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Geology, structural evolution and controls of hydrothermal gold mineralisation in the eastern Karagwe-Ankole fold belt, northwestern Tanzania

The geology and tectonic setting of the Karagwe-Ankole fold-andthrust belt in northwestern Tanzania has, to date, only been captured by regional reconnaissance studies. The structural evolution of the eastern termination of the belt overlying Archaean rocks of the Tanzania Craton was documented. Geochronological results constrain the timing of regional tectonism and allow for a correlation with similarly old belts to the south. Hydrothermal fluid flow and associated gold mineralisation are structurally controlled by the regional-scale detachment between thrusting supracrustal sequences and underlying basement gneisses and localised to specific structural sites of long-lived fluid flow.

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