



PETRATHERM LIMITED

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ASX ANNOUNCEMENT

01/12/2021

Petratherm - Company Presentation

Petratherm Limited (ASX: **PTR**) is pleased to provide the following Company Presentation, summarising current on ground exploration, latest target modelling and near-term future ground activities. The Company is conducting gold exploration drilling in the Gawler Craton of South Australia throughout the December Period.

In addition, the presentation provides a focus on the Company's Woomera Project Area, located in the highly prized Olympic Domain of South Australia, prospective for World Class Iron-Oxide Copper-Gold (IOCG) deposits. The Woomera Project targeting work has defined several compelling IOCG targets which the Company anticipates will be drilled in the first half of the 2022 calendar period.

This ASX announcement has been approved by Petratherm's Board of Directors and authorised for release by Petratherm's Chairman Derek Carter.

Competent Persons Statement: The information in this report that relates to Exploration Targets and Exploration Results is based on information compiled by Mr Peter Reid, who is a Competent Person, and a Member of the Australian Institute of Geoscientists. Mr Reid is not aware of any new information or data that materially affects the historical exploration results included in this report. Mr Reid is an employee of Petratherm Ltd. Mr Reid has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity 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 Reid consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



ASX: PTR

EXPLORATION PORTFOLIO POSITIONED FOR GROWTH

Petratherm Company Presentation

01 December 2021



COMPLIANCE STATEMENTS

Disclaimer::

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JORC Information:

Further details (Including JORC 2012 Code Reporting Tables, where applicable) for the information included in this Presentation can be found in the following Petratherm Limited announcements previously lodged with the ASX:

- Petratherm Secures Land Position Over Highly Prospective Olympic Dam Style, Copper-Gold, Geophysical Anomalies – 5 December 2018
- Second Tenement Application over an Area Prospective Olympic Dam Style, Copper-Gold – 12 December 2018
- Gravity survey identifies high tenor Olympic Dam Style Targets – 12 August 2019
- Gravity Modelling Defines Olympic Dam Style Targets – 15 October 2019
- Prospective Gold Tenement Won in Competitive Bid – 18 October 2019
- Comet Project Tenement (EL 6443) Granted – 14 January 2020
- Quarterly Activities Report December 2019 – 30 January 2020
- Mabel Creek Project – Drilling Results – 12 May 2020
- Mabel Creek Project - Drilling Grant Awarded to test Olympic Dam Style Copper-Gold Targets – 25 June 2020
- Petratherm executes definitive agreement for the sale of its Victorian gold assets – 12 October 2020
- New Copper and Gold Project Acquired – 3 December 2020
- Woomera IOCG Project Acquired – (16 June 2021)
- Woomera IOCG Project – Regional Gravity Targeting (1 July 2021)
- Mabel Creek Project – Results of Drilling (27 July 2021)
- Quarterly Activities Statement – September 2021 (29 October 2021)
- Comet Project – Shallow Drilling Identifies Gold Anomalies (3 November 2021)

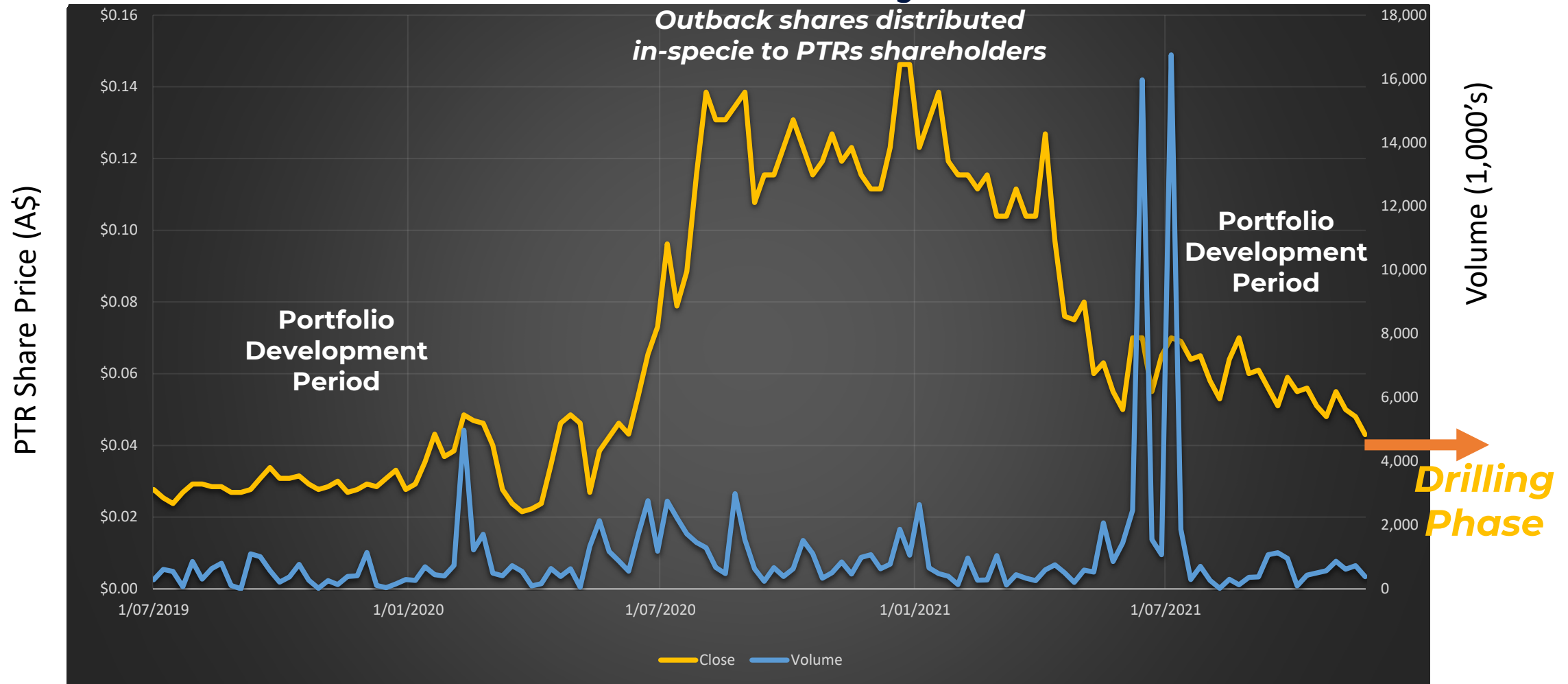
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COMPANY POSITIONED FOR GROWTH

STRONG PORTFOLIO OF COPPER AND GOLD TARGETS – ACTIVE DRILL PHASE STARTING NOW !

**CAD \$18 Mill - Victorian Gold
Assets Share Sale Agreement -
Outback shares distributed
in-specie to PTRs shareholders**



CORPORATE SUMMARY

BOARD AND MANAGEMENT WITH TRACK RECORD OF EXPLORATION SUCCESS

CAPITAL STRUCTURE

(30 Nov 2021)

Shares on issue	198.9M
Options	1.1M
Share price	\$0.05
Market capitalisation (undiluted)	\$9.2M
Cash (30 Sept 21)	\$2.8M
Enterprise value	\$6.4M

Derek Carter

Non-Executive Chairman

Mr. Carter is a founder of the Minotaur group and a joint recipient of Explorer of the Year (AMEC) for the discovery of the Prominent Hill Copper Gold deposit. He was Chairman of Highfield Resources during the discovery and evaluation of the world-class Muga deposit and has been involved with numerous Government, Industry and ASX listed Company Boards. He is a geologist with over 45 years Corporate and field experience.

Donald Stephens

Non-Executive Director

Mr. Stephens is a Chartered Accountant and corporate advisor with over 25 years' experience in the accounting, mining and services industries, including 14 years as partner of HLB Mann Judd (SA), a firm of Chartered Accountants.

Simon O'Loughlin

Non-Executive Director

Mr. O'Loughlin is the founder of O'Loughlin's Lawyers, an Adelaide based, specialist commercial law firm. He has extensive experience in the corporate and commercial law fields while practicing in Sydney and Adelaide, and also holds accounting qualifications. Non-Executive Director of Chesser Resources.

Peter Reid

Exploration Manager

Mr. Reid is an exploration geologist with over 25 years' experience. He was part of the Minotaur team which discovered the Prominent Hill copper-gold deposit and then later heavily involved in the successful IPO spin offs of ASX listed, Mithril Resources Ltd and Petrathem Ltd. He was the founding CEO of Petrathem and the recipient of the Chairman's Award for his contribution to the Australian geothermal industry.

