

November 2, 2020

**Kamoa-Kakula Copper Project achieves another monthly record for underground development with 2,172 metres completed in October; more than 24.7 kilometres now complete – 7.9 km ahead of plan**

**194,000 tonnes of development ore grading 4.01% copper mined in October, a 48% increase in tonnage over September's output**

**Pre-production ore stockpiles now contain approximately one million tonnes grading 3.47% copper**

**Kakula's main access tunnels scheduled to be connected in the next two weeks, positioning the mine to significantly accelerate the tonnage of high-grade ore delivered to surface stockpiles**

**Overall progress of Kamoa-Kakula's first phase, 3.8 Mtpa mining and milling operation now approximately 58% complete, with first production scheduled for July 2021**

**KOLWEZI, DEMOCRATIC REPUBLIC OF CONGO – Ivanhoe Mines (TSX: IVN; OTCQX: IVPAF) Co-Chairs Robert Friedland and Yufeng "Miles" Sun announced today that underground development at the Kamoa-Kakula Copper Project in the Democratic Republic of Congo (DRC) totalled 2,172 metres in October. This marks another new monthly record and brings total underground development to more than 24.7 kilometres – approximately 7.9 kilometres ahead of schedule.**

**Mr. Friedland and Mr. Sun also noted that mining crews produced a combined 194,000 tonnes of ore in October from the Kakula and Kansoko mines, which was 48% higher than achieved in September. The project's pre-production surface stockpiles now contain approximately one million tonnes of high-grade and medium-grade ore at an estimated grade of 3.47% copper.**

**The enormous amount of pre-production development completed to date at both the Kakula and Kansoko mines has positioned the project for a significant acceleration in the tonnage, as well as a marked increase in the grade, of ore added to the project's surface stockpiles beginning this month.**

The monthly total of 2,172 metres of underground development in October was comprised of 1,809 metres at the Kakula Mine and 363 metres at the Kansoko Mine, which is located at the Kamoia Deposit – approximately 10 kilometres north of the Kakula Mine.

At Kakula, both main access tunnels (drives) being advanced from the southern decline, and the spiral access drive being advanced from the northern decline, have recently accessed the high-grade zone near the centre of the deposit grading approximately +8% copper (see figures 1 and 2).

Kakula's main access drives between the northern and southern declines have less than 100 metres remaining before they are connected (holed) in the high-grade centre of the deposit. The holing will significantly increase ventilation to the centre of the orebody, allowing for additional mining crews to begin highly-productive mining operations in Kakula's high-grade ore zones.

Mark Farren, CEO of Kamoia Copper said: "We are encouraged with the current development performance. We remain on track to open up sufficient high-grade reserves in time to feed our phase 1 and 2 concentrator plants with high-grade copper ore."

"The imminent joining of Kakula's northern and southern main access drives will be a major milestone in the mine's development. Once this is achieved, the opening up and ledging of the drift-and-fill blocks can commence in the high-grade core of the deposit, where the average grade is projected to exceed 8% copper," Mr. Farren added.

In addition to advancing the main connecting access drives, underground mining crews at Kakula are focused on preparation work for developing the high grade, drift-and-fill mining blocks in the centre of the orebody. Opening up of the mining footprint for these high grade, drift-and-fill mining areas entails development work in areas of low-, medium- and high-grade ore, and is designed to coincide with the start-up of the processing plant next year. This will allow mining crews to deliver significant tonnage of high-grade ore directly from Kakula's underground workings to the processing plant.

Kakula's second underground ore bin (the west tip bin) is undergoing commissioning. Installation of Kakula's ventilation shaft #2 also is progressing well, with the first of three high-capacity surface fans installed by the contractor.

View a short, time-lapse video showing the installation of ducting at Kakula's ventilation shaft #2: <https://vimeo.com/473146788>

The gabion wall for the surface bulk reclaim tip system that is located near Kakula's main northern decline has been constructed and preparation has started for the civil works required at the top of the wall. The bulk reclaim tip system will be used to feed ore from Kakula's surface stockpiles (and ore from the Kansoko Mine when second-phase operations begin) to the processing circuit.

Underground development at the Kansoko Mine currently is in low-to-medium-grade ore zones, grading approximately 3% copper. In October, mine development work

intersected the first exposure of siltstone, marking the transition to higher copper grades at Kansoko. Siltstone is a rock type with a strong influence on copper mineralization at Kamo-Kakula.

Kansoko is being developed by training crews and will be a supplemental source of ore for Phase 2 of the project's development when the Kakula concentrator processing capacity doubles to 7.6 million tonnes per annum (Mtpa) – currently planned to be commissioned in Q2 2022.

Phase 1 copper production from the Kakula Mine is scheduled to begin in July 2021. Kakula is projected to be the world's highest-grade major copper mine, with an initial mining rate of 3.8 Mtpa at an estimated average feed grade of more than 6.0% copper over the first five years of operation. Phases 1 and 2 combined are forecast to produce approximately 400,000 tonnes of copper per year. Based on independent benchmarking, the project's phased expansion scenario to 19 Mtpa would position Kamo-Kakula as the world's second largest copper mining complex, with peak annual copper production of more than 800,000 tonnes.

A recent, independent audit of Kamo-Kakula's greenhouse gas intensity metrics performed by Hatch Ltd., of Mississauga, Canada, confirmed that the project will be among the world's lowest greenhouse gas emitters per unit of copper produced.

**Construction of the gabion wall for the bulk reclaim tip system near Kakula's main northern declines.**



Francis Kaposo (left) trains under the guidance of Rongyun Liu (right) at Kamoakakula's state-of-the-art training centre. As part of the project's extensive training program, apprentice miners learn to operate automated mining equipment on computerized simulators.

