

Ref: /BSX/609/BSX090

# Quarterly Report for the period ending 30 September 2018

# **Highlights**

- Major new targets identified at BC Cobalt Project with significant Cu-Au-Co soil anomalies and coincident IP survey results indicating a large sulfide bearing body associated with the Jewel Copper-Gold-Cobalt Prospect;
- The new soil anomalies are **greater than 1.5 kilometres long** and with coincident chargeability and resistivity **signatures typical of sulfides** gives further evidence of a **major hydrothermal system** associated with the BC Cobalt Project (Refer Figures One, Two, Three, Four and Five);
- Erebor discovery of visible gold and cobalt delivered assays with grades of up to 2.3% cobalt and 32 g/t gold (Refer Figure Four);
- New surface rock chip samples taken from the Jewel Copper-Gold-Cobalt Prospect have also delivered high grade assay results including 5.6% copper and 5.1% copper (Refer Figure Three);
- High grade Cobalt assays from surface rock chip samples taken from the new Erebor discovery included the following significant results (Refer ASX Announcement 9 October 2018 for full set of results):
  - o 2.3% cobalt, 32 g/t gold and 1.1% nickel
  - 1.0% cobalt
- o **1.0% cobalt**
- 0.6% cobalt

- 0.6% cobalt
- 0.5% cobalt
- o 0.4% cobalt
- The Erebor prospect is the first discovery of significant Cobalt-Gold mineralisation in the region since prospectors discovered similar mineralisation at Little Gem in the 1930's;
- The Erebor discovery further suggests the potential for the Little Gem Project to host **multiple deposits akin to the Bou-Azzer primary Cobalt district in Morocco** (>50 deposits and 75 years of Cobalt production);
- Blackstone entered into a Binding Option Agreement to divest 100% of the Red Gate Project in Western Australia for a total value of A\$1 million.

# BLACKSTONE FAST FACTS

Shares on Issue 96.2m Share Price \$0.14 Market Cap \$13.5m ASX Code BSX

# BOARD & MANAGEMENT

Non-Exec Chairman Hamish Halliday

Managing Director Scott Williamson

**Technical Director** Andrew Radonjic

**Non-Exec Directors** Stephen Parsons Michael Konnert

**Joint Company Secretaries** Michael Naylor Jamie Byrde

# ADVANCING THE FOLLOWING PROJECTS

BC Cobalt Project British Columbia, Canada

Cartier Cobalt-Nickel Project Ouebec, Canada

**Gold and Nickel Projects** Western Australia

- Silver Swan South
- Red Gate
- Middle Creek

#### **REGISTERED OFFICE**

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# **Canadian Projects**

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

#### Introduction

The BC Cobalt Project (335 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 1930's 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, the initial results indicate potential for the project to host a world class Cobalt Belt in British Columbia.

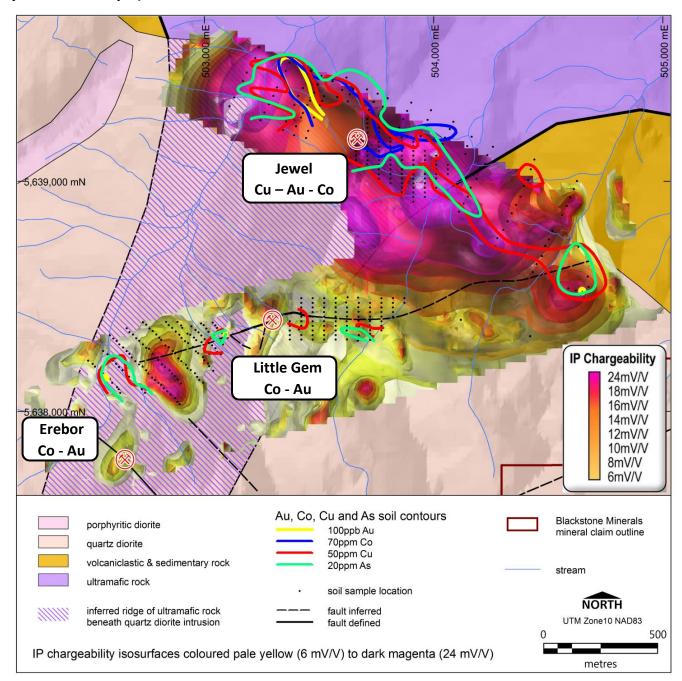


Figure One | BC Cobalt Project plan showing Copper, Gold and Cobalt soil contours and IP chargeability isosurfaces

