

**ASX ANNOUNCEMENT**

2 October 2023

## Mangaroon Carbonatite Now >17km - Higher Grade Zones Fingerprinted

### HIGHLIGHTS

- Dreadnought first identified the Gifford Creek Carbonatite (“GCC”, formerly C1-C5) in November 2021 as 5 discrete carbonatite intrusions each ~1km x 1km in size. Drilling to date has extended GCC to >9kms. To assist with the targeting and in highlighting areas of deeper weathering and residual enrichment, a regional ground gravity survey was undertaken.
- The survey has extended GCC to >17kms in strike and >1km in width (over 3 times larger than originally interpreted). Significantly, this is now similar in size and age to the massive Bayan Obo carbonatite (Hong-Rui Fan, et al. 2016) which hosts three world-class rare earth deposits and accounts for ~50% of global rare earth production. This underscores the significant upside potential of rare earths (“REE” or “TREO”) at Mangaroon.
- Importantly, the survey successfully identified the two zones of deeper and higher-grade residual mineralisation over the current GCC Resource (10.84Mt @ 1.00% TREO). This “fingerprint” will be applied in identifying other high-grade zones.
- The survey is now being infilled to define areas of deeper weathering and potential high-grade residual enrichment.

**Dreadnought Resources Limited (“Dreadnought”) is pleased to provide an update from the 100% owned Mangaroon REE Project, located in the Gascoyne Region of Western Australia.**

Dreadnought’s Managing Director, Dean Tuck, commented: “These geophysical breakthroughs have significantly enhanced the critical metal prospectivity at Mangaroon. The scale of the Gifford Creek Carbonatite, and similarities to Bayan Obo highlight the potential to discover additional high-grade mineralisation. Furthermore, the ability to target these areas of deeper weathering through geophysics is an exploration breakthrough which paves the way for potentially more effective and efficient targeted exploration, moving away from the statistical pattern drilling approach. We look forward to generating and testing targets within the significantly enlarged Gifford Creek Carbonatite in the coming months.”

