

# **Copper, Zinc and Uranium Projects in NT and SA**



ASX CODE: **CXO**

# DISCLAIMER

# Copper & Base metal

The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Stephen Biggins (BSc(Hons)Geol, MBA) as Managing Director of Core Exploration Ltd who is a member of the Australasian Institute of Mining and Metallurgy and is bound by and follows the Institute's codes and recommended practices. He has sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activities being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Biggins consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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# Copper, Zinc and Uranium

In NT and SA

9 metre mineralised breccia and 30m zone of breccia and veining intersected by drilling  
**Yerelina Zinc Project, SA.....Awaiting Assays**

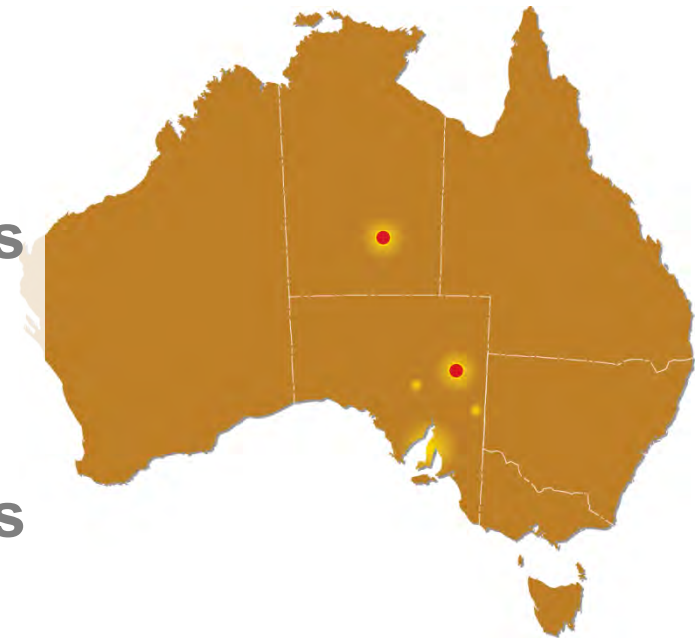
Drilling program recently completed on copper drill targets close to KGL & RXL

**Jervois Domain, NT.....Awaiting Assays**

New MOU for \$2M JV to fund upcoming drilling  
**Blueys and Inkheart, Albarta, NT**

Outstanding discovery of high grade uranium in world class uranium mining jurisdiction

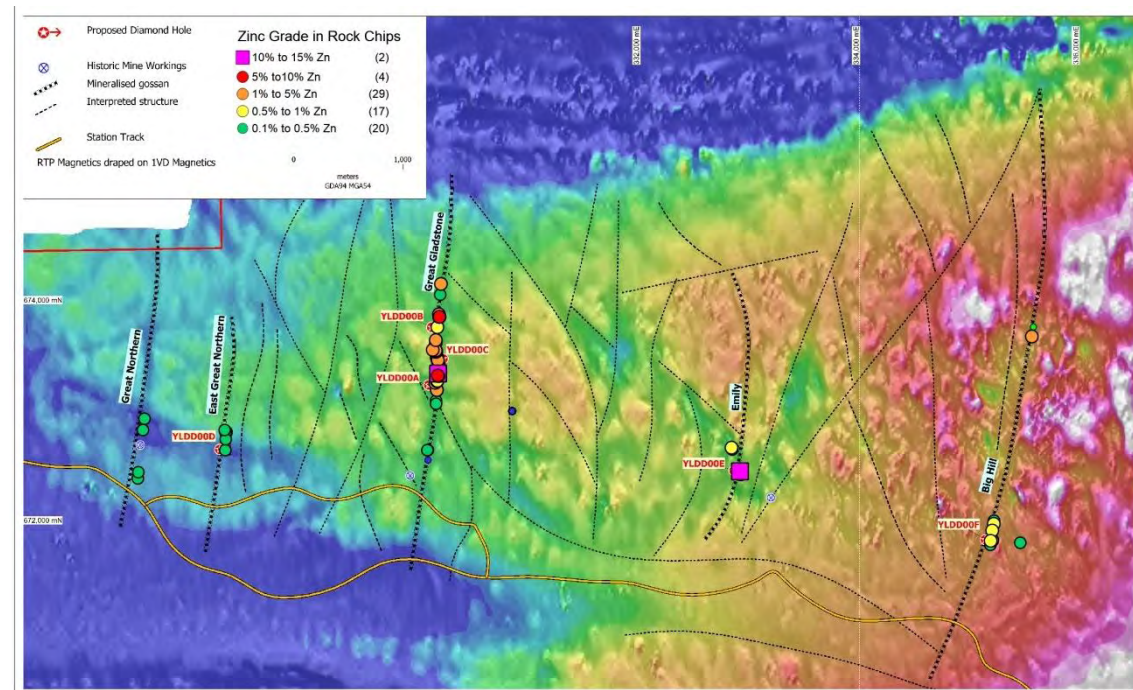
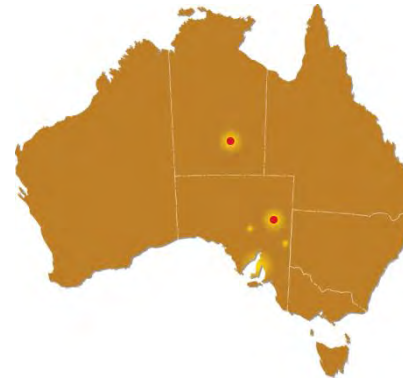
**Fitton Project, SA**



# YERELINA ZINC, SA

# Copper & Base metal

- Core's recent diamond drilling has intersected a 9.7 metre mineralised breccia zone at Great Gladstone Prospect
- Base metal sulphides are observed as zinc (sphalerite) dominant along with lead and significant silver expected
- Drilled mineralised breccia also outcrops as gossan at surface in a fault zone interpreted to be up to 1.5km long at Great Gladstone



# YERELINA ZINC, SA

# Copper & Base metal

- 9.7m section of mineralised breccias and veining was intersected by diamond drill hole YRDH003 from 144m depth
- Drilling has been completed with assays expected in 3-4 weeks
- Core awarded SA Government for 50% co-funding towards the cost of planned diamond drilling

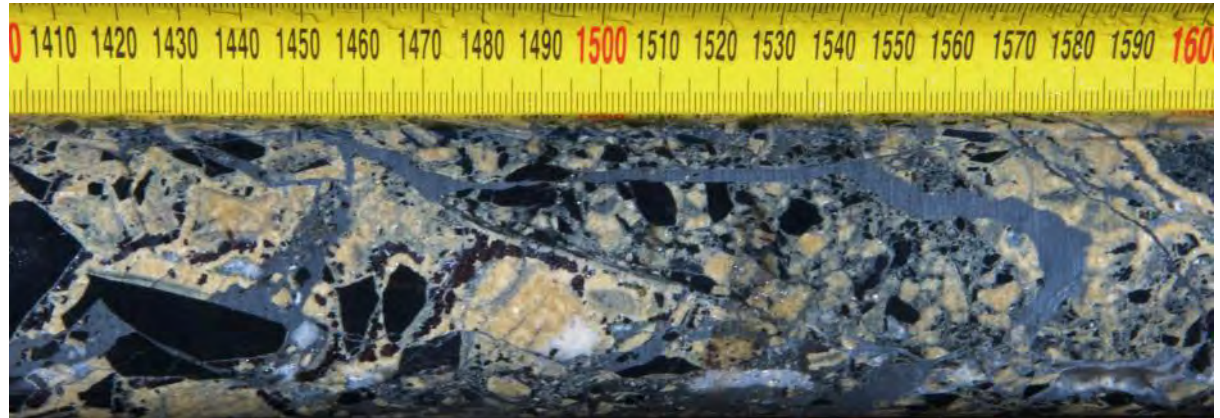


*Diamond drill core of 9 metre zone of intense brecciation with mineralisation and veining intersected by YRDH003 at Great Gladstone Prospect*

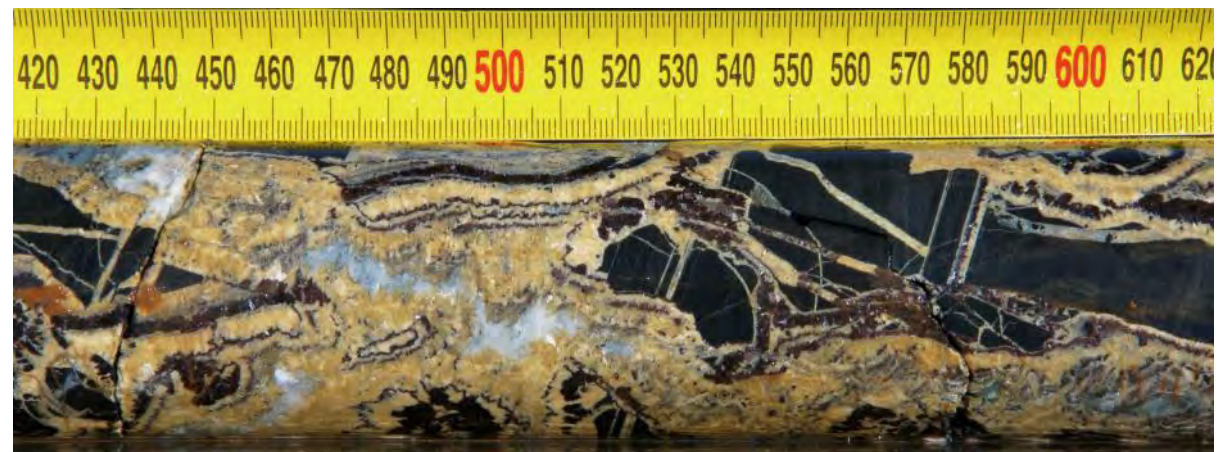
# YERELINA ZINC, SA

# Copper & Base metal

- Base metal mineralisation as breccias with slate clasts in siderite-carbonate-quartz matrix with polyphase banded breccia/veins of sphalerite and silica and ribbons of galena and coarse pyrite
- A lower zone of mineralisation at 153.1-153.8m consists of banded siderite-carbonate-quartz breccia zone with parallel bands of sphalerite



