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14. Data Report: Late Miocene–Pleistocene Mineralogy, Site 1146[1]

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INTRODUCTION

Site 1146 (19°27.40′N, 116°16.37′E) was drilled in ~2092 m water depth in a rift basin on the continental slope of the South China Sea. A total of 607 m of sediment was cored in Hole 1146A, and a composite section from three holes extends down to 640 meters composite depth (mcd). Three stratigraphic sedimentary units were recognized at this site: late Pliocene to Pleistocene nannofossil clay (Unit I), middle Miocene to late Pliocene foraminifer and nannofossil clay mixed sediment (Unit II), and early to middle Miocene nannofossil clay (Unit III). This study reports the mineralogy from the late Miocene through early Pleistocene, 150–440 mcd.

METHODS

Samples for mineralogy were analyzed at ~1.5-m intervals from 150 to 225 mcd and 1-m intervals for the lower part of the studied section. This corresponds to an age resolution of ~25 k.y. in the upper interval and ~35 k.y. in the lower interval. Samples were freeze-dried and weighed then wet sieved at 63 µm. The >63-µm and <63-µm fractions were then dried and weighed. The <63-µm sediments were then wet sieved at 20 µm with the aid of a sonic dismembrator, and the <20-µm fraction was split into 2- to 20-µm and <2-µm size fractions by means of centrifugation (relative centrifugal force = 145 for 2 min, 43 s). Sediments were saturated with $MgCl_2$ to reduce d-spacing variability caused by cation differences; they were then rinsed with warm deionized water, dried, and weighed. The <2-µm fraction was spiked with a 10% talc internal standard. Samples were homogenized by grinding in a mortar

[1]Arnold, E., 2004. Data report: Late Miocene–Pleistocene mineralogy, Site 1146. *In* Prell, W.L., Wang, P., Blum, P., Rea, D.K., and Clemens, S.C. (Eds.), *Proc. ODP, Sci. Results,* 184, 1–10 [Online]. Available from World Wide Web: <http://www-odp.tamu.edu/publications/184_SR/VOLUME/CHAPTERS/203.PDF>. [Cited YYYY-MM-DD]
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and pestle under acetone; they were then suspended in deionized water, mixed on a vortex mixer, and drawn onto 0.45-µm silver filters under vacuum. The X-ray diffraction analysis was run from 2° to 30°2θ at 40 kV and 40 mA at 2°2θ/min using CuK_α radiation. Peak areas for smectite, illite, kaolinite, chlorite, quartz, plagioclase, and calcite were determined using MacDiff software. The relative proportions of kaolinite and chlorite were determined by the relative proportions of the kaolinite (002) and chlorite (004) peak areas. Mineral peak areas were normalized to the internal standard peak areas. Normalized peak areas were then recalculated on a carbonate-free basis using the calcite peak area for correction.

RESULTS

Figure F1 illustrates the <2-µm talc normalized peak areas of smectite, illite, kaolinite, chlorite, quartz, plagioclase, and calcite of sediments recovered from Site 1146 (Table T1). Illite, chlorite, quartz, and plagioclase concentrations steadily decrease with increasing depth through Unit I. Kaolinite and calcite concentrations increase with depth, whereas smectite values are constant in this unit. Illite, quartz, and plagioclase show relatively high variability in this unit compared with the underlying sediments. Unit II demonstrates much more uniform sediment composition, with illite, chlorite, and quartz concentrations remaining relatively constant throughout the unit. Kaolinite concentration increases with depth, following a drop in concentration across the Unit I/II boundary. Plagioclase concentration shows a small but steady decrease throughout this unit. Smectite concentration does not change across the Unit I/II boundary, decreases to a steady low value from 310 to 400 mcd, and increases again toward the bottom of Unit II. Calcite concentrations are highest between 250 and 300 mcd, followed by a steady decrease toward the bottom of the unit.

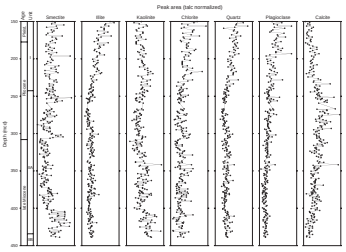
Figure F2 illustrates the <2-µm talc normalized peak areas expressed on a calcite-normalized basis to correct for any calcite dilution effects on the terrigenous mineral concentrations (Table T2). None of the mineral concentration trends described above are significantly changed by this normalization; however, there is a slight increase in the concentration of most mineral phases over the interval of highest calcite concentration (250–300 mcd).

Figure F3 illustrates some mineral ratios for the <2-µm sediments (Table T3). The illite/quartz and chlorite/quartz ratios are essentially constant throughout the interval investigated. The smectite/quartz ratio indicates intervals of relatively higher smectite concentrations from 240 to 290 mcd and below 400 mcd. Kaolinite/quartz increases from Unit I through the upper 20 m of Unit II, is relatively low from 275 to 325 mcd, and is a constant high concentration through the remainder of the interval studied. The kaolinite/chlorite ratio increases with depth in Unit I, is constant in the upper part of Unit II, and is high below 400 mcd.

