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ASX ANNOUNCEMENT

23 December 2021

ASX: BSX

Ta Khoa Mineral Resource Update

Ta Khoa Mineral Resource Increases 73% to 485kt of Nickel

- **Ban Phuc Mineral Resource Upgrade:**
  - 123 Mt at 0.37% Ni for 452kt of nickel (*or 0.43% NiEQ[1] for 523kt NiEQ*)
  - 102 Mt at 0.38% Ni (*0.44% NiEQ*) is in the Indicated category and 21Mt 0.33% Ni (*0.37% NiEQ*) is in the Inferred category
  - Ban Phuc Disseminated Sulfide (DSS) deposit (refer Figure 1) to provide base load supply to an 8Mtpa concentrator being examined in the Upstream Pre-feasibility Study (PFS) to be completed early in 2022
- **Maiden Inferred Resources for Ban Chang, King Snake and Ban Khoa:**
  - Ban Chang Massive Sulfide Vein (MSV) Inferred resource of 0.70 Mt at 1.2% Ni (*2.0% NiEQ*)
  - King Snake MSV Inferred resource of 0.43 Mt at 1.3% Ni (*2.4% NiEQ*)
  - Ban Khoa DSS Inferred resource of 6.2 Mt at 0.31% Ni (*0.39% NiEQ*)
- **Ta Khoa Total Combined Mineral Resource of 130 Mt at 0.37% Ni for 485kt of nickel *(0.44% NiEQ for 571kt Nickel Equivalent*)**

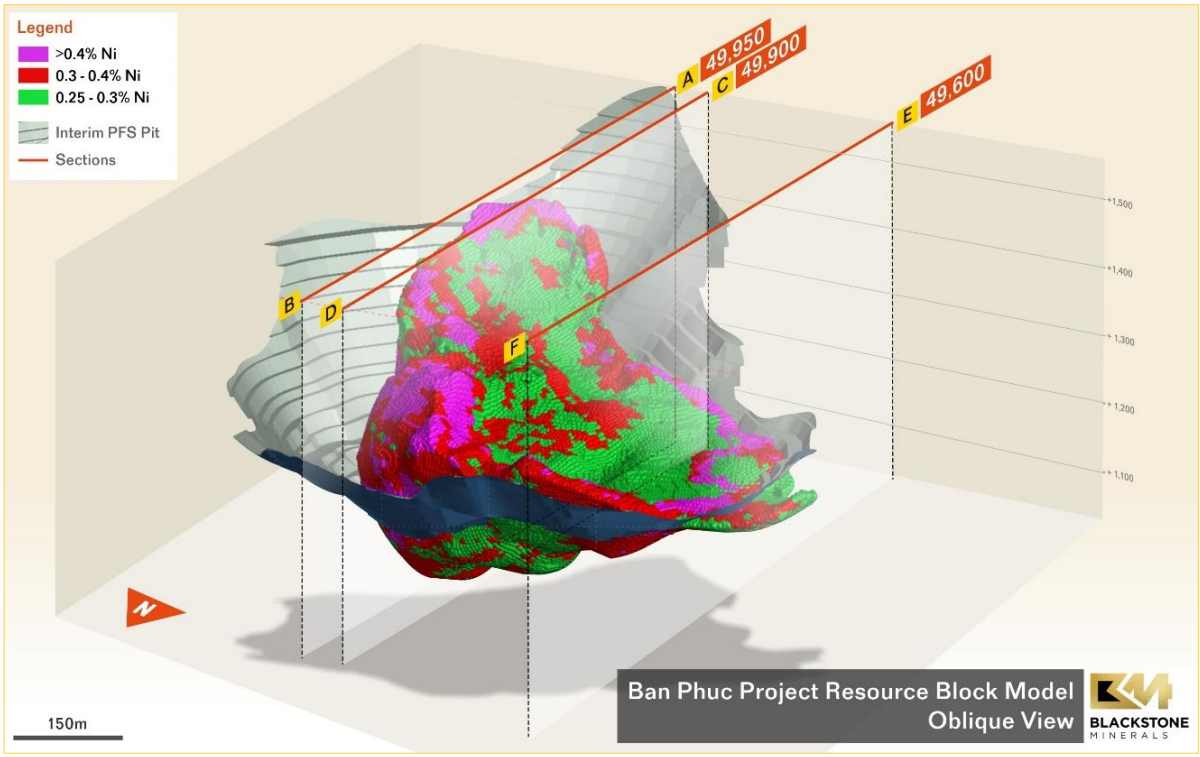

Figure 1. Ban Phuc DSS Resource Block Model Oblique View

Scott Williamson, Blackstone's Managing Director, said: *"An aggressive drill out over the past twelve months has culminated into a global Ta Khoa Mineral Resource of enviable scale and increased confidence. Our Mineral Resource is an early indication of the potential of the Ta Khoa nickel sulfide district, with further aggressive testing already ongoing. Ban Phuc, our large bulk tonnage disseminated sulfide deposit, will underpin base load feed to a large concentrator that is being examined in our upstream Pre-feasibility Study. Ban Chang and King Snake are the first of many high-grade massive sulfide opportunities and the Company continues to work diligently to increase surety of nickel supply for our downstream refinery in Vietnam, with exploration and resource delineation at Ta Khoa being a core part of our strategy."*

[1] *NiEQ Nickel Equivalent - the recovered value of additional metals on a nickel content basis added to the nickel content.*

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Table 1. Ta Khoa Mineral Resource (JORC Code 2012), 30 October 2021

MINING CENTRE	Indicated Resources															Inferred Resources												
	Mt	Ni %	NiEQ %	Cu %	Co %	Au g/t	Pd g/t	Pt g/t	Ni kt	NiEq kt	Cu kt	Co kt	Au kOz	Pd kOz	Pt kOz	Mt	Ni %	NiEq %	Cu %	Co %	Au g/t	Pd g/t	Pt g/t	Ni kt	NiEQ kt	Cu kt	Co kt	Au kOz	Pd kOz	Pt kOz
Ban Phuc (DSS)																														
Oxide	**4**	**0.54**	0.64	0.07	0.01	0.02	0.07	0.07	**23**	27	3.1	0.5	2.9	10	9.3	**8**	**0.36**	0.41	0.02	0.01	0.01	0.03	0.03	**28**	31	1.6	0.7	2.4	8.2	8.5
Transitional	**6**	**0.47**	0.55	0.05	0.01	0.02	0.06	0.06	**29**	34	3.3	0.7	3.5	13	12	**4**	**0.34**	0.39	0.02	0.01	0.01	0.03	0.03	**13**	15	0.6	0.3	1.2	3.9	4.1
Fresh	**91**	**0.36**	0.42	0.02	0.01	0.01	0.05	0.04	**331**	384	21	9.2	36	137	124	**10**	**0.29**	0.33	0.01	0.01	0.01	0.02	0.02	**28**	32	0.6	0.8	2.2	6.2	6.9
Ban Phuc total	**102**	**0.38**	**0.44**	**0.03**	**0.01**	**0.01**	**0.05**	**0.04**	**383**	**445**	**27**	**10**	**42**	**159**	**145**	**21**	**0.33**	**0.37**	**0.01**	**0.01**	**0.01**	**0.03**	**0.03**	**69**	**78**	**2.8**	**1.9**	**5.9**	**18.3**	**19**
Ban Khoa (DSS)																														
Oxide	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**0.2**	**0.33**	0.41	0.05	0.01	0.01	0.06	0.06	**0.8**	1.0	0.1	0.0	0.1	0.4	0.4
Transitional	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**0.1**	**0.33**	0.40	0.05	0.01	0.01	0.04	0.04	**0.3**	0.4	0.0	0.0	0.0	0.1	0.1
Fresh	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**5.9**	**0.31**	0.38	0.05	0.01	0.01	0.04	0.04	**19**	23	2.8	0.8	2.0	7.8	7.8
Ban Khoa total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**6.2**	**0.31**	**0.39**	**0.05**	**0.01**	**0.01**	**0.04**	**0.04**	**20**	**24**	**2.9**	**0.8**	**2.1**	**8.4**	**8.4**
Sub-total - DSS	**102**	**0.38**	**0.44**	**0.03**	**0.01**	**0.01**	**0.05**	**0.04**	**383**	**445**	**27**	**10**	**42**	**159**	**145**	**27**	**0.32**	**0.37**	**0.02**	**0.01**	**0.01**	**0.03**	**0.03**	**88**	**101**	**5.7**	**2.7**	**8.0**	**27**	**28**
Ban Chang (MSV)																														
Oxide	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**0.01**	**0.88**	1.46	0.55	0.05	0.05	0.22	0.20	**0.1**	0.2	0.1	0.0	0.0	0.1	0.1
Transitional	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**0.04**	**0.91**	1.51	0.54	0.06	0.05	0.25	0.23	**0.4**	0.6	0.2	0.0	0.1	0.3	0.3
Fresh	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**0.6**	**1.20**	2.00	0.73	0.07	0.05	0.36	0.30	**7.8**	13	4.8	0.5	1.1	7.5	6.2
Ban Chang total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**0.70**	**1.18**	**1.96**	**0.72**	**0.07**	**0.05**	**0.35**	**0.29**	**8.3**	**14**	**5.1**	**0.5**	**1.2**	**8.0**	**6.6**
King Snake (MSV)																														
Oxide	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**0.002**	**1.00**	1.72	0.51	0.04	0.16	0.46	0.70	**0.0**	0.0	0.0	0.0	0.0	0.0	0.0
Transitional	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**0.01**	**1.05**	1.92	0.64	0.04	0.12	0.60	0.98	**0.1**	0.3	0.1	0.0	0.1	0.3	0.4
Fresh	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**0.4**	**1.30**	2.40	0.82	0.05	0.14	0.74	1.28	**5.3**	9.8	3.4	0.2	1.8	9.7	16.8
King Snake total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**0.43**	**1.29**	**2.38**	**0.82**	**0.05**	**0.14**	**0.73**	**1.27**	**5.5**	**10.1**	**3.5**	**0.2**	**1.9**	**10.0**	**17.3**
Subtotal - MSV	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**1.1**	**1.22**	**2.12**	**0.76**	**0.06**	**0.08**	**0.49**	**0.66**	**14**	**24**	**8.5**	**0.7**	**3**	**18**	**24**
Ta Khoa Total	**102**	**0.38**	**0.44**	**0.03**	**0.01**	**0.01**	**0.05**	**0.04**	**383**	**445**	**27**	**10**	**42**	**159**	**145**	**28**	**0.36**	**0.44**	**0.05**	**0.01**	**0.01**	**0.05**	**0.06**	**102**	**126**	**14**	**3**	**11**	**45**	**52**

Notes:

1. Some numerical differences may occur due to rounding
2. The resource reporting lower cut-off grades have changed from the previous 2020 Mineral Resource:
   a. Cut-off grade reporting lower limit:
      i. **DSS**: Ban Phuc, Oxide & Transitional = 0.30% Ni, Fresh = 0.25% Ni – **previously reported at 0.30% Ni for all material types**
      ii. **MSV**: Ban Chang & King Snake = 0.70% Ni – **MSV's not previously reported by Blackstone Minerals**
3. Nickel Equivalent calculations are:
   a. Ban Phuc Ni Eq (%) = Ni (%) + 0.270 x Cu (%) + 2.76 x Co (%) + 0.336 x Pd (g/t) + 0.139 x Pt (g/t) + 0.190 x Au (g/t)
   b. Ban Khoa Ni Eq (%) = Ni (%) + 0.517 x Cu (%) + 1.95 x Co (%) + 0.314 x Pd (g/t) + 0.129 x Pt (g/t) + 0.244 x Au (g/t)
   c. Ban Chang & King Snake Ni Eq (%) = Ni (%) + 0.617 x Cu (%) + 2.24 x Co (%) + 0.331 x Pd (g/t) + 0.165 x Pt (g/t) + 0.252 x Au (g/t)
4. The Ban Phuc Mineral Resource Update includes all available drill holes drilled up to and including **BP21-41** (Completed June 2021)
5. The Ban Khoa Mineral Resource Update includes all available drill holes drilled up to and including **BK21-13** (Completed May 2021) – drilling and testing is ongoing at the prospect (at Dec 2021)
6. The King Snake Mineral Resource includes drill holes drilled up to and including **KS21-26** (Completed June 2021) – drilling and testing is ongoing at the prospect (at Dec 2021)
7. The Ban Chang Mineral Resource includes drill holes drilled up to and including **BC21-34** (Completed June 2021) – drilling and testing is ongoing at the prospect (at Dec 2021)
8. The effective date of the Mineral Resource reported is 30th of October 2021, (the approximate cut-off date of the information included in the Mineral Resource), however no new data for the DSS deposits was collected after June 2021. Drilling has been continuous at Ban Chang and King Snake for all of 2021.
9. The Ta Khoa mineral concessions are held by Ban Phuc Nickel Mine LLC, Vietnam (BPNM). Blackstone Minerals owns 90% of BPNM. Resources are presented on a 100 % basis.

Introduction

Blackstone Minerals Limited ("Blackstone" or the "Company") is pleased to present a Mineral Resource update for its 90% owned Ta Khoa Nickel Project (TKNP) in northern Vietnam (refer Figure 2). The global Ta Khoa resource estimate is comprised of the Ban Phuc and Ban Khoa DSS deposits (refer to Figure 3 and Table 1); and the Ban Chang and King Snake MSV (refer Figure 3 and Table 1).

Figure 2. Ta Khoa Nickel – Copper – PGE Project Location

Blackstone Minerals has conducted significant exploration and development programs since acquiring the TKNP in late 2019. Programs include extensive geochemical, geophysical, drilling, mapping, analytical testing, resource evaluations, petrographic and mineralogical analysis at the main development projects and a series of greenfield exploration prospects.

Blackstone's TKNP and Ta Khoa Refinery (TKR) form two major cogs in Blackstone's vertically integrated development strategy to produce Nickel-Cobalt-Manganese (NCM) 811 precursor for the growing lithium-ion battery industry. The strategy is underpinned by Blackstone's ability to secure nickel concentrate and Ta Khoa is emerging as a nickel sulfide district of enviable scale with several exploration targets yet to be tested. The updated TKNP Mineral Resource presented in this report demonstrates a clear means of secure nickel concentrate supply.

In July 2021 the Company completed a technically and economically robust PFS for the TKR. The PFS was based on treating 400ktpa of nickel concentrate, supplied from the TKNP as well as third party concentrate. Blackstone plans to provide at least half of the TKR feed concentrate from TKNP, with mill feed sourced from Ban Phuc, Ban Chang, King Snake and potentially other targets as drilling continues.

Highlights from the TKNP Mineral Resource update include:

Update of the Ban Phuc Mineral Resource:

- 123Mt at 0.37% Ni for 452kt of Nickel (or 0.43% NiEQ for 523kt NiEQ)
  - Increased from 58.7Mt at 0.48% Ni for 280kt of Nickel (June 2020)
- 102Mt at 0.38% Ni (0.44% NiEQ) is in the Indicated category and 21Mt at 0.33% Ni (0.37% NiEQ) is in the Inferred category
  - The Ban Phuc Mineral Resource is reported using a 0.25% Ni cut-off grade for the sulfide component and 0.3% Ni cut-off grade for the oxide and transitional component (previously 0.30% Ni universally)
  - Updated Resource expected to underpin higher throughputs, with a large 8 Mtpa concentrator now being adopted as the base case in the Company's upcoming TKNP PFS
  - Shape and width of mineralised domains and the continuity of mineralisation are driving low strip ratios for the final Ban Phuc PFS pit design

Maiden Inferred Resources for:

Ban Khoa DSS of 6.2 Mt at 0.31% Ni:

- Ban Khoa has potential to increase operational flexibility due to the mineralisation containing high sulfur content (the confidence classification for Ban Khoa resource is Inferred)
- The Ban Khoa Mineral Resource is reported using a 0.25% Ni cut-off grade for the sulfide component and 0.3% Ni for the oxide and transitional
- Preliminary mining studies have indicated there is the potential for an open pit mine
- There is significant ongoing drilling underway at the Ban Khoa DSS deposits. Resources will be updated once all information is finalised

Ban Chang of 0.70Mt at 1.2% Ni (2.0% NiEQ) and King Snake of 0.43Mt at 1.3% Ni (2.4% NiEQ)

- Higher grade MSV resources are intended to be developed as underground mines and will provide supplementary feed to the large 8 Mtpa concentrator which is the focus of the upcoming TKNP PFS
- Both MSV resources are reported using a 0.7% Ni cut-off grade
- Additional test work is being performed to confirm metallurgical recovery of blended Ta Khoa ore, comprising predominantly Ban Phuc DSS deposit and smaller quantities of the Ban Khoa DSS resource along with the MSV resources
- In addition to primary nickel content, the Ban Chang and King Snake deposits feature strong copper, cobalt, gold, palladium, and platinum by-product credits
- There is significant ongoing drilling underway at Ban Chang and King Snake MSV deposits. Resources will be updated once all information is finalised

Overview of Ta Khoa Geology

The Ta Khoa Project is in a magmatic Nickel – Copper – PGE sulfide district associated with the Song Da Rift, a major crustal suture zone, and the Emeishan Large Igneous Province that extends for 1,000 km from northern Vietnam into southern China and hosts several Ni-Copper-PGE deposits.

The licenses are located within the Ta Khoa anti-form which is a domal feature within the Song Da Rift Zone. The core of the anti-form is dominated by gneisses and schists of the Devonian Nam Sap Formation, which is mantled by calcareous schists and marbles of the Ban Phuc beds. The Ban Phuc beds form the wall-rock host of the Ban Phuc and Ban Khoa DSS deposits and the Ban Chang and King Snake MSV deposits. The unit is favourable host horizon for many of the mafic and ultramafic intrusions and dykes mapped on the dome.

