

## ***Interactive comment on “Stable carbon isotopes of dissolved inorganic carbon for a zonal transect across the subpolar North Atlantic Ocean in summer 2014” by Matthew P. Humphreys et al.***

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We thank the reviewer for taking the time to read our manuscript and for providing their encouraging comments and useful criticism. We have addressed the points that were raised as follows:

We have clarified what we mean by ‘calibrated range’ in the updated manuscript (it is the range of peak areas that were measured for the standards). We had only mentioned a low value as a reference because no samples had peak areas that were too high (i.e. above the top end of the calibrated range), but we have added a sentence to explain this now.

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We believe that the unit mV s (millivolt seconds) is the correct unit for the area beneath a curve on axes of seconds and millivolts (i.e. the peak area). You are quite right to point out that this is equivalent to mWb and we have switched to using this instead throughout the manuscript.

We agree with your point about the need to consider the potential influence of the Suess effect on the cross-over analysis. Based on observed rates of change in the region we find that this does not adversely affect the cross-over analysis, and we have now explained this in the text (in section 5.3.4). We have also added an additional figure, which shows a map of the ‘historical’ stations used for the cross-over.

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C2