Dear Dr. Hilton and authors,

I appreciate the authors' efforts in addressing my initial comments, but there are still some crucial recommendations for enhancing scientific transparency and reproducibility that were overlooked. The comments below pertain to the tracked changes manuscript.

Lines 204 to 217:

1. The geometric surface area (GSA) is not reported. I recommend using the calc_area algorithm from the MixSIAR R-package (Brett, 2014; Stock et al., 2018) to compute GSA and test if the end-member composition is distinct for all end-members. The GSA value should be included in the manuscript.
2. Please specify which convergence diagnostic tests were employed for estimating model convergence (Geweke, Gelman-Rubin, or Heidelberg-Welch).
3. Report the chain length and the number of chains used in the analysis.
4. The burn-in of 1000 appears to be relatively small for an unmixing model; typically, it would be in the range from 100,000 to 1,000,000.
5. In Table 2, the average values for the endmembers should be accompanied by the number of samples used to calculate the mean $\delta^{13}C$ and $\Delta^{14}C$ for each. Report the amount of samples used for calculating $\delta^{13}C$ and $\Delta^{14}C$.

To adhere to APA statistical guidelines for scientific work, it is essential to cite results properly. Each mean should be reported with either a standard deviation (SD) or standard error (SE) or a similar metric. Indicate with the first usage of the mean and error statistic whether it is (M ± SD) or (M ± SE). M, SD, and SE are accepted APA abbreviations. This essential information should not be excluded for the reader's clarity, and I highly recommend including the sample size (n) for each average.

- Line 241: Missing SD and n, and lack of proper description.
- Lines 259-260: Missing n.
- Line 264: Missing n.
- Line 266: Missing n.
- Line 270: Missing n, and missing SD and n for the $\Delta^{14}C$ value.
- Line 272: Missing SD and n.
- Lines 274-275: Missing SD.
- Line 307: Missing n.
- Lines 615-617 and following: Missing SDs and ns.

Line 247: All used data should be made accessible to the reader. Please add the D10 and D90 values to Table 1, especially as this data is not deposited into a database. Reporting values in a figure is insufficient.

Line 310 and following, including figures: Use two or three decimal places and report exact values for all *p*-values greater than .001. For *p*-values smaller than .001, report them as p < .001 (APA).

Figure 1: Spelling error - "Guaging station" instead of "gauging station" within the map.

Figure 3 and 5: Add a legend for sample depth. Does the small dot represent surface or deep water?

Thank you for your attention to these matters.

Best regards,