PETROPHYSICAL CHARACTERISATION OF SOUTH EAST DOME COPPER GOLD DEPOSIT, NORTHWEST ZAMBIA

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The katangan sequence of the domes region in Northwest Zambia has delivered major copper-gold mines such as Kansanshi, Lumwana and Kalumbila, making it a prime area for exploring sediment hosted copper. Kansanshi with its 750Mt @ 0.74% Cu and 0.13g/t Au is among major copper-gold producer in Africa. SE dome a satellite deposit of Kansanshi was recently explored and drilled out with a significant input from both surface and borehole geophysics surveys including airborne magnetic and radiometric, airborne electromagnetic (AEM), natural source audio-magnetotelluric (NSAMT), Sub audio magnetics (SAM), induced polarization (IP) and 2D seismic profiles and downhole acoustics and radiometric. Systematic physical property data such as magnetic susceptibility, specific gravity, resistivity and IP have been measured on cores. This paper intends to integrate and visualize the data in order to fully characterize the deposit.