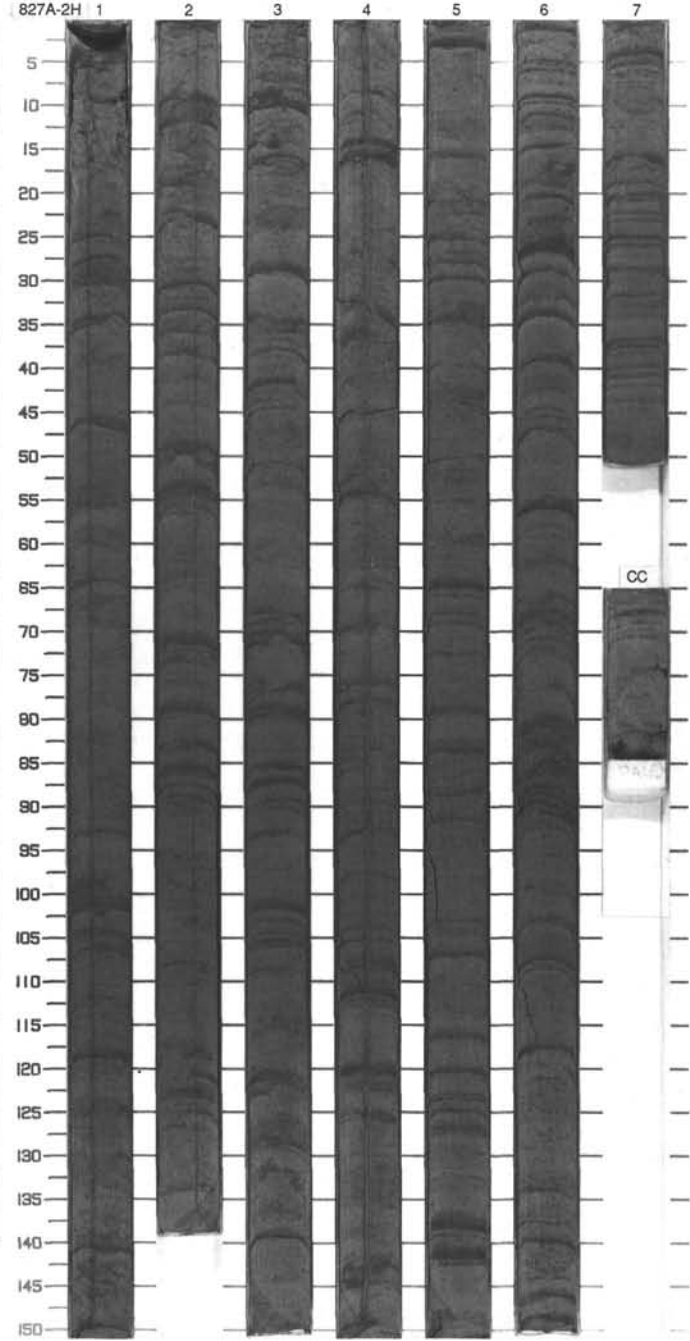
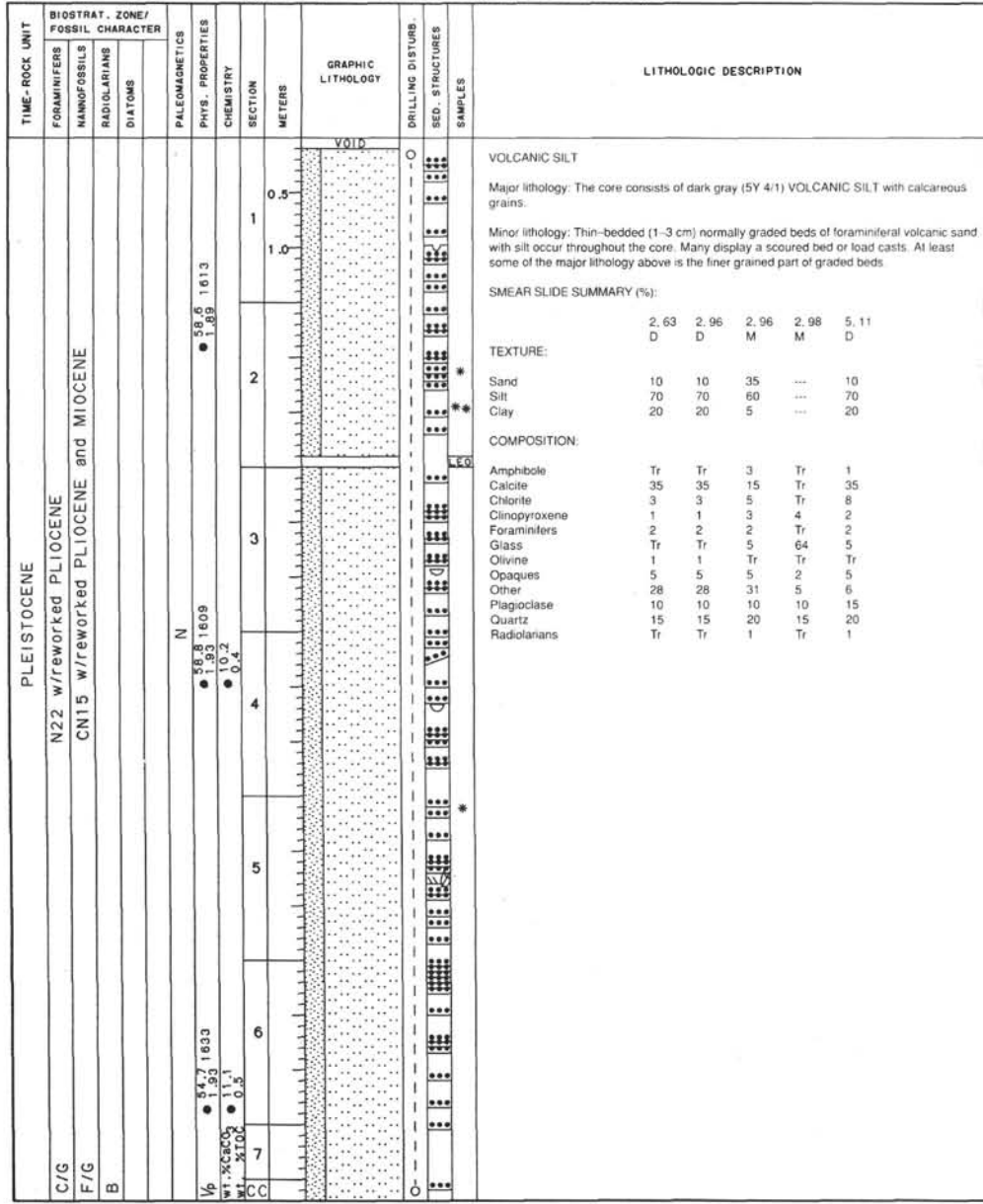
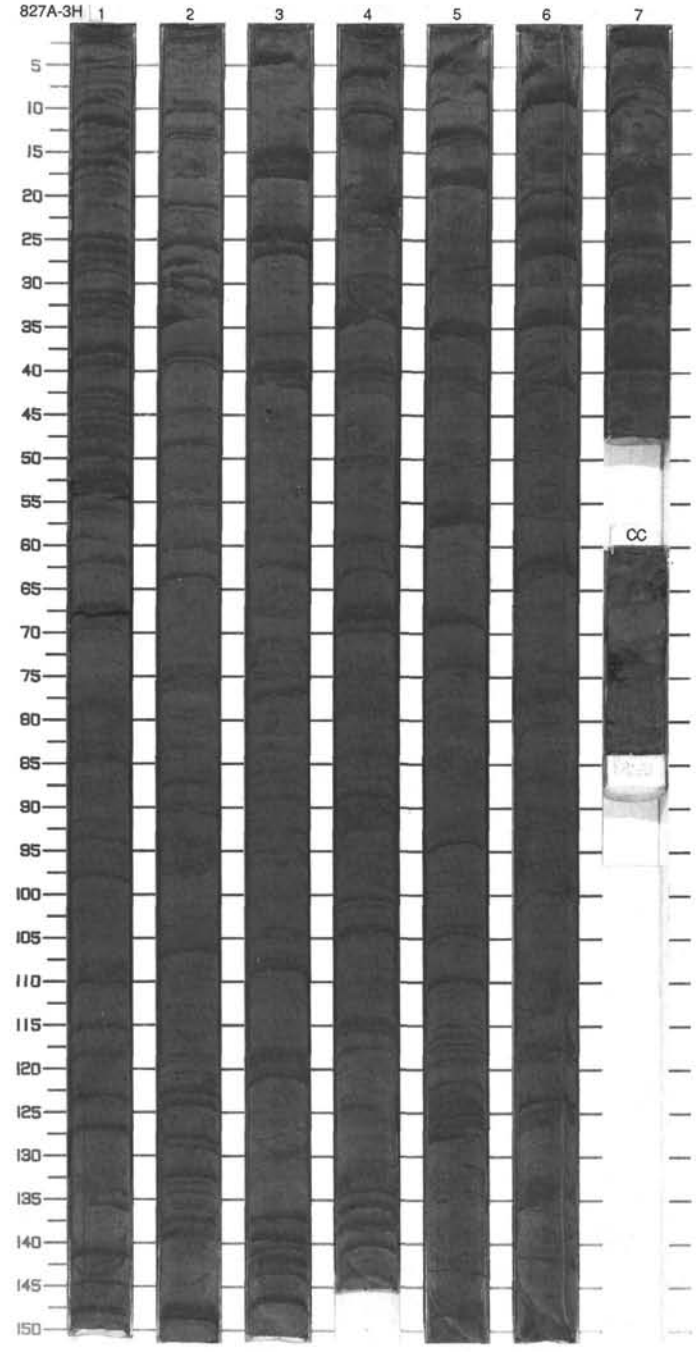
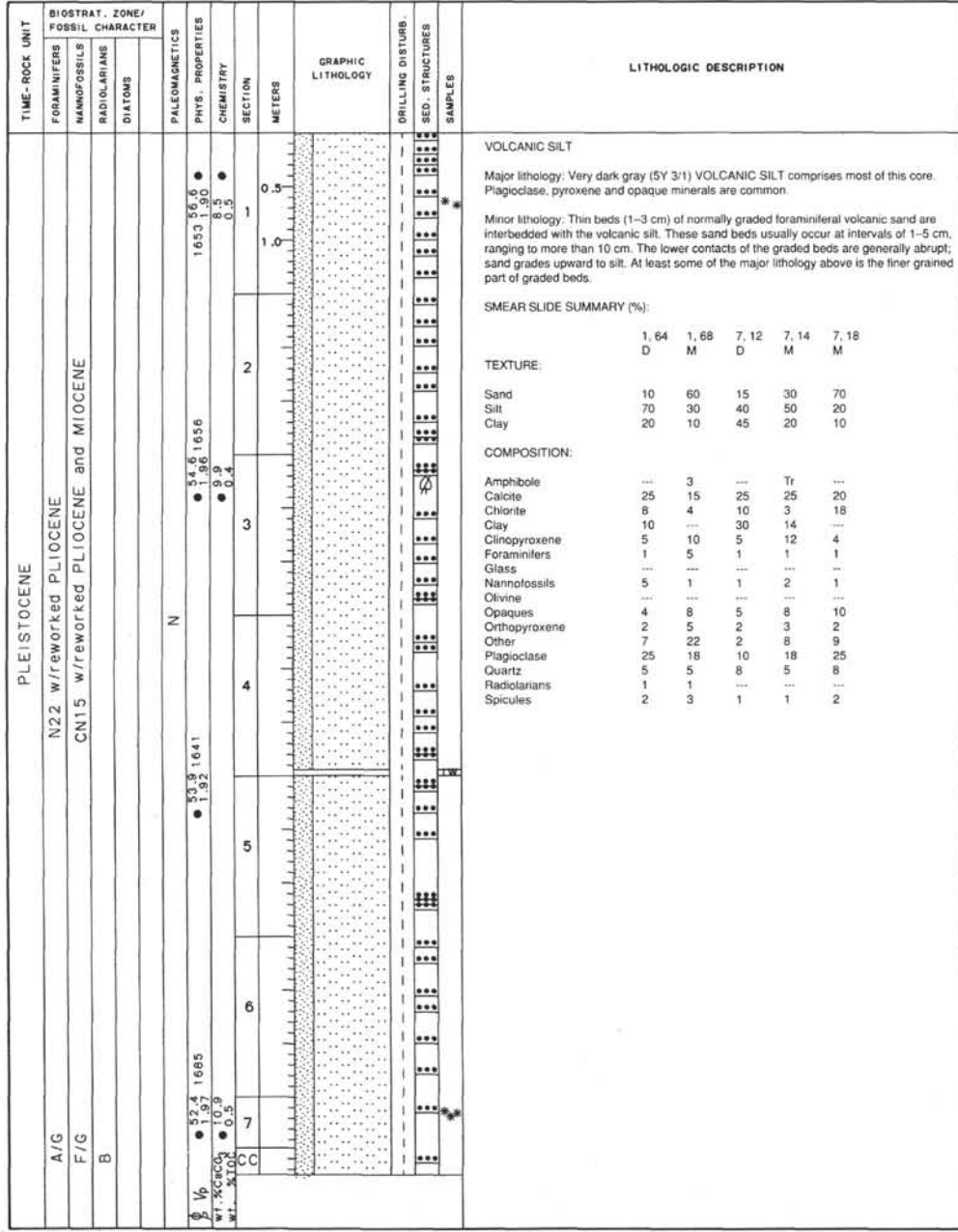


SITE 827 HOLE A CORE 2H CORED INTERVAL 9.8-19.3 mbsf





VOLCANIC SILT

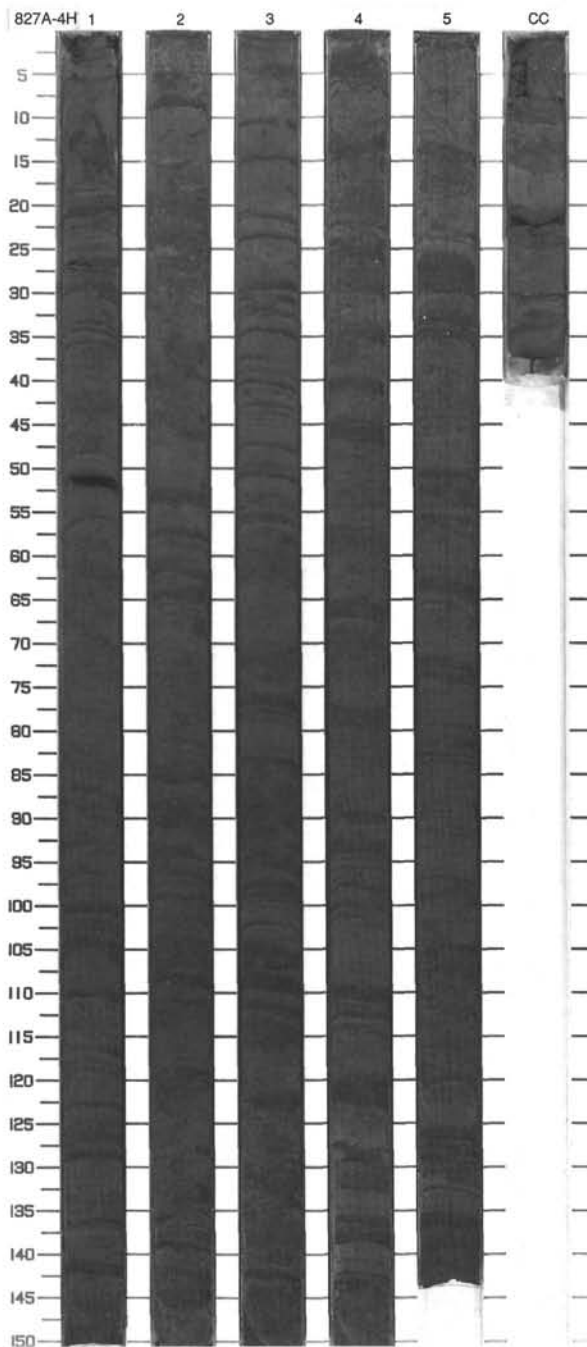
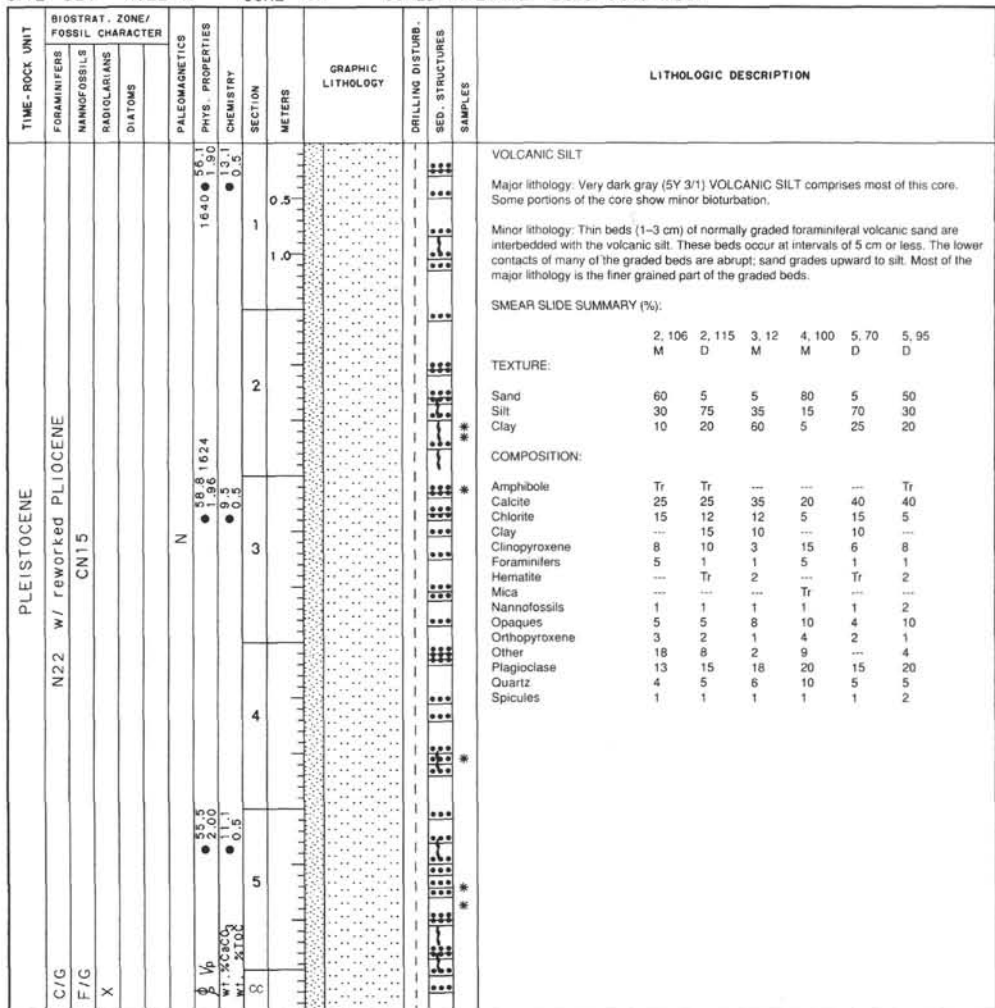
Major lithology: Very dark gray (5Y 3/1) VOLCANIC SILT comprises most of this core. Plagioclase, pyroxene and opaque minerals are common.

Minor lithology: Thin beds (1-3 cm) of normally graded foraminiferal volcanic sand are interbedded with the volcanic silt. These sand beds usually occur at intervals of 1-5 cm, ranging to more than 10 cm. The lower contacts of the graded beds are generally abrupt; sand grades upward to silt. At least some of the major lithology above is the finer grained part of graded beds.

