

**Uranium**SA

## **Mullaquana and the Blackbush Prospect**

**Growing the Asset Base and Advancing towards Development  
Broker and Investor Presentation 7<sup>th</sup> – 8<sup>th</sup> October 2010**

**Russel Bluck - Managing Director**

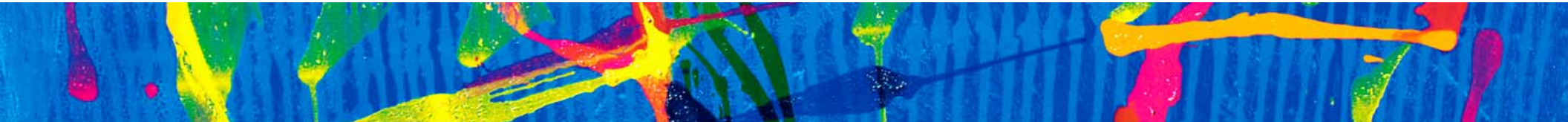


## Disclaimer

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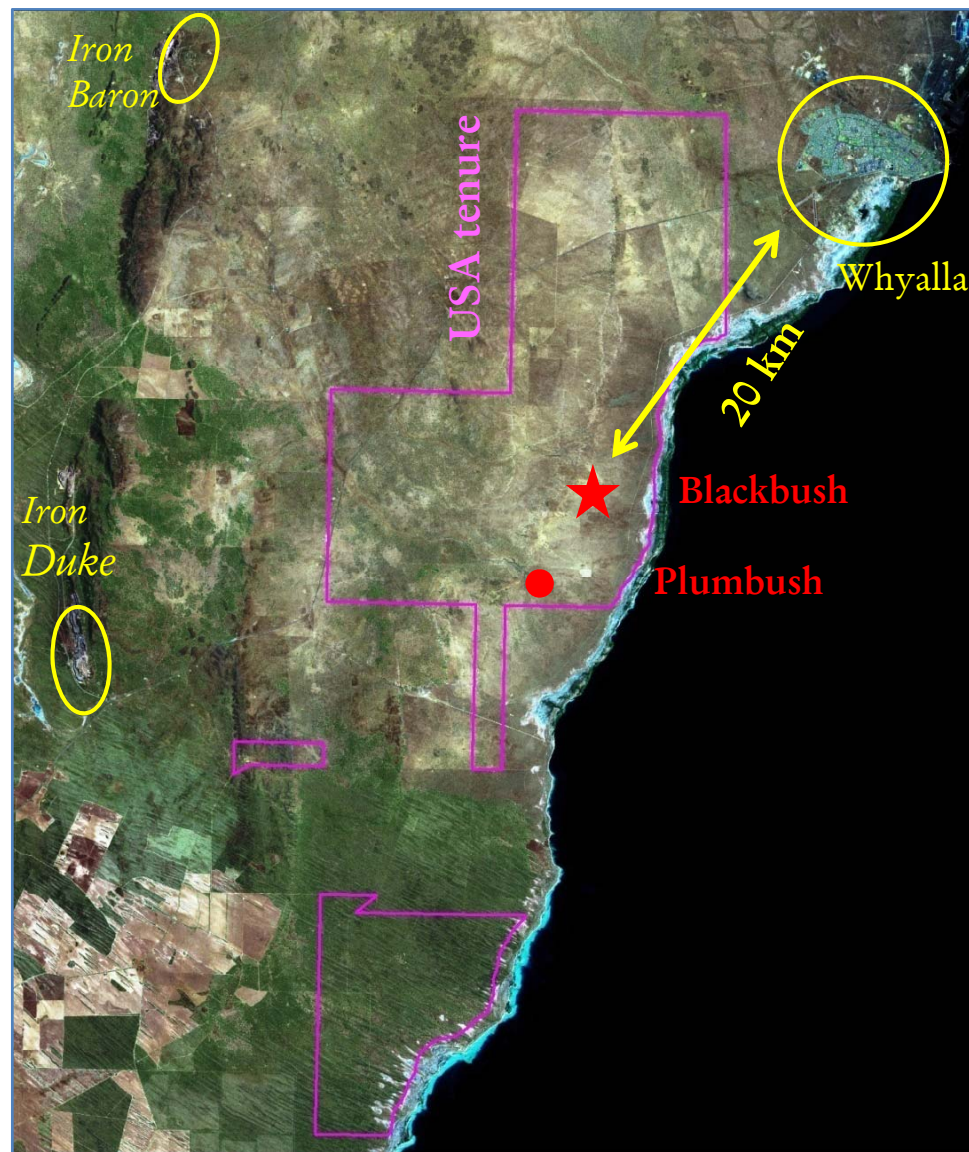
*The results reported herein, insofar as they relate to mineralisation, are based on information compiled by Russel Bluck who is a Member of the Australian Institute of Geoscience and an employee of UraniumSA Limited with sufficient experience relevant to the style of mineralisation and type of deposits being considered and to the activity which is being reported 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). He consents to the inclusion in the report of matters based on his information in the form and context in which it appears.*



