

**17 September 2018**

Company Announcement Officer  
ASX Limited  
Exchange Centre  
20 Bridge Street  
SYDNEY NSW 2000

## **HIGH-GRADE GOLD DISCOVERED AT SURFACE AT BARABOLAR PROJECT, NSW**

### **HIGHLIGHTS**

- Recent mapping and sampling discovers high-grade gold bearing structures at the Cringle Prospect within the Barabolar Project area.
- >400 metres of strike length inferred from mapped gossanous outcrop.
- Both gold and silver-rich structures identified.
- Gold-rich surface rock assays include:
  - 5.9g/t gold and 95.2g/t silver;
  - 4.9g/t gold and 59.9g/t silver;
  - 2.1g/t gold and 45.8g/t silver;
  - 1.2g/t gold and 16.2g/t silver.
- Epithermal gold-silver exploration model.
  - 900m x 400m chargeability (IP) anomaly from near surface.
- Mapping and sampling ongoing.
- Cringle will be drilled as part of current Barabolar drilling program commencing in September 2018.

### **Barabolar Project / Cringle Prospect**

Silver Mines Limited (ASX:SVL) (“Silver Mines” or “the Company”) is pleased to advise that it has received results from a recent rock-chip sampling and mapping program at the Cringle Prospect, located within the Barabolar Project area. The Barabolar Project is located in central New South Wales, approximately 26 kilometres east of Mudgee and 10 kilometres northwest of the Company’s Bowdens Silver Project.

Company geologists recently identified a series of gossanous outcrops (weathered iron-rich material) at Cringle that show an apparent ENE-WSW strike and a WNW-ESE strike. These structures have been sampled and have returned several high-grade gold and silver assay results. The structures cross-cut stratigraphy and are potentially mineralised veins or shear zones. They are inferred to strike over at least 400 metres length and, based on natural

outcrop, appear to be steeply dipping and several metres wide. To date, two structures have been identified, with the northern most structure returning high-grade silver and the southernmost structure containing high-grade gold results (refer *Figure 1*).

