Table 1. Leg 194 proposed sites.

Site	Priority	Line	CDP	Fig.	Latitude (S)	Longitude (E)	Water Depth (m)	Sediment Thickness (m)	Target Depth (m)	Requested Penetration (m)	PPSP Approval
CS-01A	1	MAR-29	4486	15	20°14.53'	151°47.54'	342	474	483	600	Yes
		MAR-29	2315	16							
CS-02A	1	MAR-23	2180	17	20°14.10'	151°59.03'	368	379	388	500	Yes
		MAR-23	720	18							
CS-03A	2	MAR-37	1268	19	20°47.57'	152°16.51'	320	445	454	550	Yes
		MAR-37	1782	20							
CS-05A	1	MAR-51	1290	21	20°57.75'	152°44.31'	331	469	478	575	Yes
		MAR-51	1750	22							
CS-06A	1	MAR-70	348	23	21°00.38'	152°51.40'	314	561	570	670	Yes
		MAR-70	5610	24							
CS-08A	2	MAR-63	1296	25	21°04.60'	153°03.98'	358	513	522	650	Yes
		MAR-63	1814	26							
CS-09A	2	MAR-45	1300	27	20°54.66'	152°35.05'	342	477	486	600	Yes
		MAR-45	1814	28							
CS-10A	1	MAR-04	7050	29	20°24.18'	152°40.23'	431	484	493	600	Yes
		MAR-04	7898	--							
CS-11A	3	MAR-20	15348	30	20°03.40'	151°45.77'	360	491	500	650	Pending
CS-12A	2	MAR-20	15110	30	20°04.45'	151°47.08'	360	491	245	650	Pending
CS-13A	3	MAR-20	8260	31	20°34.53'	152°24.55'	369	526	535	650	Pending
CS-14A	3	MAR-20	4980	32	20°48.89'	152°42.58'	370	508	517	650	Pending
CS-15A	3	MAR-20	3780	33	20°54.14'	152°49.19'	365	469	478	650	Pending
CS-16A	3	MAR-20	2690	34	20°58.90'	152°55.21'	312	561	571	670	Pending
CS-17A	3	MAR-20	1270	35	21°05.09'	153°03.05'	336	519	528	650	Pending

Table 2. Leg 194 Marion Plateau (Proposal 510)

Operations Plan and Time Estimate:

Site No.	Location (Lat/Long)	Water Depth (mbrf)	Operations Description	Transit (days)	Drilling (days)	Logging (days)	Total On-site (days)
			Sea Voyage from Townsville to CS-01A (195 nmi @ 10.5 kt)	0.8			
CS-01A	20°14.53'S	342	Hole A: APC to ref. (~50 mbsf), XCB 70 mbsf		0.7	0.0	0.7
	151°47.54'E		Hole B: RCB 483 mbsf, Log.		2.7	0.8	3.5
			Hole C: RCB 40 mbsf, FFF, ADCB 340 mbsf, Log		6.9	0.8	7.7
			Transit from CS-01A to CS-02A (11 nmi @ 10.5 kts)	0.1			
CS-02A	20°14.10'S	368	Hole A: APC to refusal (~119 mbsf), XCB to 388 mbsf, Log		2.2	0.8	3.0
	151°59.03'E		Hole B: APC to refusal (~119 mbsf), XCB to 388 mbsf		1.6	0.0	1.6
			Transit from CS-02A to CS-06A (97 nmi @ 10.5 kts)	0.4			
CS-06A	21°00.38'S	314	Hole A: RCB to 570 mbsf, Log		3.6	0.8	4.4
	152°51.40'E		Hole B: RCB to 280 mbsf, FFF, ADCB to 570 mbsf, Log		7.7	0.8	8.5
			Transit from CS-06A to CS-05A (118 nmi @ 10.5 kts)	0.5			
CS-05A	20°57.75'S	331	Hole A: APC to refusal (~170 mbsf), XCB to 478 mbsf		2.0	0.0	2.0
	152°44.31'E		Hole B: APC to refusal (~170 mbsf), XCB to 283 mbsf		1.1	0.0	1.1
			Hole C: Drill to 170 mbsf, RCB to 478 mbsf, Log		2.0	0.8	2.8
			Transit from CS-05A to CS-10A (34 nmi @ 10.5 kts)	0.1			
CS-10A	20°24.18'S	431	Hole A: APC to refusal (~234 mbsf), XCB to 493 mbsf		2.0	0.0	2.0
	152°40.23'E		Hole C: APC to refusal.(~234 mbsf), XCB to 493 mbsf, Log		2.4	0.8	3.2
			Sea Voyage from CS-10A to Guam (2014 nmi @ 10.5 kt)	8.0			
			SUBTOTAL:	**9.9**	**34.9**	**5.6**	**40.5**
			TOTAL OPERATING DAYS:	**50.4**			
			CONTINGENCY SITES:				
CS-03A	20°47.57'S	320	Hole A: APC to refusal (~220 mbsf), XCB to 454 mbsf, Log		2.1	0.8	2.9
	152°16.51'E		Hole B: APC to refusal (~220 mbsf), XCB to 454 mbsf, Log		2.0	0.8	2.8
CS-06A	21°00.38'S	314	Hole C: RCB to 30 mbsf, FFF, reentry, ADCB to 330 mbsf		6.3	0.0	6.3
	152°51.40'E						
CS-08A	21°04.60'S	358	Hole A: APC to refusal (~150 mbsf), XCB to 522 mbsf		2.2	0.0	2.2
	153°03.98'E		Hole B: APC to refusal (~150 mbsf), XCB to 280 mbsf		1.1	0.0	1.1
			Hole C: Drill to 270 mbsf, RCB to 522 mbsf, Log		2.0	0.8	2.8
CS-09A	20°54.66'S	342	Hole A: APC to refusal (~200 m), XCB to 486 m		2.0	0.0	2.0
	152°35.05'E		Hole B: APC to refusal (~200 m), XCB to 486 m, Log		2.2	0.8	3.0

