

ASX ACTIVITIES REPORT

3 months ended:
30 September 2015

UraniumSA Limited ("UraniumSA")

ASX Code: USA

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BOARD OF DIRECTORS

Alice McCleary Chairman
Martin Janes Director
Russel Bluck Director &
Geoscience Manager
David Paterson Director &
Acting CEO

PROJECTS

South Australia

Samphire ELs 4979, 5426 JV
Blackbush MC 4280
Murninnie EL 5440
Wild Horse Plains EL 4693 JV
Muckanippie EL 4694

ISSUED CAPITAL

30 October 2015
Shares on Issue: 183,171,038
Quoted shares: 183,171,038
Unlisted Options: 14,650,000

INVESTOR INQUIRIES

executive@uraniumsa.com.au

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and company business may be
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VISIT OUR WEBSITE

www.uraniumsa.com.au



SAMPHIRE PROJECT & EXPLORATION

The Samphire Project and the Blackbush deposit uranium mineralisation was a focus for the quarter. Conceptualisation of open cut production scenarios was continued in conjunction with investigations of the potential for mechanical beneficiation of mineralisation.

Initial work on the development of systems based geological models to direct targeting in the new exploration areas focused on the Eyre Peninsula EL application 2015/00113 and it is located west of our EL 4693 joint venture title (refer Figure 1 page 4).

CORPORATE

New Projects - projects involving minerals and energy other than uranium are being sought and evaluated as part of a diversification strategy.

Uranium industry - The uranium spot price remains steady around US\$36.00 per pound. In Japan, two nuclear plant restarts have been completed and more are underway subject to ongoing regulatory review. Plant construction and planning continues in China and India. Merger & transaction activity in the uranium sector was a feature.

Effective 29 October 2015 the Company's registered office and principal place of business become Ground Floor, 28 Greenhill Road WAYVILLE SA 5034.

FINANCE

A research and development refund of \$78,000 is outstanding.

Exploration expenditure for the period \$32,000. Cash position at the end of the period \$78,000 (debt \$100,000 convertible loan agreement, with \$200,000 undrawn on the facility – refer ASX 30 April 2015, unaudited).

Estimated expenditure for the December 2015 quarter is \$190,000.

ACTIVITIES

SAMPHIRE PROJECT, Blackbush deposit

Uranium mineralisation within the Blackbush deposit is predominantly contained in Eocene fluvial sediments. Within the Western Zone at Blackbush there are significant areas with thickness/grade attributes which are potentially within range of an open pit mining operation (ASX 24th October 2013, 28th October 2013). To investigate this possibility of a conventional mining operation an investigation of the metallurgical characteristics of the mineralised section is being conducted in conjunction with conceptualisation of open cut scenarios based on the existing 3D geological models.

Metallurgical appraisal. A geological re-appraisal of the metallurgical work completed for In-situ Recovery (ISR) investigations has been carried out. A range of data is available for samples of the SAND lithotypes from three cored drill holes. SAND is the descriptor given to the dominant Uranium bearing lithology / subdomain contributing to the published Blackbush deposit inferred resource. (refer ASX 27 Sept 2013).

