## Partial relinquishment report for Stokes Yard EL 24438 for the period 05/09/2005 to 04/09/2010

### 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
Partial relinquishment report for Stokes Yard EL 24438 for the period 05/09/2005 to 04/09/2010

### Personal author(s)
Dr Michael Green

### Corporate author(s)
Northern Mining Limited

### Target commodities
zinc, lead, silver, copper

### Date of report
3 March 2011

### Datum/zone
GDA94/Zone 53

### 250 000 K mapsheet(s)
Hermannsburg (SF53-13)

### 100 000 K mapsheet (s)
Glen Helen (5351)

### Contact details
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remote.geo@bigpond.com

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**DISTRIBUTION:**
Northern Territory Department of Regional Development, Primary Industries, Fisheries & Resources

Northern Mining Limited
Imperial Granite and Mining Pty Ltd

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## Contents

1.0 Summary ................................................................. 1
2.0 Introduction ............................................................ 1
3.0 Tenure ................................................................. 1
4.0 Geology/prospectivity ................................................. 1
5.0 Northern Mining Limited Work ...................................... 2
  5.1 Year 2 ............................................................. 2
  5.2 Year 3 & 4 .......................................................... 3
  5.3 Year 5 ............................................................... 3
6.0 Environmental .......................................................... 2

### Tables
- Table 1: Tenement details
- Table 2: General statistics of UTS Aeroquest airborne geophysical survey

### Figures
- Figure 1: Location of EL 24438
- Figure 2: Preliminary map of Total Magnetic Intensity
- Figure 3: Preliminary Map of radiometrics Total Counts

### Appendices
- Appendix 1: UTS Aeroquest Logistics Report
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. At the end of the fifth year of tenure 5 sub-blocks were surrendered. This report covers the work completed on these 5 sub-blocks over the last 5 years.

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 rejected and so a further 5 sub-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>
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<th>Blocks Retain</th>
<th>Grant Date</th>
<th>Expiry Date</th>
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<td>20</td>
<td>15</td>
<td>5</td>
<td>5 Sept 2005</td>
<td>4 Sept 2011</td>
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Table 1: Tenement details

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 four years numerous tenements have been granted within the Warumpi Province and some reconnaissance exploration has been completed.

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 (Frizzetti, 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. None of these samples were collected within the relinquished portion of the tenement reported here.

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. This survey did not cover any part of the relinquished portion of the tenement reported here.

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. None of this work was within the relinquished portion of the tenement reported here.

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. Only preliminary processing has been completed on the data. Preliminary images of Total Magnetic Intensity and Total Radiometric Counts are presented in Figures 2 & 3, respectively. The survey data have been lodged with the Northern Territory Mines Department before (5th Year Annual report EL24438 and 4th Year Annual Report EL 24948).

<table>
<thead>
<tr>
<th>Line Spacing</th>
<th>Line Direction</th>
<th>Tie Line Spacing</th>
<th>Tie Line Direction</th>
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<td>50 m</td>
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</table>

Table 2: General statistics of UTS Aeroquest airborne geophysical survey

6.0 Environmental

No ground disturbing work has been undertaken on EL 24438.
APPENDIX 1

UTS AEROQUEST LOGISTICS REPORT
Figure 1: Location of EL 24438

Background: Regional Total Magnetic Intensity

Northern Mining Limited

03/03/2011
Scale: 1:730000