


# Horizonte Minerals: Investor Presentation

January 2019



TSX:HZM / AIM:HZM  
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Unless otherwise indicated, the scientific and technical information contained in this investor presentation has been prepared by or under the supervision of Frank Blanchfield FAusIMM, Andrew Ross FAusIMM of Snowden Mining Industry Consultants, David Haughton MIMM, C Eng of Ausenco, Nic Barcza HLFSAIMM . All are Qualified Persons within the meaning of Canadian National Instrument 43-101 and have acted as consultants to the Company.

For further details on the Araguaia mineral resource, please refer to the press release dated 29 October 2018, which is available on the Company's website at [www.horizonteminerals.com](http://www.horizonteminerals.com) and on SEDAR at [www.sedar.com](http://www.sedar.com). Mineral resources that are not reserves do not have demonstrated economic viability.

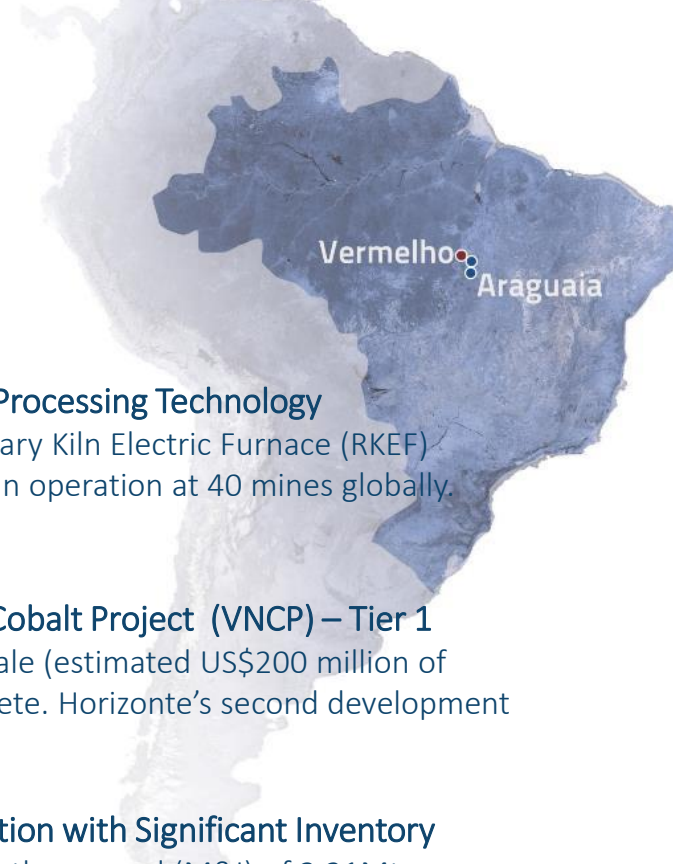
A close-up, artistic photograph of industrial machinery. The scene is dominated by a large, glowing orange-red circular component, possibly a grinding wheel or a large motor, which is the source of a dense spray of bright orange sparks. The sparks are captured in motion, creating a sense of dynamic energy. The background is dark and out of focus, showing other parts of the machinery in shades of blue and grey. The overall lighting is dramatic, with strong highlights on the sparks and the glowing component, contrasting sharply with the deep shadows.

**Horizonte Minerals**  
The Leading Nickel Development  
Company





# Overview



## Araguaia Nickel Project (ANP) - World Class Deposit

High grade Mineral Reserve of 27.2 Mt of 1.69% Ni giving a 28 year mine life. 119Mt Resource (M&I) @ 1.27% Ni<sup>1</sup>.

## Robust Feasibility Study (Stage 1)

NPV<sub>8</sub> **US\$401 million** and IRR 20% generates **over US\$1.6 billion** in free cash flow over LOM.

## Expanding Araguaia to Double Production (Stage 2)

NPV<sub>8</sub> **US\$741 million** and IRR 23.8% generates over **US\$2.6 billion** in free cash flow over LOM.

## Fully Permitted and Development Ready

Recent **approval of the Construction Licence** positions Horizonte with the environmental permits required to commence construction at Araguaia.

## Low Cost Proven Processing Technology

ANP will utilise Rotary Kiln Electric Furnace (RKEF) process, currently in operation at 40 mines globally.

## Vermelho Nickel Cobalt Project (VNCP) – Tier 1

Acquisition from Vale (estimated US\$200 million of spend), DFS complete. Horizonte's second development project.

## District Consolidation with Significant Inventory

Combined metal in the ground (M&I) of 3.21Mt contained Ni and 94kt Co<sup>2</sup>. Potential to produce over 50,000 tonnes of nickel per year. 100% owned deposits.

## Strong Nickel Fundamentals

Demand growing and limited new nickel projects. Wood Mackenzie long-term forecast of US\$26,450/tonne Ni.

<sup>1</sup>Source: Horizonte Minerals Araguaia Nickel Project Feasibility Study, October 20018: 119Mt Resource, Measured and Indicated, at 1.27% Ni, 0.9% Ni cut-off, inclusive of Reserves

<sup>2</sup>ANP values at 0.90% Ni Cut-Off, VNCP values at 0.90% NiEq Cut-Off



# Araguaia FS Highlights: Stage 1 & Stage 2 Production

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**Significant cash generation** around **US\$1.6B** net cash flow for Stage 1 and **\$2.6B** after Stage 2 expansion\*

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**NPV<sub>g</sub>** of **US\$401M** for Stage 1 and **US\$741M** for Stage 2 at **US\$14,000/t Ni**

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**Rapid payback** of 4.2 years\* (Stage 1), 4.5 years (Stage 2)

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**IRR over 20%** (Stage 1), **23.8%** (Stage 2) at Nickel Price of **US\$14,000/tonne**

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**Low Capital Intensity** **US\$443M** capital cost

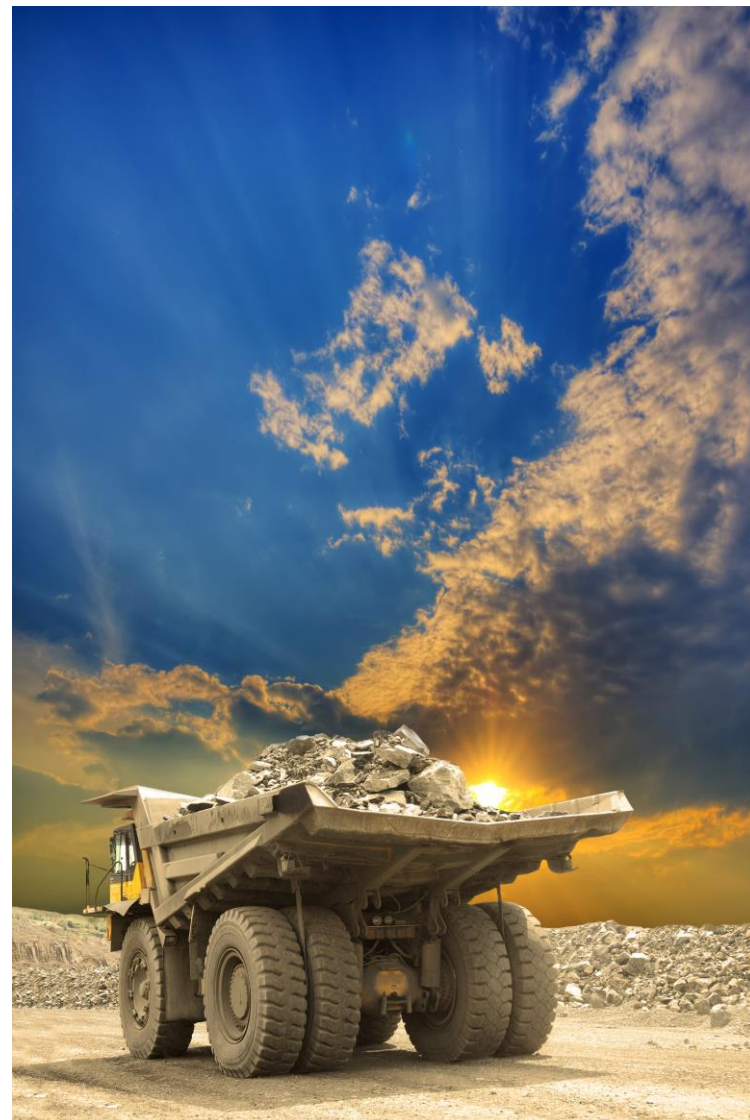
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**Low cost** C1 Cost (Brook Hunt) Years 1-10: **US\$6,794/t Ni** (Stage 1), **US\$6,613/t Ni** (Stage 2)

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**Long life** initial mine life 28 years with potential to expand production and/or mine life

\*Net cash flow and Payback period results based on nickel price of \$14,000/tonne. Additional results for bank Consensus price of \$16,800/t provided in following slides.



