

## ASX ANNOUNCEMENT

RRL1768D

30 July 2021

### Aircore drilling commences at Youanmi Gold Project Regional Joint Ventures

#### Highlights:

- 540 hole, 22,000 metre aircore drilling program has commenced on Youanmi Regional JV tenements
- Program targets 18.5km highly-prospective greenstone corridor between Youanmi and Penny deposits
- 4 high-priority target areas identified from recently completed data review
- Targets are either new, or inadequately tested by historic drilling

West Australian focused gold exploration and development company, Rox Resources Limited ("Rox" or "the Company") (ASX: RXL), in conjunction with its joint venture partner Venus Metals Corporation Limited (ASX: VMC) is pleased to announce it has commenced an aircore drilling program on the Youanmi Regional JV tenements (Rox 50% and Manager, VMC 50%).

The program will initially comprise approximately 22,000m of aircore drilling targeting high-grade orogenic gold mineralisation within an 18.5km corridor between the Youanmi and Penny gold deposits that is underlain by sheared and faulted greenstone sequences, mostly under shallow cover.

Since assuming management of the Regional Joint Ventures (ASX Release 12 April 2021), Rox has completed a comprehensive review of the extensive historical datasets including drilling, geochemical and geophysical. The review has identified numerous targets over an 18km strike continuation of the Youanmi Shear Zone and subsidiary faults that host the major gold occurrences in the region (Penny Project and Youanmi Mine). New targets are largely untested, and known occurrences that require follow-up work.

**Managing Director Alex Passmore commented:** "Since entering the VMC JV (i.e. Youanmi regional ground) we have learnt a lot about the regional geology of the Youanmi belt that has a history of high-grade discoveries but remains substantially underexplored. A thorough regional targeting exercise drawing on both geophysical and geochemical data has identified numerous priority target areas that we are excited to get out and test."

#### Key Targets

The Youanmi Shear Zone is a major state scale feature and is the boundary between the Murchison and Southern Cross Domains of the Youanmi

#### ROX RESOURCES LIMITED

##### ASX: RXL

*Rox Resources Limited (ASX: RXL) is an Australian listed company with advanced gold projects in Western Australia: the Youanmi Gold Project and the Mt Fisher Gold project.*

#### DIRECTORS

**Mr Stephen Dennis**  
Chairman

**Mr Alex Passmore**  
Managing Director

**Dr John Mair**  
Non-Executive Director

<b>Shares on Issue</b>	157.6m
<b>Share Price</b>	\$0.43
<b>Market Cap.</b>	\$67.8m
<b>Cash &amp; Receivables</b>	\$15.m
(incl \$3.1m receivable)	

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Terrane of the Yilgarn Craton. This major structure is a crustal-scale plumbing system and is likely the first-order fluid pathway for gold mineralisation in the region. The major gold occurrences in the region are related to subsidiary faults that splay westward from the Youanmi Shear Zone and are renowned for the high gold grades.

Aircore drilling is focussed on the identification of orogenic gold mineralisation, including Penny Gold Project style (Ramelius Resources) along the Youanmi Shear/ Penny Shear corridor and will target regions of complex structural geometry that are potentially fluid focusing and gold deposition trap sites.

The drilling will occur over 4 target areas (Table 1, Figure 1) on the Youanmi Regional Joint Venture tenements. The first phase of drilling will test interpreted west-northwest trending secondary structures, including numerous demagnetised zones and untested helicopter-borne time-domain electromagnetic conductors (HTDEM) (VMC ASX Release 21 February 2018) that may represent sulphide-related gold mineralisation (Figure 2). Drill spacing is planned at 50-80m on 400m spaced lines with average hole depth expected to be 40m (approximating blade refusal). Drilling will penetrate below transported cover sequences to test in situ regolith where historical soil sampling and shallow RAB drilling was ineffective.

**Table 1. Summary of regional Aircore targets.**

Target	Target Type	Description
<b>Area 1</b>	Magnetic/ HTDEM/ Structural	5km section of the Youanmi Shear Zone. The area includes numerous demagnetised zones representing alteration and seven HTDEM conductors associated with major WNW subsidiary structures that may represent sulphide related gold mineralisation.
<b>Area 2</b>	Magnetic/ HTDEM/ Geochemical	9 HTDEM conductors and numerous demagnetised zones associated with multiple WNW structures. Low-level Au anomalism present in historic shallow RAB drilling.
<b>Area 3</b>	Magnetic/ HTDEM/ Structural	8 HTDEM conductors and numerous demagnetised zones within the Penny Shear corridor and subsidiary structures.
<b>Area 4</b>	Structural	Untested granite-greenstone contact and major WNW structure proximal to Penny West.

