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Ref: /BSX/609/BSX030

# Blackstone Acquires High Grade Cobalt/Gold Project in British Columbia, Canada

Blackstone Minerals Limited **(ASX code: BSX)**, is pleased to announce that the Company has entered into a binding Heads of Agreement to acquire 100% of the Little Gem Project, located in British Columbia, Canada (Refer Figure One). Little Gem hosts very high grade cobalt and gold sulphide mineralization (Refer Image One), within a well-endowed and high grade gold mining district.

### Highlights of the Project include:

- Surface channel samples of massive sulphides return assays up to 0.4 m @
   5.7% cobalt & 1,574 g/t (≈50oz) gold (Refer Table One for full set of results);
- Underground adit channel sampling of massive sulphides return multiple high grade intersections including:

1.8 m @ 4.4% cobalt & 73 g/t gold; and 2 m @ 3.1% cobalt & 76 g/t gold (Refer Table Three for full set of results);

• Historic underground drilling from adits returned multiple intersections including:

**1.8 m @ 2.4% cobalt & 112 g/t gold**; **3.3 m @ 1.4% cobalt & 12.3 g/t gold**; and **2.9 m @ 0.9% cobalt & 12 g/t gold** (Refer Table Two for full set of results).

- High grade cobalt and gold mineralization **open along strike and down dip**.
- The Little Gem Project covers an area of 195 km<sup>2</sup> and 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)** which retains the status of the foremost gold producer in British Columbia and the sixth largest in Canada (Refer Figure Two).
- Blackstone Minerals is well funded, with a cash position of A\$2.6million and is well placed to immediately commence exploration following completion of the acquisition.

Blackstone's Technical Director commented; "The Company is very excited about the acquisition of the Little Gem Project, as it delivers the unique opportunity to explore for both high grade cobalt and gold simultaneously. Management are also pleased to have provided Blackstone shareholders with exposure to the potentially lucrative and fast growing cobalt market where the dominant use is rechargeable batteries."

Blackstone Fast Facts						
Shares on Issue	35.8m					
Share Price	\$0.18					
Market Cap	\$6.44m					
ASX Code	BSX					

#### **BOARD & MANAGEMENT**

Hamish Halliday Non-Exec Chairman

Andrew Radonjic Technical Director

Bruce McFadzean Non-Exec Director

Jamie Byrde CFO & Company Secretary

**RECENT ANNOUNCEMENTS** 

Appendix 5B & Quarterly Report (21/07/2017)

79g/t Au rock chip extends mineralisation to 4 km Red Gate Project, WA (11/07/2017)

Change of Registered Address (07/07/2017)

Second New Porphyry Zone Identified at Red Gate Project, WA (25/05/2017)

Investor Presentation May 2017 (11/05/2017)

Quarterly Report – March 2017 (28/04/2017)

#### PROJECTS

Red Gate Project (Gold)

Middle Creek Project (Gold)

Silver Swan South Project (Gold & Nickel)

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The Little Gem Project was discovered in the 1930's by prospectors identifying a pink cobalt-bloom on weathered mineralization that led to three adits being developed. A total of 1,268m 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: **1.8 m @ 2.4% cobalt & 112 g/t gold**, **3.3 m @ 1.4% cobalt & 12.3 g/t gold and 2.9 m @ 0.9% cobalt & 12 g/t gold** from drilling, and **1.8 m @ 4.4% cobalt & 73 g/t gold and 2 m @ 3.1% cobalt & 76 g/t gold** from underground channel sampling and **0.4 m @ 5.7% cobalt & 1,574 g/t gold and 0.1 m @ 4.6% cobalt & 800 g/t gold** from surface channel sampling (Refer to Figure Four).

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 Two). 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. The camp has 60 mineral localities 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 (Refer Figure Three) and a further two drill holes completed in 1986. Blackstone plans to re-establish access and will confirm the very high grade historical results before commencing a drill program in the current field season.

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 (Refer Figure Three) of the Little Gem Mine. Blackstone intends to conduct some reconnaissance surface sampling to determine its prospectivity in the current field season.

