



TORRENS DRILLING UPDATE

Building a Copper Development Company

TORRENS: Massive Copper Target

LUMWANA WEST: Advanced Copper-Cobalt Deposit

LINDSAY OWLER, Director/CEO – February 2019

Argonaut Resources NL • ASX:ARE •
Level 5, 126 Phillip St, Sydney, 2000 • phone (02) 9299 9690

CORPORATE OVERVIEW

ASX Code

ARE

Capital structure

Shares on issue: 1.544 billion

Unlisted options: 65 million

Market capitalisation: A\$40 million

Average daily volume: 6.8 million shares

Cash A\$4.7 million

Directors

Pat Elliott Non-Executive Chairman

Lindsay Owler Director and CEO

Andrew Bursill Director and
Company Secretary

Malcolm Richmond Non-Executive Director



COPPER FOCUS

Torrens – Copper, SA

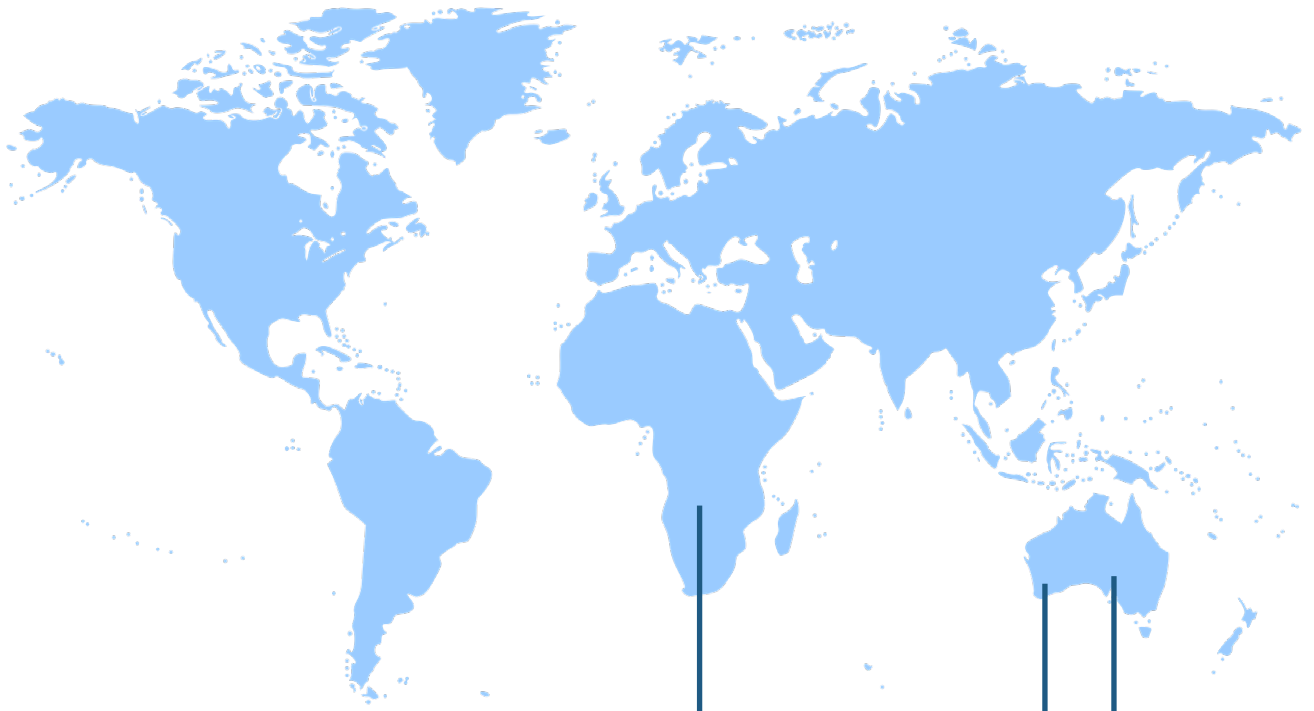
- Massive IOCG system
- Primary focus
- Drilling underway