### Youanmi Mineralisation

The major gold occurrence in the region is hosted within the Main Lode Shear Zone at Youanmi. The shear zone is mineralised over 2.5km of strike and to a known depth of over 1km below surface.

Gold was first discovered in the Youanmi area in 1894 and since that time has produced 670,000oz of gold.

The current total oxide and underground mineral resource is 1,656Koz Au at a grade of 2.85g/t Au (ASX Release 23 June 2021). Historic discovery of gold at Youanmi was favoured by outcropping mineralisation compared to much of the belt that lies under shallow cover, concealing other gold occurrences.

Gold is concentrated in north plunging lodes within west dipping/northwest strike shear structures. The Youanmi gold lodes are invariably associated with quartz-sulphide mylonites. The lodes contain between 10% and 25% sulphide, the principal species being pyrite and minor arsenopyrite.

### **Penny Mineralisation**

The Penny deposits are situated within the southern portion of the Youanmi Project. Gold occurrences are related to subsidiary faults that splay northwest from the Youanmi Shear Zone. The principal occurrences are Penny West, Penny North and Columbia-Magenta. A total of 90,000oz Au was produced at a grade of 22 g/t Au historically. The current mineral resource at Penny North is 270,000oz Au at a grade of 20g/t Au.

Gold mineralisation is hosted within large, quartz-sulphide lode veins occurring within a steeply dipping greenstone stratigraphy dominated by mafic and ultramafic units, with minor felsic and granitoid intrusive units. Gold mineralisation is free milling and closely correlates with sulphide rich zones of pyrrhotite, pyrite, galena, sphalerite and minor chalcopyrite (in drill intercepts up to 2.2% Pb, 1.2% Zn & 0.1% Cu).

