

ABN 40 1 19 03 1 864

# ASX ANNOUNCEMENT 10 JULY 2023

# High-Grade Rare Earth & Niobium Zones at C3 & C5 – Mangaroon (100%)

## HIGHLIGHTS

- In late 2022, 89 RC holes (8,948m) out of a planned 260-hole program were completed over the CI-C5 carbonatites which had minimal outcrop and hence no definitive drill targets. This "first pass" program involved wide-spaced, mostly vertical holes looking to identify mineralised zonation within the carbonatites considered to be the source of the large-scale Yin REE Ironstone Complex ("Yin").
- The first pass drilling at C3 defined a ~600m x ~550m anomalous zone of critical minerals including rare earths and niobium. Infill drilling (24 RC holes, 3,805m) in 2023 has now defined high-grade zones of rare earths and niobium over an area of  $\sim$ 400m x  $\sim$ 400m ( $\sim$ 0.16km<sup>2</sup>). Assays received for 18 of the 24 holes include:

CBRCI15 from 77m:	9m @ 3.88% TREO	8.6 kg/t Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub>	(22% NdPr:TREO) within:			
	102m @ 1.14% TREO	2.6kg/t Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub>	(22% NdPr:TREO) from 3m			
CBRC121 from 34m:	l 5m @ 3.26% TREO	6.5kg/t Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub>	(21% NdPr:TREO) within:			
	62m @ 1.68% TREO	3.4kg/t Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub>	(20% NdPr:TREO) from 7m			
CBRCI16 from 62m:	25m @ 1.03% TREO	8.6 kg/t Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub>	(20% NdPr:TREO) within:			
	l I 4m @ 0.68% TREO	1.3kg/t Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub>	(19% NdPr:TREO) from 1m			
CBRC085 from 39m:	36m @ 1.03% Nb <sub>2</sub> O <sub>5</sub>	and 0.85% TREO	(23% NdPr:TREO) within:			
	48m @ 0.79% Nb <sub>2</sub> O <sub>5</sub>	and 0.80% TREO	(23% NdPr:TREO) from 30m			
CBRC086 from 51m:	18m @ 1.09% Nb <sub>2</sub> O <sub>5</sub>	and 0.93% TREO	(22% NdPr:TREO) within:			
	77m @ 0.70% Nb <sub>2</sub> O <sub>5</sub>	and 0.86% TREO	(23% NdPr:TREO) from 16m			
First pass drilling at C5 has also returned significant rare earths and niobium including:						
CBRCIII from 72m:	9m @ 1.40% Nb <sub>2</sub> O <sub>5</sub>	and I.20% TREO	(23% NdPr:TREO) within:			
	_					

	57m @ 0.61% Nb <sub>2</sub> O <sub>5</sub>	and 0.60% TREO	(20% NdPr:TREO) from 54m
CBRCI10 from 81m:	3m @ 1.12% Nb <sub>2</sub> O <sub>5</sub>	within:	
	42m @ 0.62% Nb <sub>2</sub> O <sub>5</sub>	from 63m	

An initial Resource for C3 remains on track for August 2023 with further assays expected in July 2023.

Dreadnought Resources Limited ("Dreadnought") is pleased to announce assay results for 18 infill RC holes which continue to highlight large-scale, REE-P<sub>2</sub>O<sub>5</sub>-Nb<sub>2</sub>O<sub>5</sub>-TiO<sub>2</sub>-Sc mineralisation at the CI-C5 carbonatites, part of the 100% owned Mangaroon Project, located in the Gascoyne Region of Western Australia.

Dreadnought's Managing Director, Dean Tuck, commented: "Infill drilling of the C3 carbonatite has achieved a major objective by demonstrating the potential for thick, high-grade zones of rare earths and niobium. Ongoing drilling along the  $\sim$ 6.5kms x 1km of carbonatites could well deliver additional high-grade zones. Despite only completing a third of the first pass drilling, the large scale of the critical metal opportunity at Mangaroon is already apparent. We are excited to have two RC rigs on site and to be re-commencing our ongoing first pass drilling of the carbonatites. Infill Resource drilling at C3 is also showing significant promise. The high-grade niobium intercepts may also be a sign of things to come as we infill the wide spaced drilling."



Figure I: Photo of the Hagstrom diamond rig at Mangaroon.



SX:DRE

#### ABN 40 1 19 03 1 864

## **SNAPSHOT – MANGAROON CRITICAL MINERALS**

#### Mangaroon is 100% Owned by Dreadnought

#### Genuine Scale Potential Already at Yin REE Ironstone Complex

- Independent Yin Inferred Resource of 20.06Mt @ 1.03% TREO (ASX 5 Jul 2023) covers only ~4km of ~43km of strike with the initial Indicated Resource of 5.52Mt @ 1.23% TREO covering only ~250m of strike (ASX 5 Jul 2023).
- Exploration Target\* of 50-100Mt at 0.9-1.3% TREO estimated for the top 150m of the Yin REE Ironstone Complex (ASX 13 Feb 2023).

\*Cautionary Statement: The Exploration Target has been prepared and reported in accordance with the 2012 edition of the JORC Code. The potential quality and grade of the Exploration Target is conceptual in nature. There has been insufficient exploration to estimate a Resource for all target areas reported. It is uncertain if further exploration will result in the estimation of a Resource.

Resource extension and first pass wide spaced drilling ongoing.

## Significant, Step-Change, Growth Potential Beyond Yin REE Ironstone Complex

- CI-C7 carbonatites are considered to be the regional source of rare earth elements ("REE") initial drill program expands CI-C5 to ~6.5kms x 1km.
- C6 located ~25kms south of C1-5 and C7 is situated over a crustal scale structural splay off the Lyons River Fault; associated with an outcropping pyroxenite intrusion; and geophysically similar to globally significant carbonatites such as Mt Weld, Araxa, Palabora and Ngualla.
- First pass, wide spaced discovery focused drilling is ongoing at CI-C7.

# <u>High-Grade, Multi-Metal Potential Including REE (Neodymium, Praseodymium), Phosphate,</u> <u>Niobium, Titanium & Scandium</u> (REE-P<sub>2</sub>O<sub>5</sub>-Nb<sub>2</sub>O<sub>5</sub>-TiO<sub>2</sub>-Sc)

- The mineralisation at the Yin REE Ironstone Complex contains significantly higher Nd+Pr as a fraction of the total rare earth oxides ("NdPr:TREO" ratio) than most other REE deposits globally, over 50% higher than the global average.
- Partially completed, first pass, wide spaced drilling over the CI-C7 carbonatites has identified significant critical metal potential with REE, P<sub>2</sub>O<sub>5</sub>, Nb<sub>2</sub>O<sub>5</sub>, TiO<sub>2</sub> and Sc.
- A ~600m x 550m zone of REE-P<sub>2</sub>O<sub>5</sub>-Nb<sub>2</sub>O<sub>5</sub>-TiO<sub>2</sub>-Sc mineralisation has been confirmed at C3 where an initial Resource for C3 is on track for August 2023.

## Potentially Attractive Mining Proposition

Broad zones of flat to moderate dipping mineralisation with parallel lodes and Resource intensity of ~5Mt/km
make for a potentially attractive mining proposition.

#### **Positive Metallurgy Results**

- Metallurgical test work from Yin has performed well, achieving recoveries ranging from 85.9% to 92.8% at a concentrate grade of 10.76% to 15.31%  $Nd_2O_3+Pr_6O_{11}$ .
- REE at Yin is predominantly hosted in monazite which is amenable to commercial processing.
- Significant metallurgical studies ongoing results expected throughout 2023.

