

Ivanhoe Mines: Kakula Underground Mine Development Has Reached the Edge of the High-Grade Ore as Mining Advances Toward Zones in Excess of 8% Copper

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Mine surpasses 16 million hours, or more than 7.5 years, worked without a lost-time injury

Mine and processing plant construction progressing well - On track for first copper concentrate production in Q3 2021

Kolwezi, September 8, 2019 - Robert Friedland and Yufeng "Miles" Sun, Co-Chairmen of Ivanhoe Mines (TSX: IVN) (OTCQX: IVPAF) are pleased to report that underground development at the Kakula Copper Mine now has reached the high-grade ore within the deposit.

The advancement of the first connecting underground drift, designed to tunnel through the centre of the high-grade orebody and open up the mine's initial mineral reserves, has reached the edge of the high-grade ore. Grades of approximately 4% copper have been returned from sampling, and grades are expected to significantly increase as the development crews advance the drifts toward the deposit's central mining zones that are in excess of 8% copper.

"This intersection marks a significant milestone in the context of our exploration and development efforts at Kamoakakula that began more than 13 years ago," said David Edwards, Geology Manager, Kamoakakula Copper Project. "Now that you can see and touch Kakula's high-grade copper ore, it really hits home that we are well underway toward building the first of multiple high-grade copper mines in the area."

The Kakula connection drift is being developed to rapidly gain access to the highest grades in the centre of the deposit, and also connect with the Kakula South ventilation decline to increase the air flow to the underground working areas in the large-scale mechanized Kakula mining operation, allowing for more development and production mining crews.

The copper grades in the underground connection drift have been steadily increasing as the development approaches Kakula's siltstone unit (fine-grained sedimentary rocks). The siltstone at Kakula is instrumental in the formation of the highest copper grades and is key to the bottom-loaded nature of copper mineralization in the deposit. The thick, ultra-high-grade mining zones in the centre of the Kakula Deposit, with grades greater than 8% copper, are expected to be intersected in the second half of 2020 (see figures 1 and 2).

Mine geologist Micheline Kyenge examining the initial high-grade copper ore intersected by underground tunneling at the Kakula Mine. Copper mineralization at the mining face is predominantly bornite (63% copper by weight) and chalcocite (nearly 80% copper by weight).

Image 1: Mine geologist Micheline Kyenge examining the initial high-grade copper ore

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The high-grade ore is being stored on a dedicated run-of-mine stockpile on surface near the planned processing plant to ensure that there is plenty of ore to feed the processing plant during commissioning and

ramp up.

The project currently is on schedule to produce first copper concentrate in Q3 2021, with the construction of the Kakula Mine continuing at a rapid pace. Underground development is being performed by mining crews operating large-capacity, semi-autonomous mining equipment, such as jumbo drilling rigs, load haul dumpers and 50-tonne trucks.

Figure 1: The 13.3-kilometre-long Kakula Deposit showing the first five years of underground development and production focused on the pink area containing copper grades greater than 8% copper. Zoomed-in area is shown in Figure 2.

To view an enhanced version of Figure 1, please visit:

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Figure 2: The first tunnel (blue) to reach the high-grade Kakula orebody (brown) with copper grades between 3% and 8%. The tunnels will advance toward the ultra-high-grade copper zone (pink) with copper grades greater than 8%.

To view an enhanced version of Figure 2, please visit:

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Note: The contours in Figure 2 represent the copper grade for the initial development drives, which will follow the bottom contact of the Kakula resource. These grades have not taken into consideration expected dilution and ore loss. As the copper grade is generally richer at the base of the Kakula resource, these contours show higher grades than the overall resource grade.

The grade calculations for Figure 2 are based on a six-metre thickness and 3% copper cut-off grade for the proposed bottom cut for the cut-and-fill areas of the resource and on a 4.5-metre thickness and 2% copper cut-off grade for the proposed room-and-pillar areas of the resource.

Figure 3: Projected increasing copper grades across the initial orebody crossing, from hole DD1039 progressing through to hole DD1026, highlighted by the high-grade footwall loading in the siltstone unit above the sandstone contact.

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Copper-rich bornite and chalcocite mineralization at the face of the underground connection drift at the Kakula Mine.

