

## Exploring for the next copper, rare earths and lithium discoveries

### 100% owned projects in Australia's most exciting mineral provinces

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

- 8,000 line km airborne magnetic-radiometric survey in November 2022 has identified new targets and upgraded existing targets
- Project wide, 400m spaced, Falcon airborne gravity survey to be completed in March-April 2023
- Diamond drilling is targeting IOCG style copper and carbonatite-hosted REE mineralisation commencing in April-June 2023, co-funded by the WA Government Exploration Incentive Scheme

#### Lamil Copper-Gold Project - Paterson Province - WA (100% ENR)

- The footprint of the mineral system at 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

#### Sandover Copper Project - NT (100% ENR)

- Major regional gravity survey completed, preparations for 2023 drilling commenced

#### Junction Lithium Project - NT (100% ENR)

- Field reconnaissance at Junction identified a series of outcropping and sub-cropping pegmatites over 4km of strike at the Crawford target
- Soil sampling program in early 2023 to define targets ahead of drilling

### Major copper exploration drive funded through farm-ins with leading miners

#### Elliott Copper Project – NT (BHP \$25m farm-in)



- Diamond drill program completed in November 2022 (2 holes – 1,655m)
- Awaiting geochemical and petrophysical results for both holes

#### Jessica and Carrara Copper-Zinc Projects – NT (South32 \$15m & \$10m farm-ins)



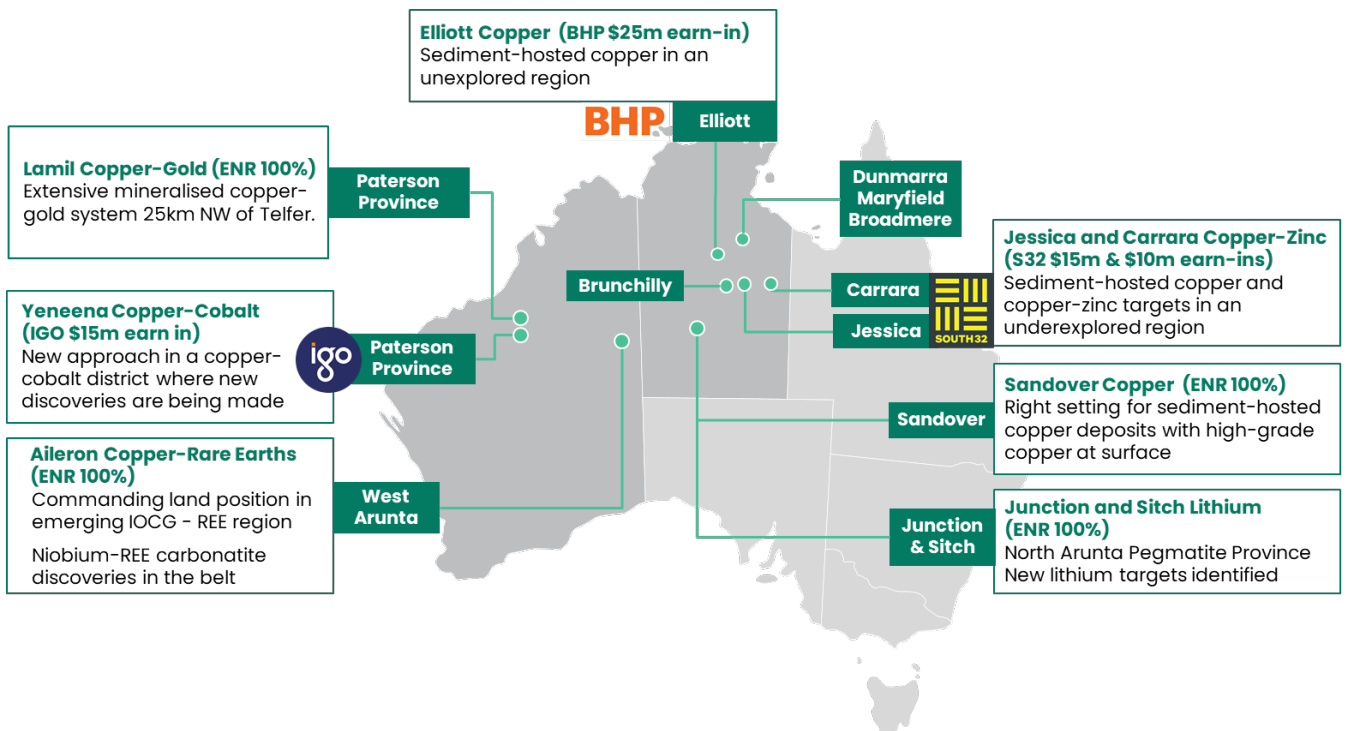
- Preparations well advanced for 4 diamond drill holes (3,500m) at Jessica and 3 diamond drill holes (3,000m) at Carrara in the 2023 field season
- 6,500m diamond drill program to be completed during May to November 2023

#### Yeneena Copper Project – Paterson Province WA (IGO \$15m farm-in)



- 2022 diamond drill program completed, 6 diamond holes (3,988m)
- 2,950 line km airborne magnetic survey completed January 2023

<b>ASX Code:</b> ENR	<b>Cash</b> (31/12/2022) \$4.4m	<b>Market Cap.</b> (30/1/2023) \$61m	<b>Issued shares</b> (31/12/2022) 356m	<b>Issued options</b> (31/12/2022) 21m
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## 100% owned projects in Australia’s most exciting provinces

### Aileron Copper–Rare Earths Project – West Arunta, WA (100% ENR)

#### Background

Aileron is located in the West Arunta region of WA ~600km west of Alice Springs. Prior to the recent magnetic-radiometric survey, several structural and geophysical targets had been identified through aerial magnetic and gravity surveys.

To date, only one hole, EAL001, has been drilled within the project which targeted a discrete magnetic anomaly at the Worsley target. EAL001 was partially completed to a depth of 158m in October 2020 and drilled through 5m of shallow cover followed by a brecciated hydrothermal hematite-chlorite-altered granite with a narrow mafic intrusion.

Assays from EAL001 include 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) consistent with the IOCG deposit model (refer ASX release 28 January 2021).

The presence of highly anomalous REE at Aileron and the recent mineralised carbonatite discoveries by WA1 Resources Ltd. (ASX:WA1) indicate that an alkaline magmatic hydrothermal system has been active in the region. Such systems are known to play an important role in the formation of both IOCG and carbonatite-hosted REE deposits.

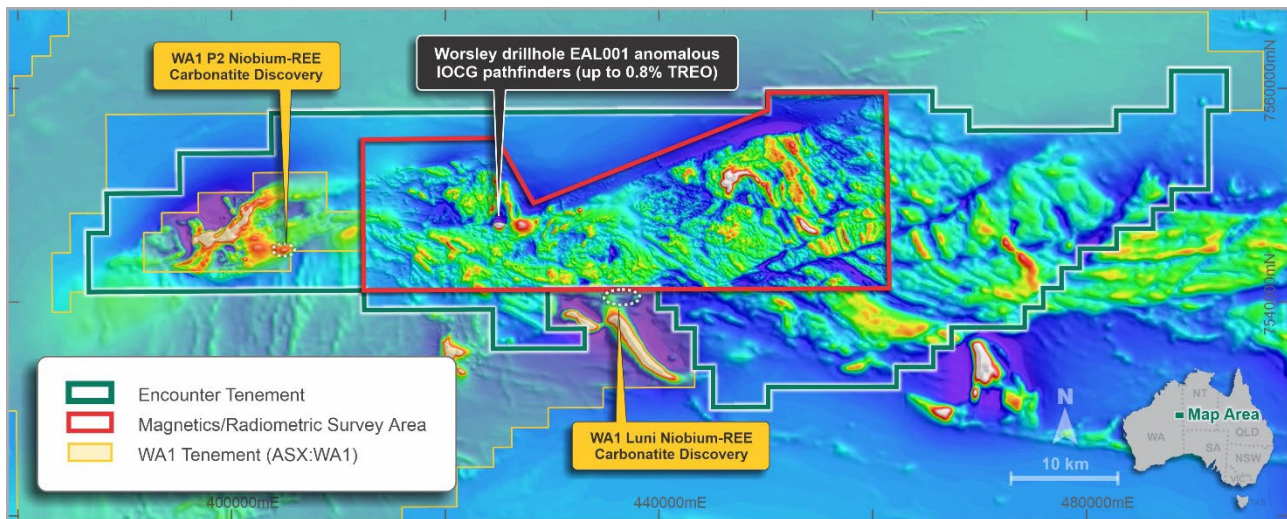


Figure 1 – Aileron Cu-REE project – Magnetics (RTP)

### Magnetic-Radiometric Survey

In November 2022, an 8,000 line km airborne magnetic-radiometric survey was completed at Aileron. The 100m spaced survey covered ~50 strike km of the western part of the project (Figure 1). The survey was designed to provide detailed structural and geological information and to identify new carbonatite and IOCG targets.

An initial assessment has identified new targets including (Figure 2):

- Hurley – a discrete magnetic target highlighted east of the Worley and Crean targets on the major Elephant Island fault
- Macklin – an interpreted intrusion located on the key Endurance fault that hosts the Caird gravity target and WA1’s recent mineralised carbonatite discovery at Luni

In addition, the structural context of the existing targets (Caird, Crean, Shackelton and Worsley) has been upgraded (Figure 2).

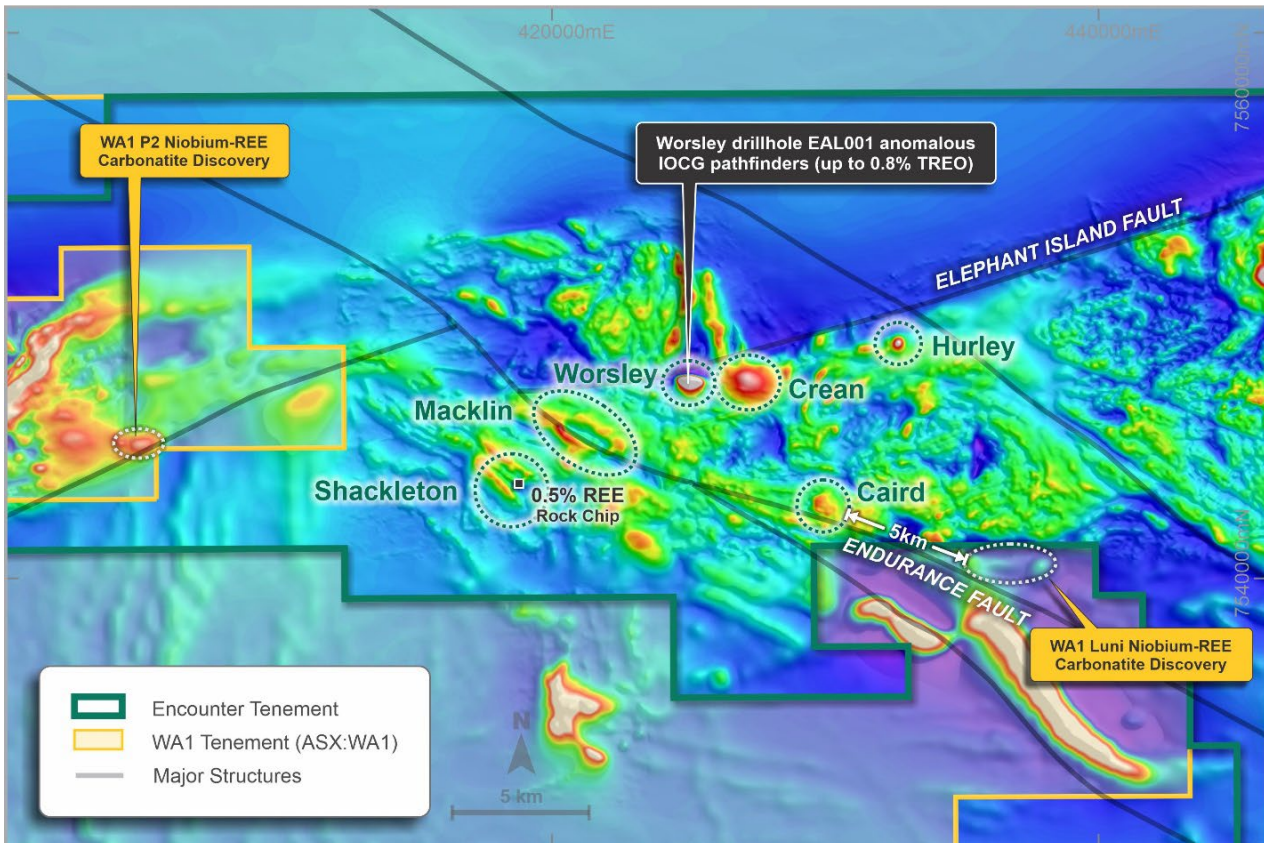
- Caird – ‘bullseye’ coincident magnetic and density anomaly on the Endurance fault, 5km north-west of WA1’s recent mineralised carbonatite discovery at Luni
- Crean – regional scale magnetic anomaly at a key structural location on the major Elephant Island fault
- Shackelton – gravity anomaly where reconnaissance rock chip sampling returned 0.5% REE
- Worsley – the region’s standout magnetic feature with a coincident gravity anomaly. Single drill hole was terminated without testing the magnetic-gravity anomalies but intersected highly anomalous Cu, Au, Mo, Nb and REE (up to 0.8%) in the top of the hole.

