Supplementary Materials

1. Dinocyst Taxonomical section

1.1 Apectodinium

Although some specimens of *Apectodinium hyperacanthum* could be interpreted as intermediates between *A. augustum* and *A. hyperacantum*, we have not recorded *A. augustum sensu stricto*. According to Beard and Dawson (2001), L.E. Edwards of the USGS wrote to S.L. Ingram on February 16, 1993, that *A. augustum* is present in the T4 sand at the Red Hot Truck Stop. Considering that the Red Hot Truck Stop is located only 10 km from the Harrell site, it is unlikely that *A. augustum* is present at one site but not at the other. Therefore, we consider it possible, perhaps likely, that this difference arises from differences in the taxonomical treatments of intermediates between *A. augustum* and *A. hyperacanthum*.

We recorded many specimens of *Apectodinium* that only differed from the above species by having aculeate process tips, reminding of *Wetzeliella astra* (Plate A). For specific morphotypes, this feature was used to define the species *Apectodinium cornufruticosum* (Islam, 1983). We have seen this feature in all of the reported *Apectodinium* species at Harrell suggesting it represent phenotypic plasticity rather than a species-specific feature.

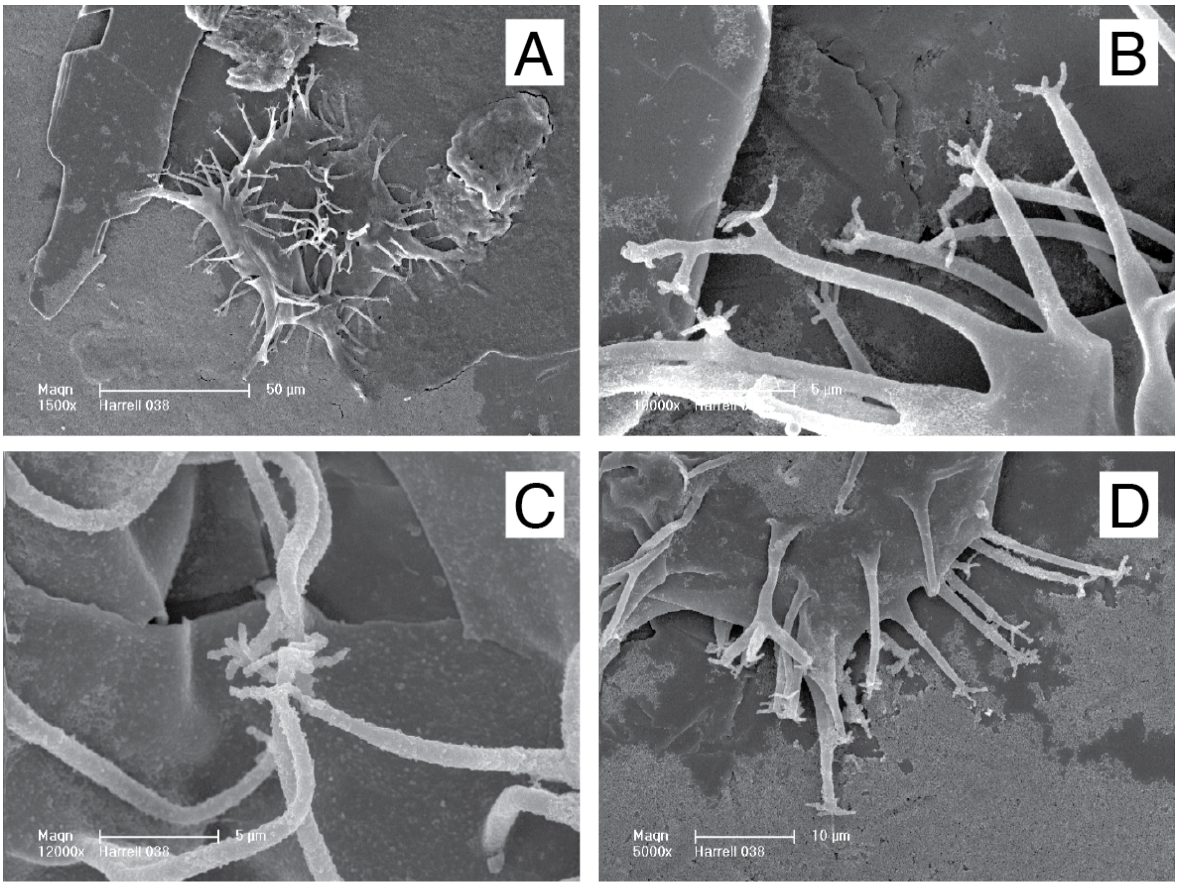

Plate A. Scanning electron microscope photos of *Apectodinium* specimens showing aculeate process tips. All specimens are from sample 141.21 mbs. A-B. *A. quinquelatum*, C-D *A. hyperacanthum*.

1.2 Encountered dinocyst species

We follow taxonomic concepts of Fensome and Williams (2004) unless stated otherwise.

Achomosphaera spp.
Adnatosphaeridium spp.
Apectodinium homomorphum
Apectodinium hyperacanthum
Apectodinium quinquelatum
Apectodinium parvum
Apectodinium spp. (pars).
Areoligera coronata
Areoligera spp. (pars.)
Cerebrocysta spp.
Cleistospheridium spp.
Cordosphaeridium fibrospinosum cpx. *sensu* Sluijs and Brinkhuis (2009)
Cribroperidinium spp
Deflandrea spp.
Dinogymnium spp.
Diphyes colligerum
Eocladopyxis peniculata
Eocladopyxis spp. (pars.)
Fibrocysta spp.
Florentinia reichartii Sluijs and Brinkhuis (2009)
Glaphyrocysta spp.
Hystrichosphaeridium tubiferum
Hystrichokolpoma spp
Kenleyia spp.
Lanternosphaeridium lanosum
Membranosphaera spp.
Muratodinium fimbriatum
Operculodinium israelianum
Operculodinium severinii
Operculodinium spp. (pars.)
Paleotetradinium spp.
Phthanoperidinium spp.
Polysphaeridium spp.
Pyxidinopsis spp.
Senegalinium spp.
Senegalinium cpx. *sensu* Sluijs and Brinkhuis (2009)
Spinidinium densispinatum
Spiniferites spp.
Spiniferites cpx. *sensu* Sluijs and Brinkhuis (2009)

2. Nature and source of data supporting Figure 4

Site numbers in Figure 4 correspond to the site numbers in the below table. The table provides information on the types of data used from the literature (references provided) to suggest deoxygenation of the sea floor and water column at the various sites. Moreover, it provides references to the papers that have presented quantitative information on sea surface and continental warming, sediment supply, sea level and atmospheric nitrogen fixation.

