

OPERATIONAL PERFORMANCE REVIEW continued

ELIKHULU



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OVERVIEW OF OPERATIONS

Elikhulu, Pan African's flagship tailings retreatment operation, is one of the lowest-cost gold mining operations in Southern Africa, producing 50,573oz (2022: 52,220oz) at an AISC[®] of US\$1,008/oz (2022: US\$1,003/oz), with a remaining operational life of 10 years. The plant processes approximately 1.2Mt of historical tailings per month from the existing Leslie/Bracken TSF. Reprocessing these historical tailings will result in the residues being redeposited to a single TSF site, reducing our ecological footprint. Elikhulu's Kinross phase 1 and 2 TSF extension is lined to mitigate the risk of possible underground seepage and pollution. This demonstrates our commitment to addressing the environmental legacy of historical tailings depositions. As the TSFs are located near residential areas, expert independent contractors were appointed to construct and operate the TSFs.

The Elikhulu operation consists of a technologically advanced, automated plant with a reduced labour contingent. The plant's numerous innovations, in addition to its high throughput and relatively short pumping distances, include its modern extraction process, which does not require regrind mills and thickeners, and has low reagent consumption. The plant also supplements recirculated process water with non-potable water from adjacent underground operations.

The Group designs its tailings plants to incorporate a high oxygen mass transfer pre-oxidation step to improve gold extraction. The remaining activities are also automated to some degree, with the latest in hydro-mining technology employed. These factors contribute to production costs remaining low.

Elikhulu is a testament to Pan African's ability to conceptualise, plan and construct substantial growth projects ahead of time and within budget. The Group has successfully delivered three such projects to date.

Despite facing challenges such as disruptions to electricity supply and unfavourable weather conditions during the November and December rainy season, gold production from Elikhulu remained stable at 50,573oz (2022: 52,220oz) during the current financial year. Following the successful installation of a 6km pipeline and the commissioning of the Leslie/Bracken pump station in September 2022, gold production from Elikhulu has remained relatively unchanged.

The design of the Elikhulu TSF involved the expansion and construction of a significant TSF deposition site between 2017 and 2019 as part of phase 1. This expansion took place concurrently with the construction of the plant and associated infrastructure. Furthermore, forming part of phase 2, the existing Kinross footprint will again be utilised once the reclamation process is completed. At present, construction activities for phase 2 of the Elikhulu TSF are being progressed and are expected to be completed and commissioned in December 2023 and January 2024, respectively.

In May 2022, Pan African became the first South African mining company to successfully commission a utility-scale, grid-tied solar plant with the commissioning of Evander Mines' solar energy plant. The plant has a capacity of 9.9MW and supplies clean energy to Elikhulu. By meeting approximately 30% of the plant's annual power requirements, this solar plant plays an important role in reducing the GHG footprint. The engineering, procurement and construction works for this project were undertaken by juwi.

The impact of climate change has led to disruptions in rainfall patterns, resulting in increased rainfall intensities over shorter periods, compelling the operations to adapt to managing increased water volumes as weather conditions change.

The unstable electricity supply from the national grid has caused operational disruptions and process flow interruptions, leading to production delays. Unplanned power outages and the ageing electrical infrastructure of the national grid exacerbate the situation, resulting in production losses that cannot be recouped over the short term, potentially leading to missed production targets.

While excessive rainwater is manageable, severe lightning activity and consequential electricity supply outages negatively affect production by impairing pumping capacity, which hinders the removal of excess water from the mining compartments. Once electricity is restored, flooded workings require approximately two hours of draining before production can resume.

Despite these challenges, Elikhulu's production has remained relatively stable compared to the previous financial year, attesting to management's acumen in dealing with production difficulties. The installation of the solar plant at Evander Mines has significantly mitigated some of these electricity-related supply challenges, reducing the operation's reliance on the national grid.



FOCUS FOR 2024

Our goal for the year ahead is to maintain our performance at the surface operations.

Our focus areas for the year ahead include:

- completing the construction of phase 2 of Elikhulu's TSF extension on the Kinross footprint
- the installation of a cyanide storage and make-up facility, which will ensure sustainable cyanide availability in the event of supplier logistical constraints
- continuing to invest in sustaining capital projects focused on maintaining Elikhulu's infrastructure.



Carbon measurements
at Elikhulu