The interpretation of the new data is ongoing and will be integrated with the 3,300 line km Falcon airborne gravity survey planned for March-April 2023.

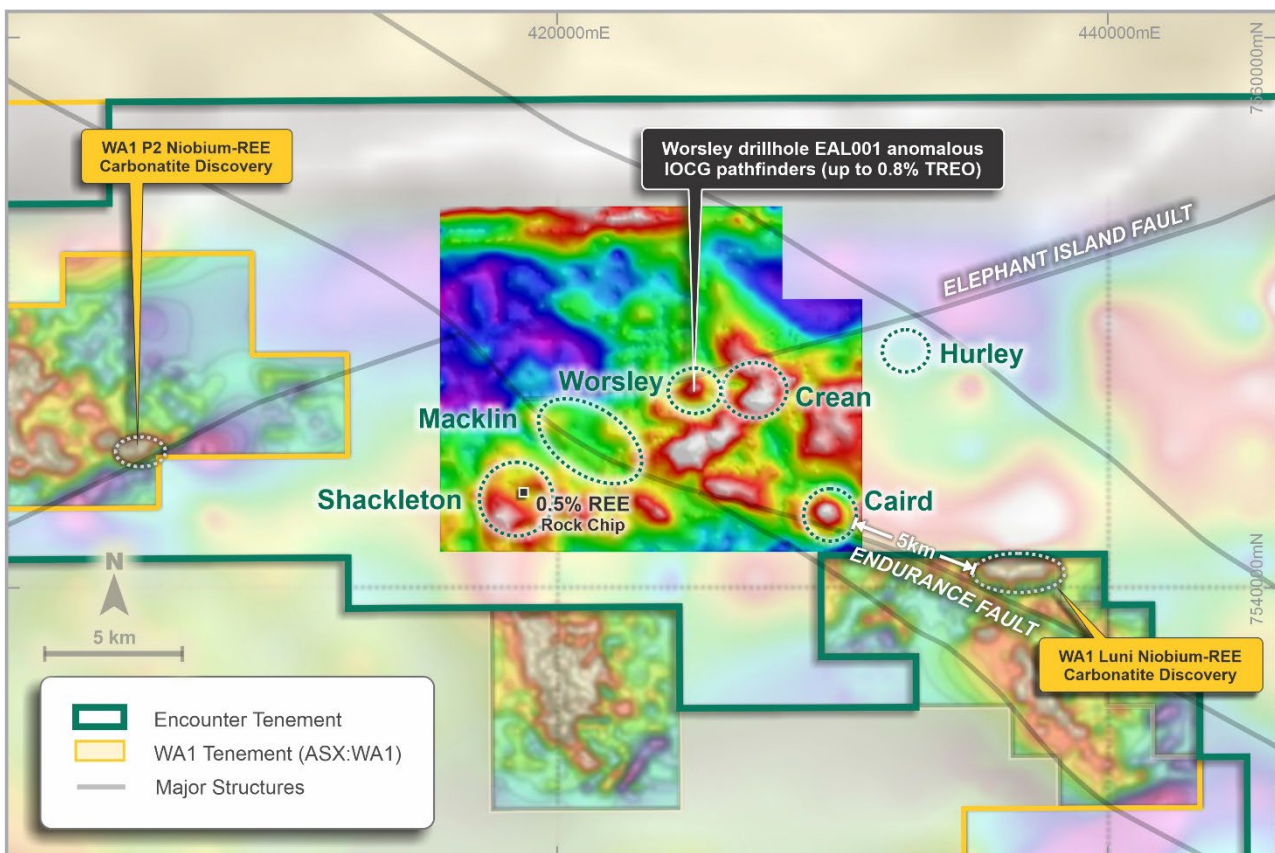
### Gravity

In November 2021, a helicopter-supported ground gravity survey was completed covering one of the four large tenements at Aileron. The survey confirmed and elevated the presence of multiple priority anomalies including, Caird which is a discrete and coincident “bullseye” gravity and magnetic anomaly interpreted as a pipe-like discrete intrusion or alteration system (Figure 3).

Gravity coverage will be expanded to cover the majority of the Aileron project with a 3,300 line km Falcon gravity survey planned for March-April 2023.



**Figure 2 – Magnetic image (RTP) with the six Cu-REE targets identified to date in the western part of >100km long Aileron project**



**Figure 3 – Detailed residual gravity image with interpreted structures and the identified targets in the western part of >100km long Aileron project <sup>1,2,3,4</sup>**

## Next Steps

**Falcon gravity survey** – Expanded gravity coverage of Aileron will be completed in March-April 2023 with a 3,300 line km Falcon gravity survey. This project wide 400m spaced gravity survey is a fundamental dataset for the targeting of IOCG and carbonatite-hosted REE deposits.

**EIS co-funded diamond drilling** – Planning for diamond drilling at Caird, Crean and Worsley is well advanced. Diamond drilling is scheduled to commence in April-June 2023, co-funded by the WA Government Exploration Incentive Scheme.

<sup>1</sup> refer ASX release 28 January 2021

<sup>2</sup> refer ASX release by WA1 – 26 October 2022

<sup>3</sup> refer ASX release 14 February 2022

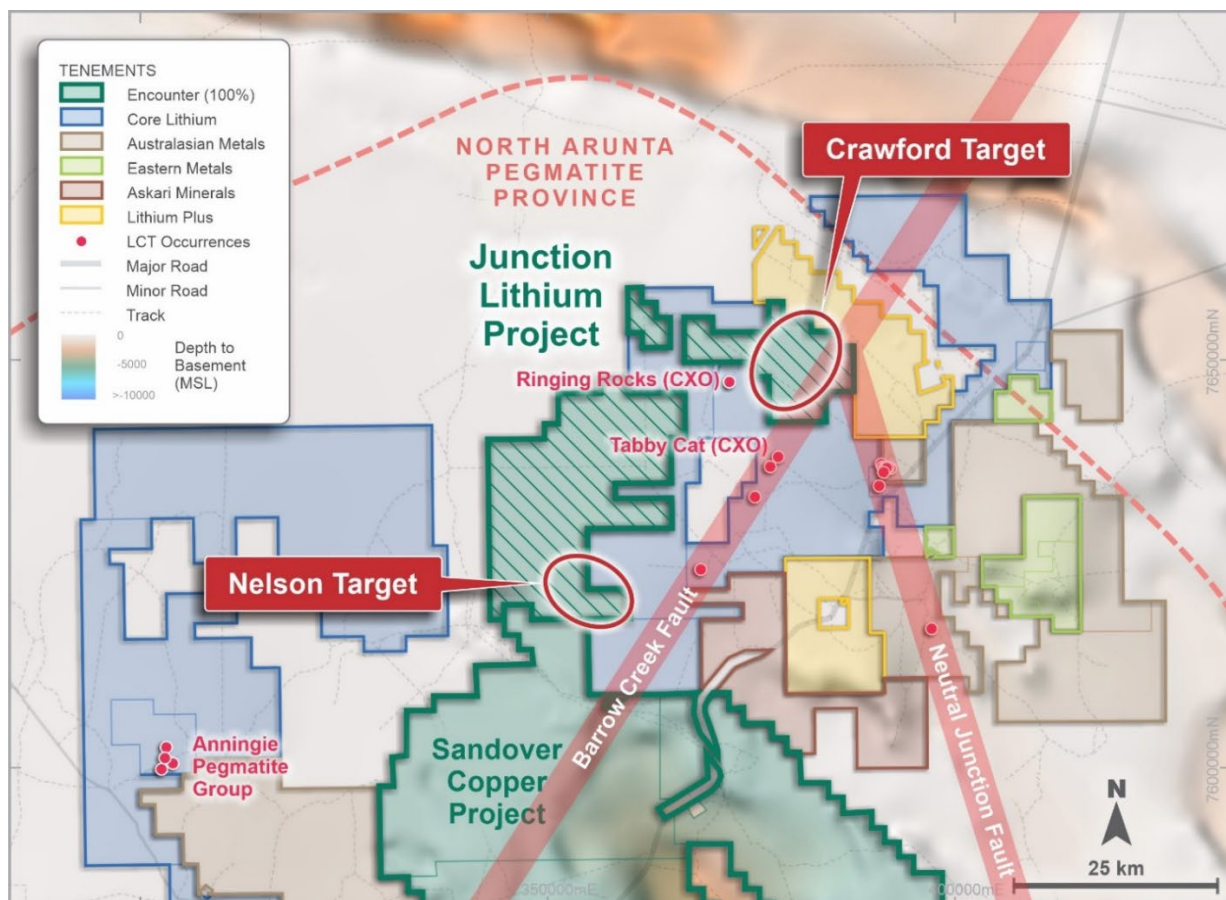
<sup>4</sup> refer ASX release by WA1 – 16 November 2022

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

### Background

The Junction and Sitch Lithium Projects sit within the Northern Arunta Pegmatite Province which was first identified in a report by the Northern Territory Geological Survey (“**NTGS**”) in 2005. The NTGS interpret that the pegmatites in the region are LCT pegmatites similar to the host pegmatites of the lithium deposits at Greenbushes in WA and the Finnis deposit in the Pine Creek pegmatite province in the NT. <sup>5</sup>

Integrating available data for the region has resulted in the definition of two large projects, Junction and Sitch, that contain three priority targets (Crawford, Nelson & Utopia) for follow up. Crawford was selected as the first target for follow up exploration.



**Figure 4 – Northern Arunta Pegmatite Province – Junction Lithium Project location highlighting ENR’s Crawford and Nelson targets. The Utopia target sits within the Sitch project and is located ~120 kms SE.**

## Field Reconnaissance at Crawford

The Crawford target at Junction is defined by the intersection of two important LCT-controlling structures, the Barrow Creek and Neutral Junction Fault Zones (Figure 4).

Initial field reconnaissance was completed at Crawford in December 2022 which supports the lithium potential of the project. Positive developments include:

- a series of outcropping and sub-cropping pegmatites was identified over 4km of strike and is interpreted to extend under shallow cover to the north;
- the pegmatite trend is situated along the western margin of a large granite body;
- the trend is under shallow cover amenable to surface sampling to define drill targets; and
- the target is located ~4km east of Core Lithium's Ringing Rocks prospect which hosts two large pegmatite bodies with surface rock chips assaying up to 0.6% Li<sub>2</sub>O.<sup>6</sup>

The outcropping pegmatites and fractionated granites identified along the prospective trend (Figure 5) have been sampled with assays expected in February 2023.

