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## **ASX ANNOUNCEMENT** 30 August 2023

## **Drilling Commenced at Money Intrusion Ni-Cu-PGE - Mangaroon (Earn-in)**

#### **HIGHLIGHTS**

- RC Drilling has commenced at the Money Intrusion Ni-Cu-PGE (First Quantum Minerals Earn-in / JV) with a total of 5 holes planned for ~1,000m including DHEM at Mangaroon Ni-Cu-PGE Project ("Mangaroon").
- Drilling is targeting 5 strong EM conductors defined within the Money Intrusion consistent with high tenor, massive and net textured sulphide bodies.
- Conductors at the Bookathanna North target are up to 37,000S which is significantly higher than the 160-200S conductors tested in the 2022 drill program. The 2022 program intersected net textured to brecciated sulphides in 9 holes and the Bookathanna North conductor is interpreted to represent a massive sulphide accumulation in a shallow keel position.
- Drilling is expected to take 1-2 weeks to complete with assay and down hole EM ("DHEM") results expected in October 2023.
- This program is fully funded by First Quantum Minerals under the earn-in ("First Quantum Minerals Earn-in").

Dreadnought Resources Limited ("Dreadnought") is pleased to announce that RC drilling has commenced at the Money Intrusion Ni-Cu-PGE (First Quantum Minerals Earn-in / JV) at the Mangaroon Project, located in the Gascoyne Region of Western Australia.

Drilling (5 holes, ~1,000m) is targeting 5 conductive bodies interpreted to be sulphide accumulations. Of these, 2 conductors are located at the Bookathanna North target where the keel of the Money Intrusion is near surface and the other 3 are located within the High Range target. All 5 conductors are significantly stronger than those targeted in the 2022 drill program which intersected net-textured to brecciated Ni-Cu-PGE sulphides.

Dreadnought's Managing Director, Dean Tuck, commented: "With Rare Earth Resource drilling at Mangaroon coming to a close, we are excited to return to the highly prospective Ni-Cu-PGE targets defined at Bookathanna North and High Range with our partners First Quantum Minerals. Dreadnought is excited to return to exploring for nickel, copper and gold across our project portfolio for the remainder of 2023 whilst our Resource and study preparation work on the rare earths advances in the background."



Figure 1: Photo of the RC rig drilling at Bookathanna North.

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## **SNAPSHOT - MANGAROON CRITICAL MINERALS**

## International Major First Quantum Minerals Earning into the Project

- The potential of the Money Intrusion is underscored by an Earn-In / JV agreement with First Quantum Minerals Ltd (TSE:FM "First Quantum Minerals"), a ~A\$20B TSX listed company (ASX 7 Apr 2021, ASX 30 Aug 2022).
- First Quantum Minerals can earn an initial 51% interest by funding \$12M of expenditure by 1 March 2026, First Quantum Minerals may withdraw at any time during the earn-in phase with 0% interest.
- Upon satisfying the earn-in requirements, a Joint Venture will be formed where First Quantum Minerals may elect to increase its interest to 70% by sole funding expenditure up until a Decision to Mine.
- Once a Decision to Mine has been made, Dreadnought can elect to either:
  - Maintain its 30% by co-contributing.
  - Dilute to 20% and be loan carried by First Quantum Minerals, repaid through revenue.
  - Divest its 30% interest to First Quantum Minerals at fair market value.
- Dreadnought retains gold interest across all Earn-in / JV tenements.

