



Ardea Resources Limited

Kalgoorlie Nickel Project Goongarrie Hub

*A multi decade
nickel-cobalt operation*



*Australian Federal Government
- Major Project Status*



 Digbee ESG™

Australian Nickel Conference Presentation
4 October 2023

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), High-grade nickel-cobalt mineralization extended at Goongarrie (8 October, 2018), Goongarrie Pilot Plant trial produces battery grade crystals (31 October 2018), Emu Lake Discovery (3 December 2021, 14 January 2022, 7 February 2022), Goongarrie Hub Feasibility Study Update (25 January 2022), High-grade Nickel-Cobalt Confirmed at Kalpini with Scandium and Rare Earth Elements (14 March 2022), Kalgoorlie Nickel Project Recognition on All Tiers of Australian Government (21 March 2022), Confirmation of High-Grade Nickel-Cobalt from Goongarrie South Metallurgical Drilling (16 May 2022), Kalgoorlie Nickel Project: Metallurgical Update – Mineralised Neutraliser (16 November 2022), Ardea Completes KNP ESG Accreditation from Independent Leading Global Platform (24 November 2022), Nickel sulphide anomalism from aircore drilling at Kalpini Project (2 May 2023), Mineralised Neutraliser Global Patent Lodged (15 June 2023), Kalgoorlie Nickel Project Mineral Resource Estimate Exceeds 6 Million Tonne Contained Nickel (30 June 2023), KNP Goongarrie Hub Ore Reserve and Feasibility Study Defines +40 Year Operation with Strong Financial Metrics (5 July 2023), Ardea Kalgoorlie Nickel Project – MOU with Sumitomo Metal Mining, Mitsubishi Corporation, and Mitsu & Co., Ltd (5 July 2023), Kalgoorlie Nickel Project Goongarrie Hub Tenement Consolidation (17 July 2023) Ardea Quarterly Activities Report June 2023 (27 July 2023), Successful A\$16M Capital Raising (30 August 2023), Ardea Annual Report 2023 (27 September 2023), and Ardea and Japanese Consortium Update on MOU (29 September 2023).

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, 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.



Ardea Corporate Overview

Board

Mathew Longworth	Non-Executive Chair
Andrew Penkethman	Managing Director & CEO
Ian Buchhorn	Executive Director
Maree Arnason	Non-Executive Director

Listed on ASX (ARL)

Shares on Issue	194,661,915
Performance Rights	6,690,000
Options	4,000,000
Share Price (29 Sep 2023)	\$0.60
52 week high / low	\$1.12 / \$0.295
Cash (30 Jun 2023)	\$10.6 million
Capital Raise (30 Aug 2023)*	\$16 million
Market Capitalisation	\$116.8 million
Debt	Nil
Board and Management	~9% equity
Top 40 Shareholders	~62% equity

*See 30 August 2023 ARL ASX Announcement. Funds raised before costs.

Executive Management Team

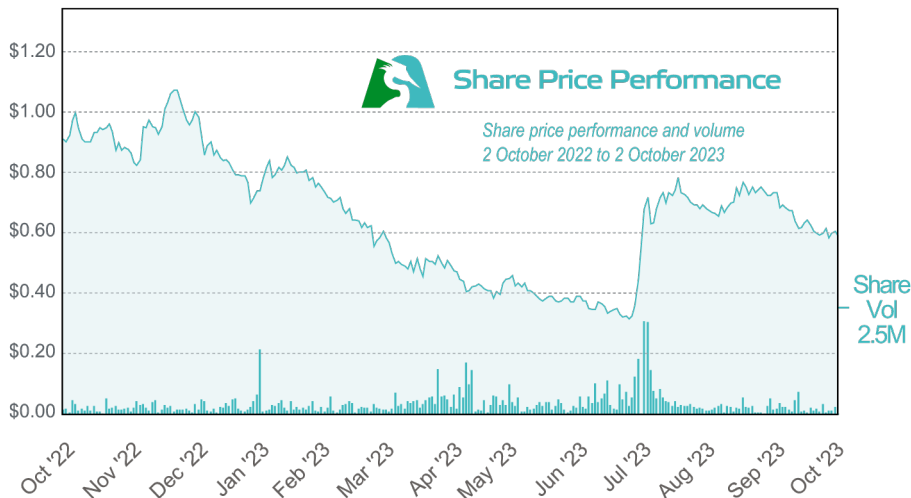
Sam Middlemas	Company Secretary
Rebecca Moylan	Chief Financial Officer
Matt Read	Project Director
Alex Mukherji	GM - Land Access
Mike Miller	GM - Technical Services
Matthew McCarthy	GM – Geology & Exploration



Australian Federal Government
- Major Project Status



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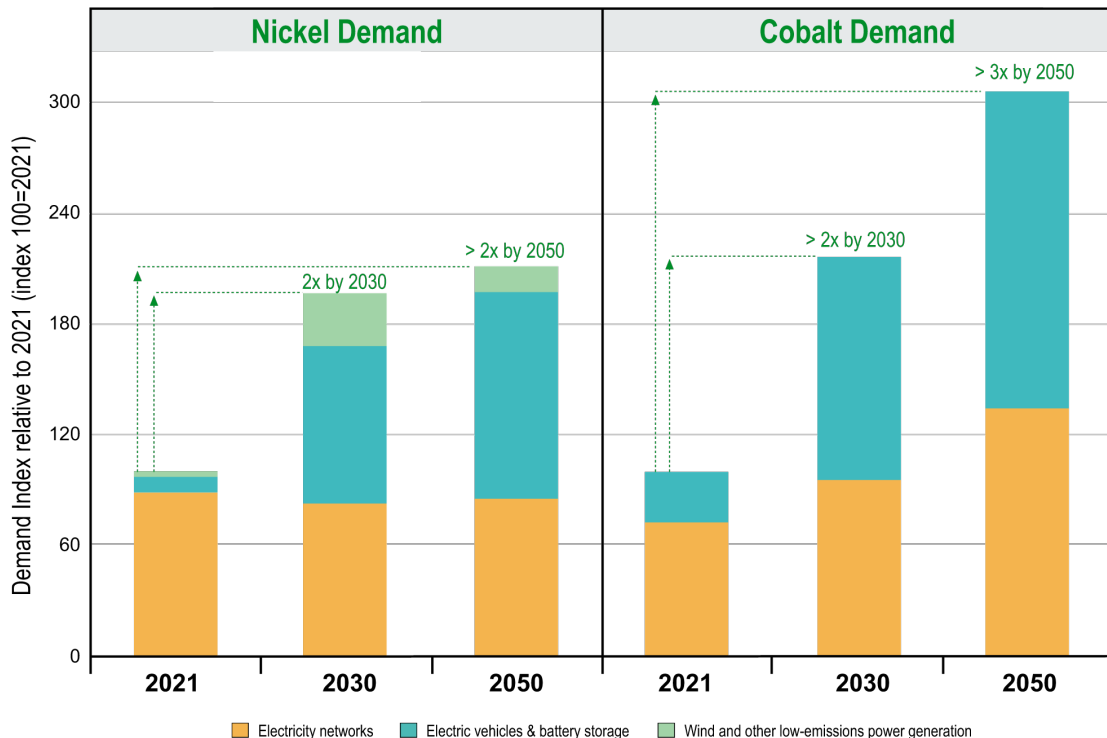


Nickel and Cobalt Market – Unprecedented Demand

- Current producers of nickel will not meet demand forecasts with all known resources needing to be developed to help meet demand
- Global nickel and cobalt demand is set to double by 2030, driven by battery applications
- The US Inflation Reduction Act and EU Critical Raw Materials Act encourage diversity of supply and supply chain certainty which places Australia, as a preferred supplier

EVs and energy storage will be key drivers of future nickel & cobalt demand

Total demand for Nickel and Cobalt by end use
2021 compared to 2030 & 2050 in Net Zero Scenario



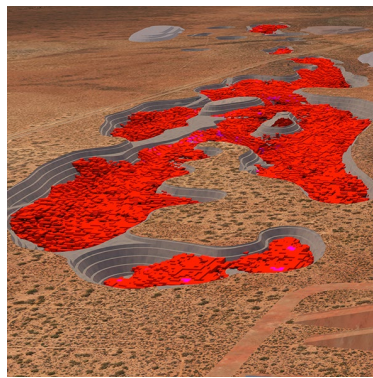
Kalgoorlie Nickel Project – Strong Fundamentals



Granted Mining Lease tenure in premier location for skills, infrastructure and resource project operation



6.1Mt Nickel & 386kt Cobalt MRE¹ positions KNP in top 10 global nickel resources²



PFS shows KNP Goongarrie Hub will be a multi-decade operation to meet the global demand for Ni & Co³



Low-cost Ni & Co, strong earnings for over 40 years plus upside, with project pay back within 3.1 years and post tax NPV7 A\$4.98 billion³



Positive engagement with the Japanese Consortium to scope DFS under extended non-binding MOU⁴