Lumwana West – Copper Cobalt, Zambia

- Copper Cobalt sulphides and oxides
- Metallurgical testing underway

Higginsville – Gold, WA

- Multiple gold and nickel targets



Zambia Copper Cobalt

Lumwana West

WA Gold

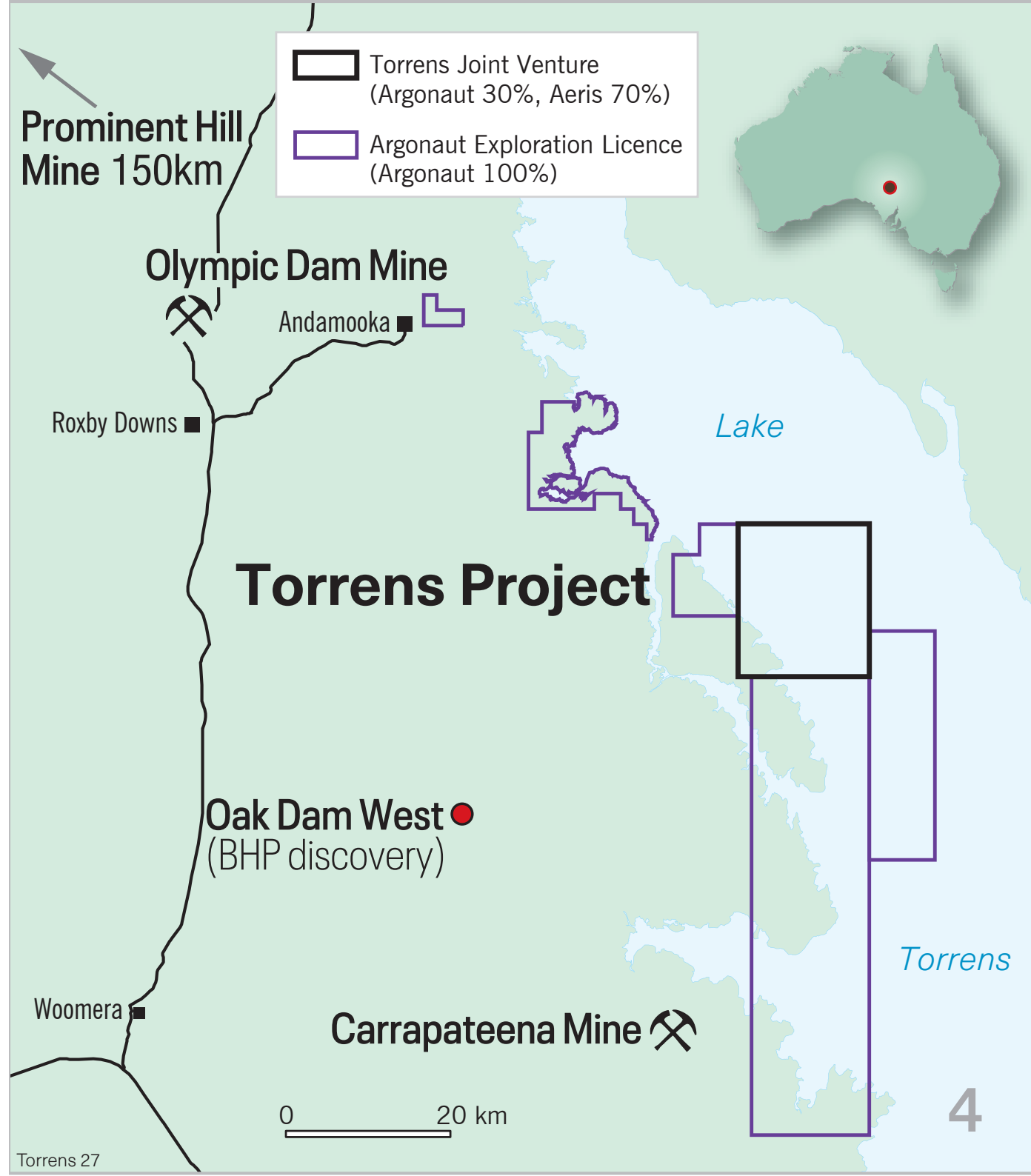
Higginsville

Torrens Copper

South Australia

TORRENS COPPER PROJECT

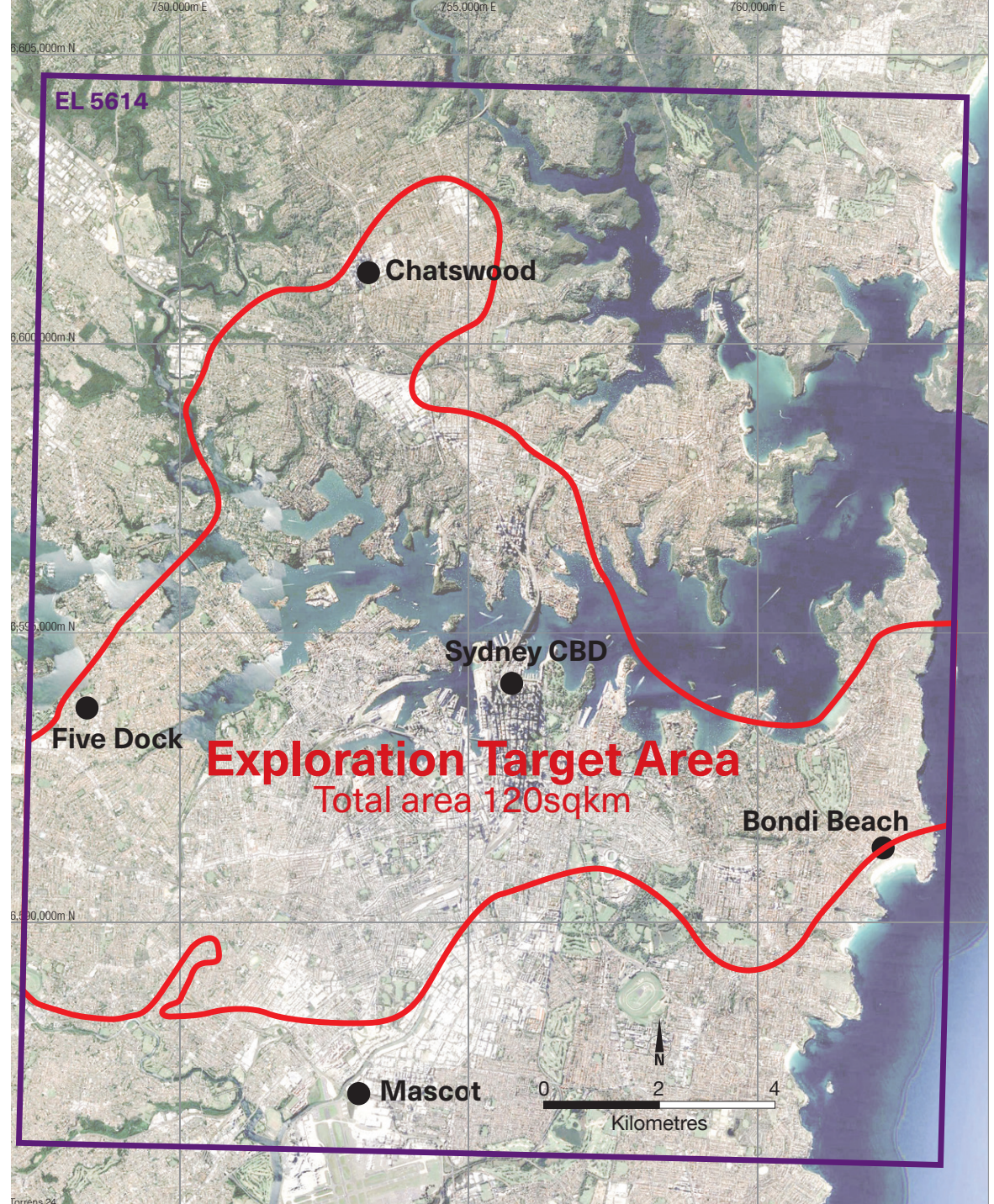
1. The right geological address
2. Massive anomaly with multiple deposit-scale target zones
3. Confirmed Iron Oxide Copper-Gold (IOCG) system