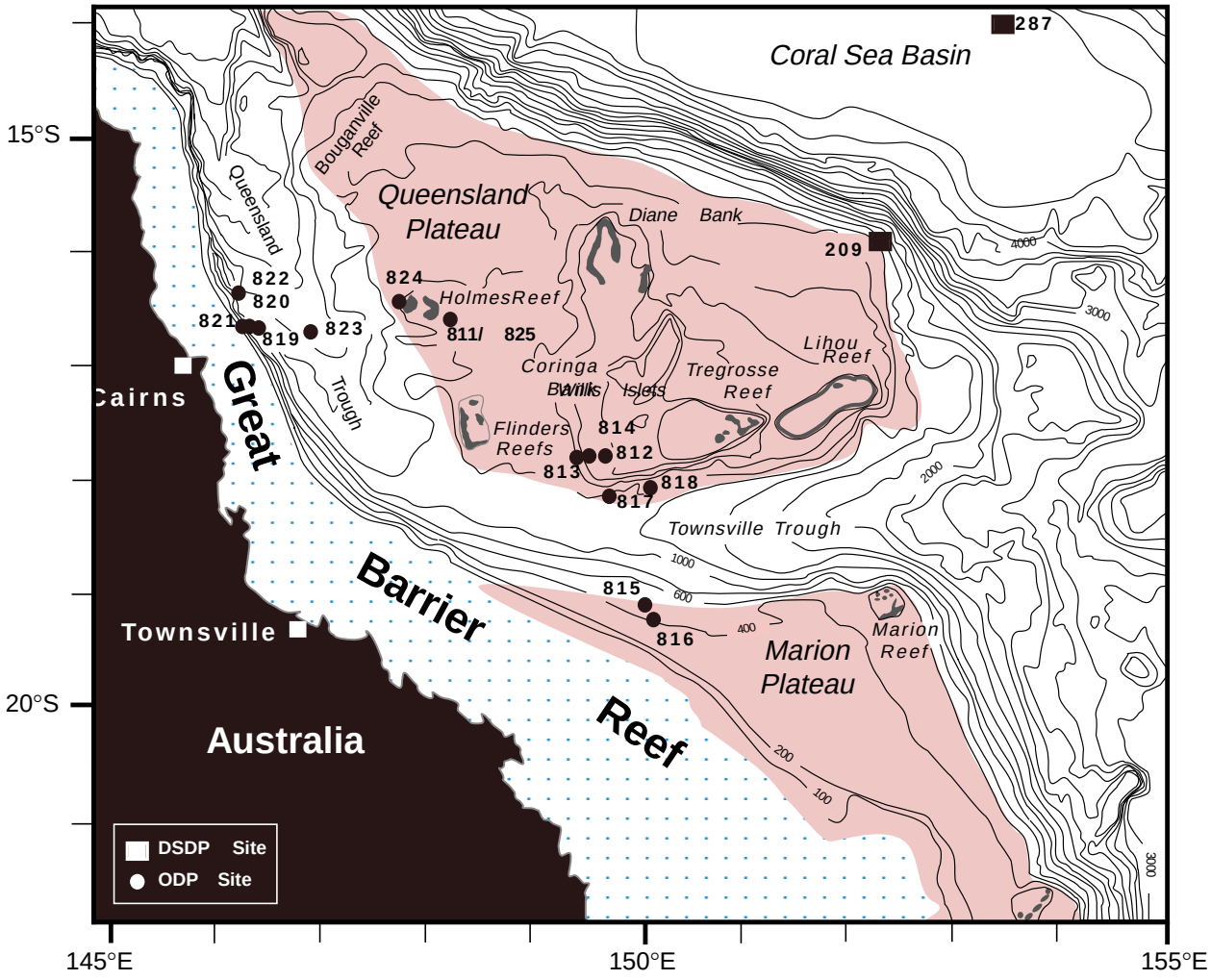

Figure 1. Map showing the location of DSDP Sites 209 and 287 and ODP Leg 133 sites off northeastern Australia.

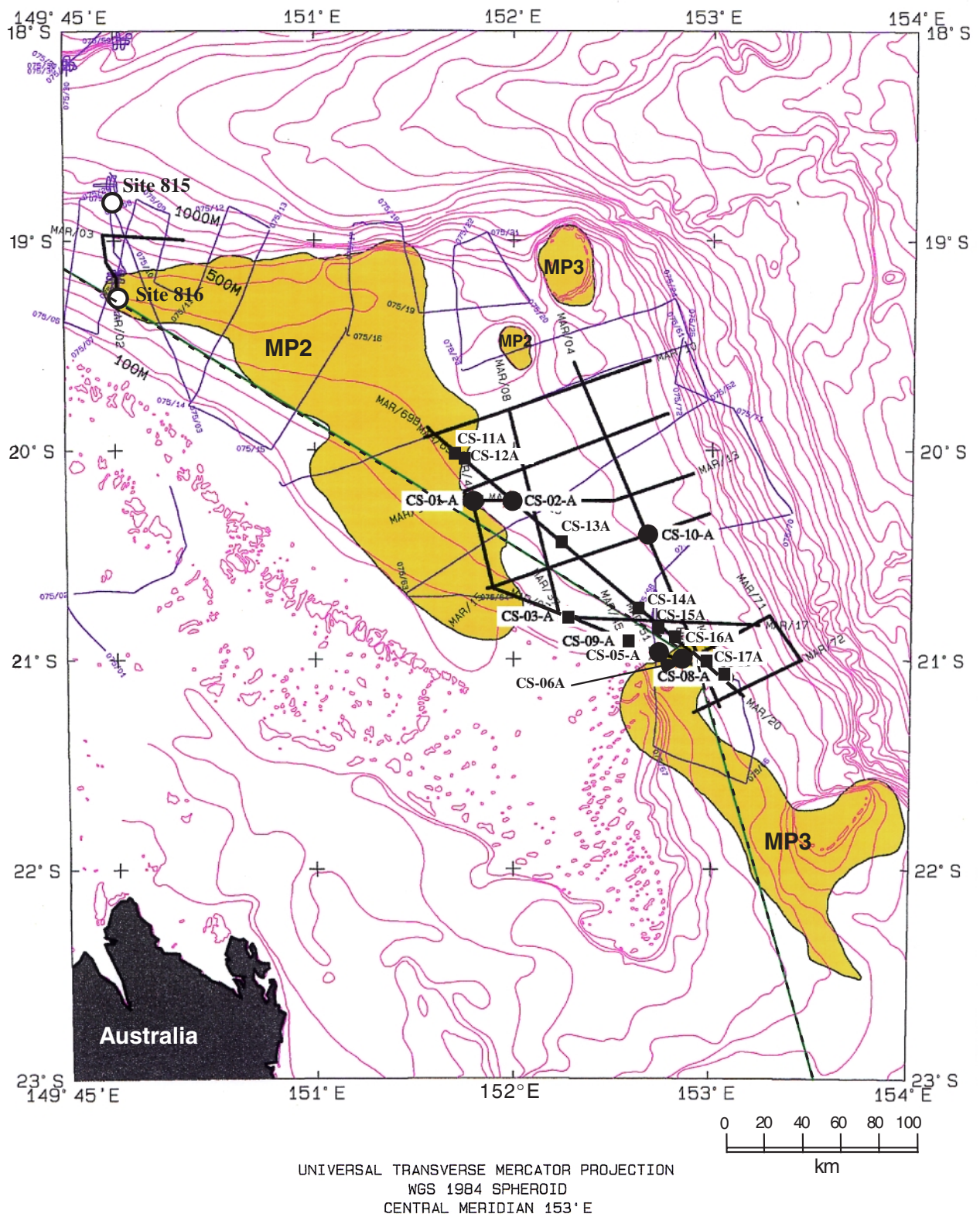

Figure 2. Map showing location of Leg 194 proposed primary sites (black circles), contingency sites (black squares), and Sites 815 and 816 from Leg 133 (black-rimmed white circles). Solid lines show the location of multichannel seismic lines from the Australian Geological Survey Organization (thinner lines = Survey 75) and from the Leg 194 site survey (heavier lines = MAR data). Gray shaded areas show the estimated extent of the MP2 (early to middle Miocene) and MP3 (late Miocene to Pliocene) platforms. Dashed line shows the boundary of the Great Barrier Reef Marine Park.

