

## HORIZONTE MINERALS PROVIDES Q3-2023 CONSTRUCTION UPDATE

### HIGHLIGHTS

- Construction progress continues to be made at Araguaia
  - Strong safety performance, no lost time injuries with close to 5.1 million hours worked
  - Rotary Kiln sections have been installed on the support piers
  - The furnace shell is complete with roof installation underway
  - All critical equipment packages have been contracted and are either on site or en route to site
  - As of 30 September, 138,000 tonnes of ore averaging 1.92% Ni has been stockpiled
  - Commissioning of the 126 km (230kV) power transmission line underway
- US\$429 million has been spent at Araguaia as of 30 September 2023
- As stated on 2 October 2023, Reta Engenharia has been retained to complete a detailed capital cost and schedule analysis which is expected to be completed by mid Q4-2023
- The Company is continuing to progress construction activities while advancing financing discussions with its cornerstone shareholders and lenders
- Araguaia Nickel Project Line 2 Feasibility Study ("FS"), which aims to double nickel production from 14,500 tonnes per annum to 29,000 tonnes per annum, to be published in mid Q4-2023

**Horizonte Minerals Plc (AIM/TSX: HZM) ("Horizonte" or the "Company")**, the nickel company developing two Tier 1 assets in Brazil, reports that construction activities continue to progress well at its Araguaia Nickel Project ("Araguaia" or "the Project"). As of 30 September 2023, US\$429 million has been spent on Araguaia with progress made across key work fronts and no interruptions to date on construction activities.

As stated in the press release dated 2 October 2023, a number of factors arising from the completion of the detailed engineering work has led to an increase in material and quantities, scope changes, increased costs around the main electromechanical erection contract and increased duration on delivery schedule. These changes require additional financing resulting in an expected increase in the overall Project capital requirement by at least 35% (from the current capex budget of US\$537m) and delay of first production to Q3-2024. Reta Engenharia is expected to complete its capital cost and schedule analysis report, following which an independent technical advisor, nominated by Senior Lenders will review the updated costs with targeted completion by mid Q4-2023.

**Jeremy Martin, CEO of Horizonte, commented:** *"Despite the current challenges, I am pleased to report that construction activities at the Araguaia Project continue to progress well, with a strong safety performance to date.*

*"Notwithstanding the expected increase in capital, the Araguaia project remains a Tier 1 nickel project with lower quartile C1 cash costs, and a long mine life of 28 years producing a high grade, low impurity FeNi product. Discussions with the Company's major shareholders and lenders to fund the project to completion are progressing."*

## CAPITAL COST REVIEW PROCESS

Reta Engenharia's detailed capital cost and schedule analysis is on-going, with the updated estimate being assessed to meet the requirements of AACEI Class 1, improved from the estimate utilised in September 2022.

Principal capital changes are linked to the following:

- **Civil works:** the development of engineering maturity and identification of new scopes to the project resulted in increases in civil quantities (concrete, rebar and formwork) and the corresponding rise in the installation costs. These changes relate to the water storage reservoir, the water abstraction pipeline, selected major equipment packages and equipment interfaces.
- **Electromechanical (EM) assembly:** increased equipment and materials quantities have resulted from the completion of the critical detailed engineering, and the shift of more EM activities into the wet season given the expected delay to 3Q-2024. This represents a significant percentage of the cost increase given the lower productivity in the wet season and increased quantities.
- **Refractory:** the cost to install 4.3 kt of refractory was significantly underestimated.
- **Vendor delays:** one of the vendors have not been able to deliver key packages in line with the project timeline leading to termination of the contract and the sourcing of alternatives at higher prices.
- **Schedule extension:** given the above and the expected schedule delay of around six months, there is an associated increase in costs and working capital linked to the increased schedule duration.

More detailed information will be given once the final engineering study is complete by mid Q4-2023.

## PROJECT FINANCING ACTIVITIES

As of 30 September 2023, a total of US\$429 million has been spent on construction at Araguaia.

As of 30 September 2023, US\$215 million has been drawn down from the senior secured project finance debt facility of US\$346 million (the "Senior Debt Facility"). As of 30 September 2023, the Company had total liquidity sources of US\$253 million comprised of US\$131 million undrawn on the Senior Debt Facility and a Group cash position of US\$122 million. Of the Group cash position, US\$93m relates to the project to cover current construction activity and working capital which includes the full draw down on the Cost Overrun Facility of US\$25m as well as US\$5m cost over run equity. The cash balance is committed to near term capital expenditures. US\$16m of the Group cash position is segregated for the development of Vermelho with the balance of US\$13m spread amongst other entities for the ongoing running of the Group.

