

ASX ANNOUNCEMENT 19 June 2024

Drilling Extended for Nb-REE and Cu-Au Targets – Mangaroon (100%)

HIGHLIGHTS

- A RC drill rig has been secured to commence drilling the Gifford Creek Nb-REE carbonatite targets in July 2024, immediately following the Tarraji-Yampi drill program. The drill for equity agreement with Topdrill Pty Ltd (“Topdrill”) (ASX 4 June 2024) has been extended and will now cover the following programs:
 - Cu-Au drilling (6 holes, ~1,640m) at Tarraji-Yampi (underway);
 - Nb-REE drilling (15 holes, ~1,500m) at the Gifford Creek Carbonatite targeting extensions to thick, high-grade Nb-REE and areas of deeper weathering with potential accumulations of Nb-REE commencing after Tarraji-Yampi;
 - Cu-Zn-Ag-Au drilling (6-9 holes, ~1,500m) at the exciting Tiger volcanic massive sulphide (“VMS”) target following Gifford Creek; and
 - Au drilling (13 holes, ~800m) at Two Peaks, Popeye and Diamond historical gold mines.
- A GSWA Exploration Incentive Scheme (“EIS”) grant will co-fund the Gifford Creek and Tiger programs.
- In addition, a moving loop electromagnetic survey (“MLEM”) will be completed ahead of the Tiger program to assist with target definition.

Dreadnought Resources Limited (“Dreadnought”) is pleased to announce that it has extended the current Tarraji-Yampi drilling arrangements to Gifford Creek and Tiger targets at the 100% owned Mangaroon Project, located in the Gascoyne Region of Western Australia.

Dreadnought’s Managing Director, Dean Tuck, commented: “We are pleased to have extended drill for equity arrangements with Topdrill and to have secured a RC rig for programs at Mangaroon. The programs at Mangaroon will include extensions to thick, high-grade niobium, testing areas of deeper weathering for niobium accumulations as well as our first test of the exciting Cu-Au, Zn-Ag VMS target at Tiger. We are also grateful for the support of the GSWA EIS for co-funding the Gifford Creek and Tiger programs. Drilling has commenced at Tarraji-Yampi, we see this as the beginning of a very exciting period ahead for Dreadnought.”



Figure 1: RC Drilling at the Gifford Creek Nb-REE Carbonatite in 2023

SNAPSHOT – MANGAROOON CRITICAL MINERALS

Mangaroon is 100% Owned

- 100% owned Mangaroon confirmed as a globally significant critical minerals complex with a combined, independent Resource at the Yin Ironstones (“Yin”) and the Gifford Creek Carbonatite of 40.82Mt @ 1.03% TREO.

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 contain 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 is considered to be the regional source of REE and is one of the largest carbonatite complexes in the world.
- In <12 months from discovery, a large, independent Resource of 10.84Mt @ 1.00% TREO was delivered (ASX 28 Aug 2023).
- Wide spaced drilling over <25% of the ~17km long Gifford Creek Carbonatite has already identified 4 zones of mineralisation containing rare earths, niobium, scandium and titanium. This makes for a potential multi-critical mineral mix of co-products.

Potentially Attractive Mining Proposition

- At Yin, broad zones of flat to moderate dipping mineralisation with parallel lodes and Resource intensity of ~6.5Mt/km make for a potentially attractive mining proposition. This is further demonstrated by an initial Measured Resource of 5.17Mt @ 1.34% TREO over just ~250m of strike at Yin where the thick, high-grade Resource occurs at surface.

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% Nd₂O₃+Pr₆O₁₁.
- 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 mixed rare earth carbonate (“MREC”) containing 60.7% TREO (16.3% Nd₂O₃ and 4.4% Pr₆O₁₁) with ~94% recovery of Nd/Pr.
- Recent mineralogical work at the Gifford Creek Carbonatite has confirmed that the dominant Nb 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.
- 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.

