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ABN 40 119 031 864

#### **ASX ANNOUNCEMENT** 4 June 2024

# Cu-Au Drilling to Commence at Tarraji-Yampi (80%, 100%)

#### **HIGHLIGHTS**

- A detailed technical review has confirmed a Cu-Au volcanogenic massive sulphide ("VMS") system at Tarraji-Yampi with 6 targets prioritised for immediate drill testing. In addition, reviews are ongoing on 9 advanced and 2 early-stage targets (Table 1).
- Due to favourable weather conditions, the exploration plan has been modified and drilling at Tarraji-Yampi is to commence in early June 2024.
- Phase I drilling will commence at the Orion deposit and will test a significant geophysical anomaly at depth. In addition, 5 other priority targets will be tested over a 3 to 4 week period.
- Drilling is supported by a drill for equity commitment with Topdrill Pty Ltd ("Topdrill") for 50% of drilling costs up to \$1m.

Dreadnought Resources Limited ("Dreadnought") is pleased to announce the results of a detailed Cu-Au review and the commencement of drilling at Tarraji-Yampi, located in the Kimberley Region of Western Australia.

Dreadnought's Managing Director, Dean Tuck, commented: "Phase I of the 2024 drilling program at Tarraji-Yampi will test 6 high-quality Cu-Au VMS targets. This results from a detailed review of past results leading to significant advancements in the understanding of the mineral systems active at Tarraji-Yampi including at and around the Orion deposit. Mobilisation for this this exciting program has commenced with drilling to start in early June 2024 and will be completed in mid-July 2024.



Figure 1: Photo of the Topdrill diamond rig drilling at Tarraji-Yampi in 2023.

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#### SNAPSHOT - Tarraji-Yampi Cu-Au-Ag-Co

#### **Unexplored since the 1970s**

- Outcropping mineralisation was discovered in 1905 and mined for copper at Grant's Find, Wilson's Reward, Monarch, Ironclad and Tarraji from 1907-1920.
- Only historical exploration within the area was by WMC Resources ("WMC") in the 1950s and Australian Consolidated Minerals ("ACM") in the 1970s with both parties exploring for copper.
- Contained entirely within the Yampi Sound Training Area ("YSTA"), Commonwealth land that was off limits to mineral exploration from 1978 to 2013.

#### **Genuine Camp Scale Potential**

- Five clusters of historical mining on outcropping mineralisation.
- Orion discovery (~350m wide x ~150m long x 250m deep and modelled to at least 500m deep), under just Im of cover, made in 2021. Results include KMRC022: 16m @ 2.2% Cu, 38.7g/t Ag, 6.6g/t Au, 0.40% Co from 77m. (ASX 15 Nov 2021)
- Lithostructural and geochemical similarities to pelitic-mafic or "Besshi-style" VMS systems such as Monty /DeGrussa in Western Australia, Windy Craggy in Canada or the Matchless deposits in Namibia.

# Significant, Step-Change, Growth Potential

- Dreadnought is the first to deploy modern geochemical and geophysical techniques to explore for mineralisation under shallow cover in the region.
- 6 priority Orion look-alikes defined through geochemical and geophysical surveys with highly conductive anomalism.

#### High-Grade, Multi-Metal Potential Including Cu-Ag-Au-Co

Previous drilling at Orion includes thick high-grade intersections (ASX 15 Nov 2021):

KMRC017: 12m @ 1.6% Cu, 31.7g/t Ag, 0.5g/t Au, 0.02% Co from 45m

KMRC022: 16m @ 2.2% Cu, 38.7g/t Ag, 6.6g/t Au, 0.40% Co from 77m, including:

2m @ <0.1% Cu, 4.8 g/t Ag, 27.6g/t Au, 1.50% Co from 77m, and:

**4.7% Cu, 83.3g/t Ag, 4.9g/t Au, 0.20% Co** from 82m

KMRC039: 20m @ I.4% Cu, I3.4g/t Ag, 0.5g/t Au, 0.03% Co from 3m, including:

3m @ 7.6% Cu, 116g/t Ag, 2.2 g/t Au, 0.14% Co from 18m

KMRC047: 12m @ 3.0% Cu, 21.4g/t Ag, 1.7g/t Au, 0.02% Co from Im, including:

5m @ 5.9% Cu, 44.9 g/t Ag, 3.7g/t Au, 0.01% Co from Im

# Global Energy Decarbonisation Driving Copper Fundamentals

- Copper is essential for electricity-related technologies with renewable energy systems requiring up to 12x more copper compared to traditional energy systems.
- S&P Global forecasts that global demand for copper could double from 25mt to 50mt by 2035. Under this scenario, by 2030, supply from both existing and projected copper mines will meet just 80% of demand (S&P Global: The Future of Copper, July 2022).

