

# PROGRESS GALLERY February 2019 Building futures. Strengthening communities.



On February 6, Robert Friedland, Executive Co-Chairman of Ivanhoe Mines, delivered a keynote address at the 25th annual Mining Indaba in Cape Town, South Africa.

Click <u>here</u> to view his presentation.

# Building what will be 3 of the world's best mines in Southern Africa's legendary mineral fields

# KAMOA-KAKULA

Initial development of two mining areas on world's 4<sup>th</sup>-largest copper discovery

Democratic Republic of Congo's Central African Copperbelt

## **PLATREEF**

Mine projected to be
Africa's lowest-cost producer
of platinum-group metals,
plus nickel, copper & gold

Northern Limb of South Africa's Bushveld Complex

## **KIPUSHI**

Ultra-high-grade
historic mine being
upgraded to produce
zinc, copper, silver,
germanium & lead

D.R. Congo's Copperbelt



Another truck-load of excavated rock from ongoing underground mine development emerging from Kakula's northern conveyor decline.

Kakula is projected to have an ultra-high, average feed grade of 6.8% copper over the first five years of operations, and 5.5% copper on average over a 25-year mine life.



Ongoing underground mine development work at Kakula. Both of Kakula's northern access declines, totalling approximately 3,600 metres, now are finished and development has started on the mine's bottom infrastructure, including water dams, rock tips for loading the ore onto the conveyor, conveyor belts and ore feeders.



Construction of an underground dam at the Kakula Mine. The stored water will be used for mining operations, with the excess pumped to surface settling ponds.



Kakula's new, southern box cut is nearing completion. A third decline tunnel will be driven from the bottom of the box cut to provide access and ventilation to the southern side of the underground, high-grade Kakula Deposit.



Construction of the water-collection sump at Kakula's southern box cut. Development of the 700-metre ventilation and access decline is scheduled to commence in March.



The raise-borer rig at Kakula's ventilation shaft 1. Construction of the vertical ventilation shaft is scheduled for completion in June, to provide fresh air from surface to Kakula's underground mine workings.

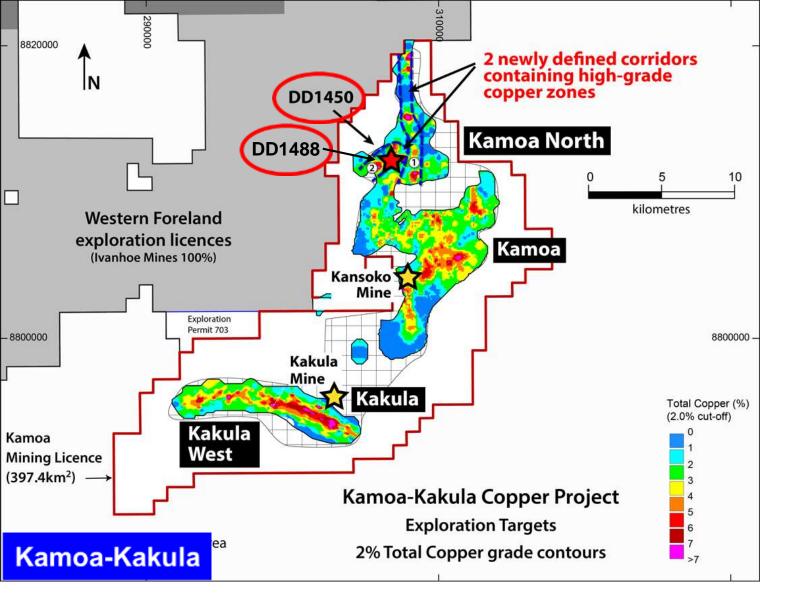


Geologist Nestor Kambaj lining up the location for a new infill drill hole at Kakula West.



Rig drilling hole DD1488 at Kamoa North targeting a west-southwest extension of the ultra-high-grade copper mineralization intersected by drill hole DD1450 (22.3 metres of 13.05% copper at a 2% copper cut-off grade).

