



Uranium Exploration Australia Limited

ABN 65 112 714 397

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The Manager
Company Announcements Office
Australian Stock Exchange
20 Bridge Street
SYDNEY NSW 2000

ASX ANNOUNCEMENT

UXA SIGNS OPTION AGREEMENT TO EXPLORE THE DOME 5 ZINC-LEAD-SILVER DISCOVERY IN NEW SOUTH WALES

**4th Quarter drilling program to target area of previous high
grade drill results up to 0.85m @ 19.15% Zinc, 4.9 % Lead, 83
ppm Silver**

Uranium Exploration Australia Limited (ASX: UXA) is pleased to announce that it has signed an option agreement with Teck Australia Pty Ltd (Teck), a wholly owned subsidiary of the major Canadian mining company Teck Resources Limited, to advance exploration at Mundi Plains (NSW), Junction Dam (SA) and adjacent tenements for zinc-lead-silver and copper-gold deposits.

The agreement underlines UXA's strategy of moving away from early stage exploration projects and acquiring advanced assets offering drill ready targets. Historical data at Dome 5 provide the potential for a significant new base metal discovery, with exciting prospects for developing an economic deposit.

The agreement also capitalises on UXA's management expertise in zinc-lead-silver exploration. UXA's Managing Director, Dr Russell Penney was formerly with Pasminco Ltd, then the world's largest zinc producer in the 1990's, explored the Duddar zinc deposit in Pakistan and is co-author of a major international publication on worldwide zinc resources (Penney *et al* 2004).

Commenting on the agreement, Dr Russell Penney, said, "this project has the potential to provide UXA with an advanced base metal project in an area with a high chance of discovery of multiple styles of base metal mineralisation including Broken Hill style zinc-lead-silver and disseminated Cu-Au deposits as well as MVT style zinc-lead-silver."

The Dome 5 zinc discovery at Mundi Plains lies approximately 50km North West of Broken Hill in New South Wales and was made by Teck in joint venture with PlatSearch NL in 2007. The discovery was of Mississippi Valley Type or "MVT" zinc-lead-silver mineralisation in a flat lying zone at approximately 320m depth. The mineralisation lies close to the base of the Adelaidean

sedimentary sequences where they on-lap onto a granite dome (“Dome 5”). All of the 5 holes drilled within a one square kilometre area encountered sphalerite-galena mineralisation, with two very high grade mineralised intersections (Table 1).

Hole ID	From (m)	To (m)	Interval (m)	Zn (%)	Pb (%)	Ag (ppm)
DF02	327.3 337.6	328.3 340.6	1.0 3.0	13.9 7.0	8.0 0.2	75 4
DF04	328.2	329.1	0.9	2.54	0.03	7.3
DF05	337.1	337.4	0.3	8.62	0.41	8.3
DF06	317.2	318	0.85	19.15	4.9	83
DF07	340.3	341.3	1.0	0.05	1.05	8.2

Table 1. Significant drill intersections by Teck at Dome 5, Mundi Plains, NSW
See Figure 2 for drill hole locations

In addition to the discovery of MVT mineralisation in the Adelian, Broken Hill style mineralisation was also discovered in the Wilyama Supergroup rocks of Dome 5 at some depth (> 900m). There is also untested potential to discover a Kalkaroo style copper gold deposit with a number of un-tested airborne magnetic anomalies on the tenements, very similar to that at Havilah Resources Ltd’s Kalkaroo deposit (62.5Mt @ 0.52% Cu, 0.48 g/t Au) which lies about 30km to the west of the Junction Dam tenement.