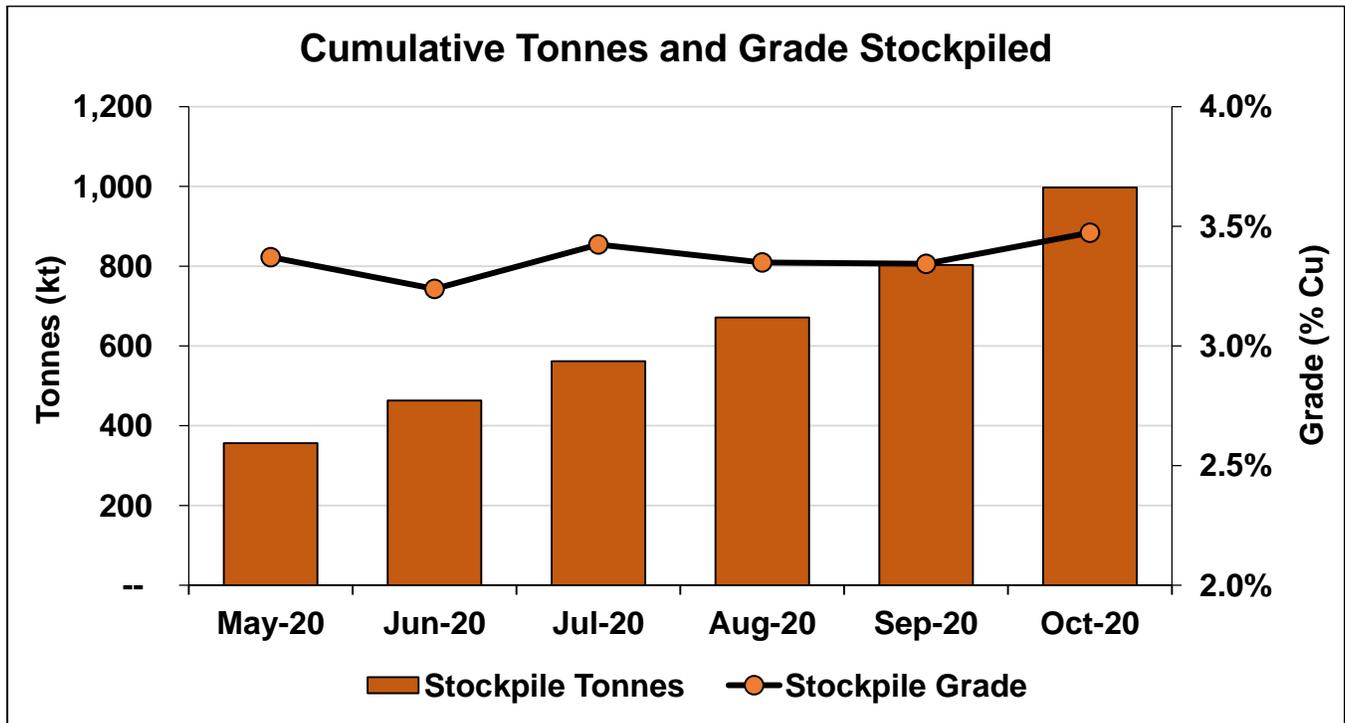


### **October's ore production 48% higher than September; pre-production surface ore stockpiles now total approximately one million tonnes**

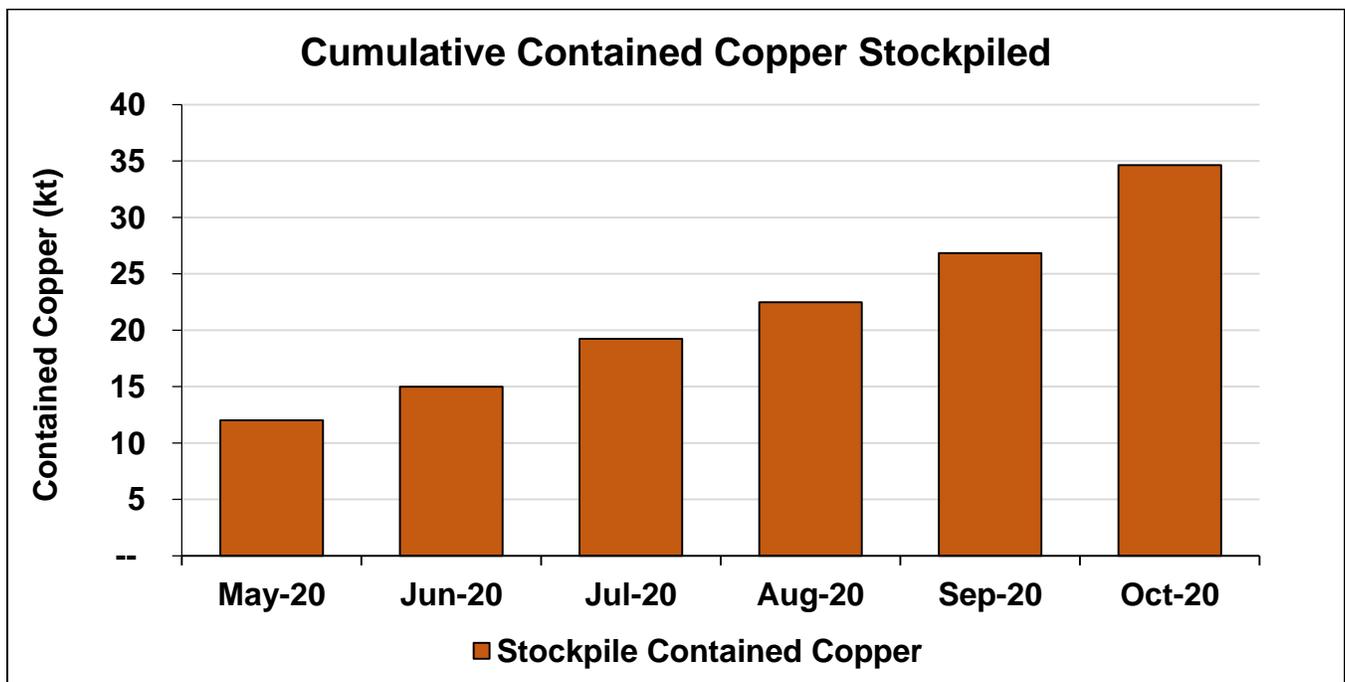
In October, mining crews at the Kakula and Kansoko mines mined and transported to surface approximately 194,000 tonnes of ore grading 4.01% copper. This brings the project's total pre-production high- and medium-grade ore stockpiles to approximately 1,000,000 tonnes at an estimated grade of 3.47% copper. An additional 622,000 tonnes of low-grade development ore also has been stockpiled on surface.

October's ore production is approximately 48% higher than the 132,000 tonnes grading 3.31% copper mined in September, and approximately 78% higher than the 109,000 tonnes grading 2.96% copper mined in August. The project is positioned for a significant acceleration in the tonnage, as well as a marked increase in the grade, of ore added to the surface stockpiles as more mining crews soon will begin working in the higher-grade areas of the Kakula and Kansoko mines.

