

**WesternDesert**

**R E S O U R C E S**

# ANNUAL REPORT

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**EXPLORATION LICENCES 25657**

**CLOUGHS DAM**

**FOR THE PERIOD 30/8/08 to 29/8/09**

**YEAR 2**

by

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***B ASc (Hons)***

GDA 94 – Zone 53

1:250000 Hermannsburg

1:100000 Macdonnell Ranges

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## SUMMARY

The tenement is located about 50km northwest of Alice Springs in the southern part of the Northern Territory.

EL 25657 was granted to Alistair Mackie on 30<sup>th</sup> August 2007. The licence was transferred to WDR Base Metals Pty Ltd, a wholly owned subsidiary of Western Desert Resources Ltd, on 17<sup>th</sup> June 2008. This EL was included in the "Bushy Park" joint venture with NuPower Resources Ltd during the current year.

The project area straddles the contact between the Aileron Province and the Warumpi Province of the Palaeoproterozoic Arunta Block.

The Exploration Licence has been little explored in the past. It is prospective for uranium, rare earths and base metal deposits. Previous exploration in the area has included reconnaissance geochemical sampling programmes and bore water sampling.

An airborne EM and regional gravity survey have been completed in the current year.

The proposed exploration programme for year 3 (2009/10) will include reconnaissance geological mapping to follow up on geochemical anomalies from the previous year's bore water sampling, and a rotary mug drilling programme may be undertaken.



## TOPOGRAPHY AND VEGETATION

The topography of the area can be divided into three regions: Chewings Range in the central part of the EL, the MacDonnell Ranges in the south and Burt Plain to the north.

The hills and ridges are lightly to moderately wooded with stunted eucalypts, gidgee, mulga and acacia. The alluvial flats contain open woodland with ghost gums and other eucalypts with some acacias. Burt Plain is poorly vegetated with spinifex and isolated trees.



Central part of the licence area, showing typical topography and vegetation.

## TENURE

### MINING/MINERAL RIGHTS

EL 25657 was granted to Alistair Mackie on 30<sup>th</sup> August 2007. The licence was transferred to WDR Base Metals Pty Ltd, a wholly owned subsidiary of Western Desert Resources Ltd, on 17<sup>th</sup> June 2008. This EL was included into the “Bushy Park” joint venture with NuPower Resources Ltd (EL 25658 and EL 25338) during the current year.

### LAND TENURE

The tenement is located within the boundaries of Perpetual Pastoral Leases 960 (Bond Springs) and 1145 (Hamilton Downs).

### NATIVE TITLE

The Cloughs Dam project does not currently fall within the area of a registered Native Title Claim.

## ABORIGINAL SACRED SITES

There are no known sacred sites within the project area.

## GEOLOGY

### REGIONAL GEOLOGY

The project area straddles the contact between the Aileron Province and the Warumpi Province of the Palaeoproterozoic Arunta Block. The Aileron Province forms part of the North Australia Craton and is aged between 1865-1740 Ma. The Warrumpi Province is aged between 1690-1600 Ma and is thought to have accreted onto the craton at 1640 Ma.

### LOCAL GEOLOGY

The local geology is complex and is shown on figure 2. The Aileron Province is represented by the Illyabba Metamorphics, consisting of biotite gneiss, amphibolites and granitic gneiss, and the Strangways Metamorphic Complex, consisting of granitic and basic gneisses. It is separated from the granitic gneisses and quartzites of the Warrumpi Province to the south by the Charles River Thrust/Fault zone. The Warrumpi Province is made up of the Iwupataka Metamorphic Complex, the Teapot Granite Complex and the Madderns Yard Metamorphic Complex. The Redbank Thrust Zone which crosses the northern part of the licence consists of mylonitic rocks and forms a prominent scarp. Tertiary sediments occur north of the thrust with some isolated outliers of Arunta age rocks.

