

# ASX ACTIVITIES REPORT

3 months ended:  
**31 December 2014**

## 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  
Blackbush MC 4280  
Murninnie EL 5440  
Wild Horse Plains EL 4693  
Muckanippie EL 4694

## ISSUED CAPITAL

30 January 2015  
Shares on Issue: 181,171,038  
Quoted shares: 181,171,038  
Unlisted Options: 16,800,000

## INVESTOR INQUIRIES

[executive@uraniumsa.com.au](mailto:executive@uraniumsa.com.au)

**Inquiries regarding this report  
and company business may be  
directed to:**

**David Paterson – Acting CEO**  
**+61 8 8132 0577**  
**+61 417 823 654**

## VISIT OUR WEBSITE

[www.uraniumsa.com.au](http://www.uraniumsa.com.au)



## SAMPHIRE PROJECT

**Samphire project** located south of Whyalla on the Eyre Peninsula in South Australia was the focus of all geotechnical and metallurgical work for the quarter. This work was summarised in an ASX release dated 19 November 2014 and it is ongoing.

The strategy for 2015 is to :

- Determine the potential for high grade basement hosted uranium mineralisation.
- Increase the bulk grade of sediment hosted mineralisation at Blackbush West.
- Further develop the exploration opportunity seeking large tonnage uranium targets within the Samphire granite.

## CORPORATE

**Share & option issues** - following approvals at the November Annual General Meeting two tranches of shares (5,785,172 & 1,111,110 shares respectively) have been issued to directors in lieu of cash fees. The company now has 181,171,038 ordinary shares on issue. 650,000 unlisted options (exercise price \$0.06, expiry 25 November 2017) were issued to non-director staff members under the Company's Share Option Plan.

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

**Annual General Meeting** – held in Adelaide Friday 21 November 2014 – all resolutions passed unanimously.

**Updated Corporate Statistics** – provided in Appendix 1.

## FINANCE

Exploration expenditure for the period \$70,000. Cash position at the end of the period \$0.211m (no debt, unaudited). Estimated expenditure for the March 2015 quarter is \$56,000.

## **ACTIVITIES**

### **SAMPHIRE PROJECT**

#### **EXPLORATION TARGETING**

Work continued on the identification of drillable targets for high grade mineralisation within the Western Zone at Blackbush. A strategy update summarising this work was released to the ASX on 19 November 2014. Work in 2015 will focus on:

1. Determining the potential for high grade basement hosted uranium mineralisation below the Blackbush West portion at Blackbush. If successful, this work could transform the economic potential of the deposit. Two exploration holes are proposed to investigate the controls on mineralisation in basement below known high grade zones at the unconformity.
2. Increasing the bulk grade of the drilled out high grade sediment-hosted mineralisation at the unconformity by targeted in-fill pattern drilling. This work has a high probability of success and is expected to lead to a significant improvement in the tonnage/grade data for the Blackbush West portion of the Blackbush deposit.
3. Pursuing the exploration opportunity for the discovery of large tonnage uranium targets within the Samphire granite.