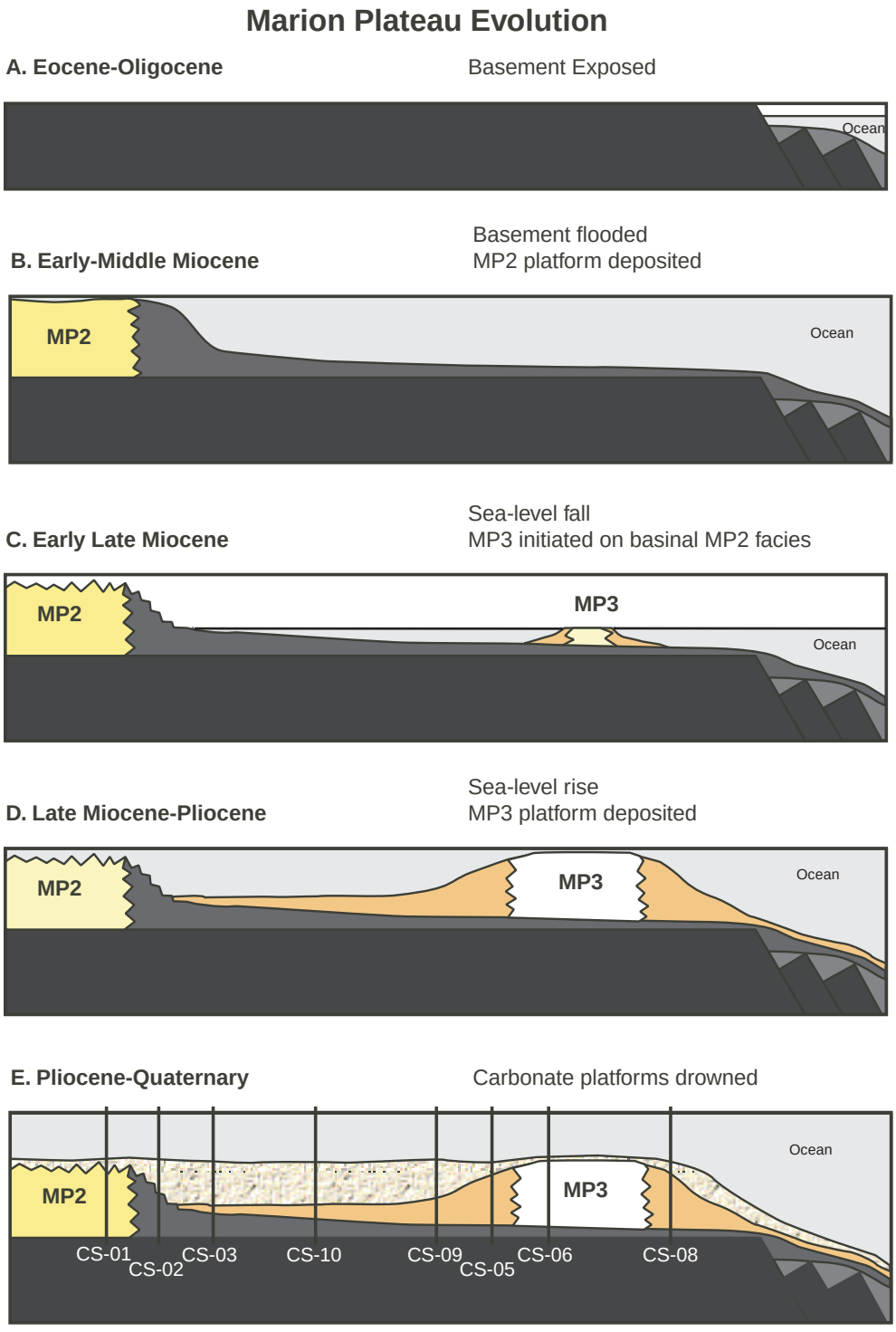

Figure 3. Schematic depositional history for the MP2 (early to middle Miocene) and MP3 (late Miocene to Pliocene) phases of carbonate platform development on the Marion Plateau. **A.** During the Eocene to Oligocene, the Marion Plateau crystalline metasedimentary basement was exposed to erosion. **B.** The basement was flooded in the early Miocene at which time the MP2 platform began to develop. **C.** In the early late Miocene the MP2 platform was exposed during a major sea-level fall and the MP3 platform initiated on the basinal facies of MP2. **D.** In the late Miocene and early Pliocene, sea level rose enabling the development of the MP3 platform and eventually reflooding the surface of MP2. **E.** Both MP2 and MP3 were "drowned" in the Pliocene, resulting in the cessation of most carbonate production in this interval. Proposed Leg 194 sites are marked on diagram E.

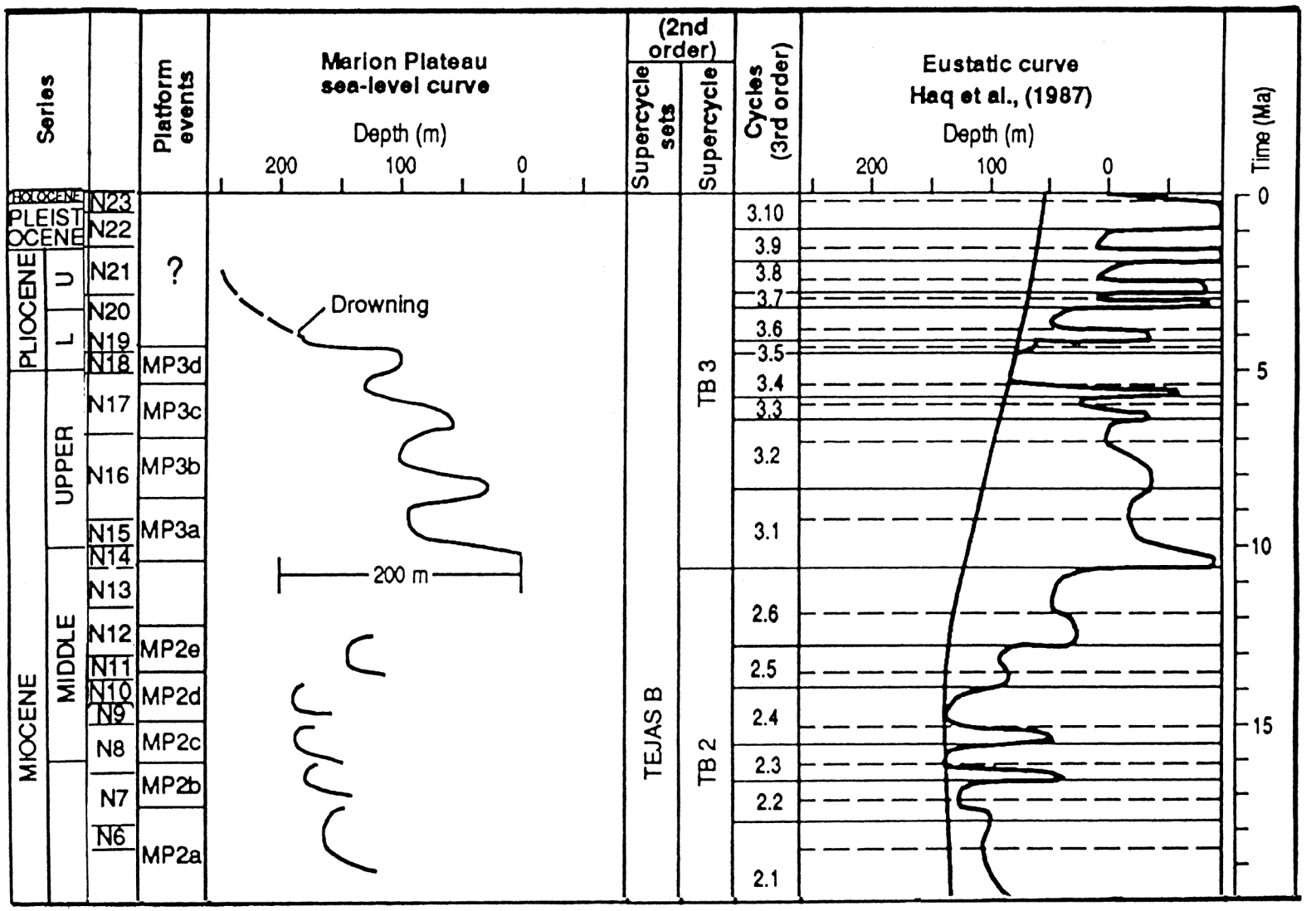

Figure 4. Marion Plateau sea-level events vs. age compared to those from Haq et al. (1987).

