

## ASX ANNOUNCEMENT

28 November 2022  
ASX Code: MYL

### BOARD OF DIRECTORS

Mr Jeff Moore  
Non-Executive Chairman

Mr John Lamb  
Managing Director

Mr Rowan Caren  
Executive Director

Mr Paul Arndt  
Non-Executive Director

### ISSUED CAPITAL

Shares	360 m.
Performance Rights	5 m.

### Mallee Resources Limited

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Western Australia

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malleeresources.com.au

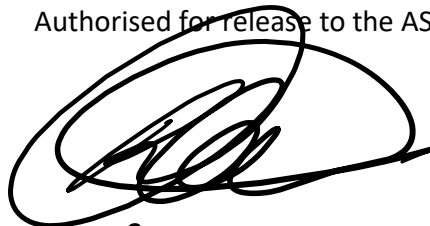
ABN: 48 124 943 728

# Managing Directors

## Presentation to AGM

The Managing Director Presentation will be provided to shareholders at today's AGM.

Authorised for release to the ASX by



**Rowan Caren**

Executive Director and Company Secretary

### About Mallee Resources Limited

Mallee Resources Limited (ASX: MYL) is an emerging miner listed on the Australian Securities Exchange. The Company wholly owns the Avebury Nickel Sulphide Project in Zeehan, western Tasmania. The Avebury Project hosts JORC (2012) compliant Mineral Resources of 29.3 Mt at 0.9% Ni<sup>1</sup>, an operating underground mine and a modern processing plant and mine infrastructure. The Avebury Mineral Resource is open at depth and along strike and the prospective host geology hosts outstanding exploration potential.

<sup>1</sup> The Mineral Resource estimate including JORC Table 1, sections 1, 2 and 3 and the competent persons statement has been previously reported by the Company in accordance with the 2012 Edition of the 'Australasian Code for Reporting of Exploration results, Mineral Resources and Ore Reserves' (JORC Code) on 8 April 2022 and is publicly available at <https://bit.ly/3jifzIM>. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcement and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.





**MALLEE  
RESOURCES  
LIMITED**

# Australia's Newest Nickel Producer

## MANAGING DIRECTOR'S UPDATE TO SHAREHOLDERS

28 NOVEMBER 2022



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## REFERENCES TO MINERAL RESOURCES 2022

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# What's special about Avebury?

## Substantial Class One Nickel Resource and already in production

- 100% ownership of a substantial nickel sulphide resource in a tier one jurisdiction
- Already in production, with enormous scope to expand on Mallee's 100%-owned landholding
- A modern, well capitalised mining operation with 8.5km of underground development and high quality / well maintained surface infrastructure

## Uniquely qualified / experienced management team

- Led by John Lamb (MD), a highly regarded Tasmanian mine operator (with history managing nearby Rosebery mine as well as Avebury during the period after it was placed on care and maintenance)
- Strong site operations team with 30+ year veterans in key leadership roles

## Materially de-risked restart plan and path to cashflow

- First concentrate produced in September 2022, following a c.6-month restart program
- Favourable mining conditions – shallow, wide orebody, competent ground and consistent grades
- All essential restart capital spent with plans to optimise and expand in 2023/24
- All permits in place including approvals for future tailings dam lifts

## Flexible off-take arrangement

- Life of mine off-take agreement with Hartree, the company's largest and strategically aligned shareholder
- Flexible terms enabling Mallee to produce a wide range of concentrate grades and option to sell to various global end users

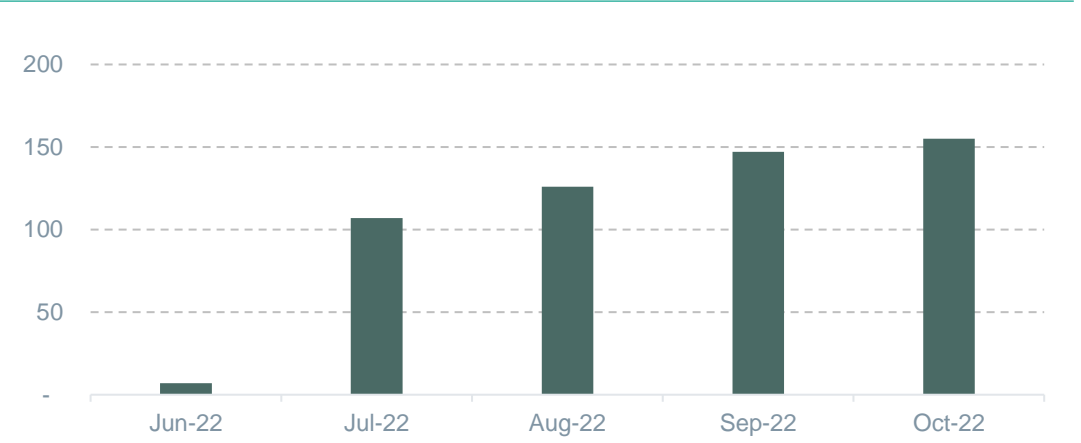
## Leading ESG credentials

- Powered by green / renewable grid power
- The Company aspires to be a zero-carbon producer and is exploring various options environmental efficiencies, including electrification of its mining fleet.
- Tasmania a mining friendly jurisdiction with positive community and government engagement
- Poised to take advantage of the battery nickel rush

