

# HIGHLY ACTIVE WEST AUSTRALIAN MINERAL EXPLORER FOCUSED ON DISCOVERY

**DECEMBER QUARTERLY PRESENTATION - JANUARY 2022** 

### Disclaimer



This presentation includes forward-looking statements. When used in this document, the words such as "could", "plan", "estimate", Refer to Dreadnought announcements for JORC Table 1 and Table 2 for results and information contained in this presentation. "expect", "intend", "may", "potential", "should", and similar expressions are forward-looking statements. Although Dreadnought Illaara Gold-VMS-Iron Ore Project Resources Limited ("Dreadnought") believes that the expectation reflected in these forward-looking statements are reasonable, such statement involved risks and uncertainties and no assurance can be given that actual results will be consistent with these forwardlooking statements.

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#### Competent Person's Statement

The information in this announcement that relates to geology and exploration results and planning was compiled by Mr. Dean Tuck, who is a Member of the AIG, Managing Director, and shareholder of the Company. Mr. Tuck has sufficient experience which 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 • 15 November 2021 and Ore Reserves'. Mr. Tuck consents to the inclusion in the report of the matters based on the information in the form and context • 8 December 2021 in which it appears.

The Company confirms that it is not aware of any new information or data that materially affects the information in the original Mangaroon Ni-Cu-PGE, REE & Au Project reports, and that the forma and context in which the Competent Person's findings are presented have not been materially modified • 25 November 2020 from the original reports, (referencing historic and new company announcements).

#### Currency

All amounts shown are in Australian dollars unless otherwise stated.

• 6 December 2019 Consolidation of 75km Long Illaara Greenstone Belt

· 19 March 2020 RC Drilling Hits High Grades at Metzke's Find

RC Drilling Hits High Grade Gold at Metzke's Find 13 July 2020

• 22 July 2020 High-grade Iron Ore Opportunity - Illaara Greenstone Belt

· 25 September 2020 Further High-Grade Gold from Metzke's Find

· 8 October 2020 Further High-Grade Gold from Metzke's Find

• 30 November 2020 Exploration Update Illaara Gold-VMS-Iron Ore Project

· 27 April 2021 Illaara Update and Regional Target Generation

· 31 May 2021 Drilling Results - Illaara Au-Cu-Iron Ore Project

 7 July 2021 High-Grade Tantalum Results from Peggy Sue – Illaara Project

#### Kimberley Ni-Cu-Au Project

• 6 June 2019 Ground EM Survey Lights Up Strong Conductor at the Texas Ni-Cu-PGE Target

 2 December 2019 Assays and EM Surveys Confirm Massive Sulphide System at Chianti-Rufina

 23 December 2019 Grants Cu-Au Assays and Coincident Magnetic/Gravity Targets

 24 August 2020 High Priority Copper Gold Targets at Fuso and Paul's Find

 25 August 2021 RC Results from Orion, Grant's Find & Fuso Indicate Large Cu-u-Ag-Co System

• 27 August 2021 Bonanza Grade Cu-Ag-Sb-Bi Mineralisation at rough Triangle

High-Grade Cu-Ag-Au-Co Discovery at Orion

Further High-Grade Cu-Ag-Au-Co-Zn Orion Discovery

Mangaroon Ni-Cu-PGE & Au Project

 07 April 2021 Option/JV Agreement Signed with Global Base Metal Miner

High Grade REE Ironstones Outcropping at Mangaroon 19 July 2021

Encouraging Results for Rare Earths at Yin • 1 September 2021

• 9 September 2021 Four New REE Ironstones Discovered at Mangaroon

• 29 November 2021 Five Carbonatite Intrusions Identified at Mangaroon Project

# Company Snapshot



Capital Structure	
ASX Code	DRE
Share Price (27/10/2021)	\$0.037
Shares on Issue	2,837.2M
Market Cap (diluted)	\$107.8M
Cash (31/12/2021)	~\$5.6M
Unlisted Options (various strike prices)	77.0M
Top 20 Shareholders	~32%
Board / Management Cash Investment	~\$1,300,000
Board / Management Shareholding	~17%



#### **Board & Management**

Paul Chapman	Non-Executive Chairman
Dean Tuck	Managing Director
Ian Gordon	Non-Executive Director
Paul Payne	Non-Executive Director
Jessamyn Lyons	Company Secretary
Matt Crowe	Exploration Manager
Frank Murphy	Operations Manager
Nick Chapman / Luke Blais / Sam Busetti	Senior Geologists

### Kimberley Ni-Cu-Au Projects (100%, E04/2315 80%)

- > ~1,400km² land holding in the West Kimberley
- Unexplored since 1978 with known outcropping mineralisation
  - Orion High-grade Cu-Co-Ag-Au-Zn Massive Sulphides
  - Rough Triangle High-grade Cu-Ag-Bi-Sb Veins
  - Fuso and Grants Cu-Co-Au mineralisation

### Mangaroon Ni-Cu-PGE (Option with FQM), REE & Au Project (100%)

- > ~4,900km² land holding in the Gascoyne Provence
- Vastly unexplored with historical work led by local pastoralists
  - Yin, Y2 and Y3 REE bearing Ironstones
  - C1-C5 Carbonatite intrusions
  - Bookathanna 1km long Ni-Cu-PGE gossan

### Illaara Gold-Base Metals-LCT-Iron Ore Project (100%)

- Consolidated ~650km² landholding covering 75km strike of the Illaara greenstone belt.
- High grade gold, outcropping fertile LCT pegmatites, Iron Ore and base metal gossans.
- Metzke's Find maiden gold resource underway:

### December Quarter 2021 Performance

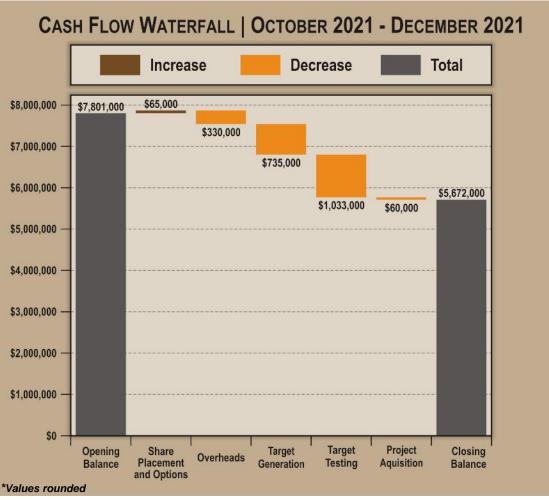












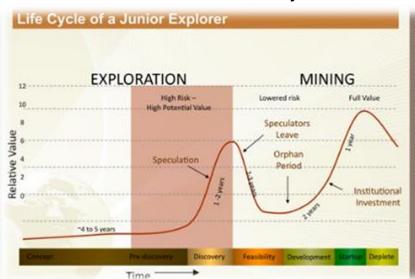
\*Confirmed Cu-Ag-Au-Co Discovery at Orion