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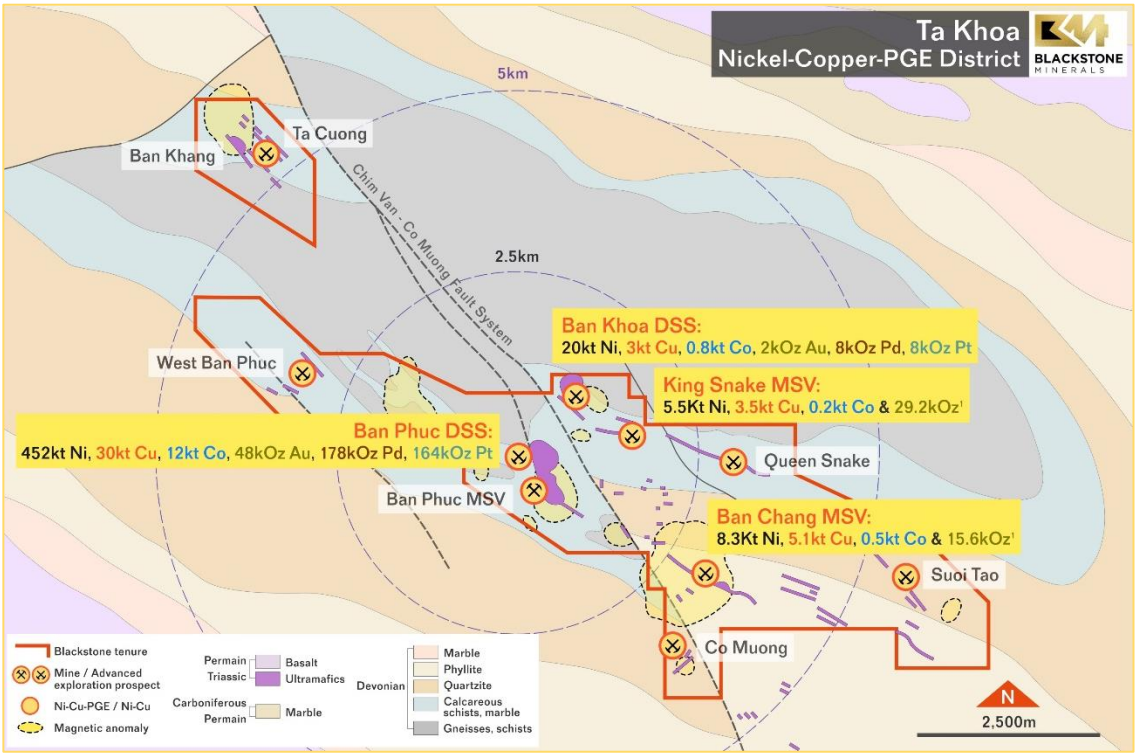

Figure 3. Ta Khoa Nickel-Copper-PGE[1] District *([1] Platinum (Pt) + Palladium (Pd) + Gold (Au))*

Two main types of Nickel–Copper–PGE sulfide deposits are recognised within the Ta Khoa district:

1) Disseminated Sulfide deposits within large ultramafic intrusions, of which the Ban Phuc ultramafic intrusion is the best known and hosts the Ban Phuc DSS deposit and the similar Ban Khoa DSS deposit

2) Massive sulfide veins within or locally related to narrow ultramafic dykes or locally within sedimentary wall rocks. At Ban Chang for example, zones of disseminated, semi-massive and stringer sulfides are associated with massive to semi-massive sulfide veins

Ta Khoa Mineral Resource – Summary

Blackstone engaged Optiro Pty Ltd ("Optiro"), a renowned independent consultant group to prepare mineral resource estimates for the four deposits of the TKNP reported in this announcement. The Resources have been reported in accordance with the JORC Code (2012) and are effective as of the 30th of October 2021 (refer Table 1). Drilling activities were ongoing at all prospects at the time of reporting. Incoming information was closed off for the MSV prospects in October 2021 and in June 2021 for the DSS deposits.

The announcement includes the first estimates carried out and reported for the Ban Khoa, Ban Chang and King Snake deposits, and an updated estimate for the Company's flagship Ban Phuc DSS deposit (previous Ban Phuc resource statement - refer ASX announcement 14 October 2020).

The resource estimates are based on information taken from extensive new core drilling carried out over the last two years by Blackstone and some historic information acquired with the project. Details regarding the information supporting the resources reported, including quality control and quality assurance and estimation techniques, is provided in the Resource Estimate Technical Overview section of this report.

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For the Ban Phuc and Ban Khoa DSS deposits, an assessment of reasonable prospects of eventual economic extraction (RPEEE) was undertaken using optimised pit shells. A combination of the deposit geometry and project economics, combine to produce optimised shells at both DSS deposits that capture more than 95% of the DSS mineralisation. Hence, the entire DSS mineralisation is assessed as meeting RPEEE criteria. Both the Ban Phuc and Ban Khoa DSS deposits were reported above a cut-off grade of 0.25% nickel in the fresh zones and above 0.30% nickel in the oxide and transitional zones. Compared to the previous Mineral Resource reporting cut-off, the lower cut-off grade is supported by metallurgical test work on Ban Phuc and Ban Khoa samples with average nickel grade between 0.25% - 0.30%, and up to 1.0%, supporting the potential economic recovery of nickel within these grade ranges.

For the Ban Chang and King Snake MSV deposits, both are highly analogous to the adjacent previously mined Ban Phuc MSV deposit, which was successfully mined using underground mining methods. Hence, the MSV deposits were assessed as underground opportunities, and have been reported at a 0.7% nickel cut-off.

Geotechnical analysis for slope stability and rock characteristics has been completed to a PFS level for Ban Phuc (Indicated and Inferred resource) and preliminary assumptions have been made for geotechnical characteristics for Ban Khoa, Ban Chang and King Snake (Inferred Resources).

Recent mining, processing and refining evaluations considering the aforementioned price and mining assumptions are such that the Mineral Resources reported are considered to have reasonable prospects for eventual economic extraction (RPEEE).

Blackstone is performing metallurgical test work designed to assess the flotation recovery of lower grade Ban Phuc DSS ore, when blended with higher sulfide material from Ban Chang, King Snake and Ban Khoa material. This test work is ongoing, noting that potential enhancements to flotation recovery is still being assessed and have not been incorporated with this resource update.

Information relating to each deposit reported here is included below.

Ta Khoa Disseminated Sulfide Resources

Ban Phuc

The Ban Phuc intrusion is one of the larger outcropping ultramafic bodies in the Song Da Rift with dimensions of 940 m by 220-420 m, an outcrop area of 0.25 km^2 and preserved depth of up to 470 metres below surface. It hosts the largest resource of disseminated Ni-Cu-Co (& PGE) sulfides in the license area. The intrusion is comprised of serpentinised dunites and peridotites (with some gabbroic differentiates in its upper parts). The intrusion is elongate and trough-shaped with a north-westerly trend corresponding to the strike of the Devonian metasedimentary host rocks. It has intruded along the trend of a discontinuous unit of calcareous Ban Phuc Beds. The trough-shaped mineralised domains, which are parallel to the folded shaped of the intrusion, are shown on the plan view below (Figure 4). Three cross-sections of the resource model (coloured resource blocks (Ni%) on the sections) showing the host sediments are included below (see Figure 5, Figure 6, Figure 7).

The 2021 Ban Phuc resource is summarised in the Table 2 below.

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Table 2: Ban Phuc Mineral Resource Summary

Ban Phuc Resource	Mt	Ni (%)	NiEQ (%)	Cu (%)	Co (%)	Au (g/t)	Pd (g/t)	Pt (g/t)	S (%)	Ni (kt)	NiEQ (kt)	Cu (t)	Co (t)	Au kOz)	Pd (kOz)	Pt (kOz)
Indicated Resources	**102**	**0.38**	**0.44**	0.03	0.01	0.01	0.05	0.04	0.25	**383**	**445**	27	10	42	159	145
Inferred Resources	**21**	**0.33**	**0.37**	0.01	0.01	0.01	0.03	0.03	0.07	**69**	**78**	3	2	6	18	19
Total	**123**	**0.37**	**0.43**	**0.02**	**0.01**	**0.01**	**0.04**	**0.04**	**0.22**	**452**	**523**	**30**	**12**	**48**	**178**	**164**

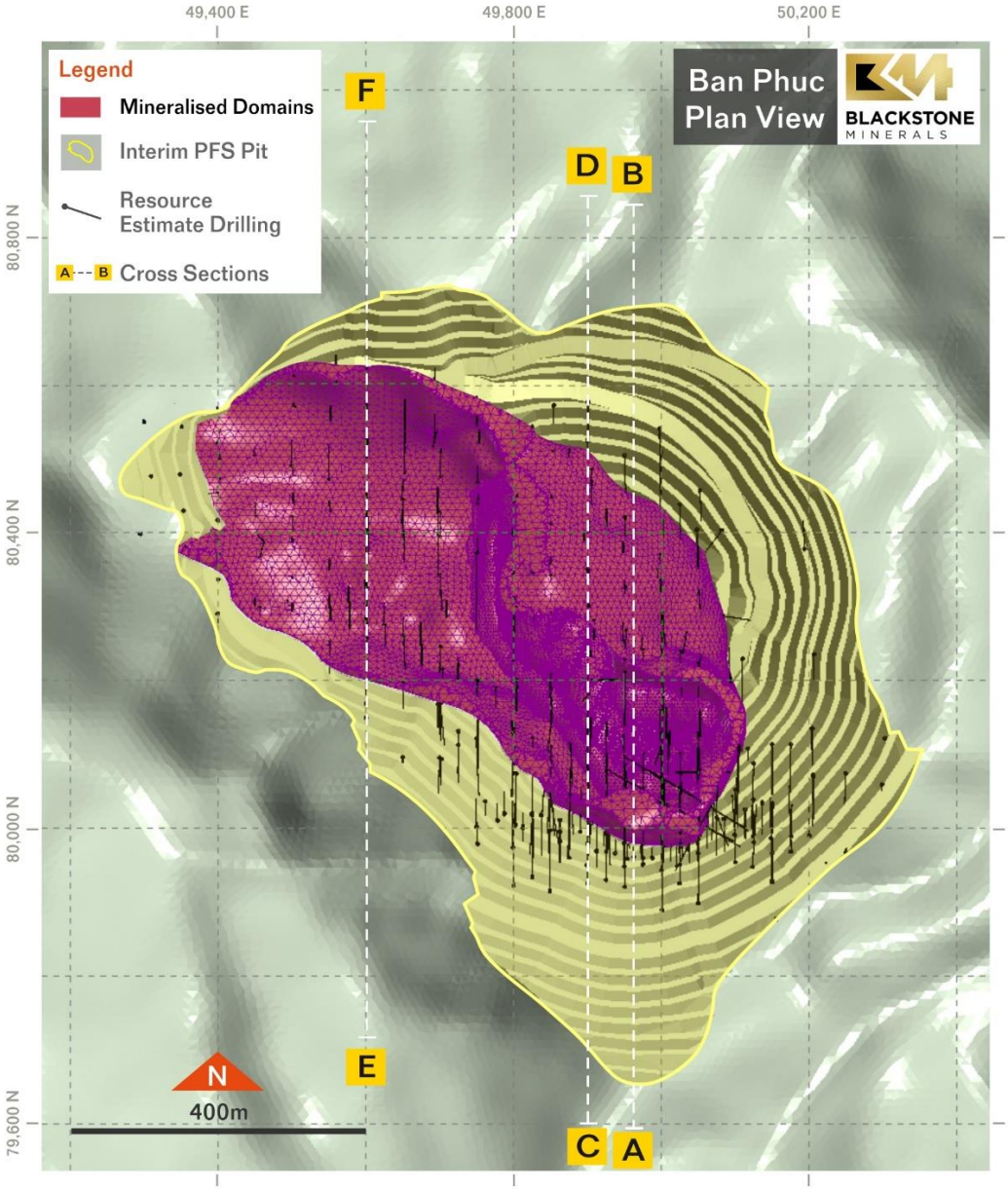

Figure 4. Ban Phuc Plan View

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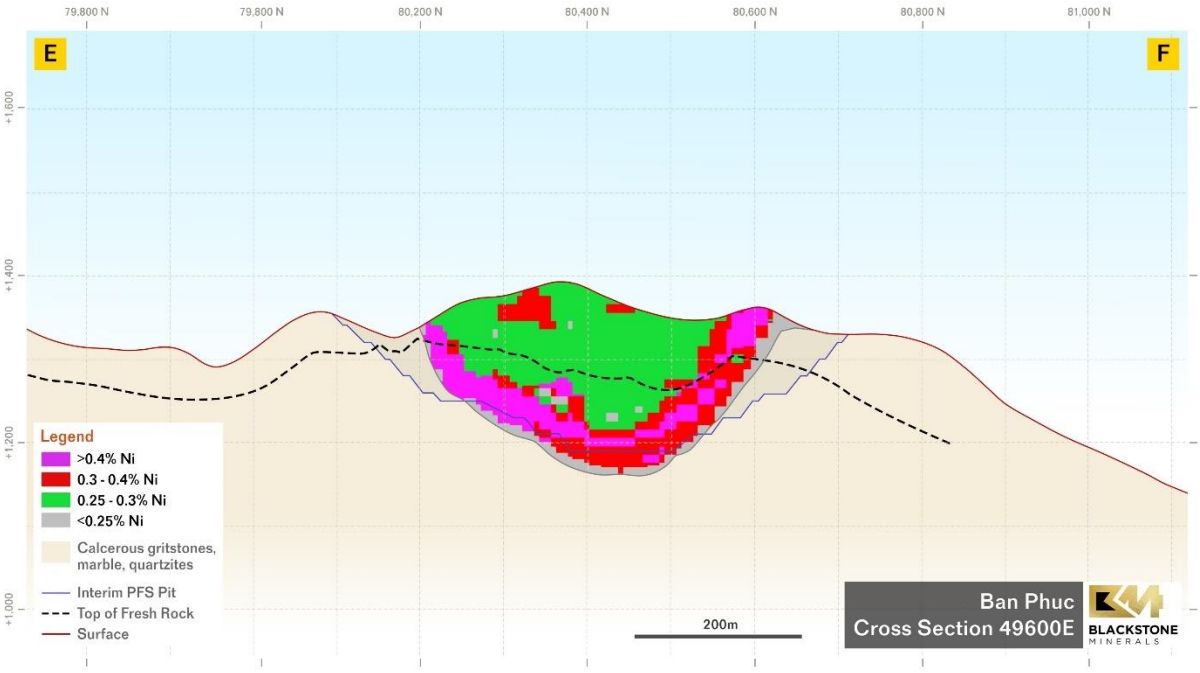

Figure 5. Ban Phuc Cross Section 49,600E

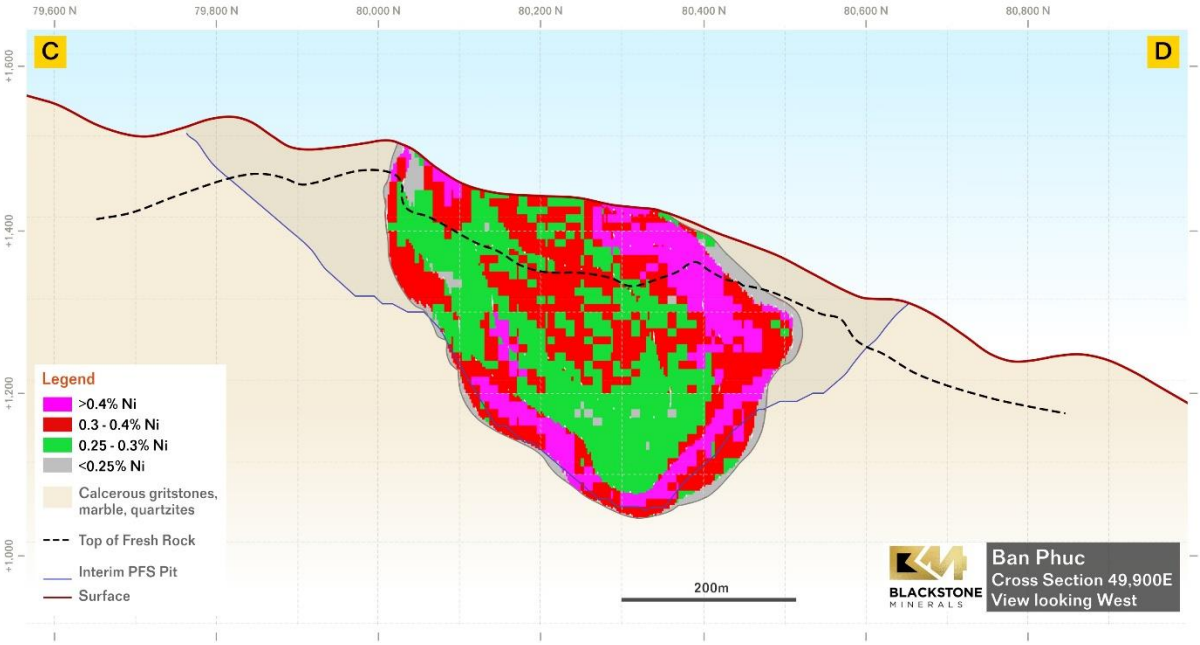

Figure 6. Ban Phuc Cross Section 49,900E

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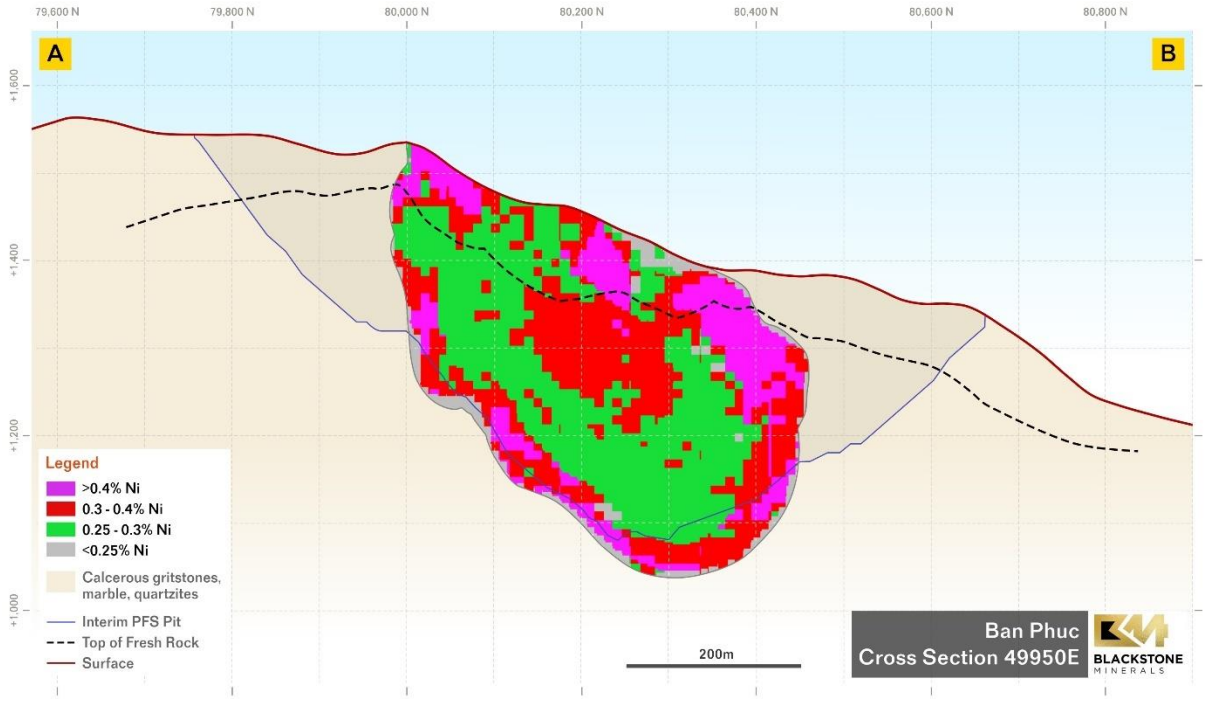

