



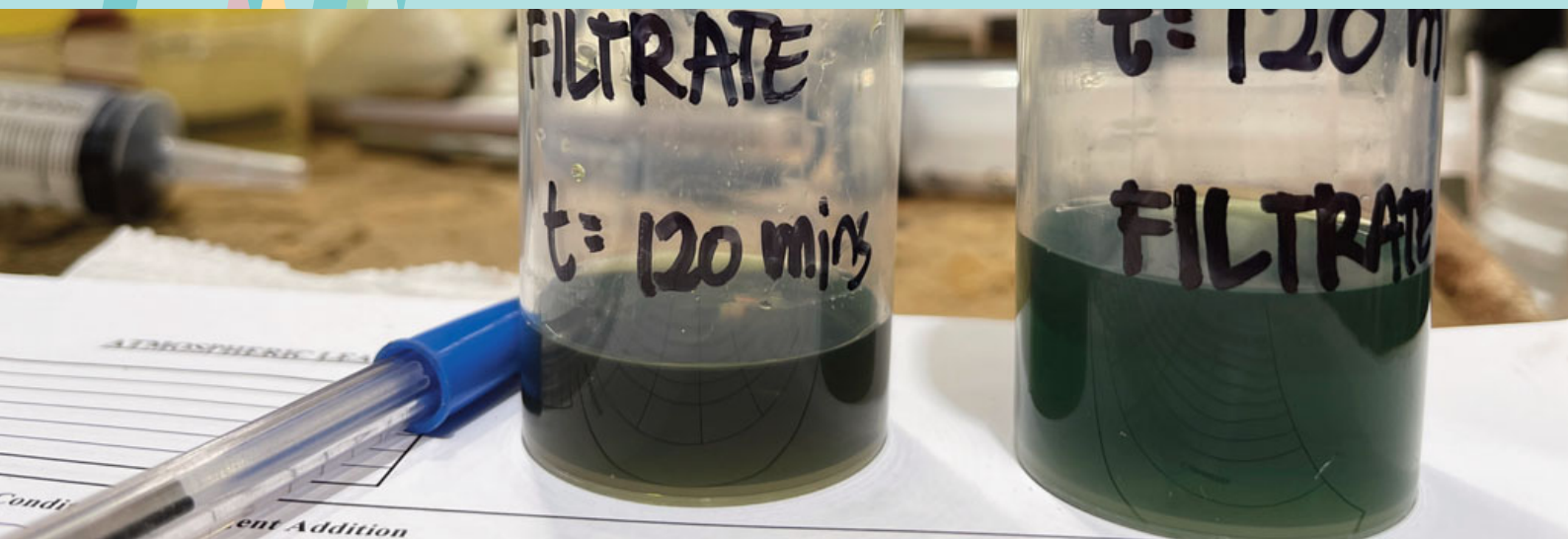
# Ardea Resources Limited

Ethical and sustainable  
**nickel-cobalt**  
for the battery mineral  
supply chain



2022  
ANNUAL REPORT





# Ardea Resources Limited



*Australian Federal Government - Major Project Status*

## Corporate Directory

### Directors

**Mathew Longworth**, (Non-Executive Chair)  
**Andrew Penkethman**, (Managing Director  
and Chief Executive Officer)  
**Ian Buchhorn**, (Executive Director)

### Company Secretary

Sam Middlemas

### Registered and Business Office

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Western Australia 6005

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Email: [info@ardearesources.com.au](mailto:info@ardearesources.com.au)

### Website

[www.ardearesources.com.au](http://www.ardearesources.com.au)

### Auditor

Dry Kirkness (Audit) Pty Ltd  
(formerly Butler Settineri (Audit) Pty Ltd)  
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Perth WA 6005 Australia

### Share Registry

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Sydney NSW 2001  
Tel: 1300 288 664 (within Australia)  
Tel: +61 2 9698 5414 (international)  
Web: [www.automicgroup.com.au](http://www.automicgroup.com.au)

### Stock Exchange Listing

The Consolidated Entity's shares are  
quoted on the Australian Securities Exchange.  
The Home Exchange is Perth.

**ASX Code:** ARL - ordinary shares

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Cover design represents Ardea's Kalgoorlie Nickel Project strengths of high grade goethite material (middle left hand photo strip), and the optionality of products to suit partner requirements - nickel and cobalt sulphate crystals produced during the 2018 bench-scale test work (top right, bottom left photo strips) and also an example of Mixed Hydroxide Precipitate (MHP) which is the base case being studied in test work.

Photo this page: Metallurgical test work has demonstrated the effectiveness of flowsheet developments, such as Atmospheric Leaching (AL). An AL circuit in the flow sheet will enhance CO<sub>2</sub> mitigation and assist Ardea in the aim of reducing reliance on fossil fuel for power generation.





## Chairman's Letter to Shareholders 2022

Dear Shareholders,

I am pleased to present Ardea Resources Limited (**Ardea** or the **Company**) Annual Report and to reflect on what has been an exceptional year for the Company.

The 2022 financial year has been marked by a combination of a well-supported capital raise, being awarded **Major Project Status** for the Kalgoorlie Nickel Project (**KNP**), a nickel sulphide discovery at Emu Lake and the gold asset divestment of Kalgoorlie Gold Mining, with free in-specie share distribution to eligible Shareholders. In addition, there has been significant advancement in Strategic Partner discussions.

The nickel sector has seen significant volatility during the reporting period. The price of nickel started the reporting period at US\$17,500 per tonne before significantly increasing to a high of US\$48,300 per tonne in March 2022. The price at the end of the reporting period, at US\$23,100 per tonne, represents an increase of 32% over the year. The outlook for nickel remains compelling with all of these factors reinforcing supply chain security issues and the importance of sourcing long term, reliable sources of sustainable and ethical nickel supply. In this regard, the global significance of the KNP continues to be recognised, given the strategic scale of the resource and location in the best resources operating jurisdiction in the World.

Feasibility Studies are continuing at the KNP to include the base case 3.5Mtpa at the Goongarrie Hub (**Goongarrie**) with hydrometallurgical sample assay results confirming the 2021 resource model and metallurgical test work supporting maximum resources utilisation and optimisation of the low-carbon flow sheet. The growth in the nickel price has once again highlighted the strong economic potential at the KNP in addition to the project being a nationally significant asset.

A key part of our Environmental and Social Governance (**ESG**) plan is optimisation of the low-carbon flow sheet supporting the Mineralised Neutraliser concept and lowering CO<sub>2</sub> emissions. Ardea strives to balance the economic, social, and environmental aspects of your Company with a commitment to ESG principles as an essential part of the way we operate. We pride ourselves on the respectful relationships we have and continue to develop with our stakeholders, especially within the diverse, modern mining community of Kalgoorlie-Boulder in Western Australia (**WA**), where our globally significant KNP is located.

Exploration for nickel-copper-PGE sulphide and Critical Minerals continues on compelling targets which are complementary to the development of the KNP. Diamond core drilling and downhole electromagnetic surveys are continuing at Emu Lake, along with defining high-priority targets elsewhere within the highly prospective KNP tenure.

*The next 12 months is looking bright for your Company as we complete further studies on Goongarrie, progress Strategic Partner negotiations and engagement with Government funding agencies.*

In conclusion, I would like to thank our Shareholders for their tremendous support over the past year, my fellow Board members, our Managing Director and CEO Andrew Penkethman and the team at Ardea.

**Mat Longworth, Chairman**





## Activities Report

### Environmental, Social and (Corporate) Governance

Environmental, Social and (Corporate) Governance considerations are at the forefront of the way Ardea operates. All project designs and work practices are based on the Company minimising CO<sub>2</sub> green-house gas emissions when in production. The proposed flowsheet (Figure 6) has been enhanced for CO<sub>2</sub> mitigation in the neutralisation circuit through introducing an Atmospheric Leach (**AL**) circuit to assist in neutralising the acidic High Pressure Acid Leach (**HPAL**) discharge. The AL circuit facilitates upgrade of the site acid plant utilisation and allows Ardea to generate its own site power requirements off-grid, without relying on fossil fuel for power generation.

Ardea has contributed its Critical Mineral technical expertise to groups advocating for net zero carbon by 2050 and lodged a supportive submission to the House of Representatives Standing Committee on the Environment and Energy inquiry into the Climate Change (National Framework for Adaptation and Mitigation) Bill 2020. The KNP mineral resource is also included in the Geological Survey of Western Australia nickel-cobalt investment flyer, as the **largest nickel resource** in Western Australia (and therefore the largest in Australia), and is in the Commonwealth Government's **2021 Australian Critical Minerals Prospectus**.

Responsible sourcing of materials, through mechanisms such as mandatory reporting of CO<sub>2</sub> footprints for all batteries sold is essential. Traceability is also being implemented with raw materials used in batteries that must be procured according to OECD guidelines for sustainable sourcing. These important considerations are an essential part of the feasibility study work Ardea is undertaking on the KNP.

Ardea enjoys strong support from the communities in which we operate, primarily the City of Kalgoorlie-Boulder and the Shire of Menzies, and has a Native Title Agreement in place for development of the Goongarrie Hub. The benign environmental setting being the Great Western Woodlands allows excellent post-mining rehabilitation and reforestation. The Goongarrie Hub mining in particular has no land-use conflict with agricultural activity, nor any of the challenges associated with safe tailings disposal as in the tropics.



Photos clockwise from top: Ardea's Alvin Tiong (Senior Process Engineer), Mike Miller (General Manager – Technical Services) and Andrew Penkethman (MD & CEO) visiting the FBICRC cathode precursor production pilot plant, at Curtin University, Perth Western Australia July 2022; Swainsona formosa (Sturt Desert Peas) Goongarrie; Ardea's Andrew Penkethman (third from left) and Project Geologist Aidan Spilsbury (third from right) supporting 2022 Student Meets Industry Night – AusIMM Kalgoorlie Student Chapter, April 2022; Local basketballer Noah Hinkley benefits from the Education Trust implemented by Ardea and independently managed; Ardea sponsored Leonora Drug Action Group basketball team's participation in regional tournament, covering team uniform, and travelling funds; and well respected Eastern Goldfields Aboriginal Elder, Aubrey Lynch, providing Cultural Awareness training, for the Ardea team, at the West Kalgoorlie Office.



## Corporate Objectives

Ardea is a battery minerals Company focused on the development of the Kalgoorlie Nickel Project (**KNP**). The Company's projects are all located within the Eastern Goldfields world-class mineral province of Western Australia, which is the premium operating jurisdiction in the World with certainty of title demonstrated through 130 years of sustained mineral production and long-accepted transparent and ethical safety, environmental and operating procedures.

The Company is focussed on:

1. Sustainable and ethical development of the **Goongarrie Hub**, which is part of the **Kalgoorlie Nickel Project**, a globally significant series of nickel-cobalt-scandium laterite deposits which host the **largest nickel-cobalt resource** in the developed world and proven to be amenable to industry-standard hydrometallurgical extraction;
2. **Nickel sulphide and Critical Mineral exploration** within KNP tenements aimed at making significant discoveries. Both disseminated nickel and massive nickel sulphide targets have been defined, with any future production fully complementary to the nickel laterite strategy; and
3. **Corporate activity**, including new tenement applications which complement Company strategy.

The KNP is comprised of a series of major undeveloped nickel-cobalt-scandium laterite deposits, which total **830Mt at 0.71% Ni and 0.046% Co (5.9Mt contained nickel metal, 380kt contained cobalt metal<sup>1</sup>)**. Ardea is well placed to provide essential supplies of sustainably sourced nickel and cobalt, along with other Critical Minerals (notably scandium and the Rare Earths neodymium, praseodymium and cerium). All KNP projects are located within 150km of the regional mining hub of the City of Kalgoorlie-Boulder, Western Australia.

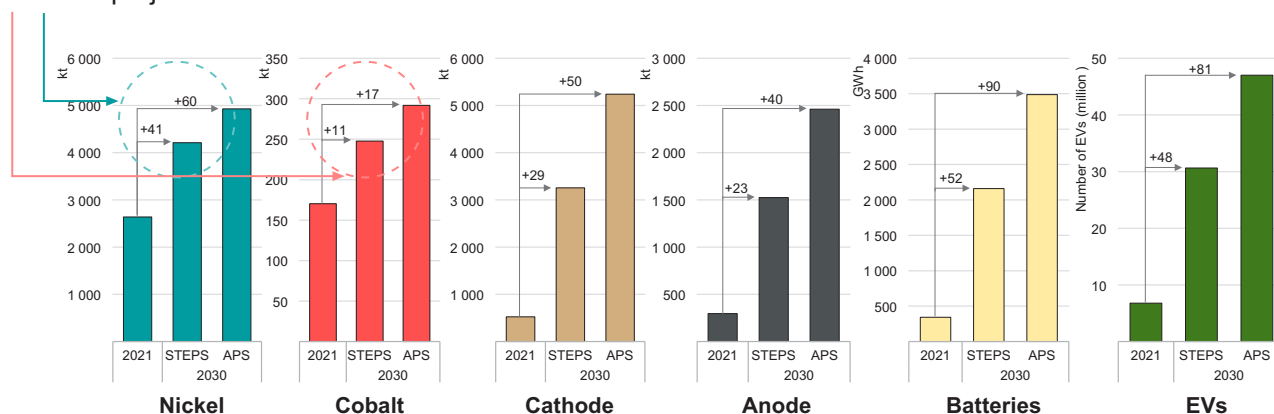
Ardea's principal focus continues to be the development of the KNP, commencing with the Goongarrie Hub nickel laterite deposits. However, Ardea's strategic tenure in the heart of the Eastern Goldfields of Western Australia is also highly prospective for nickel sulphide which is mined extensively throughout the region.

The nickel sector continues to experience a rapid rise in demand linked to Electric Vehicles (**EV**) and the Lithium Ion Battery (**LIB**) supply chain as well as traditional uses such as stainless steel (Figure 1). Current nickel production levels are not expected to keep pace with demand. It is expected that currently identified laterite and sulphide nickel deposits that can ensure sustainable and ethical mineral supply will be developed in the years ahead to meet the burgeoning demand.

- 1 Resource breakdown, last disclosed in Ardea ASX Release 16 June 2021.  
Per Goongarrie Expansion Study ASX release, 24 July 2018. All the material assumptions underpinning the forecast financial information derived from a production target, in the initial public report referred to in rule 5.17 continue to apply and have not materially changed.

**Figure 1: ALL ELEMENTS OF EV BATTERY SUPPLY CHAINS EXPAND SIGNIFICANTLY TO MEET PROJECTED DEMAND**

Number of mines to produce required levels of Ni-Co to meet projected demand in 2030 relative to 2021



**Notes:** STEPS = Stated Policies Scenario; APS = Announced Pledges Scenario. Number of additional mines/plants/factories required to meet projected demand from the 2021 demand level is shown by the arrows. Projected demand is annual. Metal demand is total demand including EV and non-EV demand. Assumes the average annual production capacities: nickel mine - 38 kt; cobalt mine - 7 kt; battery gigafactory - 35 GWh; and EV production plant - 0.5 million vehicles. Nickel demand does not distinguish between Class 1 and Class 2 nickel.

ADAPTED after IEA graph. Sources: IEA analysis based on S&P Global; Bloomberg NEF; Benchmark Mineral Intelligence.



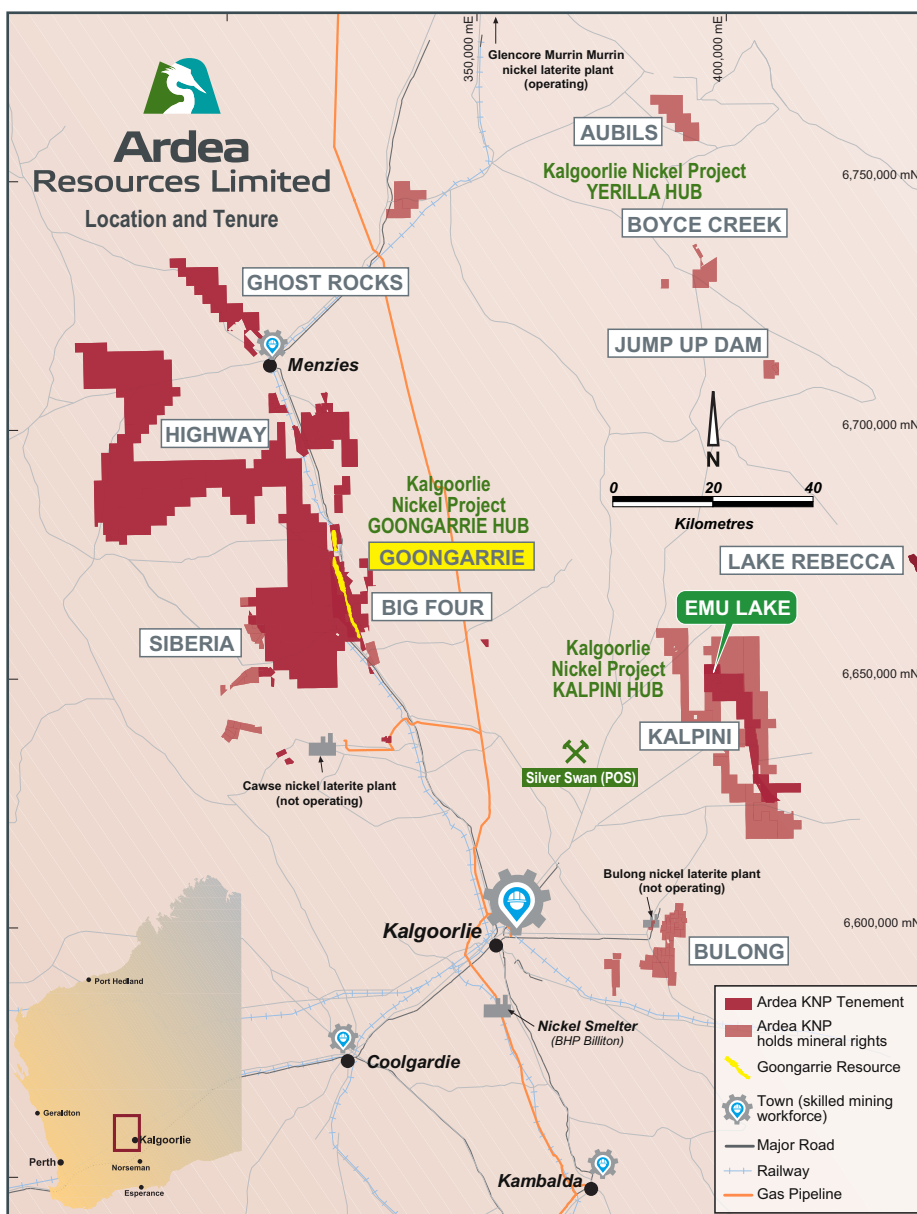
## Kalgoorlie Nickel Project - Goongarrie Hub

### Overview

The Goongarrie Hub is located 70km northwest of the mining centre City of Kalgoorlie-Boulder and is the premium ore feed within the broader KNP (Figure 2). Resources from the Goongarrie South to Scotia Dam deposits are planned to be the base load feed for two HPAL autoclaves and one AL plant located at Goongarrie South. The resources at Goongarrie are dominantly the premium goethite style and extend continuously over 25km of strike and at Highway, 30km north, over a strike length of 6km (Figure 2). All Goongarrie Hub mineral resources are located on granted mining leases with Native Title Agreement in place and tenure 100%-controlled by Ardea.

The project also has ready access to high-quality infrastructure with the Goldfields Highway, rail line and power infrastructure passing through the project area (Figure 2). There are two port options, these being Esperance and Kwinana, that are well serviced by the KNP road and rail network.

Significantly, the KNP is located on the rail connection to the developing battery hub at the Port of Kwinana industrial area immediately south of Perth, as well as east to Port Augusta and developing low-carbon energy hubs on the eastern Australia seaboard.



Ardea is actively engaged with Commonwealth and State agencies and statutory authorities, notably the Department of Foreign Affairs and Trade (DFAT), Critical Minerals Office (CMO), Major Projects Facilitation Agency (MPFA), Australian Trade and Investment Commission (Austrade) and Export Finance Australia (EFA) who are coordinating the push for a downstream battery industry within Australia through “Team Australia” and the State of Western Australia through “Team WA”. All the LIB feedstocks, including nickel and cobalt, are available in Australia and WA at the scales required for world-significant green energy centres of excellence.

**Figure 2:**  
KNP LOCATION AND  
INFRASTRUCTURE PLAN  
Projection GDA94 MGA94 Zone 51.





Photo: Aerial image of Ardea's Goongarrie Hub, showing road and rail infrastructure within the project and the benign semi-arid woodland environment, ideal for project development and rapid revegetation post mining.

## Project Funding

Following the awarding of Major Project Status (**MPS**) by the Prime Minister in March 2022, engagement with Commonwealth agencies has escalated considerably, with their professionalism, contact-reach and enthusiasm of immense value to the Australian mining sector, and in particular for Ardea. The driving force for Ardea in World Critical Minerals supply is the KNP's ESG-compliant chain of supply and geopolitical stability.

Ardea's 2018 Prefeasibility Study (**PFS**) focussed solely on HPAL goethite feed with no beneficiation of lower grade siliceous ore and no AL circuit. Feed rate was 1.5Mtpa for 25 years producing 12.35ktpa nickel-in-product (ASX release 28 March 2018). This production model understates the world-scale potential of the KNP hence the current feasibility programs are required to expand to the current 3.5Mtpa plant feed model.

It is most apparent that even stronger Commonwealth support will be possible once updating of the KNP 2018 PFS is completed. In particular, converting more of the 830Mt Mineral Resource Estimate (**MRE**) to Reserves is essential for securing Export Credit Agency support for financing. Ardea continues engagement with a number of potential funding sources both in Australia and overseas.

To expediate a more favourable KNP funding package, an industry-leading mining consultancy has been retained to produce a representative Ore Reserve for the KNP Goongarrie Hub, using the currently defined resource of 561Mt at 0.68% Ni and 0.044% Co. The first step has commenced, being an update to the 2018 PFS financial model (by consultancy Ockham Group based in UK). This PFS level update, as part of the ongoing feasibility programs is important, as the 3.5Mtpa project scale has increased from the 2018, 1.5Mtpa PFS and 2.25Mtpa Expansion Study. Flow sheet enhancements such as the inclusion of a second HPAL autoclave, the AL circuit and Mineralised Neutraliser also need to be quantified, to be able to optimally communicate the Company value proposition.

## Feasibility Programs

The KNP is owned 100% by Ardea and is undergoing feasibility for a 3.5Mtpa operation, with two HPAL autoclave trains, each rated at 1.5Mtpa, as well as an AL circuit of at least 0.5Mtpa. The operation can be expanded if required utilising beneficiated feed. The leach streams will initially produce Mixed Hydroxide Precipitate (**MHP**) as an ethical and sustainable supply chain product for the LIB sector. The longer-term objective is to upgrade to Precursor Cathode-Active Material (**PCAM**) as a Stage 2 enhancement servicing a US, European, east Asia as well an emerging Australian-domiciled Original Equipment Manufacturers (**OEM**).





With the substantial KNP resource base with 5.9Mt of contained nickel, there is potential for many more trains of the Goongarrie 1.5Mtpa HPAL module, for KNP to be an even more significant world-scale nickel-cobalt producer.

The Goongarrie Hub Material Types allow the mineralisation to be easily matched to either the HPAL or AL circuits, and results in maximising resource utilisation. High magnesium plant feed which in previous production schedules was stockpiled at pit ramp exits for late project HPAL processing is now designed to feed the AL circuit contemporaneously with mining.

Significantly, the additional sulphuric acid now required by adding the AL circuit leads to a larger sulphur-burning acid plant. The acid plant reaction chemistry is highly exothermic and generates substantial heat and thus steam, which will be used to generate electricity and for process heating for the site. This allows a material de-carbonising of the project which is already low by industry standards (Figure 3) and will continue to be reduced as part of in-progress feasibility work.

With the AL circuit positive environmental impact on the site acid and energy balance, the operation is likely to be fully off-grid. Ongoing feasibility work is in fact considering the operation as an energy exporter.

As well as the Ardea 2018 KNP studies, the A\$34.5M (2009 money of the day) PFS completed by former KNP joint venture partner Vale Inco in 2009 in partnership with previous KNP owner Heron Resources Limited, continues to be a valuable information source. In particular, Vale Inco completed considerable bench-scale metallurgical work on screen beneficiation (termed Bene Ore) which Ardea has used in framing its current metallurgical bench-scale laboratory programs. Beneficiation has been a project risk at previous WA nickel laterite operations due to inadequate bench-scale test work and poor leach feed grade predictive models, so the KNP is designed to be more reliant on direct feed (termed Grind Ore), particularly during the Payback period.

Vale Inco test work also returned favourable nickel-cobalt recoveries from Atmospheric Leach test work but did not progress the concept. With the Global Financial Crisis of 2008, Vale Inco closed multiple nickel operations world-wide and withdrew from the KNP joint venture. Fortuitously, Ardea has been able to retain the KNP and continue adding value to the asset, at a time of high nickel demand.

