

**ASX ANNOUNCEMENT** 8 November 2023

**Further Ni-Cu-Co-3PGE Assays & Drilling to Recommence at Mangaroon (Earn-in)**

**HIGHLIGHTS**

- Assays have been received from the 10-hole (1,074m) RC drill program (REYRC013-022) at the Bookathanna North and High Range prospects. All holes into the keel of the intrusion at Bookathanna North (6 out of 7 holes) successfully intersected mineralisation with results including:
  - REYRC013:** 23m @ 0.50% Ni 0.51% Cu 0.02% Co 0.49g/t 3PGE from 36m including:
    - 2m @ 3.32% Ni 2.88% Cu 0.12% Co 1.46g/t 3PGE from 45m
  - REYRC014:** 22m @ 0.18% Ni 0.24% Cu 0.01% Co 0.24g/t 3PGE from 34m including:
    - 7m @ 0.30% Ni 0.44% Cu 0.02% Co 0.38g/t 3PGE from 41m
  - REYRC018:** 53m @ 0.15% Ni 0.22% Cu 0.01% Co 0.08g/t 3PGE from 5m including:
    - 1m @ 0.29% Ni 1.50% Cu 0.01% Co 0.11g/t 3PGE from 47m
  - REYRC019:** 10m @ 0.36% Ni 0.45% Cu 0.02% Co 0.18g/t 3PGE from 76m including:
    - 2m @ 1.15% Ni 1.30% Cu 0.06% Co 0.36g/t 3PGE from 78m
- This program follows from the first program (12-holes, REYRC001-012) located ~2.5km to the south which intersected mineralisation in all holes including:
  - REYRC002:** 13m @ 0.19% Ni 0.17% Cu 0.01% Co 0.08g/t 3PGE from 70m including:
    - 1m @ 0.85% Ni 0.77% Cu 0.05% Co 0.17g/t 3PGE from 80m
- A 7-hole, wide spaced RC drilling program is underway at Bookathanna North. The program will likely be followed by additional RC drilling, initial diamond drilling, down-hole EM (“DHEM”) and moving loop EM (“MLEM”) in March 2024 following the summer months.
- Induced Polarisation (“IP”) is to commence in November 2023.

**Dreadnought Resources Limited (“Dreadnought”) is pleased to announce that assay results have been received from RC drilling at Bookathanna North along the 45km long Money Intrusion part of the Mangaroon Ni-Cu-Co-3PGE Project (Earn-in), located in the Gascoyne Region of Western Australia.**



Dreadnought’s Managing Director, Dean Tuck, commented: “We are pleased to have recommenced RC drilling at Bookathanna North with our partners First Quantum Minerals following up on what was a successful drill program in August / September this year. With assays now in hand, we have confirmed that thick near surface sulphide mineralisation with high grade massive and semi massive sulphides exists within the Money Intrusion. Confirming a new Ni-Cu-Co-3PGE sulphide system and opening up an entirely new search space is extremely exciting as we continue to explore and unlock the potential of the Money Intrusion. Every program continues to teach us more about this new system and we look forward to re-assessing the entire Money Intrusion, including follow up geophysics later this month and into 2024.”

Figure 1: Nick Chapman (L) and Chris Manners (R) with semi-massive sulphide RC chips from a step out drill hole at Bookathanna North.

## **SNAPSHOT – MANGAROON Ni-Cu-Co-3PGE**

### **Major Miner, First Quantum Minerals, Earning-in**

- The potential of the Money Intrusion is underscored by an Earn-In with First Quantum Minerals Ltd (TSE:FM), 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 rights across the earn-in tenements.

### **Fertile Ni-Cu-Co-3PGE System Confirmed**

- Fertile Ni-Cu-Co-3PGE sulphide systems are rare and the Money Intrusion has already been proven to contain high tenor magmatic Ni-Cu-Co-3PGE mineralisation.
- The Money Intrusion is confirmed to be ~800Ma, a fertile time for Ni-Cu-Co-3PGE systems globally. Highly prospective keel geometries which are suitable for forming trap sites for magmatic sulphide accumulations have been identified.
- First pass drilling in 2022 at the Bookathanna and High Range prospects intersected magmatic sulphide mineralisation (ASX 10 Nov 2022). To date, the Ni and Cu have been in ~50:50 proportions.
- Notwithstanding the early-stage drilling, a significant success rate has already been achieved. Out of the 22 RC holes (2,906m) drilled to date, 15 holes have either assayed or shown visual/pXRF evidence of Ni-Cu-Co-3PGE sulphides.

### **No Modern Exploration**

- Outcropping Ni sulphides were identified by Alan McDonald, the Pastoralist at Mangaroon in the early 1960s. However, no detailed geophysical, geochemical or mapping programs were ever undertaken.
- The first-ever detailed airborne magnetics, surface geochemical, ground EM and mapping surveys have now confirmed 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 Money Intrusion.
- Multiple plumbing centres have been interpreted, each with the potential for trap sites within the magma pathways.
- Mineralisation has already been confirmed by drilling at three prospects within the Money Intrusion: Bookathanna, Bookathanna North and High Range.

