ASX RELEASE

26 October 2021

About Globe

- Globe Metals & Mining Limited is a Perth based company listed on Australian Stock Exchange (ASX Code: GBE)

Investment Summary

- 100% interest held in Kanyika Niobium Project in Malawi (Africa)

Directors and Management

Ms Alice Wong - Non-Executive Chairperson
Mr Alistair Stephens - Managing Director
Mr William Hayden - Non-executive Director
Mr Bo Tan - Non-executive Director
Mr Ricky Lau – Non-executive Director
Mr Michael Fry – CFO/Company Secretary

Capital Structure

Shares on Issue: 465,922,373

Substantial Shareholders

Apollo Metals: 52.79%
Ao-Zhong International Minerals: 25.36%

Director Holdings*

Mr Alice Wong: 245,983,611 (52.80%)
Mr William Hayden: 1,276,923 (0.27%)
Director Stephens: 1,325,000 (0.26%)
** both direct and indirect*

Contact

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Quarter ended 30 September 2021
Review of Operations

HIGHLIGHTS

Kanyika Niobium Project

- Mining Licence LM0216/21 issued for the Kanyika Project - refer ASX announcement of 19 August 2021 titled "KNP Mining Licence Granted".
- Globe has continued to build its project delivery organisational capability with the appointment of three highly experienced and skilled senior personnel; Mr Grant Hudson to the position of General Manager - Corporate Services, Mr Rex Zietsman to the position of Project Leader - Kanyika, and Mr Ravikumar Ramachandran to the position of Project Leader - Refinery.
- Good progress made in relation to off-take and debt-funding, with communications commenced between Globe and several parties.
- Conversations on community development programs, relocation of affected persons also commenced.
- Ongoing processing optimisation testwork aimed at reducing the Kanyika Project's capital and operating costs has led to the filing of an application for a novel patent covering metallurgical technology for the recovery of pyrochlore that will significantly benefit the Kanyika Project, and which has potential for application to other niobium projects globally and to other commodity types.

Development Agreement

- The Company awaits notification from the Government of Malawi for the execution of a Mine Development Agreement (MDA). The MDA establishes key terms and conditions for operation and the fiscal regime for the Project.

Niobium – Recent Press

- In mid-October, World Steel Association released its short-range outlook for 2021 and 2022 which predicts that steel demand will grow 4.5% in 2021 and a further 2.2% in 2022 (~90% of niobium is consumed as ferro-niobium in the manufacture of high strength low alloy steels).
- Niobium is critical to quantum computing. According to Harvard Business Review the quantum race is underway. Governments and private investors are pouring billions into quantum research and development. And the likes of IBM, Google, Microsoft, and Amazon are investing heavily in developing large-scale quantum computing hardware and software.
- Use of niobium in electric vehicle batteries continues to gain momentum. Echion Technologies, born out of the laboratories of the University of Cambridge Engineering Department, completed a £10M Series-A funding round in August 2021 boasting that its niobium based anode products enable a unique combination of fast-charge, safety, and high energy density.

Corporate & Finance

- Cash at bank and in term deposits as at 30 September 2021 was $1.902 million (30 June 2021: $2.816 million).

Globe Metals & Mining Limited (ASX Code: GBE) ("**Globe**" or "**the Company**") provides its activities report for the quarter ended 30 September 2021.

1. Kanyika Niobium Project

1.1 Exploration Activities During the Quarter

There were no exploration activities conducted during the quarter.

Results of the reconnaissance exploration program conducted in the June 2021 quarter in the south-western sector of the Kanyika Exclusive Prospecting Licence area (EPL0421) comprising mapping and sampling remain outstanding.

Due to delays being experienced in assay laboratories in South Africa, the decision has been made to ship the samples to Perth for analysis. The results are now expected in the December 2021 quarter.

1.2 Project Studies

The Company has during the quarter continued with its processing optimisation testwork aimed at reducing the Kanyika Project's capital and operating costs. The work has led to the filing of a Patent Cooperation Treaty (PCT) application for a novel patent covering metallurgical technology for the recovery of pyrochlore that will significantly benefit the Kanyika Project, and which has potential for application to other niobium projects globally and to other commodity types.

The outcome from the examination process of the PCT is expected in the new year. A PCT application can protect intellectual property in at least 150 countries.

This novel use of existing technology, together with the outcomes of additional testwork, promise lower project OPEX and CAPEX, lower complexity and increased metallurgical recovery.

> By way of example, the 2012 processing flotation regime was designed with 32 chemical agents. The current patent pending technology has reduced this to just 6 chemicals with lower dosage rates. This will reduce capital and operating cost and will significantly reduce the environmental footprint of the project. Early indications suggest that improved recoveries above 75% are possible with further work.

Due to the commercially sensitive nature of this works program, as previously advised, Globe will only provide relevant information at the appropriate time. Managing Director Alistair Stephens commented recently "*Secrecy, for the interim, to maintain patentable advantage of this technology across the broader mineral commodity sector, is an important corporate strategy to commercialisation*".

Additional variability testwork will need to be undertaken to assess the application of this technology across the greater ore body. Initial testwork does not demonstrate substantial negative variability and the work program will quantity the benefit along strike and with depth. This work program coupled with future drilling at depth during operations has the ability to extend the life of the project to 38 yrs.

