

Ref: /BSX/609/BSX086

## Blackstone Identifies Large Copper, Gold and Cobalt Targets at Little Gem

### Highlights

- Results from phase two of the IP survey have identified **multiple new large-scale targets associated with the Jewel Copper-Gold-Cobalt Prospect** located 1.1 km north-northeast of the Little Gem Prospect;
- The new IP anomalies are significantly larger (greater than 1 kilometre long) and stronger than the previously announced phase one anomalies and indicate a **large sulfide bearing body associated with the Jewel Copper-Gold-Cobalt Prospect** (Refer Figures One, Two and Three);
- The new large-scale IP anomalies are also coincidental with **strong geochemical anomalies and 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);
- Historic surface and adit sampling at **Jewel has delivered multiple high grade assay results including up to 243 g/t gold<sup>1</sup> and 19.2% copper<sup>2</sup>**;
- As the Jewel prospect has never been drill tested, Blackstone considers these **new, high quality IP anomalies, to be priority drill targets**;
- This first ever cobalt focussed IP survey in the district has identified new drill targets which along with the recent Erebor Cobalt-Gold discovery sees Blackstone's **335km<sup>2</sup> landholding around Little Gem rapidly emerging into British Columbia's premier Cobalt Belt** (Refer Figure Four).

Blackstone's Managing Director commented;

*"Our second phase of IP survey results have identified large-scale targets at the Jewel Copper-Gold-Cobalt Prospect. The Jewel mine was a very high grade mine in the late-1930's with average grades of 73 g/t gold, 8g/t silver and 0.4% copper and high grades of up to 153g/t gold, 137g/t silver and 19.2% copper. Our field work indicates Jewel is associated with anomalous Cobalt mineralisation and with the recent Erebor Cobalt-Gold discovery nearby the Little Gem project is shaping up to be a world class Cobalt district."*

*The Petrophysical analysis we completed on core samples from Little Gem indicate the sulfide alteration associated with the cobalt and gold mineralisation at Little Gem has a high IP response. These IP/ resistivity surveys have highlighted targets that are consistent with the measured response from Little Gem but significantly larger in size."*

### BLACKSTONE FAST FACTS

Shares on Issue	96.2m
Share Price	\$0.16
Market Cap	\$15.4m
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

**High Grade (3% Cobalt & 20 g/t Gold) Little Gem Project**  
British Columbia, Canada

**Cartier Cobalt-Nickel Project**  
Quebec, Canada

**Gold and Nickel Projects**  
Western Australia

- Silver Swan South
- Middle Creek
- Red Gate

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1. Refer to Figure Two. 2. Refer ASX Announcement 6 September 2017

Blackstone Minerals Limited (ASX: BSX) is pleased to announce results from phase two of the recently completed IP survey at the Jewel Copper-Gold-Cobalt Prospect in British Columbia, Canada. The IP survey has identified new IP chargeability and resistivity anomalies which are significantly larger and stronger than the anomalies from the first phase and all exhibit chargeability and resistivity signatures typical of sulfide bearing bodies.

