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AUSTRALIAN SECURITIES EXCHANGE
COMPANY ANNOUNCEMENTS PLATFORM
ASX CODE USA

RESOURCE ESTIMATE INCREASE

BLACKBUSH PROSPECT Mullaquana Uranium Project Eyre Peninsula, South Australia

UraniumSA 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:

- **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 280 ppm eU₃O₈**
(previously 275 ppm eU₃O₈)
- **average thickness of mineralised intersections 11.71m**
(previously 11.85m)

The 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 have now been included into the estimation (Table 1). The assumptions used in the estimation are set out in the attached schedule.

The resource envelope continues to remain open in several directions (Figure 1). The above estimate is based on results obtained from rotary mud drilling on a 100m to 200m pattern across prospect, from core holes drilled for metallurgical sampling, and from hydrogeological monitoring holes and hydrogeological test bores. Within the boundary of the presently defined area, 220 holes have been drilled resulting in the construction of 205 polygonal areas, of which 166 were used in this resource estimation.

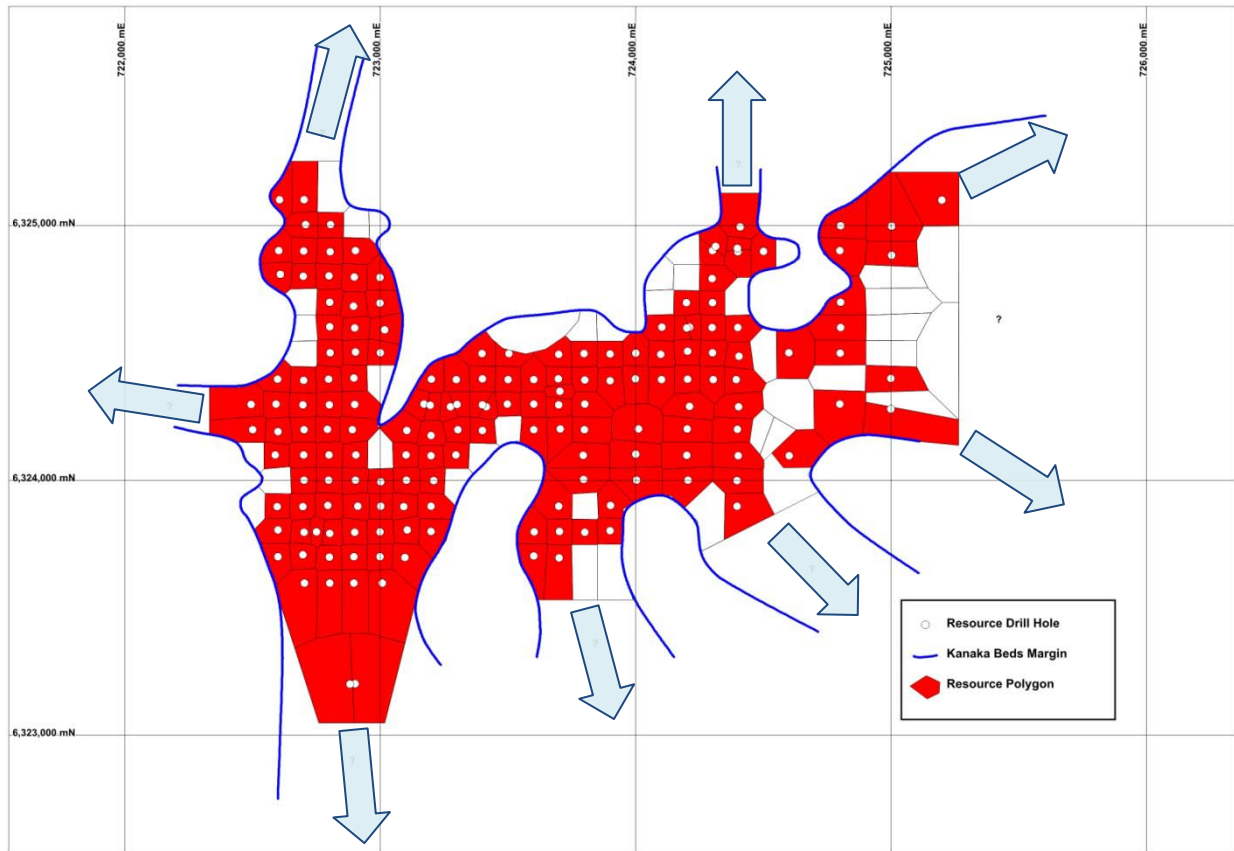


Figure 1

**Voronoi Polygons used in the Inferred Mineral Resource estimate
Blackbush Prospect, Mullaquana Project**

Mineralisation remains open in several directions (blue arrowheads)
View north, scale given by 1km graticules

Work on characterisation of the uranium mineralisation at Blackbush is continuing and information on the tonnes/grade relationship will be released within the next several days.