#### **1. Mineralisation in basement**

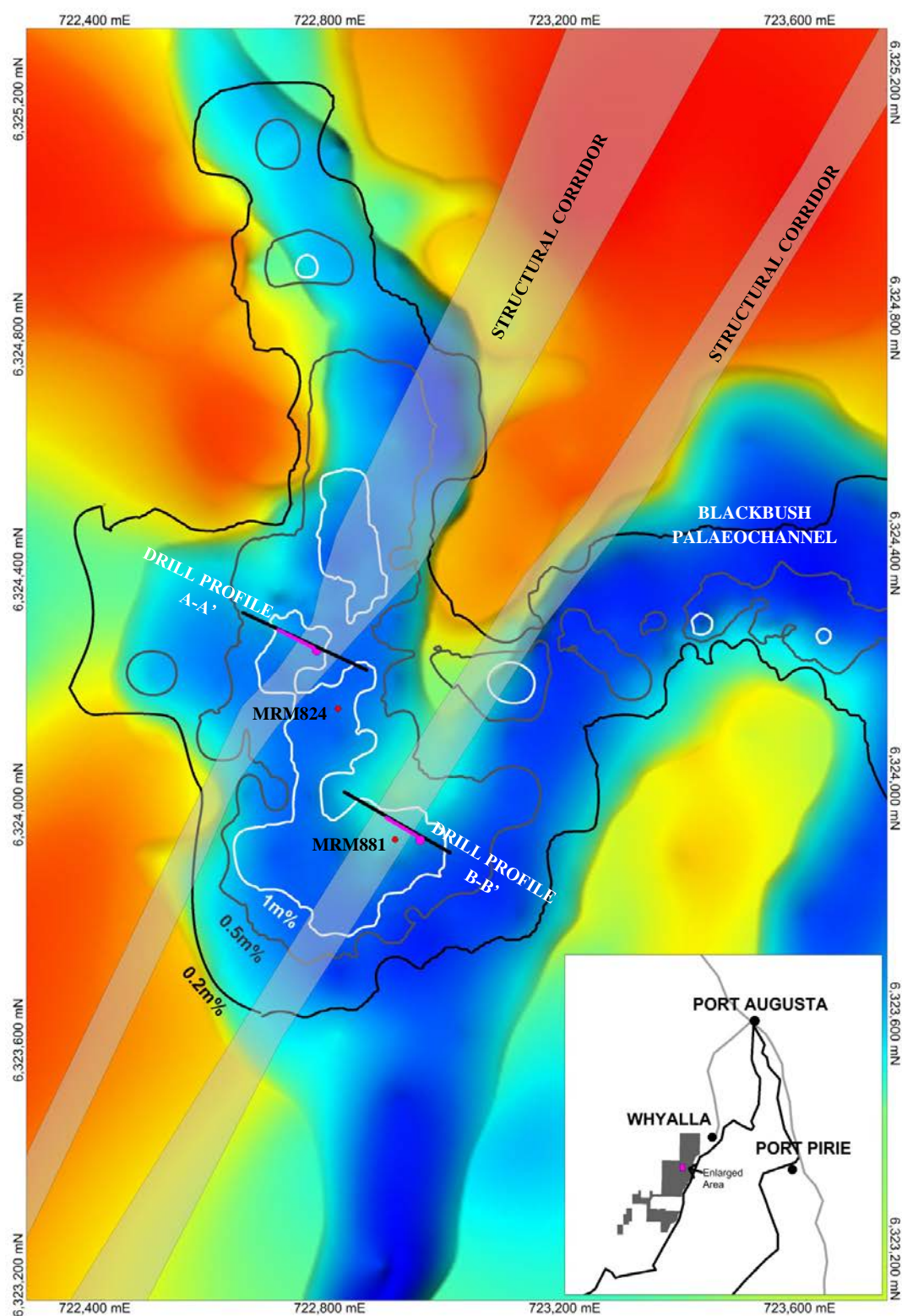
UraniumSA's geological systems modelling of the Blackbush mineralisation indicates there is clear potential for the discovery of high grade mineralisation (>1% U<sub>3</sub>O<sub>8</sub>) within basement below the basal unconformity in the Western Zone (ASX 24 July 2014). Ongoing interpretation and modelling continues to map out alteration/structural settings in basement below the mineralised unconformity. The geological model indicates these are feeder structures for the unconformity mineralisation and they may themselves contain high grade material.

A design for two drill holes to test the conceptual model at Blackbush comprises an initial two 150 metre inclined drill holes (dip -60°, azimuth northwest) with core collection from 75 metres. The drill holes are targeted into areas which have high grade mineralisation within Eocene sediments at the Eocene unconformity, where the underlying granite basement is significantly uranium mineralised or enriched with recognisable hydrothermal/epithermal alteration, and lying within north-east trending structural corridors.

The attached Figure 1 shows the location of the proposed drill holes within the Blackbush West portion of the Blackbush deposit and in relation to the drilled out envelopes of >1m% uranium mineralisation.

The attached Figures 2 and 3 show interpretive cross sections and targeting objectives for each proposed drill hole.

**Figure 1.** Blackbush West, Blackbush deposit, showing the location of proposed drill holes (purple trace) and holes referenced in the text (red dots).



*The image is an elevation model of the basal Eocene unconformity. Contours are of uranium mineralisation meter thickness x grade percent.*

Figure 2. Profile A – A'

