

29 March 2023

## YIN RESOURCE TO GROW, CARBONATITE DRILLING COMMENCED - MANGAROON (100%)

### HIGHLIGHTS

- The Yin Ironstone Complex is comprised of 43kms of REE mineralised ironstones which include:
  - 3kms containing a JORC Mineral Resource (“Resource”) of 14.36Mt @ 1.13% TREO (ASX 28 Dec 2022); and
  - 40kms containing a JORC Exploration Target (“Exploration Target”) of 50-100Mt at 0.9-1.3% TREO and a grade range of 1.13% TREO +/- 20% (ASX 13 Feb 2023).
- RC drilling has confirmed mineralisation along ~3kms of the Exploration Target and along strike from the Resource. Infill drilling is now planned to convert up to ~3km of the Exploration Target to Resource.
- A second RC rig is now on site and will commence first pass, wide spaced drilling at the C1-C7 carbonatites. The first RC rig will continue drilling along the ironstone Exploration Target. A diamond rig has commenced metallurgical and QAQC drilling at the Yin Resource and the C3-C4 carbonatites.
- Assays from 66 holes drilled at the C1-C5 carbonatites in 2022 are expected in mid-April 2023. Results from the 2023 drilling are expected in the June 2023 quarter.

Dreadnought Resources Limited (“Dreadnought”) is pleased to provide an update on drilling activities at Yin, part of the 100% owned Mangaroon project, located in the Gascoyne Region of Western Australia.

Wide spaced, first pass, RC drilling is testing the Yin Exploration Target. Drilling to date (40 holes for 5,697m) has confirmed ~3kms of mineralisation along strike of the Yin Resource. Mineralisation has been confirmed by portable XRF (“pXRF”) with assays expected in the June 2023 quarter. These results are expected to grow the Resources which will be upgraded in the June 2023 quarter.

A second RC rig and a diamond rig have arrived on site and commenced drilling. The second RC rig will focus on first pass, wide spaced drilling of the C1-C7 carbonatites. The diamond rig will provide ongoing support for Resource upgrades, metallurgical test work and geotechnical studies. These systematic drill programs have the potential to rapidly add significant Resources.

Dreadnought’s Managing Director, Dean Tuck, commented: “Identifying ~3kms of mineralised ironstones

*along strike from the 3km long Yin Resource has certainly got the 2023 drilling program off to a flying start. These results are expected to grow the Resource in the June 2023 quarter. We are excited to have two RC rigs on site and to be re-commencing our unfinished first pass, wide spaced drilling of the C1-C7 carbonatites. We are now in full swing at Mangaroon.”*



**Figure 1: Photo of the RC rig drilling undercover ironstones to the south of the Yin Resource.**

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## SNAPSHOT - MANGAROON RARE EARTHS

### Mangaroon is 100% Owned by Dreadnought

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

- Initial independent Yin Inferred Resource of 14.36Mt @ 1.13% TREO (ASX 28 Dec 2022) covers only 3km of 43km of strike and is based on only 2.5 months of RC drilling (12,255m).
- 40km long Exploration Target of 50-100Mt at 0.9-1.3% TREO estimated for the top 150m of the Yin Ironstone Complex (ASX 13 Feb 2023).
- First tranche of long-term incentives now triggered with balance on track to be triggered at JORC Resource of at least 30Mt @ >1% TREO by 31 December 2024.
- Resource extension and first pass wide spaced drilling currently underway.

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

- C1-C7 carbonatites are shaping up as the regional source of REE – initial drill program expands C1-C5 to ~6.5kms in strike length x 1km wide.
- C6 Carbonatite located ~25kms south of C1-5 and C7 is situated over a crustal scale structural splay off the Lyons River Fault, is associated with an outcropping pyroxenite intrusion, and has a geophysical similarity to other globally significant carbonatites such as Mt Weld, Araxa, Phalaborwa and Ngualla.
- First pass, wide spaced discovery focused drilling has recommenced.

#### High-grade, Multi-Metal Potential Including REE (Neodymium, Praseodymium), Phosphorus, Niobium, Titanium & Scandium (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 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 C1-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 within the C1-C5 carbonatites.
- 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 now confirmed at the C3 discovery.

#### Potentially Attractive Mining Proposition

- Broad zones of flat to shallow dipping mineralisation with parallel lodes and Resource intensity of ~4.8Mt/km make for a potentially attractive mining proposition.

#### Positive Metallurgy Results

- Initial metallurgical test work from Yin performed well, achieving a recovery of 92.8% at a concentrate grade of 12.3% Nd<sub>2</sub>O<sub>3</sub> and an average 40% TREO.
- REE at Yin is predominantly hosted in monazite which is amenable to commercial processing.
- Significant metallurgical study from 16 diamond holes drilled at Yin underway – results expected April/May 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 mid/downstream industry participants. While the current focus is on upstream options (mining, milling, and concentrating) opportunities for mid/downstream industry participants to add value to Dreadnought shareholders will be assessed.