Exploration drilling at the Plumbush Prospect and elsewhere at Mullaquana is continuing. The field programs are scheduled to finish shortly and a summary of drill results are expected to be released the week commencing 6th December 2010. No resource estimates will be calculated until drilling is completed in early 2011.

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

TABLE 1

**Drill hole summary of holes not previously reported to ASX
Blackbush Prospect, Mullaquana Project**

hole ID	top of mineralisation m	cumulative thickness m	average grade ppm eU3O8	peak grade ppm eU3O8	GT m%	End of hole
MRC004	-50.00	2.66	223	560	0.06	160
MRC007	-57.13	19.54	159	257	0.58	150
MRC007A	-57.01	12.94	142	243	0.18	160
MRC009	-54.50	17.29	577	6033	1.00	100
MRE3	no target zone mineralisation					72
MRH8C	-51.25	20.28	320	1763	0.65	84
MRH9C	-51.00	21.99	245	806	0.54	72
MRM578	no target zone mineralisation					72
MRM708	-53.20	8.32	199	551	0.17	72
MRM709	-53.55	7.57	164	314	0.12	78
MRM710	-54.33	2.53	230	511	0.06	84
MRM711	-54.50	8.28	234	583	0.19	84

TABLE 2

Blackbush Resource Estimate, Schedule of Variables

Variable	Explanation
Tenure	The Blackbush Prospect is contained within Exploration Licence 3652 held by Gingertom Resources Pty Ltd, a wholly owned subsidiary of UraniumSA Limited.
Data	The drilling, geological and geophysical data which forms the basis of this resource estimate has been internally validated and is held within a Maxwell Geoservices Datashed database system. All of the data in this resource estimate has been collected by, or on behalf of, UraniumSA.

Variable	Explanation
Geological setting	<p>Uranium mineralisation at the Blackbush Prospect the subject of this resource estimation is confined to the Eocene Kanaka Beds which locally comprise intercalated fine to coarse grained sands and clay/lignite overlying coarse grained fluvial sands. The sands are generally angular with high to very high porosity.</p> <p>The Kanaka Beds are overlain by the Miocene Melton Limestone (chemically reactive, low permeability) and Pliocene Gibbon Beds (low permeability) which extend continuously across the area and isolate them from the surface.</p> <p>Underlying the Kanaka Beds are variably weathered granite and metamorphic rocks.</p>
Geological continuity	<p>Mineralisation is confined to the Eocene Kanaka Beds. It is stratabound and intercept to intercept correlation of mineralisation between drill holes at 100m and 200m separation is achievable at acceptable levels of confidence. Sequence variability is known to be present at the metre and decimetre scales.</p>
Mineralisation	<p>Limited sampling of mineralisation within the Kanaka Beds indicates it is predominantly comprised of uraninite and coffinite on the surface and in fractures in sand grains (ASX release 3rd September 2010).</p>
Geometry of mineralisation and drill holes	<p>The sand and lignite units of the Kanaka Beds correlate from hole to hole indicating that the sequence is flat lying. Drill holes are vertical and at the hole depths involved (<100m) azimuth deviation is not considered to be a significant factor impacting on the estimate of intercept length.</p>
Drilling method	<p>Holes included in the resource estimation are rotary mud holes drilled using a 5 1/8th inch drag bit with a circulating mud built on hypersaline formation waters buffered to ~pH 9 and fattened with biodegradable polymer additives. Seven core holes and three hydrogeological holes were included in this resource estimate.</p> <p>Rotary mud drilling is used as the host sediments are unconsolidated and water saturated. The method provides a stable opening for geophysical logging with minimal disturbance of mineralised materials. Materials recovered from rotary mud drilling are not suitable for assay as the collection method does not provide a statistically representative sample and there is an unquantifiable segregation of coarse and fine materials within the circulating mud stream. Drilling was done by UraniumSA and under contract by Thompson Drilling Pty Ltd.</p>
Drill hole density	<p>Within the boundary of the presently defined area 220 holes have been drilled resulting in the construction of 205 polygonal areas, of which 166 were used in this resource estimation (rotary mud, core holes and hydrogeology holes).</p> <p>The majority of holes were drilled at approximate 100m centers in the west of the area, opening out to 200m in the east. Mineralisation is laterally continuous and extensive and remains open in several directions.</p> <p>Drill collars are located post-completion with a hand-held GPS to a horizontal accuracy of 1 to 5 metres. The land surface in the mineralised area is some 20m above AHD with a gentle easterly slope. Variation in collar elevation does not impact this estimation.</p>