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

- Nickel is essential to clean energy technologies including being a major cathode material in lithium-ion batteries. Furthermore, nickel sulphide deposits have a much lower carbon footprint when being converted to Class 1 nickel for battery grade applications.
- Copper is essential for electricity-related technologies with renewable energy systems requiring up to 12x more copper compared to traditional energy systems.

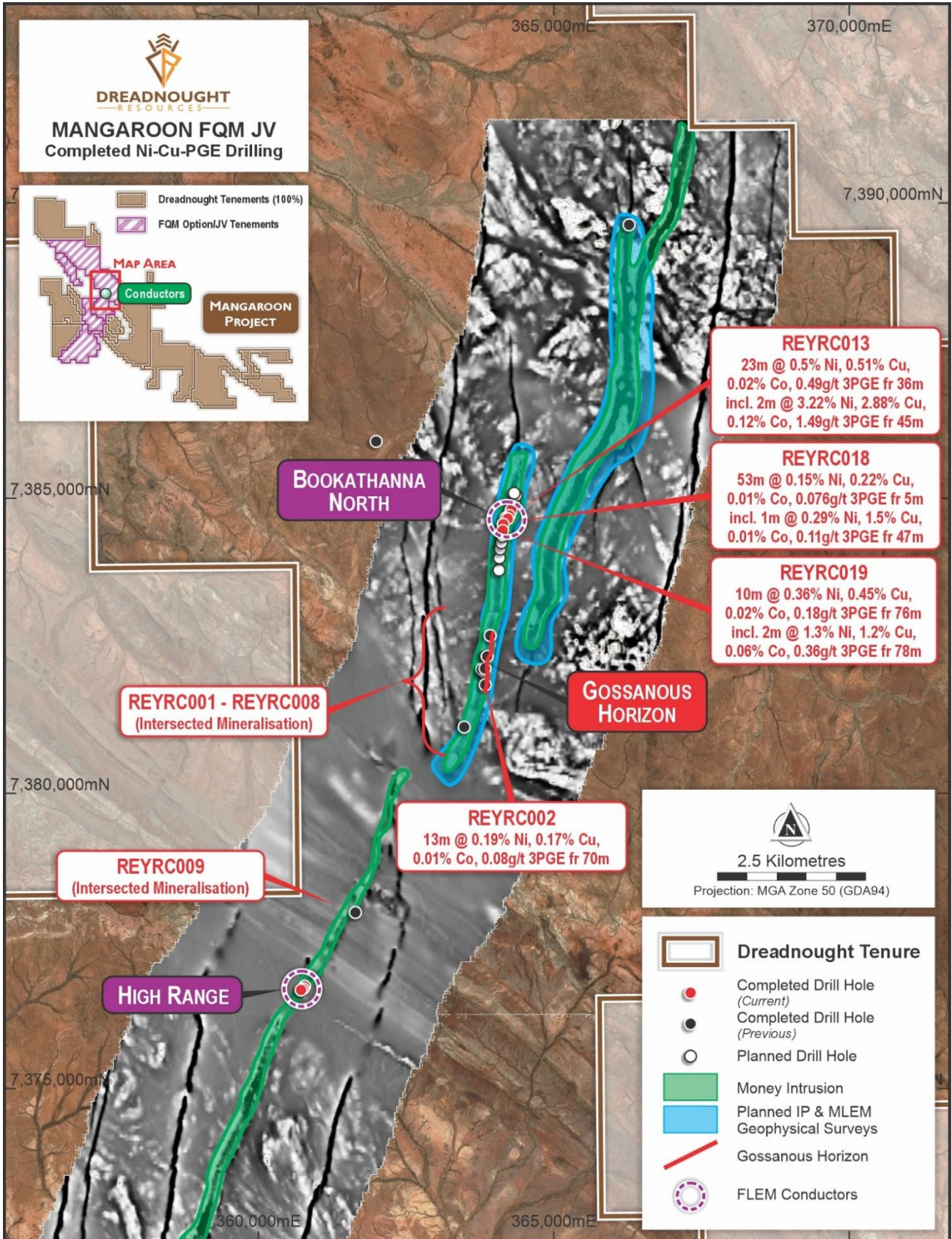


Figure 2: Plan view image showing the location of Bookathanna North drilling (REYRC013-022, red dots) in relation to previous drilling (REYRC001-012, black dots) and planned 7-hole program (REYRC023-029, white dots) over a magnetics (RTP IVD) and ortho image. The Money Intrusion is outlined in green.

## Technical Discussion of Ni-Cu-Co-3PGE RC Drilling (REYRC013-022)

This 10-hole program (REYRC003-022) follows from the first program (12-holes, REYRC001-012) located ~2.5km to the south which intersected mineralisation in all holes.

The second program was originally designed as 5 RC holes with DHEM to test 5 EM conductors within the Money Intrusion. Following the intersection of massive sulphides in the first hole (REYRC013), an additional 5 holes were drilled at Bookathanna North infilling and then stepping out north and south along strike. A total of 10 holes were drilled (1,074m) with 7 holes at Bookathanna North and 3 at High Range.

