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DEVELOPING

the Goongarrie
Nickel Cobalt Project

EXPLORING

for Western Australian
Gold and Nickel Sulphides

27 November 2019 – Ardea Annual General Meeting Presentation
Presented by Andrew Penkethman

Disclaimer

Important notice

This presentation contains general information only and is, or is based upon, information which has been released to ASX or is contained in the Ardea Resources Limited (Ardea or the Company) prospectus dated 9 November 2016 (including supplementary prospectuses dated 18 November 2016 and 6 January 2017), the Goongarrie Nickel Cobalt Project Pre-Feasibility Study (dated 28 March 2018) the Goongarrie Expansion Study (24 July 2018), Goongarrie Pilot Plant trial produces battery grade crystals (31 October 2018), Lewis Ponds met testwork produces high grade concentrates (26 November 2018), Goongarrie Nickel Cobalt Project Update (8 April 2019), Drilling at Gale identifies large scale gold system (11 April 2019), Ardea advances NSW Gold and Base Metals IPO (29 April 2019), Ardea Quarterly Operations Report, for the quarter ended 31 March 2019 (30 April 2019), Ardea Quarterly Operations Report, for the quarter ended 30 June 2019 (22 July 2019), Nickel sulphide exploration commences at Perrinvale Project (24 July 2019), Ardea Quarterly Operations Report, for the quarter ended 30 September 2019 (31 October 2019), Godolphin Resources Prospectus (29 October 2019), Godolphin Resources IPO to close early (19 November 2019) and Mulga Plum Exploration Update (25 November 2019). This presentation is not an invitation, offer or recommendation (express or implied) to subscribe for, or apply for the purchase of, or to take any other action in respect of securities of any entity described herein and is not a prospectus, product disclosure statement or disclosure document for the purposes of the Corporations Act 2001 (Cth) and has not been lodged with ASIC. None of Ardea Resources Limited (Ardea or the Company) or its representatives are providing or offering investment advice or services by making this presentation.

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This presentation contains forward-looking statements regarding the Company's resources, intentions and future business. These statements reflect current information, expectations, intentions and strategies regarding the future, and are subject to certain risks and uncertainties. Should one or more of these risks or uncertainties materialise, or should any of the underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this presentation. Investors are cautioned not to place undue reliance on forward-looking statements, which speak only as of the date they are made. Other than where required by law, the Company is under no obligation to revise any forward looking statement to reflect events or circumstances after the date of this presentation or to reflect the occurrence of unanticipated events.

The Goongarrie Project has completed the Pre-Feasibility Study phase and has commenced programs that are part of the Definitive Feasibility Study. Though 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 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 Pre-Feasibility Study and Expansion Study, which is based on forward looking statements, is that the Goongarrie Project is considered to have positive economic potential.

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



Corporate Snapshot

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Capital Structure, as at 25 November 2019

Shares on Issue	117,300,435
Share Price	\$0.80
52 week high / low	\$0.80 / \$0.355
Cash (as at 31 October 2019)	\$11 million
Market Capitalisation	\$93.8 million
Staff performance rights	5,161,000

Major Shareholders

Ian Buchhorn and associates	10.67%
Brian O'Shannassy and associates	7.89%
Institutional holdings	6.20%
Top 20 shareholders	54.58%

Board and Executive Management Team

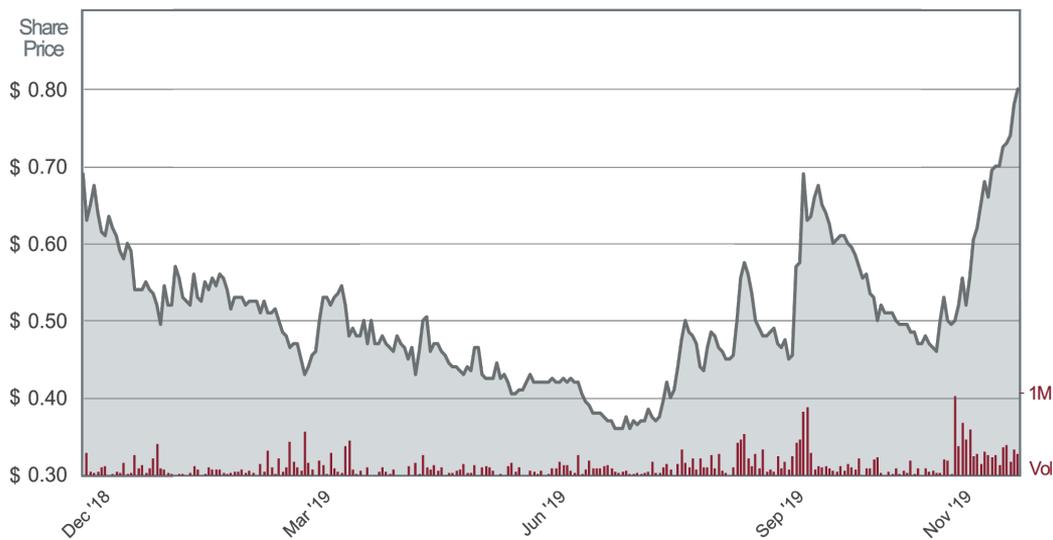
Katina Law	Executive Chair
Ian Buchhorn	Executive Director
Wayne Bramwell	Non-Executive Director
Andrew Penkethman	Chief Executive Officer
Sam Middlemas	Company Secretary and Chief Financial Officer
Dr Matt Painter	GM - Exploration

Experienced & dedicated management team with global experience in the resources sector, from corporate fundraising, exploration, discovery, feasibility studies, development and operations.

Ardea has a quality project portfolio and the team to make their projects succeed.



Share Price Performance



Share price performance and volume 25 November 2018 to 25 November 2019



Ardea Resources Limited

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Ardea is a well funded West Australian-focused developer and explorer with a clear strategy

Godolphin IPO executed as foreshadowed, >\$7M raised

From 2020, the three pronged strategy reverts back to the core West Australian Kalgoorlie Nickel Project (KNP) tenements

Ardea Resources Limited
Is an Australia-focused developer and explorer

1
DEVELOPING
the Goongarrie Nickel Cobalt Project,
Australia's premier battery Ni-Co project

2
EXPLORING
for Gold & Nickel Sulphides in
WA's prolific Eastern Goldfields

3 ✓
DIVESTING
our NSW Gold and Base Metal Projects
through the Godolphin Resources IPO

Nickel Sulphate crystals from
ARL pilot plant work

Gold nuggets recovered from
ARL WA tenements

Visible gold from
ARL Gundagai project

Ardea

Company slide presentation from mid 2019.



Ardea Project Portfolio

Ardea is a West Australian-focused developer and explorer

DEVELOPING the **GNCP**

EXPLORING
the **KNP** for **gold** and **nickel**

Gold Projects

First drilling at Mulga Plum imminent and programs planned for 2020 on the Bardoc Tectonic Zone

Nickel Sulphide Projects

Targets being assessed

Goongarrie Nickel Cobalt Project

Australia's premier nickel-cobalt project - DFS programs including Metallurgy, Water Studies and Approvals underway

Ardea over 3,500 sqkm tenure in Western Australia

PERTH

KALGOORLIE

ESPERANCE



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DEVELOPING

the Goongarrie Nickel Cobalt Project

Ardea's flagship is Australia's
premier Nickel Cobalt Project



The Kalgoorlie Nickel Project

Kalgoorlie Nickel Project (KNP) has a globally significant nickel and cobalt resource of 773Mt at 0.7% Ni and 0.05% Co*

- 5.6 million tonnes contained Nickel
- 405,000 tonnes contained Cobalt

The Goongarrie Nickel Cobalt Project (GNCP) is part of the broader KNP, with a resource of 216Mt at 0.71% Ni and 0.06% Co*

- 1.5 million tonnes contained Nickel.
- 130,700 tonnes contained Cobalt
- **LOM production of nickel sulphate is 2.04Mt, cobalt sulphate is 259.2Kt, with plant feed grade for 25 years of 0.88% Ni and 0.10% Co².**