Figure 7. Ban Phuc Cross Section 49,950E

Ban Khoa

The Ban Khoa disseminated nickel sulfide deposit is hosted by a synclinal or trough-shaped serpentinised peridotite, approximately 1 km north of the Ban Phuc disseminated nickel sulfide deposit (refer Figures 8 & 9). The Ban Khoa mineralisation comprises broad zones (approx. 150 - 190 m thick) with disseminated nickel sulfides throughout the serpentinite, as well as with localised lenses of heavily disseminated nickel sulfide and PGEs, similar to the Ban Phuc deposit.

Ban Khoa is in a preliminary development phase and is currently not intended for inclusion in the Company's upcoming TKNP PFS. Following the Company's initial resource drilling program at Ban Khoa, Blackstone has recently started the next phase of infill drilling. Additional drilling and mining evaluation studies will be performed to assess underground potential and additional metallurgical test work is underway to understand blending performance, with the intention of including Ban Khoa as part of the follow-up TKNP Definitive Feasibility Study (DFS).

Figure 8 below illustrates the proximity of Ban Khoa to Ban Phuc and Figure 9 shows a simplified geological cross-section with the inferred Ni % resource blocks shown.

Ban Khoa's proximity to Ban Phuc will provide valuable synergies during mining.

Table 3: Ban Khoa Mineral Resource Summary

Ban Khoa Resource	Mt	Ni (%)	NiEQ (%)	Cu (%)	Co (%)	Au (g/t)	Pd (g/t)	Pt (g/t)	S (%)	Ni (kt)	NiEQ (kt)	Cu (kt)	Co (kt)	Au kOz)	Pd (kOz)	Pt (kOz)
Inferred Resources	**6.2**	**0.31**	**0.39**	0.05	0.01	0.01	0.04	0.04	0.9	**20**	**24**	3	0.8	2.1	8.4	8.4

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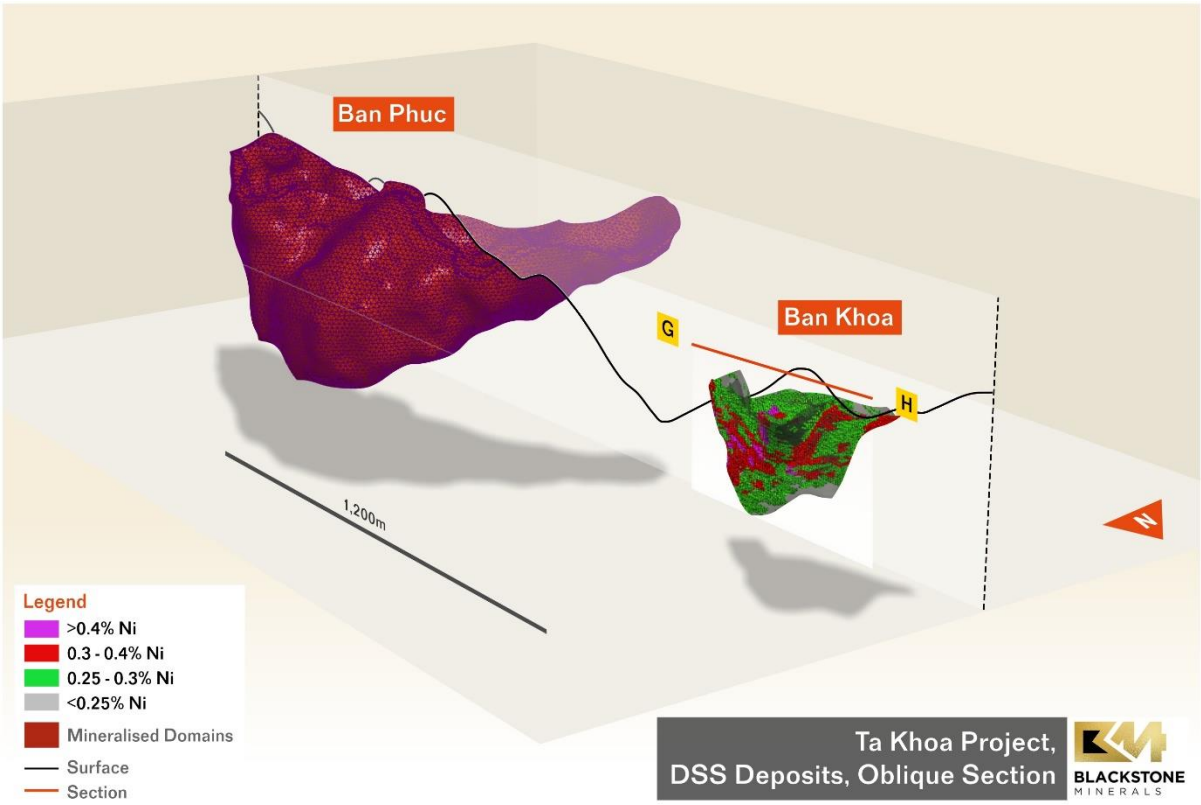

Figure 8. Ban Khoa Inferred Resource (Ni%) with Ban Phuc Displayed

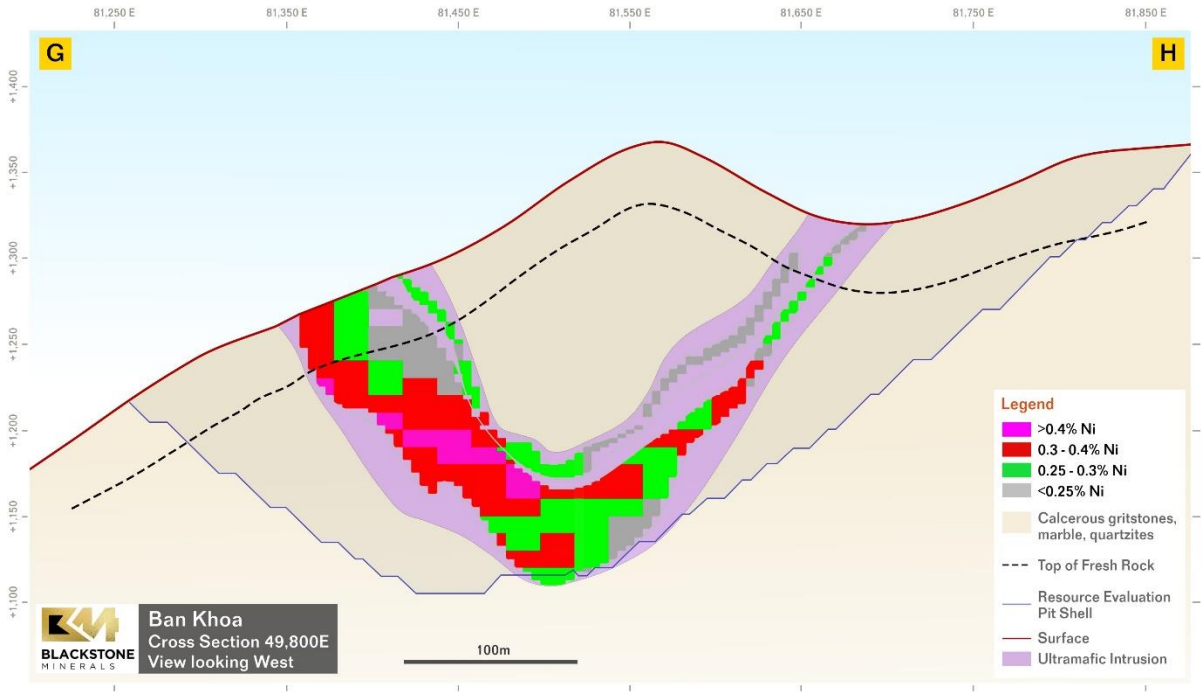

Figure 9. Ban Khoa Cross Section 49,800E

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Ta Khoa Massive Sulfide Resources

Ban Chang

The Ban Chang prospect is located 2.5 km east of the Ban Phuc deposit adjacent to the Chim Van – Co Muong fault system. The prospect geology consists of a tremolitic dyke swarm within phyllites, sericite schists and sandstones of the Sap Viet Horizon. The MSV mineralisation consists of two west-east striking, steeply south dipping veins, which are 580m apart along strike. The eastern vein consists of a vein of massive sulfide which has a disseminated ultramafic outer domain encapsulating the MSV (refer Figure 10). The western vein consists of a single massive sulfide vein (refer Figure 11). The MSV contains high grade PGEs when compared to the previously mined Ban Phuc MSV deposit which may indicate sulfide segregation in a PGE bearing before dyke formation.

The dyke swarms are located along a zone approximately 1,500 m long and varies between 5 m and 60 m wide. The dykes and massive sulfide are interpreted to be hosted within a splay (and subsidiary structures) off the major regional Chim Van – Co Muong fault system.

Table 4: Ban Chang Mineral Resource Summary

Ban Chang Resource	Mt	Ni (%)	NiEQ (%)	Cu (%)	Co (%)	Au (g/t)	Pd (g/t)	Pt (g/t)	S (%)	Ni (kt)	NiEQ (kt)	Cu (kt)	Co (kt)	Au kOz)	Pd (kOz)	Pt (kOz)
Inferred Resources	**0.7**	**1.2**	**2.0**	0.72	0.07	0.05	0.4	0.3	13	**8**	**14**	5	0.5	1.2	8.0	6.6

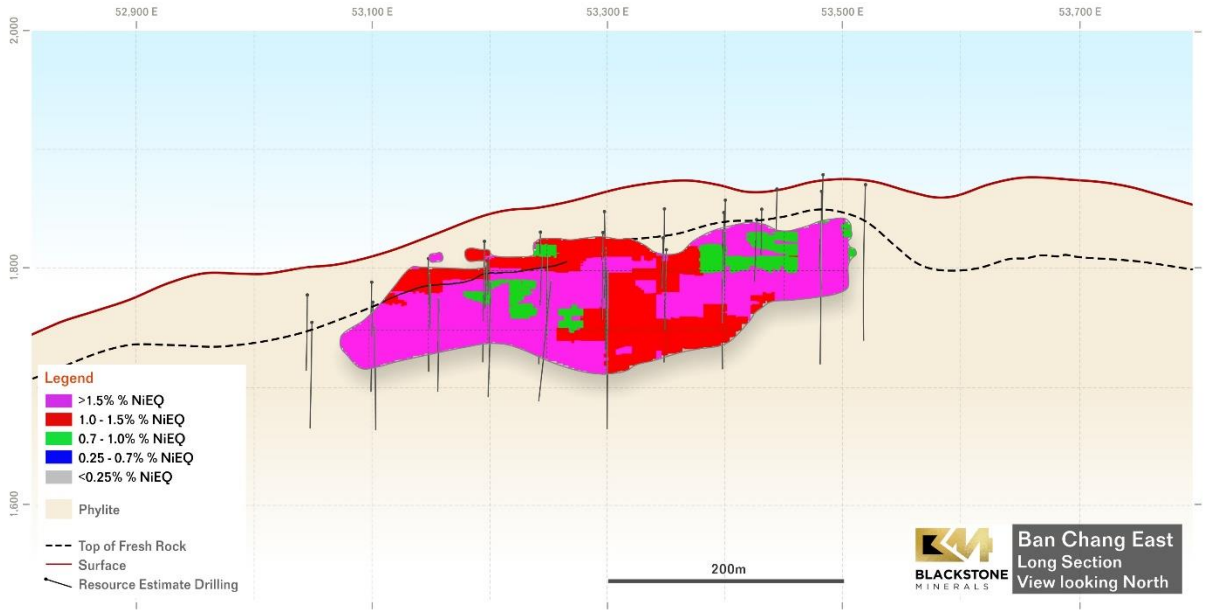

Figure 10. Ban Chang East, Resource Model Long Section

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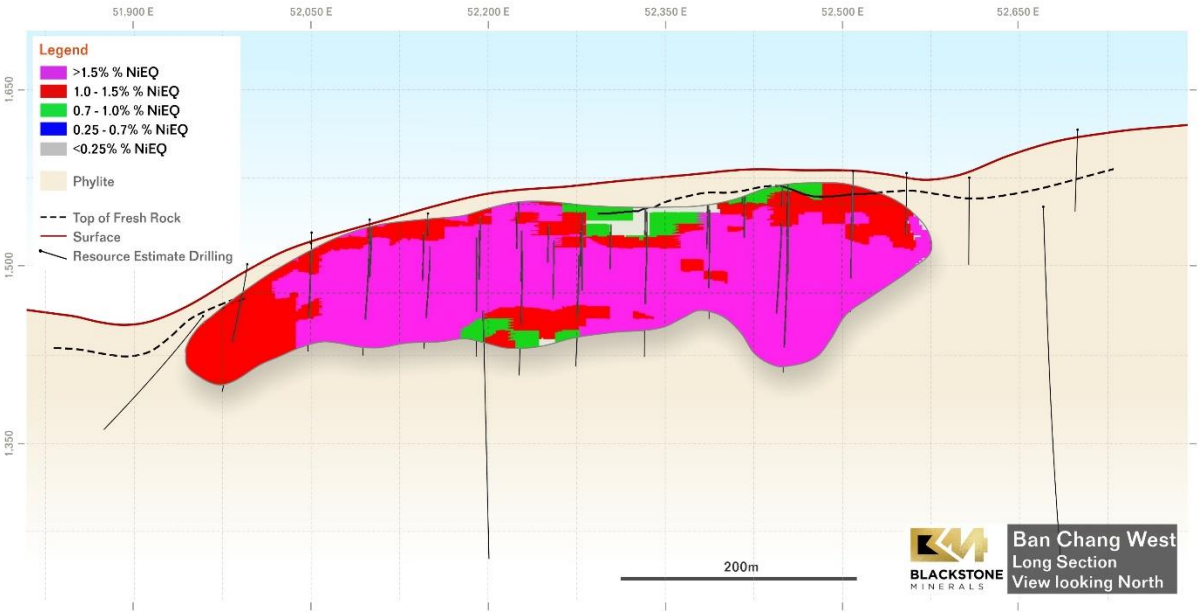

Figure 11. Ban Chang West, Resource Model Long Section

King Snake

King Snake is located approximately 1 km north of the Ban Phuc disseminated nickel sulfide deposit (refer Figure 1). The King Snake prospect is a typical magmatic MSV of high-grade brecciated Ni-Cu-Co-PGE associated with tremolite-altered mafic-ultramafic dykes developed along a shear zone within the calcareous sediments and quartz-mica schists of the Ban Phuc Horizon.

Similar to Ban Chang, King Snake contains high grade PGEs compared to the previously mined Ban Phuc MSV deposit which indicates that mineralisation was likely formed by sulfide segregation from PGE bearing magma in an active feed dyke.

Blackstone's drilling at King Snake has been focussed on Electro-magnetic (EM) targets which extend down plunge to the west of historic drilling. Assay results indicate greater thicknesses of sulfide mineralisation down plunge of historic drilling. The higher power surface EM targeting has accurately guided the down plunge drilling hundreds of meters from the historic surface showings. In addition, downhole EM (DHEM) has further directed investigations to wider higher-grade zones throughout this consistent, high grade and tabular massive sulfide vein (refer Figure 12).