Nature and Source of Data in Figure 4

nr (Fig 1)	Site	Paleo waterdepth (m)	sea floor deoxygenation evidence	photic zone euxinia	deoxygenation reference	Warming sea surface	Warming continent	Sea Level Rise	Sediment Supply	N2
1	**Wilson Lake, New Jersey Shelf**	shelf	magnetotactic bacterial grains		Lippert and Zachos 2007	Zachos et al. 2006		Sluijs et al. 2008	John et al. 2008	
			Benthic Foraminifers		Stassen et al. 2012					
2	**Ancora, New Jersey Shelf**	shelf	magnetotactic bacterial grains		Kopp et al. 2007			Harris et al. 2010	Kopp et al. 2009	
			Benthic Foraminifers		Stassen et al. 2012 (ref 70)					
3	**Bass River, New Jersey Shelf**	shelf	Benthic Foraminifers		Stassen et al. 2012 (ref. 70)	Cramer et al. 1999		Sluijs et al. 2008	John et al. 2008	
			microlaminations		Sluijs Pers. Obs.	Sluijs et al. 2007		Harris et al. 2010	John et al. 2008	
4	**Harrell, Gulf Coastal Plain**	shelf		isorenieratane	this paper	this paper	this paper	this paper		
5	**Lodo Gulch, California**	shelf							John et al. 2008	
6	**Tumey Gulch, California**	shelf-slope							John et al. 2008	
7	**Bighorn Basin, Wyoming**	continental					Fricke and Wing, 2004			
							Wing et al. 2005			
8	**IODP Site M0004, Lomonosov Ridge, Arctic Ocean**	shelf	trace metal enrichments		Sluijs et al. 2008	Sluijs et al. 2006	Weijers et al. 2007	Sluijs et al. 2006	Sluijs et al. 2008	Knies et al. 2008
				isorenieratane	Sluijs et al. 2006					
			C/S ratios		Stein et al. 2006					
			laminations		Sluijs et al. 2006					
			Pyrite		Expedition 302 Scientists, 2006					
			Mo isotopes		Dickson et al. 2012					
9	**Longyearbyen, Spitsbergen**	shelf	laminations		Harding et al. 2011			Harding et al. 2011	Harding et al. 2011	
			pyrite		Harding et al. 2011					
10	**BH9-05, Spitsbergen**	shelf	laminations		Cui et al. 2011					
			pyrite		Cui et al. 2011					
11	**Central Basin, North Sea**	shelf	laminations		Sluijs Pers. Obs					
12	**Denmark, North Sea**	shelf		isorenieratane	Schoon 2013					
13	**Woensdrecht, North Sea**	shelf						Sluijs et al. 2008		
14	**Doel/Kallo, North Sea**	shelf						Sluijs et al. 2008		
15	**Zumaia, Spain**	slope/rise							Schmitz et al. 2003	
16	**Ermua, Spain**	slope							Schmitz et al. 2003	
17	**Caravaca, Spain**	slope 200-600	laminations		Canudo et al. 1995					
18	**Alamedilla, Spain**	slope/rise								
19	**Forada, Italy**	rise/deep							Giusberti et al. 2007	
20	**Dyuba Section, Russia**	epicontinental shelf						Aleksandrova and Radionova, 2006		
21	**Sokolovski Quarry, Turgay Straight, Russia**	epicontinental shelf						Iakovleva et al. 2001		
22	**Medani, Georgia**	epicontinental shelf	trace metal enrichments		Gavrilov et al. 1997; 2003			Gavrilov et al. 2003		
23	**Kheu River, Central Caucasus**	epicontinental shelf	trace metal enrichments		Gavrilov et al. 1997; 2003			Gavrilov et al. 2003		
24	**Kaurtakapy, Khazakstan**	epicontinental shelf	Pyrite		Gavrilov et al. 1997; 2003			Gavrilov et al. 2003		
25	**Aktumsuk, Uzbekistan**	epicontinental shelf	trace metal enrichments		Gavrilov et al. 1997; 2003			Bolle et al. 2000		
			Pyrite		Bolle et al. 2000			Gavrilov et al. 2003		
			Lycopane		Bolle et al. 2000					
			laminations		Gavrilov et al. 2003					
26	**Torangly, Turkmenistan**	epicontinental shelf	trace metal enrichments		Gavrilov et al. 1997; 2003			Gavrilov et al. 2003		
27	**Kurpai / Guru Fatima, Tadjik depression**	epicontinental shelf	trace metal enrichments		Gavrilov et al. 1997; 2003			Gavrilov et al. 2003		
				biomarkers of *Chlorobium'*	Gavrilov et al. 2003 *op.cit.* Kodina et al. 1995*					
28	**Sidi Nasseur / Wadi Mezaz, Tunisia**	shelf	Benthic Foraminifers		Stassen et al. 2012 (ref 69)					
29	**Gebel Awaina, Egypt**	shelf	Benthic Foraminifers		Speijer and Wagner 2003					
			laminations		Speijer and Schmitz 1998					
30	**Dababiya, Egypt**	shelf	trace metal enrichments		Schulte et al. 2011					
			Benthic Foraminifers		Ernst et al. 2006					
			laminations		Dupuis et al. 2003					
			pyrite		Dupuis et al. 2003					
31	**Gebel Duwi, Egypt**	shelf	Benthic Foraminifers		Speijer and Wagner 2003					
32	**Gebel Nezzi, Egypt**	shelf	Benthic Foraminifers		Speijer and Wagner 2003					
33	**Gebel Qreiya, Egypt**	shelf	Benthic Foraminifers		Speijer and Wagner 2003					
			trace metal enrichments		Knox et al. 2003; Soliman 2003					
			laminations, pyrite		Knox et al. 2003; Soliman 2003					
34	**Wadi Nukhl, Egypt**	shelf	Benthic Foraminifers		Speijer and Wagner 2003					
35	**Ben Gurion, Israel**	shelf	Benthic Foraminifers		Speijer and Wagner 2003					
36	**Mead Stream, New Zealand**	slope 100-1000	laminations/minimum bioturbation		Nicolo et al. 2010				Hollis et al. 2005	
37	**Dee Stream, New Zealand**	slope 100-1000	laminations/minimum bioturbation		Nicolo et al. 2010				Hollis et al. 2005	
38	**Muzzle Stream, New Zealand**	slope 100-1000							Hollis et al. 2005	
39	**Tawanui, New Zealand**	slope	Benthic Foraminifers		Kaiho et al. 1996			Crouch and Brinkhuis 2005		
								Sluijs et al. 2011		
40	**Kumara, New Zealand**	shelf						Sluijs et al. 2011		
41	**East Tasman Plateau**	shelf				Sluijs et al. 2011		Sluijs et al. 2011		
42	**ODP Site 1209, Shatsky Rise; Central Pacific**	deep 2000	Pyrite		Colosimo et al. 2005	Zachos et al. 2003				
			Benthic Foraminifers		Kaiho et al. 2006					
43	**ODP Site 1210, Shatsky Rise; Central Pacific**	deep 2200	Pyrite		Colosimo et al. 2005					
			Benthic Foraminifers		Kaiho et al. 2006					
44	**ODP Site 1212, Shatsky Rise; Central Pacific**	deep 2300	Pyrite		Colosimo et al. 2005					
45	**ODP Site 1211, Shatsky Rise; Central Pacific**	deep 2500	Pyrite		Colosimo et al. 2005					
46	**ODP Site 865, Central Pacific**	deep 1100-1300	Benthic Foraminifers		Thomas 1998	Kozdon et al. 2011				
47	**ODP Site 1220, Central Pacific**	deep 3200	laminations		Shipboard Scientific Party 2002					
48	**ODP Site 999, Carribean**	deep 1500-2500	laminations		Bralower et al. 1997					
49	**ODP Site 1001, Carribean**	deep 1500-2500	laminations / absence of bioturbation		Bralower et al. 1997					
50	**ODP Site 1260, Demerara Rise**	deep 2500?	laminations		Shipboard Scientific Party 2002					
51	**ODP Site 1262, Walvis Ridge**	deep 3600	Mn reduction		Chun et al. 2010					
52	**DSDP Site 527, Walvis Ridge**	deep 3100				Thomas et al. 1999				
53	**ODP Site 1266, Walvis Ridge**	deep 2600	Mn reduction		Chun et al. 2010					
54	**ODP Site 1263, Walvis Ridge**	deep 1500	U enrichment; Mg reduction		Chun et al. 2010					
55	**ODP Site 689**	deep 1100	Benthic Foraminifers		Thomas and Shackleton 1996; Thomas 1998	Zachos et al. 2007				
56	**ODP Site 690**	deep 1800	Benthic Foraminifers		Thomas and Shackleton 1996; Thomas 1998	Kennett and Stott. 1991				
			laminations / absence of bioturbation		Kennett and Stott 1991	Thomas et al. 2002				
	* Data not published in peer-reviewed literature									

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Calcareous nannofossil results

Nannofossil results across the Paleocene-Eocene transition in the Harrell Core. Samples were only productive for the samples taken from the Bashi fossiliferous beds.
Note that sample depths within the Bashi were extrapolated due to core recovery problems (in reds).

Sample Code	Harrell Box	Formation	feet	inches	meters	epoch	Nannofossil Abundance	*Braarudosphaera bigelowii*	*Chiasmolithus solitus*	*Coccolithus pelagicus*	*Discoaster multiradiatus*	*Fasciculithus spp.*	*Micrantholithus entaster*	*Neochiastozygus distentus*	*Neochiastozygus junctus*	*Pontosphaera spp.*	*Prinsius martinii*	*Prinsius spp.*	*Sphenolithus primus*	*Toweius crassus*	*Toweius eminens*	*Toweius pertusus*	*Toweius rotundus*	*Transversopontis pulcheroides*	*Transversopontis spp.*	*Zygolithus bramlettei*	*Zygrhablithus bijugatus*	remarks
H33	27	B	372	-22.5	112.81	eoc	Barren																					Bashi marine fossiliferous bed
H32	27	B	372	-15	113.00	eoc	Rare				x		x				x		x	x		x	x	x	x	x		Bashi marine fossiliferous bed
H31	27	B	372	-7.5	113.20	eoc	Rare		x	x	x			x	x	x	x		x	x	x		x	x		x	x	Bashi marine fossiliferous bed
H30	27	B	372		113.39	eoc	Rare	x		x	x	x	x	x				x		x			x			x	x	Bashi marine fossiliferous bed
H29	28	B	378	7	115.39	eoc	Barren																					Tuscahoma Fm
H28	28	B	379	5.5	115.66	pal	Barren																					Tuscahoma Fm
H27	28	B	380	11.5	116.12	pal	Barren																					Tuscahoma Fm
H26	28	B	384	5	117.17	pal	Barren																					Tuscahoma Fm
H25	29	B	386	0	117.65	pal	Barren																					Tuscahoma Fm
H24	29	B	386	6	117.81	pal	Barren																					Tuscahoma Fm
H23	29	B	387	8	118.16	pal	Barren																					Tuscahoma Fm
H22	29	B	389	1	118.59	pal	Barren																					Tuscahoma Fm
H21	29	T	390	1	118.90	pal	Barren																					Tuscahoma Fm
H20	29	T	392	3	119.56	pal	Barren																					Tuscahoma Fm
H19	29	T	393	2	119.84	pal	Barren																					Tuscahoma Fm
H18	29	T	394	7	120.27	pal	Barren																					Tuscahoma Fm
H17	29	T	395	8	120.60	pal	Barren																					Tuscahoma Fm
H16	30	T	397	10	121.26	pal	Barren																					Tuscahoma Fm
H15	30	T	398	9	121.54	pal	Barren																					Tuscahoma Fm
H14	30	T	400	10	122.17	pal	Barren																					Tuscahoma Fm
H13	30	T	403	0	122.83	pal	Barren																					Tuscahoma Fm
H12	31	T	404	5	123.27	pal	Barren																					Tuscahoma Fm
H11	31	T	405	6	123.60	pal	Barren																					Tuscahoma Fm
H10	31	T	406	7	123.93	pal	Barren																					Tuscahoma Fm
H9	31	T	407	8	124.26	pal	Barren																					Tuscahoma Fm
H8	31	T	408	9	124.59	pal	Barren																					Tuscahoma Fm
H7	31	T	410	9	125.20	pal	Barren																					Tuscahoma Fm
H6	31	T	412	5	125.70	pal	Barren																					Tuscahoma Fm
H5	32	T	414	6	126.34	pal	Barren																					Tuscahoma Fm
H4	32	T	416	5	126.92	pal	Barren																					Tuscahoma Fm
H3	32	T	418	6	127.56	pal	Barren																					Tuscahoma Fm
H2	32	T	420	5	128.14	pal	Barren																					Tuscahoma Fm
H1	32	T	421	10	128.57	pal	Barren																					Tuscahoma Fm

General palynology and dinocyst results

nq = non quantifiable

num = numerous

p = present

Percentages of dinoflagelallate cysts are calculated relative to the total dinocyst count

