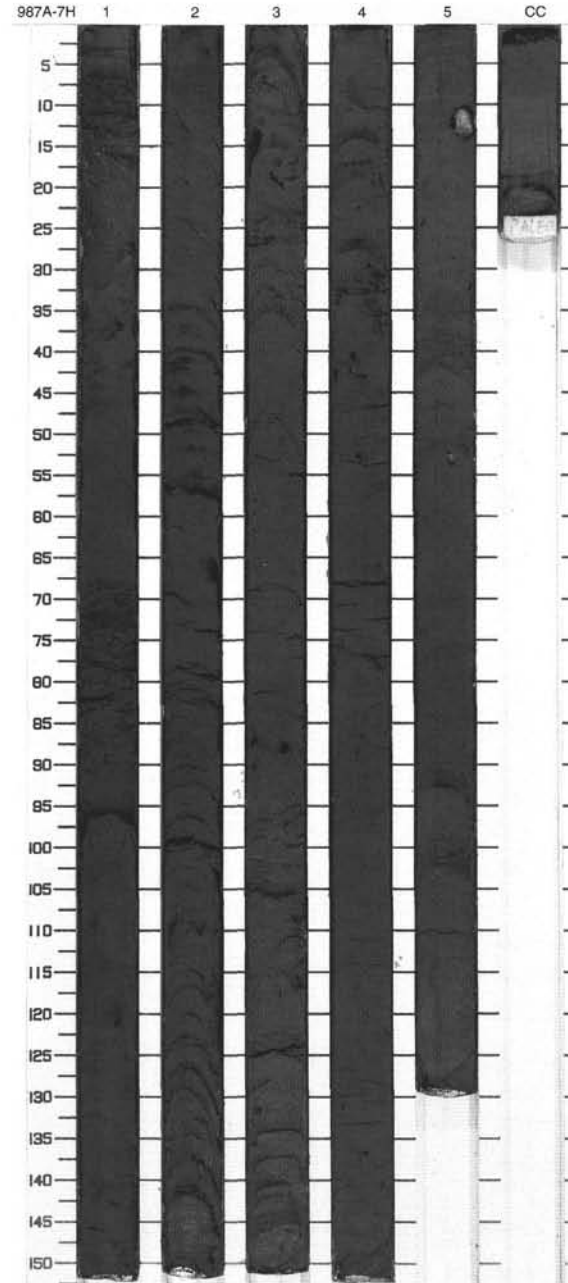
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Lithology pattern]	1	Pleistocene	[Structure symbols]	[Disturb symbols]	S	5Y 4/1	<p>SILTY CLAY</p> <p>General Description: This core contains dark gray (5Y 4/1, 5YR 4/1 and 5R 4/1) and dark greenish gray (5GY 4/1) SILTY CLAY. SANDY CLAY turbiditic intervals with a strong erosional lower contact and a graded upper one are present in Section 1, 100—114 cm, and in Section 2, 30—40 cm. Sandy layers are present in Section 1, 3 and 10—12 cm, in Section 3, 18—20, 40—55, 80—100 cm. Several very thin silty laminations are present in Section 4, 34—40 cm. The sediment is soft, homogeneous, and sticky. This core is moderately disturbed due to the presence of gas. Slight bioturbation occurs throughout the entire core. A 1.5-cm-long light gray angular siltstone is present in Section 1, 105—106 cm and a 1.3-cm-long mud clast is situated in Section 3, 119 cm.</p>
2	[Lithology pattern]	2					5YR 4/1	
3	[Lithology pattern]	3					5R 4/1	
4	[Lithology pattern]	4						
5	[Lithology pattern]	4					5Y 4/1	
	CC					M	5GY 4/1	



SITE 987 HOLE A CORE 7H

CORED 52.2 - 59.7 mbsf

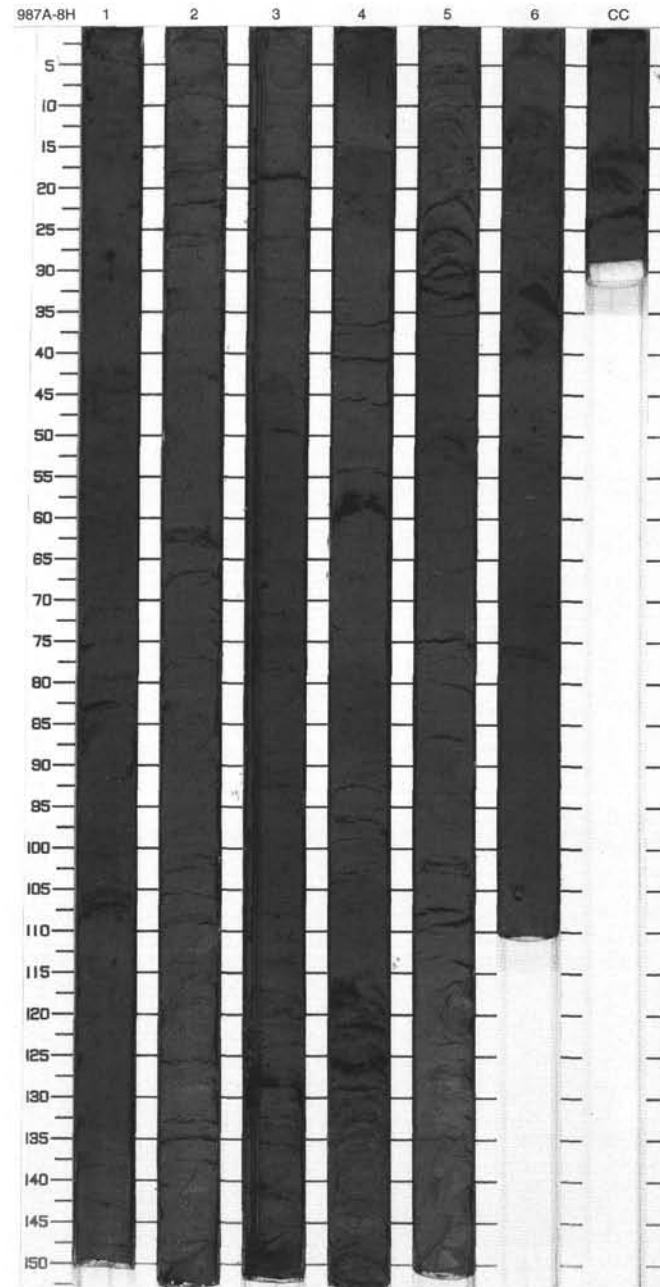
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1		↑ F	P		10YR 3/1	<p>SILTY CLAY</p> <p>General Description: This core contains dark greenish gray (5GY 4/1), very dark gray (10YR 3/1, 5YR 3/1), and very dark greenish gray (2.5G 3/1) SILTY CLAY. Sediment is moist and soft, with many SILTY layers and laminations in Section 2, 35–56 cm and from Section 2, 78 cm to Section 3, 35 cm. SANDY turbidite layers more than 5 cm thick are present in Section 1, 7–32 and 71–98 cm, in Section 3, 94–105 cm, and in Section 5, 36–42 cm. Pyrite is disseminated throughout and concentrated in some burrows. Higher concentrations of pyrite are especially common near turbidites and silt laminations. Gas expansion cracks are present.</p> <p>Dropstones: Section 5, 10 cm: 3.7-cm-long rounded and fractured pink quartzite; Section 5, 52 cm: 1-cm-long angular white quartzite.</p>
				↑ F			2.5G 3/1 To 5GY 4/1	
2		2			P	S		
3		3			P			
4		3	Pleistocene				5RP 4/1 To 5Y 4/1	
5		4		↑ F		S		
6		5		↑ F			2.5Y 4/1	
				↑ F			5YR 3/1	
		CC				M		



SITE 987 HOLE A CORE 8H

CORED 59.7 - 67.7 mbsf

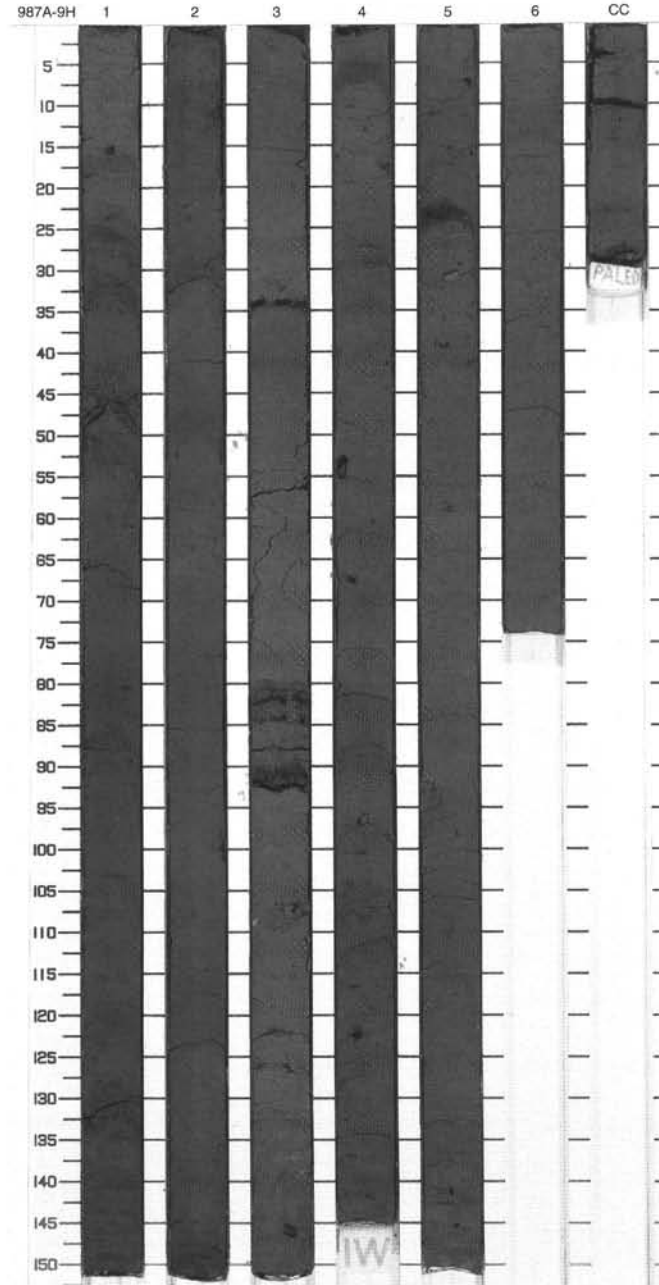
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Lithology symbol]	1		[Structure symbol]			5GY 4/1	<p>SILTY CLAY</p> <p>General Description: This core contains dark greenish gray (5GY 4/1 and 10Y 4/1) and dark gray (5YR 4/1) SILTY CLAY. Sediment is soft with common silt and sand laminations and beds. Turbidite layers >5 cm thick are present in Section 1, 82—105 cm and in Section 3, 119—129 cm. Silt laminations range in thickness from 1mm to 2 cm. Bioturbation is present throughout with mottles especially pronounced in the more greenish colored areas. These layers also have finer laminations. Black color bands are present at the base of both turbidites. Pyrite is disseminated throughout the core and is particularly abundant near laminations. Gas voids and cracks are common.</p> <p>Dropstones: Section 1, 98 cm: 1.3-cm-long black subangular shale; Section 6, 102 cm: 1.0-cm-long subangular gray-pink quartzite.</p>
2	[Lithology symbol]	2		[Structure symbol]			5YR 4/1	
3	[Lithology symbol]	3		[Structure symbol]			5GY 4/1	
4	[Lithology symbol]	4	Pleistocene	[Structure symbol]			5YR 4/1	
5	[Lithology symbol]	5		[Structure symbol]			5Y 4/1	
6	[Lithology symbol]	6		[Structure symbol]			5YR 4/1	
7	[Lithology symbol]	7		[Structure symbol]			10Y 4/1	
8	[Lithology symbol]	8		[Structure symbol]				
CC	[Lithology symbol]	CC		[Structure symbol]				



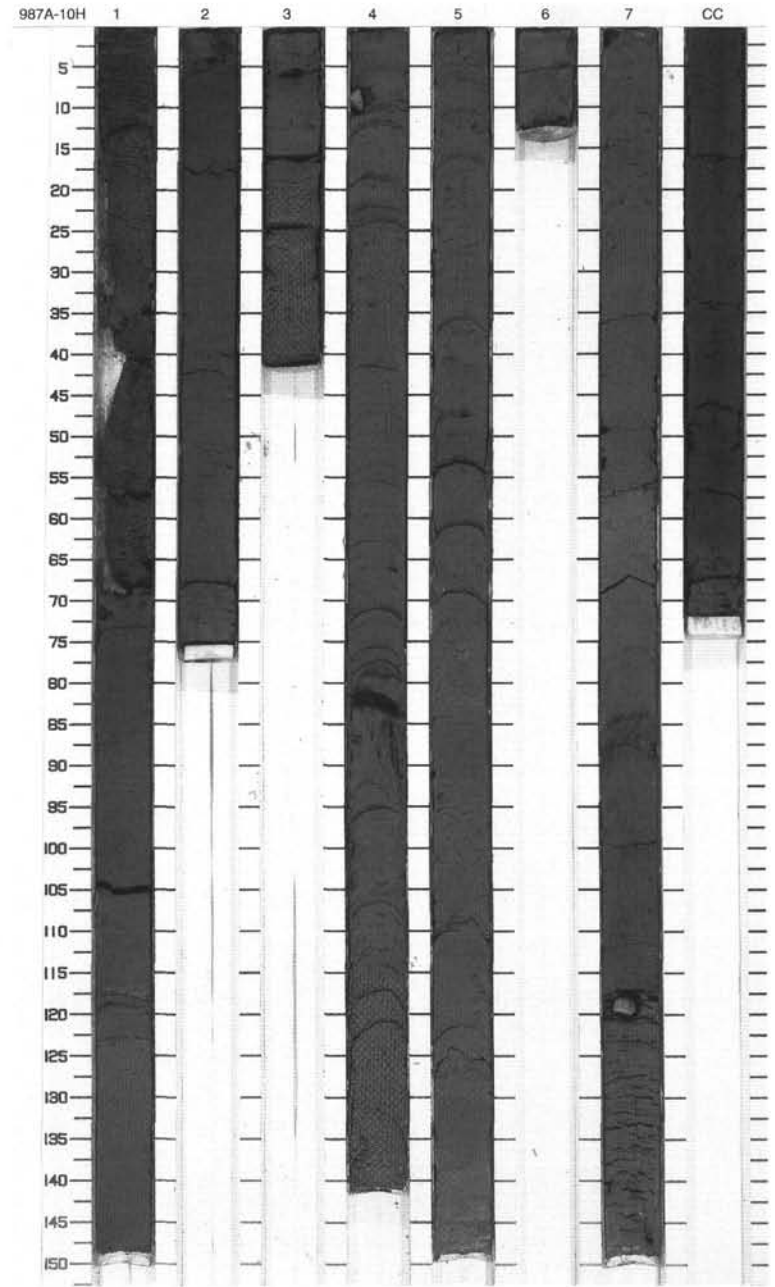
SITE 987 HOLE A CORE 9H

CORED 67.7 - 76.2 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	Pleistocene	[Wavy line]	[Vertical dashed line]	S S S I	2.5Y 3/1	<p>SILTY CLAY</p> <p>General Description: This core is dominated by soft, firm, very dark gray (2.5Y 3/1), dark gray (5Y 4/1), and dark greenish gray (5GY 4/1) SILTY CLAY. Minor intervals of CLAYEY SILT, which occur as thin beds and laminae, are present but not as common as in the two overlying cores. A single bed of SILTY SAND WITH CLAY is present in Section 3, 73—93 cm. It contains laminations and color banding, especially toward its base and shows some grading. A single ASH layer is present at Section 3, 32—33 cm, consisting of clear, unaltered ash with minor black coating. Gradual color transitions are present. Pyrite is disseminated throughout the core and some is concentrated in burrows. Silt is also concentrated in burrows forming pods. There are gas cracks throughout. Dropstones are present as follows: Section 3, 146 cm: 2.1-cm long, light gray, subangular, igneous crystalline; Section 4, 51 cm: 2.0-cm long, black, subangular, igneous crystalline; 95 cm: 1.5-cm black, subangular, siltstone; and Section 5, 30 cm: 2.0-cm, light brown, rounded, layered sandstone.</p>
							5GY 4/1	
2		2					5Y 4/1	
3		3					5GY 4/1	
4	[Dotted pattern]	4					5Y 4/1	
5		5					5GY 4/1	
6		6					5Y 4/1	
7		7					5Y 4/1	
8		8	5GY 4/1					
		CC				S M	5Y 4/1	



Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	Pleistocene	***		S	10Y 4/1 To 10YR 4/1	<p>SILTY CLAY and SILTY CLAY WITH INORGANIC CARBONATE</p> <p>General Description: This core contains dark gray (10YR 4/1) SILTY CLAY WITH INORGANIC CARBONATE and dark greenish gray (10Y 4/1) to very dark greenish gray (10Y 3/1) SILTY CLAY. The sediment is moderately firm throughout. A graded bed in the uppermost 50 cm of Section 1 is disturbed by coring and/or splitting. Thin beds within Sections 4 and 5 are disturbed so that they curve upward along the core liner. All color changes are gradational. Thin coarse layers occur throughout Section 4 and the upper half of Section 5. They have sharp basal contacts, gradational tops, and appear to be normally graded. Faint color bands (5–10-cm-thick) occur in the lower half of Section 5.</p> <p>Dropstones: Section 4, 10 cm, 3.0-cm gray siltstone; Section 7, 127 cm, 3.0-cm light quartzite.</p>
2	[Hatched pattern]	2		***				
3	[Hatched pattern]	3		***		S	10YR 4/1	
4	[Hatched pattern]	4		***				
5	[Hatched pattern]	5		***		S	10YR 4/1	
6	[Hatched pattern]	6		***				
7	[Hatched pattern]	7		***		M	10Y 4/1 To 10Y 3/1	
CC	[Hatched pattern]	CC						

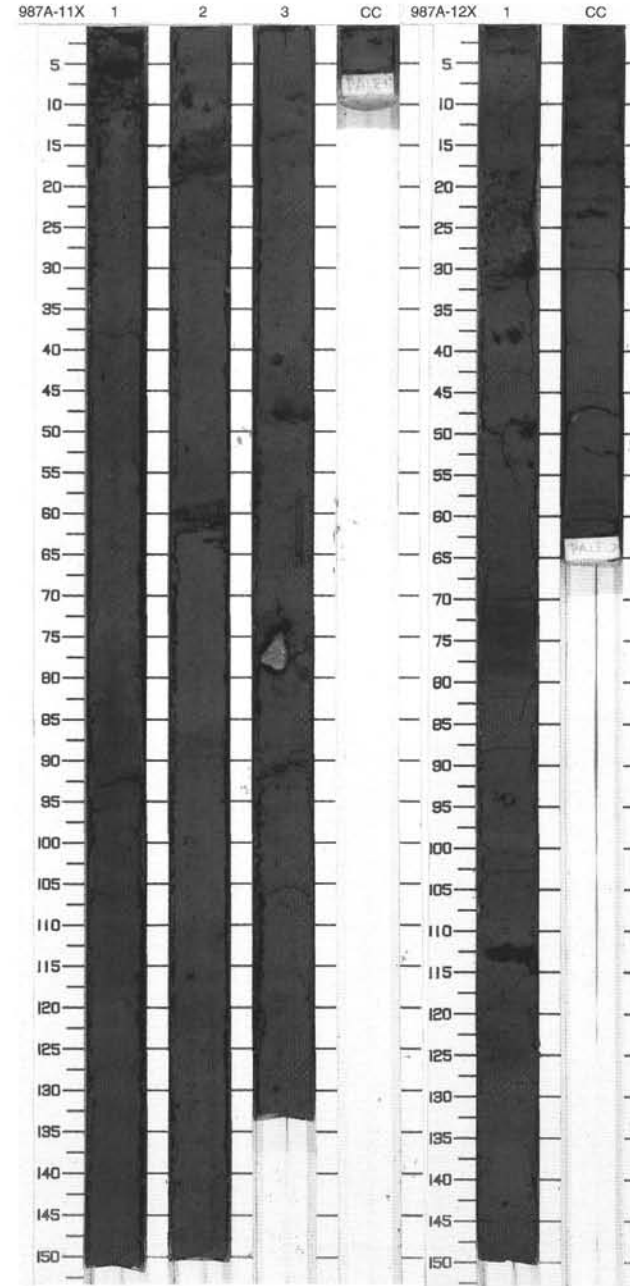


SITE 987 HOLE A CORE 11X CORED 83.7 - 93.3 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	Pleistocene	P		S	5RP 4/1	<p>CLAY WITH SILT and SILTY CLAY</p> <p>General Description: This core contains dark gray (5RP 4/1) CLAY WITH SILT alternating with very dark gray (5Y 3/1) SILTY CLAY. Gradational and complicated color changes occur throughout the core. Slight bioturbation occurs with mottled surface throughout. Section 1 (0—11 cm) is moderately disturbed. The sediment contains several black spots (disseminated pyrite) at several layers. Several coarse sediment layers are present at Section 2, 8—18 and 58—62 cm, Section 3, 88—92 cm.</p> <p>A 4.5-cm-long, subrounded igneous dropstone is present at Section 3, 75 cm.</p>
1		1		P		S	5Y 3/1	
2		2		P		S	5RP 4/1	
3		3		P		S	5Y 3/1	
4		3		P		M		

SITE 987 HOLE A CORE 12X CORED 93.3 - 103.0 mbsf

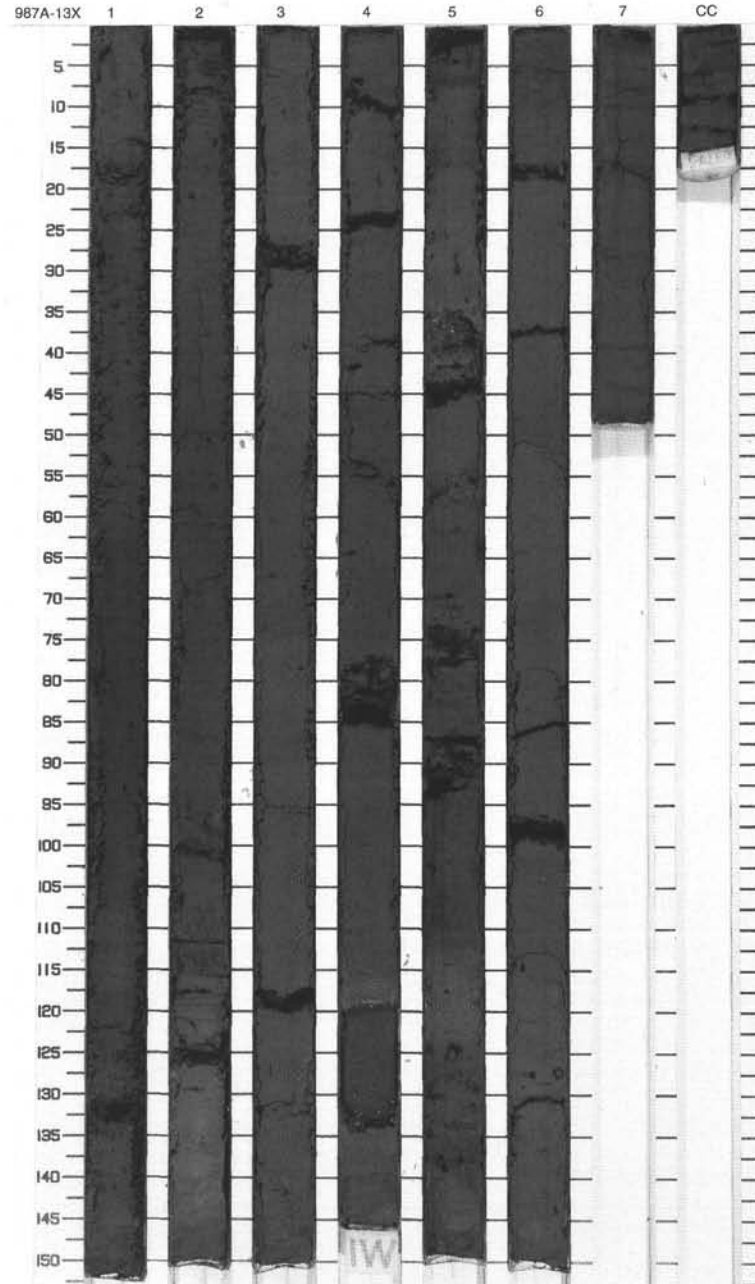
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	Pleistocene	P		S	5Y 4/1	<p>SILTY CLAY and CLAY WITH SILT</p> <p>General Description: This core contains dark gray to very dark gray (5Y 4/1 to 2.5Y 3/1) SILTY CLAY and very dark greenish gray (5GY 3/1 and 10Y 3/1) CLAY WITH SILT. Color changes are both gradational and sharp. Section 1, 68—98 cm, is characterized by distinct color bands with sharp contacts (5GY 3/1, 10YR 4/1, 5PB 3/0). Slight bioturbation and dark gray color mottles, probably disseminated pyrite, occur throughout most of the core. The sediment is slightly soupy in Section 1, 18—31 cm. The coarse fraction increases in Section 1, 68—79 cm, and in Core Catcher, 0—24 cm. A 1.5-cm-sized dropstone (black flat angular basalt) is found in Section 1, 37 cm. Black volcanic ASH layer with a sharp basal contact is present in Section 1, 112—114 cm.</p>
1		1		P		S	2.5Y 3/1	
1		1		A		S	5GY 3/1	
2		CC		P		S	10Y 3/1	



SITE 987 HOLE A CORE 13X

CORED 103.0 - 112.7 mbsf

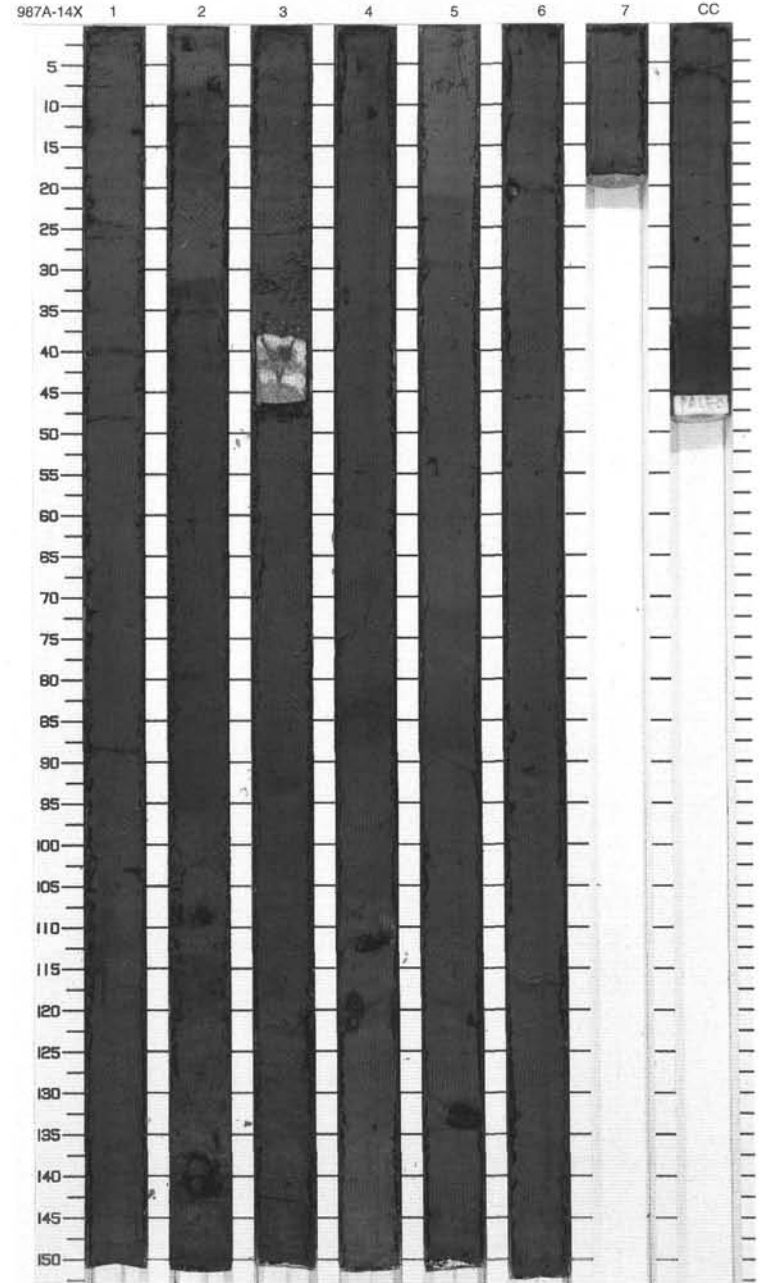
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	Pleistocene	P	-	S	5P 4/1	<p>SILTY CLAY</p> <p>General Description: This core contains dark gray (5Y 4/1, 5YR 4/1, and 5P 4/1) SILTY CLAY. The sediment contains black spots (probably disseminated pyrite) throughout the core. Color change is gradational with mottled surface throughout. Section 4, 120—135 cm is soupy. A coarse sediment layer is interbedded at Section 2, between 109 and 116 cm. The core contains several disturbed (or void) areas at Section 4, 78—86 cm, Section 5, 36—47 cm (highly), and 88-95 cm (moderately). Section 5, 127 cm contains 1.3-cm-long concretion.</p>
2	[Hatched pattern]	2		P	-	S		
3	[Hatched pattern]	3		P	-	S	5YR 4/1	
4	[Hatched pattern]	4		P	-	S		
5	[Hatched pattern]	5		P	-	S	5P 4/1	
6	[Hatched pattern]	6		P	○	I		
7	[Hatched pattern]	7		P	⊙	S	5Y 4/1	
8	[Hatched pattern]	6		P		S		
9	[Hatched pattern]	7		P		S		
	[Hatched pattern]	CC				M	5P 4/1	



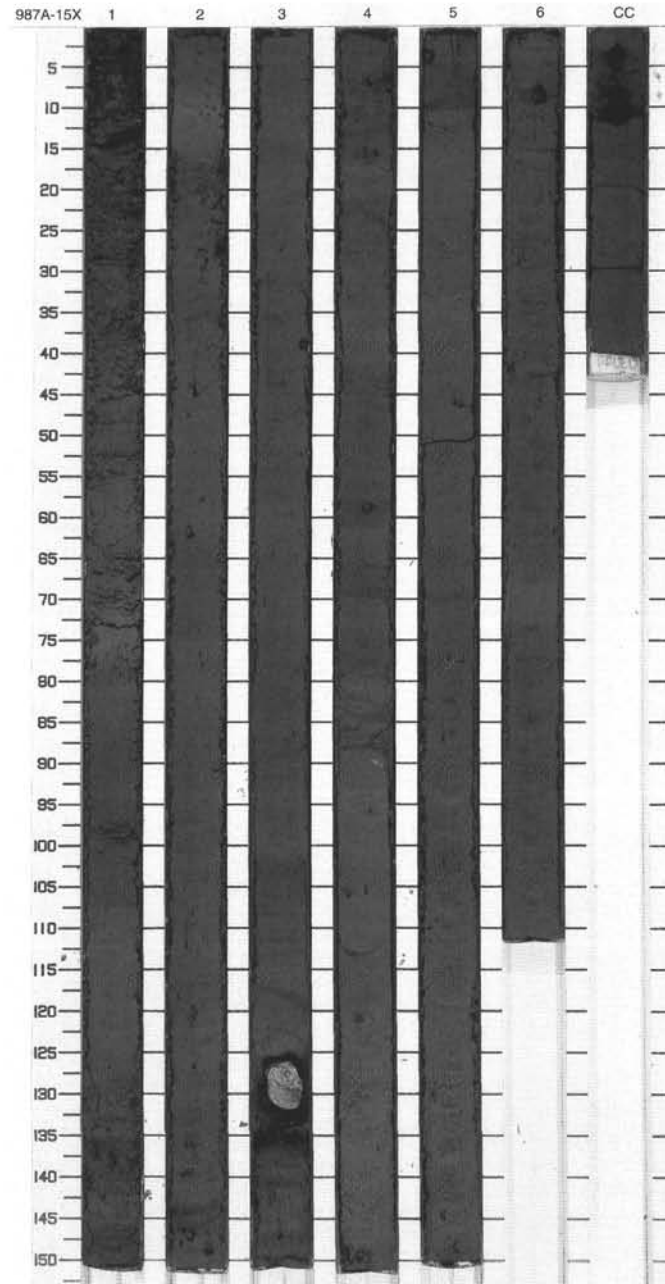
SITE 987 HOLE A CORE 14X

CORED 112.7 - 122.2 mbsf

Meter	Graphic Lith.	Section Age	Structure	Disturb	Sample	Color	Description
0-1	[Hatched pattern]	1	}		S	10YR 4/1	<p>SILTY CLAY and SILTY CLAY WITH CARBONATE</p> <p>General Description: This core contains dark gray (5YR 4/1) SILTY CLAY WITH CARBONATE and dark greenish gray (10Y 4/1, 5GY 4/1) SILTY CLAY. The sediment is soft and moist throughout, with slight bioturbation and deformation due to coring. All color changes are gradational. A single sharp contact sits at the base of a thin layer of coarse sediment in Section 7. Two pods of coarser material occur in Section 4. The upper one, 112—114 cm, contains clean silt and fine sand grains, and the lower one, 120—123 cm, contains fine sulfide-coated sand.</p> <p>Dropstones: Section 2, 7 cm: 3.7-cm-long basalt; Section 2, 109 cm: 2.2-cm-long sandstone; Section 2, 140 cm: 5.0-cm-long basalt; Section 4, 122 cm: 1.2-cm-long igneous pegmatite; Section 6, 20 cm: 2.7-cm-long gray quartzite.</p>
1-2	[Hatched pattern]	2	}		S		
2-3	[Hatched pattern]	3	}				
3-4	[Hatched pattern]	3	}				
4-5	[Hatched pattern]	4	}		S	10Y 4/1	
5-6	[Hatched pattern]	4	}				
6-7	[Hatched pattern]	5	}				
7-8	[Hatched pattern]	6	}		S		
8-9	[Hatched pattern]	6	}			5GY 4/1	
9-10	[Hatched pattern]	7	**		S		
10-11	[Hatched pattern]	CC	}		M		



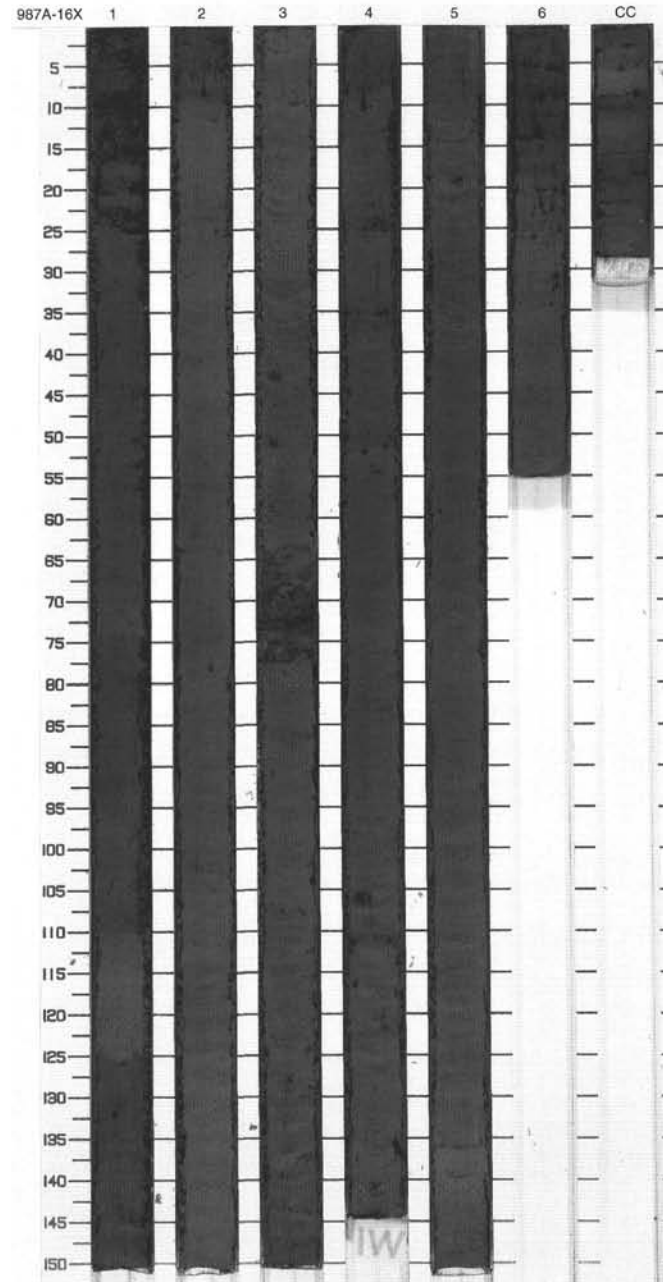
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	Pleistocene	}	--W	S	5Y 3/1	<p>SILTY CLAY</p> <p>General Description: This core contains dark gray to very dark greenish gray (10Y 4/1, 5Y 3/1, 5GY 3/1, 5G 3/1, 5G 4/1, and 10GY 3/2) SILTY CLAY. The sediment is soft and moist throughout, with slight bioturbation and moderate to high disturbance in Section 1, 0—78 cm, due to coring. All color changes are gradational. A single sharp contact is at the base of a thin SANDY layer in Section 4, 77—88 cm. Few dark greenish color bands occur especially in Sections 4 to 6. Disseminated pyrite and pyrite filled burrows (black mottles) are present throughout.</p> <p>Dropstones: Section 2, 7 cm: 1.1-cm-long angular granite; Section 2, 146 cm: 1.3-cm-long dark gray subangular basalt; Section 3, 127 cm: 5.8-cm-long subrounded granite; Section 4, 121 cm: 1.0-cm-long subangular basalt; Section 5, 3 cm: 1.2-cm-long subrounded gray metamorphic rock; Section 6, 8 cm: 1.1-cm-long subangular gray metamorphic rock.</p>
2	[Hatched pattern]	2					5Y 3/1 To 10Y 4/1	
3	[Hatched pattern]	3					5Y 3/1 To 5GY 3/1	
4	[Hatched pattern]	4					5G 3/1	
5	[Hatched pattern]	5					5Y 3/1 To 5Y 4/1	
6	[Hatched pattern]	6					5G 4/1 To 10GY 3/2	
7	[Hatched pattern]	CC						
8	[Hatched pattern]							
9	[Hatched pattern]							



SITE 987 HOLE A CORE 16X

CORED 131.8 - 141.4 mbsf

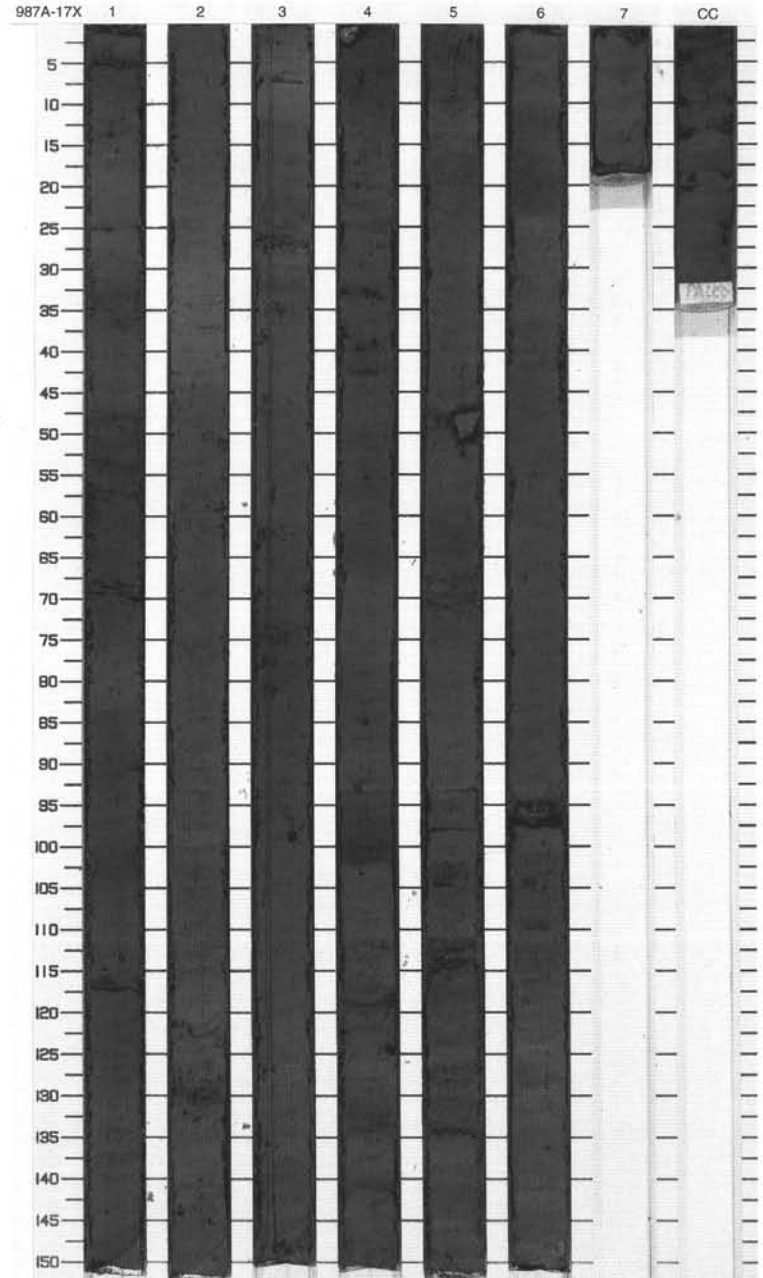
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	Pleistocene	P	I	S	5Y 3/1	<p>SILTY CLAY and CLAY WITH SILT</p> <p>General Description: This core contains very dark gray to very dark greenish gray (5Y 3/1, 10Y 4/1, and 5GY 4/1) SILTY CLAY and very dark greenish gray (5BP 3/1, 10G 4/1) CLAY WITH SILT. Color change is gradational and subtle throughout. Slight bioturbation occurs throughout the core. Small size black spots (probably disseminated pyrite) are scattered throughout the core. Section 1, 0—24 cm is slightly disturbed. Section 3, 66—75 cm contains an unidentified concretion. The core contains small size (<1.0 cm) stones in Section 2, 9 cm, and Section 4, 136 cm.</p>
2	[Hatched pattern]	2		P			10Y 4/1 To 5GY 4/1	
3	[Dotted pattern]	3		P		S	5PB 3/1 To 10G 4/1	
4	[Dotted pattern]	4		P				
5	[Dotted pattern]	4		P				
6	[Dotted pattern]	5		P				
7	[Dotted pattern]	6	P					
8	[Dotted pattern]	6	P					
		CC				M		



SITE 987 HOLE A CORE 17X

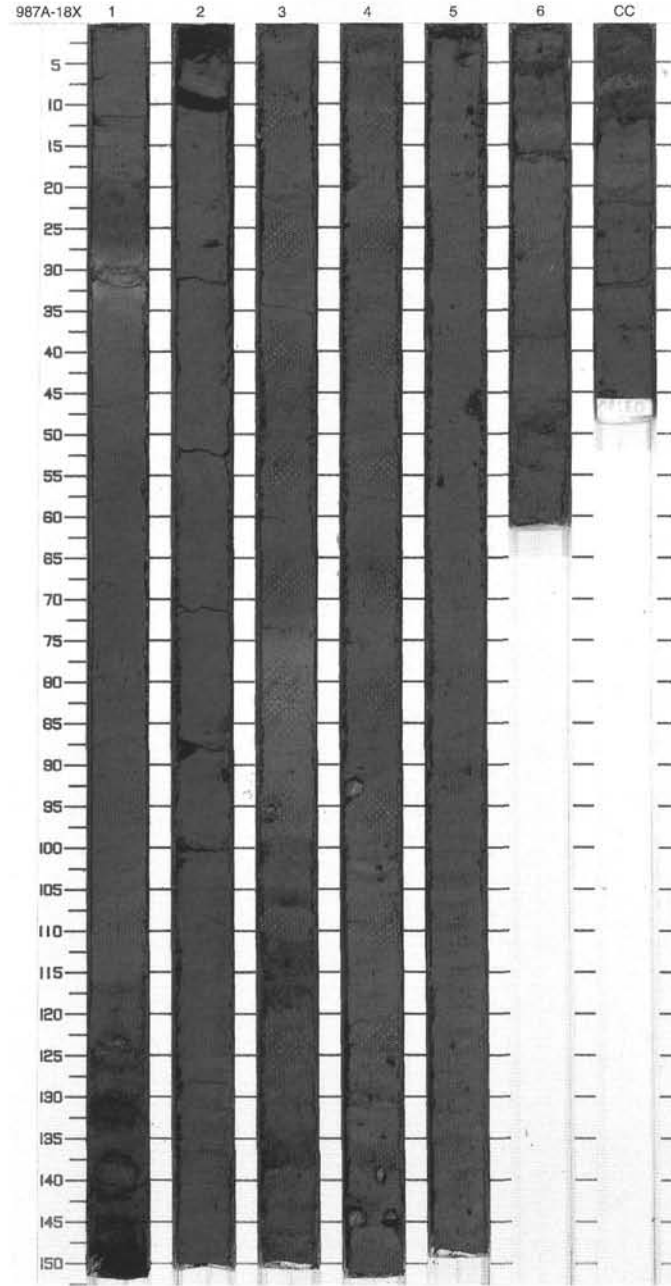
CORED 141.4 - 151.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Dotted pattern]	1	Pleistocene	} P		S	5Y 4/1	<p>CLAY WITH SILT and SILTY CLAY</p> <p>General Description: This core contains dark gray (5Y 4/1) CLAY WITH SILT and dark greenish gray and dark gray (5GY 4/1, 5Y 4/1) SILTY CLAY. Color changes are gradational throughout the core. Many black spots (disseminated pyrite) are scattered, and slight bioturbation occurs throughout the core. The core contains an unknown black concretion (<4.0 cm) in Section 5, 45—46 cm. A <2.5 cm subrounded igneous rock is present at the top of the Section 4.</p>
2	[Dotted pattern]	2		} P				
3	[Dotted pattern]	3		} P				
4	[Horizontal line pattern]	4		} P	S	S	10G 4/1	
5	[Horizontal line pattern]	5		} P				
6	[Horizontal line pattern]	6		} P	S	S	5GY 3/1 To 5Y 4/1	
7	[Horizontal line pattern]	7		} P				
9	[Horizontal line pattern]	9	} P	M				
	[Horizontal line pattern]	CC						



SITE 987 HOLE A CORE 18X CORED 151.0 - 160.7 mbsf

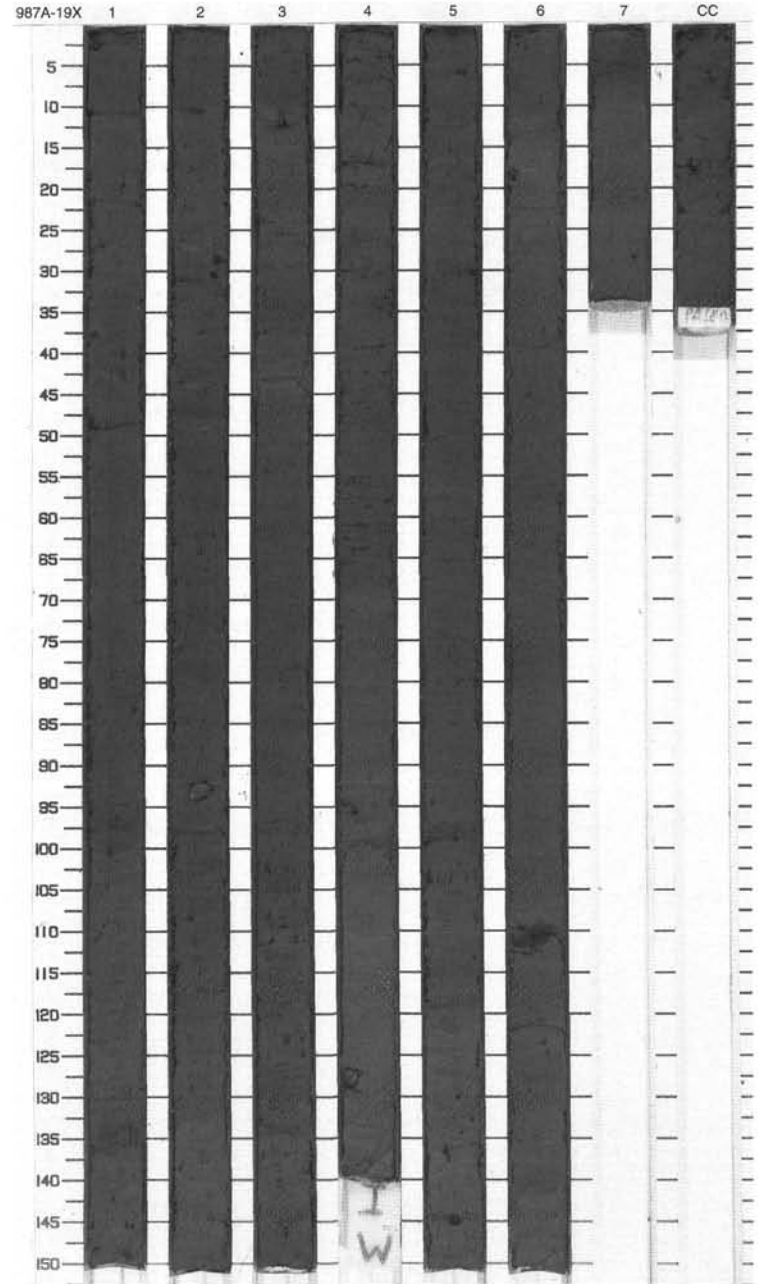
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched]	1	Pleistocene	~ } S		S	5Y 4/1	<p>SILTY CLAY</p> <p>General Description: This core contains dark gray to very dark gray, and dark greenish gray to very dark greenish gray (5Y 4/1 to 5Y 3/1, and 10Y 4/1 to 10Y 3/1 and 5BG 4/1) SILTY CLAY. In addition, layers of dark gray (5Y 4/1) CLAYEY INORGANIC CALCITE SILT WITH QUARTZ (Section 1, 29—33 cm, Section 3, 75—93 cm) and black CLAYEY PYRITE SILT (from Section 1, 149 cm to Section 2, 3 cm) are present. The sediment is soft and moist, with slight bioturbation and black color mottles (disseminated pyrite) throughout. All color changes are gradational. Thin silty to sandy layers occur in Section 3, 110—120 and 135-150 cm, and from Section 6, 46 cm to CC, 11 cm. Few firm dark greenish color bands are present in Section 1, 116—149 cm. A pyrite concretion occurs in Section 5, 46 cm.</p> <p>Dropstones: Section 3, 94 cm: 1.2-cm-long flat brown sedimentary rock; Section 4, 92 cm: 3.8-cm-long yellowish subrounded mudstone; Section 4, 139 cm: 1.9-cm-long subangular igneous rock; Section 4, 144 cm: 2.2-cm-long subrounded gray igneous rock; Section 4, 144 cm: 1.5-cm-long subangular gray sedimentary rock.</p>
1	[Hatched]	1		~ } P			5BG 4/1	
2	[Hatched]	2		~ } A*			5Y 3/1	
3	[Hatched]	3		~ } S			5Y 4/1	
4	[Hatched]	3		~ } P			5Y 3/1 To 10Y 4/1	
5	[Hatched]	4		~ } S			10Y 4/1	
6	[Hatched]	5		~ } P			5BG 4/1	
7	[Hatched]	6		~ } P			10Y 3/1	
8	[Hatched]	CC	~ } M	5BG 4/1				



