BLACKSTONE MINERALS

Looking forward.
Mining green.

Blackstone Minerals

Company Presentation

16 February 2023
ASX:BSX

Important information and disclaimers

The PFS referred to in this Presentation is the study of the potential viability of the Ta Khoa Refinery Project. It has been undertaken to understand the technical and economic viability of the TKP:

The Company has concluded that it has a reasonable basis for providing the forward-looking statements included in this announcement. The reasons for this conclusion are outlined throughout this announcement. However, the assumptions and results of the PFS set out above and elsewhere in this announcement ("PFS Parameters") have been developed through feasibility work completed to the level of AACE / AusIMM Class 4 (+/-25% accuracy) and the use of macroeconomic assumptions. For the avoidance of doubt, investors are advised that the PFS Parameters do not constitute a production forecast or a target in relation any mineral resources associated with wit the Company. The Company wishes to expressly clarify that the PFS Parameters are based on the expected grade of nickel, cobalt and copper that is reliant upon 3PF for which there is currently no supply agreement. The PFS Parameters have been disclosed by Blackstone to provide investors with an intended scale and nature of the Project.

The PFS referred to in this announcement has been undertaken to assess the technical and financial viability of the Project. Further evaluation work, including a Definitive Feasibility Study ("DFS") is required before the Company will be in a position to provide any assurance of an economic development case. These include assumptions about the availability of funding and the pricing received for the Ta Khoa Project products. While the Company consider 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 this PFS will be achieved.

Investors should note that there is no certainty that the Company will be able to raise this amount of funding required when needed. It is also possible that such funding will only be available via equity placement which may have a dilutive effect on the Company's share value. The Company may also pursue other strategies in order to realise the value of the Ta Khoa Refinery Project, such as a sale, partial sale or joint venture of the Ta Khoa Refinery Project. If this occurs, this could materially reduce the Company's proportionate share of ownership of the Ta Khoa Refinery Project. Accordingly, given the uncertainties involved, investors should not make any investment decisions based solely on the results of the PFS.

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.

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 2023). This could lead on to a delay to first production, currently planned for 2025. 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 PFS Study in the market announcement dated 28 February 2022. The viability of the development scenario envisaged in the PFS 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 PFS Study market announcement dated 28 February 2022.

Exploration Results:
The information in this document that relates to Exploration Results and Exploration Targets is based on information compiled by Mr. Chris Ramsay, Manager of Resource Geology for the Company and a Member of The Australasian Institute of Mining and Metallurgy. Mr.. Ramsay 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.. Ramsay consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Mineral Resources:
Blackstone Minerals provided an update of the company's Minerals Resources on December 23rd, 2021. Among the four prospects included in the recent Mineral Resource update, was an update of the Ban Phuc Mineral Resource. The Ban Phuc Mineral Resource is the basis of the 'Ore Reserve' (Ban Chang and King Snake Prospects were assessed in the Pre-Feasibility Study and their limited contribution is noted and the prospects are not included in the 'Ore Reserve'). The new and updated Mineral Resource was prepared by Optiro Pty Ltd in 2021. Full JORC disclosure can be found on the company's website (refer Dec 23rd, 2021).

Ore Reserves:
The information in this document which relates Ore Reserves for the Ban Phuc deposit was presented via an ASX Announcement dated 28 February 2021 (Ta Khoa Maiden DSS Ore Reserve). The disclosure and competency statement for the new reserve can be found on the company's website. The disclosure includes - Sections 4 of 'JORC Table 1', (Section 4 'Estimation and Reporting of Ore Reserves') prepared by Optimize Group (Toronto, Canada)).

No New Information:
The Company confirms that it is not aware of any new information or data that materially affects the information including in the original market announcements or the information on this page, and in the case of estimates of Mineral Resources and Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed.

The Company confirms that the form and context in which the Competent Persons' finding are presented have not been materially modified from the original market announcements.

Investment Summary

Vertically integrated mining and refining business model using hydro-electric power

Globally relevant nickel sulfide mineral resource and probable reserve

First quartile cost position with lowest carbon footprint

Partnership based model involving debt and equity participation

Blackstone strategy being delivered into rising macroeconomic environment

Corporate Snapshot

BLACKSTONE MINERALS

BSX
ASX Code

BLSTF
OTCQX Code

473.3m
Shares on Issue

A$0.14
Last Share Price
(14 February 2023)