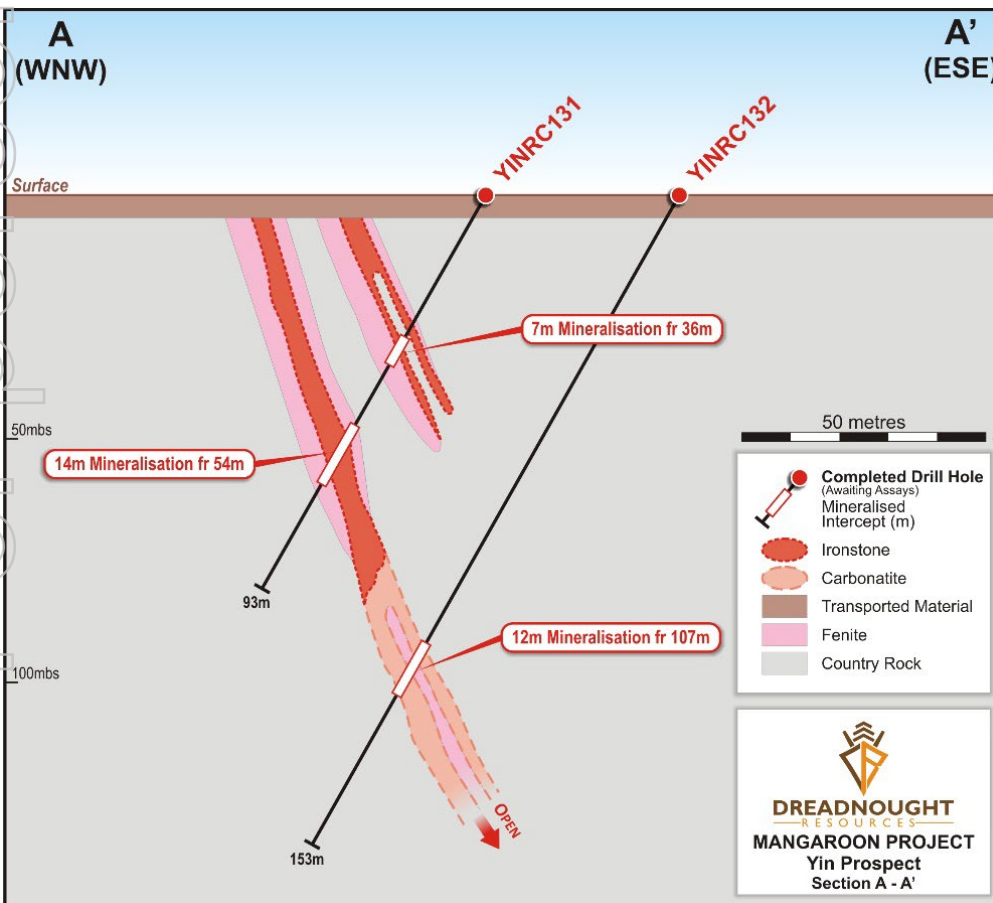
## RC Drill Program (YINRC130-YINRC169)

A wide spaced RC drill program (~80 holes for 11,000m) of which 40 holes for 5,697m have been drilled is testing portions of the 40km long ironstone Exploration Target. As a result of the success of this program, 42 infill RC holes are planned in order convert up to ~3km of the Exploration Target to Resource.

The current program is over areas that are largely devoid of outcrop and has relied on geophysical interpretations of the ironstones trends undercover. The program has been extremely successful in confirming mineralisation undercover. Mineralisation at Yin has been extended to the south by ~1km and two new ironstone lodes have been confirmed to the north of the Resource in areas where NdPr ratios increase.

Drilling of the ironstones continue to show that the main lode pinches, swells and changes dip and orientation along strike and ranges in thickness from 1-54m. In addition, parallel lodes have been intersected above and below the main lode and often exhibit a similar orientation as the main lode with thicknesses ranging from 1-10m.

The mineralised ironstones consist of goethite and hematite dominated oxide zones near the surface (top ~80m) transitioning into a fresh ferrocarnatite dyke (fresh REE ironstone), comprised of ankerite and siderite below the base of oxidation. The ironstones are surrounded by a variable zone of fenitised country rock. Both the ironstone and the fenite immediately surrounding the ironstone are mineralised with each ironstone and ferrocarnatite containing at least one central interval of higher-grade mineralisation. Oxidised mineralisation contains REE bearing phosphate monazite and variable amounts of the hydrated rare earth phosphate rhabdophane. Fresh ferrocarnatite mineralisation contains monazite and variable amounts of REE fluoro-carbonates such as bastnaesite.



With the arrival of the second RC rig, first pass, wide spaced drilling will commence along the C1-C7 carbonatites.

**Figure 2: Exploration Target cross section A-A' showing the 7-14m wide main lode horizon with ~80m of oxidation and moderately dipping to the east and remaining open at depth.**



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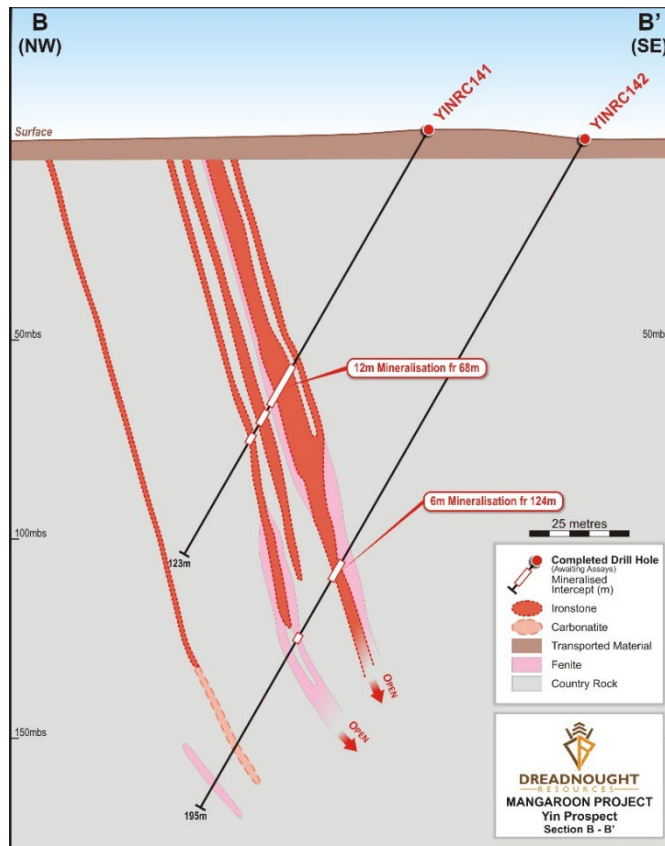


