

# Globally Significant Nickel Sulphide Resource to meet the Booming Demand of the EV Technology Disruption

Company Profile by As at 10<sup>th</sup> January 2022



#### COMPANY OVERVIEW / FLAGSHIP PROJECT

Blackstone Minerals Ltd (ASX: BSX) is a mineral exploration and development company, with a 90% interest in the Ta Khoa district scale nickel project in Vietnam. BSX is actively exploring and developing the project which will include the refining of nickel-cobalt concentrate into a NCM precursor to satisfy the demand of its strategic partner Ecopro and potentially other battery manufacturers.

#### **KEY ELEMENTS OF STRATEGY**

BSX pursues a two-fold strategy:

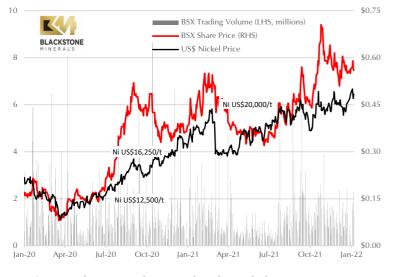
- 1. Upstream: aiming to deliver a Definitive Feasibility Study (DFS) for restart of mining operations at Ta Khoa with MSV (massive sulfide veins) ore being processed at the existing concentrator (450,000 tpa) and a blend of MSV + DSS (disseminated sulfides) ore being processed in a new treatment plant (8 million tpa capcity).
- Downstream: produce NCM (nickel-cobalt-manganese) precursor to be delivered to cathode manufacturers including its current partner Ecopro.

The production of a NCM precursor adds significant value far beyond the refining step as the payability, typically (70-80%) affecting the sale of nickel concentrates, becomes irrelevant and BSX eliminates the Vietnamese tariffs applied to the export of nickel concentrates.

## KEY OUTCOMES IF SUCCESSFUL

- ✓ Globally significant mineral resource project
- 1. Larger scale and with a longer mine life
- Value added nickel product to attract Li-ion battery raw materials manufacturers and traders
- ⇒ The recent mineral resource update bodes well for the success of BSX' strategy

CORPORATE OVERVIEW (AUD)			
Shares	449.6 million ordinary fully paid shares		
Options	12 Jun 22: 1 million \$0.20 unlisted options 20 Feb 25: 0.9m \$0.001 employee perf. options* 20 Aug 25: 3.45m \$0.001 employee perf. options* 3 Dec 26: 6.8m nil exercise price options * subject to vesting conditions		
Share Price	\$0.56		
Market Cap.	\$251.8 million		
Cash	\$13 million as at 30 September 2021 + \$60 million raised in two tranches (+SPP) in Nov and Dec 2021  ⇒ Fully funded for drilling programs and development studies		



BSX share price leveraged to the nickel price

	STUDIO
	ents and milestones
Project Acquisition	<ul> <li>A relatively cheap acquisition (about A\$1.7 million in cash and shares) vs. US\$136 million</li> </ul>
Acquisition	invested by the previous owner
Drilling	• Good drill intercepts such as 45m @ 1.2% Ni and
Results	60m @ 1.3% Ni
Multiple Discoveries	King Cobra Zone disseminated mineralisation
Discoveries	<ul><li>Ban Chang massive sulphide veins</li><li>King Snake massive sulphide veins</li></ul>
	Ban Khoa disseminated mineralisation
Mineral	Globally significant mineral resource of 130 Mt
Resource Mining	@ 0.37% Ni for 485,000 t nickel metal contained
Mining	<ul> <li>~1,000m development through the Ban Phuc disseminated nickel deposit to extract</li> </ul>
	representative ore for processing
Processing	• Recommission the Ban Phuc 450,000 tpa nickel
	concentrator to produce two batches of concentrate for the refinery pilot programs
Development	• Scoping Study for the development of the Ta
Studies	Khoa project - upstream & downstream (Oct
	2020) • Pre-Feasibility Study for the Ta Khoa
	Downstream Refinery (July 2021)
	• Development of pilot plant phase 1 (ALS in
	Perth) approved and started • Pilot plant phase 2 to be built in Vietnam to 1:25
	scale to process 1t per hour of concentrate
	• First batch of NCM811 precursor sample
Partnership	produced
raitheiship	• An alliance with South Korea's largest electric vehicle (EV) battery cathode manufacturer,
	Ecopro BM Co Limited to develop the
	downstream processing infrastructure
	Non-Binding LOI with Trafigura one of the largest physical commodities trading groups to
	supply nickel and cobalt products
Funding	<ul> <li>Successive capital raisings at higher share prices. Previous raisings:</li> </ul>
	• 10 May 2019: 40m shares at \$0.05 for \$2.0 m
	• 23 Sep 2019: 30m shares at \$0.15 for \$4.5m
	<ul> <li>7 April 2020: 40m shares at \$0.17 for \$6.8m (Ecopro), 62% premium at the time</li> </ul>
	<ul> <li>14 Sep 2020: 42m shares at \$0.42 for \$17.8m including Fidelity International for \$8m</li> </ul>
	• Nov/Dec 2021: 95m shares at \$0.58 for \$55m
Technical	ALS and Wood supporting the pilot plant and
and Financial Support	DFS work for the Ta Khoa Refinery  • Ecopro is the world's second largest and South
Japport	<ul> <li>Ecopro is the world's second largest and South Korea's largest nickel-rich cathode materials</li> </ul>
	manufacturer.
	• Fidelity International one of the world's leading
	investment & asset management companies with more than A\$500 billion invested globally
	Appointment of the Korea Development Bank
	and Burnvoir Corporate Finance to secure a funding package for project development
ESG	Aim to develop a zero-carbon mining operation
Green Nickel TM	and downstream processing facility
	Green hydrogen study underway using hydro-
	electric power readily available to produce the oxygen required for the downstream process
Value-Add	Market capitalisation increasing from A\$7m to
	A\$252m
	<ul> <li>Share price increasing from \$0.064 to \$0.56 (with a high at \$0.705)</li> </ul>
Share Market	BSX trading on ASX and OTC-OX markets

