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Zijin Mining Group Co., Ltd.\*

紫金礦業集團股份有限公司

(a joint stock limited company incorporated in the People's Republic of China with limited liability) (Stock code: 2899)

## Announcement in relation to Results of Preliminary Economic Assessment of the Kamoa-Kakula Copper Deposits in the DR Congo

Important highlights:

- An independent NI 43-101 preliminary economic assessment (PEA) for the Kamoa-Kakula Copper Deposits for potential expanded production options is completed.
- Based on current copper resources, the PEA analyzes an initial, two-stage, modular, 12 million-tonne-per-annum operation supplied by two adjacent six million-tonne-per-annum mines yielding an after-tax NPV8% of US\$7.2 billion and an IRR of 33% over a 44-year mine life.
- An initial six million-tonne-per-annum copper mine at Kakula can be developed for an estimated US\$1.2 billion; study about subsequent expansions and construction of smelter is being processed.
- Kakula's ultra-high copper grade expected to average 6.4% over the first 10 years, with mine-site cash costs of US\$0.51/lb.

A preliminary economic assessment ("PEA") for potential expanded production options of the Kamoa-Kakula Copper Project in the Democratic Republic of the Congo (the "DR Congo" or "DRC"), which is a joint investment between Zijin Mining Group Co., Ltd.\* (the "Company"), Ivanhoe Mines Ltd. of Canada ("Ivanhoe") and the government of the DRC, is recently completed. The feasibility study under Chinese standard, which is jointly prepared by China ENFI Engineering Corporation and Xiamen Zijin Engineering Design Company Limited, will be completed by the year end.

Given the dramatic expansion and upgrading of the copper resources delineated at Kamoa-Kakula during the past year, the new PEA incorporates potential increased mining rates that are 50% higher than the rates used in the 2016 PEA. The results of the new PEA are mainly as follows:

## 1. Potential initial six Mtpa mine at Kakula

The PEA analyzes the potential development of an initial six Mtpa Kakula Mine at the Kakula Deposit. For

this option, the PEA envisages an average annual production rate of 246,000 tonnes of copper at a mine site cash cost of US\$0.45/lb copper and total cash cost of US\$1.08/lb copper for the first five years of operations, and copper annual production of up to 385,000 tonnes by year four. Kakula's ultra-high copper grade expected to average 6.4% over the first 10 years, with mine-site cash costs of US\$0.51/lb and average total cash cost of US\$1.14/lb of copper. The initial project life is 24 years. The life-of-mine production scenario provides for 108.4 million tonnes to be mined at an average grade of 5.48% copper and average copper recovery of 86.86%, producing 9.4 million tonnes of high-grade copper concentrate with copper concentrate grade of 54.94% and contained metal in concentrate of 5,164kt.

The estimated initial capital cost, including contingency, is US\$1.2 billion. The capital expenditure for off-site power, which is included in the initial capital cost, includes a US\$71 million advance payment to the DRC state-owned electricity company - SNEL, to upgrade two hydropower plants to provide the Kamoa-Kakula Project with access to clean electricity for its planned operations.

The economic analysis uses a long-term price assumption of US\$3.00/lb of copper and results in an after-tax NPV at an 8% discount rate of US\$4.2 billion. It has an after-tax IRR of 36.2% and a payback period of 3.1 years.

## 2. Expanded 12 Mtpa development scenario for the Kakula and Kamoa deposits

The PEA also assesses the potential development of the Kakula and Kamoa deposits as an integrated, 12 Mtpa mining and processing complex, built in two stages.

Initial production would occur at a rate of six Mtpa from the Kakula Mine, before increasing to 12 Mtpa with material from the Kansoko Mine at the Kamoa Deposit. As resources at Kakula and Kansoko are mined, the PEA envisages that production would begin at Kamoa North to maintain 12 Mtpa throughput over a 44-year mine life.

This development scenario is based on currently delineated resources, each mining operation is expected to be a separate underground mine with a shared processing facility and surface infrastructure. Study about subsequent expansions and construction of smelter is being processed. China Nerin Engineering Co., Ltd. is currently responsible for the feasibility study of the smelter and it will be completed by the end of the year. Under this development scenario, there will be an average grade of 5.72% copper during the first 10 years of operations, resulting in estimated average annual copper production of 370,000 tonnes. Annual copper production is estimated at 542,000 tonnes in year nine, and average total cash costs of US\$1.02/lb of copper, including sulphuric acid credits.

Initial capital cost, including contingency, is US\$1.2 billion. The economic analysis uses a long-term price assumption of US\$3.00/lb of copper. After-tax NPV, at an 8% discount rate, at US\$7.2 billion; after-tax IRR

of 33% and a payback period of 4.7 years.

In addition to the PEA, a pre-feasibility study (PFS) has been completed for the development of a six Mtpa Kansoko Mine at the Kamoa Deposit. This refines the findings of the Kamoa March 2016 PFS, which envisaged a production rate of three Mtpa. The PFS envisages an average annual production rate of 178,000 tonnes of copper for the first 10 years of operations, and annual copper production of 245,000 tonnes by year seven. The estimated initial capital cost, including contingency, is US\$1.0 billion. The economic analysis uses a long-term price assumption of US\$3.00/lb of copper and results in an after-tax NPV at an 8% discount rate of US\$2.1 billion. It has an after-tax IRR of 24.2% and a payback period of 5.0 years. Initial project life is 26 years. The life-of-mine production scenario schedules 125.2 million tonnes to be mined at an average grade of 3.81% copper, producing 11.4 million tonnes of copper concentrate with contained metal in concentrate of 4,178kt.

Potential phased mine developments to 18 Mtpa and beyond are currently under evaluation for Kamoa-Kakula.

The Kakula 2017 PEA and Kamoa 2017 PFS were independently prepared by OreWin Pty. Ltd., Amec Foster Wheeler E&C Services Inc., SRK Consulting Inc., Stantec Consulting LLC, Golder Associates Ltd., KGHM Cuprum R&D Centre Ltd. and DRA Global.

The Company holds 9.9% equity interest in Ivanhoe. The Company and Ivanhoe each holds 49.5% equity interest in Kamoa Holding Limited ("KHL", a joint venture of the Company). KHL holds 80% equity interest in Kamoa Copper SA ("Kamoa Copper"). Kamoa Copper holds 100% interest in the Kamoa copper mine project.

The aforesaid development plan and financial projection are only based on the preliminary economic assessment and pre-feasibility study. The development plan may or may not be implemented. Any forward looking statements involved in the development plan, such as future plans and forecasts, do not constitute any actual commitment of the Company. Investors are advised to be cautious of their investment risks.

This announcement is made on a voluntary basis.

Investors and shareholders are advised by the board of directors to exercise caution when dealing in the shares of the Company.

As at the date of this announcement, the Board of Directors of the Company comprises Messrs. Chen Jinghe (Chairman), Lan Fusheng, Zou Laichang, Lin Hongfu, Fang Qixue, and Ms. Lin Hongying as executive directors, Mister. Li Jian as non-executive director, and Messrs. Lu Shihua, Zhu Guang, Sit Hoi Wah, Kenneth, and Cai Meifeng as independent non-executive directors.

> By Order of the Board of Directors Zijin Mining Group Co., Ltd.\* Chen Jinghe Chairman

Fujian, the PRC, 29 November 2017

\*The Company's English name is for identification purpose only