# **MOLYHIL MINING PTY LTD**

EL 28949 "Twins Bore"

**HUCKITTA 1:250K MAP SHEET** 

Final Annual Report

29 Feb 2015 - 24 Feb 2016

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## **SUMMARY**

This is the fourth year annual and final report for exploration EL 28949 "Twins Bore" This tenement has now been amalgamated with EL30821 to form EL31130. The tenement is prospective for base metals and tungsten and is situated along strike of a geological setting which host multiple known tungsten deposits in adjacent tenements. This tenements has not been explored since the early 1980s however with the pending development of the nearby Molyhil mine project; the potential of discovery of economic mineralisation is enhanced. Exploration efforts to date have been limited by available funding to evaluation of existing data including reports, maps, open source geophysical and hyper-spectral data. Target areas have now been identified for follow up fieldwork including mapping and rock chip geochemistry prior to drill testing of selected targets where warranted. No work was completed during the reporting period.

## **INTRODUCTION**

Previous investigations have identified a range of mineral occurrences predominantly copper and tungsten in the Bonya Range area hosted by the Palaeoproterozoic Bonya Metamorphics. Most of the mineral occurrences fall outside of this tenement however existing regional mapping indicates Kings Legend Amphibolite and Samarkand Pegmatite outcrop within the tenement which are associated with the neighbouring mineral occurrences.

EL 28949 is considered to be prospective for; base metals, tungsten and molybdenum. Thor Mining is principally interested in locating satellite tungsten resources for its Molyhil tungsten Molybdenum project 30 km to the west on EL22349.

## **Location and Access**

EL 28949 is located on the Huckitta 1:250,000 map sheet (SF53-11) 300km northeast of Alice Springs in the Jervois district. Access is via the Plenty Highway to Jervois Station then Bonya settlement and then via unsealed station tracks (Figure 1).

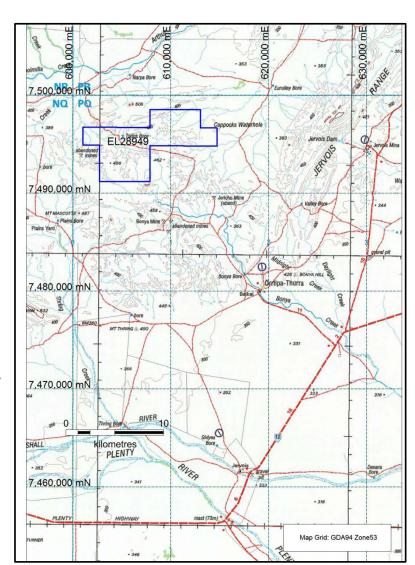


Figure 1: EL28949 "Twins Bore" site location

# **Topography and Drainage**

EL 28949 is located on the north of the Bonya Range. Numerous ephemeral gullies and deeply incised creeks drain the hills to the north, flowing into the Arthur Creek. There are no permanent rivers or significant water holes in the tenement.

#### **TENURE**

# **Exploration Licences**

Exploration Licence (EL) 28949 comprising 20 sub-blocks (63.4 sq km) was granted to Thor Mining on 1 February 2012 for a period of six years.

The tenement was formerly part of EL10215 held by Arafura Resources and relinquished in 2011.

A three block voluntary reduction was undertaken 11 May 2015 and the remaining 17 blocks were subsequently amalgamated with the 2 blocks of EL30821 to form EL31130.

#### **Land Tenure**

The lies entirely within the Jervois perpetual pastoral leases (PPL): PPL 962 Jervois Pastoral Company

Jervois Pastoral Company PMB 36, Alice Springs NT 0871

#### **GEOLOGY**

# **Regional Setting**

The tenement sits within the aileron province of the Arunta Region, an area of more than 200,000 km<sup>2</sup> of metamorphic rocks in the southern parts of the NT. The Arunta is subdivided into three distinct geological regions by the NTGS, the Ailerion, Warumpi and Irindina Provinces (Figure 2).

## **Local Setting**

The published geology for the tenement is provided in Figure 3 taken from the 1:250,000 Huckitta map sheet and described in detail by Freeman (1986).