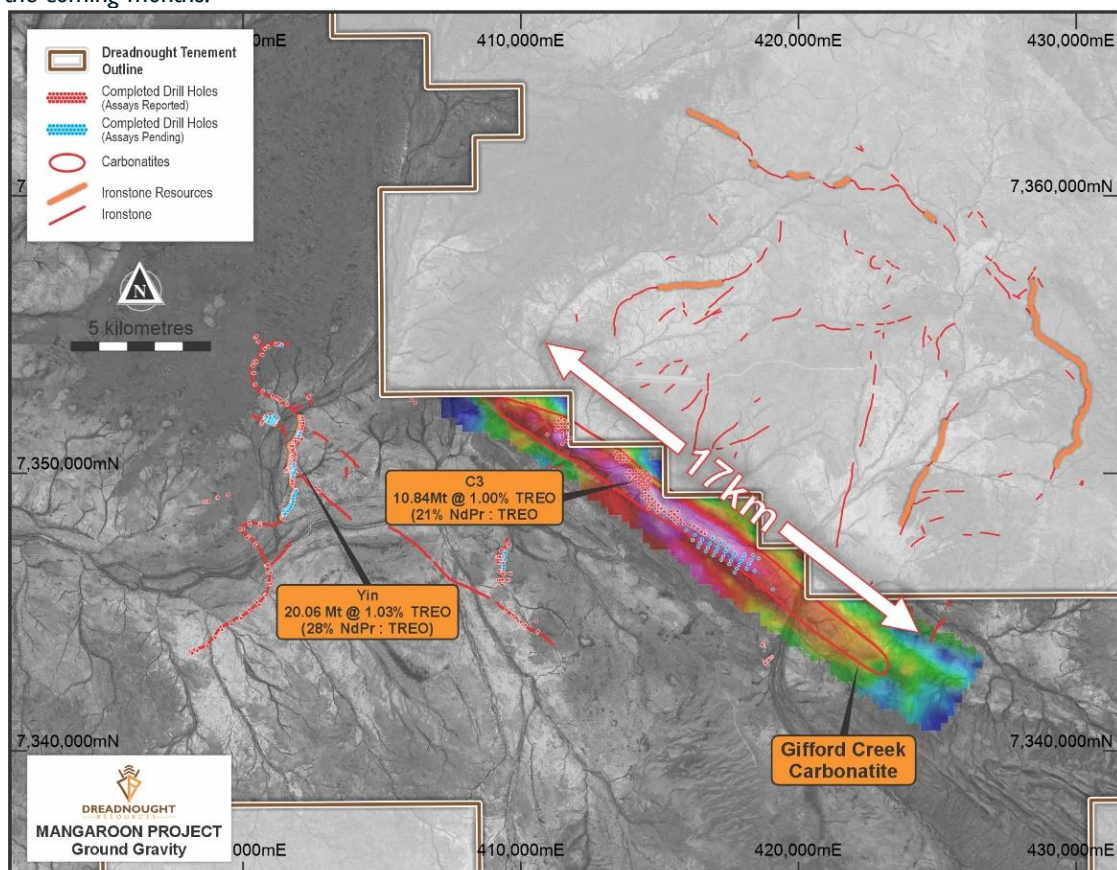


Figure 1: Plan view of the ~17km long Gifford Creek Carbonatite against a gravity image in relation to drilling and Resources

## **SNAPSHOT – MANGAROON RARE EARTHS**

### **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.
- 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.*

#### **Significant, Critical Minerals Potential at the >17km Long Gifford Creek Carbonatite (formerly C1-C5)**

- Gifford Creek Carbonatite is considered to be the regional source of REE.
- In less than 12 months since the discovery of the Gifford Creek Carbonatite, a large, independent Resource of 10.84Mt @ 1.00% TREO has been delivered (ASX 28 Aug 2023). The Resource contains a range of critical minerals including rare earths, niobium, phosphate, titanium and scandium.
- The initial Resource covers an area of only ~600m x 550m. With the Gifford Creek Carbonatite now expanding to ~17kms x 1km under wide-spaced, first pass drilling, it is expected that the Resource will grow substantially with future drilling.
- Significantly, this is now similar in size and age to the massive Bayan Obo carbonatite (Hong-Rui Fan, et al. 2016) which hosts three world-class rare-earth deposits (57.4Mt @ 6% TREO in Reserves\*). This underscores the global significance of the REE potential at Mangaroon.

#### **High-grade, Multi-Metal Potential Including REE (Neodymium, Praseodymium), Phosphate, Niobium, Titanium & Scandium**

- The mineralisation at the Yin REE Ironstone Complex contains significantly higher NdPr as a fraction of the 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 Gifford Creek Carbonatite has identified significant critical metal potential with REE, P, Nb, Ti and Sc.

#### **Potentially Attractive Mining Proposition**

- At Yin, broad zones of flat to moderate dipping mineralisation with parallel lodes and Resource intensity of ~4.8Mt/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<sub>2</sub>O<sub>3</sub>+Pr<sub>6</sub>O<sub>11</sub>.
- 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 opportunity.



## Regional Gravity Program

The Gifford Creek Carbonatite was first identified in November 2021 through 5 ovoid magnetic features interpreted to be carbonatite intrusions with associated fenite alteration halos. Each of these features was ~1km x ~1km. Due to limited outcrop, a statistical pattern drilling program was undertaken to identify REE mineralisation.

Drilling and surveys further extended the carbonatites to ~9.5kms long x ~1km wide. Further drilling continued to intersect carbonatite outside of this strike. Due to the large scale of the carbonatite, and on the greater understanding of the carbonatite gained through drilling, a regional geophysical survey was undertaken to more effectively and efficiently target deeper and higher-grade residual mineralisation. This program consisted of ~1,000m x 40m station spacing over ~20kms of strike.