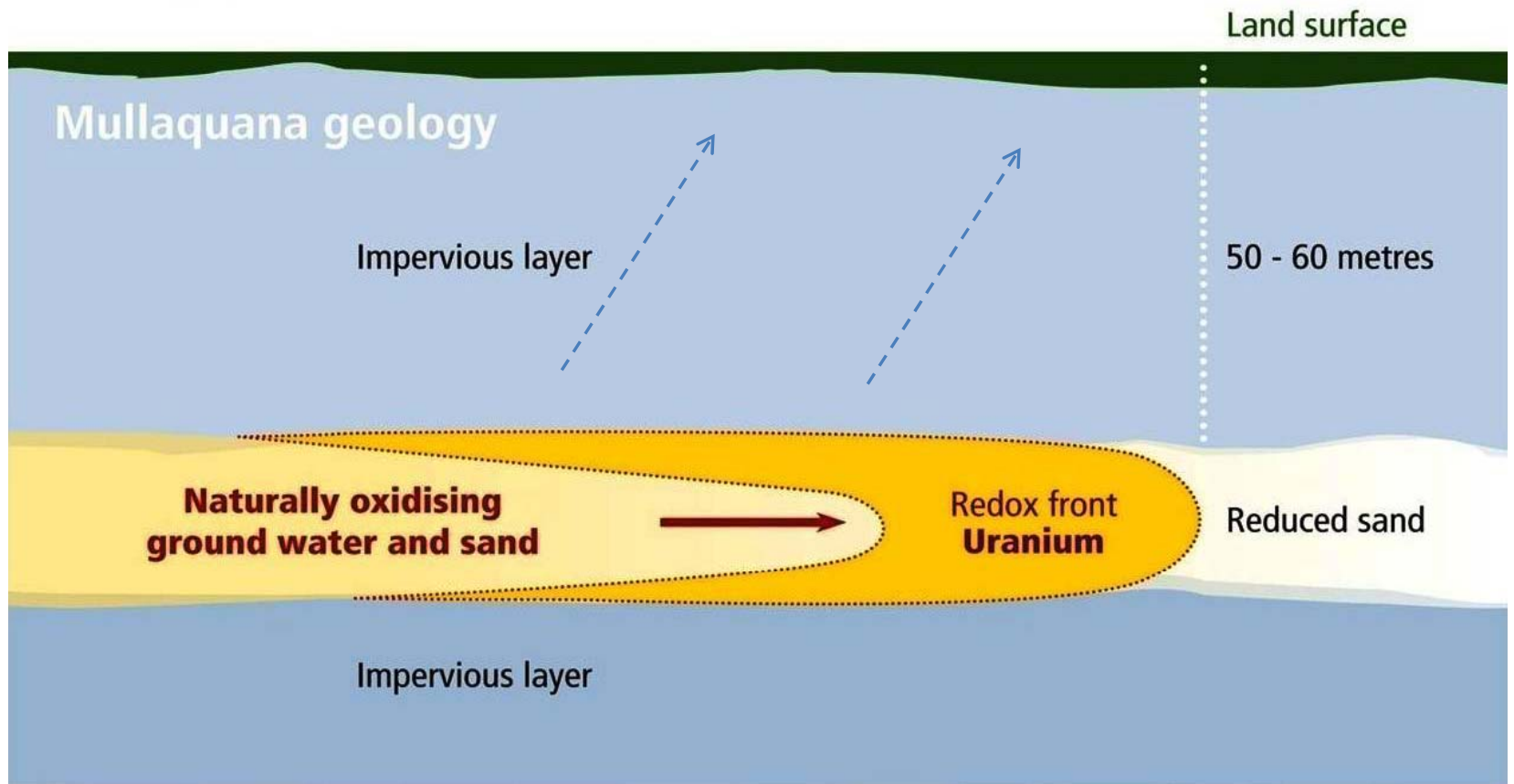
## Overview

- UraniumSA Limited ASX code USA
- ~ 111m shares
- top 20 shareholders ~ 31%
- largest shareholder ~ 4.5%
  
- a uranium-only exploration and development company
- working only in South Australia on in-situ recoverable uranium
  
- Mullaquana is a greenfield discovery of sediment hosted uranium
- first in Australia since Kintyre in WA in 1986
- Inferred Mineral Resource of 38.7Mt containing 10,400t U<sub>3</sub>O<sub>8</sub> (22.9 million pounds)
- uranium mineralisation is uraninite and coffinite
- bottle rolls show good dissolution rates - ~90% in ~48 hours
- scheduling to commence field trials for ISR mid 2011
- exploration objective of 20,000t U<sub>3</sub>O<sub>8</sub> by end 2010 first quarter 2011

