

1 September 2021

## ENCOURAGING MINERALOGICAL & METALLURGICAL RESULTS FOR RARE EARTHS AT YIN

### HIGHLIGHTS

- Initial metallurgical results from outcropping rare earth elements (“REE”) ironstones at Yin are encouraging with a 92.8% recovery into 3.55% of the original mass from flotation test work.
- The concentrate grade was 12.3% Nd<sub>2</sub>O<sub>3</sub> and ~40% total rare earth oxides (“TREO”). This represents a beneficiation Nd<sub>2</sub>O<sub>3</sub> upgrade factor of ~26 times from the calculated head grade of 0.47% Nd<sub>2</sub>O<sub>3</sub>.
- Yin’s TREO are comprised of a significant proportion of neodymium and praseodymium (Nd<sub>2</sub>O<sub>3</sub>+Pr<sub>6</sub>O<sub>11</sub>). Importantly, the TREO has been confirmed as being hosted predominantly in monazite which is well-known to be amendable to commercial processing.
- The metallurgical results are comparable to results announced by Hastings Technology Metals (ASX.HAS) for the nearby Yangibana deposits.
- Detailed airborne magnetic-radiometric surveys over Yin will commence in September 2021. These surveys will assist with the maiden drilling program scheduled for the March 2022 quarter.

Dreadnought Resources Limited (“Dreadnought”) is pleased to announce that it has received results from metallurgical flotation test work carried out on outcropping ironstones from the ~2.5km long Yin prospect, part of the Mangaroon Project in the Gascoyne Region of Western Australia.

An initial flotation circuit using bulk surface samples 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>. Based on Nd<sub>2</sub>O<sub>3</sub> and CeO<sub>2</sub> to TREO ratios from the head sample analysis, this equates to an average 40% TREO grade concentrate.

The headline results were achieved after a 90µm primary grind and four stages of cleaning.



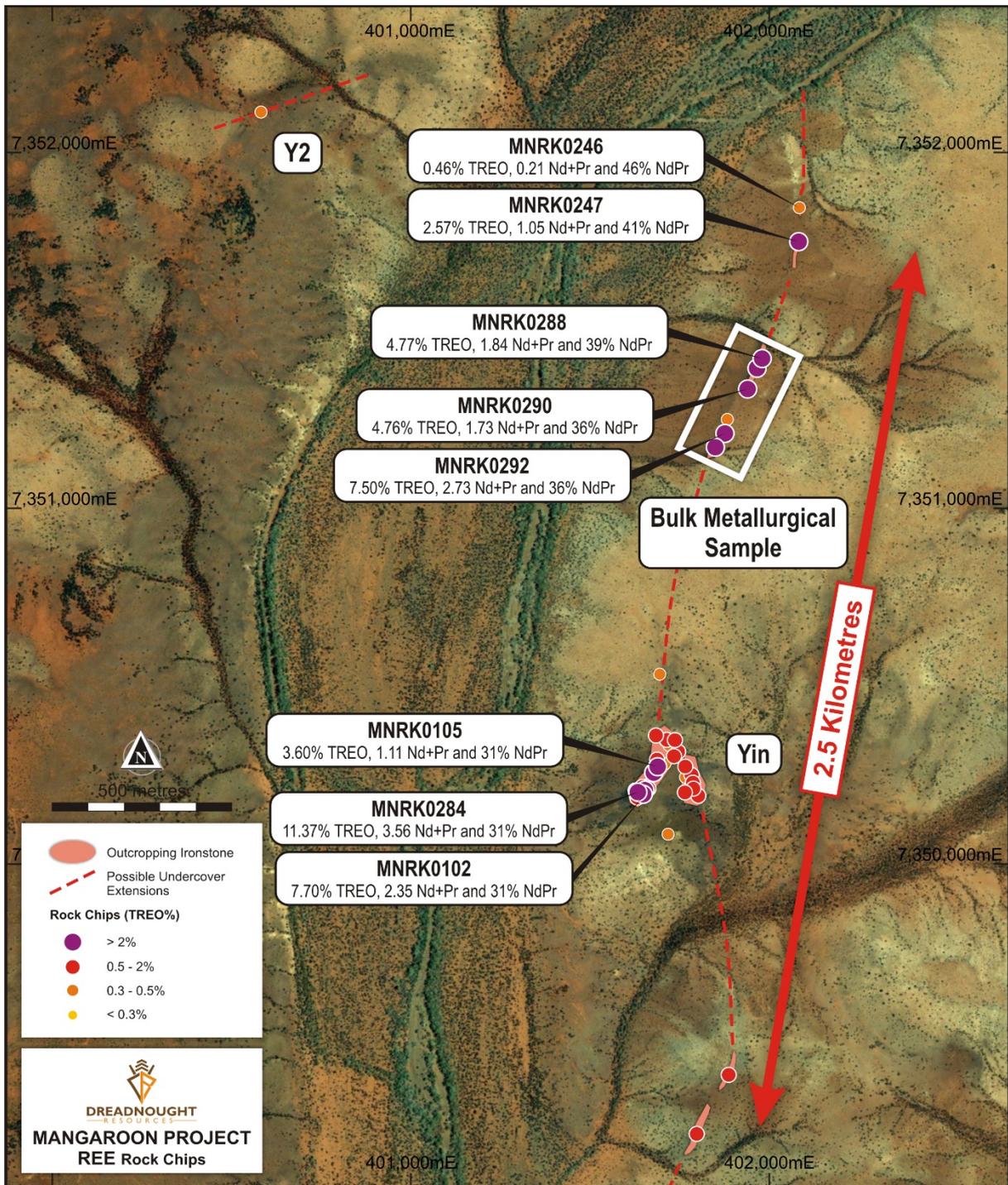
In addition, powder X-ray diffraction (“XRD”) confirmed the type of minerals hosting the REE at Yin to be predominantly monazite. Monazite is well-known to be amendable to commercial processing and as a source of REE at commercial scales.

