

ASX ANNOUNCEMENT

27 July 2023

Exploration Update Presentation***The Mallina Gold Project – a provincial scale exploration opportunity***

De Grey Mining Limited (ASX: DEG, “De Grey” or the “Company”) is pleased to provide the attached presentation showcasing the provincial scale exploration opportunity at the Mallina Gold Project which hosts the Hemi discovery.

A video version of the presentation, which includes accompanying comments from Managing Director Glenn Jardine, General Manager Exploration Phil Tornatora and General Manager Business Development Allan Kneeshaw, is also available on the Company’s website.

This announcement has been authorised for release by the Managing Director.

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Mallina Gold Project

A provincial scale
exploration opportunity

July 2023



IMPORTANT INFORMATION

Forward Looking Statements

These materials prepared by De Grey Mining Limited (or the "Company") include forward looking statements. Often, but not always, forward looking statements can generally be identified by the use of forward looking words such as "may", "will", "expect", "intend", "plan", "estimate", "anticipate", "continue", and "guidance", or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production or construction commencement dates and expected costs or production outputs.

Forward looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the Company's actual results, performance and achievements to differ materially from any future results, performance or achievements. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature of exploration and project development, including the risks of obtaining necessary licenses and permits and diminishing quantities or grades of reserves, political and social risks, changes to the regulatory framework within which the Company operates or may in the future operate, environmental conditions including extreme weather conditions, recruitment and retention of personnel, industrial relations issues and litigation.

Forward looking statements are based on the Company and its management's good faith assumptions relating to the financial, market, regulatory and other relevant environments that will exist and affect the Company's business and operations in the future. The Company does not give any assurance that the assumptions on which forward looking statements are based will prove to be correct, or that the Company's business or operations will not be affected in any material manner by these or other factors not foreseen or foreseeable by the Company or management or beyond the Company's control.

Although the Company attempts and has attempted to identify factors that would cause actual actions, events or results to differ materially from those disclosed in forward looking statements, there may be other factors that could cause actual results, performance, achievements or events not to be as anticipated, estimated or intended, and many events are beyond the reasonable control of the Company. Accordingly, readers are cautioned not to place undue reliance on forward looking statements. Forward looking statements in these materials speak only at the date of issue. Subject to any continuing obligations under applicable law or any relevant securities exchange listing rules, in providing this information the Company does not undertake any obligation to publicly update or revise any of the forward looking statements or to advise of any change in events, conditions or circumstances on which any such statement is based.

IMPORTANT INFORMATION

Competent Person(s) Disclosure

The information in this presentation that related to the preliminary feasibility study and its outcomes for the Mallina Gold Project is extracted from the ASX announcement "Mallina Gold Project Preliminary Feasibility Study" dated 8 September 2022. The information in this presentation that relates to the Mineral Resource Estimate is extracted from the ASX announcements "Mallina Gold Project Resource Statement – 2023" dated 15 June 2023, "Mallina Gold Project Resource Statement – 2022" dated 31 May 2022 and "6.8Moz Hemi Maiden Mineral Resource drives MGP to 9.0Moz" dated 23 June 2021. The Information in this presentation that relates to previously reported exploration results for the Mallina Gold Project is extracted from the Company's ASX Exploration Results Announcements up to 26 July 2023 as listed in Appendix A.

The information in this presentation that relates to Hemi Ore Reserves is based on and fairly represents information and supporting documentation compiled by Mr Quinton de Klerk, a Competent Person who is a full -time employee of Cube Consulting Pty Ltd, a company engaged by De Grey. Mr de Klerk is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr de Klerk has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which 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 (2012 JORC Code). The Company confirms that the form and context in which the Competent Persons findings are presented have not been materially modified in the context of the original announcement, however completion the currently in progress Definitive Feasibility Studies are expected to result in an updated Ore Reserve Statement.

The Information in this report that relates to Wingina and Withnell Mining Centre Mineral Resources is based on information compiled by Mr Paul Payne, a Competent Person who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Payne is a full-time employee of Payne Geological Services. Mr Payne 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 Payne consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The Information in this report that relates to Hemi Mining Centre Mineral Resources is based on information compiled by Mr Michael Job, a Competent Person who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Job is a full-time employee of Cube Consulting. Mr Job 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 Job consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to exploration results is based on, and fairly represents information and supporting documentation prepared by Mr Phil Tornatora, a Competent Person who is a member of The Australasian Institute of Mining and Metallurgy. Mr Tornatora is an employee of De Grey Mining Limited. Mr Tornatora 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 Resource and Ore Reserves". Mr Tornatora consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

The Company confirms that it is not aware of any other new information or data that materially affects the information included in these original market announcements.

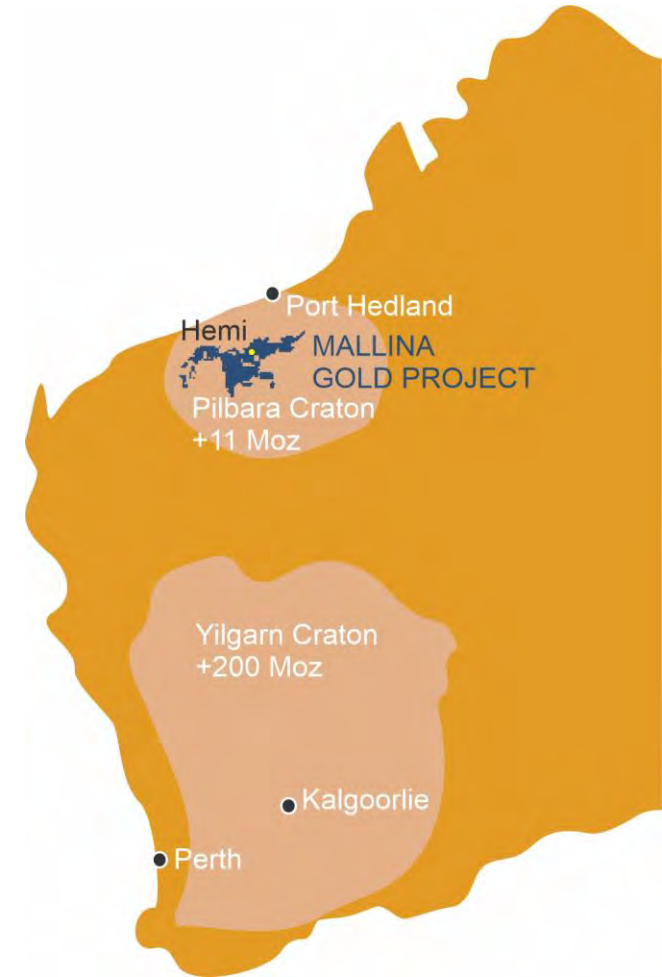
Authorisation

This Presentation has been authorised for release by the Managing Director.

PILBARA – A NEW AUSTRALIAN GOLD PROVINCE

Fully realising the opportunity of a provincial scale gold project

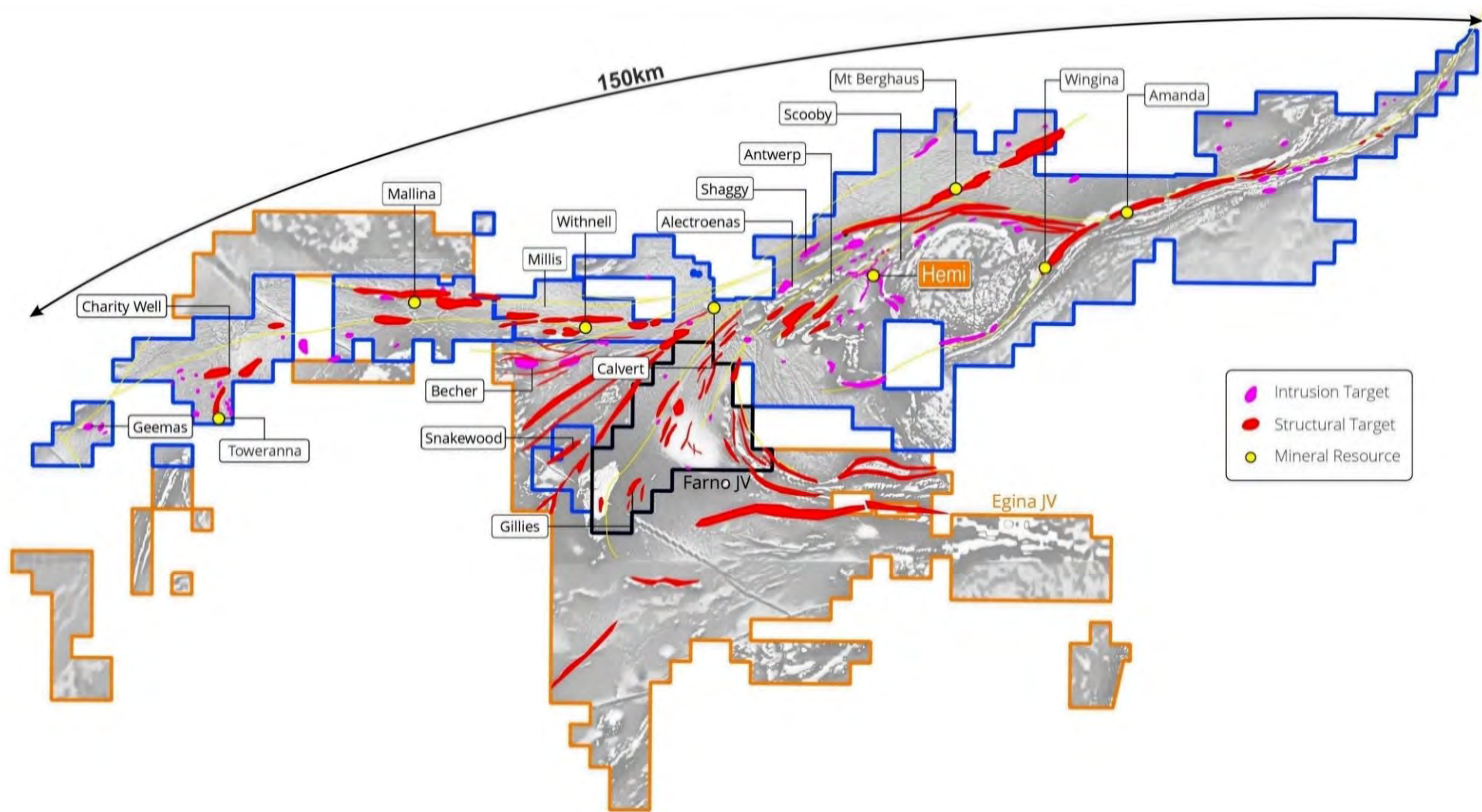
- Archean setting in the Pilbara Craton of Western Australia
- Strategically significant ~2,500km²* land position
- Large, high value, intrusion-hosted style of gold deposit discovered at Hemi in December 2019
- Since discovery, drilling has largely focused on defining the extent of the Hemi Mineral Resource
- Hemi Mineral Resource Estimate (MRE) upgraded to 9.5Moz in June 2023 and Mallina Gold Project MRE now 11.7Moz
- Pre-Feasibility Study (PFS) defined a financially attractive and technically viable Tier 1 global gold development project
- Maiden Hemi Ore Reserve of 5.1Moz @ 1.5g/t Au will be updated based on the 2023 Mineral Resource and will underpin the Definitive Feasibility Study (DFS) being released in the September quarter 2023



*Including the 1,034km² Egina JV Project tenements which are subject to an earn-in agreement by De Grey, as announced on 22 June 2023

PROVINCIAL SCALE PACKAGE EXTENDED

Extensive high quality targets yet to be fully tested



RECENT EXPLORATION HIGHLIGHTS

MINERAL RESOURCE

Hemi MRE upgraded to 9.5Moz in June 2023 with JORC Indicated Resources of 6.9Moz

Global Mallina Gold Project MRE now 11.7Moz with 8.1Moz M&I

Upgrade expected to maiden Hemi Ore Reserve in PFS of 5.1Moz at 1.5g/t Au

RESOURCE EXTENSIONS

High-grade extensions down plunge at Diucon and Eagle to add to Hemi's 1Moz underground resource below 390m depth

