Paper Number: 2218

Pseudo mega ring structure in Waterberg sandstone

Pretorius, C.1, van Deventer, P.W.2 Koch, J.3





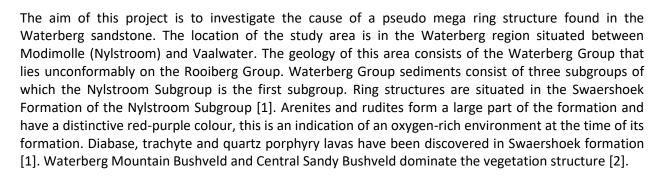




Figure 1: Pseudo Ring Structure on Waterberg, Limpopo, South Africa

A field visit to the site was conducted to gather plant, soil, and rock samples. Magnetometer surveys were done on the boundaries if the sandstone and the ring structures. Igneous rock intrusions were found on the bottom arc of the ring as well as signs of faulting on the western arc of the ring, with quartz veins forming within the fault zones. ICP-MS and XRF analyses were conducted on the plant, soil, and rock samples with microscope slides made from the rock samples.

From the analysis it showed that the igneous rock intrusions were an extrusive intermediate rock containing

magnetite and plagioclase feldspar. The feldspar minerals have profound hydrothermal alternations and also contains calcite minerals. Quartz veins are abundant with striation marks and specularite on them which proved that fault activities reoccurred in the area. The discovery of pseudo ring structure in the Waterberg region is new and unknown to the area and thus requires further investigation.

References:

[1] Barker, O.B. et al. (2006) The Southpansberg and Waterberg Groups and Blouberg Formation. In: *The Geol of SA*: GSSA JHB/Council of Geosc PTA, 309-312

[2] Mucina, L. & Rutherford, M.C. (Eds) (2006) In: *The Veg of SA, LSO & SWA. Strelitzia 19*. SANBI PTA, 468-469, 472-473