

**ASX RELEASE** 30 October 2019

# Quarterly Report for the period ending 30 September 2019

## **Highlights**

• Diamond drilling from the Ta Khoa Nickel Project in Northern Vietnam has delivered substantial intersections of disseminated nickel sulfide as well as significant PGEs (Pt+Pd+Au). The maiden drilling results from the initial nine drill holes in the program include:

Hole No	From (m)	Width (m)	Ni (%)	Cu (%)	Co (%)	Pt+Pd+Au (g/t)
BP19-01	138.0	22.0	0.76	0.13	0.01	0.40
incl.	138.0	5.0	2.23	0.17	0.03	1.36
BP19-02	106.6	17.8	1.00	0.09	0.01	0.74
incl.	106.6	7.4	1.36	0.11	0.01	1.10
BP19-03	56.5	45.5	1.20	0.17	0.01	0.35
BP19-04	104.4	16.6	0.34	0.04	0.01	0.07
BP19-05	118.2	15.8	0.57	0.07	0.01	0.26
incl.	118.2	8.30	0.68	0.09	0.01	0.34
BP19-06	101.0	27.7	0.88	0.09	0.01	0.74
incl.	108.5	13.5	1.12	0.13	0.02	0.91
BP19-08	140.6	29.4	1.00	0.12	0.02	0.60
incl.	140.6	6.30	1.22	0.14	0.01	1.03
BP19-09	107.0	11.9	1.46	0.15	0.02	1.09
incl.	108.2	8.8	1.70	0.17	0.02	1.28
BP19-10	136.9	33.3	0.80	0.09	0.01	0.36
incl.	137.5	14.5	1.31	0.18	0.02	0.65

- Drilling is ongoing with additional drill rigs mobilising soon; exploration will include both infill drilling, targeting the known Ban Phuc disseminated sulfide zone (DSS), as well as step out drilling, testing newly identified targets;
- Previously unrecognised PGE grades associated with the Ban Phuc DSS suggest a potential by-product credit could significantly enhance the future economics of the Ta Khoa Nickel Project;
- Blackstone is fully funded to deliver a maiden resource and a scoping study with a strong cash position of \$4.95 million.



#### Ta Khoa Nickel Project

Blackstone Minerals Limited **(ASX code: BSX)** has entered into a binding term sheet for the exclusive option to acquire a 90% interest in the Ta Khoa Nickel Project. The Ta Khoa Nickel Project is located 160km west of Hanoi *(refer Figure 5)* in the Son La Province of Vietnam and includes an existing modern nickel mine built to Australian Standards, which is currently under care and maintenance. The Ban Phuc nickel mine successfully operated as a mechanised underground nickel mine from 2013 to 2016.

Previous project owners invested more than US\$136m in capital and generated US\$213m in revenue during a 3.5-year period of falling nickel prices. The project was placed into care and maintenance in mid-2016 during some of the lowest nickel prices in the past 10 years. Existing infrastructure associated with the project includes an internationally designed 450ktpa processing plant connected to the local hydro power grid with a fully permitted tailings facility and a modern 250-person camp.

Since announcing the option to acquire the Ta Khoa Nickel Project, Blackstone has commenced drilling and concurrently undertaken an initial IP survey. The IP survey has proven successful and the results will be used to target the second phase of drilling over the coming months. Blackstone will continue to test for shallow DSS targets at Ban Phuc and, using the IP survey results combined with extensive EM surveys, will initiate the second phase of drilling to test newly identified targets. Blackstone is the first company to use IP as a targeting tool and the initial results suggest the geophysical method will allow the Company to successfully define higher grade zones within both the MSV and DSS prospects and will combine well with the EM surveys to be conducted throughout the Ta Khoa Nickel Project.

Blackstone's maiden drilling has confirmed a significant unmined disseminated nickel sulfide zone exists at Ban Phuc, with the initial nine drill holes from the Company's maiden drill program delivering the following significant results (refer Figures 1, 2, 3, 4 and ASX announcement dated 17 September and 16 October 2019):

BP19-01	<b>22.0m @ 0.76% Ni, 0.13% Cu, 0.01% Co &amp; 0.40g/t PGE</b> from 138.0m
BP19-02	<b>17.8m @ 1.00% Ni, 0.09% Cu, 0.01% Co &amp; 0.74g/t PGE</b> from 106.6m
BP19-03	<b>45.5m @ 1.20% Ni, 0.17% Cu, 0.01% Co &amp; 0.35g/t PGE</b> from 56.5m
BP19-04	<b>16.6 m @ 0.34% Ni, 0.04% Cu, 0.01% Co &amp; 0.07 g/t PGE</b> from 104.4 m
BP19-05	<b>15.8 m @ 0.57% Ni, 0.07% Cu, 0.01% Co &amp; 0.26 g/t PGE</b> from 118.2 m
BP19-06	<b>27.7 m @ 0.88% Ni, 0.09% Cu, 0.01% Co &amp; 0.74 g/t PGE</b> from 101.0 m
BP19-08	<b>29.4 m @ 1.00% Ni, 0.12% Cu, 0.02% Co &amp; 0.60 g/t PGE</b> from 140.6 m
BP19-09	<b>11.9 m @ 1.46% Ni, 0.15% Cu, 0.02% Co &amp; 1.09 g/t PGE</b> from 107.0 m
BP19-10	<b>33.3 m @ 0.80% Ni, 0.09% Cu, 0.01% Co &amp; 0.37 g/t PGE</b> from 136.9 m



