ABN 40 119 031 864

#### **ASX ANNOUNCEMENT** 6 December 2023

## Gifford Creek REE-Nb-P-Ti-Sc Carbonatite Drilling Update – Mangaroon (100%)

#### **HIGHLIGHTS**

First pass, wide spaced (360m x 180m) RC drilling of ~17km Gifford Creek Carbonatite has identified three additional areas of rare earth ("REE" or "TREO") mineralisation. Significant new intercepts include:

CBRC139: 12m @ 1.14% TREO 2.8 kg/t Nd<sub>2</sub>O<sub>3</sub>+Pr<sub>6</sub>O<sub>11</sub> (24% NdPr:TREO) from 36m within:

27m @ 0.87% TREO 2.2 kg/t Nd<sub>2</sub>O<sub>3</sub>+Pr<sub>6</sub>O<sub>11</sub> (25% NdPr:TREO) from 30m

CBRC148: 12m @ 1.09% TREO 2.2 kg/t Nd<sub>2</sub>O<sub>3</sub>+Pr<sub>6</sub>O<sub>11</sub> (20% NdPr:TREO) from 54m within:

78m @ 0.55% TREO 1.2 kg/t Nd<sub>2</sub>O<sub>3</sub>+Pr<sub>6</sub>O<sub>11</sub> (22% NdPr:TREO) from 51m

CBRC155: 24m @ 1.24% TREO 3.1 kg/t Nd<sub>2</sub>O<sub>3</sub>+Pr<sub>6</sub>O<sub>11</sub> (25% NdPr:TREO) from 60m within:

57m @ 0.80% TREO 2.0 kg/t Nd<sub>2</sub>O<sub>3</sub>+Pr<sub>6</sub>O<sub>11</sub> (25% NdPr:TREO) from 48m

• Additionally, these areas contain other critical minerals and have returned some of the highest-grade niobium, phosphate and scandium ("**Nb-P-Sc**") results to date including:

CBRC138: 3m @ 1.37% Nb<sub>2</sub>O<sub>5</sub> from 90m and \*CBRC111:9m @ 1.40% Nb<sub>2</sub>O<sub>5</sub> from 72m CBRC143: 6m @ 18.4% P<sub>2</sub>O<sub>5</sub> from 114m and CBRC142: 18m @ 13.6% P<sub>2</sub>O<sub>5</sub> from 108m CBRC148: 43m @ 11.9% P<sub>2</sub>O<sub>5</sub> from 87m and CBRC138: 12m @ 319ppm Sc from 48m

- Four zones of mineralisation have now been identified with less than 25% of the ~17km long Gifford Creek Carbonatite tested by wide spaced drilling highlighting the potential to discover high grade mineralisation.
- Detailed 100m x 100m ground gravity and SkyTEM airborne EM data is being used to identify zones within the Gifford Creek Carbonatite with deeper weathering and potentially high-grade residually enriched mineralisation. High priority targets defined from this work will be RC drilled with GSWA Exploration Incentive Scheme ("EIS") co-funding in March/April 2024.

Dreadnought Resources Limited ("Dreadnought") is pleased to announce results from first pass drilling at the Gifford Creek Carbonatite, part of the 100% owned Mangaroon Project, located in the Gascoyne Region of Western Australia.

Dreadnought's Managing Director, Dean Tuck, commented: "The Gifford Creek Carbonatite contains significant areas of



critical metals including rare earths, niobium, phosphate and scandium. With four zones of mineralisation already identified and only ~25% of the intrusion tested by wide spaced, first pass drilling we remain confident of the potential for a significant, high-grade discovery. Through detailed surveys and our knowledge of the current Resource, we have "fingerprinted" potentially high-grade zones. These high priority targets will be RC drilled in early 2024 with the co-funding support of the GSWA's Exploration Incentive Scheme.

Figure 1: RC drilling at the Gifford Creek Carbonatite.

#### **SNAPSHOT - MANGAROON CRITICAL MINERALS**

## Mangaroon is 100% Owned

• 100% owned Mangaroon confirmed as a globally significant critical minerals complex with a combined Resource at Yin and the Gifford Creek Carbonatite of 40.82Mt @ 1.03% TREO.

## **Genuine Scale Potential Already at Yin**

- Independent Yin Resource of 29.98Mt @ 1.04% TREO (ASX 30 Nov 2023) covers only ~4.6km of ~43km of strike -87% Measured and Indicated.
- Large JORC Exploration Target for the top 150m of the Yin REE Ironstone Complex (ASX 13 Feb 2023) to be updated in 2024.
  - Cautionary Statement: The Exploration Target has been prepared and reported in accordance with the JORC Code 2012. The potential quality and grade of the Exploration Target is conceptual in nature. There has been insufficient exploration to estimate a Resource for all target areas reported. It is uncertain if further exploration will result in the estimation of a Resource.

## Significant, Step-Change, Growth Potential at the Gifford Creek Carbonatite

- The Gifford Creek Carbonatite is considered to be the regional source of REE.
- In less than 12 months from discovery of the Gifford Creek Carbonatite, a large, independent Resource of 10.84Mt
   I.00% TREO was delivered (ASX 28 Aug 2023). The Resource contains a range of critical minerals including rare earths, niobium, phosphate, titanium and scandium.
- The initial Resource covers an area of only ~600m x 550m. With the Gifford Creek Carbonatite now expanding to >17kms x 1km. With further drilling, the Resource is expected to grow substantially.

# High-grade, Multi-Metal Potential Including REE (Neodymium, Praseodymium), Phosphate, Niobium, Titanium & Scandium

- The mineralisation at the Yin REE Ironstone Complex contains a high NdPr to total rare earth oxides ("NdPr:TREO") ratio than most REE deposits and over 50% higher than the global average.
- Partially completed, first pass, wide-spaced drilling over the Gifford Creek Carbonatite has identified significant critical metal potential with REE, P, Nb, Ti and Sc.

#### **Potentially Attractive Mining Proposition**

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

#### **Positive Metallurgy Results**

- Metallurgical test work from Yin has performed well, achieving recoveries ranging from 85.9% to 92.8% at a concentrate grade of 10.76% to 15.31% Nd<sub>2</sub>O<sub>3</sub>+Pr<sub>6</sub>O<sub>11</sub>.
- REE at Yin is predominantly hosted in monazite which is amenable to commercial processing.
- Significant metallurgical studies ongoing final results expected in March 2024 quarter.

## **Global Strategic Imperative Driving Rare Earth Growth & Prices**

- Supply chain security and low carbon transition are imperatives against a backdrop of heightened geopolitical tension.
- Dreadnought is receiving increasing levels of interest from midstream and downstream industry participants in Mangaroon. While the current focus is on upstream options (mining, milling and concentrating) opportunities to collaborate with midstream and downstream industry participants may represent an opportunity.

## **RC Drill and Regional Gravity Program Gifford Creek Carbonatite**

Carbonatite intrusions are known globally to host several different commodities including rare earths, niobium, phosphate, titanium and scandium often as seperate bodies within the same intrusion. Examples of this include Mt Weld in Australia, Ngualla in Tanzania, Araxa in Brasil and Bayan Obo in China. In addition, a world class deposit like Mountain Pass in the USA can fit into a small footprint ( $700m \times 150m = \sim 0.1 \text{km}2$ ). The Gifford Creek Carbonatite, in size and age, is similar to Bayan Obo c (Hong-Rui Fan, et al. 2016) which hosts three world class, REE deposits.