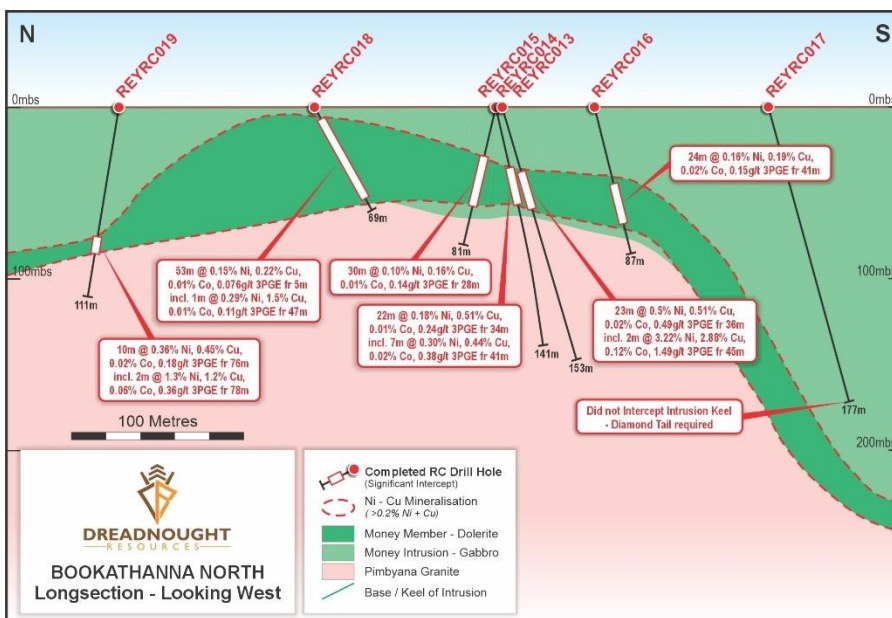
Drilling generally collared into the shallow and weakly weathered gabbroic core of the Money Intrusion before passing into the footwall olivine dolerite and finishing in gneissic to granitic country rock. Significantly, the furthest north hole (REYRC017) intersected a thick gabbroic core and did not reach the mineralised footwall olivine dolerite or country rock. REYRC017 highlights the variable geometry of the Money Intrusion and potential to form trap sites for sulphide accumulation (Figure 3).

Importantly, 6 of the 7 holes at Bookathanna North intersected thick (10-50m) disseminated and net textured Ni-Cu-Co-3PGE sulphides within the footwall olivine dolerite (Figures 3 and 4). Of these, REYRC013 and REYRC019 each intersected 2m of semi-massive to massive sulphides. All sulphide mineralisation consists of pentlandite (Fe,Ni)<sub>9</sub>S<sub>8</sub>, chalcopyrite (CuFeS<sub>2</sub>) and pyrrhotite (Fe<sub>(1-x)</sub>S) with pentlandite and chalcopyrite making up ~40-50% of the sulphide mix with the remainder being pyrrhotite.

Assays have been received from the second program with significant results including:

<b>REYRC013:</b>	<b>23m @ 0.50% Ni</b>	<b>0.51% Cu</b>	<b>0.02% Co</b>	<b>0.49g/t 3PGE</b> from 36m including:
	<b>2m @ 3.32% Ni</b>	<b>2.88% Cu</b>	<b>0.12% Co</b>	<b>1.46g/t 3PGE</b> from 45m
<b>REYRC014:</b>	<b>22m @ 0.18% Ni</b>	<b>0.24% Cu</b>	<b>0.01% Co</b>	<b>0.24g/t 3PGE</b> from 34m including:
	<b>7m @ 0.30% Ni</b>	<b>0.44% Cu</b>	<b>0.02% Co</b>	<b>0.38g/t 3PGE</b> from 41m
<b>REYRC018:</b>	<b>53m @ 0.15% Ni</b>	<b>0.22% Cu</b>	<b>0.01% Co</b>	<b>0.08g/t 3PGE</b> from 5m including:
	<b>1m @ 0.29% Ni</b>	<b>1.50% Cu</b>	<b>0.01% Co</b>	<b>0.11g/t 3PGE</b> from 47m
<b>REYRC019:</b>	<b>10m @ 0.36% Ni</b>	<b>0.45% Cu</b>	<b>0.02% Co</b>	<b>0.18g/t 3PGE</b> from 76m including:
	<b>2m @ 1.15% Ni</b>	<b>1.30% Cu</b>	<b>0.06% Co</b>	<b>0.36g/t 3PGE</b> from 78m

The assays have confirmed the high tenor mineralisation which importantly include significant cobalt and palladium, platinum, gold (“3PGE”). The 3PGEs are made up of ~70% palladium, ~20% platinum and ~10% gold.



Importantly, a mix of massive and semi-massive sulphides was identified in the program providing potential for a significant massive sulphide deposit in the area. In addition, REYRC019 was a blind step out hole not targeting a conductive anomaly but which also intersected semi-massive sulphides emphasising the need for the entire Money Intrusion to be reassessed.

REYRC015, which targeted a Fixed Loop EM (“FLEM”) plate, missed the target but is adjacent to a small off-hole conductor. Further drilling of this target will be considered upon review of planned IP and MLEM surveys in March 2024.

No significant results were returned from 3 holes drilled at High Range.

**Figure 3: Long section of Bookathanna North showing the location of the 6 mineralised intercepts and the variable keel position (see REYRC017).**

**Technical Discussion of Ni-Cu-Co-3PGE Exploration (E08/3274, E09/2384: First Quantum Minerals Earn-in)**

The confirmation of a fertile magmatic Ni-Cu-Co-3PGE system within the 45km long Money Intrusion highlights the potential for multiple deposits and/or deposit styles as outlined below.

