AURORA TENEMENT CONSULTING

PROSPECT ORES PTY LTD

DERBY PROJECT FINAL REPORT

EL20/2021

Derby Project

06 Jan. 2025

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1 TITLE PAGE

Report Type	**Final Report**
Authority Type	**Exploration Licence**
Authority Number	**EL 20/2021**
Authority Holder	**PROSPECT ORES PTY LTD** **C/- Aurora Tenement Consulting Pty Ltd** **PO Pox 2028 Carlisle North WA 6101**
Project Name and Location	**Derby Project** **Located in the Derby area of NE Tasmania.**
Date of Report	**06 Jan. 2025**
Grant Date	**8 Sep. 2022**
Expiry Date	**7 Sep. 2027**
Reporting Period	**8 Sep. 2022 to 06 Jan. 2025**
Map Sheet	**GDA94/Zone55:** **1:250k Geology of Northeast Tasmania** **1:25k Pioneer** **1:25k Derby**
Target Minerals	**Tin**
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2 EXECUTIVE SUMMARY

Tenement EL20/2021 is located in the Derby area of NE Tasmania, a region of significant historical tin production. The licence covers the interpreted trend of the paleo-Ringarooma Deep Lead. Access is good with the Tasman Highway traversing the licence area in addition to a relatively dense network of secondary roads.

