

## Trident Lithium Project: Exploration update ahead of planned drilling Q4 2023

### HIGHLIGHTS

- **SensOre’s research identifies new areas of high LCT-pegmatite prospectivity.**
- **Expert structural geologists from PGN Geoscience commissioned to define the morphology and orientation of the lithium-bearing pegmatites to optimise drill design.**
- **AeroMetrex to collect high-resolution ortho-imagery and LiDAR over the Euriowie Pegmatite Field to assist pegmatite mapping and drilling logistics in October 2023**
- **Stelar anticipates drilling approvals will be granted in the coming weeks and is on track to complete its inaugural drill program in Q4-2023.**
- **A range of ongoing exploration programs are being coordinated to build a series of strong hard-rock lithium pegmatite targets for subsequent drill programs.**

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Critical minerals explorer Stelar Metals Limited (ASX:SLB) (“**Stelar Metals**” or the “**Company**”) is progressing a range of exploration activities at its Trident Lithium Project in preparation for its inaugural drilling program scheduled to be completed this Quarter.

Stelar’s Trident Lithium Project is located near mining, industrial, transport and green power infrastructure at Broken Hill in NSW.

The Trident Lithium Project extends over the 20km strike length of the Euriowie Tin Pegmatite Field and is highly prospective for hard-rock lithium mineralisation (Figure 1). Mapped LCT-type pegmatites vary in size but can be up to 100 metres wide and extend in outcrop for over 1 kilometre in length. Trident was one of the first lithium and tin mining provinces in Australia, which highlights both the fertility and large scale of Stelar’s lithium-rich pegmatite system.

