# **Hale Energy Limited**

## EL 24810

"Plenty Highway"

### ALICE SPRINGS 1:250K MAP SHEET

### Surrender Report Year 4

### August 2nd 2008 - July 15th 2010

Distribution: 1. Hale Energy Limited (THOR Mining PLC) - Wembley

2. Department of Resources - Darwin, NT

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#### 1.0 SUMMARY

The Plenty Highway Project is located in the Plenty River area about 125km northeast of Alice Springs. The project was formerly part of two contiguous tenements that covered approximately 1,200km<sup>2</sup> of the Tertiary Waite and Huckitta Basins within the Proterozoic Arunta Block, which are prospective for palaeo drainage hosted uranium mineralisation. The Plenty Highway passes through the south of the Plenty Highway project area. The prospective areas within the tenement are topographically flat and are covered by scrub and grassland.

The project area covers part of the Tertiary Waite and Huckitta Basins which are relatively shallow sedimentary basins; the central portions of which were probably lakes during most of the time of deposition of their sediments. The basins were fed from both the Harts Range metamorphic rocks in the south and by various channels that drain areas of Proterozoic granitic and metamorphic rocks to the north. The sedimentary sequence within the basin is dominated by clays and sandy clays, with lesser amounts of sands. Lignite and evaporite horizons are also present. The sediments were subject to slight uplift during the late Pliocene and the upper parts of the sequence have been eroded in part. The sequence is poorly known, with the approximate 1,200km<sup>2</sup> of basin within the project areas having been tested by only about 15 drill-holes. Within the Plenty Highway tenement basement was reached in only one hole and the basin is known to be in excess of 200m vertical depth at it's deepest point.

Early stratigraphic information was obtained by the BMR, which drilled two holes into the basin during the 1960s.

Alcoa explored the basins for uranium during 1979 and 1980. Alcoa drilled 71 holes to maximum depths of 200m for a total of 6,260 metres. Of these holes, six were drilled within the area of EL24810 and a further six within that the adjacent tenement EL25378. Significant uranium intersections were only achieved in four holes, drilled outside Hale Energy's project areas. The best intersection, at a depth of 104m, was of 45ppm  $U_3O_8$  within a reducing horizon of pyritic carbonaceous silt.

A HoistEM survey was flown over the Plenty Highway tenement in late 2006. The HoistEM Data was modelled and interpreted by Dave McInnes of Montana GIS Pty Ltd and completed in April 2007.

A drill program of 16 air core holes for 1,579m was completed in late August to early September 2007 by Hale Energy Limited.

The most prospective area encountered was along the fence line between holes 07PHAC010 and 07PHAC012. Drill hole 07PHAC011 intersected a zone of quartz sand 8m thick (hole ended before the end of intersection) which exhibited some anomalous readings from the scintillometer. The HoistEM survey was a technical success and outlined several conductive shells in an extensive palaeo drainage system which is considered to be prospective for "roll front" style uranium mineralisation. Drilling to date has not identified any economic uranium mineralisation however only limited coverage of the paleo drainage system has been completed due to budget limitations.

Escalating costs of exploration in Central Australia together with a downgrading of prospectivity of the tenement and poor weather conditions during 2010 resulted in the remaining 117 blocks being surrendered on 15 July 2010.

### 2.0 INTRODUCTION

This report covers all exploration completed on EL24810 for the for the 4 years between 2 August 2006 to 15 July 2010. Exploration Licence EL 24810 was originally comprised of 235 graticular blocks (733 km<sup>2</sup>) and was granted to Harfort Nominees Pty Ltd on 2 August 2006. On the 16 June 2006 Harfort Nominees Pty Ltd underwent a name change to Hale Energy Limited. Hale Energy Limited became a wholly owned subsidiary of Thor Mining Pty PLC when the company listed on the ASX on 27<sup>th</sup> September 2006. The tenement was subsequently reduced in size to 117 graticular blocks on the Year 3 anniversary date. Prospectivity of the tenement was downgraded in Year 4 and the tenement was surrendered on the 15 July 2010.

### 3.0 LOCATION AND ACCESS

EL 24810 is located on the Alcoota 1:250,000 map sheet (SF53-10) 160km northeast of Alice Springs (Figure 1.0). Access is via the Stuart Highway for 70km north of Alice Springs, then east for 90km along the Plenty Highway. The area of the licence is well served by station roads and tracks.

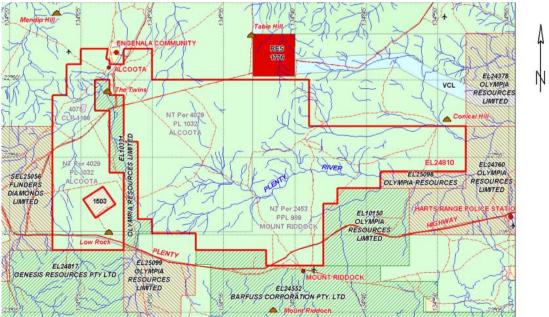


Figure 1.0 – Plenty Highway Location Plan prior to reduction on topo base.

