



Annual Report

AO-ZHONG INTERNATIONAL MINERAL RESOURCES

Third Annual and Final Report for EL28297

18/03/2011 to 05/06/2014

Mount Barrington 1: 100 000 Sheet

By

Lin Ke

Master of science (Geochemistry)

Ao-Zhong International Mineral Resources
27 Ternau Street,
Rapid Creek,
Northern Territory



Contents

Digital Data Files	3
ABSTRACT	4
COPYRIGHT ACKNOWLEDGEMENT.....	5
1 Introduction	6
2 Back Ground Information.....	7
2.1 Location and Access	7
2.2 Regional Geology	7
2.3 Previous Exploration	7
3 Remote Sensing Interpretation.....	9
4 Anomaly Verification.....	10
5 Proposed Exploration and Budget	14
6 Conclusions	14



Digital Data Files

Type of File	Description of file	Name of title	File name
Report file	annual report text	EL 28297	EL28297_2014_01_AS.pdf
Figure	alternation information extraction	EL 28297	EL28297_2014_02_AS.jpg
Figure	Targets by Remote Sense	EL 28297	EL28297_2014_03_AS.jpg



ABSTRACT

EL 28297 is wholly owned by Ao-Zhong with a main purpose for base metals at beginning then for IOCG-type copper-gold and gold in shear zone type. No field work but just general research, literature search and Remote sensing interpretation has been done during the first two years, and three targets were defined by the comprehensive interpretation. In the Year 3, a site visit and the remote sense anomaly verification have been done in the defined areas. 44 specimens were collected for Physical property test. No valuable geological information supports the further work. No work planned and it is to be surrendered.



COPYRIGHT ACKNOWLEDGEMENT

1. Subject to point 2, the tenure operator acknowledges that this Report, including the material, information and data incorporated in it, has been made under the direction or control of the Northern Territory within the meaning of section 176 of the Copyright Act 1968 (Cwth).

2. To the extent that copyright in any material included in this Report is not owned by the Northern Territory, the tenure operator warrants that it has the full legal right and authority to grant, and does hereby grant, to the Northern Territory, subject to any confidentiality obligation undertaken by the Northern Territory, the right to do (including to authorise any other person to do) any act in the copyright, including to:

- Use;
- Reproduce;
- Publish; and
- Communicate in electronic form to the public, such material, including any data and information included in the material.

3. Without limiting the scope of 1 and 2 above, the tenure operator warrants that all relevant authorisations and consents have been obtained for all acts referred to in 1 and 2 above, to ensure that the doing of any of the acts is not unauthorised within the meaning of section 29(6) of the Copyright Act (Cwth).



1 Introduction

Ao-Zhong International Mineral Resources(Ao-Zhong) holds 100% of the Exploration Licence (EL) 28297. Its main target is base metals. It is in the Mount Barrington 100K sheets and HAY RIVER 250k sheet.

The details of the licences are displayed below:

Table 1 Tenement Details

Licence Number	Date of Grant	expire time	Size blocks/sqkm	Retain Blocks/sqkm	Covenant
28297	18/3/11	17/3/17	240 / 757.64	120/379.15	\$70,500

The tenement underwent a compulsory 50% reduction in March last year, the retained part is as shown in Fig 1(green block).

