

Monday 29th August 2011

RELEASE

Australian Securities Exchange
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ASX Code: USA

COLUMN LEACH RESULTS

Blackbush deposit Eyre Peninsula, South Australia

UraniumSA is pleased to announce that excellent results have been achieved from the first column leach test on uranium ore from the Company's Blackbush deposit. The work was conducted at the Australian Nuclear Science and Technology Organisation (ANSTO) laboratories in Sydney.

The test – the first of a scheduled series - was of a bulk sample of mineralised drill core from the Blackbush deposit, which is within UraniumSA's Samphire project (formerly called the Mullaquana project) located southwest of Whyalla.

These initial results indicate that:

- **Uranium extraction is excellent with 83% uranium recovered after 18 days.**
- **Uranium tenors in the leach liquor peaked at ~800ppm uranium.**
- **The mineralisation is amenable to leaching using acidified seawater.**
- **The leached liquor contained low impurity levels.**

UraniumSA Managing Director, Mr Russel Bluck commented that:

"These initial column leach results on Samphire mineralisation confirm our earlier metallurgical test work. The mineralogy is very amenable to a sulphuric acid leach, and excellent recoveries are obtained in good time-frames."

"The results indicate that good contact was achieved between the leach solution and mineralisation. These first results have been used to design the next round of column leach tests, and the outcome of the testing will make a significant contribution to our design of the In-Situ-Recovery Field Trial that we anticipate having the regulatory approvals to commence in 2012."

"Interestingly, the yellowcake precipitate that we reported recently was remarkably high grade and also had very low levels of contaminants (ASX 12th August 2011). We know that the mineralisation in the ground has low levels of potential contaminant elements, and this appears to be flowing right through the metallurgical process suggesting that we will be able to produce a premium product."

An outline of the technical detail of the work is attached.

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COLUMN LEACH RESULT

Blackbush deposit Eyre Peninsula, South Australia

UraniumSA advises the results of column leach tests on material from the Blackbush deposit within Exploration Licence 3652 located south of Whyalla on South Australia's Eyre Peninsula.

Exploration Licence 3652 is held by Samphire Uranium Pty Ltd ("Samphire", a wholly owned subsidiary of UraniumSA Limited). Alistair Muir is the General Manager of Samphire which is governed by a Board comprising Alice McCleary, Chairperson, and Russel Bluck, Director (both appointed by UraniumSA).

ANSTO has completed the first of a series of column leach tests on a bulk sample of drill core material from the Blackbush deposit within the Samphire project (previously the Mullaquana project). This is the first of two planned column leach tests. These initial metallurgical results indicate that:

- **mineralisation is amenable to leaching using acidified seawater.**
- **50% uranium was recovered to the leach solution after 6 days.**
- **83% uranium was recovery to the leach solution after 18 days.**
- **uranium tenors in the leach liquor were high, peaking at ~800ppm uranium (parts per million).**
- **the leach liquor contains low impurity levels.**

The low levels of impurities in the leach liquor are reflected in the low levels of contaminants reported for the yellowcake precipitate from bottle roll solutions (ASX 12th August 2011).