New shallow lodes identified on the Diucon Thrust

Resource drilling underway at Antwerp (outside Hemi), to the west of Eagle

REGIONAL GROWTH

Egina Project earn-in agreement added 1,034km² of prospective tenements south of Hemi

Withnell South lodes discovered 2022, resource drilling underway

Charity Well mineralised intrusions extended to ~2km strike in 2023

AC drilling underway at regional prospects including Wallareenya, Jabiru and Mt Berghaus

EXPLORATION DRIVERS

Strategy orientated to identify significant, near-term value

Potential for new, near surface, multi-million ounce intrusion-hosted gold discoveries like Hemi which have not previously been explored for

The majority of the ~150km long belt has seen limited exploration prior to, and particularly since, the discovery of Hemi in 2020

Resource additions are targeted at increasing the future annual gold production rate and mine life

Potential to add to the +1Moz underground resource and increase the production rate within the first five years of the mine plan

New discoveries and growing the regional resources in the west of the project area could underpin a regional concentrator

Exploration will continue to add value to the project through the construction and commissioning phases



BUILDING ON OUR EXPLORATION SUCCESS

A significant competitive advantage in the Pilbara

1. Applying the discovery lessons from Hemi across stratigraphy, structure, geochemistry and geophysics to increase our probability of success
2. Focus on Hemi-style intrusives adjacent to major structures, with anomalous gold, arsenic and other pathfinders
3. Recognition of the potential for large deposits to exist beneath areas that are lightly mineralised at shallow depths (e.g. Diucon and Eagle)
4. Advances in the understanding of the regional stratigraphy, lithology and structural models has been an important exploration enabler
5. Unlock the valuable geochemical data which exists in 14 sea containers filled with drill pulps from previous drilling across the project
6. Recent addition of 1,034km² of prospective tenements with Novo deal increases the Pilbara ground position by 70%



PIPELINE OF TARGETS

Opportunities across the exploration value curve



Target generation

Peawah
Northern Lights
Somerfield
Tabba Tabba
The Gully
Jay Springs
Snakewood
Murkingana
Mt Berghaus Trend
Egina JV



Initial drill test

Jabiru
Withnell Trend
Sandford
West Yule
Toweranna Trend
Frillback Trend
Brierly Link
Becher
Heckmair