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## Technical Review of Tarraji-Yampi Cu-Au VMS System

A detailed review of Tarraji-Yampi has been completed by a team including: Paul Hilliard (ex-principal geologist at Sandfire Resources); consulting geologist Gerard Tripp; Rowena Duckworth (Mintex Petrological Solutions); Richard Lilly (Adelaide University); and Roger Taylor (RG Taylor Geological Services), Sam Hill and John Mavrogenes (Australia National University). Based on the EIS co-funded diamond core drilled in 2023, a Proterozoic pelitic-mafic Cu-Au VMS system has been confirmed at Tarraji-Yampi. Analogues are the DeGrussa and Monty VMS deposits in the Bryah Basin.

Cu-Au massive sulphides are hosted within a talc and chlorite altered peperite unit at the lower contact of mafic flows and sills that were intruded into wet, unconsolidated sediments of the Marboo Formation during rifting. This prospective setting is present at a number of targets at Tarraji-Yampi.

In VMS systems, mineralisation often occurs in clusters and along different horizons, as seen at DeGrussa where the mine was developed over 4 massive sulphide lenses within 1.5km of strike. Targeting of these deposits is driven by the lithostructural setting where feeder structures propagate through the prospective sediment-mafic rift horizons. Within the lithostructural settings, geochemistry (Cu-Au + Ag-As-Bi-Cd-In-Pb-Se-Te-Zn) and electromagnetics provide guidance on drill targeting.

The results of this review have highlighted:

- 6 priority targets for immediate drilling;
- 9 advanced targets requiring further work and review; and
- 2 new prospective VMS camps requiring generative work.

Due to favourable weather conditions, the exploration plan has been modified and drilling at Tarraji-Yampi is to commence early June 2024.

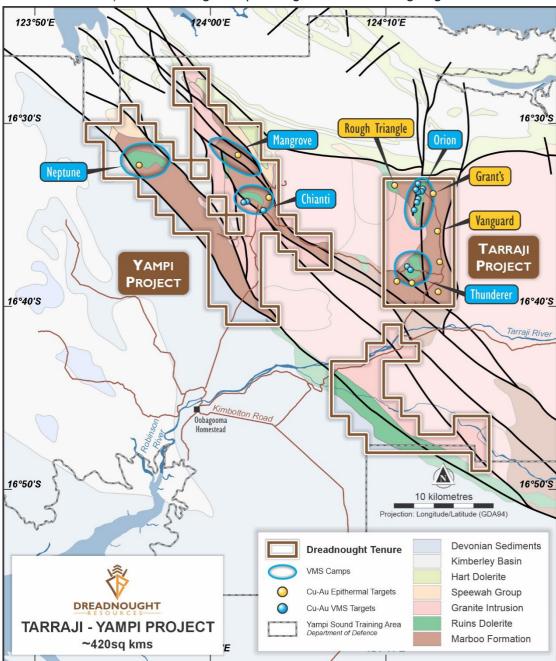


Figure 2: Plan view image showing the location of prospective VMS settings (blue circles) and defined targets (blue dots) at Tarraji-Yampi.

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#### Overview of Phase I Drill Targets

In the Phase I drill program (6 holes, I,640m), 5 of the 6 targets are located along the same feeder structure as the Orion deposit and are defined by highly conductive, magnetic anomalies associated with elevated pathfinder geochemistry. The first of these targets is the depth extension of Orion. The thickest and highest-grade intercepts at Orion to date are defined by an intense magnetic anomaly and included:

KMRC017: 12m @ 1.6% Cu, 31.7g/t Ag, 0.5g/t Au, 0.02% Co from 45m

KMRC022: 16m @ 2.2% Cu, 38.7g/t Ag, 6.6g/t Au, 0.40% Co from 77m, including:

2m @ <0.1% Cu, 4.8 g/t Ag, 27.6g/t Au, 1.50% Co from 77m, and:

7m @ 4.7% Cu, 83.3g/t Ag, 4.9g/t Au, 0.20% Co from 82m

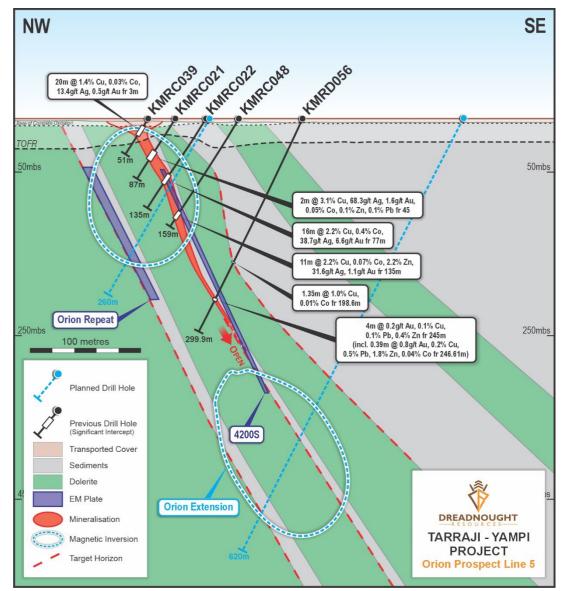
KMRC039: 20m @ 1.4% Cu, 13.4g/t Ag, 0.5g/t Au, 0.03% Co from 3m, including:

3m @ 7.6% Cu, 116g/t Ag, 2.2 g/t Au, 0.14% Co from 18m

KMRC047: 12m @ 3.0% Cu, 21.4g/t Ag, 1.7g/t Au, 0.02% Co from Im, including:

5m @ 5.9% Cu, 44.9 g/t Ag, 3.7g/t Au, 0.01% Co from Im

The 6 Phase I drill program targets are discussed and summarised below:



Orion Extension represents a larger and stronger magnetic anomaly at depth. A 620m deep hole will test the center of this magnetic anomaly and a hanging wall lode that was intersected in KMRD056 (1.35m @ 1.0% Cu) (Figure 3).

<u>Orion Repeat</u> is defined by a 3,500S FLEM conductor and coincident Ag-As-Bi-Mo-Pb-Sb-Se-Zn auger anomaly that sits beneath previous drilling at Orion (Figure 3).

Orion Splay is defined by multiple DHEM conductors up to 28,000S that have an orientation sub-parallel to the interpreted feeder structure that might also be offsetting the main Orion mineralisation. Adjacent drill holes are elevated in Ag-As-Au-Bi-Co-Cu-Mo-Pb-Sb-Se-Te-W-Zn.

<u>Orion Offset</u> is a 3,800S FLEM conductor with coincident Ag-As-Bi-Cd-Mo-Pb-Sb-Se-Zn pathfinder anomalism.

Figure 3: Cross Section view of the Orion extension and Orion Repeat targets with planned holes (dashed blue lines) in relation to the Orion mineralisation (red), prospective peperite contacts (dashed red line) and modeled conductive plates and magnetic anomalies.

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**OR2** is a 7,200S off hole conductor located beneath the strongest Cu auger geochemical anomaly (stronger than Orion) with Ag-As-Bi-Cd-In-Pb-Sb-Se-Zn pathfinders. KMRC062 which is the hole from where the DHEM conductor originated, contained elevated Ag-Bi-Mo-Sb-Se at the prospective peperite contact.

**OR1** is the only target drilled off the primary Orion feeder structure and contains a strong "edge hit" 16,700S DHEM conductor defined from KMRC060 (2m @ 0.4%Pb and 16.6g/t Ag from 106m) along a prospective peperite contact coincident with the DHEM conductor.

#### **Drill for Equity Agreement with Topdrill**

Dreadnought has entered into a drill for equity agreement with Topdrill Pty Ltd (Topdrill). The agreement allows Dreadnought, at Dreadnought's election, to satisfy up to 50% of drilling costs invoiced by Topdrill by the issue of ordinary Dreadnought shares from

its LR7.1 capacity, up to a maximum value of \$1M.

Dreadnought intends to split drilling across its Tarraji-Yampi and Mangaroon Projects.

The issue price will be referenced to the volume weighted average price ("VWAP") for the 5 days prior to the date of invoice, with the exception of the first invoice using the 28-day VWAP prior to the announcement of drilling commencing on the ASX. The issue of shares will be subject to a voluntary 6-month escrow period.

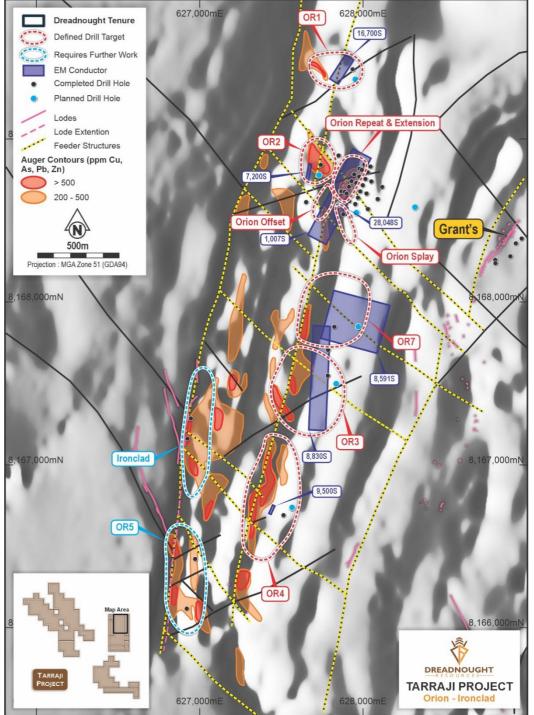


Figure 4: Plan view image showing the location of drilled (black dots) and planned holes (blue dots) at Orion in relation to prospects, geochemical contours, and FLEM/DHEM plates.

