Kalgoorlie Nickel Project – Goongarrie Hub DFS Update

- **Zero lost time or recordable injuries to 30 November 2025, maintaining KNPL's strong safety performance.**
- **DFS progressing well and remains on schedule for completion in H1 CY2026.**
- **DFS design has materially advanced since the July 2023 PFS[1], with several improvements now confirmed.**
- **Project now based on a simplified, higher-throughput 3.5Mtpa HPAL only flowsheet.**
- **Removal of the AL circuit and autoclave optimisation for the HPAL expected to deliver higher recoveries, reduced acid consumption and thus a lower carbon footprint.**
- **MSP confirmed as the sale product, expected to provide improved payability and significantly broaden market optionality[2].**
- **First-decade mine plan centred on higher-grade, near-plant goethite at Goongarrie South, Big Four and Scotia Dam.**
- **Several advanced optimisation opportunities under review, including comminution configuration, ore transport and additional Critical Mineral by-products, notably scandium.**
- **Major Project Status renewed by Australian Federal Government, highlighting the strategic importance of the KNP[3].**

Ardea Resources Limited (**Ardea** or the **Company**) provides an update on the status of the ongoing Definitive Feasibility Study (**DFS**) for the Kalgoorlie Nickel Project (**KNP**) – Goongarrie Hub (the **Project**).

The July 2023 KNP Pre-Feasibility Study (**PFS**) was based on a flowsheet comprising 3.0Mtpa High Pressure Acid Leach (**HPAL**) and 0.5Mtpa Atmospheric Leach (**AL**) capacity, producing a Mixed Hydroxide Precipitate (**MHP**) nickel-cobalt product.

As the DFS has progressed, and in response to industry-wide cost escalation[4] and additional technical data, a series of value-engineering and optimisation studies have been undertaken by Kalgoorlie Nickel Pty Ltd (**KNPL**), the incorporated joint venture company owned by Ardea and GH Nickel Pty Ltd (**GHN**) (a joint venture between Sumitomo Metal Mining Co., Ltd and Mitsubishi Development Pty Ltd, a wholly owned Australian subsidiary of Mitsubishi Corporation).

These studies have resulted in a number of confirmed DFS design changes relative to the 2023 PFS base case, as well as a suite of options that remain under active evaluation and will be resolved as part of the DFS and Ore Reserve in H1 CY2026, whilst other options may be carried forward into the Front End Engineering Design (**FEED**) phase, post DFS.

[1] See ARL ASX announcement, 5 July 2023
[2] See ARL September 2024 Quarterly Report, 29 October 2024
[3] See ARL ASX announcement, 20 October 2025
[4] Australian Institute of Quantity Surveyors Construction Cost Index Forecast, Perth, WA, Q2 2025

The DFS remains on schedule for completion in the first half of CY2026.

CONFIRMED DESIGN CHANGES SINCE THE JULY 2023 PFS

1. Flowsheet Simplification - Removal of Atmospheric Leach Circuit

The DFS has confirmed removal of the 0.5Mtpa AL circuit and consolidation of ore processing through an expanded HPAL circuit.

Expected benefits include:

- Simplified flowsheet, with a reduction in ore feed types and unit operations.
- Reducing Process Plant design complexity.
- Material reduction in acid demand, leading to a smaller process plant footprint and lower CO_2 emissions.
- Reduced reliance on deeper saprock mining to source neutralising material, allowing pits to be more strongly optimised on overall value, including key considerations such as nickel-cobalt grade and acid consumption.

These changes are being incorporated into the DFS base case design and will be reflected in the final mine schedule and Ore Reserve.

2. HPAL Autoclave Optimisation and Throughput

The DFS has confirmed an optimised HPAL configuration targeting 3.5Mtpa throughput (versus 3.0Mtpa in the PFS), consistent with the largest autoclave that can be transported to site, at Goongarrie.

The DFS is evaluating modest increases in operating temperature, with the objective of improving nickel extraction, while remaining within proven HPAL operating envelopes.

These changes are subject to final ore characterisation data, testwork and engineering, and will be reported in detail as part of the completed DFS.