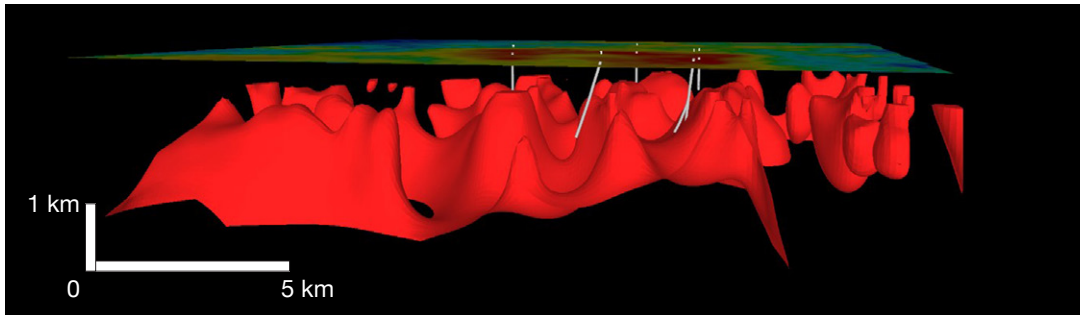
TORRENS: MASSIVE SCALE

In the event of discovery,
there is scope for:

- Very large tonnages
- Successive discoveries

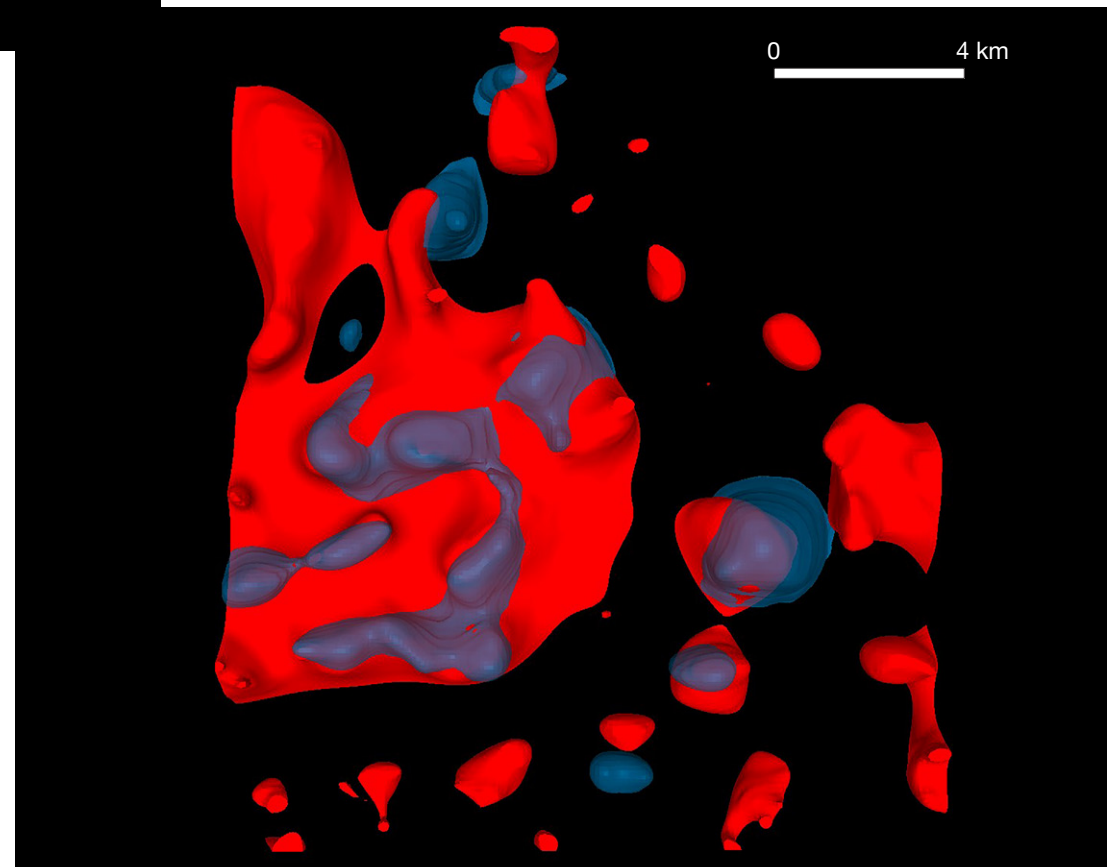


TORRENS: MASSIVE ANOMALY WITH MULTIPLE TARGETS



Gravity model with historic drillholes, looking east

Gravity model (red) and magnetic model (blue), plan view



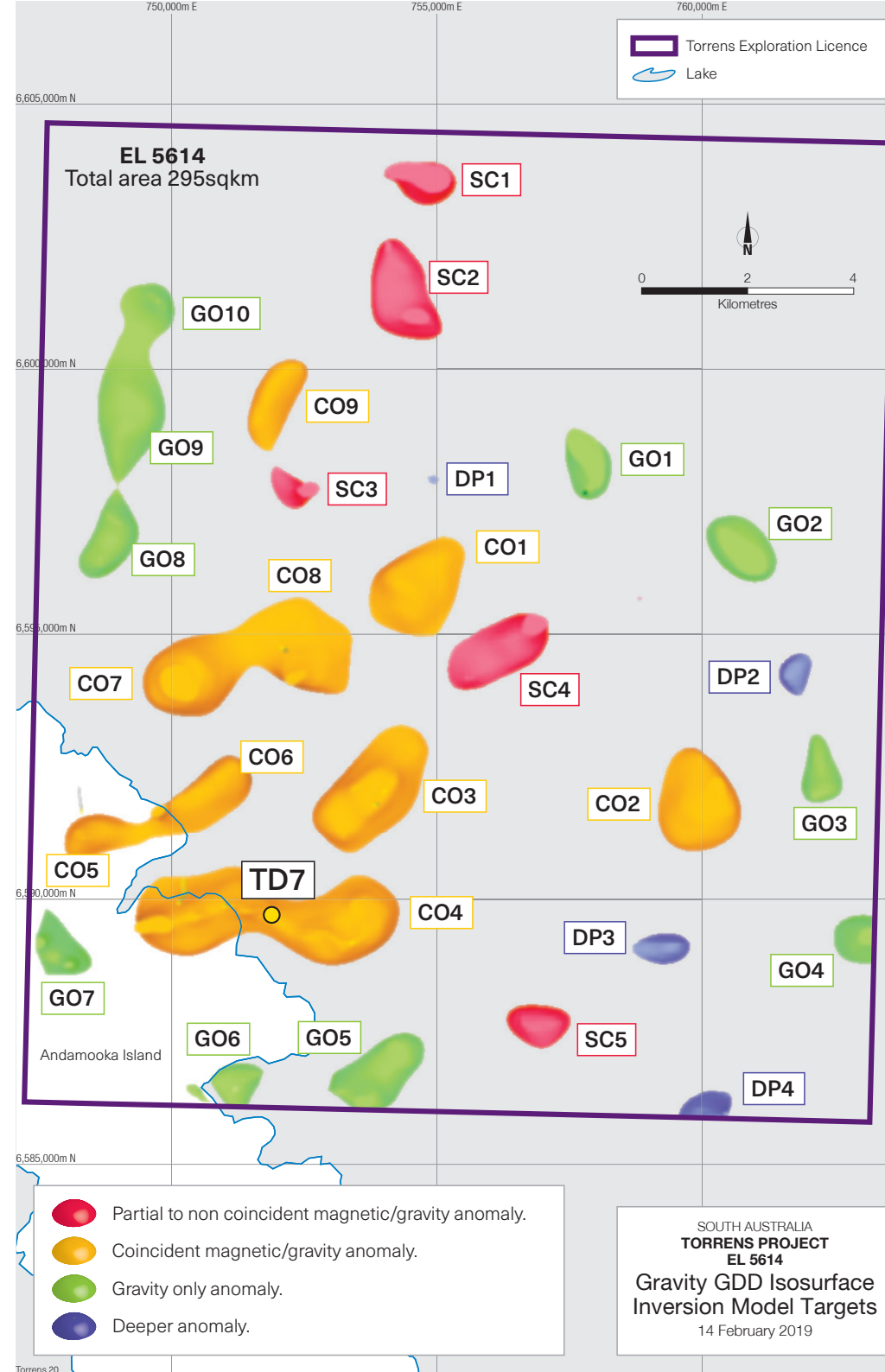
Torrens offers a smorgasbord of IOCG targets