The remainder of the undrawn Senior Debt Facility of US\$131 million is intended to be used to fund current project capital costs, and in order to draw down on the Senior Debt Facility, all conditions precedents must be satisfied including a cost to complete analysis. With the estimated increase in overall Project capital, the Company is working closely with its senior lenders and its cornerstone shareholders on a financing solution to solve the funding gap. The Company's objective is to put in place a financing solution which will satisfy the cost to complete requirements and thereby allow the Company to continue to access its Senior Debt Facility.

The senior lenders and the independent technical engineers were on-site on 4 October 2023 undertaking a review of construction progress to date.



*Management discusses the Araguaia Water Storage Reservoir with Senior Lenders and the independent technical engineers.*

## **ARAGUAIA NICKEL PROJECT STATUS UPDATE**

### **Health, Safety & Wellbeing**

The lost-time injury frequency rate (“LTIFR”) for Araguaia as of 30 September 2023 was 0.00 and the total recordable injury frequency rate (“TRIFR”) was 0.70 per million hours worked, comparing favourably to a TRIFR of 2.1 for the same period last year. As of 30 September 2023, more than five million hours of work had occurred directly on the Araguaia construction project, without a lost time injury.

Horizonte continues to focus its safety programmes on critical risk controls, safe behaviours and risk management. During the Project’s life to date, over 7,600 internal safety audits have been conducted and more than 11,000 safety plan observations have been completed. To increase engagement and participation by our contracting partners in our safety systems and processes, we continue to monitor and report on individual partner company performance on a range of indicators and undertake interventions as necessary to ensure zero harm.

Construction activities



An overview of the Araguaia Nickel process plant site.

The ore homogenisation building has all the structural steelwork in place with the cladding of the roof underway. The framework for the overhead tripper conveyor that runs the full length of the shed has been installed and once commissioned, will feed crushed ore onto the two blended stockpiles. Each stockpile will be 90m long, 30m wide and around 13m in height, with a combined capacity of 36,000 wet tonnes of ore. Completion of the mechanical construction of the homogenisation building is planned for early February 2024 when commissioning is expected to begin. Ahead of this, the belt conveyor, cables and piping will be installed.



All the structural steelwork is in place on the ore homogenisation building, with the cladding of the roof underway.

The 42m long Rotary Dryer has been lifted onto its support piers for final alignment and completion ahead of internal and external welding. Commissioning of the Rotary Dryer mechanical assembly is scheduled to begin by

year end. Steelwork is currently being erected and will support auxiliary equipment including the electrostatic precipitator, dry ore feed bins, dry ore discharge and tertiary crusher. Other key parts currently being erected include the gear assembly, installation of the driver and lubrication system.



*The Rotary Dryer (foreground) is scheduled for commissioning by year end.*

All eleven sections of the FLSmidth Rotary Kiln have now been lifted onto the support piers and the bearing guide rings have been installed, ahead of final alignment and welding. Measuring 110m long and 5.5m wide, the Rotary Kiln will produce calcine that is transferred to the Electric Arc Furnace at a rate of around 115 dry tonnes per hour at an exit temperature of around 800°C. Equipment that is due to be installed over the next two months includes the gear assembly, the shell driver and lubrication system. Preparation for the refractory lining and the installation will commence in December 2023.



*The Rotary Kiln installed on the support piers with main roller bearing guide rings visible.*

The Electric Arc Furnace shell is complete, and the roof sections are on site with erection underway. The electrical transformer has been positioned within the furnace building and the nine calcine feed bins have been installed. As

of 30 September 2023, around 2,500t of steel has been erected in the furnace building, with the fifth and final level in place. The next phase of work underway are the installation of the calcine feed bin covers and the electrodes. Refractory installation is expected to commence in Q1-2024, starting around the feed pipes before focusing on the internal lining of the circular 18m by 7.25m furnace.



*The Electric Arc Furnace building in the centre with the electrical transformer being positioned on the second level, to the left of the image is the refinery building.*

Following the granting of Araguaia's mining authorisation in mid-2023, mining has progressed well with around 138,000 tonnes of ore stockpiled and categorised on the run-of-mine (ROM) pad as of 30 September 2023, averaging 1.92% Ni. By year end, the Company anticipates having stockpiled around 250,000 tonnes, at an average grade of 1.90% Ni, in line with the target for the year.



*Mining at the Pequizeiro pit showing the excavators currently in the high-grade transition zone. The processing plant is shown in the background approximately 500m from the mine.*



*Around 138,000 tonnes of ore stockpiled and categorised on the ROM pad as of 30 September 2023.*

### Power infrastructure

All 260 transmission line towers have been erected and the entire 126km of conductor cable installation has been completed. Commissioning of the 230kV power transmission line from the Xinguara Bay substation to the Araguaia project has begun and is due to be concluded by February 2024.