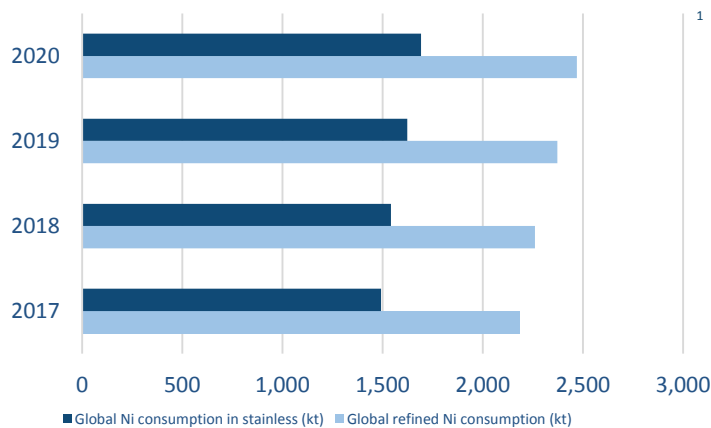


**Nickel Market**



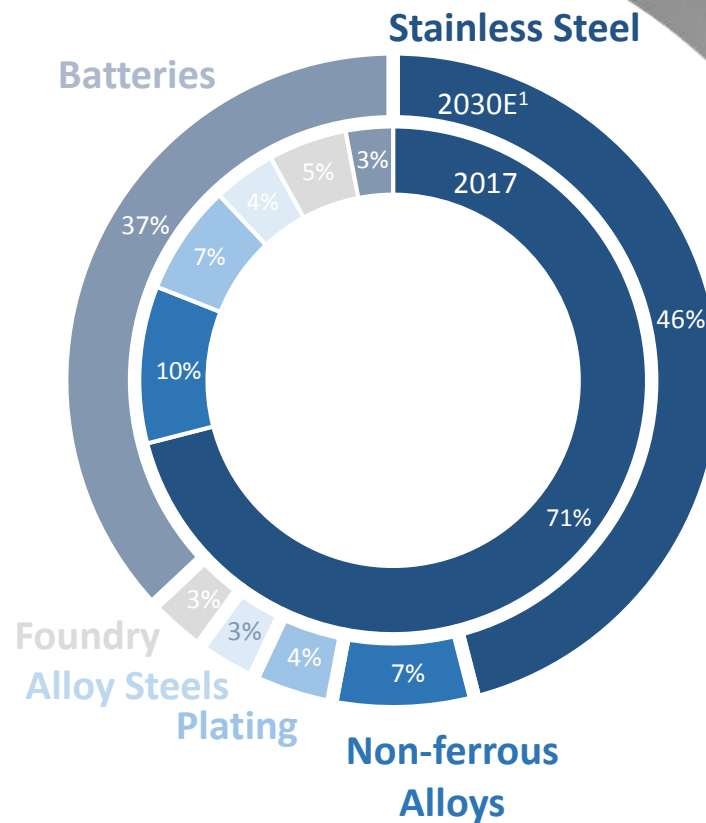
# Current demand vs 2030E – Stainless to dominate

- Approximately two thirds of global nickel production is currently used to produce stainless steel.
- Demand for nickel from the battery market will reshape the nickel industry over the next decade, however stainless growth is forecast to be 12% over the next 4 years.
- Stainless steel industry will continue to be the largest nickel consumer and will remain the main nickel price driver.



<sup>1</sup> Source: Wood Mackenzie

<sup>2</sup> Source: Vale's expected demand growth from the battery market by 2030.



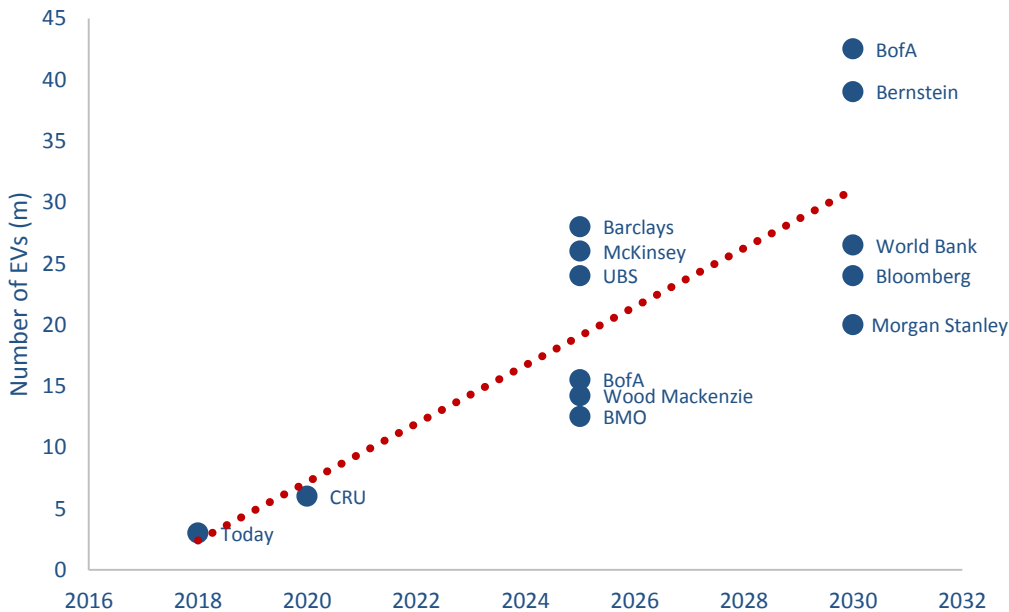




# Future EV Demand Nickel Implications

## Growing EV Market

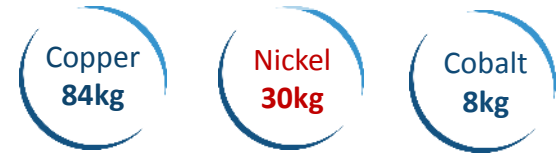
The number of EVs is set to increase from 3 million today to approximately 30 million by 2030 (consensus forecast<sup>1</sup>), which will require approximately **1.1 million tonnes of new nickel<sup>2</sup>**, a 50% increase on current global nickel consumption (~2.2Mt).



## Nickel Demand Implications

|         | Grid Storage |      |      | Non-ICE Vehicles |      |      |
|---------|--------------|------|------|------------------|------|------|
|         | 2020         | 2025 | 2030 | 2020             | 2025 | 2030 |
| Ni (kt) | 20           | 71   | 150  | 66               | 299  | 985  |

## Estimated average metal use per vehicle<sup>3</sup>



<sup>1</sup> Source: Consensus forecasts from public announcements and media

<sup>2</sup> Glencore forecast by 2030 to meet the Clean Energy Ministerial's EV 30@30 sales target of 30 million vehicles

<sup>3</sup> Glencore, BAML 2018 Global Metals, Mining & Steel Conference

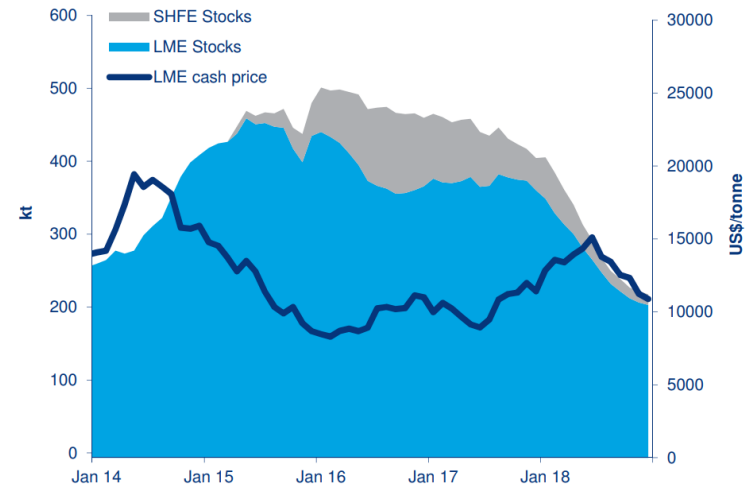




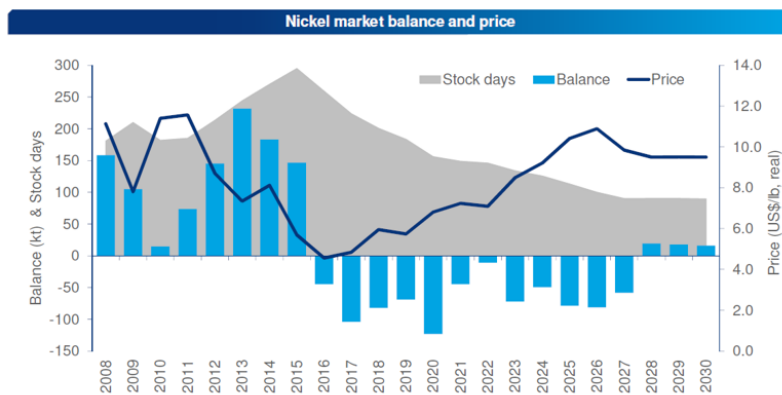
# Nickel Price: Factors

- Nickel production is expected to reach 2.34 Mt in 2019, up 4.1% on 2018, with continued growth forecast, reaching 2.69 Mt by 2025<sup>1</sup>.
- Wood Mackenzie have a short term Ni price forecast of US\$13,000 - US\$15,600 / t Ni, increasing to a long term incentive price of US\$26,450 / t Ni.
- LME and SHFE stocks have fallen steadily from 368kt in Dec 17 to 207kt in Dec 18.
- Fundamentals indicate real underlying demand from both stainless and non-stainless sectors (EV) is strong.