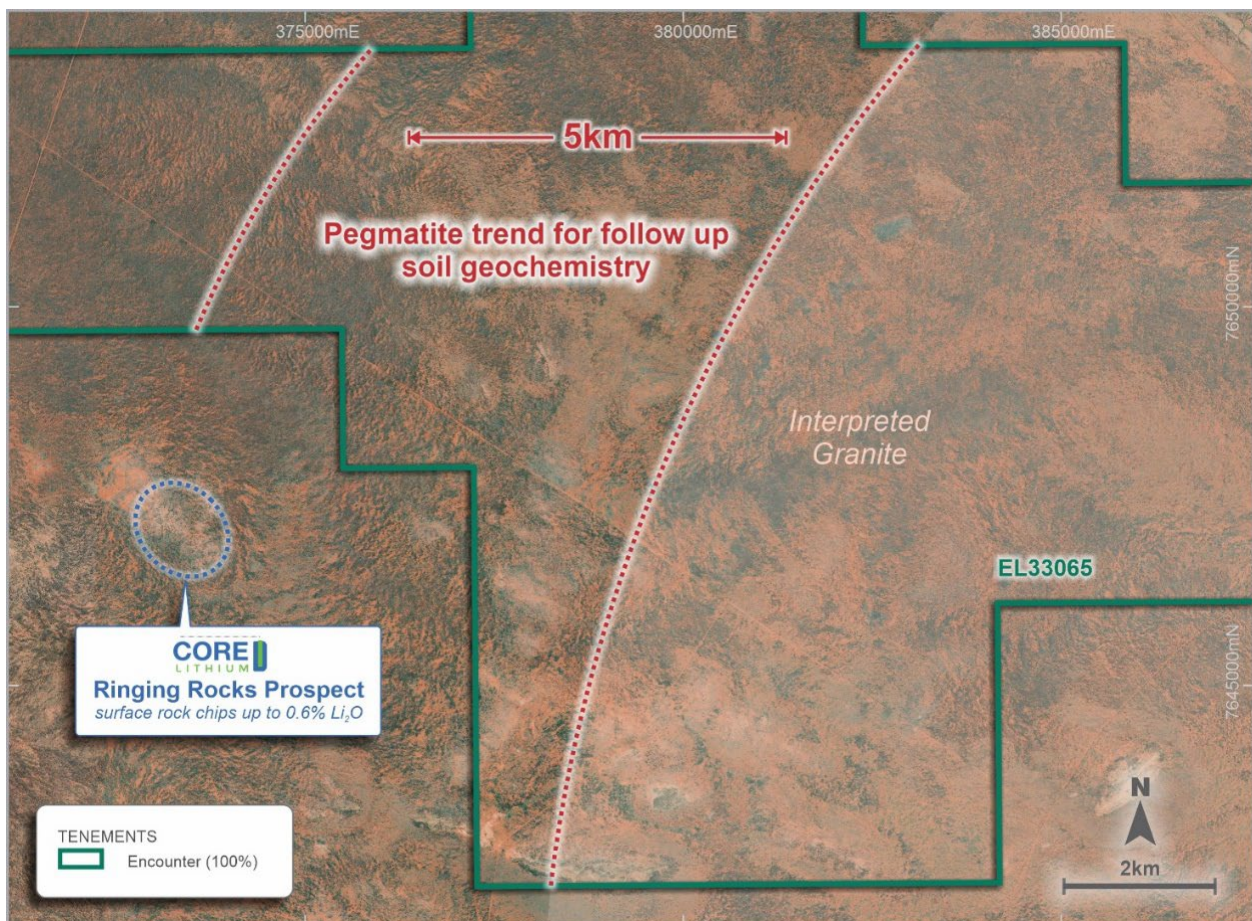


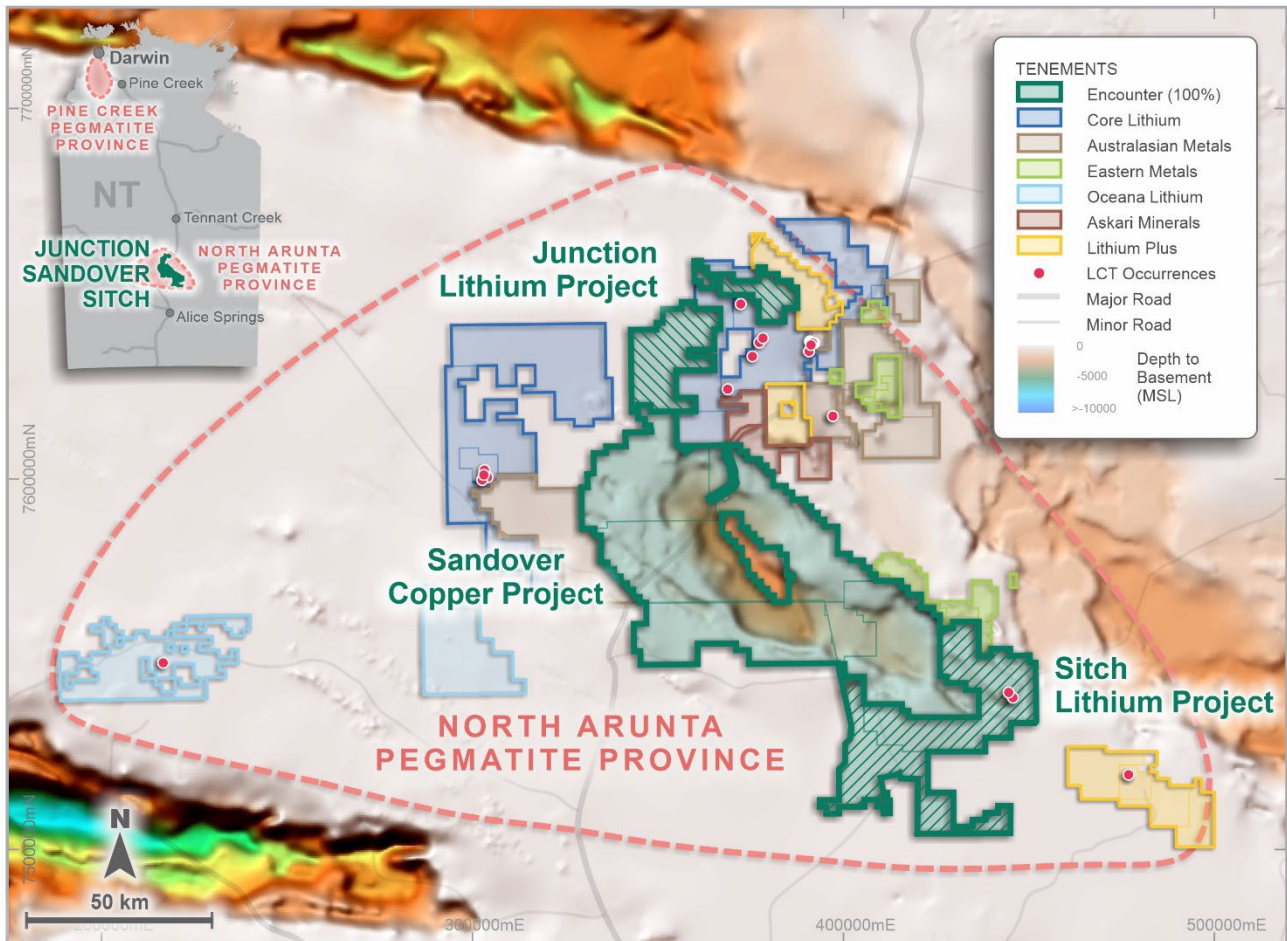
Figure 5 – Junction Lithium Project – location of the pegmatite trend identified at Crawford

## Next Steps

Systematic 200m x 50m soil geochemical sampling of prospective corridors will be completed at Junction in early 2023. The geochemical sampling will test for a range of elements including Li, Cs, Ta, Sn, Be, W and Rb. Following the results of this sampling, RC drill testing of defined anomalous areas will be completed.

<sup>5</sup> NTGS Report 16: *Tin-tantalum pegmatite mineralisation of the Northern Territory* (Frater, 2005)

<sup>6</sup> CXO ASX Announcement - 28 September 2017



**Figure 6 – Northern Arunta Pegmatite Province – Junction and Sitch Lithium Project Location Plan. LCT pegmatite occurrences sourced from NTGS Report 16 *Tin-tantalum pegmatite mineralisation of the Northern Territory* (Frater 2005).**

## Sandover Copper Project – NT (100% ENR)

### Background

Sandover is located 170km north of Alice Springs and covers a major structural corridor on the southern margin of the Georgina Basin.

Field mapping and surface sampling has confirmed the presence of an outcropping red-bed sandstone sequence with multiple narrow but strike extensive grey shale units containing copper oxide mineralisation (malachite) (Figure 7). Sampling of copper mineralisation at surface returned assays up to 20.9% Cu and a suite of highly anomalous pathfinder elements (Zn, Ag, As, Bi, Mo and Pb) (*refer ASX announcement 16 December 2021*). Surface mapping also identified small bornite nodules, interpreted to be zones of increased fluid flow after replacement of anhydrite, within the grey shale unit (Photo 1).

Inspection of historical drill holes (drilled in 1968, 1971 and 1994) completed at Sandover confirmed key geological units and processes to enable the formation of sediment hosted copper deposits. Significantly, narrow zones of copper sulphide minerals, including bornite, have been identified in historical drill core (Photo 2).

It is interpreted that the copper rich nodules identified at the surface represent the weathered form of the bornite nodules observed in historical drill core. This provides encouraging evidence that processes capable of forming high-grade copper mineralisation are present in the basin.

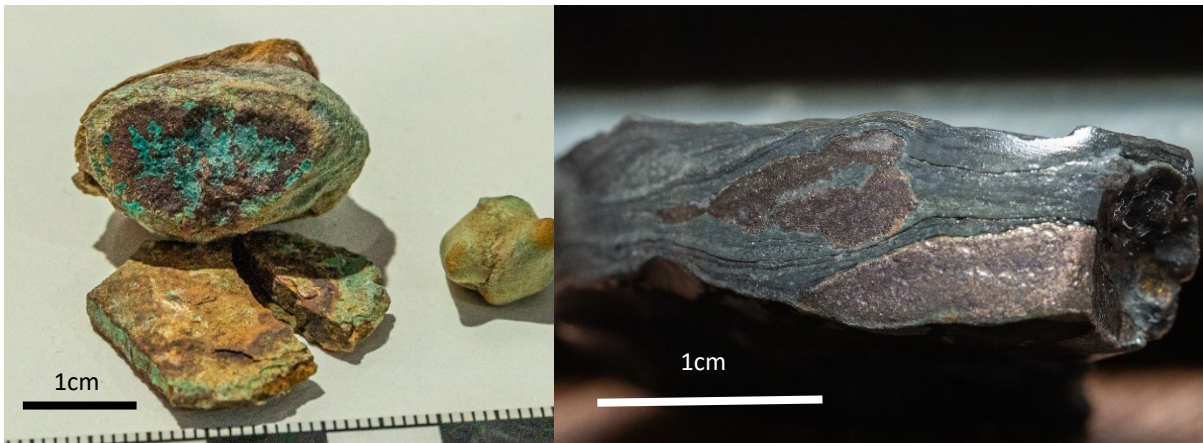


Photo 1 (left) – weathered copper rich nodules collected from surface at Area 1 (refer Figure 1) – containing malachite (interpreted after bornite-chalcopyrite), visual estimate 10% malachite in 2.5cm diameter nodule

Photo 2 (right) – primary copper rich nodule from historical drillhole (Mt Skinner DDH3 203.3m) located adjacent to Area 4 (refer Figure 7) containing bornite-chalcopyrite, visual estimate 30% bornite-chalcopyrite over ~1cm width Refer ASX announcement 9 June 2022.