1.3 Mining Licence

Globe's wholly owned subsidiary, Globe Metals & Mining (Africa) Limited (GMMA) was granted Large Scale Mining Licence LM0216/21 on 13 August 2021, signed by the Honourable Rashid Abdul Gaffar, Minister of Mines, pursuant to the Mines and Minerals Act and is attached below.

Upon receipt of the Mining Licence on 16th August 2021, Globe Managing Director, Mr Alistair Stephens, commented as follows:

> "This is a momentous achievement for the Republic of Malawi and its people, the Kanyika community, the Company and the Kanyika Project. The grant ushers in a new era for the Malawi mining industry with the first ever award of a large-scale mining licence under the new Mines Act. It also ushers in a new era for niobium, with Kanyika set to become the first new niobium mine in more than 50 years, subject to financing, off-take and construction."

A copy of Large-Scale Mining Licence No. LML0216/21 conferring on Globe the exclusive right to prospect and mine for a term of a 25 years is as follows:

MALAWI GOVERNMENT

Mines and Minerals Act
(Act No.8 of 2019)

Large-Scale Mining Licence No. LML0216/21

This Licence is granted this 13th day of August 2021 by the Government of Malawi, acting through the Minister of Mining
To
GLOBE METALS AND MINING (AFRICA) LIMITED
having its registered address at PRIVATE BAG A201, LILONGWE, MALAWI
who have duly accepted the terms and conditions attached.
This licence confers the licensee the exclusive right to prospect for and mine mineral(s) in the area as described overleaf and outlined in a plan Appendix A, for a term of TWENTY-FIVE years commencing on the above date with an option to extend the term in accordance with Section 154 of the Mines and Minerals Act.
Dated this 13th day of August, 2021

Hon. Rashid Abdul Gaffar
Minister of Mining

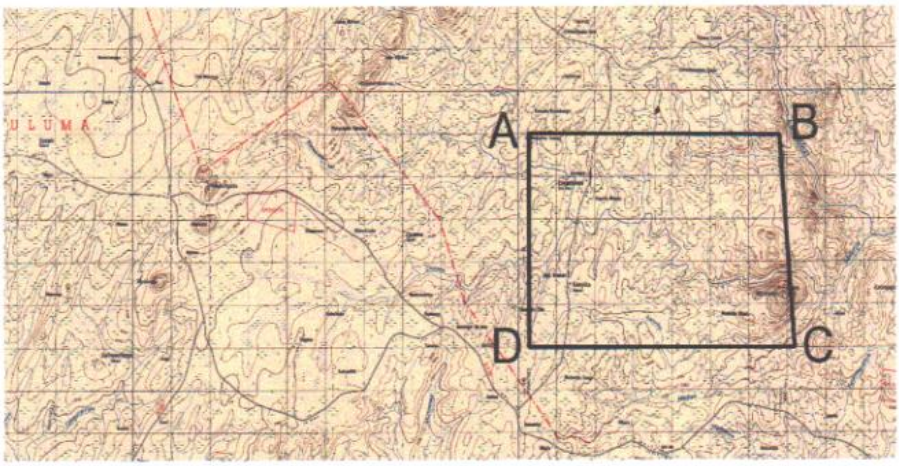
THE DIRECTOR DEPARTMENT OF MINES 13 AUG 2021 MINERALS RIGHTS SECTION P.O. BOX 251, LILONGWE

The licence grants the licensee rights to mine and process **PYROCHLORE MINERAL CONCENTRATE CONTAINING NIOBIUM AND TANTALUM AND DELETERIOUS URANIUM** over an area of **33.42 Km²** (**square kilometres**) described by the following coordinates (Arc 1950/ UTM Zone 36S):

Licenced area: **MABULABO MAP SHEET No. 1233D1**

POINT	EASTING	NORTHING
A	570269	8599321
B	576784	8599281
C	577172	8594317
D	570269	8594321

THE DIRECTOR DEPARTMENT OF MINES 13 AUG 2021 MINERALS RIGHTS SECTION P.O. BOX 251, LILONGWE



Terms and conditions of the mining licence require that GMMA must, amongst other things:

- pay annual charges prescribed under the Mines and Minerals (Mineral Rights) Regulations 1981 and mineral royalties in accordance with the Mines and Minerals Act.
- have a right to mine and process pyrochlore
- endeavour to give employment preferentially to citizens of Malawi
- endeavour to procure goods and services produced and manufactured in Malawi provided that they can be obtained at competitive terms and in comparable quality.
- submit reports to the Registrar of Mineral Tenements as required
- comply with all conditions imposed under Part VIII of the Mines and Minerals Act (No. 8 of 2019).

1.4 Feasibility Study

Upon Globe being granted a mining licence for Kanyika Globe publicly released the results of its feasibility study (refer ASX announcement of 19 August 2021) which was undertaken to establish the most appropriate configuration for the Kanyika Project and to determine its economic feasibility.

The results of the Feasibility Study highlight a robust project with strong financial returns.