Table 5: King Snake Mineral Resource Summary

King Snake Resource	Mt	Ni (%)	NiEQ (%)	Cu (%)	Co (%)	Au (g/t)	Pd (g/t)	Pt (g/t)	S (%)	Ni (kt)	NiEQ (kt)	Cu (kt)	Co (kt)	Au kOz)	Pd (kOz)	Pt (kOz)
Inferred Resources	**0.43**	**1.3**	**2.4**	0.8	0.05	0.14	0.7	1.3	11	**5.5**	**10**	3.5	0.2	1.9	10	17

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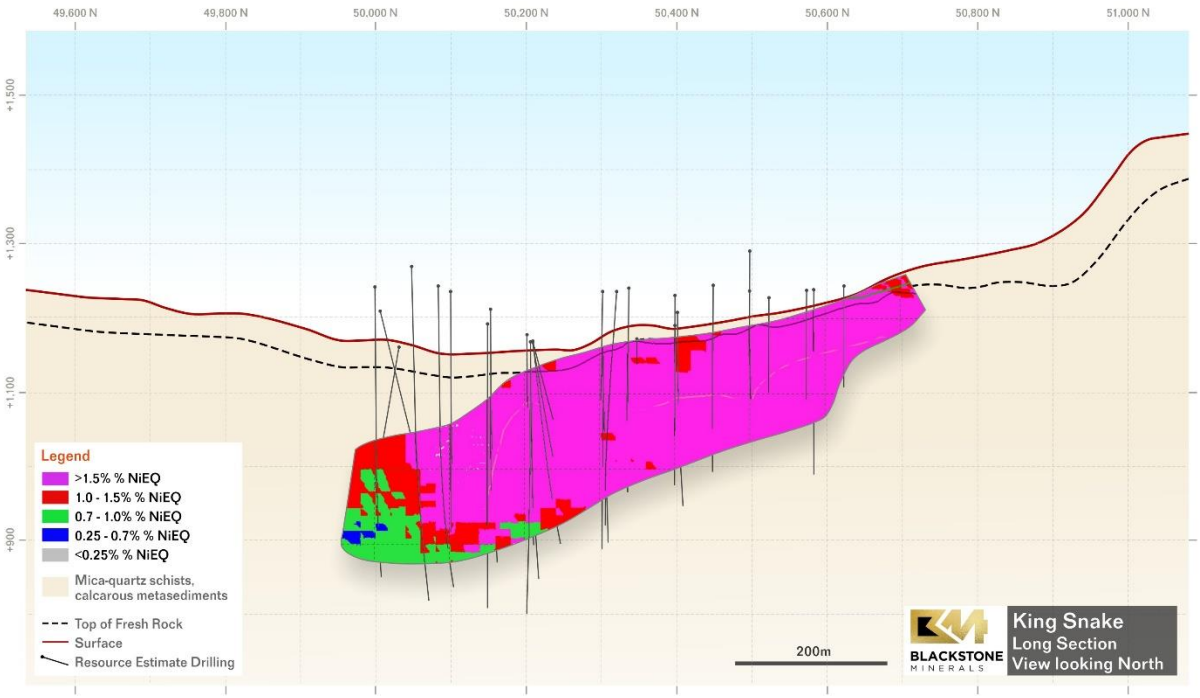

Figure 12. King Snake, Resource Model Long Section

Resource Estimate Technical Overview

The following is a material information summary relating to the Resources, consistent with ASX Listing Rule 5.8.1 requirements. Further details are provided in JORC Code Table 1, which is included as Appendix One.

Where appropriate, sub-sections below and in JORC Table 1 are expanded to discuss prospect specific information. Several sections are general in nature and describe the techniques or information for all prospects.

Geology & Geological Interpretation

The exploration licenses are located within the Ta Khoa anti-form which forms a domal feature within the Song Da Rift Zone. The core of the anti-form is dominated by gneisses and schists of the Devonian Nam Sap Formation, which is mantled by calcareous schists and marbles of the Ban Phuc beds. The Ban Phuc beds form the wall-rock host of the Ta Khoa mineralised intrusions and veins and are a favourable host horizon for many of the mafic and ultramafic intrusions and dykes mapped on the dome. Felsic pegmatites, quartz and calcite veins are also present throughout the anti-form. The margins of the Ta Khoa antiformal dome in the licence area are represented by quartzites, phyllites and marbles of the Devonian Ban Cai Formation. The core of the dome is transected by the Chim Van - Co Muong Fault, interpreted to be a sinistral strike-slip fault.

The DSS mineralised zones form in thick layers parallel to the layering in the folded dunite/peridotite intrusion host sequences at Ban Phuc and Ban Khoa.

The MSV mineralisation form as sub-parallel splays to the Chim Van - Co Muong Fault. The MSV mineralisation is closely related to tremolite dyke swarms at Ban Chang with the dykes carrying lower grade disseminated nickel mineralisation which 'halos' around the vein lenses. The relationship between dykes and the nickel sulfide vein system at King Snake is less prominent. The mineralisation at Ban Chang consists of two steeply south dipping veins (east and west), with the eastern vein

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consisting of a MSV mineralisation enclosed by a low grade disseminated sulfide tremolite dyke. The western Ban Chang vein consists solely of massive sulfide, and similarly, King Snake consists of a single massive sulfide lens. Geological and mineralisation interpretations were prepared by Blackstone geologists.

Drilling Techniques

All Blackstone drilling used PQ, HQ and NQ diameter diamond core drilling conducted by Ban Phuc Nickel Mines using GX-1TD and GK-300 diamond coring rigs and by independent drilling contractor Intergeo using Longyear 38 and LF70 diamond coring rigs.

All previous drilling (prior to Blackstone's ownership) considered in the resource estimates was conducted by Asia Mineral Resource (AMR - 1996 to 2015) or by a branch of the Vietnamese geological survey (VGS) and mainly used NQ and HQ core diameters. This drill core was not orientated. For a more complete discussion of VGS and AMR drilling techniques see DB Mapleson and BA Grguric N43-101 Technical Report on the Ta Khoa (Ni-Cu-Co-PGE) Prospects Son La Province, Vietnam (2017) available from System for Electronic Document Analysis and Retrieval (www.sedar.com) for AMR. Drilling data from an historic equivalent of the VGS carried drilling from 1959-1963 is excluded from the resource estimates.

Sampling and Sub-sampling

For all deposits, the drill core used for estimation was cut lengthwise by diamond core saw and the sampled intervals collected as continuous half or quarter core. Samples were bagged for assay in intervals according to lithological criteria determined by a Ban Phuc Nickel Mines geologist. Quality control and assurance analysis has indicated that ¼ core is adequate for the DSS deposits. This analysis has shown that the assaying of the precious metals in the MSV deposits, although currently providing an adequate degree of repeatability, a larger sample volume is preferred to improve the analytical repeatability of precious metal.

Original sample measurements and weights are as follows:

- Ban Phuc: 0.04 m to 11.55 m with a mean of 1.41 m. Sample weights for assay ranged from approx. 0.176 kg to 8.4 kg with a mean of c. 2.58 kg.
- Ban Khoa: 0.3 m to 3.7 m with a mean of 1.97 m. Sample weights for assays ranged from approx. 0.43 kg to 6.5 kg with a mean of c. 2.53 kg.
- Ban Chang and King Snake: 0.05 m to 2.45 m with a mean of 0.92 m. Sample weights for assay ranged from approx. 0.122 kg to 5 kg with a mean of c. 1.22 kg.

Continuous remnant core has been retained in the trays for future reference or sampling.

All Blackstone core samples are submitted to SGS Hai Phong, Vietnam ('SGS') where the quarter core samples were dried and crushed to -5 mm, then a 250 g sub-sample was split from each and pulverised to 85 % passing 75 microns to produce the analytical pulps which were then dispatched to ALS Geochemistry, Perth WA ('ALS') for assay.

Disseminated Sulfide Style

At Ban Phuc, within the current 'inferred' low-grade domain there are 16 drill holes drilled between 2004 and 2008 (totalling 544 metres), where 1.0 m length samples were assayed at 9 to 18 m intervals, with the intervening intervals not being sampled. A program to re-sample and assay the unsampled intervals has commenced, with the expectation that the returning assays will average

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grades commensurate with the 2021 estimate in this low-grade domain and is not expected to materially impact the current Ban Phuc mineral resource estimate.

For the Ban Khoa deposit, assayed sample intervals ranged from a minimum of 0.05 m to a single sample of 2.2 m, averaging 0.95 m, with 1.2% of samples being less than 0.5 m by length, with 1.0 m being the most frequent sample interval. All drilling through the ultramafic at Ban Phuc has been sampled.

For the Ban Khoa deposit, assayed sample intervals ranged from a minimum of 0.05 m to a single sample of 2.2 m, averaging 0.95 m, with 1.2% of samples being less than 0.5 m by length, with 1.0 m being the most frequent sample interval.

Massive Sulfide Vein Style

For the Ban Chang deposit, assayed sample intervals ranged from a minimum of 0.05 m to a single sample of 2.2 m length, averaging 0.95 m, with 0.6% of samples being less than 0.3 m by length, with 1.0 m being the most frequent sample interval.

For the King Snake deposit, assayed sample intervals ranged from a minimum of 0.05 m to a single sample of 2.45 m, averaging 0.92 m, with 1.5% of samples being less than 0.3 m by length, with 1.0 m being the most frequent sample interval.

Sampling Analysis and Methods

Ni, Cu and Co are determined at ALS by industry standard nitric + perchloric + hydrofluoric + hydrochloric acid digest with ICP-AES finish. Pt, Pd and Au were determined at ALS by industry standard 50 g fire assay and ICP-AES finish. Approximately one commercially certified assay standard (certified reference material), one blank and one field duplicate per 25 core samples are inserted by Blackstone in each sample batch submission.

Resource Estimation Methodology

Disseminated Sulfide Style

Similar resource estimation methodologies apply to the Ban Phuc and Ban Khoa deposits. Blackstone provided the drillhole data and a listing of historical drillholes to be excluded from the Resource estimation process due to concerns regarding data quality. As well as multi-element assay results, most assayed downhole intervals included a density measurement result, measured using water displacement/Archimedes methods. The Company also provided surface topography digital terrain models (DTM) and lithology, oxidation and mineralisation domain interpretations, all in the form of either DTM or solid wireframes generated using LeapFrog software. The data was all imported into Datamine Studio RM and validated prior to commencing the resource estimation process.

The drilling at Ban Phuc has been completed on nominal 50 m section lines, with infill drilling to 25 m in the higher grade south-eastern third of the deposit. Drilling along the sections range from 5 m to 100 m spacing. Similarly, the Ban Khoa drilling has been completed on nominal 50 m section lines, with infill drilling to 25 m in the higher grade south-eastern third of the deposit. Drilling along the sections range from 50 m to 100 m spacing. At both Ban Phuc and Ban Khoa, the variable spacing along sections is the result of orientating the drilling nominally perpendicular to the folded mineralisation, with varying drillhole azimuths and dips used to test the synclinal stratigraphy.

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The wireframe interpretations were used to code the drillhole data and to build block models representing the deposit geometry. In the case of Ban Phuc, an azimuth rotated model was constructed to better align the long axis of the mineralised zones. No block rotation was required at Ban Khoa. For Ban Phuc, the parent block size was set to 20 mX by 10 mY by 10 mRL and sub-celling at domain boundaries had a minimum resolution of 5 mX by 2.5 mY by 2.5 mRL. At Ban Khoa, the block size was increased in the northing axis to 20 mN in response to the wider drillhole spacing. Sub-cell minimum size was also increased to 5 mN.

Drillhole data was composited to nominal three metre downhole intervals within the constraints provided by the lithology, oxidation and mineralisation domains. The main elements (nickel, copper, cobalt, gold, palladium and platinum) grade statistics were assessed within the domains to determine any requirement for top-cutting (capping) of composite grades and to determine the behaviour of grade transitions across domain boundaries.

The need to top-cut was limited due to generally low-grade variability within the domains. At both disseminated deposits, top-cuts were only applied to the precious metal elements (Pt, Pd, Au, Ag). The base metal elements (Ni, Cu, Co) did not require top-cutting.

Grade continuity was determined using variography methods. At Ban Phuc, there was sufficient data to develop directional continuity models for all elements and there was also adequate data located either side of the deposits long axis axial plane to develop continuity models on either side of the axial plane. At Ban Khoa, the data was not sufficient to support directional continuity models and this lead to the development of a global model based on the nickel data which was applied to the estimation of all elements and density.

All block grade estimation was completed using ordinary kriging. Domain boundary treatment during grade estimation was based on the proceeding boundary analysis. At Ban Phuc, the base and precious metal estimation was constrained by the mineralisation domains, sulfur estimation was constrained by oxidation and mineralisation domains and density estimation required no domain constraint and was only limited by the interpreted extent of the ultramafic complex and the available data. The same domain constraints were applied at Ban Khoa except that the density information was more limited, and testing determined that more reasonable results were obtained when the oxidation and mineralisation domains were utilised as an estimation constraint.

At Ban Phuc, block grades were estimated throughout the ultramafic complex, including the low-grade footwall to the main disseminated mineralisation domain located at the footwall of the ultramafic and in the nominally lower sulfur grade region between the two main disseminated mineralisation horizons. At Ban Khoa, due to wider spaced drilling, grades were only estimated within the two interpreted disseminated mineralisation horizons.

Due to the folded deposit geometry at both locations, dynamic anisotropy was applied during grade estimation. This process entailed the development of a local structural orientation for each model block. This orientation was derived from the geometry of the mineralisation domains. When grade estimation was undertaken, the continuity model and data search criteria were oriented based on the local block conditions in contrast to an overall domain orientation. This facilitated the estimation process tracking around the folded mineralisation structures.

A three-pass search strategy was applied during block estimation. Initial search ranges for all elements were based on the demonstrated nickel grade continuity. The secondary search doubled these ranges, and the tertiary search was set to ensure all blocks received a grade estimate. A minimum of 10 composites was required to satisfy each search and the maximum number of

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informing composites was restricted to 20. No more than four composites could be sourced from an individual drillhole.

The resultant block grade estimates were validated using visual appraisal, whole of domain statistical analysis and sectional swath plots. The results obtained were considered acceptable and commensurate with the amount of informing drillhole data.

Massive Sulfide Vein Style

Ban Chang and King Snake MSV mineralisation used identical resource estimation methods. Blackstone provided the drillhole data and a listing of historical drillholes to be excluded from the resource estimation process due to concerns regarding data quality. Blackstone also provided surface topography digital terrain models (DTM) and lithology, oxidation and mineralisation domain interpretations, all in the form of either DTM or solid wireframes generated using LeapFrog software. As well as multi-element assay results, most assayed downhole intervals included a density measurement result measured using water displacement methods. The data was all imported into Datamine Studio RM and validated prior to commencing the resource estimation process.

The Ban Chang and King Snake deposits are undulating tabular vein style mineralisation that dips steeply to the south. The Ban Chang drilling has an along strike section spacing ranging from 25 m to 100 m, and on-section (N-S) spacing ranges from 25 m to 50 m. Mineralised intersections have a nominal spacing of 50 mE by 35 mRL spacing. The King Snake drilling has an along strike section spacing ranging from 25 m to 100 m, and on-section (N-S) spacing ranges from 25 m to 75 m. Mineralised intersections have a nominal spacing of 50 mE by 50 mRL spacing. All drilling is orientated to the north resulting in nominally perpendicular intersection angles.

The wireframe interpretations were used to code the drillhole data and to build block models representing the deposit geometry. Interpretations of the base of complete oxidation and top of the fresh oxidation boundaries were also provided. However, the complete oxidation and transitional horizons were not well sampled and constituted only 9% by volume of the combined massive sulfide domain

The MSV exhibited good correlations between most of the main elements of economic interest (nickel and cobalt) as well as iron and sulfur, with density. Density measurement determination was by water displacement/Archimedes method. The MSV had highly variable widths of mineralisation. Due to these features, a triple accumulation approach (final grade = (grade x true thickness x density)/(true thickness x density)) was adopted for estimation of all variables, except for density (which used true width-density accumulation) and true width. Samples within the mineralised domains that did not have density determinations had density assigned using a nickel-density regression for calculating the accumulated variables. As a function of the relatively low variance and coefficient of variation for the accumulation variables, no top-cuts were used. Estimation was by ordinary kriging of the accumulated variables and true width, with final grade and density values back-calculated from the estimated accumulation variables.

At Ban Chang east, the disseminated ultramafic was wider than the MSV and a conventional grade estimation method using length-density weighted 1.0 m composite samples was used. The low variance and coefficient of variation for the grade variables meant no top-cuts were required and estimation was by conventional ordinary kriging of the composite data.

Grade continuity was determined using variography. For the Ban Chang east lode disseminated ultramafic, three dimensional variography was prepared for nickel, arsenic, gold, density and true thickness. For the Ban Chang and King Snake MSV, two dimensional variography was prepared for

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the accumulated nickel, accumulated arsenic, accumulated gold, and accumulated density variables. The respective continuity models were then applied to the other variables being estimated (the nickel variogram was applied to the copper, cobalt, iron and sulphur estimate, the gold variogram applied to the PGE estimate).

Contact analysis supported the treatment of all mineralisation boundaries as hard estimation boundaries. The block model parent block size at Ban Chang is 20 mE by 10 m N by 10 mRL and at King Snake is 20 mE by 5 m N by 10 mRL, which were selected, in part, to be compatible with the block size employed at the nearby Ban Phuc DSS deposit. The deposit block sizes were modified to reflect the results of kriging neighbourhood analysis (KNA) to optimise the resultant estimate. Dynamic anisotropy was used at both deposits to optimise local search directions. The search strategy employed an expanding three pass search approach with the primary search ranges being 60 m along strike, 30 m down dip and 50 m across strike (to accommodate the two-dimensional accumulation process). These search distances were doubled in the second pass and doubled again in the third pass.