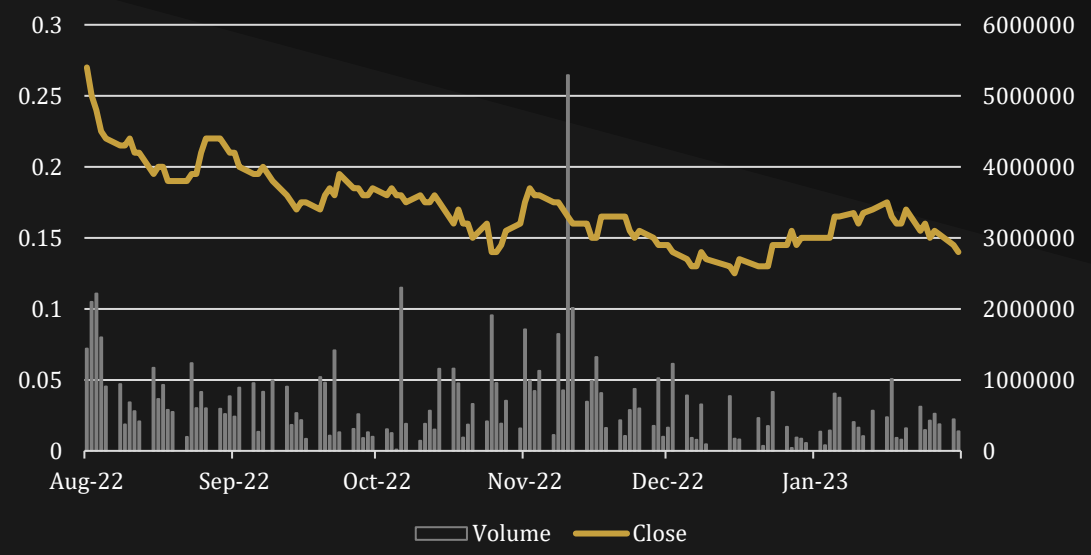
A$66.3m
Market
Capitalisation

~A$18.2m
Cash as at
31 December 2022

~A$10.7m
Listed Investments
(14 February 2023)

60.98%
Top 20
Shareholders

627k
3-month Avg Daily
Vol. (shares)



BOARD OF DIRECTORS

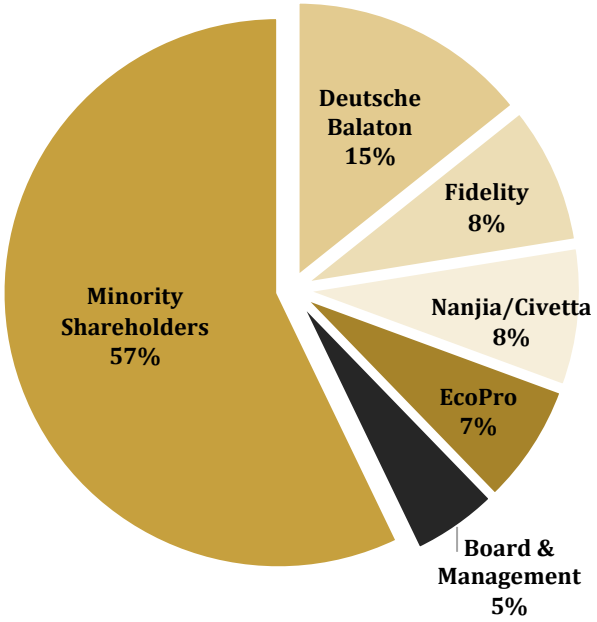
Scott Williamson
Managing Director

Hamish Halliday
Non-Executive Chair

Dr Frank Bierlein
Non-Executive Director

Alison Gaines
Non-Executive Director

Daniel Lougher
Non-Executive Director



ANALYST COVERAGE

EVOLUTION CAPITAL ADVISORS

PAC PARTNERS

ShawandPartners

cg Canaccord Genuity

EUROZ HARTLEYS

EXPLORATION insights

Blackstone Minerals

Looking forward.
Mining green.

1 Integrated producer of low cost, low carbon nickel

- Low carbon production (9.8kg CO_2/kg pCAM[2])
- Integrated mining and refining (pCAM)
- 485kt of nickel sulphide resources[1]

2 Nickel market entering structural deficit

- Battery nickel demand to grow 950% by 2040[3]
- Deficit for battery grade Ni by 2024[2]
- Bifurcation of market expected due to ESG

3 Vietnam is a burgeoning EV hub

- Over 20 active mines (public and private)
- Burgeoning hub of technology and EVs
- Growth in FDI from $1.3B in 2000 to $27.73B in 2022[4]

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- **Ta Khoa Nickel Project (Upstream)**
  - Mine restart with DFS underway
  - Reserve: 48.7Mt at 0.43% Ni for 210kt Ni
  - Resource: 130Mt at 0.39% Ni for 485kt Ni
  - By-products (Cu, Co, PGEs)
  - Open pit (low strip (2.9:1)) and underground
  - Hydro power (grid)
- **Ta Khoa Refinery Project (Downstream)**
  - DFS underway
  - Piloting Complete
  - Refinery producing pCAM (NCM 811)
  - Incorporates 3rd party feed
  - Scalable, 40ktpa of Ni per train

Other interests

- Gold Bridge (100%)
- Nico (~15%)
- Corazon (~17%)
- Flying nickel (~7%)
- Codrus (46% escrowed)

Note 1: refer to ASX announcement 23 December 2021 *"Ta Khoa Mineral Resource Update"*
Note 2: Precursor Cathode Active Material (pCAM) based on NCM811 Chemistry
Note 3: Benchmark Minerals, Q4 2022
Note 4: World Bank (2022)

Vertically Integrated Business Model

UPSTREAM BUSINESS

Ta Khoa Nickel Project	Wingellina	Lynn Lake	Minago
BSX 90%	BSX ~15%	BSX ~17%	BSX ~7%

THIRD PARTY CONCENTRATE FEED PROVIDERS

TRAFIGURA

DOWNSTREAM BUSINESS

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%

Ta Khoa Refinery

Convert Ni Concentrate to Sulphate to NCM811

%

PARTNER

>40ktpa Nickel in Precursor

Targeting Southeast Asian Lithium-ion battery and EV market

High Nickel Cathode

By 2028, 50% of global demand for batteries will contain high nickel NCM cathodes[1]

*Note 1: Benchmark Mineral Intelligence Battery Demand Forecast Q4 2022

Net Zero Advantage Green Nickel™

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Blackstone Minerals has the opportunity
to build a net zero operation from day one