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## **Target Summary**

Phase I of the 2024 drilling program at Tarraji-Yampi will commence in June 2024 with testing and DHEM surveys of 6 priority targets. Phase 2 drilling is dependent on the results of phase I.

Targeting has been prioritised based on a ranking system summarised in Table I below.

Additional field activities are planned in relation to other advanced and early-stage targets to determine next steps.

A summary of currently defined Cu-Au VMS targets and their status is below. The summary does not include Cu-Au epithermal targets which will be ranked following the EIS co-funded IP survey due to commence in mid-June 2024.

Table I: Description of the current Cu-Au VMS target and camps (GDA94 MGA z51).

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Target	Planned Hole	Planned Depth (m)	Auger Geochemistry	Plate Dimension (m)	Conductance (S)	Magnetic Anomaly	Down hole Geochemistry	Target Status
Orion Extension	Yes	620	-	-	-	Yes	-	Phase I Drilling
Orion Repeat	Yes	260	Ag-As-Bi-Mo- Pb-Sb-Se-Zn	200 x 190	3,500	Yes	-	Phase I Drilling
Orion Splay	Yes	245	Ag-As-Bi-Mo- Pb-Sb-Se-Zn	90 x 45 90 x 110 600 x 390	28,000 14,300 2,500	No	Ag-As-Au-Bi- Co-Cu-Mo-Pb- Sb-Se-Te-W- Zn	Phase I Drilling
Orion Offset	Yes	155	Ag-As-Bi-Cd- Mo-Pb-Sb-Se-Zn	200 x 190	3,800	Yes	Ag-As-Au-Bi- Co-Cu-Mo-Pb- Sb-Se-Te-W- Zn	Phase I Drilling
OR2	Yes	160	Ag-As-Bi-Cd- Cu-In-Pb-Sb-Se- Zn	105 x 45	7,200	Yes	Ag-Bi-Mo- Sb-Se	Phase I Drilling
ORI	Yes	200	As-Bi-Pb-Sb- Se-Te	70 x 200	16,700	No	Ag-Bi-Cd-Cu- Mo-Pb-Sb-Se- Te-Zn	Phase I Drilling
Ironclad	TBD	ı	Ag-As-Au-Bi-Cu Se-Te-Zn	Not S	Surveyed	No	Ag-Bi-Cd-Cu-Mo Pb-Sb-Se-Te-Zn	Requires EM/IP
OR3	TBD	255	Ag-As-Bi-Cd-Mo- Pb-Sb-Se-Te-Zn	735 x 130 640 x 285	6,100 8,800	Yes	Ag-Bi-Cd-Cu-Mo Pb-Sb-Se-Te-W- Zn	Under review
OR4	TBD	250	Ag-As-Bi-Cd-In- Mo-Pb-Se-Sn-Te- Zn	65 × 80 55 × 60 55 × 60	5,100 9,500 9,500	Yes	Ag-Bi-Cd-Cu-Mo Pb-Sb-Se-Te-Zn	Under review
OR5	TBD	-	As-Au-Bi-Cu-Se Te-Zn		urveyed	Yes	Ag-Bi-Cd-Cu-Mo Pb-Sb-Se-Te-Zn	Requires magnetic modelling
OR7	TBD	210	Ag-As-Bi-Cd-Mo- Pb-Se	310 x 230 305 x 465 430 x 270	3,200 8,600 5,200	Yes	Ag-As-Au-Ba- Cd-Cu-In-Mo- Sb-Zn	Under review
THI	TBD	215	As-Bi-Mo-Se-Te	200 x 530	2,000	No	-	Under review
TH2	TBD	290	Ag-As-Bi-Cd-Mo- Pb-Sb-Se-Te-Zn	160 × 260	4,800		Ag-Bi-Cd-Cu- Mo-Pb-Sb-Se-Te- Zn	Under review
Rufina	TBD	230	-	250 × 210	2,400	No	Ag-As-Bi-Cd-Cu- In-Mo-Pb-Sb-Se- Te-Zn	Under review
Lambrusco	TBD	330	-	220 x 430	1,400 (EOH)	No	-	Under review
Neptune Camp	TBD	-	-	Not S	urveyed	-	-	Early stage
Mangrove Camp	TBD	-	-	Not S	urveyed	-	-	Early stage

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**Background on Tarraji-Yampi** (E04/2508, E04/2507, E04/2608, E04/2860, E04/2861, E04/2862, E04/2863: 100%, E04/2315: 80%) Tarraji-Yampi is located entirely within the Yampi Sound Training Area ("YSTA"), a Commonwealth Defence Reserve in the West Kimberley, ~80kms from the port of Derby. The YSTA is the second largest Defence Reserve in Australia after Woomera in South Australia and was off limits to mineral exploration from 1978 to 2013.

