

Ref: /BSX/609/BSX054

## First hole intersects 3.0% Cobalt and 44 g/t Gold at Little Gem

Blackstone Minerals Limited (“Blackstone” or the “Company”), is pleased to announce outstanding results from the first hole of a maiden drilling program at the very high grade Little Gem Cobalt-Gold Project (Little Gem) in British Columbia, Canada (Refer Figure Three).

### Highlights

- Blackstone’s first drill hole has intersected massive, semi-massive and disseminated mineralisation with the following significant results:
  - 4.3 m @ 1.0% cobalt & 15 g/t gold;** including
  - 1.1 m @ 3.0% cobalt and 44 g/t gold.**
- Initial results from the maiden drilling are consistent with historic drilling and adit channel sampling which returned average grades of **3% cobalt and 20 g/t gold;**
- The first hole has only tested the upper portion of the mineralised target with **multiple zones of massive sulfide (Co-Au) mineralisation** identified within a broader alteration halo (Refer Figure Two);
- Maiden drilling is consistent with historic underground drilling from adits including:
  - 1.8 m @ 2.4% cobalt & 112 g/t gold;**
  - 3.3 m @ 1.4% cobalt & 80 g/t gold;** and
  - 3.3 m @ 1.4% cobalt & 12.3 g/t gold** (Refer Table Two for full results).;
- Results from historic adit channel sampling at Little Gem include:
  - 1.8 m @ 4.4% cobalt & 73 g/t gold;**
  - 2.0 m @ 3.1% cobalt & 76 g/t gold;** and
  - 1.5 m @ 5.4% cobalt & 26 g/t gold** (Refer Table Three for full results);
- The Little Gem Project covers a large land holding with **48 km of untested strike potential** of geology **analogous to the world class Bou-Azzer primary Cobalt district in Morocco** (Refer Figure Four);
- Little Gem is favourably located **less than 15 km along strike from the Bralorne-Pioneer mining complex (endowment of 4.4 Moz at 17 g/t Au).**

### BLACKSTONE FAST FACTS

Shares on Issue	64.4m
Share Price	\$0.48
Market Cap	\$31m
ASX Code	BSX

### BOARD & MANAGEMENT

**Non-Exec Chairman**  
Hamish Halliday

**Managing Director**  
Scott Williamson

**Technical Director**  
Andrew Radonjic

**Non-Exec Directors**  
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Stephen Parsons  
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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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Blackstone’s Managing Director commented; “An outstanding result from our first drill hole at Little Gem. We look forward to recommencing the maiden drill program in Q2 2018. With further regional exploration results pending we continue to expand our understanding of the full potential of the project. These initial results confirm Little Gem as one of the highest grade Cobalt-Gold projects in the world located within a region completely unexplored for cobalt”

## Little Gem Project Maiden Drilling Results

Blackstone Minerals Limited has commenced its maiden drilling program at the very high grade Little Gem Cobalt-Gold Project in British Columbia, Canada. The drilling program started late in the field season and hence only one diamond drill hole was able to test the target zone before the onset of winter weather conditions. The successful diamond drill hole has only tested the upper portion of the alteration zone as it was terminated (due to mechanical issues) halfway through the mineralised target (Refer Figure Two). Although the drill hole was successful and confirmed historic drilling and sampling results, it has not tested the full potential of the cobalt and gold mineralisation at Little Gem. The successful drill hole intersected massive, semi-massive and disseminated mineralisation (Refer Image One) with the following significant results:

**4.3 m @ 1.0% cobalt & 15 g/t gold; including  
1.1 m @ 3.0% cobalt and 44 g/t gold.** (Refer Table One for full set of results)

The Company now looks forward to completing the maiden drill program upon recommencement in Q2 2018 to follow up this outstanding result and to further understand the full potential of the Little Gem prospect. Future drilling at Little Gem will be focused on delineating the extents of the mineralisation with potential to deliver a maiden resource in the medium term.

Image One | Little Gem drill hole LGD17-001R mineralised intersection



Figure One | Little Gem Plan of Local Geology, Underground workings & Drill Holes