PROJECTS OVERVIEW

A STRATEGIC PACKAGE OF COPPER & GOLD PROJECTS

Woomera IOCG Project

- Close to the Emmie Bluff IOCG discovery and other IOCG mineralization
- 2 Major IOCG styles of mineralization targeted + Stratabound Cu-Au-Co in cover
- High calibre drill ready gravity targets – Drilling scheduled for first half of 2022

Mabel Creek IOCG Projects

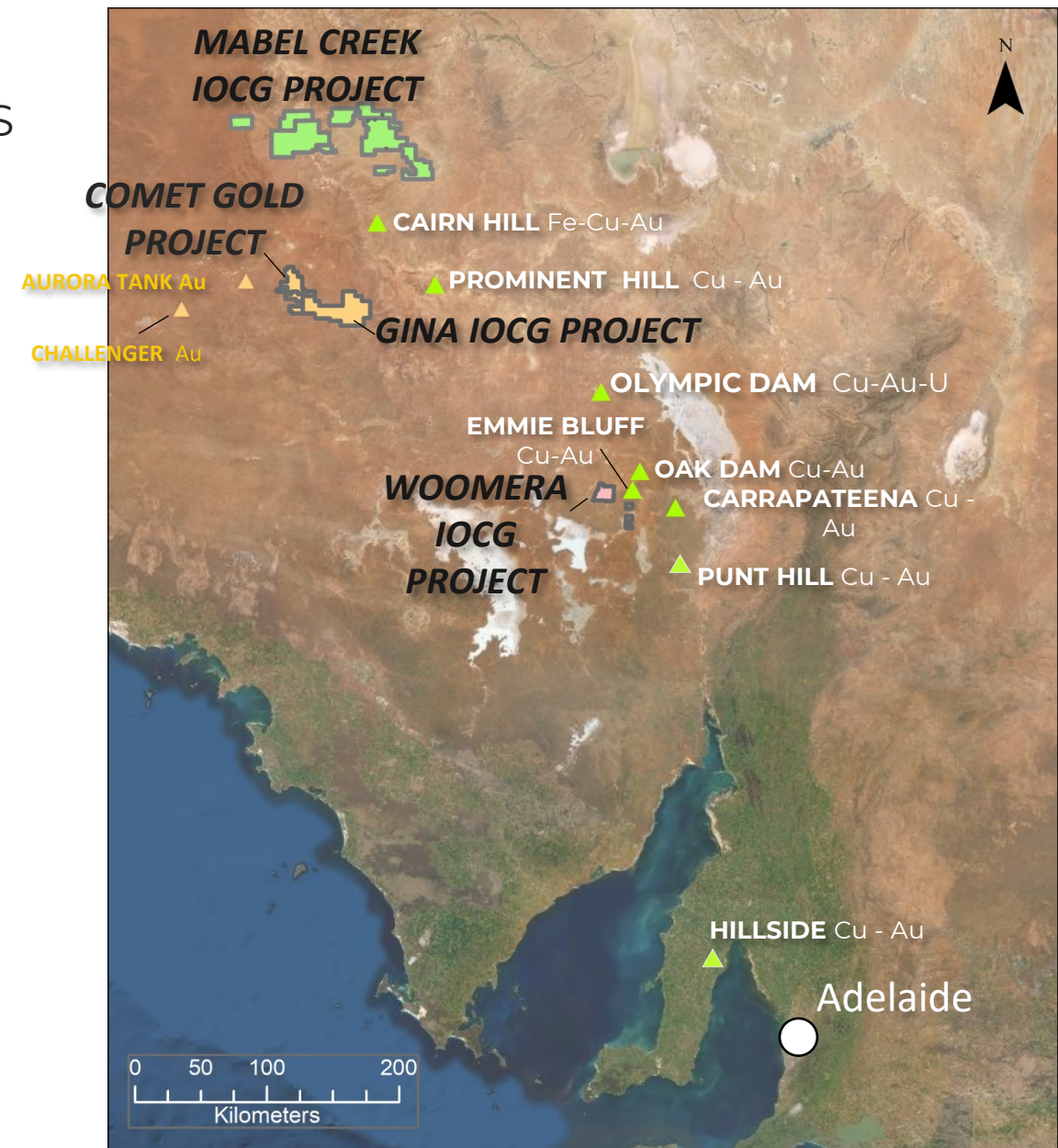
- Large land holding over the northern Olympic Dam Copper-Gold Province
- Drilling to date has defined 2 IOCG Mineral Alteration Systems requiring follow-up

Gina IOCG Project.

- Numerous early-stage targets – gravity survey planned for Dec 21 to define drill targets
- Will be drill ready early 2022

Comet Gold Project, S.A.

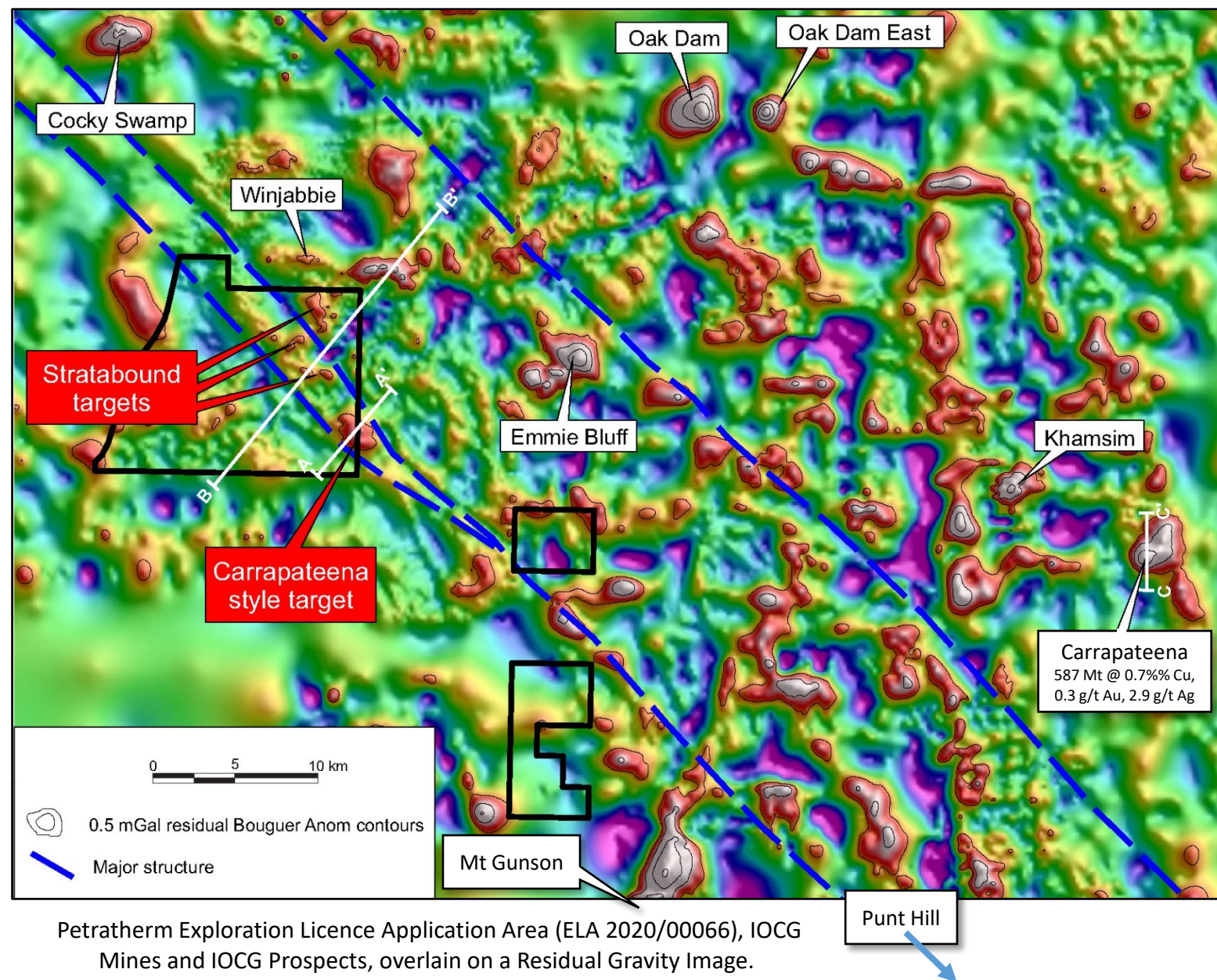
- Drilling of Advanced Gold Prospects - Dec 2021
- Regional & Infill shallow RAB program defining new targets – Dec 2021