YRDH003 150.2m - Mineralised Breccia (slate, siderite-calcite-quartz-sphalerite-galena)

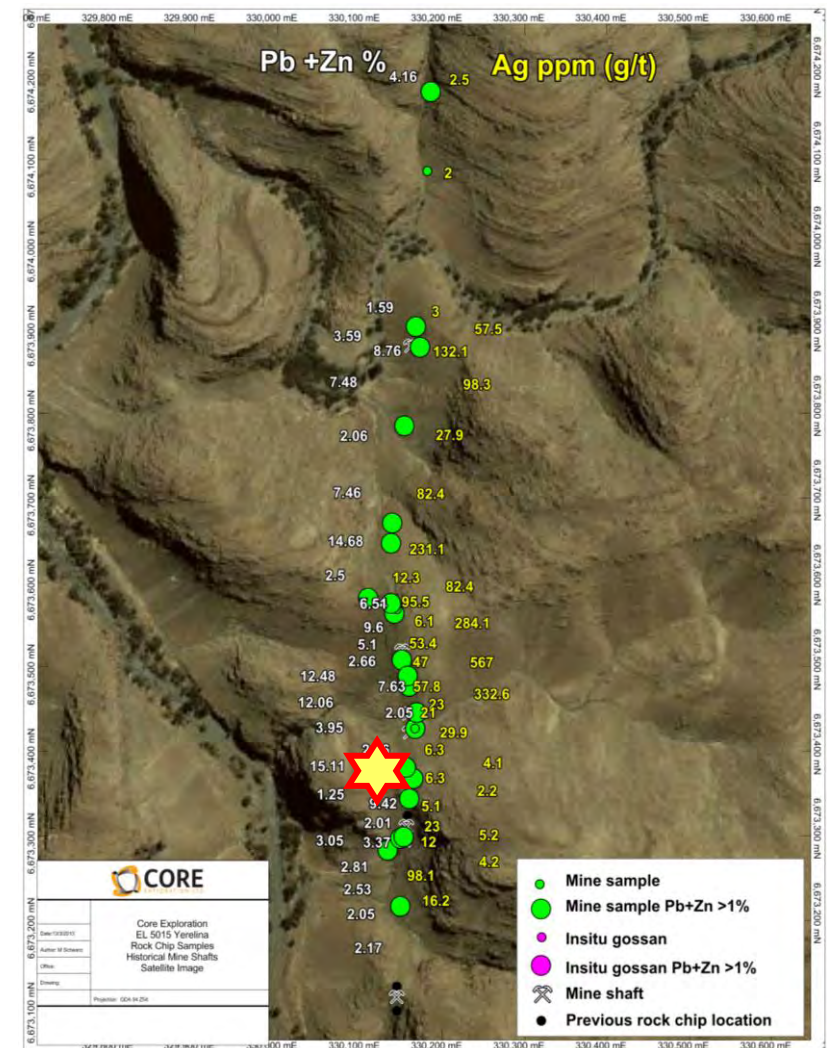
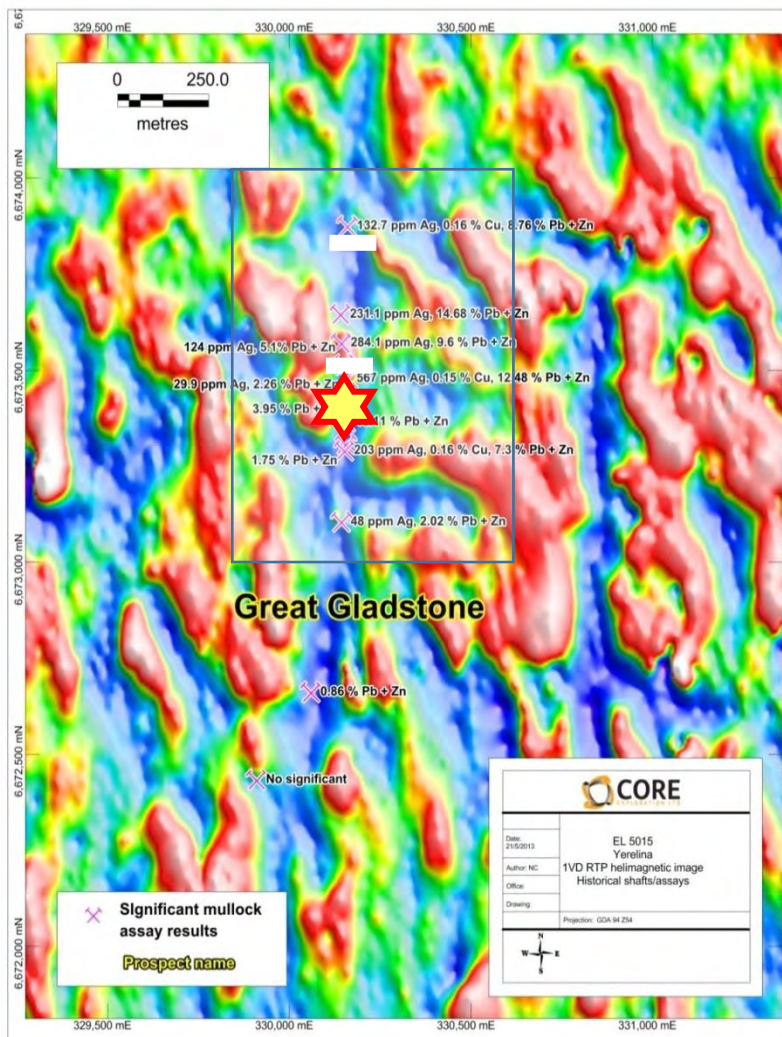


YRDH003 153.4m – Sphalerite and siderite within polyphase vein within brecciated slate.

# YERELINA ZINC, SA

# Copper & Base metal

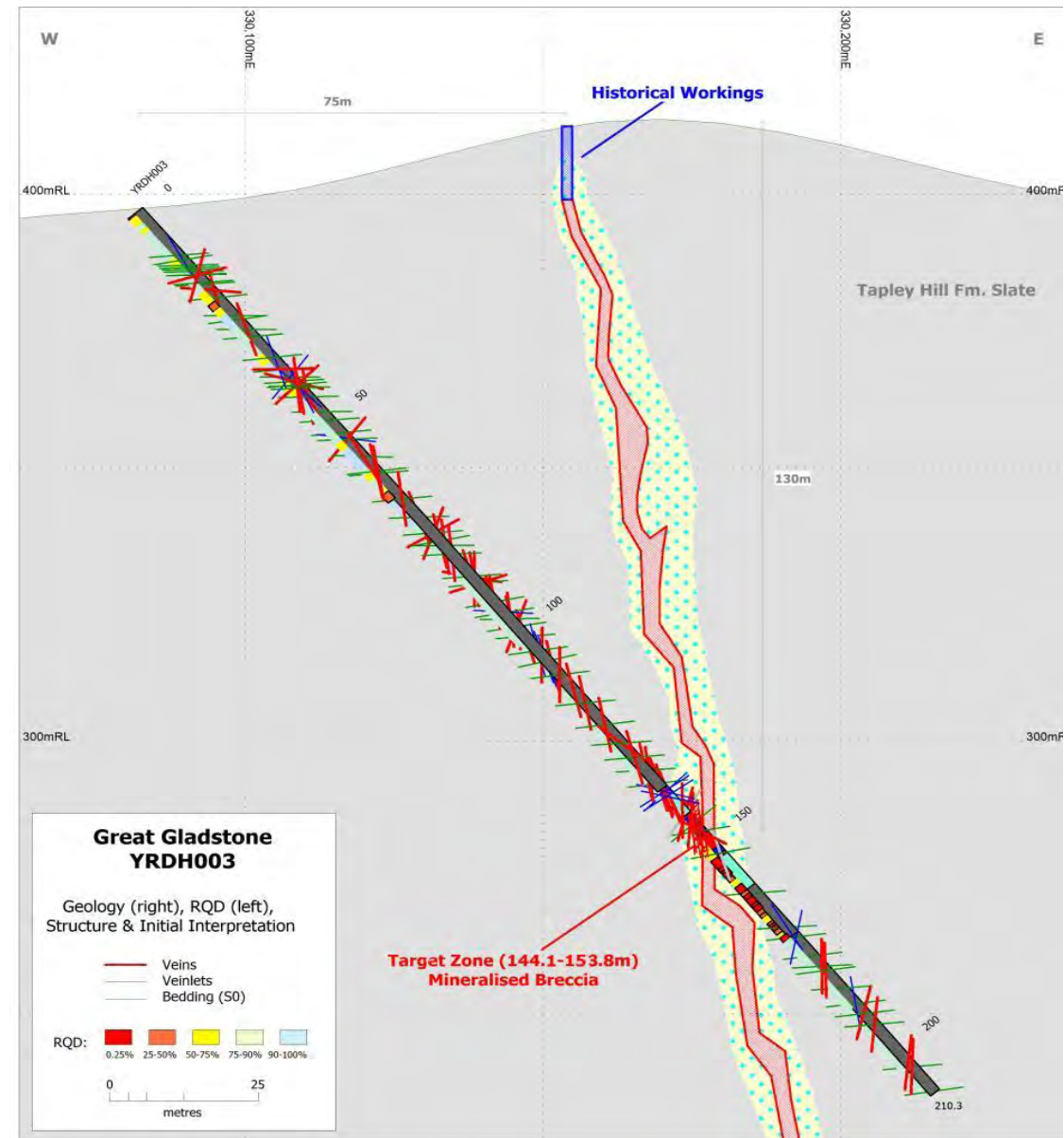
- 38 samples taken on 1 km section of Great Gladstone fault zone
- 34 returned combined zinc and lead values excess of 1% and 1g/t silver with the best assays at 14.7% zinc, 11.7% lead and 567 g/t silver



# YERELINA ZINC, SA

## Great Gladstone Prospect

- Mineralisation intersected at approx. 120m vertical depth
- Alteration and brecciation extends on the scale of metres from mineralised zone within a broader 10m halo
- Potential for other "shoots" and vein systems as evidenced by the separate lower intersection of mineralisation

