

# GRAPHMADA GRAPHITE MINE OPERATIONAL UPDATE

### **HIGHLIGHTS**

- Bass Metals Ltd continues to progress optimization and refurbishment works at its 100% owned Graphmada Graphite Mine, remaining on track to deliver Stage 1: the establishment of 6000tpa production of premium graphite concentrates.
- The Process Plant has been de-commissioned, with civil works underway to prepare for arrival and install of new equipment.
- The New Dryer is in transit to site, while civil works are underway in preparation for its installation.
- Bass Metals continues to make sales of concentrates to maintain customer relationships.



Figure 1: Process Plant with civil work underway to extend foundations and reconfigure equipment layout.



Bass Metals Limited (ASX: "BSM") (the "Company") is pleased to provide an update on its optimization and refurbishment of the Graphmada Graphite Mine, located in Madagascar.

### MINE HEALTH AND SAFETY UPDATE

While optimization and refurbishment of the mine has been in progress, significant time has been allocated to the continued training of the workforce in safe working procedures, with additional education in health and hygiene.

Another significant safety initiative has been realized at Graphmada with the arrival of two Fire Fighting Trailers. The trailers are critical equipment required for mine recommissioning and camp safety.



Figure 2: Unloading of the new Fire Fighting Trailers at Graphmada.

### PRODUCTION UPDATE

All production has ceased at the Process and Drying Plants to allow civil works and subsequent major equipment installation. The mine has 332 tonnes of graphite concentrates in stock, of which 100 tonnes have been sold this quarter as part of maintaining regular supplies, albeit in reduced quantities, to Graphmada's main customers.



#### Table 1: Current Stock

Concentrate Grade (Fixed Carbon %)	+50	+80	-80	-100
85% – 90%	17	45	83	8
90% – 95%	33	43	69	33
Total	50	88	152	42

Table 1: Current concentrate stock held at Graphmada.

### MARKET UPDATE

The flake graphite market looks to have stabilized in the wake of the Chinese export duty removal.

Some minor pressure was reported on prices out of China as a result of higher shipping costs, however discounted offers from suppliers seeking to reduce inventories kept average prices stable.

Supply pressure across larger flake grades continues to grow, reflected in higher prices for +80 and +50 mesh concentrates. This pressure comes from the prospect of further closures in China, limiting flake graphite concentrate production in the Shandong province. Recent environmental restrictions on bauxite and magnesia mining raise the possibility of further restrictions being implemented on the flake graphite mining sector, in turn further pressuring prices for large flake concentrates throughout the remainder of the year.

In addition to tightening supply of large flake out of China, it has been confirmed that a significant large flake producer in Madagascar has ceased production due to underinvestment in its production line and resource development. It appears that Bass is now the only producer in Madagascar of large flake graphite to the open market, and one of the few globally outside of Brazil and the diminishing flake supply from China.

These supply-side pressures are being met by some increased demand for larger mesh concentrates from industrial markets. Brazil, Germany and the US all reported strong growth in steel production throughout Q1 2017, compensating the marginal decline in Asian output and prompting market optimism.

The market is now seeing the beginnings of a cross over of rising demand and decreasing supply of large flake graphite concentrates, with signs a divergence in pricing



between small and large flake concentrates will continue to develop over the coming months.

With the delivery of Stage 1 at Graphmada in calendar year 2017, Bass will emerge as a low cost (1<sup>st</sup> quartile) producer of high quality concentrates as these supply and demand fundamentals begin to pressure large flake pricing.

Through positive cash flow from Stage 1 production of 6,000tpa, the Company, over the course of 2018/19, will progress towards its intended Stage 2 expansion of 20,000tpa with decreasing costs of production and decreasing capital intensity.

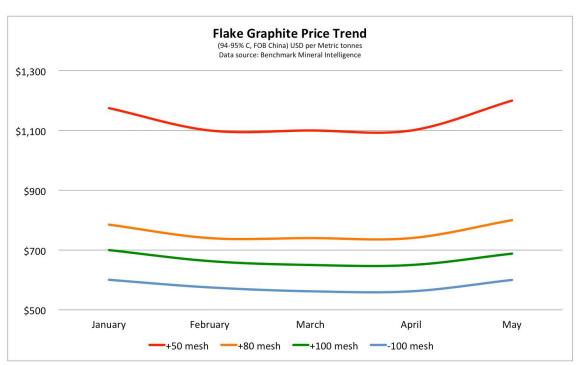


Figure 3: Flake graphite prices for year to date 2017.



## OPTIMISATION & REFURBISHMENT PROGRAM UPDATE

The first stage of the refurbishment has been successfully completed, with the Process Plant decommissioned and disassembled in part.