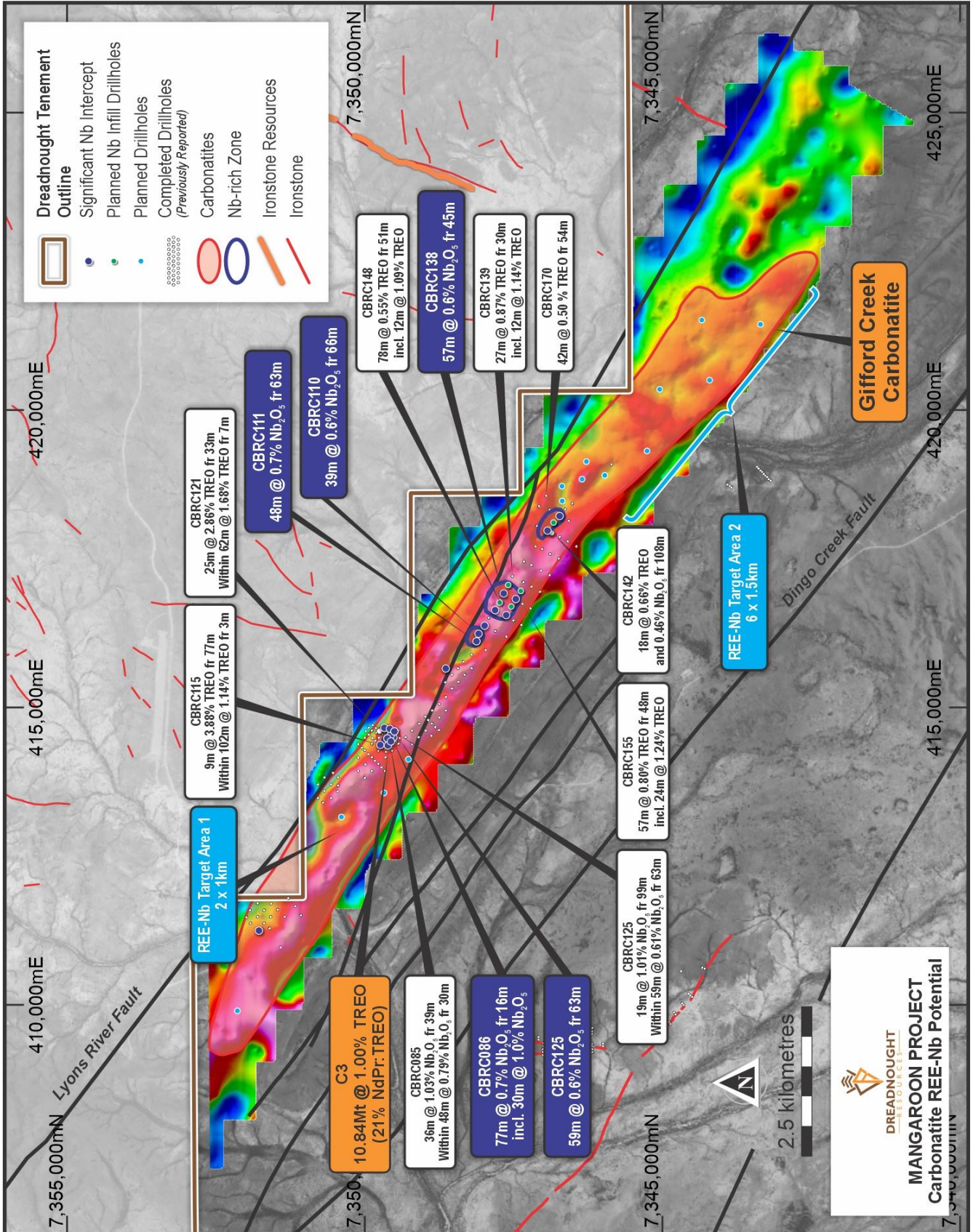


Figure 2: Plan view of the Gifford Creek Nb-REE Carbonatite over a greyscale magnetics and coloured gravity image showing previous drilling and planned Nb-REE focused on extensions to thick, high-grade Nb and areas of deeper weathering with potential Nb accumulations.

