

## EL29390 Final Report – Delgare Pty Ltd

<b>Titleholder</b>	Delgare Pty Ltd
<b>Operator (if different from above)</b>	Ventnor Resources Ltd
<b>Tenement Manager/Agent</b>	Austwide Mining Title Management Pty Ltd
<b>Titles/Tenements</b>	29390
<b>Mine/Project Name</b>	McArthur Basin
<b>Report title including type of report and reporting period including a date</b>	Final Report for period ending 16 <sup>th</sup> September 2013
<b>Personal author(s)</b>	Rachel Coughlan for Ventnor Resources
<b>Target Commodity or Commodities</b>	CU
<b>Date of report</b>	7 <sup>th</sup> November, 13
<b>250 000 K mapsheet</b>	Robinson River
<b>100 000 K mapsheet</b>	Selby
<b>Contact details</b>	Austwide Mining
<b>Fax</b>	8941 0226
<b>Phone</b>	8981 2799
<b>Email for further technical details</b>	<a href="mailto:rachelc@austwidemining.com.au">rachelc@austwidemining.com.au</a>
<b>Email for expenditure</b>	<a href="mailto:rachelc@austwidemining.com.au">rachelc@austwidemining.com.au</a>

*The owned information acquired by Ventnor Resources includes all information under the previous work by Ventnor Resources and work during reporting year sections. The rest of the information has been sourced from open reports and data through the Department of Mines and Energy. The Minister has authority to publish the copyrighted information accordingly.*

## **EL29390 Final Report – Delgare Pty Ltd**

### **Introduction:**

EL29390 is a granted exploration licence located over the Wearyan Shelf of the McArthur Basin adjacent to and immediately west of the Mount Isa Inlier where world class base metal mines and major uranium deposits have been delineated in Proterozoic basement. To the west of the lease is the McArthur River base metals mine located on the Batten Shelf of the McArthur Basin.

Ventnor is exploring for base metal minerals, principally copper, on this lease EL29390 one on the Robinson River 250K sheet and on the Selby 100K sheet.

Work completed on EL29390 to date includes: -

- Literature research
- Commenced compilation of previous work into a GIS system

No field activities were carried out by Ventnor Resources in the reporting period.

Programs scheduled for the second year of the project include:-

- ☐ Collection and interpretation of HyMap airborne spectral data
- ☐ Acquisition of available Geophysical data
- ☐ Re-processing and modelling of available Geophysical data
- ☐ Field checking of HyMap anomalies and geophysical target areas
- ☐ Soil and auger sampling of identified target areas