WOOMERA IOCG PROJECT

HIGHLY PRIZED TENURE – in an area of **MAJOR IOCG MINERALISATION**

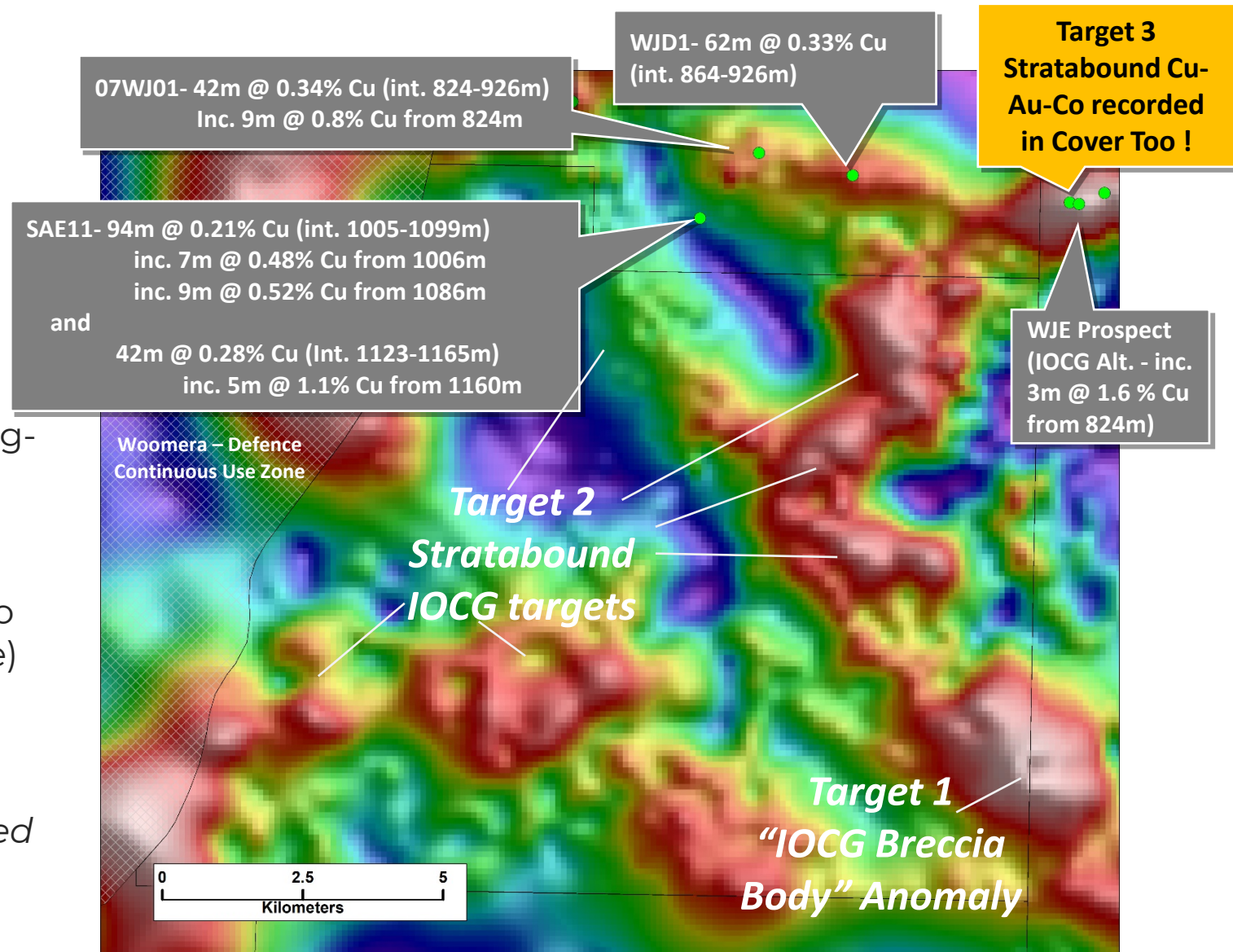
- Multiple high priority gravity targets – **3 Target Styles !**
- Tenement grant due early 2022
- Concurrent Native Title Proceedings underway
- Schedule to start drilling of targets from 2nd Quarter of the 2022 calendar year



WOOMERA IOCG PROJECT

3 Distinct Styles of Mineralization !

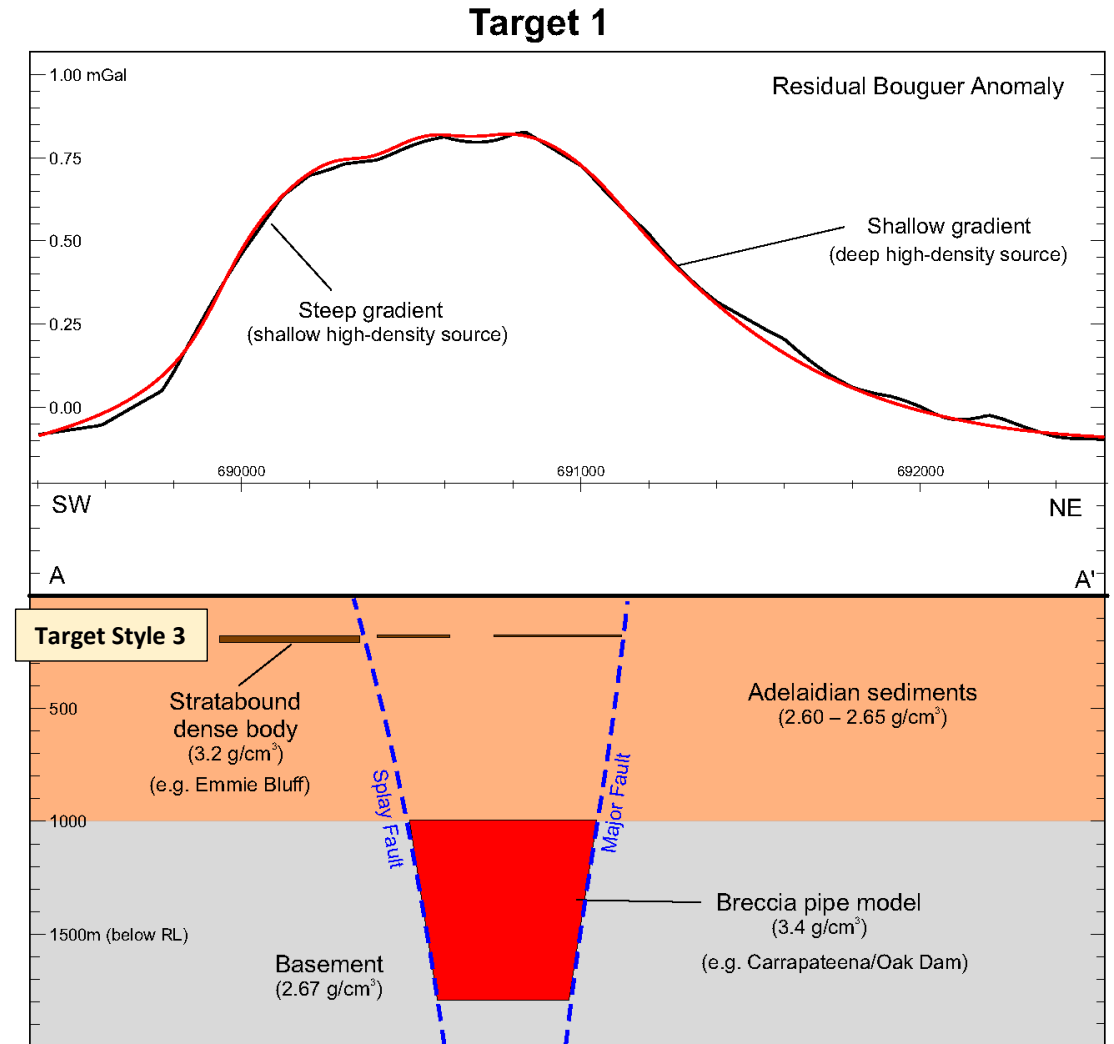
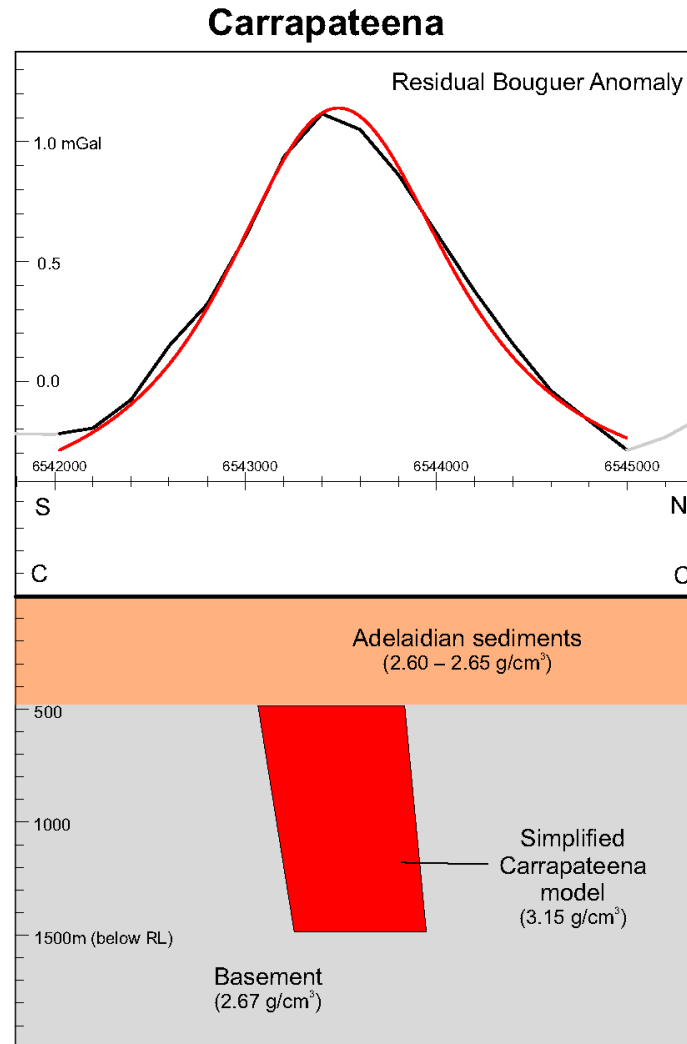
- **Target 1 - IOCG Breccia Bodies** – Cu-Au-Ag-U (i.e. Olympic Dam / Carrapateena / Oak Dam & Prominent Hill)
- **Target 2 - Stratabound IOCG's** – Cu-Au-Co (i.e. Emmie Bluff Deep, Punt Hill & Hillside)
- **Target 3 - Stratabound Cu-Au-Co** in overlying cover rocks (i.e. Mt Gunson & Emmie Bluff – *interpreted to be remobilized from IOCG basement below* !)



