

19 July 2023

ASX Release

## FINAL EXPLORATION UPDATE ON RECONNAISSANCE PROGRAM OVER COPPERHEAD PROJECT

The helicopter-borne rock chip reconnaissance program has been completed over all Li-REE Targets

### HIGHLIGHTS

- Argent Minerals Ltd has finalised the helicopter-borne rock chip sampling program over the Copperhead Project.
- **Over 100 helicopter borne sites have been assessed across all nine (9) Copperhead Exploration Licence areas with 61 sites hosting extensive ironstone outcrops which have the potential to host rare earths (REE).**
- **Twelve (12) sites hosting outcropping pegmatites were also located within E08/3463 - these pegmatites have the potential to host lithium (Li). Total length outcropping pegmatites is more than 1.4km.**
- **The initial field reconnaissance targeting ironstones has been very successful with ironstones identified and sampled across the 110km length of the tenement package.**
- One hundred & twelve (112) rock chip have been collected and dispatched from Karratha for analysis to ALS Laboratory in Perth. The turnaround of analytical results is anticipated between 4 and 6 weeks from the ALS Labs. Samples for analysis include ironstones, pegmatites, quartz veins and metasediments.
- MAGSPEC Airborne Surveys Pty Ltd have commenced the detailed fixed wing magnetic/radiometric airborne survey over E08/3369 and E08/3001 with the results announced once the data has been processed and interpreted by Core Geophysics Pty Ltd.

Argent Minerals Limited (ASX: ARD) ("**Argent**" or "**the Company**") is pleased to announce the completion of a regional rock chip sampling program over the potential rare earth (REE) and lithium (Li) targets over the 100% owned Copperhead Project.

#### **Argent Managing Director Mr Kastellorizos commented:**

*"We are excited to have completed the helicopter reconnaissance program as this has given us a good understanding on the various ironstones located within the Copperhead Project areas. We have only targeted the most prominent extensive hyperspectral iron oxide targets, with more smaller areas remaining untested throughout the Copperhead group of tenements".*

*"The different ironstone composition varies from massive iron rich matrix to manganese composition. Numerous quartz veins, pegmatites and mineralised sediments were also sampled adding greatly to the prospectivity of the leases. This initial sampling programme will help prioritize future sampling with many more targets being identified".*

#### **Exploration**

The geophysical hyperspectral imagery proved very successful in identifying ironstone targets. The ironstones delineated had varied structural and lithostratigraphic positions. Host rocks were greatly varied and included mafic intrusives, siltstones, sandstones and conglomerates. Ironstones varied in size and shape from a few tens of metres to over 400m in length ridges. The pegmatites varied between 10m and up to greater than 20m in width over 1.4km in length.

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Photos from E08/3369



**Figure 1** - Site CH079 - 393650mE 7402491mN  
*Large patch of ironstone field with sub rounded iron clast*

**Figure 2** - Site CH100 - 388354mE 7400693mN  
*Slicken lines on ironstone, likely in fault zone*



**Figure 3** - Site CH101 - 390068mE 7400893mN  
*Ironstone with metasediment clasts*





**Figure 4 - Site CH102 - 389596mE 7398022mN Extensive Oxidised Ironstone Ridge**

**Photos from E08/3001**



**Figure 5 - Site CH85 - 390530mE 7412068mN**  
*Massive Ironstone*



**Figure 6 - Site CH87 - 390004mE 7412054mN**  
*Strongly sheared Ironstone with flattened clast*

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Photos from E09/2532



**Figure 7 - Site CH104 - 395194 7395365mE Extensive Massive Ironstone Ridge**



**Figure 8 - Site CH123 - 430015mE 7387308mN Extensive Quartz-Ironstone Ridge**

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**Photos from  
E09/2517**

**Figure 9 - Site CH125 - 435793mE  
7371719mN**  
*Massive Ironstone Hill with abundant  
ironstone scree on the western slope*