Dreadnought’s Managing Director, Dean Tuck, commented: *“These metallurgical and mineralogical results provide us with plenty of encouragement to get on with our planned work at Yin. This work includes airborne magnetic and radiometric surveys in September 2021 as a precursor to discovery and initial JORC 2012 Resource definition drilling in the March 2022 quarter. Exciting times ahead on the rare earths front.”*

**Figure 1: Successful froth flotation test on the Yin bulk sample.**



# DREADNOUGHT RESOURCES



**Figure 2: Map showing the location of recent rock chip samples at Yin and the location of outcropping ironstones over ~2.5kms and their interpreted extensions under shallow cover. The Yin metallurgical sample consisted of ~40kgs of composited ironstone from outcrop between MNRK0292 and MNRK0288.**

**Rare Earths at Mangaroon (E09/2448, E09/2450, E09/2535: DRE 100%)**

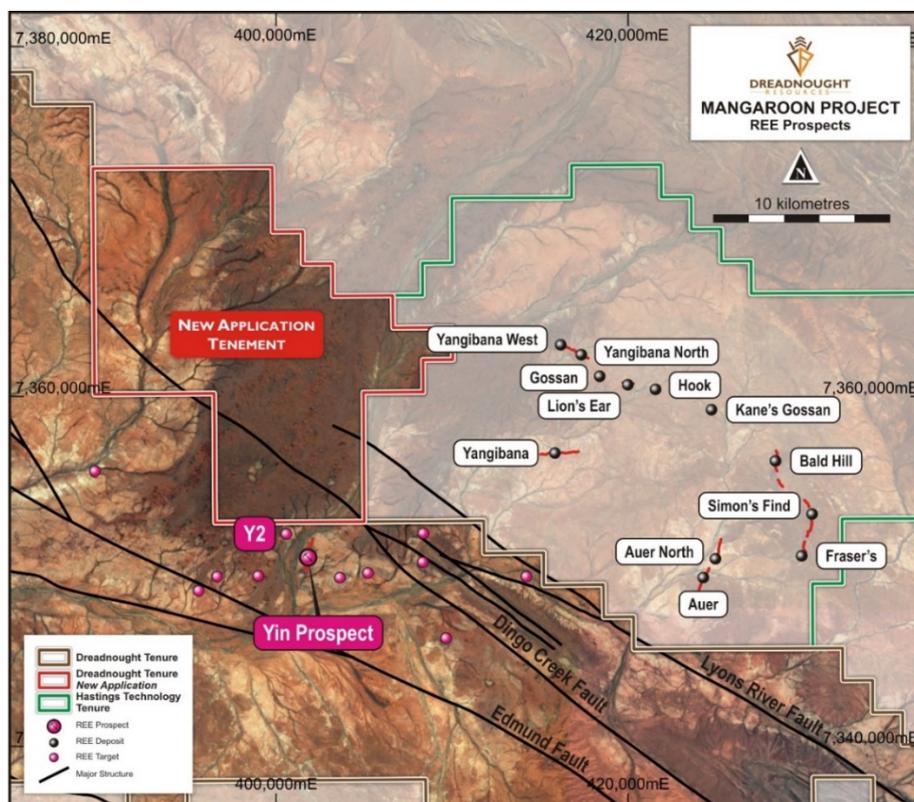
The Yangibana ironstones are readily accessible and located 5-20kms from the Cobra-Gifford Creek Road. The ironstones were first explored in 1972 for base metals. The REE potential of the ironstones was first assessed in 1985 and has seen substantial work by Hastings Technology Metals on the Yangibana ironstones north of the Lyons River Fault since 2011 (Figure 3).

Yangibana currently has a JORC 2012 Mineral Resource\* of 27.42Mt @ 0.97% TREO with 0.33%  $\text{Nd}_2\text{O}_3 + \text{Pr}_6\text{O}_{11}$  and is under construction and development. The high proportion of  $\text{Nd}_2\text{O}_3 + \text{Pr}_6\text{O}_{11}$  (used for electric vehicle magnets for and renewable power generation) are an important component of the project's economics.

However, prior to Dreadnought, no significant REE exploration was undertaken south of the Lyons River Fault, which until now was considered to be the southern extent of the Yangibana REE Ironstones.

Recent TREO and  $\text{Nd}_2\text{O}_3 + \text{Pr}_6\text{O}_{11}$  results from Yin, exhibit similar characteristics to Yangibana and, to confirm this similarity, bulk samples were collected from outcrop for flotation test work and mineralogical analysis. The metallurgical assessment is an important first step in determining the potential for the TREO to be upgraded into a saleable intermediate product in the form of a concentrate. The mineralogical assessment is also important in that the beneficiation of monazite containing minerals to produce monazite concentrates is a demonstrated commercial scale process.

Significantly, 11 other REE prospects remain to be tested, with detailed airborne magnetic-radiometric surveys to refine existing and additional targets. These surveys are to be conducted ahead of a drill program planned for Yin (initial JORC 2012 Resource definition) and the other 11 prospects (discovery).



**Figure 3: Plan view image showing the location of Dreadnought's REE prospects including Yin (purple), in relation to the Lyons River Fault and the location of deposits within the Yangibana REE Project (black).**

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

**Ongoing and Upcoming Work Programs at Mangaroon:**

**Completed:** Wide spaced 800x50m soil sampling along the Edmund Fault and Minga Bar Faults including close spaced 100x50m target definition soils at Cullen's Find, White Well and Mitchell's Find

