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Project Operator	Renascor Resources Ltd
Tenement Agent	Australian Mining & Exploration Title Services Pty Ltd
Titles/Tenements	EL 28286
Project Name	Erlunda North
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# **EL 28286 ERLDUNDA NORTH ANNUAL TECHNICAL REPORT**

**For the report period ending 21 February 2014**

## **ABSTRACT**

This report represents the third and final annual technical report for EL 28286 Erldunda North 100 % owned by Kurilpa Uranium Pty Ltd a wholly owned subsidiary of Renaissance Uranium Limited. EL 28286 Erldunda North covers 200 Blocks, approximately 622 km<sup>2</sup> within the Amadeus Basin, approximately 150 km south of Alice Springs, Northern Territory. The project was targeting major sandstone hosted uranium in areas not previously recognised or thoroughly evaluated for uranium mineralisation.

The current reporting period on EL 28286, Erldunda North has involved:

- Pursuit of a joint venture partner to assist with funding exploration for uranium mineralisation associated with helium gas.

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## 1. LOCATION, TITLE HISTORY, PHYSIOGRAPHY AND ACCESS

EL 28286 is located within Kurilpa Uranium's Amadeus Basin Project which comprises in total, seven (7) exploration licences (Figure 1). The properties cover the central and southern parts of the intracratonic Amadeus Basin, approximately 200 km south-south-west of Alice Springs. This project area is entirely greenfields with no record of any significant past mineral exploration. The Mount Kitty Structure however is presently being investigated by Central Petroleum.

Kurilpa Uranium Pty Ltd (Kurilpa) was granted EL 28286 on 4<sup>th</sup> April 2011 for a tenure period of six (6) years. The area of the exploration licence now covers 100 Blocks with the relinquishment of 100 Blocks an area of approximately 311 km<sup>2</sup> (Figure 2). EL 28286 is located within the Henbury (SG53-01), Rodinga (SG53-02), Kulgera (SG53-05) & Finke (SG53-06) 1:250 000 Map Sheets; the Erldunda (5547), Henbury (5548), Idracowra (5647) & Charlotte (5648) 1:100 000 map sheets and covers native title affected, freehold land.

The licence was surrendered on 21 February 2014.

The goal of the Amadeus Basin Project was to locate a major sandstone hosted uranium deposit by applying hydrocarbon concepts and cutting-edge basin analysis technologies. As part of a regional assessment of exploration opportunities in areas of uranium-enriched sources, Kurilpa has focussed on areas not previously recognised or thoroughly evaluated for uranium mineralisation. This has provided evidence in the Central Australian Basins of significant remobilisation of uranium from radiogenic basement into overlying Neoptoterozoic, Palaeozoic and younger sedimentary cover units. Kurilpa believes that the uranium deposits at Angela (Amadeus Basin), Bigrlyi and Napperby (Ngalia Basin) are examples of such a process.

However with the current lack of support for nuclear power and the stagnation of the uranium price, Kurilpa acknowledges obtaining funds for uranium only exploration has been difficult this year hence no on-ground exploration has been undertaken.

After review of all the existing data, the tenement was interpreted to have no significant potential for a sizeable uranium or base metal deposit.

Access to EL 28286 is good via the Stuart Highway which runs west of the exploration licence and also serviced by several other maintained roads. The Adelaide-Darwin railway is east of the tenement.