Study highlights are:

- Kanyika Niobium Project is positioned to be the first niobium mine and first new producer in 50 years.
- Over 90% of niobium is used in the manufacture of High Strength Alloy Steels. Steel production is growing year on year. Intensity of usage in steel is rising rapidly as markets, and in particular China, moves towards the manufacture of higher quality steels.
- Niobium's unique characteristics make it central to many of the world's past, present and future technologies with scientists and manufacturers only now beginning to imagine the range of technological applications for niobium.
- Niobium is critical to military, aerospace, space and medical industries and becoming increasingly important in quantum electronics, in the manufacture of semiconductors and in the electrical vehicle industry.
- Globe will target high-end, high-value applications for niobium.
- A mine life of ~ 23 years with capability to extend mine life to 38 years subject to the conversion of inferred resources through further drilling.
- Average annual production of 3,250 tonnes of niobium and 140 tonnes of tantalum.
- High metal recoveries of ~75% for niobium and ~73% for tantalum
- Patented metallurgical advancements (*commercial in confidence*) provide competitive advantage allowing substantially simpler beneficiation with greater recovery and lower process OPEX.
- Pre-production capital costs of ~USD250m.
- KNP will generate revenues of USD5.6B over its 23-year mine life, valued at a base price of US$55/kg for Nb_2O_5 and US$410/kg for Ta_2O_5 mostly as Tantalum K-Salts.
- Net Present Value of US$1B (pre-tax) at a discount rate of 8% per annum.
- Internal Rate of Return of ~50% (pre-tax).
- Payback period of ~ 1.5 years (from first production).
- All approvals in place to immediately commence construction upon funding and relocation of affected persons.
- The Feasibility Study is based on material assumptions outlined in this announcement. Globe considers the material assumptions to be based on reasonable grounds, there is no certainty that they will prove correct or that the range of outcomes indicated will be achieved.

Globe initially commenced its feasibility study in 2009 and suspended further work in 2012 whilst it undertook further studies and awaited issue of a mining licence. In 2018, Globe commenced updating and finalising the technical components of the engineering program in order to support project funding initiatives, in light of the changing outlook for the mining and resources industry, and feedback from the Government of Malawi on anticipated progress of the mining licence and incorporating recent studies and plans associated with the mineral resource, mining, metallurgical studies, processing, engineering design and infrastructural support.

As part of the update of the feasibility study, Globe obtained updated capital and operating cost estimates and updated its financial model for revised capital costs, revenues and operating costs in order to determine key metrics including but not limited to project revenue, profitability and payback.

The quality of the engineering studies for a large proportion of the plant design qualifies the project as a Class 3, FEL3 standard under AACE[1] practices with components at Class 4, FEL2. Since the study has been completed a significant time has passed related to the negotiations on the Development Agreement with the Government, resulting in the associated quotations and related cost estimates being outdated. Parts of the plant where intellectual property has enhanced project metrics are at prefeasibility status where a capital estimate has been allocated but the quantum is not significant to total capital costs but is material to operations. The Company will progress the project to engineering programmes and complete associated marketing and financing agreements and can upgrade the study to an AACE Class 2 FEL4 bankable engineering estimation standard in time.

1.5 Mine Development Agreement

The execution of the Mine Development Agreement has been delayed due to internal Government departmental processes of sitting. The Company and the Malawi Government have indicated their desire and intention to execute a Mine Development Agreement. The finalisation and execution of a Mine Development Agreement is an important aspect of the Project as it outlines the fiscal regime under which the Project will operate and sets out the terms upon which the Company is able to develop the minerals contained in the Project, including terms not otherwise required through existing regulations. As such, Globe continues to push for its execution and awaits Government feedback on the timing of such execution.

1.6 Impact of Coronavirus

As at the date of this report the COVID-19 situation in Malawi is much improved with the daily average of new cases having fallen to six (6). Cumulatively, Malawi has had a total of 61,738 reported cases of coronavirus with 2,296 having resulted in death, 57,029 having recovered and 2,413 active cases.

Globe has a small and committed team who have and continue to take all necessary measures to ensure the safety of our team, our partners, the community and the countries in which we operate. The protocols for health safety adopted and maintained by the Company have allowed its staff to continue to meet and work with both Government personnel and communities during this time.

1.7 Community

Conversations on community development programs, relocation of affected persons have commenced in recent months.

Under the Mines Act, relevant communities within 20 kilometres of the Project have the right to a 0.45% royalty on annual gross sales revenue of mineral concentrate sales at mine gate. The Act states that the "Qualifying Community" must be within 20 kilometres, more than 3,000 persons "which by tradition or by circumstance constitute a social community". While simple in appreciation, the detail of the 20 kilometres radius occurring over different districts, traditional areas or even peoples land, makes the practical application complicated. It is the Company's position that a simple and single Trust should be formed for such royalty benefit and that the Trust then applies its judgment on the nature of Qualified Communities. The Company has sort advise from the Mines and Lands Departments on how this qualification is applied.

Under the Mines Act (s309), land for the Mining licence is to compulsory acquired by the Government with the land deemed a public utility under the Lands Acquisition and Compensation Act. Consultation with the Lands Department has initially resulted in differences in opinion between the Lands Department and the Company on who pays for land acquisition. The Companies position is that is has been granted a 25-year licence with annual lease payments and that the permanent acquisition of land is counter intuitive to the Mines Act and leasing payments.

[1] "Association for the of Advancement of Cost Engineering" that is referencing practice for the AUSIMM Cost Estimation handbook Monograph 27.

1.8 Project Financing

Good progress was made during the quarter ended 30 September 2021 in relation to off-take and project-funding, with communications commenced between Globe and several parties. Due to the commercially sensitive nature of these discussion, Globe is not in a position to provide any further information at this time. Globe shareholders will be advised as and when material developments occur.

2. Niobium Market Outlook

Globe continues to monitor factors driving niobium demand, supply and pricing and to investigate opportunities for participation and involvement in industries seeking to develop applications requiring niobium.