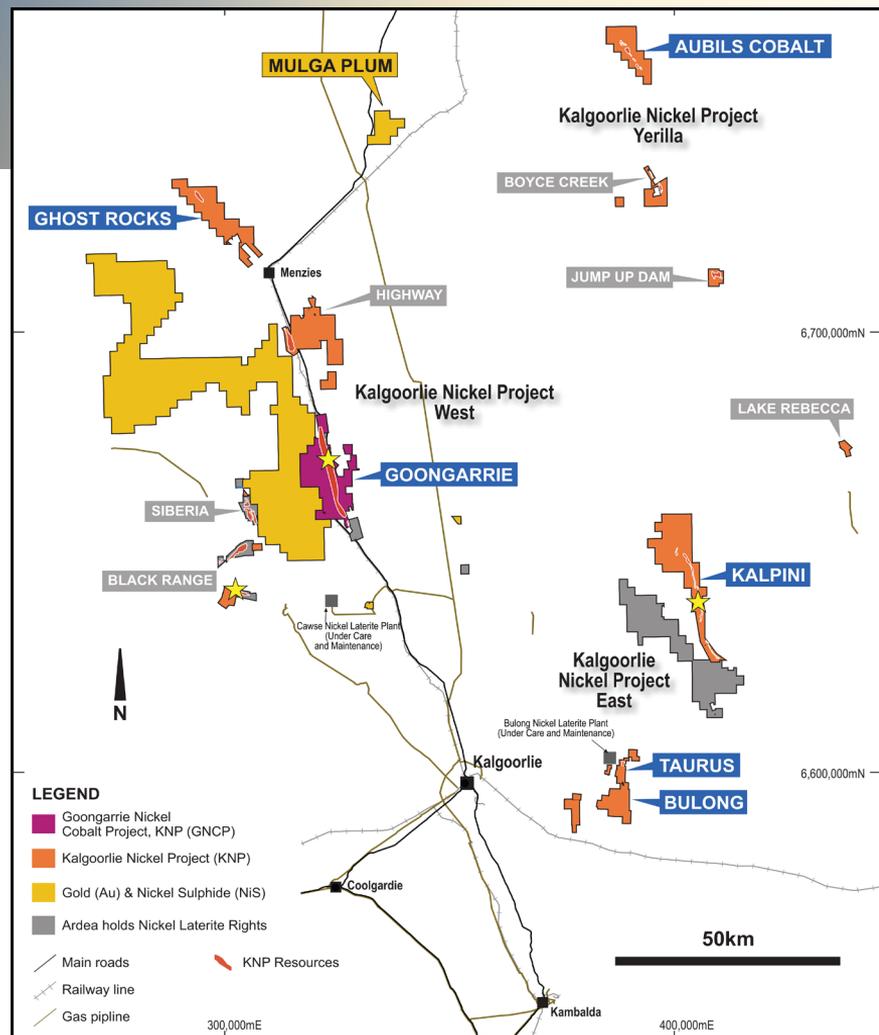
Ability to produce **ethical** supply from Australia's premier mining jurisdiction

All project designs are focused on minimising footprint and operating to environmental best practice

Potential for **multiple processing hubs** and **multi-decade mine life**

Leverage off infrastructure rich location and skilled work force

1. * See Appendix for resource breakdown.
2. 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.



KNP is globally significant

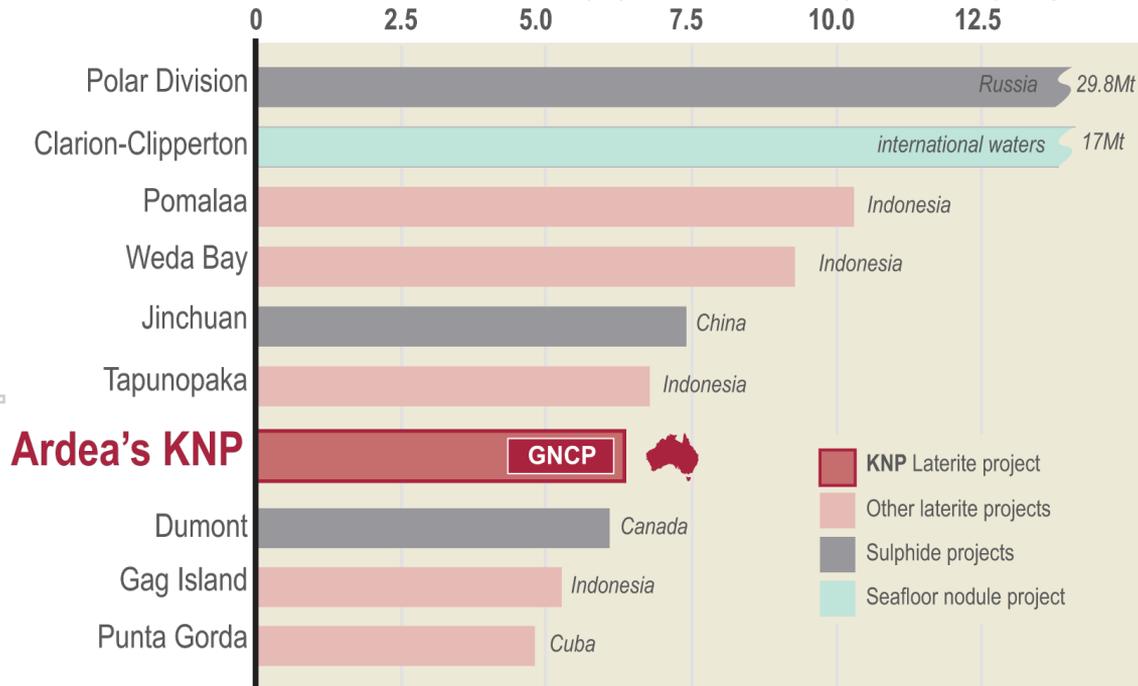
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GLOBAL PEERS

KNP - Largest and only Australian Nickel Project of any type amongst the top 10 globally by contained metal

Contained nickel equivalent* (Mt) - Top 10 nickel projects - all project types



Source: SNL database & Ardea Company data (KNP only).

* Nickel equivalents defined using the following values (9 July 2019, US\$ price): Ni (\$12,646.50/t), Co (\$26,647/t), Cu (\$5,808.50/t). Ni equivalent grade (Ni eq. %) = Ni(%) + 2.107xCo(%) + 0.459xCu(%). Recoveries were not considered for high-level comparison purposes. These values used for nickel equivalent calculations throughout this document. Nickel equivalents are used because nickel is the major proportion of the deposit by value, and these values allow for direct comparison to major deposits globally.

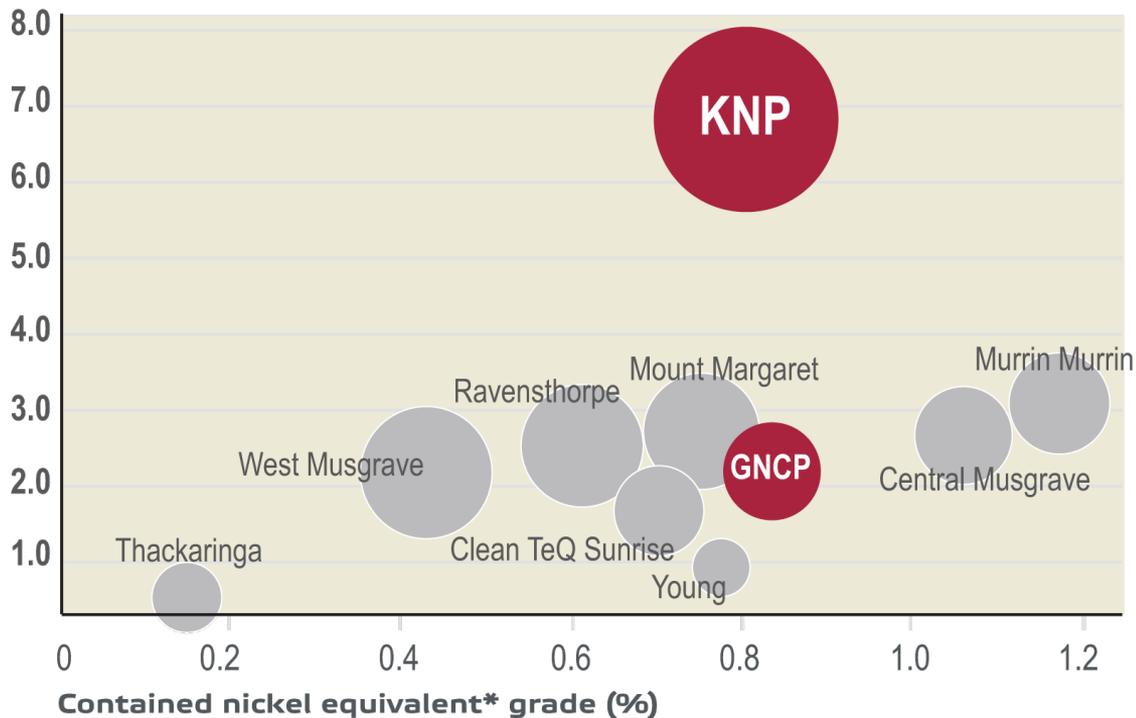


KNP and GNCP are world class and largest in Australia

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AUSTRALIAN PEERS

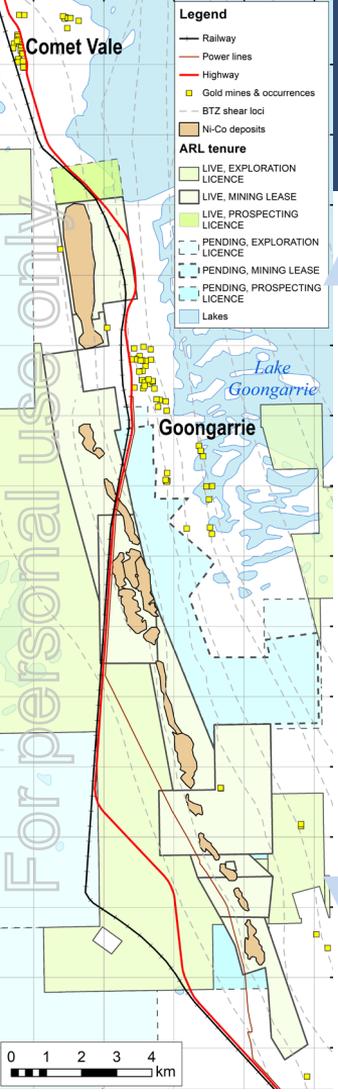


Source: SNL database & Ardea Company data (KNP & GNCP only).

