

## EVEREST METALS ACHIEVES UP TO 91% RUBIDIUM RECOVERY FROM MT EDON

### Highlights

- Up to 91% Rubidium recovery achieved during Phase 2 ECU Mineral Recovery Research Centre (MRRC) processing program
- Rubidium chloride product successfully produced via direct rubidium extraction process as well as Lithium as a by-product from R&D test work
- Further testing underway to enhance purification and optimisation processes
- Results underpin grant applications for development of construction of a pilot-scale plant in 2025
- Engineering Scoping Studies to commence focussing on high level techno-economic analysis of destructive rubidium process
- Patent applications planned to protect EMC owned intellectual property rights
- Investigations into grant funding are ongoing as Rubidium is a critical material used in high-tech applications including defence, military, aerospace and communications

Everest Metals Corporation Ltd (ASX: EMC) (“EMC” or “the Company”) is pleased to announce it has successfully produced its first rubidium product from the Mt Edon Critical Mineral Project in Western Australia, with laboratory testing achieving a recovery rate of up to 91% (Figure 1).

### EMC’s Executive Chairman and CEO Mark Caruso commented:

*“We are moving swiftly to determine the most efficient and economically viable process to recover value from the Mt Edon Critical Mineral Project. Our ongoing research and development efforts are focused on evaluating various production processes to determine optimal rubidium recovery and purity outcomes.*

*The consistent repeatability of conversion under a variety of test conditions demonstrates the strength of our key design parameters, reinforcing our confidence that we will be able to produce high value rubidium components from Mt Edon material. We are pleased to report outstanding recovery rates of up to 91% rubidium, and extraction of lithium as a potential by-product underscoring the effectiveness of our Company’s processes at Mt Edon.”*

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## RUBIDIUM EXTRACTION R&D PROJECT BACKGROUND

On 26 February 2024, Edith Cowan University (“ECU”) and EMC executed a Research Agreement (“Agreement”) for studies in relation to the extraction of rubidium from Mt Edon pegmatite<sup>1</sup>. The research activities undertaken at ECU’s Mineral Recovery Research Centre (“MRRC”) were estimated to take place over a 12-month period.

The first stage of the collaboration between EMC and MRRC involved a small-scale laboratory demonstration of all the processing steps in the recovery of rubidium. The Direct Rubidium Extraction (“DRE”) test work and studies utilised advanced processes such as ion exchange. The project focuses on extracting the rubidium from Mt Edon ore using a Direct Rubidium Extraction technology.

Due to the increasing need for sustainable and environmentally friendly extraction processes, these studies aim to develop a state-of-the-art extraction technique that maximise the recovery of rubidium and lithium. By selecting suitable cations (positively charged ions) and optimising operating conditions, the project aims to achieve maximum rubidium extraction by utilising a cost effective and environmentally friendly method. This approach leverages cutting-edge technologies, innovative methodologies, and industry best practices to ensure a sustainable and profitable extraction process. The process encompasses purification and refining, ultimately leading to the conversion into a final product such as rubidium salts and metal.

The Company's investment in this project qualifies for the Federal Government Research and Development (“R&D”) Tax Incentive program and under the Agreement any Intellectual Property (“IP”) rights deriving from the project will be owned by EMC.

As part of this study, critical assessment of the feasibility and potential enhancements of the DRE method is ongoing. This will allow EMC and ECU to jointly apply for the Cooperative Research Centres Projects (“CRC-P”) Grants, Australian Research Council's (“ARC”) Linkage Program, Australia's Economic Accelerator (“AEA”), etc. to scale up the process technology.

Various test work was conducted by ECU’s MRRC with results demonstrating acceptable levels of both rubidium and lithium in the leach liquor. The initial results reported by Everest in July 2024 demonstrated a technically viable rubidium recovery rate of up to 85% recovery using the Direct Extraction method<sup>2</sup>. To extract rubidium and lithium, two process methods were used - non-destructive and destructive.

In the non-destructive method, the structure of muscovite remained unchanged. Two sets of acidic and non-acidic experiments were performed, and X-Ray diffraction analysis (XRD) was conducted on the samples before and after the tests to explore the structure of the solid powder and Inductively Coupled Plasma (“ICP”) for assay. In non-acidic tests, low acid concentrations of the sample were prepared to enhance rubidium extraction. Multiple tests were performed with the majority of the experiments repeated two or more times. Five different chemical compounds were utilised during the non-destructive set of tests. As these experiments were conducted without acid,

<sup>1</sup> EMC ASX Announcement: [EMC To Advance Mt Edon Critical Mineral Project Through Rubidium And Industrial Mica Product Development](#), dated 27 February 2024

<sup>2</sup> EMC ASX announcement; [Successful Recovery of Rubidium from Mt Edon Critical Mineral Project](#), dated 24 July 2024

the effects of reaction time and temperature on the sample were also investigated for the sake of optimisation.

