Dear Associate Editor,

We thank you for your consideration of the manuscript and the positive answer, and we thank again the reviewers who allowed the paper to improve considerably.

We address below the different points that you mentionned in your decision letter.
We hope these changes will help.

Best regards
Antoine Cogez

Associate Editor Decision: Publish subject to minor revisions (review by editor) (04 Jan 2018) by Jane Willenbring

Comments to the Author:

Thank you for your submission of this work. I have considered excellent and thorough reviews given by the two anonymous reviewers. It seems that most of the comments were addressed and incorporated into the manuscript.

I noticed that there were still no rock standards published along with the U-Th data even though this was requested by reviewer #2

Ok, we forgot it. We added the data in table 3 for a rock standard analyzed following the same protocol as the samples (except the leaches) and a reference to it in section 2.3.3. We would like to point out that the different duplicates that we also show in this table are more relevant for the scope of this study (reliability of the leaching protocole and the silicate digestion).

and there is an uncited reference listed:
Prytulak, J. et al. (2008). An inter-laboratory assessment of the thorium isotopic composition of synthetic and rock reference materials. Geostandards and Geoanalytical Research, 32, 65–91.
Perhaps this was an omission.

It seems this reference is actually Sims et al. In the references Prytulak is the last author listed (line 15 of page 30) in the long list of authors of this paper. It appears shifted from the first line of the reference (line 14 of page 30, not 15) mentionning Sims… etc

Figure caption 1: dureation should be "duration" and vetical should be "vertical"
In fact, this whole sentence: "i.e. between Y axis and this dashed vetical line. (lower panels: d, e and f) the co-evolution of these ratios presented above." is not proper English. Please rephrase the punctuation and/or text to make it make more sense.
Also in the Fig 1 caption: "In order to make sense of the complexity of the different possible patterns in the framework of the comminution model incorporating weathering (see section 2.3.1. Different cases are plotted, corresponding to different f values, and different weathering intensities (see legend)." This is not a sentence and doesn't make sense. Please revise.

We changed those sentences to make them more understandable.
« Our 10Be exposure ages give the time elapsed since this event (shown by the dashed vertical line), whereas the U-Th data indicate the duration of the first phase since comminution and remobilization (from the x-axis origin to the dashed vertical line). (Lower panels: d, e and f) The co-evolution of the ratios in a, b and c, respectively. Different scenarios are plotted corresponding to different f-values and weathering intensities to illustrate potential patterns in the comminution weathering model (see legend and Section 2.3.1). »

There are some formatting issues with the references in the document.

Fixed, as exhaustively as possible.

Other than these easy adjustments and additions, the manuscript will be ready to publish.