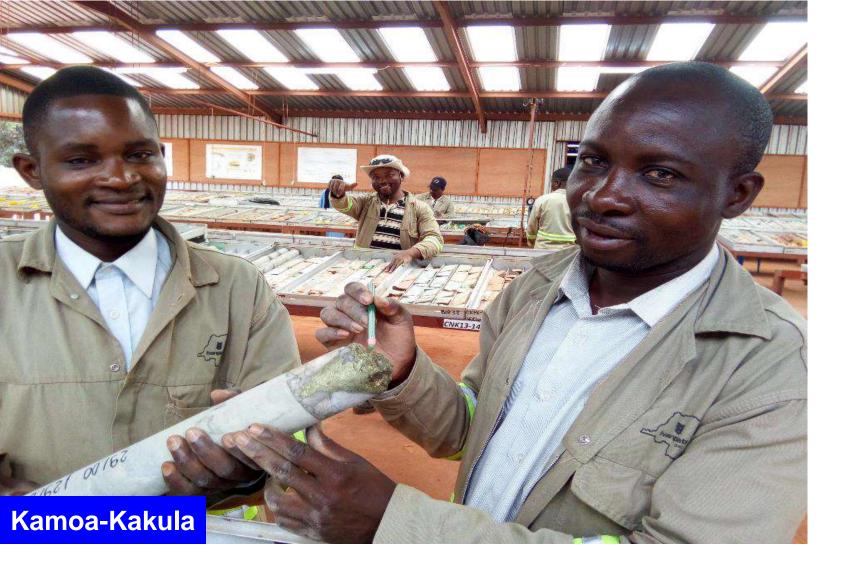
DD1450 was drilled vertically from the drill pad located to the left of rig drilling DD1488.



Kamoa-Kakula mining licence, showing drill holes DD1488 and DD1450, the Kamoa North Exploration Area, the Kamoa and Kakula mining areas, and the adjacent, 100%-owned Western Foreland exploration-licence area.



One of two rigs currently drilling in the Kamoa North exploration area. One rig is pursuing extensions of high-grade mineralization intersected in the extreme northern region of the Kamoa-Kakula mining licence, while the other is targeting extensions of the ultra-high-grade copper mineralization intersected in drill hole DD1450.



Geologists Martin Kyungu (left) and Faustin Kabamba examining high-grade drill core from Kamoa North.



A high-grade bornite drill intersection at Kamoa North. Bornite is a copper sulphide mineral that is approximately 63% copper.



Geologist Charles Nzavu photographing core from recent Kamoa North drilling.



Marc Metela, a Kamoa-Kakula IT technician (centre), and two consultants from DRC-based Ubuntu installing a multi-media conferencing system in the new Kakula boardroom.



Brick-making operations at Kamoa-Kakula, one of the community socio-economic projects supported by the Kamoa Copper Sustainable Livelihoods Program. The program is focused on sustainable development in the communities surrounding the Kamoa-Kakula Project.



A farmer inspecting newly-planted sweet potatoes at one of the new farms established near the Kamoa-Kakula Project. Two fish-farming ponds are in the background, where local farmers raise tilapia until they're big enough to harvest.



Eco-livelihood staff member weeding a crop of maize that is intercropped with sunflowers at the Kamoa-Kakula Project garden. The community garden is part of the Kamoa Copper Sustainable Livelihoods Program, and helps provide local community members with high quality, locally-grown food and a source of additional income.



An exploration rig driller at the Makoko Discovery on Ivanhoe's 100%-owned Western Foreland licences. Makoko is the first of multiple, high-potential target areas identified by Ivanhoe's exploration team on the Western Foreland licences to be tested by drilling.



Ongoing development work at Shaft 1's 850-metre-level mine access station, showing the northern top-cut excavation. Excavation of the station is approximately one third complete.



Shaft 1's 850-metre-level station development. The bottom of the shaft now is at a depth of 855 metres below surface.



Platreef's Shaft 2 box cut (now completed to a depth of 29 metres) alongside Shaft 1 headframe. Construction of the concrete foundation for Shaft 2 is progressing well and is expected to be completed in the middle of this year.



Ongoing construction of the foundation that will support Shaft 2's 103-metre-tall concrete headframe. Shown above is the 11.5-metre shaft ring set-up for the 10-metre internal diameter shaft.