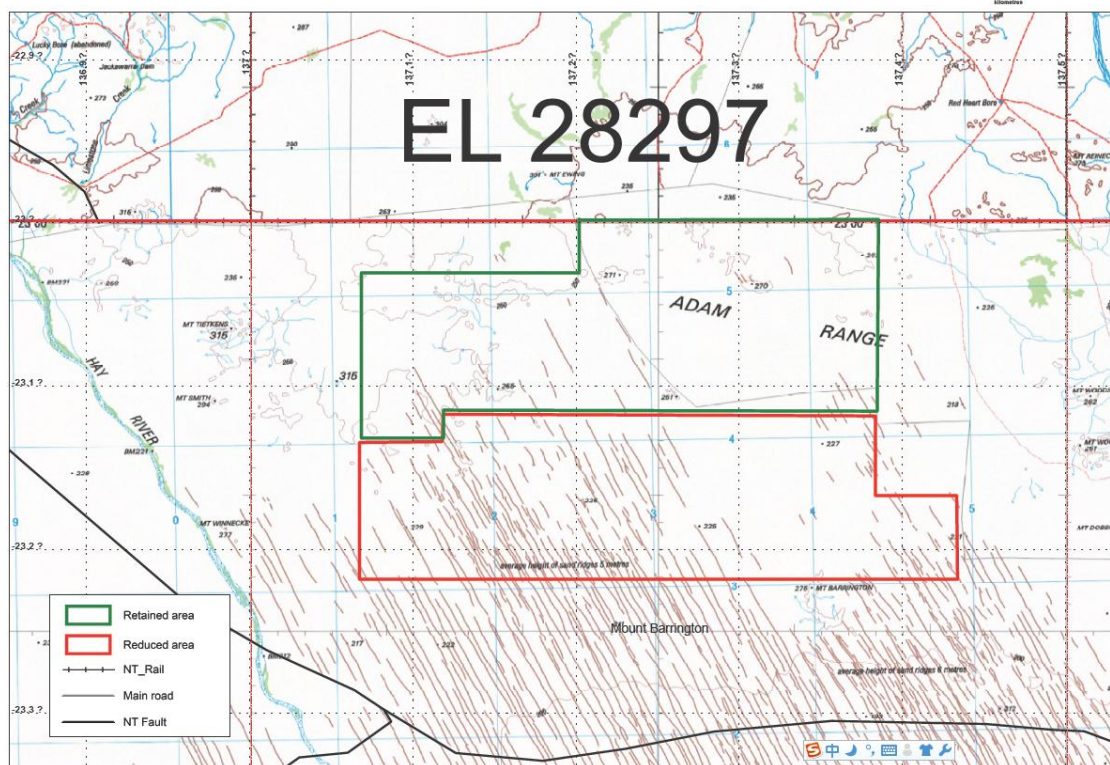


Figure 1. Locality map



2 Back Ground Information

2.1 Location and Access

Exploration licence 28297 is located 350km in a direct line or 550km by road to the east of Alice Springs, Figure 1. There is less than 100km between the licence and the Northern Territory – Queensland border. Access to the licence from a Alice Springs is north along the Stuart Highway for about 100km and then east along the unsealed Plenty Highway. From the Plenty Highway very limited access to the licence is possible via station tracks. For most purposes a helicopter provides a better form of transport.

Examination of the Hay River 1:250 000 map sheet and the Google imagery shows the licence area is entirely flat and without any defined drainage. The most notable topographic feature is the large number of sand dunes that occur in the southern half of the licence. The imagery also shows there is very little by way of vegetation, other than spinifex grass. There is no infrastructure of any sort located near the licence.

2.2 Regional Geology

The Hay River geological map shows outcrops of granite to the south-east and north-west of the licence area. The granite is interpreted to intrude undifferentiated, Palaeoproterozoic schist, gneiss and metaquartzite of the Arunta Complex. Unconformably overlying the Arunta Complex is the Neoproterozoic Grant Bluff Formation (glaucconitic sandstone and coarse greywacke) and the Triassic Tarlton Formation, (conglomerate and sandstone). The cover sequence is comprised of Tertiary limestone and Quaternary sand.

2.3 Previous Exploration

Previous exploration in the licence is very limited and has focused on uranium, base metals and iron-oxide-copper-gold (IOCG) targets like Roxby Downs (Olympic Dam). Some work was also undertaken for phosphate mineralisation.

The work done consists of the collection and interpretation of remotely sensed data, airborne magnetic, radiometric and satellite imagery. Field work consists of geological mapping and a local scale gravity survey over a coincident gravity and magnetic feature. A soil sampling survey was completed over the same geophysical feature but failed to give any positive results. It is considered that the very fine-grained sample fraction used in the survey is inappropriate in the Hay River



environment.

