

January 10, 2022

Ivanhoe Mines provides 2022 production and cost guidance for Kamo-Kakula Copper Complex

■
2022 production guidance of between 290,000 to 340,000 tonnes of copper in concentrate

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Kamo-Kakula Copper produced 105,884 tonnes of copper in concentrate in 2021, exceeding the upper end of the guidance range, reflecting outstanding ramp-up of the Phase 1 operation

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Record monthly production of 18,853 tonnes achieved in December, with plant recovery averaging 88.5%

■
Phase 2 expansion now 80% complete, expected to start operations in Q2 2022; pre-commissioning activities underway

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Phase 3 concentrator expansion targeted for 2024, with earthworks to access new mining areas well underway

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Kamo-Kakula Copper's outstanding growth profile is aligned with first-class sustainability and social initiatives in keeping with the project's goal of producing the world's "greenest copper"

RIYADH, SAUDI ARABIA – Ivanhoe Mines (TSX: IVN; OTCQX: IVPAF) Executive Co-Chair Robert Friedland announced today, ahead of the inaugural Future Minerals Forum, that the 2022 annual production guidance for the Kamo-Kakula Copper Complex in the Democratic Republic of Congo (DRC) is between **290,000 and 340,000 tonnes of copper** in concentrate.

The figures are on a 100%-project basis and metal reported in concentrate is prior to refining losses or deductions associated with smelter terms.

The guidance range for cash costs (C1) per pound of payable copper in 2022 is between **\$1.20 and \$1.40** per pound of payable copper. Cash costs (C1) per pound of payable copper for Q3 2021 totaled \$1.37/lb, while cost of sales per pound of

payable copper sold for Q3 2021 was \$1.08/lb. "Cash costs (C1) per pound" is a non-GAAP financial performance measure. Additional information is provided in the Non-GAAP Financial Performance Measures section of this news release.

Kamoa Copper's copper-in-concentrate production for the year ended December 31, 2021, totalled **105,884 tonnes**, exceeding the upper end of the increased guidance range of 92,500 to 100,000 tonnes. The year-end total was boosted by record monthly production of **18,853 tonnes** achieved in December.

2021 guidance had been raised from an initial range of 80,000 to 95,000 tonnes, during the course of the successful ramp-up of Kamoa Copper's Phase 1 concentrator plant, which began operations in late May 2021 and reached commercial operations on July 1, 2021.

During the month of December, a record **372,000 tonnes** of ore were milled at an **average feed grade of 5.98% copper**, exceeding the monthly design run rate of 316,667 tonnes by more than **17%**.

Copper flotation recoveries also achieved a record **88.5%** in December. The Phase 1, steady-state design copper recovery is approximately 86%, depending on ore feed grade.

