

January 8, 2018

## **Ivanhoe Mines and Zijin virtually triple hydroelectric output to support the Kamo-Kakula Copper Project**

### **Fresh Kakula resource estimate being prepared based on drilling completed to the end of December 2017**

**KOLWEZI, DEMOCRATIC REPUBLIC OF CONGO – Ivanhoe Mines (TSX: IVN; OTCQX: IVPAF) Executive Chairman Robert Friedland and Chief Executive Officer Lars-Eric Johansson announced today that ongoing upgrading work at the Mwadingusha hydropower plant in the Democratic Republic of Congo (DRC) has almost tripled the plant's interim power output from 11 to 32 megawatts (MW).**

**This represents 45% of the plant's designed capacity. Three of Mwadingusha's six generators now have been modernized; the remaining three generators are due to be upgraded and fully operational by the end of 2019 – restoring the plant to its installed output capacity of approximately 71 MW of power.**

**The work at Mwadingusha, part of a program to eventually overhaul and boost output from three hydropower plants, is being conducted by engineering firm Stucky, of Lausanne, Switzerland, under the direction of Ivanhoe Mines and its joint-venture partner, Zijin Mining Group, in conjunction with the DRC's state-owned power company, La Société Nationale d'Electricité (SNEL). Once fully reconditioned, the three plants will have installed capacity of approximately 200 MW of electricity for the national grid, which is expected to be more than sufficient for the Kamo-Kakula Copper Project.**

**Mr. Friedland said a long-term, sustainable supply of electricity is essential to Ivanhoe's vision to develop Kamo-Kakula in an environmentally and socially responsible manner.**

**"The upgrading program underway at Mwadingusha is a significant private-public partnership venture between SNEL, Ivanhoe and Zijin, which is vital to secure sustainable, clean electricity for the Congolese people and for the development of a Tier One copper mine at Kamo-Kakula," Mr. Friedland added.**

**"Hydropower, with its virtues of being clean and renewable, is the best energy solution to support our development priorities as we continue to look for ways to reduce our impact on the environment and produce the copper the world requires."**

## **Mwadingusha hydroelectric power plant and distribution substation.**



**Mwadingusha is the first of three hydropower plants that Ivanhoe and Zijin plan to upgrade.**

**Upgrading of the other two existing hydroelectric power plants – Koni and Nzilo 1 – is expected to begin once Mwadingusha’s upgrading is completed.**

**The Mwadingusha and Koni plants are in cascade, with Koni directly downstream from Mwadingusha on the Lufira River at the mouth of Lake Tshangalele, north of Likasi and approximately 250 kilometres northeast of the Kamoia Mine development site.**

**The Nzilo 1 plant is on the Lualaba River, downstream of Nzilo Lake and north of the city of Kolwezi, approximately 40 kilometres from Kamoia.**

**Interior of the Mwadingusha power plant, with one of the upgraded alternators.**



**Mwadingusha dam, upstream from power plant.**



## **Kakula Mine development site now connected to national grid power**

**Mr. Johansson said that the Kakula Mine development site, approximately 10 kilometres south of Kamoas initial Kansoko Mine site, began receiving power from the national grid last month.**

**Kakula's development is being fast-tracked, with a pre-feasibility study in progress. The Kakula box cut was successfully completed in October 2017 and the first blast for the twin declines at Kakula took place in November 2017.**

**The Kakula Copper Deposit is a gently-dipping blanket of thick, chalcocite-rich copper mineralization. Initial mine development is planned to begin in the flat, near-surface zone, which at a 3% cut-off is between 7.1 metres and 11.7 metres thick, with copper grades of between 8.24% and 10.35% along the deposit's axis.**

**Based on the results from an independent National Instrument 43-101 preliminary economic assessment (PEA) released in November 2017, Kakula's ultra-high copper grade is expected to average 6.4% over the first 10 years of production.**

**Portals to declines being built to access the Kakula Deposit, showing ventilation installed in the services decline.**



**Jumbo drill operating in the Kakula services decline.**



### **New Kakula Mineral Resource estimate underway**

**An updated Mineral Resource estimate for Kakula, being prepared based on drilling completed to the end of December 2017, is expected to result in a significant upgrade and expansion of the Kakula Mineral Resources.**

**Results from drill holes completed to the end of December 2017 will form the basis of the new estimate that will encompass the entire strike length of the Kakula Discovery, which now extends beyond 12 kilometres. This represents an increase of approximately 60% in the strike length that will be used to calculate the new resource estimate, compared to the 7.7-kilometre strike length covered by Kakula's current resource estimate.**

**The new resource estimate will enable Ivanhoe and Zijin to assess early and expanded production scenarios by incorporating resources from Kakula West and Kansoko to support the main Kakula development plan that was detailed in the November 2017 Kakula preliminary economic assessment.**

## About the Kamo-a-Kakula Project

The Kamo-a-Kakula Project is a very large, stratiform copper deposit with adjacent prospective exploration areas within the Central African Copperbelt, located approximately 25 kilometres west of the town of Kolwezi and about 270 kilometres west of Lubumbashi. The Kamo-a Copper Deposit was discovered by Ivanhoe Mines (then named Ivanhoe Nickel & Platinum) in 2008, followed by the discovery of the Kakula Deposit in early 2016.