- **Jinchuan Ni-Cu-PGE:** The Money Intrusion has been dated to ~800Ma, 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). Jinchuan contains three main deposits over ~6.5kms of strike, each situated within a sub-chamber of the overall intrusion. Only one of the deposits outcrops at surface. Mineralisation is dominated by net-textured and disseminated sulphides with minor massive sulphide accumulations. The disseminated sulphides form an envelope around the higher-grade, net-textured and massive sulphides.
- **Eagle and Eagle East:** To date, 15 out of 22 RC holes at Bookathana North have intersected mineralisation along significant strike. Results show increasing width and intensity near subtle changes in the walls and base of the intrusion, including the formation of massive and semi-massive mineralisation. This highlights the potential for massive sulphide mineralisation to concentrate and form at trap sites, similar to the Eagle and Eagle East deposits (~5Mt @ 3.5% Ni, 2.9% Cu, 1.6g/t PGE, 0.1% Co, Lundin 2013) in North America.

Drill targeting to date has been dominated by FLEM surveys designed to identify near-surface, massive sulphides along the southwestern edge of the Money Intrusion. Drilling has confirmed high tenor massive, semi-massive sulphides within a halo of net-texture and disseminated sulphides with mineralisation intensifying in trap sites along the edges and base of the intrusion. Drilling has confirmed that thick mineralisation occurs over a significant strike length at Bookathana North. However, results such as from

REYRC015 demonstrate the FLEM surveys have only been partially effective in identifying the net-textured and semi-massive sulphide accumulations.

Given the high tenor of the Ni-Cu-Co-3PGE sulphide system, net-textured and semi-massive sulphides are attractive targets in their own right. Additionally, deeper trap sites with the potential to form significant massive sulphide accumulations have not been targeted or assessed.

Targeting going forward will focus on identifying and understanding:

- large scale, net textured and heavily disseminated sulphide mineralisation using IP surveys; and
- deep trap sites for massive sulphides using geophysical inversions, DHEM and more powerful EM surveys.

A reassessment of the Money Intrusion and the results to date is underway.

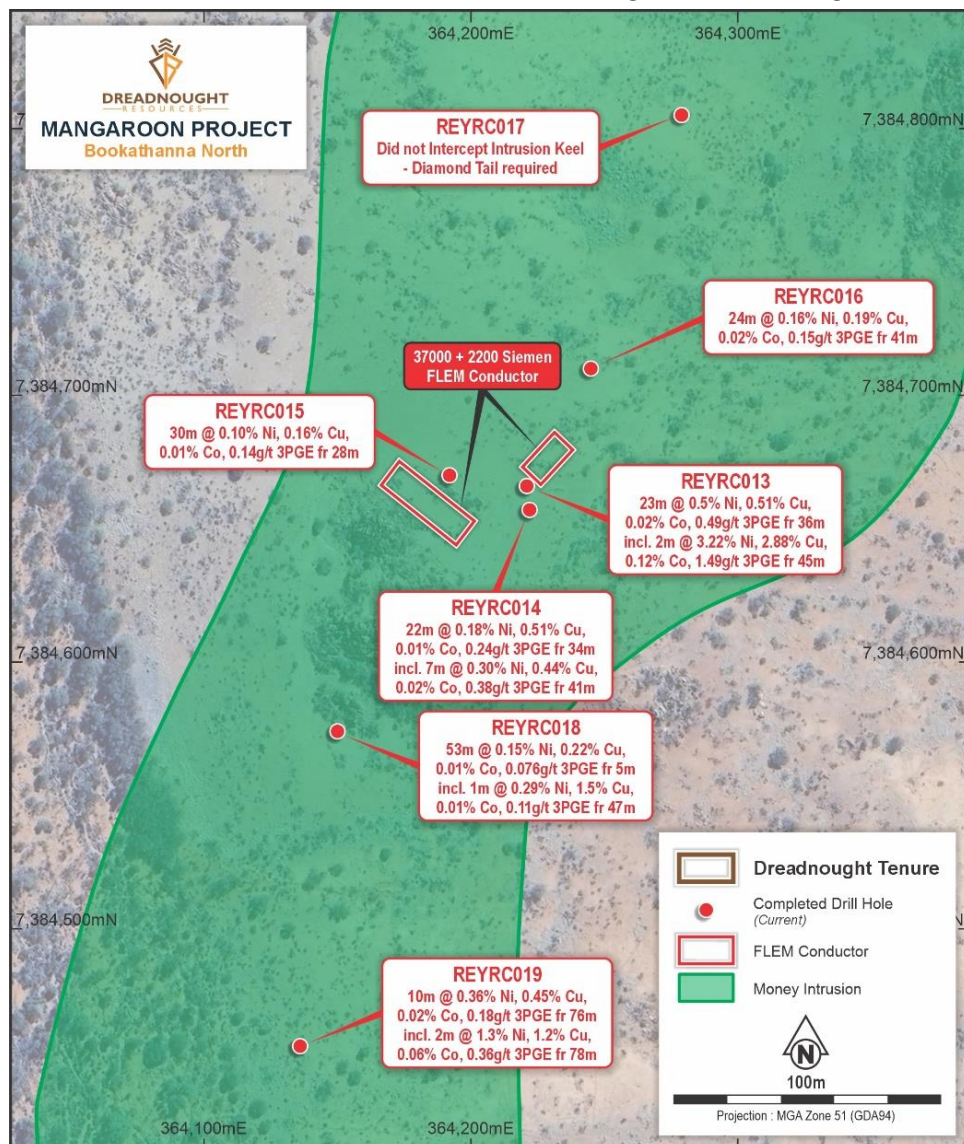


Figure 4: Plan view image showing the location of 7 (6 mineralised) recently completed drill holes at Bookathana North in relation to FLEM plates over an orthoimage and interpreted Money Intrusion.

