



**Uranium Exploration
Australia Limited**

ABN 65 112 714 397

The Integrated Uranium Company

October 2009

www.uxa.com.au

ASX: UXA

For personal use only

Acknowledgements & Disclaimer

Acknowledgements

Uranium Exploration Australia Limited (UXA) thanks Geoscience Associates Australia Pty Limited, UTS Geophysics and each of the relevant State and Territory mines department bodies as well as UxC Corporation and The Uranium Information Centre for information and diagrams presented herein that have drawn extensively on data and information published or produced by them which has been compiled, diagrammed and mapped where appropriate by UXA's employees and/or consultants.

Disclaimer

This presentation does not comprise a disclosure document. It does not constitute provision of financial product advice. None of the directors of UXA, its related bodies corporate, officers, employees or advisors makes or gives any representation, warranty or guarantee in relation to this presentation (whether orally, in document form or in any form whatsoever) or in relation to any information ("Information") contained in it to the recipient of this presentation or any of its related bodies corporate, officers, employees and advisors ("Recipient(s)"). Information sourced from third parties and reported in this presentation has not been verified or updated; it is important that Recipient(s) take care to verify and update before taking in to account in any process of evaluation. The presentation is provided expressly on the basis that the Recipient(s) will carry out its own independent inquiries into the Information and make its own independent decisions about the affairs, financial position or prospects of UXA. UXA reserves the right to update, amend or supplement the Information at any time in its absolute discretion (without incurring any obligation to do so).

URANIUM EXPLORATION AUSTRALIA LIMITED

- ▶ In today's presentation.....
 - Corporate Strategy
 - Capital Raising completed
 - New borehole logging subsidiary –
Geoscience Associates Australia
 - New uranium discovery at Crystal Creek

UXA CAPITAL STRUCTURE

➤ **New Capital Structure**

- 182.2 million ordinary shares (ASX: UXA)
- 0.5 million (employee) options
- Market Capitalisation A\$17.3 million
 - Based on \$0.095 per share on 27 October 2009
 - 2,090 shareholders
 - Top 20 hold 41.06%
- Cash \$7.0m (unaudited – post GAA purchase)

Capital Raising Completed 16th September 2009

- Share Purchase Plan raised \$3.4 million
- Placement raised \$5.2 million

Use of Funds

- GAA acquisition, exploration and working capital

OUR STRATEGY TO GROW UXA

1. NEW CASHFLOW BUSINESS

- Purchase of Geoscience Associates (Australia) Pty Ltd (GAA) completed 1st October 2009
- Exposure to coal seam gas, coal, geothermal and uranium sectors
- Positive cashflow will be used in exploration

2. ACQUIRE ADVANCED URANIUM PROJECTS

- Advance negotiations to acquire drill-ready uranium projects
- Tap management's expertise to fast-track development

3. FURTHER DEVELOP KEY AUSTRALIAN EXPLORATION PROJECTS

- JV with India's largest listed company
- Excellent ground position Australia's best uranium provinces
- New opportunities in South Australia & Northern Territory
- **Follow up new discovery at Crystal Creek, Northern Territory**

NEW CASHFLOW BUSINESS

Geoscience Associates Australia (GAA)

- Highly profitable mining services (borehole logging) company since 1971
- Exclusive licence to use the Prompt Fission Neutron (PFN) technology in Australia
- State of the art logging technology applicable to the coal seam gas, coal, geothermal and uranium sectors
- GAA has 14 borehole logging trucks servicing the Australian mining and exploration industry
- Continues to operate as an independently managed contracting business

PROVIDES UXA WITH IMMEDIATE STRONG AND GROWING CASH FLOWS

GAA - COAL INDUSTRIES - QUEENSLAND

- Coal Mining and Exploration industry
- Coal Seam Gas and Coal Gasification explorers
- **Very strong growth sector**
- GAA has competitive edge
 - Workshop and technicians to service and build probes
 - GAA has logistical base in Queensland to provide borehole logging services to the industry



GAA - PROMPT FISSION NEUTRON (PFN)

