



# FINAL REPORT

**Exploration Licence 26126  
Barrow Creek region  
Northern Territory**

**November 2008**

**MATILDA MINERALS LTD**  
ABN 31 103 651 538

*PO Box 124, West Perth WA 6872  
Phone: (08) 9481 1444  
Facsimile: (08) 9322 1466  
**[www.matildaminerals.com](http://www.matildaminerals.com)***

**Distribution:**

- Geoscience Information, Northern Territory Geological Survey, Department of Primary Industry, Fisheries & Mines, N.T.
- Matilda Minerals Ltd
- Austwide Mining Title Management Pty Ltd

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## **1. SUMMARY**

This is the Final Report for EL26126 located in the Barrow Creek region.

Matilda applied for this EL on the grounds that the region is prospective for uranium. Since its grant, Matilda has been attempting to farm-out the EL but has been unsuccessful. This reason, along with the October 2008 world financial crisis has resulted in Matilda surrendering the EL.

No on-ground exploration or any ground disturbing work of any nature was carried out during the term of the EL by Matilda Minerals Limited or its agents.

## **2. INTRODUCTION**

Matilda Minerals Ltd ("Matilda") was admitted to the Australian Stock Exchange on 15 September 2004. Matilda owns and operates the Andranangoo mineral sand mine on Melville Island in the Northern Territory. The mine started production in November 2006 and produces a heavy mineral concentrate comprising approximately 50% zircon, 25% rutile + other valuable heavy minerals for export directly to China. Until recently Matilda has specialised in mineral sands exploration and development using state-of-the-art exploration and production techniques. Matilda's mineral sand interests are on the Tiwi Islands, the Top End of Northern Territory, Cape York in Queensland, Broome in Western Australia, and Narrabri in New South Wales. Matilda started to diversify its portfolio with the search for other commodities in Northern Territory and Western Australia and applied for a number of ELs prospective for uranium.

The EL is located approximately 190km south of Tennant Creek, 20km north-east of Barrow Creek and 263km north of Alice Springs on Neutral Junction pastoral lease. The EL straddles the main Alice Springs to Tennant Creek road and is located on Taylor Creek (see figures 1, 2 and 5).

The EL was granted on 19<sup>th</sup> February 2008 and comprises 18 blocks, an area of approximately 57.12 sq km.

The EL encroaches on the following pastoral leases:

- Neutral Junction – NT portion 3375

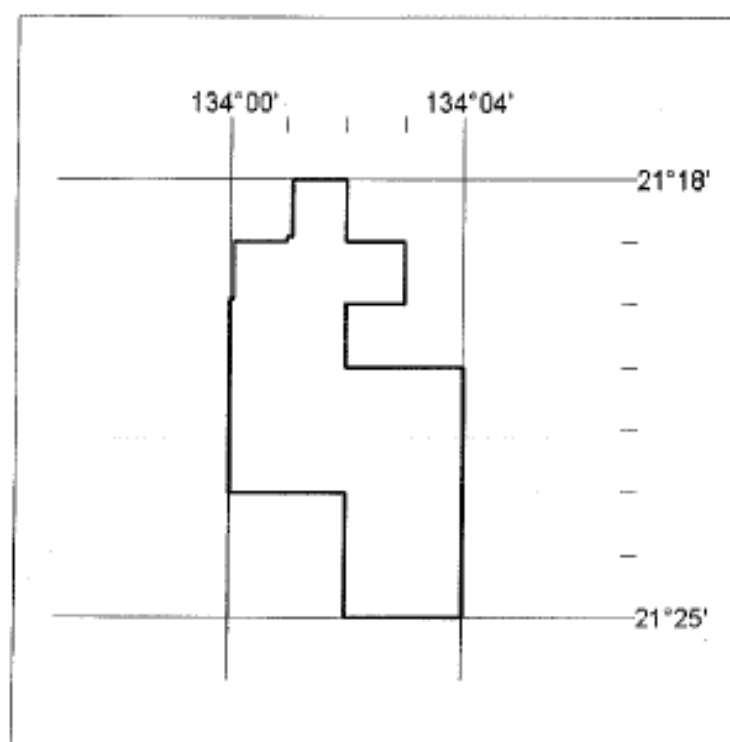
The exploration rationale for EL26126 is based on its location in northern Arunta Basin, an area of high prospectivity for a number of minerals including uranium.





### 3. TENURE

EL #	Date granted	Blocks	Area Sq Km (approx)	Expenditure commitment
26126	19/02/2008	18	57.12	\$11,300



**EL26126**  
**18 Blocks**  
**57.12 sq kms**

Figure 3 –EL26126 blocks

## 4. GEOLOGY

EL26126 is located in the northern Arunta Basin, an area with favourable geology for uranium mineralisation (see figure 5).

