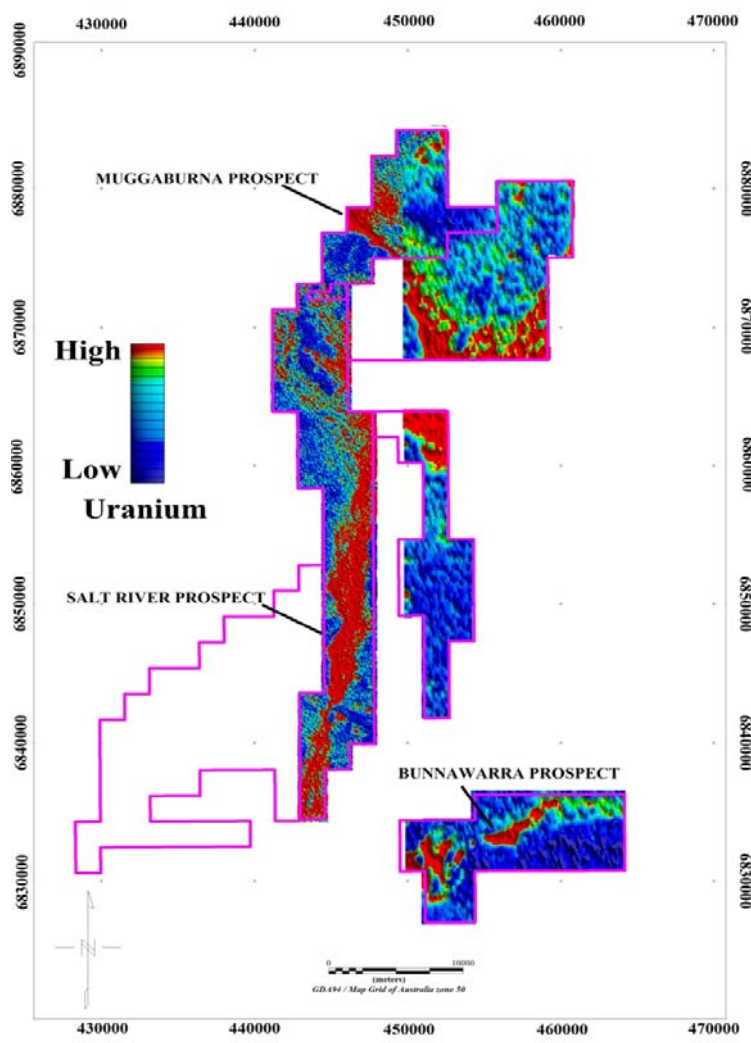


**NEW 30KM LONG URANIUM TARGET AT YALGOO, WA**

**SUMMARY**

Enterprise Metals Limited (“Enterprise” or “the Company”, ASX: “ENT”) wishes to announce that it has received preliminary 100 metre line spaced magnetic and radiometric data from the Company’s recent airborne survey over its Yalgoo Exploration Licence 59/1437.

The imaged data clearly shows a 30km long north-south uranium channel anomaly coincident with the Salt River drainage valley. The Salt River drainage system contains mapped calcrete deposits and overlies a north-south trending greenstone belt. The Company believes that its Yalgoo Project uranium targets satisfy many of the criteria for the development of calcrete hosted uranium deposits such as Yeelirrie. (Refer Figure 1 below, with the Company’s tenements outlined in purple)



**Figure 1. Uranium Channel Image of Airborne Radiometric Survey Yalgoo-2010.**

The Company's Yalgoo Uranium Project is located approximately 600kms north of Perth and is 23kms west of the township of Yalgoo. The Project is comprised of one granted tenement (Exploration Licence 59/1437) covering 210 km<sup>2</sup> and 3 exploration licence applications (E59/1632, 1633, 1645 and 1651) covering 450 km<sup>2</sup>.

The focus of this Project is to discover a substantial deposit of calcrete hosted uranium mineralisation, which is theorised to occur within major drainage systems, adjacent to or along the contact between the Archaean granites and greenstone belt lithologies.

At Yalgoo the Company has now identified 3 main uranium prospects, the major one being Salt Creek, which was identified by the Company as a conceptual uranium target, using the Company's calcrete hosted uranium model.

Subsidiary prospects have been also identified at Muggaburna and Bunnawarra.

