5 September 2022

THICK RARE EARTH IRONSTONES CONFIRMED AT THE SABRE (Y3) DISCOVERY – MANGAROON 100%

HIGHLIGHTS

- **RC drilling has intersected thick, rare earth element (REE) mineralisation over ~1km strike and open in all directions at the Sabre discovery (formerly Y3). Sabre is interpreted to be a 2-3km long REE bearing ironstone swarm that both outcrops and extends under shallow cover.**
- **Main Sabre ironstone lode confirmed as a sub-vertical lode with intercepts up to 21m in thickness in multiple drill lines with potential parallel lodes in excess of 7m also intersected in wide spaced fence lines.**
- **First pass, wide spaced drilling at Sabre and Y8 (possible extension of Sabre) is expected to finish in mid-September 2022. The RC rig will then mobilise to the C1-C5 carbonatite targets. Importantly, the carbonatites could be the source REE intrusions for the region analogous to Mt Weld (ASX.LYC) and Mountain Pass (NYSE.MP).**
- **Assays from Sabre are expected in early November 2022 with follow up JORC Resource drilling to commence upon completion of the C1-C5 drilling. A JORC Resource is expected in the March 2023 quarter.**

Dreadnought Resources Limited ("**Dreadnought**") is pleased to announce that RC drilling has intersected thick, mineralised, REE ironstones at the Sabre discovery (formerly Y3), within its 100% owned Mangaroon Project in the Gascoyne Region of Western Australia.

Drilling is underway at Sabre as part of a program comprising 29 holes for ~3,000m. Drilling to date (19 holes, 2,102m) has already intersected multiple ironstones from surface including the main Sabre REE ironstone comprising thick 10-21m intersections over ~1km. Mineralisation has been confirmed with pXRF and assays are expected in November 2022.

Dreadnought's Managing Director, Dean Tuck, commented: *"The significant scale potential of the Mangaroon Rare Earth Project continues to be underscored with thick mineralised REE ironstones at the Sabre discovery (the prospect formally known as Y3). With two Rare Earth discoveries in hand now at the Mangaroon REE Project we look forward to continuing the discovery drilling program with additional drilling at Sabre, Y8 and then the C1-C5 carbonatite targets all commencing this month."*

Figure 1: Dreadnought geologists (L to R) Lucas Tatnell, Claudia Tomkins and Nick Chapman with discovery hole Y3RC019 which confirmed thick REE ironstone mineralisation at Sabre.

SNAPSHOT - MANGAROON RARE EARTHS

100% Controlled by Dreadnought

- Mangaroon REE are 100% owned and controlled by Dreadnought.

Genuine Scale Potential Already at Yin and Sabre

- Yin discovery contains 3km of confirmed mineralised strike and remains open along 16kms of strike – JORC Resource in December 2022 quarter, extensional drilling over 13km of strike planned.
- Sabre discovery contains ~1km of confirmed mineralised strike and remains open along strike – JORC Resource in March 2023 quarter, extensional and infill drilling planned.
- Long term incentives fully triggered at JORC Resource of at least 30Mt @ >1% TREO, 31 December 2024.

Significant, Step-Change, Growth Potential Beyond Yin and Sabre

- Mineralised Y8 REE ironstones confirmed - drilling in September 2022.
- Seven carbonatite targets (C1-C7) may be the regional source of REE – drilling in September 2022.
- Confirmed mineralisation at 22 outcropping targets with another 10 prospective targets requiring further work – drilling planned.
- 100 additional outcropping targets prospective for REE identified – under assessment.

High-Grade TREO Potential

- Numerous thick, high-grade assays already announced from first drill program at Yin.

High-grade Neodymium and Praseodymium Concentrate Potential

- Yin, like the Yangibana REE project controlled by the ~$550M Hastings Technology Metals Ltd (ASX.HAS), ("**Hastings**") is a globally unique REE deposit due to the high proportion of neodymium and praseodymium in the total rare earth oxide (NdPr ratio). NdPr values up to ~40%, nearly double the global average.

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_2O_3 and an average 40% TREO.
- Yin is predominantly hosted in monazite which is amenable to commercial processing.

Analogous to a Globally Unique, Commercially Viable Development 25kms Away

- Yangibana is Dreadnought's immediate neighbour located only 25km to the northeast of Yin and currently has a JORC Resource* of 27.42Mt @ 0.97% TREO with 0.33% Nd_2O_3+Pr_6O_{11}.
- Yangibana is under construction and development with first production planned for 2024.

Global Strategic Imperative Driving Rare Earth Growth & Prices

- Supply chain security and low carbon transition are imperatives against a backdrop of heightened geopolitical tension pushing supply away from China.

