

# ASX ANNOUNCEMENT

29 January 2010

URANIUM EQUITIES LIMITED ACN 009 799 553



**URANIUM**  
EQUITIES

The Company Announcement Officer  
Australian Securities Exchange Ltd  
via electronic lodgement

## Quarterly Report Quarter ended 31 December 2009

### Highlights

#### PhosEnergy - Uranium Extraction Technology

- Preliminary results from laboratory analysis confirmed the applicability of the PhosEnergy Process to a wide range of phosphate producing districts.
- Testing of phosphate streams from two fertilizer producers that began late in the quarter were completed subsequent to the end of the quarter. UEQ anticipates entering development discussions with these producers in Q1 2010.
- Two additional phosphate stream samples are en-route to UEQ's laboratories for testing.
- Funding of up to US\$16.5M through Cameco Corporation for the continued development and commercialisation of the PhosEnergy Process has been secured.

#### Exploration

- Mitsui & Co, Ltd. has paid \$2M for an option to invest in the Nabarlek Project.
- The option, exercisable prior to the end July 2010, gives Mitsui the right to purchase a 25% interest in the Nabarlek MLN and a 9% interest in the West Arnhem Land Joint Venture for a minimum of \$15M.
- Planning for the 2010 field season on the Nabarlek Project continues.

#### Corporate

- Cash Balance at the end of the Quarter was \$12.9M.

### Our Strengths

- Breakthrough PhosEnergy Process
- Nabarlek Project – A rare investment opportunity
- Multiple near term growth opportunities

#### HEAD OFFICE

Level 6 West  
50 Grenfell Street  
Adelaide, SA 5000  
T: +61 8 8110 0700  
F: +61 8 8110 0777  
E: reception@uel.com.au

#### PERTH OFFICE

Level 2, 1292 Hay Street  
West Perth, WA 6005  
GPO Box 2890  
Perth, WA 6001  
T: +61 8 9322 3990  
F: +61 8 9322 5800



## 1 URANIUM EXTRACTION TECHNOLOGY

### 1.1 Background

Uranium Equities through USA registered Urtek LLC ("Urtek") is undertaking the development of new technology for the extraction of uranium from phosphoric acid streams produced in the production of phosphate based fertilizers ("the PhosEnergy Process").

Non-provisional patent applications have been filed in the USA, Jordan and the Patent Cooperation Treaty (PCT) signatory countries. An additional provisional patent application for a process complimentary to the PhosEnergy Process has been filed in Australia.

The PhosEnergy Process holds the potential to substantially reduce the capital and operating costs of the extraction of by-product uranium from phosphate streams when compared to existing technologies. The PhosEnergy Process also improves the operability of the extraction process and reduces the production of radioactive process wastes when compared to the extraction processes historically applied.

Additionally, the PhosEnergy Process, based on results achieved to date, will be capable of exceeding the stringent environmental standards currently applied to both the broader uranium extraction industries and the phosphoric acid industry.

### 1.2 Activities

#### ***Funding***

In November 2009 UEQ announced that Cameco Corporation (TSX:CCO, NYSE:CCJ) (Cameco) is to partner in the continued development and commercialisation of the PhosEnergy Process.

Through a staged investment of up to US\$16.5M in the continued development and commercialisation of the Process, Cameco will have the right to earn up to 70% of UEQ's right to earn a 90% stake in the technology.

The first payment of US\$2.5M has been received, earning Cameco a 10.6% interest, with subsequent investments of two lots of US\$5M and a final US\$4M (totalling US\$16.5M) to see its interest increase incrementally. Cameco has the option to cease sole funding at the conclusion of each investment.

If Cameco funds the entire US\$16.5M referenced above, Cameco has also agreed to provide a funding facility for a minimum of 50% of UEQ's portion of capital expenditure related to the construction of the first commercial plant developed by the joint entity under terms to be determined which would include repayment out of earnings.

UEQ continues to manage the development. A Joint Technical and Commercial Committee has been established to guide the development which will utilise the significant in-house process engineering expertise of Cameco and UEQ in the field of uranium recovery from phosphate streams.

Cameco, with its head office in Saskatoon, Saskatchewan, is one of the world's largest uranium producers and suppliers of conversion services. Its expertise in this field will add substantially to the Process's development.

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If Cameco invests the entire US\$16.5M referenced above, the relevant parties' interests in the technology related to the PhosEnergy Process will be:

- |                       |     |
|-----------------------|-----|
| ○ Cameco              | 63% |
| ○ UEQ                 | 27% |
| ○ Original developers | 10% |

## ***Business Development***

The evaluation of phosphate streams from two major phosphate producers were initiated in partnership with the Australian Nuclear Science and Technology Organisation (ANSTO) and at UEQ's recently established Adelaide laboratories. Laboratory testing on these streams was completed subsequent to the end of the quarter.

Discussions will be held in Q1 2010 with both of these producers to finalise the next steps in the potential commercial application of the PhosEnergy Process at their facilities.

Samples of phosphate streams from an additional two phosphate producers have been secured and are currently en-route to the ANSTO laboratories for evaluation.

UEQ hopes to secure a commercialisation agreement with one or more of these producers in the first half of 2010.

Rapid advancement of the PhosEnergy Process continues to be a major priority of the company.

## 2 Exploration Activities

### 2.1 Mitsui Investment in Nabarlek Project

In November 2009 UEQ announced that Mitsui & Co. Ltd (“Mitsui”) has been granted an option (“the Option”) to invest in the strategic Nabarlek Project.