1. See 30 June 2023 ARL MRE ASX Announcement.

2. See slide 7 and Appendices in this presentation

3. See 5 July 2023 ARL PFS ASX Announcement

4. See 5 July 2023 and 29 Sept 2023 MOU Announcements

Kalgoorlie Nickel Project – Globally Significant Nickel & Cobalt Resource

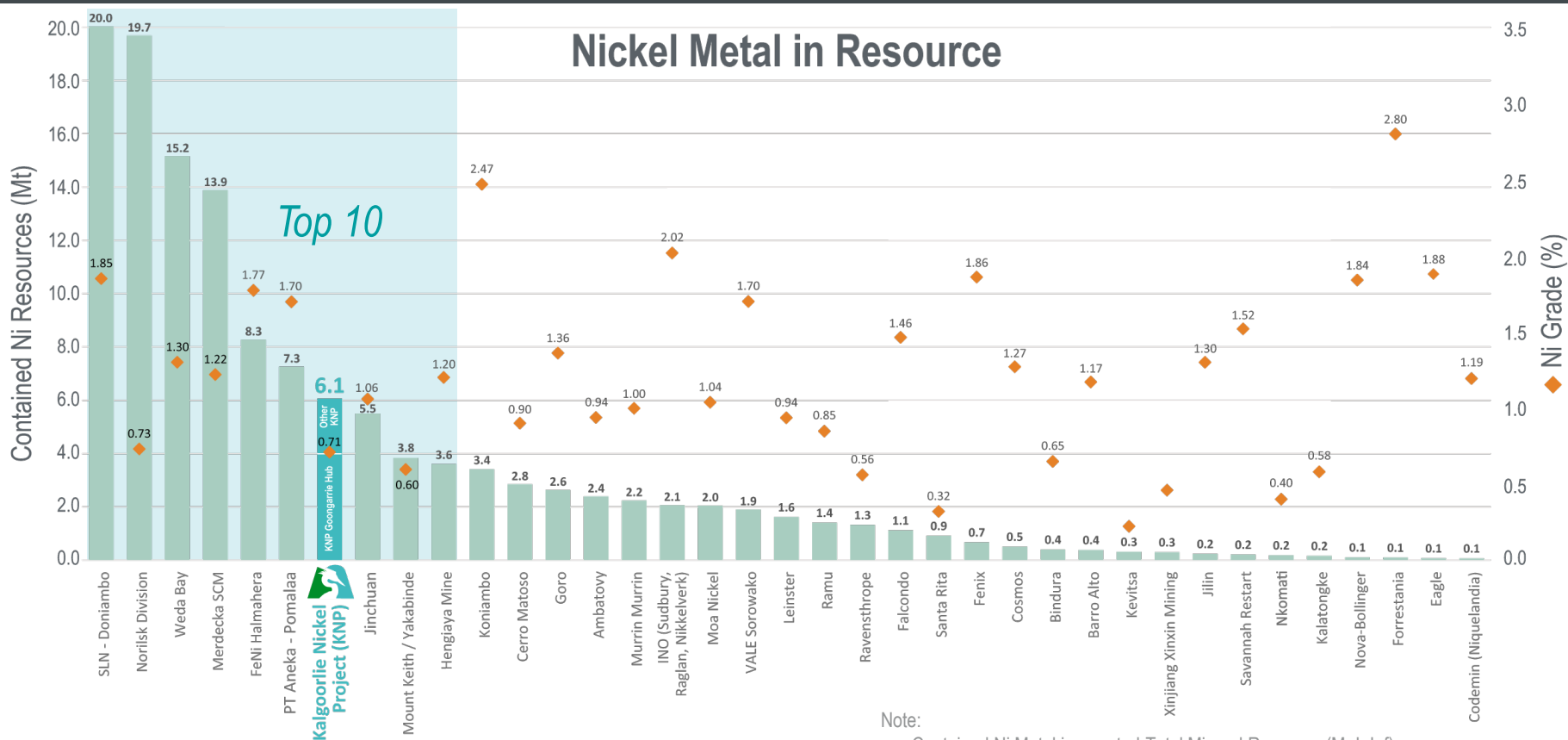
- The Kalgoorlie Nickel Project (KNP) global Mineral Resource Estimate¹ (MRE) is 854Mt at 0.71% Ni and 0.045% Co for **6.1Mt contained nickel and 386kt contained cobalt**
- The KNP Goongarrie Hub MRE¹ now stands at 584Mt at 0.69% Ni and 0.043% Co for **4Mt of nickel and 250kt of cobalt**

This includes Goongarrie Hub deposits Ghost Rocks, Siberia South and Black Range that were not considered in the PFS and are expected to add to future Goongarrie plant feed and further extend the mine life.



Premium goethite ore can be broken apart in your hand. This is the dominant ore type at Goongarrie, with this material free dig, having a low energy requirement for comminution and low acid consumption during processing. These factors contribute to Goongarrie being the best in class and having low Opex.

Kalgoorlie Nickel Project Resource in Top 10 Globally



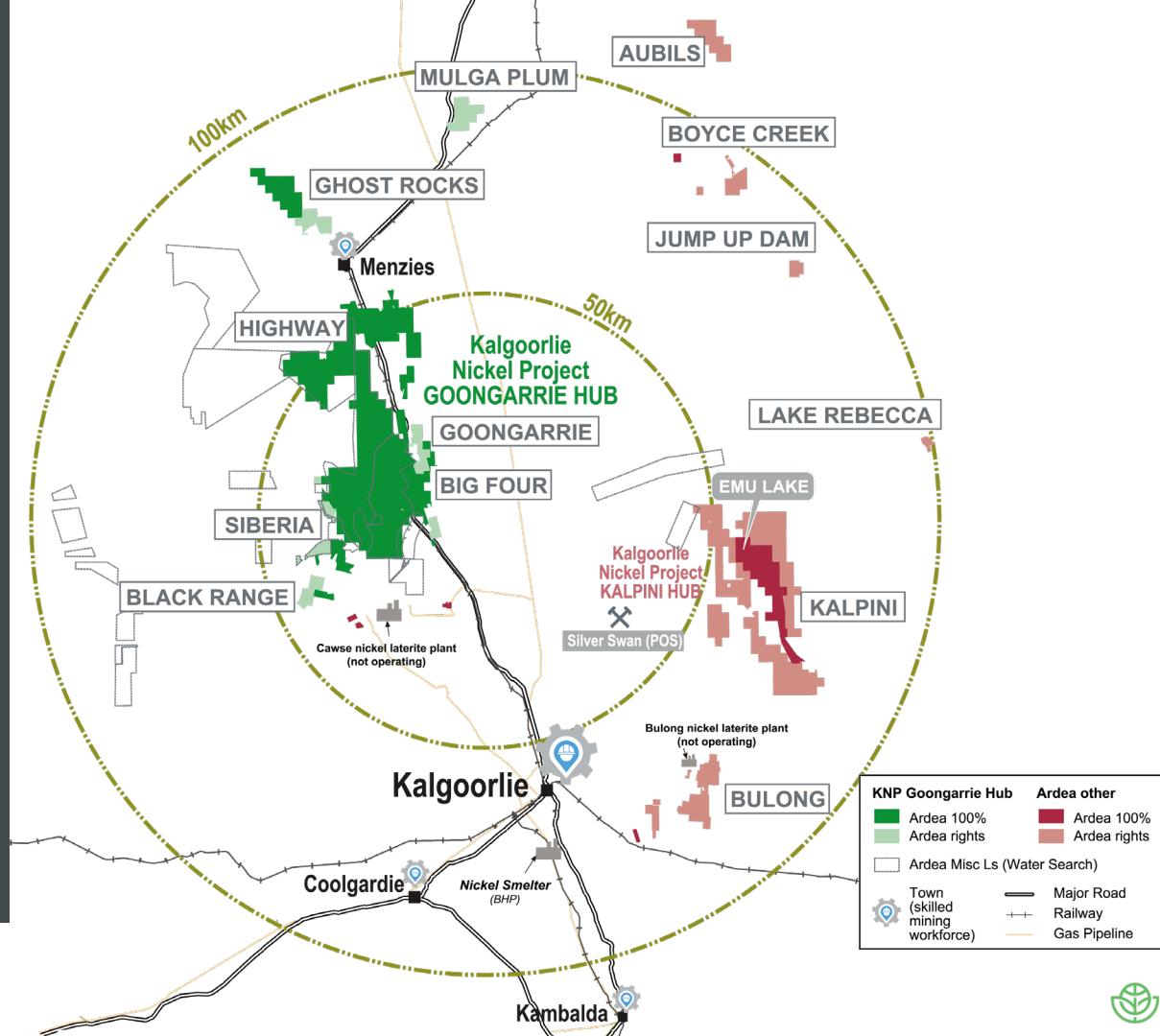
Note:

- Contained Ni Metal is reported Total Mineral Resource (M+I+Inf)
- See References for Global Nickel Resource chart in Appendices



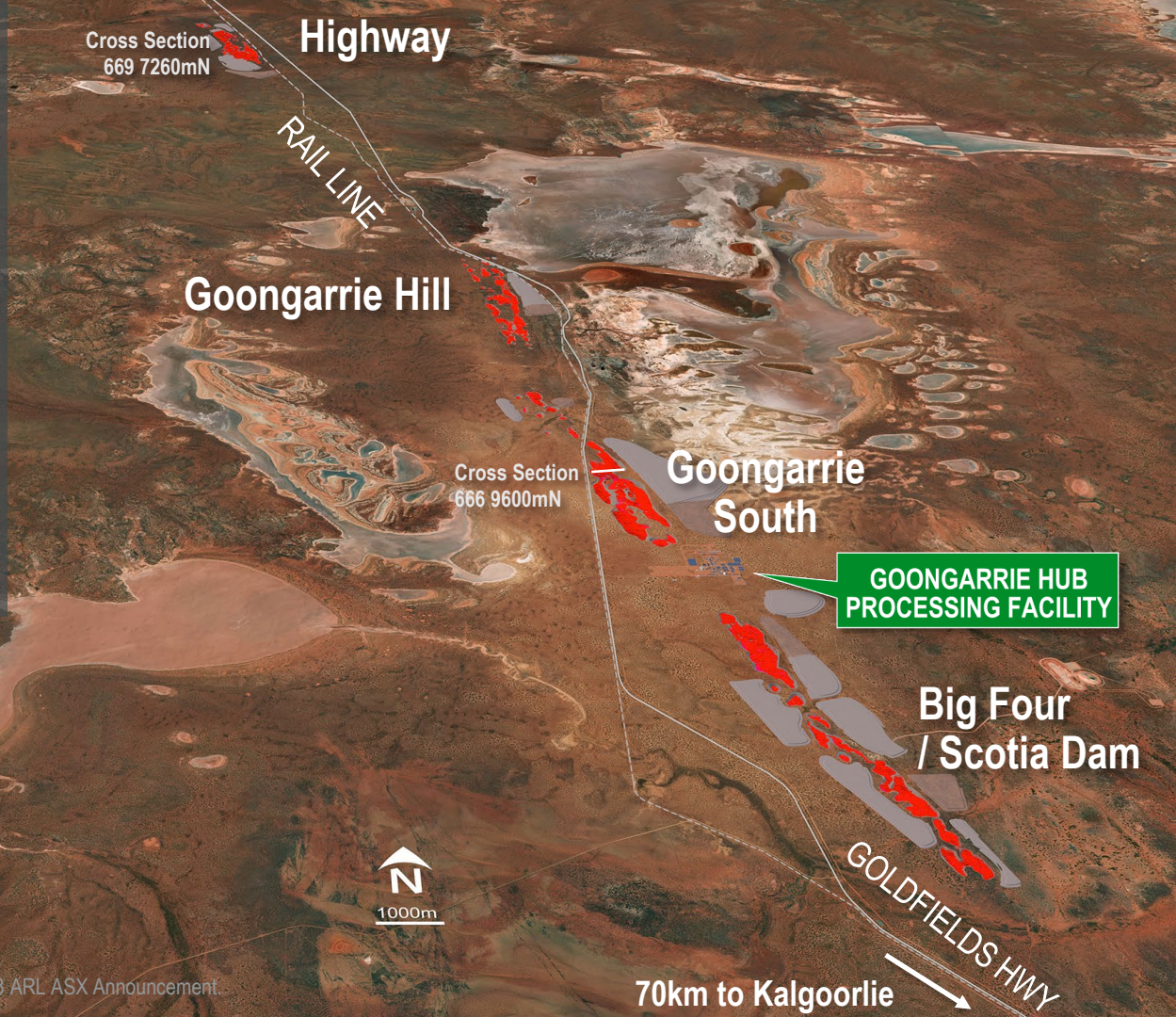
KNP globally strategic significant resource, in the best operating jurisdiction in the world