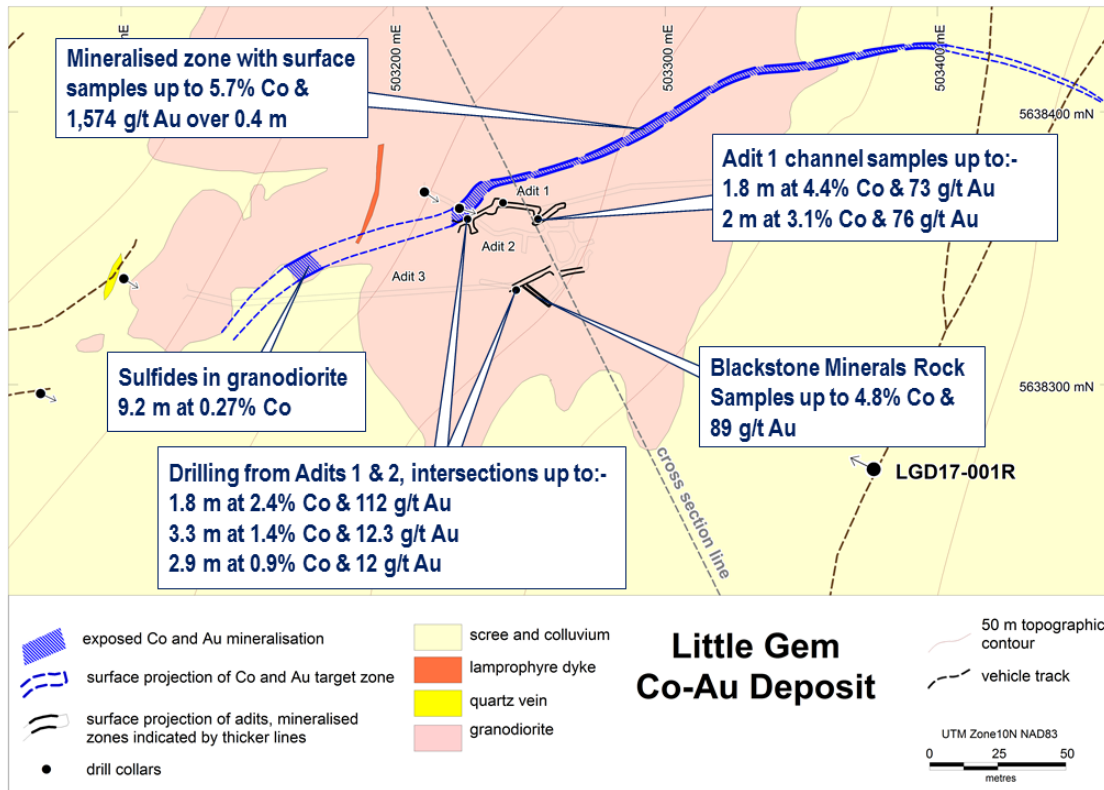
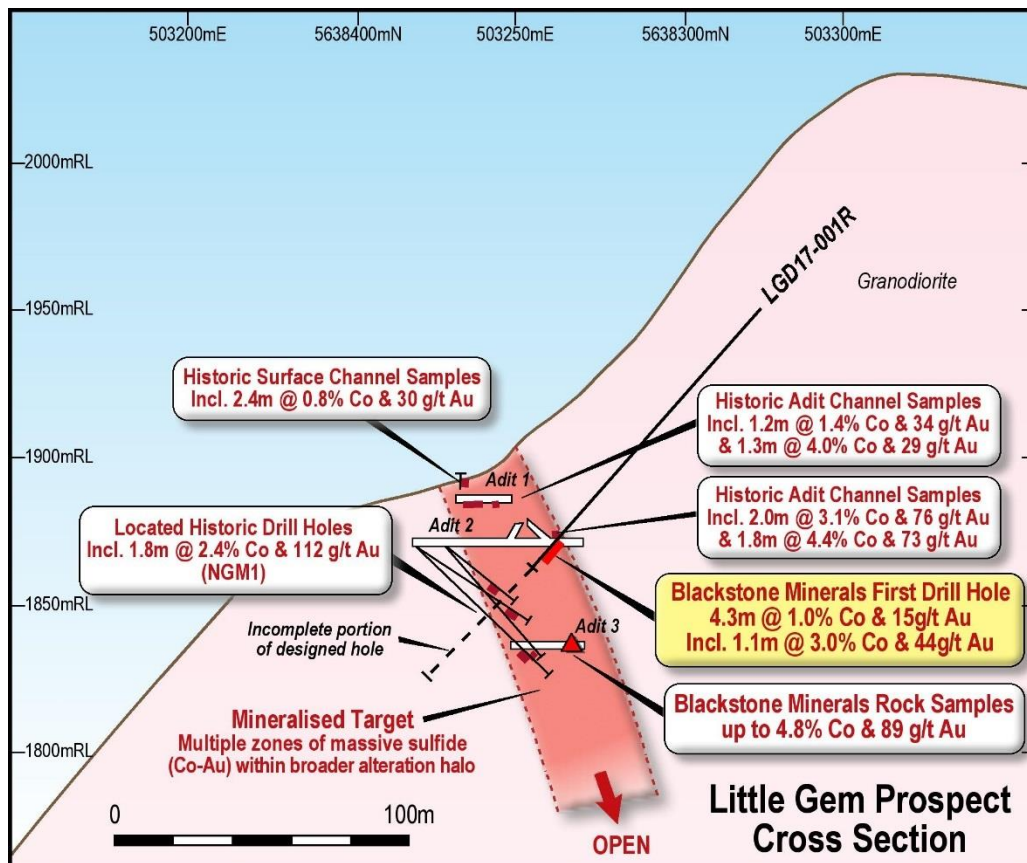


Figure Two | Little Gem Cross Section showing drill hole LGD17-001R





including the Bralorne-Pioneer mining complex (**endowment of 4.4 Moz at 17 g/t Au**) 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 Gold 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 Prospect and discovered a new high grade Gold prospect named Roxey.