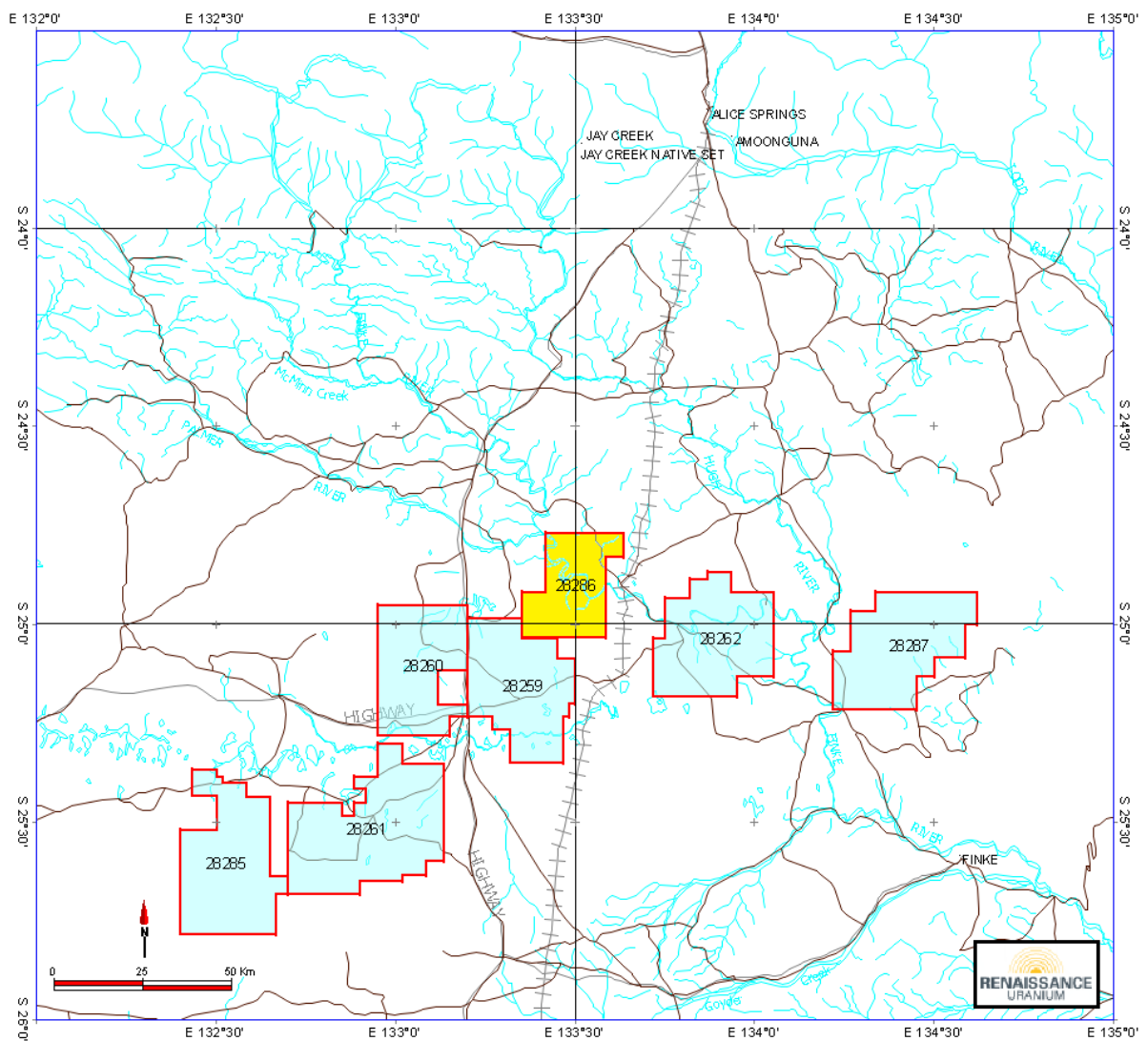


Figure 1: Kurilpa Uranium’s Northern Territory tenement locations with EL 28286 highlighted (yellow).

