SUMMARY

During the seventh year of tenure two orientated soil sampling programs were completed on EL23921 collecting a total of 196 samples. No ground work apart from rehabilitation monitoring was carried out on EL23791.

Drilling was planned on EL23921 but early wet season rains stopped any chance of drilling.

Expenditure on EL23791 was $16,356 against a covenant of $35,000
Expenditure on EL23921 was $23,998 against a covenant of $35,000
INTRODUCTION

EL23791 and EL23921 are located 110km ESE of Darwin along the Arnhem Highway straddling the Mary River. They are located on the Darwin 1:250 000 Geological Map and the Mary River-Point Stuart 1:100 000 sheet. Rum Jungle co-ordinates are captured in GDA94 datum.

EL 23791 and EL23921 were granted to Territory Iron Limited for 6 years on the 21st January 2003. The two tenements together cover 129 square km (23 graticular blocks on EL23971 and 16 on EL23921) and were evaluated in the first four years for iron ore by Territory Iron Ltd. On the 30/5/2008 Rum Jungle Uranium Limited (RJU) signed a uranium joint venture agreement with Territory Resources over three tenements at Mary River (EL24468, 23791 and 23921) and three south of Batchelor (EL24412, 25203 and 25204) in return for shares and share options.

Rum Jungle upgraded the joint venture to include all minerals excluding iron ore and manganese on the 23/12/2008 in return for giving Territory Resources a further four million shares.

The annual report for the two tenements has been combined again this year due to the previous and current prospects overlapping the boundary of the two tenements.

Figure 1. Location Map
GEOLOGICAL SETTING

EL23791 and EL23921 are located in the central domain of the Proterozoic Pine Creek Orogen (PCO) in the Top End of the Northern Territory. The tenement geology primarily consists of graphitic-carbonaceous siltstone and dolomitic siltstone of the Palaeoproterozoic Wildman Siltstone Formation which is intruded by the Mount Bundey Igneous Suite (1831 Ma) which comprises the Mount Bundy Granite, Mount Goyder Syenite and associated lamprophyre dykes.

In the centre of EL23921 (Figure 2), the thorium rich and magnetic Mount Goyder Syenite intrudes Wildman Siltstone. The Mount Goyder Syenite is a pink-brown medium to coarse grained porphyritic syenite and comprises about 30% of the Mount Bundy pluton which also includes the Mount Bundy Granite (70% by volume), a pink medium to coarse grained biotite-hornblende monzogranite with minor fine grained porphyritic monzogranite which intruded at 1831Ma (Sheppard 1995).

EL23791 is mainly comprised of the Mt Bundy Granite and the surrounding Wildman Siltstone. In the south and east of the tenement the granite is bordered by the South Alligator Group which overlies the Wildman Siltstone and is composed of the iron rich Koolpin Formation, the Gerowie Tuff (1862 Ma) and the overlying Mount Bonnie Formation. The Mount Bonnie Formation conformably grades into the overlying Burrell Creek Formation of the Finniss River Group which occupies a large area of the central domain of the PCO, although not present on EL23791.

A 300m wide hornfels zone exists around both the Mount Goyder and Mount Bundy intrusions. The hornfelsed sediments were originally carbonaceous and dolomitic siltstones of the Koolpin Formation and Wildman Siltstone Formation. Within the hornfels zone, particularly on the western flank of Mount Goyder, skarn mineralisation consisting of magnetite, pyrrhotite, chalcopyrite and allanite occurs in their lenses dipping away from the syenite contact.

The Mount Bundy igneous suite also comprises K-rich shoshonitic lamprophyres and felsic dykes. The intrusion injected gold, uranium, base metal and iron bearing fluids into surrounding country rocks producing Tom’s Gully Gold Mine, the Quest gold and base metal deposits and the Mount Bundy Iron Ore mine.

Figure 2. Local Geology of EL23921 and EL23791
PREVIOUS EXPLORATION

Rum Jungle Uranium Ltd commenced exploration in the second half of 2008 after signing a uranium joint venture agreement with Territory Resources Ltd in May 2008.

During the first four years of tenure, Territory Resources conducted a review on the historical literature and geophysical data. UTS Geophysics flew a 2547 line km magnetic/radiometric survey at 80m line spacing (25m flying height over the tenement). The survey identified up to nine magnetic anomalies to follow up, targeting iron mineralisation. As a result 4 RC holes were drilled on what is now known as Anomaly 2 and Anomaly 3 in 2006. Drilling intersected pyritic and pyrrhotitic siltstone and dolomite below clay overburden on Anomaly 2, which returned anomalous copper and cobalt at depths less than 40m (Vivian 2007).