* Nickel equivalents defined using the following values (9 July 2019, US\$ price): Ni (\$12,646.50/t), Co (\$26,647/t), Cu (\$5,808.50/t). Ni equivalent grade (Ni eq. %) = Ni(%) + 2.107xCo(%) + 0.459xCu(%). Recoveries were not considered for high-level comparison purposes. These values used for nickel equivalent calculations throughout this document. Nickel equivalents are used because nickel is the major proportion of the deposit by value, and these values allow for direct comparison to major deposits globally.



Goongarrie Nickel - Cobalt Project Highlights



+20km Goongarrie Nickel Cobalt Project, part of the KNP

The GNCP is part of the largest Nickel Cobalt Resource in the developed world[^]

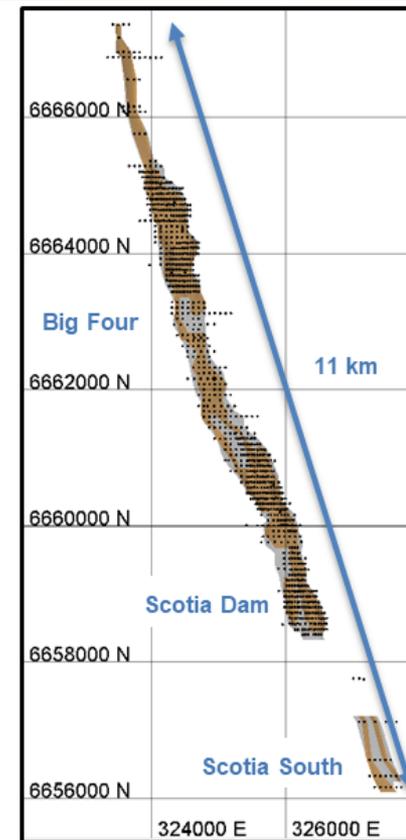
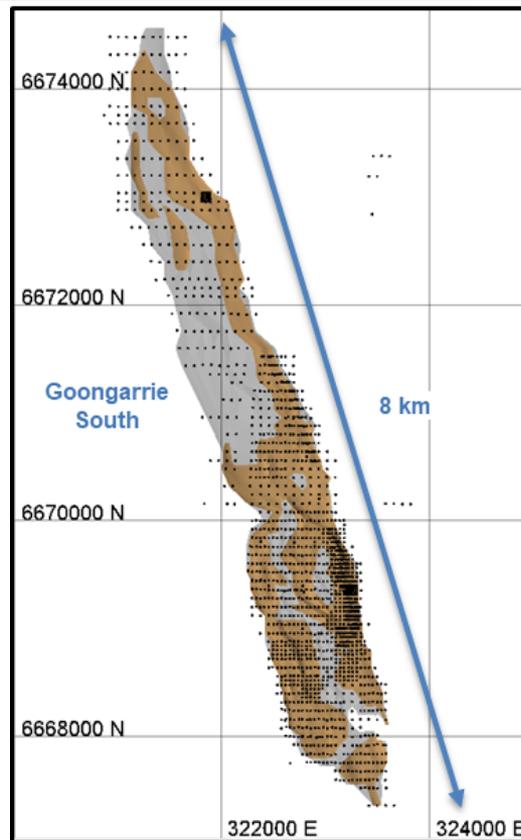
- Potential multi-decade producer of high-quality nickel and cobalt
- 100% nickel and cobalt offtake available
- 1.0Mtpa base case PFS – low CAPEX start-up with robust project economics*
- 2.25Mtpa expanded case – mill feed grades **0.88% Ni and 0.10% Co***
- Low technical risk project to provide nickel and cobalt for the growing battery market
- DFS programs underway
- Strategic partner process current – Ardea won't be rushed, the Company has specific funding requirements to ensure the best outcome for shareholders
- Strong interest as concerns rise around **secure, ethical, long-term supply of battery grade nickel and cobalt**

Refer to ASX releases: [^]Ardea Resources Annual Report 2017. *Goongarrie Nickel Cobalt Project, PFS study, 28 March 2018 & Goongarrie Expansion Study, 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.

GNCPC Advances in 2019 – Materials

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- Block modelling completed
 - 2018 resource estimates confirmed
 - Waste and Geomet material types further defined
 - Predominately free-dig with minor D&B in known hard zones (caprock and ferricrete)
 - Scandium estimated in new block models
- Mine scheduling completed
 - Grades >1.1% Ni & 0.1% Co during Payback Period
 - Backfill pit voids with tails rather than above ground TSF (minimises project footprint)
 - Void capacity accommodates tailings production
- Neutraliser finalised, to be surface calcrete recovered during overburden mining
 - Bench-scale neutralisation effective
 - Earlier concept was to use base-of-pit saprock carbonate, but results in increased strip ratio
 - Opex saving on neutraliser imports



GNCP Advances in 2019 – Approvals

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- Community consultation throughout year, GNCP embraced
- Reports finalised and ready for statutory approvals submission when the decision is made
- Water sampling completed, focussed on pit-dewater sources
 - moderate salinity borefields identified at Scotia Dam/Big Four along west contact of the ore zone, suitable for Reverse Osmosis feedstock
 - Bench-scale nanofiltration applicable for water softening
- Ecology for Lake Goongarrie pending, absence of suitable inundation event
- Evaluation of Papertalk West hydrology underway



Ardea Chair, Katina Law, inspecting a recently installed EV charging station outside the City of Kalgoorlie Boulder Council office during a 2019 stake holder update meeting.

GNCP Advances in 2019 – Approvals

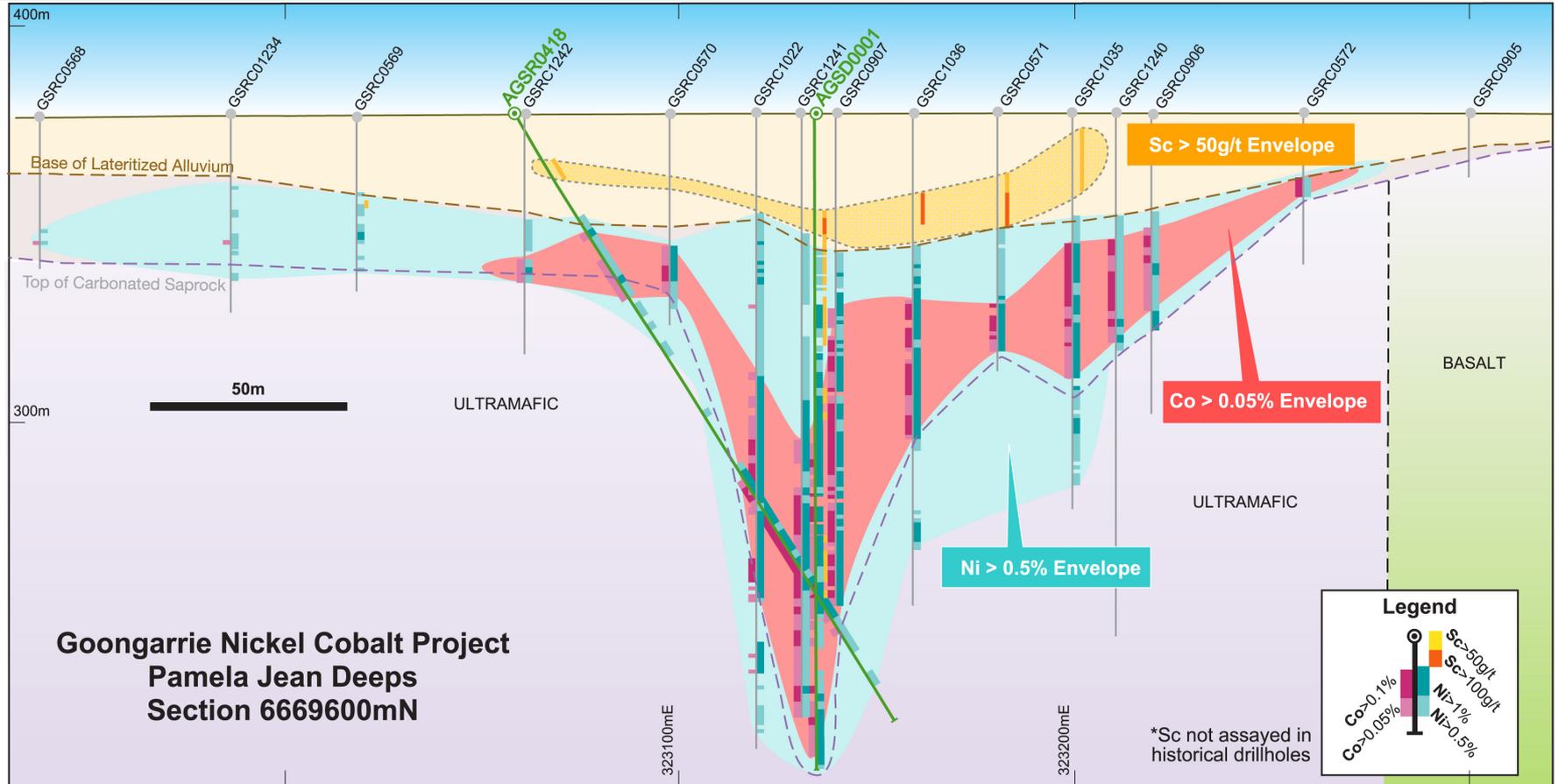
Activities undertaken to minimise project footprint:

- Back filling of open pits
- Sourcing neutraliser from open pit mining
- Sourcing process water from pit dewatering
- Extensive Flora and Fauna surveys undertaken across the project area



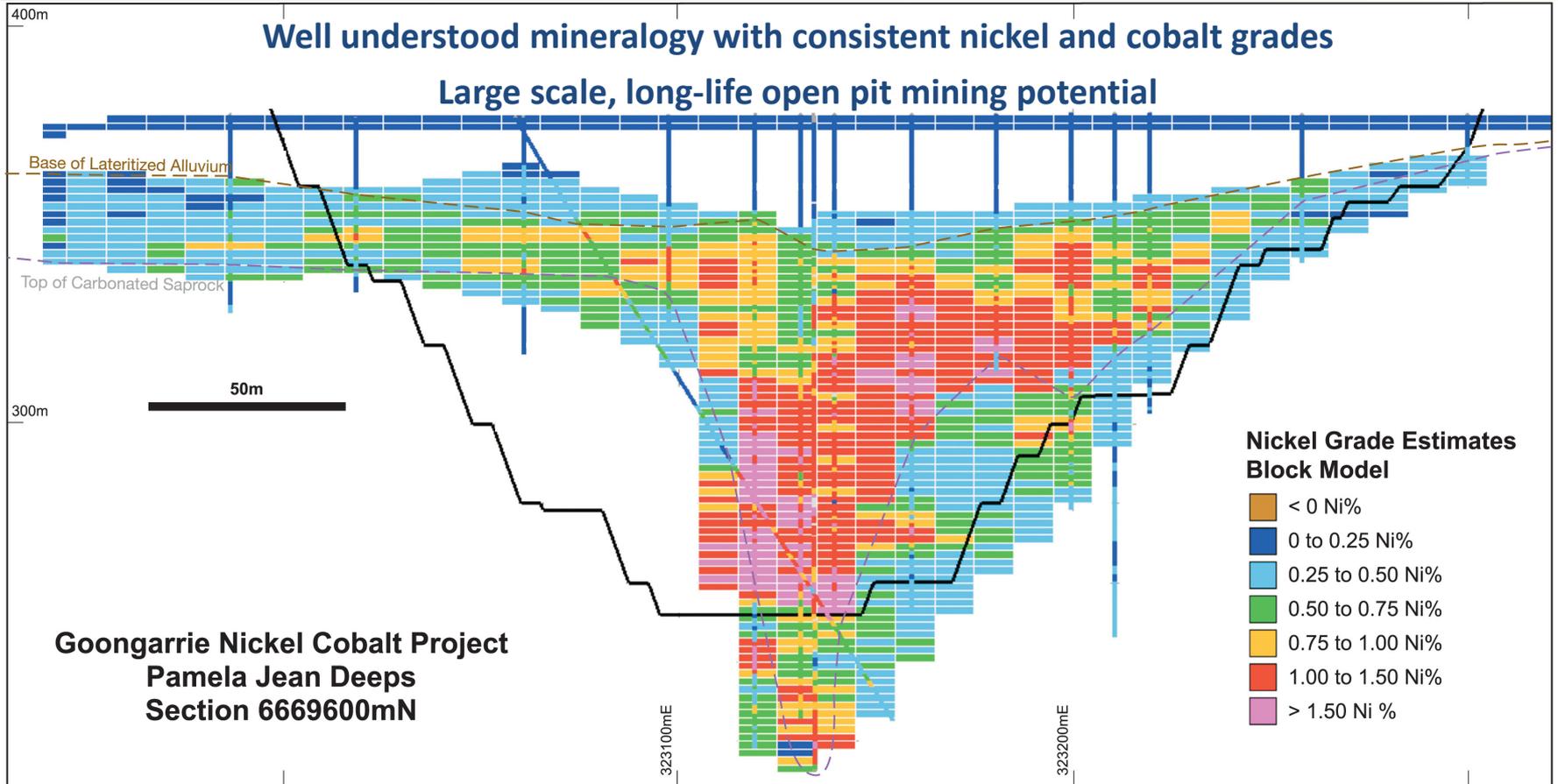
Thick, high-grade, single ore type, low strip ratio

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Nickel Block Model – Cross Section 6669600mN

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GNCP Material Source, Type and Quality

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The high quality of Goongarrie ore is the key to project success:

- Controls on mineralisation are well understood by applying Ardea's quality geomet analysis
- Ardea piloting studies completed in 2018
- High levels of nickel and cobalt, with scandium credit potential
- Ore mainly goethitic (>40% Fe)
- No smectite clays (unlike many other laterite deposits, so no drying required before ore processed)
- Highly soluble in PAL, low acid consumption, excellent rheology, pulp density (expected lower Capex and Opex compared to peers)
- No screen upgrade required, eliminates ore preparation risk (commonly a stumbling block for non-goethitic deposits)
- Neutraliser recovered during mining provides a cost-effective alternative to importing limestone



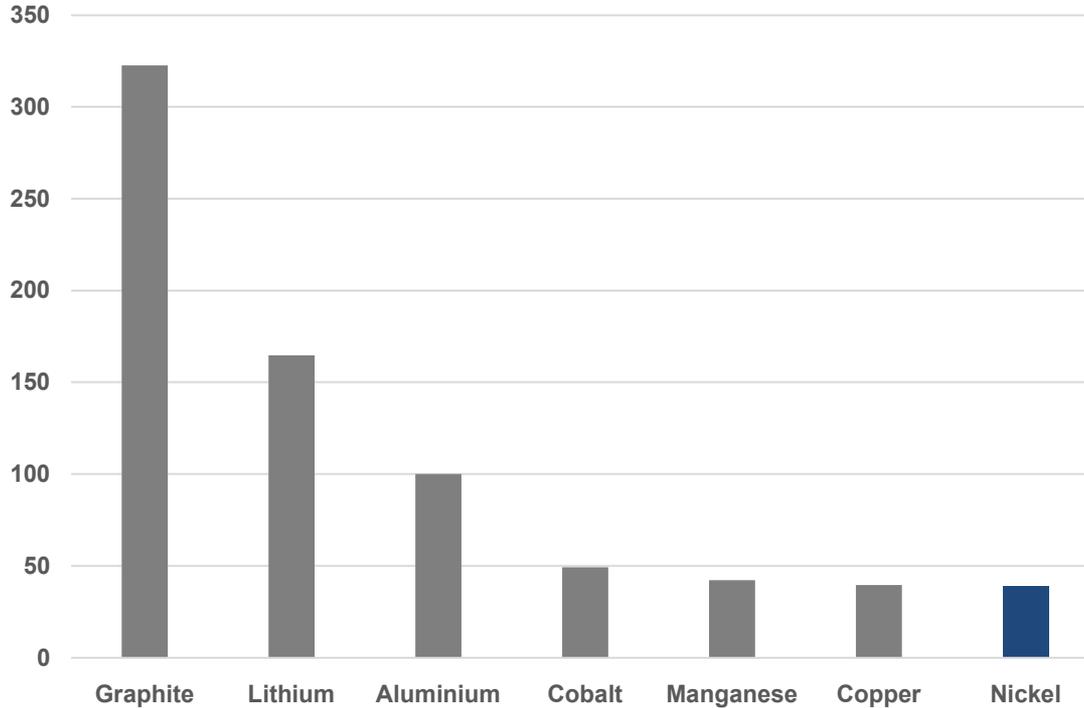
PAL plant, not an asset of Ardea's.