△ 0.1 - 0.3% Cu

△ 0.3 - 1.0% Cu

▲ 1.0 - 3.0% Cu ▲ > 3.0% Cu

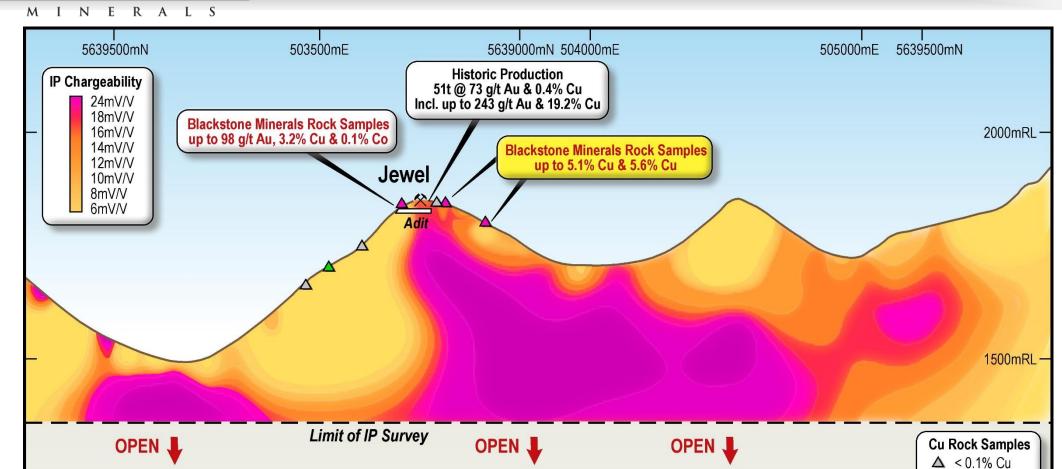


Figure Two | Long Section schematic of chargeability isosurfaces and surface rock samples at the Jewel Copper-Gold-Cobalt Prospect

500m

**Jewel Prospect** 

IP Survey Chargeability Long Section

<sup>1.</sup> Refer to previous ASX Announcement 16 October 2018 and 6 September 2017.



## **Activities during the September Quarter**

During the September Quarter Blackstone completed an extensive soil sampling program and 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 new soil anomalies are greater than 1.5 kilometres long and coincide with a number of 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 (analogous geological setting to the deposits of the world class Bou-Azzer primary Cobalt district in Morocco). The Company received final assays from the maiden drill program at Little Gem and the lack of significant intersections coincided with the low IP chargeability associated with the target. <sup>1</sup>

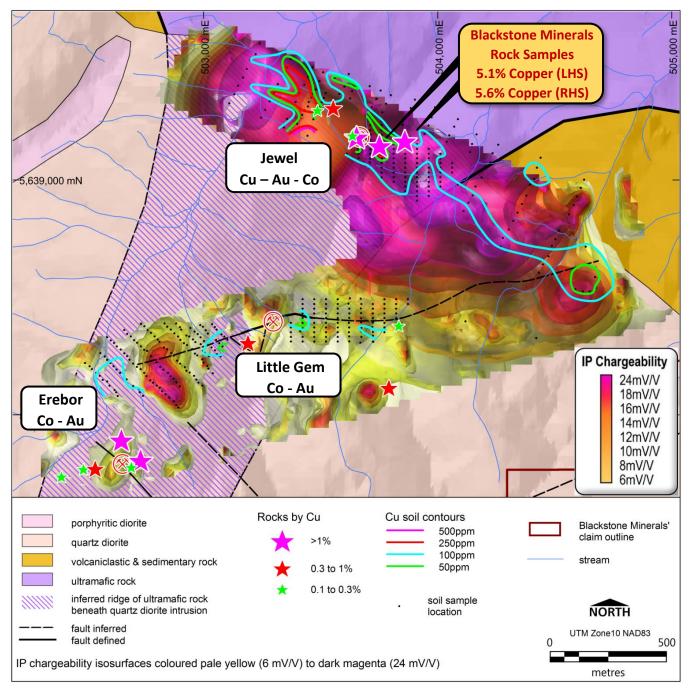


Figure Three | BC Cobalt Project plan showing Copper soil contours, rock samples and IP chargeability isosurfaces

1. Refer Appendix One for full set of results



**5.1% copper from the Jewel Prospect** as well as making a new discovery of visible gold and cobalt at **Erebor with assay grades of up to 2.3% cobalt and 32 g/t gold**. The Jewel Copper-Gold-Cobalt Prospect is located 1.1 km north-northeast of the Little Gem prospect and is associated with the high grade Jewel Underground Mine with historic production of 51 tonnes mined between 1938 and 1940. Average grades mined were **73g/t gold and 0.4% copper** and the highest grades assayed were up to **243g/t gold and 19.2% copper**. These historic grades have been supported by Blackstone Minerals rock chip samples of up to **98g/t gold, 5.6% copper, 0.1% cobalt**<sup>1</sup>.