**Commenced:** Metallurgical test work on REE ironstones at Yin

**Commenced:** Project wide multi-element stream sediment sampling

**Commenced:** Petrological and mineralogical analysis of rocks from Yin

**Ongoing:** Mapping and rock chipping along the Money Intrusion for Ni-Cu-PGE target generation

**September:** Fixed Loop EM Surveys along the Money Intrusion for Ni-Cu-PGE target definition

**September/October:** Detailed airborne magnetic-radiometric surveys over twelve REE prospects

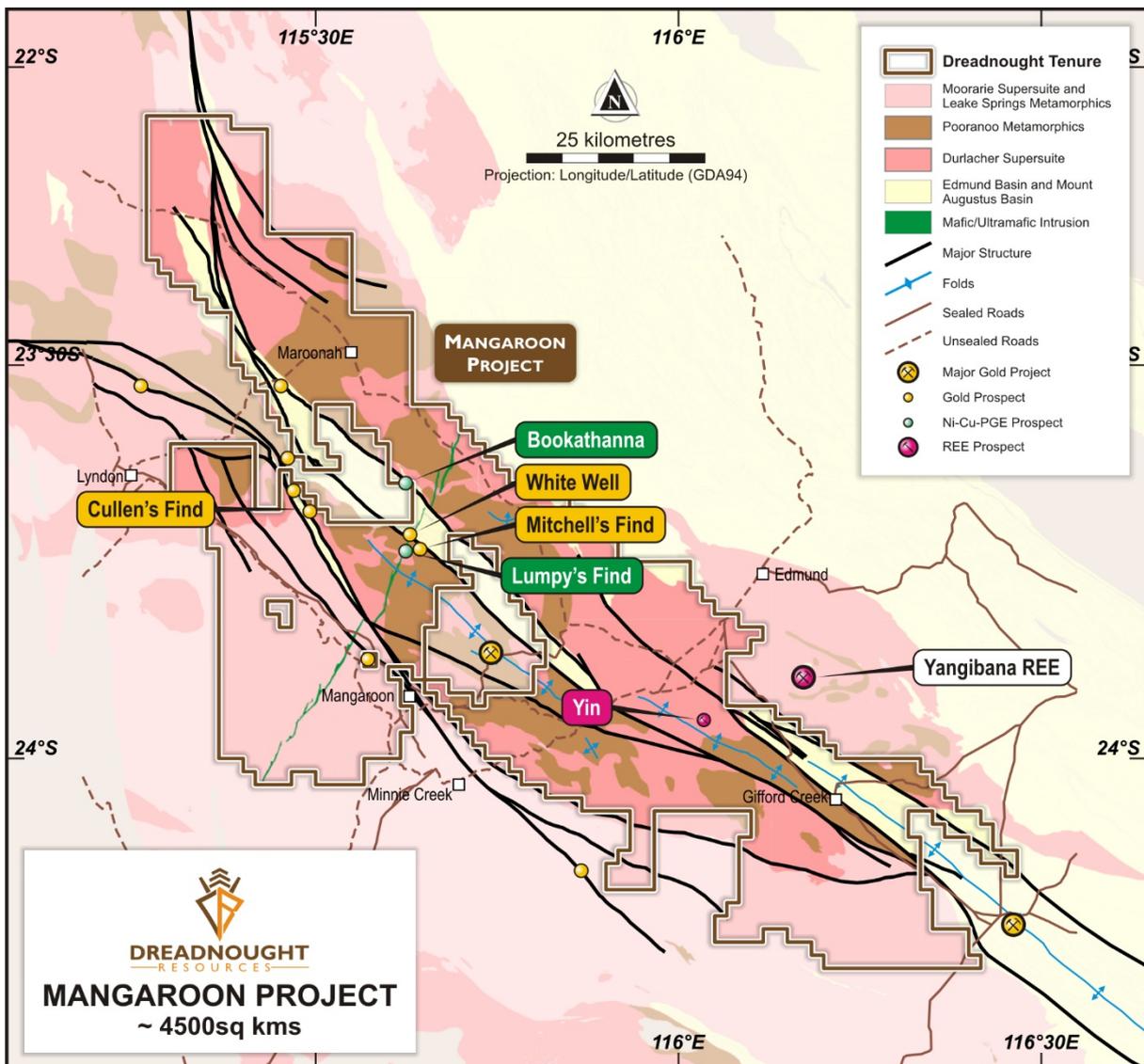


**Figure 4: Dreadnought's Luke Blais, Dean Tuck and Nick Chapman (L to R) with high-grade REE ironstones from Yin.**

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

Mangaroon covers >4,500 sq. kms of the Mangaroon Zone in the Gascoyne Region of WA. The region is host to high-grade gold mineralisation at the Bangemall/Cobra and Star of Mangaroon gold mining centres and the high-grade Yangibana REE deposits. During most of the region’s early history, there was no government support for exploration resulting in a vastly underexplored region in WA.