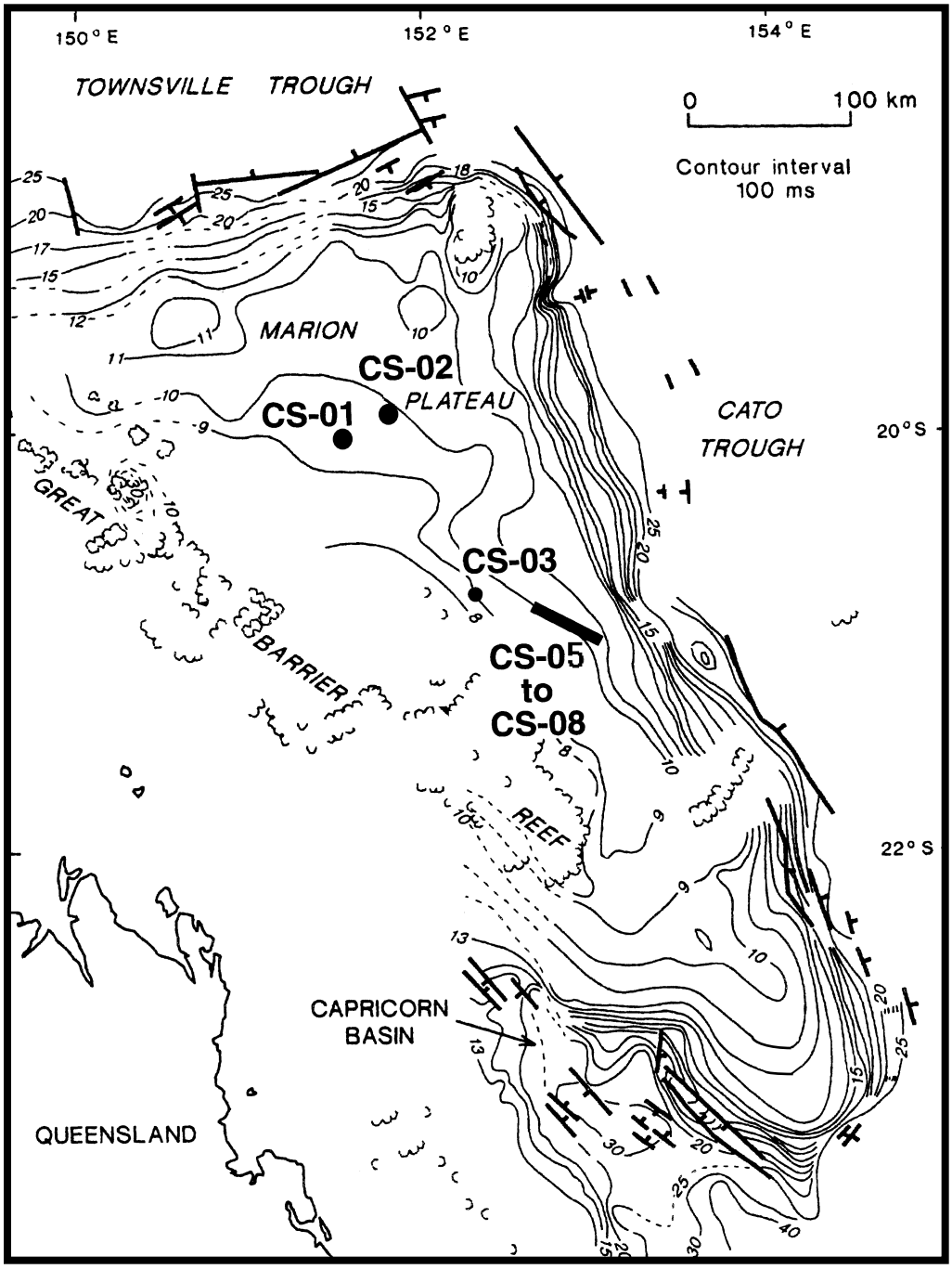

Figure 5. Structure contour map for basement of the Marion Plateau (after Pigram et al., 1992). Contours are effectively isosubsidence lines for total subsidence of basement. Locations of proposed sites are shown. Note that the sites generally strike parallel to the flexural axis and have undergone similar total subsidence.

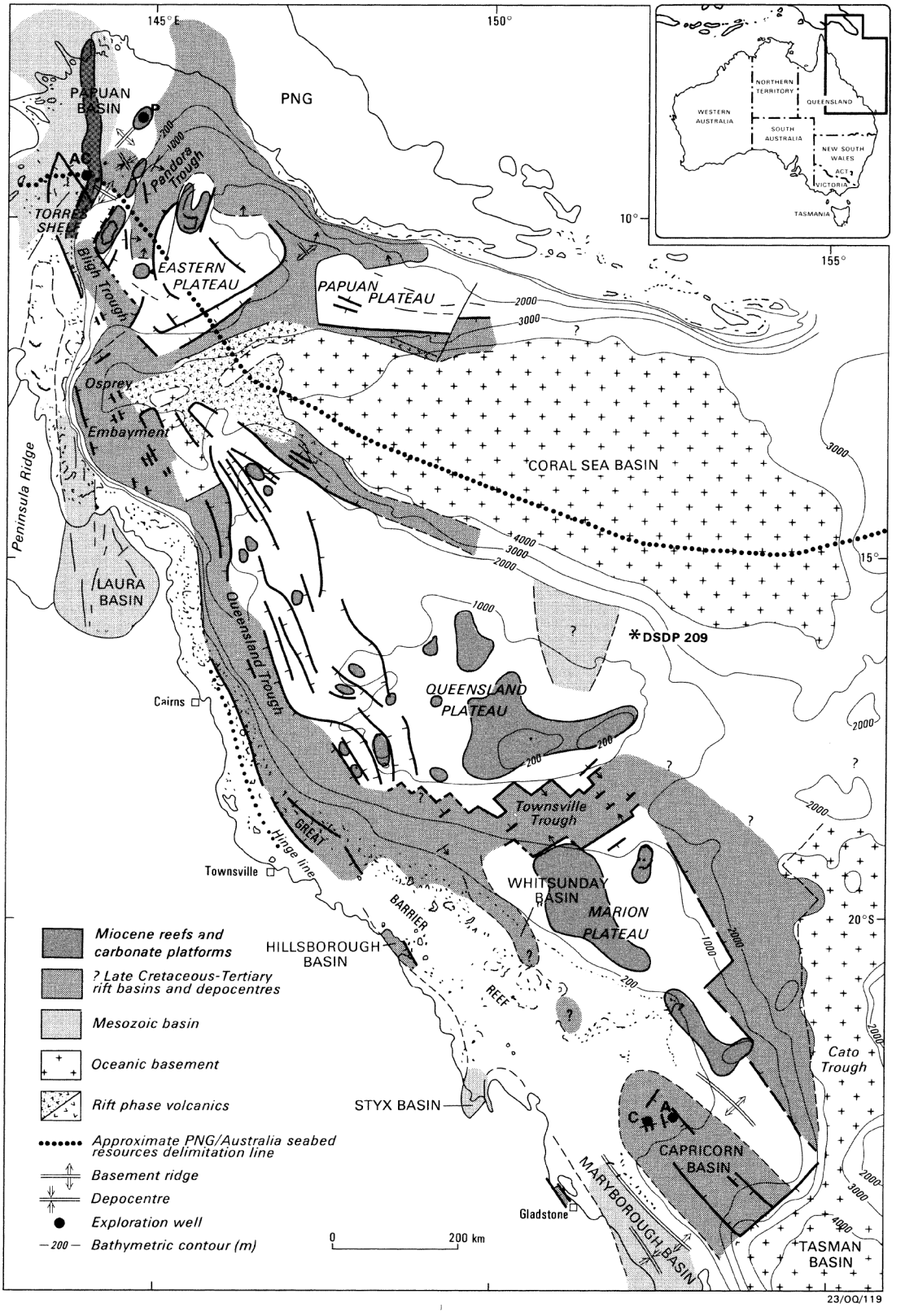

Figure 6. Map showing the major structural features of the Coral Sea.