Percentages of terrestrial palynomorphs are calculated relative to the total palynological counts

code	mbs	epoch	dinocysts per gram	*n Apectodinium* spp.	*n Areoligera* cpx *sensu* Sluijs and Brinkhuis 2009	*n Diphyes* spp.	*n Goniodomidae*	*n Spiniferites cpx. sensu* Sluijs and Brinkhuis, 2009	*n Senegalinium* cpx. sensu Sluijs and Brinkhuis, 2009	*n Cordosphaeridium* cpx. *sensu* Sluijs and Brinkhuis, 2009	*n Operculodinium* spp.	*n* terrestrial palmorphs	*n Pediastum* spp.	*n* foraminifer lining		% *Apectodinium* spp.	% *n Areoligera* cpx *sensu* Sluijs and Brinkhuis 2009	% *Diphyes* spp.	% *Goniodomidae*	% *Spiniferites* cpx. *sensu* Sluijs and Brinkhuis, 2009	% *Senegalinium* cpx. sensu Sluijs and Brinkhuis, 2009	% *Cordosphaeridium* cpx. *sensu* Sluijs and Brinkhuis, 2009	% *Operculodinium* spp.	% rest	% dinocysts	% terrestrial palynomorphs	% other
HC095	117.55	eoc	3262	126	20	3	1	5	3	29	11	302		2		63	10	2	1	3	2	15	6	1	39	59	3
HC085	118.57	eoc	nq	9	1	0	0	1	0	2	0	0		r		69	8	0	0	8	0	15	0	0	nq	nq	nq
HC076	119.48	eoc	7633	126	13	24	0	18	8	9	0	95		8		62	6	12	0	9	4	4	0	3	66	31	4
HC064	120.09	eoc	24855	204	36	3	0	1	2	11	0	22		2		78	14	1	0	0	1	4	0	2	91	8	1
HC056	120.50	eoc	335	23	0	0	0	3	0	2	0	73		5		82	0	0	0	11	0	7	0	0	26	68	6
HC048	120.90	eoc	19826	175	16	45	0	8	1	2	0	28				69	6	18	0	3	0	1	0	2	90	10	0
HC042	121.21	eoc	41945	176	20	20	0	7	0	0	0	24				77	9	9	0	3	0	0	0	2	90	9	1
HC038	121.41	eoc	33778	186	13	38	0	7	0	0	1	24		2		76	5	16	0	3	0	0	0	0	90	9	1
HC034	121.62	eoc	53223	202	22	15	0	12	7	6	2	24		2		74	8	5	0	4	3	2	1	3	91	8	1
HC030	121.82	eoc	19667	231	10	13	1	2	2	10	2	39		4		84	4	5	0	1	1	4	1	1	85	12	3
HC029	121.87	eoc	4093	172	7	9	0	12	1	2	1	488	2			84	3	4	0	6	0	1	0	0	21	78	1
HC028	121.92	pal	470	8	1	0	1	2	3	6	0	518				33	4	0	4	8	13	25	0	13	2	97	1
HC026	122.02	pal	300	6	2	0	0	2	0	8	0	348	2			30	10	0	0	10	0	40	0	10	2	96	1
HC024	122.12	pal	nq	1	1	0	1	1	1	5	4	num	1			6	6	0	6	6	6	29	24	18	<2	>98	nq
HC022	122.22	pal	nq	16	9	0	2	2	13	4	2	num	1	p		29	16	0	4	4	23	7	4	14	<2	>98	nq
HC020	122.33	pal	nq	6	3	0	1	0	11	2	4	num	5			21	10	0	3	0	38	7	14	7	<2	>98	nq
HC018	122.43	pal	nq	3	1	1	0	1	1	2	2	num	1			27	9	9	0	9	9	18	18	0	<2	>98	nq
HC016	122.53	pal	nq	8	0	0	0	1	5	5	2	num		p		32	0	0	0	4	20	20	8	16	<2	>98	nq
HC014	122.73	pal	nq	10	1	0	0	3	5	1	3	num		p		34	3	0	0	10	17	3	10	21	<2	>98	nq
HC010	123.14	pal	304	3	0	0	1	1	7	2	1	1002		2		18	0	0	6	6	41	12	6	12	2	98	0
HC001	124.05	pal	321	3	0	0	0	0	2	3	1	465	1			30	0	0	0	0	20	30	10	10	2	97	0
SUM of pre-CIE assemblages				*64*	*18*	*1*	*6*	*13*	*48*	*38*	*19*					*27*	*8*	*0*	*3*	*5*	*20*	*16*	*8*	*13*			

Pollen and spore occurrence in the upper Tuscahoma Fm. Taxa occurrences are plotted in rows against sample meter levels. Numbers indicate counted specimens. Note that for both Caryapollenites and Momipites the individual form-species are presented and the sum of all these form-species is also presented in a seperate row.

