Woolner Project

EL 27702

Annual Report for the Year Ending
8th June 2011.

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Summary.

This report details the exploration activities carried out over EL 27702, the Woolner Project in the Northern Territory, during the period 8th June 2010 to 8th June 2011.

On 17th February 2011 Eclipse Uranium Limited acquired the Woolner Project upon its successful listing with the ASX. Since this date the company has focused predominantly on collecting background data for the project which includes open file reports, geophysical and geological data from the Northern Territory Geological Survey. This data has been used for project review and target generation.

A field trip to the project area was planned with the purpose of understanding the logistical requirements of exploration on the project, geological mapping and sampling, where appropriate, and meeting the landowners to establish good working relations. Due to unseasonable weather and heavy rainfall affecting access to the tenement this trip was not completed until the end of June.

First pass geological review indicates that the Woolner Project may be highly prospective for uranium and other metals associated with the granite dome features seen in the tenement. This style of mineralisation may be analogous to Rum Jungle.
1.0 Introduction.

The Woolner Project comprises Exploration Licence 27702 and covers 150 km² of Cainozoic rocks of the Money Shoal Basin, approximately 70km east of Darwin. The project is prospective for uranium mineralisation associated with the underlying Woolner Granite domes similar to the Rum Jungle uranium deposits.

2.0 Location, Access and Tenure.

Eclipse Uranium Limited’s Woolner Project area is located 5km southwest of the locality of Adelaide River in the Northern Territory. Access to the area is provided by the sealed Arnhem Highway from Darwin before using an unsealed track to Woolner Station from Corroboree. (Fig. 1)

The subject of this report, Exploration Licence EL 27702, covers 150 km² and is found on the Koolpinyah 5173 mapsheet, published in 1985.

Table 1. Woolner Project Tenement Details.

<table>
<thead>
<tr>
<th>Licence</th>
<th>Holder</th>
<th>Date Granted</th>
<th>Expiry Date</th>
<th>Area km²</th>
<th>Expenditure Covenant</th>
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<tbody>
<tr>
<td>EL27702</td>
<td>Eclipse Uranium Ltd 100%</td>
<td>08/02/2010</td>
<td>07/02/2016</td>
<td>150</td>
<td>$120,000</td>
</tr>
</tbody>
</table>

3.0 Regional Geology.

The tenement is situated on the eastern side of the Money Shoal Basin (MSB) which comprises a group of Cainozoic sediments. This is unconformably overlying the Pine Creek Geosyncline Block to the South and the Arafura Basin to the north. The Money Shoal Basin thickens from 200m in the east to over 4 kilometres to the west. The Money Shoal Basin is known to contain sandstones, coals, shales, claystones and marls, all overlain by a Cainozoic carbonate sequence. Areas to the west and east of the Mary River floodplain are higher in elevation and there are many outcrops of the sedimentary Tertiary cover as well as basement rocks of the Proterozoic Pine Creek Geosyncline. These Proterozoic sediments, intrusives and volcanics and their associated unconformities are known to be suitable host sites for uranium mineralization (Davis, 2007).

4.0 Project Geology.

The basal geology of the area comprises the Archean Woolner Granite Dome which appears on the tenement as the East Dome and West Dome. The Woolner Granite Dome is one of three known Archean granite domes within the Northern Territory and is therefore considered prospective for similar uranium, and potentially, gold mineralisation as Alligator River and the Rum Jungle Mineral Field. (Figure 2)

The Woolner Dome remains relatively unexplored compared to the Rum Jungle complex and the Nanambu-Ranger complex. The Archaean Woolner Dome subcrops beneath black soil floodplains and 30-80m of Cretaceous sediments. The Woolner Dome consists of granite and gneissic metasediments overlain by schists.
Figure 1
EL27702 Location Plan
and a magnetic BIF unit of the Dirty Water Metamorphics. There is a large regional retrogressive chlorite alteration halo around the granite. Overlying the Dirty Water Metamorphics on all sides of the granite is the Koolpinyah Dolomite. The dolomite extends 10-20km to the south where it is overlain by folded and deformed Wildman Siltstone (Castle, 2010).

