



# ALLIGATOR RIVER PROJECT BROKER VISIT

ARNHEM LAND, NORTHERN TERRITORY

*17-19 September 2018*



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**Cautionary statements:** The information in this presentation that relates to the Mulga Rock Project Definitive Feasibility Study (DFS), including production targets and forward-looking financial information based on the production targets, was released to the ASX on 30 January 2018. Vimy confirms that all the material assumptions underpinning the production targets and forward-looking financial information in the DFS continue to apply and have not materially changed.

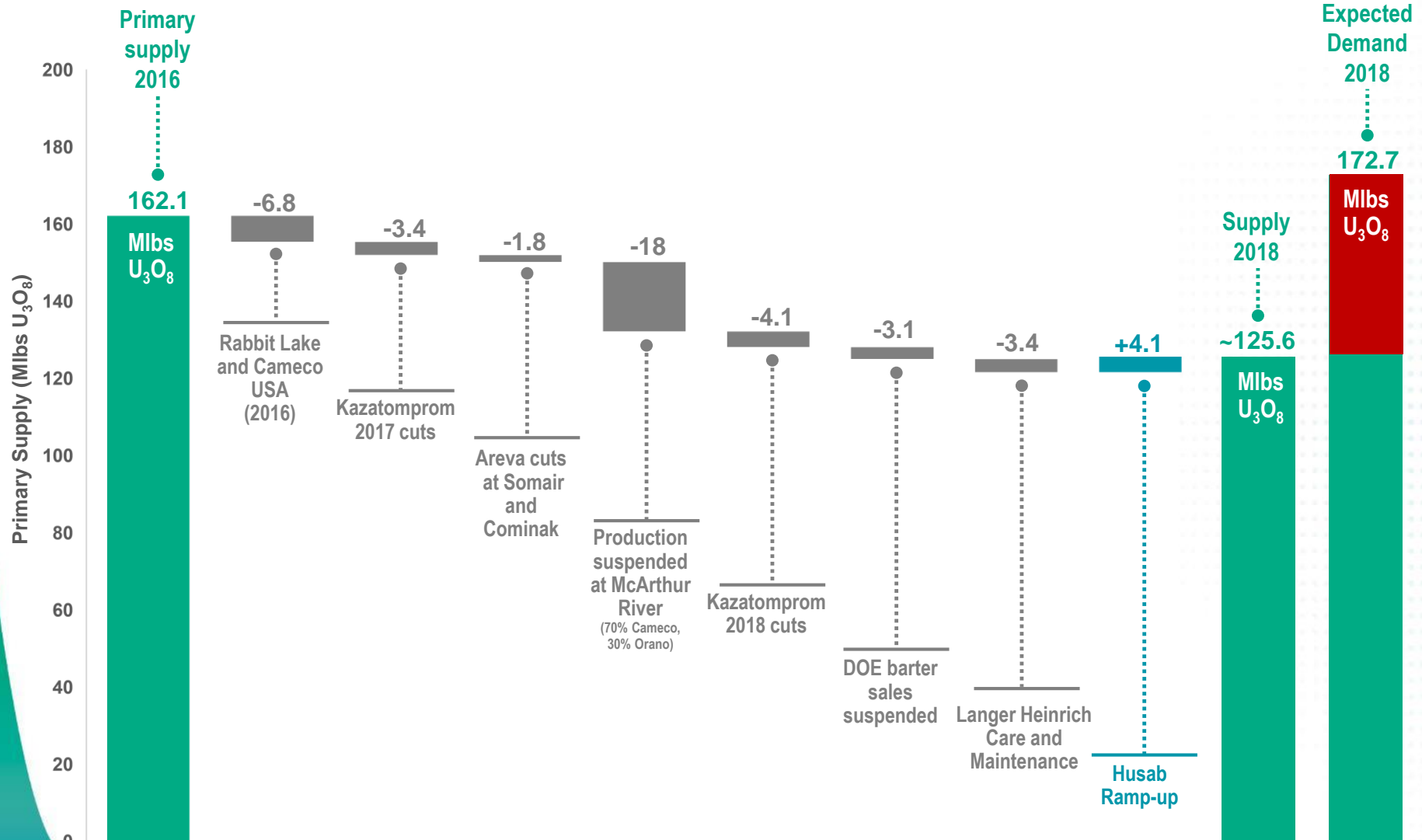
**No new information:** The Mulga Rock Project Uranium Resource Estimate referred to in this presentation was released to the ASX on 12 July 2017. Vimy is not aware of any new information, or data, that affects the information in that announcement and confirms that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.

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The Mulga Rock Project Base Metal Resource Estimate referred to in this presentation was released to the ASX on 23 June 2016. Vimy announced a significant uranium resource upgrade for the Mulga Rock Project on 12 July 2017, due mainly to higher uranium grades attributed to an increase in drill hole density. Therefore, on this basis the Company expects an increase in the base metal grades and contained tonnes, otherwise it is not aware of any other new information, or data, that affects the information in that announcement and confirms that all other material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.

The Angularli Deposit Resource Estimate and Exploration Target referred to in this presentation was released to the ASX on 20 March 2018. Vimy is not aware of any new information, or data, that affects the information in that announcement and that all material assumptions and technical parameters underpinning the estimate and target continue to apply and have not materially changed.