#### **Global Strategic Imperative Driving Rare Earth Growth & Prices**

- Supply chain security and low carbon transition are imperatives against a backdrop of heightened geopolitical tension.
- Dreadnought is receiving increasing levels of interest from midstream and downstream industry participants in Mangaroon. While the current focus is on upstream options (mining, milling and concentrating) opportunities to collaborate with midstream and downstream industry participants may represent an additional upside value opportunity for Dreadnought's shareholders in the future.



**ASX:DRE** 

ABN 40 1 19 03 1 864

### Technical Discussion on the C3 Carbonatite Drill Program

Carbonatite intrusions are known globally to host several different commodities including rare earths, niobium, phosphate, titanium and scandium often as different mineralised bodies within the same intrusion. Great examples of this include Mt Weld in Australia, Ngualla in Tanzania, Araxa in Brasil and Bayan Obo in China. We also know that a world class deposit like Mountain Pass in California can fit into a relatively small footprint (700m x 150m =  $\sim 0.1 \text{ km}^2$ ).

Since the CI-C6 carbonatites have minimal outcrop, a first pass RC drill program was designed on a  $\sim$ 160m x  $\sim$ 160m spaced grid to drill through cover and into fresh rock. The objective of this program was to confirm the extent and complexity of the interpreted carbonatite intrusions, define zones of mineralisation and to better understand the cover regolith and depth of weathering.

Whilst high grade mineralisation can be contained within fresh carbonatite (Mountain Pass), often mineralisation is upgraded via dissolution of fresh carbonatite and accumulation of resistate mineralogy (i.e. monazite, pyrochlore, columbite) within the regolith. Karsting and localised anomalously deeper weathering can significantly enhance mineralisation grades (Mt Weld, Araxa).

To date only 89 holes (8,948m) out of a 260-hole first pass program have been completed (~30%). Already the program identified C3 defined as a ~600m x ~550m zone of REE-P<sub>2</sub>O<sub>5</sub>-Nb<sub>2</sub>O<sub>5</sub>-TiO<sub>2</sub>-Sc mineralisation. The recent results are from follow up, 80m x 80m angled, infill drilling (24 holes, 3,805m) designed to identify higher grade zones.

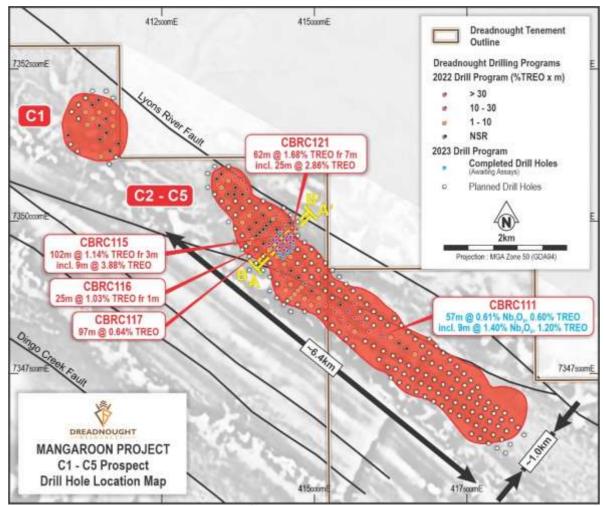


Figure 2: Plan view of the CI-C5 carbonatites over a greyscale magnetic image (RTP IVD) showing drill hole locations colored by %TREO x the mineralised interval. The shallow, high grade rare earth and niobium zones at C3 are apparent and featured in Sections A



**ASX:DRE** 

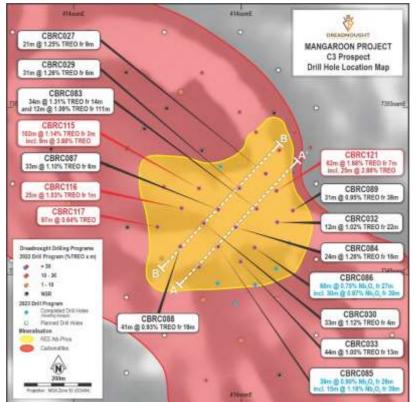
ABN 40 1 19 03 1 864

These results are the second batch of follow up results for C3 (first batch released 3 April 2023). Infill drilling (24 RC holes, 3,805m) in 2023 has now defined high-grade zones of rare earths and niobium over an area of ~400m x ~400m (~0.16km<sup>2</sup>). Assays received for 18 of the 24 holes include:

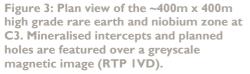
CBRCI15 from 77m:	9m @ 3.88% TREO	8.6 kg/t Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub>	(22% NdPr:TREO) within:
	102m @ 1.14% TREO	2.6kg/t Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub>	(22% NdPr:TREO) from 3m
CBRC121 from 34m:	l 5m @ 3.26% TREO	6.5kg/t Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub>	(21% NdPr:TREO) within:
	62m @ 1.68% TREO	3.4kg/t Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub>	(20% NdPr:TREO) from 7m
CBRC116 from 62m:	25m @ 1.03% TREO	8.6 kg/t Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub>	(20% NdPr:TREO) within:
	I I 4m @ 0.68% TREO	I.3kg/t Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub>	(19% NdPr:TREO) from 1m
CBRC085 from 39m:	36m @ 1.03% Nb <sub>2</sub> O <sub>5</sub>	and 0.85% TREO	(23% NdPr:TREO) within:
	48m @ 0.79% Nb <sub>2</sub> O <sub>5</sub>	and 0.80% TREO	(23% NdPr:TREO) from 30m
CBRC086 from 51m:	18m @ 1.09% Nb <sub>2</sub> O <sub>5</sub>	and 0.93% TREO	(22% NdPr:TREO) within:
	77m @ 0.70% Nb <sub>2</sub> O <sub>5</sub>	and 0.86% TREO	(23% NdPr:TREO) from 16m

These are in addition to previously reported rare earth results from C3 which include (ASX 24 January 2023; 3 April 2023):

CBRC030 from 4m:	31m @ 1.26% TREO	2.2 kg/t Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub> (20% NdPr:TREO)
CBRC033 from I3m:	44m @ 1.00% TREO	2.2 kg/t Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub> (22% NdPr:TREO)
CBRC029 from 4m:	31m @ 1.12% TREO	2.8 kg/t Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub> (22% NdPr:TREO)
CBRC027 from 9m:	21m @ 1.25% TREO	2.9 kg/t Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub> (23% NdPr:TREO)
CBRC084 from 16m:	24m @ 1.26% TREO	2.8 kg/t Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub> (22% NdPr:TREO)
CBRC083 from 14m:	34m @ 1.31% TREO	2.8 kg/t Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub> (21% NdPr:TREO)
CBRC087 from 6m:	33m @ 1.10% TREO	2.3 kg/t Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub> (22% NdPr:TREO)



Results from the infill drilling will be included in an initial Resource for C3 to be announced in August 2023.