**HAS.ASX: 5 May 2021 "Yangibana Project updated Measured and Indicated Resource tonnes up by 54%"*

See Appendix A for the HAS.ASX Yangibana JORC Resource table

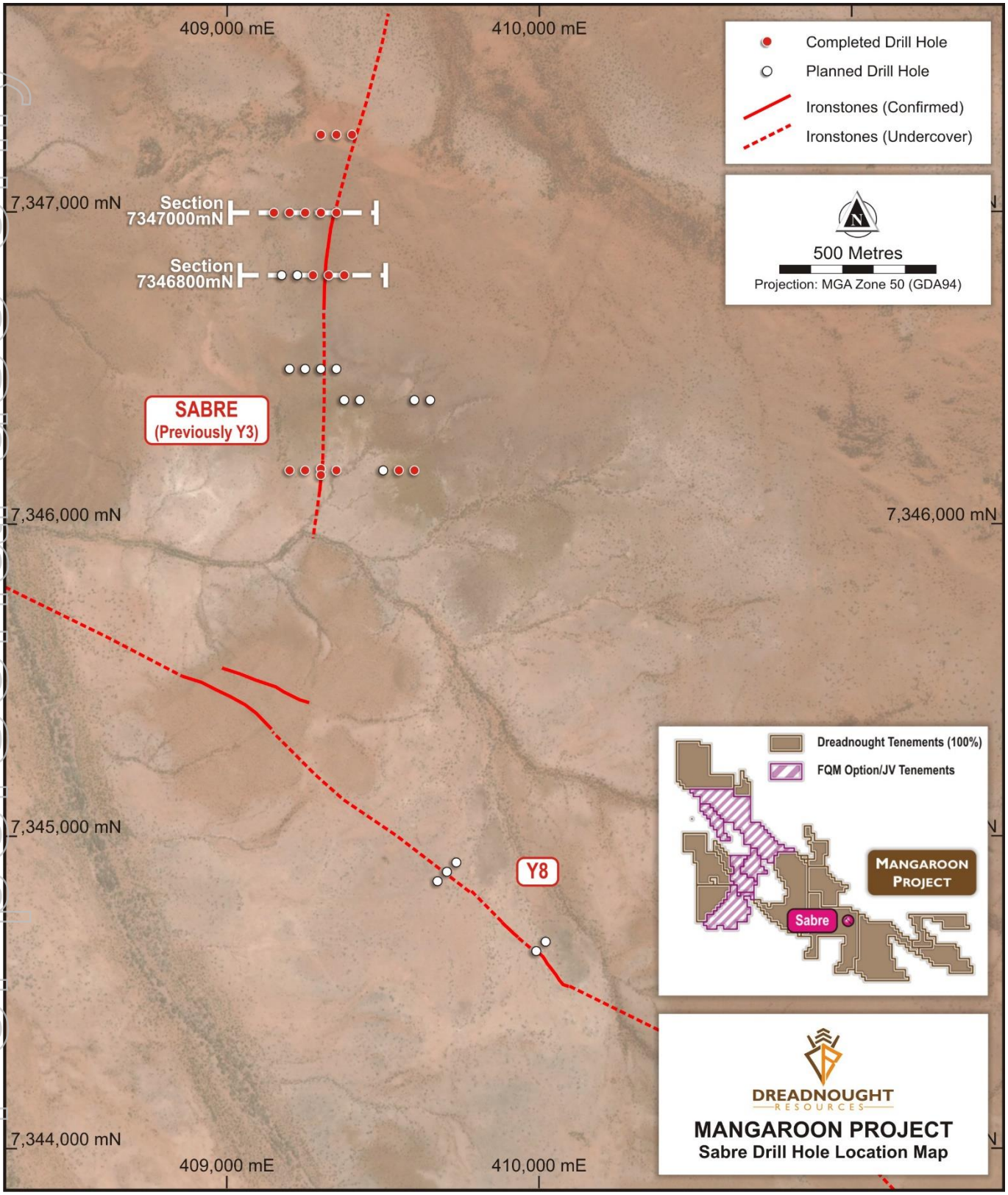

Figure 2: Plan view of Sabre and Y8 over an orthoimage showing the location of the recently drilled holes (red dots) successfully identifying REE over ~1km. Planned holes (white dots) are also shown.

Dreadnought Resources Limited
Unit 1, 4 Burgay Court, Osborne Park WA 6017
PO Box 646, West Perth WA 6872
www.dreadnoughtresources.com.au
info@dreadnoughtresources.com.au
+61 (08) 9473 8345

RC Drill Program (Y3RC001-Y3RC019)

The RC program at Sabre (formerly Y3) consists of 29 RC holes (~3,000m) of which 19 holes for 2,102m (red dots on Figure 2) have been drilled to date.

Given the general lack of outcrop at Sabre, the initial program was designed to determine the location and orientation of the mineralised ironstones identified in sporadic outcrops that had been sampled in reconnaissance work. This is done through wide spaced fence line drilling and scissor holes to intersect and determine the orientation of the ironstones.

The program has successfully intersected mineralised ironstones ranging from 1-21m thickness over ~1km in strike and the mineralisation remains open in all directions. Additionally, the program has intersected significant ironstones in parallel lodes to the main targeted trend seen in section 7347000mN. This opens up potential for a new trend which is yet to be tested.