Nickel Stock Drawdown Against Ni Price:

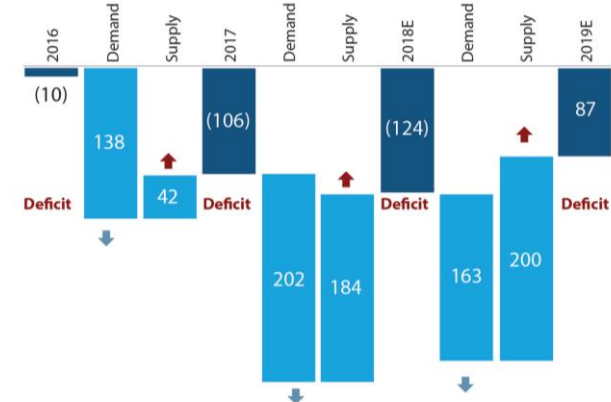


## Wood Mackenzie Ni Price Forecast



Source: Wood Mackenzie

Nickel Market Balance:



Deficit forecast for 2018E revised from -15kt<sup>(1)</sup> to -124 kt:

- Faster-than-expected expansion of stainless output in Indonesia and China
- NPI output curtailments due to environmental restrictions in China



# Nickel Price: Views



“From 2020 the battery opportunity will open up”  
Forecast at US\$17,081/t in 2020



“We do see nickel prices rising over the medium and longer term”  
Forecast at US\$15,500/t in 2020



“Nickel prices are expected to gradually move higher over the next half decade as inventories normalize”  
Forecast at US\$16,500/t in 2020



Nickel is one of MacQuarie’s ‘top picks’ for 2019  
Forecast at US\$18,250/t in 2020



Wood Mackenzie's long-term incentive price is around  
US\$26,450/t (US\$12.00/lb)



# Araguaia Nickel Project (ANP)







# ANP Feasibility Study – Stage 1

## STAGE ONE

14,500 tpa nickel

## STAGE TWO POTENTIAL

Second line up to 29,000 tpa nickel



## HIGH GRADE

Initial 10 years of production averaging **1.9% nickel feed grade** placing ANP on upper quartile of the grade curve



## PROVEN PROCESS

Low cost proven RKEF technology currently in operation in 40 mines globally



## LOW CAPITAL INTENSITY

On the low end of the global cost curve and in the lower quartile for laterite operations

US\$ 31,000/t Ni

## HIGH GRADE PRODUCT

Production of high grade FeNi30 product – low impurity for sale to the stainless steel sector



## LONG LIFE & SCALABLE

FS shows a 28 year mine life with scalable resource to support over 60 years



## INFRASTRUCTURE

Well developed infrastructure around the project utilising third party port facilities



## FULLY PERMITTED

ANP **is development ready** with water permits and environmental construction licence approved



Ausenco

SNOWDEN





# Feasibility Study in Numbers

Stage 1 (FS) = 14,500 tonnes per annum

| BASE CASE<br>US\$14,000/tonne Ni                 |                       |
|--|-----------------------|
| Capital Cost                                     | <b>US\$443M</b>       |
| Net Cash Flow                                    | <b>US\$1.6Bn</b>      |
| Post-Tax IRR                                     | <b>20.1%</b>          |
| Post-Tax NPV <sub>8</sub>                        | <b>US\$401M</b>       |
| Production Payback (years)                       | <b>4.2</b>            |
| Lowest quartile C1 Cash Yr 1-10<br>(Ni Laterite) | <b>US\$6,794/t Ni</b> |


| MARKET CONSENSUS<br>US\$16,800/tonne Ni          |                       |
|--|-----------------------|
| Capital Cost                                     | <b>US\$443M</b>       |
| Net Cash Flow                                    | <b>US\$2.6Bn</b>      |
| Post-Tax IRR                                     | <b>28.1%</b>          |
| Post-Tax NPV <sub>8</sub>                        | <b>US\$740M</b>       |
| Production Payback (years)                       | <b>3.3</b>            |
| Lowest quartile C1 Cash Yr 1-10<br>(Ni Laterite) | <b>US\$6,794/t Ni</b> |

*Notes:*

- Short-Term Wood Mackenzie forecast of \$14,000 applied as base case.
- Market Consensus: Canadian Imperial Bank of Commerce ("CIBC") Capital Markets consensus forecast long term Nickel price compiled by 21 international banks as of September 2018
- FS to AACE Class 3 costs combined accuracy of - 10%+15%
- Brazilian Real to US \$ exchange rate applied = 3.5:1





An aerial 3D architectural rendering of an industrial facility, likely a refinery or chemical plant. The main structure is a large, irregularly shaped building with a light blue roof, outlined in a darker blue. This area is connected to various other buildings, including several long, white cylindrical storage tanks, and a complex network of pipes and scaffolding. In the foreground, there is a parking lot with several cars and a road with a roundabout. The surrounding landscape is green and hilly. Two text boxes are overlaid on the image: one in the top left and one in the bottom right.

Designed for Stage2:  
second RKEF process line  
doubling production

Stage 1, FS released  
October 2018





# Stage 2 Expansion

Stage 1 **designed to accommodate the addition of a second RKEF process line** with potential to double production from 14,500 t/a Ni up to 29,000 t/a Ni.

Mineral resource **inventory has the grade and scale** to support the Stage 2 expansion from 900 kt/pa throughput (Stage 1) to the rate of 1.8 Mt/a (Stage 2).

The Stage 2 expansion gives a **26-year mine life** generating cash flows after taxation of **US\$2.6 billion**.

**No increase in upfront capital cost** which remains at the same level at the FS Stage 1 of US\$443 million.

Nickel **grade of 1.82% for the first 10 years** of the Stage 2 operation.

C1 (Brook Hunt) cash cost year 1 to Year 10 of US\$3.00 per pound ('/lb') of nickel (US\$6,613/t), making Araguaia a **low-cost producer**.

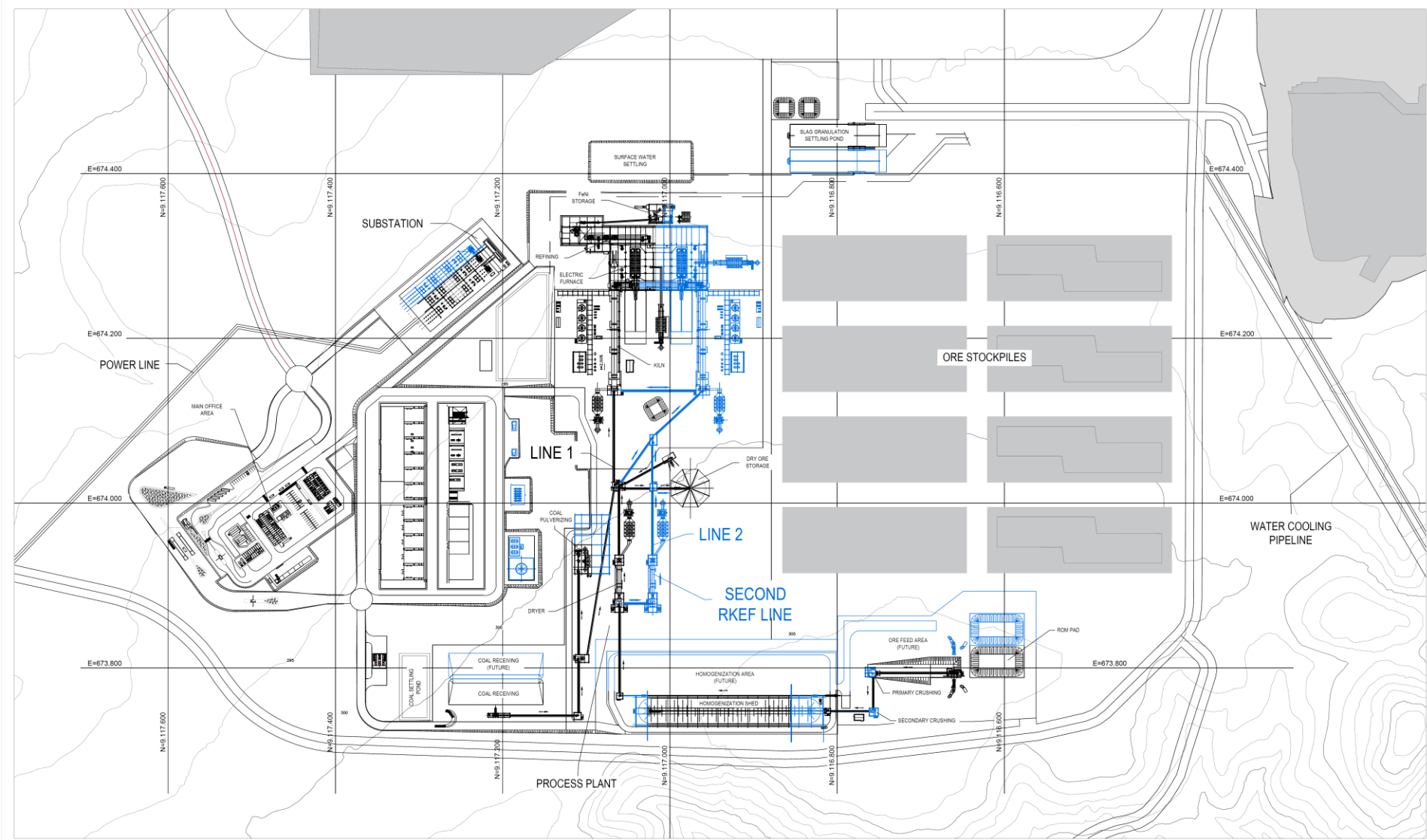
## Stage 2 Expansion will utilise existing infrastructure, including:

- Main power line to the plant;
- Principle road and bridge infrastructure inbound and outbound to the mine site;
- Overall plant site layout, plant road / offices / stores / workshops;
- Refinery facility;
- The slag storage facility; and
- Water abstraction pipeline.



Second RKEF line is financed through operational cash flow.

# Stage 2 Expansion – In Blue



OVERALL SITE ARRANGEMENT - PLANT



| DRAWING No. | REF. DRAWING | No | BY | DATE       | REVISION DETAILS           | CHD | ENG | APPR | PROJ | APPR |
|-------------|--------------|----|----|------------|----------------------------|-----|-----|------|------|------|
|             |              | 3  | LD | 28/01/2018 | ISSUED FOR INTERNAL REVIEW |     |     |      |      |      |
|             |              | 2  | LD | 27/01/2018 | ISSUED FOR INTERNAL REVIEW |     |     |      |      |      |
|             |              | 1  | LD | 28/01/2018 | ISSUED FOR INTERNAL REVIEW |     |     |      |      |      |

|           |    |             |
|-----------|----|-------------|
| DRAWN     | LD | 06/NOV/2018 |
| CHECKED   |    |             |
| DESIGNED  |    |             |
| DES. APPR |    |             |

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CLIENT **HORIZONTE MINERALS**

TITLE **ARAGUAIA NICKEL PROJECT  
 OVERALL SITE - SECOND RKEF LINE STUDY  
 GENERAL ARRANGEMENT  
 PLAN**

|            |           |            |        |      |    |
|------------|-----------|------------|--------|------|----|
| COPYRIGHT  | © Ausenco | SCALE      | 1:2000 | SIZE | A1 |
| PROJECT No | 102562    | DRAWING No |        | REV  | 3  |



# Staged Production Economics

Stage 1 (FS) = 14,500 tonnes per annum

Stage 2 = 29,000 tonnes per annum

| BASE CASE<br>US\$14,000/tonne Ni  | MARKET CONSENSUS<br>US\$16,800/tonne Ni                                   |
|---|---|
| Capital Cost<br><b>US\$443M</b>   | Capital Cost<br><b>US\$443M</b>   |
| Net Cash Flow<br><b>US\$1.6Bn</b>   | Net Cash Flow<br><b>US\$2.6Bn</b>   |
| Post-Tax IRR<br><b>20.1%</b>  | Post-Tax IRR<br><b>28.1%</b>  |
| Post-Tax NPV <sub>8</sub><br><b>US\$401M</b>                              | Post-Tax NPV <sub>8</sub><br><b>US\$740M</b>                              |
| Production Payback (years)<br><b>4.2</b>                                  | Production Payback (years)<br><b>3.3</b>                                  |
| Lowest quartile C1 Cash Yr 1-10<br>(Ni Laterite)<br><b>US\$6,794/t Ni</b> | Lowest quartile C1 Cash Yr 1-10<br>(Ni Laterite)<br><b>US\$6,794/t Ni</b> |

| BASE CASE<br>US\$14,000/tonne Ni  | MARKET CONSENSUS<br>US\$16,800/tonne Ni                                   |
|---|---|
| Capital Cost<br><b>US\$443M</b>   | Capital Cost<br><b>US\$443M</b>   |
| Net Cash Flow<br><b>US\$2.6Bn</b>   | Net Cash Flow<br><b>US\$4.0Bn</b>   |
| Post-Tax IRR<br><b>23.8%</b>  | Post-Tax IRR<br><b>31.8%</b>  |
| Post-Tax NPV <sub>8</sub><br><b>US\$741M</b>                              | Post-Tax NPV <sub>8</sub><br><b>US\$1,264M</b>                            |
| Production Payback (years)<br><b>4.5</b>                                  | Production Payback (years)<br><b>3.8</b>                                  |
| Lowest quartile C1 Cash Yr 1-10<br>(Ni Laterite)<br><b>US\$6,613/t Ni</b> | Lowest quartile C1 Cash Yr 1-10<br>(Ni Laterite)<br><b>US\$6,613/t Ni</b> |

**Notes:**

- Short-Term Wood Mackenzie forecast of \$14,000 applied as base case.
- Market Consensus: Canadian Imperial Bank of Commerce ("CIBC") Capital Markets consensus forecast long term Nickel price compiled by 21 international banks as of September 2018
- Brazilian Real to US \$ exchange rate applied = 3.5:1





# Capital Funding Requirement\*

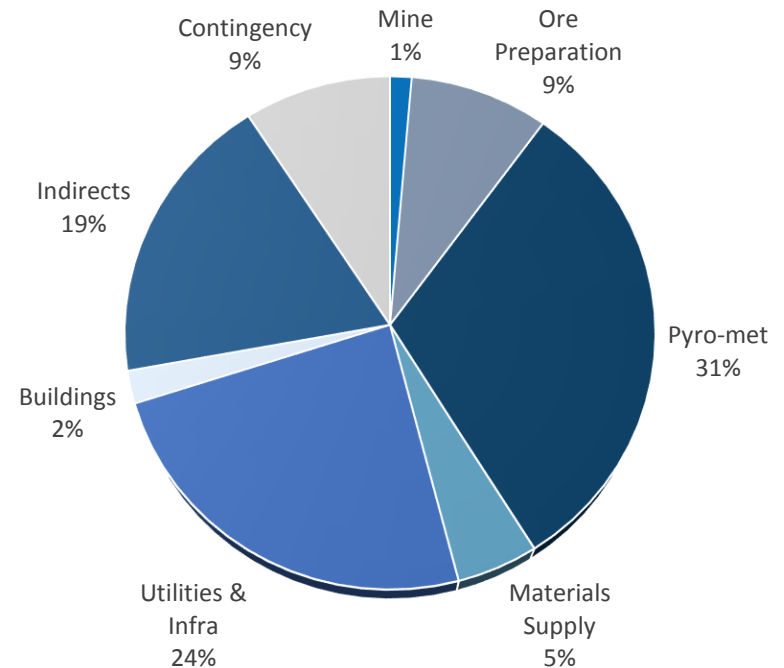
The Preliminary Economic Assessment for Stage 2 Expansion of Araguaia does not require any additional upfront capital. The expansion will be funded from Araguaia's own cashflow.

## Capital Cost Estimates\*

Initial capital cost of US\$443 million is estimated for Araguaia

| Area Name                  | Costs (US\$'000) |
|----------------------------|------------------|
| Mine                       | 6,003            |
| Ore Preparation            | 38,731           |
| Pyrometallurgy             | 137,518          |
| Materials Supply           | 21,413           |
| Utilities & Infrastructure | 106,918          |
| Buildings                  | 9,095            |
| Indirects                  | 82,409           |
| Contingency                | 40,989           |
| <b>Total</b>               | <b>443,076</b>   |

## Capital Cost Breakdown



Sustaining capital of US\$143 million is spread over LOM for the Stage 1 FS. This number increases to \$394 million in sustaining capital over LOM for the Stage 2 expansion.