SUMMARY

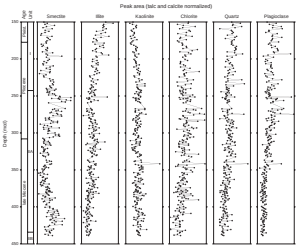
The Unit I mineral assemblages at Site 1146 display an increase in the chemical weathering product kaolinite with increasing depth, concomitant with a decrease in the primary minerals quartz and plagioclase

F1. Talc-normalized peak area, p. 5.



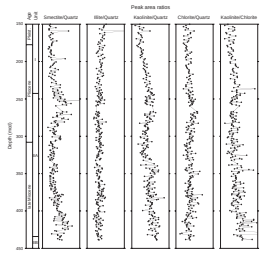
T1. Talc-normalized peak areas, p. 8.

F2. Talc- and calcite-normalized mineral peak areas, p. 6.



T2. Talc- and calcite-normalized peak areas, p. 9.

F3. Mineral peak area ratios, p. 7.



T3. Mineral peak ratios, p. 10.

and physical weathering proxies illite and chlorite. Taken together, a classic pattern of source region aridification from the middle Pliocene through the Pleistocene is indicated. The mineral variability in this interval suggests glacial–interglacial variability; the time resolution in this study is insufficient at present to quantify this assertion, and higher-resolution analyses are under way. Liu et al. (2003) conducted a high-resolution mineralogy study for the upper Pliocene through Pleistocene sediments at this site, and clear glacial–interglacial mineral variability is well documented in the younger sediments. The mineralogy of sediments recovered at Site 1146 suggests relatively constant sediment sources and source area weathering regimes throughout Unit II (upper Miocene through middle Pliocene), as indicated by low variability and relatively constant mineral concentrations through this interval.

ACKNOWLEDGMENTS

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REFERENCE

Liu, Z., Trentesaux, A., Clemens, S.C., Colin, C., Wang, P., Huang, B., and Boulay, S., 2003. Clay mineral assemblages in the northern South China Sea: implications for East Asian monsoon evolution over the past 2 million years. *Mar. Geol.,* 201:133–146.