Background

Approximately 90% of niobium used is consumed as ferroniobium in steelmaking. The remainder is used in a wide range of smaller-volume but higher-value applications, such as high-performance alloys (which include superalloys), carbides, superconductors, electronics and functional ceramics.

Although the unit consumption is very small—fractions of a percent by weight of a tonne of finished steel—the benefits are large. Niobium additions in steel significantly increases strength, so less steel is required overall, which can reduce cost substantially. This has been the basis for the development and growth in its use of steels over the last few decades and should remain the driver in the years to come. Niobium intensity of use is relatively low in several large, steel-producing nations, such as China, but also Russia, India and Southeast Asia. The capacity for an increase in niobium intensity of use and a potential increasing usage in long products (rebar) provide an area of potential growth in niobium demand. With Chinese regulations now requiring higher ferroalloy loadings in construction, the outlook for both ferroniobium and ferrovanadium demand, looks positive.

Almost all ferroniobium supply is from three industrialised producers, two in Brazil and one in Canada. By far the largest is Companhia Brasileira de Metalurgia e Mineração (CBMM), which operates a pyrochlore mine and processing plant near Araxá in east-central Minas Gerais state in Brazil. While historically the company has operated comfortably below operational capacity, recent increases in demand translated into rising operating rates and prompted an increase its ferroniobium capacity by 50% over the period to 2021. The other major producers, Magris Resources in Canada and China Molybdenum in Brazil are thought to be operating at close to capacity.

Recent Developments

Short Term Steel Outlook

In mid-October 2021, World Steel Association released its short-range outlook for 2021 and 2022 which predicts that steel demand will grow 4.5% in 2021 and a further 2.2% in 2022.

Commenting on the outlook, Mr Al Remeithi, Chairman of the worldsteel Economics Committee, said, "*2021 has seen a stronger than expected recovery in steel demand, leading to upward revisions in our forecast across the board except for China. Due to this vigorous recovery, global steel demand outside China is expected to return earlier than expected to its pre-pandemic level this year.*

Strong manufacturing activity bolstered by pent-up demand is the main contributor. The developed economies have outperformed our earlier expectations by a larger margin than the developing economies, reflecting the positive benefit of higher vaccination rates and government support measures. In the emerging economies, especially in Asia, the recovery momentum was interrupted by the resurgence of infections.

While the manufacturing sector's recovery remained more resilient to the new waves of infection than expected, supply-side constraints led to a levelling off of the recovery in the second half of the year and are preventing a stronger recovery in 2021. But with high backlog orders combined with a rebuilding of inventories and further progress in vaccinations in developing countries, we expect steel demand will continue to recover in 2022."

Electric Vehicle Batteries

Use of niobium in electric vehicle batteries continues to gain momentum.

Echion Technologies, born out of the laboratories of the University of Cambridge Engineering Department, completed a £10M Series-A funding round in August 2021 boasting that its niobium based anode products enable a unique combination of fast-charge, safety, and high energy density.

The Series-A funding round was led by CBMM – the world's leading supplier of niobium products and BGF – the UK & Ireland's most active and dynamic investor of equity capital in growth economy companies, with the University of Cambridge, Origin Capital and other existing shareholders also taking part.

Echion advises that their materials have been successfully evaluated by major battery cell and battery materials manufacturers around the world, and that they are now moving forward to larger scale trials. The financing will allow Echion to scale-up to multi-tonne level material production, demonstrating high-yield, cost effective manufacturability as well as to supply the growing demand for material for pre-production trials.

Source: https://echiontech.com/

Nano One is another, having recently entered into a co-development agreement with Niobium producer CBMM, with the objective of optimising Nano-One's patented One pot process for nickel rich cathode materials using niobium as a coating.

Source: https://nanoone.ca/

Nyobolt, is a fast growing company also tracing its roots to Cambridge University, founded by Professor Clare Grey and Dr Sai Shivareddy to introduce ultra-fast charging batteries into the market based on a decade of research on new battery anode materials. Nyobolot's Stealth Battery can achieve full recharge in just 60 seconds using niobium and represents a step change in power density, cycle life and fast charging capability, offering 10 times that of conventional EV Battery Systems.

In August 2021, Nyobolt and Williams Advanced Engineering announced an engineering and systems integration partnership designed to support and advance an additional solution for the next generation of high-power battery systems. Nyobolt's niobium-powered lithium-ion battery technology is considered to be ideally suited to motorsport applications; a sector in which Williams Advanced Engineering is currently a leading provider supporting battery provision for Extreme E, Formula E Gen 3 and ETCR.

Source: https://nyobolt.com/

Quantum Computing

According to Harvard Business Review the quantum race is underway. Governments and private investors are pouring billions into quantum research and development. And the likes of IBM, Google, Microsoft, and Amazon are investing heavily in developing large-scale quantum computing hardware and software.

Source: https://hbr.org/2020/09/are-you-ready-for-the-quantum-computing-revolution

Quantum computers being developed by IBM rely on superconducting qubits made from aluminum and niobium that sit atop a silicon substrate.

Contrary to classical computers, which use binary digits (bits) that can have one of two states (0 or 1) at a time to solve mathematical and logical operations, a quantum computer uses quantum bits which can have two states simultaneously. It follows that two qubits can hold four values at once (00, 01, 10, and 11), three qubits can hold eight values and so forth, thereby creating a system that's exponentially more powerful than a classic computer.

