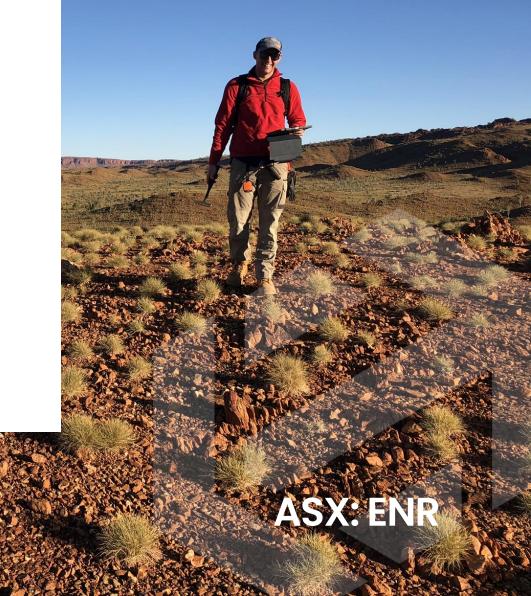


#### **Quarterly Investor Update**

February 2023

Exploring for the next copper, rare earths and lithium discoveries



#### Disclaimer and compliance statement

This presentation has been prepared by Encounter Resources Limited ("Encounter"). The information contained in this presentation is a professional opinion only and is given in good faith. Certain information in this document has been derived from third parties and though Encounter has no reason to believe that it is not accurate, reliable or complete, it has not been independently audited or verified by Encounter.

Any forward-looking statements included in this document involve subjective judgement and analysis and are subject to uncertainties, risks and contingencies, many of which are outside the control of, and maybe unknown to Encounter. In particular, they speak only as of the date of this document, they assume the success of Encounter's strategies, and they are subject to significant regulatory, business, competitive and economic uncertainties and risks. Actual future events may vary materially from the forward looking statements and the assumptions on which the forward looking statements are based. Recipients of this document ("Recipients") are cautioned to not place undue reliance on such forward-looking statements.

Encounter makes no representation or warranty as to the accuracy, reliability or completeness of information in this document and does not take responsibility for updating any information or correcting any error or omission which may become apparent after this document has been issued.

To the extent permitted by law, Encounter and its officers, employees, related bodies corporate and agents ("Agents") disclaim all liability, direct, indirect or consequential (and whether or not arising out of the negligence, default or lack of care of Encounter and/or any of its Agents) for any loss or damage suffered by a Recipient or other persons arising out of, or in connection with, any use or reliance on this presentation or information.

The information in this report that relates to Exploration Results is based on information compiled by Mr. Mark Brodie who is a Member of the Australasian Institute of Mining and Metallurgy. Mr. Brodie holds shares and options in and is a full time employee of Encounter Resources Ltd and has sufficient experience which is relevant to the style of mineralisation under consideration to qualify as a Competent Person as defined in the 2012 Edition of the 'Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Brodie consents to the inclusion in the report of the matters based on the information compiled by him, in the form and context in which it appears.

The Company confirms that it is not aware of any new information or data that materially affects the information in the relevant ASX releases and the form and context of the announcement has not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

This announcement has been approved for release by the Board of Encounter.

#### Encounter at a glance

#### Creating value through project generation and discovery

Capital structure	
ASX ticker	ENR
Share price (3/2/2023)	\$0.18
Shares on issue	356M
Options	21M
Market capitalisation	~64M
Cash (31/12/2022)	~\$4.4M
Enterprise value	~\$60M

Major shareholders	
Board and Management	~14.4%
IGO	~8.1%
Silver Lake Resources	~5.3%

