

**MIRAMAR**  
RESOURCES LTD.

# Gold and Critical Minerals Exploration

Company Update  
February 2025

Au

Cu

Ni

[miramarresources.com.au](http://miramarresources.com.au) | ASX: M2R



# Disclaimer/Competent Person Statement

## Forward-Looking Statements

Statements in this presentation which are not statements of historical facts, including but not limited to those relating to the proposed transactions, are forward-looking statements. These statements instead represent management's current expectations, estimates and projections regarding future events.

Although management believes the expectations reflected in such forward-looking statements are reasonable, forward-looking statements are based on the opinions, assumptions and estimates of management at the date the statements are made and are subject to a variety of risks and uncertainties and other factors that could cause actual events or results to differ materially from those projected in the forward-looking statements. Accordingly, investors are cautioned not to place undue reliance on such statements.

## Competent Person Statement

The information in this report that relates to Exploration Targets or Exploration Results is based on information compiled by Allan Kelly, a "Competent Person" who is a Member of The Australian Institute of Geoscientists. Allan Kelly is the Executive Chairman of Miramar Resources Ltd. He is a full-time employee of Miramar Resources Ltd and holds shares and options in the company.

Allan Kelly has sufficient experience that is relevant to the style of mineralisation and type of deposits 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'. Allan Kelly consents to the inclusion in this presentation of the matters based on his information and in the form and context in which it appears.

Information on historical results for all projects within this presentation, including JORC Table 1 and 2 Information, is included in the Miramar Resources Limited Prospectus dated 4 September 2020.

JORC Table 1 and 2 Information for Miramar results for all projects within this presentation are included in the relevant ASX releases.



# Miramar – Highlights

## Eastern Goldfields Projects

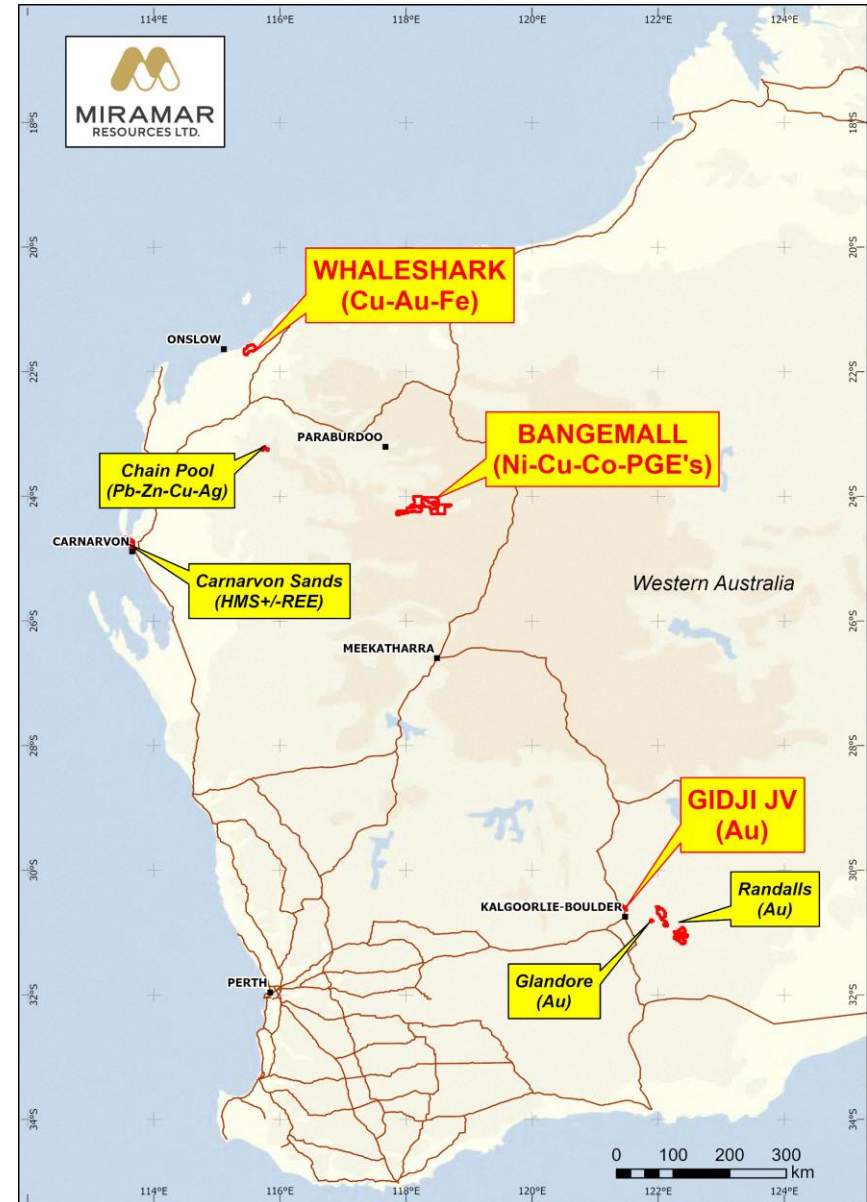
- **Gidji JV** – emerging gold camp 15km north of Kalgoorlie
- **Record gold price environment**

## Potential “Company Makers”

- **Bangemall** - targeting large **Ni-Cu-Co-PGE** deposits in a new mineral province
- **Whaleshark** - **Cu-Au** and **magnetite**

## Substantial Upside

- Experienced Board with track record
- **Funded for discovery in 2025**



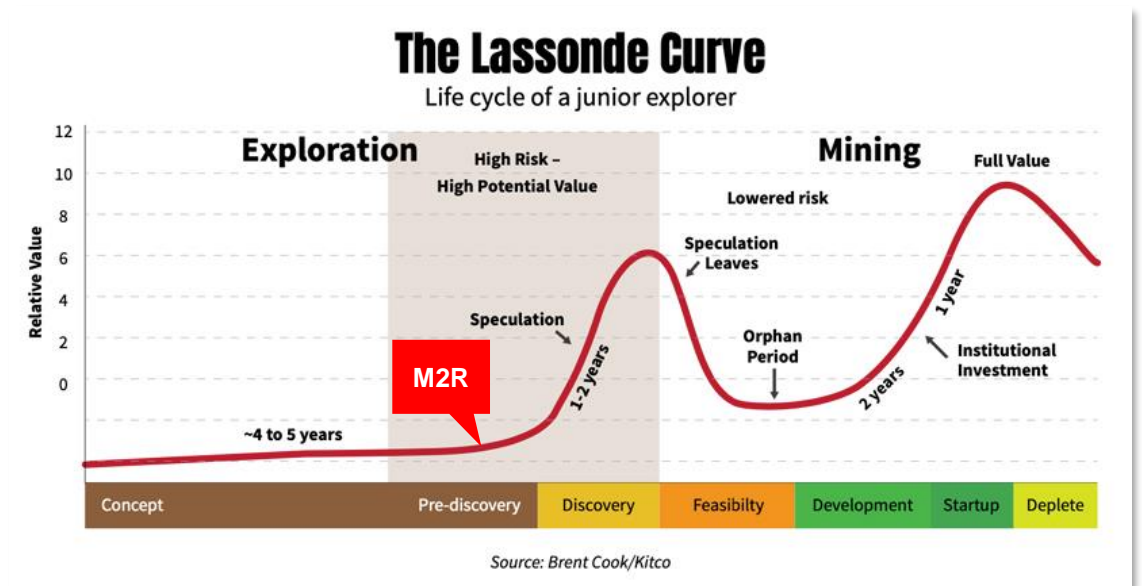
# Aim and Strategy

## Aim:

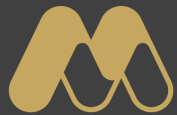
*“To create shareholder value through discovery”*

## Strategy

- Acquire underexplored projects in (potential) world-class mineral provinces - with nearby infrastructure if possible
- Recognise similarities with known deposits
- Systematic exploration using best practise
- Maximise in-ground exploration spend
  - **~70% of cash spent directly on exploration since listing in Oct 2020**
- Rapidly assess/turnover targets







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# Gidji JV (80%)

Emerging gold camp in a prime location

Au



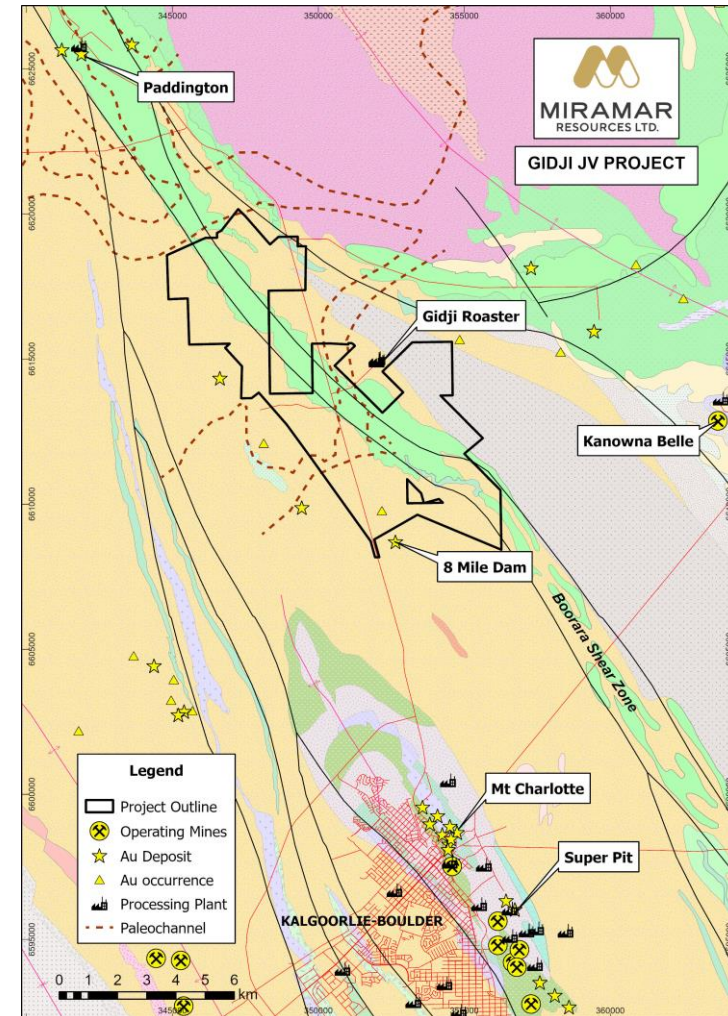


# Gidji JV – “the cheapest house in the best street”

- **15km N of Kalgoorlie** via major highway
- Surrounded by **multiple major gold deposits** and **gold processing plants**
- Immediately adjacent to Northern Star Resources Ltd’s 313koz “**8 Mile Dam**” deposit

## Key ingredients for a new gold camp

- ✓ **Dilational jog** in Boorara Shear Zone - host to several large gold deposits
- ✓ **Underexplored** due to Gidji Paleochannel
- ✓ **Large gold footprints** across multiple targets
- ✓ **Gold mineralisation in multiple rock types**