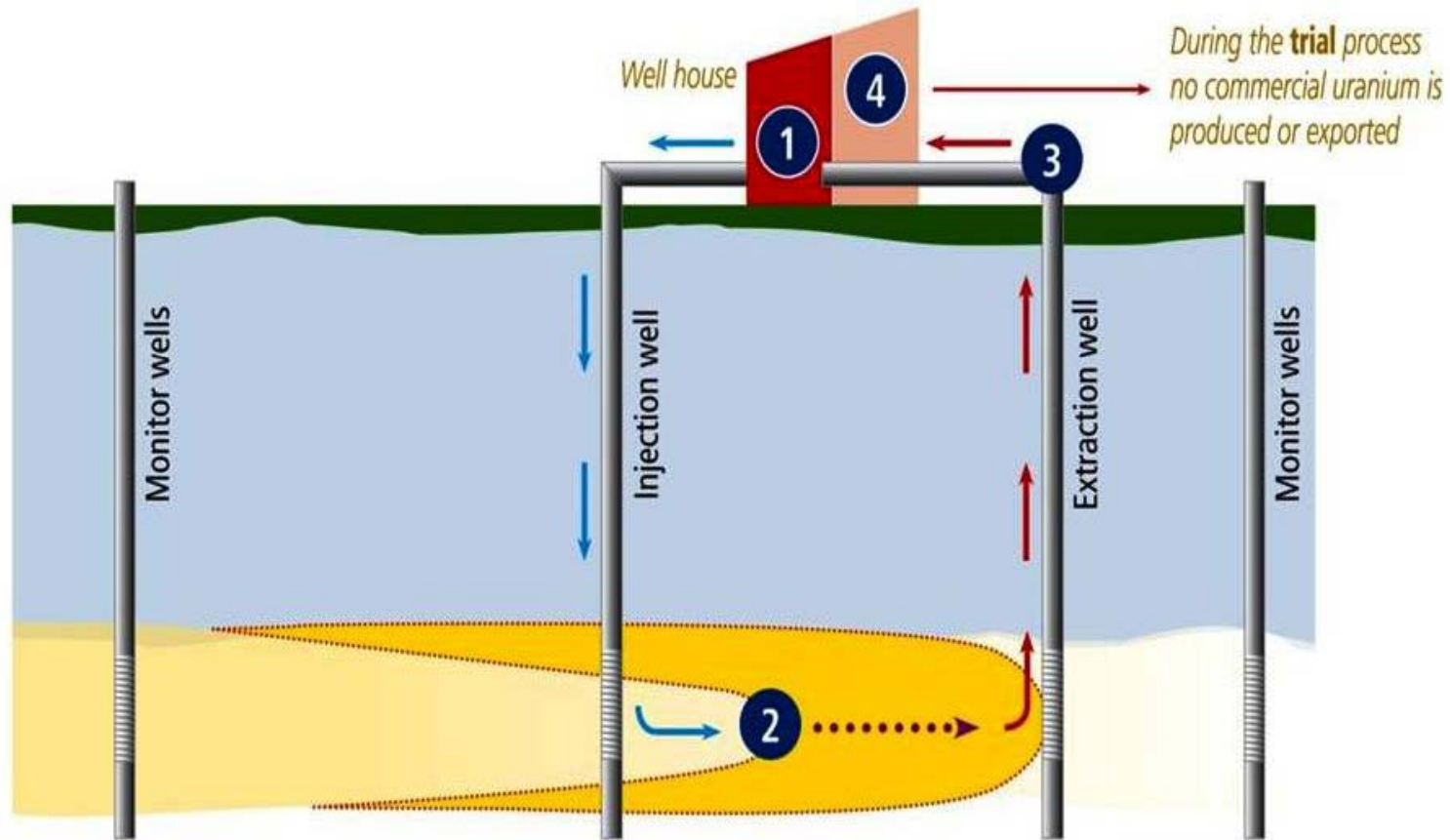
# Mullaquana - positioned for infrastructure



# In Situ Recovery – what does it need to work ?



## In Situ Recovery – how does it work?

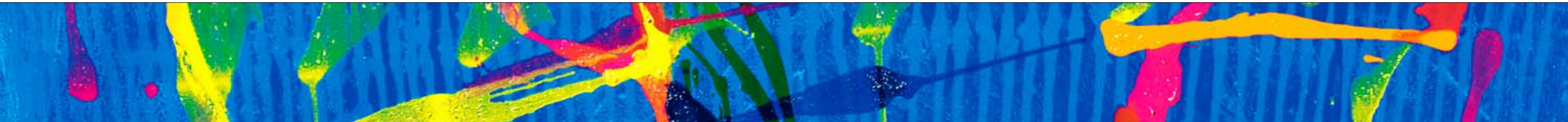


1 Natural water is modified and pumped into the ground from the Well house

2 Uranium dissolves

3 The Uranium solution is drawn up through the extraction well back to the Well house. The Uranium is extracted and the water is reclaimed for circulation