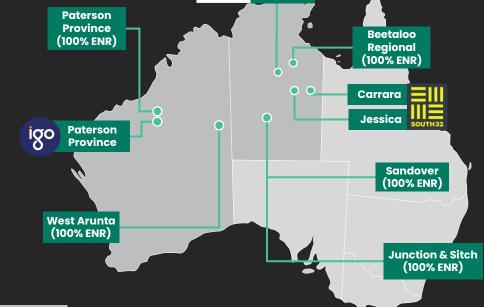
#### **Board of Directors**



**Non Executive** Chairman B.Comm, ACA, Grad. Dip. Tax, MAICD, MAUSIMM



Mr Paul Chapman Mr Will Robinson Managing Director B.Comm, MAusIMM



Elliott



**Dr Jon Hronsky OAM Non Executive** Director BAppSci, PhD, MÁÚSIMM, FSEG



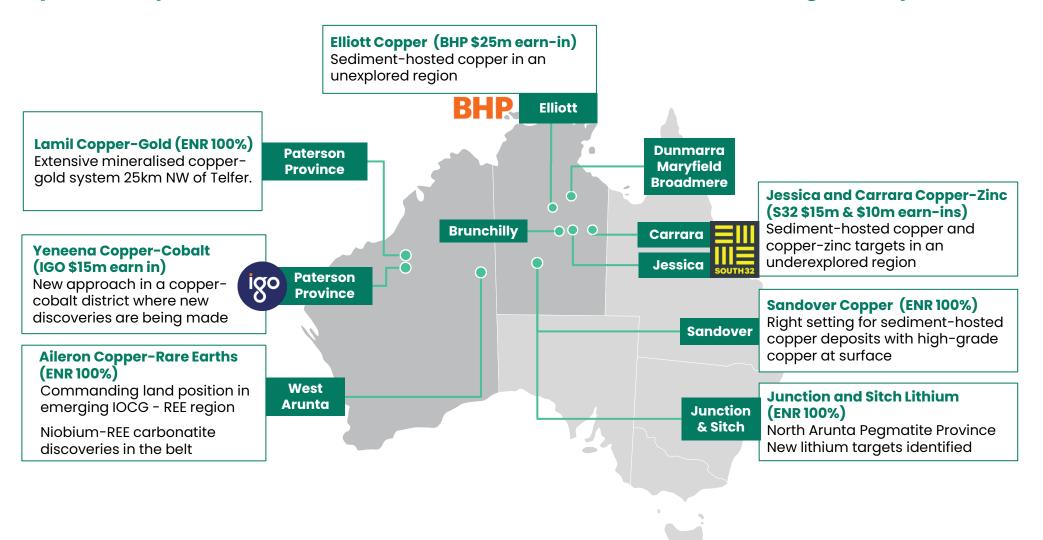
**Mr Peter Bewick Non Executive** Director B.Eng (Hons), MAUSIMM



**Mr Philip Crutchfield Non Executive** Director B.Comm., LL.B (Hons), LL.M LSE

### A premier exploration portfolio

Early mover positions in world-class minerals belts attracting Tier 1 partners



### Current activity and recent highlights

#### Copper-REE - Aileron - West Arunta, WA (100% ENR)

- Targeting IOCG style copper and carbonatite-hosted REE mineralisation
- Major magnetic-radiometric survey in Nov 2022 identified new targets
- Project wide, 400m spaced, Falcon airborne gravity survey May 2023
- Diamond drilling commencing in April-June 2023

#### **Copper - Northern Territory**

- 2 diamond drill holes (1,655m) completed in Nov 2022, results pending (BHP farm-in)
- 4 diamond drill holes (3,500m) at Jessica and 3 diamond drill holes (3,000m) at Carrara in the 2023 field season (South32 farm-in)
- Major gravity survey completed at Sandover, planning for 2023 drilling (100% ENR)

#### Lithium - Northern Territory (100% ENR)

- Field reconnaissance at Junction identified a series of outcropping and subcropping pegmatites over 4km of strike – assays expected Feb 2023
- Soil sampling program in early 2023 to define targets ahead of drilling

#### Paterson Province - Copper - WA

- Dune continues to grow and high-grade copper-gold reefs, up to 6.5% copper and 21.5g/t gold, intersected nearer to surface in the latest drilling (100% ENR)
- Six diamond drill holes completed at Yeneena in 2022 (IGO farm-in)