While high-grade mineralisation can be contained within fresh carbonatite (eg Mountain Pass), often mineralisation is upgraded via dissolution of fresh carbonatite and accumulation of resistate mineralogy (i.e. monazite, pyrochlore, columbite) within the regolith. Karsting and localised anomalously deeper weathering can significantly enhance mineralisation grades, near surface (eg Mt Weld, Araxa).

The Gifford Creek Carbonatite was identified in November 2021 and has limited outcrop. Drilling and surveys have extended the Gifford Creek Carbonatite to  $\sim$ 17kms long x  $\sim$ 1km wide. To date 147 RC holes (15,767m) and 8 diamond holes (1,257.3m) have been drilled over  $\sim$ 25% of the Gifford Creek Carbonatite. A  $\sim$ 600m x  $\sim$ 550m zone of REE, P, Nb, Ti and Sc mineralisation containing an initial Resource of 10Mt @ 1.00% TREO has already been defined. Recent wide spaced 320m x 180m RC drilling has now identified three new zones of mineralisation including some of the highest-grade niobium, phosphate and scandium with results including:

**CBRC139:** 12m @ 1.14% TREO 2.8 kg/t  $Nd_2O_3+Pr_6O_{11}$  (24% NdPr:TREO) from 36m within: **CBRC148:** 12m @ 1.09% TREO 2.2 kg/t  $Nd_2O_3+Pr_6O_{11}$  (20% NdPr:TREO) from 54m within: 3.1 kg/t  $Nd_2O_3+Pr_6O_{11}$  (25% NdPr:TREO) from 60m within: CBRC155: 24m @ 1.24% TREO CBRC138: 3m @ 1.37% Nb<sub>2</sub>O<sub>5</sub> from 90m \*CBRC111:9m @ 1.40% Nb<sub>2</sub>O<sub>5</sub> from 72m and **CBRC143:** 6m @ 18.4% P<sub>2</sub>O<sub>5</sub> from 114m CBRC142: 18m @ 13.6% P<sub>2</sub>O<sub>5</sub> from 108m and **CBRC148:** 43m @ 11.9% P<sub>2</sub>O<sub>5</sub> from 87m **CBRC138: 12m @ 319ppm Sc** from 48m and

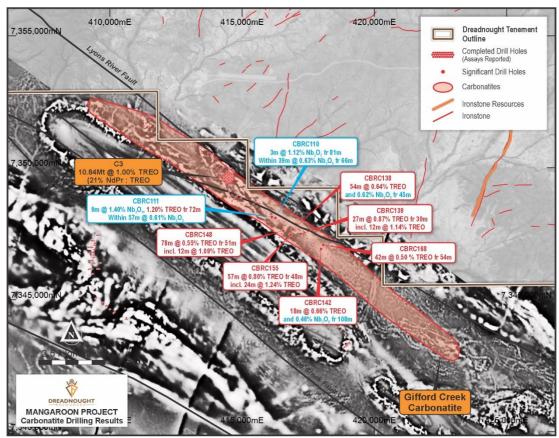


Figure 2: Plan view of the Gifford Creek Carbonatite over a greyscale magnetic image (RTP IVD) and ortho image showing drilled (red dots) hole locations highlighting recent drilling results and the C3 Resource.

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REE mineralisation has been confirmed in both weathered and fresh carbonatites with petrographic work showing coarse grained (up to 0.25mm) monazite and REE carbonate mineralisation in ferro-carbonatites and magnesiocarbonatite.

Due to the ever-increasing scale of the carbonatite, and on the greater understanding of the carbonatite gained through drilling, a regional geophysical survey was undertaken to more effectively and efficiently target deeper and higher-grade residual mineralisation. The results from this survey combined with knowledge from the existing have been applied in "fingerprinting" high-grade zones.

A  $100m \times 100m$  spaced infill gravity survey has been completed to further refine the "fingerprint". High priority targets defined from this work will be RC drilled with GSWA Exploration Incentive Scheme ("**EIS**") co-funding in March/April 2024.

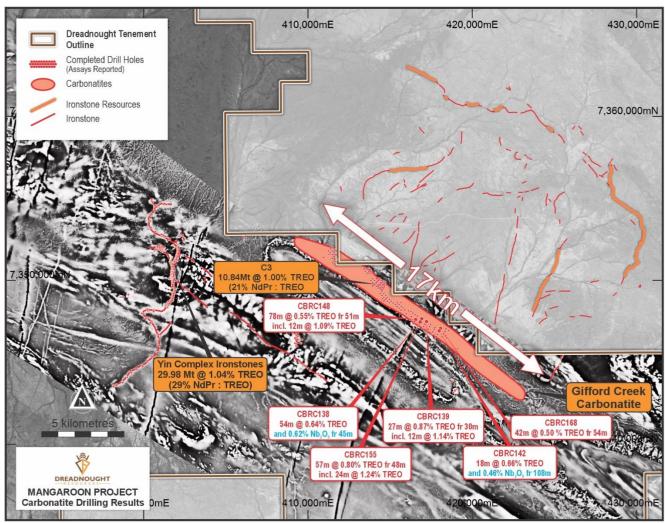


Figure 3: Plan view of the Gifford Creek Carbonatite Complex including the Yin and Yangibana Ironstones over a greyscale magnetic image (RTP IVD) and ortho image showing drilled (red dots) hole locations. The current Resource of 10Mt @ 1.00% TREO is highlighted as are the recently announced niobium and rare earth drill results.

Background on Mangaroon (E8/3178, E08/3274, E09/2384, E09/2433, E09/2473: FQM Earn-in) (E08/3275, E08/3439, E09/2290, E09/2359, E09/2405, E09/2370, E09/2448, E09/2449, E09/2450, E09/2467, E09/2478, E09/2531, E09/2535, E09/2616, E09/2620, M09/91, M09/146, M09/147, M09/174, M09/175: DRE 100%)

Mangaroon covers >5,200sq kms of the Mangaroon Zone in the Gascoyne Region of Western Australia, the world's top investment jurisdiction as per the Investment Attractiveness Index published in the Fraser Institute's Annual Survey of Mining Companies. Part of the project is targeting Ni-Cu-PGE and is subject to First Quantum Minerals Ltd ("FQM") earning up to 70%. The region is also host to high-grade gold mineralisation at the Bangemall/Cobra and Star of Mangaroon gold mining centres and the high NdPr:TREO ratio Yin and Yangibana REE deposits.

Dreadnought has located outcropping high-grade gold bearing quartz veins along the Star of Mangaroon Shear, Edmund and Minga Bar Faults, high-grade REE ironstones, REE- $P_2O_5$ -Nb $_2O_5$ -TiO $_2$ -Sc mineralised carbonatites and outcropping high tenor Ni-Cu-PGE blebby sulphides at the Money Intrusion.

Dreadnought has already successfully delivered:

- an independent JORC Inferred + Indicated + Measured Resource of 29.98Mt @ 1.04% TREO and an initial Measured Resource of 5.17Mt @ 1.34% TREO over 4.6kms of the 43kms of strike within the Yin REE Ironstone Complex; and
- an Exploration Target (ASX 13 Feb 2023) estimated for the top 150m of ~40km of strike within the Yin REE Ironstone Complex.