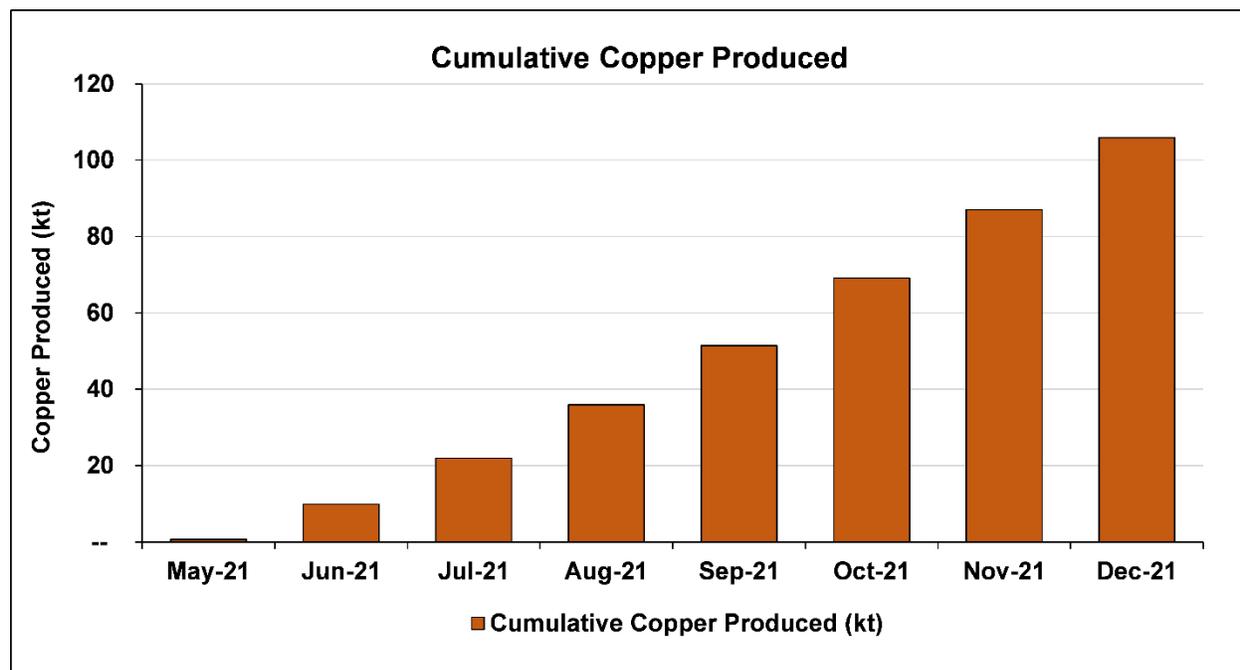
Kamoa Copper expects to begin operations at the Phase 2 concentrator plant in **Q2 2022**. The Phase 2 concentrator plant is identical to the Phase 1 concentrator, with a nameplate milling capacity of 3.8 million tonnes per annum (Mtpa), and a similar ramp-up profile for the new concentrator is targeted, with the benefit of additional knowledge gained during the commissioning of Phase 1.

The Phase 3 expansion also is advancing, with work ongoing on new box cut to open up the Kamoa Mine. An updated pre-feasibility study (PFS), including the Phase 3 expansion, is expected in **Q3 2022**.

Watch a new video showcasing Phase 1 operations and the Phase 2 and Phase 3 expansion work underway at the Kamoa-Kakula Copper Complex:

<https://vimeo.com/663982551/a4a47fa41f>

Chart 1: Cumulative tonnes of copper produced from May 2021 to December 31, 2021.



2022 Guidance for Kamo-Kakula

Guidance is based on a number of assumptions and estimates as of December 31, 2021, including among other things, assumptions about the timing of the Phase 2 expansion and anticipated costs and expenditures. Production and cost guidance assumes the Phase 2 concentrator plant will commence copper production in Q2 2022 and that ramp-up will be in line with what was achieved with Phase 1. Guidance involves estimates of known and unknown risks, uncertainties and other factors which may cause the actual results to be materially different.

Kamo-Kakula 2022 Guidance

Contained copper in concentrate (tonnes)	290,000 - 340,000
Cash cost (C1) (\$ per pound)	1.20 - 1.40

Cash costs (C1) per pound of payable copper for Q3 2021 of \$1.37/lb reflected the measured ramp-up of production at Kamo-Kakula to steady-state, and are expected to trend downward as the Phase 2 concentrator plant is commissioned

and the mine's fixed operating costs are spread over increased copper production.

C1 cash cost is a non-GAAP measure used by management to evaluate operating performance and include all direct mining, processing, and general and administrative costs. Smelter charges and freight deductions on sales to final port of destination (typically China), which are recognized as a component of sales revenues, are added to C1 cash cost to arrive at an approximate cost of delivered finished metal.

Cost of sales per pound of payable copper sold for Q3 2021 was \$1.08/lb. For historical comparatives see the Non-GAAP Financial Performance Measures section of this news release. Please also see the Management's Discussion and Analysis for the three and nine months ended September 30, 2021, for discussion of non-GAAP measures. All figures in the above table are on a 100%-project basis.