- SULFIDE NICKEL
- VERTICALLY INTEGRATED VALUE CHAIN
- RENEWABLE POWER
- PRESSURE OXIDATION LEACH FLOWSHEET
- FOSSIL FUEL REPLACEMENT
- CORPORATE COMMITMENT TO ESG

Jurisdiction Advantage

Vietnam open for business

1

Increasingly attractive FDI candidate

- FDI of $15.8B in 2020 – increased from $1.3B in 2000[1]
- World Bank ease of doing business[1] (70); Indonesia (73), Brazil (124)
- Over 20 operating mines; including ASX listed entities

2

Cost competitive

- Vietnam's labor costs are half of China's at US$2.99 per hour[2]
- Regulated electricity pricing; USD 6.3 cents – USD 10.75 cents per kWh[2]
- One of the lowest capital cost countries[3]

3

Leader in renewable energy

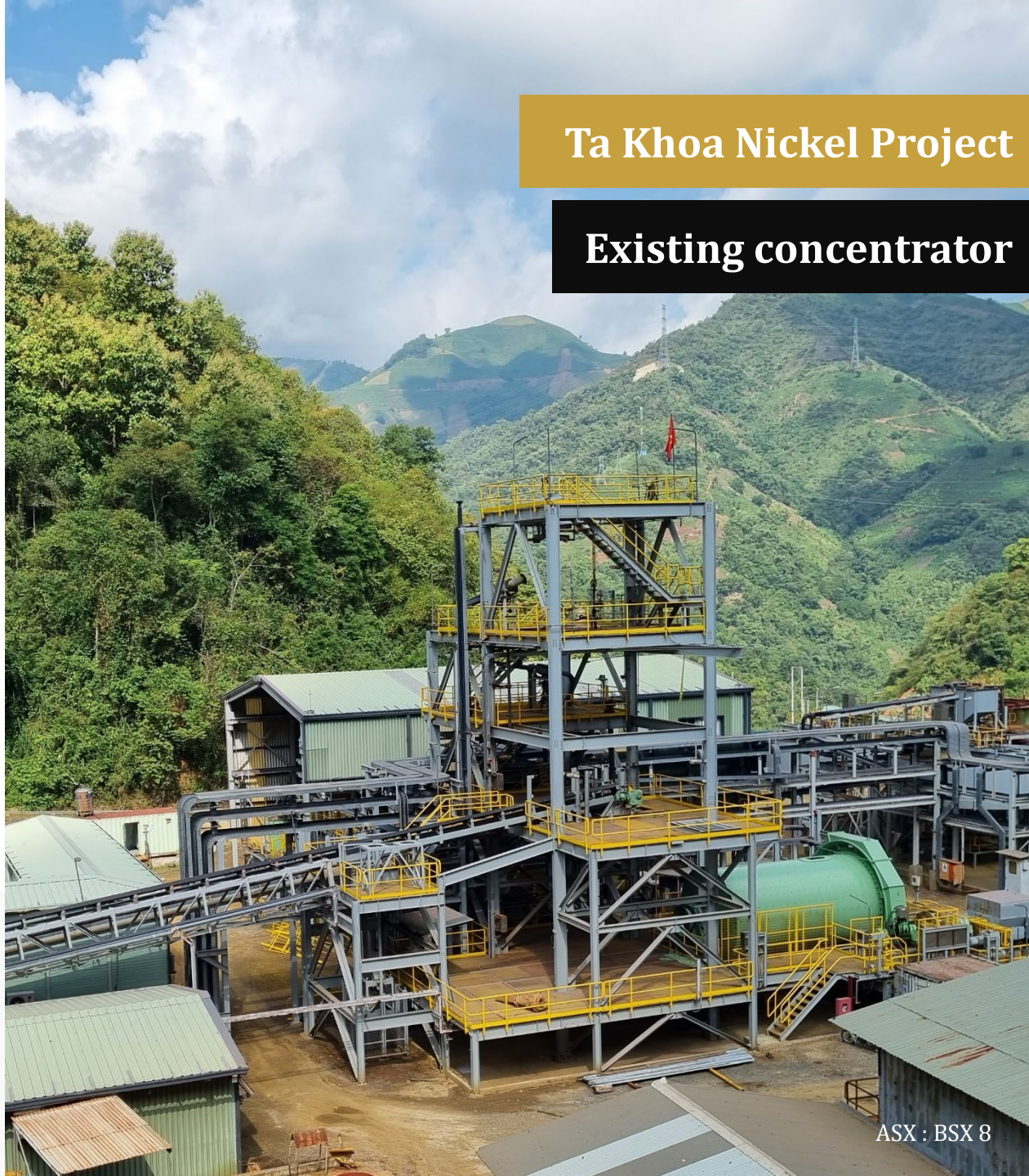
- National grid is 30 per cent hydro and 24 per cent solar[2]
- Higher exposure to hydroelectricity exists in Northern Vietnam
- Power source accounts for 27% of GHG in a typical EV

4

Ta Khoa Nickel Project is a brownfield project

- Asia Mineral Resources operated Ban Phuc Nickel Mine 2013 – 2016
- Put into care and maintenance given 2016 prices (US$9k/t)
- Attractive corporate tax incentives for Ta Khoa Project

Note 1: World Bank (2022)
Note 2: US trade office (2022)
Note 3: Arcadis, International Construction Cost Index (2021)