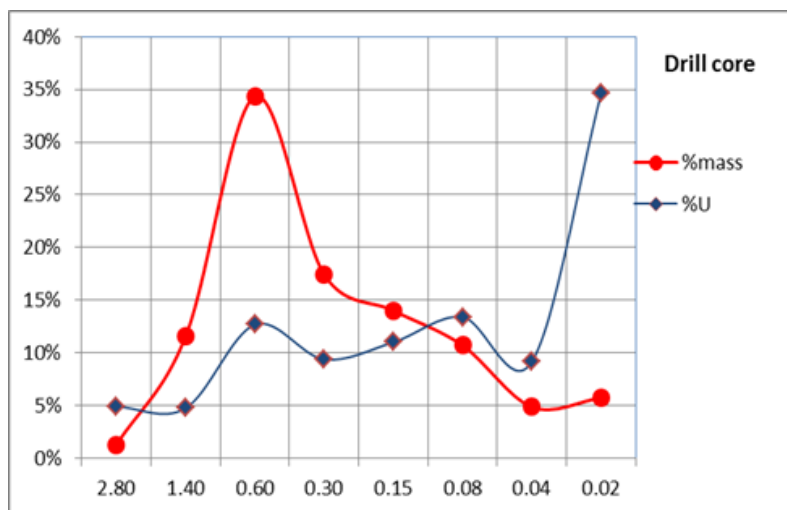
For a raw SAND lithotype material composited from these cores (average grade of 866ppm U₃O₈ or 734ppm U) the particle size and uranium grade distributions are:

	% mass	% uranium	U ₃ O ₈ ppm
raw material	100%	100%	866
>1.40mm (NOTE 1)	13%	10%	722 (173)
0.60 to 0.04mm	81%	56%	525
< 0.045mm	6%	35%	5,705

The source information for the above table is plotted in the figure to the right.

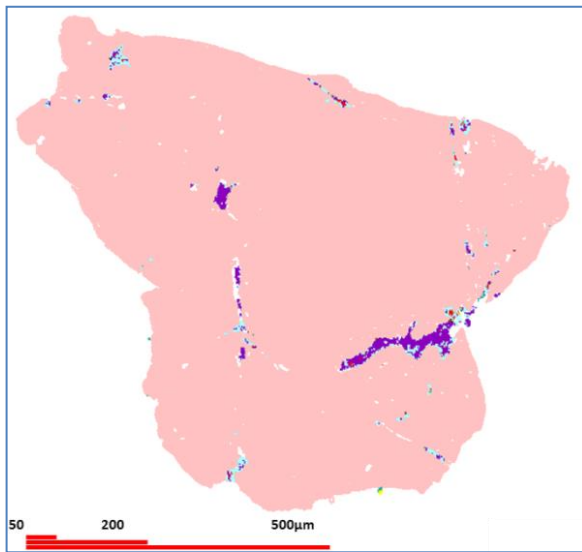
The mass and uranium distributions show that the relatively small mass of fine grained <0.045mm fraction has very high uranium grades and accounts for some 35% of the contained uranium.

Raw sample mass is strongly biased towards the coarser grain sizes.



(horizontal scale in table above is mesh size in millimetres)

NOTE 1. In the >140µm fraction uranium grade and % uranium is strongly biased by a single sample (MRC003, 11,808ppm U from <1% of the overall sample mass. Removing this outlier reduces the average raw grade to a more realistic 173ppm U. The sample has a very high Fe assay indicative of pyrite nodules, which are post-diagenetic and on occasion are uranium mineralised.



A geological appraisal of the available QEMSCAN imagery (**Q**uantitative **E**valuation of **M**inerals by **S**CANning electron microscopy) of the SAND lithotype samples shows they are highly angular, quartzose and quartzose-composites. They are sedimentologically immature and almost certainly eroded from the immediately adjacent Samphire granite basement which has very similar pre-cursor grain sizes, shapes and styles of primary uranium mineralisation.