# An emerging gold camp

## Significant gold results across multiple targets

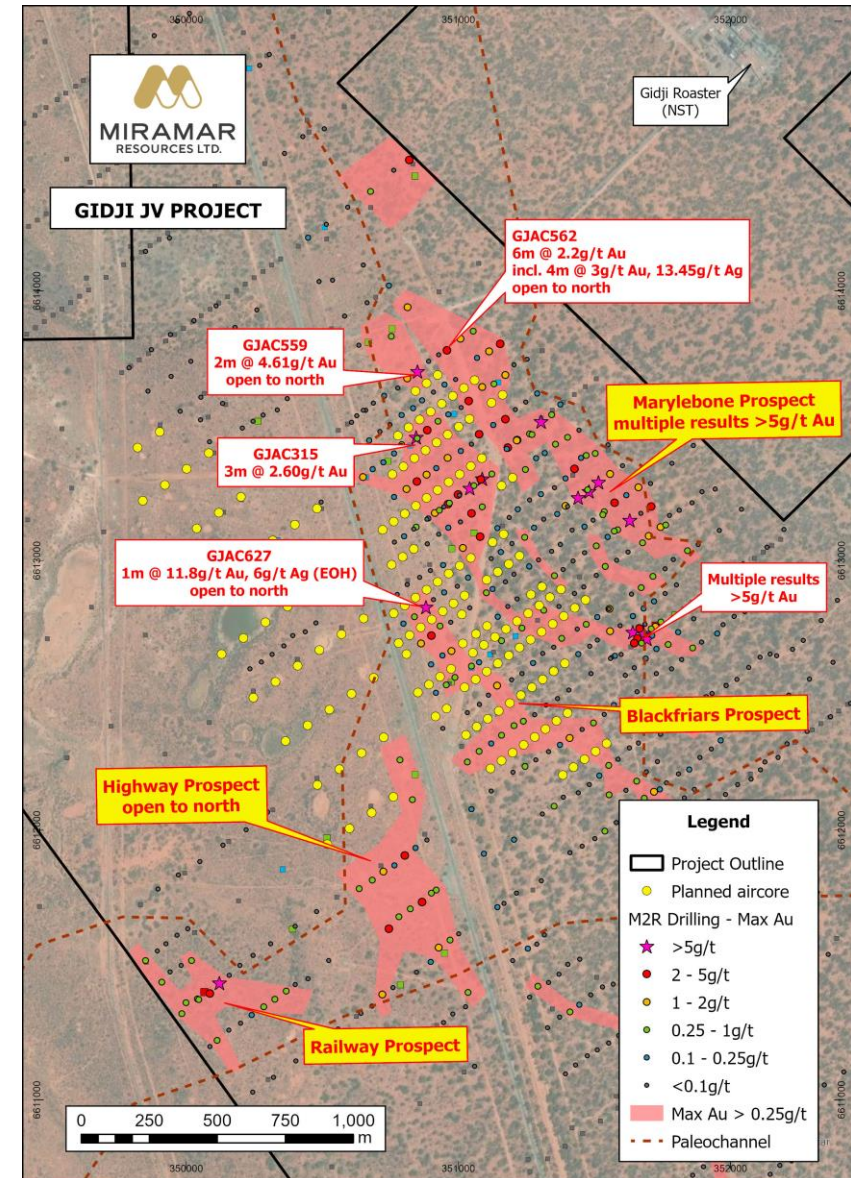
- Large supergene gold footprints outlined
- Multiple end of hole aircore results  $>1\text{g/t Au}$

## Potential for bedrock gold mineralisation

- ✓ Second order dilational faults off Boorara Shear
- ✓ Fractionated dolerite (Golden Mile equivalent?)
- ✓ Widespread alteration and pathfinder anomalism
- ✓ Potential extension to “8 Mile Dam” deposit

## Further drilling planned

- Infill/extensional aircore across multiple targets
- Bedrock RC/diamond drilling

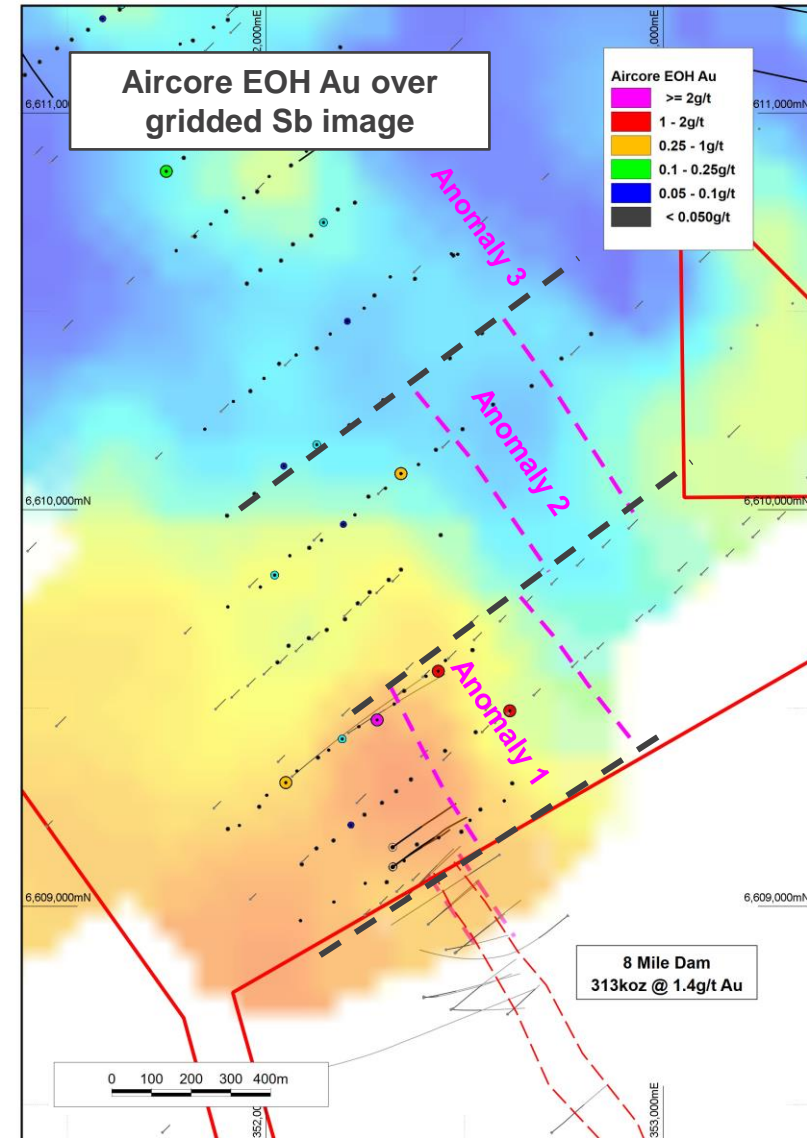
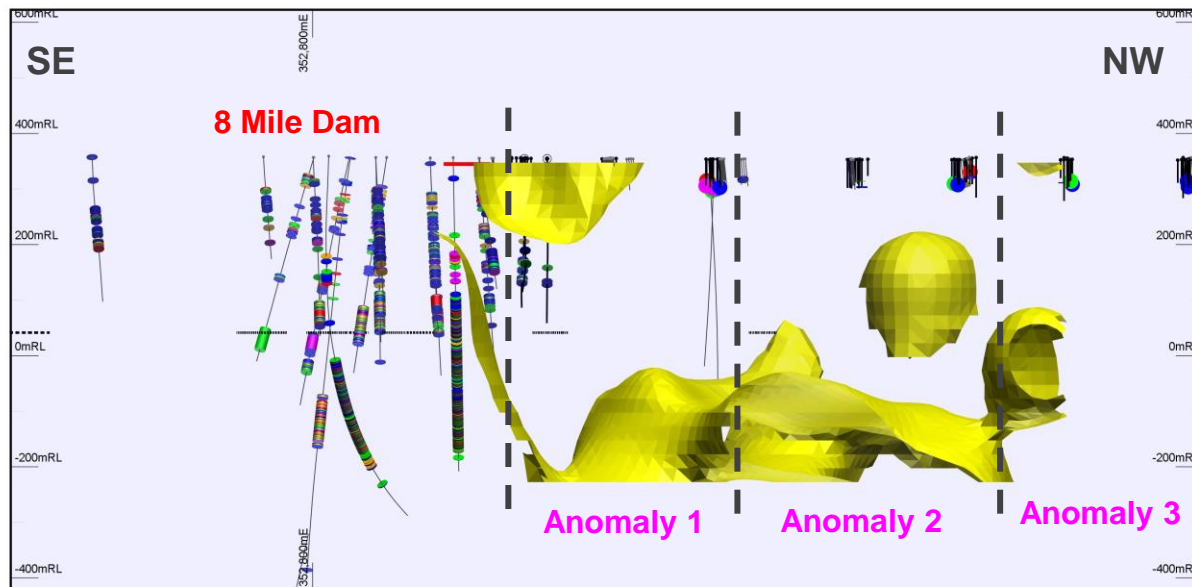




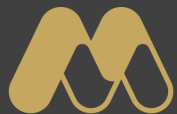
# Gidji – 8 Mile Target

## Potential extension to “8 Mile Dam” deposit

- Multiple aircore EOH results  $> 1\text{g/t Au}$
- Anomalous pathfinders (Bi, Mo, Sb and W)
- IP chargeability anomaly offset by NE faulting







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# Bangemall Projects

Exploring for giant Ni-Cu-Co-PGE deposits in a new mineral province

Ni

Cu

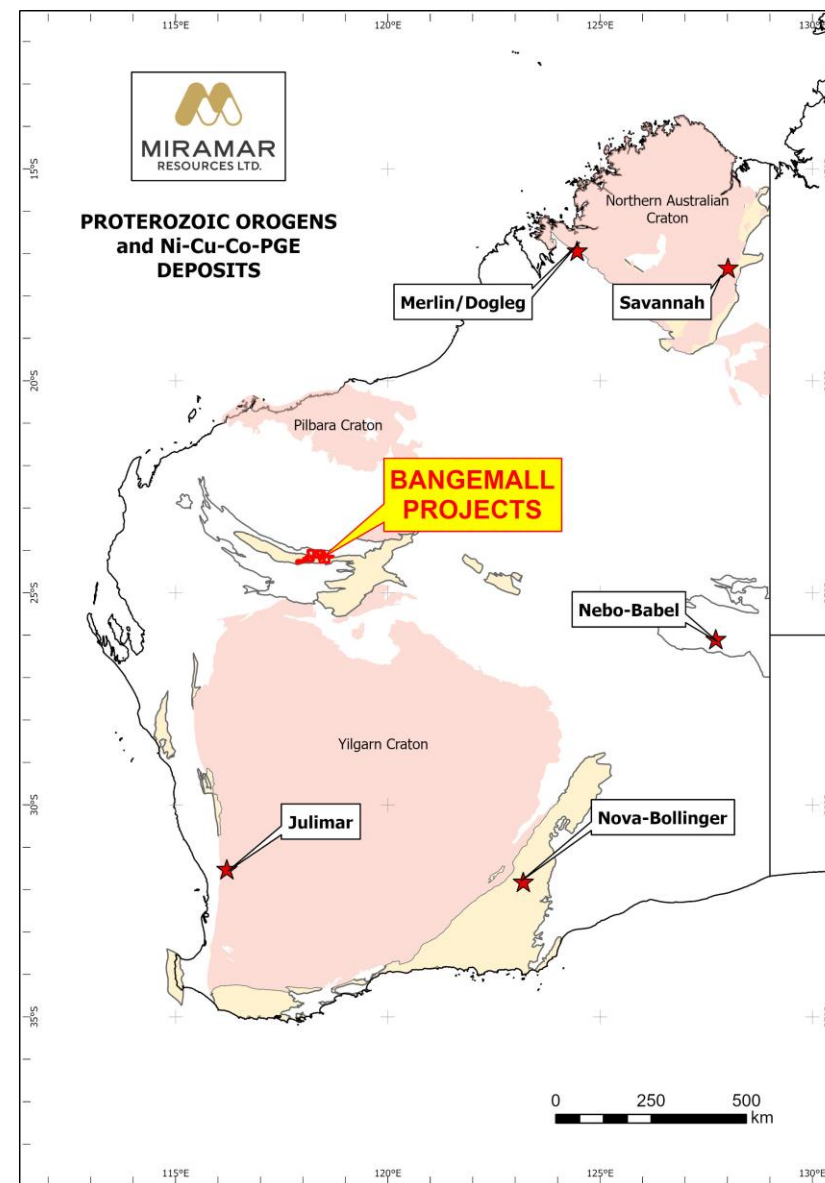


# Bangemall Projects

Miramar's Bangemall Projects are located within WA's Proterozoic Capricorn Orogen

