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, 2 January 2008

AUSTRALIAN SECURITIES EXCHANGE LIMITED

COMPANY ANNOUNCEMENTS PLATFORM

ASX CODE USA

MULLAQUANA – DRILLING TO END OF 2007

UraniumSA Limited advises that at the end of the 2007 year 12 holes had been completed at the Mullaquana prospect.

The results of five holes, including the discovery holes, have previously been reported. This release contains the results of the drilling of the remaining seven drill holes within the tenement, three of which targeted the Mullaquana prospect. Once drilling recommences at the prospect in mid January 2008 no more results will be released until the completion of broad-spaced drilling sometime in mid-February 2008.

Geology

The Mullaquana sediment hosted uranium mineralisation is contained in the Tertiary Pirie Basin and is hosted by sand, claystone and lignitic units of the Kanaka Beds. A total of twelve holes have been drilled targeting the Kanaka Beds, eight into what is now recognised as the prospective eastern zone. Within the prospective eastern zone, anomalous uranium mineralisation has been intersected in all eight holes, and four holes have intersected significant mineralisation. Down-hole radiometric profiles and preliminary geology for these significant drill holes is given in the attached sections.

On the basis of information from historic drilling, the prospective stratigraphy appears to extend for some 12km to the north. The southern extent of the prospective stratigraphy is presently unknown; drill hole MRM-011 collared ~ 4.5km south of the discovery hole was abandoned in a cave in limestone at 40m without intersecting the target.

Forward program

The Company will recommence exploration drilling of the Mullaquana prospect in the week commencing 14th January 2008. Holes will be spaced at intervals of ~ 1km to define the size extent of the envelope of mineralisation. It is anticipated that some 20 holes for ~1,600m will be completed. Holes which intersect significant mineralisation will be cased off and, at an appropriate time, selected holes will be re-logged using a pfn tool to determine uranium content and equilibrium.

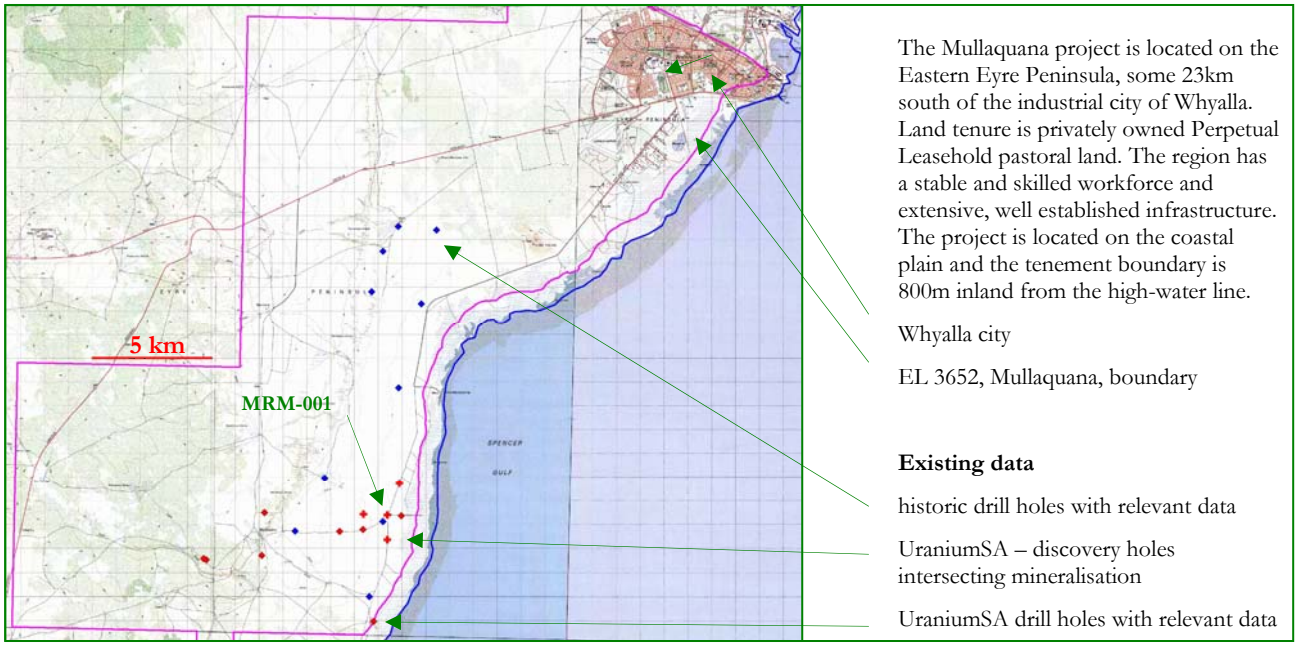
On completion of the Mullaquana drilling the rig will move to Tarcoola to commence work on the Stellar JV and Marathon JV tenure within the Kingoonya Palaeodrainage System.