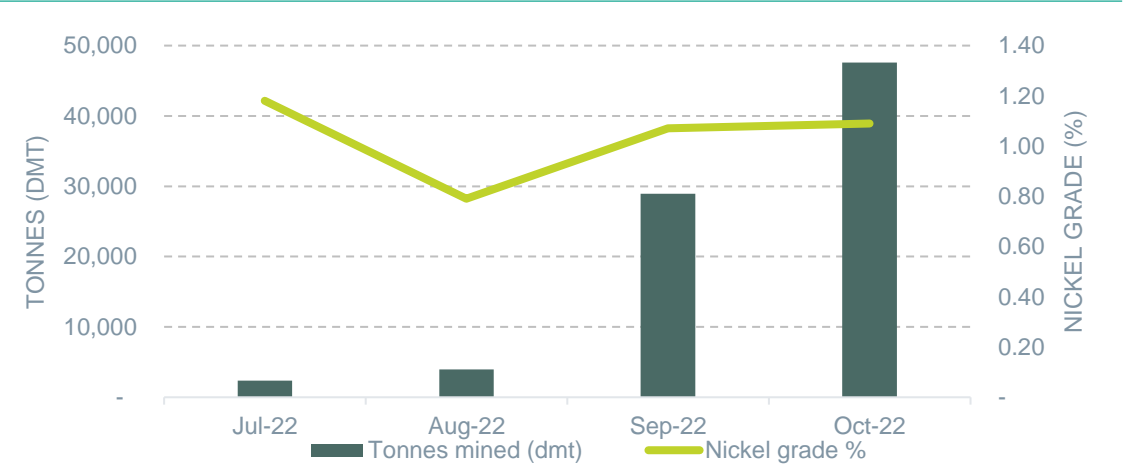


# A transformational re-start...within 6 months of arriving at site

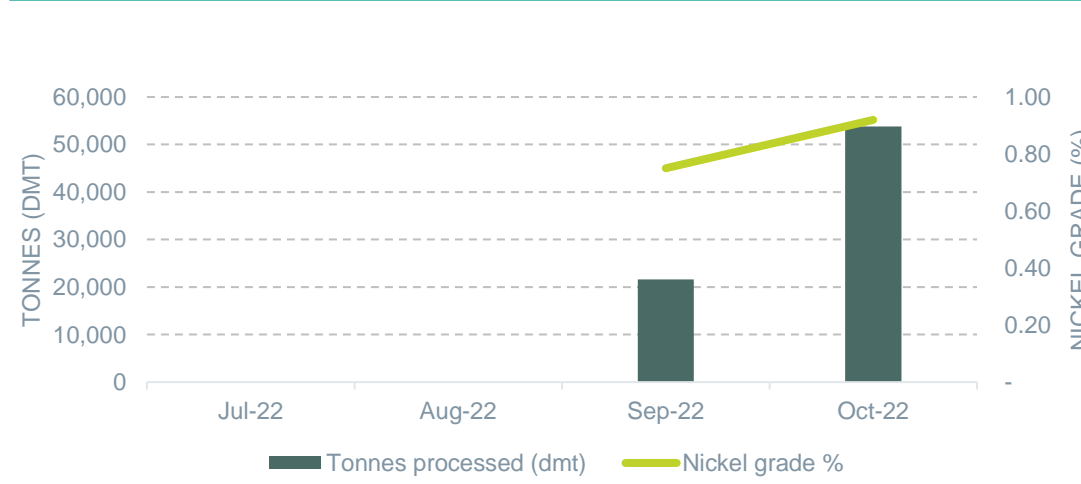
Employees (FTE)