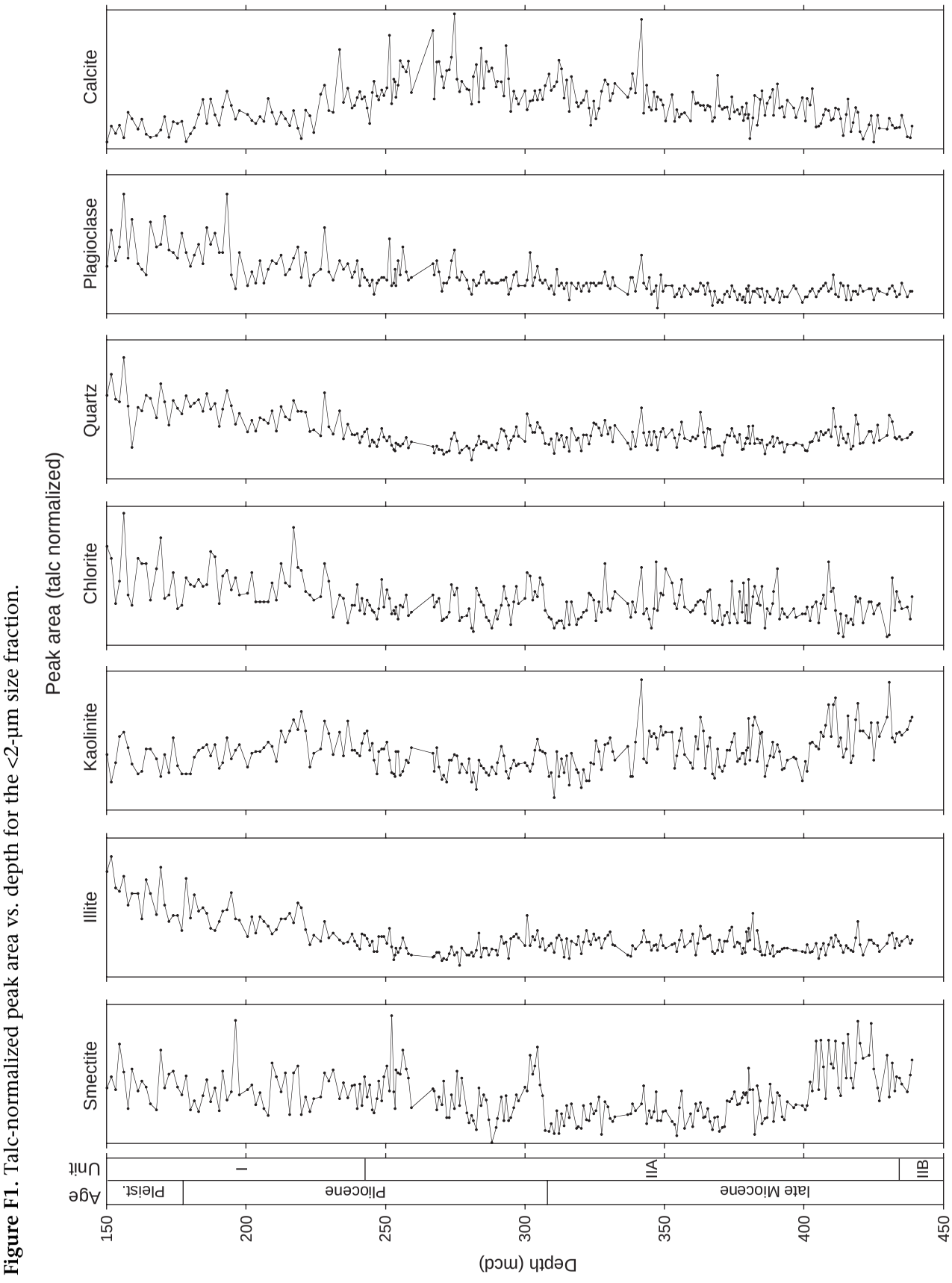

Figure F1. Talc-normalized peak area vs. depth for the <2-µm size fraction.

