









Table T1 (continued).

Age	Zone/subzone	Coe, section, interval (cm)	Depth (mbsf)	Abundance	Preservation	<i>Reticulofenestra</i> spp. (<3 µm)	<i>Reticulofenestra</i> sp. (3–5 µm)	<i>Reticulofenestra</i> sp. cf. <i>R. samodurovii</i>	<i>Reticulofenestra scrippsae</i>	<i>Reticulofenestra umbilica</i>	<i>Rhabdosphaera eratenius</i>	<i>Sphenolithus dissimilis</i>	<i>Sphenolithus moriformis</i>	<i>Thoracosphaera saeae</i>	<i>Zygrabolithus bijugatus</i>
Quaternary	NN21	183-1139A-1R-1, 25–26	0.25	V	M										
		1R-1, 33–34	0.33	V	M										
		1R-2, 100–102	1.90	A	M										
		1R-3, 100–102	3.40	V	M										
	NN20	1R-4, 10–11	4.00	F	M										
		1R-5, 100–101	5.16	F	P										
		1R-6, 100–101	6.66	F	M										
		1R-CC	7.87	A	M										
	NN19	2R-1, 25–26	9.75	V	M										
		2R-2, 25–26	11.25	V	M										
		2R-3, 25–26	12.75	C	P										
		2R-4, 25–26	14.25	C	P										
early–middle Miocene	CN5a–CN3	2R-CC	15.93	V	M										
		3R-1, 25–26	19.25	V	G						F				
		3R-2, 25–26	20.75	V	M										
		3R-3, 27–29	22.27	V	M			A							
		3R-4, 25–26	23.75	V	M			V			F		F		
		3R-CC	24.43	V	M			C			C		R		
		4R-1, 100–101	29.50	V	P										
		4R-2, 100–101	31.00	V	P									F	
4R-3, 100–101	32.50	V	P												
early Miocene	CN1–CN2	4R-4, 100–101	34.00	V	P										
		4R-CC	34.82	V	M						C				
		5R-1, 100–102	39.00	V	P			C					F		
		5R-CC	40.21	V	M										
		6R-1, 25–26	47.75	V	M										
		6R-CC	49.19	V	M										
		7R-1, 25–26	57.25	V	M										
		7R-1, 100–101	58.00	V	M		V	F				F			
		7R-2, 100–101	59.50	V	M										
		7R-3, 100–101	61.00	V	M		F	V							
		7R-CC	61.60	V	M		F	V							
		8R-CC	66.70	V	V		V				C	F			
		9R-2, 25–26	76.25	V	M		V								
		9R-2, 135–137	77.35	V	P		A						F		
		9R-3, 100–101	78.84	V	P		V						F		
		9R-4, 100–101	80.34	V	P		V								
		9R-CC	81.58	V	M		V						F		
		10R-1, 25–27	85.75	V	P		V						F		
		10R-2, 22–24	87.22	V	P		V								
		10R-CC	87.83	V	P		V								
		11R-1, 126–128	96.35	V	P		V								
		11R-CC	96.76	V	M		V					F	F		
		12R-1, 100–102	105.70	V	P		A								
		12R-2, 100–102	107.20	V	M		A					R	F		
		12R-3, 100–102	108.70	A	P		C								
		12R-4, 100–102	110.20	V	P		A								
		12R-5, 100–102	111.70	V	P		V								
		12R-6, 100–102	113.20	A	P		A								
		12R-CC	113.83	V	P		A								
		13R-1, 25–27	114.65	V	P		A								
13R-2, 25–27	116.25	V	P		V										
13R-3, 25–27	117.25	V	P		V										
13R-4, 25–27	119.15	A	P		V										
13R-5, 25–27	120.65	V	P		V							F			
13R-6, 25–27	122.15	V	P		V										









Table T1 (continued).

