**Response to Referee 2 corrections:**

I thank the authors for the substantial revisions they made to their interesting manuscript.
The paper is now acceptable for publication, pending some minor revisions:
- page 2, lines 25-30. Acidobacteria are only some of the potential producers of brGDGTs.

**Fixed.**
- page 8, lines 10-13. Isoprenoid GDGTs are likely not detected (rather than absent) in a majority of samples.

**Fixed.**
- page 12, lines 5-9. In order to conclude about in situ brGDGT production, the brGDGT concentrations should be expressed in microg/g of organic carbon (and not in microg/g of dry sediment).

**For this study, TOC was not measured and therefore we report our concentrations in the units ng/gsed/day extracted. We note that this is a common way that organic lipid concentrations are reported in current literature.**

- pages 18-19. Paragraphs 5.5 and 5.6 should be merged as they are directly linked.

**Paragraphs have been merged.**