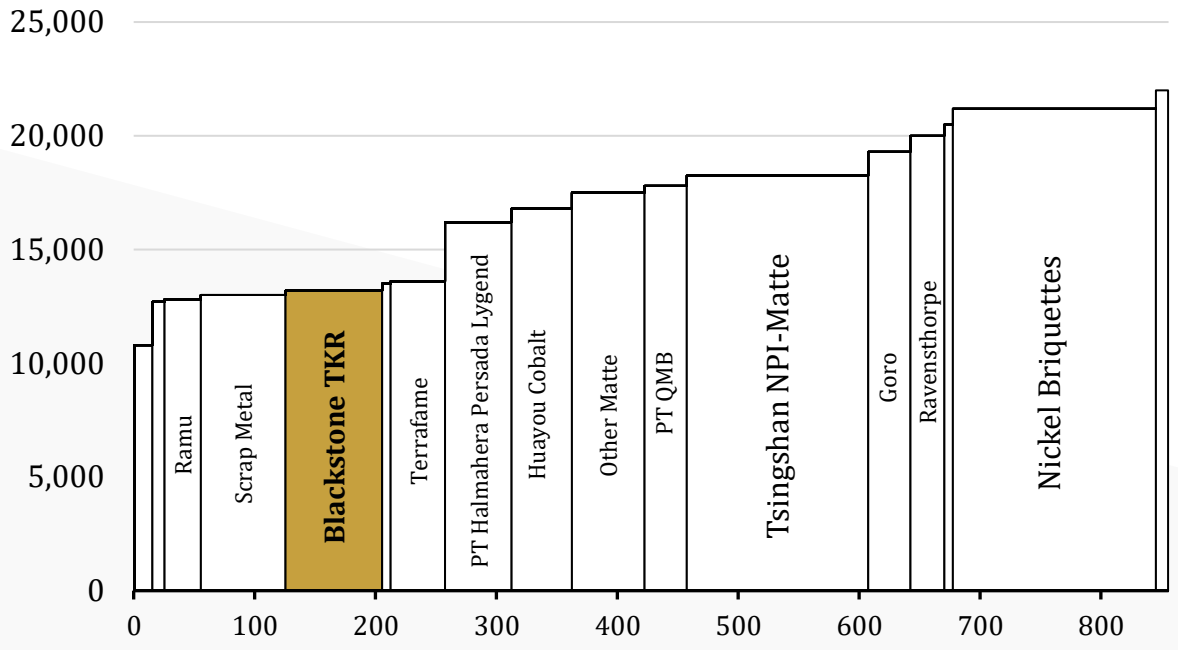
Cost Advantage

Leading sulphate cost position

Nickel Sulphate cost curve

First quartile positioning for Ta Khoa nickel sulphate

X axis: C1 costs ($/t), y axis: supply (kt)

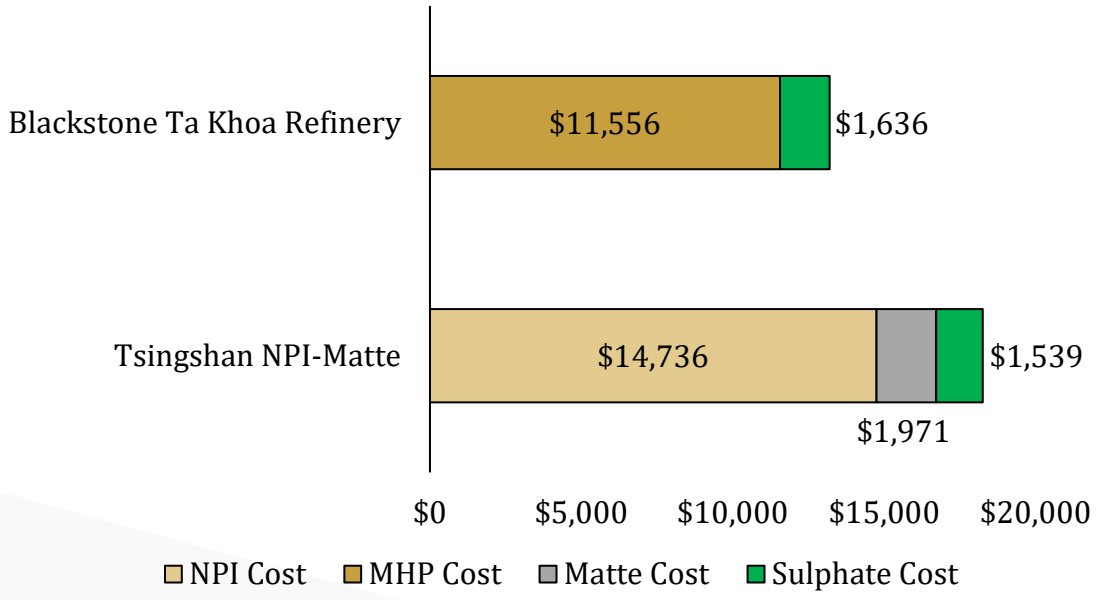


Source: Trafigura trading division (July 2022) and BSX

Cost Comparison, Ta Khoa vs Indonesian NPI-Matte

Competitive cost advantage

Sulphate Stage Cost comparison (All in Sustaining Cost, US$/t Ni in sulphate)