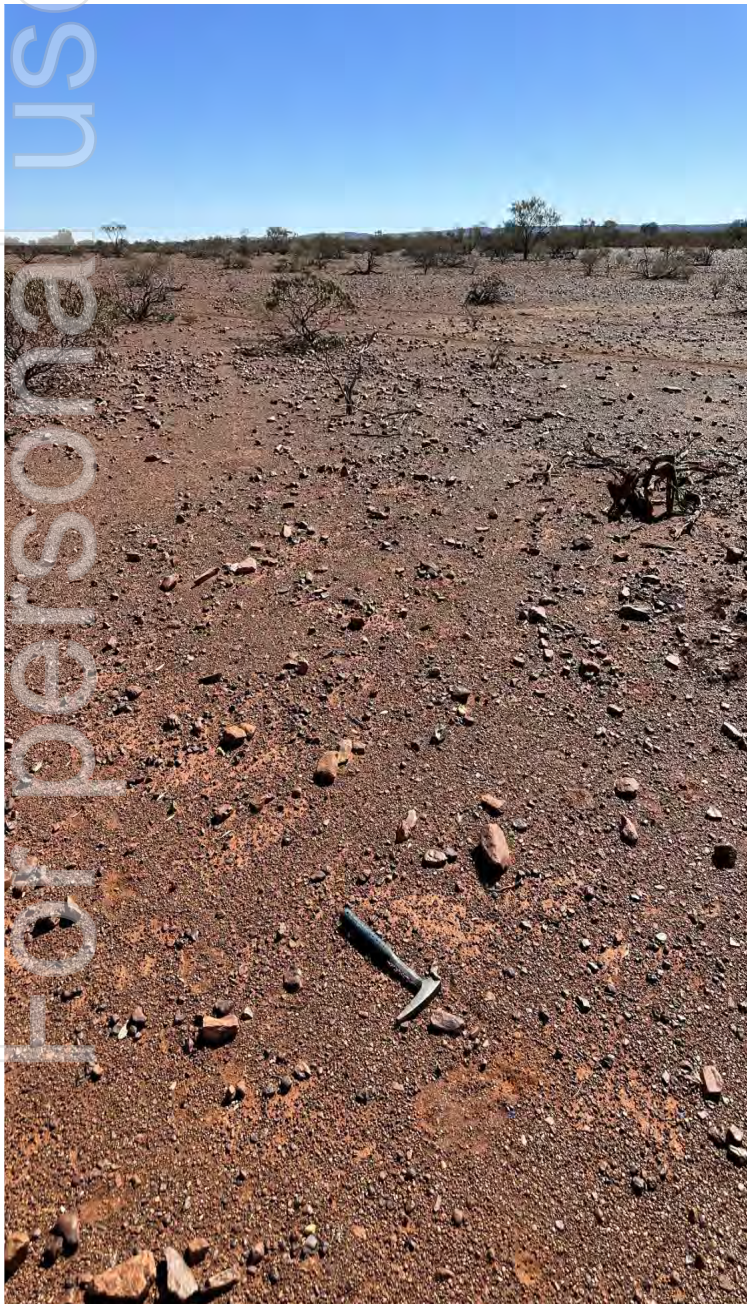
**Photos from  
E09/2625**

**Figure 10 - Site CH144 -  
431275mE 7368457mN**  
*Ironstone outcrop up to 3m in  
width – located flat plain area*



**Photos from E09/2622**

**Figure 11 - Site CH142 - 433066mE 7364107mN**  
*Ironstone gravels over vast flat plain – no outcrop*  
*Area lies east of the Hastings Technology Yangibana Rare Earth Mine*



**Figure 12 - Site CH133 - 435929mE 7356754mN**  
*Ironstone gravels over vast flat plain – no outcrop*  
*Area lies east of the Hastings Technology Yangibana Rare Earth Mine*

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**Figure 13 – MAGSPEC Airborne Survey Aircraft on site at Maroonah Station has commenced the airborne Magnetic/Radiometric Survey**

This ASX announcement has been authorised for release by the Board of Argent Minerals Limited.

**-ENDS-**

**For further information, please contact:**

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**Competent Persons Statement**

*The information in this report that relates to Exploration Targets and Exploration Results is based on information compiled by Pedro Kastellorizos. Mr. Kastellorizos is the Managing Director/CEO of Argent Minerals Limited and is a Member of the AusIMM of whom have sufficient experience relevant to the styles of mineralisation under consideration and to the activity being reported 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. Kastellorizos have verified the data disclosed in this release and consent to the inclusion in this release of the matters based on the information in the form and context in which it appears.*

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**Forward Statement**

This news release contains “forward-looking information” within the meaning of applicable securities laws. Generally, any statements that are not historical facts may contain forward-looking information, and forward looking information can be identified by the use of forward-looking terminology such as “plans”, “expects” or “does not expect”, “is expected”, “budget” “scheduled”, “estimates”, “forecasts”, “intends”, “anticipates” or “does not anticipate”, or “believes”, or variations of such words and phrases or indicates that certain actions, events or results “may”, “could”, “would”, “might” or “will be” taken, “occur” or “be achieved.” Forward-looking information is based on certain factors and assumptions management believes to be reasonable at the time such statements are made, including but not limited to, continued exploration activities, commodity prices, the estimation of initial and sustaining capital requirements, the estimation of labour costs, the estimation of mineral reserves and resources, assumptions with respect to currency fluctuations, the timing and amount of future exploration and development expenditures, receipt of required regulatory approvals, the availability of necessary financing for the project, permitting and such other assumptions and factors as set out herein.

Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, performance or achievements of the Company to be materially different from those expressed or implied by such forward-looking information, including but not limited to: risks related to changes in commodity prices; sources and cost of power and water for the Project; the estimation of initial capital requirements; the lack of historical operations; the estimation of labour costs; general global markets and economic conditions; risks associated with exploration of mineral deposits; the estimation of initial targeted mineral resource tonnage and grade for the project; risks associated with uninsurable risks arising during the course of exploration; risks associated with currency fluctuations; environmental risks; competition faced in securing experienced personnel; access to adequate infrastructure to support exploration activities; risks associated with changes in the mining regulatory regime governing the Company and the Project; completion of the environmental assessment process; risks related to regulatory and permitting delays; risks related to potential conflicts of interest; the reliance on key personnel; financing, capitalisation and liquidity risks including the risk that the financing necessary to fund continued exploration and development activities at the project may not be available on satisfactory terms, or at all; the risk of potential dilution through the issuance of additional common shares of the Company; the risk of litigation.

Although the Company has attempted to identify important factors that cause results not to be as anticipated, estimated or intended, there can be no assurance that such forward-looking information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such information. Accordingly, readers should not place undue reliance on forward-looking information. Forward looking information is made as of the date of this announcement and the Company does not undertake to update or revise any forward-looking information this is included herein, except in accordance with applicable securities laws.

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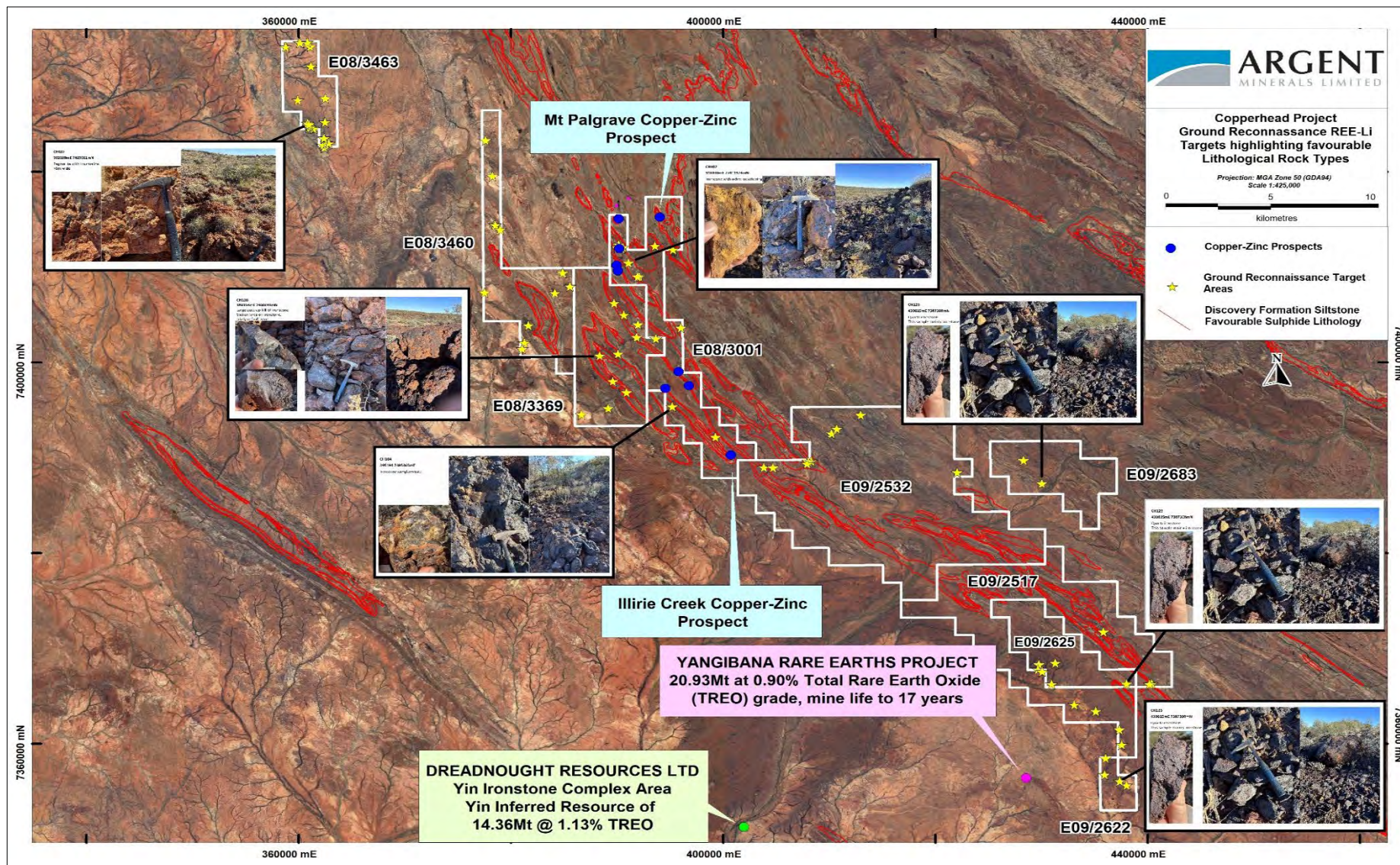