SITE 987 HOLE A CORE 19X

CORED 160.7 -170.3 mbsf

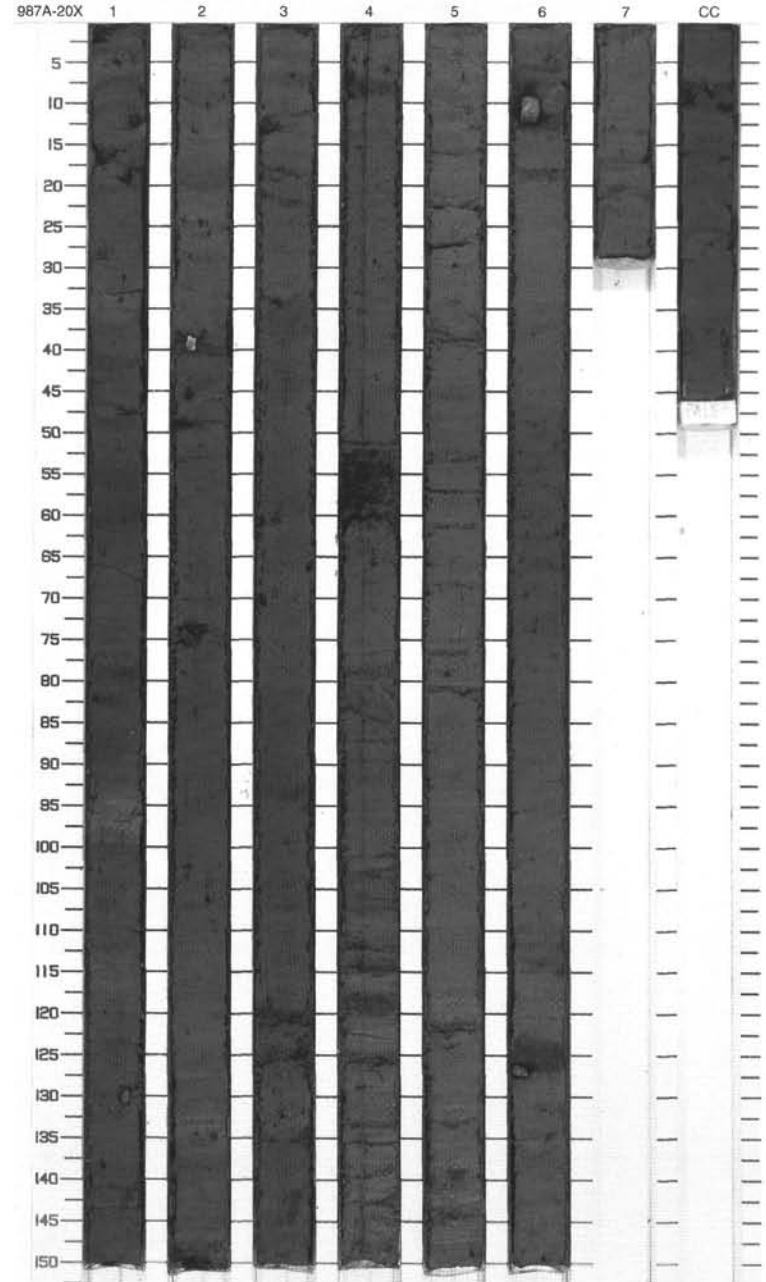
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	Pleistocene	} S	I	S	5GY 3/1	<p>SILTY CLAY and CLAY WITH SILT</p> <p>General Description: This core contains dark greenish gray (5GY 4/1) CLAY WITH SILT and very dark greenish gray (5GY 3/1) SILTY CLAY. The sediment is soft to moderately firm and homogeneous throughout. Slight bioturbation is evident in faint mottling and discrete burrows. Many of the burrows are filled with silt and fine sand. Larger silt pods also occur, and there are thin coarser layers in each section. Sulfides are disseminated throughout and occur as a minor component within the dominant lithology.</p> <p>Dropstones: Section 2, 94 cm: 3.6-cm-long dark gray siltstone; Section 4, 134 cm: 2.4-cm-long dark gray siltstone.</p>
2	[Hatched pattern]	2		} S	I	S		
3	[Hatched pattern]	3		} S	I	S		
4	[Hatched pattern]	3		} S	I	S	5GY 4/1	
5	[Hatched pattern]	4		} S	I	S		
6	[Hatched pattern]	4		} S	I	S	5GY 5/1	
7	[Hatched pattern]	5		} S	I	S		
8	[Hatched pattern]	6		} S	I	S		
9	[Hatched pattern]	7		} S	I	S	M	
	[Hatched pattern]	CC						



SITE 987 HOLE A CORE 20X

CORED 170.3 - 179.9 mbsf

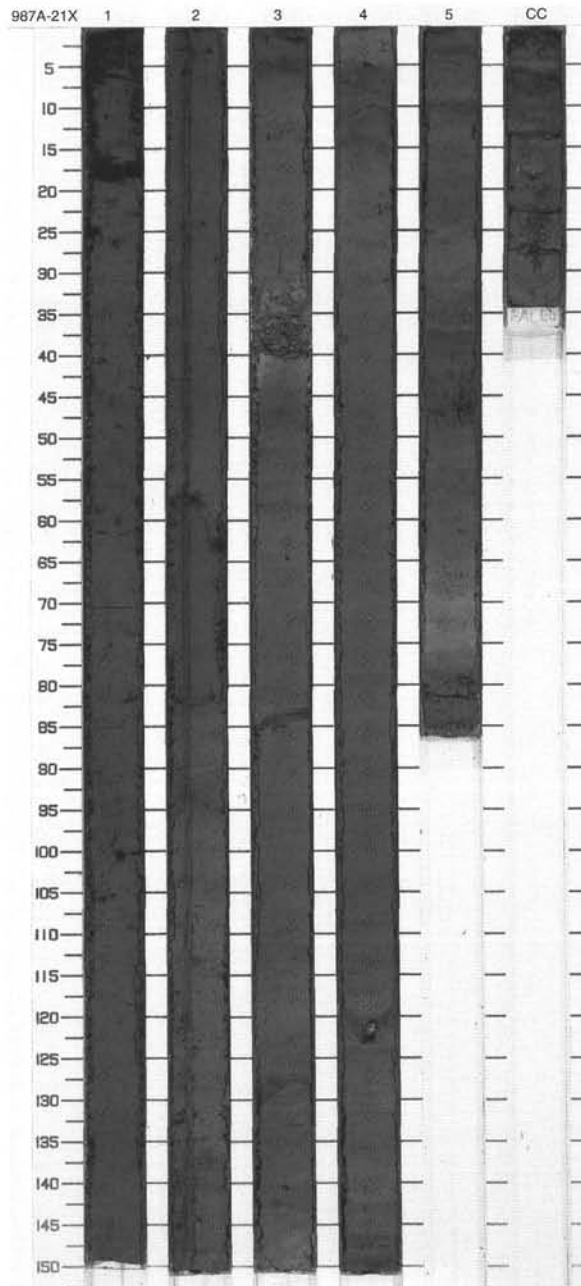
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1		[Symbol]		S	5GY 3/1	<p>SILTY CLAY</p> <p>General Description: This core contains very dark greenish gray (5GY 3/1), dark gray (5Y 4/1 and 5YR 4/1) and grayish brown (10YR 5/2) SILTY CLAY. The grayish brown (10YR 5/2) intervals contain several thin silty laminations with 5% inorganic calcite. Two grayish brown silty clay layers are situated in Section 1, 30—35 and 100—118 cm. Sediment is firm and homogeneous. This core is slightly disturbed (faintly biscuited). An INORGANIC CALCITE CLAY layer is present in Section 1, 95—100 cm. Sandy layers are situated in Section 3, 120—125 cm, in Section 4, 52—60 cm, and in Section 6, 123—130 cm. Sand-filled burrows are present in Section 6, 16 cm and in Section 7, 23 cm.</p> <p>Dropstones: Section 1, 130—131 cm: 1.5-cm-long subangular gray sedimentary rock; Section 2, 38—40 cm: 1.8-cm-long light gray angular quartzite; Section 2, 74—76 cm: 2.2-cm-long angular black igneous rock; Section 6, 9—11 cm: 3-cm-long gray meta-quartzite.</p>
2	[Hatched pattern]	2		[Symbol]		S		
3	[Hatched pattern]	3		[Symbol]		S	5Y 4/1 To 5GY 3/1	
4	[Hatched pattern]	4		[Symbol]		S		
5	[Hatched pattern]	5		[Symbol]		S	10YR 5/2	
6	[Hatched pattern]	6		[Symbol]		S	5GY 3/1	
7	[Hatched pattern]	7		[Symbol]		S	10YR 5/2	
8	[Hatched pattern]	CC		[Symbol]		M	5YR 4/1	



SITE 987 HOLE A CORE 21X

CORED 179.9 - 189.6 mbsf

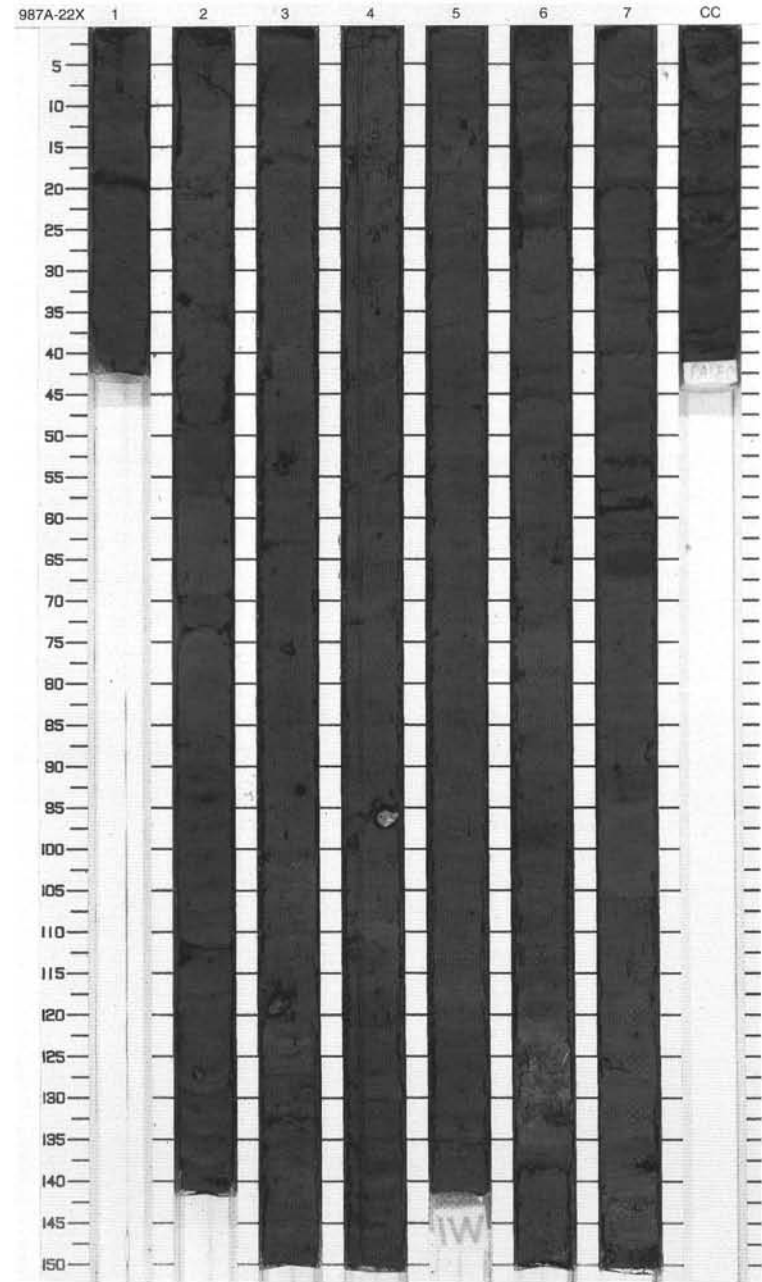
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	Pleistocene	[Wavy line]	○	S	5YR 4/1	<p>SILTY CLAY</p> <p>General Description: This core contains dark greenish gray (5GY 4/1), grayish brown (10YR 5/2), and dark gray (5YR 4/1) SILTY CLAY. Sediment is firm and homogeneous. Top of the core is soupy due to coring disturbance. A gray (5Y 5/1) INORGANIC CALCITE CLAY layer is situated in Section 3, 32—42 cm. Grayish brown inorganic calcite-rich layers are present from Section 3, 144 cm to Section 4, 5 cm, and in Section 5, 62—76 cm. Sediment is slightly disturbed from Section 1 to Section 3, 42 cm. The rest of the core is moderately bioturbated with tan and brown color mottling. Sandy layers are present in Section 5, 40—48 cm and from Section 5, 79 cm to Core Catcher, 7 cm.</p>
2	[Hatched pattern]	2		[Wavy line]	S	10YR 5/2		
3	[Hatched pattern]	3		[Wavy line]				
4	[Hatched pattern]	4		[Wavy line]				
5	[Hatched pattern]	5		[Wavy line]				
6	[Hatched pattern]	6		[Wavy line]			5GY 4/1	
7	[Hatched pattern]	7		[Wavy line]				
CC		CC		[Wavy line]		M		



SITE 987 HOLE A CORE 22X

CORED 189.6 - 199.3 mbsf

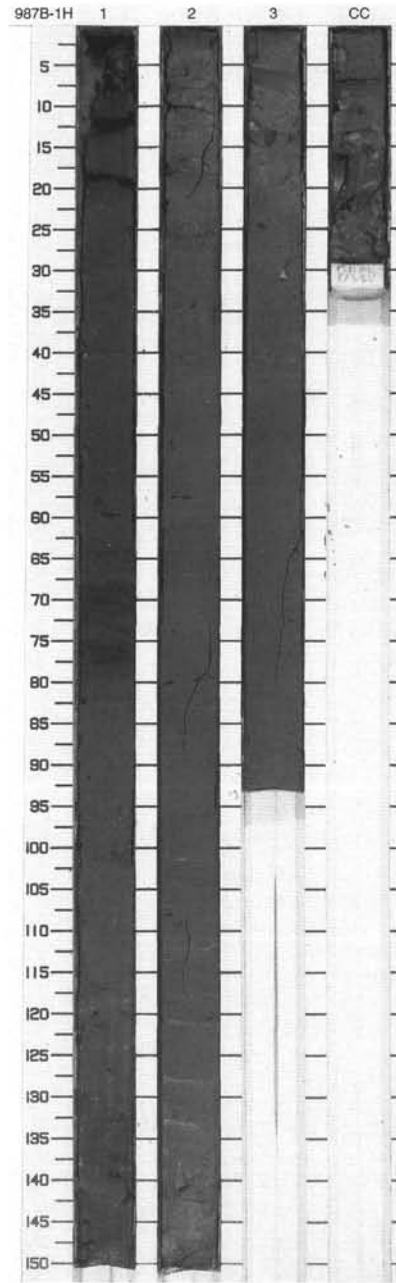
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1		~				SILTY CLAY
2	[Hatched pattern]	2		~				<p>General Description: This core contains very dark greenish gray (5GY 3/1) and dark greenish gray (5GY 4/1) SILTY CLAY. A gray (5Y 5/1) INORGANIC CALCITE CLAY layer is present in Section 6, 122—135 cm. A grayish brown (10YR 5/2) inorganic calcite-rich layer is present in Section 3, 57—70 cm. Thin sandy layers are present in Section 6, 45 and 140 cm.</p> <p>Dropstones: Section 2, 127—128 cm: 1.7-cm-long subangular granite; Section 3, 92—93 cm: 1.4-cm-long subangular dark diorite; Section 3, 117—120 cm: 3-cm-long highly weathered granite; Section 4, 94—96 cm: 3.2-cm-long dark limestone.</p>
3	[Hatched pattern]	3		~		S	5GY 4/1 To 5GY 3/1	
4	[Hatched pattern]	4		~				
5	[Hatched pattern]	5	Pleistocene	~				
6	[Hatched pattern]	5		~		S		
7	[Hatched pattern]	6		~		I		
8	[Hatched pattern]	6		~			5Y 5/1	
9	[Hatched pattern]	7		~			5GY 4/1	
CC	[Hatched pattern]			~				(P)
						M		



SITE 987 HOLE B CORE 1H

CORED 0.0 - 4.2 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	Pleistocene	[Wavy lines]	○	S	5YR 4/2	<p>SILTY CLAY</p> <p>General Description: This core contains dark gray (5YR 4/1) and dark reddish gray (2.5YR 4/1 and 5YR 4/2) SILTY CLAY. The sediment is soft, moist, and very sticky. The uppermost and lowermost parts of the core are soupy due to coring disturbance. Thin dark coring bands are present in Section 1, 64—80 cm. Faint yellowish color bands occur in Sections 2 and 3.</p>
2	[Hatched pattern]	2		[Wavy lines]	S	2.5YR 4/1 To 5YR 4/1		
3	[Hatched pattern]	3		[Wavy lines]				
4	[Hatched pattern]	CC		[Wavy lines]	M			



SITE 987 HOLE B CORE 2H

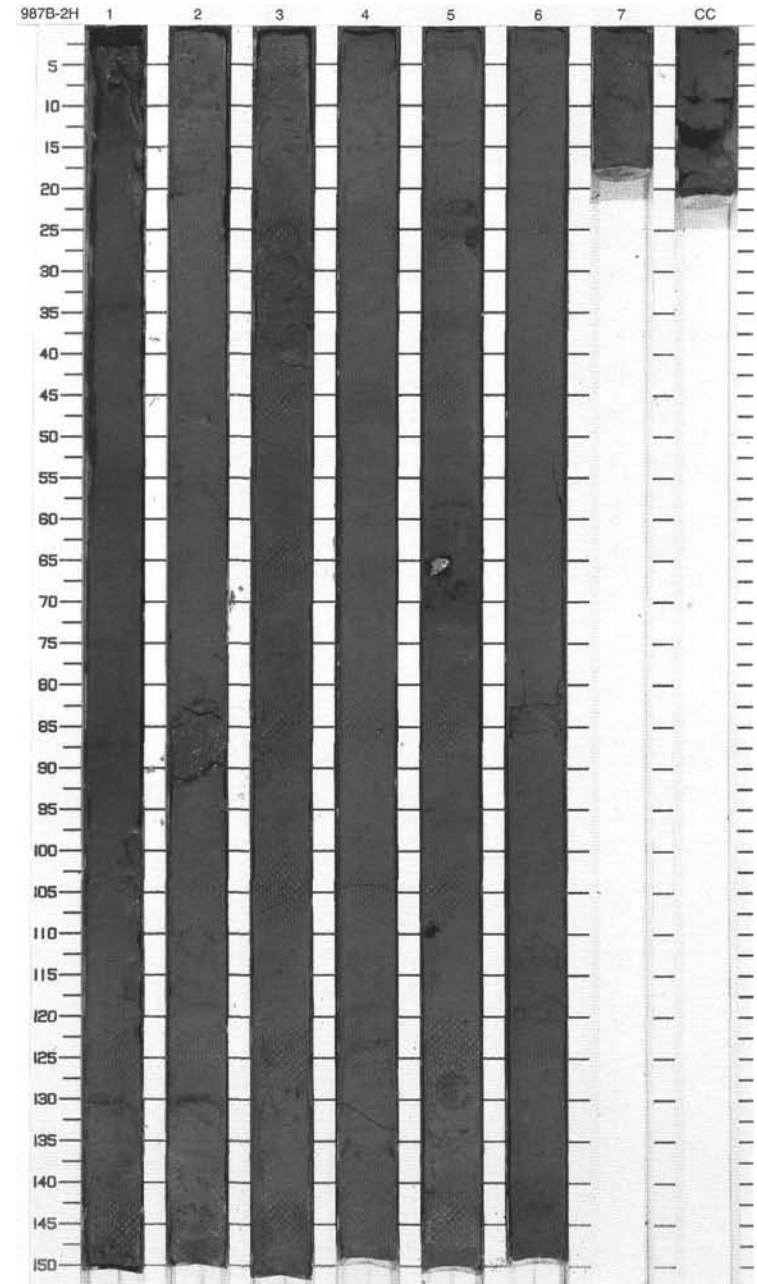
CORED 4.2 - 13.7 mbsf

Meter	Graphic Lith.	Section Age	Structure	Disturb	Sample	Color	Description
1		1	} S	○		10Y 4/1	SILTY CLAY and CLAYEY SILT General Description: This core contains dark gray to dark greenish gray (5Y 4/1 to 10Y 4/1) SILTY CLAY and dark gray (10YR 4/1) CLAYEY SILT. The sediment is soft and moist throughout. Slight, gradational color changes as well as thin black and yellow-green color bands also occur throughout. Bioturbation is slight, with minor color mottling and discrete black (sulfide-rich) burrows. Disseminated sulfides also occur in black bands in most of the sections. A soupy, silty to sandy interval (turbidite) is present in Section 2, 80–90 cm. One dropstone (3.2-cm-sized light gray subangular quartzite) occurs in Section 5, 66 cm.
2		2	} S		S	10YR 4/1	
3		3	} S	○		5RP 4/2	
4		3	} S			10Y 4/1	
5		4	} P		S	5Y 4/1	
6		4	} S			10Y 4/1	
7		5	} S			10Y 4/1	
8		6	} S			10YR 4/1	
9		7	} S		M	5YR 4/1	
		CC					

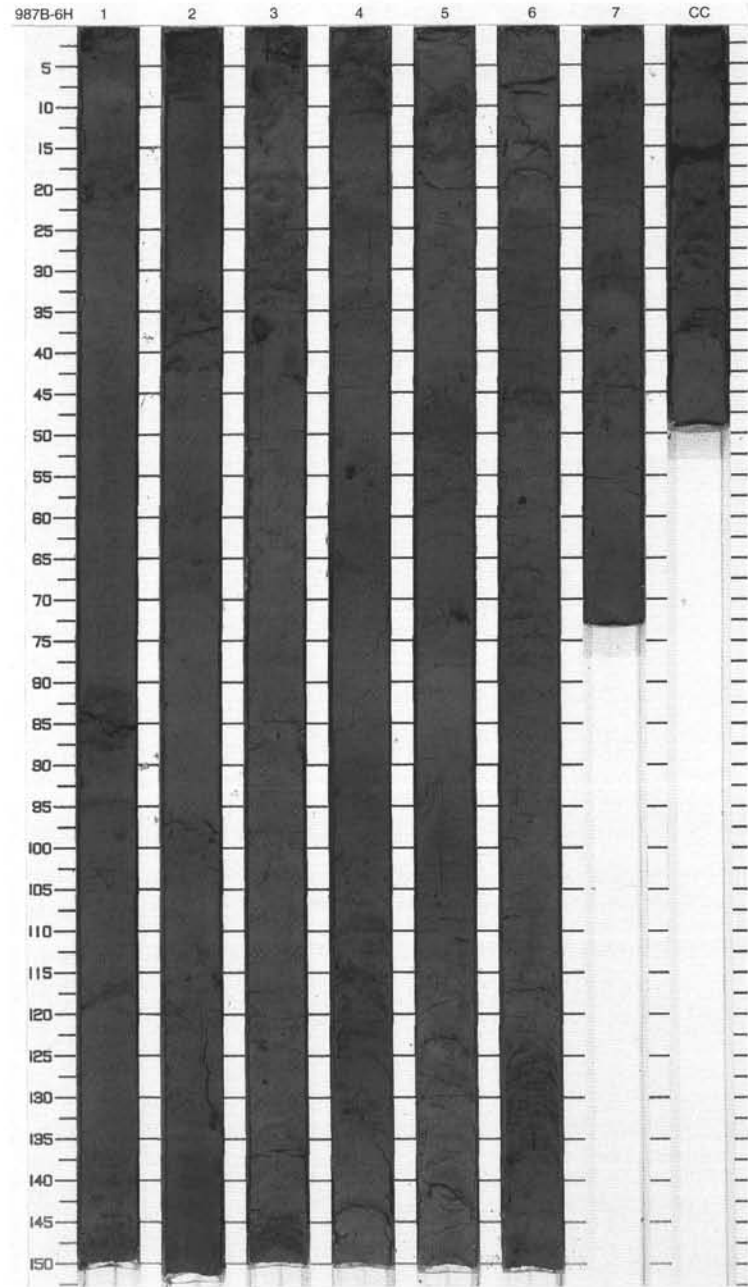
987B-03H Entire 0.01 m of core to paleontology

987B-04H NO RECOVERY

987B-05H NO RECOVERY



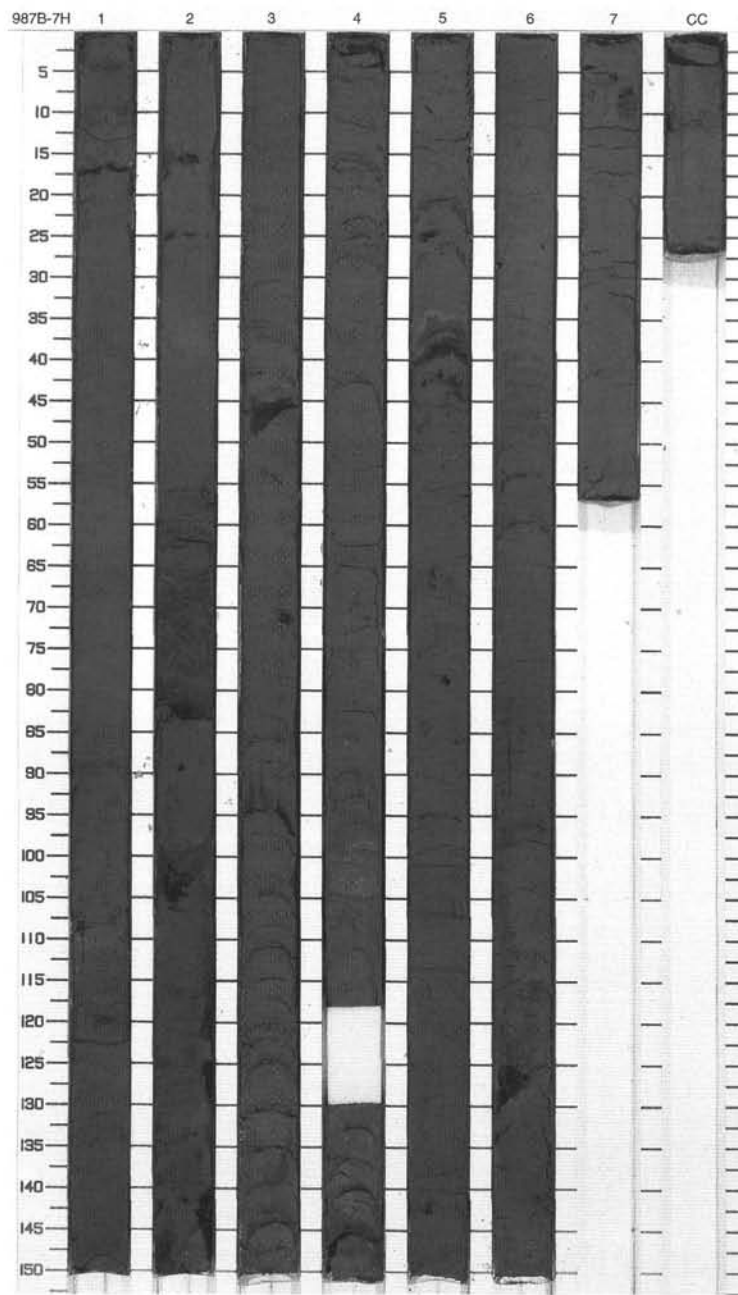
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched lithological pattern]	1	Pleistocene	(P) S			5Y 3/1 To 10Y 3/1	<p>SILTY CLAY</p> <p>General Description: This core contains dark greenish gray (5Y 4/1, 5GY 4/1) to very dark greenish gray (10Y 3/1, 5GY 3/1) SILTY CLAY. The sediment is soft and moist throughout. Subtle, gradational color changes occur on decimeter scales throughout the core. Thin to medium green and brown color bands also occur throughout. While only one major lithology occurs, minor sediment components vary, with volcanic ASH present in the darker intervals, and SILTY CLAY WITH INORGANIC CALCITE occurring in some slightly lighter intervals. Coarse beds (2-10 cm) occur in all sections. They appear to have scoured bases, grading within, and gradational tops. Pyrite concretions occur in Sections 1 and 2. Sulfides are disseminated as splotches throughout.</p>
2		2		S				
3		3		(P) S	S			
4		4		S				
5		5		S				
6		6		S				
7		7		S				
8		8		S				
9		9		S				
10		CC			M			



SITE 987 HOLE B CORE 7H

CORED 51.7 - 61.2 mbsf

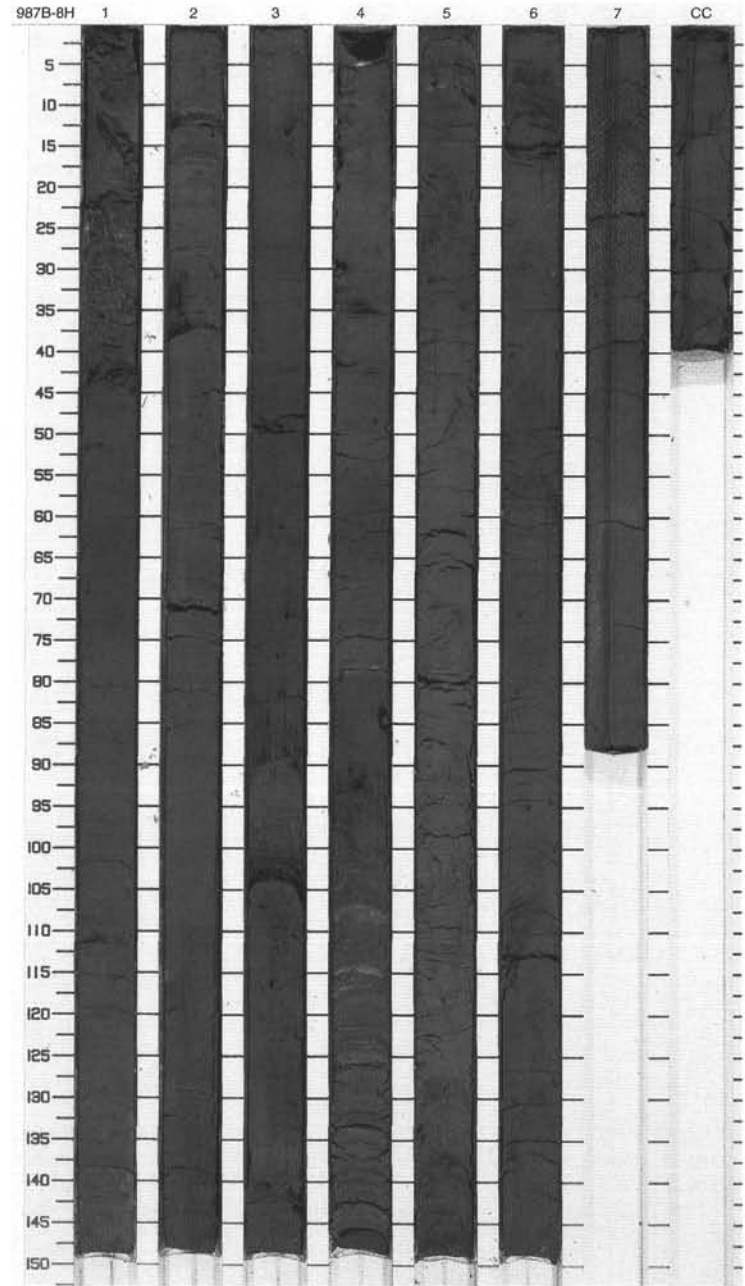
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Pattern]	1	Pleistocene	[Symbol]	S	S	2.5Y 4/1 To 5Y 4/1	SILTY CLAY General Description: This core contains dark gray (2.4Y 4/1, 5Y 4/1) and dark greenish gray (5GY 4/1) SILTY CLAY, with graded beds of SANDY SILT WITH CLAY. There are minor changes in grain size throughout the core. Sand layers are present as follows: Section 1, 0—4 cm, 9—17, and 122—150 cm; Section 2, 56—83 cm; Section 4, 96—105 cm; and Section 5, 34—43 cm. Several of the graded beds have sand laminations at the top. Also common are interbedded SILTY CLAY and SILT WITH CLAY. The laminations are <1-cm-thick, and most are a few mm thick. Pyrite or other sulfides are common throughout the core, forming mottles and diffuse color bands; a few hard concretions are also present. Bioturbation is present as poorly defined traces and rare silt-filled burrows.
2	[Pattern]	2		[Symbol]				
3	[Pattern]	3		[Symbol]				
4	[Pattern]	3		[Symbol]				
5	[Pattern]	4		[Symbol]				
6	[Pattern]	5		[Symbol]				
7	[Pattern]	5		[Symbol]				
8	[Pattern]	6	[Symbol]	S				
9	[Pattern]	7	[Symbol]					
CC						M		



SITE 987 HOLE B CORE 8H

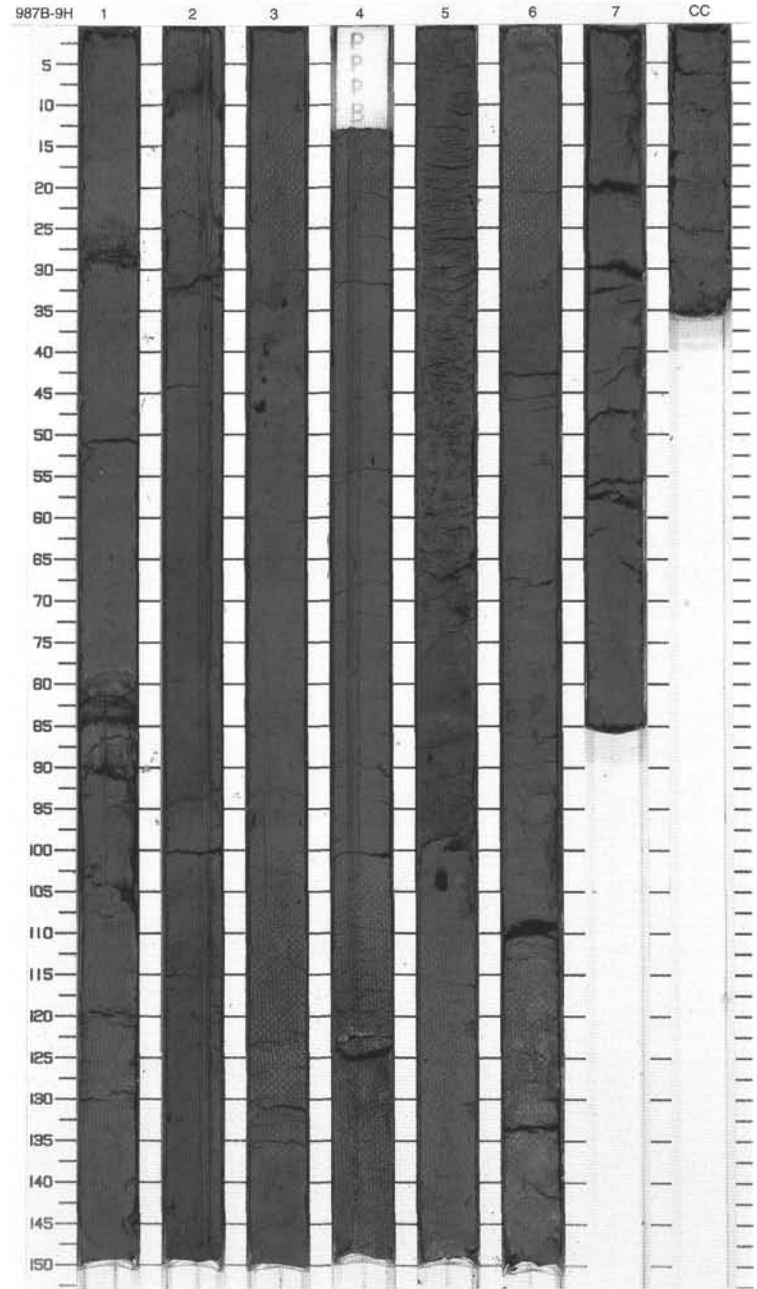
CORED 61.2 - 70.7 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	Pleistocene	[Wavy line]	O	S	5YR 4/1	<p>SILTY CLAY</p> <p>General Description: This core contains very dark gray to dark gray (5YR 4/1, 5Y 4/1, and 10Y 4/1) SILTY CLAY. Color changes are a very complicated alternation between two sets of colors throughout the core. These changes have a gradational to sharp contact at several layers. The sediment contains many thin coarse sediment layers (clayey silt) which are present in Section 2, 4, and 5. One of these coarse sediment layers shows a fining-upward sequence (a probable turbidite) at Section 3, 90—104 cm. A thin black color band is present at Section 2, 34—35 cm. Slight bioturbation occurs throughout with mottled surfaces at several layers. Disseminated pyrite is present in all sections. Section 3, 47 cm and Section 4, 82 cm contain unknown concretions. The top of Section 3 and middle portion of Section 4 are slightly disturbed.</p>
2	[Hatched pattern]	2		[Wavy line]	P		5Y 4/1	
3	[Hatched pattern]	3		[Wavy line]	P		5YR 4/1	
4	[Hatched pattern]	4		[Wavy line]	P		5Y 4/1	
5	[Hatched pattern]	4		[Wavy line]	P		5YR 4/1	
6	[Hatched pattern]	5		[Wavy line]	P		5Y 4/1	
7	[Hatched pattern]	6		[Wavy line]	P		5YR 4/1 To 10YR 4/1	
8	[Hatched pattern]	7		[Wavy line]	P		5Y 4/1 To 10Y 4/1	
9	[Hatched pattern]	7		[Wavy line]	P		5Y 4/1 To 10Y 4/1	
10	[Hatched pattern]	CC					M	

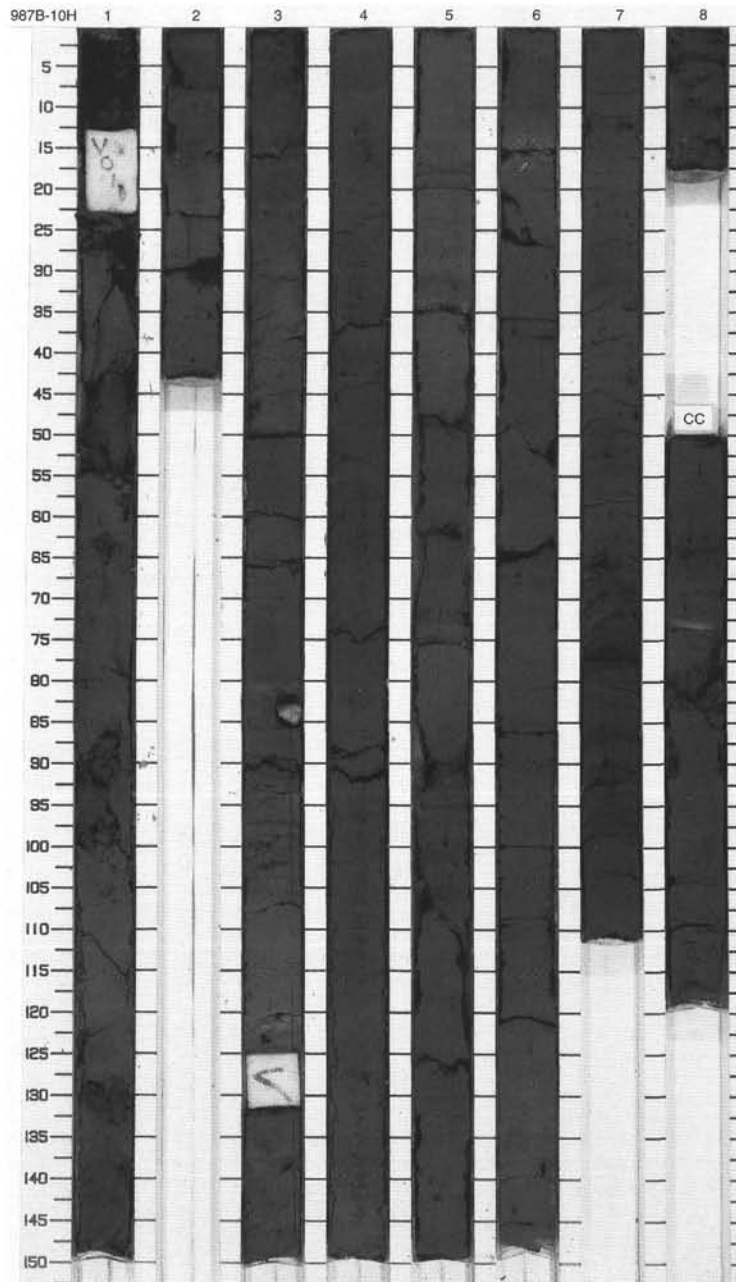


SITE 987 HOLE B CORE 9H CORED 70.7 - 80.2 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1		***			5GY 4/1	SILTY CLAY General Description: This core contains dark gray (5Y 4/1), dark greenish gray (10Y 4/1, 5GY 4/1), and dark reddish gray (10R 4/1) SILTY CLAY. Intervals of dark gray (10YR 4/1) SILTY SAND WITH CLAY are present in Section 1, 77-90, from Section 4, 112 cm to Section 5, 100 cm, and from Section 5, 147 cm to Section 6, 1 cm. These layers contain laminations and few color bands and show some grading. All color changes are gradational. Pyrite is disseminated throughout, some of which is concentrated in burrows. Silt and/or sand is also concentrated as pods in burrows. Gaps due to gas expansion occur in Sections 5 to 7.
2		2		} P			5Y 4/1	
3		3		} P			10Y 4/1	
4		3		} P			5Y 4/1	
5		4	Pleistocene	} P			5GY 4/1	
6		5		} S			10YR 4/1	
7		5		} S			5GY 4/1	
8		6		} P				
9		7		} S			10R 4/1	
10		CC					M	



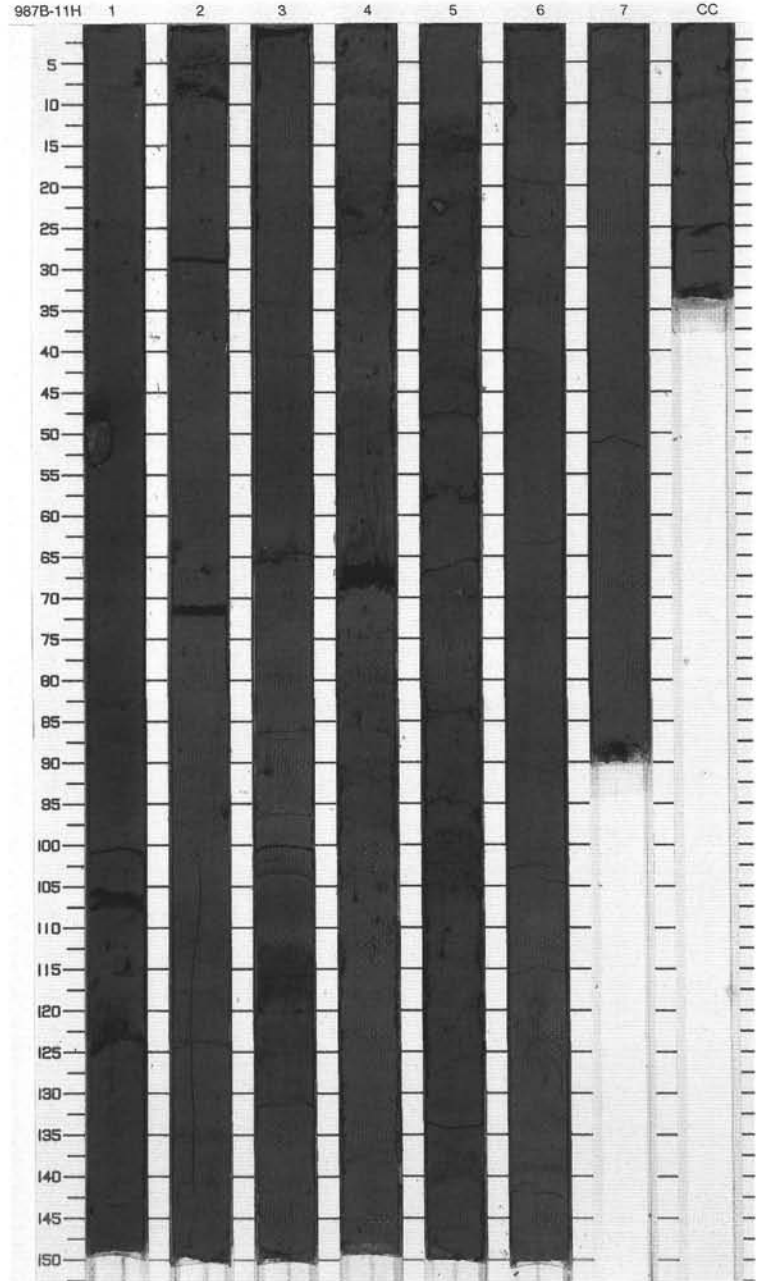
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Dotted pattern]	1	Pleistocene	}	-	S	10YR 4/1	CLAY WITH SILT and SILT CLAY General Description: This core contains dark gray (10YR 4/1) CLAY WITH SILT and dark gray to very dark gray (10YR 4/1, 5Y 4/1, 5GB 4/0, and 5B 3/0) SILT CLAY. The sediment is slightly to moderately disturbed at Section 1, 5, and 6. A coarse sediment layer (CLAYEY SILT) is present in Section 7, 62—80 cm, which has a sharp basal contact and a gradational upper contact. Small layers of coarse sediment are present at Section 5, 37—38 and 92—98 cm, and Section 8, 25—32 cm. Slight bioturbation occurs intermittently and disseminated pyrite is present throughout the core. A 3.3-cm-long sedimentary rock is present in Section 3, 80 cm.
2	[Horizontal dashed pattern]	2					}	
3	[Horizontal dashed pattern]	3		}	P	S		
4	[Horizontal dashed pattern]	4					}	
5	[Horizontal dashed pattern]	5		}	P	S		
6	[Horizontal dashed pattern]	6					}	
7	[Horizontal dashed pattern]	7		}	P	S		
8	[Horizontal dashed pattern]	8					}	
9	[Horizontal dashed pattern]	9		}	P	S		
CC	[Horizontal dashed pattern]	CC						



SITE 987 HOLE B CORE 11H

CORED 89.7 - 99.2 mbsf

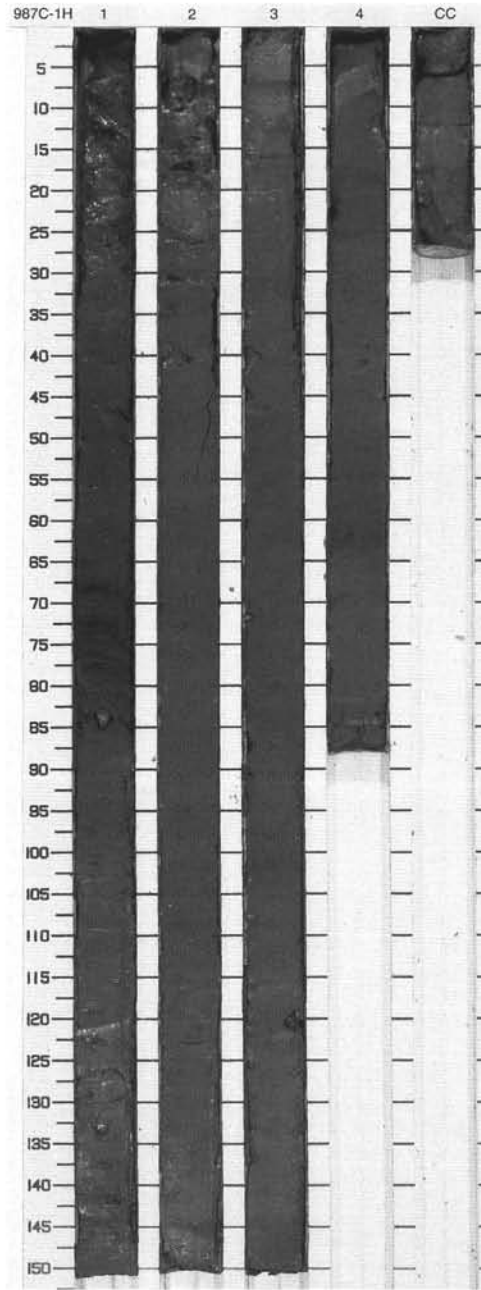
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1		◇		S		<p>SILTY CLAY and CLAY WITH SILT</p> <p>General Description: This core contains dark greenish gray (5GY 4/1) to very dark greenish gray (5GY 3/1) SILTY CLAY and CLAY WITH SILT. INORGANIC CALCITE occurs as a variable minor component, and Section 3 contains SILTY CLAY WITH INORGANIC CALCITE. Slight bioturbation and sulfide splotches occur throughout. Subtle fine to medium green and gray color bands occur in Sections 2—5. The color bands and all other color changes are gradational. The lower half of Section 7 and the CC are disturbed by coring.</p> <p>Dropstones: Section 1, 50 cm: 5.5-cm-long pyritized igneous rock; Section 5, 22 cm: 2.5-cm-long coal.</p>
2	[Hatched pattern]	2		◇		S	5GY 3/1	
3	[Hatched pattern]	3		◇		S	10YR 4/1	
4	[Dotted pattern]	4	Pleistocene	◇		S		
5	[Dotted pattern]	5		◇		S	5GY 3/1 To 5Y 4/1	
6	[Dotted pattern]	6		◇		S		
7	[Dotted pattern]	7		◇		S		
8	[Dotted pattern]	CC		◇		M		



SITE 987 HOLE C CORE 1H

CORED 0.0 - 5.6 mbsf

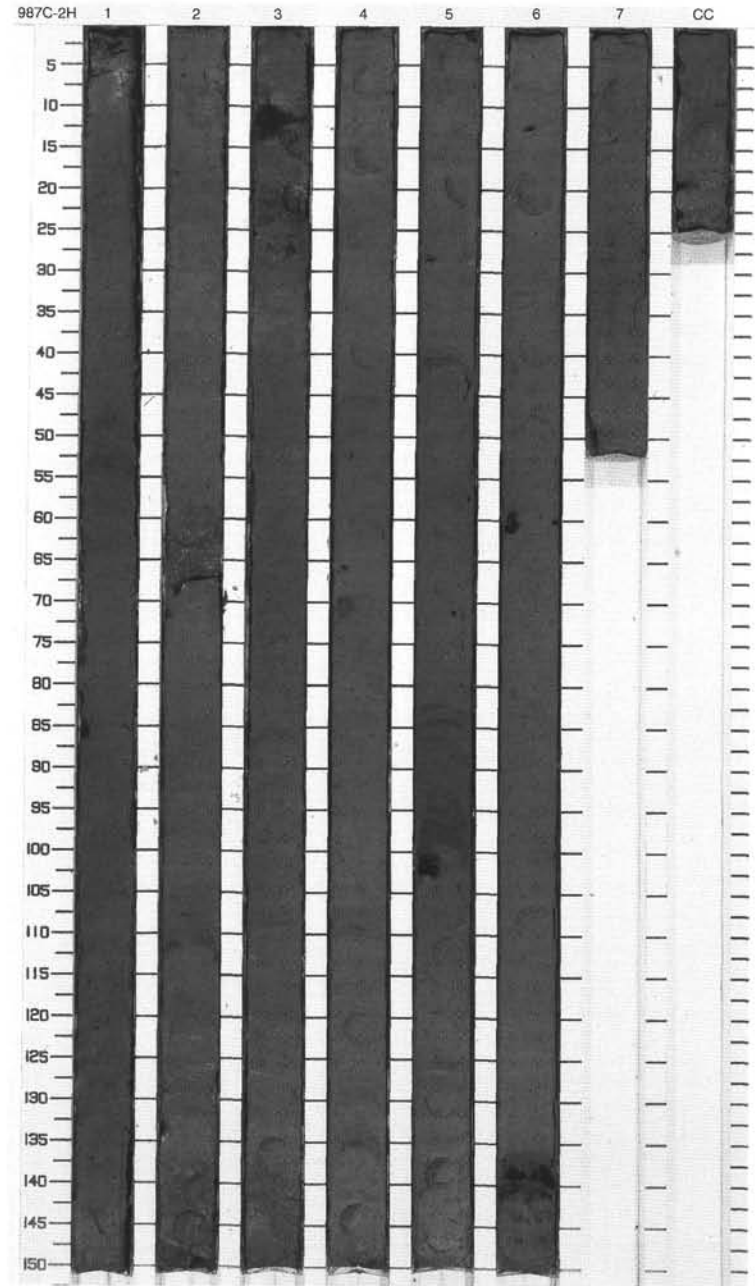
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	Pleistocene	[Symbol]	○○○	S	5YR 4/2	<p>SILTY CLAY</p> <p>General Description: This core contains dark gray (5Y 4/1, 2.5Y 4/1, and 5YR 4/1), brown (7.5YR 4/2), and dark reddish gray (5YR 4/2) SILTY CLAY. The sediment is soft, moist, and sticky. Thin dark color bands occur in Section 1, 70—80 cm. Slight bioturbation occurs throughout the entire core, especially in Section 2, 60—120 cm. Faint yellowish color bands are present in Sections 2—4.</p> <p>Dropstones: Section 1, 84 cm: 2.3-cm-long subangular granite; Section 3, 119-121 cm: 1.8-cm-long dark subangular granite.</p>
2	[Hatched pattern]	2		7.5YR 4/2				
3	[Hatched pattern]	3		2.5YR 4/1				
4	[Hatched pattern]	4		5Y 4/1				
5	[Hatched pattern]	4				M	5YR 4/1	
		CC						