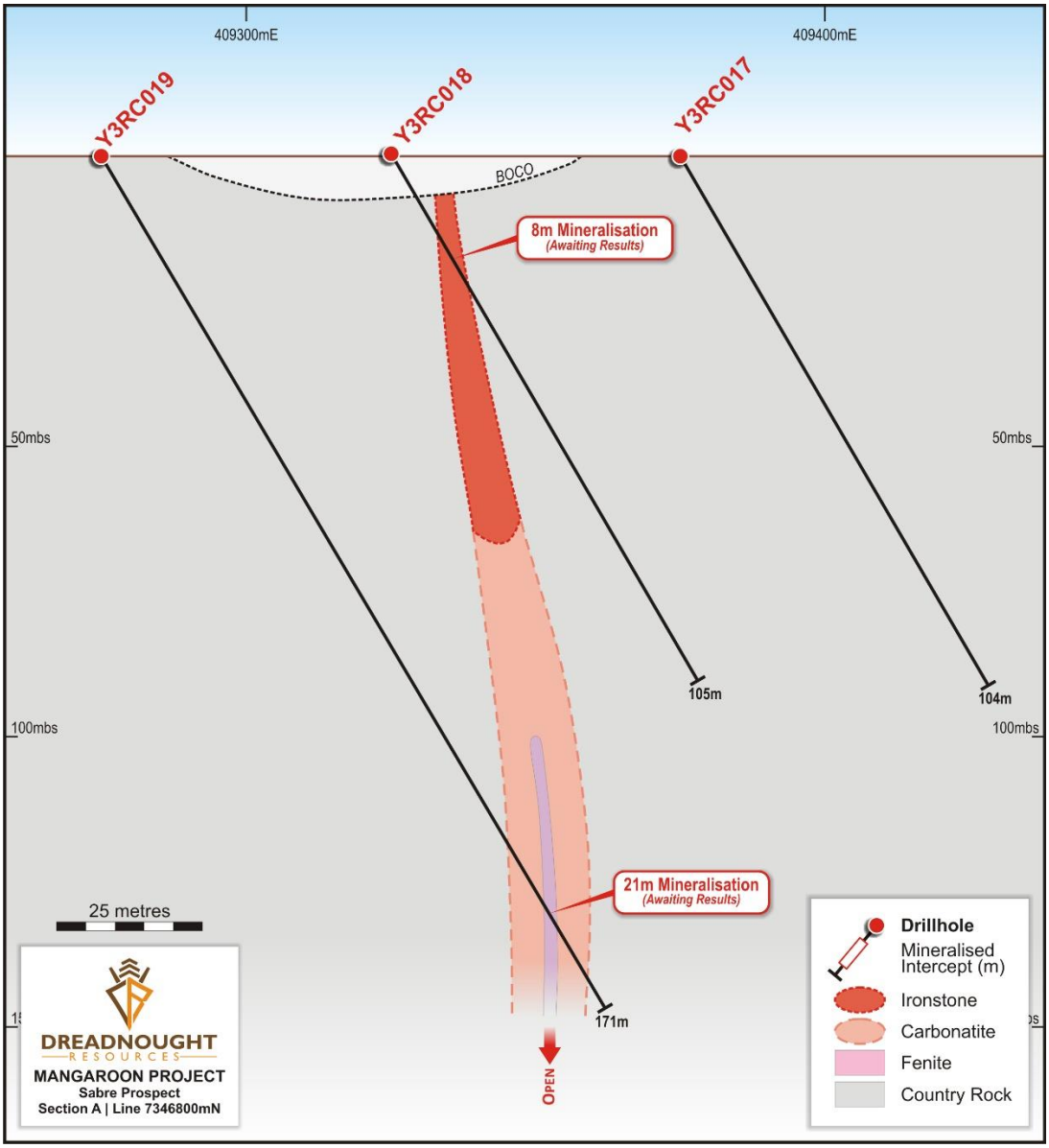

Figure 3: Cross section 7346800mN shows drilling has intersected a subvertical 8-20m wide REE bearing ferrocarbonatite that is weathered to an oxide ironstone in the top ~80 vertical metres.

The current focus for RC drilling at Mangaroon is to show scale across the known prospects and to deliver a number of discoveries. Discoveries will then be converted to JORC Resources.

Drilling at Sabre and Y8 is expected to be completed in September 2022 with the RC rig then moving to C1-C5 in September 2022.

Assays from Sabre are expected in November 2022.

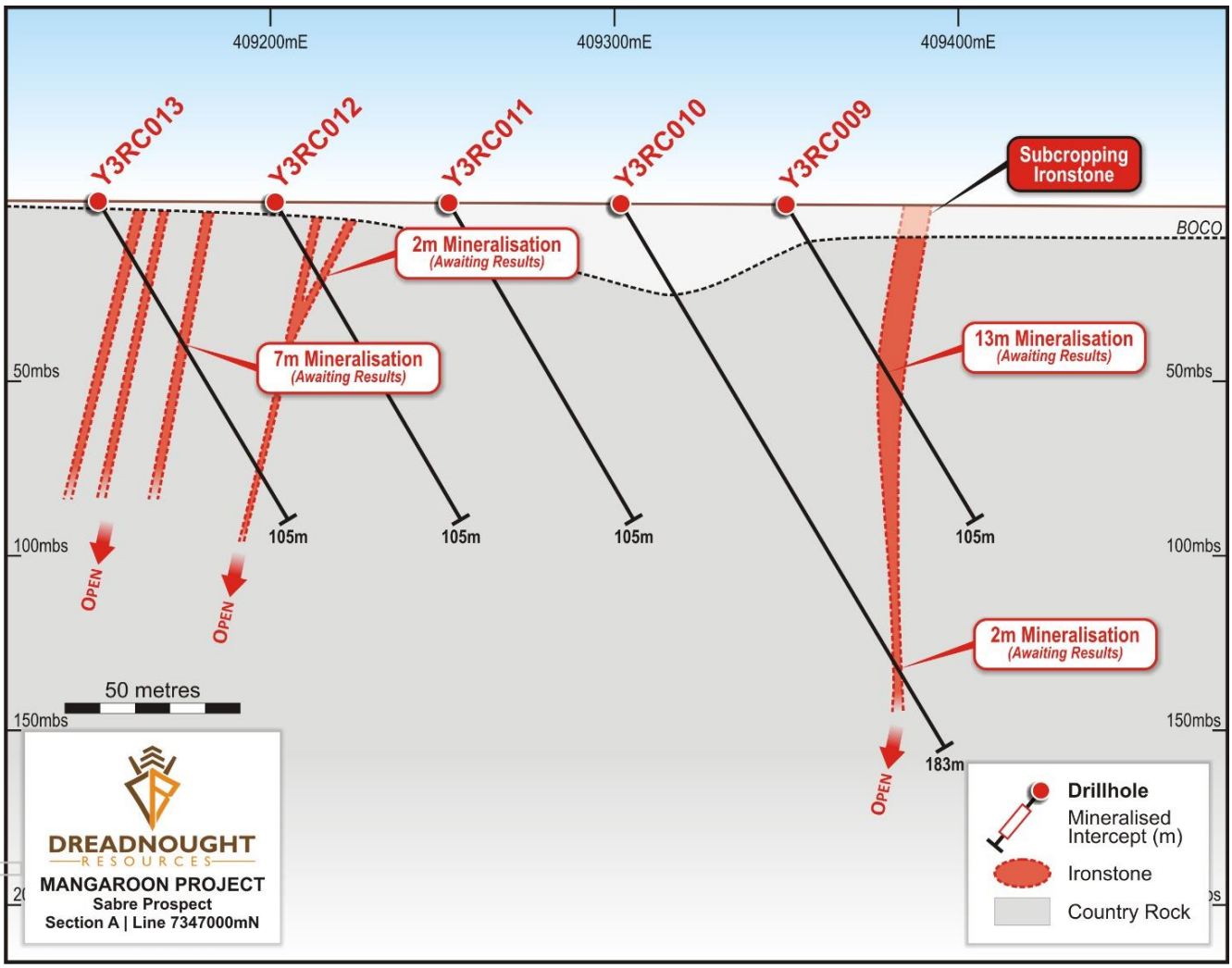

Figure 4: Cross section 7347000mN shows drilling has intersected a subvertical dipping ~2-13m wide oxide ironstone and a swarm of additional 1-7m thick ironstones ~200m west of the main targeted lode horizon showing potential for multiple parallel lodes which will be the subject of further drill testing following the drilling of C1-C5.