- Final equipment placing and orientation checked and confirmed
- Completed manufacture of mixing tank onsite
- Commenced manufacture of Spinners feed bin and Main feed bin onsite
- Began earthworks for sizing level, reshaped ore feed ramp
- Completed installation of the spinners retaining wall
- Removed electrical controls & instrumentation from control room
- Screen test work for optimal flake size range complete
- Screen manufacturing underway
- Old drying plant components completely removed
- Major equipment manufacturing underway and on-time for delivery
- Decommissioned Process Plant equipment removed and scraped
- Rod mill concrete pad refurbishment commenced
- All civil works on track according to revised schedule
- Extension of flotation line commenced (retaining wall, drainage and backfill)
- Extension of re-grind line commenced
- Began trenching for fiber optic internet upgrade



Figure 4: Civil works underway for re-grind line extension.



Figure 5: Onsite manufacturing of components in the recently completed workshop, now fully tooled.



Figure 6: Onsite manufacturing of components a key element of low capital expenditure.



Figure 7: Refurbishment of decommissioned rotary dryer drum to become the new Spinners feed bin.



Figure 8: Trenching for installation of fibre optic Internet cable to Process Plant.



Figure 10: New Stores protocols and item tracking in place.



Figure 11: Specialist workshop equipment delivered and installed, with many required items being fabricated for equipment and plant refurbishment.



# BASS METALS CEO, MR TIM MCMANUS:

"With optimization and refurbishment activities delivering production of high value concentrates in 2017, and Bass the only industrial minerals company on the ASX capable of entering all graphite market segments at premium pricing levels, the team has delivered in a very short period of time a direct line of sight to positive cash flow with significantly reduced risks to our shareholders.

From our 100% owned Graphmada Mine we'll see an increased production profile in 2017 to a 6000tpa run-rate (Stage 1) of high quality concentrates, moving rapidly towards production of 20,000tpa in 2019 (Stage 2), delivered at a lower capital intensity and with significant economies of scale savings. This strategy will see Bass become a mid-tier producer of industrial mineral concentrates."

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### ABOUT THE GRAPHMADA LARGE FLAKE GRAPHITE MINE

Bass Metals Ltd. is one of only three publicly listed graphite producers in the world. The company 100% owns and operates the Graphmada large flake graphite mine, Bass' flagship project, located in eastern Madagascar. Madagascar has been a recognized producer and exporter of premium graphite for over 100 years and sets the world standard for product quality and flake size.

The Graphmada mine has 40-year mining permits in place, containing four



premium quality, large flake, graphite deposits hosted in weathered graphitic gneiss, a soft, easily minable rock that incurs low mining costs. With all associated mining infrastructure and logistics in place, the mine currently produces and sells a range of graphite concentrates into multiple market segments, to customers in India, the United States and Europe.

With the aim of generating revenue through lowest quartile cost production, the mine is currently being optimized by an experienced management team to 6000 tonnes per annum (Stage 1) with improved final graphite concentrate grades, in order to grow cash margins.

Graphmada also has significant potential for low capital intensity expansion. Bass plans to invest capital to expand production to greater than 20,000 tonnes per annum (Stage 2) of graphite concentrate sales by 2019.

In addition to exploring the greater mineralization potential of Madagascar, the Company has also made the strategic decision, in parallel with the optimization of Graphmada, to actively explore and develop deposits in the immediate proximity to the mine, to materially expand its resource inventories.

The Loharano deposit has provided the bulk of the feed to the Graphmada processing plant and has total JORC compliant Indicated and Inferred resources of 5.7Mt @ 4.1% Grade with a 2% cut-off<sup>1</sup>. This mineralization is known to go to depth with increasing grade, and is open in all directions.

With the Company having a strong community engagement program and being well down the path in achieving its optimization plans and growing its resource inventory, the team at Bass is confident of its plans for expansion and its future value creation for shareholders.

## **DISCLAIMER & CAUTIONARY STATEMENTS**

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<sup>&</sup>lt;sup>1</sup> These estimates were prepared and first disclosed by Stratmin Global Resource PLC under the JORC Code 2004. The estimates



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## COMPETENT PERSON STATEMENT

The information in this document that relates to Exploration Results is based on information compiled by Tim McManus, a Competent Person who is a member of the Australasian Institute of Mining and Metallurgy and a full-time employee of the Company.

Tim McManus has sufficient experience that is relevant to the style of mineralization and 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 Resources and Ore Reserves.

Tim McManus consents to the inclusion of the information in this document in the form and context in which it appears.