

Quarterly Report

Quarter ended 31 December 2008

HIGHLIGHTS

PhosEnergy - Uranium Extraction Technology

- Proof of concept pilot scale testing of the PhosEnergy Process to extract uranium from phosphate ores was successfully completed.
- Results confirm that uranium production at operating costs in the lower quartiles is achievable.
- The next phase of testwork, which is planned to commence in the current quarter, involves establishing a continuous pilot scale operation leading to the initiation of pre-feasibility studies in the third quarter 2009.

Exploration

- Systematic geochemical drilling along major structures within the West Arnhem JV area identified additional zones of anomalous uranium mineralization within bedrock and surficial cover rocks.
- These 'first pass' results confirm a high potential for discovery in previously unexplored or under-explored areas.
- A limited drilling program was completed within the Nabarlek Mining Lease with the best results achieved being 9.5m @ 0.069% eU₃O₈ from 68.5m within the Nabarlek Shear.
- Agreement was reached for Cameco Australia Pty Ltd to earn up to 60% equity in the Lake Blanche Project in South Australia by spending up to \$4,500,000 on uranium exploration.

Corporate

- In response to the current financial crisis, strategies were successfully implemented to substantially reduce expenditure in the coming year whilst at the same time maintaining, through third party funding, the current high level of exploration and evaluation activity on the Company's key projects.

1.0 URANIUM EXTRACTION

1.1 The PhosEnergy Process

UEQ, through USA-registered Company Urtek LLC ("Urtek - a company in which UEQ holds the right to earn a 90% interest) is undertaking the development of new technology for the extraction of uranium from phosphoric acid streams ("the PhosEnergy Process").

The PhosEnergy Process is being developed jointly with a major producer of 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.

A proof of concept pilot operation was successfully completed during the quarter. Key outcomes were:

- Operational data obtained has increased confidence in the potential commercial application of the PhosEnergy Process.
- Piloting successfully recovered uranium and results were fully in conformity with earlier laboratory testwork results.
- Projected operating costs (US\$/Lb U_3O_8) continue to support 1st and/or 2nd lower quartile operating costs.

Operational data generated during this pilot stage is now under evaluation and is being used to determine the engineering and capital requirements for the next phase, a continuous demonstration pilot plant. A decision to continue with this phase of the evaluation is expected to be made during the current quarter. Successful commissioning of the continuous demonstration pilot plant operation, expected in July 2009, would lead to completion of operations in late 2009 and initiation of a pre-feasibility study in the same period.

Rapid advancement of the PhosEnergy Process is a major priority of the Company in 2009.

2. EXPLORATION ACTIVITIES

2.1 NORTHERN TERRITORY

ALLIGATOR RIVERS PROJECTS

NABARLEK MINING LEASE (UEQ 100%)

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

Aircore ("AC") and reverse circulation ("RC") drilling programs were completed on the Nabarlek Mining Lease and the surrounding West Arnhem Joint Venture areas. 27 RC drillholes for 3,437m and 231 AC drillholes for 3,496m were completed in the quarter. In the 2008 field season, 113 reverse circulation RC drillholes for 10,740m and 616 AC drillholes for 9,533m were completed in total.