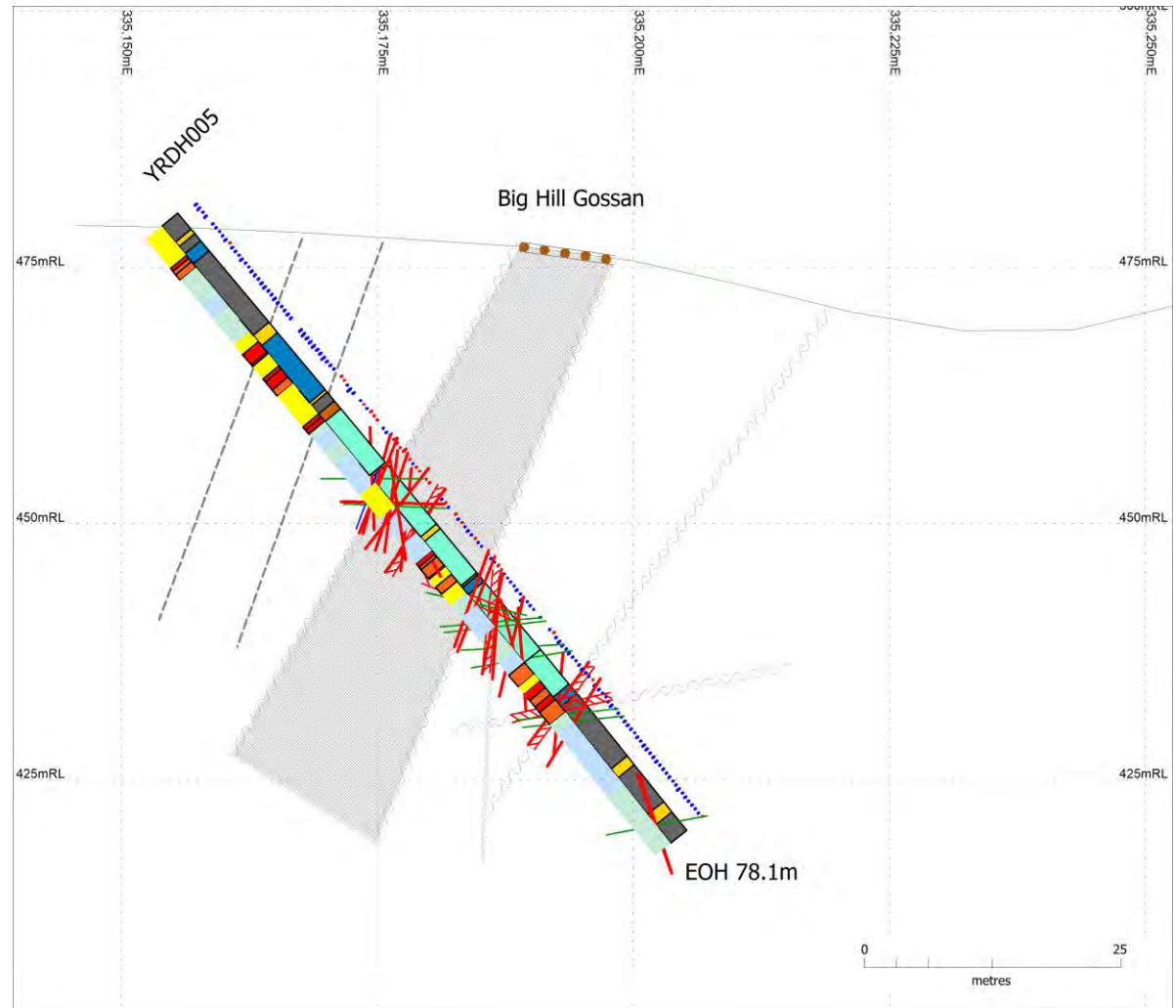


# YERELINA ZINC, SA

# Copper & Base metal

## Big Hill Prospect

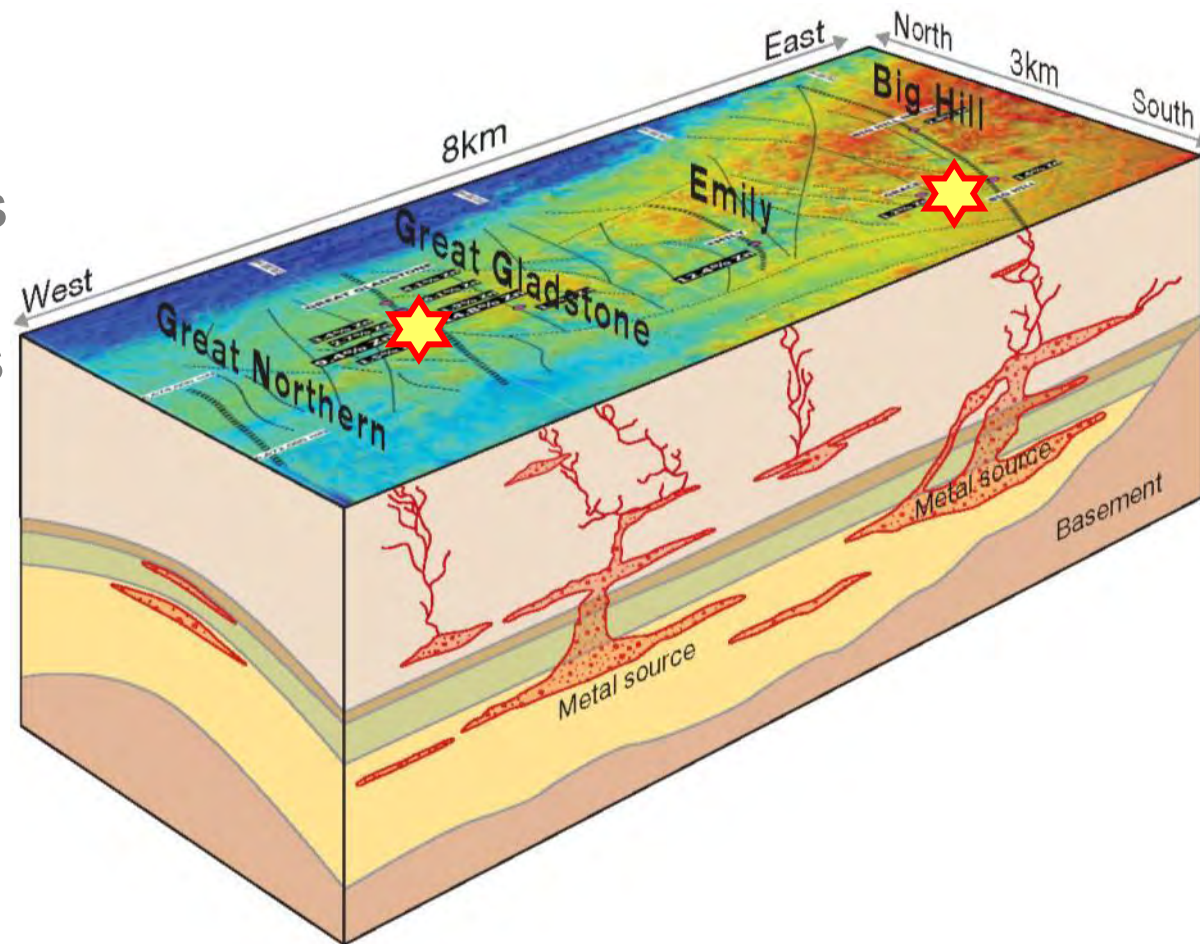
- Drilling hits 30m wide zone of intermittent breccias and veining at Big Hill Prospect
- Box works, voids and iron oxides (after zinc, lead and iron sulphides) in zone of breccias and veining similar to that at Great Gladstone
- Breccia zones at Big Hill interpreted to be a shallow oxidised analogue of the mineralised breccias at Great Gladstone 5km away



# YERELINA ZINC, SA

# Copper & Base metal

- Magnetic surveys and remote sensing imagery shows clear evidence of numerous historical workings and outcropping mineralisation over hundreds to thousands of metres in repetitious gossanous vein sets over a very broad 8km wide and 3 km long area
- Large 100%-owned tenement covering 999km<sup>2</sup>
- 60km from Perilya's Beltana zinc mine