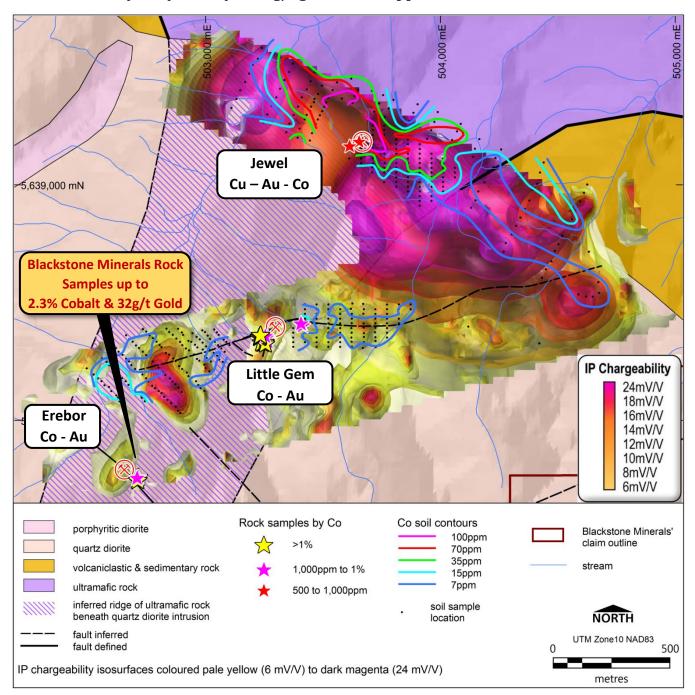


Figure Four | BC Cobalt Project plan showing Cobalt soil contours, rock samples and IP chargeability isosurfaces

<sup>1.</sup> As per previous ASX Announcement 16 October 2018 and 9 October 2018.

In the late-1930's the sulfide ore mined at the historic Jewel Mine was unable to be substantially beneficiated by concentration and the gold values were not high enough to make a profit by direct shipping ore "DSO" to smelters. After the small tonnage of ore was extracted at Jewel the claims lapsed and there was no further work conducted at the Jewel Copper-Gold-Cobalt Prospect until Blackstone Minerals acquired the BC Cobalt Project in October 2017. Since Blackstone acquired the Project, the Company has completed an extensive program of prospecting, stream sediment and soil sampling with the geochemical results coinciding and supporting the large-scale IP chargeability and resistivity signatures at Jewel.

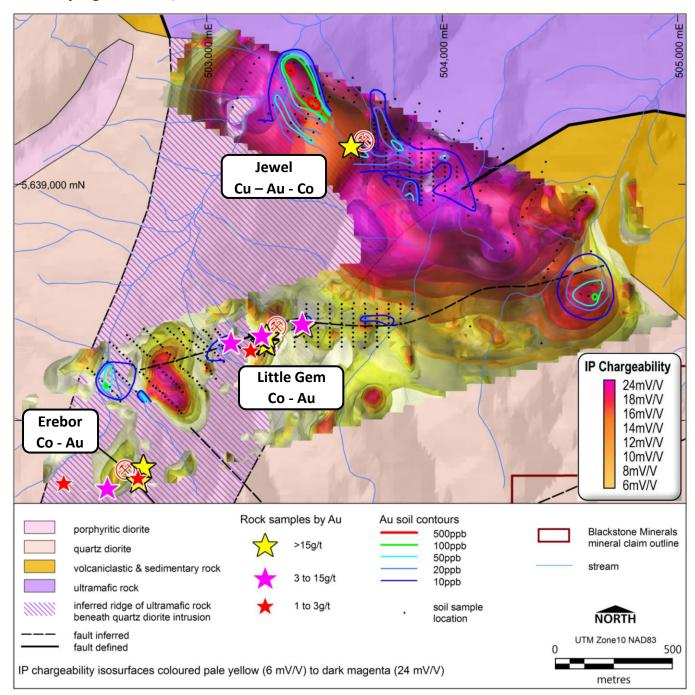


Figure Five | BC Cobalt Project plan showing Gold soil contours, rock samples and IP chargeability isosurfaces



Blackstone's geological model for the Jewel Mine 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 favourably located within close proximity to the contact of the serpentinite and granodiorite bodies.

With the discovery of Cobalt-Gold mineralisation at Erebor returning grades up to **2.3% cobalt, 32 g/t gold, 1.6% copper and 1.1% nickel¹** combined with the multiple new 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). Further regional targets are being generated through prospecting and stream sediment sampling across the entire 335 km² of tenure with 48 km of untested strike of geology prospective for further primary Cobalt and Gold mineralisation.

Blackstone has taken over 700 regional soil, rock chip and stream sediment samples throughout the entire tenure at the high grade BC Cobalt Project. The Company is now awaiting the regional samples to be processed to better understand the full potential of the BC Cobalt Project to host further Cobalt-Gold mineralisation. Blackstone is increasingly confident that the BC Cobalt Project could host a belt-scale opportunity similar to the Bou-Azzer district in Morocco which will appeal to Cobalt end-users looking for a long term supply of the key ingredient in the cathode chemistry of the Lithium Ion battery. As the regional data continues to be processed over the coming months the Company will be in a better position to understand the potential for the Bralorne-Pioneer mining district to host a world class Cobalt camp.

There has been very little modern day exploration of the BC Cobalt Project with the main activities being airborne geophysical surveys (including magnetic, radiometric and electromagnetic ("EM") surveys) in the 1970's and a further two drill holes completed in 1986. The second mineral occurrence in the BC Cobalt Project is the Jewel Copper-Gold-Cobalt Prospect which supported some gold production from 1938 to 1940 and is located only 1.1 km north-northeast of the Little Gem Mine. Since Blackstone began working on the BC Cobalt Project it has verified the mineralisation identified historically at the Little Gem Cobalt-Gold Prospect and the Jewel Gold-Copper-Cobalt Prospect and discovered a new high grade Gold-Copper Prospect named Roxey.