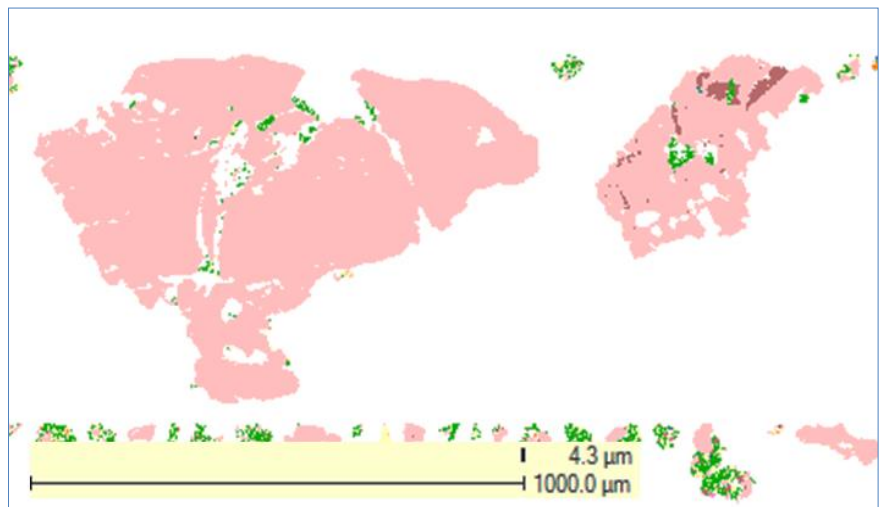
Single quartz grain (left) MRC001, composite sample 2.

bar scale is 500 μm.

An angular, internally fractured, quartz grain (pink tones) with uranium minerals along the internal fractures in association with a complex of uraninite, coffinite, REE (purple/red tones) associated with clay, chlorite, sulphide minerals (green/yellow tones).

Single grain image (right) extracted from composite QEMSCAN of SAND lithotype

Angular, complex composite quartzose grains (pink tones) with interstitial and fracture micas, clay (green tones), fine uranium in fractures, voids and interstitial to quartz (red/brown, blue tones).



On the basis of the information available at this time (and as summarised above), it is considered probable that mild physical attrition of the SAND lithotype (scrubbing, screening) will disaggregate these fractured and composite quartz grains, liberating significant uranium into a high-uranium fines fraction which could be directed for subsequent processing, and leaving a low-uranium quartzose fraction for disposal as tails.

This very positive beneficiation scenario remains a strong focus for the company.