During the destructive process method, the muscovite structure was deteriorated to gain the maximum extraction of rubidium. Several tests were conducted during this stage, and the results verified to ensure the same consistent and reliable outcomes. The maximum rubidium extraction achieved in this stage demonstrated the desired repeatability within a range of  $75\pm 10\%$ <sup>3</sup>.

The Company recently appointed Jon Starink as senior technical consultant to lead the development of the rubidium processing and marketing strategy for the Mt Edon Critical Minerals Project. Mr Starink's appointment coincides with scale-up pilot plant processing and future developments on which EMC and ECU plan to collaborate<sup>4</sup>.

## Phase 2 Test Work Process

During phase 2, two critical processes were examined: refinement and conversion. The refinement process utilised a specific chemical as an adsorbent for Direct Rubidium Extraction ("DRE"), while another chemical was employed as a precipitation inducing agent. This dual approach allowed for effective separation of rubidium from the Mt Edon Ore.

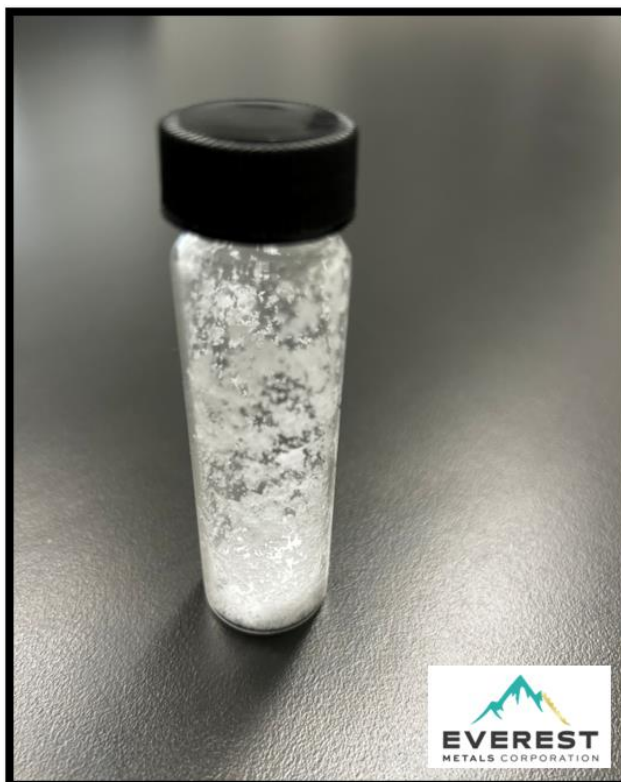


Figure 1: First vial of high purity rubidium chloride (RbCl) product

In the conversion stage, the DRE process yielded Rubidium Chloride (RbCl) as the primary product,

<sup>3</sup> EMC ASX announcement; [Successful Recovery of Rubidium from Mt Edon Critical Mineral Project](#), dated 24 July 2024

<sup>4</sup> ASX: EMC announcement; [Everest Appointed Senior Technical Consultant To Lead Rubidium Processing And Marketing Strategy](#), dated 7 November 2024

eliminating the need for additional conversion steps (Figure 1). However, when a precipitation agent was used, the resulting rubidium salt product may require further conversion, which will be addressed in the final project milestone.

This phase of project represented the core experimental work of the project, focusing on process optimisation through systematic investigation of critical parameters. The destructive process was extensively studied, with particular attention paid to roasting conditions, and leaching parameters. Various operational conditions were examined, including temperature effects, duration of treatment, and the impact of different chemical types.

Parallel investigations of acid leaching were conducted, exploring temperature influences, and the effects of different acid types and concentrations. Throughout these experiments, samples were systematically collected for comprehensive analysis. The analytical phase employed multiple characterisation techniques to evaluate process effectiveness.

Inductively Coupled Plasma Mass Spectrometry (“ICP-MS”) and Inductively Coupled Plasma Optical Emission Spectroscopy (“ICP”) analyses were conducted to determine rubidium and lithium concentrations and monitor the presence of other elements. Structural changes in the hard rock during extraction were monitored using XRD, while Scanning Electron Microscopy (“SEM”) and Energy-Dispersive X-ray Spectroscopy (“EDS”) analyses provided detailed information about morphological changes and elemental distribution. Similar analytical approaches were applied to study the adsorbent structure during the purification process. In next phase, process reliability and accuracy were ensured through repeated testing at maximum rubidium concentrations.

