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ASX ANNOUNCEMENT 22 July 2024

Drilling Commenced - Gifford Creek Nb-REE Carbonatite (100%)

HIGHLIGHTS

- **RC drilling has commenced at the Nb-REE Gifford Creek Carbonatite with a focus on extending known pyrochlore Nb mineralisation and to discover additional deposits.**
- **13 RC holes (~1,300m) will test geophysical zones of deeper weathering or different phases of the carbonatite. With <25% of the 17km long Gifford Creek Carbonatite tested by wide spaced drilling to date, these 13 holes are targeting new discoveries.**
- **5 RC holes (~700m) are targeting extensions where previous 320 x 160m spaced holes intersected thick intervals of pyrochlore Nb mineralisation. This drilling will also provide material for mineralogical and metallurgical characterisation.**
- **Wide spaced drilling over <25% of the ~17km long Gifford Creek Carbonatite has already identified 4 zones of mineralisation containing rare earths, niobium, scandium, phosphorus and titanium. This makes for a potential multi-critical mineral mix of co-products located within a Tier 1 jurisdiction, close to existing infrastructure.**
- **This program is supported by a GSWA Exploration Incentive Scheme ("EIS") grant to co-fund RC drilling of Gifford Creek and a drill-for-equity agreement with Topdrill.**

Dreadnought Resources Limited ("Dreadnought") is pleased to announce the commencement of drilling at Gifford Creek, part of the 100% owned Mangaroon Critical Minerals Project, located in the Gascoyne Region of Western Australia.

Dreadnought's Managing Director, Dean Tuck, commented: "*The Gifford Creek Carbonatite has produced some of WA's best niobium intercepts outside the Arunta Province. With strong niobium identified across multiple zones, we see the potential for Mangaroon to evolve as a multi-commodity critical metals hub within close proximity to existing infrastructure with mutual benefit to pastoralists, existing ports and neighboring projects. Importantly, four zones of mineralisation have already been identified with <25% of the intrusion tested by wide spaced, first pass drilling. We remain confident of the potential for growing a significant, high-grade niobium/rare earths resource at Gifford Creek.*"

Figure 1: Photo of the Topdrill RC rig commencing drilling at Gifford Creek.

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SNAPSHOT – MANGAROON CRITICAL MINERALS

Mangaroon is 100% Owned

- 100% owned Mangaroon confirmed as a globally significant critical minerals complex with proven potential for rare earths (REE), niobium (Nb), scandium (Sc), titanium (Ti) and phosphorous (P).

Genuine Scale Potential Already at the Yin Ironstones

- Independent Yin Resource of 29.98Mt @ 1.04% TREO *(ASX: 30 Nov 2023)* covers only ~4.6km of ~43km of strike - 87% Measured and Indicated.
- Yin contains a higher NdPr to total rare earth oxides ("**NdPr:TREO**") ratio than most REE deposits and >50% higher than the global average.

Significant, Growth and Multiple Critical Minerals Potential at the Gifford Creek Carbonatite

- The Gifford Creek Carbonatite and associated Ironstones is one of the largest carbonatite complexes in the world.
- Wide spaced drilling over <25% of the ~17km long Gifford Creek Carbonatite has already identified 4 zones of mineralisation containing rare earths, niobium, scandium, phosphorous and titanium. This makes for a potential multi-critical mineral mix of co-products with significant intercepts including:

CBRC115: 102m @ 1.1% TREO from 3m, including **29m @ 2.1% TREO** from 76m

CBRC085: 48m @ 0.8% Nb_2O_5 from 30m, including **36m @ 1.0% Nb_2O_5** from 39m

CBRC148: 43m @ 11.9% P_2O_5 from 87m, including **24m @ 14.5% P_2O_5** from 105m to EOH

CBRC138: 12m @ 319ppm Sc from 48m and **CBRC125: 10m @ 270ppm Sc** from 18m

CBRC086: 72m @ 8.6% TiO_2 from 12m, including **6m @ 12.8% TiO_2** from 66m

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.
- ANSTO, a world-leader in the processing of critical and strategic metals, has demonstrated that the Yin monazite concentrate has excellent metallurgical recoveries using a conventional low-temperature acid bake/leach process and produces a high quality MREC containing 60.7% TREO (16.3% Nd_2O_3 and 4.4% Pr_6O_{11}) with ~94% recovery of Nd and Pr.
- Recent mineralogical work at the Gifford Creek Carbonatite has confirmed that the dominant niobium mineral is pyrochlore, which is a high niobium mineral (>50%) from which ~95% of global niobium is produced.

