

## ASX ANNOUNCEMENT

RRL1797D

01 December 2021

### ROX RESOURCES LIMITED

#### ASX: RXL

*Rox Resources Limited (ASX: RXL) is an Australian listed company with advanced gold 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>	\$0.38
<b>Market Cap.</b>	\$60.0m
<b>Cash</b>	\$10.7m

(as at 30 Sept 21)

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## Mt Fisher - Mt Eureka Gold Project Exploration Update

#### Highlights:

- Diamond drilling commencing shortly to target strong electromagnetic (EM) conductor related to pyrrhotite associated gold mineralisation down plunge of high-grade historical intersection PMF056: 9m @ 34.34g/t Au from 67m at the Mt Fisher Gold Mine
- Multiple EM conductors (identified previously by Rox) over 3km of strike to be tested by drilling. The conductors are situated down plunge of mineralisation at the Mt Fisher Mine
- Elsewhere, at the Taipan Prospect RC drilling commencing shortly to test a substantial 90m thick gold bearing shear zone in favourable structural setting along strike of historical drill intersections 20m @ 2.28g/t Au from 100m, including 2m @ 9.85g/t Au from 102m (MERC022) and 1m @ 17.4g/t Au (MEAC03)
- 160 hole, 7,300 metre aircore drilling program has been completed at the Mt Fisher Gold Project (Rox 100%) with assays awaited

West Australian focused gold exploration and development company, Rox Resources Limited ("**Rox**" or "**the Company**") (ASX: RXL) is pleased to provide an update on activities at the Mt Fisher-Mt Eureka Gold Project.

The Mt Fisher-Mt Eureka Gold Project is located in the Northern Goldfields, about 500km northeast of Kalgoorlie (about 120km east of Wiluna) within the Mt Eureka greenstone belt. This belt is located 40km east of the prolific Yandal greenstone belt, host of significant gold deposits including Jundee, Bronzewing and Mt McClure.

Rox holds 850km<sup>2</sup> of the Mt Eureka greenstone belt and surrounding prospective zones (Rox 100% 500km<sup>2</sup>) and via the Cullen Resources JV, 350km<sup>2</sup> (Rox currently earning up to 75%, Cullen Resources Limited 25%).

A 4,000m RC and diamond drill program is currently being conducted on high priority drill ready gold targets generated from a recently completed project review.

Target areas were identified from existing historic geochemical and geophysical datasets. The highly prospective Mt Eureka greenstone terrane hosts extensive orogenic gold mineralisation. Numerous high-grade gold occurrences warrant immediate follow up drilling including: The Mt Fisher

Mine, Dam/Damsel Gold Trend, Wagtail, Taipan, Southern-Galway and Eureka North-West (Figure 1).

### Outlook and planned work programs

Rox believes that the Mt Fisher – Mt Eureka Gold Project has the potential to host significant sized gold deposits and economic VMS mineralisation.

Immediate work streams include:

- Internal project scale review and target generation (**COMPLETED**);
- Reconnaissance aircore drilling over the Mt Fisher Fault (**COMPLETED**);
- 4,000m RC program to test priority drill ready gold targets (**IN PROGRESS**); and
- Project wide high resolution (50m spaced) aeromagnetic surveying (**IN PROGRESS**).

Reconnaissance drilling of 160 aircore holes for 7,300 metres was completed to test the intersection of the regional scale NE trending Mt Fisher Fault with favourable NNW trending stratigraphy. The Mt Fisher Fault is believed to be a regionally important, perennially reactivated basement structure. The fault is likely a feeder conduit, syngenetic with Au and VMS style mineralisation at the Mt Fisher Mine and Dam/Damsel/Dirks gold trend. Assays remain pending for all holes.

### Regional Geological Setting

The project area is located within the Eastern Goldfields Superterrane of the prolific Yilgarn Craton. Most of the Archean gold deposits in the Yilgarn Craton belong to a group structurally controlled orogenic gold deposits. At the regional scale, most of the Yilgarn's orogenic gold deposits are spatially associated with crustal scale faults in settings where there has been favourable mineralising fluid migration and a gold deposition mechanism. Within greenstone belts of the Eastern Goldfields Superterrane, significant gold deposits are typically distributed along specific regional structures formed under compressional regimes. Due to their association with regional structures, such gold prospects are typically located at the boundaries of contrasting lithologies or age domains within the greenstone belts.

Within greenstone belts, the gold deposits commonly cluster along structures where they are localised at bends/kinks or at the intersection of two or more faults.

The Mt Fisher-Mt Eureka Gold Project area straddles the Kurnalpi – Burtville Terrane boundary, with the boundary transecting the greenstone belt. This major NNW trending structure (Hootanui Shear) is potentially a deep-seated gold plumbing conduit. Such features are linked to the occurrence of nickel-sulphide and gold deposits. Geological setting of the Mt Fisher-Mt Eureka Gold Project has the potential to host major gold deposits.