This systematic approach to validation has provided a robust foundation for process optimisation and scale-up considerations. While some aspects of the project, such as ore beneficiation, remain to be completed in the final milestone, the results obtained thus far demonstrate significant progress toward developing an economically viable and environmentally friendly extraction process. Throughout these experiments, samples were systematically collected for comprehensive analysis. The analytical phase employed multiple characterisation techniques to evaluate process effectiveness.

The destruction process was extensively studied using hard rock pegmatite samples with rubidium content between 0.25–0.35%  $Rb_2O$  and lithium grade varying 0.08-0.11%  $Li_2O$ . Through comprehensive experimentation and validation involving 47 samples analysed via ICP-MS at MRRC and 14 at the ALS laboratory, optimal conditions were established.

To determine the optimal conditions for rubidium extraction, several key parameters were investigated, including the effects of temperature, type and concentration of acid and chemicals, process type, and extraction time. The significant colour gradient, ranging from clear to yellow to orange in the samples, strongly indicates the effects of optimised conditions. The extraction efficiency varies with adjustments to test conditions, as demonstrated by the progressively intensifying colours across the samples, systematically arranged to show the advancement of extraction effectiveness (Figure 2).



*Figure 2: Visual changes during acid leaching process optimisation. The image illustrates the changes in sample colours (from left to right) resulting from the optimisation of various parameters during the acid leaching process, highlighting the effect of extracting different oxidation states of elements on the colour of the samples.*

The optimisation and validation of rubidium and lithium extraction processes from the Mt Edon hard rock samples (pegmatite) has been systematically investigated through three distinct approaches: destruction process, acid leaching, and purification methods. Each method demonstrated varying degrees of effectiveness and applicability for industrial-scale rubidium recovery.

The purification phase employed two approaches: ion exchange-based extraction and precipitation-based selective precipitation. The results demonstrated exceptional efficiency with 91% overall recovery of rubidium for synthesised brine. Of note, 92 g/t lithium was produced as the by-product.

In Figure 3, the SEM images reveal the morphological characteristics of ion exchanger before and after rubidium exposure at a scale bar of 5µm. Images a and b (before rubidium exposure) show that the bare ion exchanger possesses a uniform granular structure with spherical-like particles that are well-distributed and exhibit relatively smooth surfaces.

The particles appear to be agglomerated into cluster formations, displaying a homogeneous size distribution. In Images c and d (after rubidium exposure, refer to Figure 3), the surface morphology shows notable changes where the particles become more irregular with visible surface roughness and some apparent cavities.

The particles after adsorption appear to have slightly larger agglomerates with more distinct edges and surface features, suggesting successful interaction and incorporation of rubidium ions within the medium structure. These morphological changes between the pre- and post-exposure samples provide visual evidence supporting the effective recovery of rubidium onto the extractant medium.

A comprehensive process for rubidium extraction and recovery has been developed, providing a systematic outline of each processing stage and material flow. This process showcases an advanced method for selective ion separation and recovery, integrating both primary rubidium extraction and secondary lithium recovery pathways.

The Company is preparing the necessary documentation to file an Australian Provisional Patent Application (“Patent Application”) to protect the Intellectual Property (“IP”) related to the Process.

EMC's primary objective with this filing is the protection of the Company and its shareholders by protecting the unique and efficient processing design developed for advancing the Mt Edon Project toward production.

The patent application will cover a combination of individual physical beneficiation steps and metallurgical processes, all aimed at achieving the specific objectives for preparing the rubidium products.