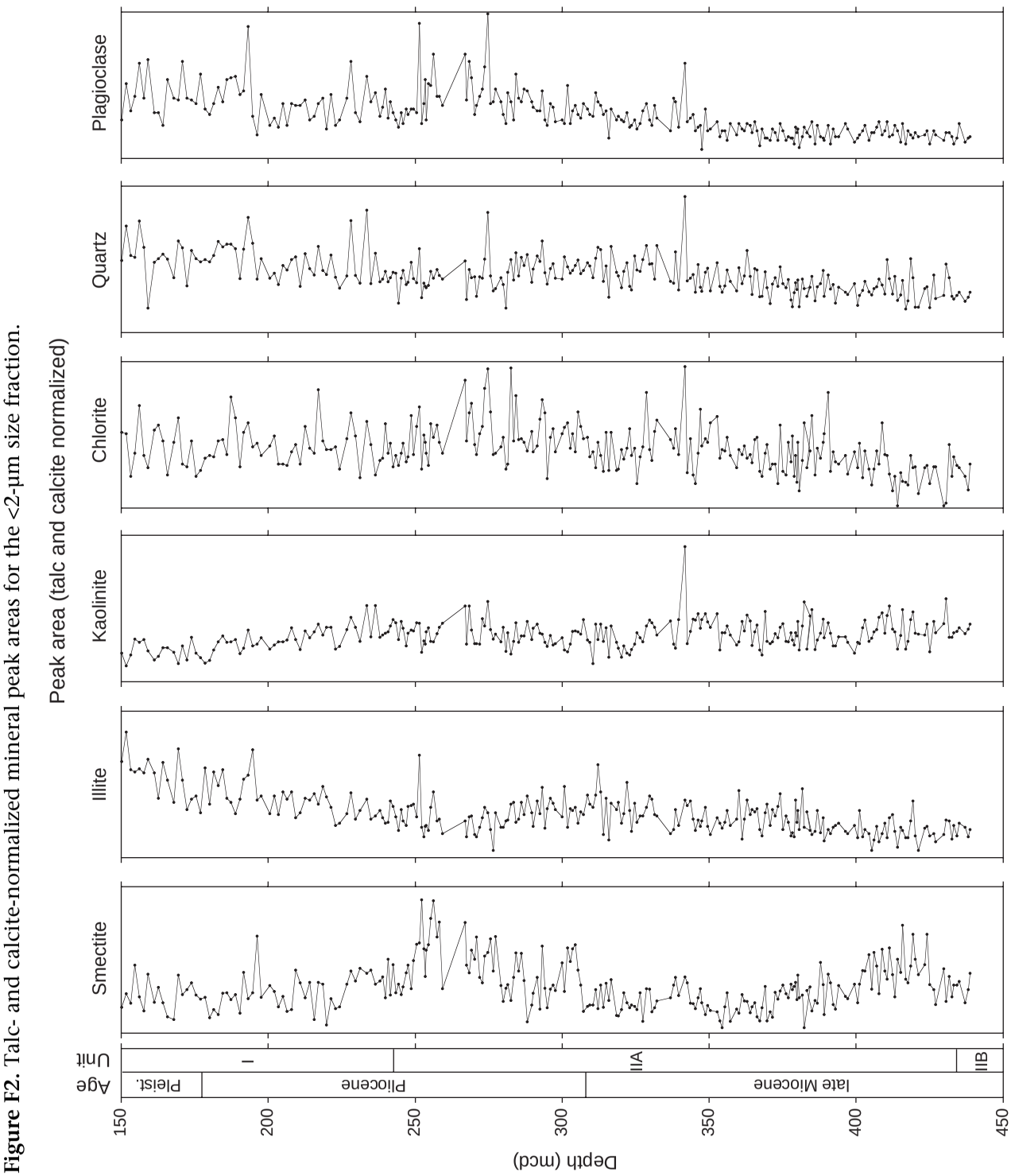

Figure F2. Talc- and calcite-normalized mineral peak areas for the <2-µm size fraction.