Kalgoorlie Nickel Project
Goongarrrie Hub



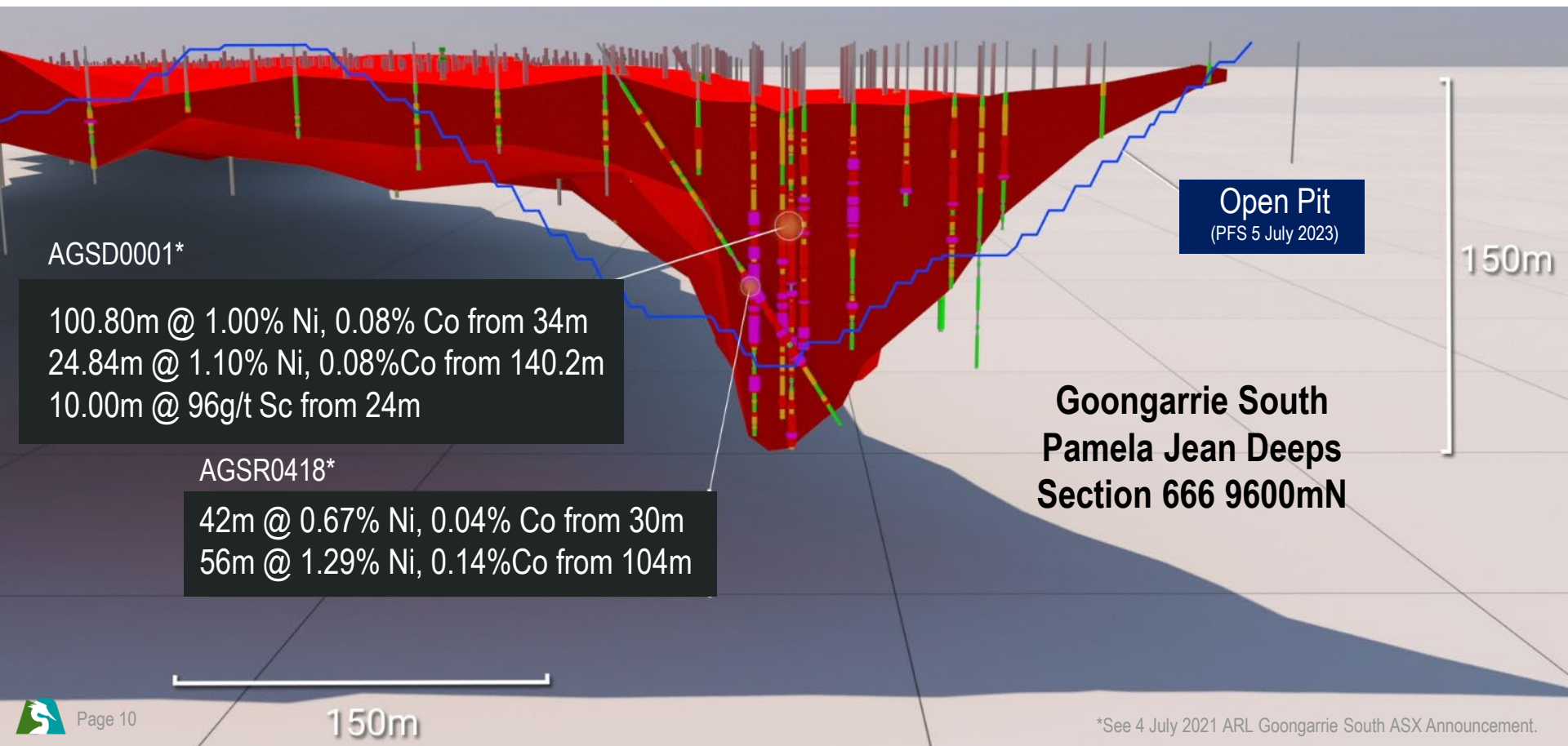
KNP Goongarrie Hub Ore Reserve¹

- 1.36Mt of nickel metal
- 99kt of cobalt metal
- Resource defined by
>5,000 drill holes for
>250km of drilling



1. See full tables in Appendix and also 5 July 2023 ARL ASX Announcement.

KNP Goongarrie Hub – Cross Section through Goongarrie South



*See 4 July 2021 ARL Goongarrie South ASX Announcement.

KNP Goongarrie Hub – Cross Section through Highway

Highway Section 669 7260mN

Open Pit

(PFS 5 July 2023)

Mineralised Neutraliser

200m

38m @ 1.03% Ni, 0.147% Co from 13m
inc 11m @ 1.22% Ni, 0.063% Co & 38g/t Sc from 16m
and 10m @ 1.40% Ni, 0.363% Co & 30g/t Sc from 29m

Brown Goethite

VHIRC0218

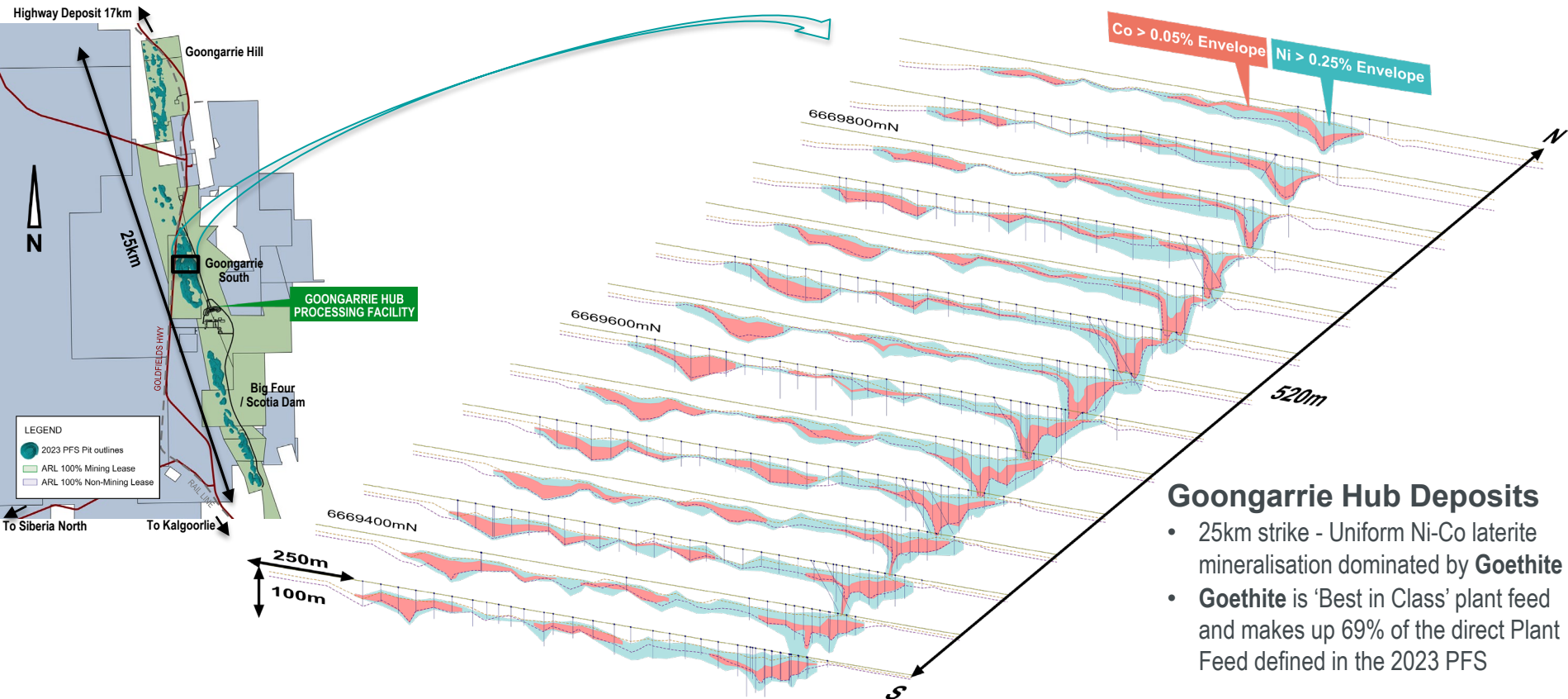
Typical white magnesite
Mineralised Neutraliser at Highway



