

SEG 2024 Conference: Sustainable Mineral Exploration and Development

Stratigraphic Position Change of the Mineralization at the Kamoia Deposit

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The Kamoia-Kakula complex hosts two known copper target areas, namely Kamoia and Kakula. Kamoia is one of the sediment-hosted stratiform copper deposits that is located 25 Km west of Kolwezi town in the Congolese Copperbelt. The deposit contains 759 million tonnes of ore at 2.59% Cu in Indicated resource (1% Cu cut-off grade). Two main rock units are present at Kamoia: sandstone and siltstone of the Mwashya Subgroup (Roan Group), and overlying diamictite with interbedded siltstone-sandstone of the Grand Conglomérat unit (Nguba Group). The Mwashya Subgroup forms the oxidized lower strata, and the pyritic rocks of the basal diamictite form the reduced mineralization host.

The orebody is generally hosted in the lowermost reduced lithological unit that overlies the Mwashya sandstone, these include the Kamoia Pyritic Siltstone (Ng1.1.2) and the three subunits of the Basal Diamictite (Ng1.1.1). These three subunits are composed of a clast-rich diamictite (Ng1.1.1.1) at the base overlain by a siltstone-sandstone (Ng1.1.1.2) and a clast-poor diamictite (Ng1.1.1.3). The mineralization above the cut-off grade is rarely constrained in one stratigraphic unit; it generally overlaps between the siltstone-sandstone and the clast-poor diamictite. The clast-rich diamictite is mineralized towards the southwest of the Mupaka Fault where the Basal Diamictite thickens considerably with multiple siltstones. There's no unique stratigraphic unit that can be tracked as a host rock for grade control purposes at Kamoia. Thus, the underground geological mapping and the surface drill core review contribute significantly to defining the footwall markers and delineating the boundaries for the different facies at the mine. The poster will highlight the stratigraphic position of the mineralization and the footwall geological markers that are critical to the optimization of the mine production.