Figure F3. Mineral peak area ratios for the <2-µm size fraction.

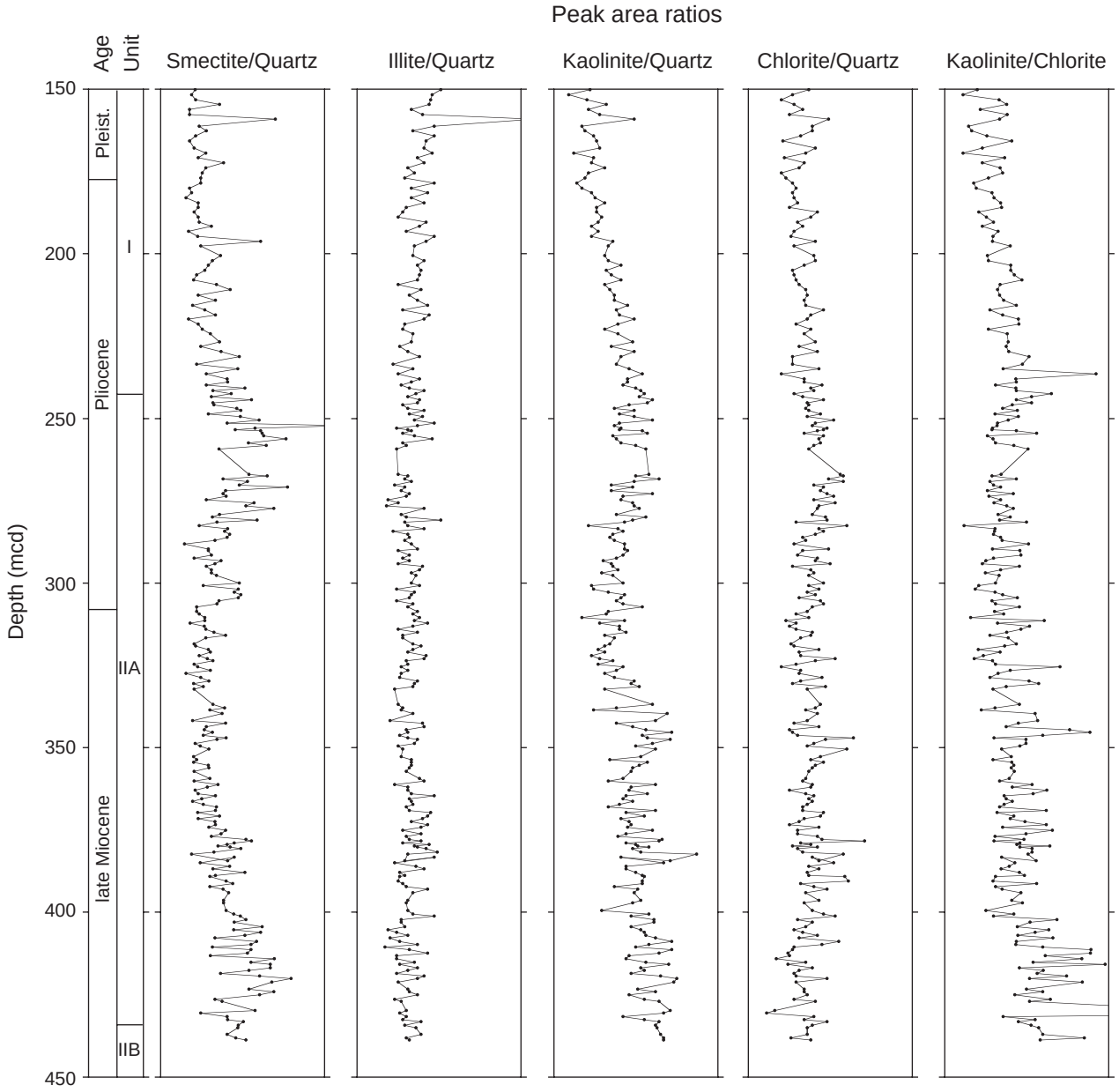

Table T1. Talc-normalized peak areas for the <2-µm size fraction.