\*Undertaken to AACE class 3 standard with combined accuracy of - 10%+15%. The capital and operating costs are as of Q3 2018.



# RKEF Process

## Low Capital Intensity

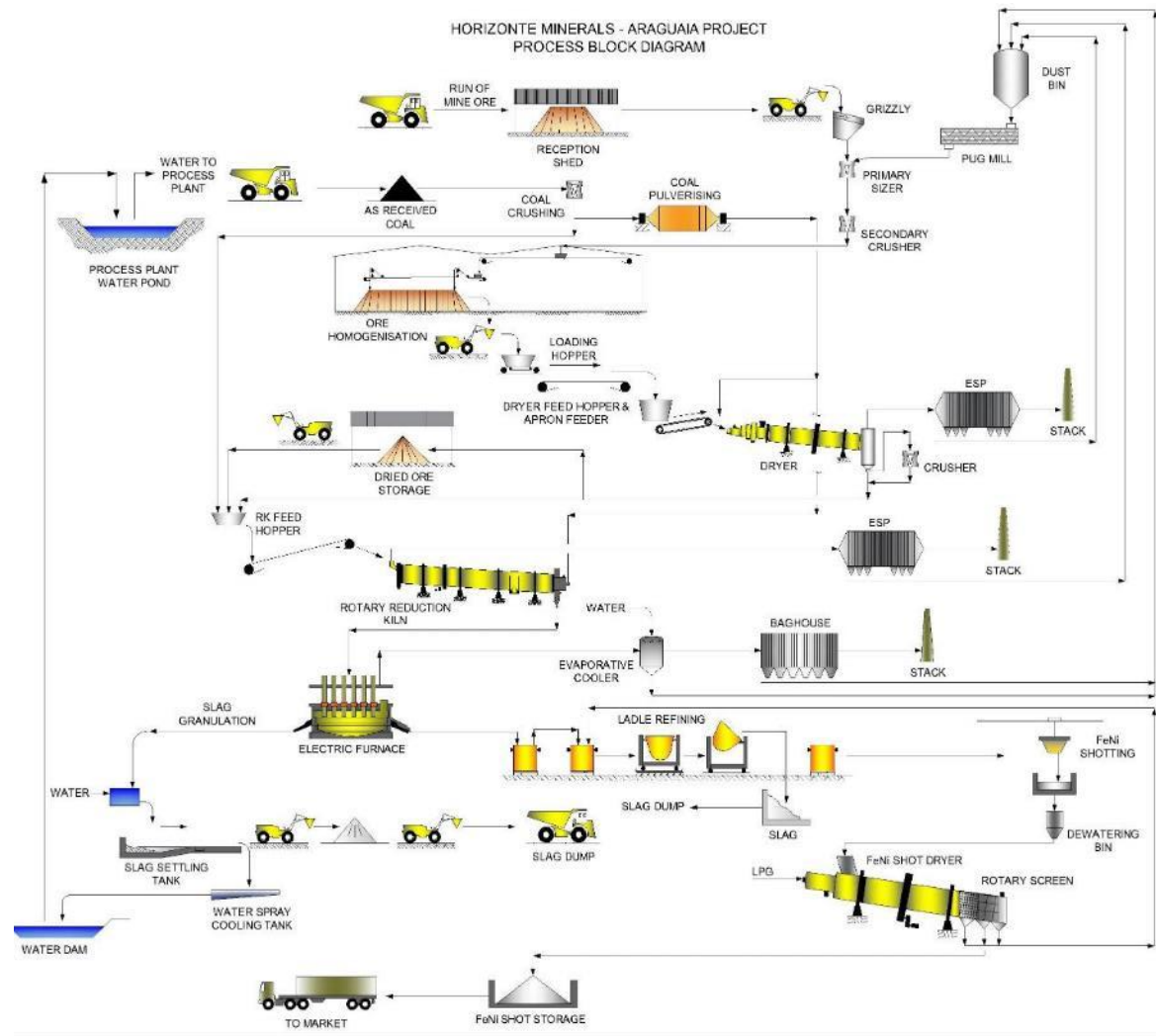
Proven RKEF process – low capital intensity of US\$31,000/t Ni.

## Scalable

Stage 1 flow sheet designed to process 900,000t producing 14,500tpa Ni.  
Designed for addition of a second RKEF line increasing production up to 29,000tpa Ni.

## High Grade Product

FeNi30 product for the stainless steel sector – containerised and shipped directly to clients via Vila do Conde Port.





# Araguaia is Construction Ready

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**ANP is development ready** with water abstraction permits and environmental Construction Licence (Licença de Instalação) granted: allows development to commence on the process plant and associated infrastructure.

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**High sustainability standards applied**, including CONAMA legislation (Brazilian); IFC Performance Standards 1,2, & 5 and Equator Principles

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**Approved Social and Environmental Impact Assessment (SEIA)**, multiple years of baseline data and system of Environmental Control Plans approved by agency.

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**Multiple years of community engagement** conducted in the region and ongoing social programmes.

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**Limited regional impacts**, mine is located in a farming area, no state forest or Indigenous reserves.



Extensive baseline data collection in the region.



# Araguaia Funding and Development Plan





# Funding Strategy

“Araguaia is currently unleveraged and in a strong position with no agreed offtake, royalty or nickel stream, giving maximum value and flexibility going into the financing process”

## Project Development

- Currently funded until the beginning of project finance
- Pre-production capital of US\$443 million
  - Target project finance package of 60 to 65% debt balance equity

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## Debt

- Undertake project finance discussions / negotiations
- Target syndicate of commercial banks
- ECA options for equipment: UK, Germany & China

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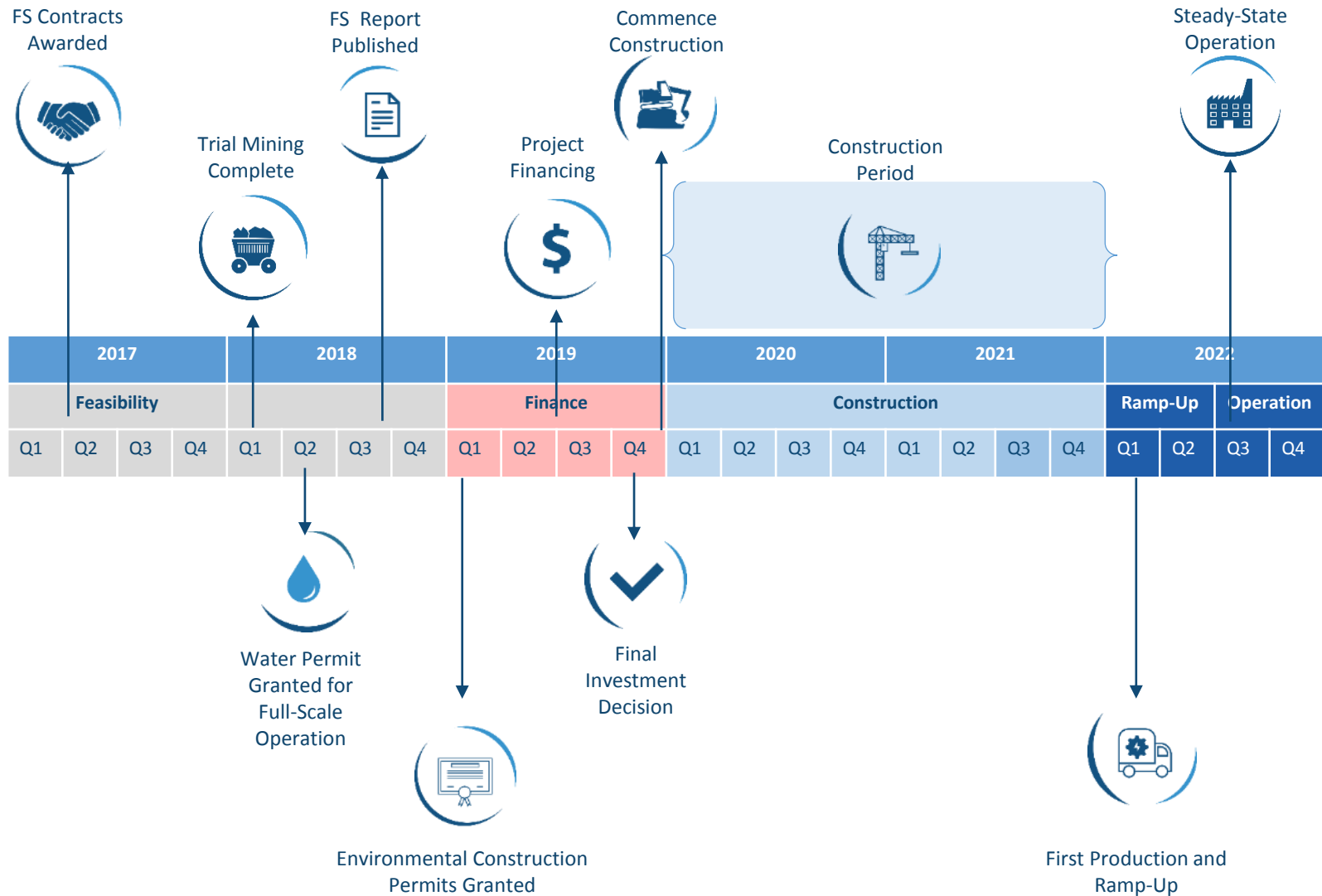
## Offtake Agreement

