<table>
<thead>
<tr>
<th><strong>Titleholder</strong></th>
<th>Northern Mining Limited</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operator (if different from above)</strong></td>
<td>as above</td>
</tr>
<tr>
<td><strong>Titles/tenements</strong></td>
<td>EL 24746</td>
</tr>
<tr>
<td><strong>Tenement Manager</strong></td>
<td>Austwide Mining Title Management Pty Ltd</td>
</tr>
<tr>
<td><strong>Mine/Project Name</strong></td>
<td>Milton Park</td>
</tr>
<tr>
<td><strong>Report title including type of report and reporting period including date</strong></td>
<td>Annual report for Milton Park EL 24746 for the period 13/04/2012 to 12/04/2013</td>
</tr>
<tr>
<td><strong>Personal author(s)</strong></td>
<td>Dr Michael Green Remote Area GeoScience</td>
</tr>
<tr>
<td><strong>Corporate author(s)</strong></td>
<td>Northern Mining Limited</td>
</tr>
<tr>
<td><strong>Target commodities</strong></td>
<td>uranium, copper, nickel</td>
</tr>
<tr>
<td><strong>Date of report</strong></td>
<td>10 June 2013</td>
</tr>
<tr>
<td><strong>Datum/zone</strong></td>
<td>GDA94/Zone 53</td>
</tr>
<tr>
<td><strong>250 000 K mapsheet(s)</strong></td>
<td>Napperby (SF53-09) Hermannsburg (SF53-13)</td>
</tr>
<tr>
<td><strong>100 000 K mapsheet (s)</strong></td>
<td>Aileron (5552) Anburla (5551) Narwietooma (5451)</td>
</tr>
<tr>
<td><strong>Contact details</strong></td>
<td>Dr Michael Green <a href="mailto:remote.geo@bigpond.com">remote.geo@bigpond.com</a></td>
</tr>
</tbody>
</table>

**DISTRIBUTION:** Northern Territory Department of Mines and Energy

Northern Mining Limited

This document and its content are subject to the copyright of NORTHERN MINING LIMITED. The document has been written by Dr Michael Green for submission to the Northern Territory Department of Mines and Energy as part of the titles reporting requirements as per the Mineral Titles Act. Authorisation is given the department to copy and distribute the report and associated data.
Contents

1.0 Summary 1

2.0 Introduction 1

3.0 Tenure 1

4.0 Geology/prospectivity 2
   4.1 Shallow secondary uranium deposits 2
   4.2 Magmatic nickel-copper sulphides 2
   4.3 Previous exploration 3

5.0 Northern Mining Limited Work 3
   5.1 Year 1 & 2 3
   5.2 Year 3 & 4 3
   5.3 Year 5 3
   5.4 Years 6 – 7 3
   5.5 Year 8 (proposal) 4

6.0 Environmental 4

Tables
Table 1 Tenement details
Table 2 Expenditure on EL 24746 for seventh year of tenure
Table 3 Proposed expenditure for eighth year of tenure

Figures
Figure 1 Locality of EL24746 Background: 5M topography
Figure 2 Geology of EL 24746 Background: 1:250,000 geology
Figure 3 Total magnetic intensity (colour) with 1st vertical derivative (texture)
Figure 4 Radiometrics – thorium channel
1.0 Summary

EL 24746 is part of Northern Mining Limited’s Central Australia project and is considered prospective for three main styles of mineralisation:

- Tertiary palaeochannel uranium (e.g., New Well), and
- Magmatic nickel-copper sulphide.

In the 7th year of tenure no field work was completed on EL 24746 due to commitments on other Northern Mining projects. The company still considers the mafic-ultramafic intrusions within EL 24746 to be highly prospective for nickel and copper sulphide mineralization.

2.0 Introduction

EL 24746 ‘Milton Park” is located approximately 80 km WNW of Alice Springs and 60 km west of the Stuart Highway (Figure 1). Access is excellent as the Tanami Road cuts the tenement. In addition, there are many station tracks and fence lines crossing the tenement. This report covers the work completed on EL 24746 in the 7th year of tenure. The area is prospective for uranium, copper and nickel.

In August 2008, EL 24746 was transferred to NuPower Resources Limited in a joint venture agreement with Northern Mining Limited. NuPower Resources completed numerous exploration programmes in the following 2 years, before deciding to withdraw from the joint venture on 25 November 2010. Since NuPower’s withdrawal there has been very limited field work within EL 24746.

3.0 Tenure

EL 24746 was granted to Imperial Granite & Minerals Pty Ltd (100 %) on 13 April 2006, and was immediately transferred to Northern Mining Limited as part of an existing agreement. The original tenement comprised 498 sub-blocks overlying NT Portions 703, 4443 and 4423, which are part of the Aileron, Amburla and Hamilton Downs perpetual pastoral leases, respectively. The Rubunja Community had been excised from the lease.

NuPower entered into a Joint Venture agreement with Northern Mining Limited in August 2008 to explore the tenement for uranium, thorium and coal. On 25 November 2010, NuPower withdrew from the joint venture and tenement reverted to Northern Mining.