Niobium Review of the Gifford Creek Carbonatite Complex

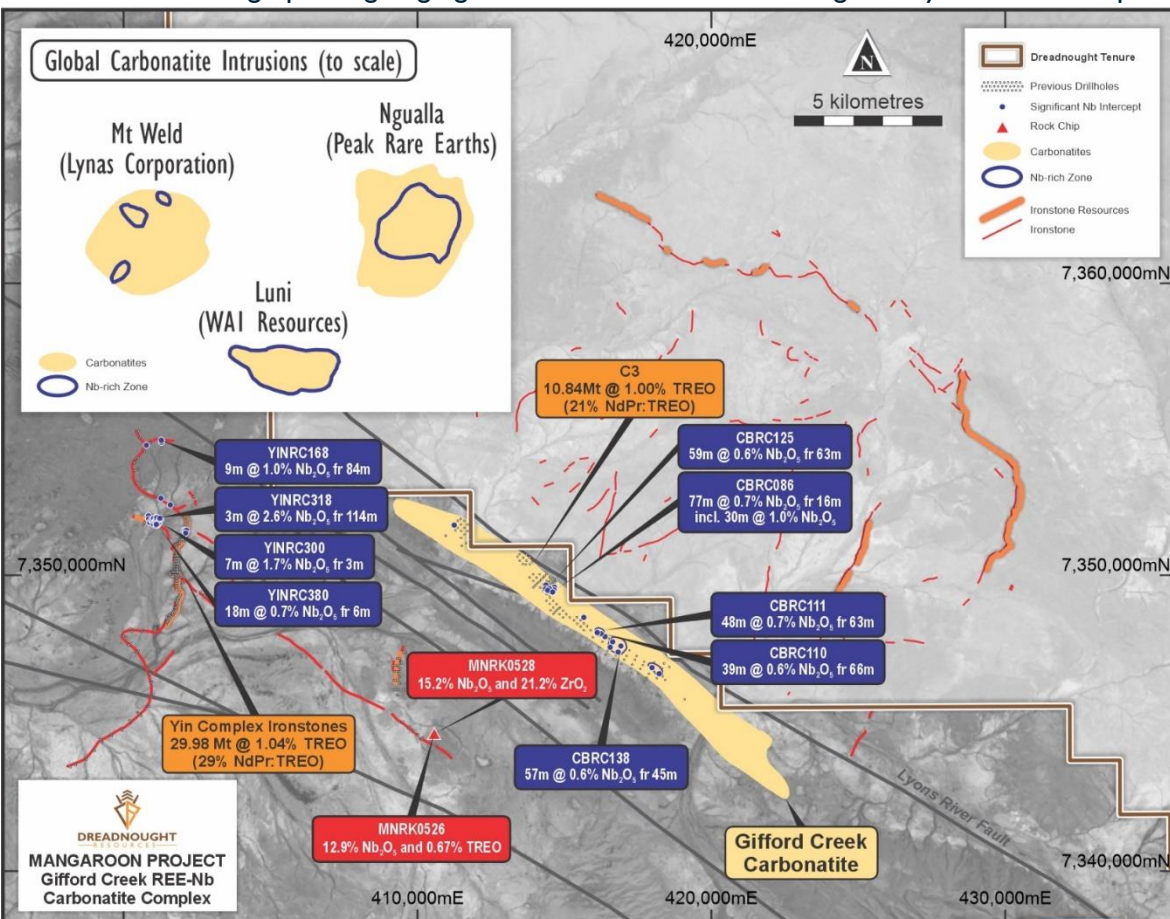
The Gifford Creek Carbonatite and the Yin Ironstones together form one of the largest alkali-carbonatite complexes in the world (Figure 3). Carbonatite intrusions are known globally to host several different commodities including rare earths, niobium, phosphate, titanium and scandium often as separate deposits within the same intrusion. Examples of this include Mt Weld in Australia, Ngualla in Tanzania, Araxa in Brazil and Bayan Obo in China.