Age	Zone/subzone	Coe, section, interval (cm)	Depth (mbsf)	Abundance	Preservation	<i>Bicolummus ovatus</i>	<i>Blackites spinosus</i>	<i>Braarudosphaera bigelowii</i>	<i>Calcidiscus leptoporus</i>	<i>Calcidiscus macintyreii</i>	<i>Chiasmolithus altus</i>	<i>Chiasmolithus</i> cf. <i>C. altus</i>	<i>Chiasmolithus oamaruensis</i>	<i>Chiasmolithus</i> spp.	<i>Coccolithus eopelagicus</i>	<i>Clausicoccus fenestratus</i>	<i>Coccolithus formosus</i>	<i>Coccolithus miopelagicus</i>	<i>Coccolithus pelagicus</i>	<i>Coccolithus pelagicus</i> (w/bar)	<i>Coronocyclus nitescens</i>	<i>Cyclicargolithus abisectus</i>	
middle Oligocene	<i>Chiasmolithus altus</i>	22R-CC	204.14	V G	R						A C	A					C A				A		
		23R-1, 25-27	210.75	A M								F C						C				A	
		23R-2, 25-27	212.25	V M								C						C				A	
		23R-3, 25-27	213.75	V M								C F	C					C				A	
		23R-4, 25-26	215.25	V P								C F	C					F C				V	
		23R-5, 25-27	216.75	A P								A C	C									A	
		23R-6, 25-27	218.25	V P								C F	C									C	
		23R-CC	219.48	V M	F							A F	C					A A				C	
		24R-1, 25-26	220.35	V P								A	F					F				A	
		24R-2, 25-26	221.85	V M								C	C									C	
		24R-3, 100-101	224.10	A G								C R	A									C	
		24R-CC	224.97	V G								A	C					A A				C	
		25R-1, 100-101	230.80	V M								A	C					A C				C	
		25R-2, 100-101	232.30	A P								C	C					C				C	
		25R-3, 25-27	233.05	V P								C	C					F				A	
		25R-4, 26-28	234.56	A P								R	C									C	
		25R-5, 25-26	236.05	V P								C	C					C C				C	
		25R-6, 25-26	237.55	V M								F C	C					F C				V	
		25R-CC	239.22	A M								C	F	A				C				F	A
		26R-1, 25-26	239.65	A P								F	F	F				C				C	
		26R-2, 25-26	241.15	A P								F		F				C				C	
		26R-3, 25-26	242.65	A P								F		F				C				C	
		26R-CC	242.95	V M								C	C					A				A	
		27R-2, 28-29	250.88	V M	R							C					C					C	
		27R-3, 27-28	252.37	V M								F					F					F	A
		27R-4, 27-28	253.87	V M	R							C					F					F	A
		27R-CC	257.54	V M								C										C	A
		28R-2, 27-28	260.47	V M	R							A										C	A
		28R-3, 27-29	261.97	V M	R							A										C	A
		28R-4, 27-28	263.47	V M								C										C	A
		28R-CC	267.05	V M								C		C								A	C
		29R-2, 26-27	270.06	V G								A						F				V	
		29R-3, 26-27	271.56	V M								A										F	V
		29R-4, 26-28	273.06	V M													F					C	
		29R-CC	275.50	V G								C										F	A
		30R-2, 26-27	279.66	V G								A C		C				F				V	
		30R-3, 26-28	281.16	V M								C C		C				F				C	
		30R-4, 26-29	282.66	V M								A C		C				C				V	
		30R-6, 26-30	285.66	V M								C C		C				C				C	V
		30R-CC	287.50	V G								A										C	
		31R-1, 26-27	287.76	V P	F							A										C	
		31R-2, 25-26	289.25	V G								A C										A	A
		31R-4, 25-26	292.25	V G	F							C										A	V
		31R-CC	292.47	C P																		F	
		32R-2, 26-27	298.86	C P	C							F		F				F				F	C
32R-4, 26-27	301.86	C G	F							C										A			
32R-6, 26-27	304.86	V G	C							C										C	V		
32R-CC	306.80	V G	R							A										A	A		
33R-2, 26-27	308.56	V G	C							C										C	A		
33R-3, 26-27	310.06	V G	C							C C										A	A		
33R-4, 27-28	311.57	V G	R							C										C	V		
33R-CC	316.40	V G	C							A					F					C	A		
34R-2, 27-28	318.17	V G								A C					C					A	V		
34R-4, 27-29	321.17	V G	R							C					C					C	V		
34R-6, 27-30	324.17	V G								C										V	V		
34R-7, 27-31	325.67	V G								F					C					V	V		
34R-CC	326.10	V G	C							C		A								C	F		
35R-1, 21-22	326.31	V M	F							C	F				F					A	V		
35R-4, 26-27	329.61	V M	D							C					F					C			



Table T1 (continued).