ABN 40 1 19 03 1 864

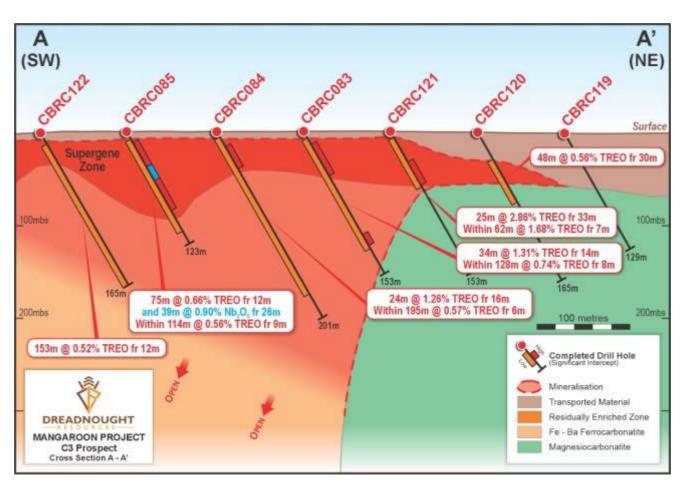


Figure 4: Cross section A-A' through C3 showing recent infill holes (red) with high grade REE and niobium mineralisation within the supergene zone and low grade REE mineralisation within the Ferrocarbonatite.

REE mineralisation has been confirmed in both weathered and fresh carbonatites with petrographic work showing coarse grained (up to 0.25mm) monazite and REE carbonate mineralisation in ferrocarbonatites and magnesiocarbonatite.

XRD analysis of the weathered carbonatites has confirmed the presence of monazite with further mineralogical work ongoing and recently expanded to include high-grade niobium, phosphate, titanium and scandium zones.

# C5 – Thick Rare Earth & Niobium Zones

DREADNOUGHT

In addition to C3, significant rare earth and niobium results have also been returned from the C5 extension holes which showed that the C1-C5 carbonatites extended beyond the original interpretation. These results highlight the potential of the carbonatites to deliver additional discoveries as first pass wide spaced drilling recommences. Significant results include:

CBRCIII from 72m:	<b>9m @ 1.40% Nb</b> <sub>2</sub> O <sub>5</sub> and 1.20% TREO within: <b>57m @ 0.61% Nb</b> <sub>2</sub> O <sub>5</sub> and 0.60% TREO from 54m
CBRCII0 from 81m:	3m @ 1.12% Nb <sub>2</sub> O <sub>5</sub> and 0.21% TREO within: 42m @ 0.62% Nb <sub>2</sub> O <sub>5</sub> and 0.31% TREO from 63m

The first pass drilling is ongoing at CI-C6 and will be completed in August 2023, followed by Resource infill drilling as required.





ABN 40 1 19 03 1 864

# Background on Mangaroon (E08/3274, E8/3178, E09/2384, E09/2433, E09/2473: FQM Earn-in) (E08/3275, E09/2370, E09/2448, E09/2449, E09/2450, E09/2467, E09/2478: 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 Ltd ("**FQM**") 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 already contains an independent Inferred Resource of 20.06Mt @ 1.03% TREO (ASX 5 Jul 2023) over only ~4km of ~43km of strike. The initial Indicated Resource of 5.52Mt @ 1.23% TREO covers only ~250m of strike (ASX 5 Jul 2023).

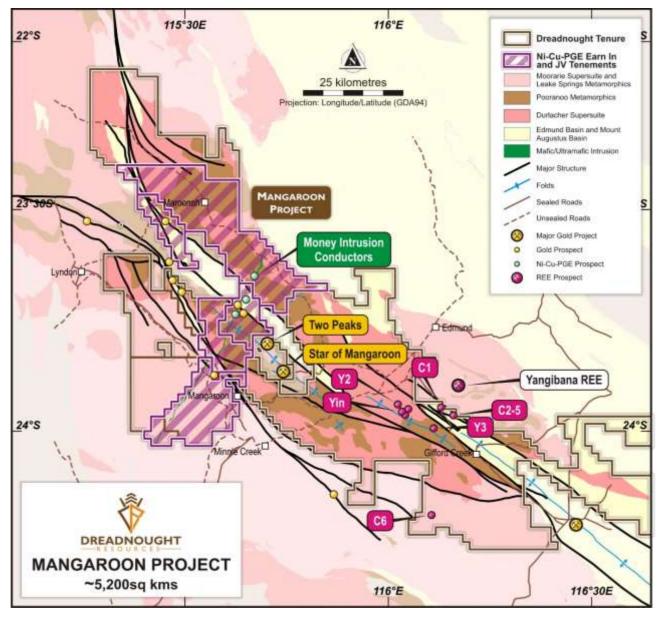


Figure 5: Plan view map of Mangaroon showing the location of the FQM Earn-in and 100% Dreadnought ground in relation to major structures, geology and roads.



SX:DRE

ABN 40 1 19 03 1 864

For further information please refer to previous ASX announcements:

- 24 September 2021 Airborne Magnetic-Radiometric Survey Commenced at Mangaroon
- 29 November 2021 Five Carbonatite Intrusions Identified at Mangaroon
- I February 2022 Rare Earths, Phosphate, Niobium & Zirconium Results from Mangaroon
- 28 September 2022 Drilling Commenced C1-C5 Carbonatites & Y8 Discovery
- I7 October 2022 Mineralised Carbonatites Discovered at C3 and C4
- 23 November 2022 Multiple, Large Scale, REE-Nb-Ti-P Carbonatites
- 24 January 2023 Carbonatite Discovery Shaping up as Regional Rare Earth Source
- 29 March 2023 Yin Resource to Grow, Carbonatite Drilling Commenced
- 3 April 2023 Carbonatites Deliver Thick, Near Surface REE Results
- 5 July 2023 40% Increase in Resource Tonnage at Yin

# UPCOMING NEWSFLOW

July-December: Ongoing drilling results from Mangaroon REE (100%) July: Results of nickel review with Newexco (Central Yilgarn 100%) July: Quarterly Activities and Cashflow Report 19-21 July: Noosa Mining Investor Conference August: Commencement of RC drilling at the Money Intrusion (Mangaroon First Quantum Earn-in) August: Results of geophysical and geochemical surveys at Central Yilgarn (100%) August: Commencement of RC drilling at Mangaroon Au (100%) August: Initial C3 Resource (Mangaroon 100%) 7-9 August: Diggers and Dealers Conference August/September: Commencement of drilling at Tarraji-Yampi (80% and 100%) October: Drilling and DHEM results from Money Intrusion (Mangaroon First Quantum Earn-in) November: Follow-up RC drilling at Mangaroon Au (100%) December 2023 quarter: REE Resource upgrade (Mangaroon 100%)

~Ends~

For further information please contact: **Dean Tuck** Managing Director Dreadnought Resources Limited E: <u>dtuck@dreres.com.au</u>

Jessamyn Lyons Company Secretary Dreadnought Resources Limited E: <u>ilyons@dreres.com.au</u>

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



#### ABN 40 1 19 031 864

# **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 – Mineral Resources**

The information in this announcement that relates to Mineral Resources is based on information compiled by Mr. Lynn Widenbar, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy. Mr. Widenbar is a full-time employee of Widenbar and Associates Pty Ltd. Mr. Widenbar has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that is being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves'. Mr. Widenbar consents to the inclusion in the announcement of the matters based on his information in the form and context that the information appears.

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



ABN 40 1 19 03 1 864

#### **INVESTMENT HIGHLIGHTS**

#### **Kimberley Ni-Cu-Au Projects**

Dreadnought controls the second largest land holding in the highly prospective West Kimberley region of WA. The main project area, Tarraji-Yampi, is located only 85kms from Derby and has been locked up as a Defence Reserve since 1978.