Results

The general location of the drill holes completed to date, and of relevant historic drill holes, is shown in the following figure. As these are broad spaced reconnaissance drill holes, collar locations are with reference to the discovery hole MRM-001 and specific collar coordinates are not given.

Hole ID	Location	Depth	Result
MRM-001 *released 12/12/2007*	24km SW of Whyalla	98m	57.98m to 59.91m, 1.92m @ 0.010% eU_3O_8
MRM-002 *released 12/12/2007*	1.2km SW MRM-001	98m	target stratigraphy intersected, uranium anomalous
MRM-003 *released 12/12/2007*	2.1km SW MRM-001	98m	target stratigraphy intersected, uranium anomalous
MRM-004 *released 12/12/2007*	1.0km W MRM-001	98m	45.89m to 46.20m, 0.31m @ 0.010% eU_3O_8 47.09m to 48.20m, 1.11m @ 0.010% eU_3O_8
MRM-005 *released 12/12/2007*	0.6km E MRM-001	64m	target stratigraphy intersected, uranium anomalous
MRM-006 *released 12/12/2007*	4.8km W MRM-001	32m	target stratigraphy not present
MRM-007 *new data*	5.5km SW MRM-001	66m	target stratigraphy intersected, uranium anomalous
MRM-008 *new data*	7.8km SW MRM-001	22m	target stratigraphy not present
MRM-009 *new data*	7.9km SW MRM-001	28m	target stratigraphy not present
MRM-010 *new data*	1.0km S MRM-001	70m	47.1m to 49.0m, 1.9m @ 0.015% eU_3O_8 56.6m to 57.7m, 1.1m @ 0.018% eU_3O_8
MRM-011 *new data*	4.5km S MRM-001	40m	abandoned in limestone short of target
MRM-012 *new data*	1.5km NE MRM-001	92m	51.2m to 52.2m, 1.0m @ 0.013% eU_3O_8 65.9m to 67.2m, 1.3m @ 0.014% eU_3O_8