SITE 987 HOLE C CORE 2H

CORED 5.6 - 15.1 mbsf

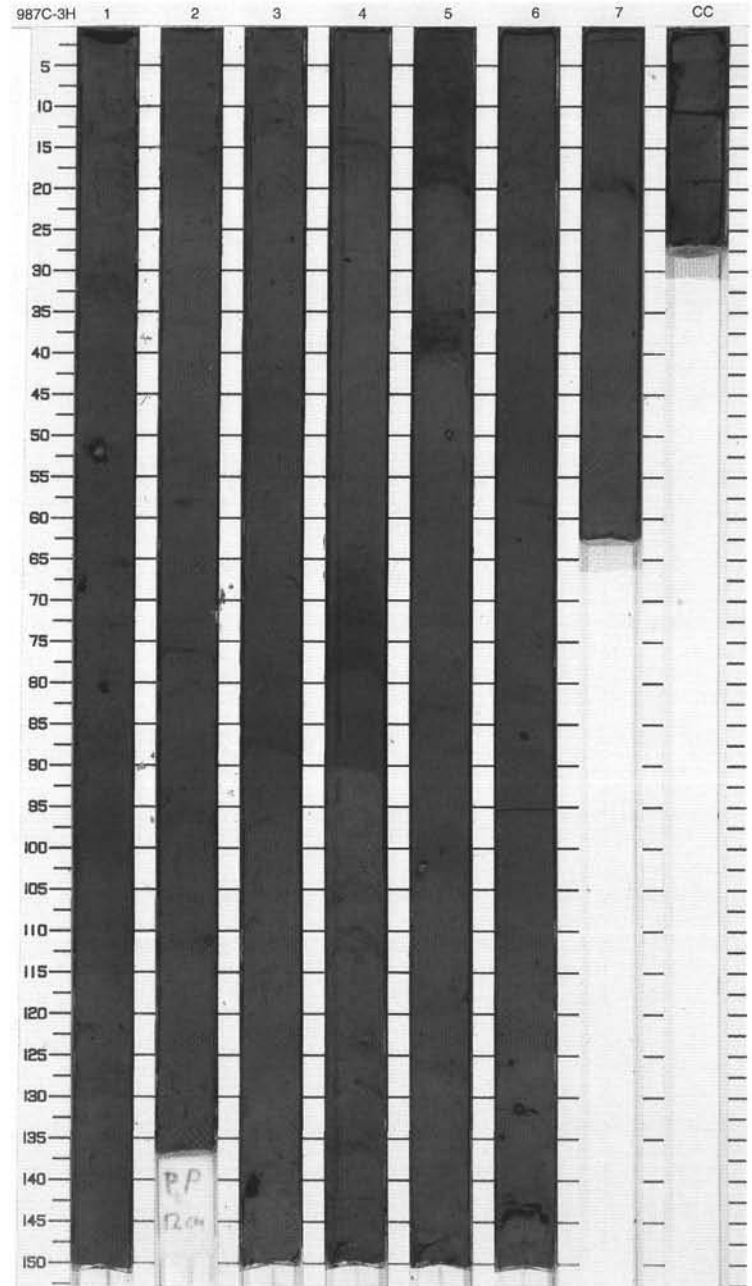
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1			W			SILTY CLAY
2		2				S	5YR 4/1	General Description: This core contains dark gray (5YR 4/1, 5Y 4/1, 5R 4/1, 2.5Y 4/1, 10YR 4/1) SILTY CLAY. The sediment is soft, color bands are common, and slight bioturbation is present throughout. Several areas contain slightly coarser sand grains, and some silt-filled burrows are present. Two sandy intervals are present in Section 3, 10—11 and Section 4, 138—140 cm. There is an ASH layer in Section 6, 139 cm.
3		3				S	10YR 4/1 To 5R 4/1	
4		3				S		Dropstones: Section 3, 10 cm: 2.2-cm-long subrounded garnet schist; Section 5, 103 cm: >1-cm-long weathered, crumbly, sandstone.
5		4	Pleistocene				10YR 4/1	
6		5						
7		6						
8		6					5Y 4/1	
9		7				S		
		7					2.5Y 4/1	
		CC				M	10YR 4/1	



SITE 987 HOLE C CORE 3H

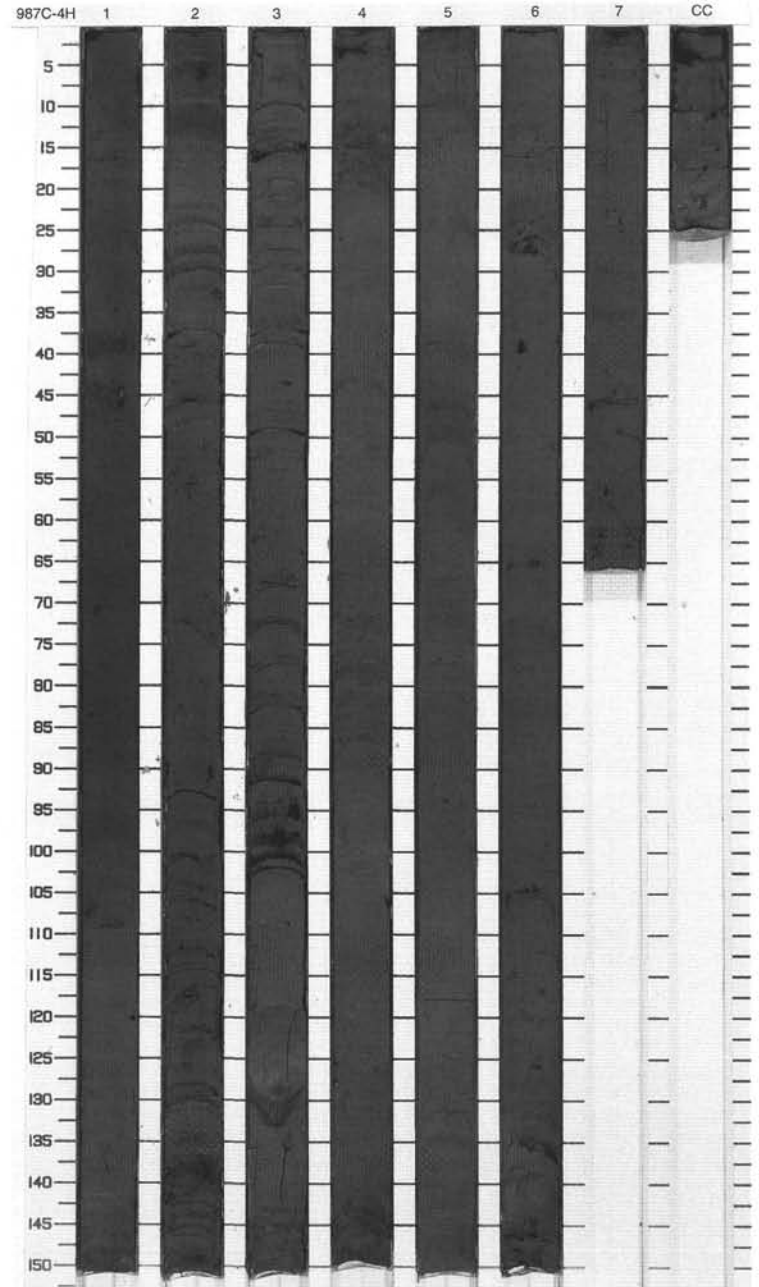
CORED 15.1 - 24.6 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1		~		S	5Y 4/1	<p>SILTY CLAY</p> <p>General Description: This core contains dark gray (10YR 4/1, 5Y 4/1, 5YR 4/1, 2.5Y 4/1) and dark greenish gray (5GY 4/1) SILTY CLAY. The sediment is firm and has many color changes. Transitions with dark overlying light are commonly sharp with gradational changes to lighter intervals. Bioturbation consists of poorly defined mottles and many silt-filled burrows. Sulfides are disseminated throughout, concentrated on mottles or are present as thin layers.</p> <p>Dropstones: Section 1, 51 cm: 2.4-cm-long angular granite; Section 1, 111 cm: 1.4-cm-long scoria basalt; Section 3, 140 cm: 2.7-cm-long subangular basalt, scoria; Section 5, 50 cm: 1.2-cm-long subangular igneous crystalline rock; Section 5, 103 cm: 1.2-cm-long subangular quartz-rich igneous rock; Section 6, 130 cm: 1.3-cm-long igneous rock.</p>
2	[Hatched pattern]	2		~				
3	[Hatched pattern]	3		~		I	5YR 4/1	
4	[Hatched pattern]	3		~			5Y 4/1	
5	[Hatched pattern]	4		~			5GY 4/1	
6	[Hatched pattern]	4		~			5YR 4/1	
7	[Hatched pattern]	5	Pleistocene	~		S	10YR 4/1	
8	[Hatched pattern]	6		~		S	2.5Y 4/1	
9	[Hatched pattern]	7		~			10Y 4/1	
	[Hatched pattern]	CC		~		M		

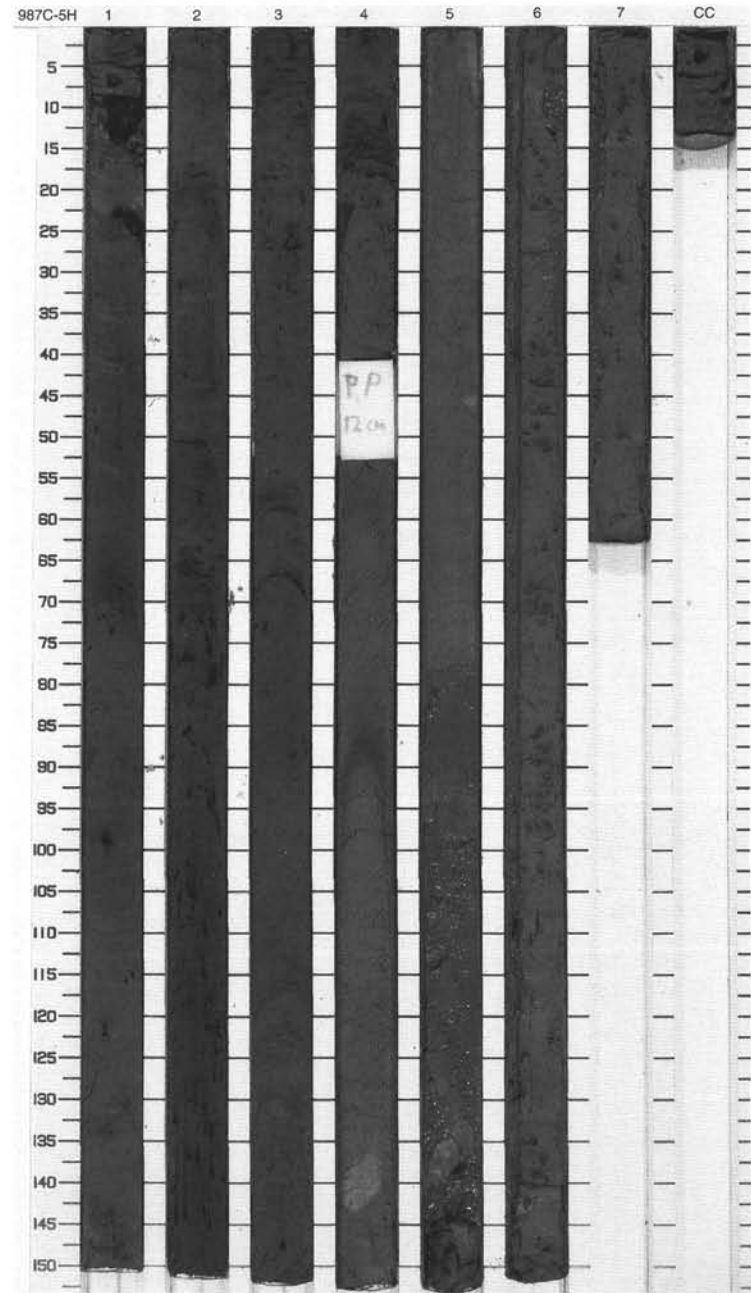


SITE 987 HOLE C CORE 4H CORED 24.6 - 34.1 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1		[Wavy line]		S	5PB 3/1	<p>SILTY CLAY</p> <p>General Description: This core contains very dark gray (5PB 3/1), dark gray (5R 4/1, 5Y 4/1, 5RP 4/1), and dark greenish gray (10Y 4/1, 5GY 4/1) SILTY CLAY.</p> <p>The sediment varies from soft to firm with many color variations, especially black-shaded mottling and poorly defined layers. The black is most likely due to pyrite. Extensive silt laminations are present from Section 2, 22 cm to Section 3, 104 cm. Minor grain-size changes occur along with these laminations. Several laminated intervals show thinning-upward sequences. Bioturbation consists of well to poorly defined mottles and silt-filled burrows.</p> <p>Dropstones: Section 2, 30 cm: 1-cm-long pink subangular granite; Section 6, 28 cm: 1.9-cm-long light green subrounded metamorphic rock; Section 6, 137 cm: 1.2-cm-long subangular schist.</p>
2	[Hatched pattern]	2		[Wavy line]	W		10Y 4/1	
3	[Hatched pattern]	3		[Wavy line]			5R 4/1	
4	[Hatched pattern]	3		[Wavy line]				
5	[Hatched pattern]	4		[Wavy line]		S	5Y 4/1 To 10YR 4/1	
6	[Hatched pattern]	4	Pleistocene	[Wavy line]				
7	[Hatched pattern]	5		[Wavy line]			10Y 4/1 To 5Y 4/1	
8	[Hatched pattern]	6		[Wavy line]			5GY 4/1	
9	[Hatched pattern]	7		[Wavy line]			5RP 4/1	
CC	[Hatched pattern]	CC		[Wavy line]		M		

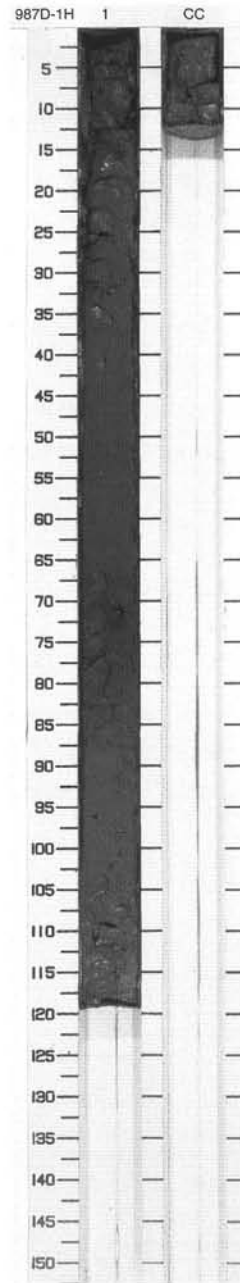


Meter	Graphic Lith.	Section Age	Structure	Disturb	Sample	Color	Description
1	[Dotted pattern]	1	} P	○	S	5Y 4/1 To 10Y 4/1	<p>CLAY WITH SILT, SILTY CLAY and SAND-SILT-CLAY</p> <p>General Description: This core contains dark gray to dark greenish gray (5Y 4/1 to 10Y 4/1) CLAY WITH SILT, dark greenish gray (10Y 4/1, 5GY 4/1) SILTY CLAY, and dark gray (10YR 4/1) SAND-SILT-CLAY. The sediment is soupy in Section 5 and moderately disturbed in Sections 6 and Core Catcher. There is a void in Section 4, 39—42 cm. Slight bioturbation and disseminated pyrite occur throughout the entire core. Color change is gradational. Several coarse layers are present in Section 3, 57—68 cm and in Section 4, 14—22 cm. Two concretions are present in Section 1, 22 cm and 99 cm.</p>
2	[Horizontal line pattern]	2	} P				
3	[Horizontal line pattern]	3	} P			10Y 4/1 To 5GY 4/1	
4	[Horizontal line pattern]	4	} P				
5	[Dotted pattern]	5	} P				
6	[Horizontal line pattern]	6	} P			10G 4/1 To 2.5Y 4/2	
7	[Horizontal line pattern]	7	} P			10YR 4/1	
				○	M		



SITE 987 HOLE D CORE 1H CORED 0.0 - 1.3 mbsf

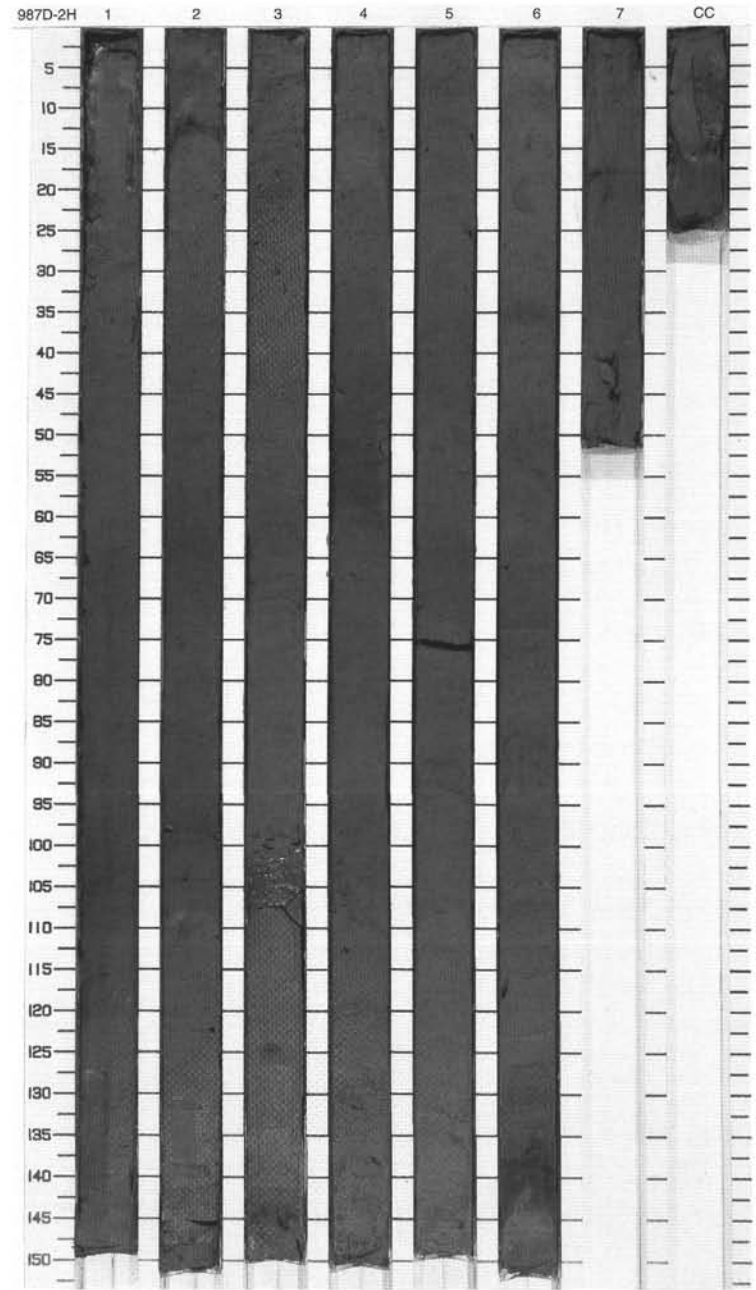
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	Pleistocene	ii	○	S S	5YR 4/2 To 5YR 4/1	<p>SILTY CLAY</p> <p>General Description: This core contains dark reddish gray to dark gray (5YR 4/2 to 5YR 4/1) SILTY CLAY. Entire sediment is too soft and soupy to identify sedimentary structures. Color change is gradational. A water escape feature is present in Section 1, 70 cm.</p>



SITE 987 HOLE D CORE 2H

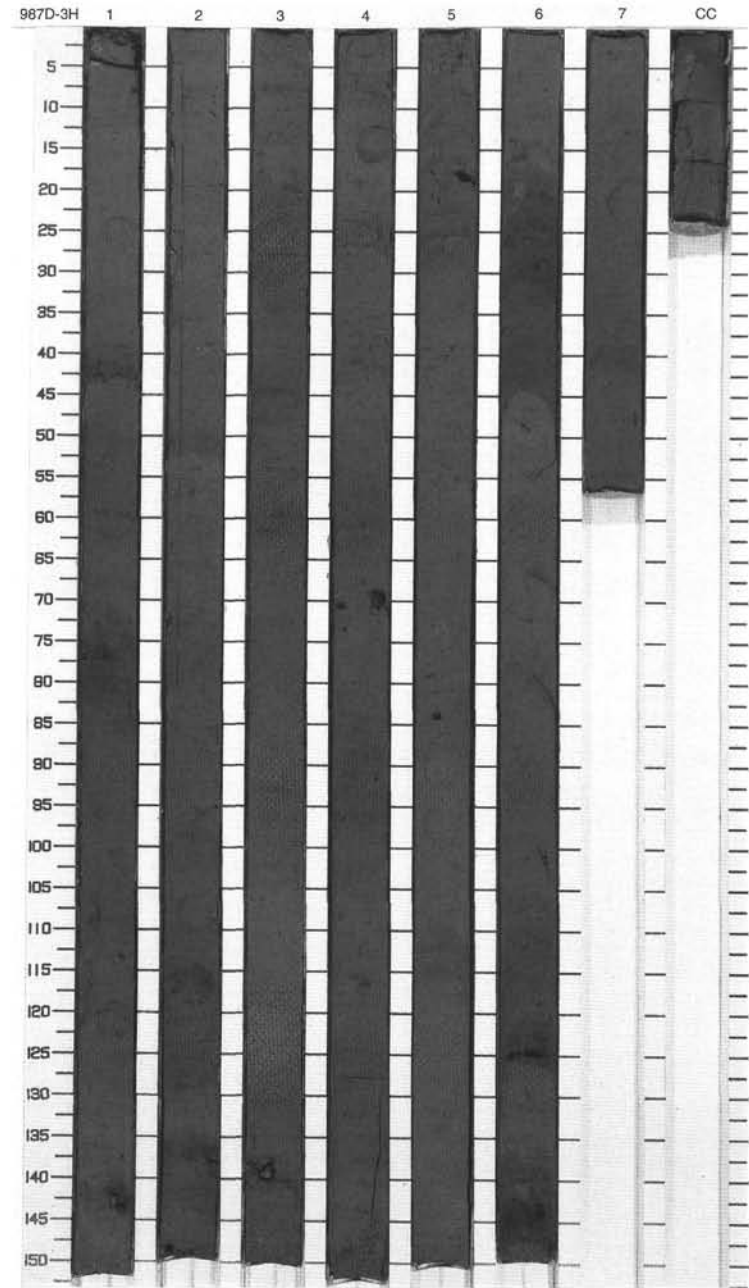
CORED 1.3 - 10.8 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1		[Wavy lines]	www		5YR 4/1	<p>SILTY CLAY</p> <p>General Description: This core contains dark gray (5YR 4/1, 5R 4/1, 5RP 4/1, and 5Y 4/1) and dark greenish gray (5GY 4/1) SILTY CLAY. Sediment is soft, moist, and sticky. Slight to moderate bioturbation and color mottling occur throughout the entire core. Yellowish and dark color bands are dispersed throughout. Thin dark layers are present in Section 5, 40 and 90 cm. A 5-cm-long sand filled burrow is present in Section 4, 47—52 cm. Several small silt-filled burrows are present in Section 4, 110—130 cm. A sandy turbiditic interval with a sharp lower contact and a graded upper one is present in Section 3, 98—108 cm.</p>
2	[Hatched pattern]	2		[Wavy lines]			5GY 4/1	
3	[Hatched pattern]	3		[Wavy lines]			5R 4/1	
4	[Hatched pattern]	3		[Wavy lines]		S	5YR 4/1	
5	[Hatched pattern]	4	Pleistocene	[Wavy lines]			5RP 4/1	
6	[Hatched pattern]	5		[Wavy lines]			5YR 4/1 To 5Y 4/1	
7	[Hatched pattern]	6		[Wavy lines]		S		
8	[Hatched pattern]	7		[Wavy lines]			5RP 4/1	
9	[Hatched pattern]	7		[Wavy lines]				
CC						M		



SITE 987 HOLE D CORE 3H CORED 10.8 - 20.3 mbsf

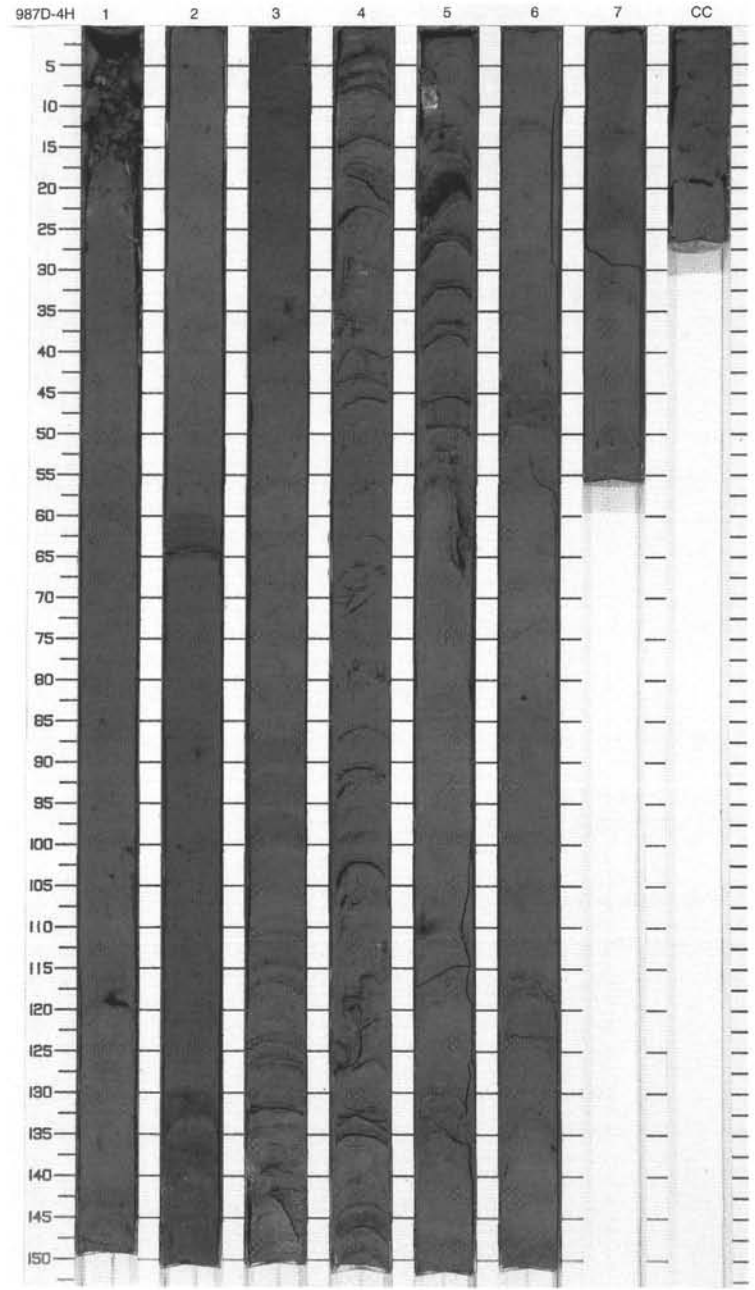
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Dotted pattern]	1	Pleistocene	[Wavy lines]	[Circle with dot]	S	5YR 4/1 To 5R 4/1	SILTY CLAY General Description: This core contains dark gray (5R 4/1, 5YR 4/1, 5RP 4/1) and very dark gray (5RP 3/1) SILTY CLAY. Sediment is soft and homogeneous. Slight to moderate bioturbation and color mottling occur throughout the core. Silt-filled burrows are present in Section 2, 59—100 cm, Section 3, 20—26 cm, Section 4, 20—42 and 142—150 cm. Sandy layers are present in Section 2, 117—122 cm and in Section 1, 43—46 cm. Dropstones: Section 1, 140 cm: 1.2-cm-long rounded light gray carbonate cemented sandstone; Section 3, 140 cm: 2-m-long subrounded fine grained diorite; Section 4, 68 cm: 1.8-cm-long angular porphyric granite.
2	[Horizontal dashes]	2		[Wavy lines]	[Circle with dot]	S	5RP 3/1	
3	[Dotted pattern]	3		[Wavy lines]	[Circle with dot]	S	5R 4/1	
4	[Horizontal dashes]	4		[Wavy lines]	[Circle with dot]	S	5RP 4/1 To 5YR 4/1	
5	[Horizontal dashes]	5		[Wavy lines]	[Circle with dot]	S	5R 4/1 To 5YR 4/1	
6	[Horizontal dashes]	6		[Wavy lines]	[Circle with dot]	S	5R 4/1 To 5YR 4/1	
7	[Horizontal dashes]	7		[Wavy lines]	[Circle with dot]	S	5R 4/1 To 5YR 4/1	
CC		CC				M		



SITE 987 HOLE D CORE 4H

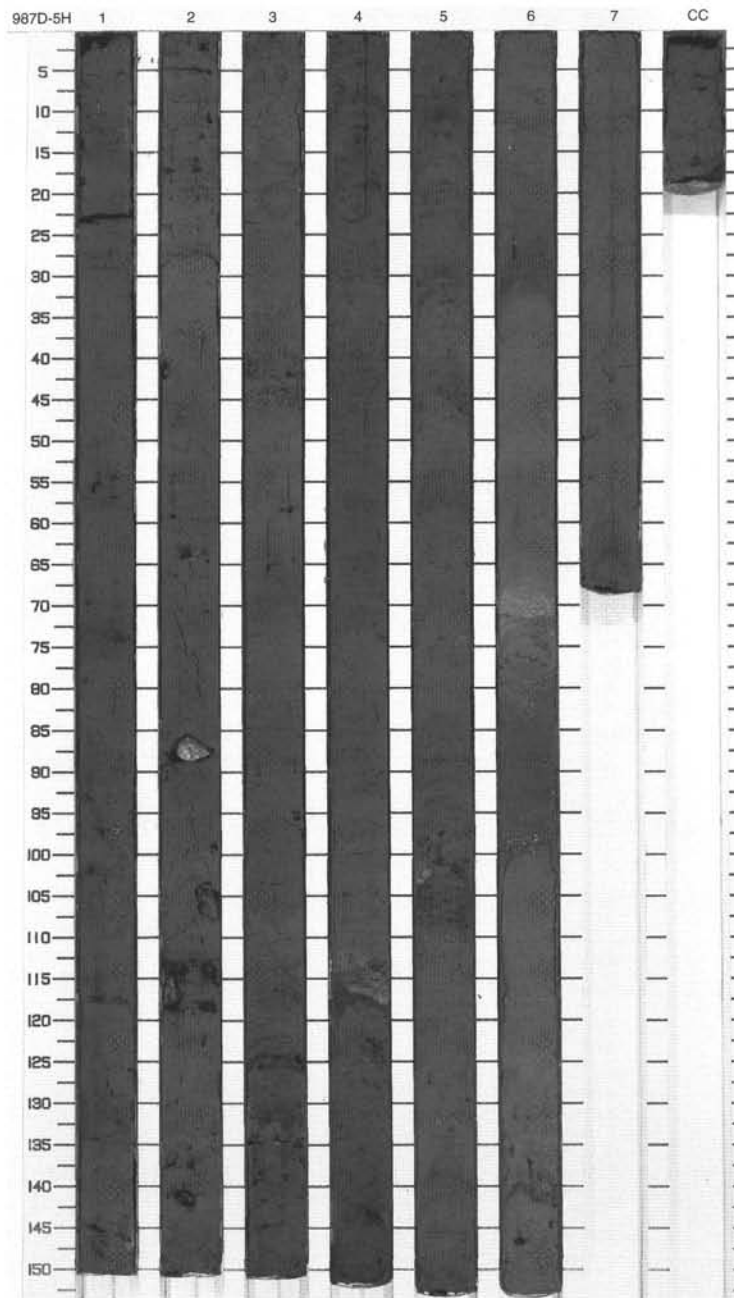
CORED 20.3 - 29.8 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1		[Wavy lines]	○		5RP 4/1	<p>SILTY CLAY</p> <p>General Description: This core contains very dark gray (5RP 3/1), dark gray (5RP 4/1, 5YR 4/1, 5Y 4/1), and dark greenish gray (10Y 4/1) SILTY CLAY. Sediment is soft and slightly to moderately bioturbated throughout. Disseminated sulfides and sand-silt filled burrows are dispersed throughout the entire core. The uppermost part of the core is soupy due to coring disturbance. Section 3, 100 cm to Section 5, 60 cm are very disturbed. This interval contains several thin to thick sandy layers which formed a succession of fining and thinning-upward sequences. Sandy layers are present in Section 5, 130—135 cm, in Section 6, 42—48 and 115—120 cm.</p>
2	[Hatched pattern]	2		[Wavy lines]			5YR 4/1	
3	[Hatched pattern]	3		[Wavy lines]			10Y 4/1	
4	[Hatched pattern]	4		[Wavy lines]			5RP 3/1	
5	[Hatched pattern]	5		[Wavy lines]			10Y 4/1	
6	[Hatched pattern]	6		[Wavy lines]			5RP 4/1	
7	[Hatched pattern]	7		[Wavy lines]			5Y 4/1	
8	[Hatched pattern]	8		[Wavy lines]			10Y 4/1	
9	[Hatched pattern]	9		[Wavy lines]				
CC	[Hatched pattern]	CC		[Wavy lines]				
			Pleistocene					



SITE 987 HOLE D CORE 5H CORED 29.8 - 39.3 mbsf

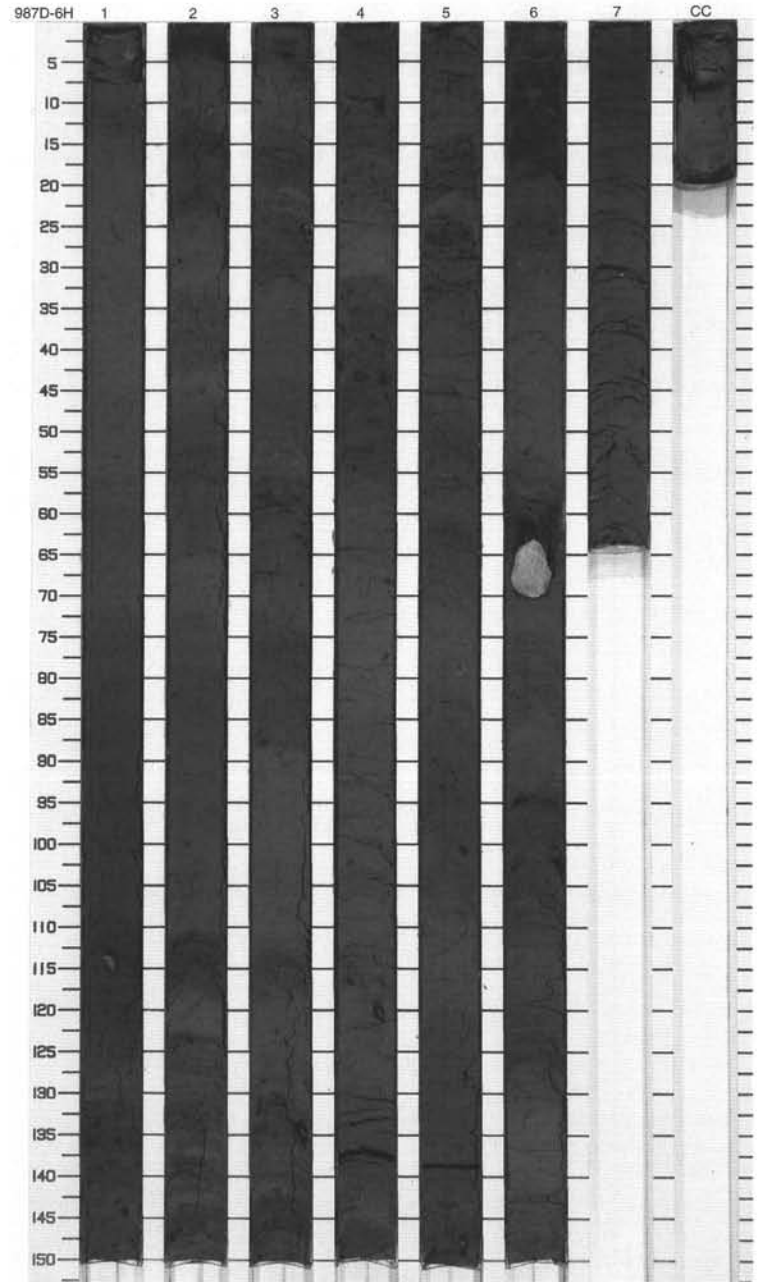
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	Pleistocene	S	S	S	5RP 3/1	<p>SILTY CLAY</p> <p>General Description: This core contains very dark gray (5RP 3/1) and dark gray (5R 4/1, 5RP 4/1, and 5YR 4/1) SILTY CLAY. Sediment is firm and homogeneous. Slight to moderate bioturbation occurs throughout the entire core. Disseminated sulfides are common, especially in Section 1, 57—150 cm, in Section 3, 16—24 and 120—145 cm and in Section 5, 130—145 cm. A SILTY CLAY WITH INORGANIC CALCITE reddish color band (with small pyrite concretions) is present in Section 3, 38—45 cm. Light gray INORGANIC CALCITE layers are present in Section 4, 112—117 cm and in Section 6, 20—30 cm. Thick to thin sand layers are present in Section 4, 10 and 20 cm, in Section 4, 117—120 cm, in Section 5, 10—40 and 97—98 cm, and in Section 6, 142—143 cm. A SANDY turbidite with a disturbed sharp lower contact and a graded upper one (with an inorganic calcite layer on its top) is present in Section 6, 72—100 cm.</p> <p>Dropstones: Section 2, 86—89 cm: 3.6-cm-long light gray subangular meta-quartzite; Section 2, 104—109 cm: 3.9-cm-long dark subangular diorite; Section 2, 116—119 cm: 3.5-cm-long subangular mafic rock; Section 2, 141—142 cm: 1.8-cm-long reddish rounded siltstone.</p>
2	[Hatched pattern]	2						
3	[Hatched pattern]	3						
4	[Hatched pattern]	4						
5	[Hatched pattern]	5						
6	[Hatched pattern]	6						
7	[Hatched pattern]	7						
8	[Hatched pattern]	6	WW	S	S	S	5YR 4/1	
9	[Hatched pattern]	7					5RP 5/1	
	[Hatched pattern]	CC				M	5R 4/1	



SITE 987 HOLE D CORE 6H

CORED 39.3 - 48.8 mbsf

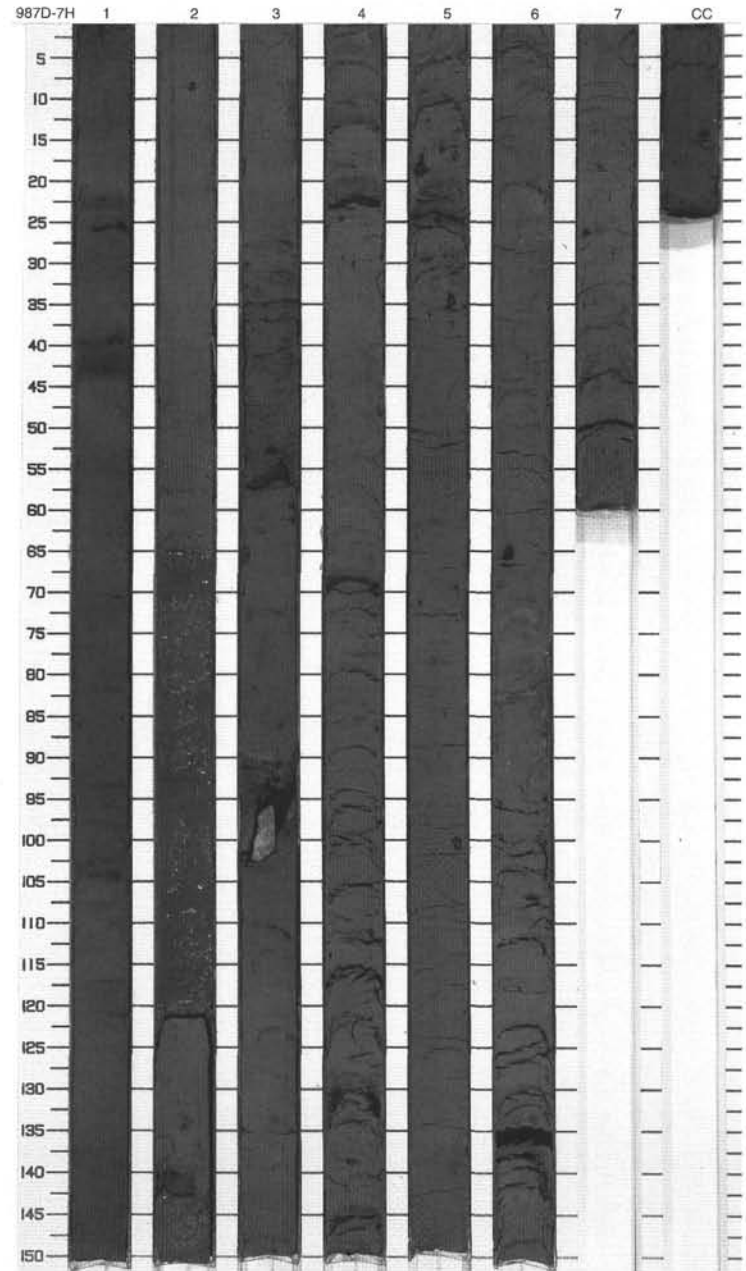
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	Pleistocene		-	S	2.5G 3/1 To 10Y 4/1	SILTY CLAY General Description: This core contains soft, firm, dark gray (5Y 4/1, 7.5 YR 4/1, and 10YR 4/1), very dark gray (5Y 3/1 and 2.5Y 3/1), and dark greenish gray (10Y 4/1 and 5GY 4/1) SILTY CLAY. Gradational and sharp color boundaries are common. Silt laminations and interbedded SILT WITH CLAY are present as shown in the structure and graphic lithology column. Bioturbation consists mostly of poorly defined mottles, with few silt-filled burrows. A rough textured, 2 cm long, pyrite concretion is present at Section 1, 113 cm and as a growth on a dropstone at Section 3, 24 cm.
2		2		5Y 4/1 To 10Y 4/1				
3		3		2.5Y 3/1 To 5GY 3/1				
4		4		2.5Y 3/1 To 5GY 3/1				
5		5		7.5YR 4/1				
6		6		5Y 4/1 To 5Y 3/1				
7		7		10YR 4/1				
8		6	5GY 3/1 To 5Y 4/1	S				
9		7	7.5YR 4/1	M				



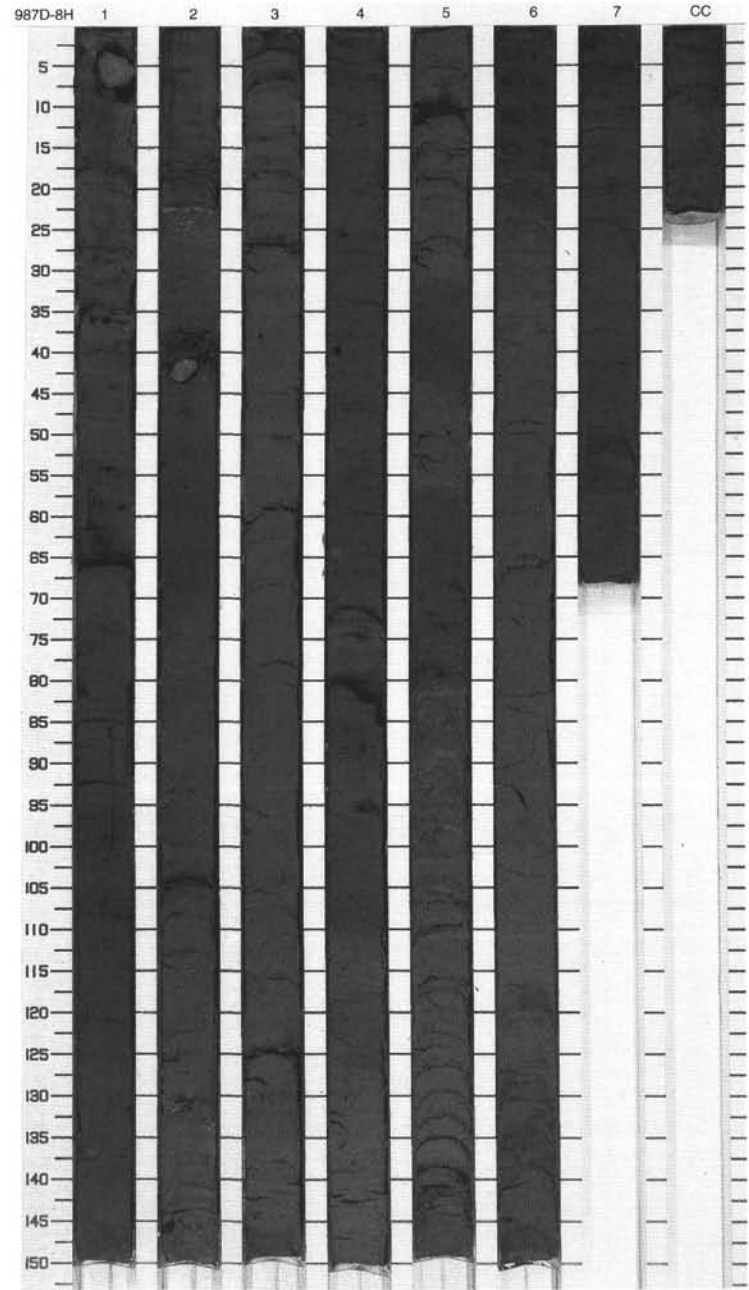
SITE 987 HOLE D CORE 7H

CORED 48.8 - 58.3 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1		[Wavy line]		S	10YR 4/1 To 10Y 4/1	<p>SILTY CLAY</p> <p>General Description: This core contains firm, dark gray (10YR 4/1 and 2.5YR 4/1), and dark greenish gray (5GY 4/1 and 10Y 4/1) SILTY CLAY. Silt laminations and layers are common in the redder colored intervals. Some of the layers show weak grading and some of the laminations form thinning-upward sequences, e.g. Section 4, 0-23 cm. A thick graded sandy turbidite is present in Section 2, 62-121 cm. Bioturbation is slight throughout the core, occurring primarily as black mottles and rare silt-filled burrows. Gas cracks create core disturbance in the lower sections. A dropstone in Section 3, 94 cm, 7.1-cm-long, is subrounded and of unknown origin. It contains round, soft black grains and concentric calcite grains. Black sulfides and pyrite coat the surface. In Section 5 there are two dropstones, at 18 cm, a 1.7-cm-long, subrounded black quartzite and at 100 cm, a 1.4-cm-long, rounded sulfide.</p>
2	[Dotted pattern]	2		[Wavy line]		S	5GY 4/1	
3	[Hatched pattern]	3		[Wavy line]	...	S	5GY 4/1	
4	[Hatched pattern]	4		[Wavy line]	...	S	10Y 4/1	
5	[Hatched pattern]	5	Pleistocene	[Wavy line]		S	2.5YR 4/1	
6	[Hatched pattern]	6		[Wavy line]		S	5R 4/1	
7	[Hatched pattern]	7		[Wavy line]		S	5GY 4/1	
8	[Hatched pattern]	6		[Wavy line]	(P)	S	5YR 4/1 To 5Y 4/1	
9	[Hatched pattern]	7		[Wavy line]		S	5GY 4/1	
CC						M	5YR 4/1	

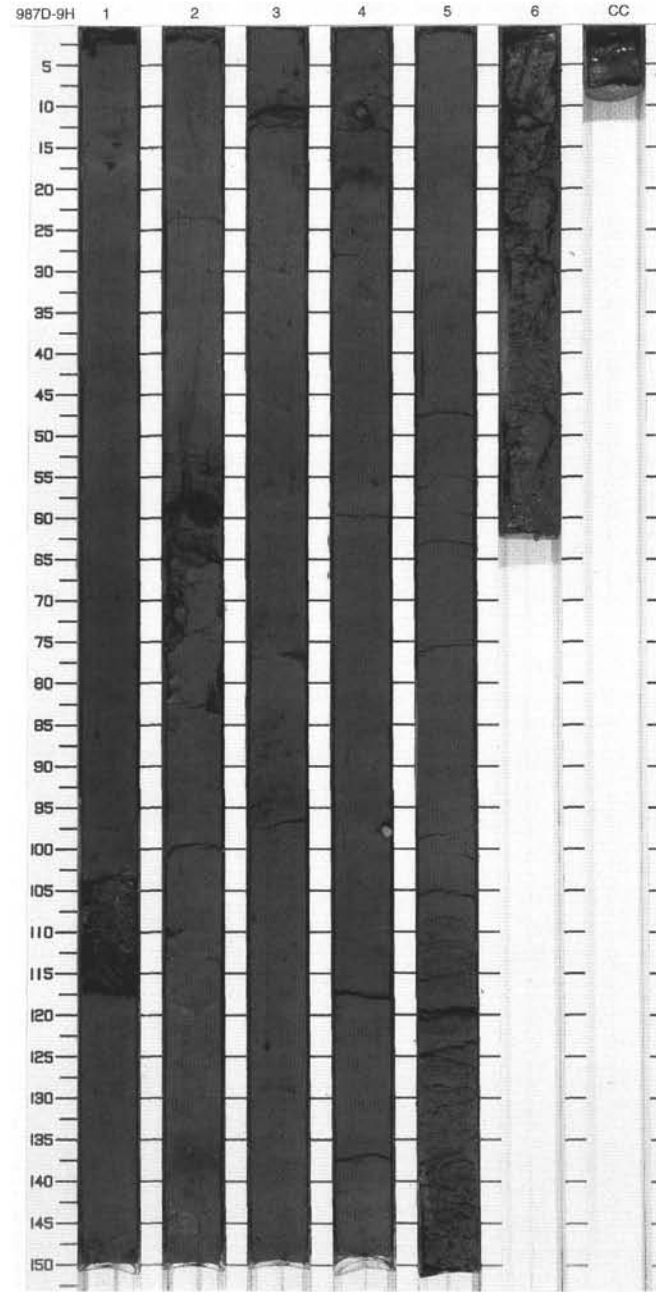


Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1		◇		S	5R 4/1	<p>SILTY CLAY</p> <p>General Description: This core contains dark gray (5R 4/1, 5RP 4/1, 5YR 4/1) and dark greenish gray (10Y 4/1) SILTY CLAY. Sediment is firm and slightly to moderately bioturbated throughout. Sandy turbidites with a sharp lower contact and a graded upper one are present in Section 2, 15—40 cm, in Section 4, 70—80 cm, and in Section 5, 72—110 cm. Several thin sandy layers are present in Sections 1, 2, 5, 6, and 7.</p> <p>Dropstones: Section 1, 2—7 cm: 4.5-cm-long subrounded weathered fine-grained granite; Section 2, 40 cm: 3.5-cm-long subangular syenite.</p>
2	[Dotted pattern]	2		◇		S		
3	[Hatched pattern]	3		◇		S	10Y 4/1 To 5R 4/1	
4	[Hatched pattern]	4		◇		S		
5	[Hatched pattern]	4	Pleistocene	◇		S		
6	[Hatched pattern]	5		◇		S	5RP 4/1	
7	[Dotted pattern]	5		◇		S	5YR 4/1	
8	[Hatched pattern]	6		◇		S		
9	[Hatched pattern]	7		◇		S	5RP 4/1	
		CC				M		

