

K.L. MCGONIGAL AND S.W. WISE JR.
Eocene Calcareous Nanofossil Biostratigraphy[illegible]

Chapter 4, Table T3 (continued).

Age	Nannofossil zone/subzone		Core, section, interval (cm)	Depth (mbsf)	Abundance	Preservation	Lithology	<i>Discoaster martinii</i>	<i>Discoaster mediosus</i>	<i>Discoaster minimus</i>	<i>Discoaster multiradiatus</i>	<i>Discoaster munitus</i>	<i>Discoaster nonradiatus</i>	<i>Discoaster robustus</i>	<i>Discoaster saipanensis</i>	<i>Discoaster salisburgensis</i>	<i>Discoaster septemradiatus</i>	<i>Discoaster</i> sp.	<i>Discoaster strictus</i>	<i>Discoaster subloboensis</i>	<i>Discoaster tani</i>	<i>Discoaster wemmelensis</i>	<i>Helicosphaera lophota</i>	<i>Helicosphaera</i> spp.	<i>Lanternithus minutus</i>	<i>Markalius inversus</i>	<i>Micrantholithus crenulatus</i>	<i>Nannotetrina cristata</i>	<i>Nannotetrina</i> spp.	<i>Neococcolithes dubius</i>	<i>Neococcolithes protenus</i>	<i>Pontosphaera multipora</i>	<i>Pontosphaera pectinata</i>	<i>Pontosphaera plana</i>	<i>Pseudobriquetrorhabdulus inversus</i>	<i>Reticulolenestra dictyoda</i>	<i>Reticulolenestra samodurovii</i>	<i>Reticulolenestra</i> spp.	<i>Reticulolenestra</i> spp. (<4µm)	<i>Reticulolenestra umbilica</i>	<i>Rhabdosphaera inflata</i>	<i>Rhabdosphaera</i> spp.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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Age	Nannofossil zone/subzone		Core, section, interval (cm)	Depth (mbsf)	Abundance	Preservation	Lithology	<i>Rhabdosphaera tenuis</i>	<i>Sphenolithus anarhopus</i>	<i>Sphenolithus conicus</i>	<i>Sphenolithus conspicuus</i>	<i>Sphenolithus editus</i>	<i>Sphenolithus furcatalioides</i>	<i>Sphenolithus moriformis</i>	<i>Sphenolithus obtusus</i>	<i>Sphenolithus primus</i>	<i>Sphenolithus radicans</i>	<i>Sphenolithus spiniger</i>	<i>Thoracosphaera operculata</i>	<i>Toweius emineus</i>	<i>Toweius magnicrassus</i>	<i>Toweius pertusus</i>	<i>Tribrachiatulus bramlettei</i>	<i>Tribrachiatulus contortus</i>	<i>Tribrachiatulus orthostylus</i>	<i>Tribrachiatulus</i> spp.	<i>Zygirhabdithus bijugatus</i>	Reworked Cretaceous	Reworked paleocene		
	Martini (1971)	Okada & Bukry (1980)																													
middle Eocene	NP14	CP12b	173-1068A-																												
			1R-1, 35-36	711.65	F	M	Pale brown claystone																								
			1R-1, 119-120	712.49	A	M	Grayish green calcareous claystone													R	F										F
			1R-2, 34-35	713.14	C	P	Pale brown claystone																								F
			1R-2, 119-120	713.99	V	M	Grayish green calcareous claystone									F					F										A
			1R-3, 35-36	714.65	V	G	Grayish green calcareous claystone									C				C	F										A
			1R-3, 120-121	715.50	V	M	Grayish green calcareous claystone									F				C											C
			1R-4, 35-35	716.15	B	M	Grayish green calcareous claystone																								
			1R-4, 120-121	717.00	A	M	Grayish green calcareous claystone																								C
			1R-5, 35-36	717.65	V	M	Grayish green calcareous claystone										F				F										C
			1R-5, 122-123	718.52	C	M	Gray-green calcareous silty claystone																								F
			1R-6, 36-37	719.16	V	M	Grayish green calcareous claystone															R									C
			1R-CC	719.55	C	M																									
			2R-1, 32-35	721.22	A	M	Grayish green calcareous claystone										F					F									C
			2R-1, 119-121	722.09	V	M	Grayish green calcareous claystone										A				F										A
			2R-2, 36-38	722.76	V	M	Grayish green calcareous claystone										C														C
			2R-2, 123-124	723.63	V	G	Grayish green calcareous claystone										F				F										C
			2R-3, 31-32	724.21	V	G	Grayish green calcareous claystone										C				F	C									A
		2R-3, 118-119	725.08	V	P	Greenish gray sandy siltstone										C				F										A	
		2R-4, 33-34	725.73	V	M	Grayish green calcareous claystone										C				C										A	
		2R-4, 119-121	726.59	V	M	Grayish green calcareous claystone										C	F			F										A	
		2R-5, 33-35	727.23	V	M	Grayish green calcareous claystone										F				C										A	
		2R-CC	727.85	V	M											C														A	
		3R-1, 36-37	730.96	A	G	Light gray calcareous sandy siltstone										F</															

