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# **ASX Announcement**

# Clarification of Maniry Graphite Project Sensitivities

BlackEarth Minerals NL (ASX: BEM) ("BlackEarth", the "Company") has previously announced that a focus during the Feasibility Study for the Maniry Graphite Project will be maximising basket price through further metallurgical test work, and further exploration to enhance feed grade because an increase in feed grade from 6.3% to 7.3% results in a project NPV of US\$152m and an IRR of 55% (for example in the slide titled "Financial Return\*" in the presentation released by the Company on 30 January 2019 in the announcement titled "BEM progressing to full feasibility").

The project NPV and IRR in the case of a 7.3% feed grade is derived from the sensitivity analysis contained within the scoping study for the Maniry Graphite Project announced on 30 January 2019. Graphs from the Scoping Study showing the sensitivity analysis (and now plotting in red the position in the case of a 7.3% feed grade) are extracted below and on the following page as Figures 1 and 2.

The purpose of the disclosures was to explain one of the Company's focuses during the Feasibility Study in terms of the previously announced sensitivity analysis. No new work or information underpins the disclosures and the Production Targets and the forecast financial information for the Maniry Graphite Production remain as disclosed in the scoping study.

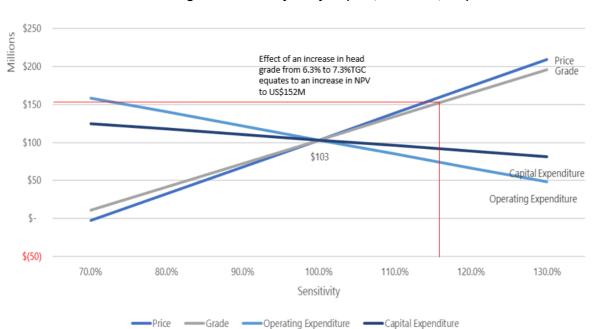


Figure 1 Sensitivity Analysis (NPV, before tax, real)

80% Price Effect of an increase in head 70% grade from 6.3% to 7.3%TGC equates to an increase in IRR 60% 50% 41.9% Capital Expenditure 30% Operating Expenditure 20% 10% 70.0% 80.0% 90.0% 100.0% 110.0% 120.0% 130.0% Sensitivity

Figure 2 Sensitivity Analysis (IRR, before tax, real)

# **Scoping Study: Cautionary Statements**

Operating Expenditure

Capital Expenditure

The Scoping Study, completed by BatteryLimits in Perth, was based on extensive metallurgical testing, including variability work, completed on the Company's Indicated Resource only. Full details are contained in the ASX Release dated 30 January 2019.

The Scoping Study referred to in the announcement dated 30 January 2019 has been undertaken in regards to providing the outcomes for the Maniry Graphite Project inclusive of a sensitivity analysis across a number of key parameters. The Scoping Study is a preliminary technical and economic study of the potential viability of the Maniry Graphite Project. It is based on low level technical and economic assessments that are not sufficient to support the estimation of ore reserves.

Further exploration and evaluation work and appropriate studies are required before BlackEarth will be in a position to estimate any ore reserves or to provide any assurance of an economic development case. The Scoping Study is based on the material assumptions outlined in the ASX announcement dated 30 January 2019. These include assumptions about the availability of funding. While BlackEarth considers all of the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the Scoping Study will be achieved.

To achieve the range of outcomes indicated in the Scoping Study, funding will be required for both the feasibility study and the capital required to implement phases 1 and 2 of the Project and are currently estimated to be in the range of USD\$40-70 million. Investors should note that there is no certainty that BlackEarth will be able to raise that amount of funding when needed. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of BlackEarth's existing shares. It is also possible that BlackEarth could pursue other 'value realisation' strategies such as a sale, partial sale or joint venture of the project. If it does, this could materially reduce BlackEarth's proportionate ownership of the project, which is currently 100%.

Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the Scoping Study.

Table 1 Scoping Study Results

Financial Performance Summary	LOM	
Project Life (processing)	(years)	10.0
Total LOM Net Revenue	(US\$ M, real)	629.5
Total LOM EBITDA	(US\$ M, real)	309.7
Total LOM Net Cash Flows Before Tax	(US\$ M, real)	222.3
Total LOM Net Cash Flows After Tax	(US\$ M, real)	177.8
NPV @ 10.0% - before tax	(US\$ M, real)	103.3
NPV @ 10.0% - after tax	(US\$ M, real)	78.4
IRR - before tax	(%, real)	41.9%
IRR - after tax	(%, real)	35.4%
Project Capital Expenditure - Stage 1 (Year 0)	(US\$ M, real)	41.0
Project Capital Expenditure - Stage 2 (Year 3)	(US\$ M, real)	28.7
Sustaining Capital Expenditure - (LOM)	(US\$ M, real)	16.6
Operating cost FOB (Port of Ehoala)	(US\$ /t, real)	593
Payback Period - before tax-from 1st ore Phase 1	(years)	2.7
Payback Period - before tax-from 1st ore Phase 2	(years)	3.7

Further information about these factors is contained within the attached summary.

### **CONTACTS**

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

#### **Competent Person's Statement**

The information contained in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Mr. Peter Langworthy, a member of The Australasian Institute of Mining and Metallurgy. Mr. Langworthy is an employee of OmniGeoX Pty Ltd which is a consultant to BlackEarth. Mr. Langworthy has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking 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." Mr. Langworthy consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

The information in this report that relates to the Exploration Target for the Maniry Graphite Project is extracted from the report entitled "Exploration Target Update" dated 14 August 2018 and is available to view on the Company's website (<a href="www.blackearthminerals.com.au">www.blackearthminerals.com.au</a>). 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 and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

The information in this report that relates to the Maiden Resource Estimation for Razafy at the Maniry Graphite Project is extracted from the report entitled "Update – Maiden Resource Estimation for Razafy at the Maniry Graphite Project" dated 14 August 2018 and is available to view on the Company's website ( <a href="www.blackearthminerals.com.au">www.blackearthminerals.com.au</a>). 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 and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

The information in this document that relates to metallurgical test work results is based on information compiled and 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.

For more information – www.blackearthminerals.com.au



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About BlackEarth Minerals NL ( www.blackearthminerals.com.au )
BlackEarth Minerals NL (ASX: BEM) ("Company") is an ASX listed company
focused primarily on the development of its 100% owned Madagascan
Maniry and lanapera 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.

### **Maniry Graphite Project - Scoping Study Results**

Project life (processing) 10 years

NPV @ 10% pre-tax US\$ 103M

IRR pre-tax 42%

Project CAPEX Stage 1 US\$ 41M (500ktpa ore)

Stage 2 US\$ 29M (1Mtpa ore)

Operating Cost FOB

(Port of Ehoala)

US\$ 593/t

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+ )

Average Basket Price US\$ 1215/t

Refer to ASX Release 30 Jan 2019 – Positive Scoping Study results for the Maniry Graphite Project

Project	Deposit	Tonnes (Mt)	TGC Grade (%)	Contained Tonnes (t)
	Razafy - Indicated	8.0	7.22	577,600
	Razafy - Inferred	3.2	6.80	217,600
	Razafy Total	11.2	7.10	795,200
Maniry				
	Haja - Inferred	9.0	5.79	521,100
	Haja Total	9.0	5.79	521,100
	Total Resources	20.2	6.51	1,316,300

Razafy - Resource reported at a 6% TGC cut off with constraining wireframe so lids defined at a nominal 3% cut-off grade