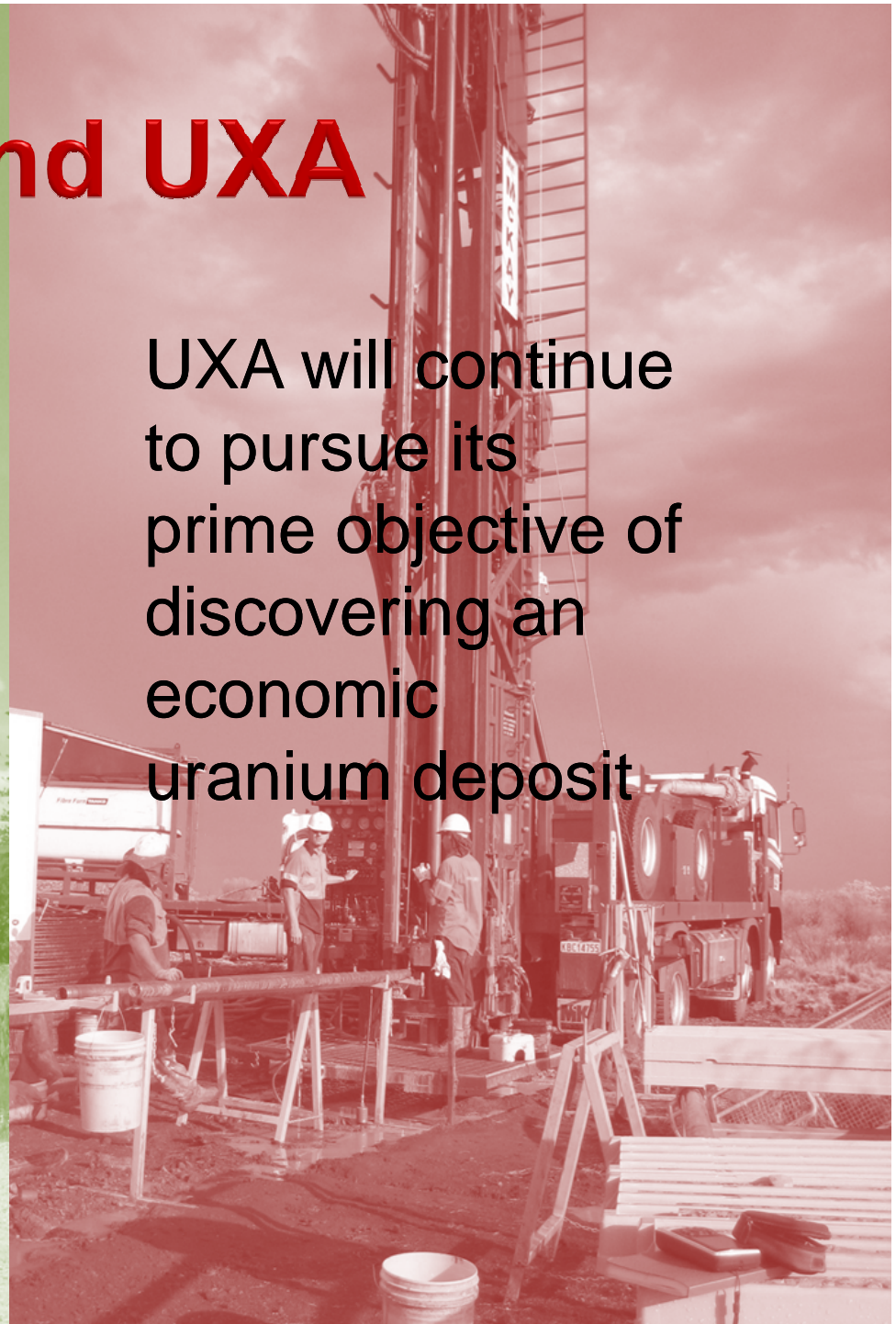


- PFN used in discovering Australia's most recent uranium mine – Beverley – and the Four Mile mine development in South Australia
- Eliminates the concern of missing uranium in the borehole DUE TO DIS-EQUILIBRIUM AND THE USE OF GAMMA LOGGING
- Provides immediate and fool-proof uranium analysis within the borehole by using neutron activation to measure U_{235}
- GAA is the sole provider of PFN technology to the uranium exploration industry in Australia and has sole distribution rights
- Opening up of Western Australian uranium industry provides new opportunities for PFN

GAA and UXA

GAA will continue to operate and develop as a separately managed borehole logging company

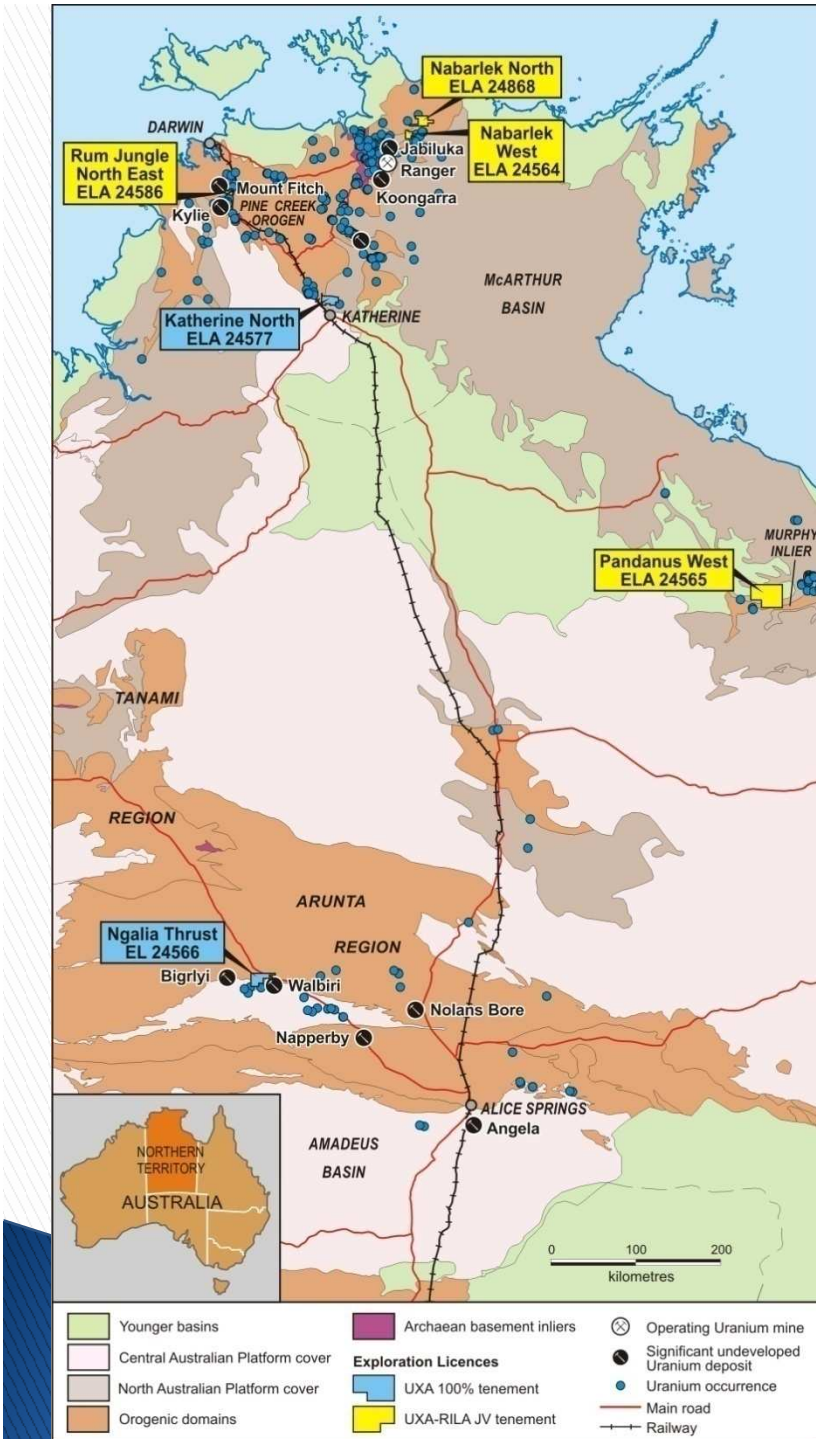
UXA will continue to pursue its prime objective of discovering an economic uranium deposit