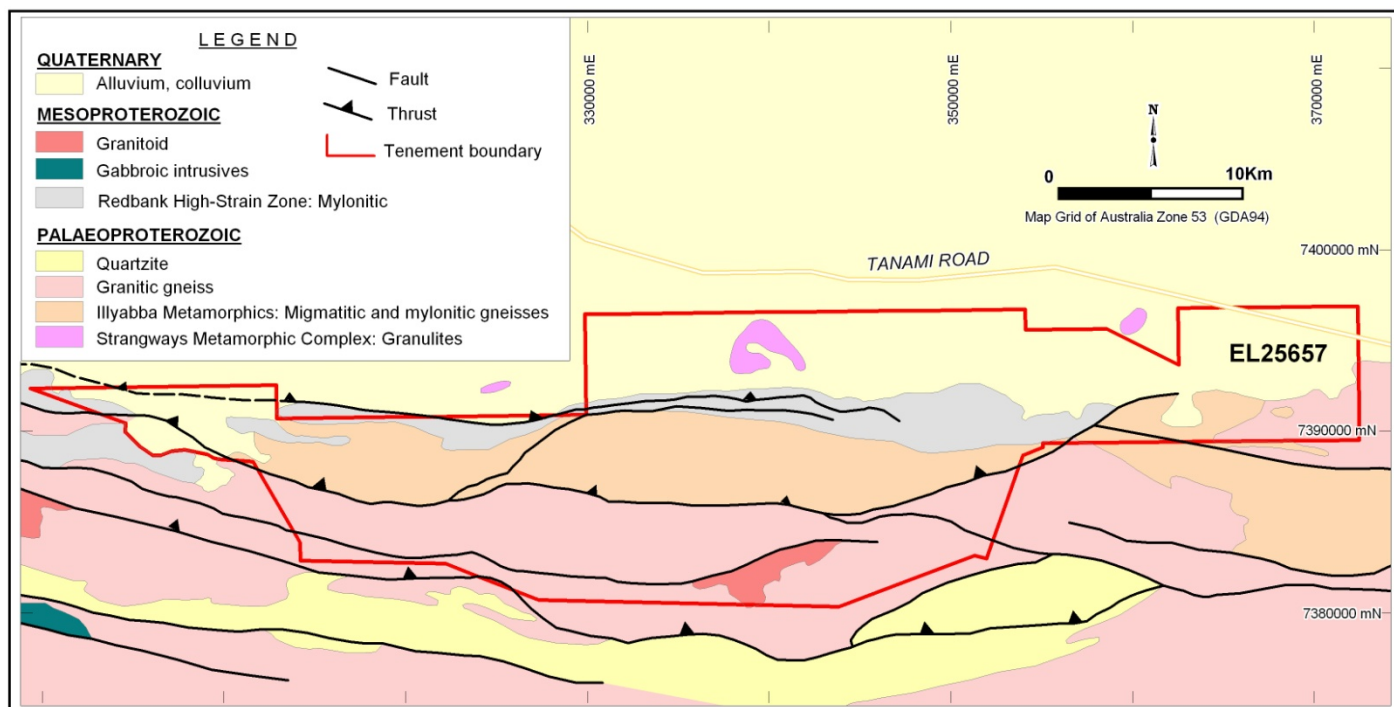


Figure 2. Project Geology – Cloughs Dam EL 25657

## **PREVIOUS EXPLORATION**

### **MINING HISTORY**

No mining has been carried out in the area.

### **EXPLORATION BY PREVIOUS COMPANIES**

Little previous exploration has been done over the tenement area.

#### **CRA Exploration (1971-72) CR1972/64**

CRA Exploration explored the northern and western parts of the area for uranium and base metals. A stream sediment survey was completed and station bores were sampled. Car borne scintillometer traverses were completed during the collection of the station bore samples. No anomalous base metal or uranium values were reported from the stream sediment survey. Anomalous uranium and radon values were found in water samples from the Bulldust and New Well bores within the current EL.

#### **CRA Exploration (1981-82) CR1982/274**

CRA Exploration explored EL3100 during 1982 for sedimentary-hosted uranium deposits. This tenement was situated immediately north of the current EL. Two holes were drilled south of Hamilton Downs homestead and did not intersect any uranium mineralisation.

## **EXPLORATION COMPLETED DURING PREVIOUS YEAR**

### **GEOCHEMICAL SURVEYS**

#### **Regional stream sediment survey**

A regional stream sediment survey with helicopter support was completed during May 2008 with 134 samples collected over the entire tenement area. BLEG analysis for gold was conducted and also a multi-element analysis. The results and locations of the samples were included in the previous year's annual report. The results of the stream sediment survey showed some anomalous areas for Ce, La, U and Th, which will require ground follow-up. Two creeks in the northern part of the EL showed weakly anomalous base metal values and will require ground checking. The results from the BLEG sampling were not considered to be anomalous.