Figure 3: Exploration Target cross section B-B' showing a steeply dipping zone of multiple 2-12m wide ironstone lodes.

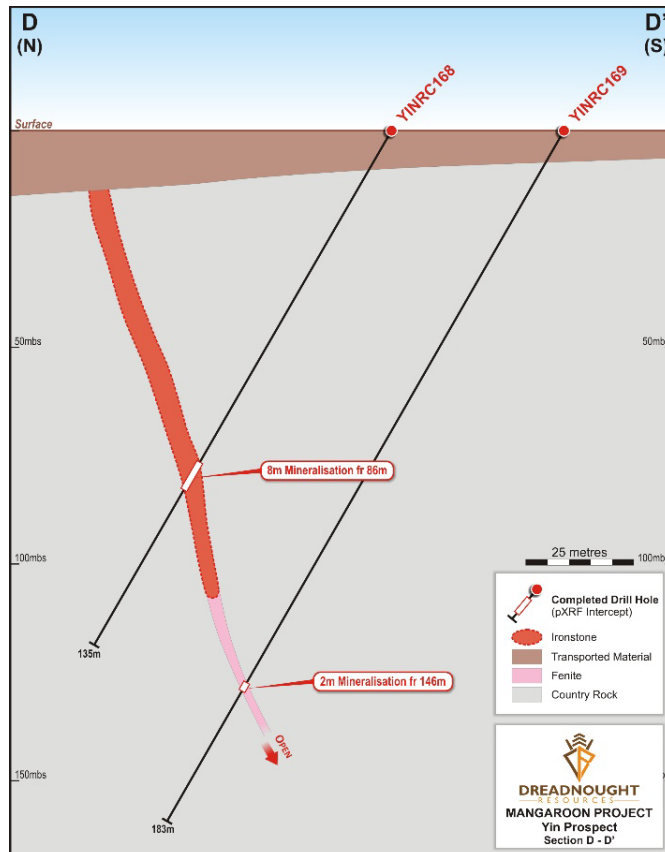


Figure 4: Exploration Target cross section D-D' showing a moderately steep 2-8m wide lode dipping to the south, with follow up drilling to include chasing the lode to surface.

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## Technical Discussion on Exploration Target Drill Program

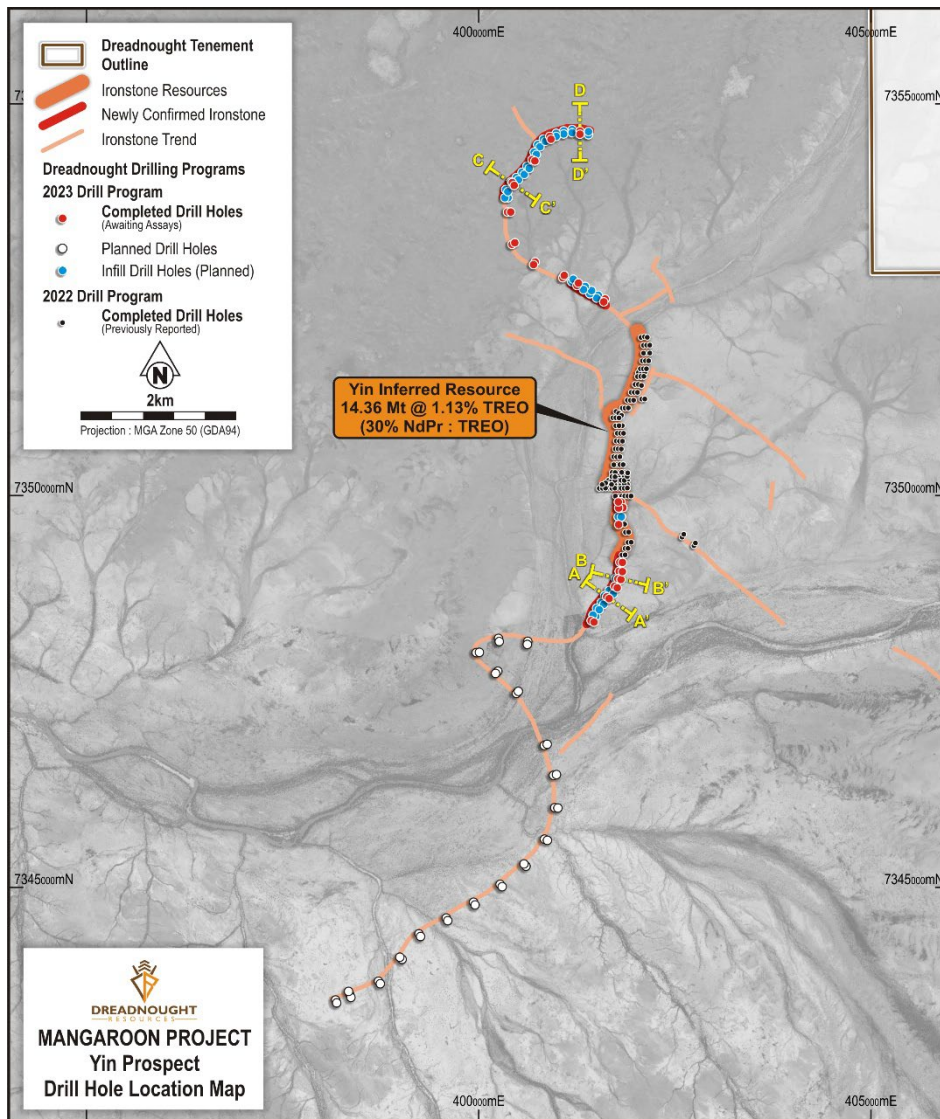
The outcropping REE ironstones have a distinctive radiometric signature and appear as gossanous iron rich outcrops in ortho-imagery. From June to September 2021, Dreadnought announced the identification of the Yin ironstones using wide spaced 1990s government radiometric data and modern ortho-imagery.