## Fertile Ni-Cu-PGE System Confirmed

- Fertile Ni-Cu-PGE sulphide systems are extremely rare and the Money Intrusion has already been proven to contain high tenor magmatic Ni-Cu-PGE mineralisation.
- The Money Intrusion is confirmed to be ~800Ma, a fertile time for Ni-Cu-PGE systems globally and containing highly prospective keel geometries which are suitable for forming trap sites for magmatic sulphide accumulation.
- First pass drilling in 2022 intersected magmatic sulphide mineralisation including (ASX: 10 Nov 2022):

REYRC002: 13m @ 0.19% Ni, 0.17% Cu, 0.01% Co and 0.08g/t 3PGE from 70m Including: Im @ 0.85% Ni, 0.77% Cu, 0.46% Co and 0.17g/t 3PGE from 80m REYRC009: 9m @ 0.11% Ni, 0.14% Cu, 0.01% Co and 0.10g/t 3PGE from 30m Including: Im @ 0.33% Ni, 0.44% Cu, 0.02% Co and 0.41g/t 3PGE from 31m

## **No Modern Exploration**

- Outcropping Ni sulphides identified by Alan McDonald, the Pastoralist at Mangaroon in the early 1960s.
- No previous detailed geophysical, geochemical or mapping programs undertaken.
- Dreadnought and First Quantum Minerals have undertaken the first detailed airborne magnetics, surface geochemical, ground EM and mapping surveys confirming the potential of the 45km long Money Intrusion.

#### **Genuine Camp Scale Potential**

- Outcropping blebby sulphides have been confirmed over significant portions of the ~45km long strike of the Money Intrusion.
- Multiple plumbing centres have been interpreted, each with the potential for trap sites within the magma pathways.
- Mineralisation already confirmed by drilling at two locations within the Money Intrusion: Bookathanna and High Range.

## Nickel and Copper are Critical to the Low Carbon Energy Transition.

- Nickel is essential to the spectrum of clean energy technologies, primary through being a major cathode material in lithium-ion batteries. Furthermore, magmatic nickel sulphide deposits have a much lower carbon footprint when being converted to Class I nickel for battery grade applications.
- Copper is essential for almost all electricity-related technologies with renewable energy systems requiring up to 12x more copper compared to traditional energy systems.

## **ASX:DRE**

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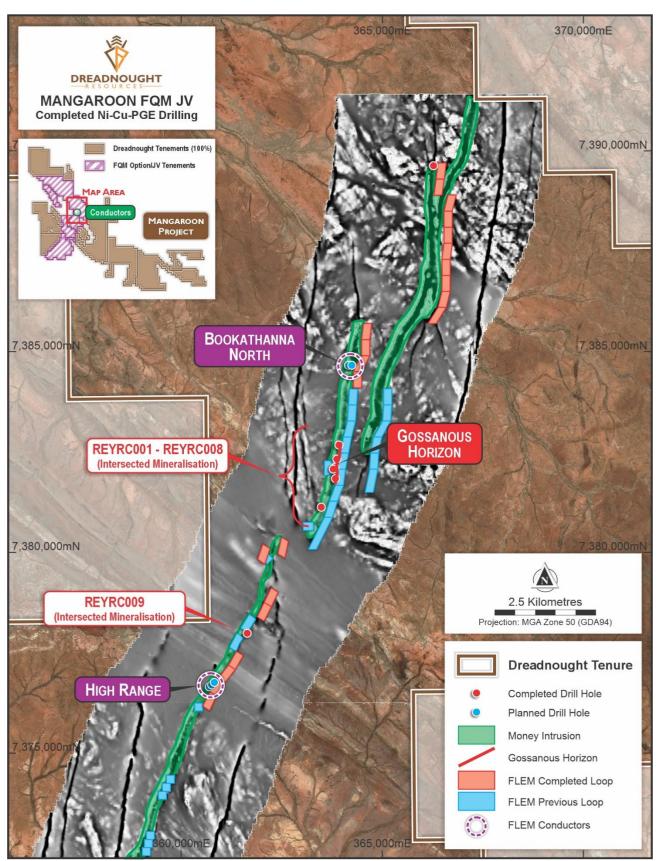


Figure 2: Plan view image showing the location of planned drilling (blue dots) in relation to previous drilling and FLEM surveys over a magnetics and ortho image. The Money Intrusion has been outlined in green.