The Roxey Gold-Copper Prospect is located 1.5 km west-southwest of the Little Gem Cobalt-Gold prospect. Blackstone visually identified Roxey during the due diligence site visit and took rock chip samples within the target area which assayed up to 24 g/t gold, 1.9% copper & 24 g/t silver². Mineralisation at Roxey is associated with quartz-pyrite altered diorite containing chalcopyrite. Surface rock chip samples taken to verify the mineralisation at the Jewel Copper-Gold-Cobalt prospect located 1.1 km north-northeast of Little Gem, returned up to 98 g/t gold and 3.2% copper². These results confirm what Blackstone's recent investigation has revealed with historical samples of up to 0.6 m @ 75 g/t gold and 0.45m @ 153 g/t gold from underground and surface channel sampling and up to 6.9 g/t gold, 19.25% copper & 137 g/t silver from underground rock chip sampling². Mineralisation at Jewel sits in a serpentinised ultramafic near the easterly trending/steep south dipping contact with the quartz diorite/granodiorite that hosts the Little Gem Prospect.

1. As per previous ASX Announcement 9 October 2018 2. As per previous ASX Announcement 6 September 2017

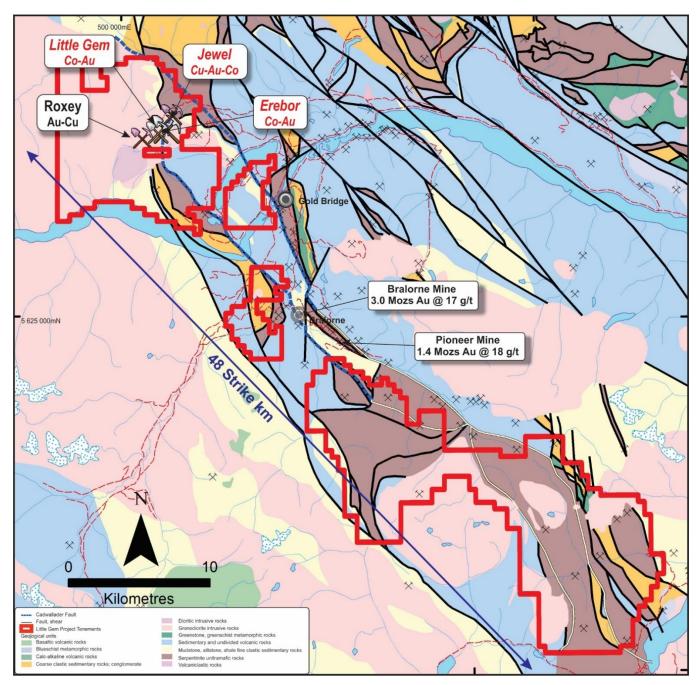


Figure Six | BC Cobalt Project Geological Setting<sup>1</sup>

# **Cartier Project (100% interest)**

The Cartier Cobalt-Nickel Project (9 km² of tenure) is located 440 km north-east of Quebec City. Historic exploration (1990's) 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 progressed work to further understand the full potential of the Cartier Project.

<sup>1.</sup> As per previous ASX Announcement 6 September 2017 and 26 July 2017



# **Australian Projects**

# Silver Swan South Project (100% interest)

#### Introduction

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 km<sup>2</sup>. The Project is along trend of the massive nickel sulphide 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).

## **Activities during the September Quarter**

During the quarter Blackstone continued to work on finalising priority targets for drill testing in the coming months.

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 Figures Four and Five).
- 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.