Proterozoic orogens host large mafic intrusion-related Ni-Cu-Co-PGE deposits –

- Noril'sk/Talnakh - world's largest and most valuable mineral deposits
- Voisey Bay, Raglan, Eagle
- Nova-Bollinger, Nebo/Babel/Succoth,
- Savannah, Merlin
- Julimar



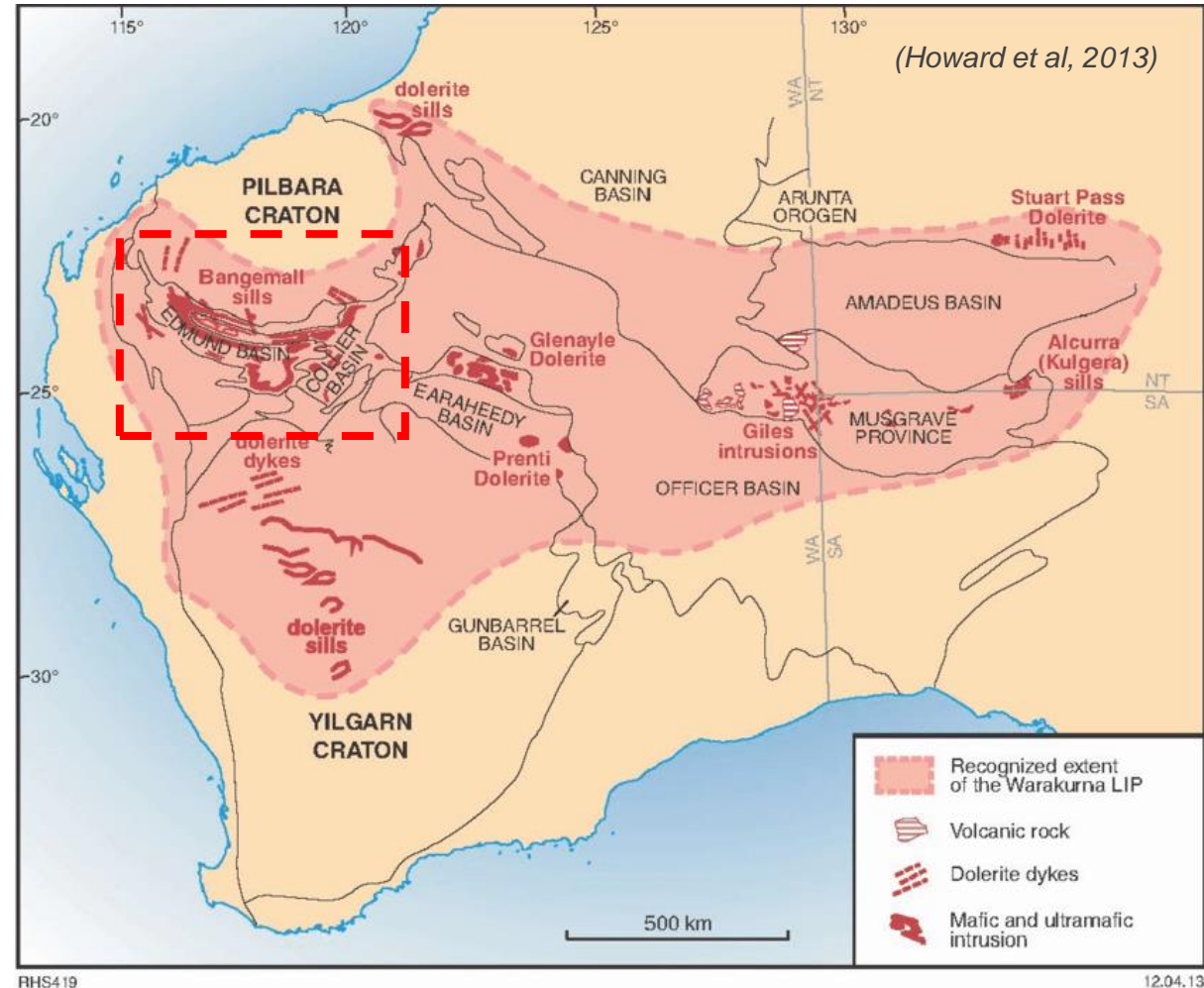


# Warakurna Large Igneous Province (LIP)

- Widespread 1070Ma mafic intrusive event
- **Bangemall - Kulkatharra Dolerite sills**
- Giles Complex - (Nebo-Babel-Sucloth)

Prospectivity recognised by GSWA, Geoscience Australia and CSIRO

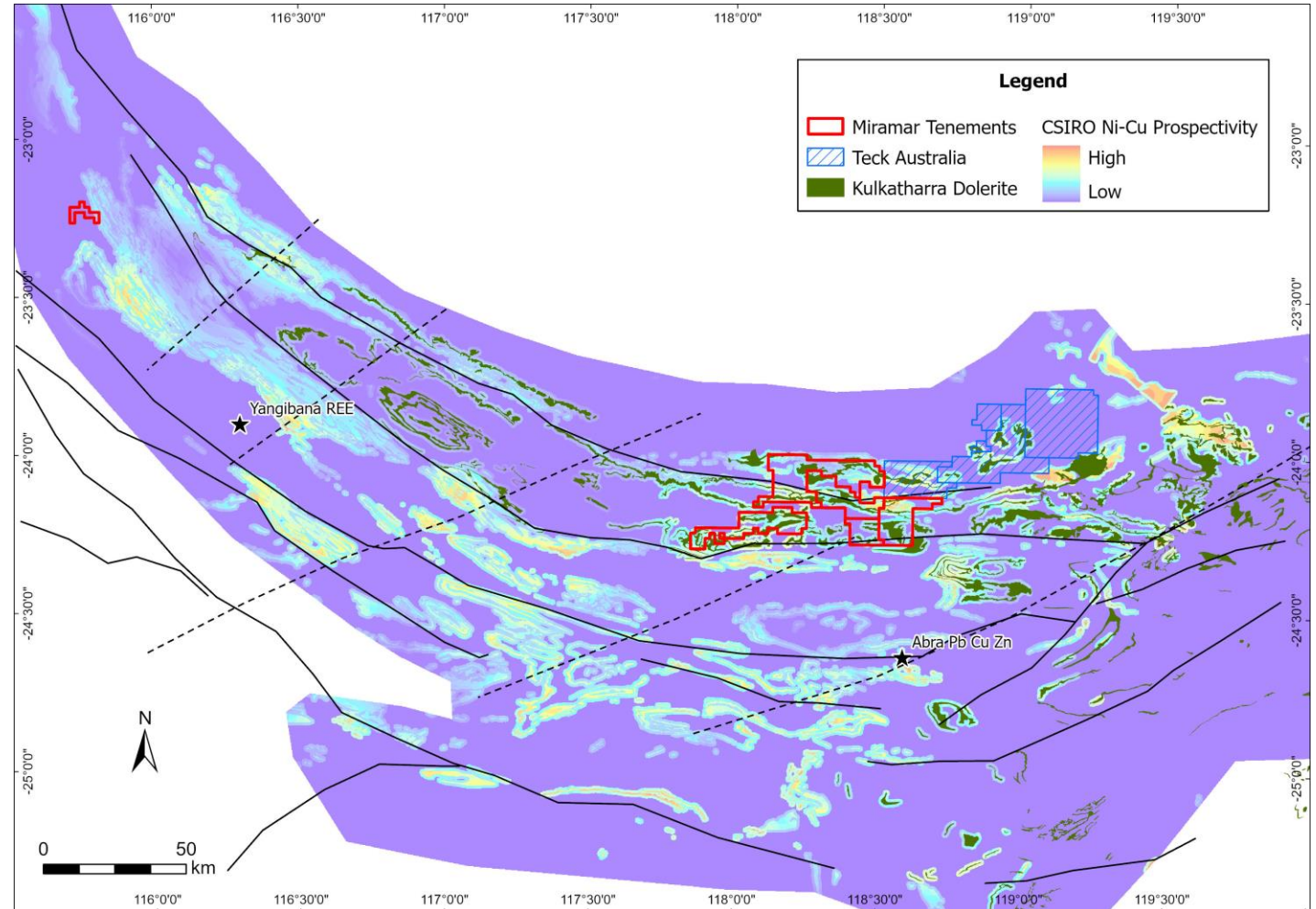
- *“The Bangemall Supergroup...is considered to be highly prospective for Noril’sk-type Ni-Cu-PGE deposits within the sill complexes” (GSWA, 2005)*



# First mover in a new nickel-copper province

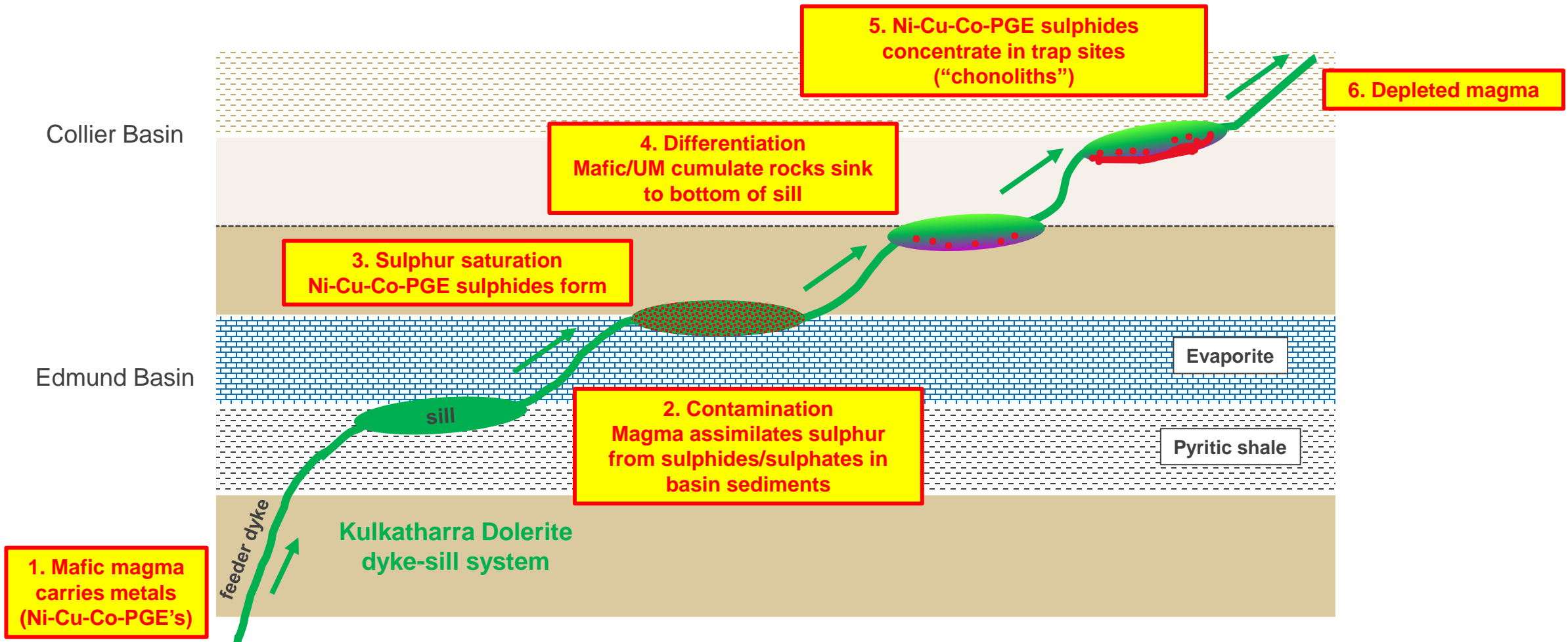
## Key ingredients for Noril'sk-style mineralisation:

- ✓ **Extensive volume of mafic magma with evidence of crustal contamination**
- ✓ Deep crustal-scale faults and cross-cutting faults
- ✓ **Sulphur-rich sediments**
- ✓ Regional-scale geochem and EM anomalies
- ✓ Differentiated dolerite sills with **mafic cumulate rocks**
- ✓ **Ni and Cu sulphides**





# Bangemall – “Noril’sk-style” deposit model



# Mount Vernon and Trouble Bore Targets

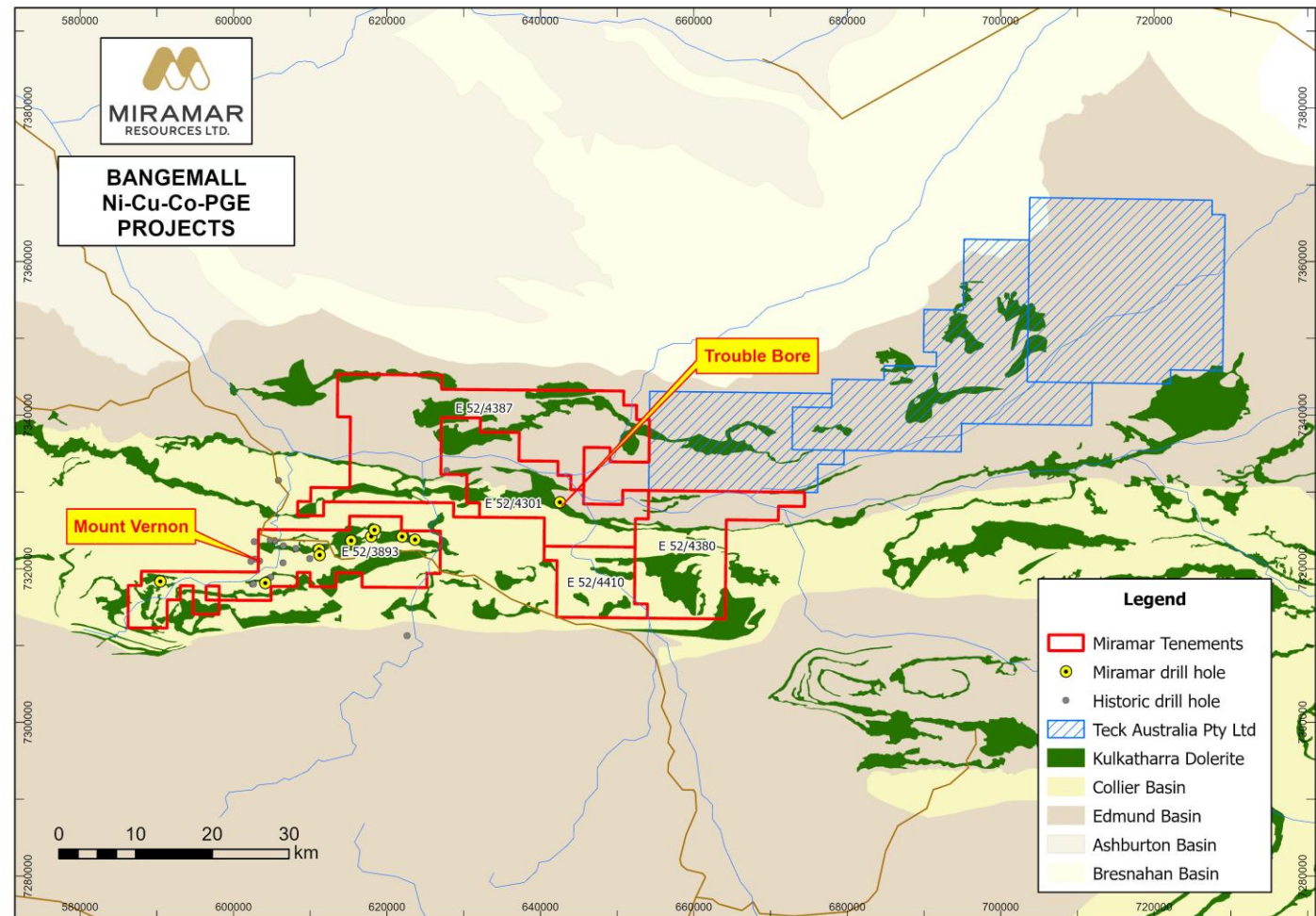
## Mount Vernon EIS co-funded RC drilling (Aug 24)

- ✓ Differentiated dolerite sills with mafic cumulate rocks
- ✓ Disseminated pentlandite and chalcopyrite in multiple drill holes
- ✓ Sulphate minerals

## Trouble Bore

- Strong EM anomaly
- Diamond drilling planned

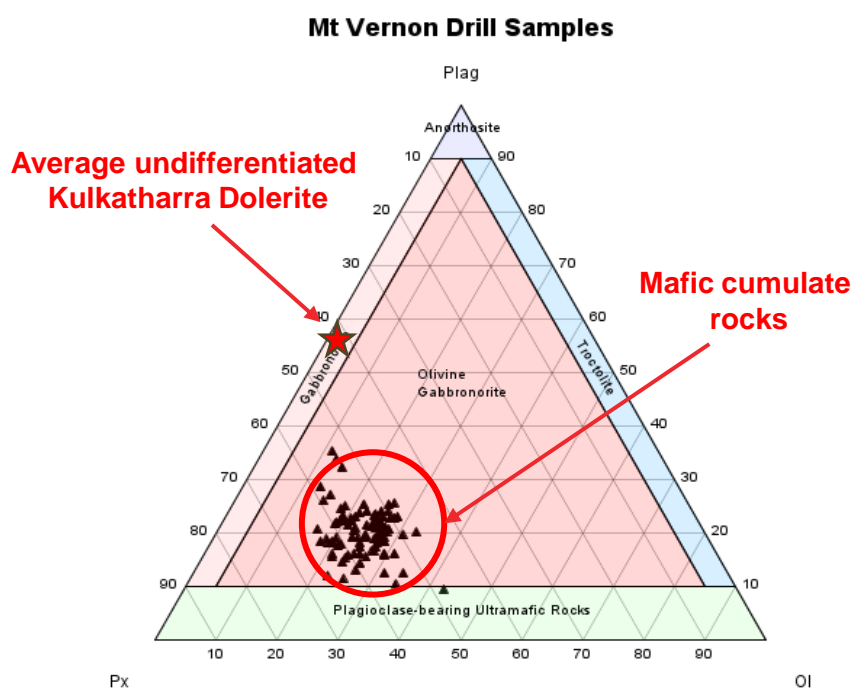
**Detailed mag/EM survey planned for new tenements**