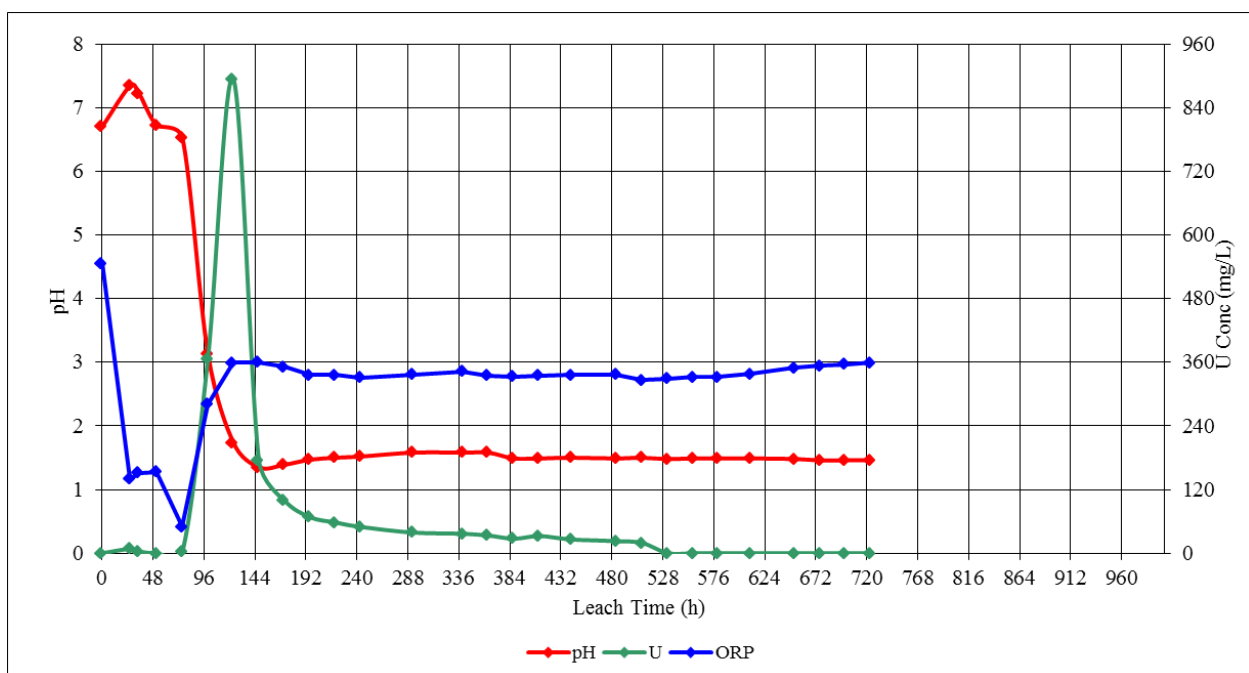
These initial column leach results confirm that the mineralogy is amenable to a sulphuric acid leach (as indicated by previously reported bottle roll tests) and that good contact is achieved between the leach solution and mineralisation. These results are from a single pass flow-through test and have been used in the design of a recirculation test which has now commenced.

The metallurgical test work program is designed and supervised by Simon Hall, Metallurgical Manager at UraniumSA. The delivery of work is contracted to various expert groups. ANSTO is presently working on the evaluation of a range of resins which have been identified as having potential for the extraction of uranium from acidified saline solutions, and on the construction and operation of column leach tests using a bulk sample of mineralisation provide by UraniumSA (ASX 16 June 2011).

COLUMN LEACH TEST

This initial column leach test was set up with a single pass flow-through configuration to examine the change of the key variables over time. Neutral sea water was flushed through the column before acid was added. The variables reported and shown in the figure below are:

- green - the uranium content of the leach solution coming out of the column.
- red - the acidity of the solution coming out of the column. The sea water entering the column was acidified to pH 1.5 after 35 hours to become the active leach solution.
- blue - the oxidation-reduction potential of the solution (ORP), an indicator of the electrochemical balance of the solution. Hydrogen peroxide and ferrous sulphate were used to set the initial ORP.



(NOTE: false zero time data, record starts from 35 hours)