The Roxey Gold prospect is located 1.5 km west-southwest of the Little Gem Cobalt-Gold prospect and is along strike to the cobalt-gold mineralisation at Little Gem. 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** (Refer BSX Announcement 6 September 2017). Mineralisation at Roxey is associated with quartz-pyrite altered diorite containing chalcopyrite.

Surface rock chip samples taken to verify the mineralisation at the Jewel prospect returned up to **98 g/t gold and 3.2% copper** (Refer BSX Announcement 6 September 2017 for full set of results). 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 (Refer BSX Announcement 6 September 2017 for full set of results). Mineralisation at Jewel sits in an ultramafic near the easterly trending/steep south dipping contact with the quartz diorite/granodiorite that hosts the Little Gem Prospect.

### 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 35% 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 has risen significantly from US\$10/lb (US\$22,000/t) to US\$34/lb (US\$75,000/t) over the past 2 years. 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).

This announcement effectively lifts the trading halt requested on 5 January 2018. The company is not aware of any reason why the ASX would not allow trading to commence immediately.

Yours sincerely



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

Blackstone Minerals Limited (**ASX code: BSX**) is actively exploring the very 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 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.

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.

Figure Four | Little Gem Geological Setting

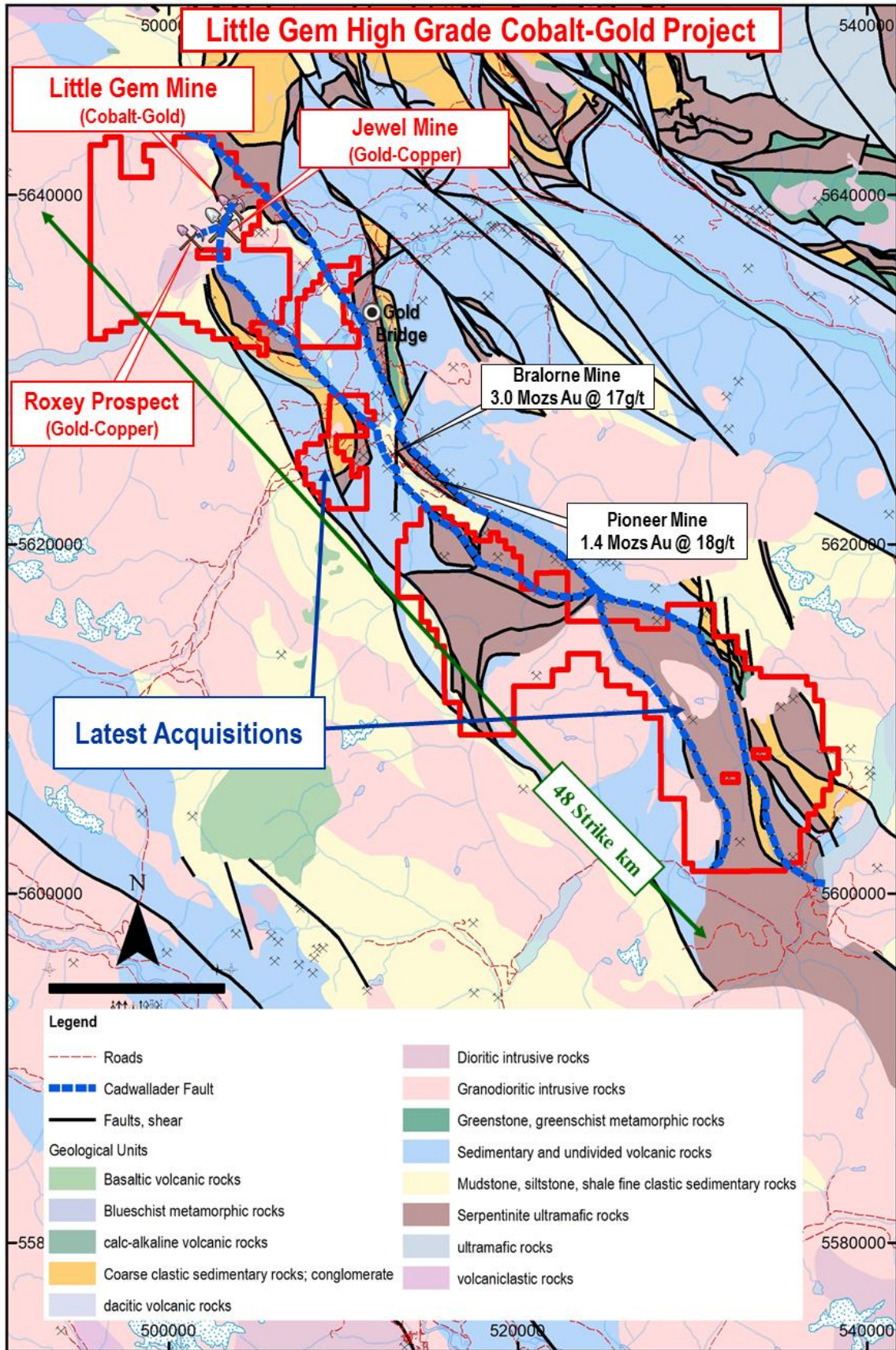


Table One | Little Gem – Anomalous Assay results from Blackstone Minerals Diamond Drill Program

Hole	East UTM10NAD83	North UTM10NAD83	RL m CDEM	Azimuth (°)	Plunge (°)	End of Hole (m)	From (m)	To (m)	Interval (m)	Au g/t	Co %	Comments	
<b>Individual Assay Results</b>													
LGD17-001	503376	5638268	2006	297	-44	150.57						Hole abandoned before reaching target	
LGD17-001R	503376	5638271	2006	296	-44	209.4	174.64	174.94	0.30	1.27	<0.01*	Redrill of LDG17-001R	
							192.81	193.30	0.49	34.35	0.09		
							193.30	193.64	0.34	4.07	1.36		
							193.64	194.11	0.47	24.41	0.51		
							194.11	195.10	0.99	4.36	0.33		
							195.10	195.89	0.79	0.71	0.03		
							195.89	196.19	0.30	2.41	0.15		
							196.19	196.56	0.37	4.33	0.52		
							196.56	197.08	0.52	38.24	3.56		
							197.08	197.63	0.55	49.38	2.45		
							197.63	198.27	0.64	2.08	0.13		
<b>Summary Drill Intersections</b>													
LGD17-001R	503376	5638271	2006	296	-44	209.4	192.81	197.63	4.82	17.41	0.94		
