ANNUAL & FINAL REPORT OVER THE
MT TYMN PROJECT

PINE CREEK MINERAL FIELD,
NORTHERN TERRITORY

Mt Tymn Project
Exploration Licence: 25201

BY
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DISTRIBUTION
1. Northern Territory Department of Minerals & Energy
2. Eclipse Metals Limited
PROJECT NAME: MT TYMN

TENEMENTS: Exploration Licences 25201

MINERAL FIELD: Pine Creek Orogen

LOCATION: PINE CREEK SD5208 1:250 000
         Darwin 5073 1:100 000

COMMODITIES: Uranium and Gold
TABLE OF CONTENTS

1.0 MT TYMN PROJECT ............................................................................................................................................... 3
  1.1 Copyright Statement: ........................................................................................................................................ 3

2.0 INTRODUCTION .................................................................................................................................................. 3

3.0 LOCATION AND ACCESS .................................................................................................................................. 3

4.0 TENEMENTS ...................................................................................................................................................... 3

5.0 REGIONAL GEOLOGY MINERALISATION ........................................................................................................... 4

6.0 LOCAL GEOLOGY & MINERALISATION ............................................................................................................. 5

7.0 PREVIOUS EXPLORATION ................................................................................................................................. 6

8.0 ECLIPSE METALS LTD EXPLORATION ........................................................................................................... 6

9.0 CONCLUSIONS AND RECOMMENDATIONS ................................................................................................. 8

10.0 REFERENCES .................................................................................................................................................. 9

LIST OF FIGURES

Figure 1: Mt Tymn Project – Topographic Map ........................................................................................................... 4
Figure 2: Mt Tymn Project – Photography showing Mt Tymn .................................................................................. 5
Figure 3: Mt Tymn Project – Regional Geology Map ............................................................................................... 6
Figure 4: Mt Tymn Project Areas showing Radiometric Target Anomalies .............................................................. 7

LIST OF TABLES

Table 1: Mt Tymn Project - Tenement Summary ....................................................................................................... 4
1.0 MT TYMN PROJECT

1.1 Copyright Statement:

The owned information acquired by Eclipse Uranium Ltd includes all information under the previous work by Eclipse Uranium Ltd and work during reporting year sections. The rest of the information has been sourced from open reports and data through the Department of Mines and Energy. The Minister has authority to publish the copyrighted information accordingly.

2.0 INTRODUCTION

The Litchfield North tenement (EL25201) covers 16.71 km² of ground within the Palaeoproterozoic rocks of the Pine Creek Orogen. The project is potentially prospective for uranium, gold and base metals. The tenement is situated on the western portion of the Pine Creek Geosyncline.

During November 2013 consulting geologists Kastellco Geological Consultancy (“KGC”) conducted a review of existing historical exploration and geophysical data within the Northern Territory Geological Survey Database. This was conducted for over the Project area to identify any potential for uranium, gold and base metal.

Work during this term included literature searches and data base compilation. Open file company reports were obtained from the Northern Territory Geological Survey and a review of past exploration data and geological concepts undertaken.

The targeting was undertaken at a high level to identify areas of interest that stand out in the regional re-interpreted geophysical data. Historical prospects were reviewed to determine the effectiveness of the previous exploration and evaluate remaining potential within the Exploration Licence area.

Several low magnitude magnetic targets were identified based on the review and airborne geophyscis; it was recommended the exploration licence area was to be relinquished upon very little to no mineral prospectivity as these anomalies were located within granitic lithologies.

3.0 LOCATION AND ACCESS

EL 25201 is located about 110 km southeast of Darwin in the Batchelor 1:100,000 sheet area. It originally comprised of 15 blocks with a total area of approximately 16.71 km². The tenement was granted to Whitvista Pty Ltd on December 5, 2006. The all-weather Stuart Highway provides access to the tenement via numerous station tracks.

Sandstone and slate hills run along the western side of the tenement and the rugged ridge of Mt Darwent lies to the southeast. Most of the area consists of flat; soil and alluvium covered plains, with outcrop restricted to isolated ridges and low rises.

Rainfall is seasonal, associated mostly with the summer monsoon. Temperatures range from the summer average of 35 degrees celsius to a winter average minimum of 12 degrees Celsius.

4.0 TENEMENTS

The project is comprised of one granted exploration licence (EL) with the tenement details summarised in Table 1 and their locations are shown in Figures 1 and 2.
### Table 1: Mt Tymn Project - Tenement Summary

<table>
<thead>
<tr>
<th>Project</th>
<th>Tenement Number</th>
<th>Status</th>
<th>Current Area Blocks (sq km)</th>
<th>Current Holder</th>
<th>Granted Date</th>
<th>Expenditure Covenant ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mt Tymn</td>
<td>EL25201</td>
<td>Granted</td>
<td>5 16.71 km²</td>
<td>Whitvista Pty Ltd</td>
<td>5/12/2006</td>
<td>$7,000</td>
</tr>
</tbody>
</table>

**Figure 1: Mt Tymn Project – Topographic Map**

#### 5.0 REGIONAL GEOLOGY MINERALISATION

EL 25201 lies in the geological feature known as the Pine Creek Geosyncline (PCG). The PCG contains Early Proterozoic, dominantly clastic and volcanic rocks deposited on an Archaean basement, deformed, metamorphosed and intruded by granitic rocks between 1870 and 1800 Ma [R. Page et al 1980]. These sediments were then intruded by mafic sills and later unconformably overlain by Late Proterozoic and Mesozoic sediments. The early Proterozoic metasediments are tightly folded along northwest trending axes and mostly steeply dipping.