During 2022, Dreadnought identified 43km of mineralised ironstones at Yin as well as the REE-P<sub>2</sub>O<sub>5</sub>-Nb<sub>2</sub>O<sub>5</sub>-TiO<sub>2</sub>-Sc C1-C7 carbonatites.

In December 2022, Dreadnought defined an Inferred Resource of 14.36Mt @ 1.13% TREO (ASX 28 Dec 2022) over only 3km of the 43km of mineralised ironstones.

With only 7% of the 43kms of ironstones drilled to date, there remains significant potential to add to the initial Resource at Yin. In February 2023, a 40km long Exploration Target of 50-100Mt at 0.9-1.3% TREO was estimated for the top 150m of Yin (ASX 13 Feb 2023).

The 2023 ironstone drilling program aims to grow the initial Resource by converting portions of the Exploration Target to Resource.



**Figure 5: Plan view of the recently completed ~3kms of Exploration Target drilling (red dots), 16kms of planned Exploration Target drilling (white dots) over an ortho-image. This drilling is expected to both extend the current Resource and to convert portions of the Exploration Target to Resource. Infill drilling is also shown (blue dots).**

### Technical Discussion on the C1-C7 Carbonatite Drill Program

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

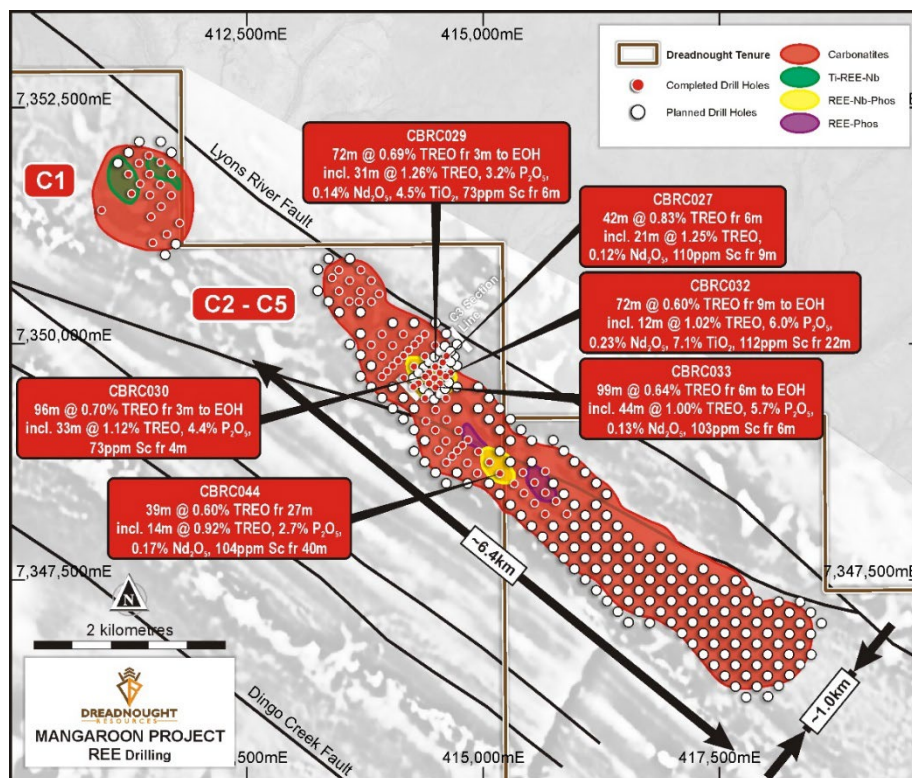
Since the C1-C7 carbonatites have minimal outcrop, a first-pass RC drilling program (~280 RC holes for ~20,000m) has been designed on a ~160m x 160m grid to drill through cover and into fresh rock. The objective of this program is to confirm the extent and complexity of the interpreted carbonatite intrusions, define zones of mineralisation and to better understand the cover regolith and depth of weathering.