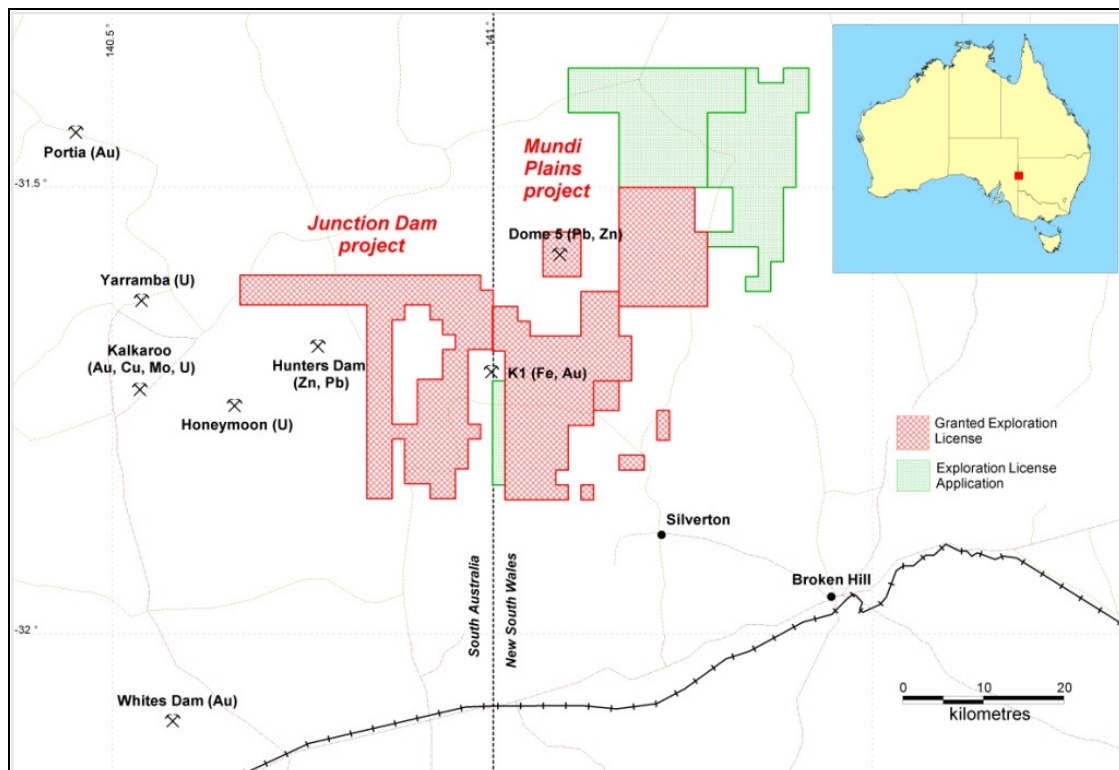


Figure 1. Location of the Junction Dam and Mundi Plains Project

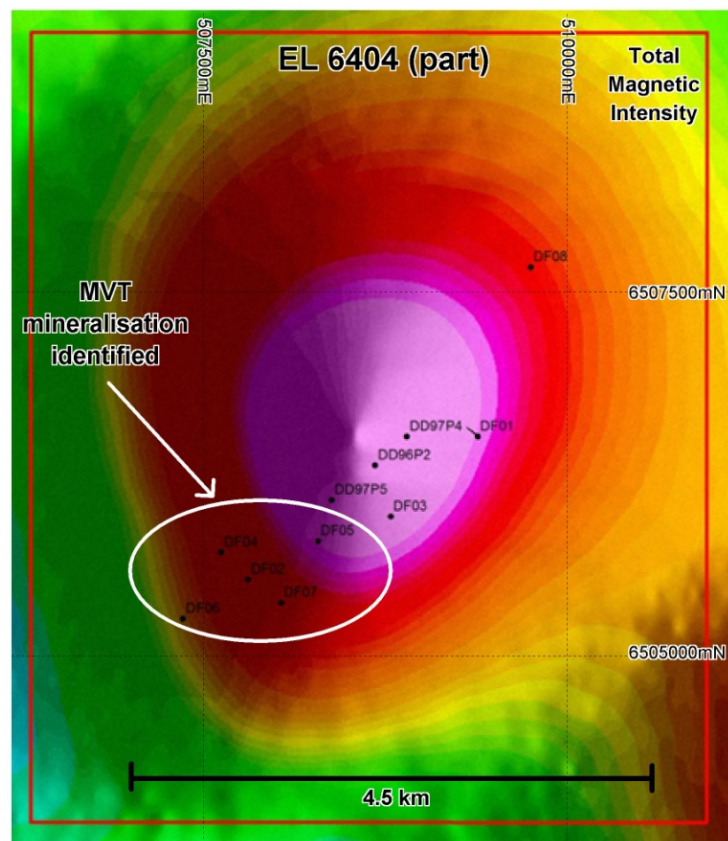


Figure 2. Location of mineralised drill holes at Dome 5 zinc discovery, Mundi Plains

Teck – UXA Option Agreement

Under the terms of the agreement with Teck, UXA will be earning into Teck’s interest in a joint venture (“PTE JV”) with PlatSearch NL (PlatSearch) and Eaglehawk Geological Consulting Pty Ltd (Eaglehawk). The PTE JV was established in 2006 between Teck and PlatSearch NL on Mundi Plains EL6404 in NSW and also with Eaglehawk on Junction Dam EL4509 in South Australia. Teck has earned a 51% interest in the PTE JV and has notified the other parties of its intention to earn an 80% interest in the PTE JV. When Teck has earned an 80% interest in the PTE JV, PlatSearch and Eaglehawk have rights to contribute or dilute to a royalty interest leaving Teck with 100% of the project.

In 2009 Teck formed a contractual joint venture with Marmota Energy Ltd (Marmota) to explore for uranium on Junction Dam (EL4509). Consequently UXA’s rights under its agreement with Teck exclude uranium. Marmota’s exploration program on EL4509 is focused on discovery of sandstone-hosted uranium in the cover rocks.

