

Lion Copper and Gold Provides a Pre-Feasibility Study Update

Yerington Copper Project PFS on track for completion in June 2025

Yerington, Nevada--(Newsfile Corp. - February 4, 2025) - **Lion Copper and Gold Corp.** (CSE: LEO) (OTCQB: LCGMF) ("**Lion CG**" or the "**Company**") today released a letter to Shareholders and a progress update on its Yerington Copper Project Pre-Feasibility Study (PFS). The PFS is being prepared using Stage 2c funding provided under terms of the Company's agreement with Nuton LLC (Nuton), a Rio Tinto venture (see "Lion Copper and Gold Corp. Receives Additional Nuton Funding of US\$5,000,000 at The Yerington Copper Project" November 19, 2024 [news release](#)).

The PFS builds on the work presented in the March 2024 Preliminary Economic Assessment (PEA). The PEA combines the Yerington and MacArthur mines into a cohesive, integrated open pit mining operation (the "Project") utilizing traditional heap leach methodologies that are enhanced by the application of Rio Tinto's Nuton technologies to process primary sulfide copper materials. The mine sequence, operations, facilities and infrastructure locations are being optimized for the PFS based on metallurgical testing and numerous field investigation programs, with details discussed below.

2024 HIGHLIGHTS

2024 was a very productive year as the Company continued the advancement of its Yerington Copper Project in Nevada. The Company announced a positive Preliminary Economic Assessment (PEA) in January. The Company received US\$16.5M from Nuton, LLC in two tranches to advance the Yerington PFS. Several management additions were made in the middle of the year, including the hiring of Mr. John Banning as Chief Operating Officer, and Mr. Doug Stiles as Vice President Environment and Sustainability. Steven Dischler, CEO of the Company, states, *"These changes added significant bandwidth and expertise to the delivery team at Yerington and set the stage for successful development of the Yerington Copper Project. As we continue with our advanced studies to derisk the Project for the PFS, we continue to be very optimistic with the Company's position in the prolific Yerington Copper District."*

The remaining sections of this news release provide an update on the work completed or ongoing for completion of the PFS.

EXPLORATION - 2024 Exploration and Resource Drilling Highlights

- **Drilling operations have been completed at the Yerington and MacArthur mines that will be used to upgrade the Mineral Resource Estimates (MREs) to Measured and Indicated classification in the PFS.**
- **Drilling results have improved understanding of the mineralization and have increased the confidence for updating the resource block models and MREs.**
- **9,491 ft of resource drilling was completed at the Yerington and MacArthur mines.**
- **Vat Leach Tailings (VLT) sample evaluation has enabled optimization of the MRE contained in a historic oxide tailings stockpile.**
- **Exploration drilling was completed at the Bear Deposit.**

A total of 3,326 ft of drilling in four core drill holes was completed at the Yerington Mine where drill results determined significant copper mineralization in the step-out drilling along the north side of the pit including oxide and primary sulfide mineralization (see "Lion Copper and Gold Corp. Announces Drill Results at Yerington Copper Project" Sept 9, 2024 [news release](#)). The results of the 2024 drilling, along

with an additional 17 historic Anaconda Mining Company (Anaconda) drill holes have been added for an updated resource block model. A revised resource pit shell is in preparation that will be used to update the MRE that was contained in the PEA.

The 2024 MacArthur drill results returned copper oxide or transition mineralization in 14 of the 18 Reverse Circulation ("RC") drill holes (see "Lion Copper and Gold Announces Drill Results at Yerington Copper Project" Sept 9, 2024, [news release](#)). A total of 6,165 ft of drilling was completed to continue upgrading the MRE within the PEA resource. The results of drilling completed in 2022, 2023 and 2024 have been added to an updated MacArthur resource block model. A revised resource pit shell is in preparation that will be used to update the MRE that was contained in the PEA.

An evaluation of drill sampling and bench face sampling of the VLT was completed in September 2024. The recent evaluation validated previous sampling that supports an updated MRE for this area of historic Anaconda mine tailings.

Two exploration core drill holes totaling 7,048 ft were angle drilled within the Bear Deposit (see "Lion Copper & Gold Announces Yerington Bear Deposit Diamond Drill Results", Aug 21, 2024 [news release](#)). One hole tested a wide-spaced drilling gap along the northwest mineralization trend identified previously by Anaconda legacy drill holes and returned a significant drill intercept of 2,376 ft of >0.40 TCu.

ENVIRONMENTAL, PERMITTING & STAKEHOLDER ENGAGEMENT

Permitting and environmental studies continue to advance, as follows:

- An engineering evaluation of water treatment needs and methods for achieving applicable water quality standards to beneficially re-use Yerington pit lake water has been completed. Estimated costs are less than what was assumed in the PEA and will be incorporated into the PFS.
- Field work has been completed to assess infiltration sites for use in returning treated pit lake water to the Mason Valley groundwater aquifer system. Assessment work for additional sites is underway with the results expected for use in the PFS.
- The hydrogeological assessment and Yerington pit dewatering model is on track for completion and use in the PFS. Model calibration to historic Anaconda dewatering records has been completed.
- Several permits have been received from the Nevada Department of Environmental Protection that are required to complete remaining site assessments at the Yerington Mine to support the PFS.
- Work on the operational water balance and associated water management strategies are underway with results in-line with expectations.
- The Company continues to proactively engage with key external stakeholders.