Taxa \ Meter levels	170.74	166.80	164.44	163.83	162.97	162.61	161.39	161.09	158.95	158.34	157.81	157.05	156.51	155.91	155.30	154.69	154.08	153.47	152.86	152.55	152.25	151.94	151.59	151.33	149.28	148.46	148.29	147.96	145.54	145.24	144.93	144.63	143.41	143.18	142.85	142.14	141.88	141.48	141.12	140.54	139.52	138.43	137.80	137.67	137.24	136.70	135.41	135.18	134.85	134.57	133.35	133.05	132.74	132.41	132.03	131.52	131.22	129.69	129.31	128.93	128.68	128.47	128.17	127.86	127.58	127.25	126.95	126.64	126.34	126.03	125.43	124.82	124.21	123.60	122.99	122.38	121.97	121.72	121.62	121.39	120.29	119.86	119.18	118.72	118.69
Spores																																																																																							
Aneamia	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Baculate spore (monolet)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Baculatisporites primarius	0	4	3	1	4	2	2	1	1	6	2	1	0	3	2	1	1	4	7	0	5	3	2	3	2	1	3	1	5	1	2	2	3	3	1	5	9	5	2	3	4	2	4	4	8	3	1	6	4	5	1	4	7	5	4	2	4	2	1	3	3	3	1	6	0	0	1	3	0	2	1	4	0	2	2	2	0	1	1	0	1	0	0	0	0
Camarozonosporites sp.	2	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	1	2	2	0	2	0	2	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	1	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cicatricosisporites dorogensis	2	10	3	8	16	7	8	7	11	7	6	8	5	6	6	7	6	11	10	7	7	12	8	5	10	11	8	0	30	11	4	7	8	9	8	7	12	6	15	5	9	4	10	11	12	7	11	9	13	3	28	20	20	27	19	29	13	22	22	28	24	24	17	19	15	11	17	14	9	15	14	20	15	12	8	19	4	0	1	0	1	1	0	3	0
Cicatricosisporites sp 1	0	1	0	1	0	0	2	1	0	0	1	1	1	1	1	1	0	0	2	0	0	0	0	0	1	3	1	0	2	0	1	2	0	0	6	0	1	1	4	1	0	2	1	1	0	1	0	1	0	1	1	0	1	1	3	0	2	6	0	0	1	2	1	1	0	2	0	0	0	5	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Cicatricosisporites sp.	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cingulatisporites	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deltoidaspora spp. Undiff.	17	22	34	35	38	31	40	42	40	25	28	30	25	33	26	18	33	26	43	27	18	48	12	39	34	47	15	57	56	13	76	73	37	29	17	41	42	42	37	51	29	26	32	32	45	28	14	29	34	48	52	38	55	20	42	57	27	26	40	43	55	55	46	49	23	61	37	32	31	25	24	37	23	36	31	37	9	33	16	13	11	8	2	32	9
Gleichenidites sp.	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Granulatisporites luteticus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1	2	2	2	0	1	1	0	0	0	1	4	1	0	1	0	0	0
Granulatisporites? Sp.	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	3	3	0	0	0	0	0	1	0	1	1	0	0	1	0	0	1	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Laevigatosporites haardtii	54	33	40	56	45	33	51	34	48	25	55	30	30	40	48	21	42	26	34	37	31	51	21	53	61	62	53	141	33	37	59	58	40	50	38	31	50	47	36	55	45	44	29	45	65	50	19	35	43	46	51	32	47	37	64	43	53	55	62	59	72	56	56	41	35	53	46	51	49	28	50	50	24	48	38	35	10	6	12	15	7	4	8	15	9
Lycopodium? Sp.	0	0	2	1	1	0	1	1	0	0	0	0	0	1	1	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Microfoveolatosporis pseudodentatus	0	1	0	0	0	0	0	1	1	0	1	2	0	1	1	0	2	0	0	1	3	0	1	0	0	3	1	2	5	0	1	2	1	0	1	0	0	1	2	0	0	0	3	0	1	1	0	0	2	0	1	0	2	1	0	1	0	1	0	0	1	7	2	3	2	2	1	0	1	0	1	0	0	0	0	0	2	1	0	0	0	0	0	0	0
Polypodium spp	0	0	1	0	1	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	2	0	0	0	0	1	2	0	0	0	1	0	0	0	1	0	2	0	1	2	3	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Punctatisporites sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
Punctatosporites sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reticuloidospora	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	5	1	0	0	0	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Stereisporites distgranisporis	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
Stereisporites stereiodes	3	3	0	3	2	0	0	1	0	1	0	1	1	0	0	1	0	0	2	0	0	0	0	0	0	0	0	1	2	0	0	0	0	3	3	0	0	2	2	1	0	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	1	1	0	1	0	1	0	0	0	3	0	0	0	1	0	1	0	0	1	0	1	1	1	0	0	0	1	0
Zlivosporis	0	0	0	0	1	1	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0	2	0	0	0	0	1	2	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Monocot pollen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Arecipites spp.	1	0	0	0	1	0	0	0	0	0	2	1	10	2	0	1	1	2	0	1	1	1	3	1	2	0	1	0	1	0	1	2	0	1	1	4	0	2	3	2	3	1	0	0	0	5	0	1	1	3	1	0	0	2	1	1	2	0	0	0	1	0	0	0	0	1	1	0	0	2	4	0	0	1	0	1	2	14	32	10	14	4	48	25	38
Calamuspollenites eocenicus	0	1	0	0	3	0	1	0	1	0	1	1	0	0	1	2	2	2	0	1	0	1	0	0	2	0	0	2	0	1	3	1	2	0	1	2	2	1	4	1	1	4	1	1	0	4	1	1	0	2	2	3	1	0	2	0	3	0	0	1	0	0	1	2	0	5	1	0	2	0	0	1	3	0	1	0	1	0	0	8	15	13	17	12	20
Confertisulcites?	1	1	2	1	1	0	0	2	1	1	0	0	0	1	0	0	2	0	1	0	0	1	0	0	1	0	1	0	1	0	0	1	0	0	4	0	1	0	0	0	0	0	0	0	0	0	0	0	2	1	1	0	0	2	1	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	1	0
Liliacidites spp.	2	0	1	0	2	1	2	0	0	0	1	0	1	0	0	2	0	0	1	0	1	1	0	0	3	0	0	0	1	1	5	4	2	1	2	2	1	0	1	1	0	1	1	1	2	1	3	3	1	0	2	3	5	4	2	5	4	2	3	1	2	2	0	0	0	0	2	4	0	0	2	0	0	1	2	0	0	0	0	0	0	0	0	0	0
Longapertites spp.	0	2	4	0	2	0	0	2	3	0	1	2	2	0	1	0	2	1	6	4	0	4	0	3	2	0	0	0	0	1	0	0	0	1	0	2	1	0	2	3	0	0	1	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	2	0	0	0	0	0	0	1	2	0	4	2	0	0	2
Milfordia minima	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	1	0	1	1	0	0	0	0	2	2	0	6	1	0	8	0
Milfordia sp. (big)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	10	1	2	3	0	1
Monocolpopollenites tranquillus	1	0	0	0	0	0	1	0	1	0	0	1	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	4	1	3	1	0	3	4
Proxapertites magnus	0	4	1	1	3	0	1	2	1	2	2	0	0	0	1	1	3	2	3	0	2	0	1	1	0	1	0	0	0	4	0	1	1	0	0	4	1	0	2	2	1	0	0	0	0	1	0	4	1	1	3	2	2	0	4	3	0	3	2	0	0	1	0	0	0	0	0	0	3	2	0	0	0	0	0	3	4	1	3	1	0	1	0	0	0
Proxapertites operculatus	0	0	0	1	3	0	0	1	0	1	3	0	0	0	1	0	2	0	1	1	1	0	2	0	0	0	0	0	0	0	0	1	0	1	2	0	0	0	0	0	0	1	0	1	1	0	0	1	0	0	2	1	0	1	1	1	1	0	0	1	0	0	1	0	0	1	1	0	1	0	0	0	1	0	0	1	0	1	1	0	2	5	6	3	4
Proxapertites psilatus	0	3	1	3	1	0	2	0	1	3	2	0	1	1	0	0	4	2	1	0	1	0	2	4	0	0	0	0	0	4	1	4	2	2	0	1	2	0	2	1	0	2	0	1	0	1	3	0	0	1	0	0	2	1	0	0	2	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	2	0	0	1	1	3	3	3	0	0	0	1
Proxapertites spp.	0	2	2	0	3	0	2	4	4	2	4	1	2	1	0	3	0	1	3	2	1	0	2	0	2	1	0	0	0	0	1	0	0	4	0	0	2	1	0	0	0	0	0	1	1	3	2	0	2	1	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	5	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0
Psilodiporites iszaskentgyorgyi	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
Sparganiaceae sp. A	1	1	1	0	0	0	0	1	0	0	0	3	2	1	0	0	0	0	1	2	0	1	1	0	0	0	1	0	2	0	8	5	3	4	0	1	0	0	0	0	1	4	0	0	1	0	0	0	3	0	0	0	0	0	0	0	0	1	0	0	0	1	1	3	0	0	1	2	1	1	0	0	1	0	0	1	2	4	3	4	6	0	3	4	11
Gymnosperms	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cycadopites follicularis	2	13	7	11	10	3	9	6	9	10	7	5	7	9	1	12	9	10	3	2	7	1	11	4	4	2	5	13	3	18	10	8	10	2	7	8	7	0	4	6	1	6	11	8	13	7	13	13	6	4	7	10	3	13	10	2	2	6	5	3	5	10	8	7	8	14	8	9	6	6	6	7	3	2	4	0	3	3	1	0	0	0	0	4	0
Bisaccate pollen (undiff.)	19	39	35	23	47	50	29	36	40	70	37	30	56	32	50	66	39	43	32	51	49	53	40	31	13	19	8	2	9	0	5	10	49	21	27	31	32	26	13	28	35	32	40	17	20	29	13	43	11	21	39	31	21	13	10	28	7	13	18	38	18	18	14	32	11	17	37	22	40	18	14	25	17	16	19	21	12	1	0	0	0	0	0	2	0
Taxodiaceae pollen (TCP undiff.)	57	52	51	24	55	55	68	68	70	69	42	78	82	71	56	73	65	75	62	97	68	43	75	51	24	21	13	3	23	24	35	20	69	59	44	64	45	54	68	39	43	59	91	70	60	51	79	42	71	50	23	41	30	53	34	22	61	34	37	16	28	26	17	20	16	33	27	30	70	41	56	49	27	48	68	65	115	25	9	31	22	12	14	13	13
Angiosperms	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aesculiidites circumstriatus	0	0	1	0	0	0	0	0	0	0	1	5	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5	0	1	11	3	1	0	1	0	0	0	0	0	0	0	0	0	1	1	0	2	0	0	1	0	2	1	0	2	0	1	3	0	2	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	6	2	1	6	4	0	0	0	0
Ailanthipites berryi	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6	3	0	0	2	0	2
Ailanthipites sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	24	0	7	1	1	0	9
Alnipollenites spp	0	0	1	1	0	0	1	0	0	0	1	1	1	2	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	1	0	1	1	1	0	2	0	0	0	0	0	0	0	0	0	1	1	0	2	0	0	1	0	2	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	1
Araliaceaipollenites megaporifera	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Araliaceaipollenites profundus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Araliaceaipollenites spp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0
Basopollis obscurocostatus	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0
Betulaceae/Myricaceae types	167	218	108	154	148	137	112	93	104	105	145	111	101	124	128	127	121	95	141	109	108	116	143	167	230	210	257	180	184	227	224	243	103	84	130	103	109	88	95	130	94	93	87	72	109	80	102	90	100	104	91	89	105	130	78	97	96	107	111	93	113	109	542	296	350	205	400	158	160	283	254	137	298	223	171	228	88	40	30	35	24	19	17	103	18
Boehlensipollis minimus	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bombacadites reticulatus	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bombacadites spp. Undiff	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bombax nacimentoensis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0
Bombax paulus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	4	3	2	8	2	12
Brosipollis spp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	0	0	3	2	1
Caprifoliipites incertigrandis	0	1	2	0	2	0	0	0	0	2	2	0	1	0	2	0	1	0	2	1	1	1	0	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0	0	0	0	1	0	0	0	0	1	0	1	0	1	1	1	0	0	0	0	1	1	1	1	0	2	0	2	0	0	0	0	0	0	0	0	0	0
Caprifoliipites sp. (clavate)	0	0	0	0	0	2	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Caprifoliipites sp. (small <10 μm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Caprifoliipites spp. Undiff.	2	1	1	1	1	1	1	0	0	1	2	0	0	0	0	0	1	1	1	0	0	1	1	0	1	1	0	0	0	1	0	0	1	1	1	0	0	0	1	0	0	2	0	0	1	1	0	1	0	0	0	3	0	0	1	0	1	0	1	1	1	0	1	0	0	2	0	0	0	0	1	0	3	0	1	0	1	2	4	1	0	1	5	1	0
Caprifoliipites tantulus	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Caryapollenites (big)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Caryapollenites all spp. (summed)	4	13	10	4	12	19	17	7	14	14	21	18	17	16	20	20	21	23	18	23	20	17	13	3	8	7	6	0	0	0	0	3	12	11	19	9	13	12	13	13	18	22	9	20	16	11	42	11	24	14	8	8	6	11	4	6	4	9	6	2	6	3	7	4	10	7	6	7	4	8	6	6	7	7	4	11	13	2	1	2	0	1	0	2	2
Caryapollenites imparalis	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Caryapollenites spp. Undiff.	1	9	4	0	4	4	7	3	3	4	4	10	3	3	11	8	10	12	9	7	3	7	0	1	3	0	0	0	0	0	0	3	4	5	12	3	6	1	9	6	5	11	1	10	10	5	8	4	12	2	6	4	4	4	1	3	1	4	1	1	5	1	3	1	4	5	2	4	1	0	2	3	2	4	3	7	13	2	1	2	0	1	0	1	2
Caryapollenites veripites	3	3	6	4	7	14	8	3	8	9	16	7	11	13	7	11	9	11	8	14	15	10	11	2	4	7	6	0	0	0	0	0	6	6	7	5	6	10	4	6	12	11	8	9	6	5	30	7	12	11	2	4	1	7	3	3	3	3	5	1	1	2	4	3	6	2	4	1	3	7	2	2	5	1	0	4	0	0	0	0	0	0	0	1	0
Caryapollenites wodehousei	0	1	0	0	1	0	2	1	3	1	1	1	3	0	2	1	2	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	1	1	1	0	1	1	0	0	1	0	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	2	1	0	0	0	0	0	0	0	0	0	0
Celtispollenites spp. Undiff	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	1	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Celtispollenites tschudyii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	1	0	1	1	0	0	0	2	0	0	0	0	1	2	0	1	1	1	0	3	2	0	0	1	0	1	3	2	0	0	0	0	0	1	0	0	1
cf .Retibreviticolpites sp.	0	0	0	0	0	2	0	1	1	0	0	1	0	2	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	3	0	4	5	2	0	0	0	0	0	0	0	1	3	1	0	0	1	0	3	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
cf. Faguspollenites sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
cf. Horniella sp. (4 pores)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
cf. Intratriporopollenites sp.	4	0	0	0	1	3	0	0	0	1	0	0	0	0	0	1	0	3	0	0	0	0	6	0	0	1	0	0	0	0	0	0	0	0	7	0	0	0	8	0	0	4	0	0	0	0	2	0	0	0	0	0	0	1	0	0	1	3	6	7	2	2	2	0	3	0	3	0	3	3	2	0	1	0	5	5	0	0	0	0	0	0	0	3	0
cf. Margocolpopollenites spp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
cf. Retitrescolpites sp	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
cf. Rhoipites latus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
cf. Rhoipites sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
cf. Symplocos sp. 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Corsinipollenites psilatus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Corsinipollenites spp. Undiff	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Corsinipollenites verrucatus	0	1	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cupuliferoidaepollenites liblarensis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Cyrillaceaepollenites barghoornianicus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0
Cyrillaceaepollenites megaexactus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0	0	2	3	0	0	0	2	0	1	0
Emmapollis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1

