

## Exploration Commences Targeting New Porphyry Zone at Red Gate Project, Western Australia

Blackstone Minerals Limited (**ASX code: BSX**), is pleased to announce the commencement of exploration at the Company's Red Gate Project (right to earn 80% interest) in the Eastern Goldfields of Western Australia (Refer Figure One). The program follows the identification of a new mineralised porphyry located in the northern part of the project at the Reidy Prospect.

Highlights of the project and the new porphyry zone include:

- Red Gate already hosts porphyries with high grade mineralization **including 10m @ 8.5g/t, 14m @ 3.7g/t & 12m @ 9.2g/t gold** (Refer Blackstone Minerals Limited – Prospectus, released 15 December 2016).
- The new porphyry zone at the Reidy Prospect is **substantially larger** than any of the previously identified porphyries (Refer Figure Two).
- First pass reconnaissance sampling at Reidy has shown the **porphyry to be mineralized** with assays of 0.53g/t gold and 36g/t silver (Refer Table One).
- The new target is interpreted to be within or immediately adjacent to the **Claypan Shear Zone**, host to recent significant gold discoveries such as Breaker Resources, Lake Roe Project.

First pass reconnaissance work at the Red Gate project was focused on the previously known Porphyry East and Porphyry North prospects as well as targeting new porphyry zones. This program identified a sericite altered granite with disseminated sulfides (weathered) and quartz-sulfide veins at the Reidy prospect that are similar to Porphyry North, where historical drilling intersected 14m @ 3.7g/t gold. The new target is favourably located either within or immediately adjacent to the Claypan Shear Zone already host to significant gold discoveries.

Following the identification of the new target, Blackstone has now commenced a program of soil sampling and detailed mapping to further define the target area. The program will test an area over approximately 3 km of strike.

Blackstone's Technical Director commented; *"The Company is pleased to have already identified a new target area following our successful listing on the ASX in January. We have a number of exploration programs planned and look forward to an exciting time for the Company over the coming months"*.

### Blackstone Fast Facts

Shares on Issue	35.8m
Share Price	\$0.20
Market Cap	\$7.1m
ASX Code	BSX

### BOARD & MANAGEMENT

**Hamish Halliday**  
Non-Executive Chairman

**Andrew Radonjic**  
Technical Director

**Bruce McFadzean**  
Non-Executive Director

**Brett Dunnachie**  
CFO & Company Secretary

### LISTING DATE

Monday 23 January 2017

### PROJECTS

Red Gate Project  
(right to earn 80% interest)  
- Targeting Gold

Middle Creek Project  
(95% interest)  
- Targeting Gold

Silver Swan South Project  
(100% interest)  
- Targeting Gold & Nickel

### REGISTERED OFFICE

Blackstone Minerals Limited  
ACN 614 534 226  
288 Churchill Avenue  
Subiaco  
6008  
Western Australia

T: +61 8 6489 0973  
F: +61 8 6489 0974  
E: [admin@blackstoneminerals.com.au](mailto:admin@blackstoneminerals.com.au)