Age	Zone/subzone	Coe, section, interval (cm)	Depth (mbsf)	Abundance	Preservation	<i>Helicosphaera obliqua</i>	<i>Helicosphaera perch-nielsenae</i>	<i>Helicosphaera recta</i>	<i>Isthmolithus recurvus</i>	<i>Markalius inversus</i>	<i>Pontosphaera callosa</i>	<i>Pontosphaera multipora</i>	<i>Pontosphaera plana</i>	<i>Pontosphaera punctosa</i>	<i>Pontosphaera versa</i>	<i>Pseudoemiliania lacunosa</i>	<i>Reticulofenestra bisectus</i>	<i>Reticulofenestra strada</i>	<i>Reticulofenestra dictyoda</i>	<i>Reticulofenestra hillae</i>	<i>Reticulofenestra perplexa</i>	<i>Reticulofenestra aff. reticulata</i>	
middle Oligocene	<i>Chiasmolithus altus</i>	22R-CC	204.14	V	G												A	C					
		23R-1, 25-27	210.75	A	M													C	C				
		23R-2, 25-27	212.25	V	M													A	A				
		23R-3, 25-27	213.75	V	M													A	A				
		23R-4, 25-26	215.25	V	P													A	C				R
		23R-5, 25-27	216.75	A	P													A	C				R
		23R-6, 25-27	218.25	V	P													C	C				
		23R-CC	219.48	V	M													C	C				
		24R-1, 25-26	220.35	V	P													F	C				
		24R-2, 25-26	221.85	V	M										R			C	A				F
		24R-3, 100-101	224.10	A	G													C	A				
		24R-CC	224.97	V	G													A	V				
		25R-1, 100-101	230.80	V	M													F	V				C
		25R-2, 100-101	232.30	A	P													C	A				
		25R-3, 25-27	233.05	V	P													A	A				
		25R-4, 26-28	234.56	A	P													C	A				
		25R-5, 25-26	236.05	V	P													A	C				C
		25R-6, 25-26	237.55	V	M											F		C	A				F
		25R-CC	239.22	A	M													C	A				C
		26R-1, 25-26	239.65	A	P													A	A				
		26R-2, 25-26	241.15	A	P													A	A				
		26R-3, 25-26	242.65	A	P													A	A				
		26R-CC	242.95	V	M										C	A		A	A				F
		27R-2, 28-29	250.88	V	M									R				V	C				
		27R-3, 27-28	252.37	V	M										C			V	A				
		27R-4, 27-28	253.87	V	M													A	A				
		27R-CC	257.54	V	M											F		C	C				A
		28R-2, 27-28	260.47	V	M										R			A	V			R	
		28R-3, 27-29	261.97	V	M											R		A	V			R	
		28R-4, 27-28	263.47	V	M													V	A				
		28R-CC	267.05	V	M											F		A	C				C
		29R-2, 26-27	270.06	V	G													C	A				
		29R-3, 26-27	271.56	V	M													C	A				
		29R-4, 26-28	273.06	V	M													A	V				
		29R-CC	275.50	V	G											F							
		30R-2, 26-27	279.66	V	G													C	A				
		30R-3, 26-28	281.16	V	M													V	A				
		30R-4, 26-29	282.66	V	M										R			A				R	
		30R-6, 26-30	285.66	V	M											F		C	A				
		30R-CC	287.50	V	G											C		A	C				
		31R-1, 26-27	287.76	V	P											R		C					
		31R-2, 25-26	289.25	V	G													V					
		31R-4, 25-26	292.25	V	G											F		A	C				
		31R-CC	292.47	C	P																		
		32R-2, 26-27	298.86	C	P													A	A				
32R-4, 26-27	301.86	C	G													A	A						
32R-6, 26-27	304.86	V	G				R			R						A	A						
32R-CC	306.80	V	G											F		A	C						
33R-2, 26-27	308.56	V	G													A	V			R			
33R-3, 26-27	310.06	V	G													V	A			C			
33R-4, 27-28	311.57	V	G													A	C			R			
33R-CC	316.40	V	G											F		A	C						
34R-2, 27-28	318.17	V	G													C							
34R-4, 27-29	321.17	V	G													A	C			R			
34R-6, 27-30	324.17	V	G													V				R			
34R-7, 27-31	325.67	V	G													A							
34R-CC	326.10	V	G				F									A	C						
35R-1, 21-22	326.31	V	M				R									V	C						
35R-4, 26-27	329.61	V	M													A	A						