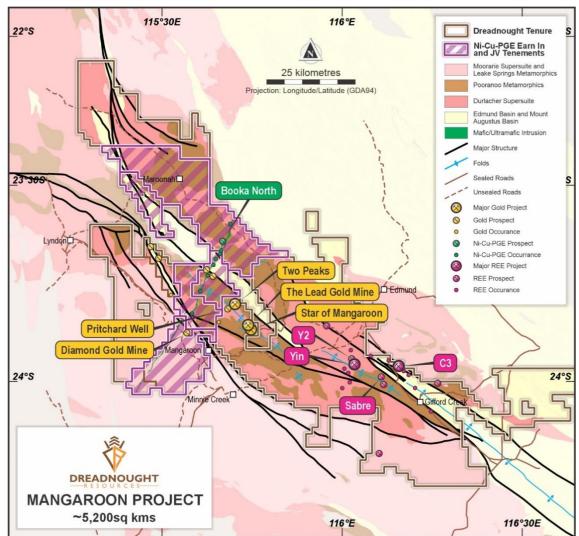


Figure 4: Plan view map of Mangaroon showing the location of gold, nickel and REE prospects in relation to major structures, geology and roads.

For further information please refer to previous ASX announcements:

•	<ul><li>17 October 2022</li><li>23 November 2022</li></ul>	Mineralised Carbonatites Discovered at C3 and C4 Multiple, Large Scale, REE-Nb-Ti-P Carbonatites
	28 December 2022	Initial High-Grade, Independent Resource over 3kms at Yin
•	24 January 2023	Carbonatite Discovery Shaping up as Regional Rare Earth Source
•	29 March 2023	Yin Resource to Grow, Carbonatite Drilling Commenced
•	3 April 2023	Carbonatites Deliver Thick, Near Surface REE Results
•	29 May 2023	Metallurgical Test Work Supports High-Value Concentrate
•	5 July 2023	40% Increase in Resource Tonnage at Yin
•	10 July 2023	High Grade Rare Earth & Niobium Zones at C3 & C5
•	17 July 2023	High Grade Rare Earth & Niobium Zones at C3 & C5
•	7 August 2023	Rare Earth Ironstone and Carbonatite Drilling Update
•	28 August 2023	Initial, Independent REE-Nb-P-Ti-Sc Resource at C3
•	2 October 2023	Mangaroon Carbonatite now > 17km - Higher Grade Zones Fingerprinted
•	30 November 2023	Large, High Confidence Yin Ironstone Resource

#### **UPCOMING NEWSFLOW**

December: Update on Ni-Cu-Co-PGE Drilling at Mangaroon

December/January: Assays from RC drilling at Tarraji-Yampi (80%, 100%)

December/January: Assay from additional Au, Ni-Cu-Co-3PGE and REE drilling at Mangaroon.

December/January: Results from target generation and definition work at Bresnahan (100%)

January 2024: Quarterly Report

January/February 2024: Results of surface sampling from Central Yilgarn and Mangaroon LCT Pegmatites (100%)

February 2024: Half Year Financial Report

February 2024: Results from surface sampling and mapping of LCT targets at Mangaroon and Central Yilgarn

March 2024: Commencement of RC and diamond drilling at Mangaroon Ni-Cu-Co-3PGE (Earn-in)

March/April 2024: Commencement of EIS co-funded RC drilling at Mangaroon Rare Earths (100%)

~Ends~

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

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## **Cautionary Statement**

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

## **Competent Person's Statement - Mineral Resources**

The information in this announcement that relates to Mineral Resources is based on information compiled by Mr. Lynn Widenbar, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy. Mr. Widenbar is a full-time employee of Widenbar and Associates Pty Ltd. Mr. Widenbar has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that is being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves'. Mr. Widenbar consents to the inclusion in the announcement of the matters based on his information in the form and context that the information appears.

## **Competent Person's Statement - Exploration Results**

The information in this announcement that relates to geology, exploration results and planning, and exploration targets was compiled by Mr. Dean Tuck, who is a Member of the AIG, Managing Director, and shareholder of the Company. Mr. Tuck has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Tuck consents to the inclusion in the announcement of the matters based on the information in the form and context in which it appears.

The Company confirms that it is not aware of any new information or data that materially affects the information in the original reports, and that the forma and context in which the Competent Person's findings are presented have not been materially modified from the original reports.

#### **RESOURCES SUMMARY**

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

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

Resource Classification	Geology	Resource (Mt)	TREO (%)	Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub> (kg/t)	NdPr:TREO Ratio (%)	Contained TREO (t)	Contained Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub> (t)
Measured	Oxide	2.47	1.61	4.6	29	39,700	11,400
Measured	Fresh	2.70	1.09	3.0	27	29,500	8,100
Measured	Subtotal	5.17	1.34	3.8	28	69,300	19,500
Indicated	Oxide	13.46	1.06	3.1	29	142,600	41,000
Indicated	Fresh	7.67	0.95	2.8	29	72,800	21,300
Indicated	Subtotal	21.13	1.02	3.0	29	215,400	62,300
Inferred	Oxide	1.51	0.75	1.9	25	11,200	2,800
Inferred	Fresh	2.17	0.75	2.1	28	16,300	4,500
Inferred	Subtotal	3.68	0.75	2.0	27	27,600	7,300
Total	Oxide	17.44	1.11	3.2	29	193,600	55,300
Total	Fresh	12.54	0.95	2.7	29	118,700	33,900
ТОТ	<b>TAL</b>	29.98	1.04	2.9	29	312,300	89,300

## **Gifford Creek Carbonatite - Inferred Resource**

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

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

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#### **INVESTMENT HIGHLIGHTS**

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

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

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

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

# Mangaroon Ni-Cu-Co-3PGE JV & Au/REE 100% Project

Mangaroon covers ~5,200sq kms and is located 250kms south-east of Exmouth in the Gascoyne Region of WA. At the Money Ni-Cu-Co-3PGE has been identified and is subject to an earn-in by First Quantum Minerals (up to 70%). Dreadnought also has areas of outcropping high-grade gold including the historic Star of Mangaroon and Diamonds gold mines. In addition, Mangaroon has emerged as a globally significant, rapidly growing, potential source of critical minerals. Highlights include:

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

#### Bresnahan HREE-Au-U Project (100%)

Bresnahan is located ~125km southwest of Newman in the Ashburton Basin. The project comprises ~3,700 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, unconformity uranium ("U") deposits and mesothermal lode gold similar to Paulsens Au-Ag-Sb deposits along strike.

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

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

Central Yilgarn is located ~190km northwest of Kalgoorlie in the Yilgarn Craton. The project comprises ~1,400 sq kms covering ~150km of strike along the majority of the Illaara, Yerilgee, South Elvire and Evanston greenstone belts. Central Yilgarn is prospective for typical Archean mesothermal lode gold deposits, VMS base metals, komatiite hosted nickel sulphides and critical metals including Lithium-Cesium-Tantalum.

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

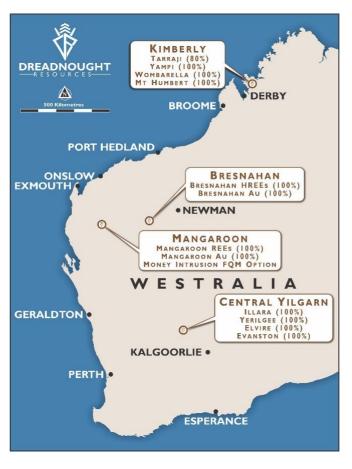




Table 3: Significant Intersections >0.3% TREO with >1% TREO highlighted.