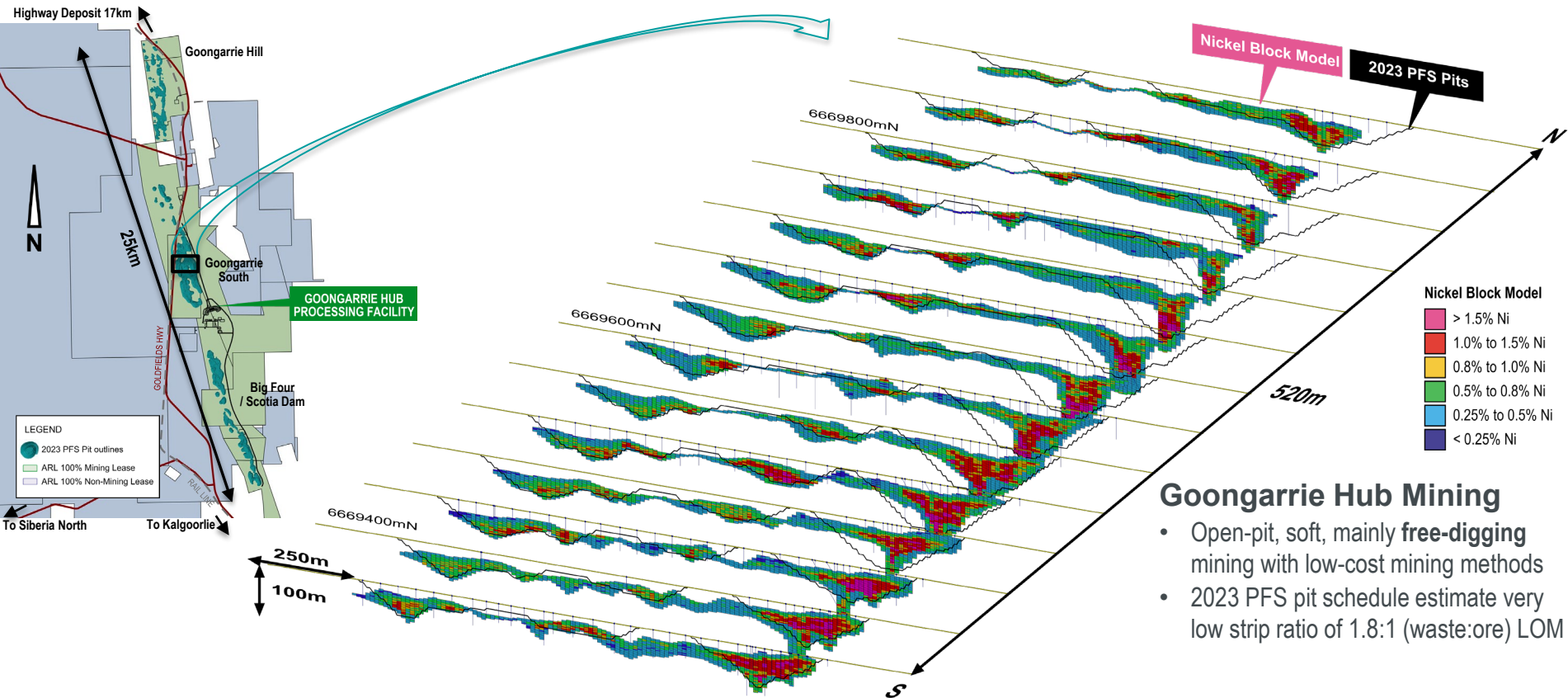
See 16 November 2022 ARL Mineralised Neutraliser ASX Announcement.

* VHIRC0218 was drilled during Heron Resources
/ Vale INCO PFS 2005-20014.

Simple Mining Characteristics



Nickel and Cobalt



Kalgoorlie Nickel Project – Goongarrie Hub Mining Study

- Goongarrie Hub Ore Reserve¹ of **194.1Mt at 0.70% Ni and 0.05% Co for 1.36Mt of nickel and 99,000t of cobalt** to sustain production of approximately **30,000t of nickel and 2,000t of cobalt per year for > 40 years**
- The enhanced updated mine plan uses a selective approach to maximise economic extraction of the KNP Goongarrie Hub mineral resource by defining ore types to maximise higher value ore streams through the HPAL circuit which maximises recovery
- Premium Goethite grind and beneficiation ore as HPAL feed comprise 69% and 17% respectively of the plant leach feed
- The Mineralised Neutraliser (MN) material sourced from within the optimised open pits provides a low-cost neutralisation alternative and magnesite neutraliser contributes 16% additional nickel metal-to-leach
- Conventional low-cost open pit mining methods result in mining costs comprising less than 12% of total operating cost with a low strip ratio at an average of 1.8:1 (waste:ore) for Life of Mine

GOLDFIELDS HWY

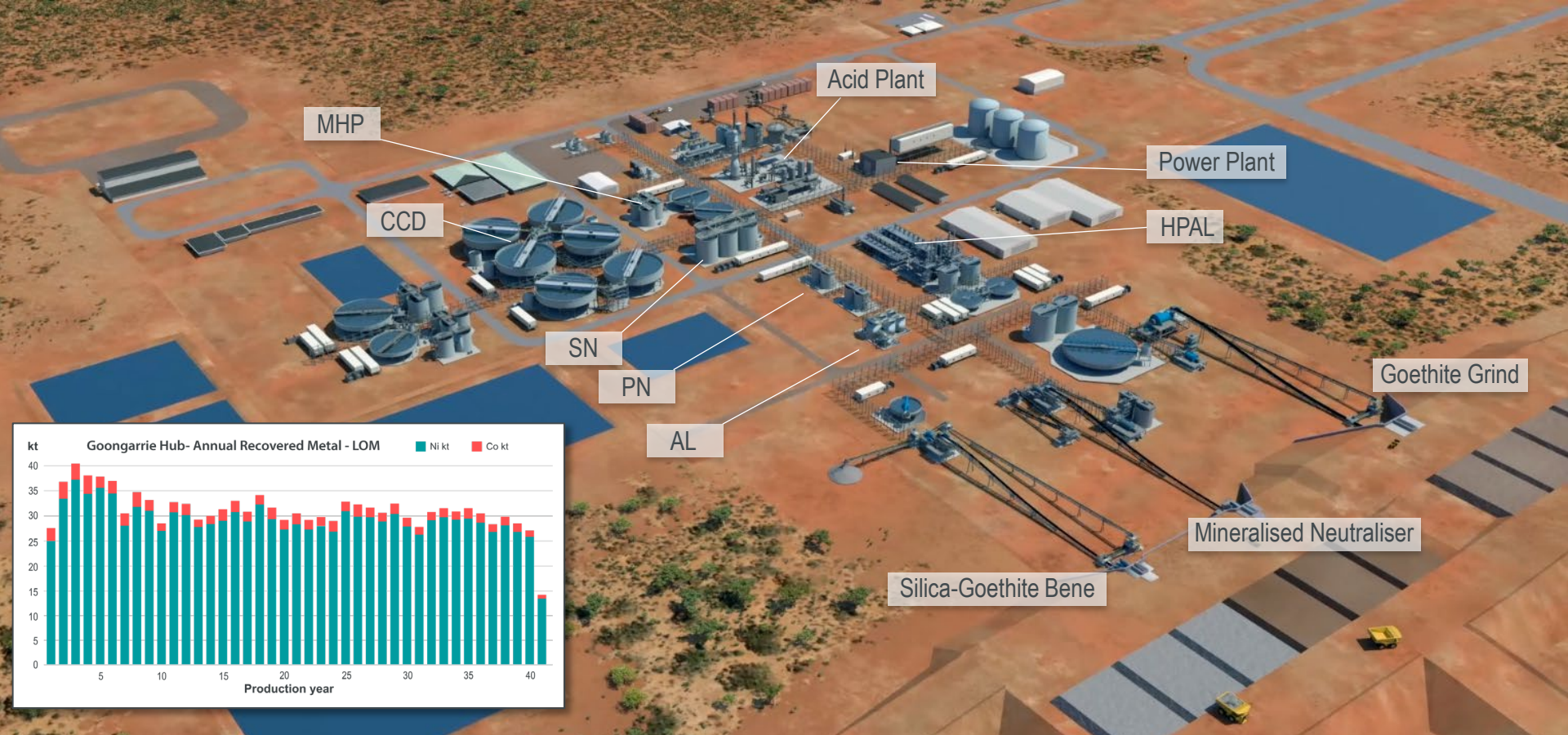
Goongarrie South

Goongarrie Hub
Processing Plant



100m

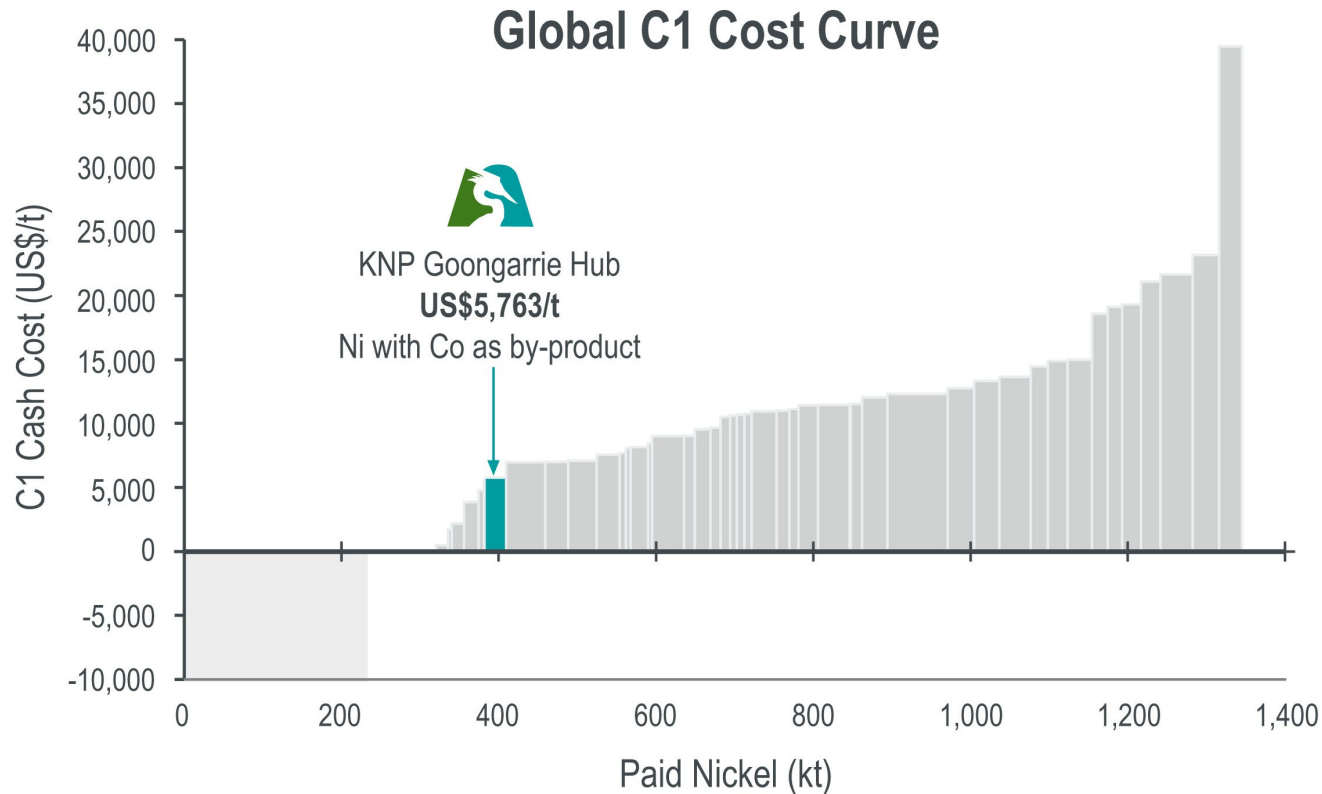




Desirable Flowsheet Proven Technology
3.5Mtpa - 2 x 1.5Mtpa HPAL autoclaves plus 0.5Mtpa AL circuit

Goongarrie Hub – Low-Cost Mining and Production

*Goongarrie Hub
C1 cost including
Co credit
compares very
well on the global
cost curve*



Note: based on data from Company filings.

