



ASX ANNOUNCEMENT

03 MARCH 2022

DRONE MAGNETIC SURVEY AT GUNNAWARRA NICKEL-COBALT PROJECT CONFIRMS STRONG MINERALISED SYSTEM

HIGHLIGHTS

- High spatial resolution drone magnetic survey completed across 36km² at Ark's 100% owned Gunnawarra Nickel-Cobalt project
- Substantial magnetic highs and lows are shown to coincide exceedingly well with the Nickel-Cobalt laterite deposits at surface and in the underlying ultramafic geology
- Several high priority drill targets now identified – contracts now being assessed to commence comprehensive drill program with initial work on the ground planned for later this month
- The Gunnawarra Nickel-Cobalt project has the potential to be a significant battery metals project located in the Tier-1 jurisdiction; it borders Australian Mines Limited's (ASX: AUZ), Sconi project, the most advanced Cobalt-Nickel-Scandium project in Australia.

Queensland-focused exploration and project development company **Ark Mines Ltd (ASX: AHK)** ('Ark' or 'the Company') is pleased to announce the completion of a successful drone magnetic survey undertaken at its Gunnawarra Nickel-Cobalt Project (EPM 26560) in North Queensland which has confirmed a strong correlation between the proven Nickel-Cobalt laterite mineralisation across the project and the magnetic highs identified through the survey (see *Image 2 below*).

Gunnawarra has significant potential as a battery mineral exploration and development project in a proven Tier 1 jurisdiction for similar projects. It surrounds the Bell Creek resource, a component of the Sconi project owned by *Australian Mines Limited (ASX: AUZ)*, the most advanced Cobalt-Nickel-Scandium project in Australia.

Executive Director Ben Emery commented: *"The UAV magnetic survey confirms that the Nickel and Cobalt laterite mineralisation present across Gunnawarra correlates with the magnetic highs identified from the survey. This is tremendously encouraging and confirms to us that Gunnawarra is shaping up to be a very exciting and potentially large battery minerals play. We are now defining priority drill targets and we anticipate being on the ground later this month with drill likely to commence in April or May, weather depending."*

“With Gunnawarra as well as our Mt Jesse project, Ark has exposure to three high demand battery mineral commodities that are critical for the growth and development of the EV sector – nickel, cobalt and copper. Our focus now is to determine the full extent of these mineralised systems with more comprehensive exploration so we can capitalise on the huge potential of the EV and clean energy sectors.”

Summary of Ultramag results

As previously reported, *Ultramag Geophysics* (‘Ultramag’) was engaged to undertake a high spatial resolution drone magnetic survey across Gunnawarra’s 36km² tenure. The Company used unmanned aerial vehicles (*refer image 1*) which provides comparable resolution at 10x the speed and a quarter of the cost of traditional methods (*refer ASX announcement: 07 February 2022*).

The results from the survey were of excellent quality with high resolution data providing Ark with a clear and detailed aeromagnetic image of the project. The magnetic highs are shown to coincide exceedingly well with the Nickel-Cobalt laterite deposits at surface and in the underlying ultramafic geology.

With definitive outlines of the Nickel-Cobalt mineralisation surface and under surface locations confirmed, Ultramag has recommended several drill targets areas identified in *image two* below. In addition, serpentinites and ultra-mafic basement rocks have given a strong signature which provides Ark with further exploration opportunities.

The advancing exploration program Gunnawarra is part of Ark’s plan to aggressively ramp up exploration activity across its tenements, which includes finalising drill targets at the Company’s Mt Jesse Copper-Iron project. Drilling contracts are now being assessed before the Company advances a detailed drilling program.