Global Strategic Imperative Driving Critical Minerals Growth

- Supply chain security and low carbon transition are imperatives against a backdrop of heightened geopolitical tension.
- Niobium is a critical mineral whose primary use is in HSLA (high strength, low alloy) steel with major applications in renewables, infrastructure and vehicles. The addition of a small amount of niobium, increases the strength of steel whilst decreasing the weight required by almost 30%.
- In addition to traditional applications in the steel industry, niobium-based technology breakthroughs are being experienced in the battery sector, where the adoption of niobium-based materials is reducing electric vehicle charge times to a mere 5 minutes.

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Overview of Drilling Program - Nb-REE Gifford Creek Carbonatite

The Gifford Creek Carbonatite and the Yin Ironstones together form one of the largest alkali-carbonatite complexes in the world (Figure 2). Carbonatite intrusions are known globally to host several different commodities including rare earths, niobium, phosphate, titanium and scandium often as separate deposits within the same intrusion. Examples of this include Mt Weld in Australia, Ngualla in Tanzania, Araxa in Brazil and Bayan Obo in China.

Since the initial discovery of the Yin Ironstones and the Gifford Creek Carbonatite in 2021, Dreadnought's focus has been on rare earths. To date 147 RC holes (15,767m) and 8 diamond holes (1,257.3m) have been drilled over ~25% of the Gifford Creek Carbonatite. A total of 4 zones of mineralisation have been confirmed with significant niobium intercepts including:

CBRC085: 48m @ 0.8% Nb_2O_5 from 30m, including **36m @ 1.0% Nb_2O_5** from 39m

CBRC111: 48m @ 0.7% Nb_2O_5 from 63m, including **9m @ 1.4% Nb_2O_5** from 72m

CBRC125: 59m @ 0.6% Nb_2O_5 from 63m, including **19m @ 1.0% Nb_2O_5** from 99m

CBRC110: 39m @ 0.6% Nb_2O_5 from 66m, including **3m @ 1.1% Nb_2O_5** from 81m

CBRC138: 57m @ 0.6% Nb_2O_5 from 45m, including **3m @ 1.4% Nb_2O_5** from 90m

Recent mineralogical work has confirmed the presence of coarse grained (>0.30mm) pyrochlore from both weathered and fresh magnesio-carbonatite.