# Strategy and Performance

# DREADNOUGHT RESOURCES

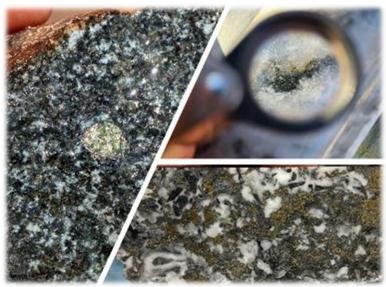
### DELIVER SIGNIFICANT SHAREHOLDER RETURNS

- Increase value through advancing exploration targets through discovery to resource
  - Chalice Julimar
  - De Grey Hemi
  - Sirius Nova Bollinger
  - Liontown Kathleen Valley



### EFFECTIVE AND EFFICIENT EXPLORATION

- >80% of funds go into the ground
- Maintain a pipeline of strong targets and drill results
- Maintain a stable of large scale projects with potential for multiple commodities



# STRONG COMMUNITY AND STAKEHOLDER ENGAGEMENT

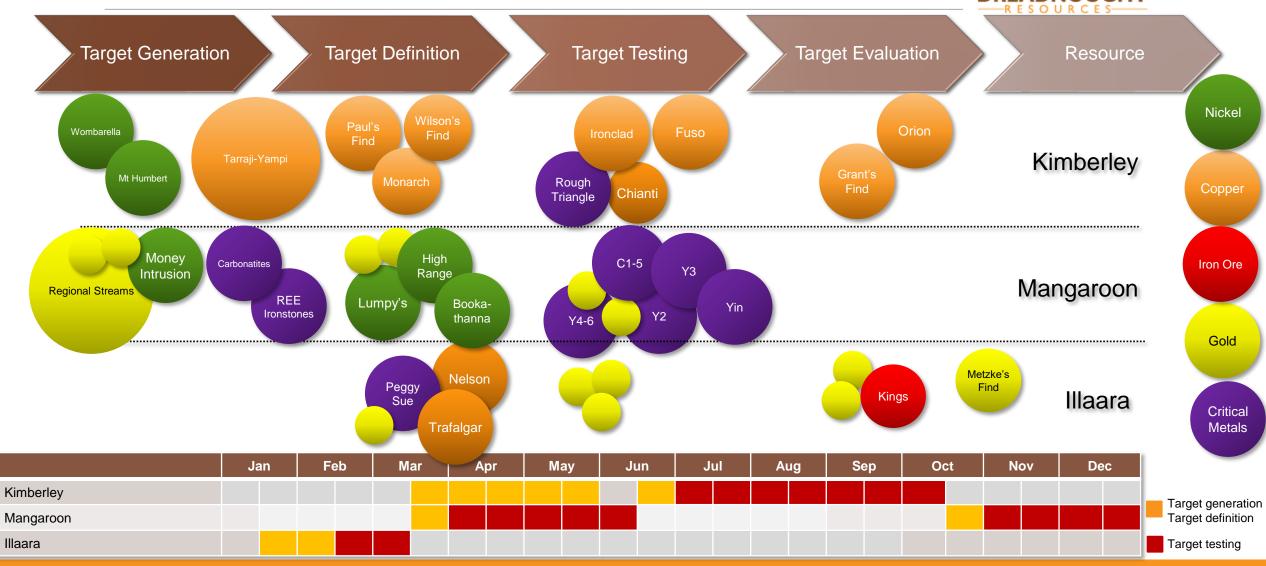
We strive to develop win-win relationships with key stakeholders – our licence to operate

- Water bores for pastoralists
- Upgrades to homestead outcamp
- Fire fighting trailer for the Dambimangari
- Site recycling to local sports clubs
- Low impact exploration
- Engagement with CSIRO and Universities



### 2022 Work Plan







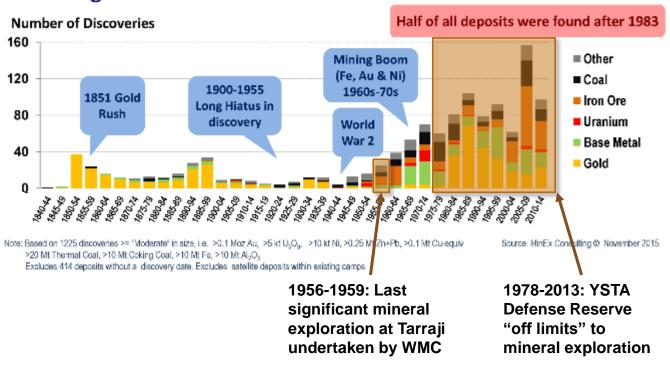
# Rare Exploration Opportunity

- Outcropping mineralisation
- Off limits since 1978
- First movers within the YSTA

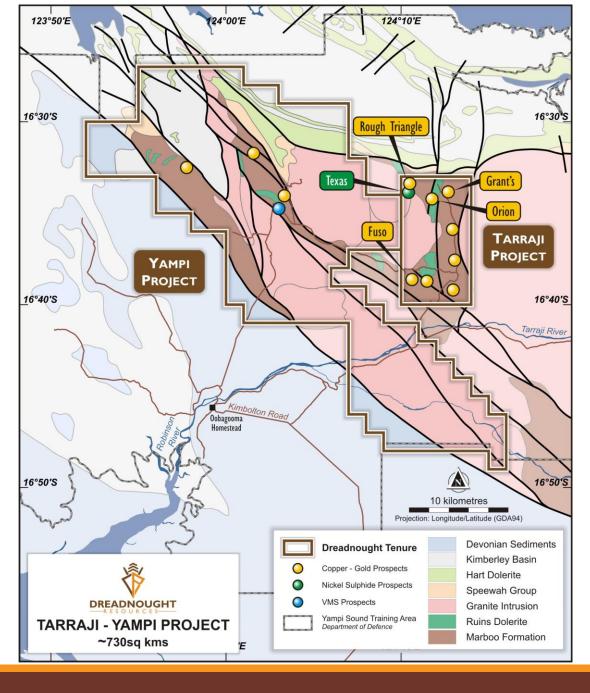


WMC's David Barr (L) & Roy Woodall (R) at Tarraji - 1950s

### No. of significant mineral discoveries in Australia: 1840-2014



- Half of all mineral deposits in Australia discovered after 1983
- No exploration since 1958 (Tarraji) / 1972 (Chianti-Rufina)
- Yampi Sound Training Area (Defense Reserve) off-limits to exploration from 1978-2013
- West Kimberley is controlled by IGO, Dreadnought and Chalice