TORRENS: MASSIVE ANOMALY WITH MULTIPLE COPPER TARGETS

Twenty-eight individual target zones

- Multiple discovery opportunities
- Each target large enough to host a world-class deposit

Twenty-eight target zones within a broad, intense anomaly



TORRENS: CONFIRMED IOCG SYSTEM

IOCG CONFIRMATION:

Copper sulphides associated with iron oxide:

- Copper assays to 1.36% Cu
- Chalcopyrite and bornite present
- Very large volume of magnetite/hematite

Alteration minerals:

- All diagnostic alteration minerals noted
- Alteration zonation

Late-stage hydrothermal mineralisation:

- Hematite replacement
- Sulphides and proximal alteration minerals

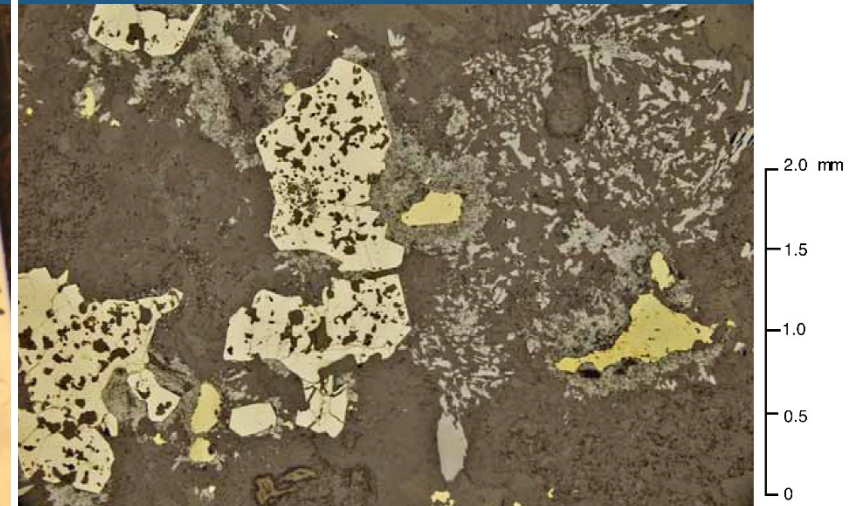
Accessory/indicator elements:

- Fluorine
- Rare earth elements

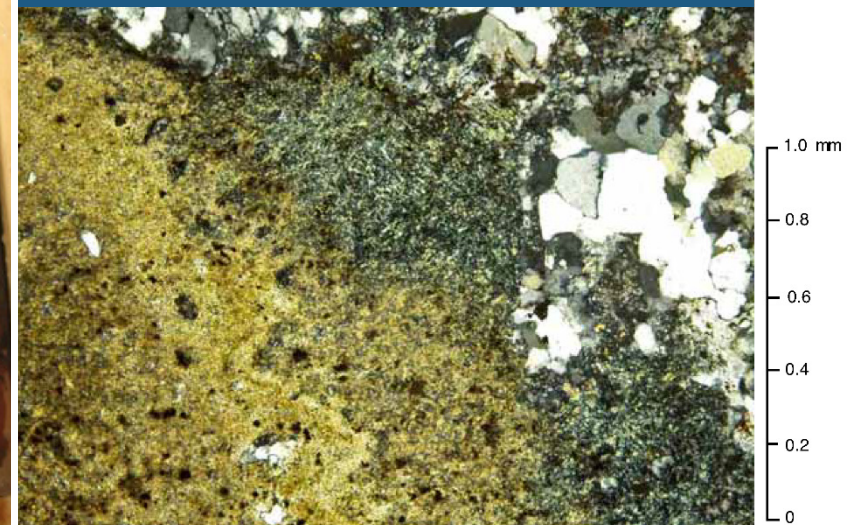
TD4: Sulphide mineralisation



TD4: Hematite - chalcopyrite mineralisation



TD4: Chlorite – sericite alteration



TORRENS: ALL ACCESS APPROVALS GRANTED

Native title:

- Approval granted March 2017

Operational/environment

- Approval granted in November 2017

Aboriginal heritage:

- Approval granted in February 2018

*No further approvals
required for drilling*



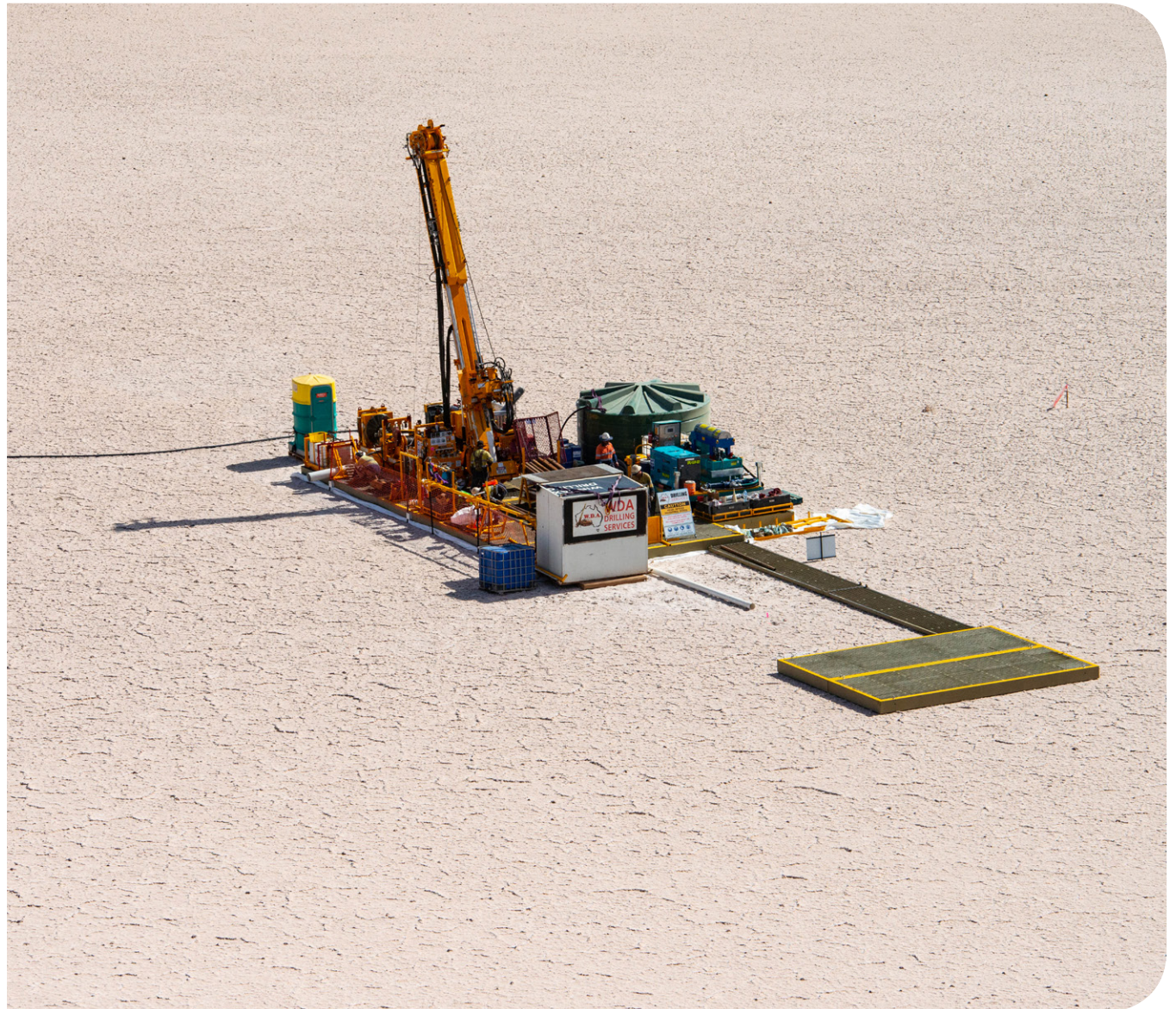
TORRENS: DRILLING UNDERWAY

DRILLING PROGRAM

- 25-30 diamond drill holes
- Average depth >1,000m
- Helicopter supported
- 1 to 3 drilling rigs
- Cost to JV A\$15 million

STAGE ONE

- 8-10 diamond drill holes
- Average depth >1,000m
- Initially one drilling rig
- Cost to JV A\$5 million



*Drilling commenced
January 2019*

ARGONAUT: TORRENS EXPLORATION EXPOSURE

TORRENS JOINT VENTURE

- **Joint venture interests:**
 - » 30% Argonaut Resources NL
 - » 70% Aeris Resources Ltd
- **Operator:** Aeris Resources Ltd
- **Expenditure:**
 - » Pro rata
 - » Stage One: A\$5 million
(ARE: A\$1.5 million)
 - » All stages: A\$15 million
(ARE: A\$4.5 million)



TORRENS: DRILLING INFRASTRUCTURE



*21 person camp to support
24/7 drilling*



*Helicopter support to minimise
environmental impact*

TORRENS: SUMMARY

The right geological address

- Olympic Domain

Massive anomaly with 28 target zones

- Bigger than Olympic Dam
- Twenty-eight individual target zones

Confirmed IOCG mineralisation

- Copper sulphides, alteration halos, indicator minerals

**DRILLING COMMENCED
JANUARY 2019**

THEREFORE:

- ***Higher likelihood of discovery, and***
- ***Higher likelihood of commercial tonnages and grades.***



TORRENS: ADDITIONAL REGIONAL TARGETS

Argonaut holds a commanding land position:

MURDIE:

- Confirmed IOCG system
- One drill hole by WMC in 1981
- Native title access granted

