ANNUAL REPORT OVER THE
MT WELLS GOLD
PROJECT

PINE CREEK MINERAL FIELD,
NORTHERN TERRITORY

Arnold Project
Exploration Licence: 27567

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April 2015

DISTRIBUTION
1. Northern Territory Department of Minerals & Energy
2. Eclipse Metal Limited
PROJECT NAME: MT WELLS

TENEMENTS: Exploration Licences 27567

MINERAL FIELD: Pine Creek Mineral Field

LOCATION: PINE CREEK SD5208 1:250 000

Pine Creek 5270 1:100 000

COMMODITIES: Gold and Base Metals
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ANNUAL REPORT ON EXPLORATION ACTIVITIES OVER EL27567

1.0 MT WELLS 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 Mt Wells project is located approximately 140 km southeast of Darwin in Northern Territory. The project comprises one Exploration Licence (EL 27567) which covers a total area of 29.99 km$^2$. The area can be reached via the Stuart Highway from Darwin.

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

The Mount Wells tenement (EL27567) covers 29.99 km$^2$ of ground within the Palaeoproterozoic rocks of the Pine Creek Orogen near to the South Alligator River Uranium Field. The project is prospective for gold and base metals. The tenement is also relatively near to the Rum Jungle mineral field which is highly prospective for uranium mineralisation in conjunction with base metals. The tenement was granted to Whitvista Pty Ltd on 16th April 2010 and on 18th January 2012 Eclipse Uranium became the owners of Whitvista through the acquisition of Central Energy Ltd.

On the 17th June 2013, a total of 40% of the tenement was relinquished based upon more favorable geochemical and magnetic targets within Exploration Licence area. EL 27567 represents a greenfields exploration play for principally gold-base metal deposits and potentially uranium of varying genetic styles. The exploration concepts based on specific geological criteria considered as important for controlling the localisation and upgrading of gold mineralisation hosted with structural controlled features.

No exploration work has been conducted over the exploration licence during this year based on financial constrains to the company. The company has commenced negotiations with interested parties for a potential JV over the project.

3.0 LOCATION AND ACCESS

Eclipse’s Mount Wells Project is located approximately 140km southeast of Darwin and 110km northwest of Katherine in the Northern Territory. The licence is comprised of 9 blocks with a total area of 29.99 km$^2$ (Figure 1). Access to the tenement is gained by using the Stuart Highway from Darwin before taking the road along the Alice Springs- Darwin railway to Burrundie and then the road to Mt Wells. It appears that all roads are sealed to the tenement (Figure 1).

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: Mt Wells Project - Tenement Summary

<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>Mt Wells</td>
<td>EL27567</td>
<td>Granted</td>
<td>9</td>
<td>29.99 km²</td>
<td>Whitvista 100%</td>
<td>16/04/2010</td>
<td>16,750</td>
</tr>
</tbody>
</table>

Figure 1: Mt Wells Project – Topography Map
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.

Mount Wells is 45kms SE of Thundelarra’s Thunderball prospect. Previous exploration in the 1980s had identified several areas with anomalous uranium mineralisation. The Thunderball prospect was discovered in 2008 during initial drill testing of a low order surface radiometric anomaly. Two of the six holes subsequently drilled intersected significant uranium mineralisation, with a best intercept of 3 metres @ 0.3% U₃O₈ from 86 metres depth. The high grade uranium mineralisation intersected in the discovery hole occurs in a high grade mineralised horizon that does not come to surface.

In 2009 further drilling returned significant intercepts including a best of 11 metres @ 3.4% U₃O₈. In February 2011, THX announced a JORC compliant Inferred Resource for the Thunderball Uranium Deposit of 1.06Mt @ 0.08% U₃O₈. The mineralisation at Thunderball is located along a northerly trending anticlinal axis and consists of veins and disseminations of uraninite (pitchblende) hosted within a folded brittle ductile shear zone that appears to plunge approximately 40 degrees to the north.

North of the tenement is the Mt Wells Project held by Outback Metals Limited which comprises one granted exploration licence, one exploration licence application, 11 mineral leases and 2 mineral claims. The project comprises en-echelon tin, copper, tungsten, silver and gold mineralisation within tension structures of the Burrell Creek Formation which forms a north trending anticline.

A current published (non JORC) resource of 400,000t at 0.4% tin (open cut) and 737,000t at 1.38% tin (underground). An exploration target copper estimate of 971,000t at 1.5% Cu has also been reported with tungsten, silver and gold known to occur in association with similar tin and copper mineralisation.

The Pine Creek Fault Zone is a 300km long structure that strikes 150° (magnetic) and can be identified from Darwin to Katherine. The fault zone trends north-northwest and consists of a number of sub-parallel faults, over a 5km corridor, with apparent sinistral movement of up to 2km. The Pine Creek Fault Zone postdates the D₂ deformation event and the granite intrusions. Where not observed in outcrop, the Pine Creek Structure is defined by linear magnetic anomalies caused by magnetic bearing dolerite dykes. This fault structural corridor is located over the central portion of the Pine Creek Tenement.