### **Cobalt Market Commentary**

Cobalt contributes up to 60% of the value of Lithium Ion Batteries which in turn accounts for 42% 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 16% 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\$27.50/lb (US\$61,000/t) over the last 21 months. 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.

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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. A recent example was the shutdown of copper mining in the Katanga Province in the DRC due low copper prices which cut 3% of the world's cobalt supply.

## Little Gem Project Geology

The Little Gem is, a hypothermal cobalt-sulpharsenide and gold vein that lies within the margin of the Coast Plutonic Complex. 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 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 sulphides 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 sulpharsenide minerals. Surrounding the ore, strongly bleached and sericitized granodiorite containing disseminated sulphides, 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 this style of mineralization is indicative of high temperature, possibly magma-derived, hydrothermal fluids.

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 Three). These are the major geological units and structures important to the mineral deposits either as the host rocks and perhaps sources of the mineralizing fluids.

## Terms of the Binding Heads of Agreement

Blackstone Minerals has entered into a Binding Heads of Agreement with Cobalt One Energy Corp ("Cobalt One") and its Shareholders to acquire 100% interest in the Little Gem Gold-Cobalt Project and the Cartier Cobalt-Nickel Project.

The material terms of the agreement are:

- the consideration for the transaction (subject to shareholder approval) is as follows:
  - Issue of 25,000,000 ordinary shares of Blackstone; and
    - 8,000,000 performance shares each convertible into one ordinary share, subject to approval of milestone conditions by the ASX.
- Blackstone shall meet Cobalt One's obligations of up to C\$700,000 of staged option payments over approximately six months under an option agreement for the Little Gem Project between Cobalt One and a third-party vendor;
- completion of the acquisition is subject to the satisfaction of standard conditions precedent including, but not limited to, satisfactory due diligence by each party, the parties (including all Cobalt One shareholders) executing a definitive agreement for the acquisition and receipt of all required governmental, shareholder and regulatory approvals;

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- satisfaction of the conditions precedent is to occur by no later than 30 September 2017 or such later date as the parties agree in writing following the execution of the Definitive Agreement by the parties to occur by 24 August 2017;
- Ongoing commitments and working capital requirements to funded from existing cash reserves;
- A representative of Cobalt One is to be appointed to the Blackstone Minerals Board of Directors upon completion of the acquisition.

Blackstone has consulted with the ASX to determine the implications of the acquisition with regard to Chapter 11 of the ASX Listing Rules and at this point ASX has deemed the acquisition not to be subject to a re-compliance with the admission requirements under Listing Rule 11.1.3 or to shareholder approval under Listing Rule 11.1.2. However, the Company will seek shareholder approval for the issue of shares and performance shares under the HOA pursuant to Listing Rule 7.1 and other shareholder approvals related to the acquisition.

This announcement effectively lifts the Trading Halt on Blackstone Minerals Limited's securities.

Yours sincerely

Andrew Radonjic Technical Director

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.

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#### Figure One | Location of the Little Gem Project