1. As per previous ASX Announcement 1 March 2018



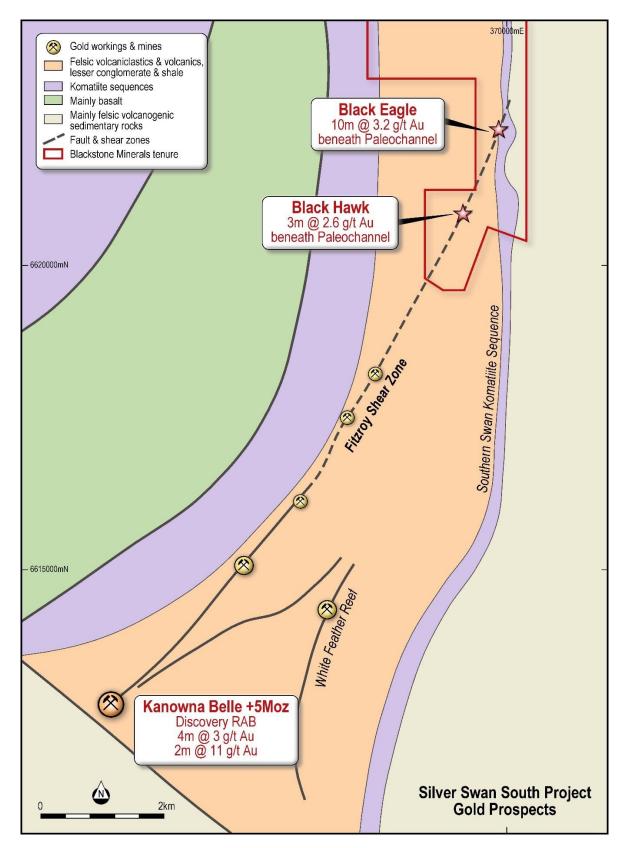


Figure Seven | Silver Swan South Gold Prospects

1. As per previous ASX Announcement 1 March 2018



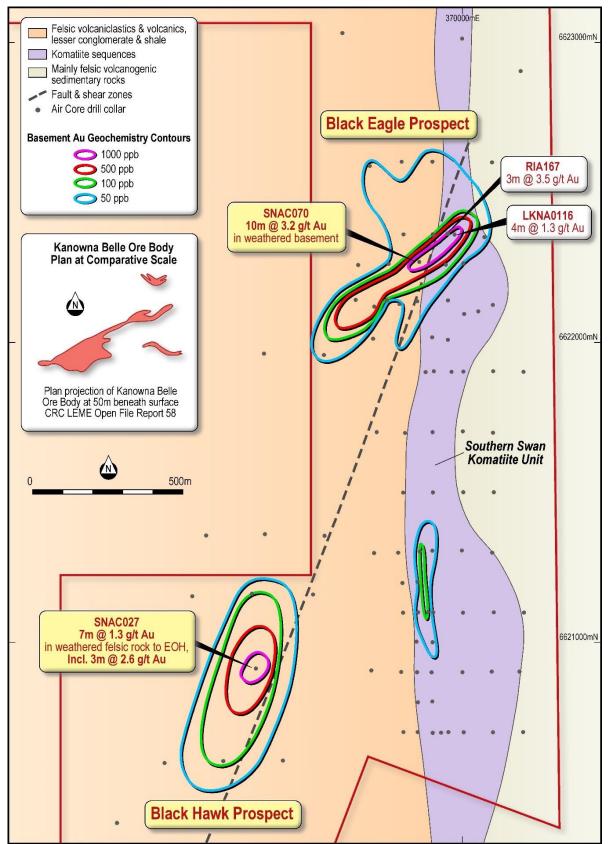


Figure Eight | Silver Swan South Gold Prospects with Basement Gold Geochemistry Contours

<sup>1.</sup> As per previous ASX Announcement 1 March 2018



# Red Gate Project (100% interest)

#### Introduction

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.

#### **Activities during the September Quarter**

During the quarter Blackstone announced that the Company has entered into a Binding Option Agreement to divest 100% of the Red Gate Project for a total value of A\$1 million.

Blackstone Minerals has entered into a Binding Option Agreement with Expose Resources Limited (ASX code: EXX) formerly named Golden Pacific Resources Limited to divest 100% of the Red Gate Project. Expose Resources lodged a Prospectus with the Australian Securities and Investments Commission (ASIC) on 9 October 2018. The Initial Public Offering ("IPO") process is progressing in line with the important dates outlined in the Prospectus which indicate an expected date for quotation on the ASX of 29 November 2018. For a copy of the Prospectus please visit the Expose Resources website: www.goldenpacificresources.com.au

The material terms of the agreement are:

- Blackstone has granted an exclusive irrevocable Option to Purchase to EXX until 21 December 2018. EXX shall complete its IPO and list on the ASX by 21 December 2018;
- Upon EXX achieving an ASX listing the Option to Purchase will be deemed to be exercised by EXX and the Purchase Price shall be payable to Blackstone;
- The Purchase Price shall be \$500,000 in cash payable within 5 days of EXX listing on the ASX and \$500,000 worth of EXX shares, to be issued at the IPO price, payable and to be issued within 10 business days of EXX listing on the ASX;
- The shares issued shall be subject to any escrow requirements imposed by the ASX.

# Middle Creek Project (95% interest)

#### Introduction

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 inventory¹), in the Pilbara region of Western Australia (Refer Figure Nine) and consists of 22 prospecting licence applications covering 39.7 km² within the Mosquito Creek belt.

## **Activities during the September Quarter**

During the quarter Blackstone completed a reconnaissance surface sampling program at Middle Creek. Results pending as of the end of the quarter.

1. Refer to Millennium Minerals Limited ASX announcement 31 July 2018



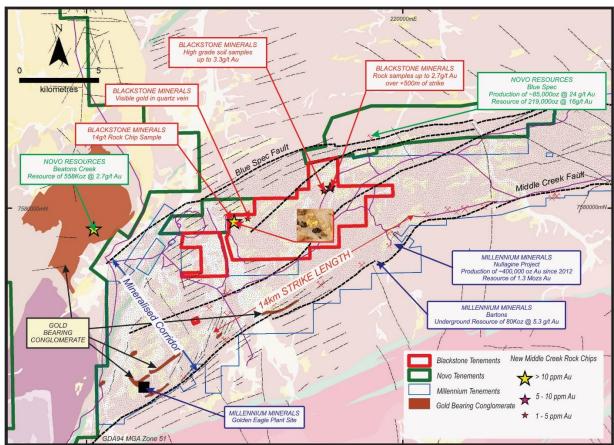


Figure Nine | Geology of the Middle Creek Project area

1. As per previous quarterly report 31 July 2018.



Yours sincerely

Scott Williamson Managing Director T: +61 8 9425 5217

#### **About Blackstone**

Blackstone Minerals Limited **(ASX code: BSX)** is actively exploring the high grade BC Cobalt Project in British Columbia, Canada. Blackstone is the first company in over 60 years to undertake systematic exploration for Cobalt at Little Gem and Jewel and within the surrounding areas that is the BC Cobalt Project. Blackstone owns a large land holding 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 actively 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 and Disclaimer**

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.



