

ASX ANNOUNCEMENT

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5 TENEMENTS PEGGED FOR SANDSTONE HOSTED URANIUM AT PONTON

Enterprise Metals Limited ("Enterprise" or "the Company", ASX: **"ENT"**) wishes to announce that it's 100% owned subsidiary Enterprise Uranium Pty Ltd has lodged five new exploration licence applications over the confluence of Lake Rebecca, Lake Yindana and the Ponton River on the SE margin of the Archaean Yilgarn Craton, some 135km east of Kalgoorlie (Figure 1). The five new tenements cover a total area of 1,240km².

From airborne magnetic, radiometric and digital terrain data, Enterprise has identified a number of areas prospective for sandstone hosted uranium deposits. A review of historical data has failed to find any thorough systematic uranium exploration over these anomalies. Greenstone belts are also known to occur on the tenements and Enterprise considers the tenements to also be prospective for gold and base metals. Enterprise intends to actively explore the area for sandstone hosted 'roll front' uranium deposits.



Figure 1. Geology and Project Location Plan

To the NE of Enterprise's Ponton Project lies the **Mulga Rocks** uranium deposit (55.1*Mlb* U_3O_8 at a 200ppm cutoff, Energy and Minerals Australia Ltd Website, Jan 2009 Resource Estimate), and the **Double 8** uranium deposit (17.2*Mlb* U_3O_8 at a 200ppm cutoff, Manhattan Corporation Ltd website, Oct 2011).



BACKGROUND

The coloured DTM/uranium channel image (Figure 2 below) clearly outlines anomalies within the paleochannels considered to be prospective for uranium mineralisation. It is assumed that paleodrainage systems at Double 8 and Mulga Rocks and within Enterprise's tenements developed during similar climatic and erosional conditions over a common Archaean granitoid basement (including Permian mudstones), and hence Enterprise's tenements are considered highly prospective for uranium.



Figure 2. Digital Terrain Model (DTM) Image (Blue Low - White High) with Uranium anomalies



A number of priority airborne uranium anomalies have been identified for follow up in the Ponton North (Figure 3) and Ponton South tenements. (Figure 4 overleaf).



Figure 3. North Ponton - DTM and Uranium Targets in Channels





Figure 4. South Ponton - DTM and Uranium Targets in Channels

GEOLOGY AND PREVIOUS EXPLORATION

The Ponton Project area is located to the east of the Edjudina greenstone belt on the Celia/Pinjin lineament/fault zone, with a major granitoid gneiss (Kirgella) underlying the majority of the tenements. The area is covered by sand plains and laterite plateaus, with breakaways occurring near the Lake Yindana and Lake Rebecca salt lake systems.

During the period 1984 to 1990, BHP and Uranerz Pty Ltd explored the Lake Rebecca paleochannel system. Scout drilling across the channel intersected uranium values up to 150 ppm in thin carbonaceous clays as well as gold values of between 1 g/t and 2 g/t in the basal 1-2m of the channel. A trial solution mining project was initiated to test the feasibility of



recovering the gold without removal of the overburden, but was abandoned after flooding problems on Lake Rebecca.

Similar paleodrainage systems along the line of Lake Yindana have not been drilled and assayed for uranium. There is potential within both of these paleochannel systems for roll front-style uranium mineralisation (Figure 6), similar to the Mulga Rocks deposit located 80km north east and the Double 8 deposit located 12km north east. (Figure 7)

EXPLORATION MODEL

Large sand or sandstone hosted uranium deposits are generally located in river sediments filling ancient river channels ("paleochannels") cut into bedrock. The uranium deposits are often located at or near the confluences ("intersections") of river channels and/or near bends. The deposition of uranium at these sites may be caused by several inter-related factors such as the presence of coarse grained sediments and/or abundance of organic material.



Figure 6. Model for Sandstone Hosted or "Roll Front" style Uranium Mineralisation

COMPETITORS

The nearby Ponton Project of Manhattan Corporation Ltd includes the Double 8 uranium deposit which has a reported JORC Inferred Resource of 17.2Mlb U_3O_8 at a 200ppm cutoff. (*Manhattan Corp. Ltd website, Oct 2011*). Carbonaceous sand hosted uranium mineralisation, below 40 to 60 metres of cover, has now been defined in drill holes along 55 kilometres of Tertiary paleochannels at Stallion, Stallion South, Double 8, Ponton, Highway South and Highway prospects.

Extensive anomalous uranium mineralisation, 400m to 2,000m wide and between 2m and 25m thick has been encountered in drilling along 10 kilometres of the paleochannel at Highway at 40m to 80m depth. These paleochannels connect with Energy and Minerals Australia's lignite hosted Mulga Rock uranium deposits with a combined reported inferred resource estimate of 24,520 tonnes (55Mlb) U_3O_8 .



Figure 7. Double 8 Schematic Cross Section (Manhattan Corp. Ltd Website)

<u>COMMENT</u>

The acquisition of the Ponton Uranium Project adds to Enterprise Uranium Pty Ltd's already strong portfolio of high quality grass roots uranium projects, which includes: **Byro, Yalgoo, Darlot** and **Harris Lake.** The Company plans to undertake an aggressive drilling program in 2012 to test all of these projects.

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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.

References:

Subhash, J. Clarke, J, & Cross, A. 2010

Exploring For Sandstone-Hosted Uranium Deposits In Paleovalleys And Paleochannels. In AusGeo News March 2010 Issue No. 97.