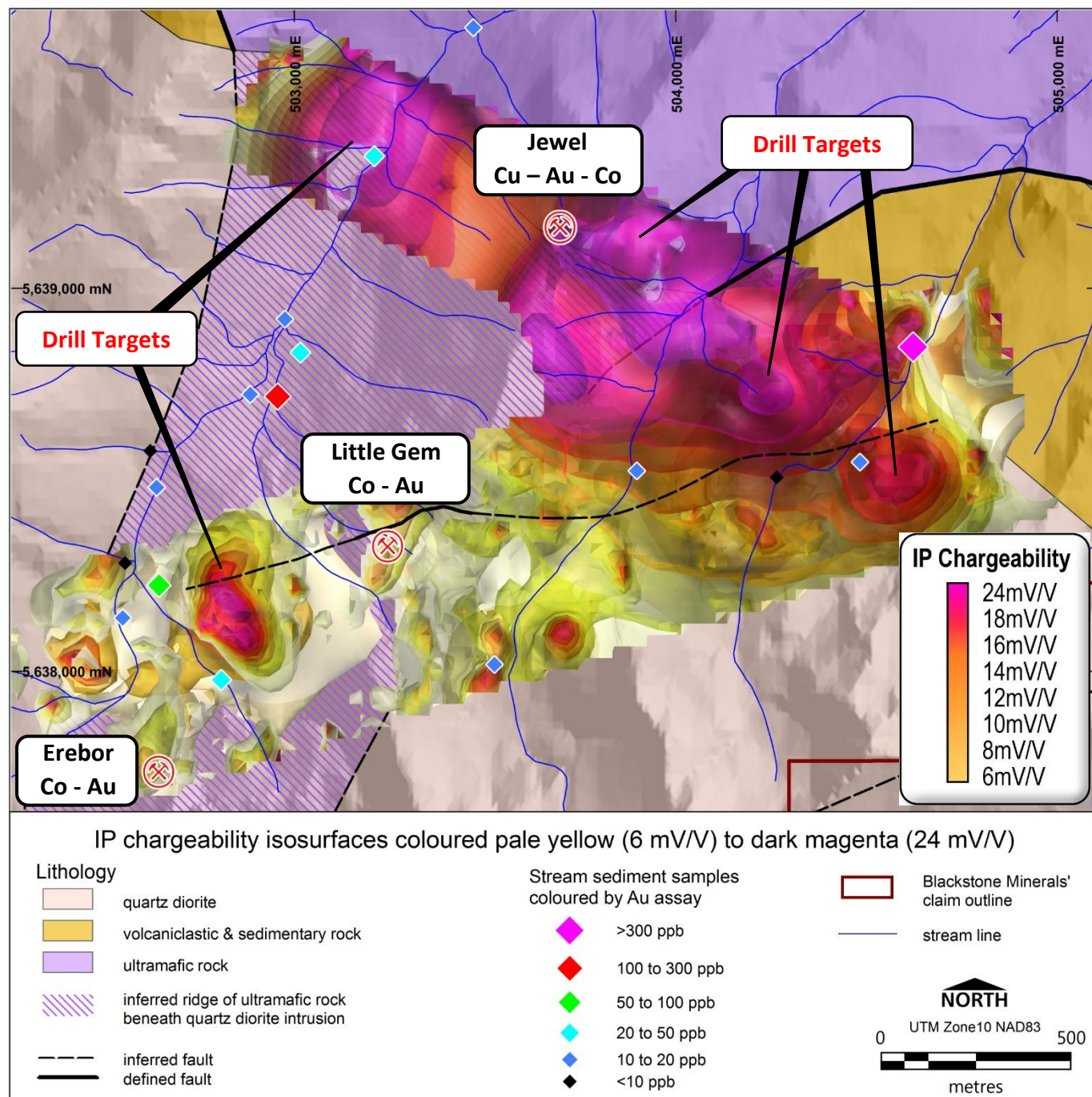
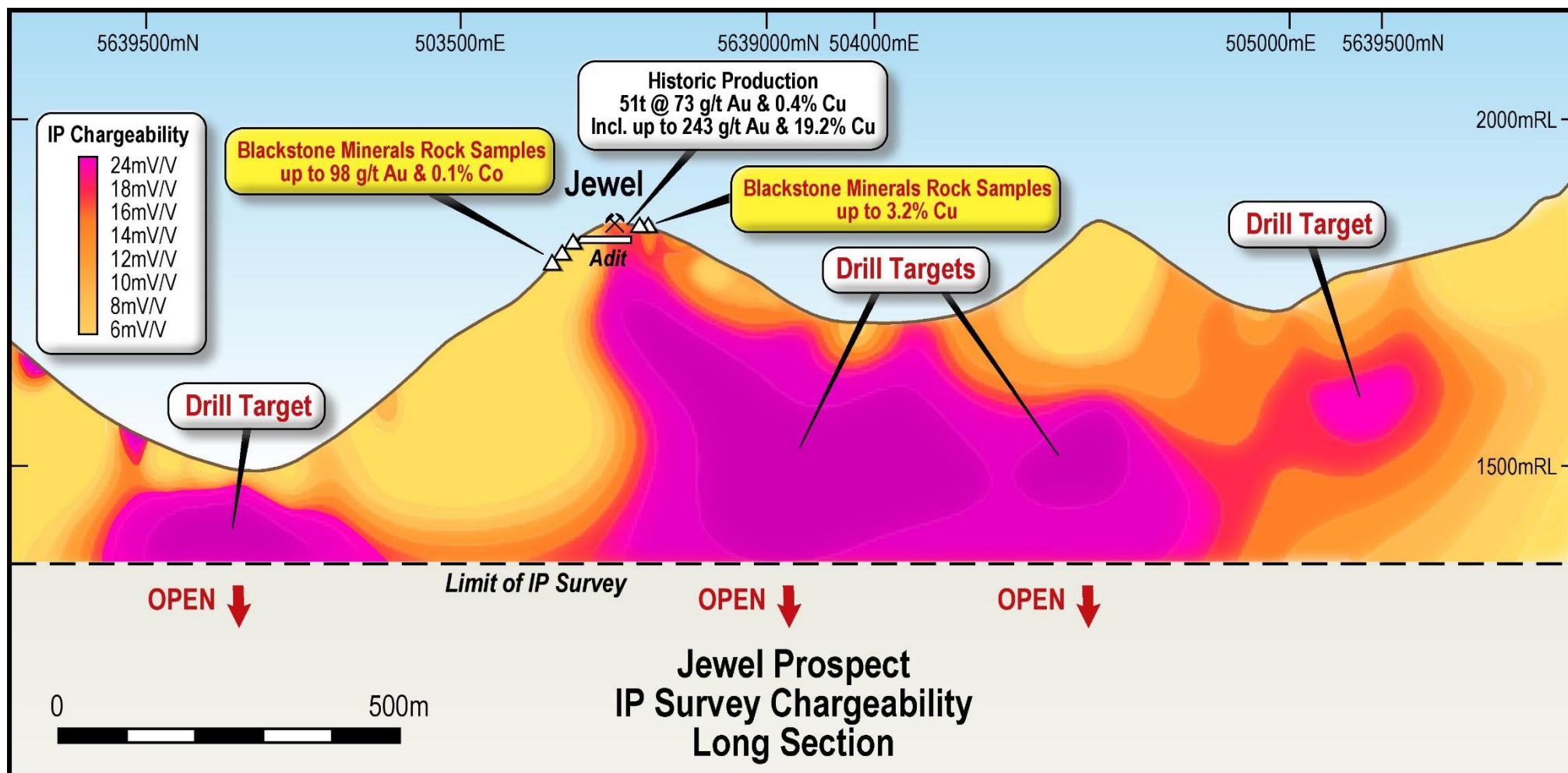