The resultant block grade estimates were validated using visual appraisal, whole of domain statistical analysis and sectional swath plots. The results obtained were considered acceptable and commensurate with the amount of informing drillhole data.

As a function of the limited amount of density data in the oxide and transitional zones at both Ban Chang and King Snake, default oxide average density values were assigned. The mineralised oxide zone density assigned was 2.5 t/m^3 and the transitional zone density assigned was 2.8 t/m^3. At both MSV deposits the density in the fresh zone was then estimated from the actual density determination values.

Classification Criteria

All the Ta Khoa Mineral Resources are classified in accordance with the guidelines provided by the 2012 edition of the JORC Code. All classification considered the underlying data quality and the confidence that can be applied to the geological interpretation and the mineralisation grade continuity.

Disseminated Sulfide Style

At Ban Phuc, a significant portion of the deposit qualified as an Indicated Mineral Resource with the remainder designated as an Inferred Mineral Resource. To achieve an Indicated classification, the mineralisation nickel grade estimate had to informed by sample data that was within a nominal distance of 30 m. In practice, this means that much of the Indicated Mineral Resource is straddled by sampled drilling on 50 m section lines or better. Most of the Inferred Mineral Resource is located near surface between the two main mineralisation horizons. This region is intersected by drilling that targets deeper, higher grade mineralisation intersections, but for several logistical reasons, these intervals have not been sampled or assayed within the weathered parts of the deposit.

At Ban Khoa, grade continuity, and the wider drillhole spacing and consequently lower associated confidence led to the entire deposit being classified as an Inferred Mineral Resource.

Massive Sulfide Vein Style

At Ban Chang and King Snake, the Mineral Resource RPEEE has been classified primarily on the basis of geological and grade continuity and available drillhole spacing. The current drillhole spacing did not adequately capture the geological and grade continuity, especially in the down-dip direction at

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either Ban Chang or King Snake, with both deposits being classified as Inferred Mineral Resources only.

Reasonable Prospects for Eventual Economic Extraction

For the Ban Phuc and Ban Khoa DSS deposits, as a function of the geometry and extension to surface, both deposits were assessed as potential open pit mining opportunities. RPEEE was assessed using preliminary optimised pit shells based on available mining, processing and refinery cost parameters. For the purposes of reporting the DSS Mineral Resources, optimised pit shells using a revenue factor of 1.25 were selected (representing an approximate price ratio to the dollar values used, of 1.25). For both DSS deposits, the preliminary optimised pit shells captured in excess of 95% of the global mineralisation. As an outcome of the still on-going studies, both DSS mineralisation were assessed as meeting the RPEEE criteria.

For the Ban Chang and King Snake MSV deposits, mineralisation is highly analogous to the adjacent Ban Phuc MSV deposit, which was previously mined using underground mining methods. A spatial review of the grade continuity between 0.5 and 1.0% nickel cut-offs confirmed the nickel mineralisation was broadly continuous at these grade ranges, resulting in both MSV deposits being assessed as meeting the RPEEE criteria.

Cut-off Grades

Disseminated Sulfide Style

The DSS deposits are reported above a cut-off grade of 0.25% Ni in the fresh zones and above 0.30% in the weathered zones (previous estimate 0.30% Ni for all zones). The lower cut-off grade is supported by metallurgical test work on Ban Phuc and Ban Khoa samples with average nickel grade between 0.25% and 0.30%, and up to 1.0%, which supports the potential economic recovery of nickel within these grade ranges.

Massive Sulfide Vein Style

Examination of the grade-tonnage relationship and the spatial distribution of grades resulted in a 0.7% nickel cut-off grade being selected as an appropriate reporting cut-off for both MSV deposits.

Mining and Metallurgical Methods and Parameters

Disseminated Sulfide Style

Blackstone has examined the Ban Phuc and Ban Khoa disseminated nickel deposits as potential open pit mines. Pit shell optimisation processes were completed for both deposits, utilising an insitu value based on a net smelter royalty calculation incorporating production of nickel concentrate at the Ta Khoa Nickel Project 8Mtpa nickel concentrator, then NCM811[2] from the TKR and associated by-product credits. Mine design for Ban Phuc and Ban Khoa included allowances for 2% dilution and 98% mining recovery based on a mining block size of 10mW x 10mH x 10mL. Pit shapes were influenced by the PFS geotechnical program and design parameters.

Metallurgical test-work has been carried out for both deposits. The Ban Phuc deposit underpins the Ta Khoa Nickel Project PFS currently under development, and as such, is supported by a PFS level metallurgical test-work program including comminution, flotation, thickening and filtration test-

[2] *Nickel to Cobalt to Manganese Ratio of the refinery product, of 8 to 1 to 1 (NCM811).*

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work. Ban Phuc recovery assumptions have been made based on the outcomes of metallurgical test-work to date, and a regression analysis modelling the relationship between head grade and nickel recovery for 8% nickel concentrate. The regression model yielded recoveries ranging from 40% for the low grade through to 69% for the highest grades. The recoveries of transitional material were shown to be half of the recoveries for fresh material and the formula was modified to reflect this for transitional ore. BSX has completed preliminary hydrometallurgical tests for the flotation recovery of the oxide material which indicates that potential economic levels of extraction of +80% for oxide ores is possible. However, for the purposes of the PFS study and current optimisations, the oxide material have been valued at zero.

Blackstone has completed preliminary hydrometallurgical tests indicating potential economic of extraction of nickel from oxide ores.

Detailed metallurgical test-work for Ban Khoa is ongoing. Preliminary work was competed as part of the ongoing PFS program, and flat recoveries were used for pit shell optimisation, based on metallurgical test-work results from a composite sample representative of the resource. Ban Khoa recoveries ranged from 50% to 75%. Ban Khoa is expected to be elevated into the proposed definitive feasibility study planned for 2022 pending the results of the ongoing drilling and test-work.

Massive Sulfide Vein Style

Blackstone has examined Ban Chang and King Snake MSV deposits as potential underground mines. Blackstone's mining consultant, as part of the ongoing TKNP PFS, has completed various mining studies for both deposits with Mineable Shape Optimisations (MSO's) completed on various NSR calculations, in alignment with the methods used for the disseminated deposits. The King Snake preliminary mine designs were based on a minimum stope width of 1.5m and included 33% mining dilution and 88% material recovery. The Ban Chang preliminary mine designs were based on a minimum stope width of 1.5m and included 33% mining dilution and 86% material recovery.

The TKNP PFS will include the King Snake and Ban Chang deposits as part of the feed to the 8Mtpa nickel concentrator. Substantial comminution and flotation test-work was completed as part of the TKNP PFS study with recoveries used in MSO works based on the results achieved for the representative deposit composite samples completed on stie and at ALS Perth, as well as the variability sample tests completed at Ta Khoa. Flotation recoveries for Ban Chang and King Snake ranged from 65-75% and averaged 71%.

Independent Review & Audit

No independent review and/or audit has been completed on the Ban Phuc, Ban Khoa, Ban Chang or King Snake Mineral Resources.

Metal Equivalents

Based on metallurgical test-work completed to date, including for the Scoping Study completed by Blackstone and Como Engineers (August 2020), PGE recovery test-work completed by Simulus (May 2021), and the ongoing mining and beneficiation PFS (set to be published in January 2022), it is the Company's view that the quoted elements included in metal equivalent calculations (including copper (Cu), cobalt (Co), palladium (Pd), platinum (Pt), and gold (Au) and reported on a nickel equivalent basis (NiEQ)), have reasonable potential of being recovered and marketed.

The integration of the upstream processes of beneficiation, with the conventional processing methods of metal refining and production of specialty battery pre-cursor products such as NCM

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(Nickel-Cobalt-Manganese), is an important part in the potential extraction of the co-products such as copper, cobalt, platinum, palladium and gold. The recovery of the secondary metals from the refinery residues is shown to be possible and practical in the planned processes. In a laboratory the Company has produced 'mixed hydroxide precipitate' (Ni and Co) and NCM and will use conventional winning processes to recover the remaining metals from refinery residues. The recoveries are aided by being within the Company's control and not passed on for the benefit of an offtake partner or refiner for example.

The value of each deposit is dominated by nickel. All deposit types have additional metals (as noted above - Cu, Co, Pt, Pd, Au) with value, as well as metals not yet valued such as other PGEs – for example rhodium/ruthenium/osmium). Therefore, and based on deposit specific flotation test-work carried out to date, a separate metal equivalent equation is used for each DSS deposit, and a single equation is applied to the current massive sulfide deposits (Ban Chang and King Snake). These equations may be subject to change in future study phases as they are linked to market prices and recovery processes. While the value of the co-products varies for each deposit, all metals considered are reported for each deposit including a NiEQ basis for balanced reporting purposes.

The following parameters are outcomes from extensive recent company and external test-work and analysis. The metal prices and process/refining recovery parameters below are then combined to create a value for the recovered co-products, which is then re-based to a nickel concentration amount or a 'Nickel Equivalent' amount. Nickel is the primary value metal for the mining and recovery processes.

All evaluations used the following metal price assumptions: US$17,045/t Ni, US$3.58/lb Cu, US$18.60/lb Co, US$1,620/Oz Au, US$2,513/Oz Pd, US$1,250/Oz Pt. Where appropriate, the price considered for the battery precursor product sold from the TKR (nickel-cobalt-manganese – (NCM)) is USD$16,800/t (NCM product is 51% Ni).

Table 6: Combined Upstream and Downstream Process Recoveries

Recoveries	Ni%	Cu%	Co%	Au%	Pd%	Pt%
Ban Phuc (>0.25%**)	51%	26%	59%	32%	36%	30%
Ban Khoa (>0.25%**)	67%	66%	55%	54%	45%	37%
Ban Chang	71%	83%	66%	59%	50%	50%
King Snake	71%	83%	66%	59%	50%	50%

Table 7: Metal Equivalent Equations

NiEQ Equations	
Ban Phuc (>0.25%**)	Ni (%) + 0.270 x Cu (%) + 2.76 x Co (%) + 0.336 x Pd (g/t) + 0.139 x Pt (g/t) + 0.190 x Au (g/t)
Ban Khoa (>0.25%**)	Ni (%) + 0.517 x Cu (%) + 1.95 x Co (%) + 0.314 x Pd (g/t) + 0.129 x Pt (g/t) + 0.244 x Au (g/t)
Ban Chang	Ni (%) + 0.617 x Cu (%) + 2.24 x Co (%) + 0.331 x Pd (g/t) + 0.165 x Pt (g/t) + 0.252 x Au (g/t)
King Snake	Ni (%) + 0.617 x Cu (%) + 2.24 x Co (%) + 0.331 x Pd (g/t) + 0.165 x Pt (g/t) + 0.252 x Au (g/t)

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* Process recoveries are weighted by tonnes produced from variable recoveries applied by nickel grade range bins to create the equation. The recovered metals are accumulated down to the resource cut-off grade for each deposit but not below and are not applied to blocks below the cut-off grade. Therefore, the NiEQ equations are not applicable below current cut-off grades (CoG). When applied on a block basis the outcomes may differ from those Blackstone has modelled on a CoG or gross resource basis.
** The Ni% levels noted here refer to the block grades that the equation was applied to. The distinction is made to state that the equation was applied to grade levels which correlate to the metallurgical tests that Blackstone has carried out, and not lower grades (<0.25 % Ni) where tests have not been carried to date.

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

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Competent Persons Statements

Estimation and Reporting of Mineral Resources

The information in this report which relates Mineral Resources (JORC Table 1, section 3) for the Ban Phuc, Ban Khoa, Ban Chang and King Snake Mineral Resources is based on, and fairly represents, information compiled by Mr. Kahan Mit-hat Cervoj. Mr Cervoj is a full-time employee of Optiro Pty Ltd, consulting to Blackstone Ltd, and is a Member of Australian Institute of Mining and Metallurgy. Mr. Cervoj has sufficient experience which is relevant to the style and type of mineralisation under consideration, and to the activity which he is undertaking, to qualify as a Competent Person as defined in the 2012 edition of the 'Australian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Cervoj consents to the inclusion in the report of the matter based on his information in the form and context in which it appears.

Sampling Techniques and Data, and the Reporting of Exploration Results

The information in this report 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 Chris 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 Chris Ramsay consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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 subject to change without notice, as are statements about market and industry trends,

and 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 of the Ta Khoa Refinery (TKR) Definitive Feasibility Study (DFS) by the end of Q3 2022. The Ta Khoa Nickel Project (TKNP) PFS is expected to be delivered in January 2022. The TKNP DFS will follow thereafter and is expected to be complete by the end of H1, 2023. 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.

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Appendix One - JORC Code, 2012 Edition Table 1 Report:

Sections 1and 2 are presented below inclusive of information relevant to all prospects referred to in this Mineral Resource Estimate (this means that Sections 1 and 2 are not repeated for each prospect as all prospects have previously and are currently explored and managed under the same teams and systems). **Section 3** is partitioned into components parts as follows:

- **Section 3a – Ban Phuc**
- **Section 3b Ban Khoa**
- **Section 3c – Ban Chang and King Snake**

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.	The field samples taken for the Mineral Resource Estimates were collected using diamond drill core sampling only. Drilling systems use equipment with several measurement redundancies (drill rod and winch length for example) to ensure drilling lengths are accurate and meet standards suitable for the sample techniques engaged. Drill core was cut and sampled in continuous half or quarter samples and submitted to SGS Hanoi for preparation with samples pulps then forwarded to ALS Geochemistry, Perth for assay generally by 4-acid digest for target base metals and fire assay for precious metals. Drilling and sampling was supervised by suitably qualified BPNM geologists.
	Measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Care is taken to ensure the core samples taken are representative of the target intervals and of the core presented. Further manual measurements by geologists validate the measurements presented by the drilling crews. The results of these systems are appropriate for the task.

Criteria	JORC Code explanation	Commentary
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	Disseminated sulphide (DSS) mineralisation it determined visually. Determining sampling in the lower grade zones in the DSS is assisted by Niton XRF. Massive and semi-massive sulphide vein mineralisation (MSV) is clearly visible. Determining mineralisation in the material drilled and sampled has a low level of difficulty and the systems engaged meet industry standards for the task.
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	Drilling campaigns were conducted by the Vietnamese Geological Survey (VGS) 1959-1963, then Asia Mineral Resources (AMR) in conjunction with VGS 1996-2004, AMR 2004-2015. From 2019 Ban Phuc Nickel Mines Ltd (BPNM) has conducted exploration, managed initially by Blackstone through an option agreement and subsequently as a subsidiary of Blackstone. The 1959-1963 VGS data has been removed from the data set used in these resource estimates due to quality concerns. At Ban Phuc the data was replaced/redrilled during early 2021 and at Ban Khoa and Ban Chang the data is being replaced/redrilled from December 2021-Mrach 2022). There is no drilling from 1959-1963 at King Snake. AMR drilling (1996 to 2015) was conducted under contract for AMR by a branch of the Vietnamese geological survey and was drilled using NQ and HQ diameter drilling. Drill core was not orientated Drilling sizes include PQ, HQ and NQ. Drilling completed during 2019-2021 was oriented using Reflex Instruments (Core orientation tool ACT III RD). All Blackstone drilling was of PQ, HQ and NQ diameters conducted by BPNM using GX-1TD and GK-300 diamond coring rigs and independent drilling contractor Intergeo using Longyear 38 and LF70 diamond coring rigs. Blackstone drill holes are routinely surveyed using a devi-flex down-hole survey tool. Physical sample statistics by prospect are as follows: Ban Phuc: 0.04 m to 11.55 m with a mean of 1.41 m. Sample weights for assay ranged from approx. 0.176 kg to 8.4 kg with a mean of c. 2.6 kg. Ban Khoa: 0.3 m to 3.7 m with a mean of 1.97 m. Sample weights for assays ranged from approx. 0.4 kg to 6.5 kg with a mean of c. 2.5 kg. Ban Chang and King Snake: 0.05 m to 2.45 m with a mean of 0.92 m. Sample weights for assay ranged from approx. 0.1 kg to 5 kg with a mean of c. 1.2 kg.

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Criteria	JORC Code explanation	Commentary
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Quantitative recovery is not available for the AMR drilling although observation of AMR core in storage suggests recoveries in the fresh zone were high. BXS Drilling (From 2019): Recoveries were calculated by Ban Phuc Nickel Mines personnel by measuring recovered core length vs downhole interval length. Drill core recovery through the mineralised zones ranges from 0% to 100%, with the length-weighted mean being >99%. There is no discernible correlation between grades and core recovery.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	General rock characteristics and drilling techniques have minimised problems with core recovery.
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	No relationship exists between core recovery and grade. No sample bias exists and no rock characteristics are observed that suggest loss of material during drilling or handling.
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	The detail of geological logging is considered sufficient for mineral exploration and the subsequent processes of geological interpretation and mineral resource estimation.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	AMR drill core was marked up, qualitatively lithologically logged, photographed and commonly geotechnically logged by a suitably qualified geologist. All Blackstone diamond drill core was qualitatively lithologically logged by a suitably qualified BPNM geologist and photographed. Key mineral abundances such as nickel and sulfide mineral abundances are visually estimated and supported by Niton XRF testing. Selected zones were orientated with spear and structurally logged.
	The total length and percentage of the relevant intersections logged.	All core is logged qualitatively by suitably qualified geologists
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	AMR and Blackstone: The drill core was cut lengthwise by diamond core saw and continuous half or quarter core sample bagged for assay in intervals according to lithological criteria determined by an AMR or Ban Phuc Nickel Mines geologist. At Ban Phuc, there are 16 previously drilled holes that were sampled using 1.0 m samples at various intervals ranging from 9 to 18 m intervals, in the low grade part of the DSS mineralisation.