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## Technical Discussion (E08/3274, E09/2384: First Quantum Minerals Earn-in, up to 70%)

The confirmation of a fertile magmatic Ni-Cu-PGE system within the 45km long Money Intrusion highlights the potential for multiple deposits. The Money Intrusion has been dated to ~0.8 Ga, similar in age and tectonic setting to the Jinchuan Ni-Cu-PGE deposit in China (>500 Mt @ 1.2% Ni, 0.7% Cu, ~0.4 g/t PGE, Lightfoot 2007).

In 2022, 9 out of 12 RC holes intersected disseminated mineralisation along significant strike showing increasing width and intensity near subtle changes in the walls of the intrusion. This highlights the potential for mineralisation to concentrate and form massive sulphide mineralisation at favourable "trap sites" along the intrusion. This is similar to Eagle and Eagle East (~5Mt @ 3.5% Ni, 2.9% Cu, 1.6g/t PGE, 0.1% Co, Lundin 2013) located in North America. These high tenor massive sulphide targets, like Eagle, are the preferred exploration target for First Quantum Minerals.

There remains significant potential for this system to host high tenor Ni-Cu-PGE massive sulphides. At the end of 2022, a fixed loop EM survey was undertaken along strike from previous drill intercepts at Bookathanna and High Range where significant intercepts included (ASX: 10 Nov 2022):

REYRC002: 13m @ 0.19% Ni, 0.17% Cu, 0.01% Co and 0.08g/t 3PGE from 70m Including: Im @ 0.85% Ni, 0.77% Cu, 0.46% Co and 0.17g/t 3PGE from 80m REYRC009: 9m @ 0.11% Ni, 0.14% Cu, 0.01% Co and 0.10g/t 3PGE from 30m Including: Im @ 0.33% Ni, 0.44% Cu, 0.02% Co and 0.41g/t 3PGE from 31m

Bookathanna North was targeted, as it was interpreted as a shallow keel position of the Money Intrusion, resulting in the identification of two conductive bodies; one  $\sim 20 \times 10 \text{m}$  with a very high conductance of 37,000S, and another immediately adjacent, being  $\sim 40 \times 10 \text{m}$  with a high conductance of 2,200S (ASX: 24 Mar 2023, Table I).

High Range is located where the Money Intrusion crosses into a basin of Edmund Group Sediments. As expected, several lithological conductors perpendicular to the Money Intrusion were identified. Three parallel conductive bodies within the Money Intrusion were also identified, each being ~50-100m x 50-70m with a high conductance of 750-900S (ASX: 24 Mar 2023, Table 1). All 3 of these conductors are significantly stronger than the original Bookathanna Conductor (~180S) which produced the net textured to brecciated sulphide intercepts in 2022.

Each of the 5 conductors will be drilled by a single hole designed to test the centre of each modelled plate. These drill holes will then be subject to DHEM surveys. This work is expected to take 2-3 weeks.

Pending the visual and DHEM results, further holes may be designed and drilled.

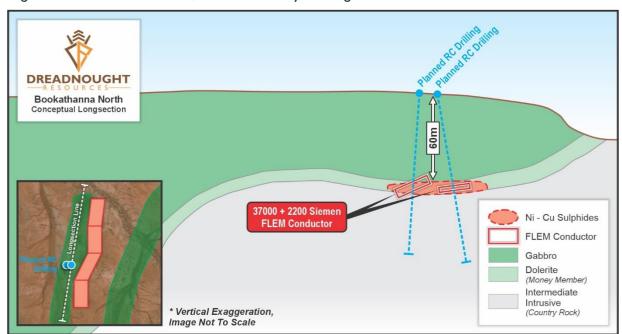
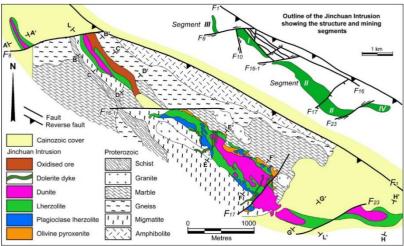


Figure 3: Conceptual long section of Bookathanna North showing planned drilling in relation to conductive targets at the shallow keel of the Money Intrusion.

