

# Quarterly Report

Period ended 30 June 2020



Minotaur Exploration Limited ACN 108 483 601 ASX: MEP  
www.minotaurexploration.com.au

## CORPORATE

Cash utilisation during the June Quarter was constrained, reflecting reduced field activity due to travel and land access restrictions arising from the Corona pandemic. The Company held \$2.4m in cash at 30 June 2020, as detailed in the Appendix 5B.

The \$150,000 share-based component for acquisition of the Windsor tenements emerged from escrow. The shares were transferred to a significant shareholder in an arrangement with the Administrators of the tenement vendor, ensuring no overhang in Minotaur's market.

Minotaur took advantage of high liquidity in Petratherm (ASX: PTR) and Thomson Resources (ASX: TMZ) to exit those registers. The Company retains 18.33 million shares in nickel explorer Auroch Minerals (ASX: AOU).

## EXPLORATION - Queensland

State border closures prevented access to Queensland work sites until 20 July. Minotaur's team is now 'on the ground' preparing for a resumption of field work.

### Jericho JV (OZL 80%: MEP 20%)

A JORC resource estimate of the Jericho Cu-Au lodes was provided by OZ Minerals Ltd. The Inferred Mineral Resource was reported<sup>1</sup> at approximately **9.1 million tonnes grading 1.4% Cu, 0.3 g/t Au** and 1.6 g/t Ag (Table 1) within a 0.8 percent copper constraining shell. Estimates for tonnes and grade at alternate copper constraining shells are also included in Table 1 for reference.

Reporting Method	Tonnes	Cu	Au	Ag	Cu Metal	Au Metal
	(Mt)	(%)	g/t	g/t	(kt)	(koz)
Mineral Resource at 0.8 percent copper constraining shell	9.1	1.4	0.30	1.6	130	88
Mineral Resource at 0.9 percent copper constraining shell	6.9	1.6	0.34	1.8	110	75
Mineral Resource at 1 percent copper constraining shell	5.3	1.7	0.38	1.9	89	64

Table 1: Jericho Inferred Resource Estimate

<sup>1</sup> ASX release dated 16 July 2020: Maiden Jericho Resource and Cloncurry exploration update

## QUEENSLAND

Mining optimisation studies using the Jericho resource estimate to assess the potential for Jericho to be mined as an underground operation were carried out by OZ Minerals. OZ Minerals determined that the present resource is not viable as a standalone underground mining operation.

Minotaur notes that the adjacent Eloise Cu-Au operation currently mining from as deep as 1,300m below surface has, since inception, reputedly delivered some 12 million tonnes of ore to its 700,000tpa processing plant. Minotaur's view is that further exploration of Jericho, along strike and down dip, could well substantially improve the present resource. *Note: There is no certainty that further exploration and evaluation work would determine if the Jericho mineral resource may be viable for production.*

### Eloise JV (OZL 70%: MEP 30%)

Big Foot, located 12km along strike north of Jericho, is a priority drill target defined by an EM survey completed in March. As presented previously<sup>2</sup>, Big Foot has a modelled strike length of 1.5km, depth extent of +500m and high conductance ranging 2000-3400 Siemens (Figure 1). A second smaller conductor, Little Foot, lies off the southern end of Big Foot with a modelled strike length of 350m, depth extent of 75m and very high conductance of 6300 Siemens. Both anomalies lie along strike northeast of the Iris-Electra prospects where Jericho-style Cu-Au mineralisation was intersected in drilling in 2016-2017.

Big Foot will be tested with 2 diamond holes to determine the source of the EM conductor. Native Title site clearances are imminent, with drilling to follow subject to drill contractor availability.