							<b>including</b>	193.30	197.63	<b>4.33</b>	<b>15.50</b>	<b>1.04</b>	
							<b>including</b>	196.56	197.63	<b>1.07</b>	<b>43.97</b>	<b>2.99</b>	
	* 41ppm Co and 8,117 ppm Cu (Copper) and 1.8 ppm Ag (Silver)												



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Table Two | Little Gem - Historic Diamond Drill intersections (Refer Appendix One of BSX Announcement 26 July 2017)

Location	Company	Hole	East UTM10WGS84	North UTM10WGS84	**** RL (m)	Azimuth (°)	Plunge (°)	Length (m)	From (m)	To (m)	Interval (m)	Recovered (m)	Au g/t	Co %	Comments
Adit 2	*	Estella01*	503252	5638348	1870	98	0	9.1	0	9.1	9.1	4.08	11.3	1.37	length weighted average of 4.08m for recovered and assayed core, remainder of hole reported as lost and/or with disseminated sulfides not assayed
Adit 2	*	Estella01*						includes			0.76	0.76	6.9	1.28	
Adit 2	*	Estella01*									6.1	6.1	na	na	disseminated sulfides and lost core
Adit 2	*	Estella01*						and			3.32	3.32	12.3	1.39	
Adit 2	*	Estella01*									1.07	1.07	na	na	disseminated sulfides
Adit 2	*	Estella02*	503252	5638348	1870	92	0	7.3	0	7.3	7.3	0.52	1.3	0.93	0.52m core within 0-7.3m interval assayed 9.6g/t Au & 0.93% Co, 0.4m reported as massive sulfides and lost core with no assay
Adit 2	*	Estella02*									0.4	na	na	na	massive sulfides and lost core
Adit 2	*	Estella03	503252	5638348	1870	168	0	8.5	0	8.5	8.5	3.36	11.7	1.1	length weighted average for 3.36m of recovered and assayed core, remainder of hole reported as lost and/or with disseminated sulfides not assayed
Adit 2	*	Estella03									0.46	0.46	9.6	2.34	
Adit 2	*	Estella03									0.46	0.46	na	na	massive sulfides and lost core
Adit 2	*	Estella03									2.9	2.9	12	0.9	
Adit 2	*	Estella04	503252	5638348	1870	197	0	8.5			1.98	1.98	na	na	massive sulfides and lost core
Adit 2	*	Estella05	503252	5638348	1870	232	0	na			1.01	1.01	na	na	lost core and heavy sulfides
Adit 2	*	Estella05									1.43	1.43	na	na	massive to disseminated sulfides
Adit 2	*	Estella06	503252	5638348	1870	92	-25	29.6			2.74	2.74	na	na	lost core and massive sulfides
Adit 2	*	Estella06									0.67	0.67	na	na	lost core, massive to disseminated sulfides
Adit 2	*	Estella07				317	-25	20.7			4.88	4.88	na	na	lost core, massive to disseminated sulfides
Adit 2	*	Estella07	503252	5638348	1870						1.22	1.22	na	na	lost core, massive to disseminated sulfides
Adit 2	*	Estella08	503252	5638348	1870										no assays
Adit 2	*	Estella09	503252	5638348	1870										no assays
Adit 2	*	Estella10	503252	5638348	1870										no assays
Adit 2	*	Estella11	503252	5638348	1870										no assays
Adit 2	*	Estella12	503252	5638348	1870										no assays
	* Estella Mines Company ** Northern Gem Mining Company *** Anvil Resources Company **** RL corrected by recent DGPS Survey														