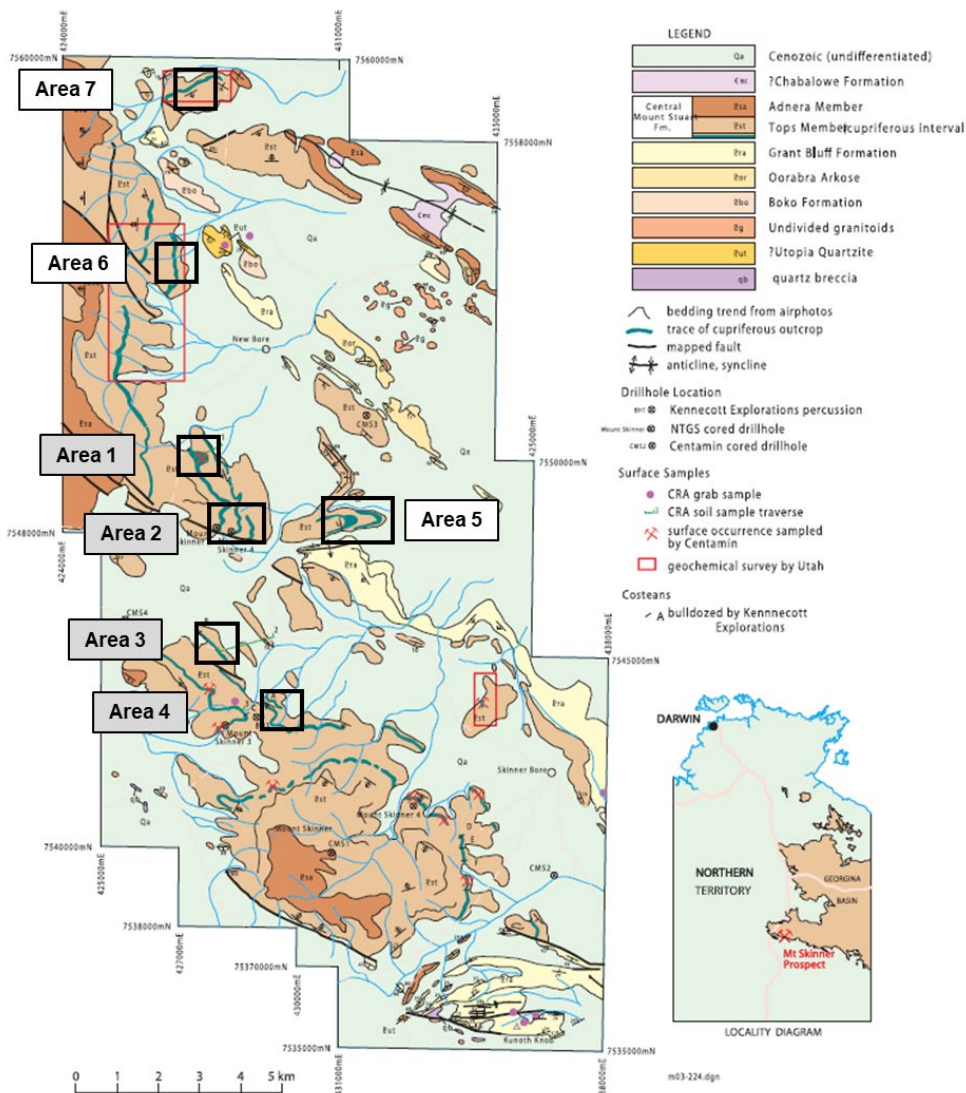


Figure 7 – Geological map showing cupiferous outcrop, drillhole locations and surface sampling (compiled from company reports and Haines 2004) Source: NTGS Geology and Mineral Resources of the Northern Territory. Special Publication 5. Compiled by Ahmad, M. and Munson, T.J., June 2013.

Areas 1-4 sampled by Encounter in October 2021, Area 5-7 sampled in April 2022.



## Exploration Activity

During the December 2022 quarter an NTGS co-funded gravity survey was completed at Sandover. This survey covered of the western part of the large sub-basin identified at Sandover. This fundamental new dataset is being integrated with existing datasets to assist with target definition for drilling later in 2023.

## Next Steps

A basin modelling, target generation program will be completed during the March 2023 quarter. This program will focus on identifying the more reduced units within the basin, with a particular emphasis on where these units intersect long-lived basin forming structures which are areas with the potential to host major mineral deposits.

Following the completion of the program, a diamond drilling program will be designed for the second half of 2023.

### **Cautionary statement on visual estimates of mineralisation**

*References to visual results are from historical diamond drilling from Sandover stored at the Alice Springs Core Library. Photos 1 & 2 provide information supporting the geological context of observations of mineral processes reported in this announcement. Visual estimates of mineral percentages are based on preliminary visual observations of the drill core surface as presented in the core trays and may not be representative of potential mineralisation at Sandover. Visual estimates of mineral abundance are not considered to be a proxy or substitute for laboratory analyses where metal concentrations or grades are the factor of principal economic interest.*

*The Company does not intend to complete laboratory assays of the samples in Photos 1 and 2. Refer ASX announcement 9 June 2022.*

## Lamil Copper-Gold Project - Paterson Province – WA (100% ENR)

### Background

The 100%-owned Lamil Project covers an area of ~61km<sup>2</sup> and is located 25km northwest of the major copper-gold mine at Telfer, owned by Newcrest Mining Ltd (ASX:NCM).

The Dune prospect is located in the northwest of Lamil and consists of a laterally extensive copper-gold system, outlined by broad spaced RC drilling over 1km of strike (Figure 8).

The mineralisation at Dune is hosted in metasedimentary rocks of the Proterozoic Lamil group which also host the Telfer, Havieron and Winu copper-gold deposits.

### Diamond Drilling at Dune

Prior drilling at Dune intersected multiple, stacked, copper-gold reefs in drill hole ETG0243 within a thick prospective package of interbedded siltstones and quartzites. This package is analogous to the Telfer formation siltstones and Upper Malu quartzites which are important hosts of Au-Cu reefs at the Telfer deposit (see ASX release 16 November 2021).

Two holes (ETG0244 & ETG0245) were completed in September 2022 to test for lateral and down plunge extensions of the prospective package intersected in ETG0243.

### ETG0244

Drillhole ETG0244 further expanded the footprint of the mineral system at Dune. It was collared 200m north-west of ETG0243 and intersected copper-gold reefs higher in the hole than expected including:

- 0.3m @ 21.5g/t gold and 3.8% copper from 175.2m
- 0.2m @ 15.9g/t gold from 201.9m
- 0.18m @ 11.3g/t gold and 6.48% copper from 206.57m in ETG0244

The nearer surface copper-gold reefs intersected in ETG0244 are proximal to prior high-grade RC drill intersections at the base of the weathered profile at Dune including:

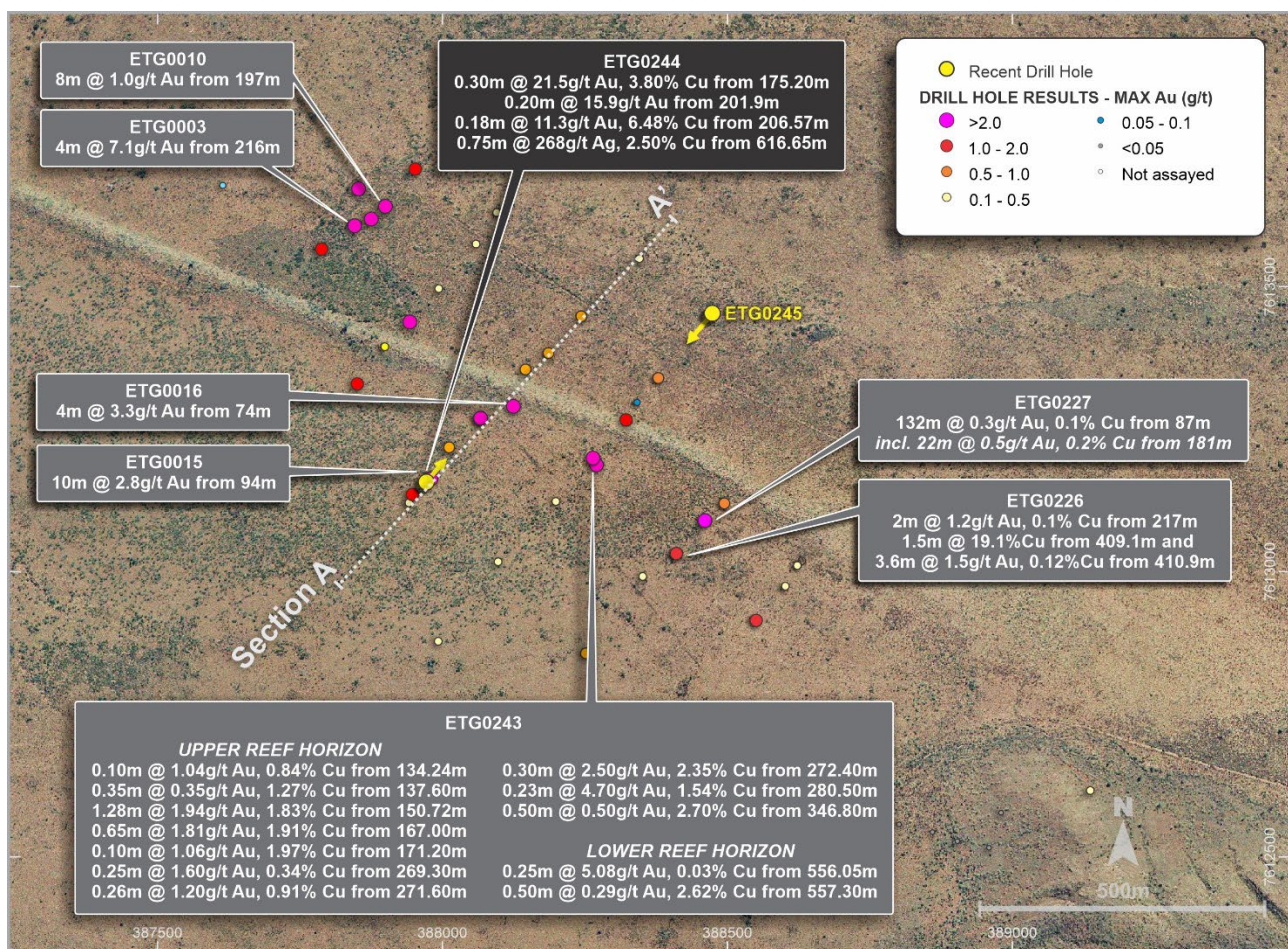
- 10m @ 2.8g/t gold and 812ppm copper from 94m in ETG0015
- 4m @ 3.3g/t gold and 1,400ppm copper from 74m in ETG0016

The relationship between the copper-gold reefs intersected in ETG0244 and the supergene intersections in ETG0015 and ETG0016 will be investigated (Figure 9).

However, an unexpected result from ETG0244 was a deeper intersection of copper-silver mineralisation, hosted by a tetrahedrite-chalcopyrite bearing vein with epithermal textures. This is the first time this style of mineralisation has been recognised at Lamil. Assay results from this vein returned:

- 0.75m at 268g/t silver and 2.5% copper from 616.65m in ETG0244

Tetrahedrite (a copper-silver mineral) has a common association with high-sulphidation epithermal deposits and may represent a new untested target-style at Lamil.



**Figure 8 – Dune prospect plan showing copper-gold mineralisation extending over 1km of strike and the locations of the two recent diamond drill holes (ETG0244 & ETG0245) 7**

### ETG0245

ETG0245 confirmed the dip of the stratigraphy on the eastern flank of the Lamil Dome but contained less veining and lower copper-gold grades than ETG0243 and therefore provides focus for future exploration on the western limb of the dome.