Figure 14 - High Priority Li-REE Targets highlighted as yellow stars – photos showing favourable host rock lithologies

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## **About Argent Minerals Ltd (ASX: ARD)**

Argent Minerals Limited is an ASX listed public company focused on creating shareholder wealth through the discovery, extraction, and marketing of precious and base metals. Currently, Argent has over 1,734km<sup>2</sup> of exploration ground in NSW, 1,038km<sup>2</sup> in Western Australia and 104km<sup>2</sup> in Tasmania.

### **Copperhead Project (100%) ARD**

The Copperhead Project is located NE of Carnarvon and SW of Karratha in Western Australia Gascoyne Region. The project is proximal to major REE deposits and is considered Elephant country based on its untapped potential.

Helicopter rock-chip sample program has confirmed the extensive copper mineralisation over the Mount Palgrave Prospect. High-grade stratiform copper assays include 2.42%, 4.14%, 5.92%, 8.8%, 14.96% and 21.1% Cu.

The Project is also considered highly prospective for potential ironstone/carbonatite Rare Earth mineralisation. Over Fifty (50) high priority potential ironstone/carbonatite rare earth targets have been delineated and are currently being assessed.



### **Kempfield Project EL5645, EL5748, ALA41 (100%) ARD**

The Kempfield Project is located 60km SSW of Cadia Newcrest Gold and Copper Mining Operations in Central West New South Wales, approx. 250 kilometres west of Sydney. This is the Company's flagship project and is registered as a New South Wales State Significant Development Project. Kempfield Polymetallic Deposit is situated within the Lachlan Orogen with current operation focus on the definition of the first maiden constrained JORC 2012 Resource over the Kempfield Polymetallic Deposit.

### **Trunkey Creek Project EL5748 (100%) ARD**

The Trunkey Creek Gold Project is located 5 kms east of the Kempfield in Central West region New South Wales. The Project lies within the Trunkey Creek Mineral Field which extends for 5.5 km by 500 m wide with over 2,900 oz of gold extracted from small scale mining. New inversion model has delineated three distinct resistive/chargeable zones (Northern, Central, Southern). Sub-parallel main quartz reefs are spaced 30m to 50m apart over a strike length of 2 km. The distribution of shafts along the reef indicates two main centres of mineralisation.

### **Pine Ridge Project EL8213 (100%) ARD**

The Project is located in the Central Tablelands in New South Wales approximately 65 kilometres south of the township of Bathurst and 10 km south-west of Trunkey. Gold mining commenced in 1877 and continued sporadically until 1948, producing a total of 6,864t ore with variable gold grades. Current 2012 JORC Resource is **416,887t @ 1.65 g/t Au containing 22,122 oz Gold.**

### **Mt Dudley Project EL5748 (100%) ARD**

The Project is located 5 km northwest of the township of Trunkey, near Blayney NSW. The Mt Dudley mine was worked between 1913-1922 and 1928-1931, with the mine's records indicating an average mined grade of approximately 25 g/t of gold. Current 2012 JORC Resource is **882,636t @ 1.03 g/t Au containing 29,238 oz Gold.**

### **Ringville Project (100%) ARD**

The Project Ringville Project is strategically positioned between world class mines Rosebery (high grade polymetallic deposit) and Renison Bell Tin Mine (one of the world's largest and highest-grade tin mines) in Tasmania. The Project contains 52 recorded mineral occurrences, including three deposits featuring silver, copper, lead, zinc and tin. Broad, high-grade zones of silver-copper-lead-zinc mineralisation varying from 3m to 23.6m from shallow to moderate depths from diamond drilling. The vein system defined by historical surface mapping and drilling has a strike length of approximately 1.2 km and has been intersected down to 305 metres below surface. The mineralisation is open both along strike and a depth.

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