

Dear Editor,

Thank you for your careful assessment of our revised manuscript and for the helpful suggestions. We have revised the manuscript accordingly. The main changes are summarized below.

1. We softened statements implying direct causal attribution between mining activities and permafrost thaw. Specifically, causal terms such as “triggered,” “induced,” and “driven by” were removed or replaced with more cautious wording. The revised manuscript now emphasizes that significant surface subsidence and hydrological changes occurred during and after the period of intensified mining activities and are consistent with mining-amplified permafrost degradation, rather than indicating absolute causal attribution.

Line 554: *“The strong coherence between accelerated subsidence and the rapid slowdown in the streamflow recession (i.e., increase in K_s value) during the mining and post-mining period provides compelling evidence that permafrost degradation intensified after the mining activities and is consistent with mining-amplified degradation.”*

Line 566: *“Moreover, since permafrost degradation had already accelerated after intensified mining activities, the resulting instability may have increased the sensitivity of permafrost to ongoing climate change.”*

Line 638: *“Moreover, our analysis interprets the observed deformation and recession changes as primarily reflecting intensified permafrost degradation after the mining activities.”*

Line 654: *“The long-term InSAR deformation retrievals reveal significant subsidence after intensified mining activities, with rates of -15 to -5 mm a^{-1} and enhanced thaw-season deformation (-60 to -20 mm).....”*

Line 660: *“The concurrent increase in surface subsidence and streamflow recession time constant during the mining and post-mining period provides strong evidence of widespread permafrost degradation associated with anthropogenic disturbances.”*

2. We corrected a few remaining grammatical errors.
3. We checked the Figure, Table, and Equation numbers throughout the manuscript and confirmed that they are correctly ordered and properly referenced in the text.
4. We unified the term “Qilian Mountains” throughout the manuscript.
5. We checked the in-text citations of Li et al. (2022) and Li et al. (2022b) and revised

them to specify the correct references.

6. We checked the MODIS product names and corresponding references. Specifically, the NDVI, LST, and albedo products are now consistently referred to as MOD09GA.006, MYD11A1, and MCD43A3, respectively.
7. We corrected the Fig. 3 caption by adding “(a)” before “differential interferogram generation.”
8. We corrected the misspelling of “Sentinel-1” in the captions of Fig. 8 and Fig. 12.