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Chapter 4, Table T3 (continued).

Age	Nannofossil zone/subzone		Core, section, interval (cm)	Depth (mbsf)	Abundance	Preservation	Lithology	<i>Rhabdosphaera tenuis</i> <i>Sphenolithus anarrhopus</i> <i>Sphenolithus conicus</i> <i>Sphenolithus conspicuus</i> <i>Sphenolithus editus</i> <i>Sphenolithus furcatolithoides</i> <i>Sphenolithus moriformis</i> <i>Sphenolithus obtusus</i> <i>Sphenolithus primus</i> <i>Sphenolithus radians</i> <i>Sphenolithus spiniger</i> <i>Thoracosphaera operculata</i> <i>Toweius emimens</i> <i>Toweius magnicrassus</i> <i>Toweius pertusus</i> <i>Tribrachiatius bramlettei</i> <i>Tribrachiatius contortus</i> <i>Tribrachiatius orthostylus</i> <i>Tribrachiatius</i> spp. <i>Zygirhablithus bijugatus</i> Reworked Cretaceous	<i>Rhabdosphaera tenuis</i> <i>Sphenolithus anarrhopus</i> <i>Sphenolithus conicus</i> <i>Sphenolithus conspicuus</i> <i>Sphenolithus editus</i> <i>Sphenolithus furcatolithoides</i> <i>Sphenolithus moriformis</i> <i>Sphenolithus obtusus</i> <i>Sphenolithus primus</i> <i>Sphenolithus radians</i> <i>Sphenolithus spiniger</i> <i>Thoracosphaera operculata</i> <i>Toweius emimens</i> <i>Toweius magnicrassus</i> <i>Toweius pertusus</i> <i>Tribrachiatius bramlettei</i> <i>Tribrachiatius contortus</i> <i>Tribrachiatius orthostylus</i> <i>Tribrachiatius</i> spp. <i>Zygirhablithus bijugatus</i> Reworked Cretaceous	Reworked paleocene
	Martini (1971)	Okada & Bukry (1980)								
middle Eocene	NP14	CP12a	4R-2, 102-103	742.82	V	M	Grayish green nannofossil chalk	R		
			4R-3, 122-123	744.52	V	M	Gray-green calcareous silty claystone	F		
			4R-4, 78-79	745.58	V	M	Gray-green calcareous silty claystone		R	
			4R-4, 126-127	746.06	A	P	Grayish green calcareous claystone	F	R	
			4R-5, 122-123	747.52	C	P	Gray-green calcareous silty claystone			
			4R-6, 90-91	748.70	A	M	Moderate brown claystone			
			4R-CC	749.23	A	P				
			5R-1, 35-36	750.25	C	M	Gray-green calcareous silty claystone			
			5R-1, 121-122	751.11	C	P	Moderate brown claystone			
			5R-2, 35-36	751.75	V	M	Light gray calcareous sandy siltstone			
early Eocene	NP13	CP11	5R-2, 121-122	752.61	C	M	Greenish gray sandy siltstone			
			5R-3, 36-37	753.26	B	B	Moderate brown claystone			
			5R-3, 122-123	754.12	A	M	Gray-green calcareous silty claystone			
			5R-4, 35-36	754.75	C	M	Gray-green calcareous silty claystone			
			5R-4, 121-122	755.61	A	M	Gray-green calcareous silty claystone			
			5R-5, 41-42	756.31	B	B	Moderate brown claystone			
			5R-6, 35-36	757.25	A	M	Gray-green calcareous silty claystone			
			5R-CC	757.71	F	P				
			6R-1, 29-30	759.89	F	P	Gray-green calcareous silty claystone			
			6R-1, 118-119	760.78	V	M	Greenish gray nannofossil chalk		R	
	NP12	CP10	6R-2, 39-40	761.49	V	M	Grayish green nannofossil chalk			
			6R-2, 122-123	762.32	C	M	Grayish green calcareous claystone			
			6R-3, 33-34	762.93	V	M	Grayish green nannofossil chalk			
			6R-3, 121-122	763.81	A	M	Grayish green calcareous claystone			
			6R-4, 42-43	764.52	B	B	Moderate brown claystone			
			6R-4, 120-121	765.30	B	B	Greenish gray claystone			
			6R-5, 38-39	765.98	B	B	Moderate brown claystone			
			6R-5, 122-123	766.82	A	M	Light green calcareous sandy siltstone			
			6R-6, 38-39	767.48	B	B	Grayish green calcareous claystone			
			6R-6, 123-124	768.33	A	M	Pale brown claystone			
	NP11	CP9b	6R-6, 148-149	768.58	A	M	Moderate brown claystone			
			6R-7, 38-39	768.98	C	M	Grayish green calcareous claystone			
			6R-CC, 17-19	769.47	A	G	Light green calcareous sandy siltstone			
			6R-CC, 23-25	769.53	A	P	Light gray calcareous sandy siltstone			
	NP10	CP9a	7R-1, 12-13	769.42	C	P	Moderate brown claystone		F	
			7R-1, 41-42	769.71	V	M	Moderate brown claystone		F	
			7R-1, 126-127	770.56	F	P	Moderate brown claystone			
			7R-2, 14-17	770.94	F	P	Greenish gray calcareous sandstone			
			7R-2, 49-52	771.29	V	M	Moderate yellowish brown claystone		F	
			7R-2, 60-63	771.40	C	P	Greenish gray calcareous sandstone			

