ASX ANNOUNCEMENT

20 January 2010

ENTERPRISE ACQUIRES BYRO URANIUM PROJECT, WA

SUMMARY

Enterprise Metals Limited ("Enterprise" or "the Company", ASX: "ENT") wishes to announce that it has entered into an agreement, subject to successful completion of due diligence, to purchase 100% of the issued shares in Amiable Holdings Pty Ltd ("Amiable"), whose main asset is the Byro Uranium Project. The project is located approximately 300 km NNE of Geraldton in Western Australia. The acquisition cost is \$50,000 cash, 1.5 million fully paid shares in Enterprise plus a gross royalty of 1.5%.

The Byro Uranium Project consists of two exploration licence applications, E20/723 and E59/1617, covering an area of approximately 1,100 km². Radiometric data supplied by the vendor to Enterprise shows a prominent NE trending linear uranium anomaly, some 45km long and 4 - 5 km wide, flanking the Murchison River. Mapping by the Geological Survey of Western Australia ("GSWA") shows the radiometric anomaly to be largely coincident with extensive areas of mapped calcrete.

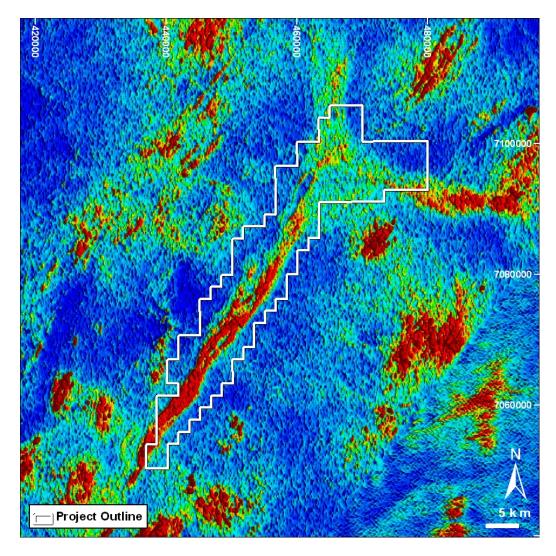


Figure 1. Byro Project – "Murchison" Uranium Target - E20/723

Airborne Uranium Channel Image - GSWA 400m Line Spaced Airborne Survey.



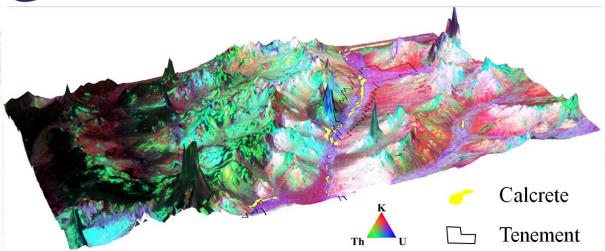


Figure 2. Isometric Projection, Digital Terrain Model with vertical Exaggeration with Draped Airborne "RGB" Radiometric Image, E20/723 Shown in Black.

The imaged radiometric data clearly shows a 45 km long NE-SW trending uranium channel anomaly coincident with the valley of the Murchison River.

Geology

The Byro Uranium Project contains gneiss and migmatite, greenstone belt volcanics and sediments and typical Yilgarn granitoids of the Murchison Province. In the northern tenement E20/723 (Murchison Uranium Prospect) the Murchison River trends SSE on 220°, along a feature called the "Manfred Lineament". Bedrock is obscured in the valley floor by alluvium and calcrete. Coarse porphyritic monzogranites flanking the Murchison River to the NW and SE appear to be rich in uranium and may be the primary source of the uranium being deposited in calcrete.

The southern tenement E59/1617 (Meeberrie) contains the geomorphically unusual confluence between the south flowing Murchison River and the north flowing Roderick River, which has created Lake Meeberrie, a low energy environment where damming or ponding has occurred. However, as the bulk of this tenement lies on the Murgoo map sheet, for which there is no regional radiometric data available, Lake Meeberrie remains a "conceptual" uranium target.

Dissected and "trunk valley" calcrete has been mapped discontinuously by the GSWA along both the Murchison and Roderick Rivers. Processing of the available radiometric, geological and geochemical data for the Byro area suggests that "trunk valley type" calcrete-hosted uranium mineralization is to be found in this part of the Murchison River, either flanking the main drainage channel or in a calcrete delta or platform around Lake Meeberrie.

In addition, the GSWA has conducted regional wide spaced (~4 km) soil sampling over the Byro 1:250,000 scale map sheet. These soil samples have been geochemically analysed by independent laboratories, and a prominent but broad "uranium in soil" anomaly, peaking at 28ppm U, has been defined co-incident with the valley of the Murchison River. This widely spaced geochemical data (Refer Figure 3 overleaf) supports the 400m line spaced airborne radiometric data.