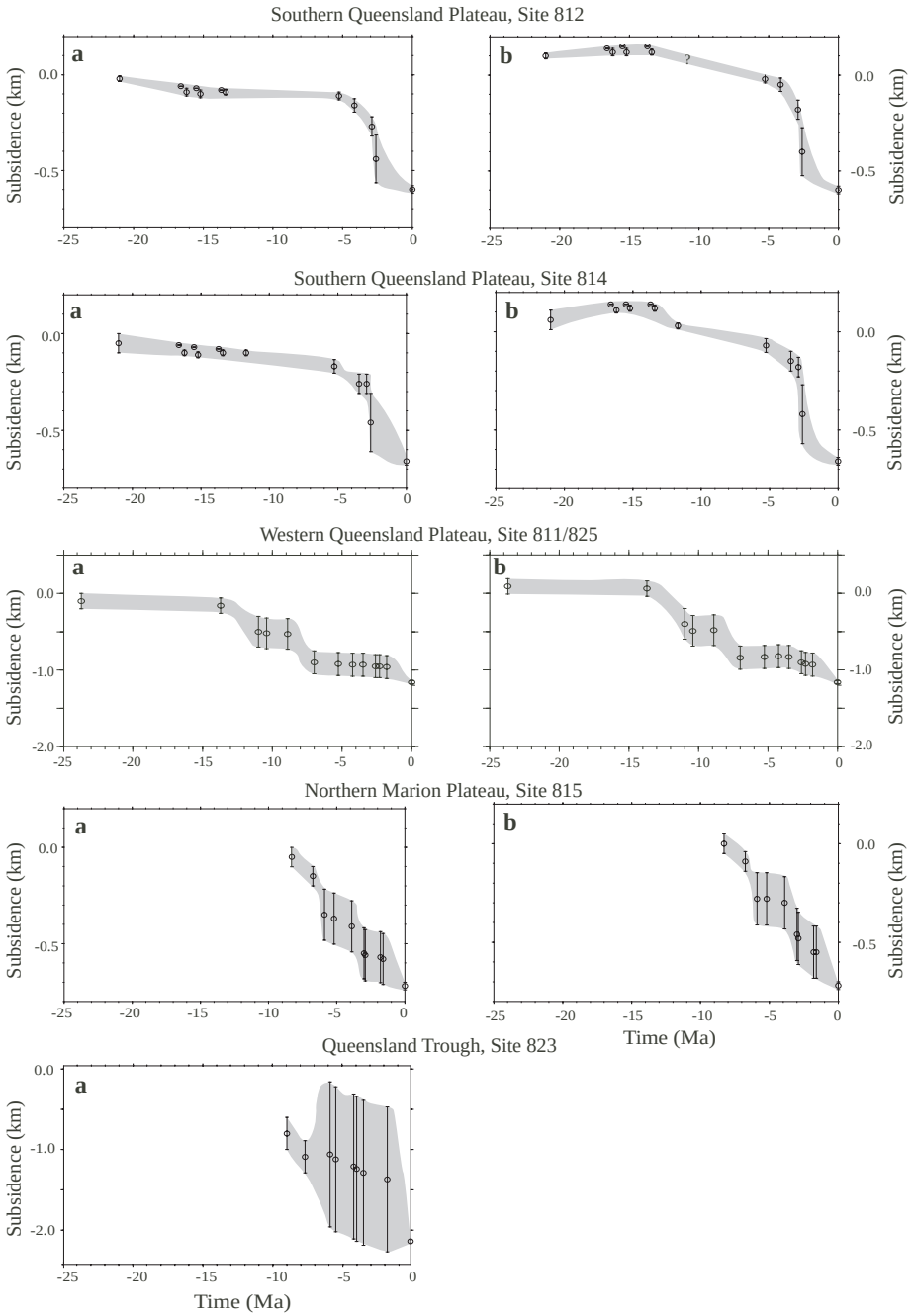

Figure 7. Water-loaded tectonic subsidence (i.e., with the isostatic sediment load removed) for ODP Leg 133 Sites 812, 814, 811/825, 815, and 823, assuming constant eustatic sea level (a) and using eustatic sea-level variations of Haq et al. 1987 (b). The latter is not shown for Site 823, as the errors in water depth (vertical error bars) are much larger than eustatic sea-level variations. Shading around error bars indicates the area in which the true subsidence curve should occur. Comparisons between (a) and (b) allows evaluation of the potential effect of eustatic variations on tectonic subsidence models. For instance, the first model (a) for Site 814 shows a gently subsiding platform until about 5 Ma, whereas the second model (b), including eustacy, shows a tectonic subsidence pulse between 14 and 12 Ma. Therefore, the latter may be entirely due to the input of an ill-constrained eustatic sea-level curve.

