

6 November 2023

## ASX: EMC

### Directors

Mark Caruso  
Robert Downey  
David Argyle  
Kim Wainwright

### Capital Structure

133.3 million shares  
1 million unlisted options  
3.6 million performance rights

### Projects

Revere (WA)  
Mt Edon (WA)  
Rover (WA)  
Mt Dimer (WA)  
Amadeus & Georgina (NT)

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# EMC TO PROGRESS RUBIDIUM EXTRACTION STRATEGIES AT ITS WORLD CLASS MT EDON CRITICAL MINERAL PROJECT

## Highlights

- **MOU Executed with Edith Cowan University Mineral Recovery Research Centre**
- **Direct Rubidium Process Extraction Development encompassing purification, refining and ultimately conversion into a final product of Rubidium slat and metal**
- **Intellectual property rights deriving from the project will be owned by EMC**

**Everest Metals Corporation Limited** (ASX: EMC) (“**EMC**” or “**the Company**”) is pleased to announce that the Company has signed a Memorandum of Understanding (“**MOU**”) with Edith Cowan University (“**ECU**”) to collaborate on Direct Rubidium extraction from the Mt Edon LCT Project (M59/714) located 5km southwest of Paynes Find, in the Mid-West region of Western Australia, 400km northeast of Perth.

The MOU will allow cooperative activities in the ECU’s Mineral Recovery Research Centre (“**MRRC**”) for a period of 36 months to undertake Direct Rubidium Extraction process through advanced processes such as ion exchange. The process encompasses purification and refining, ultimately leading to the conversion into a final product such as Rubidium slat and metal. Under the MOU any intellectual property rights deriving from the project will be owned by EMC.

### Chief Operating Officer, Simon Phillips commented:

*“EMC’s high grade intersections of the critical mineral Rubidium has led to rapid assessment of processing options. EMC is very excited to team up with the very experienced team at ECU’s Mineral Recovery Research Centre to explore the extraction of Rubidium at its Mt Edon project. EMC’s management is very impressed with the substantial laboratory assets available to the team at the research centre it visited in recent weeks. The EMC geological team will work through next steps of resource development in coming months. Grade is the key and grade is what we have”.*



*Figure 1: One floor of ECU's Mineral Recovery Research Centre*

MRRC offers a world-class service to resource recovery challenges faced by mining corporations, state, and national organisations, as well as international industries. The centre develops efficient mineral processing and recovery technologies, making the processes more environmentally friendly (low carbon and water footprint) and developing waste-to-value strategies. MRRC has a unique role in Western Australia owing to its distinguished vision, high capabilities of the staff and ability to address the current and emerging challenges in demanding areas including mineral processing, brine mining, process decarbonisation, mineral carbonation, down streaming in the battery supply chain, and greener and more efficient waste recycling.

## Rubidium Market (Rubidium Carbonate US\$1.2m per tonne)

Rubidium is a designated Critical Mineral by the most recent US Government Geological Survey of 2023<sup>1</sup>. Its potential uses across a wide range of high tech and traditional industry are growing rapidly.

Rubidium is often associated with caesium and lithium mineralisation and its compounds are used in biomedical research, electronics, specialty glass, pyrotechnics as well as military industrial applications. Since it is easily ionised, researchers believe it will also be used as a propellant in ion engines on spacecraft.

Importantly, Rubidium is used interchangeably or together with caesium in many uses.

Its recent applications in specialty glasses used in fibre optic telecommunication systems has been an important contribution to its growing demand.

Rubidium has several uses in medical science, such as in Positron Emission Tomographic (PET)

<sup>1</sup> <https://www.energy.gov/eere/articles/us-department-energy-releases-2023-critical-materials-assessment-evaluate-supply>

imaging, the treatment of epilepsy, blood flow tracer and Rubidium Chloride is used as an antidepressant. A dozen or more other uses are known, which include use as a co-catalyst for several organic reactions and in frequency reference oscillators for telecommunications network synchronisation.

Developing uses ensure the current price of around **USD1,200/kg** for Rubidium Carbonate remain for many years to come.

## **MATERIAL TERMS OF MOU**

- Operates for a period of 3 years.
- Makes no reference to costings.
- EMC will grant to ECU a royalty free, non-exclusive licence to use the Project IP for further research and non-commercial purposes.
- Any background intellectual property rights remain the property of each party.

