A globally significant source of nickel-cobalt and scandium in Western Australia

Ardea Resources

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## Australian Nickel Conference

5 October 2021

# Ardea Resources Limited

# Kalgoorlie Nickel Project – the Location, Resource and Flowsheet for sustainable Critical Minerals supply

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**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), Goongarrie Nickel Cobalt Project Update (8 April 2019), Ardea Annual Report 2019 (24 October 2019), Ardea Quarterly Operations Report, for the quarter ended 31 March 2020 (9 April 2020), Quarterly Activities Report - June 2020 (23 July 2020), Nickel Sulphide Targets within the Ardea Tenement Portfolio including KNP (30 September 2020), Quarterly Activities Report - September 2020 (27 October 2020), Quarterly Activities Report - December 2020 (21 January 2021), GNCP High Grade Resource - 60 million tonnes at 1.0% nickel (15 February 2021), Quarterly Activities Report - March 2021 (21 April 2021), Basal contact nickel sulphide intersected at Ardea's Emu Lake (27 April 2021), CSIRO/Ardea research at Goongarrie BTZ – insights for nickel sulphide and gold targets (27 May 2021), Kalgoorlie Nickel Project – Feasibility Study Underway (31 May 2021), Semi-massive nickel sulphide intercept at Emu Lake (10 June 2021), Highway Nickel Deposit - Mineral Resource Estimate (16 June 2021), Successful A$5.7M Capital Raising to Fund Kalgoorlie Nickel Project Feasibility Work (28 June 2021) Nickel Sulphide Exploration Update – Emu Lake (13 July 2021), Ardea Quarterly Operations Report, for the quarter ended 30 June 2021 (27 July 2021), Ardea Annual Report 2021 (24 September 2021).

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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.

# Ardea Resources Corporate Overview

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## Board and Key Personnel

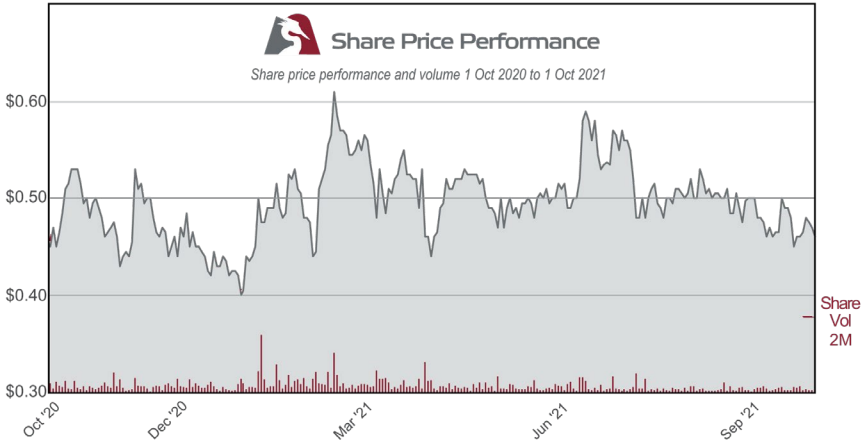
| | |
|---|---|
| **Mathew Longworth** | Non-Executive Chair |
| **Andrew Penkethman** | Managing Director & CEO |
| **Ian Buchhorn** | Executive Director |
| **Sam Middlemas** | Company Secretary & CFO |
| **Alex Mukherji** | Manager Land Access & Compliance |
| **Mike Miller** | General Manager – Technical Services |

## Listed on ASX (ARL)

| | |
|---|---|
| Shares on Issue | 138,034,219 |
| Performance Rights (ARFAJ) | 4,667,000 |
| Share Price | $0.46 |
| 52 week high / low | $0.63 / $0.40 |
| Cash (as at 5 July 2021) | $11 million |
| Market Capitalisation | $63 million |
| Board and Management | ~10% equity |
| Top 40 Shareholders | ~60% equity |
| Research | Petra Capital |

## Kalgoorlie Nickel Project – Goongarrie Hub

- ✓ **Globally significant Nickel, Cobalt and Scandium resource and other Critical Minerals**
- ✓ **Critical Minerals essential for green and sustainable technologies**
- ✓ **Located in Australia's premier mining jurisdiction, Kalgoorlie-Boulder Western Australia**



# **Developing KNP** – Australia's next major Ni-Co project

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## Kalgoorlie Nickel Project (**KNP**)

- ✓ **There is no battery revolution without the development of strategic nickel laterite resources, such as the Kalgoorlie Nickel Project that can ensure sustainable and ethical mineral supply**

# **KNP** – Building Blocks for success

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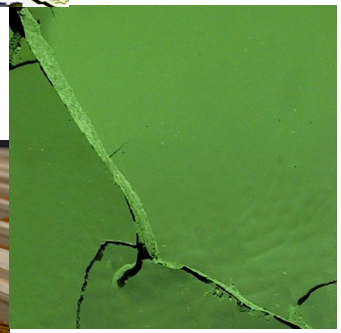

- ✓ World's best operating jurisdiction
- ✓ Globally significant resource
- ✓ Premium goethite geo-metallurgy
- ✓ Enhanced flow sheet
- ✓ Proven technology
- ✓ Experienced team working with high quality partners
- ✓ Project development based on sustainable and ethical principles