The only significant exploration undertaken in the area was by WMC Resources in 1958 and Australian Consolidated Minerals in 1972, with both parties exploring for copper. Since opening for exploration in 2013, Dreadnought has secured the largest ground holding within the YSTA and developed strong working relationships with both the Department of Defence and the Dambimangari People.

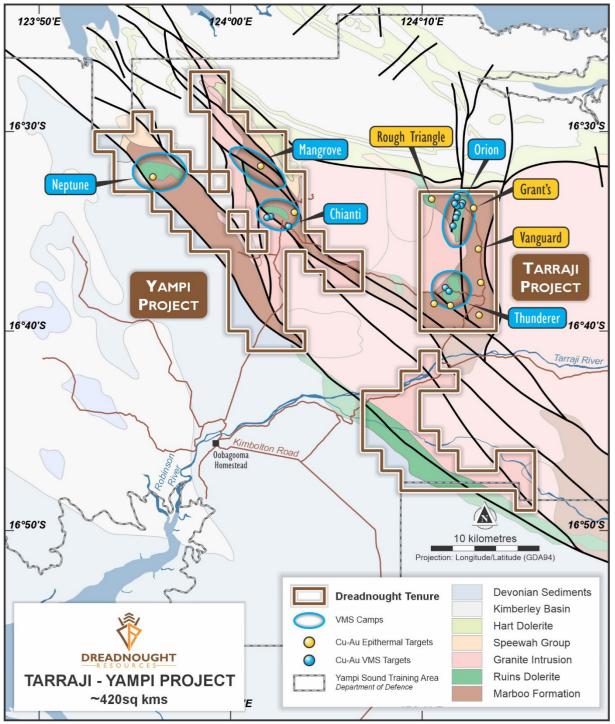


Figure 5: Plan view image showing the location of Cu-Au and VMS prospects over geological interpretation at Tarraji-Yampi.

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For further information please refer to previous ASX announcements:

<ul> <li>I I October 2021 Massive Sulphides Intersected in Multiple Holes at Orion Cu-Au-Ag-Co</li> <li>2 November 2021 Supergene Confirmed and Massive Sulphides Extended at Orion</li> <li>15 November 2021 High-Grade Cu-Ag-Au-Co Discovery at Orion</li> <li>8 December 2021 Further High-Grade Cu-Ag-Au-Co from Orion Discovery</li> <li>22 June 2022 Orion Auger Program – Tarraji-Yampi Project</li> <li>15 August 2022 Nine Orion Look-alikes from Auger Program, More to Come</li> <li>3 October 2022 Commencement of Regional Auger Program</li> <li>18 May 2023 Additional Orion Look-Alikes from Auger Program</li> <li>24 October 2023 Drilling and Geophysical Surveys Completed at Tarraji-Yampi</li> <li>27 March 2024 Drilling and Geophysical Results from Tarraji-Yampi</li> </ul>	•	25 August 2021	RC Results from Orion, Grant's & Fuso Indicate a large Cu-Au-Ag-Co System
<ul> <li>15 November 2021 High-Grade Cu-Ag-Au-Co Discovery at Orion</li> <li>8 December 2021 Further High-Grade Cu-Ag-Au-Co from Orion Discovery</li> <li>22 June 2022 Orion Auger Program – Tarraji-Yampi Project</li> <li>15 August 2022 Nine Orion Look-alikes from Auger Program, More to Come</li> <li>3 October 2022 Commencement of Regional Auger Program</li> <li>18 May 2023 Additional Orion Look-Alikes from Auger Program</li> <li>24 October 2023 Drilling and Geophysical Surveys Completed at Tarraji-Yampi</li> </ul>	•	11 October 2021	Massive Sulphides Intersected in Multiple Holes at Orion Cu-Au-Ag-Co
<ul> <li>8 December 2021 Further High-Grade Cu-Ag-Au-Co from Orion Discovery</li> <li>22 June 2022 Orion Auger Program – Tarraji-Yampi Project</li> <li>15 August 2022 Nine Orion Look-alikes from Auger Program, More to Come</li> <li>3 October 2022 Commencement of Regional Auger Program</li> <li>18 May 2023 Additional Orion Look-Alikes from Auger Program</li> <li>24 October 2023 Drilling and Geophysical Surveys Completed at Tarraji-Yampi</li> </ul>	•	2 November 2021	Supergene Confirmed and Massive Sulphides Extended at Orion
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<ul> <li>3 October 2022 Commencement of Regional Auger Program</li> <li>18 May 2023 Additional Orion Look-Alikes from Auger Program</li> <li>24 October 2023 Drilling and Geophysical Surveys Completed at Tarraji-Yampi</li> </ul>	•	22 June 2022	Orion Auger Program — Tarraji-Yampi Project
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<ul> <li>24 October 2023 Drilling and Geophysical Surveys Completed at Tarraji-Yampi</li> </ul>	•	3 October 2022	Commencement of Regional Auger Program
	•	18 May 2023	Additional Orion Look-Alikes from Auger Program
• 27 March 2024 Drilling and Geophysical Results from Tarraji-Yampi	•	24 October 2023	Drilling and Geophysical Surveys Completed at Tarraji-Yampi
	•	27 March 2024	Drilling and Geophysical Results from Tarraji-Yampi