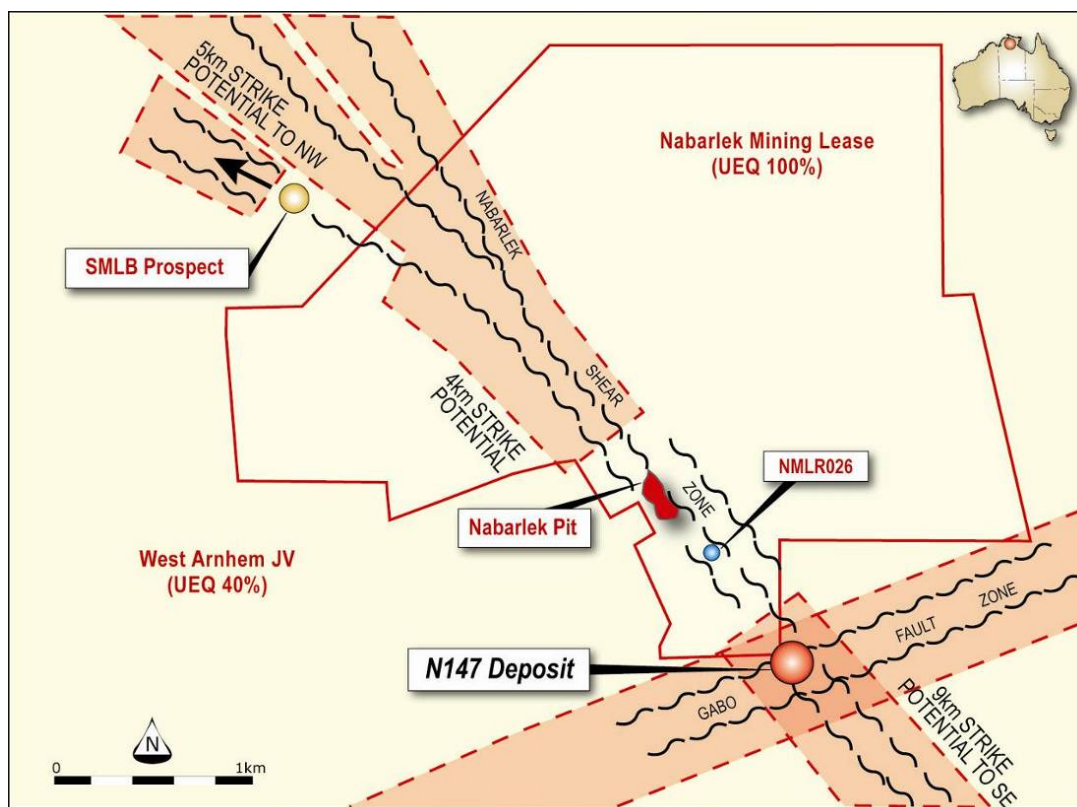


Figure 1 – Structural Framework for Nabarlek ML and surrounding JV Area

Within the Nabarlek Mining Lease, drilling commenced late in the field season and was limited to a small area immediately to the northwest and south of the former open-pit. AC drilling was completed with a view to defining new areas of mineralisation (Figure 1). Targets generated were followed up with RC drilling.

The best RC drilling result was encountered in drill hole NMLR026 (9.5 m @ 0.069% eU₃O₈ from 68.5m including 1.3m @ e0.254% U₃O₈ from 73.8m)¹, located 250m south of the pit, where mineralisation was intersected along the projected southern trend of the Nabarlek Shear Zone. Mineralisation is open down dip and also along strike to 80m in both directions.

At the N147 Prospect, as previously reported (ASX Release Quarter ended 30th September 2008), the dolerite-hosted mineralisation was extended by RC drilling, with an east north east control on mineralisation now clearly defined. The high grade mineralisation, as presently defined, occurs over approximately 200m by 50m with an east north east strike, parallel to the Gabo Fault Zone. The mineralised body as mapped by grade thickness contours remains open along strike in both directions, as shown in Figure 2.

¹ Logged by the UEQ Geovista 38mm total count gamma probe through the drill rods with equivalent U₃O₈ grades calculated using a Dead Time Correction Factor = 4.0078E-6 seconds, Calibration Constant (k)= 2.46874E-05, Casing Factor=1.357 & Logging Speed=4m/min. Tools were calibrated in the South Australia Glenside test pits in April 2007.

