

Metallic Minerals Reports Successful Electrochemical Recovery of 99.9% Pure Copper Metal from La Plata Sulphide Mineralization

26.02.2026 | [ACCESS Newswire](#)

VANCOUVER, February 26, 2026 - [Metallic Minerals Corp.](#) (TSXV:MMG)(OTCQB:MMNGF)(FSE:9MM1)("Metallic" or the "Company") is pleased to report initial results from its research collaboration with Columbia University under its "Mines of the Future" initiative. The study demonstrates the successful electrochemical recovery of high-purity copper metal directly from sulphide mineralized material at the Company's La Plata copper-silver-gold-PGE critical minerals project in southwestern Colorado.

Researchers at Columbia University's Gadikota Research Group have established proof-of-concept for an ambient-temperature electrochemical oxidative leaching process applied directly to whole La Plata chalcopyrite-dominant sulphide material without prior flotation concentration. Chalcopyrite is widely recognized as the most abundant copper sulphide mineral and one of the more refractory primary copper sulphide phases.

In initial laboratory-scale testing, approximately 70% of the copper contained in sulphide from drill samples was selectively solubilized within four hours at ambient temperature without prior flotation, roasting, or pressure oxidation. The dissolved copper was subsequently recovered through controlled electrodeposition, producing 99.9% pure metallic copper as confirmed by X-ray diffraction analysis. Near-complete recovery of copper from solution was achieved during the electrodeposition step.

Significance of Results

These results demonstrate, for the first time on La Plata mineralized samples, that direct electrochemical oxidative leaching can effectively dissolve copper from chalcopyrite-dominant sulphide mineralization under mild conditions. This demonstrates early-stage, laboratory-scale proof-of-concept for a potential electrochemical copper recovery pathway, where copper may be produced directly via electrowinning rather than through conventional concentrate production and transport to a smelter.

Importantly, under the leaching conditions employed, silver (Ag), rare earth elements (REEs), platinum group elements (PGEs), and gold (Au) do not report to the copper solution. Instead, these metals partition into an iron-rich solid residue formed during the process. This natural metal partitioning enables high-purity copper recovery in a streamlined two-stage process-leaching followed by electrodeposition-while simultaneously generating a separate iron-REE-PGE enriched residue for subsequent downstream recovery.

The tests were conducted on mineralized drill core material without prior concentration as an initial feasibility step. Based on the sulphide mineralogy and established metallurgical principles, the Company anticipates that pre-concentration of the sulphide fraction through conventional flotation and other upgrading processes could materially enhance copper recoveries in subsequent optimization work. Achieving approximately 70% leach recovery of copper under ambient conditions and short reaction times is notable given the chalcopyrite-dominant sulphide mineralization tested.

The electrochemical system utilizes in situ generation of hydrogen peroxide to promote oxidation of less soluble Cu⁺ species to soluble Cu²⁺, enabling selective dissolution. Following copper electrodeposition, the leaching reagents are regenerated in situ without additional pre-treatment, supporting a closed-loop system design with potential operating and capital efficiency benefits.

Platform for Multi-Metal Recovery

Removal of copper from solution represents the first stage of a broader comprehensive mineral valorization strategy being evaluated with Columbia University. The selective partitioning of REEs, PGEs, silver, and gold into an iron-rich residue provides a defined secondary feedstock for subsequent recovery of these critical minerals. Ongoing research is focused on developing selective extraction pathways for REEs, PGEs, and other critical minerals from this iron-rich residue, representing a second phase of technology development and intellectual property advancement. Intellectual property protection strategies are being evaluated covering these process innovations.

The Company believes this electrochemical platform may offer the potential to:

- Produce high-purity copper metal directly from sulphide mineralized material via a streamlined two-stage process;
- Reduce reliance on third-party smelting and associated concentrate transportation and emissions;
- Enable domestic refining of strategic metals and retain more value-added processing within the region;
- Establish a defined pathway for recovery of Ag, PGEs, Au, and REEs from iron-rich residues; and
- Support lower-energy, regenerative processing through reagent recycling and ambient-temperature operation.

Greg Johnson, CEO & Chairman, stated, "These results demonstrate that copper can be selectively dissolved from La Plata's chalcopyrite-dominant sulphide mineralization and recovered directly as 99.9% pure metal in a streamlined two-stage electrochemical process. Importantly, silver, rare earth elements, platinum group metals, and gold remain in an iron-rich residue, creating a natural partitioning of metals that simplifies downstream recovery pathways.

"As we continue to optimize and expand this work, our objective is to evaluate whether this technology can enhance overall metal recoveries while supporting a regenerative, lower-energy processing pathway. If successfully advanced, this approach may enable value-added metal production closer to the source-helping to retain more economic benefits locally, reduce reliance on high-temperature smelting, and support a more circular and responsible model of resource development."

Next Steps

The current results represent laboratory-scale proof-of-concept. Ongoing work is directed toward:

- Optimization of copper recovery through sulphide pre-concentration and refinement of leach parameters;
- Quantification of energy intensity and reagent regeneration efficiency;
- Detailed characterization and mass balance tracking of Ag, Au, PGEs, REEs, and other co-products within the iron-rich residue;
- Development of selective recovery pathways for REEs, PGEs, and other critical minerals from the residue; and
- Advancement toward pilot-scale validation.

While these results are encouraging, the laboratory-scale results represent an early-stage technical evaluation and do not constitute a mineral processing study, economic assessment, or development plan. Further engineering and economic analysis will be required to assess scalability and commercial viability and competitiveness relative to conventional flotation and smelting routes.