**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 (Figure 5) covers >5,200kms<sup>2</sup> of the Mangaroon Zone in the Gascoyne Region of Western Australia and is comprised of:

- the ~45km long Money Intrusion (First Quantum Minerals earn-in) which contains high tenor magmatic Ni-Cu-Co-3PGE mineralisation;
- the >10km long Mangaroon Au Shear Zone (100%) where fractured, small scale ownership has limited previous gold exploration with only ~200m of the >10km having been drilled notwithstanding the high-grade, camp scale potential;
- the ~43km long Yin REE Ironstone Complex (100%) which already contains: an independent total Resource of 20.06Mt @ 1.03% TREO (ASX 5 Jul 2023) over only ~4km of the ~43km of ironstones including an initial Indicated Resource of 5.52Mt @ 1.23% TREO over only ~250m of strike (ASX 5 Jul 2023); and an Exploration Target (ASX 13 Feb 2023) over 40 kms of strike; and
- the ~17km long REE-Nb-Ti-P-Sc Gifford Creek Carbonatite which contain an initial independent Inferred Resource of 10.84Mt @ 1.00% TREO (ASX 28 Aug 2023).

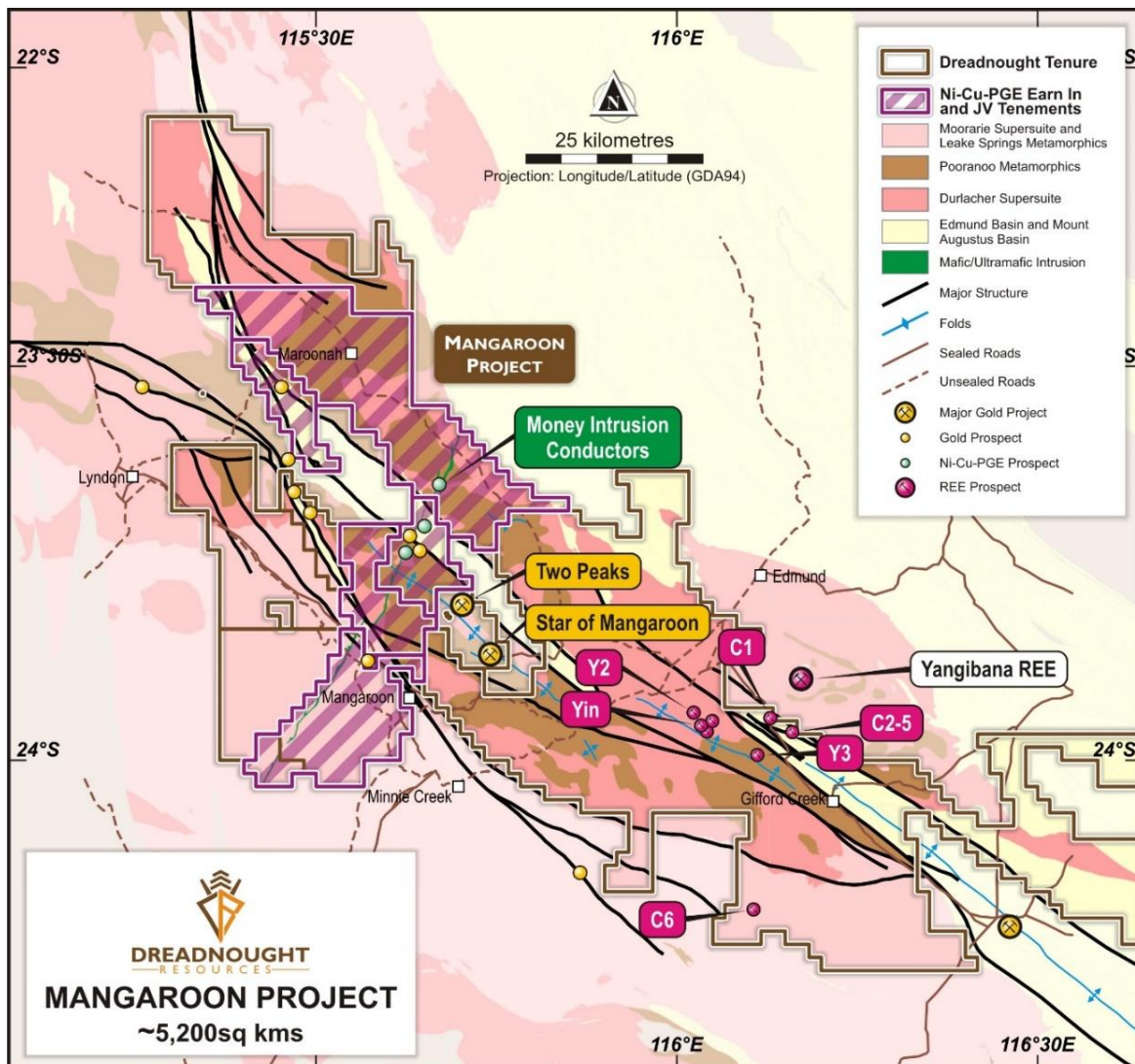


Figure 5: Plan view map of Mangaroon showing the location of the First Quantum Minerals Earn-in and 100% Dreadnought ground (Mangaroon Au Shear Zone, Yin REE Ironstone Complex and REE-Nb-Ti-P-Sc C1-C5 carbonatites) in relation to major structures, geology and roads.

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 \$15M 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*
- 30 August 2023 *Drilling Commenced at Money Intrusion Ni-Cu-PGE*
- 31 August 2023 *Massive and Disseminated Ni-Cu Sulphides Intersected*
- 12 September 2023 *Thick Ni-Cu Mineralisation over 400m, Open in all Directions*
- 21 September 2023 *High Grade Ni-Cu-Co-PGE Massive Sulphides Confirmed at Mangaroon*

## UPCOMING NEWSFLOW

November: Final drilling results from completed drilling at Mangaroon REE (100%)

November: REE Resource upgrade (Mangaroon 100%)

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

November: Assays from RC drilling at Tarraji-Yampi (80%, 100%)

23 November: Annual General Meeting

December/January: Assay results from additional Au, Ni-Cu-Co-3PGE and REE drilling at Mangaroon

December/January: Results from target generation and definition work at Bresnahan (100%)

January 2024: Quarterly Report

February 2024: Half Year Financial Report

March 2024: Commencement of RC and diamond drilling at Mangaroon Ni-Cu-Co-3PGE (Earn-in)

March/April 2024: Commencement of RC drilling at Mangaroon Rare Earths (100%)

~Ends~

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

## 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.*

*Visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses where concentrations or grades are the factor of principal economic interest. Visual estimates also potentially provide no information regarding impurities or deleterious physical properties relevant to valuations.*