Out of a total of 260 transmission towers:

- 260 foundations have been poured (100% complete)
- 260 towers have been erected (100% complete)
- 126km of conductor cable installation has been completed (100% complete)



*The Araguaia sub-station with both of the main 230kV/34.5kV transformers installed.*

At the Xinguara Bay substation:

- Engineering is complete
- Procurement and civil works well advanced
- Electromechanical erection is advancing, targeting completion by year end.

A technical inspection was undertaken by the Pará State Secretariat for Environment and Sustainability (“SEMAS”) in late August 2023 in anticipation of the powerline commissioning and the issuance of the Operating Licence.

### [Water storage reservoir](#)

The Water Storage Reservoir (WSR) continues to advance with Cofferdam construction now completed. Construction of the principal embankment is underway with jet grouting expected to be concluded mid-November. A delay in completion has been driven by the requirement for additional jet grouting to address geotechnical conditions. The Company is targeting year end to commission the WSR, and once complete, the WSR will provide a constant source of cooling water to the process plant and act as a heat sink for the furnace.





*Water Storage Reservoir where the Cofferdam is now completed and construction of the principal embankment is underway.*

### [Contracts & Procurement](#)

All critical equipment packages have been contracted and are either on site or en route to site with around 90% of procurement now complete. Over three quarters of the smaller, non-critical auxiliary packages have been contracted, with items such as consumables and workshop equipment under tender. All remaining packages are expected to be finalised by year end following which the Contract and Procurement teams focus will be on ensuring all materials and equipment are delivered safely to site, in line with the updated project schedule.

### [Engineering](#)

As of September 2023, engineering had reached 99.8% for first issue of drawings and 93% for issue for construction (IFC). Engineering still to complete relates to utilities for the Nitrogen, Oxygen, LPG and Diesel Fuel EPC supplier packages which are not on the critical path.

### [Environmental activities](#)

Within the quarter, the Company completed the sealing of roads adjacent to five small rural villages and additionally implemented enhanced dust suppression in localities proximal to residential areas. Horizonte has remained actively engaged with these rural communities and results of automatic air quality monitoring stations and, importantly, feedback from these communities, now indicates that dust management protocols are effectively addressing construction related increases in road traffic.

Beyond Horizonte's investment of over BRL 50m in state and municipal road upgrades in 2022 – including widening, capping, safety controls and bridge upgrades, making what were previously poor quality roads safe for increased levels of activity – and the BRL 3.9m spent on surfacing near rural villages, the Company made a further commitment to support the Municipality in its commitment to seal 2 km of state road at the outskirts of the Conceição do Araguaia urban area. The Company has now completed tendering and expect these works to commence in Q4 2023.

In other environmental management activities, Horizonte concluded a major programme of impact avoidance in the period, confirming the re-design of the Pequizeiro stockpile to avoid 49 ha of native vegetation. This important project enhancement means that in terms of overall Araguaia land take, almost three quarters of the land disturbance will be restricted to highly modified pastureland. In line with biodiversity commitments, Horizonte continues to explore further opportunities to avoid biodiversity impacts. Also in the period, the primary flora and fauna rescue activities, conducted by specialist botanists and zoologists associated with the Araguaia development were completed. These highly successful programmes have, since construction commencement, resulted in the registration of over 1,200 animals, as well as collection of over 19kg of seed from 43 species for mine site reclamation and farm afforestation.

### Social management

In conjunction with the management of construction related impacts, several programmes continued in the quarter to enhance the benefits that can be realised by host communities from the long-term presence of Horizonte in the area. In July 2023 the first group of local companies participating in our Supplier Development Programme concluded their formal training and mentoring phase of the programme. The second group of local companies commenced training in August 2023 and included smaller rural communities of Chapéu de Palha and Vila Joncon. The objectives of this programme are to increase participation by local companies in the Horizonte supply chain, to maximise retention of value by host communities and stimulate market growth and economic diversity.

In relation to the Araguaia Resettlement Action Plan, as at the end of the quarter, five project affected households had been successfully resettled to their new homes. Families involved in the resettlement programme commenced the first phase of agroecology focussed training covering topics including rural property management, sustainable farm management and soil preparation.

The Company Health Promotion and Prevention Programme during the period included training for school students on relevant social and health issues including mental health, child protection and rights, and teen pregnancy. These educational activities supported formal curriculum aligned education on youth multipliers in health.

### Permitting

September 2023 saw the submission of numerous reports to the environmental regulator (“SEMAS”) illustrating compliance with various Installation Licence (construction) conditions. In Brazil, environmental licencing follows a three-stage process: i) preliminary licence (LP) issued following assessment and acceptability of the project proposal and impact assessment; ii) installation licence (LI) allowing construction and other preliminary development, such as pre-stripping; and iii) operational licence (LO), allowing the use and operation of the constructed/developed infrastructure. The submission of documents demonstrating compliance with an Installation Licence is a regulatory predecessor for issuance of the related Operational Licence. Key submissions related to: the Arraias River water pipeline (that will transmit water for the filling of the water storage reservoir); the 230kV transmission line (operational electricity supply); and temporary fuel station (fleet fuelling and process plant commissioning).

