



Kariba Minerals is 50% owned by Gemfields plc - the world's largest producer of coloured gemstones - in partnership with ZCCM-IH, which owns the remaining 50% of the company.



Location

The Kariba amethyst mine is located in the southern part of Kalomo district in Zambia and covers an area of 396 hectares. Operating for over 60 years, Kariba Minerals has produced some of the world's finest quality amethyst and is one of the oldest mines for semi-precious gemstones worldwide. Its unparalleled deep purple hue, combined with exceptional lustre, sets the standard for amethyst excellence internationally.

Mine & Market

The company's market share has been estimated at over 90% of the amethyst originating from Zambia with annual production reaching as much as 800 tonnes per annum, making it one of the largest producers in the world. Kariba has, over the years, developed a bespoke amethyst grading system that has established its gemstones as premium products, greatly in demand by major manufacturers of gemstones and related products. The company exports mainly to China and India, but also has clients in Europe and the USA.

Amethyst mineralization occurs as fracture fillings in granitic gneisses and marbles. The mineralizing fluids started crystallizing from the walls of the open cavities inwards, as can be observed from the increasing size and development of the crystals. In the Kariba mine area, the host rocks have been exposed to tensile fracturing, creating an extensive network of well-

Most of the fracture zones trend northeast to southwest, indicating that the compression was at right angles to the trend. Three major zones of amethyst mineralization have been identified within the Kariba license. Two of these are located in the central area and host the mine's most significant amethyst deposits. These zones run through the Cha Cha, Francis, Curlew, Davidson and Horden prospects. Mining development includes plans to connect the Francis pits (Main Francis, Lower Francis, Top Francis west and Sinamaani pits) and to operate the Basil and Curlew pits.

The majority of the mining activity continues to take place at the 'Top Curlew' pit, producing around 90% of the mine's ore. However in March 2015 a new pit opened, the 'Curlew Main', which recently commenced production.

The mining operation at Kariba

connected cavities. The fractures occurred in weak zones, which were opened during deformation. Earlier fractures also expanded, creating larger openings, and these form the most economically significant mineralized zones.

is mechanized. Bulldozers and excavators are used to strip, excavate and expose the amethyst veins. The veins are then mined selectively by pick and shovel. The lower grade amethyst is stockpiled to provide bulk feed for the washing plant.

High grade amethyst is processed in the knocking plant at the mine. Amethyst ore from the mines is taken to a washing plant located close to the mine itself. The washing plant uses a diesel-powered conveyor system to wash and sort the ore before it is taken to the knocking plant in order to extract the quality rough.

The gemstones are then sorted and graded using the world's most comprehensive grading system, which was developed by Gemfields' product director Adrian Banks in 2009. An experienced workforce is responsible for sorting and grading the rough amethyst into size and quality, but also into the different categories for specific cutting requirements using stringent quality control measures. This process ensures consistency of supply and allows customers to buy the right grade for their specialist skill and market demands.

After the rough has been

sorted and graded, low grade goods are shipped predominantly to China and India and higher quality amethyst is sold through the Gemfields auction platform.

Extract from 2015 annual report

For its financial year ended 31st March 2015, Kariba Minerals Limited (Kariba) reported total revenues of K11.1 million (2014: K3.6 million) with a profit after tax of K0.06 million (2014: K10.0 million loss).

The period under review continued to be a challenge for Kariba. The company continued to meet its financial obligations from shareholders' support, related parties, the company's bankers and third party suppliers, and loans. Kariba acquired new mining equipment to improve production and turn the company around. Furthermore, In February 2015 Kariba held an auction of high grade amethyst alongside Gemfields Plc which grossed revenue of US\$0.446 million. Kariba is projected to be profitable by 2018 contingent on the company getting additional support in the short term to meet its financial obligations.

There were no dividends declared during the financial year ended 31st March 2015 (2014: Nil).

Extract from 2014 annual report

For the financial year ended 31 March 2014, Kariba Minerals Limited (Kariba) reported a total revenue of K3.6 million (2013: K2.6 million) with a loss after tax of K10 million (2013: K6.7 million).

The period under review has been challenging for Kariba. The company procured and installed a new wash plant and other mining equipment in September 2013, funded by a US\$2.5million loan financed 50% by ZCCM-IH and 50% by Gemfields. The case for the loan extension and recapitalization was to mechanize and modernize the mine, and improve productivity whilst ramping up production. However, operational performance has remained weak, due to low ore grades. ZCCM-IH and its co-shareholder in Kariba, Gemfields Plc, are currently considering strategic options to improve the operations at the mine.

There were no dividends declared during the year (2013:Nil).

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