



Figure S1. The age-depth model used in this study for samples at ODP Site 851. For the 7 - 5 Ma time interval, the model is that presented by *Shackleton et al.* [1995], which is on a meter composite depth (mcd) scale. For the 5 - 0 Ma time interval, the model is that provided by *Cannariato and Ravelo* [1997], which is on a revised (rmcd) scale. Note that sediment accumulation rates were much higher at Site 851 from >7.0 to 4.6 Ma relative to younger time intervals.