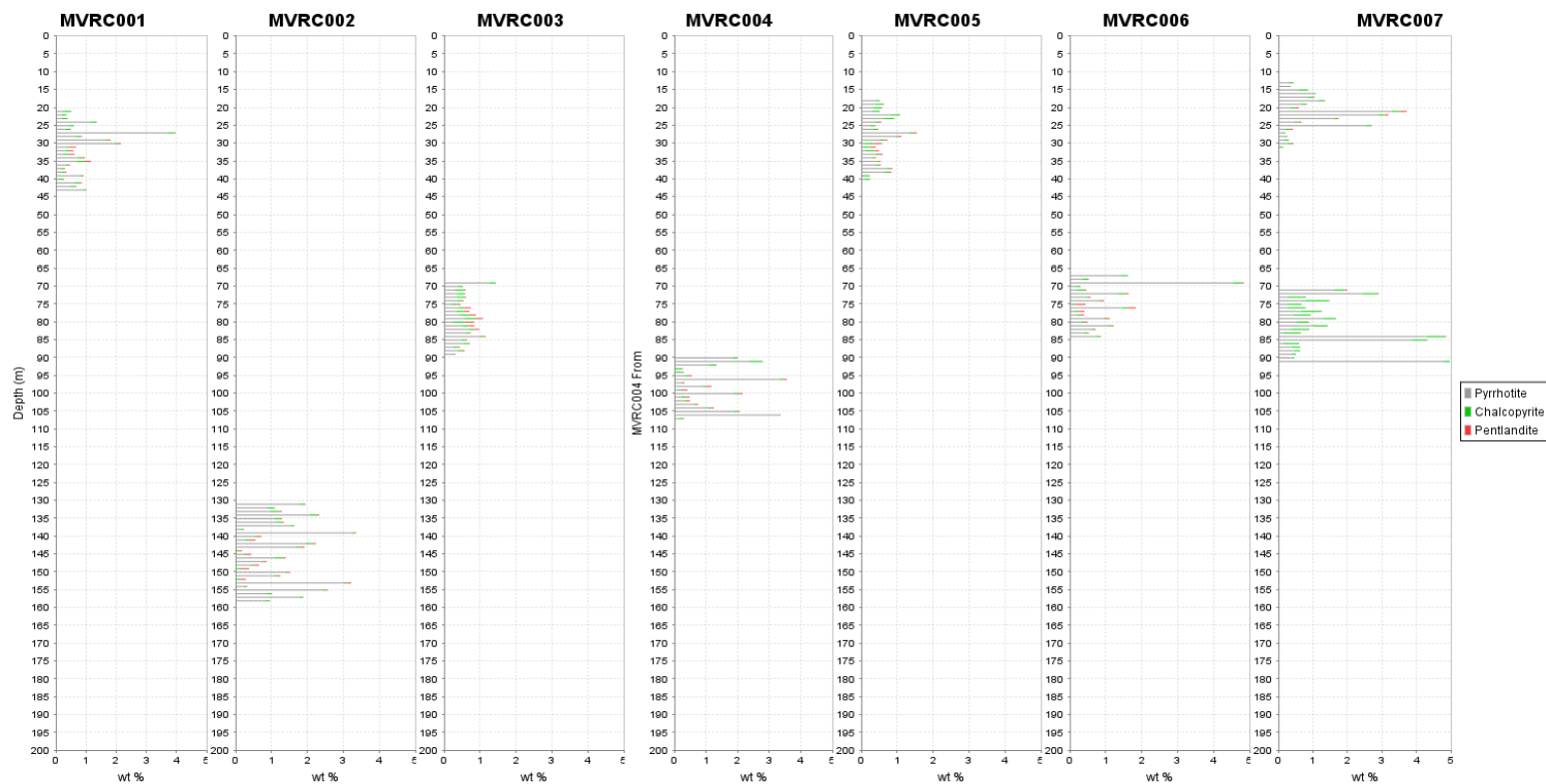


# Mt Vernon - mafic cumulates and Ni-Cu sulphides

Mafic/UM cumulate rocks  
= evidence for differentiation

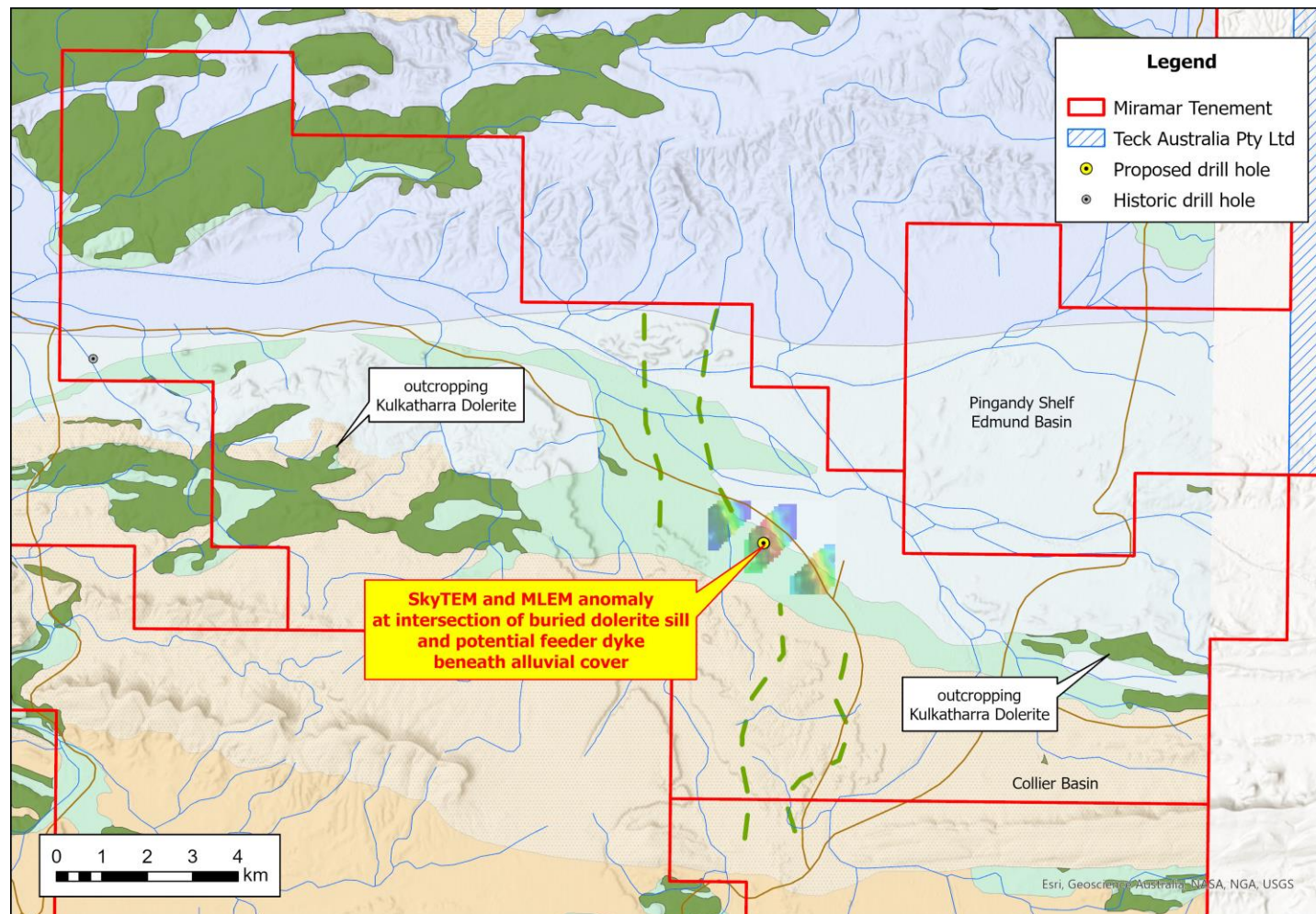


Micro-XRF analysis confirms presence of disseminated  
pyrrhotite, pentlandite and chalcopyrite in multiple drill holes

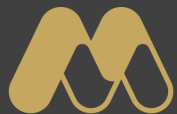


# Trouble Bore Target

- Dolerite sills and feeder dykes intruding through sulphide and sulphate-rich sediments
- Historic SkyTEM anomaly confirmed by 2024 ground EM survey
- Historic drill hole targeted channel iron deposits and did not intersect dolerite or EM anomaly
- **EIS co-funded diamond drilling planned Q2 2025**







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# Whaleshark

Copper-gold  
and magnetite iron project

Cu

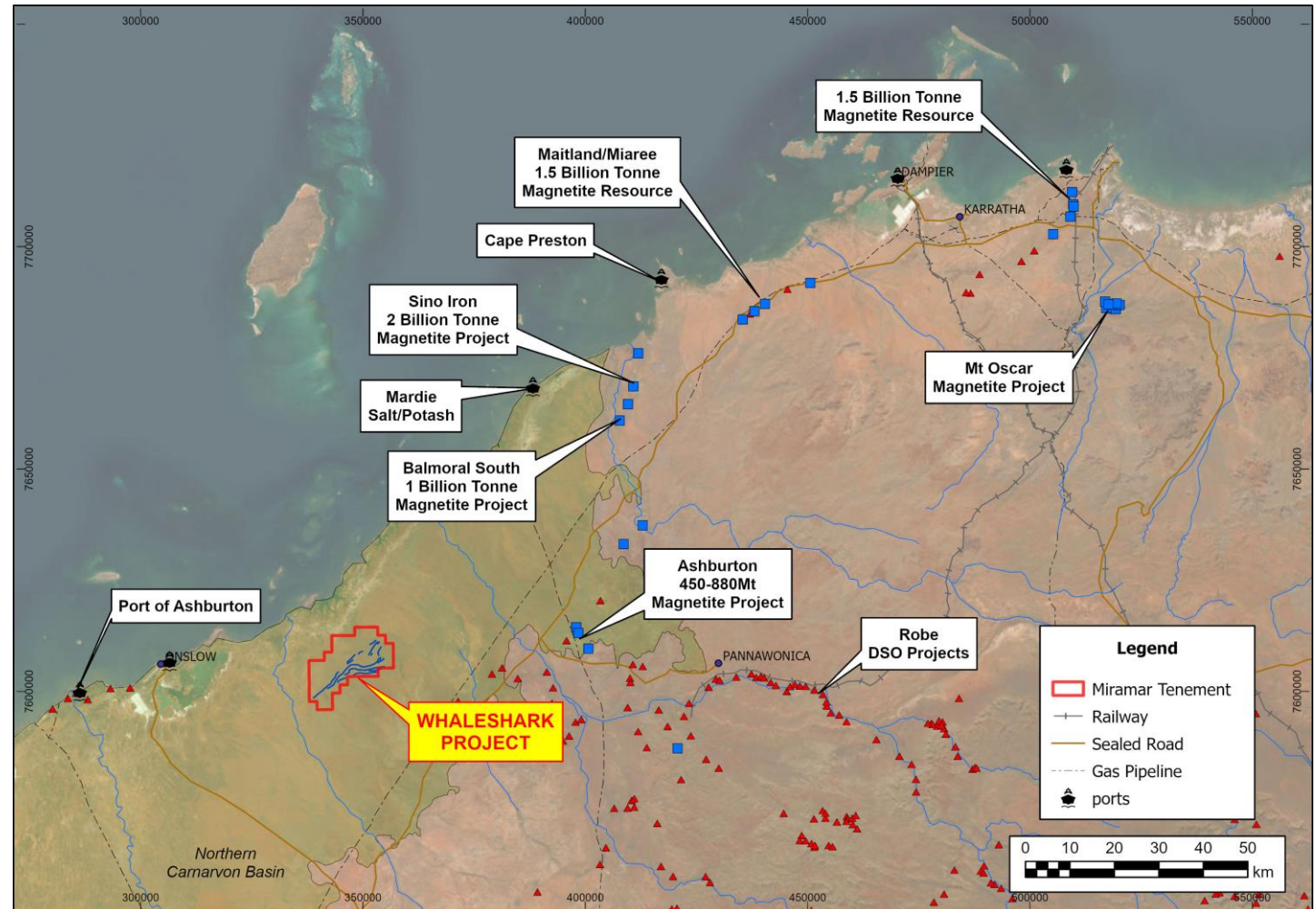
Au

Fe



# Whaleshark – copper-gold and magnetite project

- Northwestern extension of Capricorn Orogen
- Proterozoic metasediments, magnetite-BIF, and granitoid beneath Cretaceous sediments
- Basement depth ~100m
- Surrounded by significant infrastructure:
  - Major highway
  - Gas pipeline
  - Public/private port facilities
  - Magnetite and DSO mines/processing plants
  - Haul road





# Whaleshark - copper and/or gold targets

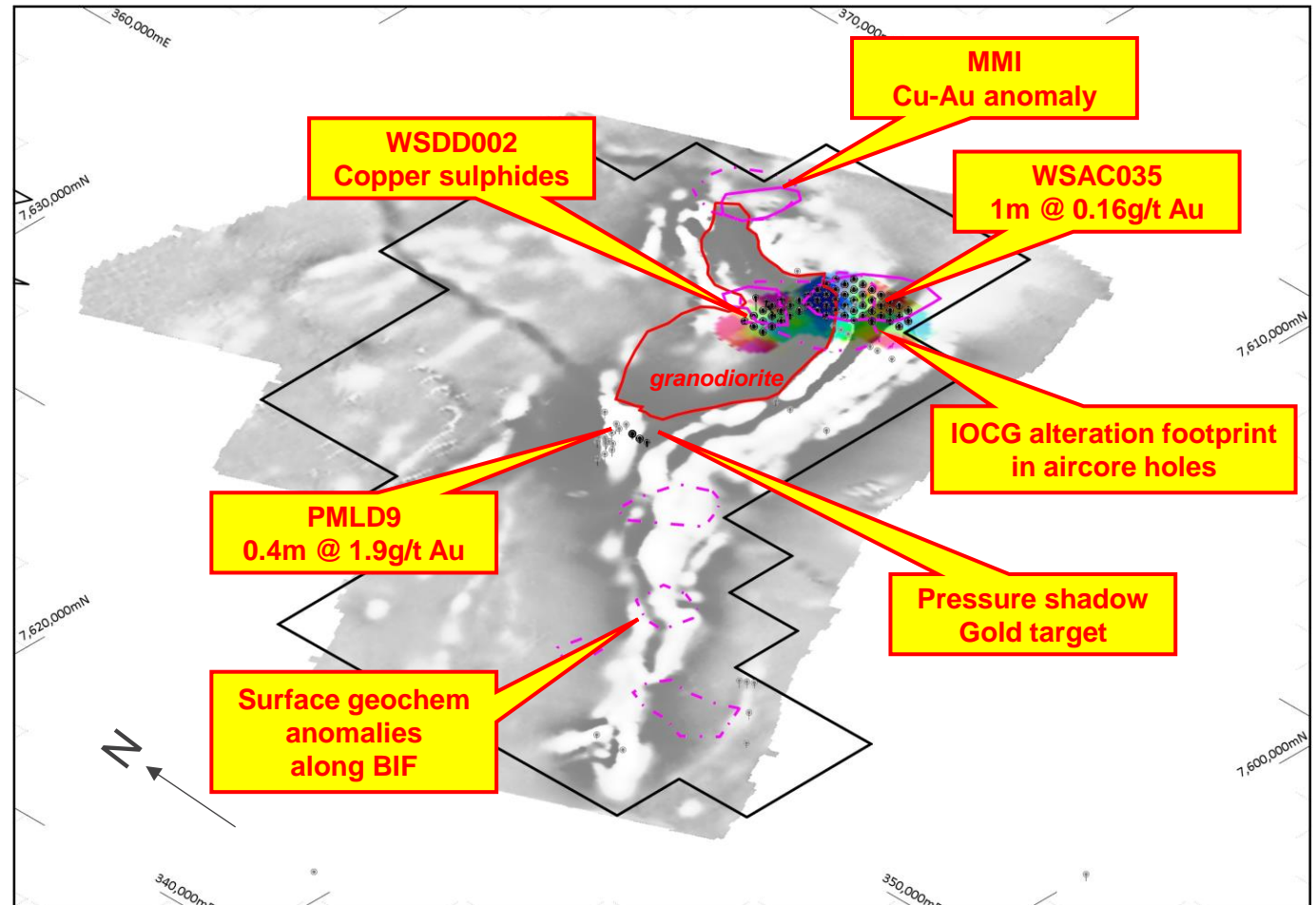
## Copper-gold (IOCG)

- MMI Cu-Au-U-REE anomalism
- Anomalous **Cu** in aircore holes
- Alteration and REE signatures suggest **IOCG** potential
- **Copper sulphides** intersected in 2023 EIS diamond drilling