Hole ID	From (m)	To (m)	Interval (m)	TREO (%)	Nd2O3+Pr6O11 (kg/t)	NdPr:TREO (%)	Prospect
CBRC001	17	94	77	0.35	0.8	23	
CBRC005	21	24	3	0.50	2.0	40	
CBRC006	30	48	18	0.30	0.7	23	C3
CBRC007	15	26	11	0.31	0.7	23	
CBRC010	93	145	52	0.63	1.4	22	
incl	116	121	5	1.01	2.2	22	
CBRC011	39	54	15	0.37	0.8	22	
CBRC012	57	66	9	0.31	0.7	23	
CBRC013	165	168	3	0.54	2.0	37	GCC
CBRC014	12	15	3	0.38	0.7	18	
CBRC015	18	27	9	0.31	0.8	26	
CBRC016	9	12	3	0.34	0.9	26	
CBRC017	30	60	30	0.34	0.7	21	
CBRC018	27	36	9	0.34	0.8	24	
CBRC019	18	42	24	0.36	0.8	22	
CBRC023	9	42	33	0.58	1.3	22	
CBRC025	0	45	45	0.34	0.7	21	
CBRC027	6	48	42	0.83	1.9	23	
incl	9	30	21	1.25	2.9	23	
CBRC028	15	57	42	0.63	1.4	22	
incl	24	36	12	1.00	2.3	23	
CBRC029	3	75 (EOH)	72	0.69	1.5	22	C3
incl	6	37	31	1.26	2.8	22	
CBRC030	3	99 (EOH)	96	0.70	1.4	20	
incl	4	37	33	1.12	2.2	20	
CBRC031	12	24	12	0.52	1.2	23	
CBRC032	9	81 (EOH)	72	0.60	1.4	23	
incl	22	34	12	1.02	2.4	24	
CBRC033	6	105 (EOH)	99	0.64	1.4	22	
incl	13	57	44	1.00	2.2	22	
CBRC034	15	33	18	0.33	0.8	24	
CBRC036	18	57	39	0.30	0.7	23	
CBRC038	9	15	6	0.36	0.7	19	
CBRC039	39	57	18	0.30	0.7	23	
CBRC041	30	57	27	0.32	0.7	22	
CBRC042	21	33	12	0.53	1.3	25	
CBRC043	39	69	30	0.30	0.7	23	
CBRC044	27	66	39	0.60	1.4	23	
incl	40	54	14	0.92	2.2	24	
CBRC045	30	63	33	0.42	0.9	21	GCC
CBRC046	33	66	33	0.38	0.8	21	
CBRC047	24	66	42	0.34	0.7	21	
CBRC048	33	54	21	0.37	0.8	22	
CBRC049	36	96	60	0.47	1.0	21	
CBRC050	27	54	27	0.54	1.1	20	
CBRC051	21	52	31	0.57	1.1	19	
CBRC052	36	93	57	0.63	1.3	21	
					· <del>-</del>	1	i

Table 3(continued): Significant Intersections >0.3% TREO with >1% TREO highlighted.

Hole ID	From (m)	To (m)	Interval (m)	TREO (%)	Nd2O3+Pr6O11 (kg/t)	NdPr:TREO (%)	Prospect
CBRC056	36	90	54	0.32	0.8	23	
CBRC058	48	105	57	0.34	0.7	22	
CBRC060	39	57	18	0.31	0.7	23	
CBRC061	18	45	27	0.33	0.7	21	
CBRC063	18	42	24	0.40	0.8	20	
CBRC068	30	48	18	0.33	0.7	21	
CBRC070	15	24	9	0.36	0.7	19	000
CBRC071	30	45	15	0.30	0.6	20	GCC
CBRC075	42	54	12	0.39	0.8	20	
CBRC079	18	27	9	0.33	0.7	21	
CBRC080	45	58	13	0.48	1.0	20	
and	84	105	21	0.34	0.7	21	
CBRC081	30	45	15	0.37	0.8	21	
CBRC082	36	54	18	0.33	0.7	20	
CBRC083	8	136	128	0.74	1.6	22	
incl	14	48	34	1.31	2.8	21	
and	111	123	12	1.09	2.2	20	
CBRC084	6	201 (EOH)	195	0.57	1.2	21	
incl	16	40	24	1.26	2.8	22	
CBRC085	9	123 (EOH)	114	0.56	1.3	24	
incl	37	47	10	0.92	2.1	23	
CBRC086	9	117 (EOH	108	0.69	1.5	22	C3
incl	15	21	6	1.76	4.7	27	
CBRC087	6	201 (EOH)	195	0.55	1.1	20	
incl	6	39	33	1.10	2.3	21	
CBRC088	6	181 (EOH)	175	0.54	1.0	19	
incl	14	55	41	0.93	2.0	22	
CBRC089	8	100	92	0.71	1.5	21	
incl	38	69	31	0.95	2.0	21	
CBRC107	51	69	18	0.52	1.1	22	
CBRC110	66	105	39	0.28	0.5	17	
CBRCIII	54	111	57	0.60	1.3	21	GCC
incl	72	81	9	1.20	3.0	25	
CBRC113	21	66	45	0.58	1.3	22	
CBRC114	6	27	21	0.60	1.2	19	
CBRC115	3	105	102	1.14	2.6	22	
incl	76	104	29	2.05	4.5	22	
incl	77	86	9	3.88	8.6	22	
CBRC116	I	115	114	0.68	1.3	19	
incl	62	87	25	1.03	2.0	20	
CBRC117	68	165	97	0.64	1.1	18	
CBRC118	69	81	12	0.38	0.7	18	C3
and	117	147	30	0.45	0.8	18	
CBRC120	30	78	48	0.56	1.2	21	
incl	50	54	4	1.2	2.8	23	
CBRC121	7	69	62	1.68	3.4	20	
incl	33	58	25	2.86	5.7	20	
incl	34	49	15	3.26	6.5	21	
CBRC122	12	165	153	0.52	1.1	22	

Table 3(continued): Significant Intersections >0.3% TREO with >1% TREO highlighted.

Hole ID	From	То	Interval	TREO	Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub>	NdPr:TREO	Prospect
	(m)	(m)	(m)	(%)	(kg/t)	(%)	Позресс
CBRC123	86	158	72	0.41	0.9	21	
CBRC124	9	165 (EOH)	158	0.40	0.8	20	
incl	10	45	35	0.85	1.9	22	
and	15	20	5	1.03	2.4	23	
and	26	35	7	1.04	2.3	22	
CBRC125	7	120	113	1.13	2.6	23	
incl	50	54	4	2.59	5.6	22	C3
and	59	68	9	2.03	4.9	24	
CBRC126	6	24	18	0.54	1.1	20	
incl	9	П	3	1.02	1.9	19	
CBRC127	24	153	129	0.47	1.0	22	
incl	93	102	9	1.06	2.6	25	
CBRC128	99	165	66	0.36	0.8	21	
CBRC138	45	99	54	0.64	1.5	24	
CBRC139	30	57	27	0.87	2.2	25	
incl	36	48	12	1.14	2.8	24	
CBRC140	60	63	3	0.35	0.7	20	
CBRC142	108	126	18	0.66	1.6	24	
CBRC143	114	135	21	0.34	0.9	25	
CBRC144	96	99	3	0.38	0.8	21	
CBRC147	75	87	12	0.43	0.8	19	GCC
CBRC148	51	129	78	0.55	1.2	22	GCC
incl	54	66	12	1.09	2.2	20	
CBRC153	90	93	3	0.55	1.2	21	
CBRC155	48	105	57	0.80	2.0	25	
incl	60	84	24	1.24	3.1	25	
CBRC168	63	66	3	0.32	0.7	22	
CBRC170	54	96	42	0.50	1.0	19	
CBRC171	57	78	21	0.44	0.9	21	

Table 4: Significant Intersections >0.3%Nb $_2$ O $_5$ , >1.0% Nb $_2$ O $_5$  highlighted.