Resource targeting

Greater Hemi
Withnell South
Charity Well
Mallina West
Gillies
Calvert



Resource Defn/Extn

Hemi
Toweranna
Mallina
Mt Berghaus

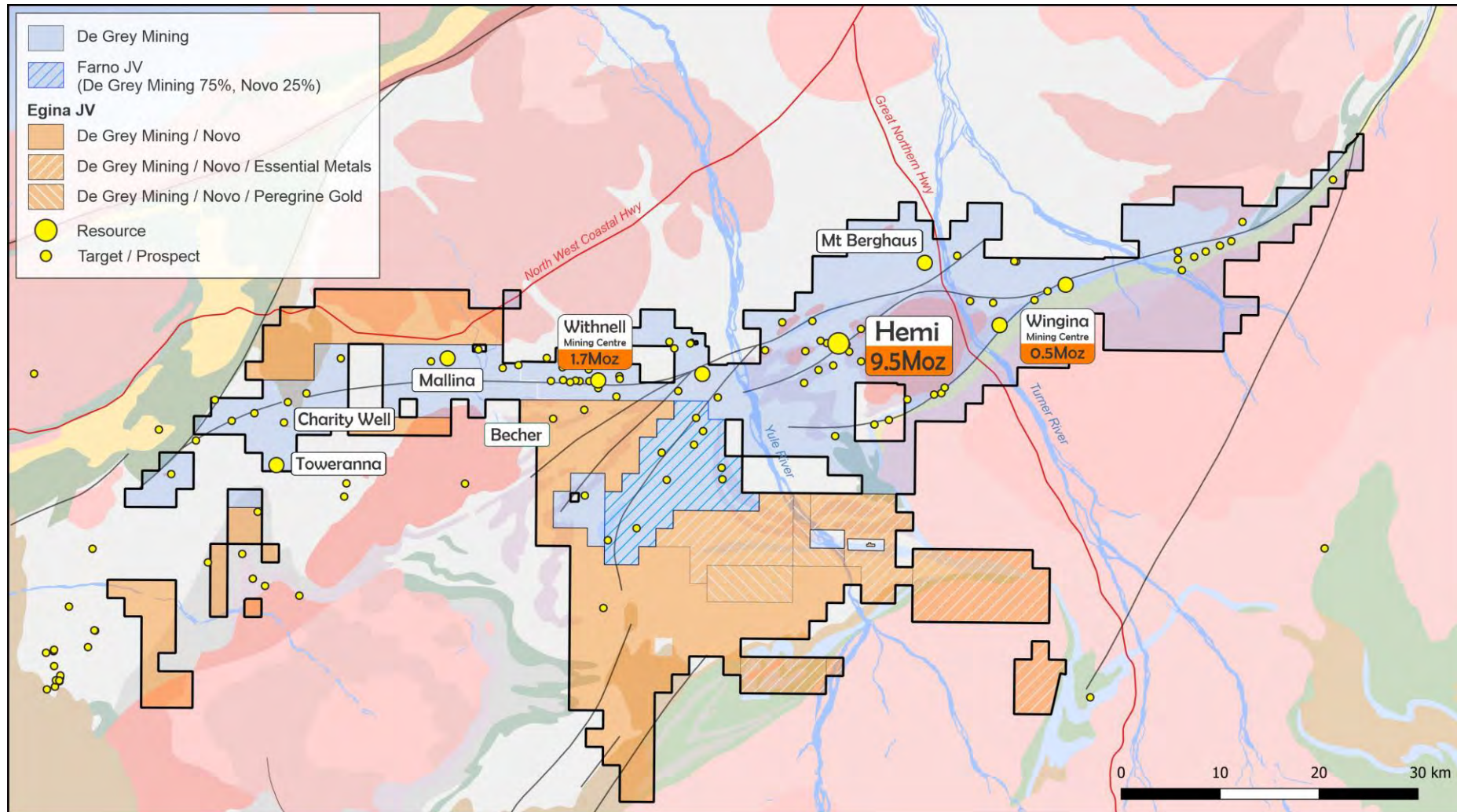


Reserve Definition

Hemi
Toweranna
Withnell
Wingina

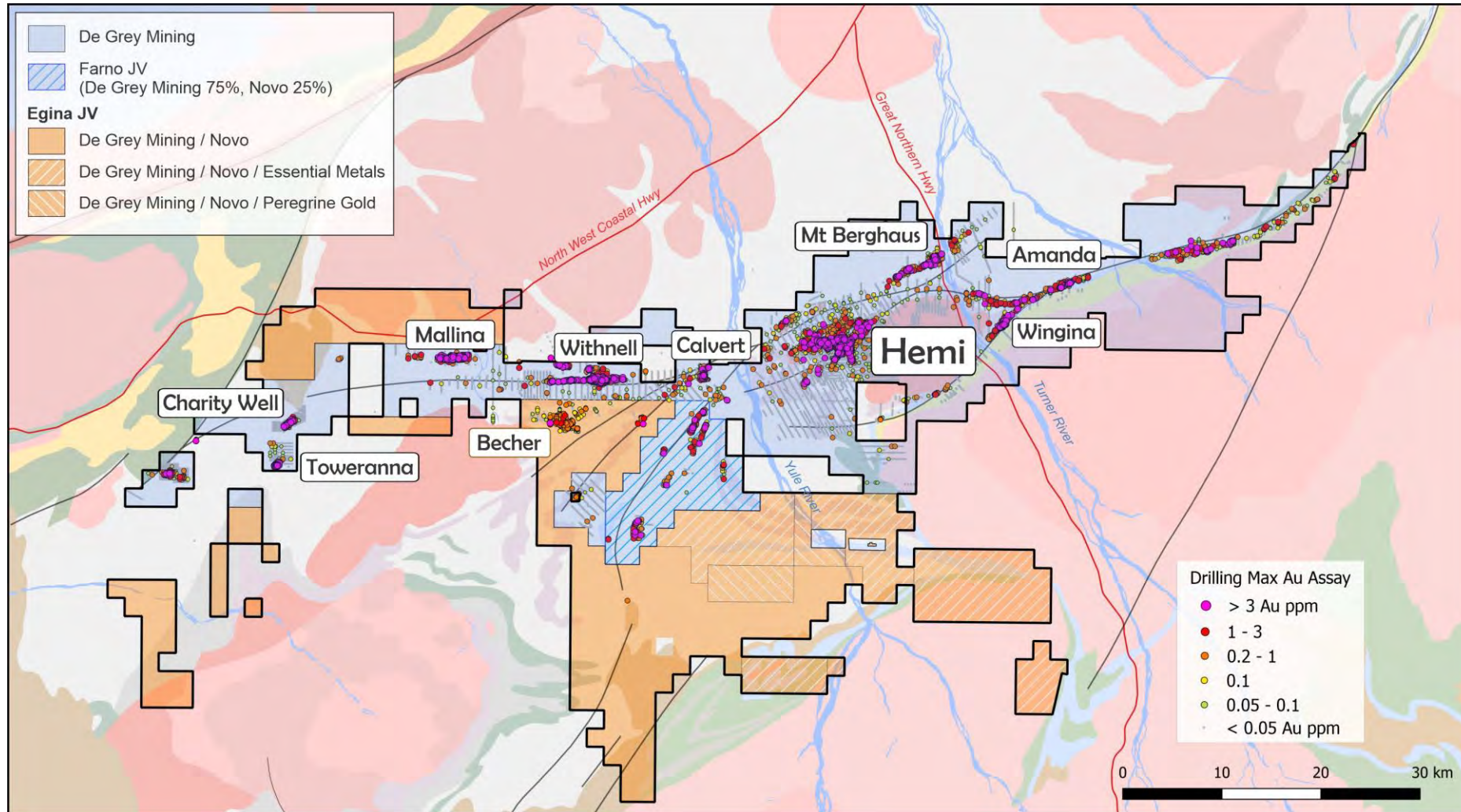
EXPLORATION UPSIDE

High quality targets across different structures and stratigraphy



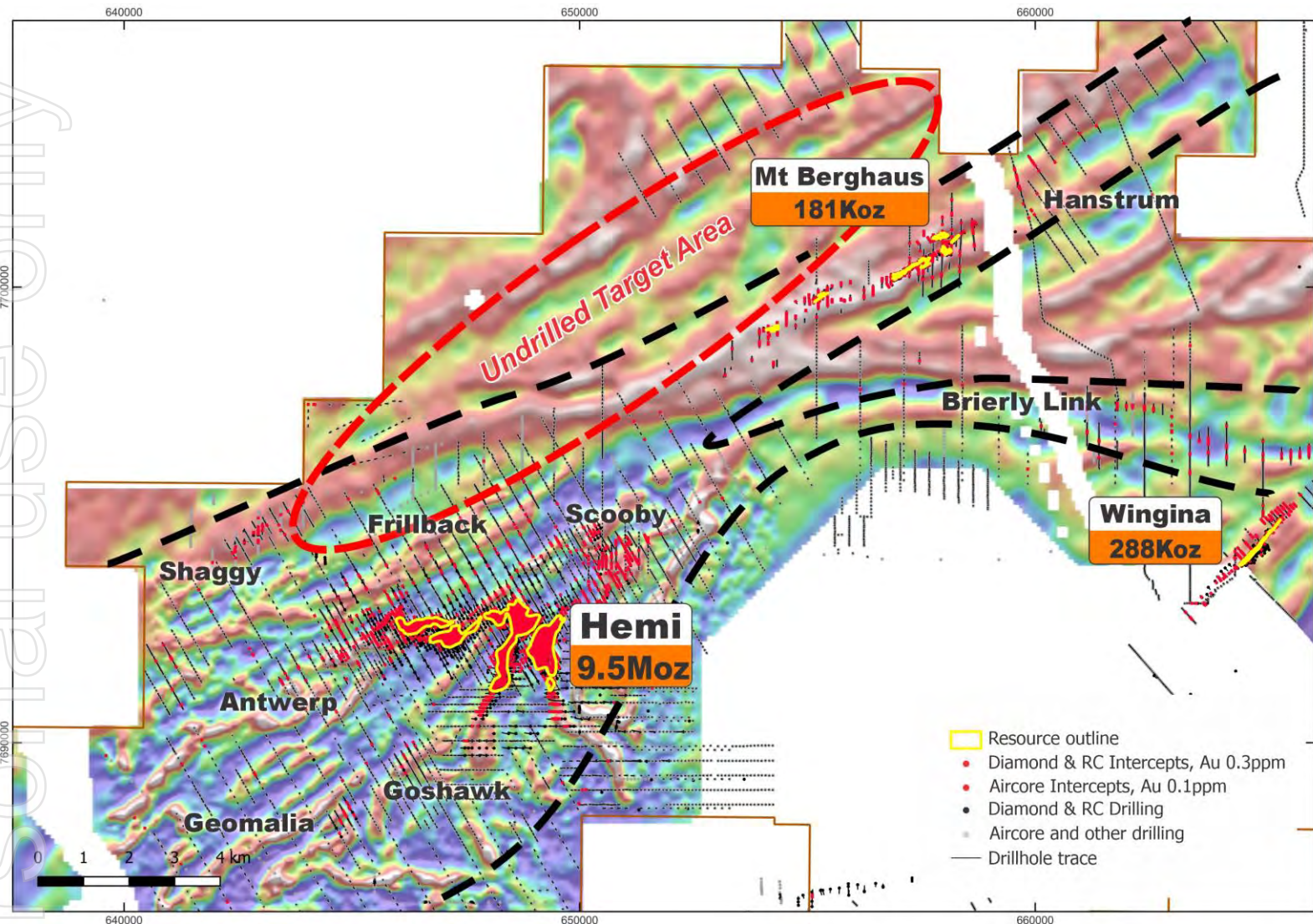
EXPLORATION UPSIDE

Drilling to date has only effectively tested a small portion of the project area



GREATER HEMI DISTRICT

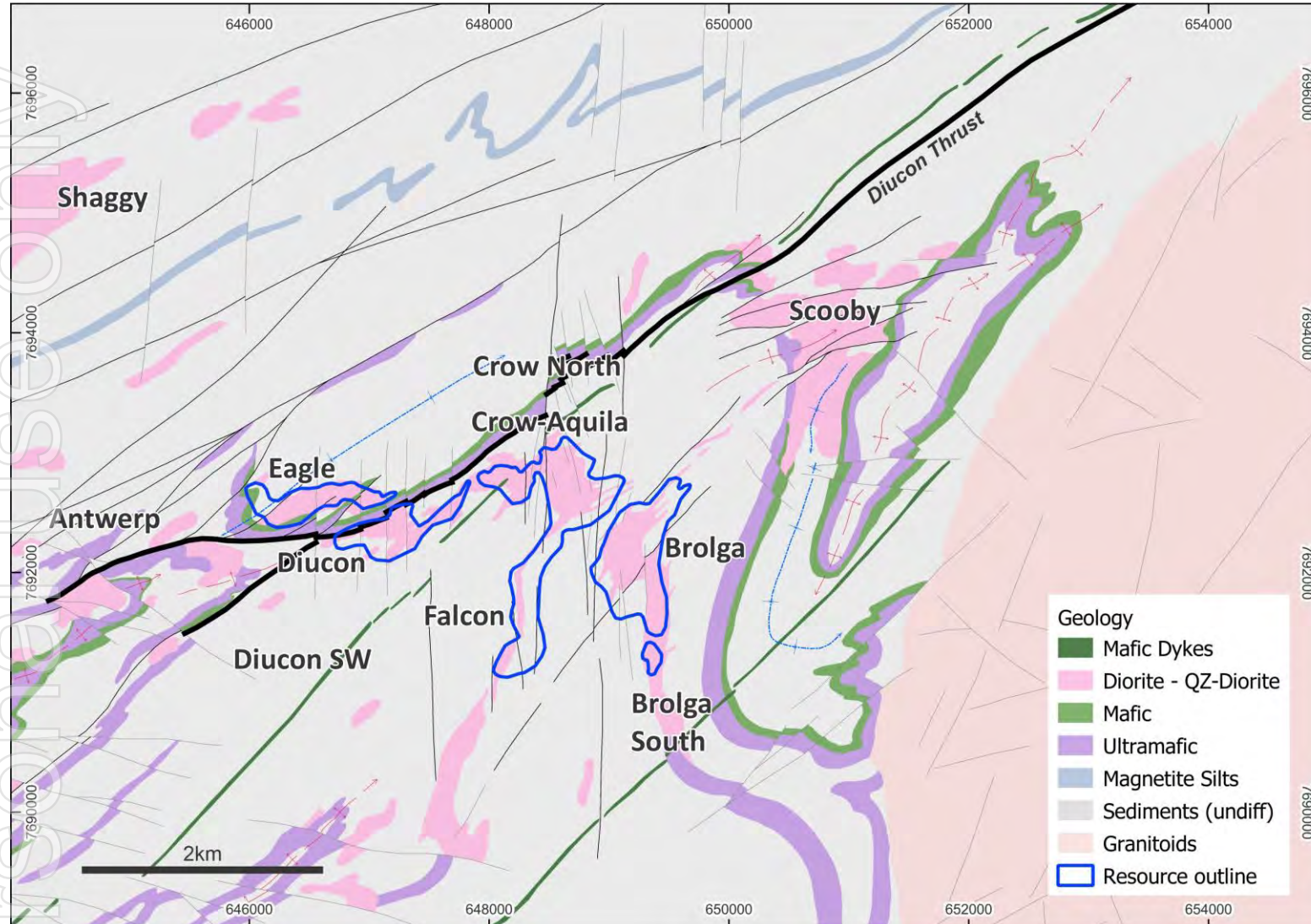
New gravity survey building a deeper understanding northeast of Hemi



- Aircore drilling now testing targets on the >20km long Mount Berghaus trend which has virtually no drilling to date
- Review of the potential to extend the 181koz Mt Berghaus Resource underway
- Previous intercepts from the Brierly Link include 4m @ 24.9g/t Au from 14m and 16m @ 1.0g/t Au from 36m
- Follow up drilling programs planned

HEMI DISTRICT – EXPLORATION POTENTIAL

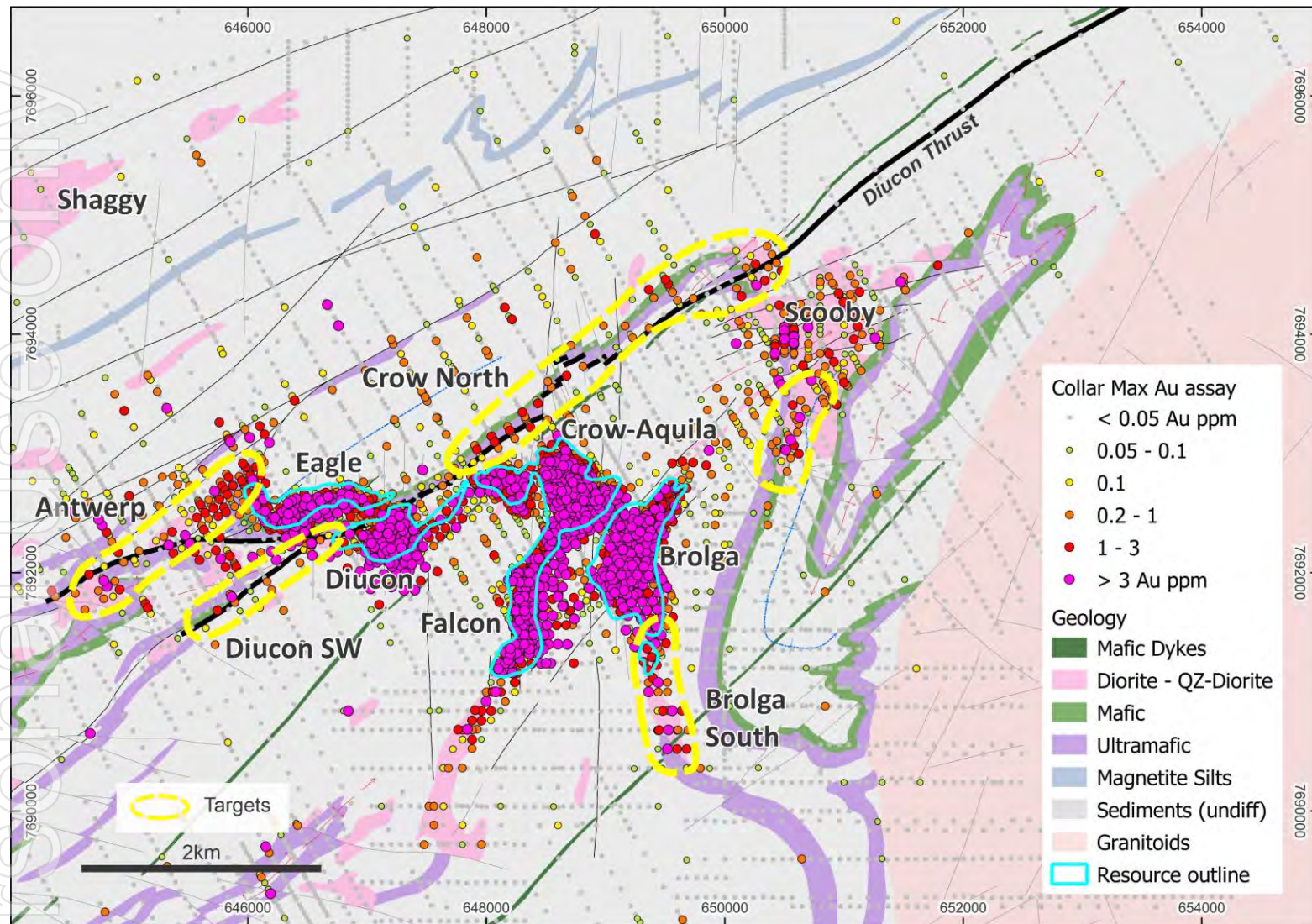
A premier geological setting for gold with rare provincial scale



- Favourable structural setting
- Multiple intrusion emplacement corridors identified
- Very prospective geological setting for intrusion-hosted and structurally-hosted gold deposits
- Geological knowledge still at the relatively early stage compared to more mature gold production provinces