# World's best operating jurisdiction

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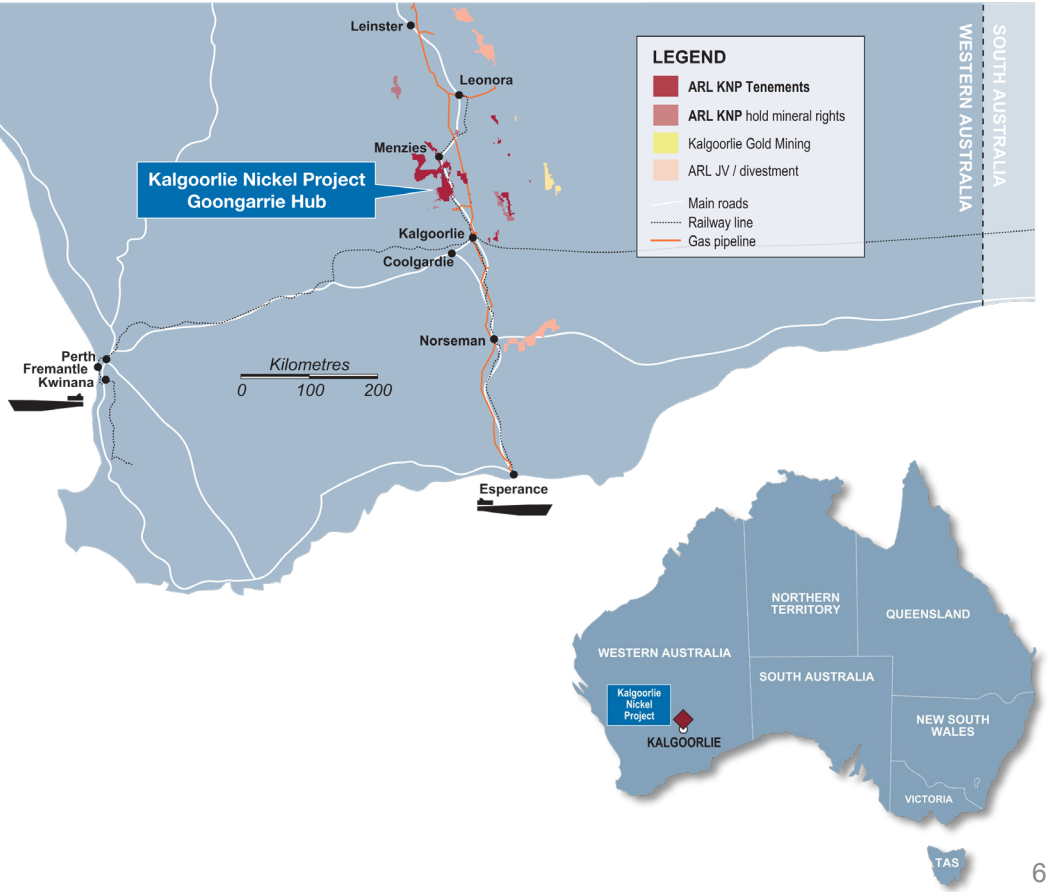
- All Ardea Projects located in Western Australia (WA)
- >4,000km$^2$ ground position in Eastern Goldfields
- WA is the premier global destination for development of minerals operations
- City of Kalgoorlie-Boulder is the prime resource development and operating destination within WA
  - ✓ Very strong mining support from Local Government and Community
  - ✓ Multitude of world-class mining operations serviced from the City
  - ✓ Ardea maintains a local operations office and active stake holder engagement
  - ✓ Road and rail network pass through granted Goongarrie Hub mining leases



# World's best operating jurisdiction

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- Large contiguous KNP land holding – able to optimise site footprint
- Great Western Woodland amenable to low-impact development and rehabilitation
- Semi-arid environment, facilitates well managed tailings disposal
  - ✓ Rehabilitation procedures well defined by decades of Kalgoorlie open pit gold mining
  - ✓ No ocean submarine tailings disposal
  - ✓ No valley-fill tailings dams
  - ✓ No active seismicity tailings dam issues
- No conflicting land use demands
  - ✓ KNP within a purely mining jurisdiction
  - ✓ No competing food production activity
- Low carbon future
  - ✓ KNP HPAL neutraliser includes nickel enriched non-carbonate serpentine options
  - ✓ Waste landform benefits regeneration agroforestry throughout the KNP

*Optimum location for sustainable & ethical mineral supply*

# Globally Significant Resource

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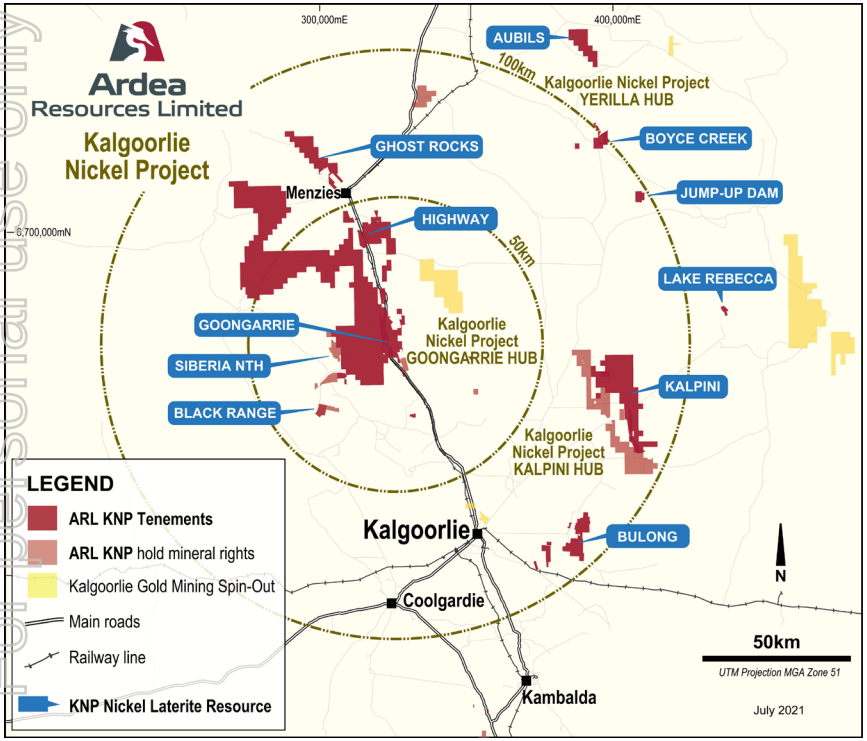