## M I N E R A L S

Table Two continued | Little Gem - Historic Diamond Drill intersections (Refer Appendix One of BSX Announcement 26 July 2017)

Location	Company	Hole	East UTM10WGS84	North UTM10WGS84	**** RL (m)	Azimuth (°)	Plunge (°)	Length (m)	From (m)	To (m)	Interval (m)	Recovered (m)	Au g/t	Co %	Comments
50ft (15.2m) in Adit 2		NGM1**	503218	5638370	1870	125	-30	50.9	40.69	46.5	5.79	3.35	79.7	1.45	length weighted average for 3.35m of recovered and assayed core, includes lost core zones
50ft (15.2m) in Adit 2		NGM1**							40.69	41.2	0.46	0.46	7.5	0.21	
		NGM1**							42.06	42.4	0.3	0.3	18.5	0.54	
		NGM1**							42.37	44.2	1.83	1.83	111.8	2.42	
		NGM1**							44.19	44.7	0.46	0.46	82.3	0.25	
		NGM1**							44.65	46.2	1.52	1.52	na	na	lost core
		NGM1**							46.17	46.5	0.3	0.3	52.1	0.2	
50ft (15.2m) in Adit 2		NGM2	503218	5638370	1870	125	-40	68.6	53.95	58.5	4.57	4.57	1.1	0.08	length weighted average
50ft (15.2m) in Adit 2		NGM2							53.95	56.5	2.59	2.59	1.4	0.13	
		NGM2							56.54	58.5	1.98	1.98	0.7	0.01	
100ft (30.5m) in Adit 2		NGM3	503232	5638361	1870	108	-30	38.1	25.3	29.6	4.26	4.26	1.4	0.1	length weighted average
100ft (30.5m) in Adit 2		NGM3							25.3	27		1.67	1.4	0.08	
		NGM3							26.97	29.6		2.59	1.4	0.11	
100ft (30.5m) in Adit 2		NGM4	503232	5638361	1870	108	-40	54.9	56.69	58.5		1.83	na	na	massive sulfides, no assay, intersection beyond reported 180ft EOH
In footwall c. 60m SW of Adit 3		DDH86-1***	503070	5638297	1804	115	-47	166.1					na	na	not assayed, disseminated sulfides reported 119.5 to 125.5m, collar located by handheld Garmin GPS July2017 with nominal accuracy ±10m
In footwall below Adit 3		DDH86-2***	503094	5638341	1794	123	-41.5	207.7					na	na	not assayed, collar located by handheld Garmin GPS July2017 with nominal accuracy ±10m
* Estella Mines Company ** Northern Gem Mining Company *** Anvil Resources Company **** RL corrected by recent DGPS Survey															

**Table Three | Little Gem- Assay results from Historic Adit and Surface channel samples (Refer Appendix One of BSX Announcement 26 July 2017)**