4 The plant precipitates, dries and drums the yellowcake (Uranium)



## In Situ Recovery – *what are the advantages of ISR?*

- low capital cost – range per 100tpa production (200,000lb) ~ \$9.5m (Aust) to ~\$7.5m (USA)
- low operating costs – internationally range between <\$20/lb to >\$35/lb
- manageable legacy issues
  - extracted aquifers stabilised
  - well fields decommissioned
  - surface plant removed
  - site re-vegetated
- smallest environmental footprint of all mining methods
  - no traditional mine openings
  - pipes and pumps, no mining trucks and haul roads
  - no waste dumps or tailings dam, everything stays in the ground
- established technology – all production in USA and Kazakhstan is ISR

# Mullaquana Project - Blackbush Prospect

*inferred mineral resource estimate*

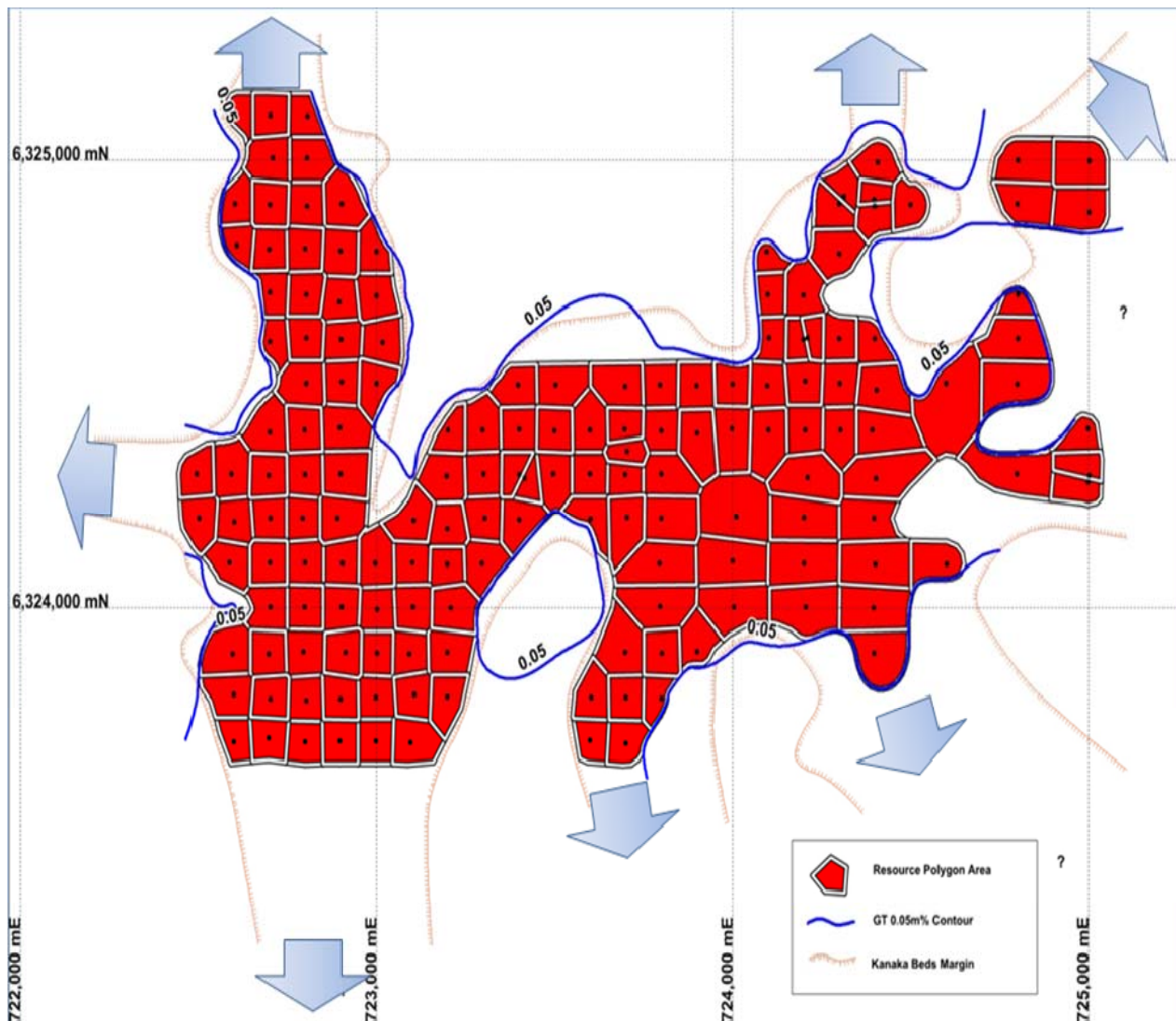
38.7 m tonnes

10,400t contained  $U_3O_8$   
(22.9 million lbs)

weighted average  
grade 275 ppm  $eU_3O_8$   
thickness 11.85m

Resource envelope remains  
open in several directions

Higher grade/thickness  
“starter zones” present



## Mullaquana Project – Project Development Team

*real and relevant expertise*



**Alistair Muir, BAppSc GradDIPMgt MAusIMM. General Manager, Mullaquana.** A Project Manager experienced in the delivery of technically complex high capital expenditure projects in the Northern Territory and South Australia.