#### **UPCOMING NEWSFLOW**

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

June: Commencement of drilling at Tarraji-Yampi Cu-Au (80/100%)

June: Results from target generation and definition work at Central Yilgarn Au (100%)

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

June: Commencement of EIS co-funded IP surveys at Tarraji-Yampi (80/100%)

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

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

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

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

August/September: Results from Au and Cu-Zn-Ag-Au drilling at Mangaroon (100%)

August/September: Return to Tarraji-Yampi pending results (80/100%)

~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.

Visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses where concentrations or grades are the factor of principal economic interest. Visual estimates also potentially provide no information regarding impurities or deleterious physical properties relevant to valuations.

#### **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 AlG, 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.



Figure 6: Photo of Dreadnought's Exploration Manager Nick Chapman reviewing diamond core from Orion.

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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 VMS system at Tarraji-Yampi, similar to DeGrussa and Monty in the Bryah Basin.

# Mangaroon Ni-Cu-Co-3PGE, Au & REE Project (100%)

Mangaroon covers ~5,000kms² and is located 250kms south-east of Exmouth in the Gascoyne Region of WA. At the Money Intrusion, Ni-Cu-Co-3PGE has been identified. Dreadnought also has areas of outcropping high-grade gold including the historic Star of Mangaroon and Diamond gold mines. In addition, Mangaroon has emerged as a globally significant, rapidly growing, potential source of critical minerals. Highlights include:

- An Exploration Target estimated for the top 150m of ~40km of the Yin REE Ironstone Complex (ASX 13 Feb 2023).
- An independent Resource for Yin Ironstones Complex of 29.98Mt @ I.04% TREO over only
  - ~4.6kms including a Measured and Indicated Resource of 26.3Mt @ 1.04% TREO (ASX 30 Nov 2023).
- Regional source of rare earths at the Gifford Creek Carbonatite totaling ~17kms x ~1km (ASX 7 Aug 2023).
- A large, independent initial Resource of 10.84Mt @ 1.00% TREO at the Gifford Creek Carbonatites, containing a range of critical minerals including rare earths, niobium, phosphate, titanium and scandium (ASX 28 Aug 2023).

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

Bresnahan is located ~125km southwest of Newman in the Ashburton Basin. The project comprises ~3,700kms² covering over 200kms strike along the Bresnahan Basin / Wyloo Group unconformity. Bresnahan is prospective for unconformity related heavy rare earth ("HREE") deposits similar to Browns Range HREE deposits, unconformity uranium ("U") deposits and mesothermal lode gold similar to Paulsens Au-Ag-Sb deposits along strike.

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

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

Central Yilgarn is located ~190km northwest of Kalgoorlie in the Yilgarn Craton. The project comprises ~1,400kms² covering ~150km of strike along the majority of the Illaara, Yerilgee, South Elvire and Evanston greenstone belts. Central Yilgarn is prospective for typical Archean mesothermal lode gold deposits, VMS base metals, komatiite-hosted nickel sulphides and critical metals including Lithium-Cesium-Tantalum.