FURTHER DEVELOP KEY AUSTRALIAN EXPLORATION PROJECTS

BACKED BY INDIA'S LARGEST LISTED COMPANY

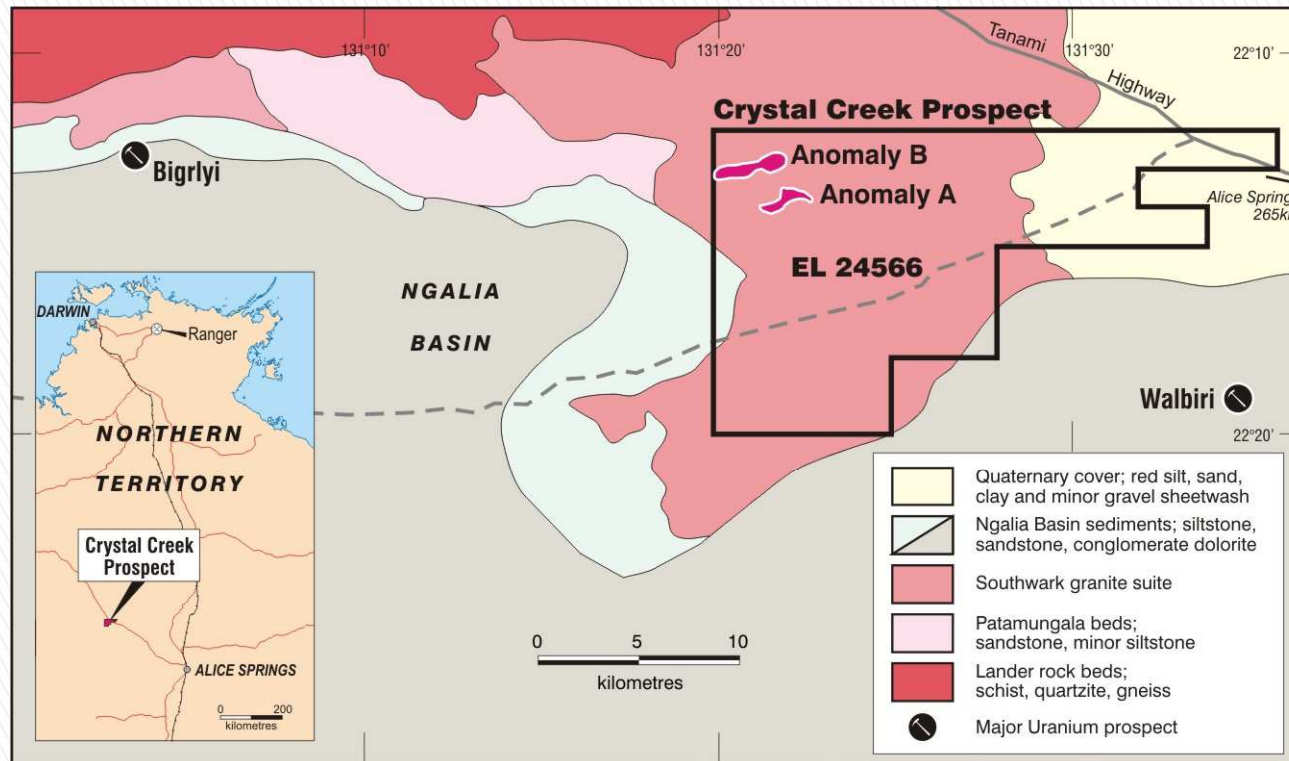
- Reliance Industries, market capitalisation > US\$40 bn
- JV with Australian subsidiary RIL (Australia) Pty Ltd
- UXA 51% and operator
- RILA contributing 49% to exploration on 7 projects
 - 3 granted tenements in South Australia
 - 4 tenement applications in Northern Territory
- Focus on Northern Territory tenements in 2009-10



NT PROJECTS

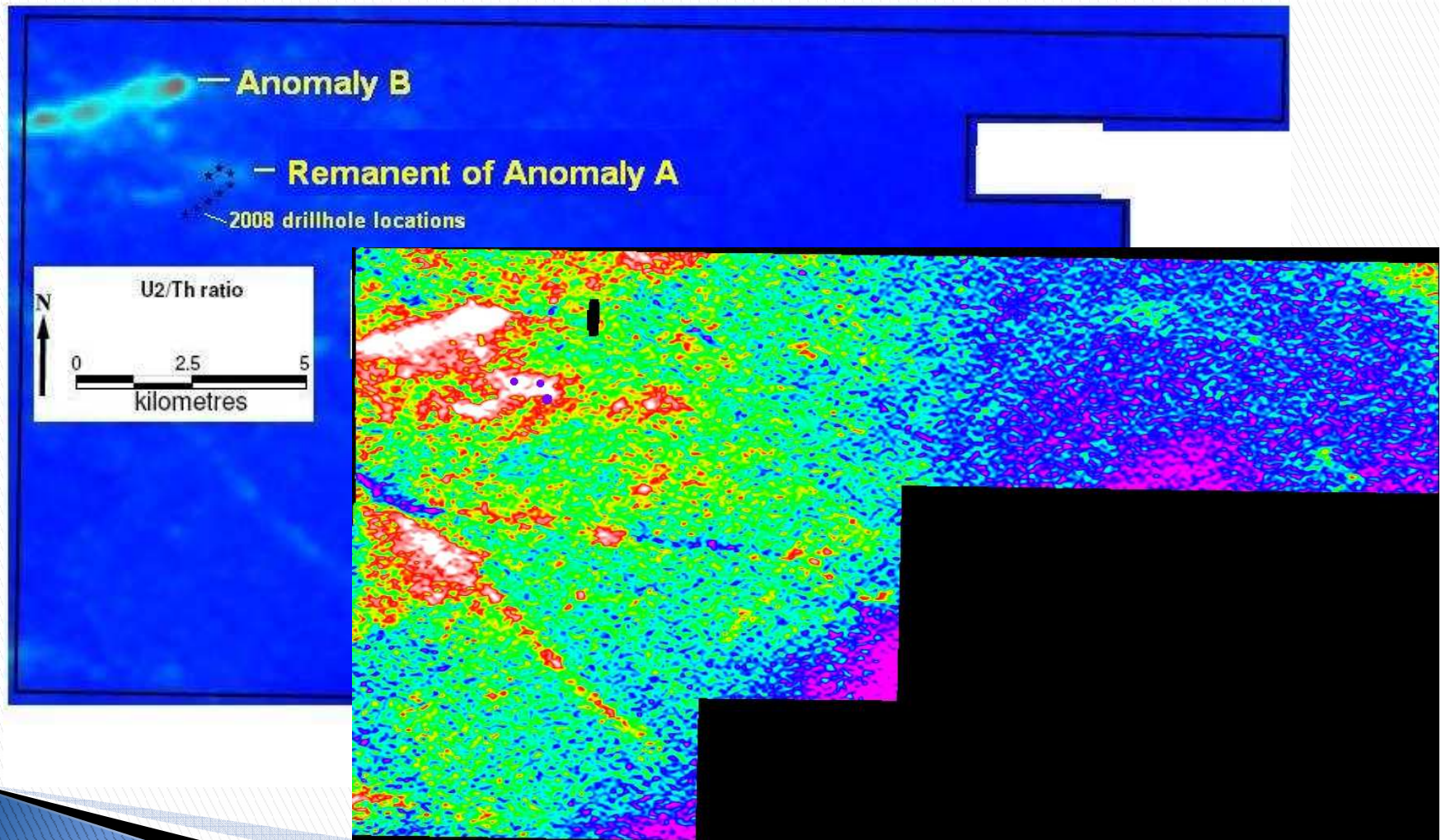
- 5 tenements subject to Native Title negotiations
 - Agreements finalised and successful Country meeting held for the 2 Nabarlek tenements, grant expected in January 2010
- 4 tenements in same geology as Ranger Mine - unconformity style U
- Pandanus West tenement in Westmorland U Province
- **UXA plans to drill at recently discovered 3km mineralised structure at Ngalia Thrust**