#### **Water bore sampling**

Three water bores in the north eastern part of the licence were sampled. The results were included in the previous year's annual report. Anomalous water geochemistry was reported from two of the water bores sampled which will require follow up.



## EXPLORATION COMPLETED DURING CURRENT YEAR

### GEOPHYSICS

#### Airborne Electromagnetic (EM) Survey

Fugro Airborne Surveys completed an airborne EM survey in September 2008. The survey was flown over the north and east part of the area at 1 kilometre line spacing and orientated E-W. Figure 3 shows survey flight lines.

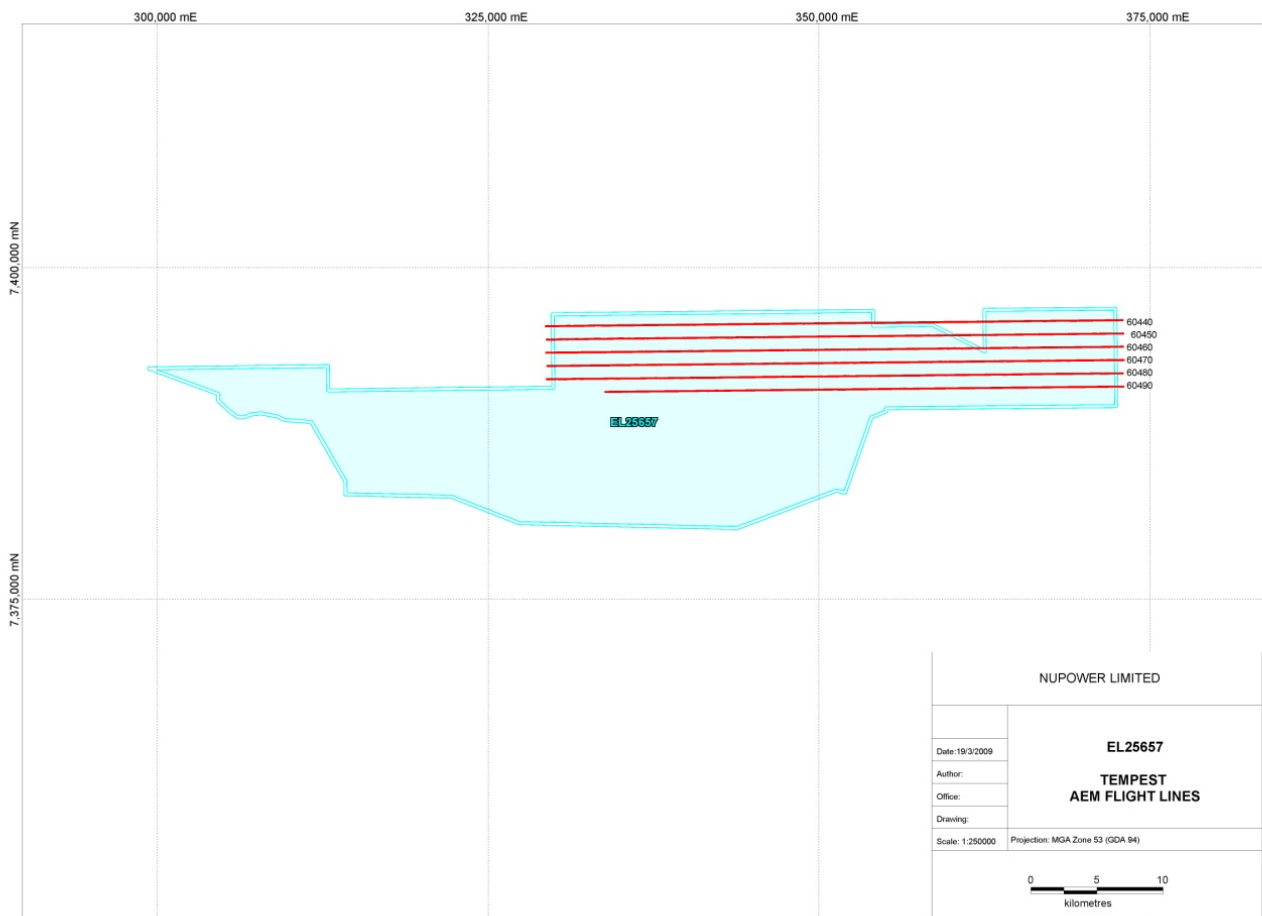


Figure 3. AEM Flight Lines over Cloughs Dam EL 25657

## Gravity Survey

A regional Geoscience Australia and NTGS gravity survey at 4 x 4 kilometre grid was completed over the area early in this current year. Figure 4 shows the gravity station locations.