- Part of wider finance package to maximise value to existing shareholders
- Target stainless steel mills and end users

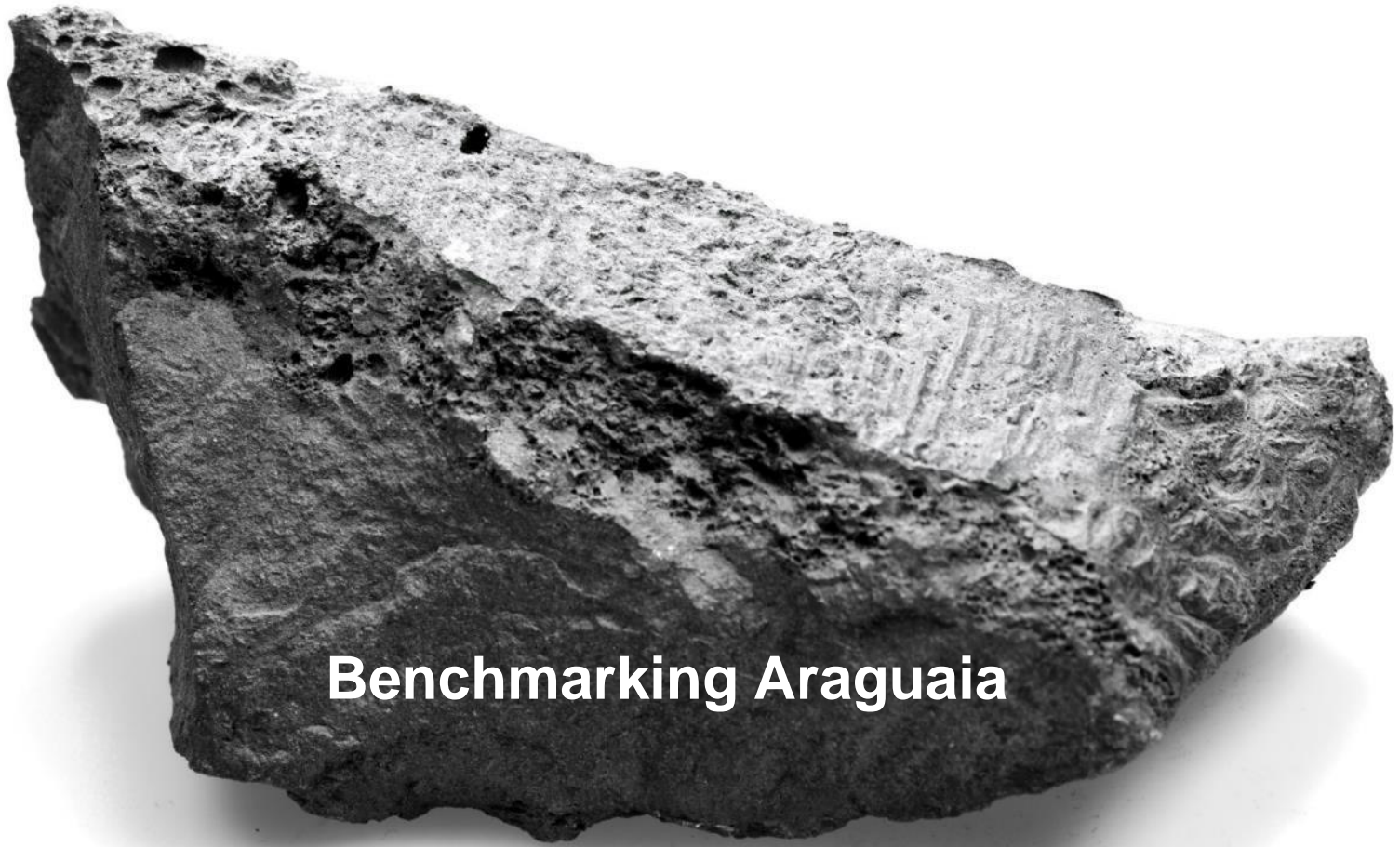




# Development Timeline





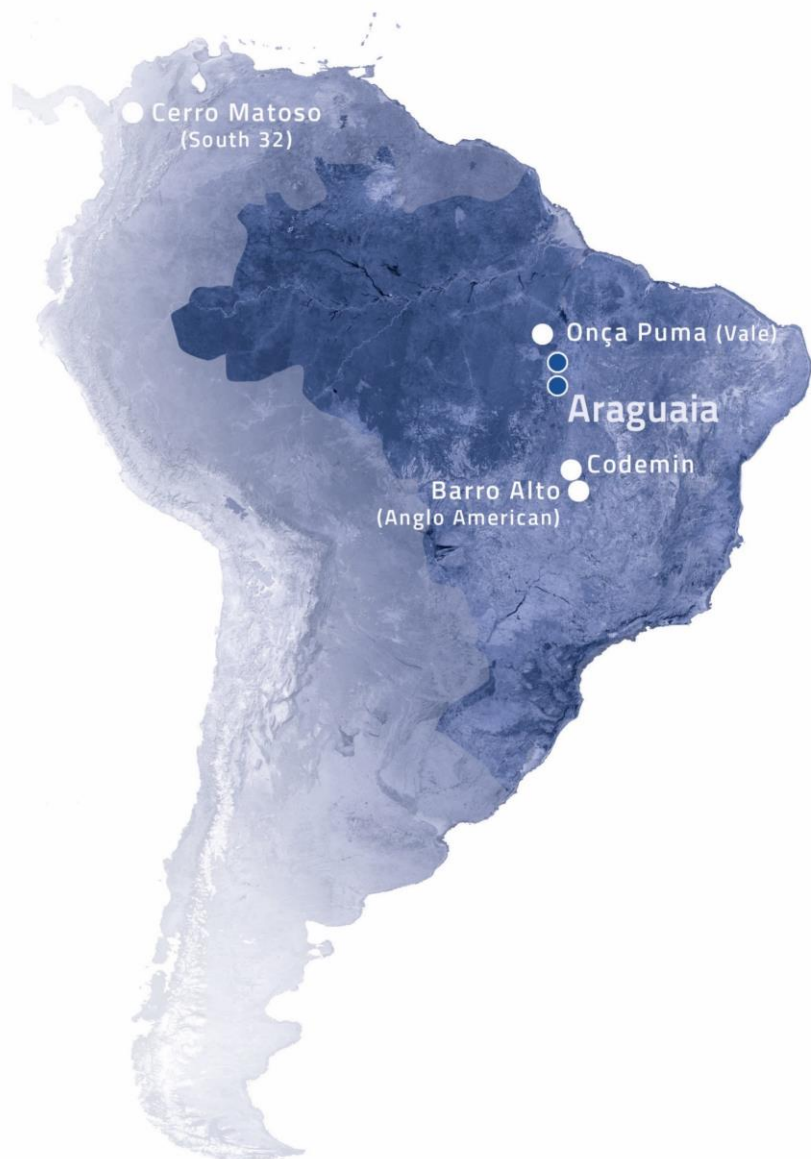


# Benchmarking Araguaia



# Peer Group Comparison

Araguaia benchmarked with South American producing ferronickel operations:  
*ANP - higher grade and lower potential C1 cost.*



| Proven & Probable Mineral Reserve Estimates <sup>1</sup> and C1 Cost for Producers <sup>2</sup> |                        |                           |                         |             |                     |
|---|------------------------|---------------------------|-------------------------|-------------|---------------------|
| Deposit   | Owner                  | Reserve Ore dry mass (kt) | Contained Ni metal (kt) | Ni (%)      | C1 Cost (\$US/t Ni) |
| <b>Araguaia 1 (FS)</b>  | HORIZONTE MINERALS PLC | <b>27,290</b>             | <b>461</b>              | <b>1.69</b> | <b>8,193</b>        |
| Cerro Matoso  | SOUTH32                | 37,000                    | 444                     | 1.20        | 9,805               |
| Onca Puma   | VALE                   | 106,500                   | 1,629                   | 1.53        | 10,184              |
| Barro Alto  | ANGLo AMERICAN         | 41,900                    | 586                     | 1.40        | 7,366               |
| Codemin   | ANGLo AMERICAN         | 7,800                     | 98                      | 1.26        | 9,149               |