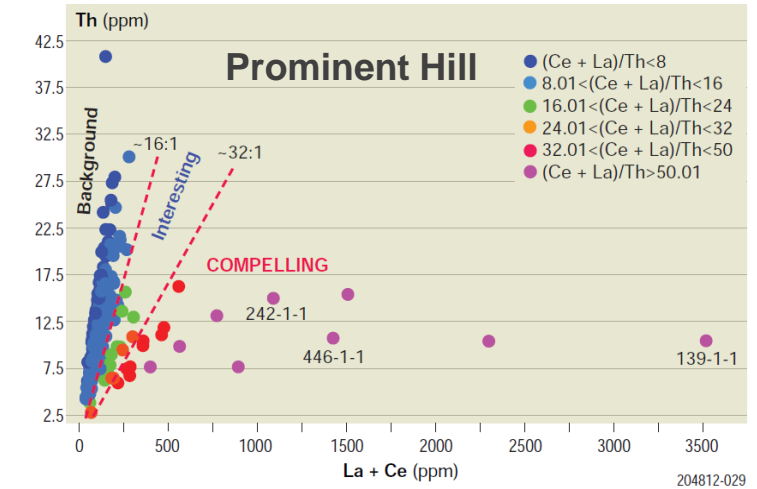
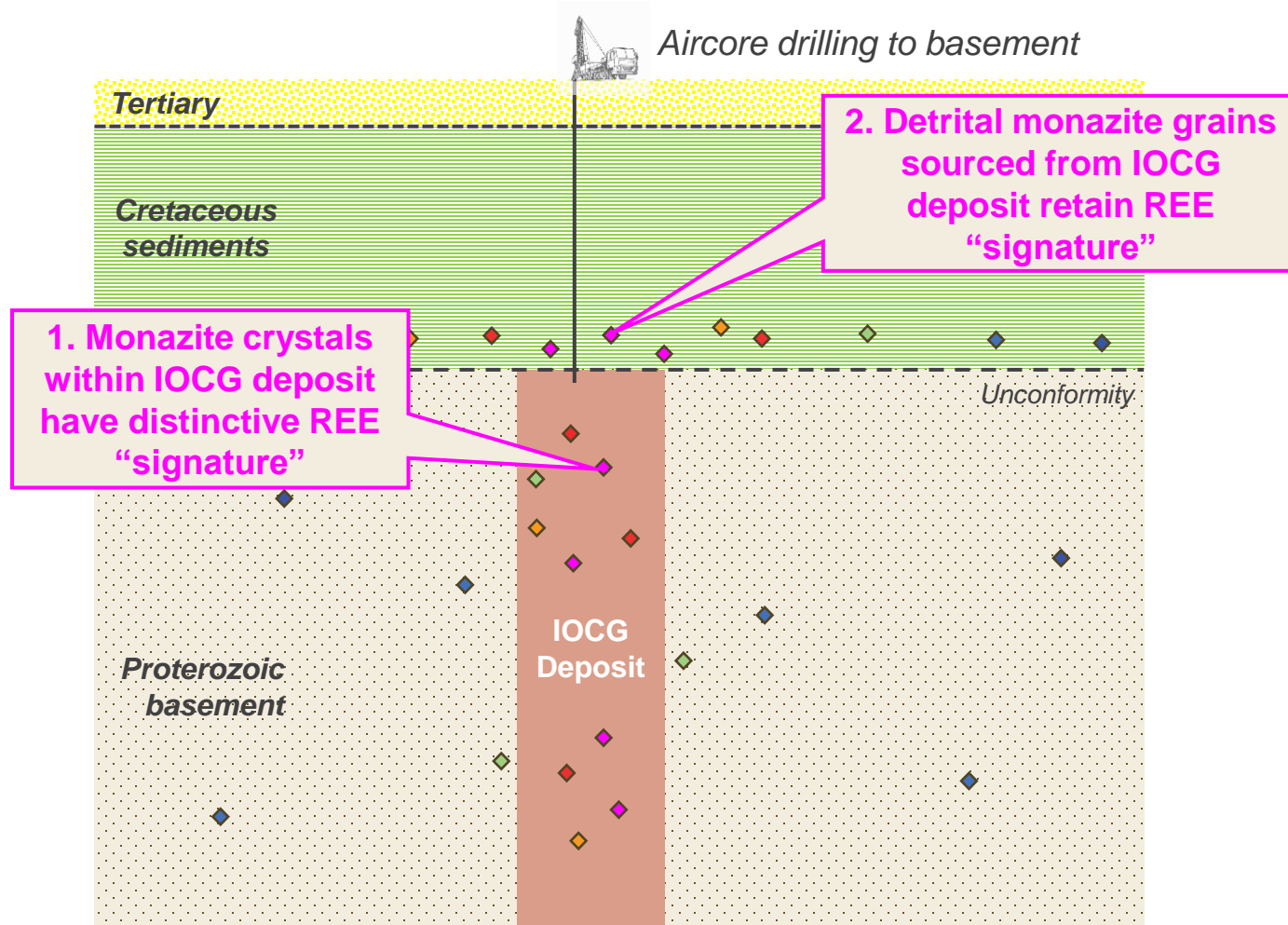
## Orogenic/Intrusion-related Au

- Historic DDH intersected **0.4m @ 1.9g/t Au** in BIF
- Aircore results up to **0.16g/t Au**
- Multiple structural/geochemical targets over 20km of strike

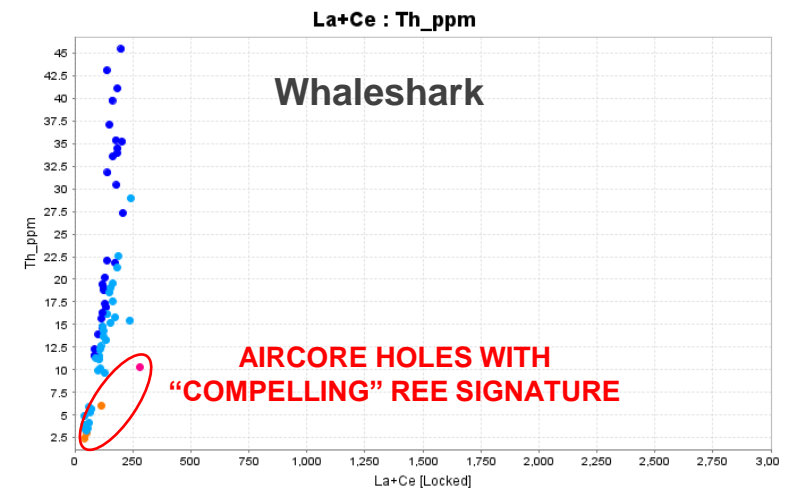
**Aircore drilling to be expanded**



# Aircore REE results indicate IOCG potential

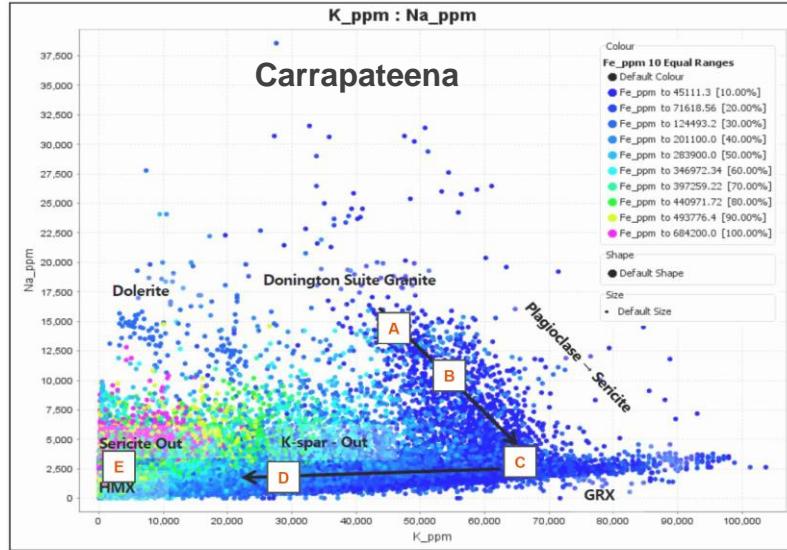


Forbes et al, 2016

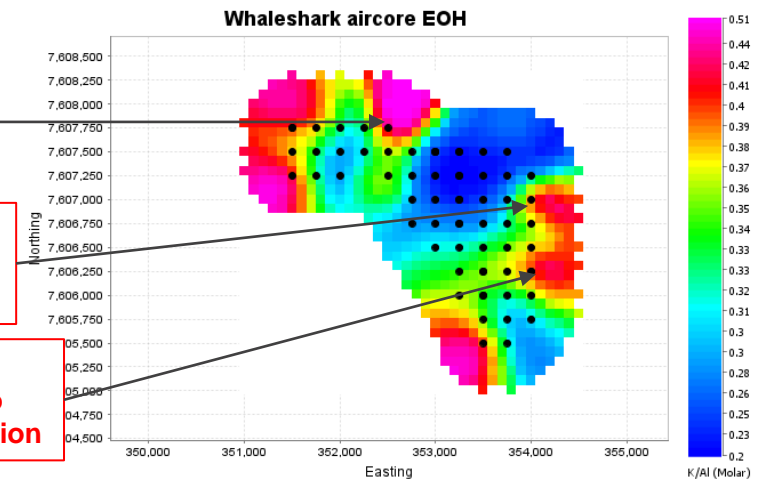
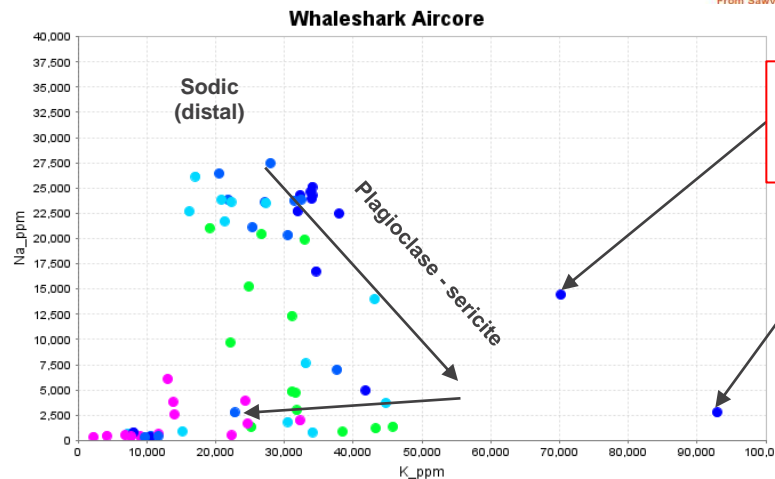
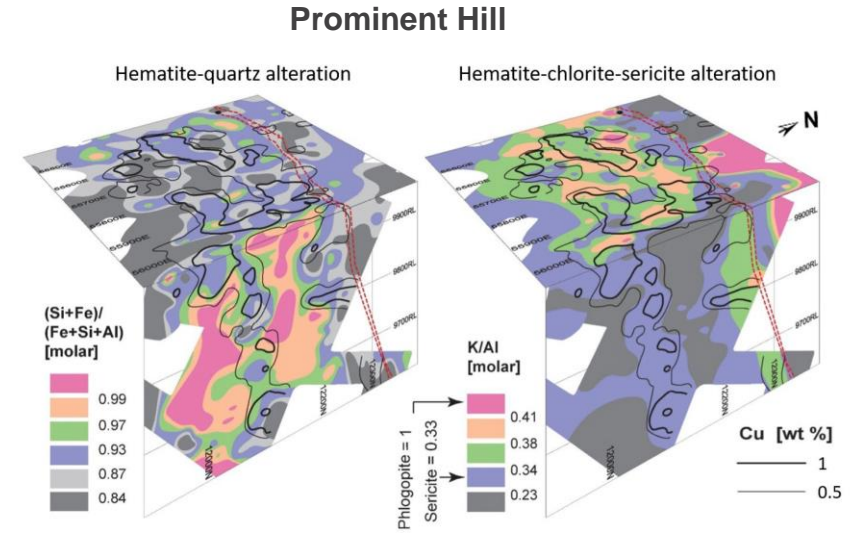




