PARTIAL RELINQUISHMENT REPORT OVER THE WEST BATCHELOR URANIUM PROJECT

PINE CREEK MINERAL FIELD,
NORTHERN TERRITORY

West Batchelor Project
Exploration Licence: 26257

BY
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DISTRIBUTION
1. Northern Territory Department of Minerals & Energy
2. Eclipse Uranium Limited
PROJECT NAME: WEST BATCHELOR
TENEMENTS: Exploration Licences 26257
MINERAL FIELD: Pine Creek Mineral Field
LOCATION: PINE CREEK SE5302 1:250 000
Reynolds River 5071 1:100 000
COMMODITIES: Iron Ore, Gold, Uranium and Tin
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1.0 WEST BATCHELOR PROJECT

1.1 Copyright Statement:

The owned information acquired by Eclipse Uranium Ltd includes all information under the previous work by Eclipse Uranium Ltd and work during reporting year sections. The rest of the information has been sourced from open reports and data through the Department of Mines and Energy. The Minister has authority to publish the copyrighted information accordingly.

2.0 INTRODUCTION

The West Batchelor tenement (EL26257) covers 407.05 km² of ground within the Palaeoproterozoic rocks of the Pine Creek Orogen near to the Rum Jungle Mineral Field. The project is prospective for iron ore, uranium, gold and base metals. The tenement is situated on the western portion of the Pine Creek Geosyncline and intersects part of the Daly and Birrinbindu Basins. The tenement was granted to Whitvista Pty Ltd on 29 April 2009 and on 18 January 2012 Eclipse Uranium became the owners of Whitvista through the acquisition of Central Energy Ltd.

Eclipse proposes that over the coming year a reconnaissance program to determine access to the area and logistics required for future programs is completed. Geological mapping, rock chip sampling and soil sampling would also be proposed for the areas. The tenement lies within Litchfield National Park which is a zoned park allowing for both exploration and recreation. As such, once targets have been generated, they will be refined against permissible exploration activities before programs are designed to investigate target areas.

This report describes the results of literature research and target generation based on re-interpretation of magnetic/radiometric data carried out during the third year of the Licence.

During April 2014 consulting geologists Kastellco Geological Consultancy (“KGC”) conducted a review of existing historical exploration data within the Northern Territory Geological Survey Database. This was conducted for the Project area to identify any potential for base metal/uranium. The results identified 2 major iron targets that warrant further work immediately. Based on the review a total of 62% of the tenement was to be relinquished based upon more favorable iron targets within Exploration Licence area.

3.0 LOCATION AND ACCESS

The West Batchelor project is located approximately 61 km south of Darwin and 174 km north-west of Katherine in the Northern Territory. The project comprises one Exploration Licence (EL 26257) which covers a total area of 1,047 km². The area can be reached via the Adelaide River Township which is 5 km away.

Rainfall is seasonal, associated mostly with the summer monsoon. Temperatures range from the summer average of 35 degrees celsius to a winter average minimum of 12 degrees Celsius.

4.0 TENEMENTS

The project is comprised of one granted exploration licence (EL) with the tenement details summarised in Table 1 prior to this relinquishment and their location are shown in Figure 1 is the area outlined to be relinquished.
Table 1: West Bachelor Project - Tenement Summary after Tenement Partial Relinquishment

<table>
<thead>
<tr>
<th>Project</th>
<th>Tenement Number</th>
<th>Status</th>
<th>Current Area Blocks</th>
<th>Current Area (sq km)</th>
<th>Current Holder</th>
<th>Granted Date</th>
<th>Expenditure Covenant ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Bachelor</td>
<td>EL26257</td>
<td>Granted</td>
<td>123</td>
<td>407.05 km²</td>
<td>William Wigg</td>
<td>29/04/2009</td>
<td>$120,000</td>
</tr>
</tbody>
</table>

Figure 1: West Batchelor Project – Relinquishment Map showing 61 sub-blocks dropped (outlined in blue)

5.0 REGIONAL GEOLOGY MINERALISATION

The tenement is situated on the Pine Creek Geosyncline and 98kms of the South Alligator River Uranium Field (SARUF). The SARUF is historically (initially discovery made in 1965) one of Australia’s richest uranium mining areas.

This major gold and uranium province is associated with minor base mineral occurrences. The areas are geologically idyllic to host unconformity and vein-style uranium deposits similar to mineralisation found at South Alligator River Valley in the 1950s. The Rum Jungle uranium field lies on the western
side of the Pine Creek Inlier where Palaeoproterozoic low-grade greenschist facies metasediments are unconformably draped around two Archaean granitic basement complexes the Rum Jungle Complex to the north and the Waterhouse Complex to the south.