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



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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.) JORC Code explanation Criteria **Commentary** Sampling techniques Reverse Circulation (RC) and Diamond (DD) drilling was Nature and quality of sampling (e.g. cut channels, random undertaken to produce samples for assaying. chips, or specific specialised industry standard measurement tools appropriate to the minerals under Laboratory Analysis investigation, such as down hole gamma sondes, or Two sampling techniques were utilised for this program, Im handheld XRF instruments, etc.). These examples should metre splits directly from the rig sampling system for each metre and 3m composite sampling from spoil piles. Samples not be taken as limiting the broad meaning of sampling. submitted to the laboratory were determined by the site Include reference to measures taken to ensure sample geologist. representivity and the appropriate calibration of any Im Splits measurement tools or systems used. From every metre drilled a 2-3kg sample (split) was sub-Aspects of the determination of mineralisation that are sampled into a calico bag via a Metzke cone splitter from Material to the Public Report. each metre of drilling. In cases where 'industry standard' work has been done this **3m Composites** would be relatively simple (e.g. 'reverse circulation drilling All remaining spoil from the sampling system was collected was used to obtain 1 m samples from which 3 kg was in buckets from the sampling system and neatly deposited in pulverised to produce a 30 g charge for fire assay'). In other rows adjacent to the rig. An aluminium scoop was used to cases more explanation may be required, such as where then sub-sample each spoil pile to create a 2-3kg 3m there is coarse gold that has inherent sampling problems. composite sample in a calico bag. Unusual commodities or mineralisation types (e.g. A pXRF is used on site to determine mineralised samples. submarine nodules) may warrant disclosure of detailed Mineralised intervals have the Im split collected, while information. unmineralised samples have 3m composites collected. 20cm - Im quarter core samples are sawn and submitted to the lab for analysis. If core is orientated, then the core is cut so as to preserve the orientation line with the same side of the core submitted down the hole. For the purposes of metallurgical testing, half core was submitted where possible to make the required bulk composite mass required for ongoing testwork. In some instances, this required full core to be used. Core is orientated for structural and geotechnical logging where possible. In orientated core, half core is submitted to the lab for analysis in intervals ranging from 20cm to 1m depending on the geological context. If core is orientated, then the half core is cut so as to preserve the orientation line with the same side of the core submitted down the hole. 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. All samples are submitted to ALS Laboratories in Perth for determination of 48 multi-elements via 4 acid digestion with MS/ICP finish (ALS Code ME-MS61) determination of Au, Pt and Pd by Fire Assay and ICP-AES finish (ALS Code PGM-ICP24). Drill type (e.g. core, reverse circulation, open-hole hammer, Drilling techniques **RC** Drilling rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. Ausdrill undertook the program utilising a Drill Rigs core diameter, triple or standard tube, depth of diamond Australia truck mounted Schramm T685WS drill rig with additional air from an auxiliary compressor and booster. Bit tails, face-sampling bit or other type, whether core is size was 53/4". oriented and if so, by what method, etc.). **Diamond Drilling** Diamond drilling was undertaken by Top Drill with a truckmounted low impact Sandvik DE880 diamond drill rig. Drilling is either HQ to end of hole or initially HQ and dropping to NQ once the hole is cased off for deeper drill Core is orientated using a Reflex Sprint gyro and True Core Orientation Tool. Drill sample recovery Method of recording and assessing core and chip sample **RC** Drilling recoveries and results assessed. Drilling was undertaken using a 'best practice' approach to

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Criteria	JORC Code explanation	Commentary
Criteria	Measures taken to maximise sample recovery and ensure	achieve maximum sample recovery and quality through the
	representative nature of the samples.	mineralised zones.
	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.	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.
		Diamond Drilling
		HQ and NQ drilling has been undertaken. All core recoveries are measured and recorded by the drill crew for each run and remeasured and checked by Dreadnought personnel.
		Core recovery to date has been very high.
		At this stage, no known bias occurs between sample recovery and grade.
Logging	Whether core and chip samples have been geologically	RC Drilling
	and geotechnically logged to a level of detail to support	RC chips were logged under supervision of a qualified senior
	<ul> <li>appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature.</li> <li>Core (or costean, channel, etc.) photography.</li> </ul>	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 texture were all recorded digitally.
		Chips were washed each metre and stored in chip trays for preservation and future reference.
		RC pulp material is also analysed on the rig by pXRF and magnetic susceptibility meter to assist with logging and the identification of mineralisation.
		Logging is qualitative, quantitative or semi-quantitative in nature.
		Diamond Drilling Diamond core is logged under supervision of a Senior Geologist with sufficient experience in this geological terrane and relevant styles of mineralisation using an industry standard logging system which could eventually be utilised within a Mineral Resource Estimation.
		Lithology, mineralisation, alteration, veining, weathering, texture and structure are recorded digitally.
		DD 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 sambled, rotary split, etc.	From every metre drilled, a 2-3kg sample (split) was sub-
p. opu. uuo	<ul> <li>If non-core, whether riffled, tube sampled, rotary split, etc.</li> <li>and whether sampled wet or dry.</li> </ul>	sampled into a calico bag via a Metzke cone splitter.  QAQC in the form of duplicates and CRM's (OREAS
	<ul> <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 stages to maximise representivity of samples.</li> </ul>	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>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 0.25g charge for determination of 48 multi-elements via 4 acid digestion with MS/ICP finish (ALS Code ME-MS61) and a A 50 gram aliquot was analysed for Au, Pt and Pd by Fire Assay and ICP-AES finish (ALS Code PGM-ICP24)
		Standard laboratory QAQC is undertaken and monitored.
		Diamond Drilling
		20cm – Im quarter core samples are sawn and submitted to the lab for analysis. If core is orientated, then the core is cut so as to preserve the orientation line with the same side of the core submitted down the hole.

