

# Quarterly Report

## Quarter ended 31 March 2009

### HIGHLIGHTS

#### PhosEnergy - Uranium Extraction Technology

- US\$17M (AU\$25M) conditional funding agreement reached with a major uranium producer to provide the capacity to rapidly advance the development of Uranium Equities' PhosEnergy Process.
- Discussions between UEQ's co-process development partner (a major phosphoric acid producer), UEQ's potential funding partner (a major uranium producer) and UEQ to settle the ongoing PhosEnergy Process development programme and the terms of agreement to apply to any potential commercial operation were initiated after the close of the quarter.

#### Exploration

- Agreement was reached with Vale Exploration Pty Ltd, a wholly owned subsidiary of Companhia Vale do Rio Doce (Vale), for it to acquire up to an 80% equity in UEQ's Headwaters Project, West Arnhem Land, through sole funding exploration to completion of a Bankable Feasibility Study.

An access agreement with Traditional Owners was finalised for one Headwaters Exploration Licence and negotiations for the remaining 3 licences are progressing positively.

- Review of historical exploration data within the Nabarlek Mineral Lease and integration with 2008 drilling results on adjoining tenements has identified promising new exploration targets.
- Drilling approvals are in place for the Lake Blanche Project, South Australia.

## URANIUM EXTRACTION

### 1.1 The PhosEnergy Process

UEQ, through USA-registered Company Urtek LLC ("Urtek") is undertaking the development of new technology for the extraction of uranium from phosphoric acid streams ("the PhosEnergy Process"). During the quarter, UEQ increased its equity interest in Urtek to 40% after spending a total of US\$2.5m on development of the technology over the preceding two years. UEQ has the right to acquire all of Urtek's issued capital.

The PhosEnergy Process is being developed jointly with a major producer of phosphoric acid and phosphate fertilisers using UEQ's in-house chemical engineering and metallurgical expertise at a major commercially operating phosphoric acid plant in the United States of America.

During the quarter a conditional funding agreement was reached with a major uranium producer. Under the terms of the conditional agreement the uranium producer will contribute up to US\$17M (A\$25M) to the ongoing development of the PhosEnergy Process to earn 68% of UEQ's interest in Urtek. The agreement is conditional upon technical due diligence and completion of successful negotiations with the major producer of phosphoric acid with respect to the terms applying to any potential commercial application of the PhosEnergy process at its operations.

Tripartite negotiations between UEQ, the phosphoric acid producer and the uranium producer commenced.

An additional provisional US-based patent application was also made during the quarter.

Rapid advancement of the PhosEnergy Process continues to be the major priority of the Company in 2009.