**Chart 1: Cumulative tonnes and grade of pre-production ore stockpiles at the Kakula and Kansoko mines from May 2020 to October 2020.**



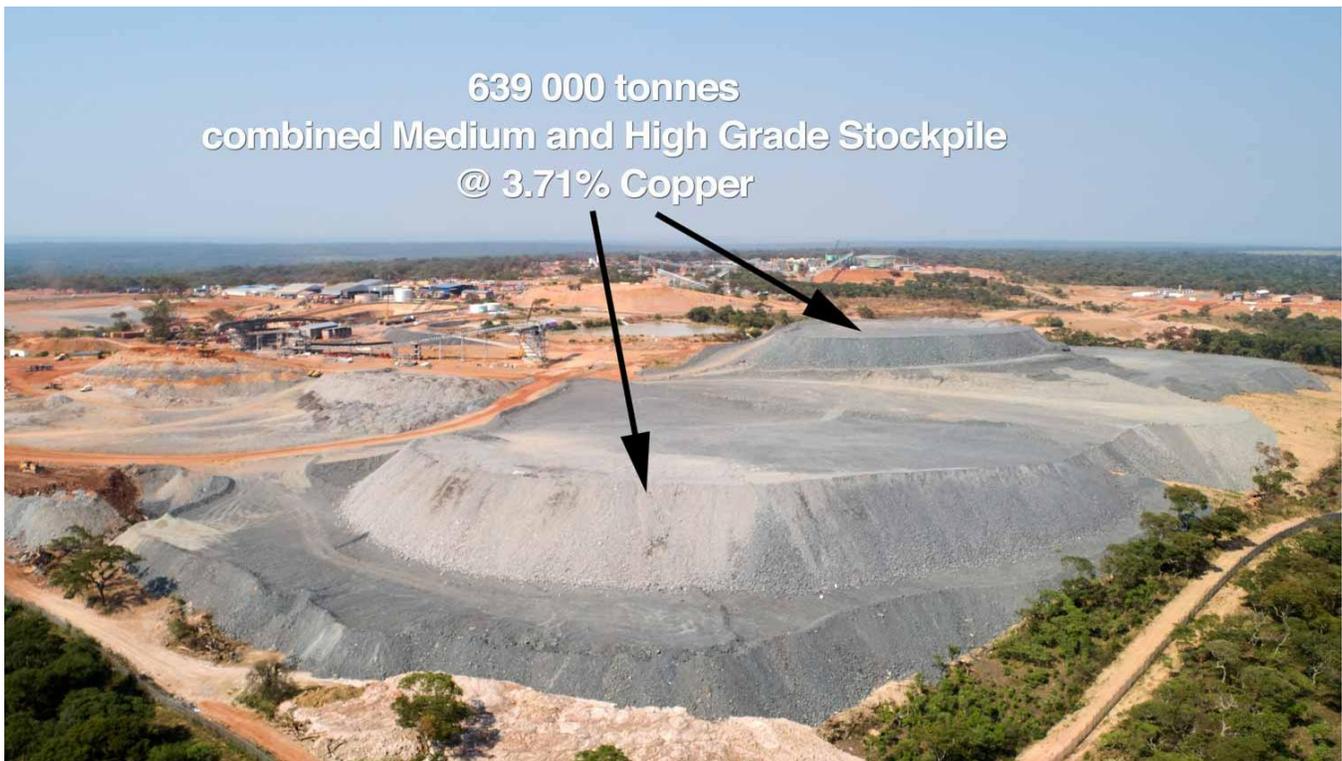
**Chart 2: Growth in contained copper in pre-production ore stockpiles at the Kakula and Kansoko mines from May 2020 to October 2020.**



The ore being mined from the northern portion of the Kakula Mine is transported to surface via the conveyor system and placed on a blended surface stockpile that now contains approximately 639,000 tonnes grading an estimated 3.71% copper.

Additional, pre-production ore stockpiles are located at the Kakula southern decline (approximately 67,000 tonnes of high-grade ore grading 5.05% copper, and 171,000 tonnes of medium-grade ore grading 2.62% copper) and the Kansoko decline (approximately 120,000 tonnes grading 2.53% copper).

Kakula's main pre-production stockpiles at the northern declines. The blended stockpiles currently contain approximately **639,000 tonnes grading 3.71% copper**.



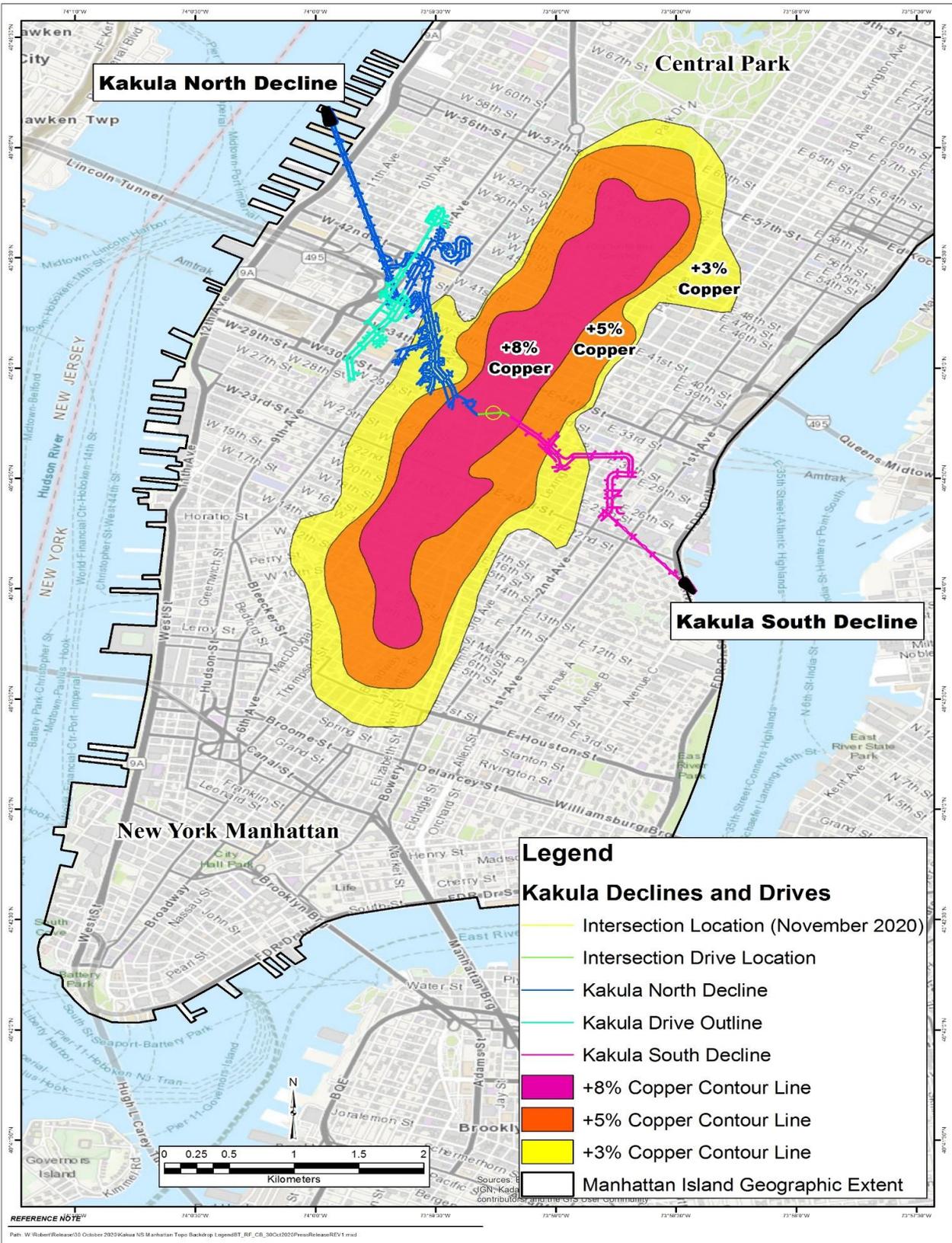
Kakula southern decline ore stockpiles containing approximately **67,000 tonnes of high-grade ore grading 5.05% copper**, and **171,000 tonnes of medium-grade ore grading 2.62% copper**.