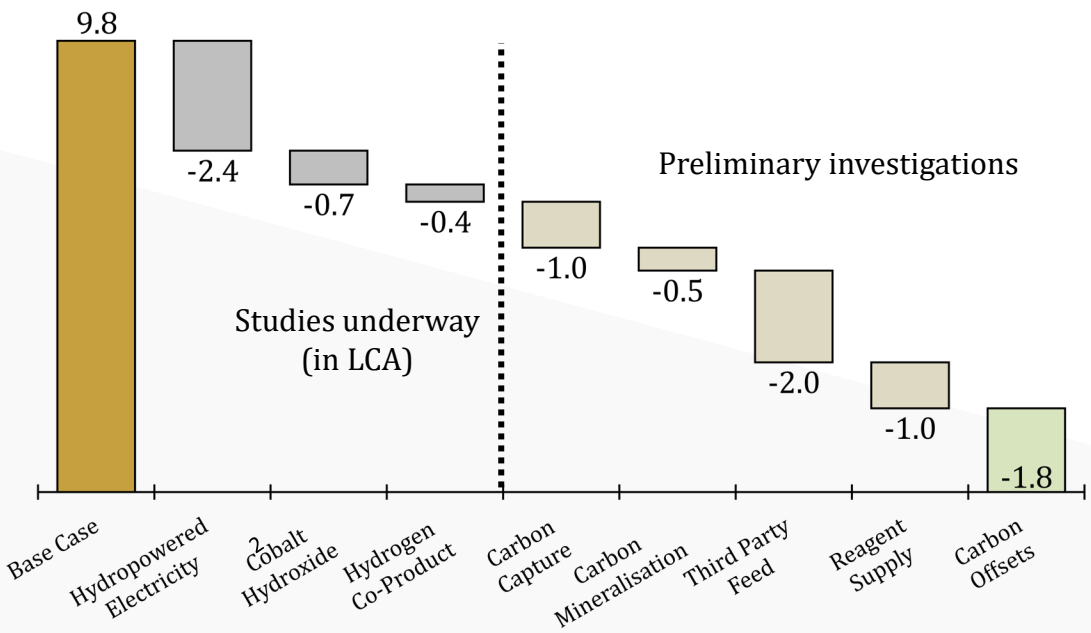
Green Nickel™ Advantage

Leading ESG positioning

Road-map to Net Zero

LCA analysis identified clear and achievable pathway to net zero

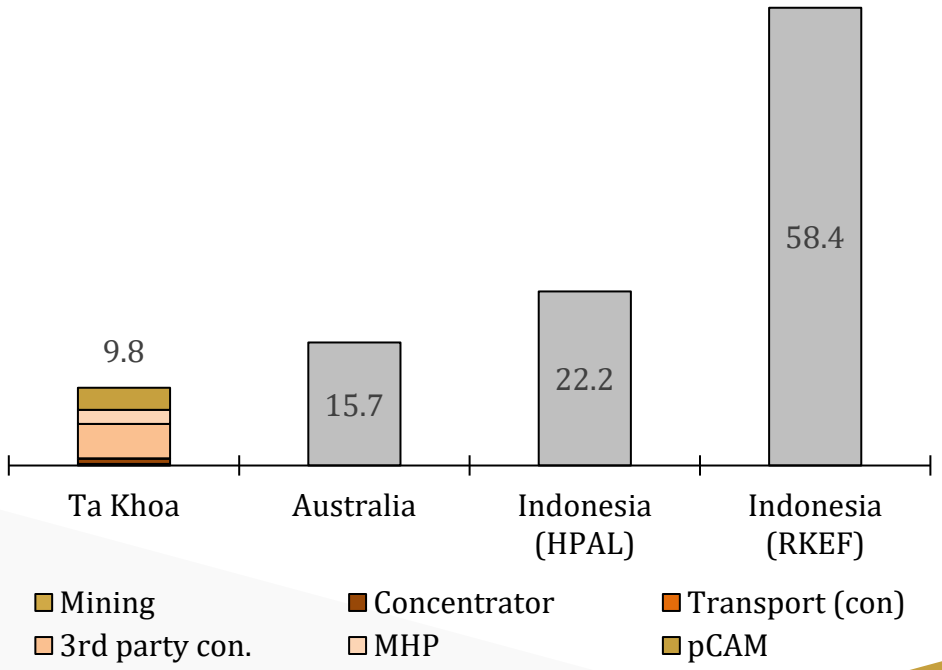
pCAM GHG (kg CO_2 eq per kg of high nickel pCAM)



Life cycle analysis peer comparison

Bifurcation of demand expected along ESG lines

pCAM GHG comparison (kg CO_2 eq per kg of pCAM[1])



Source: Minviro, July 2022

Notes:

1. Based on generic NCM811 Cathode Chemistry
2. Blackstone is seeking Power Purchase Agreements (PPA) with Vietnamese Hydro-power providers to secure 100% renewable power