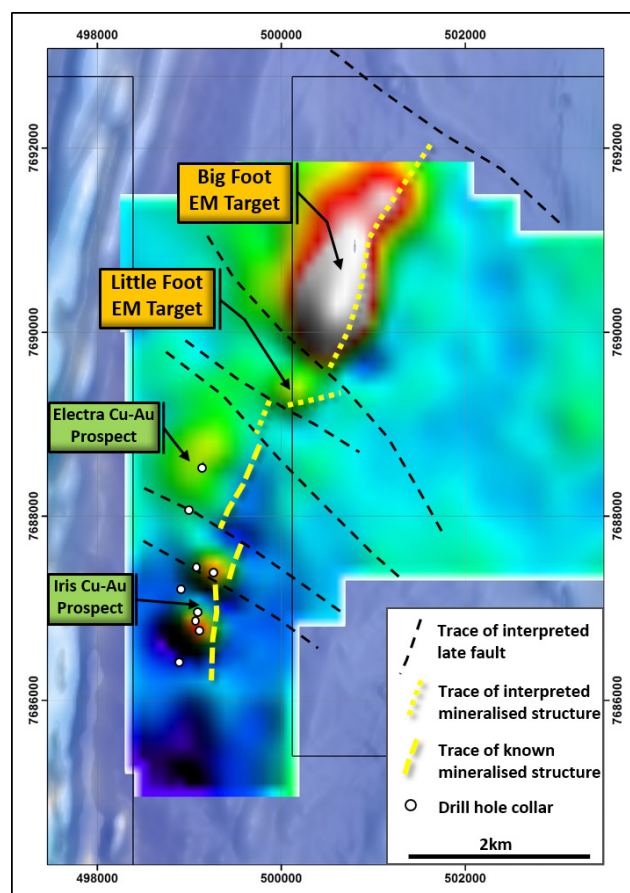


Figure 1: Big Foot and Little Foot EM anomalies and Electra-Iris copper-gold prospects over RTP1VD magnetics image

<sup>2</sup> ASX release 25 April 2020: Big Foot leaves large EM imprint at Eloise JV



## QUEENSLAND

### Breena Plains JV *(SFR 100%: OZL/MEP to earn up to 75%)*

The Breena Plains JV provides the Cloncurry Alliance with scope to expand its search space for new base metals deposits in the vicinity of known minerals systems such as Eloise (Cu-Au), Jericho (Cu-Au), Altia (Pb-Ag) and Maronan (Pb-Ag-Cu-Au) (Figure 2). Minotaur's ground EM approach has proven to be highly effective in the search for buried, non-magnetic but conductive minerals systems such as Jericho.

That methodology is to be rolled out across the Breena Plains JV via staged EM surveys across structural/stratigraphic corridors in the eastern portion of the project area (Figure 2). The field work will begin late August subject to geophysical contractor availability. Stage 1 EM survey will comprise around 75-line kilometres crossing 25 km of a prospective structural corridor.

