



31 October 2024

## Quarterly Activity Report 30 September 2024

EMU NL (“**EMU**” or “the **Company**”) is pleased to report on its activities for the quarter ending 30 September 2024. Throughout the quarter, EMU continued to advance its exploration programme at the Yataga Copper Project at Georgetown, in North Queensland.

### Highlights

- Updated geological modelling with multiple intra-pluton porphyry copper centres close to surface identified from surface geochemical surveys within the Yataga Copper Project
- Porphyry centres concentrated along a structural belt have been identified as analogous to the Highland Valley Copper Mine, where a series of porphyry copper deposits host Canada’s largest open pit copper mine (production of >130kt in 2021)
- Termite mound sampling programmes have identified a combined area of 8km<sup>2</sup> of copper-in-soil anomalism with significant potential for expansion
- 220-line km airborne electromagnetic survey complete with results pending
- 20+-line km ground based Pole-Dipole Induced Polarisation (PDIP) and Magnetotelluric (MT) Survey underway
- Geochemistry and geophysics programme results will feed into upcoming optimised drilling program planned for early 2025
- Acclaimed QLD geologist, Dr Gregg Morrison appointed as Technical Advisor to the Project
- \$1.5M Placement underway through issue of 61M fully paid ordinary shares at \$0.025 per share to sophisticated and professional investors

Located within the Georgetown mining district, EMU’s Georgetown tenements cover a richly endowed but under-explored area of Far North Queensland with a history of significant mining activity and mineral discoveries.

EMU is earning an 80% interest in 3 exploration permits for minerals (EPM’s), covering 850km<sup>2</sup> in the Georgetown mining district, Queensland, under a Heads of Agreement and Joint Venture



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Agreement with Rugby Resources Ltd (TSXV:RUG). The district has a substantial mineral endowment with more than 1,000 mines, prospects and identified mineral occurrences.<sup>1</sup>



Figure 1. Georgetown Tenements Location

### Definitions and Nomenclature

<b>Georgetown Tenements</b>	3 tenements located at Georgetown QLD comprising ~850km <sup>2</sup>
<b>Yataga Igneous Complex</b>	Intrusive granitoid body ~70km <sup>2</sup> located largely within tenement EPM 27667
<b>Yataga Copper Project</b>	The Yataga Igneous Complex – that falls within the boundary of EPM 27667
<b>Fiery Creek Copper Prospect</b>	EMU’s original discovery prospect located in and comprising a part of the northern area of the Yataga Copper Project
<b>Yataga Valley Prospect</b>	Recent discovery of widespread surficial copper mineralisation along the NNW-SSE shear zone in the central part of the Yataga Copper Project

<sup>1</sup>Queensland Department of Natural Resources GeoResGlobe Interactive Website, “<https://georesglobe.information.qld.gov.au/>”

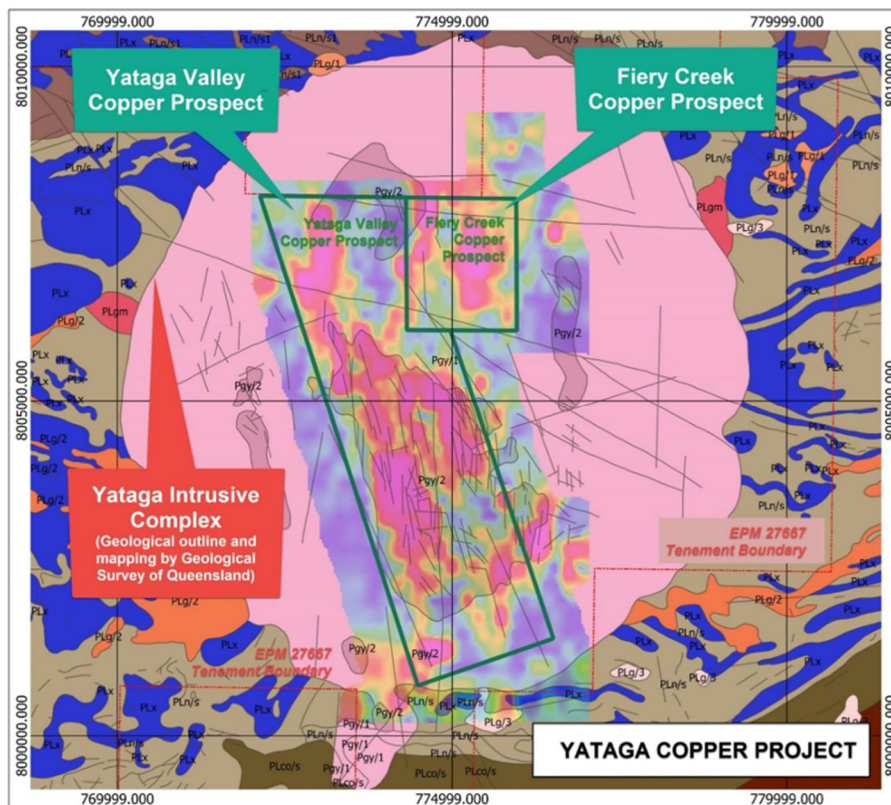
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## Yataga Copper Project