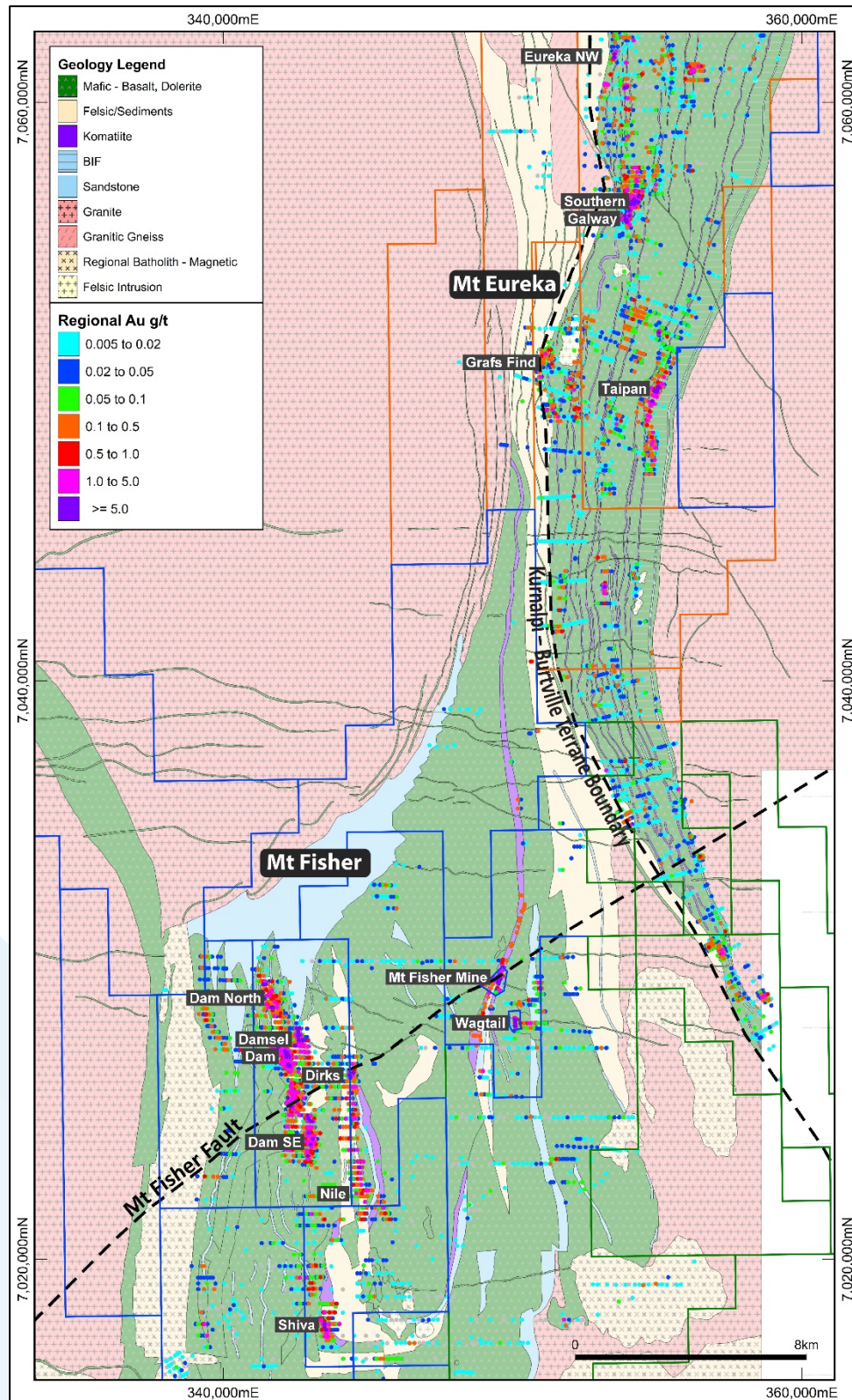


Figure 1 Mt Fisher – Eureka Gold Project over interpreted bedrock geology and downhole Au grades



## Key Target Areas

### Mt Fisher Mine

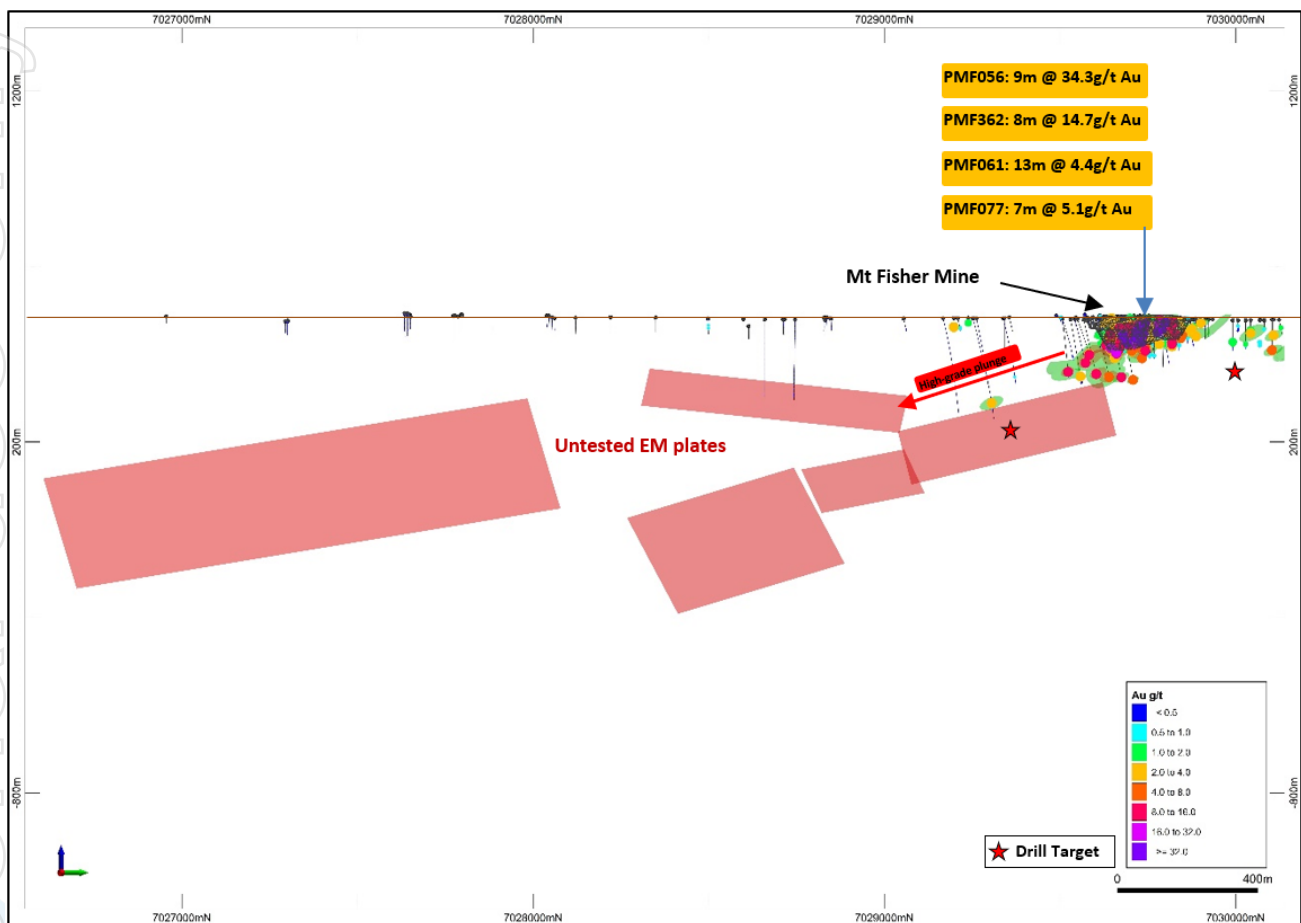
Gold mineralisation at the Mt Fisher Mine is strata bound, being contained within the sulphide facies chert horizon. Historical in-pit and diamond core observations show gold occurs in association with massive and disseminated sulphides, mainly pyrrhotite, with lesser pyrite. The Mount Fisher deposit is considered to be originally of syngenetic exhalative origin. A well-defined, NE trending fault cross cuts the project area which may represent a major crustal structure that facilitated the placement of mineralised fluids during the region's major gold event.