## **MT EDON LCT PROJECT BACKGROUND**

Mt Edon Pegmatite Project sits on mining lease M59/714 and covers the southern portion of the Paynes Find greenstone belt in the southern Murchison which hosts an extensive pegmatite field. There are several large irregular shaped felsic pegmatites which have intruded into the Paynes Find Greenstone Belt, a northeast trending sequence of mafic, ultramafic, and sedimentary rocks, with east-west structures cutting these metasediments. Pegmatites appear to be folded sills dipping in variable directions and angles and are connected at depth representing both sill and dyke structures. These prospective pegmatites have a northeast-southwest strike of up to 350m and occur along a 1.2km interval of the LCT Pegmatite corridor. Larger pegmatitic bodies appear less influenced by the underlying structural trends and fabrics, with many of these bodies cutting both structural fabrics. The larger pegmatitic bodies are interpreted as blowouts related to structural intersections.

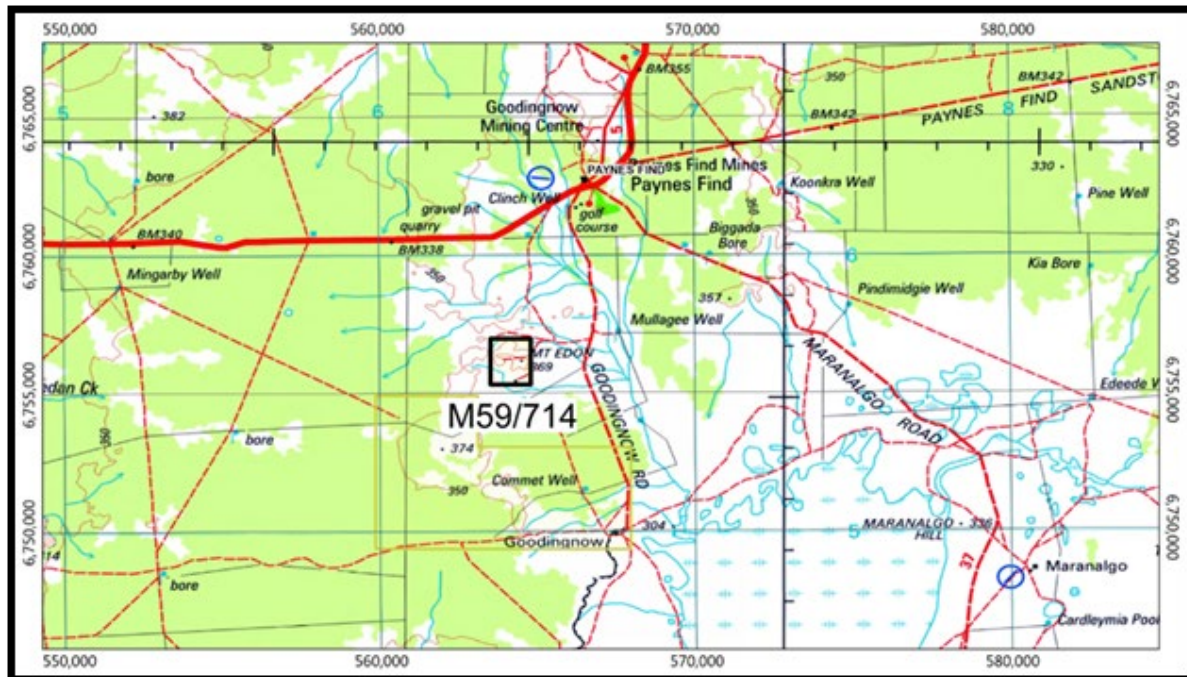


Figure 2: Mt Edon mining lease location map

Two phase of RC drilling completed at Mt Edon mining lease in late May and early August 2023. During Stage-1 drilling in late May 2023, drill hole ME23-07 intersected a mixed zone of altered mafic host rock and 62m of pegmatite up to a depth of 111m and remained open (Figure 3). Geological logging of the chip samples highlighted well-developed muscovite-rich zones. Hole ME23-007 intersected over **40 metres grading 0.26% Rb<sub>2</sub>O** from 49m, including **19m at 0.33% Rb<sub>2</sub>O** (0.43% Rb<sub>2</sub>O + Li<sub>2</sub>O), in addition to three higher grade zones of 2m @ 0.53% Rb<sub>2</sub>O + Li<sub>2</sub>O (14-16m), 2m @ 0.53% Rb<sub>2</sub>O + Li<sub>2</sub>O (20-22m) and 2m @ 0.53% Rb<sub>2</sub>O + Li<sub>2</sub>O (30-32m)<sup>2</sup>. The entire mineralised intersection within ME23-007 indicates the highly fractionated and fertility of the pegmatite in the northeast corner of Mt Edon. The pegmatite body in this hole remained open at a depth of 111m (dip 60 degree) and shows there is high potential for lateral extensions particularly toward the northeast.