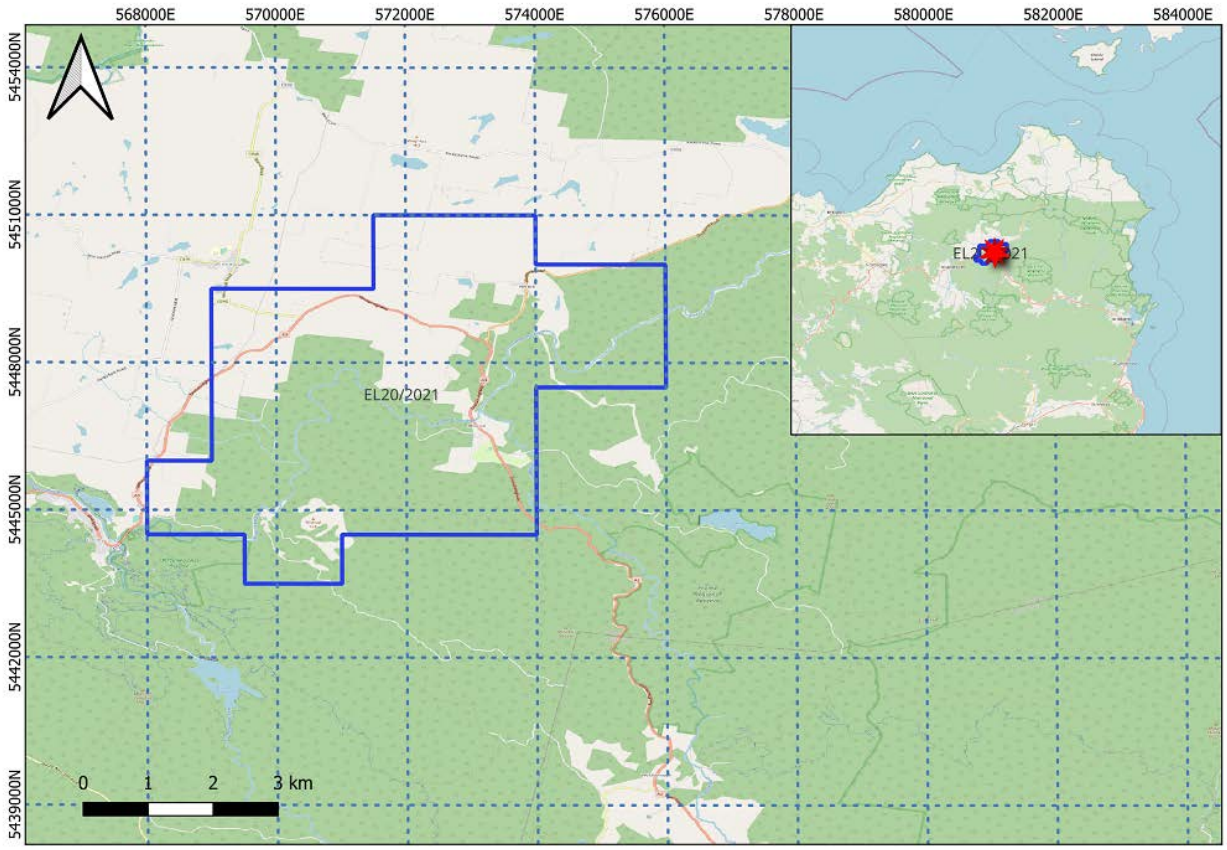

Figure 1 Location and access

Tenement EL20/2021 was applied for the area's well documented potential for alluvial tin. Despite a considerable history of exploitation, significant potential tin resources are considered to be associated with extensions of previously exploited exposed deep leads and in particular for unmined deep leads covered by Tertiary basalt. Recent advances in geophysical techniques and potentially new methods in mining in unconsolidated strata provide the encouragement to explore in what are largely unexplored environments.

Nevertheless, Prospect Ores Pty Ltd fully surrendered the tenement due to its company strategy and budget planning. During the exploration period from September 2022 to December 2024, Prospect Ores Pty Ltd conducted no fieldwork and only carried out a literature review of historical exploration records.