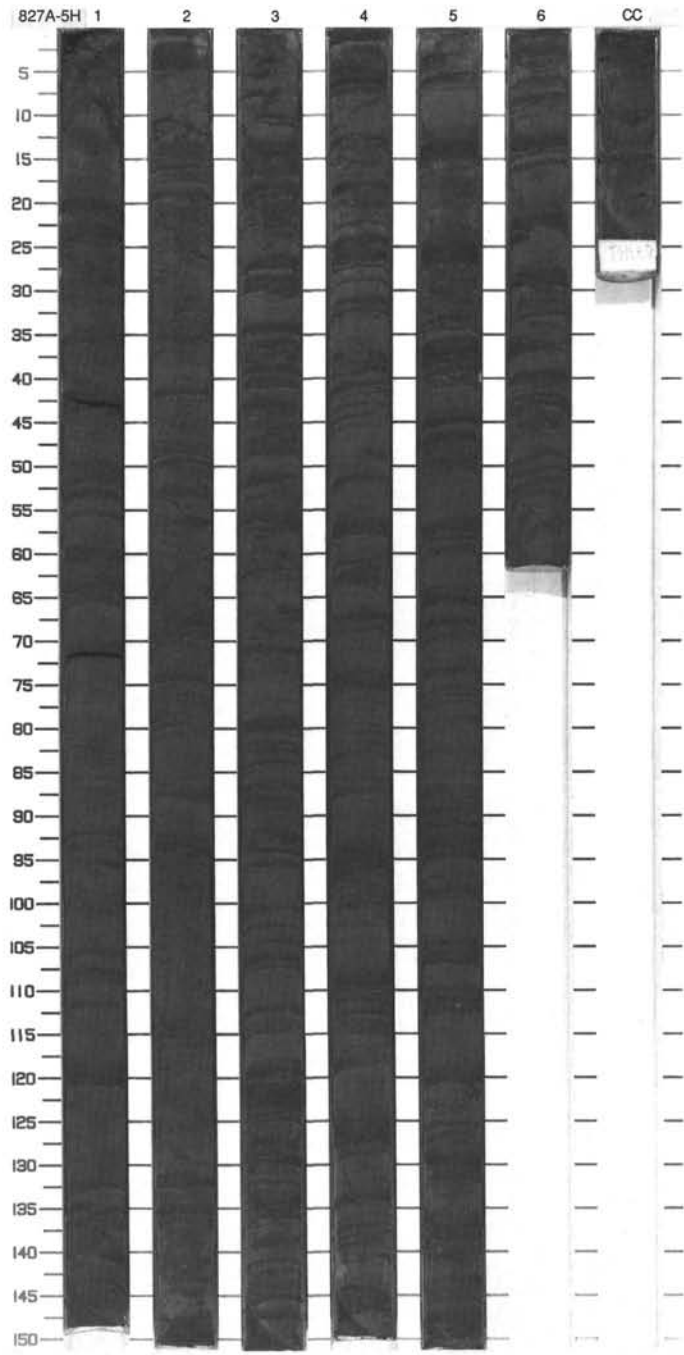
SMEAR SLIDE SUMMARY (%):

	1, 64	1, 68	7, 12	7, 14	7, 18
	D	M	D	M	M
TEXTURE:					
Sand	10	60	15	30	70
Silt	70	30	40	50	20
Clay	20	10	45	20	10
COMPOSITION:					
Amphibole	---	3	---	Tr	---
Calcite	25	15	25	25	20
Chlorite	8	4	10	3	18
Clay	10	---	30	14	---
Clinopyroxene	5	10	5	12	4
Foraminifers	1	5	1	1	1
Glass	---	---	---	---	---
Nannofossils	5	1	1	2	1
Olivine	---	---	---	---	---
Opales	4	8	5	8	10
Orthopyroxene	2	5	2	3	2
Other	7	22	2	8	9
Plagioclase	25	18	10	18	25
Quartz	5	5	8	5	8
Radiolarians	1	1	---	---	---
Spicules	2	3	1	1	2

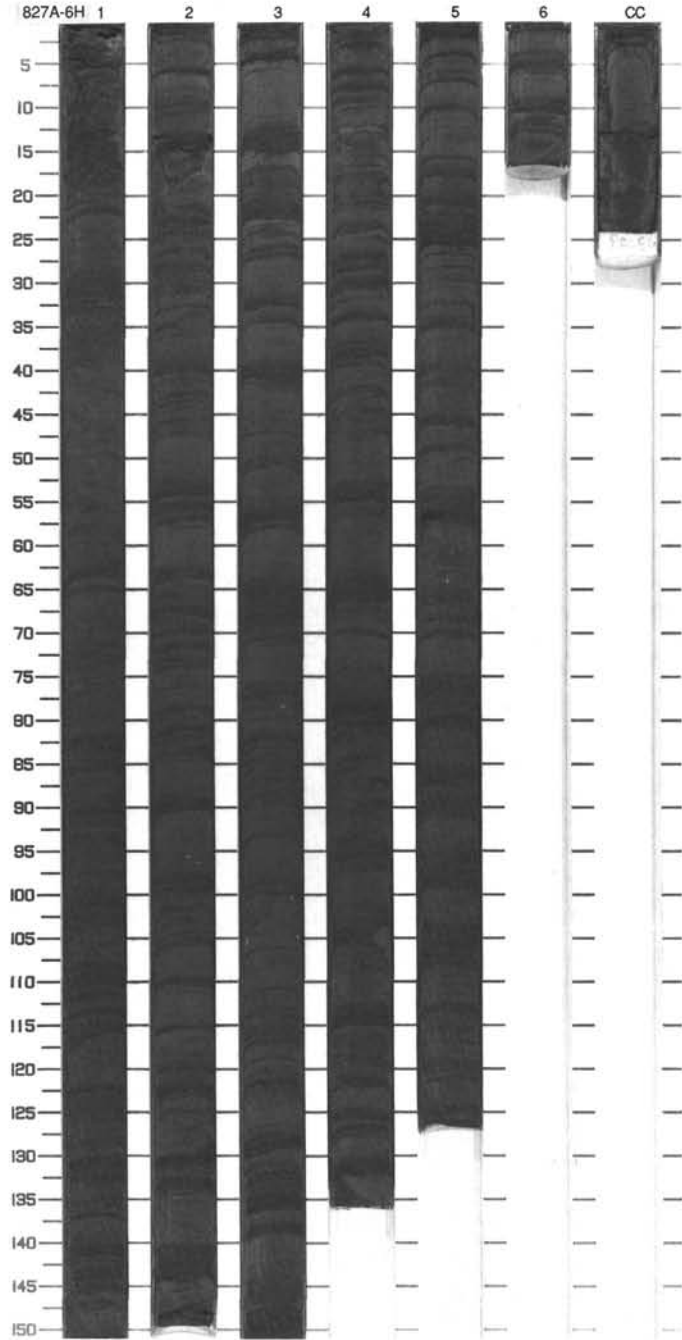
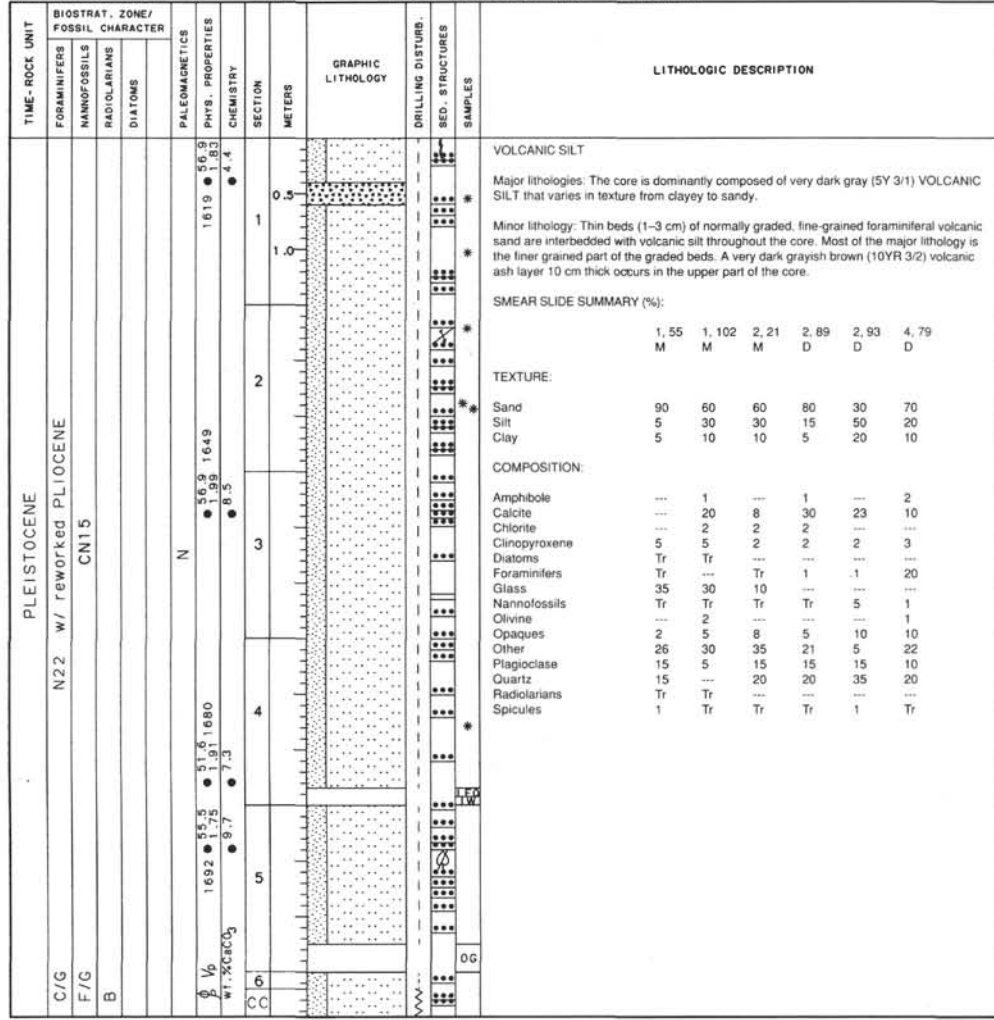
SITE 827 HOLE A CORE 4H CORED INTERVAL 28.8-36.5 mbsf



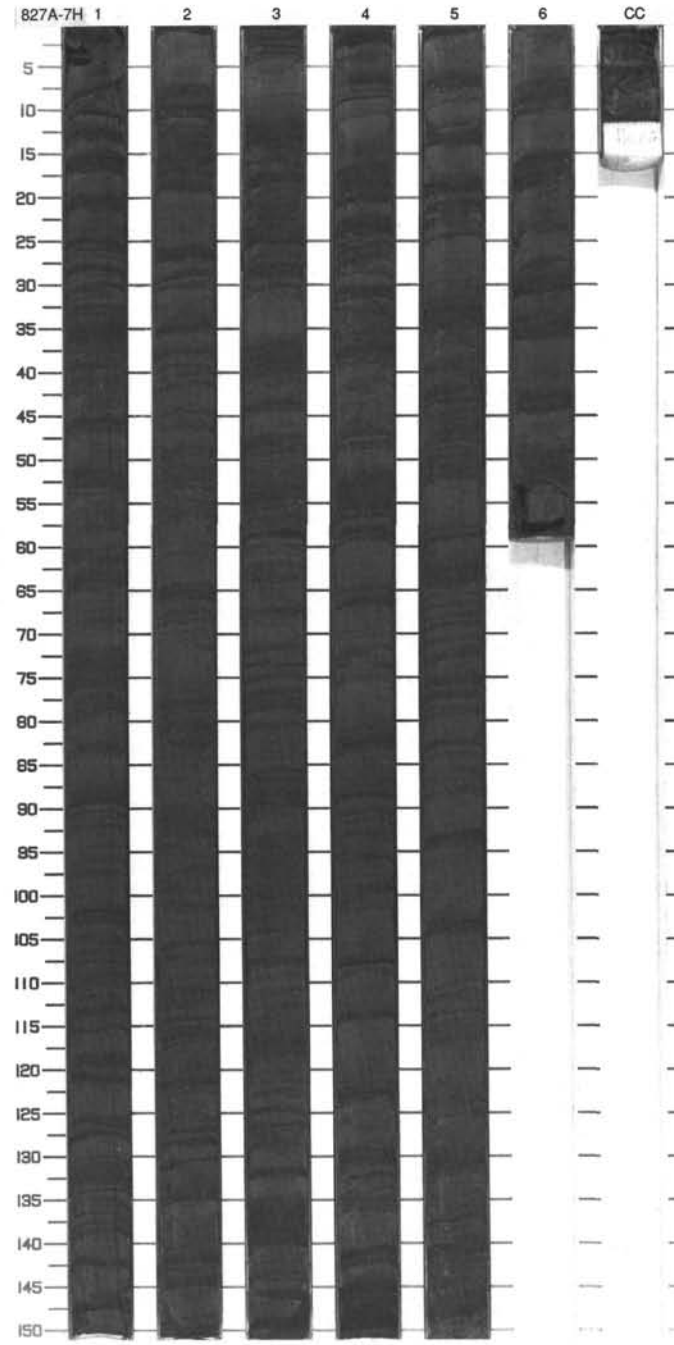
TIME-ROCK UNIT		BIOSTRAT. ZONE/ FOSSIL CHARACTER	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
FORAMINIFERS	NANNOFOSSILS											
PLEISTOCENE												
C/M	N22 w/ reworked PLIOCENE											
F/G	CN15											
B												
			N	53.6 1.34			0.5					
				53.5 1.665			1.0					
				53.0 1.653			1.5					
				52.0 1.6			2.0					
							2.5					
							3.0					
							3.5					
							4.0					
							4.5					
							5.0					
							5.5					
							6.0					
							6.5					
							7.0					
							7.5					
							8.0					
							8.5					
							9.0					
							9.5					
							10.0					
							10.5					
							11.0					
							11.5					
							12.0					
							12.5					
							13.0					
							13.5					
							14.0					
							14.5					
							15.0					



SITE 827 HOLE A CORE 6H CORED INTERVAL 44.9-52.8 mbsf

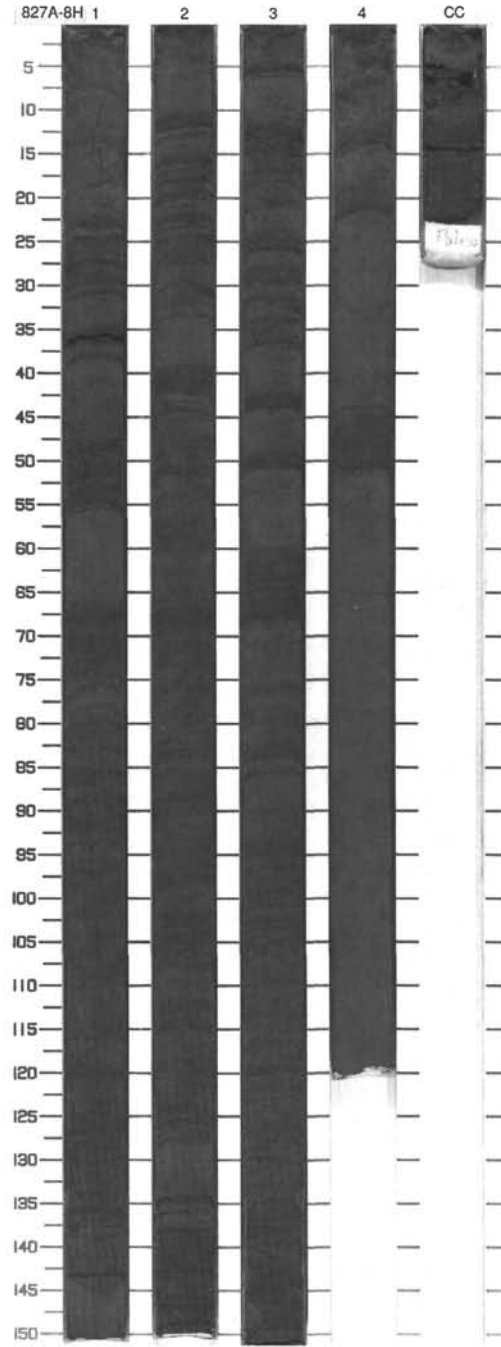


TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER			PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION																																																																																																																								
	FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS											DIATOMS																																																																																																																							
PLEISTOCENE	N22 w/reworked Pliocene CN15			N	57.4 1630 ● 1.97			0.5 1 1.0					<p>VOLCANIC SILT</p> <p>Major lithology: Dark olive gray (5Y 3/2) VOLCANIC SILT comprises most of this core.</p> <p>Minor lithology: Thin beds (1-3 cm) of closely spaced, normally graded dark olive gray (5Y 3/2) foraminiferal volcanic sand are interbedded with the volcanic silt. The bottom contacts of the sand beds are generally sharp; the upper portions grade upward to silt, and most of the major lithology is the finer grained part of the graded beds.</p> <p>SMEAR SLIDE SUMMARY (%):</p> <table border="1"> <tr> <td></td> <td>2.36</td> <td>3.58</td> <td>3.122</td> <td>5.98</td> <td>6.9</td> </tr> <tr> <td></td> <td>M</td> <td>M</td> <td>D</td> <td>D</td> <td>M</td> </tr> </table> <p>TEXTURE:</p> <table border="1"> <tr> <td>Sand</td> <td>40</td> <td>80</td> <td>10</td> <td>5</td> <td>40</td> </tr> <tr> <td>Silt</td> <td>50</td> <td>20</td> <td>60</td> <td>50</td> <td>50</td> </tr> <tr> <td>Clay</td> <td>10</td> <td>---</td> <td>30</td> <td>45</td> <td>10</td> </tr> </table> <p>COMPOSITION:</p> <table border="1"> <tr> <td>Amphibole</td> <td>1</td> <td>---</td> <td>2</td> <td>---</td> <td>---</td> </tr> <tr> <td>Calcite</td> <td>20</td> <td>5</td> <td>---</td> <td>10</td> <td>15</td> </tr> <tr> <td>Chlorite</td> <td>10</td> <td>---</td> <td>2</td> <td>8</td> <td>---</td> </tr> <tr> <td>Cinoppyroxene</td> <td>8</td> <td>20</td> <td>10</td> <td>5</td> <td>5</td> </tr> <tr> <td>Diatoms</td> <td>Tr</td> <td>---</td> <td>---</td> <td>---</td> <td>---</td> </tr> <tr> <td>Foraminifers</td> <td>1</td> <td>1</td> <td>10</td> <td>10</td> <td>25</td> </tr> <tr> <td>Glass</td> <td>---</td> <td>10</td> <td>---</td> <td>---</td> <td>---</td> </tr> <tr> <td>Nannofossils</td> <td>1</td> <td>---</td> <td>Tr</td> <td>---</td> <td>---</td> </tr> <tr> <td>Olivine</td> <td>---</td> <td>15</td> <td>1</td> <td>---</td> <td>---</td> </tr> <tr> <td>Opacues</td> <td>8</td> <td>20</td> <td>6</td> <td>5</td> <td>2</td> </tr> <tr> <td>Orthopyroxene</td> <td>---</td> <td>5</td> <td>---</td> <td>---</td> <td>---</td> </tr> <tr> <td>Other</td> <td>16</td> <td>20</td> <td>34</td> <td>32</td> <td>23</td> </tr> <tr> <td>Plagioclase</td> <td>15</td> <td>4</td> <td>25</td> <td>20</td> <td>10</td> </tr> <tr> <td>Quartz</td> <td>20</td> <td>---</td> <td>10</td> <td>10</td> <td>20</td> </tr> <tr> <td>Spicules</td> <td>Tr</td> <td>---</td> <td>Tr</td> <td>Tr</td> <td>Tr</td> </tr> </table>		2.36	3.58	3.122	5.98	6.9		M	M	D	D	M	Sand	40	80	10	5	40	Silt	50	20	60	50	50	Clay	10	---	30	45	10	Amphibole	1	---	2	---	---	Calcite	20	5	---	10	15	Chlorite	10	---	2	8	---	Cinoppyroxene	8	20	10	5	5	Diatoms	Tr	---	---	---	---	Foraminifers	1	1	10	10	25	Glass	---	10	---	---	---	Nannofossils	1	---	Tr	---	---	Olivine	---	15	1	---	---	Opacues	8	20	6	5	2	Orthopyroxene	---	5	---	---	---	Other	16	20	34	32	23	Plagioclase	15	4	25	20	10	Quartz	20	---	10	10	20	Spicules	Tr	---	Tr	Tr	Tr
	2.36	3.58	3.122	5.98	6.9																																																																																																																																
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Spicules	Tr	---	Tr	Tr	Tr																																																																																																																																
C/G					58.4 56.2 1584			2																																																																																																																													
F/G					2.02 ● 8.6			3																																																																																																																													
B					58.0 ● 2.11 ● 7.4			4																																																																																																																													
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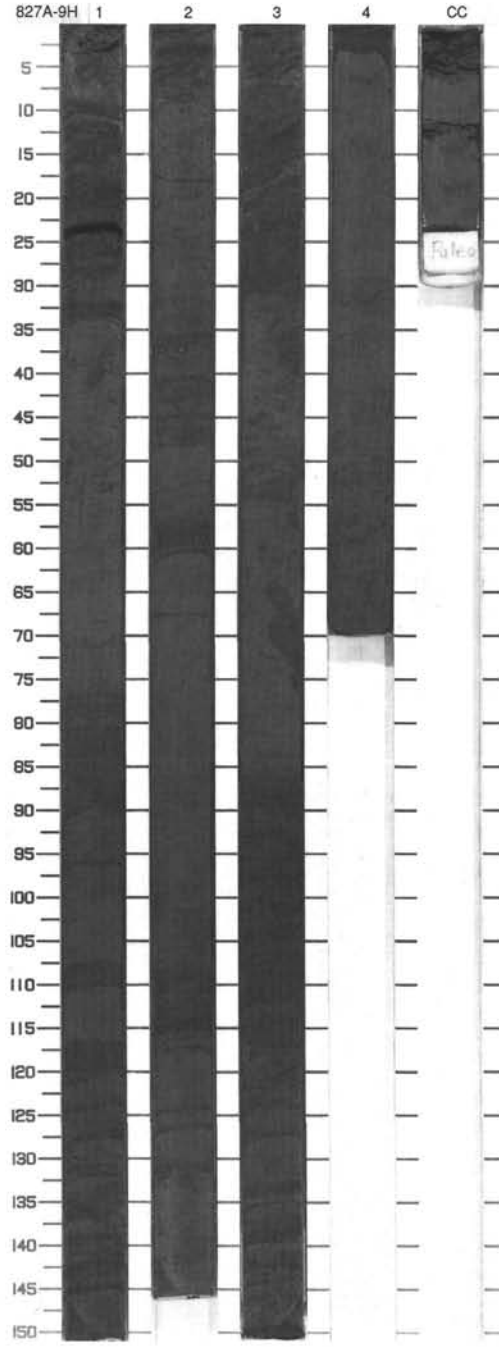
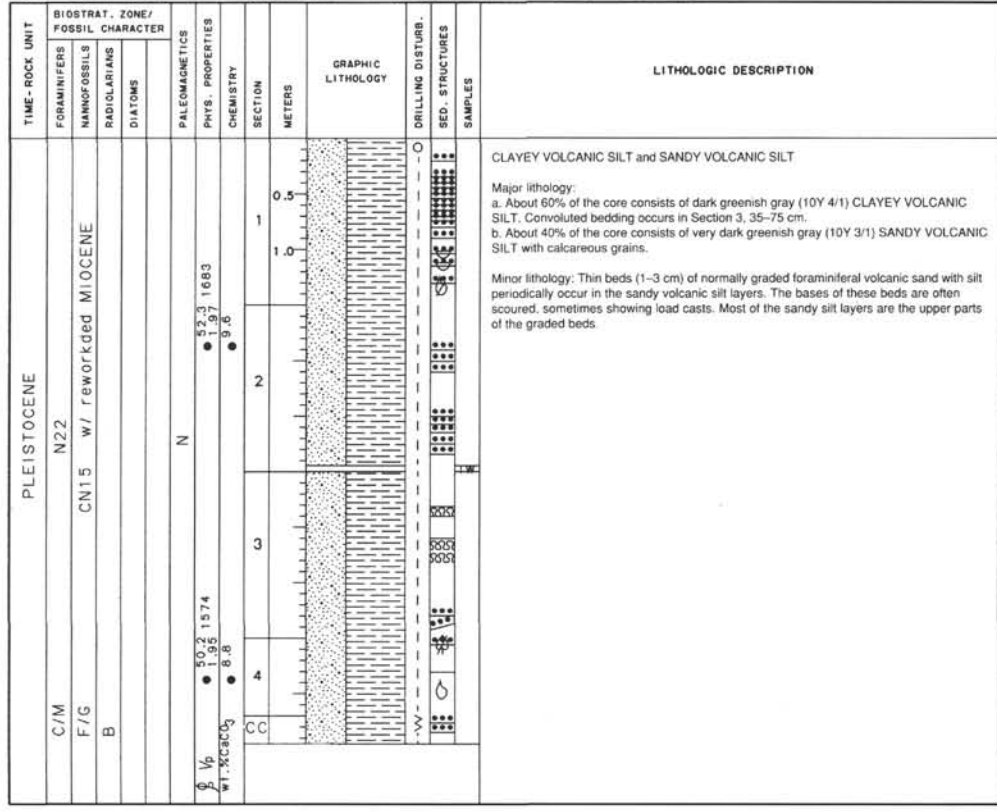


SITE 827 HOLE A CORE 8H CORED INTERVAL 61.0-67.0 mbsf

TIME-ROCK UNIT		BIOSTRAT. ZONE/ FOSSIL CHARACTER		PALEOMAGNETIC PHYS. PROPERTIES	CHEMISTRY	SECTION METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB. SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
FORAMINIFERS	NANNOFOSSELS	RADIOLARIANS	DIAZONS							
PLEISTOCENE		N22		54.7 ● 9.7		0.5 1	[Lithology pattern: fine-grained silt with volcanic sand]	[Drilling disturbance symbols]	[Sample symbols]	<p>SANDY VOLCANIC SILT</p> <p>Major lithology: The core primarily consists of dark gray (5Y 4/1) SANDY VOLCANIC SILT with calcareous grains.</p> <p>Minor lithology: Thin-bedded (1-3 cm) normally graded beds of foraminiferal volcanic sand with silt occur throughout the core. The graded beds often overlie a scoured or load cast surface on the fine-grained part of the underlying bed. Most of the major lithology is the finer grained part of the graded beds.</p> <p>SMEAR SLIDE SUMMARY (%):</p> <p style="text-align: right;">4.90 D</p> <p>TEXTURE:</p> <p>Silt 40 Clay 60</p> <p>COMPOSITION:</p> <p>Calcite 2 Chlorite 5 Foraminifers 1 Glass 1 Opaques 2 Other 59 Plagioclase 10 Quartz 20 Spicules Tr</p>
A/M				59.7 ● 10.1		2				
F/G		CN15 w/ reworked MIOCENE				3				
B						4				
						CC				