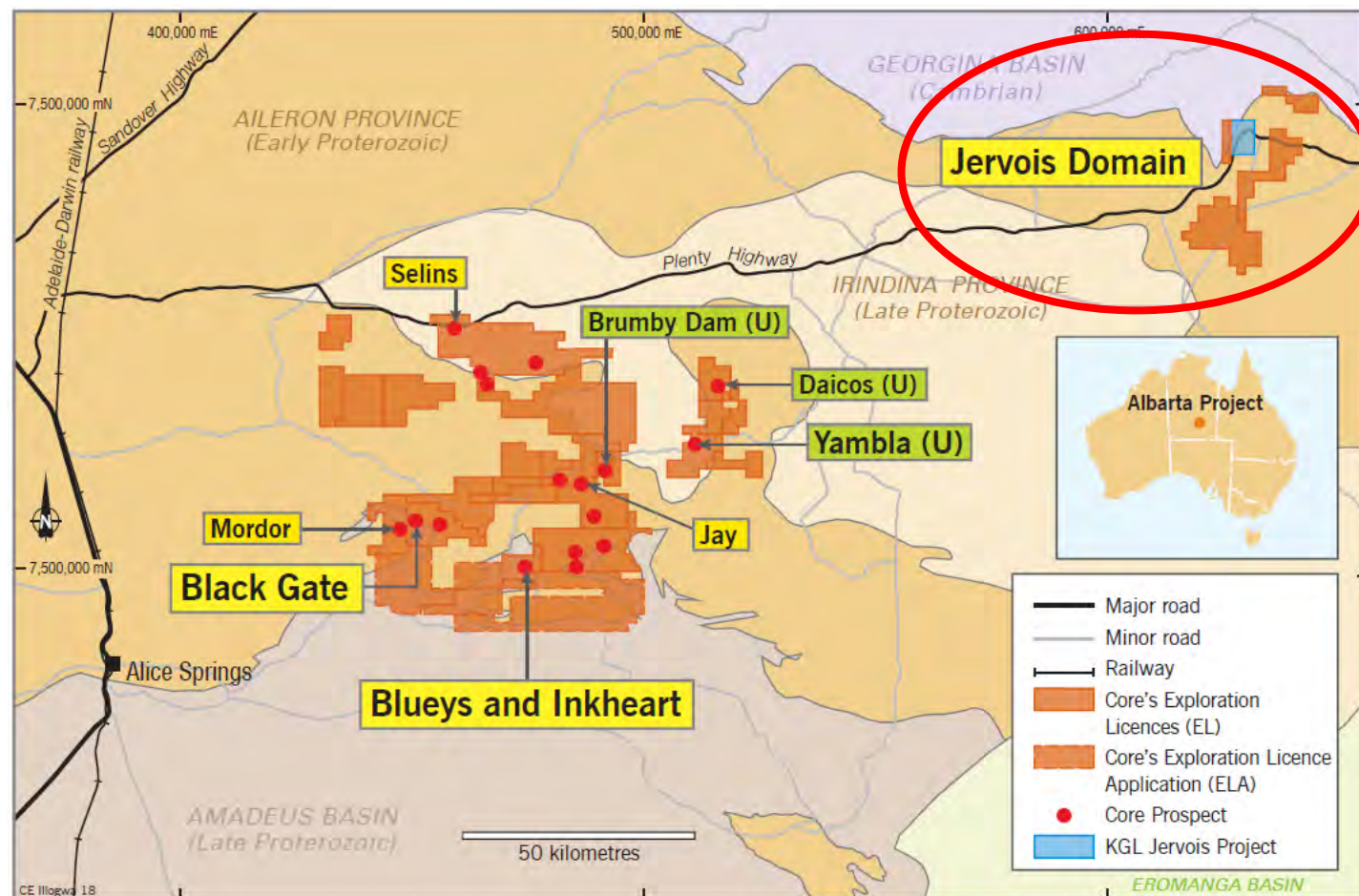


# JERVOIS DOMAIN & ALBARTA PROJECT, NT

# Copper & Base metal

STRONG COPPER AND BASEMETAL PROSPECTIVITY IN THE EAST ARUNTA

Multiple occurrences of copper, base metals and uranium on Core's tenure

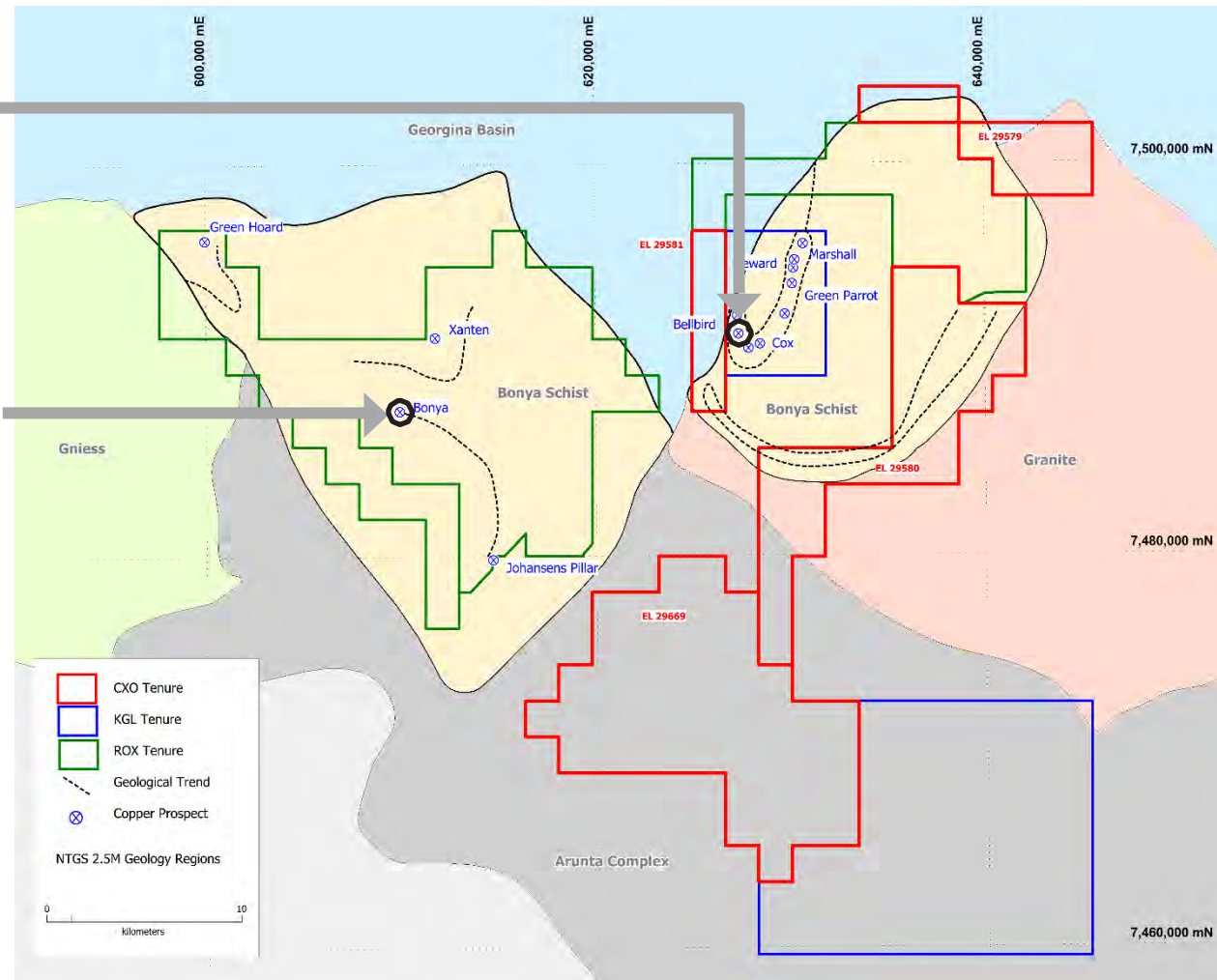


# Copper & Rare metal

## CORE'S JERVOIS DOMAIN, NT

500m from  
KGL's 13m @ 5.75% Cu  
and close to  
RXL's 38m @ 4.4% Cu

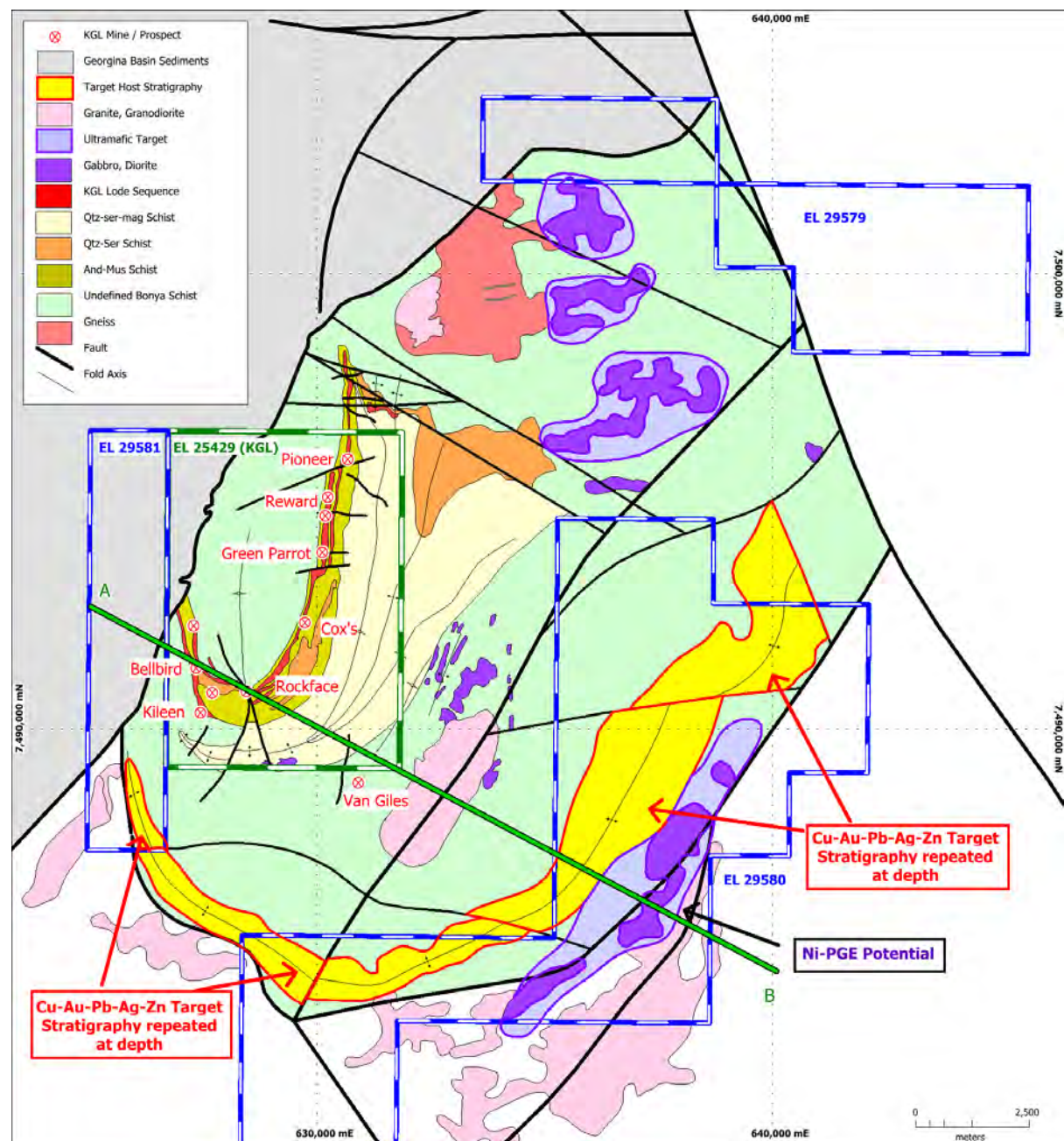
Substantial intersections of  
massive copper sulphides  
in the east Arunta