World-Class Mining Standards, Location & Infrastructure

- Kalgoorlie, Western Australia offers **world-class infrastructure in an established mining district**
 - Over 125 years of mining in the region
 - Nil sovereign risk, very strong Local Government support
 - Goongarrie only 80 km north on the main Goldfields Highway
 - Railway line, power line, optic fibre cross Goongarrie tenements, mobile phone coverage
 - Gas pipeline adjacent to east
 - Rail access to ports of Kwinana and Esperance
- Western Australia's **safety, health and environmental standards are world's best practice**
- An **Australian source for battery metals** removes supply line concerns
- **Goongarrie offers an ethical, secure, long-life source of nickel and cobalt**

The Nickel Market – Reserve Life of Major Battery Minerals

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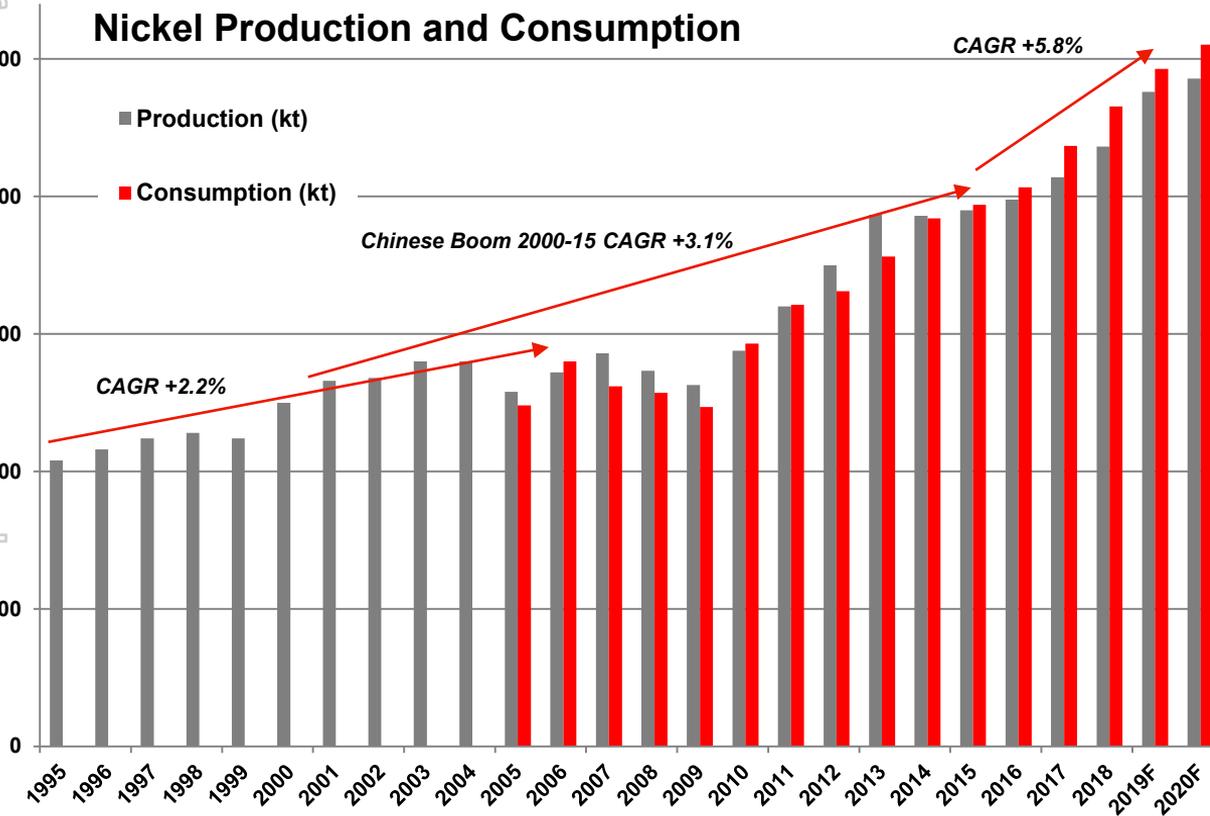
- High levels of most battery minerals but **not nickel**
- **Declining nickel reserves**
- **Growing nickel demand expected to result in rising prices**
- **Not a matter of if, but when!**
- **Nickel supplies most critical of all battery minerals**
- Particularly in light of most recent 811 battery chemistry (8 parts Ni : 1 part Mn : 1 part Co)



Nickel Market Growth

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Nickel Production and Consumption

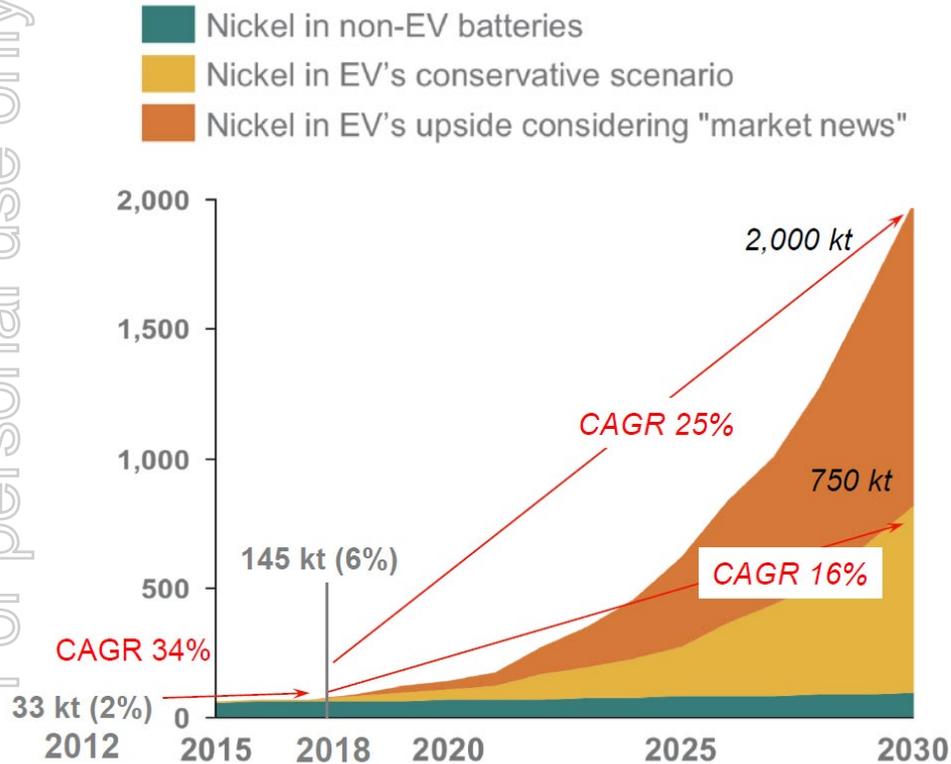


- Production and consumption growth have been increasing over the last five years.
- Market size doubled between 1995 and 2016, i.e. ~20 years, to add 1 million tonnes.
- Currently adding ~0.5Mt in 5 years in a depressed market!
- **Future production not expected to keep up with growing demand, driven mainly by the battery sector.**



Projected Nickel Demand from Energy Revolution

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- Current nickel market size ~2.5 million tonnes pa
- Depending on the scenario for the EV/SSB rate of adoption, nickel volumes to meet additional demand vary between 750,000 tonnes and 2 million tonnes pa
- **Nickel demand from EV/SSB is expected to far exceed nickel production from existing operations in any scenario of EV/SSB adoption**



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EXPLORING

for Western Australian Gold and Nickel Sulphides

Exceptional greenfields opportunities
in well established host structures
within the Eastern Goldfields



2019 Exploration Program

3,500km² of 100% controlled tenure in one of Australia's premier gold and nickel sulphide provinces

Initial drilling completed at Bardoc Tectonic Zone (BTZ) confirms gold mineralisation potential with multiple targets

Drilling confirms gold mineralisation at Gale and nickel sulphide gossan at Jones A, within the Mt Zephyr project

Gold exploration programs active on the BTZ focusing on Big Four, Goongarrie South, Moriarty, Ghost Rocks, Windanya & Mulga Plum

Perrinvale nickel (-copper-PGE) sulphide EM survey completed

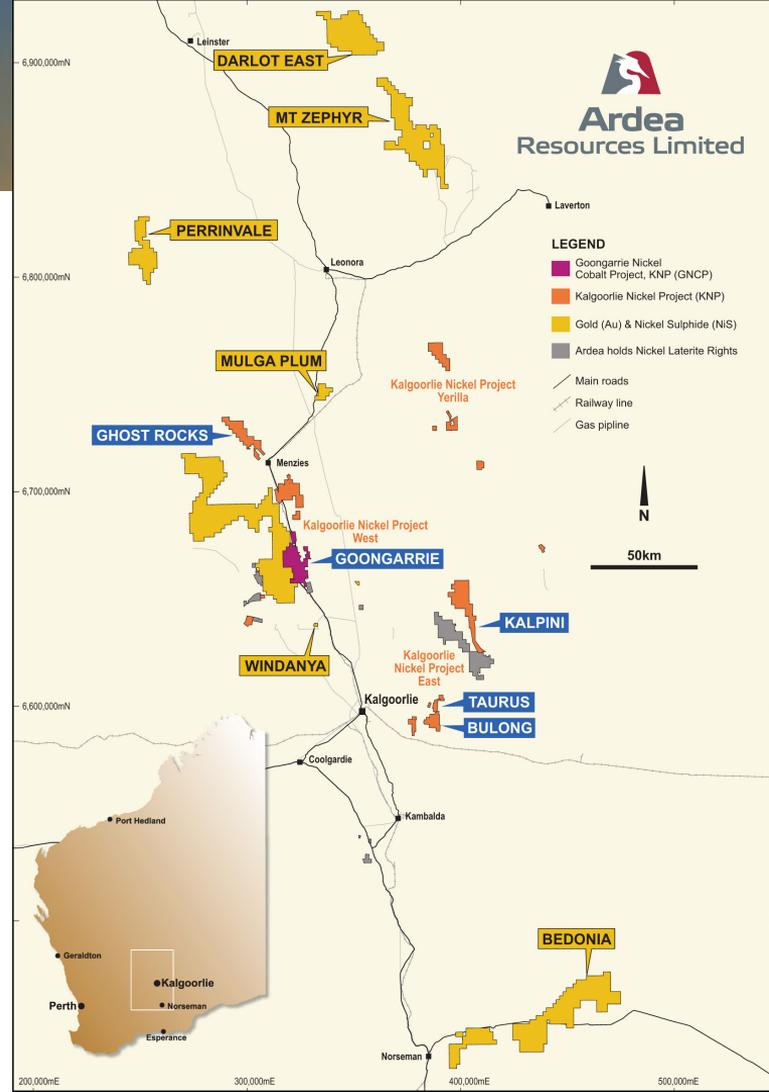
One nickel sulphide target tested at Emu Lake – VMS system identified