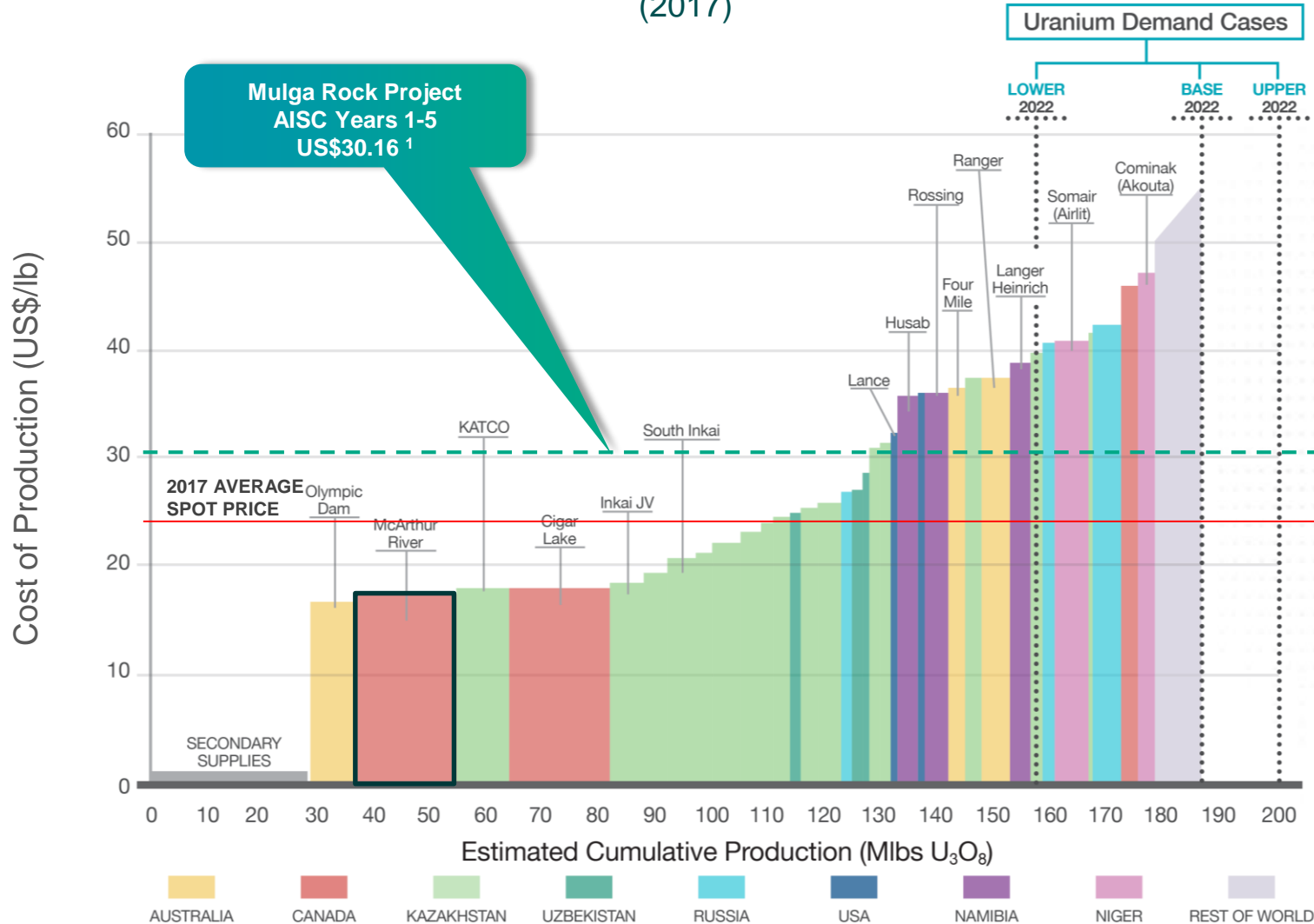
# DEMAND TO OUTSTRIP SUPPLY



Source: WNA, company reports, Vimy estimates

# ALL-IN COST OF PRODUCTION VS SPOT PRICE

## Operating Cost of Global Uranium Production (2017)



**Estimated 2017 'All-In Sustaining Cost' of Global Uranium Production showing Vimy's Demand Cases (Upper, Base, Lower)**

Source: Company Data + Analysts' Views + Vimy Calculations, US Energy Information Administration | 2016 U Marketing Annual Report

1. AISC for Life of Mine US\$34.00 – Mulga Rock Project DFS released 30 January 2018

# ALLIGATOR RIVER PROVINCE – ONE OF THE TOP THREE URANIUM DISTRICTS ON THE PLANET

## Kazakhstan

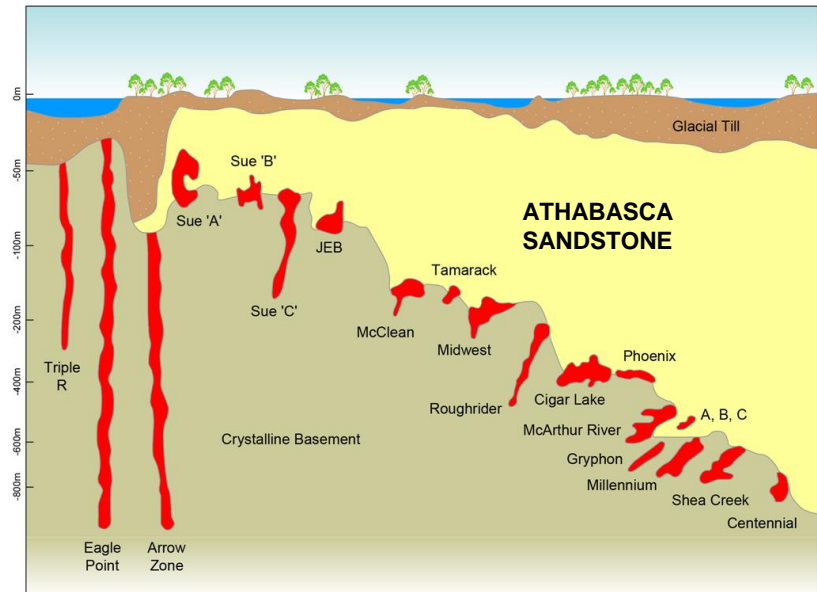
Inkai, etc  
Production of >560Mlbs  $U_3O_8$   
(2004-2017)  
2017 AISC ~US25-30/lb  $U_3O_8$

## Athabasca Basin

McArthur River, Cigar Lake, Arrow, PLS, Wheeler River  
Production of 930M lbs  $U_3O_8$  to end 2016  
Over 2.5Blbs  $U_3O_8$  discovered since 1968

## Alligator River Uranium Province

Ranger, Jabiluka, etc  
Production of >310Mlbs  $U_3O_8$   
Over 770Mlbs  $U_3O_8$  discovered  
since 1969 but limited  
exploration since 1990s