Due to the remoteness of the area, the lack of known mineralisation and the very limited outcrop, at present only conceptual models can be proposed.

Base Metals- Several explorers have postulated the similarities between the Willyama Complex in Broken Hill and the Arunta Complex of Central Australia. The similarities do exist but there is no of any base metal mineralisation present

Uranium- the presence of glauconitic sandstone offers the opportunity for locating roll-front uranium mineralisation. Examination of the regional radiometric data fails to locate any areas of interest but this may reflect the effect of the cover material rather than the lack of mineralisation.

Phosphate- The regional interpretation of the Northern Territory geological regions by the NTGS shows the tenement lies in the southern end of the Georgina Basin. The mapping done by previous workers failed to locate any Cambrian aged limestone and as such the potential to find phosphate is very remote.

Previous workers (BHP Minerals) have identified a coincident magnetic and gravity anomaly that has some similarity to the signature of the Roxby Downs Copper – uranium deposit.



3 Remote Sensing Interpretation

During the reporting period, a remote sensing interpretation was completed and the alteration information was extracted based on the data from Landsat-7ETM and Aster.

EL 28297 locates in Mount Barrington area, southeast NT, the outcrops are mainly granite and metasedimentary rocks of Middle Proterozoic exposed; the ferric contamination anomalies in this tenement are mainly Grade 2 and 3 anomalies scattered in the north-west, there are a large number of granite outcrops in the northwestern part of the tenement, the granite in this tenement is considered to have the mineralization potential for iron oxide and copper-gold; tenements hydroxyl anomalies basically concentrated in the northern region, small area with high intensity, Grade 1 hydroxyl abnormalities are prominent (Fig 2).

Based on the interpretation and the historical geological information, three targets were defined as Zone I, Zone II and Zone III in the Fig 3. For the Zone II which is with more potential, located in the north of EL28297 with a length of 13.130km and a width of 4.293 km, an area of 56.37 square kilometers, based on following (Figure 2, 3):

Structure aspects: east-west trend brittle-ductile shear zones cross the area, a total length of about 9.33 km, also developed by NWW and NNE-trending secondary faults, be sure to pay attention to these secondary faults mineralization characteristics, the three gold mineralization types with the ductile shear zone: mylonite and altered rock type and quartz vein type, are likely to be produced in these parts. In addition, the ring structure developed well, widely distributed with rich information.

Geophysical aspects: the geomagnetic depth value and geomagnetic value are extremely low. Gravity values were evenly distributed and high. Radioactive element thorium (Th) value is obvious.

Remote sensing anomalies: Rich in ferric contamination anomaly and mud alteration information in remote sensing anomaly regard: and the alteration information, mostly in sub-linear structure flanking, or ring structure around, with the formation of the potential of the quartz vein type gold.



4 Anomaly Verification

Three targets were defined by the comprehensive interpretation. In the Year 3, a site visit and the remote sense anomaly verification have been done in the Zone I and Zone II.

44 specimens were collected for Physical property test. No outcrops been found and the whole area are covered by Quaternary sandy soil.

In Zone I, 15 points were observed, and 4 of them are outcrops (D06-D09). The most area is covered by Cenozoic Quaternary sandy soil and Residual alluvium, Jurassic quartz sandstone、Mudstone with ferruginous sandstone layer (hematite layer) occur in the southern and northern (Figure 4), which made of the mountain massif.



Figure 4 ferruginous sandstone(hematite) in Zone I



In Zone II, 18 points were observed, and 5 of them are outcrops (D01-D05) (Table 2). Similar like Zone I, the stratum are form the same unit. The work focused on the western part. The most area is covered by Cenozoic Quaternary sandy soil and Residual alluvium, Jurassic quartz sandstone、Mudstone with ferruginous sandstone layer (hematite layer) occur in the southern and northern (Figure 5) , which made of the mountain massif.