Technical Discussion on the RC Drill Program (Y3RC001-Y3RC019)

Sabre is interpreted to be a 2-3km long REE bearing ironstone swarm that both outcrops and extends under shallow cover. Sabre shows evidence for parallel or stacked ironstone horizons with more likely to be discovered (see Figures 3 and 4). Rock chips collected in 2021 showed high-grade mineralisation over ~2-3km of scattered outcropping and sub-cropping ironstone with values up to 39.0% TREO. While the grades at surface were higher than at Yin, the lack of clear outcrop made determining the exact location and trend of the main ironstone lode horizon difficult. This resulted in requiring wide spaced, fence line, RC drilling for first pass assessment of Sabre.

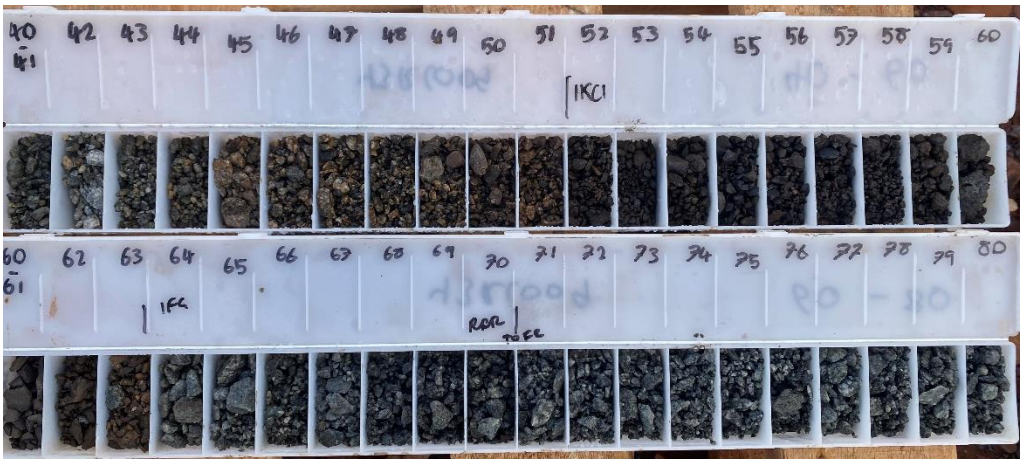

Figure 5: Chip tray from Y3RC009 showing mineralised oxidized ironstone from 51-63m.

Drilling to date has confirmed the presence of a main REE bearing lode horizon along ~1km of strike with multiple parallel lodes intersected on the longer fence line sections. The main lode horizon pinches, swells and with a predominantly sub-vertical dip that ranges in thickness from 1-21m. The parallel lodes have been intersected west of the main lode and appear to exhibit a similar orientation as the main lode with thicknesses ranging from 1-7m.

The ironstones consist of goethite and hematite dominated oxide zones near the surface (top ~80m) transitioning into a fresh ferrocarbonatite dyke (fresh REE ironstone), comprised of ankerite and siderite below the base of oxidation. The ironstones are surrounded by a much thinner fenitised country rock compared to Yin. Both the ironstone and the fenite immediately surrounding the ironstone are mineralised with each ironstone and ferrocarbonatite containing a central interval of higher-grade mineralisation similar to Yin.

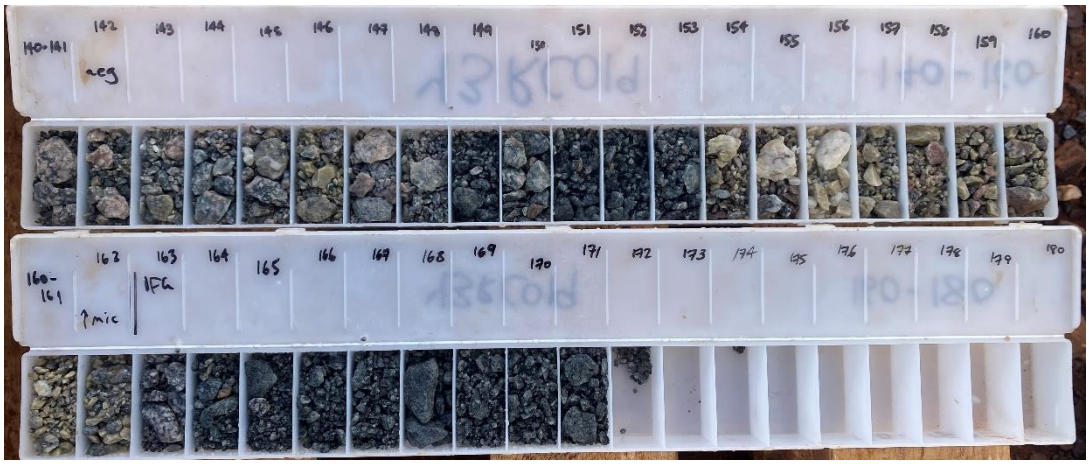

Figure 6: Chip tray from Y3RC019 showing dark fenitic alteration grading into two mineralised fresh ironstones (ferrocarbonatite) from 142-163m.

