

// Project Experience

Lefa

Location: Guinea

Scope: Engineering, Procurement & Construction Management (EPCM)

Completion: 2006



The Lefa gold plant was an existing plant called Kelian in Borneo, Indonesia. The plant was disassembled in Borneo and barged down the river, shipped to site, constructed and commissioned. The plant was sized to process 8 Mt/a of combined oxide and primary ore. The project consisted of two new separate crushing stations: Lero Karta and Fayala. Each consists of a run-of-mine (ROM) bin, a rock breaker (Lero Karta only), apron feeder and jaw crusher. The Lero Karta crushing station is located at the Lero Karta pit, and the crushed ore is delivered to the plant site by a new 6 km x 900 mm wide overland conveyor.

The Fayalala crushing station is located at the plant site, which consists of a stockpile, two conveyors feeding two semi-autogenous grinding (SAG) mills, two ball mills, two cyclone clusters, and two trash screens making up the milling circuit.

Gravity gold is recovered in five Knelson concentrators and an intense leach reactor. A 6 km long overland belt conveyor system was installed as part of the Lefa corridor gold project. The conveyor links the satellite crushing station at Lero Karta to the main carbon-in-pulp (CIP) plant at Fayalala. The 900 mm wide conveyor was designed to handle 825 t/h of crushed ore. The severely undulating topography of the conveyor's routing was accommodated in the design and installation of free-standing idler support steelwork.

The topography further demanded an in-depth dynamic analysis to ensure that all starting and stopping scenarios were catered for, and to ensure the selection of fit-for-purpose, cost-effective equipment.