During the quarter, EMU provided an update from exploration activity at its newly named Yataga Copper Project, located within the Yataga Igneous Complex.

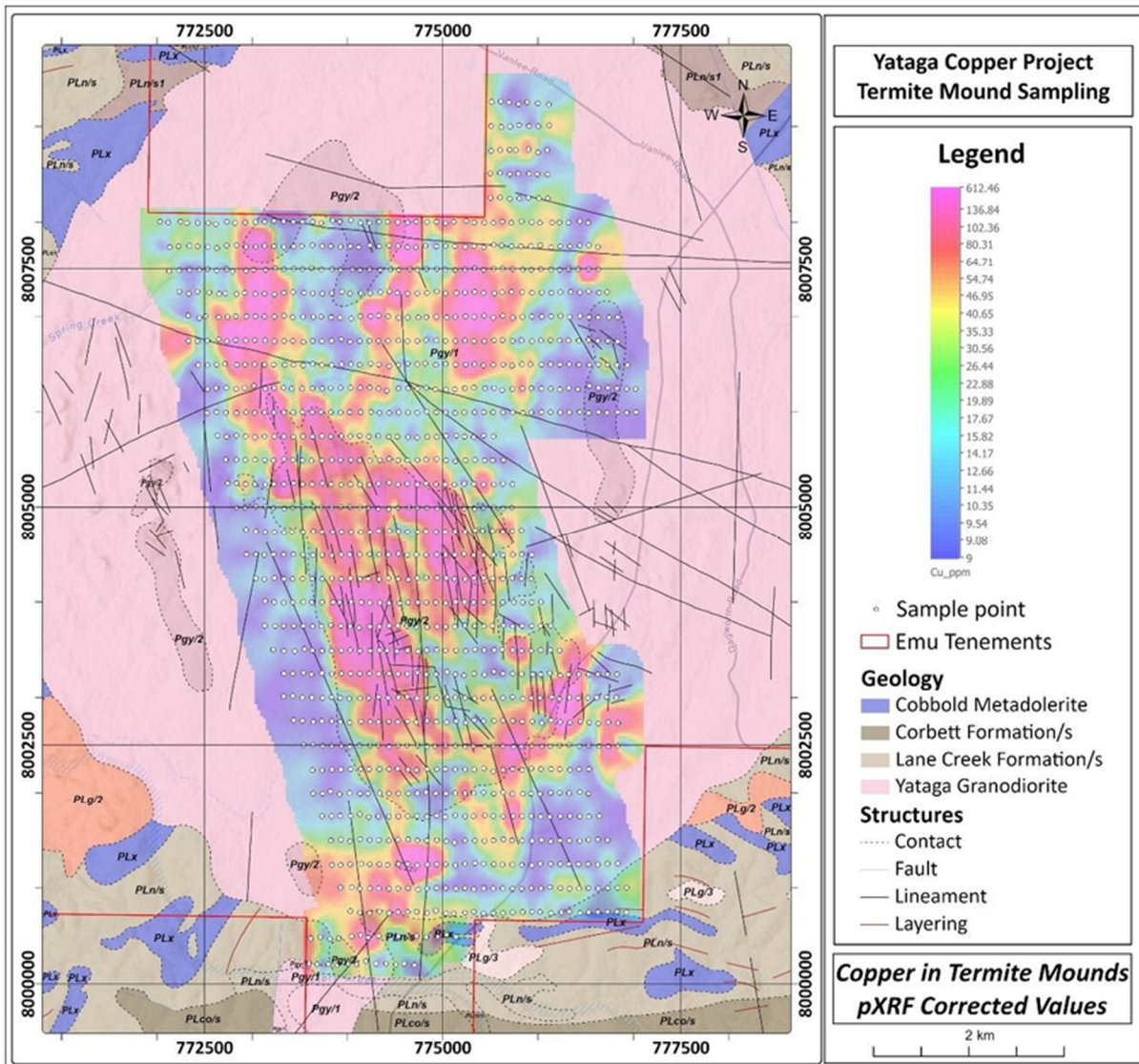
Significant progress has been made through geochemistry field work which has demonstrated that the termite mound sampling methodology is both highly reliable and productive. 1,152 termite mounds were sampled in the 27km<sup>2</sup> grid controlled pXRF programme and the combined area of highly anomalous copper has been substantially extended. The copper mineralisation surface expression now covers approximately 8km<sup>2</sup> and includes EMU’s original discovery prospect, Fiery Creek.