Figure One | Plan showing chargeability isosurfaces from phase one and two of the IP survey at the Little Gem Project





**Figure Two | Long Section schematic of chargeability isosurfaces from phase two of the IP survey at the Jewel Copper-Gold-Cobalt prospect**

1. Historic production results obtained from external report by Cairnes, C.E: Geology and Mineral Deposits of Tyaughton on Lake Map-Area, British Columbia: Geological Survey of Canada. Mineral Resources Branch, Department of Energy, Mines and Resources, Ottawa, Canada and Reports of Minister of Mines, British Columbia: 1937 and 1938.
2. Refer to ASX Announcement 6 September 2017 for full set of Blackstone Minerals Rock Samples results

The Jewel Copper-Gold-Cobalt prospect is located 1.1 km north-northeast of Little Gem and is associated with the high grade Jewel Underground Mine with historic production of 51 tonnes mined between 1938 and 1940<sup>1</sup>. Average grades mined were **73g/t gold and 0.4% copper**<sup>1</sup> and the highest grades assayed were up to **243g/t gold<sup>1</sup> and 19.2% copper<sup>2</sup>**. These historic grades have been supported by Blackstone Minerals rock chip samples of up to **98g/t gold, 3.2% copper, 0.1% cobalt<sup>2</sup>**.

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 Little Gem Project approximately 12 months ago. 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.

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 Jewel Mine is favourably located within close proximity to the contact of the serpentinite and granodiorite bodies at the north of the Little Gem Cobalt-Gold Project tenure.

With the recent discovery of Cobalt-Gold mineralisation at Erebor and the multiple new large-scale targets indicating the potential source of the high grade mineralisation at Little Gem, Erebor and Jewel 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 75 years of Cobalt production). The Company continues an extensive soil sampling program along the strike of **Jewel (up to 98g/t Au & 3.2% Cu)**, Little Gem and **Roxey (up to 24g/t Au & 1.9% Cu)**<sup>2</sup>. Further regional targets are being generated through prospecting and stream sediment sampling across the entire 335 km<sup>2</sup> 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 335 km<sup>2</sup> of tenure at the high grade Little Gem Cobalt-Gold Project. The Company is now awaiting the regional samples to be processed over the coming months to better understand the full potential of Little Gem to host further Cobalt-Gold mineralisation. Blackstone is increasingly confident that the Little Gem Cobalt-Gold 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 district to host a world class Cobalt camp.