Hole ID	From	То	Interval	Nb <sub>2</sub> O <sub>5</sub>	Prospect
. 10.0 15	(m)	(m)	(m)	(%)	ospecc
CBRC032	20	28	8	0.30	
CBRC033	75	84	9	0.32	GCC
CBRC053	45	54	9	0.33	GCC
CBRC080	61	62	I	0.33	
CBRC084	21	30	9	0.32	
CBRC085	30	78	48	0.79	
incl	39	75	36	1.03	
CBRC086	16	93	77	0.70	C3
and	39	69	30	0.97	
incl	51	69	18	1.09	
CBRC089	34	46	12	0.30	
CBRC107	54	66	12	0.53	
CBRC109	63	66	3	0.34	
CBRC110	66	105 (EOH)	39	0.63	GCC
incl	81	84	3	1.12	GCC
CBRCIII	63	III (EOH)	48	0.70	
incl	72	81	9	1.40	
CBRC115	45	54	9	0.36	
CBRC124	18	37	17	0.60	
incl	30	33	3	1.01	C3
CBRC125	63	122	59	0.61	
incl	99	118	19	1.01	
CBRC138	45	102	57	0.60	
incl	90	93	3	1.37	
CBRC142	108	126	18	0.46	GCC
CBRC143	114	120	6	0.82	GCC
CBRC148	105	129	24	0.39	
CBRC155	69	78	9	0.43	

Table 5: Significant Intersections  $>5\%P_2O_5$ , >10%  $P_2O_5$  highlighted.

Hole ID	From (m)	To (m)	Interval (m)	P <sub>2</sub> O <sub>5</sub> (%)	Prospect
CBRC006	154	207	53	5.2	
CBRC010	109	113	4	5.1	C3
and	154	207	53	5.2	C3
incl	172	175	3	15.6	
CBRC011	60	66	6	6.4	
and	162	165 (EOH)	3	5.9	GCC
CBRC012	153	162	9	7.0	GCC
CBRC017	57	66	9	6.5	
CBRC019	42	45	3	5.4	
CBRC027	23	25	2	7.0	C
and	63	66	3	5.1	C3
CBRC030	17	29	12	6.0	
CBRC032	23	45	22	6.2	
incl	31	36	5	13.0	
CBRC033	17	56	39	6.3	
incl	18	33	15	8.0	GCC
CBRC042	39	45	6	6.0	
CBRC049	48	69	21	6.2	
CBRC050	45	48	3	5.1	



Table 5 (continued): Significant Intersections >5%P2O5, >10% P2O5 highlighted.

Hole ID	From (m)	To (m)	Interval (m)	P <sub>2</sub> O <sub>5</sub> (%)	Prospect
CBRC051	50	52	2	7.6	
and	60	63	3	5.3	
CBRC053	48	63 (EOH)	15	5.9	
CBRC058	42	45	3	6.2	
and	54	57	3	5.2	
and	90	93	3	6.0	
and	99	102	3	5.6	
CBRC060	45	57	12	6.2	
CBRC061	45	48	3	5.1	
CBRC062	51	54	3	5.5	
CBRC075	87	93	6	6.0	
CBRC083	39	49	10	7.5	
incl	46	47	I	10.3	
CBRC084	26	41	15	5.0	
and	119	121	3	7.4	1
CBRC085	30	85	55	6.6	-
CBRC086	54		51	5.4	-
		105	3		C3
incl	84	87		10.6	
CBRC087	36	44	8	6.4	
CBRC088	35	55	20	5.4	
incl	35	37	3	10.1	
and	46	47	1	10.7	
CBRC089	46	62	16	5.1	
CBRC107	60	69	9	5.5	
CBRC109	63	66	3	6.0	
CBRC110	69	72	3	5.3	GCC
and	102	105 (EOH)	3	7.2	
CBRCIII	69	III(EOH)	42	8.3	
incl	99	III (EOH)	12	14.0	
CBRC112	90	95 (EOH)	5	5.4	
CBRC115	22	96	74	6.8	C3
incl	48	76	28	10.5	
and	89	91	2	12.0	
CBRC118	117	144	27	6.0	
CBRC120	99	111	12	6.4	
CBRC121	45	54	9	5.2	
CBRC122	72	78	6	6.5	
and	135	150	15	5.3	
incl	135	138	3	10.2	1
CBRC123	24	30	6	7.8	1
and	157	158 (EOH)	1	17.4	
CBRC124	34	43	9	5.0	1
CBRC125	17	21	4	7.1	1
and	38	45	7	5.6	1
and	100	122	22	5.7	1
incl	118	120	2	10.3	
iiici					1
CBRC127	9/	1 105		66	
CBRC127 and	97 129	105 153 (EOH)	8 24	6.6 7.8	



Table 5 (continued): Significant Intersections >5%P2O5, >10% P2O5 highlighted.

Hole ID	From (m)	To (m)	Interval (m)	P <sub>2</sub> O <sub>5</sub> (%)	Prospect	
CBRC138	63	102	39	6.6		
incl	93	102	9	11.9		
CBRC139	39	57	18	5.5		
CBRC142	75	141 (EOH)	66	7.1		
incl	108	126	18	13.6	GCC	
CBRC143	114	132 (EOH)	18	8.5	GCC	
incl	114	120	6	18.4		
CBRC146	63	81	18	5.1		
CBRC148	87	129 (EOH)	43	11.9		
CBRC153	90	120	30	6.1		

Table 6: Significant Intersections >5% TiO<sub>2</sub>, >10% TiO<sub>2</sub> highlighted.

	From	То	Interval	TiO <sub>2</sub>	_
Hole ID	(m)	(m)	(m)	(%)	Prospect
CBRC011	51	54	3	5.3	GCC
CBRC028	54	57	3	5.1	
CBRC029	14	30	16	5.7	C3
CBRC030	16	27	11	5.8	
CBRC032	9	32	23	6.7	
CBRC033	13	16	20	5.0	
and	42	46	4	6.2	
CBRC044	43	53	10	5.5	GCC
CBRC049	42	51	9	5.2	GCC
CBRC053	36	66	30	6.3	
CBRC058	63	66	3	6.0	
CBRC080	57	69	12	6.3	
CBRC083	23	42	19	6.7	
CBRC084	9	45	36	7.9	
incl	25	39	14	12.3	
CBRC085	6	85	79	7.4	
incl	45	66	21	11.7	
CBRC086	12	84	72	8.6	
incl	30	36	6	12.3	C3
and	45	63	18	10.0	C3
incl	66	72	6	12.8	
CBRC087	10	33	23	6.2	
CBRC089	12	69	57	6.4	
incl	34	42	8	11.3	
and	111	123	12	7.5	
incl	117	120	3	10.1	
CBRC107	51	66	15	7.1	
incl	54	60	6	11.5	GCC
CBRCIII	54	84	30	7.9	
CBRC112	66	75	9	6.1	
and	90	93	3	6.4	
CBRC113	30	108	78	5.7	C3
incl	48	57	9	11.5	
CBRC114	75	78	3	5.6	

Table 6 (continued): Significant Intersections >5%  $TiO_2$ , >10%  $TiO_2$  highlighted.