Yangibana REE ironstones (E09/2448, E09/2450, E09/2535: DRE 100%)

The Yangibana ironstones are readily accessible and located 5-20kms from the Cobra-Gifford Creek Road. The ironstones were first explored in 1972 for base metals. The REE potential of the ironstones was first assessed in 1985 and has seen substantial work by Hastings since 2011. The ~$550m Hastings controls the Yangibana REE Project and is Dreadnought's immediate neighbour being to the north of the Lyons River Fault.

Yangibana currently has a JORC 2012 Mineral Resource* of 27.42Mt @ 0.97% TREO with 0.33% Nd_2O_3+Pr_6O_{11} and is under construction and development. The high NdPr ratio (used for electric vehicle magnets and renewable power generation) is an important component of Yangibana's economics.

Prior to Dreadnought, no significant REE exploration was undertaken south of the Lyons River Fault being the point at which the Yangibana REE ironstones were considered to terminate.

Mangaroon REE ironstones (E09/2448, E09/2450, E09/2535: DRE 100%)

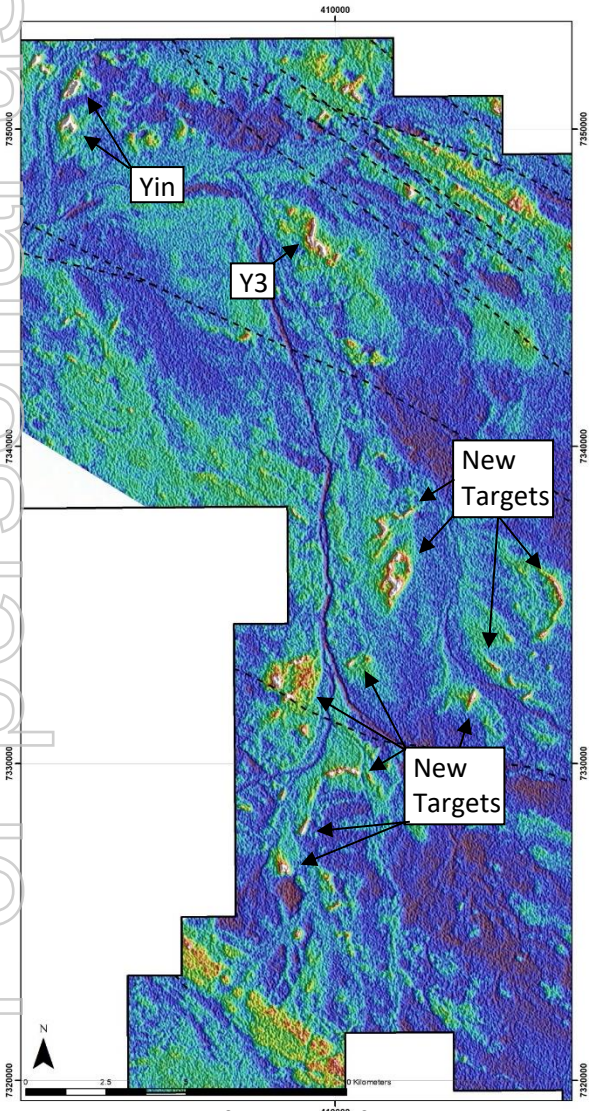

Figure 7: Image of a portion of the thorium radiometric image showing the location of Yin, Sabre (Y3) and some of the new targets to be assessed.

The outcropping Yangibana REE ironstones have a distinctive radiometric anomaly and appear as gossanous iron rich outcrops visible in ortho-imagery. From June to September 2021, Dreadnought announced the identification of the Yin, Y2 and Sabre (formerly) Y3 REE ironstones using wide spaced 1990s government radiometric data and modern ortho-imagery. Subsequently, Dreadnought undertook a ~43,000-line kilometre magnetic-radiometric survey resulting in the identification of seven carbonatite targets to date (C1-C7).

Dreadnought has recently completed a project wide targeting exercise of the substantial and detailed magnetic-radiometric survey which has resulted in the identification of 140 anomalies prospective for REE mineralisation. To date, only 40 of these anomalies have been mapped and sampled resulting in the confirmation of outcropping REE mineralisation at 22 targets with an additional 10 targets determined to be prospective but requiring further work and 8 targets considered un-prospective. Most of these targets make up and are located around Yin, Y2, Y3 and C1-C5. There remain 100 targets to be mapped and sampled and are all located within a 40km radius of Yin, Y2, Sabre and C1-C5.

Mapping and sampling of the remaining 100 targets is ongoing with further results throughout 2022.

**HAS.ASX: 5 May 2021 "Yangibana Project updated Measured and Indicated Resource tonnes up by 54%"*

Background on Mangaroon (E08/3274, E8/3178, E09/2384, E09/2433, E09/2473: FQM Earn-in) (E08/3275, E09/2370, E09/2448, E09/2449, E09/2450, E09/2467, E09/2478: 100%)

Mangaroon covers >4,900 sq 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. (earning up to 70%) – Figure 8. The region is host to high-grade gold mineralisation at the Bangemall/Cobra and Star of Mangaroon gold mining centres and the high NdPr 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 and outcropping high tenor Ni-Cu-PGE blebby sulphides in the recently defined Money Intrusion.