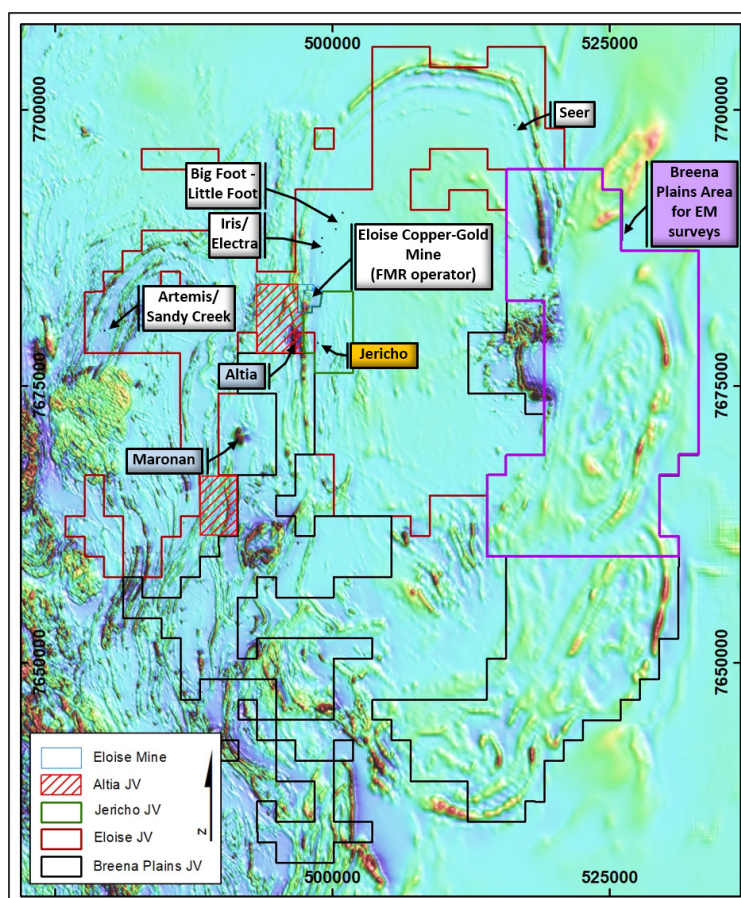


Figure 2: RTP 0.5VD magnetics showing Breena Plains tenements and area where EM surveys are to be focused



## QUEENSLAND

### Windsor Project *(MEP 100%)*

At the Warrawee prospect, resumption of the suspended 3D IP/resistivity geophysical survey awaits stability around COVID conditions as it requires 1 week for set-up due to the complex array of reading points. Minotaur needs confidence there will be no disruption to personnel movement for the duration of the survey.

The closed border period provided opportunity for Minotaur to assess data from several regional historic VMS prospects where there has been no on-ground activity since at least the mid 1990's. Field reconnaissance of the prospects will proceed in August.



## EXPLORATION - South Australia

### Peake & Denison Inlier

Minotaur's 100% owned Peake and Denison project, located 750km NNW of Adelaide, received a \$300,000 Accelerated Discovery Initiative (ADI) grant<sup>3</sup> from South Australia's Department of Energy and Mining. The grant, adjudicated from a competitive field, provides funding support for a program of work comprising geophysical surveys and follow-up drilling.

Potential for Iron Oxide Copper Gold (IOCG) style mineralisation is evident within the Peake and Denison area from copper mineralisation in magnetite-chalcopyrite-pyrite breccia recorded in historic drilling. Intense Fe-Na-Ca alteration was recently dated by Minotaur. The dates of the alteration assemblages are broadly the same age (1520-1470Ma) as pre-mineralisation alteration in the Cloncurry district of NW Qld which is known to be associated with IOCG deposits in that region, including the very large Ernest Henry Cu-Au deposit. Granite intrusion at Peake and Denison occurred at ~1530Ma - correlating with the same age range as the Williams – Naraku granites in Cloncurry (1547-1493Ma) linked to local copper-gold mineralisation.

Magnetite-associated Broken Hill Type (BHT) zinc-lead-silver mineralisation in metasedimentary and metavolcanic sequences subjected to later high-grade metamorphism, similar in style to the world-class Cannington silver-lead-zinc deposit in NW Qld, is similarly a potential mineralisation style at Peake and Denison.

Multiple strong magnetic anomalies occur across the Peake and Denison area. Minotaur considers these represent targets prospective for both IOCG and BHT styles of mineralisation (Figure 3). A select number will be tested through ADI funding support.