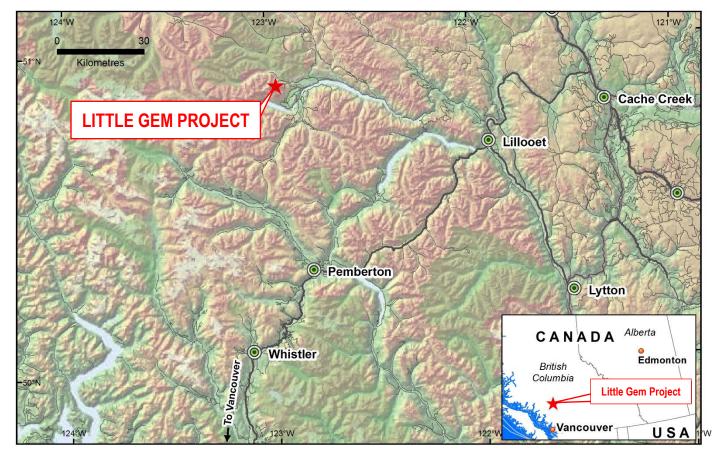
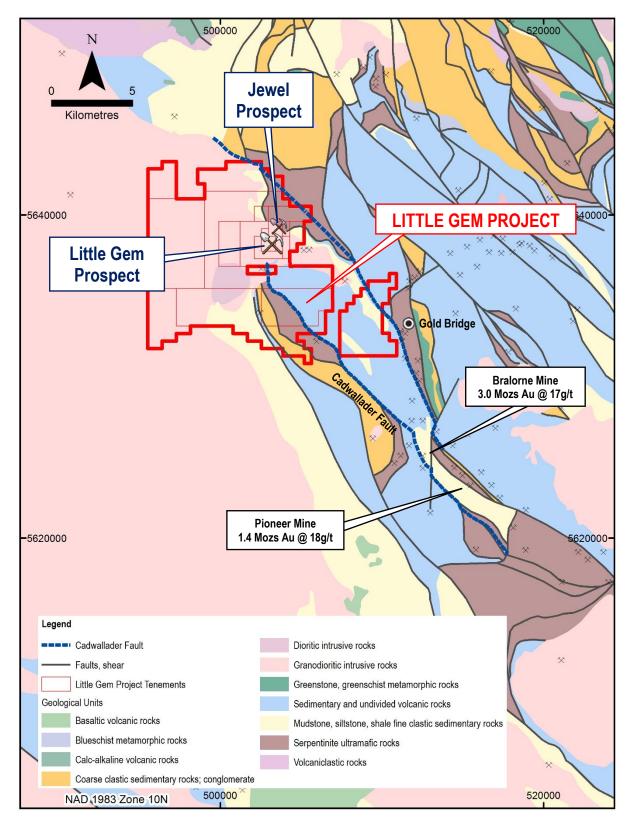


Image One | Recent sample of mineralisation from the adits at Little Gem assaying 6.2% cobalt and 46 g/t gold





Figure Two | Little Gem Geological Setting



#### Figure Three | Little Gem Prospect Locations & Geophysical Targets

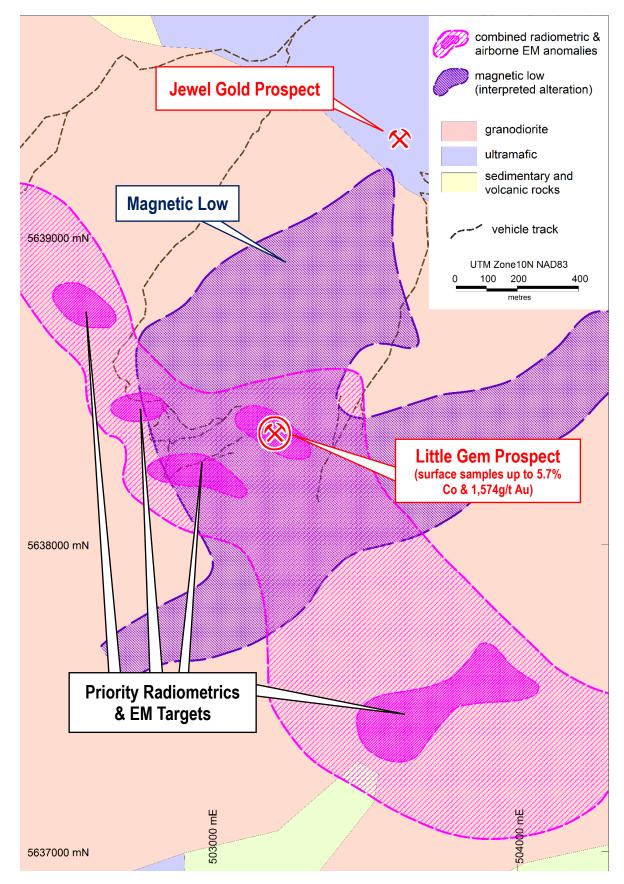
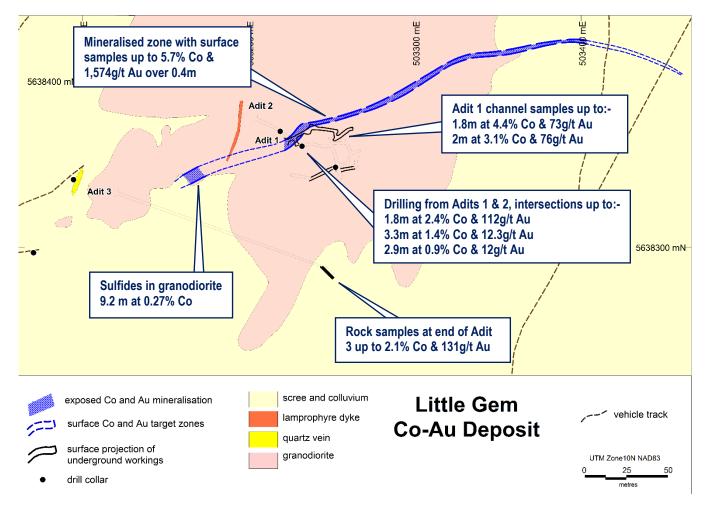




