MOUNT SOLITAIRE PROJECT
EL 27997
Final and Annual Technical Report
For the Period 01/06/2017 to 16/11/2018

Tenure Holder: Tychean Resources Limited
Tenure Operator: Ramelius Resources Limited
Submitted by: Ramelius Resources Limited
Author: Erik van Noort
Contact: erikvannoort@rameliusresources.com.au
Date: 14/12/2018
Mapsheets: 1:250,000 SF52-04 Mount Solitaire
1:100,000 5157 Reiff

Distribution: NT Department of Mines and Energy
Tychean Resources Ltd
Ramelius Resources Ltd
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Summary

This Final and Annual Report discusses exploration activities on EL27997, located c. 600km north-west of Alice Springs, Northern Territory, for the term of the license, covering the period 1st June 2017 to 16th November 2018.

Ramelius Resources Ltd entered into a Joint Venture Agreement with Tychean Resources Limited, comprising the Tanami Joint Venture, which includes EL27997. Ramelius are operators of the project and have an 85% Joint Venture Interest in the tenement.

No fieldwork was carried out on the tenement during the term of the license, including this final reporting period (1/6/2018 to 16/11/2018). Work on the tenement was limited to reviews of historical exploration data.

The tenement was surrendered on 16th November, 2018.
1. INTRODUCTION

EL27997 is currently held by Tychean Resources Ltd, and forms part of a Joint Venture agreement with Ramelius Resources Limited. The tenement was surrendered on 16th November, 2018. This final and annual report summarises the exploration activities carried out for the period of tenure, covering the period 1st June 2017 to 16th November 2018.

1.1 Location and Access

Exploration License EL27997 is located approximately 600km north-west of Alice Springs, Northern Territory. The license covers 57 sub-blocks for a total area of 183.7 square kilometres. Vehicle access from Alice Springs is by way of the Tanami Highway to the Granites Mine, thence eastwards approximately 100km by 4WD tracks to the tenement. Figure 1 shows the location of EL 27997.

1.2 Tenure and Land Status

Exploration License EL27997 was granted to Tychean Resources Ltd (Tychean; formerly ERO Mining Ltd) on 1st June 2017 for a period of 6 years. The license comprises 57 sub-blocks.

The license forms part of a Joint Venture Agreement with Western Australian based gold producer Ramelius Resources Limited, who are responsible for the management of the exploration programs on this tenement. Ramelius have an 85% interest in the license.

The company operate under a Mineral Exploration Agreement with the Central Land Council (CLC) in respect of EL27997, being land vested in the Central Desert Aboriginal Land Trust NTP 1740.

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<th>Tenement</th>
<th>Holder</th>
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Figure 1: Locality plan showing tenement EL27997
2. GEOLOGICAL SETTING

2.1 Regional Geology and Mineralisation

The Palaeoproterozoic Tanami Region forms part of the North Australian Craton and comprises a succession of fine grained siliciclastic sedimentary rocks, turbidite, BIF, mafic sills, basalt and minor volcaniclastics. The region was subject to multi-phase deformation, regionally metamorphosed to greenschist to mid-amphibolite facies and subsequently intruded by 1825-1790Ma granites (Wygralak et al., 2005).

The Mount Solitaire EL27997 is located on the northern margin of the Early Proterozoic Tanami Complex, and straddles the NW-trending, thrust-fault contact with the Palaeozoic Wiso Basin Sequence to the north (Figure 2).

Rocks of the Tanami Complex include meta-chemical sediments of the Killi Killi Formation, undivided Tanami Group metaclastic sediments, and felsic granitoid of the Grimwade Suite. The Wiso Basin sequence to the north includes Cambrian Antrim Plateau Volcanics, Cambrian Montejinni Limestone and Ordovician Lake Surprise Sandstone.

Bedrock exposures in the application area are sparse (Figure 3). Several NW-trending topographic ridges are marked by exposures of quartz vein (breccia) systems associated with regional faults, previously mapped by the BMR. The ridges are typically flanked by residual laterites. The remainder of the license area is covered by unconsolidated Cenozoic sediments, aeolian sands and dune fields.

Styles of gold mineralisation in the Tanami Region are predominantly Orogenic lode gold deposits, predominantly within mafic volcanic and sedimentary lithologies of the Dead Bullock Formation (e.g. DBS and Granites Goldfields). Several gold deposits located south of the Talbot North EL include the Hyperion Project (200,000oz Au; quartz-carbonate vein-hosted deposits within granitic, doleritic and metasedimentary rocks) and the Groundrush Deposit (460,000oz; hosted in foliated dolerite sill within metagreywacke of the Killi Killi Formation.

3. PREVIOUS EXPLORATION

The area covering EL27997 was originally held by Zapopan (EL4519) from 1990-1992, who conducted regional gold and base metal exploration.

Normandy / North Flinders Mines held the ground as part of their Sore Tooth North Project (EL8287) from 1996 to 1998, with the initial target as quartz vein systems mapped by the BMR on the Mt Solitaire 1:250,000 geological map sheet. Work carried out over the area included interpretation of aeromagnetic data, regional lag sampling and composite rock-chip sampling over areas of subcrop or outcrop. No drilling has been carried out on the application area.
4. SUMMARY OF EXPLORATION ACTIVITIES 2017 - 2018

4.1 Exploration 2017-2018 (Ramelius Resources Ltd)

Exploration during the first year of tenure (1/6/2018 – 31/5/2018) comprised a desktop review of previous exploration. No fieldwork was conducted on the license during the reporting period.

Data Review

Zapopan explored the area under EL4519 from 1990-1992, and conducted regional gold and base metal exploration. The majority of Zapopan’s exploration focussed on magnetic targets to the west of ELA27997. Owing to the paucity of magnetic targets on the area covering the Mt Solitaire project, little work was carried out beyond regional aeromagnetic interpretations, and the ground was subsequently relinquished after the second year of tenure.

Normandy / North Flinders Mines held the ground as part of their Sore Tooth North Project (EL8287) from 1996 to 1998, with the initial target as quartz vein systems mapped by the BMR on the Mt Solitaire 1:250,000 geological map sheet. Work carried out over the current application area included interpretation of aeromagnetic data, regional lag sampling and composite rock-chip sampling over areas of subcrop or outcrop. No drilling has been carried out on the application area.
Lag sampling carried out by North Flinders mines was limited in coverage owing to the lack of suitable sample material, with most coverage in the southern part of the current application area (Figure 3). No gold anomalism was recorded although weak Pb and Zn anomalism was returned in areas proximal to the Wiso Basin margin.

A total of 78 rock-chip samples were collected by North Flinders in the application area, predominantly from a major NW-trending quartz ridge in the northern part of the project area (Figure 4). Results were largely disappointing with most samples below detection limit (1ppb), although one weakly anomalous result (140ppb) was associated with quartz material with colloform-crustiform banding.

5. **EXPLORATION COMPLETED IN FINAL YEAR OF TENURE**

No exploration was completed on EL27997 during the final period of tenure (01/06/2018 to 16/11/2018).

The company conducted a review of work completed on the Tanami projects and the license was surrendered on 16th November, 2018.
Figure 3: Mt Solitaire Project historic Lag Geochemistry

Figure 4: Mt Solitaire Project historic rock-chip sampling
6. REFERENCES


