Annual Exploration Report

GR237

EL 26778, EL 26779, EL 26780, EL25781,EL26965,EL 26999, EL 27240,EL27241,EL 27737,EL 28003,EL28487,EL 28535

Calvert Project

For the period 1st April 2013 to 31 March 2014

Distribution:

Department of Mines and Energy NT

Redbank Copper Limited

June 2014
Tenement Operator: Redbank Copper Limited
Tenement Holder: Redbank Mine Operations Pty Ltd
Report Type: Annual
Report Title: Calvert Annual Report Combined Group GR 237
Tenement: EL26778, EL26779, EL26780, EL26781, EL26965, EL26999, EL27240, EL2741, EL27737, EL28003, EL28487, EL28535
Report Period: 1/04/2013 to 31/03/2014
Author: James Guy
Date of Report: 20/06/2014
1:250 000 map sheet: Calvert Hills SE 5308
1:100 000 map sheet: Seigal, Wollogorang, Calvert Hills, and Surprise Creek
Target Commodity: Copper
Keywords: Copper, Breccia Pipes, Aeromagnetic’s
Prospects drilled: NA
List of Assays: NA
List of Elements: NA

SUMMARY

The Calvert Group tenements form part of Redbank Copper Limited’s, Redbank Copper Project the project is located 300km south east of the township of Borroloola near the northern Territory/Queensland border. The tenements cover a sequence of sediments and volcanics of the Tawallah Formation. The tenements are prospective for breccia pipe hosted copper mineralisation.

During the current reporting period work no field work was completed within the combined reporting group tenements. The company completed a regional review of past exploration and identified seven advanced targets for follow up exploration. Two exploration licences were surrendered and partial surrenders were completed on another two titles.

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1. INTRODUCTION

This report details exploration activities on tenements within the GR238 Combined Report (EL26778, EL 26779, EL 26780, EL25781, EL 26965, EL 26999, EL27240, EL27241, EL 27737, EL 28003, EL 28487, and EL 28535) between 1 April 2013 and 31st March 2014. The tenements are owned by Redbank Operation Pty Ltd a wholly owned subsidiary of Redbank Copper Limited, a company listed on the Australia Stock Exchange. The tenements form part of the company’s Redbank Copper Project which comprises 26 mineral titles covering an area of approximately 4,300 sq. kilometres. The project is centered on the mining operation at Redbank (figure 1) where the company has infrastructure including mine camp, offices, and airstrip that support the company’s activities in the district. The mine site has been on care and maintenance for a number of years, and is currently staffed by full time caretakers.

Redbank Copper Limited was suspended from the ASX between the period 24th November 2011 and 10th May 2013, whilst the company was restructured and raised funds. Since relisting the company has commenced regional compilation work, but has not undertaken any on ground field exploration.

2.1 Location and Access

The tenement is located approximately 300 km south-east of the township of Booroolooloo, and immediately west of the Northern Territory – Queensland border. Wollogorang Station in the center of the project area is the closest habitation.

Vehicle access is restricted to the main Borroloola – Wollogorang road and local station tracks. There is a 1200m airstrip at Redbank which can be used to access the project.

Topography is dominated by escarpment country with a maximum elevation of 226m. The well-developed dendritic drainage network is dominated by Settlement Creek, which drains to the north-east into the Gulf of Carpentaria. Vegetation consists mostly of open woodland and native grasses that support cattle grazing.

The tenements is on the Wollogorang, and Calvert Hills Pastoral Station’s

The area has a tropical climate with a wet season between November - March during which time access to and around the project can be blocked by flooding creeks and a dry season between March and October during which time the majority of field operations occur.
Figure 1. Location Plan.

1.2 Tenure

The tenements within the combined report are held by Redbank Operations Pty Ltd a wholly owned subsidiary of Redbank Copper Limited. Details of the tenement are provided below.