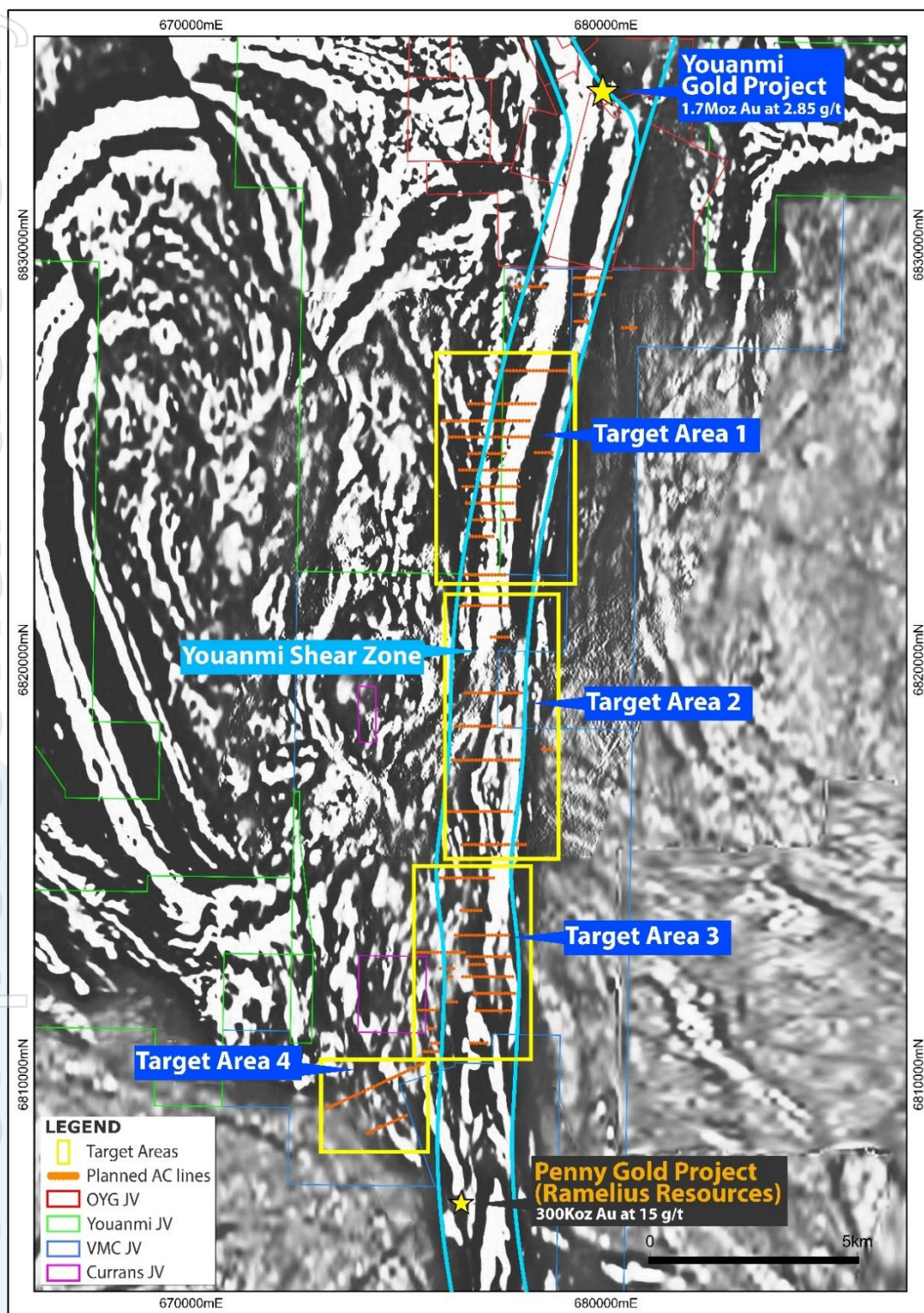


Figure 1 Youanmi regional aeromagnetics (RTP\_1VD), target areas and first pass AC drilling (orange lines).