Inspection of the STRIKE application provided by the NT Geological Survey indicates that the area is covered by a central pedolith comprising a ferruginous induration of residual materials which is surrounded by a saprolith of weathered bedrock.

In this locality the Money Shoal Basin is known to comprise sands, silts and clays from a coastal estuarine environment as well as a series of mudstones and shales.

5.0 Previous exploration.

Following the discoveries of Ranger, Nabarlak, Koongarra and Jabiluka major uranium deposits in the late 1960s to early 1970s, increased uranium exploration was conducted in the surrounding area. A number of companies have completed work within and adjacent to Eclipse’s Woolner licence (EL27702). A review of data these companies have provided to the Northern Territory government is given in this section.

Early exploration and mapping in the area established an Archean granitic dome (the Woolner Dome) flanked by lower Proterozoic meta-sediments and thin Phanerozoic sediments. This environment is considered prospective for both Alligator Rivers-type uranium deposits and Rum Jungle-type polymetallic deposits.

During 1973, Kewanee Australia Pty Ltd explored in the area to the south of EL27702. Eight minor uranium anomalies were detected during a ground radiometric survey. A magnetic survey provided useful structural information and delineated five major linear zones indicating the presence of regional fault structures within the area. (Anon, 1973) Minor lead and uranium anomalies were located. (Brown, 1973)

In 1973, Geopeko conducted a detailed review of the regional geology of the area. (Felderhof, 1973)

During 1978, Northern Cement held a large area (EL 931) to explore for silica and lime sands along the north coast which included the northern edge of EL27702. Auger holes of between 6-8 metres were drilled but no economic silica or lime sands were discovered. (Anon, 1974)

From 1978 to 1982, CRAE and Geopeko explored the area on the basis that it had similarities with the Rum Jungle and Alligator Rivers areas and potential for uranium and base metals. A ten hole rotary/diamond program was completed in 1978, of which one hole (78WORD10) was located within EL27702. Five holes targeted magnetic horizons, three targeted a gravity low in the north of EL27702 and two holes were drilled to the west of a magnetic linear. 78WORD10 was drilled into the gravity low and intersected granite at approximately 40 metres depth. During 1979 and 1980, Geopeko carried out aeromagenetic and radiometric surveys, a regional gravity survey and scout drilling. Drill holes were designed to auger through the Cretaceous sediment and obtain at least two metres of core from basement lithologies. Drilling results indicated that the Coomalie Dolomite subcrops in the Woolner area and is overlain by the Wildman Siltstone in the Marrakai area to the
south. (Figure 1) There is up to 70 metres of largely unconsolidated Cretaceous sediments. (Perring, 1980)

Exploration for uranium failed to locate any areas of interest. Exploration for gold was discontinued because anomalous magnetite metaquartz bands intercepted by drilling within the Fish Creek Schist were thin and discontinuous and geomagnetic data was not encouraging. (Perring, 1981)

In 1982, Union Oil Development Corporation commissioned an interpretation of regional geophysical data (airborne magnetics/spectral, gravity) to determine the location and extent of buried granite bodies magnetic horizons and major structures. (Anon, 1982)

Mobil Energy Minerals Australia explored, during the early 1980’s, for Alligator Rivers style gold-uranium deposits, within lower Proterozoic metasediments (Fish Creek Schist) on the margins of the Archean Woolner dome. A GEM-8 EM and magnetic survey was completed comprising 17 lines for a total of 29.5 kms. A seismic line of 4km was also undertaken along one of the GEM lines. Weak magnetic and EM anomalies were located near the granite rim. Testing by 5 rotary/percussion drill holes (491.2 metres) each cored from a length below the cover sequence, in the north of EL27702, did not encounter Fish Creek Schist. Core from these holes is held by the NTGS. The age of the Woolner Granite was determined as 2675 ± 14 Ma from uranium:lead ratios in zircons and the uranium content in zircons indicated that the granite is a fertile source rock. (Manning et al, 1983)