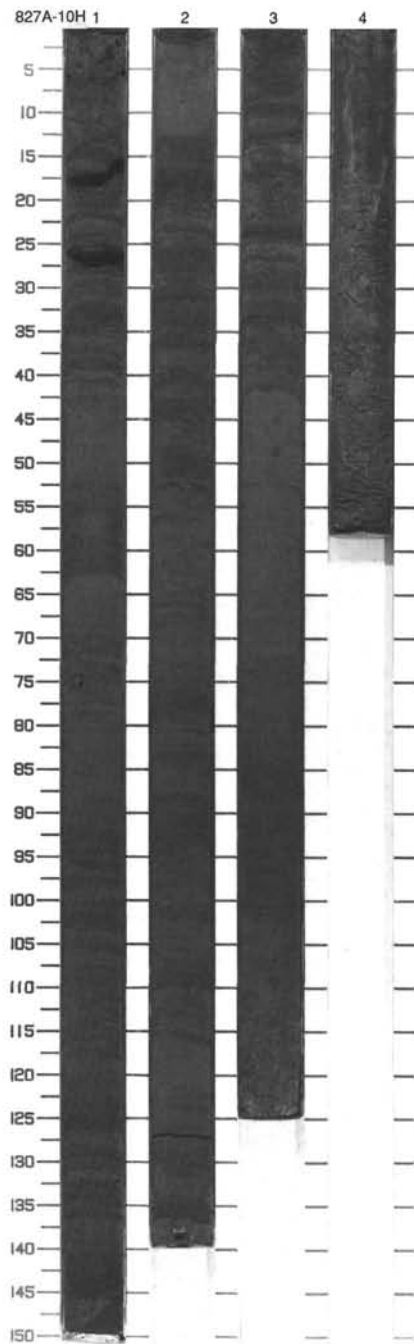


SITE 827 HOLE A CORE 9H CORED INTERVAL 67.0-72.5 mbsf

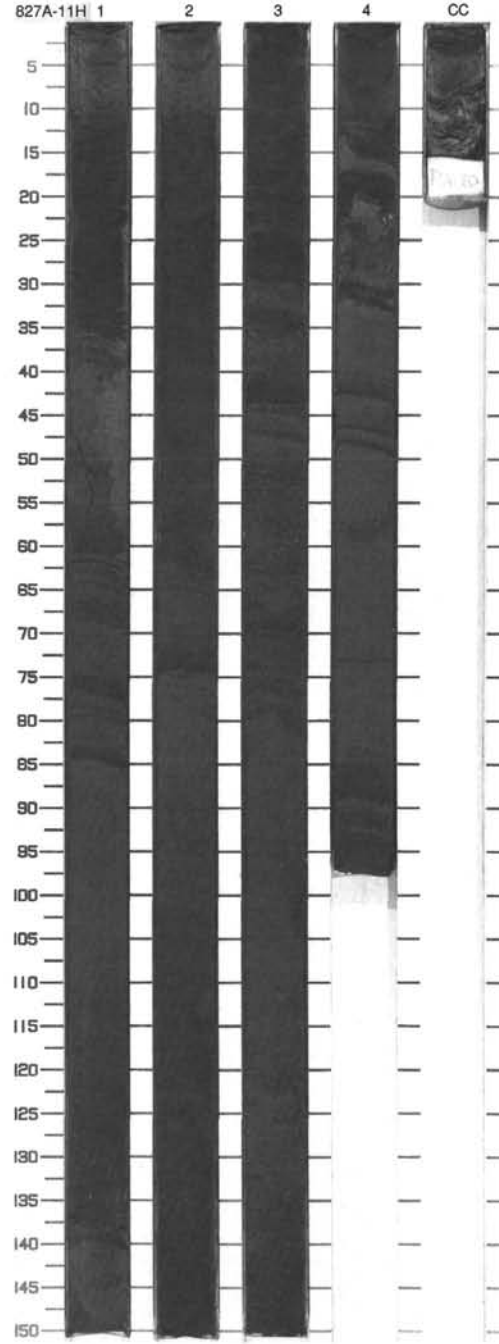


SITE 827 HOLE A CORE 10H CORED INTERVAL 72.5-77.6 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER				PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB. SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION																																																																												
	FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS																																																																																					
PLEISTOCENE	N22 w/ reworked Pliocene CN15 w/ reworked Pliocene and Miocene				N	54.1 1511 10.4			0.5 1.0				<p>SANDY VOLCANIC SILT and CLAYEY VOLCANIC SILT</p> <p>Major lithology:</p> <p>a. About 65% of the core consists of very dark greenish gray (10Y 3/1) SANDY VOLCANIC SILT with calcareous grains. These layers contain thinly bedded (0.5-3 cm) layers of foraminiferal or bioclastic volcanic sand, often with scoured bases.</p> <p>b. About 35% of the core consists of dark greenish gray (10Y 4/1), sometimes mottled with grayish black (N2), CLAYEY VOLCANIC SILT with calcareous grains.</p> <p>Minor lithology: Thin bedded (1-3 cm) normally graded beds of foraminiferal volcanic sand with silt periodically occur throughout the sandy volcanic silt layers. The bases of these beds are often scoured, sometimes showing load casts.</p> <p>Sediment in Section 3, 105-125 cm, is soupy, odiferous silty sand.</p> <p>Gravel-sized pumice clasts occasionally occur.</p> <p>SMEAR SLIDE SUMMARY (%):</p> <table border="1"> <tr> <td></td> <td>2.21</td> <td>3.55</td> <td>3.90</td> </tr> <tr> <td>M</td> <td></td> <td>D</td> <td>D</td> </tr> </table> <p>TEXTURE:</p> <table border="1"> <tr> <td>Sand</td> <td>80</td> <td>10</td> <td>50</td> </tr> <tr> <td>Silt</td> <td>15</td> <td>60</td> <td>40</td> </tr> <tr> <td>Clay</td> <td>5</td> <td>30</td> <td>10</td> </tr> </table> <p>COMPOSITION:</p> <table border="1"> <tr> <td>Calcite</td> <td>---</td> <td>15</td> <td>10</td> </tr> <tr> <td>Chlorite</td> <td>---</td> <td>8</td> <td>---</td> </tr> <tr> <td>Clinopyroxene</td> <td>10</td> <td>2</td> <td>6</td> </tr> <tr> <td>Foraminifers</td> <td>25</td> <td>---</td> <td>5</td> </tr> <tr> <td>Nannofossils</td> <td>---</td> <td>2</td> <td>Tr</td> </tr> <tr> <td>Olivine</td> <td>1</td> <td>---</td> <td>---</td> </tr> <tr> <td>Opasques</td> <td>8</td> <td>5</td> <td>10</td> </tr> <tr> <td>Orthopyroxene</td> <td>---</td> <td>---</td> <td>1</td> </tr> <tr> <td>Other</td> <td>18</td> <td>33</td> <td>23</td> </tr> <tr> <td>Plagioclase</td> <td>15</td> <td>15</td> <td>20</td> </tr> <tr> <td>Quartz</td> <td>20</td> <td>20</td> <td>25</td> </tr> <tr> <td>Radiolarians</td> <td>---</td> <td>---</td> <td>Tr</td> </tr> <tr> <td>Silicoflagellates</td> <td>---</td> <td>Tr</td> <td>Tr</td> </tr> <tr> <td>Spicules</td> <td>---</td> <td>Tr</td> <td>Tr</td> </tr> </table>		2.21	3.55	3.90	M		D	D	Sand	80	10	50	Silt	15	60	40	Clay	5	30	10	Calcite	---	15	10	Chlorite	---	8	---	Clinopyroxene	10	2	6	Foraminifers	25	---	5	Nannofossils	---	2	Tr	Olivine	1	---	---	Opasques	8	5	10	Orthopyroxene	---	---	1	Other	18	33	23	Plagioclase	15	15	20	Quartz	20	20	25	Radiolarians	---	---	Tr	Silicoflagellates	---	Tr	Tr	Spicules	---	Tr	Tr
	2.21	3.55	3.90																																																																																						
M		D	D																																																																																						
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Opasques	8	5	10																																																																																						
Orthopyroxene	---	---	1																																																																																						
Other	18	33	23																																																																																						
Plagioclase	15	15	20																																																																																						
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Silicoflagellates	---	Tr	Tr																																																																																						
Spicules	---	Tr	Tr																																																																																						
A/G					54.3 1668 2.00			1.0																																																																																	
F/G					51.9 1683 7.82			2.0																																																																																	
X					7.4			4																																																																																	



TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER			PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB. SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
	FORAMINIFERA	NAUFOSSILS	RADIOLARIANS									
	DIATOMS											
	N											
PLEISTOCENE	N22 w/ reworked Pliocene CN15 w/ reworked Miocene			58.3 37.09 ● 2.02 ● 9.2	54.3 ● 1.98 ● 9.7			0.5 1 1.0 2 3 4				<p>CLAYEY VOLCANIC SILT and SANDY VOLCANIC SILT</p> <p>Major lithology: a. About 60% of the core consists of dark greenish gray (10Y 4/1), mottled with grayish black (N2), CLAYEY VOLCANIC SILT with calcareous grains. b. About 40% of the core consists of very dark greenish gray (10Y 3/1) SANDY VOLCANIC SILT with calcareous grains.</p> <p>Minor lithology: Thin-bedded (1-3 cm) normally graded beds of foraminiferal volcanic sand with silt periodically occur in the sandy volcanic silt layers. The bases of these beds are often scoured, sometimes showing load casts.</p>
C/G				50.3 2176 ● 2.05 ● 8.2								
F/G												
B												



SITE 827 HOLE A CORE 12H CORED INTERVAL 83.2-87.8 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER			PALEOMAGNETICS	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
	FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS								
PLEISTOCENE	C/G	N22 w/ reworked Pliocene		N	1	0.5	[Lithology: Dotted pattern]	-	-	-	SANDY VOLCANIC SILT and CLAYEY VOLCANIC SILT
	F/G	CN15 w/ reworked Pliocene and Miocene									
	B				2	1.0	[Lithology: Dotted pattern]				
					3	1.0	[Lithology: Dotted pattern]				
					CC						

SITE 827 HOLE A CORE 13H CORED INTERVAL 87.8-91.5 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER			PALEOMAGNETICS	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
	FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS								
PLEISTOCENE	C/G	N22 w/ reworked Pliocene		N	1	0.5	[Lithology: Dotted pattern]	-	-	-	CLAYEY VOLCANIC SILT and SANDY VOLCANIC SILT
	F/G	CN15 w/ reworked Miocene									
	B				2	1.0	[Lithology: Dotted pattern]				
					3	1.0	[Lithology: Dotted pattern]				
					CC						

Major lithology:
a. About 55% of the core consists of dark greenish gray (10Y 4/1), mottled with grayish black (N2), CLAYEY VOLCANIC SILT with calcareous grains.
b. About 45% of the core consists of very dark greenish gray (10Y 3/1) SANDY VOLCANIC SILT with calcareous grains. These layers contain thinly bedded (0.5-3 cm) layers of foraminiferal or bioclastic volcanic sand, often with scoured base.

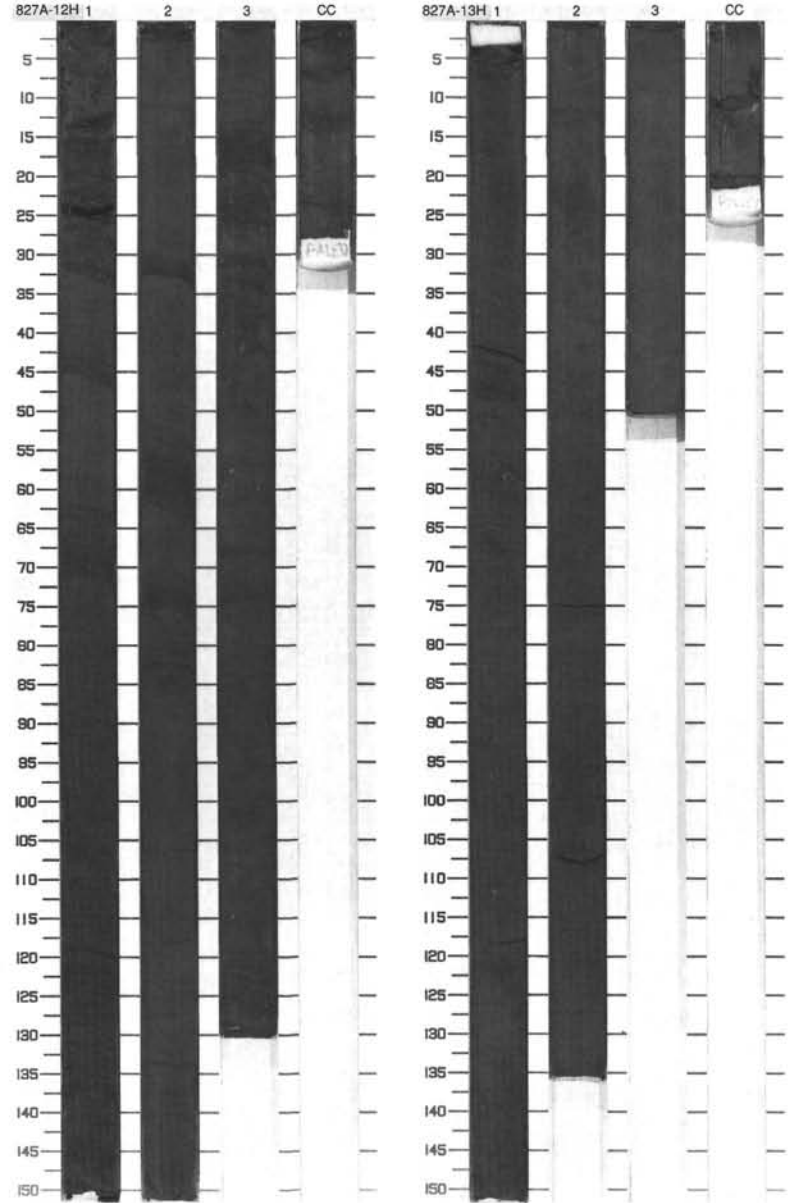
SMEAR SLIDE SUMMARY (%):

	1, 58	3, 20
	M	D

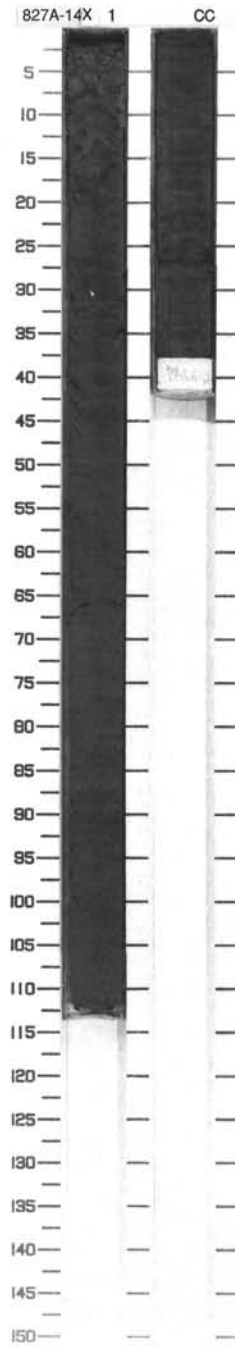
TEXTURE:
Sand 30 ---
Silt 50 80
Clay 20 20

COMPOSITION:

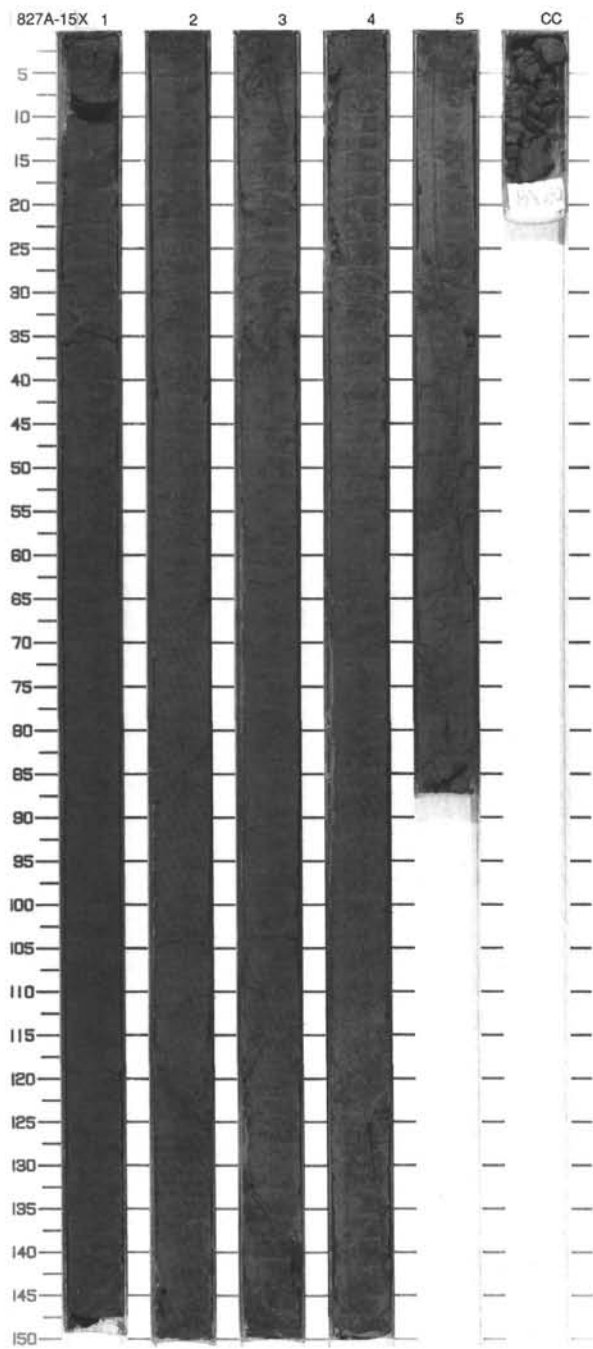
Amphibole	2	---
Calcite	15	35
Chlorite	2	3
Clinopyroxene	6	5
Foraminifers	2	3
Olivine	---	5
Opaques	2	---
Other	6	20
Plagioclase	20	10
Quartz	35	15
Radiolarians	---	Tr
Spicules	10	Tr



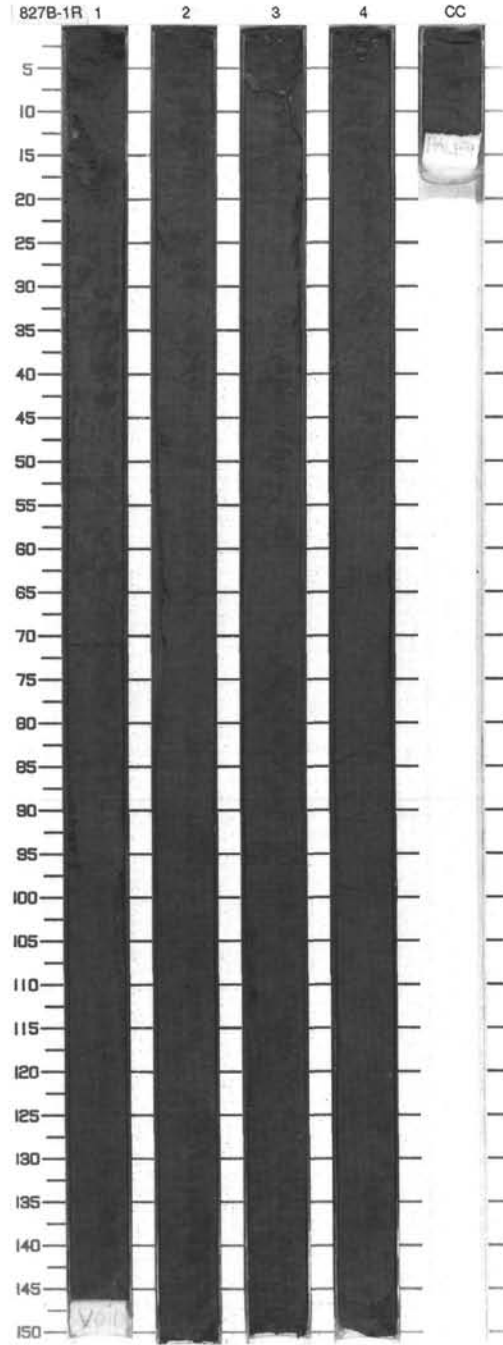
TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER	FORAMINIFERS	NANNOFOSSILS	RADIOLIARIANS	DIAATOMS	PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
PLEISTOCENE							59.5 ● 1.4 ● 1.724	11.2 ●	1	0.5 1.0				*	<p>CLAYEY VOLCANIC SILT</p> <p>Major lithology: The entire core consists of very dark greenish gray (10Y 3/1) CLAYEY VOLCANIC SILT with foraminifers.</p> <p>SMEAR SLIDE SUMMARY (%):</p> <p style="text-align: right;">1.58 D</p> <p>TEXTURE:</p> <p>Sand 5 Silt 65 Clay 30</p> <p>COMPOSITION:</p> <p>Calcite 30 Chlorite 5 Clinopyroxene 5 Foraminifers 10 Opaques 3 Other 7 Plagioclase 15 Quartz 25 Radiolarians Tr Spicules Tr</p>



TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER				PALEOMAGNETICS		SECTION METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SEC. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION	
	FORAMINIFERS	NAUPOSSILES	RADIOLARIANS	DIATOMS	PHYS. PROPERTIES	CHEMISTRY							
PLEISTOCENE	N22 w/ reworked Pliocene CN14 w/ reworked Pliocene and Miocene				N		0.5 1.0	[Graphic Lithology Pattern]				CLAYEY VOLCANIC SILT	
C/G					54.5 1.93				1	*		Major lithology: The entire core consists of structureless, medium dark gray (N4) CLAYEY VOLCANIC SILT with calcareous grains to silt with calcareous grains. Foraminifers are a minor component (about 5-10%) of the sediment.	
F/G					1.93				2			SMEAR SLIDE SUMMARY (%):	
B					17.9				3			1.88 5.18 D D	
					wt. % CaCO ₃				4			TEXTURE:	
								5			Sand --- 20 Silt 80 70 Clay 20 10		
											COMPOSITION:		
											Calcite 35 47 Celadonite --- Tr Chlorite 3 - Clinopyroxene 3 2 Foraminifers 3 5 Olivine 1 - Opaques 5 5 Orthopyroxene 2 - Other 22 - Plagioclase 15 15 Quartz 10 20 Radiolarians --- Tr Spicules Tr 1		