EMU believes that its field geochemistry and geophysics programmes currently underway could extend the area of copper mineralisation even further and enhance definition of anomalism 3 dimensionally.



**Figure 2.** The Yataga Copper Project showing the locations of the two prospects – Fiery Creek Prospect and Yataga Valley Prospect overlaying the copper geochemistry anomalous zones within the Yataga Igneous Complex

The areas of copper-in-soil anomalism delineated in this most recent pXRF measured termite mound programme, have reported values ranging between 150 – 769 ppm Cu, equivalent to 5 – 25 times the average crustal abundance (or background values) for copper in granodiorites.



**Figure 3.** The termite mound geochemical sampling programme grid with Copper (Cu) heat map overlying geology. The main Cu-zones within the Fiery Creek Prospect and Yataga Valley Copper Prospect are clearly defined.

Modelling of the surface mineralisation has indicated the presence of multiple Cu-bearing intrusive centres close to surface. EMU's PDIP and MT geophysical surveys (underway) are targeted to map the 3-dimensional aspects of the mineralised pluton and provide information on mineral pathways and mineralisation signatures. These surveys will provide EMU with a depth (3<sup>rd</sup> dimensional) component to the surface field data, enhancing the understanding of the erosional

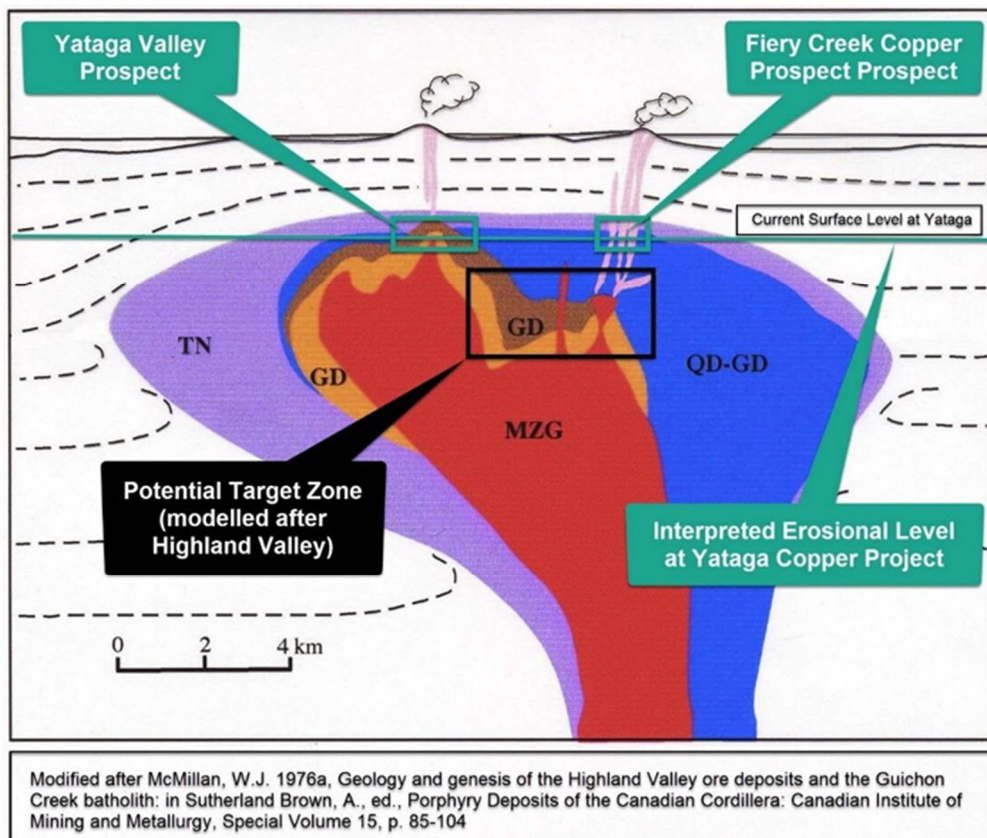
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level of the mineralised system, the depth extent of the pluton roof and the location of the stocks and dykes that are the likely source of mineralisation.

Modelling indicates multiple intrusive centres focussing along a “structural belt”, with some centres exposed at surface and others occurring at shallow depths, similar to the geological setting of the Highland Valley Copper Mines in British Columbia, which is the largest operating open-pit mine in Canada, producing over 130kt Cu in 2021 and ~100kt in 2022 and 2023.

The “plutonic copper porphyry” mineralisation appears to be large scale, and EMU is encouraged that the Yataga Copper Project may represent one of the largest copper discoveries made in Queensland in recent times.

Modified after the Highland Valley Copper deposits, the Yataga mineralisation detailed below illustrates the ballon shape of the host intrusion and the location of the copper anomalies both within the roof of the main intrusion and in the small stocks and dykes that originate in the core of the intrusion.