Kansoko decline medium-grade ore stockpile containing approximately **120,000 tonnes grading 2.53% copper**.

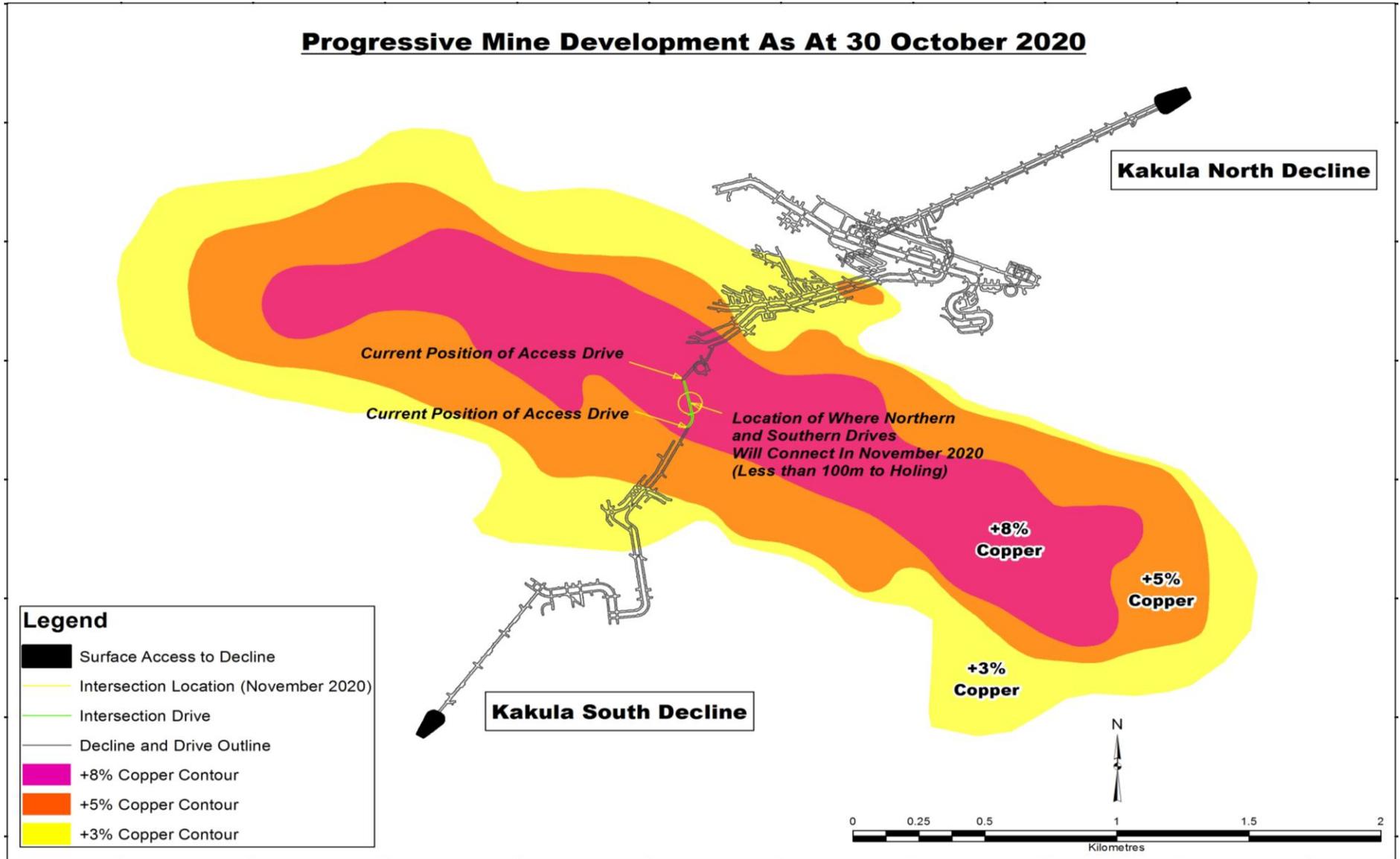


Figure 1: The eastern portion of the Kakula Mine – representing less than half of the overall 13.3-kilometre-long Kakula Deposit – overlain on southern Manhattan Island to provide a sense of the scale of the underground operations.



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Figure 2: Underground development completed at Kakula to the end of October (in black), and the location where the northern and southern access drives will be joined in less than 100 metres. Majority of development in November will be in the initial drift-and-fill mining area within the +8% copper zone (in magenta).



## **Construction of the initial 3.8-Mtpa concentrator plant and other surface infrastructure rapidly progressing; orders for long-lead-time items placed for the second 3.8-Mtpa concentrator plant**

Overall progress of Kamoā-Kakula's first-phase, 3.8 Mtpa mining and milling operation (covering mine infrastructure, concentrator plant and surface infrastructure) now is approximately 58% complete, up from 52% last month.

Construction of the project's first-phase 3.8 Mtpa concentrator plant is advancing rapidly and now is approximately 28% complete. The concentrator plant is expected to be mechanically complete in Q2 2021, with first copper concentrate production scheduled for July 2021.

**View a short, fly-over video filmed on October 31<sup>st</sup> showing construction progress to date on the initial 3.8-Mtpa concentrator plant:**  
<https://vimeo.com/474179724>

Civil works for the initial concentrator plant are nearing completion, with approximately 26,000 cubic metres of concrete poured to date. All major construction areas will be handed over to the steel, mechanical, piping and platework (SMPP) contractor imminently.

The final major pieces of equipment – two 80-MVA/220kV electrical transformers – are in transit and expected on site shortly. Construction of the various electrical substations is progressing well.

Structural steel and platework fabrication for the concentrator plant is complete, with the bulk of the material already delivered to site. Piping is progressing according to schedule, with more than 60 kilometres (of a total of 83 kilometres) of piping already delivered. Limited electrical, controls and instrumentation (EC&I) work has started with the installation of cable racking.

