

ASX ANNOUNCEMENT

3 August 2021

## **Blackstone Board Approves Pilot Plant and Ta Khoa Refinery DFS**

Following compelling outcomes from the Ta Khoa Refinery (TKR) Pre-Feasibility Study (refer ASX announcement 26 July 2021), Blackstone Minerals ("Blackstone" or the "Company") Board of Director's have approved the first phase of pilot plant work and the Definitive Feasibility Study (DFS) for the TKR.

The first phase of piloting will be designed to process 20kg per hour of nickel concentrate feed and will produce approximately 1.75kg per hour of nickel in Nickel:Cobalt:Manganese (NCM) products:

- The first phase of piloting will produce various grades of NCM including NCM622 and NCM811
- Early design works for piloting have been completed, with procurement of equipment to commence in the current quarter
- The first phase of piloting will occur in the Son La Province within proximity to the Company's Ta Khoa Nickel Cu PGE Project (refer Figure 2)
- First pilot plant product currently expected early in 2022
- Testwork data from piloting will be in support of the TKR DFS
- Scope of Works submitted to Tier 1 firms to tender for lead engineering role for the TKR DFS
- The first phase of piloting and the TKR DFS are fully funded from existing cash reserves.

Blackstone Managing Director Scott Williamson said "the Board's endorsement of the recent PFS milestone has been rapidly followed by approval of the first phase of piloting and the Ta Khoa Refinery DFS. The pilot plant process is an opportunity for Blackstone to optimise, with respect to quantity and quality, recent successful outcomes which include the production of its first battery grade NCM811 Precursor sample. The Company is acutely aware of its first mover advantage and importantly, will be able to deploy its current balance sheet to continue to fast track the next important stages towards commercialisation of the Ta Khoa Refinery."

Authorised by the Managing Director on behalf of the Board of Blackstone Minerals Limited.

For more information please contact

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## **About Blackstone**

Blackstone Minerals Ltd (ASX: BSX / OTCQX: BLSTF / FRA: B9S) is focused on building an integrated upstream and downstream processing business in Vietnam that produces Nickel: Cobalt: Manganese (NCM) Precursor products for Asia's growing Lithium-ion battery industry (refer Figure 1)



The Company owns a 90% interest in the Ta Khoa Nickel-Copper-PGE Project. The Ta Khoa Project is located 160km west of Hanoi in the Son La Province of Vietnam and includes an existing modern nickel mine built to Australian standards which is currently under care and maintenance (refer Figure 2). The Ban Phuc nickel mine successfully operated as a mechanised underground nickel mine from 2013 to 2016.

In October 2020, the Company completed a Scoping Study which investigated mining the Ban Phuc Disseminated nickel sulfide ore body (upstream) and the construction of one downstream refinery (refer to ASX announcement of 14 October 2020, including for the full details of the Company's Mineral Resource Estimate at Ban Phuc). Based on the outcomes of the Scoping Study, the Company has since completed a technically and economically robust Pre-feasibility Study for its Downstream Business Unit (DBU) which sees expanded downstream capacity. This is based on the Ta Khoa refinery being designed to process 400ktpa of nickel concentrate, supplied from the Ta Khoa Nickel - Cu - PGE mine as well as third party concentrate.

The Company is continuing to advance a PFS for the Upstream Business Unit (UBU). The UBU PFS will contemplate the option to mine several higher-grade massive sulfide vein (MSV) deposits, which has the potential to reduce initial upfront capital requirements for the UBU by enabling the Company to restart the existing Ban Phuc Concentrator (450ktpa).

By combining the Company's existing mineral inventory (Ban Phuc Disseminated Sulfide - DSS), exploration potential presented by high priority targets such as Ban Chang, King Snake and Ta Cuong, and the ability to source third party concentrate, Blackstone will be able to increase the scale of its downstream business to cater to the rising demand for downstream nickel products.



Figure 2. Ta Khoa Nickel-Cu-PGE Project Location

## **Competent Person Statement**

The information in this report that relates to Exploration Results and Exploration Targets is based on information compiled by Mr Andrew Radonjic, a Director and Technical Consultant of the company, who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Andrew Radonjic has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which 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 Andrew Radonjic consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Mineral Resource Estimation in respect of the Ta Khoa Nickel Project is based on information compiled by BM Geological Services (BMGS) under the supervision of Andrew Bewsher, a director of BMGS and Member of the Australian Institute of Geoscientists with over 21 years of experience in the mining and exploration industry in Australia and Vietnam in a multitude of commodities including nickel, copper and precious metals. Mr Bewsher 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 in the 2012 edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Bewsher consents to the inclusion of the Mineral Resource Estimate in this report on that information in the form and context in which it appears.

Information in this announcement relating to processing metallurgy is based on technical data compiled and reviewed by Tony Tang, a full-time employee of the company. Tony Tang is a Fellow of the Australasian Institute of Mining and Metallurgy (AusIMM) and has sufficient experience relevant to the metallurgical test-work discussed in this piece of news and the activity which he is undertaking to qualify as a Competent Person under the 2012 Edition of the 'Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves. Tony Tang consents to the inclusion of the technical data in the form and context in which it appears.

The Company confirms that all material assumptions and parameters underpinning the Mineral Resource Estimates as reported within the Scoping Study in market announcement dated 14 October 2020 continue to apply and have not materially changed, and that it is not aware of any new information or data that materially affects the information that has been included in this announcement.

## **Forward Looking Statements**

This report contains certain forward-looking statements. The words "expect", "forecast", "should", "projected", "could", "may", "predict", "plan", "will" and other similar expressions are intended to identify forward looking statements. Indications of, and guidance on, future earnings, cash flow costs and financial position and performance are also forward-looking statements. Forward looking statements, opinions and estimates included in this announcement are based on assumptions and contingencies which are subject to change without notice, as are statements about market and industry trends, which are based on interpretations of current market conditions. Forward looking statements are provided as a general guide only and should not be relied on as a guarantee of future performance. Forward looking statements may be affected by a range of variables that could cause actual results or trends to differ materially. These variations, if materially adverse, may affect the timing or the feasibility of the development of the Ta Khoa Nickel Project.

The project development schedule assumes the completion for the Downstream Business Unit of a Definitive Feasibility Study (DFS) by mid-2022. A PFS & DFS for the Upstream Business Unit is assumed to be completed in 2021 and 2022 respectively. Development approvals and investment permits will be sought from the relevant Vietnamese authorities concurrent to studies being completed. Delays in any one of these key activities could result in a delay to the commencement of construction (planned for early 2023). This could lead on to a delay to first production, currently planned for 2024. It is expected that the Company's stakeholder and community engagement programs will reduce the risk of project delays. Please note these dates are indicative only.

The JORC-compliant Mineral Resource estimate forms the basis for the Scoping Study in the market announcement dated 14 October 2020. Over the life of mine considered in the Scoping Study, 83% of the processed Mineral Resource originates from Indicated Mineral Resources and 17% from Inferred Mineral Resources; 76% of the processed Mineral Resource during the payback period will be from Indicated Mineral Resources. The viability of the development scenario envisaged in the Scoping Study therefore does not depend on Inferred Mineral Resources. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the production target itself will be realised. The Inferred Mineral Resources are not the determining factors in project viability. Please refer to the Cautionary Statement in the Scoping Study market announcement dated 14 October 2020.