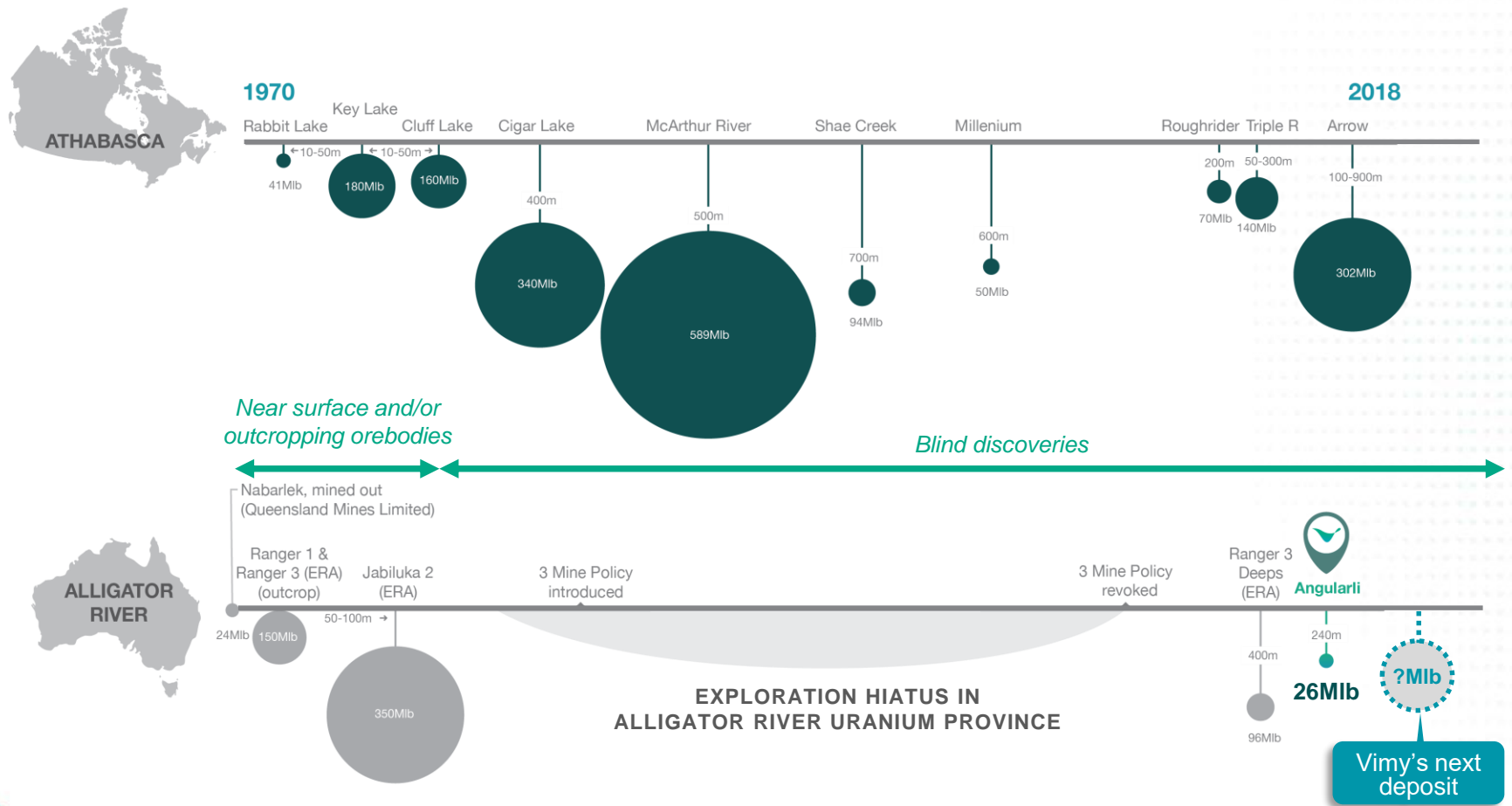


Schematic depth extent of Deposits



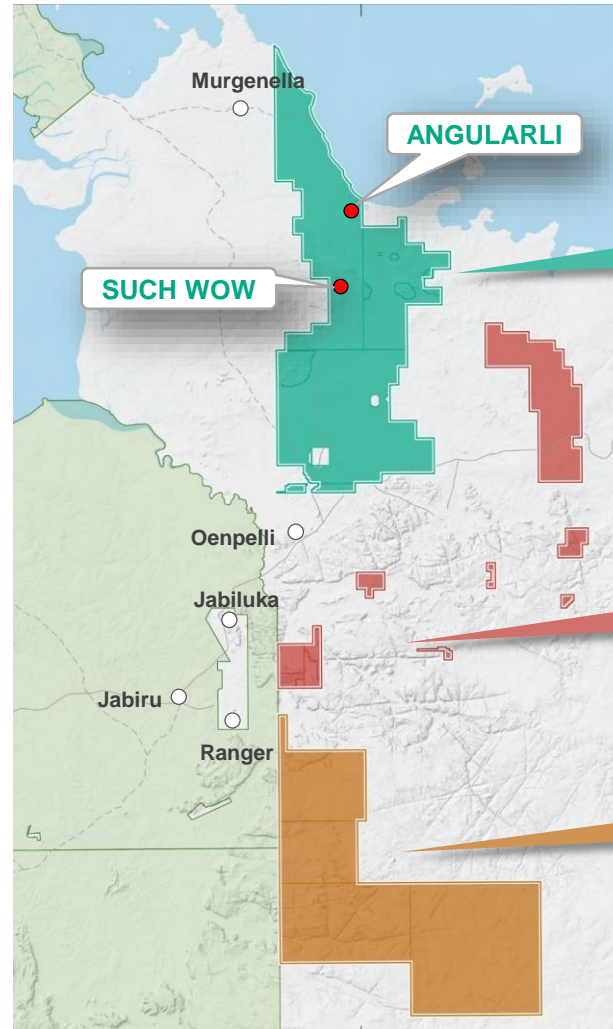
# EXPLORATION HIATUS LEAVES REGION UNDER-EXPLORED

- Australia's Three-Mine Policy (1984-1996) resulted in limited exploration in Alligator River area
- All exploration licences held in moratorium during this period, followed by moderate exploration only
- Canada's Athabasca Basin experienced amazing growth over the same period



# ALLIGATOR RIVER PROJECT DETAILS

- Vimy has the largest granted exploration package in the Alligator River Uranium Province
- Three separate packages covering a total area of 3,865km<sup>2</sup>
- All granted exploration licences have associated deeds permitting exploration and setting out the terms governing future mining
- Tenements on Aboriginal land vested in Arnhem Land Aboriginal Land Trust
  - > managed by the Northern Land Council on behalf of Traditional Landowners



## King River-Wellington Range JV

- 1,600km<sup>2</sup> of granted tenure
- Vimy 75% JV interest / Rio Tinto 25%
- Vimy is JV manager
- Hosts the Angularli deposit, Such Wow and other highly prospective targets
- Highly prospective with limited sandstone cover

## Algado-Beatrice project (100%)

- A group of tenement applications to the east of the Ranger and Jabiluka deposits
- Under moderate sandstone cover

## Mt Gilruth project (100%)

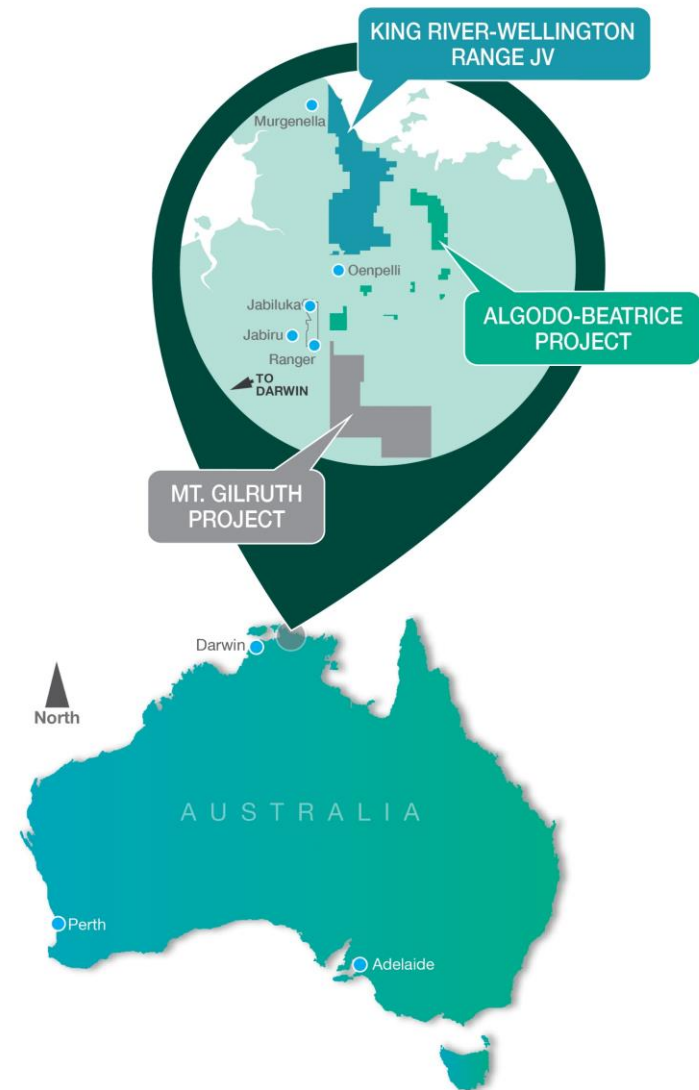
- A group of tenement applications to the southeast of the Ranger and Jabiluka deposits

## WHERE WE ARE AT

- Acquired from Cameco Australia in March 2018, including high quality exploration data, key staff
- **Maiden Mineral Resource for Angularli**  
26Mlbs  $U_3O_8$  at 1.3% grade announced in same month as acquisition\* *See ASX announcement 20 March 2018*
- **Conceptual mine design completed** during due diligence
- **Drilling** program on Angularli and Such Wow underway
- **Scoping Study testwork** is done and reporting under way

## NEXT ON LIST

- Prove more mineralisation around Angularli
- Profile prospective system at Such Wow
- Develop new drill targets in the broader region
- Follow up targets at Angularli and Such Wow