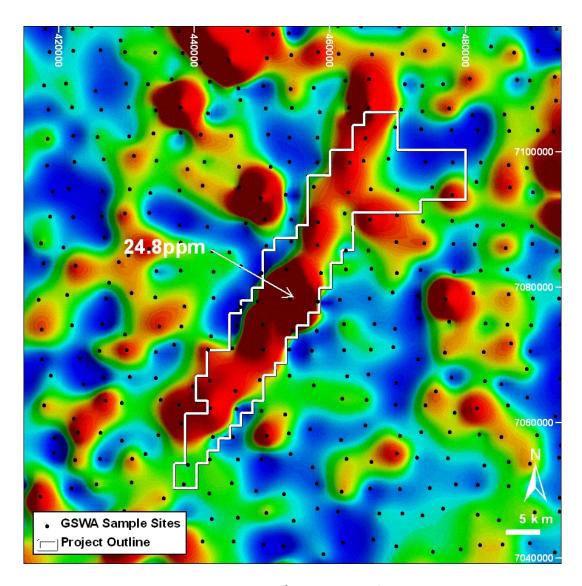
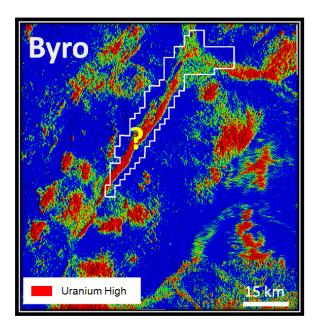


Figure 3. Murchison Prospect - E20/723 - Image of Uranium Geochemistry GSWA Regional Soil Sampling Program - 4km Spaced Sample Stations.

The Company believes that the Byro Project uranium targets satisfy many of the criteria for the development of significant calcrete hosted uranium deposits such as Yeelirrie.

Figures 4 and 5 overleaf present a comparison of the Byro airborne uranium anomaly with the Yeelirrie airborne uranium anomaly, at the same scale.



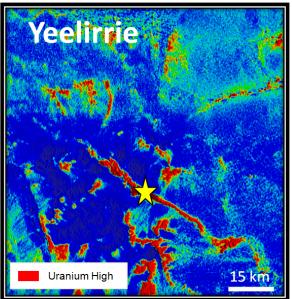


Figure 4 . Murchison E20/723

Uranium Channel Image

Figure 5. BHPBilliton Yeelirrie

Uranium Channel Image

Future Work

The Company will commission the flying of a detailed airborne radiometric survey to better define the higher grade portions of the extensive channel in the first quarter of 2010. Processing of radiometric data will generate specific targets for ground follow up once the tenements are granted.

Ground follow up will consist of ground spectrometer traversing, soil sampling and ultimately aircore drilling. Drill testing will be dependent upon approval of a proposed "Program of Work" ("PoW") by the Department of Mines and Petroleum, and the completion of site avoidance surveys by Native Claimant holders.

Summary of Commercial Terms

- Enterprise Metals Limited ("Enterprise") has entered into an agreement dated 19th January 2010 with WA Capital Pty Ltd ("Registered Legal Owner of Amiable Shares") and James Stephen Hart, William Robertson, Maxwell Morrell and Neil Provins ("Amiable Shareholders") to acquire 100% legal and beneficial title to all the fully paid shares issued in Amiable. ("Amiable Shares").
- Amiable's only assets are the Byro Project tenement applications E20/723 and E59/1617.
- each of the Amiable Vendors has agreed to transfer unencumbered legal and beneficial title
 to all of their Amiable Shares to Enterprise, and Enterprise has agreed to purchase all of their
 Amiable Shares, in consideration for:



- o the payment of \$50,000 in cleared funds;
- o the issue of 1,500,000 ordinary fully paid Enterprise shares; and
- the grant of a 1.5% gross production royalty on all minerals (as defined in the Mining Act 1978 (WA) produced or obtained from the area the subject of the Amiable Applications.

• The Offer is subject to:

- a) Enterprise conducting satisfactory technical, accounting and legal due diligence enquiries in relation to Amiable, the legal and beneficial ownership of its assets, the legal and beneficial ownership of shares issued in Amiable, and its liabilities, and advising the Amiable Vendors that it is satisfied with such due diligence enquiries,
- b) Enterprise notifying the Amiable Shareholders on or before the close of business on 31 January 2010 whether or not the Conditions have been satisfied, and
- the execution by all parties of a legally binding share sale agreement between Enterprise and the Amiable Shareholders.

PRESS COMMENT:

Enterprise's managing director, Dermot Ryan, commented:

"The Murchison uranium target is another good example of the 'calcrete hosted uranium' variety that the Company has been actively pursuing in Western Australia. In terms of length and size, the Murchison radiometric anomaly is similar to the airborne radiometric anomaly associated with BHPB's Yeelirrie uranium deposit, found in 1972.

"However, the Murchison target has not been previously explored for uranium. The flying of the Byro regional survey by the GSWA, together with their geological mapping and geochemical sampling, has highlighted the potential of the area for calcrete hosted uranium deposits.

The challenge ahead for Enterprise is to turn a first class uranium target into a deposit, using detailed airborne and ground surveys, further geological mapping, and a lot of aircore drilling", Ryan stated.

Dermot Ryan
Managing Director

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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.



PROJECT LOCATIONS - BYRO AND YALGOO