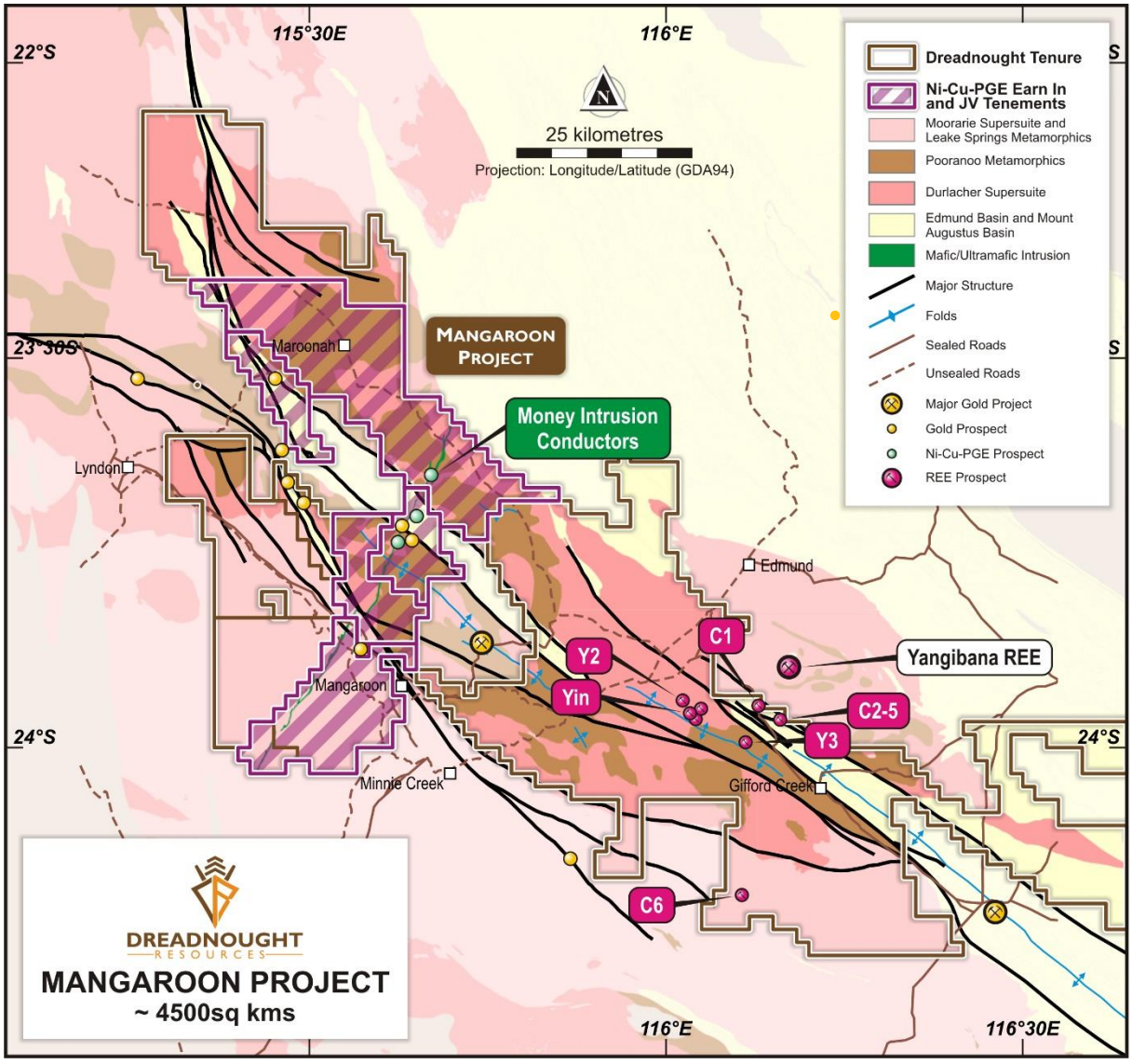

Figure 8: Plan view map of Mangaroon showing the location of the FQM earn-in and 100% DRE ground in relation to major structures, geology and roads.

Dreadnought Resources Limited
Unit 1, 4 Burgay Court, Osborne Park WA 6017
PO Box 646, West Perth WA 6872
www.dreadnoughtresources.com.au
info@dreadnoughtresources.com.au
+61 (08) 9473 8345

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*
- *16 June 2022* *First Drilling at Yin Intersects High-Grade Rare Earths*

UPCOMING NEWSFLOW

September-December: Further updates on and assays from REE drilling at Yin and Sabre ironstones and C1-C5 Carbonatites (Mangaroon 100%)

September: Assays from Peggy Sue pegmatite sampling (Central Yilgarn)

September: Assays from RC drilling at Nelson, Trafalgar, Metzke's Find, Spitfire (Central Yilgarn)

September: Results from Central Komatiite Belt target generation work (Central Yilgarn)

September: Assays for Ni-Cu sulphides at the Money Intrusion (Mangaroon First Quantum Earn-in)

8 September: Presenting at New World Metals Conference in Perth

September/October: Initial JORC Resource for Metzke's Find Au (Central Yilgarn)

20-22 September: Presenting at New World Metals Conference in Sydney and Melbourne

September: Audited Financial Report

October/November: Further results from Metallurgical test work at Yin (Mangaroon 100%)

November: Annual General Meeting

9-11 November: Noosa Mining Investor Conference

December Quarter: Initial Yin JORC Resource (Mangaroon 100%)

~Ends~

For further information please contact:

Dean Tuck
Managing Director
Dreadnought Resources Limited
E:dtuck@dreadnoughtresources.com.au

Jessamyn Lyons
Company Secretary
Dreadnought Resources Limited
E:jlyons@dreadnoughtresources.com.au

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

Competent Person's Statement

The information in this announcement that relates to geology and exploration results and planning 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 report 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.

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 ~4,900sq 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 along the Edmund and Minga Bar Faults and outcropping high-grade REE ironstones, similar to those under development at the Yangibana REE Project. Recently six potentially REE bearing carbonatite intrusions have been identified which may also be the source of the regional rare earths.

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.

Table 1: Mineralised intervals as confirmed by an infield preliminary pXRF analysis >0.2% TREO.