# Appendix One | Assay results from maiden drilling program at Little Gem

Hole	East UTM Zone 10 NAD83 (metres)	North UTM Zone 10 NAD83 (metres)	RL UTM Zone 10 NAD83 (metres)	Azimuth UTM (°)	Dip (°)	End of hole (metres)	From (m)	To (m)	Interval (m)	Au g/t	Co ppm	Ni ppm	Cu ppm
LGD17-001	503376	5638268	2006	297	-44	150.57		hole	abandoned	before rea	aching targ	get	
LGD17-001R	503376	5638271	2006	296	-44	209.4	174.64	174.94	0.3	1.27	41	41	8117
and							192.81	198.27	5.46	15.6	8462	174	7
including							196.56	197.63	1.07	44	3.0%	668	13
LGD18-001	503374	5638269	2006	295	-46	305	112.15	115.45	3.3	0.23	19	45	104
LGD18-002	503374	5638269	2006	301	-40	312.12	194.24	206.26	12.02	1.45	2484	337	<10
including							196.32	200.25	3.93	3.35	7056	995	<10
including							197.71	198.71	1	5.19	1.15%	2080	<10
LGD18-003	503374	5638269	2006	311	-53	349.95	209.24	210.29	1.05	4.38	766	60	4969
including							209.24	209.64	0.4	4.91	1220	88	1.20%
LGD18-004	503374	5638269	2006	292	-41	245.37	133.65	137.5	3.85	0.65	29	56	300
including							134.5	135.5	1	1.25	32	61	568
LGD18-005	503374	5638269	2006	308	-41	220.68	189.55	192.25	2.7	3.09	2255	48	<10
including							189.55	191.1	1.55	5.33	3917	75	<10
including							189.55	190.72	1.17	6.79	5155	94	<10
including							189.9	190.72	0.82	8.7	6079	98	<10
LGD18-006	503374	5638269	2006	307	-62	337.72	250.05	253.4	3.35	0.08	26	14	4
LGD18-007	503374	5638269	2006	297	-56	362.1	136.25	136.95	0.7	0.13	29	241	310
LGD18-008	503374	5638269	2006	326	-65	404.77	374.06	375.2	1.14	0.12	21	5	2011
LGD18-009	503420	5638355	1991.6	335	-55	105.77			no signific	ant inters	ection		
LGD18-010	503420	5638355	1991.6	155	-75	262			no signific	ant inters	ection		



# **Appendix Two| Tenements**

# Mining tenements held at the end of September 2018 Quarter

Project	Location	Tenement	Interest at September 2018
Little Gem	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%
		1052893	100%
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	E27/545	100%
	Eastern Goldfields	P27/2191	100%
	Eastern Goldfields	P27/2192	100%
	Eastern Goldfields	P27/2193	100%
	Eastern Goldfields	P27/2194	100%
	Eastern Goldfields	P27/2195	100%
	Eastern Goldfields	P27/2196	100%
Red Gate	Eastern Goldfields	E31/1096	100%
Middle Creek	Western Australia	P46/1900, P46/1901,	95%
	Western Australia	P46/1902, P46/1903,	95%
	Western Australia	P46/1904, P46/1905	95%
	Western Australia	P46/1906, P46/1907	95%
	Western Australia	P46/1907, P46/1908	95%
	Western Australia	P46/1909, P46/1910	95%
	Western Australia	P46/1911, P46/1912,	95%
	Western Australia	P46/1914, P46/1915,	95%
	Western Australia	P46/1916, P46/1917	95%
	Western Australia	P46/1918, P46/1919	95%
	Western Australia	P46/1920,	95%
	Western Australia	P46/1913	Application
Mount Deans South	Western Australia	P63/2032 P63/2033 P63/2037	100%



### Mining tenements acquired and disposed during the September 2018 Quarter

Project	Location	Tenement	Interest at beginning of Quarter	Interest at end of Quarter
Mining tenen	nents relinquished		or quarter	Quarter
<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 September
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	Interest at end of
			Quarter	Quarter
Mining tenemen	ts relinquished			
Nil				
Mining tenemen	ts acquired			
Nil				