3. Sale Product – Mixed Hydroxide Precipitate (MHP) to Mixed Sulphide Precipitate (MSP)

The DFS has confirmed a change in sale product from MHP to MSP.

Expected benefits include:

- Improved payability relative to MHP.
- Broader market flexibility for Ardea's 25% offtake entitlement, with MSP being suitable feed for a wide range of global nickel sulphide smelters and refineries (subject to offtake arrangements and pre-emptive rights).

This change requires additional utility infrastructure, including a hydrogen (H_2), hydrogen sulphide (H_2S) and nitrogen (N_2) plant. The incremental capital requirement is being incorporated into DFS estimates and evaluated alongside the improved revenue and marketing outcomes.

KEY WORKSTREAMS AND OPTIONS UNDER EVALUATION

In addition to the confirmed changes above, several important workstreams remain subject to DFS outcomes, final metallurgical testwork results, resource reinterpretation, optimisation, mine planning and Ore Reserve completion in H1 CY2026. These are not yet included in the DFS, but represent potential future optimisation opportunities.

1. Comminution Configuration and Potential Ball Mill Removal

The DFS is assessing the potential to simplify the comminution circuit by increasing reliance on semi-autogenous grinding (**SAG**) using shallow, hard low-grade ore as grinding media, with the objective of:

- Reducing capital and operating costs associated with ball mills and steel balls for grinding.
- Improving utilisation of near-surface material that is not optimal for HPAL feed.

The trade-off between simplified comminution and any impact on metal liberation is being rigorously evaluated. No decision has been made at this stage.

2. Ore Transport Options – Highway to Goongarrie

Post DFS may also include evaluating pumped slurry transport of beneficiated ore from the Goongarrie Hill and Highway satellite pit areas to the Goongarrie process plant as an alternative to road haulage.

Potential benefits include:

- Reduced operating cost and road haulage exposure on the Goldfields Highway.
- Ability to backfill exhausted Goongarrie Hill and Highway pits with waste material.
- More efficient long-term use of mine voids.

These options involve additional pipeline, pumping and power infrastructure and will be considered further.

3. Critical Mineral By-Product Opportunities

The DFS will quantify scandium within the DFS Mineral Resource Estimate block models.

The potential for future scandium product streams is being considered at a conceptual level, including allowance in the DFS site plant layout for a scandium refinery. Any such developments would be subject to further study, market analysis, capital assessment and Regulatory approvals, and are not included in the current DFS base case.

4. Gold Opportunities and Site Development Synergies

The KNP includes several gold prospects, including the Big Four Gold deposit which currently has an Inferred Mineral Resource Estimate of approximately 178kt at 2.7g/t Au for 15koz gold[5] (reported above a 0.5g/t Au cut-off).

Post DFS work will evaluate in more detail the potential for:

- Early custom-milling of gold to generate additional revenue.
- Assess use of completed gold pits as mine de-water storage and, in time, in-pit tailings storage facilities.
- Removing known gold mineralisation to allow the surrounding area to be used to host a waste rock landform as part of the nickel-cobalt development.
- Leveraging early earthmoving activity to support nickel laterite trial pits and inform truck fleet selection and potential autonomous mining opportunities.

Any gold development pathway would be staged, subject to detailed economic assessment and standard approvals, and would complement the core nickel-cobalt development rather than displace it.

[5] See ARL ASX announcement, 14 May 2020

MINE PLANNING AND ORE RESERVE

A streamlined mine plan for the first decade of operations is being developed, focused on value closest to the Goongarrie processing plant, specifically Goongarrie South, Big Four and Scotia Dam.

Key remaining inputs to the DFS and Ore Reserve in H1 CY2026 include:

- Final DFS resource models (including coding grind ore vs beneficiated ore domains).
- Updated long-term acid and neutraliser requirements under the simplified HPAL-only flowsheet.
- Optimised pit designs and schedules reflecting the confirmed process design changes described above.

Until these inputs are finalised, the Company does not intend to provide updated project capital or operating cost estimates beyond acknowledging sector-wide cost escalation[4] since the 2023 PFS. Updated cost and financial metrics will be disclosed on completion of the DFS.

