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Ref: /BSX/609/BSX028

## Quarterly Report for the period ending 30 June 2017

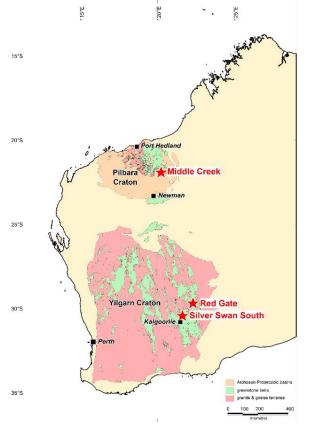
## Highlights

- Second New Porphyry Zone identified at Red Gate Project;
- 79 g/t Gold in rock chip result extends mineralised corridor to over 4 kms at Red Gate Project.

## Introduction

During the June quarter, the company focused on exploration work at the Red Gate project and identified a second new porphyry zone, as well as 79 g/t Gold in rock chip result which extends the mineralised corridor to over 4 kms. Red Gate project is located in the Eastern Goldfields of Western Australia (Refer to Figure One).

#### Figure One | The locations of the Projects



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Blackstone Fast Facts	
Shares on Issue	35.8m
Share Price	\$0.19
Market Cap	\$6.8m
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** 

79 g/t Gold in rock chip result extends mineralised corridor to over 4 kms at Red Gate Project, WA

(11/07/2017)

Change of Registered Office & Postal Address (10/07/2017)

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

ASIC Relief granted for first Half-Year Reporting (16/05/2017)

Investor Presentation – RIU Sydney (11/05/2017)

#### PROJECTS

Red Gate Project (Gold)

Middle Creek Project (Gold)

Silver Swan South Project (Gold & Nickel)

#### **REGISTERED OFFICE**

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## Red Gate Project (100% interest)

## Introduction

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

### Activities during the June Quarter

During the quarter, Blackstone identified a second new porphyry zone at the Red Gate project. The new porphyry zone named Porphyry South was identified during a review of historical exploration data, which saw the discovery of a 600 m long IP (Induced Polarisation) anomaly that was untested by drilling (Refer Figure Three). In addition, recent field work has confirmed the presence of another new gold prospect in the mineralised corridor now named the "Red Gate Shear Zone", which extends over 4 km of strike (Refer Figure Four) at the Red Gate project. The Red Gate Shear Zone contains the historical gold prospects of Porphyry North and Porphyry West and the recently identified Porphyry South prospect, in addition to the new prospect, which contains rock chips results of up to 79 g/t gold.

Highlights of the Red Gate Shear Zone, the new prospect and the new porphyry zone at Porphyry South included:-

- Red Gate project already hosts porphyries with high grade gold mineralisation including 10 m @ 8.5 g/t from 9 m at Porphyry East, 14 m @ 3.7 g/t from 1 m at Porphyry North & 12 m @ 9.2 g/t from 8 m at Porphyry West (Refer Blackstone Minerals Limited Prospectus, released 15 December 2016);
- The Porphyry North and Porphyry West prospects have shallow gold mineralisation coincidental with IP anomalies whilst the new porphyry zone at Porphyry South has a substantially larger IP anomaly that has yet to have been drill tested;
- Red Gate Shear Zone already hosts mineralised porphyries at Porphyry North and Porphyry West and contains the recently identified Porphyry South Prospect which is a large untested IP anomaly;
- The new prospect is within the Red Gate Shear Zone and was identified through a recent reconnaissance surface sampling program that returned rock chips results of up to 79 g/t gold (see Table One for full set of results);
- The Red Gate Shear Zone is less than 10 km north of the historic Porphyry Gold Mine that has a gold endowment of 900,000 ozs.