Figure One | Location of the Red Gate Project

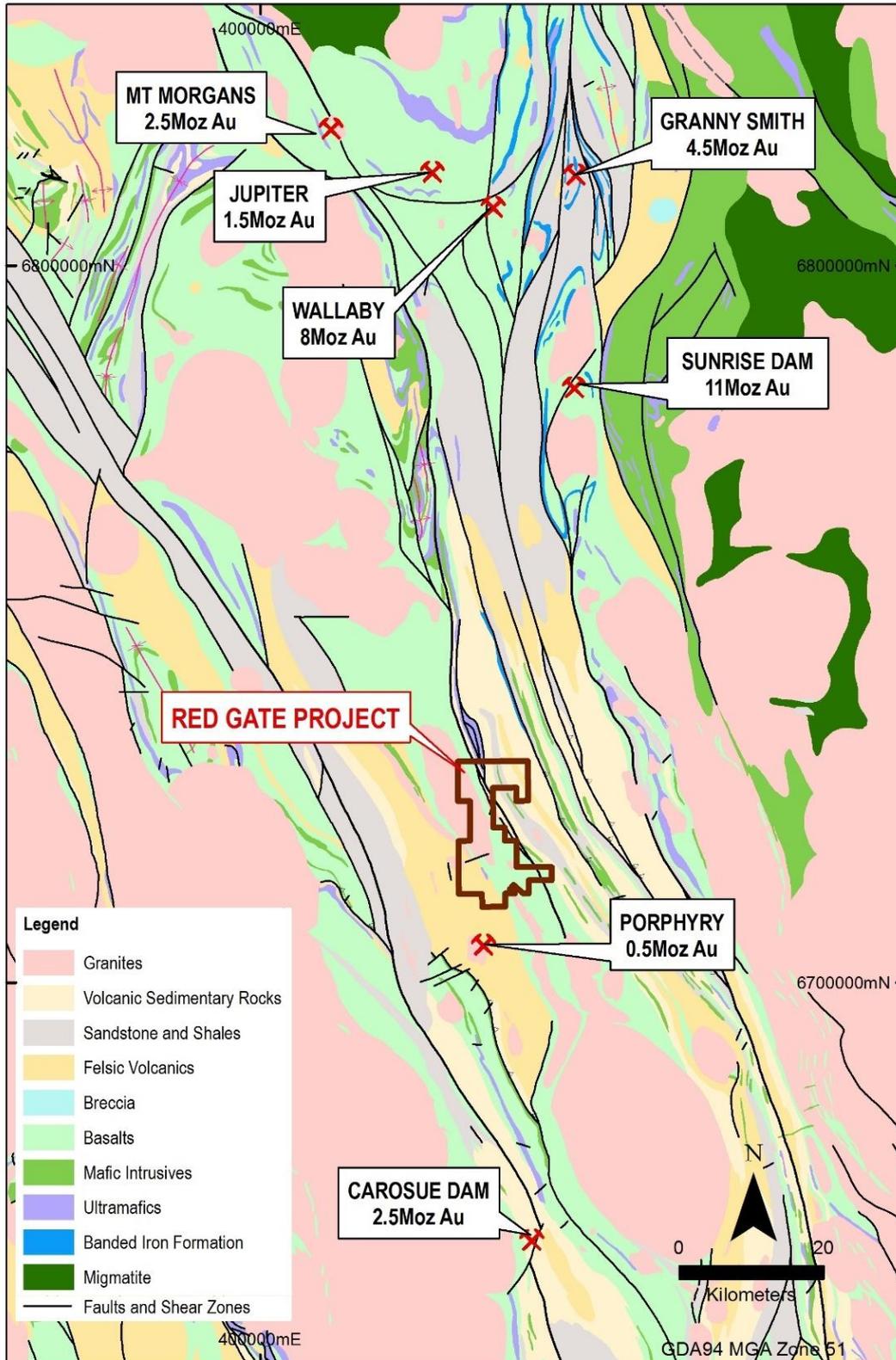
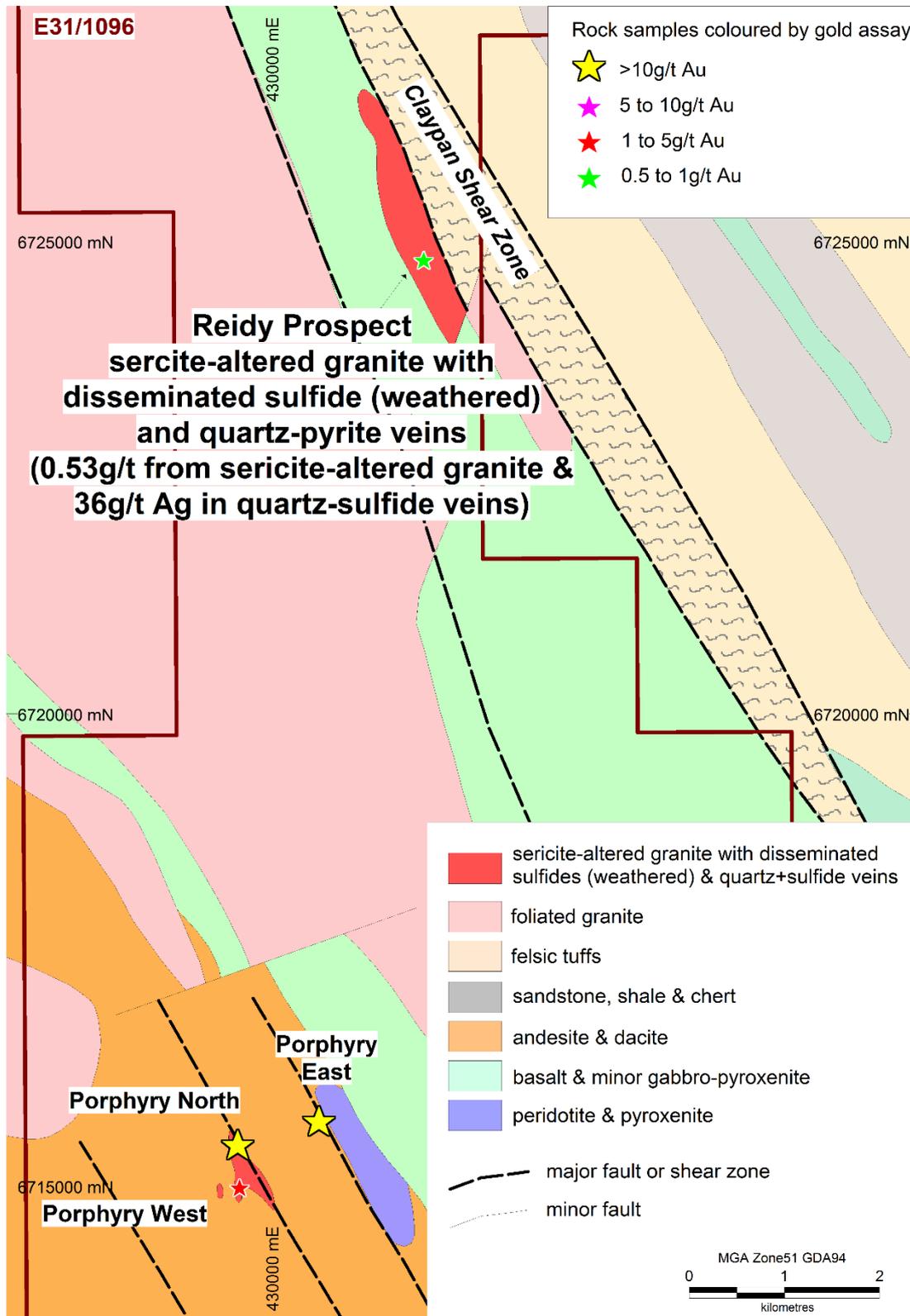


