



Figure S1: (a) In the age model of the Mochras borehole Al-Suwaidi et al. (2022) shifted the position of the base Toarcian Stage in the PI-T-CIE from within the $\delta^{13}\text{C}$ valley (their figure 4) to the upper plateau (their figure 5, reproduced in Fig. S1). Also, Al-Suwaidi et al. (2022) shifted the position of the Tenuicostatum-Serpentinum zonal boundary from the top of the $\delta^{13}\text{C}$ falling limb of the T-CIE (their figure 4) to its base (their figure 5). (b) The boundaries of ammonite zones and $\delta^{13}\text{C}$ secular intervals in the Mochras borehole are picked to an accuracy of better than 1.0 meter (Storm et al., 2020, and references therein), and their calibrations represent the age model of the late Pliensbachian and Early Toarcian reference section (Fig. 3, Table S1, Ruebsam and Al-Husseini, 2020, 2021).