EXPLORATION, Cleve Project ELA 2015/113 & ELA 2015/114

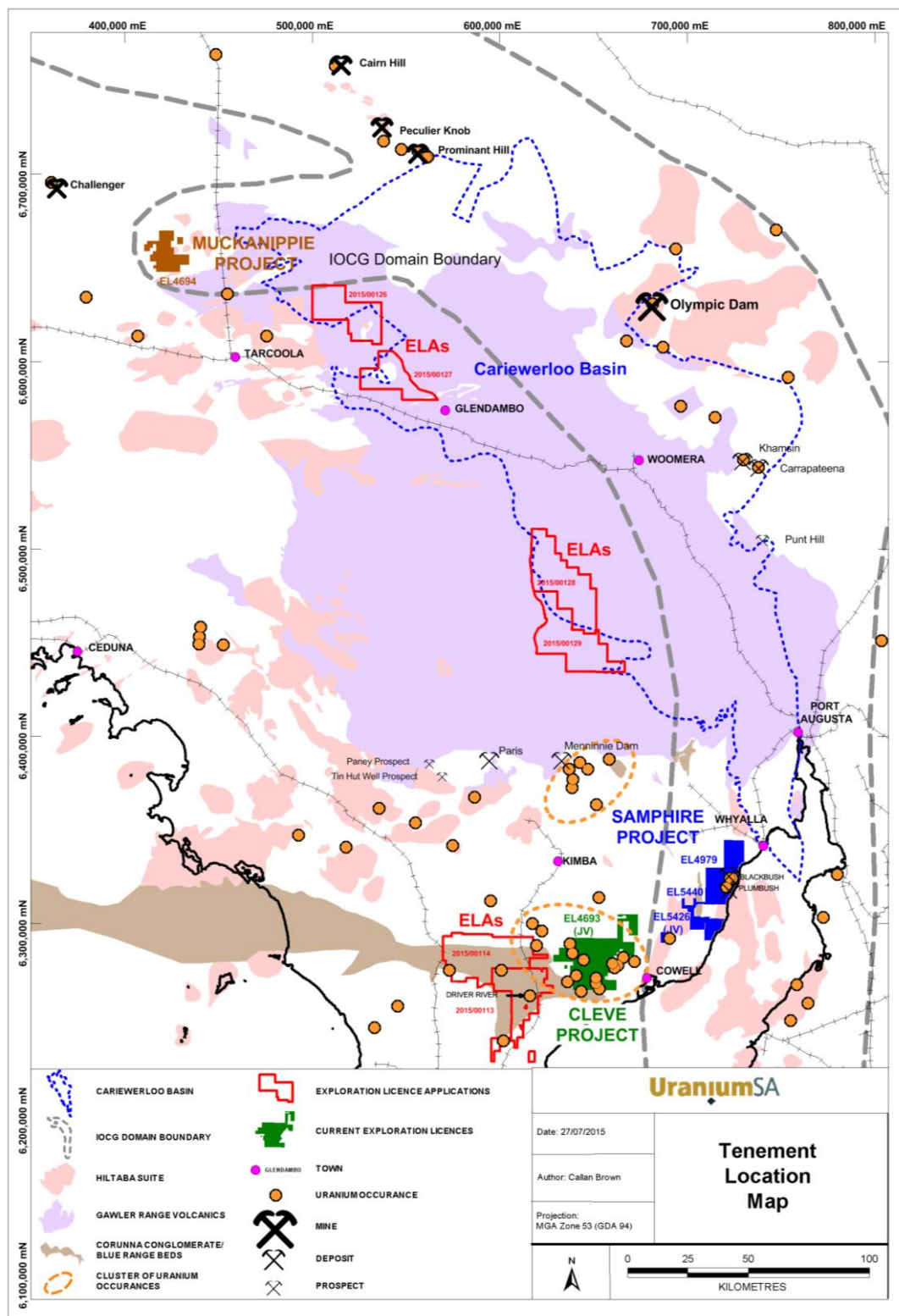


Figure 1: Map of central South Australia showing UraniumSA's existing tenements and new applications.

The two EL applications on Eyre Peninsula together with the existing EL 4693 comprise the Cleve project (refer Figure 1). The project covers areas where erosion of Paleoproterozoic Blue Range Beds/Corunna Conglomerate into basement has exposed the “Prospective Zone” across the unconformity – a position which has been the locus of a number of recent high grade discoveries in the Athabasca Basin. The district has numerous known uranium occurrences - the two applications west of Cowell have the Driver River radiometric anomalies as their exploration focus, and the Ben Buy and Boothby uranium prospects are within EL 4693.

Driver River Prospect.