HEMI DISTRICT – EXPLORATION POTENTIAL

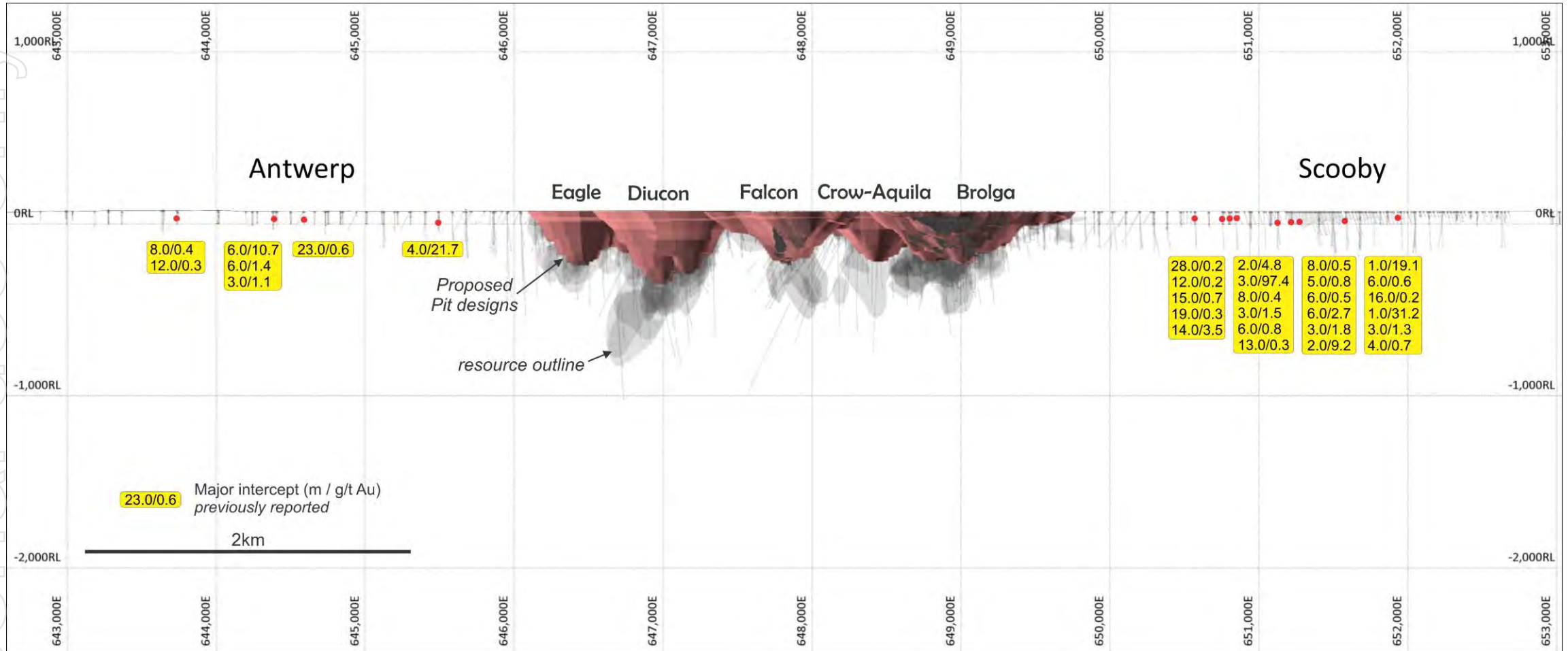
Drilling still relatively sparse outside the main Resource areas and at depth



- Currently drilling at Antwerp and Brolga South, with Crow North and Scooby areas next
- Gold anomalism over 2km trend at Antwerp, west of Eagle, where resource drilling is underway
- Shallow lodes with increasing intrusion widths at depth along the Diucon Thrust at the Diucon SW target
- Similar scale and tenor targets at Brolga South, Crow North and Scooby

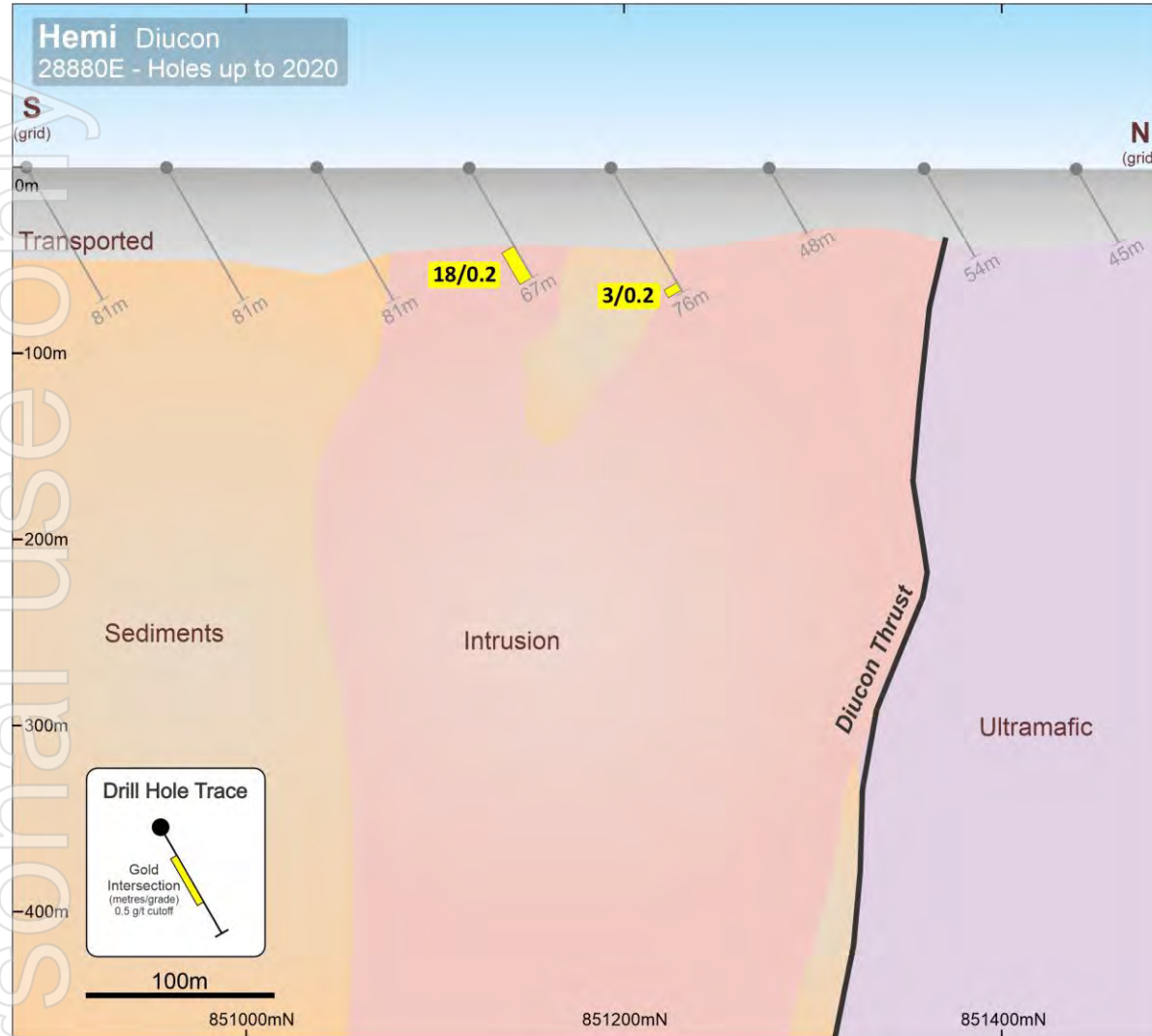
GREATER HEMI – EXPLORATION POTENTIAL

Hemi Long Section showing limited deeper drilling outside of Hemi



DIUCON (SECTION 28880E) – 2020 DRILLING

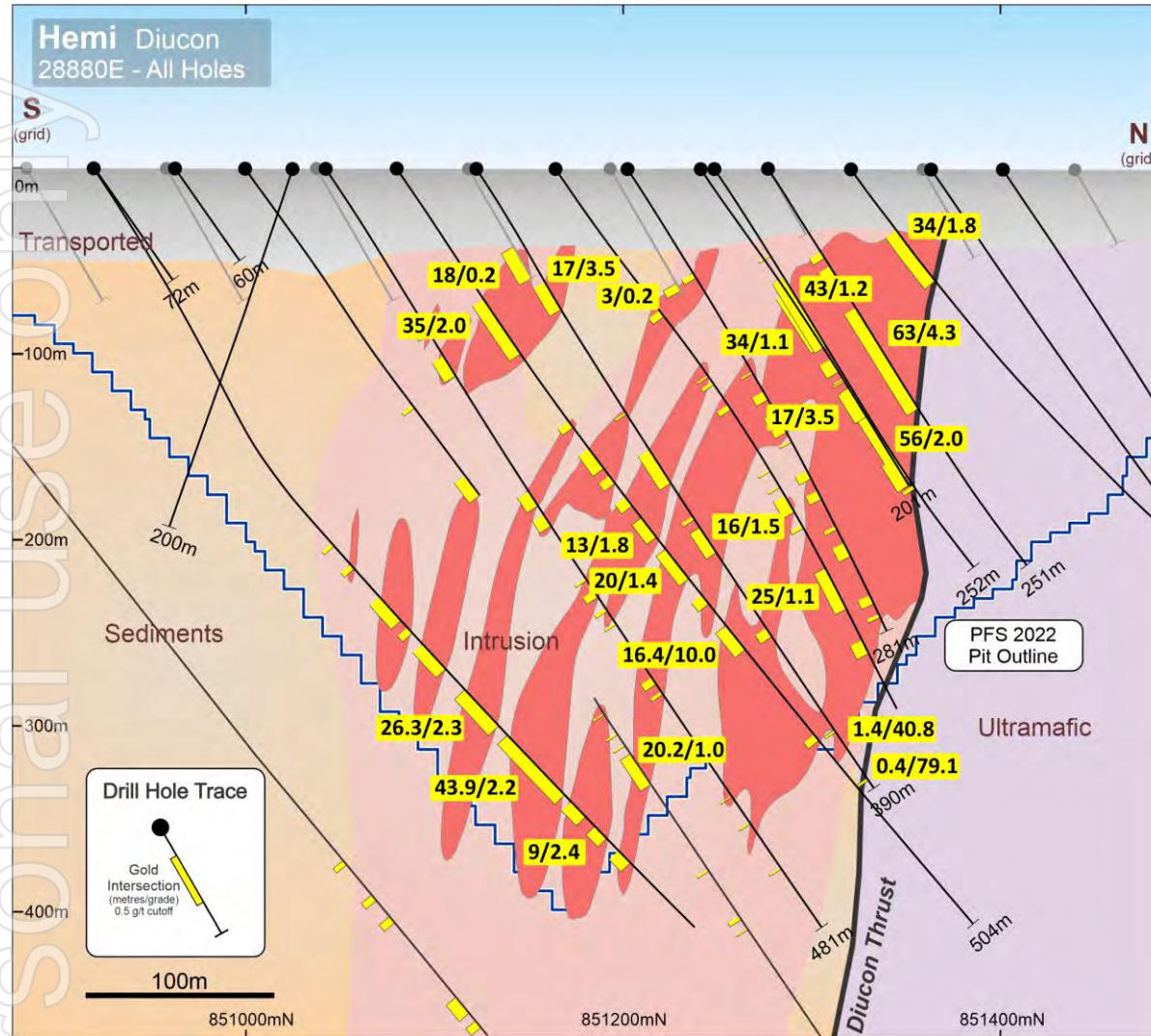
Low level near surface anomalism



- Potential for significant deposits to occur below areas that are lightly mineralised at shallow depths as seen at Diucon and Eagle

DIUCON (SECTION 28880E) – CURRENT DRILLING

With a world-class gold deposit hidden underneath

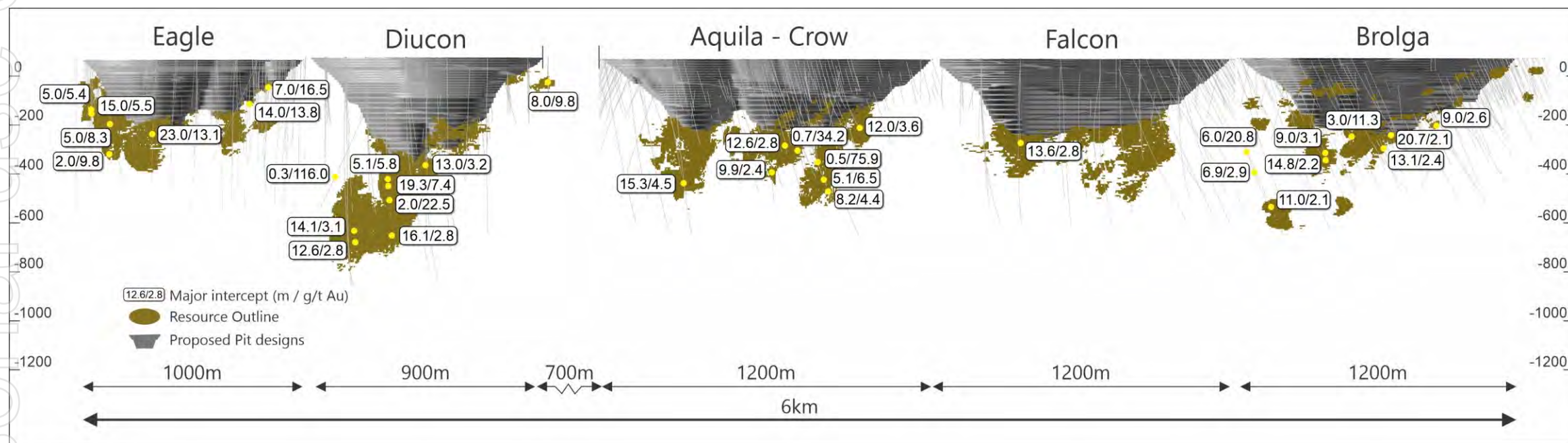


- Diucon has small footprint beneath the transported cover with most of the 2.4Moz Resource below a 350m x 300m “surface” expression
- Provides great encouragement in areas with lower order AC anomalies