Image 1: UAV's utilised to complete the drone magnetic survey at Gunnawarra

TARGETS

- The gridded TMI image (Image 2) show a large magnetic high anomaly (A) trending north- south through the central portion of the survey outlined in yellow. This is the main structure identified in the survey. We are confident these tops are accurate to within a few metres.
- (A) has two main highs (B) and (C) to the north
- All of these highs appear to be cross-cut by ENE to NE trending linear features which add complexity to the interpretation and may offer further mineralisation potential, particularly at intersections of lineations and mag high edges.
- The other two important features in this area include the mag lows (D) which juxtapose the main feature (A). These show up best in TMI but wash out in RTP.
- To the far northwest, there is another mag high structure on the northern side (G) as well as a mag low (G) on the southern side. This structure also offers a secondary target.

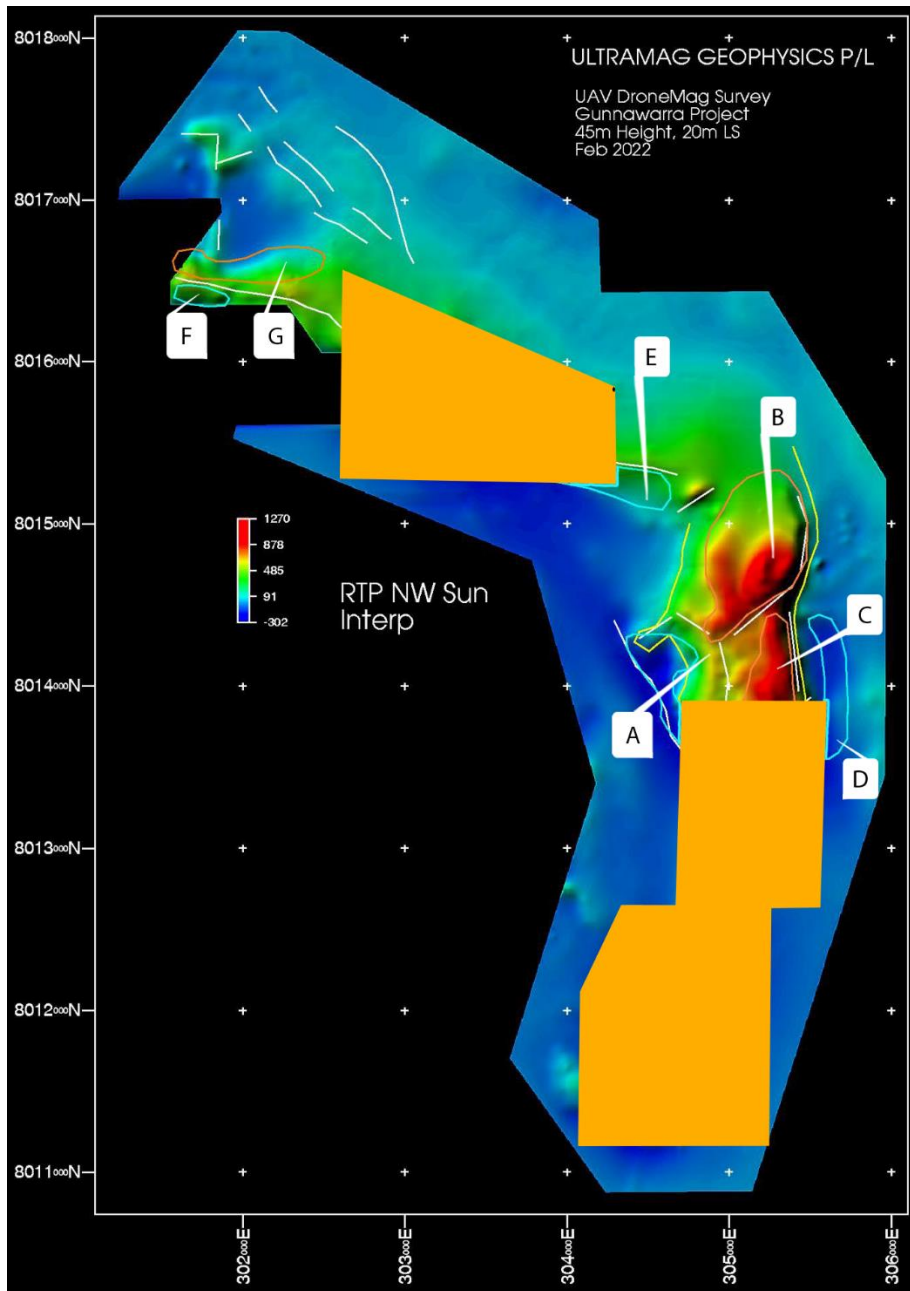


Image 2: Aeromagnetic results at Gunnawarra highlighting priority drill targets The Orange MLs are the Sconi project owned by *Australian Mines Limited* (ASX: AUZ), which forms part of the most advanced Cobalt-Nickel-Scandium project in Australia. Note the large magnetic highs sitting mostly within the Ark tenement.