Hole ID	From (m)	To (m)	Interval (m)	Lithology	Prospect
Y3RC001	22	24	2	Oxide ironstone and fenite alteration	Sabre
And	30	32	2	Oxide ironstone and fenite alteration	
Y3RC002	8	16	8	Oxide ironstone	
Y3RC003	15	17	2	Oxide ironstone	
And	21	22	1	Oxide ironstone	
Y3RC006	53	56	3	Oxide ironstone and fenite alteration	
Y3RC009	50	63	13	Oxide ironstone	
Y3RC010	159	161	2	Oxide ironstone	
Y3RC012	20	21	1	Magnetite ironstones	
And	25	26	1	Magnetite ironstones	
Y3RC013	12	17	5	Oxide ironstone	
And	27	29	2	Fenite alterations	
Y3RC015	19	21	2	Oxide ironstone	
And	71	72	1	Oxide ironstone	
Y3RC018	17	25	8	Oxide ironstone	
Y3RC019	142	163	21	Fresh ferrocarbonatite ironstone and fenite alteration	

Table 2: Drill Collar Data (GDA94 MGAz50)

Hole ID	Easting	Northing	RL	Dip	Azimuth	EOH	Type	Prospect
Y3RC001	410603	7344281	304	-60	212	105	RC	Sabre
Y3RC002	409300	7346158	304	-60	98	63	RC	
Y3RC003	409300	7346182	304	-60	89	105	RC	
Y3RC004	409201	7346168	304	-60	96	177	RC	
Y3RC005	409249	7345171	304	-60	92	105	RC	
Y3RC006	409345	7346180	304	-60	270	75	RC	
Y3RC007	409603	7346177	304	-60	96	105	RC	
Y3RC008	409542	7346155	304	-60	90	69	RC	
Y3RC009	409355	7346998	304	-60	92	105	RC	
Y3RC010	409302	7346994	304	-60	92	183	RC	
Y3RC011	409253	7347001	309	-60	93	105	RC	
Y3RC012	409203	7346999	311	-60	90	105	RC	
Y3RC013	409152	7346998	307	-60	93	105	RC	
Y3RC014	409406	7347244	306	-60	93	105	RC	
Y3RC015	409353	7347249	307	-60	91	105	RC	
Y3RC016	409300	7347252	307	-60	93	105	RC	
Y3RC017	409379	7346796	308	-60	91	104	RC	
Y3RC018	409327	7346793	301	-60	90	105	RC	
Y3RC019	409275	7346800	311	-60	96	171	RC	

JORC Code, 2012 Edition – Table 1 report template

Section 1 Sampling Techniques and Data

JORC TABLE 1

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *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.*	Reverse Circulation (RC) drilling was undertaken to produce samples for assaying. **Preliminary pXRF analysis** Preliminary assays were obtained using an Olympus Vanta M Series pXRF analyser. The pXRF was placed on the reject sample piles from the rigs Metzke cone splitter. One 3 beam, 30 second measurement was completed for each drill metre sample. The pXRF instrument is calibrated and serviced annually or more frequently as required with daily instrument calibration checks completed. Additionally, silica blanks and OREAS standards, appropriate to the style of mineralisation are routinely analysed to confirm performance. This procedure is in line with normal industry practice and deemed fit for purpose for preliminary analysis in first pass exploration drilling. This report relates to exploration results of a preliminary nature. pXRF analysis is a preliminary technique which will be superseded by laboratory analysis when it becomes available. **Laboratory Analysis** Two sampling techniques were utilised for this program, 1m metre splits directly from the rig sampling system for each metre and 3m composite sampling from spoil piles. Samples submitted to the laboratory were determined by the site geologist. **1m Splits** 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. **3m Composites** All remaining spoil from the sampling system was collected in buckets from the sampling system and neatly deposited in rows adjacent to the rig. An aluminium scoop was used to then sub-sample each spoil pile to create a 2-3kg 3m composite sample in a calico bag. A pXRF is used on site to determine mineralised samples. Mineralised intervals have the 1m split collected, while unmineralised samples have 3m composites collected. All samples are submitted to ALS Laboratories in Perth for determination of Rare Earth Oxides by Lithium Borate Fusion XRF (ALS Method ME-XRF30). All 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.

Criteria	JORC Code explanation	Commentary
Drilling techniques	• *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.).*	**RC Drilling** 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".
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *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.*	**RC Drilling** Drilling was undertaken using a 'best practice' approach to achieve maximum sample recovery and quality through the mineralised zones. 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. At this stage, no known bias occurs between sample recovery and grade.
Logging	• *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.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.* • *The total length and percentage of the relevant intersections logged.*	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. Lithology, mineralisation, alteration, veining, weathering and structure were all recorded digitally. Chips were washed each metre and stored in chip trays for preservation and future reference. 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. Logging is qualitative, quantitative or semi-quantitative in nature.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	**Preliminary pXRF analysis** pXRF analysis of pulverised and partially homogenised reject RC sample piles is fit for purpose as a preliminary exploration technique. pXRF is a spot reading on raw (unprocessed) RC sample piles with variable grain sizes and states of homogenisation. High grade results were repeated at multiple locations to confirm repeatability. The competent person considers this acceptable within the context of reporting preliminary exploration results. **RC Drilling** From every metre drilled, a 2-3kg sample (split) was sub-sampled into a calico bag via a Metzke cone splitter. 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

Criteria	JORC Code explanation	Commentary
		and a blank inserted directly after. 2-3kg samples are submitted to ALS laboratories (Perth), oven dried to 105°C and pulverised to 85% passing 75um to produce a 0.66g charge for determination of Rare Earth Oxides by Lithium Borate Fusion XRF (ALS Method ME-XRF30) and to produce a 0.25g charge for determination of 48 multi-elements via 4 acid digestion with MS/ICP finish (ALS Code ME-MS61). Standard laboratory QAQC is undertaken and monitored.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *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.* • *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.*	**Preliminary pXRF analysis** Olympus Vanta M Series pXRF analyser is used to provide preliminary quantitative measurement of mineralisation. A 3-beam, 30 second reading time was used with a single reading on unprepared raw RC chip sample piles. High grade samples were repeated to confirm repeatability of grade. Calibration checks of the pXRF are undertaken daily, a silica blank and certified REE standard OREAS 461 is routinely analysed to monitor pXRF performance. **Laboratory Analysis** Lithium borate fusion is considered a total digest and Method ME-XRF30 is appropriate for REE determination. Standard laboratory QAQC is undertaken and monitored by the laboratory and by the company upon assay result receival.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	**Preliminary pXRF analysis** Analytical data was collected directly by the Olympus Vanta M Series pXRF analyser and downloaded by digital transfer to an excel spreadsheet with inbuilt QAQC. All data was checked by the responsible geologist and filed on the company server. **Logging and Sampling** Logging and sampling were recorded directly into a digital logging system, verified and eventually stored in an offsite database. Significant intersections are inspected by senior company personnel. No twinned holes have been drilled at this time. No adjustments to any assay data have been undertaken.
Location of data points	• *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.* • *Specification of the grid system used.*	Collar position was recorded using a Emlid Reach RS2 RTK GPS system (+/- 0.2m x/y, +/-0.5m z). GDA94 Z50s is the grid format for all xyz data reported. Azimuth and dip of the drill hole was recorded after the completion of the hole using a Reflex Sprint IQ