Image 2: Copper-rich bornite and chalcocite mineralization

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Project construction progressing well - On track for first concentrate in Q3 2021

Work on the decline rock handling system that will be used to transport copper ore from Kakula's

underground workings to the surface processing plant is progressing very well. The concrete foundations for the head end of the conveyor belt have been completed and work on the portal electrical substation is nearing completion. The expected date for the first ore to surface using the decline conveyor system is March 2020.

Construction of the permanent underground dewatering system is well advanced with the initial water storage dam and pumping station complete. The excavation for the main decline's bottom water storage dam has been completed and work is underway on the second pumping system.

Ventilation shaft number 1 will be commissioned shortly and work on ventilation shafts 2 and 3 has started. The vertical, 5.5-metre diameter shafts will supply fresh air from surface to the northern side of the underground Kakula orebody and allow the mine to double its underground mining crews to six. More than 5,000 metres of underground development has been completed to date, which is consistent with the schedule laid out in the February 2019 Kakula pre-feasibility study.

Basic engineering design and costing for the underground mine at Kakula recently has been completed. Detailed design is ongoing and the bulk of the procurement packages are scheduled to be placed by the end of 2019.

Engineering design, procurement and construction for the processing plant is fully underway. Orders for all of the long-lead items have been placed, including the ball mills, crushers, high-pressure grinding rolls, flotation cells, re-grind mills, thickeners and concentrate filter. Surface earthworks and terracing for the concentrator and surface infrastructure is well advanced, and the civil contract for the processing plant now has been signed. The tender for the structural, mechanical, piping and plate-work erection contract has been issued.

Energizing of the permanent 220-kilovolt overhead hydropower lines to the substation is expected by the end of 2020, well in advance of plant commissioning.

Construction of the new highway connecting the Kakula Mine with Kolwezi airport is more than 50% complete and remains on schedule to be fully operational by the end of this year. Once completed, the new highway will provide Kamo-a-Kakula with important new transportation connections for the import of construction materials and export of copper concentrates. The Kakula permanent village construction also is progressing to plan with some accommodation units ready for occupation.

View of Kakula's permanent village under construction, with the Kakula's main box cut/portal and twin declines (in red) illustrated in Figure 2, and processing plant under construction (in yellow).

Image 3: View of Kakula's permanent village under construction

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Kakula's main box cut/portal and northern declines, the conveyor belt transfer foundations and portal electrical substation.

Image 4: View of Kakula

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Installing high-capacity fans at Kakula's 5.5-metre-diameter ventilation shaft 1 that will supply fresh air from surface to the northern side of the underground Kakula orebody.

Image 5: Installing high-capacity fans

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Kamoa-Kakula's mine development team and geologists celebrating another impressive safety milestone. Ivanhoe Mines is very proud of the team's safety record that now exceeds 7.5 years with zero lost-time injuries.

Image 6: Kamoa-Kakula's mine development team and geologists celebrating

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Contractors constructing a concrete culvert on the new highway that will link Kamoa-Kakula to the Kolwezi airport. The highway is more than 50% complete and is scheduled to be fully operational by the end of this year.

Image 7: Contractors constructing a concrete culvert

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Qualified Person and Quality Control and Assurance

Scientific and technical information in this news release has been reviewed and approved by Stephen Torr, P.Geol., Ivanhoe Mines' Vice President, Project Geology and Evaluation, a Qualified Person under the terms of National Instrument 43-101. Mr. Torr is not independent of Ivanhoe Mines. Mr. Torr has verified the technical data disclosed in this news release.

Ivanhoe Mines maintains a comprehensive chain of custody and quality assurance and quality control (QA/QC) program on assays from its Kamoa-Kakula Copper Project. Half-sawn core is processed at the Kamoa-Kakula on-site preparation laboratory and prepared samples then are shipped by secure courier to Bureau Veritas Minerals (BVM) Laboratories in Australia, an ISO17025-accredited facility. Copper assays are determined at BVM by mixed-acid digestion with ICP finish. Industry-standard certified reference materials and blanks are inserted into the sample stream prior to dispatch to BVM. For detailed information about assay methods and data verification measures used to support the scientific and technical information, please refer to the March 2019 technical report titled "Kamoa-Kakula 2019 Integrated Development Plan", on the Ivanhoe Mines SEDAR profile at www.sedar.com and available at www.ivanhoemines.com.