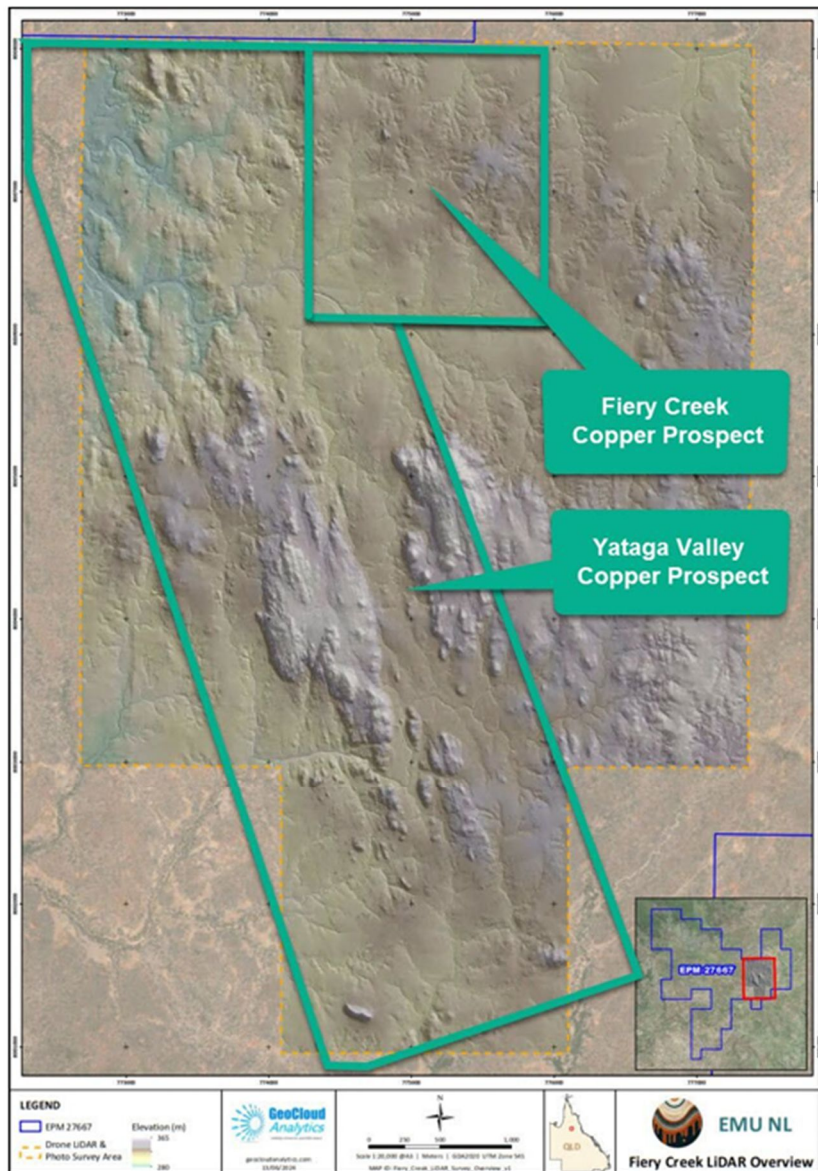
**Figure 4.** Conceptual magmatic pluton model for the Yataga Copper Project based on the analogous, Highland Valley mineral occurrence in BC, Canada.

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### Drone LiDAR Survey

The recent termite mound sampling programme was mapped based on data processed from EMU's 27km<sup>2</sup> drone LiDAR survey during June - July 2024. This survey provided the precision and detail used in the planning of the grid controlled geochemistry survey.

The below image depicts the new Yataga Valley Copper Prospect displaying the extensive NW-SE shearing which is apparent within the intrusive complex.



**Figure 5.** Drone LiDAR imagery showing the significance of shearing, faulting and structural settings within the Yataga Igneous Complex

For a full technical summary see APPENDIX 1, ASX Announcement 26<sup>th</sup> September 2024.

### **Follow Up Work**

An in-field rock collection programme has commenced, under newly appointed Project Technical Adviser Dr Gregg Morrison, designed to sample specific rock types to provide correlation and support for modelling of hydrothermal fluid flows and to enhance future drill targeting.

Additionally, the rocks collected will provide reference material for doctorate programmes conducted at the Economic Geology Research Unit (EGRU) at the James Cook University in Townsville.

Two geophysical data acquisition programmes were carried out in September and continued throughout October:

- High resolution Helicopter airborne Time Domain Electromagnet survey (HTDEM) was completed
- Geophysical Resources and Services Pty Ltd contracted to and has commenced to carry out targeted ground electrical geophysics using a MIMDAS system. This technique has true 3D capability and will acquire induced polarity (IP), resistivity (RES) and magnetotelluric (Mt) data over ~20-30 line km spaced over the presently identified main copper target zones

An Aboriginal Heritage Survey has been completed by Ewamian Limited.

### **Badja Gold/Tungsten/Lithium Project**

EMU continues to receive approaches from interested parties and is evaluating the interest looking to realise maximum value for the asset either through sale or retention. EMU's work at Badja has defined and upgraded a multi-element project adding prospectivity for high grade gold and tungsten and lithium.