Figure Four | Little Gem Local Geology, Works & Drill Holes



#### M I N E R A L S

#### Table One | Little Gem- Assay results for Adit and Surface channel samples

Location	Sample	East UTM10WGS84	North UTM10WG584	RL m	Length m	Au g/t	Co %	Description
Surface near Adit 1	Stevenson1*	503225	5638361	1922	0.61	35.7	3.6	massive mineralisation
Surface near Adit 1	Stevenson2*	503225	5638365	1925	0.76	14.1	1.3	massive mineralisation
Surface above Adit 1	Stevenson3*	503229	5638366	1930	1.83	17.8	5.1	massive mineralisation
Surface above Adit 1	Stevenson4*	503230	5638367	1930	2.13	11	5.1	massive mineralisation
Surface above Adit 1	Stevenson5*	503228	5638366	1930	0.61	8.2	0.3	disseminated mineralisation
Surface above Adit 1	Stevenson6*	503233	5638374	1932	0.64	9.3	4.4	disseminated mineralisation
Surface above Adit 1	Stevenson7*	503234	5638374	1933	0.61	12	3.9	disseminated mineralisation
Surface above Adit 1	Stevenson8*	503236	5638374	1935	0.46	54.9	4.3	disseminated mineralisation
Surface above Adit 1	Stevenson9*	503240	5638375	1940	1.52	9.3	0.9	disseminated mineralisation
Surface above Adit 1	Stevenson10*	503243	5638375	1942	2.44	29.8	0.8	disseminated mineralisation
Adit 1	Stevenson11*	503230	5638362	1922	1.52	7.5	0.3	disseminated mineralisation
Adit 1		503235	5638368	1922	0.61	7.5 0.7	0.5	disseminated mineralisation
	Stevenson12*							
Adit 1	Stevenson13*	503236	5638368	1922	0.33	42.5	6	massive mineralisation
Adit 1	Stevenson14*	503238	5638371	1922	0.91	18.2	3.5	massive mineralisation
Adit 1	Stevenson15*	503240	5638371	1922	0.3	20.9	5.7	massive mineralisation
Adit 1	Stevenson16*	503243	5638372	1922	0.84	21.3	4.1	massive mineralisation
Adit 1	Stevenson17*	503244	5638372	1922	0.91	17.5	2.5	disseminated mineralisation
Adit 1	Stevenson18*	503246	5638371	1922	0.99	5.1	1.5	disseminated mineralisation
Adit 1	Stevenson19*	503248	5638371	1922	0.91	37.4	6.6	massive mineralisation
Adit 1	Stevenson20*	503250	5638371	1922	0.91	7.9	1.3	massive mineralisation
Adit 1	Stevenson21*	503251	5638371	1922	0.97	16.5	2.9	massive mineralisation
Adit 1	Stevenson22*	503252	5638370	1922	1.02	13	3	massive mineralisation
Adit 1	Stevenson23*	503252	5638370	1922	1.35	28.8	4	massive mineralisation
Adit 1	Stevenson24*	503253	5638370	1922	1.24	0.3	0.7	disseminated mineralisation
Adit 1	Stevenson25*	503252	5638369	1922	1.32	17.5	3.5	disseminated mineralisation
Adit 1	Stevenson26*	503253	5638368	1922	0.86	41.5	5.3	massive mineralisation
Adit 1	Stevenson27*	503253	5638367	1922	0.58	61	7.2	massive mineralisation
Adit 1	Stevenson28*	503254	5638366	1922	1.52	26.1	5.4	massive mineralisation
Adit 1	Stevenson29*	503255	5638367	1922	0.99	54.2	3.8	massive mineralisation
Adit 1	Stevenson30*	503256	5638367	1922	0.99	62.4	1.3	massive mineralisation
Adit 1	Stevenson31*	503256	5638368	1922	0.97	19.9	0.6	massive mineralisation
Adit 1	Stevenson32*	503257	5638368	1922	0.61	28.5	0.5	disseminated mineralisation
Adit 1	Stevenson33*	503258	5638369	1922	1.22	34.3	1.4	disseminated mineralisation
Adit 1	Stevenson34*	503260	5638370	1922	0.84	34.3 43.2	1.4	disseminated mineralisation
Adit 1	Stevenson35*	503260	5638370	1922	0.66	45.2 48	1.1	disseminated mineralisation
Adit 1	Stevenson36*	503263	5638371	1922	0.3	11.7	0.4	disseminated mineralisation
Adit 2	Stevenson37*	503253	5638347	1907	1.52	4.1	2	disseminated mineralisation
Adit 2	Stevenson38*	503246	5638344	1907	2.03	75.8	3.1	massive mineralisation
Adit 2	Stevenson39*	503248	5638345	1907	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-cut 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-cut 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	1840	9.2	na	0.27	disseminated sulfides in bleached granodiorite