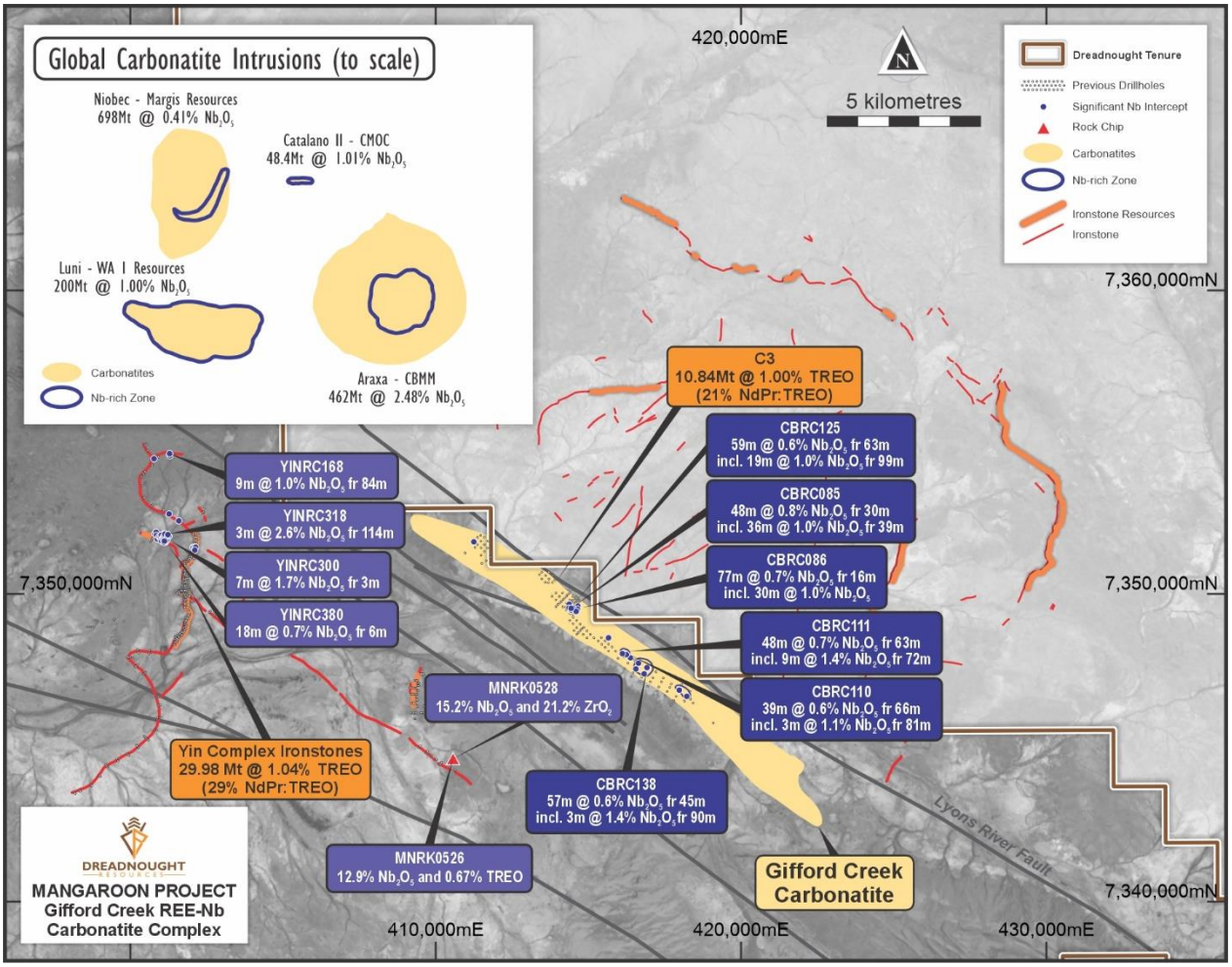

Figure 2: Location of significant niobium mineralisation within the limited extent of current drilling at the Gifford Creek Carbonatite Complex. Inset image shows globally significant carbonatite complexes at Niobec, Araxa, Catalano II and Luni at similar scale highlighting the footprints of niobium mineralisation.

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Regional geophysical surveys undertaken in 2021-2023 have been reviewed along with recent drilling and known mineralised areas to "fingerprint" higher-grade zones of Nb mineralisation, which are generally in areas of deeper weathering. A combination of gravity, airborne EM and magnetics has also been used to target Nb more effectively.

13 RC holes (~1,300m) will test geophysical targets believed to be zones of deeper weathering or different phases of carbonatite. With <25% of the 17km long Gifford Creek Carbonatite tested by wide spaced drilling, these holes are designed to make new discoveries in undrilled areas. 10 of these holes are located in Target Area 2 (Figure 3) which is a ~6km x ~1.5km section in the southeastern extents of the Gifford Creek Carbonatite. Another 3 RC holes are planned in Target Area 1 in the northwest of the Gifford Creek Carbonatite testing a ~2 km x 1 km area.

