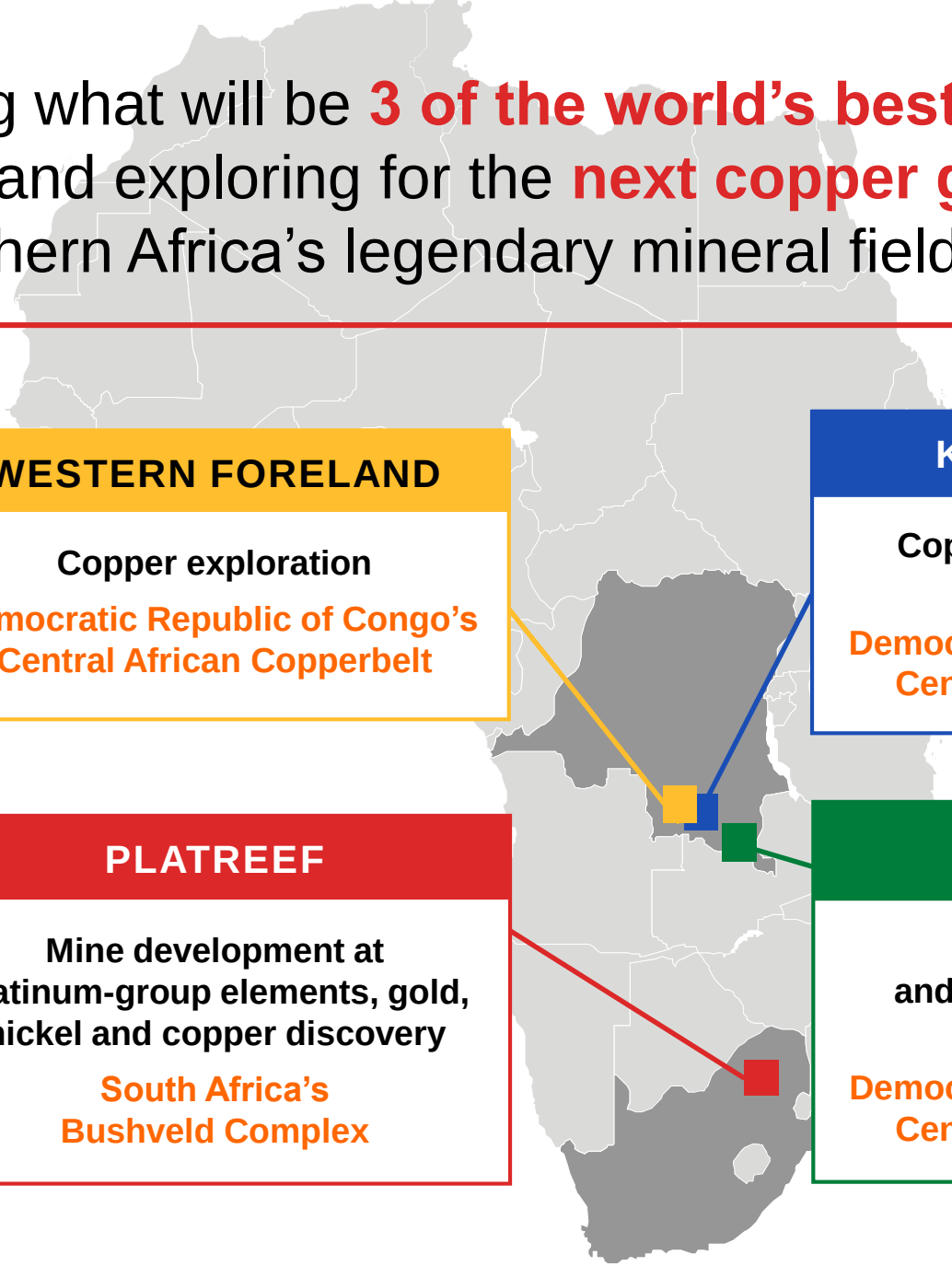
IVANHOE MINES
NEW HORIZONS

PROGRESS GALLERY / July 2020

Building futures. Strengthening communities.

Kakula's northern declines conveyor system, which has the capacity to transport 2,000 tonnes of ore per hour from underground to surface.