"Kamoa Copper's outstanding operational success in 2021 is a product of the culture and values promoted throughout the organization," said Mr. Friedland. "We are focused on training and empowering our young, talented Congolese workforce to operate this globally significant copper mining and smelting complex for generations to come. We invest deeply in our people and we celebrate their diversity, as diversity is a core value and a key to our strength. Collectively we are determined to create long-term stakeholder and shareholder value through continued investment in discovering and developing world-class orebodies, technological innovation, strong corporate governance, environmental stewardship, empowering our host communities and intense focus on health and safety.

"The Phase 2 expansion remains significantly ahead of schedule, and we are well on the way to doubling our annualized copper production to more than 400,000 tonnes starting early in Q2 2022, vaulting Kamoa Copper into the ranks of the world's ten largest copper mines.

"Our outstanding team of geologists are confident that the Kamoa and Kakula mines are just the initial discoveries of a major new mining district, which extends the storied African Copperbelt in a southwesterly direction all the way to the Zambian border. We will be conducting an extensive drilling campaign on our majority-owned Western Foreland exploration licences this year to unlock the potential of this highly-prospective ground."

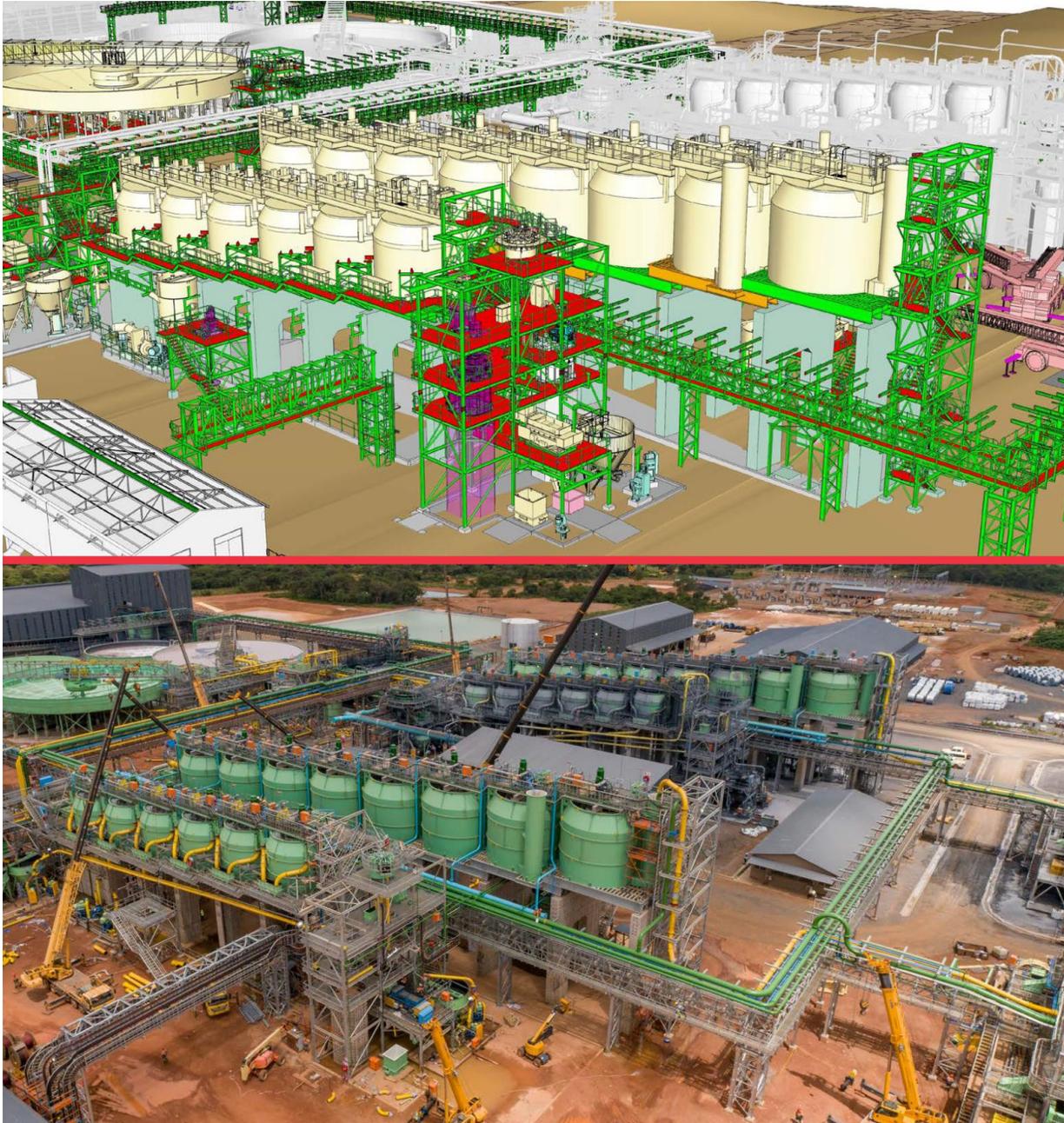
The Kamoia Copper Complex with the Phase 1 and Phase 2 concentrator plants at the Kakula Mine. A small portion of Ivanhoe's Western Foreland exploration licences are in the background.



