

## **HNC (AUSTRALIA) RESOURCES PTY LTD**

### **EL 27007**

**Title Holder: Compass Resources**  
**Operator: HNC Australia Resources**

### **Annual Report**

**From 18<sup>th</sup> June 2012 to 17<sup>th</sup> June 2013**

Bynoe 1:100 000  
Noonamah 1: 100 000  
Darwin 1: 250 000

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Date: 23/6/2012  
Target: Cu,Pb,Co,Ni,Ag,Zn

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Figure .1: Tenement Location Plan 1:30000

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## **INTRODUCTION**

During 2012 EL 27007 was part of a regional geophysical survey using the airborne gravity system called FALCON. LIDAR elevation data was also acquired during this survey.

This data is currently being divided up into individual tenements and being geophysically modelled.

This tenement was applied for as part of a number of small fragment tenements adjoining the larger ERL 146. These small fragment tenements will look to be incorporated in a larger tenement amalgamation proposal for 2013 as they are impractical to operate on their own due to their very small size.

The area is considered prospective for uranium, copper, lead, zinc, cobalt and nickel mineralisation.

## **LOCATION AND ACCESS**

The tenement is located approximately 70 kilometres south of Darwin and nearby the original mine sites of the Whites and Intermediate (Rum Jungle) Deposits.

Access from Darwin is via sealed roads to Batchelor and thence northward to the tenements via the start of the Litchfield Road. Access is also possible during the dry season by following the old railway line south from Darwin River, then along local dirt roads.

## **TENEMENT DETAILS**

EL27007 was granted on the 18th June 2009 for a period of 3 years. EL27007 was renewed in 2012. Ownership is Compass Resources NL 100% and HAR are operators as part of the JV agreement.

The tenement is located on the Darwin 1:250,000 map sheet, and consists only of 2 sub blocks (0.07 sq km)

It is only 69 metres wide over a length of just 1 km.

## **GEOLOGICAL SETTING**

The Browns deposit lies in the Rum Jungle Mineral Field. The basement geology is dominated by the Archaean Rum Jungle Complex comprising two inliers (the Rum Jungle and Waterhouse domes) of S- and I-type granitoids. These are unconformably overlain by Palaeoproterozoic sedimentary strata forming the base of the Pine Creek Orogen. This sedimentary strata hosts significant deposits of stratiform base metal mineralization and structurally controlled uranium mineralisation.

The Browns Oxide deposit is hosted in weathered Proterozoic Coomalie dolomite and Whites Formation. Beneath the base of oxidation both units dip steeply to the southeast and a large body of stratiform base metal mineralization occurs in the basal shales close to the boundary with the dolomite.

The Proterozoic Zamu Dolerite intrudes both the Whites Formation and base metal mineralization but the majority of the dolerite is to the south of the Oxide Pit.

Close to the base of oxidation the bedding is folded suddenly and becomes almost flat lying. Though some tectonic folding may be involved the majority of this change in bedding dip is in response to preferential weathering and dissolution of dolomite (acid generated from breakdown of sulphides) causing slumping of the shale/dolomite contact and associated base metal gossan.

Erosion in the Tertiary created an uneven topographic surface that has filled with fluvial deposits of Tertiary clays, sands and gravels. These deposits are part of an extensive area of Tertiary valley fill that forms low ridges immediately to the north of the mining leases.

Identification of rock units within the weathered horizon can be problematic. Major element geochemistry often provides a better indication of rock type than geological logging of drill holes and was the primary source of data when developing the geological model.

The Browns-Browns East stratabound base metal sulphide resource occurs at the base of the Whites Formation. Mineralisation extends for 2.5 km along strike essentially from the eastern edge of the historical Whites open cut pit, to the west. Mineralisation occurs on the contact with the Coomalie Dolomite, or through apparent facies change, and away from the contact up to 70 metres within the Whites formation.

(from the former Compass Annual Reports)

### **PREVIOUS EXPLORATION**

During the previous reporting period, EL 27007 was part of a large geophysical survey which included 100m flight line spaced electromagnetics (EM) and infill ground gravity survey points.

EL 27007 contained around 1km of airborne EM and magnetics and no infill gravity stations fell on this tenement.

This survey was initially affected by military radar signals and some minor internal problems, however this was rectified and the corrected data sent to the department.

During the reporting period, EL 27007 was incorporated into the large data reprocessing and geophysical remodelling that took place due to the erroneous data that was previously received. All errors were removed from this data set and the data was effectively remodelled.

### **WORK COMPLETED DURING 2012**

During 2012 this tenement was subjected to a regional airborne FALCON gravity survey. This survey included not only gravity but also acquired magnetics and LIDAR high resolution elevation data.