## EL29390 Final Report – Delgare Pty Ltd

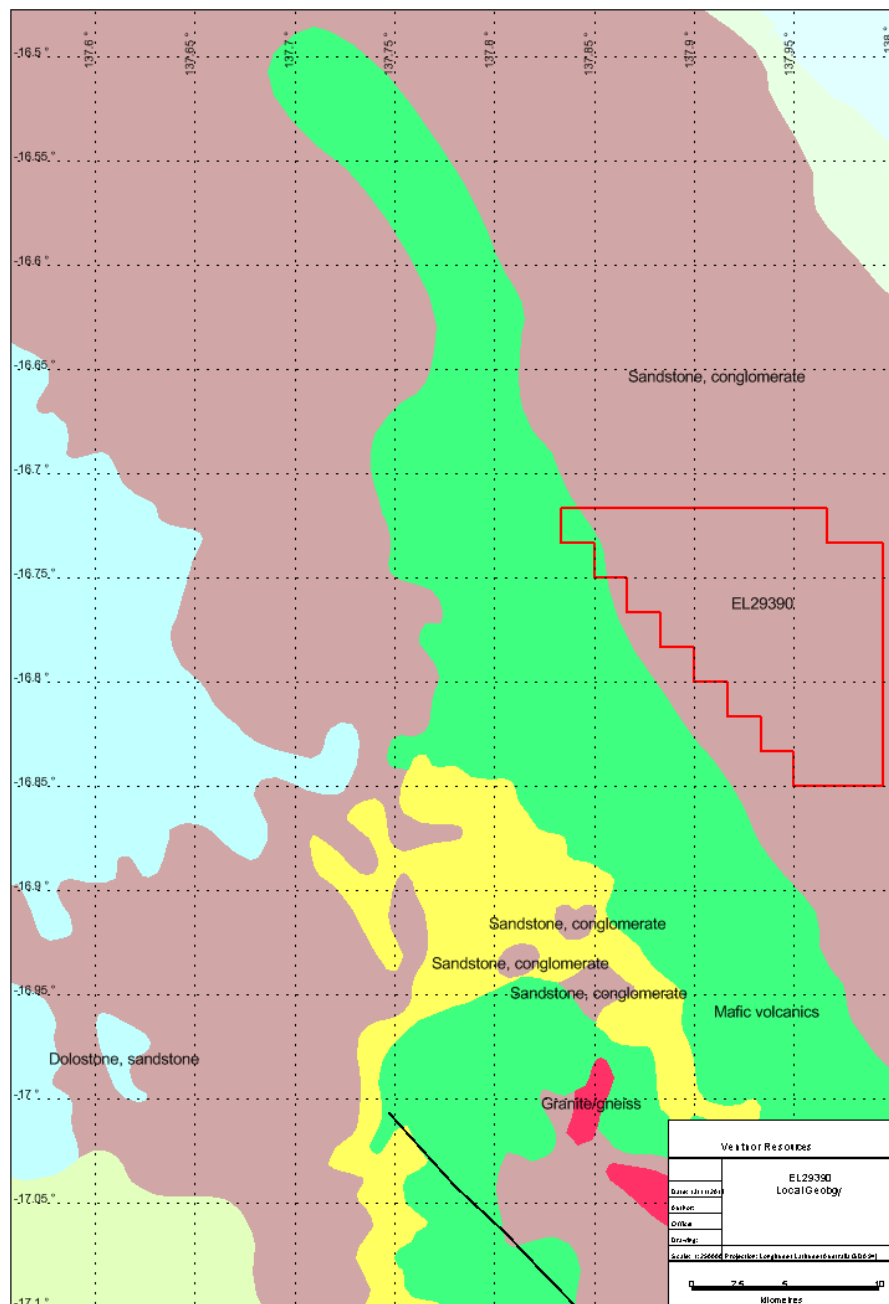


Figure 1: Regional Location Plan of NT Copper Project (including EL29390) over 250K Robinson River sheet

### **Tenure:**

EL29390, consisting of 50 sub-blocks, was granted to Delgare Pty Ltd on 19<sup>th</sup> November, 12 for a period of 6 years. The details of the tenure are shown in Table 1. Ventnor Resources are the operators of the licence.

	<b>Blocks</b>	<b>Area</b>	<b>Status</b>	<b>Application Date</b>	<b>Grant Date</b>	<b>Surrendered</b>
<b>EL29390</b>	50	155 Km2	Granted	24/02/12	19/11/2012	16/9/2013

## Geology:

EL29390 is located on the eastern part of the Paleoproterozoic and Mesoproterozoic McArthur Basin which is a thick platform succession of sedimentary and lesser volcanic rocks. The tectonic elements of the basin are shown in Figure 2 (Rawlings 2006). The tenure is located on the northern margin of Wearyan Shelf with overlying Carpentaria Basin sediments with the underlying McArthur Basin rocks interpreted to be composed of the Redbank Package (Tawallah Group) and the Favenc package (Karns Dolomite).