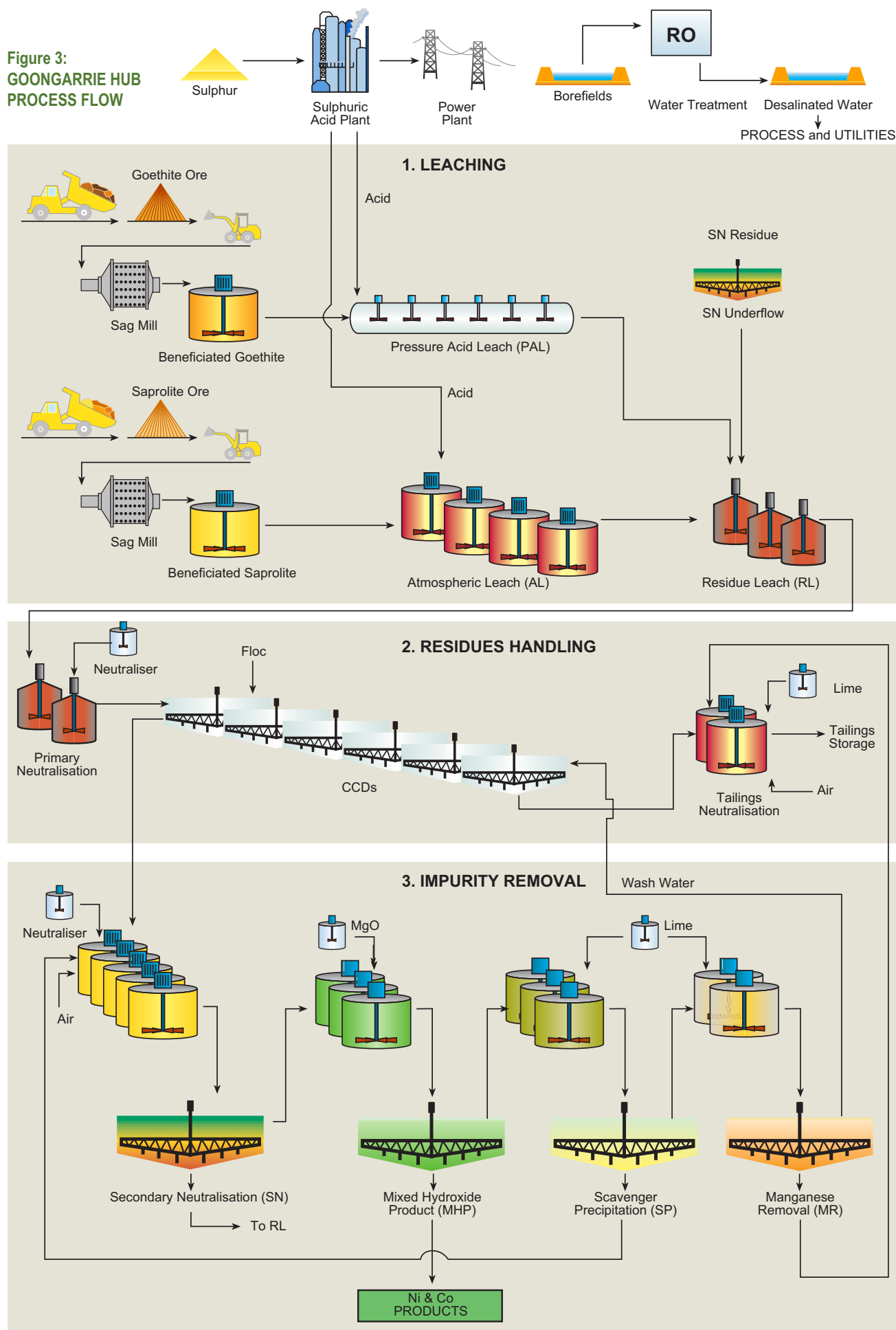


Goongarrie, Kalgoorlie Nickel Project





**Figure 3:  
GOONGARRIE HUB  
PROCESS FLOW**





## Resource Modelling

During the year, drill assay results were received from Goongarrie South, Goongarrie Hill and Highway metallurgical test work drill core, which have confirmed the geological model and estimates for high-grade laterite nickel-cobalt-scandium mineralisation (ASX releases 16 May and 26 May 2022).

The KNP continues to be evaluated for high-grade, >1% nickel plant feed options. This work also covers by-product metallurgical studies, including scandium and Rare Earth Elements (**REE**), and that all mineral resource estimation uses uniform methodologies. A review of the full KNP high-grade nickel MRE is continuing, with Siberia North in the western Goongarrie Hub currently being assessed for an updated MRE.

The combined Mineral Resources at the Goongarrie and Highway deposits for a starter processing plant development at the KNP Goongarrie Hub are reported below (Table 1), with an initial focus on the high-grade resource based on a 0.8% Ni cut-off grade.

The full Goongarrie Hub now has a single Material Types algorithm based solely on XRD-generated mineralogy. This modelling is the basis for pit optimisations, metallurgical flow sheet and engineering designs.

Most importantly, Material Types are now segregated in the comminution circuit as Grind or Bene, and in leaching as HPAL feed, AL feed and Neutraliser. The system has been developed by Ardea's in-house Principal Resource Geologist, and is illustrative of the elite nickel laterite expertise the Company has developed since its 2017 ASX listing.

Drill core for the in-progress metallurgical test work has been selected on the basis of the modelled Material Types. The Vale Inco 2005-2009 and Ardea 2017-2018 piloting very much focussed on Grind HPAL plant feed, so the current feasibility programs are skewed towards AL feed.

In terms of beneficiation, the KNP model used to select the test material was based on an assumed grade of scats (siliceous material rejected in screening) of 0.35% Ni. The financial model at that time used a nickel price of US\$19,500 per tonne.

At the current nickel price exceeding US\$20,000 per tonne, grades as low as 0.35% Ni sitting in fully sampled stockpiles, have significant value exceeding variable processing costs which has the potential to move plant feed away from Bene in favour of Grind. Additionally, HPAL with 94% nickel recovery is favoured over AL with lower recoveries. To accommodate such considerations, the KNP 2018 PFS financial model has been upgraded.

**Table 1 - Highway and Goongarrie (ASX release 15 February and June 16, 2021) nickel and cobalt Mineral Resource Estimates using a 0.8% Ni cut-off grade**

Deposit	Resource Category	Quantity (Mt)	Nickel (%)	Cobalt (%)	Contained nickel (kt)	Contained cobalt (kt)
<b>Goongarrie Hub</b> (GH, GS, BF & SD)	Measured	11.0	1.13	0.106	125	11.6
	Indicated	41.5	0.97	0.070	404	29.0
	Inferred	7.1	0.95	0.051	67	3.6
	<b>Subtotal</b>	<b>59.6</b>	<b>1.00</b>	<b>0.074</b>	<b>595</b>	<b>44.3</b>
<b>Highway</b>	Indicated	15.1	1.01	0.053	152	8.0
	Inferred	3.7	0.98	0.053	36	2.0
	<b>Subtotal</b>	<b>18.8</b>	<b>1.00</b>	<b>0.053</b>	<b>188</b>	<b>10.0</b>
<b>Combined Deposits</b>	Measured	11.0	1.13	0.106	125	11.6
	Indicated	56.5	0.98	0.066	556	37.1
	Inferred	10.8	0.95	0.051	103	5.6
<b>Grand Total</b>		<b>78.3</b>	<b>1.00</b>	<b>0.069</b>	<b>784</b>	<b>54.3</b>



Ardea's updated 2021 Goongarrie and Highway resource estimates were incorporated with historic KNP resource estimates compiled by various parties between 2004 and 2009 and signed off to meet JORC-2012 guidelines by Heron Resources in 2013 (refer Table 2 below). The KNP Goongarrie Hub MRE, based on a 0.5% Ni cut-off grade, is 561Mt with 3.8Mt of contained nickel and 248kt of contained cobalt and will be able to supply premium goethite plant feed to an HPAL process plant located at Goongarrie for multiple decades.

**Table 2 – Updated KNP nickel and cobalt Mineral Resource Estimates based on a 0.5% Ni cut-off grade**

Camp	Prospect	Resource Category	Size (Mt)	Ni (%)	Co (%)	Contained Metal		Estimation Details		
								Method	Source	Year
Goongarrie	Goongarrie South	Measured	18	0.94	0.085	171	15	LUC	Ardea	2021
		Indicated	82	0.71	0.049	584	40	LUC	Ardea	2021
		Inferred	10	0.64	0.033	61	3	LUC	Ardea	2021
	Highway	Indicated	71	0.69	0.038	487	27	LUC	Ardea	2021
		Inferred	21	0.67	0.040	141	8	LUC	Ardea	2021
	Ghost Rocks	Inferred	47	0.66	0.042	312	20	OK	Snowden	2004
	Goongarrie Hill	Indicated	40	0.65	0.037	259	15	LUC	Ardea	2021
		Inferred	29	0.60	0.025	176	7	LUC	Ardea	2021
	Big Four	Indicated	49	0.71	0.047	346	23	LUC	Ardea	2021
		Inferred	14	0.68	0.043	96	6	LUC	Ardea	2021
	Scotia	Indicated	12	0.71	0.065	82	7	LUC	Ardea	2021
		Inferred	5	0.72	0.043	37	2	LUC	Ardea	2021
	<b>Goongarrie Subtotal</b>	Measured	18	0.94	0.085	171	15			
		Indicated	253	0.69	0.044	1,758	112			
		Inferred	127	0.65	0.037	823	47			
		<b>Combined</b>	<b>398</b>	<b>0.69</b>	<b>0.044</b>	<b>2,753</b>	<b>175</b>			
Siberia	Siberia South	Inferred	81	0.65	0.033	523	27	OK	Snowden	2004
	Siberia North	Indicated	10	0.64	0.051	64	5	OK	Snowden	2009
		Inferred	53	0.66	0.043	352	23	OK	Snowden	2009
	Black Range	Indicated	9	0.67	0.090	62	8	OK	HGMC	2017
		Inferred	10	0.69	0.100	68	10	OK	HGMC	2017
	<b>Siberia Subtotal</b>	Indicated	19	0.65	0.070	126	13			
		Inferred	144	0.66	0.041	943	59			
		<b>Combined</b>	<b>163</b>	<b>0.66</b>	<b>0.045</b>	<b>1,070</b>	<b>73</b>			
KNP Goongarrie Hub	<b>TOTAL</b>	Measured	18	0.94	0.085	171	15			
		Indicated	272	0.69	0.046	1,885	126			
		Inferred	270	0.65	0.039	1,767	107			
		<b>Combined</b>	<b>561</b>	<b>0.68</b>	<b>0.044</b>	<b>3,822</b>	<b>248</b>			
Bulong	Taurus	Inferred	14	0.84	0.051	119	7	OK	Snowden	2007
	Bulong East	Indicated	16	1.06	0.055	169	9	OK	Snowden	2004
	Bulong East	Inferred	24	0.79	0.053	190	13	OK	Snowden	2004
	<b>Bulong Subtotal</b>	Indicated	16	1.06	0.055	169	9			
		Inferred	38	0.81	0.052	309	20			
		<b>Combined</b>	<b>54</b>	<b>0.88</b>	<b>0.053</b>	<b>477</b>	<b>29</b>			
Hampton	Kalpini	Inferred	75	0.73	0.044	550	33	OK	Snowden	2004
	<b>Hampton Subtotal</b>	Inferred	75	0.73	0.044	550	33			
KNP Kalpini Hub	<b>TOTAL</b>	Indicated	16	1.06	0.055	169	9			
		Inferred	114	0.76	0.047	859	53			
		<b>Combined</b>	<b>130</b>	<b>0.79</b>	<b>0.048</b>	<b>1,028</b>	<b>62</b>			
Yerilla	Jump Up Dam	Measured	4	0.94	0.048	36	2	OK	Snowden	2008
		Indicated	42	0.78	0.043	324	18	OK	Snowden	2008
		Inferred	18	0.63	0.034	116	6	OK	Snowden	2008
	Boyce Creek	Indicated	27	0.77	0.058	206	16	OK	Snowden	2009
	Aubils	Inferred	49	0.70	0.066	346	33	OK	Heron	2008
	<b>KNP Yerilla Hub TOTAL</b>	Measured	4	0.94	0.048	36	2			
KNP Yerilla Hub	<b>TOTAL</b>	Indicated	68	0.78	0.049	531	33			
		Inferred	68	0.68	0.057	462	39			
		<b>Combined</b>	<b>140</b>	<b>0.73</b>	<b>0.053</b>	<b>1,028</b>	<b>74</b>			
KNP TOTAL	<b>TOTAL</b>	Measured	22	0.94	0.079	207	17			
		Indicated	357	0.72	0.047	2,584	168			
		Inferred	452	0.68	0.044	3,088	199			
		<b>Combined</b>	<b>830</b>	<b>0.71</b>	<b>0.046</b>	<b>5,879</b>	<b>384</b>			

Legend:

LUC – Local Uniform Conditioning; OK – Ordinary Kriging.





## Processing Research and Development - Scandium and Rare Earth Elements

FY2022 Research & Development (**R&D**) has been primarily based upon metallurgical experiments aimed at optimising the downstream product and hence revenue streams from the KNP and its sub-set Goongarrie Hub.

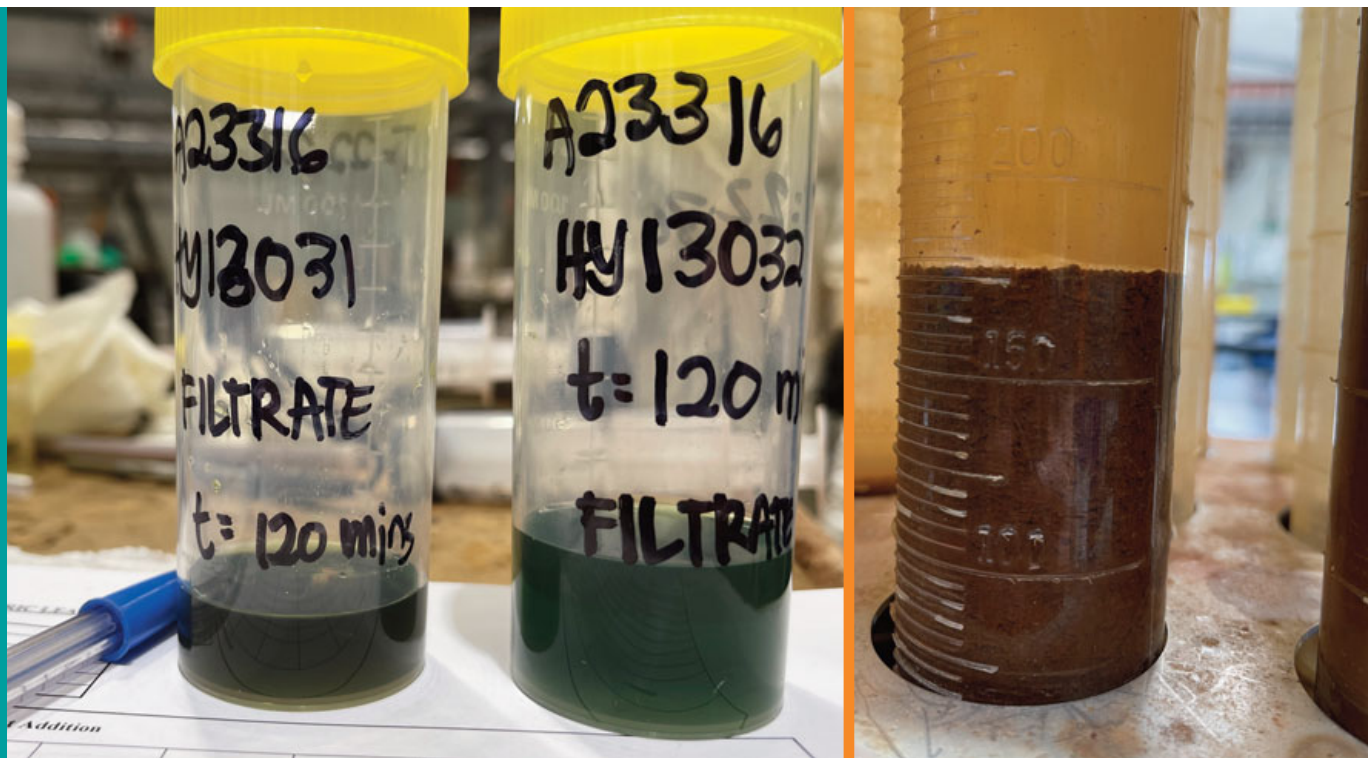
Key experiments relate to sustainability enhancements for the KNP HPAL and AL flowsheets, notably predicated upon the use of in-pit derived neutralisers. The priority focus is the diamond drill core metallurgical test work underway at ALS Balcatta metallurgical laboratory, which in addition to the nickel-cobalt HPAL and AL work is also considering the Critical Minerals essential for the new age technologies used in limiting carbon emissions, such as the EV, Static Storage Battery (**SSB**) and electric motor/wind-turbine sectors.

In terms of potential product revenue streams, opportunities involving the Critical Minerals cobalt, scandium and magnesium, the Platinum Group Elements (**PGE**) – Ru, Rh, Os and the REE neodymium, praseodymium and cerium. However, project development has always been focussed on nickel-cobalt, which continues to be the case, with Ardea's flow sheet in no way dependent upon any by-product credits.

The securing of feed for the AL circuit is critical, since this was the mechanism to increase acid demand. Designing the Mineralised Neutraliser and AL programs has been the key program in FY2022 R&D and is continuing into FY2023.

Highly sought Critical Minerals within the KNP lateritic enrichment regolith profile identified in R&D include:

- Nickel-Cobalt-Manganese (**NCM**) content in LIB including PCAM;
- EV electric motor REE permanent NdFeB magnet metals, most notably Nd-Pr. The KNP also has common Ce and potential for Dy and La;
- Scandium for scandium-aluminium lightweight, high-strength fabrication in general and EV chassis in particular;
- Vanadium for community-scale and larger SSBs;
- Critical Minerals targets at potentially extractable grades identified during KNP R&D include:
  - Ba, Cr, Ga, In, Mg, Mo, Te, Ti, Sn, W, Y, Zr; and
  - PGEs - Ru, Rh, Os (due to excessive assay cost, using Pt-Pd as a pathfinder in drill pulp re-assay).





All of these Critical Minerals can be assessed because the HPAL process requires complete dissolution of goethite-hosted nickel-cobalt mineralisation, thereby rendering all contained metals into solution and thus amenable to recovery. This does not require each of these metals to be in stand-alone economic concentrations in their own right. Recovery of these metals relies on nickel and cobalt hydrometallurgical recovery, potentially providing significant credits and upside to the project economics. In-progress metallurgical R&D will help determine the viability of recovering co-product Critical Minerals from the HPAL Pregnant Liquor Solution (**PLS**).

Critical Minerals research and development is predicated on the 60 element Ardea multi-element assay suite used in all sampling programs. The main R&D focus for the Company continues to be searching the KNP technical data base to select archived Ardea drill sample pulps for re-assay for Critical Minerals (notably REE co-products, and PGE which is also used for identifying fertile nickel sulphide multi-element ratios). This R&D is a joint CSIRO-Ardea program.

## CSIRO

Ardea continues to work with industry leading research partners, such as Australia's national science agency, CSIRO. The nickel sulphide study is supported and co-funded by the Australian Government's Entrepreneurs' Programme, Innovation Connections service and is continuing, with several samples from Emu Lake, Goongarrie and Highway being assessed to confirm key nickel sulphide indicators.

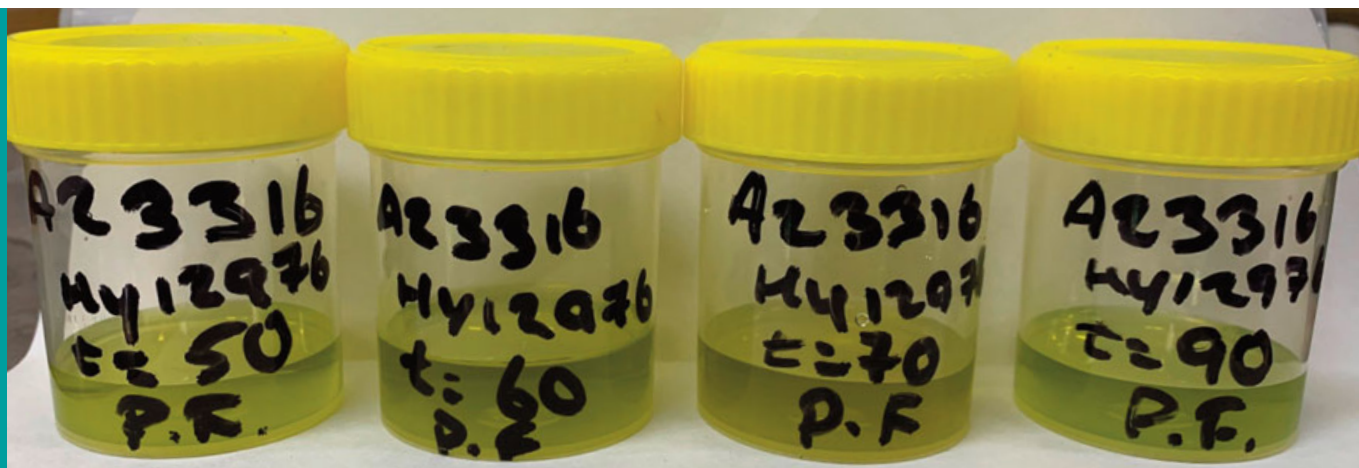
Recent results have also highlighted the prospectivity of the Walter Williams Formation (**WWF**) for hosting magmatic nickel sulphide. Fortuitously, Ardea is the largest holder of the WWF in the Eastern Goldfields, as this is the dominant host unit that has weathered to form the Goongarrie Hub nickel laterite deposits. Whilst the Company focus remains on completing the Goongarrie Hub feasibility, this nickel sulphide prospectivity provides additional optionality.

## Future Battery Industries Cooperative Research Centre

The Future Battery Industries Cooperative Research Centre (**FBICRC**) based at Curtin University, Perth, is an independent centre where industry, government and researchers can come together to create the tools, technologies and skills to grow the role of battery storage in Australia's electricity grids, and make Australia a larger downstream player in global battery value chains.

Ardea continues to sponsor and work with the FBICRC team on the following work streams:

1. Cathode Precursor Project.
2. Innovative Nickel-Cobalt Extraction.
3. Electrochemical testing of Australian battery materials in standard cell formats.
4. Provenance and Trusted Supply Chains.
5. Certification and Environmental life Cycle Assessment.



Each one of these work streams is aimed at ensuring high quality product specifications and ESG compliance for the LIB sector and sustainable and ethical supply from the best-regarded operating jurisdiction in the World, WA.

The consortium of FBICRC participants includes some of the largest nickel and chemicals producers in the World who are working with companies such as Ardea to produce from locally sourced materials the batteries used in electric vehicles.

Ardea has assembled suitable bulk drill sample material from current Goongarrie Hub drilling plus product from the 2018 PFS Goongarrie pilot run as test material for the FBICRC pilot plant. The Cathode Precursor Production Pilot Plant was officially launched on 11 July 2022, with Ardea representatives Alvin Tiong, Andrew Penkethman and Mike Miller attending on behalf of the Company.

## Bench-scale Metallurgy

Bench-scale metallurgical test work is continuing at the ALS metallurgical laboratory in Perth. As well as conventional HPAL, the metallurgical test work program is investigating Atmospheric Leaching of high-magnesium plant feed as well as the Mineralised Neutraliser, which would be performed in parallel to HPAL leaching of the dominant iron-rich goethitic feed. From a process perspective, Atmospheric Leaching will be beneficial for stabilising the overall circuit, especially with regards to sulphuric acid plant production and its role in maintaining the off-grid, carbon free, site energy balance. Other ALS R&D includes:

- Leach feed cut size increased to nominal minus 212 microns (was 75 microns), to allow additional leach feed tonnes albeit at slightly lower leach feed grade (facilitated by high nickel prices).
- Gravity separation of ore preparation oversize for potential recovery of target heavy mineral by-products.
- Atmospheric pressure leaching of high nickel grade serpentine saprolite mineralisation.
- Acid neutralisation using magnesite recovered in-pit from immediately below the nickel-cobalt ore.

Downstream test work is planned to define the design criteria and integrate the new features into the overall flowsheet. The test work will generate MHP product for review by prospective customers and for evaluation of MHP refining options.

R&D results continue to be received with recent neutralisation results from a composite sample over the Highway resource returning favourable nickel upgrade in the fine fraction to complement the sought-after acid neutralisation capacity of the coarse fraction.