### West Arunta, Western Australia:

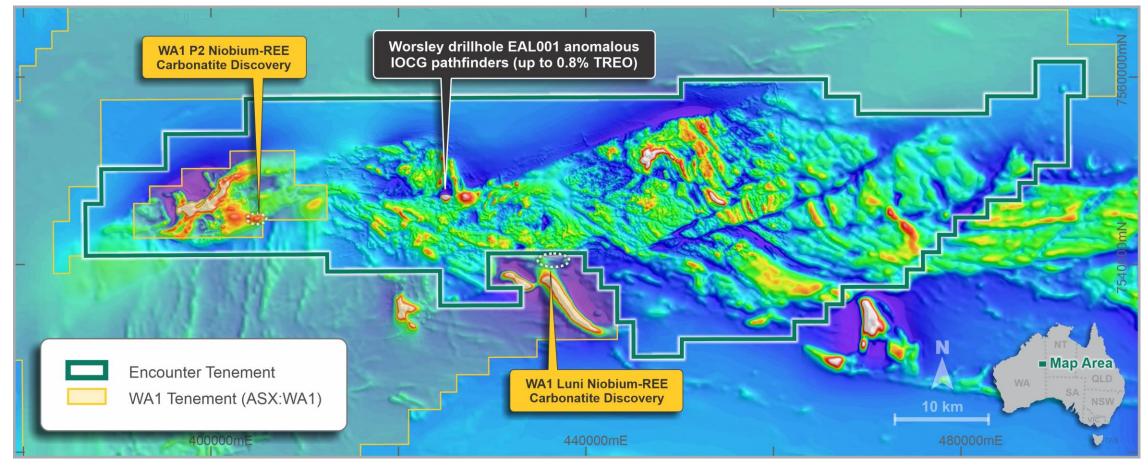
A new critical minerals province



### Aileron Copper-Rare Earths Project (100% ENR)

#### A new rare earth and IOCG province in Australia

- Commanding land position in the underexplored West Arunta with +100km long Aileron project
- Three rare earths ("REE") occurrences recently identified in the belt including the discovery of niobium-REE mineralised carbonatites by WA1 Resources Ltd (ASX:WA1) <1km from ENR tenement boundary</li>



## Aileron Copper-Rare Earths Project (100% ENR) One of the most prospective regions in Australia for IOCG-REE deposits

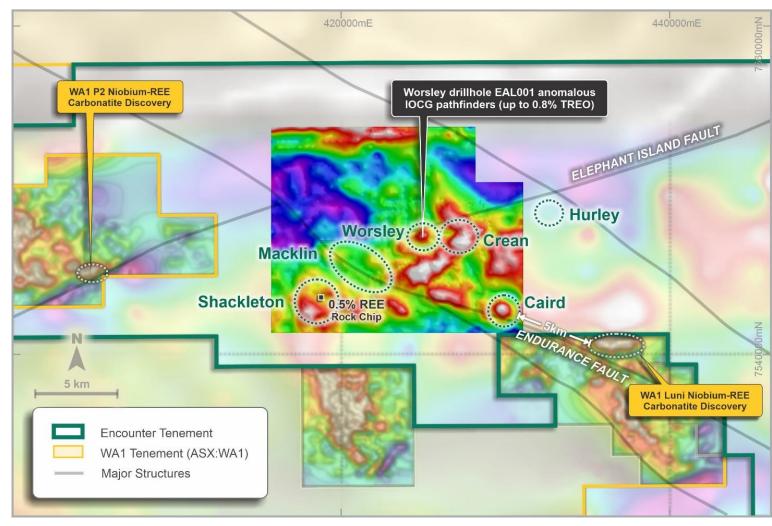


EAL001 - Hematite altered and fractured, coarse grained granitic rock with narrow mafic intrusive (88.5 - 91.7m)

- Only drill hole completed at Aileron (EAL001) (depth of 158m)
  - contained zones of anomalism in copper (up to 0.1% Cu), gold (up to 48ppb Au), molybdenum (up to 155ppm Mo), niobium (up to 773ppm Nb) and highly elevated rare earth elements (up to 0.8% TREO)
  - confirmed shallow cover depth
  - intersected hydrothermal hematite-chlorite altered mafic intrusions and granite with a distinctive IOCG geochemical signature
- GSWA has identified a new suite of granites at around 1.6Ga which is a similar age to Olympic Dam
- Comparable aged host sequence and hydrothermal event as well as similar geochemical signature to the major IOCG deposits of South Australia

## Aileron Copper-Rare Earths Project (100% ENR) Niobium-REE mineralised carbonatite system < 1km from Aileron

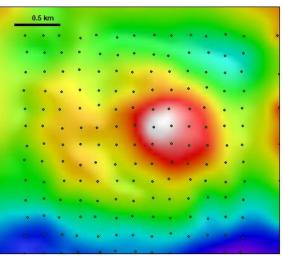
- Gravity survey and surface sampling have upgraded Aileron targets
- Discrete, coincident gravitymagnetic anomalies on major regional structures
- Reconnaissance rock chip sampling returned 0.5% REE
- WA1 niobium-REE mineralised carbonatite discoveries highlight the potential for magmatic hydrothermal systems in the region



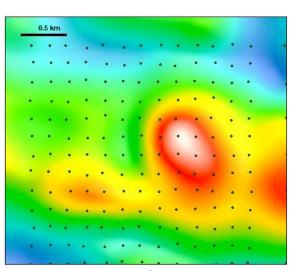
### **Caird Target at Aileron**

#### Pipe-like gravity anomaly ~5km along the major structure from Luni

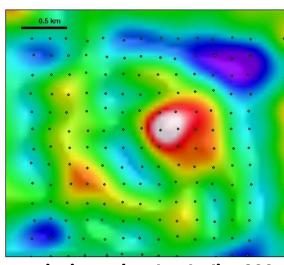
- Discrete, "bullseye" density anomaly ~600m by 600m (~2 mgal), coincident with magnetic anomaly
- Interpreted as a pipe-like intrusion or alteration system with potential for IOCG style copper and carbonatitehosted REE mineralisation
- Located on major regional fault that hosts the Luni mineralised carbonatite discovery by WAl<sup>2</sup>
- Surface geochemistry start of the 2023 field season