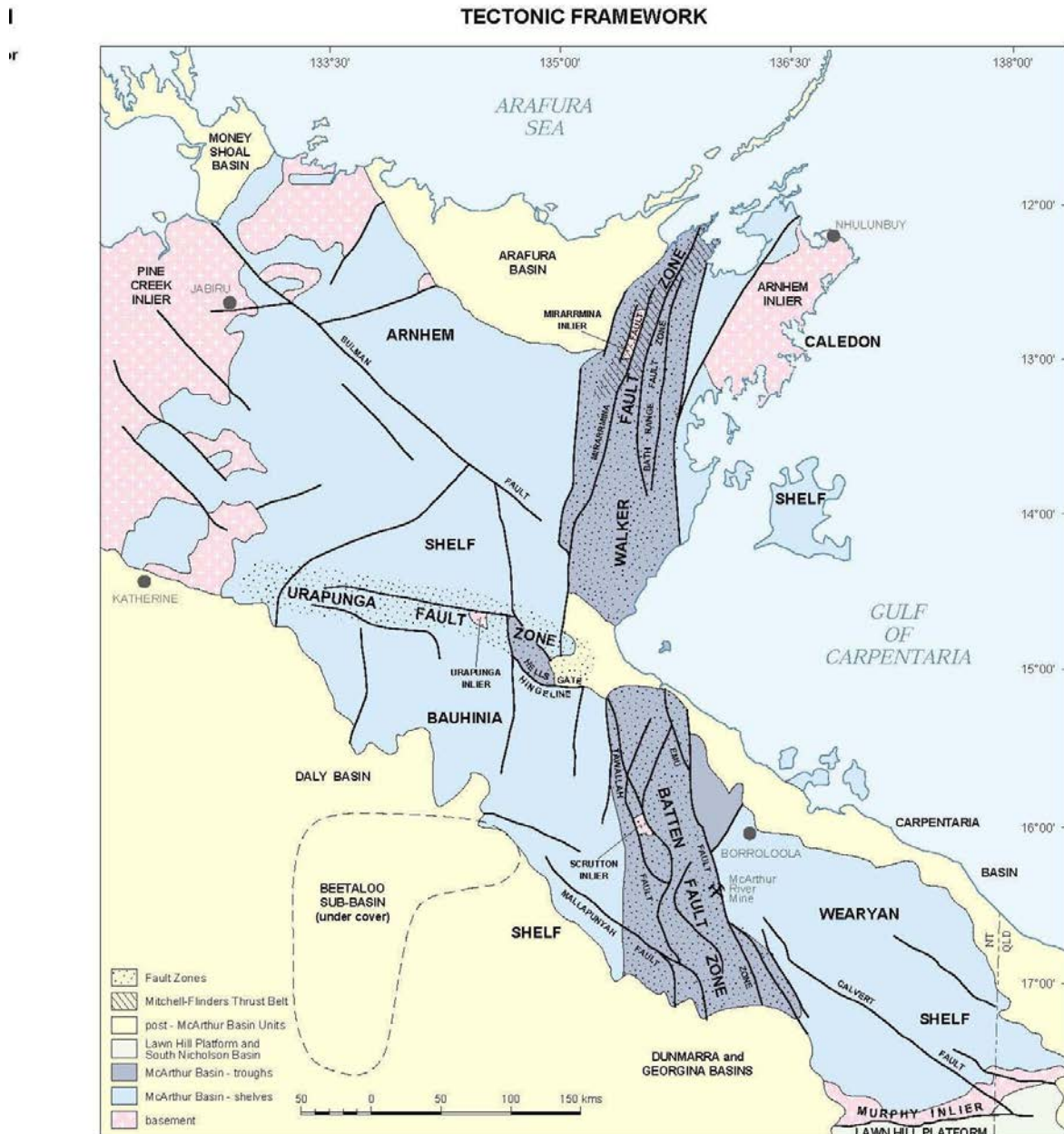


Figure 2. Tectonic elements of the McArthur Basin (Rawlings 2006)

## EL29390 Final Report – Delgare Pty Ltd

The Redbank package is aged between 1870Ma and 1710Ma, while the Favenc package is aged from 1600 Ma to 1570 Ma. The Redbank package has a complex regional tectonostratigraphy while the Favenc package is regionally extensive ranging from 50 to 1600 metres thick of stromatolitic and evaporitic dolostones and sandstones.

The main stratigraphic unit of the Redbank package over the Wearyan Shelf is the Tawallah Group. The stratigraphy of the Tawallah group is illustrated in Figure 3 with particular reference to the units on the Wearyan shelf shown on the right hand side of the figure. On the Robinson River 250K sheet exposures of the Tawallah group is limited to the upper 1 000 to 1500 metres of the group comprising the Aquarium Formation and younger.

The principal stratigraphic units are discussed in detail by Rawlings (2006), and only a brief synopsis is given here of the units within or near to the tenement.

The stratigraphic units and their relationships to each other are shown below.

Czs Canozoic materials (soils, laterite and sand deposits)

Cz Cenozoic materials

~~~~~

Carpentaria Basin (Cretaceous sediments)

~~~~~

Karns Dolomite

~~~~~

Tawallah Group      Echo Sandstone  
                                    - Upper Pungalina Member  
                                    - Lower Pungalina Member  
                                    Hobblechain Rhyolite

~~~~~

Tawallah Group      - Gold Creek Volcanics

The Gold Creek Volcanics is a mixed basalt sedimentary sequence that unconformably overlies the Wollongorang Formation and is in turn conformably to unconformably overlain by the Pungalina member of the Echo Sandstone. The Gold Creek Volcanics are from 15 to 230 metres thick with an average thickness of 170 metres.

The Hobblechain Rhyolite is a semi contiguous sheet of porphyritic rhyolite of 70-100 metres thickness that outcrops over 300km<sup>2</sup> entirely to the east of the tenure.