Uranium and base metal mineralisation is hosted by graphitic or chloritic pyritic phyllite of the Whites Formation at its contact with the underlying dolomite-magnesite of the Coomalie Dolomite. The Palaeoproterozoic sequence is locally unconformably overlain by hematite quartzite breccia (a palaeoregolith) and by late Palaeoproterozoic sandstone and conglomerate. The larger deposits (White's, Dyson's and Rum Jungle Creek South) as well as many of the smaller prospects show a spatial association with this unconformity. The two basement complexes together with the Proterozoic rocks are displaced dextrally by 4 to 5 km along the regional Giant's Reef Fault, creating a wedge-shaped embayment of sedimentary rocks, juxtaposed against the Rum Jungle Complex in the south-eastern block. A broad mineral zoning trend has been noted. The Rum Jungle Area is well known for the polymetallic nature of its mineralisation and it is usual for uranium to occur in association with other base and precious metals.

Four of the uranium and base metal deposits are in the Embayment, namely: Dyson's (uranium) in the north-east, followed to the south-west by White's (uranium, copper, lead, cobalt, nickel), Intermediate (copper, uranium; immediately south-west of White's) and Brown's (lead, zinc, copper, cobalt, nickel; 1 km south-west of Intermediate) The Mount Burton (uranium, copper) and Mount Fitch (uranium, copper) deposits are peripheral to the Rum Jungle Complex 5 km west and 7 km north-west of White's. Rum Jungle Creek South (uranium) is 5 km south-west of White's. Ore samples from White's deposit indicated that uraninite and pyrite mineralisation preceded a period of shearing, which was followed by the introduction of copper, cobalt and lead sulphides.

The Rum Jungle mineral field contains historic uranium mines and current uranium resources at Mt. Fitch. In particular four deposits were mined in the Rum Jungle uranium field Dyson's, White's, Mount Burton and Rum Jungle Creek South, two of which also produced copper. Rum Jungle Mineral field contains basin fill sediments overlying an Achaean Granite Dome basement. The area is prospective for U, Cu, Co, Ni, Pb, Zn, Au, Magnesite and Phosphate and has been actively mined since 19501.

There are a variety of mineralisation styles and a series of significant deposits including:

- **Woodcutters-** carbonaceous shale and Rum Jungle Dome, Zn-Pb-Ag sulphide mineralisation within a N trending fault structure offsetting the Woodcutters fold.

- **Embayment Area-** contains four main deposits hosted in the Whites Formation at or close to the contact with the Coomalie Dolostone. Dysons (U Only), Whites (U-Cu-Co), Intermediate (Cu-Co) and Browns (Pb-Cu-Co-Ni-Zn).

- **SW waterhouse Dome margin has associated U a d u-Cu mineralisation including SE Kylie and Riverside Prospects.**

- **Sundance is an Au deposit mined from 1986 and 993 and produced 5300 oz gold. Mineralisation is vertical pipe like structures in Coomalie Dolostone which widen near surface for mushroom like structures.**

- **Winchester-** Magnesite deposit with indicated resources of 12.2Mt @ 43%MgO within Coomalie Dolostone.

- **Geolsec –** the largest deposit in the Geolsec Formation. Contains up to 30% P₂O₅. Phosphate is present within haematitic siltstone beds in Fluorapatite.

Located 170km east of West Batchelor, the Alligator Rivers Uranium Fields (ARUF) has historically produced around 320,000 tonnes of uranium. The West Batchelor tenement's geology includes the uranium-rich granites of the Nanambu Complex.
West Batchelor shares a contiguous boundary with Territory Uranium Company Ltd’s (TUC) Daly River Energy Prospect, where in June last year, TUC reported that it would test three significant uranium, gold and multi-element anomalies over an 8km structural corridor. Within this corridor, new airborne electromagnetic data gave rise to the interpretation that the uranium prospective unconformity is close to surface under a sequence of cover rocks that may have masked mineralisation. Despite this cover sequence, TUC’s work has returned rock chip results of up to 157ppm U₃O₈.

Figure 2: West Batchelor Project – Regional Geology Map showing the various mineral occurrences within and surrounding areas
6.0 LOCAL GEOLOGY & MINERALISATION

The tenement is situated on the western section of the Pine Creek Geosyncline and comprises parts of the Daly and Birrinbindu Basins. Geologically, the area is identified as ideally suited to host unconformity and vein-style uranium deposits. Previous exploration in the 1980s had identified several areas with high levels of uranium mineralisation.

The geology is largely comprised of the Burrell Creek Formation of the Finniss River Group. The Burrell Creek Formation comprises greywackes, phyllites and schists and is described as brown to grey-green, thickly bedded to massive, fine to coarse feldspathic metagreywacke with graded bedding in places and minor lenses of volcanilithic pebble conglomerate; brown to grey, laminated phyllite, slate and mudstone. This formation is prospective for vein hosted uranium and gold and polymetallic veins.

