

27 January 2023

MINERALISED REE IRONSTONES INCREASED BY 13KMS TO 43KMS - MANGAROON (100%)

HIGHLIGHTS

• Surface sampling along the Yin REE Ironstone Complex has increased the mineralised ironstones by ~13kms to ~43kms including the addition of two further ironstone trends (Y9 and Y42). Significant results include:

From Y42:	MNRK0602: 4.68% TREO, 2.25% $Nd_2O_3+Pr_6O_{11}$ (48% NdPr:TREO); and
	MNRK0598: 5.65% TREO, 2.54% Nd2O3+Pr6O11 (45% NdPr:TREO)
From Y9:	MNRK0650: 4.05% TREO, 1.01% Nd2O3+Pr6O11 (25% NdPr:TREO); and
	MNRK0652: 3.77% TREO, 1.09% Nd2O3+Pr6O11 (29% NdPr:TREO)
From Yin:	MNRK0612: 5.12% TREO, 2.26% Nd2O3+Pr6O11 (44% NdPr:TREO); and
	MNRK0611: 1.68% TREO, 0.75% Nd2O3+Pr6O11 (45% NdPr:TREO)
From Y8:	MNRK0575: 8.00% TREO, 1.71% Nd2O3+Pr6O11 (21% NdPr:TREO); and
	MNRK0574: 7.55% TREO, 1.33% Nd2O3+Pr6O11 (18% NdPr:TREO)

- Y42 has produced NdPr:TREO ratios up to 48% and outcrops to the north of Yin and further confirms NdPr:TREO ratios increasing to the north. Y9 increases scale being located ~12kms northwest of Yin.
- Initial rock chips over C7 confirm another mineralised carbonatite ~5kms southeast of C5.

Dreadnought Resources Limited ("**Dreadnought**") is pleased to announce that assays from regional surface sampling have extended the current strike of the Yin Rare Earth Element ("**REE**") Ironstone Complex by 30% to ~43kms of strike at the 100% owned Mangaroon project, located in the Gascoyne Region of Western Australia.



As part of the regional sampling, two new REE ironstone trends have been identified (Y42 and Y9). Y42 has produced some of the highest NdPr:TREO ratios to date while Y9 significantly expands the scale of the Yin Ironstone Complex being located ~12kms northwest of Yin. Additionally, surface sampling over the largely undercover C7 carbonatite has confirmed REE mineralisation similar to early results at the C3 and C4 carbonatites.

Drilling of the Yin Ironstone Complex and the C1-7 carbonatites will commence in February/March 2023.

Dreadnought's Managing Director, Dean Tuck, commented: "These results further emphasise the ever-increasing scale of the critical metals at Mangaroon. With only one surface sampling program we have: increased the mineralised ironstones by over 40%; confirmed increasing NdPr:TREO ratios at Yin; discovered two new ironstones at Y9 and Y42; and confirmed that the C7 carbonatite is mineralised. With over 43kms of mineralised ironstones, a multi-metal, regional source at C3 and six more potential source carbonatites, we are extremely excited about what the drill rigs will deliver for us in 2023."

Figure 1: Photo of Dreadnought geologist Luke Blais inspecting the recently discovered Y42 REE ironstone located ~24kms to the southeast of Yin.



SNAPSHOT - MANGAROON RARE EARTHS Mangaroon is 100% Owned by Dreadnought

Genuine Scale Potential Already at Yin Ironstone Complex

- Initial independent Yin Inferred Resource of 14.36Mt @ 1.13% TREO (ASX 28 Dec 2022) covers only 3kms of 43kms of strike and is based on only 2.5 months of RC drilling (11,907m). The immediate Yin trend remains open over an additional 16km of strike and at depth.
- Over the 3km of the 43km long strike of the Yin Ironstone Complex, the Resource intensity is ~4.8Mt/km.
- First tranche of long-term incentives now triggered with balance on track to be triggered at JORC Resource of at least 30Mt @ >1% TREO by 31 December 2024.

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

- C1-C7 carbonatites are shaping up as the regional source of REE initial drill program expands C1-C5 to ~6.5kms in strike length x 1km wide.
- C6 Carbonatite located ~25kms south of C1-5 and C7 is situated over a crustal scale structural splay of the Lyons River Fault and has a geophysical similarity to other globally significant carbonatite intrusions such as Mt Weld, Araxa and Ngualla.