Criteria	JORC Code explanation	Commentary
	• *Quality and adequacy of topographic control.*	Gyro. A reading was undertaken every 30th metre with an accuracy of +/- 1° azimuth and +/-0.3° dip.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*	See drill table for hole positions. Data spacing at this stage is not suitable for Mineral Resource Estimation.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *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.*	Drilling was undertaken at a near perpendicular angle to the interpreted strike and dip of the ironstone outcrops and modelled magnetic data. No sample bias is known at this time.
Sample security	• *The measures taken to ensure sample security.*	All geochemical samples were collected, bagged, and sealed by Dreadnought staff and delivered to Exmouth Haulage in Exmouth. Samples were delivered directly to ALS Laboratories Perth by Exmouth Haulage out of Exmouth.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	The program is continuously reviewed by senior company personnel.

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	• *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.* • *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.*	• The Mangaroon Project consists of 16 granted Exploration License (E08/3178, E08/3274, E08/3439, E09/2359, E09/2370, E09/2384, E09/2405, E09/2433, E09/2448, E09/2449, E09/2450, E09/2467E09/2473, E09/2478, E09/2531, E09/2535) and 3 pending Exploration Licenses (E08/3275, E09/2616, E09/2620). • All tenements are 100% owned by Dreadnought Resources. • E08/3178, E08/3274, E09/2384, E09/2433, E09/2473 are subject to an option agreement with First Quantum Minerals over the base metal rights. • E08/3178, E09/2370, E09/2384 and E09/2433 are subject to a 2% Gross Revenue Royalty held by Beau Resources.

Criteria	JORC Code explanation	Commentary
		• E08/3274, E08/3275, E09/2433, E09/2448, E09/2449, E09/2450 are subject to a 1% Gross Revenue Royalty held by Beau Resources. • E09/2359 is subject to a 1% Gross Revenue Royalty held by Prager Pty Ltd. • The Mangaroon Project covers 4 Native Title Determinations including the Budina (WAD131/2004), Thudgari (WAD6212/1998), Gnulli Gnulli (WAD22/2019) and the Combined Thiin-Mah, Warriyangka, Tharrkari and Jiwarli (WAD464/2016). • The Mangaroon Project is located over Lyndon, Mangaroon, Gifford Creek, Maroonah, Minnie Creek, Towera and Uaroo Stations.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	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: Regional Resources 1986-1988s: WAMEX Reports A23715, 23713 Peter Cullen 1986: WAMEX Report A36494 Carpentaria Exploration Company 1980: WAMEX Report A9332 Newmont 1991: WAMEX Report A32886 Hallmark Gold 1996: WAMEX Report A49576 Rodney Drage 2011: WAMEX Report A94155 Sandfire Resources 2005-2012: WAMEX Report 94826
Geology	• *Deposit type, geological setting and style of mineralisation.*	The Mangaroon Project is located within Mangaroon Zone of the Gascoyne Province. The Mangaroon Project is prospective for orogenic gold, magmatic Ni-Cu-PGE mineralisation and carbonatite hosted REEs.

Drill hole information	• *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:*
	  ○ *easting and northing of the drill hole collar*
	  ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  ○ *dip and azimuth of the hole*
	  ○ *down hole length and interception depth*
	  ○ *hole length.*
	• *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.*
		An overview of the drilling program is given within the text and tables within this document.

Criteria	JORC Code explanation	Commentary
Data aggregation methods	• *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.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	All results with a preliminary pXRF value over 0.2% TREO have been reported. Significant intercepts are length weight averaged for all samples with a preliminary pXRF value >0.2% TREO with up to 3m of internal dilution (<0.2% TREO). No metal equivalents are reported.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *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').*	Drilling is undertaken close to perpendicular to the dip and strike of the mineralisation. The true thickness of the mineralisation intersected in drill holes cannot currently be calculated.
Diagrams	• *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.*	Refer to figures within this report.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	The accompanying document is a balanced report with a suitable cautionary note.
Other substantive exploration data	• *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.*	Suitable commentary of the geology encountered are given within the text of this document.
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	Preliminary pXRF results to be confirmed by laboratory analysis as soon as possible. Additional RC drilling Diamond Drilling Metallurgical test work Resource Modelling

Appendix A: Hastings Technology Metals Limited (ASX.HAS) Yangibana Project JORC Resource Table

Table 1: Total Yangibana Project (all 10 deposits) JORC (2012) Mineral Resources April 2021

Category	M Tonnes	%TREO	%Nd_2O_3+Pr_6O_{11}	TREO t
Measured	4.90	1.01	0.38	49,442
Indicated	16.24	0.95	0.33	154,750
sub-total	***21.14***	***0.97***	***0.34***	***204,192***
Inferred	6.27	0.99	0.31	62,225
TOTAL	***27.42***	***0.97***	***0.33***	***266,417***

- *Numbers may not add up due to rounding. Includes JV tenement contributions.*
- Reporting of Minerals Resources for Auer, Auer North, Bald Hill, Frasers, Simons Find and Yangibana is at a cut-off grade of 0.24% total rare earth oxides (TREO).
- Reporting of Mineral Resources for all other deposits is at 0.2% Nd_2O_3+Pr_6O_{11} cut-off grade.