Erdmanipollis cretaceus	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ericipites spp.	2	2	8	4	4	7	2	5	6	7	7	7	10	5	3	4	9	5	10	7	5	9	1	3	1	6	11	1	1	0	0	2	5	5	1	9	6	4	7	9	10	8	3	12	6	7	6	7	9	1	3	2	2	4	9	4	1	6	7	5	3	5	1	1	1	2	1	5	6	1	2	2	0	7	9	1	1	0	0	1	0	0	0	1	0
Eucommia? leopoldae	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0
Faguspollenites sp.	0	0	0	1	0	0	1	1	0	2	3	0	0	2	3	2	0	4	0	0	1	0	0	2	0	2	0	0	0	4	0	0	2	2	6	0	2	2	4	0	0	1	2	3	5	2	1	2	3	1	0	0	1	6	0	0	1	1	4	1	0	0	0	0	1	1	3	3	2	0	3	1	0	2	2	3	3	2	7	3	9	0	0	1	1
Favitricolpites baculoferus	6	8	8	6	8	3	8	5	7	3	6	5	6	4	5	6	6	2	5	3	10	11	5	10	10	10	7	5	8	0	5	3	11	10	4	7	15	20	3	14	13	7	9	12	10	10	6	9	8	15	8	12	13	3	3	4	5	8	5	10	12	6	15	15	8	11	15	10	3	2	8	11	11	12	5	4	1	1	6	2	0	2	1	14	1
Fraxinoipollenites spp. Undiff	0	0	0	0	1	1	0	0	0	0	1	1	0	1	0	0	0	0	1	1	3	1	0	0	0	0	0	1	0	1	0	2	0	0	2	2	0	0	0	0	0	1	2	0	0	0	2	0	0	1	3	0	0	1	1	1	4	1	0	1	1	0	0	0	1	0	1	2	0	1	1	1	1	0	1	1	0	0	0	0	0	0	0	3	0
Fraxinoipollenites varabilis	2	0	0	0	0	0	0	1	1	1	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	1	2	1	0	1	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0	1	1	1	5	3	1	1	0	3
Holkopollenites chermendensis	2	32	19	11	3	7	12	7	12	7	14	10	4	7	11	13	10	5	7	13	3	14	3	7	9	15	3	21	9	6	3	15	5	9	13	14	8	12	8	23	11	4	8	10	14	11	7	6	2	12	14	6	9	2	8	3	5	11	10	4	3	5	0	14	2	6	1	6	5	2	1	9	4	1	11	2	1	0	0	0	0	0	0	0	0
Horniella fissurata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Horniella sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	5	0	0	0	1
Horniella spp. Undiff	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0	2	0	2	3	0	0	0	0	0	0	0	2	0	0	0	0	1	6	0	0	0	0	1	2
Ilexpollenites parvus	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	2	0	0	1	0	0	0	0	0	0	0	0	3	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	2	0	0	0	0	1	0	1	0	0	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0
Ilexpollenites spp. Undiff	1	1	1	0	0	1	1	0	2	1	0	0	0	1	0	0	0	1	0	1	0	0	1	0	2	1	2	2	0	0	0	2	0	0	1	1	1	0	3	2	0	1	0	0	0	0	0	1	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	1	1	1	0	0	0	1	0	0	0	0	1	0	1	0	0	1	0	0	1	1
Insulapollenites rugulatus	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Interpollis microsupplingensis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2	4
Intratriporopollenites pseudoinstructus	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7	0	3	0	0	3	0
Intratriporopollenites tetraforaminipites	0	0	1	0	1	0	1	0	1	0	0	0	0	1	0	0	2	1	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	3	1	0	5	0	0	0	2	0	0	0	0	0	0	0	0
Intratriporopollenites vescipites	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	0	0	0
Intriporopollenites spp. Undiff	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
Jarzenipollenites trinus	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Kyandopollenites anneratus	2	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	1	1	0	1	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Labropollis sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	1	0	0	0	0	0	0	0	0	0
Lanagiopollis cribellata	1	6	8	5	5	1	7	3	4	4	4	6	1	7	4	0	4	5	3	2	0	6	0	2	2	0	1	0	4	0	8	1	3	1	7	1	2	0	0	3	1	0	0	5	3	7	0	4	3	4	0	0	0	0	2	0	0	0	0	1	0	0	0	0	1	1	0	3	2	0	0	0	0	3	0	0	1	0	0	0	0	0	0	0	0
Lanagiopollis likohis	2	6	2	5	5	2	4	3	1	6	4	3	3	1	5	0	1	2	2	0	1	0	0	3	3	5	4	3	6	0	6	2	3	4	2	4	7	5	0	5	5	1	4	4	5	1	1	7	5	2	2	7	5	1	1	7	1	1	1	4	0	0	0	6	1	8	3	6	1	3	2	3	4	3	3	2	0	0	0	0	0	0	0	0	0
Legumiosae? type pollen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Malvasipollis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	1	0	3	0	0	0	0	0	0	1	0	2	0	0	1	0	0	0	1	1	1	0	1	1	2	0	0
Margocolpopollenites sp. 1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Momi pites ventifluminis	1	0	0	0	1	2	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	2	0	0	1	0	0	0	0	0	0	0	1	1	1	2	0	1	0	0	1	0	1	0	0	0	1	2	0	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Momipites all spp. (summed)	6	5	3	1	1	7	7	6	4	2	2	9	1	7	5	5	4	8	6	4	6	4	6	4	7	8	8	0	2	20	7	4	4	5	11	2	1	6	3	2	5	12	9	10	8	9	7	2	8	5	10	5	3	8	9	3	5	11	4	2	6	2	3	5	2	6	0	5	4	9	4	1	10	4	4	4	4	2	2	1	4	1	0	0	0
Momipites anellus	0	1	1	1	0	0	0	0	2	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	2	0	1	1	2	0	0	0	0	0	1	2	1	0	2	0	1	2	1	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Momipites coryloides	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Momipites nicholsii	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Momipites spp. Undiff	4	4	2	0	0	5	6	6	2	2	1	9	1	5	3	4	4	7	6	3	6	3	5	3	6	5	5	0	2	18	6	2	2	4	9	0	1	6	3	2	5	10	6	8	6	7	4	1	6	2	8	4	2	6	8	2	3	10	3	2	5	1	3	5	2	5	0	4	3	7	2	1	7	4	3	3	4	2	2	1	4	1	0	0	0
Momipites strictus	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0
Myocolpopollenites reticulatus	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
Nudopollis terminalis	1	1	4	3	0	1	1	1	3	8	2	1	5	4	3	6	2	4	6	2	4	5	2	1	5	2	5	0	3	7	4	10	1	4	1	1	1	2	2	3	7	1	0	0	1	0	3	0	1	0	2	2	0	3	2	1	0	1	2	4	3	1	2	0	3	1	1	3	0	5	0	1	1	1	0	0	2	23	13	23	9	3	32	22	28
Nuxpollenites psilatus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
Nuxpollenites spp. Undiff	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nyssapollenites kruschii	15	13	8	18	4	8	7	9	6	4	6	7	15	11	12	9	7	3	16	6	17	3	17	8	15	14	24	41	9	28	5	12	5	6	17	8	9	5	12	8	9	21	5	0	5	12	13	7	6	9	17	27	6	20	16	5	14	13	7	7	6	7	22	12	36	6	20	3	12	17	21	6	12	12	23	17	7	2	0	3	0	5	2	5	1
Nyssapollenites paleocenicus	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	2	1	0	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	2	0
Nyssapollenites sp. (thick.exine)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nyssapollenites spp. Undiff	1	0	0	2	0	4	0	1	0	1	0	0	0	0	0	3	0	0	3	0	1	1	2	0	3	0	11	3	0	2	1	1	1	1	3	2	0	0	1	1	1	2	2	0	1	1	1	1	1	0	0	3	2	6	4	1	2	3	2	4	1	0	2	2	1	4	1	2	0	2	6	4	0	11	1	0	1	0	0	0	0	0	0	0	0
Oacolpopollenites variabilis	2	2	1	1	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	3	1	1	1	1	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	1	1	0	0	0	1	0	0	1	2	0	2	1	0	0	0	0	0	0	1	2	0	0	0	0	1	2	0	0	0	0	0	0	0	0	2	0
Pandaniidites typicus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Periporopollenites sp .(Chenopod-type)	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	2	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
Periporopollenites sp. (Liquidamber-type)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Pistillate tricolporate?	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pistillipollenites macgregorii	3	0	0	3	1	1	0	4	0	1	6	2	3	3	4	3	3	1	1	5	2	0	1	1	3	5	4	0	3	3	3	0	5	7	1	2	2	1	2	2	3	3	1	6	4	5	2	0	0	2	5	0	6	3	2	3	4	7	10	9	6	21	2	1	3	1	1	2	0	7	4	1	3	3	2	3	0	1	1	2	1	0	5	1	0
Platycarya platycaryoides	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0
Platycaryapollenites swasticoidus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2
Platycaryapollenites sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Platycaryapollenites sp. B	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Plicatopollis spp. Undiff	1	2	1	1	1	0	1	0	1	0	1	0	0	1	4	0	1	0	1	1	0	0	1	2	0	2	1	2	0	13	3	0	1	0	0	0	0	2	1	1	1	0	0	0	1	0	1	1	0	0	1	0	0	2	0	1	0	1	1	0	3	1	0	0	0	0	0	0	0	1	0	1	0	0	1	2	0	0	0	0	0	0	0	0	0
Polyatriopollenites vermontensis	1	0	0	0	1	1	0	0	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	1	2	2	0	1	2	1	6	2	1	0	3	1	2	1	0	1	1	0	1	0	2	2	0	2	0	2	1	3	2	4	1	1	0	4	5	2	0	3	3	0	0	0	0	0	0	0	0	0
Porcolpopollenites spp. Undiff	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	3	2	0	0
Porocolpopollenites olliveriae	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	4	20	16	18	33	21	49	15
Porocolpopollenites sp. (Elsik-type)	0	0	0	0	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	1	1	3	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Pseudolaesipollis ventosus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Pseudplicapollis limitata	0	1	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Quadrapollenites vagus	3	2	1	5	0	0	2	0	1	2	1	2	2	0	4	2	2	1	1	1	2	0	2	3	3	2	0	2	4	6	2	6	2	0	2	1	0	2	1	2	3	1	1	2	0	1	5	2	0	1	4	2	0	0	1	0	2	2	2	2	1	4	1	4	2	0	3	2	1	1	1	1	1	5	1	2	0	0	0	2	0	0	0	1	0
Reevesipollis sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Retibrevitricolpites simplex	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Retibrevitricolpites spp. Undiff.	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0
Reticuloidopollis?	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Retirescolpites spp. Undiff	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0
Retistephanocolporites sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0
Retitrescolpites anguloluminosus	0	1	1	0	1	2	1	0	1	1	1	0	1	1	0	1	0	1	0	1	0	0	1	2	1	1	0	0	2	0	0	1	0	0	1	0	0	0	0	2	0	1	0	0	0	3	4	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rhoipites cryptoporus	6	4	2	3	2	8	5	3	0	1	1	2	4	1	0	6	1	4	2	3	5	1	5	1	2	3	2	9	1	2	0	3	0	0	10	2	1	2	5	1	5	3	2	2	1	1	4	2	1	0	5	6	6	4	4	2	3	6	10	8	5	6	7	0	9	2	5	2	2	4	5	1	2	4	6	2	0	5	0	1	3	0	0	1	0
Rhoipites sp. (small <10 mm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	2	0	2	0	0	2	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rhoipites sp. A. (fine.exine)	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
Rhoipites spp.	1	1	1	3	0	5	2	1	0	1	2	1	0	1	0	3	0	2	1	1	0	1	1	1	3	3	1	0	1	4	1	0	3	2	5	3	0	1	4	1	3	1	3	2	2	3	1	3	2	0	1	2	1	1	1	2	4	2	2	3	2	0	1	2	1	1	0	3	1	2	0	1	4	1	1	2	0	1	1	0	0	0	0	1	0
Rousea spp. Undiff	1	0	1	0	0	0	2	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0
Siltaria hanleyi	4	0	0	1	0	2	1	0	2	1	3	1	1	2	2	1	0	0	0	2	1	2	1	0	1	0	8	1	1	5	2	0	0	1	1	1	1	0	2	1	0	2	2	0	0	1	1	0	0	0	0	0	1	0	0	2	3	0	1	2	2	2	2	1	4	1	2	0	2	5	0	0	4	1	0	0	4	4	5	0	3	1	6	2	15
Siltaria pacata	4	0	0	3	1	2	1	2	0	0	1	4	2	1	0	0	2	1	5	1	1	2	1	1	1	0	15	0	1	11	1	0	2	0	2	0	1	2	3	1	2	2	5	1	0	0	2	4	6	7	1	0	2	6	2	0	2	7	1	3	0	2	0	0	5	0	1	1	0	2	0	0	2	1	0	3	4	11	2	10	21	3	5	10	12
Siltaria sp. (Sapotaceae-type)	6	6	2	2	4	3	2	1	5	0	2	0	3	0	5	2	2	0	3	3	1	1	1	4	8	2	4	0	7	11	3	3	2	1	4	4	1	2	4	3	4	5	4	3	6	3	2	4	2	2	6	3	5	4	5	6	6	3	5	6	6	2	1	6	2	6	4	0	2	1	5	3	3	5	5	4	0	0	0	1	0	0	0	4	1
Siltaria sp. (small <10 µm)	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	1	0	0	0	1	0	0	0	1	1	0	1	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	2	0	1	0	1	1	0	0	0	0	1	2	0	0	0	0	2	0	0	0	0	1
Siltaria sp. cf. S. scabiextima	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	1	2
Siltaria spp. Undiff	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	1	2	2	2	1	0	0	2	0	4	0	2	0	1	3	0	1	1	1	1	0	0	1	2	0	1	1	0	3	0	0	0	1	0	1	1	1	0	1	2	0	1	4	2	0	1	0	0	2	3	0	1	1	2	1	2	0	5	1	0	2	3	0	3	3	0	3	5	1	0
Spinaepollis spinosus	6	11	3	5	5	3	1	1	4	2	6	1	2	6	4	5	3	4	3	2	2	2	4	4	2	8	17	1	14	28	9	10	6	8	8	3	2	9	11	6	2	3	6	3	6	9	12	5	8	2	7	8	5	7	4	9	6	3	2	6	10	7	12	11	17	3	5	0	5	4	1	2	4	4	7	4	3	0	0	0	0	0	0	0	0
Stephanocolporate sp.	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stephanocolporate sp. (small <15 mm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stephanoporate sp. (Punctate)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
Striatopollis spp. Undiff.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	1	1	2	0	2
Subtriporopollenites annulatus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Symplocopollenites thalmannii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Symplocos contracta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	5	2
Symplocos spp. Undiff.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Symplocos vestibulum	0	0	0	0	2	0	0	1	0	0	1	0	0	0	0	0	0	0	0	3	0	0	1	0	0	0	0	0	0	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
Syncolporites sp. 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	5	0	7	0	0	0	0	1
Tetracolpopollenites megadolium	2	0	0	1	0	0	2	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	1	0	0	0	0	1	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Tetracolporopollenites sp. (striate)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	1	12	24	38	3	5
Thomsonipollenites magnificus	25	27	14	28	11	18	15	18	16	7	16	7	10	9	9	14	7	6	13	11	6	11	19	22	20	13	19	39	34	24	16	29	6	8	17	12	13	8	16	17	8	10	9	11	17	20	9	12	20	20	20	23	20	12	24	27	31	14	19	24	16	27	50	40	51	38	27	32	10	33	42	22	45	28	22	25	4	11	5	8	8	5	0	11	0
Thomsonipollis exploitus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	18	6	19	19	23	3	12
Tricolpite cf T.hians	0	2	0	0	0	3	2	0	2	1	0	1	1	3	5	0	0	0	2	2	2	0	1	1	2	1	1	0	0	2	1	0	2	0	7	2	0	4	0	0	1	1	10	1	0	7	0	1	2	0	1	1	1	0	2	0	4	7	0	0	0	0	0	0	0	1	1	4	1	0	1	2	1	1	1	2	0	0	0	2	0	0	0	2	0
Tricolpites asper	18	3	10	7	2	1	4	9	1	5	6	9	13	7	3	3	1	3	5	1	7	4	0	11	6	3	12	0	0	15	4	2	7	7	4	7	6	4	11	4	9	2	5	1	4	11	2	8	17	3	1	3	7	1	9	4	12	6	2	3	7	2	1	4	5	1	0	4	1	10	3	4	8	6	4	4	9	12	0	0	0	0	0	3	2
Tricolpites cf. T. asper	1	1	1	0	4	2	3	2	4	3	0	2	3	8	5	3	7	4	3	1	0	4	3	0	2	1	2	0	0	0	0	1	2	2	4	6	0	3	4	0	3	2	4	1	2	3	0	3	0	0	0	3	1	1	0	0	0	1	1	1	1	2	0	2	1	0	0	0	1	0	0	1	0	0	2	1	0	0	0	0	1	0	0	2	0
Tricolpites crassus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tricolpites hians	1	0	0	2	0	2	2	0	0	1	0	2	1	1	1	0	0	0	2	0	4	0	2	1	5	1	2	9	2	10	7	0	0	0	0	1	1	0	1	0	0	1	0	0	0	1	6	0	0	0	0	1	0	7	0	0	6	1	0	0	1	0	5	0	0	2	1	0	1	3	2	0	2	6	1	0	8	23	19	12	18	3	3	0	22
Tricolpites sp. (punctate)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0
Tricolpopollenites sp. (striate, ?Ailanthipites)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tricolpopollenites sp. A (Tschudy)	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	3	1	0	0
Tricolpopollenites sp. B	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0	0
Tricolpopollenites sp. C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tricolpopollenites sp. D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	3
Tricolpoporopollenites sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tricolporate sp. (Echinate?)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tricolporopollenites sp (verrucate)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	6
Tricolporopollenites sp. (psilate margines)	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tricolporopollenites sp. (reticulate, big pores)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tricolporopollenites sp. (rugulate)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tricolporopollenites sp. A (Striate)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	1	0	0	3	0	0
Tricolporopollenites spp. Undiff.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Triporopollenites curryi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Trudopollis .sp. B	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trudopollis spp. Undiff	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ulmipollenites spp. Undiff	1	0	2	3	1	0	1	3	3	3	1	2	2	5	4	3	3	4	2	4	1	0	4	3	1	1	0	0	0	2	2	0	1	6	2	2	0	4	1	2	4	4	3	8	10	3	2	2	8	1	1	1	3	7	2	0	3	3	2	2	4	5	1	9	1	2	1	3	1	3	0	3	2	3	4	3	1	2	1	4	0	0	2	0	3
Ulmipollenites undulosus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	9	6	8	0	0
Zonocolporate (striate)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reworked palynomorphs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(R) Wodehousei spp.	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(R) cf. Choanopollis spp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(R) Piolencipollis endocuspoides	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Bulk organic stable carbon isotope ratios