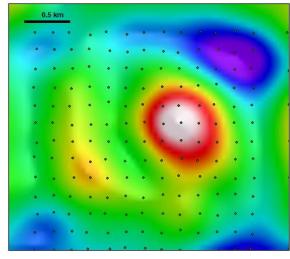
**Residual Gravity** 



Magnetics RTP



Gravity inversion depth slice 300m

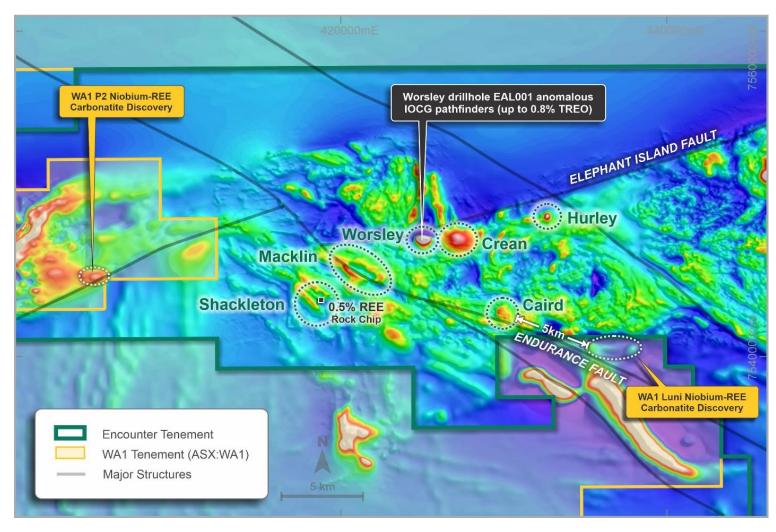


Gravity inversion depth slice 500m

### Aileron Copper-Rare Earths Project (100% ENR)

#### A new rare earth and IOCG province in Australia

- Alkaline systems active in the region are key drivers in the formation of IOCG and carbonatite-hosted REE deposits
- 8,000 line km airborne magneticradiometric survey in Nov 2022 identified new targets and upgraded existing targets
- Project wide Falcon airborne gravity survey May 2023
- Diamond drilling commencing April-June 2023:
  - Worsley
  - Crean
  - Caird