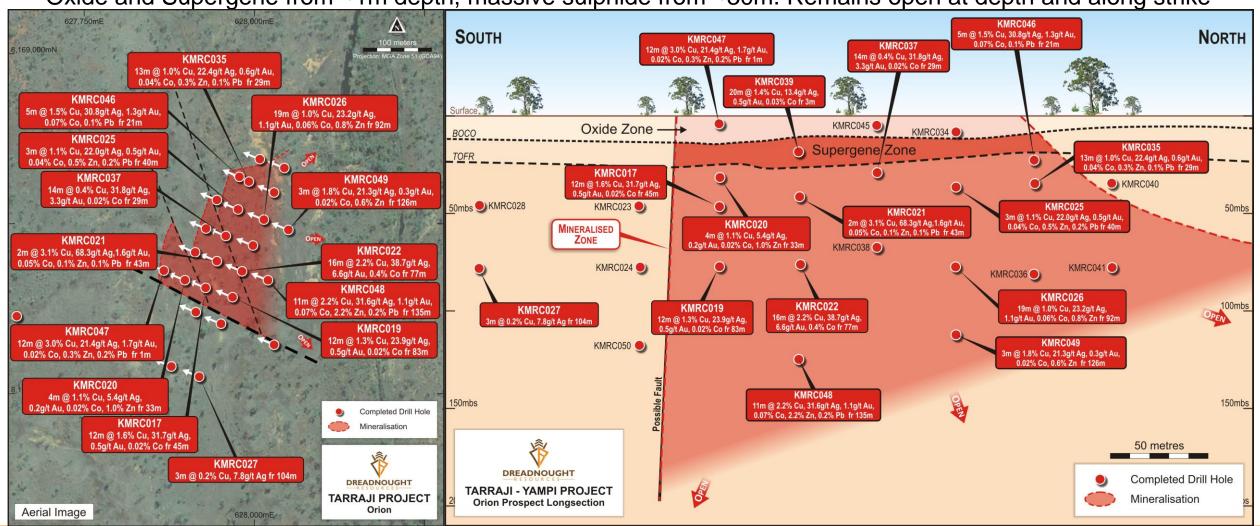
# Tarraji-Yampi

- Located just 80kms from the port of Derby and entirely within the Yampi Sound Training Area
- Historical exploration / mining on outcropping copper lodes
  - Grant's Find, Wilson's Reward, Rough Triangle, Iron Clad, Tarraji
- Recent Cu-Ag-Au-Co discovery under cover
  - Orion: Massive sulphide with high grade Cu-Ag-Au-Co
  - From just 1m under the surface, including supergene mineralisation
- Next Steps: Deliver resources and additional discoveries
  - Resource drilling Orion and Grant's Find
  - Discovery dozens of non outcropping targets, ability to geochemically screen

# Orion Cu-Ag-Au-Co



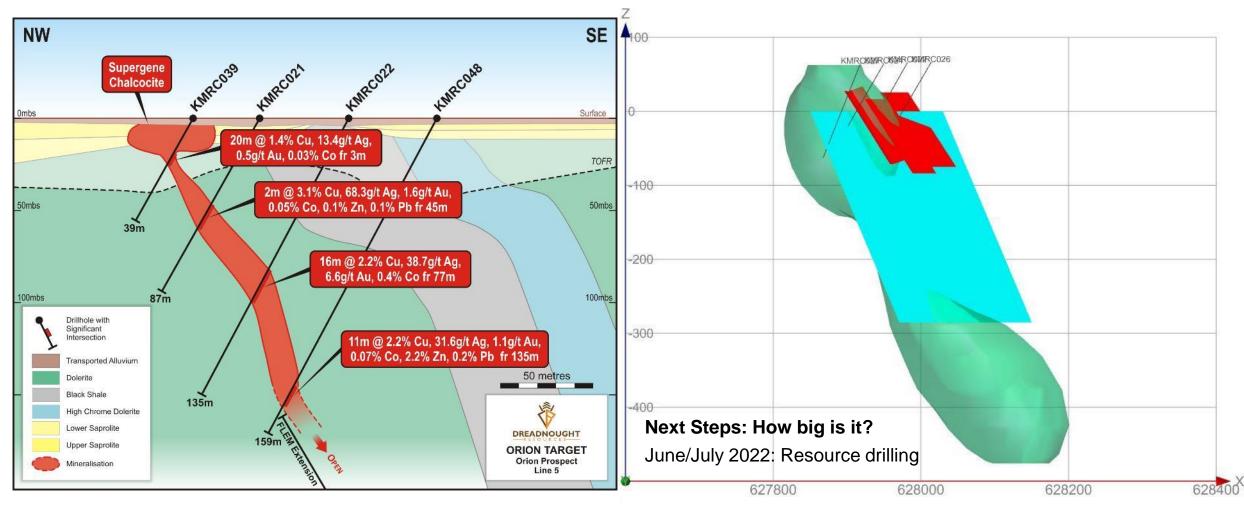
Oxide and Supergene from ~1m depth, massive sulphide from ~30m. Remains open at depth and along strike