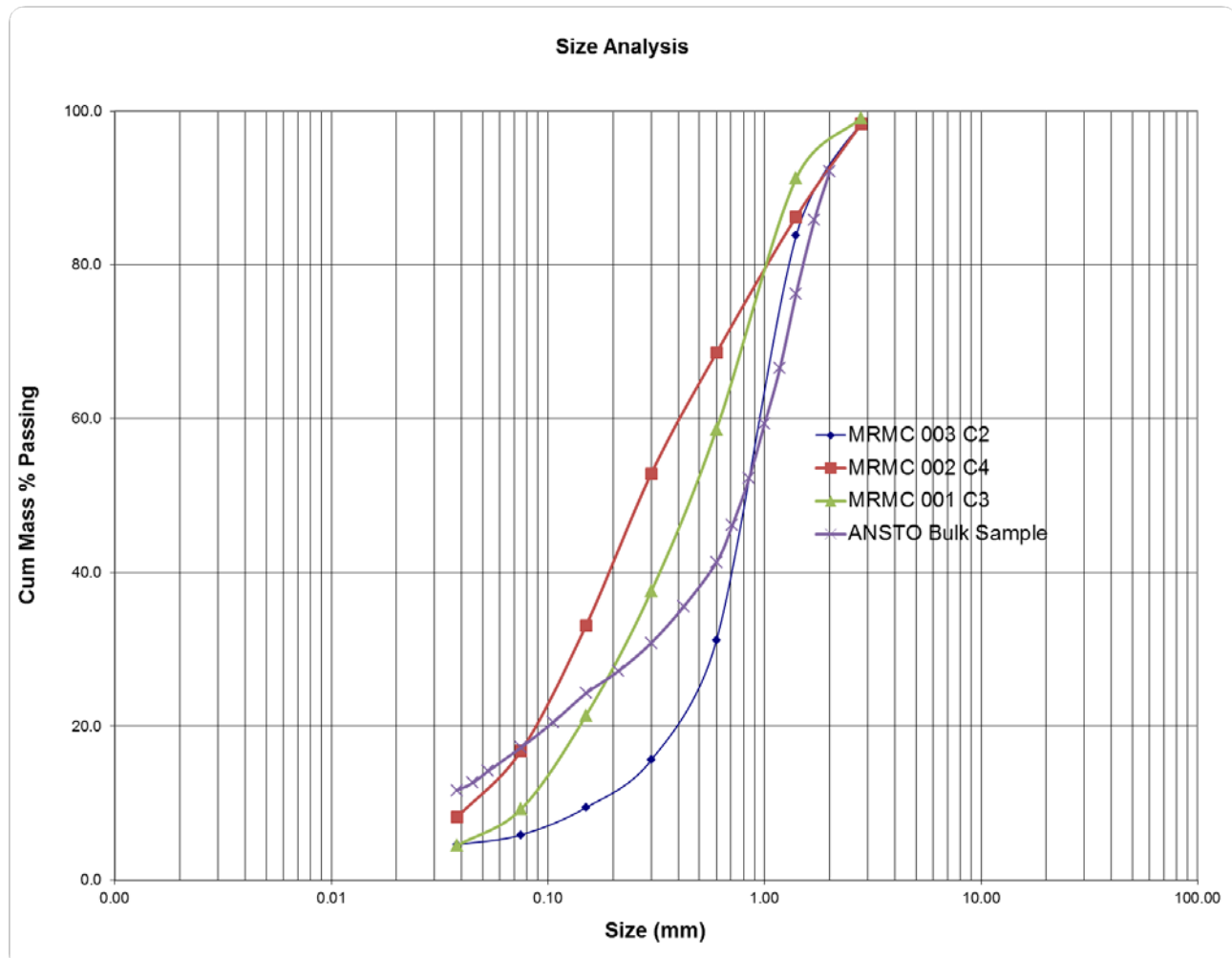
The highlights of the results (as outlined on the previous page) include:

- mineralisation is amenable to leaching using acidified seawater.
- 50% uranium was recovered to the leach solution after 6 days
- 83% uranium was recovery to the leach solution after 18 days
- uranium tenors in the leach liquor were high, peaking at ~800ppm
- the leach liquor contains low impurity levels (<10 ppm of Mo, P, Ti, V, Th and Zr).

COLUMN BUILD

The material charged to the column is a bulk sample of core material from the Blackbush deposit. The column charge has been constructed to have a packed density of $\sim 1.8 \text{ t/m}^3$, porosity $\sim 35\%$ and permeability $\sim 2.5 \text{ m per day}$, parameters which are consistent with field observations of the in-situ material.

A comparison of the size characteristics of the bulk sample compared to the individual drill cores which were used to make it is presented below.



The material used to construct the column, and the packed column parameters, are considered to be an acceptably accurate representation of the in-situ formation for the present purposes.

