

Heavy metal pollution in river originated from the mine developing in Mongolia

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Increasing large-scale and rampant small-scale mining activity in Mongolia is raising fears about the possibility of regional environmental pollution. To characterize the level of surface water pollution related to large- and small-scale

, we analyzed about 50 river water samples collected from three areas: Boroo mining area, Zaamal area and Uyanga-gaas area. The samples were collected between 26 August and 7 September 2014. Measurements parameters included pH, EC, major ion and trace metal. Principal component analyses, Piper diagrams and enrichment were applied to a set of hydrochemical data. Water samples were analyzed to identify components that may adversely affect the regional environment and human health. Analytical measurements showed that the studies sites were highly affected by trace elements derived from anthropogenic activity. Especially, mercury concentration was very high in the village of NINJA, that is illegal gold mining.

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