**Charles Nesbitt, BSc(Hons). Geoscience Manager.** A specialist uranium geologist with twelve years experience across South Australia's uranium mining operations with extensive experience in ISR resource definition drilling, well field design and well construction at Beverly, Pepegoona and Honeymoon.

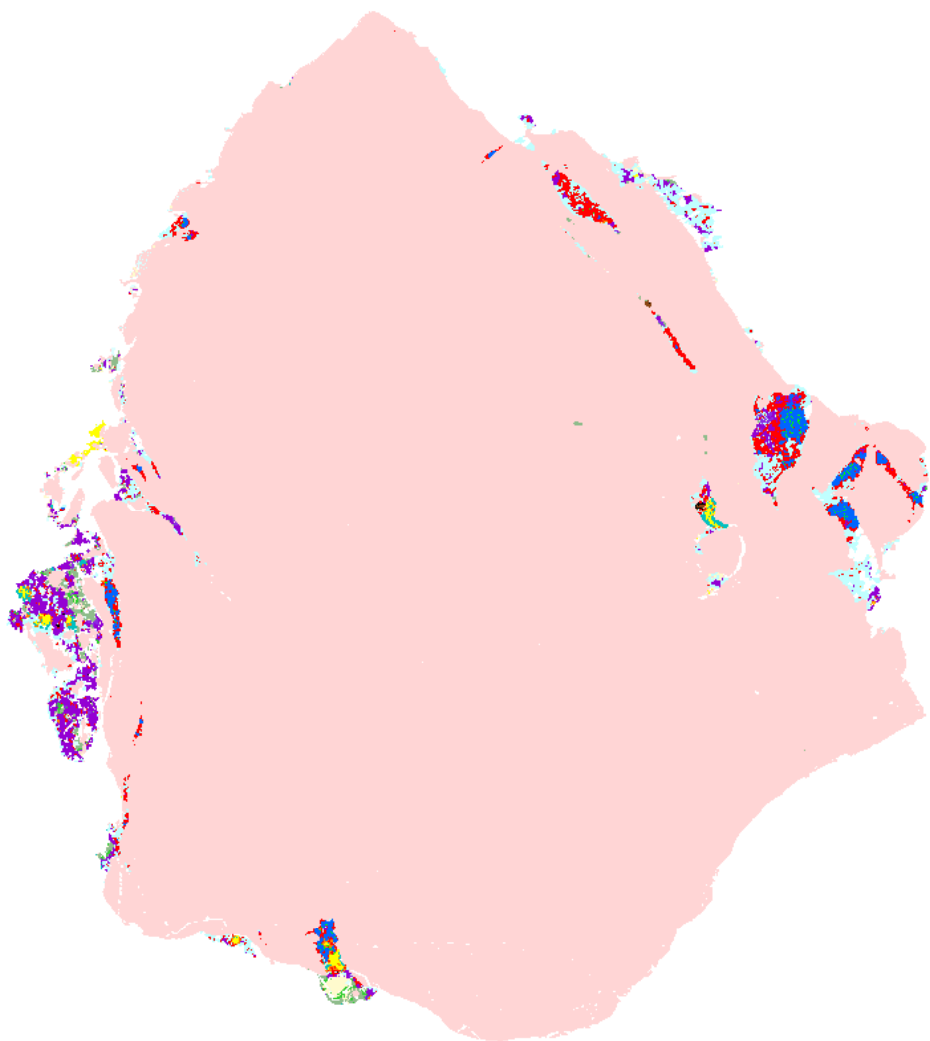


**Simon Hall, BAppSc. Metallurgical Manager.** A metallurgist with broad experience across the South Australian uranium mining industry. Simon worked on the Honeymoon ISR uranium project, and consulted on concept development and feasibility studies focussed on uranium metallurgy and process design.



**Ben Jeuken, BSc(Hons). Senior Hydrogeologist** with Australian Groundwater Technologies (AGT) is providing hydrogeological services to UraniumSA . Ben has worked on the Beverly, Four Mile and Honeymoon mine well fields and his expertise is recognised by State and Federal government regulatory agencies.