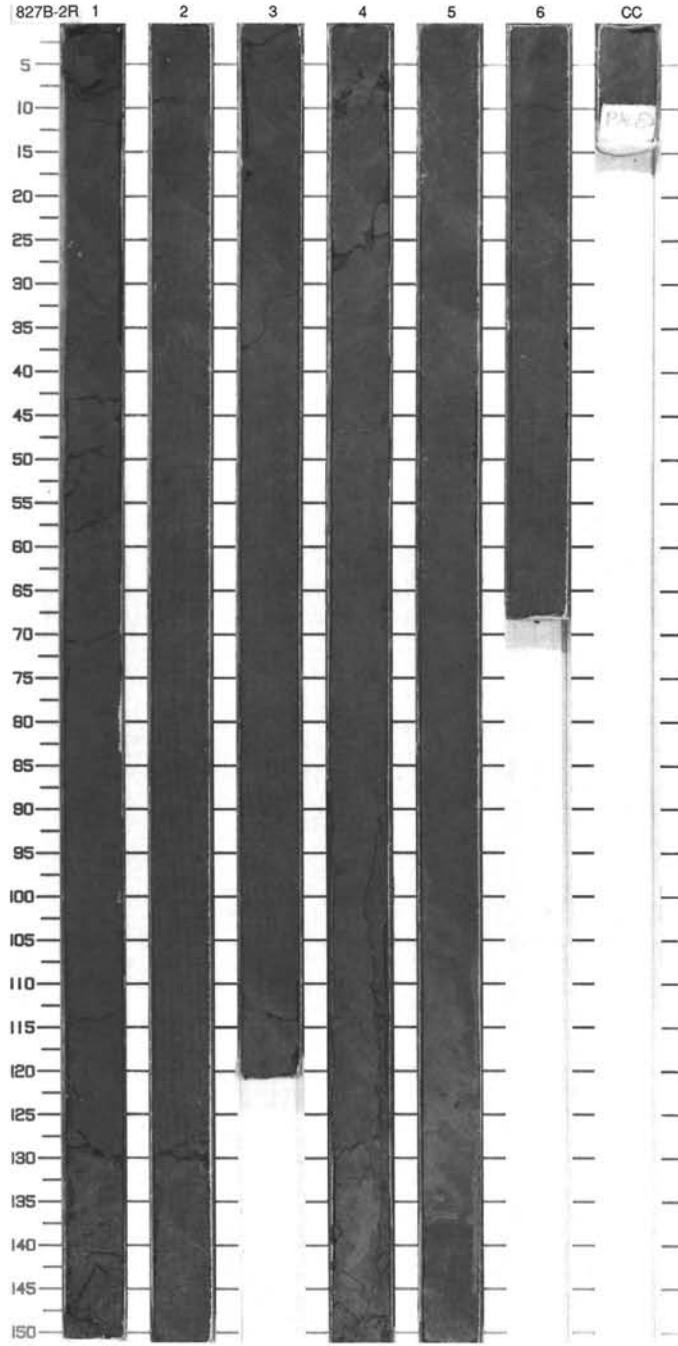


TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER	PALEOMAGNETICS	PHYS. PROPERTIES CHEMISTRY	SECTION METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB. SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION																																																								
PLEISTOCENE	N22 CN14a	N7	● 51.4 2065 ● 2.00	0.5 1 1.0	[Dotted pattern]			VOLCANIC SILTSTONE																																																								
	A/G F/G B		● 1956 ● 12.2	2 3 4	[Dotted pattern]	***		Major lithology: The entire core consists of structureless, dark greenish gray (10Y 3/1), VOLCANIC SILTSTONE with calcareous grains.																																																								
								Minor lithology: A thin bed (2 cm thick) of calcareous volcanic sand occurs in Section 2, 82-84 cm. A 3-cm void occurs in Section 1, 147-150 cm.																																																								
								SMEAR SLIDE SUMMARY (%):																																																								
								<table border="1"> <tr> <td></td> <td>2.66</td> <td>2.82</td> <td>3.95</td> </tr> <tr> <td>D</td> <td></td> <td>M</td> <td>M</td> </tr> </table>		2.66	2.82	3.95	D		M	M																																																
	2.66	2.82	3.95																																																													
D		M	M																																																													
								TEXTURE:																																																								
								<table border="1"> <tr> <td>Sand</td> <td>30</td> <td>70</td> <td>70</td> </tr> <tr> <td>Silt</td> <td>50</td> <td>20</td> <td>20</td> </tr> <tr> <td>Clay</td> <td>20</td> <td>10</td> <td>10</td> </tr> </table>	Sand	30	70	70	Silt	50	20	20	Clay	20	10	10																																												
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Silt	50	20	20																																																													
Clay	20	10	10																																																													
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Amphibole	2	---	---																																																													
Calcite	28	23	20																																																													
Chlorite	7	6	5																																																													
Clay	---	---	10																																																													
Clinopyroxene	6	12	15																																																													
Foraminifers	20	10	2																																																													
Mica	2	6	---																																																													
Nannofossils	10	1	1																																																													
Opakes	10	14	8																																																													
Orthopyroxene	Tr	2	---																																																													
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Plagioclase	10	20	20																																																													
Quartz	4	5	10																																																													
Spicules	1	1	Tr																																																													

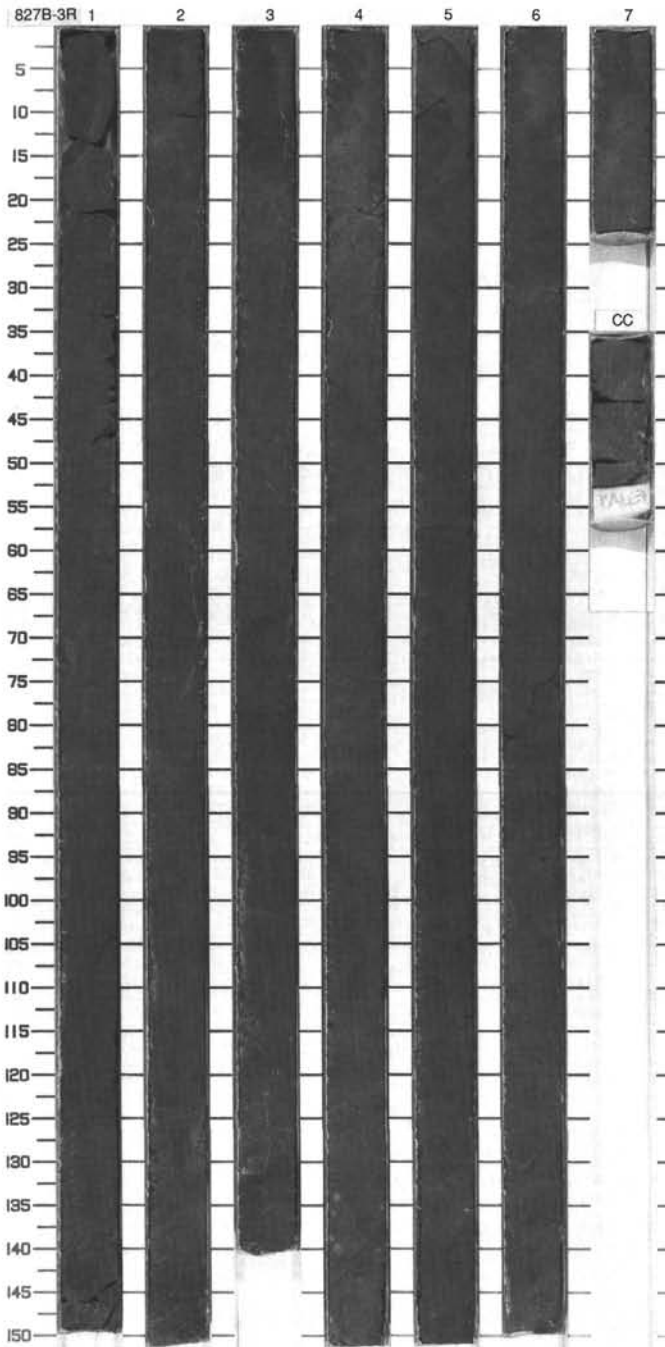


SITE 827 HOLE B CORE 2R CORED INTERVAL 117.6-127.2 mbsf

TIME-ROCK UNIT		BIOSTRAT. ZONE/ FOSSIL CHARACTER		PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
FORAMINIFERS	NAUFOSSILE	RADIOLARIANS	DIATOMS										
PLEISTOCENE													<p>VOLCANIC SILTSTONE</p> <p>Major lithology: The entire core consists of highly bioturbated, dark greenish gray (10Y 3/1), VOLCANIC SILTSTONE with calcareous grains. Worm tubes, fecal pellets, and other signs of bioturbation are occasionally visible.</p>
A/G	N22	CN14a		● 54.3 1922	● 1.95	● 16.4		0.5					
C/G				● 19.3	● 1.95	● 16.4		1.0					
B								2					
								3					
								4					
								5					
								6					

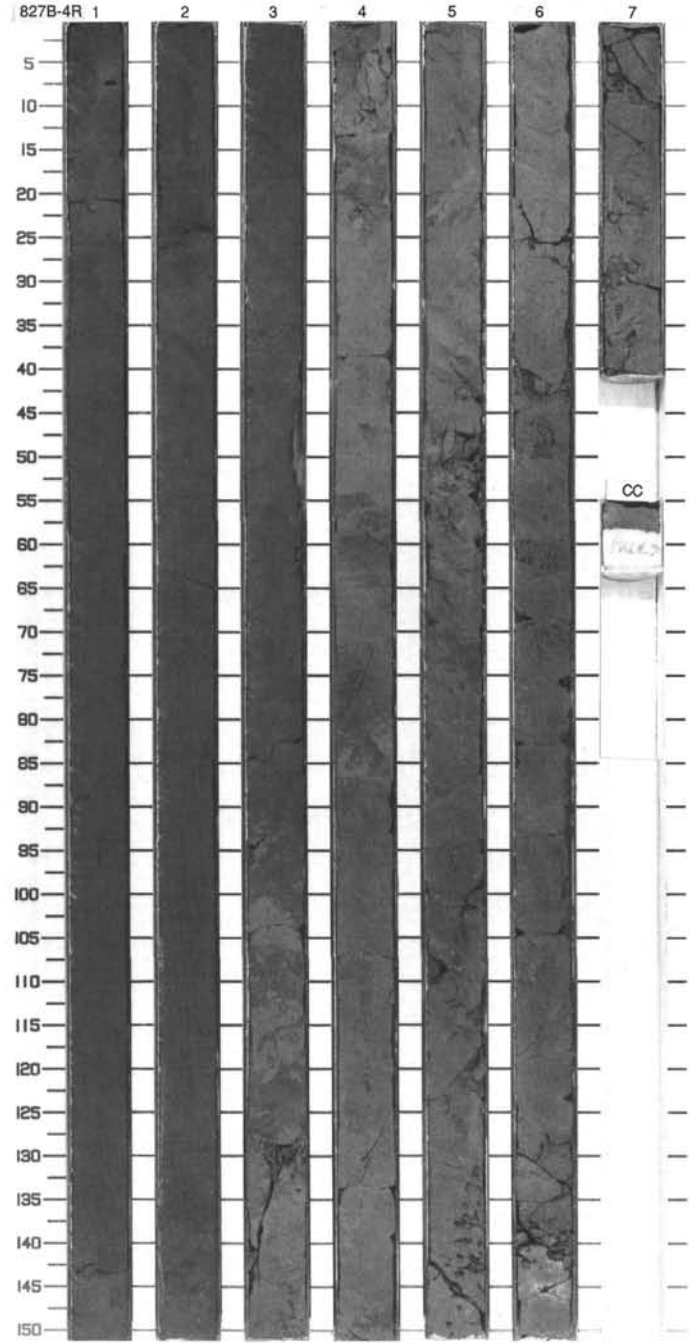


TIME-ROCK UNIT	BIOSTRAT. ZONE/FOSSIL CHARACTER			PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
	FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS										
	DIATOMS	DIATOMS											
UPPER PLIOCENE													
	C/P	C/G	B										
	N21	CN1 4a											
				N?									
					59.7 1880	16.8		0.5					
					● 1.95	0.5		1					
								1.0					
					59.7 1931								
					● 1.96	16.0							
					● 16.0								

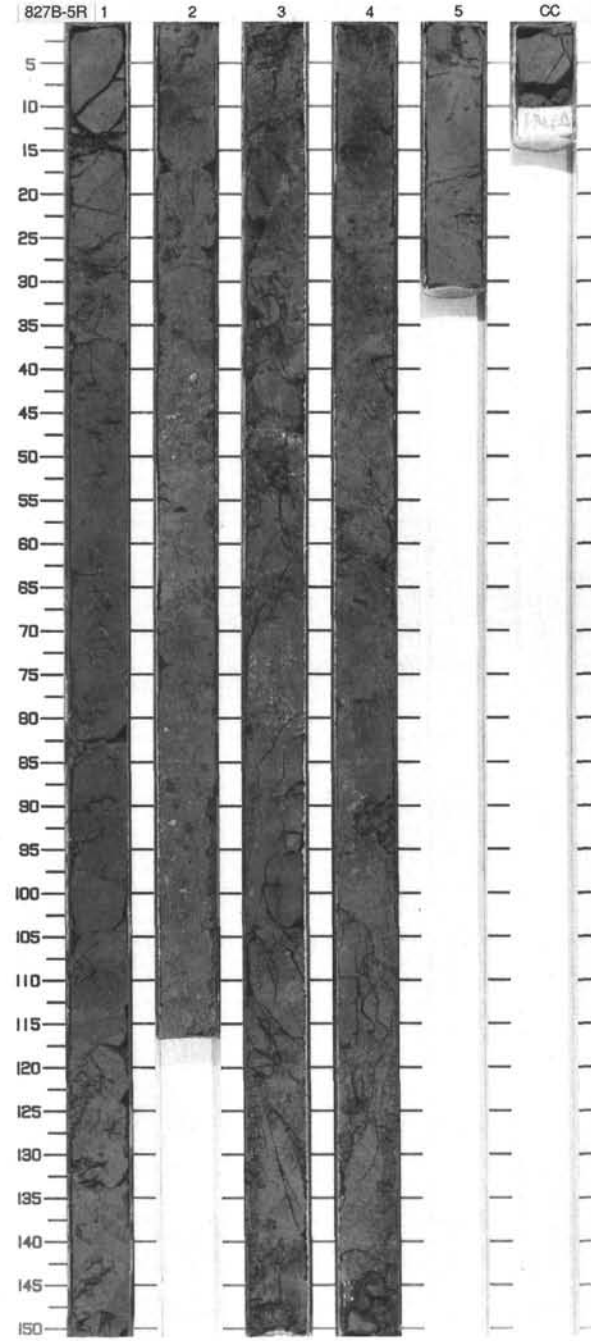


SITE 827 HOLE B CORE 4R CORED INTERVAL 136.9-146.5 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER				PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION																																																																
	FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIAZONES																																																																										
UPPER PLIOCENE																																																																														
C/M	N21								0.5					<p>CALCAREOUS VOLCANIC SILTSTONE</p> <p>Major lithology: The entire core consists of highly bioturbated, very dark greenish gray (10Y 3-1) CALCAREOUS VOLCANIC SILTSTONE with clay. Trace fossils (worm tubes, fecal pellets) are common throughout the core. Most of Sections 3-5 is brecciated.</p> <p>SMEAR SLIDE SUMMARY (%)</p> <table border="1"> <tr> <td></td> <td>3.105</td> <td>4.42</td> <td>4.58</td> </tr> <tr> <td></td> <td>M</td> <td>M</td> <td>M</td> </tr> </table> <p>TEXTURE:</p> <table border="1"> <tr> <td>Sand</td> <td>15</td> <td>15</td> <td>---</td> </tr> <tr> <td>Silt</td> <td>70</td> <td>75</td> <td>80</td> </tr> <tr> <td>Clay</td> <td>15</td> <td>10</td> <td>20</td> </tr> </table> <p>COMPOSITION:</p> <table border="1"> <tr> <td>Amphibole</td> <td>Tr</td> <td>---</td> <td>---</td> </tr> <tr> <td>Calcite</td> <td>70</td> <td>78</td> <td>60</td> </tr> <tr> <td>Chlorite</td> <td>---</td> <td>---</td> <td>3</td> </tr> <tr> <td>Clinopyroxene</td> <td>1</td> <td>1</td> <td>2</td> </tr> <tr> <td>Foraminifers</td> <td>10</td> <td>5</td> <td>5</td> </tr> <tr> <td>Nannofossils</td> <td>2</td> <td>---</td> <td>---</td> </tr> <tr> <td>Opacues</td> <td>2</td> <td>3</td> <td>---</td> </tr> <tr> <td>Other</td> <td>---</td> <td>---</td> <td>10</td> </tr> <tr> <td>Plagioclase</td> <td>5</td> <td>5</td> <td>10</td> </tr> <tr> <td>Quartz</td> <td>10</td> <td>8</td> <td>5</td> </tr> <tr> <td>Spicules</td> <td>Tr</td> <td>Tr</td> <td>2</td> </tr> </table>		3.105	4.42	4.58		M	M	M	Sand	15	15	---	Silt	70	75	80	Clay	15	10	20	Amphibole	Tr	---	---	Calcite	70	78	60	Chlorite	---	---	3	Clinopyroxene	1	1	2	Foraminifers	10	5	5	Nannofossils	2	---	---	Opacues	2	3	---	Other	---	---	10	Plagioclase	5	5	10	Quartz	10	8	5	Spicules	Tr	Tr	2
	3.105	4.42	4.58																																																																											
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TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER				PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
	FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS										
UPPER PLIOCENE														
	N21													
	C/N1	C/N1.4 a												
	C/M													
	C/G													
	B													
					60.1 1.81 20.2									
					56.4 1.90 35.0 0.77									
					56.7 1.88 24.0									



CALCAREOUS VOLCANIC SILTSTONE and CALCAREOUS SANDY VOLCANIC SILTSTONE

Major lithology:
a. Most of the core consists of dark gray (5Y 3/1) CALCAREOUS VOLCANIC SILTSTONE. Section 1 and the lower parts of Sections 3, 4, and 5 are highly sheared and fragmented.
b. Sections 2 and 3 consist of CALCAREOUS SANDY VOLCANIC SILTSTONE with conglomeratic layers, in two distinct lithologies:
1) brecciated silty, calcareous very fine sandstone with pebble-sized siltstone clasts and clastic dikes (Section 2, 0-40 cm, 51-109 cm, Section 3, 0-70 cm, 38-100 cm).
2) conglomerate with volcanic, biogenic, and siltstone clasts in a sandy silt matrix, fining upward to CALCAREOUS SANDY VOLCANIC SILTSTONE (Section 2, 40-51 cm, 109-117 cm; Section 3, 72-82 cm, 100-110 cm).

SMEAR SLIDE SUMMARY (%):

	2, 45	2, 112	3, 85	4, 33
	M	M	D	D

TEXTURE:

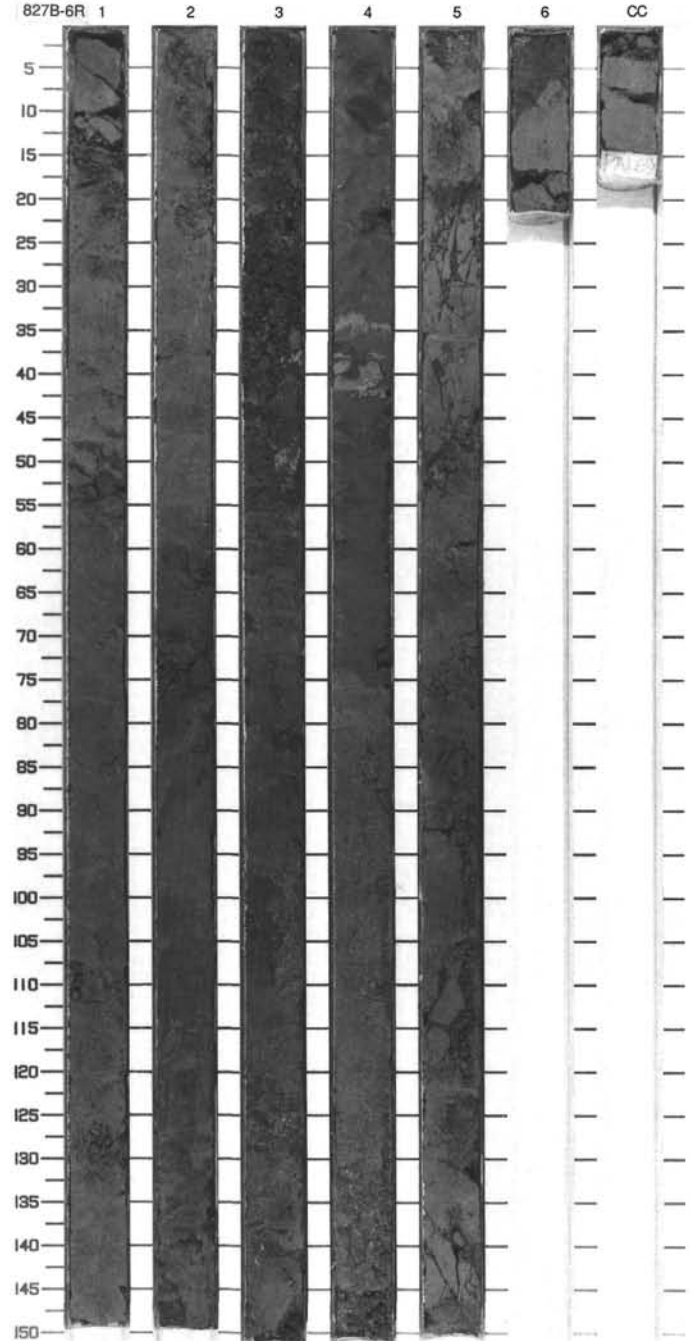
Sand	15	10	60	15
Silt	25	70	30	60
Clay	60	20	10	25

COMPOSITION:

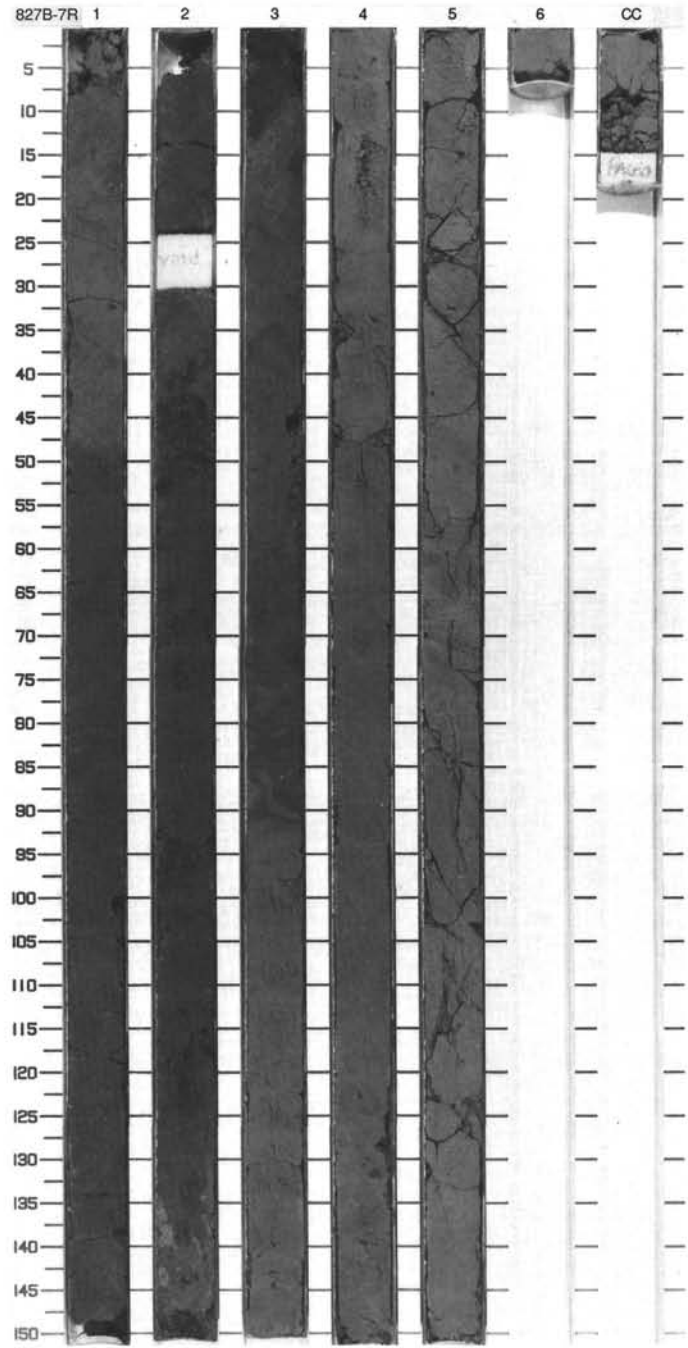
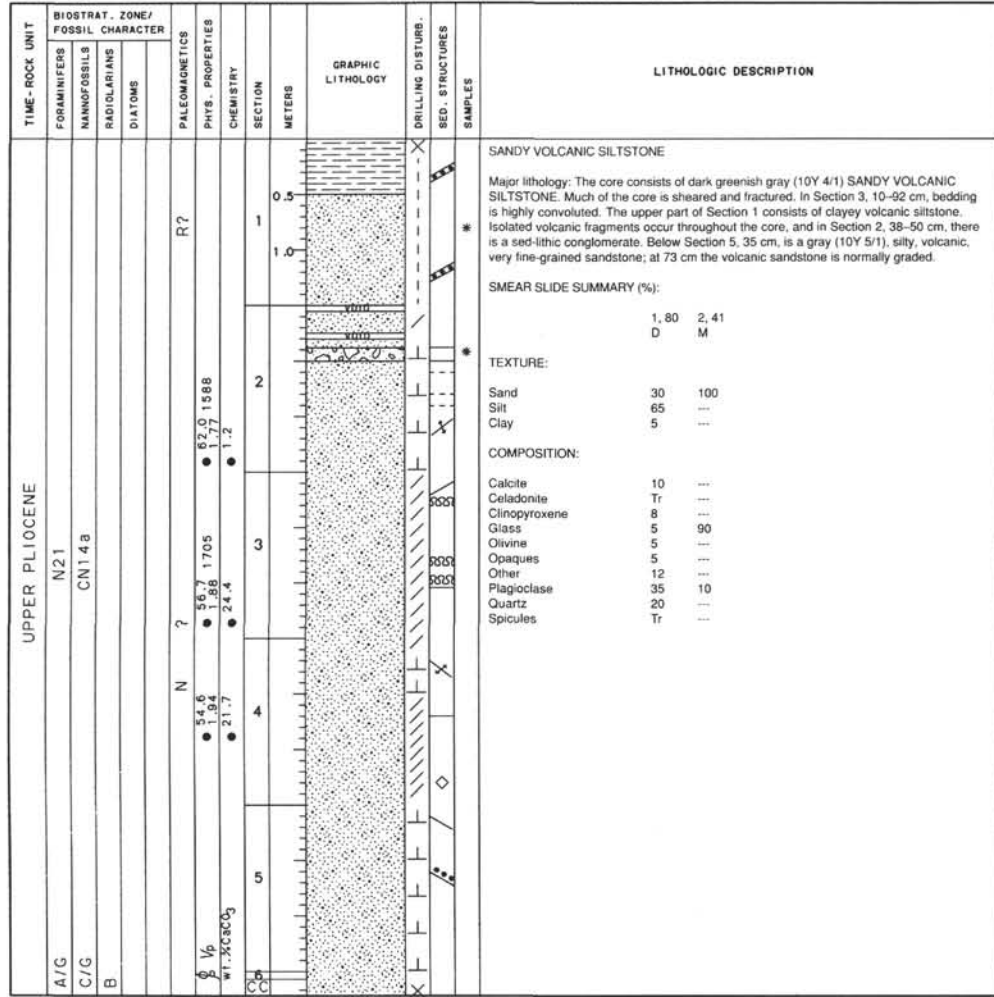
Calcite	24	55	60	60
Chlorite	---	2	---	5
Clinopyrox	---	5	3	2
Forams	13	5	10	Tr
Nannofossils	32	---	---	---
Glass	---	1	---	---
Olivine	---	---	2	---
Opauques	---	2	---	2
Other	---	15	10	---
Plagioclase	5	10	10	15
Quartz	5	5	3	15
Radiolarians	17	---	---	Tr
Spicules	4	---	---	Tr

SITE 827 HOLE B CORE 6R CORED INTERVAL 156.2-165.8 mbsf

TIME-ROCK UNIT		BIOSTRAT. ZONE/ FOSSIL CHARACTER				PALEOMAGNETICS		PHYS. PROPERTIES		CHEMISTRY		SECTION METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB. SED. STRUCTURES SAMPLES	LITHOLOGIC DESCRIPTION																																																																																					
C/M	C/G	FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIAZONES	Wt. % CaCO ₃	γ ₁₀₀	γ ₁₀₀	γ ₁₀₀	γ ₁₀₀																																																																																										
UPPER PLIOCENE						N7?		56.4 1663 1.94 1.9.5				0.5			<p>VOLCANIC SILTSTONE and SANDY VOLCANIC SILTSTONE</p> <p>Major lithology: The core is primarily very dark greenish gray (10Y 3/1) VOLCANIC SILTSTONE, ranging to SANDY VOLCANIC SILTSTONE below Section 3, 53 cm. Much of the siltstone is highly sheared and fractured. Section 2 features thin-bedded volcanic sandy silt layers. Volcanic pebbles are scattered throughout the core.</p> <p>Minor lithology: Section 3, 53-150 cm, contains interbeds and lenses of black (5Y 2.5/1) volcanic ash, 5-10 cm thick. Ash is primarily silt sized glass with minor plagioclase, clinopyroxene and olivine. Sections 3 and 4 contain lenses of light gray (10YR 7/1) volcanic ash.</p> <p>SMEAR SLIDE SUMMARY (%):</p> <table border="1"> <tr> <td></td> <td>2.70</td> <td>3.99</td> <td>3.141</td> <td>4.43</td> </tr> <tr> <td></td> <td>M</td> <td>M</td> <td>M</td> <td>M</td> </tr> </table> <p>TEXTURE:</p> <table border="1"> <tr> <td>Sand</td> <td>---</td> <td>10</td> <td>30</td> <td>---</td> </tr> <tr> <td>Silt</td> <td>---</td> <td>60</td> <td>60</td> <td>---</td> </tr> <tr> <td>Clay</td> <td>---</td> <td>30</td> <td>10</td> <td>---</td> </tr> </table> <p>COMPOSITION:</p> <table border="1"> <tr> <td>Calcite</td> <td>---</td> <td>---</td> <td>5</td> <td>---</td> </tr> <tr> <td>Celadonite</td> <td>---</td> <td>---</td> <td>Tr</td> <td>---</td> </tr> <tr> <td>Chlorite</td> <td>---</td> <td>---</td> <td>5</td> <td>---</td> </tr> <tr> <td>Clinopyroxene</td> <td>30</td> <td>---</td> <td>12</td> <td>---</td> </tr> <tr> <td>Foraminifers</td> <td>---</td> <td>---</td> <td>Tr</td> <td>---</td> </tr> <tr> <td>Glass</td> <td>---</td> <td>90</td> <td>39</td> <td>90</td> </tr> <tr> <td>Nannofossils</td> <td>---</td> <td>---</td> <td>Tr</td> <td>---</td> </tr> <tr> <td>Olivine</td> <td>5</td> <td>---</td> <td>9</td> <td>---</td> </tr> <tr> <td>Opaques</td> <td>5</td> <td>---</td> <td>5</td> <td>---</td> </tr> <tr> <td>Orthopyroxene</td> <td>15</td> <td>---</td> <td>---</td> <td>---</td> </tr> <tr> <td>Plagioclase</td> <td>45</td> <td>10</td> <td>20</td> <td>7</td> </tr> <tr> <td>Quartz</td> <td>---</td> <td>---</td> <td>5</td> <td>3</td> </tr> </table>		2.70	3.99	3.141	4.43		M	M	M	M	Sand	---	10	30	---	Silt	---	60	60	---	Clay	---	30	10	---	Calcite	---	---	5	---	Celadonite	---	---	Tr	---	Chlorite	---	---	5	---	Clinopyroxene	30	---	12	---	Foraminifers	---	---	Tr	---	Glass	---	90	39	90	Nannofossils	---	---	Tr	---	Olivine	5	---	9	---	Opaques	5	---	5	---	Orthopyroxene	15	---	---	---	Plagioclase	45	10	20	7	Quartz	---	---	5	3
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Nannofossils	---	---	Tr	---																																																																																																
Olivine	5	---	9	---																																																																																																
Opaques	5	---	5	---																																																																																																
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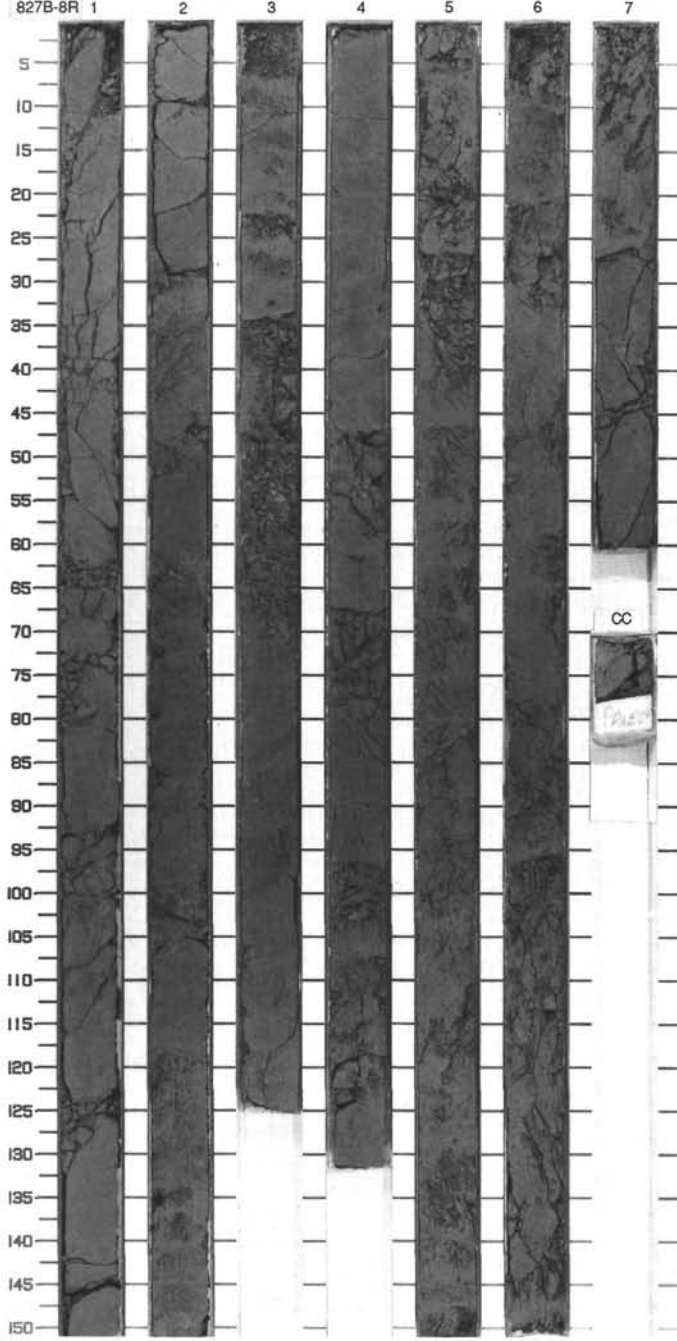


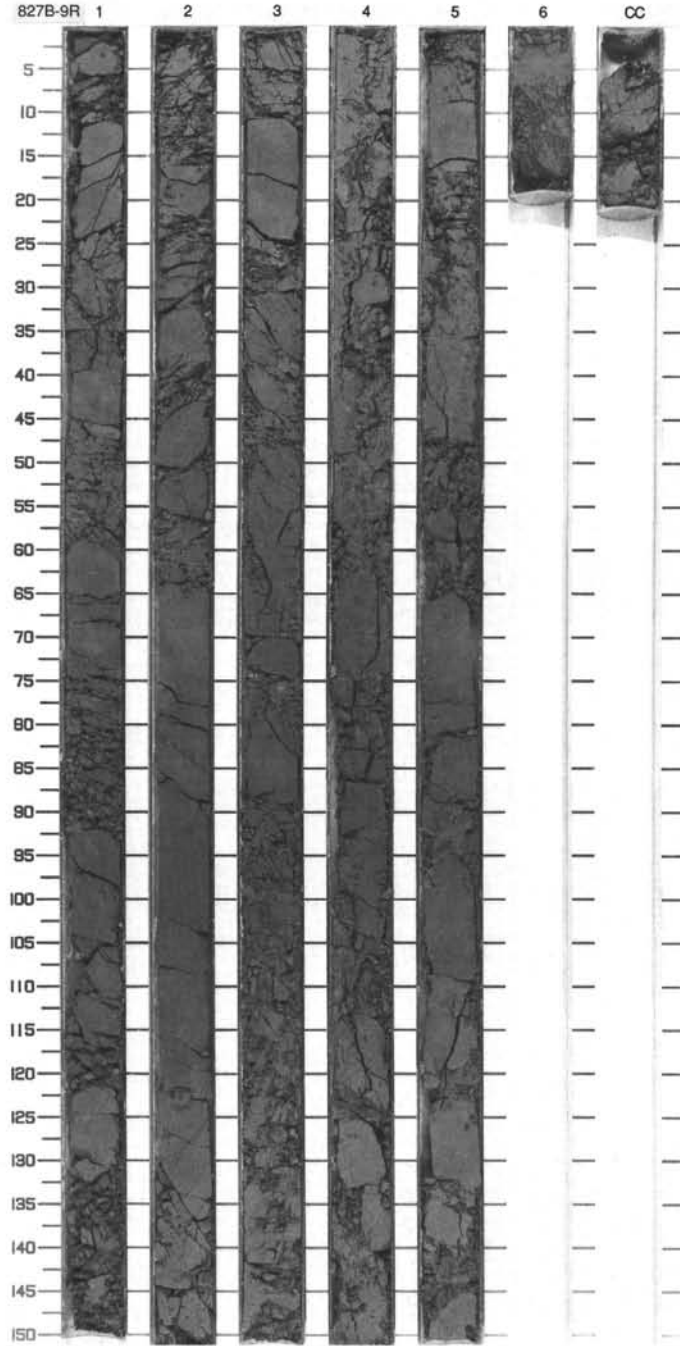
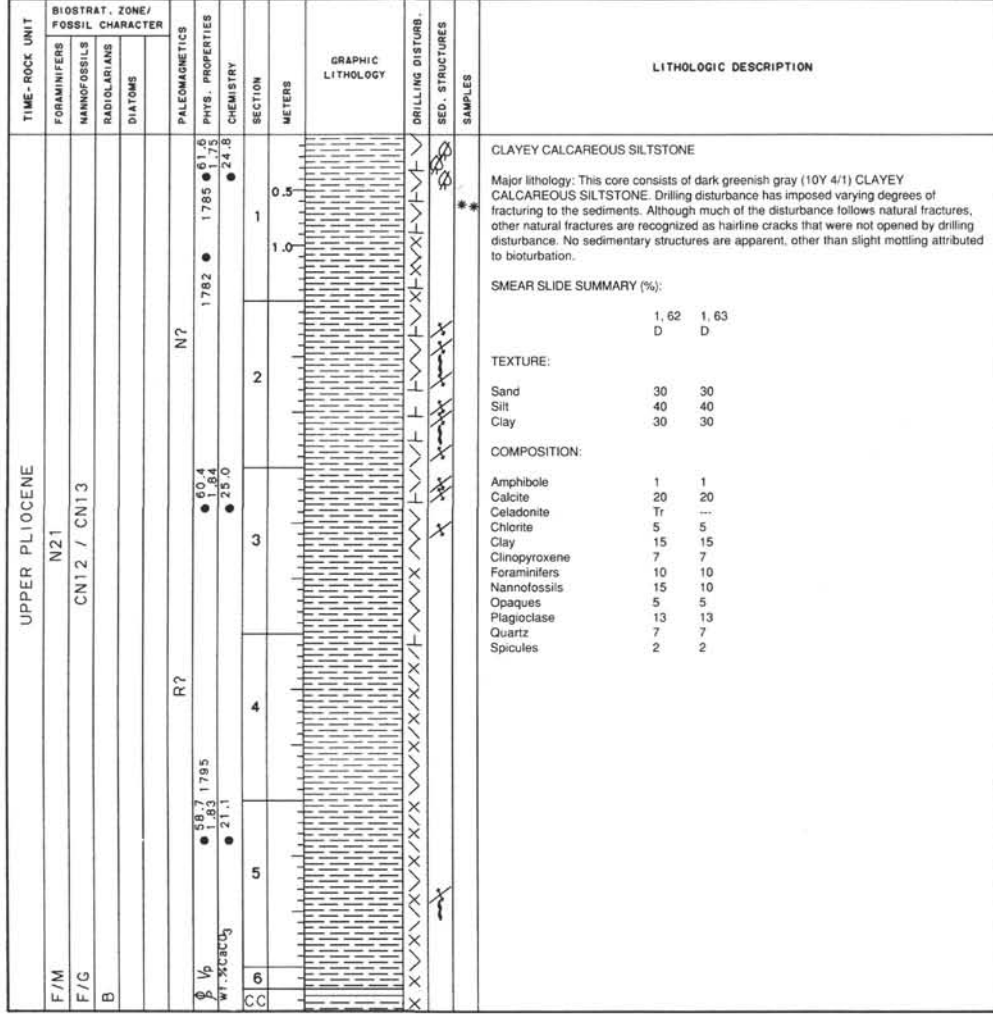
SITE 827 HOLE B CORE 7R CORED INTERVAL 165.8-175.4 mbsf



SITE 827 HOLE B CORE 8R CORED INTERVAL 175.4-185.1 mbsf

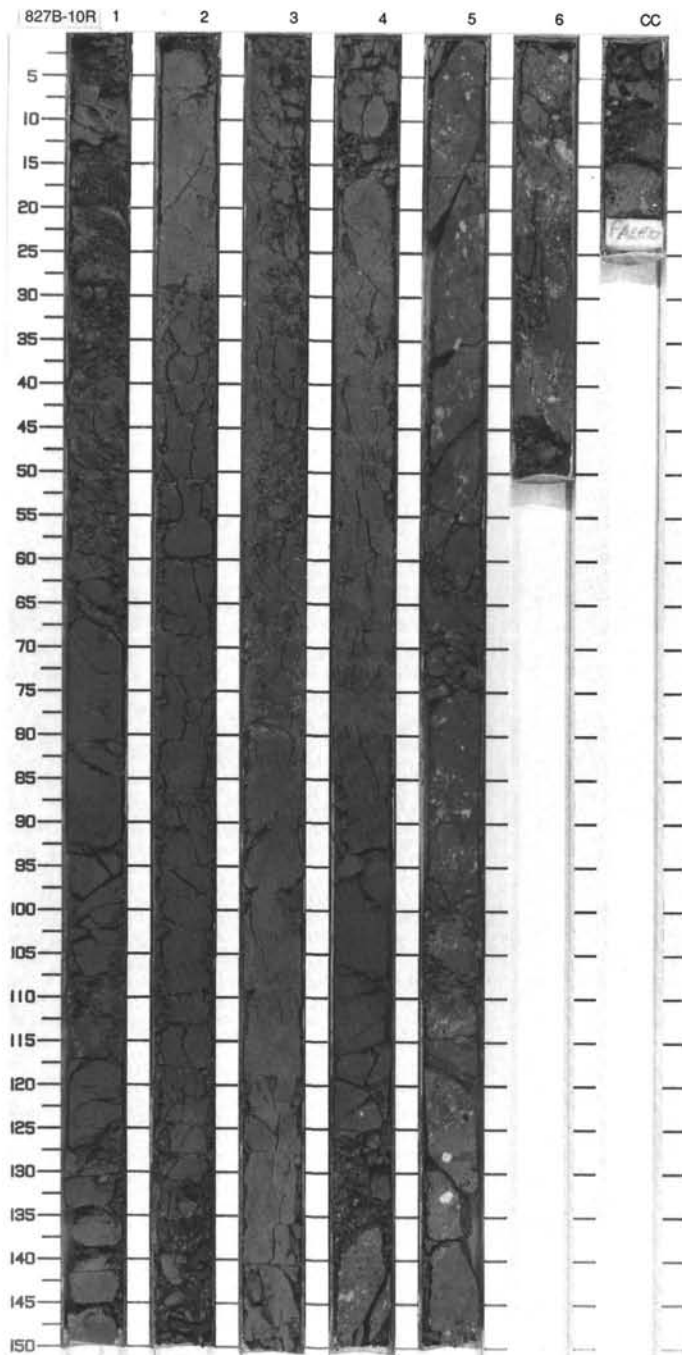
TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER				PALEOMAGNETICS	PHYS. PROPERTIES CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION																																											
	FORAMINIFERS	NANOFOSSILS	RADIOLARIANS	DIATOMS																																																				
UPPER PLIOCENE																																																								
C/G	N21				53.2 ● 1.69		0.5 1					*	<p>CALCAREOUS CLAYEY SILTSTONE</p> <p>Major lithology: The entire core consists of dark gray (10Y 4/1) CALCAREOUS CLAYEY SILTSTONE, containing highly sheared and fractured as well as massive structureless beds. Pumice fragments occur occasionally.</p> <p>SMEAR SLIDE SUMMARY (%):</p> <table> <tr><td>1.64</td><td>6.126</td></tr> <tr><td>D</td><td>D</td></tr> </table> <p>TEXTURE:</p> <table> <tr><td>Sand</td><td>20</td><td>10</td></tr> <tr><td>Silt</td><td>60</td><td>60</td></tr> <tr><td>Clay</td><td>20</td><td>30</td></tr> </table> <p>COMPOSITION:</p> <table> <tr><td>Calcite</td><td>65</td><td>69</td></tr> <tr><td>Celadonite</td><td>---</td><td>Tr</td></tr> <tr><td>Chlorite</td><td>2</td><td>1</td></tr> <tr><td>Clinopyroxene</td><td>3</td><td>1</td></tr> <tr><td>Foraminifers</td><td>8</td><td>15</td></tr> <tr><td>Orthopyroxene</td><td>---</td><td>1</td></tr> <tr><td>Other</td><td>10</td><td>---</td></tr> <tr><td>Plagioclase</td><td>10</td><td>8</td></tr> <tr><td>Quartz</td><td>---</td><td>5</td></tr> <tr><td>Spicules</td><td>2</td><td>Tr</td></tr> </table>	1.64	6.126	D	D	Sand	20	10	Silt	60	60	Clay	20	30	Calcite	65	69	Celadonite	---	Tr	Chlorite	2	1	Clinopyroxene	3	1	Foraminifers	8	15	Orthopyroxene	---	1	Other	10	---	Plagioclase	10	8	Quartz	---	5	Spicules	2	Tr
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F/G	CN13b			60.5 ● 1.79			1																																																	
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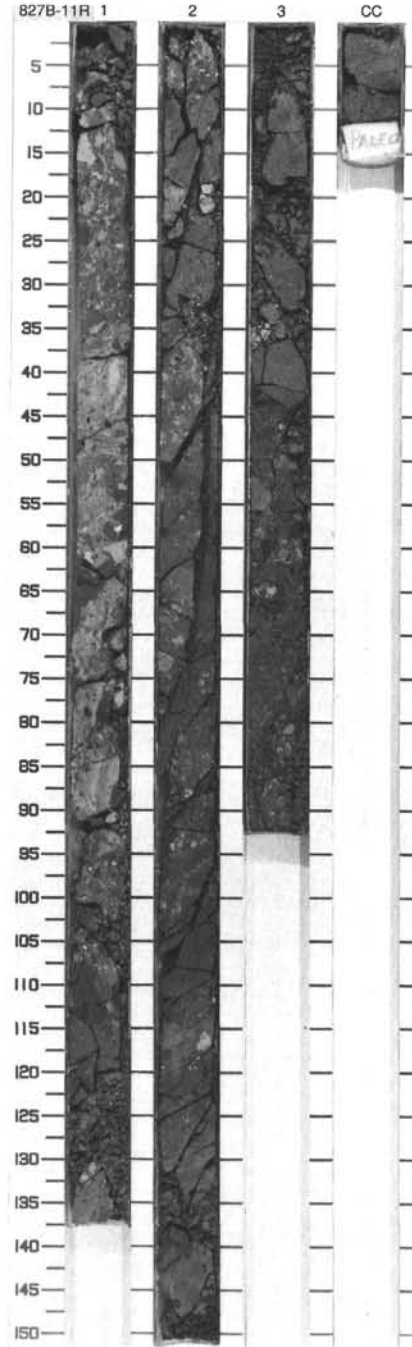