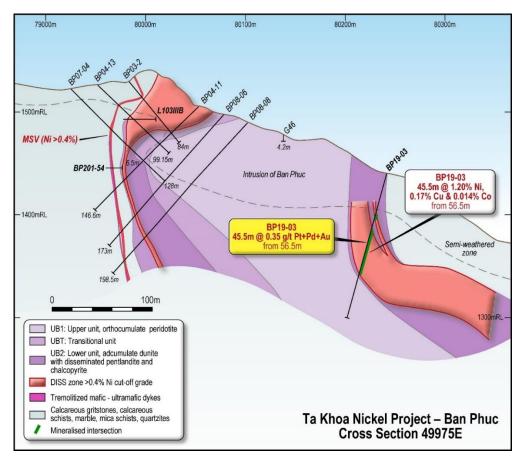


Figure 1: Cross Section 49975E showing Ban Phuc DSS maiden Drill Hole BP19-03

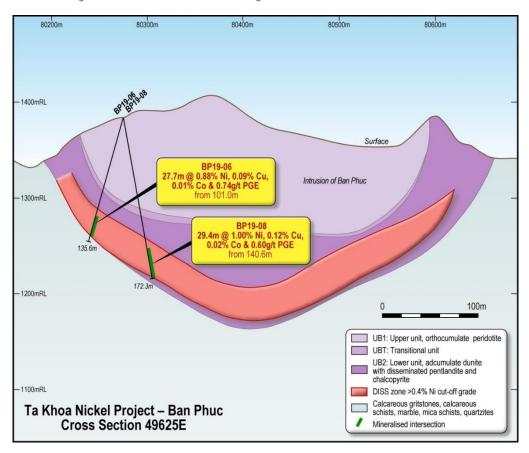


Figure 2: Cross Section 49625E showing Ban Phuc DSS maiden drill holes BP19-06 & BP19-08



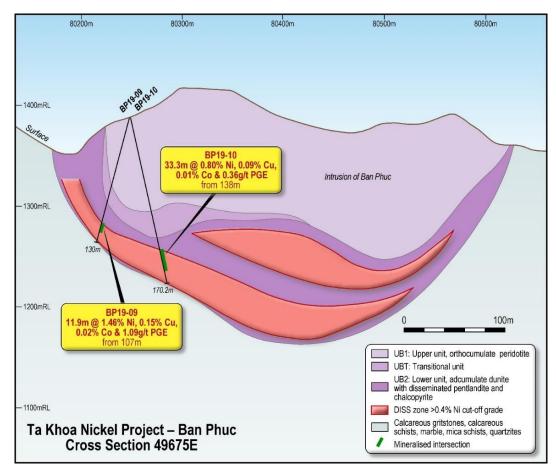


Figure 3: Cross Section 49675E showing Ban Phuc DSS maiden drill holes BP19-09 & BP19-10

Blackstone is the first company to assay the Ban Phuc DSS for PGEs and has recently uncovered a previously unrecognised opportunity. Previous owners focused on the Ban Phuc MSV, which has relatively low PGE grades, and hence did not consider or investigate the full potential of the PGEs throughout the Ta Khoa Nickel Project. Blackstone's maiden PGE assays combined with the abundance of disseminated nickel sulfide targets suggest PGEs associated with disseminated nickel sulfide mineralisation could significantly improve the economics of the Ta Khoa Nickel Project. Given the potential for a significant by-product credit associated with the disseminated nickel sulfide mineralisation throughout the project, Blackstone will now continue to pursue disseminated nickel sulfide targets as a priority. Blackstone will now look to further investigate this previously unrecognised opportunity and continue to unlock what could be a globally significant nickel sulfide system at the Ta Khoa Nickel Project.

Previous project owners focused their mining and exploration efforts primarily on the MSV at Ban Phuc, while Blackstone is looking to explore both MSV and DSS targets throughout the entire Ta Khoa Project initially, within a 5km radius of the existing processing facility. Blackstone will soon initiate an extensive EM and further IP surveys to target both DSS and MSV prospects. Blackstone will aim to deliver a maiden resource on the DSS at Ban Phuc over the coming months and investigate the potential to restart the Ban Phuc concentrator. Blackstone has commenced metallurgical testing on the Ban Phuc DSS with an aim to develop a flow sheet for a product suitable for the Lithium-ion battery industry. In addition, Blackstone is investigating the potential to develop downstream processing infrastructure in Northern Vietnam to produce a downstream nickel and cobalt product to supply Asia's growing Lithiumion battery industry.



