

ASX & Media Release

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ASX Symbol

ARL

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Issued Capital

Fully Paid Ordinary Shares
104,990,413

*Unlisted options
exercisable at \$0.25*
12,310,022

*Directors/Employee
Performance Rights*
2,990,000

ABN 30 614 289 342

Ardea Commences Mount Zephyr Gold Exploration Program

HIGHLIGHTS

- Main focus of current campaign is the Mount Zephyr greenstone belt
 - Historic ca.1900 gold workings, however minimal modern gold exploration due to previous base metal focus
 - New targets identified following recent structural analysis based on the Yamarna greenstone belt (Gruyere discovery)
- Ardea has identified the mineralisation-hosting Celia Lineament corridor over some 80km of strike controlled by the Company in soil covered areas through detailed gravity-magnetic surveys
- Interpretation of newly acquired geophysical data and integration and resampling of historic high-resolution data has yielded excellent results:
 - Extension of the Gale granite-hosted gold prospect
 - Extension of strike extent of gold-hosting BIF units along Dunn's Line from 5km to around 18km under soil cover.
- Intense alteration, brecciation and multi-phase veining occurs in the western extension at Gale above a newly recognised fault. Alteration style is typical of large-scale mineralisation events.

Ardea Resources Limited ("Ardea" or "the Company") is pleased to announce it has commenced a gold exploration program on the highly-prospective Mount Zephyr Gold Project in WA's Eastern Goldfields, with targets currently being defined along the Mount Zephyr greenstone belt.

Historic gold prospects at Gale and along Dunn's Line have been confirmed in Ardea field programs, with a number of targets significantly expanded from their historic footprint as described in the Ardea Prospectus (November 2016), with several areas now considered highly prospective for gold mineralisation.

Ardea’s gold programs are being run in parallel with the Company’s Definitive Feasibility Study (DFS) programs at the flagship Goongarrie Nickel Cobalt Project (GNCP). Mt Zephyr will also be evaluated for nickel sulphide mineralisation, to further understand whether it can act as a compatible feed for a future GNCP autoclave.

Geophysics reveals enhanced gold prospectivity

Upon acquisition of Ardea’s new, high-resolution aeromagnetic and ground gravity data at Mount Zephyr, a complete reinterpretation of the geology was undertaken. This is ongoing and will continue to be a work-in-progress as new data is acquired.

In areas of poor outcrop such as the Mount Zephyr greenstone belt, such data is used to redefine the geology and assist in the identification of potential targets for gold mineralisation.

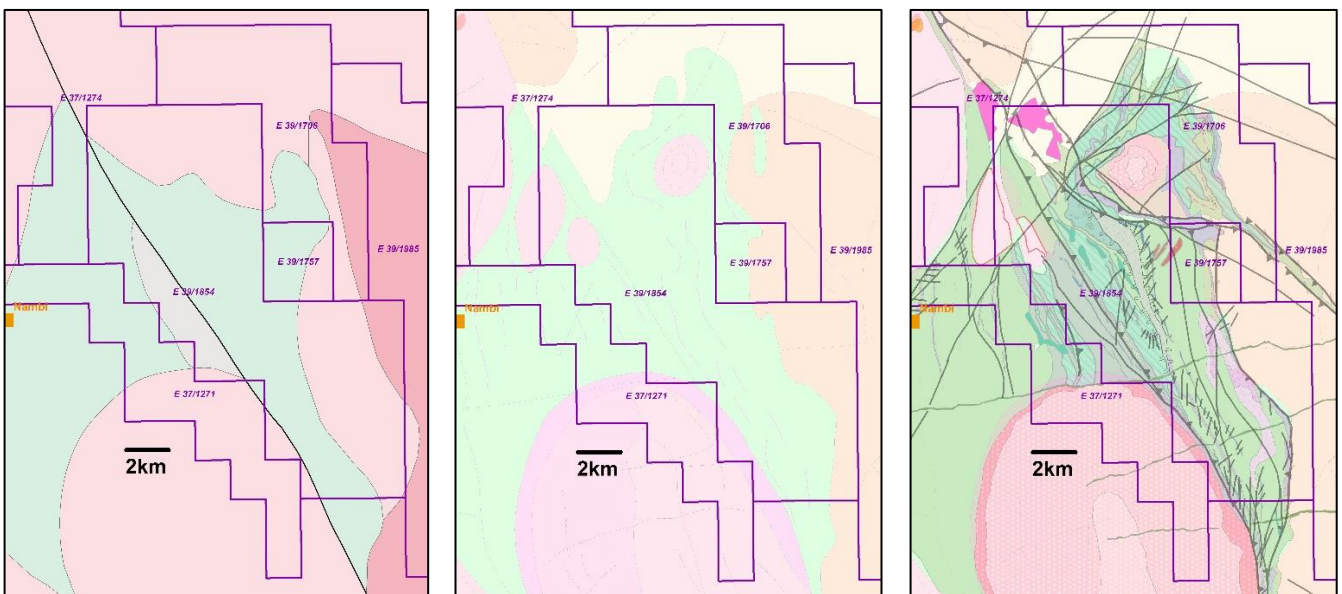


Figure 1 – Solid geology of the Mount Zephyr from Geological Survey of Western Australia (1:500k, 1999), Geoscience Australia (1:500k, 2000), and Ardea Resources (work in progress, 2018), highlighting the additional detail defined using the Company’s new geophysical data.