Muhemba Richard (left), operating an ore-truck simulator under the guidance of trainer Kasongo Kabila at Kamoia Copper's state-of-the-art training centre.



A 3D illustration of Kamoā-Kakula's Phase 2 concentrator flotation cells. The picture below shows the current progress, which is approximately 80% complete.



A convoy of trucks transporting Kamoia Copper's copper concentrate for export to international markets.



Kamoia-Kakula's Phase 1 (at top) and Phase 2 ball mills.



Phase 2 expansion now 80% complete, expected to start operations in Q2 2022

Construction of the second 3.8-Mtpa concentrator plant (Phase 2) continues to progress ahead of schedule with hot commissioning expected to start in Q2 2022. Engineering, procurement and fabrication activities all are effectively complete, with construction activities well advanced. As of the end of December, the overall project was approximately 80% complete. Some pre-commissioning activities have started.

The main construction focus now has shifted from structural steel erection and installation of platework, equipment and piping (SMPP) to electrical, control and instrumentation (EC&I) installation. Most areas have been handed over from the SMPP contractor to the EC&I contractor. All of the Phase 2 surface piping has been installed. Installation of cable racking is nearing completion and cable pulling and instrument installation is well advanced.

More than 675 truckloads of Phase 2 plant construction equipment and materials already have been delivered to site.

Updated PFS study, including Phase 3 expansion, expected in Q3 2022; work on new box cut to open up the Kamoia Mine advancing

Kamoia Copper also is advancing the Phase 3 expansion, with operations at the first stream of the Phase 3 concentrator expected by the end of 2024. The Phase 3 concentrator will be located adjacent to the Kansoko Mine (at the Kansoko Sud orebody) and is being designed as two identical streams with a common dry front end, the same as the Phase 1 and 2 concentrators, but at a larger nameplate milling capacity per stream than the 3.8-Mtpa capacity of the Phase 1 and 2 concentrators.

The Phase 3 concentrator is expected to be supplied with ore from the established mine at Kansoko, as well as from two new planned mines, named Kamoia 1 and Kamoia 2. The Kamoia 1 and Kamoia 2 mining areas will be accessed via a twin-decline system (the Kamoia Mine decline), and the box cut for the declines is under construction.

Phase 3 also includes the construction of a direct-to-blister smelter, with a production capacity of 500,000 tonnes per annum of blister copper. Basic engineering, led by China Nerin Engineering Co., Ltd. of Jiangxi, China, is ongoing and expected to be completed in Q2 2022.

The planned smelter is to be built adjacent to the Phase 1 and 2 concentrator plants, and is designed to meet the International Finance Corporation's emissions standards. The smelter has been sized to process the majority of the copper concentrate forecast to be produced by Kamoia-Kakula's Phase 1, Phase 2 and Phase 3 concentrators. With a nameplate capacity of 500,000 tonnes per

annum of blister copper, it is projected to be one of the largest, single-line blister-copper flash smelters in the world, and the largest in Africa.

