

UraniumSA Ltd
ABN 48 119 978 013
32 Beulah Road
Norwood, South Australia 5067
Australia
Phone +61 (0)8 8132 0577
Fax +61 (0)8 8132 0766
executive@uraniumsa.com.au
www.uraniumsa.com.au



Wednesday 25 March 2009

**AUSTRALIAN SECURITIES EXCHANGE LIMITED
COMPANY ANNOUNCEMENTS PLATFORM
ASX CODE USA**

Drilling confirms two main uranium zones south of Whyalla

New drill results have confirmed the existence and potential economic significance of two main uranium mineralised zones on UraniumSA Limited's Mullaquana project, 20 kilometres south of Whyalla on South Australia's Eyre Peninsula.

The new results come from ongoing work by UraniumSA which commenced pattern drilling the Mullaquana Uranium Project on a 400m by 400m grid in January this year. The pattern drilling has resolved the earlier discovered mineralised zone into a **western mineralised zone** and a less well defined **eastern mineralised zone**.

The western mineralised zone (WMZ) is 1.6 kilometres in length, open in both directions along strike, and up to 600 metres wide. New drill holes from within the zone have returned cumulative intersections well above the level of potential economic significance.

The eastern mineralised zone (EMZ) – located east of the WMZ and between it and the coastline – is more complex than the WMZ but has returned potentially economic significant results in one hole and has significant upside potential.

The thicknesses and grades of mineralisation which are being obtained from the WMZ are significant and confirm the potential for the project to contain economically exploitable mineralisation. Widely spaced grid drilling has now established the lateral continuity, thicknesses and grade of sediment-hosted uranium mineralisation which remains open along strike to both the north and south.

On Monday 16th March 2009 the Company presented some early pattern drilling results and a regional interpretation of the mineralisation to the Paydirt Uranium Conference in Adelaide. A copy of this presentation is available on the ASX and Company web sites and provides a context for the current data.

The results in this release include those contained in the Paydirt presentation and others which have since been received and processed.

Pattern Drilling Results MULLAQUANA URANIUM PROJECT

Results

In January 2009, UraniumSA commenced pattern drilling of the area of the initial Mullaquana uranium discovery, south of Whyalla in South Australia, on a 400m by 400m grid. This work has resolved the previously recognised mineralisation into a;

- **western mineralised zone** where the envelope of mineralisation is ~1,600m long, and open in both directions along strike, and up to 600m wide. Drilling is continuing on the 400m pattern. Significant holes from within the western mineralised zone which report cumulative intersections above the level of potential economic significance of 0.05 m%eU₃O₈ are;

Hole ID	cumulative meters	average grade (%eU ₃ O ₈)	Cumulative g X m (m%eU ₃ O ₈)	peak grade (%eU ₃ O ₈)
MRM 051	4.40	0.019	0.084	0.043
MRM 052	3.70	0.021	0.077	0.092
MRM 059	1.80	0.033	0.060	0.076
MRM 060	4.10	0.019	0.080	0.041
MRM 062	4.50	0.023	0.102	0.065
MRM 063	5.20	0.017	0.088	0.040
MRM 064	12.00	0.023	0.276	0.063

Distribution of mineralisation within the WMZ is controlled by a near-horizontal redox front and a curvilinear north-south trending structure. These control features can be traced out in the airborne geophysical and regional drilling data for a significant distance north and south along strike from the drilled mineralisation.

- **eastern mineralised zone** identified from three drill holes, one of which returned an intersection above the level of potential economic significance of 0.05 m%eU₃O₈ ;

Hole ID	cumulative meters	average grade (%eU ₃ O ₈)	Cumulative g X m (m%eU ₃ O ₈)	peak grade (%eU ₃ O ₈)
MRM 021	3.00	0.018	0.055	0.031