Chapter 4, Table T3 (continued).

Age	Nannofossil zone/subzone		Core, section, interval (cm)	Depth (mbsf)	Abundance	Preservation	Lithology	<i>Birkelundia starion</i>	<i>Braarudosphaera bigelowii</i>	<i>Braarudosphaera discula</i>	<i>Campylosphaera dela</i>	<i>Chiasmolithus bidens</i>	<i>Chiasmolithus consuetus</i>	<i>Chiasmolithus expansus</i>	<i>Chiasmolithus grandis</i>	<i>Chiasmolithus modestus</i>	<i>Chiasmolithus solitus</i>	<i>Chiasmolithus</i> spp.	<i>Chiasmolithus titus</i>	<i>Coccolithus eopelagicus</i>	<i>Coccolithus formosus</i>	<i>Coccolithus gammation</i>	<i>Coccolithus pelagicus</i>	<i>Coronocyclus nitescens</i>	<i>Cruciplacolithus tenuis</i>	<i>Discoaster araneus</i>	<i>Discoaster barbadensis</i>	<i>Discoaster bifax</i>	<i>Discoaster binodosus</i>	<i>Discoaster cruciformis</i>	<i>Discoaster deflandrei</i>	<i>Discoaster diastypus</i>	<i>Discoaster distinctus</i>	<i>Discoaster elegans</i>	<i>Discoaster falcatus</i>	<i>Discoaster gemmifer</i>	<i>Discoaster germanicus</i>	<i>Discoaster kuepperi</i>	<i>Discoaster lenticularis</i>	<i>Discoaster limbatus</i>	<i>Discoaster lodoensis</i>	<i>Discoaster mahmoudii</i>																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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early Eocene	NP10	CP9a	7R-2, 95-98	771.75	V	M	Greenish gray calcareous sandy siltstone												R		R		A		R	F			R		R	F			F																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				</

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

Chapter 4, Table T3 (continued).