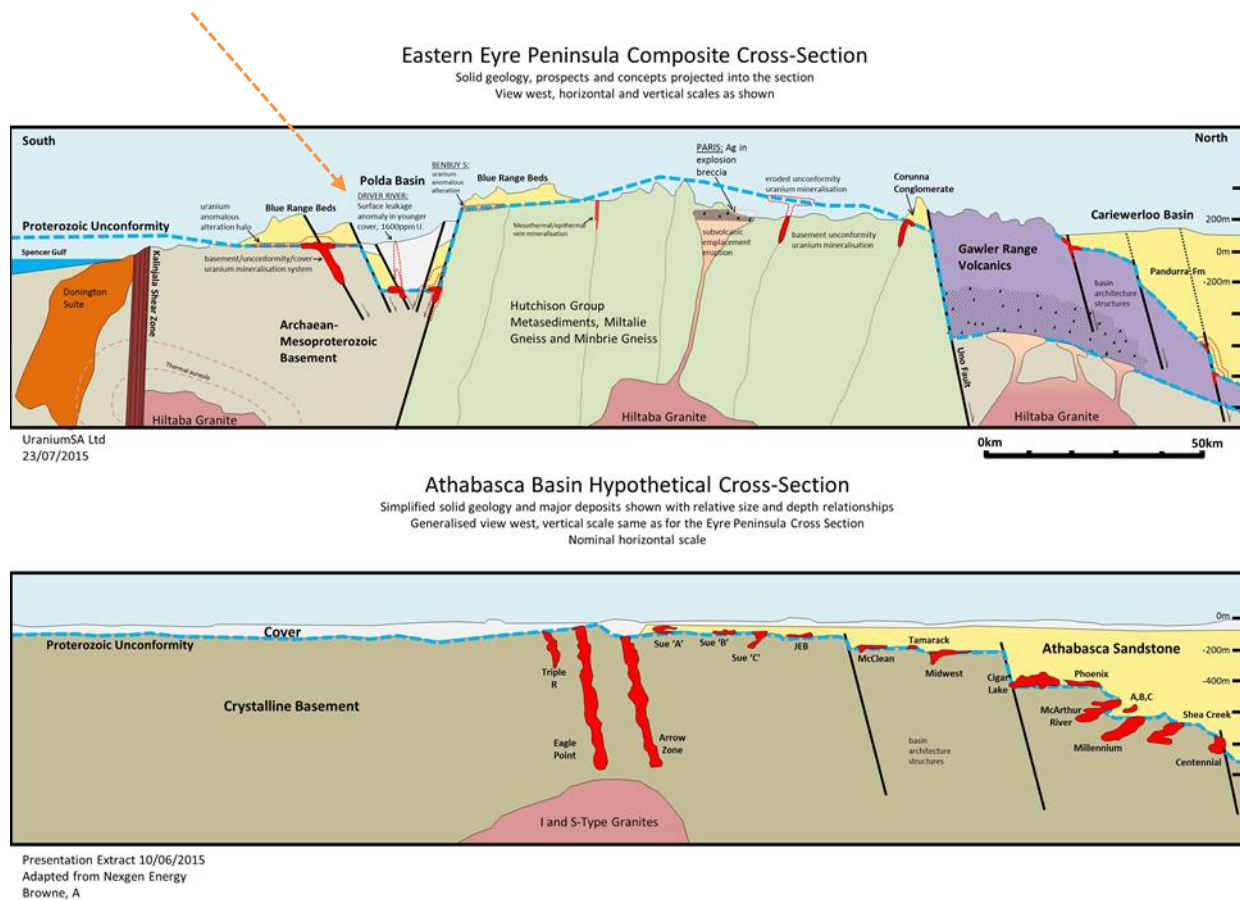


Figure 2: Composite N-S cross-section across the Gawler Craton South Australia highlighting the Proterozoic Unconformity and comparing it to a hypothetic cross-section of the Athabasca Basin and its uranium deposits and recent discoveries.