\* Sampling and assays by British Columbia Department of Mines

\*\* Northern Gem Mining



## M I N E R A L S

#### Table Two | Little Gem- Assay results for Diamond Drill intersections

Location	Hole	East UTM10WG584	North UTM10WG584	RL m	Azimuth	Plunge	Length m	From m	To m	Interval m	Recovered m	Au g/t	Co %	Comments
														length weighted average of 4.08m for recovered and
Adit 2	Estella01*	503252	5638348	1907	98	0	9.1	0	9.1	9.1	4.08	11.3	1.37	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
														0.52m core within 0-7.3m interval assayed 9.6g/t Au &
Adit 2	Estella02*	503252	5638348	1907	92	0	7.3	0	7.3	7.3	0.52	1.3	0.93	0.93% Co, 0.4m reported as massive sulfides and lost core
	Estendoz	505252	5050540	1007		ĭ		Ĕ.			0.52		0.55	with no assay
Adit 2	Estella02*										0.4	na	na	massive sulfides and lost core
Adit 2	Estella02*								<u> </u>	l	0.4	na	na	length weighted average for 3.36m of recovered and
Adit 2	E-t-II-O-T	503252					8.5	0	8.5					
Adit 2	Estella03*	503252	5638348	1907	168	0	8.5	0	8.5	8.5	3.36	11.7	1.1	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	1907	197	0	8.5			1.98	1.98	na	na	massive sulfides and lost core
Adit 2	Estella05*	503252	5638348	1907	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	1907	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	1907						1.22	1.22	na	na	lost core, massive to disseminated sulfides
Adit 2	Estella08*	503252	5638348	1907					<u> </u>					no assavs
Adit 2	Estella09*	503252	5638348	1907								<u> </u>		no assays
Adit 2	Estella10*	503252	5638348	1907										no assays
Adit 2	Estella11*	503252	5638348	1907		<u> </u>			<u> </u>	l		<u> </u>		no assays
Adit 2	Estella12*	503252	5638348	1907										no assays
50ft (15.2m) in Adit 2	NGM1**	503218	5638370	1907	125	-30	50.9	40.69	46.48	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	41.15	0.46	0.46	7.5	0.21	
	NGM1**							42.06	42.37	0.3	0.3		0.54	
	NGM1**							42.37	44.19	1.83	1.83	111.8	2.42	
	NGM1**							44.19	44.65	0.46	0.46	82.3	0.25	
	NGM1**							44.65	46.17	1.52	1.52	na	na	lost core
	NGM1**							46.17	46.48	0.3	0.3	52.1	0.2	
50ft (15.2m) in Adit 2	NGM2**	503218	5638370	1907	125	-40	68.6	53.95	58.52	4.57	4.57	1.1	0.08	length weighted average
50ft (15.2m) in Adit 2	NGM2**							53.95	56.54	2.59	2.59	1.4	0.13	•
	NGM2**							56.54	58.52	1.98	1.98	0.7	0.01	
100ft (30.5m) in Adit 2	NGM3**	503232	5638361	1907	108	-30	38.1	25.3	29.56	4.26	4.26	1.4	0.1	length weighted average
100ft (30.5m) in Adit 2	NGM3**							25.3	26.97		1.67	1.4	0.08	
in the second	NGM3**			<u> </u>			-	26.97	29.56		2.59	1.4	0.11	
				<u> </u>										massive sulfides, no assay, intersection beyond reported
100ft (30.5m) in Adit 2	NGM4**	503232	5638361	1907	108	-40	54.9	56.69	58.52		1.83	na	na	180ft EOH
														not assayed, disseminated sulfides reported 119.5 to
In footwall c. 60m SW of Adit 3	DDH86-1***	503070	5638297	1830	115	-47	166.1					na	na	125.5m, collar located by handheld Garmin GPS July2017
														with nominal accuracy ±10m
In footwall below Adit 3	DDH86-2***	503094	5638341	1827	123	-41.5	207.7					na	na	not assayed, collar located by handheld Garmin GPS
In rootwall below Aut 5	001100-2	303034	5050541	102/		41.5	201.1							July2017 with nominal accuracy ±10m
* Estella Mines Company ** Northern Gem Company *** Anvil Resources Company														