DREADNOUGHT

Tarraji-Yampi presents a rare first mover opportunity with known outcropping mineralisation and historic workings from the early 1900's 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 lsa in Queensland and Tennant Creek in the Northern Territory.

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

Mangaroon is a first mover opportunity covering ~5,300 kms located 250kms south-east of Exmouth in the vastly underexplored Gascoyne Region of WA. Part of the project is targeting Ni-Cu-PGE and is subject to a joint venture with First Quantum Minerals (earning up to 70%). The joint venture area contains outcropping high tenor Ni-Cu-PGE blebby sulphides at the Money Intrusion. Dreadnought's 100% owned areas contain outcropping high-grade gold bearing quartz veins



including the historic Star of Mangaroon and Diamond's gold mines, along the Edmund and Minga Bar Faults and outcropping high-grade REE ironstones and seven carbonatite intrusions which may be the source of the regions rare earth mineralisation.

Dreadnought has delivered an initial JORC Inferred Resource over just ~4kms Yin REE Ironstone Complex delivering 20.06Mt @ 1.03% TREO (28% NdPr:TREO Ratio) (ASX 5 July 2023) with an additional ~39kms of strike still to be tested.

#### **Bresnahan HREE and Au Project**

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

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.



ABN 40 1 19 031 864

Hole ID	From	То	Interval	TREO	$Nd_2O_3+Pr_6O_{11}$	NdPr:TREO	Prospect
CBRC001	(m) 17	(m) 94	(m) 77	(%) 0.35	(kg/t) 0.8	(%) 23	-
CBRC001 CBRC005	21	24	3	0.50	2.0	40	
CBRC005 CBRC006	30	48	18	0.30	0.7	23	C3
CBRC008 CBRC007	15	26		0.30	0.7	23	
CBRC007 CBRC010	93	145	52	0.63	1.4	23	
incl	116	121	5	1.01	2.2	22	C4
CBRC011	39	54	15	0.37	0.8	22	
CBRC012	57	66	9	0.31	0.0	23	
CBRC012	165	168	3	0.54	2.0	37	
CBRC014	105	15	3	0.38	0.7	18	
CBRC015	18	27	9	0.31	0.8	26	
CBRC016	9	12	3	0.34	0.9	26	
CBRC017	30	60	30	0.34	0.7	21	
CBRC018	27	36	9	0.34	0.8	24	
CBRC019	18	42	24	0.36	0.8	22	
CBRC023	9	42	33	0.58	1.3	22	
CBRC025	0	45	45	0.34	0.7	21	
CBRC027	6	48	42	0.83	1.9	23	
incl	9	30	21	1.25	2.9	23	
CBRC028	15	57	42	0.63	1.4	22	
incl	24	36	12	1.00	2.3	23	
CBRC029	3	75 (EOH)	72	0.69	1.5	22	C3
incl	6	37	31	1.26	2.8	22	
CBRC030	3	99 (EOH)	96	0.70	1.4	20	
incl	4	37	33	1.12	2.2	20	
CBRC031	12	24	12	0.52	1.2	23	
CBRC032	9	81 (EOH)	72	0.60	1.4	23	
incl	22	34	12	1.02	2.4	24	
CBRC033	6	105 (EOH)	99	0.64	1.4	22	
incl	13	57	44	1.00	2.2	22	
CBRC034	15	33	18	0.33	0.8	24	
CBRC036	18	57	39	0.30	0.7	23	
CBRC038	9	15	6	0.36	0.7	19	
CBRC039	39	57	18	0.30	0.7	23	
CBRC041	30	57	27	0.32	0.7	22	C4
CBRC042	21	33	12	0.53	1.3	25	
CBRC043	39	69	30	0.30	0.7	23	
CBRC044	27	66	39	0.60	1.4	23	
incl	40	54	14	0.92	2.2	24	
CBRC045	30	63	33	0.42	0.9	21	
CBRC046	33	66	33	0.38	0.8	21	
CBRC047	24	66	42	0.34	0.7	21	
CBRC048	33	54	21	0.37	0.8	22	
CBRC049	36	96	60	0.47	1.0	21	C5
CBRC050	27	54	27	0.54	1.1	20	
CBRC051	21	52	31	0.57	1.1	19	
CBRC052	36	93	57	0.63	1.3	21	
CBRC053	30	69	39	0.64	1.4	22	

Table I: Significant Intersections >0.3% TREO with >1% TREO highlighted.

DREADNOUGHT



ABN 40 1 19 031 864

Hole ID	From (m)	To (m)	Interval (m)	TREO (%)	Nd2O3+Pr6O11 (kg/t)	NdPr:TREO (%)	Prospect
CBRC056	36	90	54	0.32	0.8	23	
CBRC058	48	105	57	0.34	0.7	22	
CBRC060	39	57	18	0.31	0.7	23	C2
CBRC061	18	45	27	0.33	0.7	21	
CBRC063	18	42	24	0.40	0.8	20	
CBRC068	30	48	18	0.33	0.7	21	
CBRC070	15	24	9	0.36	0.7	19	
CBRC071	30	45	15	0.30	0.6	20	
CBRC075	42	54	12	0.39	0.8	20	
CBRC079	18	27	9	0.33	0.7	21	CI
CBRC080	45	58	13	0.48	1.0	20	
and	84	105	21	0.34	0.7	21	
CBRC081	30	45	15	0.37	0.8	21	
CBRC082	36	54	18	0.33	0.7	20	
CBRC083	8	136	128	0.74	1.6	22	
incl	14	48	34	1.31	2.8	21	
and		123	12	1.09	2.2	20	
CBRC084	6	201 (EOH)	195	0.57	1.2	21	
incl	16	40	24	1.26	2.8	22	
CBRC085	9	123 (EOH)	114	0.56	1.3	24	
incl	37	47	10	0.92	2.1	23	
CBRC086	9	117 (EOH	108	0.69	1.5	22	C3
incl	15	21	6	1.76	4.7	27	CJ
CBRC087	6	201 (EOH)	195	0.55	.	20	
incl	6	39	33	1.10	2.3	21	
CBRC088	6	181 (EOH)	175	0.54	1.0	19	
incl	14	55	41	0.93	2.0	22	
CBRC089	8	100	92	0.71	1.5	21	
incl	38	69	31	0.95	2.0	21	
CBRC107	51	69	18	0.52	1.1	22	
CBRCIIO	66	105	39	0.32	0.5	17	
CBRCIII	54	105	57	0.60	1.3	21	C5
incl	<b>72</b>	81	9	1.20	3.0	25	
CBRCII3	21	66	45	0.58	1.3	22	
CBRC114	6	27	21	0.60	1.2	19	
CBRCIIS	3	105	102	1.14	2.6	22	
incl	76	105	29	2.05	4.5	22	
incl	77	86	9	3.88	8.6	22	
CBRCII6		115	114	0.68	1.3	19	
incl	62	87	25	I.03	2.0	20	
CBRC117	68	165	97	0.64	1.1	18	
CBRCI18	69	81	12	0.38	0.7	18	C3
and	117	147	30	0.45	0.8	18	
CBRC120	30	78	48	0.56	1.2	21	
incl	50	54	4	I.2	2.8	23	
CBRC121	7	69	62	1.2	3.4	20	
incl	33	58	25	2.86	5.7	20	
IIICI		50	23	2.00	5.7	20	

Table I (continued): Significant Intersections >0.3% TREO with >1% TREO highlighted.