sample	depth (mbs)	epoch	δ13C-TOC
H33	112.81	eoc	-26.49
H32	113.00	eoc	-26.59
H31	113.20	eoc	-27.03
H30	113.39	eoc	-26.79
H29	115.39	eoc	-25.69
H28	115.66	eoc	-25.84
H27	116.12	eoc	-25.80
HC100	117.04	eoc	-26.34
H26	117.17	eoc	-25.74
HC095	117.55	eoc	-26.17
H25	117.65	eoc	-26.54
H24	117.81	eoc	-26.76
HC090	118.06	eoc	-26.46
H23	118.16	eoc	-26.20
HC085	118.57	eoc	-25.76
H22	118.59	eoc	-26.34
HC084	118.67	eoc	-26.25
HC083	118.77	eoc	-27.01
HC082	118.87	eoc	-27.88
H21	118.90	eoc	-28.00
HC080	119.08	eoc	-28.16
HC078	119.28	eoc	-27.63
HC076	119.48	eoc	-27.80
H20	119.56	eoc	-27.98
HC072	119.68	eoc	-27.72
H19	119.84	eoc	-28.03
HC068	119.89	eoc	-27.36
HC064	120.09	eoc	-27.76
H18	120.27	eoc	-26.51
HC060	120.29	eoc	-27.67
HC059	120.35	eoc	-27.51
HC058	120.40	eoc	-26.51
HC057	120.45	eoc	-25.10
HC056	120.50	eoc	-24.73
HC055	120.55	eoc	-25.68
HC054	120.60	eoc	-25.36
HC053	120.65	eoc	-28.34
HC052	120.70	eoc	-26.66
HC048	120.90	eoc	-26.32
HC046	121.01	eoc	-26.31
HC044	121.11	eoc	-27.15
HC041	121.26	eoc	-26.86
HC040	121.31	eoc	-27.41
HC038	121.41	eoc	-26.87
HC036	121.51	eoc	-26.76
H15	121.54	eoc	-26.97
HC035	121.56	eoc	-27.62
HC034	121.62	eoc	-28.58
HC033	121.67	eoc	-27.45
HC032	121.72	eoc	-26.45
HC031	121.77	eoc	-26.90
HC030	121.82	eoc	-26.83
HC029	121.87	eoc	-26.07
HC028	121.92	pal	-25.78
HC026	122.02	pal	-25.56
HC024	122.12	pal	-25.57
HC023	122.17	pal	-25.10
HC022	122.22	pal	-25.48
HC018	122.43	pal	-25.55
HC013	122.83	pal	-25.72
H12	123.27	pal	-25.77
HC007	123.44	pal	-25.40
H11	123.60	pal	-25.70
H10	123.93	pal	-25.68
HC001	124.05	pal	-25.28
H9	124.26	pal	-25.69
H8	124.59	pal	-25.58
H7	125.20	pal	-25.71
H6	125.70	pal	-25.37
H5	126.34	pal	-25.56
H4	126.92	pal	-25.49
H3	127.56	pal	-26.06
H2	128.14	pal	-25.69
H1	128.57	pal	-26.15