5 RC holes (~700m) will test for extensions where previous 320 x 160m spaced holes intersected thick intervals of pyrochlore Nb mineralisation and demonstrated the potential to host a significant Nb deposit. This drilling will also provide material for mineralogical and metallurgical characterisation.

Drilling is expected to take 2 weeks with results expected in August and September 2024.

This program is supported by an EIS grant to co-fund RC drilling and a drill-for-equity agreement with Topdrill.

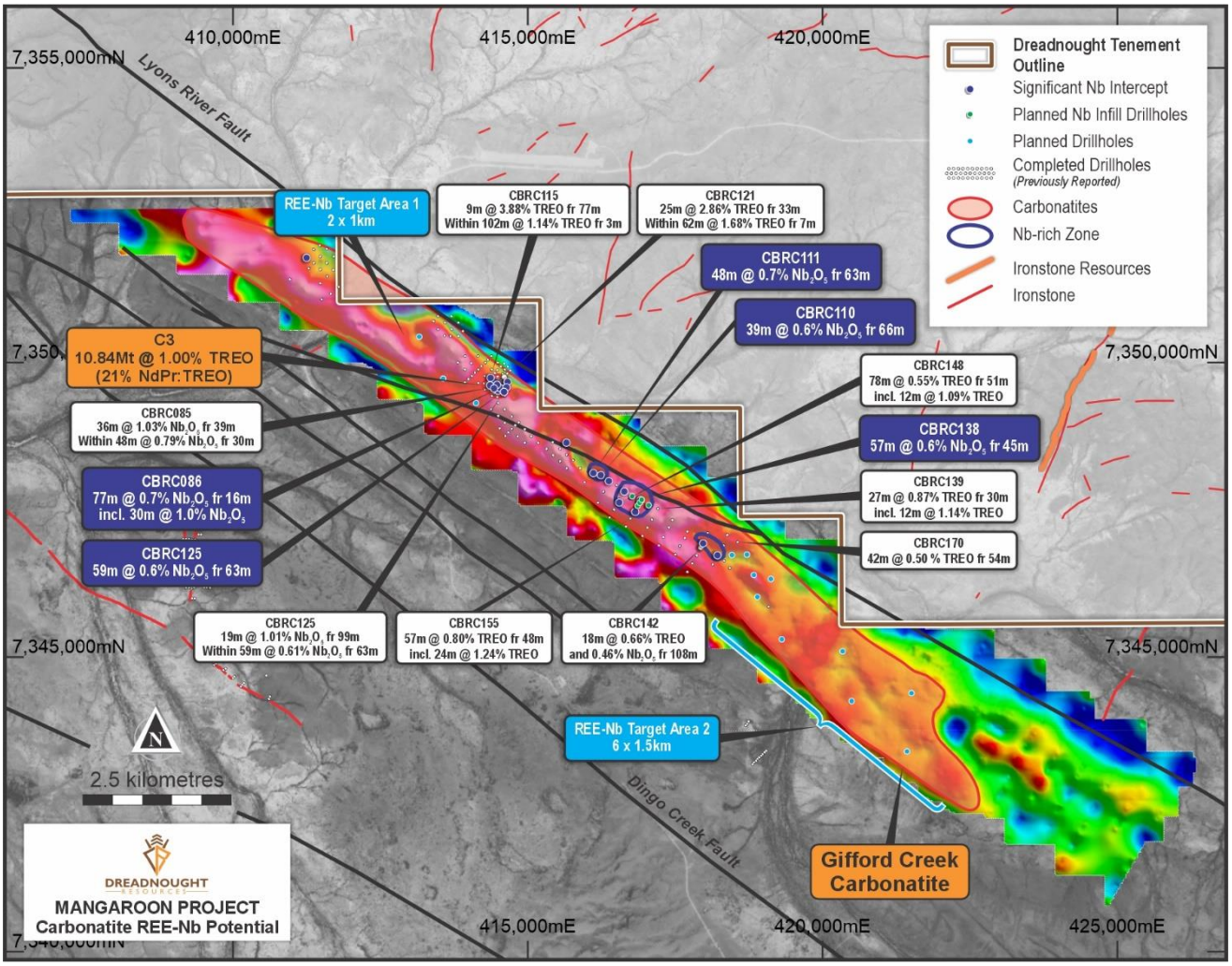

Figure 3: Plan view of the Gifford Creek Carbonatite over a greyscale magnetics and coloured gravity image showing previous drilling and planned niobium focused drilling in areas of interpreted deeper weathering.

