

17 December 2010

1 FOR 10 RIGHTS ISSUE

Dear Shareholder,

Further to Tom Phillips' letter dated 17 November advising you of the 1 for 10 rights issue at 25 cents, the Entitlement and Acceptance Form (including Additional Securities) is now attached.

The Company has completed further targeted drilling to confirm its interpretation of open extensions to uranium mineralisation in the Blackbush Prospect in the Mullaquana Project (ASX Inferred Resource estimate, 23rd September 2010).

Following the completion of this work the Inferred Resource of mineralisation at the Blackbush Prospect has been re-estimated and now comprises (ASX Inferred Resource Estimate Increase, 2nd December 2010):

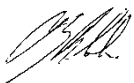
- **45.5 million tonnes of mineralisation**
(previously 38.7Mt)
- **estimated to contain some 12,700 tonnes of U₃O₈**
(28.0 million pounds, previously 10,400t or 22.9 million pounds)
- **volume weighted average grade of 280ppm eU₃O₈**
(previously 275ppm eU₃O₈)
- **average thickness of mineralised intersections 11.71m**
(previously 11.85m)

These increases result from the inclusion of several more holes which were drilled to validate the predictive geological models being used. This has enabled the expansion of the mineralised area included in the estimation. Additionally, several core and hydrogeological holes were included into the estimation.

The Board remains confident that its exploration objective¹ of >20,000t of uranium mineralisation in drilled inventory within the Mullaquana Project will be achieved.

UraniumSA has recently completed the issue of 20 million shares at 25 cents to raise \$5 million before costs (ASX Share Placement Completed, 3rd December 2010). The Board believes that it is important to offer all shareholders the opportunity to acquire additional shares at this exciting time in the Company's growth and progress. Shareholders who participate can be assured that the Company will maintain its existing high standards of business and exploration control, and that **new shares acquired under the rights issue will provide funding to progress the Blackbush Prospect and the Mullaquana Project.**

Yours faithfully,



Russel Bluck
Executive Chairman
UraniumSA Limited

Competent Person Statement

The exploration results and mineral resources reported herein are based on work and information compiled by Russel Bluck is a Member of the Australian Institute of Geoscience and an employee of UraniumSA Limited. Russel Bluck has sufficient experience relevant to the style of mineralisation and type of deposits being considered and to the activity which he is undertaking 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) and has consented in writing to the inclusion in this report of matters based on his information in the form and context in which it appears.

Cautionary Note:

1. Exploration Objectives are conceptual in nature and there is no certainty that they can be converted into a Resource or Reserve.