compound specific stable carbon isotope ratios

sample	**epoch**	**depth**	**phytane**	run 1	run 2	**C29 sterane**	run 1	run 2
HC074	Eoc	119.58		-33.2	-31.7		-29.8	-29.7
HC035	Eoc	121.56		-32.5	-33.4		-30.1	-30.7
HC033	Eoc	121.67		-33.0	-34.5		-32.6	-29.8
HC027	Pal	121.97		-30.3	-30.3		-27.9	-28.7
HC003	Pal	123.85					-26.0	

Magnetic Susceptibility Results

sample	depth (mbs)	Epoch	Specific Magnetic Susceptibility (x10E-8 mE3 / Kg)
HC111	115.21	eoc	6.24
HC110	115.32	eoc	5.83
HC109	115.42	eoc	4.59
HC108	115.52	eoc	3.57
HC107	115.62	eoc	1.49
HC106	115.72	eoc	3.25
HC105	115.82	eoc	3.60
HC104	115.93	eoc	3.47
HC103	116.03	eoc	2.58
HC102	116.13	eoc	2.36
HC101	116.23	eoc	3.12
HC100	117.04	eoc	3.85
HC099	117.14	eoc	1.68
HC098	117.25	eoc	1.08
HC097	117.35	eoc	3.38
HC096	117.45	eoc	2.52
HC095	117.55	eoc	3.36
HC094	117.65	eoc	8.30
HC093	117.75	eoc	3.70
HC092	117.86	eoc	2.28
HC091	117.96	eoc	4.23
HC090	118.06	eoc	1.91
HC089	118.16	eoc	2.52
HC088	118.26	eoc	2.52
HC087	118.36	eoc	3.95
HC086	118.47	eoc	1.98
HC085	118.57	eoc	2.88
HC084	118.67	eoc	4.48
HC083	118.77	eoc	7.60
HC082	118.87	eoc	10.32
HC081	118.97	eoc	4.59
HC080	119.08	eoc	10.80
HC079	119.18	eoc	10.67
HC078	119.28	eoc	10.58
HC077	119.38	eoc	8.60
HC076	119.48	eoc	8.98
HC075	119.53	eoc	8.23
HC074	119.58	eoc	8.89
HC073	119.63	eoc	8.89
HC072	119.68	eoc	8.26
HC071	119.74	eoc	7.32
HC070	119.79	eoc	8.71
HC069	119.84	eoc	9.59
HC068	119.89	eoc	9.87
HC067	119.94	eoc	9.35
HC066	119.99	eoc	8.58
HC065	120.04	eoc	10.38
HC064	120.09	eoc	10.59
HC063	120.14	eoc	10.69
HC062	120.19	eoc	10.60
HC061	120.24	eoc	8.09
HC060	120.29	eoc	8.12
HC059	120.35	eoc	7.63
HC058	120.40	eoc	8.74
HC057	120.45	eoc	7.64
HC056	120.50	eoc	7.41
HC055	120.55	eoc	7.58
HC054	120.60	eoc	7.47
HC053	120.65	eoc	11.16
HC052	120.70	eoc	9.33
HC051	120.75	eoc	8.25
HC050	120.80	eoc	8.68
HC049	120.85	eoc	8.60
HC048	120.90	eoc	8.32
HC047	120.95	eoc	8.17
HC046	121.01	eoc	7.51
HC045	121.06	eoc	8.43
HC044	121.11	eoc	8.49
HC043	121.16	eoc	8.99
HC042	121.21	eoc	9.09
HC041	121.26	eoc	9.09
HC040	121.31	eoc	8.65
HC039	121.36	eoc	8.63
HC038	121.41	eoc	9.36
HC037	121.46	eoc	9.36
HC036	121.51	eoc	9.14
HC035	121.56	eoc	11.03
HC034	121.62	eoc	10.41
HC033	121.67	eoc	9.28
HC032	121.72	eoc	11.16
HC031	121.77	eoc	20.88
HC030	121.82	eoc	15.87
HC029	121.87	eoc	10.74
HC028	121.92	pal	8.74
HC027	121.97	pal	8.71
HC026	122.02	pal	8.54
HC025	122.07	pal	9.16
HC024	122.12	pal	9.72
HC023	122.17	pal	8.63
HC022	122.22	pal	9.10
HC021	122.28	pal	9.23
HC020	122.33	pal	8.52
HC019	122.38	pal	8.97
HC018	122.43	pal	8.93
HC017	122.48	pal	8.75
HC016	122.53	pal	9.33
HC015	122.63	pal	9.13
HC014	122.73	pal	9.21
HC013	122.83	pal	9.52
HC012	122.94	pal	9.22
HC011	123.04	pal	8.71
HC010	123.14	pal	9.49
HC009	123.24	pal	9.05
HC008	123.34	pal	9.72
HC007	123.44	pal	9.46
HC006	123.55	pal	11.27
HC005	123.65	pal	10.18
HC004	123.75	pal	10.00
HC003	123.85	pal	9.53
HC002	123.95	pal	8.00
HC001	124.05	pal	7.03