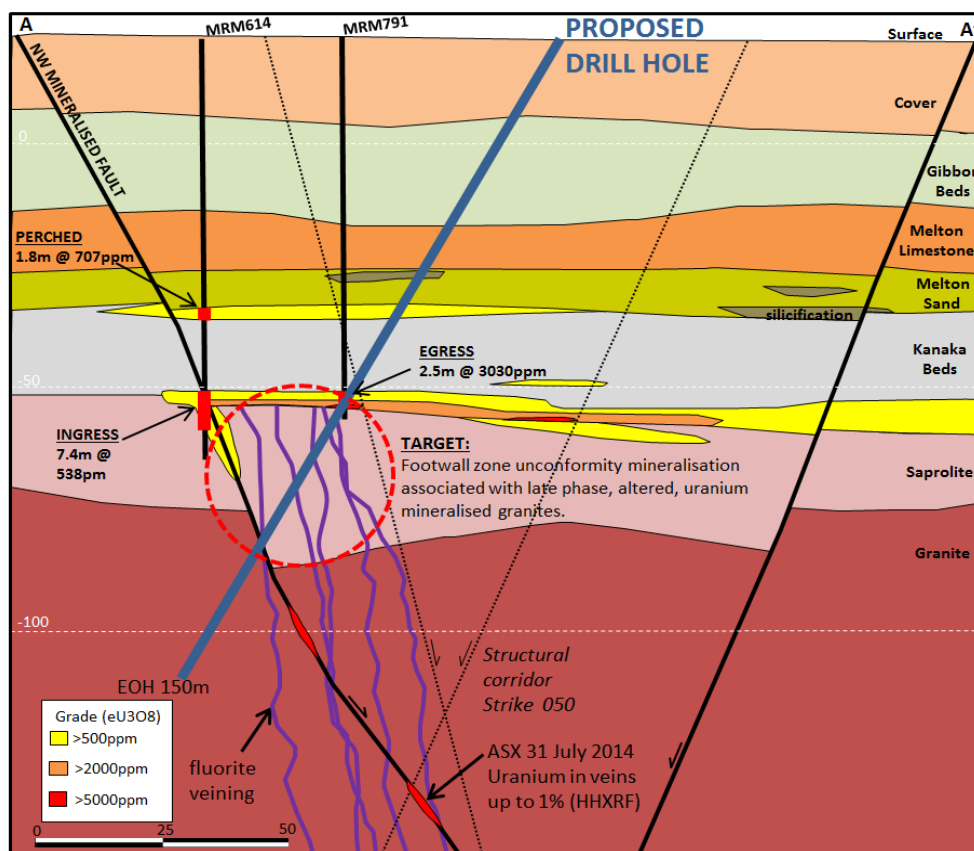
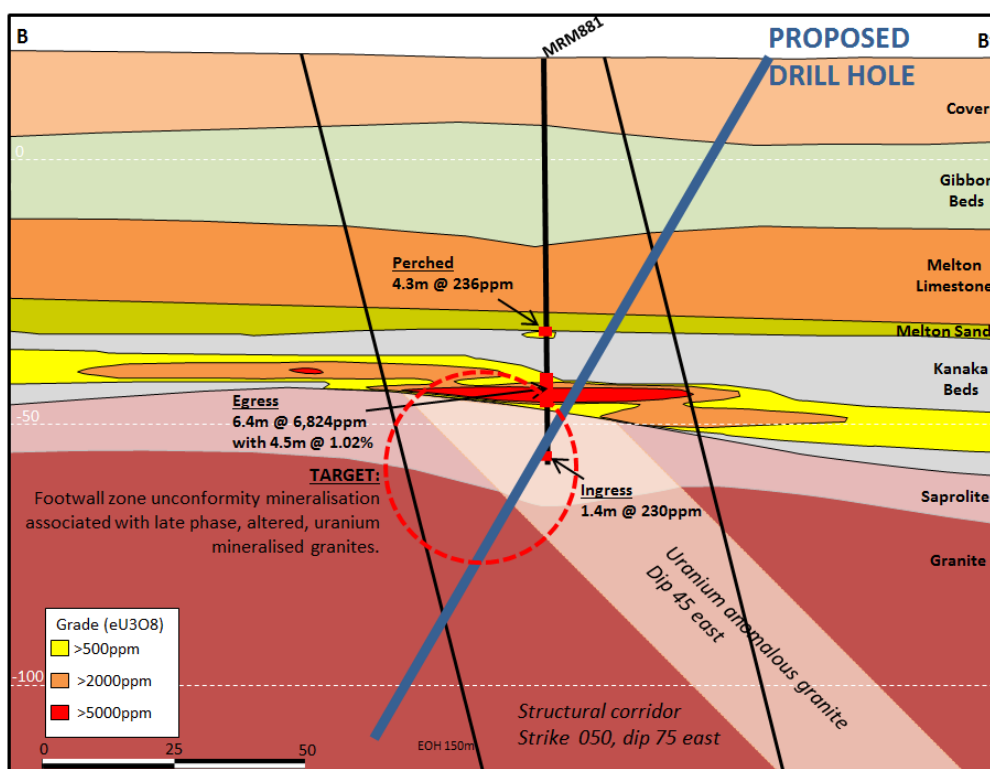