The Gifford Creek Carbonatite was identified in November 2021 and has limited outcrop. Drilling and surveys have extended the Gifford Creek Carbonatite to ~17kms long x ~1km wide. To date 147 RC holes (15,767m) and 8 diamond holes (1,257.3m) have been drilled over ~25% of the Gifford Creek Carbonatite. Four zones of mineralisation have been confirmed to date with significant niobium intercepts including:

- CBRC085: 48m @ 0.8% Nb₂O₅** from 30m, including **36m @ 1.0% Nb₂O₅** from 39m
- CBRC111: 48m @ 0.7% Nb₂O₅** from 63m, including **9m @ 1.4% Nb₂O₅** from 72m
- CBRC086: 77m @ 0.7% Nb₂O₅** from 16m, including **30m @ 1.0% Nb₂O₅** from 39m
- CBRC125: 59m @ 0.6% Nb₂O₅** from 63m, including **19m @ 1.0% Nb₂O₅** from 99m
- CBRC110: 39m @ 0.6% Nb₂O₅** from 66m, including **3m @ 1.1% Nb₂O₅** from 81m
- CBRC138: 57m @ 0.6% Nb₂O₅** from 45m, including **3m @ 1.4% Nb₂O₅** from 90m
- CBDD009: 51.4m @ 0.6% Nb₂O₅** from 74.6m, including **15m @ 1.1% Nb₂O₅** from 102m

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

Regional geophysical surveys undertaken in 2021-2023 have been reviewed along with recent drilling and known mineralised areas to assist in “fingerprinting” high-grade niobium zones, which are generally in areas of deeper weathering. A combination



of gravity, airborne EM and magnetics has been used to target niobium more effectively and efficiently.

Figure 3: 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 Mt Weld, Ngualla and Luni at similar scale highlighting the footprints of niobium mineralisation.

Tiger Cu-Zn-Ag-Au Prospect

Tiger is defined by a ~900m x 300m Cu-Au, Zn-Ag and pathfinder-in-soil anomaly generated over multiple soil sampling programs. Tiger contains some of the strongest Cu-Au, Zn-Ag and pathfinder anomalism defined to date at Mangaroon and has been a priority target for mapping and target definition. Importantly, Tiger has recently been awarded a co-funded drilling grant of up to \$150,000 under the Geological Survey of Western Australia’s merit-based Exploration Incentive Scheme (“EIS”).

Tiger was originally interpreted to be an intrusion-related gold prospect. However, ongoing detailed mapping and sampling has identified significant horizons of sub-cropping gossans extending for ~500m strike. Importantly, soil geochemical anomalism indicates the horizons extend along strike for >500m. The Cu-Au, Zn-Ag gossans appear to have formed after massive sulphides and, given the strong Bi-Cd-In-Mo-Sb-Se-Sn-Te-W pathfinder association, could be related to VMS style mineralisation. VMS deposits form early within a geological province and tend to occur along primary basement structures that can later be reactivated leading to further enrichment through orogenic or intrusion-related mineralisation systems. VMS deposits can be gold-rich in their own right, similar to Sunshine Gold’s (ASX.SHN) Liontown Project, or have later orogenic or intrusion-related gold mineralisation overprint the primary mineralisation such as at Capricorn Metal’s (ASX.CMM) Mt Gibson Project.

Regardless of deposit style, these results add high-grade Cu-Au, Zn-Ag targets to Mangaroon.

Mapping and geochemical sampling at Tiger and surrounding areas is ongoing and planning is underway for EM surveys to define additional targets within the area. These programs are underway with results expected in July 2024.