## 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 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 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 form and context in which the Competent Person's findings are presented have not been materially modified from the original reports.*



## 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-Co-3PGE JV & Au/REE 100% Project

Mangaroon covers ~5,200kms<sup>2</sup> and is located 250kms south-east of Exmouth in the Gascoyne Region of WA. At the Money Ni-Cu-Co-3PGE 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 estimated for the top 150m of ~40km of the 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 Gifford Creek Carbonatite totaling ~17kms x ~1km (ASX 7 Aug 2023).
- A large, independent initial Resource of 10.84Mt @ 1.00% TREO at the Gifford Creek Carbonatites, containing a range of critical minerals including rare earths, niobium, phosphate, titanium and scandium (ASX 28 Aug 2023).

### Bresnahan HREE-Au-U Project (100%)

Bresnahan is located ~125km southwest of Newman in the Ashburton Basin. The project comprises ~3,700kms<sup>2</sup> 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, unconformity uranium (“U”) deposits and mesothermal lode gold similar to Paulsens Au-Ag-Sb deposits along strike.

Prior to consolidation by Dreadnought, the Bresnahan Basin had been successfully 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 ~1,600kms<sup>2</sup> 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.



**Table 1: Significant Intersections >0.1% Ni or Cu with >1% Ni or Cu highlighted.**

Hole ID	From (m)	To (m)	Interval (m)	Ni (%)	Cu (%)	Co (%)	3PGE (g/t)	Prospect
REYRC013 Incl	36	59	23	0.50	0.51	0.02	0.49	Bookathanna North
	45	47	2	3.32	2.88	0.12	1.46	
REYRC014 incl	34	56	22	0.18	0.24	0.01	0.24	
	41	48	7	0.30	0.44	0.02	0.38	
REYRC015	28	58	30	0.10	0.16	0.01	0.14	
REYRC016	41	65	24	0.16	0.19	0.02	0.15	
REYRC018 incl	5	58	53	0.15	0.22	0.01	0.08	
	47	48	1	0.29	1.50	0.01	0.11	
REYRC019 incl	76	86	10	0.36	0.45	0.02	0.18	
	78	80	2	1.15	1.30	0.06	0.36	

**Table 2: Drill Collar Data (GDA94 MGAz50)**

Hole ID	Easting	Northing	RL	Dip	Azimuth	EOH	Type	Prospect
REYRC013	364221	7384666	286	-70	045	153	RC	Bookathanna North
REYRC014	364222	7384657	288	-70	40	141	RC	
REYRC015	364192	7384670	285	-85	215	81	RC	
REYRC016	364245	7384710	288	-75	15	87	RC	
REYRC017	364279	7384805	288	-70	20	177	RC	
REYRC018	364150	7384574	288	-60	30	69	RC	
REYRC019	364136	7384456	286	-80	215	111	RC	
REYRC020	360783	7376739	334	-60	290	57	RC	
REYRC021	360759	7376696	333	-60	270	81	RC	
REYRC022	360725	7376672	333	-60	260	117	RC	High Range