Modeling of the gravity data has defined a ~17km long deep seated and dense body interpreted to be the Gifford Creek Carbonatite as supported by drilling data. The Gifford Creek Carbonatite, in size and age, is similar to the Bayan Obo carbonatite (Hong-Rui Fan, et al. 2016) in China which hosts three world class rare earth deposits. With less than 10-15% of the Gifford Creek Carbonatite drilled to date, there remains significant potential for the identification of additional REE and critical minerals deposits.

## Detailed Gravity Program at C3

As part of the regional gravity survey, a detailed orientation survey was undertaken over the existing Resource to identify the areas of deeper weathering which resulted in thicker and higher-grade residual enrichment.

Importantly, this work successfully identified the two zones of deeper and higher-grade residual mineralisation over the current GCC Resource (10.84Mt @ 1.00% TREO). This “fingerprint” will be applied in identifying other high-grade zones.

Figure 2 below shows a comparison of the gravity survey on the left and the supergene thickness (depth of weathering) on the right. The gravity has successfully identified the areas of deeper weathering which is associated with thicker and higher-grade mineralisation.

In addition, the survey has also identified targets to the northwest of CBRC115 and southeast of CBRC125 which returned significant intercepts including (ASX 28 Aug 23):

<b>CBRC115:</b>	<b>9m @ 3.88% TREO</b>	<b>8.6 kg/t Nd<sub>2</sub>O<sub>3</sub>+Pr<sub>6</sub>O<sub>11</sub></b>	<b>(22% NdPr:TREO)</b> from 77m within:
	<b>102m @ 1.14% TREO</b>	<b>2.6kg/t Nd<sub>2</sub>O<sub>3</sub>+Pr<sub>6</sub>O<sub>11</sub></b>	<b>(22% NdPr:TREO)</b> from 3m
<b>CBRC125:</b>	<b>4m @ 2.59% TREO</b>	<b>5.6 kg/t Nd<sub>2</sub>O<sub>3</sub>+Pr<sub>6</sub>O<sub>11</sub></b>	<b>(22% NdPr:TREO)</b> from 50m and:
	<b>9m @ 2.03% TREO</b>	<b>4.9 kg/t Nd<sub>2</sub>O<sub>3</sub>+Pr<sub>6</sub>O<sub>11</sub></b>	<b>(24% NdPr:TREO)</b> from 59m within:
	<b>113m @ 1.13% TREO</b>	<b>2.6 kg/t Nd<sub>2</sub>O<sub>3</sub>+Pr<sub>6</sub>O<sub>11</sub></b>	<b>(23% NdPr:TREO)</b> from 7m

On the back of this “fingerprinting” success, a 100m x 100m spaced infill gravity survey will commence in early October 2023 and will cover the entire Gifford Creek Carbonatite.