SITE 827 HOLE B CORE 10R CORED INTERVAL 194.7-204.4 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER				PALEOMAGNETIC PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION																																																						
	FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS																																																															
UPPER PLIOCENE	A/G				0.0-0.3 ● 1962		1	0.5		X	X		<p>CLAYEY CALCAREOUS SILTSTONE and SED-LITHIC CONGLOMERATE</p> <p>Major lithology:</p> <p>a. The upper 5.7 m of this core consists of dark greenish gray (10Y 4/1), partially lithified, CLAYEY CALCAREOUS SILTSTONE. Pebble-sized clasts of the same lithology are incorporated in Section 3, and the sediment becomes conglomeratic at the bottom of Section 4.</p> <p>b. Sections 5 and 6 are composed of grain-supported SED LITHIC CONGLOMERATE. The clasts range in size from 0.5 cm to 5 cm, are rounded to angular, and are derived mainly from sedimentary rocks. The most abundant clasts are composed of partially lithified, dark greenish gray siltstone similar to that occurring higher in this core; clasts of tan limestone and minor clasts of dark volcanic rock are also present. The conglomeratic matrix is calcareous silt.</p> <p>SMEAR SLIDE SUMMARY (%):</p> <table border="1"> <tr> <td></td> <td>2, 22</td> <td>4, 112</td> </tr> <tr> <td>D</td> <td></td> <td>M</td> </tr> </table> <p>TEXTURE:</p> <table border="1"> <tr> <td>Sand</td> <td>30</td> <td>40</td> </tr> <tr> <td>Silt</td> <td>30</td> <td>30</td> </tr> <tr> <td>Clay</td> <td>40</td> <td>30</td> </tr> </table> <p>COMPOSITION:</p> <table border="1"> <tr> <td>Amphibole</td> <td>Tr</td> <td>Tr</td> </tr> <tr> <td>Calcite</td> <td>25</td> <td>30</td> </tr> <tr> <td>Chlorite</td> <td>5</td> <td>3</td> </tr> <tr> <td>Clay</td> <td>10</td> <td>10</td> </tr> <tr> <td>Clinopyroxene</td> <td>1</td> <td>5</td> </tr> <tr> <td>Foraminifers</td> <td>15</td> <td>15</td> </tr> <tr> <td>Nannofossils</td> <td>15</td> <td>5</td> </tr> <tr> <td>Opalines</td> <td>1</td> <td>3</td> </tr> <tr> <td>Orthopyroxene</td> <td>Tr</td> <td>...</td> </tr> <tr> <td>Other</td> <td>10</td> <td>11</td> </tr> <tr> <td>Plagioclase</td> <td>8</td> <td>10</td> </tr> <tr> <td>Quartz</td> <td>5</td> <td>8</td> </tr> <tr> <td>Spicules</td> <td>1</td> <td>Tr</td> </tr> </table>		2, 22	4, 112	D		M	Sand	30	40	Silt	30	30	Clay	40	30	Amphibole	Tr	Tr	Calcite	25	30	Chlorite	5	3	Clay	10	10	Clinopyroxene	1	5	Foraminifers	15	15	Nannofossils	15	5	Opalines	1	3	Orthopyroxene	Tr	...	Other	10	11	Plagioclase	8	10	Quartz	5	8	Spicules	1	Tr
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	CN12d				0.7-1.3 ● 1672		3	1.6		X	X																																																								
	B				1.3-2.0 ● 1727		4	0.7		X	X																																																								
					2.0-3.0 ● 313		5	1.0		X	X																																																								
					3.0-4.0 ● 313		6	1.0		X	X																																																								

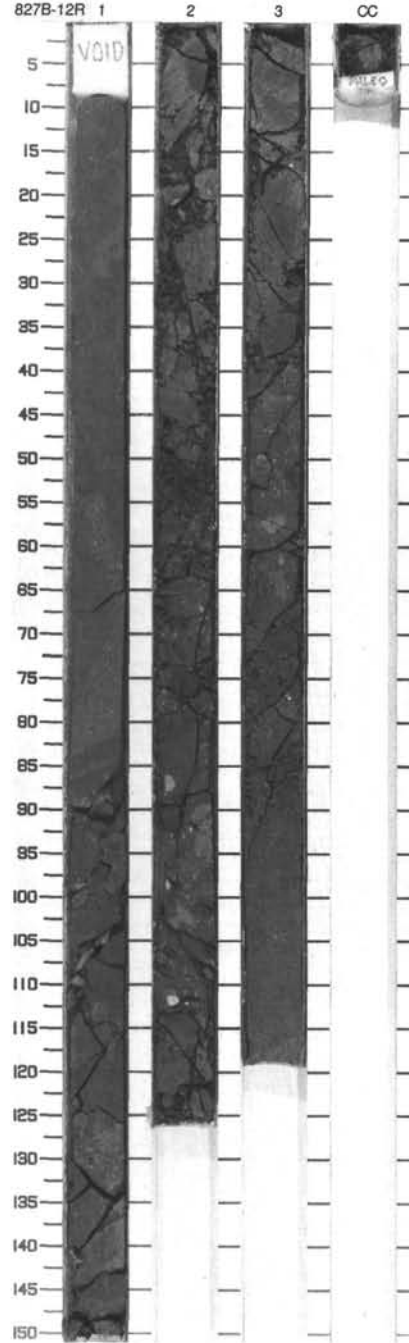


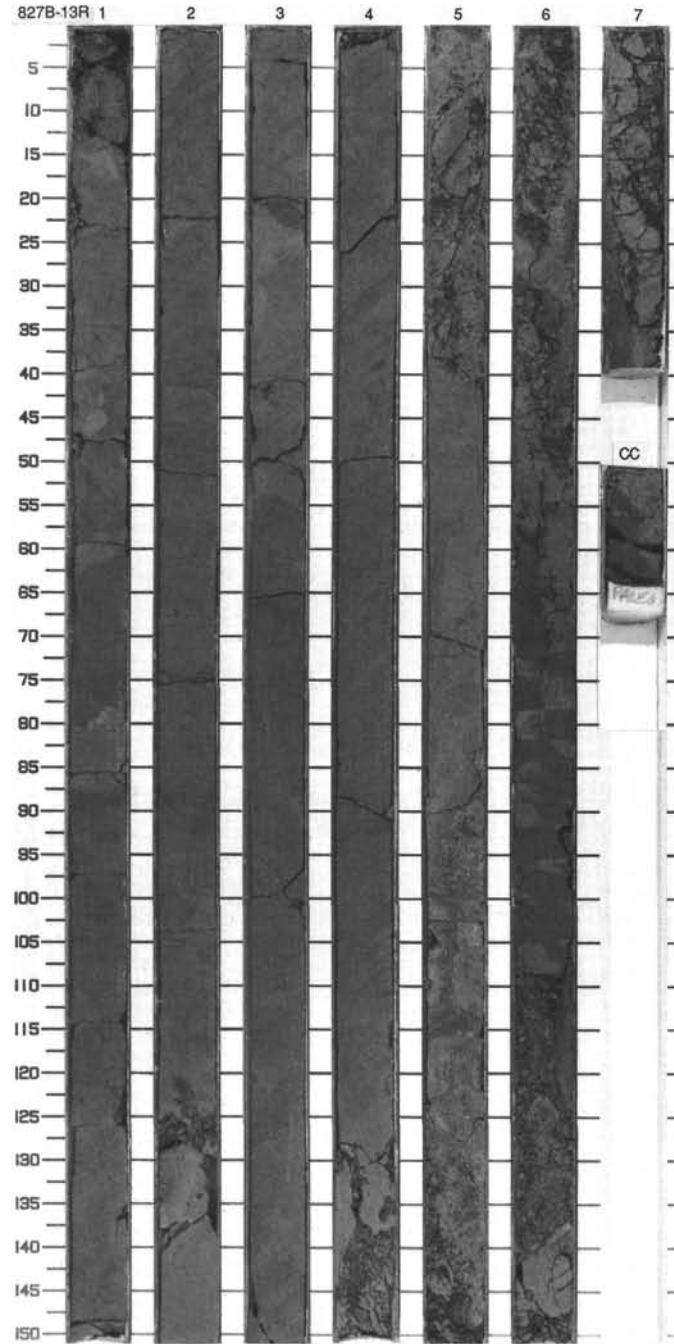
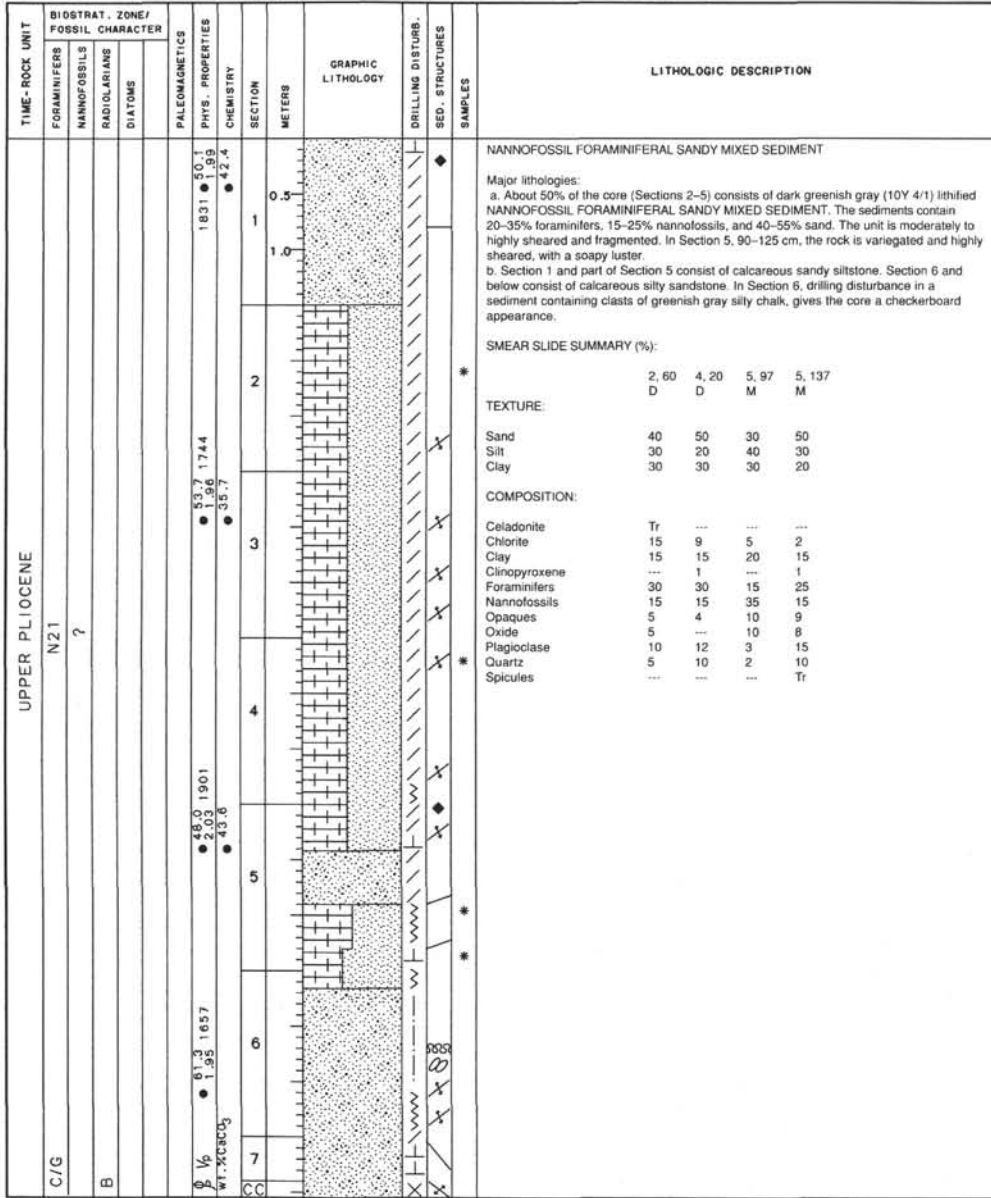
TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER				PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION																																																																															
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UPPER PLOIOCENE	C/M	F/G	B		1913 ● 1.73			1	0.5 1.0		X	*	<p>SED-LITHIC CONGLOMERATE</p> <p>Major lithology: This core consists of SED-LITHIC CONGLOMERATE, ranging from grain-supported to matrix-supported. Clasts are 0.5 to 5 cm in size, rounded to angular, and derived mainly from sedimentary rocks. Clasts of dark greenish gray (10Y 4/1), partially lithified, calcareous silt (as described in Cores 9 and 10) and light greenish gray (10Y 7/1) pelagic limestone are abundant. Less abundant clasts include white limestone, coral fragments, wood fragments, and volcanic fragments. The matrix of the conglomerate is partially lithified, dark greenish gray, sandy calcareous silt. Tectonic fractures are common throughout the core and truncate clasts in places.</p> <p>SMEAR SLIDE SUMMARY (%):</p> <table border="1"> <tr> <td></td> <td>1.16</td> <td>1.56</td> <td>1.73</td> <td>3.74</td> </tr> <tr> <td></td> <td>M</td> <td>M</td> <td>M</td> <td>D</td> </tr> </table> <p>TEXTURE:</p> <table border="1"> <tr> <td>Sand</td> <td>5</td> <td>90</td> <td>5</td> <td>50</td> </tr> <tr> <td>Silt</td> <td>85</td> <td>---</td> <td>60</td> <td>30</td> </tr> <tr> <td>Clay</td> <td>10</td> <td>10</td> <td>35</td> <td>20</td> </tr> </table> <p>COMPOSITION:</p> <table border="1"> <tr> <td>Calcite</td> <td>---</td> <td>20</td> <td>85</td> <td>5</td> </tr> <tr> <td>Chlorite</td> <td>---</td> <td>40</td> <td>---</td> <td>2</td> </tr> <tr> <td>Clay</td> <td>---</td> <td>3</td> <td>---</td> <td>5</td> </tr> <tr> <td>Clinopyroxene</td> <td>---</td> <td>10</td> <td>---</td> <td>1</td> </tr> <tr> <td>Foraminifers</td> <td>1</td> <td>2</td> <td>---</td> <td>30</td> </tr> <tr> <td>Nannofossils</td> <td>70</td> <td>2</td> <td>10</td> <td>30</td> </tr> <tr> <td>Other</td> <td>4</td> <td>---</td> <td>3</td> <td>9</td> </tr> <tr> <td>Plagioclase</td> <td>---</td> <td>20</td> <td>---</td> <td>6</td> </tr> <tr> <td>Quartz</td> <td>---</td> <td>3</td> <td>---</td> <td>2</td> </tr> <tr> <td>Radiolarians</td> <td>5</td> <td>---</td> <td>1</td> <td>5</td> </tr> <tr> <td>Spicules</td> <td>20</td> <td>---</td> <td>1</td> <td>5</td> </tr> </table>		1.16	1.56	1.73	3.74		M	M	M	D	Sand	5	90	5	50	Silt	85	---	60	30	Clay	10	10	35	20	Calcite	---	20	85	5	Chlorite	---	40	---	2	Clay	---	3	---	5	Clinopyroxene	---	10	---	1	Foraminifers	1	2	---	30	Nannofossils	70	2	10	30	Other	4	---	3	9	Plagioclase	---	20	---	6	Quartz	---	3	---	2	Radiolarians	5	---	1	5	Spicules	20	---	1	5
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SITE 827 HOLE B CORE 12R CORED INTERVAL 214.0-223.7 mbsf