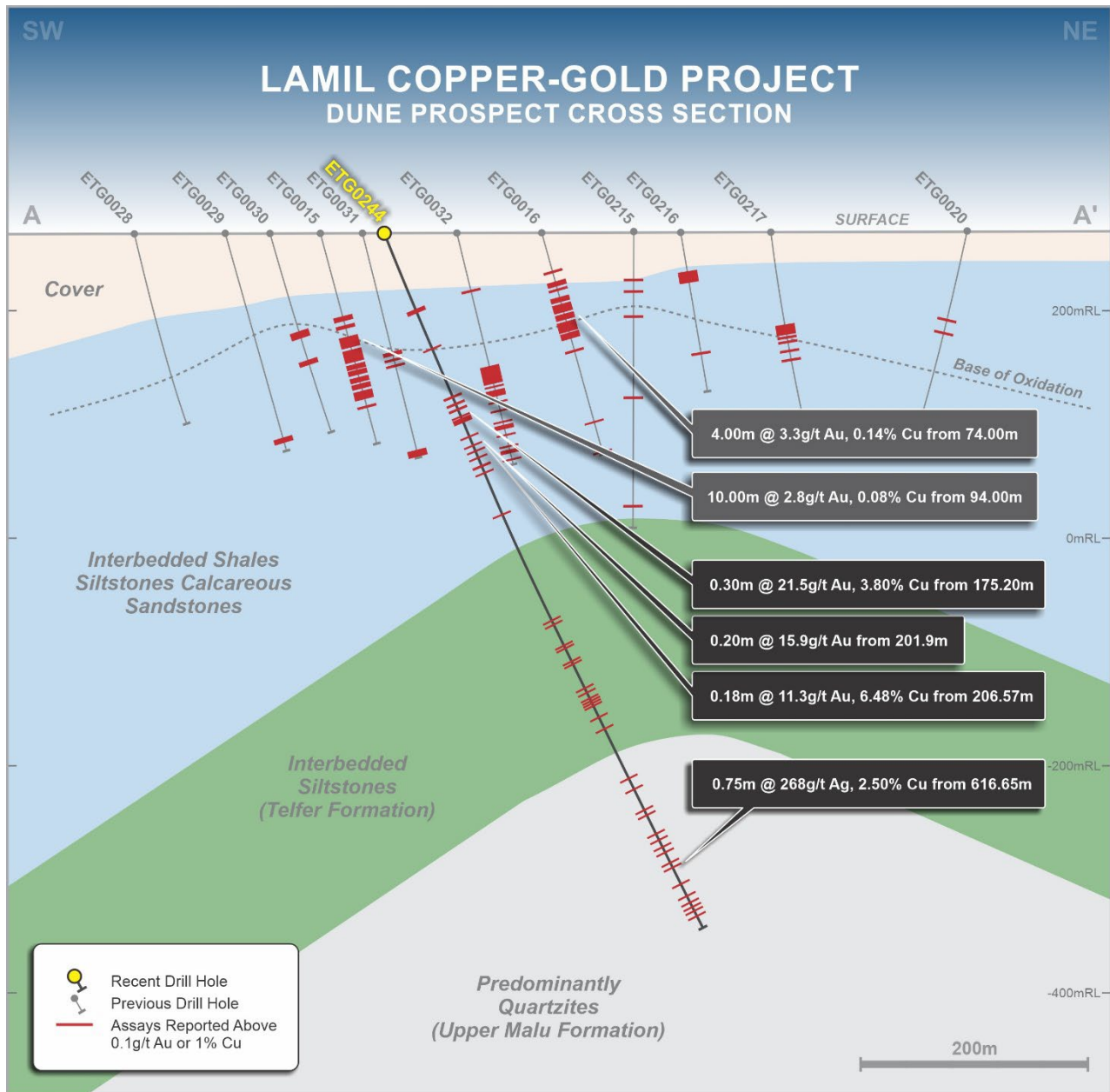
A downhole EM survey of ETG0244 & ETG0245 did not identify any significant off-hole conductive features.

The diamond drill program at Lamil was co-funded, up to \$220,000, under the WA Government's Exploration Incentive Scheme ("EIS").

**Next Steps**

The mineral system at Dune continues to grow and follow up exploration will be designed to test:

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



**Figure 9 – Dune prospect section A – A' with ETG0244 and proximity to prior high-grade supergene intersections**

<sup>7</sup> For further details regarding the exploration results at the Lamil Copper-Gold Project, please refer to the following ASX announcements:

- ASX release 26 April 2017
- ASX release 19 January 2017

ASX release 18 December 2020  
ASX release 21 April 2021  
ASX release 6 September 2021  
ASX release 16 November 2021  
ASX release 28 December 2022

## **East Thomson's Dome Project – WA (100% ENR)**

East Thomson's Dome is located 5km from Telfer in the Paterson Province of WA. The domal structure at East Thomson's Dome has a core of Malu Formation with the fold axis trending WNW. The majority of surface gold and reef style mineralisation at East Thomson's Dome has been discovered in the overlying Telfer Formation sediments. This geological setting is similar to that of the high-grade reefs at Telfer.

Broad spaced RC drilling completed at the 45 Reef at East Thomson's Dome intersected:

- 6m @ 9.0g/t Au from 178m including
  - 2m @ 26.0g/t Au from 178m in ETG0045
- 16m @ 0.6g/t Au from 154m in ETG0044  
(refer ASX release 16 August 2017)

The next drilling program at East Thomson's Dome will target the south-west extension of the high-grade reef intersected in ETG0045.

Encounter will consider opportunities to East Thomson's Dome through the next phase of exploration alone or in conjunction with an earn-in partner.

## **Dunmarra, Maryfield and Broadmere Copper Projects – NT (100% ENR)**

The Dunmarra, Maryfield and Broadmere projects encompass key targets identified on the margin of the Beetaloo Basin that were generated through fluid flow modelling of previous oil and gas drilling and seismic surveys. The targets were generated utilising oil and gas methodology that was refined to target the sediment hosted copper model.

Compilation of historical exploration has commenced and will include additional sampling of oil and gas wells in the basin adjacent to the targets and field reconnaissance in 2023.

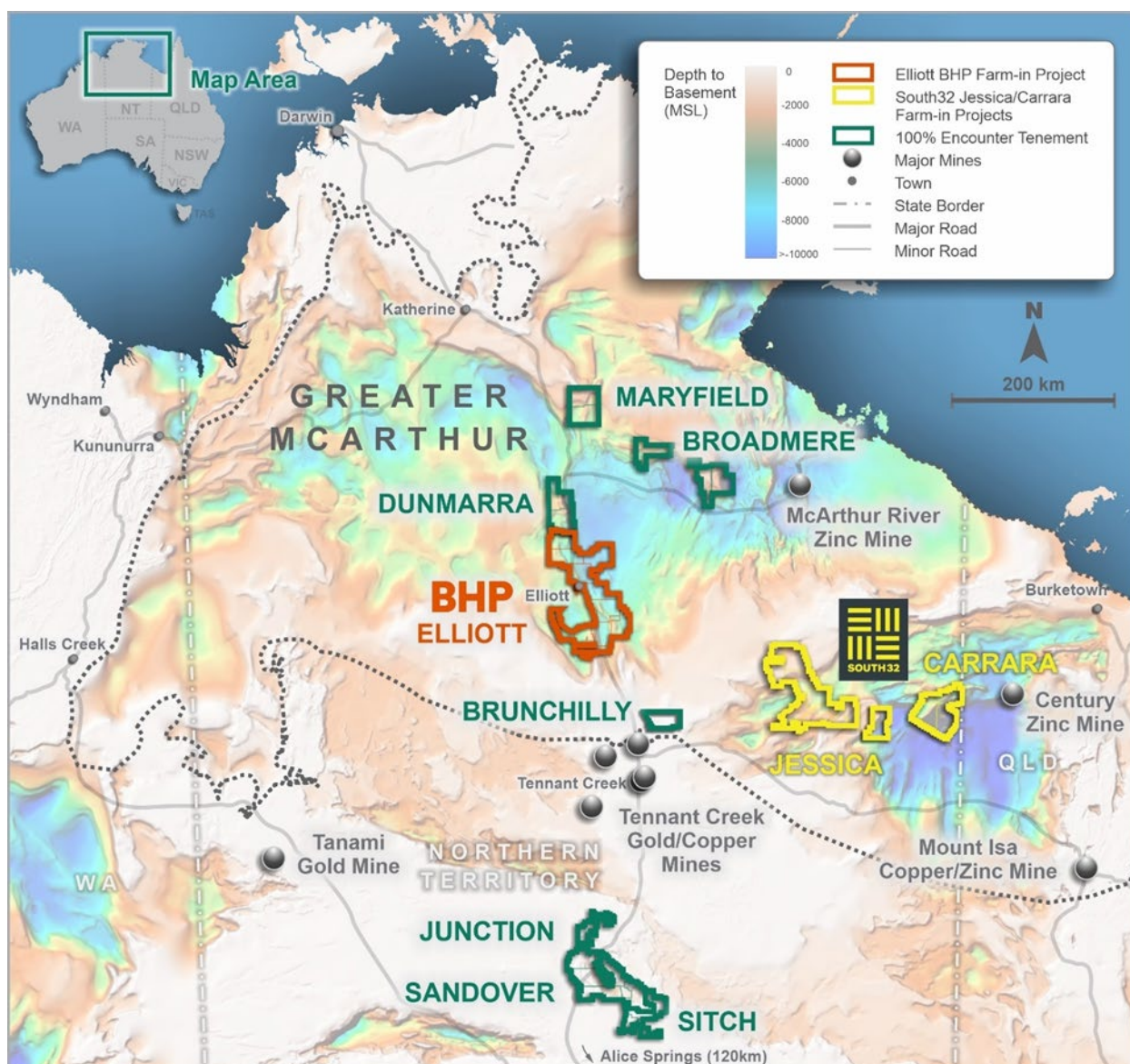


Figure 10 – Encounter copper and lithium projects in the Northern Territory – Project Location Plan

## Major copper exploration drive funded through farm-ins

### Elliott Copper Project – NT (BHP \$25m Farm-in)

Elliott was the first project secured by Encounter in the NT and now comprises more than 7,200km<sup>2</sup>.

The project is being explored together with BHP where BHP has the right to earn up to a 75% interest in Elliott by sole funding up to \$25 million of expenditure within 10 years.

Elliott is located at a major structural intersection on the southwestern margin of the Beetaloo Basin which is part of the Greater McArthur Superbasin that hosts the giant sediment-hosted base metal deposit at McArthur River.

The Superbasin contains thick, petroleum bearing, reduced sediments which are an ideal trap sequence and the major structures bounding the Superbasin are considered ideal structural fluid pathways for major sediment-hosted copper deposits. The project encompasses key conceptual

criteria for the formation of sediment-hosted copper and the target sequence is undercover and untested.

New sampling datasets released in 2019 and 2020 have supported the conceptual and structural targeting model at Elliott. The standout, copper-in-groundwater anomaly (an order of magnitude above background) in the extensive dataset is located at Elliott.

### Diamond Drill Program

A 2 hole diamond drill program was completed in November 2022 (1,655m) which confirmed that the targeted reduced Velkerri and Kyalla Formations are preserved in the target area.

Geochemical and petrophysical results for both holes will be received in the March 2023 quarter.