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Criteria	JORC Code explanation	Commentary
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	No none-core drilling was conducted.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The drilling and sampling techniques are appropriate for exploration and mineral resource estimation purposes.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	No sub-sampling stages are carried out.
	Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.	Field duplicates are taken by sampling the remaining part of previously split half core at a prescribed ratio of 1 per 25 samples taken for analysis. Continuous remnant core has been retained in the trays for future reference or sampling as necessary.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes are appropriate for the material type tested and the analytical tests used.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	Laboratory procedures and techniques along with quality control (company and laboratory) are appropriate for the analysis required and the data is of adequate accuracy and precision. Blackstone monitors data quality control data, and any discrepancies are followed up when issues are identified.
	For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	Tools of this type are used for qualitative purposes only and the data is not used for subsequent quantitative purposes.

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Criteria	JORC Code explanation	Commentary
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Pre-Blackstone Assay Data: From 1996-2004 the following ISO accredited laboratories have been employed to assay stream sediment, soil, rock chip, channel and drill core samples: (a) 1996-1997: BSE/Analabs Ltd. (A joint venture between Australian, Hong Kong and the Vietnamese government), (b) 1997-2001: Chemex Labs (North Vancouver, BC), (c) 1997: Acme Analytical Laboratories Ltd. (Vancouver, BC), (d) 2000-2002 Lakefield Research Limited (Ontario, Canada), (e) 1993-1994, 2003 Genalysis (Perth, Western Australia) (Leighton, 2003). The samples collected between 2004 and 2013 were analysed by the Australian commercial laboratory Intertek-Genalysis located in Perth, Western Australia, and have been analysed using a mixed acid digest (four acid digest) with an ICP finish. All samples submitted to Genalysis have been analysed for the following suite of elements, which include (lower detection limit in ppm): Ag (5), Al (100), As (20), Ba (5), Ca (100), Cd (5), Co (5), Cr (10), Cu (5), Fe (100), K (100), Li (20), Mg (100), Mn (2), Mo (10), Na(100), Ni (5), P (100), Pb (20), S (100), Sc (5), Sr (5), Ti (50), V (10), Y(20), Zn (5) and Zr (5). In addition, selected samples were analysed for Au, Pt and Pd using a 50 gram charge fire assay with an ICP finish. The detection limit of this analysis is 1 ppb. Blackstone Assay Data: Ni, Cu and Co were determined at ALS by industry standard nitric + perchloric + hydrofluoric + hydrochloric acid digest with ICP-AES finish. Pt, Pd and Au were determined at ALS by industry standard 50 g fire assay and ICP-AES finish. Approx. one commercially certified assay standard per 25 core samples was inserted by Blackstone Minerals in each sample submission. Certified Reference Materials (CRMs or standards), Field Duplicates and Blanks were all inserted at a prescribed rate of the 1 sample per 25 regular samples taken. The resulting submission rate was between 1 of each inserted for every 22 and 26 sample submitted. PERFORMANCE: <u>Standards:</u> The standards results generally indicated high performance in identifying the certified levels of the target base metal elements. The performance of the precious metal standards indicated moderate to high performance. Collectively the outcomes of the standards performance is suitable for the task. <u>Field Duplicates</u>: Duplicate base metal test results show high correlation while precious metal duplicates show moderate to high correlation. The outcomes of the duplicate procedures are adequate. <u>Blanks</u>: The results of the blanks submitted routinely returned very low and insignificant levels for the target elements. Less than 1% of the time the blank tests indicated minor carry over of target elements. The performance of the blanks procedure is adequate.

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Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	No significant intercepts are reported here. The assay results are compatible with the observed mineralogy, historic mining and exploration results (please refer to previous Blackstone Minerals' announcements to the ASX and additionally available from http://blackstoneminerals.com.au).
	The use of twinned holes.	Twinned holes have not been drilled.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Primary data is stored and documented in industry standard methods. Blackstone remnant assay pulps are currently held in storage by the assay laboratory. Blackstone receives coarse crush samples from the Hanoi laboratory back to site.
	Discuss any adjustment to assay data.	Detailed cross-checking of AMR certificates with digital versions shows accurate collation of data and that no adjustments have been made. Assay data is as reported by ALS to Blackstone and has not been adjusted in any way.
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	Drill hole collar locations are determined by Leica 1203+ total station survey to centimetre accuracy throughout AMR and Blackstone programs. AMR conducted in-house down-hole surveying and engaged Surtron from Perth to conduct check surveying. Some variation was noted and check surveying data was used preferentially over the first pass (i.e. old data was replaced not adjusted). Blackstone data: The holes were surveyed down hole using a Deviflex non-magnetic survey tool. Historic underground mining at the Ban Phuc prospect is not within the mineralisation included in this mineral estimate.
	Specification of the grid system used.	Co-ordinates were recorded in Ban Phuc Mine Grid and UTM Zone 48N WGS84 grid and coordinate system.
	Quality and adequacy of topographic control.	Topographic control uses a digital terrain model derived from an AIRBUS radar satellite dataset (2014) which is sourced at ~12.5m resolution and re-interpolated at 12.5 m mesh size using Leapfrog software. Ground surveys at Ban Chang and Ban Phuc are integrated into the topographic data.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Data spacing over the four prospects is variable. Infill drilling, planned and ongoing at Ban Chang, King Snake and Ban Khoa is required to confirm continuity at a higher confidence level (which is ongoing at the date of this report). Drill spacing is adequate to establish continuity and the classification stated in this report.

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Criteria	JORC Code explanation	Commentary
	Whether the data-spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	Drilling at Ban Phuc is nominally on 50m sections and intercepts are on 30-60m spacing along mineralised structures. Data spacing at Ban Phuc is sufficient to define the geological and grade continuity of the deposit. Drilling at Ban Khoa is nominally on 50m sections and intercepts are on 50-100m spacing along mineralised structures. At Ban Khoa, the data distribution is sufficient to provide overarching geological continuity but does not fully define the grade continuity of the folded mineralisation geometry. Drilling at King Snake is step out in nature and is on 50m and 150m spaced sections and 50-100m in the dip direction. Drilling at Ban Chang is on 30-50m sections and 30-80m in the dip direction. At Ban Chang and King Snake, the data distribution has sufficiently defined the geological continuity but does not fully define the grade continuity in the plane of the mineralisation. All drilling was conducted on the Ban Phuc Mine Grid.
	Whether sample compositing has been applied.	No compositing of exploration data has taken place.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	At Ban Phuc and Ban Khoa, the folded nature of the mineralisation has resulted in individual drillholes locally intersecting the mineralisation at acute angles. However, at both deposits the majority of the drilling intersects the mineralisation such that the sampling is considered unbiased. At Ban Chang and King Snake, the drilling is nominally perpendicular to the mineralisation and is such that the sampling is considered unbiased.
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	On very minor occasions drilling angle is high for the structures being intersected. Overall, no bias has been introduced by the situation.
Sample security	The measures taken to ensure sample security.	The chain of custody for the drill core samples from collection to dispatch to the assay laboratory was managed by Ban Phuc Nickel Mines personnel. Sample numbers were unique and did not include any locational information useful to non-Ban Phuc Nickel Mines and non-Blackstone Minerals personnel. The level of security is considered appropriate.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Procedural internal reviews are conducted periodically to ensure the systems are adequate and are being applied appropriately. This process results in minor modifications and adjustments and validates the systems engaged.

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Section 2 Reporting of Exploration Results

Criteria	Explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	All drilling was located within the Ta Khoa Concession and is covered by the Foreign Investment Licence, 522 G/P, which Ban Phuc Nickel Mines Joint Venture Enterprise (BPNMJVE) was granted on January 29th, 1993. An Exploration Licence issued by the Ministry of Natural Resources and Environment covering 34.8 km2 within the Ta Khoa Concession is currently in force. Blackstone Minerals Limited owns 90% of Ban Phuc Nickel Mines.
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	The tenure is secure as at the date this document was published.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The first significant work on the Ta Khoa nickel deposit and various adjacent prospects was by the Vietnamese Geological Survey in the 1959-1963 period. The next significant phase of exploration and mining activity was by Asian Mineral Resources from 1996 to 2018 (in conjunction with the VGS from 1996-2004), including mining of the Ban Phuc massive sulfide vein during the 2013 to 2016 period. The project, plant and infrastructure has been on care and maintenance since 2016.
Geology	Deposit type, geological setting and style of mineralisation.	The late Permian Ta Khoa nickel-copper-sulfide deposits and prospects are examples of well-known and economically exploited magmatic nickel – copper sulfide deposits. The identified nickel and copper sulfide mineralisation within the project include disseminated, net texture and massive sulfide types. The disseminated and net textured mineralisation occurs within dunite adcumulate intrusions, while the massive sulfide veins typically occur in the adjacent metasedimentary wall-rocks and usually associated with narrow ultramafic dykes. A recent summary of the geology of the Ban Phuc intrusion can be found in Wang et al 2018, A synthesis of magmatic Ni-Cu-(PGE) sulfide deposits in the ~260 Ma Emeishan large igneous province, SW China and northern Vietnam, Journal of Asian Earth Sciences 154.

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Criteria	Explanation	Commentary
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: - elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar - elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar - dip and azimuth of the hole - down hole length and interception depth - hole length.	There are no previously un-announced or material drilling or exploration results included in this document.
	If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	This document reports the results of the independent Mineral Resource Estimate conducted for Blackstone and is not a report of exploration results. The detail of the exploration results is not material in the context of this document. Blackstone has provided balanced reporting of drilling information in previous announcements. The exclusion is justified.
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	Exploration results and reporting techniques are presented in previously listed ASX announcements.
	Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	Exploration results and reporting techniques are presented in previously listed ASX announcements.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Metal equivalent values are not applied to exploration data. Metal equivalent values, as a function of value and recoverability of each metal when compared to nickel, are reported alongside the estimated metals and are reported in the Mineral Resource Estimate. For specific information on this refer the specific section of this report detailing the handling of metal equivalents.

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Criteria	Explanation	Commentary
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	Exploration results and reporting techniques are presented in previously listed ASX announcements.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	Diagrams representing the mineral resource models are provided in this document. Exploration results and reporting techniques are presented in previously listed ASX announcements.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced, to avoid misleading reporting of Exploration Results.	Exploration results are not reported here. Exploration results and reporting techniques are presented in previously listed ASX announcements.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	Geochemical and geophysical programs have been used over time to assist with drilling programs. Geotechnical and extensive metallurgical programs have been conducted by Blackstone to support the mineral resource and mining studies.
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	Blackstone Minerals proposes to conduct further drilling and associated activities to better define and extend the currently identified mineralised zones at all prospects. Drilling at Ban Phuc will focus on metallurgical and geotechnical investigations for a proposed DFS. Historical drilling into the low-grade domain of Ban Phuc previously unsampled, will be sampled. Drilling at Ban Chang, Ban Khoa and King Snake will focus on infilling the known mineral resources as well as metallurgical and geotechnical investigations for a proposed DFS.

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Criteria	Explanation	Commentary
		Exploration work at other advanced exploration projects is ongoing and may result in further potentially economic discoveries.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Diagrams representing future exploration programs are not material for this report.

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Section 3a Estimation and Reporting of Mineral Resources – Specific to the BAN PHUC Resource Estimate

Criteria	JORC Code explanation	Commentary
Database integrity	Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.	Drillhole collar, downhole surveying and downhole data was collected digitally using industry standard methods. The data is stored in an MS Access database and validated spatially using several different mine planning packages. All drillhole data was transferred from BSX to Optiro using csv format files, which were imported into Datamine Studio RM using dedicated processes. Once imported the data was again checked spatially, and minor corrections relating to collar survey elevations were instigated before proceeding. All interpretation wireframes were transferred from BSX to Optiro and Studio RM using DXF formatted files and dedicated import functions.
	Data validation procedures used.	Data underwent routine validation steps on entry and the interpretation integrity was validated by visually comparison between the drillholes and wireframes.
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits.	No physical site visit has been undertaken by the Competent Person. A virtual site visit was conducted between the 15 and the 19 of September 2021, which reviewed independent data sources, core and site photographs, site documentation and standard work procedures, and publicly available information. No discrepancies were identified.
	If no site visits have been undertaken indicate why this is the case.	A physical site visit was not undertaken due to COVID 19 international travel restrictions
Geological interpretation	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.	There is good confidence in the geological interpretation, which is commensurate with the available data. There are areas of local geological complexity still to be refined, but these are not expected to material change the interpretation.
	Nature of the data used and of any assumptions made.	The drillhole assay data is all diamond core but excludes the historical Vietnamese Geological Survey drilling because of uncertainty regarding the sample preparation and analytical protocols that were used.
	The effect, if any, of alternative interpretations on Mineral Resource estimation.	As a function of the exploration history and accumulated geological knowledge, alternative interpretations are unlikely on a global scale. Localised faulting and areas of increased geological complexity are suspected but the impact is not expected to extend beyond one to two drill sections and is not expected to materially change the global Mineral Resource.
	The use of geology in guiding and controlling Mineral Resource estimation.	The Mineral Resource is geographically constrained by the interpreted extent of the host ultramafic complex. Within the complex, the ultramafic lithologies were partitioned into three units based on geochemical patterns and trends revealed by drillhole sampling. This resulted in two sulfide dominant domains (nickel >= 2,200ppm and sulphur >= 0.07%), separated by a lower-sulfide dominant domain (either nickel < 2,200 or sulphur < 0.07%). These units broadly correlate with previous mineralisation geometry, and all support the plunging syncline presentation of the deposit.

Criteria	JORC Code explanation	Commentary
	The factors affecting continuity both of grade and geology.	Both grade and geological continuity relate to the original layering in the ultramafic complex, which subsequently was structurally modified into the present geometry.
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource	The deposit daylights at surface where the ultramafic complex forms a roughly oval shape elongated on a northwest-southeast axis which is approximately 1,000 m long and 400 m wide. The axial plane of the folded complex dips to the northeast and the hinge line of the main fold axis plunges to the southeast. The deepest part of the fold hinge is located approximately 450 m below surface although this measure is impacted by the local mountainous terrain. The down plunge extent of the complex is truncated either by faulting or folding resulting in an elongate trough-like shape.
Estimation and modelling techniques	The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.	In general, the main elements of interests exhibit low variability as revealed by low coefficients of variation. This led to the adoption of ordinary kriging as the grade estimation method. Relatively rare outlier grades exist for some elements, and these were capped using top-cuts as required. The sensitivity to top-cut grade threshold selection was low. The interpretation process provided domains that allowed the ultramafic complex to be divided into regions based on lithology, oxidation and mineralisation. The characteristics of each elements grade trends across the boundaries of these domains was assessed, which led to decisions regarding which domain conditions were used to control the grade estimation process. All grade modelling was undertaken in Datamine Studio RM (v1.9.36.0). The estimation process allowed a three-pass search strategy and dynamic anisotropic control of search directions was applied due to the folding evident in the deposit. Primary search ranges in the mineralisation plane varied between 50 m by 50 m to 150 m by 150 m depending on the domain and were based on the grade patterns observed during the continuity analysis. Secondary and tertiary searches extended these ranges by factors of two and five, with the tertiary search designed to ensure all model blocks were informed by a grade estimate. Only the DSS2 domain suffered from any significant grade extrapolation due to many holes that intersect this domain being unsampled as they were expected to host little sulfide mineralisation. The classification applied to this domain was downgraded where extrapolation was judged to be a significant factor.
	The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	The updated Mineral Resource represents a substantial increase in the tonnage and contained metal largely due to a reduction in the sulfide reporting cut-off grade. This increase is the result an updated processing model that supports using a 2,500 ppm nickel reporting cut-off (reduced from the previous 3,000 ppm nickel) for fresh material. There has also been an increase in the quality and amount of drilling into the deposit which has improved the resource classification. Compared to the previously declared June 2020 Ban Phuc Mineral Resource estimate, the December 2021 estimate represents a 112% increase in global tonnes, a 23% reduction in nickel grade for a total increase of 61% in the contained metal. By classification: • The Indicated Mineral Resource reported a 76% increase in tonnage, 21% reduction in grade for a total increase of 36% in the contained nickel metal.

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		• The Inferred Mineral Resource reported a 51% increase in tonnage, 6% reduction in grade for a total increase of 61% in the contained nickel metal. No production from the disseminated sulfide deposit has occurred, however past underground mining has extracted an adjacent massive sulfide vein.
	The assumptions made regarding recovery of by-products.	The Mineral Resource is focussed on nickel as the most significant revenue generator. However, additional revenue is expected from copper, cobalt and precious metals (Au, Pt, Pd), either as concentrate or as refined metal.
	Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).	Several elements were estimated that may assist in geo-metallurgical domain. Density was also estimated using ordinary kriging using the significant number of measurements collected from the diamond core
	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	Block size is 20 m X by 10 m Y by 10 m Z. Blocks are rotated 30 degrees around the Z axis. Drillhole cross section (N-S) spacing is 50 m with infill to 25 m. Closer spaced sections focus on the deeper eastern portion of the deposit. The along section spacing is variable due to fanning of drillholes and can vary from less than 5 m to around 100 m. Common in section spacing is 30 to 50 m. The 50 m section lines have much greater drilling coverage than the infill 25 m lines.
	Any assumptions behind modelling of selective mining units.	Mining selectivity is assumed to match the 20 m by 10 m by 10 m block size and domain boundary resolution is set at 5 m by 2.5 m by 2.5 m.
	Any assumptions about correlation between variables.	Several variables are correlated. For instance, within the main mineralisation domain (DSS1), copper, cobalt, gold and silver all show good positive correlations with nickel. These correlations have been managed during the estimation process by using the same search neighbourhood for the estimation of each of these element
	Description of how the geological interpretation was used to control the resource estimates.	The geological interpretation revealed the folded presentation of the main mineralisation host domain (DSS1). This led to the adoption of dynamic anisotropy control for the grade estimation process for all elements. Grade boundary analysis showed that the potential revenue elements generally exhibited abrupt changes at the footwall and hanging wall of the DSS1 mineralisation domain, which led to the DSS1 limits being used as a hard grade boundary for the estimation of these elements. Within the limits of the ultramafic complex, most other elements and density show at most gradational change across lithology, oxidation and mineralisation domain boundaries, so estimation of these variables used relaxed domain controls. Sulphur was an exception to this rule and both mineralisation and oxidation domains were used to control sulphur grade estimation, mainly as a consequence of having limited sulphur data available in some circumstances.
	Discussion of basis for using or not using grade cutting or capping.	Almost all elements that were estimated exhibited low variability grade distributions and only occasional outlier values. Most elements did not require grade capping; however, caps were applied in several cases to control the influence of the rare outlier grades. General, the caps applied only resulted in minor modification of the expected grade. Top-cuts were applied to nickel, cobalt, copper and sulphur to restrict the impact of a very limited number of higher grade samples.