Blackstone has completed the initial six diamond drill holes at Little Gem and now has assay results pending for the remaining five diamond drill holes from the maiden drilling program. Drilling to date has intersected the Little Gem structure within metres of the interpreted target. The Little Gem alteration halo is significantly larger than previously estimated, and the 2018 drilling to date has consistently intersected a broad alteration zone, highlighting potential for a major hydrothermal system at Little Gem.

1. Refer to Figure Two. 2. Refer ASX Announcement 6 September 2017.

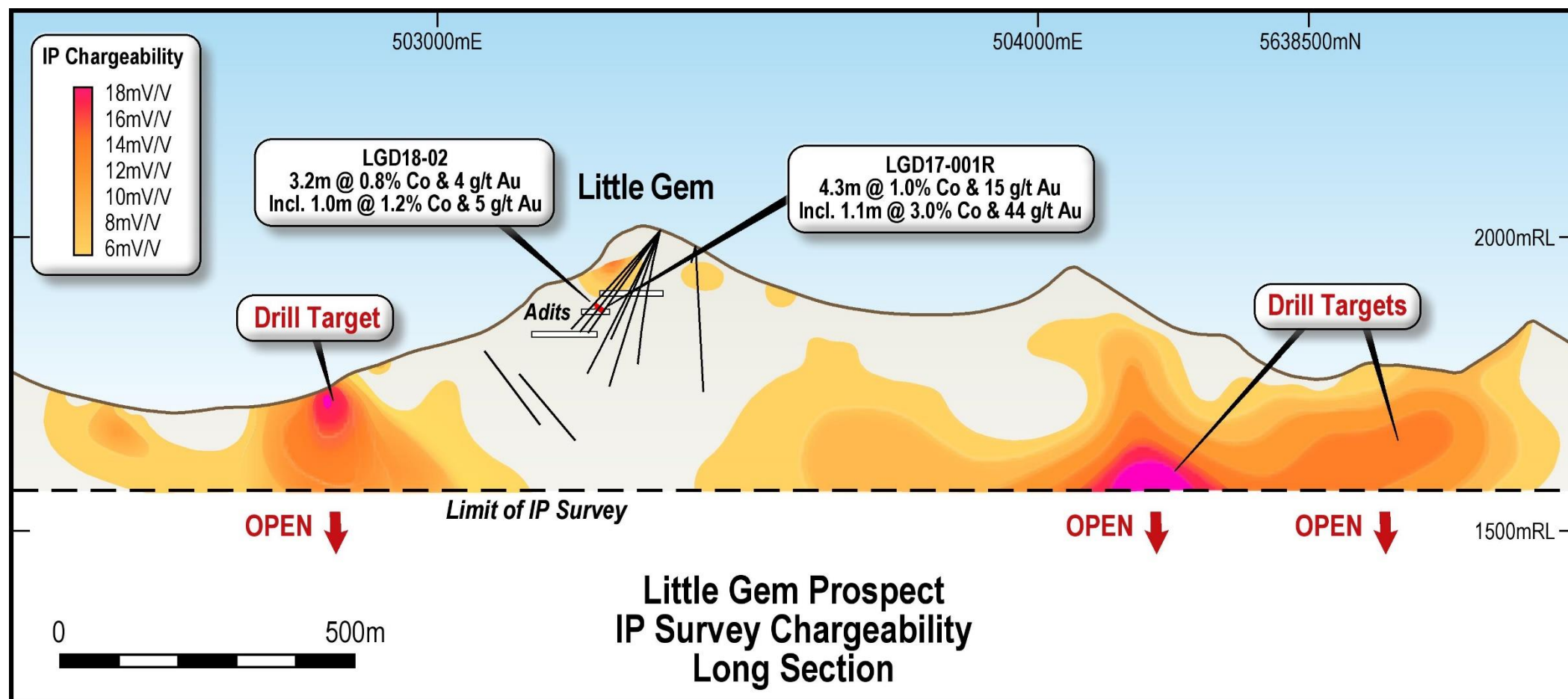


Figure Three | Long Section schematic of chargeability isosurfaces from phase one of the IP survey at the Little Gem Cobalt-Gold Prospect.