The Blackstone Minerals exploration team continued to review the extensive historical data set accumulated for the project and in the process located a previously unknown IP survey located over the main mineralised porphyry trend at Red Gate. The IP survey was completed in 2002 - 2003 for Sons of Gwalia Ltd (SOGS) and it clearly identified the previously known shallow gold mineralisation at Porphyry North and Porphyry West, which included the better drill intersections such as (Refer Blackstone Minerals Limited – Prospectus, released 15 December 2016 for full details of the drilling):-

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- 9 m @ 2.6 g/t gold from 16 m in NPRC097 (Porphyry North);
- 7 m @ 4.4 g/t gold from 5 m in NPRC118 (Porphyry North);
- 4 m @ 5.8 g/t gold from 21 m in NPRC009 (Porphyry North);
- 26 m @ 2.1 g/t gold from 3 m in NPRC140 (Porphyry North);
- 14 m @ 3.7 g/t gold from 1 m in NPRC107 (Porphyry North);
- 12 m @ 9.2 g/t gold from 8 m in NPRC030 (Porphyry West);
- 3 m @ 5.5 g/t gold from 0 m in GBC002 (Porphyry West); and
- 13 m @ 3.1 g/t gold from 6 m in NPRC115 (Porphyry West).

The IP survey also delineated a 600 m chargeability anomaly some 200 m to the south west of Porphyry North that is coincident with a resistive zone and potentially represents a zone of silica-pyrite alteration. Drilling which is limited to the extreme north-western end of the anomaly has returned assays of up to 13 m @ 3.1 g/t gold from 6 m (NPRC115) (Refer Figure Three). The chargeable anomaly is more intense than that at Porphyry North. SOGS drilled three holes into the anomaly but Blackstone Minerals believes that these holes were ineffective and further follow-up is required.

Further reconnaissance surface sampling by the Blackstone Minerals exploration team, along strike from the recently identified Porphyry South prospect, has located a new prospect with rock chip sampling results including 79 g/t gold, 7.6 g/t gold and 4.3 g/t gold (see Table One for full set of results). This work has led to reinterpretation of the area resulting in the development of a mineralised corridor concept now named the Red Gate Shear Zone. The Red Gate Shear Zone contains two historic, high grade, gold prospects and extends over 4 km in strike length and is up to 1,000 metres wide.

The Company is looking to further develop this mineralised corridor concept with further surface sampling before finalising priority targets for drill testing in the coming months.

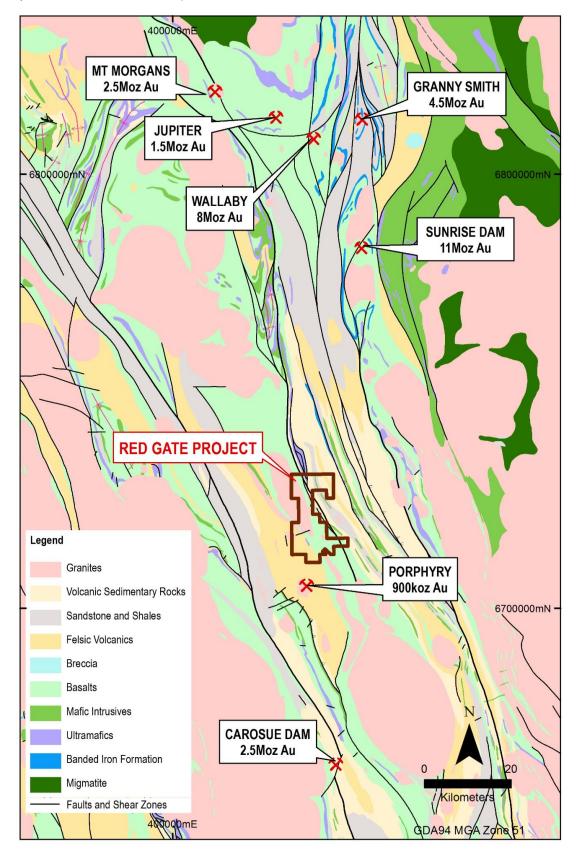
The Red Gate Shear Zone is less than 10 km north of the historic Porphyry Gold Mine that has a gold endowment of 900,000 ozs (Produced 1.33 Mt @ 3.4 g/t gold\* and has a current Indicated JORC resources of 7.2 Mt @ 2.1 g/t gold\*\* and Inferred JORC resources of 3.7 Mt @ 2.1 g/t gold\*\*).

