

# Stelar granted Baratta Copper Project in South Australia

## HIGHLIGHTS

- SA Government grants Stelar Metals Exploration Licence (EL) 6803 Baratta Copper Project in the Adelaide Fold Belt
- Newly granted tenement is adjacent to the historical Baratta Copper Mine which produced copper more than 100 years ago
- Baratta is prospective for Zambian-style sediment-hosted copper deposits and MVT-style lead-zinc mineralisation
- Baratta is one of five highly prospective copper and zinc projects held by Stelar
- Initial work programs will include geological mapping, soil and rock-chip sampling.

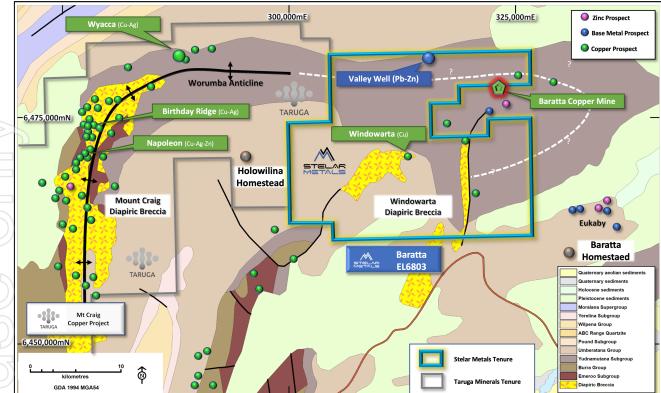
Critical minerals explorer Stelar Metals Limited (**ASX:SLB**) ("**Stelar Metals**" or the "**Company**") has been granted its Exploration Licence (EL 6803) comprising the Baratta Copper Project (Figure 1). Baratta is located in northern South Australia and is considered prospective for both Zambian-style Sediment-hosted copper and MVT-style lead-zinc mineralisation.

The historic Baratta Copper Mine, adjacent to Stelar's tenure, produced copper ore between 1896 and 1904 from a zone of workings 7.5km long on the northern limb of the Bibliando Dome. The same structure that is interpreted to control copper mineralisation at the Baratta mine is exposed over a significant strike length in the eastern part of Stelar's Baratta tenement and is considered prospective for copper, lead and zinc.

Other copper occurrences are also recorded within the Baratta tenement in the SA Government mineral occurrences dataset, including the Valley Well base-metal prospect to the west of Baratta copper and the Baratta Springs copper-silver-manganese and multiple copper occurrences at Windowarta associated with the diapirs and breccias in the southern part of the tenement.

The Baratta Copper Project is underlain by rocks of the Adelaide Fold Belt that share important geological characteristics with the Central African Copperbelt. Stelar recognises the potential for Zambian-style copper mineralisation (sediment-hosted copper deposit – SHCD) as well as diapir-hosted mineralisation (Beltana-Kipushi type), which is also supported by the recent discoveries made by Taruga Minerals at Wyacca and other prospects, directly west along strike from Stelar's tenure (Figure 1).

Baratta is one of five highly prospective copper and zinc projects the Company intends to explore, committing to an aggressive exploration program in this world class mining district (Figure 2).



### Figure 1: Regional geological setting of the Baratta Project showing major prospects.

## Stelar Metals Chief Executive Officer Colin Skidmore said:

"The newly granted Baratta copper tenement bolsters our portfolio of projects in the Adelaide Fold Belt which we think is prospective for both zinc-lead mineralisation and sediment-hosted copper.

"Exploration to date on EL 6803 has been very limited to date, but has revealed some interesting anomalies and mapped out extensive tracts of mineralisation at surface. In its day, the adjacent historic Baratta Copper Mine was a significant project.

"Stelar looks forward to starting field work on this tenement in the coming months."

### **Barratta Geological Setting**

The Baratta tenement is located within the northern part of the Nackara Arc within the Adelaide Rift Complex. It incorporates diapiric Callanna Group sediments intruding Tapley Hill Formation between a large elongate domal anticline to the west and the Bibliando Dome to the east. The base of the Tapley Hill Formation includes the Tindelpina Shale Member which hosts significant copper mineralisation at Wyacca which is about 15km west of the Baratta tenement. The outcropping segment of folded low metamorphic-grade sedimentary strata spans the Yudnamutana to Upalinna Subgroups.

Based on nearby drillholes, Adelaidean strata is >1km thickness in the tenement. The total thickness of Adelaidean sediments in the Adelaide Rift Complex is estimated to be >10km (GA, Australian Stratigraphic Units Database).