<u>High-Grade, Multi-Metal Potential Including REE (Neodymium, Praseodymium), Phosphorus, Niobium,</u> <u>Titanium & Scandium</u> (REE-P₂O₅-Nb₂O₅-TiO₂-Sc)

- Yin, like the Yangibana REE project controlled by the ~\$450M Hastings Technology Metals Ltd (ASX.HAS) ("Hastings") is globally unique due to the high proportion of NdPr as a total of the rare earth oxides ("NdPr:TREO" ratio).
- Six coherent zones of REE-P₂O₅-Nb₂O₅-TiO₂-Sc successfully identified within C1-C5 carbonatites with a ~600m x 550m zone of REE-P₂O₅-Nb₂O₅-TiO₂-Sc mineralisation now confirmed at the C3 discovery.

Potentially Attractive Mining Proposition

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

Positive Metallurgy Results

- Initial metallurgical test work from Yin performed well, achieving a recovery of 92.8% at a concentrate grade of 12.3% Nd₂O₃ and an average 40% TREO.
- REE at Yin is predominantly hosted in monazite which is amenable to commercial processing.
- Significant metallurgical study from 16 diamond holes drilled at Yin underway results expected April/May 2023.

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

- Yangibana is located only 25kms to the northeast of Yin and currently has a Resource* of 29.93Mt @ 0.93% TREO with 0.32% Nd₂O₃+Pr₆O₁₁ (34% NdPr:TREO).
- 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.

*HAS.ASX: 11 Oct 2022 Drilling along 8km long Bald Hill-Fraser's trend increases indicated resources by 50%; 15 Dec 2022 Potential identified to significantly expand Yangibana Resource Base





Figure 2: Plan view of the 43km long Yin Ironstone Complex over an orthoimage highlighting recent significant rock chip results along the Yin and Y8 trends as well at new ironstone trends at Y42 and Y9.



Mangaroon 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 ~\$450M Hastings controls the Yangibana Ironstone 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 29.93Mt @ 0.93% TREO with 0.32% Nd₂O₃+Pr₆O₁₁ (34% NdPr:TREO) and is under construction and development. The high proportion of Nd₂O₃+Pr₆O₁₁ (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.

With the exploration success of the past 18 months, Dreadnought has expanded the scale of the Gifford Creek Ferro Carbonatite Complex (including Hastings's Yangibana and Dreadnought's Yin) as defined by the outer REE bearing ironstones to ~35kms x ~25kms. In addition, Dreadnought has confirmed a source carbonatite intrusive plug at C3 with other sources potentially following at C1-C2 and C4-C7. These plugs sit in the centre of the complex and are within the crustal scale structure, the Lyons River Fault.

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 Y3 REE ironstones using wide spaced 1990s government radiometric data and modern ortho-imagery. From September to November 2021, Dreadnought undertook a ~43,000-line kilometre magnetic-radiometric survey resulting in the identification of seven carbonatite targets (C1-C7).

During 2022, Dreadnought completed a project wide targeting exercise of the substantial and detailed magneticradiometric survey identifying ~140 anomalies prospective for REE mineralisation. Regional sampling and mapping of these prospects has resulted in the identification of the distinct Yin, Y8, Y9, Sabre and Y42 REE Ironstone trends, totalling over 43kms of strike as well as the C1-7 carbonatites.

A number of regional prospects were identified as ferricretes paleochannels and residual laterites with the radiometric anomalies likely resulting from residual monazite concentrations. Orientation geochemical surveys have been completed over these prospects to determine if further work is warranted to explore undercover.



Figure 3: Dreadnought geologists Matt Crowe, Claudia Tomkin, Sam Busetti and Jordan Gee over a recently discovered REE ironstone which outcrops to the north of Yin and includes NdPr:TREO ratios up to 45%.



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

Mangaroon covers >5,300sq kms of the Mangaroon Zone in the Gascoyne Region of Western Australia. Part of the project is targeting Ni-Cu-PGE and is subject to an earn in with First Quantum Minerals Ltd ("**FQM**") (earning up to 70%) – Figure 4. The region is host to high-grade gold mineralisation at the Bangemall/Cobra and Star of Mangaroon gold mining centres and the high NdPr:TREO ratio Yangibana REE deposits.