A partial waiver reducing the tenement to 300 blocks was approved in 2009 and a total waiver was approved in 2010. At the end of the 5th year of tenure (2011) 154 sub-blocks were dropped leaving 146 sub-blocks. At the end of the 6th year of tenure half of the tenement was dropped leaving 73 sub-blocks. These remaining sub-blocks are within the Amburla perpetual pastoral lease.
Table 1: Tenement details

<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>Milton Park</td>
<td>24746</td>
<td>498</td>
<td>425</td>
<td>73</td>
<td>13 Apr 2006</td>
<td>12 Apr 2014</td>
</tr>
</tbody>
</table>

4.0 Geology/Prospectivity

EL 24746 contains two distinct geological domains and is prospective for two main styles of mineralisation:

- Burt Basin – shallow Cenozoic basin overlying Arunta basement prospective for shallow secondary uranium (New Well),
- Arunta region – basement to the above basins and known to contain many styles of mineralisation. Of greatest interest within EL 24746 is the potential for magmatic copper-nickel sulphide accumulations related to mafic-ultramafic intrusions, such as Mount Hay.

4.1 Shallow Secondary Uranium Deposits

Many of the exposed parts of the Arunta region contain elevated levels of uranium and thorium, and while it has long been realised that these units may host primary uranium deposits, it was also recognised that they may provide a source of uranium for secondary mineralisation. Such secondary uranium mineralisation may form where weathered and eroded material from the exposed Arunta basement accumulates as thick sequences of unconsolidated material in the lowlands between the exposed ranges. Such a scenario happened throughout much of the Cenozoic to form numerous Tertiary basins in Central Australia. Where such sequences have filled with uraniferous sediment it is possible that interaction with groundwater may form uranium accumulations at certain chemical interfaces. For example, the New Well U deposit in the Burt Basin near Tilmouth Well is interpreted to have formed by such processes. EL 24746 covers part of the Burt Basin and is prospective for such analogues.

4.2 Magmatic Nickel-Copper Sulphide Deposits

The southern part of EL 24746 is dominated by the 1770 Ma Mount Chapple and 1803 Ma Mount Hay mafic-ultramafic bodies. Recent studies by Geoscience Australia have greatly improved the mapping, geochemistry, geochronology and mineral potential modelling of these bodies and highlighted their prospectivity for Voisey Bay-style basal segregation Ni-Cu-Co-PGE deposits (also Sally Malay, Radio Hill analogues). Furthermore, the work has shown that Mount Chapple and Mount Hay are layered intrusions with early S saturation, crustal contamination and magma mingling, thus highlighting their prospectivity for Merensky Reef-style stratabound PGE-chromitite or PGE-Cu-Ni deposits (Munni Munni analogue). There has been some exploration around these bodies, including ground EM surveys and shallow drilling, but this predated the acquisition of regional aeromagnetics. Importantly, the aeromagnetic data highlight the buried extent of these bodies into EL24746, which is crucial when exploring for basal contact mineralisation. Therefore, the basal contact remains untested. Moreover, the discovery of Voisey Bay also postdates
exploration in the south of EL 24746 and thus significantly increases the known size of basal segregation deposits.

4.4 Previous Exploration
The area covered by and surrounding EL 24746 has had a broad range of mineral exploration over the last 40 years. A review of the open file data was presented in the 2011 Annual Report.

5.0 Northern Mining / NuPower Resources Work

5.1 Year 1 & 2
In the first two years of tenure, work on EL 24746 was limited to desk-top reviews and reconnaissance field trips. These field trips included discussions with local Aboriginal groups and pastoralists. Access around the area was also assessed. No sampling was undertaken. The Aboriginal Areas Protection Authority sacred site register was assessed for the area and few sacred sites were recorded or registered within EL 24746.

5.2 Year 3 & 4
In the third year of tenure the joint venture agreement with NuPower Resources was implemented and significant work was undertaken focussed exclusively on potential uranium accumulations with the Tertiary Burt Basin. Exploration included:

- 1068.9 line kilometres of airborne EM surveys (as part of a larger survey in the Aileron Province),
- analysis of 15 water samples from thirteen water bores,
- fifteen vegetation samples from various plant species as part of a regional biogeochemical orientation sampling program, and
- contribution to the NTGS helicopter-borne regional gravity survey to infill the 2 km-spaced survey.

5.3 Year 5
In the fifth year of tenure, NuPower Resources decided to terminate the joint venture on 25 November 2010. NuPower completed no work during this year other than a major review of all their tenure and joint ventures.

5.4 Years 6 - 7
In the sixth and seventh years of tenure, work was limited to office-based studies and there was no field work. A covenant of $120,000 was proposed for the seventh year. Only $4,564 was spent.
## 5.3 Year 8 (proposal)

In the eighth year of tenure, the focus on EL 24746 will be looking for magmatic nickel-copper mineralization associated with the mafic-ultramafic intrusions. This will involve reprocessing the airborne EM data collected by NuPower, completing ground geophysics (EM), field mapping and sampling. NuPower did not identify any priority drill targets and so there are no current targets to warrant immediate drilling.

<table>
<thead>
<tr>
<th>Item</th>
<th>Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geologist salary/wages</td>
<td>$37,750</td>
</tr>
<tr>
<td>Ground EM</td>
<td>$65,000</td>
</tr>
<tr>
<td>Geophysics consultants</td>
<td>$12,000</td>
</tr>
<tr>
<td>Assays</td>
<td>$5,000</td>
</tr>
<tr>
<td>Administration (15 %)</td>
<td>$18,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$137,750</strong></td>
</tr>
</tbody>
</table>

**Table 3:** Proposed expenditure for eighth year of tenure.

## 6.0 Environmental

No ground disturbing work has been undertaken on EL 24746.
Figure 3: Total magnetic intensity (colour) with 1st vertical derivative (texture)

GDA94 Zone S3 June 2013
Figure 4: Radiometric - thorium channel

GDA94 Zone 53  June 2013