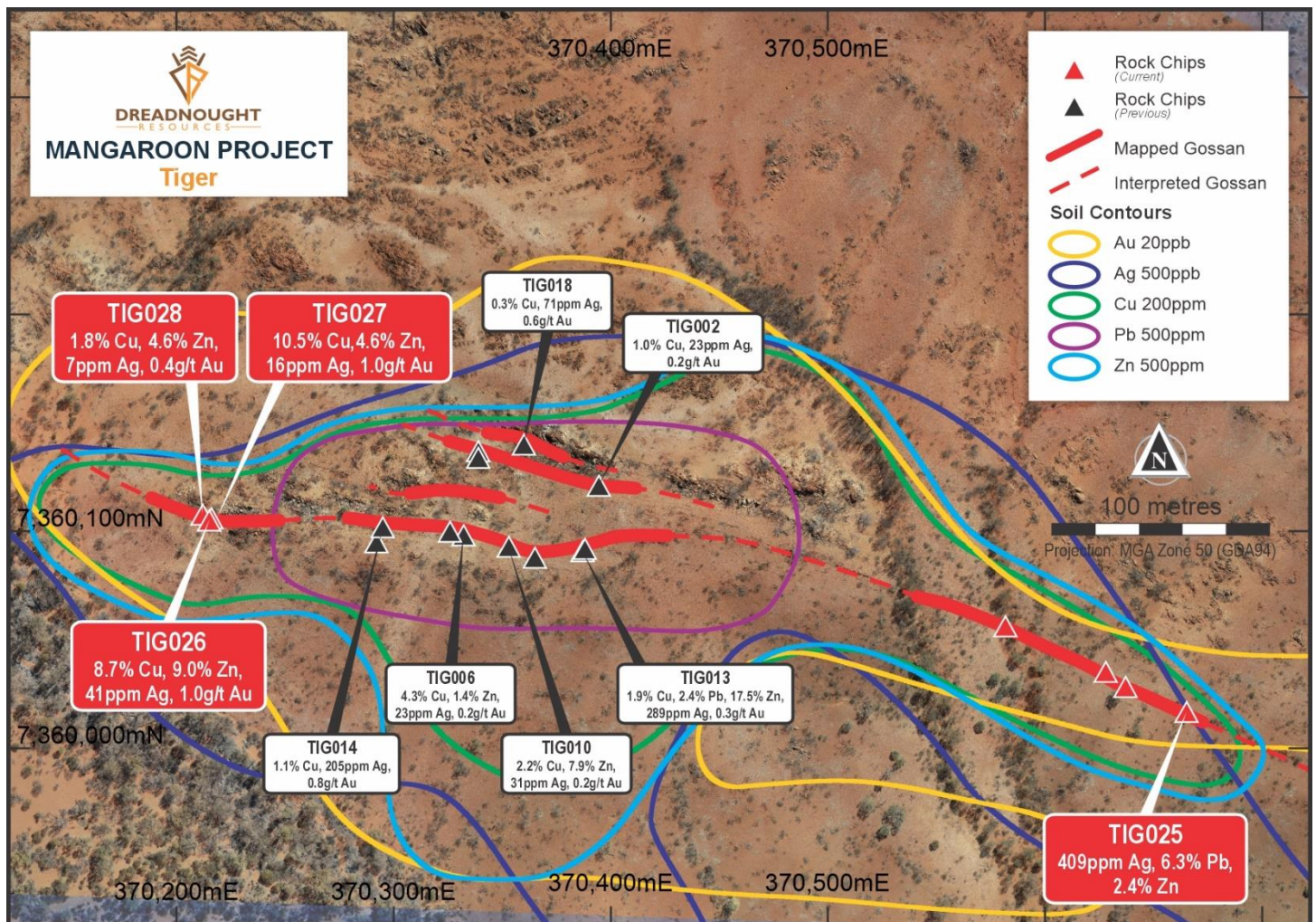


Figure 4: Plan view image of Tiger highlighting recent and previous rock chip assays along the ~500m of mapped gossanous horizons in relation to the strong Cu-Au, Zn-Ag soil anomalism which suggest the horizons extend along strike for >500m.