Stage-2 drilling was designed to unlock the potential of a 600m pegmatite sitting along a northeast-southwest strike. This zone is interpreted to be a mineralised alteration zone located between the intrusive pegmatites and the mafic country rock. 10 x RC holes were drilled along this trend and all intercepted significant rubidium-lithium results. Some of the thickest and highest grade intersections are outlined below<sup>3</sup>:

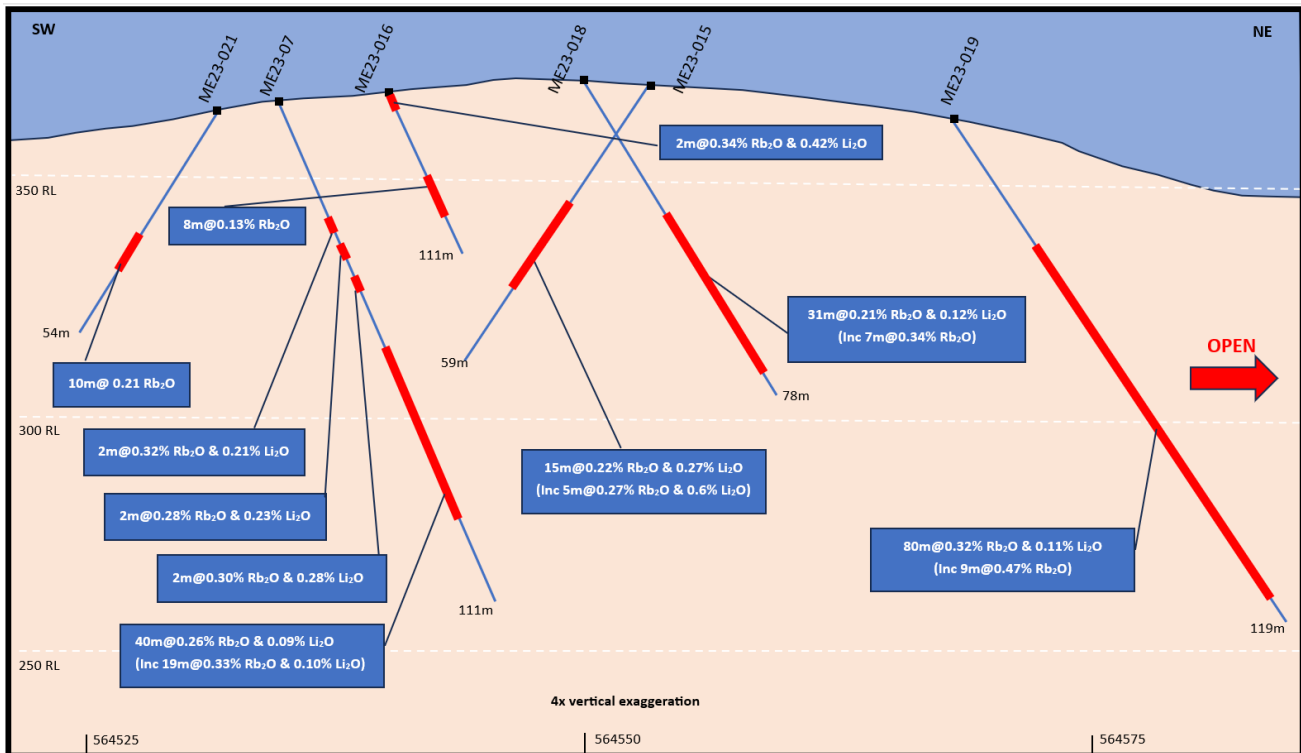
- Hole ME23-019 intersected over **80 metres** grading **0.32% Rb<sub>2</sub>O** and **0.11% Li<sub>2</sub>O** from 25m, including **9m at 0.47% Rb<sub>2</sub>O** from 87m.
- Hole ME23-018 intersected **31 metres** grading **0.21% Rb<sub>2</sub>O** and **0.12% Li<sub>2</sub>O** from 35m, including **7m at 0.34% Rb<sub>2</sub>O** from 39m.
- Hole ME23-016 intersected 2 metres grading **0.34% Rb<sub>2</sub>O** and **0.42% Li<sub>2</sub>O** from surface and 8 metres grading 0.13% Rb<sub>2</sub>O from 19m.
- Hole ME23-015 intersected **15 metres** grading **0.22% Rb<sub>2</sub>O** and **0.27% Li<sub>2</sub>O** from 14m,

<sup>2</sup> ASX: EMC announcement; [Mt Edon Drilling Results Confirms High Grade Rubidium](#), dated 13 July 2023

<sup>3</sup> ASX: EMC announcement [Mt Edon Drilling Program Continues to Deliver, 80m High Grade Rubidium Intersection with Associated Lithium](#), dated 21 September 2023

including **5 meters at 0.27% Rb<sub>2</sub>O and 0.6% Li<sub>2</sub>O** from 22m.