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Background on Mangaroon (E08/3274, E8/3178, E09/2384, E09/2433, E09/2473, 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 4) covers >5,000kms^2 of the Mangaroon Zone in the Gascoyne Region of Western Australia and is comprised of:

- >45km long Money Intrusion (Ni-Cu-Co-PGE): containing high tenor magmatic Ni-Cu-Co-PGE.
- ~10km x 15km Mangaroon Gold Camp (Au, Cu-Zn-Ag-Au): where fractured, small-scale ownership has limited previous gold exploration with only ~200m of the >12km long Mangaroon Shear Zone having been drilled.
- ~43km long Yin Ironstone (REE): which already contains: an independent 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).
- ~17km long Gifford Creek Carbonatites (REE-Nb-Ti-P-Sc): which contains a suite of critical minerals and an initial independent Inferred Resource of 10.84Mt @ 1.00% TREO at C3 (ASX 28 Aug 2023).

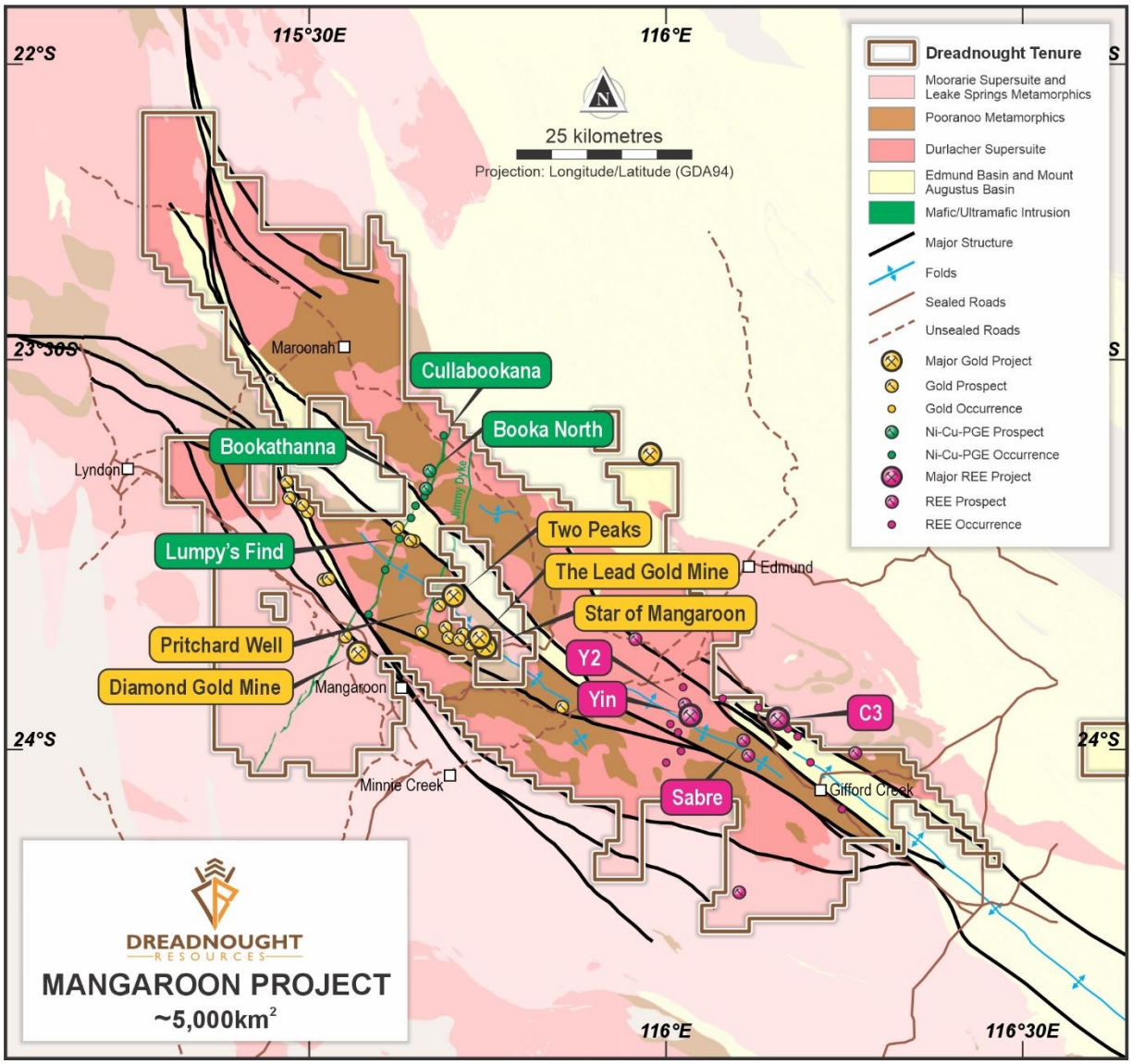

Figure 4: Plan view map of Dreadnought's 100% owned Mangaroon projects: the >45km long Money Intrusion (Ni-Cu-Co-PGE); the ~10km x 15km Mangaroon gold camp (Cu-Zn-Ag-Au); Yin Ironstone Complex (REE) and the Gifford Creek Carbonatites (REE-Nb-Ti-P-Sc) in relation to major structures, geology and roads.

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For further information please refer to previous ASX announcements:

- *17 October 2022* *Mineralised Carbonatites Discovered at C3 and C4*