Ta Khoa Nickel Resource

Premier Nickel sulphide district

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1

Mineralised district

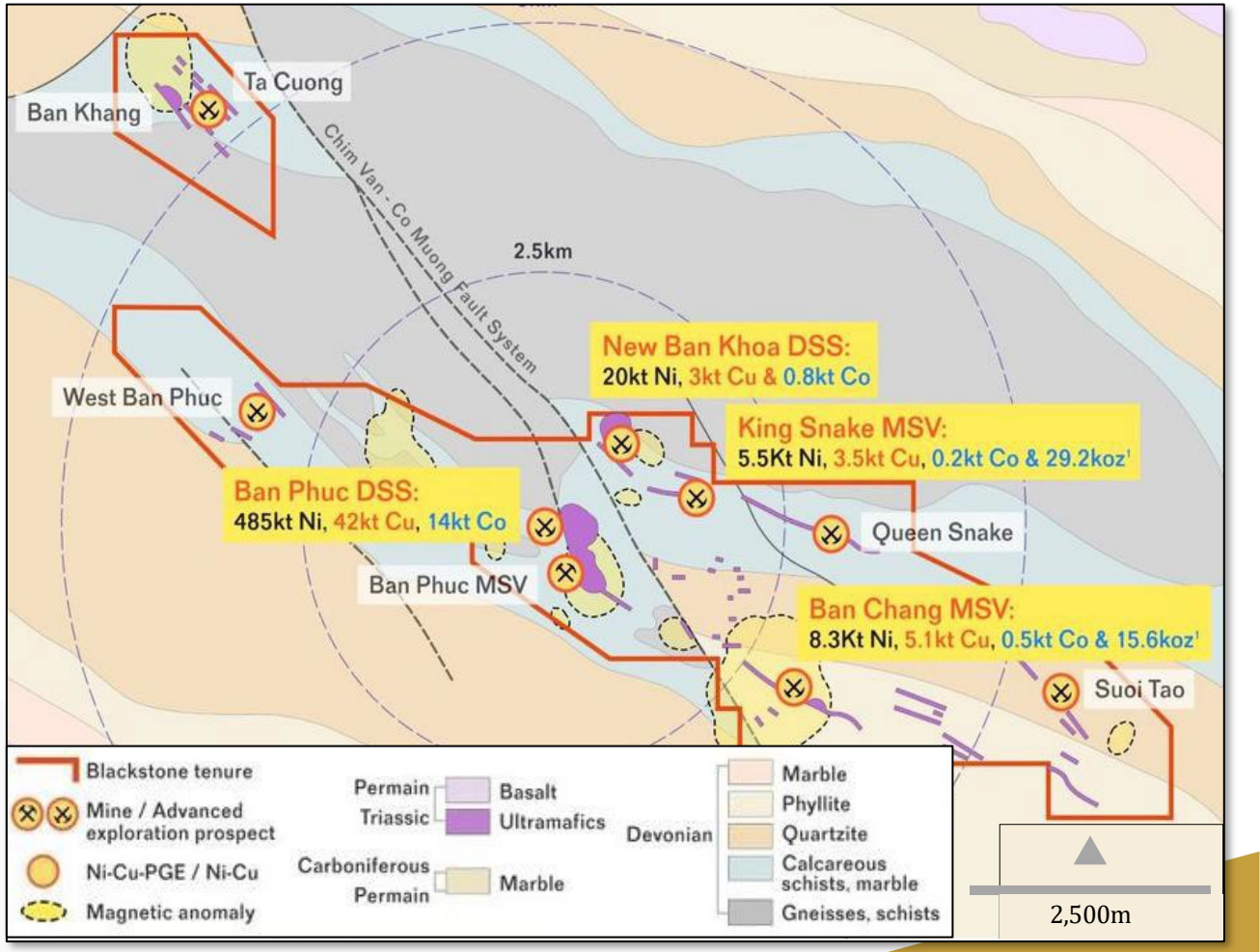
- Ta Khoa **Resource** (MI+I): **130 Mt** at 0.37% Ni (**485kt Ni**)[1]
- Ban Phuc **Resource** (MI+I): **123 Mt** at 0.37% Ni (**452kt Ni**)[1]
- Experienced geology and exploration teams

2

Exploration targets

- Several targets within Blackstone tenure
- Exploration supported by Government partnership
- Huge unexplored region, with multiple drill ready targets

Ta Khoa Project Resources	Mt	Ni (%)	Cu (%)	Co (%)	Ni (kt)	Cu (kt)	Co (kt)
Indicated Resources	**102**	**0.38**	0.03	0.01	**383**	27	10
Inferred Resources	**28**	**0.36**	0.05	0.01	**102**	14	3
Total	**130**	**0.37**	**0.02**	**0.01**	**485**	**41**	**13**



Note 1: refer to ASX announcement 23 December 2021 *"Ta Khoa Mineral Resource Update"*

Ta Khoa Nickel Project

Baseload feed for Refinery

1

Large reserve and mining inventory

- Probable Reserve[1]: **48.7Mt** at 0.43% Ni for **210kt Ni**
- Mining inventory of **64.5M**t at 0.41% Ni for **265kt Ni**
- Excludes Ban Khoa and other developing prospects