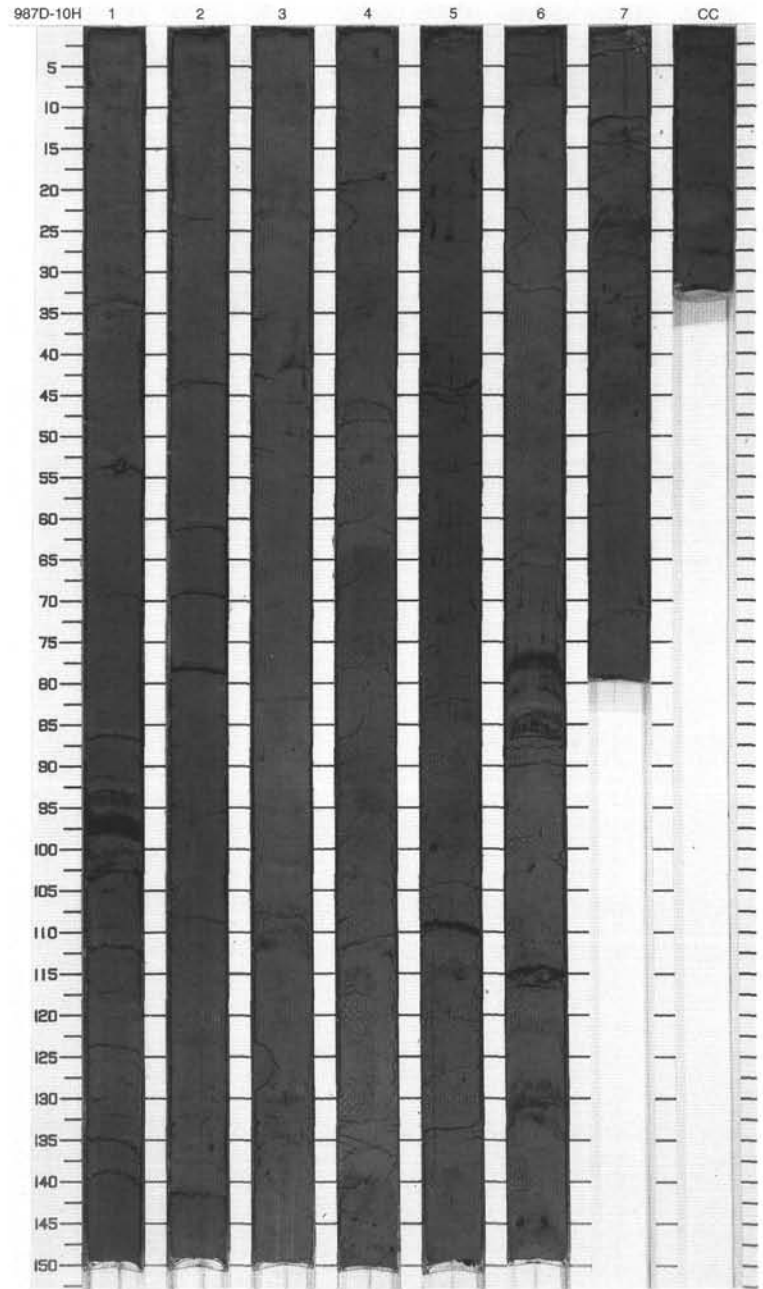


SITE 987 HOLE D CORE 9H CORED 67.8 - 76.6 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	Pleistocene	P		S	5Y 4/1 To 5GY 4/1	<p>SILTY CLAY and SILT WITH SAND AND CLAY</p> <p>General Description: This core contains dark gray (5Y 4/1, 2.5Y 4/1) and dark greenish gray (5GY 4/1) SILTY CLAY and dark gray (5YR 4/1) SILT WITH SAND AND CLAY. Color changes are gradational throughout the core. Disseminated pyrite is present above Section 5, 90 cm. Below this, sediment is slightly disturbed and soupy, especially in Section 6. Section 3, 84-100 cm contains several coarse sediment ponds. A carbonate-rich concretion is present in Section 4, 98 cm. A rounded 2-cm-long sedimentary rock is present in Section 4, 10 cm.</p> <p>Note: discrepancy between core photo and core description in Section 6 could not be resolved from ODP records.</p>
2	[Hatched pattern]	2		P			2.5Y 4/1 To 5Y 4/1	
3	[Hatched pattern]	3		P		S	2.5Y 4/1 To 5Y 4/1	
4	[Hatched pattern]	4		P				
5	[Hatched pattern]	5		P		S	5GY 4/1	
6	[Hatched pattern]	6		P				
7	[Dotted pattern]	7				S	5YR 4/1	
8	[Dotted pattern]	8						



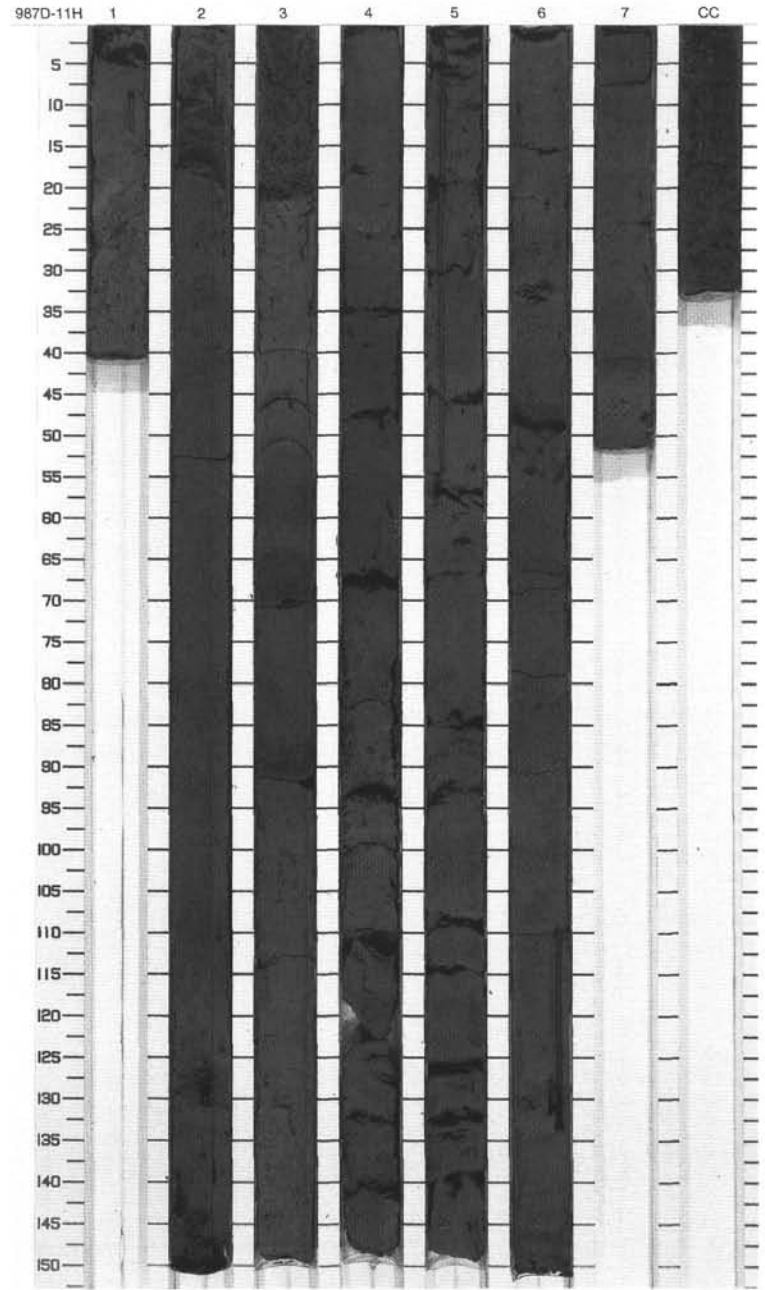
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1		} } } } }			5YR 4/1	<p>SILTY CLAY and CLAY WITH SILT</p> <p>General Description: This core contains firm dark gray (5Y 4/1 and 10YR 4/1), dark greenish gray (10Y 4/1 and 5GY 4/1), and dark reddish gray (10R 4/1, 5R 4/1) SILTY CLAY, and dark gray (5 YR 4/1 and 10YR 4/1) CLAY WITH SILT. Gradational and sharp color boundaries are common. Numerous 1—4-cm-thick silty to sandy laminations are interbedded throughout the core. Bioturbation consists mostly of few black (sulfide-rich) mottles and few silt- to sand-filled burrows. Black bands of disseminated sulfides are present in Sections 5 to 7.</p>
2		2		— } — } — } — } — }		S	10YR 4/1	
3		3		— } — } — } — }			5Y 4/1	
4		4	Pleistocene	— } — } — } — }			5GY 4/1	
5		5		— } — } — } — }		S	10R 4/1	
6		6		— } — } — } — }			10G 4/1	
7		7		— } — } — } — }		S	5GY 4/1	
8		8		— } — } — } — }		S	10YR 4/1	
9		9		— } — } — } — }			5Y 4/1	
10		CC				M		



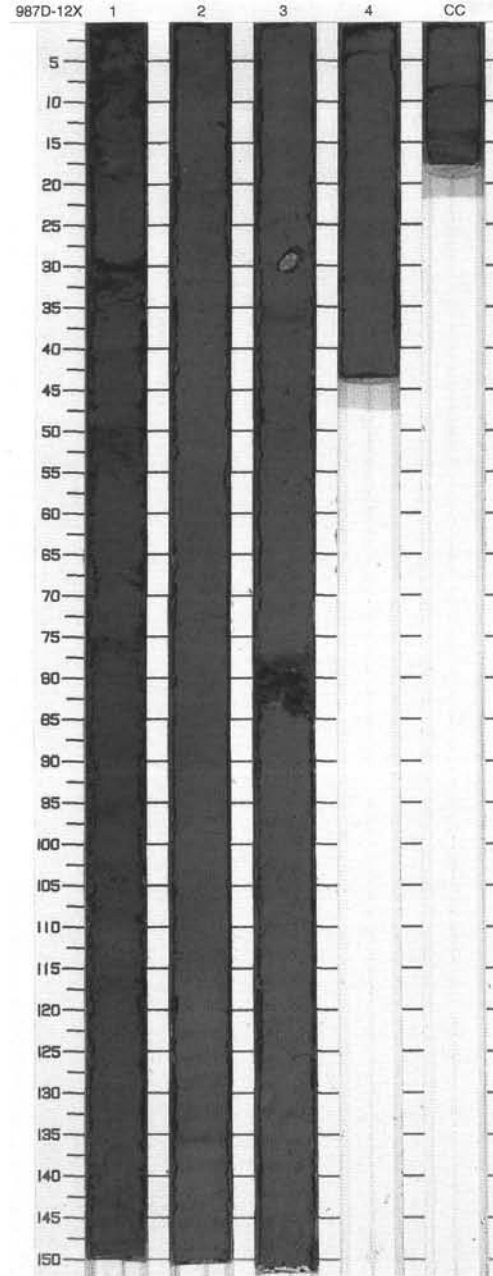
SITE 987 HOLE D CORE 11H

CORED 86.1 - 94.8 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description		
1		1	Pleistocene	}		S	10Y 4/1 To 10YR 4/1	SILTY CLAY General Description: This core contains dark gray (10Y 4/1 and 10YR 4/1) and dark greenish gray (5GY 4/1) SILTY CLAY. Color changes are gradational throughout the entire core. Several coarse sediment layers are present in Section 3, 49—50 cm, Section 2, 0—18 cm, and in Section 6, 35 cm. Section 3, 134 cm contains several coarse sediment ponds. Section 6, 50—52 cm contains a 0.5-cm-long concretion. Slight bioturbation occurs throughout, and disseminated black spots (probably pyrite) are scattered throughout the core. Section 6, 50—52 cm contains individual medium color band with black coarse sediment and sharp base.		
2		2							}	
2		3		}						
3		4							}	
4		4		5BG 4/1						
5		5		}					S	10YR 4/1
6		6								
7		7		}					P	5GY 4/1 To 5Y 4/1
8		8								
		CC				M				



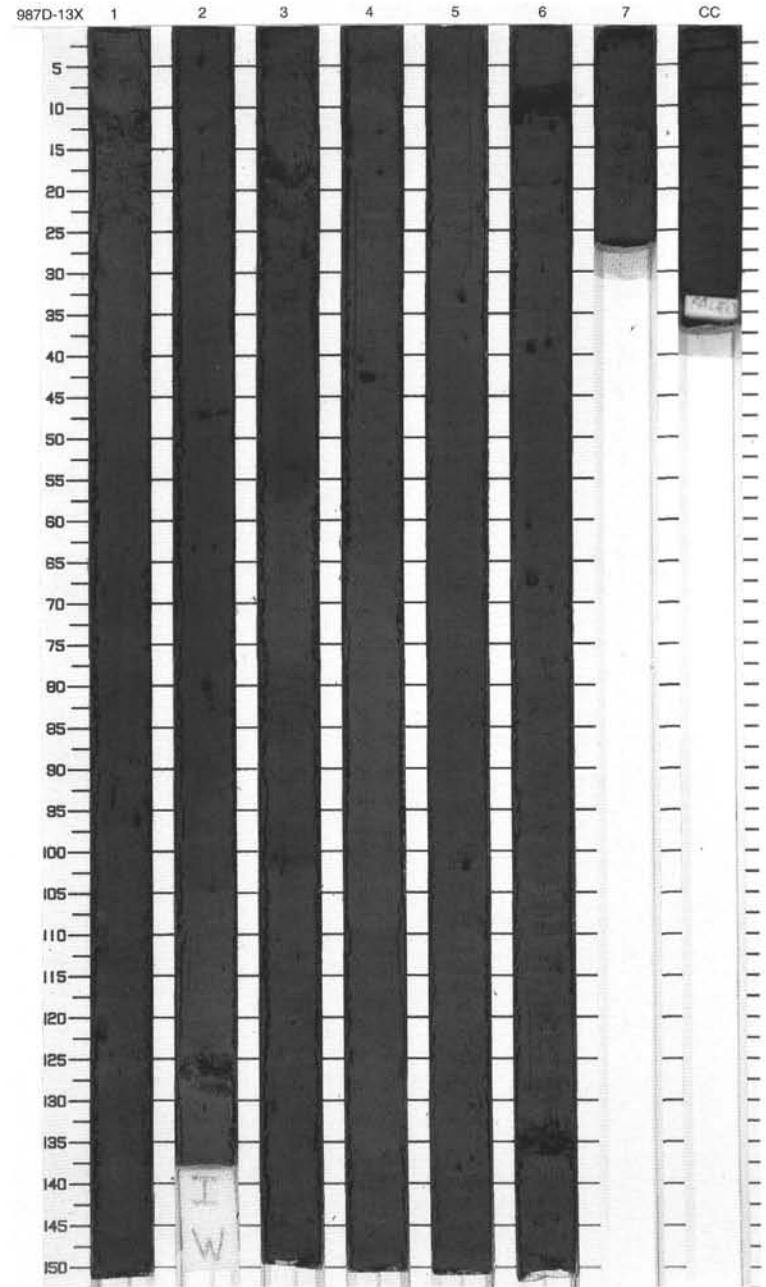
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Horizontal dashes]	1	Pleistocene	[Wavy lines]	[Wavy lines]	S	5GY 3/1	<p>SILTY CLAY and CLAY WITH SILT</p> <p>General Description: This core contains firm dark greenish gray (10Y 4/1 and 7.5 GY 4/1) and very dark greenish gray (5GY 3/) SILTY CLAY and dark gray (5Y 4/1) CLAY WITH SILT. SILTY CLAY WITH SAND is interbedded in Section 1, 50—98 cm. The interbeds, indicated as laminations in the structure column are not well defined sharp layers. Bioturbation is present as dark mottles and some poorly defined black layers. A 3.2-cm-long gray subrounded crystalline rock is present in Section 3, 28 cm.</p>
2	[Horizontal dashes]	2		[Wavy lines]	[Wavy lines]	S	10Y 4/1 To 7.5GY 4/1	
3	[Horizontal dashes]	3		[Wavy lines]	[Wavy lines]	S	5Y 4/1	
4	[Horizontal dashes]	4		[Wavy lines]	[Wavy lines]	M		



SITE 987 HOLE D CORE 13X

CORED 103.4 - 113.0 mbsf

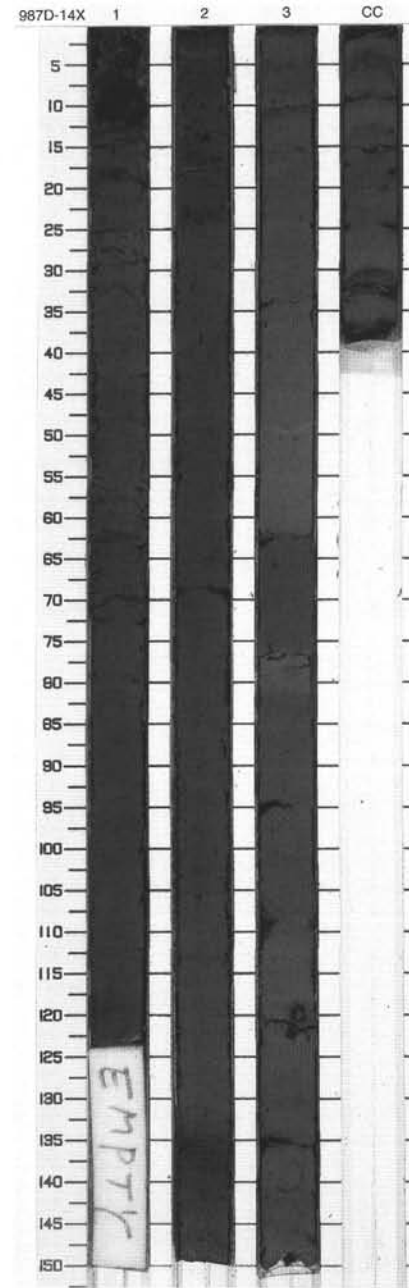
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched]	1	Pleistocene	} S			10Y 4/1	<p>SILTY CLAY</p> <p>General Description: This core contains dark greenish gray (10Y 4/1) to very dark greenish gray (10Y 3/1) SILTY CLAY. The sediment is soft, moist, and slightly disturbed by the coring process. All color changes are gradational. While the dominant lithology remains SILTY CLAY throughout, minor components vary, with quartz and hornblende content slightly higher in the light intervals and volcanic ash slightly higher in the dark intervals. Sulfides are persistent in the core, occurring as discrete pods and thin layers.</p>
2	[Hatched]	2		} S		S	10Y 3/1	
3	[Hatched]	3		} S		I		
4	[Hatched]	4		} S		S	10Y 4/1	
5	[Hatched]	5		} S				
6	[Hatched]	6		} S			10Y 3/1	
7	[Hatched]	7		} S				
CC		CC				M		



SITE 987 HOLE D CORE 14X

CORED 113.0 - 122.6 mbsf

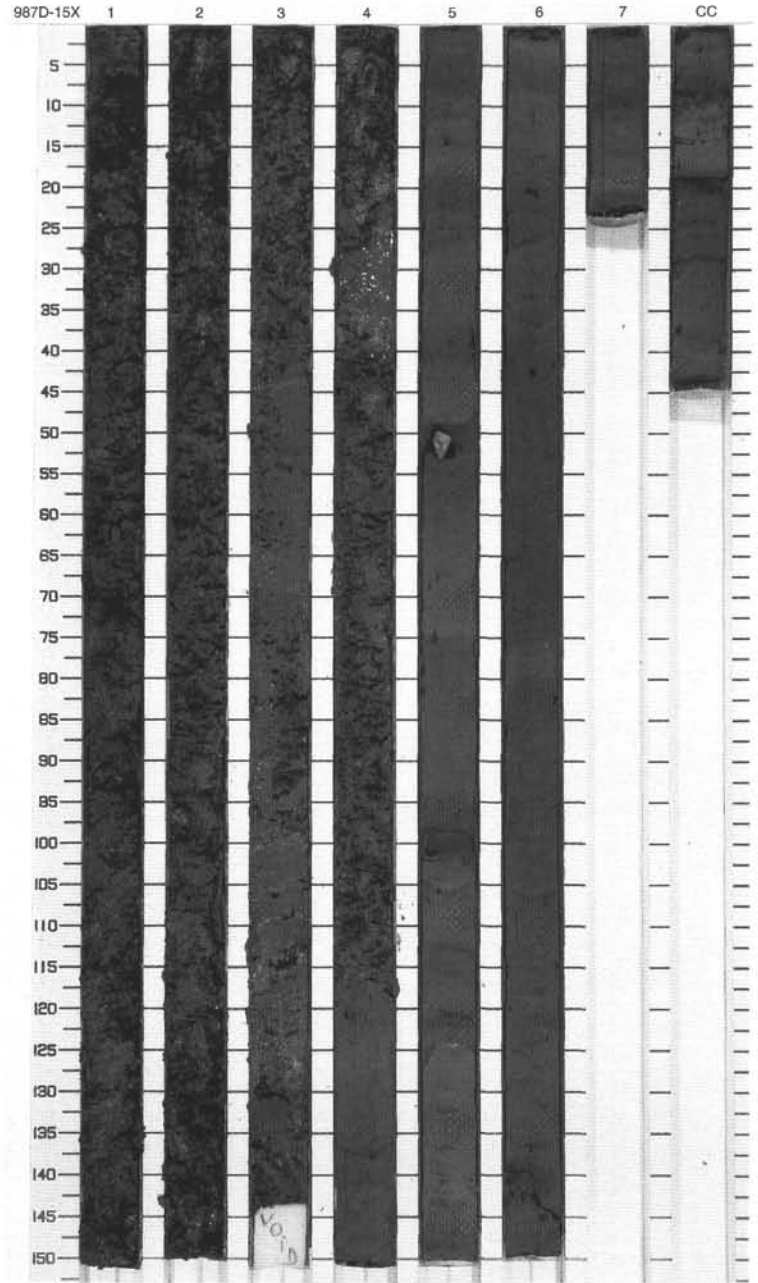
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	Pleistocene	} P	I	S	5Y 4/1	<p>SILTY CLAY</p> <p>General Description: This core contains dark gray to dark greenish gray (5Y 4/1 to 5GY 4/1) SILTY CLAY. Color changes are gradational throughout the entire core. Slight bioturbation occurs throughout, and disseminated pyrite are scattered throughout the core. The top of Section 1 is slightly disturbed. Section 1, 55—72 cm is contains slightly coarser sediment. Section 3, 116 cm contains an unknown concretion.</p>
2	[Hatched pattern]	2		} P	S	S	5GY 4/1	
3	[Hatched pattern]	3		} P				
4	[Hatched pattern]	3		} P ⊙			5Y 4/1	
	[Hatched pattern]	CC				M		



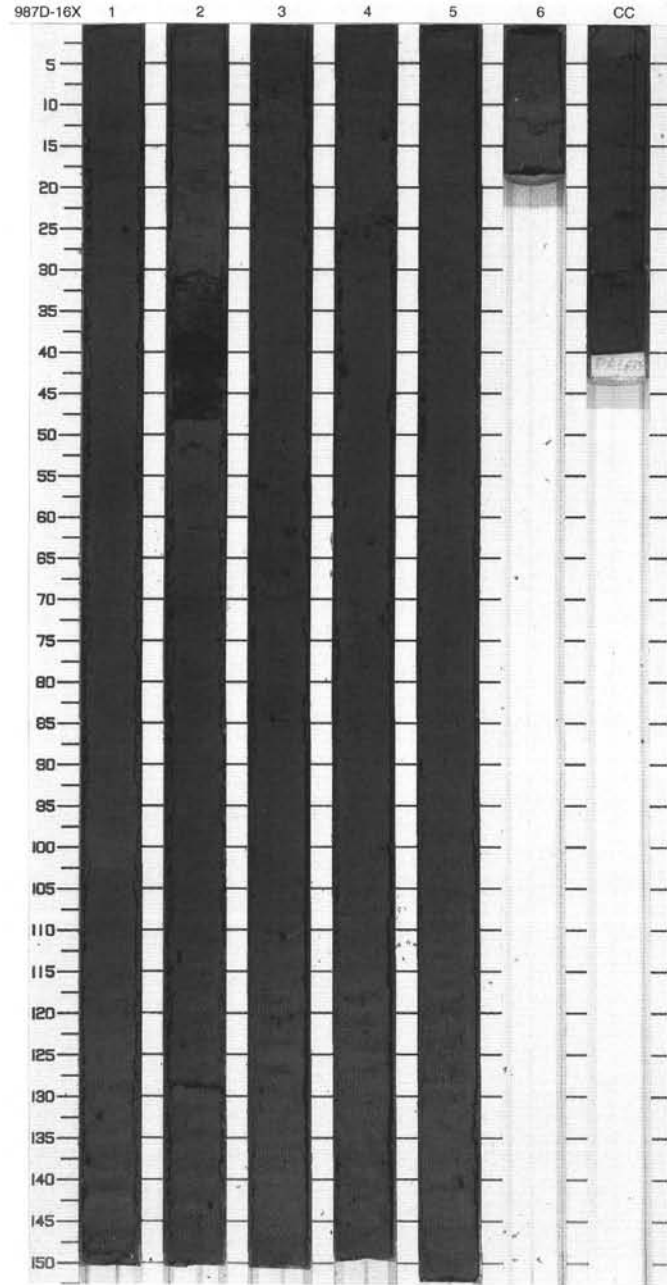
SITE 987 HOLE D CORE 15X

CORED 122.6 - 132.3 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	Pleistocene		[Wavy line]			<p>SILTY CLAY</p> <p>General Description: This core contains dark greenish gray (5GY 4/1) to very dark greenish gray (10GY 3/1) SILTY CLAY. The sediment is soft to moderately firm, and is increasingly firm toward the base. Sections 1—3 and most of Section 4 are very disturbed and gloppy. Subtle color bands, slight bioturbation, and abundant disseminated sulfides occur within the intact sediment recovered in Sections 5—7 and CC.</p>
2	[Hatched pattern]	2			[Wavy line]			
3	[Hatched pattern]	3			[Wavy line]			
4	[Hatched pattern]	3			[Wavy line]			
5	[Hatched pattern]	4			[Wavy line]		10GY 3/1 To 5GY 4/1	
6	[Hatched pattern]	4			[Wavy line]			
7	[Hatched pattern]	5		[Symbol]	[Wavy line]			
8	[Hatched pattern]	6		[Symbol]	[Wavy line]	S		
9	[Hatched pattern]	7		[Symbol]	[Wavy line]			
	[Hatched pattern]	CC		[Symbol]	[Wavy line]	M		

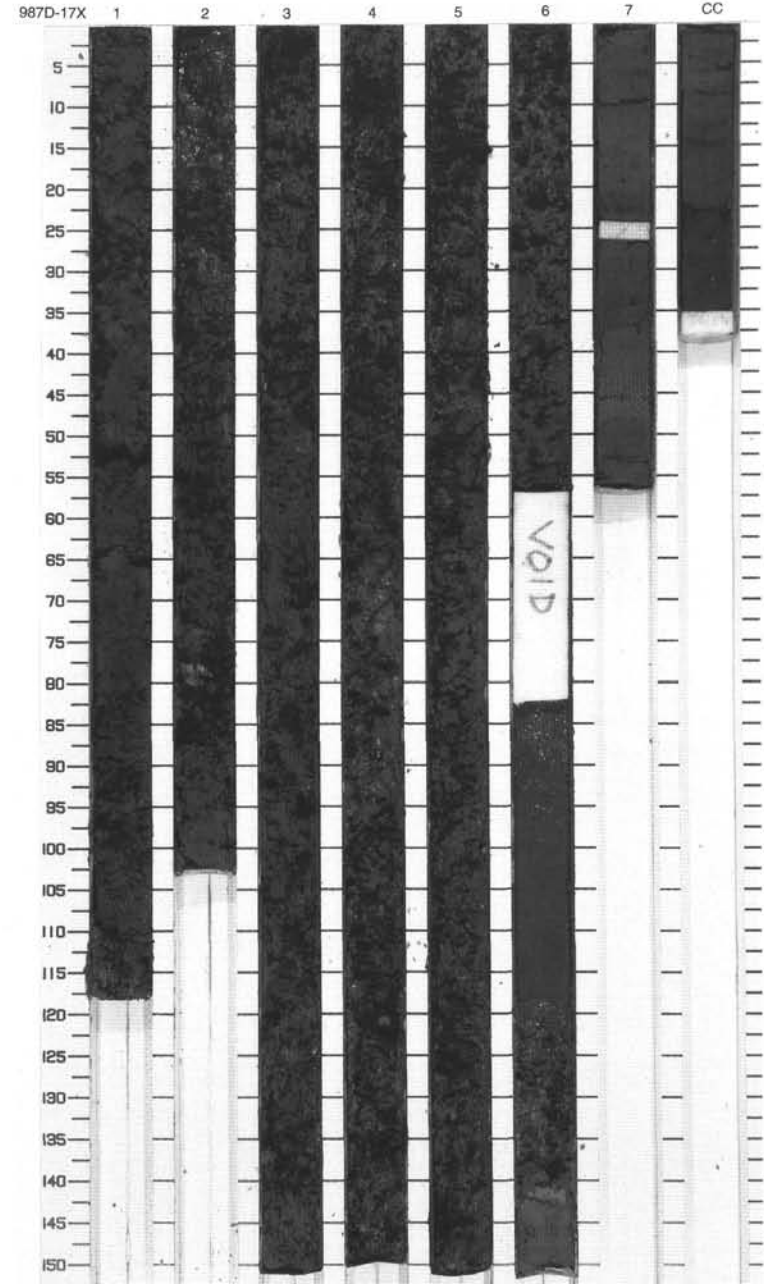


Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Dotted pattern]	1	Pleistocene	— } — } — } — } — } — }			SILTY CLAY and CLAY WITH SILT General Description: This core contains homogeneous dark greenish gray (5B 4/1 and 5BG 4/1) SILTY CLAY and CLAY WITH SILT. The sediment is firm and only very slight gradational color changes occur. Slight bioturbation and slight black color mottles (probably disseminated pyrite) are present in most of the sections. A slightly harder, thick greenish gray band occurs in Section 2.	
2	[Dotted pattern]	2		■ } ■ }		S		
3	[Dotted pattern]	3		— } — }		P		
4	[Horizontal dashes]	3		— } — }		P		5B 4/1 To 5BG 4/1
5	[Horizontal dashes]	4		— } — }		P		
6	[Horizontal dashes]	4		— } — }	Ⓟ			
7	[Horizontal dashes]	5	— } — }		P	S		
8	[Horizontal dashes]	6	— } — }					
		CC				M		



SITE 987 HOLE D CORE 17X CORED 141.9 - 151.6 mbsf

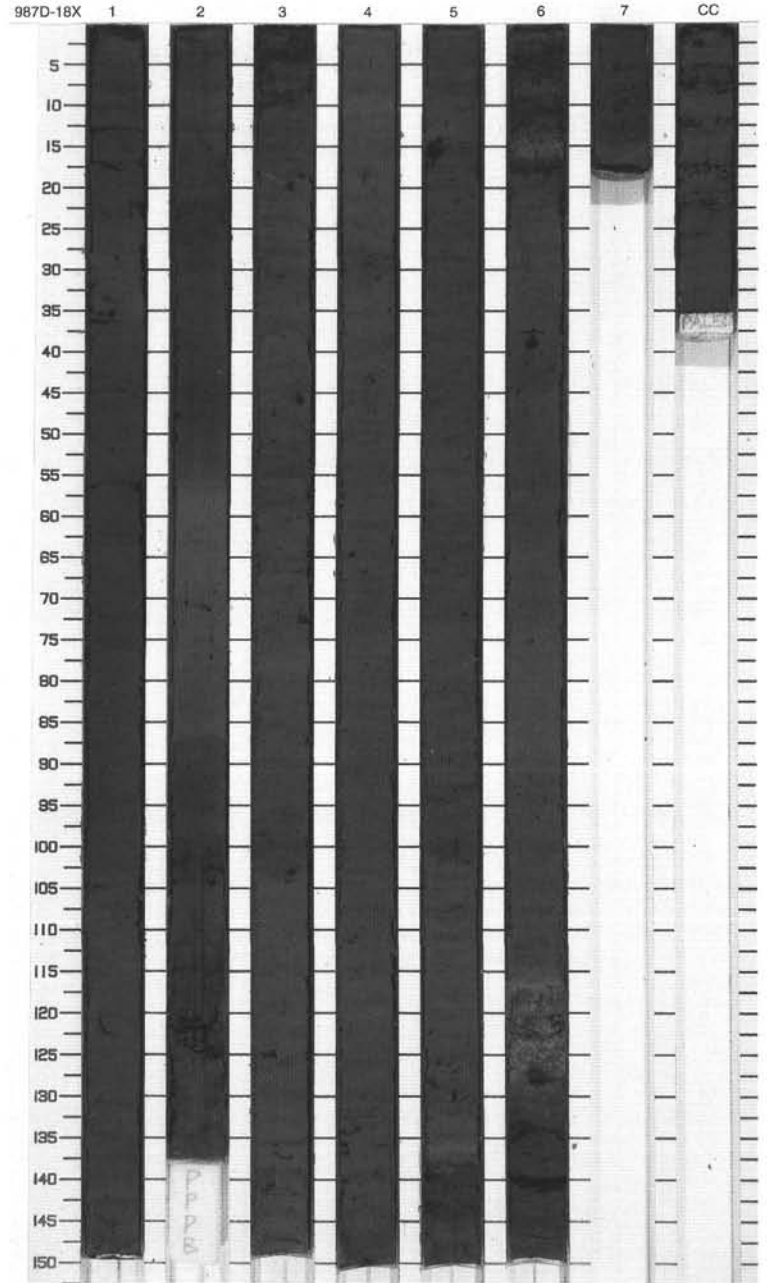
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	Pleistocene	[Vertical wavy lines]	[Vertical wavy lines]	S	5B 4/1	<p>SILTY CLAY</p> <p>General Description: This core contain dark greenish gray (5B 4/1 to 5GY 4/1) SILTY CLAY. From the top of Section 1 to Section 6, 142 cm, the sediment is highly disturbed and soupy. There is a void in Section 6, 58—82 cm. Section 7 and CC contain several thin individual color bands and show slight bioturbation.</p>
2	[Hatched pattern]	2						
3	[Hatched pattern]	3						
4	[Hatched pattern]	4						
5	[Hatched pattern]	5						
6	[Hatched pattern]	6						
7	[Hatched pattern]	7						
8	[Hatched pattern]	CC						
9	[Hatched pattern]	CC						
	[Hatched pattern]							



SITE 987 HOLE D CORE 18X

CORED 151.6 - 161.2 mbsf

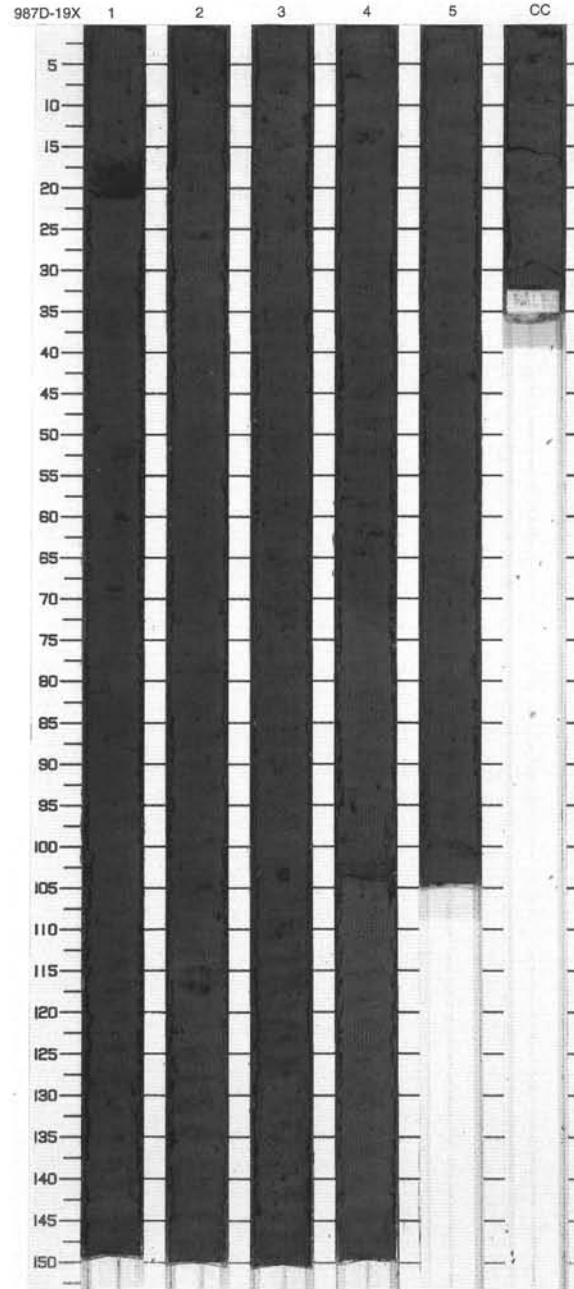
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	Pleistocene	S	W	S	5R 3/1	<p>SILTY CLAY</p> <p>General Description: This core contains very dark gray (5R 3/1, 5Y 3/1), very dark greenish gray (10Y 3/1), dark greenish gray (5GY 4/1) and dark gray (5Y 4/1) SILTY CLAY. Sediment is firm and slightly to moderately bioturbated throughout the core. Disseminated sulfides occur throughout, especially in Section 5. SANDY turbidites with a sharp erosional lower contact and a graded upper one are present in Section 2, 87—93 cm, in Section 2, 113—125 cm, from Section 5, 138 cm to Section 6, 18 cm, and in Section 6, 128—142 cm.</p> <p>Gray (2.5Y 5/1) INORGANIC CALCITE WITH SILT AND CLAY layers are situated just above two turbiditic intervals in Section 2, 56—87 cm and in Section 6, 115—128 cm.</p> <p>Dropstones: Section 5, 15—16 cm: 1.8-cm-long rounded brown siltstone.</p>
2	[Cross-hatched pattern]	2					10Y 3/1	
3	[Dotted pattern]	3					2.5Y 5/1	
4	[Horizontal lines]	4					5GY 4/1 To 5Y 3/1	
5	[Horizontal lines]	5					5Y 4/1 To 5Y 3/1	
6	[Horizontal lines]	6						
7	[Horizontal lines]	7						
8	[Horizontal lines]	8						
9	[Cross-hatched pattern]	9					5Y 4/1	
		CC				M		



SITE 987 HOLE D CORE 19X

CORED 161.2 - 170.9 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Graphic Lith. 1]	1	Pleistocene	Ⓟ		S		<p>SILTY CLAY</p> <p>General Description: This core contains very dark gray (5Y 3/1 and 5YR 3/1) and dark gray (5Y 4/1) SILTY CLAY. Sediment is firm and homogeneous. Slight to moderate bioturbation and disseminated sulfides occur throughout the entire core. SANDY CLAY layers are present in Section 1, 15-20 cm and in Section 4, 100-105 cm.</p> <p>Dropstones: Section 3, 106-107 cm: 1.3-cm-long dark angular diorite.</p>
2	[Graphic Lith. 2]	2		5			5Y 3/1 To 5YR 3/1	
3	[Graphic Lith. 3]	3		5				
4	[Graphic Lith. 4]	4		◇				
5	[Graphic Lith. 5]	4		5			5Y 4/1	
6	[Graphic Lith. 6]	5		5			5Y 3/1	
7	[Graphic Lith. 7]	CC				M		

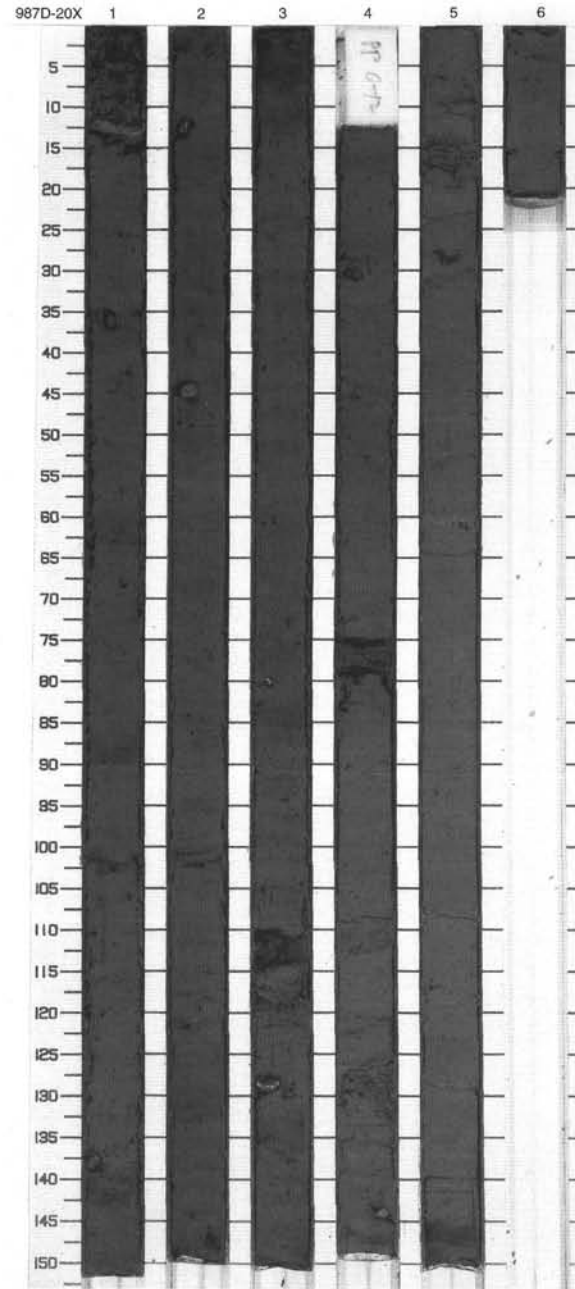


Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	Pleistocene	[Wavy lines]	[Circle]	S	5GY 3/1 To 5Y 3/1	<p>SILTY CLAY and SILTY CLAY WITH INORGANIC CALCITE</p> <p>General Description: This core contains very dark gray (5Y 3/1), very dark greenish gray (5GY 3/1) SILTY CLAY and brown (7.5YR 4/2) SILTY CLAY WITH INORGANIC CALCITE. Sediment is firm and slightly bioturbated throughout. Disseminated sulfides occur throughout, especially in Section 2. An INORGANIC CALCITE layer is present in Section 1, 12—13 cm. Three siltier layers are present in Section 1, 86—90 cm and 100—103 cm and in Section 3, 130—136 cm. A SAND WITH PYRITE layer is present in Section 4, 77—82. Thick SANDY layers (turbidites) are present in Section 3, 100—122 cm, in Section 4, 110—115 and 123—125 cm, and in Section 5, 14—19 cm. Thin SANDY layers are present in Section 5, 23, 30, 40, 45, 48, 50, 52, 60, 109, 120, 124, 140, and 141 cm.</p>
2	[Hatched pattern]	2						
3	[Hatched pattern]	3						
4	[Hatched pattern]	4						
5	[Hatched pattern]	5						
6	[Hatched pattern]	6						
7	[Hatched pattern]	5	P	[Wavy lines]	[Circle]	S	7.5YR 4/2	<p>Dropstones: Section 1, 35—37 cm: 1.5-cm-long dark subrounded schist; Section 1, 138—139 cm: 2-cm-long angular meta quartzite; Section 2, 11—12 cm: 2-cm-long dark angular granite; Section 2, 43—45 cm: 3-cm-long dark fine-grained diorite; Section 3, 80—81 cm: 1.2-cm-long light gray subrounded siltstone; Section 3, 128—130 cm: 3-cm-long dark subrounded meta-quartzite; Section 4, 146—147 cm: 1.6-cm-long flat fine-grained muscovite-rich granite.</p>
		6						

987D-21X Entire 0.02 m of core to paleontology

987D-22X NO RECOVERY

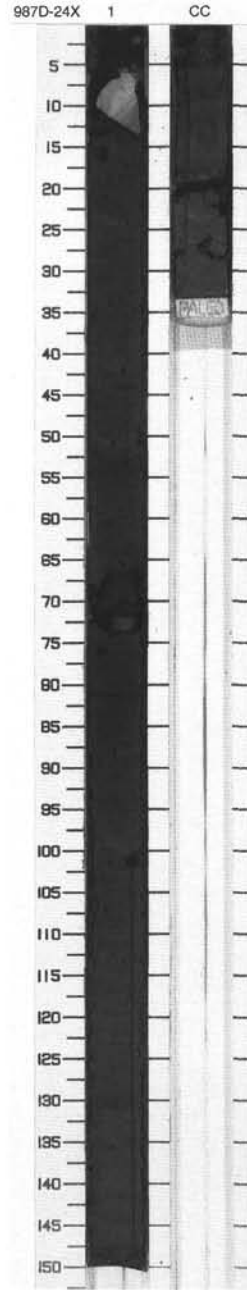
987D-23X NO RECOVERY



SITE 987 HOLE D CORE 24X

CORED 199.8 - 209.4 mbsf

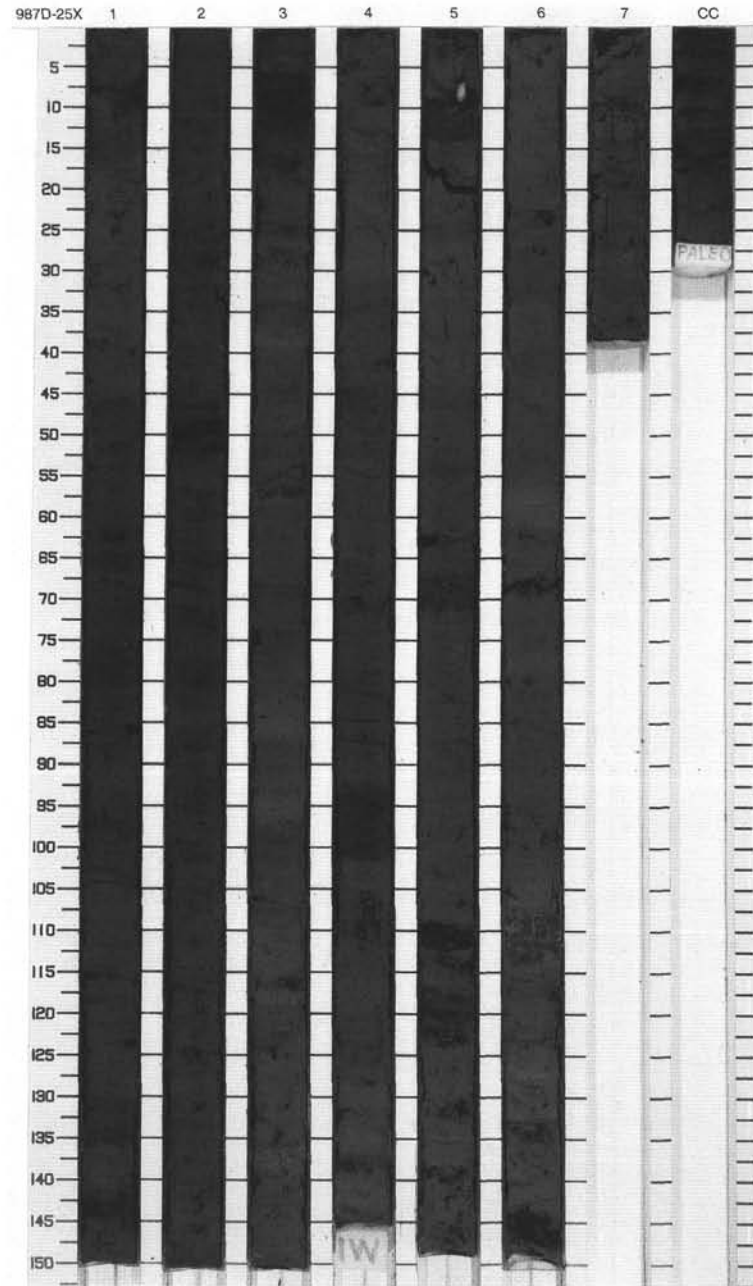
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		1	late Pliocene	~ ~ ~ ~ ~	W W	S M	5Y 3/1 To 5YR 4/1	<p>SILTY CLAY</p> <p>General Description: This core contains very dark gray (5Y 3/1) to dark gray (5YR 4/1) SILTY CLAY. Sediment is firm and homogeneous. A sand-filled burrow is present in Section 1, 75 cm. SANDY layers are present in Section 2, 0—4 cm and 16—20 cm (with pyrite).</p> <p>Dropstones: Section 1, 6—13 cm: 7-cm-long light gray subangular metaquartzite; Section 1, 70—73 cm: 3.2-cm-long dark weathered and pyritized granite.</p>



SITE 987 HOLE D CORE 25X

CORED 209.4 - 219.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1					5R 3/1 To 5Y 3/1	<p>SILTY CLAY and SILTY CLAY WITH INORGANIC CALCITE</p> <p>General Description: This core contains very dark gray (5R 3/1 and 5Y 3/1), dark gray (5YR 4/1, 5Y 4/1), and dark greenish gray (5GY 4/1) SILTY CLAY and dusky red (2.5YR 4/2) SILTY CLAY WITH INORGANIC CALCITE. The sediment is firm and slightly bioturbated throughout the entire core. The lowermost part of the core is slightly biscuitied due to coring disturbance. Silt-filled burrows occur in Section 1, 73—75 cm. Sandy layers are present in Section 1, 7 and 134—136 cm, in Section 3, 7—12 and 54—58 cm. Light gray clayey layers are present in Section 3, 83-87, 93—97, 119—121 and 138—140 cm and in Section 5, 118—123 cm. Siltier layers are present in Section 4, 92—101 cm, in Section 5, 9—12 and 67—70 cm. An INORGANIC CALCITE-rich layer is present in Section 6, 59—60 cm.</p> <p>Dropstones: Section 1, 143—144 cm: 1.2-cm-long subangular brown siltstone; Section 5, 9—10 cm: 2.8-cm-long light brown subangular meta-quartzite.</p>
2		2			W			
3		3						
4		3					5YR 4/1 To 5Y 4/1	
5		4	late Pliocene			S		
6		4				I		
7		5					5YR 4/1 To 5Y 4/1	
8		6					5GY 4/1	
9		7				S	2.5YR 4/2	
		CC			WW	M	5YR 4/1	