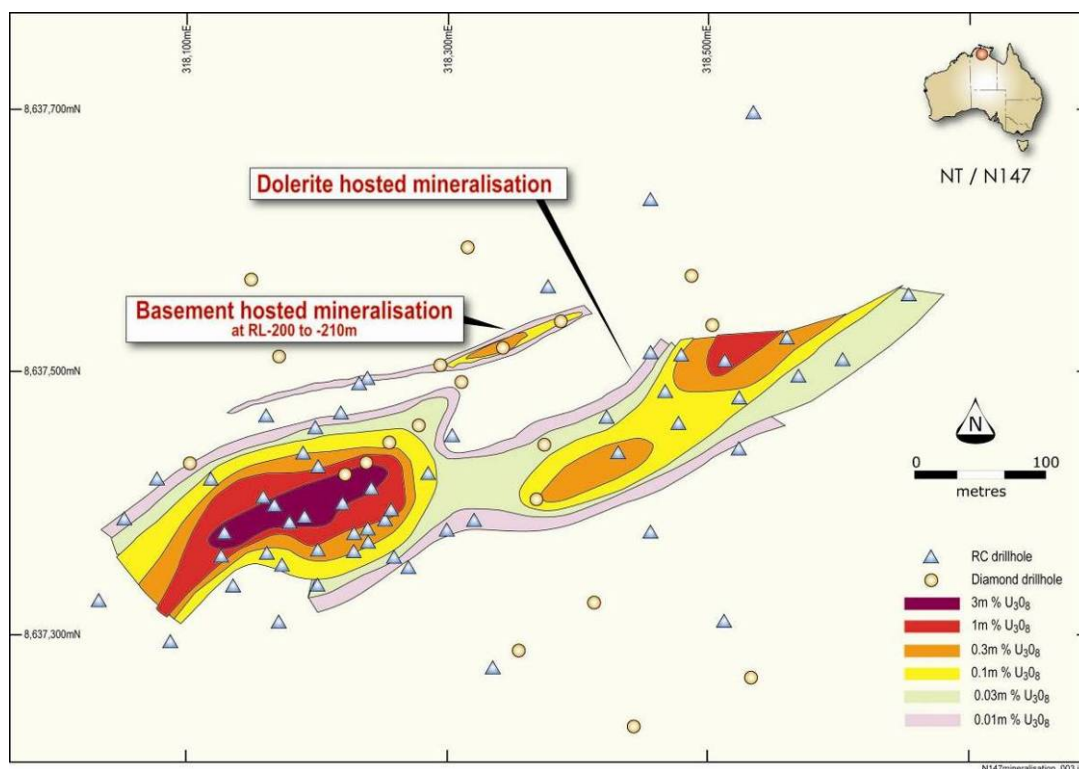


Figure 2 – N147 Prospect – Grade Thickness contours mapped from drill hole intercepts

As reported during the quarter (ASX Release 27th November 2008), anomalous uranium² was identified in bedrock geochemical drilling at three prospects (Delver, North Tip and N84) in addition to drilling extending the uranium anomalism at the Cooper and Embayment Prospects discovered earlier in the field season (Figure 3). All prospects are associated within major structures which elsewhere host ore grade mineralisation at Nabarlek and N147.

At the end of the field season, 601 drill holes effectively tested through to the basement. A total of 33% (200 holes) detected uranium anomalism >20 ppm U₃O₈³ and 26% (157 holes) encountered uranium mineralisation above a 100GT (ppm U₃O₈ x metres) cut-off.

The “first pass” results achieved in systematic geochemical drilling and sampling confirm a high potential for discovery in areas previously unexplored or under-explored because of shallow soil and/or sandstone cover.

² Anomalous uranium geochemistry = >200GT (ppm U₃O₈ x m) as determined by the Niton Portable X-Ray Fluorescence (XRF) Analyzer.

³ Uranium (U₃O₈) analyses were obtained on-site using a calibrated Niton handheld X-Ray Fluorescence (“XRF”) Analyser.