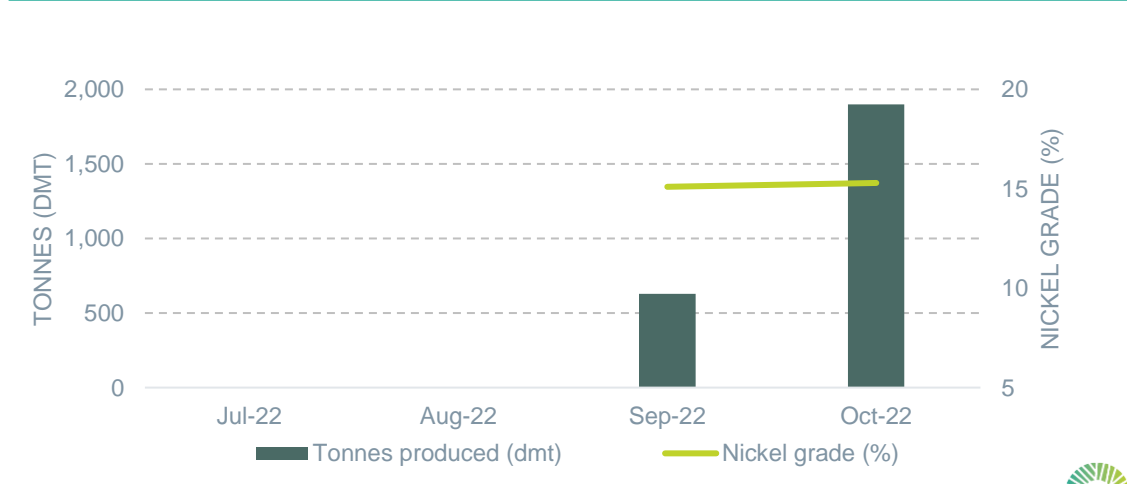
Mined Ore



Processed Ore



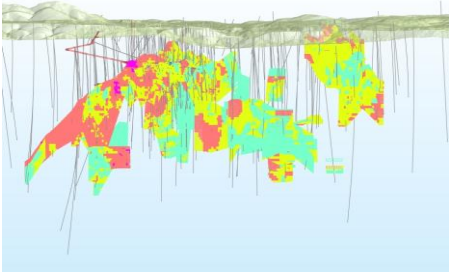
Concentrate Produced



# Avebury operations

1

## Geology



- 29Mt MI&I Resource grading 0.9% nickel (264kt)<sup>1</sup>
- Well understood orebody including block models of both Ni / As mineralisation
- Only 12% of ultramafic host explored
- Maiden Reserve anticipated by 1H23

2

## Mining



- 8,500m development metres completed (2 years ahead of mining front)
- Highly productive and wide stopes – c.20,000t per blast
- 45-minute haul cycle time (250m depth)
- Alkaline ground water limiting corrosion and maintenance
- Ventilation sufficient for at least 5 years of mining

3

## Processing



- Plant is operational and producing saleable concentrate
- Metallurgy recoveries improving in commissioning phase towards 79% nameplate
- Scope to increase production to c.1.2Mtpa through debottlenecking of the filter press
- Permitted tailings dam with approvals for multiple lifts

4

## Transportation



- Currently transported by truck to designated storage facility in Burnie
- Option to export concentrate via bulk shipments or containers (utilizing Tasmanian freight equalization scheme)

5

## Marketing



- Highly flexible offtake arrangement (through Hartree) providing ability to optimize Nickel grade
- Highly competitive payability terms

### Notes:

1. See page 2 on references to Mineral Resources and Mineral Resource Estimate on page 17





# In the mine – a modern underground mine

## Refurbishment

- Dewatering, power, service water, magazine, ventilation and escapeway systems brought up to standard
- Ground conditions and ground support checked and tested throughout the entire mine
- Primary vent fan refurbished

## Investment

- Mining fleet sourced
- Upgraded crib and ablution facilities established
- Operators, management, technical and maintenance teams recruited
- Key supply contracts in place for explosives, fuel, ground support and consumables
- Safety, training, technical and operational procedures and systems established
- Fibre-optic network connection established to underground
- Full-guidance tele-remote bidders equipped and commissioned with operator stations underground and on surface

## Execution

- Full stope cycle completed and proven from initial design to development, drilling, ground support, rise and slot mining, stope blasting and bogging, and cemented backfilling
- Stope performance has been excellent with good fragmentation and minimal dilution

*Operator on remote bogging from station*



# In the plant – processing circuits exceeding expectations

## Refurbishment

- All conveyors, chutes and bins refurbished
- Motors, launders, pumps, tanks and lines external to buildings refurbished as required
- 3-stage crushing plant refurbished and debottlenecked
- Main flotation plant refurbished and recommissioned
- Filter plant refurbished
- Reagent mixing and delivery system recommissioned
- Tailings system recommissioned