Bedonia, Emu Lake, Highway and Ghost Rocks nickel (-copper-PGE) sulphide projects being assessed

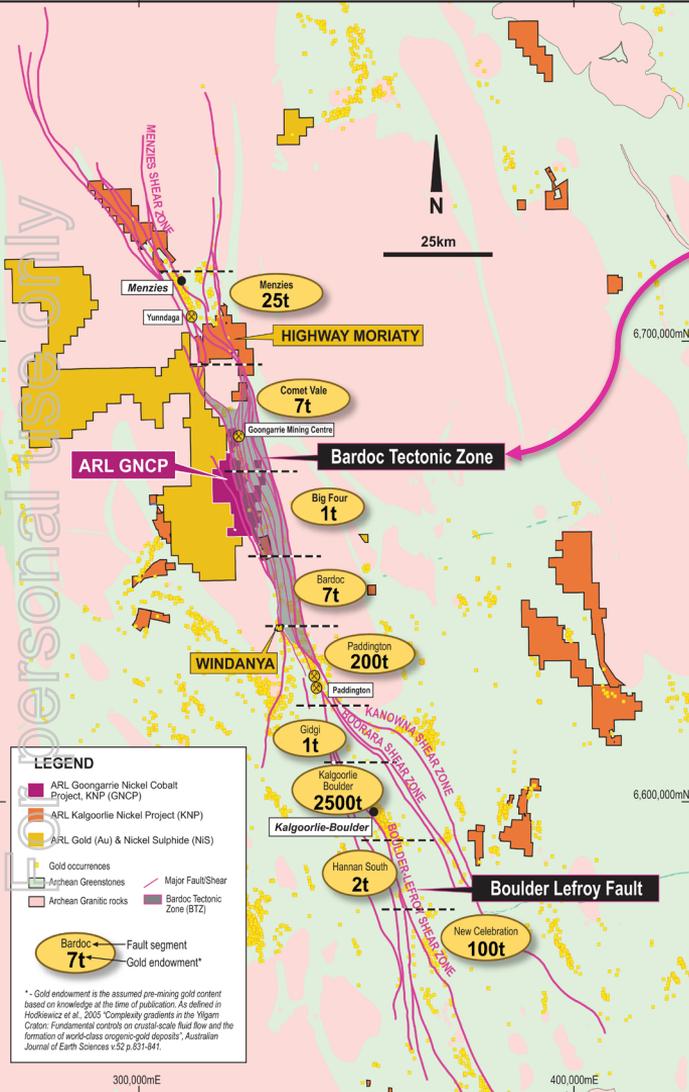
Extensive tenure position provides multiple strategic options

Considering JV on Perrinvale, Mt Zephyr/Darlot East & Bedonia

2020 focus on core KNP projects close to Kalgoorlie office



Bardoc Tectonic Zone (BTZ)



- ✓ One of the major gold-bearing structures of the WA Goldfields runs through the GNCP
- ✓ ~350 km long gold-producing regional shear / fault system (~65km controlled by Ardea)
- ✓ Hosts multiple historic gold mining centres
- ✓ Contiguous with **Boulder-Lefroy Fault** (hosts Kalgoorlie & St Ives mining centres).

Alluvial & laterite cover has obscured the BTZ's true potential at Goongarrie

- ✓ Exploration drilling tied in with GNCP site layout sterilisation drilling
- ✓ Multiple gold targets defined from first phase sterilisation drilling
- ✓ Future drilling must penetrate laterite to fresh rock to test for gold
- ✓ Project data refined to optimally drill Ardea BTZ gold targets
- ✓ 2020 drilling to further test gold potential of BTZ and to tie in with site layout programs

Gold endowment along the Bardoc Tectonic Zone and the contiguous Boulder-Lefroy Fault after Hodkiewicz et al. 2005.

BTZ - GNCP Advances in 2019 – Site layout and gold studies

East side of the GNCP nickel deposit is proposed area for mine waste landforms and infrastructure, zone of extensive historic gold workings associated with the Bardoc Tectonic Zone (BTZ)

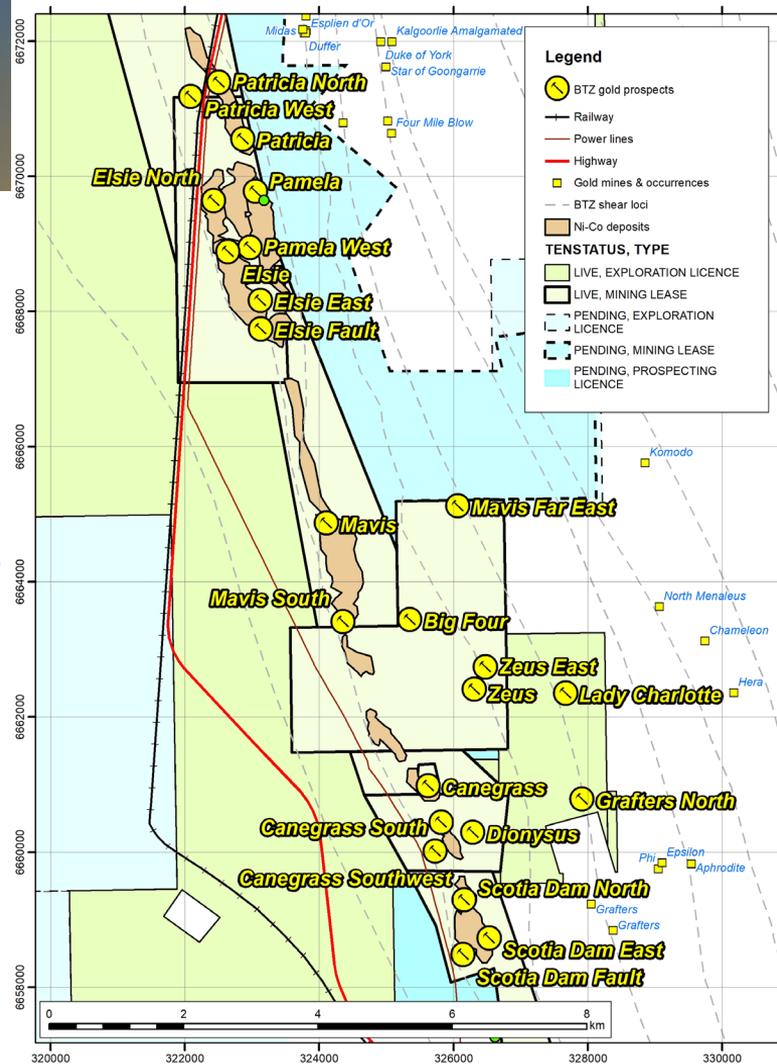
- Initial gold targeting completed, based on 9,565 drill holes, 378,000m drilling and over 54,000 assays, includes 40 years of historic hard copy data compiled into the digital data base
- Detailed airborne magnetics acquired for structural interpretation
- Interpretation of digital data has defined discrete structures within the BTZ that control the distribution of gold deposits within the GNCP

Gold targets tested with initial reconnaissance aircore drilling, multiple intercepts including up to 6m at 2g/t Au

- Follow up RC drilling targets finalised, drilling likely commence December 2019 and continue into 2020

• Big Four stands out as priority gold target, resource modelling current

- BFRC021 – 10 metres at 8.94g/t gold from 102 metres*
- BRFC030 – 24 metres at 4.58g/t gold from 61 metres*