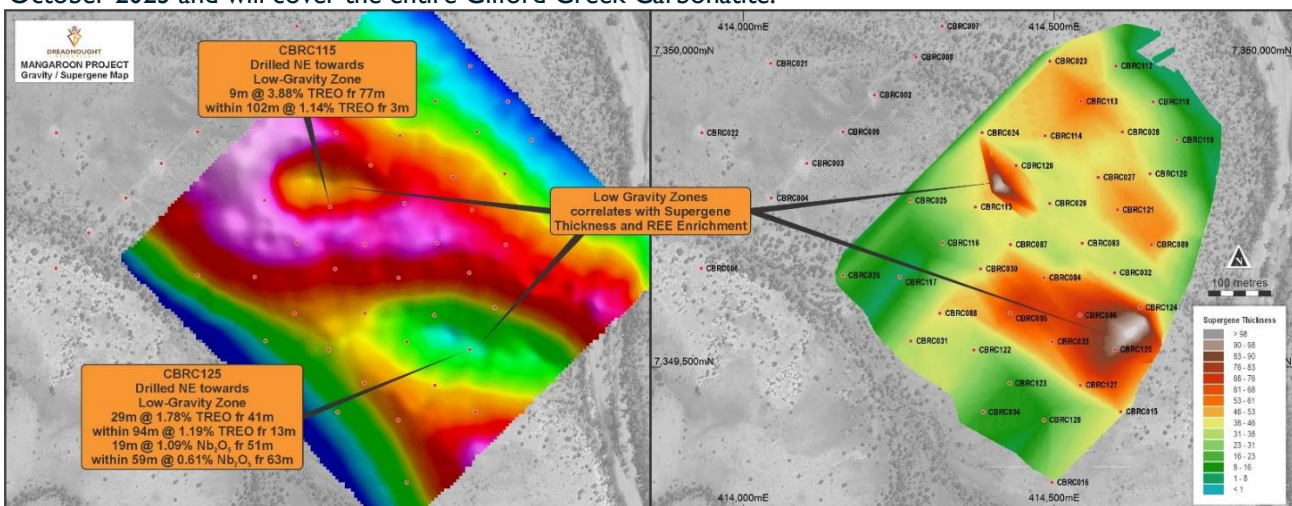


Figure 2: Plan view of the current Resource showing the location of drilling over a detailed gravity image (left) and supergene (residual weathering) thickness (right) showing a strong correlation and target areas to extend deeper mineralisation.

**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 3) covers >5,200sq kms 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-PGE 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 of 50-100Mt at 0.9-1.3% TREO (ASX 13 Feb 2023) over 40 kms of strike.
- the ~9km long REE-Nb-Ti-P-Sc C1-C5 carbonatites which contain an initial independent Inferred Resource of 10.84Mt @ 1.00% TREO at C3 (ASX 28 Aug 2023).