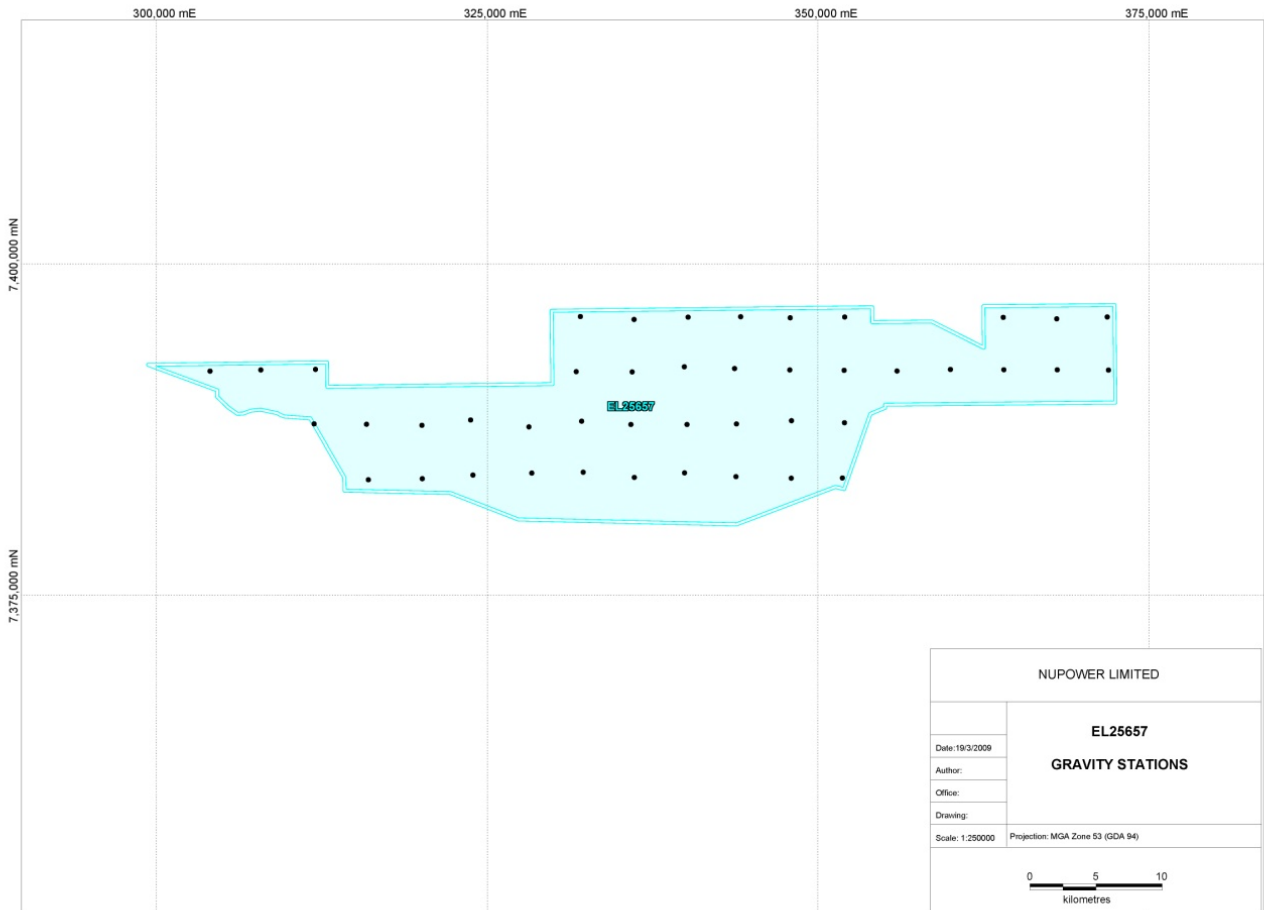


Figure 4. Cloughs Dam EL 25657 – Gravity survey stations

## RESULTS AND EXPENDITURE

### Discussion of results

#### Airborne Electromagnetic (EM) Survey

The Airborne EM data was interpreted for basement modelling by Montana GIS in January 2009. The interpretation and raw data is included in Appendix 2. Figure 5 shows the AEM basement interpretation image.