# Orion Cu-Ag-Au-Co Target



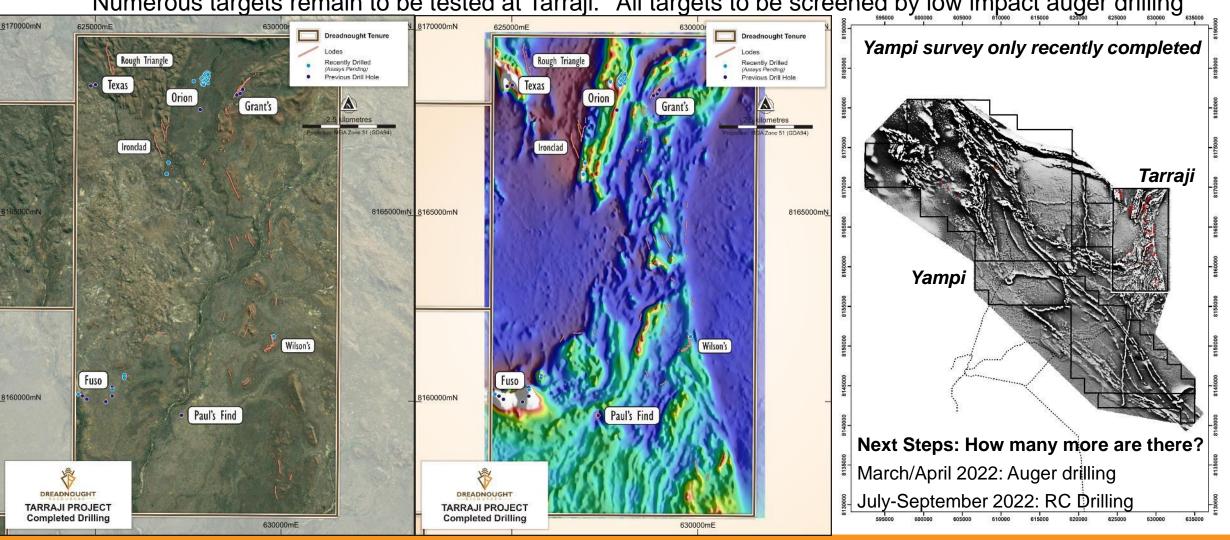
Depth of cover is only 1-5m – amendable to shallow auger drilling to assist with target screening and ranking



# Tarraji-Yampi Regional Targeting



Numerous targets remain to be tested at Tarraji. \*All targets to be screened by low impact auger drilling



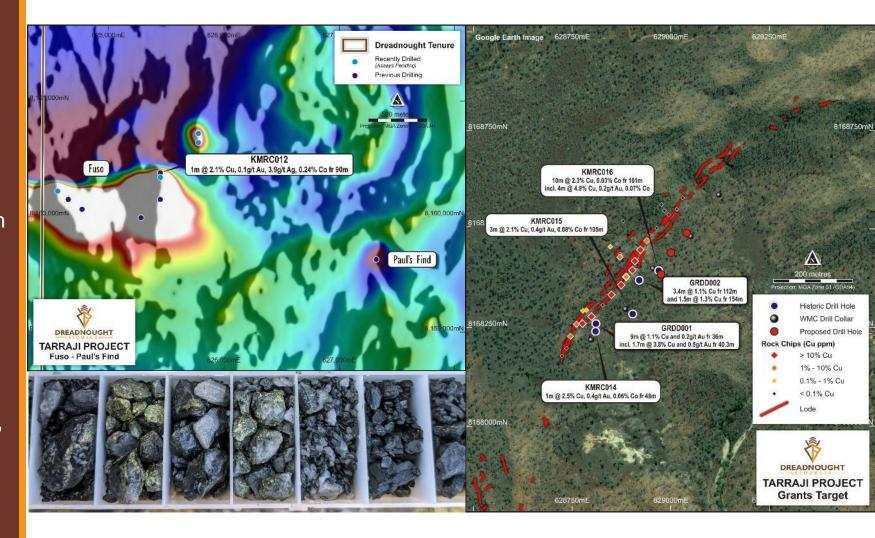
# Grant's Find and Fuso Cu-Au-Co

#### Grant's Find

- Outcropping breccia vein over 800m strike.
- Best intercept to date most northern drill hole.
- 10m @ 2.3% Cu, 0.03% Co

#### > Fuso

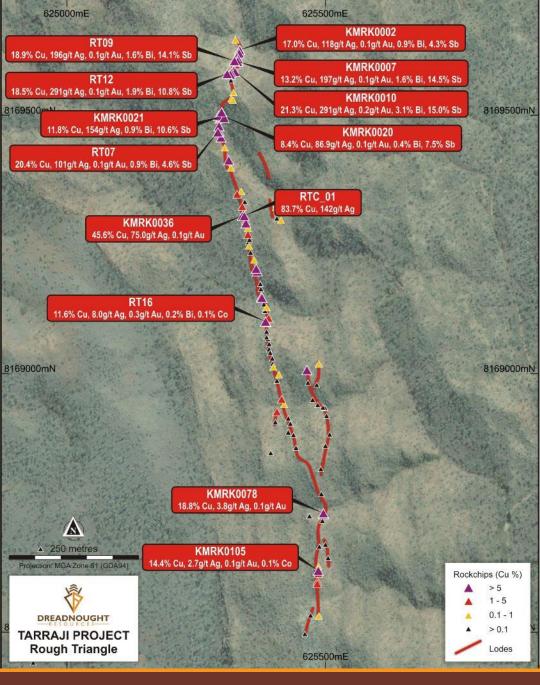
- Multiple strong magnetic anomalies, completely under shallow cover.
- New magnetic data indicating we missed the target due to hole deviation.
- 1m @ 2.1% Cu, 0.24% Co, 0.1g/t Au