Hole, core, section, interval (cm)	Depth (mbsf)	Depth (mcd)	Talc-normalized peak areas: Smectite	Illite	Kaolinite	Chlorite	Quartz	Plagioclase
184-								
1146B-16H-1, 47–49	140.77	150.17	0.76	0.91	0.40	0.67	1.80	0.17
1146B-16H-2, 47–49	142.27	151.67	0.87	1.04	0.20	0.60	2.26	0.30
1146B-16H-3, 47–49	143.77	153.17	0.74	0.77	0.34	0.34	1.72	0.19
1146B-16H-4, 47–49	145.27	154.67	1.20	0.74	0.53	0.47	1.66	0.24
1146B-16H-5, 47–49	146.77	156.17	0.92	0.87	0.56	0.86	2.62	0.43
1146C-16H-4, 97–99	148.97	157.67	0.55	0.62	0.45	0.39	1.57	0.20
1146C-16H-5, 97–99	150.47	159.17	0.95	0.72	0.33	0.33	0.68	0.34
1146B-17H-1, 147–149	151.27	161.22	0.73	0.72	0.26	0.60	1.54	0.18
1146B-17H-2, 147–149	152.77	162.72	0.83	0.50	0.28	0.57	1.47	0.16
1146B-17H-3, 147–149	154.27	164.22	0.77	0.84	0.44	0.57	1.80	0.14
1146B-17H-4, 147–149	155.77	165.72	0.60	0.72	0.44	0.36	1.74	0.33
1146A-18H-2, 47–49	157.87	167.92	0.54	0.54	0.37	0.54	1.32	0.24
1146A-18H-3, 47–49	159.37	169.42	1.14	0.95	0.24	0.72	2.05	0.25
1146A-18H-4, 47–49	160.87	170.92	0.76	0.62	0.40	0.37	1.66	0.35
1146A-18H-5, 47–49	162.37	172.42	0.90	0.48	0.27	0.39	1.16	0.23
1146A-18H-6, 47–49	163.87	173.92	0.93	0.53	0.52	0.52	1.69	0.22
1146B-18H-5, 47–49	165.77	175.52	0.77	0.53	0.32	0.31	1.52	0.20
1146B-18H-6, 47–49	167.27	177.02	0.69	0.40	0.26	0.33	1.40	0.29
1146A-19H-2, 147–149	168.37	178.52	0.88	0.85	0.26	0.49	1.79	0.22
1146A-19H-3, 147–149	169.87	180.02	0.54	0.51	0.26	0.45	1.56	0.17
1146A-19H-4, 147–149	171.37	181.52	0.63	0.71	0.38	0.44	1.64	0.21
1146A-19H-5, 147–149	172.87	183.02	0.52	0.57	0.43	0.48	1.71	0.25
1146A-19H-6, 147–149	174.37	184.52	0.68	0.60	0.45	0.44	1.46	0.18
1146C-19X-3, 49–51	175.59	185.89	0.84	0.55	0.47	0.45	1.84	0.31
1146C-19X-4, 49–51	177.09	187.39	0.62	0.42	0.39	0.64	1.51	0.25
1146C-19X-5, 49–51	178.59	188.89	0.76	0.40	0.47	0.61	1.63	0.29
1146C-19X-6, 49–51	180.09	190.39	0.53	0.48	0.30	0.34	1.13	0.22
1146B-20H-1, 147–149	179.77	191.72	0.93	0.57	0.34	0.50	1.51	0.22
1146B-20H-2, 147–149	181.27	193.22	0.64	0.58	0.52	0.53	1.91	0.43
1146B-20H-3, 147–149	182.77	194.72	0.72	0.73	0.37	0.42	1.58	0.14
1146B-20H-4, 147–149	184.27	196.22	1.44	0.50	0.43	0.49	1.18	0.09
1146B-20H-5, 147–149	185.77	197.72	0.69	0.49	0.47	0.39	1.41	0.22
1146C-20X-5, 147–149	189.17	200.57	0.74	0.35	0.31	0.40	1.01	0.10
1146C-20X-6, 147–149	190.67	202.07	0.79	0.52	0.41	0.52	1.26	0.15
1146B-21H-3, 97–99	190.42	203.47	0.59	0.38	0.42	0.35	1.03	0.11
1146B-21H-4, 97–99	191.92	204.97	0.71	0.52	0.42	0.35	1.32	0.19
1146B-21H-5, 97–99	193.42	206.47	0.55	0.48	0.45	0.35	1.27	0.11
1146C-21X-4, 49–51	196.29	207.94	0.48	0.44	0.49	0.35	1.20	0.16
1146C-21X-5, 49–51	197.79	209.44	1.01	0.37	0.46	0.46	1.47	0.19
1146C-21X-6, 49–51	199.29	210.94	0.87	0.41	0.35	0.36	1.03	0.18
1146B-22H-2, 49–51	199.29	212.64	0.72	0.50	0.57	0.57	1.56	0.21
1146B-22H-3, 49–51	200.79	214.14	0.91	0.50	0.49	0.46	1.34	0.14
1146B-22H-4, 49–51	202.29	215.64	0.49	0.55	0.57	0.44	1.27	0.16
1146B-22H-5, 49–51	203.79	217.14	0.91	0.47	0.65	0.78	1.69	0.20

Note: Only a portion of this table appears here. The complete table is available in **ASCII.**

Table T2. Talc- and calcite-normalized peak areas for the <2-µm size fraction.