EXTENSION POTENTIAL AT HEMI

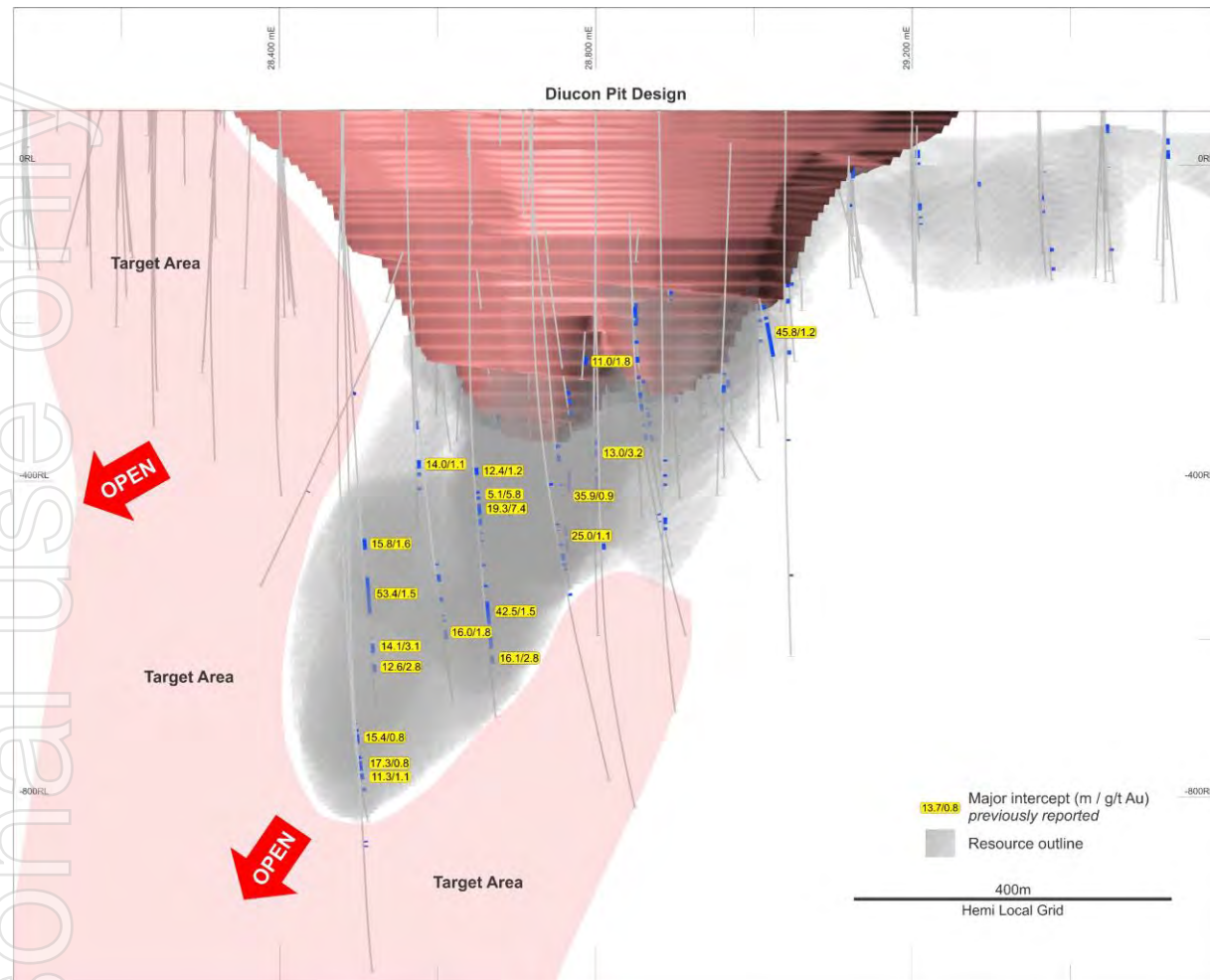
Currently an 8.5Moz Resource within 390m of surface and 1Moz below 390m

- Hemi contains 20koz – 25koz per vertical metre to 390m depth and remains open at depth
- Minimal focus on testing depth extensions to date
- Conceptual assessment into potential scale and timing of underground mining underway



EXTENSION POTENTIAL AT HEMI

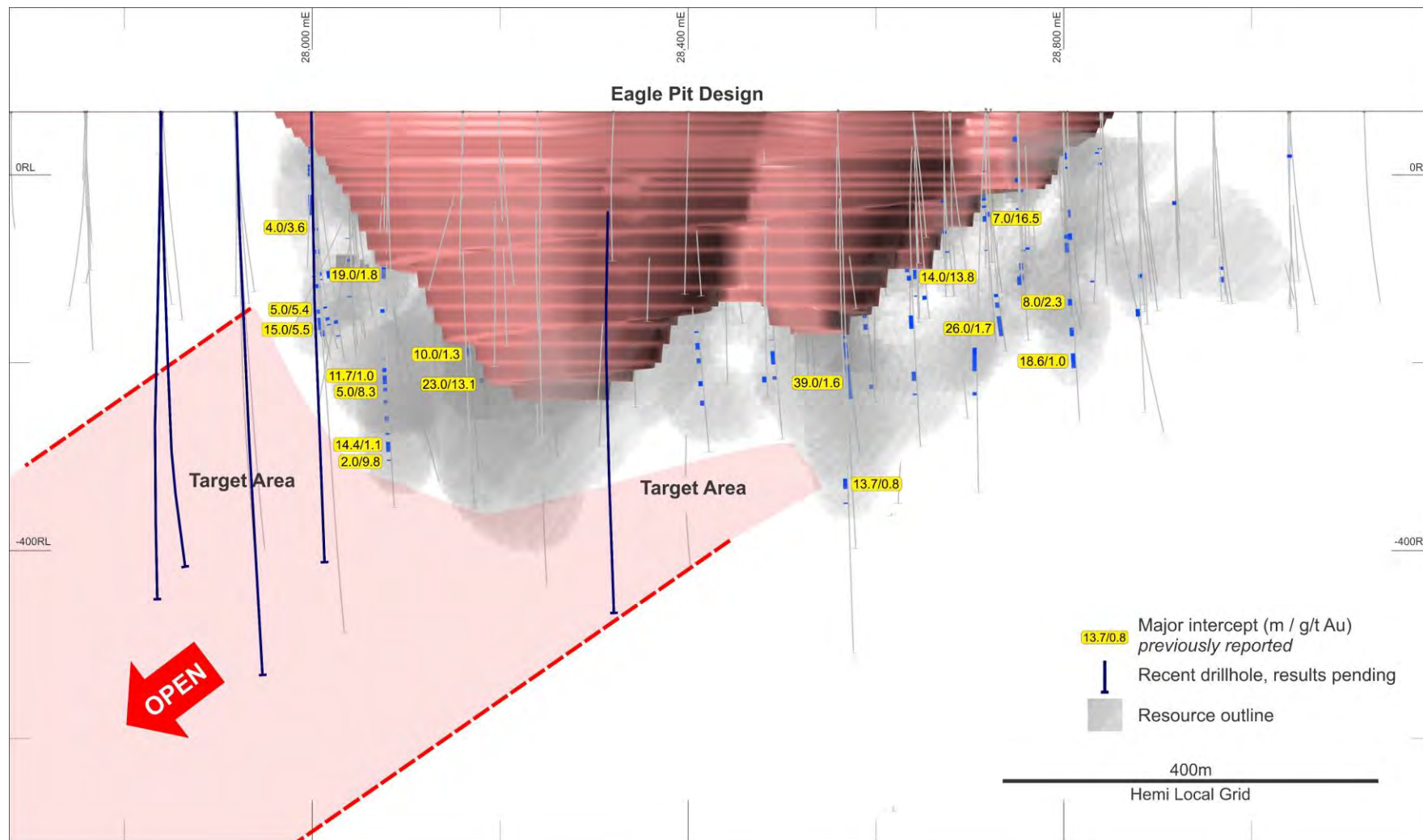
Major intersections beneath the pit shell containing 2.4Moz at Diucon



- Major intersections beneath pit shell
 - 359.4m @ 1.2g/t Au in HEDD128
 - 75m @ 1.1g/t and 72.3m @ 1.4g/t Au in HEDD136
- Includes significant higher grade intervals in HEDD136
 - 19.3m @ 7.4g/t Au
 - 2m @ 22.5g/t Au
 - 1.7m @ 17.6g/t Au
 - 0.6m @ 38.6g/t Au
- Remains open and untested towards the SW where further drilling is planned

EXTENSION POTENTIAL AT HEMI

Eagle Long Section showing significant untested target areas down plunge



EXTENSION POTENTIAL AT HEMI

Higher-grade intersections at depth bringing forward underground potential

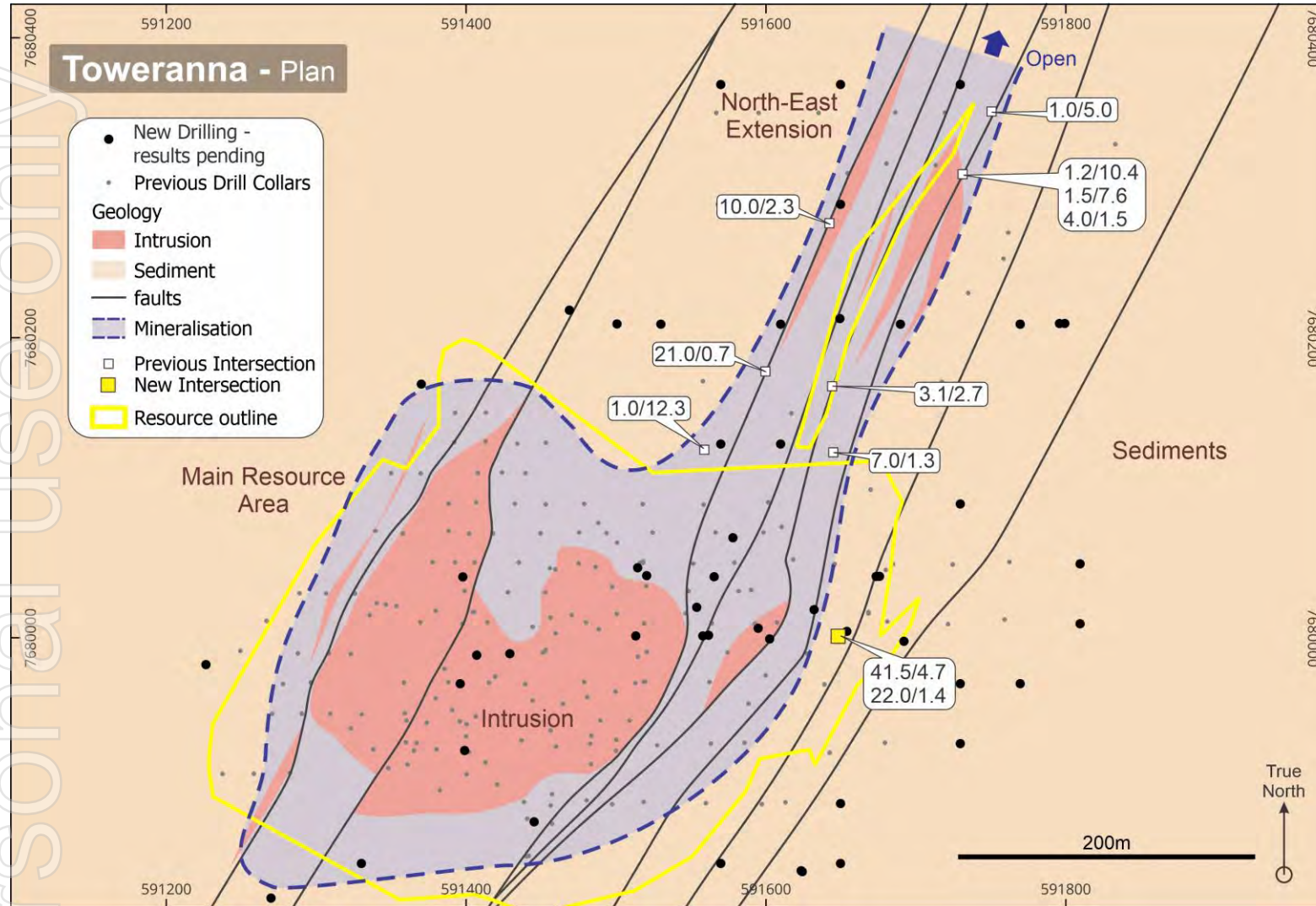


- Shows clear high-grade underground potential
- Increasing recognition of importance of structural controls on mineralisation
- Archaean lode style deposits have a significant vertical extent