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

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



Figure 4: 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.



For further information please refer to previous ASX announcements:

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

UPCOMING NEWSFLOW

January: Quarterly Activities and Cashflow Report

January/February: Results from reconnaissance surface sampling at Bresnahan (100%)

January/February: Results from Kimberley auger sampling (Tarraji-Yampi 80% and 100%)

February: Initial JORC Resource for Metzke's Find Au (Central Yilgarn 100%)

February-March: Further updates on and assays from REE drilling at C1-C5 Carbonatites (Mangaroon 100%)

February: Results of FLEM survey at the Money Intrusion (FQM JV/Earn-in)

February: Results from Wombarella Heli-EM survey (Tarraji-Yampi 100%)

14-16 February: Presenting at the RIU Explorers Conference (Fremantle, WA)

February/March: Recommencement of RC and diamond drilling at Mangaroon REE (Mangaroon 100%)

March: Financial statements 31 Dec 2022

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

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

April: Quarterly Activities and Cashflow Report

May: Rare earth Resource upgrades for Mangaroon 100%

~Ends~

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



INVESTMENT HIGHLIGHTS

Kimberley Ni-Cu-Au Projects

Dreadnought controls the second largest land holding in the highly prospective West Kimberley region of WA. The main project area, Tarraji-Yampi, is located only 85kms from Derby and has been locked up as a Defence Reserve since 1978.

Tarraji-Yampi presents a rare first mover opportunity with known outcropping mineralisation and historic workings from the early 1900's which have seen no modern exploration.

Results to date indicate that there may be a related, large scale, Proterozoic Cu-Au-Ag-Bi-Sb-Co system at Tarraji-Yampi, similar to Cloncurry / Mt Isa in Queensland and Tennant Creek in the Northern Territory.

Mangaroon Ni-Cu-PGE JV & REE Au 100% Project

Mangaroon is a first mover opportunity covering ~5,300 kms located 250kms south-east of Exmouth in the vastly underexplored Gascoyne Region of WA. Part of the project is targeting Ni-Cu-PGE and is subject to a joint venture with First Quantum Minerals (earning up to 70%). The joint venture area



contains outcropping high tenor Ni-Cu-PGE blebby sulphides in the recently defined Money Intrusion. Dreadnought's 100% owned areas contain outcropping high-grade gold bearing quartz veins including the historic Star of Mangaroon and Diamond's gold mines, along the Edmund and Minga Bar Faults and outcropping high-grade REE ironstones, similar to those under development at the Yangibana REE Project and seven carbonatite intrusions which may be the source of the regions rare earth mineralisation.

Dreadnought has delivered an initial JORC Resource over just 3kms Yin REE Ironstone Complex delivering 14.36Mt @ 1.13% TREO (30% NdPr:TREO Ratio) with an additional 27 strike kilometres to be tested in 2023.

Bresnahan HREE and Au Project

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

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

Central Yilgarn Gold, Base Metals, Critical Minerals & Iron Ore Project

Central Yilgarn is located ~190km northwest of Kalgoorlie in the Yilgarn Craton. The project comprises ~1,600 sq kms covering ~150km of strike along the majority of the Illaara, Yerilgee and Evanston greenstone belts. Central Yilgarn is prospective for typical Archean mesothermal lode gold deposits, VMS base metals, komatiite hosted nickel sulphides and critical metals including Lithium-Caesium-Tantalum.

Prior to consolidation by Dreadnought, the Central Yilgarn was predominantly held by iron ore explorers and remains highly prospective for iron ore.



Cautionary Statement

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

Competent Person's Statement – Exploration Results

The information in this announcement that relates to geology 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 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.

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.