Over 2,000 tonnes of steel (of a total of 5,700 tonnes) has been installed. The main focus areas are the conveyor gantries, mill building, reagent storage area, flotation area, and concentrate storage building. Construction has commenced for the plant stores, workshop and water services.

View a short, time-lapse video showing the installation of a girth gear on one of the two ball mills: <https://vimeo.com/467851443>

Beijing-based CITIC Construction is building Kakula's first phase, backfill paste plant. The backfill plant will be used to mix tailings from the processing plant with cement to produce paste backfill. The backfill will be pumped back into the mine and used to help support mined-out areas. Approximately one half of the mine's tailings will be sent back underground, significantly reducing the surface tailings storage. Construction of the backfill plant civil works is well advanced and steel erection has started.

Construction of the tailings dam is progressing well, with the aim to complete most of the earthworks before the rainy season begins later this month. Installation is well advanced for the three tailings lines and the tailings return water line.

The long-lead items for the second 3.8 Mtpa concentrator plant have been ordered and the second phase of the project's development is officially underway. Requests for tenders for the second-phase earthworks and civil works also have been issued.

**Franck Butshumi connecting sections of pipe at Kakula's tailings pipeline.**

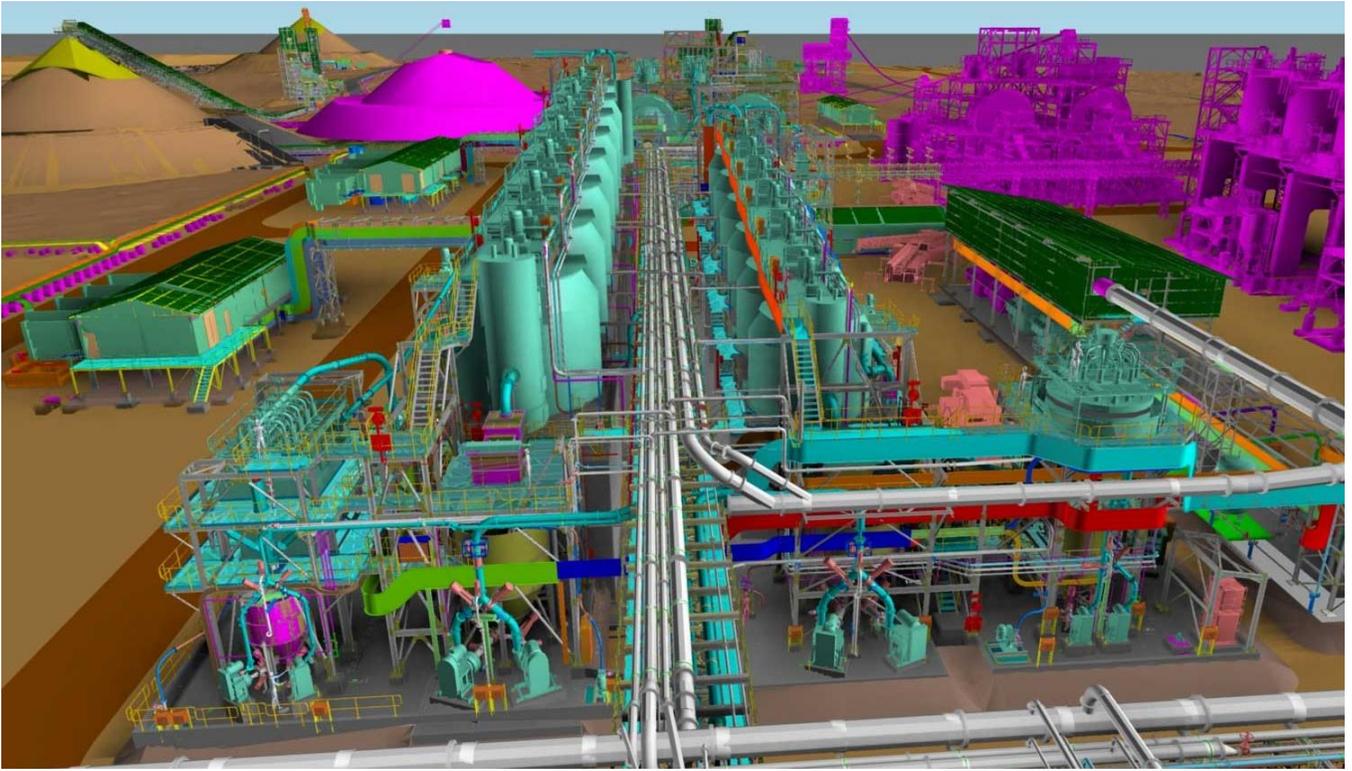


The two, 7-megawatt ball mills at Kakula's initial 3.8 Mtpa processing plant, with the girth gears now installed. A 3D illustration of the finished ball mills (shown in green) is below, with the next two ball mills for the recently-initiated second processing plant shown in magenta.

