Electra Battery Materials

NASDAQ : ELBM | TSX.V : ELBM

News Release

Gold-Rich Cobalt-Copper Mineralization at CAS Property Strengthens Electra's Idaho Exploration Strategy

Toronto, Ontario – (February 20, 2025) – **Electra Battery Materials Corporation (NASDAQ: ELBM; TSX-V: ELBM)** ("**Electra**" or the "**Company**") is pleased to provide an update on its exploration efforts at the CAS Property in the Idaho Cobalt Belt, U.S.A. Recent and historical data from CAS highlight high-grade gold values over significant intervals and underscore the growing importance of the CAS Property to Electra's Idaho exploration strategy.

With gold trading near its all-time high and a strong long-term outlook, the presence of high-grade gold mineralization at CAS adds further strategic value to Electra's Idaho holdings. Between 2003 and 2006, over 2,600m of drilling was conducted over on the CAS Property, identifying significant gold values. Copper-rich massive sulfide boulders were also discovered nearby, but despite previous exploration the bedrock source of this style of mineralization has not been found. The most notable highlights from previous drilling include:

- IC03-02 6.2m from 77.4m at 8.3 g/t Au and 0.51% Co
- IC03-03 1.5m from 72.8m at 8.5g/t Au and 0.54% Co
- IC03-04 4.6m from 128.0m at 8.3g/t Au and 0.34% Co
- IC03-07 3.0m from 41.1m at 9.2g/t Au and 0.08% Co

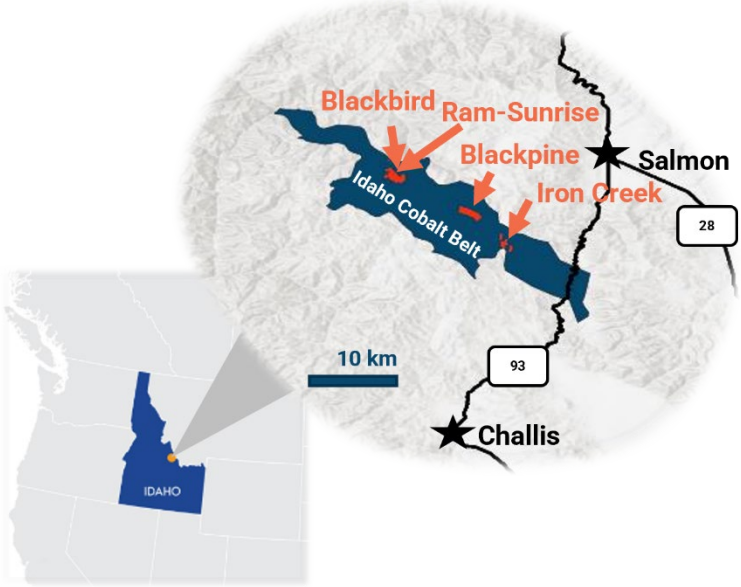
"Electra remains committed to securing a stable and sustainable supply of critical minerals needed to strengthen the resiliency of domestic supply chains," said Electra CEO, Trent Mell. "Domestic sources of cobalt and copper are essential for America's industrial and military security. The presence of high-grade gold alongside these critical minerals enhances the economic potential of our Idaho Cobalt Belt properties, providing optionality for future funding and development strategies. Adjacent to our Iron Creek deposit and Ruby property, mineralization on the CAS Property extends over several kilometers, much of which remains untested. This represents an exciting opportunity for Electra to expand its resource base in the U.S. and enhance the potential of our entire land package."

Electra holds a significant land position in the Idaho Cobalt Belt, including the Iron Creek deposit and the highly prospective Ruby target area. The CAS Property option expands this footprint and opens the door for potential collaboration with gold-focused explorers.

The Idaho Cobalt Belt is recognized by the U.S. Geological Survey as the largest undeveloped primary cobalt resource in the United States and hosts multiple mineral deposits, some of which were historically mined. Mineralization at the CAS Property shares similarities with the Black Pine

deposit, located approximately 20 kilometers northwest, and the breccia-style mineralization at Glencore's historic Blackbird mine, the largest cobalt-copper-gold resource in the region.