Mineralisation plunges moderately southwards beneath the southern end of the existing open pit mine and is open at depth. A ground electromagnetic (EM) survey by Rox in 2012 defined several conductive anomalies that are likely related to pyrrhotite associated gold mineralisation. The conductive anomaly is defined over 3km of strike length and appears to represent the down plunge extension of mineralisation at the Mt Fisher Mine. The conductors remain untested at depth (Figure 2.)

Planned RC drilling will test the down plunge extension of mineralisation. Additionally, one diamond drillhole will be completed to test the centre of the conductive anomaly directly down plunge of the mine. Downhole electromagnetic (DHEM) surveys will be completed on drillholes to vector towards zones of high-grade mineralisation.

Total production from the Mt Fisher open pit was reportedly 218,000 tonnes at 4.3 g/t Au for 30koz. The current gold resource at the Mt Fisher mine is 230kt @ 3.6g/t Au for 26,000oz (RXL ASX Release 11 July 2018).

The following Figures 2 to 9 include images related to exploration modelling of the Mt Fisher gold prospects. Indicative grade shell models (>1g/t Au, >2g/t Au, >5g/t Au and >10g/t Au) have been generated in Micromine software and are provided for reference only. The images of grade shell models are not an Exploration Target and do not contain nor indicate any estimate of potential size and grade ranges.



**Figure 2. Long-section of the Mt Fisher Mine displaying downhole gold grades and modelled EM conductor plates.**

Best historical results from the Mt Fisher Gold mine are summarised below:

- PMF056: 9m @ 34.34g/t Au from 67m including 4m @ 74.25g/t Au from 70m;
- PMF362: 8m @ 14.72g/t Au from 13m including 4m @ 27.4g/t Au from 16m; and
- PMF061: 13m @ 4.41g/t Au from 80m including 3m @ 11.13g/t Au from 83m (RXL ASX Release 26 October 2021)

### Dam/Damsel Trend

The Dam/Damsel Gold Trend is located approximately 7km SW of the Mt Fisher Mine on the western limb of the Wonganoo Anticline. The Dam/Damsel corridor is defined by a >10km stratabound zone of multi-element anomalism (Au, Cu, As, and Zn). The NE trending Mt Fisher Fault crosscuts the NW trending stratigraphy is believed to be the likely source of gold mineralisation in the area.

Historical drilling is mostly limited to shallow RAB with minimal bedrock testing carried out along the Dam-Damsel-Dirk corridor.

There is current gold resource at Damsel of 770kt @ 2.2g/t Au for 55,400oz. Primary gold mineralisation strikes north-northwest, dips west and plunges moderately north. The northern plunge was not previously recognised with historical drilling intersecting above the plunging shoot. Planned RC drilling will test the down plunge extension and infill wider spacing drill sections with the aim of adding to the resource at Damsel (Figure 3).

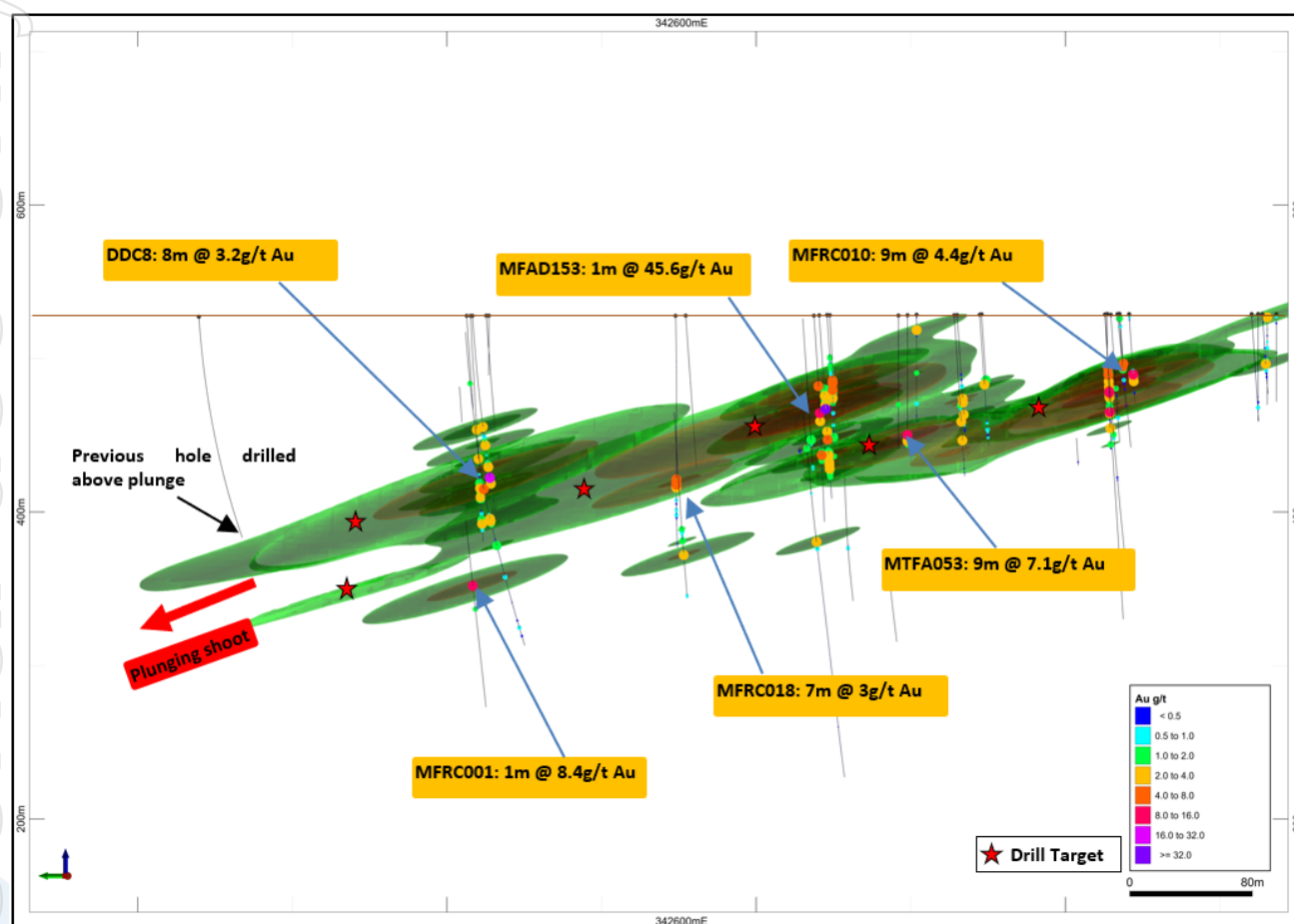


Figure 3. Long-section the Damsel Prospect looking northeast.