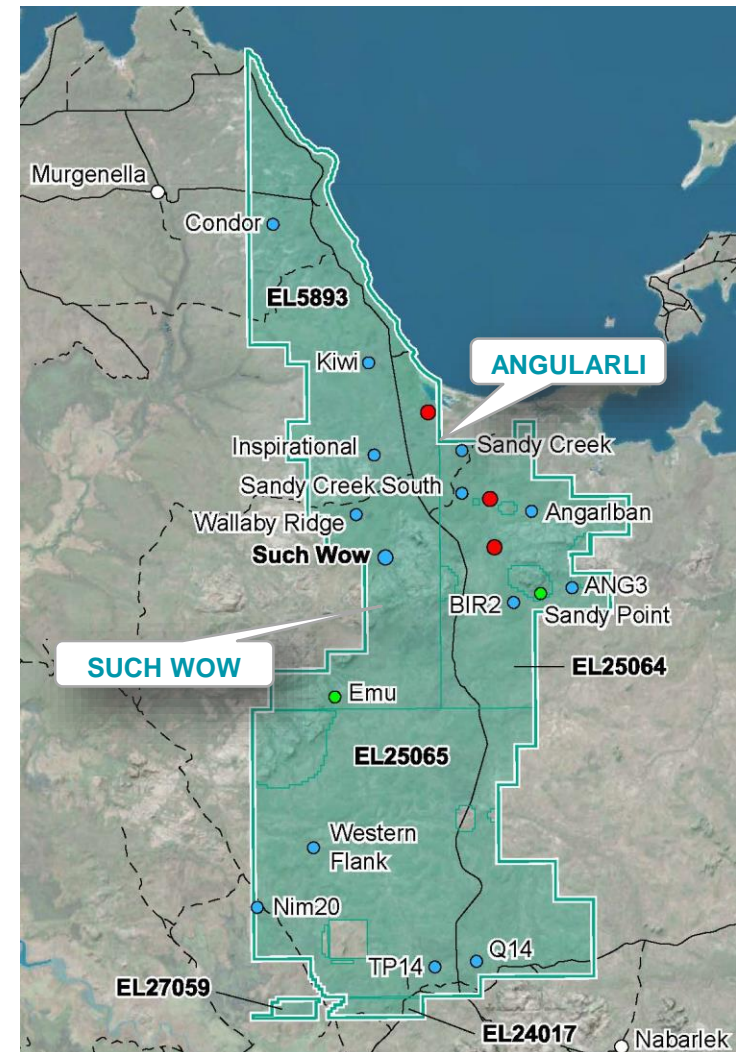
# ● ● WORK PROGRAM UNDERWAY

## ANGULARLI (75% Vimy / 25% Rio Tinto)

- Inferred Mineral Resource of 26 Mlbs  $U_3O_8$  for 0.91Mt @ 1.3%  $U_3O_8$ 
  - > Best drill intercept of 22.9m @ 4.63%  $U_3O_8$  from 244.6m
- Exploration target between 20 to 60Mlbs  $U_3O_8$  for 1.2-1.8Mt at a grade of 0.75-1.5%  $U_3O_8$
- Significant exploration upside along strike on untested parallel structures
- Target generation program
  - > Surface sampling
  - > Passive seismic
- Permitting and JV commitments
  - > Heritage/access considerations and baseline studies initiated
- Development-related work programs
  - > Metallurgical scoping studies and mineralogy and metal deportment completed

## SUCH WOW

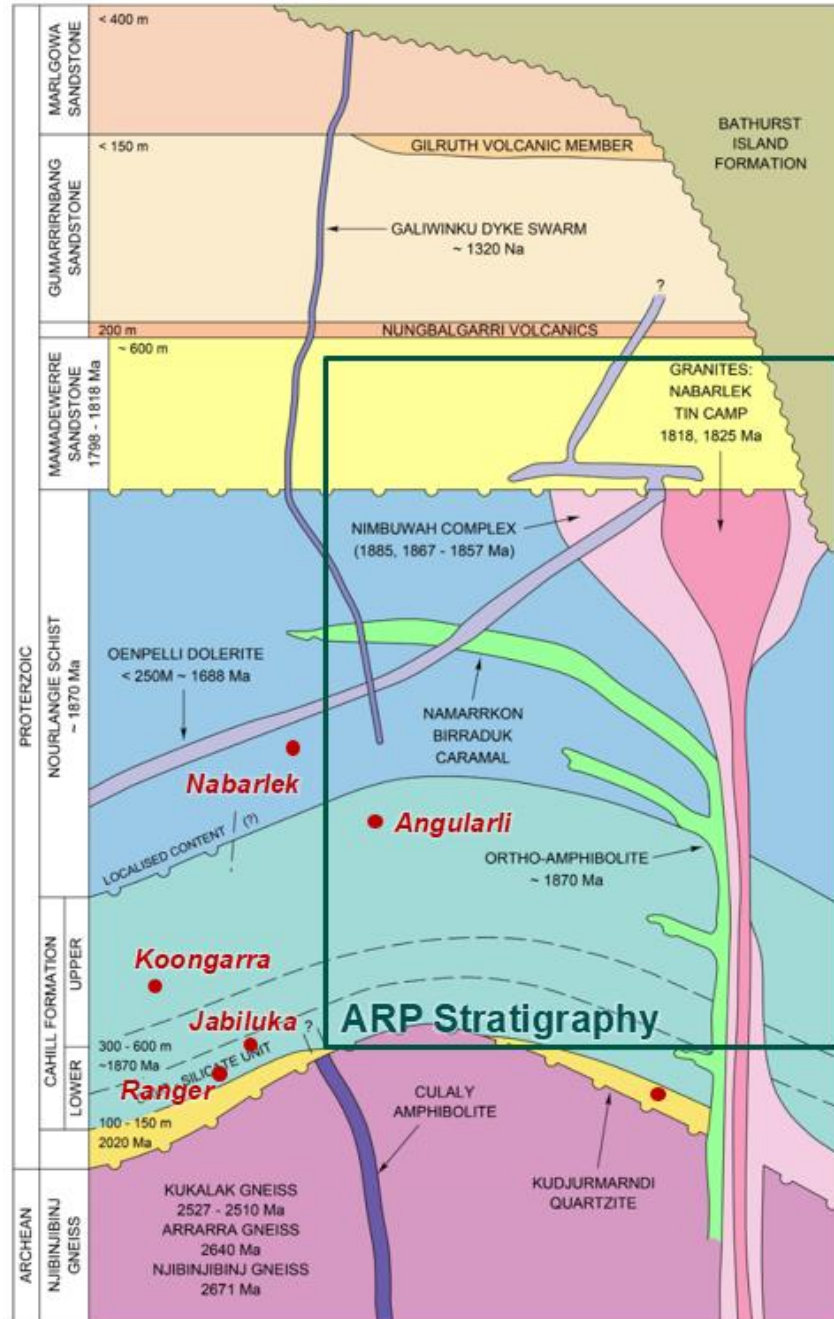
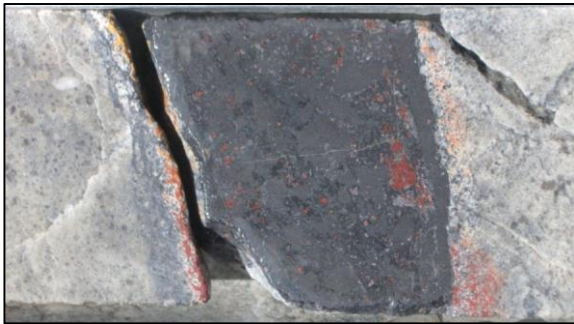
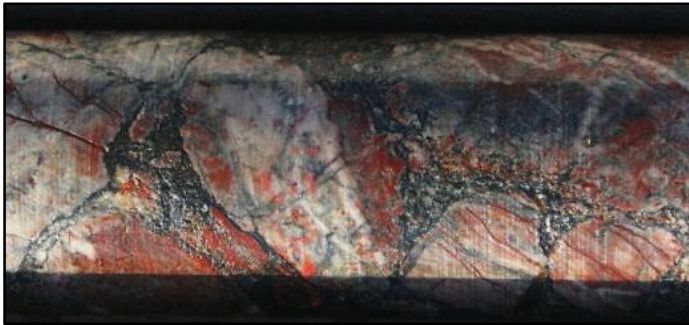
- 10 x strike length of Angularli ~5km
- Strong surface alteration and structures
- RC drilling in 2018 field season



- Deposits/Advanced Prospects
- Prospects
- Greenfields Targets

# STRATIGRAPHY

Mineralisation styles at Angularli  
(WRD084 and WRD073)

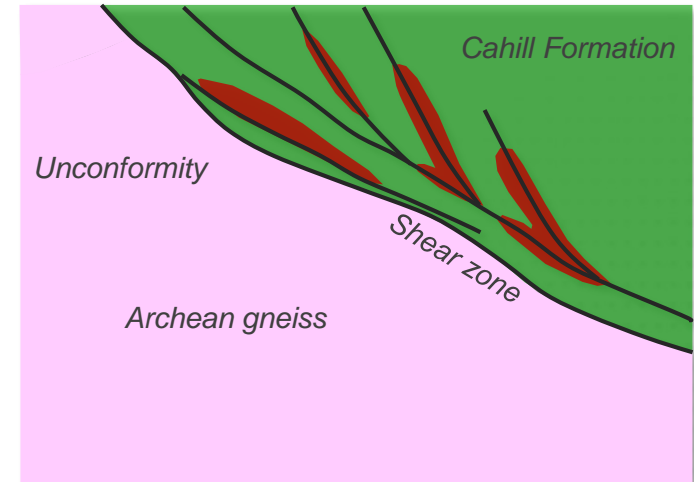


# ● ● ALLIGATOR RIVER URANIUM DEPOSITS

## Type 1 - Low Angle Shear Deposits

Jabiluka 2	302 Mlbs $U_3O_8$ @ 0.66 % $U_3O_8$
Ranger 1, No 3	177 Mlbs $U_3O_8$ @ 0.24 % $U_3O_8$
Ranger 1, No 1	127 Mlbs $U_3O_8$ @ 0.26 % $U_3O_8$
Ranger 3 Deeps	72 Mlbs $U_3O_8$ @ 0.24 % $U_3O_8$