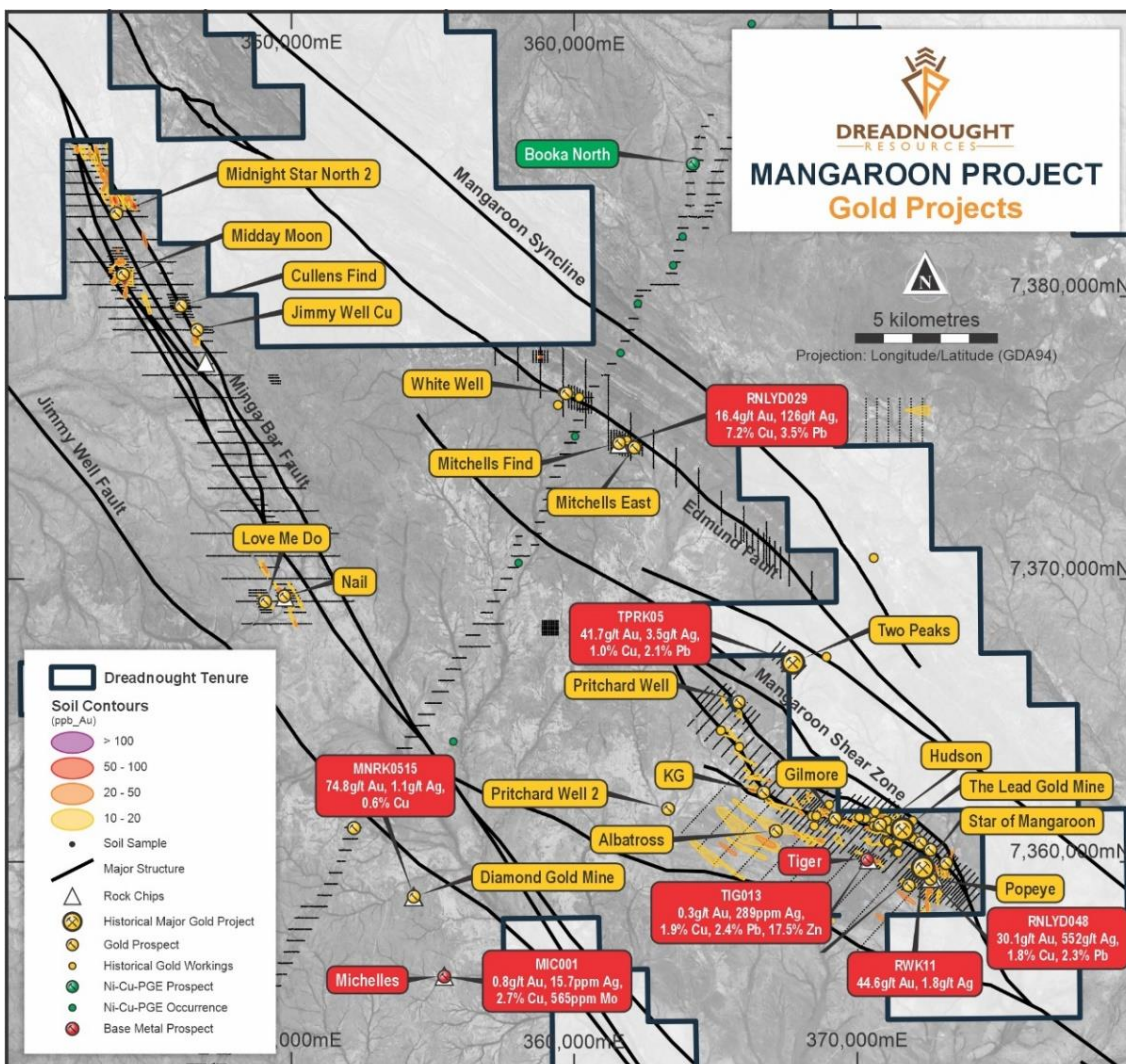
Mangaroon Gold – Two Peaks, Popeye and Diamond

Dreadnought began the consolidation of the Mangaroon region in late 2020. Dreadnought’s consolidated ownership has, for the first time, allowed for a comprehensive assessment of the high-grade gold potential in the region. This assessment is ongoing and includes collating unpublished records; rock chipping and mapping of historical workings; a first ever detailed airborne magnetics survey; ultrafine fraction soil surveys; a stream sediment program. RC and diamond drilling at historical workings commenced in 2023 with several historical mines remaining to be tested.

