

## ***Interactive comment on “Reconstruction of Atlantic Water variability during the Holocene in the western Barents Sea” by D. E. Groot et al.***

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As the authors point out under 3. Material and methods, the lithology of the studied core has previously been described in Rüther et al. 2012. Unfortunately, the authors did not deem it necessary to comment on and discuss observations and ideas presented in Rüther et al. 2012 which in my opinion are rather central to major conclusions in the paper at hand. It is pointed out in Rüther et al. 2012 that a major erosional boundary is present at 85 cm core depth which with the presented age model in Groot et al. would correspond to roughly 9400 cal ky. This statement was based on the observation of a sharp, undulating transition from clay into bioclast-rich sandy mud as well as the occurrence of distinct sand lenses below that boundary. The authors may disagree that these observations have any significance to their study. The sharp transition from

C2102

mud to bio-clast rich sandy mud may well be explained by local shifts in current regime as suggested here, but I would nevertheless encourage the authors to discuss the possibility of the presence of an erosional boundary.

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