2

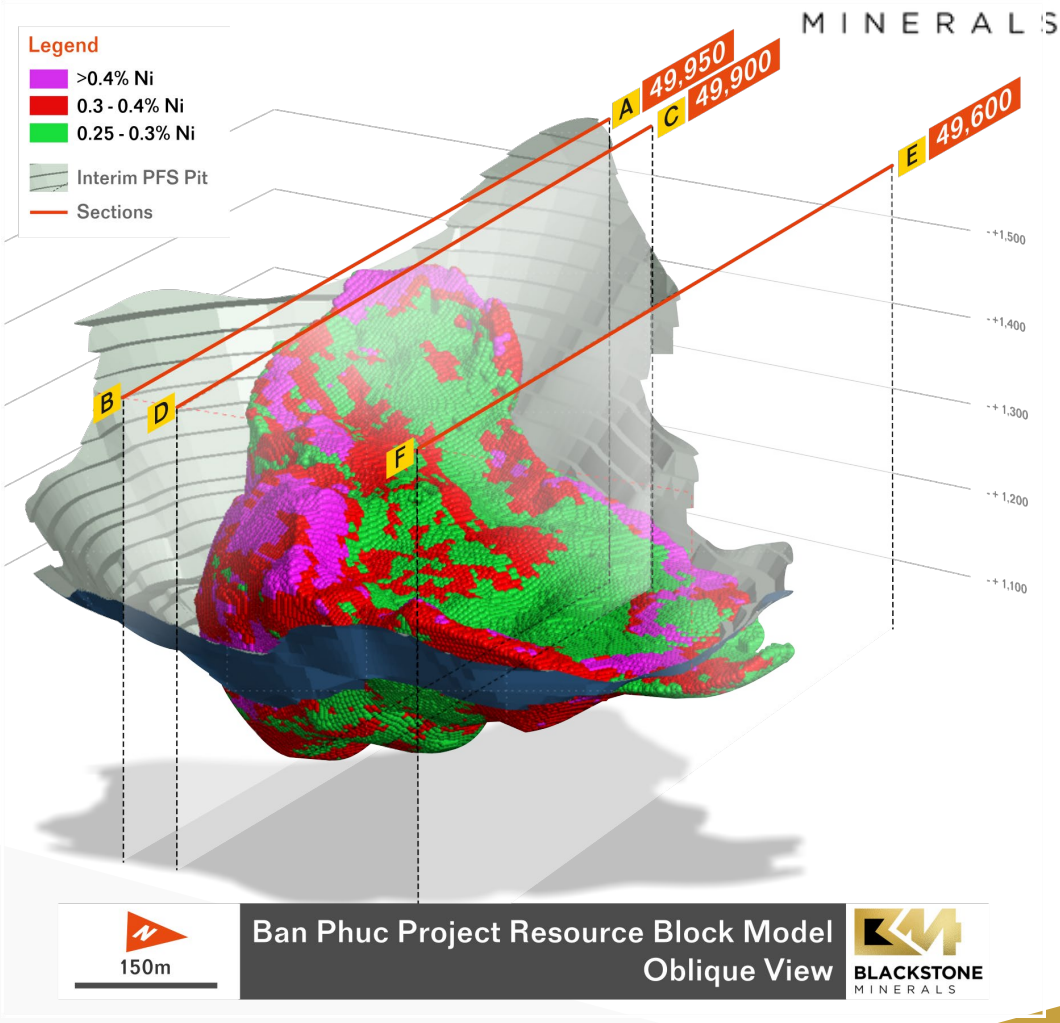
Open Pit Design

- Average LOM production of ~18ktpa Ni in concentrate
- 10 year life of mine, with 2 year ramp up
- Low life of mine strip ratio of 2.9:1 (waste:ore)

3

Established mining operation

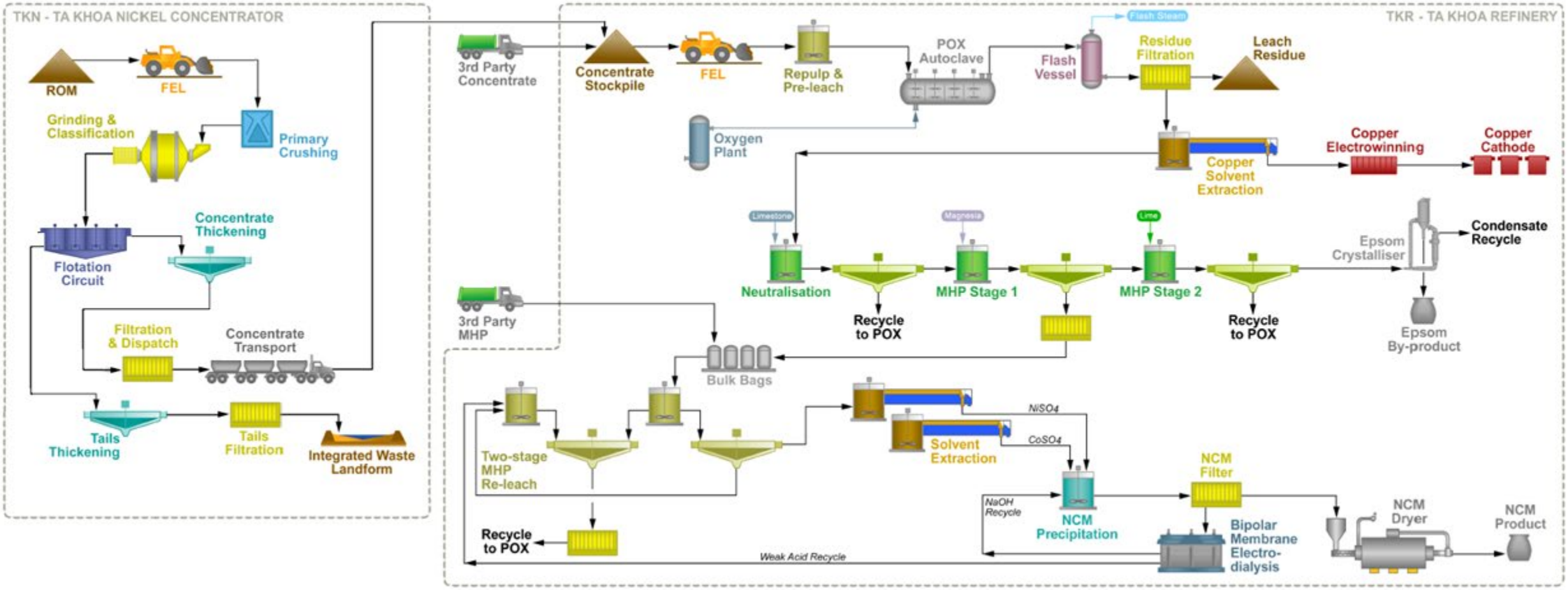
- Existing camp, underground operation, 450ktpa Mill
- Supportive community and government
- MSV restart scenarios under consideration