MAJOR PROJECT STATUS AND STRATEGIC CONTEXT

Renewal of Major Project Status by the Australian Federal Government[3] confirms the Kalgoorlie Nickel Project's strategic importance as a long-life supplier of nickel and cobalt for global battery and stainless-steel markets.

This status facilitates coordinated engagement with government agencies and supports the timely advancement of project approvals. Engagement has been particularly active in the last two months, with delegation participation in official Critical Minerals trips to the US and Japan.

Ardea and KNPL continue to engage with the WA State and Federal Government on the optimum path forward for the project.

ANDREW PENKETHMAN, ARDEA MANGING DIRECTOR & CEO COMMENTARY

"The DFS has advanced substantially through CY2025 and we are pleased with the clarity and confidence now emerging in the final project configuration.

Several key design improvements have now been fully validated, most notably the simplified HPAL-only flowsheet and the move to MSP as our sale product. These decisions strengthen the technical and commercial profile of the project.

We have also made strong progress on refining the approach to mine planning, autoclave optimisation and continue to consider long term value opportunities across additional Critical Mineral by-product production, comminution, and ore transport. These enhancements position the Goongarrie Hub as a robust, long-life, globally competitive nickel-cobalt operation.

We look forward to advancing the remaining work programs and delivering a comprehensive DFS in H1 CY2026."

CAPITAL OUTLOOK

Capital estimates continue to be refined as part of trade-off studies. While industry-wide cost escalation since 2023 is acknowledged[4], Ardea's value-engineering program is actively managing these pressures through simplification, throughput uplift and design optimisation. Further detail will be released upon DFS completion.

This announcement is authorised for release by the Board of Ardea Resources Limited.

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

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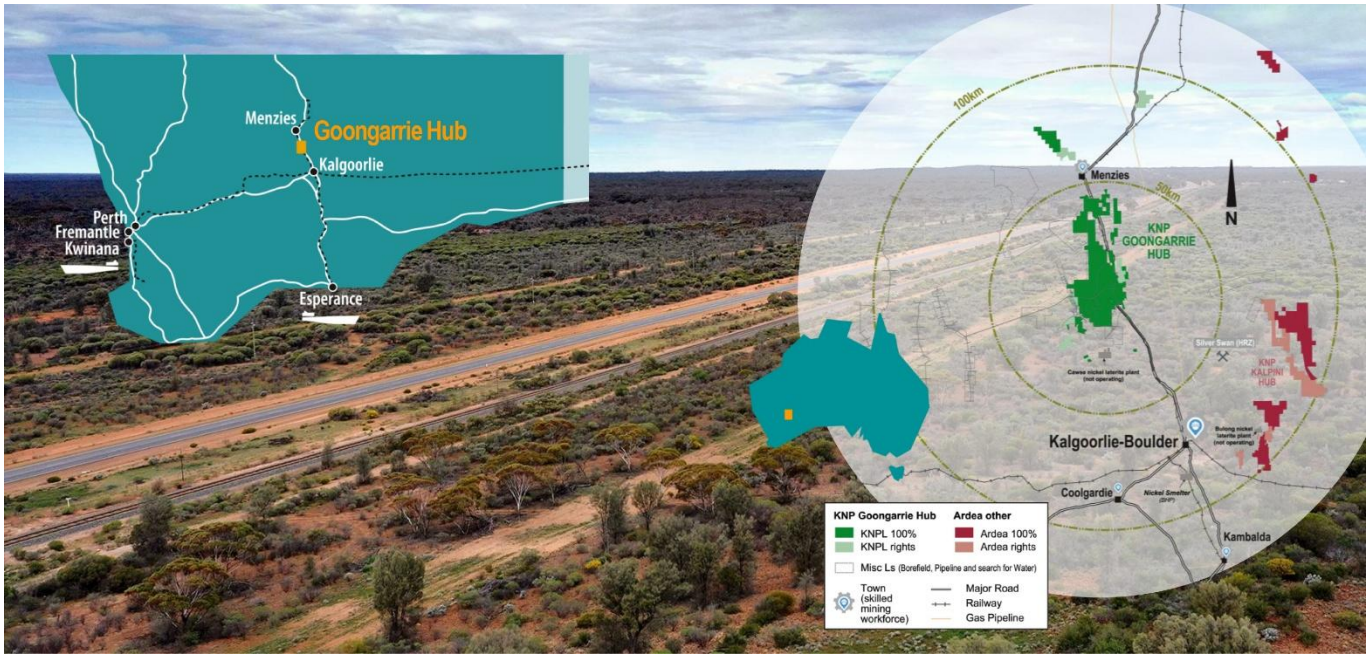
About Ardea Resources