NGALIA THRUST Crystal Creek Discovery

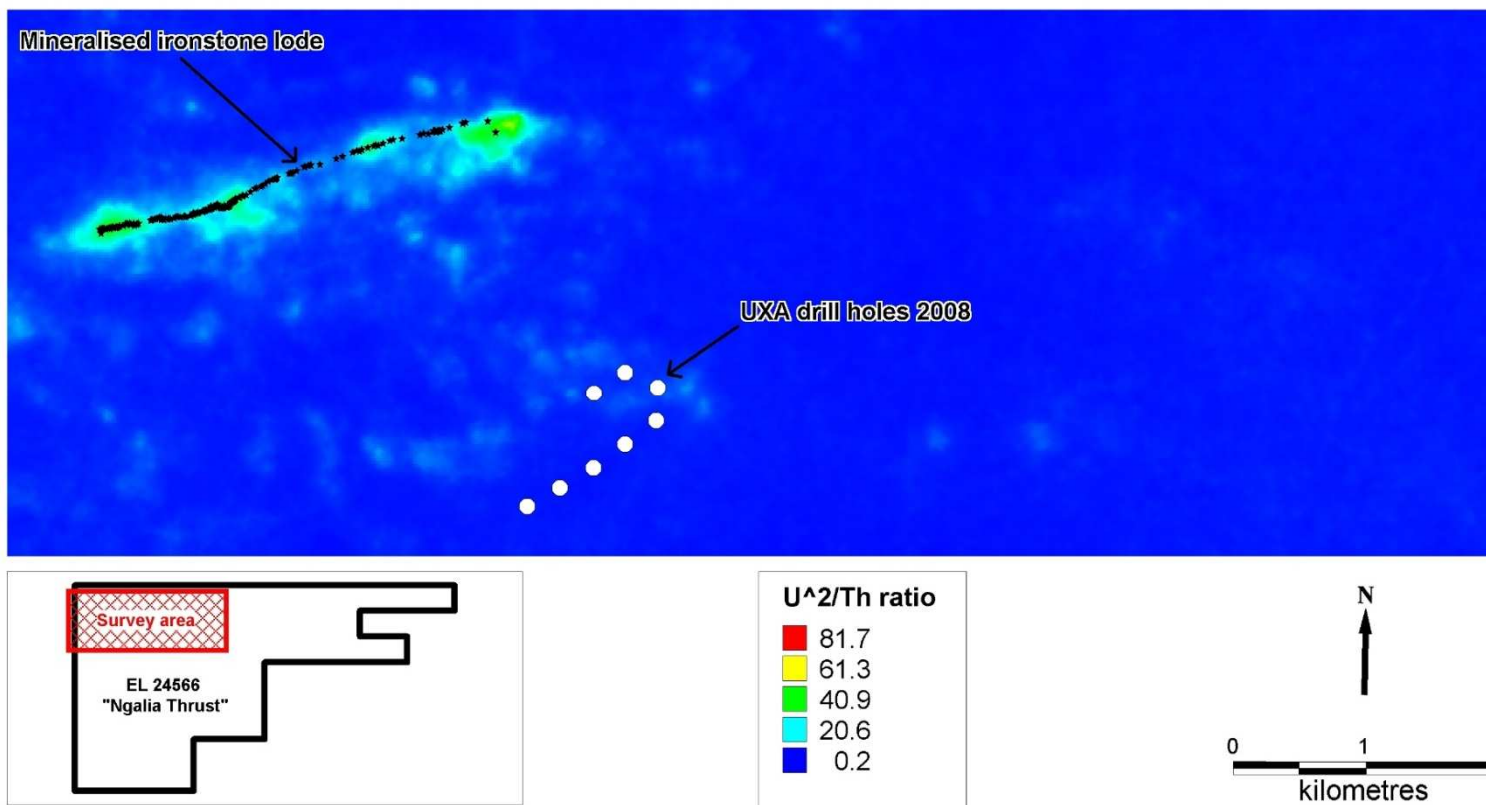


- **100% - owned UXA**
- **Recent discovery at Anomaly B**
- **30 km east of Energy Metals' Bigrlyi Uranium Project**