## **Previous Exploration**

Panda Mining Pty Ltd (Panda) explored the Baratta area from 2007 to 2016. Reconnaissance exploration and target generation work were carried out, but targets were not drill tested.

Initial exploration work by Panda included limited rock-chip sampling and acquisition of satellite imagery. Soil sampling using handheld XRF over several grids detected strata-parallel zinc-lead anomalies close to the contact of Tapley Hill and Wilyerpa Formations at the Valley Well Prospect as well as copper-cobalt anomalism northeast along strike of the historic Baratta Copper Mine. Mapping over the Baratta Copper Prospect area indicated copper was hosted by a 1m-wide flat-dipping quartz-haematite gossan that was semi-continuous over 1.5km of strike length. 200m spaced rock-chip sampling over the Bibliando Diapir located diapiric gossans with copper mineralisation and highly sulphidic quartz veining.

In May 2010, a detailed airborne magnetic and radiometric survey was flown on 100m-spaced flight lines and in 2014, an intermediate gradient IP survey was undertaken over a 64km<sup>2</sup> grid with a station spacing of 40m by 200m spaced traverses.

## **Exploration Models**

Stelar considers that two exploration models are valid for the project area. The Adelaidean sequence is prospective for Zambian-style SHCDs (sediment-hosted copper deposit) as well as zinc-lead mineralisation such as Beltana in South Australia. Beltana is a very high-grade willemite deposit associated with a halokenetic structure (salt diapir) and shares key features with the large and high-grade Kipushi deposit in the Central African Copperbelt.

The prospectivity for SHCD mineralisation is supported at a large scale by comparison of the geological and geodynamic setting between the Adelaidean and the Copperbelt. At a smaller scale, Stelar has noted the discovery by Taruga Minerals of significant copper mineralisation directly along strike at Wyacca (ASX announcement, TAR, 30 August 2021), hosted in the Tindelpina Shale Member of the Tapley Hill Formation.

The prospectivity for Beltana-Kipushi type mineralisation is supported regionally by examples of this style of mineralisation in the Beltana-Aroona district in the northern Flinders Ranges. Locally, the Baratta mine is hosted close to a diapiric structure which extends into the Baratta tenement. This style of mineralisation represents an excellent target type for copper, zinc and lead, with potentially high grade and significant depth extent. Mineralised systems of this type are expected to have a small lateral footprint but can be recognised by distinctive alteration and geochemistry.

## The Next Steps

Initial work programs will include geological mapping, soil sampling and rock-chip sampling focusing on the Tindelpina Shale Member and the diapiric structures to refine targets for future drill testing.

The available existing geophysical datasets are also being compiled and reprocessed to assist in determining geology and the structural architecture. The IP data that was collected previous explorers is being re-compiled, inverted and modelled for targeting.

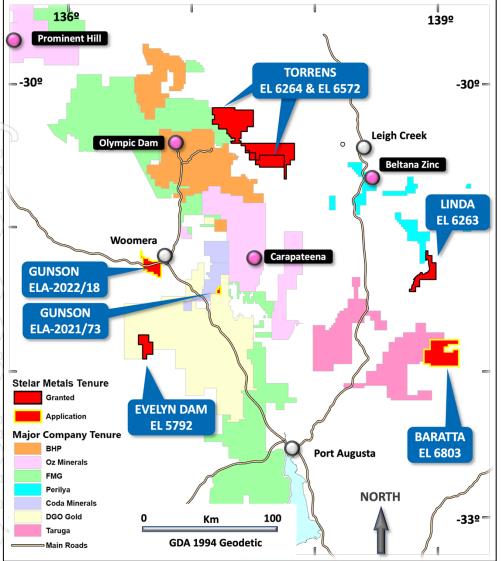


Figure 2: Stelar's exploration projects in South Australia.

#### APPROVED BY THE BOARD OF STELAR METALS LIMITED

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### ABOUT STELAR METALS

Stelar Metals is ready to discover highly prized minerals of copper and zinc needed to drive the move to decarbonise the world and experiencing unprecedented demand. All five projects are 100% owned by Stelar Metals and are located in South Australia's premier world class exploration and mining district. The Company has an experienced exploration team with a track record of discovery success exploring for commodities that are in increasing demand.