Tenure information and location of data points

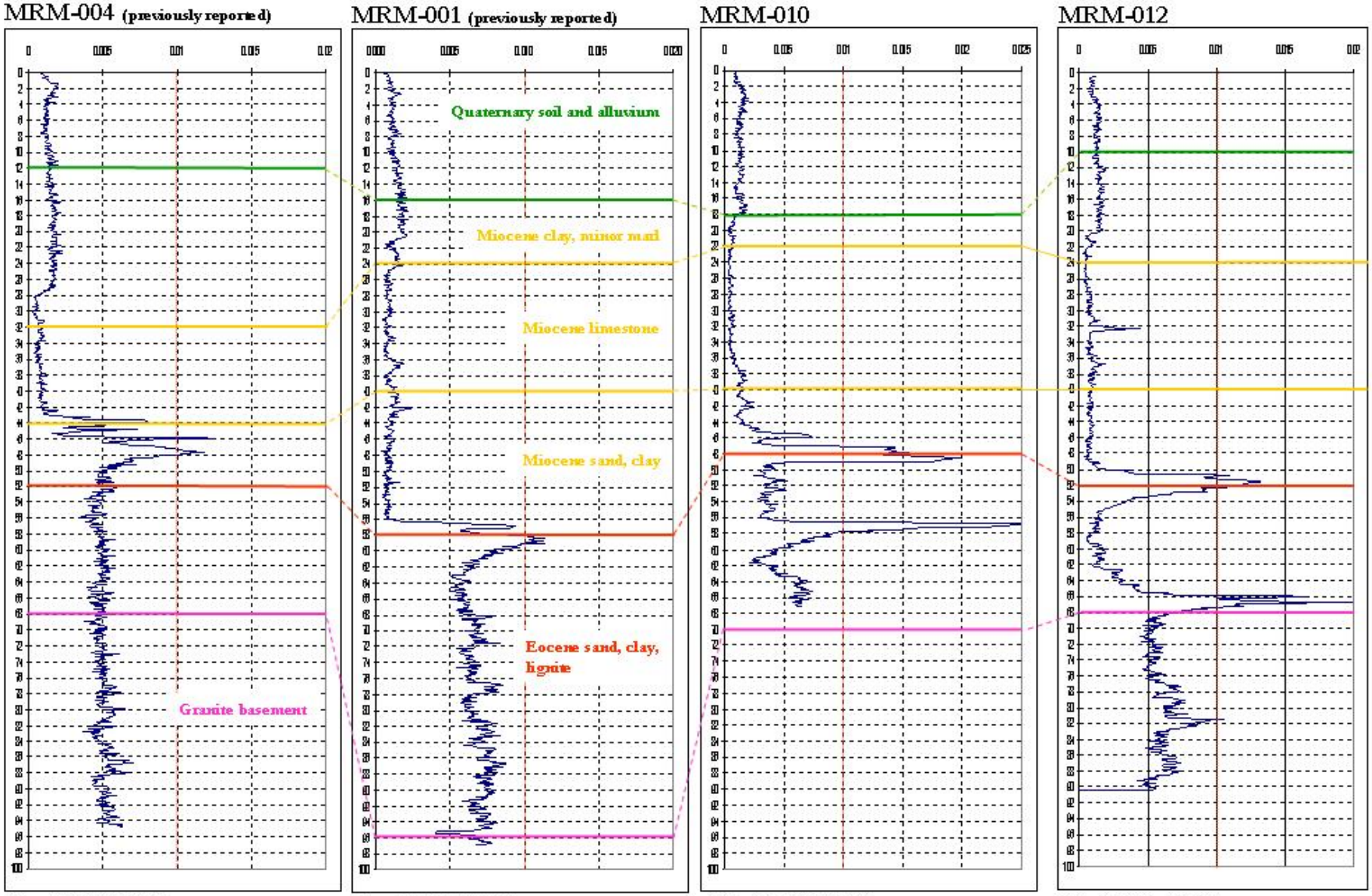


Technical

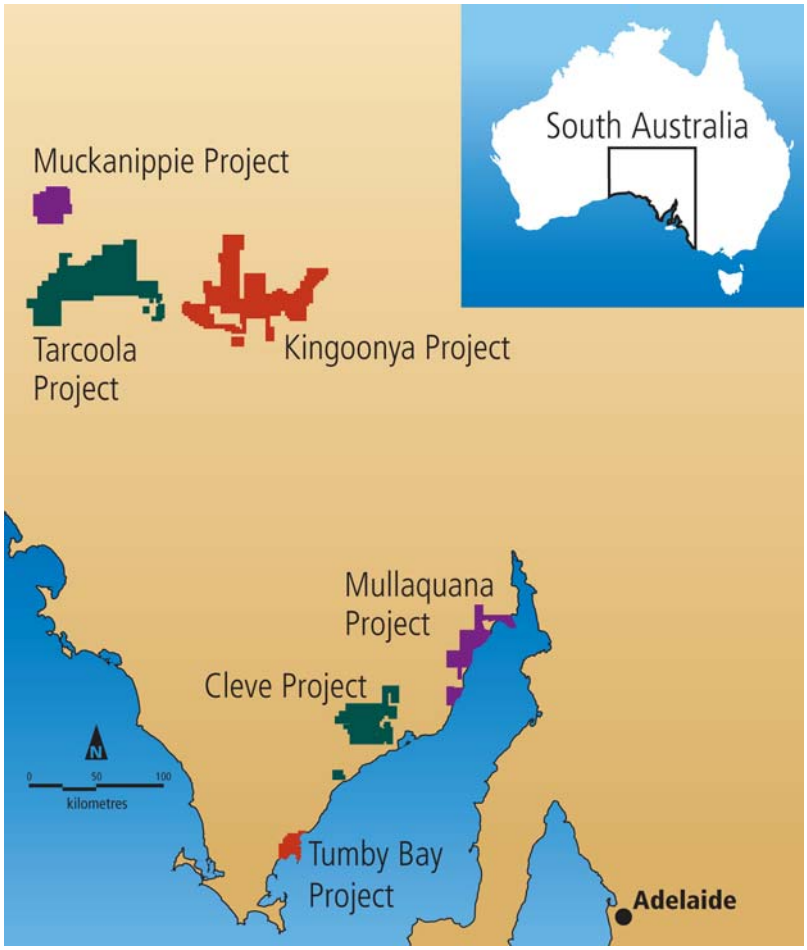
The results reported are in percentage equivalent uranium oxide - % eU_3O_8. This value is derived from a down-hole gamma probe that measures total radiation, which is then converted to a mathematical estimate of the amount of contained uranium oxide by comparison to standards of known uranium content. While the method can be subject to error arising from radioactivity derived from materials other than uranium, it is an industry accepted measure of grade for uranium deposits. UraniumSA has adopted a range of field procedures to screen the anomalous intervals for non-uranium sources of radioactivity which could give rise to false results.