KNP Goongarrie Hub Updated Ore Reserve & PFS defines +40-year operation with strong financial metrics¹:

- Pre-tax NPV7 of **A\$7,625M** (IRR 30%)
- Post-tax NPV7 of **A\$4,980M** (IRR 23%)
- Average **Annual EBITDA of A\$800M**
- Project **pay back within 3.1 years**
- Low cost after Cobalt credit of **US\$5,763/t Ni in MHP LOM**

Financials

Nickel Revenue	A\$ M	44,429
Cobalt Revenue	A\$ M	7,880
Revenue - combined	A\$ M	52,309
EBITDA LOM	A\$ M	34,217
EBITDA Annual (average)	A\$ M	800
EBITDA margin	%	65%
Net Cash Flow (Pre-tax)	A\$ M	31,100

Valuation

Net Present Value (NPV7) ²	A\$ M	4,980
Internal Rate of Return (IRR) ²	%	23%
Total Capital Payback ³	years	3.1

Assumptions

Exchange rate	AUD:USD	0.67
Nickel Price	US\$/t	25,000
Cobalt Price	US\$/t	60,000

1. See 5 July 2023 ARL PFS ASX Announcement. 2. Post tax. 3. From start of operation.

Outstanding Growth Potential Identified During PFS

- Several opportunities exist with substantial benefits to the financial metrics expected and include:
 - ✓ Addition of a scandium recovery circuit
 - ✓ Optimisation of existing processing circuit
 - ✓ Optimisation of the rate of throughput vs residence time (within existing processing capacity and capital cost)
 - ✓ Staged development of additional processing capacity
 - ✓ Evaluation of Remote Operations Centre
- These project enhancement opportunities will be carried forward into the DFS



Ardea sign KNP Goongarrie Hub MOU

- **Ardea** are working to scope DFS under non-binding MOU, with a well-regarded and experienced Japanese Consortium comprised of Sumitomo Metal Mining Co., Ltd, Mitsubishi Corporation, and Mitsui & Co., Ltd¹
- Ardea and the Consortium are defining a scope of work for the DFS and are engaging positively to complete this, with the Consortium funding the DFS subject to the parties agreeing on the DFS scope before the end of Quarter 4, 2023 and entering into a binding Final Agreement by the end of Quarter 1, 2024
- **Sumitomo Metal Mining** are most successful in developing and operating nickel-cobalt laterite operations
- **Mitsubishi** and **Mitsui** have decades of project development and operations experience in Australia and globally

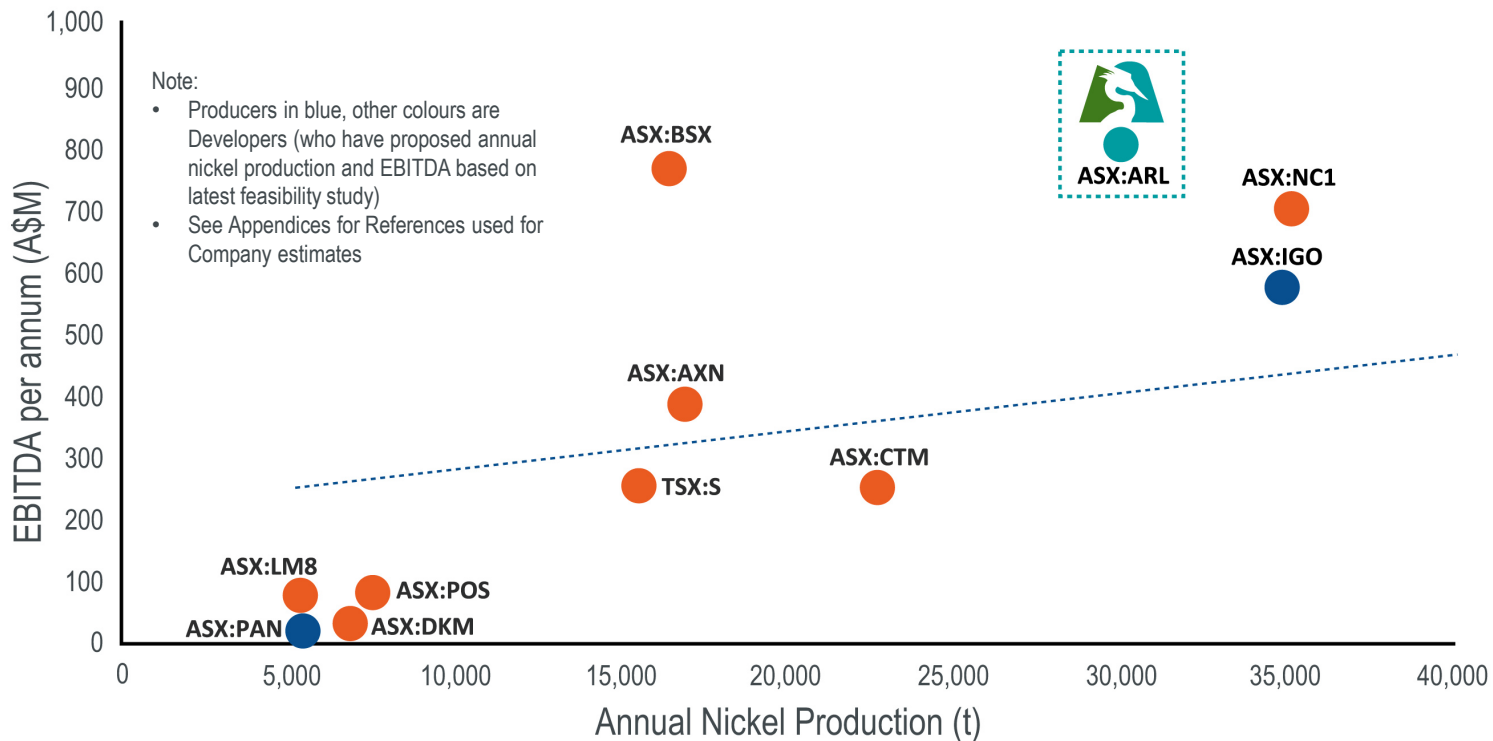


1. See 5 July & 29 Sept 2023 ARL MOU & MOU Update ASX Announcements.

Why KNP Goongarrie Hub is a Compelling Investment Opportunity

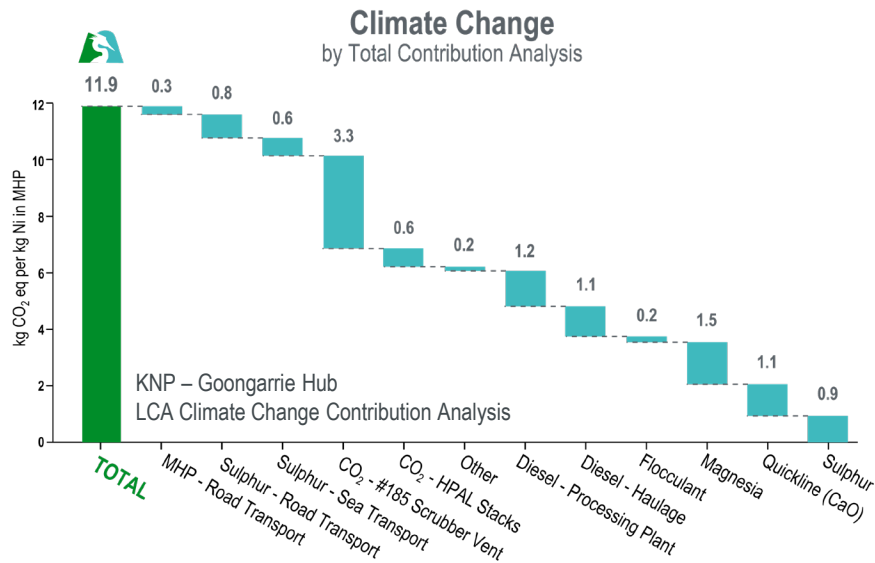
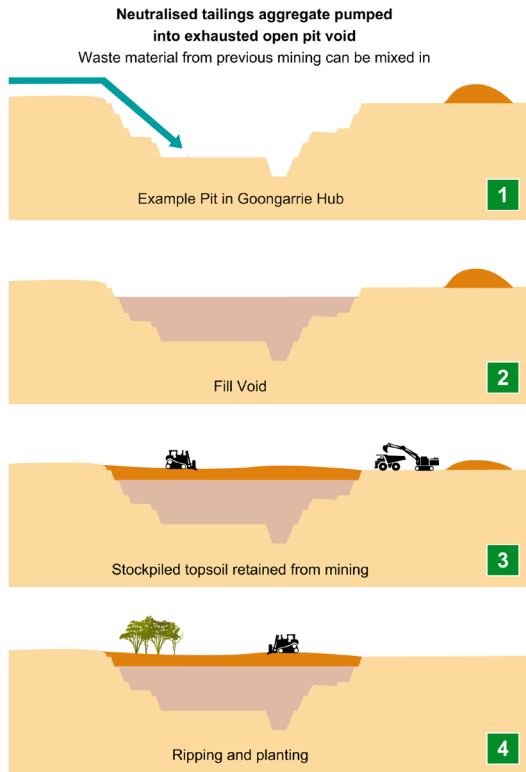
Ardea will be a large, long-term nickel-cobalt producer and has a significantly higher annual EBITDA than its peers due to low-cost production

Production vs EBITDA (A\$M)



ESG credentials strengthened during PFS

In-pit tailings disposal¹ **minimises environmental footprint** and enables mine site rehabilitation, concurrent with steady-state mine operation.