✓ Globally significant nickel & cobalt Mineral Resource
✓ Sustainable & ethical supply of nickel & Critical Minerals for low carbon future

**Goongarrie Hub**
**- High grade component -**

**78Mt at 1.0% Ni and 0.069% Co***

**784kt** contained **Nickel**
**54kt** contained **Cobalt**

- Kalgoorlie Nickel Project (**KNP**) Feasibility Study (**FS**) scope covering Goongarrie Hub including satellite pits at Highway and Siberia North **(Goongarrie Hub)**
- The FS is evaluating the potential revenue contributions from mineralised neutraliser, scandium and other Critical Minerals, including Rare Earth Elements (REE) throughout the KNP
- Direct infrastructure links to the Kwinana Battery Hub

✓ **KNP Mineral Resource 5.9Mt contained nickel and 384kt contained cobalt***
✓ **3.39kt scandium, from just Goongarrie deposits**
✓ **Pipeline of other Critical Minerals**

* See Appendix for resource breakdown and ASX release 16 June 2021

# Understanding the Geo-metallurgy

## Matching the flowsheet to the mineralisation

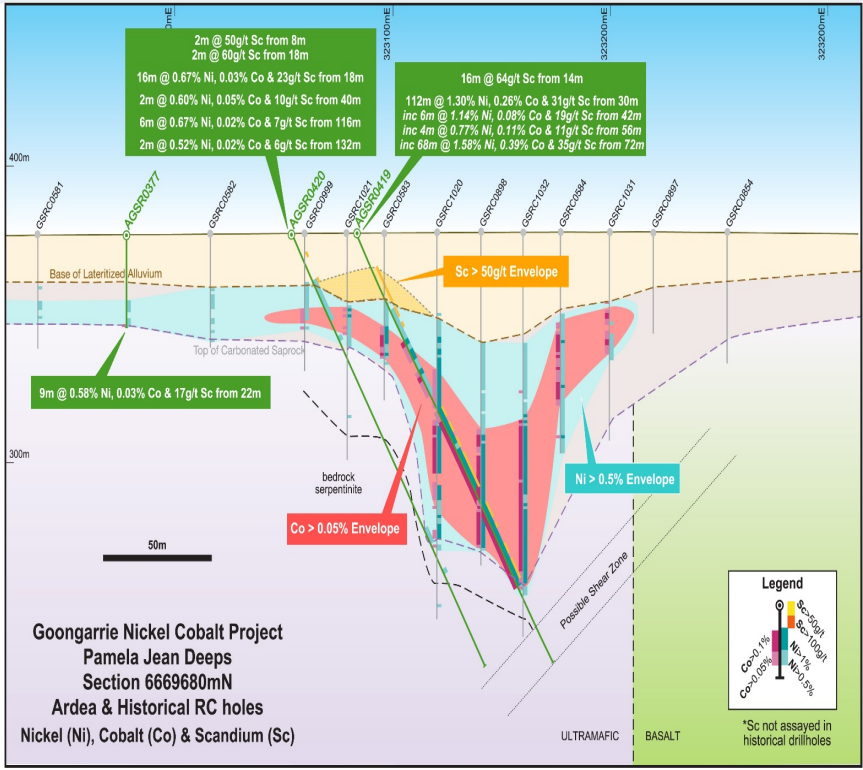
### Material Types Appraisal

- ✓ Comprehensive drilling, logging and assaying of all deposits
- ✓ Detailed multi-element assay suite (61 elements), including carbon balance
- ✓ XRD mineralogy for metallurgical performance
- ✓ Material Type controls and maximises resource utilisation
  - ✓ High Pressure Acid Leach (HPAL)
  - ✓ Atmospheric Leach (AL)
  - ✓ Neutralisation (N)

### Resource Utilisation

- ✓ Lateritised Alluvium - site engineering requirements
- ✓ Clay Upper - goethite HPAL, base load hydrometallurgical feed
- ✓ Enrichment Zone - goethite-asbolite high grade, 1% Ni - 0.1% Co, high Fe
- ✓ Clay Lower - serpentine-nontronite (saprolite) AL feed, low Fe
- ✓ Saprock - dolomite/magnesite Primary and Secondary Neut, high Mg

- ✓ Due to deep optimised pits at Goongarrie South, Clay Lower AL and Saprock Neutraliser recovered when accessing deep goethite-asbolite ore

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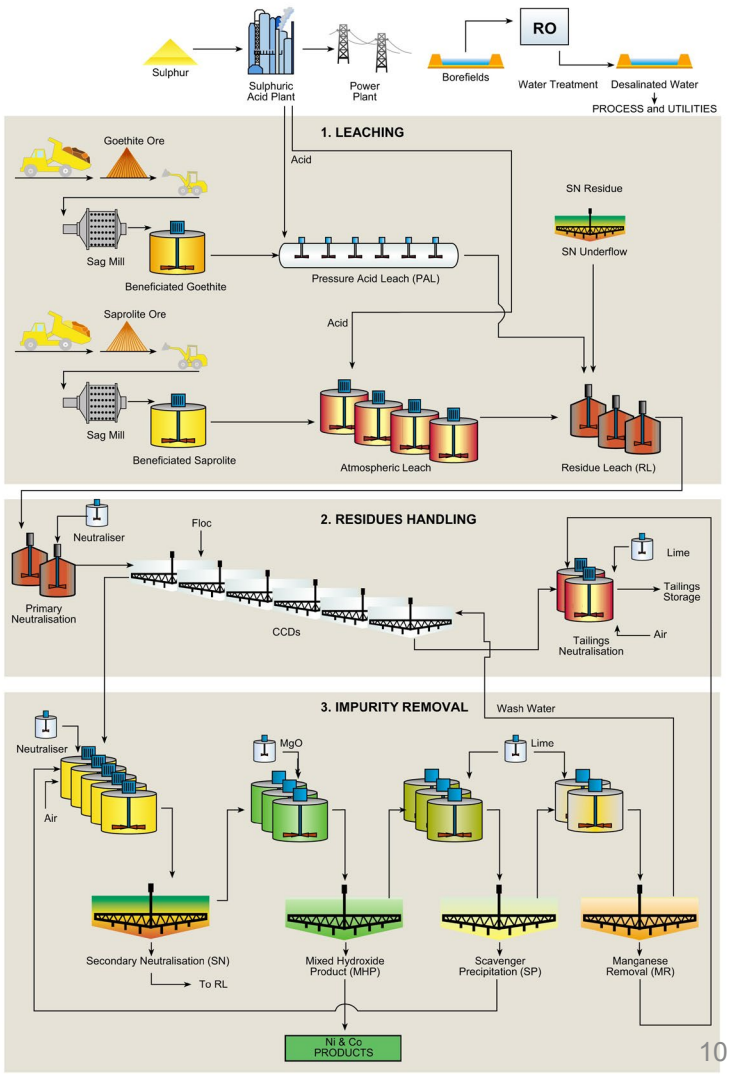
# Enhanced flow sheet

