

Boungou mine development on course and within budget

TSX-listed SEMAFO Inc is continuing to make good progress on the construction of its Boungou open-pit gold mine in Burkina Faso with the project on budget and within schedule and set for commissioning in the second half of 2018. The new mine, which involves a capex of US\$231 million, has a remarkably short estimated payback period of one-and-a-half years.

As at June 30, 2017, construction of the mine was 35 % complete with US\$69 million spent on development to date and the labour force on site standing at 1 540 personnel including contractors, 93 % of whom are Burkinabe. Over 1 million man-hours had been worked without a Lost Time Injury (LTI).

Concrete works are progressing on the SAG, Vertimill, crusher and surge bin foundations and erection of the leach and water tanks has commenced. The Vertimill, the first long-lead item, has been delivered to site and work has commenced on the power plant and fuel depot. The water storage facility has been excavated and is ready to collect 2017 rainwater. Pre-strip mining at the Boungou deposit has commenced.

The EPCM contractor for the project is

Lycopodium and the mining contractor African Mining Services (AMC), a subsidiary of Ausdrill Limited.

Located 320 km from the capital, Ouagadougou, in the south-east of the country on SEMAFO's Natougou property, Boungou will be a high-grade open-pit mine with the processing facility consisting of a 4 000 tonnes per day CIP plant. It is expected to produce approximately 1,2 Moz over a projected life of mine in excess of seven years with average annual production of more than 226 000 ounces in the first three years. During these three years, the average total cash cost is estimated at US\$283/oz and the AISC at US\$374/oz with the average head grade being 5,72 g/t.

There are good prospects of the mine life being extended and SEMAFO has committed to a substantial exploration budget in 2017 with the aim of increasing reserves and resources. It will also be examining the potential of an underground operation.

The Boungou permit lies within the Diapaga greenstone belt, a northeast-southwest orientated belt that extends over 250 km in length and over 50 km in width. The mineralisation of the deposit is predominantly hosted in a silicified shear zone and a significant quantity of the gold occurs as visible gold. Sulphide minerals

comprise pyrrhotite, pyrite, and minor arsenopyrite and chalcopyrite.

According to the Feasibility Study (FS) completed by Lycopodium Minerals Canada, the deposit will be mined utilising conventional open-pit methods. Approximately 139 Mt of material will be mined from the open pit over the projected mine life. This will deliver 9,6 Mt of ore to the milling facility with an average head grade of 4,15 g/t Au. Most of the material from the deposit will be fresh rock, which will be drilled and blasted prior to loading.

The FS states that the process plant will be based on a conventional crushing and grinding circuit, with the crushing circuit composed of a primary crusher and a coarse ore storage bin. Crushed ore will be conveyed to the grinding circuit using a SAG mill in closed circuit with a pebble crusher and a tower mill. The target grind is planned at 63 µm in order to achieve optimal gold recovery. A gravity circuit will be incorporated in the grinding circuit as about 30-50 % of the gold is recoverable by gravity. LOM head grades for the process plant are expected to average 4,15 g/t with a gold recovery of 92,9 %.

The tailings storage facility (TSF), located 1,5 km east of the process plant, will be fully lined with high-density polyethylene (HDPE). Recycled water will be optimised throughout the process to minimise the addition of fresh water to the process.

Boungou will be SEMAFO's second mine in Burkina Faso. Its first, Mana, is located 260 km south-west of Ouagadougou and is reportedly the third largest mine in the country. It has



A recent view of leach tanks under construction at the Boungou site.

produced some 1,6 Moz since its first gold pour in 2008. The gold plant has been expanded four times since commissioning to a current capacity of over 7 200 tonnes per day.

In 2016 Mana's gold production totalled 240 200 ounces sourced from the Fofina and Siou satellite deposits. Guidance for 2017 is for Mana to produce between 190 000 and 205 000 ounces at a total cash cost of US\$685 to US\$715 per ounce and an AISC of US\$920 to US\$960 per ounce.

The commissioning of Boungou next year will confirm SEMAFO's status as a major player in Burkina Faso's burgeoning gold mining industry. Other companies with gold mines in the country include Canada's IAMGOLD, which operates the country's biggest gold mine, Essakane, Russia's Nordgold, which has three mines in the country, and TSX-listed Endeavour Mining, which has the Karma mine. Endeavour is also busy developing the US\$328 million Houndé gold mine which is expected to come on line in the fourth quarter of this year.

Photos courtesy of SEMAFO

The mining camp at Boungou (with the water storage facility in the background) pictured in July this year.



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