Dreadnought has located outcropping high-grade gold bearing quartz veins along the Edmund and Minga Bar Faults, outcropping high tenor Ni-Cu-PGE blebby sulphides in the recently defined Money Intrusion and outcropping high-grade REE ironstones, similar to those under development at Yangibana.



**Figure 5: Plan view map of Mangaroon showing the location of current prospects and new tenement application in relation to major structures, geology, roads and the Yangibana REE Project.**

## About Rare Earths

REEs are comprised of fifteen elements that are “rare” in terms of the limited number of concentrated deposits.

Neodymium and praseodymium ( $\text{Nd}_2\text{O}_3$  and  $\text{Pr}_6\text{O}_{11}$ ) are classified as light rare earths and are used in steelmaking to remove impurities, as well as in the production of specialty alloys (including steel, chromium, magnesium, molybdenum, tungsten, vanadium and zirconium).

The use of REEs in magnets is rapidly increasing with neodymium-iron-boron magnets being the strongest known magnets and are used in applications such as electric motors for hybrid cars, wind turbines, high-tech military components and battery alloys.

China accounts for >90% of global REE supply and applies restrictions to this supply. Accordingly, REEs are critical metals because of the specialised use in modern technology combined with China’s near monopoly on supply. The political and economic issues surrounding global supply have highlighted the strategic importance of REEs.

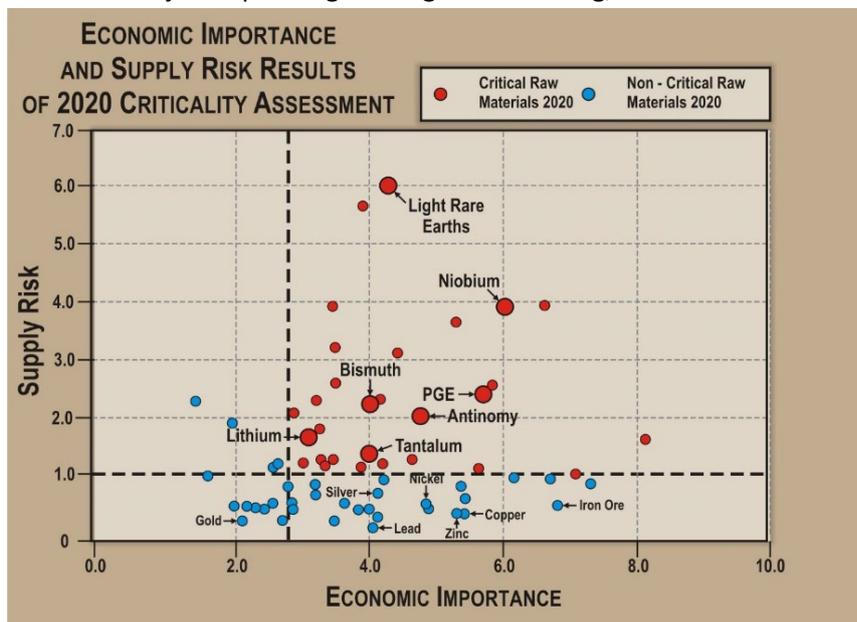
## Critical Minerals

Critical minerals are considered vital for the economic well-being of the world's economies, yet whose supply may be at risk due to geological, geopolitical or other factors. These minerals are used in the manufacture of mobile phones, flat screen monitors, wind turbines, electric cars, solar panels and many other high-tech applications.

The minerals ranked as most critical by the USA, Japan, South Korea, the UK and the European Union are as follows: rare-earth elements (REE), gallium (Ga), indium (In), tungsten (W), platinum-group elements (PGE), cobalt (Co), niobium (Nb), magnesium (Mg), molybdenum (Mo), antimony (Sb), lithium (Li), vanadium (V), nickel (Ni), tantalum (Ta), tellurium (Te), chromium (Cr), manganese (Mn) and bismuth (Bi).

