

Interactive comment on “Pumping methane out of aquatic sediments – forcing mechanisms that affect the temporal dynamics of ebullition” by A. Maeck et al.

Anonymous Referee #3

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The manuscript from A. Mack et al on the "pumping of methane out of aquatic sediment" is well written and concise.

However, as it is submitted to a biogeochemical journal I do have some comments. There is a strong emphasis on physical parameters and their analysis, however the biogeochemical background is somewhat neglected. The analysis of their measured data is very extensive, but the interpretation of the data in an environmental context is a bit weak, and should be improved.

Also, as to my knowledge, the described way of measuring the ebullition rate is new; a bit more details to the sensors and their calibration should be given. Especially

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when the huge amount of data is analyzed very extensively. I also found the proposed scheme in figure 9 a bit farfetched. The data and interpretation given in this ms, do not lead to this scheme. More general and specific comments are given in the modified pdf-file

Please also note the supplement to this comment:

<http://www.biogeosciences-discuss.net/10/C8160/2014/bgd-10-C8160-2014-supplement.pdf>

Interactive comment on Biogeosciences Discuss., 10, 18687, 2013.

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