- ✓ **Premium goethite ore (excellent comminution, less abrasive, lower maintenance)**
- ✓ **MHP sale product during ramp up, in high demand**
- ✓ **Evaluating PCAM production through FBICRC membership**
- ✓ **Additional Critical Mineral by-products (current bench-scale metallurgy)**

## Process Metallurgy

- ✓ High ore grade + slurry density = Lower Capex$ & Opex$ (best in Australia*)
- ✓ HPAL Ni & Co Extraction = Efficient, low energy intensity, proven “off-the-shelf”
- ✓ AL = Stability for acid plant (energy generation), maximises resource utilisation
- ✓ AL viable Ni extraction demonstrated in Vale Inco 2009 PFS
- ✓ Water Chemistry = Scale control & better uptime
- ✓ Water Options =Using pit drainage + pending licensed borefield
- ✓ MHP = Known technology & chosen feedstock for Lithium Ion Batteries




* See Slide 21 for data.

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# Proven technology

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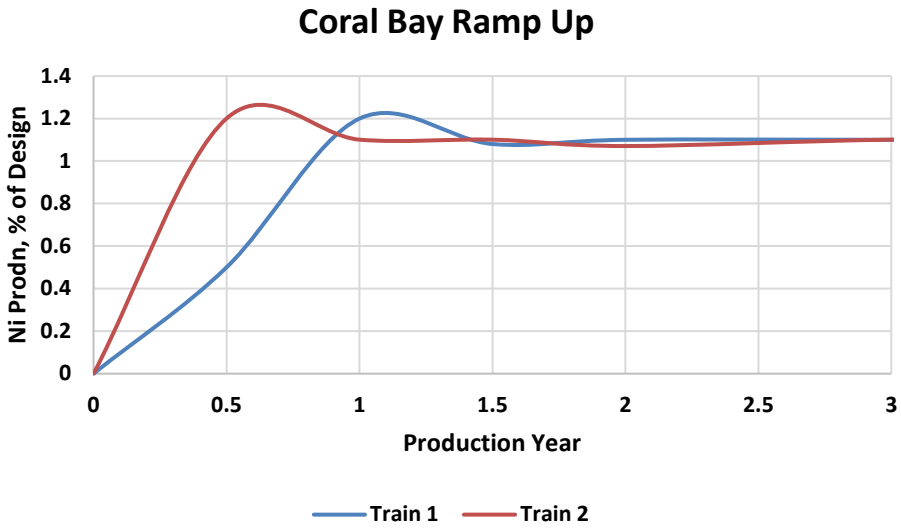
## Coral Bay HPAL Example

- ✓ HPAL chemistry is well known and has been applied successfully since the 1960s
- ✓ Single reactor
- ✓ Recovery of waste heat = Energy savings
- ✓ Annual scale cleaning – uptime >90%
- ✓ Minimal engineering extrapolation

## Ramp up rates

- ✓ Horizontal autoclave at Coral Bay built Train 1: 2005, Train 2: 2008
- ✓ At Coral Bay name plate production capacity exceeded in first year of production and thereafter
- ✓ Owners built a sister plant at Taganito




The information on this slide is based on the Coral Bay HPAL process facility in the Philippines that is not an asset of Ardea, but is shown as an example of the successful implementation of HPAL technology.

# Proven technology

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## "Must Haves" for HPAL Success – all incorporated into the KNP FS

Good Materials Handling

- ✓ Well known resource
- ✓ Modular ore prep circuits no supply issues
- ✓ Design for high density slurry feed

Good Heat Transfer

- ✓ Integrate acid plant into energy balance
- ✓ High density, high temperature HPAL feed
- ✓ Energy savings included at fundamental level

Controlled Chemistry

- ✓ Feed blending & acid rate control
- ✓ Design to avoid HPAL "hot spots"
- ✓ Nano-filtration to give "soft" HPAL feed
- ✓ Atmospheric Leach to reduce neutraliser consumption

High Process Availability

- ✓ Modular approach, capacity & surge studies
- ✓ Proven materials of construction
- ✓ Proven vessel design rules, equipment selection

Subject to current review in Wood Engineering Gap Analysis

# Experienced team working with quality partners

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## Feasibility Study

- ✓ Gap Analysis Study Underway - Wood, international engineering consulting group
- ✓ Goongarrie Hub Hydrogeology Drilling underway – Rockwater & Harrington
- ✓ Goongarrie Hub Metallurgical Drilling completing – contractor DDH1
- ✓ Metallurgical Testwork – Program designed & drill core composites selected

## Other Work Streams

- ✓ Future Battery Industry Co-operative Research Centre (FBICRC), active member
- ✓ CSIRO joint research projects in nickel
  - ✓ Hylogger3 study underway for process mineralogy
  - ✓ Completed CSIRO/Ardea research at Goongarrie BTZ – insights for nickel sulphide and gold targets, notably structural preparation and weathering depth
  - ✓ Nickel Sulphide and other studies being assessed

