

The Gold Deposits and Exploration Potential of the Tier 1 Loulo-Gounkoto District

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The Loulo-Gounkoto district in western Mali is one of the most richly endowed areas discovered to date within the Paleoproterozoic rocks of West Africa. At the end of 2018, the district contained a Measured and Indicated Mineral Resource of 11.2 Moz at 4.8 g/t, and an Inferred Mineral Resource of 1.4Moz at 3.9g/t with approximately 7 Moz of gold produced to date. The district contains 3 world-class orebodies (Gara, Yalea, and Gounkoto) which account for greater than 90% of the resource. Gold deposits in the Loulo district are largely hosted by altered siliciclastic and calcareous metasedimentary rocks of the Kofi Series.

The Yalea and Gounkoto deposits are located along discontinuous, small-displacement, shear zones. Mineralization in these orebodies manifest as massive, veinlet, and disseminated pyrite and arsenopyrite zones within tabular layers of variably fractured, brecciated, and sheared sedimentary rock overprinted by strong albite, \pm carbonate, \pm sericite, \pm chlorite alteration largely prior to mineralization. At Yalea, the position and extent of the higher grade ore shoots appear closely related to changes in attitude of the main N-S shear, as well as intersections with more district-scale NNE structures. At Gounkoto, individual ore shoots are controlled by left stepping, en-echelon, soft-linkage structures within a NNW trending shear. In contrast, the Gara deposit comprises a stockwork of mineralized quartz-carbonate-pyrite veinlets and associated disseminated pyrite confined within a specific bed of folded quartz-rich sandstone that was overprinted by strong tourmaline alteration prior to mineralization. Higher-grades with the Gara system are parallel to axes of the SW plunging folds. Gold mineralization in the Loulo district was broadly synchronous and genetically associated with emplacement of the adjacent Faleme Batholith and associated iron skarn mineralization.

The full potential of the Loulo-district district remains to be defined with brownfield exploration since 2017 adding significant significant Mineral Resources at Gara, Yalea, and Gounkoto, as well as satellite orebodies such as Loulo 3. Followed by robust conversion to Mineral Reserves resulting in the expected replacement of mining depletion in 2019 Mineral Reserves and sustaining Tier 1 status of the Loulo-Gounkoto complex with a +10 year mine life producing >500Koz/annum. Furthermore, greenfield exploration at Loulo-Gounkoto and within surrounding highly prospective permits has been rejuvenated targeting the growth of Mineral Resources, through the application of an improved understanding of the district regolith profile, where current work programs are testing the continuation of prospective mineralised structure beneath suppressive lateritic and paleoalluvium cover.