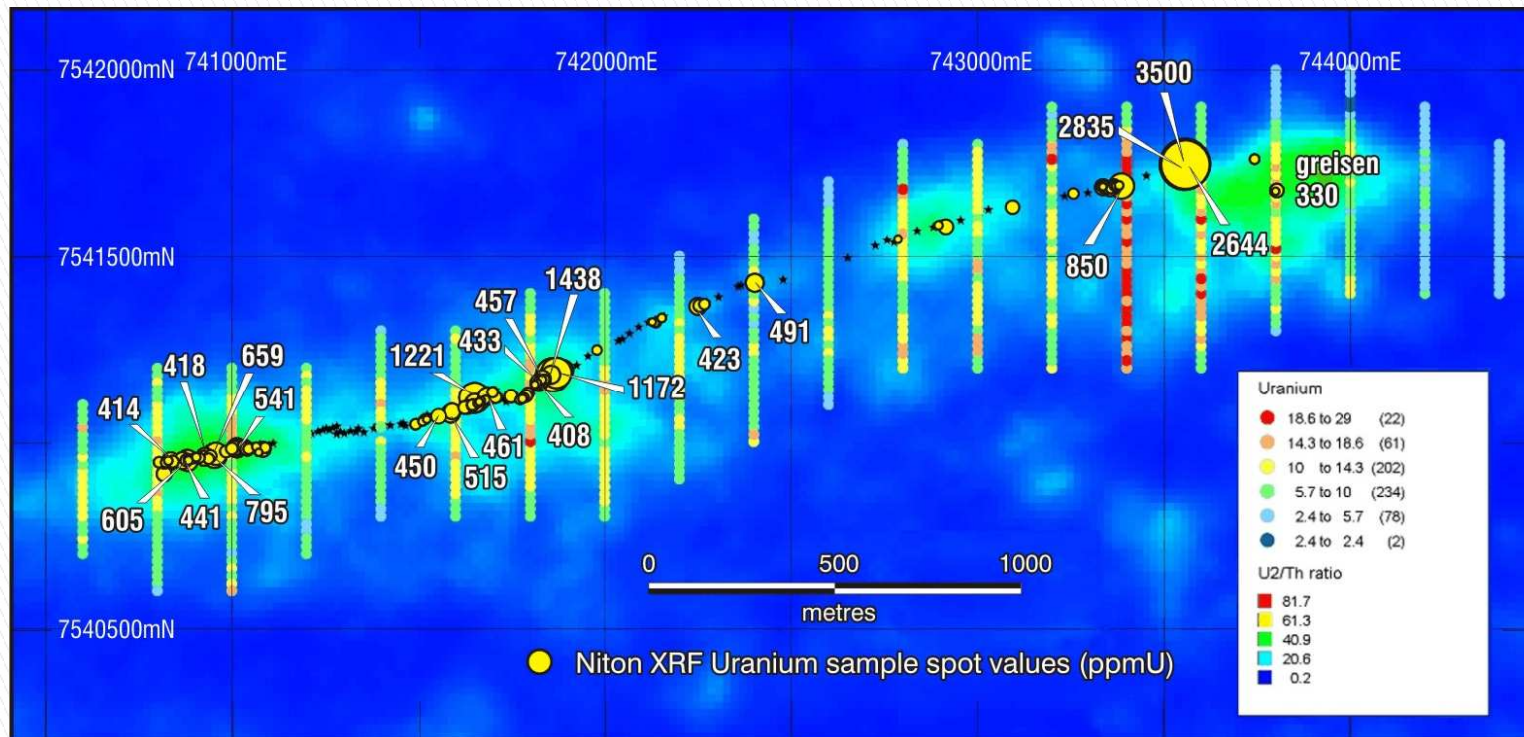
Crystal Creek Discovery



Crystal Creek - geophysics



Crystal Creek - geochemistry



- 3,000m long structure with strong surface uranium values
- XRF spot field values up to 4,123 ppm U₃O₈, confirmed by laboratory XRF geochemistry – up to 4,170 ppm U₃O₈
- Soil sampling program completed