\* Riedel Resources Website

\*\* Saracen Mineral Holdings Limited Annual Report 2016

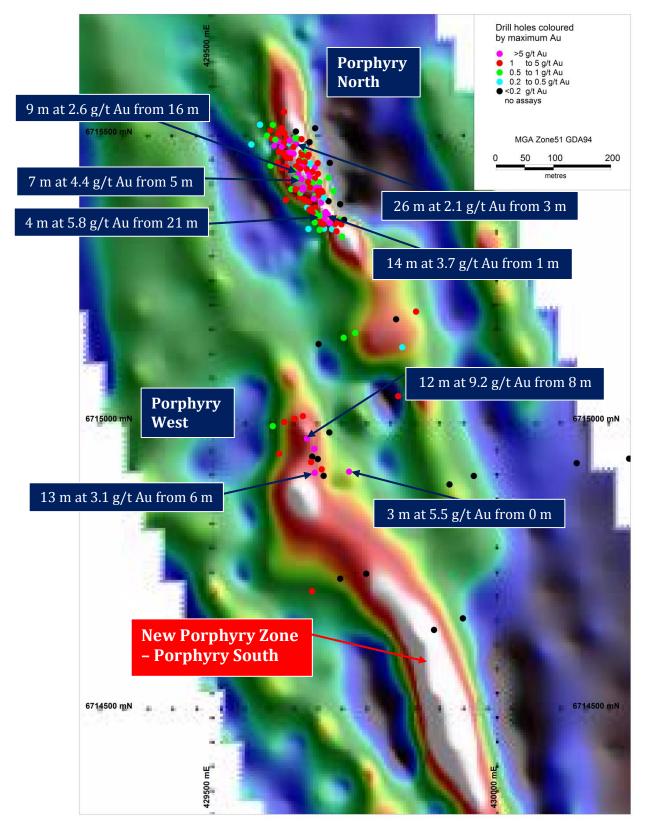


#### Figure Two | Location of the Red Gate Project



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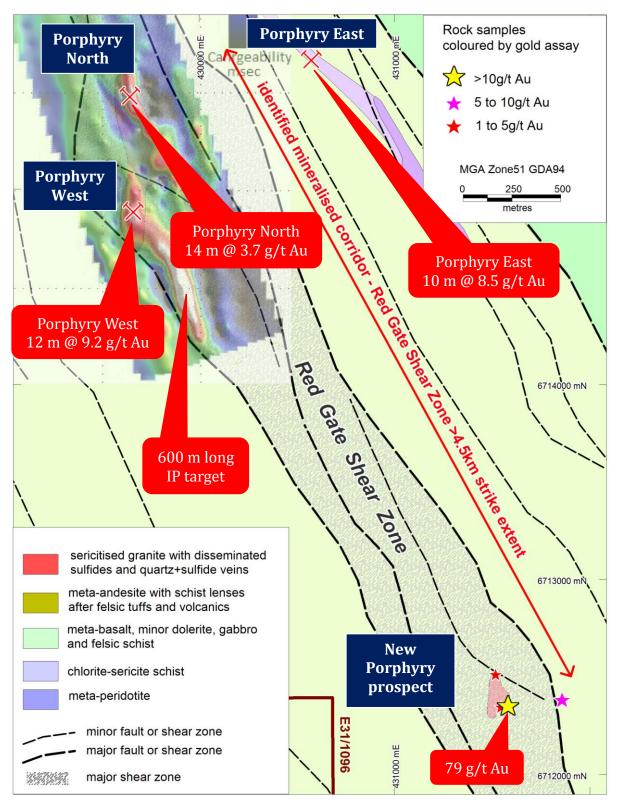
Figure Three | IP Anomalies over the Porphyry North, Porphyry West & Porphyry South prospects with better drill intersections



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#### MINERALS

Figure Four | Reconnaissance rock samples >1 g/t gold from the new porphyry prospect within the Red Gate Shear Zone