*Photograph right: Pump testing the Goongarrie Hub water extraction licence application covering the East Goongarrie Channel on granted Ardea Mining Lease tenure. A further licence application covers the base load Pamela Jean "pay-back" pit area, where the water is related to a major penetrative bedrock structure (that controls nickel laterite mineralisation to depths of up to 160m). Bedrock structures at Goongarrie tend to be better water quality than the adjoining palaeo-channels. The Goongarrie Hub pit areas require dewatering in any event ahead of mining.*

# Project development based on sustainable & ethical principles

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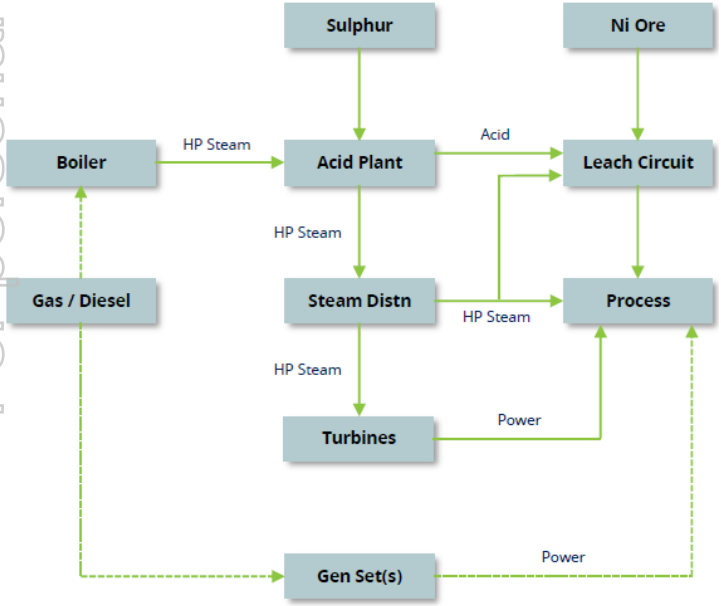
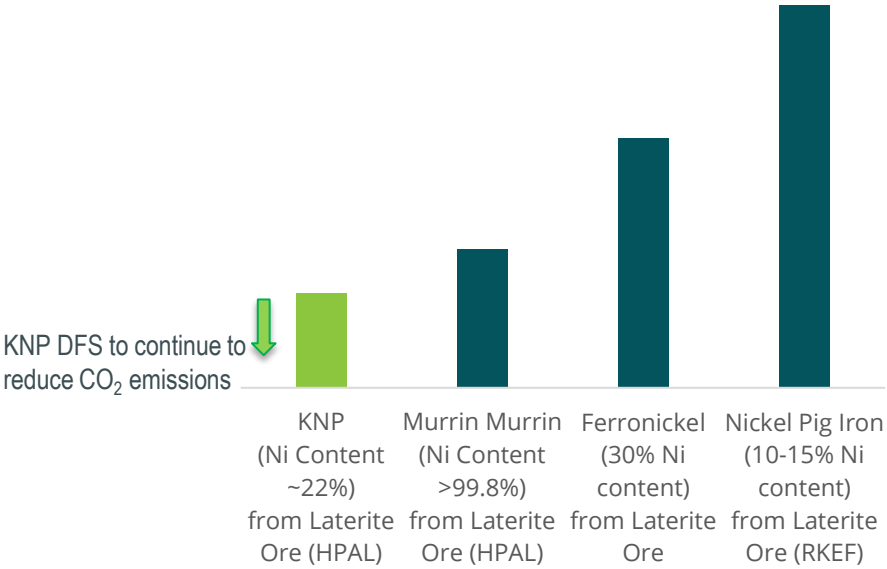
## Low carbon footprint

- ✓ KNP Acid plant – Steam Power Block Flow Diagram
- ✓ Heat generated from on-site acid plant will be used for generating electrical power via steam turbines




- ✓ Indicative $CO_2$ emissions – per kg of Ni metal equivalent production
- ✓ $CO_2$ emissions from the KNP expected to be less than a third of those from Indonesian smelter nickel laterite operations
- ✓ KNP feasibility work aimed at further minimising $CO_2$ emissions




Source: Wei et al Energy Consumption and Greenhouse Gas Emissions of Nickel Products, 2020 and Ardea modelling.

# **Investment** Summary

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Ardea's **KNP** offers **unrivalled nickel, cobalt and scandium scale optionality** (**5.9Mt of nickel and 384kt of cobalt***)

Globally significant nickel-cobalt-scandium resource in an **infrastructure-rich and stable jurisdiction,** ability for **sustainable** and **ethical** mineral supply

**100% off-take is available**. Company strongly leveraged to increasing battery-related nickel and cobalt demand

**Highly prospective landholding** in the **Eastern Goldfields** of **Western Australia – confirmed with recent Ardea Emu Lake nickel sulphide discovery**

**WA-based Team** with **track record** of exploration, development and production **success**

**Well-funded to maintain momentum - upcoming news flow** to include **feasibility study, hydrogeology and metallurgy updates, nickel sulphide and Critical Mineral exploration**

# For further information

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Managing Director & CEO

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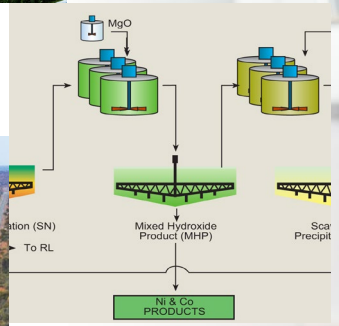
**ardearesources.com.au**



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A globally significant source of nickel-cobalt and scandium in Western Australia

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

# APPENDICES

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# **Nickel** and the Inevitable Rise in Demand