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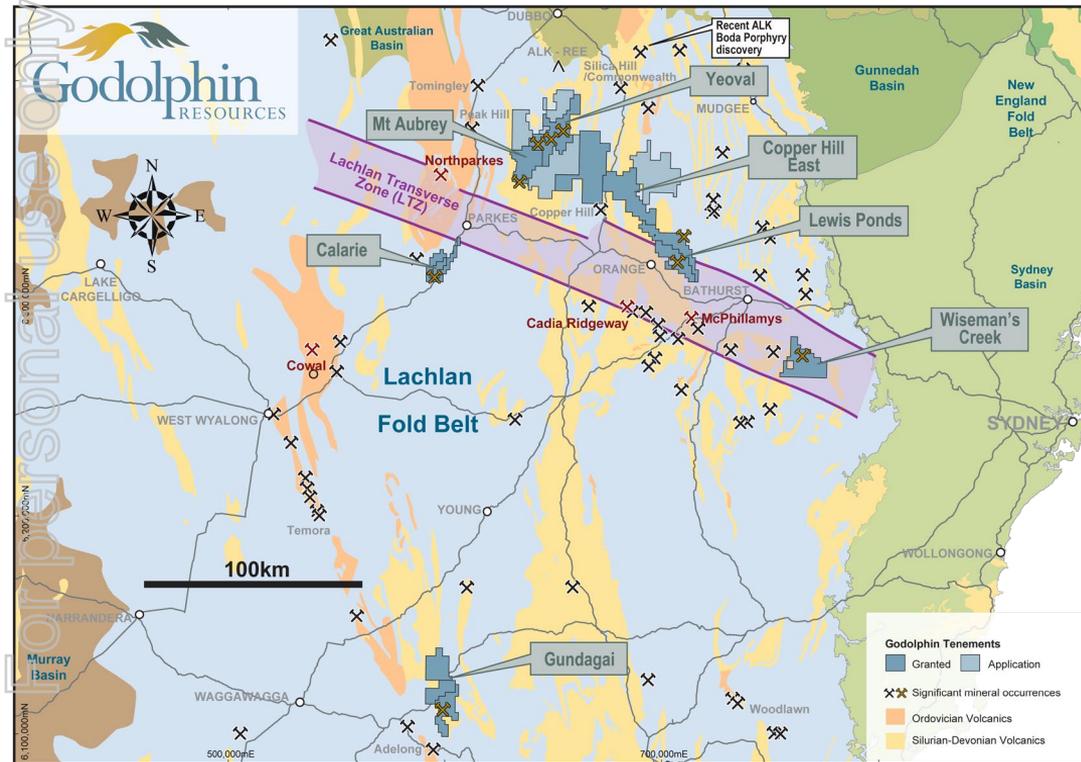
DIVESTING

our New South Wales Gold and Base Metal Projects

**Godolphin Resources (ASX Code: GRL)
IPO closes early
Anticipated to list on ASX 18 Dec 2019**

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Spinning out NSW assets to focus on WA Nickel & Gold



- Ardea have delivered on the Godolphin spin-out & will reward Ardea shareholders through the in-specie share distribution.
- 3,216km² of 100% controlled, highly prospective tenure within the Lachlan Fold Belt (LFB) NSW.
- 431kozs gold (JORC 2012)*.
- Excellent record of exploration success leading to low-cost production.
- High-quality infrastructure (road, rail, power and water), Communities with mining culture whilst proximal to Sydney.
- Data reviews completed and drill-targets defined for all projects.
- Leverage off recent Boda gold-copper porphyry discovery (502m @ 0.48g/t Au and 0.20% Cu[^]) reiterating premium exploration potential of LFB.
- Steady news flow expected.



* Godolpin Resources Limited (Godolphin) Prospectus ASX release 29 October 2019.

[^] Alkane Resources ASX release 9 September 2019.

Investment Summary



Goongarrie is Australia's premier nickel-cobalt project



Globally significant mineral resource in an **infrastructure rich and stable jurisdiction** provides ability to increase production from multiple processing hubs within the KNP



Up to **100% off-take is available**, subject to financing support from Strategic Partner



Leveraged to increasing nickel and cobalt demand from the rapidly growing Electric Vehicle and Static Storage Battery markets



Ardea has an extensive (3,500km²), highly prospective landholding in the Eastern Goldfields of WA with active work programs for gold and nickel sulphides



Godolphin IPO closed early with >\$7M subscribed. Team in place in Orange and raring to go!



Ardea achieves its stated objectives





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

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DEVELOPING

the Goongarrie
Nickel Cobalt Project

EXPLORING

for Western Australian
Gold and Nickel Sulphides

APPENDICES

A High Quality Nickel and Cobalt Project

Outstanding results delivered from PFS* and Expansion Studies completed in 2018:

	1.0Mtpa	1.5Mtpa	2.25Mtpa
<i>Status</i>	PFS	PFS	ES
<i>No. Trains</i>	1	1	1
<i>Pre Tax NPV₆</i>	US\$ 1.13 billion	US\$ 1.52 billion	US\$ 2.4 billion
<i>Pre Tax IRR</i>	29 %	29 %	31%
<i>CAPEX</i>	US\$ 472 million	US\$ 588 million	US\$918 million
<i>C1 cash cost</i>	US\$ 0.42 / lb	US\$ 0.45 / lb	US\$ (0.34) / lb
<i>Payback</i>	5.3 years	5.6 years	5.1 years
<i>Cobalt sulphate</i>	5,500tpa	6,900tpa	10,000tpa
<i>Nickel sulphate</i>	41,500tpa	55,300tpa	81,000tpa

- ✓ PFS of 1Mtpa and 1.5Mtpa base case over a 25-year mine life completed
- ✓ Expansion study of 2.25Mtpa with a 25-year mine life completed
- ✓ 94.5% nickel and 95.5% cobalt recovery – life of mine
- ✓ Pre-cobalt credit C1 costs in line with current worldwide operators
- ✓ Pressure Acid Leach (PAL) 5th generation plant is a proven design, successfully operated in other laterite projects globally
- ✓ 2.25Mtpa case based on only 26% of Goongarrie Resource

The information shown on this slide has been previously released on the ASX platform by Ardea in ASX releases. *Goongarrie Nickel Cobalt Project, PFS study, 28 March 2018 & +Goongarrie Expansion Study, 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.



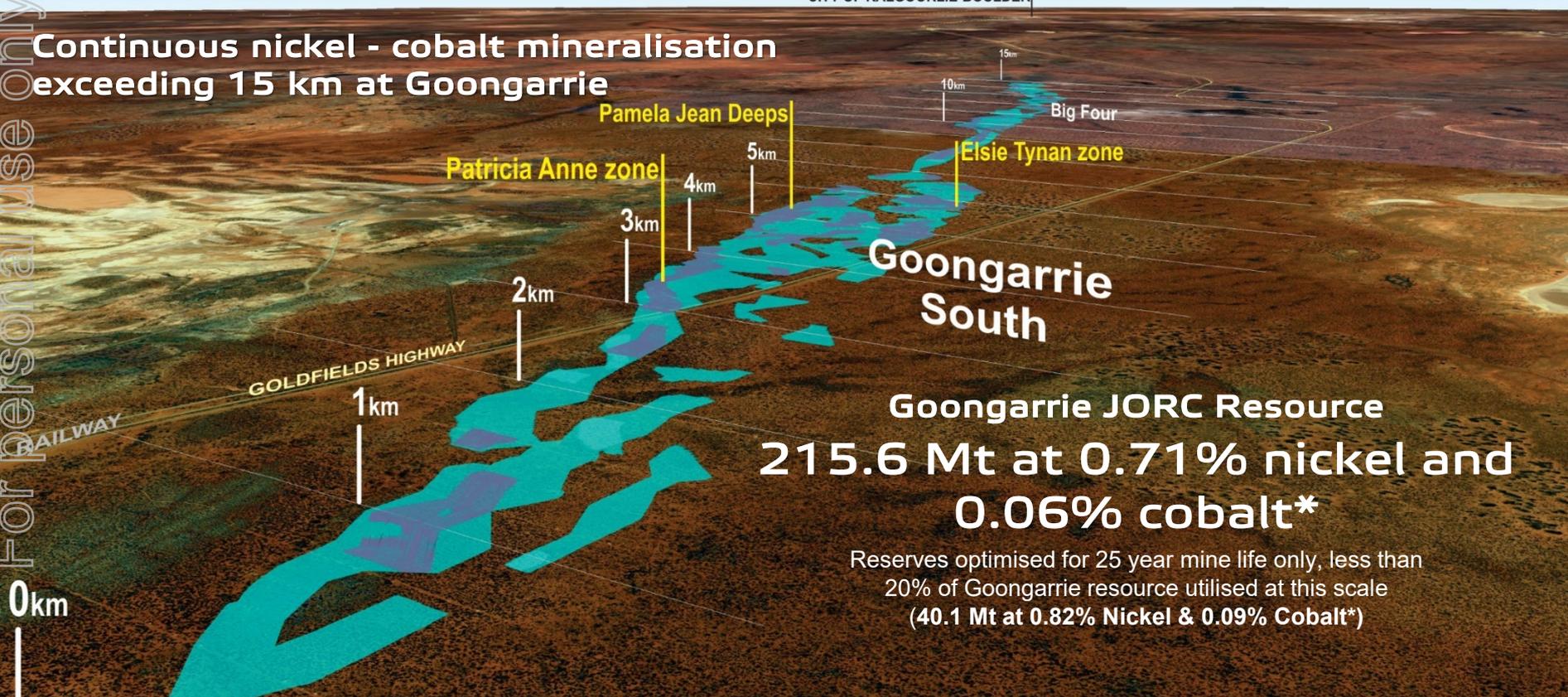
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Our Flagship Goongarrie Nickel - Cobalt Project

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Continuous nickel - cobalt mineralisation exceeding 15 km at Goongarrie

CITY OF KALGOORLIE-BOULDER



Goongarrie JORC Resource
215.6 Mt at 0.71% nickel and
0.06% cobalt*

Reserves optimised for 25 year mine life only, less than 20% of Goongarrie resource utilised at this scale
(40.1 Mt at 0.82% Nickel & 0.09% Cobalt*)

View over Goongarrie Nickel Cobalt Project, looking southeast, showing the extent of the deposit (blue-green = Co > 0.05%, purple = Co > 0.10%), and proximity to infrastructure. * See appendix for resource breakdown

APPENDIX – Goongarrie Nickel Cobalt Project Resources

Summary of total mineral Nickel Cobalt Project area, comprising resources at Goongarrie Hill, Goongarrie South, resources within the Goongarrie Big Four, and Scotia Dam (14 March 2018).