The current resources for the Badja Project mineralisation; classified as "Indicated" and "Inferred", are 555,637t @2.21g/t Au and 0.14%W for 39.4kOz Au and 757.3t W and are summarised using a 0.5g/t gold cut-off. (See tables below and Appendix 1 - extracts from LBC Resources Pty Ltd "Resource Estimate Report Badja Project")<sup>2</sup>

### **Sunfire Project**

EMU provides no update on the Sunfire Project as it awaits direction from the WA Government as to its intention to allow drilling activities in the old forestry workings in the State forest. EMU has not received any feedback from its correspondence most recently dated November 2022. As

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<sup>2</sup> ASX Release 4 March 2024" Exploration Update Georgetown, Scale Potential Confirmed"

previously stated, EMU has met all required environmental obligations with respect to accessing WA State Forest areas within the project with the commencement of onsite exploration activities. There continues to be a complete lack of progress coupled with the absence of any indication from Government departments as to the likely probability of drilling consent being forthcoming. This lack of progress and inability by the Government departments to determine the viability of ongoing exploration and drill testing of the Sunfire Ni-Cu targets has frustrated exploration that would have been in the interest of the State of Western Australia and Australia as a whole.

## Corporate

### Placement

Post Quarter end, EMU advised that it will be placing up to 61M fully paid ordinary shares at \$0.025 per share to sophisticated and professional investors to raise up to \$1.525M.

The placement will involve two tranches with 21M shares issued (ASX Announcement 21 October 2024) under the Company's current ASX Listing Rule 7.1 and 7.1A capacities. The second tranche will be issued subject to and upon shareholder approval being obtained at the Company's Annual General Meeting, to be held on 29 November 2024.

Applicants for New Shares will be issued one free option for every two New Shares. These free options will be issued subject to and upon shareholder approval being obtained. Each option will be exercisable at ten cents (\$0.10) on or before 31 October 2026.

Funding from the placement will be applied to exploration within the Georgetown Project QLD including advanced field work, geochemistry and geophysics (to position the Company to commence drilling early 2025) and general working capital.

The New Shares will be listed on ASX and will rank equally with the existing fully paid ordinary shares currently quoted as ASX: EMU.

### Completion of Unmarketable Parcel Share Sale Facility

The Unmarketable Parcel Share Sale Facility, announced on 22 July 2024 was advised as having been completed on 4 September 2024. At the close of trade on 19 July 2024, there were 3,927,310 shares held by 881 shareholders that had a value of less than \$500 (Unmarketable Parcel). Shareholders who wished to retain their Unmarketable Parcel had until 5pm (AWST) on Monday 2 September 2024 (Closing Date) to return the Retention Form or make an online election.

The final number of shares sold under the Facility was 3,029,233 which reduced the number of registered holdings by 734.



The Facility provided an opportunity for smaller shareholders to monetise their investment with no brokerage fees or other costs. The reduction in the number of shareholders will reduce administrative and registry costs on an ongoing basis.

EMU appointed Martin Place Securities to sell the shares under the Facility, and the proceeds have been (or will be) remitted to participating shareholders (by direct bank transfer as soon as practical following the Company being put in possession of the holder's relevant bank details).

### **Acuity Facility CPA Extension**

EMU has agreed with Acuity Capital to again extend the expiry date of the Controlled Placement Agreement (**CPA**) from 31 January 2026 to 31 January 2029 and, if approved by shareholders, the Company will issue as security (and thus for nil cash consideration) for the Company's obligations under the CPA, a further 5,880,000 shares (taking the number of shares held as security against the CPA to 6,500,000 (**Collateral Shares**)). No fees or costs are associated with these variations to the CPA. There is no requirement on Emu to utilise the CPA.

The Company may at any time cancel the CPA, including buying back and cancelling the Collateral Shares for nil cash consideration.

For more information on the CPA please see the Company's previous announcements of 31 July 2017, 18 December 2017, 30 July 2018, 22 February 2019, 30 October 2019, 30 December 2019, 29 January 2020, 30 October 2020, 22 December 2020 and 31 January 2023.

### **Vale Terry Streeter**

It was with great sadness that early in the quarter, the EMU Board advised of the unexpected passing of Mr Terry Streeter, Non-Executive Director of the Company.

Terry, an icon of the industry, enjoyed regaling the tale of his arrival in Australia in the early 1960's under the assisted migration program as a penniless 18 year old. He progressed from those humble beginnings as a ten-pound Pom to become an industry leader.