Refer ASX Announcement 9 January 2018 and 31 May 2018 for full set of results

Significant results from the first six drill holes at Little Gem include:

- LGD17-001R<sup>1</sup>**     **1.1 m @ 3.0% cobalt and 44 g/t gold** within  
**4.3 m @ 1.0% cobalt and 15 g/t gold.**
- LGD18-002<sup>2</sup>**     **1.0 m @ 1.2% cobalt and 5 g/t gold** within  
**3.2 m @ 0.8% cobalt and 4 g/t gold.**
- LGD18-003<sup>3</sup>**     **0.4 m @ 1.2% copper, 5 g/t gold & 0.12% cobalt** within  
**1.0 m @ 0.5% copper, 4 g/t gold & 0.08% cobalt.**
- LGD18-005<sup>3</sup>**     **0.8 m @ 0.6% cobalt and 9 g/t gold** within  
**1.6 m @ 0.4% cobalt and 5 g/t gold.**

The Little Gem Project was discovered in the 1930's by prospectors identifying a pink cobalt-bloom on weathered mineralisation (Erythrite as per the Erebor discovery) 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. Results from this work generated some exceptional Cobalt and Gold assays including:

- Historic drilling<sup>4</sup>**                      **1.8 m @ 2.4% cobalt & 112 g/t gold**  
**3.3 m @ 1.4% cobalt & 12 g/t gold** and  
**4.1 m @ 1.4% cobalt & 11 g/t gold.**
- Underground channel sampling<sup>4</sup>**     **1.8 m @ 4.4% cobalt & 73 g/t gold** and  
**2.0 m @ 3.1% cobalt & 76 g/t gold.**
- Surface channel sampling<sup>4</sup>**             **0.4 m @ 5.7% cobalt & 1,574 g/t gold** and  
**0.1 m @ 4.6% cobalt & 800 g/t gold.**

Little Gem is mostly underlain by granite of the Coast Plutonic Complex and ultramafic rocks on what is interpreted to be the northern extension of the Cadwallader fault zone (Refer Figure Four). These are the major geological units and structures important to the mineral deposits either as the host rocks or sources of the mineralising fluids that gave rise to the Bridge River mining camp. The camp has >60 mineral localities including the Bralorne-Pioneer mining complex (**endowment of 4.4 Moz at 17 g/t Au**)<sup>4</sup> which retains the status of the foremost gold producer in British Columbia and the sixth largest in Canada. Little Gem is only 15 km along strike to the north of the Bralorne-Pioneer mining complex.

There has been very little modern day exploration at Little Gem 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 at the Little Gem Project is the historic 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 Little Gem Cobalt-Gold 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.

1. Refer ASX Announcement 9 January 2018 for full set of results- 2. Refer ASX Announcement 31 May 2018 for full set of results- 3. Refer ASX Announcement 31 July 2018 for full set of results- 4. Refer ASX Announcement 26 July 2017 for full set of results