# Copper & Base metal

## JERVOIS DOMAIN PROJECT

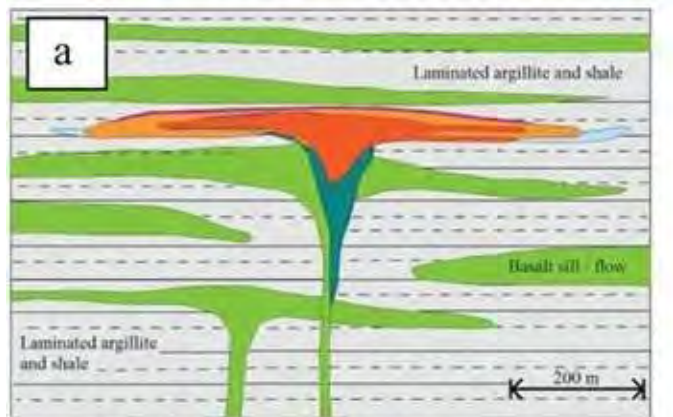
- Drilling recently completed on Core's Big-J zone
- Assays in next 3-4 weeks
- Big- J interpreted as folded extension to KGL's J-fold "line of lode"
- Geophysical modelling has defined a significant number of strong drill targets within a 15km strike length
- Targets have similar geophysics to the adjacent Jervois and Sedex/VHMS style mineralisation



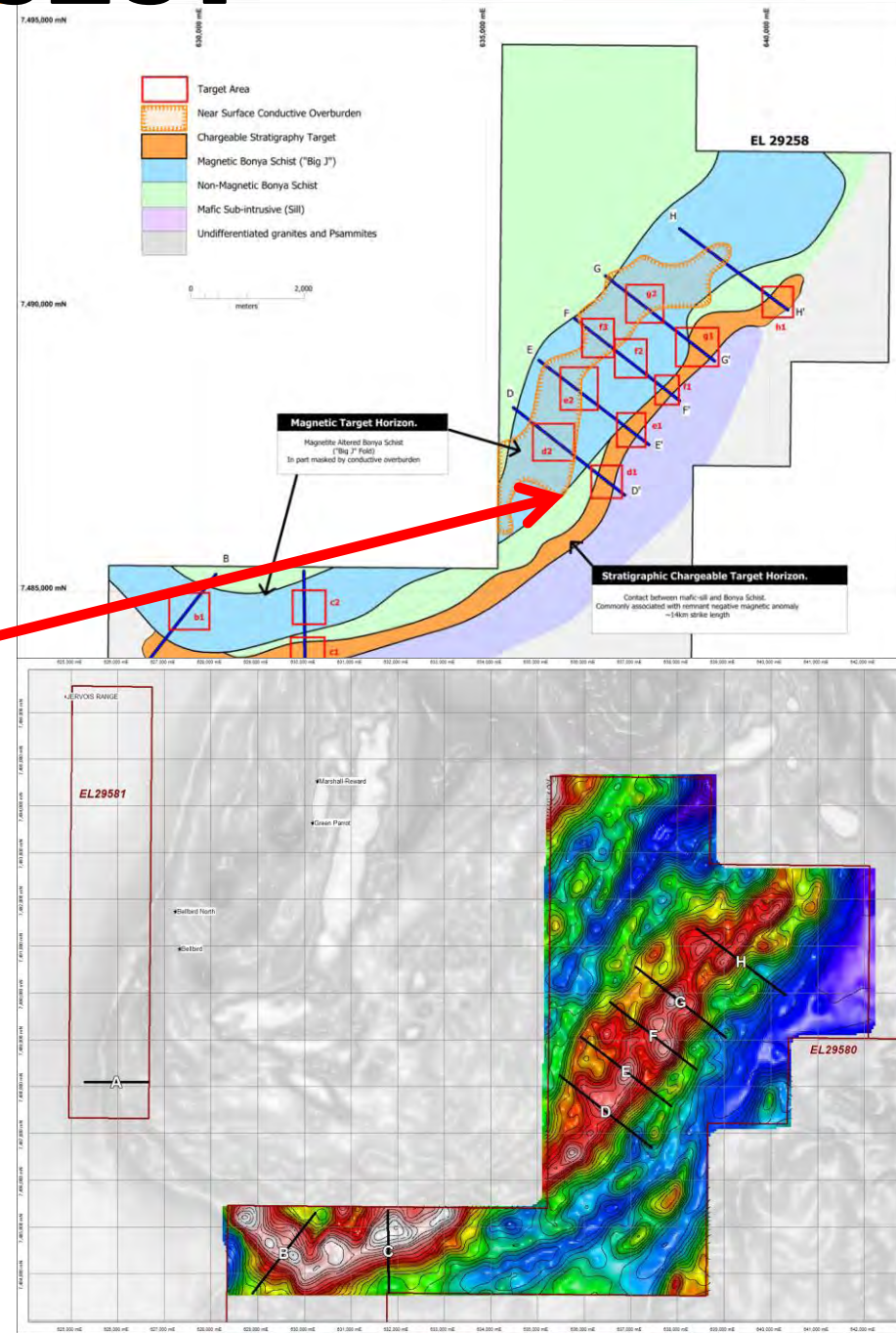
# Copper & Base metal

## JERVOIS DOMAIN PROJECT

- Multiple magnetic, conductive and chargeable features at large prospect scale within the Big-J target zone
- Targets have similar geophysics to the adjacent Jervois and Sedex/VHMS style mineralisation
- 10km long stratiform chargeable zone found at base of sediments and top of mafic sill (Beshi Type)



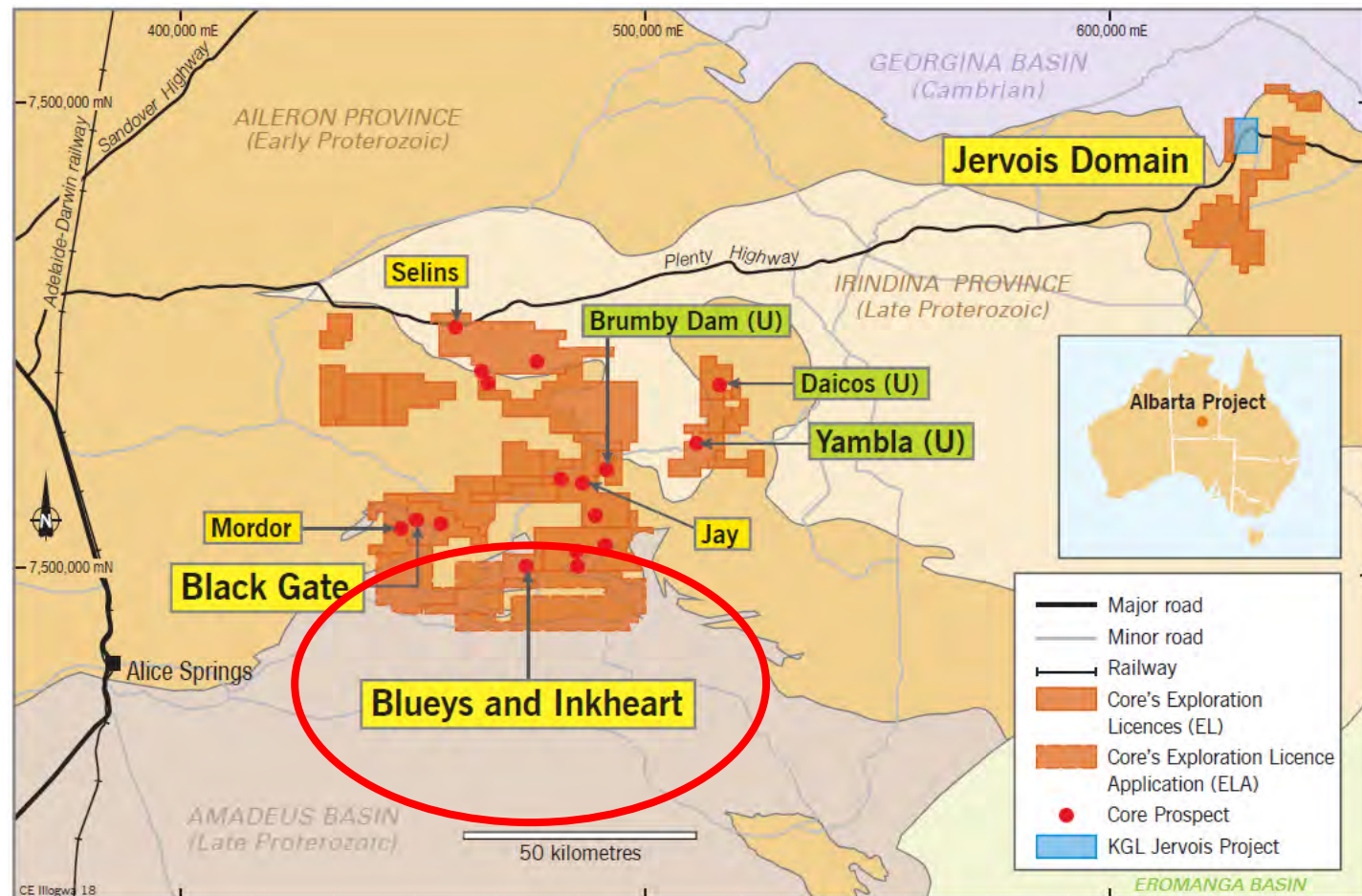
- |  |                          |
|--|--------------------------|
| Pyrrhotite-pyrite-magnetite transition zone              | Chert-carbonate-sulphide |
| Pyrrhotite-pyrite-chalcopyrite                           | Pyrite-sphalerite zone   |
| Pyrrhotite-chalcopyrite-pyrite-sphalerite stockwork zone | Massive pyrite zone      |



