



ASX Announcement

22 August 2025

Amendment to Mining Licence Granted – Additional Minerals Approved

Highlights

- Licence expansion: Additional minerals Zircon, Hafnium, Praesidium and Neodymium formally included in Large-Scale Mining Licence No. LML0216/21
- Strategic significance: Diversifies Globe's resource base to enhance the long-term development potential of the Kanyika Project.
- Regulatory certainty: Approval ensures all production of the new minerals will occur under a compliant and government-approved framework.

Globe Metals & Mining Limited (ASX: GBE) ("**Globe**" or "**Company**") is pleased to announce that the Mining Minerals Regulatory Authority (**MMRA**) has officially approved the amendment of the Large-Scale Mining Licence LML0216/21 (**Licence**) for the Kanyika Project in Malawi. The amendment allows the inclusion of Zircon, Hafnium, Praesidium and Neodymium.

This approval expands the scope of Globe's Licence from niobium, tantalum and uranium and enables the Company to evaluate, develop and produce a broader suite of critical minerals from the Kanyika deposit.

Zircon

Zircon is widely used in ceramics, foundries, and advanced refractories and enjoys a steady global demand. Its resilient pricing is supported by construction and industrial applications. It is recovered as a by-product from niobium and tantalum processing, providing an additional steady revenue stream to Globe. The inclusion of zircon expands Globe's commodity mix without significant additional capital expenditure.

Per Asia Metals Zr(Hf)O_2 65%min; TiO_2 0.3%max, Fe_2O_3 0.3%max in the form of Zirconium Sand sells for approximately 1,600 USD per tonne. The zirconium ores and concentrates market is expected to grow at a CAGR of about +2.4% in volume and +3.1% in value, reaching approximately 4.1 million tons and USD 5 billion in value by 2035.

Hafnium

Hafnium is an ultra-rare metal critical for aerospace alloys, jet engines, and nuclear control rods. Hafnium commands a premium price due to its unique properties in high-temperature superalloys and advanced electronics and limited global supply. By securing rights to hafnium in the Licence, Globe positions itself as a future supplier of one of the most strategically important ultra-critical materials.

Per Mordor intelligence, global hafnium demand is projected to grow at a compound annual rate of about 6–8%, driven by aerospace superalloys, nuclear control rods, and semiconductor dielectrics. Supply remains extremely constrained, with worldwide production estimated at only 70–80 tonnes in 2023 since hafnium is recovered as a by-product of zirconium refining. Per the Mordor report, the current average price of hafnium metal is USD 1,500,000 per tonne, while hafnium oxide markets are valued at around USD 76–128 million and expected to grow to USD 160–230 million by 2032–33 at a CAGR of 5.8–7.5%.

Rare Earths (Neodymium and Praseodymium)

Neodymium and praseodymium are essential for the production of permanent magnets used in electric vehicle motors, wind turbines, and advanced electronics. These markets are experiencing strong growth, driven by the global shift toward clean energy and electrification. By adding rare earths to the Licence, Globe diversifies into a high-growth, technology-focused supply chain. This significantly enhances the Company's strategic importance and attractiveness to global offtake partners.

Global rare earth demand is forecast to grow at about 5.8% annually to 2030, with neodymium expanding faster at roughly 9.2% due to its critical role in magnets. Supply shortages are looming, with NdPr oxide deficits expected to reach 16,000 tonnes per year by 2030 and 68,000 tonnes per year by 2035, while NdFeB alloy shortages could climb to 206,000 tonnes annually. As of mid-August 2025, Asia Metals reports Pr-Nd oxide ($\geq 99\%$) at around USD 72,200 per tonne ex-VAT.

Next steps

Zirconium, hafnium, and rare earths such as neodymium are in growing demand from the same industries that require niobium and tantalum, particularly aerospace, advanced alloys, energy transition technologies, and electronics. There are clear cross-selling opportunities to offtakers. At present, our existing JORC report does not cover these minerals, and we would need to undertake further geological and metallurgical work to include them.