### **Next Steps: Deliver resource on Grants, screen Fuso with Auger**

March/April 2022: Auger drilling at Fuso along with regional targets

June-September 2022: RC drilling at Grants Find and new targets

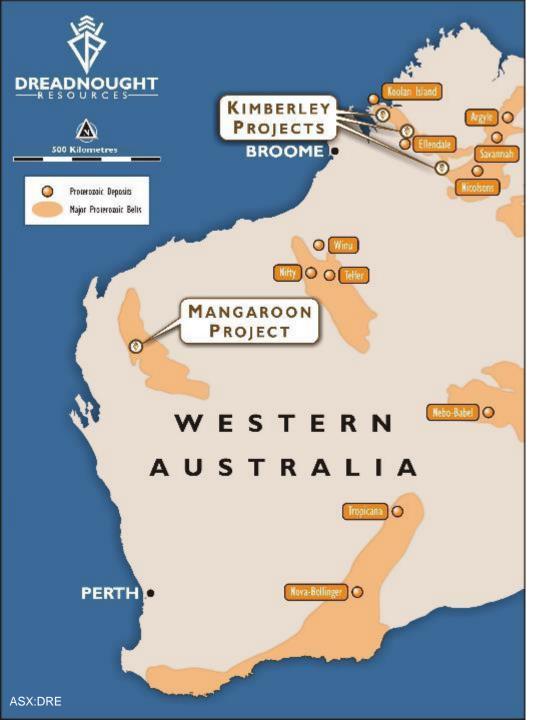




# Rough Triangle: Cu-Ag-Bi-Sb

- 1.2km long outcropping vein of high-grade Cu-Ag-Bi-Sb mineralisation
- Significant rock chips include:
  - RT07: 20.4% Cu, 4.6% Sb, 0.9% Bi, 101g/t Ag
  - RTC01: 83.7% Cu, 142g/t Ag
  - RT09: 18.9% Cu, 14.1% Sb, 1.6% Bi, 196g/t Ag
  - RT12: 18.5% Cu, 10.8% Sb, 1.9% Bi, 291g/t Ag
- Drilling expected May/June 2022



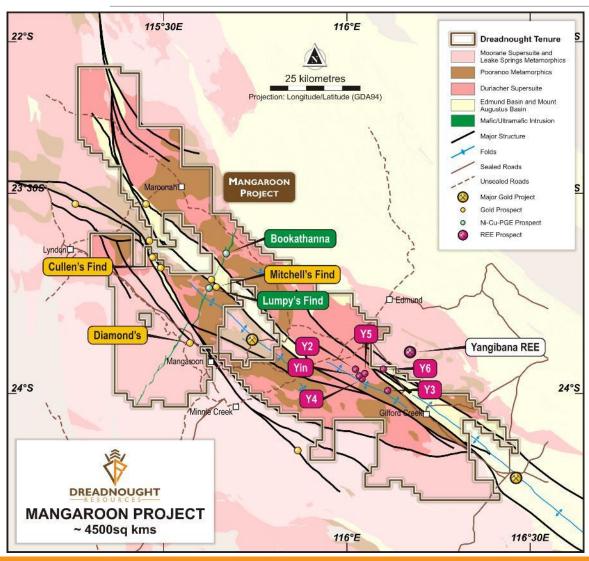


### Proterozoic Mobile Belts

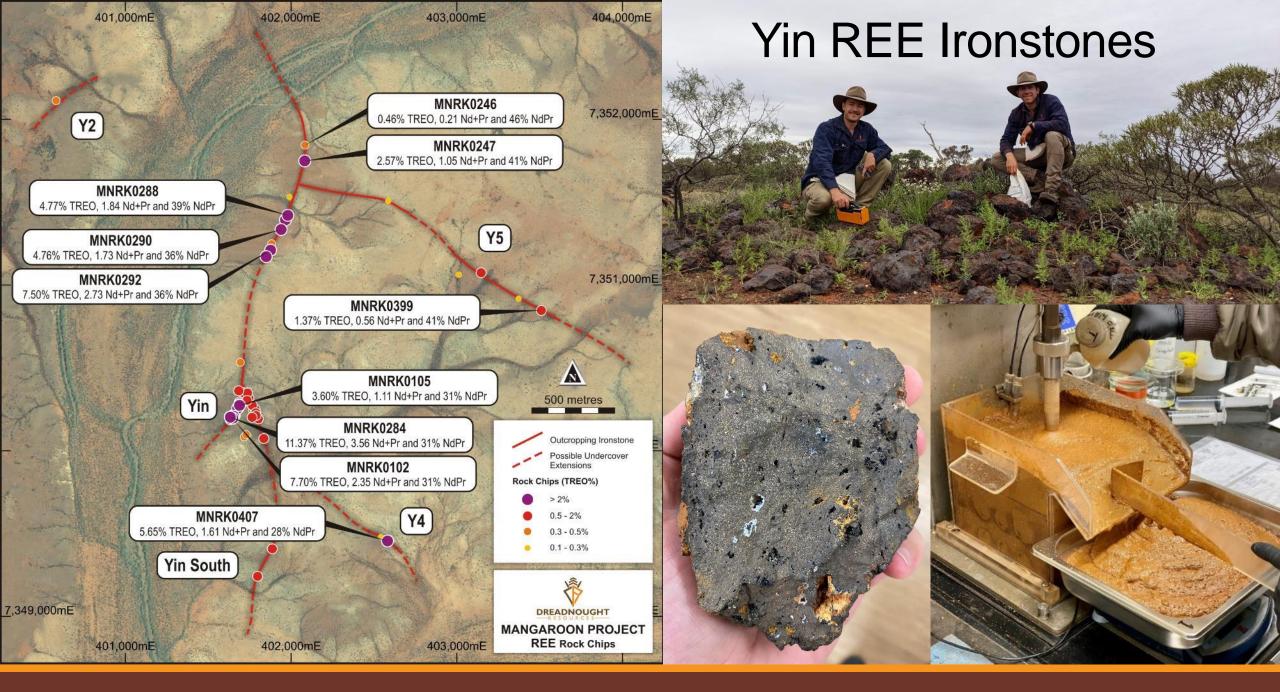
- Proterozoic mobile belts are attractive with the potential to host world class deposits across a range of commodities
- Mangaroon compliments the Kimberley
  - Both have potential Tier 1 discoveries
- Both have been historically underexplored despite outcropping mineralisation
- Dreadnought has acquired a substantial first mover land package in both provinces
- Option/JV Agreement regarding base metal rights with First Quantum Minerals
  - Dreadnought to manage early-stage exploration and retains certain rights to gold discoveries
  - First Quantum Minerals to fully fund exploration through decision to mine

## Mangaroon Project





- Rare Earths: Yin Camp 100% Owned
  - Outcropping high-grade rare earth ironstones similar to Yangibana
  - High NdPr to TREO ratio high value product for permanent magnets
  - Mineralogy and metallurgic work confirms high grade concentrate product
  - Next Steps: Resource drilling Yin, drill test the Carbonatites
- ➢Ni-Cu-PGE: The Money Intrusion Option/JV with FQM
  - 50km long, outcropping mafic/ultramafic intrusion with high tenor blebby Cu-Ni-PGE bearing sulphides
  - FQM entered into an Option Agreement over 5 tenements covering the Money Intrusion
  - earn 51% interest by spending \$15M and a further 19% interest by sole funding up until a Decision to Mine.
  - Dreadnought retains rights to any gold discoveries.
  - Next Steps: Model FLEM results, drill gossans at Bookathanna and any conductors