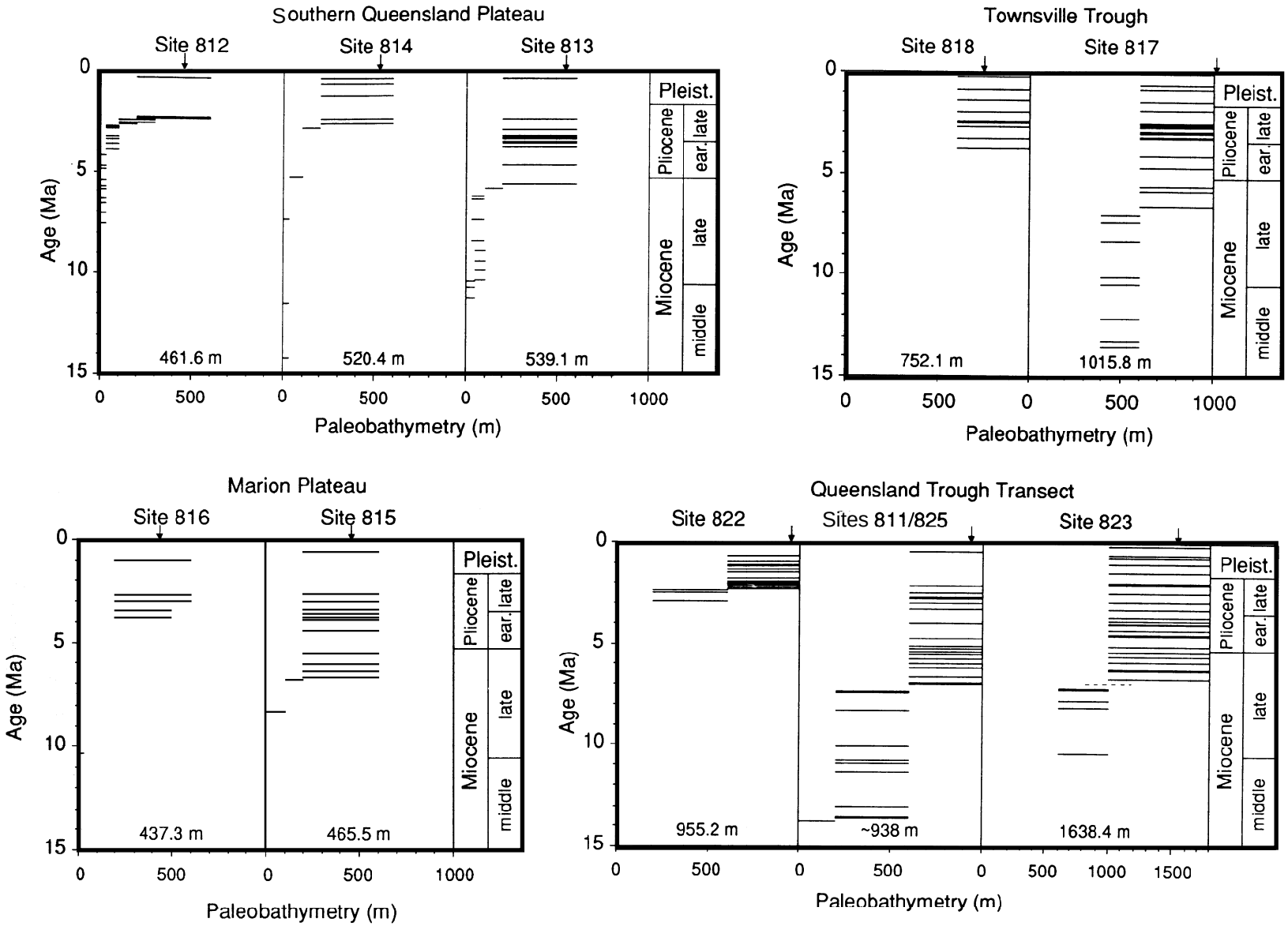

Figure 8. Paleobathymetric histories for the Queensland and Marion Plateaus as inferred from benthic foraminiferal data plotted vs. age from Katz and Miller (1993). Present-day water depths (m) are shown for all sites.

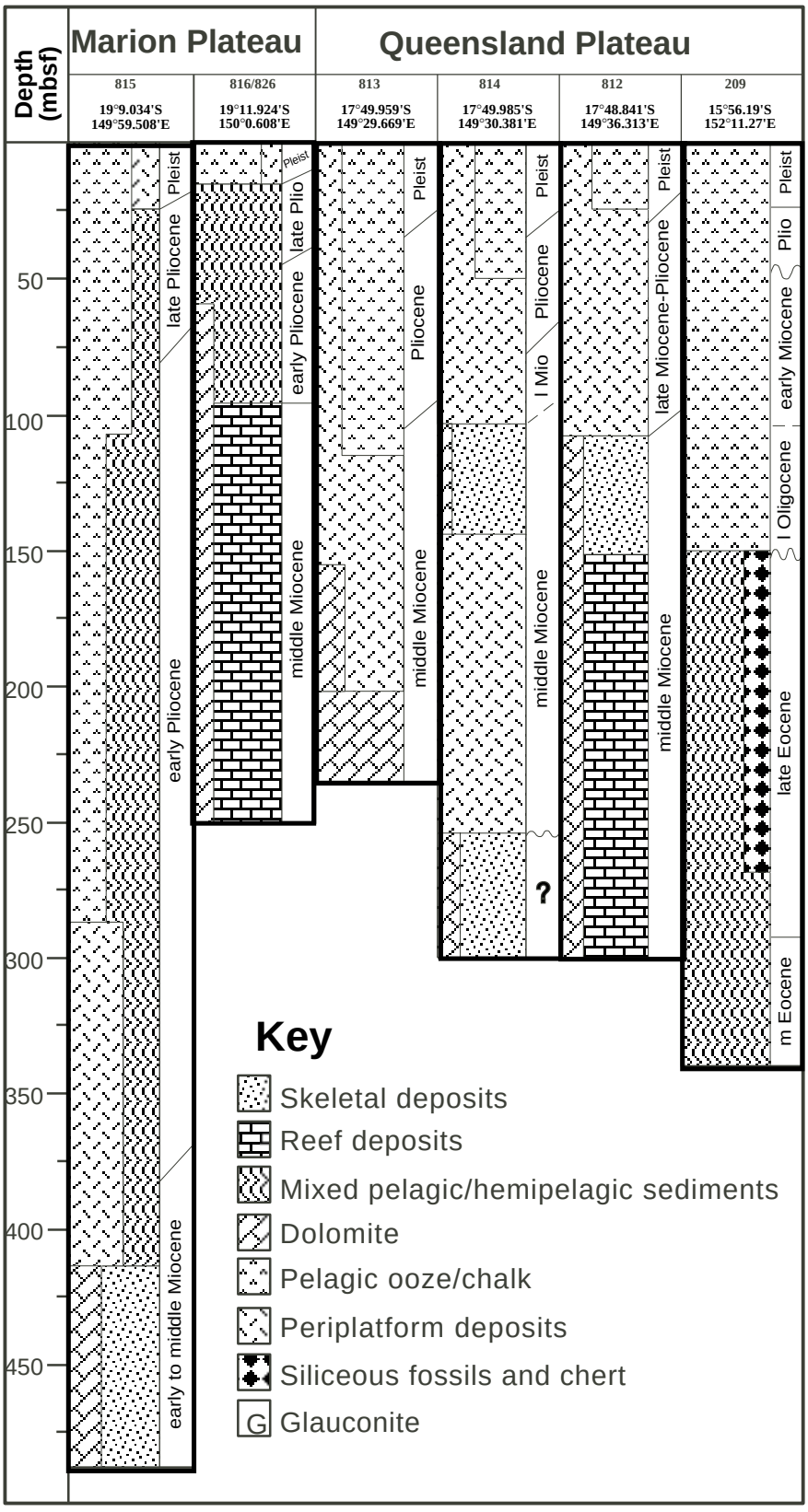

Figure 9. Stratigraphic summary of previously cored sites located near Leg 194 sites. All sites were cored during Leg 133 except for Site 209, which was cored during DSDP Leg 21.

