

Magnis Resources

L I M I T E D

FOR RELEASE
7 October 2015

SUPERIOR EXPANDABLE GRAPHITE AND HIGH GRADE CONCENTRATES ACHIEVED

- **Superior expandable graphite properties at 2.3 g/L for Jumbo and 4.6 g/L for Large product without HF/HCl acid purification**
- **Greater than 99% TGC in -300 micron concentrate product now regularly achieved from flotation process**
- **Super Jumbo (+500 microns) and Jumbo (+300 microns) concentrates unaffected in modified process**
- **Highly crystalline flake with d002 < 3.35 for Jumbo and Large (+180 microns) product**
- **Premium priced product achieved with no chemical treatment**
- **Simple process consisting of 1 rougher and 3 cleaner flotation stages**

Magnis Resources Limited (ASX:MNS) is pleased to provide an update on the continuing engagement with potential end users for the graphite flake sourced from its Nachu deposit in Tanzania.

With natural graphite, the quality of the flake in ore is an important determinant in the quality of products generated from it. To date the graphite from Nachu is demonstrating very good crystal properties in the ore and the products derived from it, attaining high specifications in a range of applications.

With the recent granting of a Special Mining Licence (SML) for the Nachu Project, Magnis has ramped up its engagement with potential end users of both natural and synthetic graphite to:

- demonstrate the versatility of the natural graphite flake from Nachu for both traditional and emerging technology applications;
- scope developments in the graphite market to target premium priced products that can be supplied in a more sustainable and cost effective manner; and
- ensure that future processing at the mine site achieves maximum flexibility with the smallest environmental footprint and lowest cost.

Magnis' CEO Dr Frank Houllis commented: "The quality of the natural graphite flake from Nachu continues to demonstrate its versatility across a range of applications. Importantly, high specifications were achieved in products generated using cost effective processes with a decreased environmental footprint. With the recent granting of the SML for Nachu, it is notable that the flotation process

selected for detail design has not changed. Magnis is therefore proceeding as planned with the engineering design for the Nachu project.”

The metallurgical program for generating samples provided to end users has primarily focused on the selected flotation process consisting of one rougher flotation stage followed by three cleaner flotation stages. When processing the composite sample derived from a wide cross section of drill holes, graphite concentrates at >98% TGC are now being produced with the +180 microns fraction regularly achieving grades in the order of 99.2% TGC. Characterisation of the flotation product according to the various sizes of graphite in the concentrate revealed highly crystalline graphite flake. In particular, X-ray Diffraction of the +300 and +180 micron products, derived d002 values of <3.35. Good crystal properties is an important prerequisite in many applications, including emerging technology applications.

In testing for some graphite applications, chemical treatment via a caustic bake (300°C) acid leach process with no hydrofluoric acid (HF) or hydrochloric acid (HCl) was applied to the flotation concentrate product. The chemically purified graphite generated measured 99.8% TGC and expansion of the +300 and +180 micron products resulted in respective expansion weights of 2.3 g/L and 4.6 g/L. Whilst this demonstrates the ability to make low halide content expanded graphite from Nachu, there is further work at hand at decreasing the environmental footprint of the purification step. Nevertheless, the caustic bake/acid leach process uses relatively benign chemicals and produces wastes that are readily treated in an environmentally acceptable manner.

Metallurgical development with end user engagement is an ongoing process aimed at ensuring future acceptance of Nachu graphite and the optimum performance in terms of product specification, cost and environmental footprint. Such work is being carried out in the confines of the existing flotation process to ensure mine development is not impacted.

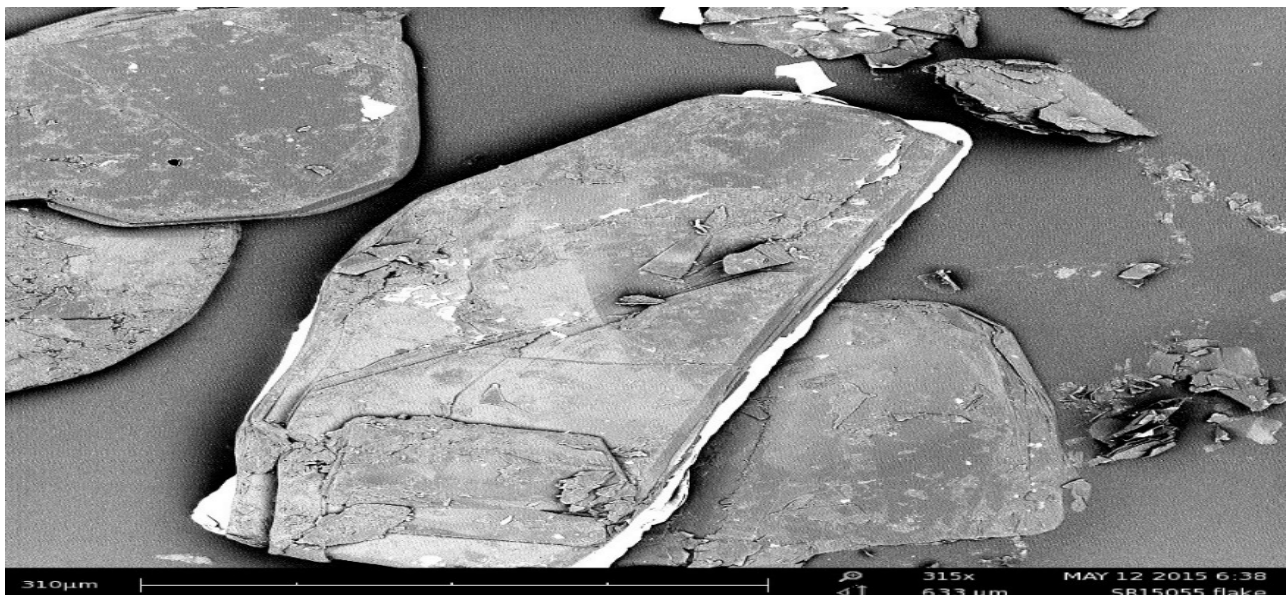


Figure 1: SEM of Nachu Graphite Flake



Figure 2: Location of the Nachu Graphite Project

Dr Frank Houllis
 Chief Executive Officer
 Magnis Resources Limited
 For further information: +61 2 8397 9888

Information in this report that relates to Exploration activities and Exploration results is based on information compiled by Mr Brent Laws, a Competent Person who is a registered member of the Member of the Australasian Institute of Mining & Metallurgy. Mr Laws is a full time employee of Magnis Resource Limited and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined by the 2012 Edition of the Australasian Code for reporting of Exploration Results. Mr Laws consents to the inclusion of the data in the form and context in which it appears.