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		For the purposes of metallurgical testing, half core was submitted where possible to make the required bulk composite mass required for ongoing testwork. In some instances, this required full core to be used.  QAQC in the form of duplicates, blanks and CRM's (OREAS Standards) are inserted through the mineralised zones at a rate of 1:50 samples. Additionally, within each mineralised zone, a duplicate sample is taken and a blank inserted directly after.  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 48 multi-elements via 4 acid digestion with MS/ICP finish (ALS Code ME-MS61) and the determination of Au, Pt and Pd by Fire Assay and ICP-AES finish (ALS Code PGM-ICP24).
		Standard laboratory QAQC is undertaken and monitored.
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying 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 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)</li> </ul>	Laboratory Analysis  Fire Assay is considered a total digest for Au, Pt and Pd and Four-acid digest is considered a "near-total" digest for most elements.  Standard laboratory QAQC is undertaken and monitored by the laboratory and by the company upon assay result receival.
Varification of sampling	and precision have been established.	Logging and Compline
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	Logging and Sampling Logging and sampling were recorded directly into a digital logging system, verified and eventually stored in an offsite database. Significant intersections are inspected by senior company personnel. No twinned holes have been drilled at this time. No adjustments to any assay data have been undertaken.
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	Collar position was recorded using a Emlid Reach RS2 RTK GPS system (+/- 0.2m x/y, +/-0.5m z).  GDA94 Z51s is the grid format for all xyz data reported.  Azimuth and dip of the drill hole was recorded after the completion of the hole using a Reflex Sprint IQ Gyro. A reading was undertaken every 30th metre with an accuracy
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> <li>Whether sample compositing has been applied.</li> </ul>	of +/- 1° azimuth and +/-0.3° dip.  See tables for hole positions and sampling information.
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	Drilling was undertaken at a near perpendicular angle to the interpreted strike and dip of the stratigraphy and modelled EM plates.  No sample bias is known at this time.
Sample security	The measures taken to ensure sample security.	All geochemical samples were collected, bagged, and sealed by Dreadnought staff and delivered to Derby Stock Supplies in Derby. Samples were delivered directly to ALS Laboratories Perth

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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	ll 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,</li> </ul>	The Tarraji-Yampi Project consists of 4 granted (E04/2315, E04/2508, E04/2557, E04/2608) and 4 pending (E04/2860, E04/2861, E04/2862, E04/2863) exploration licenses.
	native title interests, historical sites, wilderness or national park and environmental settings.  The security of the tenure held at the time of reporting	The Tarraji tenement (E04/2315) is a 80/20 JV between IronRinger (Tarraji) Pty Ltd and Whitewater Resources Pty Ltd.
	along with any known impediments to obtaining a licence to operate in the area.	The Yampi Tenements (E04/2508, E04/2557, E04/2608) and Tarraji Tenements (E04/2860, E04/2861, E04/2862, E04/2863) are 100% owned by Dreadnought Exploration Pty Ltd.
		Dreadnought Exploration Pty Ltd is a wholly owned subsidiary of Dreadnought Resources Ltd.
		E04/2315, E04/2508, E04/2557, E04/2860, E04/2861, E04/2862, E04/2863 are located within the Yampi Sound Training Area (YSTA) which is freehold land owned by the Commonwealth Government and administered by the Department of Defence. Being freehold Commonwealth Land, Native Title has been extinguished but falls within Dambimangari Land.
		E04/2608 is partly located within the YSTA and partly on Vacant Crown Land which has Native Title claim by the Warra Combined (NNTT Number 2901).
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	Regional mapping, basic stream sediment, soil sampling and limited diamond drilling was completed by WMC in the 1950s.
		Shallow percussion and diamond drilling was undertaken by ACM at Chianti in the 1970s.
		The YSTA was off limits to exploration from 1978 until 2013.
Geology	Deposit type, geological setting and style of mineralisation.	The Tarraji-Yampi Project is located within the Hooper Complex which is a Proterozoic Mobile Belt in the West Kimberley.
		The Hooper Complex has known occurrences of Cu-Zn-Pb-Ag VMS mineralisation within the Marboo Formation, orthomagmatic Ni-Cu-PGE mineralisation in the Ruins Dolerite and later stage Proterozoic Cu-Au mineralisation associated with significant structures and late-stage intrusions.
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:</li> </ul>	An overview of the drilling program is given within the text and tables within this document.
	<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> </ul>	
	<ul> <li>hole length.</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</li> </ul>	
	Competent Person should clearly explain why this is the case.	
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.	Significant intercepts are length weight averaged for all samples above the below cut offs (including up to 3m of internal waste) >0.2% Cu
	Material and should be stated.	- 0.2/0 Cu





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	<ul> <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>	>0.2g/t Au  No top cutting has been applied.  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.  The true thickness of the mineralisation intersected in drill holes cannot currently be calculated.
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 is 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>	IP Surveys Gravity surveys Geological mapping Diamond Drilling Downhole EM surveys