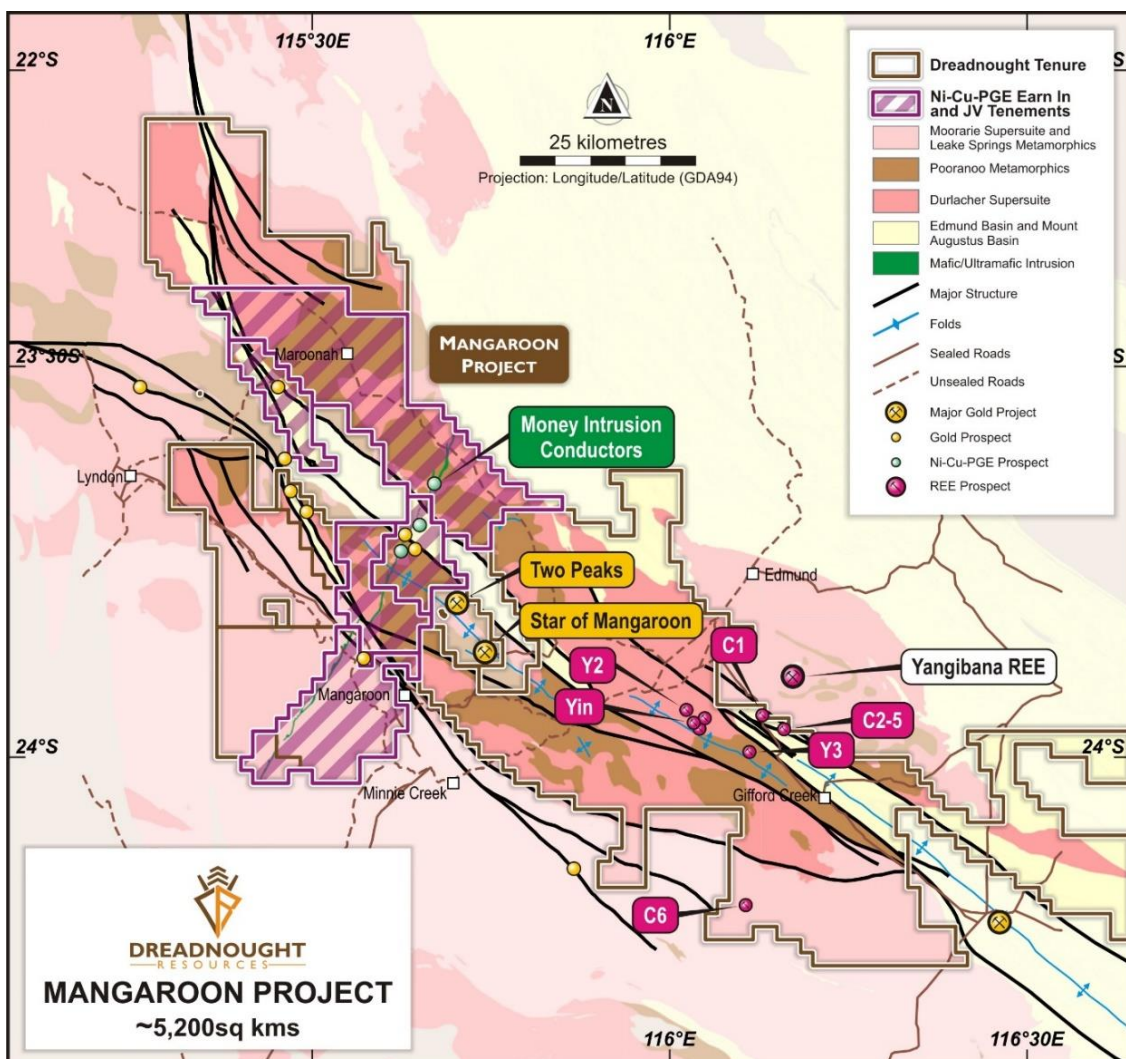


Figure 3: Plan view map of Mangaroon showing the location of the First Quantum Minerals Earn-in and 100% Dreadnought ground (Mangaroon Au Shear Zone, Yin REE Ironstone Complex and REE-Nb-Ti-P-Sc C1-C5 carbonatites) in relation to major structures, geology and roads.



For further information please refer to previous ASX announcements:

- 16 June 2022 *Fist Drilling at Yin Intersects High-Grade Rare Earths*
- 28 July 2022 *Assays Confirm Yin as a High-Grade Rare Earth Discovery*
- 5 September 2022 *Further Assays Confirm Yin as Significant REE Discovery*
- 5 September 2022 *Thick Rare Earth Ironstones Confirmed at Sabre (Y3) Discovery*
- 12 October 2022 *Broad, High-Grade Assays at Yin REE Discovery*
- 17 October 2022 *Mineralised Carbonatites Discovered at C3 and C4*
- 24 October 2022 *Broad, High-Grade Assays at Yin REE Discovery*
- 21 November 2022 *Broad, High-Grade Assays at Yin REE Discovery*
- 23 November 2022 *Multiple, Large Scale, REE-Nb-Ti-P Carbonatites*
- 28 December 2022 *Initial High-Grade, Independent Resource over 3kms at Yin*
- 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*
- 29 May 2023 *Metallurgical Test Work Supports High-Value Concentrate*
- 13 June 2023 *Yin Extended by 1km & 2.5km of High-Grade NdPr Discoveries*
- 5 July 2023 *40% Increase in Resource Tonnage at Yin*
- 10 July 2023 *High Grade Rare Earth & Niobium Zones at C3 & C5*
- 17 July 2023 *High Grade Rare Earth & Niobium Zones at C3 & C5*
- 7 August 2023 *Rare Earth Ironstone and Carbonatite Drilling Update*
- 17 August 2023 *Thick, High-Grade Rare Earths Continue at Yin*
- 28 August 2023 *Initial, Independent REE-Nb-P-Ti-Sc Resource at C3*

\*Reference: Hong-Rui Fan, Kui-Feng Yang, Fang-Fang Hu, Shang Liu, & Kai-Yi Wang. 2016. The giant Bayan Obo REE-Nb-Fe deposit, China: Controversy and ore genesis. *Geoscience Frontiers*, Vol 7(3), p 335-344.