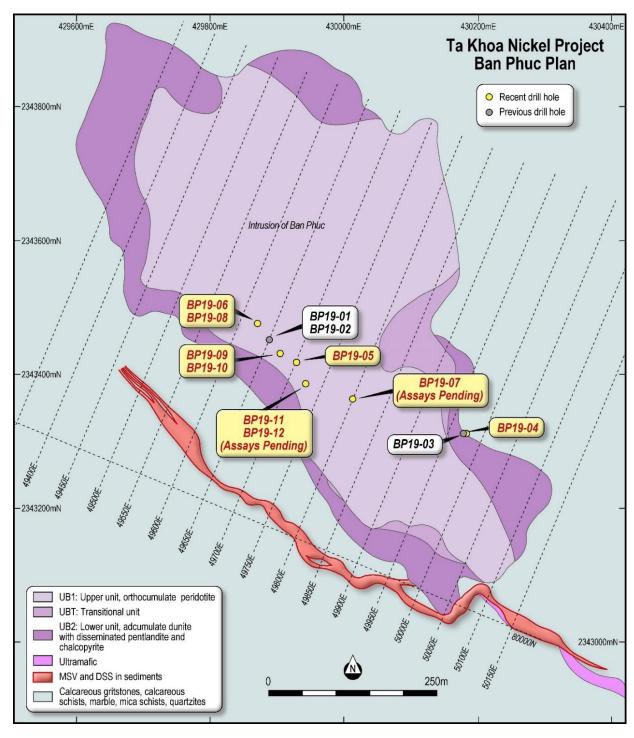


Figure 4: Plan View showing Ban Phuc DSS maiden drillholes BP19-01 to BP19-12



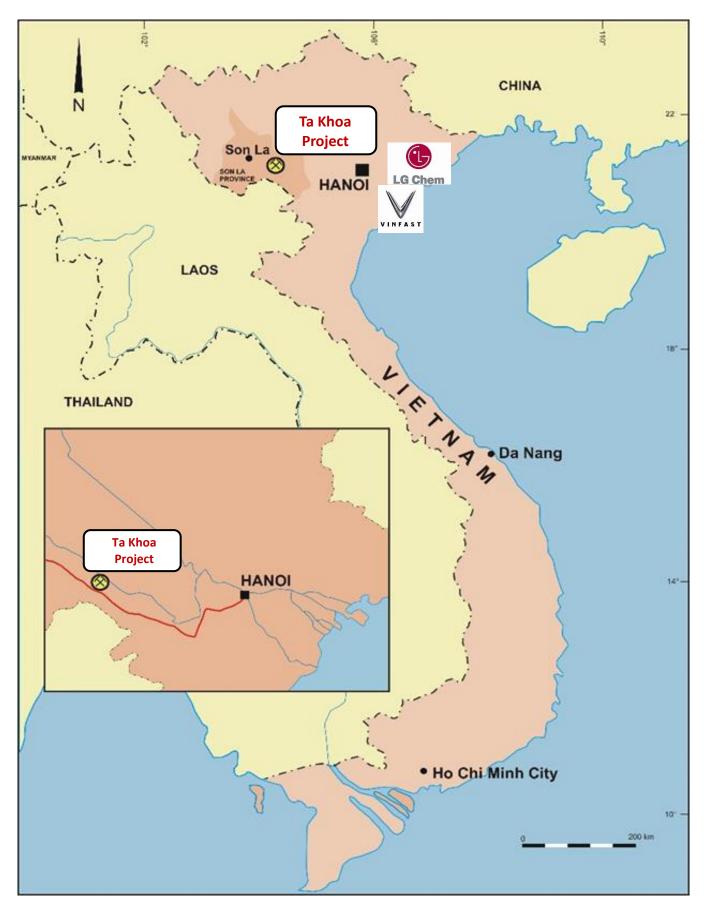


Figure 5: Ta Khoa Project Location (see approximate location of <u>LG Chem & Vinfast</u> joint venture battery factory in Northern Vietnam port city of Hai Phong)

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#### **Massive Sulfide Vein (MSV)**

The MSV, constituting the recently mined Ban Phuc underground resource, is a body of Ni-Cu-Co-PGE sulfide hosted within a shear and is considered to be magmatic in origin rather than a hydrothermal vein. The vein is 640m in length and continues to at least 450m below surface with an average width of 1.3m. Country rocks are hornfelised Ban Phuc Horizon calcareous sediments and tremolite-altered ultramafics. Quartz vein material typically brecciated and infilled with remobilised sulfides, is also present within the host shear. More than 25 mapped MSV targets (refer Figure 6) exist throughout the project with only minimal drilling by previous owners outside of the main Ban Phuc MSV deposit.