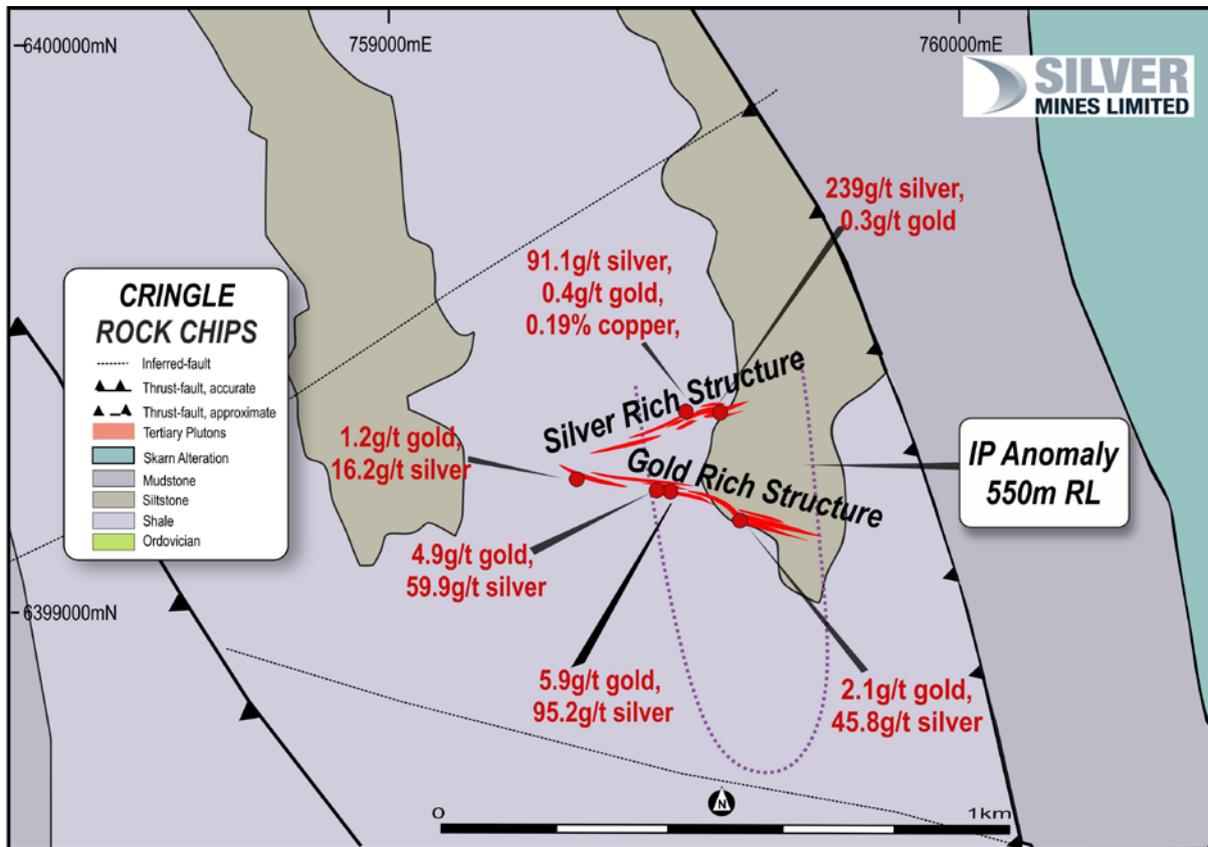


Figure 1. Cringle Prospect surface rock assay results

The Cringle Prospect consists of highly altered Ordovician sediments of the Adaminaby Group with north-south striking interbedded sandstone, siltstone and shales. Previous work has identified a silver-in-soil anomaly >300ppb over an area 950 metres by 800 metres and an induced polarisation geophysical anomaly (interpreted to represent increased sulphide content) over an area 900 metres by 400 metres and extending from surface to greater than 300 metres depth (*refer company presentation released 24 August 2018*).

The Barabolar Project, which includes the Cringle Prospect, is a high quality exploration project located within the highly prospective Macquarie Arc that also hosts world-class mineral systems such as the Cadia/Ridgeway Porphyry copper-gold deposit. Barabolar consists of a nine kilometre corridor of copper, silver, lead and zinc soil anomalies with some association with gold in rock-chip samples (*refer ASX release 19 July 2018*). The rocks of the project area are Ordovician age (the same as Cadia / Ridgeway) and include sedimentary and volcanic rocks, an extensive skarn (highly altered limestone), and several porphyritic intrusions. The presence of pyrophyllite alteration along with areas of intensive silicification, and argillic alteration are indicative of high-sulphidation epithermal systems consistent with copper-gold porphyry targets with distal low-sulphidation epithermal potential.