## UPCOMING NEWSFLOW

October: Drilling results from completed drilling at Mangaroon REE (100%)

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

October: DHEM and further assay results from the Money Intrusion (Mangaroon Ni-Cu-PGE Earn-in)

18-19 October: Presenting at the Southwest Connect ASX Showcase

October/November: REE Resource upgrade (Mangaroon 100%)

October/November: Further RC drilling at Mangaroon Ni-Cu-PGE (Earn-in) and Au, REEs (100%)

October: Quarterly Activities and Cashflow Report

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

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

23 November: Annual General Meeting

November/December: Assay results from additional Au, Ni-Cu-PGE and REE drilling at Mangaroon.

~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.

## 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.

## Yin Resource Tables

Table 1: Summary of Yin Resources at 0.20% TREO Cut-off.

Resource Classification	Geology	Tonnes (Mt)	TREO (%)	Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub> (kg/t)	NdPr:TREO Ratio (%)	Contained TREO	Contained Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub>
Indicated	Oxide	3.01	1.25	3.5	28	37,700 t	10,400 t
Indicated	Fresh	2.52	1.21	3.4	28	30,400 t	8,400 t
<b>Indicated</b>	<b>Subtotal</b>	<b>5.52</b>	<b>1.23</b>	<b>3.4</b>	<b>28</b>	<b>68,100 t</b>	<b>18,800 t</b>
Inferred	Oxide	11.35	0.91	2.5	28	102,900 t	28,900 t
Inferred	Fresh	3.18	1.09	3.3	31	34,900 t	10,600 t
<b>Inferred</b>	<b>Subtotal</b>	<b>14.56</b>	<b>0.95</b>	<b>2.7</b>	<b>29</b>	<b>137,800 t</b>	<b>39,500 t</b>
Total	Oxide	14.36	0.98	2.7	28	140,600 t	39,300 t
Total	Fresh	5.70	1.14	3.3	29	65,300 t	19,100 t
<b>TOTAL</b>		<b>20.06</b>	<b>1.03</b>	<b>2.9</b>	<b>28</b>	<b>205,900 t</b>	<b>58,400 t</b>

Table 2: Summary of Yin Resources at 0.40% TREO% Cut-off.

Resource Classification	Geology	Tonnes (Mt)	TREO (%)	Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub> (kg/t)	NdPr:TREO Ratio (%)	Contained TREO	Contained Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub>
Indicated	Oxide	2.19	1.61	4.5	28	35,100 t	9,900 t
Indicated	Fresh	1.87	1.53	4.3	28	28,500 t	8,000 t
<b>Indicated</b>	<b>Subtotal</b>	<b>4.05</b>	<b>1.57</b>	<b>4.4</b>	<b>28</b>	<b>63,600 t</b>	<b>17,900 t</b>
Inferred	Oxide	6.35	1.38	4.0	29	87,400 t	25,500 t
Inferred	Fresh	2.09	1.52	4.7	31	31,800 t	9,900 t
<b>Inferred</b>	<b>Subtotal</b>	<b>8.44</b>	<b>1.41</b>	<b>4.2</b>	<b>30</b>	<b>119,200 t</b>	<b>35,400 t</b>
Total	Oxide	8.53	1.44	4.1	29	122,500 t	35,400 t
Total	Fresh	3.96	1.52	4.5	30	60,300 t	17,900 t
<b>TOTAL</b>		<b>12.49</b>	<b>1.46</b>	<b>4.3</b>	<b>29</b>	<b>182,800 t</b>	<b>53,300 t</b>



## INVESTMENT HIGHLIGHTS

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

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

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

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

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

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

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

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

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

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

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

Central Yilgarn is located ~190km northwest of Kalgoorlie in the Yilgarn Craton. The project comprises ~1,600 sq kms covering ~150km of strike along the majority of the Illara, 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.