## M I N E R A L S

#### Table Three | Little Gem- Assay results for Rock Samples

	6la	East North			A	• • • •	Description
Location	Sample	UTM10WGS84	UTM10WGS84	KL m	Au g/t	<b>Co</b> %	Description
Adit 1	Stevenson40*	503253	5638366	1922	22.6	2.4	sulfides & non-metallics
Adit 1	Stevenson41*	503253	5638366	1922	50.1	3.6	massive sulfides
Adit 1 dump	Stevenson42*	503220	5638368	1920	0.3	0.2	upper adit dump, mixed sulfides & non- metallics
Adit 1 dump	Stevenson43*	503220	5638367	1920	2.1	0.91	upper adit dump, principally non-metallics
Adit 2	Stevenson44*	503246	5638344	1907	56.9	4.4	lower adit near sample 38, mixed sulfides & non-metallics
Surface above Adit 1	Stevenson45*	503235	5638374	1934	9.6	6.2	selected sulfide
Surface above Adit 1	Stevenson46*	503234	5638374	1933	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	1852	0.68	0.01	quartz stringers
Adit 3	JTSUG-2**	503250	5638282	1852	0.3	0.01	
Adit 3	JTSUG-3**	503248	5638284	1852	3.82	0.22	lamprophyre dyke
Adit 3	JTSUG-4**	503246	5638286	1852	131.32	2.13	pyritic quartz-rich rock
Adit 1	JTSUG-5**	503242	5638372	1922	22	0.82	
Adit 1	Met1of5**	503225	5638364	1922	20.7	3.81	
Adit 1	Met3of5**	503236	5638371	1922	29.4	5.34	
Adit 1	Met5of5**	503249	5638371	1922	20.6	4.15	
Adit 3	Portal#3_132m**	503247	5638284	1852	59	4.32	

