



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 AGREEMENT TO ACQUIRE UP TO 80% INTEREST IN ADVANCED URANIUM PROSPECT IN WA

- **Historical exploration shows sandstone-hosted uranium grading up to 480ppm U₃O₈ in limited drilling**

The Directors of Uranium Exploration Australia Limited ('UXA') are pleased to announce the signing of an agreement with Rey Resources Limited (ASX: REY; 'Rey') and Blackfin Pty Ltd (a wholly owned subsidiary of Rey) to explore for uranium at Myroodah in the Canning Basin, Western Australia.

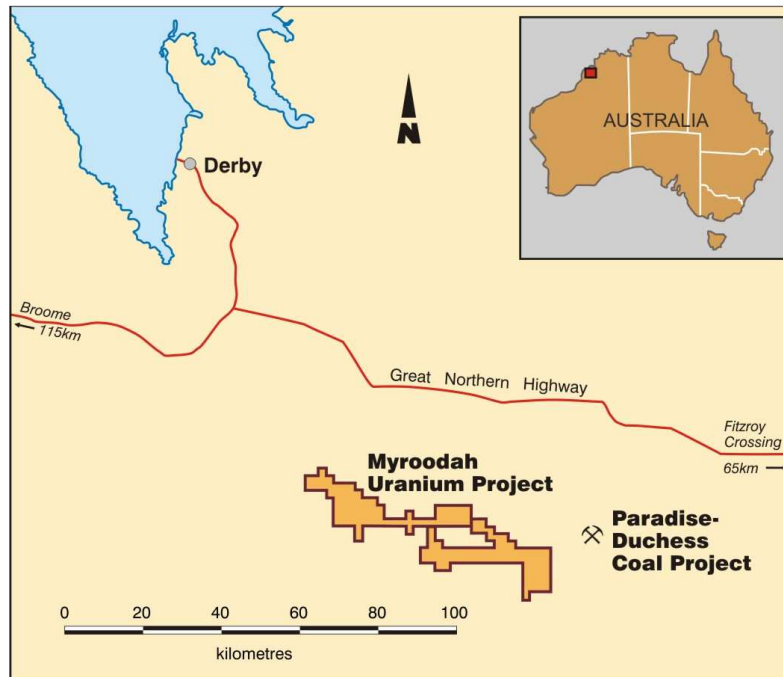
The agreement with Rey concerns two granted exploration licences covering part of the Myroodah uranium project in the Canning Basin WA, 120km South East of Derby and only 40km from a sealed highway.

Commenting on the deal, UXA's Managing Director Dr Russell Penney said, "Myroodah is an ideal fit for UXA, given that it is an advanced prospect with known uranium mineralisation, is located nearby to road infrastructure, and within a state that is actively encouraging uranium exploration.

"As such, we are very keen to commence field activities as soon as possible, with the aim of implementing a drilling programme in the second half of this year."

"The deal also synergises well with our ownership of the Prompt Fission Neutron (PFN) technology which we believe can play a significant role in the potential discovery of additional uranium in the Canning Basin."

Uranium was first discovered at Myroodah by the then CRAE (Ashton Joint Venture) (now RTZ) in 1978, which drilled 17 holes totalling 1565.5m to test the radiometric anomalies. The mineralisation appears to be of roll-front - sandstone hosted style with grades calculated from down hole gamma logging (using appropriate calibration) of 0.1 kg/t to 0.48 kg/t (480 ppm) U₃O₈ over widths of 1.0m to 3.0m. No exploration for uranium has been conducted since 1981.



The uranium mineralisation occurs in a synclinal outlier of the oxidised Triassic Erskine Sandstone and underlying reduced Blina Shale which, at this location, is projected to lie about 500m above the Permian coal horizons of the Canning basin. The Erskine Sandstone is an aquifer, hence there may be potential for an In Situ Leach operation or for near surface uranium. Government airborne radiometric data shows a widespread anomaly associated with the shallowly dipping Erskine Sandstone and underlying Blina Shale which opens up the possibility of discovering broad zones of near surface mineralisation. Previous drilling by CRAE did not test for near surface mineralisation. UXA's PFN technology should be applied here.

Rey is focused on developing its near surface coal resources elsewhere in the basin.

The principal terms of the agreement with Rey Resources are:

1. UXA will spend \$750,000 on uranium exploration to earn 51% over 2 years.
2. UXA may pull out after spending \$250,000.
3. UXA may earn a further 29% by spending an additional \$1 million on exploration.
4. Should UXA earn 80%, a joint venture will be formed with Rey to further develop any discoveries.
5. Rey retains all rights to any coal deposits on the tenements.

UXA plans an aggressive exploration program, to include geophysical surveys, field sampling and shallow drilling to commence later in 2010. The field season in this part of Western Australia does not commence till approximately April.

For further information, contact.

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Technical Information in this report is based on information compiled by Mr Simon Powell who is employed by Uranium Exploration Australia Limited and who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Powell 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"). Mr Powell 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 South Australia and Northern Territory. UXA has an exploration joint venture with RIL Australia Pty Ltd, a subsidiary of Reliance Industries Limited, the largest private sector company in India.

In July 2009 UXA announced the discovery of uranium mineralisation in a 3,000m long structure within granite at Crystal Creek, on its Ngalia Thrust exploration licence in the Northern Territory. Recent RC percussion drilling returned intercepts up to 3m @ 346ppm U3O8.

In October 2009 UXA announced the completion of the purchase of a borehole logging business, Geoscience Associates (Australia) Pty Ltd (GAA). GAA is continuing to operate as a separate business and provide cash flow for UXA's exploration activities. GAA provides logging services to the coal and uranium industries (both gamma and PFN logging) throughout Australia. GAA has the sole distribution rights in Australia to the Prompt Fission Neutron device, a specialised tool for directly measuring the content of uranium in boreholes, thereby overcoming the problem of disequilibrium. In January 2010 UXA announced the signing of an agreement to purchase the PFN business outright from its US manufacturer.

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