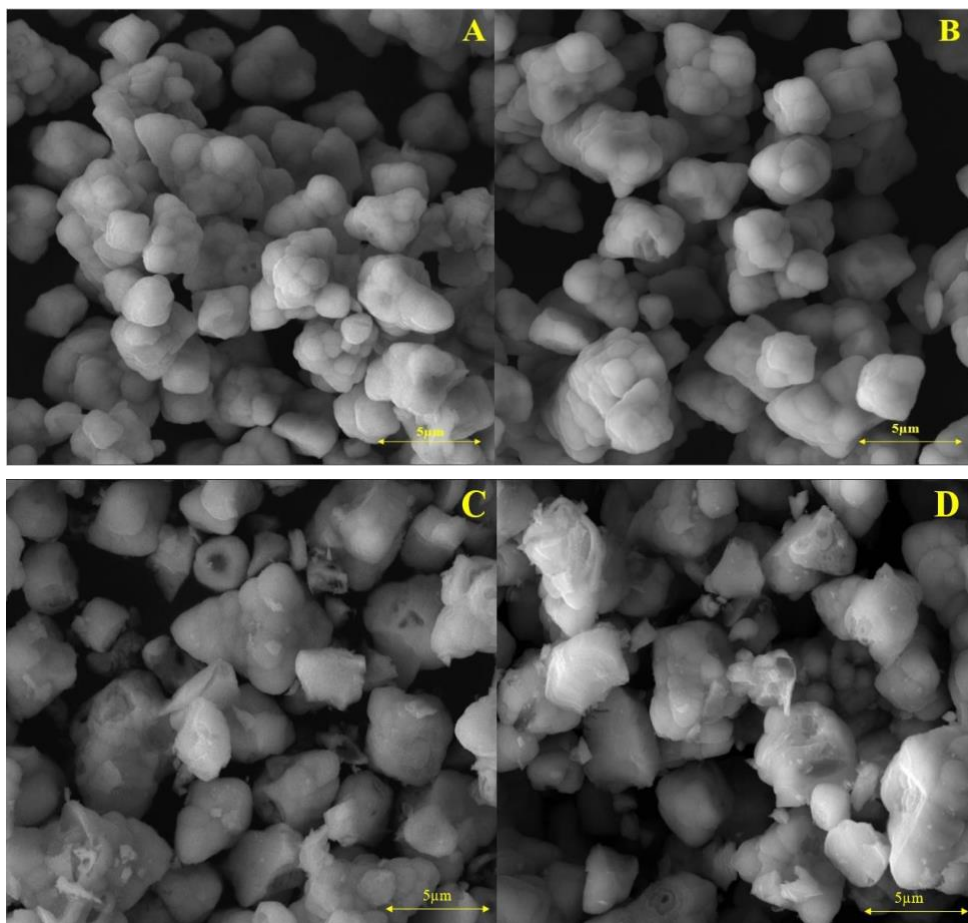


Figure 3: SEM images of extractant medium before (A and B) and after (C and D) exposure to Rubidium containing samples

## FUTURE ACTIVITIES

Based on the results achieved during phase 2 and the objectives of the projects, EMC is planning the following steps to advance its work for Mt Edon:

### ➤ Engineering Scoping Study (ESS)

- A high level initial techno-economic analysis initiated for destruction process, focusing on both capital expenditure (CAPEX) and operational expenditure (OPEX).

### ➤ High pressure acid leaching

- Extra plan for rubidium extraction focusing on implementing high pressure acid technology.

➤ **Purification processes**

- Ion exchange: Plan to transition tests from a batch mode approach to a bench scale setup. This change will assist to optimise critical process parameters. Ultimately, these optimisations will contribute to the development of a comprehensive and effective purification process for future applications.
- Precipitation: More comprehensive test work to aid with design of an optimised precipitation process. This data will be crucial in identifying and refining key process parameters, such as concentration levels, temperature, and reaction times, to develop an efficient and effective precipitation process that will contribute significantly to the overall purification strategy.

**Table 1: Drill Hole Details Contributing to Mt Edon Metallurgical Samples**

Hole_ID	Easting MGA94	Northing MGA94	From (m)	To (m)	Height (m)	Total Depth (m)	Dip (degrees)	Azimuth (degrees)
MD-50	564560	6756381	84	116	373	131	-50	137
MD-45	564555	6756439	37	126	375	126	-50	70
MD-35	564585	6756487	41	51	361	126	-50	38
MD-48	564654	6756495	66	102	368	72	-60	268
ME23-19	564570	564570	25	205	370	119	-50	270
ME23-07	564537	564537	49	89	360	111	-60	118

- Grid is GDA94 - Zone 50

## MT EDON PROJECT

Mt Edon Critical Mineral Project is located 5km southwest of Paynes Find, in the Mid-West region of Western Australia, approximately 420km northeast of Perth. Mt Edon has an initial Inferred Mineral Resource (MRE) of 3.6 million tonnes grading 0.22% Rb<sub>2</sub>O, and 0.07% Li<sub>2</sub>O (at 0.10% Rb<sub>2</sub>O cut-off), contains more than 7,900 tonnes of Rb<sub>2</sub>O (Table 2)<sup>5</sup>.

The maiden Inferred MRE includes a high-grade subset of 1.3Mt at 0.33% Rb<sub>2</sub>O and 0.07% Li<sub>2</sub>O (at 0.25% Rb<sub>2</sub>O cut-off) which is nearly 56% of the total contained Rb<sub>2</sub>O tonnes. This verifies the tier-1 scale and grade of the Mt Edon deposit. The MRE is limited to a strike length of only ~400m within a 1.2km lithium-caesium-tantalum (LCT) pegmatite corridor and a vertical depth of ~140m below surface.