Hole ID	From (m)	To (m)	Interval (m)	TiO <sub>2</sub> (%)	Prospect
CBRC112	66	75	9	6.1	
and	90	93	3	6.4	
CBRC113	30	108	78	5.7	
incl	48	57	9	11.5	
CBRC114	75	78	3	5.6	
CBRC115	7	96	89	5.8	
incl	47	50	3	10.0	
CBRC117	12	15	3	6.1	
CBRC118	66	147	81	6.0	
incl	69	75	6	11.8	C3
CBRC119	63	129 (EOH)	66	5.9	C3
CBRC120	45	78	33	6.1	
and	105	111	6	5.4	
CBRC121	15	44	33	5.1	
and	117	120	3	5.4	
CBRC122	51	54	3	5.3	
CBRC125	16	123	107	7.7	
incl	57	59	2	11.2	
and	81	98	17	11.1	
CBRC127	135	153	18	5.7	
CBRC138	45	102	57	8.8	
incl	72	90	18	11.4	GCC
CBRC139	42	54	12	5.8	
CBRC141	69	81	12	6.1	
CBRC142	75	90	15	5.7	
CBRC145	42	81	39	5.1	
CBRC146	42	81	39	6.4	
CBRC148	99	129	30	5.7	
CBRC150	117	147	30	5.5	
CBRC151	54	75	21	5.0	
CBRC153	51	66	15	5.9	GCC
and	90	93	3	9.0	GCC
CBRC157	51	63	12	5.3	
CBRC158	57	75	18	5.1	
CBRC159	69	75	6	6.3	
CBRC169	66	75	9	5.5	
CBRC170	54	75	21	6.5	
incl	57	60	3	10.2	
CBRC171	57	78	21	5.6	

Table 7: Significant Intersections >200ppm Sc.

Hole ID	From (m)	To (m)	Interval (m)	Sc (ppm)	Prospect
CBRC027	25	27	2	204	
CBRC086	57	66	9	265	
CBRC113	48	54	6	227	C3
CBRC125	18	28	10	270	
and	40	45	5	215	
CBRC138	48	60	12	319	GCC

Table 8: Drill Collar Data (GDA94 MGAz50)

Able 8: Drill Collar Hole ID	Easting	Northing	RL	Dip	Azimuth	EOH	Туре	Prospect
CBRC001	414383	7350106	305	-60	45	105	RC	•
CBRC002	414211	7349938	313	-60	43	165	RC	
CBRC003	414102	7349828	313	-60	49	165	RC	
CBRC004	414045	7349772	311	-60	43	165	RC	
CBRC005	413985	7349716	306	-60	42	165	RC	C3
CBRC006	413932	7349659	306	-60	43	165	RC	
CBRC007	414320	7350049	307	-60	52	165	RC	
CBRC008	414278	7349999	307	-60	49	123	RC	
CBRC009	414160	7349879	310	-60	50	165	RC	
CBRC010	414840	7348989	310	-60	45	249	RC	
CBRC011	414673	7348815	310	-60	45	165	RC	
CBRC012	414611	7348750	315	-60	46	165	RC	
CBRC013	414782	7348929	308	-60	45	171	RC	666
CBRC014	414727	7348875	309	-60	44	165	RC	GCC
CBRC015	414607	7349429	306	-90	0	45	RC	
CBRC016	414499	7349307	308	-90	0	57	RC	
CBRC017	414395	7349187	306	-90	0	87	RC	
CBRC018	413817	7349995	305	-90	0	75	RC	
CBRC019	413932	7350106	306	-90	0	75	RC	
CBRC020	414157	7350106	315	-90	0	57	RC	
CBRC021	414044	7349989	321	-90	0	63	RC	
CBRC022	413933	7349877	312	-90	0	45	RC	
CBRC023	414495	7349989	309	-90	0	93	RC	
CBRC024	414383	7349873	308	-90	0	45	RC	63
CBRC025	414269	7349765	309	-90	0	45	RC	C3
CBRC026	414161	7349644	306	-90	0	51	RC	
CBRC027	414615	7349785	319	-90	0	75	RC	
CBRC028	414613	7349875	314	-90	0	99	RC	
CBRC029	414494	7349762	310	-90	0	75	RC	
CBRC030	414388	7349657	314	-90	0	99	RC	
CBRC031	414263	7349550	298	-90	0	75	RC	
CBRC032	414607	7349660	316	-90	0	81	RC	
CBRC033	414498	7349542	310	-90	0	105	RC	
CBRC034	414386	7349428	319	-90	0	81	RC	
CBRC035	414614	7349202	320	-90	0	39	RC	
CBRC036	414495	7349092	318	-90	0	99	RC	
CBRC037	414740	7349086	315	-90	0	39	RC	
CBRC038	414607	7348977	312	-90	0	57	RC	
CBRC039	414528	7348879	314	-90	0	99	RC	
CBRC040	414952	7348865	315	-90	0	63	RC	
CBRC041	414834	7348745	315	-90	0	93	RC	
CBRC042	415068	7348752	316	-90	0	75	RC	
CBRC043	414940	7348635	315	-90	0	99	RC	GCC
CBRC044	415178	7348632	308	-90	0	87	RC	
CBRC045	415330	7348524	315	-90	0	93	RC	
CBRC046	415433	7348425	315	-90	0	87	RC	
CBRC047	415546	7348319	308	-90	0	93	RC	
CBRC048	415656	7348204	309	-90	0	99	RC	
CBRC049	415886	7348204	306	-90	0	99	RC	
CBRC050	415771	7348340	306	-90	0	123	RC	
CBRC051	415658	734843 I	306	-90	0	63	RC	
CBRC052	415545	7348538	308	-90	0	93	RC	
CBRC053	415658	7348657	308	-90	0	93	RC	
CBRC054	415422	7348643	309	-90	0	57	RC	

Table 8 (continued): Drill Collar Data (GDA94 MGAz50)