Source: https://niobiumcanada.com/niobium-and-quantum-computer-chips-qubits/

The following article from *www.cnet.com* discusses the applications for quantum computing.

Amazon, IBM and Microsoft race to bring global access to quantum computing

In the heady world of quantum computing, there's a race afoot. Across the globe, tech giants are building their own machines and speeding to make them available to the world as a cloud computing service. In the competition: IBM, Google, Microsoft, Intel, Amazon, IonQ, Quantum Circuits, Rigetti Computing and the newest to uncloak its quantum computing plans, Honeywell.

They're all competing to show off their nascent ability to tackle a new class of complex computational problems.

If one player does get ahead, it could cash in on a computing revolution the way IBM did with personal computers and Apple did with smartphones. Quantum computers won't displace conventional machines, but they could offer breakthroughs impossible for classical computers to achieve, including developing new materials, cutting city traffic or making a fleet of trucks deliver packages more efficiently.

Analyst firm Tractica expects spending on quantum computing to surge from $260 million in 2020 to $9.1 billion by the end of the decade.

Though the benefits of quantum computers are mostly theoretical today, Google hopes it'll be able to offer a service to those needing truly random numbers -- a key part of encryption to keep messages and transactions secure.

As computers and algorithms mature and expertise spreads, quantum computer advocates are eager to tackle challenges beyond the reach of classical machines.

"We're using quantum to solve really important parts of problems around chemistry, material science, financial services," IBM's Garcia said.

Quantum chemistry simulations are particularly interesting, since simulating quantum-scale atomic structures is impossible aside from simple molecules, and better tools could deliver real-world benefits like cheaper fertilizer, better electric car batteries and more-powerful solar panels.

Among other examples:

- Delta Airlines is using IBM Q to try to more quickly reschedule flights after massive disruptions like hurricanes and blizzards.
- CERN, home to the world's most powerful particle accelerator, is using quantum computing to understand the universe.
- Daimler wants to create higher capacity car batteries that are cheaper and to reduce environmental impact.
- JPMorgan Chase wants to improve stock trading strategies and financial risk analysis.
- OTI Lumionics is using Microsoft's Azure Quantum in hopes it can speed up the hunt for new materials to make OLED screens used on devices like TVs, phones and tablets.
- UK startup Cambridge Quantum Computing is trying to advance cryptography for device security.
- Google and IBM see promise in improving artificial intelligence, too, for example in diagnosing disease and detecting fraud.

The use of niobium in quantum computing is further evidence in support of the claim that:

Niobium is a metal that transforms, improves materials to accelerate a disruptive, technological world.

3. Corporate

3.1 Cash at Bank

Cash at bank for the Company remains robust at 30 September 2021 with $1.902 million (30 June 2021: $2.816 million at bank on call or in term deposit.

In addition, the Company is in the process of finalising its R&D Claim for FY21 which is expected to result in a rebate in excess of $500,00.

3.2 Payments to related parties of the entity

In accordance with the requirements of ASX Listing Rule 5.3.5 the Company advises that during the quarter ended 30 September 2021, the following payments were made to directors of the Company in respect of their directors' fess (inclusive of superannuation):

	A$'000
Non-executive Directors' fees	55
Managing Director Fee	96
TOTAL	**151**

3.3 Experienced Appointments Build Globe's Project Delivery Capacity.

Globe has continued to build its project delivery organisational capabilty via the appointment of three highly experienced and skilled senior personnel; Mr Grant Hudson to the position of General Manager - Corporate Services, Mr Rex Zietsman to the position of Project Leader - Kanyika, and Mr Ravikumar Ramachandran to the position of Project Leader – Refinery, post the end of the quarter, Mr Benny Tsung has commenced work in the position of President of Global Sales and Marketing who has now commenced with Globe.

Mr Grant Hudson

Mr Hudson is a finance and law graduate with a Masters of Business Administration who has a long history in mining with extensive experience in shareholder and stakeholder relations. Prior to joining Globe, Grant was the Managing Director and Chief Executive Officer of Bikita Minerals, which has been mining lithium and tantalite in the Bikita hills of the Masvingo province in Zimbabwe for around 100 years and is the world's foremost supplier of the lithium mineral petalite. Grant's other former involvements include three years Manager of the M'beta tantalite mine in Zimbabwe and three years as Managing Director with Tantalite Holdings. Mr Hudsons primary role is stakeholder engagement in Malawi with the Government, District Administrators, Local and Traditional Communities and local media.

Mr Rex Zietsman

Mr Zietsman is a highly experienced chemical engineer with a Masters of Business Administration who has broad engineering and project management experience gained over a career of thirty-five years that has involved working across a broad range of industries and commodities including rare earths, niobium, tantalum, uranium, phosphoric acid and biomass renewable energies. Mr Zietsman recently occupied the positions of Project Manager and Mine Executive for Bikita Minerals in Zimbabwe, where he worked closely with Grant Hudson. Among other projects, he was involved in the prefeasibility study for a new spodumene concentrator and the debottlenecking of the Bikita tantalite gravity separation plant. Other significant relevant experience includes: Technical Director for AR Process Projects who participated in numerous uranium related projects including the engineering of the Pebble Bed Modular Reactor Fuel Plant programme, specialist scrubbing systems for Uranium One and a large scale slurry preheater for Paladin Energy in Namibia; consulted to Tantalite Resources in

South Africa on the solvent extraction of niobium and tantalum and the building of the new tantalum K-salt plant; was the Competent Person signatory and consultant in the development of a unique process flow for the concentrator for the Frontier Rare Earths Project in the Northern Cape of South Africa, and Study Manager for a Bankable Feasibility Study for the Botswana Development Corporation for the Selibe Phikwe Tailings to Fertiliser Project.