In 2022 the carbonatite program was partially completed with 82 holes (7,813m) and delivered numerous successes including:

- identification of 6 coherent mineralised zones containing various minerals (including REE-P<sub>2</sub>O<sub>5</sub>-Nb<sub>2</sub>O<sub>5</sub>-TiO<sub>2</sub>+Sc)
- delineation of an extensive 600m x 550m zone of mineralisation at C3 which remains open;
- intersection of thick mineralised zones of both weathered and fresh carbonatites;
- confirmation of multiple carbonatite and syenite intrusions, comprising a carbonatite-alkaline intrusive complex; and
- intersection of highly weathered carbonatites up to ~150m depth which could host residual mineralisation.

In addition to the first pass drilling, limited follow up drilling (7 RC holes for 1,135m and 1 diamond hole for 279.6m) were drilled on a ~80m x 80m spaced angled hole pattern targeting the ~600m x 550m mineralised zone at C3.

The 2023 carbonatite drilling program will define the extents of the mineralisation at C1-C7 leading to initial Resource estimation and vectoring into high-grade zones.



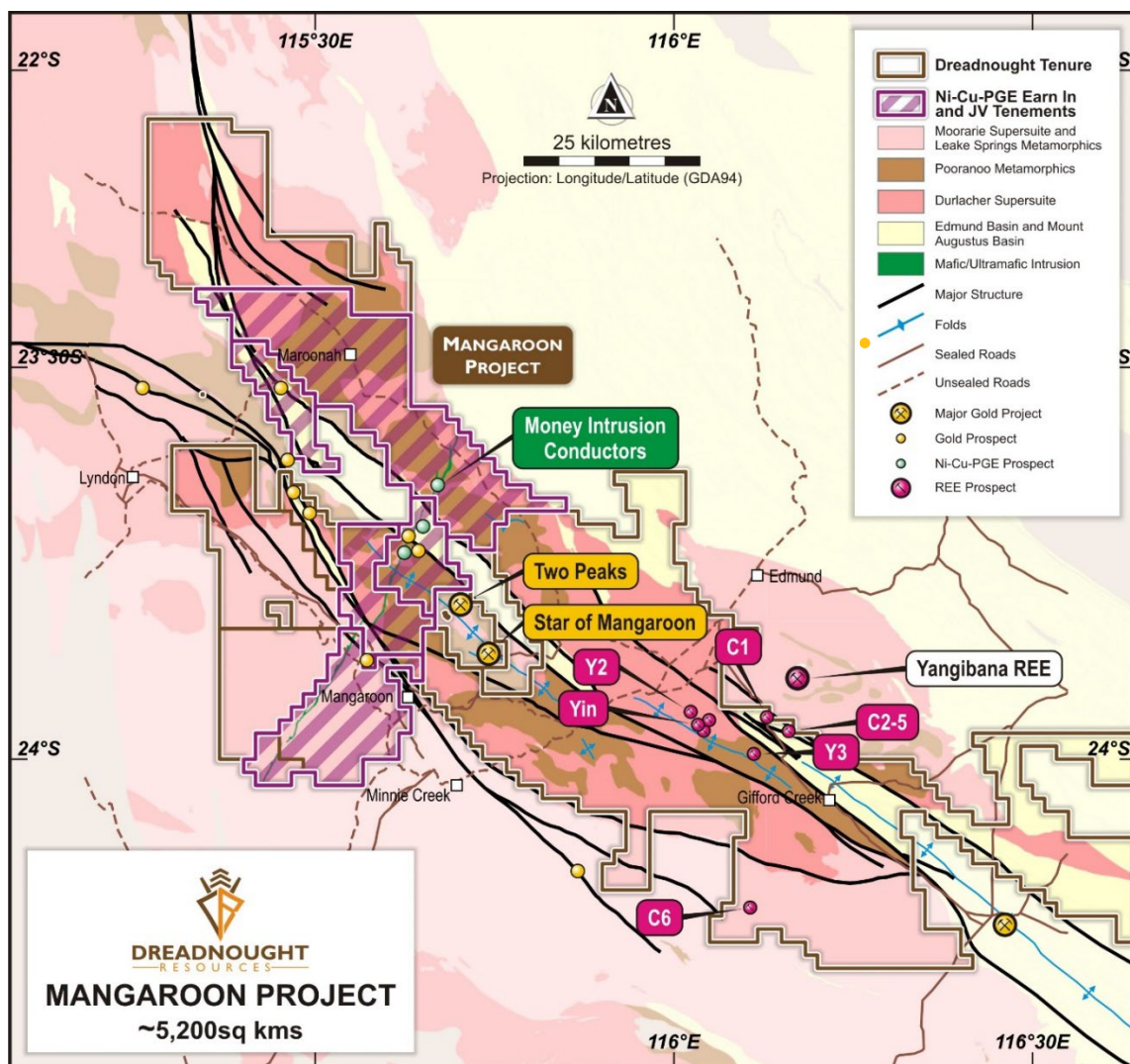
**Figure 6: Plan view of C1-C5 over a greyscale magnetic image (RTP 1VD) showing the location of planned drilling (white dots) in relation to previous drilling (red dots) and significant results.**

**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: DRE 100%)**

Mangaroon covers >5,300sq 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 an earn in with First Quantum Minerals Ltd (“FQM”) (earning up to 70%) – Figure 7. The region is host to high-grade gold mineralisation at the Bangemall/Cobra and Star of Mangaroon gold mining centres and the high NdPr:TREO ratio 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-P<sub>2</sub>O<sub>5</sub>-Nb<sub>2</sub>O<sub>5</sub>-TiO<sub>2</sub>±Sc mineralised carbonatites and outcropping high tenor Ni-Cu-PGE blebby sulphides in the recently defined Money Intrusion.