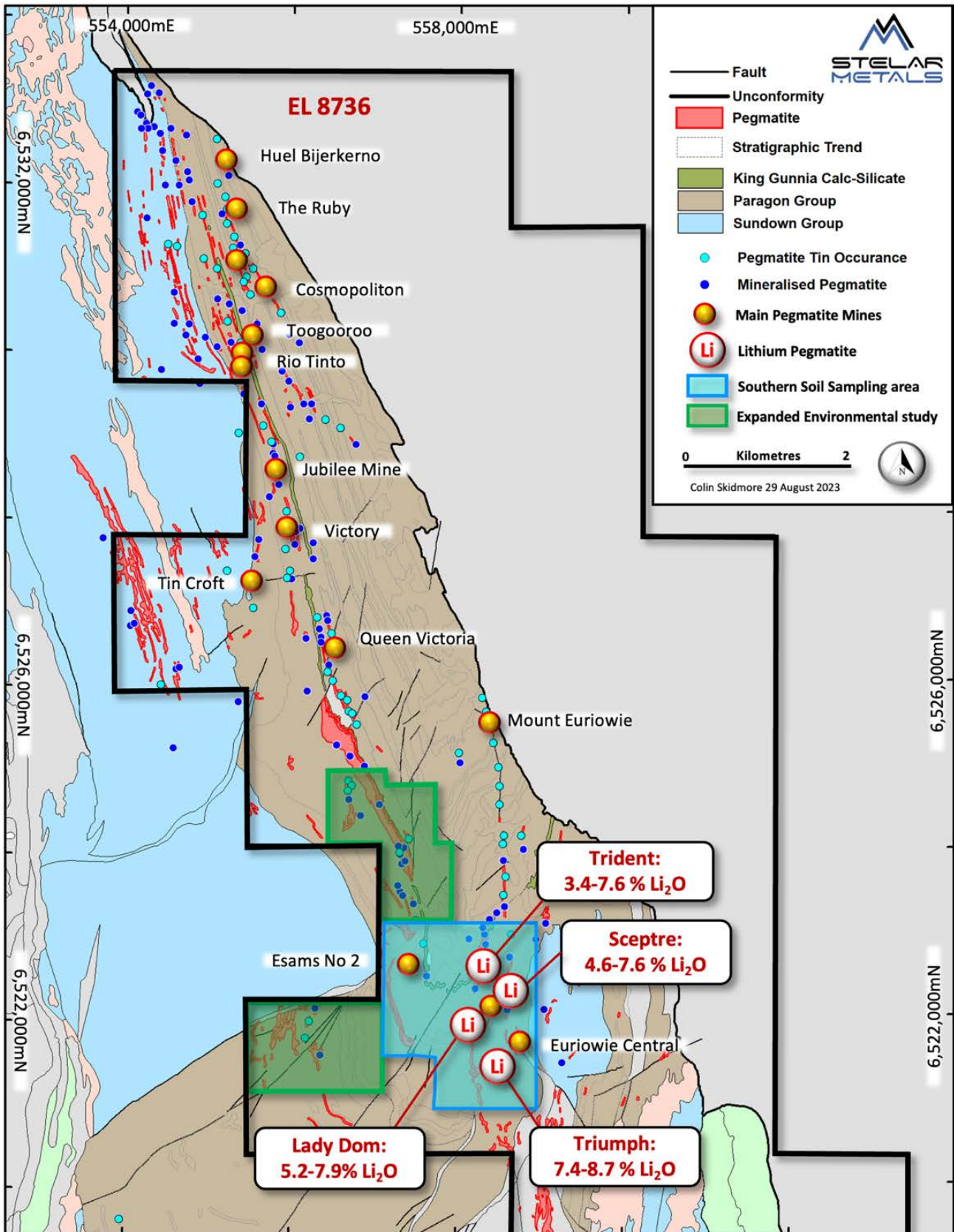


Figure 1: Trident Lithium Project showing location of major pegmatites, soils sampling areas, and expanded Environmental Assessment study areas.

## SensOre Research

SensOre, who received NSW Government funding under the NSW Critical Minerals and High-Tech Strategy, have completed their first phase of collaborative research with Stelar Metals, looking at novel approaches for lithium targeting at the Trident Lithium Project that included the application of artificial intelligence and machine learning.

SensOre's study has revealed new areas of high LCT-Pegmatite prospectivity along a broad NNW-SSE trend in the central and northern part of the Euriowie Pegmatite field that has not previously been explored for lithium (Figure 2). Additionally, SensOre's advanced processing of the new high-resolution magnetic and radiometric datasets appears to map pegmatites at depth, as illustrated in Figure 3.