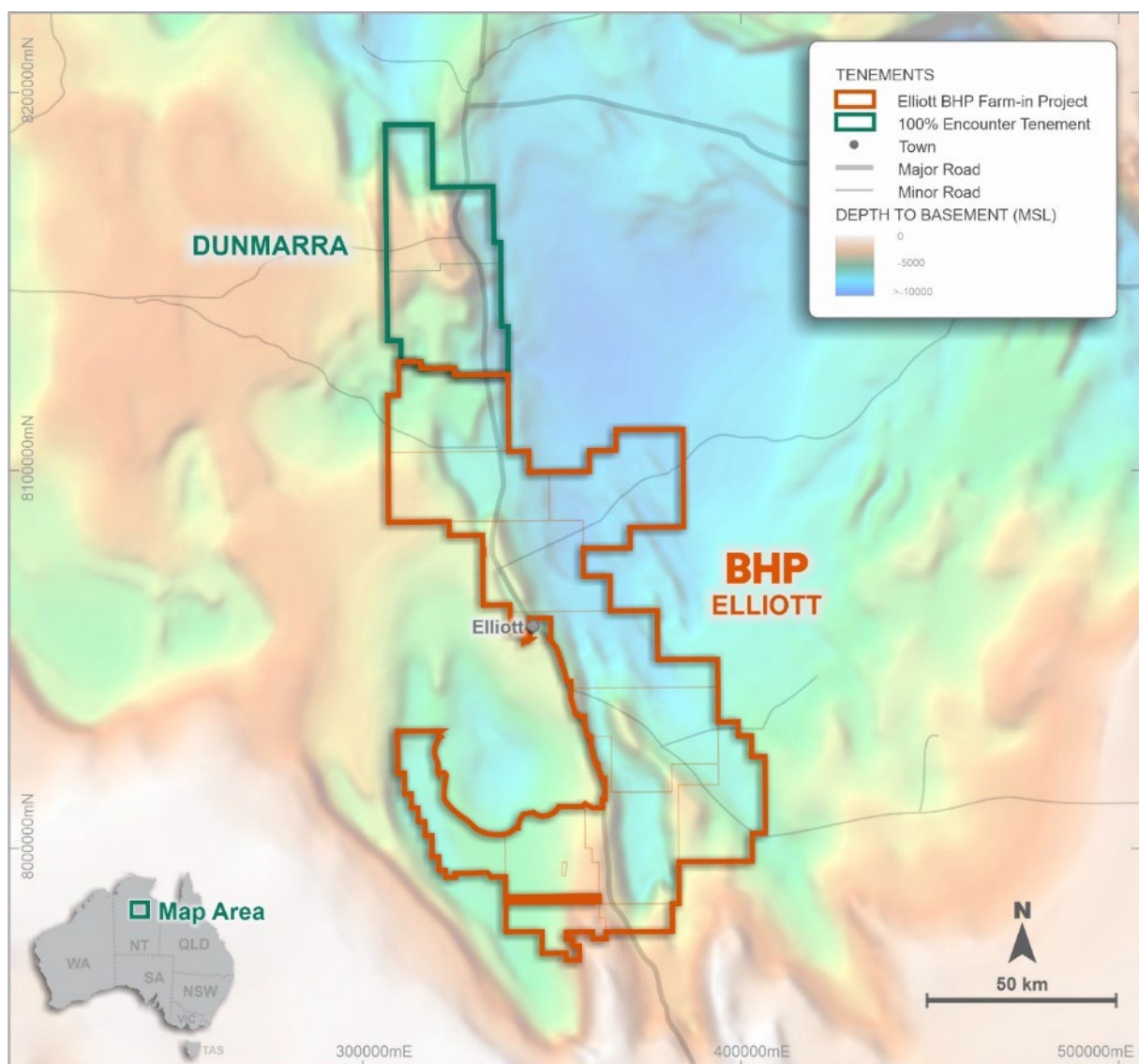


Figure 11 – Elliott Copper Project location plan

## Jessica Copper Project – NT (South32 \$15m Farm-in)

Jessica covers ~6,300km<sup>2</sup> along key structural corridors east of Tennant Creek and is prospective for sediment-hosted copper and IOCG style deposits.

Jessica is being explored together with South32 under a farm-in agreement where South32 may earn a 60% initial interest in a project by spending \$15 million in exploration expenditure over a period of 10 years. South32 may then earn an additional 15% interest in Jessica upon completion of a scoping study (refer ASX announcement 23 June 2022).

Jessica captures compelling structural targets along the Brunette Downs Rift Corridor identified by Geoscience Australia in the Exploring for the Future program. Jessica was targeted along the northern flanks of the East Tennant gravity ridge and the intersection with a major NNW structural corridor (Figure 12). Jessica has potential for both basement IOCG style mineralisation and sediment-hosted copper deposits.

Systematic assessment of drill chips from water bores at Jessica has been conducted by Encounter Resources and a previous explorer utilising handheld XRF machines. Areas of copper anomalism were selected for chemical analysis and for the sample interval 0-3m in RN28419 (Figure 12, No. 39 water bore) which returned 1.5% copper (*refer ASX announcement 19 August 2020*).

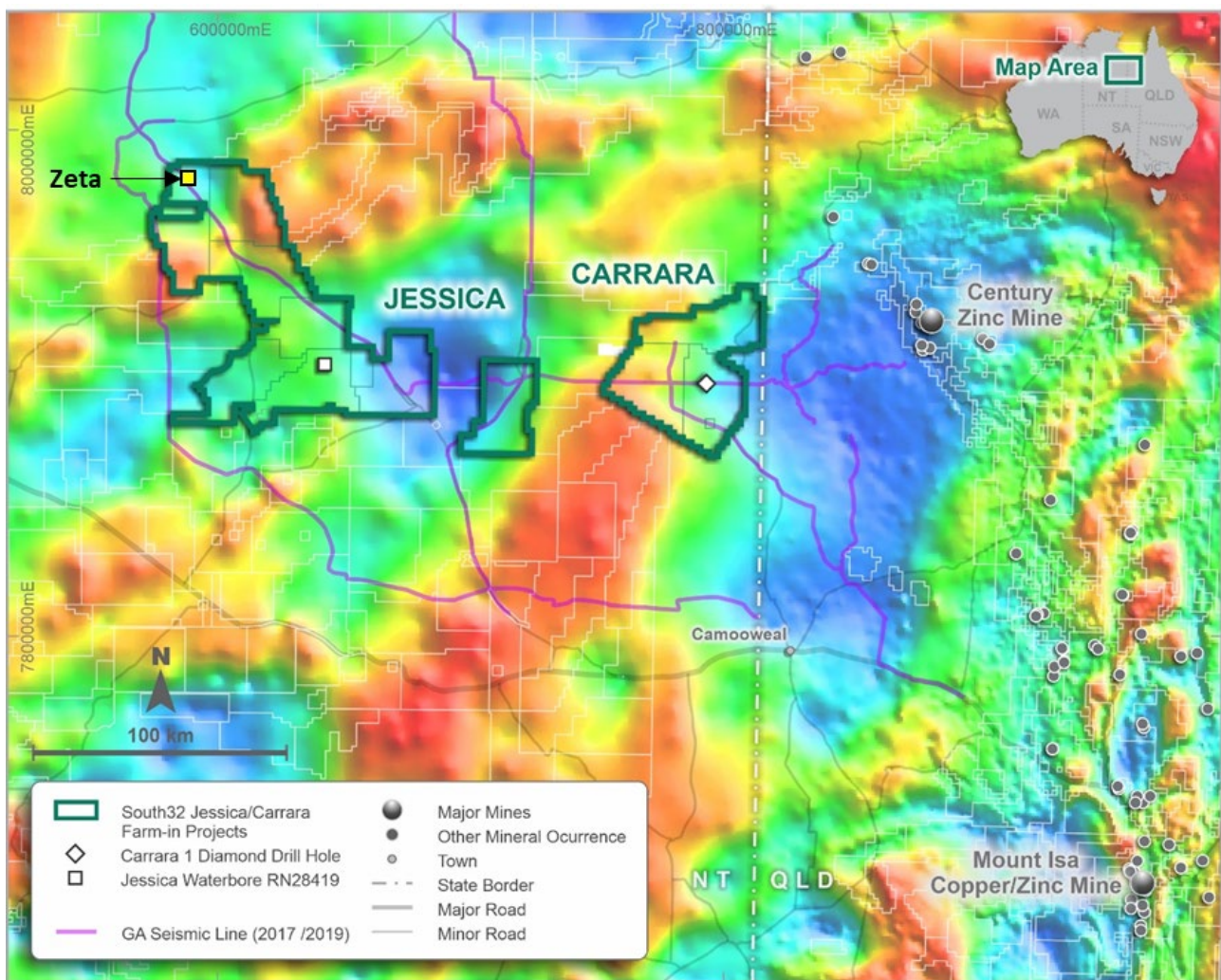


Figure 12 – Jessica and Carrara – Project location plan over bouguer gravity

## Exploration Activity

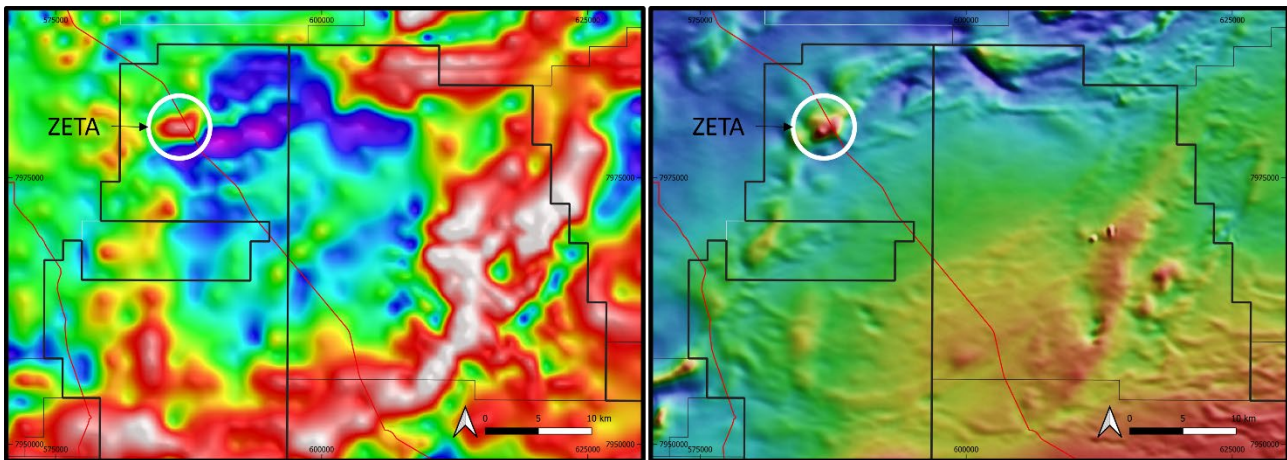
In partnership with South32, reprocessing of Geoscience Australia seismic data that extends through Jessica (Figure 12) was completed by HiSeis, in order to provide greater detail of the geology and structure in the upper 1,000m (refer ASX announcement 28 October 2022).

A 2km spaced gravity survey was also completed at the project in 2022 by the NTGS with 1km spaced gravity infill data collected over a series of high priority magnetic targets. A significant and discrete gravity feature coincident with a prominent magnetic feature on the margin of a large interpreted intrusive body was identified (Figures 13 & 14). This target has been named the Zeta IOCG target (“Zeta”).

In addition, seismic reprocessing has highlighted a discrete seismic reflector at depth immediately underlying Zeta. Seismic reprocessing has also highlighted a zone of washed out seismic character at depth beneath Zeta, interpreted to represent a potential deep rooted alteration zone associated with a crustal scale structure (Figures 15 & 16). This confluence of geophysical anomalism (gravity, magnetics and seismic) together with the structural context, located on a fundamental NNW structure, makes Zeta a priority target. Gravity modelling Zeta to refine the drill target was completed during the December 2022 quarter.

## Next Steps

Engagement with stakeholders and regulatory approvals is progressing with diamond drilling scheduled to commence in May 2023. Four diamond drill holes (3,500m) are planned for the 2023 field season.