Hole, core, section, interval (cm)	Depth (mbsf)	Depth (mcd)	Normalized peak areas: Smectite	Illite	Kaolinite	Chlorite	Quartz	Plagioclase
184-								
1146B-16H-1, 47–49	140.77	150.17	0.94	1.12	0.49	0.82	2.22	0.21
1146B-16H-2, 47–49	142.27	151.67	1.17	1.40	0.27	0.81	3.05	0.41
1146B-16H-3, 47–49	143.77	153.17	1.01	1.04	0.46	0.46	2.34	0.26
1146B-16H-4, 47–49	145.27	154.67	1.66	1.02	0.73	0.65	2.30	0.34
1146B-16H-5, 47–49	146.77	156.17	1.12	1.05	0.67	1.04	3.17	0.52
1146C-16H-4, 97–99	148.97	157.67	0.88	1.01	0.72	0.63	2.54	0.33
1146C-16H-5, 97–99	150.47	159.17	1.51	1.14	0.53	0.53	1.08	0.54
1146B-17H-1, 147–149	151.27	161.22	1.03	1.01	0.37	0.84	2.18	0.25
1146B-17H-2, 147–149	152.77	162.72	1.28	0.77	0.43	0.88	2.27	0.25
1146B-17H-3, 147–149	154.27	164.22	1.02	1.11	0.58	0.75	2.38	0.18
1146B-17H-4, 147–149	155.77	165.72	0.78	0.94	0.58	0.47	2.26	0.43
1146A-18H-2, 47–49	157.87	167.92	0.73	0.73	0.50	0.74	1.81	0.33
1146A-18H-3, 47–49	159.37	169.42	1.49	1.24	0.31	0.94	2.69	0.32
1146A-18H-4, 47–49	160.87	170.92	1.16	0.94	0.61	0.56	2.53	0.53
1146A-18H-5, 47–49	162.37	172.42	1.24	0.66	0.37	0.54	1.62	0.33
1146A-18H-6, 47–49	163.87	173.92	1.36	0.76	0.76	0.75	2.46	0.32
1146B-18H-5, 47–49	165.77	175.52	1.15	0.79	0.49	0.46	2.27	0.30
1146B-18H-6, 47–49	167.27	177.02	1.08	0.63	0.41	0.51	2.19	0.46
1146A-19H-2, 147–149	168.37	178.52	1.11	1.06	0.32	0.61	2.25	0.27
1146A-19H-3, 147–149	169.87	180.02	0.76	0.71	0.36	0.63	2.19	0.24
1146A-19H-4, 147–149	171.37	181.52	0.90	1.02	0.54	0.62	2.34	0.30
1146A-19H-5, 147–149	172.87	183.02	0.82	0.89	0.68	0.75	2.68	0.39
1146A-19H-6, 147–149	174.37	184.52	1.18	1.04	0.78	0.76	2.55	0.31
1146C-19X-3, 49–51	175.59	185.89	1.19	0.77	0.67	0.64	2.61	0.43
1146C-19X-4, 49–51	177.09	187.39	1.07	0.73	0.68	1.11	2.62	0.44
1146C-19X-5, 49–51	178.59	188.89	1.16	0.62	0.72	0.94	2.51	0.45
1146C-19X-6, 49–51	180.09	190.39	0.84	0.76	0.48	0.54	1.79	0.35
1146B-20H-1, 147–149	179.77	191.72	1.54	0.95	0.57	0.82	2.49	0.37
1146B-20H-2, 147–149	181.27	193.22	1.09	0.99	0.88	0.90	3.25	0.72
1146B-20H-3, 147–149	182.77	194.72	1.19	1.23	0.61	0.70	2.64	0.23
1146B-20H-4, 147–149	184.27	196.22	2.16	0.75	0.64	0.73	1.78	0.13
1146B-20H-5, 147–149	185.77	197.72	1.11	0.79	0.75	0.63	2.27	0.35
1146C-20X-5, 147–149	189.17	200.57	1.31	0.62	0.56	0.71	1.80	0.18
1146C-20X-6, 147–149	190.67	202.07	1.21	0.79	0.63	0.79	1.92	0.22
1146B-21H-3, 97–99	190.42	203.47	0.95	0.61	0.68	0.56	1.65	0.17
1146B-21H-4, 97–99	191.92	204.97	1.13	0.83	0.68	0.56	2.11	0.30
1146B-21H-5, 97–99	193.42	206.47	0.87	0.76	0.71	0.55	2.00	0.18
1146C-21X-4, 49–51	196.29	207.94	0.90	0.83	0.92	0.66	2.24	0.30
1146C-21X-5, 49–51	197.79	209.44	1.58	0.58	0.72	0.72	2.31	0.29
1146C-21X-6, 49–51	199.29	210.94	1.36	0.63	0.55	0.56	1.61	0.29
1146B-22H-2, 49–51	199.29	212.64	1.10	0.77	0.87	0.87	2.39	0.32
1146B-22H-3, 49–51	200.79	214.14	1.37	0.75	0.75	0.69	2.03	0.21
1146B-22H-4, 49–51	202.29	215.64	0.73	0.81	0.85	0.65	1.88	0.23
1146B-22H-5, 49–51	203.79	217.14	1.37	0.71	0.98	1.17	2.56	0.30
1146B-22H-6, 49–51	205.29	218.64	1.34	0.88	0.80	0.75	1.99	0.33
1146A-23X-2, 147–149	205.97	219.87	0.64	0.78	0.93	0.68	1.89	0.16
1146A-23X-3, 147–149	207.47	221.37	1.09	0.68	0.93	0.68	2.35	0.35
1146A-23X-4, 147–149	208.97	222.87	0.92	0.51	0.56	0.70	1.82	0.18
1146A-23X-5, 147–149	210.47	224.37	0.95	0.53	0.60	0.52	1.56	0.21
1146C-23X-2, 97–99	212.97	226.72	1.34	0.62	0.89	0.77	1.86	0.33
1146C-23X-3, 97–99	214.47	228.22	1.56	0.82	1.10	0.98	3.18	0.53
1146C-23X-4, 97–99	215.97	229.72	1.39	0.57	0.93	0.79	1.87	0.25
1146A-24X-3, 95–97	216.65	231.35	1.61	0.65	0.69	0.45	1.68	0.20
1146B-24X-1, 145–147	217.75	233.5	1.52	0.76	1.3	0.91	3.43	0.45
1146B-24X-2, 145–146	219.25	235.00	1.58	0.57	0.77	0.72	1.67	0.31
1146B-24X-3, 145–146	220.75	236.5	1.34	0.60	1.30	0.47	2.40	0.36
1146B-24X-4, 145–147	222.25	238.00	1.39	0.65	0.76	0.59	1.71	0.23
1146C-24X-2, 125–127	226.85	238.90	1.46	0.58	0.80	0.61	1.78	0.28
1146C-24X-3, 75 –77	227.85	239.90	1.10	0.53	0.83	0.89	1.96	0.38
1146C-24X-4, 24–26	228.84	240.89	1.76	0.54	0.85	0.65	1.71	0.22
1146C-24X-4, 95–97	229.55	241.60	1.15	0.74	0.95	0.73	1.81	0.31
1146C-24X-5, 45–47	230.55	242.60	1.67	0.69	1.06	0.54	1.94	0.25
1146C-24X-5, 125–127	231.35	243.40	1.19	0.59	1.01	0.63	1.92	0.21
1146C-24X-6, 75–77	232.35	244.40	1.34	0.46	0.72	0.55	1.20	0.17