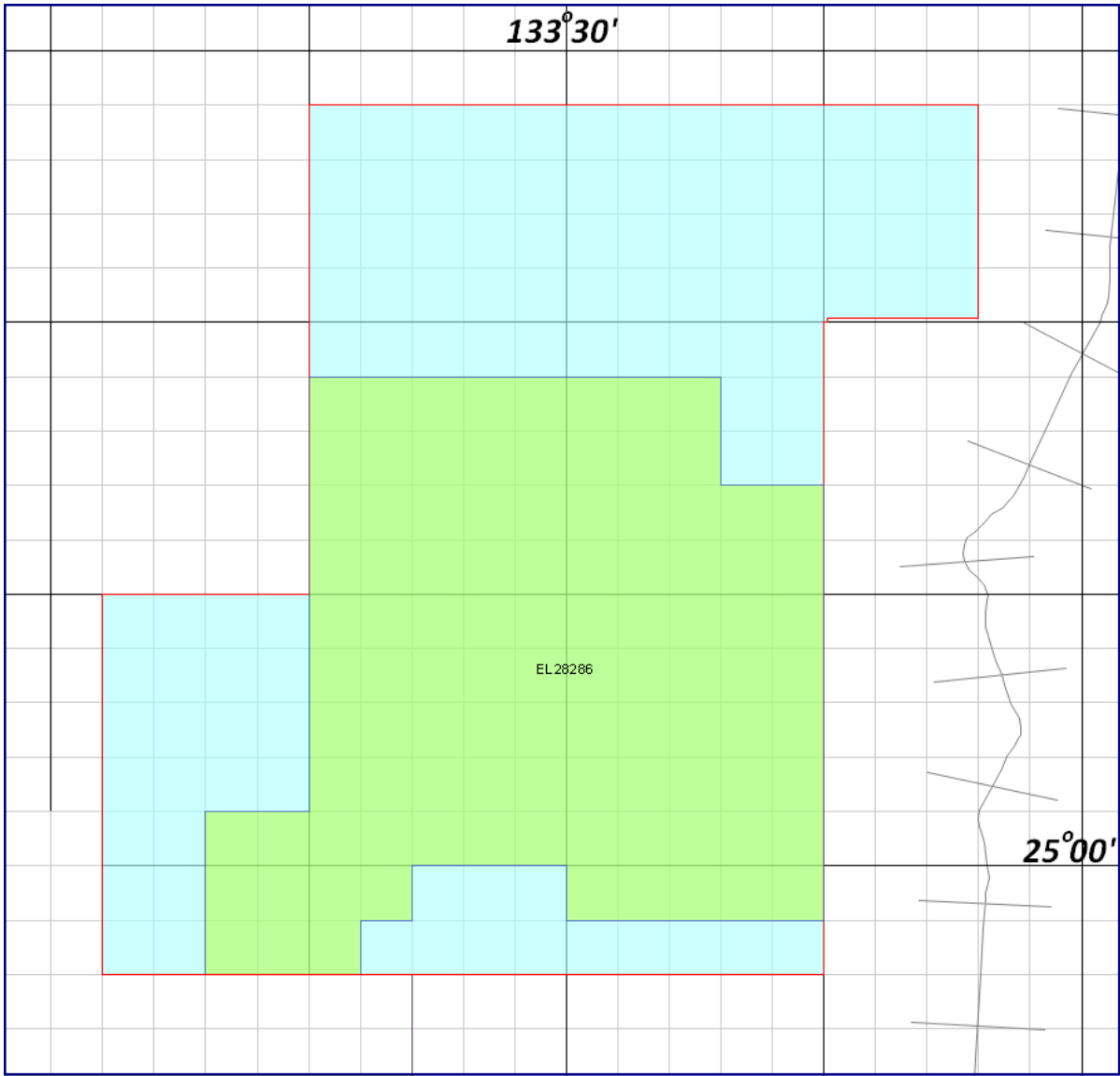


Figure 2: EL 28286 showing the relinquished 100 Blocks (blue)

## 2. GEOLOGICAL SETTING, EXPLORATION/MINING HISTORY AND EXPLORATION RATIONALE

### 2.1. GEOLOGICAL SETTING

EL 28286 is located within the Amadeus Basin. The Amadeus Basin is a large intracratonic basin extending across the southern part of the Northern Territory and into Western Australia. It is approximately 800 km long in the east-west direction and up to 300 km wide in the north-south direction containing a thickness of up to 14 km of sedimentary rocks of Neoproterozoic to Palaeozoic age. These are partially covered by surficial Tertiary and Quaternary deposits. The basin has had a long-lived multi-event tectonic history.

Both the Palaeoproterozoic and Mesoproterozoic metamorphic rocks of the Arunta Complex and the south the older rocks are the Mesoproterozoic crystalline rocks of the Musgrave Province are dominated by felsic gneisses and granites which are potentially important uranium-enriched source rocks that have repeatedly been shed into the basin during major tectonic inversions (uplifts) of its margins.

In the Amadeus Basin, the basal sequence of Neoproterozoic strata comprises shelf, lagoonal and continental fluvio-glacial sediments, including thick evaporates and minor volcanics. Cambrian sediments of continental and shallow marine origin overlie disconformably and include carbonates and evaporates. Unconformable late Cambrian-Ordovician marine sediments or continental Devonian-Carboniferous sediments complete the sequence.

The present day shape of the Amadeus Basin effectively results from two major orogenic cycles. Extensive broad folding and thrusting deformed the southern margin of the basin during the Petermann Orogeny (late Proterozoic). The Alice Springs orogeny (Devonian-Carboniferous) similarly deformed the northern margin. These events are regarded as important to ore forming processes.

Uranium mineralisation in the Amadeus Basin is localised at redox interfaces in the Devonian-Carboniferous sequence, related to reduced sequences contained in oxidised red-

bed sequences. The reduced beds are grey or in places white, where oxidation of pyritic sulphides caused bleaching.