**Table 2: Mt Edon Maiden Mineral Resource Estimate (JORC Code 2012)**

<sup>5</sup> ASX: EMC announcement; EMC Delivers World-Class Rubidium Resource At Mt Edon Project, WA, dated 21 August 2024

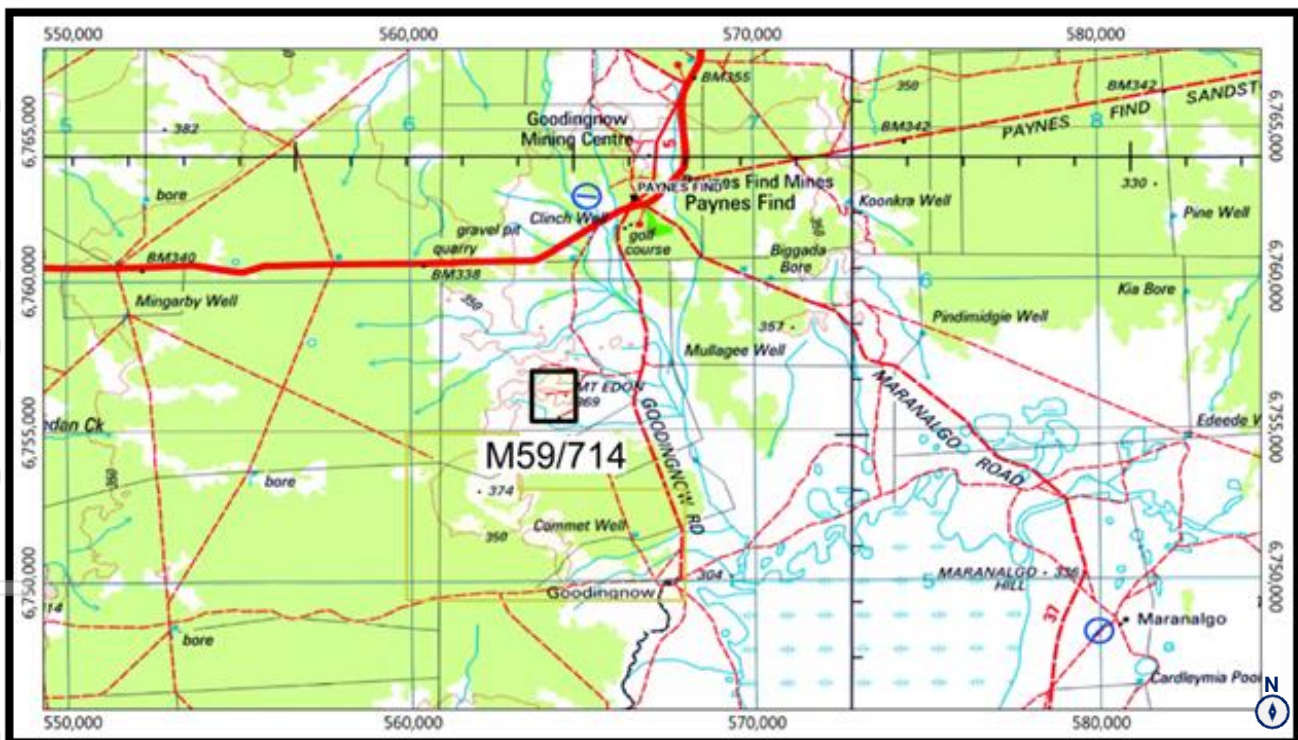
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Category	Tonnes (Mt)	Rb <sub>2</sub> O (%)	Contained Rb <sub>2</sub> O (t)	Li <sub>2</sub> O (%)	Contained Li <sub>2</sub> O (t)
Inferred	3.6	0.22	7,900	0.07	2,500
<b>Total</b>	<b>3.6</b>	<b>0.22</b>	<b>7,900</b>	<b>0.07</b>	<b>2,500</b>

- Mineral Resources are classified and reported in accordance with JORC Code (2012).
- Mineral Resource estimated at a 0.10% Rb<sub>2</sub>O cut-off.
- Mineral Resource is contained within mining licence M59/714.
- All tabulated data have been rounded.

Multiple geological and geophysical targets exist across the project, which along with the resource modelling that underpins the MRE, form the basis for further exploration and anticipated resource growth. Modelling has shown the mineralisation remains open along strike to the northeast and southwest, providing immediate potential to significantly increase the MRE with follow-up drilling. The Mt Edon resource has outcrop or occurs close to surface and will be amenable to opencut mining, with the information suggesting a low stripping ratio.