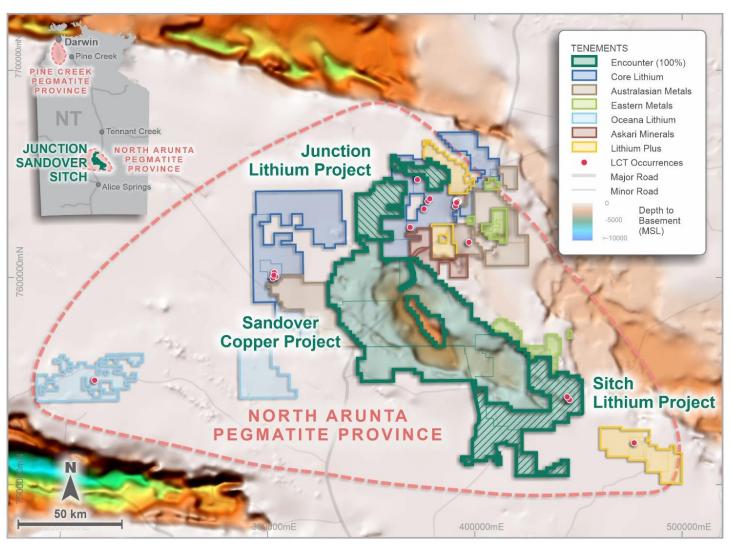
## **Northern Territory:**

Globally significant opportunities for copper and lithium

### Junction and Sitch Lithium Projects (100% ENR)

#### Northern Arunta Pegmatite Province

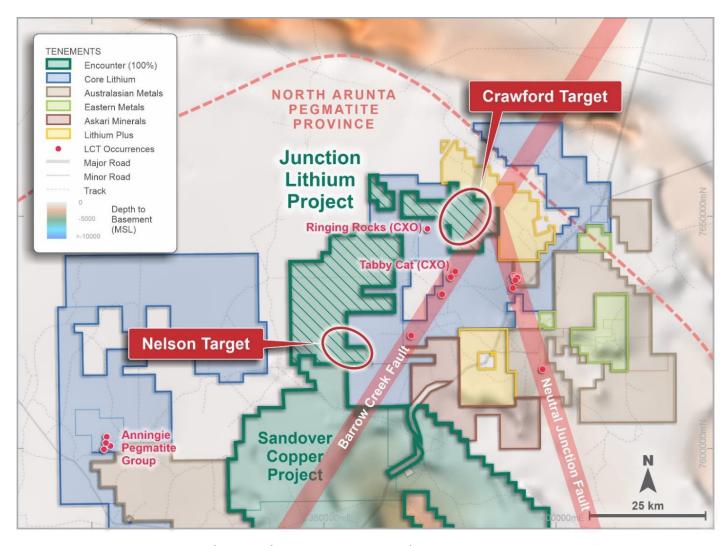
- Encounter controls a significant part of the North Arunta
   Pegmatite Province identified by the NT Geological Survey ("NTGS")
- Analogous to the host pegmatites of the lithium deposits at Greenbushes in WA and the Finnis deposit in the NT
- Several areas with strong lithium potential at Junction and Sitch
- First target to be investigated is the Crawford target at Junction



### Junction Lithium Project (100% ENR)

#### **Crawford target**

- Located at the intersection of two important, LCT-controlling structures
- A series of the most lithium rich occurrences in the Northern Arunta Pegmatite Province (controlled by Core Lithium Ltd (ASX:CXO)) are trending along the major Barrow Creek fault towards Crawford
- Majority of the target zone is beneath shallow cover which could be amenable to surface sampling



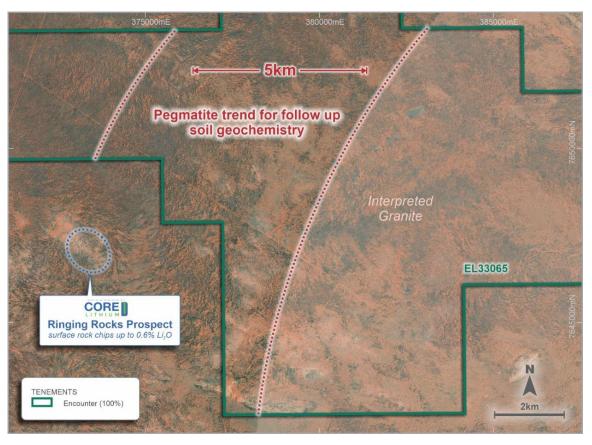
Northern Arunta Pegmatite Province – LCT pegmatite occurrences sourced from NTGS Report 16 tin-tantalum pegmatite mineralisation of the Northern Territory (Frater 2005)

### Junction Lithium Project (100% ENR)

#### **Crawford target**

- Field reconnaissance completed in Dec 2022
  - outcropping and sub-cropping pegmatites over 4km of strike
  - potentially extend under cover to the north
  - western margin of a large granite body
  - located ~4km east of Core Lithium's (ASX:CXO)
     Ringing Rocks lithium prospect pegmatite bodies
     with rock chip assays up to 0.6% Li<sub>2</sub>O
- Pegmatites sampled with assay results in February 2023
- Soil sampling program in early 2023 to define targets for drilling





Junction Lithium Project – location of the Crawford pegmatite trend

### Sandover Copper Project (100% ENR)

#### Outcropping shale units that contain copper mapped for >20km

- Partially exposed Neoproterozoic Basin in the Georgina - 170km north-east of Alice Springs
- Copper mineralisation at surface returned assays up to 20.9% Cu and anomalous pathfinder elements (Zn, Ag, As, Bi, Mo and Pb)
- Limited historical drilling between 1966-71 demonstrated that anomalous copper continues downdip and into fresh rock
- Gravity survey completed November 2022

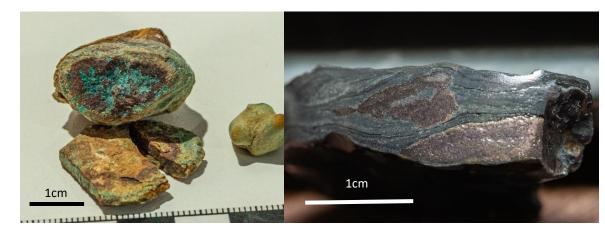
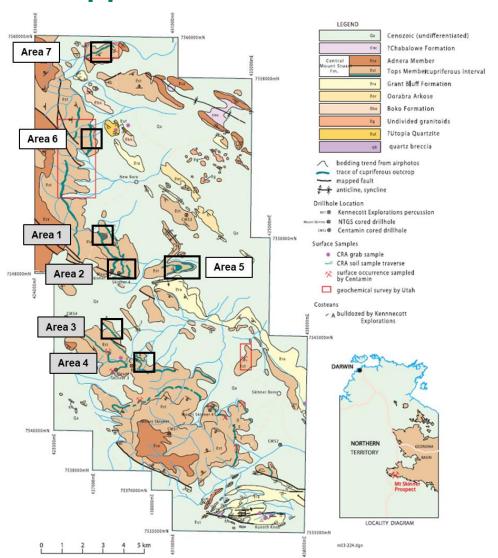