Age	Nannofossil zone/subzone		Core, section, interval (cm)	Depth (mbsf)	Abundance	Preservation	Lithology	<i>Discoaster martinii</i> <i>Discoaster mediosus</i> <i>Discoaster minimus</i> <i>Discoaster multiradiatus</i> <i>Discoaster munitus</i>	<i>Discoaster nonradiatus</i> <i>Discoaster robustus</i> <i>Discoaster saipanensis</i> <i>Discoaster salisburgensis</i> <i>Discoaster septemradiatus</i>	<i>Discoaster sp.</i> <i>Discoaster strictus</i> <i>Discoaster subloboensis</i> <i>Discoaster tani</i> <i>Discoaster wemmelsensis</i>	<i>Helicosphaera lophota</i> <i>Helicosphaera spp.</i> <i>Lanternithus minutus</i> <i>Markalius inversus</i> <i>Micrantholithus crenulatus</i>	<i>Nannotetrina cristata</i> <i>Nannotetrina spp.</i> <i>Neococcolithes dubius</i> <i>Neococcolithes protenus</i> <i>Pontosphaera multipora</i> <i>Pontosphaera pectinata</i>	<i>Pontosphaera plana</i> <i>Pseudotrileterorhabdulus inversus</i> <i>Reticulofenestra dictyoda</i> <i>Reticulofenestra samodurovii</i>	<i>Reticulofenestra spp.</i> <i>Reticulofenestra spp. (<4µm)</i> <i>Reticulofenestra umbilica</i> <i>Rhabdosphaera inflata</i> <i>Rhabdosphaera spp.</i>		
	Martini (1971)	Okada & Bukry (1980)														
early Eocene	NP10	CP9a	7R-2, 95-98	771.75	V	M	Greenish gray calcareous sandy siltstone			R						
			7R-2, 131-134	772.11	A	M	Greenish gray calcareous sandy siltstone				F					
			7R-3, 8-9	772.38	A	M	Greenish gray calcareous sandy siltstone			R	R					
			7R-3, 98-100	773.28	V	M	Greenish gray calcareous sandstone	R					R			
			7R-3, 123-124	773.53	A	P	Greenish gray calcareous sandstone	F				R				
			7R-4, 7-8	773.87	A	M	Moderate yellowish brown claystone	F			F					
			7R-4, 28-29	774.08	A	P	Moderate yellowish brown claystone	F	R		R					
			7R-4, 54-55	774.34	C	M	Moderate yellowish brown claystone									
			7R-5, 9-11	775.39	C	P	Greenish gray calcareous sandy siltstone	R		F						
			7R-5, 28-32	775.58	C	P	Greenish gray calcareous sandy siltstone		F	F						
			7R-5, 38-39	775.68	A	M	Light gray calcareous chalk	R	F	F						
			7R-5, 75-77	776.05	C	M	Light gray calcareous chalk		F	F						
			7R-CC, 10-11	776.36	A	M			A							
			7R-CC, 15-17	776.41	C	M			C							
			8R-1, 4-5	778.94	B	B	Moderate brown claystone									
			8R-1, 30-31	779.2	C	M	Light gray-green siltstone			C						
			8R-1, 133-134	780.23	B	B	Grayish green calcareous claystone									
			8R-2, 106-107	781.46	A	M	Light gray-green siltstone			C						
			8R-3, 7-8	781.97	A	M	Light gray-green siltstone			F						

Chapter 4, Table T3 (continued).