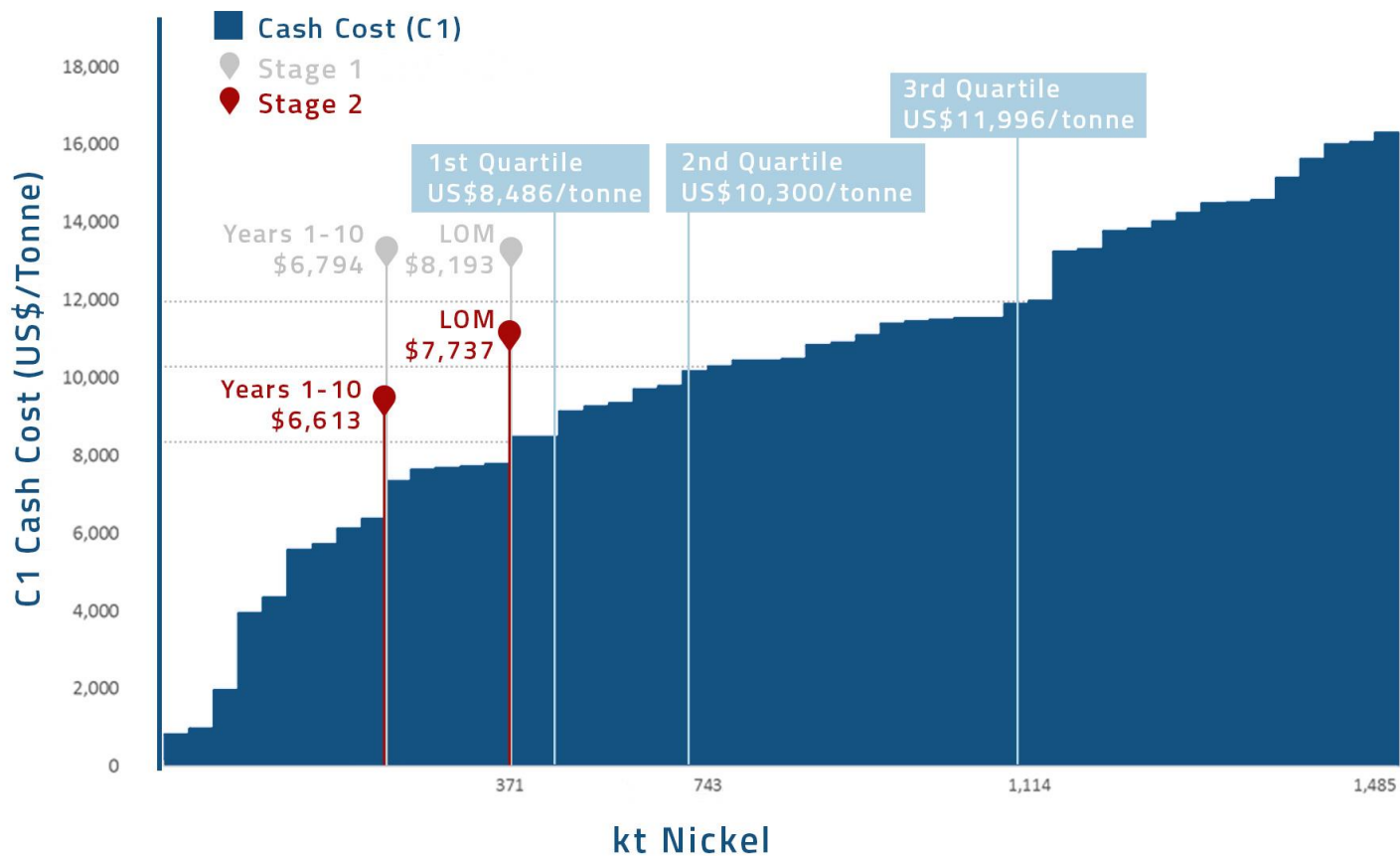
<sup>1</sup> Mineral Reserve Estimates: Araguaia = Horizonte’s Feasibility Study for Araguaia 2018; Cerro Matoso = South 32 Annual Report 2018; Onça Puma = Vale’s Form 20-F 2017; Barro Alto and Codem = Anglo American’s Ore Reserves and Mineral Resources 2017 Report.

<sup>2</sup> C1 (Brook Hunt) data on Cost/US\$t provided from Wood Mackenzie database.



# Lower quartile of C1 cost curve for laterites

Araguaia positioned in the lower quartile for laterite production C1 (Brook Hunt) Cash Cost

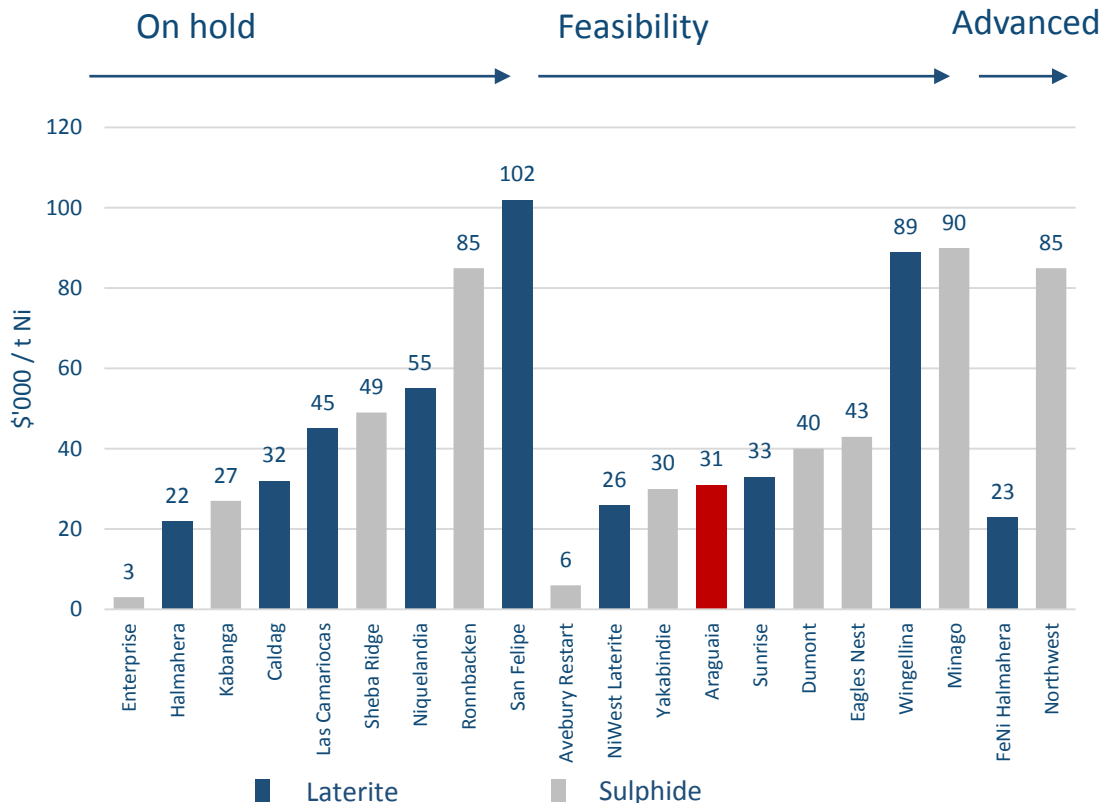


Source: Wood Mackenzie



# Low Capital Intensity

Capital intensity as \$US'000 /t Ni of annual production



Source: Wood Mackenzie, UBS analysis

## IRR at US\$20,000/tonne

- UBS Research estimates that 26 out of 41 nickel projects deliver a 15% IRR at a long term Ni price of US\$20,000/t.
- Araguaia has an IRR of 36.2% at this price.

## Capital Intensity

- Average capital intensity of US\$44k/t Ni.
- Araguaia US\$31k/t Ni.