# JERVOIS DOMAIN & ALBARTA PROJECT, NT

STRONG COPPER  
AND BASEMETAL  
PROSPECTIVITY IN  
THE EAST ARUNTA

Multiple occurrences  
of copper, base metals  
and uranium on Core's  
tenure

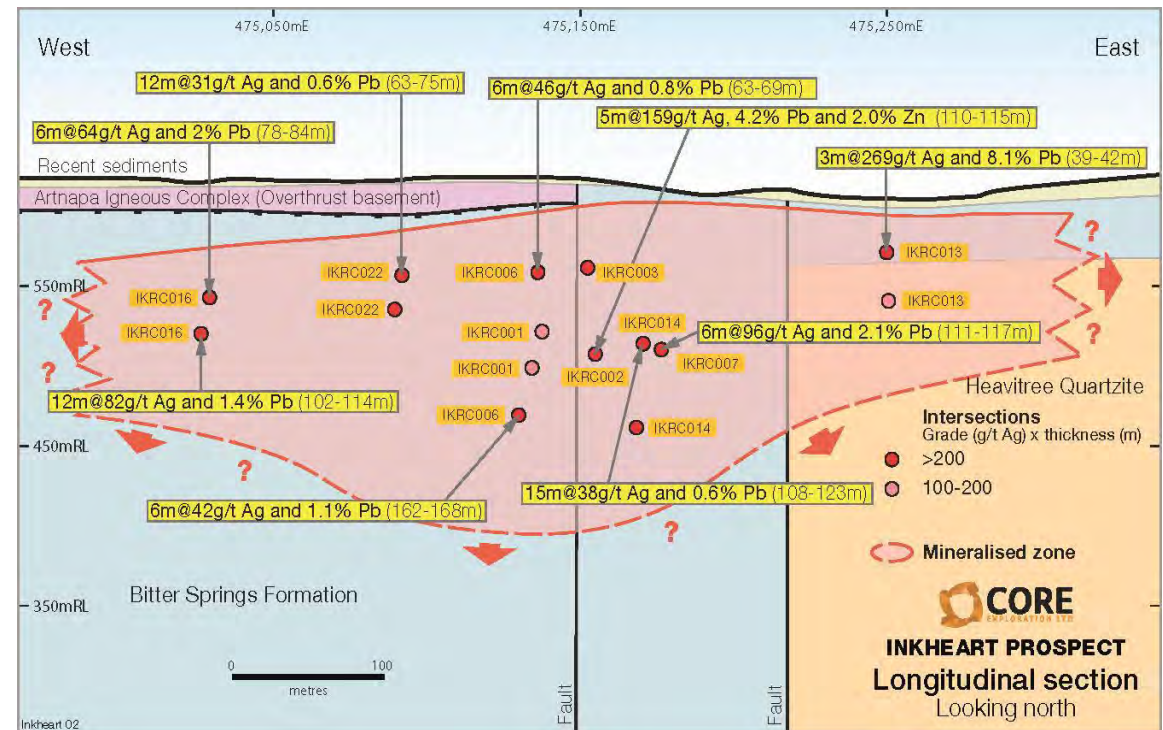


# Copper & Base Metal

## BLUEYS PROJECT SILVER LEAD ZINC

### NT

- Core's drilling in 2014 discovered a new silver lead zinc sulphide system on the Albarta project
- Up to 1,000g/t silver and 17% zinc and lead intersected in drilling
- Very high grades of silver at surface up to 4.5kg/t (4,500 g/t)
- 500m long sulphide system drilled and open at depth and along strike at Inkheart

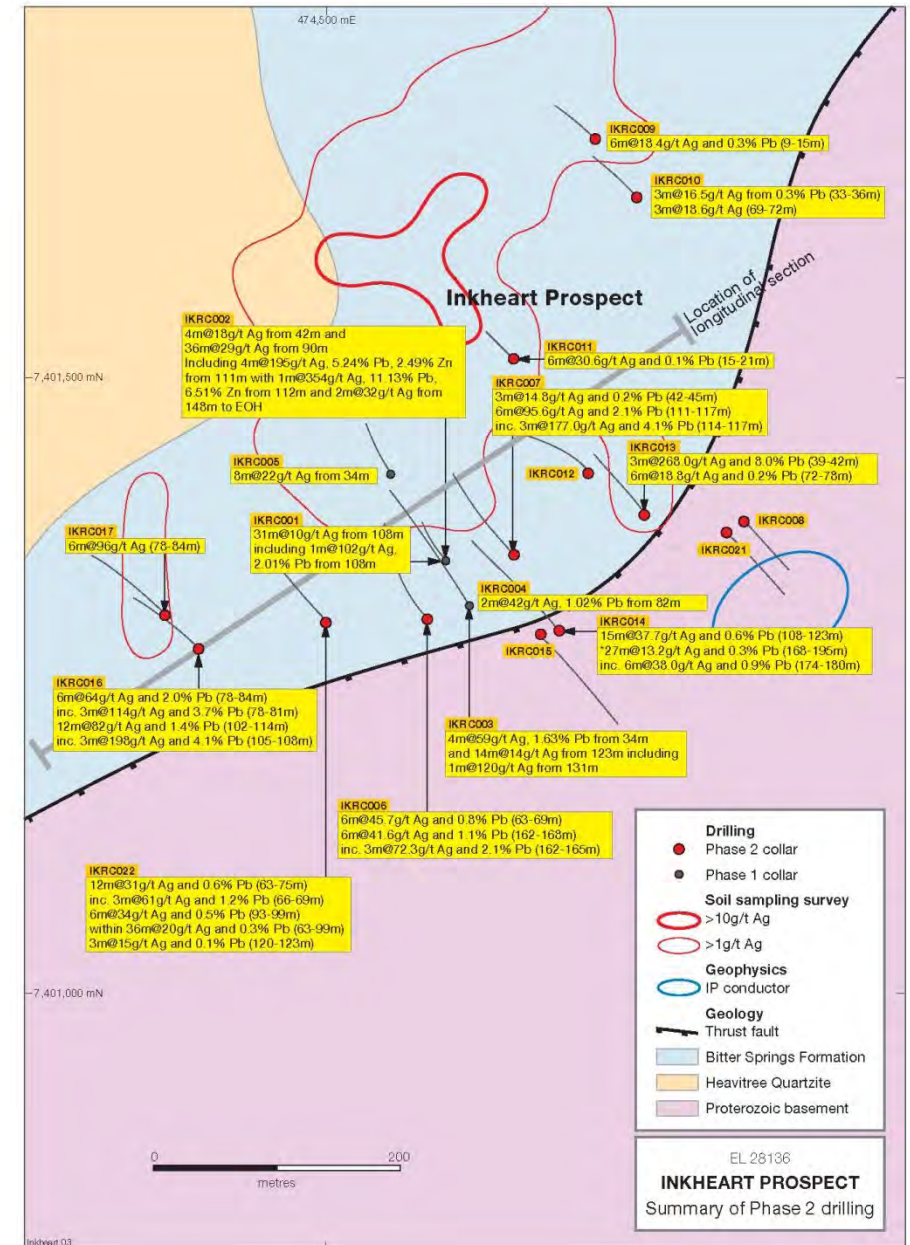


# Copper & Base Metal

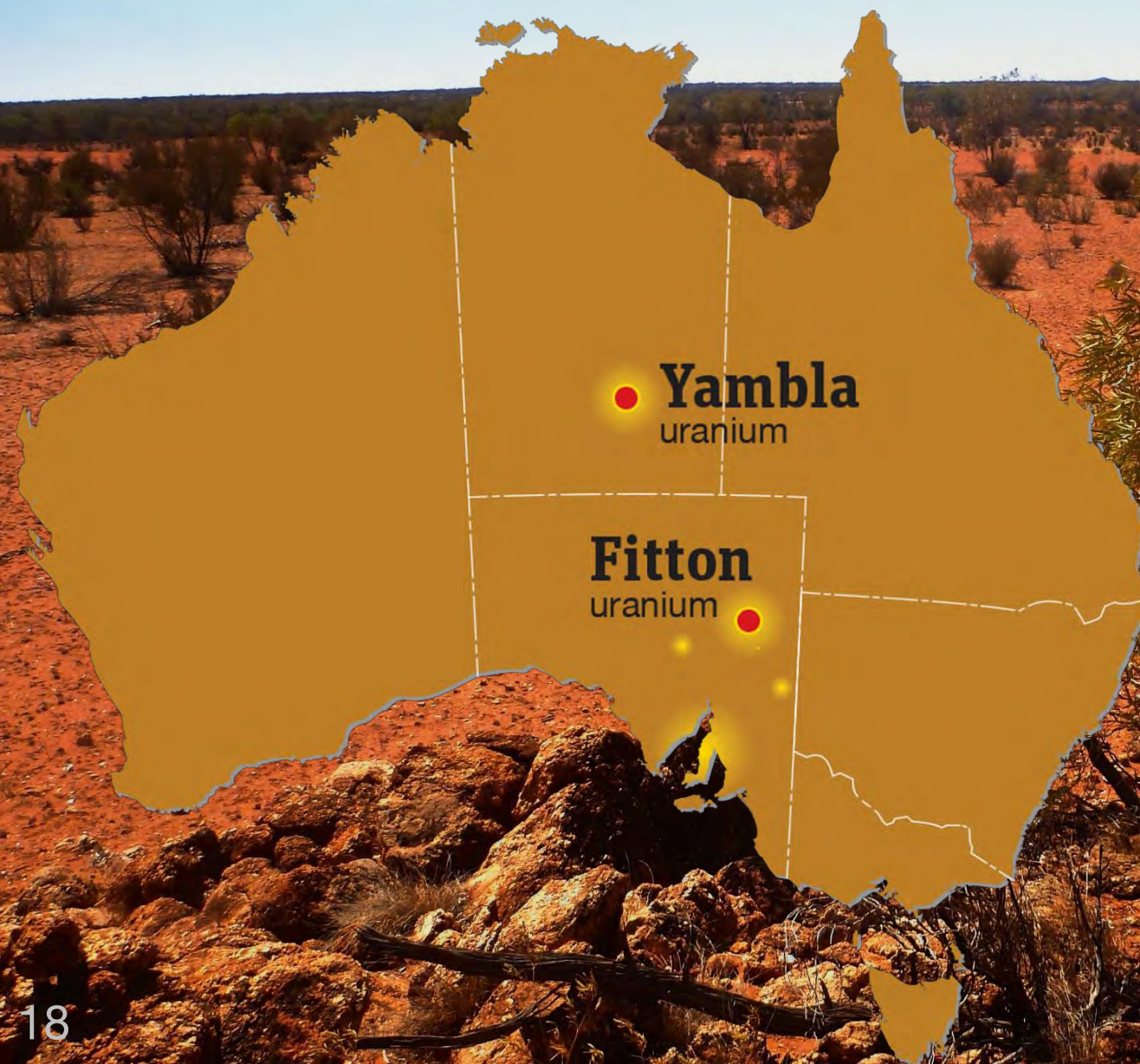
## BLUEYS PROJECT SILVER LEAD ZINC

### NT

- MOU recently signed with offshore organisation on Core's Blueys EL 28136 in the Northern Territory
- The non-binding MOU aims to establish a Joint Venture (JV) by which the incoming party can earn up to an 80% interest in EL 28136 by sole funding exploration over 2 years
- Conditions for JV decision to be completed toward the end of 2015