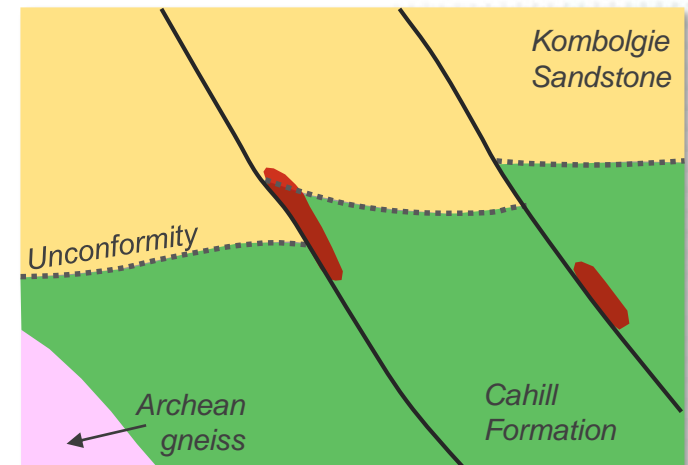
- Lower grade, high tonnage deposits
- Lower Cahill Formation host rocks (mixed schists-carbonates) that overlay Archaean basement



## Type 2 - High Angle Fault Deposits

Koongarra	36 Mlbs $U_3O_8$ @ 0.66 % $U_3O_8$
Nabarlek	24 Mlbs $U_3O_8$ @ 1.84 % $U_3O_8$
Angularli	26 Mlbs $U_3O_8$ @ 1.3 % $U_3O_8$

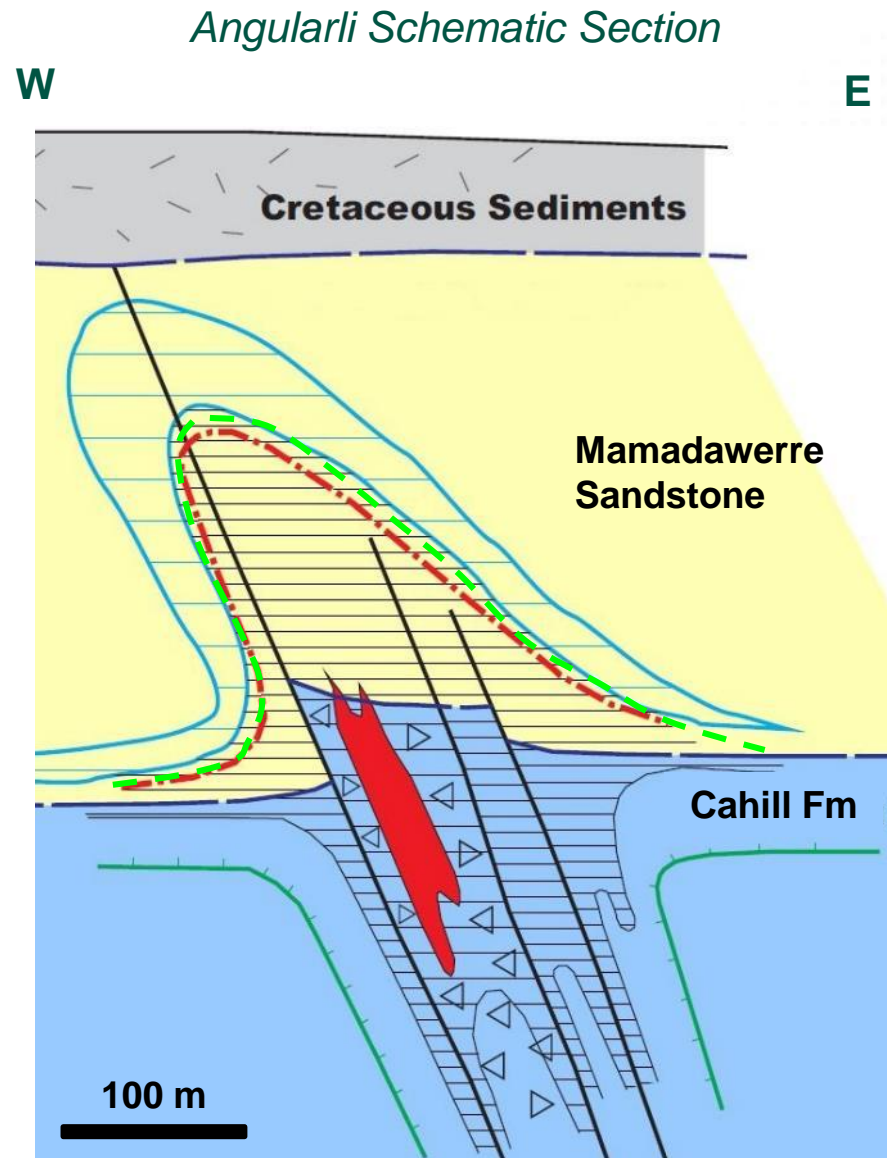
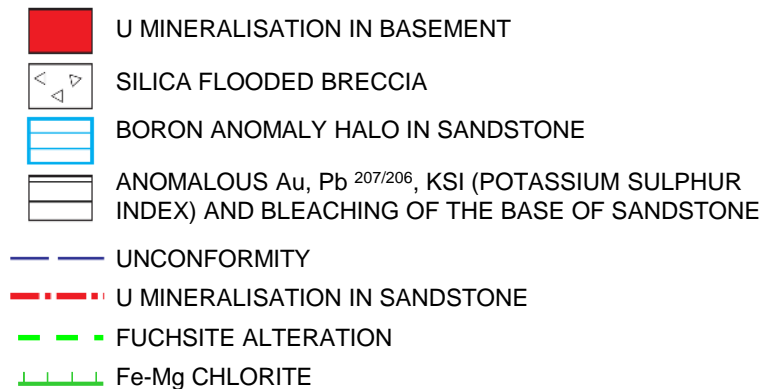
- Steep dipping NE and NNW striking fault systems
- High grade, low tonnage with a small development footprint
- Similar to McArthur River and Cigar Lake, Athabasca