34

12

49

165

15

153

3.26

0.52

6.5

1.1

21

22

incl

CBRC122

DREADNOUGHT

U

CE

RESO



ABN 40 1 19 03 1 864

Table 2: Significant Ir	ntersections	>0.3%Nb <sub>2</sub> O <sub>5</sub> ,	>1.0%	Nb <sub>2</sub> O <sub>5</sub>	highlighted.
-------------------------	--------------	---------------------------------------	-------	--------------------------------	--------------

Hole ID	From (m)	To (m)	Interval (m)	Nb2O5 (%)	Prospect
CBRC032	20	28	8	0.30	C4
CBRC033	75	84	9	0.32	C4
CBRC053	45	54	9	0.33	C5
CBRC080	61	62	I	0.33	CI
CBRC084	21	30	9	0.32	
CBRC085	30	78	48	0.79	
incl	39	54	15	1.16	C3
CBRC086	16	93	77	0.70	CS
and	39	69	30	0.97	
CBRC089	34	46	12	0.30	
CBRC107	54	66	12	0.53	
CBRC109	63	66	3	0.34	
CBRCIIO	66	105 (EOH)	39	0.63	CL
incl	81	84	3	1.12	C5
CBRCIII	63	III (EOH)	48	0.70	
incl	72	81	9	1.40	
CBRC115	45	54	9	0.36	C3

Table 3: Significant Intersections >5%P2O5, >10% P2O5 highlighted.

Hole ID	From (m)	To (m)	Interval (m)	P2O5 (%)	Prospect
CBRC006	154	207	53	5.2	C3
CBRC010	109	113	4	5.1	
and	154	207	53	5.2	
incl	172	175	3	15.6	
CBRC011	60	66	6	6.4	
and	162	165 (EOH)	3	5.9	<u>c</u> (
CBRC012	153	162	9	7.0	C4
CBRC017	57	66	9	6.5	
CBRC019	42	45	3	5.4	
CBRC027	23	25	2	7.0	63
and	63	66	3	5.1	C3
CBRC030	17	29	12	6.0	
CBRC032	23	45	22	6.2	
incl	31	36	5	13.0	
CBRC033	17	56	39	6.3	C4
incl	18	33	15	8.0	
CBRC042	39	45	6	6.0	
CBRC049	48	69	21	6.2	
CBRC050	45	48	3	5.1	
CBRC051	50	52	2	7.6	C5
and	60	63	3	5.3	
CBRC053	48	63 (EOH)	15	5.9	
CBRC058	42	45	3	6.2	
and	54	57	3	5.2	
and	90	93	3	6.0	
and	99	102	3	5.6	C2
CBRC060	45	57	12	6.2	C2
CBRC061	45	48	3	5.1	
CBRC062	51	54	3	5.5	
CBRC075	87	93	6	6.0	

DREADNOUGHT



ABN 40 1 19 031 864

highlighted.							
Hole ID	From (m)	То (m)	Interval (m)	P2O5 (%)	Prospect		
CBRC083	39	49	10	7.5			
incl	46	47	1	10.3			
CBRC084	26	41	15	5.0			
and	119	121	3	7.4			
CBRC085	30	85	55	6.6			
CBRC086	54	105	51	5.4	C3		
incl	84	87	3	10.6	CS		
CBRC087	36	44	8	6.4			
CBRC088	35	55	20	5.4			
incl	35	37	3	10.1			
and	46	47	1	10.7			
CBRC089	46	62	16	5.1			
CBRC107	60	69	9	5.5			
CBRC109	63	66	3	6.0			
CBRC110	69	72	3	5.3	C5		
and	102	105 (EOH)	3	7.2	Cs		
CBRCIII	69	III(EOH)	42	8.3			
incl	99	III (EOH)	12	14.0			
CBRC112	90	95 (EOH)	5	5.4			
CBRC115	22	96	74	6.8			
incl	48	76	28	10.5			
and	89	91	2	12.0			
CBRC118	7	144	27	6.0	C3		
CBRC120	99	111	12	6.4	C3		
CBRC121	45	54	9	5.2			
CBRC122	72	78	6	6.5			
and	135	150	15	5.3	]		
incl	135	138	3	10.2			

Table 3 (continued): Significant Intersections >5%P2O5, >10% P2O5 highlighted.

Table 4: Significant Intersections >200ppm Sc.

Hole ID	From (m)	To (m)	Interval (m)	Sc (ppm)	Prospect
CBRC027	25	27	2	204	
CBRC086	57	66	9	265	C3
CBRC113	48	54	6	227	





ABN 40 119 031 864

Table	5:	Significant	Intersections	>5%	TiO <sub>2</sub> .	>10%	TiO <sub>2</sub>	highlighted.
labic	٠.	Significant	inter sections	- 3/0	102	P I U /0	1102	inginginceu.

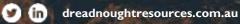
			In the second	TIO	
Hole ID	From (m)	To (m)	Interval (m)	TiO₂ (%)	Prospect
CBRC011	51	54	3	5.3	C4
CBRC028	54	57	3	5.1	
CBRC029	14	30	16	5.7	C3
CBRC030	16	27	11	5.8	
CBRC032	9	32	23	6.7	
CBRC033	13	16	20	5.0	C4
and	42	46	4	6.2	CT
CBRC044	43	53	10	5.5	
CBRC049	42	51	9	5.2	C5
CBRC053	36	66	30	6.3	
CBRC058	63	66	3	6.0	C2
CBRC080	57	69	12	6.3	CI
CBRC083	23	42	19	6.7	
CBRC084	9	45	36	7.9	
incl	25	39	14	12.3	
CBRC085	6	85	79	7.4	
incl	45	66	21	11.7	
CBRC086	12	84	72	8.6	
incl	30	36	6	12.3	C3
and	45	63	18	10.0	
CBRC087	10	33	23	6.2	
CBRC089	12	69	57	6.4	
incl	34	42	8	11.3	
and	111	123	12	7.5	
incl	117	120	3	10.1	
CBRC107	51	66	15	7.1	
incl	54	60	6	11.5	CT
CBRCIII	54	84	30	7.9	C5
incl	66	72	6	12.8	
CBRC112	66	75	9	6.1	
and	90	93	3	6.4	
CBRC113	30	108	78	5.7	
incl	48	57	9	11.5	
CBRC114	75	78	3	5.6	
CBRC115	7	96	89	5.8	
incl	47	50	3	10.0	
CBRC117	12	15	3	6.1	<u> </u>
CBRC118	66	147	81	6.0	C3
incl	69	75	6	11.8	
CBRCI19	63	129 (EOH)	66	5.9	
CBRC120	45	78	33	6.1	
and	105	111	6	5.4	
CBRC121	15	44	33	5.1	
and	117	120	3	5.4	
CBRC122	51	54	3	5.3	



