

## Luca Mining Reports Significant Improvements at Campo Morado

**Vancouver, British Columbia, February 21, 2024**

Luca Mining Corp. (“Luca” or the “Company”) (TSX-V: LUCA; OTCQX: LUCMF; Frankfurt: Z68) is pleased to provide an update on the optimization program at its wholly-owned Campo Morado polymetallic mine in Guerrerro, Mexico.

- Significantly improved overall performance in Q4 2023 compared to previous quarters, yielding increased revenues.
- Plant performance exceeded expectations with operational consistency.
- Higher metallurgical recoveries and concentrate grades. Of note, copper in the bulk concentrate increased from less than 48% recovery to over 70% recovery.

Mike Struthers, CEO, commented, *“The results we’re achieving at Campo Morado are better than expectations, and it’s extremely encouraging to see we can consistently maintain this performance week after week. The new regime of blending ore types from the mine is proving very successful by providing consistent feed to the plant and we expect this to continue to trend upwards during the year.”*

Ramon Perez, President, commented, *“The dedication and hard work of our team and our consultants Ausenco over the past four months are yielding tangible results. While we acknowledge this achievement, we remain committed to further enhancing the mine's performance and diversifying our revenue streams, particularly through a clean copper-lead separation. We anticipate sharing further positive updates on the progress of both Campo Morado and the Tahuehueto mine with the market in the very near future.”*

### Summary

The optimization program, known as the Campo Morado Improvement Project (“CMIP”), was formulated in Q4 2023 with the aim of significantly improving operational performance with a comprehensive strategy between the mine and mill. Key features of the program include effective mine-to-mill planning, new procedures for ore blending, increased metallurgical test work, optimized grinding and reagent dosing for improved recoveries, and phased equipment upgrades for mine and mill.

The results to date have been excellent, and include higher metallurgical recoveries and concentrate grades, especially for copper in the bulk concentrate, which are reflected in increased revenues. Plant performance in Q4 2023 met or exceeded expectations, particularly in the bulk circuit where copper recovery increased from less than 48% to over 70%.



Most notably, the operation increased copper recovery dramatically, by over 20%, whilst improving concentrate grades to over 14%.

Additional equipment was added to the mine to improve operational consistency, and in the plant a number of initiatives were completed, including adjusted reagent dosing schemes, and upgraded process control instrumentation.



Laboratory testing of copper flotation

Currently the operation produces a zinc concentrate, and a mixed (bulk) copper-lead concentrate.

Metallurgical test work at the ALS laboratories in Canada continues, with the goal to achieve a clean copper-lead separation, thereby producing three saleable concentrates (zinc, copper, lead) resulting in much improved revenues.

*Mike Struthers, commented, "The progressive investments in plant improvements will continue over the coming months. This is an exciting year for the operations and the Company."*

### Stock Options

The Company announces that pursuant to its Omnibus Equity Incentive Plan, it has granted incentive stock options to purchase an aggregate 200,000 shares in the capital stock of the Company. The options will be exercisable at a price of \$0.35 per share for a period of 5 years.

### **About Luca Mining Corp.**

Luca Mining (TSX-V: LUCA, OTCQX: LUCMF, Frankfurt: Z68) is a diversified Canadian mining company with two 100%-owned producing mines in Mexico. The Company produces gold, copper, zinc, silver and lead from these mines that each have considerable development and resource upside.

The Campo Morado mine, is an underground operation located in Guerrero State, a prolific mining region in Mexico. It produces copper-zinc-lead concentrates with precious metals credits. It is currently undergoing an optimisation program which is already generating significant improvements in recoveries and grades, efficiencies, and cashflows.

The Tahuehueto Gold Mine is a new underground operation in Durango State, Mexico, within the Sierra Madre Mineral Belt which hosts numerous producing and historic mines along its trend. The Company is commissioning its mill capacity to +1,000 tonnes per day, and key test work and production ramp-up is underway, to increase production by 2H 2024.

The Company expects its operations to start generating positive cash flows in 2024. Luca Mining is focused on growth with the aim of maximizing shareholder returns.

For more information, please visit: [www.lucamining.com](http://www.lucamining.com)

### **On Behalf of the Board of Directors**

*(signed) "Mike Struthers"*

**Mike Struthers, CEO and Director**

### **Qualified Persons**

The technical information contained in this News Release has been reviewed and approved by Mr. Chris Richings, Vice-President Technical at Luca Mining as the Qualified Person for the Company as defined in National Instrument 43-101.

### **Cautionary Note Regarding Production Decisions and Forward-Looking Statements**

It should be noted that Luca declared commercial production at Campo Morado prior to completing a feasibility study of mineral reserves demonstrating economic and technical viability. Accordingly, readers should be cautioned that Luca's production decision has been made without a comprehensive feasibility study of established reserves such that there is greater risk and uncertainty as to future economic results from the Campo Morado mine and a higher technical risk of failure than would be the case if a feasibility study were completed and relied upon to make a production decision. Luca has completed a preliminary economic assessment ("PEA") mining study on the Campo Morado mine that provides a conceptual life of mine plan and a preliminary economic analysis based on the previously identified mineral resources (see news releases dated November 8, 2017, and April 4, 2018).

Free operating cash flow is defined as excluding capital, debt repayment and Trafigura financing.

Statements contained in this news release that are not historical facts are “forward-looking information” or “forward-looking statements” (collectively, “Forward-Looking Information”) within the meaning of applicable Canadian securities laws. Forward Looking Information includes, but is not limited to, disclosure regarding the planned program to improve mining operations at Campo Morado; and other possible events, conditions or financial performance that are based on assumptions about future economic conditions and courses of action; the timing and costs of future activities on the Company’s properties, such as production rates and increases; success of exploration, development and bulk sample processing activities, and timing for processing at its own mineral processing facility on the Tahuehueto project site. In certain cases, Forward-Looking Information can be identified using words and phrases such as “plans,” “expects,” “scheduled,” “estimates,” “forecasts,” “intends,” “anticipates” or variations of such words and phrases. In preparing the Forward-Looking Information in this news release, the Company has applied several material assumptions, including, but not limited to, that the current exploration, development, environmental and other objectives concerning the Campo Morado Mine and the Tahuehueto Project can be achieved; that the program to improve mining operations at Campo Morado will proceed as planned; the continuity of the price of gold and other metals, economic and political conditions, and operations. Forward-Looking Information involves known and unknown risks, uncertainties and other factors which may cause the actual results, performance, or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by the Forward-Looking Information. There can be no assurance that Forward-Looking Information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on Forward-Looking Information. Except as required by law, the Company does not assume any obligation to release publicly any revisions to Forward-Looking Information contained in this news release to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events.

Neither TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.

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