25 July 2022

The Manager,
Companies Announcements Office
ASX Limited
Level 8 Exchange Plaza
2 The Esplanade
PERTH WA 6000

Dear Sir/Madam,

Kanyika Niobium Project Brief Update

Globe Metals & Mining Limited (ASX: **GBE) (Globe** or the **Company**) is pleased to provide the following brief update with respect to the Kanyika Niobium Project (**KNP**).

Mining Development Agreement Approval

As announced on Friday, 22 July 2022, Globe is extremely pleased that the finalisation and execution of a Mining Development Agreement for the KNP with the Malawi Government is nearing completion as it provides clarity and surety around tenure, developmental timelines and the fiscal regime pertaining to the KNP.

Technology Partnership for Production of Ferro-Niobium

Globe is currently working with a technology partner, commercial in confidence, whose patented technology does not use carbon and uses renewable energy to manufacture steel and other metals.

The technology is green, cost competitive, modular and scalable and is intended to be deployed to enable Globe to produce a 65% ferro-niobium concentrate at the KNP mine-site.

Currently approximately 90% of all niobium produced is consumed by the steel industry as ferro-niobium which is used in High Strength Alloy Steels for the construction, automation, pipeline, aerospace and defence sectors.

The composition of Globe's KNP ore concentrates have been analysed and determined by the technology partner to be highly suitable feedstock for this process. Consequently, Globe is in the process of making arrangements for a bulk concentrate to be processed for confirmatory analysis.

Further details in relation to this technology will be provided in due course.

Technology Partnership for Production of Niobium Oxides

Globe is also working with TCM Research Limited, an international group with offices in Ireland, Canada and South Africa, which has developed advanced technology around the production of niobium, tantalum and other metals. This technology is capable of producing metal, metal alloys and advanced metal composite powders and can be used to tailor the end product with regard to crystal size, morphology, porosity, hardness density and form.

TCM's technology is expected to assist Globe to produce high-grade niobium and tantalum oxides that will be highly suitable for the electric vehicle battery, automotive, electronics and medical industries.

TCM is in advanced stages of planning for construction of a manufacturing plant in Zambia, providing Globe with the options of potential processing its ore concentrates through TCM's proposed Zambian manufacturing facility or a scaled-down version on KNP mine-site.

The demand for niobium oxides is reported to being growing rapidly due to the demand from electrical vehicles market, with parties involved in the industry forecasting to Globe that they expect the value of the niobium oxide market to rival that of ferro-niobium market by the end of the decade.

Commenting on these latest technology developments, Globe's CEO Grant Hudson commented as follows:

> "*The potential to produce ferro-niobium is in my view a game-changer for Globe. The original full feasibility assumed that Globe would produce solely oxide products, as the production of ferro-niobium was not cost competitive.*
>
> *Similarly, the TCM technology offers the ability to use the KNP concentrates and waste from the ferro-niobium process to produce high quality niobium and tantalum oxides and to separately recover other valuable contained metals.*
>
> *The combination of these new technologies which are expected to be complementary ought allow Globe to tailor its product mix and specifications for customer requirements and to optimise financial returns*."

Offtake and Distribution

Apart from ongoing early-stage discussions with potential customers in the electric vehicle industry, Globe is also in discussions with Core International LLC in relation to arrangements for the sale and distribution of products from the KNP.

Core is an international company with offices based in U.A.E., Russia and India, and is active in the niobium industry representing existing niobium industry participants in Asia.

Core is assisting Globe with an understanding of the market, opportunities, and recommendations as to product mix and specifications with a view to representing Globe primarily in the Asian market.

Phase One Feasibility

Globe has been working on a feasibility study into a phased approach to construction and operation so as to enable Globe to commence operations on a smaller scale and to build its business (customers, products, etc) prior to initiating full-scale operations.

Phase One Feasibility is nearing finalisation and is expected to be released once the technologies for conversion of KNP concentrates into ferro-niobium and oxides have been fully costed and the MDA issued.

This announcement was approved by Globe CEO Grant Hudson.

For further information contact:

Grant Hudson
Chief Executive Officer
gh@globemm.com