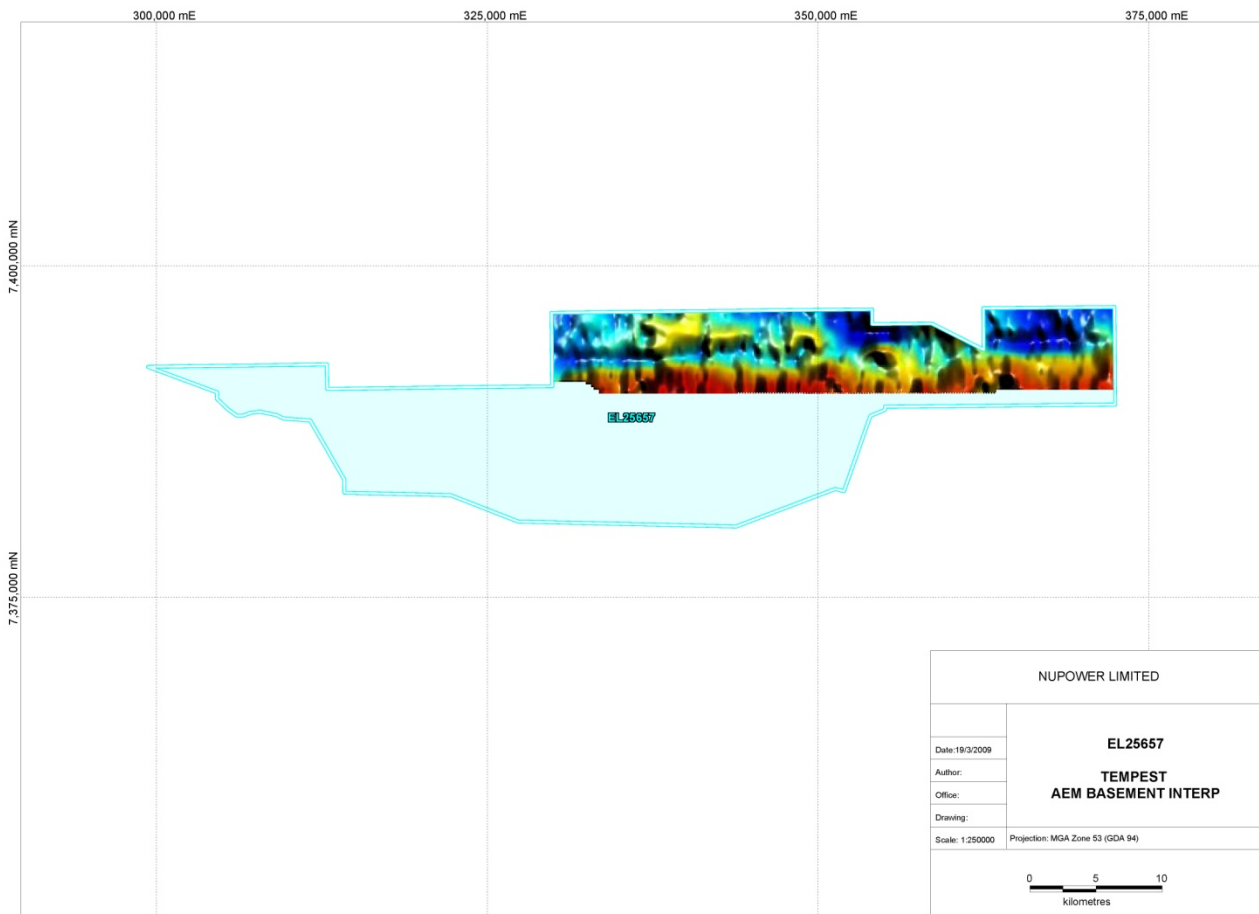


Figure 5. EL 25657 – Tempest AEM Basement Interpretation image

## Gravity Survey

The gravity data and station information over the Cloughs Dam tenement is included in Appendix 3. Figure 6 below shows the gravity image over the EL.