Significant historic intersections of the massive sulfide vein (MSV) at Ban Phuc include (refer ASX announcement dated 8 May 2019 for drilling results):

BP04-63	<b>2.02m @ 4.64% Ni, 3.59% Cu &amp; 0.15% Co</b> from 258.7m
BP13-06	<b>2.25m @ 3.88% Ni, 1.59% Cu &amp; 0.12% Co</b> from 322.9m
LK03	<b>2.50m @ 3.98% Ni &amp; 0.96% Cu</b> from 167.9m
LK11	<b>2.05m @ 4.33% Ni &amp; 1.14% Cu</b> from 189.7m
BP301-18	<b>9.2m @ 4.15% Ni, 1.33% Cu &amp; 0.13% Co</b> from 48.3m Incl. <b>4.9m @ 6.49% Ni, 1.19% Cu &amp; 0.20% Co</b>

Significant historic drilling and trenching results from unmined MSV targets at Ta Khoa (*refer Figure 6 and ASX announcement dated 8 May 2019 for drilling and trenching results*) include:

Suoi Phang	1.0m @ 5.96% Ni, 3.53% Cu, 0.02% Co & 0.2g/t PGE;
	1.0m @ 5.98% Ni, 0.24% Cu, 0.19% Co & 0.17g/t PGE;
	2.1m @ 4.19% Ni, 0.36% Cu & 0.14% Co.
Kingsnake	1.6m @ 3.27% Ni, 1.30% Cu, 0.11% Co & 2.22g/t PGE;
	1.7m @ 3.30% Ni, 1.02% Cu, 0.11% Co & 2.16g/t PGE;
	0.8m @ 3.08% Ni, 1.59% Cu, 0.17% Co.
Ban Chang	1.6m @ 2.19% Ni & 1.54% Cu;
	1.0m @ 2.65% Ni & 1.04% Cu;
	1.7m @ 1.89% Ni & 0.91% Cu.
Ban Khang	2.5m @ 1.76% Ni, 0.25% Cu & 0.19% Co;
· ·	2.6m @ 1.59% Ni, 0.71% Cu & 0.08% Co;
	1.8m @ 1.51% Ni, 0.35% Cu & 0.17% Co.
Ban Mong	0.5m @ 6.11% Ni, 0.11% Cu & 0.2% Co
J	0.5m @ 4.56% Ni, 0.15% Cu & 0.15% Co
	0.5m @ 4.61% Ni, 1.20% Cu, 0.13% Co & 4.33g/t PGE
Ban Chang Ban Khang	1.6m @ 3.27% Ni, 1.30% Cu, 0.11% Co & 2.22g/t PGF 1.7m @ 3.30% Ni, 1.02% Cu, 0.11% Co & 2.16g/t PGF 0.8m @ 3.08% Ni, 1.59% Cu, 0.17% Co.  1.6m @ 2.19% Ni & 1.54% Cu; 1.0m @ 2.65% Ni & 1.04% Cu; 1.7m @ 1.89% Ni & 0.91% Cu.  2.5m @ 1.76% Ni, 0.25% Cu & 0.19% Co; 2.6m @ 1.59% Ni, 0.71% Cu & 0.08% Co; 1.8m @ 1.51% Ni, 0.35% Cu & 0.17% Co.  0.5m @ 6.11% Ni, 0.11% Cu & 0.2% Co 0.5m @ 4.56% Ni, 0.15% Cu & 0.15% Co



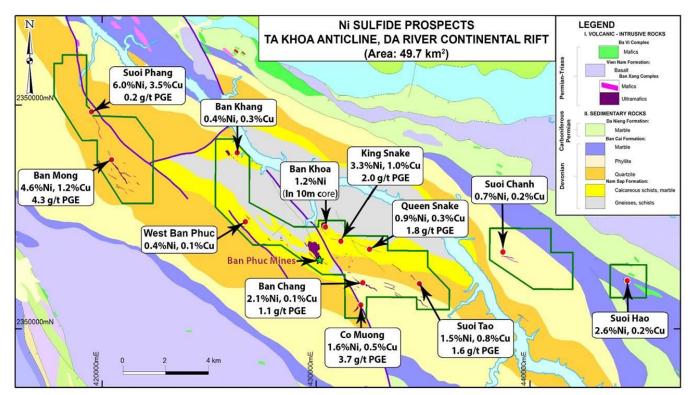


Figure 6: Ta Khoa dome geology prospective for multiple magmatic nickel sulfide deposits (refer ASX announcement dated 8 May 2019 for trenching results)

### **Disseminated Sulfide (DSS)**

Considerable potential exists within the Project for unmined deposits of DSS within ultramafic intrusions. Regional exploration in the Ta Khoa corridor has identified an extensive system of mafic-ultramafic intrusives, a remarkable number of which have associated Ni-Cu massive or DSS mineralisation. DSS targets exist at Ban Phuc, Ban Khang, Ban Chang and Ban Khoa.