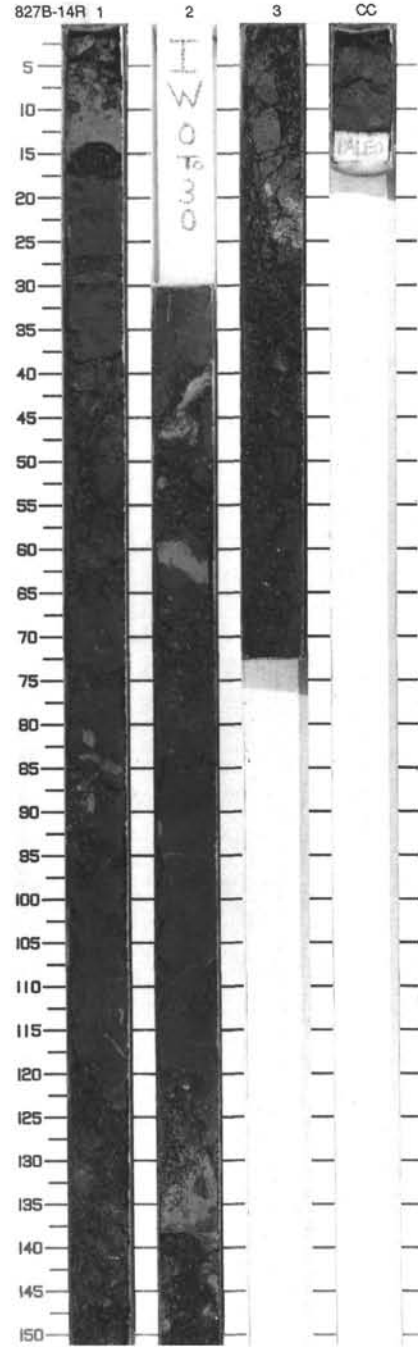
TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER				PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION																																																
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UPPER PLIOCENE	C/M	C/G	B		1837 ● 52.5 1.97			0.5 1.0	VOID					<p>CALCAREOUS CLAYEY SILTSTONE</p> <p>Major lithology: This core is dominated by CALCAREOUS CLAYEY SILTSTONE. This siltstone occurs in two dark greenish gray shades (10Y 4/1 and 10Y 3/1). Fractures, some with slickensides, are common and intersect the core at roughly 30° angles. It appears that stringers and fingers of the minor lithologies penetrate upward into the major lithology. The siltstone is mottled, but there are no clear examples of primary sedimentary structures.</p> <p>Minor lithology: a. Sed-lithic conglomeratic calcareous sandstone occurs in Sections 1 and 3. The sandstone is lighter in color (10Y 5/1) than the major lithology and appears to penetrate upward into the siltstone. b. Poorly sorted, calcareous, silty sandy sed-lithic conglomerate, darker in color than the other minor lithology, occurs in Section 2. Its pebbles range from very well-rounded to very angular.</p> <p>SMEAR SLIDE SUMMARY (%):</p> <table border="0"> <tr> <td></td> <td>1.80</td> <td>3.110</td> </tr> <tr> <td>M</td> <td></td> <td>D</td> </tr> </table> <p>TEXTURE:</p> <table border="0"> <tr> <td>Sand</td> <td>70</td> <td>20</td> </tr> <tr> <td>Silt</td> <td>20</td> <td>50</td> </tr> <tr> <td>Clay</td> <td>10</td> <td>30</td> </tr> </table> <p>COMPOSITION:</p> <table border="0"> <tr> <td>Amphibole</td> <td>Tr</td> <td>Tr</td> </tr> <tr> <td>Calcite</td> <td>30</td> <td>30</td> </tr> <tr> <td>Clay</td> <td>---</td> <td>15</td> </tr> <tr> <td>Clinopyroxene</td> <td>1</td> <td>2</td> </tr> <tr> <td>Foraminifers</td> <td>50</td> <td>10</td> </tr> <tr> <td>Mica</td> <td>---</td> <td>Tr</td> </tr> <tr> <td>Nannofossils</td> <td>5</td> <td>20</td> </tr> <tr> <td>Other</td> <td>6</td> <td>13</td> </tr> <tr> <td>Plagioclase</td> <td>6</td> <td>5</td> </tr> <tr> <td>Quartz</td> <td>2</td> <td>5</td> </tr> <tr> <td>Spicules</td> <td>Tr</td> <td>Tr</td> </tr> </table>		1.80	3.110	M		D	Sand	70	20	Silt	20	50	Clay	10	30	Amphibole	Tr	Tr	Calcite	30	30	Clay	---	15	Clinopyroxene	1	2	Foraminifers	50	10	Mica	---	Tr	Nannofossils	5	20	Other	6	13	Plagioclase	6	5	Quartz	2	5	Spicules	Tr	Tr
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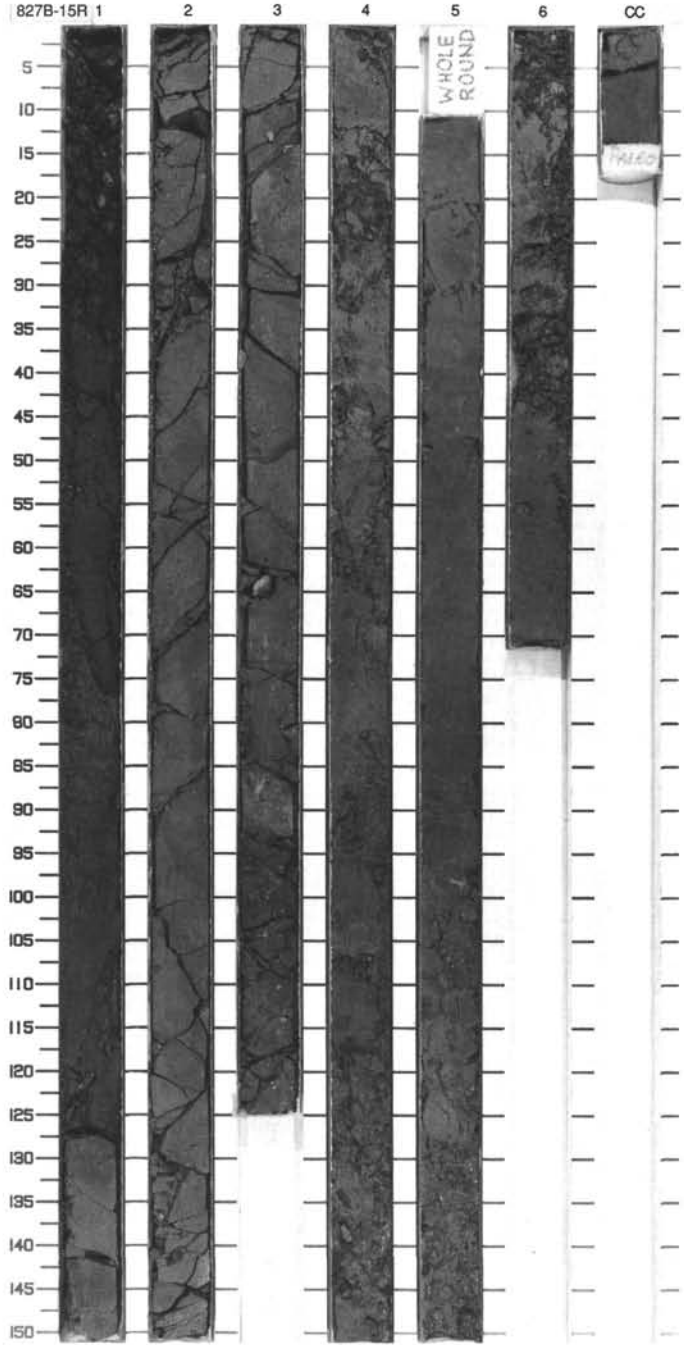
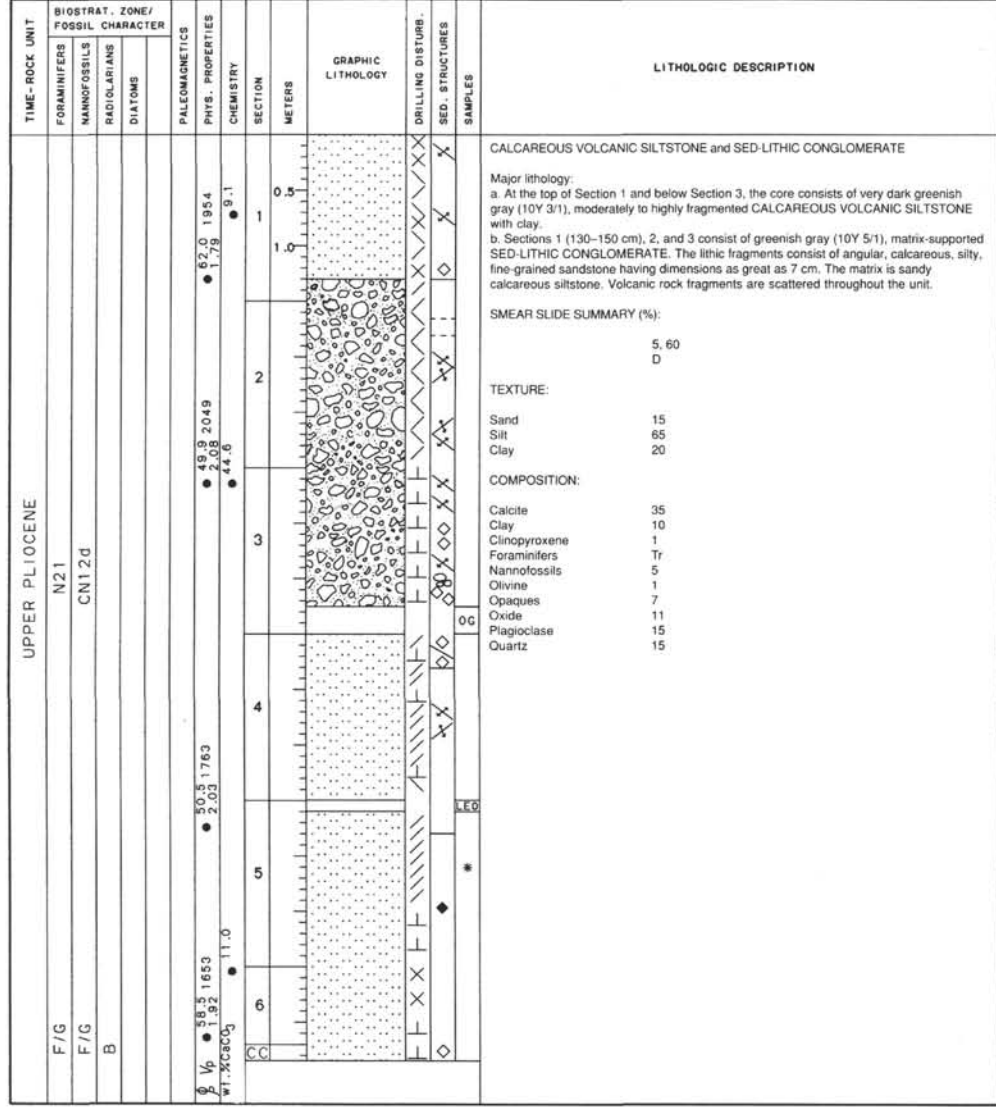




SITE 827 HOLE B CORE 14R CORED INTERVAL 233.3-243.0 mbsf

TIME - ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER				PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB. SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION																																																																																
	FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS																																																																																								
UPPER PLIOCENE	F/M	N21	?	B	1637.6, 1637.7, 1637.8, 1637.9, 1638.0, 1638.1, 1638.2, 1638.3, 1638.4, 1638.5, 1638.6, 1638.7, 1638.8, 1638.9, 1639.0, 1639.1, 1639.2, 1639.3, 1639.4, 1639.5, 1639.6, 1639.7, 1639.8, 1639.9, 1640.0, 1640.1, 1640.2, 1640.3, 1640.4, 1640.5, 1640.6, 1640.7, 1640.8, 1640.9, 1641.0, 1641.1, 1641.2, 1641.3, 1641.4, 1641.5, 1641.6, 1641.7, 1641.8, 1641.9, 1642.0, 1642.1, 1642.2, 1642.3, 1642.4, 1642.5, 1642.6, 1642.7, 1642.8, 1642.9, 1643.0	1637.6, 1637.7, 1637.8, 1637.9, 1638.0, 1638.1, 1638.2, 1638.3, 1638.4, 1638.5, 1638.6, 1638.7, 1638.8, 1638.9, 1639.0, 1639.1, 1639.2, 1639.3, 1639.4, 1639.5, 1639.6, 1639.7, 1639.8, 1639.9, 1640.0, 1640.1, 1640.2, 1640.3, 1640.4, 1640.5, 1640.6, 1640.7, 1640.8, 1640.9, 1641.0, 1641.1, 1641.2, 1641.3, 1641.4, 1641.5, 1641.6, 1641.7, 1641.8, 1641.9, 1642.0, 1642.1, 1642.2, 1642.3, 1642.4, 1642.5, 1642.6, 1642.7, 1642.8, 1642.9, 1643.0	0.5, 1.0																																																																																					
<p>LITHOLOGIC DESCRIPTION</p> <p>SANDY VOLCANIC SILTSTONE and VOLCANIC SILTSTONE</p> <p>Major lithology: 65% of the core consists of very dark gray (10Y 3/1) to dark gray (10Y 4/1), fractured to highly fractured, SANDY VOLCANIC SILTSTONE and VOLCANIC SILTSTONE.</p> <p>Minor lithology: 35% of the core (Section 2) consists of calcareous volcanic siltstone. Scattered through the core are clasts and thin layers of soft, gray, glassy ash. In Section 2, 61-65 cm, is a fairly well-indurated, gray chalk bed with a scoured contact that dips about 30° from the horizontal.</p> <p>SMEAR SLIDE SUMMARY (%):</p> <table border="1"> <tr> <td></td> <td>1.24</td> <td>2.34</td> <td>2.61</td> </tr> <tr> <td>D</td> <td></td> <td></td> <td></td> </tr> <tr> <td>M</td> <td></td> <td></td> <td></td> </tr> </table> <p>TEXTURE:</p> <table border="1"> <tr> <td>Sand</td> <td>---</td> <td>25</td> <td>5</td> </tr> <tr> <td>Silt</td> <td>70</td> <td>45</td> <td>70</td> </tr> <tr> <td>Clay</td> <td>30</td> <td>30</td> <td>25</td> </tr> </table> <p>COMPOSITION:</p> <table border="1"> <tr> <td>Calcite</td> <td>---</td> <td>8</td> <td>80</td> </tr> <tr> <td>Celadonite</td> <td>---</td> <td>Tr</td> <td>---</td> </tr> <tr> <td>Chlorite</td> <td>3</td> <td>12</td> <td>---</td> </tr> <tr> <td>Clay</td> <td>---</td> <td>14</td> <td>---</td> </tr> <tr> <td>Clinopyroxene</td> <td>5</td> <td>3</td> <td>2</td> </tr> <tr> <td>Foraminifers</td> <td>---</td> <td>Tr</td> <td>5</td> </tr> <tr> <td>Glass</td> <td>15</td> <td>---</td> <td>---</td> </tr> <tr> <td>Nannofossils</td> <td>---</td> <td>---</td> <td>5</td> </tr> <tr> <td>Opaques</td> <td>5</td> <td>8</td> <td>---</td> </tr> <tr> <td>Orthopyroxene</td> <td>---</td> <td>Tr</td> <td>---</td> </tr> <tr> <td>Other</td> <td>25</td> <td>---</td> <td>---</td> </tr> <tr> <td>Oxide</td> <td>---</td> <td>10</td> <td>---</td> </tr> <tr> <td>Plagioclase</td> <td>30</td> <td>25</td> <td>5</td> </tr> <tr> <td>Quartz</td> <td>15</td> <td>20</td> <td>---</td> </tr> </table>														1.24	2.34	2.61	D				M				Sand	---	25	5	Silt	70	45	70	Clay	30	30	25	Calcite	---	8	80	Celadonite	---	Tr	---	Chlorite	3	12	---	Clay	---	14	---	Clinopyroxene	5	3	2	Foraminifers	---	Tr	5	Glass	15	---	---	Nannofossils	---	---	5	Opaques	5	8	---	Orthopyroxene	---	Tr	---	Other	25	---	---	Oxide	---	10	---	Plagioclase	30	25	5	Quartz	15	20	---
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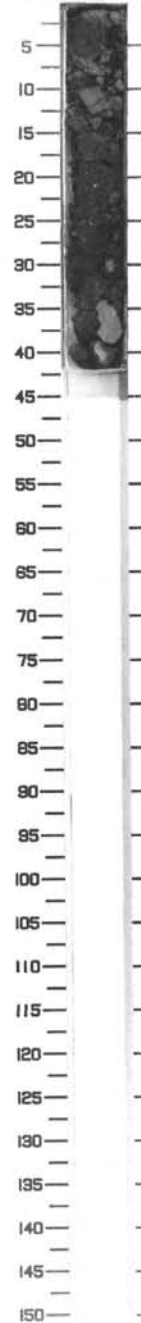




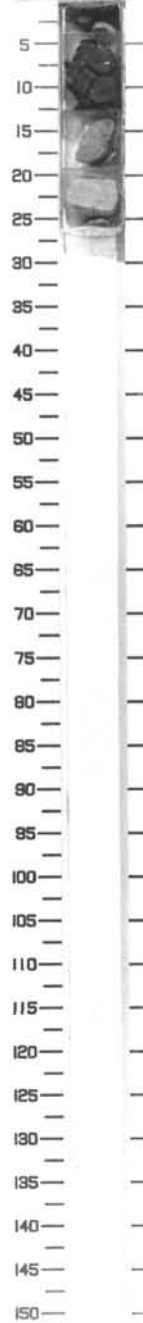
SITE 827 HOLE B CORE 16R CORED INTERVAL 252.6-262.3 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER			PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION																																																						
	FORAMINIFERS	MAMMOFOSBILLS	RADIOLARIANS																																																																
PLIOCENE?	B	R/G CN12?		44.7 2080 2.06	7.0 39.5 2.17 7.0	\emptyset Vp wt. XCaCO ₃	1						<p>SED-LITHIC CONGLOMERATE</p> <p>Major lithology: The core from 14 to 42 cm consists of a very dark greenish gray (10Y 3/1) to greenish gray (10Y 5/1), normally graded, moderately lithified, grain-supported SED-LITHIC CONGLOMERATE. At the base of the Section, clasts fine upwards from 2.5 to 4 cm at 42 cm to granule and pebble size at 14 cm, in a matrix of silty volcanic sand. The clasts themselves consist of andesitic breccia in a clay-chlorite matrix.</p> <p>Minor lithology: The top of the core (Section 1, 0-1 cm, and 7-15 cm) consists of highly fractured, dark greenish gray (10Y 4/1) limestone, which mixes down slightly into the underlying layers. Very dark greenish gray, clayey volcanic siltstone with sand occurs at Section 1, 1-7 cm; the basal contact is at a 20° angle to the horizontal.</p> <p>SMEAR SLIDE SUMMARY (%):</p> <table border="1"> <tr> <td></td> <td>1, 10</td> <td>1, 26</td> </tr> <tr> <td></td> <td>M</td> <td>D</td> </tr> </table> <p>TEXTURE:</p> <table border="1"> <tr> <td>Sand</td> <td>10</td> <td>50</td> </tr> <tr> <td>Silt</td> <td>80</td> <td>40</td> </tr> <tr> <td>Clay</td> <td>10</td> <td>10</td> </tr> </table> <p>COMPOSITION:</p> <table border="1"> <tr> <td>Amphibole</td> <td>1</td> <td>---</td> </tr> <tr> <td>Calcite</td> <td>70</td> <td>15</td> </tr> <tr> <td>Chlorite</td> <td>3</td> <td>---</td> </tr> <tr> <td>Clay</td> <td>---</td> <td>15</td> </tr> <tr> <td>Clinopyroxene</td> <td>2</td> <td>12</td> </tr> <tr> <td>Feldspar</td> <td>5</td> <td>---</td> </tr> <tr> <td>Foraminifers</td> <td>10</td> <td>---</td> </tr> <tr> <td>Glass</td> <td>2</td> <td>10</td> </tr> <tr> <td>Olivine</td> <td>---</td> <td>8</td> </tr> <tr> <td>Opauques</td> <td>---</td> <td>8</td> </tr> <tr> <td>Oxide</td> <td>---</td> <td>10</td> </tr> <tr> <td>Plagioclase</td> <td>---</td> <td>12</td> </tr> <tr> <td>Quartz</td> <td>5</td> <td>10</td> </tr> </table>		1, 10	1, 26		M	D	Sand	10	50	Silt	80	40	Clay	10	10	Amphibole	1	---	Calcite	70	15	Chlorite	3	---	Clay	---	15	Clinopyroxene	2	12	Feldspar	5	---	Foraminifers	10	---	Glass	2	10	Olivine	---	8	Opauques	---	8	Oxide	---	10	Plagioclase	---	12	Quartz	5	10
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827B-16R 1



827B-17R CC



SITE 827 HOLE B CORE 17R CORED INTERVAL 262.3-272.0 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER			PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
	FORAMINIFERS	MAMMOFOSBILLS	RADIOLARIANS										
?	B	B	B		46.78 17.4 2.67	\emptyset Vp	CC						<p>VOLCANIC SANDSTONE</p> <p>Major lithology: The core contains clasts of lithified, very dark gray (10Y 5/1), medium- to fine-grained, VOLCANIC SANDSTONE with calcareous cement. Grains in the clasts include quartz, feldspar, pyroxene, biotite, and hornblende. The original size of the clasts is unknown because of the poor recovery and drilling disturbance.</p>

SITE 827 HOLE B CORE 18R CORED INTERVAL 272.0-281.7 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER				PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
	FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS										
?	B	B	B					CC						VOLCANIC SANDSTONE Major lithology: The small amount of recovered material consists of very dark greenish gray (10Y 5/1), lithified, medium to coarse-grained, VOLCANIC SANDSTONE having grains of quartz, feldspar, pyroxene, hornblende, iron oxide minerals, epidote cemented by calcite. All of the material occurs as clasts, although the clasts may result from drilling. The original size of the clasts is impossible to determine because of drilling disturbance.

SITE 827 HOLE B CORE 19R CORED INTERVAL 281.7-291.3 mbsf

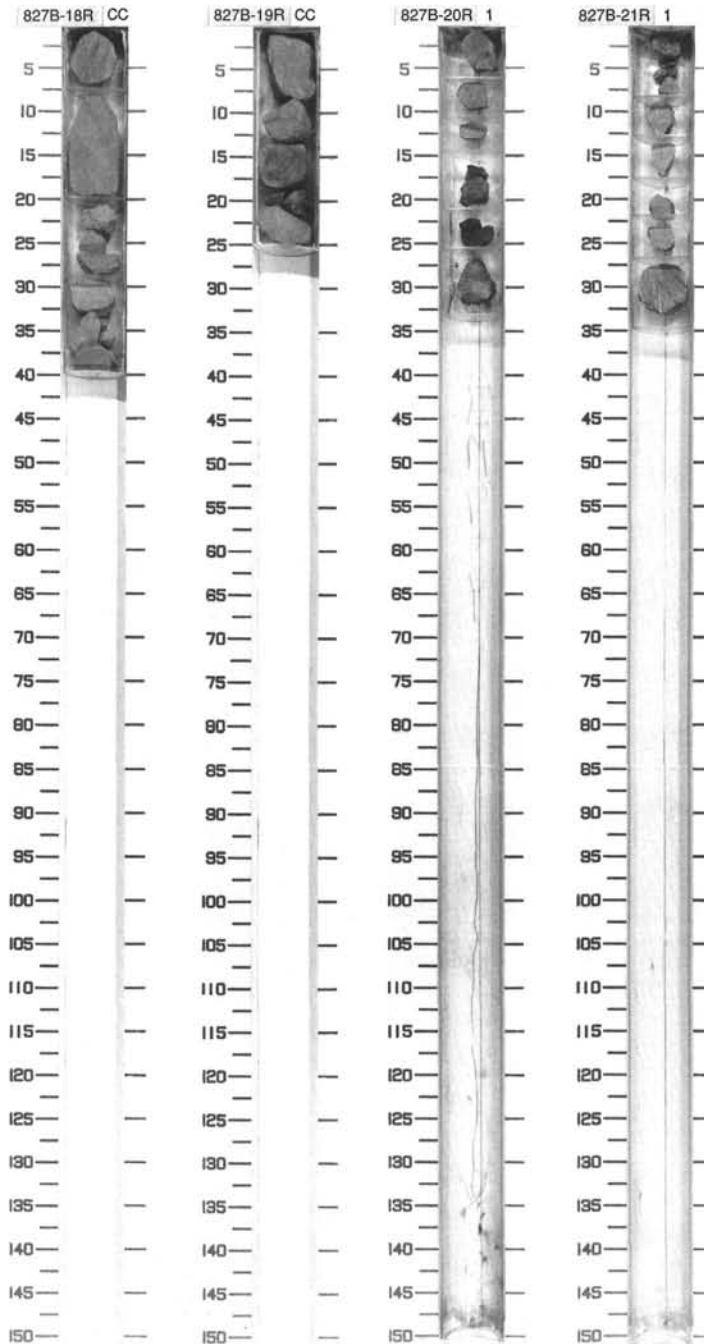
TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER				PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
	FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS										
?	B	B						CC						VOLCANIC SANDSTONE Major lithology: The small amount of recovered material consists of very dark greenish gray (10Y 5/1), lithified, medium to coarse-grained, VOLCANIC SANDSTONE clasts having grains of quartz, feldspar, pyroxene, hornblende, iron oxide minerals, and epidote cemented by calcite. The original size of the clasts is impossible to determine because of drilling disturbance.

SITE 827 HOLE B CORE 20R CORED INTERVAL 291.3-301.0 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER				PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
	FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS										
?	B	B						1						VOLCANIC SANDSTONE Major lithology: The small amount of recovered material consists of very dark greenish gray (10Y 5/1), lithified, medium to coarse-grained, VOLCANIC SANDSTONE clasts having grains of quartz, feldspar, pyroxene, hornblende, iron oxide minerals, and epidote cemented by calcite. The original size of the clasts is impossible to determine because of drilling disturbance. Minor lithology: Volcanic siltstone with calcareous cement. Section 1, Piece 5, 20-25 cm, consists of material similar to the major lithology with the difference that it is finer grained.

SITE 827 HOLE B CORE 21R CORED INTERVAL 301.0-310.6 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER				PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
	FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS										
?	B	B						1						VOLCANIC SANDSTONE Major lithology: The core comprises very dark greenish gray (10Y 5/1), lithified, medium to coarse-grained, VOLCANIC SANDSTONE with calcareous cement. Grains consist of quartz, feldspar, pyroxene, hornblende, and hematite. Veins of calcite up to 2 mm thick are especially conspicuous in Section 1, Piece 5, 24-34 cm. The extremely poor recovery and condition of the clasts suggest damage during coring.