More information on the technical procedures employed is provided at the end of this document.

The reader is referred to UraniumSA releases to ASX on 12/12/2007 and 21/12/2007 for further information on the relevance of grade, and a consideration of the limitations of down-hole gamma probes for the determination of in-situ uranium values.


MRM-004 (previously reported)
MRM-001 (previously reported)
MRM-010
MRM-012
Quaternary soil and alluvium
Miocene clay, minor marl
Miocene limestone
Miocene sand, clay
Eocene sand, clay, lignite
Granite basement
full scale 0.020 eU3O8%
full scale 0.020 eU3O8%
full scale 0.025 eU3O8%
full scale 0.020 eU3O8%

About UraniumSA Ltd



UraniumSA is an Adelaide-based uranium-only explorer specialising in palaeochannel or rollfront and unconformity styles of uranium mineralisation within a substantial portfolio of properties in South Australia's Gawler Craton. The focus of the rollfront uranium search is within its substantial tenement holding over the highly regarded Kingoonya Palaeodrainage System which hosts the Warrior and Ealbara uranium prospects in adjoining tenements.

On the eastern seaboard of Eyre Peninsula, UraniumSA is exploring for potentially uranium mineralised unconformities and for sediment-hosted uranium mineralisation in younger sequences.

Russel Bluck
Managing Director
UraniumSA Limited

The exploration results reported herein, insofar as they relate to mineralisation, are based on information complied 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.

The geophysical results reported herein are based on work and information compiled by Mr Grant Koch, a Member of the Australian Society of Exploration Geophysicists and an independent Consultant to UraniumSA Limited. Mr Koch has sufficient experience relevant to the geophysical matters 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 Koch 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.

Background information

The significance of the grade encountered

In an established mining operation, or one at an advanced stage of evaluation, the term "cut-off grade" has a clear and defined economic meaning which is determined by the specific characteristics of that individual deposit. In general terms, the cut-off grade of a particular operation is the grade below which it is not economically feasible to exploit that mineralisation. As noted in the Company ASX release of 12th December 2007, uranium deposits from a diverse range of geological setting and geographic locations are presently using 0.01 % eU_3O_8 as a cut-off for their economic evaluations. It is in this context that in evaluating results from exploration of its sediment hosted uranium exploration plays the Company considers that;

1. *material which has a uranium content in excess of 0.005 % eU_3O_8 (equivalent to 50 ppm or eUppm) but less than 0.01 % eU_3O_8 (equivalent to 100ppm or eUppm) is anomalous and has exploration significance and requires technical attention. However, unless it has a negative impact on previously announced results, it does not warrant an announcement to market.*
2. *material which exceeds 0.01 % eU_3O_8 (equivalent to 100ppm or eUppm) requires serious technical consideration and analysis, and if it occurs over a significant width and within a host sequence with characteristics which could make it permissive for in-situ leach operations, an announcement to market is required.*

Gamma logging

The use of down-hole gamma probing for the evaluation of uranium resources is a well established and industry standard technique. The technique has a number of limitations including the contribution of non-uranium materials to the result and the reliability of the grade correlation algorithms.