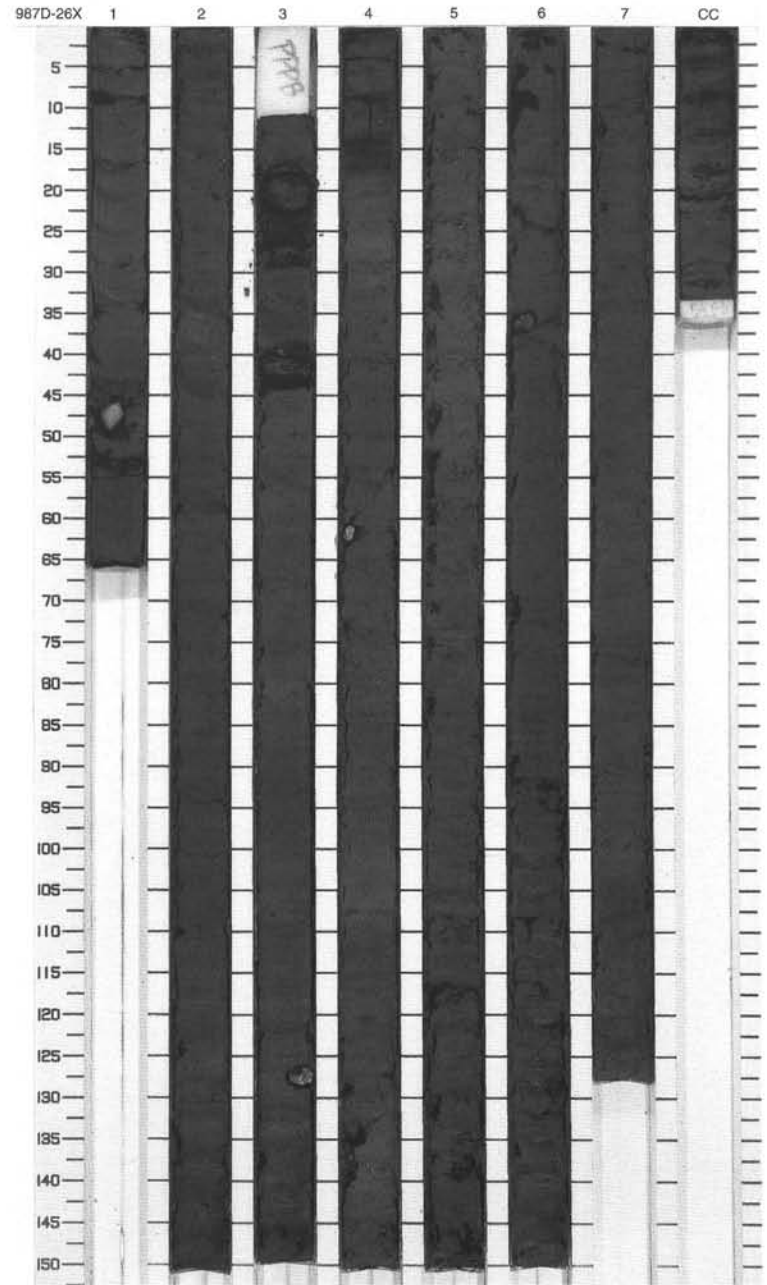


SITE 987 HOLE D CORE 26X

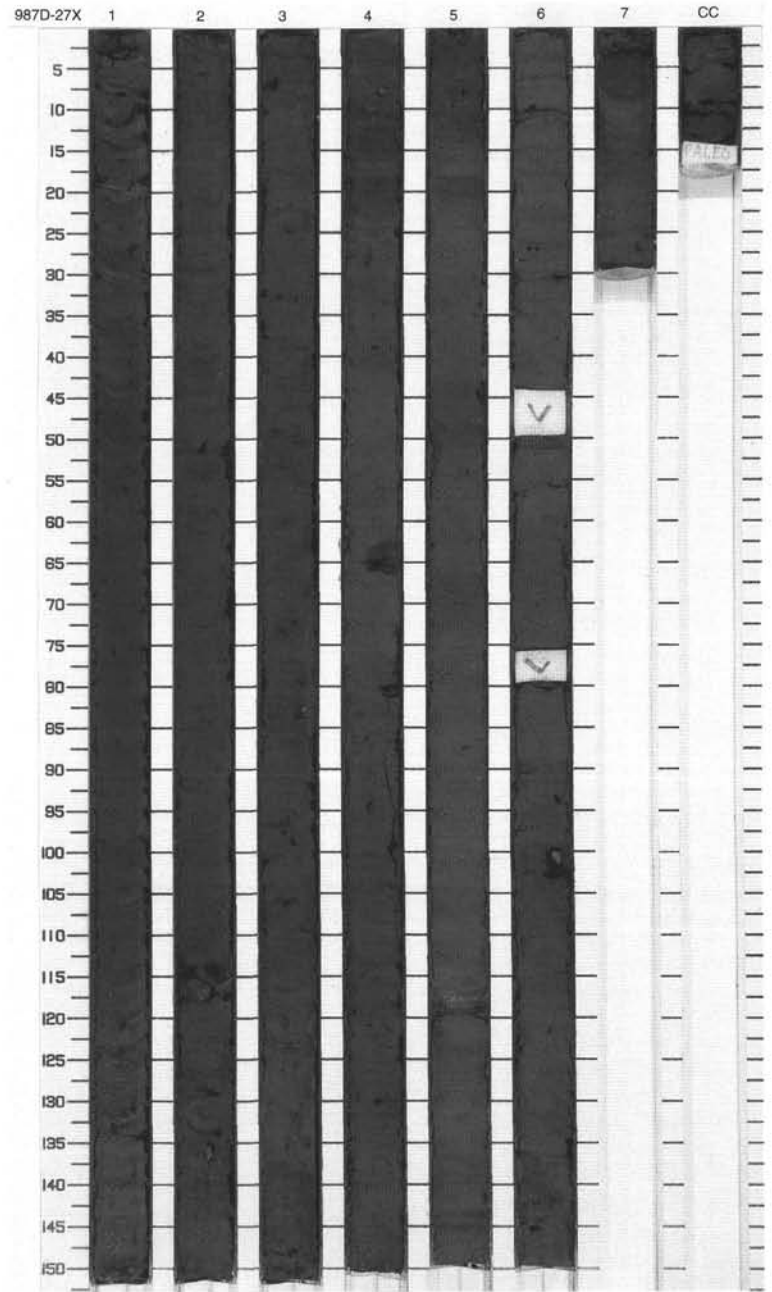
CORED 219.0 - 228.6 mbsf

Meter	Graphic Lith.	Section Age	Structure	Disturb	Sample	Color	Description
1	[Pattern]	1	[Symbol]	[Symbol]			<p>SILTY CLAY and SILTY CLAY WITH INORGANIC CALCITE</p> <p>General Description: This core contains dark greenish gray (5GY 3/1), very dark gray (5Y 3/1, 5YR 3/1), and dark gray (5YR 4/1) SILTY CLAY. A gray (5Y 5/1) INORGANIC CALCITE WITH SILT AND CLAY layer is present in Section 4, 130—145 cm.</p> <p>This core is biscuited throughout due to coring. A sand filled burrow is present in Section 4, 78—79 cm. The sediment is firm and slightly bioturbated throughout. Sandy layers are present in Section 4, 10—20 cm and in Core Catcher, 0—20 cm.</p> <p>Dropstones: Section 3, 131—133 cm: 3-cm-long gray subangular granite; Section 4, 61—63 cm: 1.8-cm-long gray rounded granite; Section 6, 35—37 cm: 1.5-cm-long dark angular diorite; Section 6, 35—37 cm: 2.3-cm-long dark angular diorite.</p>
2	[Pattern]	2	[Symbol]	[Symbol]		5Y 3/1	
3	[Pattern]	3	[Symbol]	[Symbol]	S	5YR 4/1 To 5GY 4/1	
4	[Pattern]	4	[Symbol]	[Symbol]			
5	[Pattern]	5	[Symbol]	[Symbol]	S	5Y 5/1	
6	[Pattern]	5	[Symbol]	[Symbol]			
7	[Pattern]	6	[Symbol]	[Symbol]		5Y 3/1 To 5YR 3/1	
8	[Pattern]	7	[Symbol]	[Symbol]			
9	[Pattern]	CC	[Symbol]	[Symbol]			

late Pliocene



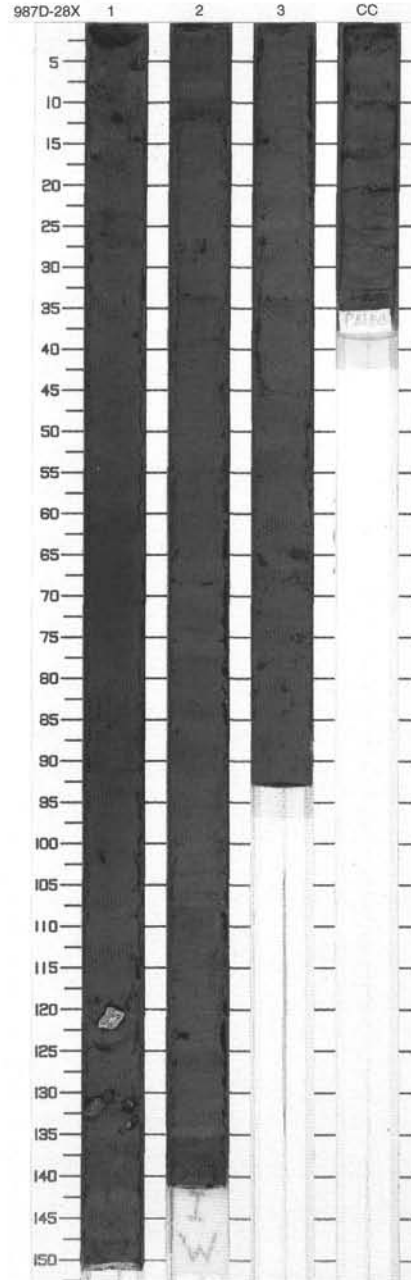
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	late Pliocene	[Wavy lines]	[Dashed line]			<p>SILTY CLAY</p> <p>General Description: The core contains firm, very dark gray (5B 3/1, 5PB 3/1, 5BG 3/1), dark gray (7.5 YR 4/1), and dark grayish brown (2.5Y 4/1) SILTY CLAY. A few silt laminations are present and in Section 5, 116—120 cm, there is a layer of SILTY SAND WITH PYRITE AND CLAY. This layer is also laminated. Sulfides are dispersed throughout, forming poorly defined layers, and a few pyrite crystals/concretions are present. Bioturbation consists of irregular mottles and a few silt-filled burrows.</p> <p>Dropstones: Section 2, 117 cm, 3.0-cm-long, dark gray sulfurous, angular siltstone; 135 cm, 2.2-cm-long, gray, subrounded, metaquartzite; Section 3, 82 cm, 1.2-cm-long, disintegrated sandstone; 149 cm, 1.0-cm-long, light gray, subangular, igneous crystalline; Section 4, 8 cm, 1.1-cm-long, angular gray siltstone; 148 cm, >2-cm, disintegrated sandstone; Section 6, 100 cm, 2 cm long, buff, subangular quartzite. Voids are present in Section 6, 44—49 and 76—79 cm.</p>
2	[Hatched pattern]	2		[Wavy lines]	[Dashed line]	S	5PB 3/2 To 5B 4/1	
3	[Hatched pattern]	3		[Wavy lines]	[Dashed line]			
4	[Hatched pattern]	4		[Wavy lines]	[Dashed line]			
5	[Hatched pattern]	5		[Wavy lines]	[Dashed line]		7.5YR N4/0	
6	[Hatched pattern]	6		[Wavy lines]	[Dashed line]	S	5BG 4/1	
7	[Hatched pattern]	7		[Wavy lines]	[Dashed line]	S		
8	[Hatched pattern]	6	[Wavy lines]	[Dashed line]			2.5Y N4/0	
9	[Hatched pattern]	7	[Wavy lines]	[Dashed line]				
		CC						M



SITE 987 HOLE D CORE 28X

CORED 238.2 - 247.9 mbsf

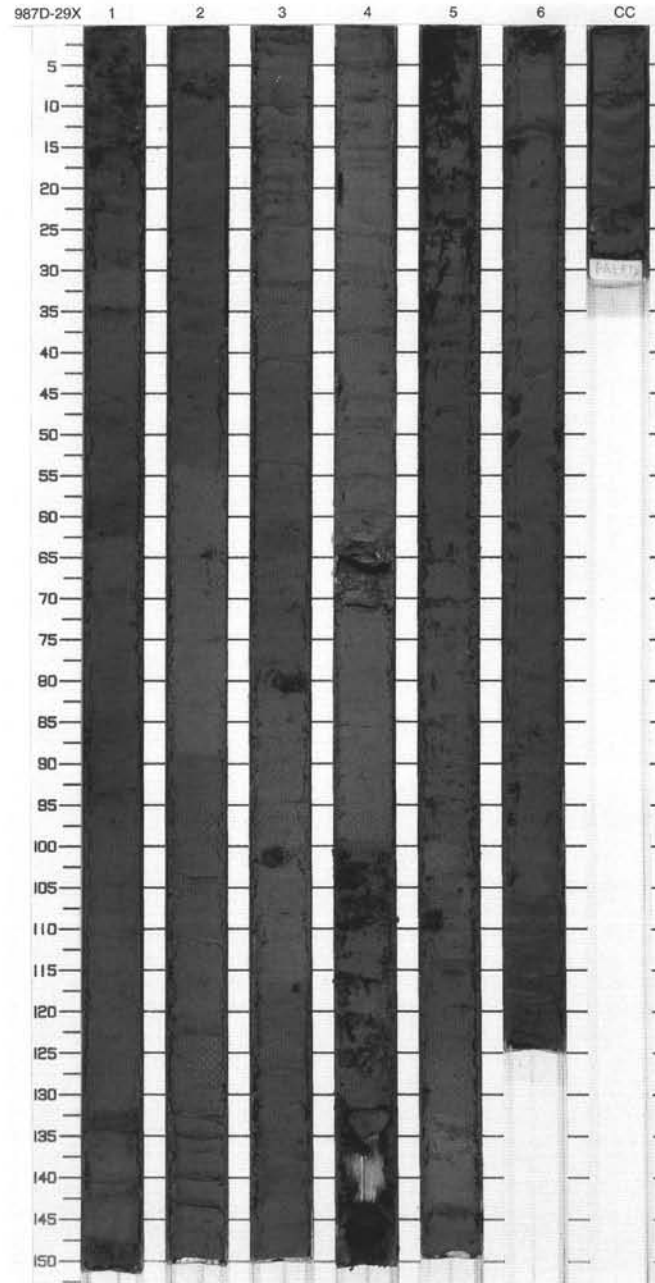
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	late Pliocene	[Wavy line pattern]	[Dashed line pattern]	S	5RP 3/1	<p>SILTY CLAY</p> <p>General Description: This core contains very dark gray (5RP 3/1) and dark gray (5R 4/1) SILTY CLAY. The sediment is firm and slightly bioturbated throughout the entire core. Sand-filled burrows are present in Section 1, 10 and 101 cm. Sandy layers are present in Section 1, 22—23 cm and in Section 2, 10—12 cm. This core is slightly disturbed due to coring.</p> <p>Dropstones: Section 1, 119—121 cm: 2.9-cm-long gray subangular granite; 129—130 cm: 2.2-cm-long dark subangular highly weathered granite; 131—132 cm: 1.5-cm-long dark subrounded basalt; 132—133 cm: 1 -m-long chloritized granite.</p>
2	[Hatched pattern]	2					5R 4/1	
3	[Hatched pattern]	3					I	
4	[Hatched pattern]	CC					M	



SITE 987 HOLE D CORE 29X

CORED 247.9 - 257.5 mbsf

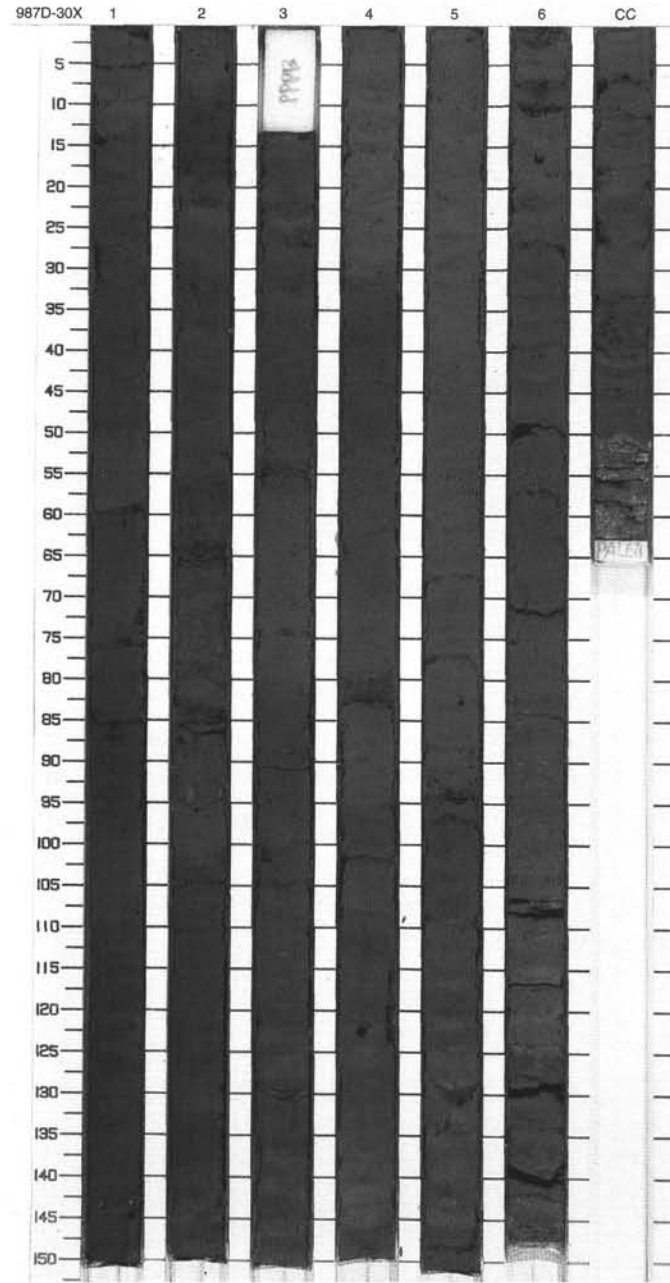
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1			W		5YR 4/2	<p>SILTY CLAY</p> <p>General Description: This core contains dark gray (5YR 4/1 and 5R 4/1), very dark gray (5R 3/1), gray (5Y 5/1) SILTY CLAY and dark reddish gray (5YR 4/2) to dark gray (5R 4/1) SILTY CLAY WITH INORGANIC CALCITE. The sediment is firm and slightly bioturbated throughout the entire core. Disseminated sulfides are present in Section 2, 0—53 cm. A gray layer is present in Section 4, 60—70 cm. A SANDY turbidite is present in Section 6, 107—123 cm. SANDY layers and laminations are interbedded with SILTY CLAY from Section 1, 132 cm to Section 2, 8 cm, from Section 2, 100 cm to Section 4, 55 cm.</p> <p>Dropstones: Section 3, 80 cm: 2-cm-long subangular garnet-rich metamorphic rock; Section 4, 132 cm: 4.8-cm-long subangular gneiss.</p>
2	[Hatched pattern]	2				S	5YR 4/1	
3	[Hatched pattern]	3				S	5Y 5/1	
4	[Hatched pattern]	4				S	5YR 4/2	
5	[Hatched pattern]	5	late Pliocene			S	5R 4/1	
6	[Hatched pattern]	6				S	5R 3/1	
7	[Hatched pattern]	7					5R 4/1	
8	[Hatched pattern]	8					5R 3/1	
	[Dotted pattern]	CC				M		



SITE 987 HOLE D CORE 30X

CORED 257.5 - 267.1 mbsf

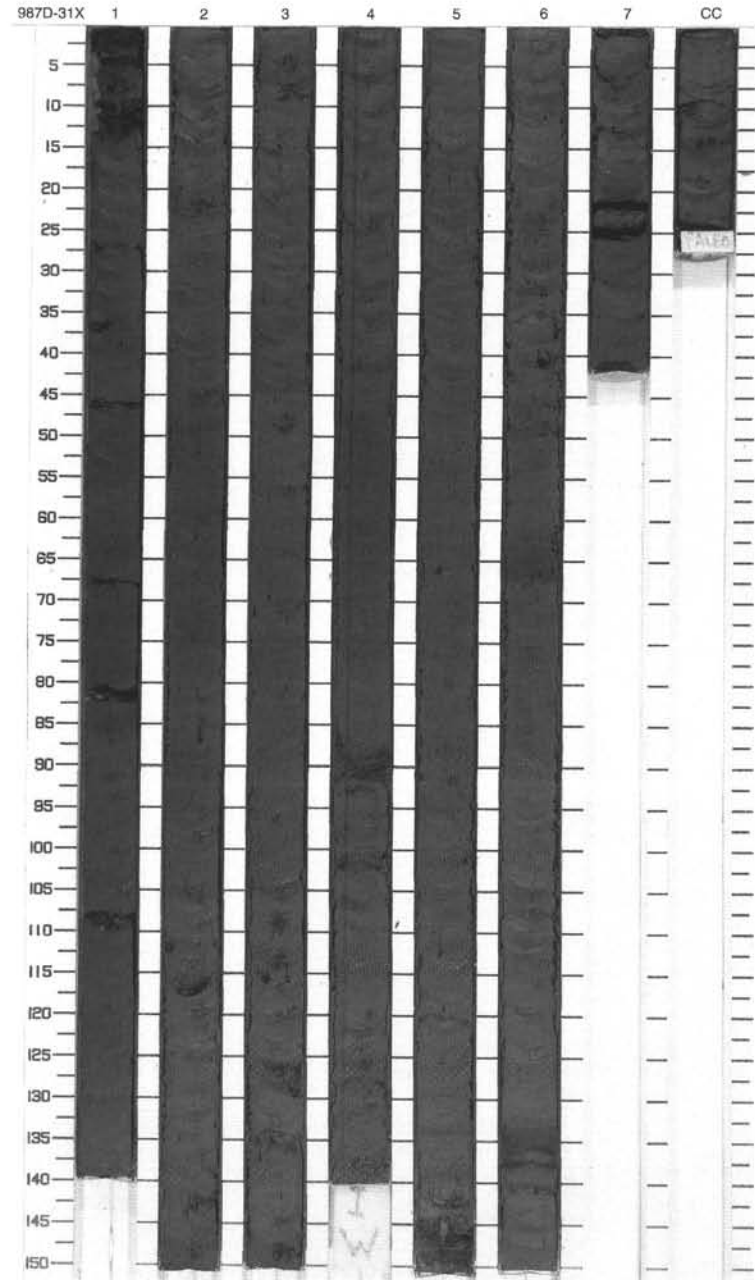
Meter	Graphic Lith.	Section Age	Structure	Disturb	Sample	Color	Description
1		1	P			5G 4/1 To 5GY 3/1	SILTY CLAY General Description: This core contains dark gray to dark greenish gray (10Y 4/1, 5GY 4/1, and 5Y 4/1) SILTY CLAY. The sediment is very firm throughout. All color changes are subtle and gradational, except for a single sharp color contact in Section 4, 30 cm. The core contains several layers of coarse sediment (silt with clay or sand?) in Section 4, 81—84 cm, Section 1, 57 cm, Section 6, 106—107 cm, and especially, intervals of Section 2 between 58—97 cm. Slight bioturbation occurs throughout the core. Small black spots (probably disseminated pyrite?) are present throughout. Section 6, 70—140 cm is slightly disturbed. The core contains a dropstone (1-cm-long subrounded siltstone) in Section 4, 124 cm.
2		2	P		S		
3		3	P			5GY 4/1 To 10Y 4/1	
4		3	P				
5		4	P			5Y 4/1 To 5YR 4/1	
6		4	P		S		
7		5	P			5Y 4/1 To 5YR 4/1	
8		5	P		S		
9		6	P			5Y 4/1 To 5YR 4/1	
		6	P		S		
		CC			M		

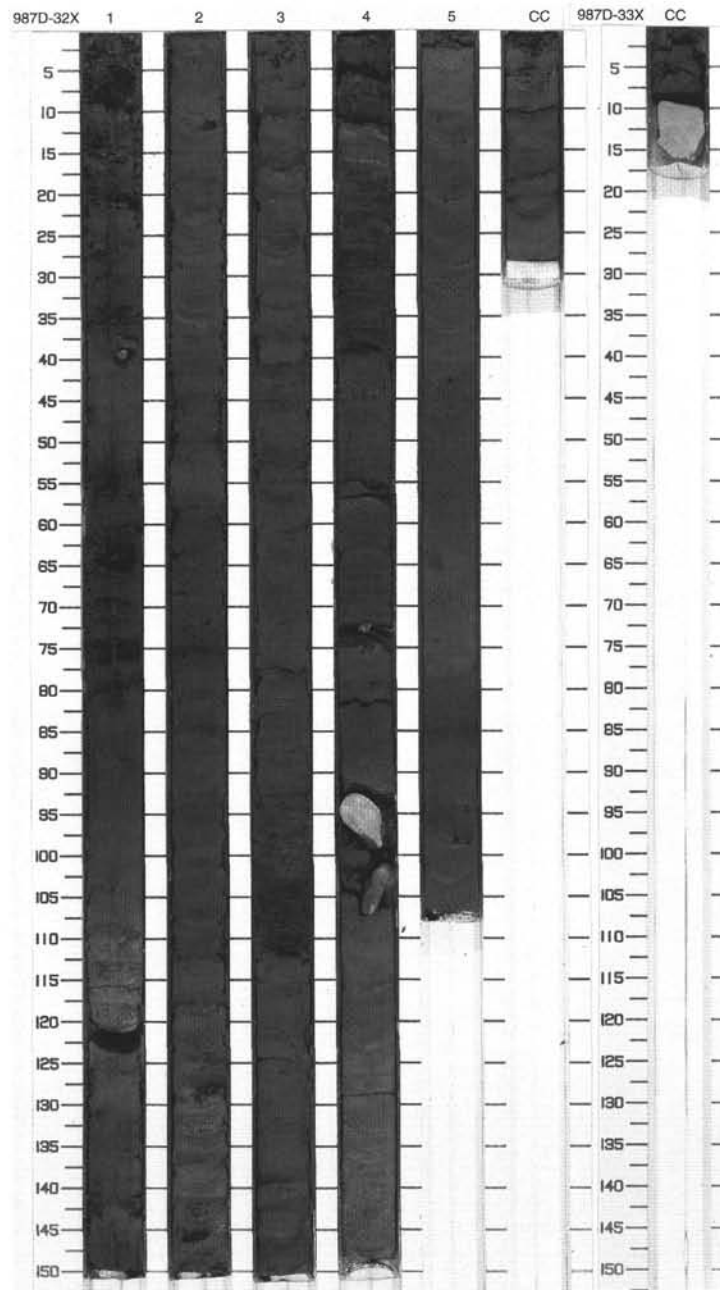
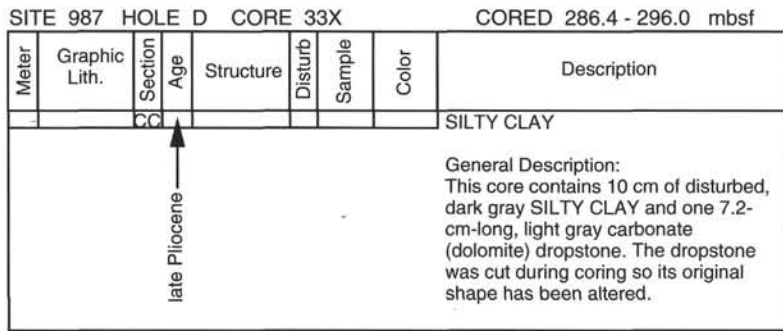
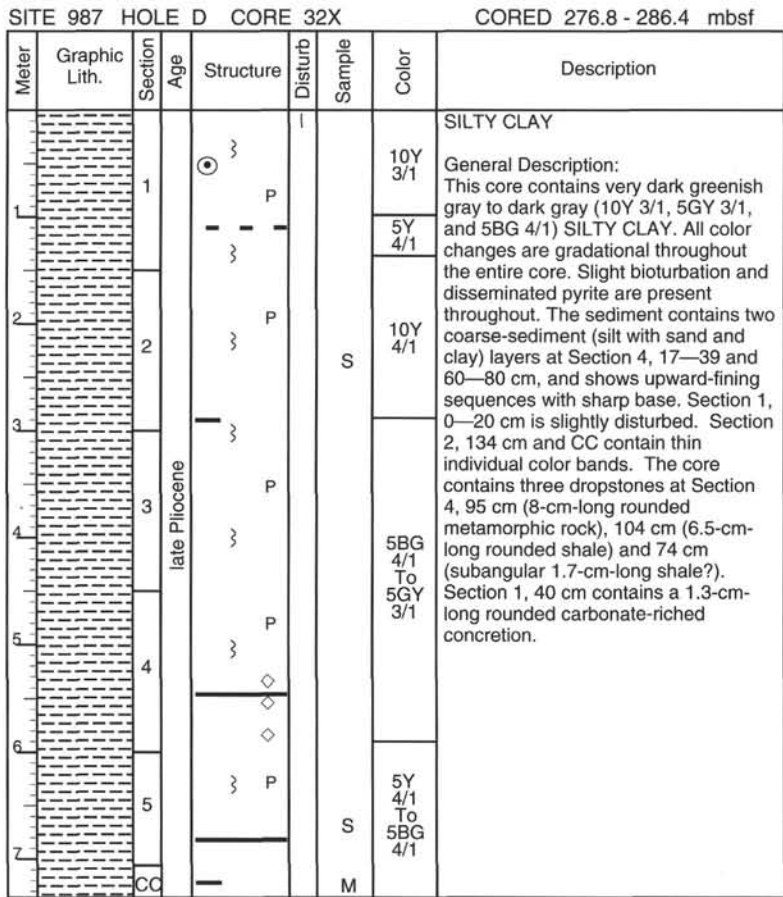


SITE 987 HOLE D CORE 31X

CORED 267.1 - 276.8 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	late Pliocene	}		S	5BG 4/1	<p>SILTY CLAY</p> <p>General Description: This core contains firm dark gray (10Y 4/1), very dark gray (5G 4/1, 5YR 3/1, 5BG 4/1), and very dark greenish gray (7.5GY 3/1) SILTY CLAY. A few harder intervals are present in Sections 1 and 3, often associated with gaps in the core. A hard brownish layer is present from Section 5, 144 cm to Section 6, 3 cm. Sulfides are dispersed throughout forming poorly defined layers, and one pyrite concretion is present in Section 5. Very slight bioturbation consists of irregular mottles and a few silt-filled burrows. A silty-sandy layer with sharp base and top (probably turbidite) occurs in Section 6, 134—137 cm. Black 1.5-cm-sized subangular mudstone in Section 6, 40 cm.</p>
2	[Hatched pattern]	2					5YR 3/1	
3	[Hatched pattern]	3					5G 4/1	
4	[Hatched pattern]	3					5GY 4/1	
5	[Hatched pattern]	4					5BG 4/1	
6	[Hatched pattern]	5					7.5GY 3/1	
7	[Hatched pattern]	6					10Y 4/1	
8	[Hatched pattern]	6	M	}		S	7.5GY 3/1	
9	[Hatched pattern]	7						
		CC						





SITE 987 HOLE D CORE 34X

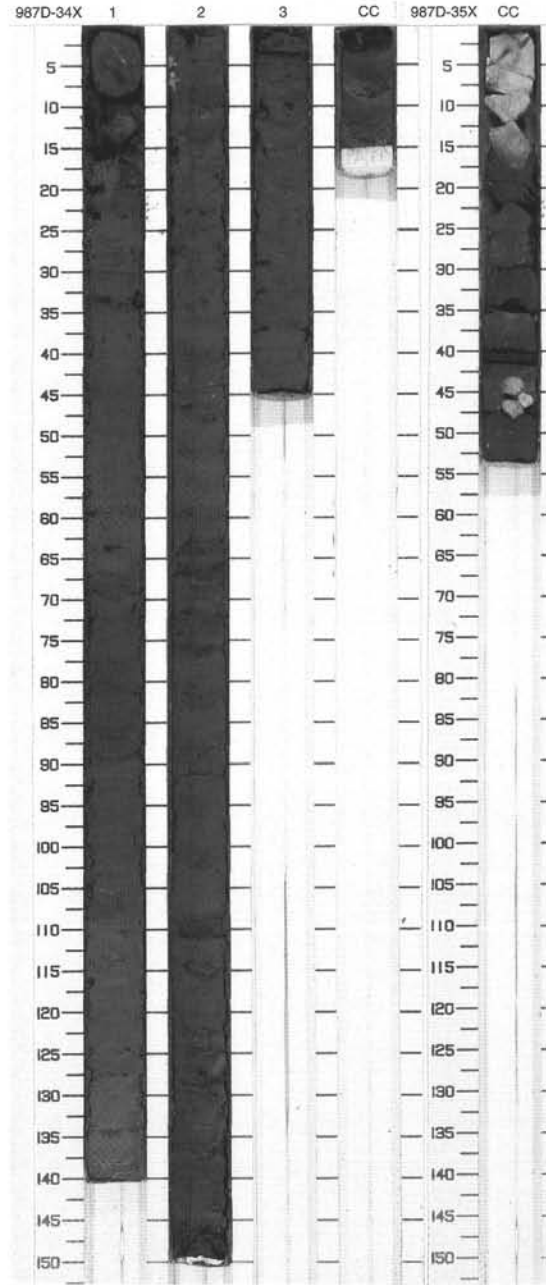
CORED 296.0 - 302.6 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	late Pliocene	[Wavy lines]	[Dashed line]	S	5GY 4/1	<p>SILTY CLAY</p> <p>General Description: This core contains dark gray (5Y 4/1 and 5BG 3/1), dark greenish gray (5GY 4/1), very dark greenish gray (5GY 3/1), and black (2.5Y N/0) SILTY CLAY. The core is moderately disturbed, consisting of biscuits, with soft sediment filling the spaces between the biscuits. Bioturbation is slight, with a few mottles and in Section 2, 0—7 cm, some silt-filled burrows.</p>
2		2.5Y N4/0						
3		5BG 4/1						
		CC				M		

SITE 987 HOLE D CORE 35X

CORED 302.6 - 305.6 mbsf

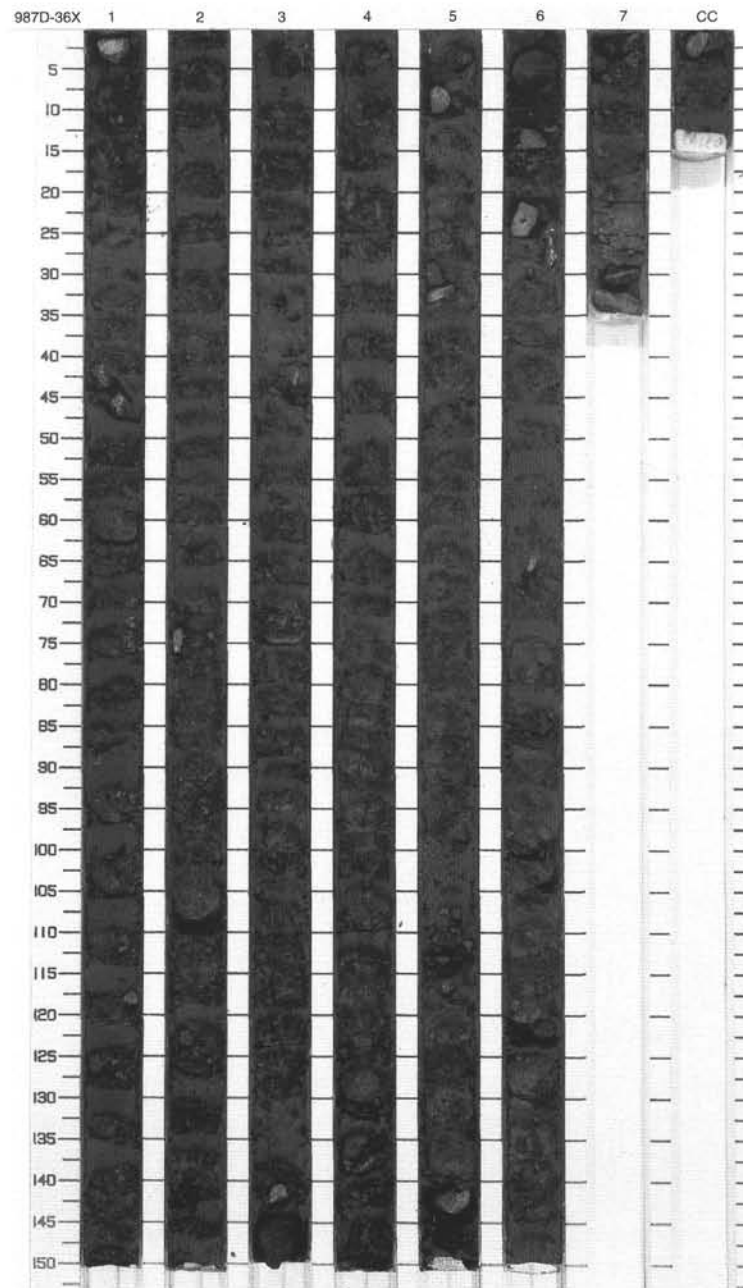
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
	[Hatched pattern]	CC				S	5RP 2/2	<p>SILTY CLAY</p> <p>General Description: This core contains dark gray (5RP 3/0) SILTY CLAY. The sediment is very firm and composed of several fractured pieces. The bottom of the core contains a 4 cm-long concretion. The core contains many dropstones and pebbles. Dropstones: Section 1, 0-16 cm (4-cm-long subangular metamorphic rock), and 32 cm (1.5-cm-long subround siltstone).</p>
			late Pliocene			M		



SITE 987 HOLE D CORE 36X

CORED 305.6 - 315.2 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1		◇				SILTY CLAY WITH SAND General Description: This core contains very dark greenish gray (10Y 3/1) SILTY CLAY WITH SAND. The sediment is very disturbed throughout, by both coring and splitting. Very firm, deformed drilling biscuits (2—10 cm) are separated by softer drilling slurry. Eighty-five rock fragments (1.0—6.0 cm), which may be clasts or dropstones, occur throughout the core. Their distribution is as follows: Section 1, 11 stones; Section 2, 7 stones; Section 3, 19 stones; Section 4, 9 stones; Section 5, 14 stones; Section 6, 24 stones; CC, 1 stone.
2		2		◇		S		
3		3		◇				
4		3		◇				
5		4	late Pliocene	◇			10Y 3/1	
6		4		◇				
7		5		◇				
8		6		◇				
9		6		◇				
		7		◇				
		CC		◇		M		

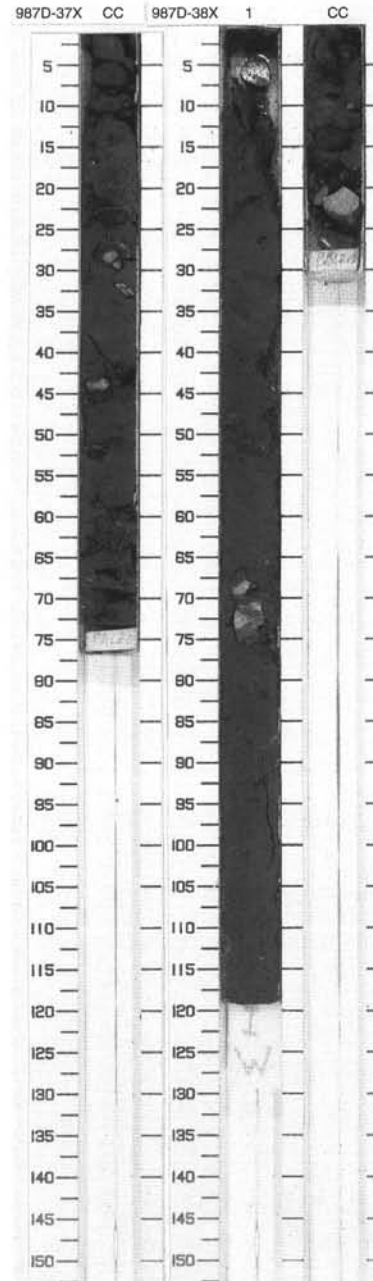


SITE 987 HOLE D CORE 37X CORED 315.2 - 324.8 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		CC	↑	◇ ◇	www	M	10Y 3/1	SILTY CLAY General Description: This core contains very dark greenish gray (10Y 3/1) SILTY CLAY. The sediment is highly disturbed, and contains a number of randomly oriented clasts from mm-scale to 4.0 cm.
			late Pliocene					

SITE 987 HOLE D CORE 38X CORED 324.8 - 334.4 mbsf

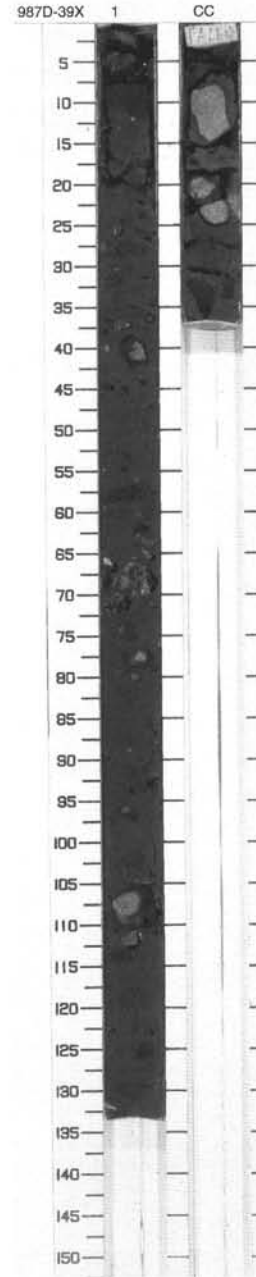
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		1 CC	late Pliocene		w	S I M	5RP 2/2	SILTY CLAY General Description: This core contains dark gray (5RP 2/2) SILTY CLAY. The sediment contains numerous dropstones and pebbles. No color changes occur within the core. The top of Section 1 is slightly disturbed. Dropstones: Section 1, 70 cm: 1.50-cm-long subangular igneous; 72 cm: 4.5-cm-long subangular igneous; CC, 2 cm: 2—cm-long subangular siltstone; 10 cm: 1-cm subangular siltstone; 14 cm: 3-cm subangular siltstone. The interval from 20 cm to bottom of the Core Catcher contains dropstones which are mixed as follows: 1.5-cm-long subangular igneous, 1.7-cm-long subangular siltstone, 2.3-cm-long subangular siltstone, 4-cm-long subangular metamorphic rock, 2.8-cm-long subangular metamorphic rock and 3.7-cm-long subangular igneous rock.



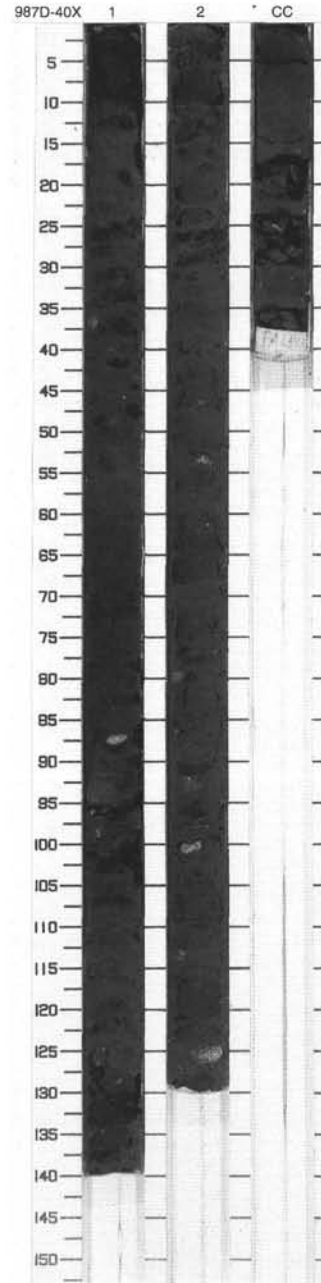
SITE 987 HOLE D CORE 39X

CORED 334.4 - 344.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		1	late Pliocene	◇ ◇ ◇ ◇ ◇ ◇ ◇	---	S M	10Y 3/1	<p>CLAYEY SILT WITH SAND AND GRAVEL</p> <p>General Description: This core contains very dark gray (10Y 3/1) CLAYEY SILT WITH SAND AND GRAVEL. The sediment is very firm and hard. There are numerous clasts both of <1.0-cm- and of >1.0-cm-size. 50 clasts >1.0 cm occur: Section 1, 0—24 cm, 3 clasts: 1 basaltic rocks, 1 granite, 1 mud clast; 35—44 cm, 7 clasts: 4 basaltic rocks, 2 igneous rocks, 1 sedimentary rock; 61—79 cm, 13 clasts: 8 igneous rocks, 1 quartzite, 2 sedimentary rocks, 2 metamorphic rocks; 84—96 cm, 7 clasts: 2 basaltic rocks, 3 igneous rocks, 2 sedimentary rocks; 102—113 cm, 5 clasts: 2 basaltic rocks, 2 igneous rocks, 1 metamorphic rock; 121—125 cm, 3 clasts: 2 basaltic rocks, and 1 igneous rock. Core Catcher, 5 cm: drilled through a 9.2-cm-sized metamorphic rock; 16—36 cm, 7 clasts: 2 basaltic rocks, 2 igneous rocks, 2 metamorphic rocks, and 1 sedimentary rock.</p>



Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Symbol]	1	late Pliocene	◇	/	S	10Y 3/1	<p>SILTY CLAY WITH SAND AND GRAVEL</p> <p>General Description: This core contains very dark gray (10Y 3/1) SILTY CLAY WITH SAND AND GRAVEL. The sediment is very firm and slightly biscuited throughout. There are numerous clasts both of <1.0-cm- and of >1.0-cm-size. 91 clasts >1.0 cm occur: Section 1, 0 cm, 4 subrounded basaltic fragments; 12 cm, 1.1-cm-sized sedimentary rock; 23 cm, 1.9-cm-size reddish igneous rock; 32—48 cm, 10 clasts: 2 basaltic rocks, 4 igneous rocks, 2 metamorphic rocks, 2 sedimentary rocks; 67—71 cm, 4 clasts: 2 igneous rocks, 1 sedimentary rock, 1 mud clast; 85 cm, 4.9-cm-size subrounded metamorphic rock; 88—102 cm, 13 clasts: 3 basaltic rocks, 5 igneous rocks, 5 metamorphic rocks; 105—137 cm, 10 clasts: 2 basaltic rocks, 3 igneous rocks, 2 sedimentary rocks. Section 2, 0—3 cm, 3 clasts: 1 metamorphic rock, 1 mud clast, 1 basalt; 26—39 cm, 5 clasts: 1 basalt, 2 metamorphic rocks, 2 igneous rocks; 46—57 cm, 5 clasts: 1 sedimentary rock, 2 metamorphic rocks, 2 igneous rocks; 72—80 cm, 7 clasts: 2 basalts, 2 metamorphic rocks, 2 igneous rocks, 1 sedimentary rock; 86—102 cm, 11 clasts: 1 basalt, 4 metamorphic rocks, 4 igneous rocks, 2 sedimentary rocks; 111—127 cm, 7 clasts: 3 metamorphic rocks, 3 igneous rocks, 1 sedimentary rock. Core Catcher, 2 clasts: 1 metamorphic rock, 1 igneous rock.</p>
2	[Symbol]	2		◇				
3	[Symbol]	CC		◇				



SITE 987 HOLE D CORE 41X

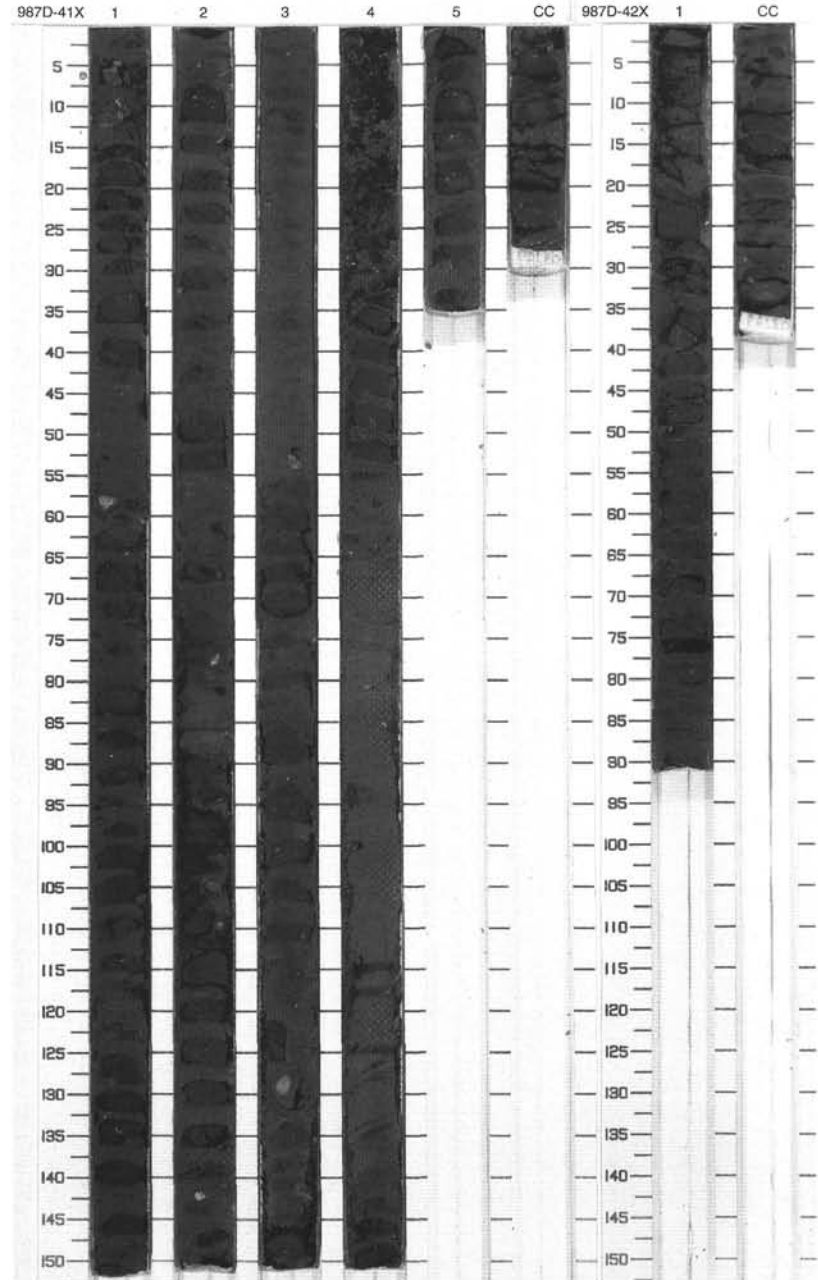
CORED 353.7 - 363.3 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	late Pliocene	◇		S	10Y 3/1	<p>SAND-SILT-CLAY</p> <p>General Description: This core contains very dark greenish gray (10Y 3/1) SAND-SILT-CLAY. The sediment is very firm and heterogeneous, with numerous small clasts randomly oriented within the finer matrix. The core is very disturbed, with 1—4 cm drilling biscuits separated by more abundant, softer, homogeneous drilling slurry. Many randomly oriented rock fragments (1.0—4.0 cm) occur. They are primarily crystalline, with some clastic sedimentary rocks, and are distributed as follows: Rock fragments: Section 1, 10 stones; Section 2, 16 stones; Section 3, 17 stones; Section 4, 8 stones; Section 5, 3 stones; Section CC, 2 stones.</p>
2		2		◇				
3		3		◇				
4		4		◇				
5		5		◇				
6		CC	◇		M			