During the late 1980’s, PNC Exploration Australia explored for Rum Jungle type uranium-base metal targets within possible Whites Formation equivalent metasediments in the area. A test EM survey was carried out over areas considered prospective, and located coincident low density-conductive anomalies which were interpreted as graphitic pelites (Whites Formation equivalent) beneath about 60m of Phanerozoic cover. Follow up drilling (6 holes) intersected basement rock ranging from dolomite to dolomitic siltstone and dolomitic metapelites without intersecting any units which would account for the conductive anomalies. No graphite or sulphides were found. It was then determined that the anomalies indicated a sandstone paleochannel of up to 30m and 200 metres wide. The gravity/conductivity anomalies reflect a contrast between the clean, reduced, low density quartz sand of the paleochannel deposit and the high density resistive carbonate lithologies of the underlying basement. The north trending paleochannel (of possible Jurassic age) is incised into the early proterozoic basement and truncated by a north west trending fault. (Dunn, 1990 and Dunn, 1989)

In 2007-8, Yellow Rock Resources carried out a GPX Airborne low level radiometric and magnetic survey. Follow-up exploration activities included geological mapping and outcrop reconnaissance, scintillometer surveys, radon gas measurements, rock/soil sampling and water sampling. (Davis et al, 2007)

Scintillometer measurements confirmed the occurrence of uranium within a lateritised and transported profile of probable Mesozoic age. Water and soils/rock assay results established the presence of thorium and uranium at sufficient levels to warrant further substrate testing. (Schwann, 2008) All surveyed areas returned anomalous uranium results between 3 and 10 times background value and radiometric material appears to be aligned along a NNE trend. (Jewson, 2009)

Yellow Rock Resources located the following uranium target in the area:

- Jimmy Creek South (400m long) – anomalies to 400 cps (40 cps background)
• Jimmy Creek North (1200m long) – anomalies to 90 cps (20 cps background)
• PS24 Area (500m long) – anomalies to 70 cps (20 cps background)
• Hot Spring (point sample)
• PS2 Area (750m long) – anomalies to 200 cps (20 cps background)
• Line 145 (1600m long) – anomalies to 160 cps (20 cps background). (Jewson, 2009)

In 2009, groundwork surrounding the Jimmy Creek and Line 145 areas showed that the radiometric results were sporadic or low in tenor and are related to modern alluvial sediments on the tidal flats rather than a palaeo-surface profile. (Jewson, 2009)

6.0 Work Completed.

On 17th February 2011 after their successful listing on the ASX Eclipse Uranium Limited became the owners and operators of EL27702. Work completed on the tenement comprises collation of historical open file reports and geological data. This was utilised with reprocessed open file geophysical data for project review and target generation.

A field trip was planned with the purpose of geological mapping and sampling where appropriate, understanding the logistical requirements of any future programs and establishing good relations with the land owners. Unfortunately due to unseasonable and heavy rainfall over the last year affecting access this had to be postponed until later in June.

Quotes have been attained for a Fugro Falcon Survey for the tenement to further aid target generation and refinement.

7.0 Conclusions and Recommendations.

Work completed by Eclipse has indicated that the area may be prospective for Uranium and other fault associated minerals. It is considered that this may be associated with the Woolner Granite Domes which can be seen at depth, in a similar style to Rum Jungle.

Due to the nature of the ground, which is predominantly floodplain, only a small portion of the tenement is accessible at present. It is considered that the proposed Fugro survey will aid in target generation and refinement. Compilation of historical data will continue over the next year with the possible use of the NT Geological Survey Core Yard which holds some core from historical exploration within the tenement. Ground proofing of generated targets may also be required.
References.