Note: Only a portion of this table appears here. The complete table is available in **ASCII.**

Table T3. Mineral peak ratios for the <2-µm size fraction.

Hole, core, section, interval (cm)	Depth (mbsf)	Depth (mcd)	Smectite/ Quartz	Illite/ Quartz	Kaolinite/ Quartz	Chlorite/ Quartz	Plagioclase /Quartz	Kaolinite/ Chlorite
184-								
1146B-16H-1, 47–49	140.80	150.20	0.42	0.51	0.22	0.37	0.09	0.59
1146B-16H-2, 47–49	142.30	151.70	0.38	0.46	0.09	0.27	0.13	0.33
1146B-16H-3, 47–49	143.80	153.20	0.43	0.45	0.20	0.20	0.11	0.99
1146B-16H-4, 47–49	145.30	154.70	0.72	0.44	0.32	0.28	0.15	1.13
1146B-16H-5, 47–49	146.80	156.20	0.35	0.33	0.21	0.33	0.16	0.65
1146C-16H-4, 97–99	149.00	157.70	0.35	0.40	0.28	0.25	0.13	1.14
1146C-16H-5, 97–99	150.50	159.20	1.40	1.06	0.49	0.49	0.50	1.00
1146B-17H-1, 147–149	151.30	161.20	0.47	0.47	0.17	0.39	0.12	0.44
1146B-17H-2, 147–149	152.80	162.70	0.56	0.34	0.19	0.39	0.11	0.49
1146B-17H-3, 147–149	154.30	164.20	0.43	0.47	0.24	0.32	0.08	0.77
1146B-17H-4, 147–149	155.80	165.70	0.35	0.42	0.26	0.21	0.19	1.23
1146A-18H-2, 47–49	157.90	167.90	0.41	0.41	0.28	0.41	0.18	0.69
1146A-18H-3, 47–49	159.40	169.40	0.55	0.46	0.12	0.35	0.12	0.33
1146A-18H-4, 47–49	160.90	170.90	0.46	0.37	0.24	0.22	0.21	1.10
1146A-18H-5, 47–49	162.40	172.40	0.77	0.41	0.23	0.34	0.20	0.69
1146A-18H-6, 47–49	163.90	173.90	0.55	0.31	0.31	0.31	0.13	1.01
1146B-18H-5, 47–49	165.80	175.50	0.51	0.35	0.21	0.20	0.13	1.06
1146B-18H-6, 47–49	167.30	177.00	0.49	0.29	0.19	0.23	0.21	0.80
1146A-19H-2, 147–149	168.40	178.50	0.49	0.47	0.14	0.27	0.12	0.53
1146A-19H-3, 147–149	169.90	180.00	0.35	0.33	0.17	0.29	0.11	0.58
1146A-19H-4, 147–149	171.40	181.50	0.38	0.43	0.23	0.27	0.13	0.86
1146A-19H-5, 147–149	172.90	183.00	0.31	0.33	0.25	0.28	0.14	0.90
1146A-19H-6, 147–149	174.40	184.50	0.46	0.41	0.31	0.30	0.12	1.02
1146C-19X-3, 49–51	175.60	185.90	0.46	0.30	0.26	0.25	0.17	1.04
1146C-19X-4, 49–51	177.10	187.40	0.41	0.28	0.26	0.42	0.17	0.62
1146C-19X-5, 49–51	178.60	188.90	0.46	0.25	0.29	0.38	0.18	0.76
1146C-19X-6, 49–51	180.10	190.40	0.47	0.42	0.27	0.30	0.20	0.89
1146B-20H-1, 147–149	179.80	191.70	0.62	0.38	0.23	0.33	0.15	0.69
1146B-20H-2, 147–149	181.30	193.20	0.34	0.30	0.27	0.28	0.22	0.98
1146B-20H-3, 147–149	182.80	194.70	0.45	0.47	0.23	0.26	0.09	0.88
1146B-20H-4, 147–149	184.30	196.20	1.22	0.42	0.36	0.41	0.07	0.87
1146B-20H-5, 147–149	185.80	197.70	0.49	0.35	0.33	0.28	0.15	1.20
1146C-20X-5, 147–149	189.20	200.60	0.73	0.34	0.31	0.40	0.10	0.78
1146C-20X-6, 147–149	190.70	202.10	0.63	0.41	0.33	0.41	0.12	0.80
1146B-21H-3, 97–99	190.40	203.50	0.58	0.37	0.41	0.34	0.10	1.21
1146B-21H-4, 97–99	191.90	205.00	0.54	0.39	0.32	0.27	0.14	1.21
1146B-21H-5, 97–99	193.40	206.50	0.44	0.38	0.35	0.28	0.09	1.27
1146C-21X-4, 49–51	196.30	207.90	0.40	0.37	0.41	0.29	0.14	1.41
1146C-21X-5, 49–51	197.80	209.40	0.68	0.25	0.31	0.31	0.13	1.01
1146C-21X-6, 49–51	199.30	210.90	0.85	0.39	0.34	0.35	0.18	0.97
1146B-22H-2, 49–51	199.30	212.60	0.46	0.32	0.37	0.36	0.14	1.00
1146B-22H-3, 49–51	200.80	214.10	0.67	0.37	0.37	0.34	0.11	1.08
1146B-22H-4, 49–51	202.30	215.60	0.39	0.43	0.45	0.35	0.13	1.31
1146B-22H-5, 49–51	203.80	217.10	0.54	0.28	0.38	0.46	0.12	0.83
1146B-22H-6, 49–51	205.30	218.60	0.67	0.44	0.40	0.38	0.17	1.06
1146A-23X-2, 147–149	206.00	219.90	0.34	0.41	0.49	0.36	0.09	1.35
1146A-23X-3, 147–149	207.50	221.40	0.46	0.29	0.39	0.29	0.15	1.36
1146A-23X-4, 147–149	209.00	222.90	0.51	0.28	0.31	0.38	0.10	0.80
1146A-23X-5, 147–149	210.50	224.40	0.61	0.34	0.39	0.34	0.13	1.14
1146C-23X-2, 97–99	213.00	226.70	0.72	0.33	0.48	0.41	0.18	1.16
1146C-23X-3, 97–99	214.50	228.20	0.49	0.26	0.35	0.31	0.17	1.12
1146C-23X-4, 97–99	216.00	229.70	0.74	0.31	0.49	0.42	0.13	1.17
1146A-24X-3, 95–97	216.70	231.40	0.96	0.38	0.41	0.27	0.12	1.54
1146B-24X-1, 145–147	217.80	233.50	0.44	0.22	0.38	0.27	0.13	1.42
1146B-24X-2, 145–146	219.30	235.00	0.94	0.34	0.46	0.43	0.18	1.07
1146B-24X-3, 145–146	220.80	236.50	0.56	0.25	0.54	0.20	0.15	2.77
1146B-24X-4, 145–147	222.30	238.00	0.81	0.38	0.45	0.34	0.14	1.30
1146C-24X-2, 125–127	226.90	238.90	0.82	0.33	0.45	0.34	0.16	1.31
1146C-24X-3, 75–77	227.90	239.90	0.56	0.27	0.42	0.45	0.19	0.93
1146C-24X-4, 24–26	228.80	240.90	1.03	0.32	0.50	0.38	0.13	1.30
1146C-24X-4, 95–97	229.60	241.60	0.64	0.41	0.53	0.40	0.17	1.31
1146C-24X-5, 45–47	230.60	242.60	0.86	0.36	0.55	0.28	0.13	1.95
1146C-24X-5, 125–127	231.40	243.40	0.62	0.31	0.52	0.33	0.11	1.59

Note: Only a portion of this table appears here. The complete table is available in **ASCII.**