

Interactive comment on “Improved landscape partitioning and estimates of deep storage of soil organic carbon in the Zackenberg area (NE Greenland) using a geomorphological landform approach” by Juri Palmtag et al.

Juri Palmtag et al.

juri.palmtag@natgeo.su.se

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Anonymous Referee #1

We thank the referee for their constructive comments of this manuscript which helped to improve this manuscript.

Comment: P 4. L 22. “time or”. Isn’t time part of the logistical problem? Response: We agree that it is part of logistical problems and remove “time or” from the text.

C1

Comment: P 6. L 7-15. Materials in 2 glacial moraines (lateral and end) deeper than 100 was considered as “till”. Since soils sampled from 0-100 cm in both landform formed in moraine, the parent material of these soils is moraine. Then, why call the portion below 100 cm till? Response: We refer to the deeper deposits as till from a sedimentological perspective and not as a landform, based on the analyzed coring material which was unsorted glacial sediment

Comment: P 6. L. 31-32. C stores reported for 0-300 cm in small lakes. Not clear if the whole 300 cm includes both water and sediment? Response: This is a good point so we added additional clarification in the text “from sediment surface”.

Comment: P 7. L 37. “importance of”. Would it be better say “effects of” or “important role of”? Response: We changed as suggested to “important role of”.

Please also note the supplement to this comment:

<https://www.the-cryosphere-discuss.net/tc-2017-255/tc-2017-255-AC1-supplement.pdf>

Interactive comment on The Cryosphere Discuss., <https://doi.org/10.5194/tc-2017-255>, 2017.

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