Mr Zietsmans' role is to deliver the engineering packages for the development and construction of the Kanyika Mine Site.

Mr Ravikumar Ramachadran

Mr Ramachandran is a twenty-seven year veteran world-class chemical engineer with a Masters of Business Administration who has vast high-level experience in chemical manufacturing and refining with specific experience in fluorine, hydrofluoric acid, sulphuric acid and petrochemicals.

Mr Ramachandran currently occupies the position of Plant Head for Raj Petro Specialities Pvt Ltd in Chennai, India where he is responsible for leading the factory team to meet the supply chain commitment in the most competitive manner in terms of cost, quality, productivity and delivery of its wide range of petroleum and lubricants for use in the industrial, automotive and food industries. Immediately prior Mr Ramachandran was Operations Manager at the Gulf Fluor chemical processing plant in Abu Dhabi in the United Arab Emirates where he was responsible for all aspects of plant operation, including manufacture, handling, safety, waste management, maintenance, reporting to regulatory authorities and statutory authorities. Other relevant experience includes employment as a Commissioning Engineer at Foster Wheeler Asia where he oversaw the commissioning of the Shell Refinery in Singapore.

Mr Ramachadrans' role is to deliver the engineering packages for the development and construction of the refinery.

The above appointments are in addition to the appointment in July 2021 of Mr Benny Tsung to oversee the Company's sales and off-take strategy. In this role, Mr Tsung has responsibility for all aspects of customer relations, working closely with Globe's financial, technical and operational teams.

Mr Benny Tsung

Mr Tsung is a former Glencore trader who has worked in commodities trading for over 15 years. He has substantial experience in advising clients on product offtake agreements and associated arrangements, including financing and logistics and is fluent in English, Mandarin, French and German. In addition, he has broad commodity exposure including most major metals, typically focussing on ores and intermediate products including iron ore, copper, zinc, lead, nickel, gold, vanadium, lithium and rare earths.

Mr Tsungs' roles is to deliver long term customer relationships for sales and marketing contracts for both niobium and tantalum that underpin project value and project financing.

Commenting on the appointments, Managing Director Alistair Stephens commented:

> "*These appointments significantly increase the Company's organisational capacity to advance the Kanyika Project through to construction and commissioning and represent a major win for Globe in what is a highly competitive and difficult market for attracting senior experienced personnel.*"

4. ASX Announcements from start of Current Quarter

The following announcements were made to Australian Stock Exchange (ASX) since the commencement of the current quarter and up to the date of this report.

Date	ASX Announcement Title
21-Oct-21	Notice of Annual General Meeting/Proxy Form
20-Oct-21	Pyrochlore Patent Technology Breakthrough
20-Oct-21	Closing Date for Director Nominations
13-Oct-21	New Appointees Build Globe's Project Delivery Capacity
28-Sep-21	Full Year Stautory Accounts
7-Sep-21	Overview of Niobium Sources, Uses, Demand and Supply
1-Sep-21	Kanyika Niobium Project - Updated Presentation
19-Aug-21	Kanyika Project Feasibility
19-Aug-21	KNP Mining Lease Granted
17-Aug-21	Trading Halt
12-Aug-21	Kanyika Project - Mining Licence Update
27-Jul-21	Update on Grant of Mining Licence for KNP
26-Jul-21	Quarterly Reports
19-Jul-21	Globe Appoints President of Global Sales and Marketing

Copies of announcements are accessible on the Company's website and on ASX at:
https://www2.asx.com.au/markets/trade-our-cash-market/historical-announcements

5. Shareholding Information

Top 20 Holders as at 22 October 2021:

#	HOLDER NAME	UNITS	%
1	APOLLO METALS INVESTMENT	245,983,611	52.79%
2	AO-ZHONG INTERNATIONAL MINERAL	118,143,062	25.36%
3	BNP PARIBAS NOMINEES PTY LTD	14,055,718	3.02%
4	CITICORP NOMINEES PTY LIMITED	8,117,769	1.74%
5	MR COLIN ROBERT SEARL+ MRS CINDY SEARL	2,717,879	0.58%
6	MR RICHARD ULRICK + MRS WENDY ULRICK	2,654,000	0.57%
7	HSBC CUSTODY NOMINEES	2,533,891	0.54%
8	GOENG INVESTMENTS PTY LTD	2,358,697	0.51%
9	BNP PARIBAS NOMINEES PTY LTD <IB AU NOMS RET CLIENT AC>	2,329,734	0.50%
10	MR JOHN ALEXANDER SMITH	2,200,000	0.47%
11	MR KELLY PETER BODMAN	1,645,618	0.35%
12	MR ANDREW CHARLES BALLARD	1,534,899	0.33%
13	MR MARK ANDREW THOMSON	1,526,500	0.33%
14	COMSEC NOMINEES PTY LTD	1,509,065	0.32%
15	BNP PARIBAS NOMINEES PTY LTD < DRP>	1,435,650	0.31%
16	MR ALISTAIR STEPHENS + MRS MECHELLE STEPHENS	1,325,000	0.28%
17	TEBIL PTY LTD < BODMAN SUPER FUND A/C>	1,310,414	0.28%
18	M & K KORKIDAS PTY LTD <M & K KORKIDAS PTY LTD A/C>	1,200,000	0.26%
18	MR MICHAEL SCHULTZ	1,200,000	0.26%
18	MR WILLIAM HAYDEN + MRS JULIE HAYDEN	1,200,000	0.26%
19	MR PAUL BURTON	1,176,470	0.25%
20	MR GRAEME ELLERY	1,000,000	0.21%
20	BNP PARIBAS NOMINEES PTY LTD <LGT BANK AG DRP>	1,000,000	0.21%
Totals: Top 20 Holders		**418,157,977**	**89.75%**
Totals: Remaining Holders		47,764,396	10.25%
Totals:		**465,922,373**	**100.00%**