Location	Sample	East UTM10WGS84	North UTM10WGS84	*** RL (m)	Length (m)	Au g/t	Co %	Description
Surface near Adit 1	Stevenson1	503225	5638361	1885	0.61	35.7	3.6	massive mineralisation
Surface near Adit 1	Stevenson2	503225	5638365	1888	0.76	14.1	1.3	massive mineralisation
Surface above Adit 1	Stevenson3	503229	5638366	1893	1.83	17.8	5.1	massive mineralisation
Surface above Adit 1	Stevenson4	503230	5638367	1893	2.13	11	5.1	massive mineralisation
Surface above Adit 1	Stevenson5	503228	5638366	1893	0.61	8.2	0.3	disseminated mineralisation
Surface above Adit 1	Stevenson6	503233	5638374	1895	0.64	9.3	4.4	disseminated mineralisation
Surface above Adit 1	Stevenson7	503234	5638374	1896	0.61	12	3.9	disseminated mineralisation
Surface above Adit 1	Stevenson8	503236	5638374	1898	0.46	54.9	4.3	disseminated mineralisation
Surface above Adit 1	Stevenson9	503240	5638375	1903	1.52	9.3	0.9	disseminated mineralisation
Surface above Adit 1	Stevenson10	503243	5638375	1905	2.44	29.8	0.8	disseminated mineralisation
Adit 1	Stevenson11	503230	5638362	1885	1.52	7.5	0.3	disseminated mineralisation
Adit 1	Stevenson12	503235	5638368	1885	0.61	0.7	0.5	disseminated mineralisation
Adit 1	Stevenson13	503236	5638368	1885	0.33	42.5	6	massive mineralisation
Adit 1	Stevenson14	503238	5638371	1885	0.91	18.2	3.5	massive mineralisation
Adit 1	Stevenson15	503240	5638371	1885	0.3	20.9	5.7	massive mineralisation
Adit 1	Stevenson16	503243	5638372	1885	0.84	21.3	4.1	massive mineralisation
Adit 1	Stevenson17	503244	5638372	1885	0.91	17.5	2.5	disseminated mineralisation
Adit 1	Stevenson18	503246	5638371	1885	0.99	5.1	1.5	disseminated mineralisation
Adit 1	Stevenson19	503248	5638371	1885	0.91	37.4	6.6	massive mineralisation
Adit 1	Stevenson20	503250	5638371	1885	0.91	7.9	1.3	massive mineralisation
Adit 1	Stevenson21	503251	5638371	1885	0.97	16.5	2.9	massive mineralisation
Adit 1	Stevenson22	503252	5638370	1885	1.02	13	3	massive mineralisation
Adit 1	Stevenson23	503252	5638370	1885	1.35	28.8	4	massive mineralisation
Adit 1	Stevenson24	503253	5638370	1885	1.24	0.3	0.7	disseminated mineralisation
Adit 1	Stevenson25	503252	5638369	1885	1.32	17.5	3.5	disseminated mineralisation
Adit 1	Stevenson26	503253	5638368	1885	0.86	41.5	5.3	massive mineralisation
Adit 1	Stevenson27	503253	5638367	1885	0.58	61	7.2	massive mineralisation
Adit 1	Stevenson28	503254	5638366	1885	1.52	26.1	5.4	massive mineralisation
Adit 1	Stevenson29	503255	5638367	1885	0.99	54.2	3.8	massive mineralisation
Adit 1	Stevenson30	503256	5638367	1885	0.99	62.4	1.3	massive mineralisation
Adit 1	Stevenson31	503256	5638368	1885	0.97	19.9	0.6	massive mineralisation
Adit 1	Stevenson32	503257	5638368	1885	0.61	28.5	0.5	disseminated mineralisation
Adit 1	Stevenson33	503258	5638369	1885	1.22	34.3	1.4	disseminated mineralisation
Adit 1	Stevenson34	503260	5638370	1885	0.84	43.2	1.1	disseminated mineralisation
Adit 1	Stevenson35	503261	5638371	1885	0.66	48	1.2	disseminated mineralisation
Adit 1	Stevenson36	503263	5638371	1885	0.3	11.7	0.4	disseminated mineralisation
Adit 2	Stevenson37	503253	5638347	1870	1.52	4.1	2	disseminated mineralisation
Adit 2	Stevenson38	503246	5638344	1870	2.03	75.8	3.1	massive mineralisation
Adit 2	Stevenson39	503248	5638345	1870	1.83	73.4	4.4	massive mineralisation
Ridgeline	Stevenson47	503395	5638425	2010	0.08	156.3	2.8	highest showings, higher of 2 open-cuts, across 3 inch rib of sulfides & non-metallics
Ridgeline	Stevenson48	503395	5638425	2010	0.08	800.2	4.6	highest showings, higher of 2 open-cuts, across 3 inch rib of sulfides & non-metallics, check of sample 47
Ridgeline	Stevenson50	503394	5638425	2010	0.38	1574.4	5.7	highest showings, lower of 2 open-cuts, across 15 inch wide lens of mineralisation
Ridgeline	Stevenson51	503393	5638425	2010	0.05	40.8	0.5	highest showings, lower of 2 open-cuts, across 2 inch rib of mineralisation
40m ENE of Adit 3	NGM**	503165	5638343	1835	9.2	na	0.27	disseminated sulfides in bleached granodiorite
* Sampling and assays by British Columbia Department of Mines ** Northern Gem Mining *** RL corrected by recent DGPS Survey								

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Table Four | Little Gem- Assay results from Historic Rock Samples (Refer Appendix One of BSX Announcement 26 July 2017)

