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PALADIN RESOURCES NL

FIRST & FINAL REPORT on EXPLORATION LICENCE 8989

**TENNANT CREEK
NORTHERN TERRITORY**

**COVERING THE PERIOD
24 February 1995 to 07 December 1995**

Compiled By: K S Taylor

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(i) SUMMARY

EL 8989 was granted to Paladin Resources NL on 24 February 1995 and was cancelled on the grant of SEL 9328 on 07 December 1995.

Work carried out during the first year of tenure included airborne magnetics and geological reconnaissance.

Exploration is focussed on gold.

(ii) TABLE OF CONTENTS

	PAGE
SUMMARY	(i)
TABLE OF CONTENTS	(ii)
1. INTRODUCTION	1
2. LOCATION	1
3. GEOLOGY	1
4. INVESTIGATIONS	2
4.1 Airborne Magnetics	2
4.2 Geological Reconnaissance	2
5. STATEMENT OF EXPENDITURE	3

LIST OF FIGURES

Figure 1	15D06	Tennant Creek Project, Location
Figure 2		Total Field Magnetic Contours

1. INTRODUCTION

Exploration Licence 8989, covering an area of 2 blocks (6km²) was granted on 24 February 1995 to Paladin Resources NL and was cancelled on the grant of SEL 9328 on 07 December 1995.

The tenement is worked by Paladin as part of the Tennant Creek Project.

This report covers exploration work carried out by Paladin during the first and second years of tenure.

2. LOCATION

EL 8989 lies approximately 20km east of Tennant Creek on the TENNANT CREEK 1:250,000 map sheet SE 53-14 and the TENNANT CREEK 1:100,000 map sheet 52/5. (Figure 1)

3. GEOLOGY

Economic gold mineralisation in the Tennant Creek area is hosted in units of the Lower Proterozoic Warramunga Group. Dominated by siliciclastic turbidites, the Warramunga Group also contains felsic volcanic and volcanoclastic units. This sequence is oxidised and included important haematitic and magnetite bearing lutites.

The Warramunga Group is intruded by granites and early concordant to discordant porphyry units that underwent slate belt style regional metamorphism producing east-west trending folds and slaty cleavage. Metamorphism reached lower greenschist facies.

The Lower Proterozoic rocks are unconformably overlain by the Middle Proterozoic Tomkinson Creek Beds north of Tennant Creek, and the Hatches Creek Group (south of Tennant Creek) which were folded along NW to NNW trending axes.

134°22'

440000mE



7830000mN

19°39'

Great Bear

Tennant

Creek

Station

to Tennant Ck
← (12Km)

Kia Ora

EL 8337

EL 8989

EL 8583

EL 8212

Golden Forty

△ Mt Rugged

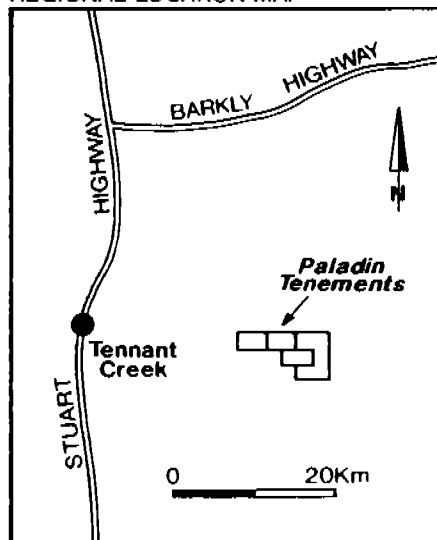
Tunnel

Red Terror

Rising Sun

The Plumb

REGIONAL LOCATION MAP



0 1 2 3 4Km

1:100000

This map falls within Tennant Creek E53-14



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TENNANT CREEK PROJECT

LOCATION MAP

DATE Nov 94

FIGURE 1

PLAN NO 15D06

Siltstone, shale and greywacke, with interbedded haematitic shales of the Black Eye Member of the Warramunga Group dominate the rock types in the project area. Mixed shales and greywackes of the Carraman Formation crop out at the eastern side of the area. Layer parallel quartz feldspar porphyries occur mainly in the southern parts. A coarse grained granite showing large feldspar porphyroblast intrudes the southeastern corner of the area.

The rocks are folded into east-west trending synclines and anticlines. Metamorphism reached greenschist facies. Within the centre of the project area a large east-west trending anticline, showing a shallow westerly plunge in the Mt Rugged area, dominates the folding. Subsidiary second order anticlines on the flanks of the main fold appear to be the focus for some ironstone development and gold mineralisation in the area (eg. Tunnel, Red Terror and New Hope Mines). East-west trending shear zones sub-parallel to the folds can be mineralised as observed in the Kia Ora Mine.