- Hole ME23-021 intersected **10 metres grading 0.21% Rb<sub>2</sub>O** from 25m.



**Figure 3: A schematic cross section looking northwest – Shows significant mineralised intersections in hole MD23-07, 15-16 and 18-19 located in the northwest area of the Mt Edon tenement**

Significant anomalous LCT elements that occur in association with rubidium with a maximum value 0.51% Rb<sub>2</sub>O, include maximum values in individual drilling assay Li<sub>2</sub>O at 0.94%, Cs at 535 ppm, Nb at 247ppm, Ta at 278ppm and Sn at 155 ppm. Additionally, findings from both the Stage-1 and Stage-2 drilling programs suggest that Mt Edon has the potential to be classified as a Rubidium-Lithium project<sup>4</sup>. It seems that the high value of rubidium grades is primarily associated with well-developed white mica zones.

The Board of Everest Metals Corporation Limited, authorised the release of this announcement to the ASX.

For further information please contact:

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<sup>4</sup> The high grade intersected Rubidium is in line with world class Rubidium occurrences including the Karibib pegmatite deposit in Namibia (8.9 Mt at 0.23%Rb) and Guobaoshan deposit in China (234 Mt at 0.12%Rb).

### Competent Person Statement

The information in this report related to Exploration results that previously reported is based on information compiled and approved for release by Mr Bahman Rashidi, who is a member of the Australasian Institute of Mining and Metallurgy (AusIMM) and a Registered Professional Geoscientist (RPGeo) in the field of Mineral Exploration and Industrial Minerals with the Australian Institute of Geoscientists (AIG). Mr Rashidi is chief geologist and a full-time employee of the Company. He is also a shareholder of Everest Metals Corporation. He has sufficient experience which is relevant to the style of mineralisation and types of deposit under consideration and to the activity, he is undertaking to qualify as a Competent Person in accordance with the JORC Code (2012). The information from Mr Rashidi was prepared under the JORC Code (2012). Mr Rashidi consents to the inclusion in this ASX release in the form and context in which it appears.

### Forward Looking and Cautionary Statement

This report may contain forward-looking statements. Any forward-looking statements reflect management's current beliefs based on information currently available to management and are based on what management believes to be reasonable assumptions. It should be noted that a number of factors could cause actual results, or expectations to differ materially from the results expressed or implied in the forward-looking statements.

## About Everest Metals Corporation

Everest Metals Corporation Ltd (EMC) is an ASX listed Western Australian resource company focused on discoveries of Gold, Silver, Base Metals and Critical Minerals in Tier-1 jurisdictions. The Company has high quality Precious Metal, Battery Metal, Critical Mineral Projects in Australia and the experienced management team with strong track record of success are dedicated to the mineral discoveries and advancement of these company's highly rated projects.

**REVERE GOLD PROJECT:** is located in a proven prolific gold producing region of Western Australia along an inferred extension of the Andy Well Greenstone Shear System with known gold occurrences and strong Copper/Gold potential at depth. (JV – EMC at 51% earning up to 100%)

**MT EDON PROJECT:** is located in the Southern portion of the Paynes Find Greenstone Belt – area known to host swarms of Pegmatites and highly prospective for Critical Metals. The project sits on granted Mining Lease. (JV – EMC at 51% earning up to 100%)

**ROVER PROJECT:** is located in a Base Metals and Gold rich area of Western Australia' Goldfields, associated with Archean Greenstone belts. Joint Venture agreement exists with Rio Tinto Exploration for Lithium exploration.

**MT DIMER GOLD PROJECT:** is located around 125km north-east of Southern Cross, the Mt Dimer Gold & Silver Project comprises a mining lease, with historic production and known mineralisation, and adjacent exploration license.

**NSW BROKEN HILL PROJECTS:** is Joint Venture with Stelar Metals (ASX:SLB) and three projects – Midas, Perseus and Trident Projects are located in the Curnamona Province which hosts the world-class Broken hill silver-lead-zinc mine in New South Wales.

**GEORGINA & AMADEUS PROJECTS:** The Company's Project area in Northern Territory comprises six granted tenements and nine in application status covering 3,443 blocks in the southwest Georgina Basin and north Amadeus Basin and are prospective for Lithium pegmatites and sediment-hosted Copper-Lead-Zinc and Rare Earth Elements.