*Photos: page 10 left: Metallurgical test work has demonstrated the effectiveness of flowsheet developments, such as Atmospheric Leaching; page 10 right: High feed slurry density helps Ardea obtain high production from a two-train HPAL circuit; page 11 Hydrogeology studies - Siberia North Water Drilling, March 2022; photo page 12: HPAL - Leach tests were conducted to demonstrate leach efficiency as a function of time and acid dosage.*





The Goongarrie South, Goongarrie Hill and Highway metallurgical hole selection was primarily based on obtaining representative in situ material for testing the Atmospheric Leach hydrometallurgical flowsheet. However, given the premium goethite material type that dominates at Goongarrie, limited AL feed is expected. However, at Highway and to a lesser extent Goongarrie Hill, some high-magnesium nontronite-serpentine clay mineralisation was sought for testing on the basis of its role in sulphuric acid demand and hence power generation for the KNP low-carbon flowsheet.

Initial metallurgical results are indicating lower carbon content than originally modelled and assuming this trend continues, the carbon emissions from the Goongarrie Hub will continue to drop, as studies are progressed. The updated values are approximately 10kg CO<sub>2</sub>/kg Ni, before cobalt credits, whereas original modelling indicated values of approximately 15kg CO<sub>2</sub>/kg Ni.

## Metallurgical Bulk Samples

Where parties doing technical due diligence on the KNP have required bulk samples for their independent test work, this has been facilitated through Ardea's extensive drill sample laboratory coarse residue archive (several tonnes of material archived at the Ardea West Kalgoorlie yard and at the Malaga storage unit). These are key R&D assets, with results used to help validate existing data.

## Hydrogeology

R&D using the multi-element database is a key means to quantify KNP process water resources. Historical drill logging failed to address water potential, which the R&D now addresses.

At Goongarrie, all nickel-cobalt-scandium resources are located on granted mining leases. As such, Ardea has first rights to any ground water underlying these areas. Past work by Ardea has defined multiple potential water sources with water for project development to be sourced from dedicated bores and conventional open pit dewatering ahead of mining.

Following the R&D, additional water sourcing activities were completed at Siberia North, assessing fractured rock aquifers, with 18 RC holes air lifted for 1,284m. Several zones of below marine salinity water (~40,000 TDS), were identified as a conventional Reverse Osmosis plant feed. The R&D program proved to be most valuable.

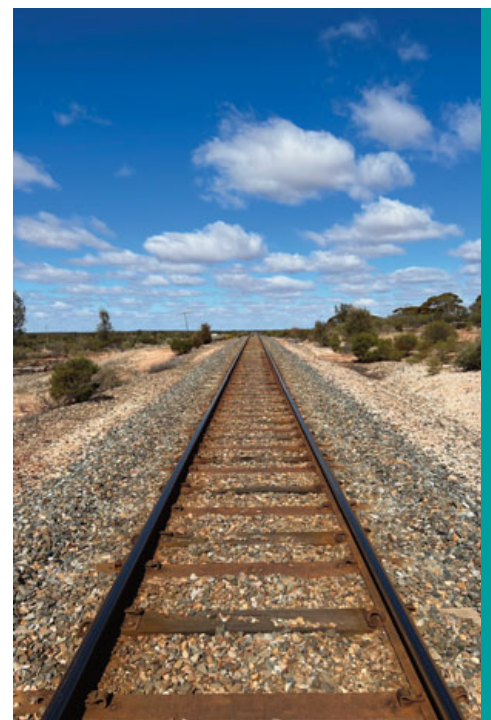
Both typical Eastern Goldfields saline water and potable water will be required for project development.

Ardea's US-based nano-filtration R&D test work has demonstrated the potential for this technology to be used for softening the HPAL water feed and for recycling barren process water to reduce both the project's water consumption and its water evaporation pond footprint.

## Infrastructure and Logistics

As part of its ongoing permitting engagement, Ardea has accelerated communications with a number of key stakeholders, including:

1. The City of Kalgoorlie-Boulder – to provide both organisations with an update on key project development considerations, such as infrastructure and worker accommodation. Regular communication continues.
2. The Shire of Menzies – update on key project development considerations. Regular communication continues.
3. Southern Ports, Esperance – update on the transport of goods and services between Esperance and Goongarrie.
4. Goldfields Industrial Water Group – to study means of working co-operatively with local Community and industry for efficient collection, use and recycling of water resources in the Kalgoorlie region.
5. Rail infrastructure and logistical suppliers in the Kalgoorlie region.





## Environment and Rehabilitation

All project development within the KNP is aimed at ensuring systematic and rapid rehabilitation, concurrent with operations. The KNP is located within the Great Western Woodlands, the largest and healthiest temperate to semi-arid (Mediterranean climate) woodland on Earth. The woodlands cover almost 16,000,000 hectares from the Nullarbor Plain in the east to the Wheatbelt in the west; from Esperance in the south through to the inland mulga country north of Kalgoorlie including the KNP as a comparative very small component of the woodlands.

Comprehensive KNP flora and fauna surveys by Vale Inco in 2009 and Ardea in 2017 have confirmed environmental sustainability within the “temperate dry laterite” ecosystem.

Mine rehabilitation methodology is facilitated through four decades of WA open pit gold mine operations, and the KNP footprint is minimised through the use of mining voids for tailings and mullock disposal. Mining voids will be progressively rehabilitated during the course of operations and returned to their pre mining state, by dressing the back filled open pit voids with topsoil (Figure 5).

In terms of ESG compliance for hydrometallurgical metal processing, the KNP’s benign and manageable environmental footprint contrasts strongly with “wet tropical laterite” projects. The tropical laterites require submarine tailings disposal or valley tailings storage with consequent substantial environmental risk. Tailings disposal in these environments tends to be further complicated by high rainfall and the fact that most tropical laterite deposits are located in seismically active regions. Additionally, wet tropical laterite production areas commonly involve non-restorable rain forest habitat destruction, which is unacceptable to OECD battery metal end-users.

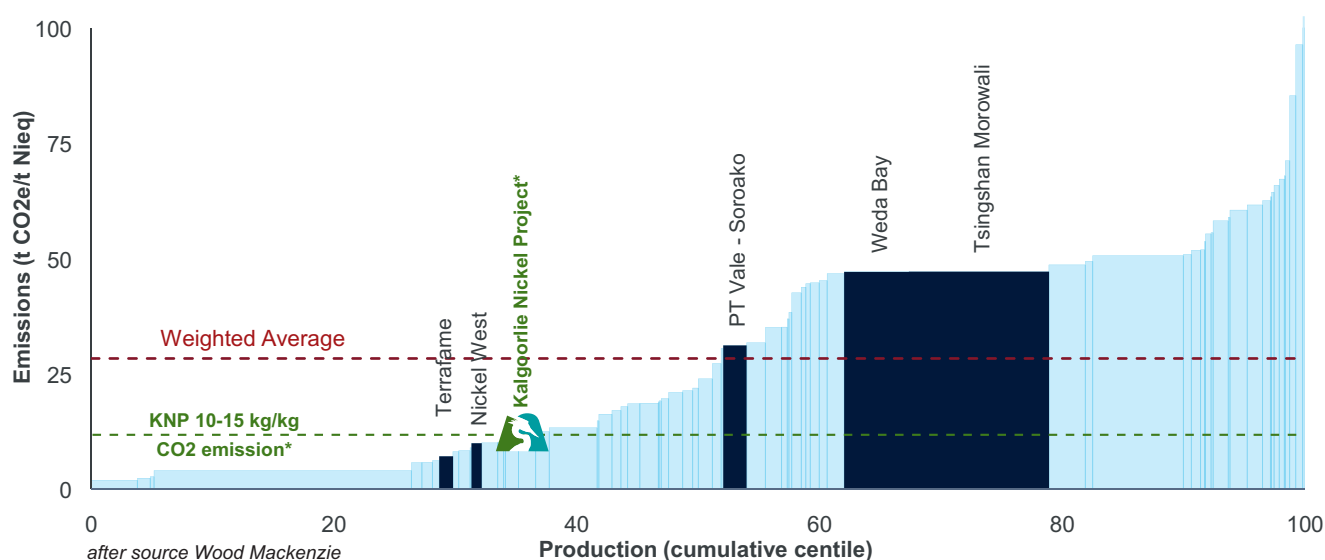
It is doubtful whether wet tropical laterite hydrometallurgical battery metal sources can comply with the ESG standards required by the EV sector, particularly where submarine tailings disposal is used. Similarly, with in excess of 3,000mm of annual rainfall, it is an immense challenge for long-term tailings stabilisation.

The KNP semi-arid climate is likely just as important as its nickel grade for the project’s robust development potential.

**Figure 4:**  
MINIMISING CARBON EMISSIONS IS AN ESSENTIAL PART OF ARDEA’S DEVELOPMENT PLAN FOR THE KALGOORLIE NICKEL PROJECT, WITH INDUSTRY LEADING LOW CARBON EMISSIONS COMPARED TO PEERS

### Nickel industry CO<sub>2</sub>e curve (Scope 1 and 2 only) for 2021

Ardea’s provisional CO<sub>2</sub> emission calculations sit at less than half the weighted industry average and less than a quarter of Indonesia Matte production

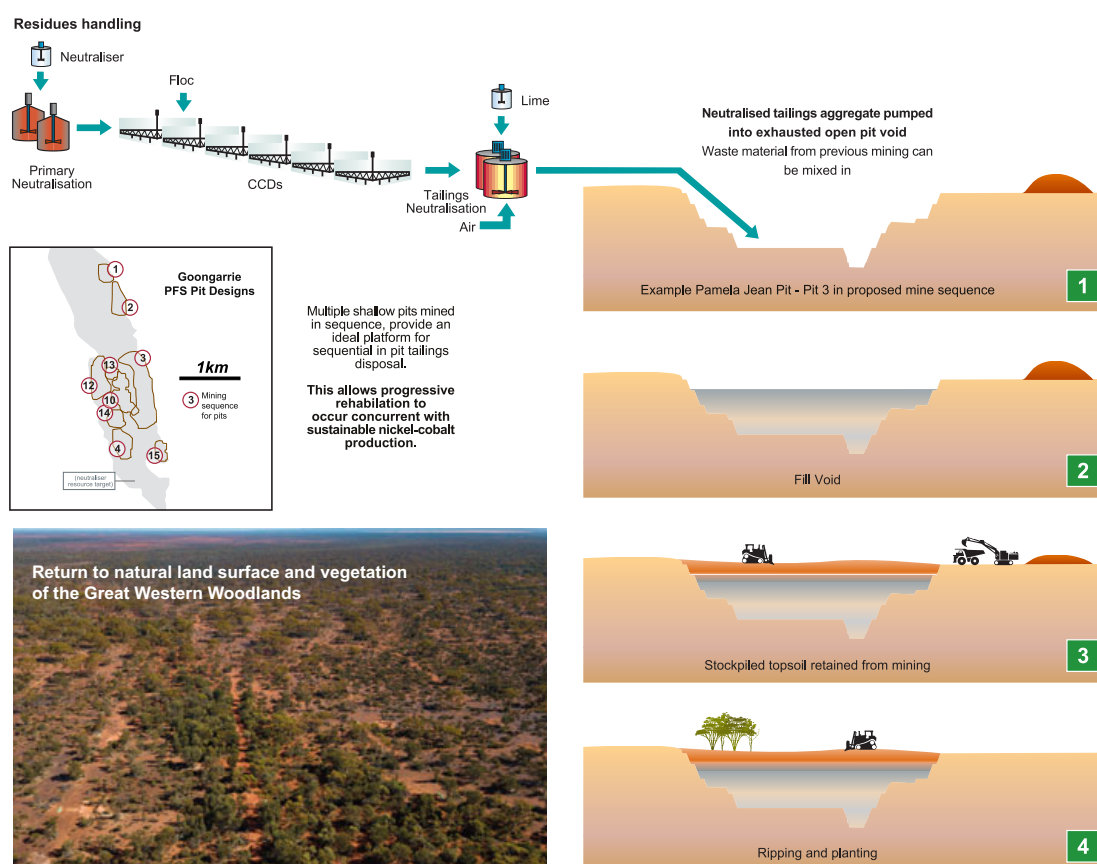


• These figures are provisional, based on the most recent mass balances but subject to changes in mine plan and other metrics for comparison



Goongarrie, Kalgoorlie Nickel Project

**Figure 5:**  
**PLANNED GOONGARRIE HUB IN-PIT TAILS DISPOSAL AND REHABILITATION STRATEGY**







## WA Nickel Sulphide and Critical Minerals projects

Ardea's extensive and strategic land holding in the Eastern Goldfields of WA comprises 169 tenements, covering over 4,271km<sup>2</sup> and in addition to the globally significant nickel-cobalt-scandium KNP resource, is highly prospective for nickel sulphide, platinum group element (PGE) and Critical Minerals (Figure 6).

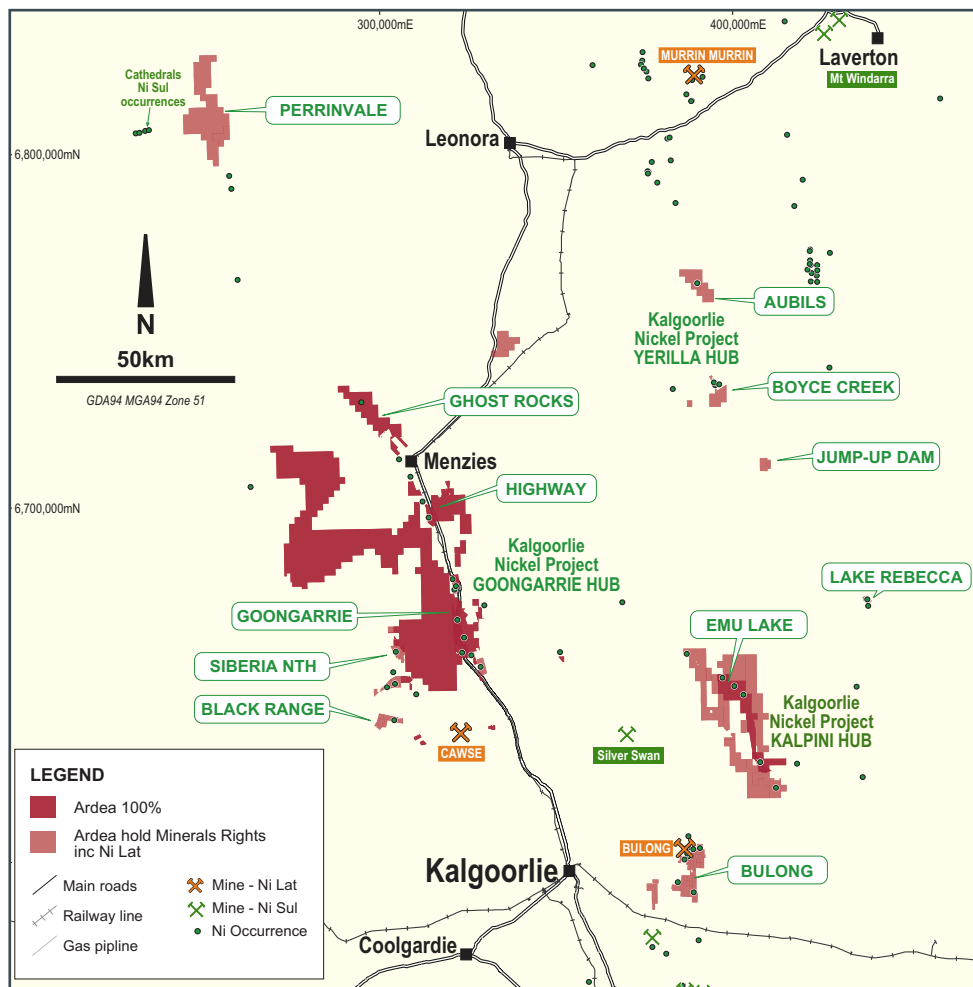
### Ardea Nickel Sulphide Strategy

The Company priority continues to be the development of the KNP, commencing with the Goongarrie Hub nickel laterite deposits. However, Ardea's strategic tenure in the heart of the Eastern Goldfields of Western Australia is also highly prospective for nickel sulphide which is mined extensively throughout the region. Ardea's nickel sulphide strategy complements the development of the KNP. The KNP nickel sulphide targets are a valuable asset in a region of multiple nickel sulphide concentrators, with most constrained by insufficient sulphide feed availability.

Ardea's KNP tenure covers extensive zones of ultramafic stratigraphy which hosts the KNP nickel laterite resources (Figure 6). This same tenure is highly prospective for both Kambalda style komatiite lava flow and Nova-Julimar style intrusive related magmatic nickel sulphide mineralisation. It is important to note that any nickel sulphide discovery has the potential to be processed as supplementary feed to laterite mineralisation through the autoclaves planned for Goongarrie.

Although sulphides would only be processed in limited quantities compared to the lateritic throughput, they have the added benefit of helping control autoclave oxidising potential, assisting exothermic reaction kinetics (reduce autoclave steam heating requirement), and typically improving overall nickel recoveries.

An additional bonus is that metal concentrations considered deleterious to conventional nickel sulphide flotation concentrator processing (and that have historically curtailed development of several Eastern Goldfields deposits) do not affect the HPAL process, opening the possibility of mineral extraction from nickel sulphide deposits that may otherwise be overlooked.



**Figure 6:**  
**ARDEA TENEMENT PLAN**  
highlighting the location of the  
Kalpini Project, Emu Lake Nickel  
Sulphide Camp and nickel mines  
and deposits in the region  
Projection MGA 94 Zone 51



## Emu Lake Nickel Sulphide Prospect

Ardea's Kalpini Project is located 70km north-east of the City of Kalgoorlie-Boulder and covers 121km<sup>2</sup> on contiguous granted Mining Lease tenure 100%-owned by Ardea (Figure 6 and 8).

Regionally there are two distinct Kalpini ultramafic units each with 20-25km strike within Ardea tenure (Figure 8):

- The Kalpini Eastern Komatiite Belt hosts Ardea's Wellington East and Acra North nickel laterite deposits containing 75Mt at 0.73% nickel and 0.04% cobalt, for 549.7kt nickel and 32.6kt cobalt (Ardea ASX release 16 June 2021). Aeromagnetic data indicates a uniform sheet of ultramafics (lacking discrete volcanic centres). The ultramafics are typical of the Walter Williams Formation style, consisting of a thick 200-600m sheet with olivine orthocumulate upper and lower contacts with middle olivine meso to adcumulate which favourably weathers to nickel laterite (Dunitic Sheet Flows-Layered Lava Lakes, "DSF-LLS", Figure 7). The Eastern Komatiite sits on the Kurnalpi Dome granitoid basement and is presumably an older lava flow sequence.
- The Kalpini Western Komatiite Belt hosts the Emu Lake Nickel Sulphide Camp. There are three documented and well-defined fertile nickel sulphide surfaces at Emu Lake (Dunitic Channelised Sheet Flows, "DCSF", Figure 7). The volcanics are characterised by a bi-modal co-magmatic suite, with each cycle having a footwall dacite volcanic overlain by ultramafic volcanic flows (Figure 7). Aeromagnetics indicate multiple discrete ultramafic centres. The ultramafic component of the flows is typically 10-40m thick, with dacite being the lower flow component and komatiite the upper flow component. Massive nickel sulphide typically occurs in the upper dacite and grades stratigraphically up into disseminated nickel sulphide in the basal komatiite. The volcanic morphology is typical of a komatiite thermal erosion setting (as per Silver Swan) in a channelised flow. The Western Komatiite Belt overlies a thick felsic volcanic sequence (Black Flag Group equivalent) and is presumably a younger flow sequence than the Eastern Komatiite Belt.

**Figure 7:**  
**KOMATIITE FACIES** outlined from Gole & Barnes, 2020

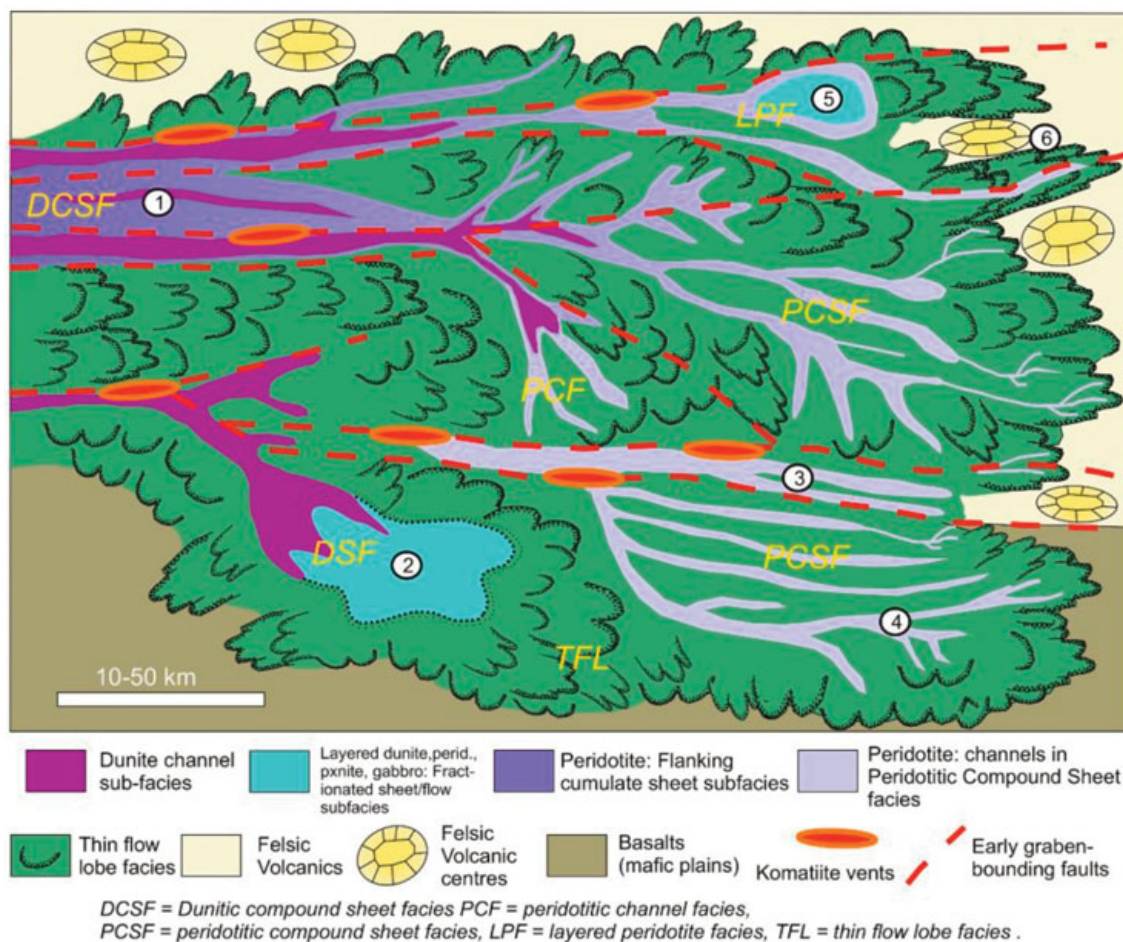


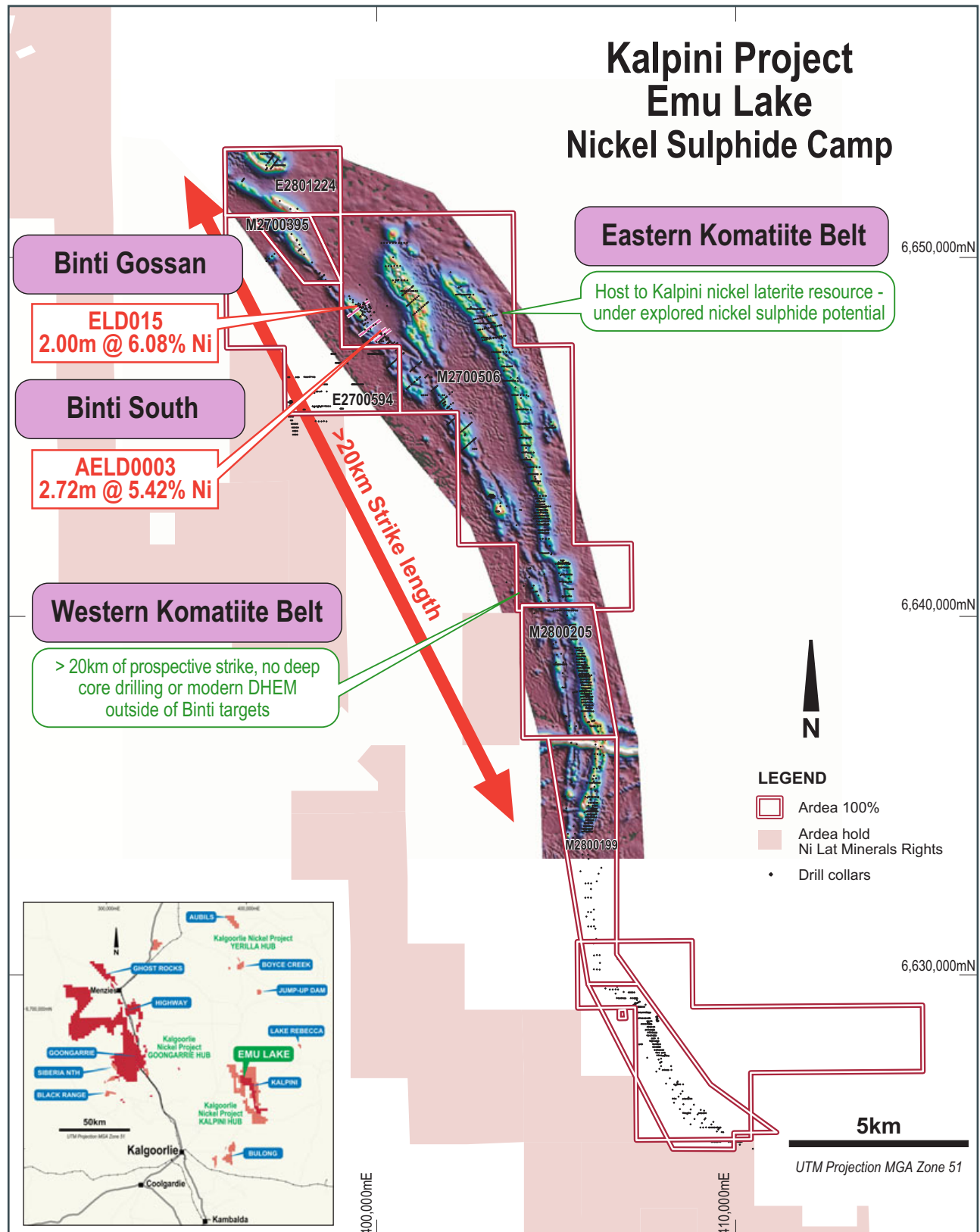


Figure 8:

**AEROMAGNETICS FOR THE KALPINI PROJECT**

showing strongly magnetic Komatiite Belts with historic shallow drill coverage focussed predominantly on nickel laterite mineralisation on the Eastern Komatiite Belt

Projection MGA 94 Zone 51







Historic nickel sulphide drill exploration within the Kalpini Western Komatiite Belt has focussed on the Eastern Ultramafic (**EU**) and Central Ultramafic (**CU**), with key historic drill-hole being ELD015 with 2m at 6.08% Ni (ASX release 7 February 2022). Drill testing of the Western Ultramafic (**WU**) was restricted to minimal “scissor” sections with easterly drill direction. These holes invariably intersected the WU in the depleted saprolite weathered zone. The majority of historic holes had westerly drill directions and at Binti Gossan only intersected the EU and CU horizons, with the prime WU simply not drilled at the depths prospective for nickel sulphide mineralisation.

