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# YARDARINO MINING NL

FINAL REPORT

EL9321 - FLATLAND SOUTH

TENNANT CREEK DISTRICT

NORTHERN TERRITORY

# COPIES:

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# 1. SUMMARY

Exploration Licence 9321 (Flatland South) of two blocks was granted on 6 December, 1995 and relinquished on 23 March, 1996.

An evaluation of available aeromagnetic data and previous exploration work failed to locate any worthwhile targets for ground assessment. Consequently no field work was undertaken during the three months of tenure.

## 2. INTRODUCTION

#### 2.1 Location and Access

Exploration Licence 9321 is located approximately 18km west of Tennant Creek and 27km SE of the Warrego Mine (Plan No. 1). Access is via an east - west fence line track which bisects the tenement with north - south station tracks also present.

## 2.2 Physiography

There are no physical features of note in the licence area. The ground is flat and covered with aeolian silt. Vegetation consists of spinifex grass, acacia and eucalypt trees.

#### 2.3 Tenure

Exploration Licence 9321 was granted to Yardarino Mining N.L. for a period of 3 years on 6 December, 1995. The EL covers two blocks numbered 47-11 and 47-12 on the Tennant Creek Sheet 52/5.

The tenement was subject to a joint venture agreement with Orion Resources N.L. who managed the exploration from 15/6/95 until withdrawal on 15/12/95.

Subsequent to Orion Resources N.L. withdrawal the tenement was surrendered on 25 March 1996.

### 3. REGIONAL GEOLOGY

The Tennant Creek district over the past 60 years has produced several small, very high grade gold orebodies. Two of these bodies, Warrego and Nobles Nob, have produced over 1M ounces. The field has produced copper ore mainly from Warrego and Peko and was until very recently the world's major source of bismuth. To date nearly all the gold, copper and bismuth produced has been mined from quartz-jasper-magnetite-haematite bodies locally called ironstones. Exploration has focused on ground prospecting and drilling outcropping ironstones or selecting magnetic bulls eyes from the aeromagnetic surveys for drill testing.

The Tennant Creek district is deeply weathered (+70m) and regionally there is less that 30% outcrop. There are extensive plains of alluvium and colluvium between the outcrops which makes surface stratigraphic mapping almost impossible. There are however, three recognisable groups in the district.

The oldest and most prospective is the Warramunga Group, which hosts all of the significant and potentially mineralised ironstones. The Group consists of medium to deep water siltstones and greywackes which have been highly sheared and folded. There is a pervasive S1 cleavage which commonly is over printed by S2.

Overlying the Warramunga Group is the Flynn Sub-group. This is characterised by interbedded siltstones and fine sandstones, although highly sheared original bedding can be recognised as can some sedimentary textures.

The Tomkinson Creek Group overlies the Flynn and is located in the northern extremity of the field. This Group is dominated by silicified sandstones and dolerite sills in the Tennant Creek area.

There are very poorly outcropping but extensive granites in the district. These are of two ages with the oldest represented by the sheared Tennant Creek granite and the younger by the unsheared Warrego granite. Quartz-feldspar and feldspar porphyries are reasonably common. They occur as either concordant or discordant to bedding. Often they are cross-cutting to the pitch and plunge of mineralisation.

## 4. PREVIOUS EXPLORATION

Two soil lines were completed by Metana Minerals (EL 5555) over the western block. The north - south lines spaced 1km apart were sampled at 50m intervals north from the bisecting fence line. Gold results were of a low order but the meaningfulness of the results was questioned as the nature of the regolith/soil in the area was unknown.

A Geopeko regional airborne magnetic survey contour plan covering the tenement area is enclosed as Plan No 2.

## EXPLORATION PROGRAMME

No work was undertaken on EL 9321 by Orion Resources N.L. during their period of project management. Following Orion Resources withdrawal from the joint venture a review of available open file exploration data was undertaken by Yardarino Mining. Little information of direct relevance was found.

An evaluation of available aeromagnetic data indicated that the tenement is not underlain by prospective Warramunga Group sediments but by magnetically quiet units. These are variously interpreted as granite (Poseidon Gold) or sediments/porphyry (Roebuck Resources). No magnetic targets indicative of ironstone bodies or major shear structures are present on the tenement.

In the absence of any worthwhile targets no field work was undertaken and the tenement was relinquished on 23 March, 1996.

# 6. EXPENDITURE

The following expenditure was incurred on the EL.

	\$
Wages	188.18
Administration	113.33
Geological Consultant	37.55
Data Acquisition	25.00
Drafting	8.87
Property Costs	<u>470.00</u>
Sub Total Overhead	<b>842.93</b> 126.44
Total	\$969.37