Life Cycle Assessment (LCA) is expected to be 11.9 kg CO₂ eq. per kg nickel in MHP based on Ardea's Scope 1, 2 and upstream Scope 3 emissions¹. This compares favourably to the global average of ~13.0 kg CO₂ eq. per kg nickel produced.

1. See 5 July 2023 ARL PFS ASX Announcement.

Key Investment Considerations – For a must have nickel-cobalt stock

- ✓ KNP is a strategic asset owned 100% by Ardea - it is the largest Ni - Co resource in Australia and in top 10 globally
- ✓ Located in the premier resources operating jurisdiction in the World
- ✓ Goongarrie Hub resources are located on granted mining leases with direct infrastructure links
- ✓ Goongarrie Hub will be the starter project with +40 year mine life producing ~30ktpa nickel and 2ktpa cobalt
- ✓ Ardea and the Japanese Consortium continue to make sound progress on scoping the Goongarrie Hub DFS with technical and commercial meetings in the City of Kalgoorlie-Boulder, Shire of Menzies, Perth and Tokyo
- ✓ Ardea plans to retain 100% of all other projects providing an internal project pipeline for future growth
- ✓ Ardea controls ~4,000km² of tenure in the Eastern Goldfields of WA with unrivalled Battery and Critical Mineral exploration potential
- ✓ The Ardea Team have relevant experience, local knowledge and working with well-regarded partners will deliver quality outcomes for the benefit of all stakeholders



Ardea Resources Limited

For further information

Andrew Penkethman

Managing Director & CEO

+61 8 6244 5136

ardea@ardearesources.com.au

Visit the Ardea Team at booth #6
to watch the KNP Fly-through or
keep up to date with news
www.ardearesources.com.au



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Appendices: Full tables and supporting references

Competent Persons

Information in this presentation has been summarised from ARL ASX MRE Announcement 30 July 2023, ARL ASX PFS Announcement 5 July 2023 and ARL ASX MOU Announcement 5 July 2023.

Resource Estimation, Exploration Results, and Industry Benchmarking

The Resource Estimation, Exploration Results and Industry Benchmarking summaries are based on information reviewed or compiled by Mr. Ian Buchhorn, and Mr Andrew Penkethman. Mr Buchhorn is a Member of the Australasian Institute of Mining and Metallurgy and Mr Penkethman is a Fellow of the Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists. Both Mr Buchhorn and Mr Penkethman are full-time employees of Ardea Resources Limited and have sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are 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 Buchhorn and Mr Penkethman have reviewed this press release and consent to the inclusion in this report of the information in the form and context in which it appears. Mr Buchhorn and Mr Penkethman own Ardea shares.

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

					Contained	Contained
KNP	Resource Category	Size (Mt)	Ni (%)	Co (%)	Ni (kt)	Co (kt)
Kalgoorlie Nickel Project Total	Measured	22	0.94	0.079	207	17
	Indicated	361	0.73	0.047	2,622	169
	Inferred	471	0.70	0.043	3,272	200
KNP	Grand Total	854	0.71	0.045	6,101	386

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

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

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

Ore Reserves

Information in this presentation that relates to Ore Reserves at the Kalgoorlie Nickel Project Goongarrie Hub is based on and fairly represents information and supporting documentation compiled by Mr Jake Fitzsimons, a Competent Person who is a full-time employee of Orelogy Mine Consulting, a company engaged by Ardea. Mr Fitzsimons is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Fitzsimons has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which is being 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 (2012 JORC Code). Mr Fitzsimons does not hold securities in Ardea and consents to the inclusion in this announcement of all technical statements based on his information in the form and context in which they appear.

Ardea wishes to clarify that its current Kalgoorlie Nickel Project (KNP) Goongarrie Hub Ore Reserve following JORC Code (2012) guidelines, based on the contents of the 5 July 2023 ASX announcement is:

					Contained	Contained
Goongarrie Hub	Ore Reserve Category	Size (Mt)	Ni (%)	Co (%)	Ni (kt)	Co (kt)
Ore Reserve	Proven	16.7	0.96	0.09	160	15
	Probable	177.4	0.68	0.05	1,204	84
	Grand Total	194.1	0.70	0.05	1,365	99

Goongarrie Note: Minor discrepancies may occur due to rounding of appropriate significant figures.

Full details on the Ore Reserve are available in the 5 July Ardea ASX announcement, see Section 5 and Appendix 1.

KNP Global MRE

The Competent Persons (CP) for the Mineral Resources, are Mr Ian Buchhorn and Mr Andrew Penkethman, both are full-time employees of Ardea and consider the resource classification applied to the KNP resource models to reflect appropriate confidence in the input exploration data, geological interpretation and resource grade and tonnage estimates.

Various ASX market releases for the Mineral Resources described have been competed by Ardea, notably:

- 30 June 2023 'Kalgoorlie Nickel Project Mineral Resource Estimate Exceeds 6 Million Tonne Contained Nickel'.
- 16 June 2021 'Highway Nickel Deposit -Mineral Resource Estimate 92 million tonnes at 0.69% nickel and 0.038% cobalt'.
- 15 February 2021 'GNCP High Grade Resource -60 million tonnes at 1.0% nickel Sustainable Long-life Battery Metal Resource Confirmed'.

KNP Global nickel and cobalt Mineral Resources based on a 0.5% Ni cut-off grade

					Contained	Contained
KNP Hub	Resource Category	Size (Tonnes)	Ni (%)	Co (%)	Ni (kt)	Co (kt)
Goongarrie Hub	Measured	18,200,000	0.94	0.085	171	15
	Indicated	276,500,000	0.70	0.046	1,923	127
	Inferred	289,300,000	0.67	0.037	1,951	108
	Sub Total	584,000,000	0.69	0.043	4,044	250
Kalpini Hub	Indicated	15,900,000	1.06	0.055	169	9
	Inferred	113,600,000	0.76	0.047	859	53
	Sub Total	129,500,000	0.79	0.048	1,028	62
Yerilla Hub	Measured	3,800,000	0.94	0.048	36	2
	Indicated	68,400,000	0.78	0.049	531	33
	Inferred	67,800,000	0.68	0.057	462	39
	Sub Total	140,000,000	0.73	0.053	1,028	74
Kalgoorlie Nickel Project Total	Measured	22,000,000	0.94	0.079	207	17
	Indicated	360,800,000	0.73	0.047	2,622	169
	Inferred	470,700,000	0.70	0.043	3,272	200
KNP	Grand Total	853,500,000	0.71	0.045	6,101	386

Minor discrepancies may occur due to rounding of appropriate significant figures.

KNP Goongarrie Hub

MRE

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KNP Goongarrie Hub nickel and cobalt Mineral Resources based on a 0.5% Ni cut-off grade

Prospect	Resource	Size	Ni	Co	Contained Metal		Estimation Details		
	Category	(Mt)	(%)	(%)	Ni (kt)	Co (kt)	Method	Source	Year
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	2023
	Inferred	21	0.67	0.04	141	8	LUC	Ardea	2023
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	0.6	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 Dam	Indicated	12	0.71	0.065	82	7	LUC	Ardea	2021
	Inferred	5	0.72	0.043	37	2	LUC	Ardea	2021
Goongarrie Subtotal	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			
	Combined	398	0.69	0.044	2,753	175			
Siberia South*	Inferred	81	0.65	0.033	525	27	OK	Snowden	2004
Siberia North	Indicated	14	0.72	0.042	102	6	Ni (UC), Co (OK)	Snowden	2009
	Inferred	72	0.74	0.034	534	25	Ni (UC), Co (OK)	Snowden	2009
Black Range*	Indicated	9	0.67	0.09	62	8	OK	HGMC	2017
	Inferred	10	0.69	0.1	68	10	OK	HGMC	2017
Siberia Subtotal	Indicated	24	0.7	0.061	165	14			
	Inferred	163	0.69	0.038	1,127	61			
	Combined	186	0.69	0.04	1,292	75			
KNP Goongarrie Hub TOTAL	Measured	18	0.94	0.085	171	15			
	Indicated	277	0.7	0.046	1,923	127			
	Inferred	289	0.67	0.037	1,951	108			
	Combined	584	0.69	0.043	4,044	250			

*Note - Mineral Resources that are not considered in 2023 PFS.

Minor discrepancies may occur due to rounding of appropriate significant figures.

KNP Goongarrie Hub

Ore Reserve Summary

KNP Goongarrie Hub Ore Reserve Summary consisting of ore above 0.5% Ni as the feed stock for the processing facility, and ore as Mineralised Neutraliser above 0.5% Nieq and LOI above 25%

Notes:

- The Ore Reserve is reported in accordance with JORC Code 2012.
- Ore reserves are reported at a cut-off of 0.5% Ni for primary feed stock to the processing facility, plus mineralised neutraliser as ore at a cut-off of 0.5% Ni Equivalent (NiEq) and Loss on Ignition (LOI) above 25%.
- NiEq defined using $Ni + 2.32 \times Co$.
- The Ore Reserve was evaluated using a base price of US\$22,000/t for Ni and US\$51,000/t for Co at 85% payable for a Mixed Hydroxide Precipitate (MHP) product, and an exchange rate 0.69 USD/AUD. In view of forward metal price projections averaging US\$25,000/t Ni, the Ore Reserve can be considered conservative.
- Ore Reserves account for mining dilution and mining ore loss.
- Ore Reserves are reported on a Dry Tonnage Basis.
- Proven Ore Reserves are based on Measured Mineral Resources only and Probable Ore Reserves are based on Indicated Mineral Resources only.
- The sum of individual amounts may not equal due to rounding.
- This Ore Reserve estimate is for a subset of the KNP Goongarrie Hub deposits being Goongarrie South, Big Four / Scotia Dam, Goongarrie Hill, Highway and Siberia North.
- The Ore Reserve Summary was detailed in ARL ASX PFS Announcement, 5 July 2023.
- Minor discrepancies may occur due to rounding of appropriate significant figures.