ABN 40 1 19 031 864

### Table 6: Drill Collar Data (GDA94 MGAz50)

	-		<b>D</b> 1			FOUL	_	
Hole ID	Easting	Northing	RL	Dip	Azimuth	EOH	Туре	Prospect
CBRC001	414383	7350106	305	-60	45	105	RC	
CBRC002	414211	7349938	313	-60	43	165	RC	
CBRC003	414102	7349828	313	-60	49	165	RC	
CBRC004	414045	7349772	311	-60	43	165	RC	
CBRC005	413985	7349716	306	-60	42	165	RC	C3
CBRC006	413932	7349659	306	-60	43	165	RC	
CBRC007	414320	7350049	307	-60	52	165	RC	
CBRC008	414278	7349999	307	-60	49	123	RC	
CBRC009	414160	7349879	310	-60	50	165	RC	
CBRC010	414840	7348989	310	-60	45	249	RC	
CBRC011	414673	7348815	310	-60	45	165	RC	
CBRC012	414611	7348750	315	-60	46	165	RC	
CBRC013	414782	7348929	308	-60	45	171	RC	C4
CBRC014	414727	7348875	309	-60	44	165	RC	C1
CBRC015	414607	7349429	306	-90	0	45	RC	
CBRC016	414499	7349307	308	-90	0	57	RC	
CBRC017	414395	7349187	306	-90	0	87	RC	
CBRC018	413817	7349995	305	-90	0	75	RC	
CBRC019	413932	7350106	306	-90	0	75	RC	
CBRC020	414157	7350106	315	-90	0	57	RC	
CBRC021	414044	7349989	321	-90	0	63	RC	
CBRC022	413933	7349877	312	-90	0	45	RC	
CBRC023	414495	7349989	309	-90	0	93	RC	
CBRC024	414383	7349873	308	-90	0	45	RC	C3
CBRC025	414269	7349765	309	-90	0	45	RC	C3
CBRC026	414161	7349644	306	-90	0	51	RC	
CBRC027	414615	7349785	319	-90	0	75	RC	
CBRC028	414613	7349875	314	-90	0	99	RC	
CBRC029	414494	7349762	310	-90	0	75	RC	
CBRC030	414388	7349657	314	-90	0	99	RC	
CBRC031	414263	7349550	298	-90	0	75	RC	
CBRC032	414607	7349660	316	-90	0	81	RC	
CBRC033	414498	7349542	310	-90	0	105	RC	
CBRC034	414386	7349428	319	-90	0	81	RC	
CBRC035	414614	7349202	320	-90	0	39	RC	
CBRC036	414495	7349092	318	-90	0	99	RC	C4
CBRC037	414740	7349086	315	-90	0	39	RC	
CBRC038	414607	7348977	312	-90	0	57	RC	
CBRC039	414528	7348879	314	-90	0	99	RC	
CBRC040	414952	7348865	315	-90	0	63	RC	
CBRC041	414834	7348745	315	-90	0	93	RC	C4
CBRC042	415068	7348752	316	-90	0	75	RC	
CBRC043	414940	7348635	315	-90	0	99	RC	C4
CBRC044	415178	7348632	308	-90	0	87	RC	
CBRC045	415330	7348524	315	-90	0	93	RC	
CBRC046	415433	7348425	315	-90	0	87	RC	
CBRC047	415546	7348319	308	-90	0	93	RC	
CBRC048	415656	7348204	309	-90	0	99	RC	
CBRC049	415886	7348204	306	-90	0	99	RC	<b>a</b> -
CBRC050	415771	7348340	306	-90	0	123	RC	C5
CBRC051	415658	7348431	306	-90	0	63	RC	
CBRC052	415545	7348538	308	-90	0	93	RC	
CBRC052	415658	7348657	308	-90	0	93	RC	
CBRC054	415422	7348643	309	-90	0	57	RC	
	113744	1 JTUUTJ	507	-70	, v	57		





ABN 40 1 19 03 1 864

Table 6 (	(continued)	Drill	<b>Collar Data</b>	(GDA94	$MGA_750$ )
I able 0 (	continueu).		Conar Data	(UDA74	PIGA250)

Hole ID	Easting	Northing	RL	Dip	Azimuth	EOH	Туре	
CBRC055	413819	7350449	307	-90	0	63	RC	
CBRC055	413900	7350534	307	-90	0		RC	
CBRC057	413688	7350449	303	-90	0	45	RC	
CBRC057 CBRC058	413818	7350674	303	-90	0	147	RC	
CBRC058 CBRC059	413704	7350559	300	-90		75	RC	
					0			C
CBRC060 CBRC061	413588	7350674	307	-90	0	93	RC	C2
	413476	7350563	307	-90	0	69	RC	
CBRC062	413585	7350454	305	-90	0	75	RC	
CBRC063	413707	7350785	305	-90	0		RC	
CBRC064	413474	7350784	291	-90	0	81	RC	
CBRC065	413403	7350704	294	-90	0	69	RC	
CBRC066	411792	7351282	307	-90	0	57	RC	
CBRC067	411655	7351163	307	-90	0	57	RC	
CBRC068	411506	7351073	307	-90	0	69	RC	
CBRC069	410966	7351418	300	-90	0	69	RC	
CBRC070	411706	7351802	300	-90	0	99	RC	
CBRC071	411703	7351576	300	-90	0	69	RC	
CBRC072	411587	7351689	300	-90	0	81	RC	
CBRC073	411596	7351458	300	-90	0	87	RC	
CBRC074	411489	7351349	300	-90	0	81	RC	CI
CBRC075	411591	7351924	300	-90	0	123	RC	
CBRC076	411478	7351578	300	-90	0	88	RC	
CBRC077	411362	7351915	300	-90	0	93	RC	
CBRC078	411467	7351996	300	-90	0	99	RC	
CBRC079	411475	7351800	300	-90	0	93	RC	
CBRC080	411250	7351799	300	-90	0	165	RC	
CBRC081	411373	7351696	300	-90	0	93	RC	
CBRC082	411283	7351594	300	-90	0	75	RC	
CBRC083	414546	7349700	306	-59	36	153	RC	
CBRC084	414483	7349645	306	-58	45	201	RC	
CBRC085	414431	7349587	307	-59	44	123	RC	
CBRC086	414540	7349584	307	-59	46	117	RC	C3
CBRC087	414431	7349698	306	-58	47	201	RC	
CBRC088	414318	7349587	311	-59	43	181	RC	
CBRC089	414654	7349695	309	-59	45	159	RC	
CBRC090	410043	7325078	358	-90	0	63	RC	
CBRC091	409725	7325084	349	-90	0	57	RC	
CBRC092	409223	7325080	355	-90	0	81	RC	
CBRC093	408919	7325078	355	-90	0	81	RC	
CBRC094	410154	7324593	355	-90	0	81	RC	
CBRC095	409810	7324580	351	-90	0	99	RC	
CBRC096	409491	7324585	350	-90	0	93	RC	
CBRC097	409189	7324587	354	-90	0	87	RC	
CBRC098	408867	7324584	358	-90	0	87	RC	C6
CBRC099	408689	7324570	350	-90	0	87	RC	
CBRC100	409028	7324588	352	-90	0	105	RC	
CBRC101	409344	7324583	361	-90	0	87	RC	
CBRC102	409656	7324586	361	-90	0	105	RC	
CBRC103	409988	7324587	300	-90	0	81	RC	
CBRC104	409079	7325081	300	-90	0	81	RC	
CBRC105	409401	7325074	300	-90	0	87	RC	
CBRC106	409885	7325080	300	-90	0	57	RC	



ABN 40 119 031 864

Table 6 (	continued	): Drill	Collar Data	(GDA94 MGAz50)