Small sandstone-hosted uranium deposits were discovered in the 1970's. These were the Pamela and Angela prospects, about 100 km north of the current project. Hosted within Late Devonian arkosic sandstones (Brewer Conglomerate) they are close to the hinge zone of the east-west missionary Plains Syncline. Additionally in sediments of similar age and geological setting in the Ngalia Basin (Bigryli), as well as a number of basement hosted uranium occurrences and the Tertiary hosted Napperby uranium deposit. 250K geology of EL 28286 can be seen in Figure 2 below.

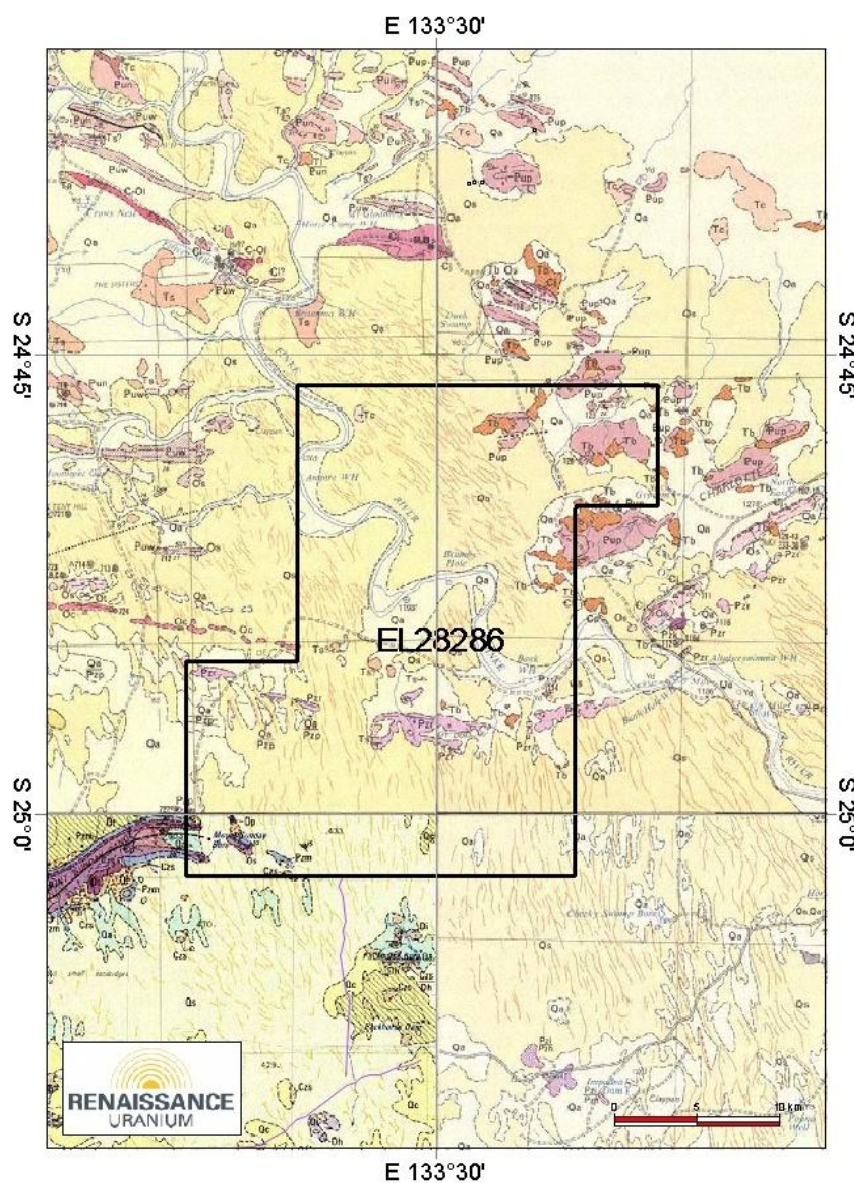


Figure 3: EL 28286 250K Regional Geology with visible map sheet variations (taken from NTGS website).



## 2.2. EXPLORATION HISTORY

### 2.2.1. Previous Exploration by Other Company

Uranerz Australia Pty Ltd (UAL) initiated uranium exploration in the Amadeus Basin in 1972, targeting sandstone-hosted deposits similar to those known in the western United States. Reconnaissance airborne radiometric surveys identified several small anomalies south of Alice Springs, near the northern margin of the Amadeus Basin about 100 km north of the current project. Scout drilling during 1973-74 discovered uranium mineralisation at Angela and Pamela prospects, which were delineated by detailed drilling during 1975-79, operating under a joint venture between UAL and MIM Exploration.