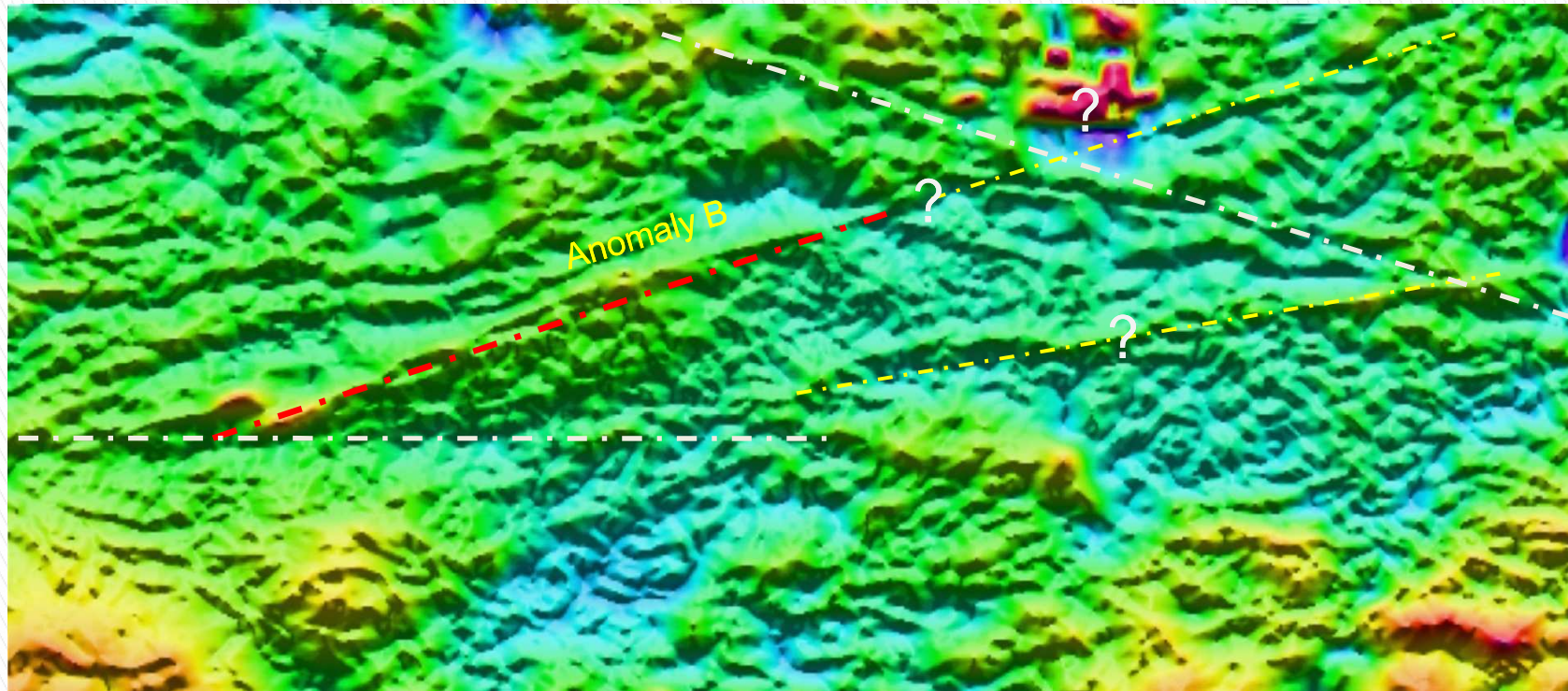
Crystal Creek - mineralisation

- Uranium is associated with ironstone in a structure up to 12m wide
- SEM shows uranium associated with Ti/Fe minerals and possible presence of U minerals brannerite and coffinite
- Very fine grained uraninite, coffinite and autunite identified by QEMSCAN
- Thorium values are low (< 20 ppm in mineralised samples – XRF Analysis)
- Rare earth element abundances not strongly anomalous



Program of geochemistry and petrology underway to further evaluate uranium mineralogy and rare earth geochemistry

Crystal Creek – possible extensions



UTS magnetics, RTP, HVD

High Resolution Geophysics shows possible extensions and parallel repeat structure – additional drill targets

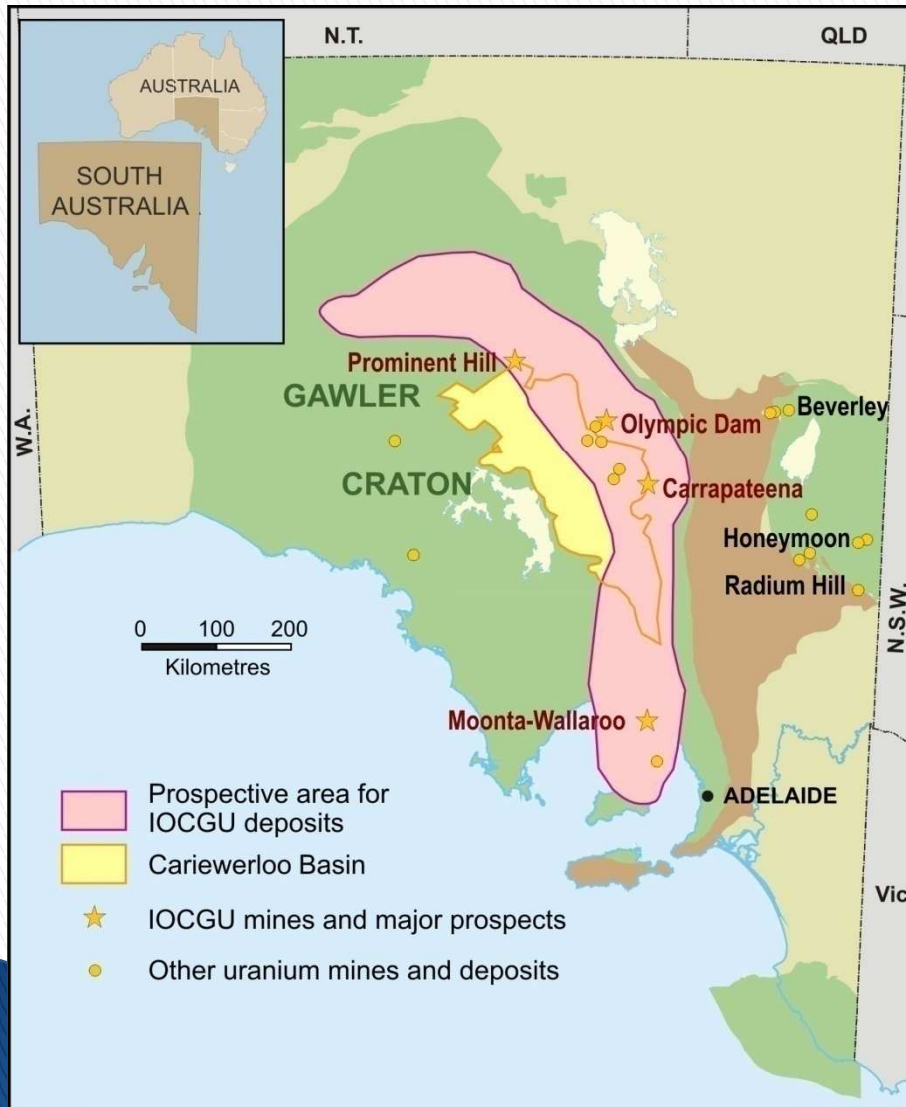
Crystal Creek – Exploration Program 2009



- ⊕ Airborne Survey – high resolution 1,900 line km completed by UTS Geophysics
- ⊕ Soil Sampling completed – results received
- ⊕ Geochemistry and Mineralogy – underway
- ⊕ RC percussion drilling – drilling agreement signed, access clearances received – mid November expected start date