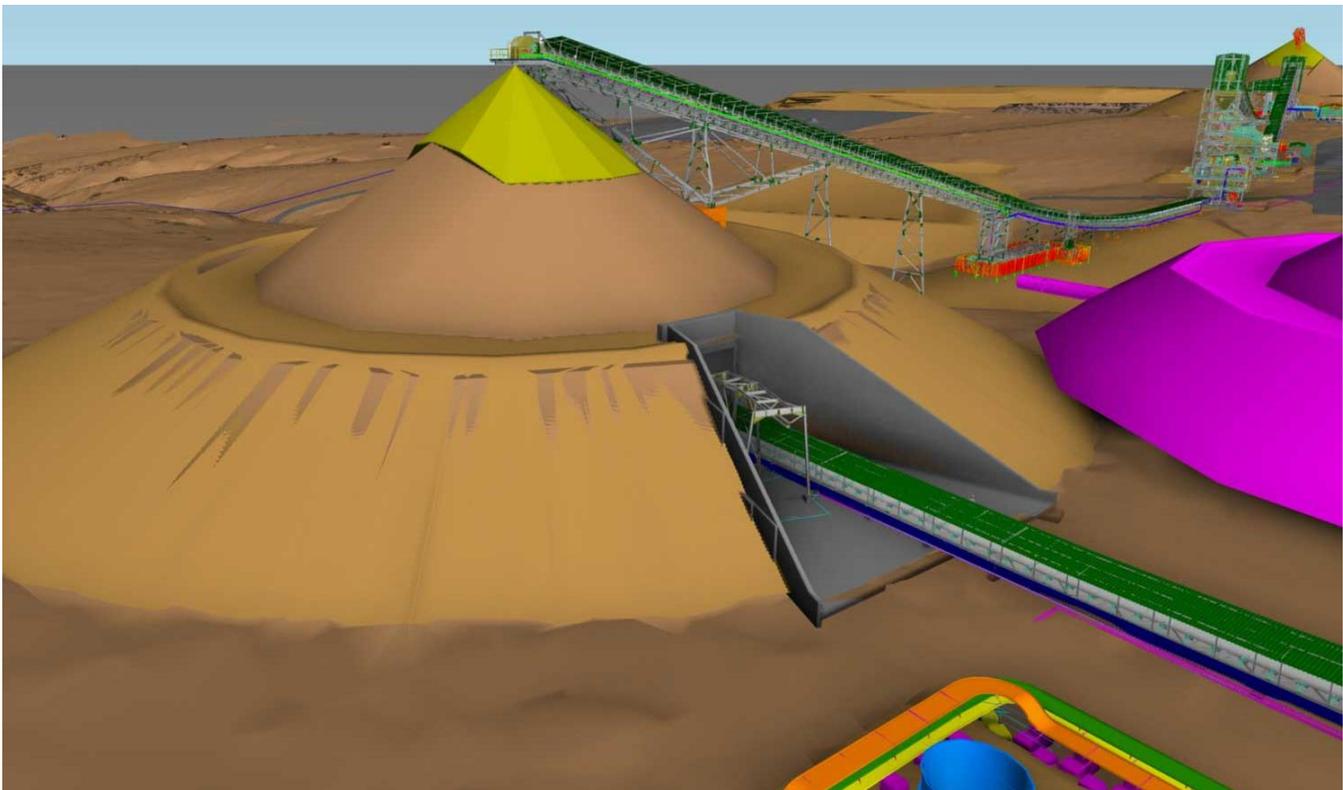


**Kakula's initial 3.8-Mtpa processing plant under construction, showing the flotation cells (in green) and the two ball mills (in yellow). A 3D illustration of the finished plant is below, with the recently-initiated second 3.8-Mtpa processing plant shown in magenta.**

