ANNUAL REPORT

EXPLORATION LICENCES 25402

LIMBLA PROJECT

FOR THE PERIOD 9/2/09 to 8/2/10

YEAR 3

by

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B ASc (Hons)

GDA 94 - Zone 53
1:250000 Illogwa Creek
1:100000 Quartz, Limbla

March 2010
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SUMMARY

The tenements are located about 120km east of Alice Springs in the southern part of the Northern Territory.

EL 25373 was granted to A W Mackie on 9th February 2007. EL 25402 was granted to A W Mackie on 2nd March 2007. EL 25554 was granted to A W Mackie and G J Bubner on 23rd August 2007. The licences were purchased by Red Desert Uranium Pty Ltd (now Red Desert Minerals Pty Ltd), a wholly owned subsidiary of Western Desert Resources Ltd (WDR), on May 2nd 2007.

EL 25373 and EL25554 were surrendered during the year and no longer form part of this reporting group.

The project area is located over the contact between the Aileron Province of the Arunta Block of Palaeoproterozoic to Mesoproterozoic age to the north and the Amadeus Basin of Neoproterozoic age to the south.

The project area has been previously explored for uranium, diamonds, base metals, gold and heavy minerals.

An airborne radiometric and magnetic survey was flown by UTS geophysics for WDR during the first year of tenure. Interpretation of the radiometric data indicated that there were a number of uranium anomalies that required ground follow-up.

In May 2008 a helicopter was used to visit and sample a number of the radiometric anomalies delineated by the 2007 airborne survey. The samples were analysed for a suite of 38 elements by ICP-MS. All of the sites visited in the Kay Creek area of EL25554 were underlain by laterised gossanous material within dolomitic sediments of the Bitter Springs Formation. A similar situation was found at the 5 Mile Creek prospect. Elevated uranium values in the samples collected confirm the source of the radiometric anomalies. Three samples were taken from zones of high scintillometer counts in the Tourmaline Gorge area. Two of the samples returned anomalous REE, U and Th values.

A detailed airborne radiometric survey of the Tourmaline Gorge, Hale River and Albarta prospects, and an airborne EM survey over the northern area of EL 25402 were conducted during the current year. Depending on the results of this work further exploration of the prospects by surface sampling, costeaneing and drilling may be undertaken.
INTRODUCTION

BACKGROUND
The Exploration Licences were held by A W Mackie, and A W Mackie and G J Bubner until they were acquired by Western Desert Resources Ltd in May 2007. The tenements cover ground prospective for uranium and base metal mineralisation.

LOCATION AND ACCESS
The tenements are located about 120km east of Alice Springs in the southern part of the Northern Territory (Figure 1).

Access is by the sealed Ross Highway from Alice Springs, and thence by an unsealed road to Ringwood Station. The Ringwood Homestead is located near the southwest corner of the project area. Access within the project area is by station tracks. Some parts of the area are inaccessible to vehicles.

Figure 1. Limbla Project Location – EL 25402 highlighted in blue (EL 25373 & EL 25554 surrendered during year – in green)
CLIMATE
The climate is arid, sub-tropical with cold winters and hot summers. The average annual rainfall is 230mm with most falls in summer months.

TOPOGRAPHY AND VEGETATION
The project area is located at the eastern end of the Folded Central Ranges geomorphologic division. The Simpson Desert borders the area to the south.

Steep quartzite ridges form topographic highs in the central part of the project area, and are separated by narrow alluvial valleys and grass plains.

The hills and ridges are lightly to moderately wooded with stunted eucalypts, gidgee, mulga and acacia.

TENURE

MINING/MINERAL RIGHTS
ELs 25331, 25332 and 25373 were granted to A W Mackie on 9th February 2007. EL 25402 was granted to A W Mackie on 2nd March 2007. EL 25554 was granted to A W Mackie and G J Bubner on 23rd August 2007. The licences were purchased by Red Desert Uranium Pty Ltd, a wholly owned subsidiary of Western Desert Resources Ltd, on May 2nd 2007. Red Desert Uranium Pty Ltd has had a name change to Red Desert Minerals Pty Ltd.

EL 25331 and EL25332 were surrendered during the year and no longer form part of this reporting group.

LAND TENURE
The tenements are located within the boundaries of Perpetual Pastoral Leases 995 (Loves Creek), 1011 (Ringwood) and 1124 (Ambalindum).

The Ruby Gorge Nature Park lies on the western boundary of the project area.

NATIVE TITLE
The Burt Plain project does not currently fall within the area of a registered Native Title Claim. Part of the project area is subject to an Aboriginal land claim under the Aboriginal Land Rights (NT) Act.

ABORIGINAL SACRED SITES
There are no known sacred sites within the project area.

GEOLOGY

REGIONAL GEOLOGY
The project area is located over the contact between the Aileron Province of the Arunta Block of Palaeoproterozoic to Mesoproterozoic age to the north and the Amadeus Basin of Neoproterozoic age to the south, see Figure 2. The older rocks have been thrust over the younger rocks along a
series of NW-SE trending thrust zones, of which the Oolera Fault Zone (Burt Plain – Albarta Shear Zone) is the most important.

