



ORE SORTING TESTWORK UNDERWAY FOR MCINTOSH GRAPHITE

Highlights

- GCM has identified pre-concentration technology as a potential key tool in reducing the overall carbon footprint of any future mining operation at McIntosh.
 - Ore sorting pre-concentration testwork has been initiated with leading ore sorting provider TOMRA. The technology can separate high-grade ore from waste before it enters the processing plant.
 - By processing only high-grade ore, energy consumption can be reduced, leading to lower operating costs and reduction of the carbon footprint.
 - Tailings facilities can further be significantly reduced in size leading to further ESG benefits.
 - Previous scoping test results from TOMRA suggested that the waste interbedding within the graphitic material can be detected and removed easily at the Emperor deposit leading to significant head grade uplift.
 - GCM believes ore sorting technology can potentially have a significant impact on the sustainability and profitability of any future mining operation at McIntosh.
 - GCM is committed to becoming one of the most sustainable graphite producers globally and is confident in delivering on its goal.
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Green Critical Minerals Pty Ltd (“GCM” or “the Company”) which holds earn-in rights for up to 80% of the advanced Ultra High Purity McIntosh Graphite Project (see CML’s announcement on 18 November 2022) is pleased to announce that it has identified pre-concentration technology as a means to reduce the emissions associated with the processing of graphite. The company has initiated ore sorting pre-concentration testwork with TOMRA, a leading ore sorting provider. See Figure 1 below which shows the basic operating principle of ore sorting technology.

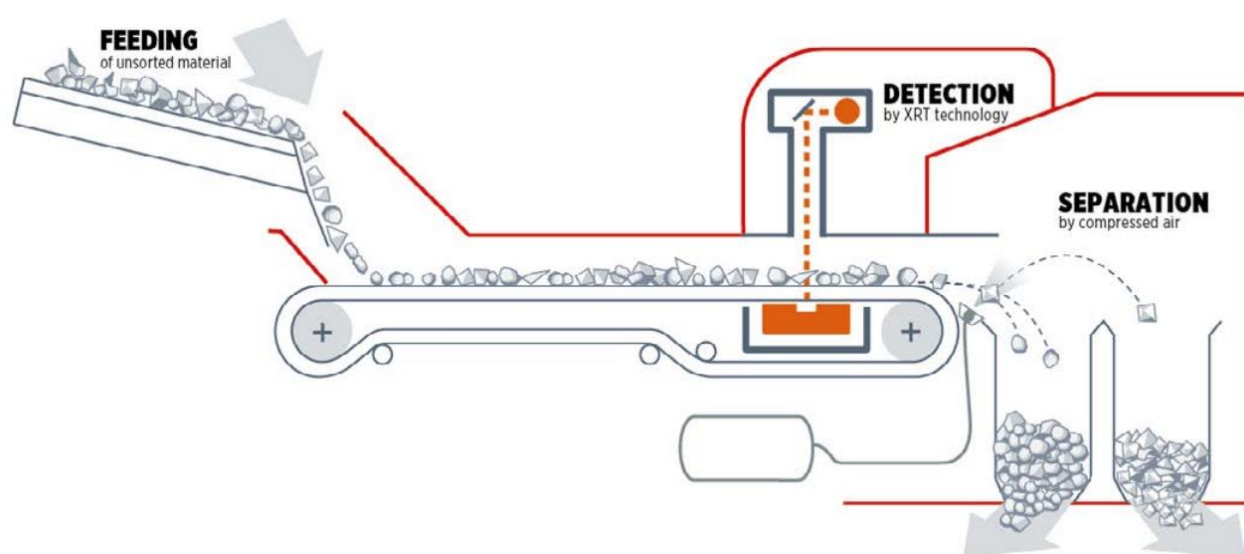


Figure 1: Tomra Ore sorting process

Preliminary testwork on the utilisation of ore sorting technology was undertaken on core samples from the McIntosh graphite deposit back in April 2017. (Refer to ASX:HXG announcement June 2017 quarterly activities and cashflow report – 17/10/17). Initial results were positive and suggested that the waste interbedding within the graphitic host unit could effectively be identified and removed via ore sorting technology. GCM is now building on this initial testwork by sending representative core from the Emperor deposit for further processing and analysis with TOMRA’s latest sorting technology.

A typical core tray (Figure 2) from Emperor deposit is shown below. Highlighted in red are waste interbedding layers within the graphitic schist unit. By removing these waste bands via ore sorting technology the head grade of the material fed to the mill can increase. Further to this, as only high-grade material would be sent to milling circuit, there is potential to reduce the size and therefore CAPEX for milling equipment and tailings facilities.



Figure 2 - Typical Core Tray from Emperor deposit displaying waste interbedding (highlighted in red) within the graphitic host

GCM's CEO, Mark Lynch-Staunton, commented:

"The results of the ore sorting pre-concentration testwork will provide GCM with valuable information on the potential benefits of this technology and how it could be integrated into its operations. GCM believes that pre-concentration technology can potentially have a significant impact on the sustainability and profitability of any future mining operation at McIntosh.

GCM remains committed to delivering value for its shareholders from the McIntosh Project while operating in a responsible and sustainable manner. The Company will continue to explore new technologies and best practices to reduce its environmental footprint and ensure the long-term sustainability of any future operation".

Next steps/ Future news flow

- Petrographic analysis from exploration targets to establish flake size
- Preliminary Ore sorting results
- Heritage survey over proposed exploration areas
- Maiden Drill program commencement
- Metallurgical testwork results
- Battery Anode qualification testwork commencement
- Process plant design completion
- Downstream Scoping study delivery
- Delivery of updated McIntosh Pre-Feasibility study



Authorisation

The provision of this announcement to the ASX has been authorised by the board of directors of Green Critical Minerals Limited.

Green Critical Minerals confirms that it is not aware of any new information or data that materially affects the exploration results contained in this announcement.

Forward Looking Statements

Statements contained in this release, particularly those regarding possible or assumed future performance, costs, dividends, production levels or rates, prices, resources, reserves or potential growth of Green Critical Limited, are, or may be, forward looking statements. Such statements relate to future events and expectations and, as such, involve known and unknown risks and uncertainties. Actual results and developments may differ materially from those expressed or implied by these forward-looking statements depending on a variety of factors.