# Appendix Three | Table 1 Report

JORC Code, 2012 Edition | 'Table 1' Report

# **Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections).

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>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.</li> <li>Measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>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.</li> </ul>	Diamond core drilling was used to obtain samples.  Drill core was cut by diamond core saw and continuous half (NQ and HQ) or quarter (HQ) core sample taken for assay in intervals ranging from 0.21 m to 2.0 m according to lithological criteria.  Sample weights for assay ranged from 0.64 kg to 6.2 kg each (mean 2.3 kg).  Drilling and sampling were supervised by a suitably qualified Blackstone Minerals geologist.
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, facesampling bit or other type, whether core is oriented and if so, by what method, etc).	HQ (64 mm) and NQ diameter (48 mm) diamond core drilling conducted by Radius Drilling using a R2000 diamond coring rig.      Drill core was orientated wherever possible, and all holes were downhole surveyed with multi-shot camera.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.     Measures taken to maximise sample recovery and ensure representative nature of the samples.     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.	Recoveries were calculated by a Blackstone Minerals geologist by measuring recovered core length vs downhole interval length.     Drill core recovery through the mineralised zones averaged >98%.     There is no discernible correlation between Au and Co grades and core recovery (correlation coefficient <0.15).
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.      Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.      The total length and percentage of the relevant intersections logged.	A total of 3265 m has been drilled by Blackstone Minerals.     All of the drill core was geologically logged and photographed by a suitably qualified Blackstone Minerals geologist. Alteration and mineralisation mineral abundances were visually estimated.     Mineral Resources have not been estimated.     The detail of geological logging is considered sufficient for mineral exploration.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.  If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.  For all sample types, the nature, quality and appropriateness of the sample preparation technique.  Quality control procedures adopted for all subsampling stages to maximise representivity of samples.  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.	Drill core was cut in half lengthwise by diamond core saw and continuous half or quarter core sample bagged for assay in lithological intervals ranging from 0.21 m to 2.0 m as determined by the Blackstone Minerals geologist. Half core sampling was considered sufficient for NQ core, and half or quarter core from the HQ core diameter. Duplicate quarter core samples were collected from selected intervals of HQ core. Continuous remnant core has been retained in the trays for future reference and sampling as necessary.  Sample weights for assay ranged from 0.64 kg to 6.2 kg each (mean 2.3 kg).  The bagged core samples were submitted to ALS Canada Ltd, North Vancouver BC ("ALS") and MS



Criteria	JORC Code explanation	Commentary
	Whether sample sizes are appropriate to the grain size of the material being sampled.	<ul> <li>Analytical, Langley BC ("MSA") for preparation and assay.</li> <li>At both ALS and MSA the core samples were dried and crushed to -2 mm, then 250 g was split from each and pulverised to 85% passing 75 microns to produce the analytical pulps.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul> <li>Gold was analysed by industry standard 50g charge fire assay with AAS finish to a 0.01 g/t lower limit of detection (ALS method Au-AA26, MSA method FAS-221). Co, Ni and Cu were determined by industry standard 4 acid digestion (including HF) with ICPAES finish (ALS method ME-ICP61 and MSA method ICP-230).</li> <li>Commercially certified gold and cobalt reference materials of appropriate grades were included in the assay sample submissions by Blackstone Minerals at a minimum rate of at least one Au standard and one Co standard per 20 samples. Blanks were included within the sample sequence within visually identified mineralised zones.</li> <li>All results for the Au assay standards are within 15 % of the reference values, and results for Co, Ni and Cu assay standards are within 10 % of the reference values in the element ranges of interest (&gt;100ppm), blanks indicate no significant carry-over contamination.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	The assay results are compatible with the observed mineralogy. The assay results agree well with historic mining and exploration results (refer BSX announcement 26 July 2017). Twinned holes were not used and not considered necessary at this early stage of exploration. Primary data is stored and documented in industry standard ways. Assay data is as reported by ALS and has not been adjusted in any way. Remnant assay pulps are currently held in storage by the assay laboratory.
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	Drill hole collar locations were determined by handheld GPS considered accurate to ±5 m.     All co-ordinates were recorded in UTM Zone 10N NAD83.     Topographic control is provided by BC government 20,000 topographic map sheets and a Digital Terrain Model based on the 30 m Shuttle Radar Topographic Mission data.
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>The drilling is of reconnaissance nature and not conducted on a regular grid spacing.</li> <li>All visibly altered or mineralised zones in the drill core were sampled and assayed (see above). Data compositing has not been applied.</li> <li>The reported drill results are not sufficient to establish mineral resources.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul> <li>Exploration and mining activity shows the presence of a moderately to steeply south-southeast dipping zones of Au and Co mineralisation within a broader alteration and fracture zone of at least 230 m strike extent. In detail, the mineralised zone comprises two or more parallel sulfarsenide-rich veins up to 2 m thick within the as yet poorly delineated zone of disseminated sulfarsenide mineralisation and iron carbonate, quartz, sericite, chlorite and biotite altered granodiorite.</li> <li>Surface and underground channel sampling by the BC Geological Survey is thought to have been conducted approximately perpendicular to the strike and dip of mineralisation.</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul> <li>Much of the historic drilling has been oblique or at low angle to the interpreted strike and dip of the mineralisation.</li> <li>The Blackstone Minerals holes have been drilled at a high angle to the dip but somewhat oblique to the interpreted strike of mineralisation because of logistical constraints. Further drilling is required to refine orientation and define extent of the mineralised zone.</li> </ul>
Sample security	The measures taken to ensure sample security.	The chain of custody for Blackstone Minerals drill core samples from collection to dispatch to assay laboratory was managed by Blackstone Minerals personnel. Sample numbers were unique and did not include any locational information useful to 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.	<ul> <li>The assay results agree well with the observed mineralogy.</li> <li>The assay results agree well with historic mining and exploration results (refer BSX announcement 26 July 2017).</li> <li>Further drilling is planned to define the shape and extent of the mineralised zone.</li> </ul>

