

Interactive comment on “Geochemical controls on the partitioning and hydrological transport of metals in a non-acidic river system” by J. Thorslund et al.

Anonymous Referee #2

Received and published: 6 October 2014

This is in general a very good paper that I can without hesitations accept for publication.

The research question, while not entirely new, provides new insights for the region of the Tuul river, which was previously poorly investigated with regard to the study question. Due to ongoing but changing mining practices, the mobilization and transport of various substances, including heavy metals, are a relevant issue from the environmental perspective.

I would suggest the authors, where meaningful, to refer to a series of papers recently published in a special issue on Water in Central Asia in the journal *Environmental Earth*

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Sciences. In particular, relevant papers COULD include the following:

Hofmann J, Watson V, Scharaw B (2014): Groundwater quality under stress: contaminants in the Kharaa River basin (Mongolia). *Environ Earth Sci*, this issue. doi: 10.1007/s12665-014-3148-2

Hülsmann L, Geyer T, Schweitzer C, Priess J, Karthe D (2014): The Effect of Subarctic Conditions on Water Resources: Initial Results and Limitations of the SWAT Model applied to the Kharaa River Basin in Northern Mongolia. *Environ Earth Sci*, this issue. doi: 10.1007/s12665-014-3173-1

Malsy M, aus der Beek T, Flörke M (2014): Evaluation of large-scale precipitation data sets for water resources modelling in Central Asia. *Env Earth Sci*, this issue. doi: 10.1007/s12665-014-3107-y

Pfeiffer M, Batbayar G, Hofmann J, Siegfried K, Karthe D, Hahn-Tomer S (2014): Investigating arsenic (As) occurrence and sources in ground, surface, waste and drinking water in northern Mongolia. *Environ Earth Sci*, this issue. doi: 10.1007/s12665-013-3029-0

Priess JA, Schweitzer C, Batkhishig O, Koschitzki T, Wurbs D (2014): Impacts of agricultural land-use dynamics on erosion risks and options for land and water management in Northern Mongolia. *Environ Earth Sci*, this issue. doi: 10.1007/s12665-014-3380-9

The quality of fig 1 should be improved (it is a bit strange to see some elements of the legend used only in one map and others only in the other map making up this illustration).

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 11, 9715, 2014.

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