The EU and CU nickel sulphide surfaces show remarkable continuity and are open north and south and down-dip. Their uniform geometry suggests a sheet-flow environment for these komatiite flows. The discrete flow channels that must be present to have fed the sheet flows are yet to be intersected in Emu Lake drilling. The uniform position, grade and thickness of historic drill intercepts confirms the nickel sulphide fertility of the sheet-flow system.

Ardea commenced exploration of the WU in 2021 with drill-hole AELD0001, testing an off-hole DHEM anomaly from an historic survey of ELD046. This led to the discovery of the AELD0003 nickel sulphides with 2.72m at 5.42% Ni (ASX release 14 January 2022). The Binti South 3D model (ASX release 7 February 2022, figure 3) records the EU and CU with contiguous strike orientation south from Binti Gossan, though the intervening ground is undrilled at depth.

Significantly, Binti South includes as the red shape (ASX release 7 February 2022, figure 3) the WU with basal nickel sulphide mineralisation as confirmed by AELD0002 and 0003. The WU is now the main exploration focus of Ardea, at both Binti South and Binti Gossan, with additional exploration upside on the CU and EU ultramafic flows with all three target zones able to be tested by each drillhole (Figure 9).

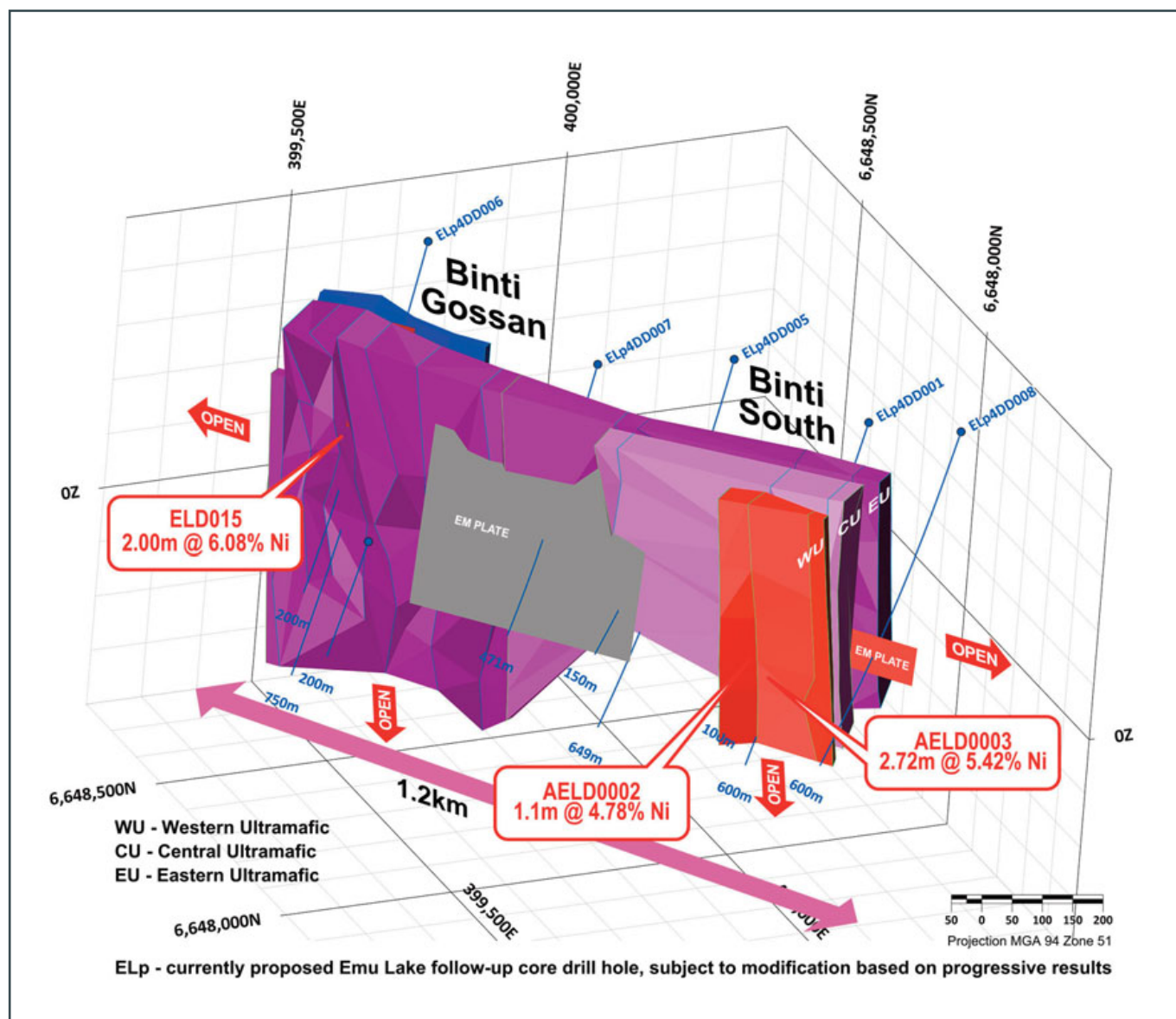
In “Silver Swan style” nickel sulphide systems (as Emu Lake clearly is), the exploration methodology is to define a fertile nickel sulphide surface within komatiite flows and then identify the flow channel facies of the system, being the optimum setting in which massive sulphides are likely to deposit. Once identified, the fertile surface is tested with systematic drilling with Down-hole Electro-Magnetic (**DHEM**) surveys used to locate the target conductor plates. The Ardea results for AELD0003 at Binti South and historic drill hole, ELD015, at Binti Gossan confirm an exceptionally fertile system, entirely comparable to that documented for Silver Swan.

Late in the financial year, Ardea completed five follow-up diamond core drill holes for 1,711m and completed associated DHEM surveys on all holes drilled from the current drilling program at the Binti South and Binti Gossan Prospects.

Drill hole assays are awaited and the data interpretation process is continuing.



Figure 9:  
3D MODELLING ON ULTRAMAFIC HORIZONS AT EMU LAKE SULPHIDE CAMP, KALPINI PROJECT





## COMPLIANCE STATEMENT (JORC 2012)

A competent person's statement for the purposes of Listing Rule 5.22 has previously been announced by the Company for:

1. KNP Cobalt Zone Study on 7 August 2017, PFS 28 March 2018 and Expansion Study 24 July 2018.
2. GNCP High Grade Resource - 60 million tonne at 1.0% Nickel Sustainable Long-life Battery Metal Resource Confirmed, 15 February 2021.
3. Highway Nickel Deposit - Mineral Resource Estimate, 16 June 2021.
4. Annual Report 2021 – 24 September 2021.
5. Goongarrie Hub Feasibility Study Update, 15 November 2021.
6. Emu Lake Nickel Sulphide Discovery confirmed with 2.72m at 5.42% Ni, 14 January 2022.
7. Goongarrie Hub Feasibility Study Update, 25 January 2022.
8. Emu Lake Nickel Sulphide Camp Follow-Up Program, 7 February 2022.
9. Confirmation of High-Grade Nickel-Cobalt from Highway Metallurgical Drilling, 11 February 2022.
10. Emu Lake Nickel Sulphide Follow-up Drilling Commenced, 7 March 2022.
11. Goongarrie Hub Water Extraction Licences Granted, 11 March 2022.
12. High-grade Nickel-Cobalt Confirmed at Kalpini with Scandium and Rare Earth Elements, 14 March 2022.
13. Kalgoorlie Nickel Project Awarded Major Project Status, 18 March 2022.
14. Kalgoorlie Nickel Project Recognition on All Tiers of Australian Government, 21 March 2022.
15. Confirmation of High-Grade Nickel-Cobalt from Goongarrie South Metallurgical Drilling, 16 May 2022.
16. Confirmation of High-Grade Nickel-Cobalt from Goongarrie Hill Metallurgical Drilling, 26 May 2022.
17. Kalgoorlie Nickel Project Feasibility Study Update, 14 June 2022.
18. Kalgoorlie Nickel Project Strategy Update, 9 September 2022.

The Company confirms that it is not aware of any new information or data that materially affects information included in previous announcements, and all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed. All projects are subject to new work programs, notably drilling, metallurgy and JORC Code 2012 resource estimation as applicable.

The information in this report that relates to Resource Estimates for the KNP is based on information originally compiled by previous and current full-time employees of Heron Resources Limited and current full-time employees of Ardea Resources Limited. The Exploration Results, Resource Estimates and data collection processes have been reviewed, verified and re-interpreted by Mr Ian Buchhorn who is a Member of the Australasian Institute of Mining and Metallurgy and currently a director of Ardea Resources Limited. Mr Buchhorn has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the exploration activities 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 Buchhorn consents to the inclusion in this report of the matters based on his information in the form and context that it appears. Mr Buchhorn owns Ardea shares.

The exploration and industry benchmarking summaries are based on information reviewed or compiled by Mr Andrew Penkethman, 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 Resources 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.





## ASX CHAPTER 5 COMPLIANCE AND PFS CAUTIONARY STATEMENT

The Company has concluded that it has a reasonable basis for providing the forward-looking statements and forecast financial information included in this announcement. The detailed reasons for that conclusion are outlined throughout this announcement and all material assumptions, including the JORC modifying factors, upon which the forecast financial information is based are disclosed in this announcement. This announcement has been prepared in accordance with the JORC Code (2012) and the ASX Listing Rules.

The actual results could differ materially from a conclusion, forecast or projection in the forward-looking information. Certain material factors were applied in drawing a conclusion or making a forecast or projection as reflected in the forward-looking information.

The Goongarrie Nickel Cobalt Project is at the PFS phase and although reasonable care has been taken to ensure that the facts are accurate and/or that the opinions expressed are fair and reasonable, no reliance can be placed for any purpose whatsoever on the information contained in this document or on its completeness. Actual results and developments of projects and the scandium market development may differ materially from those expressed or implied by these forward-looking statements depending on a variety of factors.

A key conclusion of the PFS and Expansion Study, which are based on forward looking statements, is that the Goongarrie Nickel Cobalt Project is considered to have positive economic potential.

The Mineral Resource used for the PFS was classified under JORC 2012 Guidelines and announced by the Company on 14 March 2018. The cut-off grades adapted for the PFS and reported in Table 3.1 are the basis of the production target assumed for the PFS.

The Company believes it has a reasonable basis to expect to be able to fund and further develop the Goongarrie Nickel Cobalt Project. However, there is no certainty that the Company can raise funding when required.

## 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 programs, 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, 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.**



# Ardea Resources Limited

ABN 30 614 289 342



Financial Statements  
for the year ended  
30 June 2022



# Directors' Report

The Directors present their report on Ardea Resources Limited and the entities it controlled at the end of and during the year ended 30 June 2022 ("financial period").

## DIRECTORS & SENIOR MANAGEMENT

The names and details of the Directors and Senior Management of Ardea Resources Limited during the financial period and until the date of this report are:

**Mathew Longworth** – BSc (Hons) MAusIMM  
**Non-Executive Chair**  
**Appointed 31 July 2020**

Matthew Longworth is a geologist with over 35 years experience across exploration, project evaluation/development, operations and corporate management. He previously held roles as Exploration Manager, COO and CEO/Managing Director with Australian listed companies, and Mining Consultant with Xtract Mining consultants. In his senior corporate roles, Mathew led multidisciplinary project evaluation and development teams. Mr Longworth is a member of the Australasian Institute of Mining and Metallurgy.

Mr Longworth has excellent experience of the key Ardea exploration and development projects, being the Kalgoorlie Nickel Project (KNP) nickel-cobalt and Bardoc Tectonic Zone gold. Mr Longworth joined Heron Resources in 2003 as Exploration Manager rising to Managing Director in 2007 to 2011. Mr Longworth applied his intimate knowledge of the BTZ and broader Eastern Goldfields geology to the KNP to collaborate with Vale Inco in their 2005 to 2009 KNP feasibility study.

He is currently Chairman of the unlisted Company Greenfields Exploration Limited, Non-Executive Director at Asra Minerals Ltd, Chair of Northam Resources Limited, and was formerly non-executive Chairman of ASX listed Metalicity Limited (from 1 July 2019 to 18 May 2021). Mr Longworth has no other public company directorships.

**Andrew Penkethman** – BSc, FAusIMM, MAIG  
**Managing Director and Chief Executive Officer**  
**Appointed Managing Director 5 February 2020 following his appointment as Chief Executive Officer on 1 April 2019**

Andrew Penkethman is a resources sector executive and geologist with over 25 years experience in the resources industry. His technical skills include project evaluation, exploration, discovery, resource development, feasibility study management, permitting, stake holder engagement and mine development across open pit and underground operations within Australia and overseas. Commodities experience includes battery minerals, base metals, gold and energy commodities over a range of geological settings.

Mr Penkethman's technical expertise is complimented by over 15 years in executive roles with a strong corporate focus including strategic partner processes, joint venture management, financial modelling, and project acquisition and divestment. Mr Penkethman has ASX, AIM and TSX equity markets experience. He holds a Bachelor of Science degree from the University of Wollongong, is a Fellow of the Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists.

During the year prior to the end of this financial period, Mr Penkethman is a non-executive Director of Kalgoorlie Gold Mining Limited (16 November 2021 to present).

**Ian Buchhorn** – BSc (Hons), Dipl. Geosci (Min. Econ), MAusIMM  
**Executive Director**  
**Appointed 17 August 2016**

Ian Buchhorn is a Mineral Economist and Geologist with over 40 years experience. He was the founding Managing Director of Heron Resources Limited for a period of 11 years until early 2007 and returned to that role briefly prior to his resignation as an Executive Director in June 2017. Mr Buchhorn previously worked with a number of international mining companies and has worked on nickel, bauxite and industrial mineral mining and exploration, gold and base metal project generation and corporate evaluations. For the last 30 years Mr Buchhorn has acquired and developed mining projects throughout the Eastern Goldfields of Western Australia and has operated as a Registered Mine Manager.

During the three years prior to the end of this financial period, Mr Buchhorn is a Director of Godolphin Resources Limited (19 June 2019 to present).



## COMPANY SECRETARY

**Robert (Sam) Middlemas** – B.Com., PGradDipBus. CA

Mr Middlemas was appointed Company Secretary and Chief Financial Officer on 20 October 2016. He is a chartered accountant with more than 25 years experience in various financial, board and company secretarial roles with a number of listed public companies operating in the resources sector. He is the principal of a corporate advisory company which provides financial and secretarial services specialising in capital raisings and initial public offerings. Previously Mr Middlemas worked for an international accountancy firm. His fields of expertise include corporate secretarial practice, financial and management reporting in the mining industry, treasury and cash flow management and corporate governance. Mr Middlemas ceased the role of Chief Financial Officer on the 8 June 2022 and continues as the company's Company Secretary.

## CHIEF FINANCIAL OFFICER

**Rebecca Moylan** – B.Bus (Acc&FIN), FFINSIA, GAICD, CPA

Ms Moylan was appointed Chief Financial Officer on 8 June 2022. She is certified practicing accountant with more than 20 years' experience in financial and corporate management, accounting, project financing and contract negotiation. During her career in the mining industry. This has included positions as Chief Financial Officer and Company Secretary of several ASX-listed companies.

## PRINCIPAL ACTIVITIES

The principal activities of the Consolidated Entity during the financial period consisted of mineral exploration and evaluation (Feasibility Studies) in Western Australia.

There have been no significant changes in these activities during the financial period.

## DIVIDENDS

No dividend has been paid and no dividend is recommended for the current financial period.

## REVIEW OF OPERATIONS AND ACTIVITIES

The Consolidated Entity recorded an operating loss after income tax for the Financial Period ended 30 June 2022 of \$5,328,190 (2021 - \$2,298,543).

Ardea is a battery minerals Company focused on the development of the Kalgoorlie Nickel Project (**KNP**). The KNP is comprised of a series of major undeveloped nickel-cobalt-scandium laterite deposits, which total **830Mt at 0.71% Ni and 0.046% Co (5.9Mt contained nickel metal, 384kt contained cobalt metal** – ASX release 16 June 2021). All KNP projects are located within 150km of the regional mining hub of the City of Kalgoorlie-Boulder, Western Australia.

### Western Australia

#### Kalgoorlie Nickel Project (KNP) and Goongarrie Hub

The key objective for Ardea is developing a nickel-cobalt mining operation at the Goongarrie Hub within the KNP which produces sustainable and ethical minerals for the rapidly growing Lithium Ion Battery (**LIB**) supply chain.

The Goongarrie Hub is located 70km northwest of the mining city of Kalgoorlie-Boulder and is Ardea's most advanced project, within the broader KNP. Resources from the Goongarrie and Highway deposits are planned to be the base load feed for a High-Pressure Acid Leach (HPAL) plant with supporting Atmospheric Leach (AL) circuit, located at Goongarrie South. The resources at Goongarrie South are dominantly the premium goethite style and extend continuously over 25km of strike. At Goongarrie Hill, 6km north of the planned Goongarrie plant site and extending over a strike length of 5km, and at Highway, 30km north, extending over a strike length of 6km, the dominant ore types are magnesium-rich serpentine styles, being suited to AL processing. All Goongarrie Hub resources are located on granted mining leases with Native Title Agreement in place and tenure 100%-controlled by Ardea. The KNP resource category breakdown is as follows:

*Resource Estimate for the KNP based on a 0.5 % nickel cut-off. Note that all values have been rounded appropriate to their deemed accuracy.*

Resource Category	Quantity (Mt)	Nickel (%)	Cobalt (%)	Contained nickel (kt)	Contained cobalt (kt)
Measured	22	0.94	0.079	207	17
Indicated	357	0.72	0.047	2,584	168
Inferred	452	0.68	0.044	3,088	199
<b>KNP Total Resources</b>	<b>830</b>	<b>0.71</b>	<b>0.046</b>	<b>5,879</b>	<b>384</b>

### Drilling

During the 2022 financial year, 69 drill holes were completed for 10,482.5m on KNP tenements. 22 RC holes for 2,181m were drilled on a combination of hydrogeology targets at Siberia and exploration targets at Bulong and Emu Lake. 47 diamond core holes for 8,301.5m were drilled on a combination of nickel laterite and site infrastructure targets at Highway, Goon South and Goon Hill, and nickel sulphide targets at Emu Lake. Ardea's standard multi-element geochemical samples were taken from all drilling completed to maximise knowledge gained from this drilling, so that the Company can consider all mineral potential, with a priority on nickel and other Critical Minerals occurring within the KNP.

### Metallurgy

A review of the metallurgical flowsheet was conducted, which, in conjunction with an updated appreciation of the resource potential, prompted the following changes:

- Inclusion of Atmospheric Leaching and Mineralised Neutraliser
- Production of MHP as an intermediate as a precursor to LIB end-use materials
- Increased emphasis on sourcing of utilities-grade water
- Integration of acid plant by-product energy into the site energy balance
- Enhancement of the process and bore water circuits
- Risk management of the tailings storage facility.

Desktop studies indicated the viability of these initiatives, combined with feedback from potential off-takers and other stakeholders.

The metallurgical process model was revised to accommodate these changes, and its outputs used for updated process data (e.g. Mass balance, block flow diagrams, design criteria, equipment lists, major equipment sizing). A gap analysis of this work was conducted by Wood Engineering, which ratified the work to date and the general direction of the work.

Metallurgical testwork was conducted at ALS laboratory to refine the process data for the atmospheric leaching and neutraliser changes. A final report is pending.

The impact of these changes are to be collated and summarised in an amalgamated Feasibility Study report in the near future.

### Approvals

Referral to EPA is linked to completion of the Goongarrie Hub DFS.

### Definitive Feasibility Study, Goongarrie Hub

- The completion of the Definitive Feasibility Study is linked to in progress metallurgical test work and the Strategic Partner process. An interim PFS is in progress to summarise Ardea's 3.5Mtpa base case and to define a current Ore Reserve. Pre-Feasibility Study, lodged 28 March 2018, based on a production rate up to 1.5Mtpa;

Case	Pre-tax NPV <sub>8</sub>	Post-tax NPV <sub>8</sub>	IRR	Payback
1.0Mtpa	A\$1.43 billion	A\$1.04 billion	25 %	5.3 years
1.5Mtpa	A\$1.93 billion	A\$1.40 billion	25 %	5.6 years

- Expansion Study, lodged 24 July 2018, based on a production rate up to 2.25Mtpa;

Case	Pre-tax NPV <sub>8</sub>	Post-tax NPV <sub>8</sub>	IRR	Payback
2.25Mtpa	A\$3.1 billion	A\$2.3 billion	27 %	5.1 years

- As part of the completion of the in progress PFS an updated Ore Reserve will be defined based on the Mineral Resource Estimate updates completed on the Goongarrie and Highway deposits during 2021, that include a high grade core of **78 million tonnes at 1.0% nickel and 0.069% cobalt (784kt contained nickel metal, 54kt contained cobalt metal** – ASX release 16 June 2021). This material is planned to be the dominant plant feed to maximise nickel and cobalt production.

*Mineral Resource Estimate for the Goongarrie Hub deposits, Highway and Goongarrie (ASX release 15 February and June 16, 2021) using a 0.8% Ni cut-off grade. Note that all values have been rounded appropriate to their deemed accuracy.*

Resource Category	Quantity (Mt)	Nickel (%)	Cobalt (%)	Contained nickel (kt)	Contained cobalt (kt)
Measured	11.0	1.13	0.106	125	11.6
Indicated	56.5	0.98	0.066	556	37.1
Inferred	10.8	0.95	0.051	103	5.6
<b>KNP Total Resources</b>	<b>78.3</b>	<b>1.00</b>	<b>0.069</b>	<b>784</b>	<b>54.3</b>

## CORPORATE AND FINANCIAL POSITION

As at 30 June 2022 the Consolidated Entity had cash reserves of \$22 million (2021 - \$5.7 million).

## RISK MANAGEMENT

The Board is responsible for the oversight of the Consolidated Entity's risk management and control framework. Responsibility for control and risk management is delegated to the appropriate level of management with the Managing Director (or equivalent) having ultimate responsibility to the Board for the risk management and control framework.

Areas of significant business risk to the Consolidated Entity are highlighted in the Business Plan presented to the Board by the Managing Director (or equivalent) each year.