Significant historical IOCG copper intersections adjacent to Petratherm's Woomera Exploration Licence Application Area overlain on a Residual Gravity Image. High gravity areas may indicate zones of stratabound and breccia mineralization

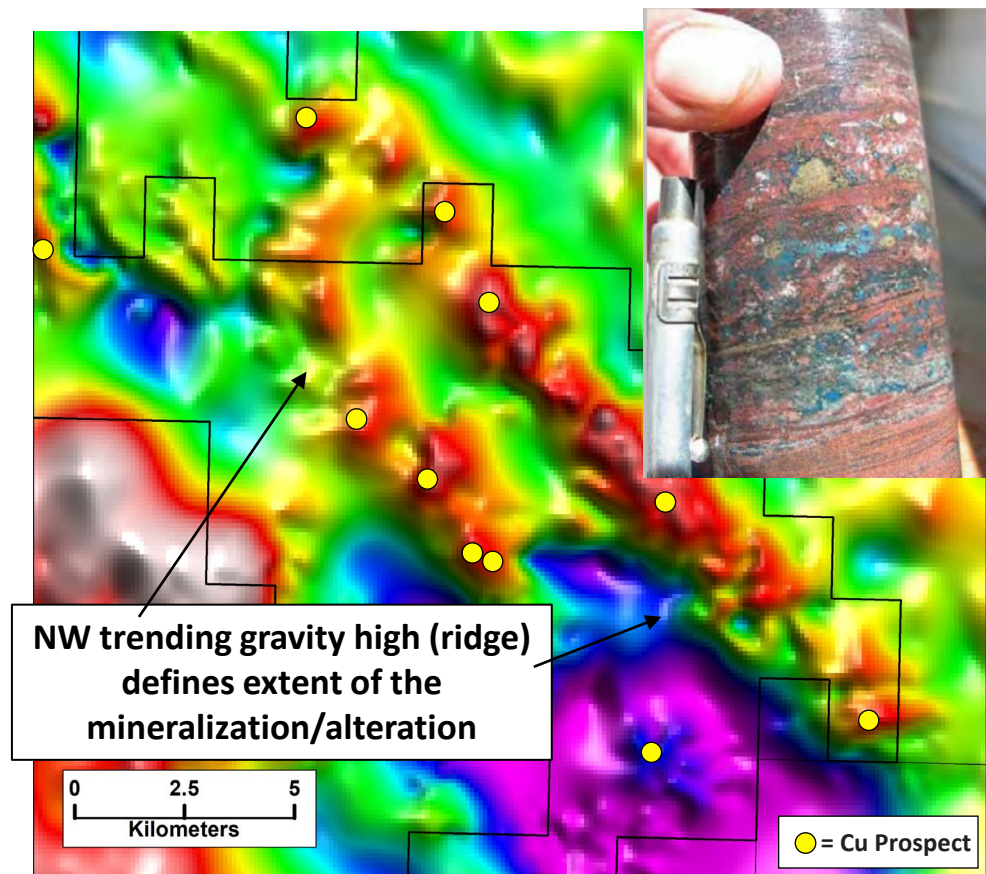
WOOMERA IOCG PROJECT – TARGET 1 COMPARISON WITH CARRAPATEENA

- Target 1 is an IOCG Breccia Body Target – ***Displays a Comparable gravity response to the Carrapateena Orebody!***
- Steep gravity gradient on west side of Target 1 may indicate additional shallow Stratabound mineralization in the overlying cover strata. (*i.e. Emmie Bluff, Mt Gunson Style Cu-Au-Co mineralization potential also!*)



TARGET STYLE 2 : STRATABOUND IOCGs – A Potential Game Changer!

Punt Hill IOCG (Red Metals ASX: RDM)

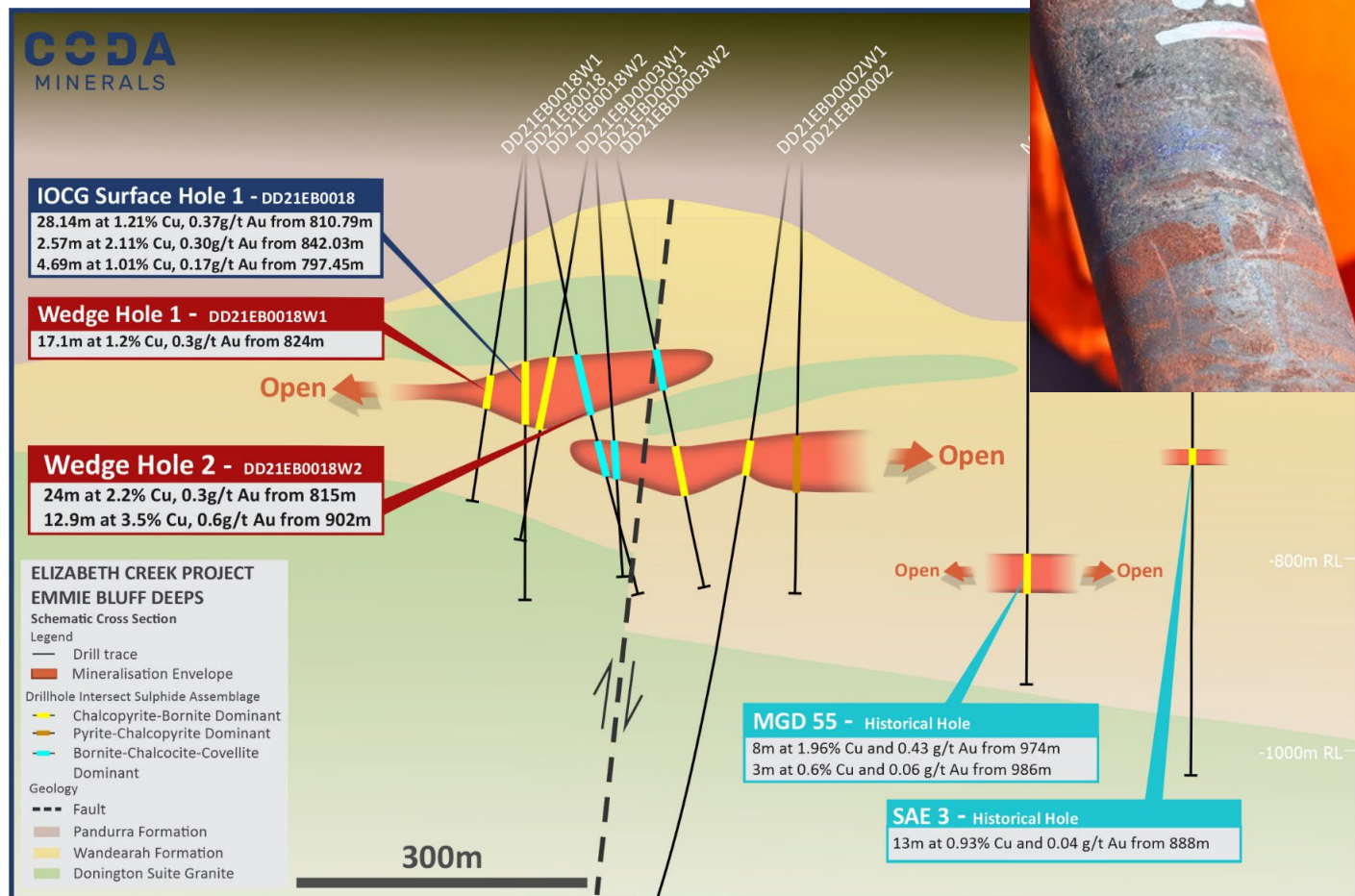


Punt Hill Residual Gravity Image (Source: SA. Govt - SARIG)

i.e. GHDD6 - 159m @ 0.47%Cu, 0.12g/t Au & 5.3g/t Ag, from 846m.