Note 1: refer to ASX announcement 28 February 2022 *"Expanded Ta Khoa Nickel Project Delivers Outstanding Value for Blackstone's Vertically Integrated Business"*

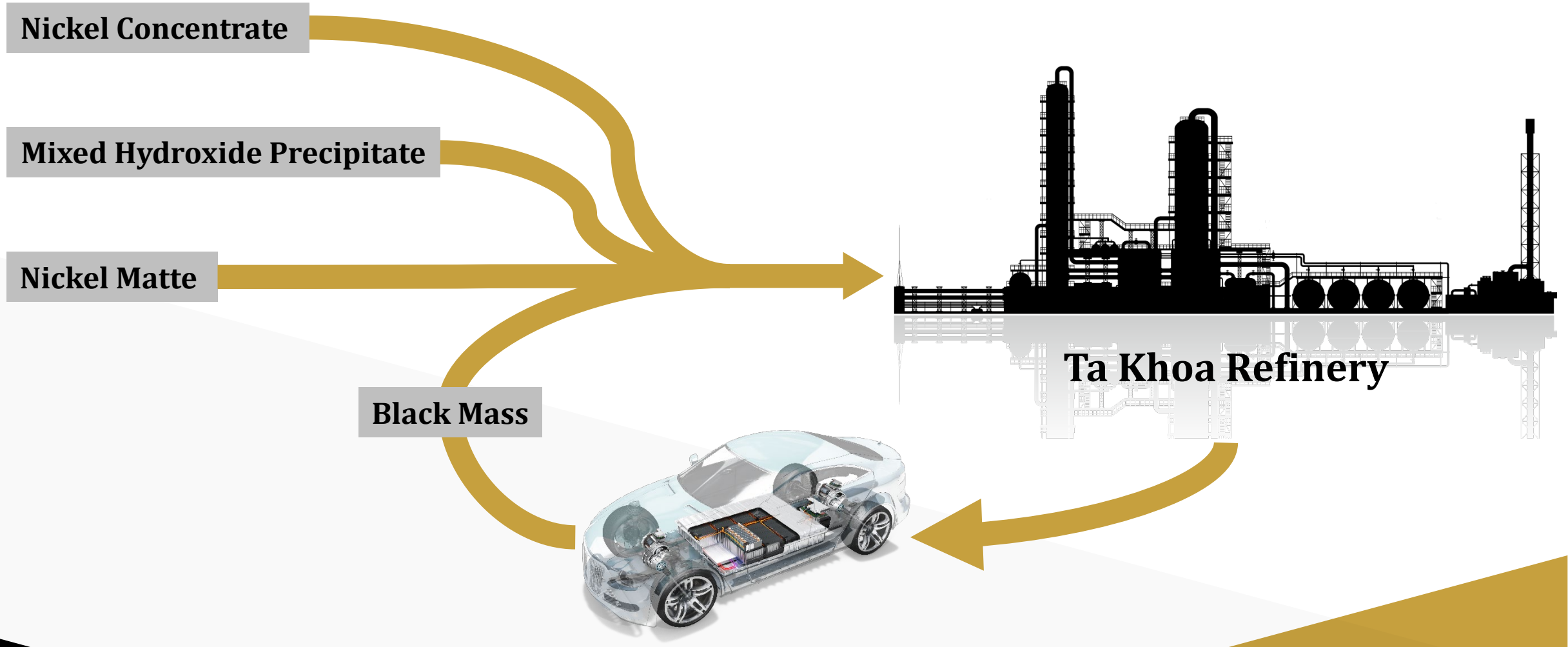
Ta Khoa Project

Overall Project Process flow Diagram



Nickel Security Advantage

Feed flexibility gives Blackstone a nickel sourcing advantage



Flowsheet Piloting

DFS Piloting Success

Refinery Piloting

- **ALS** successfully completed a **12-month, >1,800 hr run time** program
- **Feed blends** consisted of nickel concentrate from Ta Khoa and concentrate and MHP from 3rd parties (including **Trafigura**)
- Processed in excess **9 tonnes of concentrate and MHP**
- **Nickel recovery** has exceeded PFS assumptions **>97%** (96% from PFS)
- Successfully achieved battery grade nickel sulphate of **>99.95%**[1]

Concentrator Piloting

- Completion of pilot plant construction at Ta Khoa site
- **Independent Technical Expert** validation and oversight
- Piloting of various feed blends from **Ban Phuc bulk sample** underground mine development
- Scale up **recovery improvement** observed when piloting via existing plant
  - Pilot Plant Recovery: **50%** at 10% nickel concentrate grade
  - BPNM Plant Recovery: **>56%** at 10% nickel concentrate grade

Ta Khoa Refinery Pilot Program

Solvent Extraction

Note 1: specification reflects metal content within sulphate product, meaning gangue metal is <0.05%

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UPCOMING MILESTONES FOR BLACKSTONE

Integrated Ta Khoa Project Valuation

Upstream PFS ✓

Technical De-risking

Extensive Pilot Plant Program ✓

Refine and Increase Accuracy of Project Parameters

Ta Khoa Project Definitive Feasibility Studies

Focus on Fully Integrated Mine to EV Consumer Supply Chain

Finalise Refinery Partnership Structure

Strategic Investments & 3PF

Review of concentrate feed opportunities

Determine Optimal Financing Structure

Final Investment Decision

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CONTACT US

T: +61 8 9425 5217
F: +61 8 6500 9982
E: admin@blackstoneminerals.com.au

www.blackstoneminerals.com.au

Level 5, 600 Murray Street, West
Perth, WA, 6005