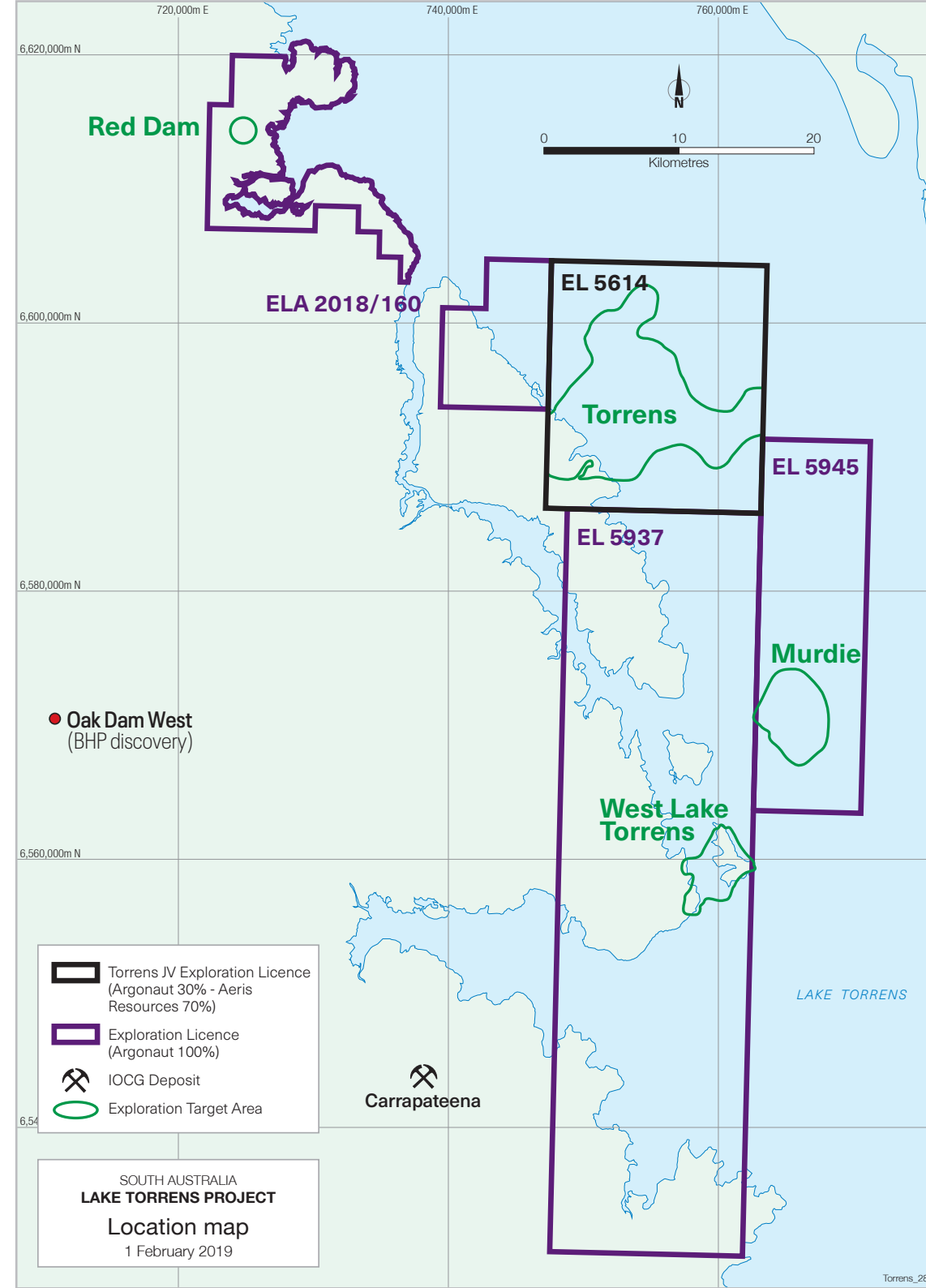
WEST LAKE TORRENS:

- Prospective gravity anomalies
- Investigation warranted
- Native title access granted

RED DAM:

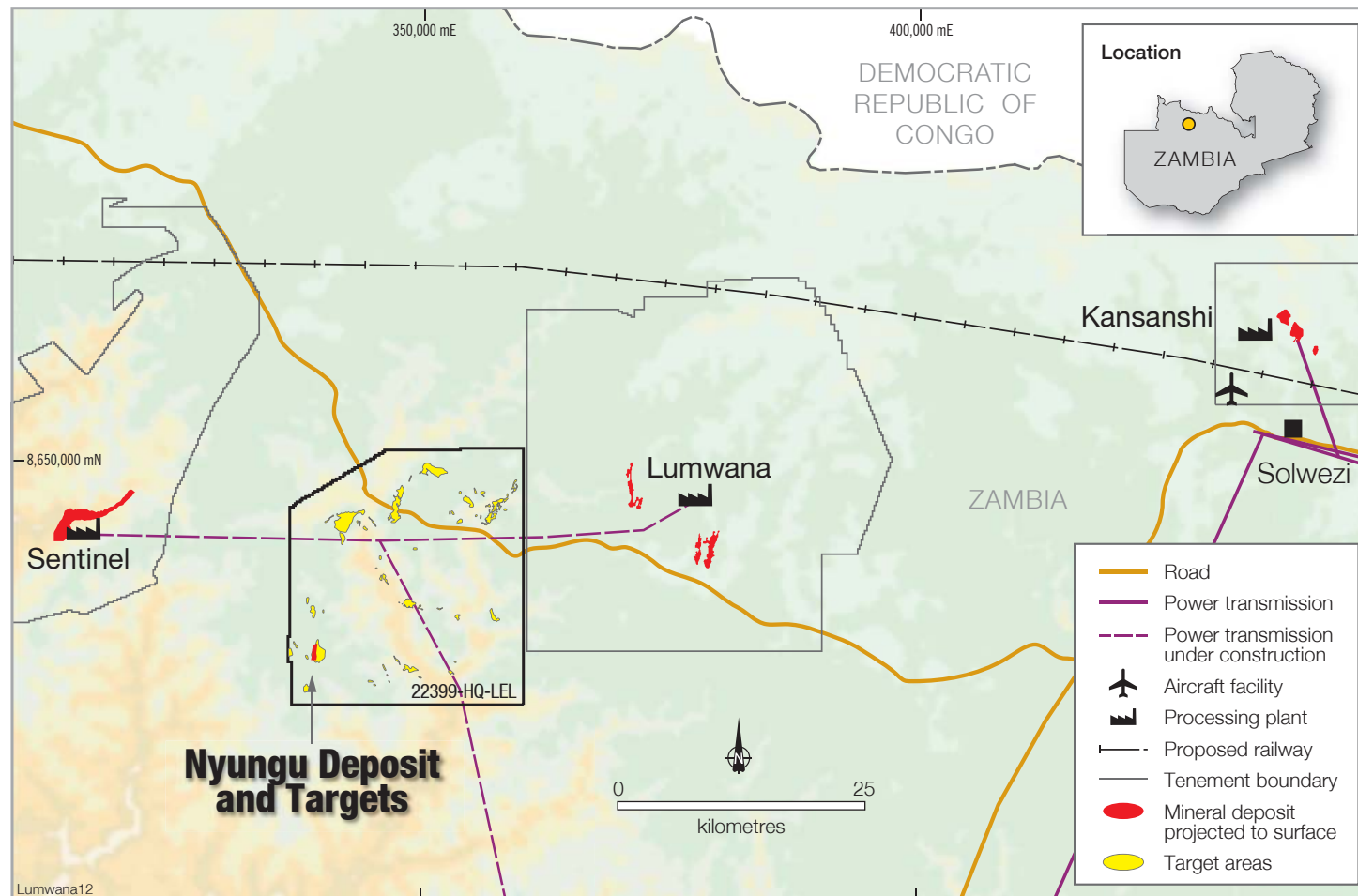
- Package of 3 licence areas
- Includes Red Dam target
- Pre-Oak Dam BHP relinquishment