Photo 1– weathered copper rich nodules collected from surface at Area 1 – containing malachite (interpreted after bornite-chalcopyrite)

Photo 2– primary copper rich nodule from historical drillhole (Mt Skinner DDH3 203.3m) located adjacent to Area 4 containing bornite-chalcopyrite

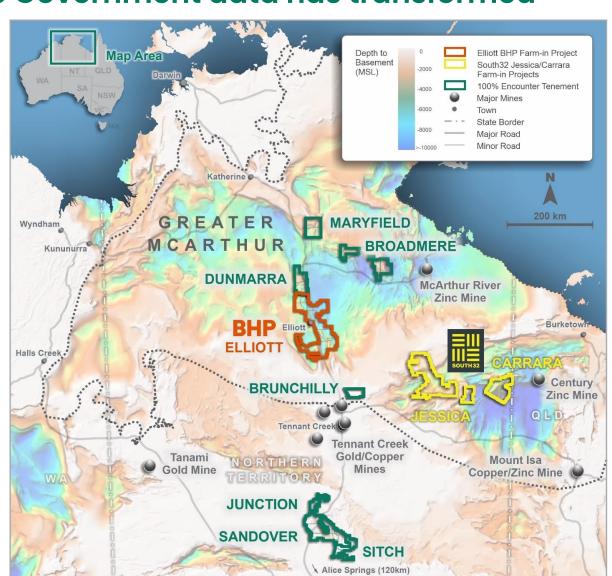


### Northern Territory: globally significant opportunity for copper

New investment in pre-competitive Government data has transformed

the exploration potential of the NT

- These new datasets are providing crucial early insights into areas prospective for sedimentary hosted copper deposits
- Highly prospective, vastly underexplored regions under shallow cover
- Located between the major copper-gold producing districts of Mt Isa and Tennant Creek
- Encounter has a portfolio of first mover copper opportunities
- Majors acquiring new projects in the NT include: BHP, South32, Rio Tinto, OZ
   Minerals, Fortescue and Teck



### **Elliott Copper Project**

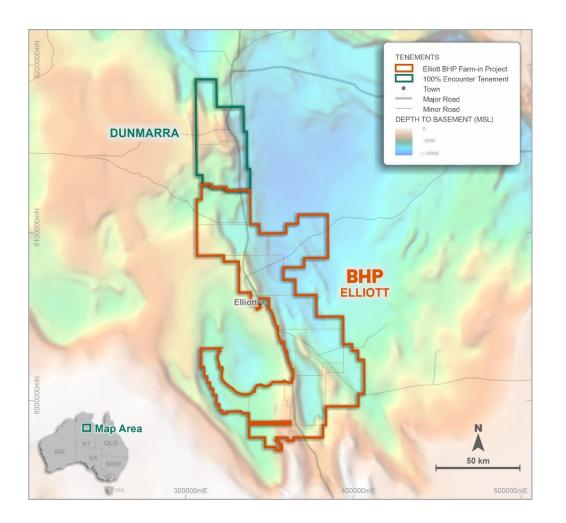


#### Key ingredients for the formation of large sedimentary copper deposits

- BHP (ASX:BHP) earn-in and joint venture agreement covering the 7,200km<sup>2</sup> Elliott Copper Project
- BHP may earn up to a 75% interest by spending up to \$25 million over 10 years
- 2 diamond drill holes (1,655m) completed in Nov 22
- Confirmed that the targeted Velkerri and Kyalla Formations are preserved in the target area
- Geochemical/petrophysical results expected April 23



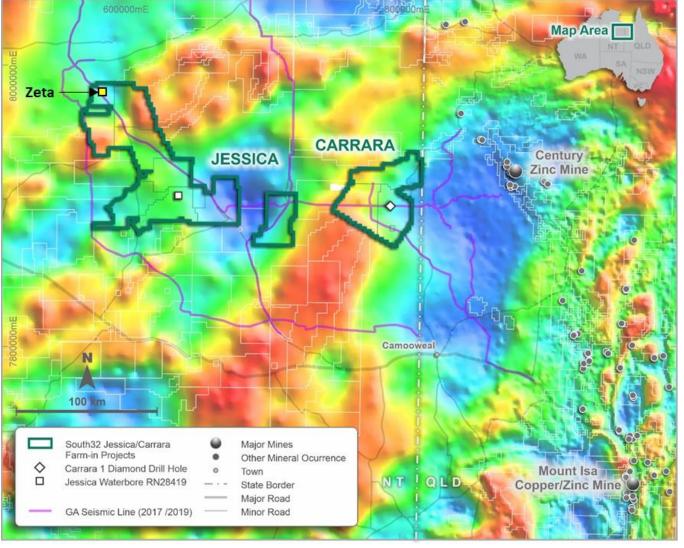
Diamond Drilling at Elliott – October 2022