Number and Distribution of Holders:

Units	Number	Total Units	%
1 – 1,000	61	3,054	0.00%
1,001 – 5,000	59	216,338	0.05%
5,001 – 10,000	77	620,944	0.13%
10,001 – 100,000	328	14,789,416	3.17%
100,001 and above	150	450,292,621	96.65%
	675	**465,922,373**	**100%**

6. Schedule of Mineral Tenements as at 30 September 2021

In accordance with the requirements of ASX Listing Rule 5.3.3 the Company provides the following information.

					Interest held by Globe	
Country	**Project**	**Type**	**Status**	**Tenement**	**30-Sep-21**	**30-Jun-21**
Malawi	Kanyika	Mining Licence	Granted	LML0216/21*	100%	0%
Malawi	Kanyika	Exclusive Prospecting Licence	Granted	EPL0421/15R	100%	100%

LML0216/21 was granted during the quarter ended 30 September 2021. Apart from this change, there were no tenements acquired or disposed of during the quarter ended 30 September 2021, nor was there any change in the ownership of existing tenements since the end of the previous quarter.

*: pursuant to the Mines and Minerals Act, the Malawi Government is entitled to a 10% free equity interest in LML0216/21, subject to formally notifying GMMA of its desire to take up its entitlement. As at the date of this report, Globe or GMMA are yet to receive any such notice.

7. Authorisation for Release

This report has been authorised for release by the Company's Managing Director, Alistair Stephens.

For further information contact:

Alistair Stephens
Managing Director
info@globemm.com
T: +61 (0)8 6118 7240

Competent Person Statement

The information in this report that relates to Exploration Results for the Kanyika Niobium Project is based on information compiled by Mr Alistair Stephens, a Competent Person who is a Fellow of the 'Australasian Institute of Mining and Metallurgy' included in a list posted on the ASX website from time to time. Mr Stephens is a full-time employee and director of Globe Mining & Metals Limited. Mr Stephens has sufficient experience that is relevant to the style of mineralisation, type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration, Results, Mineral Resource and Ore Reserves (JORC Code 2012). Mr Stephens consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

Disclaimer

This report has been prepared by Globe Metals & Mining Limited ("Company"). The material contained in this report is for information purposes only. This release is not an offer or invitation for subscription or purchase of, or a recommendation in relation to, securities in the Company and nether this release nor anything contained in it shall form the basis of any contract or commitment.

This report may contain forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Globe Metals & Mining Limited's business plans, intentions, opportunities, expectations, capabilities and other statements that are not historical facts. Forward-looking statements include those containing such words as could-plan-target-estimate-forecast-anticipate-indicate-expect-intend-may-potential-should or similar expressions. Such forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of the Company, and which could cause actual results to differ from those expressed in this report. Because actual results might differ materially to the information in this report, the Company does not make, and this report should not be relied upon as, any representation or warranty as to the accuracy, or reasonableness, of the underlying assumptions and uncertainties. Investors are cautioned to view all forward-looking statements with caution and to not place undue reliance on such statements.

The report has been prepared by the Company based on information available to it, including information from third parties, and has not independently verified. No representation or warranty, express or implied, is made to the fairness, accuracy or completeness of the information or opinions contained in this report.

The Company estimates its reserves and resources in accordance with the Australasian Code for Reporting of Identified Mineral resources and Ore Reserves 2012 Edition ("JORC Code"), which governs such disclosures by companies listed on the Australian Securities Exchange.

Appendix A: About the Kanyika Niobium Project

The Kanyika Niobium Project is located in central Malawi, approximately 55 kilometres northeast of the regional centre of Kasangu and secured by Application for Mining Licence AML0026.

An application for Mining Licence (the status of which is discussed at section 1.3 of this report) grants the Company security of tenure only, and grants no rights to the Company to market, sell or commit products or commodities, and prevents any development or operational activities, and therefore, grants no rights to relocate or disrupt communities.

Drilling programs totalling 33.8 kilometres of percussion and core drilling have confirmed the extent of mineralisation. Structured and progressive engineering studies have resulted in the current (JORC 2012) resource statement (refer below) and given rise to significant improvements and simplifications in the process flowsheet, from that first imagined.

In addition, Globe has undertaken substantial metallurgical optimisation work and commissioned a pilot plant to demonstrate and further optimise metallurgical processes. Metallurgical optimisations studies have improved recoveries from 62% in 2012 to 75% today, through simple novel patented metallurgical processes.

The Kanyika operations will produce a pyrochlore mineral concentrate that contains both niobium and tantalum in commercially valuable volumes to be shipped to a refinery for advanced processing into high purity materials.