Hole ID         Easting         Northing         RL         Dip         Azimuth         EOH         Type           CBRC107         416640         7347831         311         -90         0         105         RC           CBRC108         416506         7347918         319         -90         0         93         RC           CBRC109         416381         7348007         317         -90         0         93         RC           CBRC110         416245         7348108         312         -90         0         105         RC           CBRC110         416245         7348108         312         -90         0         105         RC           CBRC111         416113         7348148         315         -90         0         111         RC           CBRC112         414598         7349985         306         -59         47         95         RC           GBRC112         414598         7349985         306         -59         47         95         RC	
CBRC108         416506         7347918         319         -90         0         93         RC           CBRC109         416381         7348007         317         -90         0         93         RC           CBRC109         416381         7348007         317         -90         0         93         RC           CBRC110         416245         7348108         312         -90         0         105         RC           CBRC111         416113         7348148         315         -90         0         111         RC           CBRC112         414598         7349985         306         -59         47         95         RC	
CBRC109         416381         7348007         317         -90         0         93         RC         C5           CBRC110         416245         7348108         312         -90         0         105         RC           CBRC111         416113         7348148         315         -90         0         111         RC           CBRC112         414598         7349985         306         -59         47         95         RC	
CBRC110         416245         7348108         312         -90         0         105         RC           CBRC111         416113         7348148         315         -90         0         111         RC           CBRC112         414598         7349985         306         -59         47         95         RC	
CBRCIII         416113         7348148         315         -90         0         III         RC           CBRCI12         414598         7349985         306         -59         47         95         RC	
CBRC112 414598 7349985 306 -59 47 95 RC	
CBRC113   414544   7349929   308   -59   44   153   RC	
CBRC114 414486 7349873 311 -58 43 165 RC	
CBRCI15 414374 7349761 311 -57 47 165 RC	
CBRC116 414322 7349702 309 -57 45 160 RC	
CBRC117 414250 7349646 316 -59 40 165 RC	
CBRCI18 414661 7349928 307 -58 46 165 RC	
CBRC119 414707 7349883 314 -59 48 129 RC	
CBRC120 414656 7349809 313 -59 44 165 RC C3	
CBRC121 414605 7349754 326 -59 49 165 RC	
CBRC122 414374 7349526 324 -59 44 165 RC	
CBRC123 414429 7349476 323 -58 43 165 RC	
CBRC124 414644 7349596 313 -60 43 165 RC	
CBRC125 414605 7349520 333 -59 46 165 RC	
CBRC126 414438 7349825 317 -59 47 165 RC	
CBRC127 414542 7349472 321 -58 42 153 RC	
CBRC128 414482 7349416 319 -57 42 165 RC	
CBRC129 419046 7343403 319 -61 40 81 RC	
CBRC130 418905 7343266 322 -60 44 93 RC	
CBRC131 419018 7343376 320 -60 47 105 RC	
CBRCI32 418877 7343238 322 -60 42 III RC	
CBRC133 418985 7343348 322 -66 40 129 RC C7	
CBRCI34 418843 7343207 322 -60 40 111 RC	
CBRC135 418957 7343319 324 -60 42 129 RC	
CBRCI36 418816 7343178 324 -60 37 111 RC	
CBRC137 418927 7343290 322 -60 40 123 RC	
CBDD001 414847 7348981 312 -60 43 249.6 DDH C4	
CBDD002 414367 7349638 307 -60 45 279.6 DDH C3	



ABN 40 1 19 03 1 864

# JORC Code, 2012 Edition – Table I Report Template Section I Sampling Techniques and Data

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

<b>•</b> • •	(Criteria in this section apply to a	
Criteria	JORC Code explanation	Commentary
Sampling techniques	• Nature and quality of sampling (e.g. cut channels, random	Reverse Circulation (RC) drilling was undertaken to produce
	chips, or specific specialised industry standard	samples for assaying.
	measurement tools appropriate to the minerals under	Laboratory Analysis
	investigation, such as down hole gamma sondes, or	Two sampling techniques were utilised for this program, Im
	handheld XRF instruments, etc.). These examples should	metre splits directly from the rig sampling system for each
	not be taken as limiting the broad meaning of sampling.	metre and 3m composite sampling from spoil piles. Samples
	• Include reference to measures taken to ensure sample	submitted to the laboratory were determined by the site
	representivity and the appropriate calibration of any	geologist.
	measurement tools or systems used.	Im Splits
	• Aspects of the determination of mineralisation that are	From every metre drilled a 2-3kg sample (split) was sub-
	Material to the Public Report.	sampled into a calico bag via a Metzke cone splitter from each
	• In cases where 'industry standard' work has been done this	metre of drilling.
	would be relatively simple (e.g. 'reverse circulation drilling	2m Compositor
	was used to obtain 1 m samples from which 3 kg was	<b>3m Composites</b> All remaining spoil from the sampling system was collected in
	pulverised to produce a 30 g charge for fire assay'). In other	buckets from the sampling system and neatly deposited in
	cases more explanation may be required, such as where	rows adjacent to the rig. An aluminium scoop was used to
	there is coarse gold that has inherent sampling problems.	then sub-sample each spoil pile to create a 2-3kg 3m
	Unusual commodities or mineralisation types (e.g.	composite sample in a calico bag.
	submarine nodules) may warrant disclosure of detailed	A pXRF is used on site to determine mineralised samples.
	information.	Mineralised intervals have the Im split collected, while unmineralised samples have 3m composites collected.
		All samples are submitted to ALS Laboratories in Perth for
		determination of Rare Earth Oxides by Lithium Borate Fusion
		XRF (ALS Method ME-XRF30) and for 48 multi-elements via
		4 acid digestion with MS/ICP finish (ALS Code ME-MS61).
Drilling techniques	• Drill type (e.g. core, reverse circulation, open-hole hammer,	RC Drilling
	rotary air blast, auger, Bangka, sonic, etc.) and details (e.g.	Ausdrill undertook the program utilising a Drill Rigs Australia
	core diameter, triple or standard tube, depth of diamond	truck mounted Schramm T685WS drill rig with additional air from an auxiliary compressor and booster. Bit size was $5\frac{3}{4}$ ".
	tails, face-sampling bit or other type, whether core is	in one an auxiliary compressor and booster. Bit size was 574.
	oriented and if so, by what method, etc.).	
Drill sample recovery	• Method of recording and assessing core and chip sample	RC Drilling
	recoveries and results assessed.	Drilling was undertaken using a 'best practice' approach to
	• Measures taken to maximise sample recovery and ensure	achieve maximum sample recovery and quality through the mineralised zones.
	representative nature of the samples.	Best practice sampling procedure included: suitable usage of
	• Whether a relationship exists between sample recovery	dust suppression, suitable shroud, lifting off bottom between
	and grade and whether sample bias may have occurred	each metre, cleaning of sampling equipment, ensuring a dry
	due to preferential loss/gain of fine/coarse material.	sample and suitable supervision by the supervising geologist
		to ensure good sample quality.
		At this stage, no known bias occurs between sample recovery and grade.
Logging	Whether core and chip samples have been geologically	RC chips were logged under supervision of a qualified senior
999	and geotechnically logged to a level of detail to support	geologist with sufficient experience in this geological terrane
	appropriate Mineral Resource estimation, mining studies	and relevant styles of mineralisation using an industry standard
	and metallurgical studies.	logging system which could eventually be utilised within a
	• Whether logging is qualitative or quantitative in nature.	Mineral Resource Estimation.
	Core (or costean, channel, etc.) photography.	Lithology, mineralisation, alteration, veining, weathering and texture were all recorded digitally.
	• The total length and percentage of the relevant	Chips were washed each metre and stored in chip trays for
	intersections logged.	preservation and future reference.
		RC pulp material is also analysed on the rig by pXRF and
		magnetic susceptibility meter to assist with logging and the
		identification of mineralisation.
		Logging is qualitative, quantitative or semi-quantitative in
Sub sampling	a life care whather sut as any	nature.
Sub-sampling techniques and sample	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> </ul>	<b>RC Drilling</b> From every metre drilled, a 2-3kg sample (split) was sub-
preparation		sampled into a calico bag via a Metzke cone splitter.
L	<ul> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> </ul>	QAQC in the form of duplicates and CRM's (OREAS
	<ul> <li>For all sample types, the nature, quality and</li> </ul>	Standards) were inserted through the ore zones at a rate of
	<ul> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> </ul>	1:50 samples. Additionally, within mineralised zones, a
	appropriateness of the sumple preparation technique.	duplicate sample was taken and a blank inserted directly after.