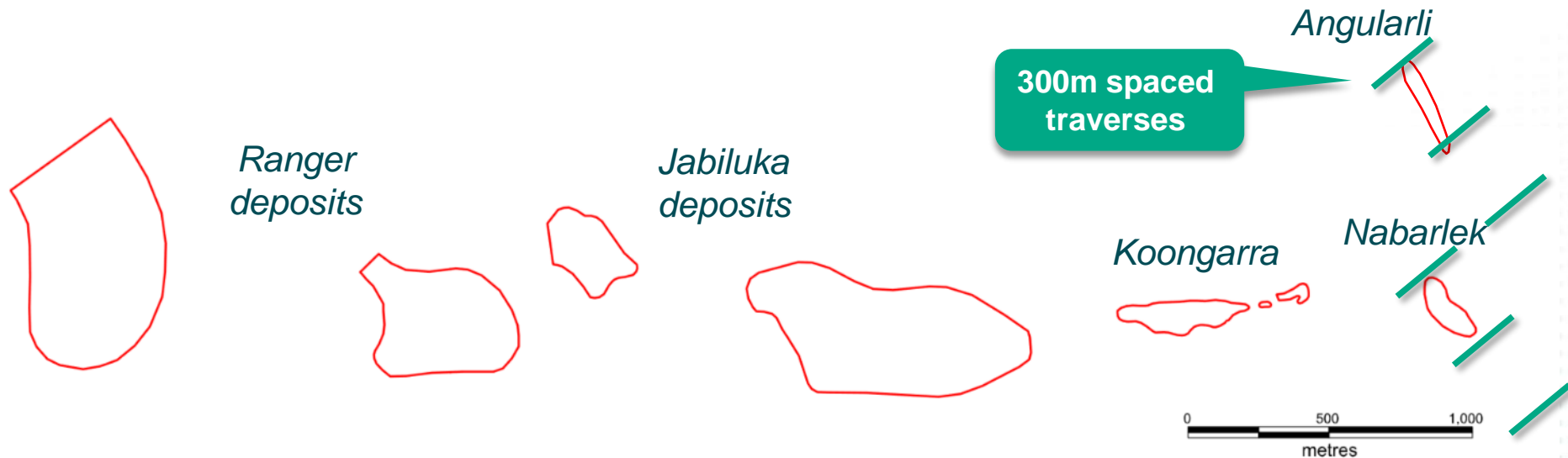


# ● ● HIGH ANGLE FAULT MODEL

- Koongarra, Nabarlek, Angularli, Aurari, U40 (and R3 Deeps?)
- Higher grade, smaller tonnage
- Broad alteration zones
- Steep dipping NE- and NNW-striking fault systems
- Reactivated, variably silicified pre-sandstone faults
- Silicification predates mineralisation
- Mineralisation as breccia and fracture fill, minor wall-rock replacement



# ● ● TARGET DIMENSIONS “ALTERATION FOOTPRINTS”



## Geochemical anomalism in sandstone

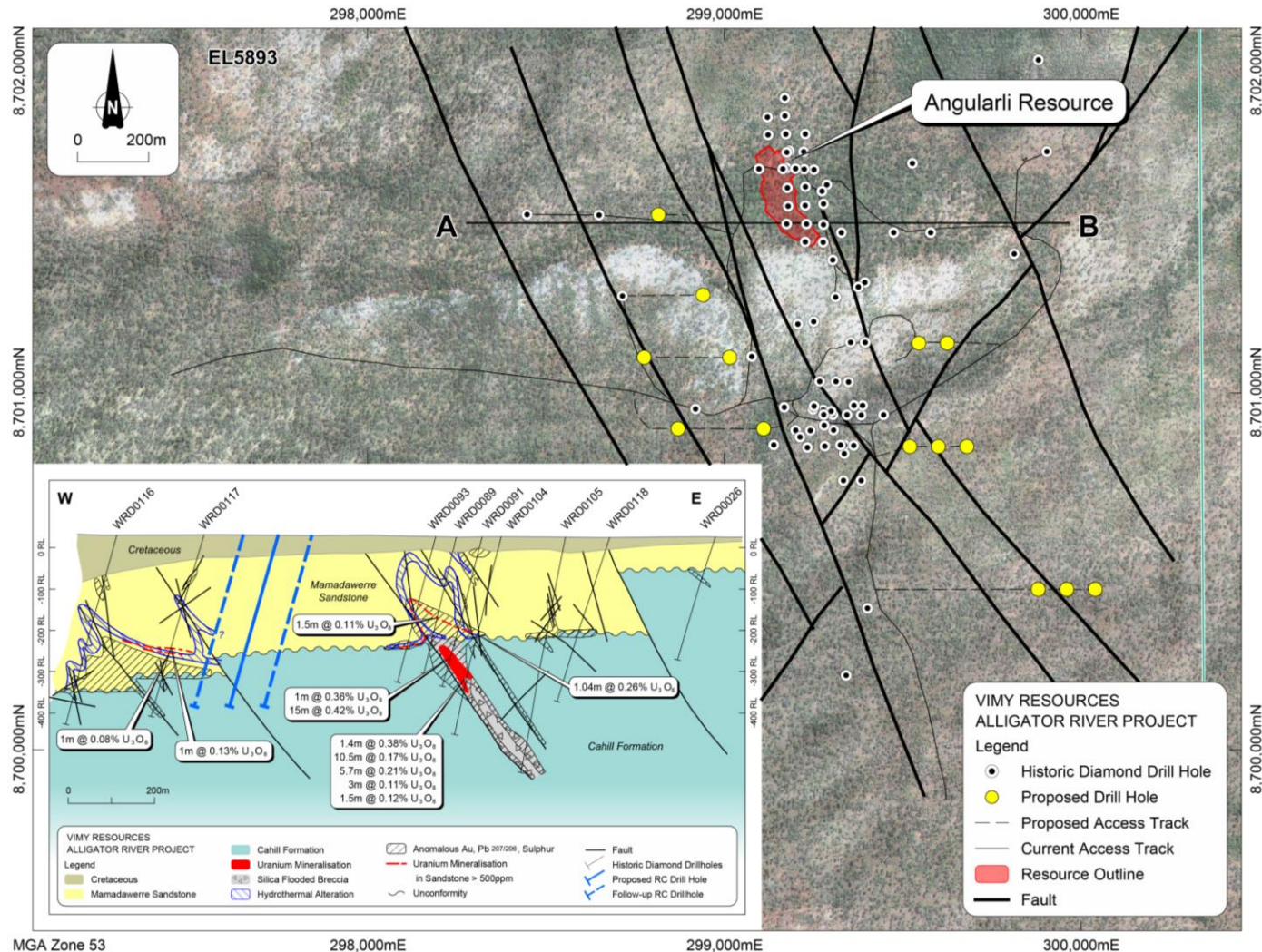
- Uranium (> 5 ppm)
  - > 800 to 1000 m along plane of fault
  - > 100 to 250 m across strike
- Boron (> 20 ppm) &  $^{207}\text{Pb}/^{206}\text{Pb}$ 
  - > At least 1.5 km along plane of fault
  - > Up to 500 m across strike
- Mg, K & S (KSI), Au, Cr, Co, Cu
  - > Several 10's -100's m

## Visible alteration in sandstone (Bleaching/clay/dravite)

- 1 – 1.5km along strike of fault
- 100 – 300 m across strike



# ANGULARLI DRILLING PROGRAM UNDERWAY



## Drilling program:

- Within ~1km of existing deposit
- Testing repeat parallel structures (NNW-SSE)

## Aim:

- To prove up additional high-grade mineralisation within a short distance of potential operation
- > targets to grow resource base