Below Diucon pit shell – visible gold in smokey quartz vein at 741m in HEDD136

TOWERANNA INTRUSION EXTENSIONS

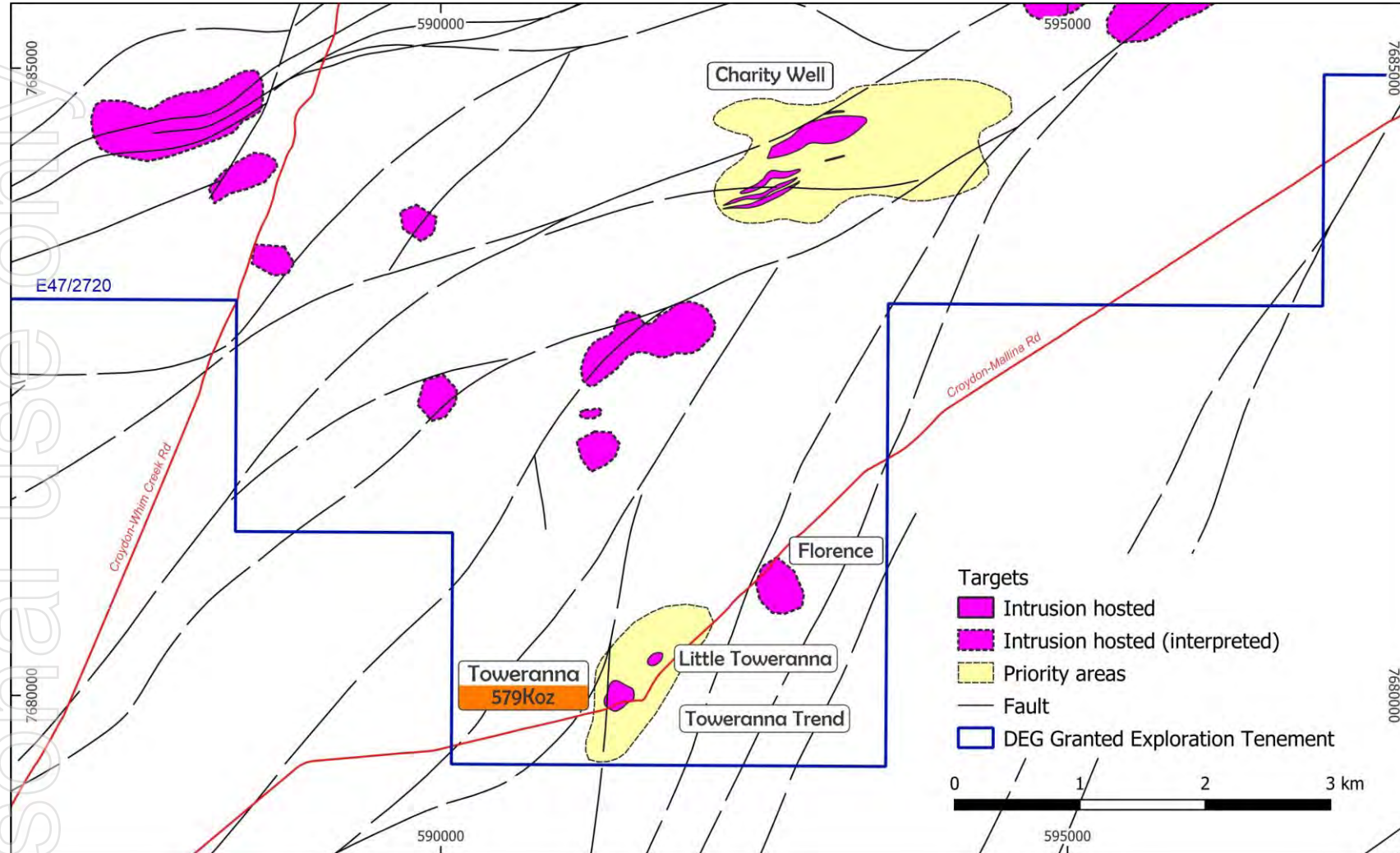
The first intrusion-hosted gold occurrence within the Mallina Gold Project



- Toweranna discovered in 1895
- Produced ~5,000oz at ~40g/t Au from small scale underground workings
- De Grey increased the deposit from a non-JORC ~40koz to more than 500koz in <2 years
- Potential to grow both intrusion-hosted and steep structurally controlled mineralisation
- Current drilling targeting shallow structural targets to NE of the main intrusion Resource

TOWERANNA – CHARITY WELL INTRUSIONS

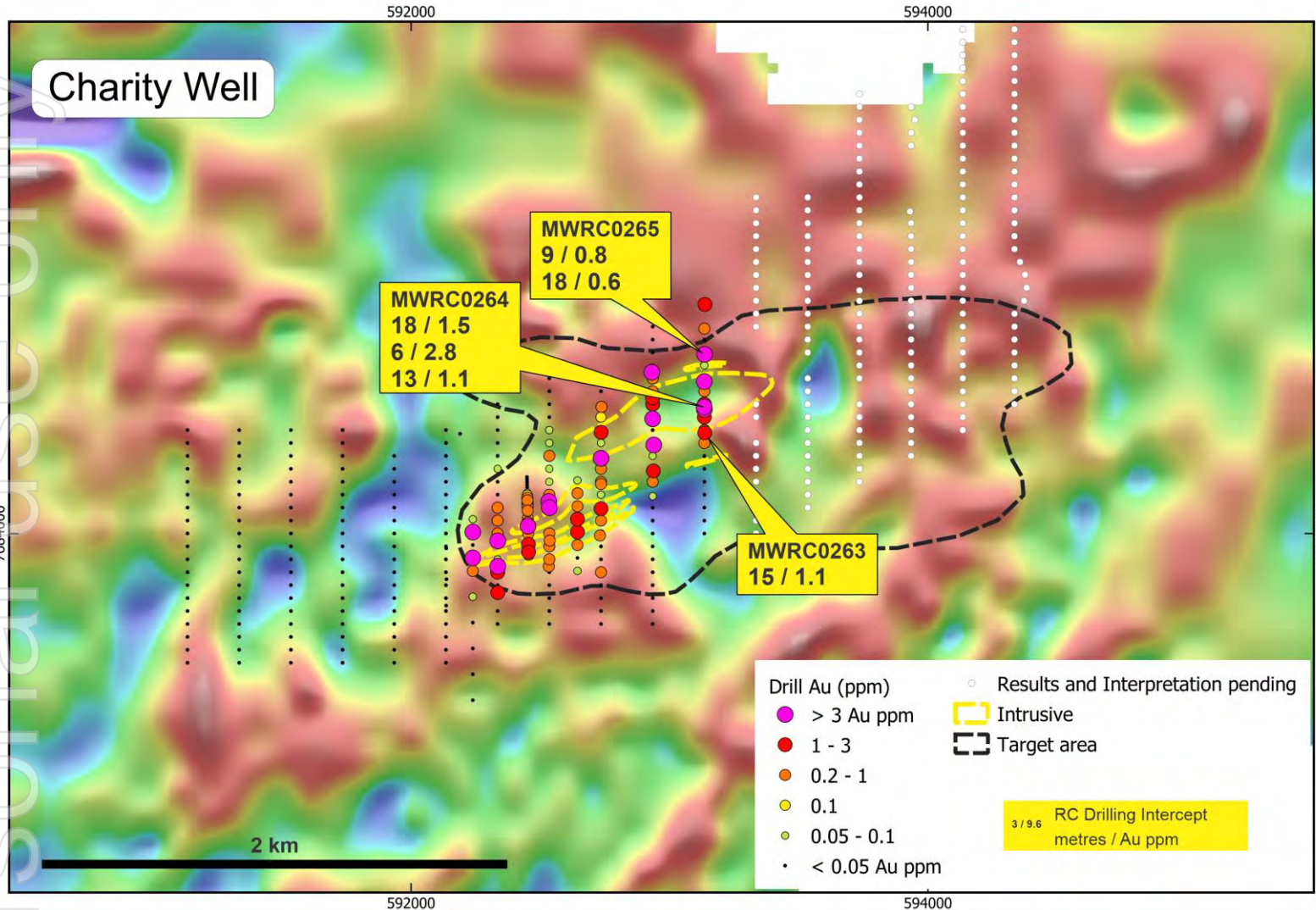
New intrusion-hosted targets emerging in the vicinity of Toweranna



- Numerous intrusive and structural targets identified nearby and north of Toweranna
- Exploration and drilling is being progressed at the Toweranna, Little Toweranna, Florence and Charity Well intrusions
- Other targets yet to be tested effectively and will be followed up over time

CHARITY WELL INTRUSION

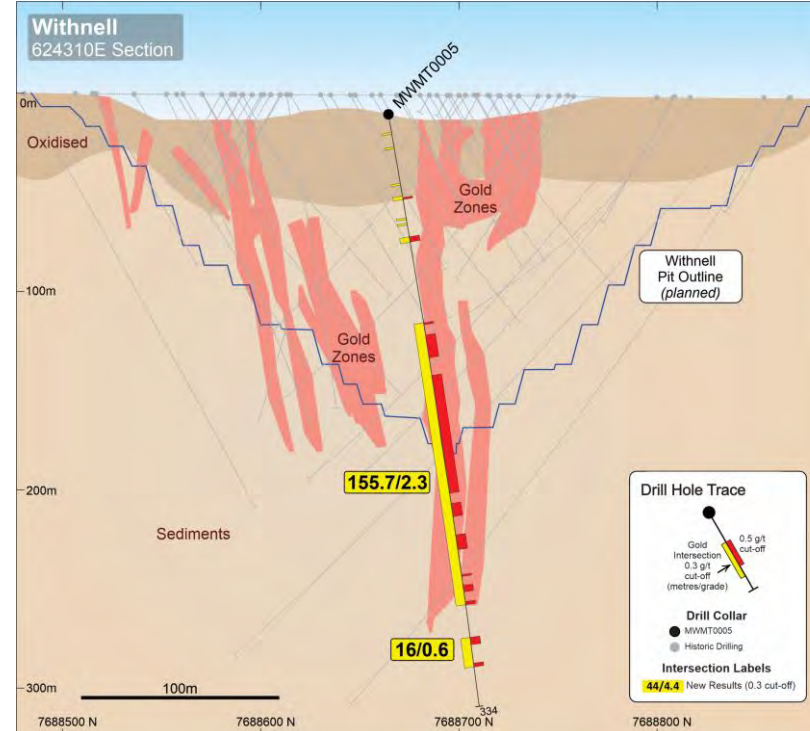
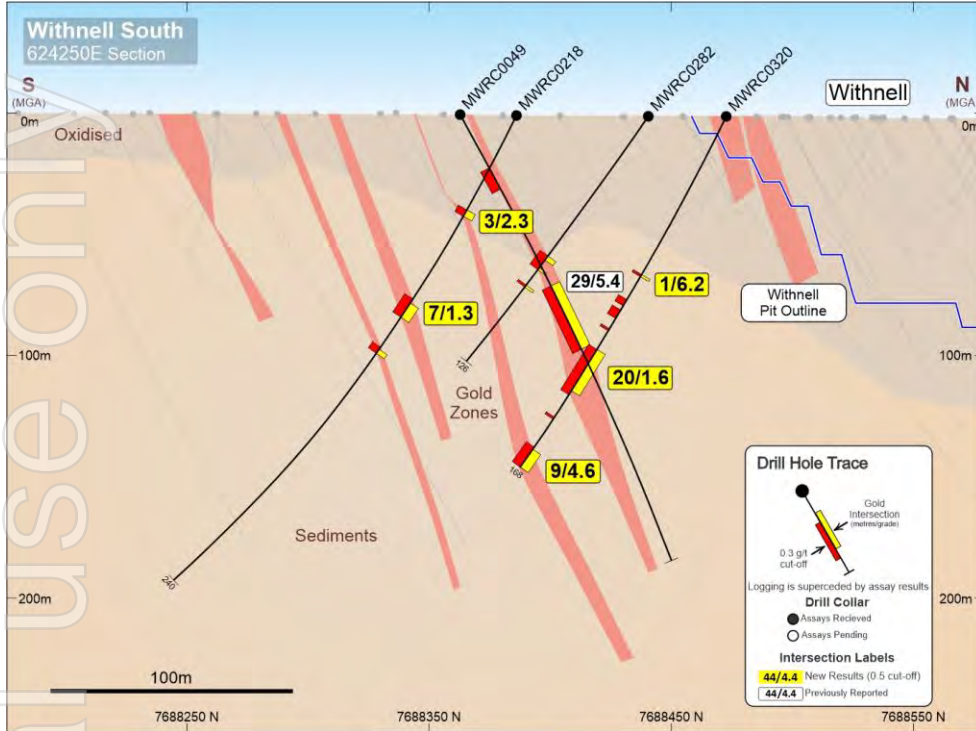
Currently the most advanced new regional intrusion discovery at the project