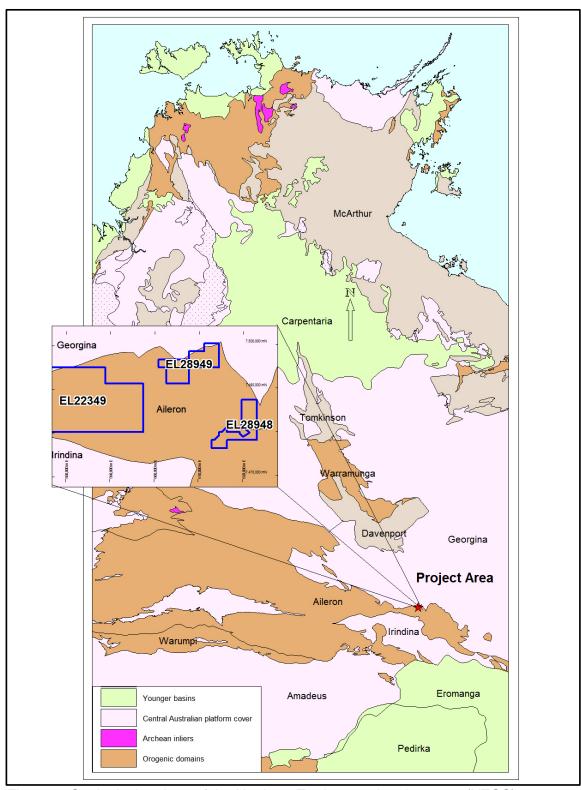
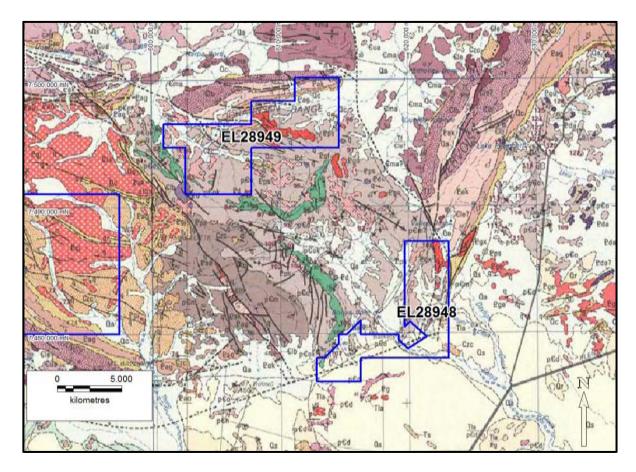


Figure 2: Geological regions of the Northern Territory and project area (NTGS).





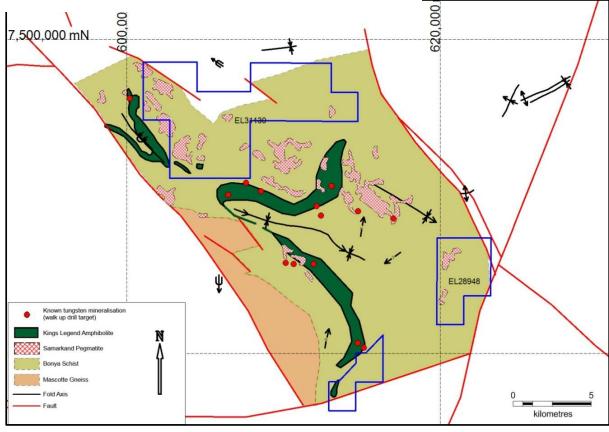


Figure 4: Interpreted geology of the Bonya block

From the 1:250 Geology sheet the Bonya Range appears to be a fault bound block predominantly comprising Bonya Metamorphics and Mascotte Gneiss (Figure 4). Trending north west / south east across the block are two fold axes. The southern synformal fold axis is upright and plunges to the south east in the south and in the north it is overturned and plunges to the north west. The Kings Legend Amphibolite, a subunit within the Bonya Metamorphics highlights the limbs of the fold structures.

Samarkand Pegmatite is intruded widely about the Bonya block with some apparent concentration along the northern anticlinal fold axis.

The distribution of the known tungsten mineralisation appears to be associated with both the pegmatite and the amphibolite.

#### **EXPLORATION ACTIVITY**

The initial work has comprised the consolidation and review of existing public domain data sets to develop targets for subsequent ground based follow up.

As part of a broader program including all of the Thor Mining Aileron tenements, a geophysical consultant was also commissioned to consolidate, review and where appropriate reprocess the existing geophysical data sets.

As a result of the review work two main target areas were identified for ground based follow up. The initial reconnaissance geochemistry survey undertaken in May 2012 was however not successful in accessing the tenement due to deterioration of access tracks over many years.

#### 2015 – 2016 EXPLORATION ACTIVITY

Due to lack of available funding no work was completed on the tenement during the period.

## PROPOSED EXPLORATION ACTIVITY 2016 - 2017

Refer to EL31130 in Group Report GR365 for proposed future exploration work.

#### REFERENCES

Freeman MJ, 1986. HUCKITTA 1:250,000 Geological map series and explanatory notes, SF53-11. Northern Territory Geological Survey.

Freeman MJ, Shaw RD and Warren RG, 1989. Jervois Range, 1:100 000 geological map sheet, 6152, preliminary edition. Bureau of Mineral Resources, Canberra.