Figure Two | Red Gate Interpreted Geology and Location of New Rock Samples +0.5g/t Gold



**Table One | Red Gate Rock Sample Results**

Prospect Name	Sample No	Gold g/t	Silver g/t	East*	North*	Description
Porphyry North	SOPN008A	0.07	<0.5	429665	6715462	sericite-altered quartz porphyry
Porphyry North	SOPN008B	32.5	<0.5	429665	6715462	stockwork quartz veins in sericitic porphyry
Porphyry North	SOPN008C	0.27	<0.5	429665	6715462	sericite-altered granite porphyry from workings
Porphyry North	SOPN008D	0.45	<0.5	429665	6715462	quartz vein from workings
Porphyry North	SOPN009	0.12	<0.5	429690	6715722	quartz veins in sericite-altered porphyritic granite
Porphyry North	SOPN012	0.01	<0.5	429627	6715839	quartz vein in weathered basalt
Porphyry North	SOPN014	<0.01	<0.5	430153	6714774	quartz vein in weathered basalt
Porphyry North	SOPN015	1.27	<0.5	429685	6714997	quartz veins in weathered granite
Porphyry East	SOPN016A	34.2	20.9	430518	6715713	weathered quartz + sulfide veins from workings
Porphyry East	SOPN016B	0.08	0.6	430518	6715713	sericite-altered porphyritic granite from workings
Reidy	SOPN038A	0.01	0.7	431619	6724814	laminated quartz + pyrite vein
Reidy	SOPN038B	0.53	<0.5	431619	6724814	highly weathered sericite-altered porphyritic granite
Reidy	SOPN040	0.02	35.5	431739	6724543	weathered quartz + sulfide vein hosted by altered granite
Reidy	SOPN041	<0.01	1.4	431772	6724515	weathered quartz + sulfide vein hosted by altered granite
Reidy	SOPN042	0.01	0.5	431766	6724380	weathered quartz + sulfide vein hosted by altered granite
Reidy	SOPN045	<0.01	<0.5	431437	6723540	tourmaline + siderite alteration in felsic volcanic

\* Coordinates in MGA Zone 51 GDA94

**Red Gate Project (right to earn 80% interest) - Summary**

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 (0.5 Moz gold endowment), 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.

Porphyry granitoid intrusions very similar to the intrusive that hosts the Porphyry Gold Mine are present in the tenement, mostly under relatively thin cover. Using the geological model derived from the understanding of the Porphyry Gold Mine, the Red Gate Project is considered highly prospective for gold mineralisation of this style, particularly to the immediate north and west of the Porphyry North gold prospect.