Hole ID	Easting	Northing	RL	Dip	Azimuth	EOH	Туре	
CBRC055	413819	7350449	307	-90	0	63	RC	
CBRC056	413900	7350534	304	-90	0	111	RC	
CBRC057	413688	7350449	303	-90	0	45	RC	
CBRC058	413818	7350674	300	-90	0	147	RC	
CBRC059	413704	7350574	300	-90	0	75	RC	
CBRC060			307	-90	0	93	RC	
	413588	7350674	307	-90	0	69	RC	
CBRC061	413476	7350563						
CBRC062 CBRC063	413585	7350454	305	-90	0	75	RC	
	413707	7350785	305	-90	0	111	RC	
CBRC064	413474	7350784	291	-90	0	81	RC	
CBRC065	413403	7350704	294	-90	0	69	RC	
CBRC066	411792	7351282	307	-90	0	57	RC	
CBRC067	411655	7351163	307	-90	0	57	RC	
CBRC068	411506	7351073	307	-90	0	69	RC	GCC
CBRC069	410966	7351418	300	-90	0	69	RC	
CBRC070	411706	7351802	300	-90	0	99	RC	
CBRC071	411703	7351576	300	-90	0	69	RC	
CBRC072	411587	7351689	300	-90	0	81	RC	
CBRC073	411596	7351458	300	-90	0	87	RC	
CBRC074	411489	7351349	300	-90	0	81	RC	
CBRC075	411591	7351924	300	-90	0	123	RC	
CBRC076	411478	7351578	300	-90	0	88	RC	
CBRC077	411362	7351915	300	-90	0	93	RC	
CBRC078	411467	7351996	300	-90	0	99	RC	
CBRC079	411475	7351800	300	-90	0	93	RC	
CBRC080	411250	7351799	300	-90	0	165	RC	
CBRC081	411373	7351696	300	-90	0	93	RC	
CBRC082	411283	7351594	300	-90	0	75	RC	
CBRC083	414546	7349700	306	-59	36	153	RC	
CBRC084	414483	7349645	306	-58	45	201	RC	
CBRC085	414431	7349587	307	-59	44	123	RC	
CBRC086	414540	7349584	307	-59	46	117	RC	C3
CBRC087	414431	7349698	306	-58	47	201	RC	
CBRC088	414318	7349587	311	-59	43	181	RC	
CBRC089	414654	7349695	309	-59	45	159	RC	
CBRC090	410043	7325078	358	-90	0	63	RC	
CBRC091	409725	7325084	349	-90	0	57	RC	
CBRC092	409223	7325080	355	-90	0	81	RC	
CBRC093	408919	7325078	355	-90	0	81	RC	
CBRC094	410154	7324593	355	-90	0	81	RC	
CBRC095	409810	7324580	351	-90	0	99	RC	
CBRC096	409491	7324585	350	-90	0	93	RC	
CBRC097	409189	7324587	354	-90	0	87	RC	
CBRC098	408867	7324584	358	-90	0	87	RC	C6
CBRC099	408689	7324570	350	-90	0	87	RC	
CBRC100	409028	7324588	352	-90	0	105	RC	
CBRC101	409344	7324583	361	-90	0	87	RC	
CBRC102	409656	7324586	361	-90	0	105	RC	
CBRC103	409988	7324587	300	-90	0	81	RC	
CBRC104	409079	7325081	300	-90	0	81	RC	
CBRC105	409401	7325074	300	-90	0	87	RC	
CBRC106	409885	7325080	300	-90	0	57	RC	
CDIVC100	TU/003	/323000	300	-70	U	١٠	I.C	

Table 8 (continued): Drill Collar Data (GDA94 MGAz50)

Hole ID	Easting	Northing	RL	Dip	Azimuth	EOH	Туре	
CBRC107	416640	734783 I	311	-90	0	105	RC	
CBRC108	416506	7347918	319	-90	0	93	RC	
CBRC109	416381	7348007	317	-90	0	93	RC	GCC
CBRC110	416245	7348108	312	-90	0	105	RC	
CBRCIII	416113	7348148	315	-90	0	111	RC	
CBRC112	414598	7349985	306	-59	47	95	RC	
CBRC113	414544	7349929	308	-59	44	153	RC	
CBRC114	414486	7349873	311	-58	43	165	RC	
CBRC115	414374	7349761	311	-57	47	165	RC	
CBRC116	414322	7349702	309	-57	45	160	RC	
CBRC117	414250	7349646	316	-59	40	165	RC	
CBRC118	414661	7349928	307	-58	46	165	RC	
CBRC119	414707	7349883	314	-59	48	129	RC	
CBRC120	414656	7349809	313	-59	44	165	RC	C3
CBRC121	414605	7349754	326	-59	49	165	RC	
CBRC122	414374	7349526	324	-59	44	165	RC	
CBRC123	414429	7349476	323	-58	43	165	RC	
CBRC124	414644	7349596	313	-60	43	165	RC	
CBRC125	414605	7349520	333	-59	46	165	RC	
CBRC126	414438	7349825	317	-59	47	165	RC	
CBRC127	414542	7349472	321	-58	42	153	RC	
CBRC128	414482	7349416	319	-57	42	165	RC	
CBRC129	419046	7343403	319	-61	40	81	RC	
CBRC130	418905	7343266	322	-60	44	93	RC	
CBRC131	419018	7343376	320	-60	47	105	RC	
CBRC132	418877	7343238	322	-60	42	111	RC	
CBRC133	418985	7343348	322	-66	40	129	RC	C7
CBRC134	418843	7343207	322	-60	40	111	RC	C7
CBRC135	418957	7343319	324	-60	42	129	RC	
CBRC136	418816	7343178	324	-60	37	111	RC	
CBRC137	418927	7343290	322	-60	40	123	RC	
CBRC137	418927	7343290	315	-60	41	123	RC	
CBRC138	416916	7347689	324	-90	0	117	RC	
CBRC139	417200	7347518	300	-90	0	81	RC	
CBRC140	417446	7347321	313	-90	0	81	RC	
CBRC141	417710	7347127	318	-90	0	105	RC	
CBRC142	417706	7347145	339	-90	0	141	RC	
CBRC143	418224	7346747	280	-90	0	135	RC	
CBRC144	418421	7346507	327	-90	0	111	RC	
CBRC145	415967	7347969	308	-90	0	93	RC	
CBRC146	416195	7347616	309	-90	0	93	RC	
CBRC147	416280	7347802	299	-90	0	93	RC	
CBRC148	416543	7347644	300	-90	0	129	RC	GCC
CBRC149	416466	7347505	310	-90	0	93	RC	
CBRC150	416388	7347365	310	-90	0	171	RC	
CBRC151	416947	7347057	312	-90	0	93	RC	
CBRC152	417302	7347036	311	-90	0	93	RC	
CBRC153	416669	7347210	312	-90	0	141	RC	
CBRC154	416744	7347349	310	-90	0	105	RC	
CBRC155	416823	7347488	308	-90	0	111	RC	
CBRC156	417026	7347195	311	-90	0	99	RC	
CBRC157	417103	7347334	309	-90	0	87	RC	
CBRC158	417223	7346895	312	-90	0	111	RC	

Table 8 (continued): Drill Collar Data (GDA94 MGAz50)

Hole ID	Easting	Northing	RL	Dip	Azimuth	EOH	Туре	
CBRC161	417581	7346881	311	-90	0	93	RC	
CBRC162	417664	7347022	310	-90	0	93	RC	
CBRC163	417707	7346447	313	-90	0	Ш	RC	
CBRC164	417788	7346585	312	-90	0	99	RC	
CBRC165	417864	7346721	312	-90	0	93	RC	
CBRC166	417935	7346857	312	-90	0	93	RC	
CBRC167	418141	7346567	312	-90	0	93	RC	GCC
CBRC168	418056	7347103	312	-90	0	93	RC	
CBRC169	418321	7346895	312	-90	0	93	RC	
CBRC170	418388	7347068	306	-90	0	99	RC	
CBRC171	418564	7346953	307	-90	0	93	RC	
CBRC172	419086	7345847	315	-90	0	99	RC	
CBRC173	418330	7346627	313	-90	0	27	RC	
CBDD001	414847	7348981	307	-60	43	249.6	DDH	
CBDD002	414367	7349638	302	-60	45	279.6	DDH	
CBDD003	414548	7349699	302	-59	38	92.1	DDH	
CBDD005	414430	7349585	303	-59	43	90.6	DDH	C3
CBDD006	414604	7349667	301	-59	314	201.6	DDH	C3
CBDD008	414318	7349699	302	-59	42	99.6	DDH	
CBDD009	414597	7349526	303	-60	40	135.6	DDH	
CBDD010	414373	7349749	303	-59	45	108.6	DDH	