PHDD1402 - 26m @ 1.0 % Cu, 0.23 g/t Au & 8.5 g/t Ag from 969m

Emmie Bluff Deeps (Coda Minerals ASX:COD)



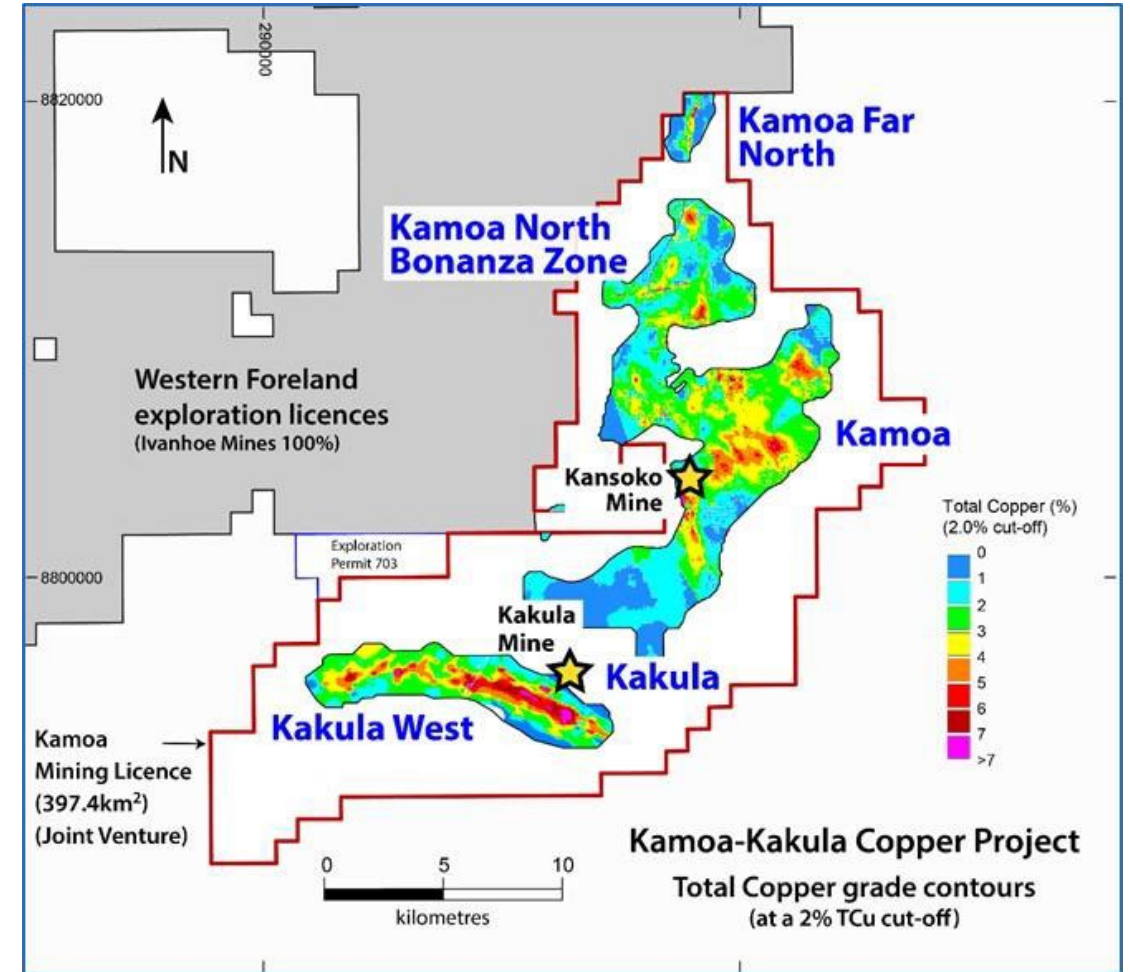
Source: Coda Minerals 06/10/2021 ASX release.

Widespread Evidence for Regional Scale “Stratabound IOCG” Copper Mineralization across the Olympic Domain

TARGET STYLE 2 : STRATABOUND IOCGs – A Sleeping Giant !

- Fault controlled (rifting) ✓
- May be proximal to IOCG Breccia (Vent) Orebodies (i.e. Oak Dam) ✓
- Mineralization focused on faulted basement rises/domes (i.e. upwelling fluid zones) ✓
- Mineralizing fluids trapped by reductant (reactive) host rock (Walleroo Grp) ✓
- Fluid source - The world class Olympic IOCG Magmatic / Hydrothermal event ✓

Woomera Project



Stratabound Copper - i.e. Kamo-Kakula (DRC) – The Big Prize!

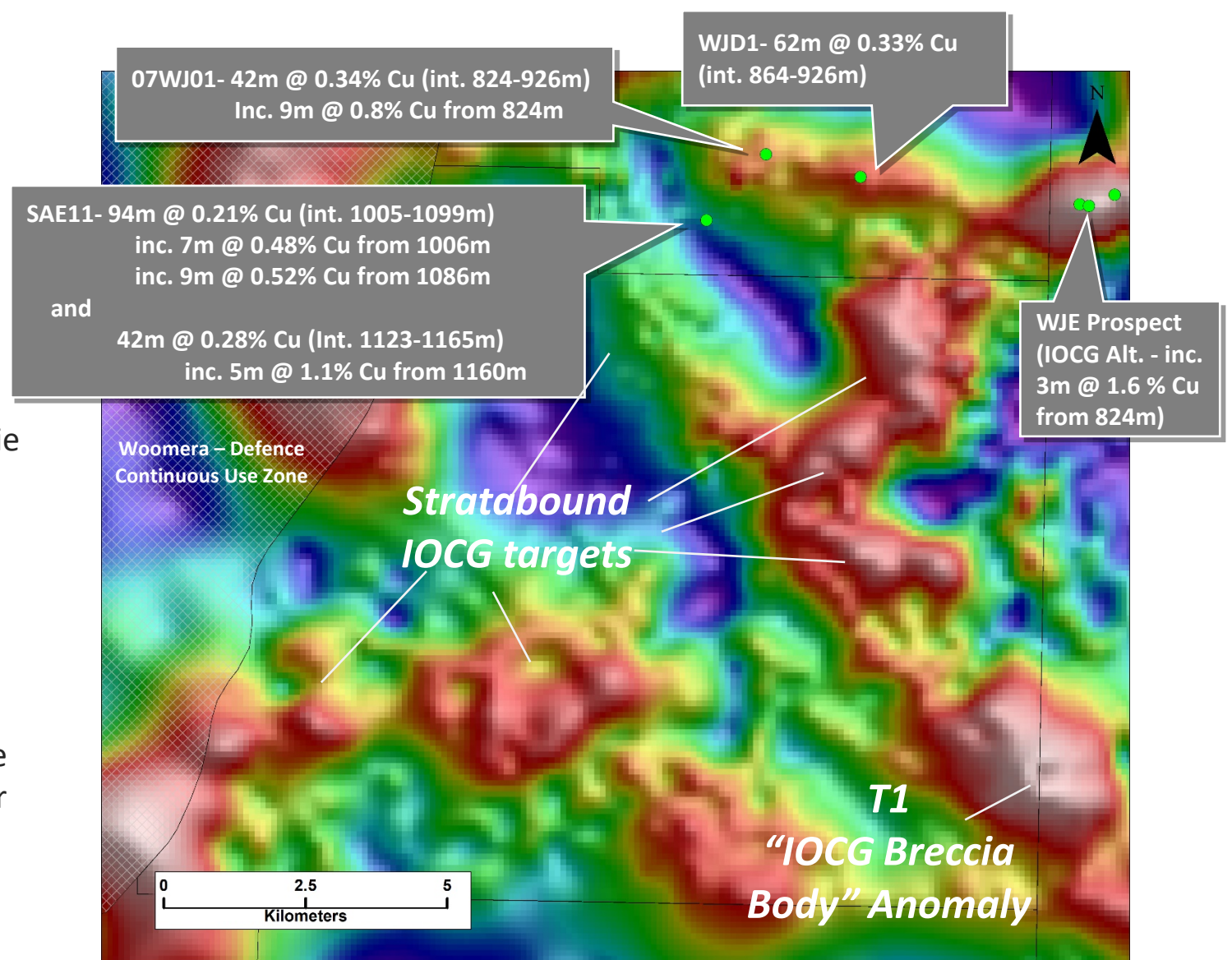
1,387 Mt @ 2.74% Cu = 38 Mt of contained copper

(Total Indicated Resource, Ivanhoe 2020, Figure by Ivanhoe 2020)

WOOMERA IOCG PROJECT

TARGET STYLE 2 – STRATABOUND IOCG TARGETS !