#### **EXPLORATION RESULTS**

The information in this announcement that relates to Exploration Results is based on information compiled by Mr Colin Skidmore, a Competent Person who is a Member of the Australian Institute of Geoscientists. Mr Skidmore is a full-time employee of Stelar Metals Ltd. Mr Skidmore has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activities 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 (the JORC Code (2012)). Mr Skidmore consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

This announcement includes information that relates to Exploration Results prepared and first disclosed under the JORC Code (2012) and extracted from the Company's initial public offering prospectus which was released on the ASX on 16 March 2022. A copy of this prospectus is available from the ASX Announcements page of the Company's website: <u>https://stelarmetals.com.au/</u>.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcement. Where the information relates to Exploration Results, the Company confirms that the form and context in which the competent person's findings are presented have not been materially modified from the original market announcement.

# JORC, 2012 Edition – Table 1 – Baratta Copper Project

## **Section 1 Sampling Techniques and Data**

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>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 wouldbe relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>No historic drilling is recorded over EL 6803</li> <li>Panda Mining undertook soil and rock-chip sampling between 2007 and 2016 over areas which covered EL 6803 <ul> <li>Soil Sampling</li> <li>Rock-Chip Sampling</li> </ul> </li> <li>Anhui Fuxin Geology and Mining Pty Ltd collected Intermediate Gradient IP over a 64km2 area for Panda Mining in 2014 with 200m spaced traverses and 40m station spacings (14,542 stations)</li> <li>GPX Surveys Pty Ltd flew a 100m line spaced airborne magnetic and radiometric survey for Panda Mining in 2010 on N-S orientated lines with a nominal flight height of 45m (3384.5 line-km).</li> </ul>
Drilling techniques	• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	No historic drilling is recorded over EL 6803

Criteria	JORC Code explanation	Commentary
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>	No historic drilling is recorded over EL 6803
Logging	<ul> <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 historic drilling is recorded over EL 6803
Sub-sampling techniques and sample preparation	<ul> <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>	No historic drilling is recorded over EL 6803

Criteria	JORC Code explanation	Commentary
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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>Historic soil sampling by Panda Mining was analysed using a portable XRF</li> <li>Historic rock-chip sampling by Panda Mining used ALS Laboratories using AA22 and ICP41 methods.</li> <li>There are no details of Panda Mining's QAQC procedures in the open file reports</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>No independent or alternative verifications are available.</li> <li>The primary data, where available, is included as attachments to the open file reports</li> <li>No adjustments have been made to any assay data.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and downhole 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>Location of soil samples are generally not recorded in the Open File reports aside from being illustrated on figures in the text (ENV11760)</li> <li>Rock chip sample locations are generally provided in the Open File Reports in GDA 1994 MGA 54 grid coordinates presumably collected using a handheld GPS.</li> </ul>
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>	Rock-chip and soil sampling only
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Crite	ria	JC	ORC Code explanation	Сс	ommentary
data il	tation of in relation blogical ure	•	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 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.	•	Rock-chip and soil sampling only
Samp securi		•	The measures taken to ensure sample security.	•	Not recorded in historic reports
Audits reviev		•	The results of any audits or reviews of sampling techniques and data.	•	None known.

## **Section 2 Reporting of Exploration Results**

Criteria	JORC Code 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>El 6803 was granted to BR1 Holdings Pty Ltd on 19 July 2022 and is currently being transferred to Resource Holdings No 1 Pty Ltd</li> <li>The tenure falls within the following Native Title Determinations:         <ul> <li>Adnyamathanha People No 1 determination SCD2014/001(Stage 2)</li> <li>Adnyamathanha People No 1 determination SCD2009/003 (Stage 1)</li> <li>Adnyamathanha, Ngadjuri and Wilyakali Overlap Claim (SCD2018/002)</li> </ul> </li> </ul>
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	<ul> <li>An overview of historical exploration on EL 6803 is included in the company's Prospectus and Independent Technical Assessment Report</li> <li>Redmile Resources and Panda Mining (2007-2016)</li> </ul>
Geology	• Deposit type, geological setting and style of mineralisation.	<ul> <li>The exploration models are:</li> <li>Mississippi Valley Type (MVT) Zn-Pb in the Adelaide Fold Belt.</li> <li>Zambian-style Sediment-hosted Copper</li> <li>Beltana-Kipushi Cu-Pb-Zn</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> <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>	There is no recorded drilling on EL 6803

Criteria	JORC Code explanation	Commentary
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	Historic rock-chip, soil sampling and geophysics only
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	Historic rock-chip, soil sampling and geophysics only.
Diagrams	<ul> <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> <li>Historic rock-chip, soil sampling and geophysics only. Refer to the company's prospectus and ITAR reports</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.	Historic rock-chip, soil sampling and geophysics only.
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.	• Description of the work completed, and the results is included in the historical reports, and an overview of this work is provided in this document.
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Stelar Metals is planning additional soil and rock-chip sampling, geological mapping and drilling</li> </ul>