The current project area lies in the southern Amadeus Basin, 100 km to the south of the Angela and Pamela uranium prospects. Here, minerals exploration has been active since 1988 and mainly involved evaluation of evaporate deposits. There was one uranium exploration and also a search for diamond and/or base metals.

Nova Energy Ltd. (Nova) explored for uranium in the northern and eastern parts of the current Project area between 2006 and 2009. Nova's focus was to identify redox related uranium mineralisation in sediments of the Upper Devonian Finke Group. These sediments are considered similar to those hosting the Pamela and Angela uranium deposits, which lie in the Amadeus Basin. Initial work included acquisition of available data and interpretation of Landsat satellite imagery. A helicopter assisted geological reconnaissance and scintillometer prospecting survey followed. Nova concluded that the margin of the Amadeus basin may contain more fluvial or deltaic facies, which they considered more prospective for sediment hosted uranium deposits associated with redox boundaries.

Toro Energy Ltd (Toro) acquired Nova in 2007. Toro proposed to carry out a drilling program aimed at testing the redox boundaries in the sequence. However, Toro surrendered the licences when Idracowie Station denied access. Other exploration included a program by CRA Exploration Pty Ltd in 1991, searching for diamonds and base metals.

### 2.2.2. Previous Exploration by Kurilpa Uranium

Desktop based assessment of historic data, particularly nearby seismic, looking for structural and stratigraphic traps for uranium associated with helium gas.

### 2.3. EXPLORATION RATIONALE

The south-eastern Amadeus Basin is largely unexplored. Knowledge of subsurface geology is based on limited seismic data and the drilling results from only six wells. Magee-1, the last exploration well in the basin and drilled in 1992, intersected a thin helium rich gas pay zone and tested a petroleum system in the Neoproterozoic Heavitree Quartzite. Aeromagnetic data and SEEBASE TM depth to basement modelling provide an understanding of the basement structure, which is characterised by major faults and basement highs.

Amadeus Project has potential for structurally controlled, sediment hosted uranium deposits. Seismic data show potential for focusing deep basinal brines, derived from thick Neoproterozoic evaporates and known to be effective in remobilisation of uranium, into high-level reduced ore-forming traps, along structurally reactivated conduits such as faults and salt domes. Gamma logs from the gas exploration hole Magee-1 returned elevated radiogenic signatures from Heavitree and Stairway Sandstone units. This hole also profiles evidence of remobilisation of uranium from radiogenic basement into the overlying Neoproterozoic, Palaeozoic and younger sedimentary cover units.

A thin regolith profile and overlying transported materials tend to mask radiometric signatures and restrict geochemical dispersion halos, except close to bedrock mineralisation. Kurilpa Uranium will draw on experiences from exploration in other large basins to provide guideline for targeting structural traps beneath the masking cover.

### 3. EXPLORATION INDEX MAP

As no on-ground work has been undertaken no specific index map can be compiled.

### 4. GEOLOGICAL ACTIVITIES AND OFFICE STUDIES

No on-ground exploration activities were completed in the current reporting period. Internal desktop based assessment of historic geological, geophysical and seismic when available data, looking for structural and stratigraphic traps for uranium associated with helium gas was conducted.

Searches of public domain data has failed to provide any primary leads of potential helium related uranium exploration in particular the lack of seismic data has made this avenue of research more difficult to pursue. Review has considered the potash potential for the area but the available public domain data has been considered insufficient to support the initiation of any exploration activities on this front for the time being.

As a result of a tsunami-induced accident at Japan's Fukushima Daiichi nuclear power plant in March 2011, uranium prices initially stagnated and subsequently fell creating uncertainty over the required timing for newly discovered uranium deposits. We have factored this into our exploration expenditure. Our work over the past year has consequentially not been limited to pure-play uranium exploration with direction towards our tenement portfolio that includes opportunities for gold and IOCGU prospects, as well as uranium. Strong activity for uranium only exploration will be somewhat controlled by the increased price and enthusiasm for the uranium sector.

## 5. CONCLUSIONS AND RECOMMENDATIONS

No on-ground exploration was conducted in the current reporting period. Desktop based assessment of historic data looking for structural and stratigraphic traps for uranium associated with helium gas was conducted. These assessments have failed to provide any primary leads of potential helium related uranium exploration within EL 28286, particularly the lack of seismic data making this avenue of research more difficult to pursue.

After review of all the existing data, the tenement was interpreted to have no significant potential for a sizeable uranium or base metal deposit.