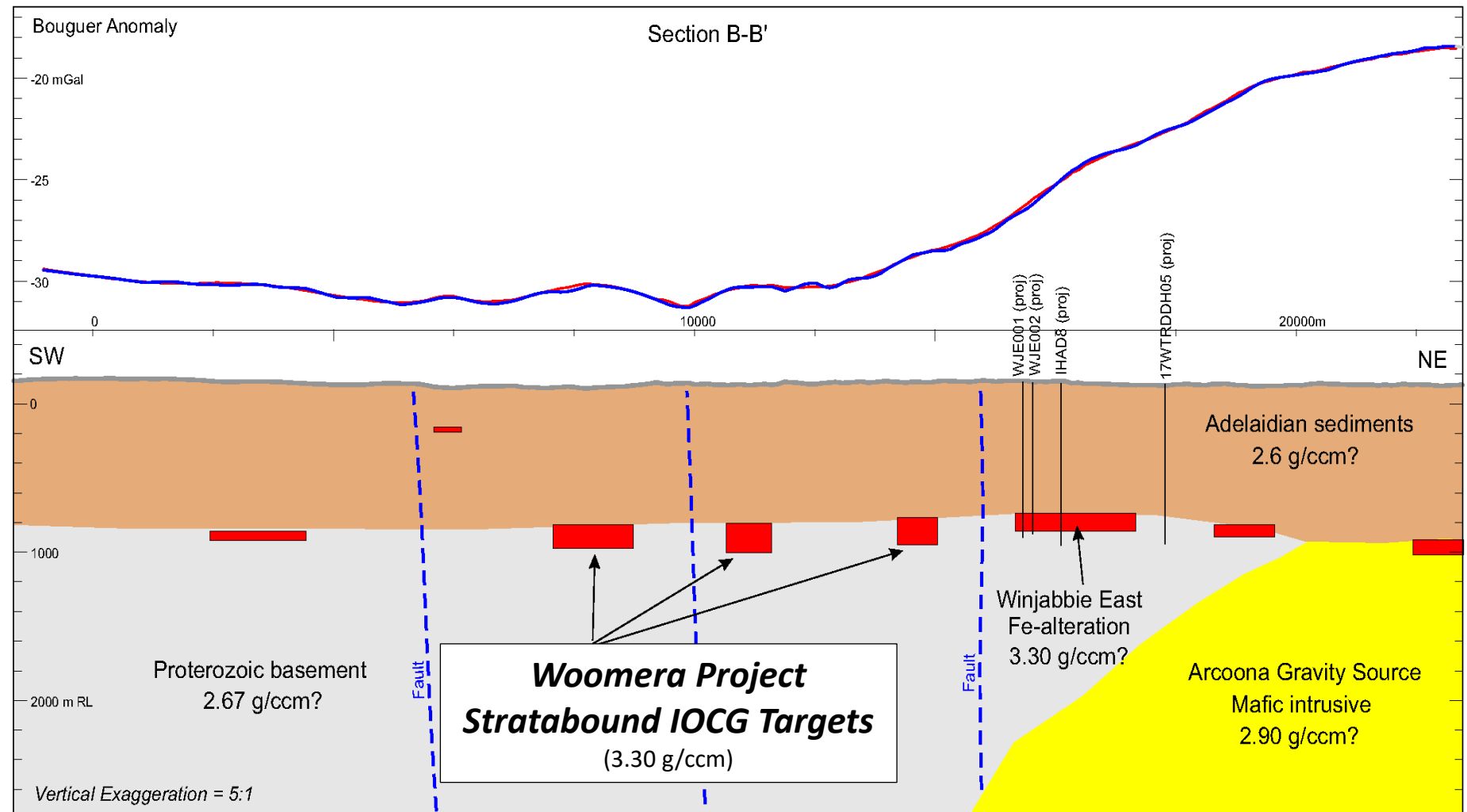
- Stratabound IOCG Copper mineralization at Winjabbie Prospect appears to extend over several kilometres !
- Stratabound IOCG's – Are Cobalt rich too (i.e. WJD1 intercept includes 24m @ 0.1% Co from 962m)
- Woomera gravity modelling highlights several large prominent gravity ridges which are higher magnitude than the Winjabbie Gravity Anomaly and cover larger areas. *i.e. Kamo-a-Kakula Style Targets !*



Significant historical IOCG copper intersections adjacent to Petratherm's Woomera Exploration Licence Application Area overlain on a Residual Gravity Image. High gravity areas may indicate zones of stratabound or breccia style mineralization

TARGET STYLE 2: STRATABOUND IOCGs – WOOMERA PROJECT TARGETS

Gravity Profile
Modelling highlights
several **Stratabound IOCG Targets** on the
Woomera Project Area
displaying higher
magnitudes than the
Winjabbie Anomaly



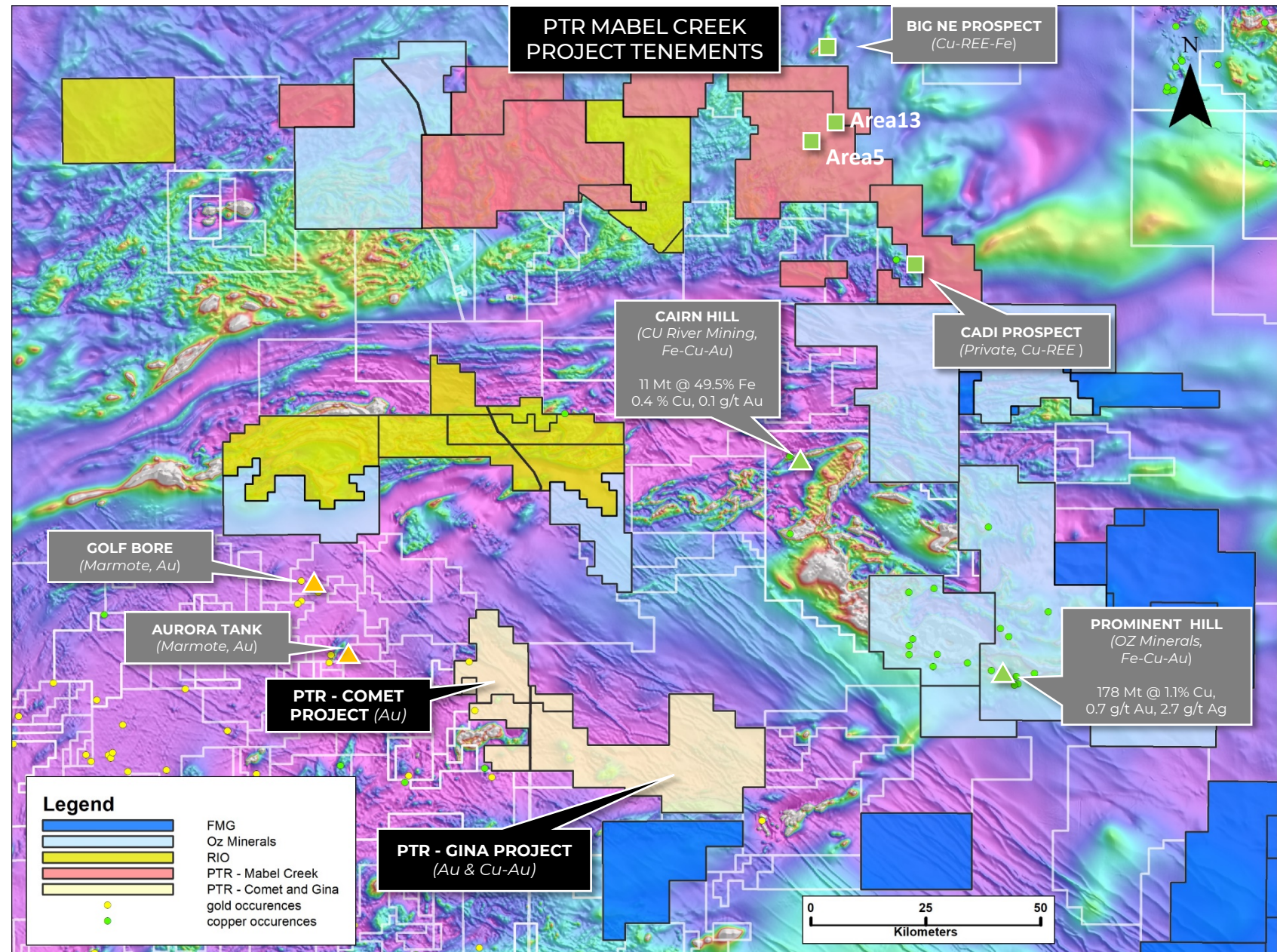
WOOMERA PROJECT : TIMELINE

Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22
Completion of Native Title Mining Agreement		Native Title Mining Agreement Executed	Heritage Surveying	Drilling -T1 Style Breccia IOCG Target	Drilling - T2 Style Stratabound IOCG Target	Drilling - T2 Style Stratabound IOCG Target
	Tenement Grant		Infill Gravity Surveying			
			Drilling Approval			

- Stage 1 Drilling Program – Testing of 3 best IOCG Targets with at least 1 hole into each target, with provision to drill additional holes.
- Drilling of the deeper IOCG Targets (Target Styles 1 & 2) will also assess potential of Shallow Stratabound Cu-Au-Co Cover Targets (Target Style 3). Additional drilling of these will be programmed if results warrant.