The current programs (right-hand figure) demonstrate a dramatic improvement in structural definition, allowing the current field programs to be precisely targeted.

The primary focus is to target the ore-controlling Celia Lineament, hosting from north to south, the Mt Morgans-Jupiter, Wallaby, Sunrise Dam and Red October gold mining centres.

Ardea executive chair Katina Law said:

“We are extremely pleased to have work underway at Mt Zephyr which is highly prospective for gold mineralisation. This has been an area of interest since Ardea listed and while our primary corporate focus is developing the Goongarrie Nickel Cobalt Project, we believe that with modern exploration techniques Mt Zephyr will realise its full potential.”

“With programs on the ground underway we aim to advance the project to a drilling program as soon as possible.”

Gale

The Gale prospect is located on the eastern margin of the Mount Zephyr greenstone belt. It is hosted within an “internal” granitoid within the greenstones, as opposed to the regional granites slightly further eastward.

Gold mineralisation is documented from historic exploration, with RAB drill intercepts including 18 m @ 0.5 g/t Au from surface corresponding with alteration and oxidised pyrite mineralisation.

Previously, parallels have been drawn between mineralisation at Gale and the Jupiter gold deposit along strike to the south along the trend of the Celia Lineament.

Reinterpretation of geophysical data suggested extension of the internal granite further west of the historic drill programs. This was confirmed through on-ground checking, with the western extension corresponding to common, intense red-rock alteration and strong veining and brecciation.

This alteration is so intense that it has destroyed the original granitic texture and is typical of mineralised zones in other deposits. Whether these rocks contain gold is not yet known, but the textures observed are consistent with a mineralising event. Samples have been submitted for assay



Figure 2 – Intensely altered and brecciated granite from the western extension of the Gale project.

Dunn’s Line

Dunn’s Line is a line of historic working along banded-iron formation (BIF) outcrops to the east of the Celia Shear Zone. The localised workings are distributed along around 4-5km of exposed BIF. Mining commenced in 1899, with grades between 5 and 90 g/t common from the Mount Zephyr mine.

On-ground examination of Dunn’s Line in conjunction with geophysical data shows that all historic workings correspond to minor faulted offsets of the BIF. It seems that they correspond to NNE-trending faults along which there has been up to 50m of left-lateral (sinistral) apparent movement in the horizontal plane (comparable to the famed Mt Magnet “Boogardie Breaks”). Ardea will, in contrast to previous exploration efforts, target these breaks in the BIF units rather than targeting the boldly outcropping BIFs themselves.

Reinterpretation of geophysical data shows that the host BIF unit is far more extensive than outcrop suggests. It appears to extend for up to 18 km through various offsets and breaks, with most of this being under cover.

The broader architecture of the of the Mt Zephyr greenstone belt is felt to be comparable to that of the Yamarna greenstone belt. The Celia Lineament in the Dunn's Line area can be compared to the Yamarna Shear Zone, and parallel and further east, the Gale structures can be compared to the Dorothy Hills Shear Zone (which hosts the 5.9 Moz Gruyere discovery).



Figure 3 – Historic workings on Dunn's Line associated with minor offsets on BIF units. The hill in the background is the BIF ridge, and the flat in the foreground corresponds to a series of offsets and historic workings. Just to the right of the workings in the image is a small outcrop of brecciated and folded BIF which contrasts with the coherent bedded BIF of the hill.

Upcoming Activities

Ardea is currently awaiting initial assay results from work undertaken at the Gale prospect and these will be released to the market upon the Company receiving final results.

Active field programs continue to proceed and the Company is currently completing systematic soil and rock-chip geochemistry over defined targets ahead of drill-testing.

Geophysical interpretation of the greenstone belt is ongoing, with a series of new targets being defined. These will be ranked and explored accordingly.

Continued work will focus on Gale and Dunn's Line, with detailed mapping and sampling of the prospects ongoing and will define the distributions of historic drilling, workings, and various type of regolith cover to ensure that appropriate drilling and ground sampling techniques are used. This will provide Ardea the greatest chance of discovering large system gold mineralisation at these target areas.

For first-pass sampling, a combination of auger drilling, rock chip sampling, and soil sampling will be used to define the footprint of gold anomalism prior to RAB or RC drilling as appropriate.

For further information regarding Ardea, please visit www.ardearesources.com.au or contact:

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