- Intrusion-hosted mineralisation defined in RC drilling along a 1km east-west strike and open in both directions
- First pass diamond drilling completed with results awaited
- Follow-up RC drilling to commence shortly
- Additional intrusion targets in district require further interpretation and follow up

WITHNELL SOUTH LODES DISCOVERY

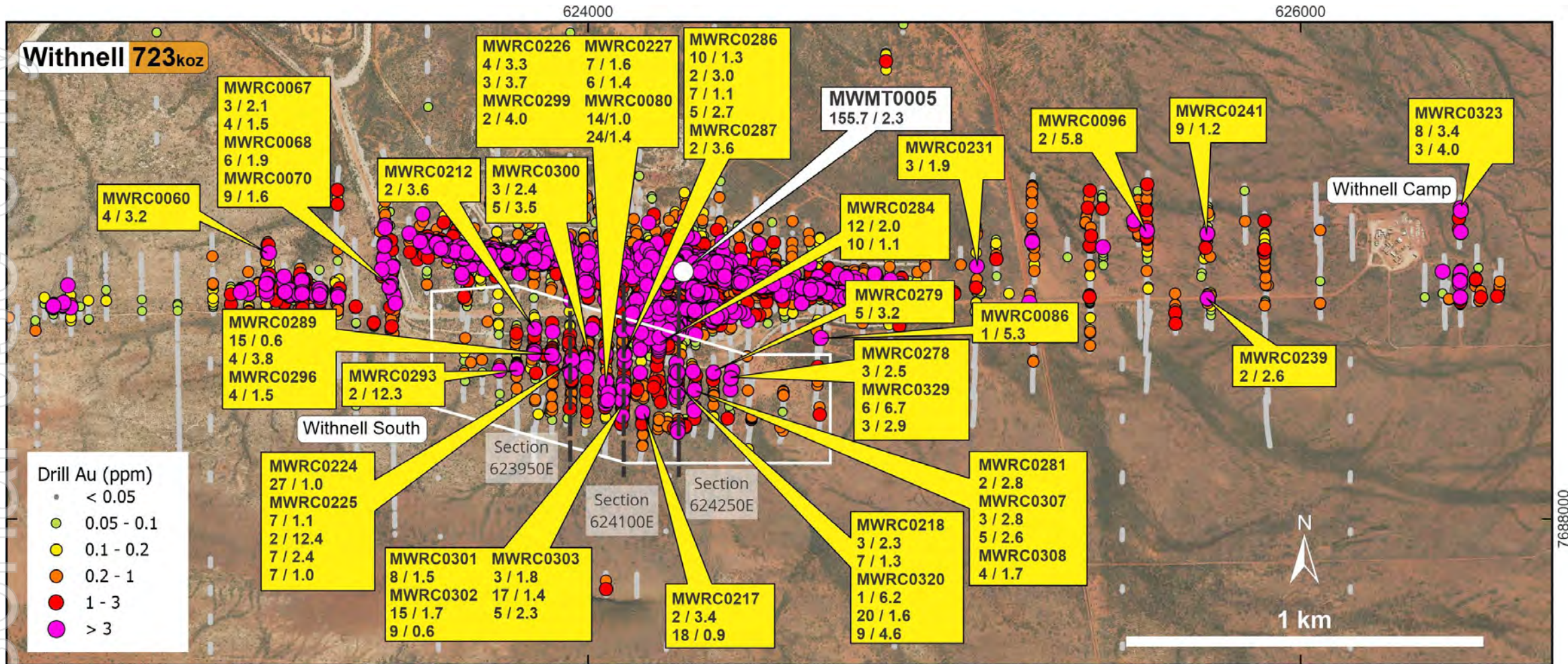
New shear-hosted lodes extending Resources in the west of the project



- 1.7Moz Withnell Mining Centre Resource last updated in late 2019
- 25km west of Hemi
- Withnell South lodes discovered in 2022
- Recent metallurgical hole drilled down plunge at Withnell returned 155.7m @ 2.3g/t Au
- Resource drilling underway