Best results from the Damsel Prospect are summarised below:

- MTFA053: 9m @ 7.12g/t Au from 76m, including 4m @ 12.44g/t Au from 76m;
- MFAD153: 1m @ 45.63g/t Au from 70m; and
- MFRC010: 9m @ 4.43g/t Au from 54m, including 2m @ 10.24g/t Au from 57m (RXL ASX Release 26 October 2021)

### Wagtail

The Wagtail prospect (also known as Moray Reef) is a typical Archaean narrow vein quartz hosted gold reef system. Historic production from the deposit between 1949 and 1952 produced a reported 2,384 ounces at an average grade of 66 g/t Au. The current gold resource at Wagtail is 30kt @ 7.5g/t Au for 7,700oz. The reef strikes north, with an sub-vertical to steep easterly dip. High-grade mineralisation plunges moderately north. Planned RC drilling will test the down plunge extension of high-grade mineralisation (Figure 4).

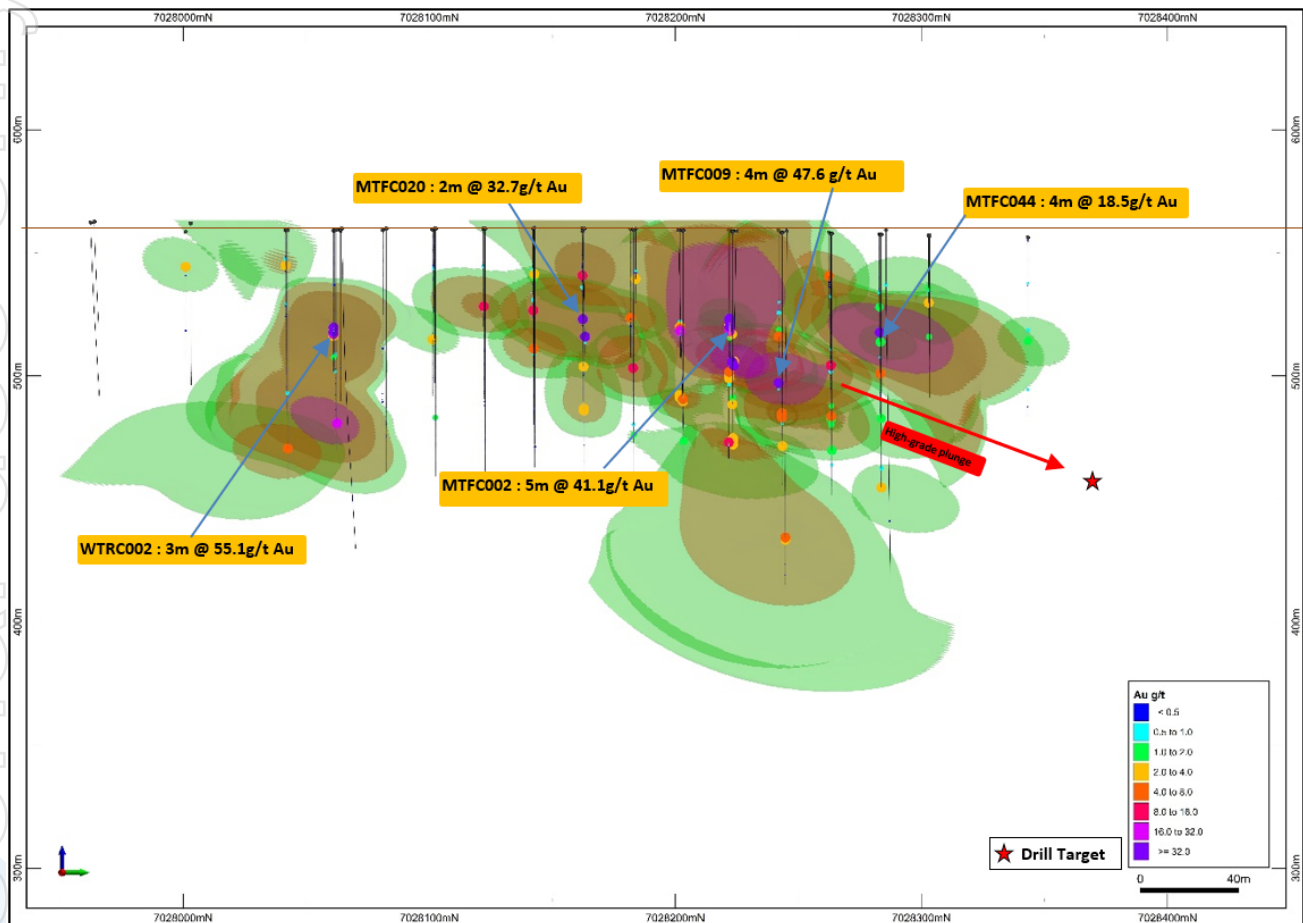


Figure 4. Long-section of the Wagtail Prospect looking west.

Best results from the Wagtail prospect are summarised below:

- MTFC002: 5m @ 41.13g/t Au from 44m, including 3m @ 67.94g/t Au from 45m
  - WTRC002: 3m @ 55.14g/t Au from 47m, including 2m @ 81.6g/t Au from 47m; and
  - MTFC020: 2m @ 32.69g/t Au from 42m
- (RXL ASX Release 26 October 2021)

## Shiva

The Shiva Prospect is located to the south and generally along strike of 8km south the Dam-Damsel prospects. The gold in regolith anomaly has a broad strike length of over 1 km and overlies a complex zone of mafic extrusive and mafic intrusive lithologies. Primary gold mineralisation strikes north-northwest, dips west and plunges moderately south. Planned RC drilling will test the down plunge extension (Figure 5).

