PALADIN RESOURCES N.L. A.C.N. 061 681 098



## **EDEN CREEK PTY LTD**

# **RELINQUISHMENT REPORT EXPLORATION LICENCE 8211**

PINE CREEK **NORTHERN TERRITORY** 

**COVERING THE PERIOD** 

26 October 1993 to 25 October 1996



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### (i) SUMMARY

EL 8211 was granted to Eden Creek Pty Ltd, a subsidiary of Paladin Resources NL, on 26 October 1993 and was halved on 26 October 1995 and again on 26 October 1996.

Work carried out on the area surrendered in 1996 involved the interpretation of purchased aeromagnetic data.

Exploration was targeted mainly for gold.

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#### 1. INTRODUCTION

Exploration Licence 8211, covering an area of 28 blocks (90km²) was granted on 26 October 1993 to Eden Creek Pty Ltd, which was subsequently acquired by Paladin Resources NL (Paladin) as a wholly owned subsidiary prior to the listing of Paladin on the Western Australian Stock Exchange. The tenement was halved in area to 14 blocks (45km²) at the end of the second year and again to 7 blocks (22km²) at the end of the third year. (*Figure 1*).

The tenement is worked by Paladin as the Litchfield Project.

This report covers exploration work carried out by Paladin on the area surrendered at the end of the third year.