This drill program will test historical mines at Two Peaks (3 RC holes, ~200m), Popeye (4 RC holes, ~240m) and Diamond (6 RC holes, ~360m).

Two Peaks is a small open cut mine believed to have been discovered and developed by Eric Kempton as a drill, blast and detect operation. Gold at Two Peaks is nuggety and hosted within sheeted extensional veins that have intruded a quartz-porphyry with free gold variably associated with copper, silver and lead. A prospector, Tony Stehn, drilled a number of holes in 2017 primarily testing the western extensions of ~E-W veins that are exposed in the pit walls with limited success. Two Peaks clearly has strong evidence of gold mineralisation that is very nuggety. Drilling will test the E-W veins as well as a shallowly north plunging vein that the pit appears to have been developed along. All drilling will be assessed by Photon Assay and Screen Fire Assay to account for the nuggety nature of mineralisation.

Popeye is a small collapsed or backfilled shaft located within the Star of Mangaroon mining lease with no record of previous drilling. Mineralisation is hosted within deformed quartz-biotite schists. Gold is associated with a series of E-W veins containing gold, silver, copper and lead. Similar veins have been exposed in a costean ~130m to the ENE, across an unmineralised mafic dyke. Drilling will test E-W veins with two fence lines of holes on either side of the mafic dyke.



Diamond Gold Mine was discovered by pastoralist Alan McDonald in 1979. The Diamond Gold Mine comprises three shafts sunk on mineralised veins running 1-10m wide and 20-200m long. Historical records indicate that the mine produced at ~1oz per tonne of gold when put through the Meekatharra State Battery. Importantly, aside from historical production, there has been no exploration of the Diamond Gold Mine other than surface costeans and it has never been drilled. Drilling will test under the historical workings with three fence lines of holes.

Figure 5: Plan view image of the ~15km x 10km Mangaroon gold camp highlighting historical mines/workings (gold dots), mineralised rock chips, and recently generated VMS targets (red dots) in relation to the strong gold-in-soil anomalism.

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 6) covers >5,000kms² 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).