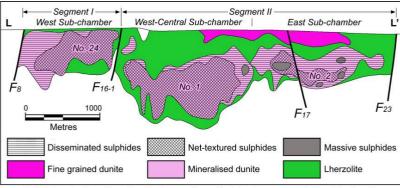


# The Money Intrusion (E08/3178, E08/3274, E09/2384, E09/2433, E09/2473: (First Quantum Minerals Earn In))

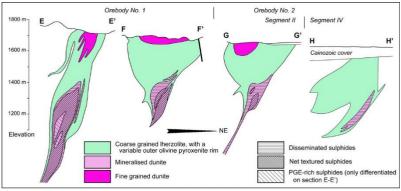
The confirmation of a fertile magmatic Ni-Cu-PGE system within the 45km long Money Intrusion highlights the potential for multiple deposits. The Money Intrusion has been dated to ~0.8 Ga, similar in age and tectonic setting to the Jinchuan Ni-Cu-PGE deposit in China (>500 Mt @ I.2% Ni, 0.7% Cu, ~0.4 g/t PGE, Lightfoot 2007).



Geology and structure of the Jinchuan ultramafic intrusion and enclosing wall rocks (after Song et al., 2012)



Longitudinal projection along the Jinchuan ultramafic intrusion segments I and II, showing ore types, ore deposits and lithologies (after Song et al., 2012)



Representative cross sections showing the geology and mineralisation of the Eastern Jinchuan Ultramafic Intrusion, in segments II and IV (sections E-E' and G-G' after Song et al., 2006; F-F' and H-H' after Song et al., 2012). See the geological map for section lines.

Jinchuan contains three main mineralised bodies over ~6.5kms of strike, each situated within a sub-chamber of the overall intrusion. Mineralisation is dominated by net-textured and disseminated sulphides with minor massive sulphide accumulations. Importantly, the disseminated sulphides form an envelope around the higher-grade, net-textured and massive sulphides. Furthermore, only one of the mineralised bodies is outcropping, with the other two deposits blind at surface (Figure 4).

The implications of the analogous Jinchuan deposits to the Money Intrusion are significant for both the current and future drilling. The first holes intersected disseminated mineralisation along significant strike showing increasing width and intensity towards the middle and at depth. There remains significant potential for this system to improve with depth and within the ~4.5km of strike already defined.

Furthermore, given the ~45kms of strike over the Money Intrusion shows evidence of pinching, swelling, multiple feeder channels and mapped disseminated sulphides, there could be significant mineralisation that does not outcrop.

Further drilling and geophysics along the intrusion will assist with better understanding the system and in identifying further mineralisation.

Figure 4: Plan view (top) and long section (middle) and cross section (bottom) of Jinchuan, highlighting that most of the mineralisation does not outcrop at surface (as appears to be the case with the Money Intrusion).

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Background on Mangaroon (E08/3274, E8/3178, E09/2384, E09/2433, E09/2473: First Quantum Minerals Earn-in) (E08/3275, E08/3439, E09/2290, E09/2359, E09/2370, E09/2405, E09/2448, E09/2449, E09/2450, E09/2467, E09/2478, E09/2531, E09/2535, E09/2616, M09/91, M09/146, M09/147, M09/174, M09/175: 100%)

Mangaroon covers >5,200sq kms of the Mangaroon Zone in the Gascoyne Region of Western Australia. Part of the project is targeting Ni-Cu-PGE and is subject to First Quantum Minerals earning up to 70% (Figure 5). The region is also host to high-grade gold mineralisation at the Bangemall/Cobra and Star of Mangaroon gold mining centres and the high NdPr:TREO ratio Yin and Yangibana REE deposits.

Dreadnought has located outcropping high-grade gold bearing quartz veins along the Edmund and Minga Bar Faults, outcropping high-grade REE ironstones, similar to those under development at Yangibana, REE-Nb-Ti-P Carbonatites and outcropping high tenor Ni-Cu-PGE blebby sulphides in the recently defined Money Intrusion.