## **BACKGROUND**

### **Geological Model**

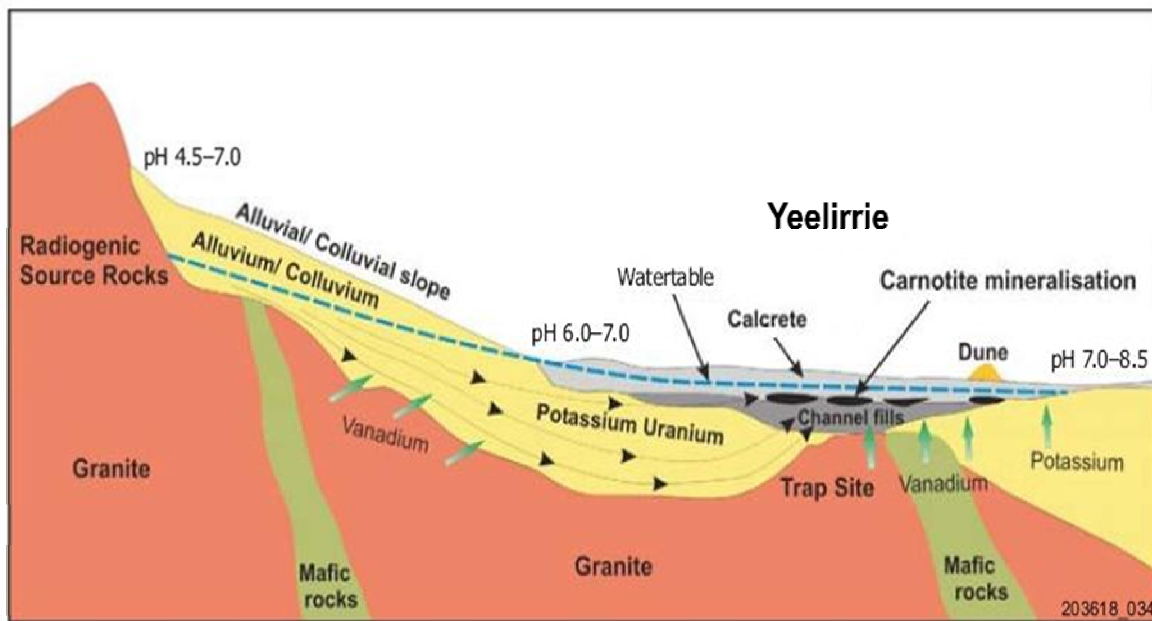
The northern Yilgarn catchments cover an extensive area of Archaean granitic rocks which contain between 2 - 25 ppm uranium. Oxidising conditions have prevailed in places to depths of up to several hundred metres and under these conditions uranium is mobilised as uranyl ion complexes and transported laterally in groundwater. Where groundwaters reach drainage valleys, the water table rises to 1 - 5m below surface.

Evaporation and loss of carbon dioxide promotes precipitation, particularly of calcium and magnesium carbonates. Gaskin et al (1981) stated that where the solubility product of the concentration of active ion species of uranium, vanadium and potassium exceeds the solubility product of carnotite, this mineral is precipitated in fissures or between carbonate and clay particles.

Butt et al (1984) further distinguished types of calcrete-hosted uranium based on the location of the mineralisation. Calcrete-hosted uranium is found either in the main drainage channel itself or in the calcrete delta or platform in which case it is called a valley deposit (e.g. Yeelirrie, Lake Way), or in the alluvial playa sediments (e.g. Lake Maitland), or in terraces (e.g. Minindi Creek).

The Yeelirrie uranium deposit, discovered by Western Mining Corporation (now BHP Billiton) in 1972 contains 52,500t of U<sub>3</sub>O<sub>8</sub> at a grade of 1.5 kg/t U<sub>3</sub>O<sub>8</sub> using a 0.5 kg/t cut-off grade and is considered a model for most explorers. Calcrete hosted uranium mineralisation is comprised of the soluble hydrated potassium-uranium vanadate mineral carnotite, K<sub>2</sub>(UO<sub>2</sub>)<sub>2</sub>(VO<sub>4</sub>)<sub>2</sub>.3H<sub>2</sub>O.

The carnotite post-dates the calcrete, commonly occurring as void linings in porcellanous varieties, as seams and disseminations in earthy varieties, as fracture 'paint' on slip planes around the margin of mounds, and as grain coatings within the clay-sand host beneath the calcrete.



Source: Roberts, I (GSWA Seminar 2009) Modified from: Hou et al., MESA Journal 46, 2007

**Fig 2 . Generic Model: Formation of calcrete hosted uranium deposits over greenstone belts**

### Conceptual Targeting

Using public domain 400m line spaced radiometric and magnetic data, Enterprise Metals Limited identified good uranium source rocks in the area immediately NE of Yalgoo, and tracked the dissolved uranium down a broad alluvium filled channel until it entered the Salt River. Coincidentally, the Salt River flows from north to south, and flows down a narrow sliver of north-south striking greenstone belt lithologies adjacent to the Gullewa gold mine. The Company considered the Salt River and its tributaries to satisfy many parameters of the geological model.

Mapping by the Geological Survey of Western Australia has shown that the Salt River contains remnants of valley-fill calcretes that are 1,000m to 1,500m wide and are developed over a channel length of at least 30 km.