# IOCG-style alteration in aircore EOH samples



From Sawver 2014



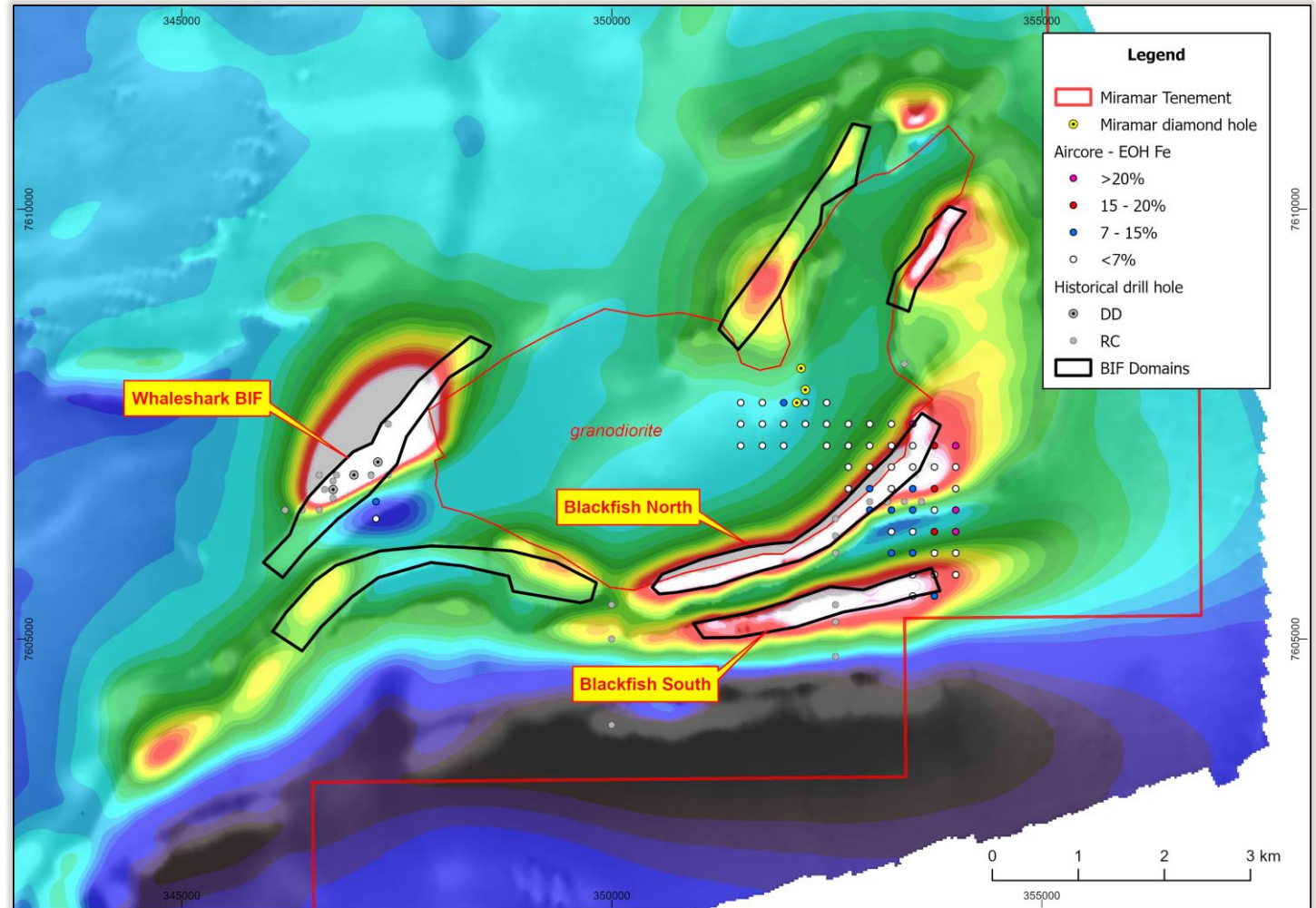
# Magnetite Exploration Target\*

| Domain            | Tonnage Range (Mt) |              | Grade Range (Fe %) |           |
|-------------------|--------------------|--------------|--------------------|-----------|
|                   | Lower              | Upper        | Lower              | Upper     |
| Whaleshark        | 128                | 384          | 25                 | 30        |
| Blackfish North   | 158                | 1,050        |                    |           |
| Blackfish South   | 126                | 919          |                    |           |
| <b>TOTAL (Mt)</b> | <b>411</b>         | <b>2,353</b> | <b>25</b>          | <b>30</b> |

\*See ASX Release dated 19 June 2024

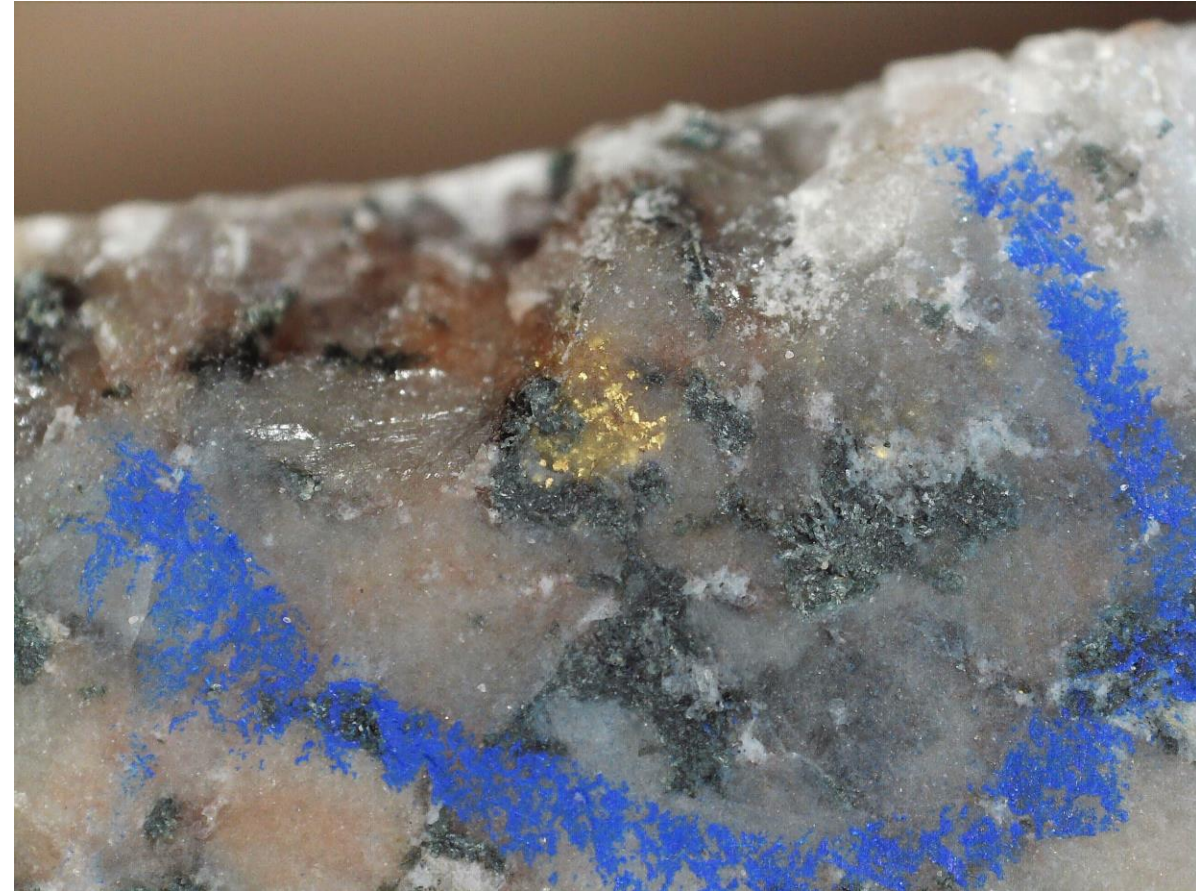
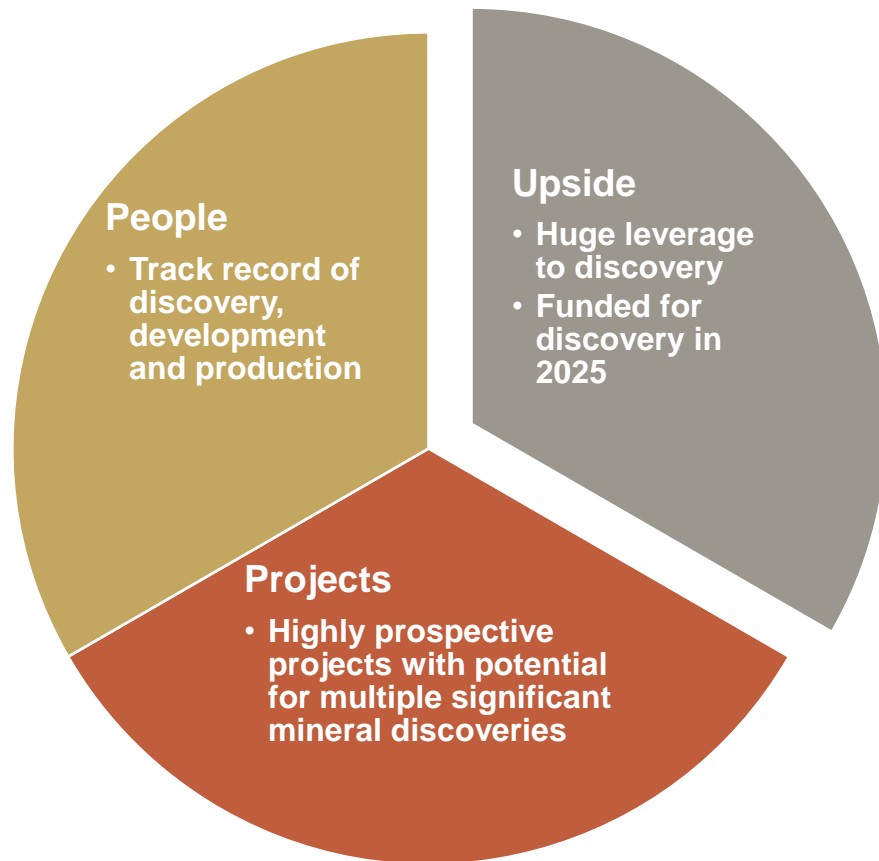
**Cautionary Statement:**

The Exploration Target has been prepared and reported in accordance with the 2012 edition of the JORC Code. The potential quantity and grade are conceptual in nature and there has been insufficient exploration to estimate a Mineral Resource. It is uncertain if further exploration will result in the estimation of a JORC-compliant Mineral Resource





# Summary - Why Invest in Miramar?



# Miramar – (Proforma) Corporate Snapshot



**Allan Kelly**  
Executive Chairman

- +30 years' exploration-development-production experience
- Founding MD, Doray Minerals Ltd (2009-2016)
- AMEC "Prospector" Award – 2014



**Marion Bush**  
Technical Director

- 25 years' experience in exploration, management, directorship and marketing
- Former CEO, Cassidy Gold (TSX-V)



**Terry Gadenne**  
Non-executive Director

- 30 years' experience in military/civil aviation, agriculture and mining services
- Former MD - Mining Logic Pty Ltd