During the fifth year of tenure in the dry season of 2008 (Doyle 2008), the following work was carried out:

**EL23791**

- 6 rock chip samples collected. The best rock chip result was from a jarosite altered greisen outcrop in the Billabong area, 1km north-west of Mount Goyder, where MG08001 returned assay results of 59ppb Au, 1150ppm Bi, 1140ppm Cu and 39.1% Fe.
- 31 RAB holes for 652m. Shallow reconnaissance RAB drilling, targeting gossanous outcrop at the Billabong area 150m from the above jarosite outcrop reported a best intercept of 2m @ 0.2 g/t Au, 1.85g/t Ag, 2.5% As, 4030ppm Cu and 1067 ppm Bi.
- 16 RC holes (1128m) were drilled. Low grade polymetallic radioactive skarn mineralisation was intersected in seven of the 16 RC holes on the western fringe of Mount Goyder. Mineralisation contains uranium, copper and rare earth oxide with anomalous cobalt, vanadium, silver, iron and sulphur (refer to Table 3).

**EL23921**

- 21 rock chip samples collected.
- 11 RC holes drilled for 810m. Skarn mineralisation was intersected in a number of holes at anomaly 1 and 4 at Mount Goyder (refer to Table 3).
- 28 RAB holes drilled for 641m

Seven petrographic samples consisting of RC drill chips were submitted to Pontifex & Associates to make polished thin sections and for detailed petrographic analysis. Analysis indicates the mineralised samples are either magnetite skarn or sulphide skarn dominant with one sample MGRC021-041 being a greisen with visible arsenopyrite. The skarn samples variously contain magnetite, pyrrhotite and clinopyroxene with minor chalcopyrite. Rare earths and uranium are most probably contained in allanite. Two types of hornfels were described, a dark grey hornfels and a light grey hornfels and differ in mineralogical content. A sample taken from the Billabong prospect was confirmed to be scorodite and jarosite with visible arsenopyrite.

During the sixth year of tenure (Doyle and Nowland, 2009);

**EL23791**
Six rock chip samples were taken at the Billabong prospect during the year from an area of a green scorodite and jarosite altered outcrop with visible arsenopyrite and the immediate surrounds. Best results include 14.4 g/t Au, 4.3g/t Ag, 28.3% As, 1.1% Bi, 314 ppm Cu and 0.88% W. A number of samples were also analysed in-house with a Niton XLT3 hand held XRF analyser which indicated highly anomalous copper, cobalt, bismuth, tungsten and arsenic at the Billabong gossan and a large arsenic anomaly over the jarosite prospect nearby.

16 RC drill holes for 1461m targeting:
1. The Mount Goyder skarn prospect - uranium and polymetallic mineralisation in magnetite skarn and sulphide skarn rocks and dark green-grey hornfels at the Mt Goyder skarn prospect. Nine holes for 951m
2. Billabong prospect - gold and polymetallic mineralisation in a thin gossan and a scorodite and jarosite greisen outcrop at the Billabong prospect. Six RC holes were drilled in 2009 for 510m (BBRC001-006).
3. Goanna Park base metal prospect - on the north western side of Mount Bundy on the western side of the Mary River. Three RC holes were drilled in 2009 for 312m (MBRC019-021).

Borehole Wireline Pty Ltd were contracted to run gamma and density probes down drill holes as well as down hole surveys (dip and azimuth) and optical imaging of selected holes. One of the logged holes were captured with a down hole optical camera for 118m, where structural information could then be measured from the image. In some cases Borehole Wireline could not survey the complete hole due to collapsing and caving at depth.

13 RC drill holes for 1143m targeting the Mount Goyder skarn prospect - uranium and polymetallic mineralisation in magnetite skarn and sulphide skarn rocks and dark green-grey hornfels at the Mt Goyder skarn prospect.

Borehole Wireline Pty Ltd were contracted to run gamma and density probes down drill holes as well as down hole surveys (dip and azimuth) and optical imaging of selected holes. One of the logged holes were captured with a down hole optical camera for 48m, where structural information could then be measured from the image. In some cases Borehole Wireline could not survey the complete hole due to collapsing and caving at depth.