### Yin REE Ironstones

### ✓ Scale

 Six REE ironstones identified to date over an area of ~10kms x 5kms

#### ✓ Grade

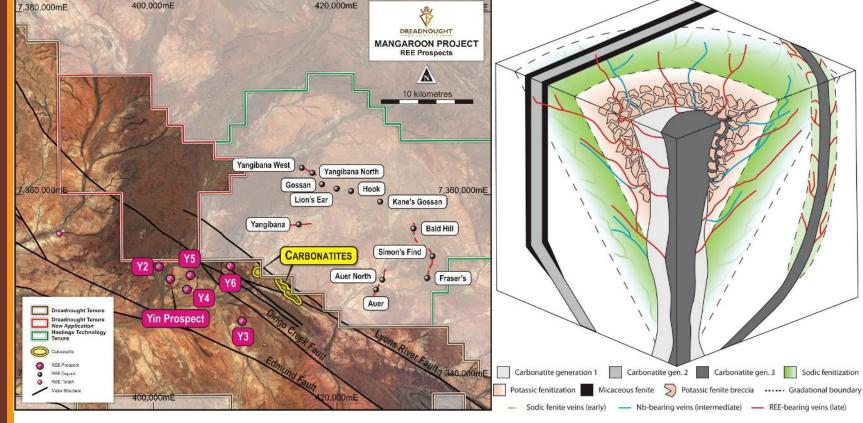
 High grade rock chips, up to 11.37% TREO, with high NdPr to TREO ratios – high value concentrate

### Mineralogy

 Monazite – globally significant REE mineral with abundant processing capacity with three plants to be built in WA

### Metallurgy

- Standard flotation sheet able to produce high grade concentrate
- 12.3% Nd2O3 / 40% TREO with 92.8% process recovery



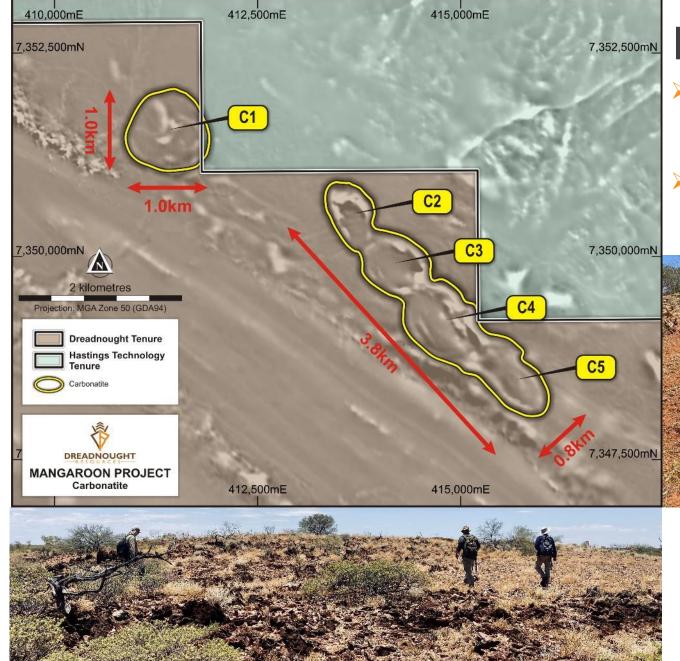
- > Since the 1990s, where are the source carbonatite intrusions?
  - REE Ironstones dykes and Nb bearing veins known at Yangibana classical model
  - Interpreted to stop at the Lyons River Fault source carbonatite at depth

### > July - September 2021

- REE Ironstones dykes confirmed south of the Lyons River Fault
- ~50,000-line kilometer airborne magnetic survey commenced to identify: Outcropping ironstones, buried ironstones, carbonatites

#### November – December 2021

Carbonatites identified in new mag data, confirmed on the ground - assays pending



### Possible REE Carbonatites

- Potential for large scale REE mineralisation
  - Residual ex. Mt Weld, Araxa, Yangibana,
  - Fresh Rock ex. Mountain Pass, Mt Weld
- Evidence for both fresh and residual mineralisation
  - 99.8% of interpreted intrusions under calcrete cover
  - Outcrops within C3 and C4 have been confirmed



**Next Steps: Is it mineralised?** 

February 2022: Results from surface sampling and mapping

March / April 2022: Discovery focused drilling

# 340,000 mE Bookathanna Lumpys 10 Kilometres **Dreadnought Tenure** EM Survey Money Intrusion Mapping Data (Size of Sulphides) Slugs >1.5cm Globules 8mm - 1.5cm Specs <3mm DREADNOUGHT **MANGAROON PROJECT** Money Intrusion

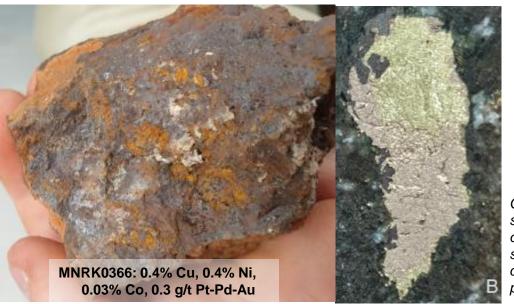
# Mangaroon Ni-Cu-PGE

- The Money Intrusion
  - 50km long, outcropping mafic / ultramafic intrusion with high tenor blebby Cu-Ni-PGE bearing sulphides
  - 1km long outcropping gossanous Ni-Cu-PGE horizon at Bookathanna

Next Steps: Is there a massive sulphide accumulation?