Figure 5 ferruginous sandstone(hematite) in Zone II (left is D01,right is D05)



Table 2 Observing points in EL28297

Zone	Observing points ID	Coordinates		Geological Description	Remark
		X	Y		
II	YG01	730076	7454049	A large area of red sand layer, a small area of the sandstone fragments containing iron (hematite), gravel of the slope sediments, alluvium.	
	YG02	729659	7454459		
	YG03	729573	7454171		
	YG04	729542	7453866		
	YG05	729537	7453563		
	YG06	729530	7453260		
	YG07	729515	7452956		
	YG08	729537	7452657		
	YG09	729541	7452350		
	YG10	729550	7452049		
	YG11	729679	7451661		
	YG12	730051	7452381		
	YG13	730247	7453713		
I	YG14	716320	7451238	As above	
	YG15	716528	7450672		
	YG16	716574	7450441		
	YG17	716599	7450174		
	YG18	716890	7450175		
	YG19	717124	7450364		
	YG20	717347	7450570		
	YG21	717580	7450833		
	YG22	717410	7451017		
	YG23	717068	7451153		
	YG24	716766	7451153		
II	D01	729697	7451479	Quartz sandstone, mudstone with sandstone iron (hematite layer), argillaceous limestone	Rock outcrops
	D02	730051	7452381		
	D03	730089	7452472		
	D04	730247	7453713		
	D05	730076	7453978		
I	D06	716528	7450672	As above	Rock outcrops
	D07	716574	7450441		
	D08	716599	7450174		
	D09	717410	7451017		

44 specimens were collected for Physical property test (Table 3, 4). No valuable geological information supports the further work.



Table 3 Specimens of EL28297

Sample ID	coordinates		stratum	name	remark
	X	Y			
WX137-WX139	730071	7454045	Rt	hematite	Ferruginous
WX140-WX143	730093	7453991	Rt	siltstone	
WX144-WX145	729680	7451661	Rt	hematite	Ferruginous
WX146-WX149	729682	7451543	Rt	mudstone	
WX150-153	729660	7451530	Rt	quartz	
WX154-WX157			Rt	hematite	Ferruginous
WX158-WX161	730090	7452472	Rt	argillaceous	
WX162-WX169	711868	7453536	Pg	granite	west to the tenement
WX170-WX174	711344	7453371	Rt	arkosic	
WX175-WX176	716557	7450595	Rt	hematite	Ferruginous
WX177-WX180	716600	7450176	Aa	schist	
Total	44				

Table 4 Physical property parameters results

NO	Name	magnetic susceptibility (10^{-5} SI)				density (10^3 kg/m ³)			
		amount	max	min	geometric average	amount	max	min	arithmetical mean
1	micagneiss	15	2.2	0.3	1.6	15	2.43	2.22	2.3
2	quartzite	5	0.1	0	0	5	2.58	2.18	2.4
3	metasandstone	5	3.2	0.4	2	5	2.55	2.66	2.61
4	Ferruginous	2	5.2	3.6	4.4	2	3.16	2.87	3.02
5	siltstone	4	0.2	0	0	4	2.23	2.02	2.16
6	mudstone	4	0.1	0	0	4	2.13	2.09	2.11
7	quartz sandstone	4	0.1	0	0	4	2.38	2.27	2.34
8	<i>hematite</i>	6	11.2	3.7	5.2	6	3.16	3.06	3.12
9	argillaceous	4	0.1	0	0	4	2.68	2.61	2.63
10	granite	8	0.3	0.1	0.2	8	2.43	2.32	2.36
11	arkosic	5	0.2	0.1	0.1	5	2.4	2.19	2.26
12	schist	4	0.3	0	0.2	4	2.37	2.25	2.34



5 Proposed Exploration and Budget

No work planned and it is to be surrendered.

6 Conclusions

EL 28297 is wholly owned by Ao-Zhong with a main purpose for base metals at beginning then for IOCG-type copper-gold and gold in shear zone type. No field work but just general research, literature search and Remote sensing interpretation has been done during the first two years, and three targets were defined by the comprehensive interpretation. In the Year 3, a site visit and the remote sense anomaly verification have been done in the defined areas. 44 specimens were collected for Physical property test. No valuable geological information supports the further work. No work planned and it is to be surrendered.