

Response to Comments

Ms. Ref. No.: EGUSPHERE-2025-552

Dear Editor and Reviewers,

We would like to sincerely thank the editor and all reviewers for their valuable time, constructive comments, and insightful suggestions. We are especially grateful to the reviewers from the first round for their detailed and specific feedback, which greatly helped us improve the quality and clarity of the manuscript. We also appreciate the continued support and thoughtful input from the editor and reviewers during the second round of review. Their efforts and professional insights are deeply appreciated and have been instrumental in refining our work.

We have carefully considered each comment and revised the manuscript accordingly. Below, we provide a detailed, point-by-point response, with reviewer comments in black and our responses in blue for clarity.

Reviewer #1:

1. 86–88: Present the contribution in a “local-to-global” sequence: first explain the value for the Shule River Basin itself, then broaden to analogous arid-zone basins worldwide. This progression makes the argument more reader-friendly.

RESPONSE: AGREE AND CHANGES MADE

We greatly appreciate this important suggestion. Following your advice, we have modified the relevant sentence to follow a clearer “local-to-global” logic, which improves the readability and flow of the argument. Please see lines 86–88 in the revised manuscript.

2. Line 100 :he reported mean altitude of the basin does not feed into any subsequent analysis or discussion. Consider deleting the sentence to keep the background concise.

RESPONSE: AGREE AND CHANGES MADE

We appreciate your suggestion. To improve the conciseness of the background section, we have removed the sentence as recommended

3. Isotopic notation consistency: Wherever hydrogen and oxygen isotopes are cited, use the fixed order “ δD and $\delta^{18}O$ ” (e.g., “the δD and $\delta^{18}O$ signatures indicate ...”). A quick search shows a few instances where the order is reversed—unify these for stylistic consistency.

RESPONSE: AGREE AND CHANGES MADE

We greatly appreciate your insightful comment. We have thoroughly reviewed the manuscript and unified the isotopic notation to consistently use “ δD and $\delta^{18}O$ ” as recommended.