## Investment Highlights



# Scalable Production

Total district potential nickel production 55,000 to 60,000 tpa nickel

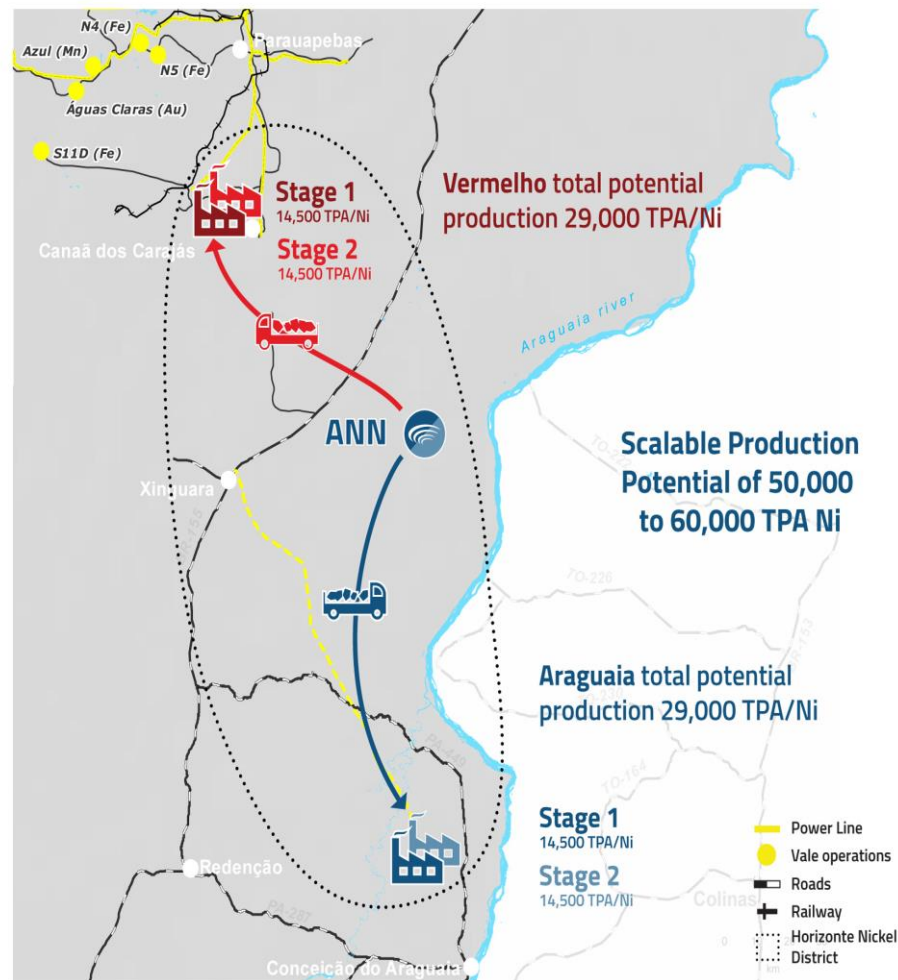
Combination of two 100% owned Tier 1 projects – creating a large, high-grade and flexible resource, consolidating a nickel district.

ANP Potential Production 29,000 tpa nickel

- Araguaia Stage 1 - RKEF plant 14,500 tpa nickel - planned production 2022.
- Araguaia Stage 2 - second RKEF line doubling capacity.

VNCP Potential Production 29,000 tpa nickel

- Vermehlo Stage 1 - RKEF plant to produce 14,500 tpa with the option of a leach circuit to recover the cobalt in the limonite ore.
- Vermehlo Stage 2 - second RKEF line doubling capacity.







# Investment Summary

## Economics

- ANP Stage 1 FS robust economics – US\$1.6 billion free cash flow, NPV US\$401 million, IRR of 20%.
  - ANP Stage 2 economics – US\$2.6 billion free cash flow, NPV US\$741 million, IRR of 23.8%.
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## Process

- De-risked low cost process route, RKEF used in over 40 operations today.
  - Produce high grade low impurity FeNi30 – supply stainless steel sector.
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## Location

- Proactive Government support, construction licence granted, project is development ready.
  - Close to Carajás mining district, well developed infrastructure including roads, rail, hydroelectric power.
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## Commodity

- Robust nickel demand expected to grow 2-3% short to mid term and LME inventory levels drawn down to lowest levels witnessed in past five years.
  - Limited new short term supply – Wood Mackenzie long-term forecast of US\$26,450/tonne.
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## Scalability

- ANP designed for Stage 2 expansion potential to increase production to 29,000 tpa nickel.
- VNCP Stage 1 & Stage 2 RKEF plant 14,500 to 29,000 tpa – total potential 50,000 to 60,000 tpa nickel.



# Experienced Team in Resource Projects & Operations

## Non-Exec Board

### David J. Hall - Chairman

- 30 years in exploration, projects and operations in over 40 countries. Extensive South America and Brazil experience. Previously Minorco, Anglo American Plc and AngloGold.
- Responsible for exploration around the Cerro Vanguardia gold mine in Argentina, Morro Velho and Crixas mines in Brazil and the La Recantada gold deposit in Peru.

### Owen Bavinton - Non Executive Director

- Previously Group Head of Exploration and Geosciences at Anglo American Plc.
- Extensive nickel experience both in Brazil and internationally.
- Notable resource projects include: Lisheen (zinc in Ireland); Skorpion (zinc in Namibia); Loma de Niquel / Barro Alto (nickel in Venezuela/Brazil).

### Alexander N Christopher - Non Executive Director

- Over 30 years of experience in mineral exploration and mining.
- Teck Resources Senior Vice President of Exploration, Projects and Technical Services.
- Extensive resource experience on Tier 1 projects and operations in Canada, Chile and USA, including: copper, zinc & lead, oil sands and steelmaking coal commodities.

### William Fisher - Non Executive Director

- Extensive industry experience in major and junior exploration and mining companies.
- Currently on the Boards of Goldquest and Treasury Metals.
- Led GlobeStar Mining Corp. from exploration to become a base metal producer in the Dominican Republic which developed and operated the Cerro de Maimon mine.

### Allan M Walker - Non Executive Director

- Over 30 years of experience in energy and natural resources project finance.
- Director of Credit Suisse's project finance team in Brazil.
- Mr. Walker was head of power and infrastructure in London for Standard Bank Plc, a world leader in emerging markets resource banking.

## Senior Management

### Jeremy J. Martin - CEO and Director

- 20 years geology and mining experience.
- Managed open pit gold mine in Sweden and development stage base metals projects.
- Corp finance and funding experience.
- Founding director in a number of TSX and AIM listed Resource Companies.

### Simon Retter - CFO and Company Secretary

- Chartered Accountant.
- Director on a number of listed Resources Companies.
- Experience in public markets, mining sector, reverse takeovers.
- Previously Deloitte and Touche LLP.

### Anthony Finch - Feasibility Study Manager

- Over 30 years experience in mining engineering, mining operations and consulting.
- Competent and qualified person in most commodities and most jurisdictions.
- Resource experience includes FS's for : Syrah Resources (Graphite in Mozambique) - Sunridge (Copper Lead Zinc ), La Mancha (Gold - Sudan), Uranium One (Tanzania).

### Katie Millar - Sustainability & External Affairs Manager

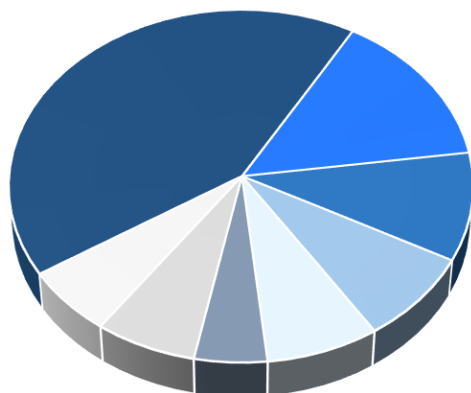
- Corporate Social Responsibility specialist, specialised in Brazilian mining.
- Resource experience (Anglo American Plc): Niobium Feasibility and \$400M construction project (Brazil); Phosphates Feasibility (Brazil); Nickel, Niobium & Phosphates operations (Brazil); Metallurgical Coal Dawson operation (Australia).

### Fabiano Araujo - Brazil Country Manager

- Brazilian national, over 25 years experience in mining operations and projects.
- Mining engineer with prior senior positions held in Vale, Snowden and Accelor.
- Significant experience on major iron ore projects including :S11D, Brucutu & Serra Azul (Brazil); Mt Wright expansion (Canada) and Yekepa (Liberia).

# Corporate Snapshot

## Key Shareholders



- Teck Resources 14.5%
- JP Morgan 8.1%
- Lombard Odier 4.8%
- Glencore 6.1%
- Canaccord Genuity Group 9.9%
- City Financial 7.5%
- Richard Griffiths 6.7%
- Other 42.4%

## HZM AIM share price/volume



| Ticker              | AIM: HZM           | TSX: HZM            |
|---------------------|--------------------|---------------------|
| Share price         | 2.35p              | C\$0.04             |
| Shares in issue (M) | 1,446              | 1,446               |
| Market Cap          | £33.9M             | C\$63.4M            |
| Cash + Equivalents  | £7.9M              | C\$13.4M            |
| 52 week trading     | AIM: 1.74p – 4.98p | (C\$0.03 – C\$0.09) |
| Nomad & Broker      | Numis              | n/a                 |
| Analyst coverage    | Numis/Shard        | Paradigm Capital    |


(SP data from 24.01.19)  
(Cash at 30 Sept 2018)





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