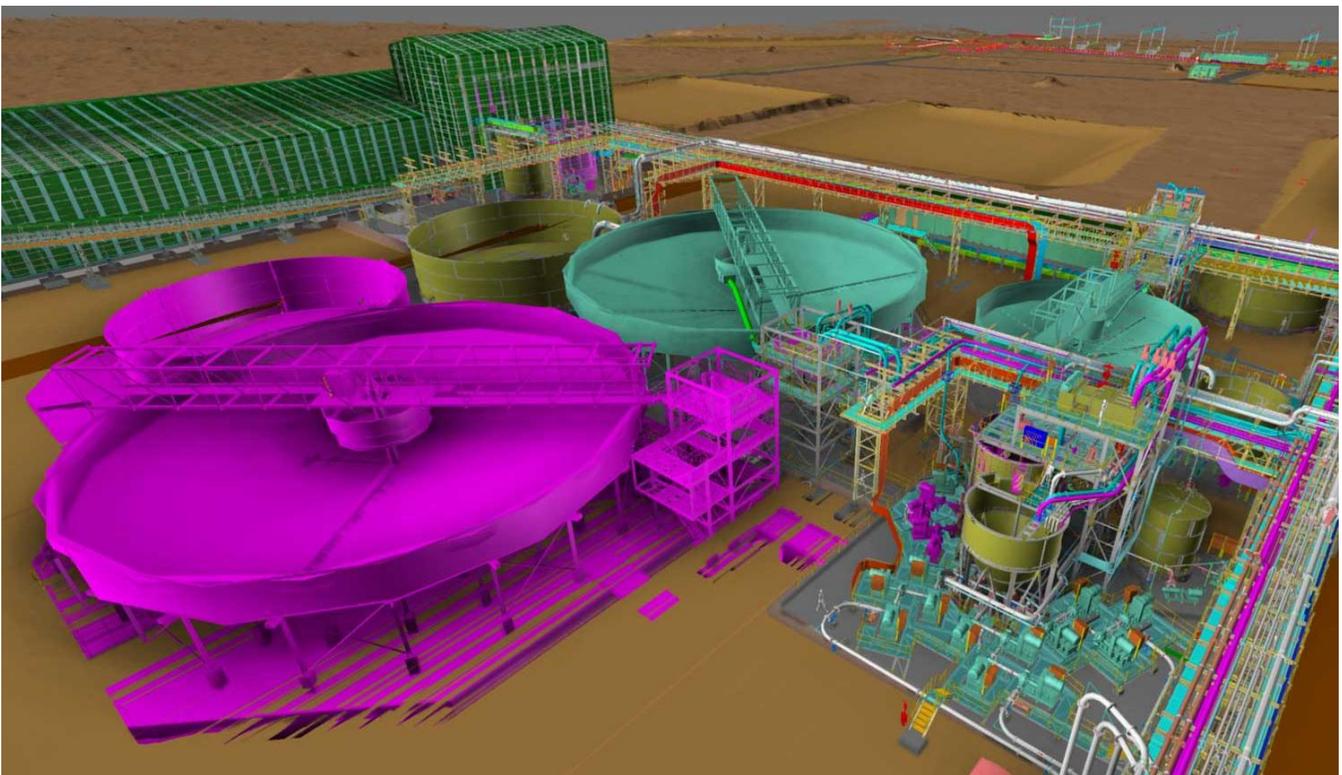




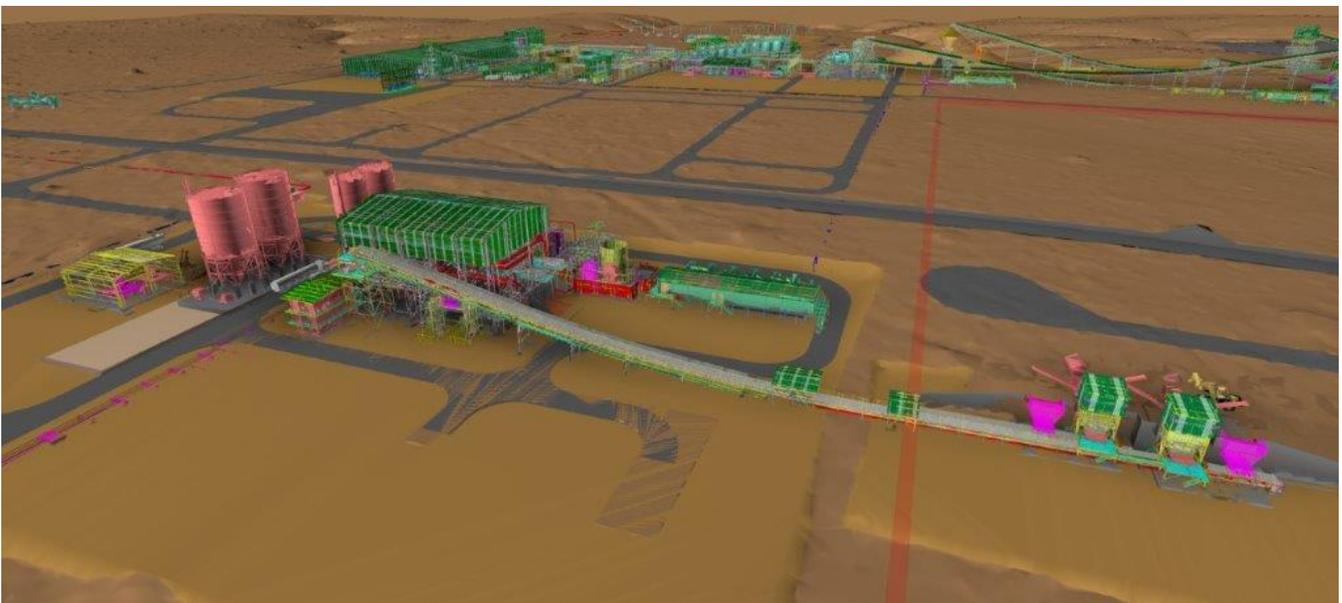
**Kakula's high-pressure-grinding-rolls (HPGR) stockpile under construction. A 3D illustration of the finished HPGR stockpile is below, with the recently-initiated second HPGR stockpile shown in magenta.**



**Kakula's processing plant tailings thickener (larger one) and concentrate thickener (smaller one) under construction. A 3D illustration of the finished thickeners is below, with the concentrate bagging plant shown in green and recently-initiated second phase shown in magenta.**



**Kakula's first phase, backfill paste plant under construction in the foreground, with the initial 3.8 Mtpa concentrator plant in the background. The backfill plant will be used to blend tailings from the processing plant with cement to produce paste backfill to be pumped back into the mine and used to help support mined-out areas. Approximately one half of the mine's tailings will be sent back underground, significantly reducing the surface tailings storage. A 3D illustration of the finished backfill plant is below.**



## **Discussions underway for the marketing of Kakula's copper concentrates**

Kamoa-Kakula is in detailed discussions with a number of parties with respect to the marketing and smelting of its copper concentrates. Kakula is expected to produce an extremely high grade and clean copper concentrate (containing over 55% copper) that will be highly coveted by copper smelters around the world. Metallurgical test work indicates that the Kakula concentrates contain extremely low arsenic levels by world standards – approximately 0.01%.

## **Kamoa-Kakula expected to be connected to the national power grid in December, providing clean, renewable 220-kV hydropower**

In December 2020, Kamoa-Kakula is expected to tie in the 35-kilometre, 220-kilovolt (kV) power line connecting the Western Dispatch substation in Kolwezi to Kamoa-Kakula, and supply the project with reliable and clean hydro-generated electricity from the national grid.

The upgrading work at the 72-megawatt Mwadingusha hydropower plant is nearing completion and electricity from all of Mwadingusha's six turbines is expected to be integrated into the national power grid in the first quarter of 2021. The work is being conducted by engineering firm Stucky, of Lausanne, Switzerland, under the direction of Ivanhoe Mines and Zijin Mining Group, in conjunction with the DRC's state-owned power company, La Société Nationale d'Electricité (SNEL).

**Contract workers putting the finishing touches on a transmission tower for the 220kV powerline that will transmit hydro-generated electricity from the Western Dispatch substation in Kolwezi to the Kamo-a-Kakula Project. Below is a completed section of the powerline with the cables installed.**





## **Kamoa-Kakula's COVID-19 prevention initiatives focused on risk mitigation**

In accordance with health guidelines from the DRC government, and in line with the country's lifting of restrictions, Kamoa-Kakula's Congolese workforce has gone back to normal work rotations. Rigorous testing, physical distancing, wearing face masks, frequent hand washing and contact-tracing measures are still in place to protect the safety and health of the workforce and community members. All expatriate employees are still required to quarantine for two weeks upon arrival at Kamoa-Kakula.

The project has established a COVID-19 isolation facility at the Kamoa camp. Potential symptomatic patients are moved to this facility, where they will be isolated, tested and treated. Once patients have recovered and are deemed no longer infectious, they can return to work only after an additional quarantine period determined by the project's medical staff.

As the pandemic evolves, the medical team at Kamoa-Kakula continues to review and update its risk mitigation protocols. The project's preventative measures are at the highest international standards and, if there was a case internally, the risk of spreading or cross-contamination is considered to be very low.

The Kamoa-Kakula Copper Project is a joint venture between Ivanhoe Mines (39.6%), Zijin Mining Group (39.6%), Crystal River Global Limited (0.8%) and the DRC government (20%).

### **About Ivanhoe Mines**

Ivanhoe Mines is a Canadian mining company focused on advancing its three principal joint-venture projects in Southern Africa: the development of major new, mechanized, underground mines at the Kamoa-Kakula copper discoveries in the DRC and at the Platreef palladium-platinum-nickel-copper-rhodium-gold discovery in South Africa; and the extensive redevelopment and upgrading of the historic Kipushi zinc-copper-germanium-silver mine, also in the DRC. Kamoa-Kakula is expected to begin producing copper in July 2021 and, through phased expansions, is positioned to become one of the world's largest copper producers. Kamoa-Kakula and Kipushi will be powered by clean, renewable hydroelectricity and will be among the world's lowest greenhouse gas emitters per unit of metal produced. Ivanhoe also is exploring for new copper discoveries on its wholly-owned Western Foreland exploration licences in the DRC, near the Kamoa-Kakula Project.

### **Qualified Persons**

Disclosures of a scientific or technical nature regarding development scenarios at the Kamoa-Kakula Project in this news release have been reviewed and approved by Steve Amos, who is considered, by virtue of his education, experience and professional association, a Qualified Person under the terms of NI 43-101. Mr. Amos is not considered independent under NI 43-101 as he is the Head of the Kamoa Project. Mr. Amos has verified the technical data disclosed in this news release.

Other disclosures of a scientific or technical nature regarding the stockpiles in this news release have been reviewed and approved by George Gilchrist, who is considered, by virtue of his education, experience and professional association, a Qualified Person under the terms of NI 43-101. Mr. Gilchrist is not considered independent under NI 43-101 as he is the Vice President, Resources of Ivanhoe Mines. Mr. Gilchrist has verified the other technical data disclosed in this news release.