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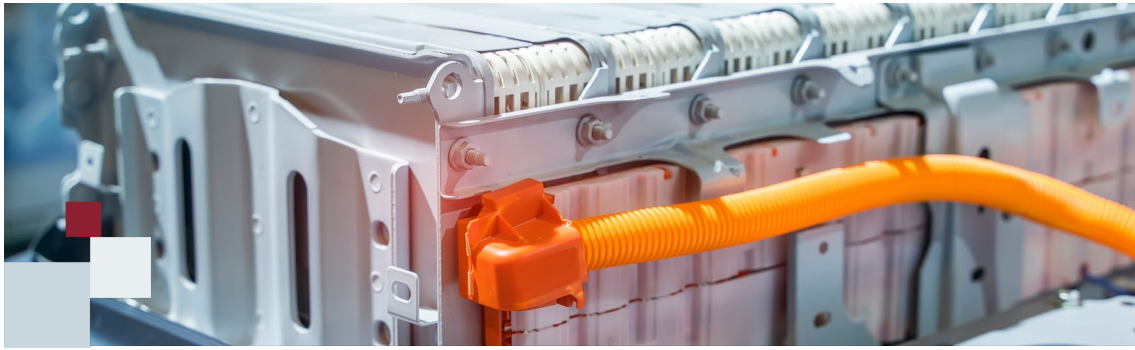
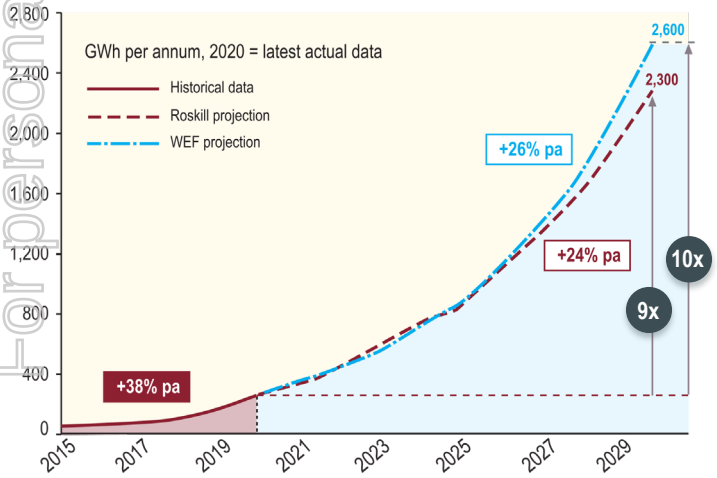
- ✓ **Demand for batteries is forecast to accelerate over the next decade as energy storage becomes critical to the transformation of energy systems**
- ✓ **KNP poised to supply nickel and cobalt to meet the inevitable and growing rise in demand**



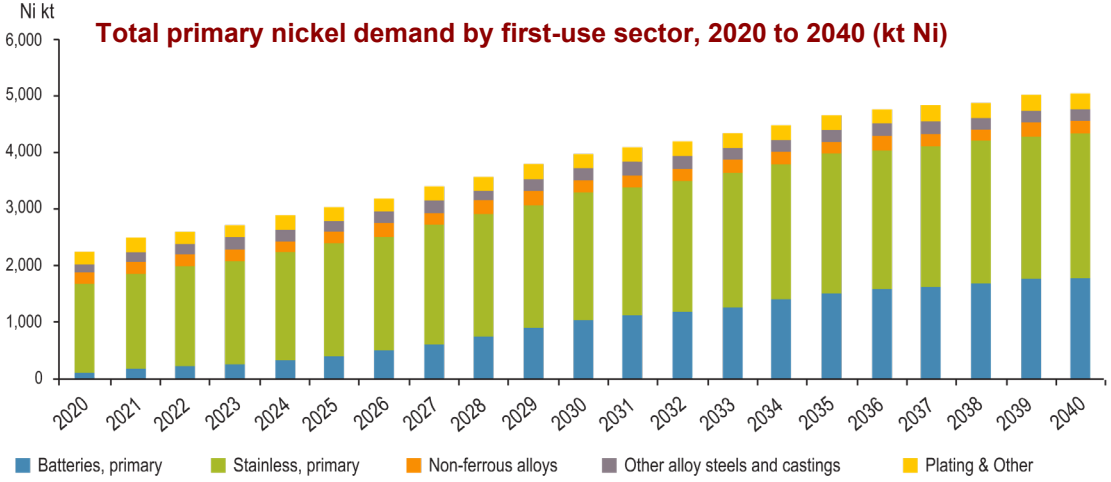
## Global battery demand projected to 2030 (GWh pa)




Source: Accenture report commissioned by the Future Battery Industries CRC, 2021

Notes: IRENA's high scenario forecast used for ESS in Roskill projection. Growth rates in exhibit are compounding annual growth rates.
Source: World Economic Forum (2019) A vision for a Sustainable Battery Value Chain in 2030; Roskill (2020) Lithium-ion Batteries: Outlook to 2029, 4th Edition; International Renewable Energy Agency (2017) Electricity storage and renewables: Costs and markets to 2030; International Energy Agency (2021) Global EV Data Explorer; Jager-Waldau (2019)Snapshot of Photovoltaics-February 2019; Accenture analysis.

## Total primary nickel demand by first-use sector, 2020 to 2040 (kt Ni)




Source: Roskill, 2020

# Experienced team working with quality partners

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## Board and Key Personnel

✓ **Balanced financial and corporate experience, strong technical expertise in exploration, discovery, project development, metallurgical optimisation, compliance and operational management**

**Mathew Longworth** Non-Executive Chair

33 years experience across exploration, project evaluation/development, operations and corporate management. Invaluable experience on the key Ardea exploration and development projects, being the KNP nickel-cobalt-scandium deposits and Bardoc Tectonic Zone gold.

**Andrew Penkethman** Managing Director, CEO

Resources sector executive with over 25 years' experience, including project evaluation, exploration, discovery, resource development, feasibility study management, permitting, stake holder engagement, mine development and operations management.
ASX, TSX and AIM experience.