Power for the Phase 3 expansion will be supplied by the upgrading of turbine 5 at the Inga II hydropower complex to provide an additional 162 megawatts (MW) of renewable hydropower. Basic engineering for the design of a new turbine wheel and runners is ongoing at the Heidenheim offices of contractor Voith Hydro, and the contractor's team is preparing to mobilize on site.

Study work on all aspects of the Phase 3 expansion is progressing well, with further information to be provided in Q2 2022 as estimates are completed, and an updated PFS expected to be released in Q3 2022.

Mining crews produce 756,000 tonnes grading 5.25% copper from the Kakula and Kansoko mines in December

Underground mine production from the Kakula and Kansoko mines was **756,000 tonnes grading 5.25% copper** from November 21st to December 31st, including 272,000 tonnes grading 6.53% copper from the Kakula Mine's high-grade centre and 77,600 tonnes grading 4.15% copper from the Kansoko Mine. The production measuring month was longer than normal in order to close out the year.

Production levels from the mine are well above target, and will be boosted by three additional underground ore trucks commissioned on December 28, 2021.

The project's surface stockpiles now contain approximately 4.19 million tonnes of high-grade and medium-grade ore at an estimated, blended average of 4.63% copper. Contained copper in the stockpiles at the end of December now totals more than 194,000 tonnes (the current copper price is approximately \$9,600 per tonne).

Chart 2: Growth in cumulative tonnes of contained copper in surface stockpiles from May 2020 to December 31, 2021.

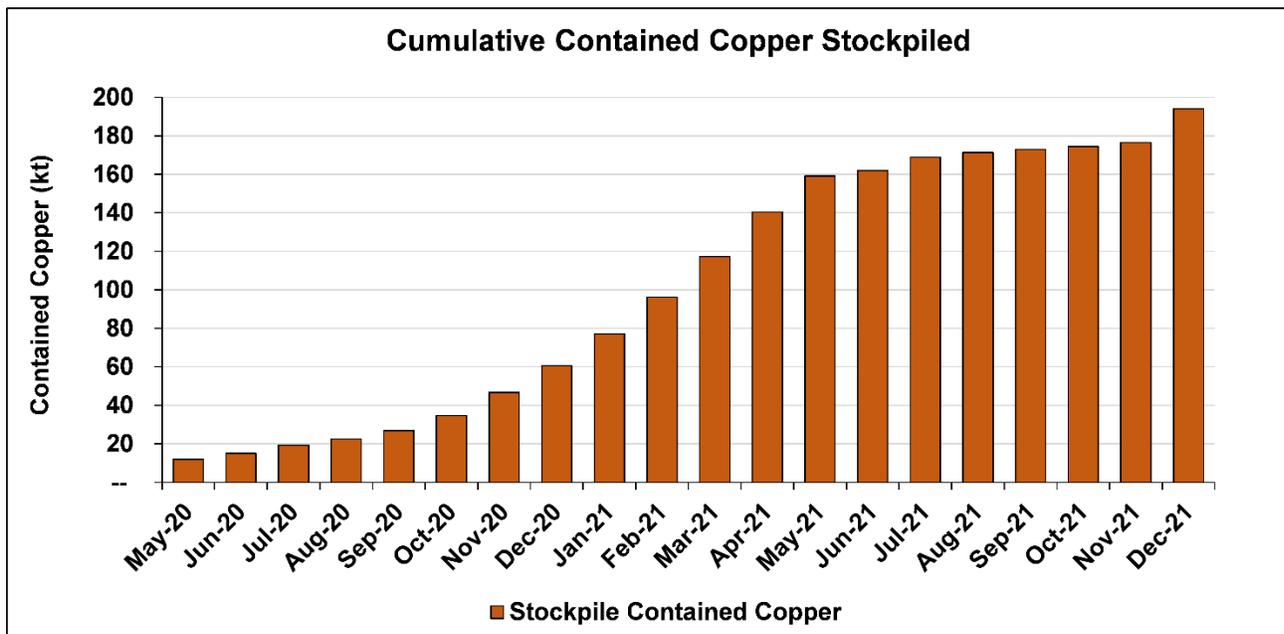
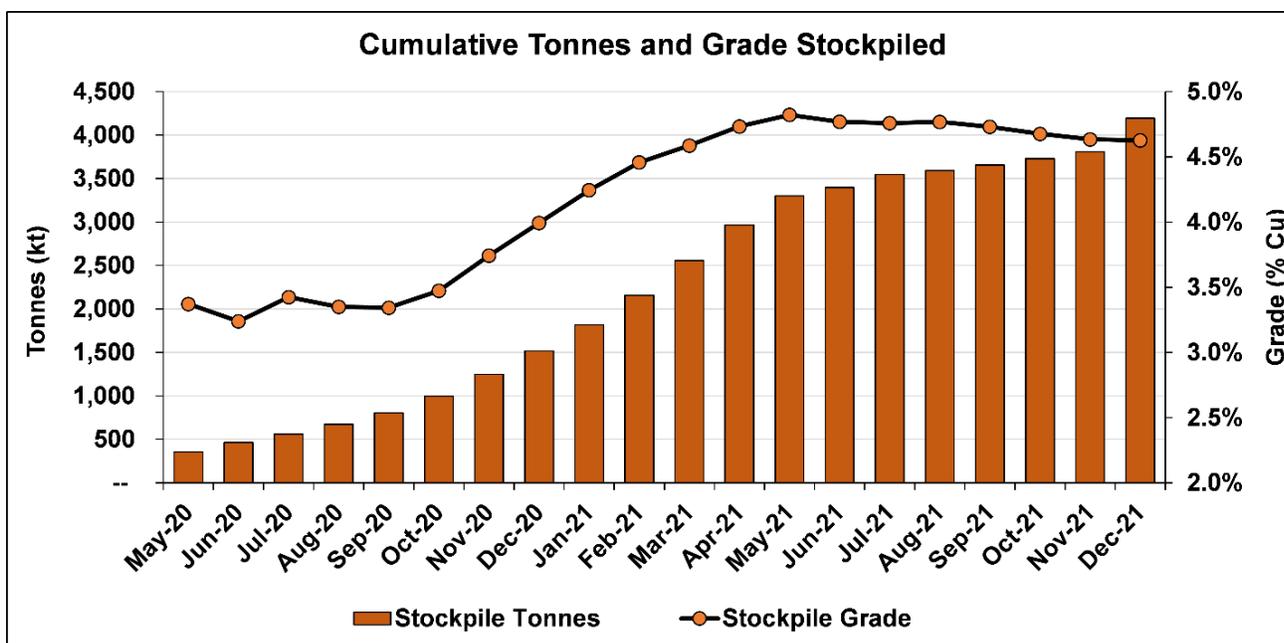