\* British Columbia Department of Mines

\*\* Gold Bridge Mining

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#### **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> <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>	<ul> <li>Rock samples were collected from outcrop and adits by British Columbia Department of Mines geologists (and previous exploration and mining companies (mainly Estella Mines 1952-1955, Northern Gem Mining 1955- 1956, Anvil Resources 1986 and Gold Bridge Mining 2008-2009).</li> <li>Rock samples collected by Gold Bridge Mining were of approx. 5 kg each and considered sufficient size to be representative of the outcrop of interest. Information regarding size of samples collected by the BC Department of Mines and other explorers and miners is not available.</li> <li>Gold Bridge Mining samples were submitted to and assayed by International Plasma Labs Ltd (ISO 9001:2000 certified) and ALS Minerals, Vancouver. Information on where the Estella Mines, Northern Gem Mining and BC Department of Mines samples were assayed is not available.</li> </ul>
Drilling techniques	<ul> <li>Drill type (e.g.: core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g.: core diameter, triple or standard tube, depth of diamond tails, face- sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul> <li>Estella Mines completed twelve short AX (nominally 30 mm diameter) diamond drill holes for 203.4 m from Adit 2. Collar orientations and results were only reported from seven of the twelve holes, but there is no accurate information about collar locations, other than all holes were drilled from Adit 2. It is assumed the core was not orientated, Recoveries were only qualitatively reported for seven of the twelve holes were generally poor in mineralised material.</li> <li>Northern Gem Mining drilled four AX sized diamond core holes for 212.5 m from Adit 2 and 853 m of diamond core drilling from Adit 3. Locations and collar orientated, Lost core zones were recorded within mineralised material.</li> <li>Anvil Resources drilled two BQ (37 mm diameter) diamond core holes for 373.8 m from surface in the footwall beneath Adit 3. No information is available about how the original collars were surveyed but drill pads were located by handheld GPS to nominal 10 m accuracy in July 2017. Hole orientations were only recorded at the collar. Core recovery was reportedly better than 98%.</li> </ul>
Drill sample recovery	<ul> <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> <li>Core loss is commonly reported but no quantitative recovery information is available and it is not possible to make any conclusions about potential sampling bias.</li> </ul>
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.	<ul> <li>Detailed geological logging is only available for the Anvil Resources drill holes.</li> <li>Only summary lithological information (i.e. mineralised or not) is available for the Estella Mining</li> </ul>

## M I N E R A L S

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	<ul> <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> <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</li> </ul>	<ul> <li>and Northern Gem Mining drill holes and the BC Department of Mines adit sampling.</li> <li>There are no core photos.</li> <li>The available information is not considered adequate for Mineral Resource estimation.</li> <li>There is no information regarding how the Estella Mining and Northern Gem Mining drill core was sampled.</li> <li>There is no information regarding how the BC Department of Mines channel sampling of adits was</li> </ul>
	<ul> <li>appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all subsampling 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> <li>conducted.</li> <li>Gold Bridge Mining channel samples were collected by hammer and chisel in a continuous manner up both walls and roof of the adits on 2m intervals. Each sample weighed approximately 5 kg.</li> <li>Anvil Resources did not report assaying their drill core.</li> <li>There is no quality control data.</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>There is no information about how the Estella Mining, Northern Gem Mining and BC Department of Mines assays were conducted.</li> <li>Gold Bridge Mining samples were submitted to International Plasma Labs Ltd or ALS Minerals, Vancouver where they were fine crushed to 70% passing 2 mm, from which 250 g splits were taken and pulverised to 85% passing 75 microns in a ring pulveriser. Au was determined by 30g fire assay with AAS finish, Co was determined by aqua regia digestion with ICP-AES finish.</li> <li>Use of blanks and assay standards has not been reported.</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>	<ul> <li>The assay results are compatible with the observed mineralogy.</li> <li>While at this stage there has been no verification assaying or quality control data, there is good agreement in the magnitude of Au and Co results reported by previous explorers and the BC Department of Mines.</li> <li>None of the previous explorers twinned holes.</li> <li>Primary data is stored and documented in industry standard ways.</li> <li>Assay data is as reported by the previous explores and BC Department of Mines and has not been adjusted in any way other than to convert from imperial to metric units (ounces per ton to grams per tonne for Au, and inches and feet to metres).</li> <li>Remnant assay pulps and core are not available.</li> </ul>
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>	<ul> <li>Adits 1, 2 and 3 have relocated by handheld GPS with nominal accuracy of ±10 m by a suitably qualified consultant engineer in July 2017. The geometry of the underground mine workings is derived from historic mine maps registered in UTM Zone 10N WGS84 via GPS location of the portals. The position of underground drilling by Estella Mining and Northern Gem Mining, and channel sampling by the BC Department of Mines has been derived from these registered historic mine plans.</li> <li>The Anvil Resources drill hole sites were relocated by handheld GPS with nominal accuracy of ±10 m by a suitably qualified consultant engineer in July 2017.</li> <li>The locational accuracy of the Estella Mining and Northern Gem Mining drill holes, and the BC Department of Mines channel sampling is considered</li> </ul>