Variable	Explanation
Geological logging	<p>Cuttings collected from the drill collar are laid out to a sample field to represent 2m intervals. The sample field materials are geologically logged and a ~30gm sample retained in a chip tray. On completion of drilling and geophysical logging the remaining material is returned down the drill hole or to the bottom of the mud sump.</p> <p>The geological chip logs are used in conjunction with geophysical logs to fix the stratigraphic boundaries which are used, in part, to constrain the area and volumes of mineralised material.</p>
Geophysical logging	<p>All holes were geophysically logged using a natural gamma tool and equivalent uranium grades expressed as % eU₃O₈ are assigned to each logged interval.</p> <p>Geophysical tools are regularly calibrated at the Department of Land, Water and Biodiversity Conservation's calibration facility in Adelaide. Geophysical logging was carried out by UraniumSA and by Geoscience Associates Australia Pty Ltd.</p> <p>A range of drill holes across the area of the resource estimate have been geophysically re-logged the day after drilling and initial geophysical logging. Overlay of sequential data shows reproducible stable profile forms and signal amplitudes.</p>
Disequilibrium	<p>A set of 19 drill holes through the Blackbush Prospect was surveyed by Geoscience Associates Australia Pty Ltd (GAA) using a prompt fission neutron tool (PFN). GAA report that on the basis of the data available mineralisation in the holes surveyed has net positive disequilibria of 1.23 indicating the grade estimated by natural gamma underestimates the grade as determined by PFN.</p> <p>There is insufficient data available to apply this figure generally across the resource.</p>
Data verification	<p>Initial picks of mineralisation are made in the field on the basis of geological and geophysical logs. The data is subsequently verified by another geologist to confirm the identification of the geophysical equipment used against the conversion algorithm, and the stratigraphic picks checked against geological and geophysical logs. Verified drill hole information is entered to the Datashed database by the UraniumSA Resource Geologist.</p>
Cut-off	<p>The lower limit for mineralisation to be included into the calculation of a significant intercept in this resource estimate is 0.01% eU₃O₈.</p>
Significant intercept	<p>For the purpose of the present estimate, the minimum intercept is 0.40m above a 0.01% eU₃O₈ cut-off, with isolated 0.10m intervals below 0.01% eU₃O₈ allowable within an intercept provided the average grade of the whole intercept exceeds 0.01% eU₃O₈.</p>

Variable	Explanation
GT	The product of the thickness of an individual drill hole intercept and its average grade is the GT for that intercept.
GT accumulation	For each drill hole, individual GT's are summed to produce a GT accumulation for that drill hole. Drill holes reporting a GT accumulation 0.05 m % eU ₃ O ₈ or greater have been included into this resource estimate.
Density	<p>A wet density of 1.73 tonnes/cubic metre has been adopted for this resource estimate.</p> <p>Density data is available from calculation based on drill core weights and volumes, from laboratory measurement on samples of mineralised drill core, and from calibrated down hole geophysical logging.</p>
Recovery	<p>Initial laboratory bottle roll tests performed at SGS laboratories in Perth indicate ~90% of mineralisation in solution within ~48 hours (ASX release 6th September 2010). Small scale laboratory test results such as these do not necessarily reflect what can be achieved in the field and the Company is planning to conduct in situ recovery field trials to obtain more relevant data.</p> <p>No recovery factor is applied to this resource estimate.</p>
Average grade	Average grade assigned to each polygonal area was the length weighted average of the drill hole intercepts above significance (above). In the resource estimation this average grade was weighted by polygonal volume.
Estimation method	Voronoi polygons were constructed using MapInfo software constrained by a bounding 0.05 m % eU ₃ O ₈ contour within the host Kanaka Beds. Estimates were derived from the polygonal area and the GT accumulation for each associated drill hole.
Classification	<p>In accordance with Clause 19 of the JORC Code the Competent Persons consider that on the basis of the bulk grade, geological continuity of mineralisation and indicated hydrogeological characteristics of the host formations, together with the initial mineralogy and bottle roll tests “there are reasonable prospects for eventual economic extraction”.</p> <p>The estimate given herein is classified as an Inferred Resource in the absence of applicable recovery data and economic modeling to define a deposit specific cut-off grade.</p>

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 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 45.5Mt at 280 ppm eU₃O₈ with an estimated 12,700t 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 an employee of UraniumSA Limited and Member of the Australian Institute of Geoscientists with 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.