Camp	Domains	Cut-off %	Resource category	Size (Mt)	Cobalt (%)	Nickel (%)	Contained metal	
							Co (t)	Ni (t)
Goongarrie Hill	Ni & Co	≥ 0.5% Ni or > 0.08% Co	Inferred	52.5	0.04	0.65	21,600	340,400
			<i>Subtotal</i>	<i>52.5</i>	<i>0.04</i>	<i>0.65</i>	<i>21,600</i>	<i>340,400</i>
Goongarrie South	Ni & Co	≥ 0.5%Ni or > 0.08% Co	Measured	10.3	0.10	0.98	10,200	101,200
			Indicated	56.2	0.07	0.72	37,200	407,000
			Inferred	32.2	0.06	0.69	20,300	221,200
			<i>Subtotal</i>	<i>98.7</i>	<i>0.07</i>	<i>0.74</i>	<i>67,700</i>	<i>729,300</i>
Big Four	Ni & Co	≥ 0.5%Ni or > 0.08% Co	Indicated	45.5	0.06	0.71	28,200	320,700
			Inferred	9.9	0.06	0.63	6,100	61,900
			<i>Subtotal</i>	<i>55.4</i>	<i>0.06</i>	<i>0.69</i>	<i>34,300</i>	<i>382,700</i>
Scotia Dam	Ni & Co	≥ 0.5% Ni or > 0.08% Co	Indicated	3.3	0.09	0.81	3,000	26,900
			Inferred	5.7	0.07	0.76	4,100	43,300
			<i>Subtotal</i>	<i>9.0</i>	<i>0.08</i>	<i>0.78</i>	<i>7,100</i>	<i>70,200</i>
Total	All	≥ 0.5% Ni or > 0.08% Co	Measured	10.3	0.10	0.98	10,200	101,200
			Indicated	105.0	0.07	0.72	68,400	754,600
			Inferred	100.3	0.05	0.67	52,100	666,900
Goongarrie Resource Global			TOTAL	215.6	0.06	0.71	130,700	1,522,700

Note: All nickel and cobalt domains are included, and are encapsulated by an envelope defined by nickel grades equal to or greater than 0.5%. Note that figures are rounded to reflect degree of certainty and may not tally.



APPENDIX – Reserves Defined for Goongarrie Nickel Cobalt Project

Goongarrie Nickel Cobalt Project, Ore Reserves based on 25 year mine life at 1.5 Mtpa.

Deposits	Class	Size (Mt)	Cobalt (%)	Nickel (%)
Goongarrie South	Proven	8.95	0.10%	0.96%
	Probable	17.26	0.09%	0.79%
	Total	26.22	0.10%	0.85%
Big Four	Proven	—	—	—
	Probable	13.92	0.09%	0.77%
	Total	13.92	0.09%	0.77%
TOTAL	Proven	8.95	0.10%	0.96%
	Probable	31.18	0.09%	0.78%
	Total	40.13	0.09%	0.82%

Using a nickel equivalent cut of >0.81 %, which used inputs of A\$18,900/t nickel and A\$120,750/t cobalt. (US\$15,120/t Ni and US\$96,600/t Co, 0.8 exchange rate). Nickel equivalent (Nieq %) = $Ni\ grade + \frac{Co\ grade \times Co\ price}{Ni\ price}$. Prices used are US\$15,120/t for nickel and US\$96,600/t for cobalt. No assumption about recovery is included here. Recoveries are addressed elsewhere throughout the mining schedule and financial model.

The information shown on this slide has been previously released on the ASX platform by Ardea in ASX release, Goongarrie Nickel Cobalt Project, PFS study, 28 March 2018. The information in this report that relates to Ore Reserves for the Goongarrie South and Big deposits of the Goongarrie Nickel Cobalt Project is based on information compiled by Mr Steve Lampron who is a Member of the Australasian Institute of Mining and Metallurgy and who has provided expert guidance on mine planning and Ore Reserve estimation. Mr Lampron is a director of Auralia Mining Consulting and has sufficient experience 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 Lampron consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.



APPENDIX – KNP Resource Breakdown

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KNP nickel-cobalt mineral resource (JORC 2012), Ardea Annual Report 2017

Resource Category	Quantity (Mt)	Cobalt (%)	Nickel (%)	Contained cobalt (t)	Contained nickel (t)
Measured	9.6	0.10	1.02	9,700	98,800
Indicated	232.9	0.06	0.75	141,200	1,759,700
Inferred	530.5	0.05	0.68	254,400	3,600,000
KNP Total Resources	773.0	0.05	0.70	405,400	5,458,400

Note: 0.5% nickel cutoff grade used to report resources. Not figures are rounded to reflect degree of certainty and may not tally.

In accordance with the Australian Securities Exchange Limited Listing Rules Appendix 5A:

The information in this report that relates to Mineral Resources for the Highway, Goongarrie Hill, Goongarrie South, Big Four, Aubils and Boyce Creek Prospects is based on information originally compiled in-house and validated by Steve Jones in 2013. Steve Jones is a member of the Australasian Institute of Mining and Metallurgy. Steve Jones is a full time employee of Heron Resources Limited and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the resource estimation activity that 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'. Steve Jones consents to the inclusion in this report of the matters based on his information in the form and context that it appears. Note that Mineral Resources that are not Ore Reserves do not have demonstrated viability.

The information in this report that relates to Mineral Resources for the Siberia North, Bulong East, Siberia, Black Range, Taurus and Jump Up Dam Prospects is based on information compiled by Snowden Mining Industry Consultants by members of the Australian Institute of Mining and Metallurgy. Snowden Mining Industry Consultants had sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the resource estimation activity. All resources were internally audited by Snowden and signed off by a person of sufficient experience 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'. Steve Jones has validated the original resource estimates during 2013. Steve Jones consents to the inclusion in this report of the matters based on his information in the form and context that it appears. Note that Mineral Resources that are not Ore Reserves do not have demonstrated viability.



APPENDIX – Godolphin Resource Inventory

Summary of Mineral Resources (JORC (2012)) contained within Godolphin tenements, Godolphin Prospectus 29 October 2019

Project	Tonnes (Mt)	Au (g/t)	Ag (g/t)	Zn (%)	Pb (%)	Cu (%)	AuEq (g/t)	Contained Au (Moz)	Contained AuEq^ (Moz)
Mt Aubrey	1.21	1.61	-	-	-	-	1.61	0.06	0.06
Yeoval	12.80	0.14	2.20	-	-	0.38	0.56	0.06	0.23
Lewis Ponds	20.24	0.50	33.30	1.5	0.7	0.10	1.80	0.31	1.16
TOTAL	34.25	0.40	20.48	0.9	0.4	0.20	1.32	0.43	1.45

*Some rounding may occur

^Gold equivalents (AuEq) were defined using the following values (21 June 2019 US\$ price, recovery): Zn (\$2585/t, 80%), Au (\$1393/oz, 100%), Ag (\$15.50, 80%), Pb (\$1915/t, 80%), Cu (\$5960/t, 80%). Au equiv. = Au(g/t) + 0.011Ag(g/t) + 0.577Zn(%) + 0.428Pb(%) + 1.331Cu(%). Gold equivalence is subjective thus indicative only and is used to allow comparisons between major deposits of the region.

In accordance with the Australian Securities Exchange Limited Listing Rules Appendix 5A:

The information in this report that relates to Mineral Resources for Mt Aubrey, Yeoval and Lewis Ponds is based on information compiled by Johan Lambrechts, BSc (Hons), who is a Member of the Australian Institute of Geoscientists. Johan Lambrechts 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' (the "JORC Code"). Johan Lambrechts consents to the inclusion in this report of the statements based on his information in the form and context in which they appear.