In December 2022, Dreadnought delivered an initial independent Inferred Resource of 14.36Mt @ 1.13% TREO covering only 3kms of the 43kms of strike within the Yin Ironstone Complex.



**Figure 7: Plan view map of Mangaroon showing the location of the FQM Earn-in and 100% DRE ground in relation to major structures, geology and roads.**

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For further information please refer to previous ASX announcements:

- 11 June 2021 *High-Grade REE Ironstones Outcropping at Mangaroon*
- 19 July 2021 *High-Grade REE Ironstones Confirmed Over 2.5kms at Mangaroon*
- 24 September 2021 *Airborne Magnetic-Radiometric Survey Commenced at Mangaroon*
- 2 February 2022 *Rare Earths, Phosphate, Niobium & Zirconium Results from Mangaroon*
- 5 September 2022 *Thick Rare Earth Ironstones Confirmed at Sabre (Y3) Discovery*
- 17 October 2022 *Mineralised Carbonatites Discovered at C3 and C4*
- 23 November 2022 *Multiple, Large Scale REE-Nb-Ti-P Carbonatites*
- 13 December 2022 *Thick Mineralisation Continues at C3, 2022 Drilling Complete*
- 28 December 2022 *Initial High-Grade, Independent Resource Over 3kms at Yin*
- 27 January 2023 *Mineralised REE Ironstones increased by 13kms to 43kms*
- 13 February 2023 *REE Ironstone Exploration Target Defined*
- 13 March 2023 *Successful Yin Extensional Drill Results*

#### UPCOMING NEWSFLOW

**March:** Results from Kimberley auger sampling (Tarraji-Yampi 80% and 100%)

**March:** Initial Resource for Metzke's Find Au (Central Yilgarn 100%)

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

**March / April:** Results from Wombarella Heli-EM survey (Tarraji-Yampi 100%)

**March:** Extraordinary General Meeting

**March / April:** Results of Central Yilgarn Nickel Review with Newexco

**4-6 April:** Presenting at Future Facing Commodities (Singapore)

**April:** Quarterly Activities and Cashflow Report

**April/May:** Metallurgical results from Yin Ironstone Complex (Mangaroon 100%)

**May / June:** REE Resource upgrades for Mangaroon 100%

~Ends~

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## 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.

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 Isa 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 in the recently defined 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 3kms Yin REE Ironstone Complex delivering 14.36Mt @ 1.13% TREO (30% NdPr:TREO Ratio) (ASX 28 Dec 2022) with an additional 40 strike kilometres 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.





### **Cautionary Statement**

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

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

*The information in this announcement that relates to geology, Exploration Results and Exploration Targets was compiled by Mr. Dean Tuck, who is a Member of the AIG, Managing Director, and shareholder of the Company. Mr. Tuck has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Tuck consents to the inclusion in the announcement of the matters based on the information in the form and context in which it appears.*

*The Company confirms that it is not aware of any new information or data that materially affects the information in the original reports, and that the form and context in which the Competent Person's findings are presented have not been materially modified from the original reports.*

### **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.*

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**Table 1: Mineralised intervals as confirmed by an infield preliminary pXRF analysis with >2m @ >0.2% TREO.**

Hole ID	From (m)	To (m)	Interval (m)	Lithology	Prospect
YINRC131	20	22	2	Fenite alteration	Yin
	30	32	2	Oxide ironstone and fenite alteration	
	36	43	7	Oxide ironstone and fenite alteration	
	54	68	14	Oxide ironstone and fenite alteration	
YINRC132	107	119	12	Fresh ferrocarnatite ironstone and fenite alteration	
YINRC133	151	153	2	Oxide ironstone and fenite alteration	
YINRC134	20	28	8	Oxide ironstone and fenite alteration	
	31	34	3	Oxide ironstone	
	39	44	5	Oxide ironstone and fenite alteration	
	50	57	7	Oxide ironstone and fenite alteration	
YINRC135	61	64	3	Oxide ironstone and fenite alteration	
YINRC136	39	42	3	Oxide ironstone and fenite alteration	
YINRC137	37	43	6	Oxide ironstone and fenite alteration	
YINRC138	80	84	4	Fresh ferrocarnatite ironstone and fenite alteration	
YINRC139	18	22	4	Oxide ironstone and fenite alteration	
	29	31	2	Oxide ironstone and fenite alteration	
YINRC140	94	105	11	Oxide and fresh ferrocarnatite ironstone with fenite	
	127	129	2	Oxide ironstone and fenite alteration	
YINRC141	68	90	22	Oxide ironstone and fenite alteration	
YINRC142	124	131	7	Oxide ironstone and fenite alteration	
YINRC144	129	132	3	Oxide ironstone and fenite alteration	
YINRC147	181	183	2	Fresh ferrocarnatite ironstone and fenite alteration	
YINRC152	23	37	14	Oxide ironstone and fenite alteration	
	59	63	4	Fresh ferrocarnatite ironstone and fenite alteration	
YINRC153	27	29	2	Oxide ironstone and fenite alteration	
YINRC154	17	19	2	Oxide ironstone and fenite alteration	
YINRC159	56	59	3	Oxide ironstone and fenite alteration	
YINRC162	54	57	3	Oxide ironstone and fenite alteration	
	67	74	7	Oxide ironstone and fenite alteration	
YINRC163	121	124	3	Fenite alteration	
YINRC164	46	48	2	Fenite alteration	
YINRC165	96	98	2	Fresh ferrocarnatite ironstone and fenite alteration	
YINRC166	53	56	3	Oxide ironstone and fenite alteration	
YINRC167	81	85	4	Fresh ferrocarnatite ironstone and fenite alteration	
	109	111	2	Fresh ferrocarnatite ironstone and fenite alteration	
	124	126	2	Fresh ferrocarnatite ironstone and fenite alteration	
YINRC168	86	94	8	Fresh ferrocarnatite ironstone and fenite alteration	
YINRC169	146	148	2	Fresh ferrocarnatite ironstone and fenite alteration	