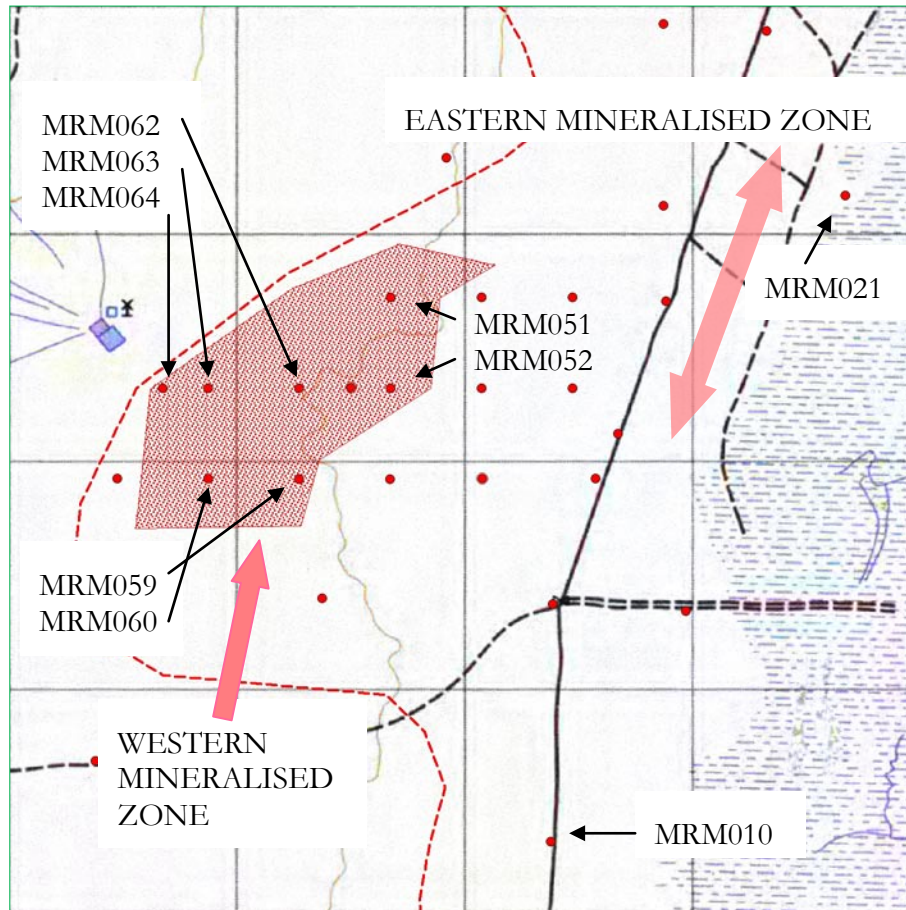
The EMZ is geologically more complex than the WMZ with significant mineralisation present at the near-horizontal redox front, through the body of the section, and at the basal unconformity. The size potential of the EMZ is considered to be equivalent to that of the WMZ.

For in-situ recovery operations in South Australia, cumulative thickness-grade intercepts of 0.05 m%eU₃O₈ are considered potentially economically exploitable.

A grade of 0.010 %eU₃O₈ is the equivalent of a grade of 100 ppm eU₃O₈ . For example, the grade of 0.092 %eU₃O₈ reported for drill hole MRM052 equivalent to a grade of 920 ppm eU₃O₈.

The location of the Mullaquana Project, south of Whyalla on the Eyre Peninsula in South Australia, is shown on the map on the last page of this document.

Drill collar locations for the results given above are shown on the map below. Holes shown on the map but not identified by number did not intersect mineralisation above the level of potential economic significance.



Map graticules are 1 km in each direction; view is to the north.