**JORC Code, 2012 Edition – Table I report template**  
**Section I Sampling Techniques and Data**  
(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<b>RC Drilling</b> Reverse Circulation (RC) drilling was undertaken to produce samples for assaying. Two sampling techniques were utilised for this program, 1m metre splits directly from the rig sampling system each metre and 2m composite sampling from spoil piles. Samples submitted to the laboratory were determined by the site geologist. 1m Splits Every metre drilled a 2-3kg sample (split) was sub-sampled into a calico bag via a Metzke cone splitter from each metre of drilling. 2m Composites All remaining spoil from the sampling system was collected in buckets from the sampling system and neatly deposited in rows adjacent to the rig. An aluminium scoop was used to then sub-sample each spoil pile to create a 2-3kg 2m composite sample in a calico. For gold and PGEs, all samples are submitted to the laboratory and pulverised to produce a 50g charge for Fire Assay (ALS Code PGM-ICP24). Base Metal and lithological samples are analysed for 48 multi-elements via 4 acid digestion with MS/ICP finish (ALS Code ME-MS61).
Drilling techniques	<ul style="list-style-type: none"> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g.</li> </ul>	<b>RC Drilling</b> Ausdrill undertook the program utilising a Drill Rigs

Criteria	JORC Code explanation	Commentary
	core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	Australia truck mounted Schramm T685VWS drill rig with additional air from an auxiliary compressor and booster. Bit size was 5 3/4".
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<p><b>RC Drilling</b></p> <p>Drilling was undertaken using a 'best practice' approach to achieve maximum sample recovery and quality through the mineralised zones.</p> <p>Best practice sampling procedure included: suitable usage of dust suppression, suitable shroud, lifting off bottom between each metre, cleaning of sampling equipment, ensuring a dry sample and suitable supervision by the supervising geologist to ensure good sample quality.</p>
Logging	<ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<p><b>RC Drilling</b></p> <p>RC chips were logged under the supervision of a qualified geologist with sufficient experience in this geological terrane and relevant styles of mineralisation using an industry standard logging system which could eventually be utilised within a Mineral Resource Estimation.</p> <p>Lithology, mineralisation, alteration, veining, weathering and texture were all recorded digitally.</p> <p>Chips were washed each metre and stored in chip trays for preservation and future reference.</p> <p>RC pulp material is also analysed on the rig by pXRF and magnetic susceptibility meter to assist with logging and the identification of mineralisation.</p> <p>Logging is qualitative, quantitative or semi-quantitative in nature.</p>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<p><b>Preliminary pXRF analysis</b></p> <p>pXRF analysis of pulverised and partially homogenised reject RC sample piles is fit for purpose as a preliminary exploration technique.</p> <p>pXRF is a spot reading on raw (unprocessed) RC sample piles with variable grain sizes and states of homogenisation. High grade results were repeated at multiple locations to confirm repeatability. The competent person considers this acceptable within the context of reporting preliminary exploration results.</p> <p><b>RC Drilling</b></p> <p>From every metre drilled, a 2-3kg sample (split) was sub-sampled into a calico bag via a Metzke cone splitter or taken as a grab sample from the bulk reject in more clay-rich material.</p> <p>QAQC in the form of duplicates and CRM's (OREAS Standards) were inserted through the ore zones at a rate of 1:50 samples. Additionally, within mineralised zones, a duplicate sample was taken and a blank inserted directly after.</p> <p>2-3kg samples will be submitted to ALS laboratories (Perth), oven dried to 105°C and pulverised to 85% passing 75um to produce a 50g charge for Fire Assay with ICP-AES finish to determine Au and PGEs (PGM-ICP24) and 0.25g aliquot for four acid digest to determine 48 elements (ME-MS61) with overranges as required.</p> <p>Standard laboratory QAQC is undertaken and monitored.</p>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks)</li> </ul>	<p><b>Preliminary pXRF analysis</b></p> <p>Olympus Vanta M Series pXRF analyser is used to provide preliminary quantitative measurement of mineralisation. A 3-beam, 35 second reading time was used with a single reading on unprepared raw RC chip sample piles. High grade samples were repeated to confirm repeatability of grade.</p> <p>Calibration checks of the pXRF are undertaken daily, a silica blank and certified standard are routinely analysed to monitor pXRF performance.</p> <p><b>Laboratory Analysis</b></p>