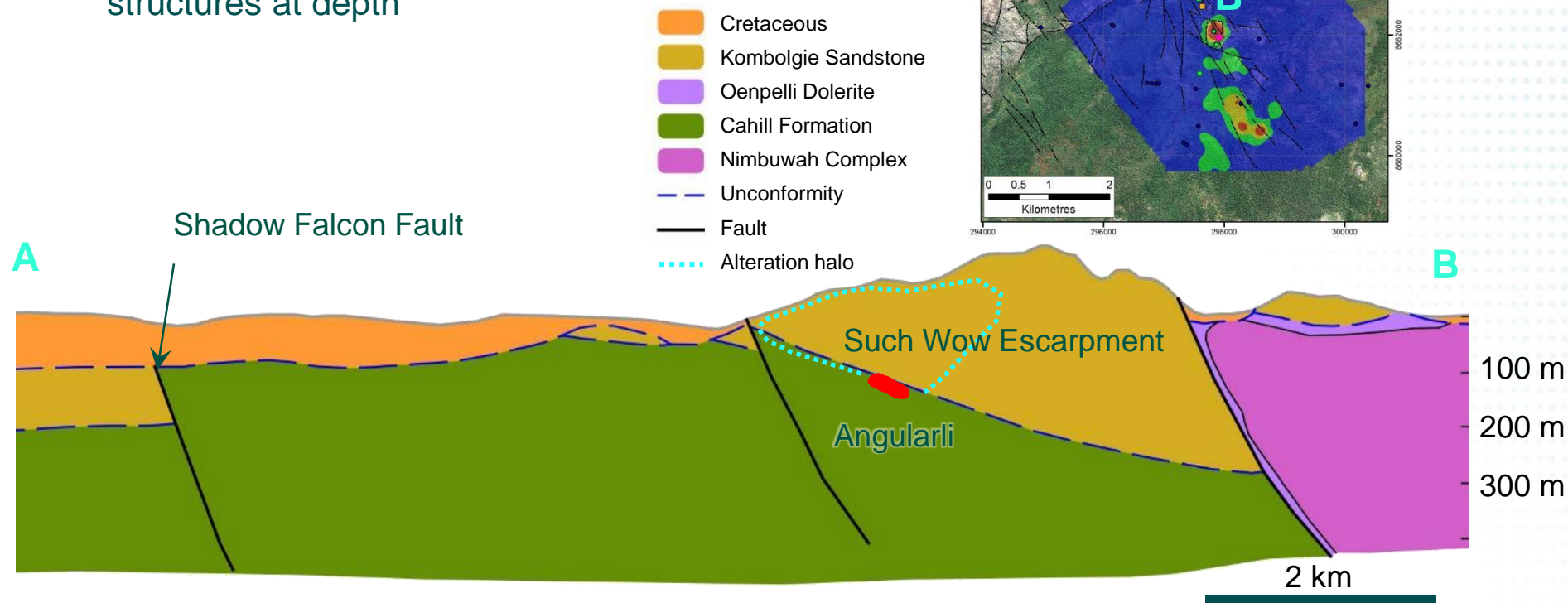
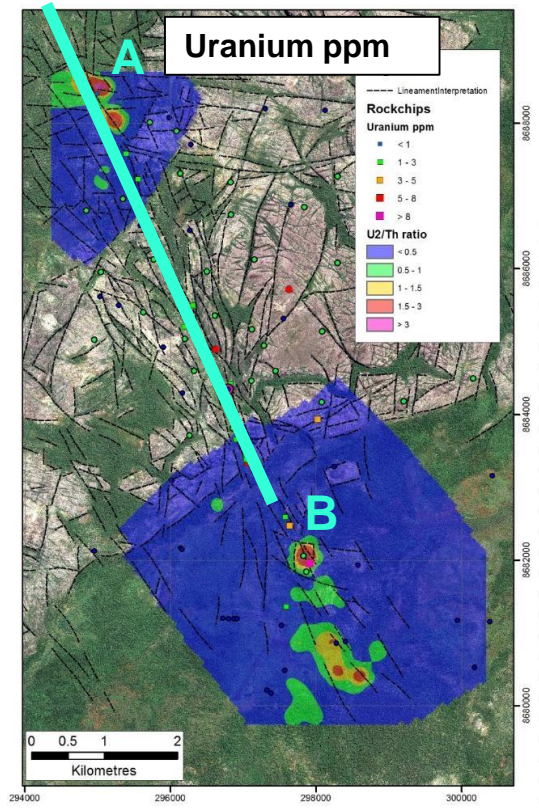
# ● ● SUCH WOW RC DRILLING PROGRAM

## Target rationale

- Anomalous uranium rock-chip and termitaria results along NNW trending fault zone

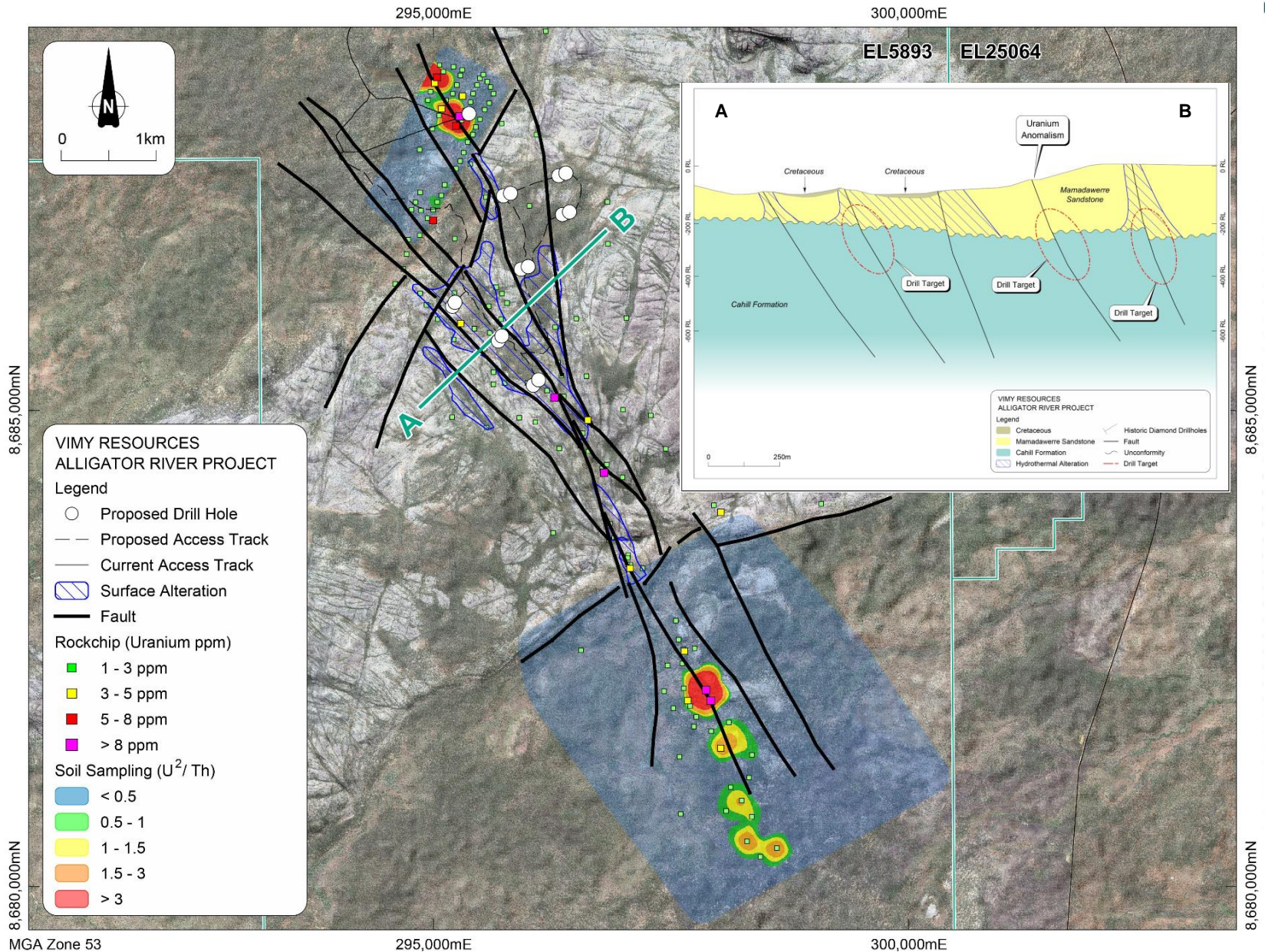
## Aim

- First pass drilling along the Telstra Fault within the northern part of the Such Wow sandstone escarpment
- Demonstrate uranium prospectivity of controlling structures at depth