**Mindy Ku**  
Company Secretary

- 15 years' experience with public and private companies

| ASX Code                                | M2R            |
|---|----------------|
| <b>Current shares on issue</b>          | <b>396.8M</b>  |
| <i>T1 Placement (15%)</i>               | <i>59.5M</i>   |
| <i>T2 Placement (pending approval)</i>  | <i>538.5M</i>  |
| <b>Pro-forma Post Capital Raising</b>   | <b>996.8M</b>  |
| <b>Market Capitalisation (@ 0.4c)</b>   | <b>\$4.0M</b>  |
| <b>Cash and investments (pro-forma)</b> | <b>\$2.1M</b>  |
| Receivables (EIS)                       | \$0.2M         |
| <b>Enterprise Value (i.e. projects)</b> | <b>\$1.7M</b>  |
| <i>JEMI Credits Available</i>           | <i>\$0.45M</i> |



# Proposed 2025 Work Programmes

## Gidji JV

- Aircore drilling
  - **Marylebone/Blackfriars/Highway**
- Bedrock RC/diamond drilling
  - **Blackfriars/8-Mile (+/- The Jog)**

## Bangemall

- Diamond drilling at **Trouble Bore** (EIS-funded)
- Airborne Mag/EM survey over new tenements
- Further mapping and rock chip sampling

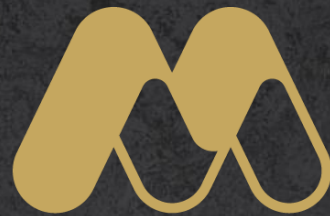
## Whaleshark

- Extend aircore drilling over copper-gold targets

## Chain Pool

- Infill and extensional soil/rock chip sampling

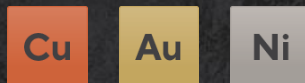




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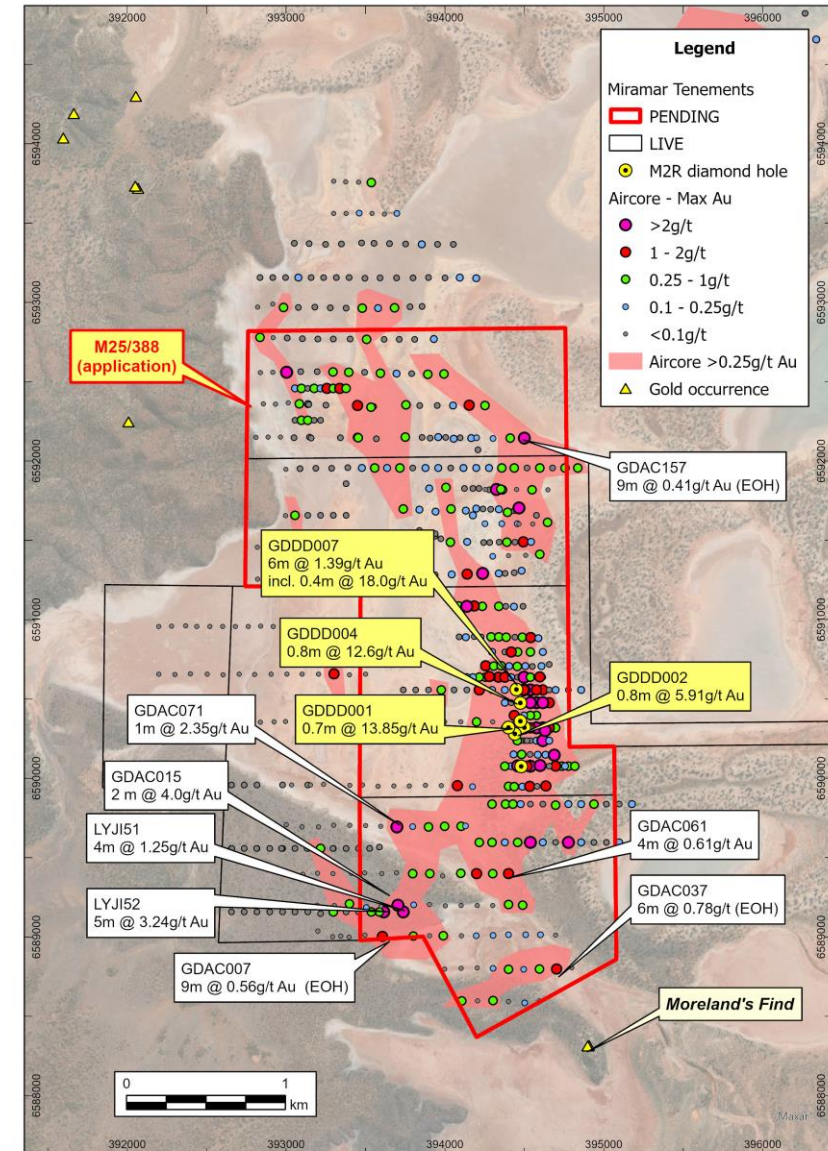
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# Glandore

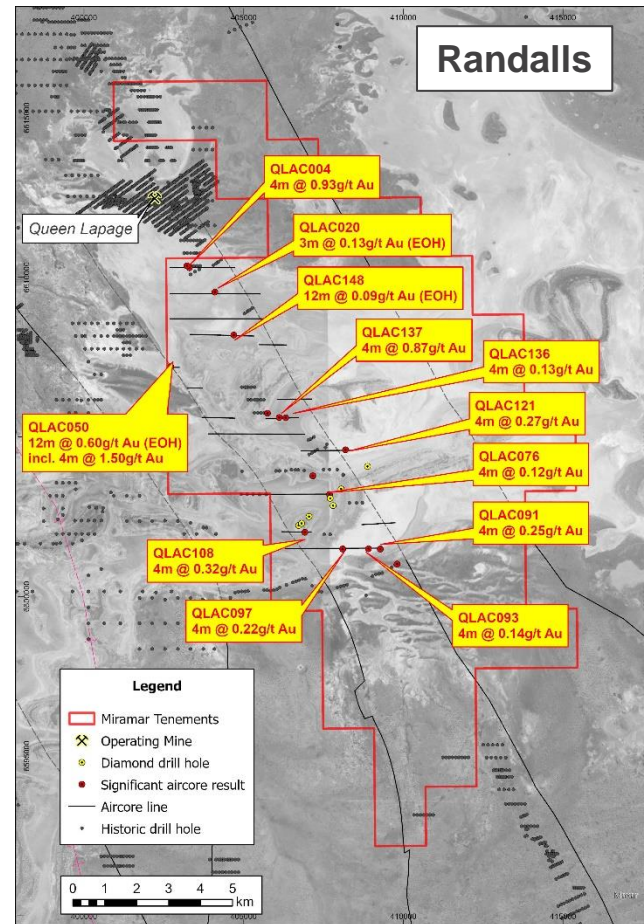
- **40km east of Kalgoorlie** – surrounded by existing/proposed processing infrastructure
- Multiple **high-grade gold** results at contact between granite and layered mafic sill
- **Large aircore gold footprint** under lake
- Mining Lease application pegged Oct '24



# Randalls – strategic position on major structure

## Lake Yindarlgooda Target

- 11km long supergene gold anomaly on salt lake
- Similar geology-structure-scale to **Invincible** deposit
  - ✓ Mafic sediment contact
  - ✓ Major NW-trending fault
  - ✓ Crosscutting NE faults
- Additional 5km south of lake not yet tested
- Infill drilling and geophysics planned following tenement grant





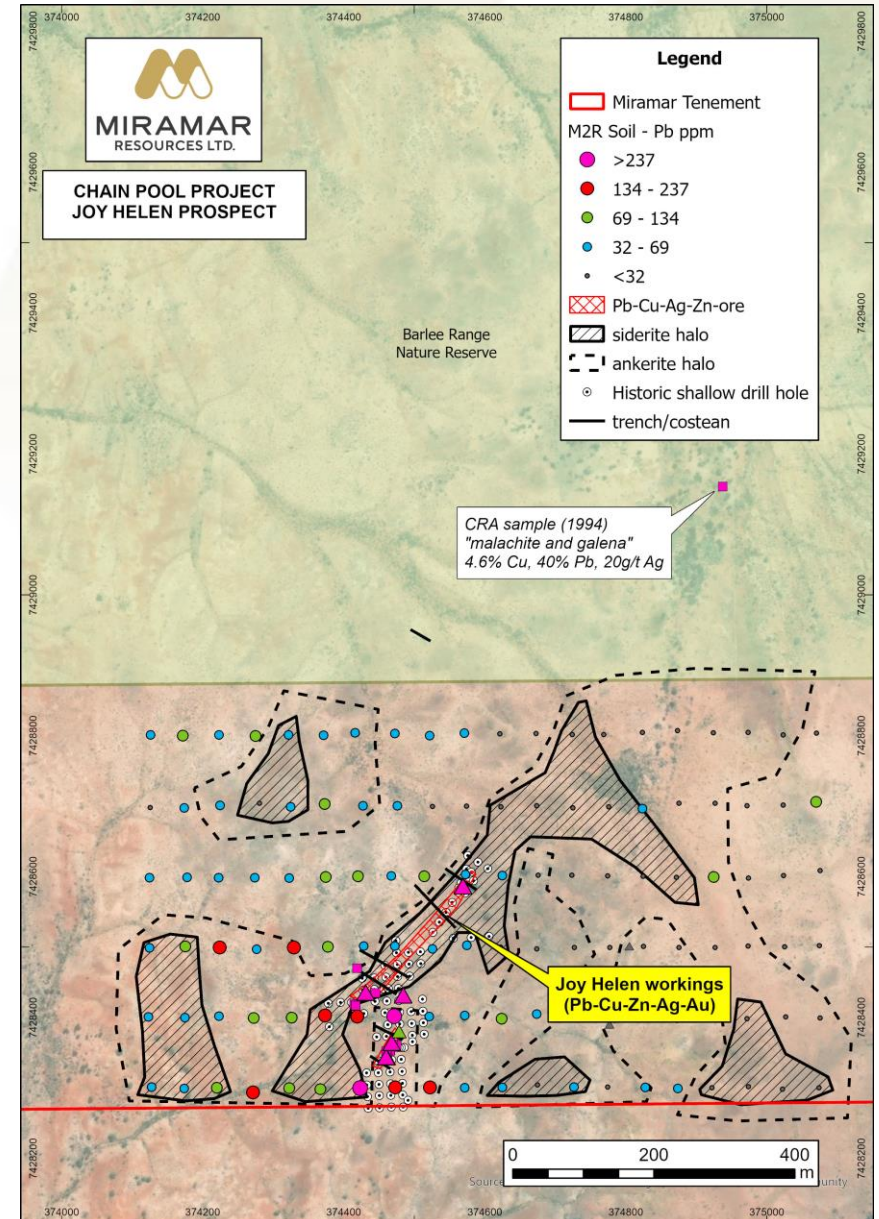
# Chain Pool

## SEDEX mineralisation

- “Joy Helen” - historic **Pb-Zn-Ag-Cu** mine
- New high-grade rock chips over 400m strike
  - **5.49% Cu, 42.0% Pb and 73.5 g/t Ag**
  - **5.43% Cu, 36.7% Pb and 36.0g/t Ag**
  - **7.23% Cu, 26.7% Pb, 59.5g/t Ag, 0.8g/t Au**
- Geochemistry/alteration consistent with known **SEDEX** deposits (e.g. Lady Loretta)
- Soil anomaly/alteration halo extends northeast of historic workings for up to 700m

## Ni-Cu-Co-PGE potential

- Mundine Well dolerite dykes (e.g. Money Intrusion)



# Carnarvon Sands

- Coastal embayment with heavy mineral strandlines north of the mouth of the Gascoyne River
- The 79,000km<sup>2</sup> Gascoyne River catchment contains multiple hard-rock **REE** deposits (Yangibana, YIN)
- Along with traditional Heavy Mineral Sands, limited previous exploration confirmed the presence of detrital **REE** minerals including:
  - **Xenotime** – Yttrium phosphate
  - **Monazite** – La, Ce, Nd, Sm, Pr phosphates
- Proximity to proposed green energy projects

