

NEWS RELEASE

LUCA COMMENCES EXPLORATION DRILLING AT TAHUEHUETO GOLD MINE

Vancouver, British Columbia, October 23, 2024 - Luca Mining Corp. (“Luca” or the “Company”) (TSX-V: LUCA; OTCQX: LUCMF; Frankfurt: Z68) is pleased to announce the start of an exploration drilling campaign at the Tahuehueto gold mine in Durango State, Mexico. The Tahuehueto property comprises a large, epithermal gold/silver vein system and this campaign is the first significant exploration drill program on the property in over 10 years. The Company expects the current campaign to include up to 5,000 metres of diamond core drilling in 26 holes from underground over the next 4-6 months. The drill plan takes advantage of recently developed areas to potentially extend the resource along the modeled veins.

Dan Barnholden, CEO, commented, “Tahuehueto is a brand new mine which will soon be in commercial production. There are all the indicators of significant resource expansion potential at this project, and I am excited that our recently completed financing enables us to explore that potential. We have barely scratched the surface at Tahuehueto. Tahuehueto, and this new drill program, will provide ongoing drill results and steady news flow for investors over the coming months.”

Mineralization is open along strike and at depth for most of the modeled resource area and the objective of the current campaign will be a combination of infill and step-out drilling to determine the vertical and lateral extent of mineralization as well as to identify mineralized brecciated zones within the epithermal vein system. Recent mining in Level 23 encountered higher grade mineralization averaging 3.30 g/t Au over vein widths up to 20 metres (with values up to 65.04 g/t Au) in ore shoots branching off the main Creston vein (see news release dated May 29, 2024).

In addition to the four veins that make up the mineralized resource, there are at least 14 additional prospective veins or splays in the current concession area that show a potential to host low-sulphidation epithermal mineralization. In some cases, the prospective veins and splays may be extensions or continuations of the currently defined resource. The Company estimates that there are more than 11 km of prospective vein structures (measured along strike), compared to 4.5 km of mineralized veins that support current resource models. Figure 1 below shows the relative location of prospective veins (yellow) and veins modeled for resources and reserves (pink) within the Company’s concession area (white).

Surface mapping has been carried out by Company geologists and outside consultants during different phases of the project to identify potential areas of epithermal mineralization. The prospective veins have not yet been systematically sampled or explored and there is no guarantee that they host a mineralized resource.

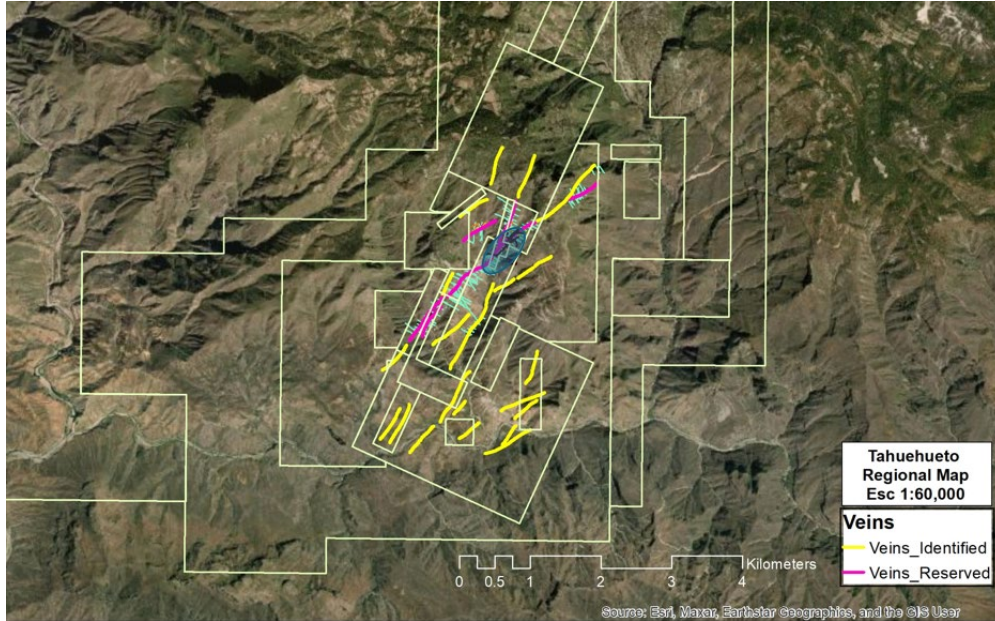


FIGURE 1 - TAHUEHUETO MODELED AND PROSPECTIVE VEINS

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 within the prolific Sierra Madre mineralized belt in Mexico which hosts numerous producing and historic mines along its trend. 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. It produces copper-zinc-lead concentrates with precious metals credits. It is currently undergoing an optimization program which is already generating significant improvements in recoveries and grades, efficiencies, and cashflows.

The Tahuehueto gold, silver mine is a new underground operation in Durango State. which hosts numerous producing and historic mines along its trend. The Company is commissioning its mill and is expected to achieve commercial production by the end of the year.

On Behalf of the Board of Directors

(signed) "Dan Barnholden"

Dan Barnholden, Chief Executive Officer

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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 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).

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 timing of the upcoming drill program; timing of commissioning the mill at Tahuehueto and timing to achieve commercial production; 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. 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 Tahuehueto Project can be achieved; the geological mapping from mining activity at Tahuehueto Project will continue to provide information to guide exploration program plans; 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.

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