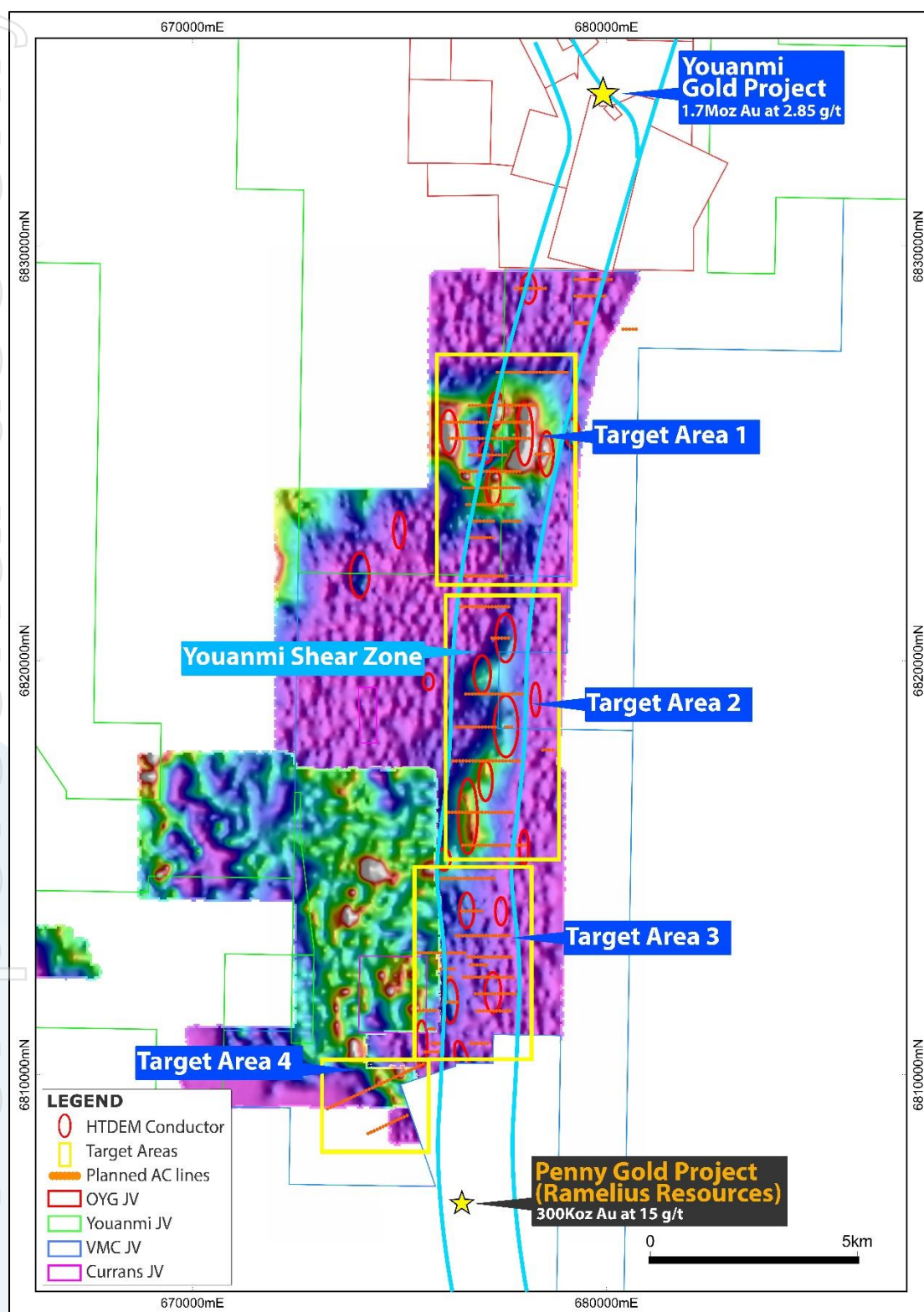


Figure 2. Helicopter-borne time-domain electromagnetic image and priority conductors (red circles).





*Figure 3. Aircore drilling of regional targets at Youanmi is underway.*

Authorised for release to the ASX by the Board of Rox Resources Limited.

**\*\*\* ENDS \*\*\***

**For more information:**

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## **Competent Person Statements Exploration Results**

The information in this report that relates to Data and Exploration Results is based on information compiled and reviewed by Mr Gregor Bennett a Competent Person who is a Member of the Australian Institute Geoscientists (AIG) and Exploration Manager at Rox Resources. Mr Bennett has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he has undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Bennett consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Where reference is made to previous releases of exploration results in this announcement, the Company confirms that it is not aware of any new information or data that materially affects the information included in those announcements and all material assumptions and technical parameters underpinning the exploration results included in those announcements continue to apply and have not materially changed.

The information in this report that relates to previous Exploration Results, was either prepared and first disclosed under the JORC Code 2004 or under the JORC Code 2012 and has been properly and extensively cross-referenced in the text to the date of the original announcement to the ASX. In the case of the 2004 JORC Code Exploration Results and Mineral Resources, they have not been updated to comply with the JORC Code 2012.

## **Resource Statements**

The information in this report that relates to gold Mineral Resources for the Youanmi Project was reported to the ASX on 23 June 2021 (JORC 2012). Rox confirms that it is not aware of any new information or data that materially affects the information included in the announcement of 23 June 2021, and that all material assumptions and technical parameters underpinning the estimates in the announcement of 23 June 2021 continue to apply and have not materially changed.

The information in this report that relates to gold Mineral Resources for the Mt Fisher project was reported to the ASX on 11 July 2018 (JORC 2012). Rox confirms that it is not aware of any new information or data that materially affects the information included in the announcement of 11 July 2018, and that all material assumptions and technical parameters underpinning the estimates in the announcement of 11 July 2018 continue to apply and have not materially changed.

The information in this report that relates to nickel Mineral Resources for the Fisher East project was reported to the ASX on 5 February 2016 (JORC 2012). Rox confirms that it is not aware of any new information or data that materially affects the information included in the announcement of 5 February 2016, and that all material assumptions and technical parameters underpinning the estimates in the announcement of 5 February 2016 continue to apply and have not materially changed.

The information in this report that relates to nickel Mineral Resources for the Collurabbie project was reported to the ASX on 18 August 2017 (JORC 2012). Rox confirms that it is not aware of any new information or data that materially affects the information included in the announcement of 18 August 2017, and that all material assumptions and technical parameters underpinning the estimates in the announcement of 18 August 2017 continue to apply and have not materially changed.

## **Forward-Looking Statements**

This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Rox Resources Limited planned exploration program(s) and other statements that are not historical facts. When used in this document, the words such as "could," "plan," "estimate," "expect," "intend," "may", "potential," "should," and similar expressions are forward looking statements.



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**About Rox Resources**

Rox Resources (ASX:RXL) is a West Australian focused gold exploration and development company. It is 70 per cent owner and operator of the historic Youanmi Gold Project near Mt Magnet, approximately 480 kilometres northeast of Perth, and wholly-owns the Mt Fisher Gold project approximately 140 kilometres southeast of Wiluna. Youanmi has a Total Mineral Resource of 1,656 koz of contained gold, with potential for further expansion with the integration of existing prospects into the Resource and further drilling. Youanmi was a high-grade gold mine and produced 667,000oz of gold (at 5.47 g/t Au) before it closed in 1997. Youanmi is classified as a disturbed site and is on existing mining leases which has significant existing infrastructure to support a return to mining operations.

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