# Copper & SA AND NT URANIUM PROJECTS



# Copper & Rare metal **CORE'S URANIUM PROJECTS**

IN SOUTH AUSTRALIA



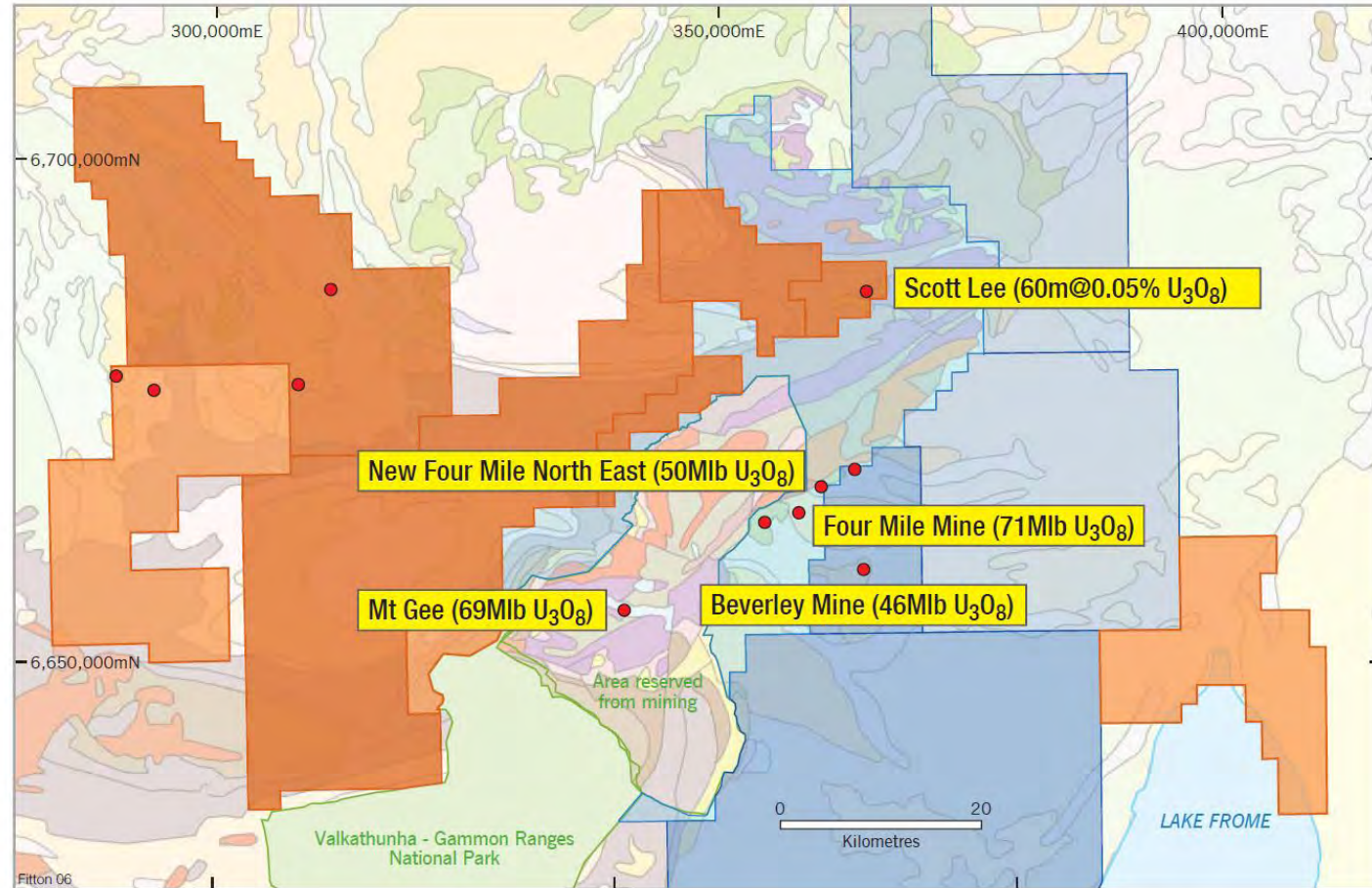
- Core has made an outstanding discovery of high grade uranium on the 100% owned Fitton Project in South Australia
- Core's Fitton drilling in 2012 & 2013 intercepted exceptionally thick and high grade uranium
- Significant “new” discovery with genuine upside
- Fitton is located in a world-class, low-risk uranium mining jurisdiction

# FITTON URANIUM DISCOVERY

## IN WORLD-CLASS URANIUM MINING PROVINCE

Core's uranium discovery at Fitton only 25km from three operating uranium mines

- Proven world-class uranium mining district:
  - Beverley Mine
  - Beverly North Mine
  - Four Mile Mine
- Also host to new uranium deposits and exploration discoveries
  - Four Mile North East
  - CXO's Fitton
- First class and low risk exploration mining and export jurisdiction



- Core EL
- Core ELA
- Quasar (Heathgate) licences
- Quasar/Alliance JV
- Quasar/Paladin JV
- Uranium occurrence



SOUTH AUSTRALIA  
**FITTON PROJECT**  
Location of tenure and  
major uranium deposits

# FITTON

# Copper & Base metal

## ONE OF THE BEST URANIUM DISCOVERIES IN THE REGION SINCE FOUR MILE

Core's exploration work and drilling to date at Fitton has now confirmed that :

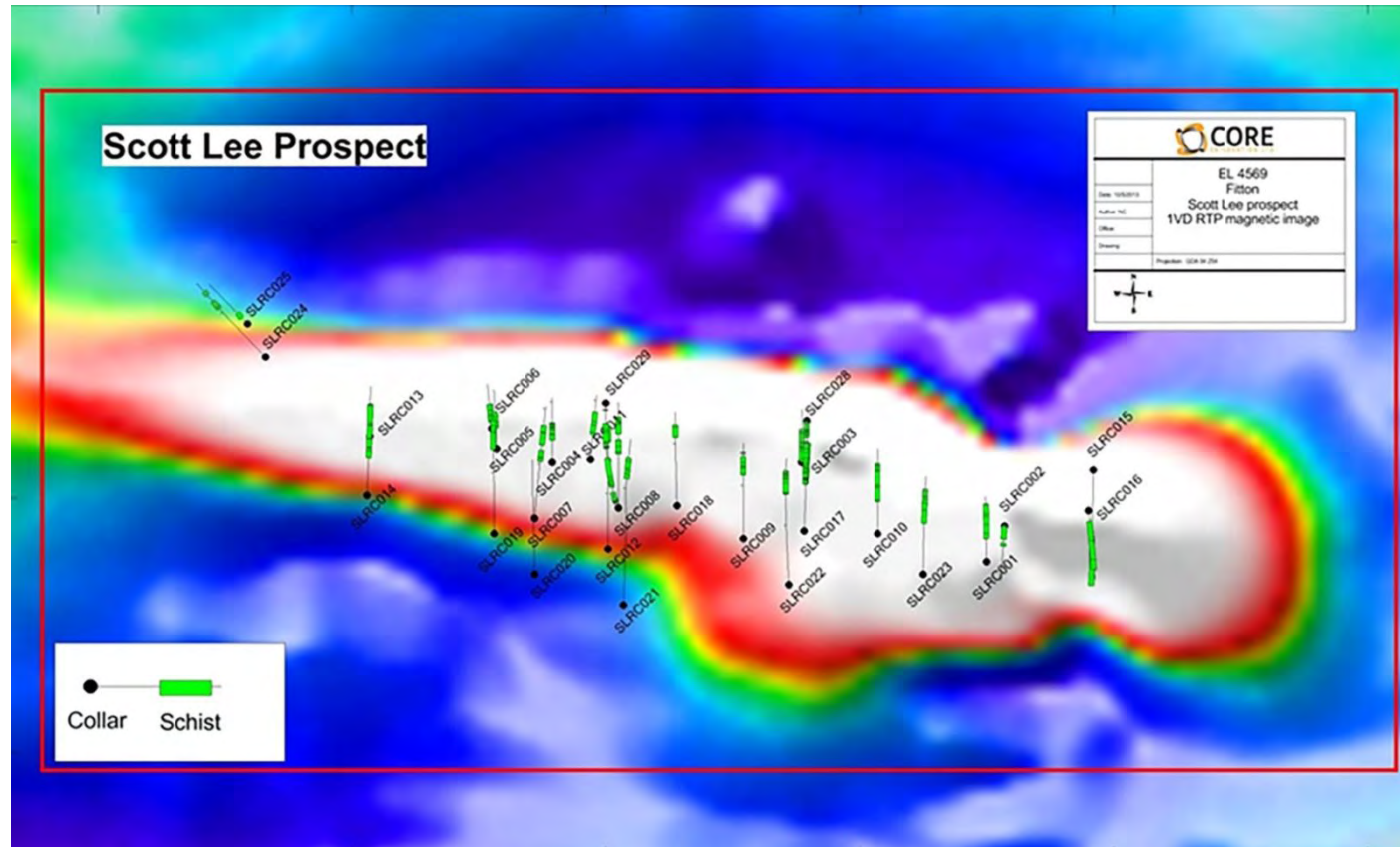
- uranium mineralisation **outcrops (up to 0.30%  $U_3O_8$  at surface)**
- uranium mineralisation has **high grade at depth (up to 4m @ 0.31%  $U_3O_8$ )**
- indications of uranium mineralisation over **substantial intersections (60m @ 0.05%  $U_3O_8$ )**
- uranium mineralisation has been drilled and is **open below 150m depth**
- the mineralised Scott Lee structure has been drilled **over 1km of strike and is open in both directions**
- **uranium mineralisation close to major unconformity**