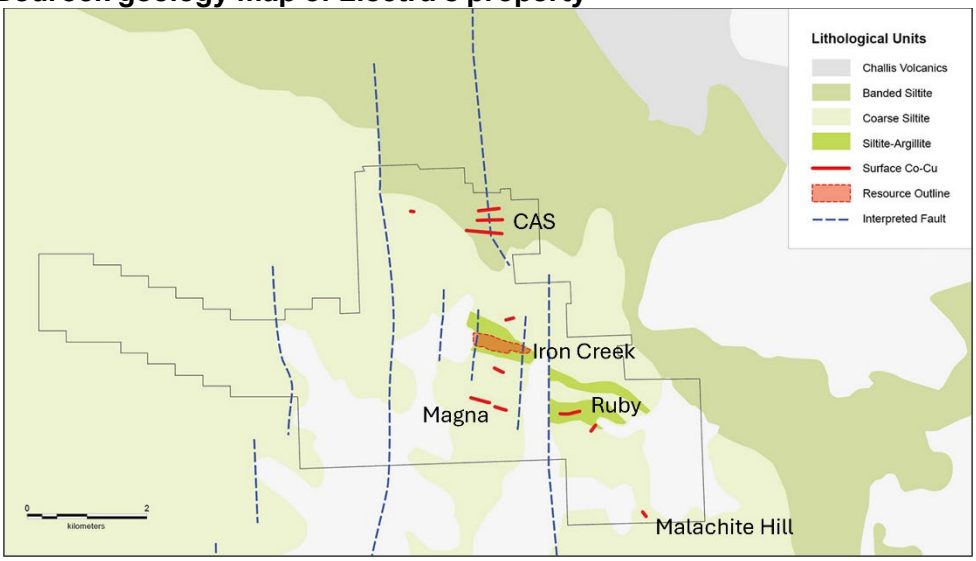
Figure 1. Location of the Iron Creek Property in east-central Idaho



Late last year, Electra secured a 10-year exploration permit for its properties in the Idaho Cobalt Belt, covering 91 designated drill pad locations and hundreds of potential drill targets. The Idaho properties consist of mining patents and exploration claims over an area of 73.15 km^2 and cover the strike extent of strata hosting the cobalt-copper sulfide mineralization.

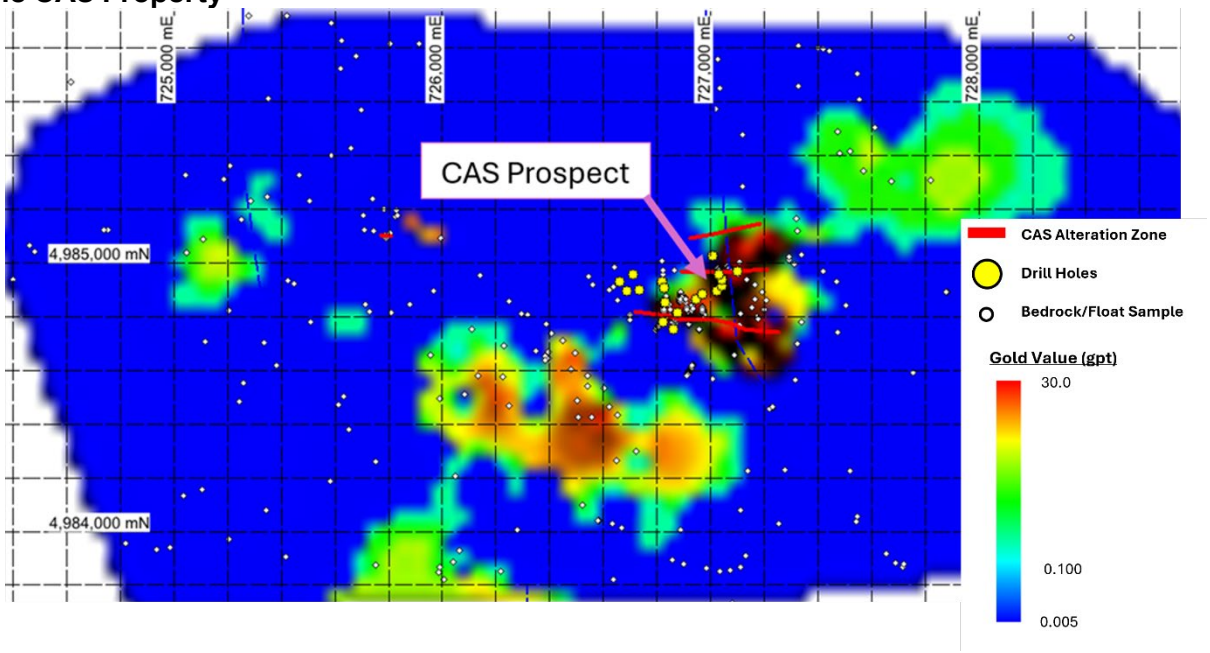
The CAS target area is located approximately two (2) kilometers north of Electra's Iron Creek Project and hosts promising mineralization, including several cobalt-gold veins discovered in the early 1970s. The CAS Property has a technical report which was filed in 2017.