**Blackbush Prospect - Mullaquana Project**  
*mineralogy – critical to effective recovery*

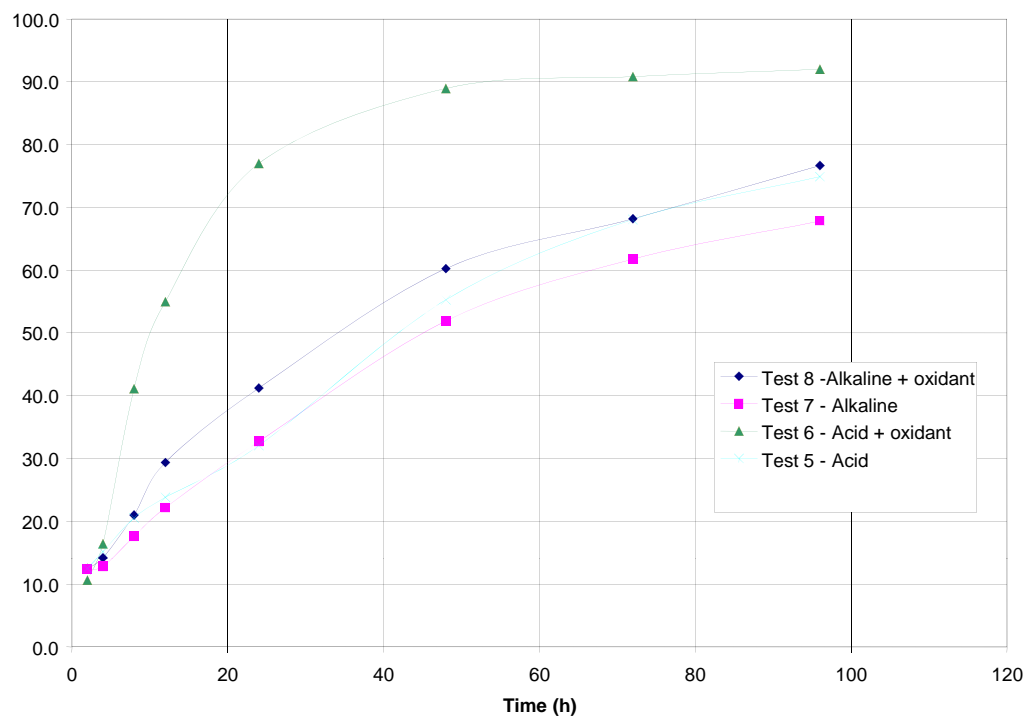


QEMSCAN image (an electron microscopy technique) of a quartz sand grain approximately 1mm across (the light pink field)

uraninite/coffinite mineralisation (showing as red, green and blue fields) is present at the grain margins and surface. Within the grains, there are fine grained intergrowth of uranite/coffinite with a titanium rich material and silica.

## Blackbush Prospect - Mullaquana Project *metallurgy – results consistent with mineralogy*

Round 2 Bottle Roll Tests



Initial results show ~90% dissolution in ~48 hours with moderate to low acid and oxidant consumption.

Round 3 bottle roll tests completed, data being compiled.

*Laboratory bench tests do not necessarily reflect what can be achieved in a field trial.*



## Mullaquana Project - Blackbush Prospect

*forward trajectory towards production*

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- scheduling for field trial for ISR mid 2011 following rigorous regulatory process:  
this is building on laboratory bench testing to de-risk the project
- studies for regulatory process well underway:  
initial flora/fauna studies completed  
monitor bore sites established, hydrogeological modeling commenced  
radiation baseline studies commenced
- scheduling for commencement of construction/production mid 2012:  
initial 100tpa unit to confirm scale-up of field trial results  
adding production capacity targeting 400tpa by end of first year  
final scale of production determined once operating parameters are defined
- Uranium has a well established statutory and regulatory regime:  
South Australian and Federal government agencies have overseen the development of  
all of the existing South Australian in situ recovery mining operations and are well  
experienced in the regulation of the process

## Mullaquana Project – growing the asset base

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### Blackbush Prospect

38.7 m tonnes

10,400t contained  $U_3O_8$  (22.9 million lb)