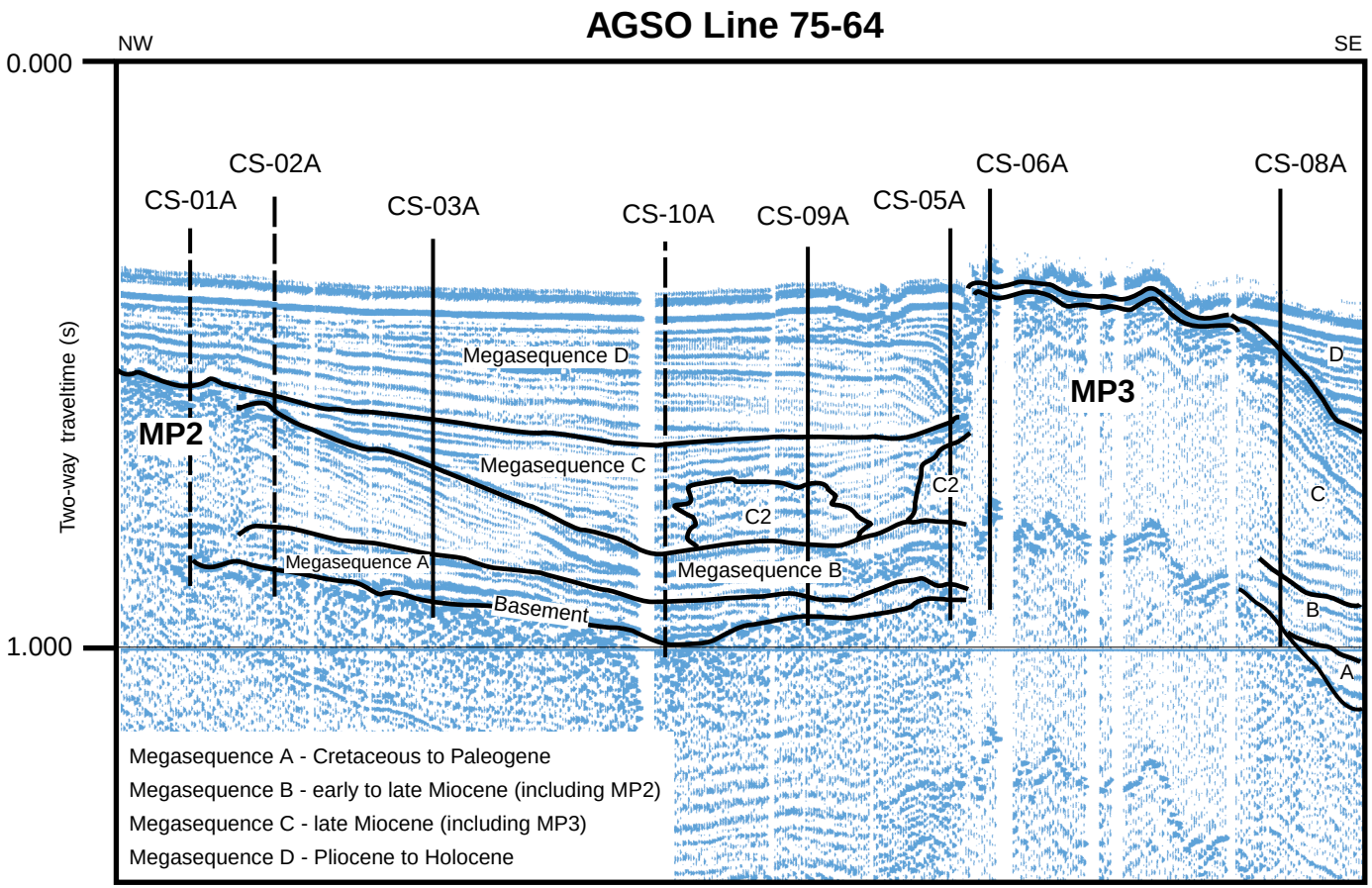

Figure 10. Interpreted AGSO Line 75-64 with proposed sites and major sequence stratigraphic units. The facies geometry used to calibrate the amplitude of the Miocene N12-N14 sea-level fall is shown by the relationship between platforms MP2 and MP3. Dashed lines indicate sites that have been chosen using other seismic lines but that still can be identified within a similar facies on this line. More detail on site placement can be seen on subsequent detailed sections. C2 is a carbonate growth phase occurring during Megasequence C.

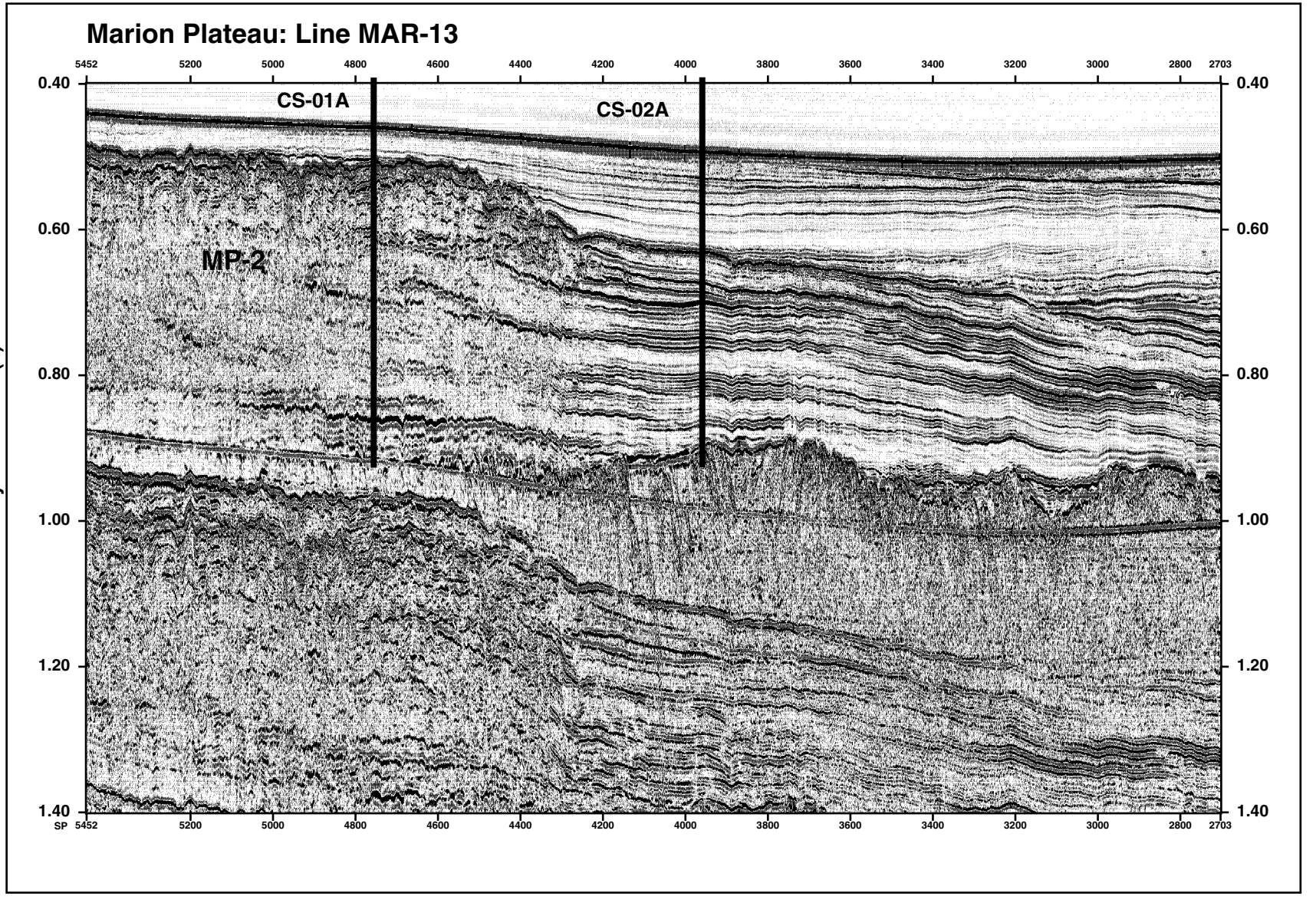

Figure 11. High-resolution site survey seismic (two-way traveltime) from Line MAR-13 (Fig. 2) with locations of Leg 194 Sites CS-01A and CS-02A indicated.