Primary and secondary exploration targets held in one package



LUMWANA WEST, ZAMBIA

- Large tonnage copper-cobalt sulphide and oxide deposit
- Large-scale regional copper-cobalt deposits/targets
- Metallurgical pathways to early, low-cost production
- Argonaut holds a 90% interest

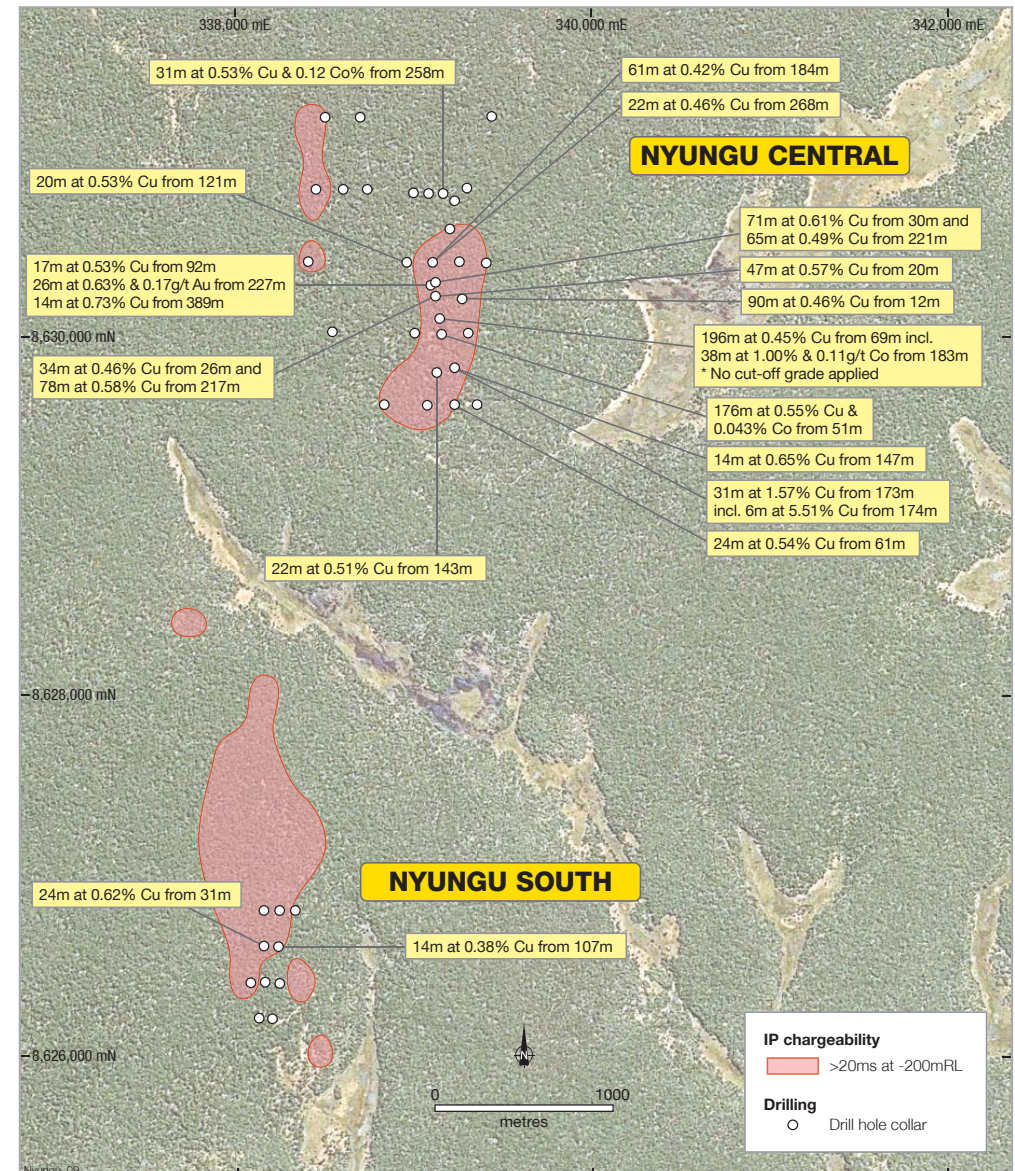


LUMWANA WEST: NYUNGU COPPER-COBALT DEPOSIT

Nyungu

- **NYUNGU CENTRAL** deposit defined by 48 modern drill holes – significant mineralised copper-cobalt body.
- **Demonstrated strike length: 1,700m**
- **NYUNGU SOUTH:** edge of mineralised body intercepted by Argonaut drilling. Vast, undrilled IP anomaly to be tested.
- **NYUNGU WEST** and **NYUNGU NORTH:** drilling to date has not accounted for IP anomalies.

Major copper-cobalt deposit with potential for large extensions and repetitions



LUMWANA WEST: NYUNGU EXPLORATION TARGET

Commodity	Tonnage Range	Grade Range	Contained Metal Range
	(Mt)	(%)	(kt)
Copper*	130 to 180	0.45 to 0.65	580 to 1,150
Cobalt^	15 to 20	0.08 to 0.12	12 to 24

* *Copper Exploration Target estimation announced to the ASX by Argonaut on 9 April 2013.*