In August 2012, the DRC government granted mining licences to Ivanhoe Mines for the Kamo-a-Kakula Project that cover a total of 397 square kilometres. The licences are valid for 30 years and can be renewed at 15-year intervals.

The current Mineral Resource estimate for the Kamo-a-Kakula Copper Deposit has an effective date of November 27, 2017, and was prepared by George Gilchrist, Ivanhoe Mines' Mineral Resources Manager, under the direction of Dr. Harry Parker and Gordon Seibel, of Amec Foster Wheeler. The combined Kamo-a-Kakula Indicated Resources total approximately 1.1 billion tonnes grading 2.78% copper, containing 67.9 billion pounds of copper, plus another 261 million tonnes of Inferred Resources at 1.94% copper, containing 11.2 billion pounds of copper, at a 1.0% copper cut-off grade. Details of the current Mineral Resource estimate are contained in Ivanhoe Mines' November 28, 2017, news release.

Ivanhoe Mines and Zijin Mining each hold an indirect 39.6% interest in the Kamo-a-Kakula Project, Crystal River Global Limited holds an indirect 0.8% interest and the DRC government holds a direct 20% interest.

## Qualified Person

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

For detailed information about assay methods and data verification measures used to support the scientific and technical information, please refer to the [Kakula 2017 Resource Update, June 2017](#) technical report available on the SEDAR profile of Ivanhoe Mines at [www.sedar.com](http://www.sedar.com) or under technical reports on the Ivanhoe Mines website at [www.ivanhoemines.com](http://www.ivanhoemines.com). A new technical report is being prepared and will be filed within 45 days of the November 28, 2017 news release that announced the results of an expanded, independent PEA for the development of the Kakula Discovery at the Kamo-a-Kakula Project.

## About Ivanhoe Mines

Ivanhoe Mines is advancing its three principal projects in Southern Africa: 1) Mine development at the **Platreef** platinum-palladium-gold-nickel-copper discovery on the Northern Limb of South Africa's Bushveld Complex; 2) mine development and exploration at the Tier One **Kamoa-Kakula** copper discovery on the Central African Copperbelt in the Democratic Republic of Congo; and 3) upgrading at the historic, high-grade **Kipushi** zinc-copper-silver-germanium mine, also on the DRC's Copperbelt. For details, visit [www.ivanhoemines.com](http://www.ivanhoemines.com).

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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 remaining three generators at the Mwadingusha hydropower plant are scheduled to be fully upgraded and operational by the end of 2019; (2) statements regarding the upgrading program is expected to restore Mwadingusha to its installed output capacity of approximately 71 MW of power; (3) statements regarding the upgrading of the other two existing hydroelectric power plants – Koni and Nzilo 1 – is expected to begin once upgrading work at Mwadingusha is completed; (4) statements regarding the three plants, once fully reconditioned, will have installed capacity of approximately 200 MW of long-term, electricity for the grid, which is expected to be more than sufficient for the Kamoa-Kakula Copper Project; (5) statements regarding Kakula's ultra-high copper grade is expected to average 6.4% over the first 10 years of production; (6) statements regarding a new Mineral Resource estimate is expected to result in a significant upgrade and expansion of the Kakula Mineral Resources; and (7) statements regarding the new resource estimate will allow Ivanhoe and Zijin to assess early and expanded production scenarios by incorporating resources from Kakula West and Kansoko to support the main Kakula development plan that was laid out in the November 2017 Kakula PEA.

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, or their enforcement by applicable authorities; the failure of parties to contracts to perform as agreed; social or labour unrest; changes in commodity prices; unexpected failure or inadequacy of infrastructure, or delays in the development of infrastructure, and the failure of exploration programs or other studies to deliver anticipated results or results that would justify and support continued studies, development or operations. 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](http://www.sedar.com). This news release also contains references to estimates of Mineral Resources. The estimation of Mineral Resources 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 estimates may have to be re-estimated based on, among other things: (1) fluctuations in copper or other mineral prices; (2) results of drilling; (3) results of metallurgical testing and other studies; (4) changes to proposed mining operations, including dilution; (5) the evaluation of mine plans subsequent to the date of any estimates; and (6) the possible failure to receive required permits, approvals and licences.

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.