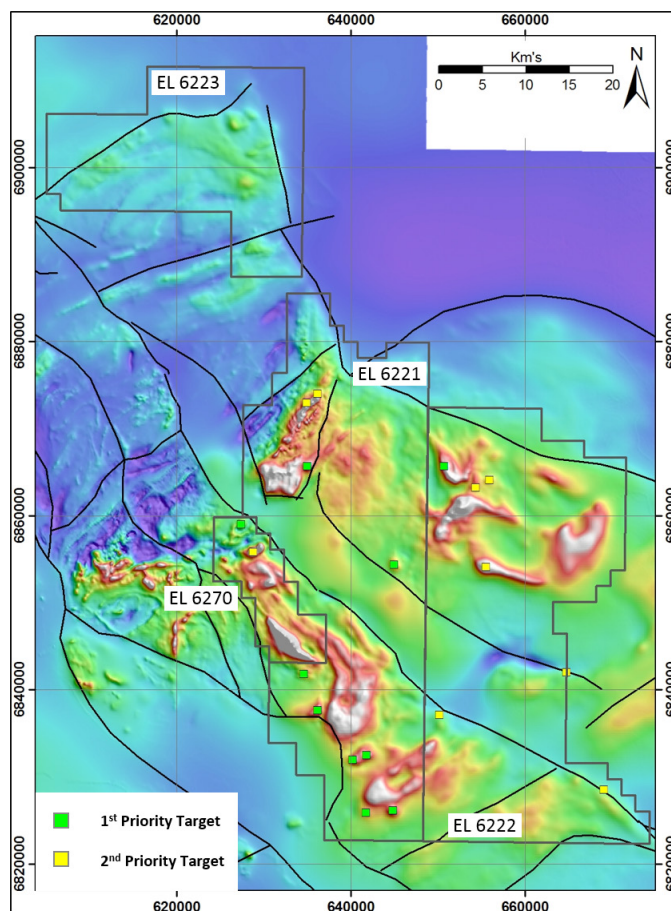


Figure 3: Priority magnetic anomalies within the Peake and Denison project area

<sup>3</sup> ASX release 26 June 2020: ADI grant recognises Peake and Denison project potential, South Australia



## SOUTH AUSTRALIA

### Poochera Kaolin-Halloysite Project

Andromeda Metals Ltd (ASX: ADN) holds 51% interest in the Poochera JV tenements and is manager of the JV (MEP 49%). The Poochera deposits comprise a variable natural halloysite-kaolinite blend, increasingly in demand for the ceramic market, while pure halloysite is suited to an expanding range of new, high-tech nanotechnology applications.

On 1 June Andromeda published its Pre-Feasibility Study<sup>4</sup>, enhancing project economics and product value-add pathways to commercialisation.

### Halloysite R&D

Natural Nanotech Pty Ltd (NNT) is a research and commercialisation venture, equally owned by Minotaur and Andromeda, to investigate innovative developments in the nanoparticle sphere for halloysite applications.

Natural Nanotech's inaugural project is to develop commercially attractive solutions to two pressing, global environmental problems – carbon capture from the atmosphere and treatment of poor quality water. Commencing July 2020, the work is being undertaken through the nanotechnology team at University of Newcastle.

<sup>4</sup> Andromeda Metals report to ASX dated 1 June 2020: *Pre-Feasibility Study further improves Poochera Halloysite-Kaolin project economics*



## Compliance Statement

Payments made under a commercial lease agreement to a related entity of Dr Antonio Belperio, a Director of the Company, are reported in Appendix 5B, Section 6.1.

### COMPETENT PERSON'S STATEMENT

Information in this report that relates to Exploration Results is based on information compiled by Mr G. Little, a Competent Person and a Member of Australian Institute of Geoscientists (AIG). Mr Little is a full time employee of the Company and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking 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 (JORC Code). Mr Little consents to inclusion in this document of the information in the form and context in which it appears.

This report contains information extracted from previous ASX releases which are referenced in the report and which are available on the company's website. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements. 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 announcement.

## June 2020 Quarter ASX Announcements

The following significant announcements were lodged with ASX during and subsequent to the June Quarter:

- 25 April 2020: *Big Foot leaves large EM imprint at Eloise JV*
- 26 June 2020: *ADI grant recognises Peake and Denison project potential, South Australia*
- 16 July 2020: *Maiden Jericho Resource and Cloncurry exploration update*

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