Table 1: Significant (>0.2% TREO) ironstone rock chip results (GDA94 MGAz50)

Sample ID	Easting	Northing	TREO %	Nd ₂ O ₃ + Pr ₆ O ₁₁ %	(Nd ₂ O ₃ + Pr ₆ O ₁₁)%	Nb ₂ O ₅ (%)	ZrO₂ (%)	P ₂ O ₅ (%)	Prospect
	404 676	7250257		4.2	of TREO				
	4015/6	7350257	4.4	1.3	30				_
	401768	7350270	0.42	1.2	48				-
	402069	7351242	3.//	1.35	30				-
	401982	7351422	13.01	4.99	21				Vin
	402089	7351/5/	0.29	0.09	31				¥111
	402088	7351851	2.20	1.03	40				_
	402078	7351742	2.50	0.25	27				_
	402171	7351577	0.07	0.25	37				
	402202	7351641	0.30	0.13	43				
MINRK0517	408900	7345486	0.41	0.04	10				-
	410550	7344295	2.21	0.5	23				-
	410594	7344269	2.99	0.74	25	42.0			_
	410582	7344669	0.67	0.14	21	12.9			_
	410574	7344671	0.35	0.08	23	5.8	24 5		Y3
	410580	/3446//	0.74	0.13	18	15.2	21.5		_
	409310	7346178	39.73	6.3	16				-
	409304	7346154	1.41	0.22	16				_
	409204	7346990	4.35	0.76	1/				-
	409347	7346933	3.18	0.6	19				
MINRK0538	414764	7349167	0.27	0.07	26			45.5	-
	414908	7349063	0.72	0.21	29			15.5	C4
	414919	7349088	2.52	0.65	26				
MINRK0546	414916	7349068	0.29	0.07	24				
	414916	7349056	1.98	0.59	30				
MINRK0548	414934	7349042	0.48	0.16	33				
	414240	7349918	0.43	0.15	35				13
	414700	7349189	0.01	0.14	23				_
	414919	7349065	0.24	0.06	25				C4
MINRKU564	414917	7349067	0.34	0.09	20			15.0	-
	414909	7349064	0.80	0.25	29	<u> </u>		15.9	-
	400988	7351809	1.93	0.35	38	4.1			
	400976	7351807	1.85	0.07	37	1.8			- ¹ 2
	400847	7351890	2.05	0.33	38				
	409289	7340603	2.95	1.67	25				Y3
	409330	7340772	3.07	1.07	29				
	410028	7344584	7.55	1.55	21				-
	409966	7344035	0.00 1 0E	0.26	10				
	409940	7344082	0.00	0.30	19				_
	409889	7344715	6.16	1.02	10				
	410034	7344373	0.10	0.07	10				¥8
	410079	7344525	1.63	0.07	10				
	410058	7344548	0.20	0.32	17				_
	410045	7344035	0.30	0.06	12				_
	410897	/ 34418/	0.31	0.04	13				
	410/4/	7344149	0.42	0.05	12				Mir-
	401563	7351182	0.96	2.43	35				۲IN
	418//0	/343813	0.26	0.05	19				
	418/66	/343822	0.23	0.04	18	7242774			C/
IVIINKKU594	/343//1	418/98.0	0.48	0.08	1/	/343//1			



Table 1 continued: Significant (>0.2% TREO) ironstone rock chip results (GDA94 MGAz50)

Sample ID	Easting	Northing	TREO %	Nd₂O₃ + Pr ₆ O ₁₁ %	(Nd ₂ O ₃ + Pr ₆ O ₁₁)% of TREO	Nb₂O₅ (%)	ZrO₂ (%)	P₂O₅ (%)	Prospect
MNRK0597	425346	7345163	1.64	0.72	44	0.6			V42
MNRK0598	425294	7345092	5.65	2.54	45	0.9			142
MNRK0599	425295	7345059	0.91	0.38	42				
MNRK0600	425254	7344983	0.44	0.18	41				
MNRK0601	425240	7344939	0.81	0.34	42				Y42
MNRK0602	425222	7344906	4.68	2.25	48	0.4			
MNRK0603	425233	7344768	0.54	0.29	54				
MNRK0609	427280	7338519	0.28	0.06	22				Regional
MNRK0611	402142	7352465	1.68	0.75	45				
MNRK0612	402222	7352536	5.12	2.26	44				
MNRK0613	402258	7352576	1.35	0.57	42				
MNRK0615	402268	7352982	0.58	0.15	26				Greater
MNRK0616	402277	7353042	0.89	0.37	42				Yin
MNRK0618	402760	7352325	0.43	0.08	18				
MNRK0620	402649	7351367	0.23	0.09	39				
MNRK0621	403718	7349842	3.94	1.24	31				
MNRK0628	409835	7345107	0.77	0.14	18				
MNRK0629	409315	7345643	0.48	0.08	17				Greater
MNRK0630	408379	7347391	0.56	0.11	20				Sabre
MNRK0631	408317	7347120	0.47	0.1	21				
MNRK0636	459130	7327252	0.24	0.04	17				Regional
MNRK0642	406849	7346826	0.52	0.08	15				
MNRK0643	406834	7346837	0.43	0.1	23				
MNRK0645	406780	7346907	1.08	0.22	20				Y8
MNRK0647	411282	7343475	1.18	0.19	16				
MNRK0648	411277	7343512	0.47	0.07	15				
MNRK0650	393823	7361050	4.05	1.01	25	9.4			
MNRK0651	393825	7361090	3.41	0.99	29				Y9
MNRK0652	393833	7361014	3.77	1.09	29				