Criteria	JORC Code explanation	Commentary
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>adequate to confirm exploration potential but is in no way adequate for resource estimation.</li> <li>All co-ordinates were recorded in UTM Zone 10N datum WGS84.</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> <li>Only visibly mineralized or altered rocks were sampled for assay and sampling is of a reconnaissance nature.</li> <li>The reported data is not of sufficient locational accuracy or density 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>The historic 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 zone (several metres) of disseminated sulfarsenide mineralisation within altered granodiorite.</li> <li>Much of the historic drilling has been oblique or at low angle to the interpreted strike and dip of the mineralisation.</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>
Sample security	The measures taken to ensure sample security.	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.
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>Surface sampling to verify and extend these results is a high priority.</li> </ul>

#### MINERALS

#### 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>	<ul> <li>The Little Gem exploration targets are all located within British Columbia mineral claim number 501174 which Cobalt One Energy Corporation has an option over to acquire up to 100% by April 7 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	Acknowledgment and appraisal of exploration by other parties.	<ul> <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, and their work form the basis of the results described herein.</li> </ul>
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 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 mineralizing fluids that gave rise to the Bridge River mining camp.</li> <li>The Little Gem prospect itself is a hypothermal cobalt-sulpharsenide 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 sulphides 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 sulpharsenide minerals. Surrounding the ore, strongly bleached and sericitized granodiorite. The metallic minerals occur with the gangue in coarsely crystalline mases 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, o</li></ul>
Drill hole Information	<ul> <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> <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> </ul> </li> </ul>	<ul> <li>The Company's best understanding of the historic drill hole and surface and underground channel sample locations, orientations and lengths are given in Tables One and Two.</li> <li>The locational information is considered sufficient to indicate potential for significant mineralisation but in no way sufficient quality for detailed geological modelling or resource estimation.</li> </ul>

# MINERALS

Criteria	Explanation	Commentary
	<ul> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth;</li> <li>hole length.</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>	
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</li> </ul>	<ul> <li>Drilling, channel and rock results are as recorded in the source historic reports.</li> <li>There has been no cutting of grades.</li> <li>Tables one and two includes all assay intervals as recorded in the source historic reports.</li> <li>Metal equivalent values are not reported.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>equivalent values should be clearly stated.</li> <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>	<ul> <li>Much of the historic drilling has been oblique or at low angle to the interpreted strike and dip of the mineralisation, and is not a reasonable indication of true thickness.</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 and is considered a reasonable representation of true thickness.</li> <li>Historic sampling has been focussed on massive mineralisation and the extent and thickness of disseminated mineralisation remains largely undefined.</li> </ul>
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.	<ul> <li>Appropriate exploration plans are included in the body of this release.</li> <li>Because of uncertainties in exact drill hole locations and orientation, sections are not considered reasonable at this stage.</li> </ul>
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.	The reported historic exploration results are considered reasonably representative of identified mineralised zone at the Little Gem prospect
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.	<ul> <li>The geophysical anomalies presented in Figure Three are based on an airborne magnetic, VLF-EM and radiometric survey conducted by Geotronics Surveys Ltd and Columbia Geophysical Services for Major Resources Ltd in 1979. Magnetic and VLF-EM data were recorded by Sabre Electronics receivers and recorded onto MFE model M-22 CAHA dual channel strip chart recorders. The VLF-EM was conducted at 18.6Khz. Radiometric data was recorded by Aodel 118 Royal Scintillator manufactured by Precision Radiation Instruments Ltd.</li> <li>Appropriate reconnaissance exploration plans are included in the body of this release.</li> </ul>
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 a significant programme of geological mapping and sampling followed by exploration drill testing.</li> <li>Appropriate exploration target plans are included in the body of this release.</li> </ul>