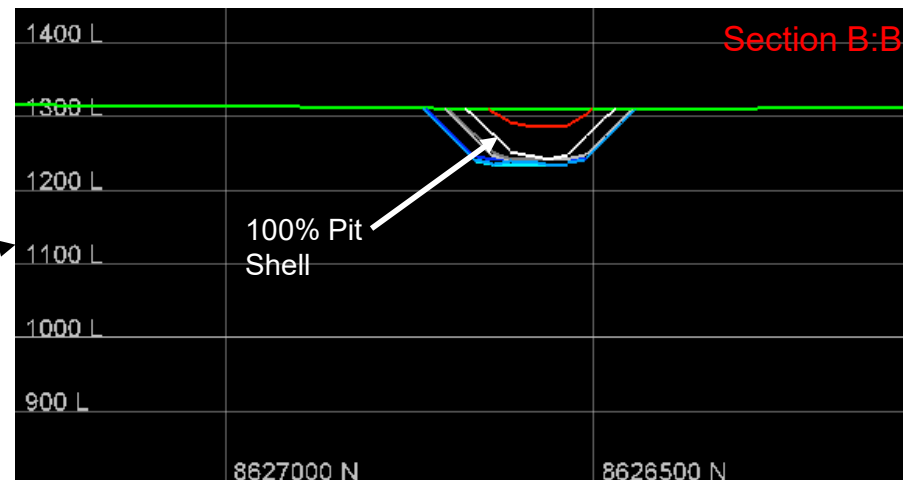
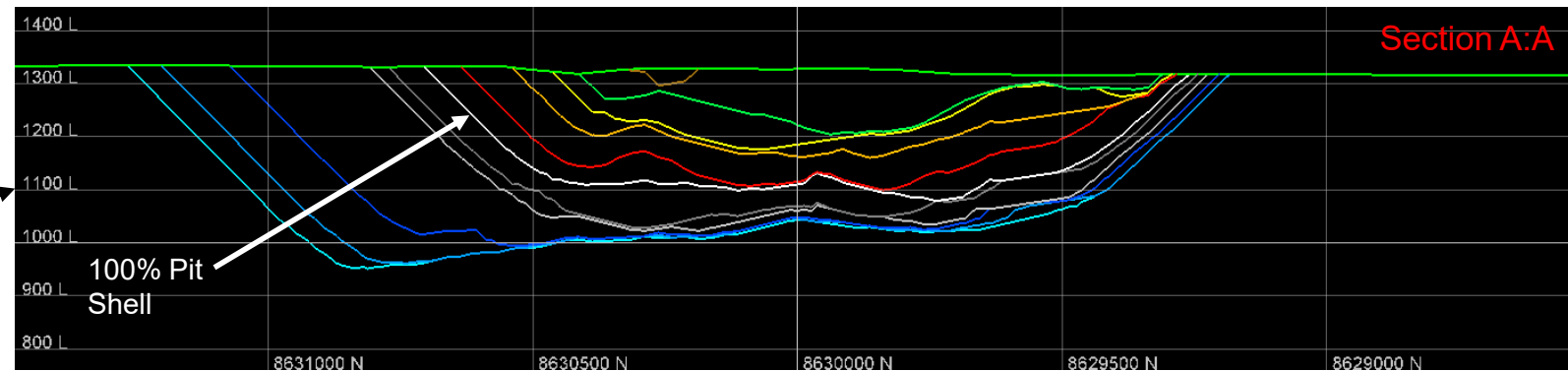
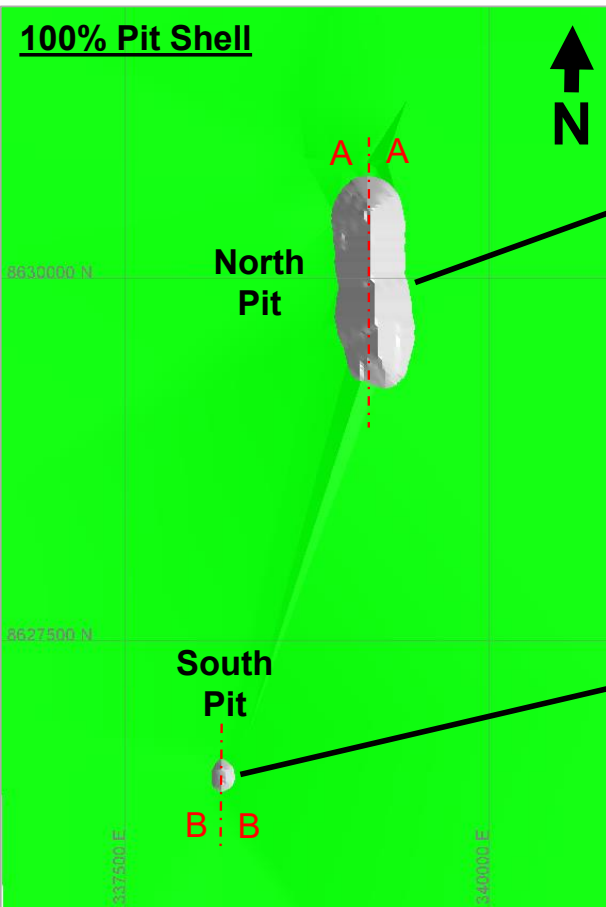
^ *Cobalt Exploration Target estimation announced to the ASX by Argonaut on 28 March 2017.*

Exploration Targets have been independently estimated to JORC 2012 standards.

The potential quantity and grade of the Exploration Targets are conceptual in nature. There has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

LUMWANA WEST: VERY LOW STRIPPING RATIO

Whittle Pits



- Stripping ratio 1.5:1 to 280m (white line)
- Stripping ratio of 2.3:1 to >350m (light blue line)

NYUNGU COPPER-COBALT DEPOSIT

Metallurgical testwork

- Potential exists for a two-stage, low capital cost, short lead-time copper-cobalt mine.
 - » Stage one – dense media separation of cobalt oxide.
 - » Stage two – heap leach and solvent extraction of copper and cobalt sulphides.
- Metallurgical samples have been selected from existing drill core and these samples are being exported to Australia for testwork.
- Initial testwork will involve a mineralogical study of four mineralisation types.
- Follow-up metallurgical work may include:
 - » dense media separation of copper and cobalt oxide;
 - » leaching of copper and copper-cobalt sulphide; and
 - » conventional flotation of copper-cobalt sulphide.

ARGONAUT SUMMARY

Market Capitalisation: A\$40 million

Focus on Torrens IOCG Target:

- Right geological address
- Massive scale
- Confirmed IOCG system
- Drilling underway

Extreme leverage to discovery

Lumwana West

- Copper-cobalt deposit with scale
- Metallurgical pathways to low-cost, early production

ARGONAUT AT TORRENS:

- *Multiple drill targets = higher likelihood of discovery, and*
- *Huge upside potential on discovery*