weighted average grade 275 ppm  $eU_3O_8$

weighted average thickness 11.85m

### Samphire Prospect

Potential ore grade intercepts

from 4 of ~12 exploration holes in an area ~1.5km strike and ~1.5km of width

### Plumbush Prospect

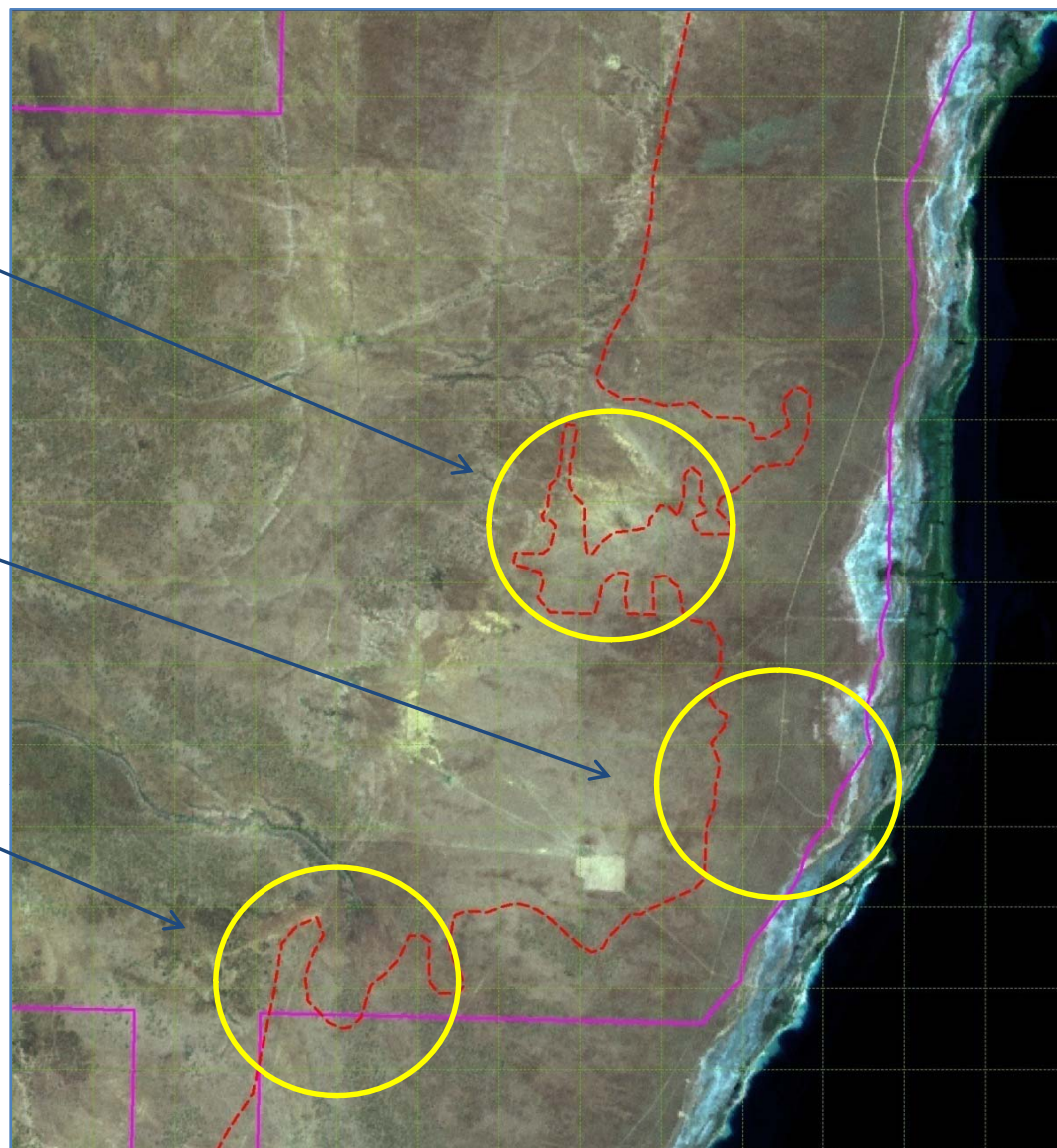
potential ore grade intercepts

from 12 of ~20 exploration holes in an area >2km strike and ~2km of width

### Exploration Objective

20,000t  $U_3O_8$  by late 2010 early 2011

*Cautionary Note - Exploration Objectives are conceptual in nature and there is no certainty that further work will result in the determination of a mineral resource*



view north, 1 km graticules



## Corporate

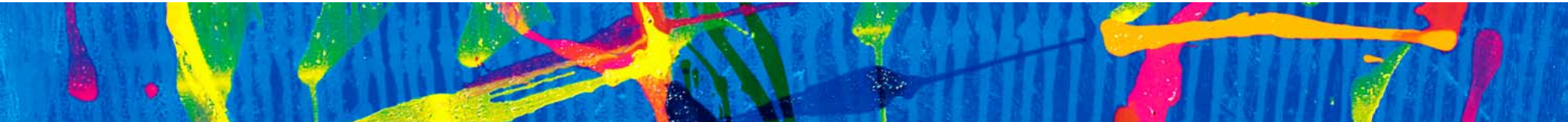
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### UraniumSA;

- owns 100% of the Mullaquana project
- has a growing asset base of potentially economic uranium mineralisation
- has built a strong Project Management Team with specific ISR expertise

### The Company will;

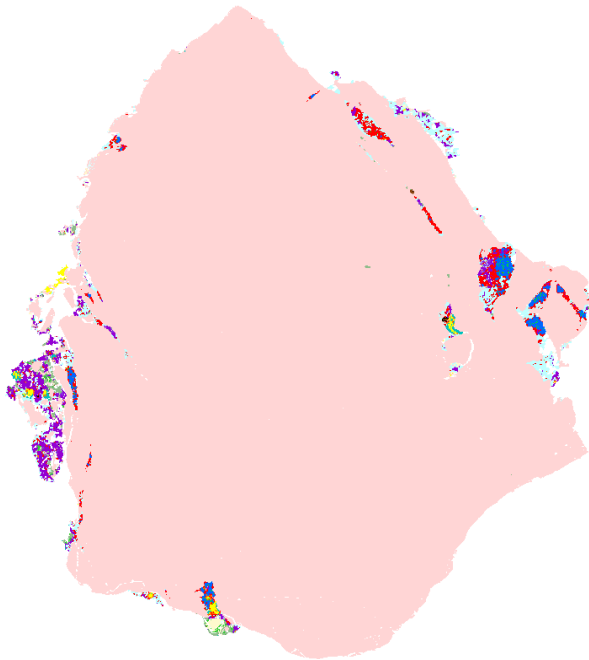
- advance to Blackbush Prospect towards production
- continue to grow its asset base of uranium mineralisation through discovery
- negotiate to obtain the financial and technical resources required for development to production of uranium product