Figure 4: Mt Edon mining lease location map, southwest of Paynes Find, Western Australia



## RUBIDIUM OVERVIEW

### Applications and Importance

Rubidium (Rb) is a critical raw material for various high-tech applications, including the

development of new energy conversion technologies and new communication technologies. Key applications include:

- **Defence and Military:** Night vision imaging, special glass, radiation detectors, photoelectric tubes, radio electronic tubes and military infrared signal lights.
- **Aerospace:** ion propulsion engines and atomic clocks.
- **Communications:** Ion cloud communications and fibre optic communications.
- **Emerging Energy Power Generation:** Materials for magnetohydrodynamic power generation and thermionic power conversion.
- **Medical:** Sedatives, tranquilisers and medications for treating epilepsy and synthetic alkaline solvents.
- **Special Glass:** Enhancing glass conductivity, increasing lifespan and stability.
- **Industrial Catalysts:** Widely used in ammonia synthesis, sulfuric acid synthesis, hydrogenation, oxidation and polymerisation reactions.
- **Electronic Devices:** Important materials for photovoltaic cells, photoemission tubes, TV camera tubes and photomultiplier tubes.

Researchers have also recently proposed the use of rubidium for chemical storage within hydrogen batteries, expanding the potential market for this critical mineral<sup>6</sup>.

## Production and Market Trends

Despite the breadth of applications and demand for rubidium and caesium and their hydrides, global production of caesium and rubidium is significantly lower than that of other alkali metals, and the cost per kilogramme is substantially higher than lithium, sodium or potassium.

Due to the gradual depletion of caesium resources, but the continued demand of these industries, a replacement is required, with Rubidium being a suitable candidate. The downstream application fields of Rubidium salts are rapidly growing, enhancing the Company's market advantage in this sector. As a result, rubidium has been listed as one of the 35 critical minerals by several countries around the globe including USA and Japan.

According to the U.S. Geological Survey (2024)<sup>7</sup>, global rubidium resources are relatively scarce, with most resources containing limited Rubidium content. The Rubidium Industry is expected to grow from 4.46(USD Billion) in 2023 to 7.2 (USD Billion) by 2032. The rubidium Market CAGR (growth rate) is expected to be around 5.48% during the forecast period (2024 - 2032)<sup>8</sup>.

Several market factors support growth in demand for rubidium and underpin the current price of ~USD1,200/kg<sup>9</sup>. Among these, there is significant global demand for newer and faster electronic products due to the rapid pace of innovation, technology advancement and R&D activities in the

<sup>6</sup> S. Matalucci, May 2024, Researchers propose use of caesium, rubidium for hydrogen batteries, pv-magazine.

<sup>7</sup> U.S. Geological Survey, January 2024, Mineral Commodity Summaries 2024

<sup>8</sup> [www.marketresearchfuture.com/reports/rubidium-market-27298](http://www.marketresearchfuture.com/reports/rubidium-market-27298)

<sup>9</sup> [www.metal.com/Other-Minor-Metals/202012250004](http://www.metal.com/Other-Minor-Metals/202012250004)

electronics industry. This increasing demand for rubidium, coupled with the fact that Rubidium is difficult to source due to extremely limited global production, underpins the extremely high price of rubidium products.

North America holds a significant share of the rubidium market in terms of both market share and revenue. However, like most critical minerals, China maintains control of the market. Commodity analysts believe if more rubidium was produced, the market could grow rapidly and therefore its very small market size can be partially attributed to supply constraints, rather than a lack of demand.

## NEXT STEPS

Everest has a clear strategy to continue its development of Mt Edon Critical Mineral Project, with the following steps set for delivery over the coming months:

- Continued discussion with potential commercial customers
- Development of grant application for scale up pilot plant processing, Q1 2025
- Scoping study due for completion in Q2 2025
- Pilot plant design and implementation, Q3 2025
- Phase 2 Resource Drilling, H1 2025

**ENDS**

This Announcement has been authorised for market release by the Board of Everest Metals Corporation Ltd.

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### Competent Person Statement

The information in this announcement that related to the interpretation of process testwork data has been compiled and assessed under the supervision of Dr. Amir Razmjou, Associate Professor of Edith Cowan University. Dr. Razmjou is a member of the Australasian Institute of Mining and Metallurgy (AusIMM). Dr. Razmjou is engaged as a consultant by Everest Metals Corporation Ltd. He has sufficient experience that is relevant to the information under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the JORC Code. Dr. Razmjou consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

The information in this report related to Mineral Resource 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 the Australian Institute of Geoscientists (AIG). Mr Rashidi is chief geologist and a full-time employee of the Company and has over 25 years of exploration and mining experience in a variety of mineral deposits and styles. 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.

