

4 June 2019

ASX Announcement

Test results deliver high value expandable graphite specifications

- **Results from testing on the Maniry Project concentrate demonstrates suitability for the production of high demand expandable graphite**
- **The results indicate that concentrate is suitable for the production of high value graphite foil and other related products**
- **Positive indications for relatively simple purification of the concentrate would yield even higher expansion volumes and further test work has been initiated**

BlackEarth Minerals NL (**ASX: BEM**) ("**BlackEarth**", the "**Company**") is pleased to announce that it has received test report results on BlackEarth concentrate from the Maniry project. Testing was undertaken by German independent graphite specialist, NGS Trading and Consulting ("**NGS**") and these results will be used as part of the current offtake discussions/agreements, funding, product development and general collaboration discussions, in relation to the Maniry Graphite Project.

The objective of the initial test work program was to demonstrate the potential for high-demand product from the Company's Maniry Project.

Key outcomes from the NGS report stated:

- **Based on the preliminary tests undertaken, the largest expansion volume achieved was 400 cm³/g which exceeded the industry benchmark rate of 250 cm³/g. The report states that "even larger expansion volumes should be possible", from further systematic tests to determine optimal processing conditions**
- **Key attributes towards producing an attractive expandable product including moisture, portion of volatile matter, loss on ignition (LOI), carbon content and ash content were all deemed positive**
- **The lack of hard minerals in the concentrate indicate a relatively easy purification of the flake graphite for the production of graphite foil, lubricants, etc**
- **The absence or very low content of CaCO₃ is an indication that the BEM flake graphite is suitable for the application in the refractory industry and for many other applications**
- **The report also stated that "The flake graphite flotation concentrate is well suited for the preparation of expandable graphite. We could not find any restriction which would limit the application of this kind of flake graphite".**



Image 1 - Photos of BEM product from NGS following expandability test work

BlackEarth Managing Director Tom Revy Commented: “The initial expandable test work results are extremely pleasing and potentially add a further high value market for Maniry’s concentrate. We have already initiated further and more detailed battery and expandability test work which is currently being undertaken in Germany by Dorfner ANZAPLAN, which will be complete in several months. The Board believes that product diversity is paramount to reducing future development and operational risk”.

China is forecast to require a total of 40Mtpa of fire-retardant building materials per year and 5% of this product is made up of graphite, which equates to 2 million tonnes of high quality graphite per year being consumed by the Chinese construction industry alone. NGS’s report on concentrate from BlackEarth’s Maniry Graphite project demonstrates its suitability for the production of high demand expandable graphite, coupled with the recent appointment of Austmin as strategic graphite offtake advisors, strongly positions BlackEarth to become a leading global supplier of graphite.

Flake Size	(microns)	Mesh	Master Composite	
			Mass (%)	TGC (%)
Super Jumbo	>500	38	2.8	95.8
Jumbo	300 - 500	50 - 38	17.3	96.1
Large	180 - 300	80 - 50	29.8	95.6
Medium	150 - 180	100 - 80	9.1	95.0
Small	75 - 150	200 - 100	23.6	96.8
Fine	<75	-100	17.4	96.1

Table 1 – Concentrate Size and Grade Distribution the Maniry Graphite Project

CONTACTS

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BlackEarth encourages investors to update their contact details to stay up to date with Company news and announcements here: <http://www.blackearthminerals.com.au/update-details/>

Competent Persons Statement

The information in this document that relates to metallurgical test work results is based on information reviewed by Mr David Pass, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Pass is an employee of BatteryLimits. Mr Pass has sufficient experience relevant to the mineralogy and type of deposit under consideration and the typical beneficiation thereof to qualify as a Competent Person as defined by the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code, 2012 Edition). Mr Pass consents to the inclusion in the report of the matters based on the reviewed information in the form and context in which it appears.

About BlackEarth Minerals NL

BlackEarth Minerals NL (ASX:BEM) is an ASX listed company focussed primarily on the development of its 100% owned Madagascan Maniry and Ianapera graphite projects.



The location of the Company's primary graphite projects: Madagascar (Maniry & Ianapera - above)

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement for the scoping study results; and that all material assumptions and technical parameters underpinning the estimates of forecast financial information derived from a production target as outlined below continue to apply and have not materially changed.

Project Life	10 Years
NPV @ 10% pre-tax	US\$ 103M
IRR pre-tax	42%
Project CAPEX Stage 1	US\$ 41M (500ktpa ore)
Project CAPEX Stage 2	US\$ 29M (1Mtpa ore)
Payback for Stages 1 & 2	3.7 years (Stage 1 - Only 2.7 years)
Annual graphite production	Av 30ktpa (Stage 1 – Years 1-3) Av 60ktpa (Stage 2 – Years 4+)

Project	Deposit	Tonnes (Mt)	TGC Grade (%)	Contained Tonnes (t)
Maniry	Razafy - Indicated	8	7.22	677,600
	Razafy - Inferred	3.2	6.8	217,600
	Razafy - Total	11.2	7.1	795,200
	Haja - Inferred	9	5.79	521,100
	Haja Total	9	5.79	521,100
	Total Resources	20.2	6.51	1,316,300

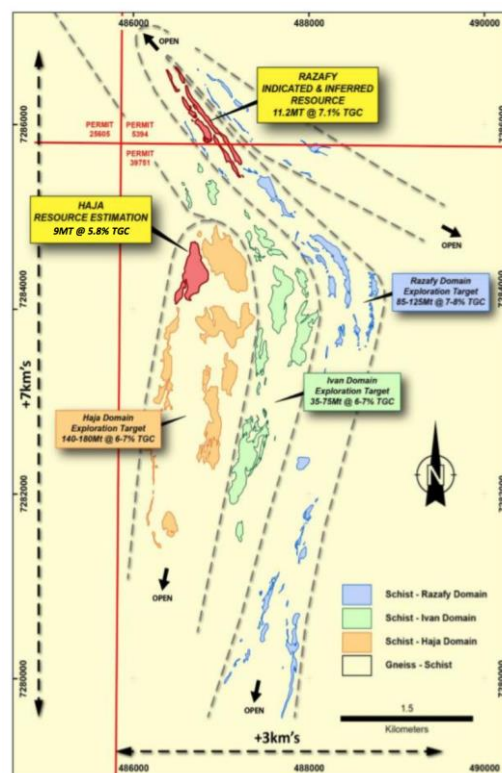
Razafy – Resources reported at 6% TGC with cut off constraining wireframe solids defined at a nominal 3% cut off grade

Haja – Resources reported at 5% TGC cut off with cut off constraining wireframe solids defined at a nominal 15% cut off grade

For Razafy CP statement refer to ASX release 14 August 2018 – “Update to Razafy Resources Estimation”

or Haja CP statement refer to ASX release 27th December 2018 – “Maiden Resource “ Estimation for Haja”

For Maniry Exploration Target refer to ASX release 14 August 2018 – “Update Maniry Exploration Target”



Maniry Graphite Project – Overview

For Maniry exploration target refer to ASX release 14 August 2018 “Update Maniry Exploration Target”