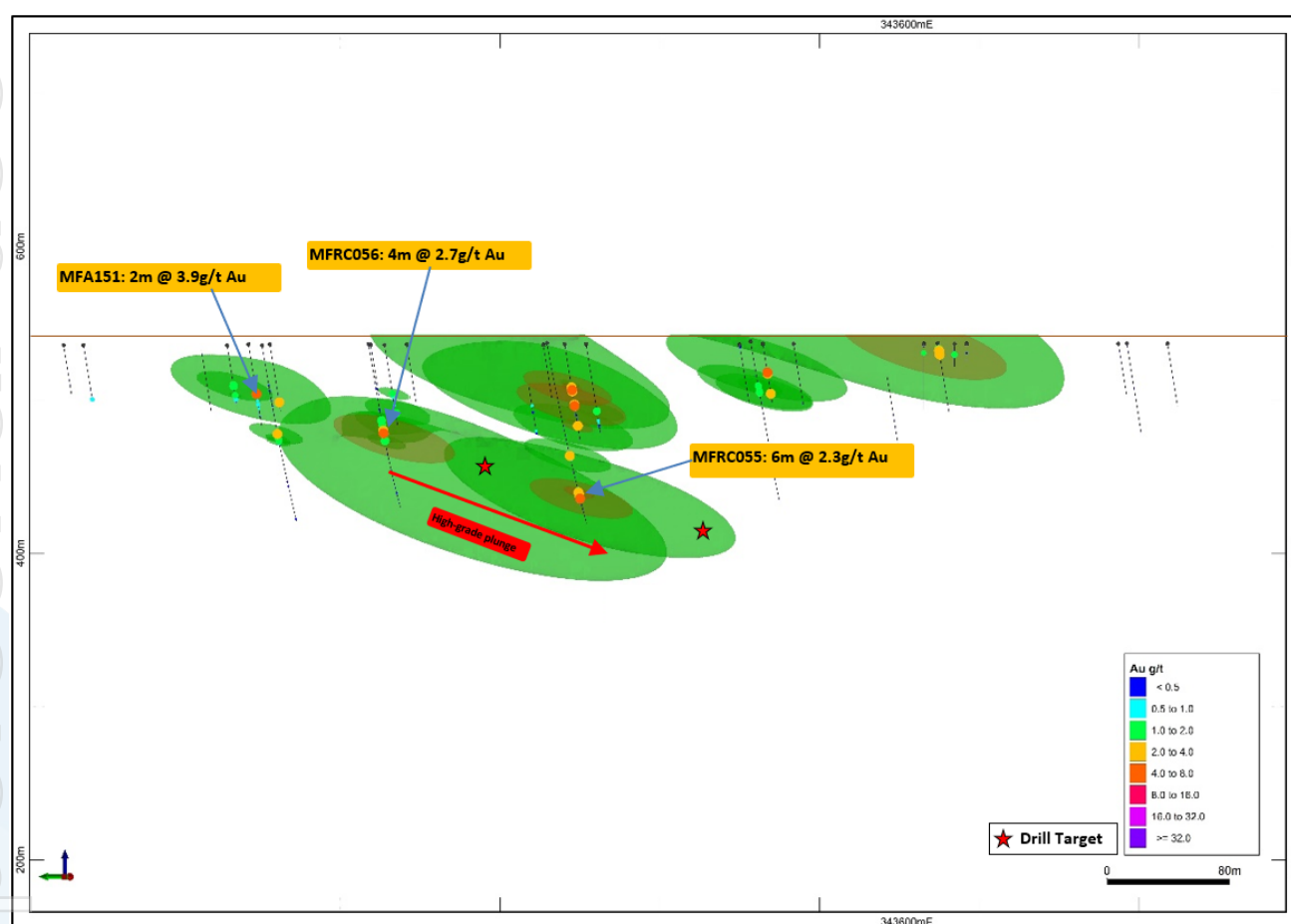


Figure 5. Long-section of the Shiva Prospect looking east.

Best results from the Shiva prospect are summarised below:

- MFRC055: 6m @ 2.3 from 114m, including 1m @ 6.01g/t Au from 119m;
- MFRC056: 4m @ 2.74g/t Au from 66m, including 1m @ 7.09g/t Au from 68m; and
- MFA151: 2m @ 3.88g/t Au from 37m, including 1m @ 7.26g/t Au from 37m (RXL ASX Release 26 October 2021)



## Mt Eureka

The Mt Eureka gold prospects are characterised by an anomalous gold zone of 15km of strike extent. The project area is host to multiple high-grade gold occurrences including Taipan, Eureka North-West, Southern-Galway and Graf's Find for further exploration. Drilling has been insufficient to date to understand the primary geological controls on mineralisation. Further work is planned to fully evaluate the potential of these areas.