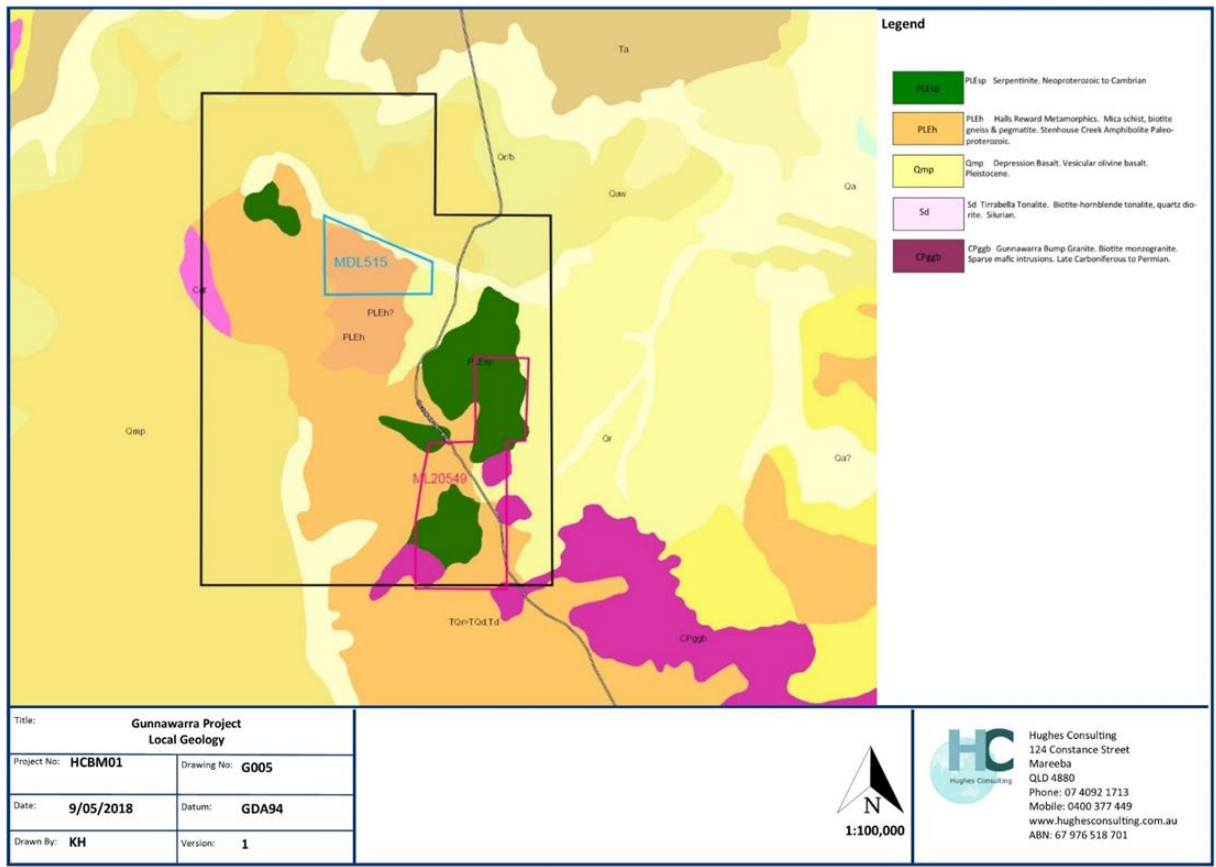


Image 3: Gunnawarra project local geology



Image 4: Nickel-Cobalt laterite deposits at surface at the Gunnawarra project

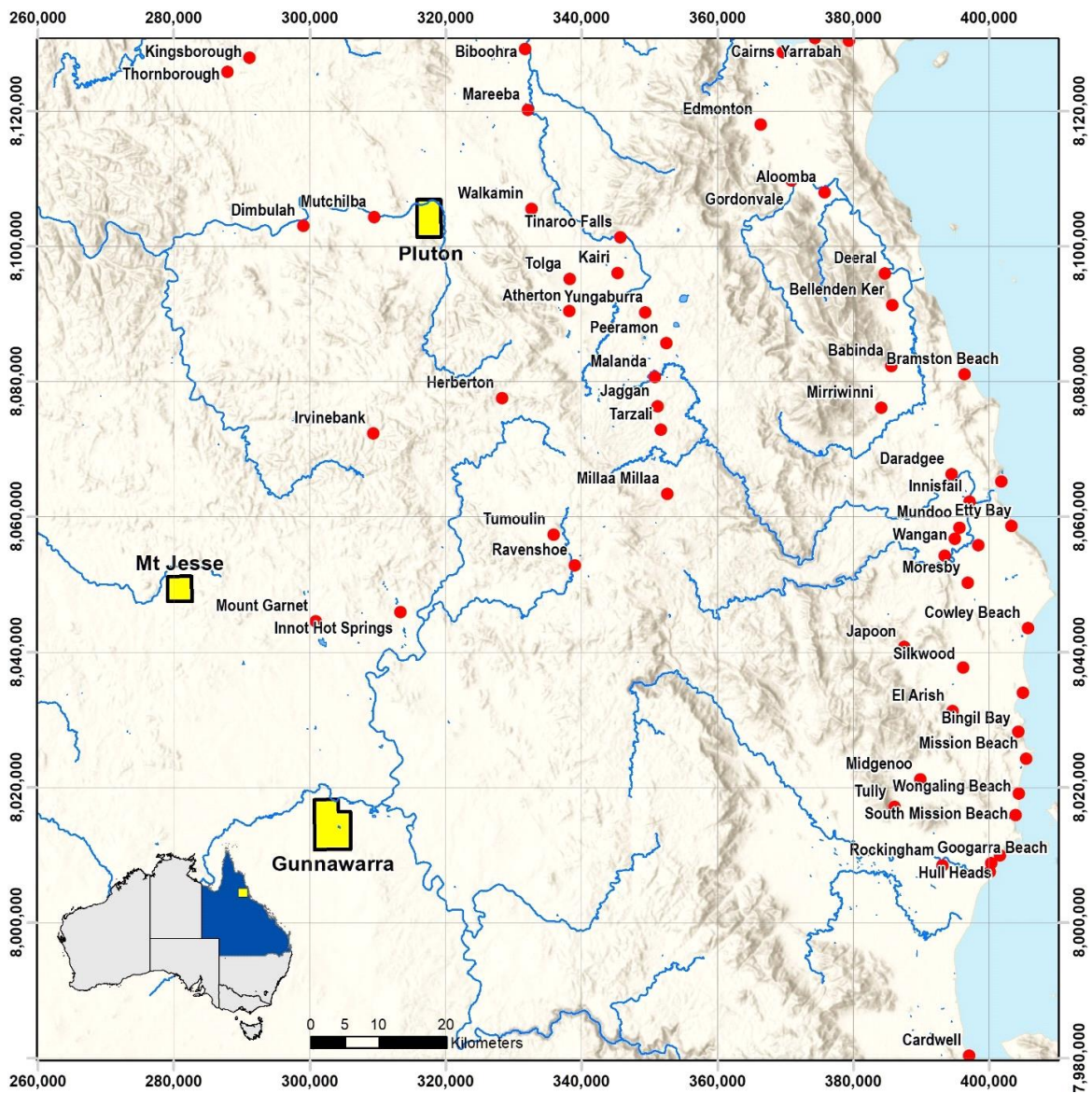


Image 5: Gunnawarra Ni Co project location

This announcement has been approved by the Board of Ark Mines Ltd.

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About Ark Mines Limited

Ark Mines is an ASX listed Australian mineral exploration company focused on developing its 100% owned projects located in the prolific Mt Garnet and Greenvale mineral fields of Northern Queensland. The Company's exploration portfolio consists of three high quality projects covering 65km² of tenure that are prospective for copper, iron ore, nickel-cobalt and porphyry gold:

Mt Jesse Copper-Iron project

- Project covers a tenure area of 12.4km² located ~25km west of Mt Garnet
- Centered on a copper rich magnetite skarn associated with porphyry style mineralization
- Three exposed historic iron formations
- Potential for near term production via toll treat and potential to direct ship

Gunnawarra Nickel-Cobalt project

- Comprised of 11 sub-blocks covering 36km²
- Borders Australian Mines Limited Sconi project - the most advanced Cobalt-Nickel-Scandium project in Australia