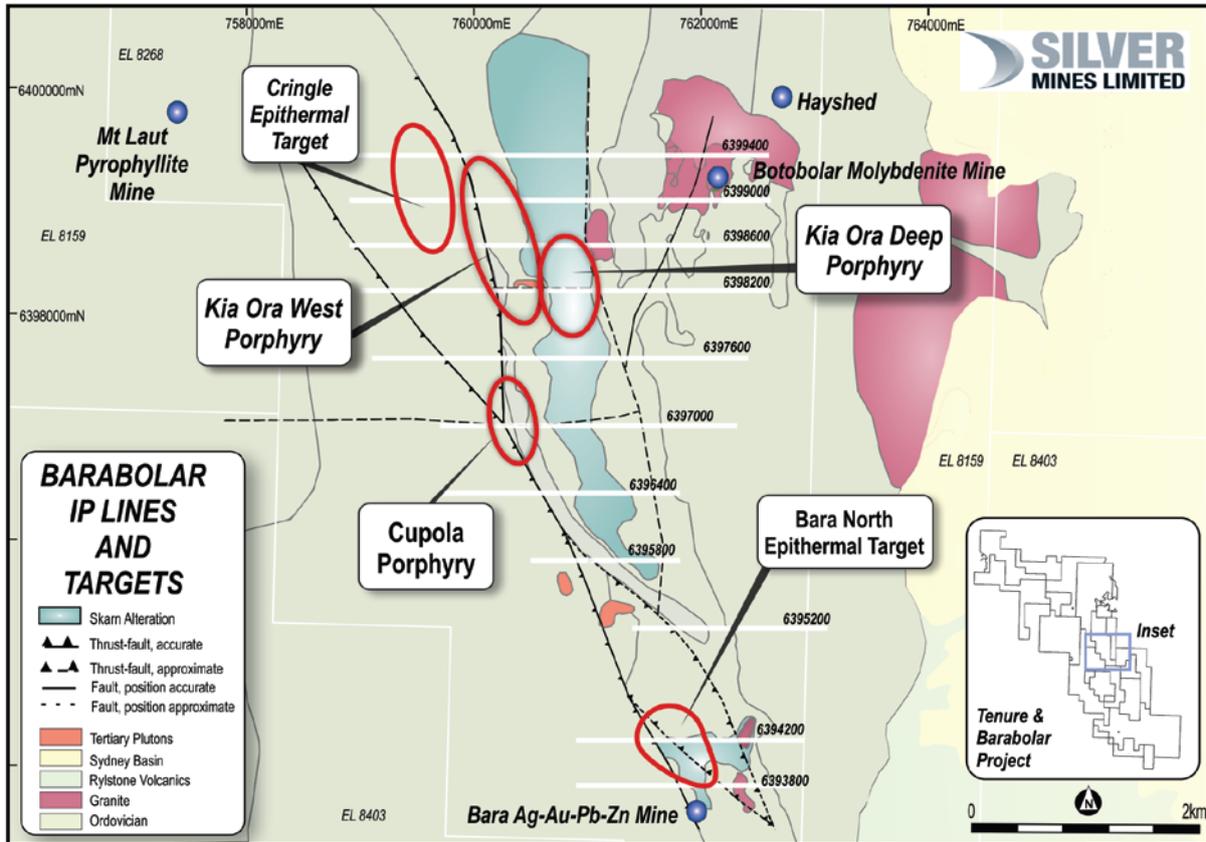


Figure 2. Barabolar Project area, prospect map

Work is ongoing at the Barabolar Project area, and the Company is in the process of finalising arrangements for a 7,500-metre drill program to test Cringle along with several other targets including the potentially porphyry-related copper-gold targets identified in the recent IP survey (refer ASX release 28 August 2018). Drilling is expected to commence in September 2018.

### **About the Barabolar Project Area**

The Barabolar Project is located in central New South Wales, approximately 26 kilometres east of Mudgee (see Figure 3). The recently consolidated area comprises 2,007 km<sup>2</sup> (496,000 acres) of titles covering approximately 80 kilometres of strike of the highly mineralised Rylstone Volcanics and Macquarie Arc. Multiple target styles and mineral occurrences have potential throughout the district including analogues to Bowdens Silver, high-grade silver-lead-zinc epithermal and volcanogenic massive sulphide (VMS) systems and porphyry and skarn-hosted copper-gold-molybdenum targets.

Nearby to Barabolar, the Bowdens Silver is the largest undeveloped silver deposit in Australia with substantial resources and a considerable body of high quality technical work already completed. The projects boast outstanding logistics for future mine development.



### Competent Persons Statement

The information in this report that relates to mineral exploration from the Barabolar Project is based on information compiled by the Bowdens Silver team and reviewed by Mr Darren Holden who is an advisor to the Company. Mr Holden is a member of the Australasian Institute of Mining and Metallurgy and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration, and to the activity being undertaken, 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' (JORC code). Mr Holden consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

### Appendix 1 Rock Chip Sample Details

Sample ID	MGA55 North	MGA55 East	Lab Weight (kg)	Gold (g/t)	Silver (g/t)	Lead (%)	Copper (ppm)	Zinc (ppm)
65695	759496	6399212	1.62	5.92	95.2	4.4	136	27
65696	759472	6399214	0.60	4.86	59.9	1.13	96	28
65697	759618	6399161	1.22	2.07	45.8	2.31	90	16
65700	759332	6399234	1.62	1.19	16.2	0.48	92	89
65694	759523	6399353	2.46	0.38	91.1	6.44	1920	280
65698	759368	6399281	1.34	0.34	7.5	0.81	332	227
65693	759583	6399351	1.58	0.03	239	8.15	707	184
65699	759352	6399307	1.48	0.02	0.8	0.38	433	1150

## JORC Code, 2012 Edition – ANNEXURE 1

### 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>Include reference to 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.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1m samples from which 3kg was pulverised to produce a 30g 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 chip sampling was undertaken with a geologist hammer to collect adequate fresh sample for assay. Samples were collected to cover the strike and width of the main mineralised extent of the host lithology. Samples were around 1.5kg in weight, placed in calico bags and assigned a sample number. Industry approved certified reference material (standards) samples are inserted at a ratio of 1:50. Samples are placed in polyweave bags at the Bowdens Silver office and delivered by Bowdens Silver employees directly to ALS in Orange for analysis by ME-ICP61 and Au-AA25.</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>	No drilling reported. NA
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>	No drilling reported. NA