Significant historic intersections of unmined DSS at Ban Phuc include (refer ASX announcement dated 8 May 2019 for drilling results):

BP04-68	<b>74.0m @ 1.02% Ni &amp; 0.20% Cu</b> from 73.0m Incl. <b>51.0m @ 1.19% Ni &amp; 0.24% Cu</b> from 91.0m
BP9706	<b>71.3m @ 0.94% Ni &amp; 0.13% Cu</b> from 122.0m Incl. <b>32.0m @ 1.54% Ni &amp; 0.26% Cu</b> from 130.0m
LK46	<b>90.2m @ 1.10% Ni</b> from 140.2m Incl. <b>54.2m @ 1.50% Ni</b> from 162.9m
LK50	<b>83.0m @ 1.12% Ni</b> from 96.5m Incl. <b>60.3m @ 1.35% Ni</b> from 117.1m
BP14-03	<b>71.2m @ 0.98% Ni &amp; 0.18% Cu</b> from 90.5m



#### **Canadian Projects**

#### **BC Cobalt Project (100% interest)**

The BC Cobalt Project (367 km² of tenure), formerly the Little Gem Project, is located 180 km north of Vancouver in British Columbia, Canada. The Project was discovered in the 1930s by prospectors identifying a pink cobalt-bloom on weathered mineralisation that led to three adits being developed. A total of 1,268 m of drilling was completed from underground and detailed channel sampling was taken from the adits. Blackstone acquired the BC Cobalt Project in October 2017 and has since completed an extensive maiden exploration program including drilling, geochemical and geophysical surveys, with the initial results indicating potential for the project to host a world class Cobalt Belt in British Columbia.

During the September Quarter, Blackstone continued the 2019 field season with an extensive stream sediment, soil sampling and mapping program. During the 2018 field season Blackstone identified a number of major Copper-Gold-Cobalt targets centred on the Jewel Prospect, located 1.1 km north-northeast of the Little Gem Prospect. The soil anomalies are greater than 1.5 kilometres long and coincide with several significant IP targets, which are indicating a large sulfide bearing body at depth. The Copper, Gold and Cobalt soil anomalies are favourably located within a significant structural setting near the contact between the granodiorite and serpentinite (refer Figure 7 and Figure 8).

Blackstone's geological model for the Jewel Prospect suggests the Copper-Gold-Cobalt Prospect is favourably located within a similar geological setting to the underground mines of the world class Bou-Azzer primary Cobalt district in Morocco. The majority of the high grade underground primary Cobalt mines at Bou-Azzer are located near the contact of the serpentinised ultramafic and the quartz diorite. The historical Jewel Mine is likewise located within close proximity to the contact of the serpentinite and granodiorite bodies.

With the discovery of Cobalt-Gold mineralisation at Erebor during the 2018 field season returning grades up to 2.3% cobalt, 32 g/t gold, 1.6% copper and 1.1% nickel combined with the multiple large-scale IP anomalies indicating the potential source of the high grade mineralisation at Little Gem, Erebor, Jewel and Roxey, the Company continues to unlock the potential for multiple deposits in a region with geology analogous to the Bou-Azzer primary Cobalt district in Morocco (>50 deposits and over 75 years of Cobalt production). Regional targets continue to be generated from the data collected through prospecting and stream sediment sampling across the entire 48 strike km of untested geology prospective for further primary Cobalt and Gold mineralisation.

#### Cartier Project (100% interest)

The Cartier Cobalt-Nickel Project (9 km<sup>2</sup> of tenure) is located 440 km north-east of Quebec City. Historic exploration (1990s) on the project for Voisey's Bay Style Nickel and Copper has identified Cobalt within two prospects named Lac St Pierre Zones 1 & 2. During the September Quarter the Company continued to progress the project to understand the full potential of the Cartier Project.



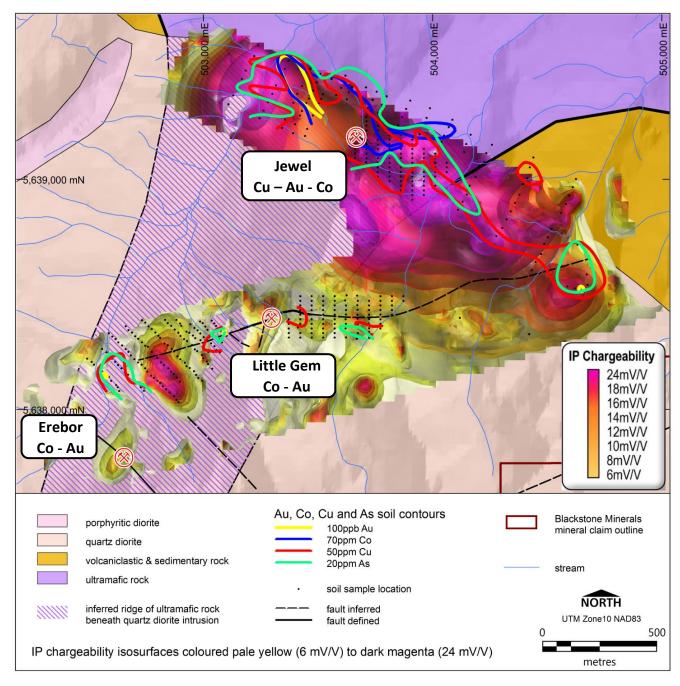


Figure 7: BC Cobalt Project plan showing Copper, Gold and Cobalt soil contours and IP chargeability isosurfaces