Figure 3. Profile B – B'



## 2. Sediment hosted mineralisation

The best grades and thickness of sediment hosted mineralisation at Blackbush are located within the Western Zone. Predictive geological models for the distribution of this mineralisation have been developed (ASX 21 March 2012) and repeatedly validated by drilling (ASX 18 April 2012; 15 and 29 May 2012; 25 July 2012; 22 August 2012). Targeted gravity surveying and detailed data manipulation has also been used to map areas of uranium mineralisation (ASX 24 October 2013).

The strongest leverage on bulk grade improvement will come from drilling these targets in the expectation of repetitions of holes such as MRM 824 which intersected 25m at 1,570ppm eU<sub>3</sub>O<sub>8</sub> (at 100ppm cut-off) from 52m, including 8.3m at 4,300ppm or 0.43% eU<sub>3</sub>O<sub>8</sub> (at 500ppm cut-off), ASX 24 October 2013.

Improving the average grade and thickness of the envelope of sediment hosted mineralisation through the Western Zone will significantly contribute to objective b) above. This will involve the staged completion of:

- i. 50m infill drilling to define and extend the limits of 1m% mineralisation (presently estimated at ~1,000m of strike within an ~1,250m envelope of 0.5m%).
- ii. 25m centre infill drilling to follow-up unusually high grade intercepts (such as are known from MRM881 26m at 0.19% eU<sub>3</sub>O<sub>8</sub> including 4.5m at 1.02% eU<sub>3</sub>O<sub>8</sub>, ASX 24 July 2014).

## 3. Samphire granite

The ultimate source of the uranium in the sediment hosted Blackbush and Plumbush deposits is the underlying Samphire granite. There is ubiquitous uranium anomalism throughout the granite and this high background is a critical component of the “systems models” which are being used in the targeting for unconformity uranium mineralisation at Blackbush West. The Samphire granite has potential for the discovery of large tonnage hard rock uranium mineralisation.

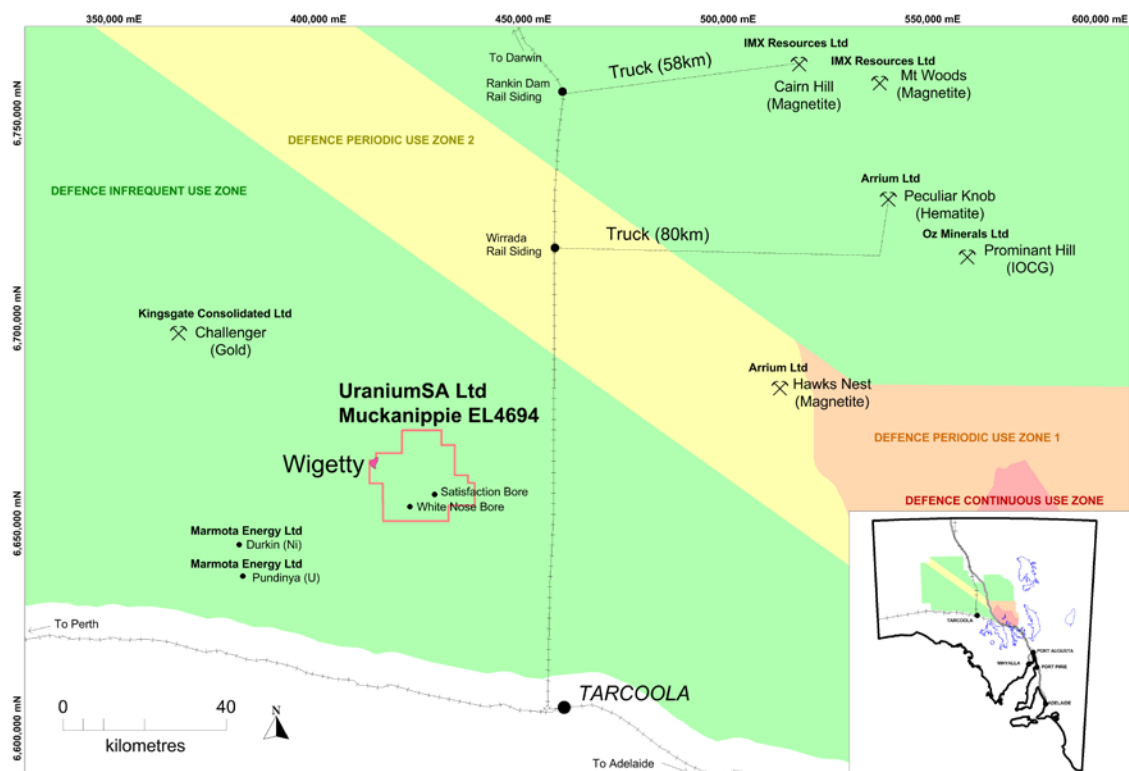
As granites are emplaced into the ground, the magma from which they are derived can become progressively richer in hydrous metal rich phases. The exploration possibility is that in the Samphire granite this process has resulted in the fractionation of bodies at potentially economic grades and tonnages. The requirements for the formation of such fractionates is extensively discussed in the literature and UraniumSA has been steadily working to establish that such an opportunity does exist within the Samphire granite. Work to date is described in our ASX release 19 Nov 2014 pp 7 – 13.