The geology of the area is shown on the published 1:100 000 scale BMR Batchelor-Hayes Creek Region. The area is underlain by siltstones and greywacke of the Burrell Creek Formation.

The mineral deposits in the vicinity are both epigenetic and hydrothermal type. The epigenetic types are more prevalent and comprise a variety of mineralisation; uranium, copper, tin, silver-lead and gold. They are commonly located within shear zones and anticlinal hinge lines.
The epigenetic gold deposits are widespread and occur in sulphide bearing quartz veins with the dominant sulphides being pyrite and arsenopyrite. The most important hosts are interbedded greywacke and shales, which are best, developed in the Mt Bonnie and Burrell Creek Formations. In the axial zones of major anticlines these formations host quartz vein systems in fissure veins, saddle reefs and stock works, as seen in ore bodies at Pine Creek and Goodall.

Ore samples from White’s deposit indicated that uraninite and pyrite mineralisation preceded a period of shearing, which was followed by the introduction of copper, cobalt and lead sulphides.

6.0 LOCAL GEOLOGY & MINERALISATION

The tenement encloses numerous, low outcrops of the Burrell Creek Formation. Siltstones and shales, commonly interbedded, predominate in the western and eastern portions of the tenement and greywacke-sandstone and conglomerate commonly crop out in the central and southern portions. Minor dark grey cherts were observed occurring as loose rock fragments.

The major structural features of EL 25201 are tight folds with bedding surfaces steeply dipping with vertical to sub-vertical cleavage. These structures are associated with the main period of folding and this has produced minor parasite folds. Consistent bedding and cleavage attitudes have determined numerous folds within the Burrell Creek Formation.

It is considered that at least three phases of faulting have occurred and many of these zones are highlighted by the presence of quartz veining, brecciation, slickened sides and chloritization.

Figure 2: Mt Tymn Project – Photography showing Mt Tymn in distance
7.0 PREVIOUS EXPLORATION

Various companies have conducted exploration on and around the present tenement EL 25201. Most of the earlier activities involved soil traversing, rock-chip and stream sediment sampling, with the emphasis on gold exploration. The tenement was granted to Whitvista Pty Ltd on December 5, 2006. 5 blocks were relinquished in December 2009, leaving EL 25201 with 10 blocks with a total area of 33.42 km². Sandstone and slate hills run along the western side of the tenement and the rugged ridge of Mt Darwent lies to the southeast. Most of the area consists of flat; soil and alluvium covered plains, with outcrop restricted to isolated ridges and low rises. The all- eather Stuart Highway provides access to the tenement via numerous station tracks. Whitvista Pty Ltd completed an airborne survey over the entire Exploration Licence 25201 during the previous expenditure year. The survey was conducted for radiometrics and TMI magnetics. Site surveys have been conducted during the expenditure year to determine access, along with geological mapping. Whitvista’s geologist has interpreted the airborne survey data. Based on this interpretation the western blocks have been determined to be less prospective than the eastern side.

8.0 ECLIPSE METALS LTD EXPLORATION

During November 2013 consulting geologists Kastellco Geological Consultancy (“KGC”) conducted a review of existing historical exploration data within the Northern Territory Geological Survey Database. This was conducted for all the Project areas to identify any high potential gold, base metal
and uranium exploration targets and resulted in the identification of several targets that warrant further work.

Work during this term included literature searches and data base compilation. Open file company reports were obtained from the Northern Territory Geological Survey and a review of past exploration data and geological concepts undertaken.

The targeting was undertaken at a high level to identify areas of interest that stand out in the regional re-interpreted geophysical data. Historical prospects were reviewed to determine the effectiveness of the previous exploration and evaluate remaining potential within the Exploration Licence area.

Through detail interpretation of airborne magnetic from the Northern Territory Geological Survey no radiometric or magnetic anomalies were identified as walk up drill targets. The magnetic anomalies around the Cosmo Howley anticline coincided with the gold occurrences. There are no strong deformation zones or anticlinal structures by which hydrothermal fluids may deposit ore bearing within them – hence no structural targets identified.

Figure 4: Mt Tymn Project Areas showing Radiometric Target Anomalies
9.0 CONCLUSIONS AND RECOMMENDATIONS

EL 25201 represents a green-fields exploration play for principally uranium-gold-base metal deposits of varying genetic styles. Several radiometric targets were identified based on the review; it was recommended the exploration licence area was to be relinquished upon very little to no mineral prospectivity as these anomalies were located within granitic lithologies.

10.0 REFERENCES


Glass, L., 2007. Geochemistry of mafic rocks in the Litchfield Province, western Pine Creek Orogen: Evidence for a Paleoproterozoic arc-related setting and links to the Halls Creek Orogen.
