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Uranium Exploration Objectives for the Blackbush Prospect

Mullaquana Project, Eyre Peninsula, South Australia

The Company is pleased to be able to provide the following Exploration Objectives for the Blackbush Prospect within the Mullaquana Project area. Infill drilling to quantify these Exploration Objectives is contracted to Thompson Drilling and is scheduled to commence on 7th June 2010.

	Exploration Objective (ranges)		CAUTIONARY STATEMENT
	Mt* mineralisation	grade ppm U ₃ O ₈	
Blackbush West	2.5 to 6.5	500 to 520	These Exploration Objectives are conceptual in nature and there has been insufficient exploration completed to define this material as a mineral resource. There is no certainty that the further work referred to herein will result in the determination of a mineral resource.
Blackbush Extensions	3.0 to 4.0	475 to 490	
Blackbush Prospect	7.0 to 8.0	290 to 330	
* Mt = million tonnes	12.5 to 18.5		These conceptual and indicative figures are the basis upon which the Company designs and carries out its ongoing exploration work.

The mineralised areas named above are shown in the attached figure 1. The drill results used to produce this estimate of Exploration Objectives have been provided in previous ASX releases.

Blackbush West #. The Blackbush West mineralisation (above and figure 1) was discovered during sterilisation drilling when hydrogeology hole MRH-C1 returned an outstanding intersection of 13.8m at 1,392 ppm eU₃O₈. Following this discovery the Company effectively suspended operations while it collected new information and reinterpreted its data. Interpretations have been tested by two lines of drilling at Blackbush West and they appear to be reliably predictive for the location and approximate thickness of the sediment sections which host mineralisation. These interpretive tools will be used to direct drilling programs in the Blackbush area and throughout the Mullaquana Project.

The two drill traverses completed at Blackbush West have been projected north and south at the existing hole separation (100m) for the lower estimate in the range. The upper estimate in the range is based on the interpretation from geological modelling, at moderate to high levels of confidence, that the system hosting mineralisation continues for several hundred meters north and south. The hosting system is interpreted to continue for a further 1.1km to the north and 0.5km to the south beyond the area estimated for the exploration objective.

Blackbush Extension #. The area was discovered while drilling to the west of the Blackbush Prospect resource (above and figure 1). A total of 17 drill holes in the area have intersected continuous mineralisation at potential ore grades and thickness. Drilling has closed mineralisation off to the east and west. From geological modelling the system hosting mineralisation is interpreted at moderate to high levels of confidence to remain open to the north and south.

CAUTIONARY STATEMENT. The above statements about results from within Blackbush Extension and Blackbush West areas are a précis of information already provided to market. The information is presented here to provide shareholders with a context for these results and for the drilling which is scheduled to re-commence on 7th June 2010. Exploration Objectives are a conceptual tool used by the Company in designing and conducting its ongoing exploration, but there is no certainty that they will result in the determination of a mineral resource.

Blackbush Prospect *. The initial Inferred Resource (12Mt at 224 ppm eU₃O₈ for an estimated 2,700 tonnes U₃O₈) is based on 10 drill holes and is open in all directions. In the December 2009-January 2010 program 47 additional holes were drilled within the northern portion of the resource area.

Within the Blackbush Prospect resource area 29 of the 47 holes drilled (~56%) have intersected potential ore grade mineralisation with thickness and grade above the existing resource average (0.216m% eU₃O₈ compared to 0.125m% eU₃O₈) but the area of mineralisation is significantly reduced. Up to 90 more drill holes will be drilled to complete the infill pattern at 100m centres through the remaining resource area.

On completion of the infill drilling the existing Inferred Resource estimate for the Blackbush Prospect will be recalculated. It is anticipated that the recalculation will result in a decrease in the tonnage of mineralisation with an increase in grade in line with the estimates provided above as an Exploration Objective. The recalculation of the resource estimate will be carried out when results are available from the infill drilling of the resource area.

*** CAUTIONARY STATEMENT.** The above statements about results from drilling within the area of the Blackbush Prospect Inferred Resource are a précis of information already provided to market. The information is presented herein to provide shareholders with a context for these results and for the drilling which is scheduled to re-commence on 7th June 2010. The existing initial Inferred Resource estimate for the Blackbush Prospect has not been recalculated as the mineralisation is unconstrained to the north, east and south and, as indicated above, more drilling is required to close mineralisation off. Exploration Objectives are conceptual in nature and there is no certainty that the further work referred to herein will result in the determination of a mineral resource.