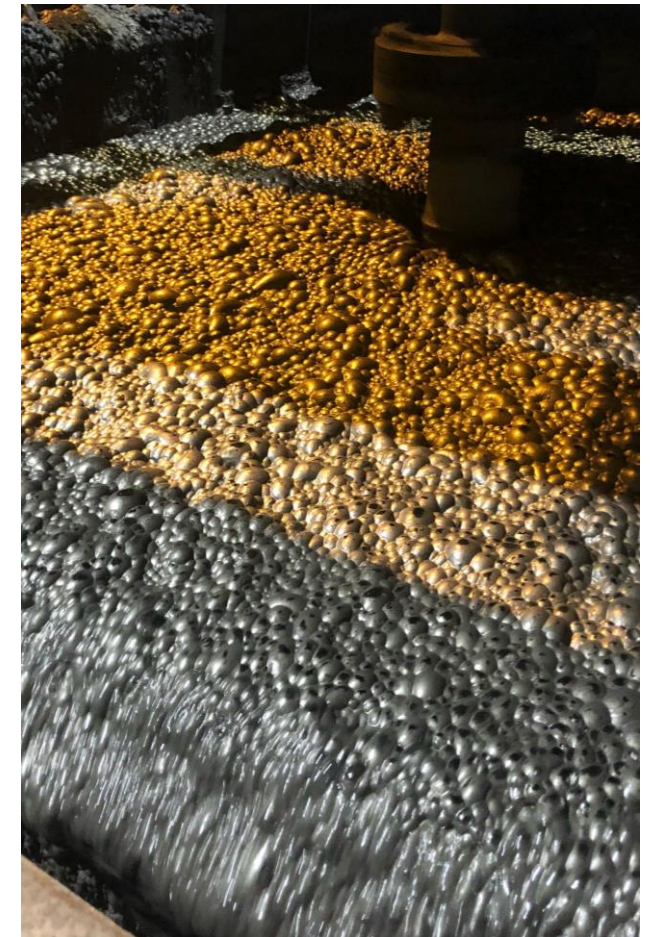
## Investment

- Dust extraction system designed, fabricated, installed and commissioned
- Operation and maintenance team recruited including technical and management staff

## Execution

- Crushing circuit now able to deliver fine ore reliably to the design specification at a rate exceeding 2 Mtpa
- Primary grinding mill recommissioned and tested up to 1.2 Mtpa
- Flotation and flash flotation operating successfully and now being optimised
- Filter plant operating successfully with performance to nameplate capacity expected but not yet achieved
- Concentrate load-out with dedicated loader established
- Debottlenecking and optimising work underway

*Dust extraction system over primary crusher (LHS) and concentrate in float circuit (RHS)*





# Around the site and region – investing for the long term

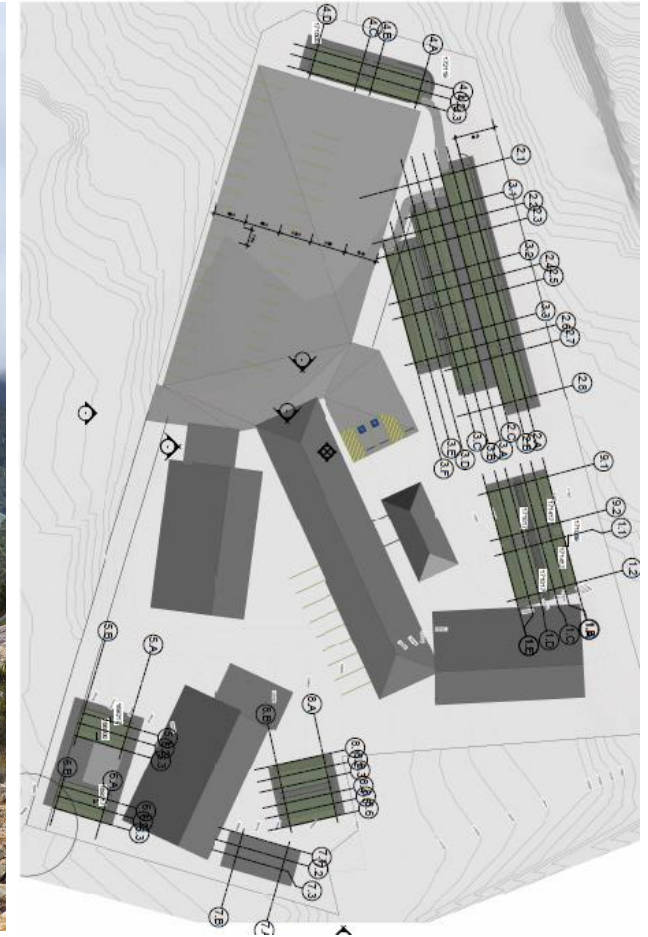
*Paste plant (LHS) and Zeehan accommodation facility (RHS)*