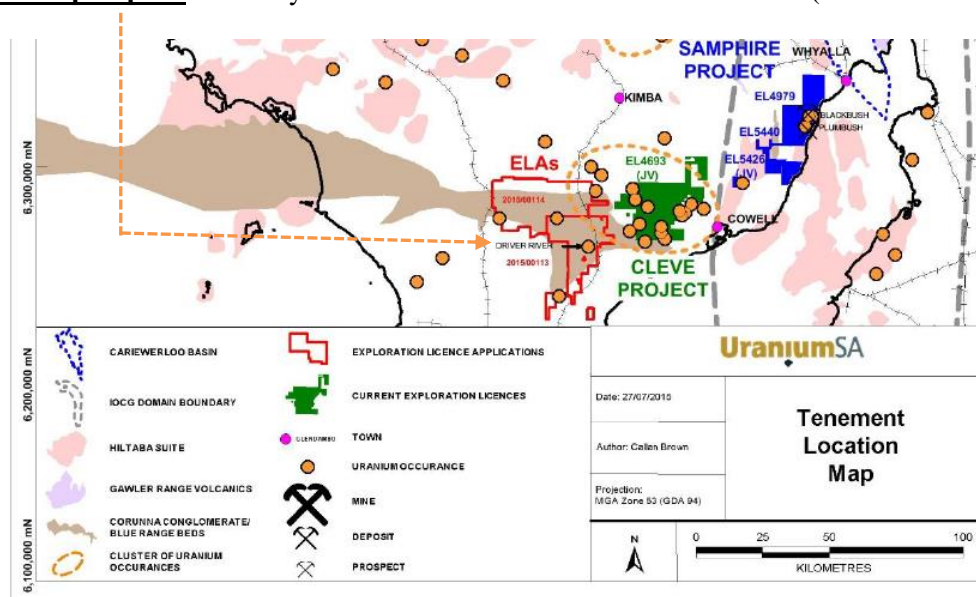
The **Driver River** radiometric anomaly within the application areas was discovered in 1954 during an airborne scintillometer survey flown by the South Australian Department of Mines which detected surface radiometric anomalies along the Driver and Dutton Rivers. Subsequent ground work determined that the airborne anomalies are confined to erosional exposures of hematitised Blue Range Beds within the drainages and sampling returned erratically anomalous uranium (maximum 1,600ppm U). Water sampling produced similarly erratic results with isolated stations reporting anomalous uranium and fluorine associated with Radium ²²³ (a daughter product of Uranium ²³⁵ which has a half-life of only 11 days) which together indicate a nearby basement source.

Since discovery in 1954 the area has been explored by Kerr-McGee, Pancontinental Mining, PNC Exploration, Afmeco, Oliver Geological Services/UraniumOne, and most recently by Cameco. These companies all commenced work acknowledging the clear potential of the Paleoproterozoic unconformity below the Driver River anomalies for classic styles of high grade uranium mineralisation. They carried out regional and targeted exploration including drilling, and all relinquished title for various reasons but without accounting for the source of the uranium or the localisation of the anomalies while continuing to acknowledge the prospectivity of the Paleoproterozoic unconformity.

Critically, despite the historic expenditure and given the size of the prospective areas, only one exploration drill hole has targeted and intersected the unconformity near the anomalies. This past work has generated a useful body of accumulated data which usefully delineates the prospective setting. However, there has been none of the detailed work which has been necessary for discovery in the Athabasca Basin (Canada) and Pine Creek (Australia).

UraniumSA is applying a systems model approach to its exploration, a methodology which has been spectacularly successful for NexGen Energy Limited (trading on the TSX Venture Exchange, code NXE, www.nexgenenergy.ca) in its exploration in the Athabasca Basin in Canada, and which UraniumSA has successfully used in its discovery of the Blackbush and Plumbush uranium deposits. The initial work on the Cleve project has involved Leapfrog 3D modelling of the geology from previous third party drilling (SARIG database) to infer extent and structural architecture of the Paleoproterozoic Blue Range Beds/Corunna Conglomerate. This modelling indicates the unconformity at the base of Paleoproterozoic is laterally extensive and dips shallowly to the north and west below the Poldas Basin.