About Ivanhoe Mines

Ivanhoe Mines is a Canadian mining company focused on advancing its three principal projects in Southern Africa: the development of new mines at the Kamoa-Kakula copper discovery in the Democratic Republic of Congo (DRC) and the Platreef palladium-platinum-nickel-copper-gold discovery in South Africa; and the extensive redevelopment and upgrading of the historic Kipushi zinc-copper-germanium-silver mine, also in the DRC. The company also is exploring for new copper discoveries on its wholly-owned Western Foreland exploration licences, adjacent to the Kamoa-Kakula mining licence.

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Cautionary statement on forward-looking information

Certain statements in this release constitute "forward-looking statements" or "forward-looking information" within the meaning of applicable securities laws, including without limitation, (1) statements regarding the deposit's central mining zones that are in excess of 8% copper; (2) statements regarding the thick, ultra-high-grade mining zones in the centre of the Kakula Deposit, with grades greater than 8% copper, are expected to be intersected in the second half of 2020; (3) statements regarding the processing plant is expected to begin operations in second half of 2021 and first copper concentrate currently is scheduled for the third quarter of 2021; (4) statements regarding the expected date for the first rock to surface using the decline conveyor system is March 2020; (5) statements regarding detailed mine design is ongoing and the bulk of the procurement packages are scheduled to be placed by the end of 2019; (6) statements regarding energizing of the permanent 220-kilovolt overhead power lines to the Kakula substation is expected by the end of 2020, well in advance of plant commissioning; (7) the building of multiple high grade copper mines at the Kamoakakula Project, and (8) statements regarding construction of the new highway connecting the Kakula Mine with the Kolwezi airport being on schedule to be fully operational by the end of this year.

Such statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the company, 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.

All such forward-looking information and statements are based on certain assumptions and analyses made by Ivanhoe Mines' management in light of their experience and perception of historical trends, current conditions and expected future developments, as well as other factors management believe are appropriate in the circumstances. These statements, however, are subject to a variety of risks and uncertainties and other factors that could cause actual events or results to differ materially from those projected in the forward-looking information or statements including, but not limited to, unexpected changes in laws, rules or regulations (including retroactive application), the failure of contractual agreements with the State to be honoured in whole or in part, or in the enforcement or application of laws, rules and regulations by applicable authorities; the failure of parties to contracts to perform as agreed; social or labour unrest; changes in commodity prices, including the price of copper; unexpected failure or inadequacy of infrastructure, or delays in the development of infrastructure, the failure of exploration programs or other studies to deliver anticipated results or results that would justify and support continued studies, development or operations, and the results of economic studies and evaluations. Other important factors that could cause actual results to differ from these forward-looking statements also include those described under the heading "Risk Factors" in the company's most recently filed MD&A as well as in the most recent Annual Information Form filed by Ivanhoe Mines. Readers are cautioned not to place undue reliance on forward-looking information or statements. The factors and assumptions used to develop the forward-looking information and statements, and the risks that could cause the actual results to differ materially are set forth in the "Risk Factors" section and elsewhere in the company's most recent Management's Discussion and Analysis report and Annual Information Form, available at www.sedar.com.

This news release also may contain references to estimates of Mineral Resources and Mineral Reserves. The estimation of Mineral Resources and Mineral Reserves is inherently uncertain and involves subjective judgments about many relevant factors. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. The accuracy of any such estimates is a function of the quantity and quality of available data, and of the assumptions made and judgments used in engineering and geological interpretation, which may prove to be unreliable and depend, to a certain extent, upon the analysis of drilling results and statistical inferences that may ultimately prove to be inaccurate. Mineral Resource or Mineral Reserve estimates may have to be re-estimated based on, among other things: (i) fluctuations in copper prices or other mineral prices; (ii) results of drilling; (iii) results of metallurgical testing and other studies; (iv) changes to proposed mining operations, including dilution; (v) the evaluation of mine plans subsequent to the date of any estimates; (vi) the possible failure to receive required permits, approvals and licences, or changes to any such permits, approvals or licences; and (v) changes in laws, rules or regulations, including changes to tax, VAT, and royalty rates whether to be applied prospectively or retroactively.

Although the forward-looking statements contained in this news 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 news 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 news release.

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