## EXPLORATION ACTIVITIES

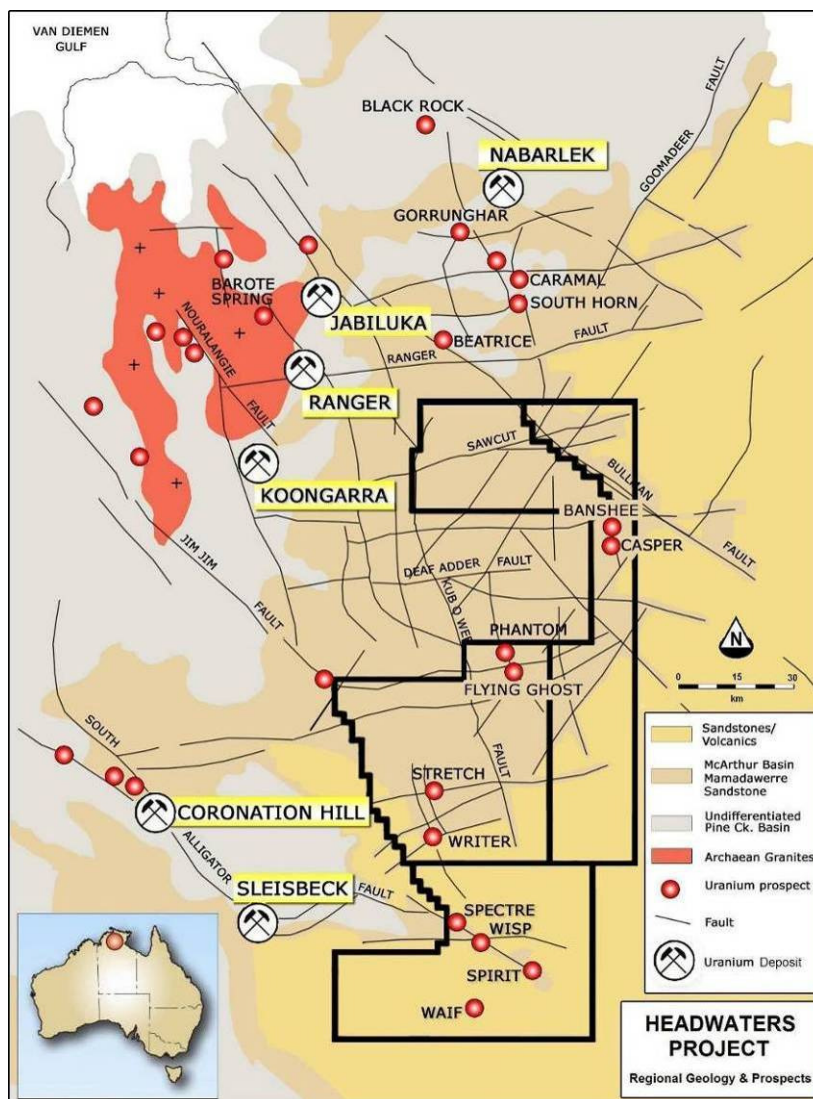
### 2.1 NORTHERN TERRITORY

#### ALLIGATOR RIVERS PROJECTS

##### HEADWATERS PROJECT

(UEQ 100%)

Agreement was reached with Vale Exploration Pty Ltd, a wholly owned subsidiary of Companhia Vale do Rio Doce ("Vale") the world's second largest metals and mining company, whereby Vale can earn up to 80% of UEQ's Headwaters uranium project (ASX Release 12<sup>th</sup> March 2009). Headwaters, previously known as the Mt Evelyn Project is located in the East Alligator Uranium Field south east of the major uranium deposits, Ranger, Jabiluka and Koongarra and Nabarlek (Figure 1).



**Figure 1: Regional Geology, Key Structures and known Uranium Prospects**

Vale can initially earn 70% interest after sole-funding exploration to a decision to undertake a bankable feasibility study (“BFS”) within a period of 5 years from completion of an initial exploration expenditure requirement (\$1 million within 2 years from granting of two of the tenements). Vale may earn an additional 10% interest if UEQ elects not to continue to the BFS. UEQ continues as project manager, but Vale may become project manager at any time subsequent to the initial commitment period.

One Headwaters Exploration Licence Application (ELA 25220) was recently advanced to granting following the completion of a standard Arnhem Land Exploration Agreement with the Traditional Owners. The remaining agreements for the other 3 EL Applications will be considered at a meeting with Traditional Owners in late April 2009. Subject to acceptance of the terms of the agreement by the Traditional Owners and to NT Government administrative procedures, all tenements are expected to be granted in 2009.

Uranium Equities began a detailed review of the exploration potential of the Headwaters project and has identified geological environments associated with

some of the known uranium mineralisation that hold similarities with the style of uranium mineralisation present at Westmoreland in north-west Queensland. The Westmoreland Deposits are associated with regional structures and volcanic rocks within McArthur Basin sequences which are equivalent to the sequences widely distributed throughout the Headwaters Project area.

#### **NABARLEK MINERAL LEASE** (UEQ 100%)

As previously reported (ASX Release 27<sup>th</sup> November 2008), 2008 exploration results from tenements surrounding the Mineral Lease revealed the existence of widespread anomalous uranium in areas previously unexplored or underexplored.

All minesite historical data, in addition to the 2008 drilling results, was reviewed and new exploration concepts/targets in the immediate vicinity of the historic Nabarlek uranium deposit were formulated.