**Ian Buchhorn** Executive Director

Mineral Economist and Geologist with over 40 years' experience. Lived and worked in the Eastern Goldfields for >20 years undertaking exploration, project evaluation and development. Operated as Registered Mine Manager in the Kalgoorlie Goldfields, City Councilor 1992 - 2006

**Sam Middlemas** Company Secretary & CFO

Chartered Accountant (CA) with more than 30 years' experience providing financial and corporate secretarial services.

**Alex Mukherji** Manager Land Access & Compliance

Extensive geological and environmental compliance reporting. Drafting and negotiating access and commercial agreements. Assessing business development opportunities. Corporate representation with stake holders, including State and Commonwealth agencies.

**Mike Miller** General Manager - Technical Services

Process Engineer with over 25 years' experience in hydrometallurgical operations with a primary focus on nickel-cobalt production. Extensive study management experience with leading engineering firms.

# Project development based on sustainable & ethical principles

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- Environmental Social and Governance (ESG) considerations at the forefront of the way in which Ardea does business
- Project designs and work practices based on ensuring the Company minimises green-house gas emission to ensure responsible sourcing of nickel and Critical Mineral supply
- Ardea enjoys strong support from the communities in which we operate
- Ardea has a Native Title Agreement in place for development of KNP
- Ardea has initiated an education fund to assist children in the Eastern Goldfields of WA
- The Ardea team comprises over 31% female participation, all in key management roles, and the Company is a strong advocate for gender equality and fair representation for all community groups

# KNP Superior HPAL Intensity

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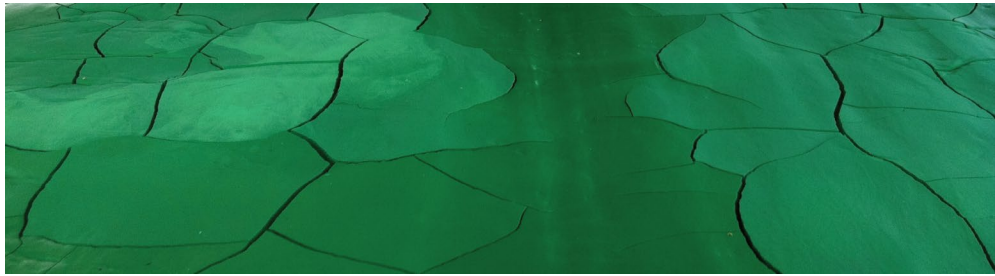
- ✓ Good ore grade + good slurry density = Lower capex & opex $$
- ✓ Atmospheric leach = stable operation, utilizes saprolite resource
- ✓ MHP Product = known technology & good market acceptance



## Operating data from Australian HPAL Producers

| Performance Driver | Ardea | Bulong | Cawse | Murrin | RNO^ | Metric | Ardea Rank | Comment |
|---|---|---|---|---|---|---|---|---|
| Atmospheric Leach | Yes | No | No | No | Yes | - | #1 | Stable operation and full resource utilisation |
| HPAL Feed Density | 42-44% | 31% | 35% | 38% | 42% | % Solids | #1 | The higher the better = Maximises plant throughput |
| Residence Time | 45-60 | 75 | 105 | 90 | 60 | minutes | #1 | The lower the better = Maximises plant throughput |
| Slurry Grade Ni | 4.82 | 2.89 | 3.07 | 3.87 | 7.39 | Ni kg/m3 | #2 | The higher the better = Increased revenue stream |
| Slurry Grade Co | 0.88 | 0.23 | 0.24 | 0.34 | 0.31 | Co kg/m3 | #1 | The higher the better = Strategic Co-Product credits |

Data Sources
Ardea – Goongarrie Hub testwork results from PFS and Expansion Study, ASX release 28 March 2018 & Goongarrie Expansion Study, 24 July 2018.
Bulong, Cawse, Murrin - ALTA 1999, An Engineering Comparison of the Three Treatment Flowsheets In WA Nickel Laterite Projects.
RNO – ALTA 2001, Observations from the RNO Pilot Plant at Lakefield Research, 2000 AD.

^Ravensthorpe Nickel Operation (RNO) figures based on design numbers on upgraded beneficiated ore from the Halleys Deposit which has since been mined out.
Ardea data is based on non-beneficiated material (with always an option to beneficiate selected KNP geo-met types, notably at Highway & Goongarrie Hill).

# A High-Quality Nickel and Cobalt Project

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## Outstanding results delivered from PFS* and Expansion Studies:

| | 1.0Mtpa | 1.5Mtpa | 2.25Mtpa |
|---|---|---|---|
| *Status* | PFS | PFS | **ES** |
| *No. Trains* | 1 | 1 | **1** |
| *Pre Tax $NPV_8$* | US$ 1.13 billion | US$ 1.52 billion | **US$ 2.4 billion** |
| *Pre Tax IRR* | 29 % | 29 % | **31%** |
| *CAPEX* | US$ 472 million | US$ 588 million | **US$918 million** |
| *C1 cash cost* | US$ 0.42 / lb | US$ 0.45 / lb | **US$ (0.34) / lb** |
| *Payback* | 5.3 years | 5.6 years | **5.1 years** |
| *Cobalt sulphate* | 5,500tpa | 6,900tpa | **10,000tpa** |
| *Nickel sulphate* | 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
- ✓ High Pressure Acid Leach (HPAL) 5th generation plant is a proven design, successfully operated in other laterite projects globally
- ✓ 2.25Mtpa case based on only 26% of Goongarrie Resource
- ✓ Scandium by-product credit not factored in, so offers additional up-side

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.