Table 1. Tenement details for Combined Report GR238

<table>
<thead>
<tr>
<th>Exploration License Number</th>
<th>Total Area Sq. km</th>
<th>Grant Date</th>
<th>Holder</th>
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<td>EL26965</td>
<td>233.1</td>
<td>18/06/2009</td>
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<tr>
<td>EL26999</td>
<td>425.25</td>
<td>18/06/2009</td>
<td>Redbank Operations Pty Ltd</td>
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</tbody>
</table>
Subsequent to the end of the reporting periods the company surrendered EL’s 26965 and 26999, and partial surrenders on EL’s 27240 and 27421 were also submitted

2.0 GEOLOGY AND MINERALISATION

2.1 Regional Geology

The tenements are situated in the south-eastern portion of the Proterozoic McArthur Basin in the Northern Territory (Figure 2). The tenements are located on the Wearyan Shelf tectonic unit within basin. The geological sequence comprises a mix of shallow water and continental sedimentary units intercalated with volcanics of the Tawallah Group which is the lower most sequence within the Macarthur Basin sequence. The sequence has been intruded by various granitic bodies.

The McArthur Basin sequence contains the world class McArthur River lead-zinc deposit (227 Mt grading 9.2% zinc, 4% lead, 0.2% copper, and 41g/t silver) approximately 200 km north of the tenement. Within the region copper mineralisation associated with trachyte breccia pipes is mined at Sandy Flat and Redbank, and copper uranium mineralisation is recognized within the Westmorland Conglomerate Formation to the south of the tenement. The Merlin Diamond field is approximately 250 km to the west of the tenements.
2.2 Tenement Geology

The project area overlies Tawallah Group stratigraphy. The southern parts of the project area overly lower member of the group including the McDermott and Aquarium Formation’s. The northern parts of the project cover Wollogorang, Masterton, and Gold Creek Volcanic Formations intruded by the Packsaddle granite to the east.

Structural geology of the area is not well known, however the Calvert Hills Shear zone is a regional structure that can be trace over a distance of 200km and has a 100m wide zone of alteration associate with it strikes NNW through the central part of the main tenement group. The fault has vertical displacements in the order of several kilometres and vertical displacement in the 100’s of metres (Ahmad and Wygralak 1989).

The project area is considered prospective for strataform and breccia pipe hosted copper mineralisation within the Wollogorang, Gold Creek Volcanics and Masterton Formation of the Tawallah Group. Regional work by MIM in the vicinity of EL 28487 intersected stratigraphy associated with the McArthur Lead Zinc Deposit at depths of between 300 -500m below surface. The Upper Proterozoic Karns Dolomite hosts a number of small manganese occurrences in the Calvert Hills area.

The area has been subject to extensive exploration for Uranium and diamond but the current project area is outside areas considered prospective for these commodities.
2. PREVIOUS EXPLORATION
The tenements have had several phases of exploration for base metals as well as gold, uranium and diamonds since the 1940’s. Programs have included regional stream sediment surveying, field mapping aeromagnetic surveying, drilling and interpretation. No significant anomalism was identified by this work.

3. EXPLORATION DURING THE REPORTING PERIOD
The company relisted on the Australian Stock Exchange in March 2013 and exploration work has focused on advanced copper target within the immediate Redbank area.

A desk top regional targeting and evaluation study was undertaken over the Calvert Group tenements as well as other regional tenement holding held by the company. As a result of this work of this work EL26999 and EL26965 were surrendered.

The company’s primary focus is copper mineralisation, and a number of regional targets have been identified by regional stream sediment geochemistry (figure 4). Targets 1 to 6 are associated with prospective stratigraphy in the vicinity of the Calvert Hills Shear, whilst target 7 is associated a small historical copper occurrences at Mountain Home to the south of the current tenure.

The company expects to complete first pass assessment of each target during the current year.
Figure 4 Calvert Group Tenure and Regional Stream Sediment data
Figure 5 Calvert Group Tenure and Regional Targets
4. REFERENCES


Giles A, Redbank Area NT, Summary of Geology, Past Production and Reserves, Redbank Copper Pty Ltd (unpublished)