Partial Relinquishment Report
EL 26287 Mount Denison
1st April 2008 to 31st May 2013

Titleholder: Toro Energy Ltd
Operator: Toro Energy Ltd
Tenement Agent: Toro Energy Ltd
Title: EL26287 Mount Denison
Project: Reynolds Range
Report Title: Partial Relinquishment Report EL26287 Mount Denison
Report Period: 1st April 2008 to 1st April 2013
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Corporate Author: Toro Energy Ltd
Target Commodity: Uranium
Date of Report: 30th May 2013
Datum: GDA94 Zone 52 & 53
250k Mapsheets: Mount Theo SF53-08; Mount Peak SF53-05
100k Mapsheets: Giles 5354; Turners Dome 5254
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Summary

This Partial Relinquishment Report for EL26287 covers work carried out by Toro Energy during tenure from 1st April 2008 to 1st April 2013.

- Fugro AEM
- Drilling – 5 aircore holes. Gamma logs, lithological logs, assays
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1 INTRODUCTION

This report outlines the work conducted within relinquished portion of the exploration tenement EL26287 during 1st April 2008 to 1st April 2013 by Toro Energy Limited (“Toro”; ticker code “TOE”).

Uranium mineralisation is known in the region and is restricted (thus far) to the Proterozoic Aileron Province and Carboniferous Ngalia Basin. Uranium at Nolans Bore (Arafura Resources), 100 km to the southeast, occurs in phosphatic and REE-enriched metasomatic pods and veins within the high-metamorphic-grade Lander Rock beds. Uranium is also present in high grades at Bigrlyi (Energy Metals-Paladin JV) to the southwest and within carbonaceous sandstones of the Mt Eclipse Sandstone. The deposit is a roll-front style formed during uplift and deformation of the basin in the Carboniferous.

Locally, EL26287 incorporates Lander Rock beds and Aileron Province granites. These outcrop sparsely and indicate that the tenement has good potential for Tertiary palaeochannels. Previous literature supports this.

EL26287 is located approximately 250 km north-northwest of Alice Springs (Figure 1, Figure 2) in the Reynolds Range province on the Mt Theo and Mt Peak 1:250,000 mapsheets.

The Reynolds Range region is semi arid with monsoonal influences, with 75-80% of rainfall occurring in the summer months. Annual rainfall is generally higher in the north of the region. The mean annual rainfall for Tennant Creek (to the North) is 375 mm. Rainfall is extremely erratic.

Most of the region is hilly range country, covered by Spinifex (hummock grassland) and a variety of stunted vegetation. Adjacent are sand plains with minor sand dunes containing Spinifex, Acacia, Blue Gum and Mallee scrub plants. Drainage from the high-relief ranges quickly dissipates into shallow water courses and floodplains that break up the sand plains, or locally into ephemeral salt lakes. This tenement lies at the southeastern end of the Reynolds Range and incorporates largely hilly country in the south and dissected low hills at the headwaters of the Lander River in the north.
Access to the region is via the sealed Stuart Highway to Aileron, then west along the gravel access road to Mt Denison and Pine Hills Stations. The tenement lies within the northern part of Mount Denison Station (PPL 1110). Access within the tenement is via unsealed station tracks within Mt Denison station. Remote areas can only be accessed by helicopter.

Figure 1 Location EL26287

Figure 2 Location of the Mt Denison tenement area
2 TENEMENT

EL26287 was granted on 1st April 2008 to Toro Energy Ltd for a period of 6 years. A waiver for the 2nd year compulsory relinquishment of 50% was approved and as a result only 30.4% (or 92 blocks) were relinquished at the end of the second year. Compulsory 3rd year relinquishment resulted in further reduction of 53% (see appendices). Compulsory 4th year relinquishment was waivered and compulsory 5th year relinquishment is the subject of this report (Figure 3, Figure 4, Figure 5). On 1st April 2013, 64 blocks (270.3 km) were surrendered representing 64% of the tenement area. Twenty nine blocks remain, with an area of 84.22Sqkm.

![Figure 3 EL26287 surrendered areas since grant](image-url)
Figure 4 Location of surrendered area on topography

Figure 5 EL26287 Detail of surrendered area over Google image
3 GEOLOGICAL SETTING

The Reynolds Range project lies within the Arunta-Ngalia region of the Northern Territory. Basement is comprised of Palaeoproterozoic to Mesoproterozoic metasedimentary and granitic rocks assigned to the Aileron Province, including the Reynolds Range Group. These granites and orthogneisses are notably highly-radiogenic within the Reynolds Range, hosting numerous veins and pegmatites with anomalous uranium and thorium. These rocks are overlain by Neoproterozoic to Carboniferous sediments of the Ngalia Basin to the south of the tenement. Locally, the Aileron Province rocks are overlain by a veneer of Tertiary to Recent clastic sequences, derived by erosion of the radiogenic granites in the Reynolds Range.

Uranium mineralisation is known in the region and is restricted (thus far) to the Proterozoic Aileron Province and Carboniferous Ngalia Basin. Uranium at Nolans Bore (Arafura Resources), to the southeast, occurs in phosphatic and REE-enriched metasomatic pods and veins within the high-metamorphic-grade Lander Rock beds.