### **Section 2 Reporting of Exploration Results**

(Criteria listed in the preceding section also apply to this section)

Criteria	Explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>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.</li> <li>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.</li> </ul>	All of the Blackstone Minerals drill holes are located within British Columbia mineral claim numbers 501174 and 502808 owned 100% by Cobalt One Energy Corporation, a wholly owned subsidiary of Blackstone Minerals Ltd.  Standard governmental conditions apply to all of the Licences that make up the Little Gem Project.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Estella Mining, Northern Gem Mining Corporation,     Anvil Resources, Gold Bridge Mining and the BC     Department of Mines were the most significant     previous explorers of the Little Gem prospect (refer to     ASX announcement 26 July 2017 and available from <a href="http://blackstoneminerals.com.au">http://blackstoneminerals.com.au</a> )
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The Little Gem Project is located within the Bralorne-Pioneer mining district (endowment of 4.4Moz at 17g/t Au) of the Bridge River region, British Columbia. The project area is mostly underlain by granitoids of the Coast Plutonic Complex and ultramafic rocks on what is interpreted to be the northern extension of the Cadwallader fault zone. These are the major geological units and structures important to the mineral deposits either as the host rocks or sources of the mineralizing fluids that gave rise to the Bridge River mining camp.</li> <li>The Little Gem prospect itself is a hypothermal cobalt-sulfarsenide and gold vein zone within the margin of Cretaceous Penrose pluton of the Coast Plutonic Complex. Host rocks consist mainly hornblendebiotite quartz diorite which is intruded by feldsparamphibole porphyry dykes. A broad south dipping fault and fracture zone cuts the quartz diorite near the eastern contact with ultramafic, sedimentary and volcanic rocks of the Palaeozoic to Mesozoic Bralorne – East Liza Complex, Cayoosh Assemblage and Bridge</li> </ul>



Criteria	Explanation	Commentary
		River Complex. The Little Gem mineralisation comprises disseminated safflorite, loellingite, arsenopyrite and/or chalcopyrite zones within biotite, chlorite, carbonate and sericite altered quartz diorite with irregular high-grade veins/lenses of massive safflorite, loellingite and arsenopyrite and coarsegrained quartz, carbonates and biotite. The gold occurs mainly as microscopic veinlets of the native metal within and adjacent to the sulfarsenide minerals.
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:	<ul> <li>All Blackstone Minerals drill hole coordinates, depths, orientations, hole lengths and significant results are given in Appendix One.</li> <li>The Company's best understanding of the historic drill hole and surface and underground channel sample locations, orientations and lengths are given in the BSX announcement of 26 July 2017.</li> </ul>
Data aggregation methods	<ul> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>The intersections given in Table 1 are length weighted averages of assay intervals ranging from 0.3 m to 1.05 m. Upper cuts have not been applied.</li> <li>Short lengths of high grade within longer lengths of lower grade are reported in Table 1 (see included intervals).</li> <li>Metal equivalent values are not used.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	All grade intervals reported are down hole.     Blackstone Minerals holes have been drilled at a high angle to the dip but somewhat oblique to the interpreted strike of mineralisation because of logistical constraints. True thickness is currently estimated at c. 70% of down hole thickness.     Extent and thickness of disseminated sulfarsenide mineralisation and potential for multiple massive sulfarsenide bodies remains poorly defined. Further drill testing is required.



Criteria	Explanation	Commentary
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.	Appropriate exploration plans and sections are included in the body of this release.     Coordinates and orientation of Blackstone Minerals drill holes are also given in Appendix One.
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.	<ul> <li>All Blackstone Minerals drill holes including non-mineralised drill holes are included in Table 1.</li> <li>Short lengths of high grade within longer lengths of lower grade are reported in Table 1.</li> </ul>
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.	Surface geochemistry, prospecting and 3D IP surveying indicates the presence of significant exploration targets adjacent to the identified mineralisation (see Blackstone Minerals announcements to the ASX and available from <a href="http://blackstoneminerals.com.au">http://blackstoneminerals.com.au</a> ).  Bulk density, geotechnical and metallurgical work have not been implemented at this reconnaissance stage of exploration drilling.  Appropriate reconnaissance exploration plans are included in the body of this release.
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Blackstone Minerals proposes to conduct further drilling and associated activities to extend and identify additional mineralised zones.</li> <li>Appropriate exploration target plans and sections are included in the body of this release.</li> </ul>