## ANNUAL REPORT

# 14 March 2013 – 13 March 2014

### **EXLPLORATION LICENCE 28878**

## WINGATE

## Map Sheet: 1 :250,000 FERGUSSON RIVER SD52-12

## 1:100,000 Wingate Mountains 5069

## CHINA AUSTRAL LAND RESOURCES PTY LTD

ACN 154 511 298

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#### **1.0 SUMMARY**

EL28878 was transferred from Outback Metals Limited "ACN 126 797 573" to China Australia Land Resources Pty Ltd (CALR) in August 2012. Limited work has been completed in the past year on this tenement.

The Main target is Proterozoic iron oxide-breccias hosted mineralisation within the Soldier Creek Granite (Olympic Dam type). During the year the project focused on research including; literature searches, reprocessing of prevopis data, general research, report preparation and geological surveying.

#### 2. LOCATION & ACCESS

EL28878 is located in the Wingate Mountains area, approximately 210km due south of Darwin (Fig 1). Vehicle access is via Adelaide, the south along station tracks to fish river. Some disused tracks in the eastern part of the tenement put in when the area was held under pastoral leas by Tipperary Station were regarded to provide access, along with some short sections of new track. Vehicle access to the western part of the tenement is denied by an escarpment along the edge of the Wingate plateau. Helicopter must be used for access in this area.

The climate is hot, monsoonal with most of the year's rainfall occurring during the months of December to April. Vegatation is characterized by open eucalypt woodland and savannah grasses, with stands of red river gum and pandanus plam growing near perennial water or sandy creeks.

#### **3. TENEMENT STATUS**

EL28878 was granted and became effective for a six year from 14 March 2012.

NO.	STATUS	GRNT_DATE	EXPIRY DATE	AREA_SQ KM	AREA	AREA_MEAS
EL28878	GRANT	14/03/2012	13/03/2018	146.43	56	SBKS



#### **4. REGINAL GEOLOGY**

EL 28878 is located in the SW margin of the Pine Creek Geosyncline, adjacent to the SE extremity of the Litchfield Province and it within the Wingate Mountains 1:100,000 sheet, the geology of which was published by the N.T.G.S. in 1989(Edgoose et. Al, 1989).

The boundary between the Litchfield Province and the PINE Creek Geosyncline is marked by the Giants Reef Fault, a major structure which is spatially related to uranium and base metal deposits to the north at Rum Jumgle. Immediately to the north of EL28878 the Wingate bend.(Findlay et. al., 1985) . This is an area of some structural complexity with weveral spays and sympathetic faults, including the Collah and Fish River Faults which extend into EL28878(Fig. 2)

The oldest rock exposed in the Wingate Mountains area belong to the Palaeoproterozic Finnis River Group consists of the Burrell Creek Formation and overlying chilling sandstone, with minor acid volcanic present in both formations.

The Burrell Creek Formation consists of interbedded pelites, greywacke and conglomerate (Edgoos et.al., 1989). Minor carbonaceous laminae are present( Stuart-Smith et al., 1993). Lower greenschist facies metamorphis in the Wingate Mountains area during the Top End Orogeny(1870-1780Ma)had phyllite and fine granied schist from the pelites. Contact metamorphis aroud the margins of the Soldiers Creek and Allia Creek Granites has resulted in the formation of coarse knotted andalusite schist(Edgoose et.al., 1989).

The Chilling sandstone consists of a white ,clean quartz sandstone which grades into orthoquartzite.

The strata of the are is shown on Table 1.

### TALBLE 1 REGIONAL STRATIGRAPHY

CAINOZOIC	Marine and terrestrial cover		
MESOZOIC	Daly River Group		
PLAAEOZOIC	unconformity		
	Platform	Fitzmaurice Group	
MIDDLE		Auvergne Group	
PROTEROZOIC	Cover	Tolmer Group	
		unconformity	
		Finnis River Group	
		Chilling Sandston Burrell Creek Formation	
	Pine	Barinka Volcanics	
	Creek	Hermit Creek metamorphics	
	Geosyncline	Well Tree Schist	
		Mount Partridge Group	
		unconformity	
ARCHAEAN		Crystalline Basement	

Adapted from Needam and Stuart-Smith(1984), Edgeoose etal, 1989.

### Fig. 2 Regional Geology



### Fig. 3 Gravity Anomaly



#### **5. LOCAL GEOLOGY**

EL 28878 is located in the southeast corner of the Wingate Mountains 1:100,000 sheet, published by the Northern Territory Geological Survey(Edgoose et al,1989). The metasediments are schistose on genesisc in texture and are interpreted to be contact metamorphosed sandstones and shales of the Burrell Creek Formation. The rafts of metasediment indicated close proximity to the roof of the intrusion ,which is positive feature in the exploration model. Part of the tenement is covered with granited derived colluviums. Outcrops of granite vary from fresh to strongly altered or weathered. There are a number of prominent ridge within the granite trending 80 to 20 degree which are intensely silicified and quartz veined. Bucky quartz and pegmatic vein also travers the granite along with the uraniferous hematite-quartz veins on which the tenement center.

#### 6. FIELD WORK COMPLETED

6.1 Previous Work

Exploration was undertaken previously in the area by Planet Mining Co Pty Ltd, Mobil Energy Mineral Australia and, PNC exploration PTY LTD.

In 2012, almost 5kms of geological surveying was completed in the tenement by CHINA AUSTRALIA LAND RESOURCES PTY LTD.

Field crews have worked in the east of EL28878 extensively, initiating reconnaissance on preliminary geochemical assaying utilizing a Niton Field Portable X-ray Flourescence Analyser (FPXRF). However the results are non obvious abnormality, so some intensive survey must been done in the tenement. Especially in the southeast of the mining area, since most of the earth's surface covered by soil, measuring results did not show any abnormalities.

6.2 Work Completed During Current Reporting Period

During the 2013-2014 reporting period work was limited to literature reviews, general research and a geological survey.

#### 7 CONCLUSIONS AND RECOMMENDATION

EL 28878 is located in an interesting geological position of a metallogenic belt. The existence of nunerous hematite breccia or hematite-quartz veins is encouraging and will require further work in the field.

And the next years, the followling work should be done:

No.	Planning geological work
1	1/25000 soil geochemical survey 5km <sup>2</sup>
2	1/10000 mapping 2km <sup>2</sup>
3	100 rocks chip sampling and geochemical analysis

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