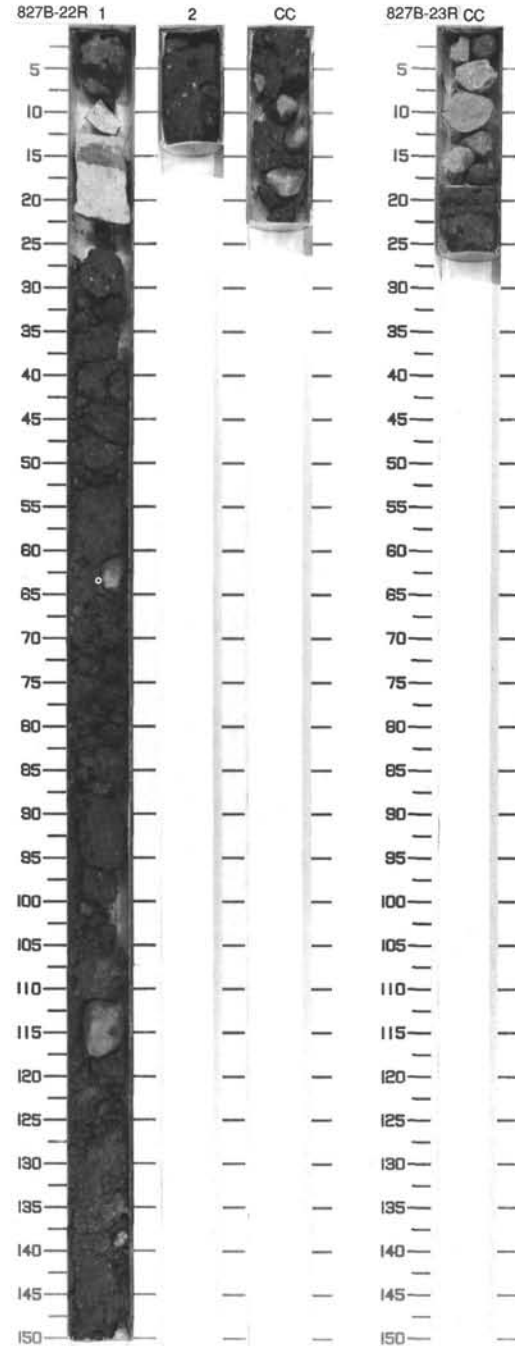


SITE 827 HOLE B CORE 22R CORED INTERVAL 310.6-320.3 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER			PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
	FORAMINIFERS	NAKNOFOSSILS	RADIOLARIANS									
?	B	B			3.17 29.2		1		X	X	#	<p>SED-LITHIC BRECCIA</p> <p>Major lithology: The core is a very poorly sorted, poorly indurated, black (5Y 2.5/1) SED-LITHIC BRECCIA. It has been highly disturbed by drilling. Clasts consist of very lithified grains of volcanic/igneous origin and range in size from granules (2 mm) to small cobbles (7 cm). The matrix is undifferentiated sand/silt/clay. The top of Section 1 (0-26 cm) is occupied by distinct pieces of rock (drilling breccia), which include a 10 cm core of undetermined lithology (Section 1, Piece 5, 12-13 cm) and a pebble of sed-lithic breccia (Section 1, Piece 4, 10-12 cm).</p> <p>THIN SECTION SUMMARY (%):</p> <p style="margin-left: 20px;">1. 14 M</p> <p>TEXTURE:</p> <p>Sand 90 Silt 10</p> <p>COMPOSITION:</p> <p>Algae 25 Calcite 41 Feldspar 4 Foraminifers 20 Quartz 3 Rock fragment 7</p>

SITE 827 HOLE B CORE 23R CORED INTERVAL 320.3-329.5 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER			PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB.	SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
	FORAMINIFERS	NAKNOFOSSILS	RADIOLARIANS									
?	B	B			15.6 2.96		CC				#	<p>VOLCANIC SANDSTONE</p> <p>Major lithology: The core comprises clasts of 3-5 cm diameter, very dark greenish gray (5Y 4/1), lithified, coarse-grained VOLCANIC SANDSTONE. The clasts may result from drilling damage. No matrix is observed.</p> <p>Minor lithology: Dark greenish gray (5Y 4/1) un lithified silty clay observed at the base of the recovered material may be an artifact of drilling.</p>



SITE 827 HOLE B CORE 24R CORED INTERVAL 329.5-339.0 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER				PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB. SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
	FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS									
								CC					<p>SILTY VOLCANIC SANDSTONE</p> <p>Major lithology: The core consists of very dark gray (5Y 4/1), lithified, coarse-grained, SILTY VOLCANIC SANDSTONE containing veins of quartz or calcite. The small amount of recovered material occurs as subrounded pebbles that may result from drilling. One clast is a packstone containing early Miocene microfossils (<i>Miogypsina</i> sp.).</p>

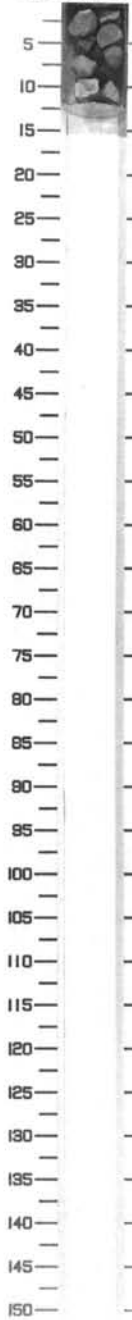
SITE 827 HOLE B CORE 25R CORED INTERVAL 339.0-345.7 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER				PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB. SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
	FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS									
?	B	B						1	0.5				<p>VOLCANIC SANDSTONE</p> <p>Major lithology: The core comprises dark greenish gray (10Y 4/1), lithified, coarse-grained, VOLCANIC SANDSTONE. The small amount of material recovered occurs as clasts that may result from drilling. One clast contains an early Miocene foraminifer (<i>Lepidocyclina</i> sp.).</p> <p>Minor lithology: Clasts of the major lithology are supported in unlithified silt that may be the product of drilling.</p>

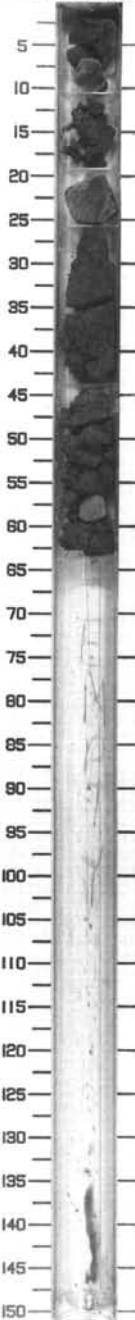
SITE 827 HOLE B CORE 26R CORED INTERVAL 345.7-355.3 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER				PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB. SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
	FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS									
?	B	B				65.3 2.63		1			XXX		<p>VOLCANIC SANDSTONE</p> <p>Major lithology: The core contains dark greenish gray (10Y 3/1), lithified, VOLCANIC SANDSTONE. The small amount of material recovered occurs as clasts up to a few cm in diameter. These clasts may result from drilling.</p> <p>Minor lithology: Unlithified sed-lithic breccia and sand are similar to the major lithology except that drilling reduced this material to a finer grain size.</p>

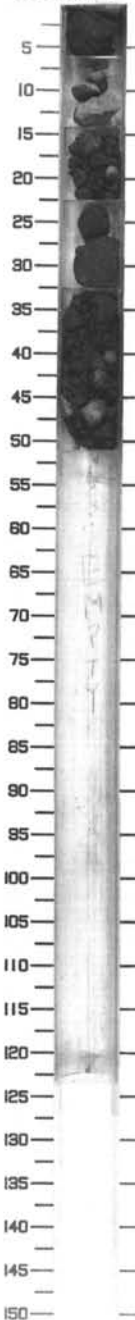
827B-24R CC



827B-25R 1



827B-26R 1



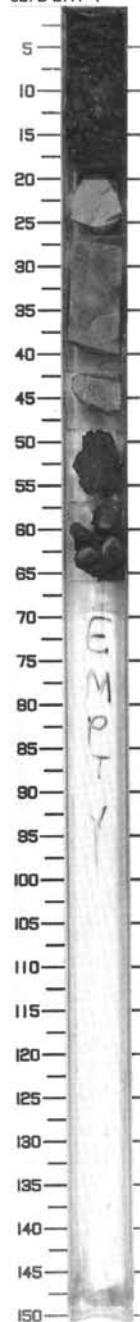
SITE 827 HOLE B CORE 27R CORED INTERVAL 355.3-365.0 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER			PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB. SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION																								
	FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS																																	
?	B	B			4619 23.7 2.46		1	0.5			#	<p>VOLCANIC SANDSTONE</p> <p>Major lithology: This core contains dark gray (10Y 3/1), lithified, VOLCANIC SANDSTONE. Many fractures are filled by veins of quartz or calcite as well as one vein that may contain sulfur. The small amount of material recovered occurs as breccia and slightly rounded clasts the texture of which we suspect to be entirely the product of drilling.</p> <p>THIN SECTION SUMMARY (%):</p> <table> <tr><td>1.9</td></tr> <tr><td>M</td></tr> </table> <p>TEXTURE:</p> <table> <tr><td>Sand</td><td>55</td></tr> <tr><td>Silt</td><td>30</td></tr> <tr><td>Clay</td><td>15</td></tr> </table> <p>COMPOSITION:</p> <table> <tr><td>Calcite</td><td>8</td></tr> <tr><td>Chlorite</td><td>5</td></tr> <tr><td>Clay</td><td>5</td></tr> <tr><td>Clinopyroxene</td><td>13</td></tr> <tr><td>Feldspar</td><td>58</td></tr> <tr><td>Hematite</td><td>Tr</td></tr> <tr><td>Hornblende</td><td>Tr</td></tr> <tr><td>Opauques</td><td>9</td></tr> </table>	1.9	M	Sand	55	Silt	30	Clay	15	Calcite	8	Chlorite	5	Clay	5	Clinopyroxene	13	Feldspar	58	Hematite	Tr	Hornblende	Tr	Opauques	9
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Hornblende	Tr																																			
Opauques	9																																			

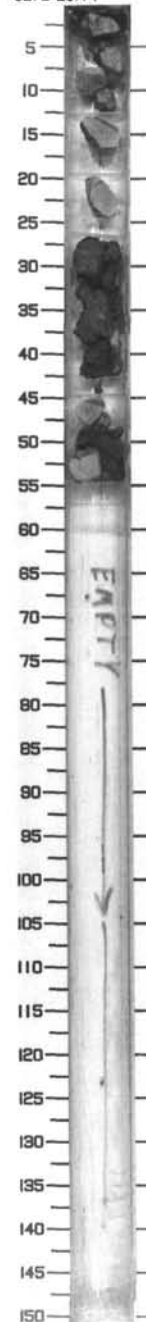
SITE 827 HOLE B CORE 28R CORED INTERVAL 365.0-374.5 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER			PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB. SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION																																								
	FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS																																																	
?	B				Vp-1985		1	0.5			#	<p>VOLCANIC SANDSTONE</p> <p>Major lithology: Very dark gray (5Y 3/1), lithified, fine-grained, VOLCANIC SANDSTONE. Some pieces have fractures filled with calcite or quartz. This material occurs as subrounded clasts loose in the core barrel. Core recovery was extremely poor.</p> <p>THIN SECTION SUMMARY (%):</p> <table> <tr><td>1.12</td><td>1.12</td></tr> <tr><td>D</td><td>M</td></tr> </table> <p>TEXTURE:</p> <table> <tr><td>Sand</td><td>60</td><td>45</td></tr> <tr><td>Silt</td><td>20</td><td>35</td></tr> <tr><td>Clay</td><td>20</td><td>20</td></tr> </table> <p>COMPOSITION:</p> <table> <tr><td>Calcite</td><td>20</td><td>28</td></tr> <tr><td>Chlorite</td><td>---</td><td>8</td></tr> <tr><td>Clay</td><td>15</td><td>8</td></tr> <tr><td>Clinopyroxene</td><td>15</td><td>1</td></tr> <tr><td>Feldspar</td><td>20</td><td>50</td></tr> <tr><td>Hornblende</td><td>3</td><td>---</td></tr> <tr><td>Opauques</td><td>10</td><td>5</td></tr> <tr><td>Other</td><td>7</td><td>---</td></tr> <tr><td>Quartz</td><td>10</td><td>---</td></tr> </table>	1.12	1.12	D	M	Sand	60	45	Silt	20	35	Clay	20	20	Calcite	20	28	Chlorite	---	8	Clay	15	8	Clinopyroxene	15	1	Feldspar	20	50	Hornblende	3	---	Opauques	10	5	Other	7	---	Quartz	10	---
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827B-27R 1



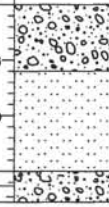
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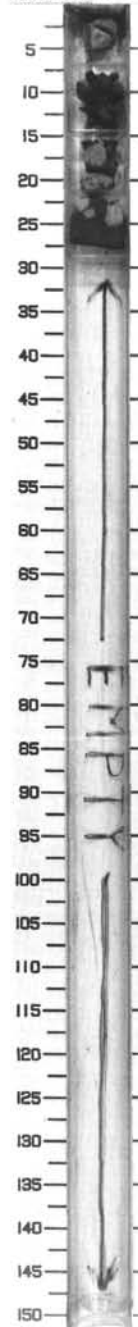
SITE 827 HOLE B CORE 29R CORED INTERVAL 374.5-384.2 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER				PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB. SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
	FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS									
?	B							1					<p>VOLCANIC SANDSTONE</p> <p>Major lithology: The core contains pieces of very dark gray (5Y 3/1), lithified, fine-grained VOLCANIC SANDSTONE. Some pieces have fractures filled with calcite or quartz. This material occurs as subrounded clasts loose in the core barrel. Core recovery was extremely poor.</p> <p>Minor lithology: A very dark gray (5Y 3/1), unlithified volcanic silt comprises the matrix of Section 1, Piece D, 18-28 cm, which contains clasts of the major lithology. The silt may be a product of drilling.</p>

SITE 827 HOLE B CORE 30R CORED INTERVAL 384.2-393.9 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER				PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB. SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION																										
	FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS	DIATOMS																																			
?	B	B						1	0.5 1.0				<p>VOLCANIC SILTSTONE</p> <p>Major lithology: The core contains very dark greenish gray (10Y 3/1), partially lithified VOLCANIC SILTSTONE. This sediment occurs from 60 to 133 cm in Section 1 and comprises the matrix for the breccia in the rest of the core. The silt is tectonically fractured and has many cross-cutting slickensided planes. The fabric is very scaly.</p> <p>Minor lithology: Very dark gray (10Y 3/1), partially lithified, matrix-supported sed-lithic breccia occurs in a matrix of the major lithology from 0 to 60 cm in Section 1, and all of Section 2, and the core catcher. One piece of the breccia is a coral fragment, but most is light gray volcanic sandstone clasts that range in diameter from a few mm to 5 cm.</p> <p>SMEAR SLIDE SUMMARY (%):</p> <table border="0"> <tr><td>1.35</td></tr> <tr><td>M</td></tr> </table> <p>TEXTURE:</p> <table border="0"> <tr><td>Sand</td><td>10</td></tr> <tr><td>Silt</td><td>70</td></tr> <tr><td>Clay</td><td>20</td></tr> </table> <p>COMPOSITION:</p> <table border="0"> <tr><td>Calcite</td><td>43</td></tr> <tr><td>Chlorite</td><td>5</td></tr> <tr><td>Clay</td><td>15</td></tr> <tr><td>Foraminifers</td><td>3</td></tr> <tr><td>Nannofossils</td><td>5</td></tr> <tr><td>Opalines</td><td>5</td></tr> <tr><td>Oxide</td><td>15</td></tr> <tr><td>Plagioclase</td><td>5</td></tr> <tr><td>Quartz</td><td>4</td></tr> </table>	1.35	M	Sand	10	Silt	70	Clay	20	Calcite	43	Chlorite	5	Clay	15	Foraminifers	3	Nannofossils	5	Opalines	5	Oxide	15	Plagioclase	5	Quartz	4
1.35																																							
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Plagioclase	5																																						
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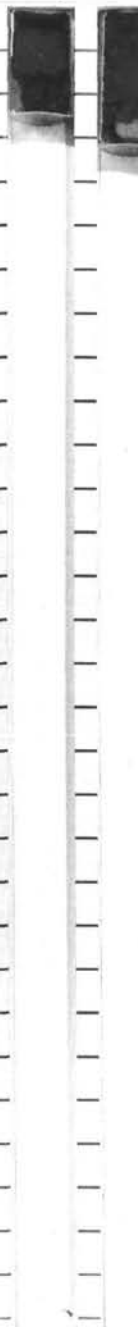
827B-29R 1



827B-30R 1



2



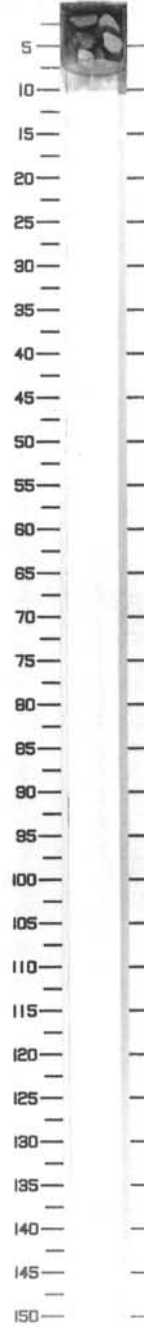
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SITE 827 HOLE B CORE 31R CORED INTERVAL 393.9-400.4 mbsf

TIME-ROCK UNIT	BIOSTRAT. ZONE/ FOSSIL CHARACTER			PALEOMAGNETICS	PHYS. PROPERTIES	CHEMISTRY	SECTION	METERS	GRAPHIC LITHOLOGY	DRILLING DISTURB. SED. STRUCTURES	SAMPLES	LITHOLOGIC DESCRIPTION
	FORAMINIFERS	NANNOFOSSILS	RADIOLARIANS									
?	B											<p>VOLCANIC SANDSTONE</p> <p>Major lithology: The core consists of gray (10Y 5/1) lithified pieces of medium- to fine-grained VOLCANIC SANDSTONE. There is at least a small amount of carbonate in the material, probably as cement. Only 17 cm of this material was recovered as pieces with no matrix. We suspect that the drill penetrated a breccia whose matrix was only partially lithified and was ground up and washed away during drilling.</p>

827B-31R CC



134-827B-16R-01 (Piece 2, 14-17 cm) OBSERVER: BAK WHERE SAMPLED:

ROCK NAME: Andesitic breccia.

GRAIN SIZE:

TEXTURE: Porphyritic.

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYST						
Plagioclase	30	35	0.4-0.5		Subhedral.	Strongly zoned.
Clinopyroxene	10	12	0.1-0.3		Subhedral.	
Amphibole	3	3	0.2-0.4		Subhedral.	
Opaque minerals	4	4	0.03-0.1		Subhedral.	
GROUNDMASS						
Plagioclase	10	12	0.01		Laths.	
Glass	-	34	N/A.		N/A.	
SECONDARY MINERALOGY	PERCENT	REPLACING/ FILLING				COMMENTS
Clay minerals	23					
Chlorite	20					
Calcite	8					As foraminifers.
VESICLES/ CAVITIES	PERCENT	LOCATION	SIZE (mm)		FILLING	SHAPE
Vesicles	None.					

134-827B-16R-01 (Piece 3, 40-42 cm) OBSERVER: BAK WHERE SAMPLED:

ROCK NAME: Andesitic breccia.

GRAIN SIZE:

TEXTURE: Porphyritic.

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Plagioclase	30	40	0.1-0.8		Subhedral.	
Clinopyroxene	8	8	0.1-0.6		Subhedral.	
Opaque minerals	4	4	0.1-0.4		Subhedral.	
Orthopyroxene	1	1	0.2-0.4		Subhedral.	
GROUNDMASS						
Opaque minerals	5	5	0.01-0.03		Subhedral.	
Plagioclase	17	17	0.01-0.03		Laths.	
Glass	-	25	N/A.		N/A.	Partially devitrified.
SECONDARY MINERALOGY	PERCENT	REPLACING/ FILLING				COMMENTS
Clay minerals	30					
Chlorite		5				
Calcite		5				The section contains some foraminifers.
VESICLES/ CAVITIES	PERCENT	LOCATION	SIZE (mm)		FILLING	SHAPE
Vesicles	None.					

134-827B-19R-CC (Piece 3, 14-18 cm) OBSERVER: BAK WHERE SAMPLED:

ROCK NAME: Andesitic breccia.

GRAIN SIZE:

TEXTURE: Porphyritic.

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Plagioclase	20	30	0.05-0.5		Subhedral.	Partly altered to clay.
Clinopyroxene	5	5	0.05-0.5		Subhedral.	
Opaque minerals	4	4	0.1-0.2		Subhedral.	
Amphibole	2	2	0.1-0.3		Subhedral.	
Orthopyroxene	2	2	0.1-0.3		Subhedral.	
GROUNDMASS						
Plagioclase	15	20	0.01		Laths.	Completely devitrified.
Clinopyroxene	<1	<1	0.01		Anhedral.	
Opaque minerals	1	1	0.01		Subhedral.	
Glass	-	35	N/A.		N/A.	
SECONDARY MINERALOGY						
	PERCENT	REPLACING/ FILLING				COMMENTS
Clay minerals	24					
Chlorite	26					
VESICLES/CAVITIES						
	PERCENT	LOCATION	SIZE (mm)		FILLING	SHAPE
Vesicles	None.					

134-827B-22R-CC (Piece 3, 15-18 cm) OBSERVER: BAK WHERE SAMPLED:

ROCK NAME: Highly plagioclase phyric andesite.

GRAIN SIZE: Fine-grained.

TEXTURE: Porphyritic.

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Plagioclase	23	27	0.2-2.5		Euhedral.	Altered along cracks to sericite.
Clinopyroxene	1	1	1-2		Subhedral.	
Opaque minerals	2	2	0.2-0.5	Magnetite?	Rounded.	
GROUNDMASS						
Plagioclase	15	22	0.03-0.1		Laths.	Altered to clay and chlorite.
Clinopyroxene	1	6	0.01-0.2		Granular.	
Opaque minerals	2	2	0.01-0.02	Magnetite?	Granular.	
Glass	-	40	N/A.		N/A.	
SECONDARY MINERALOGY						
	PERCENT	REPLACING/ FILLING				COMMENTS
Clay minerals	24	Glass.				
Calcite	10	Cracks and cavities in groundmass.				
Chlorite	17	Glass.				
Sericite	5	Plagioclase.				
VESICLES/CAVITIES						
	PERCENT	LOCATION	SIZE (mm)		FILLING	SHAPE
Vesicles	None.					

134-827B-23R-CC (Piece 1, 5-6 cm)

OBSERVER: BAK

WHERE SAMPLED:

ROCK NAME: Andesitic breccia.

GRAIN SIZE:

TEXTURE: Porphyritic.

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
PHENOCRYSTS						
Plagioclase	28	41	0.1-0.4		Subhedral.	
Clinopyroxene	3	3	0.1-0.2		Subhedral.	
Quartz	1	1	0.05-0.1		Anhedral.	
Orthopyroxene	3	3	0.1-0.2		Subhedral.	
Opaque minerals	4	4	0.05-0.15		Subhedral.	
GROUNDMASS						
Plagioclase	27	27	0.03		Laths.	
Glass	-	21	N/A.		N/A.	
SECONDARY MINERALOGY						
	PERCENT	REPLACING/ FILLING				COMMENTS
Clay minerals	19					
Chlorite	15					
VESICLES/CAVITIES						
	PERCENT	LOCATION	SIZE (mm)		FILLING	SHAPE
Vesicles	None.					