## METALLURGY - SAMPHIRE PROJECT

Metallurgical assessment continued in conjunction with our commercial partners Lanxess and CleanTeQ. The main focus was on the completed laboratory lock cycle test work. Efforts will continue to fund this work from external relationships and sources.

## 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 WESTERN BLOCK

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

### MURNINNIE PROJECT– EL 5440

- No significant work was completed during the Quarter.

### WILD HORSE PLAIN – EL 4693

- USA 100% uranium, Archer Exploration Limited (ASX: AXE) 100% other minerals, EL 4693.

- Archer Exploration is continuing work on its graphite project. No work was done by UraniumSA on the title.
- During the quarter UraniumSA agreed to transfer this title to Archer Exploration (ASX 13 Nov 2014). UraniumSA retains its rights to explore and develop uranium deposits within the title. Its position is effectively unchanged.

## **FORWARD WORK PROGRAM TO END MARCH 2015**

### **SAMPHIRE PROJECT**

- Targeting for future drilling to provide geological, metallurgical and engineering data on the known high grade mineralisation within the Western Zone, Blackbush.
- Development of drillable exploration targets for mineralisation within the Samphire granite.
- Continuation of the metallurgical program in conjunction with our strategic partners as funding permits.
- Ongoing discussions with the landowners aimed at a resolution of access issues for follow up exploration of the Plumbush deposit (held in JV with Stellar Resources Limited, ASX: SRZ). Wardens Court hearing adjourned to 10 March 2015.

### **MUCKANIPPIE PROJECT**

Identification of potential joint venture partners will continue in the current quarter.

### **OTHER PROJECTS**

#### **Murninnie project**

- Review of exploration data sets covering the title.
- Land owner contact and preparation for geological mapping and rock chip and soil sampling.

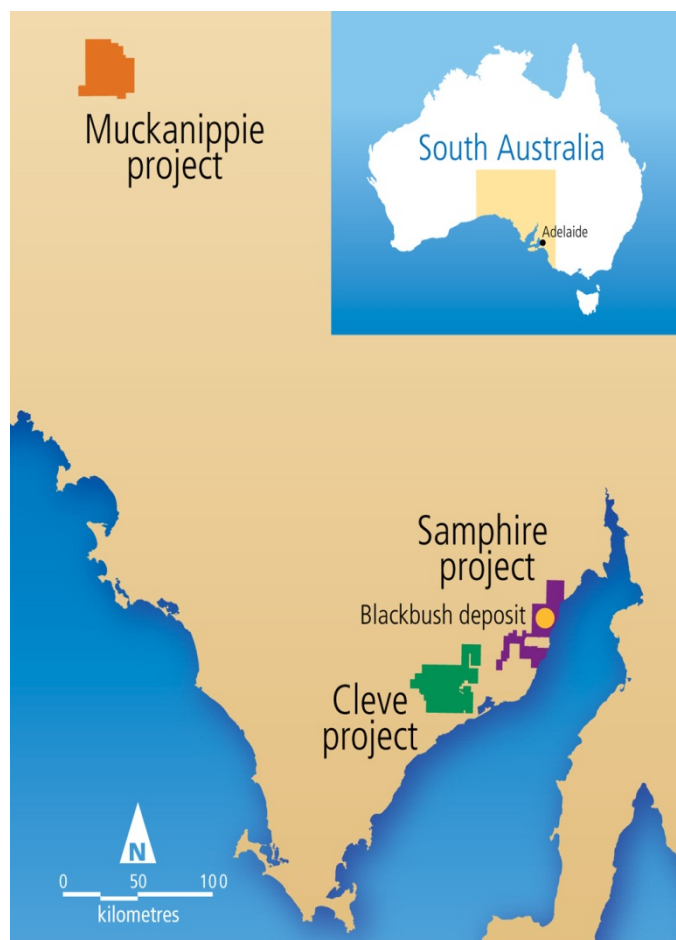
#### **Charleston project**

- No work scheduled.