Dreadnought’s critical minerals prospects include the following:

- Illaara: Peggy Sue tantalum, niobium and lithium prospect
- Mangaroon: Yin light rare earths and Lumpy’s Ni-Cu-PGE prospects
- Tarraji-Yampi: Rough Triangle Cu-Sb-Bi-Ag, Texas and Orion Ni-Cu-PGE prospects



**Sources:**  
*Study on the review of the list of Critical Raw Materials, European Commission, 2017.*  
*Critical Minerals in Australia: A Review of Opportunities and Research Needs, Geoscience Australia, 2018.*



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

#### UPCOMING NEWSFLOW

**September:** Remaining assays from drilling at Tarraji-Yampi (Texas, Orion Ni-Cu-PGE, Grant's Find, Fuso and Paul's Find Cu-Au and Chianti-Rufina VMS targets)

**September:** Results of DHEM and FLEM surveys from Orion and Chianti

**September:** Commencement of ground EM survey along the Money Intrusion at Mangaroon

**9 September:** Presenting at the New World Metals Conference in Perth

**September:** Commencement of detailed airborne magnetic and radiometric survey over Mangaroon

**September:** Results from additional mapping and surface sampling of REE targets at Mangaroon

**September:** Recommencement of RC drilling at Orion, Grant's Find and Fuso – Tarraji-Yampi

**October/November:** Results of drilling at Tarraji-Yampi (Orion, Grant's Find and Fuso)

**October/November:** Results of ground EM surveys along the Money Intrusion at Mangaroon

**October:** Quarterly Activities and Financial Reports

**November:** Results of airborne magnetic surveys for REE ironstones at Mangaroon

~Ends~

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*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 form and context in which the Competent Person's findings are presented have not been materially modified from the original reports.*

*The information in this document that relates to metallurgical test work is based on, and fairly represents, information and supporting documentation reviewed by Mr Peter Adamini, BSc (Mineral Science and Chemistry), who is a Member of The Australasian Institute of Mining and Metallurgy (AusIMM). Mr Adamini is a full-time employee of Independent Metallurgical Operations Pty Ltd, who has been engaged by Dreadnought Resources Limited to provide metallurgical consulting services. Mr Adamini has approved and consented to the inclusion in this document of the matters based on his information in the form and context in which it appears.*

## 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.

### Illaara Gold, Base Metals, Critical Minerals & Iron Ore Project

Illaara is located 190km northwest of Kalgoorlie in the Yilgarn Craton and covers 75kms of strike along the Illaara Greenstone Belt. Illaara is prospective for typical Archean mesothermal lode gold deposits, VMS base metals and critical metals including Lithium-Caesium-Tantalum.

Dreadnought has consolidated the Illaara Greenstone Belt mainly through an acquisition from Newmont. Prior to Newmont, the Illaara Greenstone Belt was predominantly held by iron ore explorers and remains highly prospective for iron ore.

### Mangaroon Ni-Cu-PGE, REE & Au Project

Mangaroon is a first mover opportunity covering ~4,500sq kms of tenure located 250kms south-east of Exmouth in the Gascoyne Region of WA. During the region's early history, there was limited government support for exploration resulting in the region being vastly underexplored.

Since acquiring the project in late 2020, Dreadnought has located: outcropping high-grade gold bearing quartz veins along the Edmund and Minga Bar Faults; outcropping high tenor Ni-Cu-PGE blebby sulphides in the recently defined Money Intrusion; and outcropping high-grade REE ironstones, similar to those under development at the Yangibana REE Project.