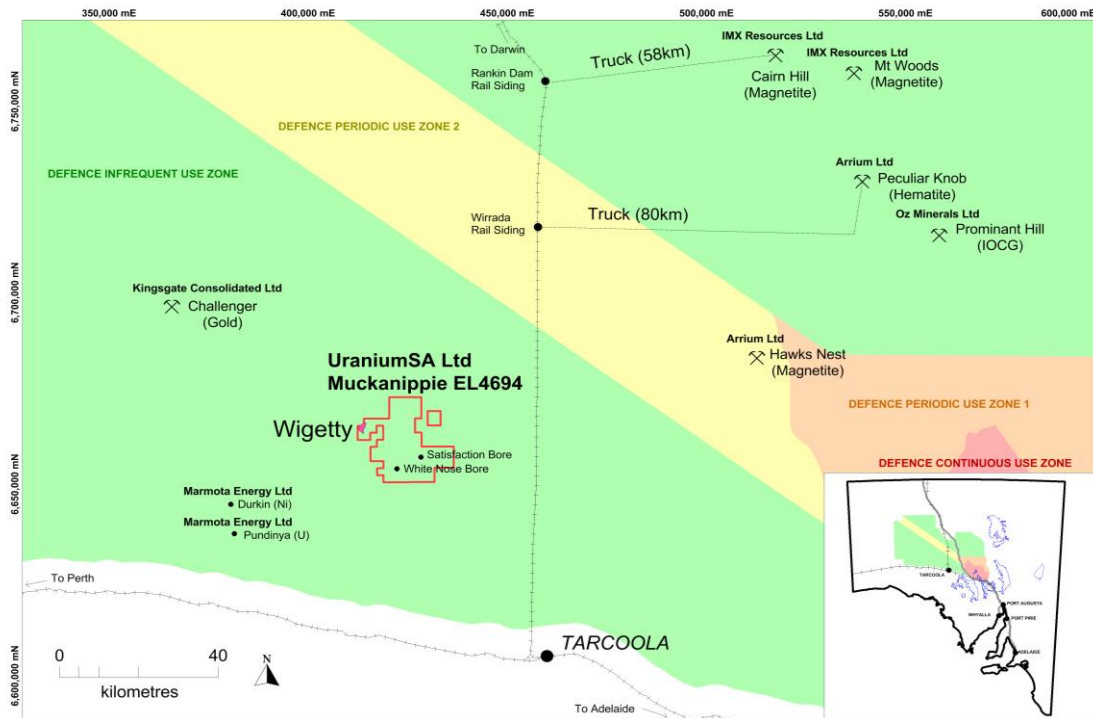
Driver River prospect – note: yellow dots are known Uranium occurrence (SARIC database)



Extract from Figure 1 above– focussing on Cleve Project titles

MUCKANIPPIE PROJECT

UraniumSA owns 100% of Exploration Licence 4694. No significant work was completed in the quarter. Identification of potential JV partners continued.



OTHER PROJECTS

CHARLESTON PROJECT – EL 5426 JV WESTERN BLOCK

Midgee western block of SRZ JV (Stellar Resources Ltd, USA earning 73% EL 5426). No work was completed during the quarter.

MURNINNIE PROJECT– EL 5440

No work was completed during the quarter.

WILD HORSE PLAIN – EL 4693 JV

USA 100% uranium, Archer Exploration Limited (ASX: AXE) 100% other minerals, EL 4693. Archer Exploration is continuing work on its graphite project.

The tenement is geologically contiguous with the Cleve project ELA's to the west. Much of the conceptual work carried out during the quarter is common to all of the tenements.

FORWARD WORK PROGRAM TO END DECEMBER 2015

SAMPHIRE PROJECT

Work will continue on the investigation of metallurgical beneficiation of the major lithotypes of the Blackbush deposit. The available core materials will be assessed to determine if there is sufficient material for targeted test work. Work on the collection of additional data and conceptualisation of open pit scenarios will continue.

MUCKANIPPIE PROJECT

Identification of potential joint venture partners to explore the Muckanippie Layered Mafic Complex for base and precious metals will continue.

OTHER PROJECTS

Murninnie project

Desktop analysis of the geology, geophysics and metal anomalous rock chip samples planned.