## Investment

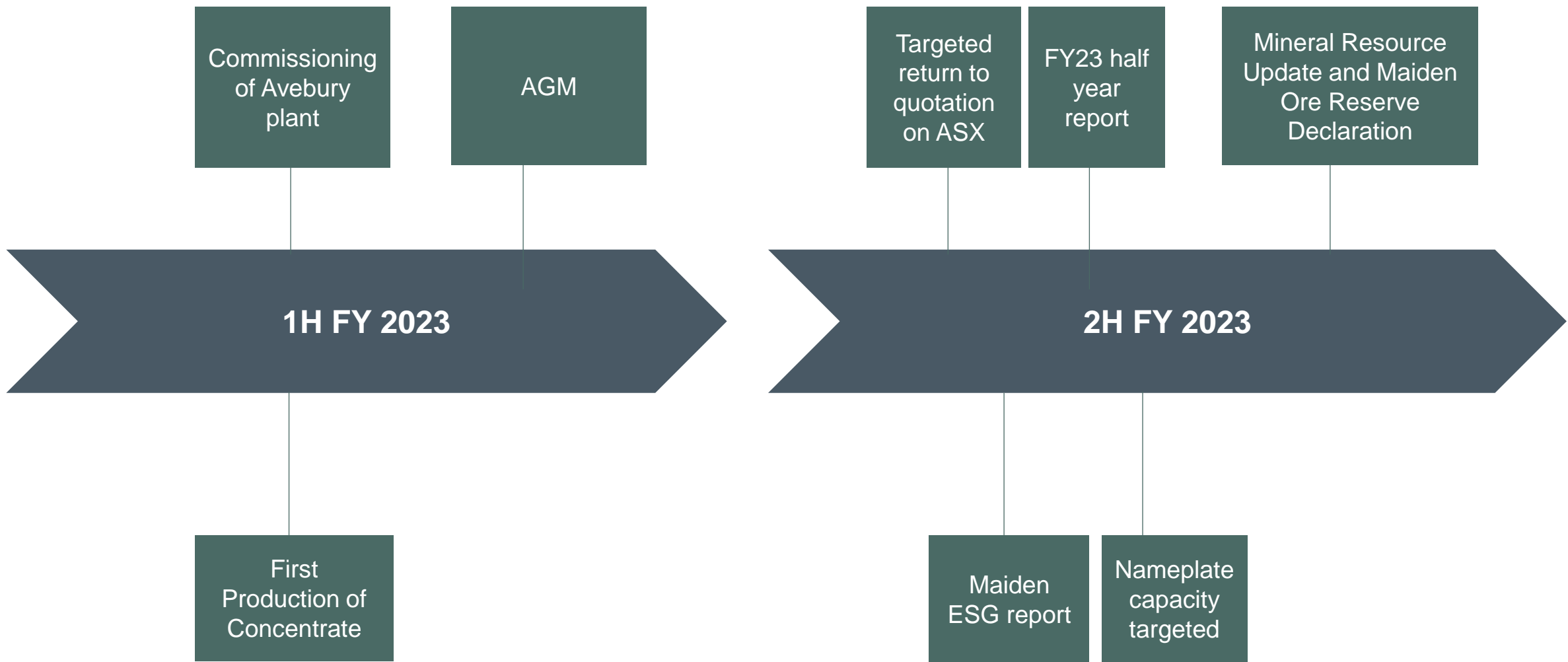
- Second-hand paste fill plant purchased locally
- First of two accommodation sites cleared with new units for employees fabricated and ready for installation
- Second site secured and planning underway for phase 2 of the accommodation village
- Extension to concentrate shed in design with expansion of dewatering circuit planned
- Site laboratory pending construction with supplier and operator confirmed

## Execution

- Exploration drilling underway at Melba
- Backfill quarrying from within the tailings dam footprint underway
- Geophysical assessment completed on the Avebury host that extends west to Trial Harbour
- Remodelling of the Avebury deposit underway with drill planning for extensions at depth and along strike both east and west
- Business improvement program underway
- Expansion planning underway
- Decarbonisation and electrification work has commenced with leading consultant engaged