# SCOTT LEE PROSPECT

## FITTON PROJECT

- Host structure associated with mineralisation consistently intersected over 1km
- Structure open to both east and west and at depth
- Many additional structures close to major unconformity in the region to test



# SCOTT LEE DRILL RESULTS

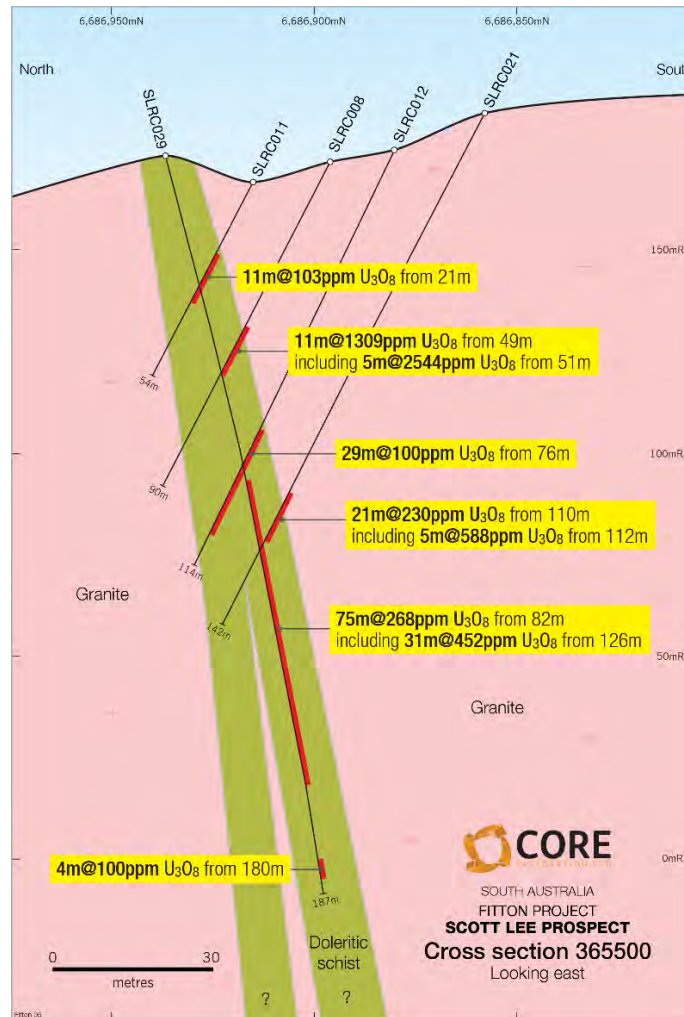
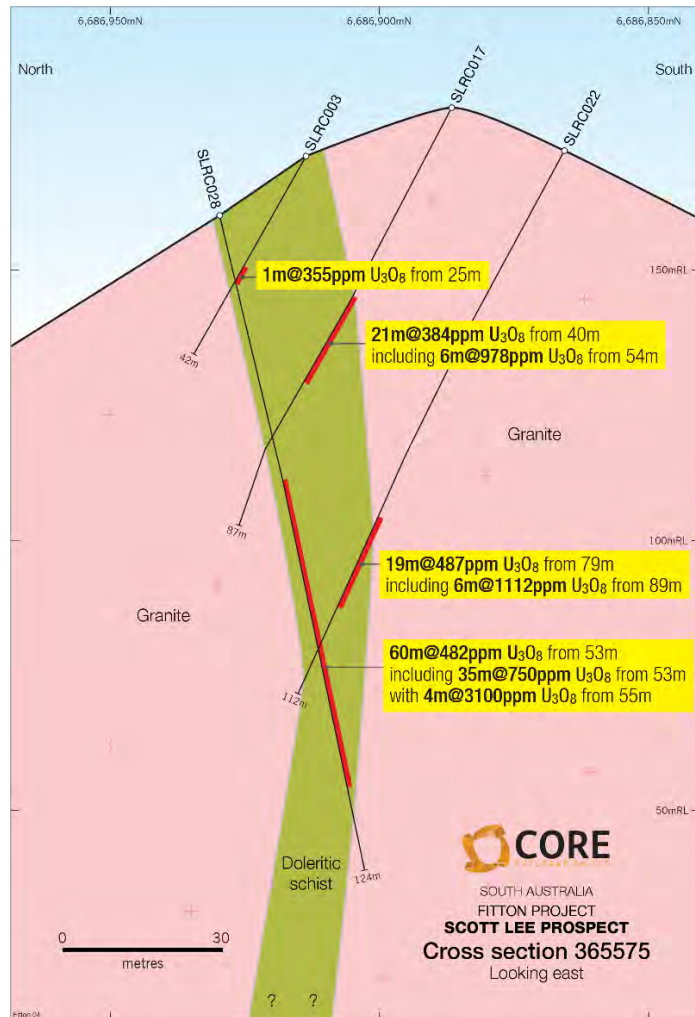
THICK AND HIGH-GRADE URANIUM INTERSECTIONS

Hole SLRC017	<b>21m @ 384ppm (0.04%) U<sub>3</sub>O<sub>8</sub> from 40m</b> Inc. 6m @ 978ppm (0.10%) U <sub>3</sub> O <sub>8</sub> from 54m
Hole SLRC022	<b>19m @ 487ppm (0.05%) U<sub>3</sub>O<sub>8</sub> from 79m</b> Inc. 6m @ 1,112ppm (0.11%) U <sub>3</sub> O <sub>8</sub> from 89m
Hole SLRC028	<b>60m @ 482ppm (0.05%) U<sub>3</sub>O<sub>8</sub> from 53m</b> Inc. 35m @ 750ppm (0.08%) U <sub>3</sub> O <sub>8</sub> from 53m Inc. 4m @ 3,100ppm (0.31%) U <sub>3</sub> O <sub>8</sub> from 55m
Hole SLRC029	<b>75m @ 268ppm (0.03%) U<sub>3</sub>O<sub>8</sub> from 82m</b> Inc. 31m @ 452ppm (0.05%) U <sub>3</sub> O <sub>8</sub> from 126m

# Copper & Uranium

## THICK AND HIGH-GRADE URANIUM

### CROSS SECTIONS OF DRILLING



# Copper & Base Metal

## CATALYSTS FOR PRICE GROWTH

- **Yerelina Zinc, SA**

- 9 metre mineralised (Zn/Pb/Ag) breccia and 30 metre intermittent breccia intersected in diamond drilling
- Assays in next 3-4 weeks

- **Jervois Domain, NT**

- First RAB/RC drill program completed last week
- Core's surveys and modelling has identified strong sedex/vhms drill targets near KGL
- Assays in next 3-4 weeks

- **Albarta Zinc, NT**

- 2014 drilling discovered new base metal sulphide system
- Recent MOU signed for \$2M JV to advance project

- **Fitton Uranium SA**

- Significant uranium discovery within substantial footprint in world-class uranium mining province (U price sensitive)
- Recent acquisition of AGS 25% interest in the Fourmile U Mine next-door values that project at ~\$300 million



# COMPANY INFORMATION

## Shares

Price A\$	~\$0.025
Shares on issue	175M
Options (5-10c)	30M
Market cap (undil.)	~\$4.5M
Cash (31/09/15)	~\$0.65M
Top 20 (Consolidated)	~45%

## Board

<b>Stephen Biggins</b> - Managing Director (ex SAU, ex IVR)
<b>Greg English</b> – Non Exec Chairman (AXE, LCK)
<b>Heath Hellewell</b> – Non Exec Director (DKM, ex DRY)

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## Recent announcements

The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Stephen Biggins (BSc(Hons)Geol, MBA) as Managing Director of Core Exploration Ltd who is a member of the Australasian Institute of Mining and Metallurgy and is bound by and follows the Institute's codes and recommended practices. He has sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activities being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Biggins consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. The report includes results that have previously been released under JORC 2012 by Core. The Company is not aware of any new information that materially affects the information included in this announcement. This report also references information previously released by KGL Resources Ltd on 21/07/2014 "Further Jervois results inc. 11.55% copper and 55.7g/t silver" and Rox Resources Ltd on 20/10/2014 "Exceptional Copper Assays From Bonya Mine Drilling".

This report also includes exploration information that was prepared and first disclosed by Core under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported. The information in all previous announcements has been compiled by Mr Stephen Biggins as the Competent Person and who provided his consent for all previous announcements. The information that was reported in announcements previously released under JORC Code 2004 are announcements dated 13/05/2012 titled *Thick and High Grade Uranium Intersections, Fitton Project, SA.* and 19/03/2013 titled "High Grade Lead-Zinc-Silver Assays from S.A. Project"

- 21/10/2015 Second zone of breccia and veining intersected at Yerelina
- 12/10/2015 9 metre mineralised breccia zone at Yerelina Zinc Project
- 6/10/2015 Cores Jervois Domain Drilling Underway
- 7/09/2015 Core's Diamond Drilling Underway on Yerelina Zinc Project
- 7/07/2015 Large zinc and lead anomaly targeted at Yerelina
- 3/07/2015 Significant uranium transaction bordering CXO Fitton Project
- 18/06/2015 CXO Awarded Funding to Drill Zn Ag & Pb Mineralisation in NT
- 16/06/2015 Further Zinc Mineralisation Found at Yerelina
- 04/06/2015 Jervois Domain modelling defines strong drill targets
- 02/06/2015 10m wide gossan found at Yerelina Zinc Project
- 13/05/2015 Multiple drill targets identified at Jervois Domain, NT
- 5/05/2015 New zinc target identified at Black Gate Prospect
- 22/04/2015 Core awarded PACE co-funding to drill zinc project
- 30/03/2015 Study strengthens potential of Core's Jervois Domain Project
- 10/02/2015 Federal co-funded CSIRO research targets CXO Jervois Domain
- 29/01/2015 Jervois Domain final AEM confirms conductive targets