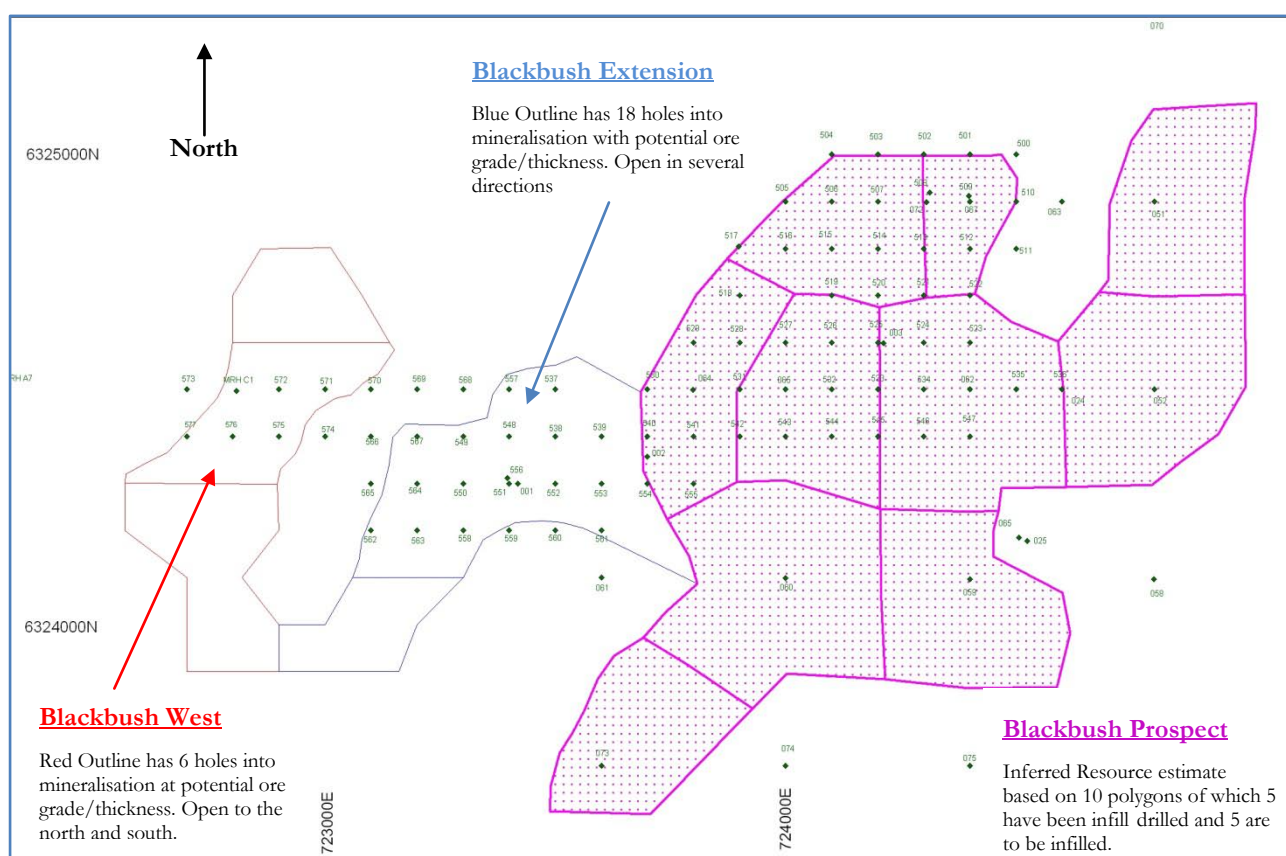


Figure 1. Blackbush Prospects.

Purple Outline. Polygonal areas used in the existing Inferred Resource estimate for the Blackbush Prospect.

Blue Outline. Area of potential ore grade/thickness mineralisation west of the Blackbush Extension area.

Red Outline. Area of potential ore grade/thickness mineralisation in the Blackbush West area.

Details of the drill holes shown have been provided in previous ASX releases. They are shown here as a guide only.

Exploration Objective. Blackbush Prospects. May 2010.

The Exploration Objective of August 2009. The existing Exploration Objective for the entire Mullaquana Project is for the discovery and delineation of 50-80Mt of mineralisation at grades of 0.02 – 0.20% U_3O_8 (200-2,000 ppm U_3O_8).

Following the discovery of high grade mineralisation in the Blackbush Extension and at Blackbush West, and the success of the subsequent data acquisition and interpretation, the Company will now focus its attention on the ~10km area in the centre of the Mullaquana Project extending between the Emubush Prospect in the north and the Plumbush Prospects in the south. A revised Exploration Objective for this Central Area will be estimated and provided to the market.

CAUTIONARY STATEMENT. The Exploration Objectives for the Blackbush Prospect are conceptual in nature and there is no certainty that the work described will result in the determination of a mineral resource.