Processed TEMPEST data was received during the sixth year of tenure. Ninety line km of Airborne TEMPEST surveying was flown at 333m line spacing by Fugro Airborne as part of a larger survey over the entire Pine Creek Orogen. E-W flight lines intersect part of the EL 23791 for 9 line km (Error! Reference source not found.). TEMPEST was also flown to the south, over EL23791 and EL23921 in an E-W direction for 56 line km. Initial inspection of the conductivity depth images (CDI’s) indicates that the TEMPEST system maps the graphitic black siltstone unit of the Wildman Siltstone Formation very well.
A Heli–VTEM electromagnetic survey was flown by Geotech Airborne in May 2009. The Mt Bundy Survey comprised 6 areas flown in various directions at 200m line spacing. Section A571-4aM was then chosen for infill at 100m line spacing exists over the Mt Goyder skarn and Billabong areas. Profiles for each flight line were received in July 2009 after processing by Southern Geoscience Consultants.

Four holes were drilled late in July (MGRC042 – 044 & MGRC048) targeting three VTEM anomalies under black soil floodplains. Graphitic black siltstone and minor sulphide mineralisation were intersected explaining the VTEM anomalies but nothing substantial was discovered. Error! Reference source not found. shows the VTEM CDI that indicates over 70m of conductive graphitic siltstone which hole MGRC042 intersected. MGRC048 was drilled to 108m in October 2009 to test a VTEM anomaly under black soil cover. The hole intersected siltstone and carbonate units with sulphides (mainly pyrite).
CURRENT EXPLORATION

Soil Sampling

Consulting geochemist Richard Mazzuchelli, spent three days with the exploration team looking at the best sampling medium and discussed the best analytical techniques for this project. The purpose of the visit was to try and differentiate between mineralised VTEM conductors and non-mineralised VTEM conductors, many of which are due to graphitic black shales and many of which are buried under black soil floodplains. It was decided soil was the best sampling medium and Aqua Regia Digest (ARM10) method at Amdel Laboratories was the best and most cost-effective analytical method.

During August 2010 Rum Jungle completed orientated soil sampling grids over two prospects on EL23921 collecting a total of 196 samples. Soil sampling was conducted at Mt Goyder East and a VTEM anomaly at Merv’s using a palaeo-pick to dig small holes approximately 20-30cm deep. Soil was collected by a scoop and sifted through a <2mm sieve, where a small amount was then bagged. Results are appended in Appendix 1.

Figure 3 Soil Sampling grids over EL23921
Mt Goyder East

A 50m x 50m grid was used over Mt Goyder East collecting a total of 89 samples. After statistically analysing the results only some statistically significant results were found. These included elevated Fe, Mn, Zn and one anomalous Au sample with 15ppb Au (123029). It was decided however, that these results were not good enough to warrant an RC drilling program.

![Figure 4 Soil sampling over VTEM anomaly at Mt Goyder East](image)

Merv’s

A 50m x 100m grid was completed over a VTEM anomaly at Merv’s on a black soil floodplain of the Mary River. Only statistically anomalous Au was returned with two samples assaying 22ppb (123106) and 24ppb (123122) Au.

It is uncertain if the soil geochemical program can successfully detect mineralisation below at least 20m of black soil overburden.

Merv’s VTEM anomalies were included as part of the 2010 Mt Bundy RC drilling program however due to early rains flooding the black soil floodplain, the target area became inaccessible and was not drilled. Rum Jungle will plan to drill this area and other high-priority VTEM anomalies nearby during the eighth year of tenure.

![Figure 5 Merv’s soil sampling grid over VTEM image and showing VTEM high-priority anomalies](image)
PROPOSED EXPLORATION ACTIVITY YEAR 8
Planned drill holes that were unable to be completed during the seventh year of tenure over the Merv’s VTEM anomaly will be drilled in 2011. Rum Jungle will also continue to review VTEM data for potential drill targets over the Mt Bundy and Mt Goyder areas.
PROPOSED EXPENDITURE YEAR 8
RC Drilling $20 000
Wages $10 000
Travel /Accommodation $4000
Soil sampling/assaying program $3500
Earthmoving $3000

Total Expenditure $40 500

CONCLUSION

Soil sampling was conducted during the seventh year of tenure but no targets were identified from the results. Holes planned for the seventh year of tenure for Merv’s VTEM anomalies will be drilled during the eighth year once the ground has dried up and a drill crew are available.

REFERENCES