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#### Table One | Reconnaissance rock sample results from new porphyry prospect within Red Gate Shear Zone

Sample No	Gold g/t	East*	North*	Description
AMRG038A	0.02	431446	6712131	Pale grey schist with minor pyrite
AMRG038B	0.04	431446	6712131	Schist with quartz veins, rare weathered pyrite
AMRG040	3.23	431547	6712352	White quartz vein in sericitic schist, trace weathered pyrite
AMRG041	78.9	431582	6712361	Thin quartz vein with minor weathered pyrite and trace free gold.
AMRG043	7.65	431860	6712390	Thin quartz vein with minor sericite and weathered pyrite
AMRG054A	4.30	431519	6712518	Thin quartz vein with minor sericite and weathered pyrite
AMRG054B	0.21	431519	6712518	Weathered sericite-altered granite with minor pyrite
AMRG055A	0.06	431532	6712503	Sericite-altered granite with minor fine pyrite
AMRG055B	0.03	431532	6712503	Granular felsic rock with strong sericite alteration
AMRG057A	0.02	431513	6712768	Schist with trace weathered pyrite
AMRG057B	0.07	431513	6712768	Quartz vein float within schist with pyrite and sericite
AMRG057C	0.05	431513	6712768	Quartz vein float with pyrite
AMRG059	< 0.01	431451	6712811	Strongly sericitised schist with abundant pyrite
AMRG072A	0.01	431300	6713021	Mica schist with trace weathered pyrite
AMRG072B	0.01	431300	6713021	Mica schist with trace weathered pyrite

\* Coordinates in MGA Zone 51 GDA94



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## Silver Swan South Project (100% interest)

## Introduction

The Silver Swan South Project comprises of one exploration licence application E27/545 and six granted prospecting licences, P27/2191 – 2196 covering an area of 47.2 km<sup>2</sup>. The Project is along trend of the massive nickel sulfide Silver Swan Deposit (pre-mining ore reserve of 655 kt at 9.5% Nickel) and associated deposits (pre-mining resource of 10.4 Mt at 1.0% Nickel), and only 8 km northeast of the major Kanowna Belle Gold Mine (+5 Moz gold endowment).

### Activities during the June Quarter

The previous quarter, Blackstone through surface sampling of the target ultramafic unit at Silver Swan South, had confirmed the presence of nickel sulphides (pentlandite). The discovery followed the commencement of air core drilling at the project, designed to further define both the sulphide nickel and gold targets, in preparation for follow up RC drilling.

Blackstone's first phase of drilling at Silver Swan South commenced targeting both gold hosted by structural targets along strike from the Kanowna Belle Gold Mine (endowment +5Moz Au), and nickel sulphide mineralisation associated with ultramafic units along strike from the Silver Swan and Black Swan Nickel Mines. The program was designed to test for basement hosted mineralisation, using air core drilling, to improve definition of gold and base metal anomalism identified by previous reconnaissance style drilling. As of the end of this quarter the Company is still awaiting final results from the initial phase of drilling.

This initial phase of drilling focused on the following:

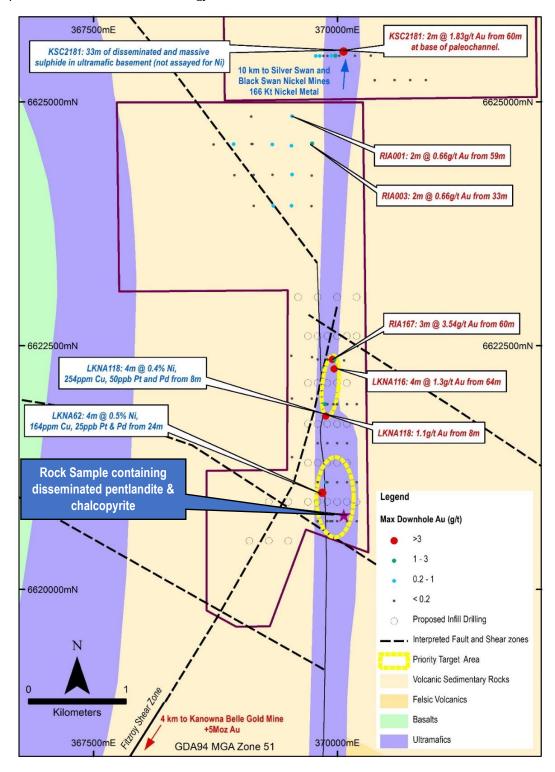
- Further definition of gold targets associated with the interpreted northern extension of the Fitzroy Shear (controlling host structure at the Kanowna Belle Gold deposit) located 8 km along strike (Refer Figure Five).
- Infill historical, broad spaced, reconnaissance drilling which intersected up to 3.5 g/t gold (Refer Blackstone Minerals Limited Prospectus, released 15 December 2016).
- Target thickening of the ultramafic sequence considered highly prospective for nickel sulphides and located only 10 km from the Silver Swan Nickel Mine (Refer Figure Five).
- Prioritise both gold and nickel targets for follow up RC drilling.