This deposit is subject of ongoing feasibility studies. Uranium is also present in high grades at Bigrlyi (Energy Metals-Paladin JV) to the west, within carbonaceous sandstones of the Mt Eclipse Sandstone. The deposit is a roll-front style formed during uplift and deformation of the basin in the Carboniferous.

The local geology comprises sodic granites, gneisses and minor amphibolites, folded metasediments and intruded metabasic rocks. Major northwest shears cut the sequence and are associated with barren quartz intrusion. The two most prominent topographic structures in the area are located along the parallel valleys of Lander River and along the Saltbush Creek – Blue Bush Bore Valley, approx 5 – 20km south of the relinquished area.

The granites batholiths are interpreted to be shallowly eroded and exposure is of their roof pendants and upper levels only, resulting in an abundance of pegmatite outcrop typically of quartz-feldspar-muscovite-tourmaline composition. Some very
coarse examples occur in association with minor tantalum or tin mineralisation that has in places been mined.

The metasediments, comprising meta shales, cherts, siltstone and fine sandstone range in grade from low greenschist to schist facies and are common in the Lander valley. Some exhibit quartz sericite alteration.

Tertiary to recent cover comprising lateritic sands and clays, calcrete and ferricrete is common in low lying areas and exhibits depths in the order of 70m in drilling. Some calcrete shows replacement by chalcedonic silica and this silcrete has been demonstrated to be uraniferous, with a chip sample grading 500ppm in the region.

The present static watertable is significantly below the base of calcrete in drilling and thus is older than the present hydrogeological scheme. This is likely to have an influence on both the preservation and appropriate media of trap sites for secondary uranium mineralisation and the recognition of palaeo flow directions and source rocks.

In the Hann Range, the Vaughan Springs Quartzite (which unconformably overlies the Arunta Palaeoproterozoic rocks) preserves the basal conglomerates of that sequence. These conglomerates have been shown to be anomalous in uranium (40-50ppm) at surface, where leaching is expected to have occurred
## 4 PREVIOUS EXPLORATION

Previous exploration prior to Toro is summarised in Table 1

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<th>Ten Num</th>
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<th>Commodity</th>
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<td>19990125</td>
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<td>Au (Lander Beds)</td>
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<td>19990821</td>
<td>airborne magnetic/radiometric, soils, RAB,VAC,regional gravity,DEM mapping</td>
<td>RAB holes were shallow at &lt;15m and uranium was not assayed for</td>
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6 EXPLORATION COMPLETED

6.1 Summary - Work undertaken by Toro

- **2008** - Toro undertook a brief reconnaissance field trip in July 2008. This involved driving some of the local pastoral tracks to gauge logistics and access issues for future ground exploration. Limited foot traverses of granites were carried out using a scintillometer. A consistent high background was noted, suggesting natural high thorium and/or uranium concentrations in the Aileron granites. This is consistent with the airborne radiometric data. No samples were collected for analysis.

- **2009** – No work carried out on the relinquished part of the tenement.

- **2010** - Commissioned Fugro to fly Tempest AEM survey in August 2009.

- **2011** - Aircore drilling - 5 holes for 385m across interpreted palaeochannels. Geochemistry/Gamma logging was carried out (see Appendices).

- **2012** - No on ground exploration activities were carried out during the reporting period due to wet weather and minor complications resulting from a heritage clearance. An exploration agreement was signed with the Central Land Council on behalf of the Native Title holders.

- **2013** – No on ground work was carried out over the surrendered area during the reporting period.
6.2 Geophysics

Fugro were commissioned to fly and AEM survey during August 2009. The survey was flown at 1000m spacing on EW flight paths. The processed image in Figure 6 Drillhole locations on AEM over the surrendered area highlights conductive areas of possible palaeochannel and/or basement conductors in red. AEM data can be found in the Appendices.

![Figure 6 Drillhole locations on AEM over the surrendered area](image)

6.3 Drilling

Aircore drilling (Table 2) was carried out in November 2010 by Wallis Drilling using a Delta10 drill rig. Holes were drilled to refusal through interpreted Tertiary sediments consisting of varying sand, silts and clays. One metre samples were collected from the drilling cyclone in plastic bags. Each metre sample was litho-logged and gamma radiation was recorded with a scintillometer. Holes were also gamma logged using a 27mm probe.
Assay samples consisting of either, 8m composites, 4m composites or 1m original samples were collected by scoop into calico bags and sent to ALS Alice Springs. Samples were assayed for As, Ce, Cu, Mo, Ni, Pb, Se, Th, U, W by ICP-MS. The long narrow conductive feature in the western part of the area (Figure 6) was found to be caused by saline groundwater infiltrating a clay-weathering zone developed along a major structure. Only limited sand was encountered and no anomalous gamma radiation was identified and this area is of no further interest. All drill hole information can be found in the appendices.

### Table 2 Drillhole Details

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### 7 APPENDICES

**Drilling Data Filenames:**

EL26287_2013_P_02.DHLocations.txt
EL26287_2013_P_03.DHLithology.txt
EL26287_2013_P_04.DHAssay
EL26287_2013_P_05.DHSurv
EL26287_2013_P_07.Filelisting
EL26287_2013_P_14.DHMetadata
EL26287_2013_P_17.DHRadiometrics.txt
Lithology_code.pdf
**AEM Data Filenames:**
Zipped file containing:
- EL26287_2013_AEM
- EL26287_2013_AEM.dfn
- EL26287_2013_AEM.txt

**8 REFERENCES**