# SUCH WOW RC DRILLING PROGRAM

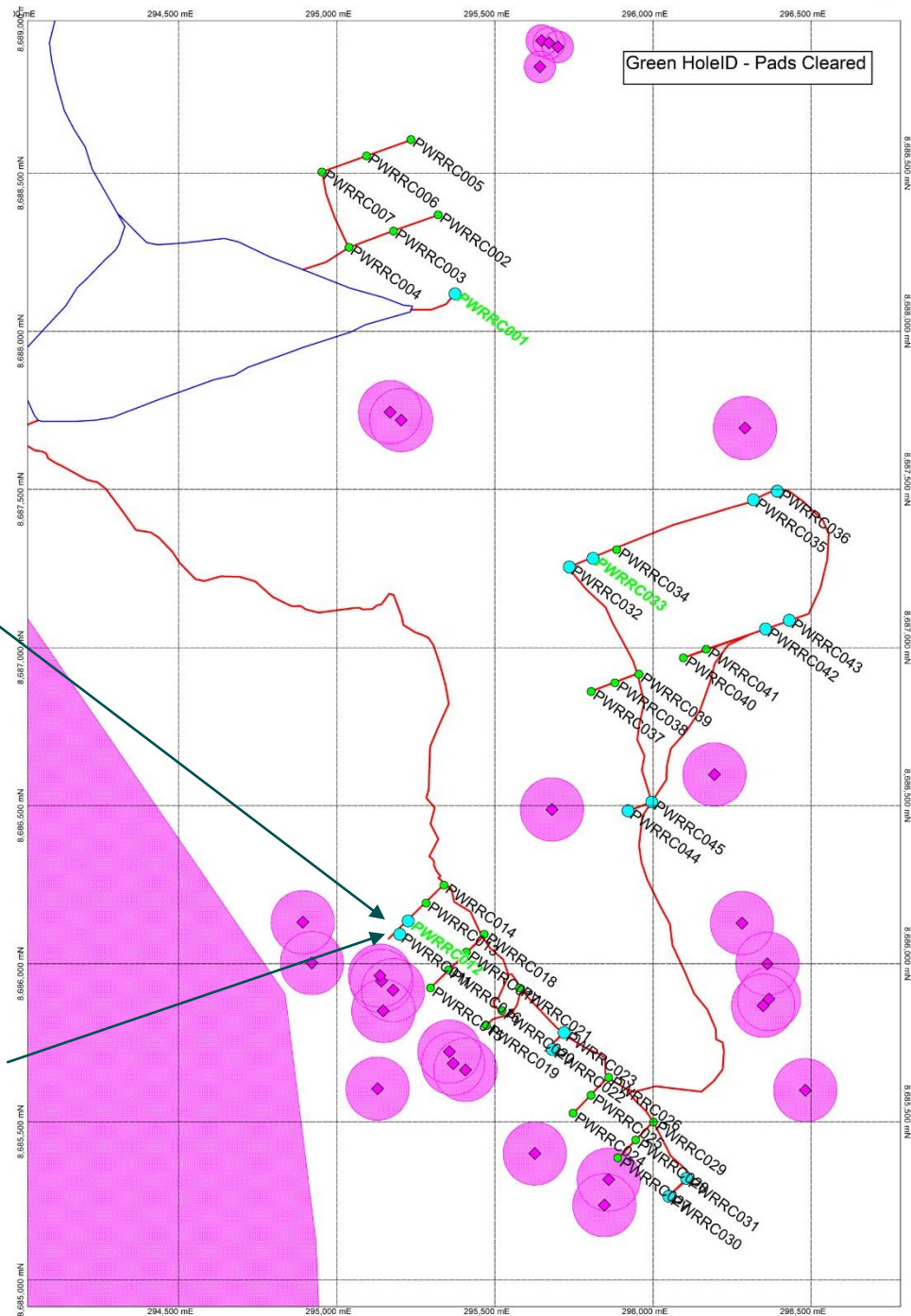




# 2018 SUCH WOW RC DRILLING PROGRAM



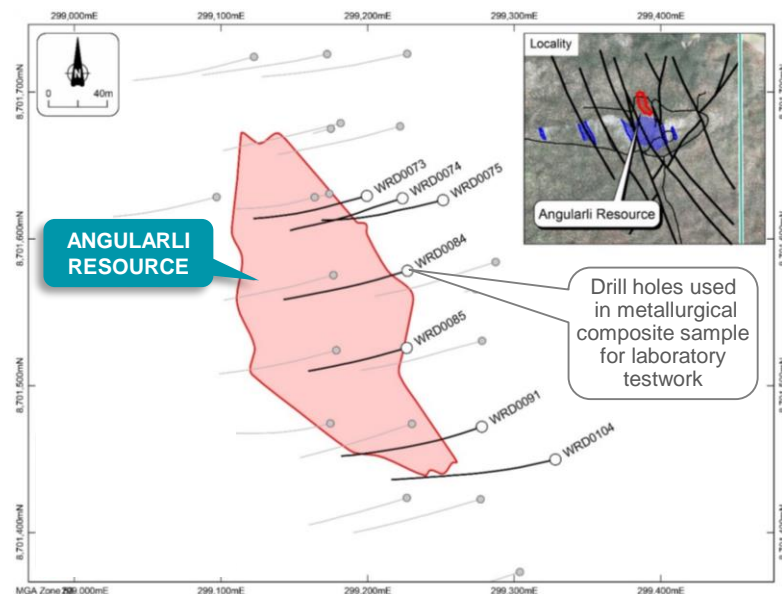
*Fractured and altered sandstone in outcrop to west of proposed hole*



# ANGULARLI SCOPING STUDY

- Leach testwork (ANSTO):
  - > Exceptional uranium leach extraction of 98.5% achieved
  - > Low acid and oxidant consumptions
- Two metallurgical flowsheets are being evaluated as part of the Scoping Study:
  - > Acid leach / solvent extraction
  - > Acid leach / direct precipitation
- Engineering Scoping Study awarded to Wood PLC, due for completion Q4 2018, will provide a +/- 35% capital and operating estimate

See ASX announcement 3 September 2018



Leach Parameters	Unit	Angularli	Nabarlek <sup>1</sup> (Jul 1983-Jan 1984)	Ranger <sup>2,3</sup>
Temperature (°C)	(°C)	35-40	35-40	35-45
pH	-	1.6	1.6	1.9-2.0
Residence time	hours	24	24	24
Feed density	%w/w	50	50	55
Sulphuric acid consumption	kg/t	14	54.7	30-40
Oxidant consumption	kg/t	1.4	2.0 <sup>#</sup>	5*
Uranium extraction	%	98.5	97.5	91.5

<sup>#</sup> Operating plant data using hydrogen peroxide mixed with concentrated sulphuric acid to form Caro's Acid.

\* Ranger uses pyrolusite (MnO<sub>2</sub>) as an oxidant.

<sup>1</sup> Fulton, E. J., Caro's Acid – Its Introduction to Uranium Acid Leaching in Australia, The AusIMM Conference, Darwin 1984.

<sup>2</sup> Uranium Evaluation and Mining Techniques, IAEA Proceedings of a Symposium, Buenos Aires, 1979.

<sup>3</sup> Ring, B., Uranium Ore Processing in Australia – Past, Present and Future, ALTA Conference, Perth, 2006.

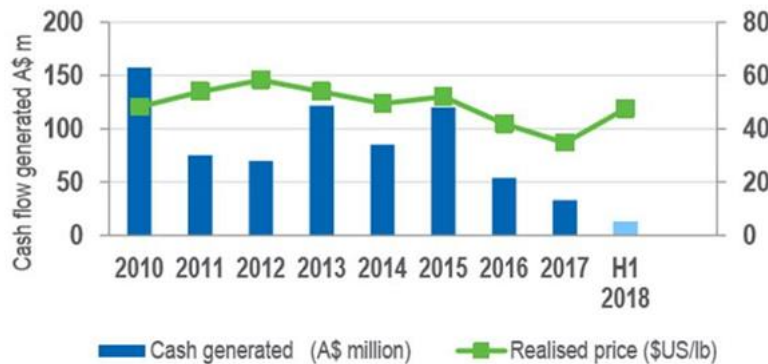


# ● ● MINE DEVELOPMENT – ANGULARLI

- Mine design and initial capital and operating estimates for Angularli prepared by MiningPlus earlier in 2018
- Mining costs currently being finalised along with stope sequencing and diluted mineral inventory expected from the underground operation
- Conceptual mine development approach used for Scoping Study is similar to historical Nabarlek uranium mine (1980-1988; since decommissioned)

*ERA cash flow (2010-2018)*  
*H1 2018: \$US26/lb premium to spot price*

Historical cash generated<sup>2</sup> (including interest and financing costs)<sup>2</sup>



Source: Energy Resources Australia, June 2018 Half Year Results, Announcement to the ASX, dated 31 July 2018

## Angularli conceptual mine design