The stockpile grade estimates contained in this release are based upon bulk ore sampling from earlier underground headings, and vertical channel sample profiles from recent development. Bulk ore sampling was done on each heading every second blast and three 5-kilogram samples were taken. Since the beginning of October 2020, channel sample profiles are the primary data informing the stockpile grade estimates. These are cut approximately 15 metres apart in 1-metre vertical increments across the full vertical exposure using a handheld grinder, with a 100-to-150-gram sample collected. The samples are pulverized at the project's onsite laboratory and analyzed using a portable XRF (pXRF) instrument. Kamo Copper has routinely analyzed its exploration drill core for copper using pXRF, in addition to analysis at a commercial laboratory using four acid digest and ICP-OES. This data has demonstrated that pXRF results can be relied upon for grade control and run-of-mine sampling.

Ivanhoe has prepared an independent, NI 43-101-compliant technical report for the Kamo-Kakula Project, which is available on the company's website and under the company's SEDAR profile at [www.sedar.com](http://www.sedar.com):

- Kamo-Kakula Integrated Development Plan 2020 dated October 13, 2020, prepared by OreWin Pty Ltd., China Nerin Engineering Co., Ltd., DRA Global, Epoch Resources, Golder Associates Africa, KGHM Cuprum R&D Centre Ltd., Outotec Oyj, Paterson and Cooke, Stantec Consulting International LLC, SRK Consulting Inc., and Wood plc.

The technical report includes relevant information regarding the assumptions, parameters and methods of the mineral resource estimates on the Kamo-Kakula Project cited in this news release, as well as information regarding data verification, exploration procedures and other matters relevant to the scientific and technical disclosure contained in this news release.

## Information contacts

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## Forward-looking statements

Certain statements in this release constitute "forward-looking statements" or "forward-looking information" within the meaning of applicable securities laws. Such statements and information involve known and unknown risks, uncertainties and other factors that may cause the actual results, performance or achievements of the company, its projects, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements or information. Such statements can be identified by the use of words such as "may", "would", "could", "will", "intend", "expect", "believe", "plan", "anticipate", "estimate", "scheduled", "forecast", "predict" and other similar terminology, or state that certain actions, events or results "may", "could", "would", "might" or "will" be taken, occur or be achieved. These statements reflect the

company's current expectations regarding future events, performance and results and speak only as of the date of this release.

Such statements include without limitation, the timing and results of: (i) statements regarding the northern and southern access drives at Kakula are expected to be joined in the next two weeks; (ii) statements regarding 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 of approximately up to 8%; (iii) statements regarding initial production at the Kakula Mine is scheduled for July 2021; (iv) statements regarding Kakula's initial 3.8 Mtpa concentrator is expected to be mechanically complete in Q2 2021; (v) statements regarding the Kakula Mine will have one of the most favourable environmental footprints of any tier-one copper mine; (vi) statements regarding the Kakula Mine will be powered by clean, renewable hydroelectricity; (vii) statements regarding approximately one half of the mine's tailings will be pumped back into underground workings; (viii) statements regarding that once drift-and-fill mining operations begin at Kakula, mining will produce a significantly higher proportion of high-grade ore than lower-grade development ore; (ix) statements regarding the Kakula Mine will be producing extremely high-grade concentrate containing over 55% copper with extremely low levels of arsenic; (x) statements regarding the Kakula Mine is scheduled to be energized with 220kV hydro-generated power in early 2021; (xi) statements regarding the timing when the Kakula concentrator processing capacity doubles to 7.6 Mtpa – currently planned to be commissioned in Q2 2022; (xii) statements regarding the Kamoakakula project is positioned for a significant acceleration in the tonnage, as well as a marked increase in the grade, of ore added to the project's surface stockpiles; (xiii) statements regarding Kakula is projected to be the world's highest-grade major copper mine, with an initial mining rate of 3.8 Mtpa at an estimated average feed grade of more than 6.0% copper over the first five years of operation; (xiv) statements regarding Kamoakakula's phases 1 and 2 combined are forecast to produce approximately 400,000 tonnes of copper per year; (xv) statements regarding based on independent benchmarking, the phased expansion scenario to 19 Mtpa would position Kamoakakula as the world's second largest copper mining complex, with peak annual copper production of more than 800,000 tonnes; and (xvi) statements regarding Kamoakakula will be among the world's lowest greenhouse gas emitters per unit of copper produced.

As well, all of the results of the pre-feasibility study for the Kakula copper mine and the updated and expanded Kamoakakula Project preliminary economic assessment constitute forward-looking statements or information, and include future estimates of internal rates of return, net present value, future production, estimates of cash cost, proposed mining plans and methods, mine life estimates, cash flow forecasts, metal recoveries, estimates of capital and operating costs and the size and timing of phased development of the projects. Furthermore, with respect to this specific forward-looking information concerning the development of the Kamoakakula Project, the company has based its assumptions and analysis on certain factors that are inherently uncertain. Uncertainties include: (i) the adequacy of infrastructure; (ii) geological characteristics; (iii) metallurgical characteristics of the mineralization; (iv) the ability to develop adequate processing capacity; (v) the price of copper; (vi) the availability of equipment and facilities necessary to complete development; (vii) the cost of consumables and mining and processing equipment; (viii) unforeseen technological and engineering problems; (ix) accidents or acts of sabotage or terrorism; (x) currency fluctuations; (xi) changes in regulations; (xii) the compliance by joint venture partners with terms of agreements; (xiii) the availability and productivity of skilled labour; (xiv) the regulation of the mining industry by various governmental agencies; (xv) the ability to raise sufficient capital to develop such projects; (xiv) changes in project scope or design; and (xv) political factors.

Forward-looking statements and information involve significant risks and uncertainties, should not be read as guarantees of future performance or results and will not necessarily be accurate indicators of whether or not such results will be achieved. A number of factors could cause actual results to differ materially from the results discussed in the forward-looking statements or information, including, but not

limited to, the factors discussed below and under “Risk Factors”, and elsewhere in this release, as well as unexpected changes in laws, rules or regulations, or their enforcement by applicable authorities; the failure of parties to contracts with the company to perform as agreed; social or labour unrest; changes in commodity prices; and the failure of exploration programs or studies to deliver anticipated results or results that would justify and support continued exploration, studies, development or operations.

Although the forward-looking statements contained in this release are based upon what management of the company believes are reasonable assumptions, the company cannot assure investors that actual results will be consistent with these forward-looking statements. These forward-looking statements are made as of the date of this release and are expressly qualified in their entirety by this cautionary statement. Subject to applicable securities laws, the company does not assume any obligation to update or revise the forward-looking statements contained herein to reflect events or circumstances occurring after the date of this release.

The company’s actual results could differ materially from those anticipated in these forward-looking statements as a result of the factors set forth below in the “Risk Factors” section in the company’s Q2 2020 MD&A and its current annual information form.