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

Hole ID	Easting	Northing	RL	Dip	Azimuth	EOH	Type	Prospect
YINRC130	401789	7349042	300	-60	275	117	RC	Yin
YINRC131	401773	7348946	300	-60	283	93	RC	
YINRC132	401812	7348937	300	-60	286	153	RC	
YINRC133	401830	7349038	300	-60	275	183	RC	
YINRC134	401778	7349927	313	-60	270	81	RC	
YINRC135	401812	7349929	306	-60	270	138	RC	
YINRC136	401783	7349639	307	-60	270	141	RC	
YINRC137	401798	7349159	301	-60	278	81	RC	
YINRC138	401830	7349156	308	-60	276	123	RC	
YINRC139	401730	7348851	304	-60	302	93	RC	
YINRC140	401765	7348831	315	-60	302	165	RC	
YINRC141	401630	7348717	301	-60	305	123	RC	
YINRC142	401662	7348694	302	-60	300	195	RC	
YINRC143	401432	7348413	303	-60	300	177	RC	
YINRC144	401469	7348394	300	-60	300	165	RC	
YINRC145	401810	7349850	293	-60	272	153	RC	
YINRC146	401837	7349854	297	-60	273	117	RC	
YINRC147	401782	7349850	297	-60	271	189	RC	
YINRC148	406219	7352555	319	-90	0	90	WB	
YINRC149	406067	7352656	315	-90	0	90	WB	
YINRC150	401593	7352480	305	-60	210	117	RC	
YINRC151	401611	7352516	304	-60	212	183	RC	
YINRC152	401252	7352688	309	-60	215	93	RC	
YINRC153	401270	7352720	305	-60	216	153	RC	
YINRC154	401072	7352787	301	-60	209	123	RC	
YINRC155	401089	7352818	296	-60	208	189	RC	
YINRC156	400719	7352990	307	-60	215	183	RC	
YINRC157	400668	7352934	316	-60	213	183	RC	
YINRC158	400464	7353248	308	-60	245	183	RC	
YINRC159	400459	7353234	315	-60	245	96	RC	
YINRC160	400367	7353626	322	-60	271	183	RC	
YINRC161	400407	7353626	314	-60	268	153	RC	
YINRC162	400427	7354002	313	-60	306	153	RC	
YINRC163	400452	7353963	320	-60	304	138	RC	
YINRC164	400681	7354298	314	-60	296	135	RC	
YINRC165	400720	7354273	322	-60	297	165	RC	
YINRC166	400908	7354593	309	-60	339	123	RC	
YINRC167	400922	7354557	305	-60	340	159	RC	
YINRC168	401290	7354655	315	-60	2	135	RC	
YINRC169	406195	7352701	315	-60	0	183	RC	

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# JORC CODE, 2012 EDITION – TABLE 1 REPORT TEMPLATE

## SECTION 1 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>Reverse Circulation (RC) drilling was undertaken to produce samples for assaying.</p> <p><b>Laboratory Analysis</b></p> <p>A pXRF is used on site to determine mineralised samples. Mineralised intervals have the 1m split collected, while unmineralised samples are not sampled. Samples submitted to the laboratory were determined by the site geologist with the assistance of the pXRF.</p> <p><b>1m Splits</b></p> <p>From every metre drilled a 2-3kg sample (split) was sub-sampled into a calico bag via a Metzke cone splitter from each metre of drilling.</p> <p>All samples are submitted to ALS Laboratories in Perth for determination of Rare Earth Oxides and additional elements by Lithium Borate Fusion XRF (ALS Method ME-XRF30).</p> <p>Some samples are also submitted for 48 multi-elements via 4 acid digestion with MS/ICP finish (ALS Code ME-MS61) to assist with lithological interpretation and waste rock characterisation.</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>	<p><b>RC Drilling</b></p> <p>Ausdrill undertook the program utilising a Drill Rigs Australia truck mounted Schramm T685WS drill rig with additional air from an auxiliary compressor and booster. Bit size was 5¾".</p>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<p><b>RC Drilling</b></p> <p>Drilling was undertaken using a 'best practice' approach to achieve maximum sample recovery and quality through the mineralised zones.</p> <p>Best practice sampling procedure included: suitable usage of dust suppression, suitable shroud, lifting off bottom between each metre, cleaning of sampling equipment, ensuring a dry sample and suitable supervision by the supervising geologist to ensure good sample quality.</p> <p>At this stage, no known bias occurs between sample recovery and grade.</p>
Logging	<ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative</li> </ul>	<p>RC chips were logged by a qualified geologist with sufficient experience in this geological terrane and relevant styles of mineralisation using an industry standard logging system which could eventually be utilised within a Mineral Resource Estimation.</p>