This announcement includes information related to Exploration Results prepared and disclosed under the JORC Code (2012) and extracted from the Company's announcements. These announcements are available to view on [www.everestmetals.au](http://www.everestmetals.au). Everest Metals Corporation confirms that a) it is not aware of any new information or data that materially affects the information included in the announcement; b) all material assumptions included in the announcement continue to apply and have not materially changed; and c) the form and context in which the relevant Competent Persons' findings are presented in this report have not been materially changed from the announcement.

### 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.

The interpretations and conclusions reached in this report are based on current geological theory and the best evidence available to the authors at the time of writing. It is the nature of all scientific conclusions that they are founded on an assessment of probabilities and, however high these probabilities might be, they make no claim for complete certainty. Any economic decisions that might be taken based on interpretations or conclusions contained in this report will therefore carry an element of risk. This report contains forward-looking statements that involve several risks and uncertainties. These risks include but are not limited to, economic conditions, stock market fluctuations, commodity demand and price movements, access to infrastructure, timing of approvals, regulatory risks, operational risks, reliance on key personnel, Ore Reserve and Mineral Resource estimates, native title, foreign currency fluctuations, exploration risks, mining development, construction, and commissioning risk. These forward-looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information.

Should one or more of the risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this report. No obligation is assumed to update forward-looking statements if these beliefs, opinions, and estimates should change or to reflect other future developments.

### ASX Listing Rule 5.23.2

Everest Metals Corporation Limited confirms that it is not aware of any new information or data that materially affects the information included in this market announcement and that all material assumptions and technical parameters underpinning the estimates in this market announcement continue to apply and have not materially changed.

## ABOUT EVEREST METALS

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.

EMC's key projects include:

**REVERE GOLD AND BASE METAL PROJECT:** 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.

**MT EDON CRITICAL MINERAL PROJECT:** 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.

**MT DIMER TAIPAN GOLD PROJECT:** 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.

For more information about the EMC's projects, please visit the Company website at:

[www.everestmetals.au](http://www.everestmetals.au)

## Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>Metallurgical testwork sample referred to this announcement were derived from Reverse Circulation (RC) drilling programs during 2023 and 2024 drill chips. Samples were collected at one-metre intervals using a cone splitter to produce 2-2.5kg sample.</li> <li>Multiple drill holes were utilised to collect the samples, including holes ME-50, ME- 45, ME-35, ME-48, ME23-07 and ME23-19.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul style="list-style-type: none"> <li>RC drilling was completed using a face sampling hammer.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable.</li> <li>No drilling results reported.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>• All material used for the metallurgical sample were selected from RC one-metre bulk split from recent drilling campaign.</li> <li>• Sample preparation followed by standard protocols with industry best practice and appropriate for the analysis being undertaken.</li> <li>• The size of the samples is considered appropriate.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></li> <li>• <i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></li> </ul>	<ul style="list-style-type: none"> <li>• All sample testwork were undertaken at ECU's Mineral Recovery Research Centre. Assays were carried out using ICP-MS, ICP-OES and XRD (PAN analytical) for mineralogical studies. Scanning Electron Microscopy (SEM) combined with Energy-Dispersive X-ray Spectroscopy (EDS) was used to characterise the sample surface, offering high-resolution imaging alongside elemental identification.</li> <li>• ALS-laboratory, a certified laboratory in Perth, WA was utilised for assay validation using ICP-MS (ME-MS85 method).</li> <li>• Assay procedures are considered appropriate, and QA/QC of assay data were monitored.</li> <li>• Acceptable levels of accuracy and precision have been established. No handheld methods are used for quantitative determination.</li> <li>• The metallurgical testing and results are preliminary in nature.</li> <li>• Standards are not considered relevant to the metallurgical test works.</li> <li>• No geophysical tools or handheld instruments were utilised in the sample analysis.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No drilling intersections are being reported.</li> <li>• The analysis of samples was provided by the laboratory. QA/QC data were checked.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>• <i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></li> <li>• <i>Specification of the grid system used.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Grid system used is Australian Geodetic MGA Zone 50 - GDA94.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>The locations of all drillholes were recorded using a Garmin handheld GPS and averaging for 60 seconds. Expected accuracy is <math>\pm 3m</math> for easting and northing.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable. Due to the nature of this metallurgical studies, specific samples were selected to allow for a representative metallurgical sample.</li> <li>No mineral compositing has been done.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable as results of metallurgical test works are being reported. The samples were prepared from drilling samples representative of the deposit.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>All geochemical samples were collected and logged by either EMC staff or the laboratory.</li> <li>All samples were collected in sample bags with sample number identification on the bag.</li> <li>Each sample was given a barcode at the laboratory and the laboratory reconciled the received sample list with physical samples.</li> <li>Security over sample dispatch is considered adequate for these samples at this time.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>The results were reviewed by the Company's senior technical consultant, Jon Starink (FAusIMM and MIMMM).</li> </ul>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section apply to this sections)