Amongst these, the potential for structurally-controlled mineralisation within basement shears and related to mineralization at the historic high-grade Nabarlek Uranium Mine has been identified. This Nabarlek Deeps concept has structure related similarities to the Ranger 3 Deeps mineralisation which has provided exploration success for ERA Limited at depth below its' Ranger Uranium Mine (ERA Limited ASX release 17<sup>th</sup> November 2008).

In addition to the Nabarlek Deeps concept, a number of other promising targets and areas of interest which warrant drill testing have been identified.

#### **CAMECO – UEQ WEST ARNHAM LAND JOINT VENTURE** (UEQ 40%)

Results of the 2008 field programme were reviewed with the operator, Cameco Australia Pty Ltd ("Cameco"), and planning commenced for the 2009 field season. The 2009 exploration programme and budget was finalised at a Joint Venture meeting with Cameco after the close of the quarter.

A \$1.17M programme comprising primarily aircore and reverse circulation drilling to further evaluate the promising bedrock geochemical anomalies associated with basement structures identified in 2008, plus limited airborne and ground geophysical surveys is planned. Drilling is expected to comprise 6,500 metres of aircore drilling and 2,300 metres of reverse circulation drilling.

In accordance with provisions within the West Arnhem Farm-In Joint Venture Agreement, UEQ elected to not contribute to the 2009 program.

## **2.2 SOUTH AUSTRALIA**

### **LAKE BLANCHE PROJECT**

(UEQ 100%, Cameco Australia earning 60%, UEQ Operator)

Cameco Australia Pty Ltd can earn up to 60% equity in the Lake Blanche Project by spending \$4.5 million. Drilling approvals were sought from the SA Government for a reconnaissance rotary-mud, wireline logging drilling program along the Strzelecki Track, a major north-south transport road.

The program will assess the potential of Tertiary and Mesozoic sandstones of the Eromanga Basin to host roll-front uranium mineralisation at distances of up to 200km from granitic uraniferous source rocks of the Mt. Painter Province, located to the south.

A drill program comprising up to 10 holes and totaling approximately 4,000 metres is planned to be completed in June 2009.

## **2.3 WESTERN AUSTRALIA**

### **THREE SPRINGS**

(UEQ 100%; Southern Uranium Limited (SNU) earning 50%, SNU operator)

Sole-funding joint venturer, Southern Uranium Ltd (SNU) completed acquisition of airborne radiometric and aeromagnetic data over the project area in the December Quarter. Preliminary magnetic and radiometric images have been subsequently received showing uranium anomalies evident in six of the modern drainages. Historic drilling records are being examined to further prioritise these drainage systems for potential subsurface uranium traps in the target Parmelia Formation.

### **MOORARIE**

(UEQ earning 60%)

In compliance with statutory requirements, 50% of E51/1066 was relinquished. Two nearby existing tenement applications (E51/1262 & E51/1263) were also surrendered.

## **2.4 QUEENSLAND**

### **NARRAWEENA**

(UEQ 100%)

In compliance with statutory requirements, 50% of the Narraweena tenement (EPM15101) was surrendered. The retained areas adjoin the Ben Lomond uranium deposit and mining lease.

## **3.0 CORPORATE**

The Company continued to initiate strategies designed to reduce administrative costs and exploration and evaluation expenditure. UEQ funded exploration and evaluation expenditure was curtailed and restricted to projects offering the highest potential for rapid and substantial value generation.

Efforts to maintain exploration activity on key projects, through third party funding, continued.

The Company's cash position at 31 March 2009 stood at \$9.6m, of which \$1.8 million is restricted cash being the performance bond lodged in respect to the Nabarlek Mineral Lease rehabilitation obligations.



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*The information in this report that relates to Exploration Results is based upon information compiled by or approved by Mr David A. Brunt, a full-time employee of Uranium Equities Limited, who is a Fellow of the Australasian Institute of Mining and Metallurgy Inc. Mr. Brunt 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, Minerals Resources and Ore Reserves, and consents to the release of information in the form and context in which it appears here.*