## Jessica Copper and Carrara Copper-Zinc Projects South32 two farm-in agreements (up to \$25m farm-in funding)



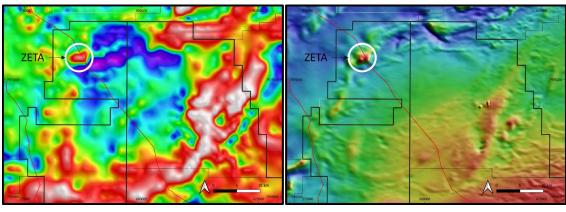
- Reprocessing of seismic lines has defined a number of groundbreaking, new drill targets at the Jessica and Carrara
- Stratigraphic drill hole (NDI Carrara-1) completed by the Minex CRC established the presence of zinc, lead and copper
- 6,500m diamond drill program to be completed May to Nov 2023
  - 4 holes (3,500m) at Jessica
  - 3 holes (3,000m) at Carrara



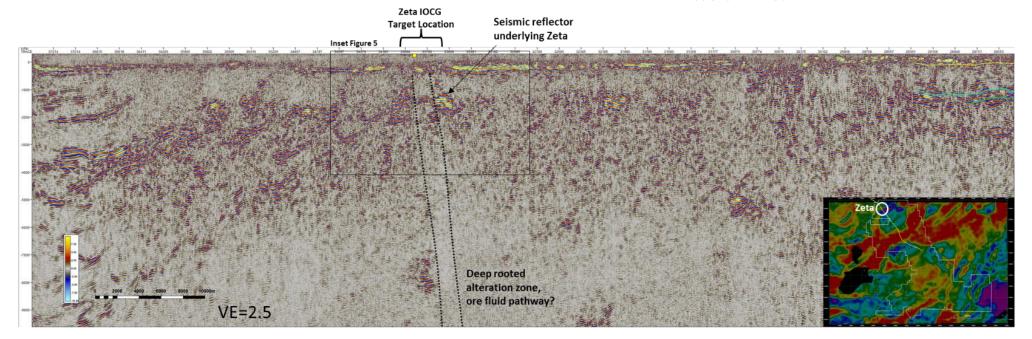
## Jessica Copper Project Zeta IOCG Target

SOUTH32

- Drilling commencing at the Zeta IOCG target in May 2023
  - Coincident magnetic-gravity anomaly
  - Discrete seismic reflector
  - Adjacent to a interpreted regionally significant deep feeder structure



Zeta IOCG target. Gravity (IVD) (left) and Magnetics (RTP) (right), location of GA seismic lines shown in red





