Comment from the editor

The authors present new reflection seismic data acquired over the Koillismaa Layered Igneous Complex in Finland. The presence of a fossil magma conduit containing a mafic-ultramafic package and a steep fault zone are interpreted from the data. The results are important for assessing the potential of the site for hosting Ni-Cu-PGE sulphide type orthomagmatic critical raw materials.

Additional private note (visible to authors and reviewers only):
Please provide a figure showing the results with and without curvelet denoising being applied as requested by Reviewer #1. Also, please review the English thoroughly before resubmitting.

Response: Firstly, we are very thankful to the handling associate editor Prof Christopher Juhlin for his thorough review and handling our article throughout the process. We have implemented all the changes proposed by the editor and the two anonymous reviewers.

In the submitted version, as suggested, we have added a section without the curvelet denoising to showcase its effect on the results. As the results of curvelet denoising were similar for both profiles, we have provided this comparison only for L1000 such that the figures are appropriately sufficient and concise, and do not include any repetition as curvelet denoising was merely used as a signal enhancement tool. Figure 5 now has three panels: (a) DMO-PoSTM migration result without curvelet denoising applied, (b) DMO-PoSTM migration result with curvelet denoising applied, and (c) KPreSDM. The corresponding mentions in the main text are in Rows 217-221.

We have also reviewed the English of the manuscript, including the suggestions made by Reviewer-1, &2. We hope that the manuscript is now ready for publication and will contribute significantly to scientific advancements. We are open to any further comments or suggestions.