Age	Nannofossil zone/subzone		Core, section, interval (cm)	Depth (mbsf)	Abundance	Preservation	Lithology	<i>Rhabdosphaera tenuis</i> <i>Sphenolithus anarrhopus</i> <i>Sphenolithus conicus</i> <i>Sphenolithus conspicuus</i> <i>Sphenolithus editus</i> <i>Sphenolithus furcatolithoides</i> <i>Sphenolithus moriformis</i> <i>Sphenolithus obtusus</i> <i>Sphenolithus primus</i> <i>Sphenolithus radians</i> <i>Sphenolithus spiniger</i> <i>Thoracosphaera operculata</i> <i>Toweius emineus</i> <i>Toweius magnicrassus</i> <i>Toweius pertusus</i> <i>Tribrachiatius bramlettei</i> <i>Tribrachiatius contortus</i> <i>Tribrachiatius orthostylus</i> <i>Tribrachiatius</i> spp. <i>Zygrhalthus bijugatus</i> Reworked Cretaceous	<i>Rhabdosphaera tenuis</i> <i>Sphenolithus anarrhopus</i> <i>Sphenolithus conicus</i> <i>Sphenolithus conspicuus</i> <i>Sphenolithus editus</i> <i>Sphenolithus furcatolithoides</i> <i>Sphenolithus moriformis</i> <i>Sphenolithus obtusus</i> <i>Sphenolithus primus</i> <i>Sphenolithus radians</i> <i>Sphenolithus spiniger</i> <i>Thoracosphaera operculata</i> <i>Toweius emineus</i> <i>Toweius magnicrassus</i> <i>Toweius pertusus</i> <i>Tribrachiatius bramlettei</i> <i>Tribrachiatius contortus</i> <i>Tribrachiatius orthostylus</i> <i>Tribrachiatius</i> spp. <i>Zygrhalthus bijugatus</i> Reworked Cretaceous	Reworked paleocene											
	Martini (1971)	Okada & Bukry (1980)																			
early Eocene	NP10	CP9a	7R-2, 95-98	771.75	V	M	Greenish gray calcareous sandy siltstone		R	F	C	F	F	A	A	C	C	F	F		
			7R-2, 131-134	772.11	A	M	Greenish gray calcareous sandy siltstone				F		C		A		F	F			
			7R-3, 8-9	772.38	A	M	Greenish gray calcareous sandy siltstone		R	F			F		A		A	F			
			7R-3, 98-100	773.28	V	M	Greenish gray calcareous sandstone	F	F	F	C			R	R	A	A	A	F	C	
			7R-3, 123-124	773.53	A	P	Greenish gray calcareous sandstone			R	F					A		A	F	F	
			7R-4, 7-8	773.87	A	M	Moderate yellowish brown claystone	F			F	F				A		F	F	F	
			7R-4, 28-29	774.08	A	P	Moderate yellowish brown claystone	F			C		F			A		A	F	F	
			7R-4, 54-55	774.34	C	M	Moderate yellowish brown claystone				F					F		A	F	F	
			7R-5, 9-11	775.39	C	P	Greenish gray calcareous sandy siltstone				R							F	F	F	
			7R-5, 28-32	775.58	C	P	Greenish gray calcareous sandy siltstone						F		R		F	C	F	C	
			7R-5, 38-39	775.68	A	M	Light gray calcareous chalk	R			R			R	F			F	F	C	
			7R-5, 75-77	776.05	C	M	Light gray calcareous chalk				R				F	C	C	F	F	C	
			7R-CC, 10-11	776.36	A	M							F	F	F			F	F	C	
			7R-CC, 15-17	776.41	C	M								F	R				F	F	
			8R-1, 4-5	778.94	B	B	Moderate brown claystone														
			8R-1, 30-31	779.2	C	M	Light gray-green siltstone							R	F				F	R	F
			8R-1, 133-134	780.23	B	B	Grayish green calcareous claystone														
			8R-2, 106-107	781.46	A	M	Light gray-green siltstone						F	C							F
			8R-3, 7-8	781.97	A	M	Light gray-green siltstone				R		C	A				R	F	F	