The Yin REE Ironstone Complex contains an independent total Resource of 20.06Mt @ 1.03% TREO (ASX 5 Jul 2023) over only ~4km of ~43km of ironstones including an initial Indicated Resource of 5.52Mt @ 1.23% TREO over only ~250m of strike (ASX 5 Jul 2023). There is also an Exploration Target of 50-100Mt at 0.9-1.3% TREO (ASX 13 Feb 2023) estimated over 40 kms of strike within the Yin REE Ironstone Complex. Exploration of the C1-5 carbonatites is ongoing with an initial independent Inferred Resource of 10.84Mt @ 1.00% TREO (ASX 29 Aug 2023).

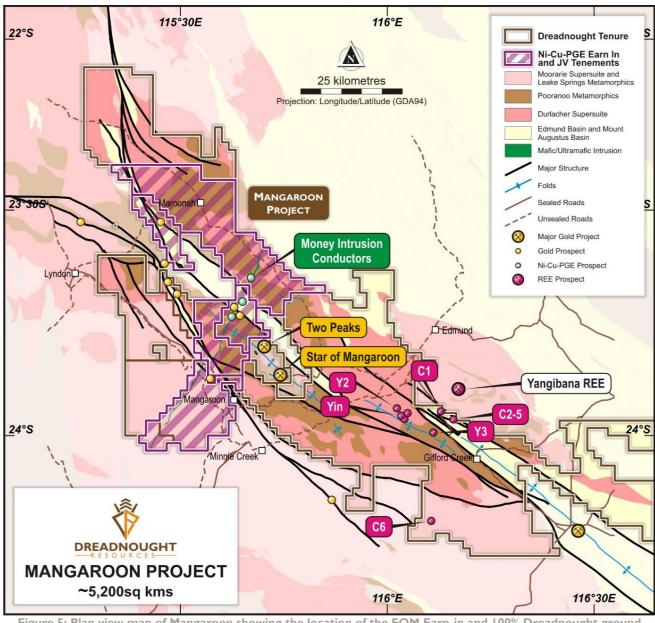


Figure 5: Plan view map of Mangaroon showing the location of the FQM Earn-in and 100% Dreadnought ground.

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For further information please refer to previous ASX announcements:

25 November 2020 Mangaroon Ni-Cu-PGE & Au Project
 7 April 2021 Option/JV Agreement Signed with Global Base Metal Miner
 14 February 2022 Conductors Defined Along the Money Intrusion
 10 June 2022 Drilling Successfully Completed at Mangaroon Ni-Cu-PGE
 30 August 2022 Mangaroon Ni-Cu-PGE Project advances to \$12M Earn-In
 10 November 2022 Exploration Update Mangaroon Ni-Cu-PGE (FQM Earn-In)
 24 March 2023 Five Strong EM Conductors at Mangaroon Ni-Cu-PGE Project

#### **UPCOMING NEWSFLOW**

August-December: Ongoing drilling results from Mangaroon REE (100%)

August: Results of gold target generation soil surveys at Mangaroon (100%)

September: Results of geophysical surveys at Mangaroon (100%)

September: Commencement of drilling at Tarraji-Yampi (80% and 100%)

September: Results of geophysical and geochemical surveys at Central Yilgarn (100%)

12 (Melbourne) & 14 (Sydney) September: New World Metals Conference

September: 2023 Annual Report

October/November: Commencement of RC drilling at Mangaroon Au (100%)

October/November: Results from target generation and definition work at Bresnahan (100%)

October: Quarterly Activities and Cashflow Report

23 November: Annual General Meeting

December 2023 quarter: REE Resource upgrade (Mangaroon 100%)

~Ends~

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This announcement is authorised for release to the ASX by the Board of Dreadnought.