The discovery from the previous quarter further highlights the potential of the ultramafic unit which is part of a sequence of komatiites that already hosts both the Silver Swan and Black Swan nickel deposits only a few kilometres to the north. Air Core drilling will now focus on further defining the nickel sulphide target and will provide access for downhole EM surveying.

In addition to the nickel targets the Company is also testing gold targets associated with the interpreted northern extension of the Fitzroy Shear Zone, the controlling structure for mineralisation at Kanowna Belle. Previous vertical reconnaissance drilling has intersected up to 3 m @ 3.5 g/t gold and 4 m @ 1.3 g/t gold under transported lake clays. Blackstone's initial phase of the Air Core drill program has focused on further defining the gold target in anticipation of follow up RC drilling.

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Figure Five | Silver Swan South Bedrock Geology Plan





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## Middle Creek Project

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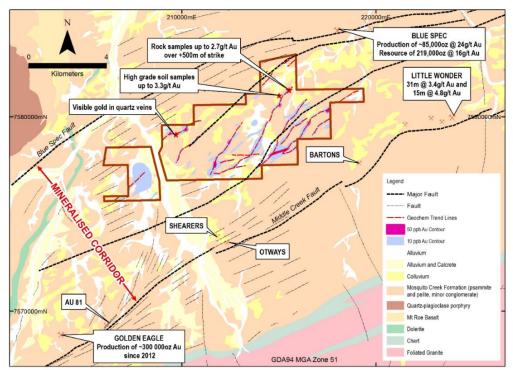
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The Middle Creek Project is adjacent to Millennium Minerals Limited's Nullagine Gold Project (where the Golden Eagle operations have produced  $\sim$ 300 kozs gold since 2012) (Refer Figure Six), in the Pilbara region of Western Australia (Refer Figure One) and consists of 21 prospecting licence applications covering 39.6 km<sup>2</sup> within the Mosquito Creek belt.

## Activities during the June Quarter

During the previous quarter, the tenement applications for the project were advertised under Section 29 of the Native Title Act, as of the end of this quarter the company had only received an objection for only one of the prospecting licences. The company is still finalising access agreements with neighbouring mining companies.

#### Figure Six | Geology of the Middle Creek Project area



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.



## **Appendix One| Tenements**

#### Mining tenements held at the end of June 2017 Quarter

Project	Location	Tenement	Interest at June 2017
Silver Swan South	Eastern Goldfields	P27/2191	100%
	Eastern Goldfields	P27/2192	100%
	Eastern Goldfields	P27/2193	100%
	Eastern Goldfields	P27/2194	100%
	Eastern Goldfields	P27/2195	100%
	Eastern Goldfields	P27/2196	100%
Red Gate	Eastern Goldfields	E31/1096	100%

#### Mining tenements acquired and disposed during the June 2017 Quarter

Project	Location	Tenement	Interest at beginning of Quarter	Interest at end of Quarter
Mining tenements relind Nil	luished			
<b>Mining tenements acqui</b> Nil	red			

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

Project	Location	Tenement	Interest at June 2017
Nil			

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

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