Figure 2. Bedrock geology map of Electra's property



The host rocks at CAS exhibit strong alteration, with mineralization traced several kilometers beyond the drilled area, yet systematic follow-up exploration remains limited.

Figure 3. Colour contour map of gridded gold values for bedrock and float samples covering the CAS Property



Recent work by Electra has included extensive bedrock and float geochemical sampling across the property, aligning well with compiled historical data. These analyses, conducted by ALS Global, utilized four-acid digestion with ICP-AES finish, as well as fire assay for gold with ICP-AES and gravimetric finish for over-range samples. The results highlight multiple anomalous gold, copper, and cobalt zones beyond the main CAS Prospect. In places gold, cobalt and copper are anomalous within the same sample so may reflect a similar style of mineralization as the massive sulfide boulders found near the CAS Prospect.

Looking ahead, Electra plans further bedrock mapping, structural evaluation, and resampling of anomalous mineralized zones. Additional geophysical surveys are under consideration, as ground-based induced polarity and resistivity surveys have not been conducted at CAS since the 1970s. These techniques have previously proven successful at Iron Creek and Ruby in delineating mineralization for drill targeting.

Electra's immediate priority is completing the construction of North America's first battery-grade cobalt refinery in Canada, which can enable the development of future cobalt deposits in Idaho. The Company's longer-term vision includes expanding critical mineral refining capabilities within North America, including battery recycling and nickel production. Exploration in the Idaho Cobalt Belt supports Electra's broader strategy to secure and develop domestic critical minerals resources, supporting the onshoring of the supply chain for its refining operations.

The Trump administration first underscored the strategic importance of securing critical minerals with its 2017 Executive Order 13817, which prioritized identifying and developing domestic mineral resources. Electra's exploration in the Idaho Cobalt Belt aligns with this priority, contributing to the long-term security of the critical minerals supply chain.

Qualified Person Statement

The scientific technical content of this press release that relates to mineral exploration has been reviewed and approved by Dr. Frank Santaguida, P.Geo., who is a Qualified Person as defined by National Instrument 43-101. Dr. Santaguida is employed as Lead Geoscientist by Electra.

About Electra Battery Materials

Electra is a leader in advancing North America's critical minerals supply chain for lithium-ion batteries. Currently focused on developing North America's only cobalt sulfate refinery, Electra is executing a phased strategy to onshore critical minerals refining and reduce reliance on foreign supply chains. In addition to establishing the cobalt sulfate refinery, Electra's strategy includes nickel refining and battery recycling. Growth projects include integrating black mass recycling at its existing refining complex, evaluating opportunities for cobalt production in Bécancour, Quebec, and exploring nickel sulfate production potential in North America. For more information, please visit www.ElectraBMC.com.

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