## 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>	<p><b>Gravity Survey</b></p> <p>Atlas Geophysics completed the acquisition of the dataset with one crew utilising foot-borne gravity methods. Gravity data were acquired using a Scintrex CG5 digital gravity meter. The survey was positioned with CHC GNSS receivers operating in PPK mode. All data were tied to the AFGN using a single control stations. Expected accuracy of the gravity survey would be better than 0.02 mGal with recorded elevations accurate to better than 3cm. Gravity stations were acquired using a 1,000m x 40m grid configuration for regional traverses and 20m x 20m in the orientation survey area.</p>
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. 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.).</li> </ul>	No drilling reported
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>	No drilling reported
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>	No drilling reported
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>	No drilling reported
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> </ul>	<p><b>Gravity Survey</b></p> <p>QC procedures were applied to the GNSS data daily and any gravity stations not conforming to the quoted specifications</p>



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <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>	<p>were repeated.</p> <p>Once downloaded from the gravity meters, the data were analysed for consistency and preliminary QC was performed to confirm that observations meet specification for standard deviation, reading rejection, temperature, and tilt values. Once the data were verified the software averaged the multiple gravity readings and performed a merge with the previously QC-passed GNSS data. The software then applies a linear drift correction and earth tide correction. Any gravity stations not conforming to the quoted specifications were repeated.</p>
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>	No drilling reported
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><b>Gravity Survey</b></p> <p>Station positions were recorded using CHC170+ GNSS.RTK GPS system (+/- 0.02m x/y, +/-0.03m z).</p> <p>GDA94 Z50s is the grid format for all xyz data reported.</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>	No drilling reported
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>	No drilling reported
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	All gravity data is digitally stored by the contractor and geophysical consultant and uploaded daily to a data portal for review.
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	Data from the program was reviewed by external geophysical consultants Newexco to evaluate the validity of the data and model the results.

## 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>	<ul style="list-style-type: none"> <li>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).</li> <li>All tenements are 100% owned by Dreadnought Resources.</li> <li>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.</li> <li>E08/3178, E09/2370, E09/2384 and E09/2433 are subject to a 2% Gross Revenue Royalty held by Beau Resources.</li> <li>E08/3274, E08/3275, E09/2433, E09/2448, E09/2449, E09/2450 are subject to a 1% Gross Revenue Royalty</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>held by Beau Resources.</p> <ul style="list-style-type: none"> <li>E09/2359 is subject to a 1% Gross Revenue Royalty held by Prager Pty Ltd.</li> <li>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.</li> <li>M09/91 is subject to a 1% Gross Revenue Royalty held by DOREY, Robert Lionel.</li> <li>M09/174 is subject to a 0.5% Gross Revenue Royalty held by STEHN, Anthony Paterson.</li> <li>M09/175 is subject to a 0.5% Gross Revenue Royalty held by STEHN, Anthony Paterson and BROWN, Michael John Barry.</li> <li>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).</li> <li>The Mangaroon Project is located over Lyndon, Mangaroon, Gifford Creek, Maroonah, Minnie Creek, Edmund, Williambury and Towera Stations.</li> </ul>
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, orthomagmatic Ni-Cu-PGE mineralisation and carbonate hosted REE-P-Nb-Ti-Sc mineralisation.</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>	No drilling reported
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> <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>	No drilling reported



Criteria	JORC Code explanation	Commentary
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>	No drilling reported
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>	The accompanying document is a balanced report with a suitable cautionary note.
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 are 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>	Additional gravity surveys RC drilling