Location	Sample	East UTM10WGS84	North UTM10WGS84	*** RL (m)	Au g/t	Co %	Description
Adit 1	Stevenson40*	503253	5638366	1885	22.6	2.4	sulfides & non-metallics
Adit 1	Stevenson41*	503253	5638366	1885	50.1	3.6	massive sulfides
Adit 1 dump	Stevenson42*	503220	5638368	1883	0.3	0.2	upper adit dump, mixed sulfides & non-metallics
Adit 1 dump	Stevenson43*	503220	5638367	1883	2.1	0.9	upper adit dump, principally non-metallics
Adit 2	Stevenson44*	503246	5638344	1870	56.9	4.4	lower adit near sample 38, mixed sulfides & non-metallics
Surface above Adit 1	Stevenson45	503235	5638374	1897	9.6	6.2	selected sulfide
Surface above Adit 1	Stevenson46	503234	5638374	1896	11.3	6.5	selected sulfide
Ridgeline	Stevenson49	503395	5638425	2010	241.4	4.5	highest showings, higher of 2 open-cuts, typical mineralisation from ore-pile
Ridgeline	Stevenson52	503393	5638425	2010	72	1.6	highest showings, lower of 2 open-cuts, typical mineralisation from ore pile
Adit 3	JTSUG-1**	503244	5638287	1835	0.68	0	quartz stringers
Adit 3	JTSUG-2	503250	5638282	1835	0.3	0	
Adit 3	JTSUG-3	503248	5638284	1835	3.82	0.2	lamprophyre dyke
Adit 3	JTSUG-4	503246	5638286	1835	131.3	2.1	pyritic quartz-rich rock
Adit 1	JTSUG-5	503242	5638372	1885	22	0.8	
Adit 1	Met1of5	503225	5638364	1885	20.7	3.8	
Adit 1	Met3of5	503236	5638371	1885	29.4	5.3	
Adit 1	Met5of5	503249	5638371	1885	20.6	4.2	
Adit 3	Portal#3_132m	503247	5638284	1835	59	4.3	
	* British Columbia Department of Mines						
	** Gold Bridge Mining						
	*** RL corrected by recent DGPS Survey						

## 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>Diamond core drilling was used to obtain samples.</li> <li>Drill core was cut by diamond core saw and continuous half core sample taken for assay in intervals ranging from 0.3 m to 2 m according to lithological criteria.</li> <li>Sample weights for assay ranged from 0.7 kg to 5 kg each (average 2 kg).</li> <li>Drilling and sampling was supervised by a suitably qualified Blackstone Minerals Limited Geologist.</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>Diamond core drilling, NQ2 diameter (c. 48 mm).</li> <li>Two holes were drilled. The first LGD17-001 was terminated at 150.6 m and failed to reach target zone (190 m to 250 m downhole) because of technical problems. A second hole LGD17-001R was collared within 3 m of the first hole as a redrill and reached 209.4 m partially penetrating the target zone (190 m to 250 m downhole) before being terminated because of mechanical failure of the drill rig.</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>Recoveries were calculated by a Blackstone Minerals geologist by measuring recovered core length vs downhole interval length.</li> <li>Drill core recovery through the mineralised zone averaged 94%.</li> <li>There is no discernible correlation between Au and Co grades and core recovery (correlation coefficient &lt;0.03).</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>A total of 360 m was drilled.</li> <li>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.</li> <li>Mineral Resources have not been estimated.</li> <li>The detail of geological logging is considered sufficient for mineral exploration.</li> </ul>
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> </ul>	<ul style="list-style-type: none"> <li>Drill core was cut in half lengthwise by diamond core saw and continuous half core sample bagged for assay in lithological intervals ranging from 0.3 m to 2 m as determined by the Blackstone Minerals geologist.</li> <li>All samples submitted for assay comprised half core leaving continuous half core and continuous remnant half core has been left in the trays for future reference or sampling as necessary. Half core sampling was considered sufficient for the nature of mineralisation</li> </ul>

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Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <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>	<p>and core diameter. Duplicate samples were not collected.</p> <ul style="list-style-type: none"> <li>Sample weights for assay ranged from 0.7 kg to 5 kg each (average 2 kg).</li> <li>The bagged half core samples were submitted to MS Analytical laboratory in Vancouver, British Columbia for preparation and assay.</li> <li>At MS Analytical the half 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 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>Gold was analysed by industry standard 50g charge fire assay with AAS finish to a 0.01 g/t lower limit of detection (MS Analytical method FAS-221).</li> <li>Cobalt and other base metals were determined by industry standard 4 acid digestion (including HF) with ICPES finish at MS Analytical. Samples with greater than 1% cobalt were re-assayed by peroxide fusion, acid digestion and ICPES finish.</li> <li>Commercially certified gold and cobalt reference materials or appropriate grades were included in the assay sample submissions by Blackstone Minerals at a minimum rate of at least one standard per 20 samples.</li> <li>All results for the Au and Co assay standards assays are within 10 % of the reference values.</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>The assay results are compatible with the observed mineralogy.</li> <li>The assay results agree well with historic mining and exploration results (eg: Refer BSX Announcement 26 July 2017).</li> <li>Twinned holes were not used and not considered necessary at this early stage of exploration.</li> <li>Primary data is stored and documented in industry standard ways.</li> <li>Assay data is as reported by MS Analytical and has not been adjusted in any way.</li> <li>Remnant assay pulps are currently held in storage by the assay laboratory.</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>Drill hole collar locations were determined by handheld GPS considered accurate to <math>\pm 5</math> m.</li> <li>All co-ordinates were recorded in UTM Zone 10N NAD83.</li> <li>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.</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 drilling is of reconnaissance nature and not conducted on any 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 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>Exploration and mining activity shows the presence of a moderately to steeply south-southeast dipping zone of Au and Co mineralisation 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 a broader and as yet poorly delineated zone of disseminated sulfarsenide mineralisation within 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> <li>Much of the historic drilling has been oblique or at low angle to the interpreted strike and dip of the mineralisation.</li> </ul>