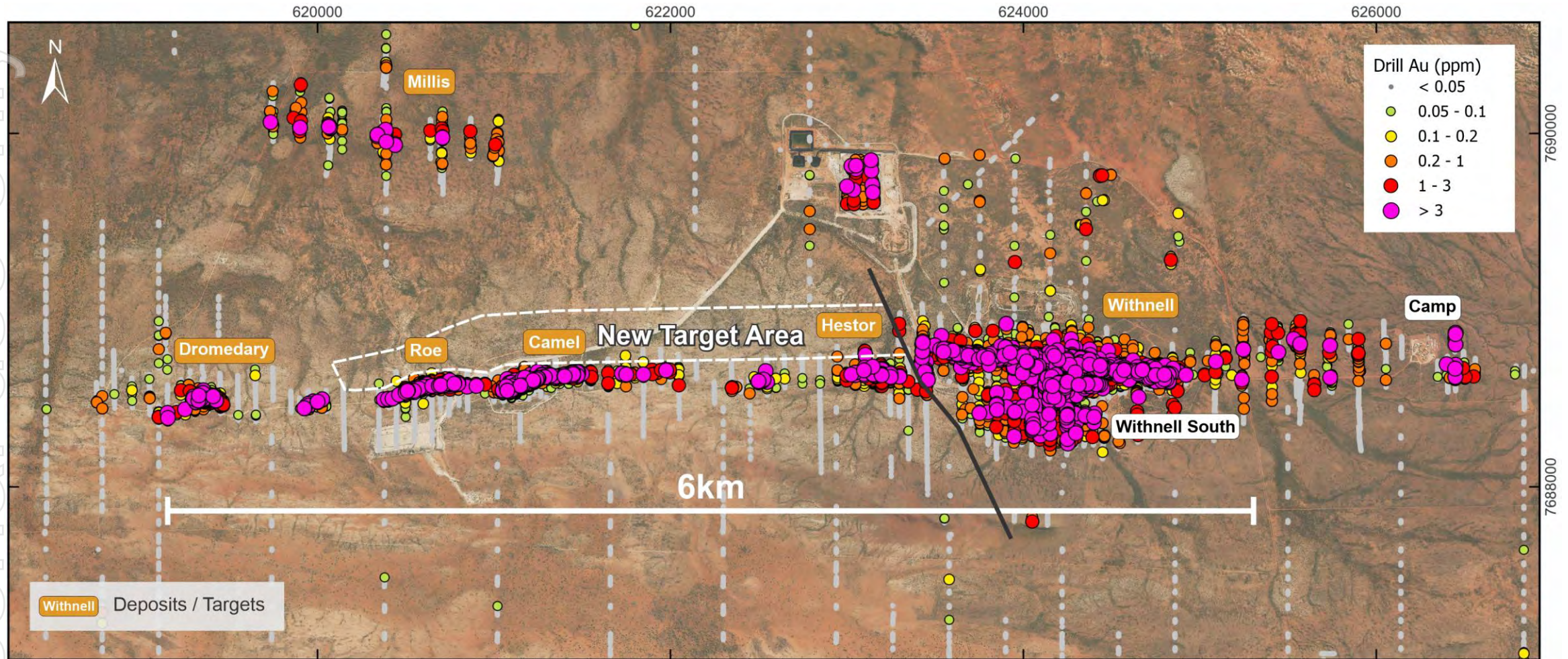
WITHNELL SOUTH LODES DISCOVERY

Series of new lodes discovered south of the Withnell deposit in 2022



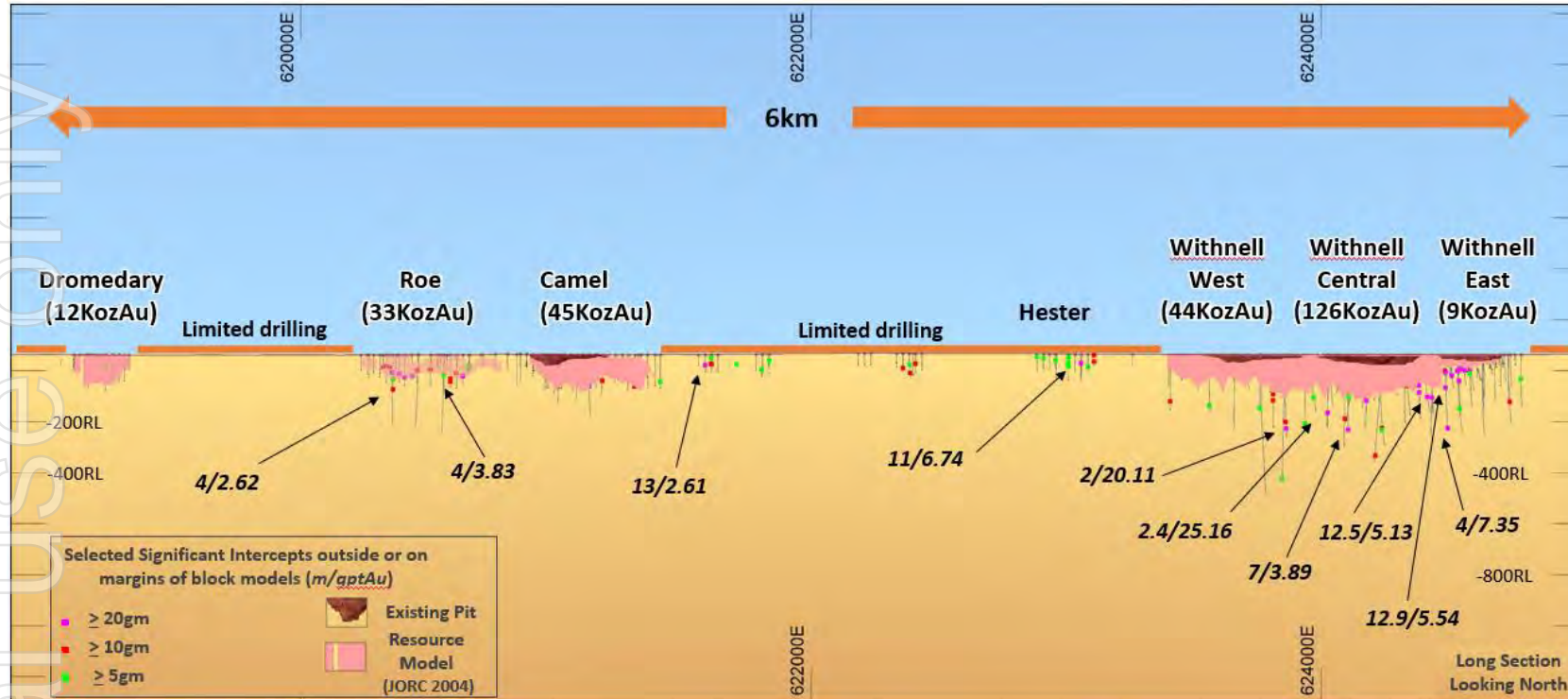
WITHNELL DISCOVERY POTENTIAL

Regional understanding indicates new potential along strike of Withnell Main



WITHNELL DISCOVERY POTENTIAL

Six kilometres strike still to be fully tested

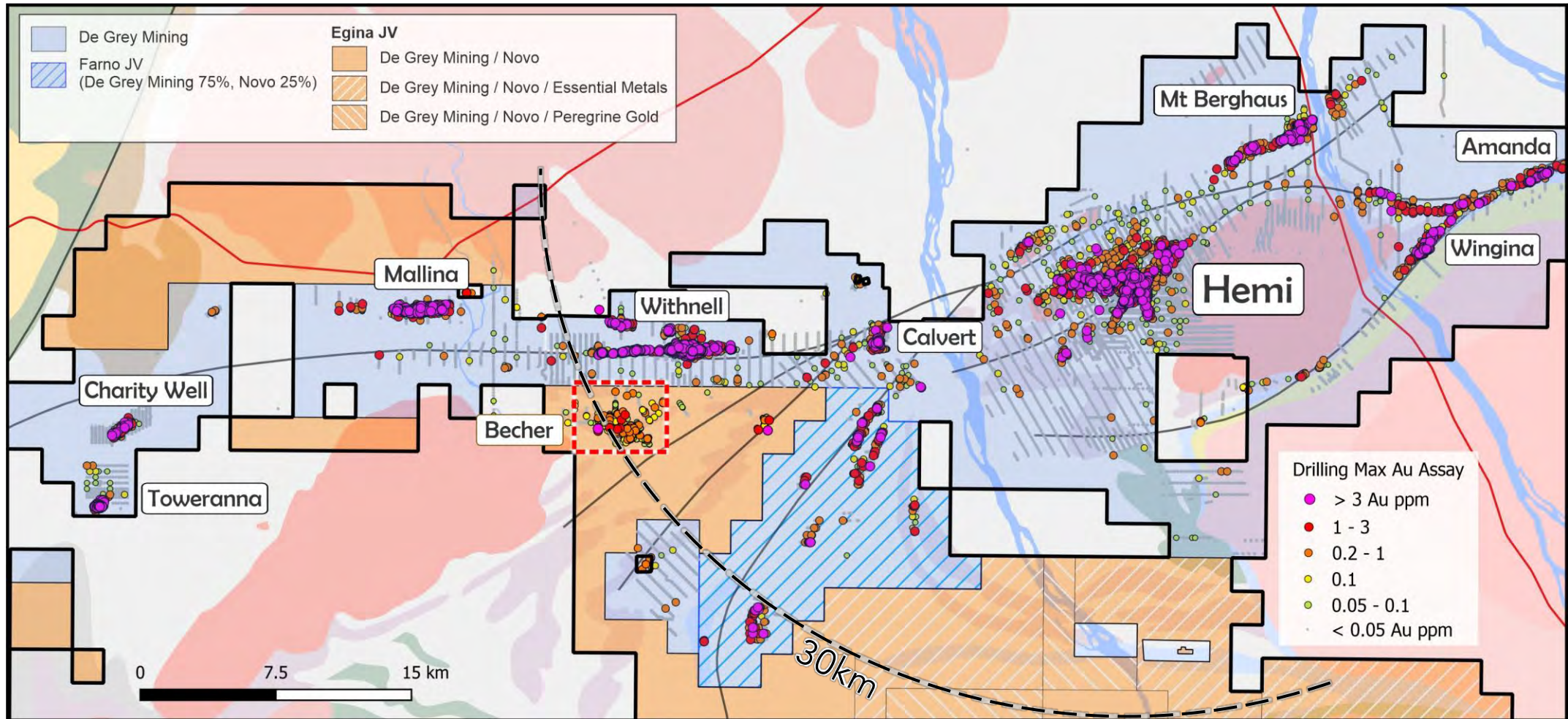


Long Section from 9 February 2017 Release "Acquisition of Indee Gold"

- Withnell tenements added during Indee Gold acquisition in 2017
- Under De Grey ownership exploration focus has been on the 600koz Withnell deposit
- Limited follow-up exploration on rest of trend since Hemi discovery
- Geological interpretation and targeting ongoing, follow up drilling planned

EGINA JOINT VENTURE

Prospective areas already defined with Hemi learnings yet to be applied



UPCOMING PROGRAM

Key areas of exploration focus over the next ~12 months



Target generation

Northern Lights
Tabba Tabba
The Gully
Snakewood
Frillback Trend
Mt Berghaus Trend
Egina JV



Initial drill test

Jabiru
Sandford
Toweranna Trend
Brierly Link
Becher
Heckmair



Resource targeting

Greater Hemi
Withnell South
Charity Well
Mallina West



Resource Defn/Extn

Hemi
Toweranna
Mallina
Mt Berghaus



Reserve Definition

Hemi
Toweranna
Withnell
Wingina

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ASX: DEG

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APPENDIX A – ASX ANNOUNCEMENTS

Relevant Exploration Results and Updates – Greater Hemi and Regional

- Acquisition of Indee Gold - scale and development momentum, 9 February 2017
- Toweranna A High Grade Gold System, 31 August 2017
- Significant High-Grade Gold intersected -Toweranna Prospect, 19 December 2017
- Drilling Update - Toweranna 1M confirm High grade gold lodes, 2 February 2018
- Toweranna drilling expands high-grade gold footprint, 3 July 2018
- Ongoing High Grade Gold hits at Mallina and Toweranna, 15 October 2018
- Further high grade hits beneath Withnell, 5 November 2018
- Further high grade drilling results achieved at Withnell, 20 March 2019
- 136m@ 2.0g/t & Further High Grade Drill Results at Toweranna, 15 April 2019
- Multiple High Grade Intercepts continue at Toweranna, 21 May 2019
- Ongoing High Grade Intercepts at Toweranna, 11 June 2019
- Toweranna High Gold recoveries - Conventional CIL Processing, 13 June 2019
- Withnell drilling continues to delineate high grade Au lodes, 11 July 2019
- High grade gold veins at Toweranna, 3 October 2019
- Positive drill results extend Withnell potential, 25 November 2019
- High grade gold veins at Toweranna, 26 November 2019
- New Gold Discoveries at Hemi and Antwerp, 17 December 2019;
- Hemi confirms potential for major discovery, 6 February 2020;
- Further impressive thick and high grade gold at Hemi, 11 February 2020;
- Major extension of sulphide mineralisation at Hemi, 26 February 2020;
- RC drilling confirms large scale gold system at Hemi, 5 March 2020;
- Continuing extensive sulphide mineralisation intersected at Hemi, 10 March 2020;
- Hemi continues to grow, 17 March 2020;
- Major Gold Extensions defined at BROLGA, 25 March 2020.
- Mallina Update, 1 April 2020
- Brolga Continues to grow, 9 April 2020
- Aircore Drilling defines third large gold zone at Hemi, 17 April 2020
- Brolga and Aquila drilling update, 22 April 2020
- Large gold system defined at Crow, 1 May 2020
- Significant extension at Hemi- Aquila, 27 May 2020
- HEMI – Major extension, 5 June 2020
- HEMI – Broad, high grade extensions at Aquila, 9 June 2020
- Further high grade and expanded footprint at Hemi, 22 June 2020
- High gold recoveries achieved at Hemi, 9 July 2020
- Further extensions confirmed at Brolga, 10 July 2020
- Hemi scale grows with Aquila new extensions, 22 July 2020
- Strong results boost Aquila westerly extension, 5 August 2020
- Aquila mineralisation extends to 400 vertical metres, New lode identified at Crow, 13 August 2020
- Brolga mineralisation extends north towards Aquila, northeast towards Scooby, 21 August 2020
- Exceptional high grade gold intercept at Crow, 27 August 2020
- Falcon – Major new gold discovery at Hemi, 2 September 2020
- Falcon – Drilling Update, 15 September 2020
- Strong Brolga infill and extensions, 25 September 2020.
- Encouraging Extensional and Infill Drilling Results at Aquila and Crow, 7 October 2020
- Thick High Grade near surface hits continue at Falcon, 12 October 2020
- Further positive results extend Aquila and Crow, 29 October 2020
- Further high-grade extensions at Crow and Aquila, 12 November 2020
- High-grade extensions at Crow and Aquila, 30 November 2020
- Mallina Gold Project - Exploration Update, 4 December 2020
- Strong infill and extensional results at Brolga, 21 December 2020
- Consistent extensive gold endowment at Falcon, 13 January 2021
- Diucon and Eagle: Two new intrusion hosted gold discoveries at Hemi, 29 January 2021
- Greater Hemi - Gold targets light up at Scooby & Antwerp, 4 February 2021
- Further metallurgical testwork confirms high gold recoveries, 16 February 2021
- Major depth extensions and new footwall lodes emerge at Falcon, 23 February 2021
- Crow – Aquila gold system continue to expand, 4 March 2021
- Rapid growth at Diucon and Eagle, 9 March 2021
- Extensional results show Brolga plunge potential, 16 March 2021
- Depth and strike extensions at Falcon, 8 April 2021
- Impressive resource definition drilling at Brolga, 13 April 2021
- Strong extension to Diucon and Eagle, 15 April 2021
- Strong mineralisation intersected at Crow and Aquila, 23 April 2021
- Large mineralised system confirmed at Diucon – Eagle, 4 May 2021
- High gold recoveries achieved at Aquila, 10 May 2021
- Significant extensional and impressive resource definition results at Falcon, 27 May 2021
- Encouraging results continue at Diucon-Eagle, 1 June 2021
- Diucon - compelling new results, 22 July 2021
- New results substantially extend Eagle, 9 August 2021
- Diucon – depth, width and strike extensions, 1 September 2021

- Eagle extensions to the west and at depth, 9 September 2021
- High gold recoveries also achieved at Falcon and Crow, 21 September 2021
- Greater Hemi Corridor Update, 30 September 2021
- Regional exploration delivers positive results at Withnell, Calvert & Gillies, 13 October 2021
- Consistent infill results in Brolga Stage 1 pit, 11 November 2021
- High grade in extensional and infill drilling at Eagle, 10 December 2021
- Diucon extended to 500m depth and remains open, 17 December 2021
- Near surface high grade and depth extensions at Falcon, 3 February 2022
- Outstanding Results from Diucon deposit at Hemi, 15 February 2022
- Impressive resource definition results at Brolga, 15 March 2022
- Encouraging results at Geemas and Charity Well, 3 May 2022
- Hemi pilot testwork confirms high recoveries at Brolga, 12 May 2022
- High grade resource definition and extensional drilling results at Toweranna, 9 May 2023
- Diucon major new gold intersection, 01 August 2022
- New AC and RC results in intrusion at Antwerp, 22 November 2022
- New Gold Zone Identified at Withnell South, 13 February 2023
- Major strike and depth extensions at Diucon, 15 February 2023
- Resource definition and extensional drilling at Brolga, 16 March 2023
- High grade resource definition and extensional drilling results at Toweranna, 9 May 2023

Relevant Exploration Results and Updates – Egina and Farno JVs

- New shear hosted gold discovery at Gillies on Farno JV, 30 March 2021
- Exploration Agreement signed with Novo Resources Corp, 22 June 2023