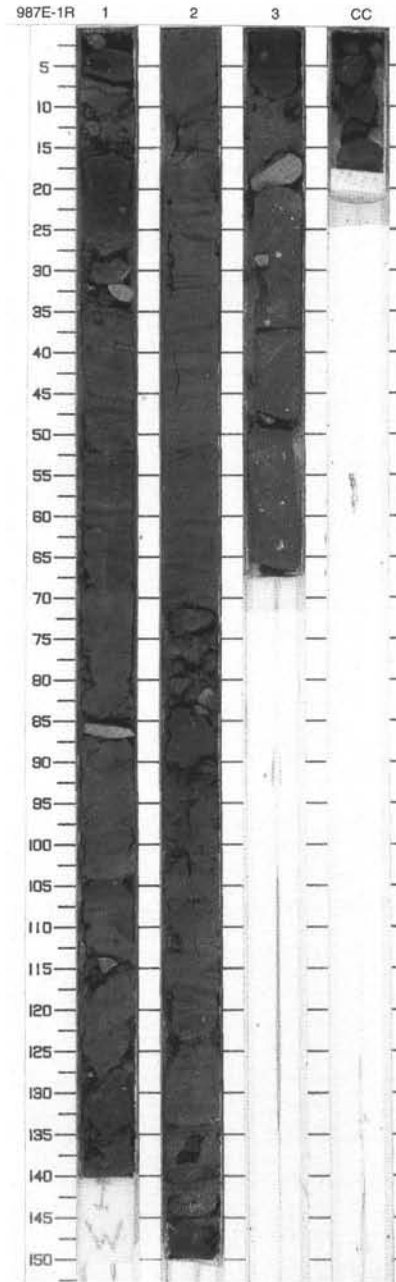
SITE 987 HOLE D CORE 42X

CORED 363.3 - 373.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	late Pliocene	◇	---	S	5GY 3/1 To 5P 2/2	<p>SILTY CLAY</p> <p>General Description: This core contains dark greenish gray (5GY 3/1) and dark gray (10P 3/1) SILTY CLAY. Entire sediment is biscuitied and moderately to highly disturbed throughout.</p> <p>Dropstones: Section 1, 30 cm: 1.5-cm-long rounded shale; 37 cm: 3-cm-long subrounded igneous rock; 2 cm: 4.5-cm-long subangular siltstone; Core Catcher, 3 cm: 1.7-cm-long subangular shale; 7 cm: 1.3-cm-long subangular shale; 33 cm: 1.5-cm-long subangular shale.</p>
		CC		◇	---			



Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	Pliocene	[Wavy lines]	[X marks]	S	5Y 3/1	<p>SILTY CLAY and CLAYEY INORGANIC CALCITE WITH SILT</p> <p>General Description: This core contains very dark gray (5Y 3/1) SILTY CLAY and very dark greenish gray (5GY 3/1) CLAYEY INORGANIC CALCITE WITH SILT. The entire core is moderately disturbed to highly fractured. Sediment is firm where intact. Thin dark clayey laminations are present in Section 1, 44—65 and 100—120 cm and in Section 2, 7—60 and 100—130 cm. Several small gravels (<1 cm) are present in Section 1, 15—25 cm and in Section 3.</p> <p>Dropstones: Section 1, 1—3 cm: 2.4-cm-long reddish subrounded quartzite; 31—33 cm: 3-cm-long reddish subrounded granite; 85—86 cm: 6-cm-long dark subangular igneous rock; 114—116 cm: 2.5-cm-long gray subangular sandstone; 127—128 cm: 1-cm-long red angular siltstone; Section 2, 77—80: 2.5-cm-long gray subrounded sandstone (with pyrite); 2.6-cm-long gray subangular diorite; 135—136 cm: 1.5-cm-long gray subangular sandstone; Section 3, 15—19 cm: 7-cm-long gray subrounded igneous; 27—28 cm: 1.3-cm-long subrounded gary diorite; 46—47 cm: 2.2-cm-long dark gary subrounded igneous rock; Core Catcher, 2—3 cm: 2-cm-long gray igneous rock.</p>
2	[Hatched pattern]	2		[Wavy lines]	[X marks]	I		
3	[Dotted pattern]	3		[Wavy lines]	[X marks]	S	5GY 3/1	
		CC		[Wavy lines]		M		



SITE 987 HOLE E CORE 2R

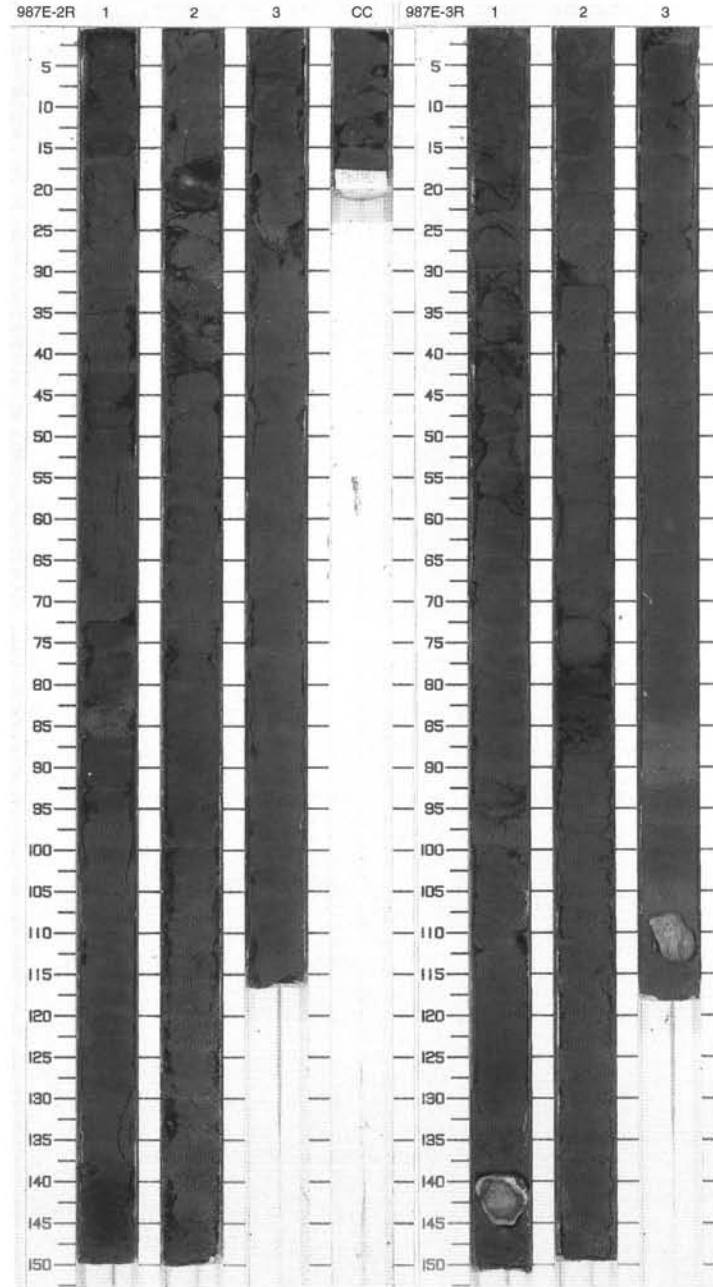
CORED 369.2 - 378.8 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	late Pliocene			S	5Y 3/1 To 5YR 3/1	SILTY CLAY General Description: This core contains very dark gray (5Y 3/1) to very dark greenish gray (5GY 3/1) SILTY CLAY. The core is slightly to highly fractured and disturbed. Sediment is firm where in place. Slight bioturbation occurs throughout. Thin dark clayey laminations occur in Section 1, 12–20 cm and in Section 3, 5–10 cm. Dropstone: Section 2, 17–20 cm: 7-cm-long dark gray subangular igneous rock.
2		2						
3		3						
4		3				M	5Y 3/1	

SITE 987 HOLE E CORE 3R

CORED 378.8 - 388.4 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	late Pliocene			S	5Y 3/1 To 5GY 3/1	SILTY CLAY General Description: This core contains very dark greenish gray (5GY 3/1) to very dark gray (5Y 3/1) SILTY CLAY. Sediment is biscuited but very firm where intact. Slight to moderate bioturbation occurs throughout. Sedimentary structures are difficult to see because of the coring disturbance. Thin dark clayey laminations are present in Section 2, 70-90 cm. A dark reddish gray (5YR 4/2) INORGANIC CALCITE WITH CLAY layer is present in Section 3, 84-92 cm. Dropstones: Section 1, 138-144 cm: 7 cm-long surrounded quartzite, Section 3, 106-111: 6 cm-long subangular quartzite.
2		2						
3		3						
4		3				M		

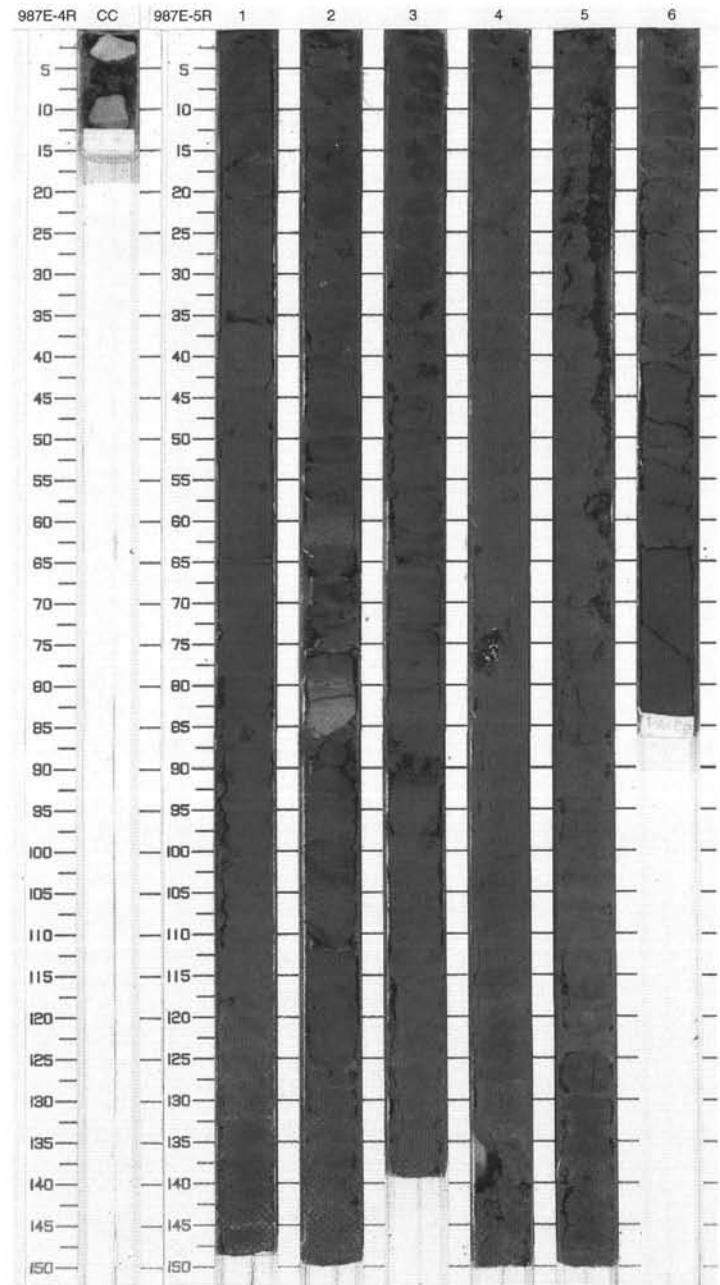


SITE 987 HOLE E CORE 4R CORED 388.4 - 398.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		CC						General Description: Dropstones: Core Catcher, 0—5 cm: 6-cm-long brownish gray subangular limestone; Core Catcher, 10—13 cm: 5.2-cm-long gray subangular igneous rock.

SITE 987 HOLE E CORE 5R CORED 398.0 - 407.6 mbsf

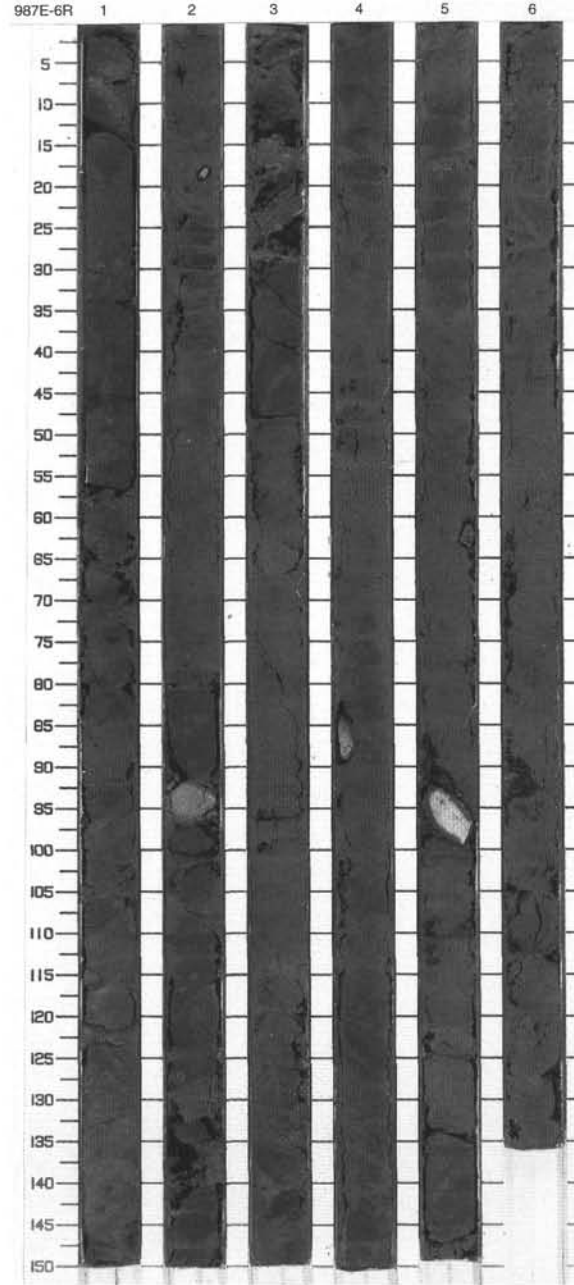
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1					5GY 3/1	<p>SILTY CLAY</p> <p>General Description: This core contains very dark greenish gray (5GY 3/1 and 5G 3/1) and dark gray (5YR 4/1) SILTY CLAY. Two gray (5Y 5/1 and 5Y 6/1) INORGANIC CALCITE WITH CLAY layers are present in Section 2, 58—62 cm and 76—85 cm. The core is slightly to highly disturbed due to coring. Sediment is firm where in place. Green color bands are present in Section 3, 60—70 cm. A shell fragment is present in Section 4, 74 cm. Color changes are very gradual.</p>
2		2				S	5Y 6/1	
3		3				I	5G 3/1 To 5YR 4/1	
4		4	late Pliocene			S	5GY 3/1	
5		5						
6		6				M	5YR 4/1	



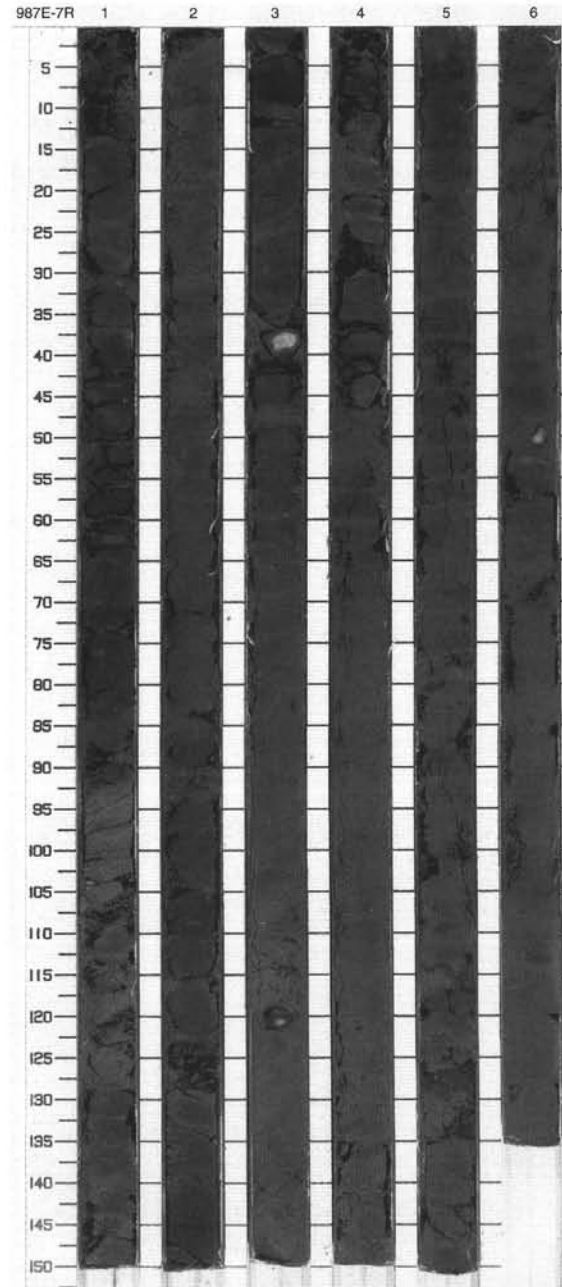
SITE 987 HOLE E CORE 6R

CORED 407.6 - 417.2 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1				S		<p>SILTY CLAY</p> <p>General Description: This core contains very dark greenish gray (5GY 3/1) and dark gray (5Y 3/1 and 5R 3/1) SILTY CLAY. Sediment is slightly to highly disturbed due to coring. Sediment is very firm where in place. Dark and light thin laminations are present in Section 3, 15—20 and 96—100 cm and in Section 5, 103—107 and 140—145 cm. A light (5Y 6/1) INORGANIC CALCITE WITH CLAY indurated layer is present in Section 2, 92—97 cm.</p> <p>Dropstones: Section 4, 82—90 cm : 5.5-cm-long subrounded granite; Section 5, 92—101 cm: 9-cm-long gneiss; Section 5, 62—65 cm: 2.5-cm-long dark subangular limestone.</p>
2		2					5GY 3/1 To 5R 3/1	
3		3						
4		4						
5		5				S	5GY 3/1 To 5YR 3/1	
6		6				M		
			late Pliocene					



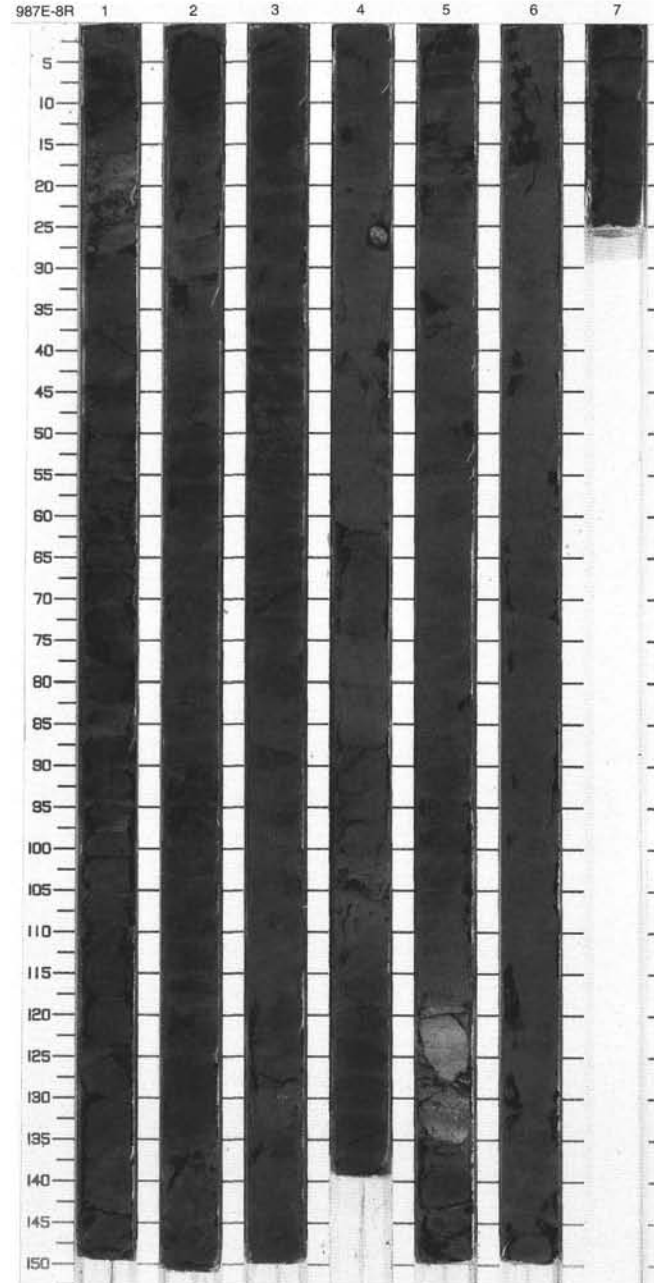
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	late Pliocene	◇		S	5GY 3/1	<p>SILTY CLAY</p> <p>General Description: This core contains fractured and biscuited very dark greenish gray (5GY 3/1 and 10Y 3/1) and very dark gray (5BG 3/1 and 5B 3/1) SILTY CLAY. The biscuits range in length from <1 cm to about 7 cm, most being 2–4 cm long. Very minor color gradations are present and a few intervals contain laminations. Laminations might be more abundant, but if so they are obscured by the coring biscuits and the dark color of the sediment. Not all beds are parallel. Some tilted beds are probably original, others are drilling induced. A minor lithology, dark gray (5Y 4/1) INORGANIC CALCITE WITH CLAY is present in Section 1, 90–108 cm. The entire CC was sent to the paleontology lab.</p> <p>Dropstones: Section 3, 37 cm: 4.7-cm-long subrounded gray quartz sandstone; Section 3, 120 cm: 3.2-cm-long dark gray rounded igneous crystalline; Section 5, 20 cm: 1.0-cm-long black angular mudstone; Section 6, 48 cm: 2.6-cm-long subrounded pink granite.</p>
2	[Hatched pattern]	2					5Y 4/1	
3	[Hatched pattern]	3					10GY 3/1	
4	[Hatched pattern]	4						
5	[Hatched pattern]	5						
6	[Hatched pattern]	6						
7	[Hatched pattern]	7						
8	[Hatched pattern]	8					5B 4/1 To 5BG 4/1	
CC						M		



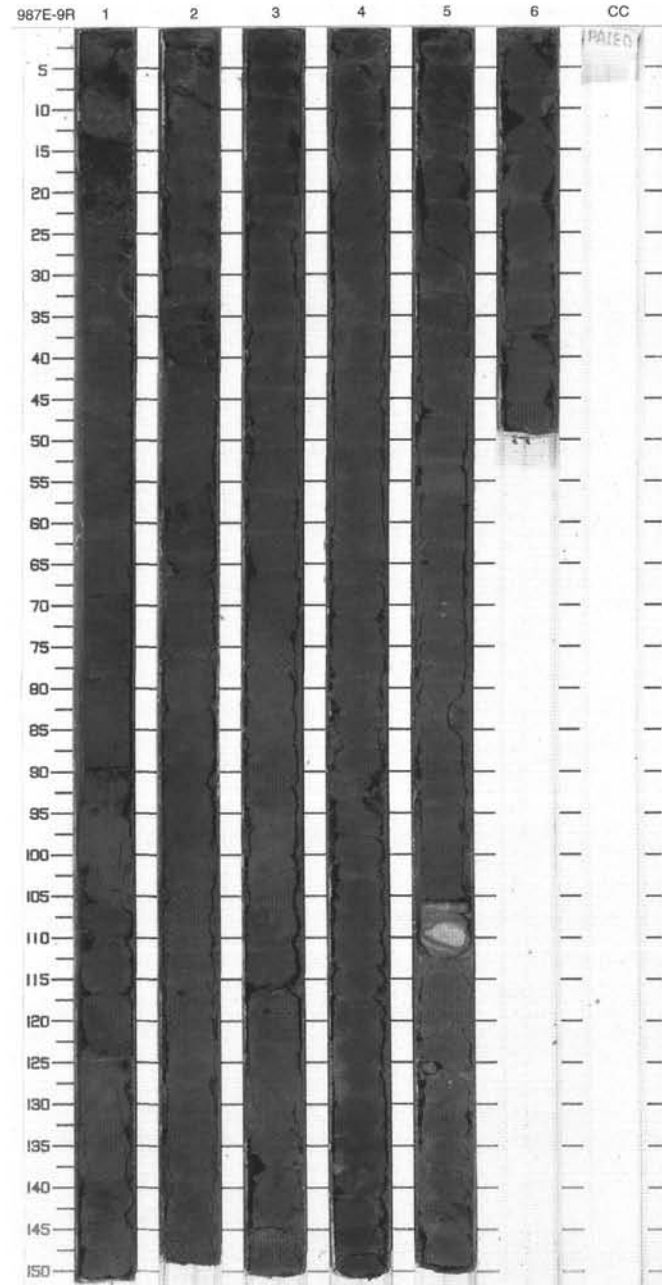
SITE 987 HOLE E CORE 8R

CORED 426.8 - 436.4 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	late Pliocene	[Symbol]	[Symbol]	S	5G 3/1	<p>SILTY CLAY</p> <p>General Description: This core contains fractured and biscuited very dark greenish gray (5GY 3/1, 5G 3/1, and 10GY 3/1) and very dark gray (5BG 3/1 and 5R 3/1) SILTY CLAY. The biscuits generally range in length from 2—4 cm. Minor color gradations are present and a few intervals contain laminations. Laminations might be more abundant, but if so they are obscured by the coring biscuits and the dark color of the sediment. Not all beds are parallel. Some tilted beds are probably original, others are drilling induced. Two minor lithologies, gray (5Y 5/1) INORGANIC CALCITE WITH CLAY is present in Section 1, 17—28 cm and Section 5, 120—135 cm. The other minor lithology CLAY WITH INORGANIC CALCITE has a deep reddish brown color and is present as mottles in Section 1, 51—56 cm and 100—109 cm. Small sulfide crystals are disseminated throughout the core as are minor grain size variations. The only clear evidence of bioturbation are the indistinct trace fossils in the INORGANIC CALCITE WITH CLAY in Section 5.</p> <p>Dropstones: Section 4, 25 cm: 2.4-cm-long subrounded tan chert; Section 5, 48 cm: 3-cm-long rounded black basalt; Section 5, 54 cm: 2.0-cm-long black subrounded basalt.</p>
2	[Hatched pattern]	2		[Symbol]	[Symbol]	S		
3	[Hatched pattern]	3		[Symbol]	[Symbol]	S		
4	[Hatched pattern]	4		[Symbol]	[Symbol]	I		
5	[Hatched pattern]	5		[Symbol]	[Symbol]	I		
6	[Hatched pattern]	6		[Symbol]	[Symbol]	I		
7	[Hatched pattern]			[Symbol]				
8	[Hatched pattern]			[Symbol]				
9	[Hatched pattern]			[Symbol]				
						M		

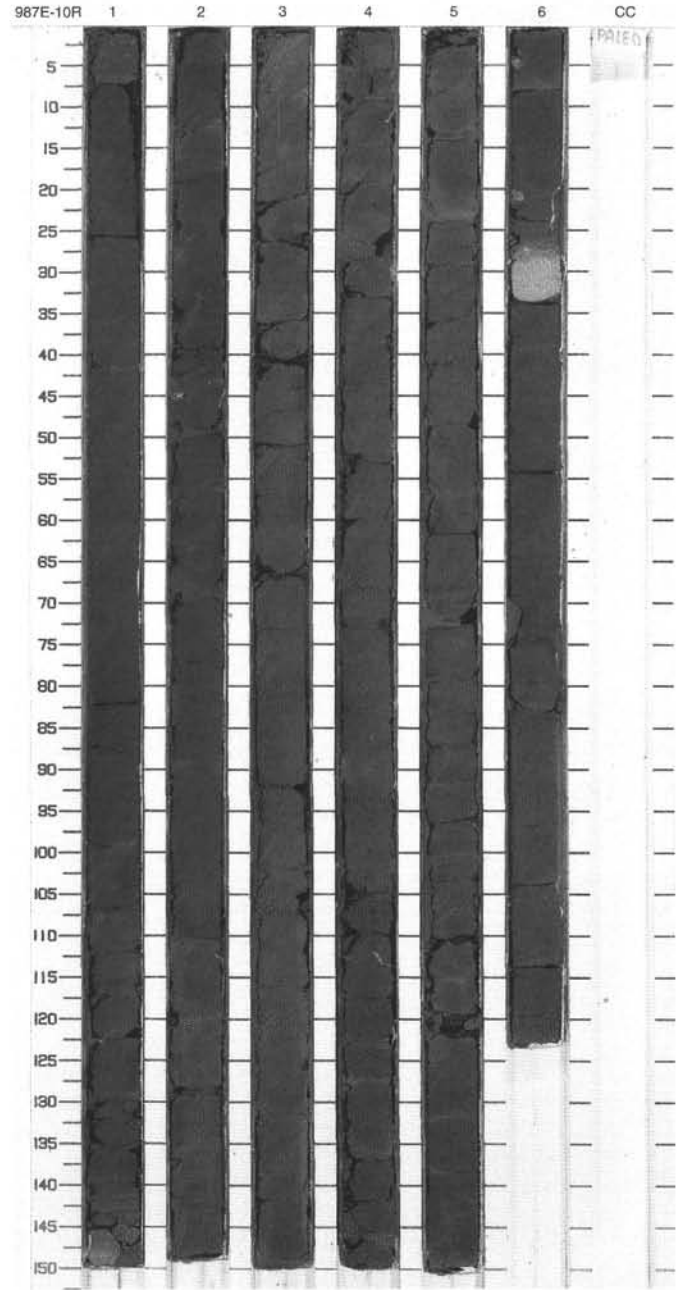


Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1		[Vertical lines]	X		5GY 3/1	<p>SILTY CLAY</p> <p>General Description: This core contains fractured and biscuited very dark greenish gray (5GY 3/1, 5G 3/1, and 10GY 3/1) and very dark gray (5GY 3/1) SILTY CLAY. The biscuits generally range in length from 2—4 cm. Minor color gradations are present and a few intervals contain laminations. Laminations might be more abundant, but if so they are obscured by the coring biscuits and the dark color of the sediment. Not all beds are parallel. Some tilted beds are probably original, others are drilling induced. A minor lithology, gray (5Y 5/1) INORGANIC CALCITE WITH CLAY is present in Section 5, 107—114 cm. The only clear evidence of bioturbation are the indistinct trace fossils in the INORGANIC CALCITE WITH CLAY in Section 5. Minor, very small pyrite crystals are present throughout.</p> <p>Dropstones : Section 2, 117 cm: 1.0-cm-long subrounded black mudstone, Section 3, 118 cm: 1.1-cm-long red granite.</p>
2	[Hatched pattern]	2		[Vertical lines]				
3	[Hatched pattern]	3		[Wavy lines]			10GY 3/1 To 5G 3/1	
4	[Hatched pattern]	4	late Pliocene	[Vertical lines]		S		
5	[Hatched pattern]	5		[Vertical lines]			5GY 3/1	
6	[Hatched pattern]	6		[Vertical lines]		M		



SITE 987 HOLE E CORE 10R CORED 446.1 - 455.8 mbsf

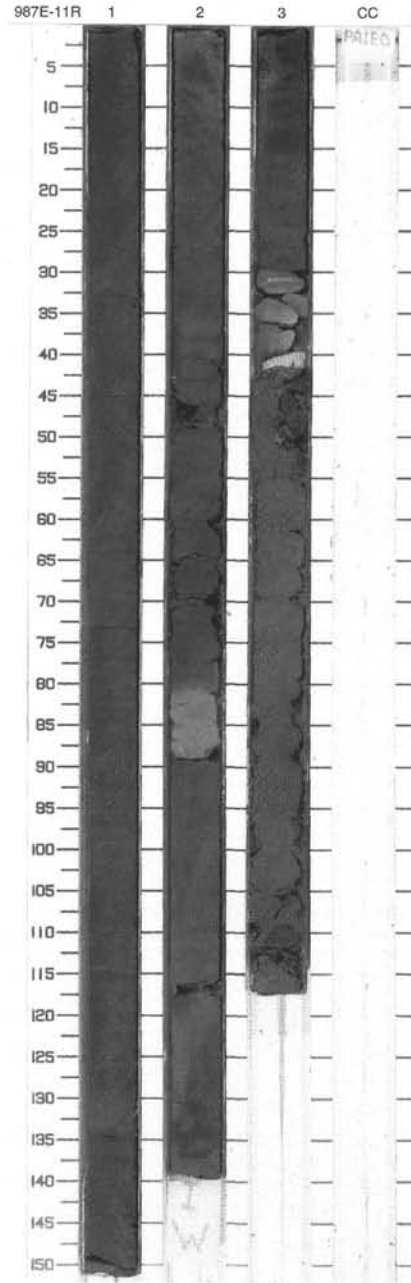
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Symbol]	1	late Pliocene	[Symbol]	[Symbol]	S	5Y 3/1	<p>SILTY CLAY</p> <p>General Description: This core contains very dark gray (5Y 3/1) SILTY CLAY. This core is slightly fractured but most of sediment is intact. Slight to moderate bioturbation occurs throughout. Two light indurated CLAY INORGANIC CALCITE WITH SILT layers are present in Section 1, 145—150 cm and in Section 6, 27—34 cm. Thin dark clayey laminations are present in Section 1, 10—15 cm, in Section 6, 15—20, 80—85, and 100—103 cm.</p> <p>Dropstones: Section 6, 4—5 cm: 1.2-cm-long dark sedimentary rock; Section 6, 21—22 cm: 1.8-cm-long gneiss.</p>
2	[Symbol]	2		[Symbol]	[Symbol]			
3	[Symbol]	3		[Symbol]	[Symbol]			
4	[Symbol]	4		[Symbol]	[Symbol]			
5	[Symbol]	5		[Symbol]	[Symbol]			
6	[Symbol]	6		[Symbol]	[Symbol]			
8	[Symbol]	6	[Symbol]	[Symbol]	[Symbol]	M		



SITE 987 HOLE E CORE 11R

CORED 455.8 - 465.4 mbsf

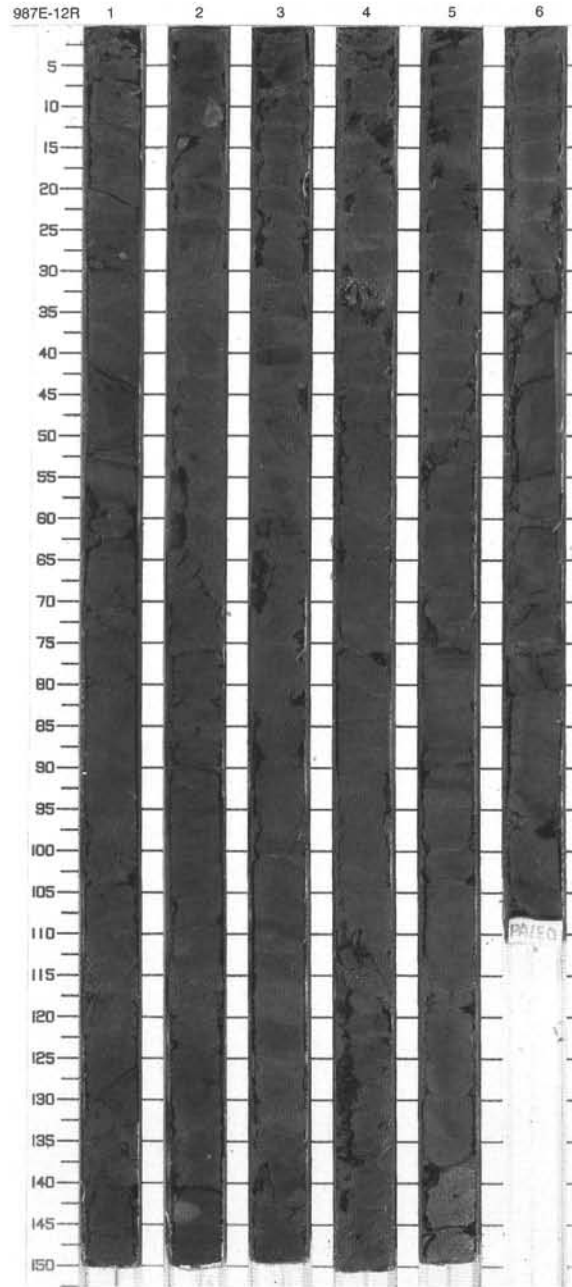
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	late Pliocene	}		S	5G 3/1	<p>SILTY CLAY</p> <p>General Description: This core contains very dark greenish gray (5Y 3/1) SILTY CLAY. The core is slightly fractured in Sections 2 and 3, but most sediment is intact. Slight bioturbation occurs throughout and is indicated by few burrows filled with lighter sediment. Two light indurated layers of dark gray to gray (5Y 4/1 to 5Y 5/1) INORGANIC CALCITE SILT WITH CLAY are present in Section 2, 80—89 cm and Section 3, 30—40 cm.</p> <p>Dropstones: Section 3, 39 cm: 5.6-cm-long gray sedimentary rock; Section 3, 43 cm: 5.9-cm-long subrounded black basalt; Section 3, 112 cm: 1.3-cm-size black subangular sedimentary rock. Entire CC to paleontology lab.</p>
2	[Hatched pattern]	2						
3	[Hatched pattern]	3						
4	[Hatched pattern]	3						
		CC				M		



SITE 987 HOLE E CORE 12R

CORED 465.4 - 475.0 mbsf

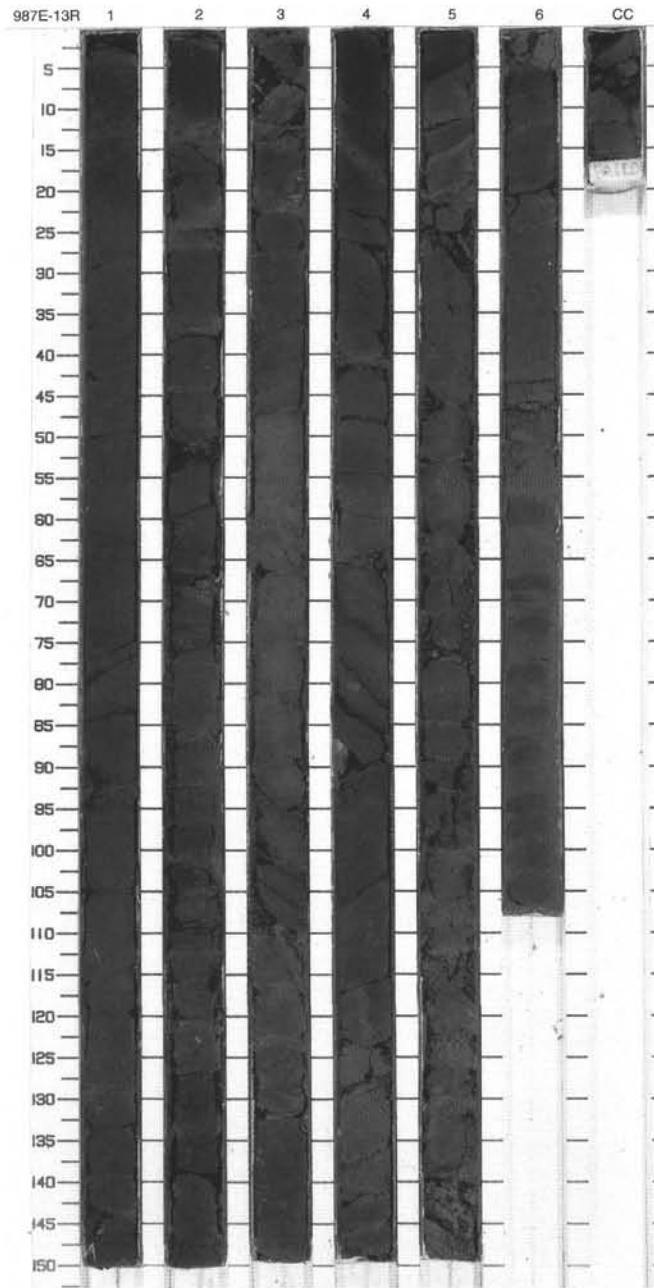
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Horizontal dashes]	1	late Pliocene	◇		S	10Y 3/1	<p>CLAYEY SILT WITH SAND and SANDY SILT WITH CLAY</p> <p>General Description: This core contains very dark greenish gray (10Y 3/1) CLAYEY SILT WITH SAND and SANDY SILT WITH CLAY. The sediment is very firm and disturbed throughout. Drilling biscuits are dispersed in slurry at various angles and sizes. Some sedimentary structures are visible on the biscuit surface. They typically display chaotic or contorted bedding, although sub-parallel beds occur in Sections 4 and 5. Clasts and stones occur within Sections 1—3. The entire CC was taken as a paleontology sample.</p> <p>Dropstones: Section 1, 29 cm: 1.1-cm-long gneiss; Section 1, 102 cm: 2.1-cm-long gneiss; Section 2, 10 cm: 3.5-cm-long pink crystalline rock; Section 2, 139 cm: 1.2-cm-long pink crystalline rock; Section 2, 29 cm: 1.2-cm-long quartzite; Section 3, 5 cm: 1.2-cm-long siltstone.</p>
2	[Horizontal dashes]	2		◇		S		
3	[Horizontal dashes]	3		◇		S		
4	[Horizontal dashes]	4		◆		S		
5	[Horizontal dashes]	5		◇		S		
6	[Horizontal dashes]	6		◇		S		
7	[Dotted pattern]	7			S			
8	[Dotted pattern]	8			S			



SITE 987 HOLE E CORE 13R

CORED 475.0 - 484.6 mbsf

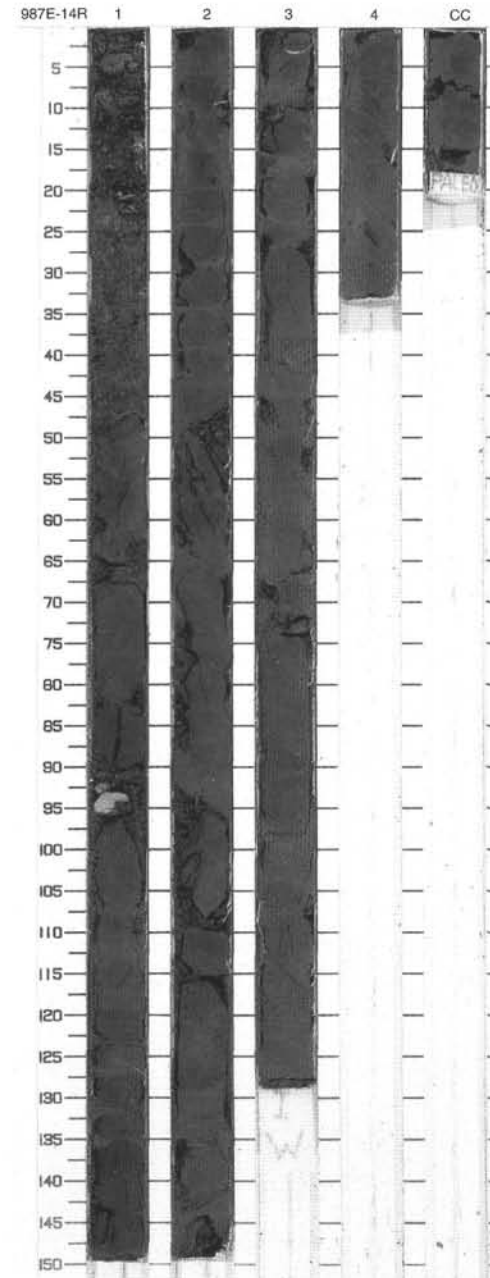
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1		} ◇		S		<p>SILTY CLAY</p> <p>General Description: This core contains very dark gray (10G 3/1 to 5G 3/1) and dark greenish gray (5GY 3/1) SILTY CLAY. The sediment is very firm, biscuited, and slightly to highly fractured throughout the entire core. Slight color change occurs within very dark gray layers, and sharp color change occurs at Section 5, 100 cm. The lower portion of Section 4 and uppermost part of Section 5 contain several thin greenish color bands. Dark greenish gray (5GY 3/1) sediment contains numerous thin (mm scale) laminae. Section 6, 100 cm contains individual pyrite nodule. Disseminated pyrite and slight bioturbation are observed throughout.</p> <p>Dropstone: Section 1, 145 cm: 1.5-cm-long siltstone.</p>
2	[Hatched pattern]	2		} P				
3	[Hatched pattern]	3		} P				
4	[Hatched pattern]	4	late Pliocene	} P			10G 3/1 To 5G 3/1	
5	[Hatched pattern]	5		} P				
6	[Hatched pattern]	6		} P			5GY 3/1	
CC	[Hatched pattern]	CC				M		



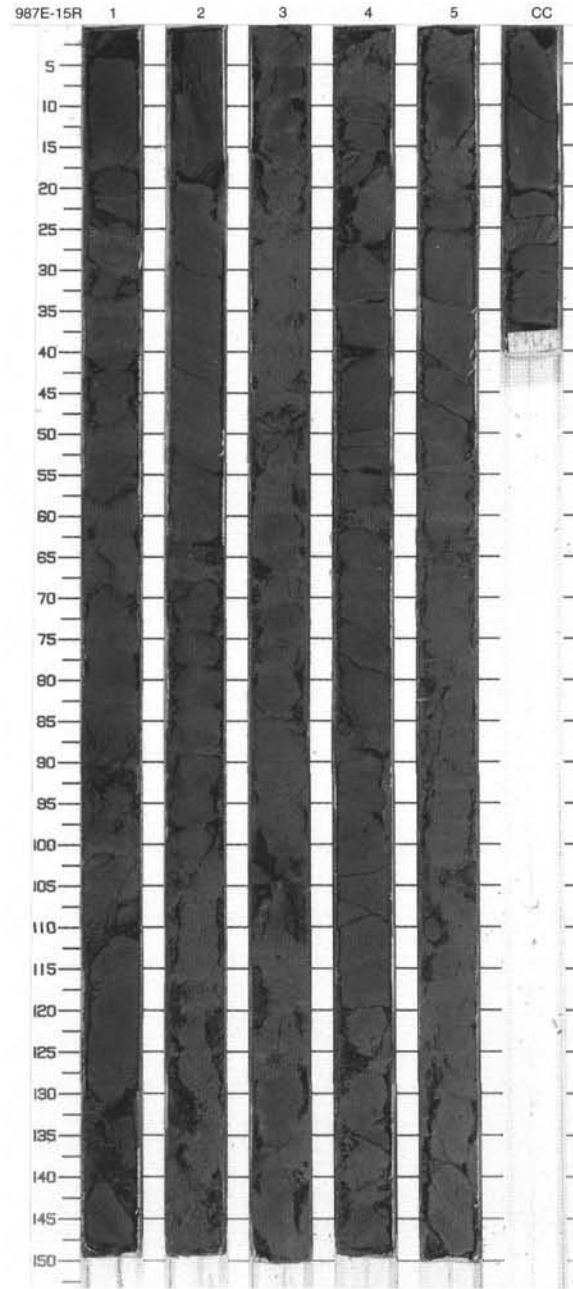
SITE 987 HOLE E CORE 14R

CORED 484.6 - 494.2 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1				S		<p>SILTY CLAY</p> <p>General Description: This core contains very dark greenish gray (10Y 3/1 to 5GY 3/1) SILTY CLAY. Entire sediment is moderately to highly disturbed, fractured, and biscuited. Slight bioturbation occurs throughout the entire core. A pyrite concretion is present in Section 2, 40 cm.</p> <p>Dropstone: Section 1, 93 cm: 2-cm-long subrounded siltstone.</p>
2	[Hatched pattern]	2	late Pliocene			S	10Y 3/1 To 5GY 3/1	
3	[Hatched pattern]	3				I		
4	[Hatched pattern]	4				M		
CC								

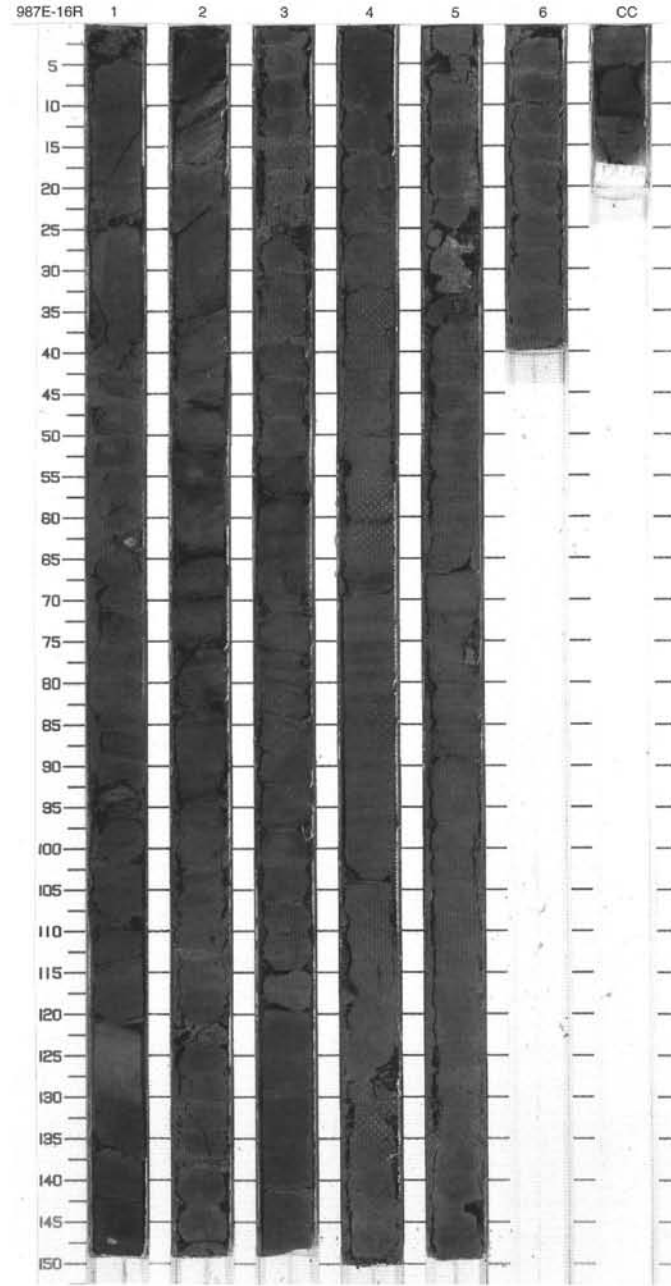


Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Stippled pattern]	1	late Pliocene	2	~~~~~	S	7.5GY 3/1	<p>SANDY SILT WITH CLAY</p> <p>General Description: This core contains very dark greenish gray (7.5GY 3/1) SANDY SILT WITH CLAY. The sediment is very firm. It is moderately to highly disturbed by drilling, and is broken into 2—10 cm biscuits in slurry. Contorted bedding is visible on many of the biscuit surfaces. Sub-parallel bedding occurs in Section 4. A single 1.2-cm crystalline stone occurs in Section 4, 104 cm.</p>
2		2		~~~~~				
3		3		~~~~~				
4		4		~~~~~				
5		5		~~~~~				
6		CC		~~~~~	M			