Chart 3: Cumulative tonnes and grade of contained copper in surface stockpiles from May 2020 to December 31, 2021.



Ore stockpiles at the Kakula North decline containing 2.04 million tonnes grading 5.13% copper as of December 31, 2021.



Ore stockpiles at the Kakula South decline containing 1.45 million tonnes grading 4.26% copper as of December 31, 2021.



The Kansoko Mine decline and ore stockpiles containing 696,000 tonnes grading 3.92% copper as of December 31, 2021.



Floribert Monga, Instrument Technician, wiring a distribution box for a control valve in the Phase 2 concentrator plant.



Boris Kitupa, Security Supervisor (left), and Philo Nsenga, Security Controller, monitoring security cameras in the Kakula North control room.



Stani Kayinda, Assistant Boilermaker, working on the Phase 2 concentrator plant.



Jean Mabungu, Fitter, at the Phase 2 concentrator plant.



About the Kamoa-Kakula Copper Complex

Kamoa-Kakula is projected to be the world's highest-grade major copper complex, 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 operations, and 5.9% copper over the initial 10 years of operations. Phase 1 is expected to produce approximately 200,000 tonnes of copper per year, while the Phase 2 expansion is forecast to increase production to more than 400,000 tonnes of copper annually.

Based on independent benchmarking, the project's phased expansion scenario to 19 Mtpa would position Kamoa-Kakula as the world's second-largest copper mining complex, with peak annual copper production of more than 800,000 tonnes.