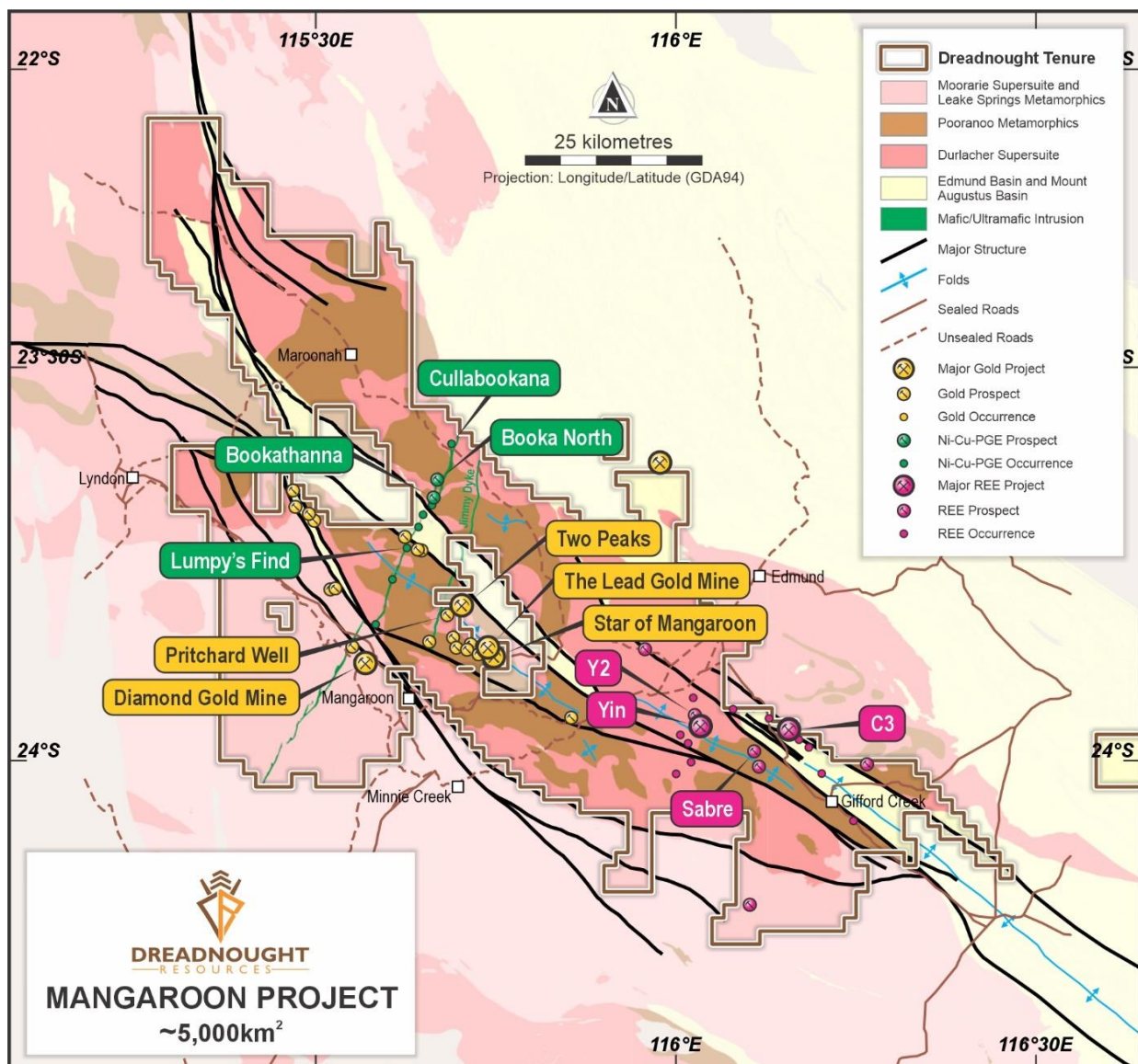


Figure 6: Plan view map of Dreadnought's 100% owned Mangaroon projects: the >45km long Money Intrusion (Ni-Cu-Co-PGE); the ~10km x 15km Mangaroon gold camp (Cu-Zn-Ag-Au); Yin Ironstone Complex (REE) and the Gifford Creek Carbonatites (REE-Nb-Ti-P-Sc) in relation to major structures, geology and roads.

For further information please refer to previous ASX announcements:

- 14 October 2021 *Exploration Update and Further Consolidation*
- 17 October 2022 *Mineralised Carbonatites Discovered at C3 and C4*
- 23 November 2022 *Multiple, Large Scale, REE-Nb-Ti-P Carbonatites*
- 24 January 2023 *Carbonatite Discovery Shaping up as Regional Rare Earth Source*
- 3 April 2023 *Carbonatites Deliver Thick, Near Surface REE Results*
- 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*
- 6 June 2024 *Gifford Creek REE-Nb Carbonatite Update*
- 18 June 2024 *Tiger Cu-Au-Zn-Ag Gossan Confirmed over 500m*

UPCOMING NEWSFLOW

June: Results of Ni-Cu-Co-PGE IP survey at Mangaroon (100%)

June: Commencement of EIS co-funded IP surveys at Tarraji-Yampi (80)

July: Commencement of RC drilling at Gifford Creek Carbonatite (Nb-REE) (Mangaroon 100%)

July: MLEM survey at Tiger Cu-Au, Zn-Ag target (Mangaroon 100%)

July: Quarterly Activities and Cashflow Reports

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

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

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

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

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

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.

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 ₂ O ₃ +Pr ₆ O ₁₁ (kg/t)	NdPr:TREO Ratio (%)	Contained TREO (t)	Contained Nd ₂ O ₃ +Pr ₆ O 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

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 ~5,000kms² 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 ~3,700kms² 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 ~1,400kms² 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.