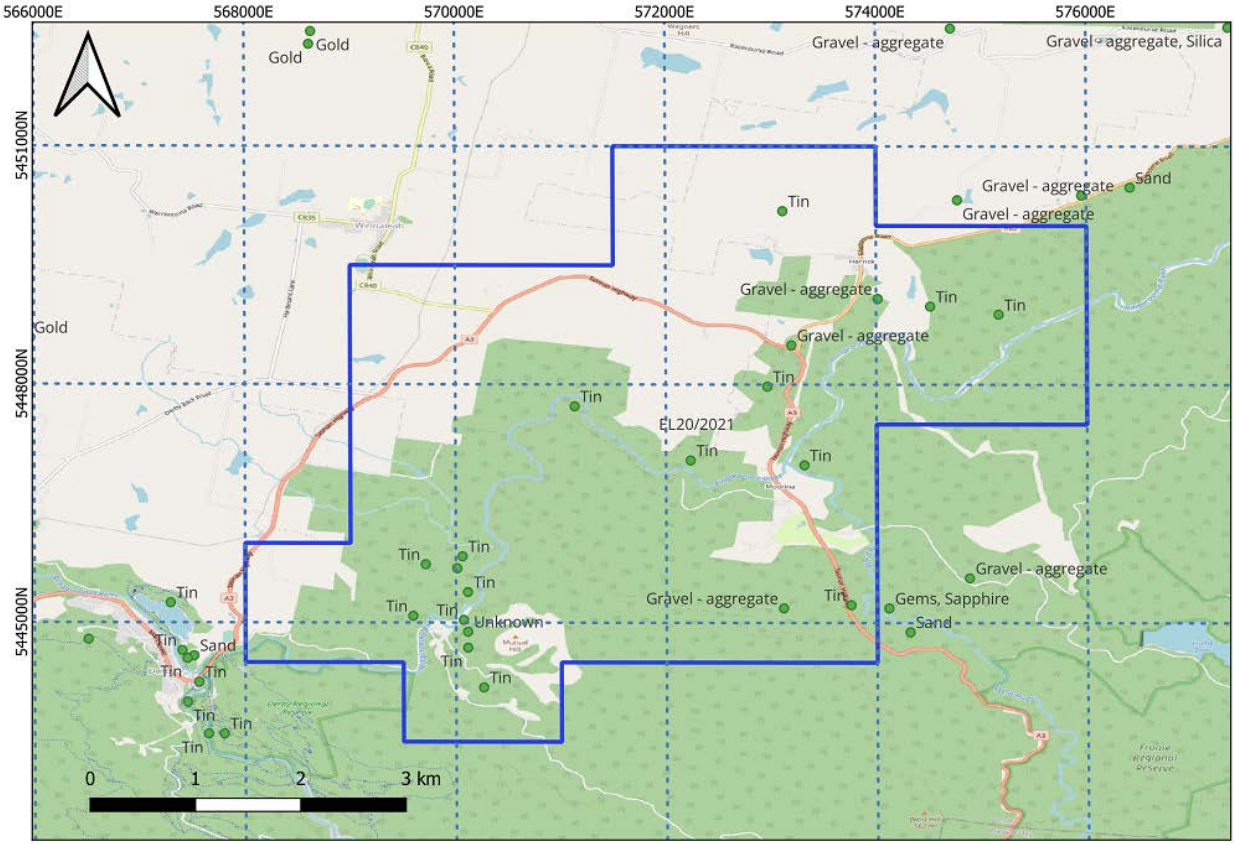

Figure 2 Mineral occurrence within the tenement

3 INTRODUCTION

Exploration Licence EL20/2021 was granted to Prospect Ores Pty Ltd on 10/10/2022 and was valid until 09/10/2027. The total land area covered EL20/2021 is 37 sq km. Access is good with the Tasman Highway traversing the licence area in addition to a relatively dense network of secondary roads.