Arrangements put in place by the Board to monitor risk management include monthly reporting to the Board in respect of operations and the financial position of the Consolidated Entity.

## EARNINGS/LOSS PER SHARE

	2022 Cents	2021 Cents
Basic loss per share	(3.59)	(1.84)
Diluted loss per share	(3.59)	(1.84)

## SIGNIFICANT CHANGES IN THE STATE OF AFFAIRS

In the opinion of the Directors the following significant changes in the state of affairs of the Consolidated Entity that occurred during the financial period under review:

- During the year there were 10,363,637 new shares at 55 cents per share as a Placement to Sophisticated Investors to raise funds of \$5,700,000;
- The Company also completed capital raise issuing 30,907,553 new shares at 70 cents per share to professional an sophisticated investors to raise \$21,635,287
- The Kalgoorlie Gold Mining Limited spin out completed and was the final rationalization of Ardea's asset portfolio.
- Subsequent to the end of the financial year, the Company issued 120,000 performance rights.

## OPTIONS/PERFORMANCE RIGHTS OVER UNISSUED CAPITAL

### Unlisted Options

There were 4,000,000 Options issued during the year or on issue at 30 June 2022 (2021 – Nil).

### Performance Rights

As at 30 June 2022 there were 4,422,000 Performance Rights on issue. During the year the Company issued 1,531,000 Performance Rights to Directors and Employees under the Ardea Performance Rights Plan that was approved at the 2020 AGM. 549,000 Performance Rights lapsed without achieving the hurdle or following employees leaving the Company. Subsequent to the end of the financial year a further 120,000 Performance Rights have been issued.



## CORPORATE STRUCTURE

Ardea Resources Limited (ACN 614 289 342) is a Company limited by shares that was incorporated on 17 August 2016 and is domiciled in Australia.

## EVENTS SUBSEQUENT TO BALANCE DATE

There has not arisen since the end of the financial period any item, transaction or event of a material and unusual nature likely, in the opinion of the Directors of the Consolidated Entity to affect substantially the operations of the Consolidated Entity, the results of those operations or the state of affairs of the Consolidated Entity in subsequent financial years except for the following:

On the 13<sup>th</sup> July 2022, 120,000 performance rights were issued to employees of the Company under the Ardea Performance Rights Plan that was approved at the 2020 AGM.

## LIKELY DEVELOPMENTS AND EXPECTED RESULTS OF OPERATIONS

Likely developments in the operations of the Consolidated Entity are included elsewhere in this Annual Report. Disclosure of any further information has not been included in this report because, in the reasonable opinion of the Directors, to do so would be likely to prejudice the business activities of the Consolidated Entity.

## ENVIRONMENTAL REGULATION AND PERFORMANCE

The Consolidated Entity holds various exploration licences to regulate its exploration activities in Australia. These licences include conditions and regulations with respect to the rehabilitation of areas disturbed during the course of its exploration activities. So far as the Directors are aware there has been no known breach of the Consolidated Entity's licence conditions and all exploration activities comply with relevant environmental regulations.

## INFORMATION ON DIRECTORS

As at the date of this report the Directors' interests in shares and unlisted performance rights of the Consolidated Entity are as follows:

Director	Title	Directors' Interests in Ordinary Shares	Directors' Interests in Performance Rights
Mathew Longworth	Non-Executive Chair Appointed on 21 July 2020	21,428	700,000
Andrew Penkethman	Managing Director Appointed 5 February 2020	552,401	1,300,000
Ian Buchhorn	Non-Executive Director Appointed on 17 August 2016	12,980,585	900,000

## DIRECTORS' MEETINGS

The number of meetings of the Consolidated Entity's Directors held in the period each Director held office during the financial period and the numbers of meetings attended by each Director were:

Director	Board of Directors' Meetings	
	Meetings Attended	Meetings held while a director
Mathew Longworth	11	11
Andrew Penkethman	11	11
Ian Buchhorn	11	11

In addition to the above there were 2 Audit Committee Meetings and 1 Remuneration Committee Meeting held with the full board in attendance at each Meeting.

## REMUNERATION REPORT

Recommendation 8.1 of the *ASX Corporate Governance Council's Corporate Governance Principles and Recommendations (4<sup>th</sup> edition)* states that the Board should establish a Remuneration Committee. The Board has formed the view that given the number of Directors on the Board, this function could be performed just as effectively with full Board participation. Accordingly, it was resolved that there would be no separate Board sub-committee for remuneration purposes and Remuneration Committee meetings would be made up of the full board.

This report details the amount and nature of remuneration of each Director of the Consolidated Entity and executive officers of the Consolidated Entity during the period.

### Overview of Remuneration Policy

The Board of Directors is responsible for determining and reviewing compensation arrangements for the Directors and the executive team. The broad remuneration policy is to ensure that remuneration properly reflects the relevant person's duties and responsibilities, and that the remuneration is competitive in attracting, retaining and motivating people of the highest quality. The Board believes that the best way to achieve this objective is to provide the Managing Director and the executive team with a remuneration package consisting of a fixed and variable component that together reflects the person's responsibilities, duties and personal performance. An equity based remuneration arrangement for the Board and the executive team was put in place following the 2017 AGM approval and updated at the 2020 AGM. The remuneration policy is to provide a fixed remuneration component and short term incentive payments with a specific equity related component, with performance conditions. The Board believes that this remuneration policy is appropriate given the stage of development of the Consolidated Entity and the activities which it undertakes and is appropriate in aligning Director and executive objectives with shareholder and business objectives.

The remuneration policy in regard to setting the terms and conditions for the Managing Director has been developed by the Board taking into account market conditions and comparable salary levels for companies of a similar size and operating in similar sectors.

Directors receive a superannuation guarantee contribution required by the government, which is currently 10.5% per annum (10% up to 30 June 2022) and do not receive any other retirement benefit. Some individuals, however, have chosen to sacrifice part or all of their salary to increase payments towards superannuation.

All remuneration paid to Directors is valued at cost to the Consolidated Entity and expensed. Options and Performance Rights are valued using either the Black-Scholes methodology or the Binomial model. In accordance with current accounting policy the value of these options is expensed over the relevant vesting period.

### Non-Executive Directors

The Board policy is to remunerate Non-Executive Directors at market rates for comparable companies for time, commitment and responsibilities. The Board determines payments to the Non-Executive Directors and reviews their remuneration annually, based on market practice, duties and accountability. Independent external advice is sought when required. The maximum aggregate amount of fees that can be paid to Non-Executive Directors is subject to approval by shareholders at a General Meeting and was approved at a maximum of \$500,000 at the 2017 AGM. Actual remuneration paid to the Consolidated Entity's Non-Executive Directors is disclosed below. Remuneration fees for Non-Executive Directors are not linked to the performance of the Consolidated Entity. However, to align Directors' interests with shareholder interests, the Directors are encouraged to hold shares in the Consolidated Entity and it is intended all will receive options or performance rights.

### Senior Executives and Management

The Consolidated Entity aims to reward executives with a level of remuneration commensurate with their position and responsibilities within the Consolidated Entity so as to:

- Reward executives for Consolidated Entity and individual performance against targets set by reference to appropriate benchmarks;
- Reward executives in line with the strategic goals and performance of the Consolidated Entity; and
- Ensure that total remuneration is competitive by market standards.

### Structure

Remuneration consists of the following key elements:

- Fixed remuneration;
- Issuance of unlisted options/performance rights; and
- Short term incentive payments.

### Fixed Remuneration

Fixed remuneration consists of base remuneration (which is calculated on a total cost basis including any employee benefits eg. motor vehicles) as well as employer contributions to superannuation funds.

The level of fixed remuneration is set so as to provide a base level of remuneration which is both appropriate to the position and is competitive in the market.

Remuneration packages for the staff who report directly to the Managing Director (or equivalent) are based on the recommendation of the Managing Director (or equivalent), subject to the approval of the Board in the annual budget setting process.

### Service Agreements

Mr Andrew Penkethman was appointed as Chief Executive Officer on 1 April 2019 and Managing Director on 5 February 2020 and is employed under an executive services agreement on a salary of \$290,000 plus statutory superannuation and short and long term incentives (increased to \$374,500 in July 2022). He was awarded 1,200,000 Performance Rights in 3 equal tranches by the board on 7 July 2019 under the Employee Share Option Scheme that was approved at the 2017 AGM, 500,000 Performance Rights following approval at the 2020 AGM, and a further 400,000 Performance Rights following approval at the 2021 AGM. The agreement is subject to a mutual 3 month notice period. He also receives short term incentive bonus of up to \$100,000 based on a number of operating KPI's. In 2021, he also received a special bonus relating to a successful share raising. During the current period, the board has awarded Mr Penkethman a long term incentive cash bonus of \$400,000 upon the signing of a Strategic Partner to fund the KNP Feasibility study and a \$200,000 cash payment following the Announcement of a JORC Compliant Nickel Sulfide Resource of >1Mt at 2% Ni equivalent.

Mr Ian Buchhorn was appointed as an Executive Director - Technical on 8 September 2017 and is employed under an executive services agreement on a salary of \$330,000 plus statutory superannuation and short and long term incentives (subsequently reduced to 80%), then increased to \$341,095 on 1 July 2022. He was awarded 900,000 Performance Rights in 3 equal tranches that were approved by shareholders at the 2017 AGM, 400,000 Performance Rights approved at the 2019 AGM, 400,000 Performance Rights approved at the 2020 AGM, and a further 300,000 Performance Rights approved at the 2021 AGM. The agreement is subject to a mutual 3 month notice period.

Details of the nature and amount of each element of the remuneration of each Director and Executive Officer of Ardea Resources Limited paid/accrued during the financial period are as follows:

	Primary		Post Employment	Equity Compensation	
	Base Salary/Fees \$	Bonus \$	Superannuation Contributions \$	Performance Rights \$	Total \$
<b>2021/2022</b>					
M Longworth – Non-Executive Chair (i)	90,562	-	-	52,984	143,546
A Penkethman – Managing Director	350,000	130,000	35,000	104,153	619,153
I Buchhorn – Executive Director	318,780	40,000	31,878	92,870	483,528
<b>Executives and Key Management Personnel</b>					
S Middlemas - Company Secretary (iv)	95,665	-	-	11,955	107,620
R Moylan – Chief Financial Officer (v)	13,583	-	1,358	-	14,941
<b>2020/2021</b>					
<b>Directors</b>					
M Longworth – Non-Executive Chair (i)	70,625	-	-	16,495	87,120
A Penkethman – Managing Director	297,250	45,000	28,238	70,596	441,084
I Buchhorn – Executive Director	270,600		25,707	72,082	368,389
K Law – Non-Executive Chair (ii)	33,333	-	-	-	33,333
W Bramwell – Non-Executive (iii)	20,000	-	-	-	20,000
<b>Executives</b>					
S Middlemas - Company Secretary (iv)	87,000			9,065	96,065

(i) Mr Longworth was appointed Non-Executive Chair on 31 July 2020.

(ii) Ms Law was appointed Non-Executive Chair on 7 November 2016, and moved into an executive role in July 2018 until February 2019, and resigned from the board on 31 July 2020. All fees were paid to her Consulting Company Fitzroy Consulting Services.

(iii) Mr Bramwell was appointed as a Non-Executive Director on 29 January 2018 and resigned from the board on 3 July 2020. Fees were paid to his Consulting Company Sabre Investments from February 2020.

(iv) Mr Middlemas was appointed Company Secretary on 20 October 2016. All fees for providing Company Secretarial services were paid to Sparkling Investments Pty Limited.

(v) Ms Moylan was appointed Chief Financial Officer on 8 June 2022.

Other than the Directors, executive officers and key management personnel disclosed above there were no other executive officers who received emoluments during the financial period ended 30 June 2022.



The Managing Directors cash bonus was paid in March 2022 and represented 80% of the available bonus of \$100,000 based on the number of KPIs achieved (the remainder of the bonus lapsed). The KPIs have been updated for 2022/23 in line with operating and market conditions that have been set by the full Board. He also received a \$50,000 special bonus relating to a successful share raising during the reporting period.

#### Performance Rights issued during the current financial period

During the current financial year the Company issued a further 1,531,000 Performance Rights to Directors and Employees under the Ardea Performance Rights Plan that was approved at the 2020 AGM. The Performance Rights convert into fully paid ordinary shares for \$Nil consideration upon the attainment of the following performance hurdles:

**Class 'J' Performance Rights:** upon the Company's Shares reaching a 30 day VWAP which is equal to or greater than \$0.65 per Share; and continuous service of the Performance Rights holder in their capacity as a Director or Executive of the Company, or in a role as otherwise agreed by the Board of the Company, from the date of issue of the Performance Rights to 31 May 2023, prior to 30 June 2023.

**Class 'K' Performance Rights:** upon the Company's Shares reaching a 30 day VWAP which is equal to or greater than \$0.67 per Share; and continuous service of the Performance Rights holder in their capacity as a Director or Executive of the Company, or in a role as otherwise agreed by the Board of the Company, from the date of issue of the Performance Rights to 30 November 2023, prior to 31 December 2023.

During the financial year 200,000 Performance rights lapsed without the hurdle being achieved and a further 349,000 Performance rights lapsed following employees leaving the Company.

Subsequent to year end, there have been a further issue of 120,000 Performance rights that were issued to employees of the Company.

The Performance Rights issued during the financial year were valued using a hybrid employee share option pricing model that simulates the Company's share price at the expiry date.

The variables used to value the Performance Rights are as follows:

Item	Class J	Class K
Underlying Security	\$0.51	\$0.50
Exercise Price	Nil	Nil
Share Price Barrier	\$0.65	\$0.67
Grant Date	28 July 21	29 Nov 21
Expiration Date	30 June 23	31 Dec 23
Life of Rights (years)	2	2
Volatility	100%	100%
Risk free rate	1.50%	1.50%

The likelihood of achieving each of the Performance hurdles was then considered leading to a value for the Class J Performance Rights of 23.93 cents (total \$103,138), the value of the Class K Performance Rights of 22.85 cents (total \$251,350). These values will be expensed over the life of the Performance rights and will be reassessed at each audit period to ensure the underlying assumptions remain, with adjustments to be made with any changing conditions.

#### Other Transactions with Directors

The Company rents office and storage facilities in Kalgoorlie from an entity associated with Executive Director Ian Buchhorn on normal arms length commercial terms. Total rent paid for the financial year was \$92,471.50, (2021 - \$75,480).

The Company previously used Indigenous Professional Services Pty Ltd (an entity associated with Non-Executive Chair Katina Law) to provide HR consulting work on normal arms length commercial terms. Total paid during the financial year was \$nil (2021 - \$2,240).

## Director and KMP Movement in Shares and Performance Rights

The aggregate numbers of shares and performance rights of the Company held directly, indirectly or beneficially by Directors and Executive Officers of the Consolidated Entity or their personally-related entities are as follows:

2022	Ordinary Shares				
	Opening	Purchases	Received on performance rights achieving hurdles	Disposals	Closing
Mr M Longworth	-	21,428	-	-	21,428
Mr A Penkethman	123,829	-	428,572	-	552,401
Mr I Buchhorn	12,830,585	150,000	-	-	12,980,585
Mr S Middlemas	573,701	-	60,000	-	633,701
Ms R Moylan	-	-	-	-	-
2021	Opening	Purchases	Received on performance rights achieving hurdles	Disposals	Closing
Mr M Longworth	-	-	-	-	-
Mr A Penkethman	60,000	63,829	-	-	123,829
Mr I Buchhorn	12,511,440	319,145	-	-	12,830,585
Ms K Law	1,008,046	-	-	1,008,046	-
Mr W Bramwell	10,000	-	-	10,000	-
Mr S Middlemas	538,046	35,655	-	-	573,701
2022	Performance Rights <sup>(1)</sup>				
	Opening	Issued	Expired/Lapsed	Converted to shares	Closing
Mr M Longworth	400,000	300,000	-	-	700,000
Mr A Penkethman	1,300,000	400,000	-	(400,000)	1,300,000
Mr I Buchhorn	800,000	300,000	(200,000)	-	900,000
Mr S Middlemas	180,000	60,000	-	(60,000)	180,000
Ms R Moylan	-	-	-	-	-
2021	Opening	Issued	Expired/Lapsed	Converted to shares	Closing
Mr M Longworth	-	400,000	-	-	400,000
Mr A Penkethman	1,200,000	500,000	(400,000)	-	1,300,000
Mr I Buchhorn	700,000	400,000	(300,000)	-	800,000
Ms K Law	700,000	-	(700,000)	-	-
Mr W Bramwell	425,000	-	(425,000)	-	-
Mr S Middlemas	210,000	120,000	(150,000)	-	180,000

(1) Directors and Staff were issued Performance Rights subject to a number of performance hurdles.

## INDEMNIFYING OFFICERS AND AUDITOR

During the year the Company paid an insurance premium to insure certain officers of the Consolidated Entity. The officers of the Consolidated Entity covered by the insurance policy include the Directors named in this report.

The Directors and Officers Liability insurance provides cover against all costs and expenses that may be incurred in defending civil or criminal proceedings that fall within the scope of the indemnity and that may be brought against the officers in their capacity as officers of the Consolidated Entity. The insurance policy does not contain details of the premium paid in respect of individual officers of the Consolidated Entity. Disclosure of the nature of the liability cover and the amount of the premium is subject to a confidentiality clause under the insurance policy.

The Consolidated Entity has not provided any insurance for an auditor of the Consolidated Entity.

## AUDITORS' INDEPENDENCE DECLARATION

Section 370C of the *Corporations Act 2001* requires the Consolidated Entity's auditors Dry Kirkness (Audit) Pty Ltd (formerly Butler Settineri (Audit) Pty Ltd), to provide the Directors of the Consolidated Entity with an Independence Declaration in relation to the audit of the financial report. This Independence Declaration is attached and forms part of this Directors' Report.

## NON-AUDIT SERVICES

The external auditors have not undertaken any non-audit work during the financial year.

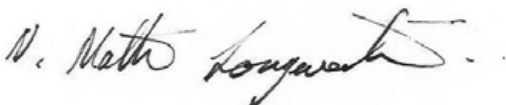
## PROCEEDINGS ON BEHALF OF THE CONSOLIDATED ENTITY

No person has applied for leave of Court to bring proceedings on behalf of the Consolidated Entity or intervene in any proceedings to which the Consolidated Entity is a party for the purpose of taking responsibility on behalf of the Consolidated Entity for all or any part of those proceedings. The Consolidated Entity was not party to any such proceedings during the year.

## CORPORATE GOVERNANCE

In recognising the need for the highest standards of corporate behaviour and accountability, the Directors of the Consolidated Entity support and have adhered to the principles of corporate governance. The Consolidated Entity's corporate governance practices have been disclosed in Appendix 4G in accordance with ASX listing rule 4.7.3 at the same time as the annual report is lodged with the ASX. Further information about the Company's corporate governance practices is set out on the Company's web site at [www.ardearesources.com.au/corporate-governance](http://www.ardearesources.com.au/corporate-governance). In accordance with the recommendations of the ASX, information published on the web site includes codes of conduct and other policies and procedures relating to the Board and its responsibilities.

DATED at Perth this 27th day of September 2022  
Signed in accordance with a resolution of the Directors



**Mathew Longworth**  
**Non-Executive Chair**

### Compliance Statement (JORC 2012)

A competent person's statement for the purposes of Listing Rule 5.22 has previously been announced by the Company for:

1. KNP Cobalt Zone Study on 7 August 2017, PFS 28 March 2018 and Expansion Study 24 July 2018.
2. GNCP High Grade Resource - 60 million tonne at 1.0% Nickel Sustainable Long-life Battery Metal Resource Confirmed, 15 February 2021.
3. Highway Nickel Deposit - Mineral Resource Estimate, 16 June 2021.
4. Annual Report 2021 – 24 September 2021.
5. Goongarrie Hub Feasibility Study Update, 15 November 2021.
6. Emu Lake Nickel Sulphide Discovery confirmed with 2.72m at 5.42% Ni, 14 January 2022.
7. Goongarrie Hub Feasibility Study Update, 25 January 2022.
8. Emu Lake Nickel Sulphide Camp Follow-Up Program, 7 February 2022.
9. Confirmation of High-Grade Nickel-Cobalt from Highway Metallurgical Drilling, 11 February 2022.
10. Emu Lake Nickel Sulphide Follow-up Drilling Commenced, 7 March 2022.
11. Goongarrie Hub Water Extraction Licences Granted, 11 March 2022.
12. High-grade Nickel-Cobalt Confirmed at Kalpini with Scandium and Rare Earth Elements, 14 March 2022.
13. Kalgoorlie Nickel Project Awarded Major Project Status, 18 March 2022.
14. Kalgoorlie Nickel Project Recognition on All Tiers of Australian Government, 21 March 2022.
15. Confirmation of High-Grade Nickel-Cobalt from Goongarrie South Metallurgical Drilling, 16 May 2022.
16. Confirmation of High-Grade Nickel-Cobalt from Goongarrie Hill Metallurgical Drilling, 26 May 2022.
17. Kalgoorlie Nickel Project Feasibility Study Update, 14 June 2022.
18. Quarterly Activities Report - June 2022, 19 July 2022.
19. Kalgoorlie Nickel Project Strategy Update, 9 September 2022.

The Company confirms that it is not aware of any new information or data that materially affects information included in previous announcements, and all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed. All projects are subject to new work programs, notably drilling, metallurgy and JORC Code 2012 resource estimation as applicable.

The information in this report that relates to Exploration Results and Resource Estimates for the Goongarrie Nickel Cobalt Project is based on information originally compiled by previous and current full-time employees of Heron Resources Limited and current full-time employees of Ardea Resources Limited. The Exploration Results, Resource Estimates and data collection processes have been reviewed, verified, and re-interpreted by Mr Ian Buchhorn who is a Member of the Australasian Institute of Mining and Metallurgy and currently a director of Ardea Resources Limited. Mr Buchhorn has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the exploration activities 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 Buchhorn consents to the inclusion in this report of the matters based on his information in the form and context that it appears. Mr Buchhorn owns shares in Ardea.

The exploration and industry benchmarking summaries are based on information reviewed by Andrew Penkethman, 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 Resources 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 shares in Ardea.



# Auditor's Independence Declaration



## AUDITOR'S INDEPENDENCE DECLARATION

As lead auditor for the audit of Ardea Resources Limited for the year ended 30 June 2022, I declare that, to the best of my knowledge and belief, there have been:

- a) No contraventions of the auditor independence requirements of the Corporations Act 2001 in relation to the audit; and
- b) No contraventions of any applicable code of professional conduct in relation to the audit.

This declaration is in respect of Ardea Resources Limited and the entities it controlled during the year.

DRY KIRKNESS (AUDIT) PTY LTD

A handwritten signature in black ink, appearing to read "Robert Hall".