**Figure 2. Regional Geology & Location of Limbla Project Group**

**LOCAL GEOLOGY**
The northern part of the project area is underlain by metamorphic rocks of the Aileron Province of the Palaeoproterozoic Arunta Block, see Figure 3. The Harts Range Group consists of the Bruna Gneiss of igneous origin and the Riddoch Amphibolite Member; parts of this group are now thought to be of Neoproterozoic to Cambrian in age. These rocks are separated from the Albarta Metamorphics to the south by the Illogwa Schist Zone. The Albarta Metamorphics are a sequence of metasediments, amphibolites and quartzo-feldspathic gneiss. The Illogwa Schist Zone is a major structural zone and contains basement rocks which have been subject to retrograde metamorphism. The Albarta Metamorphics have been intruded by the Atneequea Granitic Complex, which includes the Tourmaline Gorge granite.
Figure 3. Local Geology – original Limbla Project Group
Rocks of the Amadeus Basin crop out in the southern half of the project area. The northern boundary of the Basin is marked by the major Oolera Fault Zone (Burt Plain – Albarta Shear Zone) which contains fault blocks of the lower members of the Amadeus Basin and the underlying Arunta Block. The faulting within this zone is reverse or overthrust, and granitoid rocks that occur within the zone are the noses of small nappes preserved as klippen.

The lowest member of the Amadeus Basin is the Heavitree Quartzite which forms steep ridges in the central part of the project area. The Bitter Springs Formation overlies the Heavitree Quartzite and is a sequence of shales, sandstones and carbonates. The Areyonga and Aralka Formations are exposed in the Limbla Syncline, and consist of siltstones, sandstones and carbonates with minor diamicite of possibly glacial origin. The youngest members of the Amadeus Basin exposed in the area are the Gaylad Sandstone and the Pertatataka Formation which occur within a syncline NE of Ringwood Station.

A Tertiary laterite capping has been preserved in some areas. Quaternary sediments occur within the Illogwa Creek drainage system.

PREVIOUS EXPLORATION

EXPLORATION BY PREVIOUS COMPANIES

Esso Minerals Australia (1976-78)
Esso explored the area for uranium between 1976 and 1978. Two airborne radiometric surveys were flown and 56 radiometric anomalies were followed up. Four of these anomalies were found to be due to outcropping uranium mineralisation.

The Albarta prospect is related to a shear zone and associated chloritic alteration. Secondary uranium minerals occurred in outcrop with rock chip assays to 0.9% U₃O₈. Trenching of the shear zone gave results up to 260 ppm U₃O₈. Drilling along the length of the radioactive zone gave results similar to those found in the trenches.

The H41 prospect is located to the north of the Albarta prospect. The anomaly is associated with a shear in leucogranite. Rock chip samples assayed up to 320 ppm U₃O₈ and one drill hole was completed.

The Tourmaline gorge prospect is associated with tourmaline granite which poorly outcrops in a steep sided valley. Secondary uranium minerals were located in association with minor sulphide veins in altered granite. No trenching or drilling was undertaken.

AGIP Australia (1977-78)
AGIP explored the Illogwa Creek catchment for channel uranium deposits with little encouragement.

Stockdale Prospecting Ltd (1979-80)
Stockdale explored the southern part of the project area for diamonds. No anomalous results were reported.

Esso Minerals Australia (1980)
Esso continued exploration on the Albarta prospect during 1980. No drilling was done.
Afmeco Pty Ltd (1980)
Exploration for sandstone-type uranium was carried out in the Illogwa Creek area. Drilling did not intersect any uranium mineralisation.

BHP Minerals (1982-84)
Exploration for diamonds and base metals was carried out. Activities included geological mapping, stream sediment sampling, rock chip sampling and ground magnetic traverses. The results of the diamond exploration activities were negative for kimberlitic indicators. Some stratiform gossanous units were sampled and found to contain sporadic high Zn values (up to 5500 ppm Zn). The gossanous units were thought to be originally quartz-magnetite-pyrite/pyrrhotite bands. BHP did not consider them to be worthy of further exploration.

Pancontinental Mining (1990)
The target for exploration was heavy minerals in the Hale River catchment. Surface sampling and widely spaced drilling failed to discover any economic concentrations.

Normandy explored the area for stratiform sediment –hosted base metal mineralisation within the Amadeus Basin succession.

Exploration activities included stream sediment sampling, lag sampling, RAB, RC and diamond drilling. Geophysical techniques used included airborne magnetic, gravity and reconnaissance IP.

Numerous anomalous samples were followed up but no economic base metal mineralisation was discovered.

Roebuck Resources (1993)
Exploration activities including stream sediment and rock chip sampling tested two magnetic anomalies for gold and base metals. Weak gold values (13 and 26 ppb Au) were found in -80# stream sediments draining the southern anomaly. Little follow-up sampling was completed with negative results.