The bulk of the gold resources of the Inlier occur in quartz-sulphide stockworks and sheeted vein systems in association with disseminated sulphide in deposits that attain dimensions suitable for open pit bulk mining. Many of these deposits occur along the sheared hinge lines of anticlinal folds, particularly in interbedded greywackes and siltstones of the Mount Bonnie and Burrell Creek Formations towards the top of the Early Proterozoic succession. The prime examples include Union Reef, Fountain Head, Spring Hill, Woolwonga Mines and Yam Creek. Presently identified gold resources and reserves in the Inlier are estimated to total more than 130,000kg (4,000,000 ounces).

Most ore grade mineralisation occurs within 50m of the fold axis, and the orebody extends for approximately 1,000m along the axis of the fold. Mineralisation consists of quartz-sulphide veinining
with pervasive alteration of the host rocks. Common sulphides are pyrite-arsenopyrite and pyrrhotite, with lesser sphalerite, galena and chalcopyrite. Most rock alteration consists of the assemblage silica-potash feldspar-chlorite-biotite. Vein types include saddles, spurs and stockworks in the hinge zone, ladder and sheeted veins restricted to the west fold limb, and late-stage vuggy quartz veins and breccias that are relatively rich in sphalerite and galena.

Pine Creek Goldfields commenced mining the Enterprise Deposit in 1885 and to July 1993 had produced approximately **20 tonnes of gold**.

The tenement is also surrounded by a series of abandoned mines and mineral occurrences; Spring Hill mineralisation contains the following prospects: Main Lode, Middle Lode, East Lode, Hong Kong Central, Hong Kong North, Hong Kong South, Pay Me Well, MCN 628, Vindication Hill, Steve’s Gully, Vein Heaven and Zbonsky Trend. Was worked since 1870’s 3 and recorded production is 679kg. Host Rock is Mount Bonnie Formation and deposit is on the hinge of a tight anticline. Other mines includes the below

- Union Reefs Goldfield1 and 3 to the south of the licence discovered in 1873 and comprise over 1,600 pits, cuts and shafts. Deposits are in tightly folded Burrell Creek Formation which is overturned with dolerite dyke intrusions. Mining ceased in 2003 and total production (acacia and anglo) was recorded as 20.2Mt@1.47g/t for 27.15t Au

- Union Extended1 abandoned mine with low sulphide-Au veins, Union extended alluvials1 an open pit excavation of placer Au-PGE, also a second Union extended1 abandoned mine Polymetallic Cu-Pb-Zn-Ag veins NTGS chip sample 9539 assayed 21.3% Pb and 135 g/t Ag. Size of workings suggest about 50t of Pb-Ag ore was extracted.

- Lewis1 an occurrence only Polymetallic Cu-Pb-Zn-Ag veins Grab sampling by Willis (1974) returned values ranging from 0.21 g/t Au to 2.94 g/t Au. Sampling by Shields (1990) returned 10 times lower values downgrading gold potential of this locality.

- Elizabeth1 abandoned mine, low sulphide Au vein. This locality was extensively explored in 1989 by Enterprise Gold Mines but the results of this programme are not available to the public. A production of 107 kg Au is recorded.

- Flora bell1 abandoned mine numerous shafts with underground development. Polymetallic Cu-Pb-Zn-Ag veins Sulphur isotope analysis on galena (9528B) gave 2.8%. Ten tons of ore from the dumps were dispatched in 1927 (Ellis, 1927). Ore mined between 1880-90 contained silver grades up to 2.4% Ag.

- Mount Wells1 abandoned mine; Sn veins five quartz cassiterite lodes are present. The length and width quoted above is for the main lode. Drilling shows that these lodes terminate at a gresienised granite cupola. Mount Wells Alluvials1 abandoned mines; alluvial placer Sn. Source of alluvial tin is Mount Wells type Quartz-Cassiterite veins. Minor gold is present. The deposit is probably mined out.

- Horner’s creek 1 Polymetallic Cu-Pb-Zn-Ag veins. Worked by Jack Lewis in the late 1960’s. At least three lodes are present, average width ~0.5m. One adit, several shafts and small pits. Horner’s Creek Alluvials1 abandoned mine, modern placer (fluvial) Source of alluvial tin is Mount Wells type Quartz-Cassiterite veins. Minor gold is present. The deposit is probably mined out.
6.0 LOCAL GEOLOGY & MINERALISATION

A noted mineral occurrence, Speargrass polymetallic Cu-Pb-Zn-Ag vein, occurs on the tenement boundary in the north. This is recorded as an occurrence only. The geology of the tenement (Figure 2) largely comprises greywackes of the Finniss River Group of the Burrell Creek Formation which are recorded as; brown to grey-green, thickly bedded to massive, fine to coarse feldspathic metagreywacke with graded bedding in places and minor lenses of volcanolithic pebble conglomerate and brown to grey, laminated phyllite, slate and mudstone; minor quartz-mica schist; porphyroblastic quartz-mica hornfels near granite.