SOUTH AUSTRALIA'S World-Class Olympic Dam Copper-Gold Province

- Mabel Creek - Large holding (2,852 km²), fertile for Iron Oxide-Copper-Gold (IOCG) mineralization
- Surrounded by Major World Copper Players – RIO, Oz Minerals & FMG
- 2020-2021 drilling has intersected IOCG alteration at 2 Prospect sites – Area 5 & 13
- Numerous untested drill ready targets



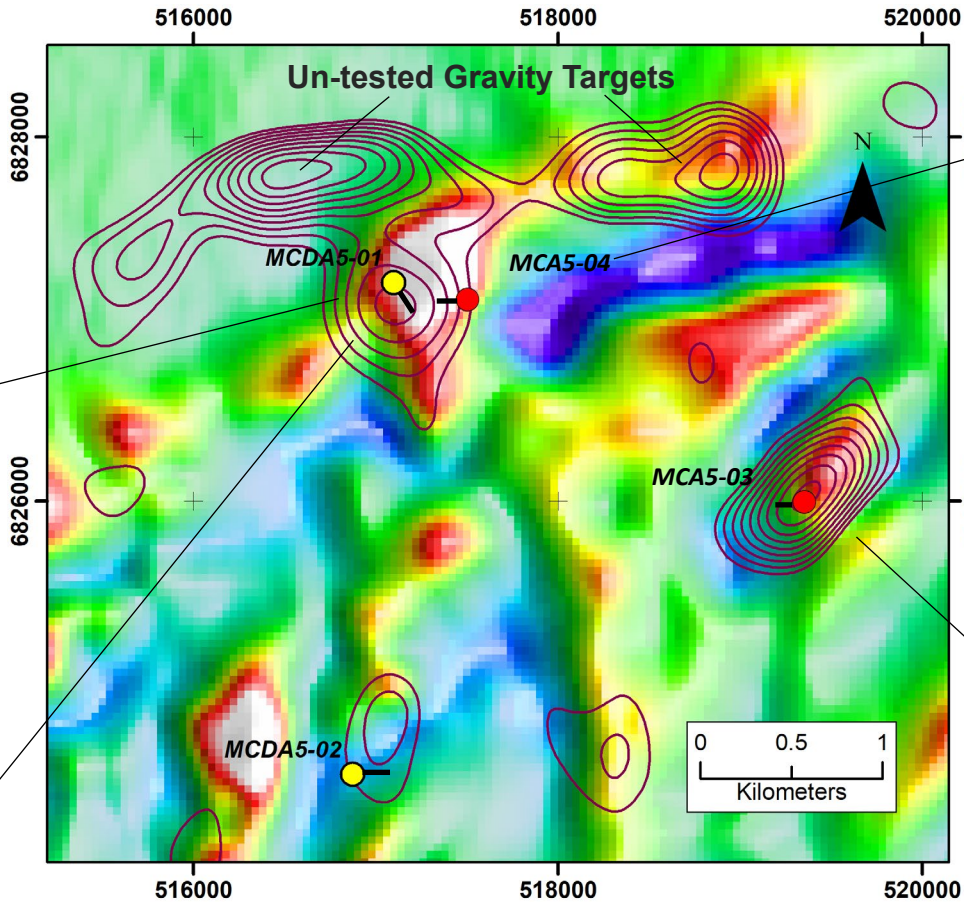
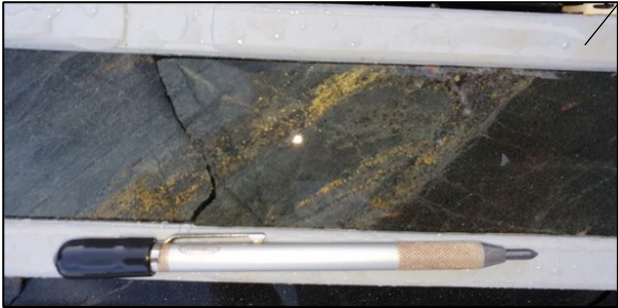
MABEL CREEK IOCG PROJECT

AREA 5: DRILLING – Un-tested residual gravity targets

MCA5-01 – Breccia with hematite + high rare-earths



MCA5-01 – chalcopryite (cu) mineralization



- hydrothermal alteration overprints all rocks at varied levels of intensity and is comparable to Iron Oxide Copper-Gold (IOCG)-type sodic-calcic alteration.



MCA5-04 – Red Rock Altered high rare Earth granite



MCA5-03 – chlorite-hematite-epidote alteration

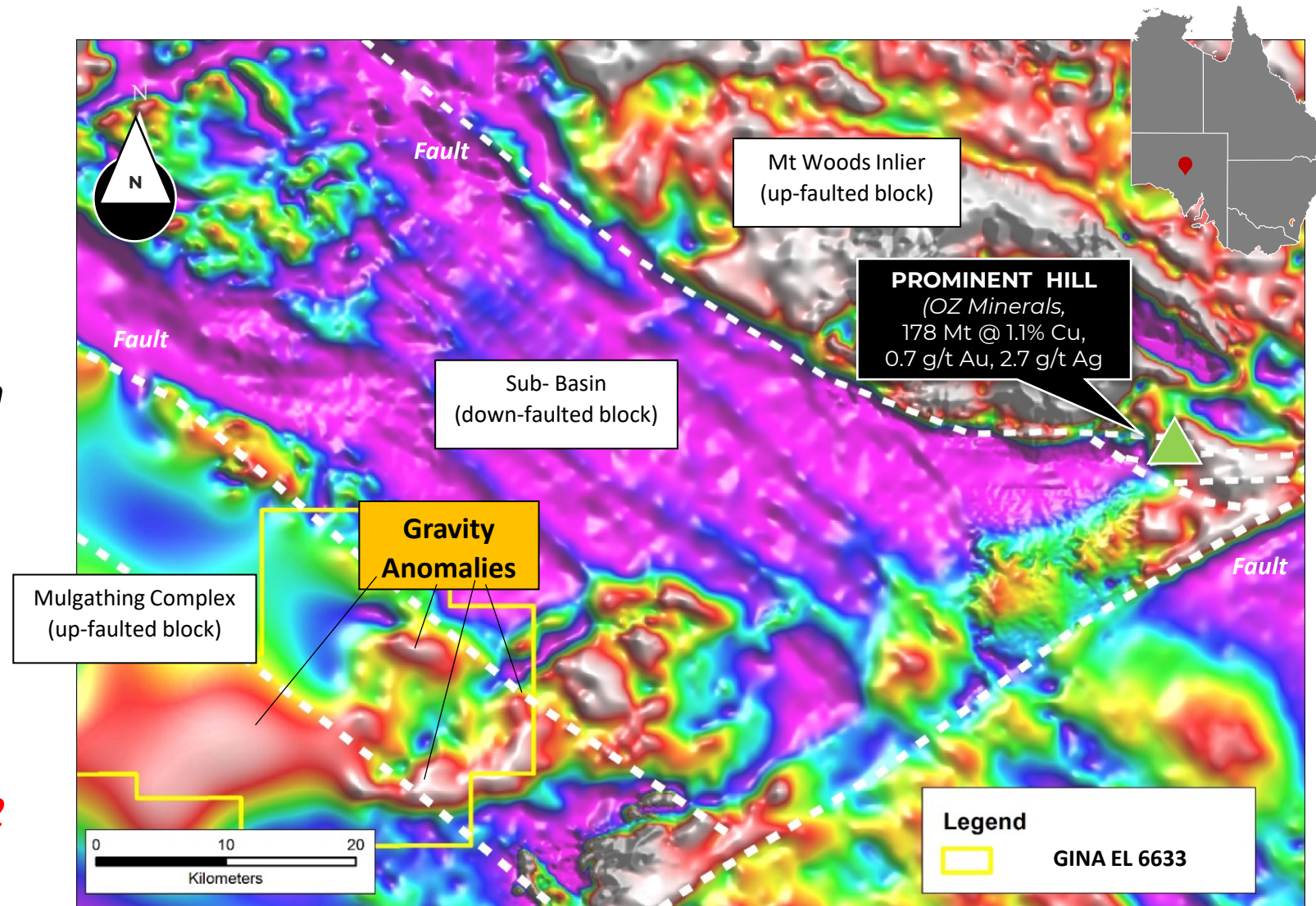
GINA IOCG PROJECT

PTR TO UNDERTAKE GRAVITY SURVEYING TO DEFINE DRILL TARGETS

On the eastern faulted basin edge the Prominent Hill Cu-Au mine occurs and this may be important in the formation of the Ore Body at this location

Petratherm will explore the opposing western faulted basin edge where several regional gravity anomalies are evident.