The Depot Creek Sandstone of the Tolmer Group is a sandstone and conglomerate sedimentary rock described as pink quartz sandstone with quartz pebble conglomerate lenses with a shallow marine environment of deposition. There is a small lens of the Stray Creek Sandstone, also from the Tolmer Group, conformably overlying the Depot Creek Sandstone. It is described as a quartz arenite, flaggy, micaeous and ripple marked. The giant’s reef fault then cuts through this sequence in a north east trending structure. This structure cuts through the Rum Jungle Mineralisation and continues all the way to west Australia. A second fault trending in the same direction is also located further east.

To the north and east of the tenement there are small areas of the Two Sisters

7.0 PREVIOUS EXPLORATION

In just over a century the deposits of the following mineral have been discovered and mined in and around the Batchelor area: tin, copper, gold, nickel, lead, tantalite, and uranium. The most significant of these ventures was the Rum Jungle Uranium mine (discovered in 1949).

In the ensuing years a number of uranium mines commenced production around Rum Jungle, producing 4200 tonnes of uranium. An undeveloped resource of between 5000-7000 tonnes of uranium also exists at the Mount Fitch deposit currently operated by Compass Resources. Major uranium discoveries were then made further east in the Alligator Rivers areas in the 1960’s and 1970’s when Ranger, Nabarlek, Koongarra and Jabiluka were found containing around 300 000 tonnes of uranium.

The Rum Jungle Creek South orebody (3kms west of Batchelor) was discovered in 1960 by Territory Enterprises. It was mined 1961-63 to depth of 67m, with the relatively high-grade ore (0.37% U). The Daly River Copper Mine commenced in 1884 with operations continuing sporadically until 1918. Total recorded production is about 5,000 of 20% copper ore from shaft and an open cut. About 1,000t of similar material was produced from other nearby copper deposits, most notably, Wheeldanks.

The region has been explored for gold for over a century since the first discoveries at the Finniss River in 1865 and at Tumbling Waters in 1868. These first discovered occurrences were uneconomic. In 1870, a hole dug for the construction of the overland telegraph line at Yam Creek yielded alluvial gravel containing coarse gold. This led to many significant discoveries and by 1881; mining activity was widespread throughout the central Pine Creek Orogen. All major gold mines in the region were discovered by the turn of the century. A substantial quantity of gold was produced in the period 1884-1915, with a peak in 1891-95.

The total gold production from Pine Creek till the end of 1998, excluding minor recent alluvial operations, amounts to 115.35 tons of gold. Pine Creek includes nearly half the gold occurrences of
the NT. Modern gold exploration commenced in 1980 when increase prices and improved mining and metallurgical technology boosted exploration. This resulted in systematic geological mapping, geochemical surveys and drilling mostly around previously known occurrences.

New ore bodies were discovered at Batman, Goodall, Moline Dam, Glencoe, Rustlers Roost, Sundance and Toms Gully. Several 'vein-type' uranium deposits in the central and southern Pine Creek Geosyncline are located outside known fields. Most of these occurrences were discovered during the first phase of uranium exploration during the early 1950's. Adelaide River, George Creek and Fleur de Lys were among some of the earliest uranium mining operations in the NT, but were not large enough to attract much interest when compared to the Rum Jungle Mineral Field and Alligator River deposits. are was processed at Rum Jungle and a total of 19.7 t of U3O8 was produced from vein type deposits.

West Batchelor shares a contiguous boundary with Territory Uranium Company Ltd's (TUC) Daly River Energy Prospect. Territory's exploration programs have reported uranium significant findings; including best result of 1.5kg/t (1500ppm) U over 0.3kg/t (300ppm) U3O8 and results are interpreted to overlie an unconformity type system.

8.0 ECLIPSE URANIUM LTD EXPLORATION 2011-2013

In March 2010, GPX Surveys commenced a fixed wing airborne magnetic and radiometric survey for Whitvista Pty Ltd over the West Batchelor project area in the Northern Territory. The survey area was approximately 10 km southwest of Batchelor. The survey was flown using a Cessna 210 fixed wing aircraft with registration VH-TIJ.
This area is still retained under the current Exploration Licence area. On the 18th January 2012 Eclipse became owners and operators of the West Batchelor Project through the acquisition of Central Energy Pty Ltd. Since the acquisition of the tenement Eclipse has completed a risk management plan for the Pine Creek Project (including EL26257) which has been approved by NT Worksafe.

Eclipse has also commenced a project review of the area to generate preliminary target areas (Figure 2) and collected all historical open files available for review. A regional database is also being constructed for the Pine Creek Project Area to aid with target generation.

An independent consultant has also been commissioned to provide further targets and review all available data for the tenements. Targets can then be refined to allow field programs to be designed.

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Figure 3: West Batchelor Project – Total Magnetic Intensity Map showing the area retained.
Figure 4: West Batchelor Project – TMI Reduced to Pole Map showing the area retained
Figure 5: West Batchelor Project – Radiometric Ternary Image showing the area retained

9.0 REFERENCE


Lally, J H 2002 Stratigraphy, Structure and Mineralisation, Rum Jungle Mineral Field, Northern Territory. NTGS