	Ore >= 0.5% Ni					Ore > 0.5% NiEq and LOI > 25%					Total Ore				
Deposit	Mt	Ni %	Co %	Ni kt	Co kt	Mt	Ni %	Co %	Ni kt	Co kt	Mt	Ni %	Co %	Ni kt	Co kt
Proven															
Goongarrie South	16.7	0.96	0.09	160	15	0.05	0.43	0.03	0.20	0.01	16.7	0.96	0.09	160	15
Sub-total	16.7	0.96	0.09	160	15	0.05	0.43	0.03	0.20	0.01	16.7	0.96	0.09	160	15
Probable															
Big Four/Scotia Dam	34.9	0.76	0.07	265	23	0.8	0.38	0.04	3	0	35.7	0.75	0.06	268	23
Goongarrie South	33.6	0.79	0.07	265	23	1.8	0.40	0.03	7	1	35.4	0.77	0.07	272	24
Goongarrie Hill	15.8	0.70	0.04	110	7	0.1	0.44	0.02	0	0	15.9	0.70	0.04	111	7
Highway	54.0	0.70	0.04	380	22	27.2	0.39	0.01	106	4	81.2	0.60	0.03	486	26
Siberia North	9.2	0.74	0.05	68	4	-	-	-	-	-	9.2	0.74	0.05	68	4
Sub-total	147.4	0.74	0.05	1,087	79	29.9	0.39	0.02	117	5	177.4	0.68	0.05	1,204	84
PROVEN AND PROBABLE TOTAL															
Big Four/Scotia Dam	34.9	0.76	0.07	265	23	0.8	0.38	0.04	3	0	35.7	0.75	0.06	268	23
Goongarrie South	50.2	0.85	0.08	425	38	1.9	0.40	0.03	7	1	52.1	0.83	0.07	432	39
Goongarrie Hill	15.8	0.70	0.04	110	7	0.1	0.44	0.02	0	0	15.9	0.70	0.04	111	7
Highway	54.0	0.70	0.04	380	22	27.2	0.39	0.01	106	4	81.2	0.60	0.03	486	26
Siberia North	9.2	0.74	0.05	68	4	-	-	-	-	-	9.2	0.74	0.05	68	4
TOTAL	164.1	0.76	0.06	1,247	94	30.0	0.39	0.02	117	5	194.1	0.70	0.05	1,365	99



References for Global Nickel Resource Chart

	Reference Date	Title	ref. pp	Link
SLN - Doniampo	26 Apr 2023	Eramet Universal Registration Document 2022	77	https://www.eramet.com/wp-content/uploads/2023/04/2023-04-26-Eramet-URD-2022-EN.pdf
Norilsk Division		Annual Report 2022	54-55	https://norilsknickel.com/upload/iblock/461/19utiej7n1128614g2qwyd0q36hcz2022_Annual_Report_of_PJSC_MMC_Norilsk_Nickel_eng.pdf
Weda Bay	26 Apr 2023	Eramet Universal Registration Document 2022	78	https://www.eramet.com/wp-content/uploads/2023/04/2023-04-26-Eramet-URD-2022-EN.pdf
Merdecka SCM	02 May 2023	Annual Report 2022	30	https://merdekacoppergold.com/wp-content/uploads/2023/05/MDKA_2022-12-31_Laporan-Tahunan-2022.pdf
FeNi Halmahera	02 May 2023	Annual Report 2022	319	https://antam.com/downloads/annual-report-2022
PT Aneka – Pomalaa	02 May 2023	Annual Report 2022	319	https://antam.com/downloads/annual-report-2022
Ardea Resources's Kalgoorlie Nickel Project Jinchuan	05 Jul 2023	KNP Goongarie Hub Ore Reserve & Feasibility Study Defines +40 Year Operation with Strong Financial Metrics S&P 2009	5	https://ardearesources.com.au/downloads/announcements/arf_2023070501.pdf
Mount Keith / Yakabinde	22 Aug 2023	Annual Report 2023	232	https://www.bhp.com/-/media/documents/investors/annual-reports/2023/230822_bhpannualreport2023.pdf
Hengjiaya Mine	28 Apr 2023	Annual Report 2022	11	https://nickelindustries.com/carbon/wp-content/uploads/2023/05/Nickel-Metals-AR-2022-WEB.pdf
Koniampo	23/03/2023	Annual Report 2022	278	https://www.glencore.com/.rest/api/v1/documents/ded10fa52974aa388a43aa9f86f483e9/GLEN-2022-Annual-Report.pdf
Cerro Matoso	08 Sep 2023	Annual Report 2023	174	https://www.south32.net/docs/default-source/annual-reporting-suite/2023/annual-report-2023.pdf?sfvrsn=fcbe6a11_1
Goro	28 Jul 2023	NCZ - Potential Acquisition of the Goro Nickel & Cobalt Mine	5	https://announcements.asx.com.au/asxpdf/20200728/pdf/44kwy3yff0cc1.pdf
Ambatovy	19 Mar 2020	Sherritt International AIF 2019	54	https://s2.q4cdn.com/343762060/files/doc_financials/Annual-Report/2019/2019-AIF-(March-20-2020).pdf
Murrin Murrin	23/03/2023	Annual Report 2022	278	https://www.glencore.com/.rest/api/v1/documents/ded10fa52974aa388a43aa9f86f483e9/GLEN-2022-Annual-Report.pdf
INO (Sudbury, Raglan, Nikkelverk)	23/03/2023	Annual Report 2022	278	https://www.glencore.com/.rest/api/v1/documents/ded10fa52974aa388a43aa9f86f483e9/GLEN-2022-Annual-Report.pdf
Moa Nickel	31 Mar 2023	Sherritt International AIF 2022	20	https://s2.q4cdn.com/343762060/files/doc_financials/2022/ar/sic-2022-aif-03-31-23-sedar.pdf
VALE Sorowako	Unknown	Annual Report 2022	48	https://www.vale.com/documents/d/guest/vt-va-indonesia-tbk-annual-report-2022-1
Leinster	22 Aug 2023	Annual Report 2023	232	https://www.bhp.com/-/media/documents/investors/annual-reports/2023/230822_bhpannualreport2023.pdf
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Ravensthorpe	28 Mar 2023	First Quantum AIF 2022	16	https://s24.q4cdn.com/821689673/files/doc_downloads/2022-annual-report/AIF-2023-FINAL.pdf
Falcondo			119	https://franco-nevada relayto.com/e/2023-asset-handbook-fokmo6c7tsite/htMwLjtr10
Santa Rita		CIM (NI-43-101) 31/12/2022		
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Cosmos	31 Aug 2023	Annual Report 2023	161	https://www.igo.com.au/site/pdf/fc89acf6-4657-4317-9f4f-b3ce634d4e76/2023-Annual-Report-to-Shareholders.pdf
Bindura	31 Mar 2023	Annual Report 2022	25	https://binduranickel.co.zw/bnc-annual-report-2023/
Barro Alto		Annual Report 2022	17	https://www.angloamerican.com/-/media/Files/A/Anglo-American-Group-v5/PLC/investors/annual-reporting/2022/ore-reserves-and-mineral-resources-report-2022.pdf
Kevitsa	07 Mar 2023	Annual Report 2022	117	https://vp217.alertir.com/afw/files/press/bolden/20230307693-1.pdf
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Savannah Restart	20 Sep 2023	Annual Report 2023	125	https://announcements.asx.com.au/asxpdf/20230920/pdf/05v28y6y8t699i2.pdf
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Kalatongke		Xinjiang Xinxi Mining 2022	4	http://kunlun.wsfq.hk/preview/?docid=40563
Nova-Bollinger	31 Aug 2023	Annual Report 2023	163	https://www.igo.com.au/site/pdf/fc89acf6-4657-4317-9f4f-b3ce634d4e76/2023-Annual-Report-to-Shareholders.pdf
Forrestania	31 Aug 2023	Annual Report 2023	162	https://www.igo.com.au/site/pdf/fc89acf6-4657-4317-9f4f-b3ce634d4e76/2023-Annual-Report-to-Shareholders.pdf
Eagle	22 Feb 2023	NI 43-101 Technical Report on the Eagle Mine, Michigan USA	30	https://lundminning.com/site/assets/files/3640/230222_-_lundin_mining_-_eagle_2022_tr.pdf
Codermin (Niquelandia)		Annual Report 2022	17	https://www.angloamerican.com/-/media/Files/A/Anglo-American-Group-v5/PLC/investors/annual-reporting/2022/ore-reserves-and-mineral-resources-report-2022.pdf

References for Production and Financial Comparison Charts

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Note: Company estimates for comparison charts have been sourced from these data references. Where possible, 2023 data from quarterly reports was used.