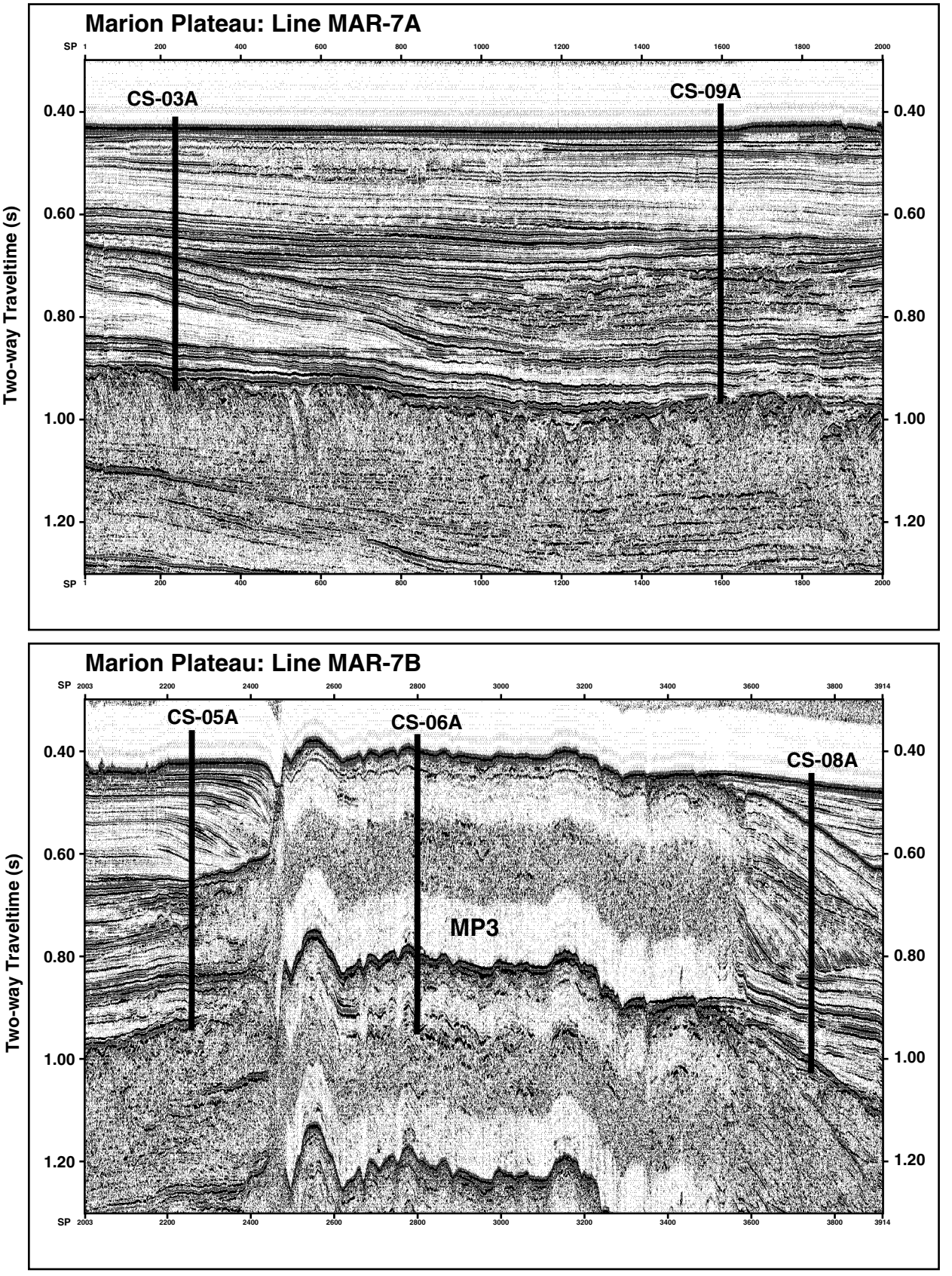

Figure 12. High-resolution site survey seismic (two-way traveltime) from Line MAR-7 (Fig. 2) with locations of Leg 194 Sites CS-03A, CS-05A, CS-06A, CS-08A, and CS-09A indicated.

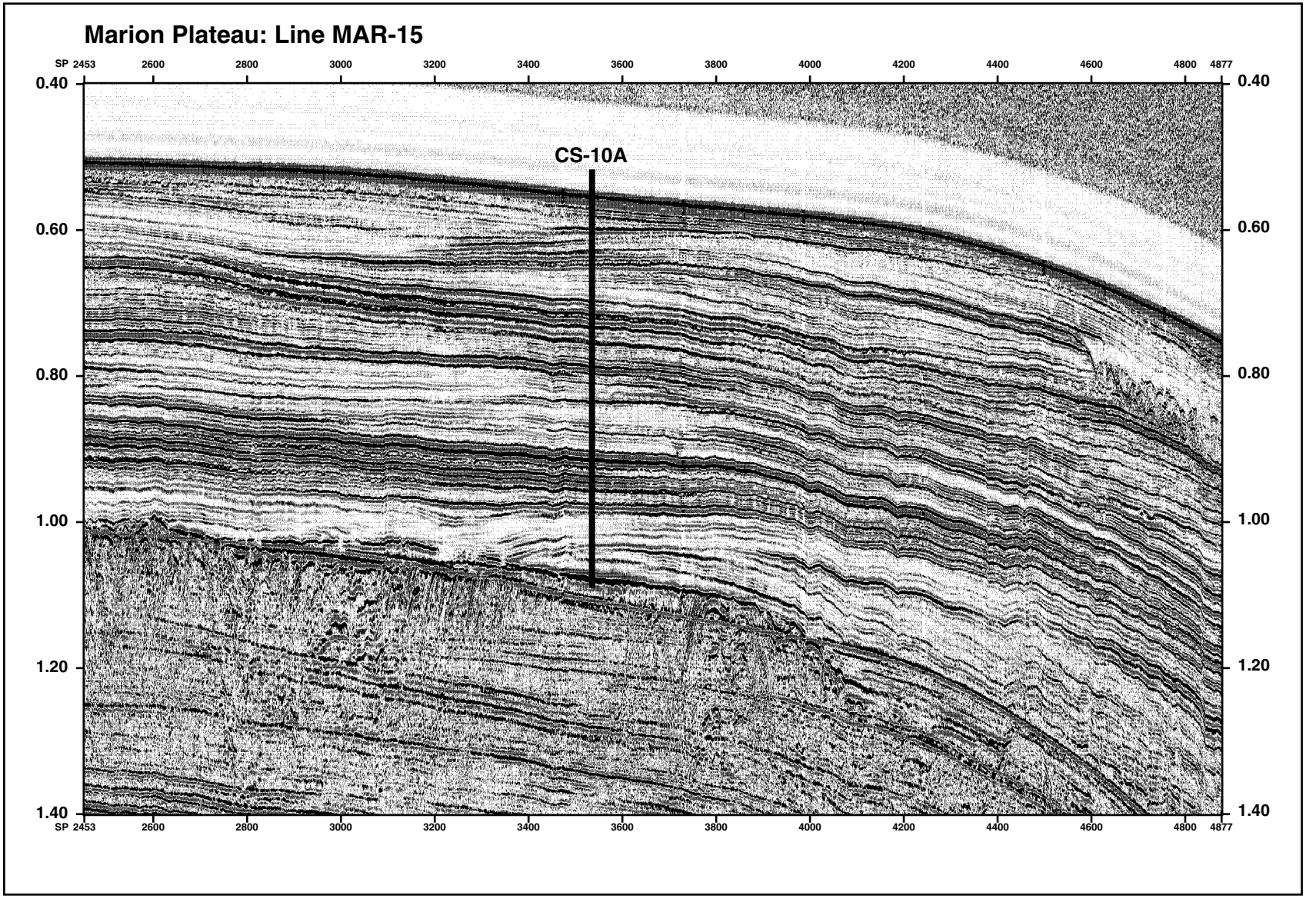

Figure 13. High-resolution site survey seismic (two-way traveltime) from Line MAR-7 (Fig. 2) with locations of Leg 194 Sites CS-10A indicated.