South Australia

World's best endowed uranium province

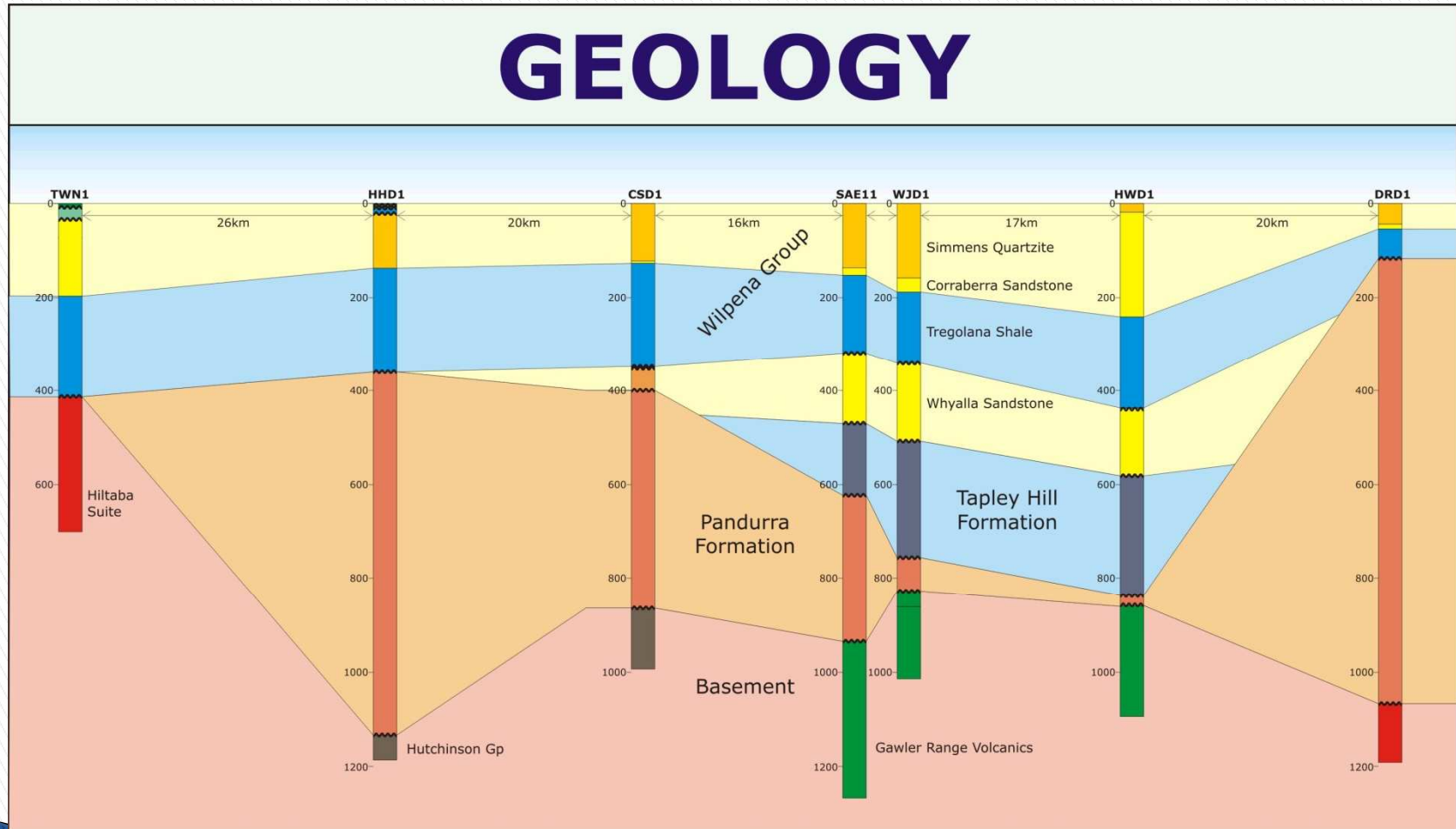


2 Major Uranium Mines and 2 under development

- Olympic Dam Mine, haematite breccia complex (Iron Oxide Copper Gold Uranium deposit (IOCGU)) - world's largest U resource, annual production 4,100t U_3O_8
- Beverley U Mine - world's largest in-situ leach (ISL) operation, annual production 720 t U_3O_8
- Honeymoon Mine, commencing 2010 to produce 400t U_3O_8 annually
- Four Mile new ISL commencing 2010, to produce 680 – 2,045t U_3O_8 annually