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## **Cautionary Statement**

This announcement and information, opinions or conclusions expressed in the course of this announcement contains forecasts and forward-looking information. Such forecasts, projections and information are not a guarantee of future performance, involve unknown risks and uncertainties. Actual results and developments will almost certainly differ materially from those expressed or implied. There are a number of risks, both specific to Dreadnought, and of a general nature which may affect the future operating and financial performance of Dreadnought, and the value of an investment in Dreadnought including and not limited to title risk, renewal risk, economic conditions, stock market fluctuations, commodity demand and price movements, timing of access to infrastructure, timing of environmental approvals, regulatory risks, operational risks, reliance on key personnel, reserve estimations, native title risks, cultural heritage risks, foreign currency fluctuations, and mining development, construction and commissioning risk.

## **Competent Person's Statement - Exploration Results**

The information in this announcement that relates to geology, exploration results and planning, and exploration targets was compiled by Mr. Dean Tuck, who is a Member of the AlG, 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 and Ore Reserves'. Mr. Tuck consents to the inclusion in the announcement of the matters based on the information in the form and context 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 reports, and that the forma and context in which the Competent Person's findings are presented have not been materially modified from the original reports.

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#### **INVESTMENT HIGHLIGHTS**

## Kimberley Ni-Cu-Au Project (80/100%)

The project is located only 85kms from Derby in the West Kimberley region of WA and was locked up as a Defence Reserve since 1978.

The project has outcropping mineralisation and historic workings which have seen no modern exploration.

Results to date indicate that there may be a related, large scale, Proterozoic Cu-Au-Ag-Bi-Sb-Co system at Tarraji-Yampi, similar to Cloncurry/Mt Isa and Tennant Creek.

## Mangaroon Ni-Cu-PGE JV & Au/REE 100% Project

Mangaroon covers ~5,200 kms and is located 250kms south-east of Exmouth in the Gascoyne Region of WA. At the Money Ni-Cu-PGE has been identified and is subject to an earn-in by First Quantum Minerals (up to 70%). Dreadnought also has areas of outcropping high-grade gold including the historic Star of Mangaroon and Diamonds gold mines. In addition, Mangaroon has emerged as a globally significant, rapidly growing, potential source of critical minerals. Highlights include:

- An Exploration Target of 50-100Mt at 0.9-1.3% TREO estimated for the top 150m of the ~43km long Yin REE Ironstone Complex (ASX 13 Feb 2023).
- An independent Resource for Yin Ironstones Complex of 20.06Mt @ 1.03% TREO over only ~4kms including an Indicated Resource of 5.52Mt @ 1.23% TREO over just 250m strike (ASX 5 Jul 2023).
- Regional source of rare earths at the CI-C5 carbonatites totaling ~9kms x ~1km (ASX 7 Aug 2023).
- A large, independent initial Resource of 10.84Mt @ 1.00% TREO at C3, containing a range of critical minerals including rare earths, niobium, phosphate, titanium and scandium (ASX 28 Aug 2023).

#### Bresnahan HREE and Au Project (100%)

Bresnahan is located ~125km southwest of Newman in the Ashburton Basin. The project comprises ~3,700 sq kms covering over 200kms strike along the Bresnahan Basin / Wyloo Group unconformity. Bresnahan is prospective for unconformity related heavy rare earth ("HREE") deposits similar to Browns Range HREE deposits and mesothermal lode gold similar to Paulsen's Au-Ag-Sb deposits along strike.

Prior to consolidation by Dreadnought, the Bresnahan Basin had only been explored for unconformity uranium with limited exploration for mesothermal gold. Bresnahan is a first mover opportunity to explore for unconformity HREE.

## Central Yilgarn Gold, Base Metals, Critical Minerals & Iron Ore Project (100%)

Central Yilgarn is located ~190km northwest of Kalgoorlie in the Yilgarn Craton. The project comprises ~1,600 sq kms covering ~150km of strike along the majority of the Illaara, Yerilgee and Evanston greenstone belts. Central Yilgarn is prospective for typical Archean mesothermal lode gold deposits, VMS base metals, komatiite hosted nickel sulphides and critical metals including Lithium-Caesium-Tantalum.

Prior to consolidation by Dreadnought, the Central Yilgarn was predominantly held by iron ore explorers and remains highly prospective for iron ore.