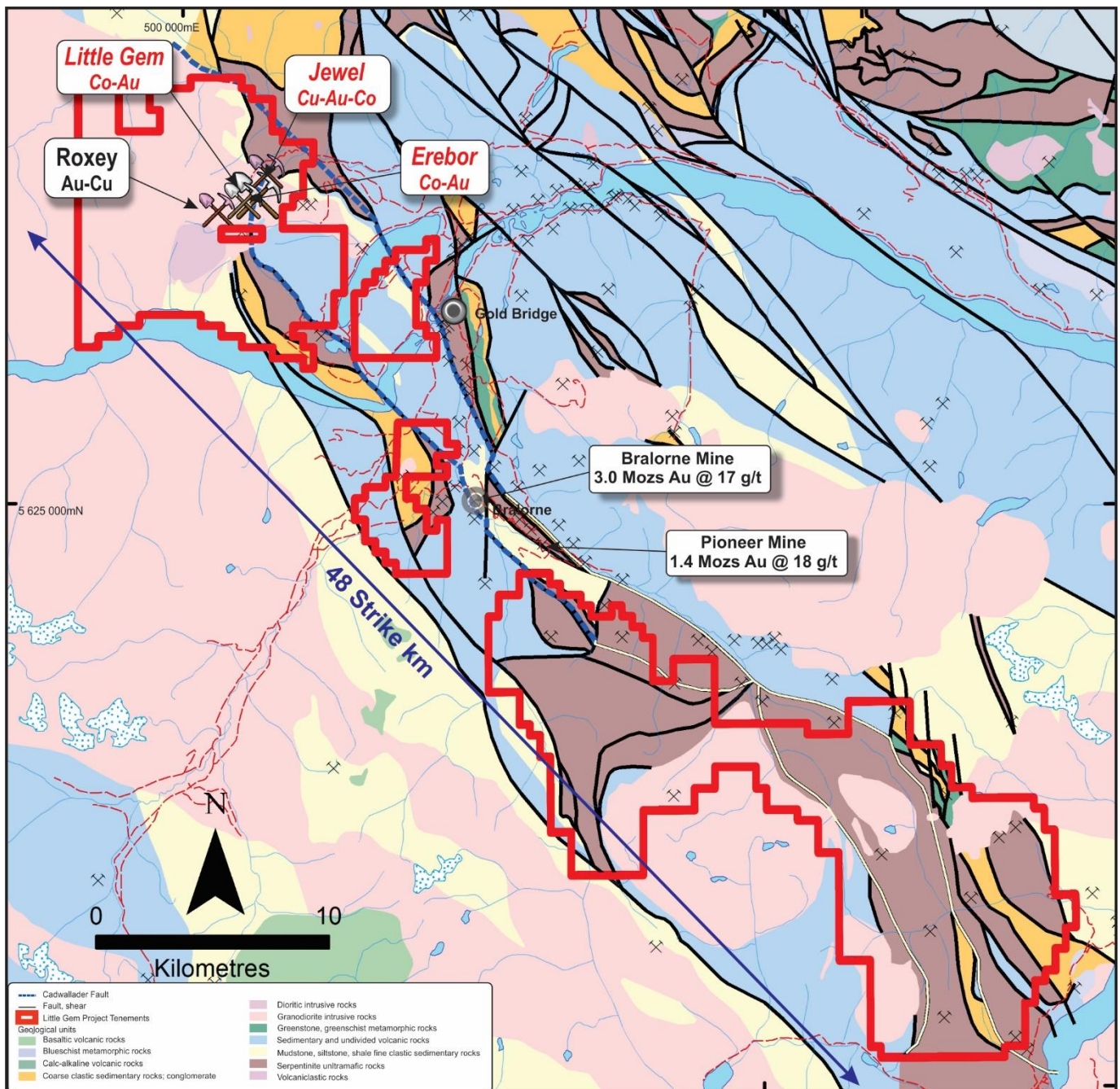


Figure Four | Little Gem Geological Setting<sup>1 & 2</sup>

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 silver**<sup>1</sup>. 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% copper**<sup>1</sup>. 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 sampling<sup>1</sup>. 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. Refer ASX Announcement 6 September 2017. 2. Refer ASX Announcement 26 July 2017 for full set of results

## Cobalt Market Commentary

Cobalt contributes up to 60% of the value of Lithium Ion Batteries which in turn accounts for greater than 50% of demand for cobalt. The lithium ion battery is projected to become the world's most significant source of power with the use in electric vehicles ("EV") being the key driver. Bloomberg forecasts 55% of vehicles sold by 2040 will be electric, currently only 1% of global sales are EVs. Consequently, cobalt demand is expected to rise at 5% compound annual growth rate ("CAGR") over the next 4 years. Cobalt's other main use at 20% is in superalloys which compliments the battery demand as high-tech industry grows.

Cobalt is expected to have a supply deficit as currently mining is only just meeting demand. The cobalt price increased significantly from US\$10/lb (US\$22,000/t) to US\$40/lb (US\$87,000/t) over the past 2 years before recently falling to US\$25/lb (US\$55,000/t) due to seasonal factors. Current prices are still well short of the 2008 high of US\$52/lb (US\$115,000/t) which was the last time cobalt was in deficit. Approximately 98% of the world's supply of cobalt comes from copper and nickel production with 15 mines representing half of the world's supply. This makes the supply stream for cobalt highly sensitive to disruptions caused by mine related issues. Currently more than 50% of the world's supply of cobalt is a by-product of copper production from the Democratic Republic of Congo (DRC).