Ardea Resources (ASX:ARL) is an ASX-listed nickel development company in joint venture with GH Nickel Pty Ltd (**GHN**) (a joint venture between Sumitomo Metal Mining Co., Ltd and Mitsubishi Development Pty Ltd, a wholly owned Australian subsidiary of Mitsubishi Corporation)to build, commission and operate a plus 30,000tpa multi-decade nickel operation[2]:

- Development of the Kalgoorlie Nickel Project (**KNP**) and its sub-set, the Goongarrie Hub, a globally significant series of nickel-cobalt and Critical Mineral deposits which host the largest nickel-cobalt resource in Australia and one of the largest in the developed World at **854Mt at 0.71% nickel and 0.045% cobalt for 6.1Mt of contained nickel and 386kt of contained cobalt**. Within the KNP, the Goongarrie Hub has 584Mt for 4.0Mt of contained nickel (Consortium right to earn 50%) and the Kalpini Hub has 270Mt for 2.1Mt of contained nickel (Ardea 100% unencumbered interest) (Ardea ASX release 30 June 2023), located in a jurisdiction with exemplary Environmental Social and Governance (**ESG**) credentials.
- Scoping Study initial programs being planned for the Kalpini Hub nickel-cobalt resources.
- Advanced-stage exploration at compelling nickel sulphide targets, such as Kalpini, and Critical Minerals targets including scandium, gallium and Rare Earth Elements throughout the KNP Eastern Goldfields world-class nickel-gold province, with all exploration targets complementing the KNP nickel development strategy.



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Australian Federal Government - Major Project Status

CAUTIONARY NOTE REGARDING FORWARD-LOOKING INFORMATION

This news release contains forward-looking statements and forward-looking information within the meaning of applicable Australian securities laws, which are based on expectations, estimates and projections as of the date of this news release.

This forward-looking information includes, or may be based upon, without limitation, estimates, forecasts and statements as to management's expectations with respect to, among other things, the timing and amount of funding required to execute the Company's exploration, development and business plans, capital and exploration expenditures, the effect on the Company of any changes to existing legislation or policy, government regulation of mining operations, the length of time required to obtain permits, certifications and approvals, the success of exploration, development and mining activities, the geology of the Company's properties, environmental risks, the availability of labour, the focus of the Company in the future, demand and market outlook for precious metals and the prices thereof, progress in development of mineral properties, the Company's ability to raise funding privately or on a public market in the future, the Company's future growth, results of operations, performance, and business prospects and opportunities. Wherever possible, words such as "anticipate", "believe", "expect", "intend", "may" and similar expressions have been used to identify such forward-looking information. Forward-looking information is based on the opinions and estimates of management at the date the information is given, and on information available to management at such time.

Forward-looking information involves significant risks, uncertainties, assumptions, and other factors that could cause actual results, performance, or achievements to differ materially from the results discussed or implied in the forward-looking information. These factors, including, but not limited to, the ability to create and spin-out a gold focussed Company, fluctuations in currency markets, fluctuations in commodity prices, the ability of the Company to access sufficient capital on favourable terms or at all, changes in national and local government legislation, taxation, controls, regulations, political or economic developments in Australia or other countries in which the Company does business or may carry on business in the future, operational or technical difficulties in connection with exploration or development activities, employee relations, the speculative nature of mineral exploration and development, obtaining necessary licenses and permits, diminishing quantities and grades of mineral reserves, contests over title to properties, especially title to undeveloped properties, the inherent risks involved in the exploration and development of mineral properties, the uncertainties involved in interpreting drill results and other geological data, environmental hazards, industrial accidents, unusual or unexpected formations, pressures, cave-ins and flooding, limitations of insurance coverage and the possibility of project cost overruns or unanticipated costs and expenses, and should be considered carefully. Many of these uncertainties and contingencies can affect the Company's actual results and could cause actual results to differ materially from those expressed or implied in any forward-looking statements made by, or on behalf of, the Company. Prospective investors should not place undue reliance on any forward-looking information.