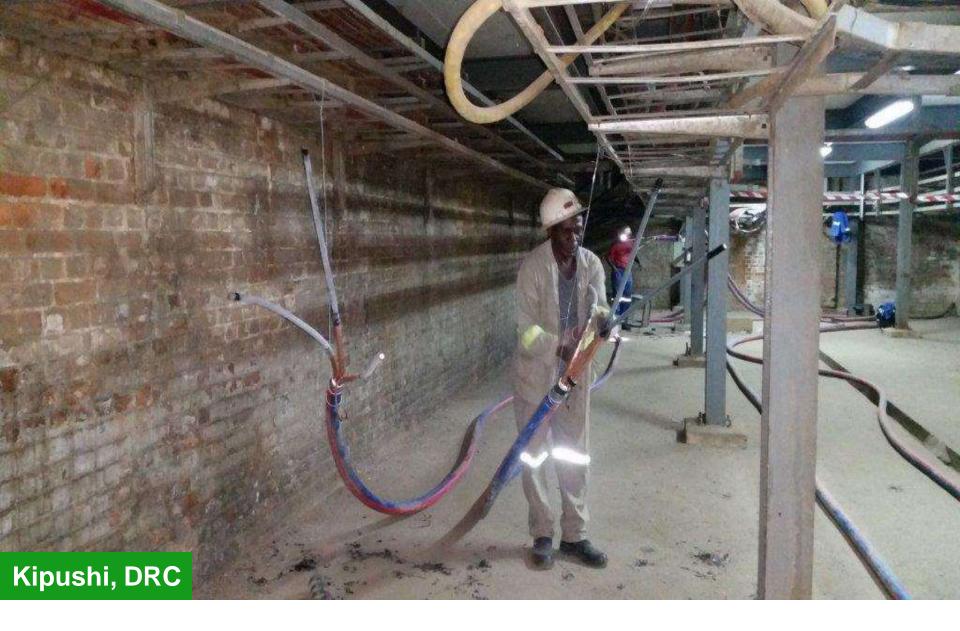
Workers preparing to install the final section of the 11.5-metre shaft ring set-up for the 10-metre internal diameter Shaft 2.



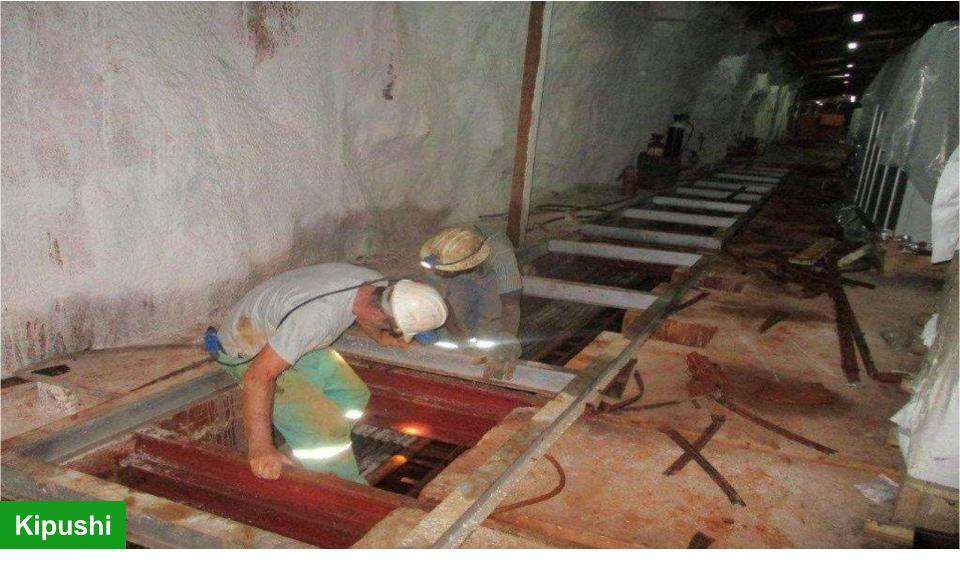
Members of the Bonega Communities Trust Advisory Council, together with members of Ivanplats' community relations team, opening the new building at the Jacob Madiba Community Centre in the village of Sekgoboko near the Platreef Project. Through Ivanplats' 26% B-BBEE partnership, the Bonega Communities Trust owns 20% of the Platreef Project on behalf of Platreef's 20 local host communities, with an estimated combined population of 150,000.



Children from the Sepedi primary school enjoying the new playground equipment at the Jacob Madiba Community Centre.



KICO electricians installing high-voltage electrical cables on Kipushi's 850-metre level.



Installation of steel frames to protect Kipushi's variable-speed-drive electrical cables.



Manufacturing water drain covers for Kipushi's 1,150-metre haulage level.



Construction of a water dam on the 1,175-metre level.



A KICO geotechnical engineer inspecting the decline leading to Kipushi's Big Zinc Deposit.