METALLURGY

Metallurgical testing continues on Yerington Mine samples using both the Nuton process for treatment of the sulfide primary copper material as well as the oxide and transition rock types.

Phase I Nuton™ testing to date on 25 column tests indicate potential improvement in metallurgical performance with regard to higher copper recovery and lower acid consumption. Phase 2 confirmation testing of the Nuton™ process is ongoing and progressing on track to inform the PFS. This program includes additional column testing with the results used to fine-tune the process design criteria for utilizing the Nuton™ technology for commercial scale operations. The Nuton™ hydrometallurgical test results are a key aspect that will inform the operating costs and cash flow model for the PFS.

Testing of the Yerington oxide and transition rock types is underway at McClelland Laboratories in Sparks Nevada. Initial results from this test program indicate a similar potential improvement in copper recovery with lower acid consumption due to synergies with the Nuton process.

Metallurgical test work on the MacArthur deposits proximal to the main MacArthur Mine are also in progress. The MacArthur materials to be utilized in the PFS contain mostly oxide and transition copper mineralization. Owing to the transition mineralization and limited primary sulfide mineralization to be included in the mine plan, a modified heap leach processing scheme is being evaluated to utilize synergies with the Nuton™ Process. Improvements in metallurgical performance result in derisking the project and lower project operating costs.

ENGINEERING

The PFS is on track to establish engineering inputs for infrastructure and facility siting locations and layout, trade-off studies and optimization of mine design and sequencing, as follows:

- Geotechnical test pitting and drilling programs are ongoing that will be used to inform the design of heap leach and mineral processing facilities.
- Optimization of mine design and sequencing continues following the favorable Yerington and MacArthur Mine exploration drilling results.
- Preliminary rail spur corridor design is underway.
- Updates to OPEX, CAPEX and pricing forecasts are progressing and,
- Sensitivity studies and engineering evaluations are ongoing.

"We are very pleased with the progress we're making on the Pre-Feasibility Study for the Yerington Copper Project," said John Banning, COO of Lion CG, who is leading the team responsible for the PFS. *"Our team is fully aligned and remains on schedule to complete the PFS by June of this year. We are committed to keeping our shareholders informed with regular updates as we continue to advance this important project."*

Other Corporate Activities

The company continues to diligently defend against the wrongful forfeiture of a portion of its water rights at the Yerington Mine, with clear evidence in the Company's investment to preserve those water rights for mine operation and reclamation. The Company is preparing for the water rights hearing regarding reversal of the Nevada State Engineer's decision, with the hearing scheduled for mid-March, 2025.

About Lion CG

Lion Copper and Gold Corp. is a Canadian-based company advancing its flagship copper assets in Yerington, Nevada through an Option to Earn-in Agreement with Nuton, a Rio Tinto venture. The Company's goal is to develop the Yerington Copper Project so as to achieve the lowest footprint copper production. We believe this can be accomplished by applying the Nuton technology and through proactive engagement with the local communities and Indian Tribes to earn our social license to operate a world-class copper mine in Mason Valley.

About Nuton

Nuton is an innovative venture that aims to help grow Rio Tinto's copper business. At the core of Nuton is a portfolio of proprietary copper leaching related technologies and capability that offers the potential to economically unlock copper from primary sulfide resources through leaching, achieving market-leading recovery rates and contributing to an increase in copper production at new and ongoing operations.

One of the key differentiators of Nuton is our ambition to produce the world's lowest footprint copper while having at least one Positive Impact at each deployment site across five pillars: water, energy, land, materials and society.

To learn more about Nuton, visit <https://nuton.tech/>.

On behalf of the Board of Directors,

Steven Dischler, P.E.
Chief Executive Officer
Lion Copper and Gold Corp.

For more information please contact:

Email: info@lioncg.com
Website: www.lioncg.com

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

The technical information in this news release has been reviewed and approved by John Banning, QP MMSA, Chief Operating Officer of Lion Copper and Gold Corp., and a qualified person as defined in NI 43-101.

Certain information in this news release constitutes forward-looking statements under applicable securities laws. Any statements that are contained in this news release that are not statements of historical fact may be deemed to be forward-looking statements. Forward-Looking statements are often identified by terms such as "may", "expect", or the negative of these terms and similar expressions. Forward-Looking statements in this news release include, but are not limited to, statements with respect to the future exploration activities and anticipated results. Forward-Looking statements necessarily involve known and unknown risks, including, without limitation, risks associated with exploration activity; general economic conditions; adverse industry events; marketing costs; loss of markets; future legislative and regulatory developments; inability to access sufficient capital from internal and external sources, and/or inability to access sufficient capital on favorable terms; the ability of Lion CG to implement its business strategies; competition; currency and interest rate fluctuations and other risks.



To view the source version of this press release, please visit
<https://www.newsfilecorp.com/release/239522>