All Share Prices/Shares on Issue from S&P Capital IQ – 2 August 2023					
ASX:IGO	Cash/Debt	31 Jul 2023	June 2023 Quarter Presentation	5	https://announcements.asx.com.au/asxpdf/20230731/pdf/05e3yjb49kcv2z.pdf
	EBITDA	31 Jul 2023	June 2023 Quarter Presentation (Nickel EBITDA only)	15-16	https://announcements.asx.com.au/asxpdf/20230731/pdf/05e3yjb49kcv2z.pdf
	Annual Production	31 Jul 2023	June 2023 Quarter Presentation	15-17	https://announcements.asx.com.au/asxpdf/20230731/pdf/05e3yjb49kcv2z.pdf
	Ni Metal	30 Aug 2023	2022 Annual Report	37-40	https://announcements.asx.com.au/asxpdf/20220830/pdf/45dgc8z402y23.pdf
ASX:PAN	Cash/Debt	26 Jul 2023	Quarterly Activities Report	2, 13	https://announcements.asx.com.au/asxpdf/20230726/pdf/05z9njh70gag0.pdf
		01 Aug 2023	Application for Quoted Securities	5	https://announcements.asx.com.au/asxpdf/20230801/pdf/05e6lbmqxm60x.pdf
		27 Jul 2023	Successful Completion for \$40M bookbuild	2	https://announcements.asx.com.au/asxpdf/20230727/pdf/05e0pm2nwkzyw0.pdf
	EBITDA	16 Sep 2023	2022 Annual Report	29	https://announcements.asx.com.au/asxpdf/20220916/pdf/45f5khmbcws4k.pdf
	Annual Production	26 Jul 2023	Quarterly Activities Report	7	https://announcements.asx.com.au/asxpdf/20230726/pdf/05z9njh70gag0.pdf
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ASX:BSX	Cash/Debt	28 Jul 2023	Quarterly Report for the Period Ending 30 June 2023	11, 12	https://announcements.asx.com.au/asxpdf/20230728/pdf/05e20hg528gax1.pdf
	Capex	28 Feb 2022	Expanded Ta Khoa Nickel Project Delivers Outstanding Value for Blackstone's Vertically Integrated Business	3	https://announcements.asx.com.au/asxpdf/20220228/pdf/456h6gy08pz9b.pdf
	EBITDA	28 Feb 2022	Expanded Ta Khoa Nickel Project Delivers Outstanding Value for Blackstone's Vertically Integrated Business	11	https://announcements.asx.com.au/asxpdf/20220228/pdf/456h6gy08pz9b.pdf
	Annual Production	28 Feb 2022	Expanded Ta Khoa Nickel Project Delivers Outstanding Value for Blackstone's Vertically Integrated Business	8	https://announcements.asx.com.au/asxpdf/20220228/pdf/456h6gy08pz9b.pdf
	Ni Metal	03 Oct 2022	Annual Report to shareholders	17	https://announcements.asx.com.au/asxpdf/20221003/pdf/45fsz608b49y86.pdf
ASX:NIC	Cash/Debt	31 Jul 2023	Quarterly Activities Presentation	4	https://announcements.asx.com.au/asxpdf/20230731/pdf/05e4rt0q77hfd.pdf
	EBITDA	28 Apr 2023	Annual Report 2022	42	https://nickelindustries.com/carbon/wp-content/uploads/2023/05/Nickel-Metals-AR-2022-WEB.pdf
	Annual Production	31 Jul 2023	Quarterly Activities Presentation	4	https://announcements.asx.com.au/asxpdf/20230731/pdf/05e4rt0q77hfd.pdf
		31 Jan 2023	Quarterly Activities Presentation	3	https://announcements.asx.com.au/asxpdf/20230131/pdf/4546ht5vfdrh8.pdf
	Ni Metal	28 Apr 2023	Annual Report and Notice of AGM	14	https://announcements.asx.com.au/asxpdf/20230428/pdf/45p4xkpw3nrxm.pdf
ASX:POS	Cash/Debt	31 Jul 2023	Quarterly Activities/Appendix 5B Cash Flow Report	3	https://announcements.asx.com.au/asxpdf/20230731/pdf/05e5ynf64mq46.pdf
	EBITDA	21 Nov 2022	Positive Black Swan Feasibility Study	10	https://announcements.asx.com.au/asxpdf/20221121/pdf/45htfk1p3ck4f.pdf
	Annual Production	21 Nov 2022	Positive Black Swan Feasibility Study	10	https://announcements.asx.com.au/asxpdf/20221121/pdf/45htfk1p3ck4f.pdf
	Ni Metal	31 Jul 2023	Quarterly Activities/Appendix 5B Cash Flow Report	11	https://announcements.asx.com.au/asxpdf/20230731/pdf/05e5ynf64mq46.pdf
ASX:CTM	Cash/Debt	28 Jul 2023	Quarterly Activities/Appendix 5B Cash Flow Report	14	https://announcements.asx.com.au/asxpdf/20230728/pdf/05e1zbq0t16996.pdf
		01 Aug 2023	Successful Completion of \$47M share placement	1	https://announcements.asx.com.au/asxpdf/20230801/pdf/05e6mbp6mssch.pdf
	EBITDA	31 May 2023	Value-Add Study Shows Potential for Jaguar to be a long-life, high margin & low-emission producer of battery grade nickel sulphate	3	https://announcements.asx.com.au/asxpdf/20210531/pdf/44wyqrc8ndwpr.pdf
	Annual Production	31 May 2023	Value-Add Study Shows Potential for Jaguar to be a long-life, high margin & low-emission producer of battery grade nickel sulphate	3	https://announcements.asx.com.au/asxpdf/20210531/pdf/44wyqrc8ndwpr.pdf
	Ni Metal	24 Apr 2023	Annual Report to shareholders	24	https://announcements.asx.com.au/asxpdf/20230424/pdf/45nyqpx8jydcv.pdf



References for Production and Financial Comparison Charts

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All Share Prices/Shares on Issue from S&P Capital IQ – 2 August 2023

ASX:ARL	Cash/Debt	27 Jul 2023	Quarterly Operations Report	33	https://announcements.asx.com.au/asxpdf/20230727/pdf/05s04d912fych.pdf
	EBITDA	05 Jul 2023	KNP Goongarrie Hub Ore Reserve & Feasibility Study Defines +40 Year operation with strong financial metrics	1	https://announcements.asx.com.au/asxpdf/20230705/pdf/05rblnw5qb4g43.pdf
	Annual Production	05 Jul 2023	KNP Goongarrie Hub Ore Reserve & Feasibility Study Defines +40 Year operation with strong financial metrics	1	https://announcements.asx.com.au/asxpdf/20230705/pdf/05rblnw5qb4g43.pdf
	Ni Metal	05 Jul 2023	KNP Goongarrie Hub Ore Reserve & Feasibility Study Defines +40 Year operation with strong financial metrics	5	https://announcements.asx.com.au/asxpdf/20230705/pdf/05rblnw5qb4g43.pdf
ASX:AXN	Cash/Debt	28 Jul 2023	Quarterly Activities Report	14	https://announcements.asx.com.au/asxpdf/20230728/pdf/05s1shzqpl8gyf.pdf
	EBITDA	21 Jul 2022	Updated PFS Outcomes for NiWest Ni-Co Project	4	https://announcements.asx.com.au/asxpdf/20220721/pdf/45c19kxq2km4nt.pdf
	Annual Production	21 Jul 2022	Updated PFS Outcomes for NiWest Ni-Co Project	1	https://announcements.asx.com.au/asxpdf/20220721/pdf/45c19kxq2km4nt.pdf
	Ni Metal	25 Jan 2023	NiWest Nickel-Cobalt Project and Business Update	3	https://announcements.asx.com.au/asxpdf/20230125/pdf/45ky6gdsdj8k8w.pdf
ASX:NC1	Cash/Debt	27 Jul 2023	Quarterly Report June 23	18	https://announcements.asx.com.au/asxpdf/20230727/pdf/05s100m4rbwj33.pdf
	EBITDA	27 Jul 2023	Quarterly Report June 23	2	https://announcements.asx.com.au/asxpdf/20230727/pdf/05s100m4rbwj33.pdf
	Annual Production	27 Jul 2023	Quarterly Report June 23	2	https://announcements.asx.com.au/asxpdf/20230727/pdf/05s100m4rbwj33.pdf
	Ni Metal	22 Dec 2022	PFS Results	7	https://announcements.asx.com.au/asxpdf/20221222/pdf/45k3jx18fqzsgv.pdf
LSE:ACG	Cash/Debt		https://atlanticnickel.com/uk/ or https://www.acgcorp.co/		
	Annual Production		https://atlanticnickel.com/uk/ or https://www.acgcorp.co/		
	Ni Metal	Dec 2022	https://atlanticnickel.com/uk/ or https://www.acgcorp.co/		
AIM:H2M	Cash/Debt	29 Mar 2023	FINAL RESULTS FOR THE YEAR ENDED 31 DECEMBER 2022	8	https://horizonteminerals.com/news/en_20230329-final-results-for-the-year-ended-31-december-2022.pdf
	EBITDA				
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	Ni Metal	13 Aug 2019	HORIZONTE ANNOUNCES SIGNIFICANT NEW NICKEL RESOURCE AT THE SERRA DO TAPA DEPOSIT	3	https://horizonteminerals.com/news/en_20190813-new-resource-sdt-deposit.pdf
TSX:S	Cash/Debt	26 Jul 2023	2023 SECOND QUARTER REPORT	3	https://s2.q4cdn.com/343762060/files/doc_financials/2023/q2/Q2-2023-Full-Report-July-26-23-1.pdf
	EBITDA	26 Jul 2023	2023 SECOND QUARTER REPORT	11	https://s2.q4cdn.com/343762060/files/doc_financials/2023/q2/Q2-2023-Full-Report-July-26-23-1.pdf
		08 Feb 2023	2022 FOURTH QUARTER REPORT	11	https://s2.q4cdn.com/343762060/files/doc_financials/2022/q4/YE-2022-Report.pdf
		02 Nov 2023	2022 THIRD QUARTER REPORT	11	https://s2.q4cdn.com/343762060/files/doc_financials/2022/q3/Q3-2022-Interim-Report-Full-Report-Final.pdf
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		08 Feb 2023	2022 FOURTH QUARTER REPORT	11	https://s2.q4cdn.com/343762060/files/doc_financials/2022/q4/YE-2022-Report.pdf
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	Ni Metal		NI-43-101-Moa-JV-Technical-Report	151	https://s2.q4cdn.com/343762060/files/doc_downloads/whitepapers/NI-43-101-Moa-JV-Technical-Report-Final_Final.pdf
ASX:DKM	Cash/Debt	20 Jul 2023	Quarterly Activities/Appendix 5B Cash Flow Report	20	https://announcements.asx.com.au/asxpdf/20230720/pdf/05rssp58kxqc.pdf
	EBITDA	28 Apr 2021	Positive Scoping Study Provides Solid Platform for Future Growth	17	https://announcements.asx.com.au/asxpdf/20210428/pdf/44wx9j1zdg98b.pdf
	Annual Production	29 Apr 2021	Positive Scoping Study Provides Solid Platform for Future Growth	17	https://announcements.asx.com.au/asxpdf/20210428/pdf/44wx9j1zdg98b.pdf
	Ni Metal	20 Jul 2023	Quarterly Activities/Appendix 5B Cash Flow Report	12	https://announcements.asx.com.au/asxpdf/20230720/pdf/05rssp58kxqc.pdf
ASX:LM8	Cash/Debt	25 Jul 2023	Quarterly Cash Flow Report - June 2023	3	https://announcements.asx.com.au/asxpdf/20230725/pdf/05nmrdmzhxsk.pdf
	EBITDA	22 May 2023	Baker Preliminary Feasibility Study	2	https://announcements.asx.com.au/asxpdf/20230522/pdf/05px0xhg79h025.pdf
	Annual Production	23 May 2023	Baker Preliminary Feasibility Study	2	https://announcements.asx.com.au/asxpdf/20230522/pdf/05px0xhg79h025.pdf
	Ni Metal	24 May 2023	Baker Preliminary Feasibility Study	2	https://announcements.asx.com.au/asxpdf/20230522/pdf/05px0xhg79h025.pdf

Note: Company estimates for comparison charts have been sourced from these data references. Where possible, 2023 data from quarterly reports was used.