**Figures 13 & 14 – Jessica Project – Zeta IOCG target. Gravity (1VD) (left) and Magnetics (RTP) (right), location of GA seismic lines shown in red**



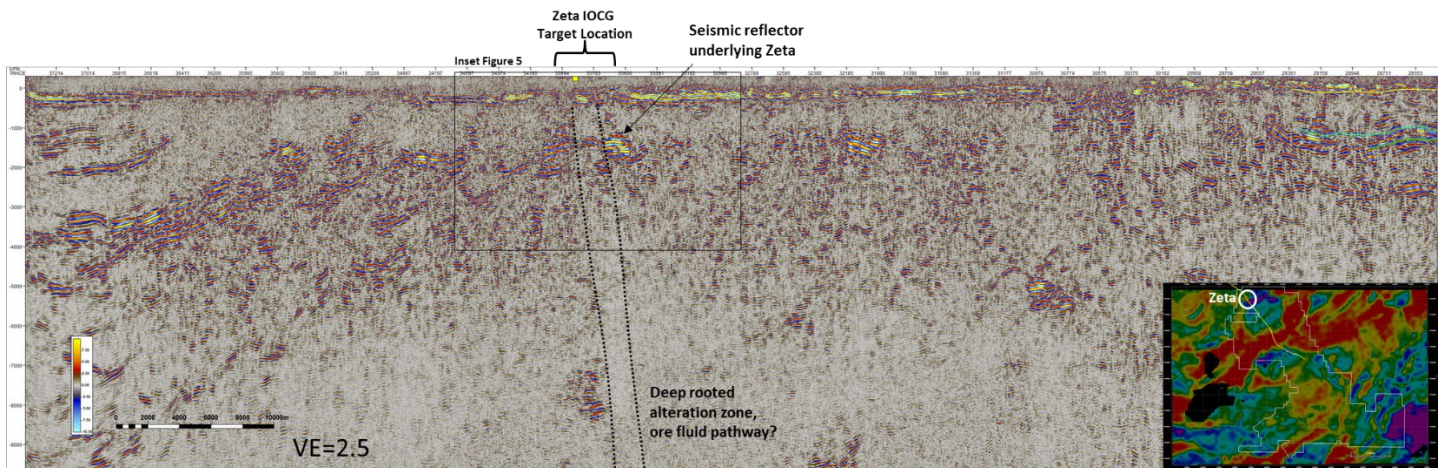


Figure 15. Jessica Project - Zeta IOCG Target - Seismic cross section

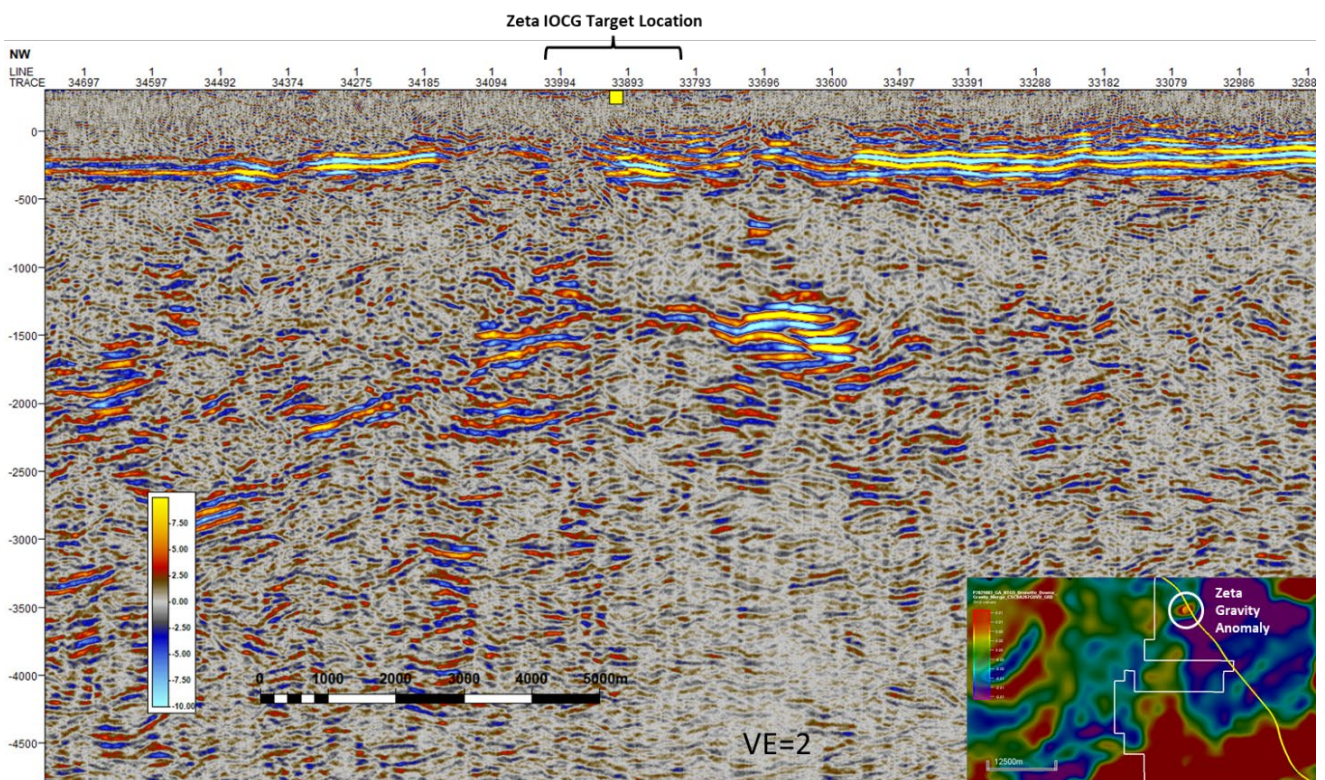


Figure 16. Jessica Project - Zeta IOCG Target - Seismic cross section (inset)

## Carrara Copper-Zinc Project - (South32 \$10m Farm-in)

EL32476, EL32477, EL32701 and EL32813

Carrara is being explored together with South32 under a farm-in agreement where South32 may earn a 60% initial interest in a project by spending \$10 million in exploration expenditure over a period of 10 years. South32 may then earn an additional 15% interest in Jessica upon completion of a scoping study (refer ASX announcement 23 June 2022).

Carrara was secured following the release of the South Nicholson Seismic Survey, a foundational dataset acquired as part of the Geoscience Australia Exploring for the Future Program. A key finding of this survey is the correlation of prospective stratigraphic units from the Isa Superbasin into the Carrara Sub-basin that extend the Mount Isa Province to the west.

Carrara is located at an interpreted structural offset of the western margin of the Carrara Sub-basin where the prospective Isa Superbasin units are modelled closer to surface.

The giant Century Zinc Mine is located on the eastern margin of the Carrara Sub-basin, and there is a clear correlation of the Century mine stratigraphy across the basin in the Geoscience Australia seismic data (Figures 12 and 17).

In 2020 a 1,751m deep stratigraphic drill hole (NDI Carrara-1) was completed as part of the National Drilling Initiative funded by the Minex CRC and confirmed the presence of copper and zinc sulphide mineralisation (Figure 17). This demonstrated that sediment-hosted copper and zinc mineralising processes occur within the prospective host unit (refer ASX announcement 28 April 2021).

### Exploration Activity

A 2km spaced gravity survey over Carrara by the NTGS was completed in 2022.

The reprocessing of seismic lines that extend through Carrara has provided far greater detail of the geology and structure in the upper 1,000m resulting in the definition of multiple targets at key structural locations along the western margin of the sub-basin.

Engagement with stakeholders and regulatory approvals for diamond drilling progressed during the December 2022 quarter.

### Next Steps

Three diamond drill holes (3,000m) are planned for the 2023 field season. Preparations are well advanced with drilling scheduled to commence at Carrara following completion of the planned 3,500m diamond drill program at Jessica.

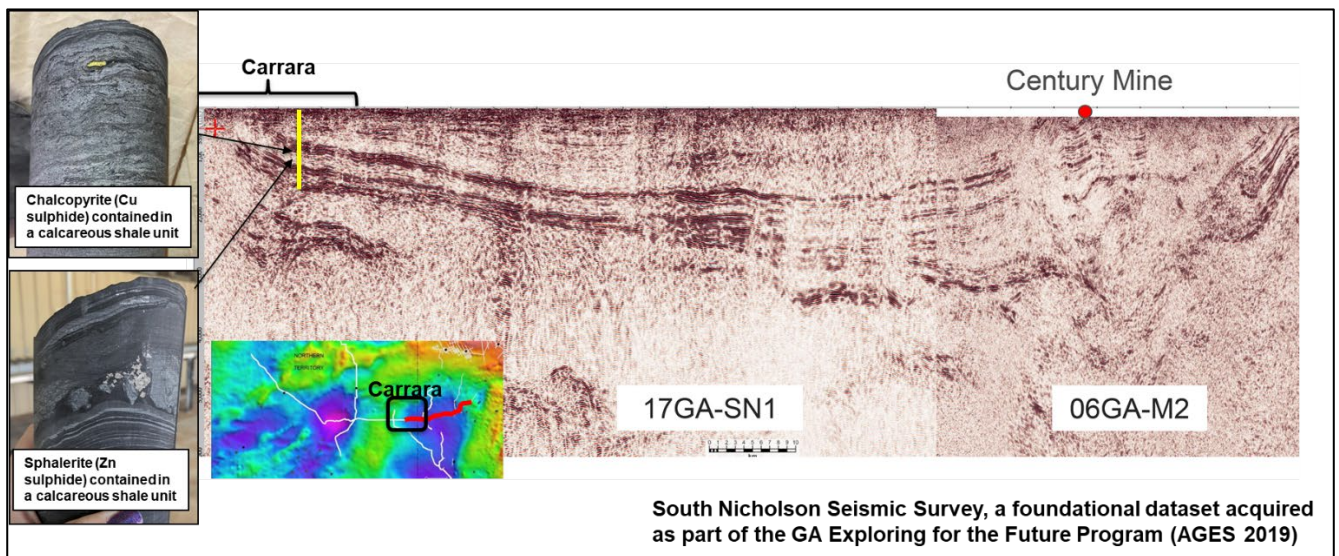


Figure 17 – Carrara Project - South Nicholson Seismic Survey and approx. location of NDI Carrara-1 stratigraphic hole (yellow)

## Yeneena Copper Project – Paterson Province WA (IGO \$15m Farm-in)

Yeneena comprises a major land position covering >1,450km<sup>2</sup> in the highly prospective Paterson Province, targeting copper-cobalt mineralisation. IGO can sole fund \$15 million in exploration expenditure over a maximum of seven years to earn a 70% interest in Yeneena.

Exploration at Yeneena is focused on discovering high-value sediment-hosted copper deposits. The strategy implemented by IGO involves the collection of belt-scale high-quality primary datasets, with cutting-edge techniques used to acquire geological, geochemical and geophysical data. All data is integrated and interpreted into 3D belt-scale and supporting camp-scale models.

Regional target areas have been identified from the model, defining sub-basins that could contain similar rocks to those found at Nifty copper mine.

### Exploration Activity

Exploration activities during the quarter, operated and funded by IGO, included:

- The final hole of the six diamond drill hole program (3,989m) was completed. The drill program focused on two regional target areas EB01 (2113.7m) and ET01 (1874.3m). Drilling intersected amenable host lithologies (carbonates and black shales, interbedded with thin rheologically robust arenites) that contain weakly anomalous copper, lead and zinc as evidence of metal bearing fluid. Geochemical and geological results are being integrated into target models to generate high priority targets.
- An 11km seismic survey was completed covering the T4 inlier block and will be integrated into the basin 3D model.
- Hydrogeochemical sampling of aircore holes commenced during the December 2022 quarter. Further data collection is planned in the 2023 field season.
- Mapping of the Lookout Rocks region was completed during the quarter which has refined the geological understanding of the area and highlighted new copper drill targets.
- 2,950 line km airborne magnetic survey commenced in December 2022 and was completed in January 2023.