It is understood that this geology represents a submarine fan environment of deposition and is prospective for vein hosted uranium and gold as well as polymetallic veins with base metals.

Figure 2: Regional Geology Map over EL27567 showing the surrounding Mineral occurrences
To the east of the tenement, the McKinlay Granite, of the Cullen Supersuite, has intruded the Burrell Creek Formation. It is described as a Light grey medium to coarse I –type granitoid noted as a felsic intrusive. At the extreme east and western edges of the tenement the Gerowie Tuff, which is part of the South Alligator Group, is a siltstone or argillite and noted as volcaniclastic sedimentary rock? The depositional environment is recorded as sub-aerial dacitic volcanic ash with shallow marine lutites and is described as pale green, brown or grey siliceous siltstone and phyllite interbedded with pale cherty argillite, black cherty crystal tuff, spotted feldspathic crystal tuff and lithic tuff. The Gerowie tuff appears in a tight en echelon pattern to the west with the Mount Bonnie Formation of the South Alligator Group around it.

The Mount Bonnie Formation is a shallow marine to mid shelf turbiditic deposit largely comprising phyllites and greywacke metasediments. The formation is described as Interbedded carbonaceous sericitic and commonly pyritic or chloritic slate, phyllite, mudstone and siltstone; fine to coarse feldspathic metagreywacke; ferruginous phyllite (metasiltstone) with chert bands, lenses and nodules and is prospective for vein hosted Au and polymetallic veins.

A north west trending dyke can also be seen on the tenement which extends north and south from the tenement cutting various mineral occurrences.

7.0 PREVIOUS EXPLORATION

The bulk of the historic works completed included stream sampling with a total of 68 samples being taken and a maximum value of 10.6 ppb Au recorded by Acacia Resources. Soil sampling was completed and a maximum value of 267 ppb Au was encountered, follow up vacuum drilling in a follow up program also intercepted low grade Au values.

Western Gulf Oil and Mining Ltd (Shields, 1989) completed exploration over the tenement for gold from 1987. In the first year a sample was taken which assayed 0.96g/t Au but the value was never matched in further sampling programs or over the rest of the tenement and the licence was surrendered in 1989.

In 1991, Rosequartz Mining NL became owners of the tenement in the area and completed field programs comprising drainage geochemical sampling and geological reconnaissance. Gold values of up to 3.1ppb were recorded and base metals including 17 ppm Cu, 21 ppm Pb and 32 ppm Zn none of which were considered anomalous. In the following field season mapping and rock chipping was completed by the company and whilst results from the Burrell Creek Formation came back as largely negative there were anomalous values associated with breccia samples from the granite contact. A maximum value of 0.16 ppm Au was recorded and a further program to target this area was designed but yielded poor results (Rosequartz Mining NL, 1993).

Territory Goldfields NL gained land in the area in 1993 and completed field work including regional soil sampling, with the highest value of 3 ppb Au and stream sediment sampling which returned 0.5 ppb Au ( Socic, J 1996).

It appears that no drilling has historically been completed on the surface. Stream samples appear to have generally focussed on Watt’s creek. Rock chip samples have targeted Quartz veins and gossanous material as well as the contact aureole of the granite intrusion to the area which appeared to contain brecciated material.

8.0 ECLIPSE URANIUM LTD EXPLORATION 2012-2015

On the 18th January 2012 Eclipse became owners and operators of the Mount Wells 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 EL27567) 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.

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 over the Project area to identify any potential for gold and base metal.

Work during this term included literature searches and data base compilation. Open file company reports were obtained from the Northern Territory Geological Survey and a review of past exploration data and geological concepts undertaken.

The targeting was undertaken at a high level to identify areas of interest that stand out in the regional re-interpreted geophysical data. Historical prospects were reviewed to determine the effectiveness of the previous exploration and evaluate remaining potential within the Exploration Licence area.

During 2014 to 2015, no exploration work has been conducted over the exploration licence during this year based on financial constrains to the company. The company has commenced negotiations with interested parties for a potential JV over the project.

9.0 EXPLORATION POTENTIAL

EL 27567 represents a green-fields exploration play for principally gold-base metal deposits and potentially uranium of varying genetic styles. The exploration concepts based on specific geological criteria considered as important for controlling the localisation and upgrading of gold mineralisation hosted with structural controlled features.

Overall Summary

1. Abundant mineral occurrences surrounding the Project

2. Large amount of surface geochemical results within the EL – not yet interpreted.

3. Historical geochemical sampling over project can potentially generate drill targets for Eclipse to test if warranted.

4. Mt Bonnie Formation is hosted in the western portion of EL – this stratigraphic unit hosts gold and base metal mineralisation within the Pine Creek area.

5. Conduct extensive rock chip and soil sampling over identified target generated uranium and magnetic targets areas.
Figure 3: Regional TMI Map over EL27567 showing the surrounding Mineral occurrences & new Target zones along the Pine Creek Shear.
10.0 REFERENCE