### 4.0 NATIVE TITLE AND SITE CLEARANCE

A search of the AAPA database has been completed which identified several recorded sites well away from the 2007 drilling programme.

#### 5.0 GEOLOGY

The Plenty Highway project area (EL 24810) covers part of the Tertiary Waite and Huckitta Basins which are relatively shallow sedimentary basins; the central portions of which were probably lakes during most of the time of deposition of their sediments. The basins were fed from both the Harts Range metamorphic rocks in the south and by various channels that drain areas of Proterozoic granitic and metamorphic rocks to the north.

The sedimentary sequence within the basin is dominated by clays and sandy clays, with lesser amounts of sands. Lignite and evaporite horizons are also present. The sediments were subject to slight uplift during the late Pliocene and the upper parts of the sequence have been eroded in part. The sequence is poorly understood with approximately 1,200km<sup>2</sup> of basin within the project area having been tested by only about 15 drill-holes. Within the Plenty Highway tenement basement was reached in only one hole and the basin is known to be in excess of 200m vertical depth at it's deepest point.

#### 6.0 PREVIOUS EXPLORATION

Early stratigraphic information was obtained by the BMR, which drilled two holes into the basin during the 1960s.

Alcoa explored the basins for uranium during 1979 and 1980. Alcoa drilled 71 holes to maximum depths of 200m for a total of 6,260 metres. Of these holes, six were drilled within the area of EL24810 and a further six within that the adjacent tenement EL25378. Significant uranium intersections were only achieved in four holes, drilled outside Hale Energy's project areas. The best intersection at a depth of 104m was 45ppm  $U_3O_8$  within a reducing horizon of pyritic carbonaceous silt.

### 7.0 EXPLORATION COMPLETED BY HALE ENERGY LIMITED

Extensive open file and report data was reviewed covering the tenement and the surrounding area (Appendix 1).

In late November of 2006, a helicopter borne time domain electromagnetic survey (HoistEM) was flown over the tenement. The survey consisted of 126 traverses with 400m line spacing, collected in a North-South Orientation for a total collection of approximately 1800 line km of data (Appendix 2).

The HoistEM Data was modelled and interpreted by Dave McInnes of Montana GIS Pty Ltd and completed in April 2007, see Figure 2 below.

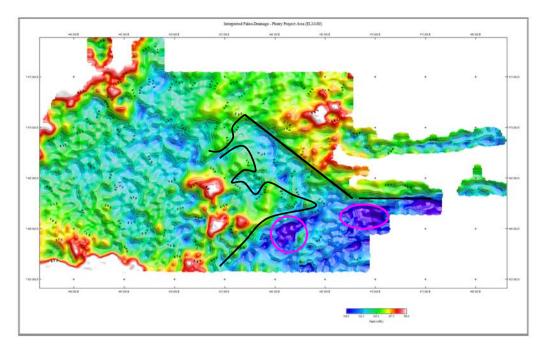


Figure 2: Interpreted basement top with black lines representing the outline of the two major palaeo-channels and the magenta circles highlighting the conductive sediment filled isolated basement lows.

A drill program of 16 air core holes for 1,579m was completed in late August to early September 2007. Approximately half the holes failed to reach bedrock and were terminated in clays (Appendix 3).

Water was intersected in 3 holes 07PHAC002, 07PHAC003 and 07PHAC011. Of these the latter 07PHAC011 had the best water flow and could sustain a bore if water quality was suitable.

The general stratigraphy in the area is a thin sandy/soil layer at surface overlying a calcrete horizon with sand. Underneath this zone is characterised by calcareous clay with traces of gypsum and calcrete. The most prospective area encountered was along the fence line between holes 07PHAC010 and 07PHAC012. Drill hole 07PHAC011 intersected a zone of quartz sand 8m thick (hole ended before the end of intersection) which exhibited some anomalous readings from the scintillometer.

A further review of all open file data together with the recent Hale Energy drilling was completed during Year 3. The review led to a surrender of 118 graticular blocks peripheral to the main area of interest to reduce costs and meet NT DOR statutory requirements.

Downgrading of the prospectivity of the tenement combined with continual rain throughout 2010 and the escalating cost of exploration in central Australia resulted in the remaining area of the tenement being surrendered on 15 July 2010.

#### 8.0 APPENDICES

# APPENDIX 1 – OPEN FILE REPORTS LIST FOR EL24810 & THE SURROUNDING AREA

CR19700014 CR19710040 CR19730106 CR19730107 CR19780048 CR19790012 CR19800126 CR19820042 CR19820043 CR19830103 CR19830108 CR19830243 CR19830295 CR19830296 CR19840049 CR19840169 CR19850045 CR19860026 CR19890255 CR19920438 CR19940264 CR19940277 CR19950516 CR19960132 CR19990024 CR19990025 CR19990038 CR19990117 CR19990460 CR20000388 CR20000390