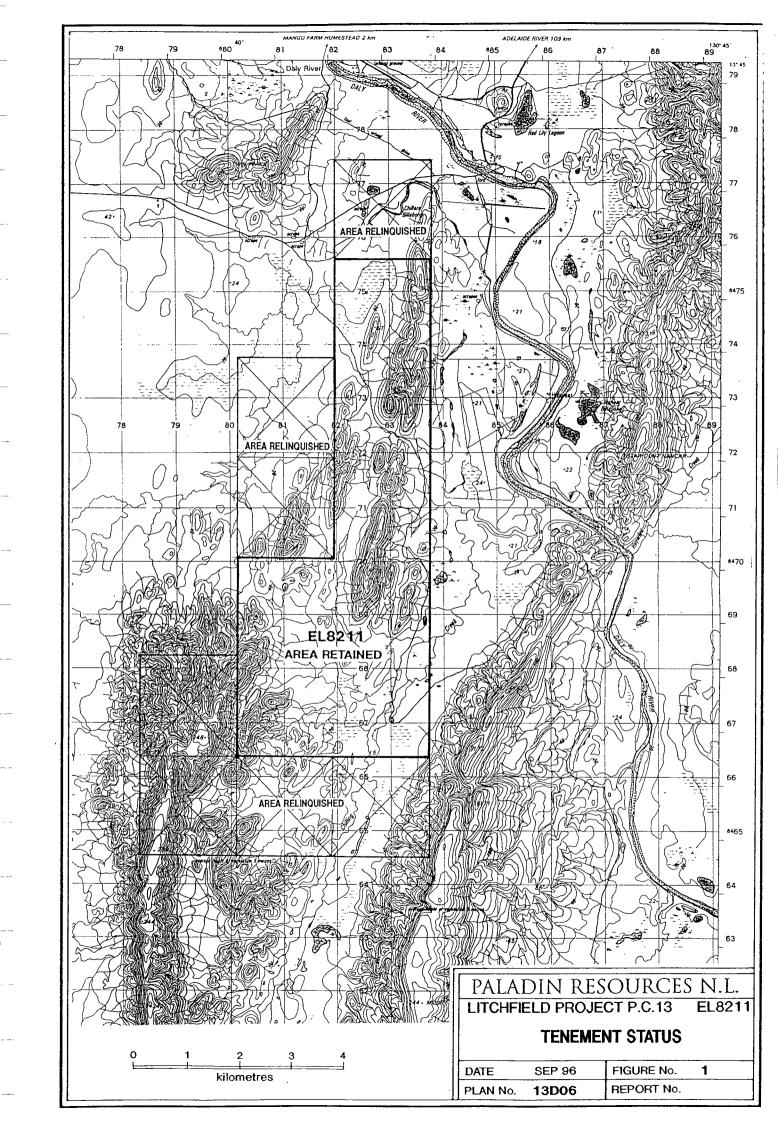
#### 2. LOCATION

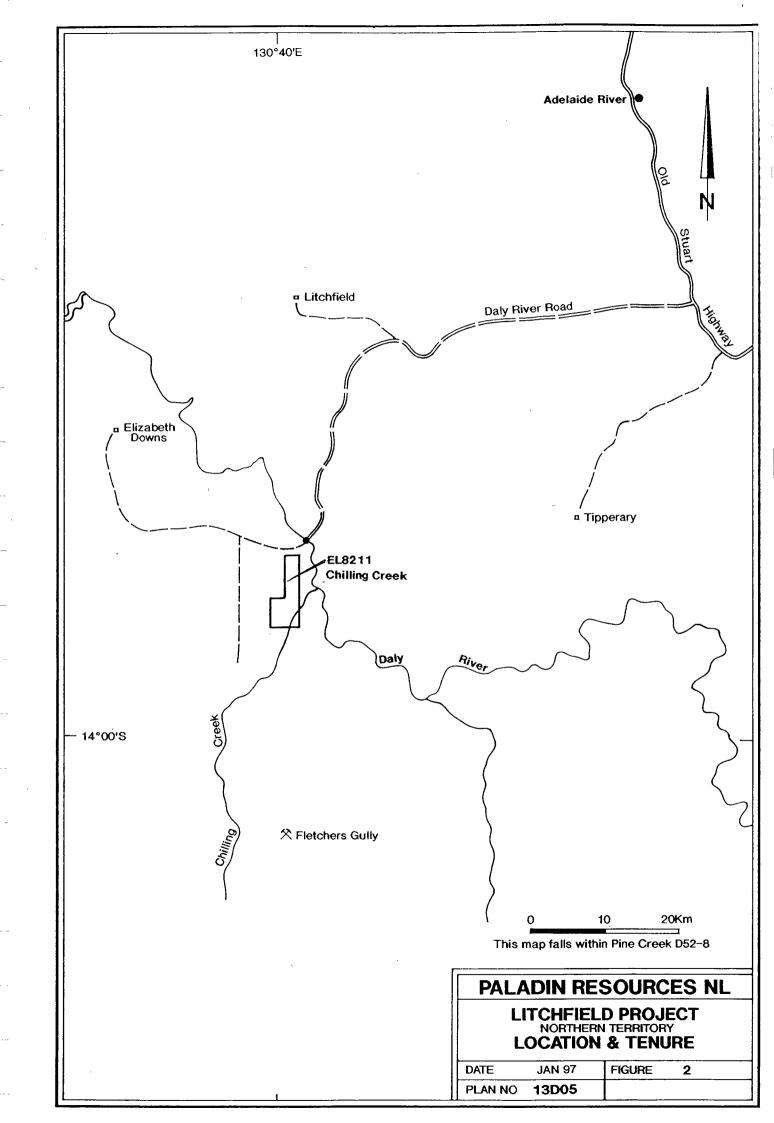
EL 8211 lies approximately 75km southwest of Adelaide River on the PINE CREEK 1:250,000 map sheet SD 52-8 and the DALY RIVER 1:100,000 map sheet 14/4 (*Figure 2*).

#### 3. **GEOLOGY**

EL 8211 sits astride the contact between the Litchfield Province and the western side of the Pine Creek Geosyncline. Archaean Litchfield Province amphibolitegrade rocks of the Hermit Creek Metamorphics are interpreted to be restricted to the western boundary area of the tenement with outcrop dominated by the Lower Proterozoic Finniss River Group of the Pine Creek Geosyncline.

The Finniss River Group in this locality consists predominantly of Burrell Creek Formation low metamorphic grade metasediments with the felsic Mulluk Mulluk Volcanics at the base of the sequence restricted to the northern boundary area of the tenement. Magnetic data indicate that the volcanics may continue some distance south in the sub surface. The upper unit of the Finniss River Group is composed of the Chilling Sandstone, a cross-bedded siliceous quartz arsenite





which forms a syncline in the central southern half of the tenement. The unconformably overlying Carpentarian sediments comprised of the Depot Creek and Stray Creek Sandstones of the Tolmer Group are confined to the southeastern corner.

The rocks of the Finniss River Group are tightly folded into north south anticlines and synclines. Metamorphism reached greenschist facies. A major north-northeast trending fault system, of which the Giants Reef fault is the most prominent structure, cuts the tenement together with later secondary faults.

#### 4. <u>INVESTIGATIONS</u>

The only investigations carried out over the areas surrendered was the interpretation of purchased aeromagnetic data.

#### 4.1 Airborne Magnetics

Aeromagnetic data covering the 1:100,000 map area was purchased and processed by Exploration Computer Services (Perth). The survey was flown by Aerodata Holdings Ltd in 1985 for the Northern Territory Department of Mines and Energy with a line spacing of 500m. Exploration Computer Services carried out a reduction to the pole and further image processing.