Criteria	JORC Code explanation	Commentary
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>	No drilling reported, NA
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 were taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance, results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling reported.</li> <li>Rock chip samples collected from outcrop of altered material.</li> <li>All rock sample submitted to the laboratory were under the required 3kg limit and did not require splitting or sub-sampling before analysis.</li> <li>All samples were dry at time of collection</li> <li>Sample size was appropriate for the grain size of the material sampled</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, calibration 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>Rock chip samples dispatched to ALS Laboratories in Orange, NSW for sample preparation by crushing and pulverising. Samples then undergo 33 multi-element analyses by 4 acid digestion using method ME-ICP61 and by fire assay method Au-AA25. Industry approved standard samples are inserted every 50 samples to check for quality control at the lab.</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>Primary assay data is sent electronically from the lab to the SVL database administrator and then entered into the geological database for validation.</li> <li>All assays are matched with the pre-entered field information and loaded directly from the output provided by the laboratory with no manual entry of assays undertaken.</li> <li>No adjustments were made or required to be made to the assay data.</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> </ul>	<ul style="list-style-type: none"> <li>Rock chip samples are surveyed with a hand-held GPS unit which has an accuracy to around 3m.</li> <li>Coordinates are MGA Zone 55 (GDA94).</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>• <i>Specification of the grid system used.</i></li> <li>• <i>Quality and adequacy of topographic control.</i></li> </ul>	
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>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.</i></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Rock chip sampling was designed to adequately cover the natural outcrop from 1 to 3 square metres.</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Rock sample results from natural outcrop. Structural orientation inferred from geological mapping.</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>• All samples boxed on site under the supervision of two geologists with sample bags tied with cable ties before being driven by site personnel to the laboratory in Orange, NSW (~200km from the site)</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Data and sampling reviewed by Darren Holden of GeoSpy Pty Ltd, an advisor to the Company.</li> <li>• Internal review of sampling techniques for rock chips has been carried out.</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Barabolar Project is located wholly within Exploration License No EL8268, held wholly by Silver Mines Limited and is located approximately 26km east of Mudgee, New South Wales.</li> <li>• The tenement is in good standing.</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>• <i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Barabolar Project area encompasses a number of previously separate prospects which have been variously explored by previous companies. These companies include, but are not limited to, Australian Anglo American Prospecting, Newmont Limited, Silver Standard Australia and Central West Gold Limited. The most significant results from some of this work has been</li> </ul>

Criteria	JORC Code explanation	Commentary
		detailed in previous releases (refer presentation 24/08/2018).
Geology	<ul style="list-style-type: none"> <li>• <i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Barabolar Project represents a potential porphyry Cu system with associated skarn and epithermal mineralisation, hosted within Ordovician sediments and volcanics.</li> <li>• Mineralisation includes vein hosted peripheral epithermal quartz sulphide veins and breccia fill quartz carbonate veins.</li> </ul>
Drill hole Information	<ul style="list-style-type: none"> <li>• <i>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:</i> <ul style="list-style-type: none"> <li>○ <i>easting and northing of the drill hole collar;</i></li> <li>○ <i>elevation or RL (Reduced Level elevation above sea level in metres) of the drill hole collar;</i></li> <li>○ <i>dip and azimuth of the hole;</i></li> <li>○ <i>down hole length and interception depth; and</i></li> <li>○ <i>hole length.</i></li> </ul> </li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No drilling reported. NA</li> </ul>
Data aggregation methods	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>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.</i></li> <li>• <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	No weighted averages reported. Data has not been cut. No metal equivalents reported
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li>• <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li>• <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li>• <i>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').</i></li> </ul>	<ul style="list-style-type: none"> <li>• No drilling reported. NA.</li> <li>• Insufficient information is available at this stage to ascertain the true dip of structures reported here. Therefore, the true width of the intercepts cannot be known.</li> </ul>
Diagrams	<ul style="list-style-type: none"> <li>• <i>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</i></li> </ul>	As per the body of this release.

Criteria	JORC Code explanation	Commentary
	<i>locations and appropriate sectional views.</i>	
<i>Balanced reporting</i>	<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>	All samples collected from the recent program shown in Appendix 1. Further work on-going with other results expected.
<i>Other substantive exploration data</i>	<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 and potential deleterious or contaminating substances.</li> </ul>	<ul style="list-style-type: none"> <li>No significant exploration results have been omitted. Previous results also summarized in presentation dated 24 August 2018.</li> </ul>
<i>Further work</i>	<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>Further surface reconnaissance work underway; with drill testing planned.</li> <li>This report relates to a new model of potential mineralisation in the Cringle prospect of the Barabolar project. As such, exploration activities will be designed to account for a broad system of formation and extents to mineralisation.</li> </ul>