Building what will be **3 of the world's best mines** and exploring for the **next copper giant** in Southern Africa's legendary mineral fields



WESTERN FORELAND

Copper exploration

Democratic Republic of Congo's Central African Copperbelt

KAMOA-KAKULA

Copper mine development and exploration

Democratic Republic of Congo's Central African Copperbelt

PLATREEF

Mine development at platinum-group elements, gold, nickel and copper discovery

South Africa's Bushveld Complex

KIPUSHI

Zinc, copper, silver and germanium at historic, high-grade mine

Democratic Republic of Congo's Central African Copperbelt

Construction of the first phase, 3.8-million-tonne-per-annum, copper processing plant at the Kakula Mine is rapidly advancing and is on track to begin producing copper concentrates in Q3 2021.

Felix Madika, assistant surveyor, at one of the construction sites for Kakula's initial 3.8 million-tonne-per-annum (Mtpa) processing plant.

KAMOA-KAKULA

Ongoing construction of the flotation circuit at Kakula’s initial 3.8 Mtpa processing plant.

Construction of Kakula's mill electrical substation, which will 'step down' high-voltage electricity from the national transmission system to a lower-voltage to power Kakula's processing plant with clean, hydro-generated electricity.

Contractors installing tailings lines at the Kakula Mine. Construction of the tailings dam has commenced and is progressing well. The aim is to complete most of the earthworks before the rainy season starts in November.

The tailings dam will be tiny in comparison to other tier-one copper mines, as approximately 55% of the tailings will be sent back underground and stored in the mine-out workings.

Petr Valicek, Kamoa's Senior Engineering Manager, proudly shows off the new road that provides Kamoa-Kakula with a direct, high-quality connection to the national road system at Kolwezi, significantly streamlining the transport of freight to and from Kamoa-Kakula.

Delivery of a new, semi-autonomous jumbo drilling rig to the Kakula Mine. Additional mining crews are being added at both Kakula and Kansoko to increase pre-production ore stockpiles, and to position the mine to accelerate expansion of the second phase of development.

Drilling in a zone of super high-grade, chalcocite-rich ore (gray-coloured rock) at the Kakula Mine. Chalcocite has the greatest percentage of copper of all the copper-bearing minerals — almost 80% copper by weight.

KAMOA-KAKULA

Miner Marc Mwaka paints directional lines on the face of one of Kakula's 6-metre-high by 6-metre-wide access drives. These lines are used by the drilling teams to ensure consistency in the width and height of the access drives.

Miner Jean Yav checking on development drilling in Kakula's east spiral drive.

Kelly, a jumbo drill operator, scaling a mucking bay in one of the northern access drives. As Kakula's underground development progresses over the next few months, the majority of the working areas are expected to transition into the higher-grade ore zones near the centre of the deposit that have copper grades approximately 5% to 8%.

Hanselm Banza, Team Leader (left), with his mining crew in one of Kakula's 6-metres-high by 6-metres-wide access drives.

Miner trainee operating a jumbo drill at the Kansoko Mine, approximately 10 kilometres north of the Kakula Mine.

More than 220 metres of advancement was achieved at Kansoko during July by a young Congolese mining crew undergoing training. A second mining crew will be added at Kansoko in August as the project increases the pace of training new Congolese miners.

Mwanza Naikwatsha, a farmer in the small village of Tshimbundji, inspects his vegetable garden. As part of Kamoa-Kakula's Livelihoods program, local farmers supply the Kamoa-Kakula Project with more than 3,000 kg of assorted vegetables and 11,000 fresh eggs each week.

Contractors installing metal roof-support beams on a new medical clinic being constructed in the local village of Muvunda, another community initiative by the Kamoa-Kakula Livelihoods Program.