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Criteria	JORC Code explanation	Commentary
	The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.	The block model grade estimates were validated by visually assessing the interaction between drillhole and estimated block grades, by whole-of-domain statistical comparison and by the appraisal of swath plots for the main elements (nickel, copper, sulphur) and density. Some issues were noted in the DSS2 mineralisation domain (comparatively low/moderate nickel grade and low sulphur grade) due to up-plunge grade extrapolation but otherwise all comparison were consistent with expectations.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	Tonnages are estimated with natural moisture. Moisture content within the transition and fresh rock domains is judged to be immaterial.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied	The Mineral Resource has been reported at 2,500 ppm nickel for fresh material and at 3,000 ppm nickel for oxidised and transitional materials, based on available processing test-work which identified very limited non-sulfide nickel content and was supported by preliminary processing models.
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	The dissemination nickel sulfide mineralisation is considered to provide a potentially viable target for bulk open pit mining methods. The current model provides an estimate of the deposit response to localised mining at a 20 m by 10 m by 10 m scale although additional dilution and ore loss will require assessment. Blackstone has engaged Optimize Group of Toronto, CA (OG) to conduct a mining feasibility study (PFS) as part of the overall upstream feasibility study. OG have been engaged throughout 2021 and have carried out many levels of mining studies including all the current open pit and underground analysis. Blackstone has provided price and recovery information for both upstream and downstream business. Refinery information provided has been sourced from the downstream refinery PFS completed earlier in 2021. Mining parameters and costs have been prepared jointly with OG, BSX and the company's Geotechnical consultant (PSM - Perth). Processing and recovery parameters have been sourced from extensive site-based float testing and supported by parallel testing programs by ALS, Simulus and CPC in Perth. Blackstone uses a pit constraint summarised as a 'Revenue Factor' (RF) of 1.25 times the base case revenue assumptions below. The '1.25 RF shell' is a physical constraint guide for reporting mineral resources and as a function of the trough like geometry of the mineralisation, the optimised shell included practically all the mineralisation. Thus, it is practical to include all the minor mineralisation buffering the 1.25 RF pit shell in the reported resource. The RPEEE assessment considers an extensive range of cost factors which account for preliminary mining, processing and refining. Such factors combined with the following metal price assumptions. The key metal price assumptions include: Metal Prices: Ni Metal Price USD/t 17,045

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Criteria	JORC Code explanation	Commentary
		Au Metal Price USD/oz 1,620 Cu Metal Price USD/lb 3.58 Co Metal Price USD/lb 18.60 Pd Metal Price USD/oz 2,513 Pt Metal Price USD/oz 1,250 Ni- Co-Mn Metal Price USD/t 16,800 Ru Metal Price USD/oz 400 Rh Metal Price USD/oz 26,500 Os Metal Price USD/oz 54,493 Ir Metal Price USD/oz 6,250
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	A variety of preliminary metallurgical test work has been completed at a PFS level, but is metallurgical test work is still on-going. The test work to date implies that economic nickel recovery is achievable at head grades that range from 0.25 to 0.3% nickel. Mineral deportment work has identified that the nickel is overwhelmingly hosted in nickel sulfide minerals (predominantly pentlandite, heazlewoodite, minor millerite and occasional awaruite) with minimal nickel in the silicate minerals.
Environmental factors or assumptions	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made	Previously, the Ban Phuc massive sulphide mineralisation adjacent to the Ban Phuc disseminated mineralisation operated under Vietnam's national environmental laws and guidelines. Base line environmental studies have been carried out since 2014. A large-scale open pit mine will require additional environmental review and permitting but no immediate impediments have been identified. AMD classification test work has not identified a material AMD risk to date with the disseminated nickel mineralisation .
Bulk density	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.	Bulk density was measured for most diamond core sample intervals using the Archimedes method. Density measurements were taken on each interval that is sampled for assay testing prior to the sample being cut. Due to the low-grade character of the disseminated nickel mineralisation, there is minimal correlation between the measured density and the nickel grade.

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Criteria	JORC Code explanation	Commentary
	The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit,	Bulk density was measured with natural moisture. Core from the transitional and fresh zones is tight with no vugs/voids and likely includes minimal moisture. Core from the oxide zone can contain voids and vugs and may contain some moisture.
	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	The boundary analysis conducted on the density data distributed between the lithology, oxidation and mineralisation all showed gradual density change between domains leading to density estimation only being constrained by the limits of the ultramafic lithology interpretation. Tests were conducted to determine whether any relationship existed between nickel grade and density. None were revealed within the disseminated nickel mineralisation.
Classification	The basis for the classification of the Mineral Resources into varying confidence categories	The Competent Persons consider the quality of the drillhole and assay data is suitable to support the Indicated and Inferred Mineral Resource classification. The deposit has been classified as an Indicated and Inferred Mineral Resource primarily based on the current drillhole spacing. The following general spatial rules were applied, which relate to the demonstrated nickel grade continuity: Indicated – any mineralisation within 30 m of assayed drillholes – in practice, any mineralisation straddle by drilling on 50 m spaced section lines. Inferred – any mineralisation that did satisfy the Indicated classification requirements. As a function of the mineralisation geometry and available project economics, the preliminary optimised pit shells captured approximately 96% of mineralisation, which given the preliminary nature of these optimisations resulted in all of the mineralisation meeting the RPEEE criteria.
	Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).	It is the Competent Persons view that the applied Mineral Resource classification appropriately reflects the impact of all factors that relate confidence in the Mineral Resource estimate.
	Whether the result appropriately reflects the Competent Person's view of the deposit.	The Indicated and Inferred resource classification is an accurate representation of the Competent Persons view of the deposit.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	Other than Optiro internal peer review, there have been no audits or reviews of the Mineral Resource estimate.
	Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that	No separate tests have been conducted to test relative accuracy of the MRE. There is good confidence in the supporting drillhole data and the global geological understanding of the deposit. The relationship between the estimation block size and local drill grid spacing is such that the Competent Persons anticipate that estimated block grade is likely to be achieved in the regions tested by closer spaced drilling as depicted by an Indicated classification. This observation is expected to hold if future mining relies on bulk open pit mining methods.

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Criteria	JORC Code explanation	Commentary
	could affect the relative accuracy and confidence of the estimate	
	The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used	The resource model is considered to provide a global estimate, commensurate with the available data.
	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available	The Ban Phuc disseminated deposit is currently undergoing pre-feasibility study assessment and has not been subjected to any production or mining.

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Section 3b Estimation and Reporting of Mineral Resources – Specific to the BAN KHOA Resource Estimate

Criteria	JORC Code explanation	Commentary
Database integrity	Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.	Drillhole collar, downhole surveying and downhole data was collected digitally using industry standard methods. The data is stored in an MS Access database and validated spatially using several different mine planning packages. All drillhole data was transferred from BSX to Optiro using csv format files, which were imported into Datamine Studio RM using dedicated processes. Once imported the data was again checked spatially, and minor corrections relating to collar survey elevations were instigated before proceeding. All interpretation wireframes were transferred from BSX to Optiro and Studio RM using DXF formatted files and dedicated import functions.
	Data validation procedures used.	Data underwent routine validation steps on entry and the interpretation integrity was validated by visually comparison between the drillholes and wireframes.
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits.	No physical site visit has been undertaken by the Competent Person. A virtual site visit was conducted between the 15 and the 19 of September 2021, which reviewed independent data sources, core and site photographs, site documentation and standard work procedures and publicly available information. No discrepancies were identified.
	If no site visits have been undertaken indicate why this is the case.	A physical site visit was not undertaken due to COVID 19 international travel restrictions
Geological interpretation	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.	There is reasonable confidence in the geological interpretation, which is commensurate with the available data. Further drilling may change the geological interpretation, which is conveyed by the Inferred classification assigned to this generation of resource estimation.
	Nature of the data used and of any assumptions made.	The drillhole assay data is all diamond core but excludes the historical Vietnamese Geological Survey (drilling because of uncertainty regarding the sample preparation and analytical protocols that were used.
	The effect, if any, of alternative interpretations on Mineral Resource estimation.	As a function of the exploration history and accumulated geological knowledge, alternative interpretations are unlikely on a global scale but local scale change should be anticipated as further sample data is accumulated.
	The use of geology in guiding and controlling Mineral Resource estimation.	The Mineral Resource is geographically constrained by the interpreted extent of the host ultramafic complex. Within the complex, the ultramafic lithologies were partitioned into two units based on geochemical patterns and trends revealed by drillhole sampling. All grade estimation is constrained within the geographical extents of these two zones.
	The factors affecting continuity both of grade and geology.	Both grade and geological continuity relate to the original layering in the ultramafic complex, which subsequently was structurally modified into the present geometry. Currently grade continuity is poorly defined due to the limited drilling data and has been implied.
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan	The deposit daylights at surface where the ultramafic complex forms a roughly circular shape which is approximately 200 m by 250 m. The deepest part of the mineralisation is located

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Criteria	JORC Code explanation	Commentary
	width, and depth below surface to the upper and lower limits of the Mineral Resource	approximately 300 m below surface although this measure is impacted by the local mountainous terrain.
Estimation and modelling techniques	The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.	In general, the main elements of interests exhibit low variability as revealed by low coefficients of variation. This led to the adoption of ordinary kriging as the grade estimation method. Relatively rare outlier grades exist for some elements, and these were capped using top-cuts as required. The sensitivity to top-cut grade threshold selection was low. The interpretation process provided domains that allowed the ultramafic complex to be divided into regions based on oxidation and mineralisation. The characteristics of each elements grade trends across the boundaries of these domains was assessed, which led to decisions regarding which domain conditions were used to control the grade estimation process. All grade modelling was undertaken in Datamine Studio RM (v1.9.36.0). The estimation process allowed a three-pass search strategy and dynamic anisotropic control of search directions was applied due to the folding evident in the deposit. Primary search ranges in the mineralisation plane were 75 m by 75 m based on the grade patterns observed during the continuity analysis. Secondary and tertiary searches extended these ranges by factors of two and five, with the tertiary search designed to ensure all model blocks were informed by a grade estimate.
	The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	This 2021 Mineral Resource is the maiden resource estimate for Ban Khoa. No check estimates have been undertaken and no mining has occurred at the deposit.
	The assumptions made regarding recovery of by-products.	The Mineral Resource is focussed on nickel as the most significant revenue generator. However, additional revenue is expected from copper, cobalt and precious metals (Au, Pt, Pd), either as concentrate or as refined metal.
	Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).	Several elements were estimated that may assist in geo-metallurgical domain. Density was also estimated using ordinary kriging using the significant number of measurements collected from the diamond core
	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	Block size is 20 mE by 20 mN by 10 mRL. Drillhole cross section (N-S) spacing is 50 m. Within section lines, and relative to the deeper mineralisation domain, drillhole spacing varies between 30 m and 110 m with an average of approximately 75 m. Due to the fanning of drillholes on section, drillhole spacing in the upper domain is closer but the domain is much smaller.
	Any assumptions behind modelling of selective mining units.	Mining selectivity is assumed to match the 20 m by 20 m by 10 m block size and domain boundary resolution is set at 5 m by 5 m by 2.5 m.
	Any assumptions about correlation between variables.	Several variables are correlated. These correlations have been managed during the estimation process by using the same search neighbourhood for the estimation of each of these element
	Description of how the geological interpretation was used to control the resource estimates.	The geological interpretation revealed the folded presentation of the mineralisation . This led to the adoption of dynamic anisotropy control for the grade estimation process for all elements. Grade boundary analysis showed that the potential revenue elements generally exhibited abrupt changes at the footwall and hanging wall of the mineralisation domains, which led to these limits

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Criteria	JORC Code explanation	Commentary
		being used as a hard grade boundary for the estimation of these elements. Within the limits of the mineralisation domains, most other elements and density show at most gradational change across oxidation domain boundaries, so estimation of these variables was only constrained by the interpreted mineralisation limits. Sulphur and density were exceptions to this rule and both mineralisation and oxidation domains were used to control the estimation, process in these cases.
	Discussion of basis for using or not using grade cutting or capping.	Almost all elements that were estimated exhibited low variability grade distributions and only occasional outlier values. Most elements did not require grade capping; however, caps were applied in several cases to control the influence of the rare outlier grades. General, the caps applied only resulted in minor modification of the expected grade.
	The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.	The block model grade estimates were validated by visually assessing the interaction between drillhole and estimated block grades, by whole-of-domain statistical comparison and by the appraisal of swath plots for the main elements (nickel, copper, sulphur) and density. All comparison were consistent with expectations.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	Tonnages are estimated with natural moisture. Moisture content within the transition and fresh rock domains is judged to be immaterial.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied	The Mineral Resource has been reported at 2,500 ppm nickel for fresh material and at 3,000 ppm nickel for oxidised and transitional materials, based on available processing test-work which identified very limited non-sulfide nickel content and was supported by preliminary processing models.
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	The dissemination nickel sulfide mineralisation is considered to provide a potentially viable target for bulk open pit mining methods. The current model provides an estimate of the deposit response to localised mining at a 20 m by 10 m by 10 m scale although additional dilution and ore loss will require assessment. Blackstone has engaged Optimize Group of Toronto, CA (OG) to conduct a mining feasibility study (PFS) as part of the overall upstream feasibility study. OG have been engaged throughout 2021 and have carried out many levels of mining studies including all the current open pit and underground analysis. Blackstone has provided price and recovery information for both upstream and downstream business. Refinery information provided has been sourced from the downstream refinery PFS completed earlier in 2021. Mining parameters and costs have been prepared jointly with OG, BSX and the company's Geotechnical consultant (PSM - Perth). Processing and recovery parameters have been sourced from extensive site-based float testing and supported by parallel testing programs by ALS, Simulus and CPC in Perth. Blackstone uses a pit constraint summarised as a 'Revenue Factor' (RF) of 1.25 times the base case revenue assumptions below. The '1.25 RF shell' is a physical constraint guide for reporting mineral resources and as a function of the trough like geometry of the mineralisation, the optimised shell included practically all the mineralisation. Thus, it is practical to include all the minor mineralisation buffering the 1.25 RF pit shell in the reported resource.

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Criteria	JORC Code explanation	Commentary
		The RPEEE assessment considers an extensive range cost factors which account for preliminary mining, processing and refining. Such factors combined with the following metal price assumptions. The key metal price assumptions include: Metal Prices: Ni Metal Price USD/t 17,045 Au Metal Price USD/oz 1,620 Cu Metal Price USD/lb 3.58 Co Metal Price USD/lb 18.60 Pd Metal Price USD/oz 2,513 Pt Metal Price USD/oz 1,250 Ni- Co-Mn Metal Price USD/t 16,800 Ru Metal Price USD/oz 400 Rh Metal Price USD/oz 26,500 Os Metal Price USD/oz 54,493 Ir Metal Price USD/oz 6,250
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	Preliminary metallurgical test work has been completed for Ban Khoa, but is still on-going. The test work to date implies that economic nickel recovery is achievable at head grades that range from 0.25 to 0.3% nickel. Mineral deportment work has identified that the nickel is overwhelmingly hosted in nickel sulfide minerals (predominantly pentlandite, heazlewoodite, minor millerite and occasional awaruite) with minimal nickel in the silicate minerals.
Environmental factors or assumptions	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported.	Previously, the Ban Phuc massive sulphide mineralisation adjacent to the Ban Phuc disseminated mineralisation operated under Vietnam's national environmental laws and guidelines. A large-scale open pit mine will require additional environmental review and permitting but no immediate impediments have been identified. AMD classification test work has not identified a material AMD risk to date with the disseminated nickel mineralisation .

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Criteria	JORC Code explanation	Commentary
	Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made	
Bulk density	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.	Bulk density was measured for most diamond core sample intervals using the Archimedes method. Density measurements were taken on each interval that is sampled for assay testing prior to the sample being cut. Due to the low-grade character of the disseminated nickel mineralisation, there is minimal correlation between the measured density and the nickel grade.
	The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit,	Bulk density was measured with natural moisture. Core from the transitional and fresh zones is tight with no vugs/voids and likely includes minimal moisture. Core from the oxide zone can contain voids and vugs and may contain some moisture.
	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	Bulk density estimation is currently constrained to the mineralisation domain limits. Within these domains, the oxidation domains were used to control the estimation process. As more data is collected it is possible that density will demonstrate gradational change across the oxidation boundaries, as noted at the Ban Phuc disseminated sulphide deposit. If so, this will require a modified estimation process to allow for gradational change.
Classification	The basis for the classification of the Mineral Resources into varying confidence categories	The Competent Persons consider the quality of the drillhole and assay data is suitable to support the Inferred Mineral Resource classification. The deposit has been classified as an Inferred Mineral Resource primarily based on the current drillhole spacing. As a function of the mineralisation geometry and available project economics, the preliminary optimised pit shells captured approximately 97% of mineralisation, which given the preliminary nature of these optimisations resulted in all of the mineralisation meeting the RPEEE criteria.
	Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).	It is the Competent Persons view that the applied Mineral Resource classification appropriately reflects the impact of all factors that relate confidence in the Mineral Resource estimate.
	Whether the result appropriately reflects the Competent Person's view of the deposit.	The Inferred resource classification is an accurate representation of the Competent Persons view of the deposit.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	Other than Optiro internal peer review, there have been no audits or reviews of the Mineral Resource estimate.
	Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed	No separate tests have been conducted to test relative accuracy of the MRE. There is good confidence in the supporting drillhole data and the global geological understanding of the deposit. The relationship between the estimation block size and local drill grid spacing is such that the Competent Persons anticipate that estimated block grade is likely to be achieved in the regions tested by closer spaced drilling as depicted by an Indicated classification. This observation is expected to hold if future mining relies on bulk open pit mining methods.