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**Table 1: Mineralogy of the Yin beneficiation test sample and early concentrate**

Mineral or mineral group	Composite Yin Feed	Yin Concentrate
	Mass %	
Monazite	3	19
Crandallite group	0	3
Rhabdophane	0	0
Barite	0	1
Clay minerals	0	1
Chlorite	0	1
Kaolinite	0	1
Illite - muscovite	0	3
Annite - biotite - phlogopite	1	< 1
Quartz	12	4
Magnetite	7	0
Hematite	22	14
Goethite	57	54

**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	<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</li> </ul>	<p><b>Rock Chips</b></p> <ul style="list-style-type: none"> <li>Rock Chips were collected by Dreadnought staff and submitted for analysis. Rock chips are random, subject to bias and often unrepresentative for the typical widths required for economic consideration. They are by nature difficult to duplicate with any acceptable form of precision or accuracy.</li> <li>Rock chips have been collected by Dreadnought to assist in characterising different lithologies, alterations and expressions of mineralisation. In many instances, several rock chips were collected from a single location to assist with characterising and understanding the different lithologies, alterations and expressions of mineralisation present at the locality.</li> <li>Rock chips were submitted to ALS Laboratories in Perth for determination of Rare Earth Oxides by Lithium Borate Fusion XRF (ALS Method ME-XRF30).</li> </ul>



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Criteria	JORC Code explanation	Commentary
	<i>coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</i>	•
<i>Drilling techniques</i>	<ul style="list-style-type: none"> <li>• <i>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.).</i></li> </ul>	No drilling undertaken
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <li>• <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li>• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li>• <i>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.</i></li> </ul>	No drilling undertaken
<i>Logging</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	No drilling undertaken
<i>Sub-sampling techniques and sample preparation</i>	<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>Rock Chips</b></p> <p>Entire rock chips were submitted to the lab for sample prep and analysis.</p> <p><b>Yangibana Rock Chips</b></p> <p>Sub-sampling and sample prep are unknown.</p>
<i>Quality of assay data and laboratory tests</i>	<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> </ul>	<p><b>Rock Chips</b></p> <ul style="list-style-type: none"> <li>• All samples were submitted to ALS Laboratories in Perth where 1-3kg rock chips samples were crushed so that &gt;70% of material passes through -6mm, the sample is then pulverised to &gt;85% passing 75 micron.</li> <li>• A 66-gram aliquot of pulverised sample is fused with 12:22 lithium borate flux containing an oxidizing agent, and poured to form a fused</li> </ul>



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Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<p>disk. The resultant disk is in then analysed by XRF spectrometry specifically for Rare Earths (ALS Method ME-XRF30)</p> <ul style="list-style-type: none"> <li>Lithium borate fusion is considered a total digest and Method ME-XRF30 is appropriate for REE determination.</li> <li>No standards, duplicates or blanks submitted with rock chips.</li> </ul> <p><b>Yangibana Rock Chips</b></p> <ul style="list-style-type: none"> <li>Hastings submitted rock chips to Genalysis for determination of Rare Earth Oxides by Lithium Borate Fusion ICP-MS (Genalysis Method FP6/MS).</li> <li>Lithium borate fusion is considered a total digest and Method FP6/MS is considered appropriate for REE determination.</li> <li>Artemis submitted rock chips to Genalysis for determination of Rare Earth Oxides by Lithium Borate Fusion ICP-MS/OES (Genalysis Method FS105/MS/OES).</li> <li>Lithium borate fusion is considered a total digest and Method FS105/MS/OES is considered appropriate for REE determination.</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<p><b>Rock Chips</b></p> <ul style="list-style-type: none"> <li>Rock chip and geological information is written in field books and coordinates and track data saved from hand held GPSs used in the field.</li> <li>Dreadnought geologists have inspected and logged all rock chips.</li> <li>Field data is entered into excel spreadsheets to be loaded into a database.</li> </ul> <p><b>Yangibana Rock Chips</b></p> <p>No verification of sampling and assaying of the Yangibana rock chips has been undertaken by Dreadnought</p>
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>	<ul style="list-style-type: none"> <li>All sample locations were recorded with a Garmin handheld GPS which has an accuracy of +/- 5m.</li> <li>GDA94 MGAz50.</li> </ul> <p><b>Yangibana Rock Chips</b></p> <ul style="list-style-type: none"> <li>Survey information of the Yangibana rock chips is unknown, coordinates were included in the public assay files from WAMEX reports</li> </ul>
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>Sample spacing and distribution is not sufficient to establish the degree of geological and grade continuity appropriate for a Mineral Resource.</p>