ROBERT HALL  
Director

Perth  
Date: 27 September 2022

Dry Kirkness (Audit) Pty Ltd  
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West Perth, WA 6005

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RCA No. 289109

Liability limited by a scheme  
approved under the Professional  
Standards Legislation

# Financial Statements

## CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME For the year ended 30 June 2022

	<u>NOTES</u>	<u>2022</u>	<u>2021</u>
		<u>\$</u>	<u>\$</u>
Other income	2	50,314	188,219
Employee expenses		3,180,790	2,332,968
Insurance expenses		71,826	51,650
Secretarial fees		103,195	79,590
Corporate expenses		254,214	278,289
Strategic partnership expenses		447,996	-
Computer support services		107,897	86,104
Depreciation	3	54,947	92,089
Amortisation – right-of-use assets		85,818	106,017
Share based payments	15	374,333	243,640
Write-off of Exploration Expenditure		223,287	423,675
Impairment of investments	9	2,204,390	-
Revaluation of Investments	9	1,066,403	985,920
Employee costs recharged to capitalised exploration		(3,107,195)	(2,461,488)
Other expenses		310,603	268,308
Loss before income tax		(5,328,190)	(2,298,543)
Income tax	5	-	-
Net loss attributable to members of the Consolidated Entity's	14	(5,328,190)	(2,298,543)
Other Comprehensive Loss net of tax		-	-
Total Comprehensive Loss		(5,328,190)	(2,298,543)
Basic earnings/(loss) per share (cents per share)	19	(3.59) cents	(1.84) cents
Diluted earnings/(loss) per share (cents per share)	19	(3.59) cents	(1.84) cents

*The above Consolidated Statement of Comprehensive Income should be read in conjunction with the Consolidated Entity's accompanying notes.*

**CONSOLIDATED STATEMENT OF FINANCIAL POSITION**  
As at 30 June 2022

	<u>NOTES</u>	<u>2022</u>	<u>2021</u>
		\$	\$
<b>ASSETS</b>			
<b>CURRENT ASSETS</b>			
Cash and cash equivalents		22,018,398	5,689,762
Other receivables	6	1,991,656	1,025,238
Other assets	7	54,835	19,027
<b>TOTAL CURRENT ASSETS</b>		<b>24,064,889</b>	<b>6,734,027</b>
<b>NON-CURRENT ASSETS</b>			
Plant and equipment and motor vehicles	8	-	35,153
Investments	9	956,777	1,326,055
Right-of-use Assets	6A	276,973	51,787
Capitalised mineral exploration expenditure	10	25,299,933	27,954,447
<b>TOTAL NON-CURRENT ASSETS</b>		<b>26,533,683</b>	<b>29,367,442</b>
<b>TOTAL ASSETS</b>		<b>50,598,572</b>	<b>36,101,469</b>
<b>LIABILITIES</b>			
<b>CURRENT LIABILITIES</b>			
Trade and other payables	11	786,594	437,341
Right-of-use Liabilities	6A	150,611	51,787
Provisions	12	471,859	322,942
<b>TOTAL CURRENT LIABILITIES</b>		<b>1,409,064</b>	<b>812,070</b>
<b>NON-CURRENT LIABILITIES</b>			
Right-of-use Liabilities	6A	129,677	-
Provisions	12	47,425	-
<b>TOTAL NON-CURRENT LIABILITIES</b>		<b>177,102</b>	<b>-</b>
<b>TOTAL LIABILITIES</b>		<b>1,586,166</b>	<b>812,070</b>
<b>NET ASSETS</b>		<b>49,012,406</b>	<b>35,289,399</b>
<b>EQUITY</b>			
Contributed equity	13(a)	60,005,783	41,328,919
Share Based Payment Reserve	15	4,547,152	4,172,819
Accumulated losses	14	(15,540,529)	(10,212,339)
<b>TOTAL EQUITY</b>		<b>49,012,406</b>	<b>35,289,399</b>

*The above Consolidated Statement of Financial Position should be read in conjunction with the Consolidated Entity's accompanying notes.*



**CONSOLIDATED STATEMENT OF CHANGES IN EQUITY**  
For the year ended 30 June 2022

	Notes	Contributed Equity \$	Share Based Payment Reserve \$	Losses \$	Total \$
<b>BALANCE AT 30 JUNE 2020</b>					
Total Comprehensive Income		36,685,870	3,930,401	(7,913,796)	32,702,475
		-	-	(2,298,543)	(2,298,543)
<b>TRANSACTIONS WITH OWNERS IN THEIR CAPACITY AS OWNERS</b>					
Shares issued during the year	13(b)	4,873,969	-	-	4,873,969
Return of Capital – Godolphin Resources Limited	13(b)	(230,920)	-	-	(230,920)
Performance Rights issued to staff		-	242,418	-	242,418
<b>BALANCE AT 30 JUNE 2021</b>		<b>41,328,919</b>	<b>4,172,819</b>	<b>(10,212,339)</b>	<b>35,289,399</b>
		<b>41,328,919</b>	<b>4,172,819</b>	<b>(10,212,339)</b>	<b>35,289,399</b>
<b>BALANCE AT 30 JUNE 2021</b>					
Total Comprehensive Income		-	-	(5,328,190)	(5,328,190)
<b>TRANSACTIONS WITH OWNERS IN THEIR CAPACITY AS OWNERS</b>					
Shares issued during the year	13(b)	27,335,287	-	-	27,335,287
Less share issue costs	13(b)	(1,658,423)	-	-	(1,658,423)
Return of Capital – Kalgoorlie Gold Mining Limited	13(b)	(7,000,000)	-	-	(7,000,000)
Performance Rights issued to staff		-	374,333	-	374,333
<b>BALANCE AT 30 JUNE 2022</b>		<b>60,005,783</b>	<b>4,547,152</b>	<b>(15,540,529)</b>	<b>49,012,406</b>

*The above Consolidated statement of changes in equity should be read in conjunction with the Consolidated Entity's accompanying notes.*

**CONSOLIDATED STATEMENT OF CASHFLOWS**  
For the year ended 30 June 2022

	<u>NOTES</u>	<u>2022</u>	<u>2021</u>
		\$	\$
<b>Cash flows from operating activities</b>			
Interest received		17,280	62,089
Other Income		22,242	146,851
Payments to suppliers and employees (inclusive of goods and services tax)		(2,102,665)	(763,614)
<b>Net cash used in operating activities</b>	20(a)	<u>(2,065,114)</u>	<u>(554,674)</u>
<b>Cash flows from investing activities</b>			
Payments for exploration and evaluation		(8,255,065)	(9,578,518)
Research and development refund received		893,260	1,040,381
Proceeds (Payments) for investments		98,485	139,594
Proceeds (Payments) for plant and equipment (net)		(19,794)	(6,129)
<b>Net cash used in investing activities</b>		<u>(7,283,114)</u>	<u>(8,404,672)</u>
<b>Cash flows from financing activities</b>			
Proceeds from the issue of shares		27,335,287	4,874,002
Costs of shares issued		(1,658,423)	(230,953)
<b>Net cash provided by financing activities</b>		<u>25,676,864</u>	<u>4,643,049</u>
<b>Net increase (decrease) in cash held</b>		<u>16,328,636</u>	<u>(4,316,297)</u>
<b>Cash at the beginning of the financial period</b>		<u>5,689,762</u>	<u>10,006,059</u>
<b>Cash at the end of the financial period</b>		<u><u>22,018,398</u></u>	<u><u>5,689,762</u></u>

*The above Consolidated Statement of Cash Flows should be read in conjunction with the Consolidated Entity's accompanying notes.*

# Notes to the Financial Statements

## For the year ended 30 June 2022

### 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The principal accounting policies adopted in preparing the financial report of the Company, Ardea Resources Limited and its controlled entities ("Ardea" or "Consolidated Entity"), are stated to assist in a general understanding of the financial report. These policies have been consistently applied as presented, unless otherwise indicated.

Ardea Resources Limited is a Company limited by shares incorporated and domiciled in Australia whose shares are publicly traded on the official list of the Australian Securities Exchange. The financial statements are presented in Australian dollars which is the Consolidated Entity's functional currency.

#### (a) Basis of Preparation

This general purpose financial report has been prepared in accordance with Australian Accounting Standards (including Australian Interpretations) adopted by the Australian Accounting Standards Board and the *Corporations Act 2001*.

Ardea Resources Limited is a for-profit entity for the purpose of preparing the financial statements.

The financial report has been prepared on the basis of historical costs and does not take into account changing money values or, except where stated, current valuations of non-current assets.

The financial report was authorised for issue by the Directors.

#### (b) Use of Estimates and Judgements

The preparation of financial statements requires management to make judgements, estimates and assumptions that affect the application of accounting policies and reported amounts of assets and liabilities, income and expenses. Actual results may differ from these estimates. Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised and in any future periods affected. The only significant estimate in the financial report is the R&D incentive rebate accrued which is based on management's estimate of the eligible expenditure incurred in the year.

#### (c) Basis of Consolidation

##### **Controlled Entities**

The consolidated financial statements comprise the financial statements of Ardea Resources Limited and its subsidiaries as at 30 June 2022.

The financial statements of the subsidiaries are prepared for the same reporting period as the parent company, using consistent accounting policies.

In preparing the consolidated financial statements, all intercompany balances and transactions, income and expenses and profit and losses resulting from intra-group transactions have been eliminated in full. The subsidiaries are fully consolidated from the date on which control is transferred to the consolidated entity and ceases to be consolidated from the date on which control is transferred out of the consolidated entity.

The acquisition of the subsidiaries have been accounted for using the purchase method of accounting. The purchase method of accounting involves allocating the cost of the business combination to the fair value of the assets acquired and the liabilities and contingent liabilities assumed at the date of acquisition. Accordingly, the consolidated financial statements include the results of the subsidiaries for the period from their acquisition.



**1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)****(d) Income Tax**

The income tax expense or revenue for the period is the tax payable on the current period's taxable income based on the income tax rate adjusted by changes in deferred tax assets and liabilities attributable to temporary differences between the tax bases of assets and liabilities and their carrying amounts in the financial statements, and to unused tax losses.

Deferred tax assets and liabilities are recognised for temporary differences at the tax rates expected to apply when the assets are recovered or liabilities are settled, based on those tax rates which are enacted. The relevant tax rates are applied to the cumulative amounts of deductible and taxable temporary differences to measure the deferred tax asset or liability. An exception is made for certain temporary differences arising from the initial recognition of an asset or a liability. No deferred asset or liability is recognised in relation to those temporary differences if they arose in a transaction, other than a business combination, that at the time of the transaction did not affect either accounting profit or taxable profit or loss.

Deferred tax assets are recognised for deductible temporary differences and unused tax losses only if it is probable that future taxable amounts will be available to utilise those temporary differences and losses.

Current and future tax balances attributable to amounts recognised directly in equity are also recognised directly in equity.

**(e) Revenue Recognition**

Revenue is recognised to the extent that it is probable that the economic benefits will flow to the Consolidated Entity and the revenue can be reliably measured. The following specific recognition criteria must also be met before revenue is recognised:

***Interest income***

Interest revenue is recognised on a time proportionate basis that takes into account the effective yield on the financial asset.

**(f) Cash and Cash Equivalents**

Cash and short-term deposits in the balance sheet comprise cash at bank and in hand and short term deposits with an original maturity of three months or less.

For the purposes of the Consolidated Statement of Cash Flows, cash and cash equivalents consist of cash and cash equivalents as defined above, which are readily convertible to cash on hand and which are used in the cash management function on a day-to-day basis.

**(g) Employee Entitlements**

Liabilities for wages and salaries, annual leave and other current employee entitlements expected to be settled within 12 months of the reporting date are recognised in other payables in respect of employees' services up to the reporting date and are measured at the amounts expected to be paid when the liabilities are settled. Liabilities for non-accumulating sick leave are recognised when the leave is taken and measured at the rates paid or payable.

Other long-term employee benefits The Consolidated Entity's net obligation in respect of long-term employee benefits is the amount of future benefit that employees have earned in return for their service in the current and prior periods plus on-costs; that benefit is discounted to determine its present value. The discount rate is the yield at the reporting date on AA credit-rated (Corporate bond rate) bonds that have maturity dates approximating the terms of the consolidated entity's obligations.

Contributions to employee superannuation plans are charged as an expense as the contributions are paid or become payable.

**1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)****(h) Property, Plant and equipment**

Each class of property, plant and equipment is carried at cost or fair value less, where applicable, any accumulated depreciation and impairment losses.

***Property, plant and equipment and Motor Vehicles***

Property, Plant and equipment, and Motor Vehicles are stated at cost less accumulated depreciation and any impairment in value.

The carrying values of property, plant and equipment and Motor Vehicles are reviewed for impairment when events or changes in circumstances indicate the carrying value may not be recoverable.

For an asset that does not generate largely independent cash flows, the recoverable amount is determined for the cash-generating unit to which the asset belongs.

If any such indication exists where the carrying values exceed the estimated recoverable amount, the assets or cash generating units are written down to their recoverable amount.

***Depreciation***

Depreciable non-current assets are depreciated over their expected economic life using either the straight line or the diminishing value method. Profits and losses on disposal of non-current assets are taken into account in determining the operating loss for the year. The depreciation rate used for each class of assets is as follows:

- Plant & equipment and Motor Vehicles 20 - 33%

**(i) Goods and Services Tax (GST)**

Revenues, expenses and assets are recognised net of the amount of goods and services tax ("GST"), except where the amount of GST incurred is not recoverable from the Australian Taxation Office ("ATO"). In these circumstances the GST is recognised as part of the cost of acquisition of the asset or as part of an item of the expense.

Receivables and payables are stated with the amount of GST included. GST incurred is claimed from the ATO when a valid tax invoice is provided. The net amount of GST recoverable from, or payable to, the ATO is included as a current asset or liability in the balance sheet.

Cash flows are included in the statement of cash flows on a gross basis. The GST components of cash flows arising from investing and financing activities which are recoverable from, or payable to, the ATO are classified as operating cash flows.

**(j) Payables**

These amounts represent liabilities for goods and services provided to the Consolidated Entity prior to the end of the financial period and which are unpaid. The amounts are unsecured and are usually paid within 30 days of recognition.

**(k) Contributed Equity**

Issued capital is recognised as the fair value of the consideration received by the Company.

Any transaction costs arising on the issue of ordinary shares are recognised directly in equity as a reduction of the share proceeds received.

**1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)****(l) Exploration and Evaluation Expenditure**

Mineral exploration and evaluation expenditure incurred is accumulated in respect of each identifiable area of interest and is subject to impairment testing. These costs are carried forward only if they relate to an area of interest for which rights of tenure are current and in respect of which:

- such costs are expected to be recouped through the successful development and exploitation of the area of interest, or alternatively by its sale; or
- exploration and/or evaluation activities in the area have not reached a stage which permits a reasonable assessment of the existence or otherwise of economically recoverable reserves and active or significant operations in, or in relation to, the area of interest are continuing.

In the event that an area of interest is abandoned or if the Directors consider the expenditure to be of reduced value, accumulated costs carried forward are written off in the year in which that assessment is made. A regular review is undertaken of each area of interest to determine the appropriateness of continuing to carry forward costs in relation to that area of interest.

Where a mineral resource has been identified and where it is expected that future expenditures will be recovered by future exploitation or sale, the impairment of the exploration and evaluation is written back and transferred to development costs. Once production commences, the accumulated costs for the relevant area of interest are amortised over the life of the area according to the rate of depletion of the economically recoverable reserves.

Costs of site restoration and rehabilitation are recognised when the Consolidated Entity has a present obligation, the future sacrifice of economic benefits is probable and the amount of the provision can be reliably estimated.

The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the reporting date, taking into account the risks and uncertainties surrounding the obligation. Where a provision is measured using the cash flows estimated to settle the present obligation, its carrying amount is the present value of those cash flows.

Exploration and evaluation assets are assessed for impairment if:

- (i) sufficient data exists to determine technical feasibility and commercial viability, and
- (ii) facts and circumstances suggest that the carrying amount exceeds the recoverable amount.

For the purpose of impairment testing, exploration and evaluation assets are allocated to cash-generating units to which the exploration activity relates. The cash generating unit shall not be larger than the area of interest.

Once the technical feasibility and commercial viability of the extraction of mineral resources in an area of interest are demonstrable, exploration and evaluation assets attributable to that area of interest are first tested for impairment and then re-classified from intangible assets to mining property and development assets within property, plant and equipment.

**(m) Earnings per Share**

Basic earnings per share ("EPS") are calculated based upon the net loss divided by the weighted average number of shares. Diluted EPS are calculated as the net loss divided by the weighted average number of shares and dilutive potential shares.

**(n) Financial risk management**

The Board of Directors has overall responsibility for the establishment and oversight of the risk management framework, to identify and analyse the risks faced by the Consolidated Entity. These risks include credit risk, liquidity risk and market risk from the use of financial instruments. The Consolidated Entity has only limited use of financial instruments through its cash holdings being invested in short term interest bearing securities. The primary goal of this strategy is to maximise returns while minimising risk through the use of accredited Banks with a minimum credit rating of A1 from Standard & Poors. The Consolidated Entity has no debt, and working capital is maintained at its highest level possible and regularly reviewed by the full board.

**1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)****(o) Leases****The Group as lessee**

At inception of a contract, the Group assesses if the contract contains a lease or is a lease. If there is a lease present, a right-of-use asset and a corresponding lease liability are recognised by the Group where the Group is a lessee. However, all contracts that are classified as short-term leases (i.e. a lease with a remaining lease term of 12 months or less) and leases of low-value assets are recognised as an operating expenses on a straight-line basis over the term of the lease.

Initially the lease liability is measured at the present value of the lease payments still to be paid at the commencement date. The lease payments are discounted at the interest rate implicit in the lease. If this rate cannot be readily determined, the Group uses the incremental borrowing rate. All lease payments are included in the measurement of the lease liability.

The right-of-use assets comprise the initial measurement of the corresponding lease liability, any lease payments made at or before the commencement date and any initial direct costs. The subsequent measurement of the right-of-use assets is at cost less accumulated depreciation and impairment losses. Right-of-use assets are depreciated over the lease term or useful life of the underlying asset, whichever is the shortest.

**(p) Share-based payment transactions**

The Company provides benefits to employees (including Directors and consultants) of the Consolidated Entity in the form of share-based payment transactions, whereby employees render services in exchange for shares or rights over shares ("Equity-settled transactions").

There is currently a plan in place to provide these benefits being an Employee Share Option Plan ("ESOP") which provides benefits to Directors, consultants and senior executives.

The cost of these equity-settled transactions is measured by reference to fair value at the date at which they are granted. The fair value is determined by an external valuer using either the Black - Scholes or Binomial model.

In valuing equity-settled transactions, no account is taken of any performance conditions, other than conditions linked to the price of the shares of Ardea Resources Limited ("market conditions").

The cost of equity settled securities is recognised, together with a corresponding increase in equity, over the period in which the performance conditions are fulfilled, ending on the date on which the relevant employees become fully entitled to the award ("vesting date").

Where the Consolidated Entity acquires some form of interest in an exploration tenement or an exploration area of interest and the consideration comprises share-based payment transactions, the fair value of the equity instruments granted is measured at grant date. The cost of equity securities is recognised within capitalised mineral exploration and evaluation expenditure, together with a corresponding increase in equity.



## 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

### (q) Financial instruments

#### *Recognition, initial measurement and derecognition*

Financial assets and financial liabilities are recognised when the Company becomes a party to the contractual provisions of the financial instrument, and are measured initially at fair value adjusted by transactions costs, except for those carried at fair value through profit or loss, which are measured initially at fair value. Subsequent measurement of financial assets and financial liabilities are described below.

Financial assets are derecognised when the contractual rights to the cash flows from the financial asset expire, or when the financial asset and all substantial risks and rewards are transferred. A financial liability is derecognised when it is extinguished, discharged, cancelled or expires.

#### *Classification and subsequent measurement of financial assets*

Financial assets at fair value through profit and loss are limited to holdings of listed securities and are valued based on the quoted share price at the relevant reporting date with the associated changes in fair value through profit and loss.

Other financial assets are measured at amortised cost.

#### *Classification and measurement of financial liabilities*

Financial liabilities are initially measured at fair value, and, where applicable, adjusted for transaction costs unless the Company designated a financial liability at fair value through profit or loss.

All interest-related charges and, if applicable, changes in an instrument's fair value that are reported in profit or loss are included within finance costs or finance income.

### (r) New accounting standards and interpretations

Certain new accounting standards and interpretations have been published that are not mandatory for 30 June 2022 reporting periods, and have not been adopted by the Consolidated Entity. The Consolidated Entity's assessment of the impact of these new standards and interpretations is that they will have no material impact and will only effect disclosure provisions in future full year accounts.

	<u>2022</u> \$	<u>2021</u> \$
<b>2. OTHER INCOME</b>		
Interest	28,072	41,368
Other Income	<u>22,242</u>	<u>146,851</u>
	<u>50,314</u>	<u>188,219</u>

### 3. EXPENSES

Contributions to employees superannuation plans	228,608	188,781
Depreciation - Plant and equipment	54,947	92,089
Provision for employee entitlements	<u>256,844</u>	<u>101,248</u>

### 4. AUDITORS' REMUNERATION

**Audit – Dry Kirkness (Audit) Pty Limited** (formerly Butler Settineri (Audit) Pty Limited)

Audit and review of the financial statements	<u>25,153</u>	<u>28,494</u>
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### 5. INCOME TAX

No income tax is payable by the Consolidated Entity as it has carry forward losses for income tax purposes for the year, so current tax, deferred tax and tax expense is \$Nil.

#### (a) Numerical reconciliation of income tax expense to prima facie tax payable

Loss from continuing operations	<u>(5,328,190)</u>	(2,298,544)
Tax at the tax rate of 25% (2021 - 26%)	<u>(1,332,048)</u>	(597,622)
Tax effect of amounts which are deductible in calculating taxable income:		
Non-deductible expenses/gains	1,883,727	63,476
Other allowable expenditure/income	(172,416)	(91,284)
Deferred tax asset not brought to account	<u>379,263</u>	<u>625,430</u>
Income tax expense	<u>-</u>	<u>-</u>

#### (b) Tax losses

Unused tax losses for which no deferred tax asset has been recognised	<u>18,880,575</u>	19,057,370
Potential tax benefit at 25% (2021 - 26%)	<u>4,720,144</u>	<u>4,954,916</u>

#### (c) Unbooked Deferred Tax Assets and Liabilities

**Unbooked deferred tax assets comprise:**

Provisions/Accruals/Other	545,284	348,942
Tax losses available for offset against future taxable income	<u>18,880,575</u>	<u>19,057,370</u>
	<u>19,425,859</u>	<u>19,406,312</u>

**Unbooked deferred tax liabilities comprise:**

Capitalised mineral exploration and evaluation expenditure	<u>28,800,070</u>	<u>32,039,829</u>
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#### (d) Franking credits balance

The Consolidated Entity has no franking credits available as at 30 June 2022.

## 6. OTHER RECEIVABLES

### Current

	<u>2022</u>	<u>2021</u>
	\$	\$
GST recoverable	69,650	22,486
R&D Receivable	1,800,000	900,000
Interest Receivable and Other	122,006	102,752
	<u>1,991,656</u>	<u>1,025,238</u>

## 6A. RIGHT-OF-USE ASSETS & LIABILITIES

### Current

Right-of-use Assets	-	-
Right-of-use Liabilities	<u>150,611</u>	<u>51,787</u>

### Non-Current

Right-of-use Assets	<u>276,973</u>	<u>51,788</u>
Right-of-use Liabilities	<u>129,677</u>	<u>-</u>

### A) Right-of-use maturity analysis

#### Maturity analysis

Within one year	159,970	51,787
Later than one year and not later than three years	134,829	-
Less unearned interest	<u>(14,510)</u>	<u>-</u>
<b>Total Lease Liability</b>	<b>280,289</b>	<b>51,787</b>
Current	150,611	51,787
Non-Current	<u>129,677</u>	<u>-</u>
Total Right-of-use liability	<u>280,289</u>	<u>51,788</u>

### B) Amounts recognized in profit and loss

Depreciation expense on right-of-use assets	85,818	106,017
Interest expense on right-of-use liabilities	7,495	-

The Company leases its corporate office at Suite 2, 45 Ord St West Perth. The lease expires on 19 April 2025. The Company has a lease at Unit 6, 17 Townsend Street, Malaga. The lease expires on 9 Sept 2026. The leases are recognized in accordance with AASB 16: Leases, which the Company adopted on 1 July 2019. Refer note 1 (o) for further details.

## 7. OTHER ASSETS

### Current

Prepayments	<u>54,835</u>	<u>19,027</u>
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# 8. PROPERTY, PLANT AND EQUIPMENT

Plant and office equipment

	<u>2022</u> \$	<u>2021</u> \$
At cost	294,277	274,483
Accumulated depreciation	<u>(294,277)</u>	<u>(274,483)</u>
	-	-

Motor Vehicles

At cost	209,068	209,068
Accumulated depreciation	<u>(209,068)</u>	<u>(173,915)</u>
	-	35,153

Property and buildings

At cost	-	-
Accumulated depreciation	<u>-</u>	<u>-</u>
	-	35,153

## Reconciliation

Reconciliation of the carrying amounts for each class of plant and equipment and Properties and Buildings are set out below:

### *Plant and office equipment*

Carrying amount at beginning of the period	-	33,693
Additions	19,794	6,129
Depreciation	<u>(19,794)</u>	<u>(39,822)</u>
Carrying amount at the end of the year	-	-

### *Motor Vehicles*

Carrying amount at beginning of the year	35,153	87,420
Disposals	-	-
Depreciation	<u>(35,153)</u>	<u>(52,267)</u>
Carrying amount at the end of the year	-	35,153



# 9. INVESTMENT

## Investment in Godolphin – Shares<sup>1</sup>

Particulars	No. of shares	<u>2022</u> \$	2021 \$
Opening balance	554,551	83,182	105,365
Add: Shares purchases			
Less: Shares sold			
Less: Fair Value adjustment	-	(34,936)	(22,183)
Closing balance	554,551	48,246	83,182

## Investment in Metalicity – Shares<sup>1</sup>

Particulars	No. of shares	<u>2022</u> \$	2021 \$
Opening balance	23,843,825	238,483	1,252,222
Add: Shares purchases	-	-	-
Less: Shares sold	(22,000,000)	(98,485)	(60,000)
Less: Fair Value adjustment	-	(104,467)	(953,783)
Closing balance	1,843,825	35,531	238,438

## Investment in KalGold – Shares<sup>1</sup>

Particulars	No. of shares	<u>2022</u> \$	2021 \$
Opening balance	-	-	-
Add: Shares purchases	9,000,000	1,800,000	-
Less: Shares sold	-	-	-
Less: Fair Value adjustment	-	(927,000)	-
Closing balance	9,000,000	873,000	-

## Investment in KalGold – Options<sup>2</sup>

Particulars	No. of shares	<u>2022</u> \$	2021 \$
Opening balance	-	-	-
Add: Options issued in CY	15,000,000	1,200,000	-
Less: Options terminated	-	-	-
Less: Impairment	-	(1,200,000)	-
Closing balance	15,000,000	-	-

**Investment in Godolphin –  
Options <sup>3</sup>**

		<b>2022</b>	2021
Particulars	No. of shares	\$	\$
Opening balance	15,000,000	<b>1,004,390</b>	1,004,390
Add: Options issued in CY	-	-	-
Less: Options terminated	-	-	-
Less: Impairment	-	<b>(1,004,390)</b>	-
Closing balance	15,000,000	-	1,004,390

1. Shares in Listed Entities are valued at the closing share price on ASX at 30 June 2022.
2. Ardea received 15,000,000 unlisted options as part of the consideration for the spin out of the Kalgoorlie gold assets from the Ardea group to Kalgoorlie Gold Mining Limited. The value of these options at the grant date was 0.08 per the Black Scholes valuation model. Unlisted Options subject to escrow until November 2023 - exercisable at 25 cents any time prior to 16 November 2024. The options are "out of the money" at the 30 June 2022 reporting date and hence have not been revalued from their cost but impaired as it is unlikely, based on market conditions, that the value will be realized.
3. The Company received 15,000,000 unlisted options as part of the consideration for the spin out of the NSW assets from the Ardea group to Godolphin Resources Limited. The value of these options at the grant date was 0.07055 per the Black Scholes valuation model. Unlisted Options subject to escrow until January 2022 - exercisable at 25 cents any time prior to January 2023. The options are "out of the money" at the 30 June 2022 reporting date and hence have not been revalued from their cost but impaired as it is unlikely, based on market conditions, that the value will be realized.