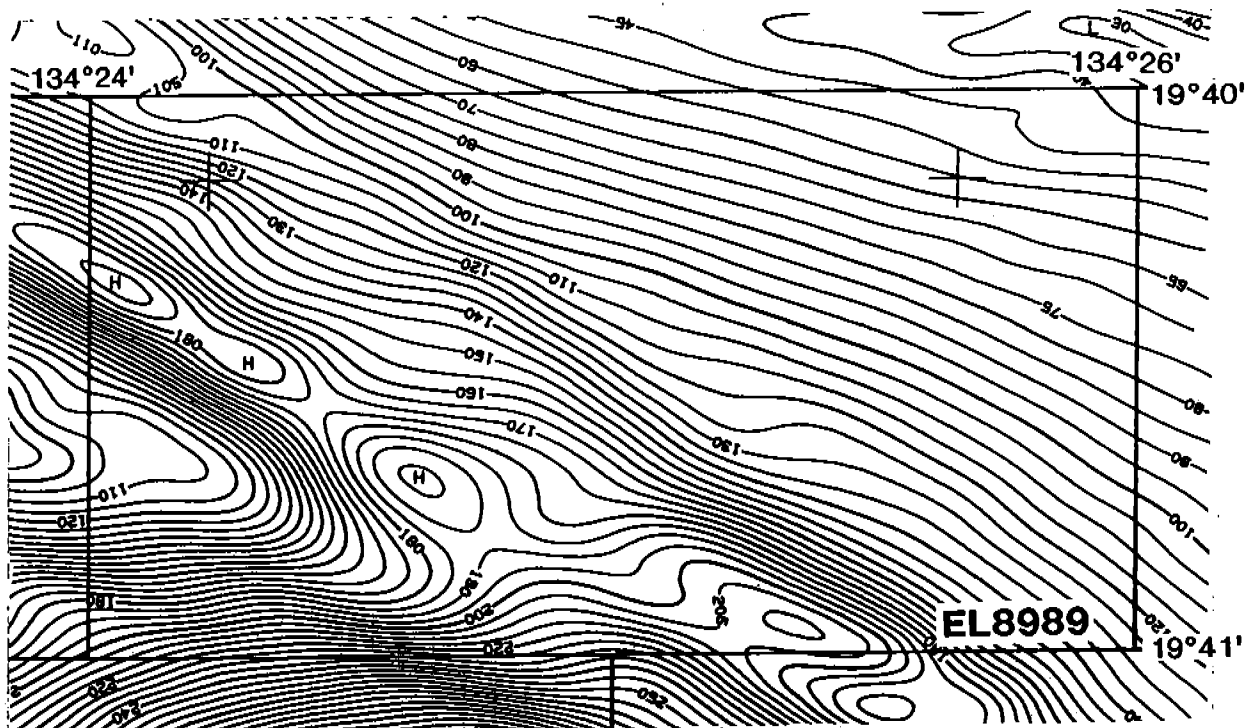
Late faults, often quartz filled, cut the area in a northwesterly direction. The old Renate workings are located on a shear in this direction showing brecciation and quartz hematite veining.

4. INVESTIGATIONS

4.1 Airborne Magnetics

High resolution, multi client aeromagnetic data covering the 1:100,000 map area was purchased from World Geoscience and processed by Arstirex International Ltd. The survey was flown in 1984 with a Geometrics G813 Proton Precession magnetometer mounted in a Nomad 22B aircraft. Survey height was 80m and line spacing 200m. Exploration Computer Services carried out a reduction to the pole and further image processing.

The data was used to provide an in-house interpretation of the physical structure of the geology over the area (*Figure 2*).



Part of Airborne Geophysical Survey TENNANT CREEK NT 1984
TOTAL FIELD MAGNETIC CONTOURS (Austirex International Ltd.)

0 1Km
1:25000

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TENNANT CREEK PROJECT
EL8989
TOTAL FIELD MAGNETIC
CONTOURS

DATE FEB 96

FIGURE 2

4.2 Geological Reconnaissance

Reconnaissance geological mapping confirmed that much of the tenements is covered by red sandy soils and alluvium.

5.

STATEMENT OF EXPENDITURE**EXPLORATION LICENCE 8989**

COVERING THE PERIOD

24/02/95 to 07/12/95

CATEGORY	AMOUNT
	\$
Salaries & Wages	203
Consultants / Contractors	114
Bulldozing / Grading	-
Drilling RAB	-
Drilling PDH/RC	-
Geochemistry - Stream	-
Geochemistry - Soil & Rock Chip	-
Geophysics - Airborne/Processing	1,700
Fuel	-
Vehicles & Equipment	-
Camp Operating & Consumables	50
Travel, Accommodation & Meals	469
Drafting, Printing & Maps	-
Subtotal	<u>2,536</u>
Overheads (12%)	<u>304</u>
TOTAL	<u><u>2,840</u></u>