Share Market • BSX trading on ASX and OTC-QX markets

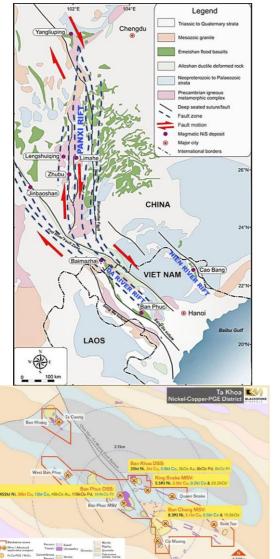


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### TA KHOA NICKEL-COPPER-PGE DISTRICT

Geology

Ta Khoa located in Song Da Rift, which is a major crustal suture zone continuing north into China, where it is associated with similar Ni-Cudeposits: Baimazhai, Qungquanshan, Limahe and Yangliuping.



# Exploration Potential

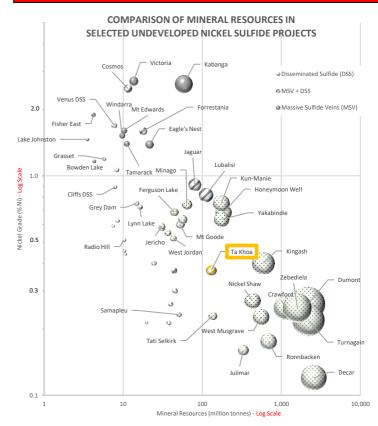
- Ta Khoa project contains 12 nickel prospects for high grade massive sulphide veins, most with economic drill hole intercepts
- ⇒ Bevond the Ban Phuc deposit, prospectivity of the Ta Khoa project is at

	district s	cale			
Ta Khoa	Category	Tonnes	Ni grade	Ni metal	
Mineral	Indicated	102 Mt	0.38%	383,000 t	
Resource	Inferred	28 Mt	0.36%	102,000 t	
(Dec 2021)	Total	130 Mt	0.37%	485,000 t	
	The mineral resource also contains Cu, Co and PGE. Please see 23 Dec 2021 ASX announcement				
	for complete mineral resource statemer				

### Concentrator Throughput

Given the large increase in the mineral resource from 58 Mt (maiden mineral resource Oct 2020), a throughput of 8 Mtpa is now the base case for the new concentrator in the Upstream PFS

## MINERAL RESOURCE BENCHMARKING



The Ta Khoa mineral resource made of both massive sulfide veins and disseminated sulfide presents a good combination of size and

grade				
KEY RISKS AND MITIGANTS				
Geological	Through the past and recent discoveries, BSX has demonstrated the high prospectivity of the Ta Khoa project for disseminated nickel sulphide mineralisation as well as massive sulphide veins.			
Technical (mining, processing, completion, etc)	<ul> <li>Overall technical risks are significantly mitigated by the previous operation up to the production of nickel concentrate</li> <li>The pressure oxidation (POx) process treating the nickel concentrate is commonly and successfully used to process base metal concentrates</li> <li>The Ecopro alliance and expected JV for the downstream processing should reduce the technical risks quite significantly</li> <li>⇒ POx should not be confused with the HPAL process, which treats lateritic ore rather than a</li> </ul>			
Financial	<ul> <li>BSX is mitigating the financing risk by developing an alliance with Korea's largest electric vehicle (EV) battery cathode manufacturer, Ecopro BM Co Limited (MoU signed in December 2019)</li> </ul>			
Market	<ul> <li>The nickel market outlook is excellent:         <ul> <li>Tight market balance expected from 2022 onwards</li> <li>Low official inventories</li> <li>Increasing Chinese imports</li> <li>Booming market demand from the battery</li> </ul> </li> </ul>			

sector although from a currently low base