	<b>2022</b>	2021
	\$	\$
<b>Non-Current</b>		
Unlisted Options in Listed Company	-	1,004,390
Unlisted Options in Listed Company	-	-
Investment in Listed Entities	<b>956,777</b>	321,665
	<b>956,777</b>	1,326,055

**Particulars in relation to the controlled entities**

Ardea Resources Limited is the parent entity.

Name of Controlled entity	Class of Shares	Equity Holding	
		2022	2021
Atriplex Pty Ltd ACN 113 719 207	Ordinary	<b>100%</b>	<b>100%</b>
Yerilla Nickel Pty Ltd ACN 123 249 810 <sup>1</sup>	Ordinary	-	<b>100%</b>
Ardea Exploration Pty Ltd ACN 137 889 279	Ordinary	<b>100%</b>	<b>100%</b>
Kalgoorlie Nickel Pty Ltd ACN 137 889 199	Ordinary	<b>100%</b>	<b>100%</b>
Kalgoorlie Gold Mining Pty Ltd ACN 645 666 164 <sup>1</sup>	Ordinary	-	<b>100%</b>
Wellington Nickel Pty Ltd ACN 659 195 294	Ordinary	<b>100%</b>	-

1. The Company's interest in Yerilla Nickel Pty Ltd and Kalgoorlie Gold Mining Pty Ltd was transferred to Kalgoorlie Gold Mining Limited immediately prior to the IPO being completed. This transaction led to the following movements in Area's accounts:

	\$
Exploration	(10,060,502)
Issued Capital (Capital Return)	7,000,000
Investment in listed Company	1,800,000
Unlisted options in listed Company	1,200,000
Exploration write-offs	<b>60,502</b>
Net Gain/(loss) on loss of control of subsidiary	-

# 10. CAPITALISED MINERAL EXPLORATION EXPENDITURE

	<u>2022</u>	<u>2021</u>
	\$	\$
Non-Current - in the exploration phase		
Cost brought forward	27,954,447	20,496,211
Add: Expenditure incurred during the year (at cost)	9,429,275	9,512,317
Less Kalgoorlie Gold Spinout tenements	(10,060,502)	-
R&D Refund received/receivable	(1,800,000)	(1,630,406)
Exploration expenditure written off	(223,287)	(423,675)
	<u>25,299,933</u>	<u>27,954,447</u>

The recoupment of costs carried forward is dependent on the successful development and/or commercial exploitation or alternatively sale of the respective areas of interest.

During the year the Company completed the spinout of the Gold rights on tenements into a new IPO listing on ASX called Kalgoorlie Gold Mining Limited. The capitalised mineral exploration expenditure relating to these gold rights was \$10,060,502.

# 11. TRADE AND OTHER PAYABLES

## Current (Unsecured)

Trade creditors	681,343	411,341
Other creditors and accruals	105,250	26,000
	<u>786,593</u>	<u>437,341</u>

Included within trade and other creditors and accruals is an amount of \$245,075 (2020 - \$321,301) relating to exploration expenditure.

# 12. PROVISIONS

## Current

Employee entitlements	471,859	322,942
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## Non-Current

Employee entitlements	47,425	-
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# 13. CONTRIBUTED EQUITY

## (a) Ordinary Shares

169,737,772 (2021 - 127,670,582) fully paid ordinary shares	60,005,783	41,328,919
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## (b) Share Movements during the Year

	<u>2022</u>	<u>2021</u>		<u>2021</u>
	Number of shares	\$		\$
Beginning of the financial period	127,670,582	41,328,919		36,685,870
<b>New shares issues during the period</b>				
Placement and SPP at 47c/share	-	-	10,370,147	4,873,969
Placement and SPP at 55c/share	10,363,637	5,700,000	-	-
Placement and SPP at 70c/share	30,907,553	21,635,287	-	-
Conversion of performance rights	796,000	-	-	-
Kalgoorlie Gold Return of Capital	-	(7,000,000)	-	-
Less costs of issue	-	(1,658,423)	-	-
	<u>169,737,772</u>	<u>60,005,783</u>	<u>127,670,582</u>	<u>41,328,919</u>

**13. CONTRIBUTED EQUITY (Continued)**  
**(c) Unlisted Options**

There were 4,000,000 options on issue during the year ended 30 June 2022 (2021 – Nil)

**(d) Share Based Payments**

During the current financial year there were a number of Share Based payments made to Directors and Employees with 1,531,000 Performance Rights, (2021 – 2,610,000) issued during the period and there were 549,000 Performance Rights (2021 – 2,850,000) that lapsed/expired. There were 796,000 shares issued during the period from the conversion of Performance Rights (2021 – Nil). Subsequent to year end there have been a further 120,000 Performance Rights issued on 13 July 2022.

**(e) Terms and Conditions of Contributed Equity**

**Ordinary Shares**

The Company is a public Company limited by shares. The Company was incorporated in Perth, Western Australia. The Company's shares are limited whereby the liability of its members is limited to the amount (if any) unpaid on the shares respectively held by them.

Ordinary shares have the right to receive dividends as declared and, in the event of the winding up of the Company, to participate in the proceeds from the sale of all surplus assets in proportion to the number of shares held.

Ordinary shares which have no par value, entitle their holder to one vote, either in person or by proxy, at a meeting of the Company.

The Company's objectives when managing capital are to safeguard their ability to continue as a going concern, so that they may continue to provide returns for shareholders and benefits for other stakeholders.

**(f) Capital Risk Management**

Due to the nature of the Consolidated Entity's activities, being mineral development and exploration, the Consolidated Entity does not have ready access to credit facilities, with the primary source of funding being equity raisings. Therefore, the focus of the Consolidated Entity's capital risk management is the current working capital position against the requirements to meet exploration programmes and corporate overheads. The Consolidated Entity's strategy is to ensure appropriate liquidity is maintained to meet anticipated operating requirements, with a view to initiating appropriate capital raisings as required. The working capital position of the Consolidated Entity at 30 June 2022 are as follows:

	<u>2022</u>	2021
	\$	\$
Cash and cash equivalents	<b>22,018,398</b>	5,689,762
Trade and other receivables	<b>1,991,656</b>	1,025,238
Other assets	<b>54,835</b>	19,027
Trade and other payables	<b>(786,593)</b>	(437,341)
Provisions	<b>(519,284)</b>	(322,942)
Working capital position	<b><u>22,759,012</u></b>	<u>5,973,743</u>

**14. ACCUMULATED LOSSES**

Accumulated losses at the beginning of the period	<b>10,212,339</b>	7,913,796
Net loss attributable to members	<b>5,328,190</b>	2,298,543
Accumulated losses at the end of the year	<b><u>15,540,528</u></b>	<u>10,212,339</u>



# 15. RESERVES

	<u>2022</u>	<u>2021</u>
	\$	\$
<b>Share Based Payment Reserve</b>		
Balance at the beginning of the period	4,172,819	3,930,401
Add: Amounts expensed in current period	<u>374,333</u>	<u>242,418</u>
Balance at the end of the period	<u>4,547,152</u>	<u>4,172,819</u>

## Share Option reserve

The share option reserve comprises any equity settled share based payment transactions.

# 16. RELATED PARTIES

Full remuneration and other transaction details for Directors and Executives are included in the Directors report where the information has been audited as indicated.

# 17. EXPENDITURE COMMITMENTS

## (a) Exploration

The Consolidated Entity has certain obligations to perform minimum exploration work on mineral leases held. These obligations may vary over time, depending on the Consolidated Entity's exploration programmes and priorities. As at balance date, total exploration expenditure commitments on tenements held by the Consolidated Entity have not been provided for in the financial statements and those which cover the following twelve month period amount to \$3,045,770 (2021 - \$3,992,500). These obligations are also subject to variations by farm-out arrangements or sale of the relevant tenements.

## (b) Capital Commitments

The Consolidated Entity had no capital commitments at 30 June 2022.

# 18. SEGMENT INFORMATION

The Consolidated Entity operates predominantly in one segment involved in the mineral exploration and development industry in Australia.

# 19. EARNINGS/ (LOSS) PER SHARE

The following reflects the loss and share Data used in the calculations of basic and diluted earnings/ (loss) per share:

	<u>2022</u>	<u>2021</u>
	\$	\$
Earnings/ (loss) used in calculating basic and diluted earnings/ (loss) per share	<u>(5,328,190)</u>	<u>(2,298,543)</u>
	<b>Number of Shares</b>	
Weighted average number of ordinary shares used in calculating basic earnings/ (loss) per share:	148,541,584	125,103,443
<i>Effect of dilutive securities</i>		
Share options*	<u>-</u>	<u>-</u>
Adjusted weighted average number of ordinary shares used in calculating diluted earnings/ (loss) per share	<u>148,541,584</u>	<u>125,103,443</u>
Basic and Diluted loss per share (cents per share)	3.59 cents	1.84 cents

\*Non-dilutive securities

As at balance date, 4,422,000 performance rights which represent potential ordinary shares were not dilutive as they would decrease the loss per share.

**20. NOTES TO THE STATEMENT OF CASH FLOWS**

	<u>2022</u>	<u>2021</u>
	\$	\$
<b>(a) Reconciliation of the loss from ordinary activities after income tax to the net cash flows used in operating activities</b>		
Loss from ordinary activities after income tax	<b>(5,328,190)</b>	(2,298,543)
<i>Non-cash items:</i>		
Depreciation	<b>54,947</b>	92,089
Exploration Writedowns	<b>223,287</b>	423,675
Revaluation of Investments	<b>3,270,793</b>	985,920
Loss /(Profit) on sale of Investments	-	(79,593)
Accrued Interest	<b>(12,763)</b>	20,721
Share based payments	<b>374,333</b>	242,418
<i>Change in operating assets and liabilities:</i>		
Decrease (Increase) in prepayments	<b>(42,299)</b>	(43)
Decrease (Increase) in receivables	<b>(900,000)</b>	(83,915)
Increase in trade creditors and accruals	<b>100,665</b>	41,350
Increase in employee entitlements	<b>194,114</b>	101,247
Net cash outflows used in operating activities	<b>(2,065,114)</b>	(554,674)

**(b) Non Cash Financing and Investing Activities**

Full details of the Non Cash impact of the Performance Rights has been disclosed in the Remuneration Report.

**21. FINANCIAL INSTRUMENTS**

The Consolidated Entity's activities expose it to a variety of financial risks and market risks. The Consolidated Entity's overall risk management program focuses on the unpredictability of financial markets and seeks to minimise potential adverse effects on the financial performance of the Consolidated Entity.

**(a) Interest Rate Risk**

The Consolidated Entity's exposure to interest rate risk, which is the risk that a financial instrument's value will fluctuate as a result of changes in market, interest rates and the effective weighted average interest rates on those financial assets, is not significant. Cash and cash equivalents are the only assets effected and the average interest rate received is 0.24% (2021: 0.27%).

**(b) Credit Risk**

The maximum exposure to credit risk, excluding the value of any collateral or other security, at balance date, is the carrying amount, net of any provisions for doubtful debts, as disclosed in the balance sheet and in the notes to the financial statements.

The Consolidated Entity does not have any material credit risk exposure to any single debtor or group of debtors, under financial instruments entered into by it, and hence no credit loss allowance is required.

**(c) Commodity Price Risk and Liquidity Risk**

At the present state of the Consolidated Entity's operations it has minimal commodity price risk and limited liquidity risk due to the level of payables and cash reserves held. The Consolidated Entity's objective is to maintain a balance between continuity of exploration funding and flexibility through the use of available cash reserves.

**(d) Net Fair Values**

For assets and other liabilities, the net fair value approximates their carrying value. No financial assets and financial liabilities are readily traded on organised markets in standardised form. The Consolidated Entity has no financial assets where the carrying amount exceeds net fair values at balance date.

The aggregate net fair values and carrying amounts of financial assets and financial liabilities are disclosed in the statement of financial position and in the notes to the financial statements.

## 22. EMPLOYEE ENTITLEMENTS AND SUPERANNUATION COMMITMENTS

### **Employee Entitlements**

The aggregate employee entitlement liability is disclosed in Note 12.

### **Superannuation Commitments**

The Consolidated Entity contributes to individual employee accumulation superannuation plans at the statutory rate of the employees' wages and salaries, in accordance with statutory requirements, to provide benefits to employees on retirement, death or disability.

Accordingly no actuarial assessments of the plans are required.

## 23. CONTINGENT LIABILITIES

There were no material contingent liabilities not provided for in the financial statements of the Consolidated Entity as at 30 June 2022 other than:

### **Native Title and Aboriginal Heritage**

Native title claims have been made with respect to areas which include tenements in which the Consolidated Entity has an interest. The Consolidated Entity is unable to determine the prospects for success or otherwise of the claims and, in any event, whether or not and to what extent the claims may significantly affect the Consolidated Entity or its projects. Agreement is being negotiated with various native title claimants in relation to Aboriginal Heritage issues regarding certain areas in which the Consolidated Entity has an interest.

## 24. EVENTS SUBSEQUENT TO BALANCE DATE

There has not arisen since the end of the financial period any item, transaction or event of a material and unusual nature likely, in the opinion of the Directors of the Consolidated Entity to affect substantially the operations of the Consolidated Entity, the results of those operations or the state of affairs of the Consolidated Entity in subsequent financial years except for the following:

On the 13<sup>th</sup> July 2022, 120,000 performance rights were issued to employees of the Company under the Ardea Performance Rights Plan that was approved at the 2020 AGM.

## 25. PARENT COMPANY

(a) Financial Position

	<u>2022</u>	<u>2021</u>
	\$	\$
<b>Assets</b>		
Total current assets	24,064,889	6,734,027
Total non-current assets	26,533,683	29,367,442
<b>Total Assets</b>	<u>50,598,572</u>	<u>36,101,469</u>
<b>Liabilities</b>		
Total current liabilities	1,409,064	812,070
Total non-current liabilities	177,102	-
<b>Total Liabilities</b>	<u>1,586,166</u>	<u>812,070</u>
<b>Net Assets</b>	<u>49,012,406</u>	<u>35,289,399</u>
<b>Equity</b>		
Issued capital	60,005,783	41,328,919
Reserves	4,547,152	4,172,819
Accumulated losses	(15,540,528)	(10,212,339)
<b>Total Equity</b>	<u>49,012,406</u>	<u>35,289,399</u>
<b>Total comprehensive loss for the year</b>	<u>5,328,190</u>	<u>2,298,543</u>

Ardea Resources Limited has not entered into any deed of cross guarantee with its wholly-owned subsidiaries, had no contingent liabilities at 30 June 2022 and no capital commitments at 30 June 2022.

## DIRECTORS' DECLARATION

In the opinion of the Directors of Ardea Resources Limited ("the Consolidated Entity"):

- (a) the financial statements and notes, set out on pages 36 to 54, are in accordance with the Corporations Act 2001, including:
  - (i) complying with Accounting Standards in Australia and the Corporations Regulations 2001 and other mandatory professional reporting requirements; and
  - (ii) giving a true and fair view of the financial position of the Consolidated Entity as at 30 June 2022 and of its performance, as represented by the results of its operations, for the financial year to 30 June 2022.
- (b) there are reasonable grounds to believe that Ardea Resources Limited will be able to pay its debts as and when they become due and payable.

The Directors have been given the declarations required by section 295A of the Corporations Act 2001 from the Managing Director and the Company Secretary for the year to 30 June 2022.

This declaration is made in accordance with a resolution of the Directors.

Signed at Perth this 27th day of September 2022.



**Mathew Longworth**  
Chairman





## INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF ARDEA RESOURCES LIMITED

### Report on the financial report

#### Opinion

We have audited the financial report of Ardea Resources Limited ("the Company") and its controlled entities ("the Group"), which comprises the consolidated statement of financial position as at 30 June 2022 the consolidated statement of comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies, and the directors' declaration.

In our opinion, the accompanying financial report of the Group is in accordance with the Corporations Act 2001, including:

- i) giving a true and fair view of the Group's financial position as at 30 June 2022 and of its financial performance for the year then ended; and
- ii) complying with Australian Accounting Standards and the Corporations Regulations 2001.

#### Basis for opinion

We have conducted our audit in accordance with Australian Auditing Standards. Our responsibilities under those Standards are further described in the *Auditor's responsibilities for the audit of the financial report* section of our report.

We are independent of the Group in accordance with the auditor independence requirements of the Corporations Act 2001 and the ethical requirements of the Accounting Professional and Ethical Standards Board's APES 110 Code of Ethics for Professional Accountants (including Independence Standards) (the Code) that are relevant to our audit of the financial report in Australia. We have also fulfilled our ethical requirements in accordance with the Code.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### Key Audit Matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial report of the current period.

These matters were addressed in the context of our audit of the financial report as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

**Key Audit Matter****Capitalised mineral exploration expenditure**  
(refer note 10)

The Group operates as an exploration entity and its primary activity is the exploration for and evaluation of economically viable mineral deposits.

All exploration and evaluation expenditure incurred has been capitalised and recognised as an asset in the Statement of Financial Position.

The closing value of this asset is \$25,299,933 as at 30 June 2022.

The carrying value of capitalised mineral exploration assets is subjective and is based on the Group's intention and ability, to continue to explore the asset. The carrying value may also be affected by the results of ongoing exploration activity indicating that the mineral reserves and resources may not be commercially viable for extraction. This creates a risk that the asset value included within the financial statements may not be recoverable.

**Research and Development Tax Incentive**  
(refer notes 6 and 10)

Management and their advisors have applied judgements, assumptions and estimates in determining the R&D Tax Incentive refund recognised for the 2022 year.

**Deferred Taxation**  
(refer note 5)

The Company relies on the use of an expert to prepare the taxation disclosures which are included in the financial statements.

**How our audit addressed the key audit matter**

Our audit procedures included:

- ensuring the Group's continued right to explore for minerals in the relevant exploration areas including assessing documentation such as exploration and mining licences;
- enquiring of management and the directors as to the Group's intentions and strategies for future exploration activity and reviewing budgets and cash flow forecasts;
- assessing the results of recent exploration activity to determine whether there are any indicators suggesting a potential impairment of the carrying value of the asset;
- assessing the Group's ability to finance the planned exploration and evaluation activity; and
- assessing the adequacy of the disclosures made by the Group in the financial report.

Our audit procedures included:

- evaluating the assumptions, methodologies and conclusions used by the Group in preparing the R&D Tax Incentive estimate; and
- assessing the adequacy of the disclosures made by the Group in the financial report.

In accordance with Australian Auditing Standards, we relied on the work of management's expert with respect to the assumptions used in the calculation of deferred taxes. Our audit procedures included:

- examining the qualifications, objectivity and experience of management's expert;
- evaluating the assumptions, methodologies and conclusions used by the Group in preparing their estimate of deferred taxes; and
- assessing the adequacy of the disclosures made by the Group in the financial report.

**Other information**

The directors are responsible for the other information. The other information comprises the information in the Group's annual report for the period ended 30 June 2022, but does not include the financial report and the auditor's report thereon.

Our opinion on the financial report does not cover the other information and accordingly we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial report, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial report or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.





## Directors' responsibilities for the financial report

The directors of the Company are responsible for the preparation of the financial report that gives a true and fair view in accordance with the Australian Accounting Standards and the Corporations Act 2001 and for such internal control as the directors determine is necessary to enable the preparation of the financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error.

In preparing the financial report, the directors are responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Company or to cease operations, or have no realistic alternative but to do so.

## Auditor's responsibilities for the audit of the financial report

Our objectives are to obtain reasonable assurance about whether the financial report as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the Australian Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial report.

As part of an audit in accordance with the Australian Auditing Standards, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess risks of material misstatement of the financial report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.
- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial report or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial report, including the disclosures, and whether the financial report represents the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the financial report. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our audit opinion.



We communicate with the directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the directors with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, actions taken to eliminate threats or safeguards applied.

From the matters communicated with the directors, we determine those matters that were of most significant in the audit of the financial report of the current period and are therefore key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh public interest benefits of such communication.

## **Report on the remuneration report**

### **Opinion**

We have audited the remuneration report included on pages 29 to 32 of the directors' report for the year ended 30 June 2022.

In our opinion, the remuneration report of Ardea Resources Limited, for the year ended 30 June 2022, complies with section 300A of the Corporations Act 2001.

### **Responsibilities**

The directors of the Company are responsible for the preparation and presentation of the remuneration report in accordance with section 300A of the Corporations Act 2001.

Our responsibility is to express an opinion on the remuneration report, based on our audit conducted in accordance with Australian Auditing Standards.

DRY KIRKNESS (AUDIT) PTY LTD

ROBERT HALL  
Director

Perth  
Date: 27 September 2022



## Shareholder Information

The following additional information was applicable at 9 September 2022.

### 1. Distribution of Fully Paid Ordinary Shareholders is as follows:

Size of Holding	Number of Holders	Shares Held	%
1 - 1,000	710	401,379	0.24%
1,001 - 5,000	1,513	4,067,853	2.40%
5,001 - 10,000	548	4,289,103	2.53%
10,001 - 100,000	932	28,451,635	16.76%
100,001 -	165	132,527,802	78.08%
	<b>3,868</b>	<b>169,737,772</b>	<b>100.00%</b>

a) There were 319 shareholders who held less than a marketable parcel.

b) The twenty largest shareholders hold 55.33% of the issued fully paid capital of the Company.

### 2. Substantial Shareholders of Fully Paid Ordinary Shareholders are as follows:

Holder	Number of Shares	%
Ian Buchhorn and Associates	12,980,585	7.65%
B O'Shannassy and Associates	9,414,377	5.55%

### 3. Voting Rights

In accordance with the Company's constitution, voting rights are on the basis of a show of hands, one vote for every registered holder and on a poll, one vote for each share held by registered holders.

### 4. Top 20 Shareholders of Fully Paid Ordinary Shares

	Number of Shares	%
CITICORP NOMINEES PTY LIMITED	19,735,805	11.63%
BNP PARIBAS NOMINEES PTY LTD <IB AU NOMS RETAILCLIENT DRP>	14,435,111	8.50%
HSBC CUSTODY NOMINEES (AUSTRALIA) LIMITED	10,385,685	6.12%
HAZURN PTY LTD <BUCHHORN SUPER FUND A/C>	7,298,849	4.30%
JOSCO PTY LTD <O'SHANNASSY FAMILY A/C>	5,383,809	3.17%
SHENTON WORLD FUND LTD	4,857,143	2.86%
BNP PARIBAS NOMS PTY LTD <DRP>	3,794,980	2.24%
KURANA PTY LTD <BUCHHORN UNIT ACCOUNT>	3,261,393	1.92%
BNP PARIBAS NOMINEES PTY LTD ACF CLEARSTREAM	3,040,862	1.79%
MERRILL LYNCH (AUSTRALIA) NOMINEES PTY LIMITED	3,001,976	1.77%
MR OLIVIER DUPUY & MS JULIE DUPUY <ENERJEE SUPER FUND A/C>	2,655,385	1.56%
B & J O'SHANNASSY MANAGEMENT PTY LTD <JOSCO PTY LTD S/F NO1 A/C>	2,165,572	1.28%
MR IWAN JONES & MS JOYCE CHRISTINE JONES <I & J JONES SUPER FUND A/C>	2,100,000	1.24%
MR MICHAEL ANDREW HARRIS	1,795,000	1.06%
MRS PAMELA JEAN BUCHHORN	1,672,073	0.99%
JOSCO PTY LTD <O'SHANNASSY FAMILY A/C>	1,666,664	0.98%
CIRCUMFERENCE CAPITAL CT PTY LTD <CIRCUMFERENCE CAPITAL A/C>	1,428,572	0.84%
MAYFAIR VENTURES PTE LTD	1,428,572	0.84%
MS BO XU	1,350,000	0.80%
MARTIN BUCKLEY <THE M BUCKLEY FAMILY A/C>	1,292,539	0.76%
<b>TOTAL</b>	<b>92,861,818</b>	<b>54.71%</b>



**5. Unlisted Options**

4,000,000 Unquoted Options currently on issue convertible at A\$0.75 each prior to 08/12/2023, exercisable upon the Company signing a binding agreement with an Equity Partner for the Kalgoorlie Nickel Project with a minimum \$10m equity investment.