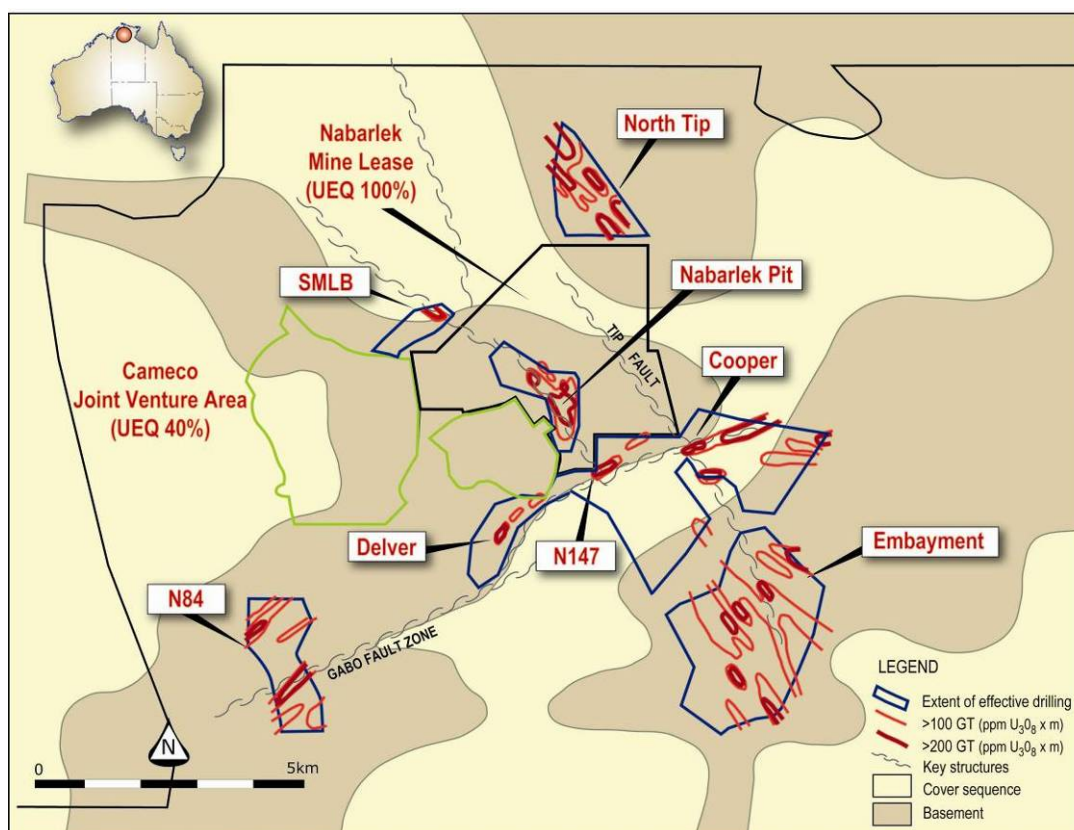


Figure 3 – Bedrock Uranium Anomalies for Nabarlek ML and Surrounding JV Area

Mt EVELYN (UEQ 100%)

Following successful Traditional Owner meetings and negotiation of an exploration access agreement, the Northern Land Council advised consent to grant Exploration Licence 25220 on the 13th November 2008. Negotiations on similar agreements for each of the other Mt Evelyn tenements are in progress.

2.2 SOUTH AUSTRALIA

LAKE BLANCHE (UEQ 100%)

Agreement was reached for Cameco Australia Pty Ltd (“Cameco”) to earn up to 60% equity in the Lake Blanche Project by spending \$4.5 million. Cameco can earn 51% interest through exploration expenditure of \$3.5 million over 4 years and with a minimum commitment of \$0.5 million. A further 9% interest can be earned through additional expenditure of \$1.0 million. Uranium Equities is the manager of the joint venture with Cameco having management rights after completion of the initial earn-in.

The project area has potential for large, sediment-hosted roll front uranium deposits with the 7 Exploration Licences totaling 6,253 km². An initial exploration agreement was finalized with the Native Title Claimants and an heritage survey completed.

2.3 WESTERN AUSTRALIA

MOORARIE

(UEQ earning 60%)

28 RC holes totalling 2,006m were completed to test a large gravity anomaly and two subsidiary hematite targets. All holes intersected altered and sheared metamorphic rocks. No hematite or other mineralisation was encountered.

THREE SPRINGS

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

Acquisition of airborne radiometric and aeromagnetic data over the project area was completed on 2nd November 2008. The survey comprised 10,460 line km on 200m spaced east-west lines and was the first radiometric survey over the tenements.

Detailed image processing and interpretation of the data is in progress. Initial survey results appear to substantiate the presence of uraniferous source rocks and potential host sediments in conformity with the exploration model. The area is also prospective for unconformity-style and structurally controlled uranium mineralisation.

2.4 QUEENSLAND

NARRAWEENA

(UEQ 100%)

As reported (ASX Quarterly Report 30th September 2008), title to EPM15101 was granted exclusive of a restricted Defence Department area which impacts upon access to the indentified Gympie and Scylla uranium prospects.

A response was received from the relevant Defence Department Minister concerning a request to lift access to this small part of the tenement application area and the response is being reviewed in conjunction with the Company's tenement advisers, prior to further action being taken.

3.0 CORPORATE

In response to the global financial crisis, the Company has implemented strategies designed to substantially reduce administrative costs and exploration and evaluation expenditure. UEQ funded exploration and evaluation expenditure is to be curtailed and restricted to projects offering the highest potential for rapid and substantial value generation.

Despite the measures taken to reduce expenditure the Company expects to be able to maintain, through third party funding, a high level of exploration and evaluation activity across its portfolio of key projects over the coming 12 months.

The Company's cash position at the 31 December 2008 stood at \$10.9m of which \$1.8 million is restricted cash, being the performance bond lodged in respect to the Nabarlek Mine 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.