## Paterson Province, Western Australia:

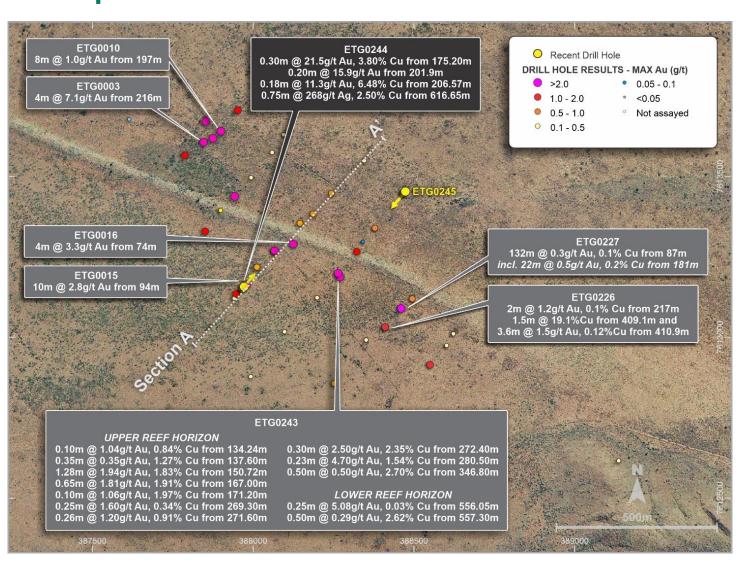
New large scale coppergold discoveries

### Lamil: Copper-gold system established

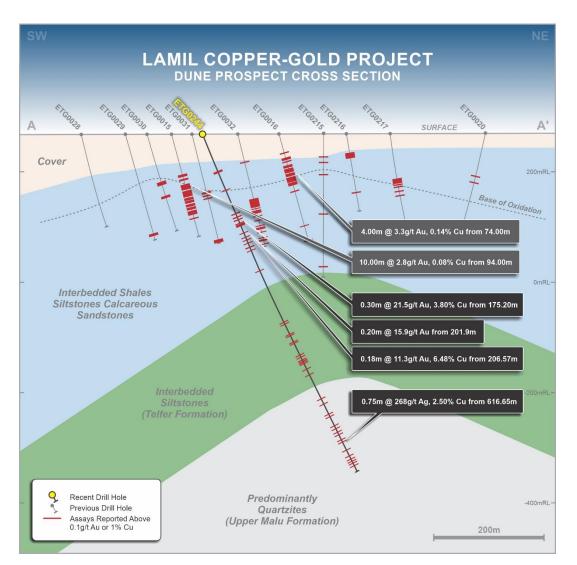
### (100% ENR)

#### EIS diamond drilling completed September

- Located 25km NW of Telfer
- Expansive copper-gold system
   >1km of strike containing multiple,
   stacked, narrow copper-gold
   reefs
- High-grade copper-gold in 200m step out drilling at the Dune Prospect
  - copper-gold reefs closer to surface than projected
  - a different style of mineralisation which appears epithermal in nature with high-grade copper-silver



## Drilling results point to potential large copper-gold system High-grade copper intersections rare outside of Winu and Havieron





New style of mineralisation intersected at Dune. Epithermal vein containing tetrahedrite which graded 268g/t silver and 2.5% copper at ~617m in ETG0244

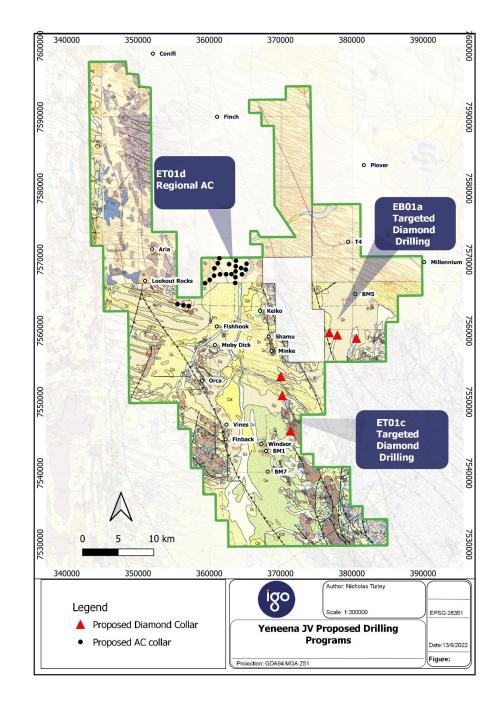
Follow up exploration to test:

- for extension of the high-grade copper-gold reefs intersected between 175-210m: and
- the up-dip projection of the epithermal coppersilver bearing vein intersected in ETG0244

#### **Yeneena Copper**

## Paterson Province is a proven region with a history of discoveries

- Exploration at Yeneena is focused on discovering high-value sediment-hosted copper deposits
- ~1,450km² of the Paterson Province
- IGO Ltd (ASX:IGO) can sole fund \$15 million in exploration expenditure over a maximum seven years to earn a 70% interest
- 2022 exploration program included:
  - Six diamond drill holes (3,989m)
  - 11km seismic survey
  - Hydrogeochemical sampling of aircore holes
  - Mapping of the Lookout Rocks defined potential new copper drill targets
  - 2,950 line km airbore magnetic survey





### **Upcoming news**

Sandover Copper (100% ENR) – NT - Gravity survey, drill target identification	Feb 2023
Junction Lithium (100% ENR) – NT – Reconnaissance-surface sampling results	Feb 2023
Yeneena Copper-Cobalt (IGO farm-in) – WA – 2023 exploration program	Mar-Apr 2023
Elliott Copper (BHP farm-in) – NT – 2023 exploration program	Apr 2023
Aileron IOCG-REE (100% ENR) - WA – Falcon airborne gravity survey	May 2023
Aileron IOCG-REE (100% ENR) - WA – Commencement of diamond drilling (~2,000m)	Apr-Jun 2023
Jessica Copper (S32 farm-in) - NT – Commencement of diamond drilling (~3,500m)	May 2023



### Contact

Telephone: +61 8 9486 9455
Website: www.enrl.com.au
Email: contact@enrl.com.au

Suite 2, 1 Alvan Street Subiaco WA 6008

**ASX: ENR**