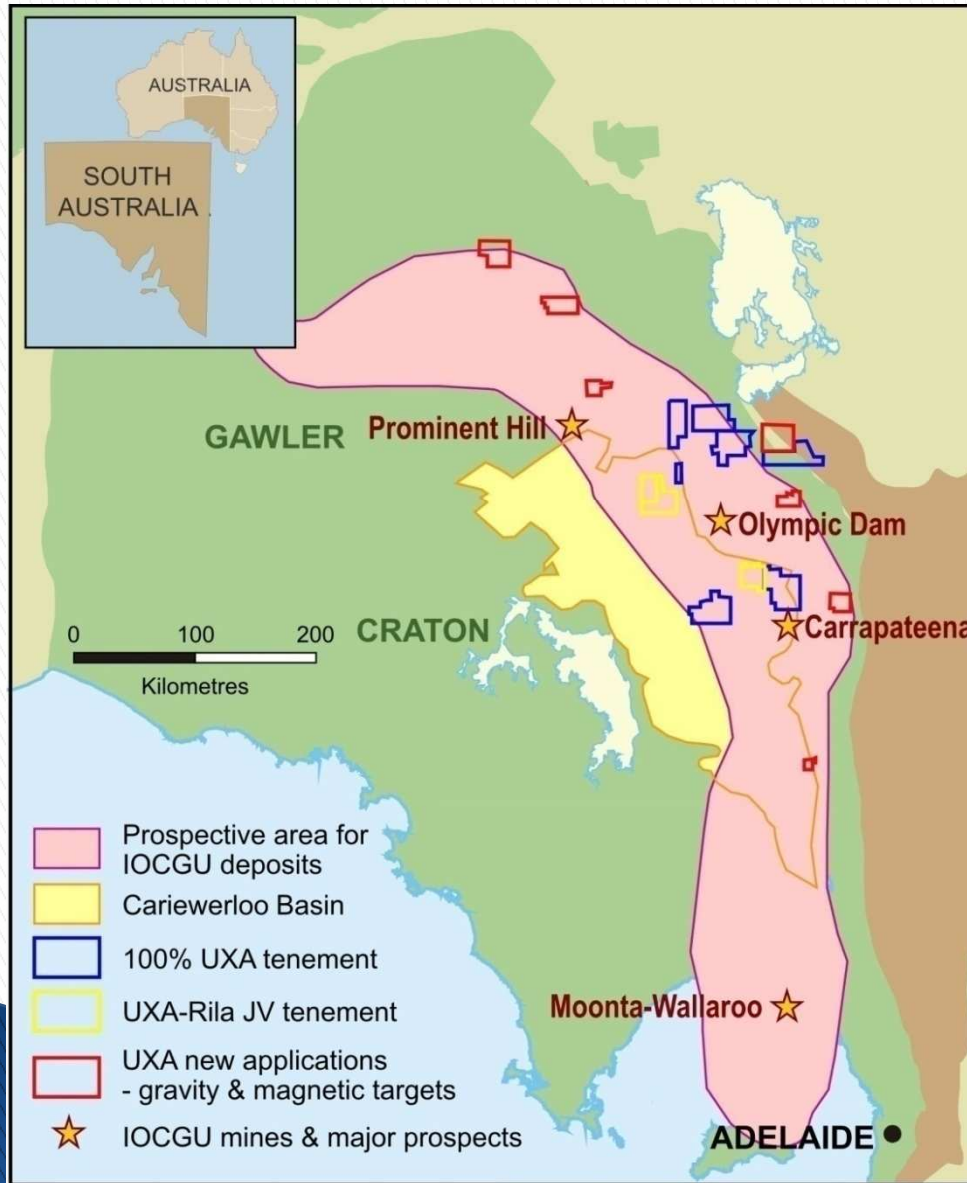
South Australia – Stuart Shelf

GEOLOGY



For personal use only

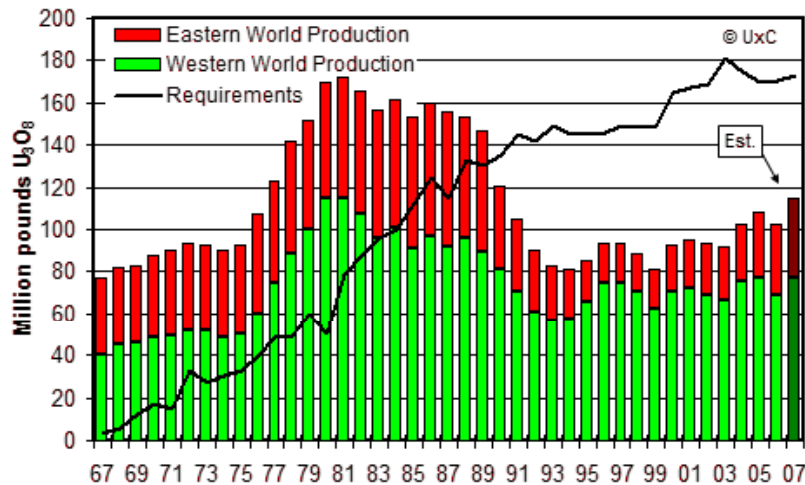
South Australia – UXA Projects



- **7 new tenements**
 - co-incident magnetic & gravity anomaly targets
 - Possible new drill targets for haematite breccia complex (IOCGU) deposits
- **9 EL's explored by UXA 2006 – 08**
 - drilling revealed deep target areas
- **Technical review nearing completion**
 - New exploration strategy for the Stuart Shelf

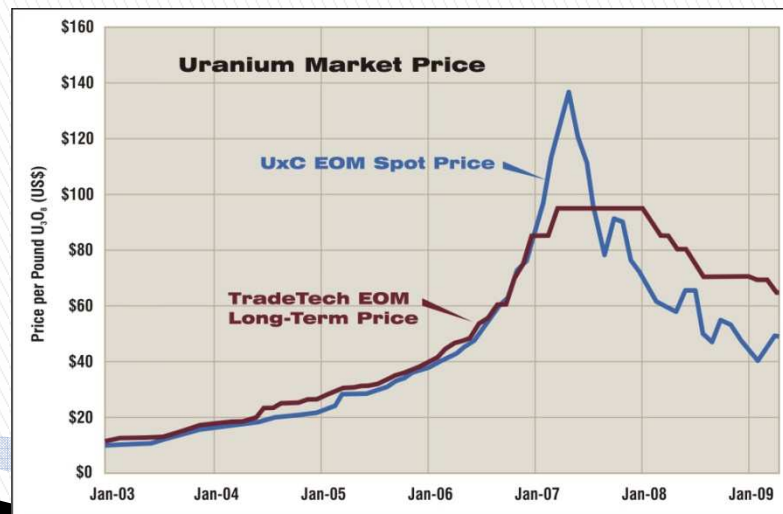
GLOBAL URANIUM MARKET DRIVERS

Fundamentally Strong Uranium Market



1. Uranium mined supply shortfall
2. Re-processing of weapons grade uranium – agreement ends 2013
3. New mines slow to come on stream

- Uranium prices strong for the future
- 108 new nuclear power stations planned and 43 under construction



WHY INVEST IN UXA?

With a market valuation of under \$20 million, UXA provides compelling value given:-

1. COMMITMENT TO URANIUM EXPLORATION

- Long term goal is to discover a major uranium deposit
- **New Discovery at Crystal Creek - drilling November 2009**

2. EXCELLENT FINANCIAL POSITION

- GAA acquisition provides UXA with a strong cashflow
- Exclusive access to PFN technology

3. TWO STAGE GROWTH STRATEGY

- Acquisition of GAA has doubled the size of the Company
- Actively seeking major uranium project for farm in

4. BACKED BY INDIA'S LARGEST LISTED COMPANY

- Actively advancing uranium prospects in NT



Uranium Exploration Australia Limited

ABN 65 112 714 397

Contact details:

Dr Russell Penney

info@uxa.com.au

+61 8 8363 7970

www.uxa.com.au

ASX: UXA

Uranium Exploration Australia Limited
Registered Office in Adelaide, South Australia
313 Payneham Road
Royston Park, SA 5070