- *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*
- *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*
- *28 August 2023* *Initial, Independent REE-Nb-P-Ti-Sc Resource at C3*
- *2 October 2023* *Mangaroon Carbonatite now >17km – Higher Grade Zones Fingerprinted*
- *30 November 2023* *Large, High Confidence Yin Ironstone Resource*
- *6 December 2023* *Gifford Creek REE-Nb-P-Ti-Sc Carbonatite Drilling Update*

UPCOMING NEWSFLOW

July: Moving Loop EM survey at Tiger Cu-Au, Zn-Ag (Mangaroon 100%)

July: June 2024 Quarterly Activities and Cashflow Reports

July/August: Commencement of EIS co-funded RC drilling at Tiger Cu-Au-Zn-Ag (Mangaroon 100%)

August: Commencement of RC drilling at Mangaroon Au (100%)

August: Results from drilling at Tarraji-Yampi (80/100%)

August: Results of further target generation and definition work at Mangaroon Au (100%)

August: Results from Nb-REE at the Gifford Creek Carbonatite (Mangaroon 100%)

August/September: Results from EIS co-funded IP surveys at Tarraji-Yampi (80%/100%)

August/September: Results from Au and Cu-Au-Zn-Ag drilling at Mangaroon (100%)

~Ends~

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

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Cautionary Statement

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

Competent Person's Statement – 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.

RESOURCES SUMMARY

Yin Ironstone Complex – Yin, Yin South, Y2, Sabre Measured, Indicated and Inferred Resources