Table T1 (continued).

Age	Zone/subzone	Coe, section, interval (cm)	Depth (mbsf)	Abundance	Preservation	<i>Reticulofenestra</i> spp. (<3 µm)	<i>Reticulofenestra</i> sp. (3–5 µm)	<i>Reticulofenestra</i> sp. cf. <i>R. samodurovii</i>	<i>Reticulofenestra scrippsae</i>	<i>Reticulofenestra umbilica</i>	<i>Rhabdosphaera eratenius</i>	<i>Sphenolithus dissimilis</i>	<i>Sphenolithus moriformis</i>	<i>Thoracosphaera saeae</i>	<i>Zygrabolithus bijugatus</i>	
middle Oligocene	<i>Chiasmolithus altus</i>	22R-CC	204.14	V	G	A	C								C	
		23R-1, 25–27	210.75	A	M		F									A
		23R-2, 25–27	212.25	V	M	C	C									
		23R-3, 25–27	213.75	V	M	C	C									
		23R-4, 25–26	215.25	V	P	C	C									
		23R-5, 25–27	216.75	A	P	F	C									C
		23R-6, 25–27	218.25	V	P	C	C									
		23R-CC	219.48	V	M	C	C									F
		24R-1, 25–26	220.35	V	P	C	C									R
		24R-2, 25–26	221.85	V	M	C	F									R
		24R-3, 100–101	224.10	A	G											R
		24R-CC	224.97	V	G											R
		25R-1, 100–101	230.80	V	M	C	A					F				
		25R-2, 100–101	232.30	A	P											F
		25R-3, 25–27	233.05	V	P	A	A									
		25R-4, 26–28	234.56	A	P	A	C									F
		25R-5, 25–26	236.05	V	P		C									C
		25R-6, 25–26	237.55	V	M							F				C
		25R-CC	239.22	A	M	A						F	F			C
		26R-1, 25–26	239.65	A	P				C							
		26R-2, 25–26	241.15	A	P				C							
		26R-3, 25–26	242.65	A	P				C							
		26R-CC	242.95	V	M	A										C
		27R-2, 28–29	250.88	V	M									C		C
		27R-3, 27–28	252.37	V	M			R	F							C
		27R-4, 27–28	253.87	V	M				C							F
		27R-CC	257.54	V	M	A										
		28R-2, 27–28	260.47	V	M			F			R					
		28R-3, 27–29	261.97	V	M				F							R
		28R-4, 27–28	263.47	V	M			F	V							R
		28R-CC	267.05	V	M	A										
		29R-2, 26–27	270.06	V	G	A	C	C				F				
		29R-3, 26–27	271.56	V	M	A					R					
		29R-4, 26–28	273.06	V	M	A					R		R			
		29R-CC	275.50	V	G	A										
		30R-2, 26–27	279.66	V	G	A						F				
		30R-3, 26–28	281.16	V	M	C	F				F	F				A
		30R-4, 26–29	282.66	V	M	A					R		R			
		30R-6, 26–30	285.66	V	M	A		F				F				A
		30R-CC	287.50	V	G	A								C		
		31R-1, 26–27	287.76	V	P						F					
		31R-2, 25–26	289.25	V	G							F				
		31R-4, 25–26	292.25	V	G						C		F			
		31R-CC	292.47	C	P	A										
		32R-2, 26–27	298.86	C	P	A	C	A				A				A
		32R-4, 26–27	301.86	C	G	A	C	C				A				
		32R-6, 26–27	304.86	V	G	V	C	C			R					
		32R-CC	306.80	V	G	A								C		A
		33R-2, 26–27	308.56	V	G	V	F	C		F		F				R
		33R-3, 26–27	310.06	V	G	A	C	C				C				A
33R-4, 27–28	311.57	V	G	V	F					F				F		
33R-CC	316.40	V	G	A							A			C		
34R-2, 27–28	318.17	V	G			C			R		F			R		
34R-4, 27–29	321.17	V	G	V	F						F			F		
34R-6, 27–30	324.17	V	G						C					F		
34R-7, 27–31	325.67	V	G	A							F			F		
34R-CC	326.10	V	G	A							F			C		
35R-1, 21–22	326.31	V	M	V		V				F						
35R-4, 26–27	329.61	V	M	V	F	C					C			C		