Terry was a highly respected Board member for 6 years and imparted his wisdom and experience with a deal of honesty and frankness. His friendship will be greatly missed. The Board extends their deepest sympathy to Terry's family, friends, and colleagues.

**Authorised for release by the Board of Directors.**

**For further information, please contact:**

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Ben Creagh  
**Investor and Media Relations**  
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Investors can sign into our interactive investor hub and join in on the conversation with EMU NL.  
<https://investorhub.emunl.com.au/auth/signup>



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E [info@EMUnl.com.au](mailto:info@EMUnl.com.au)PO Box 1112  
West Perth, WA 6872**Fully paid shares (listed)**

125,499,187 (including 620k the subject of the ATM which EMU can buy back for nil consideration)

**Contributing Shares (listed)**

1,349,502 paid to \$0.90, \$0.90 to pay

**Contributing Shares (Unlisted)**

1,166,667 paid to \$0.003, \$1.20 to pay, no call before 31 December 2025

**Options (unlisted)**

10,579,167 options to acquire fully paid shares, exercisable at \$0.09 each, on or before 31 December 2026

**Performance Rights (Unlisted)**

1,619,051 performance rights in relation to acquisition of Gnows Nest project (can be repurchased for \$20k if Gnows Nest disposed of before 22.9.2025)

**Directors:****Peter Thomas**

Non-Executive Chairman

**Gavin Rutherford**

Non-Executive Director

**Tim Staermose**

Non-Executive Director

**Investor enquiries:****Doug Grewar CEO**

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E [info@emunl.com.au](mailto:info@emunl.com.au)**COMPETENT PERSON'S STATEMENT**

The information in this report that relates to exploration results is based on, and fairly represents information and supporting documentation prepared by compiled by Mr Nigel Maund, a Competent Person who is consulting economic geologist. Mr Maund is a Fellow of the Australian Institute of Geoscientists, a Fellow of the Australian Institute of Mining and Metallurgy. Mr Maund is a consultant to EMU NL and has sufficient experience in the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Maund consents to the inclusion herein of the matters based upon his information in the form and context in which it appears.

**FORWARD LOOKING STATEMENTS**

As a result of a variety of risks, uncertainties and other factors, actual events and results may differ materially from any forward looking and other statements herein not purporting to be of historical fact. Any statements concerning mining reserves, resources and exploration results are forward looking in that they involve estimates based on assumptions. Forward looking statements are based on management's beliefs, opinions, and estimates as of the respective dates they are made. The Company does not assume any obligation to update forward looking statements even where beliefs, opinions and estimates change or should do so given changed circumstances and developments.

**NEW INFORMATION OR DATA**

EMU confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of estimates of Mineral Resources, which all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not materially changed from the original market announcement.

**Table 3: Tenement Schedule (Status as at 30 September 2024)**

Tenement ID	Project	Type	Description/ Status
<b>M59/739 – Gnows Nest</b>	Badja	Mining	EMU 100% - Granted
<b>M59/0785 – Monte Cristo</b>	Badja	Mining	EMU 100% - Granted
<b>E59/2315 – Gnows Nest</b>	Badja	Exploration	EMU 100% - Granted -
<b>P59/2071 – Monte Cristo</b>	Badja	Prospect	EMU 100% - Granted
<b>P59/2073 – Monte Cristo</b>	Badja	Prospect	EMU 100% - Granted
<b>E59/2495 – Warrambo</b>	Badja	Exploration	EMU 100% - Granted
<b>E70/5507 – Sunfire</b>	Sunfire	Exploration	EMU 100% - Granted
<b>E70/5346 – Sunfire</b>	Sunfire	Exploration	EMU 100% - Granted
<b>E70/6434 - Kent</b>	Viper	Exploration	EMU 100%- Granted
<b>E70/6436 - Kent</b>	Viper	Exploration	EMU 100% - Granted
<b>E59/2836 - Warrnambool</b>	Badja	Exploration	EMU 100% - Granted

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