- *Drill Ready first Quarter of the 2022 calendar year*

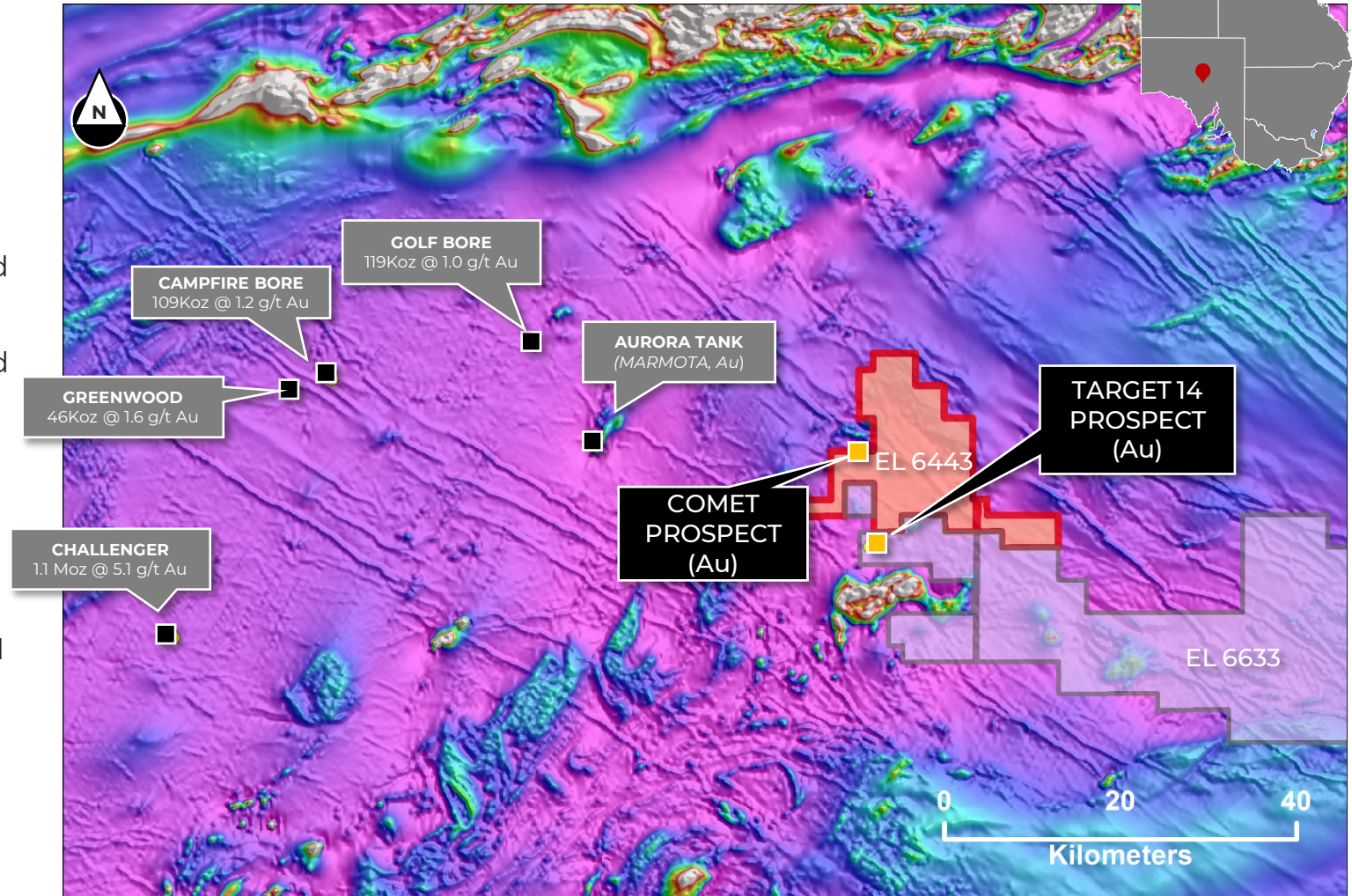


Residual Gravity Image of the eastern "Gina EL6633" Tenement and Prominent Hill Mine Area.

COMET GOLD PROJECT

GOLD PROSPECTS IN THE HEART OF THE GAWLER CRATON

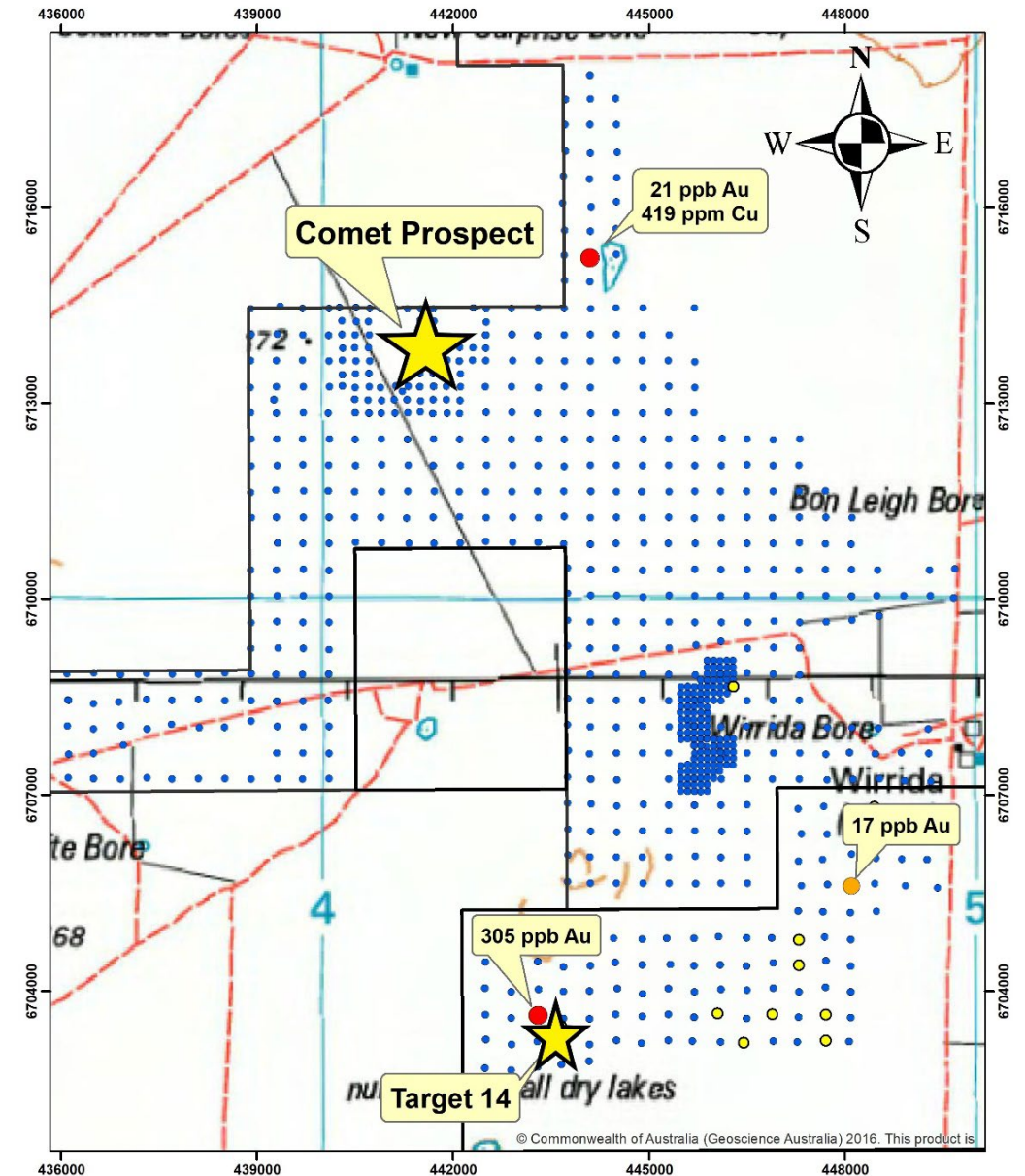
- The Gawler Craton hosts numerous gold occurrences, including the Challenger deposit and the recent high-grade Aurora Tank discovery (i.e. 4m @ 70 g/t Au, MEU ASX 04/11/20)
- Comet Gold Prospect,
 - 16m @ 1.9 g/t gold from 28m, incl. 2m @ 6.2g/t gold from 34m
 - 4m @ 3.8 g/t gold from 36m, incl. 1m @ 7.0 g/t gold from 39m
 - Gold intercepts occur over a continuous strike length in excess of 150 metres, open to the north, south and at depth
- Target 14 Gold Prospect
- 100m spaced reconnaissance RAB drill traverse returned two holes at end of line.
 - 4m @ 0.3 g/t gold from 20 m
 - 9m @ 0.1 g/t gold from 32m to EOH
 - Occurs at a favorable structural intersection and has never been followed up



COMET GOLD PROJECT

INTENSIVE DRILLING UNDERWAY – Nov-Dec 2021

- Aircore / Percussion drilling of Comet and Target 14 Prospects – Dec 2021
- Shallow regional RAB drilling (400m grid spacing) completed in Sept-Oct identified 3 new gold anomalous areas. Follow up Infill drilling from late Nov 2021.
- Expansion of regional shallow geochemical grid sampling into new areas .
- Grid drilling is supported by SA Government grant funding to a level of \$147,500 on a 1 for 1 basis.



Geochemical Plan highlighting the new saprolite gold anomalies

PETRATHERM: NEXT STEPS

PIPE-LINE OF GOLD AND COPPER TARGETS TO BE DRILLED OVER NEXT 6 MONTHS

Comet Gold Project

- Aircore / hammer drilling of Comet and Target 14 gold prospects – Dec 2021
- Regional and infill shallow RAB drilling to locate prospective new gold zones – Nov-Dec 2021

Mabel Creek IOCG Project

- IP/EM Geophysics over Gravity Targets to aid drill targeting – Q1 2022

Woomera IOCG Project

- Drilling campaign of multiple IOCG style geophysical targets - Q2 2022

Gina IOCG Project

- Regional Gravity Surveying to define drill targets - Q4 2021
- Drilling of IOCG Gravity Targets – 2022 Period



PTR has a long track record of acquiring and developing quality new projects