

03 March 2017

RETRACTION

Portenga, E.W., Bierman, P.R., Trodick, C.D., Greene, S.E., DeJong, B.D., Rood, D.H., and Pavich, M.J., 2017, Background rates of erosion and sediment generation in the Potomac River basin, USA, derived using in situ ^{10}Be , meteoric ^{10}Be , and ^9Be : Geological Society of America Bulletin, doi:10.1130/B31543.1 (published online 27 January 2017).

GSA Bulletin received the following information on 2 March 2017.

It has recently come to our attention that there is a calculation error in our paper, “Background rates of erosion and sediment generation in the Potomac River basin, USA, derived using in situ ^{10}Be , meteoric ^{10}Be , and ^9Be .”

The error was introduced during our calculation of sediment generation rates (D) from measurements of meteoric ^{10}Be ($^{10}\text{Be}_m$) and the reactive phase of ^9Be ($^9\text{Be}_{\text{reac}}$) in Equation 1 of our paper. We misunderstood the original derivation of this equation in von Blanckenburg et al. (2012) and applied it incorrectly to our study. Thus, all $^{10}\text{Be}_m/^9\text{Be}_{\text{reac}}$ -derived sediment generation rates (and only the $^{10}\text{Be}_m/^9\text{Be}_{\text{reac}}$ -derived sediment generation rates) presented in our paper are incorrect, as are the results of any statistical tests in which these sediment generation data were used; this error affects Figures 3, 6, 7, 8, and 11 and Tables 1 and S3, which graphically show and tabulate these data, respectively. We believe all other calculations are correct.

The errors associated with the incorrect $^{10}\text{Be}_m/^9\text{Be}_{\text{reac}}$ -derived sediment generation rates are pervasive throughout the paper. We are retracting the paper in its current form so as not to proliferate incorrect data or to introduce misconceptions about how von Blanckenburg et al.’s (2012) study should be applied elsewhere.

We regret any inconveniences this may cause.

Kind regards,

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