February 2022: Results from FLEM surveys

March 2022: Discovery focused drilling



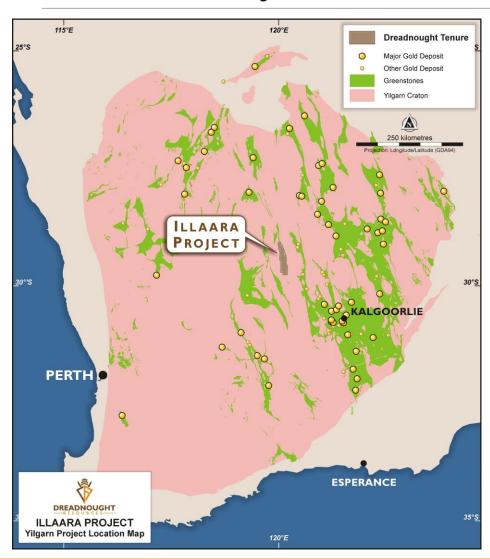
Coarse grained mafic intrusion showing high tenor three phase disseminated and blebby sulphides comprised of chalcopyrite, pentlandite and pyrrhotite

21



## Illaara Project



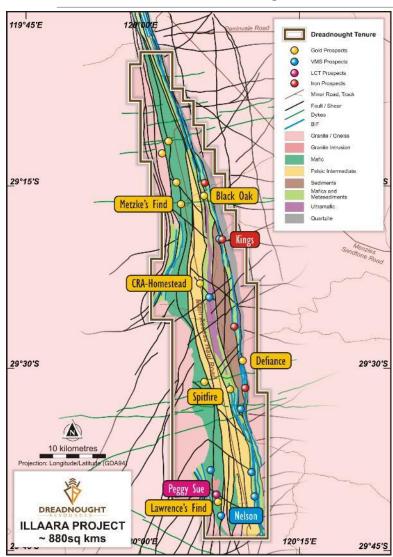


### Illaara Au-Cu-LCT-Iron Ore Project

- ➤ Initially acquired from Newmont and through subsequent deals have consolidated ~75km strike of underexplored greenstone belt
- First significant gold and base metal exploration since the 1980s and 1990s. Previously held by iron ore explorers.
- Active neighbours including:
  - Ramelius Resources (RMS) Marda Operations
  - Ora Banda Mining (OBM) Davyhurst Gold Project
  - Aurenne Group Mt Ida and Bottle Creek Gold Project
  - Mineral Resources (MIN) Central Yilgarn Operations

# Illaara Project Overview





### **Lithium Caesium Tantalum Pegmatites – Peggy Sue**

- Outcropping fertile LCT pegmatite swarm over an area of 5km x 2kms with multiple clusters of high-grade tantalum (up to 529ppm Ta<sub>2</sub>O<sub>5</sub>)
- Additional mapping and sampling over mineralised clusters to define drill targets for early 2022

### VMS – Nelson and Trafalgar

- ~1.4km long Cu-Pb-Zn-Ag anomaly situated over prospective changes in lithology (peak values 640ppm Pb; 1,100ppm Zn; 300ppm Cu; 0.7 g/t Ag)
- FLEM surveys underway to define drill target

### Gold

- High-grade gold resource at Metzke's Find in March quarter 2022
- Regional sampling over central and eastern corridor highlighting new large scale coherent gold in soil anomalies

### **Iron Ore**

- Resource evaluation drilling in June quarter 2022
  - P-North: 29m @ 58.6% Fe, 8.3% SiO<sub>2</sub>, 3.4% Al<sub>2</sub>O<sub>3</sub>, 0.04% P, and 4.0% LOI from 6m
    Incl. 16m @ 64.4% Fe, 2.4% SiO<sub>2</sub>, 1.3% Al<sub>2</sub>O<sub>3</sub>, 0.04% P and 3.7% LOI from 8m
  - Kings: 49m @ 55.7% Fe, 9.1% SiO<sub>2</sub>, 3.1% Al<sub>2</sub>O<sub>3</sub>, 0.04% P, and 4.0% LOI from 13m
    Incl. 11m @ 62.7% Fe, 2.5% SiO<sub>2</sub>, 1.2% Al<sub>2</sub>O<sub>3</sub>, 0.05% P and 6.1% LOI from 48m

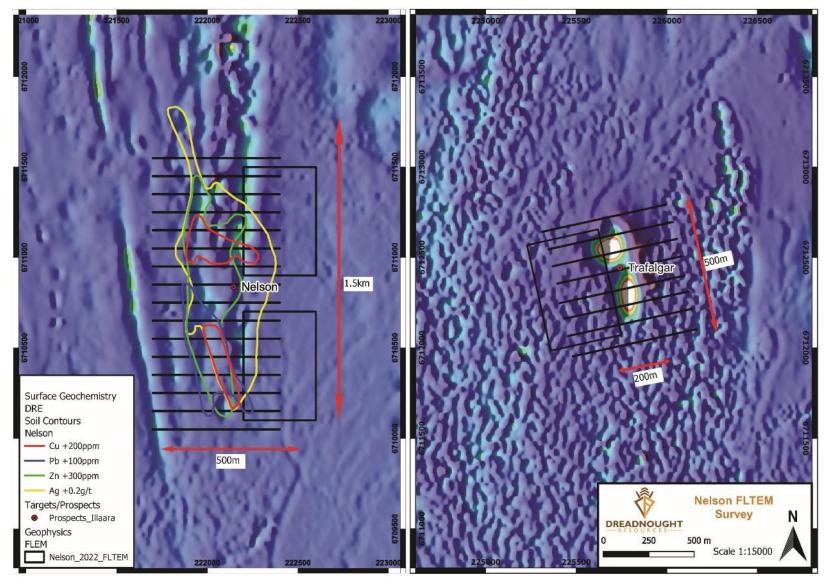
### 222,000 mE DREADNOUGHT E30/476 ILLAARA PROJECT **Peggy Sue** 6,715,000 mN LRK066 LRK068 283ppm Ta<sub>2</sub>O<sub>5</sub> 295ppm Ta<sub>2</sub>O<sub>5</sub> LRK067 391ppm Ta<sub>2</sub>O<sub>5</sub> LRK100 357ppm Ta<sub>2</sub>O<sub>5</sub> 6,713,000 mN 6,713,000 LRK069 310ppm Ta<sub>2</sub>O<sub>4</sub> LRK095 216ppm Ta<sub>2</sub>O<sub>5</sub> LRK098 270ppm Ta,O, 529ppm Ta<sub>2</sub>O<sub>5</sub> 1 Kilometer 6,711,000 mN 222,000 mE

# Peggy Sue: LCT Pegmatite



- ~200 rock chips of pegmatite swarm collected
- Large outcropping pegmatites 10-30m wide 300-500m long.
- Early results showing high tantalum fertile system.
- Further mapping and sampling around clusters to determine zonation and fractionation trends to locate lithium rich zones.