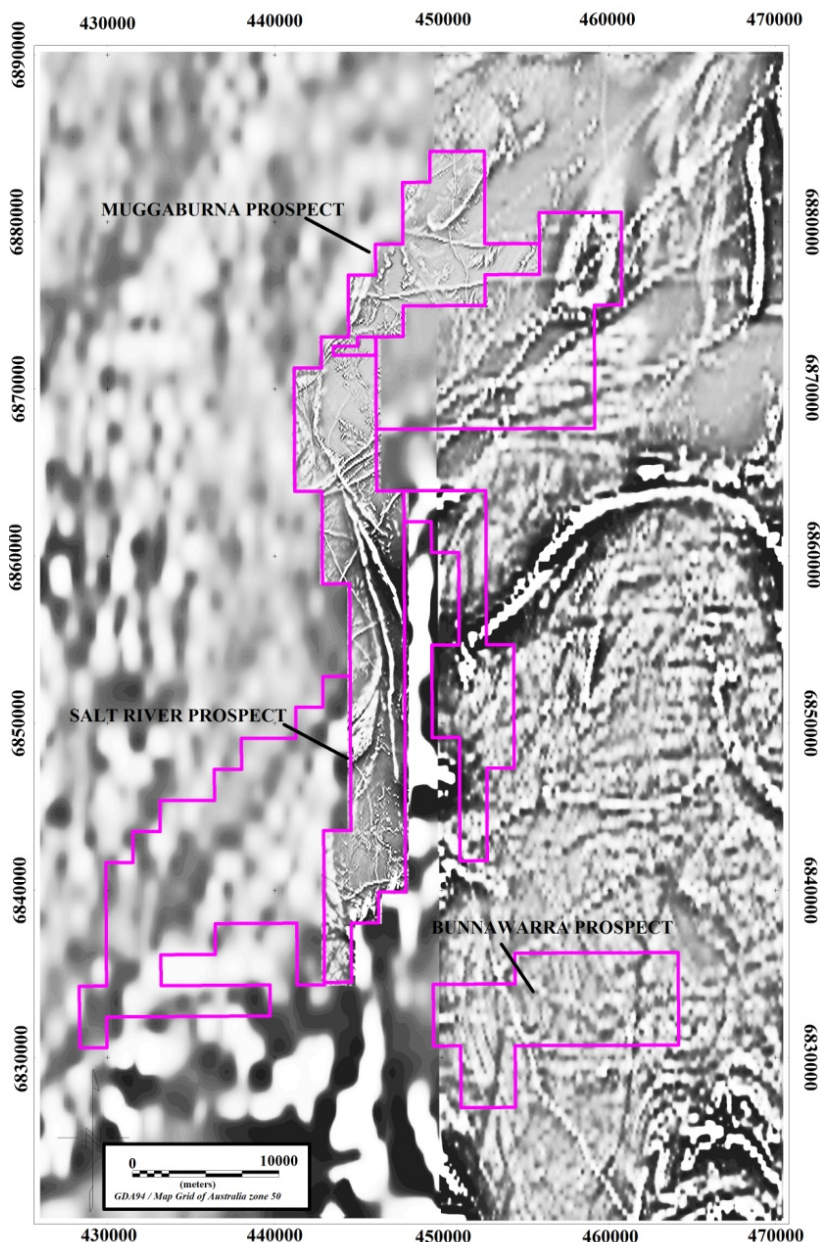
### 2010 Airborne Survey

In late December 2009, the company commissioned UTS to fly a detailed 100 metre line spaced magnetic and radiometric survey over the Company's Salt River tenement E59/1437, which was granted in October 2009, as there was no publicly available detailed radiometric data available to support the Company's hypothesis. Magnetic data was also collected. (refer Figure 3 overleaf)

### Future Work

The Company will begin processing of the final magnetic and radiometric data as it becomes available, and generate specific targets for ground follow up in the first quarter of 2010.

Follow up will consist of ground spectrometer traversing, soil sampling and ultimately aircore drilling once the focii of mineralisation have been located. Drill testing will be dependent upon an approval by the Department of Mines and Petroleum of a proposed "Program of Work" ("PoW"), and site avoidance surveys by Native Claimant holders.



**Figure 3. Yalgoo Project - Total Magnetic Intensity Image**



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The information in this announcement that relates to Exploration Results has been compiled by Mr Dermot Ryan, who is a Fellow of the Australian Institute of Geoscientists, and a full time employee of geological consultancy Xserv Pty Ltd. Mr Ryan has sufficient relevant experience in the techniques being reported and styles of mineralisation and types of deposit under consideration, and in the activity he is undertaking, to qualify as a Competent Person as defined in the 2004 Edition of the "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (the JORC Code), and consents to the inclusion of the information in the form and context in which it appears.