DREADNOUGHT

F S



ABN 40 119 031 864

Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<ul> <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> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the</li> </ul>	2-3kg samples are submitted to ALS laboratories (Perth), oven dried to 105°C and pulverised to 85% passing 75um to produce a 0.66g charge for determination of Rare Earth Oxides by Lithium Borate Fusion XRF (ALS Method ME- XRF30) and to produce a 0.25g charge for determination of 48 multi-elements via 4 acid digestion with MS/ICP finish (ALS Code ME-MS61). Standard laboratory QAQC is undertaken and monitored. Laboratory Analysis Lithium borate fusion is considered a total digest and Method
	<ul> <li>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) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	ME-XRF30 is appropriate for REE, P <sub>2</sub> O <sub>5</sub> , TiO <sub>2</sub> determination. ME-MS61 is considered a near total digest and is appropriate for Sc determination. Standard laboratory QAQC is undertaken and monitored by the laboratory and by the company upon assay result receival.
Verification of sampling and assaying	<ul> <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>	Logging and Sampling Logging and sampling were recorded directly into a digital logging system, verified and eventually stored in an offsite database. Significant intersections are inspected by senior company personnel. No twinned holes have been drilled at this time. No adjustments to any assay data have been undertaken.
Location of data points	<ul> <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>	Collar position was recorded using a Emlid Reach RS2 RTK GPS system (+/- 0.2m x/y, +/-0.5m z). GDA94 Z50s is the grid format for all xyz data reported. 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.
Data spacing and distribution	<ul> <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>	See table I to 6 for hole positions and sampling information. Infill 80m x 80m drilling is suitable spacing for estimating inferred Mineral Resources.
Orientation of data in relation to geological structure	<ul> <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>	Drilling was undertaken at a near perpendicular angle to the interpreted strike and dip of the ironstone outcrops and modelled magnetic data. No sample bias is known at this time.
Sample security	• The measures taken to ensure sample security.	All geochemical samples were collected, bagged, and sealed by Dreadnought staff and delivered to Exmouth Haulage in Exmouth. Samples were delivered directly to ALS Laboratories Perth by Exmouth Haulage out of Exmouth and Jarrahbar Contracting out of Carnarvon.
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	The program is continuously reviewed by senior company personnel.





ABN 40 1 19 03 1 864

# Section 2 Reporting of Exploration Results (Criteria in this section apply to all succeeding sections.)

	(Criteria in this section apply to a	i succeding sections.)
Criteria	JORC Code explanation	Commentary
Mineral tenement and	• Type, reference name/number, location and ownership	The Mangaroon Project consists of 20 granted
land tenure status	including agreements or material issues with third parties	Exploration License (E08/3178, E08/3274, E08/3275,
	such as joint ventures, partnerships, overriding royalties,	E08/3439, E09/2290, E09/2359, E09/2370, E09/2384,
	native title interests, historical sites, wilderness or national	E09/2405, E09/2433, E09/2448, E09/2449, E09/2450,
	park and environmental settings.	E09/2467, E09/2473, E09/2478, E09/2531, E09/2535,
	-	E09/2616, E09/2620) and 5 granted Mining Licenses
	• The security of the tenure held at the time of reporting	
	along with any known impediments to obtaining a licence	(M09/91, M09/146, M09/147, M09/174, M09/175).
	to operate in the area.	<ul> <li>All tenements are 100% owned by Dreadnought</li> </ul>
		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.
		• E08/3178, E09/2370, E09/2384 and E09/2433 are subject
		to a 2% Gross Revenue Royalty held by Beau Resources.
		<ul> <li>E08/3274, E08/3275, E09/2433, E09/2448, E09/2449,</li> <li>E09/2460 and subject to a 1% Change Payment Payment</li> </ul>
		E09/2450 are subject to a 1% Gross Revenue Royalty
		held by Beau Resources.
		<ul> <li>E09/2359 is subject to a 1% Gross Revenue Royalty held</li> </ul>
		by Prager Pty Ltd.
		• 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.
		• M09/91 is subject to a 1% Gross Revenue Royalty held
		by DOREY, Robert Lionel.
		• M09/174 is subject to a 0.5% Gross Revenue Royalty
		held by STEHN, Anthony Paterson.
		M09/175 is subject to a 0.5% Gross Revenue Royalty
		held by STEHN, Anthony Paterson and BROWN,
		Michael John Barry.
		• The Mangaroon Project covers 4 Native Title
		Determinations including the Budina (WAD131/2004),
		Thudgari (WAD6212/1998), Gnulli Gnulli
		(WAD22/2019) and the Combined Thiin-Mah,
		Warriyangka, Tharrkari and Jiwarli (WAD464/2016).
		• The Mangaroon Project is located over Lyndon,
		Mangaroon, Gifford Creek, Maroonah, Minnie Creek,
		Edmund and Towera Stations.
Exploration done by	• Acknowledgment and appraisal of exploration by other	Historical exploration of a sufficiently high standard was
other parties	parties.	carried out by a few parties which have been outlined and
	F	detailed in this ASX announcement including:
		Regional Resources 1986-1988s: WAMEX Reports A23715,
		23713
		Peter Cullen 1986: WAMEX Report A36494
		Carpentaria Exploration Company 1980: WAMEX Report
		A9332
		Newmont 1991: WAMEX Report A32886
		Hallmark Gold 1996: WAMEX Report A49576
		Rodney Drage 2011: WAMEX Report A94155
		Sandfire Resources 2005-2012: WAMEX Report 94826
Geology	• Deposit type, geological setting and style of mineralisation.	The Mangaroon Project is located within Mangaroon Zone
		of the Gascoyne Province.
		The Mangaroon Project is prospective for orogenic gold,
		orthomagmatic Ni-Cu-PGE mineralisation and carbonatite
		hosted REE-P-Nb-Ti-Sc mineralisation.



ABN 40 1 19 03 1 864

Criteria	JORC Code explanation	Commentary
Drill hole information	<ul> <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> <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>	An overview of the drilling program is given within the text and tables 1 to 6 within this document.
Data aggregation methods	<ul> <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> <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>	All results greater than 0.3% TREO, 0.3% Nb <sub>2</sub> O <sub>5</sub> , 5% P <sub>2</sub> O <sub>5</sub> , 5% TiO <sub>2</sub> and 200ppm Sc have been reported. Significant intercepts are length weight averaged for all samples with TREO values >0.3% TREO with up to 3m of internal dilution (<0.3% TREO). No metal equivalents are reported.
Relationship between mineralisation widths and intercept lengths	<ul> <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 mineralisation. The true thickness of the mineralisation intersected in drill holes cannot currently be calculated.
Diagrams	<ul> <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	• 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.	The accompanying document is a balanced report with a suitable cautionary note.
Other substantive exploration data	<ul> <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 are given within the text of this document.
Further work	<ul> <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>	Additional RC drilling Diamond Drilling Metallurgical test work Additional Resource Modelling