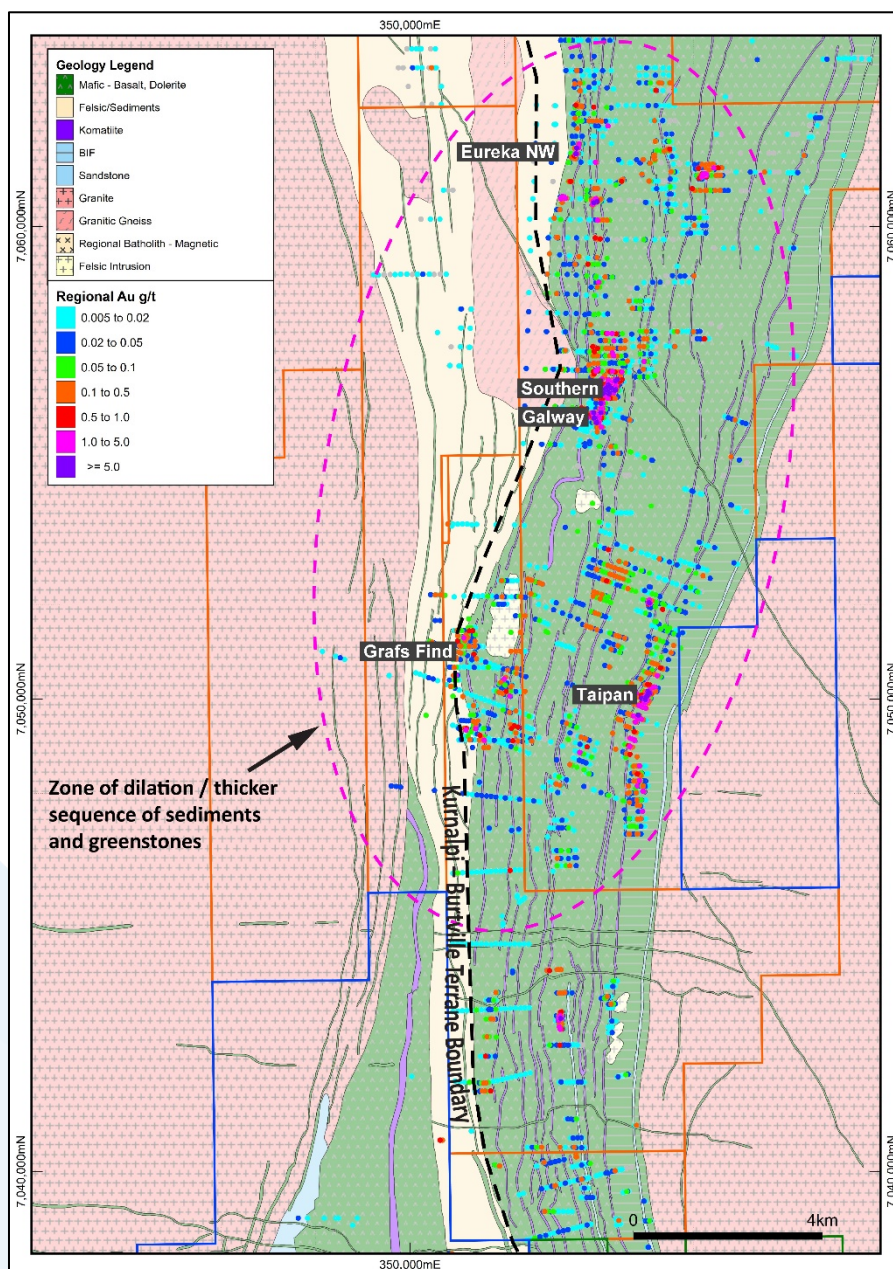


Figure 6. Mt Eureka Project over interpreted bedrock geology and downhole Au grades.

## Taipan

The Taipan shear zone is defined as a large hydrothermal system in an encouraging and complex structural setting. The mineralised system of quartz veining, pyrite and carbonate alteration is hosted by sheared mafic schists over a strike length of 700m with a true thickness of up to 90m. High grade gold mineralisation occurs in the north portion of the prospect where historical drilling intersected 20m @ 2.28g/t Au from 100m, including 2m @ 9.85g/t Au from 102m in MERC022 and 1m @ 17.4g/t Au in MEAC03 (RXL ASX Release 26 October 2021). No historical follow up drilling was completed at depth beneath this high-grade zone. Planned RC drilling will test down dip and along strike of MERC022 and MEAC03 to test the continuity of high-grade gold mineralisation.

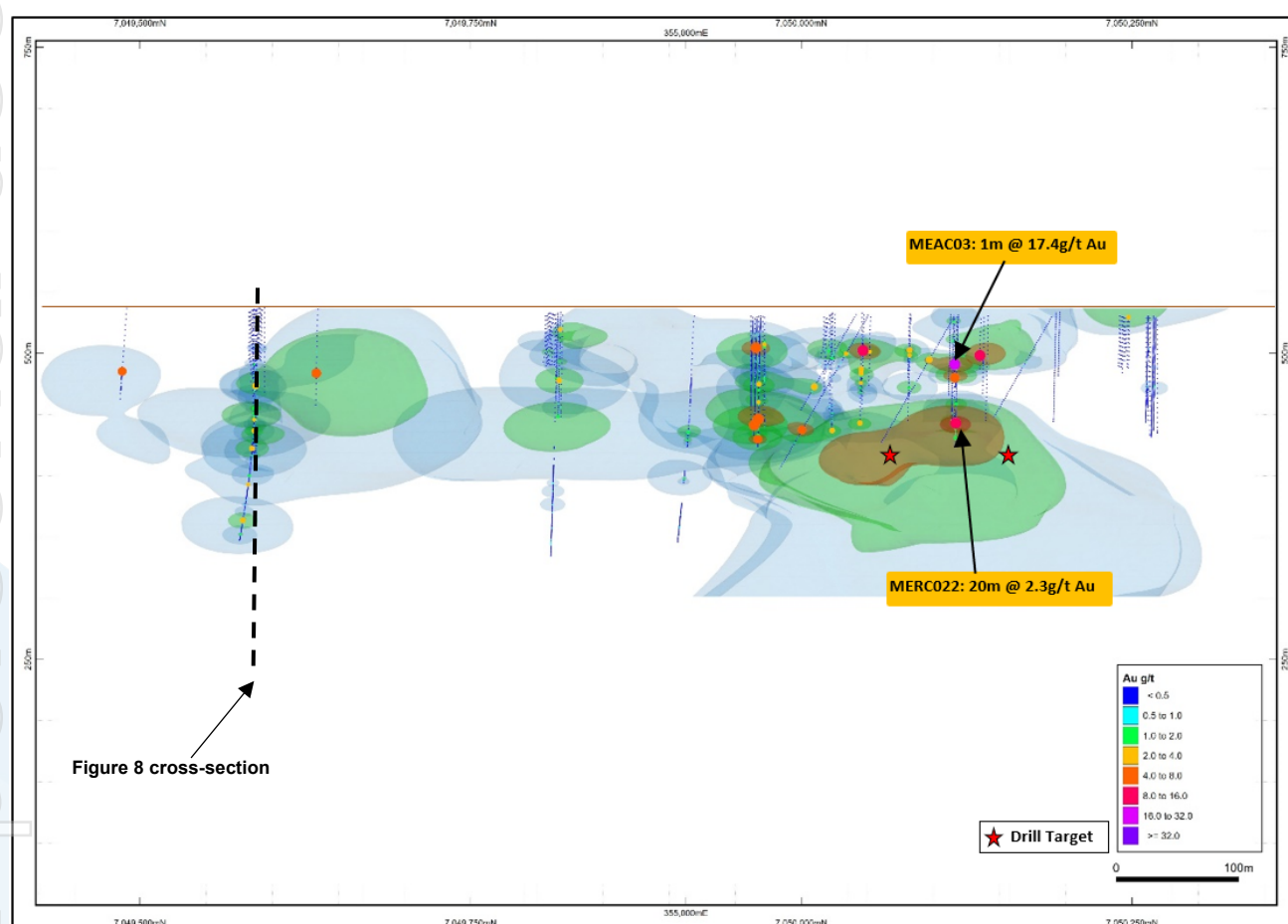


Figure 7. Long-section of the Taipan Prospect looking north-west.