SITE 987 HOLE E CORE 16R CORED 503.8 - 513.4 mbsf

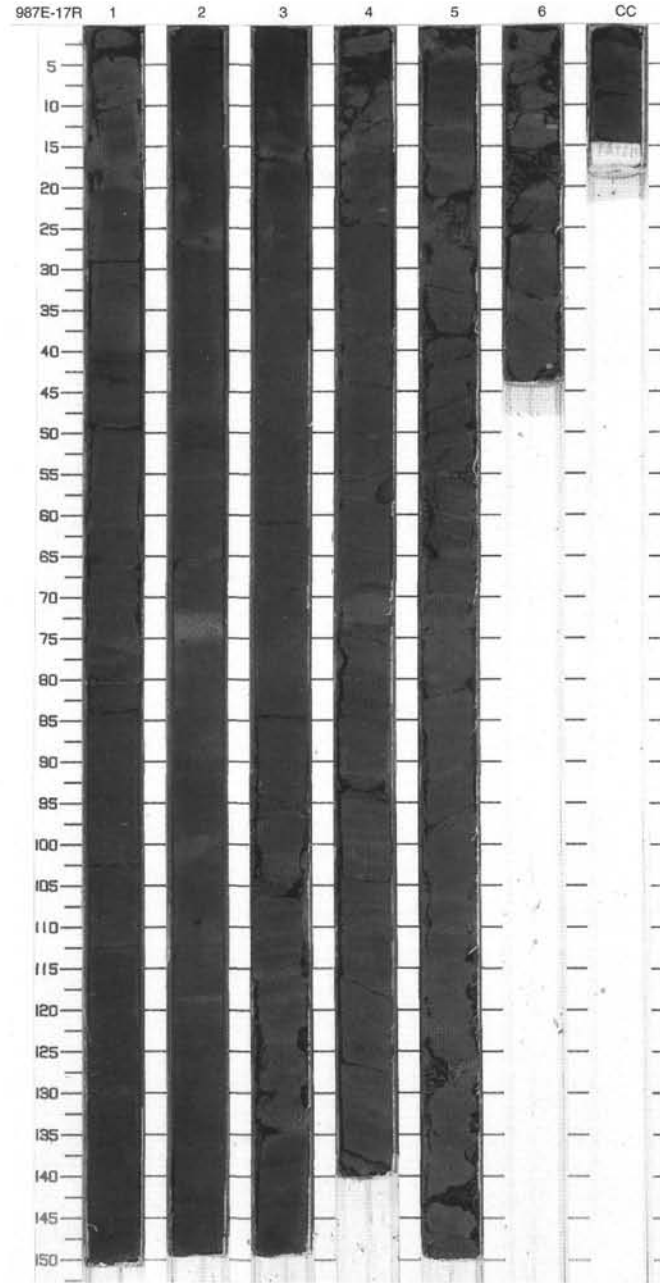
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1		~		S		<p>CLAYEY SILT and CLAYEY SILT WITH SAND</p> <p>General Description: This core contains very dark greenish gray (7.5GY 3/1) CLAYEY SILT and CLAYEY SILT WITH SAND. The sediment is very firm to hard, and is slightly to moderately biscuited by drilling into 2–15 cm-long biscuits. Parallel bedding and contorted beds are visible on many of the biscuit surfaces. A gray (5Y 5/1) band of INORGANIC CALCITE SILT WITH CLAY occurs in Section 1, 122–130 cm.</p> <p>Dropstones: Section 1, 62 cm: 3.2-cm-long subangular gray magmatic rock; Section 1, 148 cm: 1.2-cm-long light gray subangular quartzite.</p>
2	[Hatched pattern]	2		~		S		
3	[Hatched pattern]	3		~		S		
4	[Dotted pattern]	3	late Pliocene	~		S	7.5GY 3/1	
5	[Hatched pattern]	4		~		S		
6	[Hatched pattern]	5		~		S		
7	[Hatched pattern]	6		~		M		
8	[Hatched pattern]	CC		~		M		



SITE 987 HOLE E CORE 17R

CORED 513.4 - 523.0 mbsf

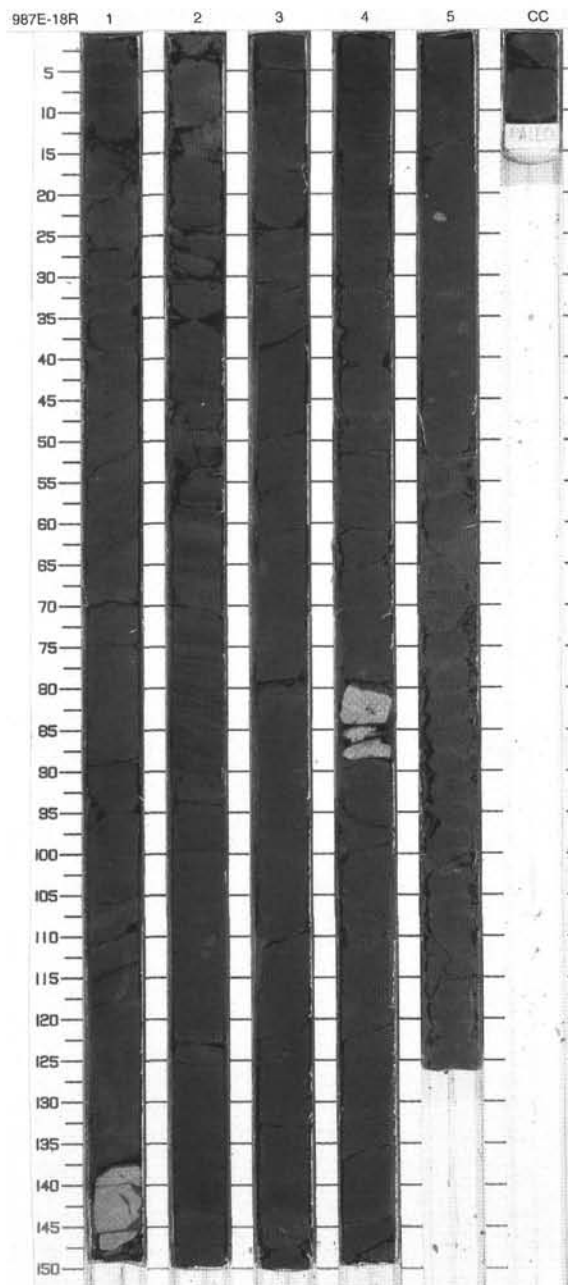
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	early Pliocene	}	W/W	S	10Y 3/1	<p>SILTY CLAY</p> <p>General Description: This core contains very dark greenish gray (10Y 3/1) SILTY CLAY. The sediment is very firm, and slightly to very disturbed throughout. Bedding is evident on some of the drilling biscuits, and ranges from massive to flaser to very thin sub-parallel bedding. Contorted bedding occurs within several intervals, particularly in Section 4, where the sequence includes convolute bedding, sub-parallel laminations, more convolute bedding, and clasts in a massive matrix, successively.</p> <p>Dropstone: Section 4, 10 cm: 2.0-cm-long orange subangular crystalline rock.</p>
2	[Hatched pattern]	2						
3	[Hatched pattern]	3						
4	[Hatched pattern]	3						
5	[Hatched pattern]	4						
6	[Hatched pattern]	4						
7	[Hatched pattern]	5						
8	[Hatched pattern]	6						
	CC					M		



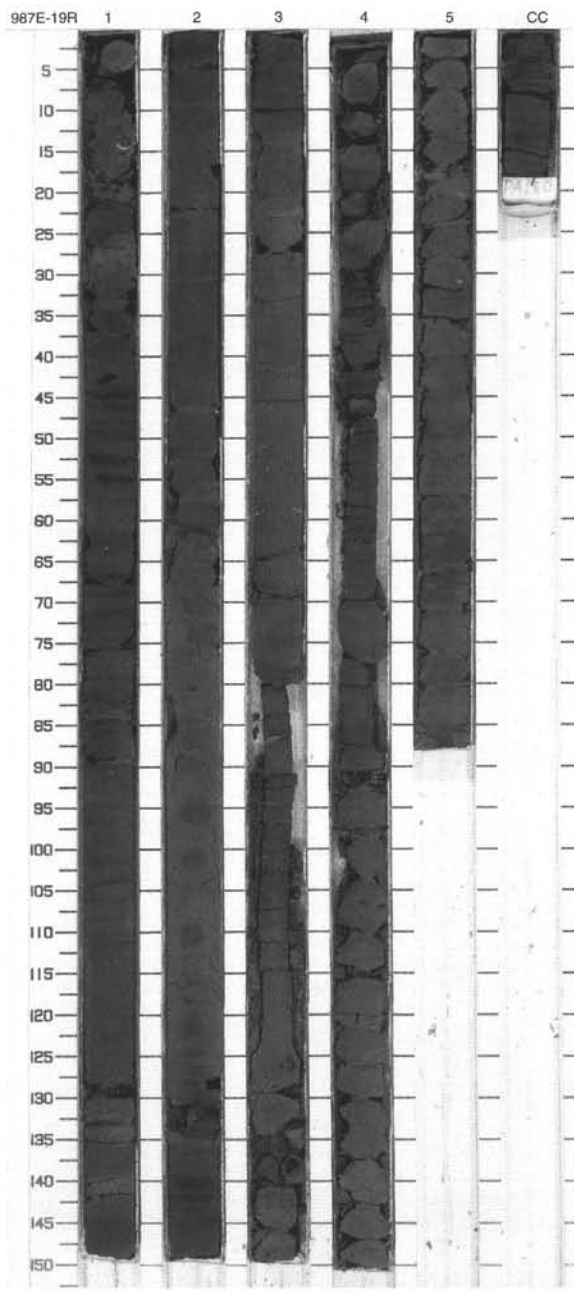
SITE 987 HOLE E CORE 18R

CORED 523.0 - 532.6 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	early Pliocene				5Y 3/1 To 5G 3/1	CLAYEY SILT General Description: This core contains very dark gray (5Y 3/1) and very dark greenish gray (5G 3/1) CLAYEY SILT. The sediment is very firm to hard, and is slightly to moderately biscuitied by drilling into 2- to >20-cm-long biscuits. Parallel bedding and contorted beds are visible on many of the biscuit surfaces. Clay-rich beds are interbedded in siltier sediment in the lowermost section to the uppermost Section 2. Clasts >1.0 cm are present in Section 1, 138–148 cm (drilled through a >10-cm-size gray siltstone); in Section 3, 145 cm (1.1-cm-size igneous rock); in Section 4, 80–86 cm (drilled through a >8-cm-size gray metamorphic rock); and in Section 5, 22 cm (1.7-cm-long subrounded light gray igneous rock) and 34 cm (1.9-cm-size dark gray subangular metamorphic rock).
2		2						
3		3						
4		4						
5		5						
6								
7								
		CC				M		



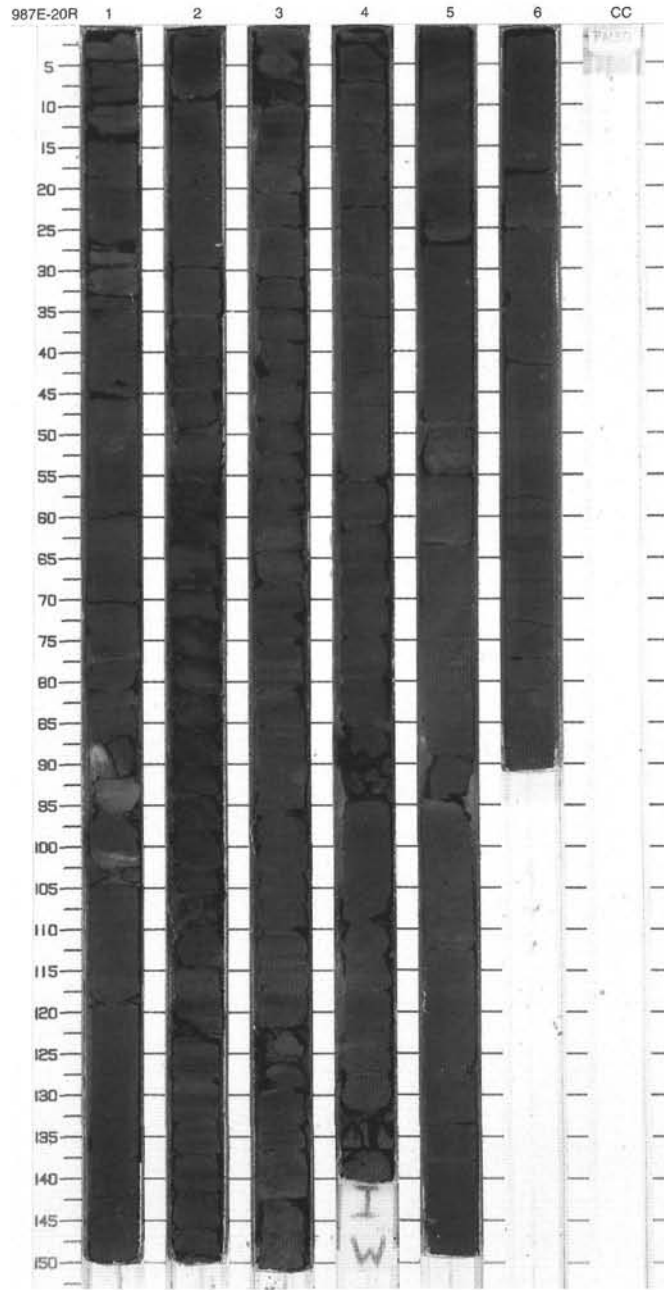
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	early Pliocene	[Wavy lines]	[Wavy lines]	S	7.5GY 3/1	<p>SILTY CLAY</p> <p>General Description: This core contains very dark greenish gray (7.5GY 3/1) SILTY CLAY. Sediment is very firm and shows parallel bedding. There is very slight evidence of bioturbation in Sections 1—2. Faint mottling can be considered as possible burrow structures. Top of Section 1 is biscuited.</p>
2	[Hatched pattern]	2		[Wavy lines]	[Wavy lines]			
3	[Hatched pattern]	3		[Wavy lines]	[Wavy lines]			
4	[Hatched pattern]	4		[Wavy lines]	[Wavy lines]			
5	[Hatched pattern]	5		[Wavy lines]	[Wavy lines]			
6	[Hatched pattern]	6		[Wavy lines]	[Wavy lines]			
7	[Hatched pattern]	7		[Wavy lines]	[Wavy lines]			
		CC						



SITE 987 HOLE E CORE 20R

CORED 542.2 - 551.8 mbsf

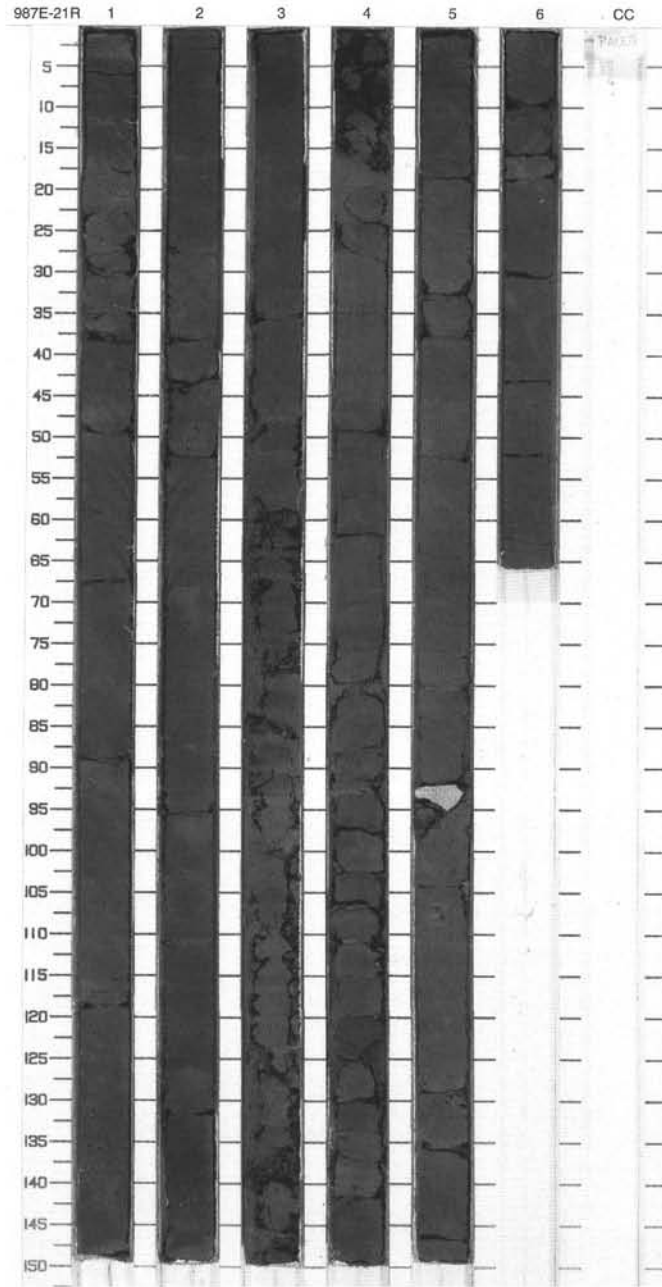
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	early Pliocene	[Vertical lines]	[Vertical lines]			<p>SILTY CLAY</p> <p>General Description: This core contains very dark greenish gray (5GY 3/1) SILTY CLAY. Sediment is very firm and slightly to moderately bioturbated throughout the entire core. This core is slightly to moderately fractured due to coring. Thin dark laminations are present in Section 1, 15—20 and 95—105, in Section 2, 110—150 cm, in Section 3, 10—30, 70—80, and 110—150 cm, and in Section 4, 5—15 cm. A light CLAYEY INORGANIC CALCITE indurated layer is present in Section 1, 90—95 cm.</p>
2	[Hatched pattern]	2		[Vertical lines]	[Vertical lines]	S		
3	[Hatched pattern]	3		[Vertical lines]	[Vertical lines]			
4	[Hatched pattern]	3		[Vertical lines]	[Vertical lines]		5GY 3/1	
5	[Hatched pattern]	4		[Vertical lines]	[Vertical lines]			
6	[Hatched pattern]	4		[Vertical lines]	[Vertical lines]	I		
7	[Hatched pattern]	5		[Vertical lines]	[Vertical lines]	S		
8	[Hatched pattern]	6		[Vertical lines]	[Vertical lines]	M		



SITE 987 HOLE E CORE 21R

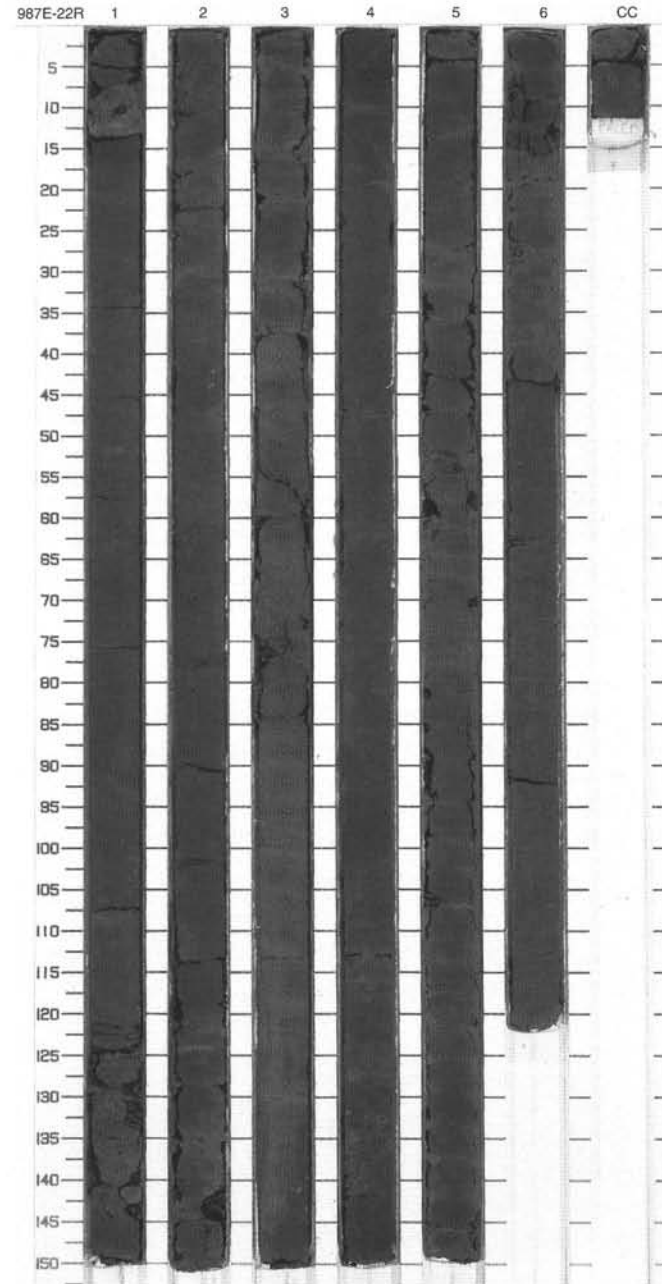
CORED 551.8 - 561.4 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	early Pliocene	[Wavy line]	[Wavy line]	S	5GY 3/1	<p>SILTY CLAY</p> <p>General Description: This core contains very dark greenish gray (5GY 3/1) and dark gray (5Y 3/1) SILTY CLAY. Sediment is very firm and slightly bioturbated throughout. The core is slightly to very fractured and disturbed due to drilling. Thin dark and light laminations are present in Section 1, 110—115 cm, in Section 2, 55—60 cm, and in Section 5, 80—90 cm.</p> <p>Dropstone: Section 5, 90—92 cm: 7-cm-long light gray subangular limestone.</p>
2	[Hatched pattern]	2		[Wavy line]	[Wavy line]			
3	[Hatched pattern]	3		[Wavy line]	[Wavy line]			
4	[Hatched pattern]	4		[Wavy line]	[Wavy line]	S	5Y 3/1	
5	[Hatched pattern]	5		[Wavy line]	[Wavy line]			
6	[Hatched pattern]	6		[Wavy line]	[Wavy line]	M		
7	[Hatched pattern]	7	[Wavy line]	[Wavy line]				
8	[Hatched pattern]	8	[Wavy line]	[Wavy line]				



SITE 987 HOLE E CORE 22R CORED 561.4 - 571.0 mbsf

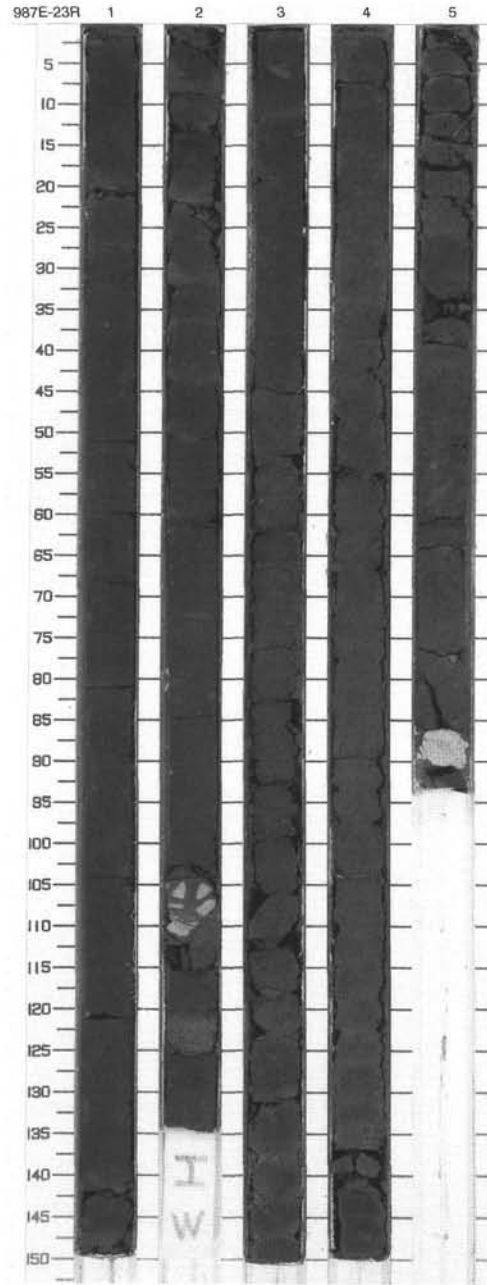
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1		[Horizontal lines]	[Vertical lines]	S		<p>SILTY CLAY</p> <p>General Description: This core contains very dark greenish gray (2.5G 3/1, 10G 3/1, 5G 3/1) SILTY CLAY. This core is composed of very hard sediment. Color changes are gradational. The slightly disturbed sections are fractured into 10 cm biscuits. Very small clasts are present in Sections 1 and 4. Faint color bands and laminations are present in undisturbed sections.</p>
2	[Hatched pattern]	2		[Horizontal lines]	[Vertical lines]	S	2.5G 3/1	
3	[Hatched pattern]	3		[Horizontal lines]	[Vertical lines]			
4	[Hatched pattern]	3	early Pliocene	[Horizontal lines]	[Vertical lines]			
5	[Hatched pattern]	4		[Horizontal lines]	[Vertical lines]		10G 3/1	
6	[Hatched pattern]	4		[Horizontal lines]	[Vertical lines]			
7	[Hatched pattern]	5		[Horizontal lines]	[Vertical lines]			
8	[Hatched pattern]	6		[Horizontal lines]	[Vertical lines]		5G 3/1	
	[Hatched pattern]	CC		[Horizontal lines]	[Vertical lines]	M		



SITE 987 HOLE E CORE 23R

CORED 571.0 - 580.6 mbsf

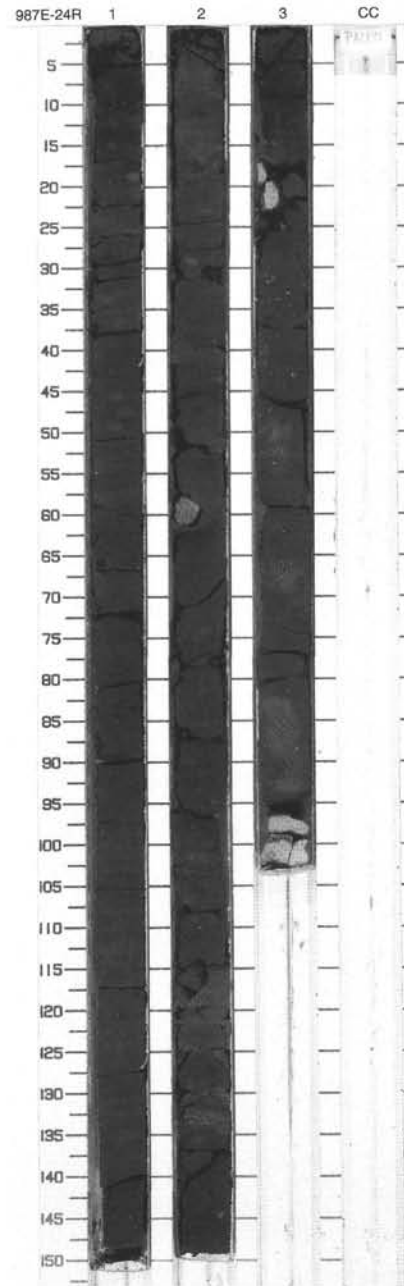
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	early Pliocene	}		S	10GY 3/1	<p>SILTY CLAY</p> <p>General Description: This core contains dark greenish gray (10GY 4/1), very dark greenish gray (10GY 3/1, 2.5G 3/1), and very dark gray (10Y 3/1) SILTY CLAY. This core contains very hard fine-grained sediments in all but the base of Section 5. Two lithified carbonate layers are present in Section 2, 100—110 cm and in Section 5, 86—93 cm. An indurated (2.5Y 5/2) grayish brown layer with lighter color than the rest of the core contains some carbonate and has <i>Chondrites</i> trace fossils. The base of Section 5, 40—86 cm contains coarse grains of large sand to gravel size. Two rounded granite dropstones 1.2-cm and 1-cm-long are found in Section 5, 77 cm and in Section 5, 53 cm. Slight bioturbation occurs throughout. Very small clasts <1 cm are present in Section 1, 20, 36, and 56 cm, in Section 2, 90 cm, and in Section 4, 35 cm.</p>
2	[Hatched pattern]	2						
3	[Hatched pattern]	3						
4	[Hatched pattern]	4				S	2.5G 3/1	
5	[Hatched pattern]	5						
6	[Dotted pattern]							



SITE 987 HOLE E CORE 24R

CORED 580.6 - 590.2 mbsf

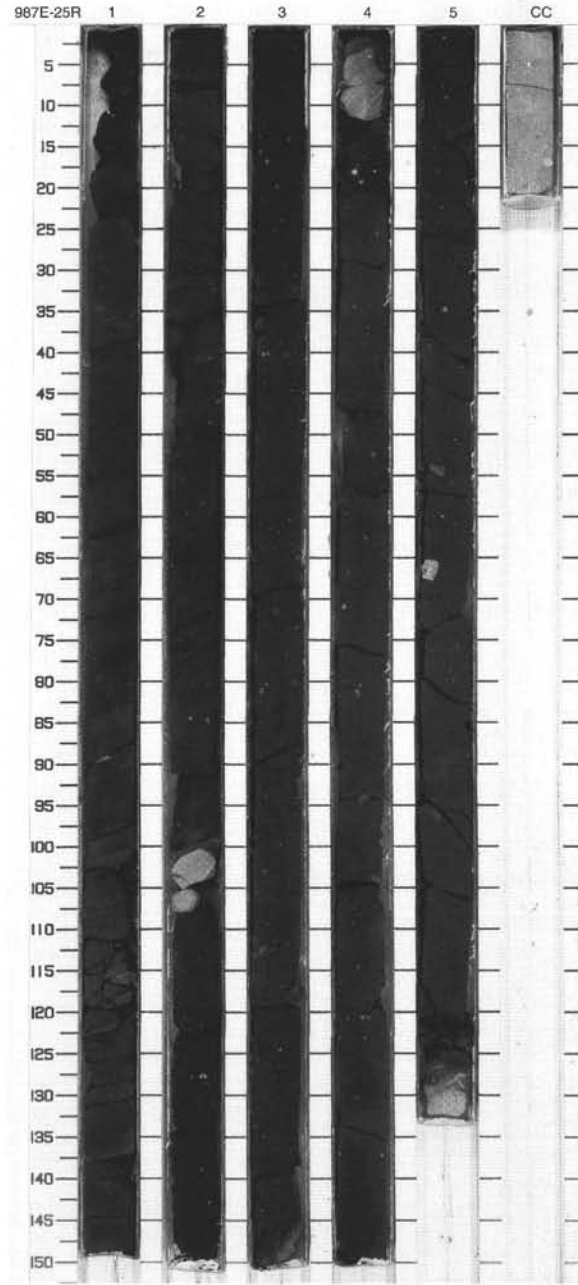
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	early Pliocene				5GY 3/1	<p>SILTY CLAY WITH SAND (AND GRAVELS)</p> <p>General Description: This core contains very dark greenish gray (5GY 3/1) SILTY CLAY WITH SAND AND GRAVELS. Sediment is very firm and heterogeneous. Several thin dark clayey and light quartz-rich laminations are present throughout the entire core. Sediment is coarse with gravels <1 cm and clasts >1 cm. Dipping beds occur in Section 1, 130—150 cm. Contorted beddings occur in Section 1, 0—10 and 40—70 cm and in Section 2, 0—20 cm. Parallel beddings occur in Section 1, 10—40 and 100—130 cm and in Section 2, 20—30 cm.</p> <p>Dropstones: Section 2, 55—58 cm, 3-cm-long subrounded granite; 29 cm: 2-cm-long black subangular basalt; 112—114 cm: 3.5-cm black subangular igneous rock; Section 3, 100 cm: >7-cm-long carbonate cemented sedimentary rock.</p>
2		2				S		
3		3						
4		CC				M		



SITE 987 HOLE E CORE 25R

CORED 590.2 - 599.9 mbsf

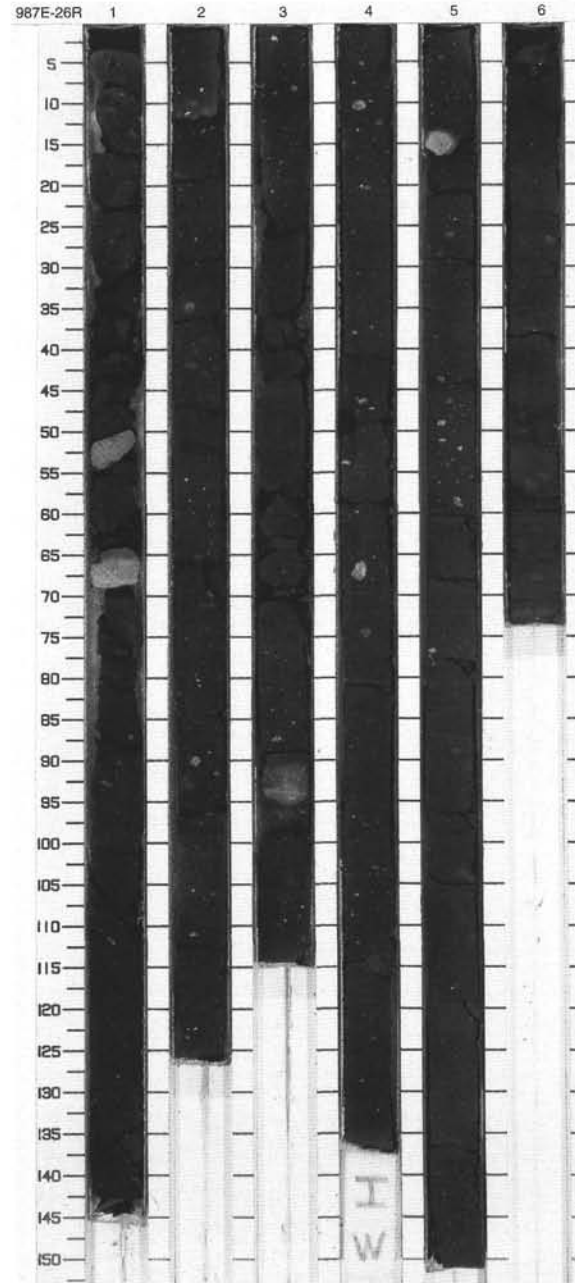
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Pattern]	1	early Pliocene	[Symbol]	[Symbol]	S	2.5Y 3/1	<p>SILTY CLAY WITH SAND AND GRAVELS and SILTY CLAY</p> <p>General Description: This core contains very dark gray (2.5Y 3/1) SILTY CLAY WITH SAND (AND GRAVELS) and SILTY CLAY. Sediment is very hard and only moderately disturbed. Carbonate layers are carbonate cemented sandstone. Included in it are small pyrite crystals as well as rounded quartz and rock fragments. Various rounded gravels (pink granite, white granite, some sedimentary rocks) are present from Section 2, 13 cm to Section 5, 120 cm.</p>
2	[Pattern]	2						
3	[Pattern]	3						
4	[Pattern]	4						
5	[Pattern]	5						
6	[Pattern]	6						
7	[Pattern]	7						
		CC				M		



SITE 987 HOLE E CORE 26R

CORED 599.9 - 609.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Dotted pattern]	1	early Pliocene		[Vertical line]		5Y 2.5/1 To 10Y 3/1	<p>SILTY CLAY WITH SAND AND GRAVEL</p> <p>General Description: This core contains hard, very dark greenish gray (10Y 3/1) and very dark olive gray (5Y 2.5/1) SILTY CLAY WITH SAND AND GRAVEL. Minor greenish gray (5GY 6/1) CARBONATE CEMENTED SANDSTONE is present as follows, Section 1, 50—54 and 62—70 cm, Section 3, 94—97 cm, and Section 5, 13—17 cm. The largest piece of gravel occurs in Section 6, 3 cm, 6-cm-long. Elongated pieces of gravel tend to be aligned parallel to bedding. There is no evidence of bioturbation. The entire CC was given to the paleo.</p>
2	[Horizontal dashed pattern]	2		[Vertical line]				
3	[Horizontal dashed pattern]	3		[Vertical line]				
4	[Horizontal dashed pattern]	4		[Vertical line]	S			
5	[Horizontal dashed pattern]	5		[Vertical line]	I			
6	[Horizontal dashed pattern]	6		[Vertical line]	S			



SITE 987 HOLE E CORE 27R

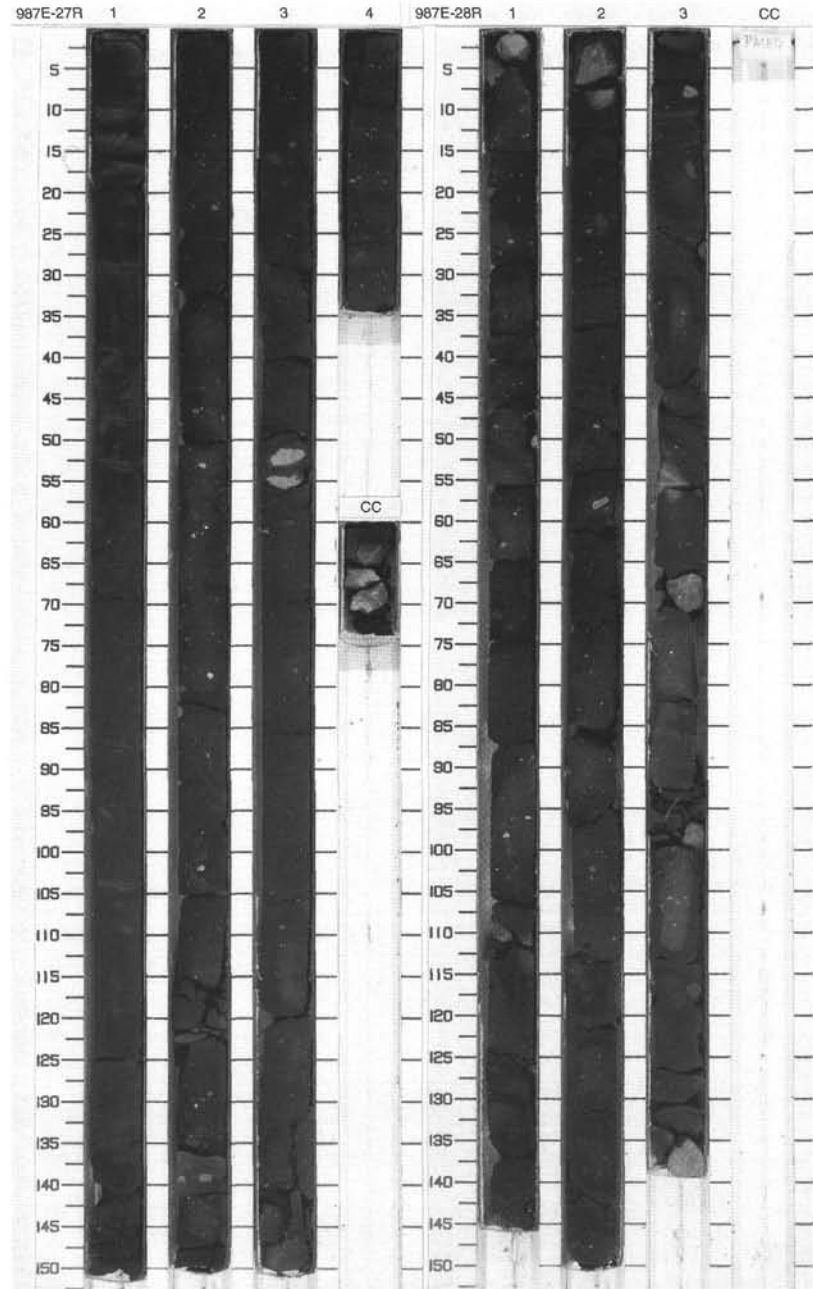
CORED 609.5 - 619.1 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	early Pliocene			S	5GY 3/1 To 10G 2.5/1	SILTY CLAY WITH SAND and SILTY CLAY WITH SAND AND GRAVEL General Description: This core contains hard, very dark greenish gray (5GY 3/1 and 10G 2.4/1) SILTY CLAY WITH SAND and SILTY CLAY WITH SAND AND GRAVEL. Most of the gravel is subrounded and the gravel clasts are aligned parallel to bedding. Small sulfides are present in Section 1, 21—48 cm. In Section 1, 130 to 17 cm, the sediments fine upward. Minor bluish gray (5B 5/1) CARBONATE CEMENTED SILTY SAND is present in Section 3, 48—56 cm and Section 4, 25 cm through the CC.
2	[Hatched pattern]	2						
3	[Hatched pattern]	3						
4	[Hatched pattern]	4						
	[Stippled pattern]	CC				M		

SITE 987 HOLE E CORE 28R

CORED 619.1 - 628.8 mbsf

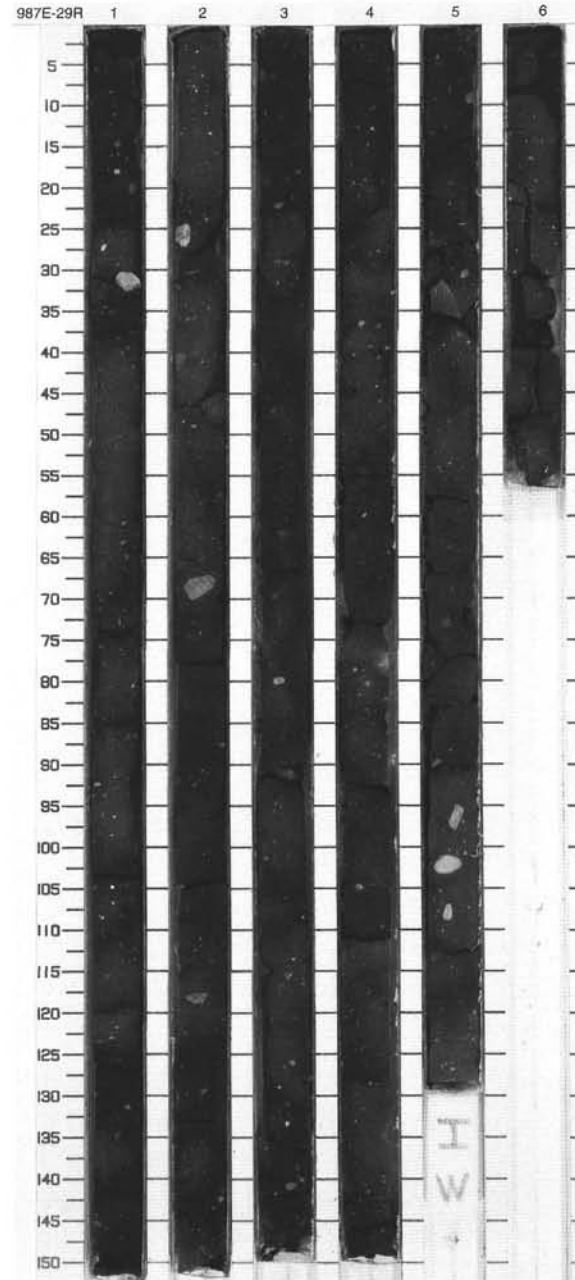
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	early Pliocene			S	5Y 2/1	SILTY CLAY WITH SAND AND GRAVEL General Description: This core contains very dark gray (5Y 3/1) SILTY CLAY WITH SAND AND GRAVELS. A few minor, and poorly defined intervals of CARBONATE CEMENTED SILTY SANDSTONE are present in Section 1, 144 cm to Section 2, 7 cm, and Section 3, 53—56 and 67—71 cm. Unlike in the overlying cores, they are not as clearly distinguished by their lighter color, but instead are primarily identified by their hardness. Many intervals of gravel clasts are aligned parallel to bedding.
2	[Hatched pattern]	2						
3	[Hatched pattern]	3						
4	[Hatched pattern]	CC				M		



SITE 987 HOLE E CORE 29R

CORED 628.8 - 638.4 mbsf

Meter	Graphic Lith.	Section Age	Structure	Disturb	Sample	Color	Description
1		1	◇				<p>SILTY CLAY</p> <p>General Description: This core contains very dark gray to very dark greenish gray (5Y 3/1 to 10Y 3/1) SILTY CLAY. The sediment is very firm and slightly to highly fractured throughout the entire core. Numerous clasts and pyrite nodules are scattered throughout.</p> <p>Dropstones: Section 1, 32 cm: 3-cm-long subrounded granite; Section 2, 25 cm: 2.8-cm-long subrounded granite; Section 2, 65 cm: 4-cm-long subrounded siltstone; Section 2, 115 cm: 3-cm-long subangular siltstone; Section 3, 80 cm: 1.2-cm-long subangular metamorphic rock.</p>
2		2	◇		S		
3		3	◇				
4		3 early Pliocene	◇			5Y 3/1 To 10Y 3/1	
5		4	Ⓟ				
6		4	Ⓟ				
7		5					
8		6			I		
					M		



SITE 987 HOLE E CORE 30R

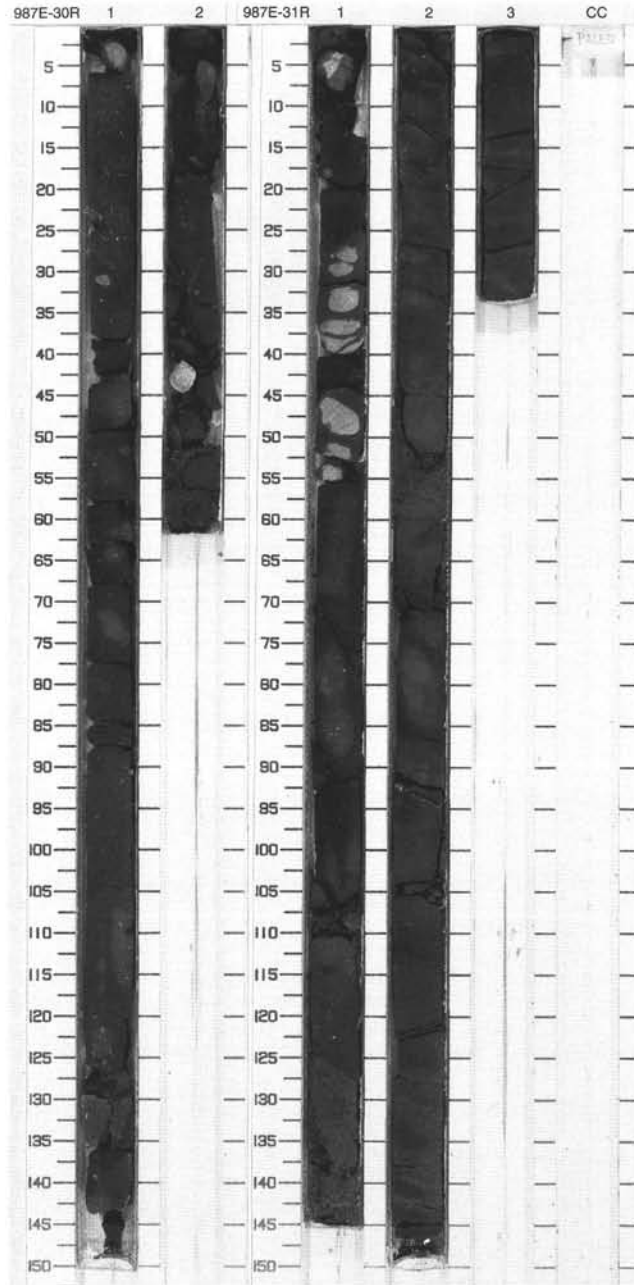
CORED 638.4 - 648.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	early Pliocene	◇		S	10Y 3/1	<p>SILTY CLAY WITH SAND</p> <p>General Description: This core contains very dark greenish gray (10Y 3/1) SILTY CLAY WITH SAND. In addition, numerous clasts <1 cm and a few larger ones are present. Clasts occur in Section 1, 0 cm (4.8-cm-sized subrounded gray igneous rock), 18 cm (1.8-cm-sized flat greenish sedimentary rock), 23 cm (2.4-cm-sized subrounded gray metamorphic rock), 31 cm (1.8-cm-sized subangular reddish igneous rock), 51 cm (1.7-cm-sized subangular igneous rock), and 91 cm (1.0-cm-sized subangular igneous rock); and in Section 2, 16 cm (2.2-cm-sized subangular gray igneous rock) and 40 cm (4.0-cm-sized subrounded reddish metamorphic rock).</p>
2	[Hatched pattern]	2		◇				

SITE 987 HOLE E CORE 31R

CORED 648.0 - 657.6 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	early Pliocene	◇		S	5Y 4/1 To 10GY 3/0	<p>SILTY CLAY</p> <p>General Description: This core contains very dark gray to very dark greenish gray (5Y 3/1, 10GY 3/0) SILTY CLAY. The sediment is very firm and highly fractured throughout the entire core. Section 1 contains numerous clasts throughout.</p> <p>Dropstones: Section 1, 2 cm: 4-cm-long subrounded metamorphic rock; Section 2, 149 cm: 4.5-cm-long rounded metamorphic rock.</p>
2	[Hatched pattern]	2		—				
3	[Hatched pattern]	3		◇				



SITE 987 HOLE E CORE 32R

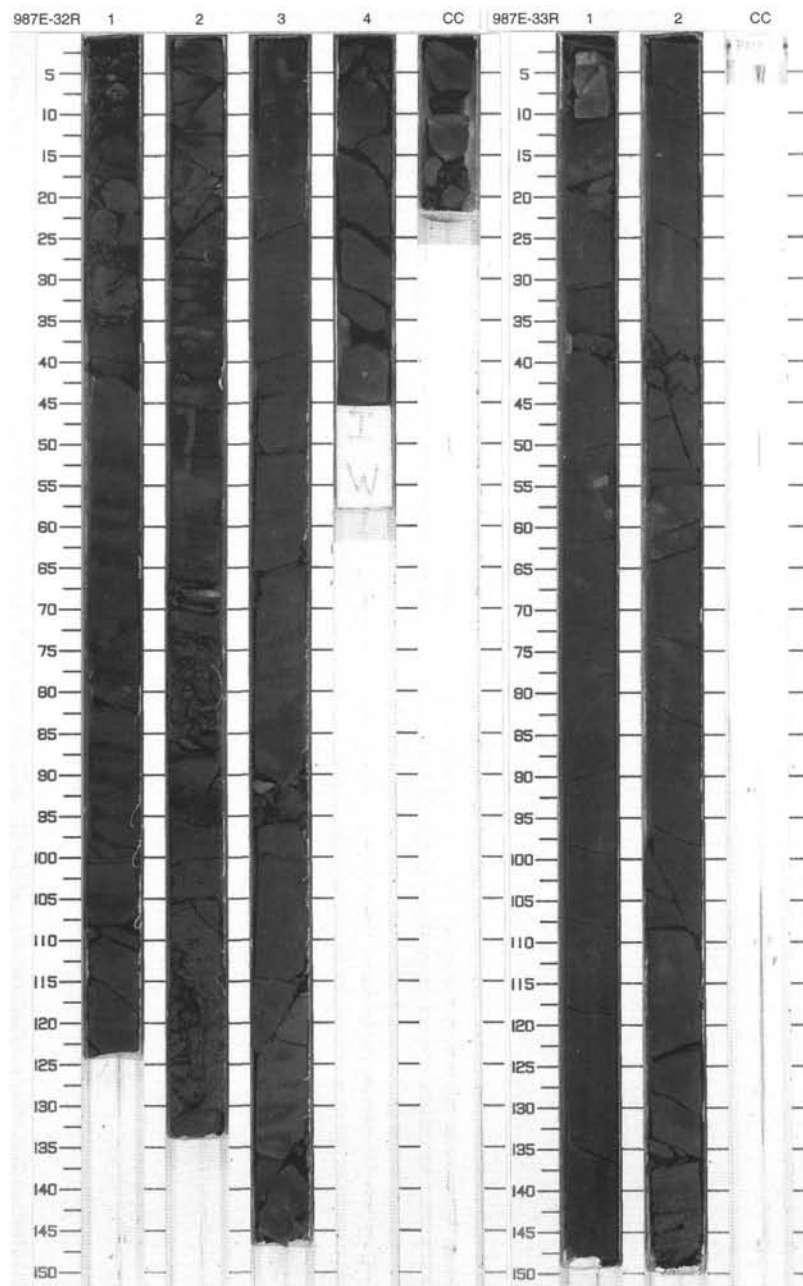
CORED 657.6 - 667.2 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	early Pliocene		~~~~~	S	5BG 4/1 To 10G 3/1	SILTY CLAY General Description: This core contains dark greenish gray to very dark greenish gray (5BG 4/1 to 10G 3/1) SILTY CLAY. The sediment is very firm and moderately to highly fractured throughout the entire core. Thin laminations are present on the fractured pieces in several sections. Section 2, 100—129 cm contains slightly coarser sediment. A pyrite nodule is present in Section 2, 15 cm.
2		2						
3		3						
4		4						
		CC				M		

SITE 987 HOLE E CORE 33R

CORED 667.2 - 676.8 mbsf

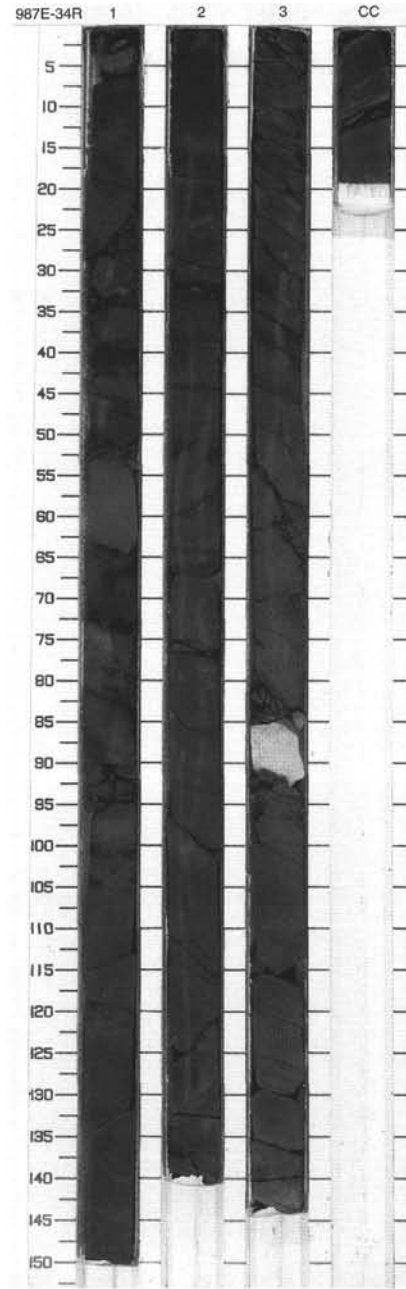
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1	early Pliocene	- - - ◇ ◇	- - -	S	5GY 3/1 To 5G 3/1	SILTY CLAY and CLAYEY SILT General Description: This core contains very dark greenish gray (5GY 3/1) SILTY CLAY interbedded with very dark greenish gray (5G 3/1) CLAYEY SILT. The sediment is highly indurated and slightly disturbed throughout. Fine scale structures are evident along the core surface, including flaser bedding and discrete burrow traces. The burrows are compressed perpendicular to the bedding, including flaser bedding and discrete burrow traces. The burrows are compressed perpendicular to the bedding. Most of the sediment appears massively bedded, with numerous small clasts distributed within a fine matrix. Intervals containing the CLAYEY SILT appear coarser along the core surface and to the touch. All contacts are gradational.
2		2						
3		CC				M		Dropstones: Section 1, 53 cm: 2.0-cm-long gneiss; 57 cm: 1.1-cm-long siltstone.



