

## ***Interactive comment on “Thermal characterization of the active layer at the Limnopolar Lake CALM-S site on Byers Peninsula (Livingston Island), Antarctica” by M. A. de Pablo et al.***

**M. A. de Pablo et al.**

miguelangel.depablo@uah.es

Received and published: 29 April 2014

Authors thank to the anonymous referee the comments about our manuscript what is the base for further future work. Our answers to the referee comments are those: 1) About the “transitional zone” term we use in the text, we said “The increasing drilling complexity from 110 cm depth and the thermal behavior observed on the thermograms could, may be, point toward the presence of a transitional zone-like in the ground (e.g., Bockheim and Hinkel, 2005)”. So, we said “transitional zone-like”, because we know that it should be considered permafrost, not active layer. Then, if we calculated that the Active Layer is 130 cm, we could do not have the transitional zone above that depth.

C347

What we tried to explain is that may be it was a forming transition layer, or a degraded one or the remnants of the top of the permafrost layer after its thawing. We could better use the term proposed by the referee “former transition layer”. 2) Yes, we agree that both Thermal Diffusivity calculated analytically and Apparent Thermal Diffusivity, should be explained together in the methods, and results discussed together. We will make the necessary modifications. 3) About the lettering in the figures, they seems to be small because we designed them to be plotted in landscape at the final version of the paper, not in portrait such as it looks like under the discussion paper of Solid Earth. It means that at the final version some of the plots will be bigger than what they looks like now. However, we could increase the size following the referee recommendations. 4) We will also make an in deep review of the text to solve the language problems detected by the referee. 5) For the moment, the CALM-DAT program is still not available for the public since we are now working on some technical issues related to the resulting database (not about the calculations algorithms we used). In any case, we will publish it as soon as possible (at least the beta version of the software), and upload the link to the Solid Earth journal to made it available for the future reader of this paper.

---

Interactive comment on Solid Earth Discuss., 6, 679, 2014.

C348