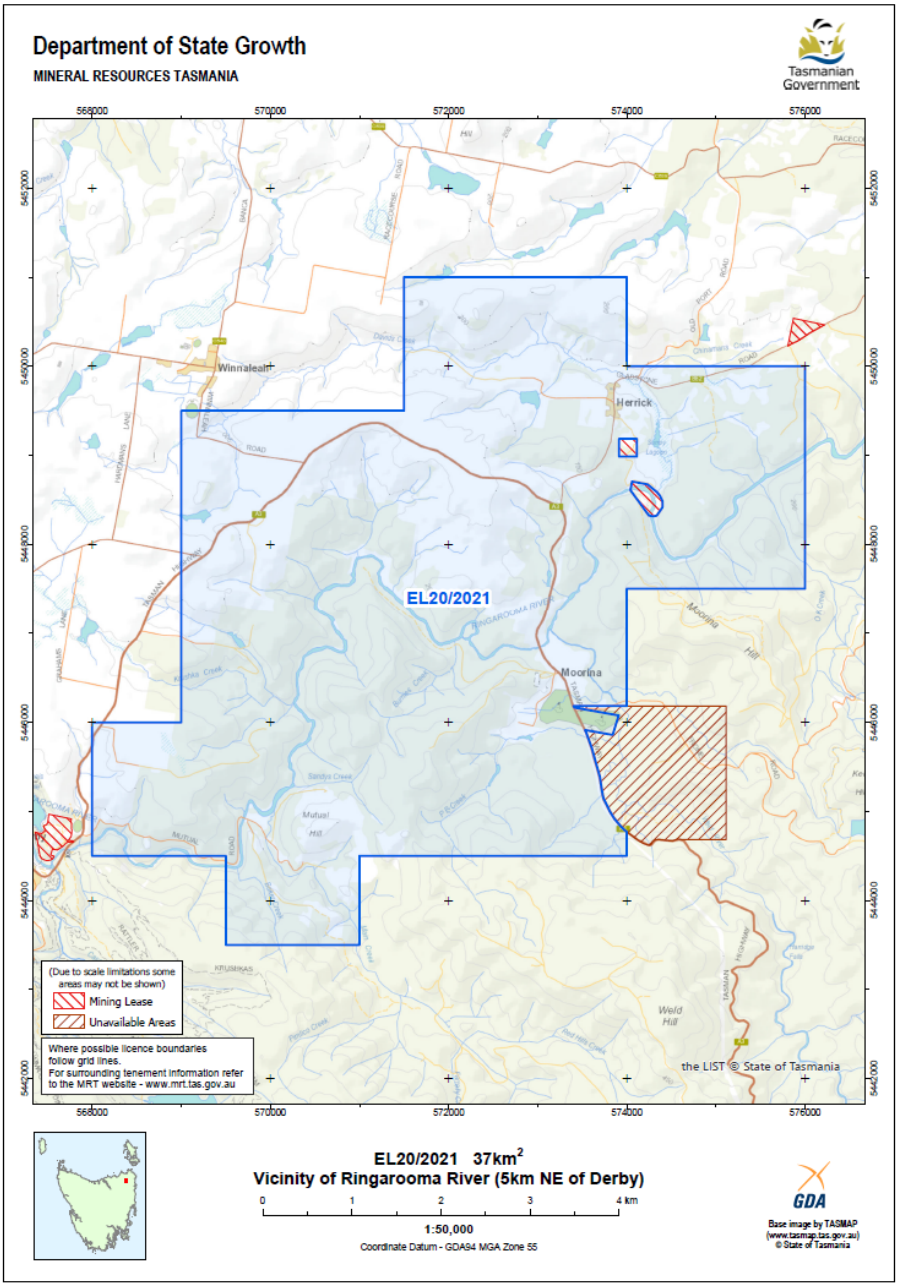

Figure 3 EL20/2021 Granted area map

4 GEOLOGY

4.1 REGIONAL GEOLOGY

Regional geology of the tenement area contains Siluro-Devonian Mathinna Bed meta-siltstones and quartzites, intruded by Devonian biotite muscovite alkali feldspar granite (the Mt Paris Granite, a phase of the Blue Tier Batholith) and minor Tertiary basalt flows and probable plugs. There is minor alluvial cover.

Particularly in the south of the area, an undulating granite roof zone is extensively exposed. In this zone there are known tin (tungsten, molybdenum) deposits concentrated in an ENE trending 12km by 2km corridor.

Mineralization in the bedrock is primarily found within the granite and altered granite, with minimal mineralization observed in the slightly contact-metamorphosed Mathinna Beds above. The styles of mineralization in the bedrock include:

- Quartz-greisen veins containing coarse cassiterite along with minor sulphides such as chalcopyrite,
- Micaceous greisen veins, often steeply dipping, also carrying cassiterite,
- Flat-lying greisen sheets,
- Clay-altered granite, possibly rich in kaolinite.

Most historical cassiterite mining has been conducted through sluicing of secondary eluvial and alluvial materials, as well as soft clay-altered granite. Documentation in this regard is lacking, hence production figures cannot be reliably determined. Nevertheless, descriptions of the primary deposits and mining activities are provided by Solomon (1971), Nye (1924, 1933), McIntosh-Reid (1926), Keid (1944), and Jack (1962, 1966).

4.2 LOCAL GEOLOGY

In summary, the Devonian granitic intrusives of the Blue Tier batholith dominate the lithologies to the west of the tenement while the Ordovician to Devonian turbidites of the Mathinna Beds underlie most of the tenement and the area to the east. Two periods of Tertiary basaltic volcanism have variably covered the basement lithologies during the Middle Eocene and Middle Miocene. This volcanism variably filled the pre-Eocene drainages, resulting in the formation of deep leads with basalt covering and preserving the original valley-fill sequence.

Differential erosion along the flanks of the basalt flows filling the valleys due to the basement sediments being weathered and softer than the basalts has resulted in topographic inversion in much of the area with the basalts forming elevated plateaux. In places, this erosion has cut through the base of the basalt flows exposing the deep lead sediments below the basalt plateau, allowing easy exploitation of the cassiterite-bearing basal sequence of the deep lead sediments by hydraulic sluicing and dredging, with the Briseis and Arba Valley mines being the largest examples.

Deep leads of mid to late Eocene age are distributed throughout the Lachlan Fold Belt in Eastern Australia and share a common fining upward stratigraphy, from coarse basal wash through coarse sandy gravels, coarse sands, and clays at the top of the sequence. Heavy minerals are disproportionately concentrated in the basal cobble or "wash" zone. In the Derby area, tin in economic concentrations tends to occur within 5-10m of the base of the lead. Approximately 23,522 tonnes of tin metal are reported to have been mined from within the tenement, representing 63% of the total tin production from NE Tasmania.

The potential for economic concentrations of tin comes from extensions to previously worked exposed deep leads, such as the Arba Valley and Briseis Mines. Additionally, the extensions of the tributary leads to the Ringarooma Deep Lead, identified from previous prospecting, and the larger Ringarooma Deep Lead, which is inferred to traverse the licence area to the north of the present Ringarooma River, also contribute to this potential.