SITE 987 HOLE E CORE 34R

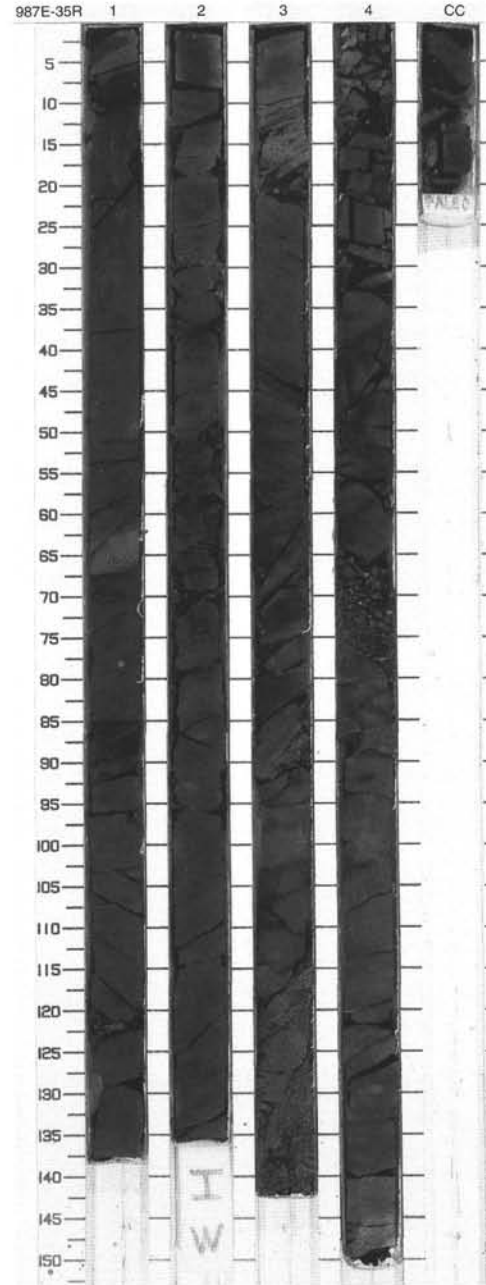
CORED 676.8 - 686.4 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Dotted pattern]	1	***	[Wavy lines]	[Vertical lines]			<p>SILTY CLAY and CLAY WITH SILT</p> <p>General Description: This core contains very dark greenish gray (10Y 3/1, 5G 3/1) SILTY CLAY and CLAY WITH SILT. The sediment is highly indurated and slightly to highly fractured. Coarser intervals of SANDY SILT (most probably turbidites) occur in Section 1, 0—7 and 47—64 cm (graded bedding), and in Section 3, 57—90 cm (graded bedding). In addition, fine scale structures are present on the biscuit surfaces, including flaser bedding, parallel beds in some of the more clay-rich intervals and discrete burrow traces. The burrows are compressed perpendicular to the bedding. All contacts are gradational.</p>
2	[Horizontal lines]	2	early Pliocene	[Wavy lines]	[Vertical lines]	S	10Y 3/1 To 5G 3/1	
3	[Horizontal lines]	3		[Wavy lines]	[Vertical lines]	S		
4	[Dotted pattern]	CC ??	↑ F	[Wavy lines]	[Vertical lines]	M		

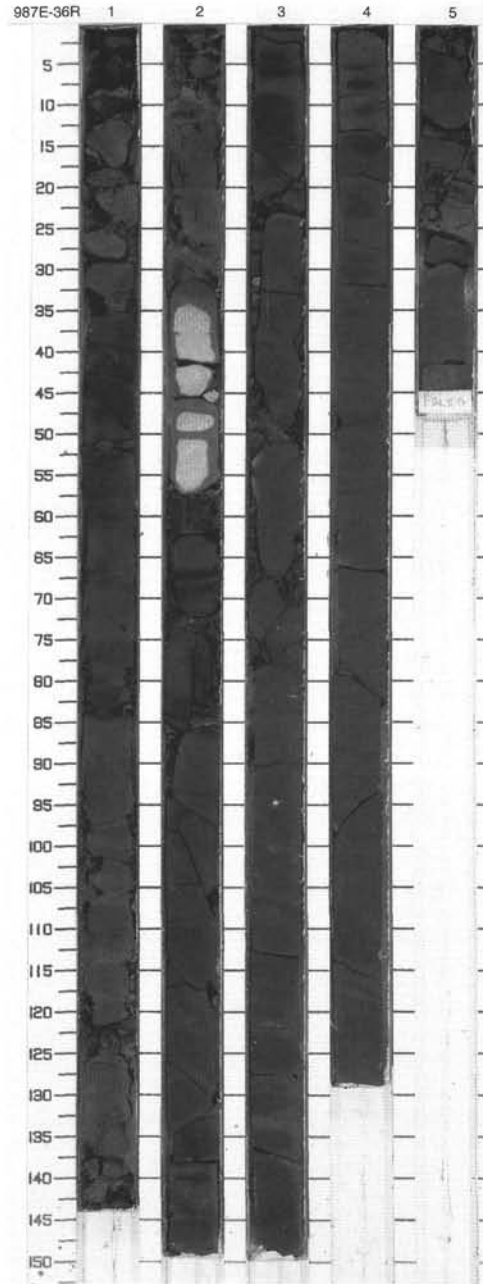


SITE 987 HOLE E CORE 35R CORED 686.4 - 696.0 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1		~ ~ ~			7.5GY 2.5/1	<p>SILTY CLAY and CLAYEY SILT</p> <p>General Description: This core contains very dark greenish gray (7.5GY 2.5/1) CLAYEY SILT and very dark greenish gray (5GY 3/1) SILTY CLAY. The sediment is very firm and indurated throughout. Slight bioturbation is evident as fine-scale burrows traces. The CLAYEY SILT looks and feels coarser than the SILTY CLAY along the split core surface. Coring disturbance occurs throughout, ranging from moderate fracturing to complete disintegration.</p>
2	[Hatched pattern]	2		~		I		
3	[Hatched pattern]	3	early Pliocene	~		S		
4	[Hatched pattern]	4		~			5GY 3/1	
6	[Hatched pattern]	CC				M		



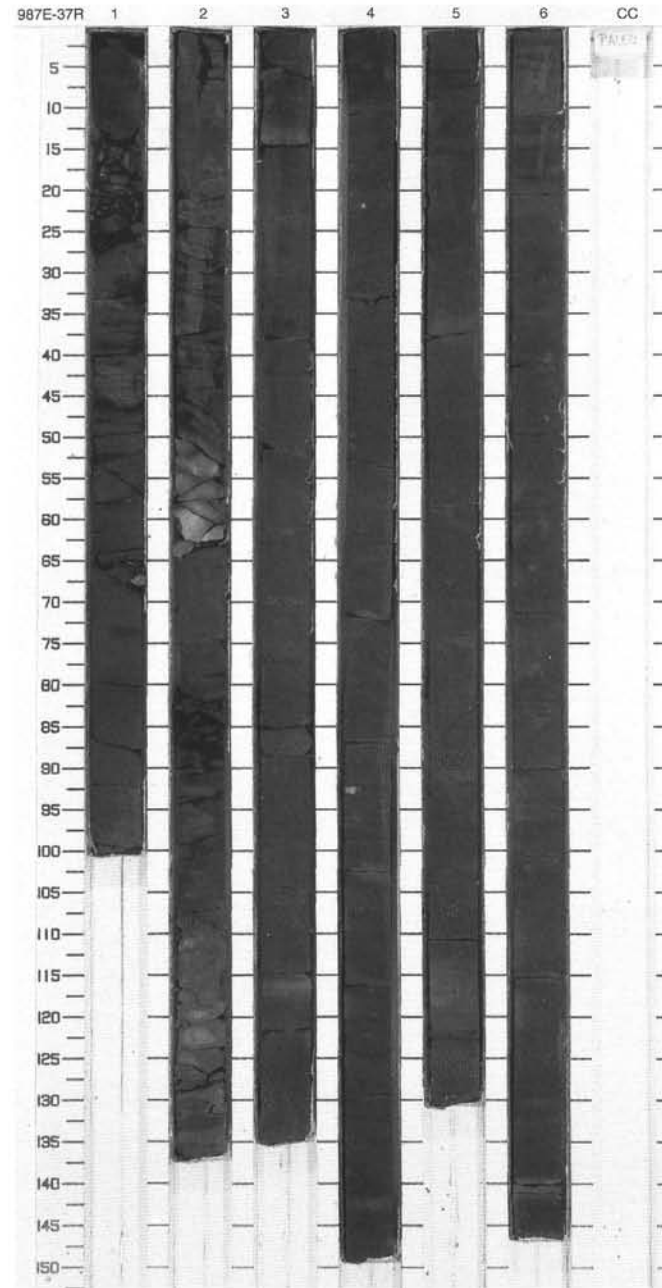
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1		---	[Wavy line]	S	10Y 3/1	<p>SILTY CLAY</p> <p>General Description: This core contains very dark greenish gray to very dark gray (10Y 3/1, 5Y 3/1, 5BG 4/1, and 5G 3/1) SILTY CLAY. Entirely, the sediment shows a gradational color change, but Section 2, 60 cm contains sharp color contact. The sediment is very firm and moderately to highly fractured throughout the entire core. Thin laminae are present on the fractured pieces at middle portion of Section 2, and Sections 4 and 5. No specific color change occurs throughout. Section 5, 22—25 cm contains individual medium color band with thin laminae. Lower portion of Section 4 contains several laminae.</p>
2	[Hatched pattern]	2		[Horizontal lines]	[Wavy line]	S	5YR 3/1 To 5Y 3/1	
3	[Hatched pattern]	3	early Pliocene		[Wavy line]	S		
4	[Hatched pattern]	4		[Horizontal lines]	[Wavy line]	S	5BG 4/1 To 5G 3/1	
5	[Hatched pattern]	5		[Horizontal lines]	[Wavy line]	M		
6	[Hatched pattern]	6		[Horizontal lines]	[Wavy line]			



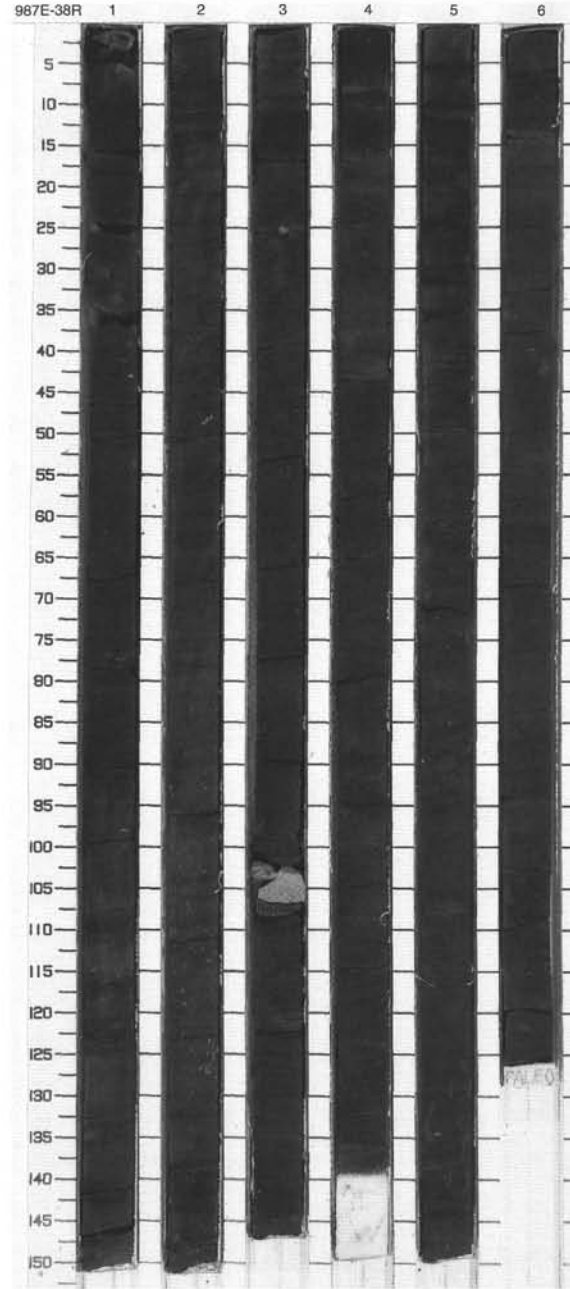
SITE 987 HOLE E CORE 37R

CORED 705.6 - 715.2 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1		1				S		<p>SILTY CLAY and CLAY WITH SILT</p> <p>General Description: This core contains very dark greenish gray (5GY 3/1, 5G 3/1) SILTY CLAY and CLAY WITH SILT. The sediment is very firm, indurated, and only very slightly fractured throughout. Subparallel bedding is visible in the more silty layers of Sections 3 to 6, whereas bioturbation is more visible in the clay-rich sediment. The SILTY CLAY looks and feels coarser along the split core surface. Sharp contacts between silty and clay-rich sediments are present. Clay-rich intervals occur in Section 1, 28—80 cm, and in Section 2, 18—63 and 80—133 cm. Lighter layers of INORGANIC CALCITE SILTY CLAY are present in Section 2, 52—63 and 110—127 cm, and in Section 3, 116—117 cm. CC all to Paleontology.</p> <p>Clasts >1 cm occur in Section 1, 12 cm (4.2-cm-sized subrounded black basalt), Section 3, 50 cm (1.2-cm-sized dark gray igneous rock), and in Section 4, 92 cm (1.5-cm-sized subangular gray igneous rock).</p>
2		2				S		
3		3				S		
4		4	early Pliocene			S	5GY 3/1 To 5G 3/1	
5		5				S		
6		6				S		
7		6				M		

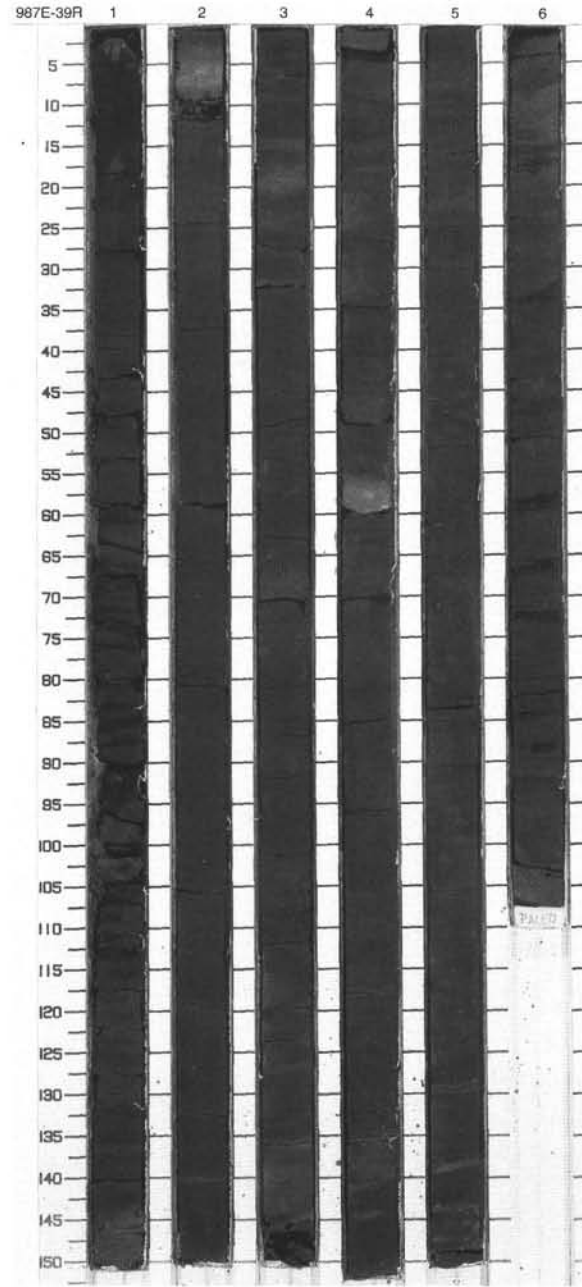


Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1		[Vertical lines]		S	10Y 3/1	<p>SILTY CLAY</p> <p>General Description: This core contains very dark greenish gray to very dark gray (10Y 3/1, 5GY 3/1, and 5G 3/1) SILTY CLAY. The sediment is very firm and slightly fractured throughout the entire core. Thin dark greenish laminations scattered throughout the entire core. Color changes are subtle and gradational throughout. Section 1, 36—38 cm contains a mud clast. Section 3, 25 cm contains a 1.3-cm subrounded siltstone. Section 3, 105 cm contains a 4-cm-long concretion. A 7-cm-long limestone is present in Section 3, 102—107 cm.</p>
2	[Hatched pattern]	2		[Vertical lines]				
3	[Hatched pattern]	3		[Vertical lines]				
4	[Hatched pattern]	3		[Vertical lines]				
5	[Hatched pattern]	4	early Pliocene	[Vertical lines]				
6	[Hatched pattern]	4		[Vertical lines]		I		
7	[Hatched pattern]	5		[Vertical lines]		S	5G 3/1 To 10Y 3/1	
8	[Hatched pattern]	6		[Vertical lines]		M		

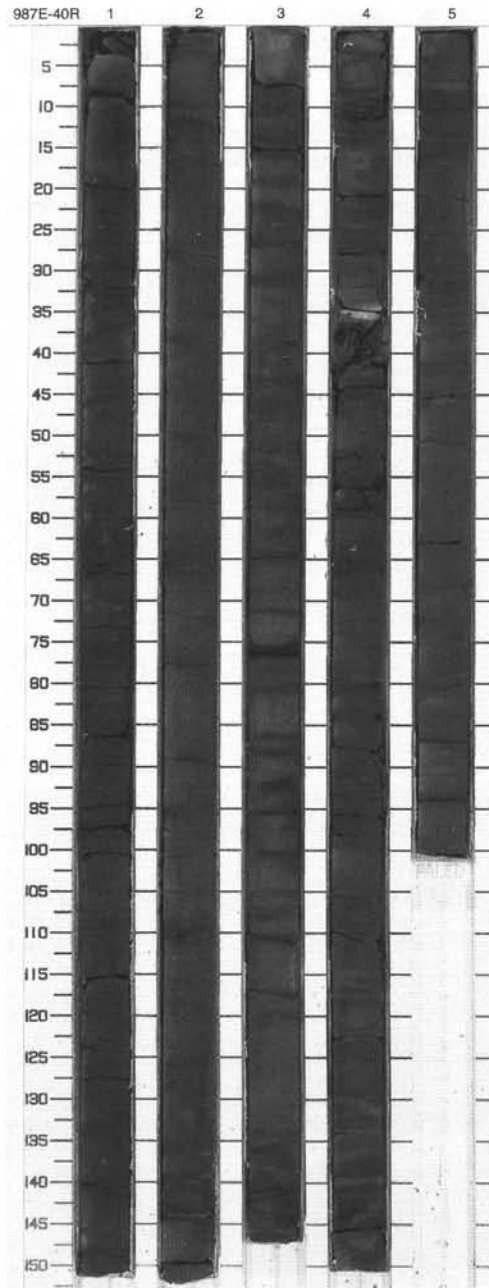


SITE 987 HOLE E CORE 39R CORED 724.9 - 734.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	early Pliocene	[Vertical lines]	[Wavy lines]	S	5GY 3/1	<p>SILTY CLAY</p> <p>General Description: This core contains very dark greenish gray (5GY 3/1) SILTY CLAY. Sediment is very hard and homogeneous. Sediment-filled burrows or mud clasts are found throughout. Fine scale laminations (mm) are present in Section 1, in Section 2, 0—10 cm, in Section 3, 70—150 cm, in Section 4, 0-80 cm, in Section 5 and in Section 6. Two lighter colored layers are present in Section 2, 0—8 cm and in Section 4, 56—60 cm. The first layer shows some <i>Chondrites</i> burrows. The second one contains indurated carbonate and is harder than the first one. Small dropstones (<1 cm) are present in Section 1, 93 cm and in Section 6, 140 cm.</p>
2	[Hatched pattern]	2		[Vertical lines]				
3	[Hatched pattern]	3		[Vertical lines]				
4	[Hatched pattern]	3		[Vertical lines]				
5	[Hatched pattern]	4		[Vertical lines]				
6	[Hatched pattern]	4		[Vertical lines]				
7	[Hatched pattern]	5	[Vertical lines]	[Wavy lines]	M			
8	[Hatched pattern]	6	[Vertical lines]					



Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	early Pliocene	[Horizontal lines]	[Diagonal lines]	S	5G 3/1	<p>SILTY CLAY</p> <p>General Description: This core contains very dark greenish gray (5G 3/1) SILTY CLAY. The core is slightly to moderately disturbed due to coring. Sediment is very hard and massive. There is no clear evidence of bioturbation. Thin dark laminations are present in Section 1, 50—60 cm, in Section 4, 20—30 cm, and in Section 5, 27—40 cm. A shell fragment is present in Section 4, 2 cm. A thin INORGANIC CALCITE indurated layer is present in Section 4, 38—40 cm. Few small gravels (<5 mm) are present in Section 2, 20—50 cm and from Section 4, 50 cm to Section 5, 100 cm.</p>
2	[Hatched pattern]	2		[Horizontal lines]	[Diagonal lines]	S		
3	[Hatched pattern]	3		[Horizontal lines]	[Diagonal lines]	S		
4	[Hatched pattern]	4		[Horizontal lines]	[Diagonal lines]	S		
5	[Hatched pattern]	5		[Horizontal lines]	[Diagonal lines]	S		
6	[Hatched pattern]					M		



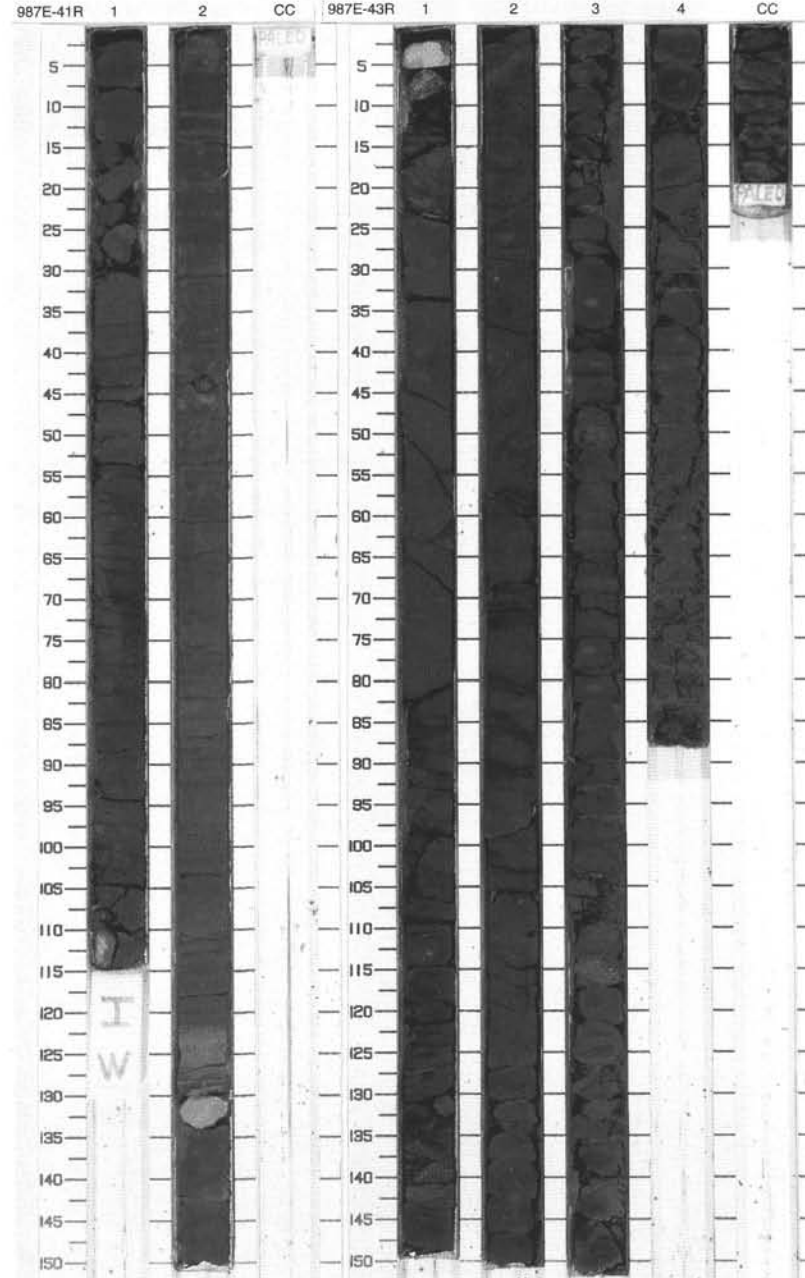
SITE 987 HOLE E CORE 41R CORED 744.1 - 753.6 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	late Miocene	[Symbol]	[Symbol]	S	5GY 4/1	<p>SILTY CLAY</p> <p>General Description: This core contains dark greenish gray (5GY 4/1) SILTY CLAY. Sediment is hard and massive. Fine scale laminations and slight color variations are present throughout the entire core. A pyrite concretion is present in Section 2, 42—44 cm. A lighter SILTY CLAY WITH INORGANIC CALCITE layer occurs in Section 2, 121—129 cm.</p> <p>Dropstone: Section 2, 130—133 cm: 6-cm-long gray granite.</p>
2	[Hatched pattern]	2						
CC	[Symbol]	??						

987E-42R NO RECOVERY

SITE 987 HOLE E CORE 43R CORED 763.2 - 772.8 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	late Miocene	[Symbol]	[Symbol]	S	5GY 3/1	<p>SILTY CLAY</p> <p>General Description: This core contains very dark greenish gray (5GY 3/1) SILTY CLAY. Sediment is very hard. This core is slightly to highly fractured due to coring. Dipping and contorted beds are present at the top of Section 2, in Sections 3 and 4. Few parallel laminations are present in Section 1, 80-100 cm and 130—150 cm, in Section 2, 80—100 cm and in Section 4, 20—30 cm. Two stones are present at the top of the core: a >7-cm-wide light gray granite and a 6-cm-long light grayish brown limestone.</p>
2	[Hatched pattern]	2						
3	[Hatched pattern]	3						
4	[Hatched pattern]	4						
5	[Hatched pattern]							
CC	[Symbol]	??						



SITE 987 HOLE E CORE 44R

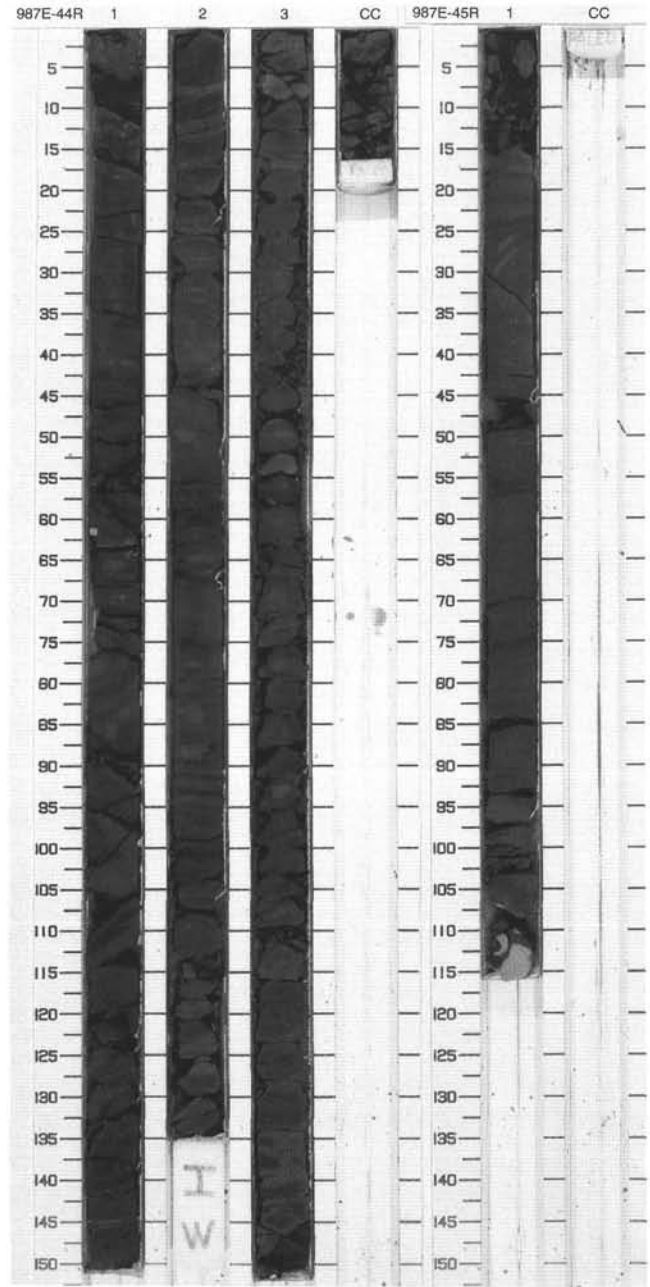
CORED 772.8 - 782.5 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Dotted pattern]	1	late Miocene	[Symbol]	[Symbol]	S	7.5GY 3/1	<p>CLAY WITH SILT AND SAND</p> <p>General Description: This core contains very dark greenish gray (7.5GY 3/1, 5GY 3/1, and 5G 3/1) CLAY WITH SILT AND SAND. Sediment is very hard. This core is slightly to moderately fractured due to drilling. Sections which are not disturbed show fine-scale laminations (1—3 mm). Dipping beds occur in Section 1, 77—90 and 135—150 cm and in Section 2, 3—15 cm. An angular 1-cm-long granite is present in Section 1, 62—63 cm.</p>
2		2					5GY 3/1	
3		3					5G 3/1	
4						M		

SITE 987 HOLE E CORE 45R




CORED 782.5 - 792.1 mbsf

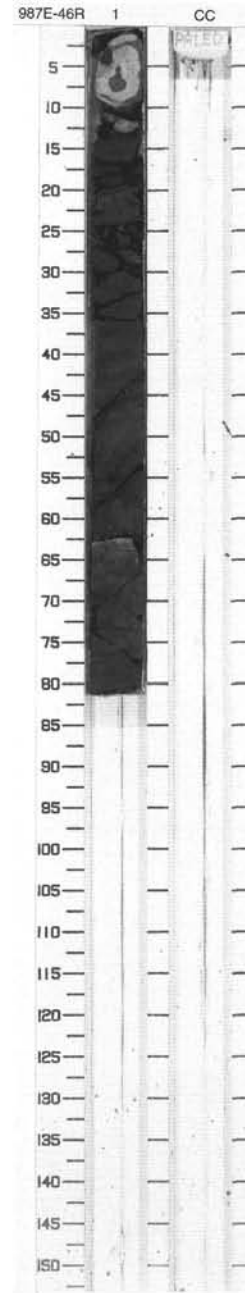
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Horizontal dashed pattern]	1	Miocene	[Symbol]	[Symbol]	S	10GY 3/0 To 5GY 3/1	<p>SILTY CLAY</p> <p>General Description: This core contains very dark greenish gray (10GY 3/0 and 5GY 3/1) SILTY CLAY. A thin layer of dark greenish gray (10Y 5/1) LIMESTONE is present at the base of Section 1, 109—116 cm. The core has a net-like surface coloring, although the color changes are subtle. A few minor, subtle color bands are also present. Between 35 and 54 cm, there are many small pyrite concentrations, silt-filled burrows, and possibly benthic foraminifers. The largest pyrite concentration is 3-mm wide at 96 cm. The entire CC was given to the paleontologists.</p>
						M		



SITE 987 HOLE E CORE 46R

CORED 792.1 - 801.8 mbsf

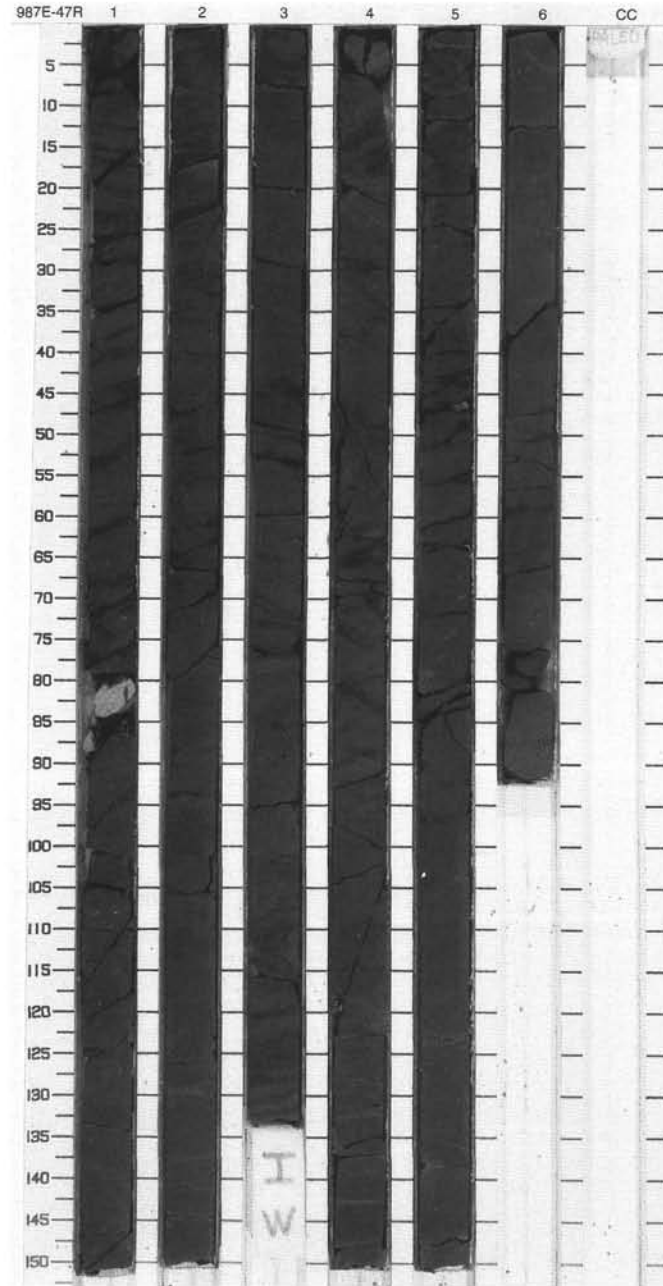
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
		1	Miocene			S S M	5G 3/1	<p>CLAYEY SILT WITH SAND and SILTY CLAY</p> <p>General Description: This core contains hard, very dark greenish gray (5G 3/1) CLAYEY SILT WITH SAND and SILTY CLAY. Weak color banding is present and benthic foraminifers and pyrite are observed on the split surface. In Section 1, 0—10 cm a dark greenish gray (110Y 5/1) CARBONATED CEMENTED SANDSTONE with layering is present. The entire CC was given to the paleontology lab.</p>



SITE 987 HOLE E CORE 47R

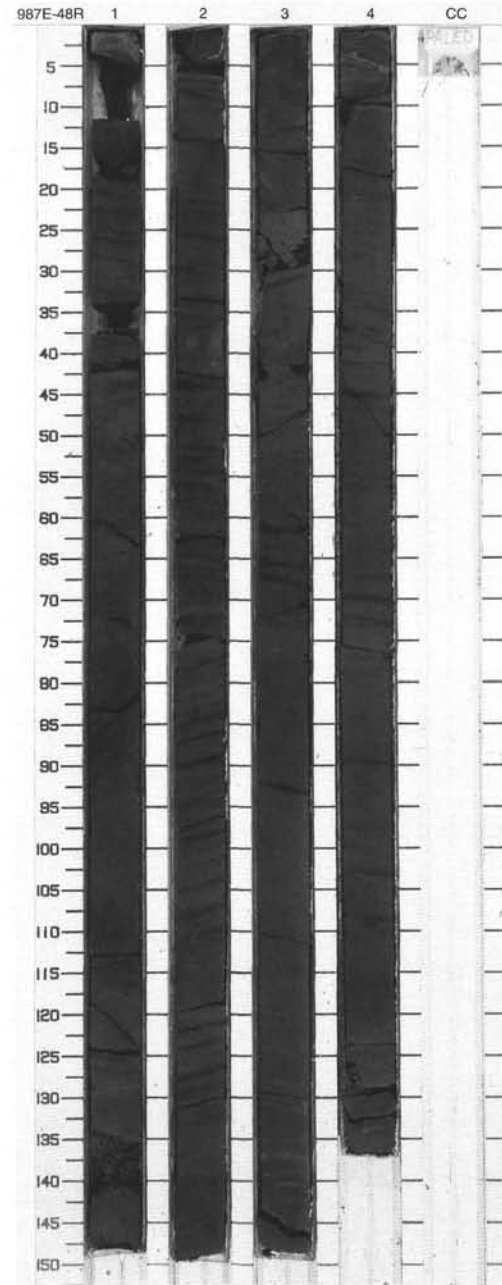
CORED 801.8 - 811.3 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	Miocene	(P)	[Diagonal lines]	S	5P 3/1	SILTY CLAY and SILTY SAND WITH CLAY AND CALCITE General Description: This core contains very hard, very dark greenish gray (5GY 3/1) and very dark gray (5PB 3/1) SILTY CLAY and SILTY SAND WITH CLAY AND CALCITE. Minor color variations are present and pyrite is disseminated throughout. In the SILTY CLAY there are many minor grain-size variations. Pyrite nodules > 0.5-cm are marked in the graphic lithology column. Pyrite fills some burrows and replaces at least one shell fragment. Benthic foraminifers are common in the silty clay. From Section 3, 54 cm to Section 4, 60 cm, the sediment is folded. The folding mostly encompasses the SILTY SAND WITH CLAY AND CALCITE, but continues slightly below this interval. The SILTY SAND WITH CLAY AND CALCITE, contains many elongate black glass shards >1-cm in length, aligned parallel to bedding. Dark greenish gray (10Y 5/1) LIMESTONE is present in Section 1, 79-86 cm. Within this core there are pieces of gravel, probably dropstones. However, in the working half, at Section 5, 126 cm, there is a 1.4-cm-long gneiss dropstone. This is shown in the graphic lithology column. A smaller (0.5 cm) red mudstone is present in the working half at Section 4, 131 cm.
2	[Hatched pattern]	2		(P)				
3	[Hatched pattern]	3		(P)				
4	[Dotted pattern]	3		(S)			5GY 3/1	
5	[Dotted pattern]	4		(S)				
6	[Hatched pattern]	4		(S)			5P 3/1	
7	[Hatched pattern]	5	(P)					
8	[Hatched pattern]	6	(P)					
CC						M		



SITE 987 HOLE E CORE 48R CORED 811.3 - 820.9 mbsf

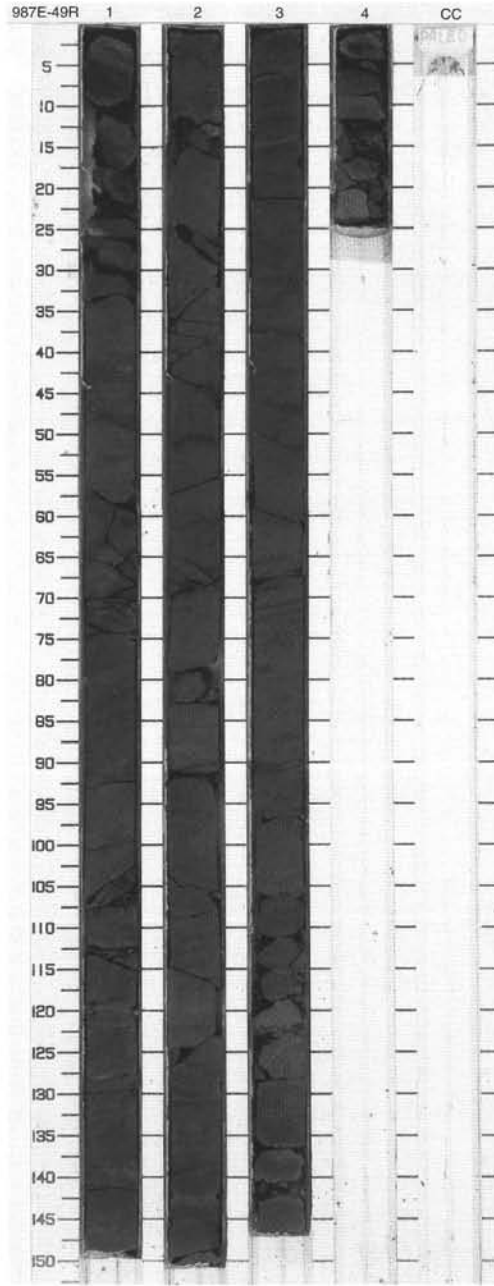
Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	Miocene	(P)	/ / / / /	S	5G 4/1	<p>SILTY CLAY</p> <p>General Description: This core contains very firm, dark greenish gray (5G 4/1) SILTY CLAY. A coarse grained slump containing black VOLCANIC GLASS is present in Section 1, 65—125 cm. Beds dipping at a 15—20° angle are found in Section 2, 75—150 and Section 3, 0—20 cm. Sections 1 and 2 contain fine-scale (1-3 mm) laminations and color variations. Sections 3 and 4 are slightly bioturbated, but fine-scale laminations are still discernable. A very small (0.5-cm) dropstone is present in Section 3, 132 cm. Many small pyrite nodules occur throughout the core.</p>
2	[Hatched pattern]	2		(P)				
3	[Hatched pattern]	3		~				
4	[Hatched pattern]	3		(P)				
5	[Hatched pattern]	4		~				
CC	[Hatched pattern]	CC		~		M		



SITE 987 HOLE E CORE 49R

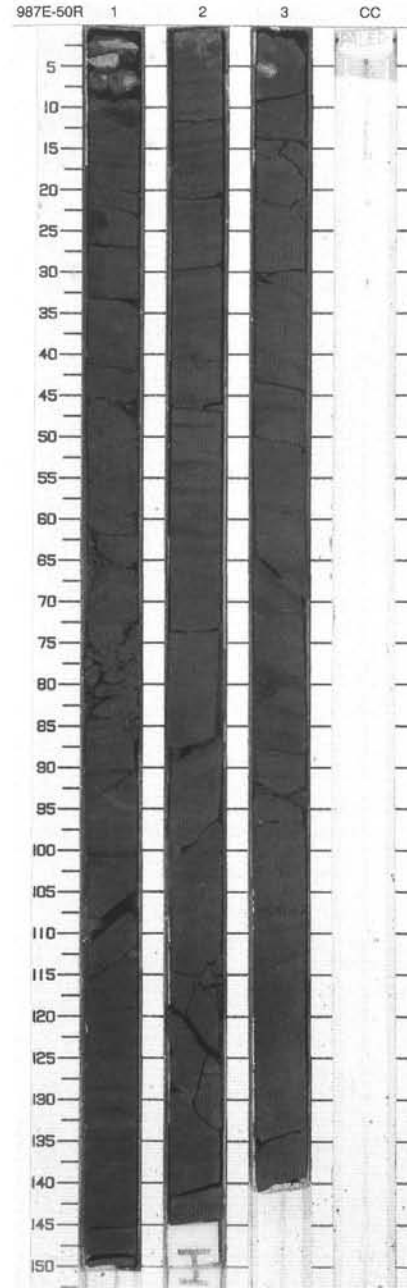
CORED 820.9 - 830.6 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	Miocene	[Symbol]	[Symbol]	S	5GY 3/1	<p>SILTY CLAY</p> <p>General Description: This core contains very dark greenish gray (5GY 3/1) SILTY CLAY. The sediment is very firm and moderately to highly fractured throughout the entire core. Dark thin laminations are present throughout all sections. Several pyrite nodules are present in Section 2, 17 and 143 cm and in Section 3, 96, 27, and 35 cm. Slight bioturbation with surface mottling occurs in all sections.</p>
2	[Hatched pattern]	2		[Symbol]	[Symbol]	S		
3	[Hatched pattern]	3		[Symbol]	[Symbol]			
4	[Hatched pattern]	4		[Symbol]	[Symbol]	M		



SITE 987 HOLE E CORE 50R CORED 830.6 - 840.2 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	Miocene	} }		S	5GY 3/1 To 10Y 3/1	<p>SILTY CLAY</p> <p>General Description: This core contains very dark greenish gray (5GY 3/1 and 10Y 3/1) SILTY CLAY. The sediment is very firm and slightly fractured throughout. Subparallel bedding is indicated by thin dark greenish clay-rich bands interbedding siltier sediments. These laminations mostly have sharp contacts. Contorted beds occur in Sections 1 and 2. Slight bioturbation is present in several sections, and is indicated by burrows and burrow traces filled with lighter sediment. White dots (benthic foraminifers?) are visible on the splitted sediment surface throughout. A dropstone is present in Section 1, 110 cm (1.1-cm-sized subrounded igneous rock). The sediment is lithified in the upper 8 cm of the core.</p>
2	[Hatched pattern]	2		} }				
3	[Hatched pattern]	3		} }				
4	[Hatched pattern]	3		} }				
	CC					M		



SITE 987 HOLE E CORE 51R

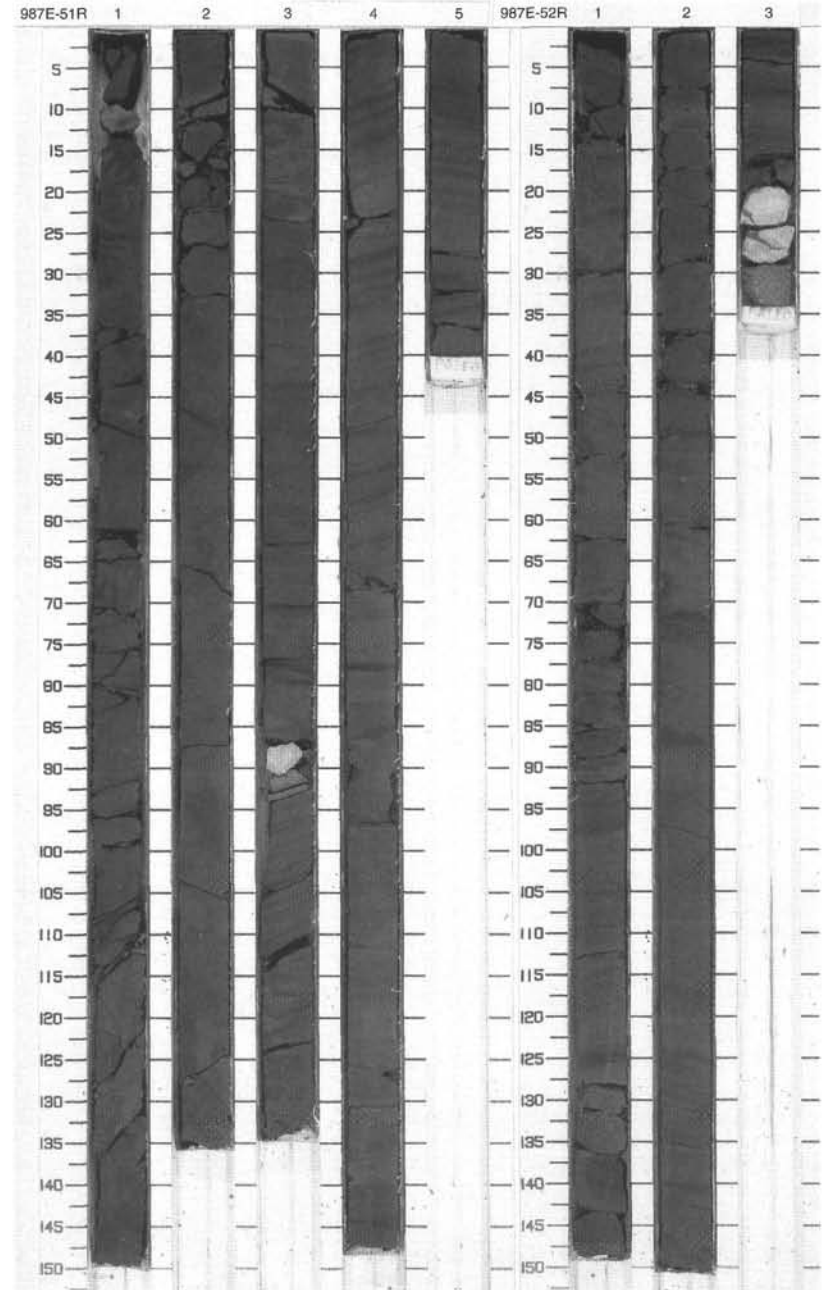
CORED 840.2 - 849.8 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	Miocene	[Horizontal lines]	[Wavy line]	S	5GY 3/1 To 5G 3/1	<p>SILTY CLAY</p> <p>General Description: This core contains very dark greenish gray (5GY 3/1 and 5G 3/1) SILTY CLAY. The sediment is very firm and slightly to highly fractured throughout the entire core. Thin to dark greenish color bands are scattered throughout. A wavy lamina is present in Section 3, 10-20 cm. Slight bioturbation occurs at several layers. The core contains several small pyrite concretions.</p>
2	[Hatched pattern]	2		[Horizontal lines]	[Wavy line]	S		
3	[Hatched pattern]	3		[Horizontal lines]	[Wavy line]	S		
4	[Hatched pattern]	4		[Horizontal lines]	[Wavy line]	S		
5	[Hatched pattern]	4		[Horizontal lines]	[Wavy line]	S		
6	[Hatched pattern]	5	[Horizontal lines]	[Wavy line]	M			

SITE 987 HOLE E CORE 52R

CORED 849.8 - 859.4 mbsf

Meter	Graphic Lith.	Section	Age	Structure	Disturb	Sample	Color	Description
1	[Hatched pattern]	1	Miocene	[Horizontal lines]	[Wavy line]	S	5GY 3/1	<p>SILTY CLAY</p> <p>General Description: This core contains very dark greenish gray (5GY 3/1) SILTY CLAY. The sediment is very firm and moderately disturbed. Sub-parallel bedding and slight bioturbation occur throughout the core. Two concretions are present at the base of Section 3. The lower one is a greenish gray (10Y 5/1) clay-rich nodule, and the upper one is a slightly darker INORGANIC CALCITE SILT.</p>
2	[Hatched pattern]	2		[Horizontal lines]	[Wavy line]	S		
3	[Hatched pattern]	3		[Horizontal lines]	[Wavy line]	S		
						M		



SITE 987