# Indicative timeline for Avebury operations

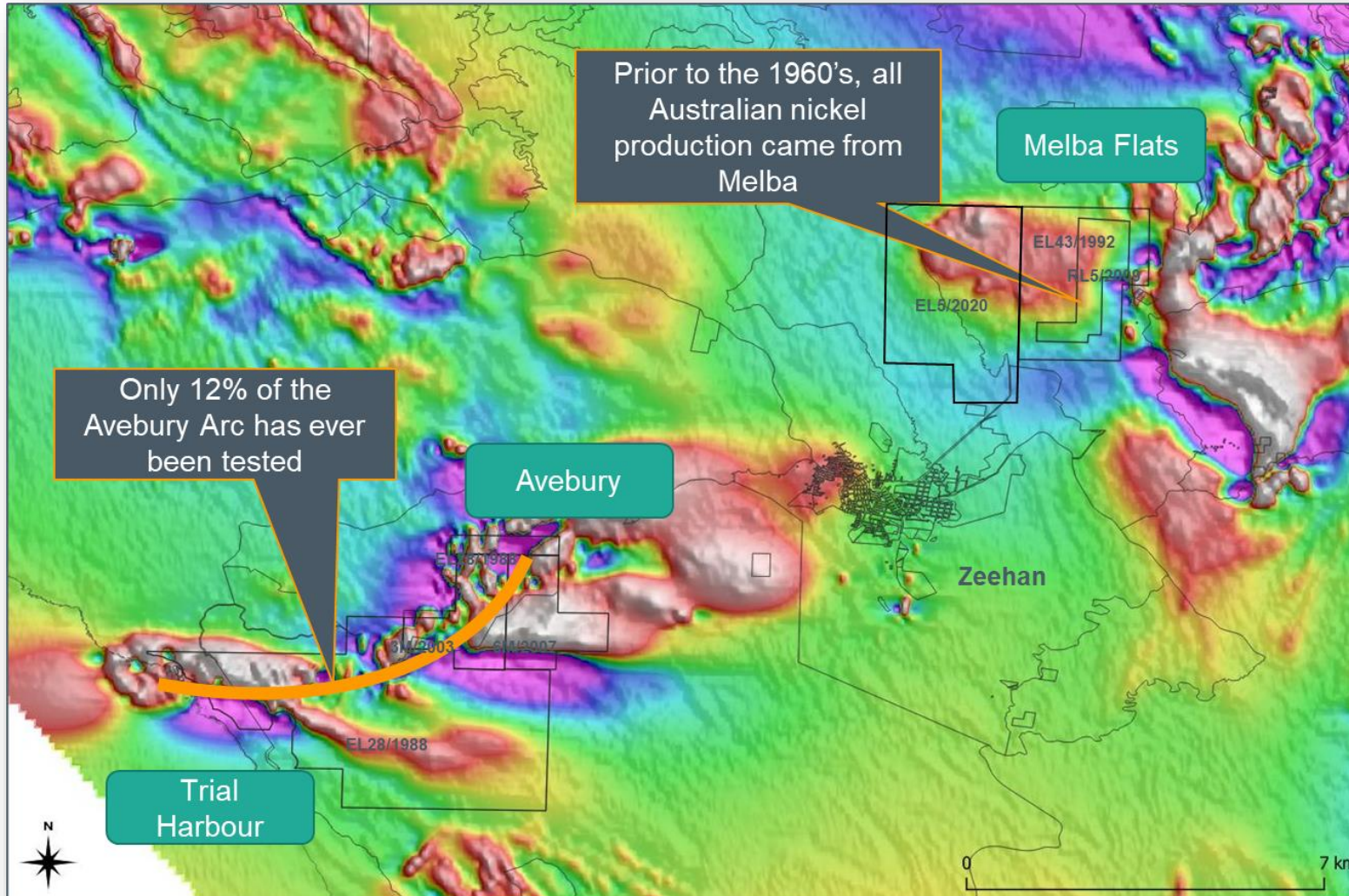


Notes:  
1. Times are indicative only and are subject to change. There can be no guarantee that the above targeted dates will be achieved..





# Outstanding exploration opportunities



## Trial Harbour:

- Targeting more Avebury-like deposits within the ultramafic rocks of the Avebury Arc

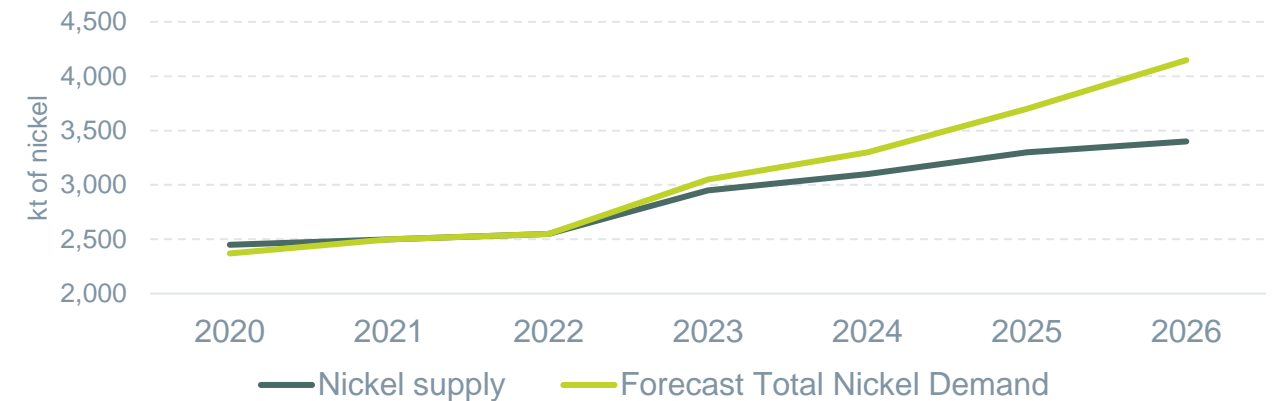
## Melba:

- Targeting high-grade nickel and copper with gold and PGE's as mined in the numerous historical shafts on our tenements