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 Nb_2O_5 lower cut

Category	Million Tonnes	Nb_2O_5 ppm	Ta_2O_5 ppm
Measured	5.3	3,790	180
Indicated	47.0	2,860	135
Inferred	16.0	2,430	120
Total	**68.3**	**2,830**	**135**

Table 2: MRE for KNP using a 3,000 Nb_2O_5 lower cut

Category	Million Tonnes	Nb_2O_5 ppm	Ta_2O_5 ppm
Measured	3.4	4,790	220
Indicated	16.6	4,120	190
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

Appendix 5B

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity

Globe Metals & Mining Limited

ABN	Quarter ended ("current quarter")
33 114 400 609	30 September 2021

Consolidated statement of cash flows		Current quarter $A'000	Year to date (3 months) $A'000
1.	**Cash flows from operating activities**		
1.1	Receipts from customers		
1.2	Payments for		
	(a) exploration & evaluation (if expensed)		
	(b) development		
	(c) production		
	(d) staff costs		
	(e) administration and corporate costs	(518)	(518)
1.3	Dividends received (see note 3)		
1.4	Interest received	1	1
1.5	Interest and other costs of finance paid		
1.6	Income taxes paid		
1.7	Government grants and tax incentives		
1.8	Other (provide details if material)		
1.9	**Net cash from / (used in) operating activities**	**(517)**	**(517)**

2.	**Cash flows from investing activities**		
2.1	Payments to acquire:		
	(a) entities		
	(b) tenements		
	(c) property, plant and equipment	(34)	(34)
	(d) exploration & evaluation (if capitalised)	(368)	(368)
	(e) investments		
	(f) other non-current assets		

Consolidated statement of cash flows		Current quarter $A'000	Year to date (3 months) $A'000
2.2	Proceeds from the disposal of:		
	(a) entities		
	(b) tenements		
	(c) property, plant and equipment		
	(d) investments		
	(e) other non-current assets		
2.3	Cash flows from loans to other entities		
2.4	Dividends received (see note 3)		
2.5	Other (provide details if material)		
2.6	**Net cash from / (used in) investing activities**	**(402)**	**(402)**

3.	**Cash flows from financing activities**		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)		
3.2	Proceeds from issue of convertible debt securities		
3.3	Proceeds from exercise of options		
3.4	Transaction costs related to issues of equity securities or convertible debt securities		
3.5	Proceeds from borrowings		
3.6	Repayment of borrowings		
3.7	Transaction costs related to loans and borrowings		
3.8	Dividends paid		
3.9	Other (provide details if material)		
3.10	**Net cash from / (used in) financing activities**		

4.	**Net increase / (decrease) in cash and cash equivalents for the period**		
4.1	Cash and cash equivalents at beginning of period	2,816	2,816
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(517)	(517)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(402)	(402)
4.4	Net cash from / (used in) financing activities (item 3.10 above)		

Consolidated statement of cash flows		Current quarter $A'000	Year to date (3 months) $A'000
4.5	Effect of movement in exchange rates on cash held	5	5
4.6	**Cash and cash equivalents at end of period**	**1,902**	**1,902**

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter $A'000	Previous quarter $A'000
5.1	Bank balances	1,902	2,816
5.2	Call deposits		
5.3	Bank overdrafts		
5.4	Other (provide details)		
5.5	**Cash and cash equivalents at end of quarter (should equal item 4.6 above)**	**1,902**	**2,816**

6.	Payments to related parties of the entity and their associates	Current quarter $A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	151
6.2	Aggregate amount of payments to related parties and their associates included in item 2	

Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments

The payments made to directors of the entity and their associates reported at 6.1 were comprise as follows:

	A$'000
Non-executive Director's fees	47
Managing Director Fee	96
Superannuation	7
TOTAL	**151**

7.	**Financing facilities** *Note: the term "facility' includes all forms of financing arrangements available to the entity.* *Add notes as necessary for an understanding of the sources of finance available to the entity.*	**Total facility amount at quarter end $A'000**	**Amount drawn at quarter end $A'000**
7.1	Loan facilities		
7.2	Credit standby arrangements		
7.3	Other (please specify)		
7.4	**Total financing facilities**	-	-

7.5	**Unused financing facilities available at quarter end**	-
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.	

8.	**Estimated cash available for future operating activities**	**$A'000**
8.1	Net cash from / (used in) operating activities (Item 1.9)	(517)
8.2	Capitalised exploration & evaluation (Item 2.1(d))	(368)
8.3	Total relevant outgoings (Item 8.1 + Item 8.2)	(885)
8.4	Cash and cash equivalents at quarter end (Item 4.6)	1,902
8.5	Unused finance facilities available at quarter end (Item 7.5)	
8.6	Total available funding (Item 8.4 + Item 8.5)	1,902
8.7	**Estimated quarters of funding available (Item 8.6 divided by Item 8.3)**	**2.15**

8.8 If Item 8.7 is less than 2 quarters, please provide answers to the following questions:

1. Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?

Answer: N/a

2. Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?

Answer: N/a

3. Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer: N/a

Compliance statement

1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.

2 This statement gives a true and fair view of the matters disclosed.

26 OCTOBER 2021

Date: .....

ALISTAIR STEPHENS – MANAGING DIRECTOR

Authorised by: .....
(Name of body or officer authorising release – see note 4)

Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.

2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.

3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.

4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [*name of board committee – eg Audit and Risk Committee*]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".

5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.