CONTACTS

UraniumSA Limited

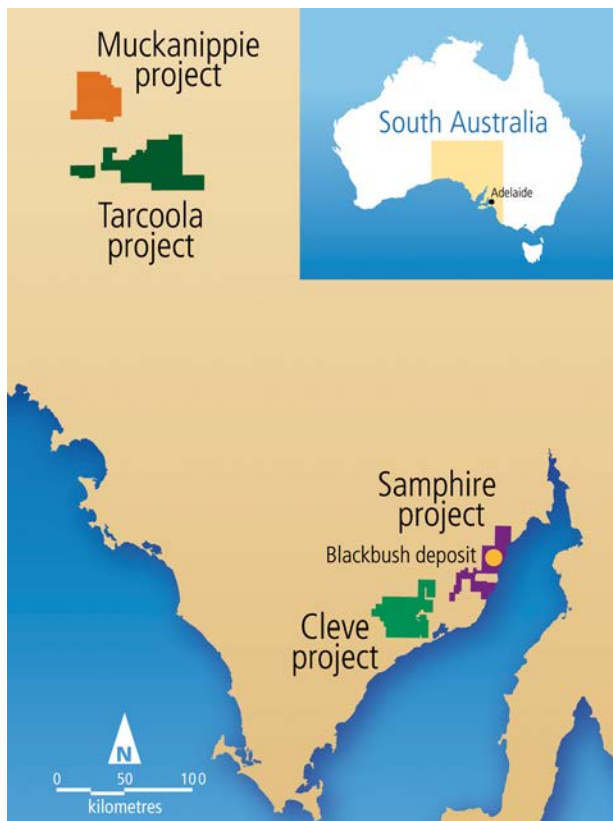
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About UraniumSA Limited



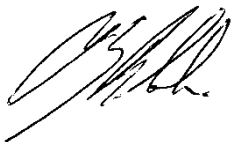
UraniumSA is an Adelaide based uranium only explorer specialising in sediment hosted styles of uranium mineralisation within a substantial portfolio of properties in South Australia's Gawler Craton.

The Company has discovered sediment hosted uranium mineralisation within Exploration Licence 3652, Samphire (previously Mullaquana), which is located 20km south of the industrial city of Whyalla on the eastern Eyre Peninsula in South Australia. The exploration Licence is owned and operated by Samphire Uranium Pty Ltd, a wholly owned subsidiary of UraniumSA Limited.

The inventory of sediment-hosted uranium mineralisation in the Blackbush and Plumbush deposits within the Samphire project (previously the Mullaquana project) is some 19,000 tonnes of U_3O_8 (equivalent to approximately 42 million pounds).

Application has been made for a Retention Lease for an in-situ recovery field trial at the Blackbush deposit and work is being scheduled to commence on the ground in early 2012. Subject to the results of the field trial and further tenure application, first production is anticipated for 2013.

Through its own tenure and by Joint Venture the Company has exploration control over what it considers the most prospective portions of the Pirie Basin.



Russel Bluck

Managing Director
UraniumSA Limited

The metallurgical results reported herein are based on information compiled by Mr Simon Hall who is an employee of UraniumSA Limited and a Member of The Australasian Institute of Mining and Metallurgy with sufficient experience relevant to the style of mineralisation and type of deposits being considered and to the activity which is being reported to qualify as a Competent Person as defined by the 2004 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code, 2004 Edition). Mr Hall consents to the inclusion in the report of matters based on his information in the form and context in which it appears.

The exploration results and mineral resources reported herein, insofar as they relate to mineralisation, are based on information compiled by Mr Russel Bluck, Managing Director, UraniumSA Limited who is a Member of the Australian Institute of Geoscientists and has sufficient experience relevant to the style of mineralisation and type of deposits being considered, and to the activity which is reported to qualify as a Competent Person as defined by the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code, 2004 Edition). Mr Bluck consents to the inclusion in the report of matters based on his information in the form and context in which it appears. It should be noted that the abovementioned exploration results are preliminary.