The Echo Sandstone is a quartzose rich sandstone dominant unit with minor mudstone and conglomerate. The Pungalina Member (Upper and Lower) is a basal 0-120 metre thick mudstone, conglomerate and sandstone unit at the base of the Echo Sandstone.

The Karns Dolomite is unconformable to the underlying Tawallah Group. It is composed of shallow marine stromatolitic and evaporitic carbonates and lesser sandstones, mudstones and conglomerates. It is estimated to reach a maximum thickness of 700 metres near the western part of the Robinson map sheet where it dips shallowly to the west. It is subdivided into a Lower Karns dolomite and the undifferentiated Karns dolomite.

## EL29390 Final Report – Delgare Pty Ltd

The Bukalara Sandstone is unconformable on various McArthur basin units. It is composed of coarse fluviatile and shallow marine sandstones and lesser conglomerates. It is estimated to be up to 200 metres thick but is generally much thinner.

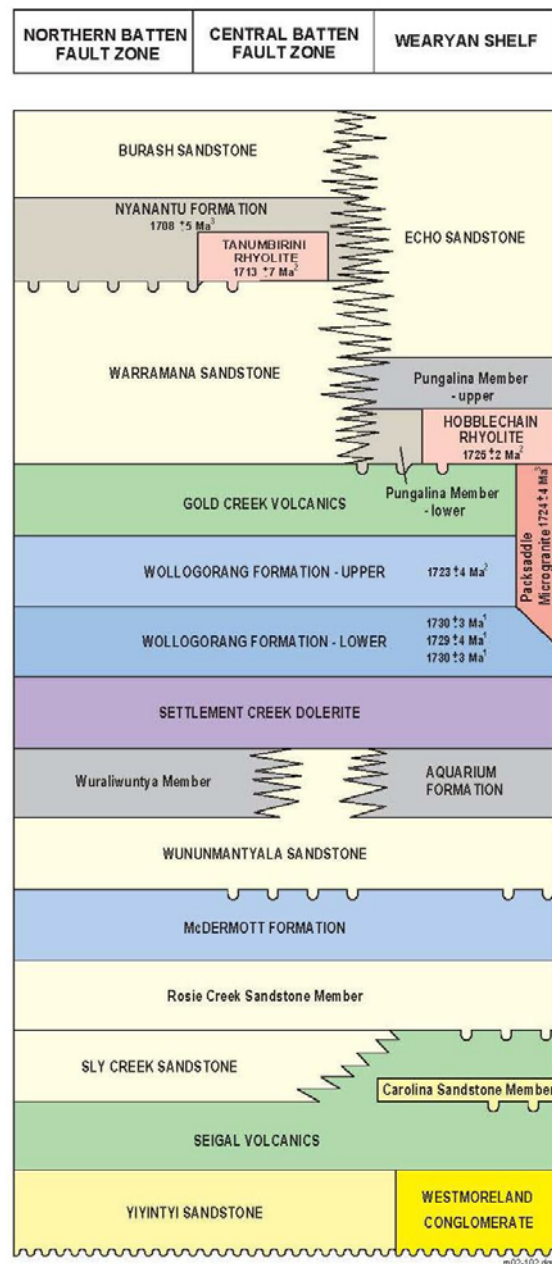


Figure 3 Stratigraphy of the Tawallah Group (after Rawlings 2002)

### Structure

The Wearyan Shelf is an area of tectonic stability with most units flat lying or shallowly dipping with dips less than 2 degrees. There is no ductile deformation or regional metamorphism.

Minor folding occurs in the Pungalina area as a gentle irregular dome and basin structure developed from emplacement of the Packsaddle Microgranite providing uplift and subsequent gravity slide away from the intrusive along evaporate layers as decollement surfaces.

## **EL29390 Final Report – Delgare Pty Ltd**

A series of northwest trending strike slip faults form the Calvert Fault trend to the south west and south of the tenure.

### **Prospectivity**

Previous explorers have targeted a range of exploration targets in the region. Targets have been:

- ☐ Cu+/-Co-Ni Breccia pipes in multiple targets in the Gold Creek volcanics however grades have been generally sub economic and tonneages low (targets have been identified to the east of the lease at Stanton and Running Creek with a resource outlined at Stanton of 800,000 tonnes at 0.15% Co, 0.08% Ni and 0.15% Cu).
- ☐ P+/-Cu+U+REE as stratiform sedimentary targets in granular sandstone and stromatolites at the base of the Karn Dolomite. Apatite is the primary economic mineral. (targets are Selby, Selby Eastern and others)
- ☐ Zn+Pb+Ag Veins and coarse disseminated sulphides in dolostone and sandstones of the Karns dolomite along unconformity with Echo sandstone, stratabound, with associated hydrocarbons.