Under the terms of the agreement Mitsui has paid a non-refundable \$2M option fee for the right to purchase a stake in the Nabarlek Project situated in the world-class Alligator Rivers Uranium Field. During the term of the Option ending in July 2010, the Option fee will be applied towards exploration and rehabilitation activities on the Nabarlek Project.

If Mitsui elects to exercise the Option it will have the right to purchase, from UEQ, a 25% interest in the Nabarlek Mineral Lease (UEQ 100%); and a 9% interest in the West Arnhem Land Joint Venture (WALJV) with Cameco Australia (UEQ 40%, Cameco 60%). Consideration for the purchase will be \$15M or a value determined by an agreed valuation model, whichever is the greater.

### 2.2 The Nabarlek Project – 2010 Field Season

Planning for the 2010 exploration program, anticipated to commence in April following the wet season, continued for both the mine lease and the Joint Venture ground. The focus of this year’s drilling will be the Coopers Prospect where shallow aircore bedrock geochemical drilling conducted in the 2009 field season returned strongly anomalous uranium results in weathered bedrock. The Coopers Prospect lies in the West Arnhem Land Joint Venture.

The prospect as defined extends over more than 400 metres and remains open to the north. The 2009 drilling returned a peak value of 1544ppm  $U_3O_8$  (Figure 1).

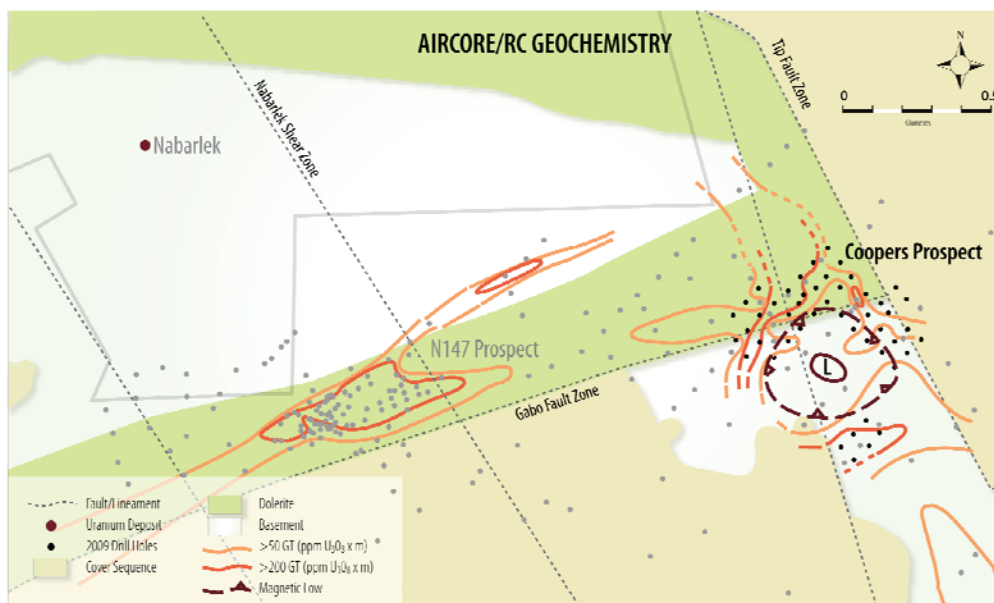


Figure 1

Preliminary results from the aircore program at the Coopers Prospect returned anomalous results (100ppm  $U_3O_8$  cut-off grade) within strongly chloritised and hematitic mafic rock (dolerite) including:

- NAA7130**      **8m @ 334ppm  $U_3O_8$ <sup>i</sup> from 22m and  
1m @ 1329ppm  $U_3O_8$ <sup>i</sup> from 36m**
- NAA7121**      **1m @ 637ppm  $U_3O_8$ <sup>i</sup> from 23m and  
3m @ 652ppm  $U_3O_8$ <sup>i</sup> from 27m  
(Including 1m @ 1544 ppm  $U_3O_8$ <sup>i</sup> from 27m)**
- NAA7119**      **9m @ 176ppm  $U_3O_8$ <sup>i</sup> from 22m**

Surrounding these significant anomalies are several weaker, yet still anomalous intervals with values ranging from 34 to 90 ppm  $U_3O_8$ <sup>i</sup>.

These anomalous surface intersections are coincident with an interpreted low magnetic response from an airborne magnetic survey (Figure 1).

### 3.0 CORPORATE

The Company's cash position at 31 December 2009 stood at **\$12.9M**, inclusive of a restricted \$1.8M performance bond and \$1.7M which must be applied towards development of the PhosEnergy Process under the terms of the agreement with Cameco.



Bryn Jones  
Managing Director  
Mobile: +61 (0) 412 577 406

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<sup>i</sup> Uranium ( $U_3O_8$ ) analyses were obtained on-site using a calibrated Niton handheld X-Ray Fluorescence ("XRF") Analyser. Statistical comparison of independent laboratory analyses (ICP method) and Niton XRF values for 140 samples indicates replication of results between the two methods to +/- 11 ppm  $U_3O_8$  for values up to 100 ppm  $U_3O_8$ . From 100 to 500 ppm  $U_3O_8$  the values were in the range +/- 22 ppm  $U_3O_8$ .

The information in this announcement that relates to Exploration Results is based on information compiled by Mr. Grant Williamson, Geology Manager - Exploration of Uranium Equities Limited, who is a Member of the Australasian Institute of Mining and Metallurgy Inc. and of the Australian Institute of Geoscientists. Mr. Williamson has sufficient experience in the field of activity being reported 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, and consents to the release of information in the form and context in which it appears here.

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