JORC CODE, 2012 EDITION – TABLE 1 REPORT TEMPLATE SECTION 1 SAMPLING TECHNIQUES AND DATA

(CRITERIA IN THIS SECTION APPLY TO ALL SUCCEEDING SECTIONS.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	 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. 	 Rock Chips 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. 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. Rock chips were submitted to ALS Laboratories in Perth for determination of Rare Earth Oxides by Lithium Borate Fusion XRF (ALS Method ME- XRF30).
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.). 	No drilling undertaken
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. 	No drilling undertaken
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. 	No drilling undertaken
techniques and	 in core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, 	Entire rock chips were submitted to the lab for



Criteria	JORC Code explanation	Commentary
sample preparation	 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. 	sample prep and analysis.
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. 	Rock ChipsAll samples were submitted to ALS Laboratories in Perth where 1-3kg rock chips samples were crushed so that >70% of material passes through - 6mm, the sample is then pulverised to >85% passing 75 micron.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 disk. The resultant disk is in then analysed by XRF spectrometry specifically for Rare Earths (ALS Method ME-XRF30)Lithium borate flusion is considered a total digest
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. 	Rock ChipsRock chip and geological information is written in field books and coordinates and track data saved from handheld GPSs used in the field.Dreadnought geologists have inspected and logged all rock chips.Field data is entered into excel spreadsheets to be loaded into a database.
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. Quality and adequacy of topographic control. 	All sample locations were recorded with a Garmin handheld GPS which has an accuracy of +/- 5m. GDA94 MGAz50.
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. 	Sample spacing and distribution is not sufficient to establish the degree of geological and grade continuity appropriate for a Mineral Resource.



Criteria	JORC Code explanation	Commentary
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. 	At this early stage of exploration, mineralisation thicknesses, orientation and dips are not known.
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 S	L 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 20 granted Exploration Licenses (E08/3178, E08/3274, E08/3275, E08/3439, E09/2290, E09/2359, E09/2370, E09/2384, E09/2405, E09/2433, E09/2448, E09/2449, E09/2450, E09/2467, E09/2473, E09/2478, E09/2531, E09/2535, E09/2616, E09/2620) and 4 granted Mining Licenses (M09/146, M09/147, M09/174, M09/175). 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. E08/3274, E08/3275, E09/2433, E09/2448, E09/2449, E09/2450 are subject to a 1% Gross Revenue Royalty held by Prager Pty Ltd. E09/2359 is subject to a 1% Gross Revenue Royalty held by Prager Pty Ltd. E09/2290, M09/146 and M09/147 are subject to a 1% Gross Revenue Royalty held by STEHN, Anthony Paterson and BROWN, Michael John Barry.2 M09/174 is subject to a 0.5% Gross Revenue Royalty held by STEHN, Anthony Paterson and BROWN, Michael John Barry. The Mangaroon Project covers 4 Native Title Determinations including the Budina (WAD131/2004). Thudpari (WAD6212/1998) 			



Criteria	JORC Code explanation	Commentary
		The Mangaroon Project is located over Lyndon, Mangaroon, Gifford Creek, Maroonah, Minnie Creek, and Towera 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. 	No drilling reported
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 	No drilling results reported. All results greater than 0.2% TREO have been reported. No metal equivalents are reported.



Criteria	JORC Code explanation	Commentary		
	clearly stated.			
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'). 	No drilling reported		
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. 	Additional RC drilling Diamond Drilling Metallurgical test work Additional Resource Modelling		