**6. Share Buy-Backs**

There is no current on-market buy-back scheme.

**7. Stock Exchanges**

The Securities of the Company are not quoted on any other stock exchanges.



# Tenement Schedule

Ardea Resources Limited Tenement Schedule (WA) as at 30 June 2022

Tenement	Location	Ardea Interest (%)	Status	Note	Tenement	Location	Ardea Interest (%)	Status	Note
<b>Goongarrie Hub</b>									
E24/196	Goongarrie	100	Live		M24/731	Goongarrie	100	Live	3
E24/209	Goongarrie	100	Live		M24/732	Goongarrie	100	Live	3
E24/211	Goongarrie	100	Pending		M24/744	Goongarrie	100	Live	
E29/934	Goongarrie	100	Live		M24/778	Goongarrie	100	Live	3
E29/1028	Goongarrie	100	Live		M29/167	Goongarrie	100	Live	
E29/1038	Goongarrie	100	Live		M29/202	Goongarrie	100	Live	
E29/1039	Goongarrie	100	Pending		M29/272	Goongarrie	100	Live	
E29/1045	Goongarrie	100	Live		M29/278	Goongarrie	100	Live	
E29/1048	Goongarrie	100	Live		M29/423	Goongarrie	100	Live	
E30/500	Goongarrie	100	Live		M29/424	Goongarrie	100	Live	
E30/501	Goongarrie	100	Live		M29/426	Goongarrie	100	Live	
E30/502	Goongarrie	100	Live		P24/5260	Goongarrie	100	Live	
G29/25	Goongarrie	100	Pending		P24/5328	Goongarrie	100	Live	
L24/239	Goongarrie	100	Live		P24/5329	Goongarrie	100	Live	
L29/134	Goongarrie	100	Live		P24/5265	Goongarrie-Carr Boyd	100	Live	
L29/135	Goongarrie	100	Live		P24/5169	Goongarrie-Windanya	100	Live	
L30/67	Goongarrie	100	Live		P24/5480	Goongarrie-Windanya	100	Live	
L30/68	Goongarrie	100	Live		M24/919	Goongarrie-Scotia	100 Ni rights	Live	6
L16/141	Goongarrie	100	Live		M24/959	Goongarrie-Scotia	100 Ni rights	Live	6
L30/85	Goongarrie	100	Pending		M24/541	Goongarrie	100	Live	
P29/2646	Highway North	100	Live		P29/2650	Highway North	100	Live	
P29/2647	Highway North	100	Live		P29/2651	Highway North	100	Live	
P29/2648	Highway North	100	Live		E29/1125	Goongarrie East	100	Live	16
P29/2649	Highway North	100	Live		E29/1082	Goongarrie	100	Live	
P24/5528	Goongarrie	100	Pending		E29/1089	Goongarrie	100	Live	
P29/2559	Highway North	100	Live		P29/2561	Highway North	100	Live	
P29/2560	Highway North	100	Live		P29/2562	Highway North	100	Live	
P29/2501	Highway - Moriarty	100	Live		E29/941	Ghost Rocks	100	Live	
P29/2511	Ghost Rocks	100	Live		E29/981	Ghost Rocks	100	Live	
P29/2512	Ghost Rocks	100	Live		M29/214	Highway	100	Live	
P29/2513	Ghost Rocks	100	Live		P29/2538	Ghost Rocks	100	Live	
P29/2514	Ghost Rocks	100	Live		P29/2539	Ghost Rocks	100	Live	
P29/2515	Ghost Rocks	100	Live						



Tenement	Location	Ardea Interest (%)	Status	Note	Tenement	Location	Ardea Interest (%)	Status	Note
<b>Goongarrie Hub Expansion Siberia</b>									
E24/203	Siberia	100 non Au-Ag rights	Live	4	P29/2484	Siberia	100	Live	
E29/889	Siberia	100 non Au-Ag rights	Live	4	P29/2485	Siberia	100	Live	
M24/634	Siberia	100 non Au-Ag rights	Live	1,4	P24/5416	Siberia	100	Live	
M24/660	Siberia	100 non Au-Ag rights	Live	4	P24/5417	Siberia	100	Live	
M24/663	Siberia	100 non Au-Ag rights	Live	4	P24/5418	Siberia	100	Live	
M24/664	Siberia	100 non Au-Ag rights	Live	4	<b>Goongarrie Hub Expansion Black Range</b>				
M24/665	Siberia	90 non Au-Ag rights	Live	2,4	M24/757	Black Range	100 non Au-Ag rights	Live	4
M24/683	Siberia	100 non Au-Ag rights	Live	4	M24/973	Black Range	100 non Au-Ag rights	Pending	4
M24/686	Siberia	100 non Au-Ag rights	Live	4	P24/4395	Black Range	100 non Au-Ag rights	Live	4
M24/772	Siberia	100 non Au-Ag rights	Live	4	P24/4396	Black Range	100 non Au-Ag rights	Live	4
M24/797	Siberia	100 non Au-Ag rights	Live	4	P24/4400	Black Range	100 non Au-Ag rights	Live	4
M24/915	Siberia	100 non Au-Ag rights	Live	4	P24/4401	Black Range	100 non Au-Ag rights	Live	4
M24/916	Siberia	100 non Au-Ag rights	Live	4	P24/4402	Black Range	100 non Au-Ag rights	Live	4
P24/5235	Siberia	100	Live		P24/4403	Black Range	100 non Au-Ag rights	Live	4
P24/5236	Siberia	100	Live						

### Kalpini Hub

E27/524	Kalpini	100 non Au rights	Live	9	P25/2454	Kalpini-Bulong	100 non Au rights	Live	14
E27/606	Kalpini	100 non Au rights	Live	14	P25/2455	Kalpini-Bulong	100 non Au rights	Live	14
E27/607	Kalpini	100 non Au rights	Live	14	P25/2456	Kalpini-Bulong	100 non Au rights	Live	14
E28/1224	Kalpini	100	Live		P25/2457	Kalpini-Bulong	100 non Au rights	Live	14
E28/2978	Kalpini	100 non Au rights	Live	14	P25/2458	Kalpini-Bulong	100 non Au rights	Live	14
M27/395	Kalpini	100	Live		P25/2459	Kalpini-Bulong	100 non Au rights	Live	14
M27/506	Kalpini	100	Live		P25/2460	Kalpini-Bulong	100 non Au rights	Live	14
M27/512	Kalpini	100	Pending		P25/2461	Kalpini-Bulong	100 non Au rights	Live	14
M28/199	Kalpini	100	Live		P25/2482	Kalpini-Bulong	100 non Au rights	Live	14
M28/201	Kalpini	100	Live		P25/2483	Kalpini-Bulong	100 non Au rights	Live	14
M28/205	Kalpini	100	Live		P25/2484	Kalpini-Bulong	100 non Au rights	Live	14
E27/278	Kalpini-Acra	100 Ni Lat Ore	Live	5	P25/2559	Kalpini-Bulong	100 non Au rights	Live	14
E27/438	Kalpini-Acra	100 Ni Lat Ore	Live	5	P25/2560	Kalpini-Bulong	100 non Au rights	Live	14
E27/520	Kalpini-Acra	100 Ni Lat Ore	Live	5	P25/2561	Kalpini-Bulong	100 non Au rights	Live	14
E27/579	Kalpini-Acra	100 Ni Lat Ore	Live	5	P25/2609	Kalpini-Bulong	100 non Au rights	Live	14
E28/1746	Kalpini-Acra	100 Ni Lat Ore	Live	5	P25/2613	Kalpini-Bulong	100 non Au rights	Live	14
E28/2483	Kalpini-Acra	100 Ni Lat Ore	Live	5	P25/2614	Kalpini-Bulong	100 non Au rights	Live	14
E25/578	Kalpini-Bulong	100 non Au rights	Live	14	P25/2615	Kalpini-Bulong	100 non Au rights	Live	14
M25/59	Kalpini-Bulong	100 non Au rights	Live	14	P25/2650	Kalpini-Bulong	100 non Au rights	Live	14
M25/134	Kalpini-Bulong	100 non Au rights	Live	14	P25/2305	Kalpini-Bulong	100 non Au rights	Live	13, 14
M25/145	Kalpini-Bulong	100 non Au rights	Live	14	M31/488	Kalpini-Lake Rebecca	100 non Au rights	Pending	14
M25/151	Kalpini-Bulong	100 non Au rights	Live	14	P31/2038	Kalpini-Lake Rebecca	100 non Au rights	Live	14
M25/161	Kalpini-Bulong	100 non Au rights	Live	14	P31/2039	Kalpini-Lake Rebecca	100 non Au rights	Live	14
M25/171	Kalpini-Bulong	100 non Au rights	Live	14	P31/2040	Kalpini-Lake Rebecca	100 non Au rights	Live	14
M25/187	Kalpini-Bulong	100 non Au rights	Live	14	E27/643	Kalpini	100 non Au rights	Pending	14
M25/209	Kalpini-Bulong	100 non Au rights	Live	14	E27/647	Kalpini	100 non Au rights	Pending	14
E27/646	Kalpini	100 non Au rights	Pending	14	P25/2306	Kalpini-Bulong	100 non Au rights	Live	13, 14
E28/3139	Kalpini	100	Pending		M25/19	Kalpini-Bulong	100 non Au rights	Live	13, 14
P25/2295	Kalpini	100 non Au rights	Live	14	P25/2307	Kalpini-Bulong	100 non Au rights	Live	13, 14
P25/2296	Kalpini-Bulong	100 non Au rights	Live	13, 14	P25/2308	Kalpini-Bulong	100 non Au rights	Live	13, 14
P25/2297	Kalpini-Bulong	100 non Au rights	Live	13, 14	P25/2408	Kalpini-Bulong	100 non Au rights	Live	13, 14
P25/2304	Kalpini-Bulong	100 non Au rights	Live	13, 14	P25/2409	Kalpini-Bulong	100 non Au rights	Live	13, 14
P25/2305	Kalpini-Bulong	100 non Au rights	Live	13, 14					



Tenement	Location	Ardea Interest (%)	Status	Note	Tenement	Location	Ardea Interest (%)	Status	Note
<b>WA Regional</b>					<b>Yerilla Hub</b>				
E39/2188	Yundamindra	100	Live	15	E39/1954	Yerilla-Aubils	100 non Au rights	Live	14
M15/1101	WA Regional	Pre-emp Ni-Co Lat	Live	7	M39/1147	Yerilla-Aubils	100 non Au rights	Pending	14
M15/1263	WA Regional	Pre-emp Ni-Co Lat	Live	7	E31/1092	Yerilla-Boyce Creek	100 non Au rights	Live	14
M15/1264	WA Regional	Pre-emp Ni-Co Lat	Live	7	E31/1169	Yerilla-Boyce Creek	100 non Au rights	Live	14
M15/1323	WA Regional	Pre-emp Ni-Co Lat	Live	7	E31/1208	Yerilla-Boyce Creek	100 non Au rights	Live	14
M15/1338	WA Regional	Pre-emp Ni-Co Lat	Live	7	E31/1213	Yerilla-Boyce Creek	100 non Au rights	Live	14
M27/510	WA Regional	100 Ni Lat Ore	Live	8	M31/483	Yerilla-Boyce Creek	100 non Au rights	Live	14
M27/272	Kanowna East	Non-Au Rights	Live	10	M31/493	Yerilla-Boyce Creek	100 non Au rights	Pending	14
E31/1261	Pinjin	100	Pending		M31/475	Yerilla-Jump Up Dam	100 non Au rights	Live	14
E28/3134	Pinjin	100	Pending		M31/477	Yerilla-Jump Up Dam	100 non Au rights	Live	14
<b>Kookynie Gold-Nickel</b>					M31/479	Yerilla-Jump Up Dam	100 non Au rights	Live	14
E40/350	Kookynie	0	Live	11	<b>Mt Zephyr Gold-Nickel</b>				
E40/357	Kookynie	0	Live	11	E37/1271	Mt Zephyr	100	Live	12
<b>Perrinvale Nickel-Gold</b>					E37/1272	Darlot East	100	Live	12
E29/1006	Perrinvale	100 non Au rights	Live	14	E37/1273	Darlot East	100	Live	12
E29/1078	Perrinvale	100 non Au rights	Live	14	E37/1274	Mt Zephyr	100	Live	12
<b>Bedonia Nickel-PGE-Gold</b>					E39/1706	Mt Zephyr	100	Live	12
E63/1828	Bedonia	100	Live		E39/1854	Mt Zephyr	100	Live	12
E63/1856	Bedonia	100	Live		E39/1985	Mt Zephyr	100	Live	12
E63/1857	Bedonia	100	Live						
E63/1928	Bedonia	100	Live						

**Notes:**

1. Britannia Gold Ltd retains precious metal rights.
2. Impress Ventures Ltd has a 10% equity free-carried interest to a decision to mine.
3. Norton Gold Fields Limited retains certain Au claw-back rights and royalty receivable.
4. Ora Banda Mining Ltd holds Au-Ag rights while Ardea retains all non Au-Ag rights.
5. Acra JV – Northern Star Resources Ltd earn-in with Essential Metals Limited. Former holds gold rights while latter retains nickel sulphide rights. Ardea retains rights to Ni laterite ore.
6. Black Mountain Gold Limited all rights with exception of Ardea retaining Ni rights.
7. Ramelius Resources Limited assignee (Maximus Resources Ltd) all rights, Ardea pre-emptive right to Ni-Co laterite.
8. Paddington Gold Pty Ltd all mineral rights (except nickel sulphide) while Ardea retains rights to nickel laterite ore.
9. By Sale Agreement between Northern Star (Carosue Dam) Pty Ltd and Kalnorth Gold Mines Ltd, Northern Star (Carosue Dam) Pty Ltd now owns Au rights while Ardea retains non-Au rights.
10. Northern Star (Kanowna) Limited holds Au rights. Ardea retains non-Au rights.
11. The Option to purchase the tenements was transferred to Metalicity Limited on 21 November 2020. Ardea retains non Au rights.
12. The Mt Zephyr/Darlot East tenements were farmed out to Red 5 Limited on 18 November 2020 whereby Red 5 Limited may earn 80% equity interest. Ardea is free carried to Decision to Mine.
13. Purchase of tenements by Binding Terms Sheet and Alluvial Rights Agreements dated 4 June 2021 between the Seller Steven Lionel Kean and Ardea Resources Limited.
14. By way of the Demerger Implementation Deed executed between Ardea Resources Limited, Kalgoorlie Gold Mining Limited, Yerilla Nickel Pty Ltd, Kalgoorlie Nickel Pty Ltd and Ardea Exploration Pty Ltd dated 9 September 2021, certain tenements are to be transferred to newly listed Kalgoorlie Gold Mining Limited. For certain other tenements, Ardea Resources Limited or its subsidiaries will continue to hold and retain non-gold rights while Kalgoorlie Gold Mining Limited retain gold rights only.



## Glossary

ASIC means Australian Securities and Investments Commission

ASX means ASX Limited (ABN 98 008 624 691) or the Australian Securities Exchange, as appropriate

Australian Registry means Security Transfer Registrars Pty Ltd of 770 Canning Highway, Applecross WA

Ardea or ARL or Company means Ardea Resources Limited (ABN: 30 614 289 342) ARL : ASX is the Ardea code on ASX

Ag means Silver

AL means Atmospheric Leach (being a hydrometallurgical process done at atmospheric pressure, in contrast to high pressure leach HPAL)

Au means Gold

Anomaly means a value higher or lower than expected, which outlines a zone of potential exploration interest but not necessarily of commercial significance

Archaean means a period of geological time spanning 3.8 to 2.5 billion years before present

Austrade - Australian Trade and Investment Commission

BTZ means Bardoc Tectonic Zone

Co means Cobalt

CMO means Australian Federal Government - Critical Minerals Office

Critical Minerals means metals and non-metals that are considered vital for the economic well-being of the world's major and emerging economies, yet whose supply may be at risk due to geological scarcity, geopolitical issues, trade policy or other factors. The minerals ranked by Geoscience Australia: Rare-earth elements (REE), gallium (Ga), indium (In), tungsten (W), platinum-group elements (PGE) including platinum (Pt) and palladium (Pd), cobalt (Co), niobium (Nb), magnesium (Mg), molybdenum (Mo), antimony (Sb), lithium (Li), vanadium (V), nickel (Ni), tantalum (Ta), tellurium (Te), chromium (Cr) and manganese (Mn).

Cu means Copper

DFAT means Australian Federal Government - Department of Foreign Affairs and Trade

DHEM means downhole electromagnetics

DWER means WA Department of Water and Environmental Regulation

EFA means Export Finance Australia

EM means electromagnetics

EV means Electric Vehicle

ESG means Environmental Social and Governance principles

Feasibility study means a study with three progressively more detailed stages:

Scoping Study means a first pass estimate of engineering requirements and costs of a mining operation, processing plant and plant infrastructure. Included in the cost estimates will be infrastructure, tailings disposal, power supply, and owner's costs. The plant design may change as a result of test work analysis, optimisation studies and engineering improvements performed during execution of the follow-up Pre-feasibility Study. Operating and capital cost estimates are to an order of magnitude accuracy of  $\pm 30\%$ .

Pre-feasibility Study (PFS) means an engineering and cost study of a mining operation, processing plant and plant infrastructure. Included in the cost estimates will be infrastructure, tailings disposal, power supply, and owner's costs. The plant design may change as a result of test work analysis, optimisation studies and engineering improvements performed during execution of the Pre-feasibility Study. Operating and capital cost estimates are to an accuracy of  $\pm 25\%$ .

Definitive Feasibility Study (DFS) means a feasibility study undertaken to a high degree of accuracy which may be used as a basis for raising finance for the construction of a project. Typically operating and capital cost estimates are to an accuracy of  $\pm 15-20\%$ . A DFS is the standard of report required by primary debt funders to demonstrate the technical and commercial viability of a project.

FBICRC means Future Batteries Industry Co-operative Research Centre of which Ardea is a member

GAS means the Gap Analysis Study by Ardea appointed global consulting engineering firm, Wood

GWL means groundwater extraction licences

HPAL means High-Pressure Acid Leach





KNP means Kalgoorlie Nickel Project, a nickel cobalt laterite project located through an arc 30 to 150km north-north west to east of Kalgoorlie. It is comprised of the:

Goongarrie Hub – Goongarrie South, Goongarrie Hill, Highway, Ghost Rocks, Big Four, Scotia, Black Range and Siberia deposits

Kalpini Hub – Kalpini and Bulong deposits

Yerilla Hub – Jump Up Dam, Boyce Creek, Aubils and Lake Rebecca deposits

LIB means Lithium Ion Battery

m means metre and km means kilometres

Mt means Million tonnes

Mineralisation means in economic geology, the introduction of valuable elements into a rock body

Mineralised Neutraliser means a specific plant feed unique to the Goongarrie Hub for which the fine component is AL feed and coarse component is a neutraliser

MHP means Mixed Hydroxide Precipitate

MPFA means Australian Federal Government - Major Projects Facilitation Agency

MPS means Major Project Status - KNP was award MPS in March 2022 by the Prime Minister of Australia

Ni means Nickel

Nickel Laterite means Nickel occurring as an oxidised hydrated iron oxide, ferruginous clay, smectite clay, chlorite and serpentine assemblage overlying weathered ultramafic rock

Nickel Sulphide means nickel and copper occurring as an un-oxidised sulphide assemblage associated with fresh ultramafic rock

NCM means Nickel-Cobalt-Manganese

OEM mean Original Equipment Manufacturers

OECD means Organisation for Economic Cooperation and Development

PCAM Precursor Cathode-active Material

PGE means Platinum Group Metals - Ruthenium (Ru), Rhodium (Rh), Palladium (Pd), Osmium (Os), Iridium (Ir), and Platinum (Pt)

PLS means Pregnant Liquor Solution

Project means a grouping of prospects within a specific geographic location, often with a common geological setting

Prospect means a target upon which exploration programs are planned or have commenced

Province means a grouping of projects within a geological district defined by a major mineralised crustal structure

R&D means Research and Development

RAB means Rotary Air Blast drilling technique in which a sample is returned to surface outside the rod string by compressed air. Sample quality is poor.

RC means Reverse Circulation drilling method employing a rotating or hammering action on a drill bit which returns a sample to the surface inside the rod string by compressed air. Sample quality is very good, particularly if the drill hole is dry.

REE means Rare Earth Elements, notably Neodymium (Nd), Praseodymium (Pr) and Cerium (Ce).

RM means Rare Metals

Reserves or Ore Reserves or Mineral Reserves as defined by JORC Code.

Proven or Proved Ore Reserve means the economically mineable part of a Measured Mineral Resource. It includes diluting materials and allowances for losses which may occur when the material is mined. Appropriate assessments, which may include Feasibility Studies, have been carried out, and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction could reasonably be justified. The term "economic" implies that extraction of the Ore Reserve has been established or analytically demonstrated to be viable and justifiable under reasonable investment assumptions.

Probable Ore Reserve is the economically mineable part of an Indicated Mineral Resource.



Resource or Mineral Resource (MRE) means a Mineral Resource Estimate as defined by JORC Code and is a concentration or occurrence of material of intrinsic economic interest in or on the earth's crust in such form, quality and quantity that there are reasonable prospects for eventual economic extraction. Mineral Resources are further sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.

Measured Resource means a 'Measured Mineral Resource' is that part of a Mineral Resource for which quantity, grade (or quality), densities, shape and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling and testing gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes, and is sufficient to confirm geological and grade (or quality) continuity between points of observation where data and samples are gathered. A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proved Ore Reserve or under certain circumstances to a Probable Ore Reserve.

Indicated Resource means an 'Indicated Mineral Resource' is that part of a Mineral Resource for which quantity, grade (or quality), densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes, and is sufficient to assume geological and grade (or quality) continuity between points of observation where data and samples are gathered. An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Ore Reserve.

Inferred Resource means an 'Inferred Mineral Resource' is that part of a Mineral Resource for which quantity and grade (or quality) are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade (or quality) continuity. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to an Ore Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continue exploration.

JORC (2012 edition) means the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves and is a professional code of practice that sets minimum standards for Public Reporting of minerals Exploration Results, Mineral Resources and Ore Reserves. The JORC Code provides a mandatory system for the classification of minerals Exploration Results, Mineral Resources and Ore Reserves according to the levels of confidence in geological knowledge and technical and economic considerations in Public Reports.

Sc means Scandium

SSB means Static Storage Battery

TZ means Tectonic Zone

V means Vanadium

WA means Western Australia

WWF means Walter Williams Formation, prospective for hosting magmatic nickel sulphide and the dominant host unit that has weathered to form the Goongarrie Hub nickel laterite deposits

WU, CU, EU means ultramafic units Western Ultramafic, Central Ultramafic and Eastern Ultramafic and as defined, at the Emu Lake nickel sulphide prospect. The basal WU is the prime nickel sulphide target.



*Opposite: Photo caption top to bottom, left to right: Mike Miller (General Manager - Technical Services) with Murry Clark (Ardea Kalgoorlie Team) at Goongarrie; Ardea's Diggers and Dealers 2022 booth - Luke Mateljan and Ross Lynch of Ngaliku WPH JV. Ross is the son of local elder Aubrey Lynch. I-r: Luke Mateljan, Mat Longworth (Ardea Chair), Ross Lynch, Mike Miller (Ardea General Manager – Technical), Andrew Penkethman (Ardea MD & CEO); Darren Howe (Geology Superintendent) conducting a Site Visit Goongarrie; Goongarrie Hill open pit face showing silica plates in a goethite matrix. The mineralisation elsewhere at Goongarrie is dominated by goethite as the laterite has been in a topographical low, is partly covered by Lake Goongarrie sediments and features the northwest trending Bardoc Tectonic Zone structures that run through the Walter Williams Formation (WWF). These features have resulted in preferential weathering of the WWF and movements in the water table which have leached out the silica, leaving the premium goethite mineralisation that will be direct feed to the process plant; Goongarrie Hill; View over Goongarrie; Darren Howe (Geology Superintendent) conducting a Site Visit Goongarrie with Mat Longworth (Ardea Chair).*









**Ardea**  
Resources Limited

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