TEX86 analyses

Core sample	Depth	Strat.	Area															
sample	mbs	epoch	m/z 1302	m/z 1300	1300' (H(0) c	m/z 1298	m/z 1296	m/z 1292	m/z 1292'	m/z 1050	m/z 1036	m/z 1022	BIT	Tex 86	KIM2010 - H	GDGT-1	KIM2010-L
HC 100	117.04	eoc	4.71E+05	8.63E+04	1.21E+05	1.06E+05	6.02E+04	8.83E+05	4.37E+04	9.25E+03	7.85E+04	5.30E+05	0.41	0.709	28.4	-0.377	21.46
HC 082	118.87	eoc	6.58E+05	1.59E+05	1.63E+05	2.92E+05	1.64E+05	4.32E+06	3.67E+05	5.56E+05	5.65E+04	7.99E+05	0.25	0.838	33.4	-0.323	25.06
HC 080	119.08	eoc	2.25E+05	6.19E+04	6.14E+04	1.29E+05	7.03E+04	2.04E+06	2.15E+05	2.20E+03	1.56E+04	2.39E+05	0.11	0.870	34.5	-0.306	26.22
HC 076	119.48	eoc	4.76E+05	1.39E+05	1.36E+05	3.05E+05	1.73E+05	5.86E+06	5.88E+05	3.56E+03	3.23E+04	4.45E+05	0.08	0.885	35.0	-0.306	26.25
HC 068	119.89	eoc	7.59E+05	2.06E+05	2.42E+05	4.81E+05	3.06E+05	1.18E+07	1.24E+06	9.43E+03	3.79E+04	6.49E+05	0.06	0.908	35.7	-0.315	25.65
HC 060	120.29	eoc	3.08E+05	8.66E+04	1.02E+05	1.81E+05	1.15E+05	4.46E+06	4.68E+05	3.03E+03	1.64E+04	2.70E+05	0.06	0.898	35.4	-0.325	24.96
HC 058	120.40	eoc	6.27E+04	1.48E+04	2.56E+04	3.13E+04	2.04E+04	5.88E+05	7.46E+04	1.12E+03	4.92E+03	5.70E+04	0.10	0.895	35.3	-0.327	24.81
HC 056	120.50	eoc	3.58E+04	6.95E+03	1.89E+04	1.29E+04	7.49E+03	1.78E+05	4.53E+04	1.18E+03	2.49E+03	2.39E+04	0.13	0.904	35.6	-0.326	24.88
HC 053	120.65	eoc	9.89E+05	2.44E+05	3.38E+05	5.95E+05	3.60E+05	1.39E+07	1.59E+06	1.03E+04	4.88E+04	8.66E+05	0.06	0.913	35.9	-0.304	26.36
HC 048	120.90	eoc	2.74E+05	8.29E+04	8.33E+04	1.71E+05	1.18E+05	4.30E+06	4.13E+05	2.07E+03	1.83E+04	2.39E+05	0.06	0.894	35.3	-0.337	24.12
HC 044	121.11	eoc	3.18E+05	9.87E+04	9.43E+04	2.12E+05	1.43E+05	5.44E+06	5.40E+05	1.84E+03	2.20E+04	2.97E+05	0.06	0.901	35.5	-0.330	24.60
HC 040	121.31	eoc	5.62E+05	1.80E+05	1.32E+05	3.70E+05	1.68E+05	8.49E+06	8.26E+05	2.99E+03	3.36E+04	4.96E+05	0.06	0.883	34.9	-0.288	27.47
HC 036	121.51	eoc	6.63E+05	2.13E+05	1.86E+05	4.34E+05	2.83E+05	1.01E+07	1.05E+06	7.28E+03	3.93E+04	5.99E+05	0.06	0.892	35.2	-0.331	24.56
HC 034	121.62	eoc	1.08E+06	3.11E+05	2.72E+05	5.64E+05	3.58E+05	1.23E+07	1.17E+06	7.57E+03	4.64E+04	8.19E+05	0.07	0.871	34.5	-0.340	23.97
HC 032	121.72	eoc	6.21E+05	2.12E+05	1.72E+05	4.06E+05	2.62E+05	8.63E+06	8.03E+05	4.86E+03	6.88E+04	5.53E+05	0.07	0.874	34.6	-0.336	24.22
HC 030	121.82	eoc	3.71E+05	1.10E+05	1.04E+05	2.34E+05	1.46E+05	5.15E+06	5.00E+05	7.29E+03	1.64E+05	4.76E+05	0.11	0.889	35.1	-0.321	25.23
HC 029	121.87	eoc	1.21E+06	1.78E+05	3.05E+05	2.16E+05	2.11E+05	2.11E+06	2.15E+05	4.95E+04	3.83E+05	2.16E+06	0.55	0.783	31.3	-0.447	16.71
HC 028	121.92	pal	1.41E+06	1.82E+05	3.15E+05	1.94E+05	2.13E+05	5.19E+05	3.89E+04	7.26E+04	5.83E+05	3.40E+06	0.89	0.710	28.4	-0.482	14.34
HC 026	122.02	pal	1.33E+06	1.10E+05	2.95E+05	1.86E+05	2.04E+05	8.28E+05	6.24E+04	9.48E+04	6.82E+05	2.94E+06	0.82	0.804	32.1	-0.429	17.91
HC 024	122.12	pal	9.45E+05	1.07E+05	2.24E+05	1.11E+05	1.24E+05	2.56E+05	1.77E+04	5.25E+04	3.64E+05	1.83E+06	0.90	0.703	28.1	-0.489	13.91
HC 022	122.22	pal	1.25E+06	1.57E+05	3.15E+05	1.82E+05	1.95E+05	6.49E+05	4.96E+04	5.84E+04	5.11E+05	2.76E+06	0.84	0.731	29.3	-0.467	15.35
HC 020	122.33	pal	1.67E+06	2.10E+05	4.02E+05	2.26E+05	2.47E+05	4.83E+05	3.84E+04	9.94E+04	7.01E+05	3.96E+06	0.91	0.709	28.4	-0.480	14.48
HC 018	122.43	pal	9.26E+05	1.04E+05	2.17E+05	1.30E+05	1.44E+05	5.30E+05	3.89E+04	5.95E+04	4.69E+05	2.05E+06	0.83	0.751	30.1	-0.464	15.61
HC 016	122.53	pal	1.80E+06	2.28E+05	4.60E+05	2.73E+05	2.54E+05	5.50E+05	3.74E+04	9.60E+04	7.68E+05	4.07E+06	0.90	0.712	28.5	-0.442	17.08
HC 013	122.83	pal	1.25E+06	1.60E+05	3.42E+05	1.75E+05	1.86E+05	3.57E+05	2.50E+04	5.68E+04	4.33E+05	2.72E+06	0.90	0.707	28.3	-0.474	14.92
HC 010	123.14	pal	6.61E+05	9.21E+04	1.62E+05	1.01E+05	1.02E+05	2.04E+05	1.58E+04	4.58E+04	2.92E+05	1.23E+06	0.88	0.704	28.2	-0.466	15.47
HC 007	123.44	pal	8.59E+05	9.91E+04	1.78E+05	1.11E+05	1.29E+05	4.45E+05	2.98E+04	6.00E+04	4.38E+05	1.80E+06	0.84	0.731	29.3	-0.485	14.16
HC 001	124.05	pal	2.62E+06	3.29E+05	6.67E+05	3.58E+05	3.97E+05	9.10E+05	6.27E+04	1.16E+05	8.59E+05	4.84E+06	0.86	0.713	28.6	-0.481	14.42

MBT-CBT analyses

Core sample	Depth	Area																	
sample	**mbs**	**m/z 1292**	**m/z 1050**	**m/z 1048**	**m/z 1046**	**m/z 1036**	**m/z 1034**	**m/z 1032**	**m/z 1022**	**m/z 1020**	**m/z 1018**	**BIT**	**MBT**	**CBT**	**MAT (Weijers et al., 2007)**	**MBT'**	**CBT**	**MAT (Peterse et al., 2011)**	**pH**
HC 100	117.04	2.92E+06	1.09E+04			1.05E+05	1.36E+04		1.82E+06	2.56E+05	4.75E+04	0.44	0.94	0.85	32.6	0.94	0.85	25.2	6.5
HC 082	118.87	4.18E+06				2.47E+04			7.69E+05	1.04E+05	3.60E+04	0.18	0.97	0.88	33.8	0.97	0.88	26.0	6.4
HC 080	119.08	1.49E+06							1.63E+05	2.56E+04	4.99E+03	0.11	1.00	0.80	35.9	1.00	0.80	27.3	6.6
HC 076	119.48	3.36E+06				5.82E+03			2.50E+05	4.26E+04	1.27E+04	0.08	0.98	0.78	35.2	0.98	0.78	26.8	6.7
HC 068	119.89	7.91E+06				9.71E+03			3.98E+05	7.03E+04	6.19E+04	0.06	0.98	0.76	35.3	0.98	0.76	26.9	6.8
HC 060	120.29	1.98E+06							1.22E+05	8.84E+03	8.45E+03	0.07	1.00	1.14	32.8	1.00	1.14	25.3	5.8
HC 058	120.40	3.57E+05							1.07E+04										
HC 056	120.50	3.69E+05							1.77E+04										
HC 053	120.65	1.22E+07				1.93E+04			7.63E+05	7.99E+04	8.00E+04	0.07	0.98	0.99	33.1	0.98	0.99	25.6	6.2
HC 048	120.90	2.74E+06							1.43E+05	2.51E+04	1.39E+04	0.06	1.00	0.76	36.3	1.00	0.76	27.5	6.8
HC 044	121.11	3.55E+06							1.18E+05	2.40E+04	6.97E+03	0.04	1.00	0.69	36.9	1.00	0.69	27.9	6.9
HC 040	121.31	3.86E+06							2.11E+05	3.02E+04	1.84E+04	0.06	1.00	0.84	35.5	1.00	0.84	27.0	6.5
HC 036	121.51	8.48E+06				1.81E+04			4.56E+05	9.09E+04	6.56E+04	0.07	0.97	0.72	35.2	0.97	0.72	26.9	6.9
HC 034	121.62	1.84E+07				4.89E+04			1.15E+06	2.35E+05	1.31E+05	0.08	0.97	0.71	35.2	0.97	0.71	26.8	6.9
HC 032	121.72	4.06E+06				3.13E+04			2.67E+05	5.69E+04	3.81E+04	0.09	0.92	0.72	32.7	0.92	0.72	25.3	6.9
HC 030	121.82	1.93E+06				6.07E+04			1.80E+05	3.14E+04	2.10E+05	0.20	0.87	0.88	28.9	0.87	0.88	22.9	6.4
HC 029	121.87	1.90E+06	4.49E+04			3.30E+05	7.78E+04	3.40E+03	1.97E+06	2.45E+05	8.07E+04	0.59	0.83	0.85	27.2	0.83	0.85	21.8	6.5
HC 028	121.92	4.88E+05	2.77E+04			5.45E+05	3.75E+04	5.59E+03	3.17E+06	3.67E+05	1.07E+05	0.90	0.86	0.96	27.3	0.86	0.96	21.9	6.2
HC 026	122.02	3.82E+05	6.66E+04			5.20E+05	5.18E+04	5.00E+03	2.81E+06	3.11E+05	9.30E+04	0.91	0.83	0.96	26.2	0.83	0.96	21.2	6.2
HC 024	122.12	2.13E+05	2.99E+04			2.87E+05	6.63E+04	2.47E+03	1.48E+06	1.78E+05	4.96E+04	0.91	0.82	0.86	26.3	0.82	0.86	21.2	6.5
HC 022	122.22	6.07E+05	5.43E+04			4.93E+05	1.23E+05	3.59E+03	2.65E+06	3.26E+05	8.93E+04	0.86	0.82	0.85	26.6	0.82	0.85	21.4	6.5
HC 020	122.33	4.17E+05	8.74E+04			6.75E+05	1.45E+05	8.13E+03	3.56E+06	4.01E+05	1.19E+05	0.92	0.82	0.89	26.0	0.82	0.89	21.1	6.4
HC 018	122.43	3.96E+05	4.15E+04			3.81E+05	7.33E+04	7.85E+03	1.61E+06	2.56E+05	6.75E+04	0.86	0.79	0.78	25.9	0.79	0.78	21.0	6.7
HC 016	122.53	5.61E+05	6.51E+04			4.80E+05	6.10E+04	5.11E+03	2.12E+06	3.24E+05	8.18E+04	0.85	0.81	0.83	26.0	0.81	0.83	21.1	6.6
HC 013	122.83	3.02E+05	2.54E+04			3.67E+05	4.11E+04	4.02E+03	2.17E+06	2.56E+05	7.67E+04	0.91	0.85	0.93	27.3	0.85	0.93	21.9	6.3
HC 010	123.14	1.54E+05	2.92E+04			2.15E+05	3.32E+04	2.34E+03	1.05E+06	1.26E+05	3.88E+04	0.91	0.81	0.90	25.7	0.81	0.90	20.9	6.4
HC 007	123.44	4.15E+05	5.49E+04			3.96E+05	1.19E+05	6.64E+03	1.56E+06	2.65E+05	7.09E+04	0.86	0.77	0.71	25.3	0.77	0.71	20.6	6.9
HC 001	124.05	4.06E+05	3.61E+04			3.61E+05	3.64E+04	4.16E+03	2.25E+06	2.93E+05	8.69E+04	0.88	0.86	0.90	27.9	0.86	0.90	22.3	6.4