Charleston project

No work is planned

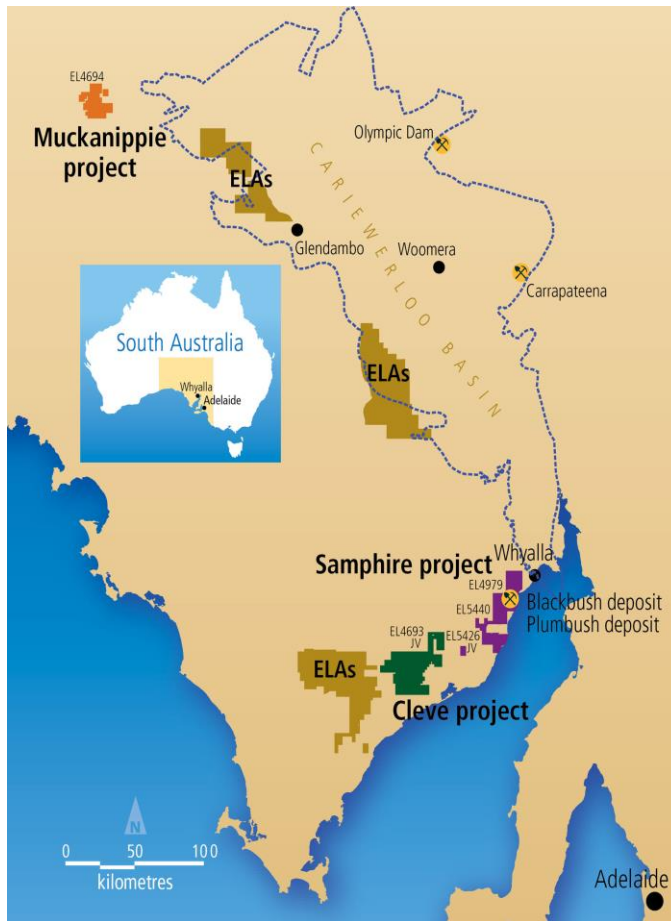
Wild Horse Plains (Cleve) project, eastern Eyre Peninsula

Archer Exploration will be continuing work on its projects within the tenement.

UraniumSA will continue a re-appraisal of the Ben Buy South and the Boothby prospects in the context of our work on the Uranium prospectivity associated with Paleoproterozoic unconformity at the base of the Blue Range Beds.

The application for two exploration licences to the west of EL 4693 and the historic uranium occurrences in the area identified on Figure 1 presents a strategic and strong case for focus on unconformity uranium occurrences discussed above.

About UraniumSA Limited



UraniumSA is an Adelaide based explorer specialising in uranium mineralisation within a substantial portfolio of properties in South Australia's Gawler Craton.

The Company has discovered sediment hosted uranium mineralisation within Exploration Licence 4979, Samphire, which is located 20km south of the industrial city of Whyalla on the eastern Eyre Peninsula in South Australia. The exploration Licence is owned and operated by Samphire Uranium Pty Ltd, a wholly owned subsidiary of UraniumSA Limited.

The Samphire project contains the:

Blackbush deposit with an estimated inferred resource 64.5 million tonnes of mineralisation at a bulk grade of 230ppm containing 14,850 tonnes U_3O_8 at a 100ppm eU_3O_8 cut-off grade (JORC 2012).

Plumbush deposit with an estimated inferred resource 21.8 million tonnes of mineralisation at a bulk grade of 292ppm containing 6,300 tonnes U_3O_8 at a 100ppm eU_3O_8 cut-off grade (JORC 2004).

The estimated mineralisation is predominantly sediment hosted in Eocene age Kanaka Beds. Exploration has discovered uranium mineralisation in other geological settings and exploration is continuing.

Application for a Retention Lease over MC 4280 for an in-situ recovery field trial at the Blackbush deposit remains.

Through its own tenure and by joint venture UraniumSA has exploration control over what it considers the most prospective portions of the Pirie Basin. The Board has continued its diversification of UraniumSA's exploration efforts into commodities and opportunities other than uranium. Work on the Blackbush deposit within the Samphire project will continue at a rate which reflects the current global uranium market, production opportunities and investor sentiment.

David Paterson
Acting Chief Executive Officer
UraniumSA Limited

The exploration results mineral resources reported herein, insofar as they relate to mineralisation, are based on information compiled by Mr Russel Bluck a Director 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, 2012 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.