About Metallic Minerals

Metallic Minerals Corp. is a resource-stage exploration and development company advancing copper, silver, gold, platinum group elements, and other critical minerals at the La Plata project in southwestern Colorado, and high-grade silver exploration at the Keno Silver project in the Yukon Territory, adjacent to Hecla Mining's Keno Hill silver operations. The Company is also one of the largest holders of alluvial gold claims in the Yukon and is building a production royalty business through partnerships with experienced mining operators.

Metallic is led by a team with a strong track record of discovery and exploration success across multiple precious and base metal deposits in North America and is backed by strategic investment by [Newmont Corp.](#) and Eric Sprott. The Company integrates advanced data analytics into its exploration process to support target generation, accelerate discovery, and unlock value across its portfolio.

Metallic's project districts have a history of significant mineral production and benefit from existing infrastructure, including road access and nearby power. The Company is committed to responsible and sustainable resource development, engaging and collaborating with Canadian First Nation groups, U.S. Tribal and Native Corporations, and local communities to support long-term project advancement.

Upcoming Events

Metallic's management team will be attending several upcoming key industry events over the coming months and welcomes the opportunity to meet with investors and stakeholders:

1. Red Cloud Pre-PDAC 2026 Showcase - Toronto, Canada, February 26-27, 2026.
2. Metals Investor Forum - Toronto, Canada, February 27-28, 2026.
3. PDAC 2026 - Toronto, Canada, March 1-4, 2026.
4. Swiss Mining Institute Conference - Zurich, Switzerland, March 18-19, 2026.
5. SAFE Summit 2026 - Washington, D.C., USA, April 27-28, 2026.

FOR FURTHER INFORMATION, PLEASE CONTACT:

Website: metallic-minerals.com Phone: 604-629-7800
Email: info@metallic-minerals.com Toll Free: 1-888-570-4420

Qualified Person

The disclosure in this news release of scientific and technical information regarding metallurgical testing of samples from Metallic Minerals' La Plata property has been reviewed and approved by Scott Petsel, M.S., CPG, P. Geo., President, Metallic Minerals Corp., who is a Qualified Person as defined by National Instrument 43-101 - Standards of Disclosure for Mineral Projects ("NI 43-101"). Mr. Petsel is not independent of the Company.

Forward-Looking Statements

This news release includes certain statements that may be deemed "forward-looking statements". All statements in this release, other than statements of historical facts including, without limitation, statements regarding potential mineralization, historic production, estimation of mineral resources, the realization of mineral resource estimates, interpretation of prior exploration and potential exploration results, the timing and success of exploration activities generally, the timing and results of future resource estimates, permitting timelines, metal prices and currency exchange rates, availability of capital, government regulation of exploration operations, environmental risks, reclamation, title, statements about expected results of operations, royalties, cash flows, financial position and future dividends as well as financial position, prospects, and future plans and objectives of the Company are forward-looking statements that involve

various risks and uncertainties. Although Metallic Minerals believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results or developments may differ materially from those in the forward-looking statements. Forward-looking statements are based on a number of material factors and assumptions. Factors that could cause actual results to differ materially from those in forward-looking statements include failure to obtain necessary approvals, unsuccessful exploration results, unsuccessful operations, changes in project parameters as plans continue to be refined, results of future resource estimates, future metal prices, availability of capital and financing on acceptable terms, general economic, market or business conditions, risks associated with regulatory changes, defects in title, availability of personnel, materials and equipment on a timely basis, accidents or equipment breakdowns, uninsured risks, delays in receiving government approvals, unanticipated environmental impacts on operations and costs to remedy same and other exploration or other risks detailed herein and from time to time in the filings made by the Company with securities regulators. Readers are cautioned that mineral resources that are not mineral reserves do not have demonstrated economic viability. Mineral exploration, development of mines and mining operations is an inherently risky business. Accordingly, the actual events may differ materially from those projected in the forward-looking statements. For more information on Metallic Minerals and the risks and challenges of their businesses, investors should review their annual filings that are available at sedarplus.ca.

Neither the 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.

SOURCE: Metallic Minerals Corp.

[View the original press release on ACCESS Newswire](#)

Dieser Artikel stammt von Rohstoff-Welt.de

Die URL für diesen Artikel lautet:

<https://www.rohstoff-welt.de/news/723965--Metallic-Minerals-Reports-Successful-Electrochemical-Recovery-of-99.9Prozent-Pure-Copper-Metal-from-La-Plata>

Für den Inhalt des Beitrages ist allein der Autor verantwortlich bzw. die aufgeführte Quelle. Bild- oder Filmrechte liegen beim Autor/Quelle bzw. bei der vom ihm benannten Quelle. Bei Übersetzungen können Fehler nicht ausgeschlossen werden. Der vertretene Standpunkt eines Autors spiegelt generell nicht die Meinung des Webseiten-Betreibers wieder. Mittels der Veröffentlichung will dieser lediglich ein pluralistisches Meinungsbild darstellen. Direkte oder indirekte Aussagen in einem Beitrag stellen keinerlei Aufforderung zum Kauf-/Verkauf von Wertpapieren dar. Wir wehren uns gegen jede Form von Hass, Diskriminierung und Verletzung der Menschenwürde. Beachten Sie bitte auch unsere [AGB/Disclaimer!](#)

Die Reproduktion, Modifikation oder Verwendung der Inhalte ganz oder teilweise ohne schriftliche Genehmigung ist untersagt!
Alle Angaben ohne Gewähr! Copyright © by Rohstoff-Welt.de -1999-2026. Es gelten unsere [AGB](#) und [Datenschutzrichtlinien](#).