Criteria	Statement	Commentary										
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>The area is located within Mining Lease M59/714, about 6km southwest of Paynes Find in central Western Australia, covering 192.4 hectares.</li> <li>The tenement M59/714 held by Everest Metals Corporation (51%). EMC have a farm-in agreement to acquire up to 100% of the rights. M59/714 is valid until 26 October 2030.</li> </ul> <table border="1"> <thead> <tr> <th>Tenement</th> <th>Status</th> <th>Holder1</th> <th>Holder2</th> <th>Area</th> </tr> </thead> <tbody> <tr> <td>M59/714</td> <td>LIVE</td> <td>Everest Metals Corporation</td> <td>Entelechy Resources</td> <td>192.4 Hec.</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>Tenement has been surveyed in 27/10/2020.</li> <li>There are no reserves, national parks or other known material impediments to exploration on the tenure.</li> <li>The tenement is in good standing and no known impediments exist.</li> </ul>	Tenement	Status	Holder1	Holder2	Area	M59/714	LIVE	Everest Metals Corporation	Entelechy Resources	192.4 Hec.
Tenement	Status	Holder1	Holder2	Area								
M59/714	LIVE	Everest Metals Corporation	Entelechy Resources	192.4 Hec.								
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Historical tantalum production has been recorded.</li> <li>Pancontinental Mining -1980's.</li> <li>Haddington Resources/Australian Tantalum -2002-2003.</li> <li>MRC Exploration: 2019-2021.</li> </ul>										
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>Numerous pegmatites are found located within the southern portion of the Paynes Find greenstone belt, South Murchison.</li> <li>Regional geology consists of partly foliated to strongly deformed and recrystallised granitoids intruding Archean ultramafic and felsic to mafic extrusive. Isolated belts of metamorphosed sediments are present with regional metamorphism attaining greenschist and amphibolite facies.</li> <li>Late pegmatite dykes/ sills intrude the mafic and felsic volcanics in a contrasted position to regional orientation.</li> <li>The mining lease area has proven Lithium rich zones associated with the pegmatites, as well as historical mining for Tantalum (manganotantalite and alluvial deposits: 1969-1974 Mt Edon by Alfredo Pieri), beryl and microcline feldspar (Goodingnow pits, 1975-1978, Mark Calderwood).</li> <li>The zonal nature of this pegmatite field has previously been defined with microcline feldspar (including amazonite) in the east (historically mined)</li> </ul>										

Criteria	Statement	Commentary
		<p>and more complex albite rich zones containing Niobium and Lithium in the west (the current Mining Lease area). Lepidolite-Zinnawaldite (Lithium mica) rich pegmatites have been previously identified.</p> <ul style="list-style-type: none"> <li>Recent studies highlighted present of potentially economic Rubidium grade in well-developed mica rich zones of Mt Edon pegmatites.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>Drill hole information has been systematically reported to the ASX. There are no further drill hole results that are considered material to the understanding of the exploration results.</li> <li>RC drill holes were utilised to obtain the metallurgical samples including ME-50, ME- 45, ME-35, ME-48, ME23-07 and ME23-19. This information is included in the drill hole collar table in this release.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable, drilling data previously reported.</li> <li>Due to the nature of this metallurgical studies, no data aggregation method was applied. Samples for the metallurgical test work were selected based on the mineralisation type and grade.</li> <li>No metal equivalent values are used.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable due to the nature of primary metallurgical studies. Specific samples were selected for a representative metallurgical study.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>Appropriate maps and section were provided in the previous public report.</li> </ul>

Criteria	Statement	Commentary
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>This report provides the total information of all metallurgical tests available to date and is considered to represent a balanced report. Further results will be reported in more detail as warranted.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul style="list-style-type: none"> <li>The metallurgical testing and results are preliminary in nature. All meaningful data and information considered material and relevant has been reported.</li> <li>Reasonable mineral recovery levels are expected for rubidium and lithium based on previous work and understanding of the metallurgical characteristics of the known mineral species observed.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>The Company is currently in a project optimisation phase with various work programs underway.</li> <li>Metallurgical work for extraction and purification of rubidium and lithium is continuing at ECU's Mineral Recovery Research Centre (MRRC) as well as techno-economic analysis and scoping study.</li> <li>Additional mineralogical studies are being conducted.</li> <li>Further resource drilling is planned for the first half of 2025.</li> <li>Geotechnical and environmental studies are under consideration.</li> </ul>