### Next Steps

- Results of diamond drilling will be interpreted to refine the camp scale model and the new seismic data will also be integrated
- Incorporation of the new datasets to generate high priority targets for testing in 2023 has commenced.

## Corporate

Encounter held cash reserves of ~\$4.4 million at 31 December 2022.

During the December 2022 quarter the Company raised a total of \$300,000 from the issue of 2.5 million shares to directors and their related parties following approval at the Company's 2022 annual general meeting on 29 November 2022. In addition, the Company received a further \$99,000 on the exercise of options during the quarter.

During the quarter, the Company issued a total of 3,980,000 unlisted options to directors pursuant to shareholder approval at the above mentioned annual general meeting.

### **Related party transactions**

Payments to related parties of the entity and their associates (refer section 6 of Appendix 5B below):

Included at section 6.1 - Comprises: Remuneration of directors (\$89,000)

Included at section 6.2 - Comprises: Remuneration of directors (\$156,000)

In accordance with ASX Listing Rule 5.3.1, the Company confirms that there have been no material developments or changes to its exploration activities, and provides the following information:

- Approximately \$1.219 million was incurred by the Company in respect of exploration activity for the quarter ended 31 December 2022, primarily on:
  - Diamond drilling at the Lamil copper-gold project in WA
  - Geophysical surveys at the Aileron copper-rare earth project in WA and the Sandover copper project in the NT
- A summary of the specific exploration activities undertaken in each project area (which included drilling and geochemical and geophysical programs), is provided in the relevant sections of this activity report.

In accordance with ASX Listing Rule 5.3.2, the Company advises that no Mining Development or Production activities were conducted during the quarter.

## Next Quarter Highlights

Activities planned for the March 2023 quarter include:

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

- Project wide, 400m spaced Falcon airborne gravity survey to be completed in March-April 2023
- EIS co-funded diamond drilling testing of the Caird, Crean and Worsley targets scheduled to commence in April-June 2023

### **Lamil Copper-Gold Project - Paterson Province – WA (100% ENR)**

- Integrate the recent drilling results into existing models to design the next phase of exploration

### **Sandover Copper Project – NT – (100% ENR)**

- Interpretation and integration of the 1km spaced gravity survey to design targets for drill testing in 2023

### **Junction Lithium Project – NT – (100% ENR)**

- Systematic 200m x 50m soil geochemical sampling of prospective corridors

### **Jessica Copper Project – NT – (South32 \$15m farm-in)**

- Preparation for the four hole (3,500m) diamond drill program to commence in May 2023

### **Carrara Copper-Zinc Project – NT – (South32 \$10 farm-in)**

- Complete stakeholder engagement and regulatory approvals for the planned 3,000m diamond drill program in 2023

### **Elliott Copper Project - NT (BHP \$25m farm-in)**

- Geochemical and petrophysical analytical results from the two diamond hole program completed in November 2022

### **Yeneena Copper-Cobalt Project - WA (IGO \$15m farm-in)**

- Incorporation of drill results and new datasets to generate high priority targets for testing in 2023

### **Ongoing potential project partnership discussions to accelerate exploration activities**

## Tenement Information (granted tenure)

Lease	Location	Project Name	Area km <sup>2</sup>	Interest at start of quarter (1/10/2022)	Interest at end of quarter (31/12/2022)
E45/2500	266km NE of Newman	Millennium – Hampton JV	107.3	75-100%	75-100%
E45/2501	277km NE of Newman	Millennium – Hampton JV	19.12	75%	75%
E45/2502	261km NE of Newman	Paterson IGO Earn-In	117.8	100%	100%
E45/2561	276km NE of Newman	Millennium – Hampton JV	50.95	75%	75%
E45/2657	246km NE of Newman	Paterson IGO Earn-In	156	100%	100%
E45/2658	245km NE of Newman	Paterson IGO Earn-In	95.4	100%	100%
E45/2805	242km NE of Newman	Paterson IGO Earn-In	85.8	100%	100%
E45/2806	251km NE of Newman	Paterson IGO Earn-In	35	100%	100%
E45/3768	241km NE of Newman	Paterson IGO Earn-In	149.7	100%	100%
E45/4861	260km NE of Newman	Paterson IGO Earn-In	140.4	100%	100%
E45/5333	239km NE of Newman	Paterson IGO Earn-In	127.2	100%	100%
E45/5334	242km NE of Newman	Paterson IGO Earn-In	102.1	100%	100%
E45/4613	300km NE of Newman	Lamil	60.7	100%	100%
E45/3446	315km NE of Newman	East Thomson's Dome	6.0	100%	100%
P45/2750	315km NE of Newman	East Thomson's Dome	198ha	100%	100%
P45/2751	315km NE of Newman	East Thomson's Dome	171ha	100%	100%
P45/2752	315km NE of Newman	East Thomson's Dome	199ha	100%	100%
P45/3032	315km NE of Newman	East Thomson's Dome	114ha	100%	100%
E80/5169	West Arunta	Aileron	187.6	100%	100%
E80/5469	West Arunta	Aileron	534.3	100%	100%
E80/5470	West Arunta	Aileron	613.9	100%	100%

E80/5522	West Arunta	Aileron	429.2	100%	100%
EL32156	Northern Territory	Elliott – BHP farm-in	807.3	100%	100%
EL32157	Northern Territory	Elliott – BHP farm-in	696.3	100%	100%
EL32158	Northern Territory	Elliott – BHP farm-in	793.9	100%	100%
EL32159	Northern Territory	Elliott – BHP farm-in	723.9	100%	100%
EL32226	Northern Territory	Elliott – BHP farm-in	813.56	100%	100%
EL32329	Northern Territory	Elliott – BHP farm-in	137.0	100%	100%
EL32437	Northern Territory	Elliott – BHP farm-in	601.1	100%	100%
EL32581	Northern Territory	Elliott – BHP farm-in	493.6	100%	100%
EL32273	Northern Territory	Jessica – South32 farm-in	750.5	100%	100%
EL32317	Northern Territory	Jessica – South32 farm-in	738.6	100%	100%
EL32338	Northern Territory	Jessica – South32 farm-in	783.5	100%	100%
EL32339	Northern Territory	Jessica – South32 farm-in	791.4	100%	100%
EL32386	Northern Territory	Jessica – South32 farm-in	814.5	100%	100%
EL32387	Northern Territory	Jessica – South32 farm-in	814.9	100%	100%
EL32388	Northern Territory	Jessica – South32 farm-in	813.8	100%	100%
EL32493	Northern Territory	Jessica – South32 farm-in	811.6	100%	100%
EL32374	Northern Territory	Sandover	795.4	100%	100%
EL32694	Northern Territory	Sandover	792.7	100%	100%
EL32695	Northern Territory	Sandover	787.4	100%	100%
EL32696	Northern Territory	Sandover	763.6	100%	100%
EL33060	Northern Territory	Junction	740.1	100%	100%
EL32421	Northern Territory	Sitch	792.7	100%	100%

EL33060	Northern Territory	Sitch	665.3	100%	100%
EL32476	Northern Territory	Carrara – South32 farm-in	805.4	100%	100%
EL32477	Northern Territory	Carrara – South32 farm-in	805.2	100%	100%
EL32701	Northern Territory	Carrara – South32 farm-in	801.7	100%	100%
EL32813	Northern Territory	Carrara – South32 farm-in	22.7	100%	100%
EL32478	Northern Territory	Brunchilly	798.5	100%	100%
EL32721	Northern Territory	Broadmere	816.7	100%	100%
EL32723	Northern Territory	Dunmarra	823.1	100%	100%
EL32727	Northern Territory	Maryfield	795.7	100%	100%
EL32728	Northern Territory	Maryfield	826.9	100%	100%

\* Hampton earning into the four eastern block of E45/2500 remaining area of the tenement is in IGO Earn-In.



Will Robinson

Managing Director

*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 they/them, 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 Persons 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 Resources Limited.*



## Appendix 5B

### Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity

Encounter Resources Limited

ABN

47 109 815 796

Quarter ended ("current quarter")

31 December 2022

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (6 months) \$A'000
<b>1.</b>	<b>Cash flows from operating activities</b>		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) exploration & evaluation	-	-
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(121)	(156)
	(e) administration and corporate costs	(105)	(211)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	4	11
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	-
1.8	Other (provide details if material)	17	34
<b>1.9</b>	<b>Net cash from / (used in) operating activities</b>	<b>(205)</b>	<b>(322)</b>
<b>2.</b>	<b>Cash flows from investing activities</b>		
2.1	Payments to acquire or for:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	(12)	(12)
	(d) exploration & evaluation	(1,219)	(1,614)
	(e) investments	-	-
	(f) other non-current assets – bonds and security deposits	-	-

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (6 months) \$A'000</b>
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other – farm-in and joint venture contributions	-	-
	Other – exploration incentive grants	89	89
<b>2.6</b>	<b>Net cash from / (used in) investing activities</b>	<b>(1,142)</b>	<b>(1,537)</b>
<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	300	4,300
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	99	99
3.4	Transaction costs related to issues of equity securities or convertible debt securities	(6)	(233)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings – lease payments	(19)	(37)
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other – subsidiary IPO expenses	-	-
<b>3.10</b>	<b>Net cash from / (used in) financing activities</b>	<b>374</b>	<b>4,129</b>
<b>4.</b>	<b>Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1	Cash and cash equivalents at beginning of period	5,409	2,166
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(205)	(322)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(1,142)	(1,537)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	374	4,129

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (6 months) \$A'000</b>
4.5	Effect of movement in exchange rates on cash held	-	-
<b>4.6</b>	<b>Cash and cash equivalents at end of period</b>	<b>4,436</b>	<b>4,436</b>

<b>5.</b>	<b>Reconciliation of cash and cash equivalents</b> at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	<b>Current quarter \$A'000</b>	<b>Previous quarter \$A'000</b>
5.1	Bank balances	136	4,159
5.2	Call deposits	4,300	1,250
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
<b>5.5</b>	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>4,436</b>	<b>5,409</b>

<b>6.</b>	<b>Payments to related parties of the entity and their associates</b>	<b>Current quarter \$A'000</b>
6.1	Aggregate amount of payments to related parties and their associates included in item 1	89
6.2	Aggregate amount of payments to related parties and their associates included in item 2	156

*Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.*

<b>7.</b>	<b>Financing facilities</b> <i>Note: the term "facility" includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.</i>	<b>Total facility amount at quarter end \$A'000</b>	<b>Amount drawn at quarter end \$A'000</b>
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	-	-
7.4	<b>Total financing facilities</b>	-	-
7.5	<b>Unused financing facilities available at quarter end</b>		-
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		

<b>8. Estimated cash available for future operating activities</b>		<b>\$A'000</b>
8.1	(a) Net cash from / (used in) operating activities (item 1.9)	294
8.2	(b) (Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	1,130
8.3	(c) Total relevant outgoings (item 8.1 + item 8.2)	1,424
8.4	(d) Cash and cash equivalents at quarter end (item 4.6)	4,436
8.5	(e) Unused finance facilities available at quarter end (item 7.5)	-
8.6	(f) Total available funding (item 8.4 + item 8.5)	4,436
8.7	(g) (h) <b>Estimated quarters of funding available (item 8.6 divided by item 8.3)</b>	3.1
<p><i>Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.</i></p>		
<p>Answer: N/A</p>		
8.8	(i) If item 8.7 is less than 2 quarters, please provide answers to the following questions:	
8.8.1	Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?	
<p>Answer: N/a</p>		
8.8.2	Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?	
<p>Answer: N/a</p>		
8.8.3	Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?	
<p>Answer: N/a</p>		
<p><i>Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.</i></p>		

## Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 31 January 2023

Authorised by: The Board of Encounter Resources Limited

(Name of body or officer authorising release – see note 4)

### Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [*name of board committee – eg Audit and Risk Committee*]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.