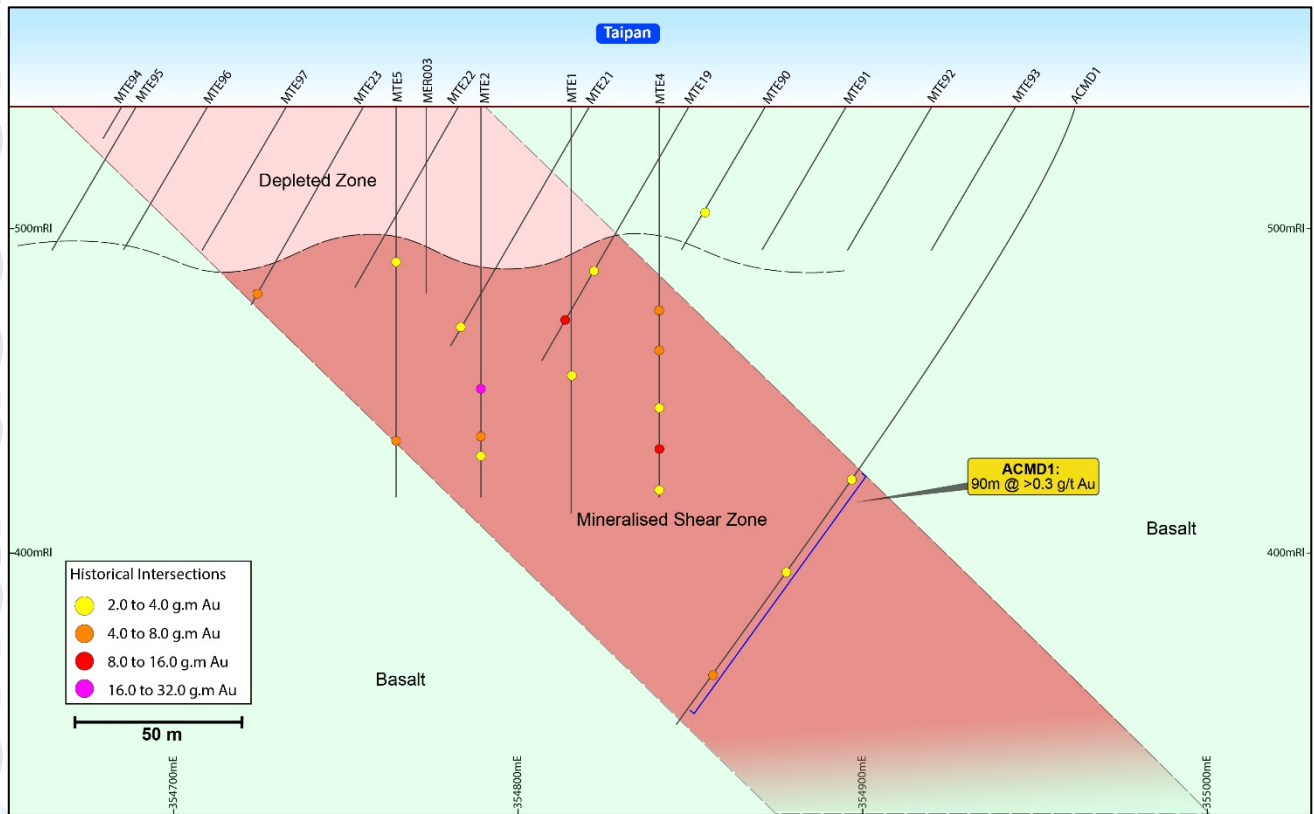
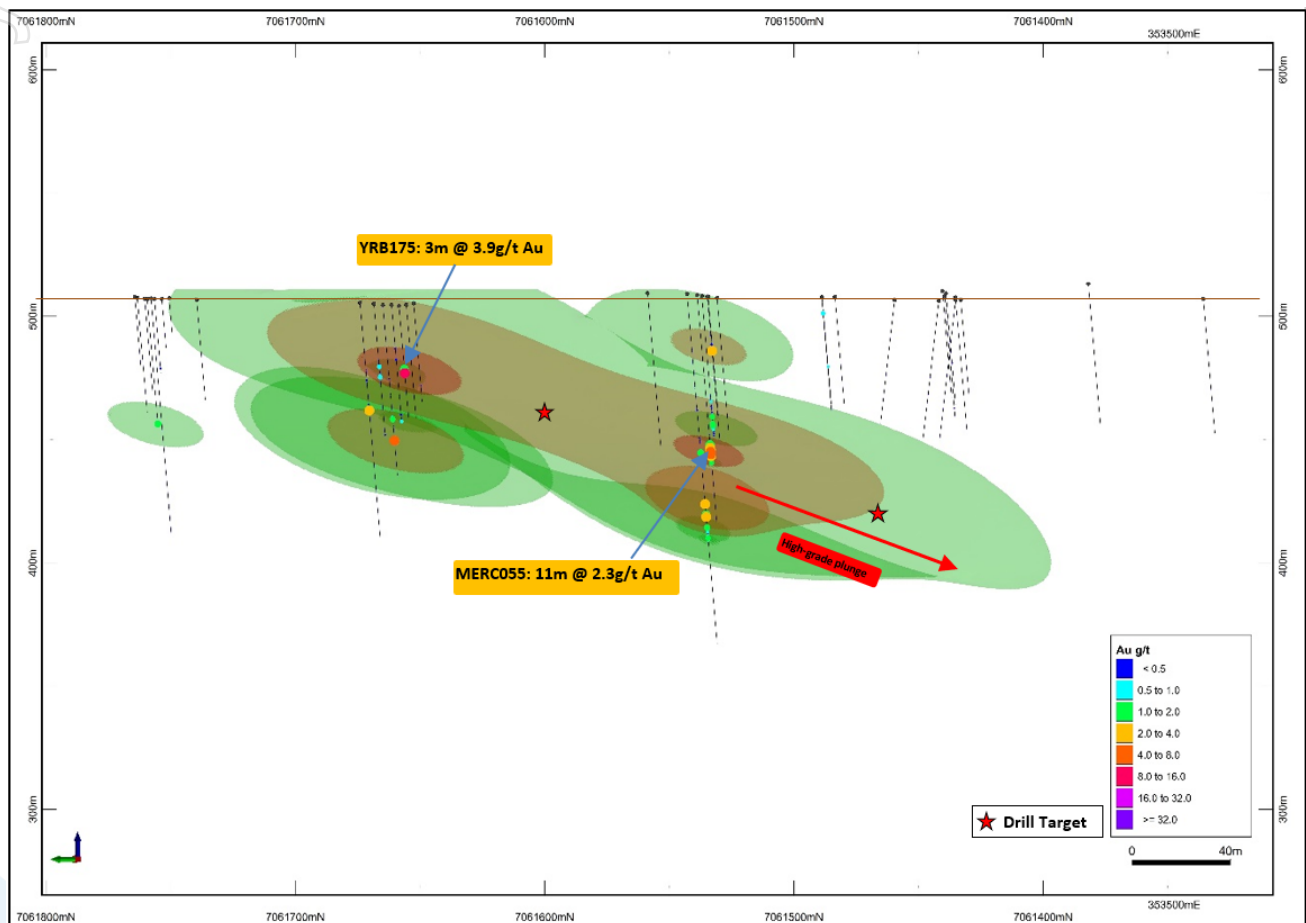


Figure 8. Cross-section of the Taipan shear zone looking north-east.