Criteria	JORC Code explanation	Commentary
	<i>and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i>	Assay technique is Fire Assay which is a 'Total Technique' for Au and PGEs. Four acid digest is considered a 'near total' technique for the 48 elements received under ME-MS61.  Standard laboratory QAQC is undertaken and monitored by the laboratory and by the company upon assay result receipt.
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<p><b>Preliminary pXRF analysis</b></p> <p>Analytical data was collected directly by the Olympus Vanta M Series pXRF analyser and downloaded by digital transfer to an excel spreadsheet with inbuilt QAQC. All data was checked by the responsible geologist and filed on the company server.</p> <p><b>Logging and Sampling</b></p> <p>Logging and sampling were recorded directly into a digital logging system, verified and eventually stored in an offline database.</p> <p>Significant intersections are inspected by senior company personnel.</p> <p>No twinned holes have been completed at this time.</p> <p>No adjustments to any assay data have been undertaken.</p>
Location of data points	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<p>Collar position was recorded using a Emlid Reach RS2 RTK GPS system (+/- 0.2m x/y, +/-0.5m z).</p> <p>GDA94 Z50s is the grid format for all xyz data reported.</p> <p>Azimuth and dip of the drill hole was recorded after the completion of the hole using a Reflex Sprint IQ Gyro. A reading was undertaken every 30<sup>th</sup> metre with an accuracy of +/- 1° azimuth and +/-0.3° dip.</p>
Data spacing and distribution	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<p>See drill table for hole positions.</p> <p>The drill spacing is not suitable for resource estimation.</p>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<p>At this early stage of exploration, mineralisation thickness's, orientation and dips are not known.</p> <p>Drilling was undertaken at a near perpendicular angle to the interpreted strike and dip of the modelled FLEM plates.</p> <p>No sample bias is known at this time.</p>
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	All geochemical samples were collected, bagged, and sealed by Dreadnought staff and delivered directly to ALS Laboratories Perth by Jarrahbar Contracting out of Carnarvon and Exmouth Haulage out of Exmouth.
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	The program is continuously reviewed by senior company personnel.

## Section 2 Reporting of Exploration Results

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<p>The Mangaroon Project consists of 19 granted Exploration License (E08/3178, E08/3274, E08/3275, E08/3439, E09/2290, E09/2359, E09/2370, E09/2384, E09/2405, E09/2433, E09/2448, E09/2449, E09/2450, E09/2467, E09/2473, E09/2478, E09/2531, E09/2535, E09/2616) and 5 granted Mining Licenses (M09/91, M09/146, M09/147, M09/174, M09/175).</p> <p>All tenements are 100% owned by Dreadnought Resources. E08/3178, E08/3274, E09/2384, E09/2433, E09/2473 are subject to an option agreement with First Quantum Minerals over the base metal rights.</p>

Criteria	JORC Code explanation	Commentary
		<p>E08/3178, E09/2370, E09/2384 and E09/2433 are subject to a 2% Gross Revenue Royalty held by Beau Resources.</p> <p>E08/3274, E08/3275, E09/2433, E09/2448, E09/2449, E09/2450 are subject to a 1% Gross Revenue Royalty held by Beau Resources.</p> <p>E09/2359 is subject to a 1% Gross Revenue Royalty held by Prager Pty Ltd.</p> <p>E09/2290, M09/146 and M09/147 are subject to a 1% Gross Revenue Royalty held by STEHN, Anthony Paterson and BROWN, Michael John Barry.</p> <p>M09/174 is subject to a 0.5% Gross Revenue Royalty held by STEHN, Anthony Paterson.</p> <p>M09/175 is subject to a 0.5% Gross Revenue Royalty held by STEHN, Anthony Paterson and BROWN, Michael John Barry.</p> <p>M09/91 is subject to a 1% Gross Royalty held by DOREY, Robert Lionel.</p> <p>The Mangaroon Project covers 4 Native Title Determinations including the Budina (WAD131/2004), Thudgari (WAD6212/1998), Gnulli (WAD22/2019) and the Combined Thiin-Mah, Warriyangka, Tharrkari and Jiwarli (WAD464/2016).</p> <p>The Mangaroon Project is located over Lyndon, Mangaroon, Gifford Creek, Maroonah, Minnie Creek, Edmund, Williambury and Towera Stations.</p>
Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<p>Historical exploration of a sufficiently high standard was carried out by a few parties which have been outlined and detailed in this ASX announcement including:</p> <p>Regional Resources 1986-1988s: WAMEX Reports A23715, 23713</p> <p>Peter Cullen 1986: WAMEX Report A36494</p> <p>Carpentaria Exploration Company 1980: WAMEX Report A9332</p> <p>Newmont 1991: WAMEX Report A32886</p> <p>Hallmark Gold 1996: WAMEX Report A49576</p> <p>Rodney Drage 2011: WAMEX Report A94155</p> <p>Sandfire Resources 2005-2012: WAMEX Report 94826</p>
Geology	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<p>The Mangaroon Project is located within Mangaroon Zone of the Gascoyne Province.</p> <p>The Mangaroon Project is prospective for orogenic gold, magmatic Ni-Cu-Co-3PGE mineralisation and carbonatite hosted REEs.</p>
Drill hole information	<ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<p>An overview of the drilling program is given within the text and tables within this document.</p>
Data aggregation methods	<ul style="list-style-type: none"> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> </ul>	<p>Significant intercedpts are length weight averaged for all samples above the below cut offs (including up to 3m of internal waste)</p> <p>&gt;0.1% Ni or Cu</p>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<p>&gt;0.1g/t 3PGE (Pt+Pd+Au)</p> <p>No top cutting has been applied.</p> <p>No metal equivalents are reported.</p>
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	Drilling is undertaken close to perpendicular to the dip and strike of the modelled EM plates. At this early stage, the relation between mineralisation and drill intercepts is unknown.
Diagrams	<ul style="list-style-type: none"> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	Refer to figures within this report.
Balanced reporting	<ul style="list-style-type: none"> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	Refer to figures within this report.
Other substantive exploration data	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	Suitable commentary of the geology encountered is given within the text of this document.
Further work	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<p>EM Surveys</p> <p>IP surveys</p> <p>Additional RC drilling</p> <p>Diamond Drilling</p>