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Criteria	JORC Code explanation	Commentary
	<p><i>in nature. Core (or costean, channel, etc.) photography.</i></p> <ul style="list-style-type: none"> <li><i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<p>Lithology, mineralisation, alteration, veining, weathering and structure were all recorded digitally.</p> <p>Chips were washed each metre and stored in chip trays for preservation and future reference.</p> <p>RC pulp material is also analysed on the rig by pXRF, scintillometer and magnetic susceptibility meter to assist with logging and the identification of mineralisation.</p> <p>Logging is qualitative, quantitative or semi-quantitative in nature.</p>
<p><i>Sub-sampling techniques and sample preparation</i></p>	<ul style="list-style-type: none"> <li><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li><i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i></li> <li><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li><i>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.</i></li> <li><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<p><b>RC Drilling</b></p> <p>From every metre drilled, a 2-3kg sample (split) was sub-sampled into a calico bag via a Metzke cone splitter.</p> <p>QAQC in the form of duplicates and CRM's (OREAS Standards) were inserted through the ore zones at a rate of 1:50 samples. Additionally, within mineralised zones, a duplicate sample was taken and a blank inserted directly after.</p> <p>2-3kg samples are submitted to ALS laboratories (Perth), oven dried to 105°C and pulverised to 85% passing 75µm 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).</p> <p>Standard laboratory QAQC is undertaken and monitored.</p>
<p><i>Quality of assay data and laboratory tests</i></p>	<ul style="list-style-type: none"> <li><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li><i>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.</i></li> <li><i>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.</i></li> </ul>	<p><b>Laboratory Analysis</b></p> <p>Lithium borate fusion is considered a total digest and Method ME-XRF30 is appropriate for REE determination.</p> <p>Standard laboratory QAQC is undertaken and monitored by the laboratory and by the company upon assay result receipt.</p>
<p><i>Verification of sampling and assaying</i></p>	<ul style="list-style-type: none"> <li><i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li><i>The use of twinned holes.</i></li> <li><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li><i>Discuss any adjustment to assay data.</i></li> </ul>	<p><b>Logging and Sampling</b></p> <p>Logging and sampling were recorded directly into a digital logging system, verified and eventually stored in an offsite database.</p> <p>Significant intersections are inspected by senior company personnel.</p> <p>No twinned holes have been reported at this time.</p> <p>No adjustments to any assay data have been undertaken.</p>

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Criteria	JORC Code explanation	Commentary
Location of data points	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<p>Collar position was recorded using a Emlid Reach RS2 RTK GPS system (+/- 0.2m x/y, +/-0.5m z).</p> <p>GDA94 Z50s is the grid format for all xyz data reported.</p> <p>Azimuth and dip of the drill hole was recorded after the completion of the hole using a Reflex Sprint IQ Gyro. A reading was undertaken every 30<sup>th</sup> metre with an accuracy of +/- 1° azimuth and +/-0.3° dip.</p>
Data spacing and distribution	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<p>See tables for hole positions and sampling information.</p> <p>Data spacing and distribution is sufficient to establish the degree of geological and grade continuity for a Mineral Resource estimation procedure at the inferred classification.</p>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<p>Drilling was undertaken at a near perpendicular angle to the interpreted strike and dip of the ironstone outcrops and modelled magnetic data.</p> <p>No sample bias is known at this time.</p>
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<p>All geochemical samples were collected, bagged, and sealed by Dreadnought staff and delivered to Exmouth Haulage in Exmouth.</p> <p>Samples were delivered directly to ALS Laboratories Perth by Exmouth Haulage out of Exmouth.</p>
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<p>The program is continuously reviewed by senior company personnel.</p>

## 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 20 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, E09/2620) and 4 granted Mining Licenses (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> </ul>

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Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <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 held by Beau Resources.</li> <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>M09/174 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 Jwarli (WAD464/2016).</li> <li>The Mangaroon Project is located over Lyndon, Mangaroon, Gifford Creek, Maroonah, Minnie Creek, 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, magmatic Ni-Cu-PGE mineralisation and carbonatite hosted REEs.</p>
Drill hole information	<ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level –</li> </ul> </li> </ul>	<p>An overview of the drilling program is given within the text and tables 1 and 2 within this document.</p>

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Criteria	JORC Code explanation	Commentary
	<p>elevation above sea level in metres) of the drill hole collar</p> <ul style="list-style-type: none"> <li>o dip and azimuth of the hole</li> <li>o down hole length and interception depth</li> <li>o hole length.</li> </ul> <ul style="list-style-type: none"> <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>	
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>	<p>All result greater than 0.3% TREO have been reported.</p> <p>Significant intercepts are length weight averaged for all samples with TREO values &gt;0.2% TREO with up to 3m of internal dilution (&lt;0.2% TREO).</p> <p>No metal equivalents are reported.</p>
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li>• These relationships are particularly important in the reporting of Exploration Results.</li> <li>• If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>• If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	<p>Drilling is undertaken close to perpendicular to the dip and strike of the mineralisation.</p>
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>	<p>Refer to figures within this report.</p>
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>	<p>The accompanying document is a balanced report with a suitable cautionary note.</p>
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</li> </ul>	<p>Suitable commentary of the geology encountered are given within the text of this document.</p>

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Criteria	JORC Code explanation	Commentary
	<i>contaminating substances.</i>	
<i>Further work</i>	<ul style="list-style-type: none"><li><i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li><li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li></ul>	Additional RC drilling Diamond drilling Metallurgical test work Additional Resource Modelling

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