#### **Wild Horse Plains (Cleve) project, eastern Eyre Peninsula**

- Archer Exploration will be continuing work on its project. No work is planned by UraniumSA.

## 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).

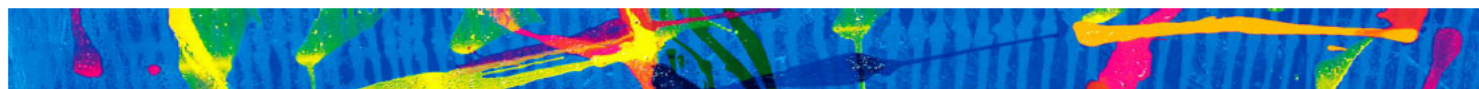
The estimated mineralisation is predominantly sediment hosted in Eocene age Kanaka Beds. Exploration has discovered uranium mineralisation in other geological settings and exploration is continuing.

An evaluation of mining methods to optimise the recovery of uranium from the identified resources of mineralisation 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.*



## UraniumSA Limited - Corporate Statistics - Jan 2015

### Issued Securities

181.17m ordinary shares  
16.80m unlisted options  
inc. 6.2m directors options

#### Option summary

5.0 m (\$0.06 - April 2016)  
4.0 m (\$0.06 - Sept 2016)  
0.65 m (\$0.06 - Nov 2017)  
7.15 m (\$0.20 - Feb 15 to Oct 16)

### Market Cap

\$3.60 m (@ \$0.020)  
(2014 range \$5.9m - \$2.4m)

### 2015 trading range

\$0.02 high \$0.017 low

### 2014 trading range

\$0.034 high \$0.014 low

### 2013 trading range

\$0.071 high \$0.021 low

### Shareholder statistics

Total 1816  
Top 20 = 50.37 % Top 50 = 62.66%  
Directors = 8.77 %

### Top 20 shareholders as at 21 Jan 2015

1	MR LINDSAY MURRAY CARTHEW <LMCFT A/C>	25,759,419	14.22
2	MOTTE & BAILEY PTY LTD <BAILEY SUPER FUND A/C>	8,101,845	4.47
3	MR DENNIS JUN TOW	7,540,000	4.16
4	J P MORGAN NOMINEES AUSTRALIA LIMITED	6,887,038	3.80
5	HSBC CUSTODY NOMINEES (AUSTRALIA) LIMITED - A/C 3	6,089,674	3.36
6	BLUCK HOLDINGS PTY LTD <BLUCK HOLDINGS S/F A/C>	5,923,015	3.27
7	HILTABA GOLD PTY LTD	3,888,238	2.15
8	MS ALICE MCCLEARY	3,814,910	2.11
9	MONEX BOOM SECURITIES (HK) LTD <CLIENTS ACCOUNT>	2,671,021	1.47
10	MR BEDE LANCE RAMAH	2,660,158	1.47
11	MR LUKE WILLIAM WRIGHT RIDHALGH	2,500,000	1.38
12	MR DAVID ALASTER PATERSON	2,351,434	1.30
13	MUTUAL TRUST PTY LTD	2,310,500	1.28
14	MARTIN SIMON JANES + ADRIENNE FRANCES JANES	2,000,000	1.10
15	SUNRISE WA PTY LTD	1,900,000	1.05
16	M & K KORKIDAS PTY LTD <M&K KORKIDAS P/L S/FUND A/C>	1,557,022	0.86
17	MR MEOW SENG LEE	1,398,595	0.77
18	CITICORP NOMINEES PTY LIMITED	1,353,298	0.75
19	MS ALICE MCCLEARY + MR BRIAN JOHN MCCLEARY	1,299,546	0.72
20	MR GREGORY JOHN CONNOR +	1,250,000	0.69
		<b>91,255,713</b>	<b>50.38</b>

### Directors

Alice McCleary (Independent Non-Exec. Chairman)  
David Paterson (Executive Director & Acting CEO)  
Russel Bluck (Executive Director)  
Martin Janes (Independent Non-Exec. Director)