EL 31000

ANNUAL & FINAL REPORT

for period ending

April 10, 2017

1:250,000 map sheets: SF53-15 Illogwa Creek

Licensee: Red Metal Limited

G. McKay

Red Metal Limited

29 April 2017
TENEMENT REPORT INDEX

HOLDER / OPERATOR: Red Metal Limited

TENEMENT: EL 31000

PROJECT: Christmas Creek

REPORTING PERIOD: April 11, 2016 to April 10, 2017

AUTHOR: G. McKay

LATITUDE: 135º 25’ to 135º 49’

LONGITUDE: -23º 22’ to -23º 35’

1:250,000 SHEET: SF53-15 Illogwa Creek

1:100,000 SHEET: Illogwa 6050, Brahma 6151, Quartz 5951, Limbia 5950

MINERAL PROVINCE: Eastern Arunta (Irindina Province)

COMMODITIES: Base metals

KEYWORDS: Regional review, aeromagnetic data review

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List of Digital Files

EL31000_2017_01 Annual & Final Report.pdf (This report)
SUMMARY

EL 31000 was acquired by Red Metal Limited to investigate airborne magnetic anomalies within the Neoproterozoic Eastern Arunta Province (Irindina Province), considered to have potential for copper-nickel mineralisation in a continuation of the new style of pyrrhotite copper-cobalt mineralisation discovered in the region by Mithril Resources.

The work carried out on EL 31000 during the first year of tenure included a review of geology and existing geophysical data.

Red Metal’s work in adjacent tenements suggested the potential for mineralisation was limited and it was decided to surrender EL 31000.
1.0 INTRODUCTION

This report summarises exploration activities undertaken on Exploration Licence 31000 for the first year of tenure.

2.0 LOCATION AND LAND USE

EL 31000 is located 170 km east of Alice Springs, east of the Harts Ranges, 70km south of the Plenty Highway (Figure 1). Access is via unsealed roads and tracks. The tenement area has low relief and sand dunes with sparse vegetation. The tenement occurs on pastoral stations, Indiana and Numery.

Figure 1: Tenement location on topographic sheet SF53-15
3.0 TENEMENT STATUS

EL 31000 was granted to Red Metal Limited over 171 blocks on April 11, 2016 for a period of six years. Details of EL 31000 are shown in Table 1.

<table>
<thead>
<tr>
<th>TENEMENT</th>
<th>HOLDER</th>
<th>GRANTED</th>
<th>SURRENDER</th>
<th>Blocks</th>
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</thead>
<tbody>
<tr>
<td>EL 31000</td>
<td>Red Metal Limited</td>
<td>Apr 11, 2016</td>
<td>Apr 10, 2017</td>
<td>171</td>
</tr>
</tbody>
</table>

4.0 GEOLOGY

The tenement is located within the Neo-Proterozoic to Cambrian rift sequence referred to as the Irindina Province and the Paleo-Proterozoic Aileron Province which underlies. Shallow Quaternary sediments cover most of the area (see Figure 2).

The area was considered by Red Metal to have potential to host intrusive-style copper-nickel mineralisation.

The Aileron Province is a 1740-1860Ma high-metamorphic grade meta-sedimentary dominant terrain. Garnet pelites, psammites and quartzites, interbedded mafic granulites and calcsilicate-rich rocks, quartz-magnetite horizons, rare marbles and deformed igneous rocks including mafic amphibolite, meta-gabbro and granitoids occur throughout the province. A less common felsic volcanoclastic horizon was dated at 1771Ma. The Aileron Province is considered prospective for stratabound and strataform massive base metal deposits comparable with the Jervois, Home of Bullion, Utnalanama, Oonagalabi types as well as gold-tungsten skarns.