Yours sincerely



**Scott Williamson**  
**Managing Director**  
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## About Blackstone

Blackstone Minerals Limited (**ASX code: BSX**) is actively exploring the high grade Little Gem Cobalt-Gold Project in British Columbia, Canada. Blackstone is the first company in over 60 years to undertake systematic exploration for Cobalt at Little Gem and within the surrounding district. Blackstone owns a large land holding with 48 km of untested strike 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.

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.

The information in this report that relates to Geophysical Exploration Results is based on information compiled by Mr Barry Bourne, who is employed as a Consultant to the Company through geophysical consultancy Terra Resources Pty Ltd. Mr Bourne is a fellow of the Australian Institute of Geoscientists and a member of the Australian Society of Exploration Geophysicists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Bourne consents to the inclusion in the report of matters based on information in the form and context in which it appears.



### Appendix One

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 style="list-style-type: none"> <li>Nature and quality of sampling (eg: 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 (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>No new drilling is being announced, not applicable. For the Company's best understanding of recent and historic drilling and surface and underground sampling please refer to previous Blackstone Minerals announcements to the ASX and additionally available from <a href="http://blackstoneminerals.com.au">http://blackstoneminerals.com.au</a>.</li> <li>The 3D IP survey being reported was conducted for Blackstone Minerals by geophysical survey contractor SJ Geophysics (<a href="http://www.sjgeophysics.com">www.sjgeophysics.com</a>) and the data was validated and processed by geophysical consultants Terra Resources (<a href="http://www.terraresources.com.au">www.terraresources.com.au</a>). Field support and monitoring was provided by Blackstone Minerals personnel. Summary survey parameters are provided below.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).</li> </ul>	<ul style="list-style-type: none"> <li>No new drilling is being announced, not applicable.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No new drilling is being announced, not applicable.</li> </ul>
Logging	<ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>No new drilling is being announced, not applicable.</li> </ul>

Criteria	Explanation	Commentary
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>No new drilling is being announced, not applicable.</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>No new drilling is being announced, not applicable.</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>No new drilling is being announced, not applicable.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>No new drilling is being announced, not applicable. For the Company's best understanding of recent and historic drilling and surface and underground sampling please refer to previous Blackstone Minerals announcements to the ASX and additionally available from <a href="http://blackstoneminerals.com.au">http://blackstoneminerals.com.au</a>.</li> <li>The IP survey was conducted in UTM Zone 10N NAD83 using GPS control. Topographic control is provided by BC government 20,000 topographic map sheets.</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>The completed IP survey area was approx. 2.3 km<sup>2</sup> including the Jewel and Little Gem prospects. Summary survey parameters as follows: 6.5 kW transmitter, 5 transmitter lines spaced 200 m apart and orientated c. 070° UTM (Little Gem trend) and 115° UTM (Jewel trend), maximum 2 active transmitter lines, 12 receiver lines 100 m apart 100 m dipoles, 60 active dipoles with 4 dipoles inline per dabtube datalogger, 5 dabtubes per line for 2 km at least 1 km ahead of current depending on topography, 3 active receiver lines 100 m apart, 15 active tubes, current monitors on transmitters to allow data to be deconvolved.</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>No new drilling is being announced, not applicable.</li> <li>Historic exploration and mining activity at the Little Gem Prospect shows the presence of 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</li> </ul>