- Potential synergies with local processing facilities with export DSO Nickel/Cobalt partnership options

Pluton Porphyry Gold project

- Located ~90km SW of Cairns near Mareeba, QLD covering 18km²
- Prospective for gold and associated base metals (Ag, Cu, Mo)
- Porphyry outcrop discovered during initial field inspection coincides with regional scale geophysical interpretation

Competent Persons Statement

The Information in this report that relates to exploration results, mineral resources or ore reserves is based on information compiled by Mr Roger Jackson, who is a Fellow of the Australian Institute of Mining and Metallurgy. Mr Jackson is a director of the Company. Mr Jackson has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the 'Australian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves' (the JORC Code). Mr Jackson consents to the inclusion of this information in the form and context in which it appears in this report.

APPENDIX 1

EM SURVEY DETAILS

Ultramag Geophysics was commissioned by Ark Mines Ltd to undertake a high-resolution UAV DroneMagnetic (DroneMag) survey in February 2022 for the Gunnawarra Project. Approximately 15.1 square kilometres of low-level, terrain-draped, magnetic data was acquired using a DJI Matrice UAV flying at six metres per second with a GEM Systems GSMP-35U sensor over 10 days of

surveying. The UAV was flown at a height of 50m (safest possible) resulting in a sensor height of 45m and at 20m line-spacing.

The raw data was reduced, cleaned, decorrugated and gridded with the following filters:

- Total Magnetic Intensity (TMI)
- Reduction to Pole (RTP)
- First Vertical Derivative (1VD)
- Automatic Gain Control (AGC)
- Analytical Signal (ANS).

The resulting grids were rendered then imaged and have been investigated to define and map features in the area. An interpretation has been undertaken based on the magnetic data and a number of geological inferences have been made. Trends have been highlighted and potential magnetic targets have been generated and discussed. These suppositions should be integrated and correlated with other data sources to assist in exploration decision-making for the project.

Summary of Survey Specifications	
UAV Type	DJI Matrice
Magnetometer	GEM Systems GSMP-35U
Area (km ²)	15.1
Line Spacing (m)	20
Line Orientation	E-W
Drape Height (m)	45
Start Date	03-Feb-22
End Date	13-Feb-22
Absolute Accuracy	<0.1nT
Data Acquisition (Hz)	20
Flight Speed (ms ⁻¹)	8
Projection & Zone	MGA 55