<b>Common name</b>	<b>Aileron Province (Arunta Region)</b>
<b>Type</b>	Metamorphic and Igneous
<b>Lithology</b>	Variably metamorphosed clastic sediments, meta volcanic rock, calc-silicate rocks, dolerite, mafic rock, granite.
<b>StratAgeMin</b>	Palaeoproterozoic
<b>StratAgeMax</b>	Mesoproterozoic
<b>AgeMin</b>	1560My
<b>AgeMax</b>	1860My
<b>Summary</b>	Forms part of the Arunta region. A poly-deformed and metamorphosed east- west trending basement terrain along the southern margin of the North Australian Craton
<b>Relationship</b>	Unconformably overlain by the Central Australian Platform Cover. Largely faulted relationship with the Warumpi Province (formerly Southern Arunta Province) and Irindina Province
<b>Thickness</b>	Unknown, possibly several tens of kilometres
<b>Economic</b>	Hosts a variety of commodities including Cu, Pb, Zn, Au, W, Sn, Zr, mica, vermiculite, REE, and alluvial garnets.
<b>Metamorphism</b>	Lower greenschist to granulite



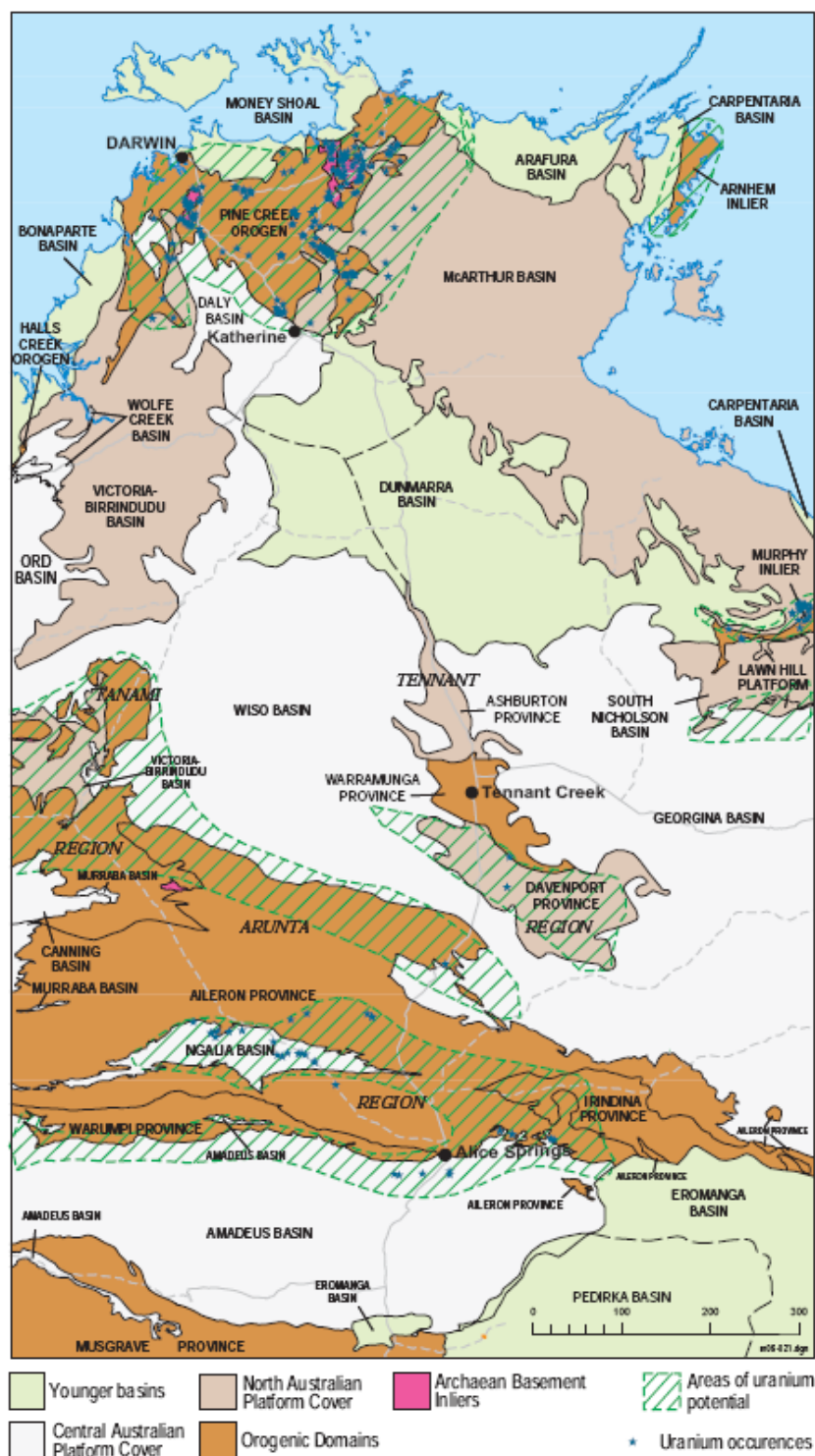


Figure 46. Uranium occurrences and areas with potential for uranium in the Northern Territory, (from M Ahmad, NTGS, unpublished data).

**Figure 4 - Northern Territory Geology with areas of uranium potential (after NTGS)**



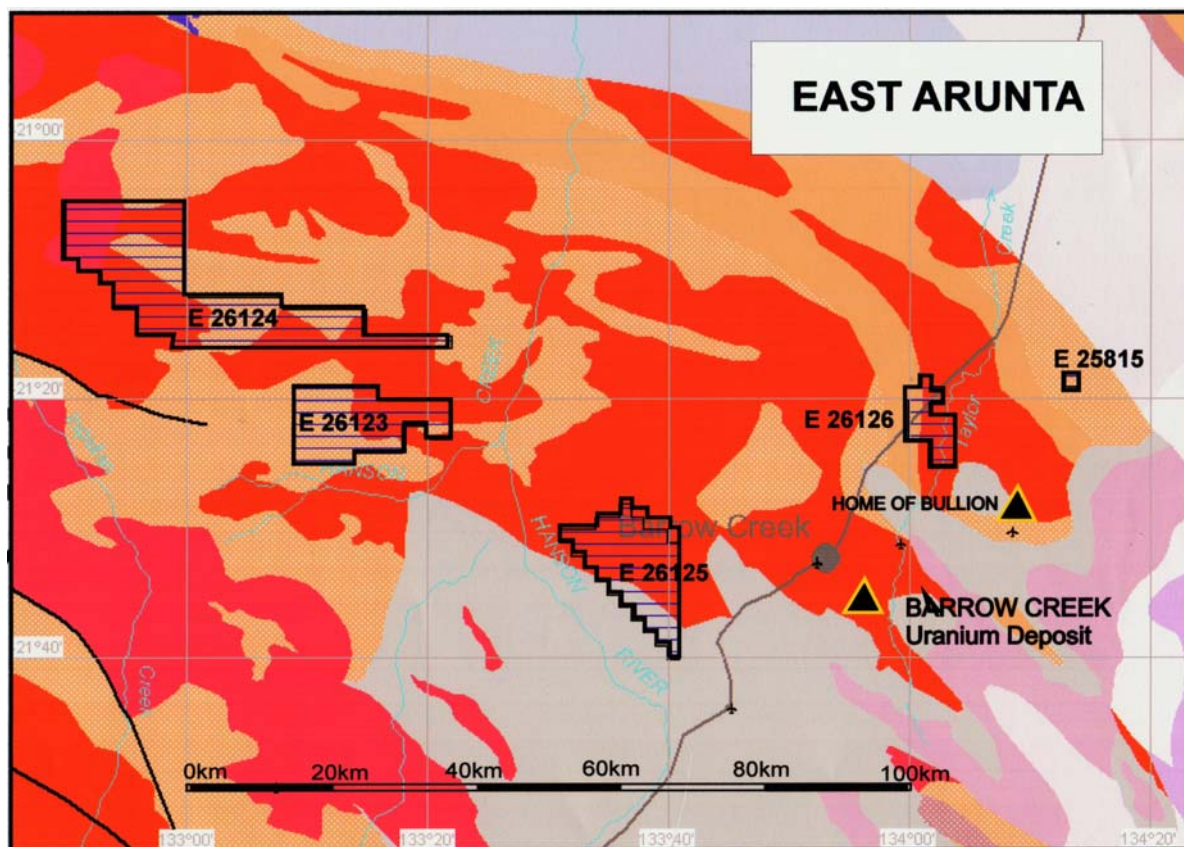


Figure 5 - Barrow Creek area geology and Matilda ELs

## 5. EXPLORATION

No on-ground exploration or any ground disturbing work of any nature was carried out during the term of EL26126 by Matilda Minerals Limited or its agents.

This EL was granted in February 2008 and for the past 10 months Matilda has attempted to farm-out the tenement but, despite some interest from several companies, was unable to secure a deal. Exploration was planned to commence during the 2008 dry season, however due to the on-going discussions with potential joint venture partners this did not happen.