

Response to reviewer 2:

The manuscript conveys the scientific history and describe the sampling approach of the Camp Century subglacial sediment core, some sixty years after the core was retrieved. The objective is to provide fundamental observations and provide a core stratigraphy for subsequent analytical work performed on subsamples.

The manuscript is well written, well structured, and with a great level of detail to provide an important backbone for any coming analysis. The authors have done an excellent job in setting up a stratigraphy and strategizing the sampling for future studies. The scientific history of coring endeavors is a great addition, that made reading the manuscript more exciting. From these points, I think the manuscript is ready for publication.

*We appreciate the reviewer's enthusiasm for the manuscript.*

I have only one minor comment, which regards the readership: The authors are careful to interpret the stratigraphy to only a certain extent and do not provide these interpretations on the Figure 8 (which by the way could do with larger font sizes).

*The reviewer is correct. We chose in this ms not to present data/interpretations beyond that gathered during the core cutting and sample allocation process. Although we are now as a team generating such data, their presentation and interpretation will require a series of more focused papers in this same special volume. We thus have remained modest in our interpretations. We will propose to the editors that figure 8 be laid out as a full page in landscape orientation which will make the fonts larger than the current review ms.*

Probably for a reason, although I do find the manuscript a little too much of a "cliffhanger" in terms of the next steps with this material. As it is now, the manuscript is seemingly intended for those researchers, who will get to work on the material.

*This was not our intent but it is good to know this is how the reviewer perceived the ms. Our intent is to provide fundamental information about the core for a wide variety of readers far into the future, some of whom will be working on the core but many of whom will just want to know about the sub-ice sediment that was never fully described in earlier publications.*

I find it a shame, that the authors do not outline some research questions and engage a broader community.

*This is an excellent suggestion and when revising the ms, we will include just such a set of research questions with the goal of engaging the broader community.*

Researching ancient Greenland – using tiny bits of sediment – is quite buzzworthy. Therefore, I would propose a resume of what was found in Christ et al. 2024, in the section 'initial interpretation and paleoenvironment' along with an outline of the most pending research questions that these two papers have now led to (also in context of what is known from other similar type studies).

*We will follow the reviewer's suggestion and do exactly this in revision – presenting the findings of Christ et al. 2024 and outlining the most pertinent research questions that sub-ice material can address.*

Summarizing what we think we know now, and what is still uncertain, perhaps aided by conceptual figures, would engage a broader readership and could thereby pave the road for novel approaches (both analytical and modeling) that were not initially considered by the authors.

*We will prepare such a summary and consider conceptual figures although those may be better left for a paper several years from now when all the data we are currently collecting can be synthesized. We fear getting ahead of the data and publishing ideas that will rapidly be shown to be incorrect.*