EL 24246
NAPPERBY
PARTIAL RELINQUISHMENT REPORT

11 October 2004 to 1 November 2013

Holder/Operator: Deep Yellow Limited
Tenement Manager: Deep Yellow Limited
Author: G Gee
Commodity: Uranium
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250,000 Mapsheet: Napperby (SF53-09); Hermannsburg (SF53-13); Mt Liebig (SF52-16); Mt Doreen (SF52-12)
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SUMMARY

The Napperby Exploration Licences 24246 is located approximately 180 kilometres north-west of Alice Springs (Figure 1).

EL 24246 was granted over an area of 245 blocks on 11 October 2004 to Paladin Resources NL for a period of 6 years. The tenement was subsequently transferred to Deep Yellow Ltd (DYL) in 2005 and at the end of the 8th year of tenure DYL relinquished 76 blocks. A further relinquishment of 20 blocks was lodged on 8 October 2013 with Department of Mines and Energy advising the partial surrender was effective 1 November 2013.

This report documents the exploration carried out on the 20 relinquished blocks during the term of tenure.

In 2007 Toro Energy Limited (Toro) entered into an Earn-In Agreement with DYL to purchase 100% of the project based an agreed JORC compliant resource outlined by Toro by July 2010, or based on 6,000 tonne U₃O₈ JORC resource if purchased earlier.

During 2007, Toro completed a program of 515 sonic core holes, 123 auger holes and 814 aircore holes followed in 2008 by a further 333 sonic core holes and 784 aircore holes. Assay data from both the 2007 and 2008 drilling programs were used to calculate a JORC Code Mineral Resource estimate of 3,351 tonnes of U₃O₈ (including the 670 tonnes U₃O₈ previously outlined by DYL).

The 2009 (and current) JORC Inferred Mineral Resource is 9.34 million tonnes at 359 ppm U₃O₈ containing 3,351 tonnes of U₃O₈ (7.39 Mlb). Only 50% of the known mineralised area was redrilled and included in the JORC compliant resource.

In May 2010, Toro considered the financial terms of the Earn-In Agreement to be unfavourable and they ultimately withdrew from the project after a Scoping Study was completed (which included baseline environmental, radiation and heritage studies and groundwater monitoring activities as a pre-cursor to a Pre-Feasibility Study).

During 2011-2012, exploration carried out on the relinquished blocks consisted of a review of historic and regional data and two airborne electromagnetic surveys, both carried out by Fugro Airborne Services (Fugro); the first in 2007 and the second in 2011. Seventy six blocks were relinquished in October 2012, reducing the total size to 169 blocks. These relinquished blocks straddle the Lake Lewis saline flats and fall in a zone of restricted access.
1. INTRODUCTION

Exploration Licence 24246, in conjunction with EL 24606, forms the Napperby Project and is the subject of exploration for deep palaeochannel (roll front) and calcrete-hosted styles of uranium mineralisation by Deep Yellow Ltd (DYL)

This report covers exploration conducted on the relinquished portion of EL 24246 throughout the term of tenure.

1.1. Tenure

EL24246 was granted on 11 October 2004 over an area of 245 blocks. The tenement was renewed for a further two years expiring 10 October 2014. The tenement was reduced to 169 blocks at the end of the eighth year of term. A further partial relinquishment of 20 blocks was lodged at the end of the 9th year of term (Figure 1).

<table>
<thead>
<tr>
<th>Tenement No.</th>
<th>Granted Blocks</th>
<th>Current Blocks</th>
<th>Grant Date</th>
<th>Expiry Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>EL24246</td>
<td>245</td>
<td>149</td>
<td>11/10/2004</td>
<td>10/10/2014</td>
</tr>
</tbody>
</table>

1.2 Location and Access

The Napperby Project is located 180 km north-west of Alice Springs in the Arunta Province. The 1:250,000 Napperby SF53-09 map sheet covers 95% of EL 24246 with the southern 2 kilometre margin within 1:250,000 Hermannsburg SF53-13 map sheet. The project area is accessed from Alice Springs via the Tanami Road to Tilmouth Roadhouse (Figure 1).
Figure 1: Tenement Location Plan Showing Retained and Relinquished Blocks
2. GEOLOGY AND URANIUM MINERALISATION