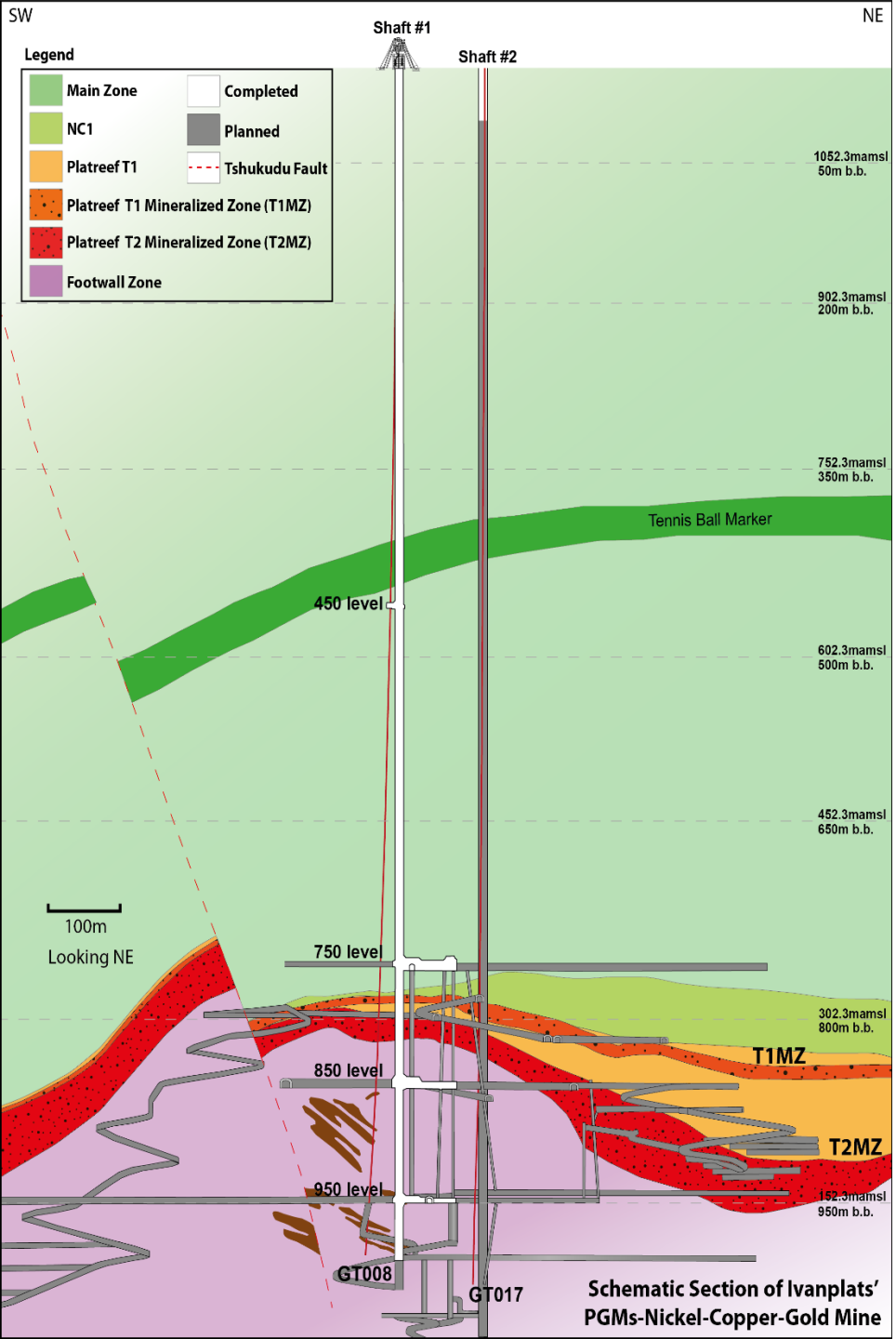
Electricians from contracting firm Andritz Hydro, of Switzerland, put the finishing touches on one of the new alternators at the Mwadingusha hydro-electric power plant in the DRC. The upgrading of the Mwadingusha facility in conjunction with Société nationale d'électricité (SNEL) is an important step in Kamoa-Kakula's goal of producing the world's greenest copper.

The Mwadingusha hydro-electric power plant that will soon be delivering 72 megawatts of clean, sustainable hydro-electricity to the national grid. Click here to watch a short flyover video of the facility: https://vimeo.com/445257892

On July 15, 2020, members of the Platreef team celebrated the completion of shaft sinking and the 996-metre-level station development work in Shaft 1.

The Platreef mining team and its South African sinking contractor, Moolmans, proudly achieved South African shaft-sinking industry leader status in terms of safety performance in sinking Shaft 1. Thomas Nkosi, Ivanplats' Junior Safety Officer, was instrumental in helping the team achieve its excellent safety record.