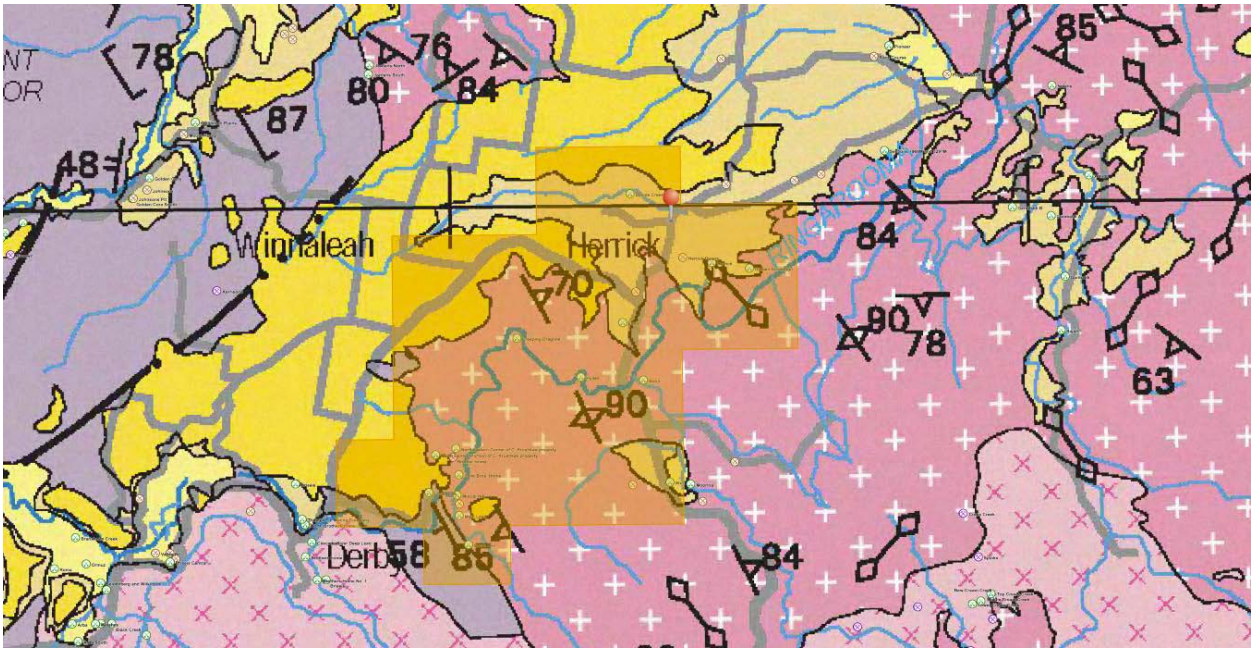

Figure 4 Project on geological map 1:250k

5 PREVIOUS WORK

In NE Tasmania, the total recorded production from alluvial deposits is approximately 36,300 tonnes of tin metal. The Cascade Lead stands out as the largest producer, contributing approximately 21,000 tonnes, which accounts for roughly 58% of all alluvial tin production in NE Tasmania.

6 CURRENT EXPLORATION

During the reporting period from September 2022 to December 2024, a review of historical exploration literature was carried out to determine the extent of possible deep lead tin mineralisation.

The tenement area was previously singled out as potentially highly prospective because it must have been the source of more than 20,000 tonnes of metallic tin extracted from alluvium at Briseis. It was speculated that ridges in the granite are mineralised and resistant to erosion, perhaps because of silicification or albitisation. A field visit was planned to check this but unfortunately, it did not eventuate.

Following the review several areas were determined to have minimal deep lead potential.

7 CONCLUSION

As noted previously mineralisation occurs in greisen systems, but past surface sampling and drilling has demonstrated that grades are erratic and unfortunately mostly low, averaging less than 0.1% Sn. There is still prospectivity, but it is ranked low.

The prior exploration tested the best greisen targets for lithium micas, and the results were disappointing. Clearly, there are still many unsampled greisens, and so lithium-rich areas may still exist in the area, but this is judged to be unlikely.

Prospect Ores Pty Ltd fully surrendered the tenement due to its company strategy and budget planning.

ENVIRONMENTAL

As there was no on ground exploration conducted during the reporting period, there was no rehabilitation required.

8 BIBLIOGRAPHY

Derriman, M. (2013-2014). 2014 Annual Report Derby Project. ASF Group Limited.

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Yap, E. (2012-2013). 2013 Annual report Derby Project. ASF Group Limited