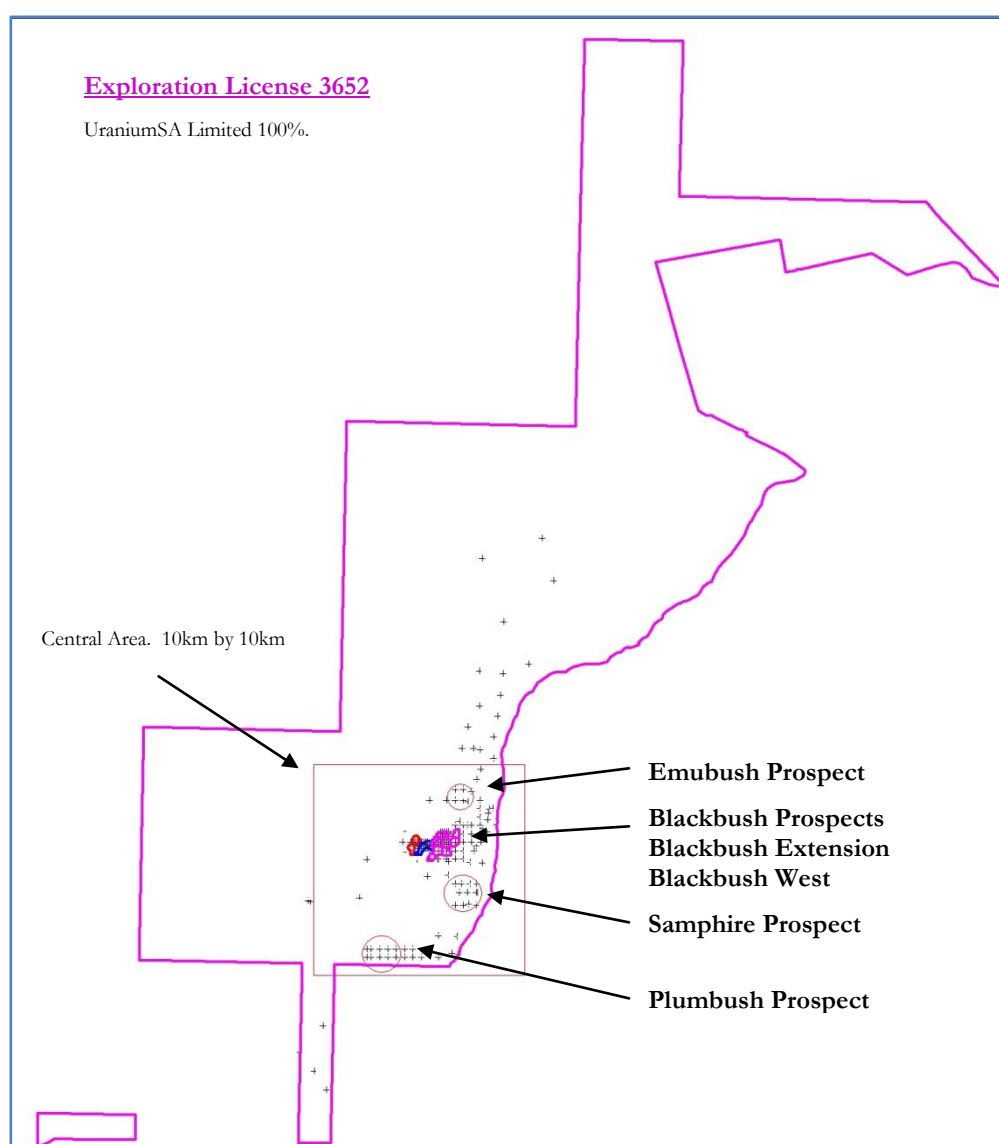


Figure 2. Exploration License 3652 showing the location of Central Area and significant prospects. Small black crosses indicate the location of UraniumSA drill holes which have been reported in previous ASX releases. View north, scale given by the 10km by 10km rectangle.

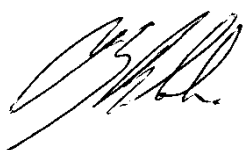
About UraniumSA Ltd



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 its Mullaquana Project, 20km south of the industrial city of Whyalla on the eastern Eyre Peninsula. The Blackbush Prospect has an Inferred Mineral Resource of 12Mt at 0.02% eU₃O₈ with an estimated 2,700t contained U₃O₈. The Company is working to advance the Blackbush Prospect to an in-situ-recovery field trial as soon as practicable. Continuing drilling to expand the resource base is obtaining intersections significantly above deposit average grade and thickness. The objective is to expand the resource base through incremental addition and new discovery.

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 exploration results mineral resources reported herein, insofar as they relate to mineralisation, are based on information compiled by Mr Russel Bluck, Managing Director, UraniumSA Limited and Ms. Nicole Galloway Warland, Exploration Manager, UraniumSA Limited. Both are Members of the Australian Institute of Geoscientists and have 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 and Ms Galloway Warland consent to the inclusion in the report of matters based on her information in the form and context in which it appears. It should be noted that the abovementioned exploration results are preliminary.