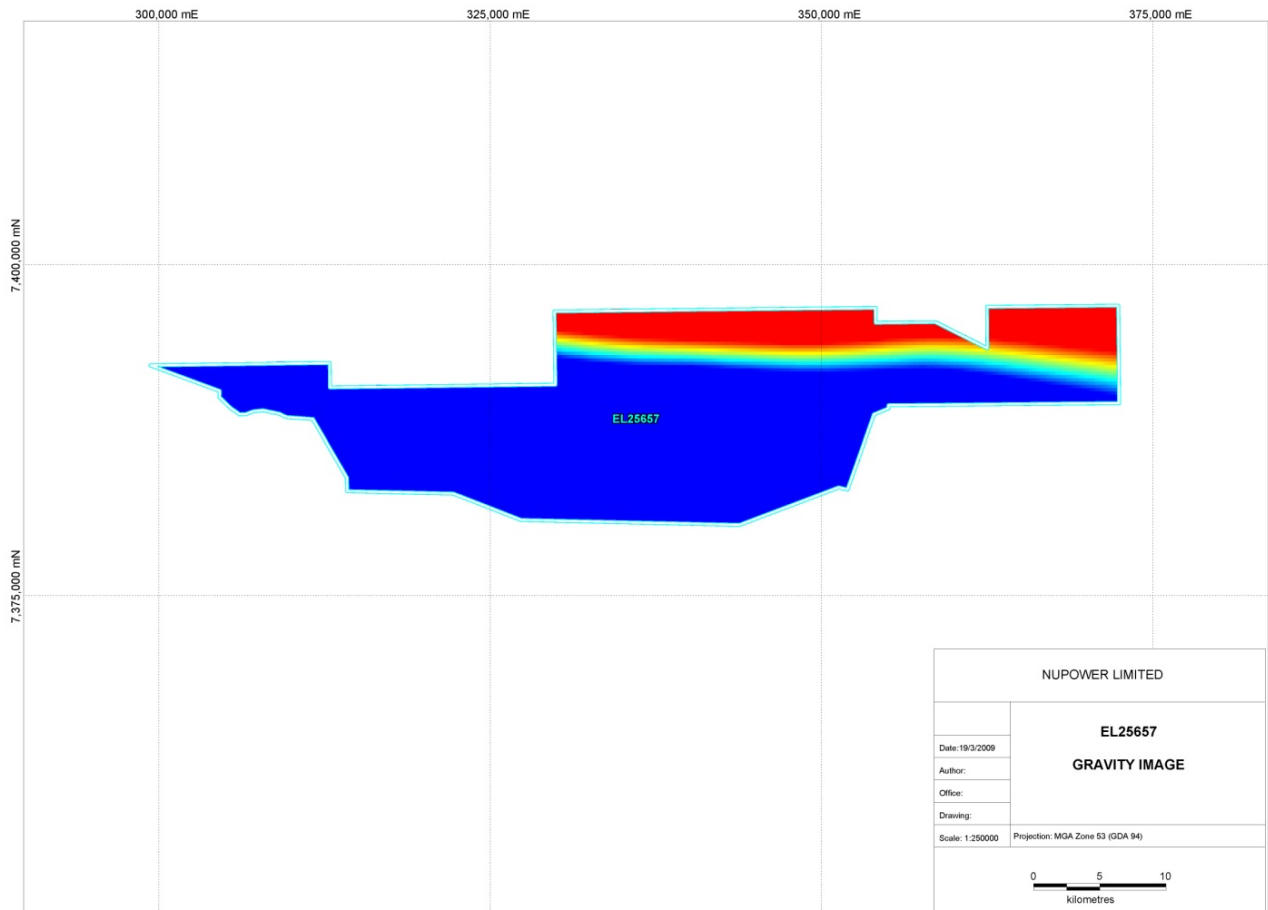


Figure 6. EL 25657 – Gravity Image

## Expenditure

The expenditure commitment for EL 25657 for year 2 was \$65,000. Actual expenditure was \$42,991 as shown on the accompanying exploration expenditure form.

## PROPOSALS FOR FUTURE WORK

### Proposed work programme for 2009/10 – Year 3

The proposed exploration programme for year 3 will include reconnaissance geological mapping to follow up on geochemical anomalies from the previous year's bore water sampling, and a rotary mug drilling programme may be undertaken.

The proposed expenditure on EL25657 for year 3 will be \$70,000.

## References

Western Desert Resources Ltd, 2007. *Prospectus for IPO dated 31<sup>st</sup> May 2007*

Western Desert Resources Ltd, 2008. *Annual Report – Exploration Licence 25657 – Cloughs Dam – for the period 30/8/07 to 29/8/08*, by J.F Fabray