Rio Tinto Exploration (1996-98)
RTE targeted stratiform base metals, unconformity uranium and diamonds in their exploration of the area. The work was concentrated in the Amadeus Basin sediments. Aeromagnetics were flown over the area. Ground magnetic surveys were done to follow-up airborne magnetic anomalies. Stream sediment and rock chip samples were collected.

Regional RAB drilling was undertaken to test the contact between the Heavitree Quartzite and the overlying Bitter Springs Formation. Some of the RAB holes returned anomalous base metal values. RC drilling was undertaken to test the best area of RAB drilling. Further anomalous base metal values were reported (best intersection: 4m at 1500 ppm Cu), however RTE considered the continuity of the mineralisation to be poor.

Gutnick Resources (2001-2003)
Exploration was conducted for Witwatersrand gold mineralisation. Stream sediment samples were collected and analysed for BLEG gold. No anomalous values were found.
EXPLORATION BY WESTERN DESERT RESOURCES LTD

2007
An airborne radiometric and magnetic survey was flown by UTS geophysics during November and December 2007. The survey covered two areas within the project tenements as shown on Figure 4.

Interpretation of the radiometric data indicated that there were a number of uranium anomalies that required ground follow-up, see Figure 5.

2008
A reconnaissance trip was made to the Kay Creek area within EL25554 in March 2008. It was found that the tracks to the north of Ringwood Station were in a bad state of repair and it was impossible to access the area by vehicle due to the rugged terrain and dense vegetation.

In May 2008 a helicopter was used to visit a number of the radiometric anomalies delineated by the 2007 airborne survey. Previous exploration by other companies in the Kay Creek area of EL25554 had shown that anomalous base metal values in soils and stream sediments were associated with iron and manganese enrichment. This was confirmed by the sampling carried out by WDR. Elevated uranium values in the samples collected confirm the source of the radiometric anomalies. A couple of samples in the Tourmaline Gorge area returned anomalous REE, U and Th values.

EXPLORATION COMPLETED DURING CURRENT YEAR

AEROMAGNETICS & RADIOMETRICS
In March 2009 Aerosystems P/L were contracted to complete an aeromagnetic and radiometric survey over several areas of the Limbla Project and also a WDR Tennant Creek tenement. Within the Limbla project three surveys were conducted, over the Hale River Prospect, Alberta and Tourmaline Gorge. The airborne survey was conducted using a helicopter at an elevation of 25 metres with line spacing of 25 metres and a tie line spacing of 250 metres.

ELECTROMAGNETIC SURVEY
An airborne EM survey was flown by Geosolutions P/L over the northern section of EL 25402 during February 2010, see figure 4. A total of approximately 820 line kilometres was completed at 200 metre line spacing with the survey traverse flown in a north south orientation.
ROCK CHIP SAMPLING
In April 2009 a helicopter reconnaissance trip was made to various sites in the Limbla project. Sixteen samples were collected.

RESULTS AND EXPENDITURE
Discussion of results
AEROMAGNETICS & RADIOMETRICS
A processing report for the Aeromagnetic/Radiometric surveys is included in Appendix 1. Images produced are also included in the appendix. Examples of the Total Magnetic Intensity & Radiometric Total Count images are shown below, see figures 5 – 7.
Figure 5. Radiometric Total Count image – Hale River prospect – EL 25373
Figure 6. Total Magnetic Intensity – Tourmaline Gorge prospect – EL 25402
Figure 7. Radiometric Total Count – Alberta prospect – EL 25402
ELECTROMAGNETIC SURVEY
A preliminary bitmap image of the EM survey is shown in figure 8 and included in Appendix 2. No other data was available at time of writing this report.

Figure 8. Preliminary bitmap image – airborne EM survey – EL 25402

ROCK CHIP SAMPLING
Assay results from the sampling show some anomalous base metal and silver values at Sixpence prospect which is adjacent to Mithril’s Bob prospect. A grab sample from an airborne radiometric anomaly at Albarta prospect assayed 130 ppm Uranium. Assay results are in Appendix 3.

Expenditure
The expenditure commitments for the individual ELs are shown below:
EL 25373 - $20,000 to 8th February 2010.
EL 25402 - $35,000 to 1st March 2010.

The expenditure commitment for EL 25554 is $20,000 and this is for the year to 22nd August 2010.

EL 25373 & EL 25554 were surrendered during the current year, and expenditure reports will be provided with the final report for these tenements.

The actual expenditure on EL 25402 is given below and the details are shown on the accompanying exploration expenditure forms.
EL 25402 - $89,435 to 1st March 2010.
PROPOSALS FOR FUTURE WORK

Proposed work programme for 2010 – Year 4

If the results of the geophysical surveys undertaken during the current year warrant further investigation, the proposed exploration programme for year 4 may include further exploration of the prospects by ground geophysics, surface sampling, costeaming and drilling.

The proposed expenditure for the last remaining tenement in the Limbla project group, EL 25402 is $90,000.

References