The following is a summary of the terms of the agreement between Teck and UXA:

- UXA has the option to earn into Teck’s interest (the **“Project Interest”**) in the Proterozoic rocks which underlie EL4509, Junction Dam in South Australia, EL6404, Mundi Plains, EL7414 and ELA’s 3988, 3989 and 4032 in New South Wales. PlatSearch and Teck retain the rights to the Phanerozoic cover rocks.
- UXA must spend a minimum of \$1.2 million on exploration, within one year, before it can withdraw from the agreement.
- If UXA spends \$2 million on exploration within two years it will have earned 50% of the Project Interest (which will be a minimum 40% in the PTE JV).

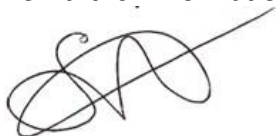
- At UXA's election it can spend a further \$3 million to earn 100% of the Project Interest within a further 2 years (total \$5 million expenditure). Otherwise Teck can elect to earn back 25% of the Project Interest (i.e. 50% of UXA's Project Interest) by spending 2.5 times UXA's \$2 million expenditure, at which point a 75:25 joint venture would be formed for the Project Interest where either party may contribute or dilute.
- If UXA earns 100% of the Project Interest Teck can elect to earn back to 65% of UXA's Project Interest, leaving UXA with a 35% Project Interest. Teck must spend a minimum of 2.5 times UXA's \$5 million expenditure to earn back this interest. UXA and Teck will then form a joint venture for the Project Interest where either party may contribute or dilute. If Teck elects not to earn back an interest or if UXA elects not to form a joint venture then that party will retain a 10% Net Profits Royalty with respect to the Project Interest.
- All of UXA's expenditure will be considered as expenditure towards Teck earning its 80% interest in the PTE JV.
- The agreement is subject to signing of a Deed of Adherence by Teck, UXA, PlatSearch and Eaglehawk and a Cover Rights Deed between Teck and PlatSearch, within 60 days of the signing of the agreement. The Consent of the Minister for Natural Resources & Development (South Australia) in respect of Junction Dam, is also required.
- UXA shall be the operator and conduct the exploration on the tenements during the option period, according to its own exploration plans.

UXA's final percentage interest in the PTE JV is subject to the elections of PlatSearch and Eaglehawk under the PTE JV: for instance if UXA earns 100% of the Project Interest this may be either 80% or 100% of the PTE JV depending on whether PlatSearch and Eaglehawk have contributed or diluted.

UXA's Exploration Program

UXA's immediate focus will be to follow up the very encouraging mineralised drill intersections at Dome 5 with further drilling. UXA intends to commence a drilling program, subject to any access requirements, in the 4th quarter of 2010. UXA will also conduct an extensive review of all of the exploration previously conducted on the tenements which includes historical discoveries of Broken Hill style zinc-lead-silver mineralisation at Polygnum (EL6404) in NSW and the potential to test airborne magnetic anomalies and ground gravity anomalies for Cu-Au mineralisation and other domes for Adelaidean MVT style zinc-lead-silver mineralisation, similar to the Dome 5 discovery.

For further information, contact.



Russell Penney
Managing Director.

Tel: +61 8 8363 7970
Email: info@uxa.com.au
Website: www.uxa.com.au
Media: Farrington National +612 9332 4448

Reference

Penney S.R., Allen R.M., Harrisson S., Lees T.C., Murphy F.C. and Norman A.R. **2004**. The global distribution of zinc mineralisation, an analysis based on a new zinc deposits database. *Applied Earth Sciences (Trans. Inst. Min. Metall. B)*, Vol. 113, B171 – B182.

Technical Information in this report is based on information compiled by Dr Russell Penney who is employed by Uranium Exploration Australia Limited and who is a Fellow of The Australasian Institute of Mining and Metallurgy. Dr Penney has sufficient exploration experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' ("JORC 2004"). Dr Penney consents to the inclusion in this release of the matters based on his information in the form and context in which it appears.

About UXA

Uranium Exploration Australia Limited was formed to explore for and develop uranium and associated base and precious metal deposits, focusing principally on its ground holdings in the world class uranium provinces in Northern Territory, Western Australia and South Australia. UXA has an exploration joint venture with RIL Australia Pty Ltd, a subsidiary of Reliance Industries Limited, the largest private sector company in India.

During 2010 UXA has signed a number of agreements to explore for sandstone-hosted uranium at Myroodah and Mudjalla in the Canning Basin, Western Australia.

In August 2010 UXA announced the signing of a joint venture agreement with Straits Resources Ltd whereby Straits will explore nine of UXA's Stuart Shelf tenements (South Australia) for iron oxide copper gold (uranium) deposits. Straits has the right to earn a 70% interest in the tenements by spending \$10 million on exploration over seven years.

UXA is also the owner of a complementary cash flow business, Geoscience Associates Australia Pty Ltd (GAA), a borehole geophysical logging company principally working in the uranium and coal sectors in Australia. The UXA Group owns the worldwide rights to the Prompt Fission Neutron uranium logging tool which has a unique role to play in uranium deposits with disequilibrium. In August 2010 UXA announced the signing of an agreement to purchase an operating borehole logging business in the United States of America.

More information on UXA can be found on our website at www.uxa.com.au