Table T1 (continued).

Age	Zone/subzone	Coe, section, interval (cm)	Depth (mbsf)	Abundance	Preservation	<i>Bicolummus ovatus</i>	<i>Blackites spinosus</i>	<i>Braarudosphaera bigelowii</i>	<i>Calcidiscus leptoporus</i>	<i>Calcidiscus macintyreii</i>	<i>Chiasmolithus altus</i>	<i>Chiasmolithus</i> cf. <i>C. altus</i>	<i>Chiasmolithus oamaruensis</i>	<i>Chiasmolithus</i> spp.	<i>Coccolithus eopelagicus</i>	<i>Clausiococcus fenestratus</i>	<i>Coccolithus formosus</i>	<i>Coccolithus miopelagicus</i>	<i>Coccolithus pelagicus</i>	<i>Coccolithus pelagicus</i> (w/bar)	<i>Coronocyclus nitescens</i>	<i>Cyclicargolithus abisectus</i>		
	<i>Blackites spinosus</i>	35R-6, 26–27	332.61	V	M	C					C											V		
		35R-CC	335.40	V	M	F									F							C	A	
		36R-1, 26–27	335.66	V	M	F						C			R					A			V	
		36R-3, 27–28	338.67	V	M	F						A			F					C			V	
		36R-CC	345.00	V	P							F		R						C				
		37R-2, 27–28	346.77	V	P	F						F								A			A	
		37R-4, 27–29	348.61	V	P	F						F			F					C			A	
		37R-CC	354.60	V	P							F		F						C			V	
		38R-3, 26–27	356.89	V	P	R						C		A						A			V	
		38R-5, 26–27	359.89	V	P	R						F		F						A			A	
		38R-7, 26–27	362.89	V	P	R								C						A			A	
		38R-CC	364.20	V	P	F						F		F						A			A	
		39R-2, 26–27	365.72	V	P							C								A			A	
		39R-CC	373.80	V	G	F						A	F		C					A			A	
		40R-1, 2–4	374.00	V	P							C		C						A				
		40R-1, 100–102	374.80	V	P			R				A	C	F	C					A			C	
		40R-2, 25–27	375.55	V	G			F				A	C	F	A					A				
		40R-3, 25–27	377.05	V	P	F						C	C	F	C	C				C			A	
		40R-4, 25–27	378.55	V	M							C	C		C					A			C	
		40R-4, 100–102	379.30	V	M							A			A					A			C	
		40R-5, 25–27	380.05	V	G	F	C					C	F	C	A					A			A	
		40R-5, 148–150	381.28	V	M							A	C		A	C				A			C	
		40R-6, 20–22	381.50	V	M							C	F		A					A			A	
		40R-6, 30–32	381.60	V	M							C			A	C		R		A				
		40R-6, 89–91	381.99	V	M			F				C			A	C	C	F		V				
early Oligocene			40R-CC	383.50	V	G		C				C		F		A	A	A		V				
			44R-CC	422.00	B	P																	R	

Notes: Abundance: V = very abundant, A = abundant, C = common, F = few, R = rare, T = trace. Preservation: G = good, M = moderate, P = poor.