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Criteria	JORC Code explanation	Commentary
	appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate	
	The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used	The resource model is considered to provide a global estimate, commensurate with the available data.
	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available	

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Section 3c Estimation and Reporting of Mineral Resources – Specific to the BAN CHANG AND KING SNAKE Resource Estimates

Criteria	JORC Code explanation	Commentary
Database integrity	Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.	Drillhole collar, downhole surveying and downhole data was collected digitally using industry standard methods. The data is stored in an MS Access database and validated spatially using Leapfrog, Datamine mine planning packages All drillhole data was transferred from BSX to Optiro using csv format files, which were imported into Datamine Studio RM, using dedicated processes. All interpretation wireframes were completed in Leapfrog Geo, and transferred to Studio RM using DXF formatted files and dedicated import functions.
	Data validation procedures used.	Drillhole collar locations were compared to topography and allowing for drill pad preparation, correlated well. The drillhole data file import and desurvey procedure in Studio RM checks for missing, overlapping and duplicate sample intervals, of which none were identified. Summary statistics were generated to help identify any incorrect values in numeric fields, and none were found. All drillhole traces were examined for problematic surveys that show unrealistic deviation. The interpretation integrity was validated by visual comparison between the drillholes and domain wireframes and no issues were identified.
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits.	No physical site visit has been undertaken by the Competent Person. However, a virtual 'site visit' was undertaken between the 15th and 19th of September 2021 as part of the Ban Phuc virtual site visit. The virtual 'site visit' assessed company independent and publicly sourced data and information about the project, ensuring there was a cohesive and consistent support for the company sourced project information. The independent data was compared to site and core photography, site documentation, and standard work procedures, all of which was consistent with the independently sourced data. The Ban Khoa, Ban Chang and King Snake specific data was reviewed 14th and 15th of November 2021, and consisted of checking available satellite images, core photography, and entered data.
	If no site visits have been undertaken indicate why this is the case.	A physical site visit was not undertaken due to COVID 19 international travel restrictions.
Geological interpretation	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.	There is confidence in the deposit scale geological architecture at both deposits. However, at a local scale for both Bang Chang and King Snake, there is scope for geological complexity which is currently not well defined.
	Nature of the data used and of any assumptions made.	The drillhole sample data is all diamond drill core, but excludes historical assay data collected by the Vietnamese Geological Survey, because of uncertainty of the sample preparation and analytical protocols used at the time.
	The effect, if any, of alternative interpretations on Mineral Resource estimation.	At a deposit or global scale, alternative interpretations are considered unlikely. However, there is scope for local scale variability, but the current drill spacing, and available information is

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Criteria	JORC Code explanation	Commentary
		insufficient to reliably assess alternate interpretations. This has been reflected in the applied resource classification
	The use of geology in guiding and controlling Mineral Resource estimation.	The Mineral Resource is geographically constrained by the interpreted lithologies and mineralisation, being the host disseminated ultramafic at Ban Change, and the massive sulphide at Ban Chang and King Snake. The massive sulphide mineralised geometry was used to calculate the true thickness for the triple accumulation estimation technique used to estimate the massive sulphide domains at Bang Chan and King Snake.
	The factors affecting continuity both of grade and geology.	The lithology and the available drillhole spacing are the major factors affecting geological and grade continuity at both Ban Chang and King Snake.
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource	The Ban Chang deposit includes two undulating tabular mineralised lodes, striking east-west, which are 580m apart along strike. The Ban Chan west lens is off-set 200 m south of the east lode. The west lens consists only of massive sulphide and is approximately 630 m along strike and 140 m vertically, with an average 1.6m true width, and dips 65-80 towards 180°. The east lens consists of a disseminated ultramafic lithology which encloses the massive sulphide mineralisation. The along-strike length of the eastern lens is approximately 450m along strike and 110m vertically with an average true width of 3.1m, and dips 70-75 towards 180°. The top of the mineralisation sub-crops at the eastern side of the mineralisation, plunging at 5-10° to the west, with the top of the mineralisation less than 30m below the topography. The King Snake deposit comprises a single undulating ENE-WSW striking massive sulphide lode. The lens extends approximately 760m along strike and 180m vertically. True width varies from 0.25 m to 3.5 m, with an average dip of 80° towards 170°. The top of the mineralisation plunges at 15-25° to the west, ranging from 5 to 120m below the topography.
Estimation and modelling techniques	The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.	All grade modelling was undertaken in Datamine Studio RM (v1.10.100.0). For both Ban Change and King Snake deposits, A total of 24 elements were estimated – nickel, copper, cobalt, chromium, cadmium, iron, magnesium, sulphur, calcium, potassium, manganese, molybdenum, phosphorous, lead, titanium, zinc, silver, aluminium, arsenic, gold, bismuth, sodium, platinum and palladium, as well as density. Approximately 15% of the mineralised samples do not have gold or PGE assays. The main elements of economic interest (nickel, cobalt, copper and PGE's) exhibit low variability and low coefficient of variation or are potentially deleterious variables and hence, no top-cuts were applied. The main elements exhibited varying degrees of correlation between the grades of interest and density, which required the composite samples to be weighted by length and density.

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Criteria	JORC Code explanation	Commentary
		Samples without density determinations had a density assigned using a sulphur-density (Ban Chang) or a nickel-density (King Snake) regression for the purposes of creating composite samples. For the massive sulphide at both Ban Chang and King Snake, as a function of the highly variable widths of mineralisation, a triple accumulation method was used for the estimation of grades (grade x true thickness x density). For the estimation of density, an accumulation approach was used (true thickness x density), combined with the as well as estimation of the true thickness. For the disseminated ultramafic domain at Ban Chang, because of the wider and more consistent widths of mineralisation, length-density weighted 1.0 m downhole composite were created. At both deposits, normal scores transform continuity modelling was prepared for the accumulated nickel, accumulated arsenic, accumulated gold, accumulated density and true thickness were used in estimation. The accumulated nickel and gold variogram models were applied to other elements based on geochemical associations and correlation. Data spacing and kriging neighbourhood analysis were considered in the selection of the block size (20 m x 10 m x 10m at Ban Chang and 20 m x 5 m x 10 m at King Snake). And discretisation set to 4 E x 1 N x 4 RL discretisation. Boundary analysis supported the use of hard domain boundaries for estimation. The limited number of samples from the oxide and transitional oxidation domains meant that the oxidation boundaries were not used to control the estimation. No top-cuts were applied but either Ban Chang or King Snake. However, at King Snake validation of initial estimates identified a degree of excessive extrapolation. High-grade search restraints were used to reduce the spatial influence of a limited number of outlier accumulated grades for arsenic (5,000 ppm m), cadmium(10 ppm m), silver (27 ppm m), bismuth (70 ppm m), palladium (10 ppm m)and platinum (17 ppm m) to 25 m. These values were derived by iterative application of the restriction distances. For both Ban Chang and King Snake, the lack of sufficient data and very minor volumes associated with the oxide and transitional oxidations domains, sulphur and density were not estimated, but assigned from available average values . All other grade and density values were estimated using ordinary kriging. Locally, the mineralisation develops flexures, so dynamic anisotropy was used to define the local search neighbourhood. At Ban Chang, the number of informing samples was 8 and 16 samples for the ultramafic domain and 2 to 6 samples for the massive sulphide domain for all search passes. The primary search for both disseminated and massive sulphide lodes is 60 m by 30 m by 50 m. Secondary and tertiary searches extended these ranges by factors of two and four, with the tertiary search designed to ensure all model blocks were informed by a grade estimate. The first and second passes informed

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Criteria	JORC Code explanation	Commentary
		84% and 16% respectively, of the total mineralised volume. The maximum distance of extrapolation was 90 m. At King Snake, the primary search for both disseminated and massive sulphide lodes is 150 m by 75 m by 50 m. Secondary and tertiary searches extended these ranges by factors of two and five, to ensure all model blocks were informed by an estimate. Over 99% of blocks were estimated within the primary search. The maximum distance of extrapolation was 69 m. Discretisation was set to 4 E x 1 N x 4 RL.
	The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	The Ban Chang and King Snake estimates are both maiden Mineral Resource estimates and there has been no prior production at either deposit, nor have any check estimates been undertaken.
	The assumptions made regarding recovery of by-products.	The currently available metallurgical test work indicates nickel, copper, cobalt, palladium, platinum and gold can be recovered by the current, planned processing route.
	Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).	Estimation of all elements including the deleterious elements used an identical estimation technique as the main economic variables Several elements were estimated that may assist in geo-metallurgical domaining including iron, magnesium and arsenic. Sulphur was estimated to assist geo-metallurgical domaining as well as to inform acid mine drainage characterisation. For Ban Chang and King Snake the lack of density and sulphur data in oxide and transition oxidation domains required the assignment of assumed domain averages from the available data for these two zones.
	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	This block dimensions were supported by the available drill spacing and kriging neighbourhood analysis, and reflects the geometric anisotropy determined from variogram analysis. The Ban Chang drilling has an along strike section spacing ranging from 25 m to 100 m, and on-section (N-S) spacing ranges from 25 m to 50 m. Mineralised intersections have a nominal spacing of 50 mE by 35 mRL spacing. The block size is 20 mE by 10 mN by 10 mRL. The primary search is 60 m by 30 m by 50 m, in the plane of the mineralisation. The King Snake drilling has an along strike section spacing ranging from 25 m to 100 m, and on-section (N-S) spacing ranges from 25 m to 75 m. Mineralised intersections have a nominal spacing of 50 mE by 50 mRL spacing. The block size is 20 mE by 5 mN by 10 mRL. The primary search is 150 m by 75 m by 50 m, in the plane of the mineralisation.
	Any assumptions behind modelling of selective mining units.	Mining selectivity is assumed to suitably reflect the respective block sizes for each deposit.
	Any assumptions about correlation between variables.	For the all domains, there is a demonstrable nickel- density correlation, and density has been used to length-density weight the composite samples.

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Criteria	JORC Code explanation	Commentary
		For the main elements at Ban Chang and King Snake, cross-correlations between elements helped inform which variogram model was applied to elements that did not have a unique variogram model developed. The accumulated nickel variogram model was applied to accumulated cobalt, copper, sulphur, iron, magnesium, aluminium, calcium, cadmium, chromium, potassium, manganese, sodium, phosphorous, lead, titanium, zinc, silver, molybdenum and bismuth estimation. The accumulated gold variogram model was applied to accumulated palladium and platinum estimation. This approach was adopted to deliver reasonable models for more poorly informed elements.
	Description of how the geological interpretation was used to control the resource estimates.	At both deposits, the mineralisation develops local flexures, hence dynamic anisotropy was used to define the local search orientation. Contact analysis supported the treatment of the mineralised domains as hard boundaries. Within the ultramafic complex, there is limited data in the oxide and transitional domain. Therefore, the oxidation boundaries have been not been used for estimation. However, sulphur and density values in the oxide and transitional material were assigned assumed average values.
	Discussion of basis for using or not using grade cutting or capping.	At Ban Chang all elements with the exception of arsenic exhibited grade distributions with low variability and therefore no top-cut has been applied. Arsenic is an exception, and had a moderately higher CV. However, as a deleterious element arsenic was not top-cut. At King Snake, all elements have low coefficients of variation except for arsenic (CV = 2). To minimise the impact of extrapolation of outlier values for arsenic, cadmium, silver, bismuth, palladium and platinum, high-grade restraints was applied to the accumulated grades for these elements. High grade restraints enable blocks within a specified distance to be informed by full composite values, whereas blocks beyond that distance are informed by a capped value if a composite exceeds a specified grade threshold. Restraining parameters (distances and capping threshold) were developed iteratively until validation checks for each element were deemed acceptable.
	The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.	For both deposits, the block model grade estimates were validated by visually assessing the interaction between drillhole and estimated block grades, whole-of-domain statistical comparison and the appraisal of swath plots for the main elements (nickel, copper, sulphur) and density. All of the validation exhibited good correlation between composites and estimate for the main elements. For iridium, osmium, rhodium and ruthenium at both deposits, the correlation was more variable as a result of extrapolation, but is considered globally acceptable and reflected in the Mineral Resource classification. No production has taken place at either Ban Chang or King Snake.

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Criteria	JORC Code explanation	Commentary
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	Tonnages are estimated with natural moisture. Moisture content within the transition and fresh rock domains is judged to be immaterial.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied	For Ban Chang and King Snake, the Mineral Resource has been reported at a 7,000 ppm nickel cut-off, based on the geometry and grade continuity, and available preliminary processing test-work. This test work has identified the presence of very limited non-sulphide nickel within the various host units.
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	Ban Chang and King Snake deposits are considered amenable to both underground and open pit mining methods. However, the massive sulphide deposits have been assessed as being most likely exploited using underground mining methods, similar to that used at the previously mined Ban Phuc massive sulphide operation. The key metal price assumptions include: Metal Prices: Ni Metal Price USD/t 17,045 Au Metal Price USD/oz 1,620 Cu Metal Price USD/lb 3.58 Co Metal Price USD/lb 18.60 Pd Metal Price USD/oz 2,513 Pt Metal Price USD/oz 1,250 Ni- Co-Mn Metal Price USD/t 16,800 Ru Metal Price USD/oz 400 Rh Metal Price USD/oz 26,500 Os Metal Price USD/oz 54,493 Ir Metal Price USD/oz 6,250
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	Previously, the historical Ban Phuc massive sulphide deposit has been processed using conventional sulphide floatation methods, and the Ban Chang and King Snake deposits will also be amenable to this processing option. Additionally, limited, preliminary metallurgical test-work has demonstrated that the Ban Chang and King Snake mineralisation is amenable to the planned processing route.

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Criteria	JORC Code explanation	Commentary
Environmental factors or assumptions	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made	The Ban Phuc massive sulphide operation, adjacent to the Ban Phuc disseminated prospect and proximal to the Ban Change and King Snake prospects was previously operated under Vietnam's national environmental laws and guidelines. Mining of the Ban Chang and/or King Snake deposits will require additional environmental review and permitting, but no immediate impediments have been identified. AMD classification test work has not identified a material AMD risk to date with the disseminated nickel mineralisation .
Bulk density	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.	Bulk density was measured for most diamond core sample intervals using the Archimedes method. Density measurements were taken on each interval that is sampled for assay testing prior to the sample being cut. Due to the low-grade character of the disseminated nickel mineralisation, there is minimal correlation between the measured density and the nickel grade.
	The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit,	Bulk density was measured with natural moisture. Core from the transitional and fresh zones is tight with no vugs/voids and likely includes minimal moisture. Core from the oxide zone can contain voids and vugs and may contain some moisture. At Ban Chang and King Snake mineralisation, default density values were assigned to the oxide (assigned density was 2.5 t/m^3) and transitional zone (assigned density was 2.8 t/m^3). Density in the fresh zone was estimated from available density determinations exclusively.
	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	For Ban Chang and King Snake massive sulphide veins, there were good nickel (King Snake) and sulphur (Ban Chang) density correlations in the fresh zone. Regression equations with these elements were used to inform the creation of the triple accumulation variables if samples did not have a density determination. For the Ban Chang disseminated ultramafic vein, the correlation was poorer but still evident, and correlation was used when required. The oxide and transitional samples within the mineralised domains used an average zone density value for the creation of the composite samples. Due to the limited number of available samples, the Mineral Resource estimate bulk density for the mineralised oxide and transitional zones at Bang Chang and King Snake were assigned default averages.
Classification	The basis for the classification of the Mineral Resources into varying confidence categories	The deposit is classified as an Inferred Mineral Resource. The extent of this classified resource is yet to be constrained to a RPEEE limit formed by a pit shell which was generated using: For Ban Chang and King Snake, the Mineral Resource RPEE has been assessed on the basis that both deposits will be mined from underground, using mining methods similar to the previous

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Criteria	JORC Code explanation	Commentary
		underground mining at the Ban Phuc massive sulphide deposit. The topography is such that it provides opportunity to minimise capital development. The Competent Persons consider the quality of the drillhole data, the available continuity model and current geological understanding restricts the Mineral Resource classification at Ban Chang and King Snake, to an Inferred Mineral Resource.
	Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).	It is the Competent Persons view that the applied Mineral Resource classification appropriately reflects the impact of all relevant factors.
	Whether the result appropriately reflects the Competent Person's view of the deposit.	The Inferred Mineral Resource classification is an accurate representation of the Competent Persons view of the deposits.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	Other than Optiro internal peer review, there have been no audits or reviews of the Mineral Resource estimate.
	Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate	No separate tests have been conducted to test relative accuracy of the MRE. There is good confidence in the supporting drillhole data and reasonable confidence the global geological understanding of the deposit commensurate with the available data.
	The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used	As an Inferred Mineral Resource, the 2021 Ban Chang and King Snake estimate are considered global estimates only.
	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available	The deposit is currently undergoing pre-feasibility study assessment and has not been subjected to any production.

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