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Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>LGD17-001R has been drilled at a high angle to the dip but somewhat oblique to the interpreted mineralisation because of logistical constraints. Further drilling is required to refine orientation and define extent of the mineralised zone.</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 chain of custody for samples from collection to dispatch to assay laboratory for the various historic explorers and miners and BC Department of Mines is not known.</li> <li>The chain of custody for LGD17-001R 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.</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 assay results agree well with the observed mineralogy.</li> <li>The assay results agree well with historic mining and exploration results (eg: 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 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>LGD17-001R is located within British Columbia mineral claim number 501174 which Cobalt One Energy Corporation has an option over to acquire up to 100% by 7 April 2020.</li> <li>Standard governmental conditions apply to all of the Licences 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, as summarised in (Refer BSX 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 4.4Moz at 17g/t Au) of the Bridge River region, British Columbia. The project area 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. 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.</li> <li>The Little Gem prospect itself is a hypothermal cobalt-sulfarsenide and gold vein, 2.3 kilometres east northeast of Dickson Peak, lies within the margin of the Jurassic to Tertiary Coast Plutonic Complex (Cretaceous Penrose lobe pluton). Host rocks consist of granodiorite, minor hornblende-biotite-quartz diorite, diorite and gabbro, which are intruded by feldspar porphyry dykes. A broad, east trending and steeply south dipping fault zone cuts the granodiorite near the eastern contact with older sedimentary and volcanic rocks of the Mississippian to Jurassic Bridge River Complex (Group). Shears in the zone contain two parallel ore shoots ranging in width from ten centimetres to a few metres. Irregular lenses of almost solid sulfides contain cobalt and gold values in association with danaite, loellingite, safflorite, arsenopyrite, scheelite and minor molybdenum. Uraninite, occurs rarely in the gangue along with coarse-grained allanite, apatite, feldspar, quartz, chlorite, sericite, calcite, erythrite and limonite. Gold occurs mainly as microscopic veinlets of the native metal within and adjacent to the sulfarsenide minerals. Surrounding the ore, strongly bleached and sericitized granodiorite containing disseminated sulfides, residual quartz, feldspar and kaolin grades into unaltered granodiorite. The metallic minerals occur with the gangue in coarsely crystalline masses but are in general younger than most of the gangue minerals. The combination of the batholithic host rocks and the association of uraninite with hornblende, biotite, apatite, allanite, monazite, orthoclase, cobalt sulfarsenides, arsenopyrite and molybdenite is indicative of high temperature, possibly magma-derived, hydrothermal fluids.</li> </ul>
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>eastings and northing of the drill hole collar;</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>All Blackstone Minerals drill hole coordinates, depths, orientations, hole lengths and significant results are given in Table One.</li> <li>The Company's best understanding of the historic drill hole and surface and underground channel</li> </ul>



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Criteria	Explanation	Commentary
	<ul style="list-style-type: none"> <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> <ul style="list-style-type: none"> <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>	<p>sample locations, orientations and lengths are given in (eg: Refer BSX Announcement 26 July 2017).</p>
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>• All drill intersections given in Table One are length weighted averages.</li> <li>• Upper cuts have not been applied.</li> <li>• Any significantly higher grade zones are listed as included intervals in Table One.</li> <li>• Metal equivalent values are not used.</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>• All intersections reported in Table One are down hole.</li> <li>• LGD17-001R has been drilled at a high angle to the dip but somewhat oblique to the interpreted mineralisation because of logistical constraints. True thickness is currently estimated at c. 70% of down hole thickness.</li> <li>• LGD17-001R was terminated within the alteration zone at 209.4 m because of mechanical failure of the drill rig, and consequently did not penetrate the entire target zone from 190 m – 250 m.</li> <li>• Premature termination means extent and thickness of disseminated sulfarsenide mineralisation and potential for multiple massive sulfarsenide bodies remains poorly defined.</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>• Significantly higher grade zones are listed as included intervals in Table One.</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>• Bulk density, geotechnical and metallurgical work have not been implemented at this reconnaissance stage of exploration drilling.</li> <li>• Appropriate reconnaissance exploration plans are included in the body of this release.</li> </ul>
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 zone.</li> <li>• An appropriate exploration target plan is included in the body of this release.</li> </ul>