Significance of the results

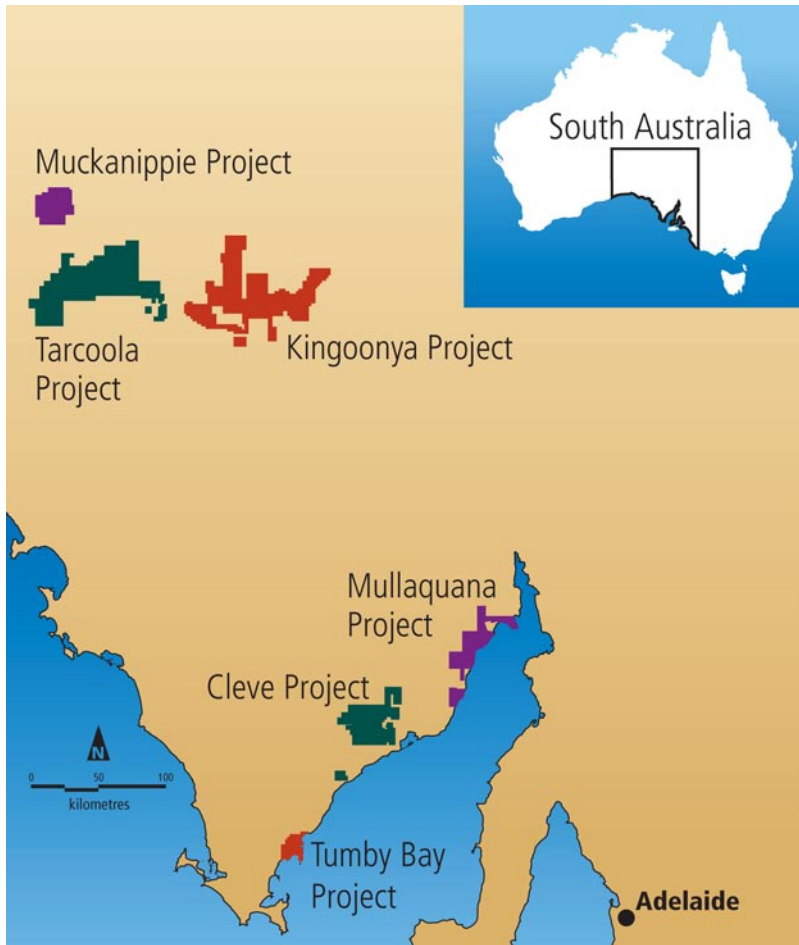
The exploration results reported are comparable in grade and thickness to those reported to occur at other significant sediment hosted uranium deposits in South Australia and which are either in production or proceeding towards production. For in-situ recovery operations in South Australia, cumulative thickness-grade intercepts of 0.05 m%eU₃O₈ are considered potentially economically exploitable.

While the western mineralised zone has been intersected in only 8 holes drilled on a 400m grid pattern (the collar shown on the map without a result was abandoned short of target) two have returned cumulative thickness-grade intercepts in excess of 0.100 m%eU₃O₈, a success rate which is well above expectations.

Much more work is required to close the drill hole pattern within the western mineralised zone down towards the 20-25m separations required to determine resources and reserves.

Using the geological and geophysical information which the Company acquired during its regional exploration, a predictive model for the occurrence of uranium mineralisation in the Mullaquana district has been developed. The model has successfully been used in the drilling of the western mineralised zone, and will be used to direct the exploration for extensions and repetitions along the regional strike.

About UraniumSA Ltd



UraniumSA is an Adelaide-based uranium-only explorer focussed on the Gawler Craton in South Australia.

The Company has discovered sediment-hosted uranium mineralisation at Mullaquana on the eastern seaboard of Eyre Peninsula.

Systematic regional exploration and pattern drilling of already discovered prospects is continuing at Mullaquana with the objective of outlining resources of potentially economic sediment-hosted uranium mineralisation.

Grades reported herein are percentage equivalent uranium oxide (%eU₃O₈) obtained from logging of natural gamma radiation in drill holes immediately on completion. The probes used are appropriately calibrated and maintained. Sequential logging runs are made to check for variations in the natural gamma response which could be associated with mobilisation of radon gas by the drilling process; none have been observed. Drill cuttings are geologically logged and panned down to check for the presence of materials which could contribute to the natural gamma count; no heavy minerals or lithic materials which could contribute to the natural gamma radiation have been observed. Glauconite is present in parts of the overlying stratigraphy but, to date, has not been found to contribute to the natural gamma counts.

Russel Bluck
Managing Director
UraniumSA Limited

The exploration results reported herein, insofar as they relate to mineralisation, are based on information compiled by Mr. Russel Bluck a Member of the Australian Institute of Geoscience and an employee of UraniumSA Limited. Mr 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). 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.