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 Government of the Democratic Republic of Congo (20%). A 2020 independent audit of Kamoa-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.

Non-GAAP Financial Performance Measures

Cash costs (C1) and cash costs (C1) per pound are non-GAAP financial measures. These are disclosed to enable investors to better understand the performance of the Kamo-Kakula Project in comparison to other copper producers who present results on a similar basis. Cash costs (C1) are prepared on a basis consistent with the industry standard definitions by Wood Mackenzie cost guidelines but are not measures recognized under IFRS.

Below is a reconciliation of Kamo-Kakula's historical cost of sales to cash costs (C1), including on a per pound basis:

	Kamo-Kakula Q3 2021
	\$'000
Cost of sales	98,663
Logistics, treatment and refining charges	37,915
General and administrative expenditure	34,265
Royalties and production taxes	(25,137)
Depreciation	(24,061)
Movement in finished goods inventory	286
General and administrative expenditure of other group entities	(410)
C1 cash costs	121,521
Cost of sales per pound of payable copper sold (\$ per lb)	1.08
C1 cash costs per pound of payable copper produced (\$ per lb)	1.37

All figures above are on a 100% basis. See the Management's Discussion and Analysis for the three and nine months ended September 30, 2021, for further discussion of non-GAAP measures.

Qualified Persons

Disclosures of a scientific or technical nature regarding development scenarios at the Kamoakakula 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 Kamoakakula Copper's Head of Projects. 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 related to the stockpiles disclosed in this news release.

The stockpile grade estimates contained in this release are based upon bulk ore sampling from material being fed to the plant from surface stockpiles, and underground vertical channel sample profiles from recent development. Channel sample profiles 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. Kamoakakula 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. Due to rounding, numbers presented throughout this news release may not add up precisely.

Ivanhoe has prepared an independent, NI 43-101-compliant technical report for the Kamoakakula Project, which is available on the company's website and under the company's SEDAR profile at www.sedar.com:

- Kamoakakula 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 Kamoakakula 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.

About Ivanhoe Mines

Ivanhoe Mines is a Canadian mining company focused on advancing its three principal projects in Southern Africa: the development of major new, mechanized, underground mines at the Kamoa-Kakula copper discoveries in the Democratic Republic of Congo and at the Platreef palladium-rhodium-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 Democratic Republic of Congo.

Kamoa-Kakula began producing copper concentrates in May 2021 and, through phased expansions, is positioned to become one of the world's largest copper producers. Kamoa-Kakula is being powered by clean, renewable hydro-generated electricity and is projected to be among the world's lowest greenhouse gas emitters per unit of metal produced. Ivanhoe Mines has pledged to achieve net-zero operational greenhouse gas emissions (Scope 1 and 2) at the Kamoa-Kakula Copper Mine. Ivanhoe also is exploring for new copper discoveries on its Western Foreland exploration licences in the Democratic Republic of Congo, near the Kamoa-Kakula Project.

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, (i) that 2022 production guidance for the Kamoa-Kakula Copper Complex is between 290,000 to 340,000 tonnes of copper in concentrate; (ii) that 2022 cost guidance for the Kamoa-Kakula Copper Complex is between \$1.20 and \$1.40 per pound of payable copper on a cash cost (C1) basis; (iii) all statements regarding the Phase

2 expansion is expected to start operations in Q2 2022; (iv) all statements regarding the Phase 3 expansion expected to begin operations by the end of 2024; (v) 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 operations and 5.9% copper over the initial 10 years of operations; (vi) statements regarding Kamoakakula's Phase 1 is expected to produce approximately 200,000 tonnes of copper per year, and Phases 1 and 2 combined are forecast to produce more than 400,000 tonnes of copper per year; (vii) statements regarding based on independent benchmarking, the project's 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; (viii) statements regarding Kamoakakula will be among the world's lowest greenhouse gas emitters per unit of copper produced; and (ix) statements that the updated PFS for Phase 3 expansion is expected to be completed in Q3 2022.

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 2021 Q3 MD&A and its current annual information form.