		<p>carbonate, quartz, sericite, chlorite and biotite altered quartz diorite. Historic mining at the Jewel Prospect showed the presence of a complex series of mainly southerly dipping Au, Ag and Cu mineralised quartz + carbonate + arsenopyrite ± chalcopyrite ± pyrite veins associated with felsic dykes adjacent a generally east-southeast striking contact between serpentinite and quartz diorite. The IP survey was orientated to optimally cover the east-northeast striking fracture zone in the Little Gem area and the east-southeast striking ultramafic – quartz diorite contact zone in the Jewel area.</p> <ul style="list-style-type: none"> <li>The IP survey reported here covers c. 1.5 km of the Jewel structural trend and c. 2.5 km inferred strike extent of the Little Gem fracture zone. Drill testing will be needed to constrain the detailed geometry of the IP targets.</li> </ul>
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>The SJ Geophysics survey acquisition team was monitored by Blackstone Minerals personnel and data was digitally transferred to independent geophysical consultant Terra Resources.</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>The IP survey was conducted by geophysical survey contractors SJ Geophysics. The data was independently validated, processed and modelled by geophysical consultants Terra Resources.</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 style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>The IP survey was located in within British Columbia mineral claim numbers 501174, 502808, 503409, 564599, 573344, 796483, 844114, 1046246, 1047915 and 1055449 owned 100% by Cobalt One Energy Corporation, a wholly owned subsidiary of Blackstone Minerals Ltd.</li> <li>Standard governmental conditions apply to all of the Mineral Claims that make up the Little Gem Project.</li> </ul>
Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>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>).</li> </ul>
Geology	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The Little Gem Project is located within the Bralorne-Pioneer mining district (endowment of 4.4 Moz at 17 g/t Au) of the Bridge River region, British Columbia. The project area is underlain by granitoids of the Jurassic to Tertiary Coast Plutonic Complex, Permian ultramafic rocks and later Palaeozoic to Mesozoic sedimentary and volcanic rocks within what is interpreted to be the northern extension of the Cadwallader fault zone, host to the most significant gold producing mines in the Bridge River mining camp.</li> <li>The Little Gem deposit is the best known cobalt deposit in the district and comprises a hypothermal cobalt-sulfarsenide and gold mineralised quartz + iron carbonate + sericite + biotite + chlorite + sulfarsenide vein and alteration zone within a quartz diorite body of the Coast Plutonic Complex. Cobalt and gold mineralised shoots range in width from centimetres to a few metres, including irregular lenses of almost solid safflorite, arsenopyrite and loellingite with mainly microscopic veinlets of the native gold. Historic exploration and mining activity at the Jewel prospect c. 900 m north of Little Gem showed the presence of a complex series of mainly S to SE dipping gold, silver and copper mineralised quartz + carbonate + arsenopyrite ± chalcopyrite ± pyrite veins associated with felsic dykes</li> </ul>



Criteria	Explanation	Commentary
		in serpentinite adjacent to the contact with a quartz diorite pluton to the south. Recent sampling by Blackstone Minerals also suggests the Jewel Prospect is prospective for cobalt mineralisation (please refer to previous Blackstone Minerals announcements to the ASX and additionally available from <a href="http://blackstoneminerals.com.au">http://blackstoneminerals.com.au</a> ).
Drill hole Information	<ul style="list-style-type: none"> <li>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 style="list-style-type: none"> <li>easting and northing of the drill hole collar;</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar;</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth;</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No new drilling is being announced, not applicable.</li> </ul>
Data aggregation methods	<ul style="list-style-type: none"> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg 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 style="list-style-type: none"> <li>No new drilling is being announced, not applicable.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <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 (eg 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>No new drilling is being announced, not applicable. For the Company's best understanding of recent and historic drilling and surface and underground sampling please refer to previous Blackstone Minerals announcements to the ASX and additionally available from <a href="http://blackstoneminerals.com.au">http://blackstoneminerals.com.au</a>.</li> </ul>
Diagrams	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Appropriate exploration plans and sections are included in the body of this release.</li> </ul>
Balanced reporting	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No new drilling is being announced, not applicable.</li> </ul>
Other substantive exploration data	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Prior to the IP survey 4 drill core samples of Little Gem Co sulfarsenide mineralisation were supplied to Terra Petrophysics to analyse the induced polarisation/resistivity, inductive conductivity, magnetic susceptibility and wet/dry bulk density properties. Induced chargeability and resistivity ranged from 26 mV/V and 478 Ω.m for disseminated to 93 mV/V and 106 Ω.m for massive Co sulfarsenide mineralisation respectively. The inductive conductivity was low and hence IP was selected as the most appropriate geophysical technique to explore for concealed Little Gem type mineralisation.</li> </ul>



M I N E R A L S

Further work	<ul style="list-style-type: none"><li>• The nature and scale of planned further work (eg 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 style="list-style-type: none"><li>• Blackstone Minerals proposes to conduct further drilling and associated activities to better define and extend the identified mineralised zones.</li><li>• An appropriate exploration target plan is included in the body of this release.</li></ul>
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