If we choose to explore and produce, the next steps would involve targeted drilling, sampling, and metallurgical testwork, after which we can update and extend our JORC reporting to cover these commodities.

Both chlorination and HF solvent extraction are proven processes that can separate these metals from our ore body.

Charles Altshuler, Interim CEO & CFO of Globe Metals & Mining, said:

“The approval to expand our mining licence marks a significant milestone for Globe and for the future of the Kanyika Project. By formally including zircon, hafnium, neodymium and praseodymium, we are diversifying our resource base and positioning Globe to participate in some of the fastest-growing and most strategically important markets in the world.

Zircon provides a steady, low-cost revenue stream, hafnium is a rare and high-value material essential to aerospace and nuclear industries, and rare earths such as neodymium and praseodymium are critical to the global energy transition through their use in electric vehicles and wind turbines. This broadened licence provides both regulatory certainty and long-term strategic flexibility, ensuring Globe can unlock maximum value for shareholders while aligning with the growing demand for critical minerals.”

This announcement was authorised for release by the Interim CEO & CFO, Charles Altshuler

For further information, please contact:

Charles Altshuler

Interim CEO & CFO

P: +61 8 6118 7240

E: ca@globemm.com

About the Kanyika Niobium Project

The Kanyika Niobium Project is located in central Malawi, approximately 55km northeast of the regional centre of Kasangu. The Project is secured by Large-Scale Mining Licence No. LML0216/21, which grants the Company security of tenure and the right to mine niobium, tantalum, deleterious uranium, Zircon, Hafnium, Praesidium and Neodymium.

Drilling programs totalling 33.8 kilometres of percussion and core drilling have defined the extent of mineralisation. Structured and progressive engineering studies have resulted in the current (JORC 2012) Mineral Resource Estimate (refer below) and given rise to significant improvements and simplifications in the process flowsheet.

The Kanyika Project will be developed in two phases, substantially de-risking the project. The project will be fully integrated on the mine site – Mining, Concentration and Refining, to produce high-purity, high-value Niobium and Tantalum oxides for direct export to foreign markets.

A Mineral Resource Estimate for the Kanyika Niobium Project under the 2012 JORC guidelines was reported to ASX on 11 July 2018 as follows:

Table 1: MRE for KNP using a 1,500 ppm Nb₂O₅ lower cut

Category	Resource (Mt)	Nb ₂ O ₅ (ppm)	Ta ₂ O ₅ (ppm)
Measured	5.3	3,790	180
Indicated	47	2,860	135
Inferred	16	2,430	120
TOTAL	68.3	2,830	135

Table 2: MRE for KNP using a 3,000 ppm Nb₂O₅ lower cut

Category	Resource (Mt)	Nb ₂ O ₅ (ppm)	Ta ₂ O ₅ (ppm)
Measured	3.4	4,790	220
Indicated	16.6	4,120	160
Inferred	2.8	4,110	190
TOTAL	22.8	4,220	190

Mineral Resource Estimates

The information in this report that relates to Mineral Resources is extracted from the report titled “Kanyika Niobium Project – Updated JORC Resource Estimate” released to the Australian Securities Exchange (ASX) on 11 July 2018 and available to view at www.globemm.com and for which Competent Persons’ consents were obtained. Each Competent Person’s consent remains in place for subsequent releases by the Company of the same information in the same form and context, until the consent is withdrawn or replaced by a subsequent report and accompanying consent.

The Company confirms that is not aware of any new information or data that materially affects the information included in the original ASX announcement released on 11 July 2018 and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the original ASX announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Persons’ findings are presented have not been materially modified from the original ASX announcement.

Full details are contained in the ASX announcement released on 11 July 2018 titled “Kanyika Niobium Project – Updated JORC Resource Estimate” available to view at www.globemm.com.