In-situ-Parameter-Screening of creeks in the former uranium mining area near Ronneburg

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Abstract

As part of remediation by the WISMUT GmbH the underground mines of the former uranium mining site of Ronneburg are flooded since 1997. In spite of preventive measures it came to mine water discharge from the underground mines into surface water catchments. In the period from May till June 2011 in-situ measurements of physicochemical parameters carried out in 6 creeks (Gessenbach, Badergraben, Lammsbach, Wipse, Mennsdorfer Sprotte, Postersteiner Sprotte) in order to localize mine water discharges. The evaluation of the field work shows that in-situ-measurements were able to localize mine water discharges in the Gessenbach, Badergraben, Lammsbach and Postersteiner Sprotte. A comparison with WISMUT data shows that water discharges go along with increasing hydrochemical parameters.