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## JORC Code, 2012 Edition – Table I Report Template Section I Sampling Techniques and Data

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

	(Criteria in this section apply to al	,
Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. cut channels, random	Reverse Circulation (RC) drilling was undertaken to produce
	chips, or specific specialised industry standard	samples for assaying.
	measurement tools appropriate to the minerals under	Laboratory Analysis
	<ul> <li>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</li> </ul>	Two sampling techniques were utilised for this program, Im 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.
	measurement tools or systems used.	Im Splits
	Aspects of the determination of mineralisation that are Material to the Public Report.	From every metre drilled a 2-3kg sample (split) was subsampled into a calico bag via a Metzke cone splitter from each metre of drilling.
	In cases where 'industry standard' work has been done this  would be relatively simple (a.g. 'source signification drilling	3m Composites
	would be relatively simple (e.g. 'reverse circulation drilling was used to obtain I 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.	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.
	Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	A pXRF is used on site to determine mineralised samples. Mineralised intervals have the Im split collected, while unmineralised samples have 3m composites collected.
		All samples are submitted to either ALS Laboratories in Perth for determination of Rare Earth Oxides by Lithium Borate Fusion XRF (ALS Method ME-XRF30) or Intertek Minerals in Perth for determination of Rare Earth Oxides by Lithium Borare Fusion XRF (Intertek Method FB6/OM45).
		All Im samples are also submitted for 48 multi-elements via 4 acid digestion with MS/ICP finish (ALS Code ME-MS61 or Intertek Code 4A/MS48) to assist with lithological interpretation.
		QAQC samples consisting of duplicates, blanks and CRM's (OREAS Standards) will be inserted through the program at a rate of 1:50 samples. Duplicate samples are submitted as quarter core.
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer,	RC Drilling
	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.).	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 53/4".
Drill sample recovery	Method of recording and assessing core and chip sample	RC Drilling
Dim sumple recovery	<ul> <li>recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> </ul>	Drilling was undertaken using a 'best practice' approach to achieve maximum sample recovery and quality through the mineralised zones.
	<ul> <li>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.</li> </ul>	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	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> </ul>	RC Drilling  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.
	The total length and percentage of the relevant intersections logged.	Lithology, mineralisation, alteration, veining, weathering and structure were all recorded digitally.
		Chips were washed each metre and stored in chip trays for

Criteria	JORC Code explanation	Commentary
Criteria	JONE Code explanation	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	If core, whether cut or sawn and whether quarter, half or	RC Drilling
techniques and sample preparation	all core taken.  • If non-core, whether riffled, tube sampled, rotary split, etc.	From every metre drilled, a 2-3kg sample (split) was subsampled into a calico bag via a Metzke cone splitter.
	<ul> <li>and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling</li> </ul>	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 and a blank inserted directly after.
	<ul> <li>stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	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 MEXRF30) 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	The nature, quality and appropriateness of the assaying	Laboratory Analysis
and laboratory tests	<ul> <li>and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the</li> </ul>	Lithium borate fusion is considered a total digest and Method ME-XRF30 and FB6/OM45 are appropriate for REE, P2O5, TiO2 determination. ME-MS61 and 4A/MS48 are considered a near total digest and is appropriate for Sc determination.
	<ul> <li>analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <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>	Standard laboratory QAQC is undertaken and monitored by the laboratory and by the company upon assay result receival.
Verification of sampling	The verification of significant intersections by either	Logging and Sampling
and assaying	<ul> <li>independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures,</li> </ul>	Logging and sampling were recorded directly into a digital logging system, verified and eventually stored in an offsite database.
	data verification, data storage (physical and electronic) protocols.	Significant intersections are inspected by senior company personnel.
	Discuss any adjustment to assay data.	10 pairs of twinned RC and DD holes have been drilled at this time and compared to validate the RC drilling.
		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	Collar position was recorded using a Emlid Reach RS2 RTK GPS system (+/- 0.2m x/y, +/-0.5m z).
	and other locations used in Mineral Resource estimation.	GDA94 Z50s is the grid format for all xyz data reported.
	<ul> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	Azimuth and dip of the drill hole was recorded after the completion of the hole using a Reflex Sprint IQ Gyro. A reading was undertaken every 30 <sup>th</sup> metre with an accuracy of +/- 1° azimuth and +/-0.3° dip.
Data spacing and distribution	<ul> <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> </ul>	See table I to 6 for hole positions and sampling information.  Infill 80m x 80m drilling is suitable spacing for estimating inferred Mineral Resources.
	Whether sample compositing has been applied.	
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.	Drilling was undertaken at a near perpendicular angle to the interpreted strike and dip of the ironstone outcrops and modelled magnetic data.
	<ul> <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>	No sample bias is known at this time.

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Criteria	JORC Code explanation	Commentary
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 and Jarrahbar Contracting out of Carnarvon.
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 a	Il succeeding sections.)
Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <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>	The Mangaroon Project consists of 19 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) and 5 granted Mining Licenses (M09/91, 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 Beau Resources.  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.  M09/175 is subject to a 1% Gross Revenue Royalty held by STEHN, Anthony Paterson and BROWN, Michael John Barry.  M09/91 is subject to a 1% Gross Revenue Royalty held by STEHN, Anthony Paterson and BROWN, Michael John Barry.  M09/91 is subject to a 1% Gross Revenue Royalty held by STEHN, Anthony Paterson and BROWN, Michael John Barry.  M09/91 is subject to a 1% Gross Revenue Royalty held by STEHN, Anthony Paterson and BROWN, Michael John Barry.  M09/91 is subject to a 1% Gross Royalty held by DOREY, Robert Lionel.  The Mangaroon Project covers 4 Native Title Determinations including the Budina (WAD131/2004), Thudgari (WAD6212/1998), 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, Edmund, Williambury 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

Criteria	JORC Code explanation	Commentary
		of the Gascoyne Province.
		The Mangaroon Project is prospective for orogenic gold, magmatic Ni-Cu-PGE mineralisation and carbonatite hosted REEs.
Drill hole information	<ul> <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> <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>	An overview of the drilling program is given within the text and tables within this document.
Data aggregation methods	<ul> <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 procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	All results greater than 0.3% TREO, 0.3% Nb2O5, 5% P2O5, 5% TiO2 and 200ppm Sc have been reported.  Significant intercepts are length weight averaged for all samples with TREO values >0.3% TREO with up to 3m of internal dilution (<0.3% TREO).  No metal equivalents are reported.
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	Drilling is undertaken close to perpendicular to the dip and strike of the mineralisation.
Diagrams	<ul> <li>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.</li> </ul>	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	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	Additional RC drilling Diamond Drilling Metallurgical test work Additional Resource Modelling