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Criteria	JORC Code explanation	Commentary
<i>Orientation of data in relation to geological structure</i>	<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>	At this early stage of exploration, mineralisation thickness's, orientation and dips are not known.
<i>Sample security</i>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>All geochemical samples were collected, bagged, and sealed by Dreadnought staff and delivered to Norex General Transport in Exmouth.</li> <li>Samples were delivered directly to ALS Laboratories Perth by Norex General Transport out of Exmouth.</li> </ul> <p><b>Yangibana Rock Chips</b></p> <p>Sample security is unknown</p>
<i>Audits or reviews</i>	<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> <p><b>Yangibana Rock Chips</b></p> <p>Audits and reviews of rock chips are unknown.</p>

**Section 2 Reporting of Exploration Results**  
**(Criteria in this section apply to all succeeding sections.)**

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<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 1 granted Exploration License (E09/2370,) and 12 pending Exploration Licenses (E08/3178, E08/3274, E08/3275, E09/2384, E09/2433, E09/3178, E09/2448, E09/2449, E09/2450, E09/2467, E09/2468, E09/2535)</li> <li>All tenements are 100% owned by Dreadnought Resources.</li> <li>E08/3178, E08/3274, E09/2384, E09/2433, E09/2473 are subject to an option agreement with First Quantum Minerals over the base metal rights.</li> <li>E08/3178, E09/2370, E09/2384 and E09/2433 are subject to a 2% Gross Value 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 Value Royalty held by Beau Resources.</li> <li>The Mangaroon Project covers 4 Native Title Determinations including the Budina (WAD131/2004), Thudgari (WAD6212/1998), Gnulli Gnulli (WAD22/2019) and the Combined Thiin-Mah, Warriyangka, Tharrkari and Jiwarli (WAD464/2016)</li> <li>The Mangaroon Project is located over</li> </ul>



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Criteria	JORC Code explanation	Commentary
		Lyndon, Mangaroon, Gifford Creek, Maroonah Minnie Creek, Towra and Uaroo Stations
Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Historical exploration of a sufficiently high standard was carried out in the region by a few parties including: Hurlston Pty Ltd 1986-1987: WAMEX Report A23584 Newmont 1990: WAMEX Report A32886 Newcrest 1990: WAMEX Report A36887 Desert Energy 2006-2007: WAMEX Reports A78056, A80879 <b>Yangibana Rock Chips</b> Hastings 2017: WAMEX Report A114242 Hastings 2014: WAMEX Report A102800 Hastings 2013: WAMEX Report A97135 Hastings 2012: WAMEX Report A93001 Artemis 2009: WAMEX Report A89503</li> </ul>
Geology	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The Mangaroon Project is located within Mangaroon Zone of the Gascoyne Province.</li> <li>The Mangaroon Project is prospective for orogenic gold, magmatic Ni-Cu-PGE mineralisation and Ferrocarnatite hosted REEs.</li> </ul>
Drill hole information	<ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	No drilling undertaken
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</li> </ul>	No drilling undertaken



**DREADNOUGHT**  
RESOURCES

Criteria	JORC Code explanation	Commentary
	<p><i>procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i></p> <ul style="list-style-type: none"> <li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li><i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li><i>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').</i></li> </ul>	No drilling undertaken
<i>Diagrams</i>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Refer to figures within this report.</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>The accompanying document is a balanced report with a suitable cautionary note.</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Suitable commentary of the geology encountered are given within the text of this document.</li> <li>Suitable commentary of the metallurgical testwork results analysed are given within the text of this document.</li> </ul>
<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>	<ul style="list-style-type: none"> <li>Detailed airborne magnetics, surface geochemistry and mapping prior to drilling</li> </ul>