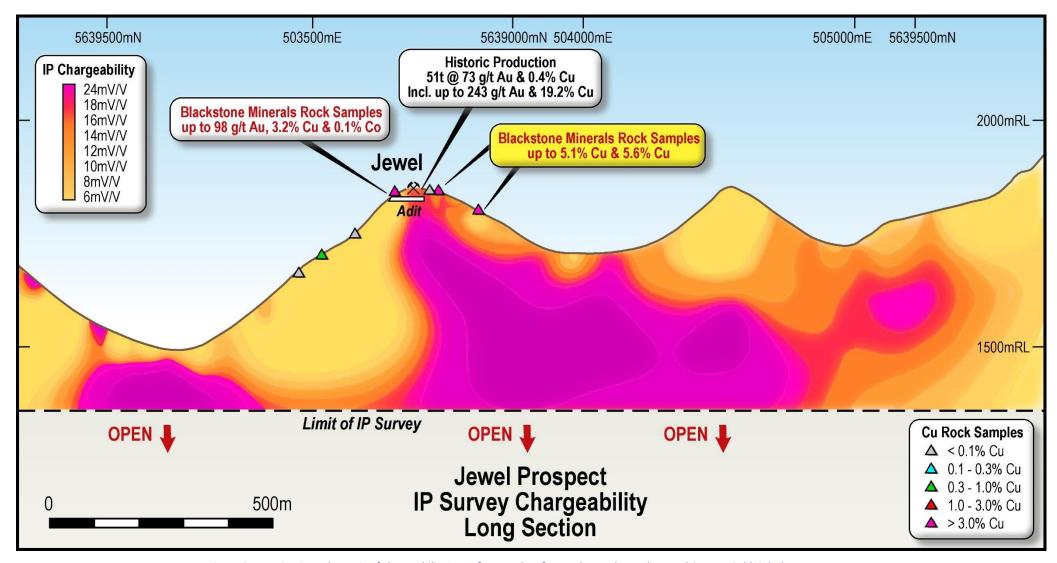


Figure 8: Long Section schematic of chargeability isosurfaces and surface rock samples at the Jewel Copper-Gold-Cobalt Prospect

Refer ASX Announcement dated 16 October 2018 and 6 September 2017.



#### **Australian Projects**

#### Silver Swan South Project (100% interest)

The Silver Swan South Project comprises of one granted exploration licence E27/545 and six granted prospecting licences, P27/2191 – 2196 covering an area of 38.5 km². The Project is along trend of the massive nickel sulfide Silver Swan Deposit (pre-mining ore reserve of 655 kt at 9.5% Nickel) and associated deposits (pre-mining resource of 10.4 Mt at 1.0% Nickel), and only 8 km northeast of the major Kanowna Belle Gold Mine (+5 Moz gold endowment).

During the September Quarter, Blackstone continued to work on finalising priority targets for drill testing.

Highlights of the Project include:

- Blackstone's second phase aircore drilling program at Silver Swan South intersected gold mineralisation and extensive basement geochemical anomalism at the Black Eagle prospect<sup>1</sup> with the following result:
  - 10 m @ 3.2 g/t Au from 68 m within;
     15 m @ 2.2 g/t Au from 64 m to EOH (refer Figure 9 and Figure 10).
- The above results have significantly upgraded the Black Eagle prospect and, when combined
  with previous reconnaissance results of 3m @ 3.5g/t Au from 60m sees Black Eagle elevated
  to a priority drill target.
- The Silver Swan South project is located 8 km along strike and encompasses the interpreted extension of the Fitzroy Shear Zone which hosts the Kanowna Belle Gold Mine (+5 Moz gold endowment);
- Aircore drilling will also target the Black Hawk prospect following up on an initial 3 m @ 2.6 g/t Au from 52 m intersected in the first phase of drilling at Silver Swan South.

Blackstone's initial drilling at Silver Swan South was targeting both gold, hosted by structural targets along strike from the Kanowna Belle Gold Mine (+5Moz gold endowment), and nickel sulfide mineralisation associated with ultramafic units along strike from the Silver Swan and Black Swan Nickel Mines (combined endowment 166kt Ni metal). The initial programs were designed to test for basement hosted mineralisation, using air core drilling, to improve definition of gold and base metal anomalism identified by previous reconnaissance style drilling.