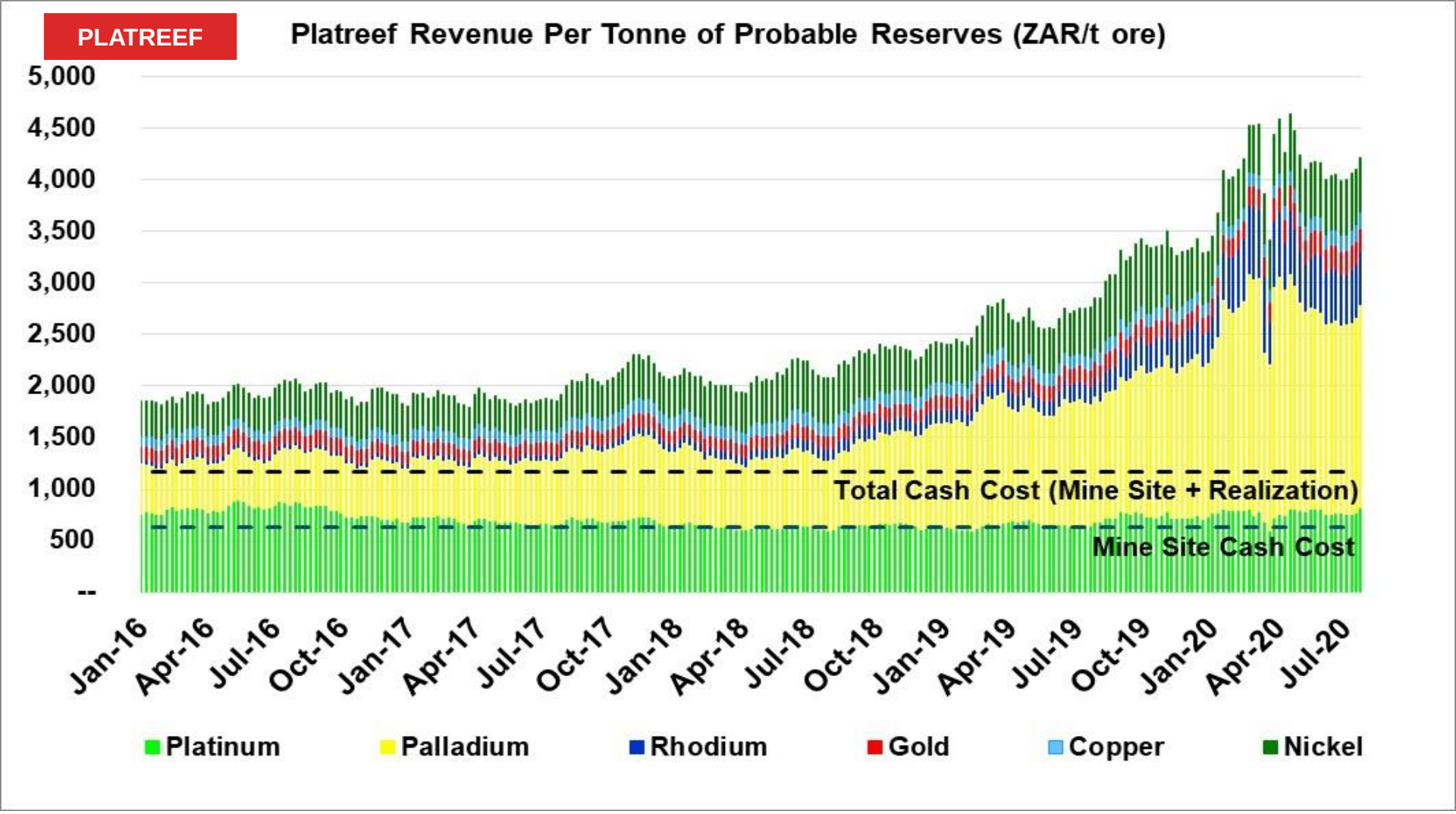
Rigger Lawrence Mokoena, a member of Platreef's shaft-sinking team, with his new jacket awarded in recognition of the team's outstanding safety performance.



Schematic section of the Platreef Mine; showing Flatreef's T1 and T2 thick, high-grade mineralized zones (red and dark orange), underground development work completed to date in shafts 1 and 2 (white) and planned development work (gray).

The Platreef team celebrated the end of the shaft-sinking contract with a barbeque. Mine development work now is focused on equipping recently-completed Shaft 1 for first production.

PLATREEF



Revenue per tonne of ore at the Platreef Project has risen significantly since 2016 (shown in South African rand). An updated Definitive Feasibility Study is due this quarter and will include a Preliminary Economic Assessment on a phased-development production strategy.

Riggers Khakusa (left) and Alex (right) inspecting Kipushi’s manual chain hoists.

Alexis Ilunga puts the finishing touches on steel column supports that will be used to support the large-dimeter pipes carrying underground mine water to surface.

Samuel Ndembo (left) and Mbiya Africa (right) taking air flow measurements at Kipushi's 850-metre-level electrical substation.