Although the forward-looking information contained in this news release is based upon what management believes, or believed at the time, to be reasonable assumptions, the Company cannot assure prospective purchasers that actual results will be consistent with such forward-looking information, as there may be other factors that cause results not to be as anticipated, estimated or intended, and neither the Company nor any other person assumes responsibility for the accuracy and completeness of any such forward-looking information. The Company does not undertake, and assumes no obligation, to update or revise any such forward-looking statements or forward-looking information contained herein to reflect new events or circumstances, except as may be required by law.

No stock exchange, regulation services provider, securities commission or other regulatory authority has approved or disapproved the information contained in this news release.

Competent Persons statement

The information in this report that relates to Exploration Results and industry benchmarking is based on information reviewed or compiled by Mr Andrew Penkethman, a Competent Person who is a Fellow of the Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists. Mr Penkethman is a full-time employee of Ardea Resource Limited and has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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 Penkethman has reviewed this press release and consents to the inclusion in this report of the information in the form and context in which it appears. Mr Penkethman owns Ardea shares.

Ardea wishes to clarify that its current Kalgoorlie Nickel Project (KNP) Mineral Resource Estimate (MRE) following JORC Code (2012) guidelines is:

KINP Hub	Resource Category	Size (Mt)	Ni (%)	Co (%)	Cont. Ni (kt)	Cont. Co (kt)
Goongarrie Hub[1]	Measured	18	0.94	0.085	171	15
	Indicated	277	0.70	0.046	1,923	127
	Inferred	289	0.67	0.037	1,951	108
Sub Total	Combined	**584**	**0.69**	**0.043**	**4,044**	**250**
Kalpini Hub including Yerilla Hub[2]	Measured	4	0.94	0.048	36	2
	Indicated	84	0.83	0.050	699	42
	Inferred	182	0.73	0.051	1,321	92
Sub Total	Combined	**270**	**0.76**	**0.050**	**2,056**	**136**
Kalgoorlie Nickel Project Total	Measured	22	0.94	0.079	207	17
	Indicated	361	0.73	0.047	2,622	169
	Inferred	471	0.70	0.043	3,272	200
	Grand Total	**854**	**0.71**	**0.045**	**6,101**	**386**

1. The Goongarrie Hub is part of KNPL Incorporated Joint Venture. See 30 August 2024 ASX release, KNP Goongarrie Hub Joint Venture Transaction Completion with Japanese Consortium. The Goongarrie Hub Resources are reported on a 100% basis, with Ardea holding an 82.5% interest.
2. The KNP Kalpini and Yerilla Hubs are known collectively as the Kalpini Hub and remain a 100% owned Ardea asset.

Note: 0.5% nickel cutoff grade used to report resources. Minor discrepancies may occur due to rounding of appropriate significant figures.

The KNP Mineral Resource Estimate information shown in this ASX announcement has been previously released on the ASX platform by Ardea in ASX release 30 June 2023, in accordance with Listing Rule 5.8.

The Goongarrie Hub Ore Reserve information shown in this ASX announcement has been previously released on the ASX platform by Ardea in ASX release 5 July 2023, in accordance with Listing Rule 5.9.

Ardea wishes to clarify that its current Big Four Gold Mineral Resource Estimate (MRE) following JORC Code (2012) guidelines is:

Resource category	Cut-off Au g/t	Tonnes (kt)	Gold (g/t)	Contained gold (oz)
Inferred	≥ 0.5	178	2.7	15,300

The Big Four Gold Mineral Resource Estimate information shown in this ASX announcement has been previously released on the ASX platform by Ardea in ASX announcement, 14 May 2020, in accordance with Listing Rule 5.8.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the previous market announcements noted above and that all material assumptions and technical parameters underpinning the Mineral Resource Estimates and Ore Reserve in the previous market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the original market announcements.