# KNP Resource Breakdown

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Kalgoorlie Nickel Project nickel-cobalt JORC Code (2012) Mineral Resource Estimate

| Camp | Prospect | Resource Category | Size (Mt) | Ni (%) | Co (%) | Contained Metal Ni (kt) | Co (kt) |
|---|---|---|---|---|---|---|---|
| **KNP TOTAL** | | 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 |
| | ***GRAND TOTAL*** | ***Combined*** | ***830*** | ***0.71*** | ***0.046*** | ***5,879*** | ***384*** |

Note: 0.5% nickel cutoff grade used to report resources. Note figures are rounded to reflect degree of certainty and may not tally.
The information shown on this slide has been previously released on the ASX platform by Ardea in ASX release 16 June 2021.

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

The information in this report that relates to KNP Exploration Results is based on information originally compiled by previous full time employees of Heron Resources Limited and or Vale Inco. The Exploration Results 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 an executive 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.

The information in this report that relates to Mineral Resources for the Goongarrie Hill, Goongarrie South, Big Four, Scotia Dam and Highway nickel-cobalt deposits that comprise the Goongarrie Hub is based on information compiled by Mr James Ridley who is a Member of the Australasian Institute of Mining and Metallurgy, a full time employee of Ardea Resources 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 Ridley consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

# Goongarrie Hub Mineral Resources using a 0.8% Ni cut-off grade

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Summary of Mineral Resource Estimate from the Goongarrie Hub, based on a 0.8% Ni cut-off grade, comprising resources at Goongarrie Hill, Goongarrie South, Highway, Big Four, Scotia Dam and Highway (ASX release 16 June 2021).

| Deposit | Resource Category | Tonnes (Mt) | Ni % | Co % | Contained Metal Ni (kt) | Contained Metal Co (kt) |
|---|---|---|---|---|---|---|
| Goongarrie Hill | Indicated | 5.3 | 0.92 | 0.050 | 49 | 2.6 |
| | Inferred | 1.9 | 0.92 | 0.034 | 17 | 0.6 |
| | *Subtotal* | 7.2 | 0.92 | 0.046 | 66 | 3.3 |
| Goongarrie South | Measured | 11.0 | 1.13 | 0.106 | 125 | 11.6 |
| | Indicated | 21.1 | 0.99 | 0.071 | 208 | 15.0 |
| | Inferred | 1.2 | 0.92 | 0.043 | 11 | 0.5 |
| | *Subtotal* | 33.3 | 1.03 | 0.081 | 344 | 27.1 |
| Big Four | Indicated | 12.1 | 0.97 | 0.068 | 118 | 8.3 |
| | Inferred | 2.7 | 0.94 | 0.062 | 25 | 1.7 |
| | *Subtotal* | 14.7 | 0.97 | 0.067 | 143 | 9.9 |
| Scotia Dam | Indicated | 2.9 | 0.98 | 0.108 | 29 | 3.2 |
| | Inferred | 1.4 | 1.02 | 0.057 | 14 | 0.8 |
| | *Subtotal* | 4.3 | 0.99 | 0.091 | 43 | 4.0 |
| Highway | Indicated | 15.1 | 1.01 | 0.053 | 152 | 8.0 |
| | Inferred | 3.7 | 0.98 | 0.053 | 36 | 2.0 |
| | *Subtotal* | 18.8 | 1.00 | 0.053 | 188 | 10.0 |
| **Combined Deposits** | 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 |
| | ***Grand Total*** | **78.3** | **1.00** | **0.069** | **784** | **54.3** |

Note figures are rounded to reflect degree of certainty and may not tally.

# Goongarrie Deposits Mineral Resources including Sc, using a 0.5% Ni cut-off grade

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Summary of Mineral Resource Estimate from the Goongarrie deposits based on a 0.5% Ni cut-off grade (ASX release 15 February 2021).

| Deposit | Resource Category | Tonnes (Mt) | Ni % | Co % | Contained Metal Ni (kt) | Contained Metal Co (kt) | Sc Resources Mt | Sc Resources Sc ppm |
|---|---|---|---|---|---|---|---|---|
| Goongarrie Hill | Indicated | 40 | 0.65 | 0.037 | 260 | 14.7 | 10.5 | 16 |
| | Inferred | 29 | 0.60 | 0.025 | 178 | 7.3 | 2.0 | 16 |
| | *Subtotal* | 69 | 0.63 | 0.032 | 438 | 21.9 | 12.5 | 16 |
| Goongarrie South | Measured | 18 | 0.94 | 0.085 | 172 | 15.4 | 18.2 | 40 |
| | Indicated | 82 | 0.71 | 0.049 | 587 | 40.2 | 53.1 | 23 |
| | Inferred | 10 | 0.64 | 0.033 | 61 | 3.1 | 5.5 | 24 |
| | *Subtotal* | 110 | 0.75 | 0.053 | 820 | 58.7 | 76.8 | 27 |
| Big Four | Indicated | 49 | 0.71 | 0.047 | 345 | 22.9 | 31.9 | 24 |
| | Inferred | 14 | 0.68 | 0.043 | 95 | 6.1 | 2.9 | 24 |
| | *Subtotal* | 63 | 0.70 | 0.046 | 440 | 28.9 | 34.8 | 24 |
| Scotia Dam | Indicated | 12 | 0.71 | 0.065 | 82 | 7.4 | 11.2 | 25 |
| | Inferred | 5 | 0.72 | 0.043 | 37 | 2.2 | 0.6 | 22 |
| | *Subtotal* | 17 | 0.72 | 0.058 | 118 | 9.6 | 11.7 | 25 |
| **GNCP Total** | Measured | 18 | 0.94 | 0.085 | 172 | 15.4 | 18.2 | 40 |
| | Indicated | 182 | 0.70 | 0.047 | 1,274 | 85.1 | 106.6 | 23 |
| | Inferred | 58 | 0.64 | 0.032 | 371 | 18.6 | 11.0 | 23 |
| | ***Grand Total*** | **259** | **0.70** | **0.046** | **1,817** | **119.2** | **135.8** | **25** |

Note figures are rounded to reflect degree of certainty and may not tally.