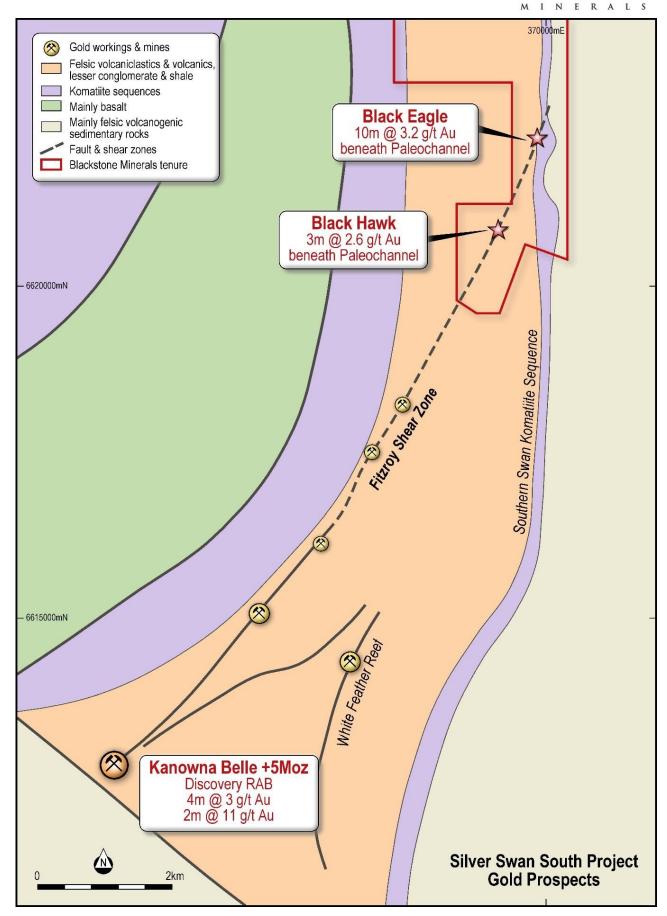


Figure 9: Silver Swan South Gold Prospects



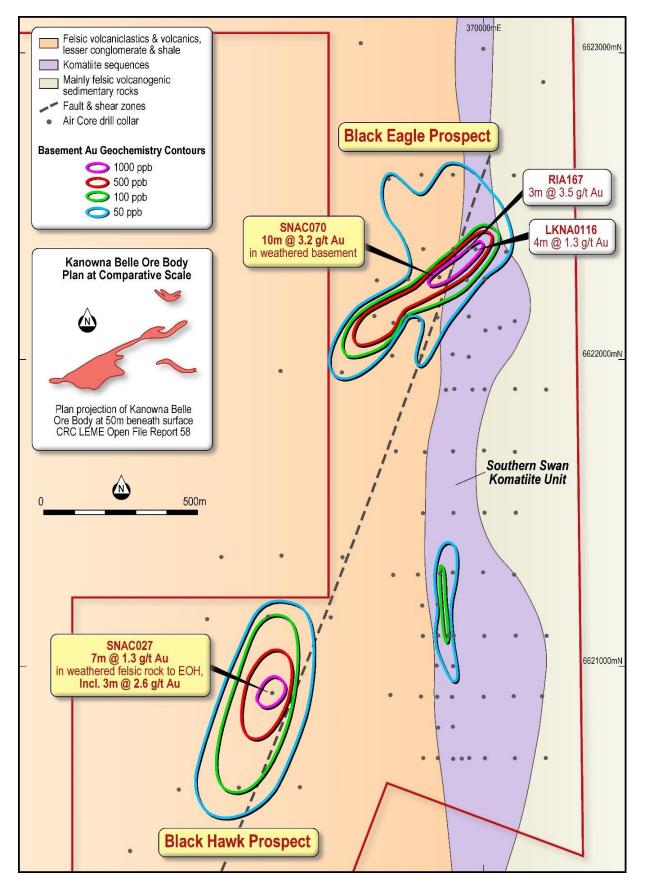


Figure 10: Silver Swan South Gold Prospects with Basement Gold Geochemistry Contours

Refer ASX Announcement dated 1 March 2018



#### **Red Gate Project (100% interest)**

The Red Gate Project consists of one granted Exploration Licence E31/1096 covering an area of 145.2 km<sup>2</sup>. The Project is centred 10 km north of the Porphyry Gold Mine (0.9 Moz gold endowment), 140 km northeast of Kalgoorlie. Historical exploration work has mostly targeted the Porphyry North Prospect where shallow, outcropping mineralisation has been defined. There is the potential to discover further mineralisation at Porphyry North and several other prospects nearby.

During the September Quarter Blackstone terminated the Binding Option Agreement (refer ASX Announcement 6 August 2018) with Expose Resources Limited, formerly named Golden Pacific Resources Limited.