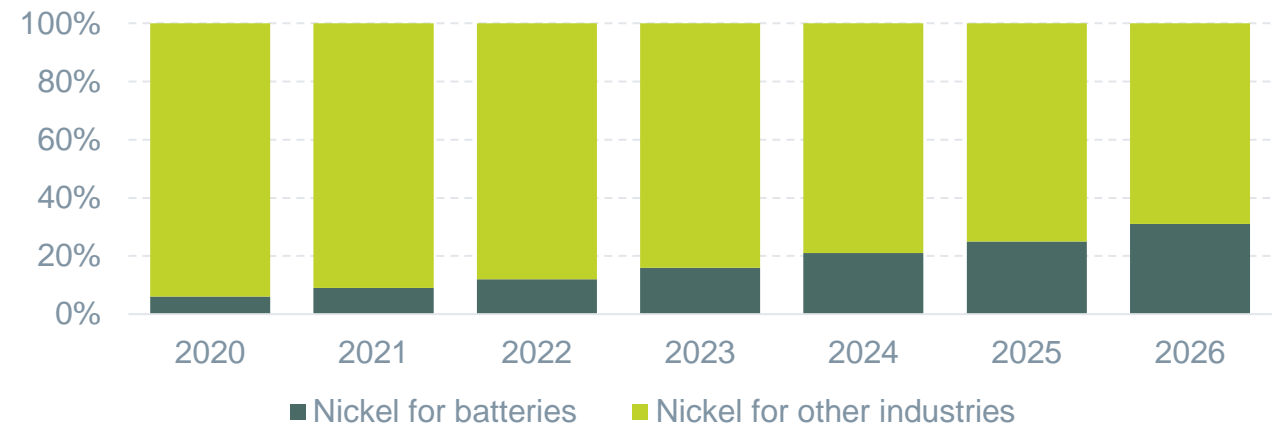
# Strong outlook for class one nickel

- **Robust demand outlook.** Demand for nickel in battery technologies provides a robust outlook:
  - ~20 million passenger EV sales in 2025 is expected to grow to over 70 million by 2040<sup>1</sup>
  - High nickel content batteries are the key to longer range, more efficient EV's
  - Downstream users are seeking responsibly sourced Class-1 nickel
- **Limited Global Supplies.** Nickel sulphide concentrates from low-emission, ESG responsible providers in tier one jurisdictions are in short supply
- **Decarbonisation imperative.** IEA predicts 60 new nickel mines are required by 2030, total demand growth of 60% to 2030, to achieve emission reduction targets<sup>3</sup>

*Global Nickel Supply Capacity & Demand <sup>2</sup>*



*Forecast Global Use For Nickel By End-Use Industry <sup>2</sup>*



1. Wood Mackenzie

2. Rystad Energy Battery Metals Cube, Rystad Energy research and analytics

3. IEA Global Supply Chains of EV Batteries. Assumes average annual nickel mine production capacity of 38kt.





# Avebury – aspiring to decarbonise and uniquely poised to make impactful change

## 1 Tasmania's green grid power from wind and hydro

- Scope 2 emissions from the electricity grid are zero, which means that any reduction in scope 1 (by swapping diesel machines for electric) emissions are genuine reductions

## 2 Battery-grade nickel sulphide

- Avebury is part of the solution – not just an end-user. By seeking to decarbonise our own nickel we intend to decarbonise the batteries it goes into: thus creating a virtuous cycle

## 3 Avebury's favourable mine geometry

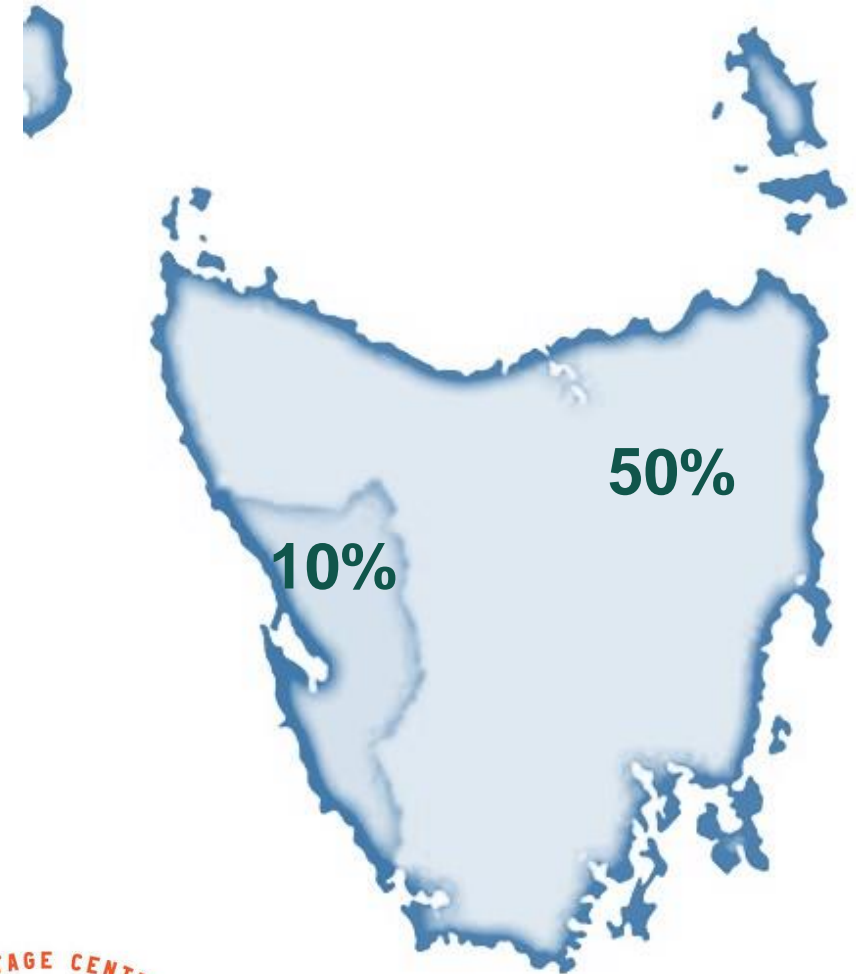
- Avebury is shallow, haulage cycles are short, and trucks return downhill carrying waste backfill.
- These factors improve the potential for using current battery technology and regenerative braking to reduce emissions
- Many mines would require multiple battery changes within the mine to get a single load to the surface: Avebury will aim to achieve multiple loads per battery, with the battery station located on surface

