Titleholder | Northern Mining Limited
Operator (if different from above) | as above
Titles/tenements | EL 24438
Tenement Manager | Austwide Mining Title Management Pty Ltd
Mine/Project Name | Stokes Yard
Report title including type of report and reporting period including date | Annual report for Stokes Yard EL 24438 for the period 05/09/2010 to 04/09/2011
Personal author(s) | Dr Michael Green
Corporate author(s) | Remote Area GeoScience
Target commodities | zinc, lead, silver, copper, gold, uranium, rare earths
Date of report | 04 October 2011
Datum/zone | GDA94/Zone 53
250 000 K mapsheet(s) | Hermannsburg (SF53-13)
100 000 K mapsheet(s) | Glen Helen (5351)
Contact details | Dr Michael Green remote.geo@bigpond.com

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Northern Mining Limited
Imperial Granite and Mining Pty Ltd

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1.0 Summary

EL 24438 ‘Stokes Yard’ is part of Northern Mining Limited’s Central Australian projects. The tenement contains the Stokes Yard Zn-Cu-Pb prospect, which is hosted by the 1690-1610 Ma Madderns Yard Complex of the Warumpi Province. In the second year of tenure, an 80 % interest in EL 24438 was purchased by Northern Mining Limited, with Imperial Granite and Mining Pty Ltd retaining 20 %. A detailed ground magnetic survey, geological mapping and rockchip sampling were also completed during the second year of tenure. In the fifth year of tenure, EL 24438 was covered by an airborne geophysical survey to assist with better understanding the regional structural controls of mineralisation and aiding exploration. A reverse-circulation/diamond drilling programme was planned for the sixth year. Unfortunately, extreme wet conditions in 2010/11 led to the cancellation of Northern Mining’s scheduled field work in Central Australia. Therefore, no effective work was completed in the sixth year of tenure. A submission has been submitted to the NT Mines Department to retain the tenement for 2 years more.

2.0 Introduction

EL 24438 ‘Stokes Yard’ is centered 160 km west of Alice Springs and 40 km west of the Glen Helen Tourist Resort (Figure 1). Access is via gravel road, with the Haast’s Bluff road passing near the southern edge of the tenement. Various tracks on Glen Helen Station provide reasonable access to the general area, but are poor within the tenement. The tenement lies within NT Portion 719, which is part of the Glen Helen perpetual pastoral lease 1128.

3.0 Tenure

EL 24438 was granted to Imperial Granite and Minerals Pty Ltd on 5 September 2005 and comprised 20 graticular sub-blocks. On the 27 October 2006, Northern Mining Limited acquired an 80 % interest in EL 24438 with Imperial Granite and Minerals Pty Ltd retaining 20 %. At the end of the third year of tenure, EL 24438 was reduced to 10 graticular sub-blocks and these were retained at the end of the fourth year. A further request to waive reductions at the end of the fifth year was declined and 5 blocks were dropped. Northern Mining Limited is the manager of EL 24438.

<table>
<thead>
<tr>
<th>Tenement</th>
<th>Ten no.</th>
<th>Blocks Granted</th>
<th>Blocks Relinq.</th>
<th>Blocks Retain</th>
<th>Grant Date</th>
<th>Expiry Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stokes Yard</td>
<td>24948</td>
<td>20</td>
<td>15</td>
<td>5</td>
<td>5 Sept 2005</td>
<td>4 Sept 2011</td>
</tr>
</tbody>
</table>

Table 1: Tenement details
Figure 1: Location of EL 24438

Northern Mining Limited

Scale: 1:210000

10 km
4.0 Geology/Prospectivity

EL 24438 covers part of the 1690-1610 Ma Warumpi Province; an area that has not been subjected to much mineral exploration due to tenure uncertainties and widespread shallow cover. Nevertheless, the Stokes Yard and Ulpuruta Zn-Cu-Pb-Ag prospects and two Cu-Zn-(Au) (Haasts Bluff, Mount Larrie) prospects are known in the eastern part of the Warumpi Province. The age correlation between the Warumpi Province and the Broken Hill and Mount Isa Blocks is noteworthy. In the last two years numerous tenements have been granted within the Warumpi Province.

The Stokes Yard Prospect lies within EL 24438. Work there in the late 1960’s included extensive rockchip sampling and an IP survey by ASARCO (Australia) Pty Ltd. Analyses were completed using AAS methods and returned results up to 26 % Zn, 7.5 % Pb, 7.5 % Cu, and 130 ppm Ag, whereas average values were 2.1% Zn (n=50), 1.4% Pb (n=49), 0.23% Cu (n=65), and 1 oz/tonne Ag (n=63). The IP survey identified 6 anomalies. Unfortunately, all that exists of this IP survey is a general map showing anomaly locations.

In 1969-70, the Mining Branch of the NT Administrator undertook detailed work at the Stokes Yard Prospect, including detailed rockchip sampling and 4 diamond drillholes (Fruzzetti, 1970). Some mineralisation was encountered in the drillholes, but nothing of significance. The drillcore is preserved at the Alice Springs Core Facility of the Northern Territory Geological Survey (NTGS).

No work appears to have been undertaken in the area since this drilling except for a regional stream sediment survey (NTGS West MacDonnell survey) and an incomplete review of the Warumpi Province mineralisation commissioned by the NTGS in 2002.