2.1 Regional Geology

The Napperby Project lies within the Arunta-Ngalia region of the Northern Territory. Basement is comprised of Palaeoproterozoic to Mesoproterozoic metasedimentary and granitic rocks. These are overlain by Neoproterozoic to Devonian Ngalia Basin sediments immediately north of the tenements, and in turn by Tertiary to Recent clastic sequences, derived by erosion of highly radiogenic basement uplifts to the north in the Reynolds Range area (Figure 2).

Shallow covered to partly outcropping granite to granitic gneiss terrane underlies EL 24246. The crystalline basement comprises deep to shallow incised palaeodrainages infilled with from 100m to 10m of Recent clastic material. The Napperby drainage is saline near the confluence with Lake Lewis with hypersaline groundwaters also being recorded. Calcrete capping and aeolian sand overlie mineralised alluvial sands and sandy clays of palaeodrainage fill. The mineralised sands and clays are carbonaceous in part and may act as redox fronts.

Carnotite at the Napperby deposit (also referred to as the New Well deposit or prospect) occurs immediately below and to a lesser extent within the calcrete, but resides primarily in the underlying sandy clays, as coatings, disseminations, pellets and blebs up to 5 cm long. The sand also hosts carnitite as disseminations or concretions. Underlying the sedimentary fill is a lateritised, red, granitic clay-saprolite/palaeosol. This rests on a very irregular palaeotopographic surface of radiogenic granite.

The paleodrainage confluences or deltas abutting Lake Lewis constitute likely zones of uranium accumulation of the ‘calcrete/carnotite’ type. Accordingly, uranium prospecting focusses on such zones in the first instance.
Figure 2: Retained and Relinquished Areas Over Geology
3. **PREVIOUS EXPLORATION**

The Napperby deposit (EL 24246) was first identified through shallow auger drilling by CRAE in 1971. CRAE continued to explore the area before surrendering the ground in 1974. Uranerz also explored the prospect from 1977 to 1984 and estimated resources of between 5700 and 6200 tonnes at an average grade of between 360 and 380ppm U$_3$O$_8$ (pre JORC code). Little exploration has been carried out on EL24246 outside of the immediate deposit area where the majority of work has been focussed.

Additional details of historic exploration are documented in previously submitted Annual Reports including Sullivan and Rawlings 2009.

4. **EXPLORATION COMPLETED**

In 2007 Toro commissioned Fugro Airborne Services (Fugro) to undertake a broadly spaced airborne electromagnetic (AEM) survey. In 2011, DYL commissioned Fugro to undertake a second AEM survey designed to delineate subsurface palaeochannels around the periphery of Lake Lewis with the potential to host both calcrete and roll-front style uranium deposits. The potential for northeast directed paleodrainage targets draining fertile sources to the southwest of Lake Lewis undoubtedly exists; however, the priority to assess the outlined Napperby resource means that available resources must be focussed to this end. The less attractive portions of EL 24246 are thus being culled.

The only data acquisition that took place over the relinquished portion of EL 24246 comprises two short line segments from the Fugro EM survey (2007).

The sections of the survey that cover the relinquished portion of the tenement are shown on Figure 3. The areas selected for surrender were chosen on the basis of the failure to identify, through analysis of regional and historical data in conjunction with AEM survey data, any palaeochannels or drainages that could potentially host calcrete or deeper roll-front style uranium mineralisation.

DYL has requested that the Northern Territory Geological Survey waive the requirement to provide ‘cookie-cut’ AEM survey data due to the small area of the survey that falls within the relinquished ground.
Figure 3: AEM Survey Lines Within Relinquished Area
5. BIBLIOGRAPHY


Gee G., 2006. EL24246 Napperby Annual Report for Year Ending 10 October 2006. DYL


Sawyer L., 2007 First Combined Annual Report for EL24246 and EL24606 for Year Ending 28 December 2007. GEOS Mining for TOE.