## EL29390 Final Report – Delgare Pty Ltd

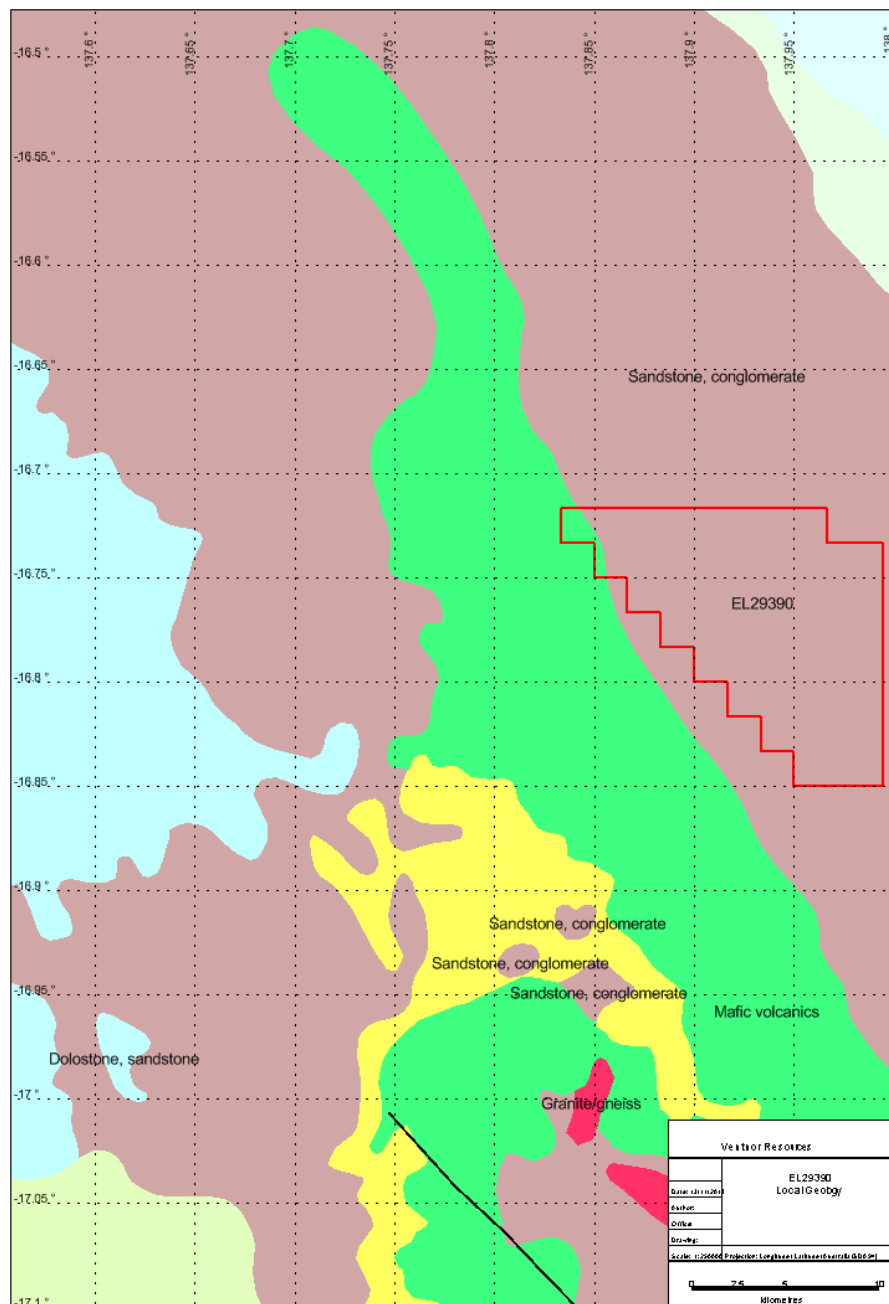


Figure 4. Regional Geology of EL29390

### **Work complete during the period and conclusion:**

No exploration work was carried out during the period 19 November, 2012 to relinquishment on 20<sup>th</sup> September, 2013. An internal review of the Company's exploration strategy given the current capital markets has been completed and as a result a decision was made to relinquish all tenements associated with the Company's NT Copper Project.