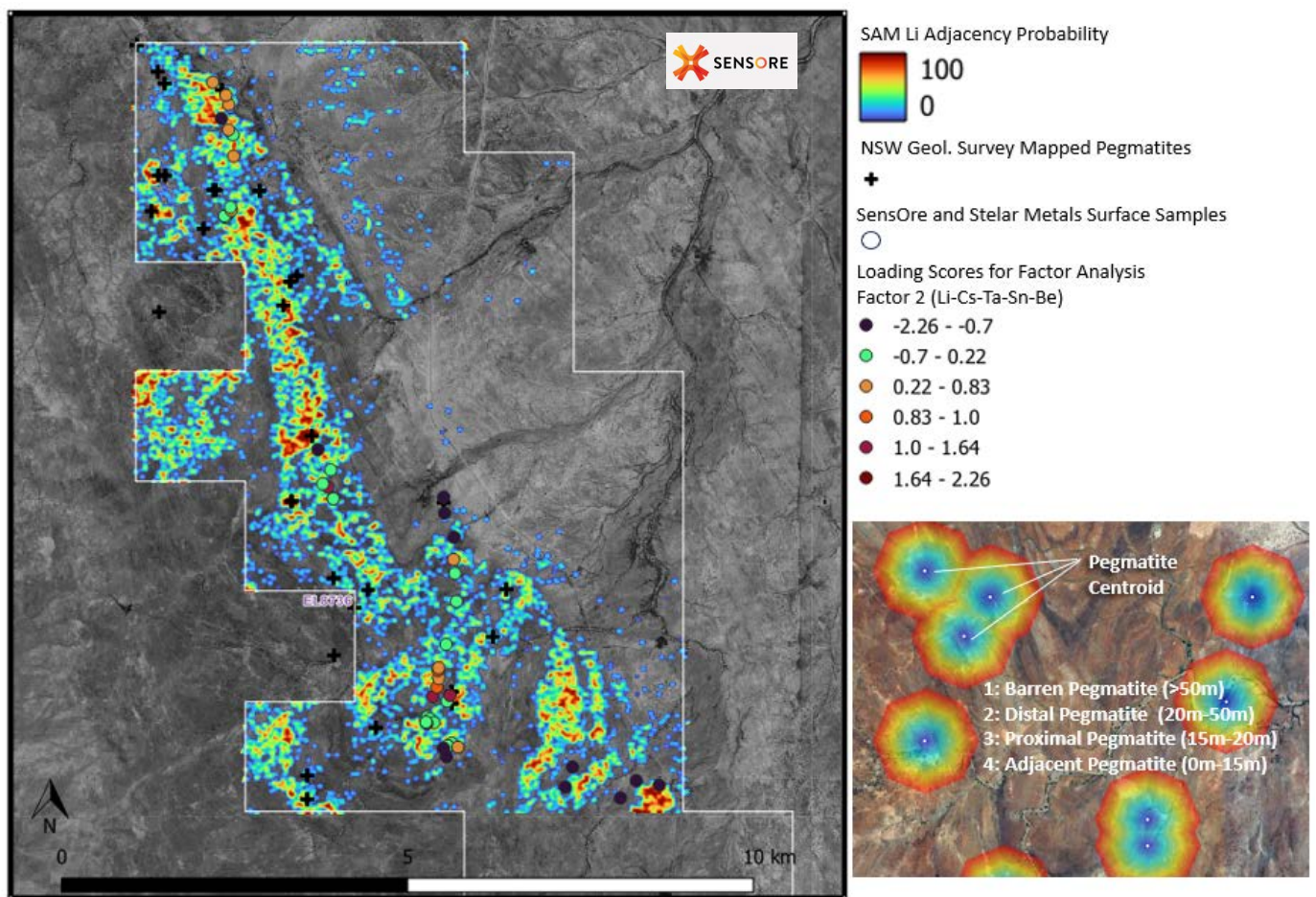


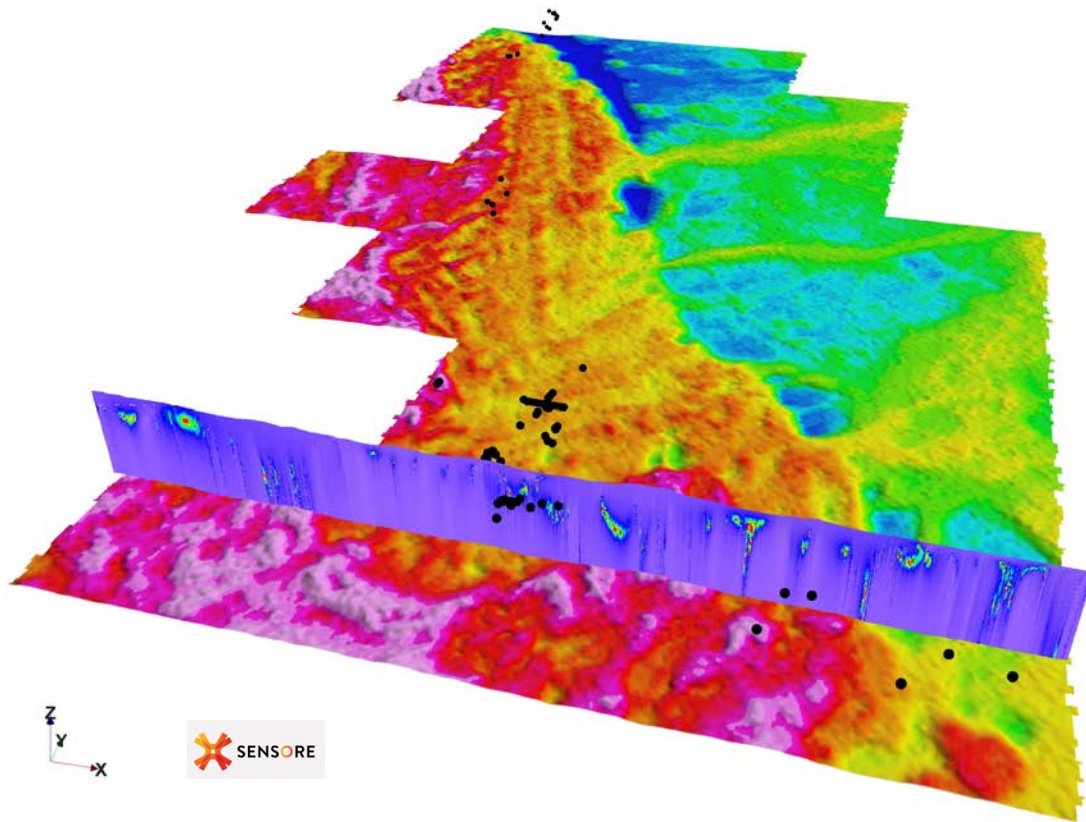
Figure 2: Lithium Pegmatite Prospectivity / Spatial Adjacency Mapping over the Euriowie Pegmatite Field

## Geological and Structural Mapping

Stelar Metals has engaged expert structural geologists from PGN Geoscience (PGNG) to define the structural controls on the orientation and morphology of the lithium-bearing pegmatites in the Euriowie Pegmatite Field. PGNG are currently mapping with Stelar's geologists the pegmatites that will be tested in the inaugural drill program as well as defining in more detail the large new pegmatite systems recently discovered nearby by Stelar Metals in August at Typhoon and Carnival.

## LIDAR Survey

Later this month, AeroMetrex will fly high-resolution ortho-imagery and LiDAR over the entire Euriowie pegmatite Field. Given the abundance of outcrop and limited cover in the Broken Hill region, orthoimagery and high-resolution digital terrain modelling are considered powerful exploration tools to aid the pegmatite mapping as well as assisting with access logistics and providing an environmental baseline dataset.



**Figure 3: 3D perspective view (towards NNW) of SensOre's pegmatite samples on a pseudo-chair diagram of Total Dose radiometric grid with a single line of Cauchy downward continued magnetics highlighting potential pegmatite morphology at depth.**

## Drilling Approvals Q4 2023

Stelar anticipates NSW Government drilling approvals in the coming weeks and is preparing to commence its inaugural RC drill program of nineteen RC holes as scheduled this quarter.

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## APPROVED BY THE BOARD OF STELAR METALS LIMITED

### FOR MORE INFORMATION:

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### ABOUT STELAR METALS

Stelar Metals' experienced and successful lithium exploration and development team is targeting discovery and production of the critical mineral lithium that is rapidly increasing in global demand to enable the world to achieve net zero emissions.

Stelar's Trident Lithium Project is located near mining, industrial, transport and green power infrastructure at Broken Hill in NSW. The Trident Lithium Project extends over the 20km strike length of the Euriovie Tin Pegmatite Field and is highly prospective for hard-rock lithium mineralisation (Figure 1). Mapped LCT-type pegmatites vary in size but can be up to 100 metres wide and extend in outcrop for over 1 kilometre in length. Trident was one of the first lithium and tin mining provinces in Australia, which highlights both the fertility and large scale of Stelar's lithium-rich pegmatite system.

### 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: <https://stelarmetals.com.au/>.

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.