*Wind Farm in Tasmania*



# Supporting the local community

- 158 staff (aiming for 200) with about 1/3 local and the remainder DIDO
- Building single accommodation now, family accommodation to come
- Focus on supporting local organisations and Tasmanian businesses where possible





# Snapshots from site



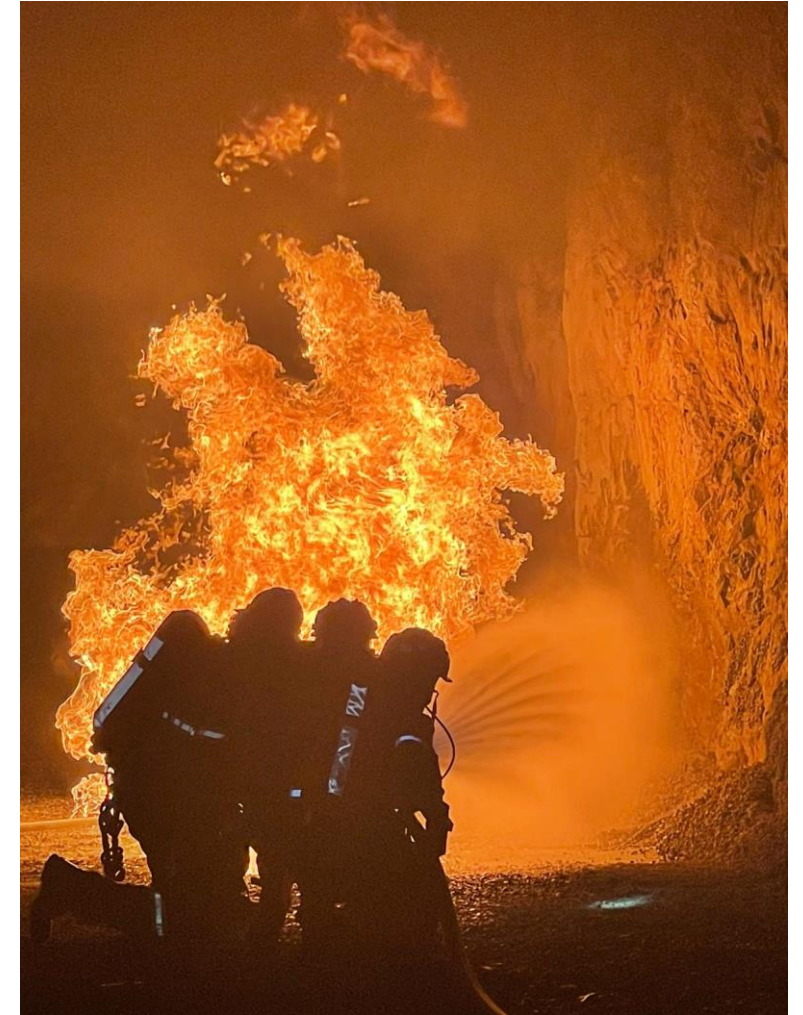
*Managing fine ore stocks*



*Underground drone survey*



*Loader #1 arriving*



*Mine rescue training*



# Snapshots from site



*Mine rescue training*



*Bags of finished concentrate at Burnie Port*



*Float floor*





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LIMITED**

*Avebury Mineral Resource estimate, reported from all blocks within Ni > 0.4 % envelope*

JORC classification	Tonnage (Mt)	Ni (%)	Co (ppm)	As (ppm)	Contained Ni (kt)	Contained Co (kt)
Indicated	8.7	1.0	244	378	87	2
Inferred	20.7	0.8	223	297	166	5
TOTAL	29.3	0.9	229	321	264	7

1. See page 2 on references to Mineral Resources