The line spacing was approximately 200m and is currently being processed and divided into individual tenements. Once complete both the entire survey and individually split out

tenement data will be submitted to the department. Approximately 1.1 line km of data acquisition fell on this tenement.

## **RECOMMENDATIONS AND CONCLUSIONS**

At the time of writing this report the recent FALCON gravity survey has been processed and is undergoing varying modelling and GIS integration procedures. It is still recommended that EL27007 be incorporated into a proposed tenement amalgamation exercise if at all possible.

## **PLANS FOR 2013**

During 2013 EL27007 will be part of a large regional data modelling exercise. The company is undertaking data integration of all recent and historical geophysical surveys, drill data and geochemistry into a GIS package that will create a very comprehensive 2D and 3D dataset. This dataset will be utilised for the current scoping study underway at the nearby Brown's open pit as well as for regional additional resource drill targeting.

It is anticipated expenditure will exceed \$10,000.

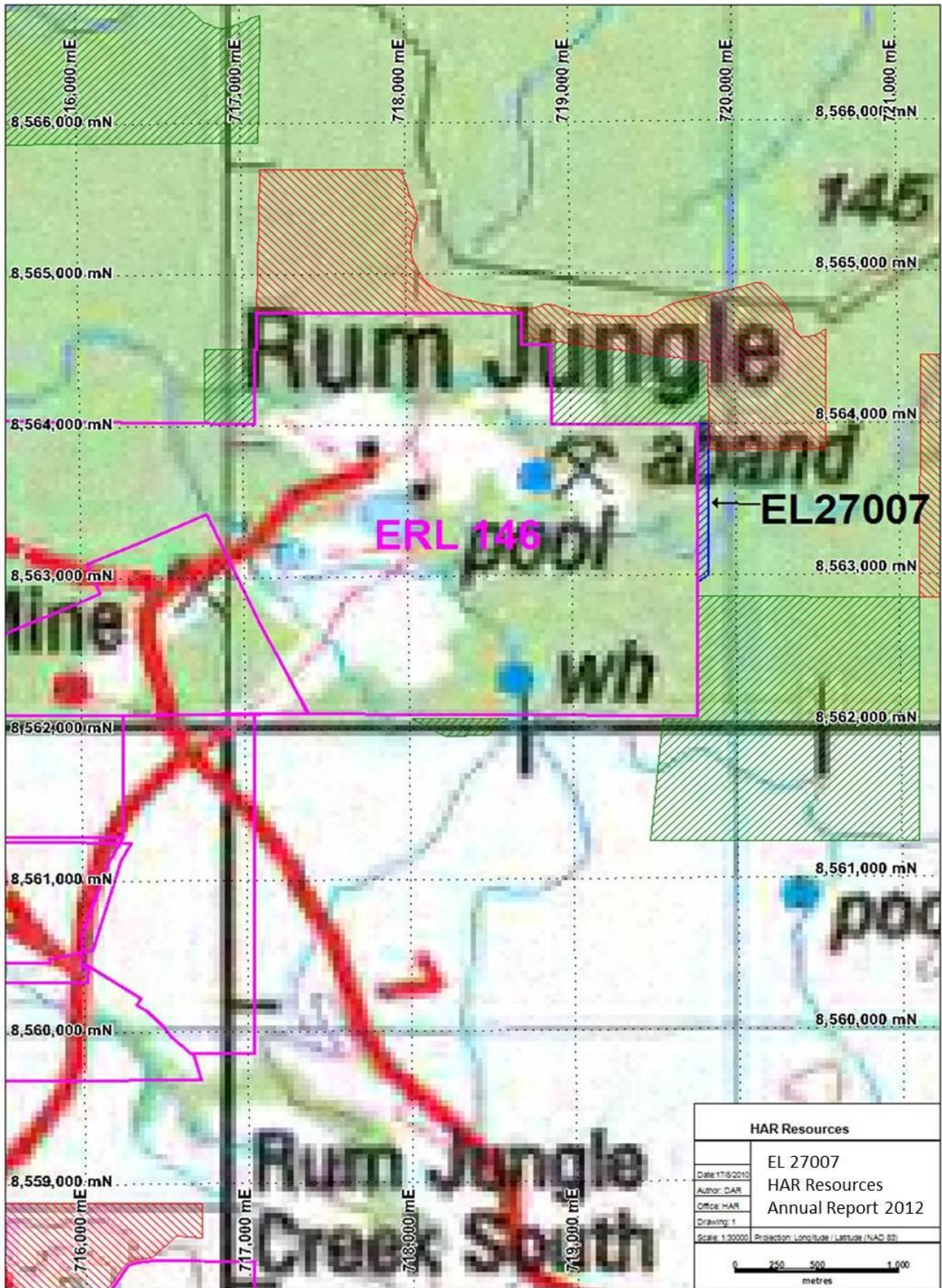


Figure 1 : EL27007 Location Map