5.0 Northern Mining Limited Work

5.1 Year 2

In the second year of tenure, EL 24438 was purchased by Northern Mining Limited with Imperial Granite and Minerals Pty Ltd retaining a 20 % interest. A data review was immediately undertaken with a brief site visit to determine the local logistics.

A further trip was undertaken to verify the previous results and the prospectivity of the area. As such, 8 rockchip samples were collected from the mineralised pits and confirmed the previous work with samples returning up to 27.5 % Zn. At the same time, basic field observations revealed that part of the mineralisation was intensely magnetic, so a ground magnetic survey was planned with the hope of identifying drill targets.
The ground magnetic survey was undertaken using Geophysical Resources & Services Pty Ltd as the contractor, Glen Helen Resort as a camp and a helicopter to access the field area. The survey covered an area of 1000 x 500 m with 25 m-spaced east-west traverses. The magnetic data were very high quality, but failed to identify extensions of the mineralisation. Indeed, the known mineralisation did not produce a significant magnetic response. It is interpreted that the intense magnetism around the mineralisation is too narrow to affect a general response.

In conjunction with the magnetic survey, detailed geological mapping and sampling were undertaken to better interpret the magnetic survey and unravel the structural complexities around the known mineralisation. Seventeen rockchip samples were collected and returned anomalous results some distance from the diggings.

5.2 Year 3 & 4

Further geophysical surveys were proposed for the third year of tenure with the aim of defining some drill targets. None of this work was completed during the 3rd or 4th year of tenure due to the difficulty of obtaining geological staff and contractors during the boom and then the uncertainty of corporate financing during the global recession. Northern Mining is still determined to complete this work.

5.3 Year 5

In the fifth year of tenure the entire tenement was covered by an airborne geophysical survey. The airborne survey was completed by UTS Aeroquest and included magnetics, radiometrics and digital terrain. A summary of the general airborne survey and the logistics report are presented in Table 2 and Appendix 1, respectively. Images of Total Magnetic Intensity and Total Radiometric Counts are presented in Figures 2 & 3, respectively.

<table>
<thead>
<tr>
<th>Line Spacing</th>
<th>Line Direction</th>
<th>Tie Line Spacing</th>
<th>Tie Line Direction</th>
<th>Sensor Height</th>
<th>Total Line km</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 m</td>
<td>000-180</td>
<td>1000 m</td>
<td>090-270</td>
<td>50 m</td>
<td>390</td>
</tr>
</tbody>
</table>

Table 2: General statistics of UTS Aeroquest airborne geophysical survey

5.4 Year 6

In the sixth year of tenure extreme wet weather led to the cancellation of scheduled field work and so no effective exploration was completed. A reconnaissance trip was undertaken in August 2011 with the Northern Mining’s new Chief Executive Officer, Greg Wilson. Access to Stokes Yard was successful though many of the existing tracks had been severely washed away.
Figure 2: Total magnetic intensity over EL24438 (July 2010 survey) plus ground magnetic survey.

Northern Mining Limited

04/11/2011  1:33000
A covenant of $93,000 was proposed for the sixth year of tenure on EL 24438, with an expectation of completing ground geophysical surveys and some reverse circulation/diamond drilling. However, none of this work was completed due to the continuous and unseasonable wet weather in 2010. Only $6,270 was spent in the sixth year of tenure.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary/wages (report preparation)</td>
<td>$3,500</td>
</tr>
<tr>
<td>Geophysics interpretation</td>
<td>$750</td>
</tr>
<tr>
<td>Field costs</td>
<td>$320</td>
</tr>
<tr>
<td>Travel costs</td>
<td>$880</td>
</tr>
<tr>
<td>Administration</td>
<td>$820</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$6,270</strong></td>
</tr>
</tbody>
</table>

Table 3: Expenditure on EL 24438 for sixth year of tenure

5.5 Years 7-8 (proposal)

In years 7 & 8 an RC/DD drilling programme will be completed at the Stokes Yard prospect. It is unclear whether some ground geophysics may precede the drilling. Heritage surveys and vehicle access need to be completed prior to further work.

<table>
<thead>
<tr>
<th>Year 7 Activity</th>
<th>Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wages/Salaries/Consultants</td>
<td>$25,000</td>
</tr>
<tr>
<td>Heritage survey</td>
<td>$20,000</td>
</tr>
<tr>
<td>RC/DD drilling</td>
<td>$65,000</td>
</tr>
<tr>
<td>Geochemical assays</td>
<td>$5,000</td>
</tr>
<tr>
<td>Access clearing</td>
<td>$15,000</td>
</tr>
<tr>
<td>Vehicle &amp; Camp</td>
<td>$20,000</td>
</tr>
<tr>
<td>Administration</td>
<td>$20,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$170,000</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year 8 Activity</th>
<th>Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wages/Salaries/Consultants</td>
<td>$25,000</td>
</tr>
<tr>
<td>RC/DD drilling</td>
<td>$55,000</td>
</tr>
<tr>
<td>Geochemical assays</td>
<td>$10,000</td>
</tr>
<tr>
<td>Rehabilitation</td>
<td>$15,000</td>
</tr>
<tr>
<td>Vehicle &amp; Camp</td>
<td>$20,000</td>
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<tr>
<td>Administration</td>
<td>$15,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$140,000</strong></td>
</tr>
</tbody>
</table>

Table 4: Proposed expenditure for years 7 & 8.

6.0 Environmental

No ground disturbing work has been undertaken on EL 24438.