1. *There are a range of materials which have the potential to contribute to the measured gamma count and therefore lead to an overestimation of grade. The main contributors to the count rate are uranium itself, potassium, thorium, heavy minerals containing these elements and radon gas, and in marine settings glauconite and phosphate minerals. The Company has the following procedures in place to evaluate the possibility for error from these sources in the course of routine exploration;*
   - *the gamma probe is run twice in each hole and the results of the two runs compared to determine the count rate stability of significant peaks and to check for drift or shift in values or locations. Particular attention is paid to impervious boundaries identified in the geological logging as sites for potential radon gas accumulation or leakage. In the drilling completed to date at Mullaquana the gamma logs have been stable and repeatable. No sharp peaks have been located at either major or minor impervious boundaries and the profiles have been reproducible where re-logged, both factors indicating that radon gas is not a significant contributor to the measured response.*
   - *grab samples of sand units in and about gamma peaks are panned down, the concentrates examined for heavy minerals and the composition of the clastic fragments checked. To date at Mullaquana, no heavy minerals have been seen and the clastic fragments have predominantly been mature quartzose materials with few lithic fragments or ironstone.*
   - *gamma response peaks are checked against the logged geology for indications of apatite (phosphate) associated with the limestone and for visible glauconite. To date, the limestone has been reflected by a negative gamma response. Glauconite, while significant elsewhere within the target Kanaka Beds, is not a significant component in the area being explored.*

   UraniumSA considers that the above procedures, while not absolutely definitive, provide a sound basis for it to conclude that the significant gamma responses reported are not caused by non-uranium materials. This may not be the case across the entire project area.

2. *The gamma probe in use by the Company has been calibrated at the PIRSA test facility in Adelaide. During the field work a standard three-point correlation and its resulting algorithm was used. Examination of the raw data and resulting values by the Consulting Geophysicist found poor statistical reliability for the correlation at low grades. Following a comprehensive analysis of the equipment and the calibration data the Consulting Geophysicist was able to provide a correlation algorithm for the Company equipment which provides a very high degree of confidence in the grade conversions. The statistical reliability measures of the algorithm are;*

r^2	=	*0.9999999976 (an r2 of 1.0 represents a perfect correlation)*
axis intercept	=	*0.0000046568 % eU_3O_8 (an intercept of 0.0 is a perfect solution).*

   The results released to market are based on this statistically sound algorithm and are considered to be an accurate representation of the % eU_3O_8 grade of these initial intersections.

3. *It is not known if the mineralisation is in radiometric equilibrium. At an appropriate time, selected drill holes will be logged with a pfn tool to determine this issue.*

Results

The gamma tool used by UraniumSA reads and records raw data at 1 cm intervals down the drill hole. The raw gamma counts are converted to % eU_3O_8 (above) for each of the raw data intervals. To facilitate interpretation and manipulation of the data % eU_3O_8 values are aggregated over 10cm intervals by simple arithmetic average. Intervals where grades exceed 0.010 % eU_3O_8 over more than 50cm are considered significant – no reported intervals contain values below the 0.010 % eU_3O_8 level of significance.

All holes are drilled using the UraniumSA Mayhew 1000 rotary mud rig. A 4 ½ inch hole is bored using either a blade or roller bit with cutting lifted to surface by a water based drilling mud (local saline waters, ph adjusted and mixed with biodegradable additives to increase viscosity and density). Drill cuttings are collected at the collar over 2m intervals and laid out in regular lines at the drill site – this material is geologically logged and processed as necessary (above) and reference samples collected. The resulting geological log provides the geological section presented with the gamma data – boundaries are approximate and will be refined and adjusted as further analysis is undertaken using the electrical logs which are also run as down-hole tools.

The rotary mud drilling method does not provide a clean or reliable sample suitable for assay.

Geological setting

The uranium mineralisation intersected to date at Mullaquana is associated with an apparent reduction-oxidation interface that transgresses the Miocene sequence stratigraphy, with the interface between oxidised Miocene and reduced Eocene sediments, with carbonaceous coarse grained sands within the Eocene sequence, and with coarse grained sands at the base of the Eocene above radiometrically anomalous granite.

The characteristics of the mineralisation are consistent with a sediment hosted reduction-oxidation front style of mineralisation. There are no indications that heavy minerals, radon or other materials make a significant contribution to the gamma responses reported to the market.

Strategy

At Mullaquana, UraniumSA is focussed on exploration for sediment hosted uranium deposits that are amenable to exploitation by in-situ leach (ISL) operations. The ISL method is widely considered a relatively environmentally benign and cost-effective method of production.