#### Middle Creek Project (95% to 100% interest)

The Middle Creek Project is adjacent to Millennium Minerals Limited's Nullagine Gold Project (where the Golden Eagle operations have produced >400 koz gold since 2012 and, as at 31<sup>st</sup> July 2018, had a 1.1Moz resource inventory), in the Pilbara region of Western Australia and consists of 21 prospecting licence applications covering 37.7 km<sup>2</sup> within the Mosquito Creek belt.

During the September Quarter, Blackstone continued to work on finalising priority targets for drill testing.

Yours sincerely

Scott Williamson Managing Director T: +61 8 9425 5217

#### **About Blackstone**

Blackstone Minerals Limited **(ASX code: BSX)** is actively exploring the Ta Khoa Nickel Project in Northern Vietnam. The Ta Khoa Project includes the Ban Phuc nickel mine which operated as a mechanised underground mine from 2013 to 2016. The Ta Khoa Nickel Project has existing modern infrastructure built to Australian Standards including a 450ktpa processing plant located within a premier nickel sulfide district. Blackstone owns a large land holding within the BC Cobalt Project with 48 km of untested strike potential of highly prospective geology analogous to the world class Bou-Azzer primary Cobalt district in Morocco. Blackstone is exploring for nickel and gold in the Eastern Goldfields and gold in the Pilbara region of Western Australia. Blackstone has a board and management team with a proven track record of mineral discovery and corporate success.

#### **Competent Person Statement**

The information in this report that relates to Exploration Results and Exploration Targets is based on information compiled by Mr Andrew Radonjic, a full-time employee of the company and who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Andrew Radonjic has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Andrew Radonjic consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### No New Information or Data

For full details of the Exploration results, refer to the said Announcement or Release on the said date. Blackstone Minerals is not aware of any new information or data that materially affects the information included in the said announcement.



# **Appendix One| Tenements**

#### Mining tenements held at the end of September 2019 Quarter

Project	Location	Tenement	Interest at September 2019
BC Cobalt	British Columbia, Canada	501174, 502808	100%
	British Columbia, Canada	503409, 564599	100%
	British Columbia, Canada	573344, 796483	100%
	British Columbia, Canada	844114, 1020030	100%
	British Columbia, Canada	1047915, 1055449	100%
	British Columbia, Canada	1046246, 1046253	100%
	British Columbia, Canada	1050797, 1052563	100%
	British Columbia, Canada	1052564, 1052989	100%
	British Columbia, Canada	1052990, 1052991	100%
	British Columbia, Canada	1052992, 1052993	100%
	British Columbia, Canada	1055836, 1055837	100%
	British Columbia, Canada	1055838, 1055839	100%
	British Columbia, Canada	1055840, 1055859	100%
	British Columbia, Canada	1055860, 1055861	100%
	British Columbia, Canada	1055862, 1055863	100%
	British Columbia, Canada	1055864, 1052630	100%
	British Columbia, Canada	1052893 1065892	100%
	British Columbia, Canada	1066580, 1066581	100%
Bull Run (Record	Oregon, United States	152073, 152074,	$0\%^1$
Mine)	-	152076, 152077,	$0\%^{1}$
		152078, 152627,	$0\%^{1}$
		17242 - 17246	$0\%^1$
Ta Khoa	Vietnam	ML 1211/GPKT-BTNMT	$0\%^{2}$
		and 522 G/P	$0\%^{2}$
Cartier	Quebec, Canada	2459824, 2459825	100%
	Quebec, Canada	2459826, 2459827	100%
	Quebec, Canada	2459828, 2459829	100%
	Quebec, Canada	2463107, 2463108	100%
	Quebec, Canada	2463109, 2463110	100%
	Quebec, Canada	2463111, 2463112	100%
	Quebec, Canada	2463113, 2463114	100%
	Quebec, Canada	2463115,	100%
Silver Swan South	Eastern Goldfields	P27/2191 - P27/2196	100%
Red Gate	Eastern Goldfields	E31/1096	100%
Middle Creek	Western Australia	P46/1900 - P46/1920,	95%
	Western Australia	P46/1924	100%

<sup>1.</sup> Held via option agreement to acquire up to 100% of the project.

<sup>2.</sup> Held via option agreement to acquire up to 90% of the project.



#### Mining tenements acquired and disposed during the September 2019 Quarter

Project	Location	Tenement	Interest at beginning of Quarter	Interest at end of Quarter
Mining tenen Nil	nents relinquished			
<b>Mining tenen</b> Nil	nents acquired -	-	-	-

#### Beneficial percentage interests in joint venture agreements at the end of the Quarter

Project	Location	Tenement	Interest at end of Quarter
Nil			

# Beneficial percentage interests in farm-in or farm-out agreements acquired or disposed of during the Quarter

Project	Location	Tenement	Interest at beginning of Quarter	Interest at end of Quarter
Mining tenements	s relinquished			
Nil				
Mining tenements	s acquired			
Nil				