The Irindina Province is a highly metamorphosed deep water clastic metasedimentary terrain dominated by garnet- and biotite-rich ± sillimanite psammo-pelitic schists with localised marbles, calcsilicate rocks and quartzite. Large volumes of mafic amphibolite are intercalated with the metasediments. The Irindina Province is in fault contact with the underlying Aileron province. Along Geoscience Australia seismic traverse 09GA-GA1, across the eastern Arunta terrain, the Irindina Province is shown to be approximately 10km thick and underlain by large detachment faults that extend to the mantle. The detachments express themselves at surface as the Basil Shear Zone (BaF) and Bruna Detachment (BrD). A geological section along the seismic line is shown in Figure 2.
Later magmatic intrusions include a 525-515Ma suite which comprises felsic and mafic rocks and the 460-400Ma Lloyd Gabbro which consists of olivine bearing-gabbro and gabbro-norite. The Lloyd Gabbro bodies have a distinctive remnant magnetic signature and host Cu-Ni sulphides at the Baldrick and Blackadder prospects.

Recent age dating has produced a significant revision of the tectonothermal history of the region. U-Pb and Sm-Nd geochronological studies suggest that sediments and igneous rocks of the Irindina Province represent a rift sequence that was ‘deposited’ during the late Neoproterozoic to Cambrian and was metamorphosed to granulite facies in an extensional setting during the early Ordovician Larapinta Event (480–460 Ma). The Larapinta Event is divided into an early peak metamorphic event at 475 Ma, and a subsequent retrograde event at 460 Ma that was associated with the formation of a near-pervasive flat-lying fabric. Pressure - temperature conditions for peak metamorphism during the Larapinta Event have been estimated at around 800°C and 8 to 12 kbar from several locations. These peak metamorphic pressures suggest burial depths of 30 to 35 kilometres.

The Irindina Province was subsequently exhumed during the Alice Spring Orogeny between 450 and 300Ma.

Prospective, crystalline basement rocks of the Irindina Province are overlain by Late Jurassic to Cretaceous sedimentary rocks particularly towards the southeast. Remnants of Cainozoic sedimentary strata can overlay the basement or Cretaceous sequences but are poorly preserved. Unconsolidated Quaternary fluvial sediments and aeolian dune sands of the Simpson Desert cover a large portion of the terrain.
Figure 3: regional geology

Figure 4: regional magnetic image
5.0 HISTORICAL EXPLORATION

Previous companies which conducted exploration in the vicinity of EL 31000 include:

<table>
<thead>
<tr>
<th>Licence</th>
<th>Years</th>
<th>Company</th>
<th>Target</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>7179</td>
<td>Dec90-Jan02</td>
<td>BHP Minerals</td>
<td>Base metals</td>
<td>Soil &amp; stream sed sampling, SIROTEM on mag anomalies, RC drilling mag anomalies</td>
</tr>
<tr>
<td>8861</td>
<td>Nov94-Dec95</td>
<td>Poseidon Gold</td>
<td>Ultramafic PGM &amp; gold</td>
<td>RAB drilling on previous BHP anomalies</td>
</tr>
<tr>
<td>23996, 23997, 24000</td>
<td>2006-2007</td>
<td>BHP Billiton</td>
<td>IOCG copper-gold</td>
<td>Airborne gravity survey, ground gravity follow-up, diamond drilling of six targets. No significant results.</td>
</tr>
</tbody>
</table>

6.0 EXPLORATION PROGRAM

Red Metal conducted a review of existing data for EL 31000. No fieldwork has been conducted.

7.0 CONCLUSIONS

EL 31000 was acquired to investigate the potential for intrusive-related copper-nickel mineralisation in a continuation of the new style of pyrrhotite copper-cobalt mineralisation discovered in the region by Mithril Resources.

Red Metal’s work in adjacent tenements suggested the potential for mineralisation was limited and it was decided to surrender EL 31000.

8.0 References/Bibliography


Madeline L. Wallace, Simon M. Jowitt, Ahmad Saleem - Geochemistry and petrogenesis of mafic–ultramafic suites of the Irindina Province, Northern Territory, Australia: Implications for the Neoproterozoic to Devonian evolution of central Australia. School of Earth, Atmosphere and Environment, Monash University, Melbourne, VIC 3800, Australia.

Ian R Scrimgeour and Dorothy F Close. Overview of the geology and tectonics along the Georgina-Arunta Seismic Traverse AGES Conference Record NTGS Rec2011-003.