### Mt Eureka Northwest

Gold mineralisation is related to quartz veining and shearing in mafics associated with the granite-greenstone contact. Primary gold mineralisation strikes north-northeast, dips east and plunges moderately south. Planned RC drilling will test the down plunge extension of high-grade mineralisation along the granite-greenstone contact (Figure 9).



**Figure 9. Long-section of the Mt Eureka Northwest Prospect looking east.**

Best results from the Mt Eureka NW prospect are summarised below:

- YRB175: 3m @ 3.86g/t Au from 29m, including 1m @ 9.87g/t Au from 31m; and
- MERC055: 11m @ 2.34g/t Au from 68m, including 1m @ 6.41g/t Au from 73m (RXL ASX Release 26 October 2021)

### **Southern-Galway**

Mineralisation is possibly localised by an interpreted felsic intrusive and its bounding faults/shears. Best intersections include; 9m @ 7.08g/t Au from 116m, including 2m @ 28.32g/t Au from 120m, and 11m @ 3.3g/t Au from 83m including 2m @ 11.74g/t Au from 89m (RXL ASX Release 26 October 2021). Further work is planned to fully evaluate the potential of this area.

### **Mt Fisher AC drilling**

Reconnaissance drilling of 160 aircore holes for 7,300 metres was completed to test the intersection of the regional scale NE trending Mt Fisher Fault with favourable NNW trending stratigraphy. The Mt Fisher Fault is believed to be a regionally important, perennially reactivated basement structure. The fault is likely a feeder



conduit, syngenetic with Au and VMS style mineralisation at the Mt Fisher Mine and Dam/Damsel/Dirks gold trend (Figure 10). Assays remain pending for all holes

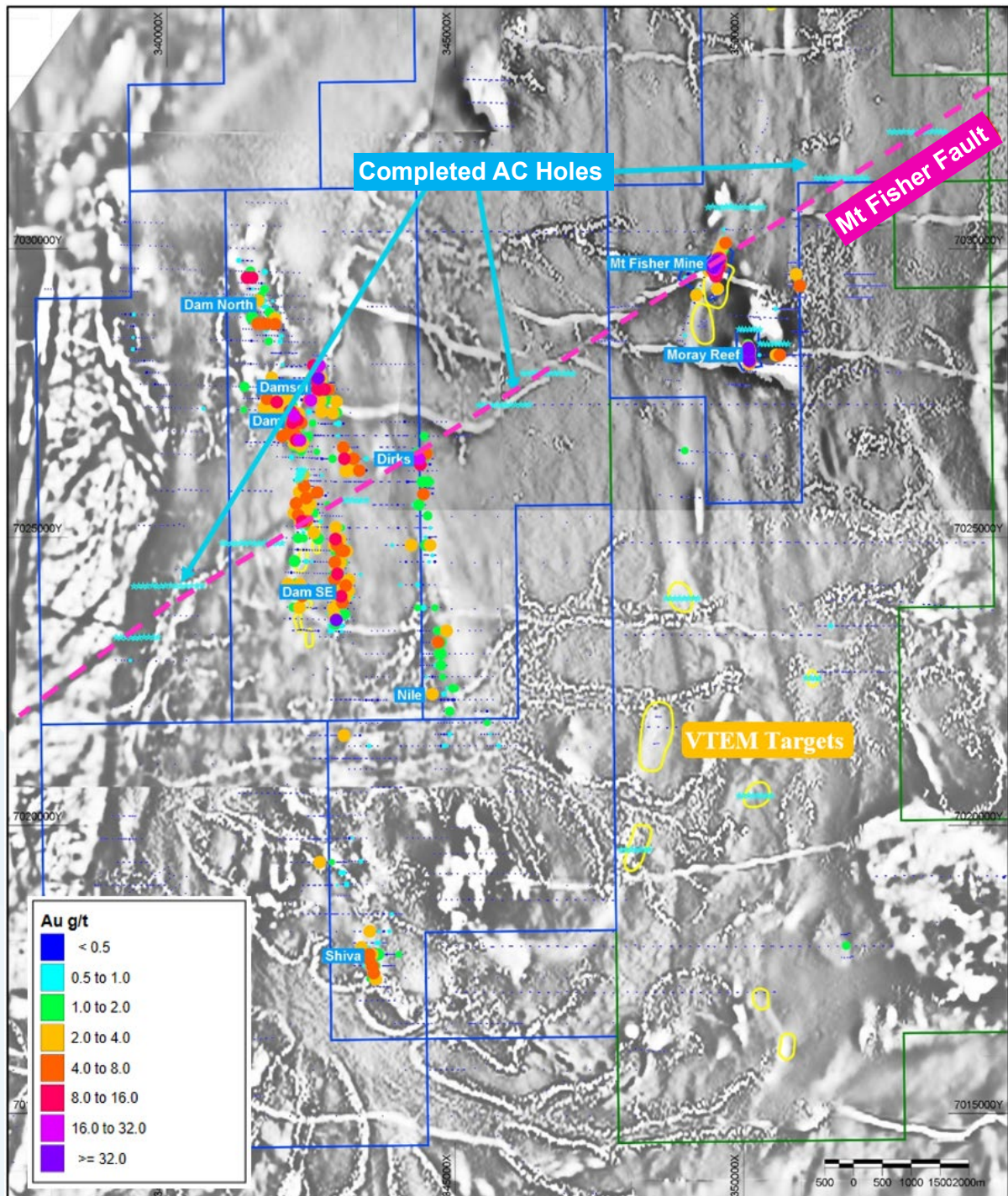


Figure 10. Mt Fisher gold prospects over AMAG – Mt Fisher Fault (magenta line), completed AC lines (blue circles), VTEM targets (yellow ellipse).

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.

### 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.

### 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.