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

Resource Classification	Geology	Resource (Mt)	TREO (%)	$Nd_2O_3+Pr_6O_{11}$ (kg/t)	NdPr:TREO Ratio (%)	Contained TREO (t)	Contained $Nd_2O_3+Pr_6O_{11}$ (t)
Measured	Oxide	2.47	1.61	4.6	29	39,700	11,400
Measured	Fresh	2.70	1.09	3.0	27	29,500	8,100
Measured	**Subtotal**	**5.17**	**1.34**	**3.8**	**28**	**69,300**	**19,500**
Indicated	Oxide	13.46	1.06	3.1	29	142,600	41,000
Indicated	Fresh	7.67	0.95	2.8	29	72,800	21,300
Indicated	**Subtotal**	**21.13**	**1.02**	**3.0**	**29**	**215,400**	**62,300**
Inferred	Oxide	1.51	0.75	1.9	25	11,200	2,800
Inferred	Fresh	2.17	0.75	2.1	28	16,300	4,500
Inferred	**Subtotal**	**3.68**	**0.75**	**2.0**	**27**	**27,600**	**7,300**
Total	Oxide	17.44	1.11	3.2	29	193,600	55,300
Total	Fresh	12.54	0.95	2.7	29	118,700	33,900
TOTAL		**29.98**	**1.04**	**2.9**	**29**	**312,300**	**89,300**

Gifford Creek Carbonatite – Inferred Resource

Table 2: Summary of the Gifford Creek Carbonatite Inferred Resource at various % TREO Cut-offs.

Cut-Off (%TREO)	Resource (Mt)	TREO (%)	NdPr:TREO (%)	Nb2O5 (%)	P2O5 (%)	TiO2 (%)	Sc (ppm)	Contained TREO (t)	Contained Nb2O5 (t)
0.90	5.73	1.18	21	0.25	3.8	5.4	92	67,500	14,500
0.70	**10.84**	**1.00**	**21**	**0.22**	**3.5**	**4.9**	**85**	**108,000**	**23,700**
0.50	20.55	0.80	21	0.15	3.0	3.9	68	164,600	31,100
0.30	45.87	0.58	21	0.10	2.7	3.0	52	265,300	44,800

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INVESTMENT HIGHLIGHTS

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

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

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

Results to date indicate that there may be a related, large scale, Proterozoic Cu-Au VMS system at Tarraji-Yampi, similar to DeGrussa and Monty in the Bryah Basin.

Mangaroon Ni-Cu-Co-3PGE, Au & REE Project (100%)

Mangaroon covers ~5,000kms^2 and is located 250kms south-east of Exmouth in the Gascoyne Region of WA. At the Money Intrusion, Ni-Cu-Co-3PGE has been identified. Dreadnought also has areas of outcropping high-grade gold including the historic Star of Mangaroon and Diamond gold mines. In addition, Mangaroon has emerged as a globally significant, rapidly growing, potential source of critical minerals. Highlights include:

- An Exploration Target estimated for the top 150m of ~40km of the Yin REE Ironstone Complex (ASX 13 Feb 2023).
- An independent Resource for Yin Ironstones Complex of 29.98Mt @ 1.04% TREO over only ~4.6kms – including a Measured and Indicated Resource of 26.3Mt @ 1.04% TREO (ASX 30 Nov 2023).
- Regional source of rare earths at the Gifford Creek Carbonatite totaling ~17kms x ~1km (ASX 7 Aug 2023).
- A large, independent initial Resource of 10.84Mt @ 1.00% TREO at the Gifford Creek Carbonatites, containing a range of critical minerals including rare earths, niobium, phosphate, titanium and scandium (ASX 28 Aug 2023).

Bresnahan HREE-Au-U Project (100%)

Bresnahan is located ~125km southwest of Newman in the Ashburton Basin. The project comprises ~3,700kms^2 covering over 200kms strike along the Bresnahan Basin / Wyloo Group unconformity. Bresnahan is prospective for unconformity related heavy rare earth ("**HREE**") deposits similar to Browns Range HREE deposits, unconformity uranium ("**U**") deposits and mesothermal lode gold similar to Paulsens Au-Ag-Sb deposits along strike.

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

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

Central Yilgarn is located ~190km northwest of Kalgoorlie in the Yilgarn Craton. The project comprises ~1,400kms^2 covering ~150km of strike along the majority of the Illaara, Yerilgee, South Elvire 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-Cesium-Tantalum.
Prior to consolidation by Dreadnought, the Central Yilgarn was predominantly held by iron ore explorers and remains highly prospective for iron ore.