In addition, over 80% of the tenement is covered by shallow Tertiary and Quaternary sediments and laterite. These covered areas have had little effective exploration hence providing further opportunities for gold discovery.

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

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 (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 style="list-style-type: none"> <li>Rock samples were collected from visibly mineralized outcrop and sub-crop by Blackstone Minerals Ltd geologists.</li> <li>Each rock sample weighed between 1 and 3 kg and was of sufficient size to be representative of the outcrop of interest.</li> <li>The rock samples were submitted to and assayed by ALS Global, Perth ("ALS").</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>No drilling, not applicable</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling, not applicable</li> </ul>
Logging	<ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>The rock samples were qualitatively logged and described by a suitably qualified geologist.</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> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>The rock samples were submitted ALS Global, Perth in their entirety where they were dried, crushed and pulverised to nominally 80% passing 75 microns for assay.</li> <li>No drilling so information regarding drill sampling not applicable.</li> </ul>

## M I N E R A L S

Criteria	JORC Code explanation	Commentary
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 (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 style="list-style-type: none"> <li>Gold was analysed by industry standard 50g charge lead collection fire assay with AAS finish at ALS Global, Perth.</li> <li>Silver was analysed by industry standard 4 acid digest (including HF) with ICP finish at ALS Global, Perth.</li> <li>Commercially certified reference materials were included in ALS batches by the client at a minimum rate of one standard per 30 samples.</li> <li>Results for the commercial assay standards assays are considered within 10% of the reference values for the elements of interest.</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 use of twinned holes is not applicable at this stage (no drilling).</li> <li>Primary data is stored and documented in industry standard ways.</li> <li>Assay data is as reported by the laboratories and has not been adjusted in any way.</li> <li>Remnant assay pulps are held in storage by the assay laboratories.</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>Sample locations were determined by handheld GPS considered accurate to <math>\pm 10</math> m.</li> <li>All co-ordinates were recorded in MGA Zone 51 datum GDA94.</li> <li>Topographic control is provided by government 250,000 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>Only visibly mineralized rocks were sampled for assay and sampling is of a reconnaissance nature.</li> <li>The reported rock sampling data is in no way sufficient to establish mineral resources.</li> <li>Sample compositing has not been applied.</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>The reconnaissance rock sampling defines NNW trending zones of gold and silver mineralization associated with sericite-altered and sheared granite porphyry bodies.</li> <li>No drilling, not applicable.</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 was managed by Blackstone Minerals personnel. Sample numbers were unique and did not include any locational information useful to non-Blackstone personnel. The level of security is considered appropriate for such reconnaissance sampling.</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>No further reviews have been carried out at this reconnaissance stage.</li> <li>Further surface sampling to verify and extend these results is proposed.</li> </ul>

## M I N E R A L S

### Section 2 Reporting of Exploration Results

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

Criteria	Explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>The Reidy and Porphyry North, West and East exploration targets are all located within Exploration Licence 31/1096.</li> <li>The Exploration Licence is held by Downtown Holdings Pty Ltd. Blackstone Minerals has the right to earn 80% interest.</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>Significant previous explorers of the Red Gate Project area include Aztec Exploration Ltd, Audimco Ltd, Capricorn Resources NL, Poseidon Gold Ltd, Consolidated Resources NL, Sons of Gwalia Ltd and Renaissance Resources Ltd. Most the historic exploration activity, including drilling, was directed towards the Porphyry North, West and East prospects as discussed in Blackstone Minerals prospectus, released 15 December 2016 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 exploration area is within the Eastern Goldfields, Western Australia which is prospective for gold and base metal deposits.</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>easting and northing of the drill hole collar;</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar;</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth;</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling, not applicable.</li> </ul>
Data aggregation methods	<ul style="list-style-type: none"> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling, not applicable.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>No drilling, not applicable.</li> </ul>

## M I N E R A L S

Criteria	Explanation	Commentary
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>An appropriate exploration plan is included in the body of this release.</li> <li>No drilling, drill plans and sections are not applicable.</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>All Blackstone Minerals reconnaissance rock sampling gold and silver results from the Reidy, Porphyry North and Porphyry East prospects are listed in Table 1.</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>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 (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 style="list-style-type: none"> <li>Blackstone Minerals proposes to conduct further prospecting, geochemical sampling, petrography and geophysical surveys to refine the targets before drill testing.</li> <li>An appropriate exploration target plan is included in the body of this release.</li> </ul>