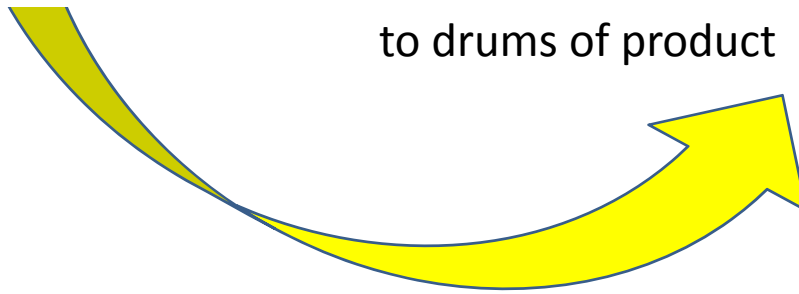
## the challenge

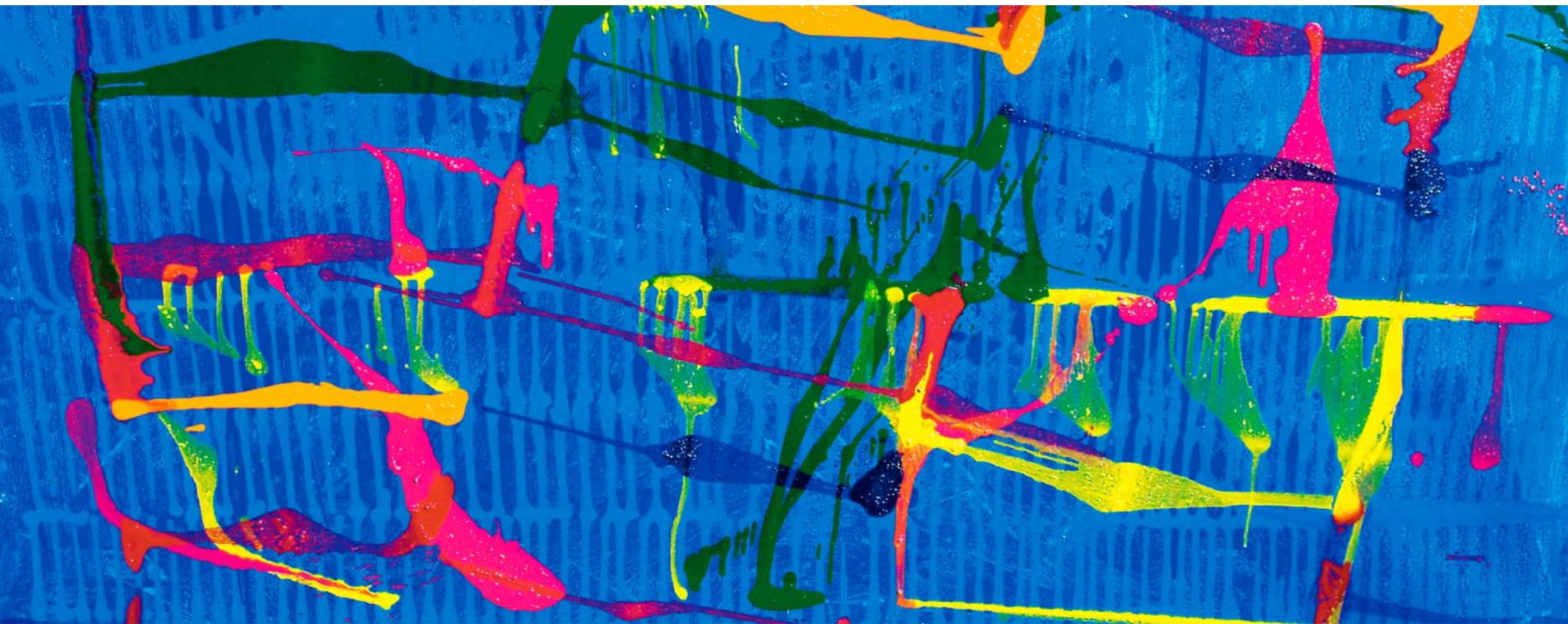
is to move as quickly and as cost-effectively as practicable from

positive  
laboratory  
results



to drums of product





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