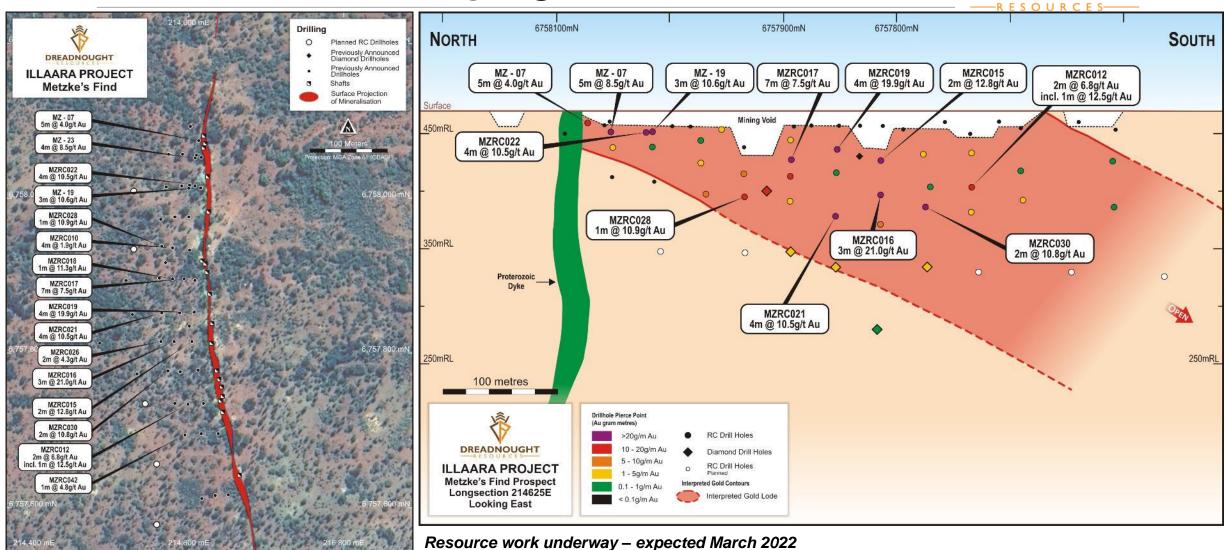
Opportunity for Cu-Zn-Ag Massive Sulphide deposits analogous to Jaguar and Scuddles

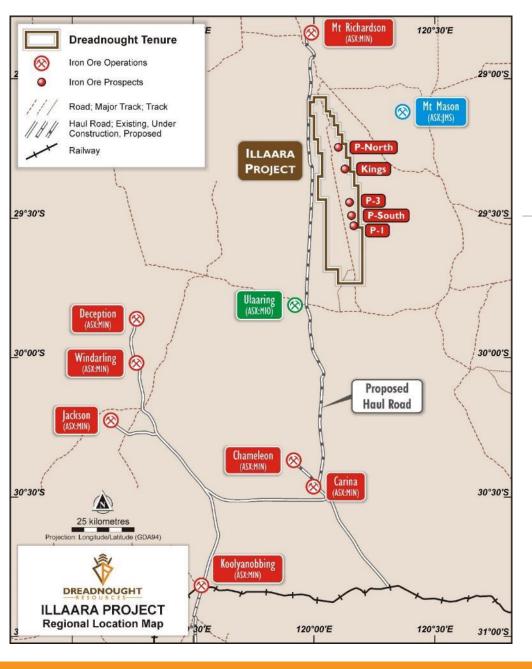
# Nelson and Trafalgar VMS

- Nelson defined by ~1.5km long Cu-Zn-Pb-Ag in soil anomaly with strong VMS pathfinder (Au, Cd, In, Sn, Tl) association associated with a thin sediment horizon between a lower felsic volcaniclastic sequence and upper mafic volcanics.
- Trafalgar defined by a ~500m long discrete double magnetic anomaly location within a thick felsic volcaniclastic sequence.
- FLEM survey completed, results expected February 2022.
- RC drilling to commence February 2022.

# Metzke's Find: High-grade Gold







# Iron Ore

- Illaara contains significant iron ore potential which was briefly explored by Portman Iron and then Cleveland Cliffs from 2008-2013:
  - High iron and low phosphorus grades compared with regional players
  - Same geology as the high iron, low phosphorus Mt Richardson development
  - Contains a ~75km long internal haul road
- Some of the more advanced prospects include:
  - **P-North:** 29m @ 58.6% Fe, 8.3% SiO<sub>2</sub>, 3.4% Al<sub>2</sub>O<sub>3</sub>, 0.04% P, and 4.0% LOI from 6m
    - Incl. 16m @ 64.4% Fe, 2.4% SiO<sub>2</sub>, 1.3% Al<sub>2</sub>O<sub>3</sub>, 0.04% P and 3.7% LOI from 8m
  - Kings: 49m @ 55.7% Fe, 9.1% SiO<sub>2</sub>, 3.1% Al<sub>2</sub>O<sub>3</sub>, 0.04% P, and 4.0% LOI from 13m
    - Incl. 11m @ 62.7% Fe, 2.5% SiO2, 1.2% Al2O3, 0.05% P and 6.1% LOI from 48m
  - **P-3:** 20m @ 58.5% Fe, 2.9% SiO<sub>2</sub>, 1.9% Al<sub>2</sub>O<sub>3</sub>, 0.06% P, and 9.5% LOI from 48m
    - Incl. 5m @ 60.3% Fe, 2.2% SiO2, 1.5% Al2O3, 0.03% P and 8.6% LOI from 55m

### Take Away Message

- Strong news flow: Discovery and evaluation / resource drilling focus for the next 12 months
- Illaara: Consolidated 75km long underexplored greenstone belt with early exploration success
  - Drilling February 2022
- Mangaroon: first mover major land positions with proven REE, Ni-Cu-PGE and Au mineralisation
  - Drilling March/April 2022
- Kimberley: first mover major land positions with proven Cu-Ag-Au-Co mineralisation and potential to unlock a new mineral province
  - Drilling June/July 2022
- Experienced management team with a track record of success and strongly aligned with shareholders