Horizonte has received all required project approvals relevant to this phase of the Araguaia project and does not anticipate any issues in relation to issuance of operational licences. In the reporting period Horizonte also submitted compliance documentation in relation to the mining authorisation awarded to the Company in Q2-2023, allowing the commencement of mining and stockpiling of ore.

## ARAGUAIA LINE 2: FEASIBILITY STUDY EXPECTED IN Q4 2023

The results from the Feasibility Study on Araguaia Line 2 remain on track to be published in mid Q4-2023. The combined production of Araguaia Line 1 and 2 is expected to be 29,000 tonnes per annum.

## VERMELHO NICKEL-COBALT PROJECT

The FS for Horizonte’s 100% owned Vermelho project in Brazil is currently on-going. Vermelho has a high-grade scalable resource with a long mine life. Given Vermelho’s geological characteristics, the ore has the ability to be processed either through High-Pressure Acid Leach (“HPAL”) or Rotary Kiln Electric Furnace (“RKEF”) technologies. As part of the study and driven by the evolving market dynamics, Horizonte is evaluating the optimal final nickel product that will supply the critical metals market.

For further information, visit [www.horizonteminerals.com](http://www.horizonteminerals.com) or contact:

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## ABOUT HORIZONTE MINERALS

Horizonte Minerals Plc (AIM/TSX: HZM) is developing two 100%-owned, Tier 1 projects in Pará state, Brazil - the Araguaia Nickel Project and the Vermelho Nickel-Cobalt Project. Both projects are high-grade, low-cost, with low carbon emission intensities and are scalable. Araguaia is under construction and when fully ramped up with both Line 1 and Line 2, is forecast to produce 29,000 tonnes of nickel per year. Vermelho is at feasibility study stage and is expected to supply nickel to the critical metals market. Horizonte’s combined production profile of over 60,000 tonnes of nickel per year positions the Company as a globally significant nickel producer. Horizonte’s top three shareholders are La Mancha Investments S.à r.l., Glencore Plc and Orion Resource Partners LLP.

## CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING INFORMATION

Except for statements of historical fact relating to the Company, certain information contained in this press release constitutes "forward-looking information" under Canadian securities legislation. Forward-looking information includes, but is not limited to, the ability of the Company to complete any planned acquisition of equipment, statements with respect to the potential of the Company's current or future property mineral projects; the ability of the Company to complete a positive feasibility study regarding the second RKEF line at Araguaia on time, or at all, the ability of the Company to complete a positive feasibility study regarding the Vermelho Project on time, or at all, the success of exploration and mining activities; cost and timing of future exploration, production and development; the costs and timing for delivery of the equipment to be purchased, the estimation of mineral resources and reserves and the ability of the Company to achieve its goals in respect of growing its mineral resources; the realization of mineral resource and reserve estimates and achieving production in accordance with the Company's potential production profile or at all. Generally, forward-looking information can be identified by the use of forward-looking terminology such as "plans", "expects" or "does not expect", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates" or "does not anticipate", or "believes", or variations of such words and phrases or statements that certain actions, events or results "may", "could", "would", "might" or "will be taken", "occur" or "be achieved". Forward-looking information is based on the reasonable assumptions, estimates, analysis and opinions of management made in light of its experience and its perception of trends, current conditions and expected developments, as well as other factors that management believes to be relevant and reasonable in the circumstances at the date that such statements are made, and are inherently subject to known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, performance or achievements of the Company to be materially different from those expressed or implied by such forward-looking information, including but not limited to risks related to: the inability of the Company to complete any planned acquisition of equipment on time or at all, the ability of the Company to complete a positive feasibility study regarding the implementation of a second RKEF line at Araguaia on the timeline contemplated or at all, the ability of the Company to complete a positive feasibility study regarding the Vermelho Project on the timeline contemplated or at all, exploration and mining risks, competition from competitors with greater capital; the Company's lack of experience with respect to development-stage mining operations; fluctuations in metal prices; uninsured risks; environmental and other regulatory requirements; exploration, mining and other licences; the Company's future payment obligations; potential disputes with respect to the Company's title to, and the area of, its mining concessions; the Company's dependence on its ability to obtain sufficient financing in the future; the Company's dependence on its relationships with third parties; the Company's joint ventures; the potential of currency fluctuations and political or economic instability in countries in which the Company operates; currency exchange fluctuations; the Company's ability to manage its growth effectively; the trading market for the ordinary shares of the Company; uncertainty with respect to the Company's plans to continue to develop its operations and new projects; the Company's dependence on key personnel; possible conflicts of interest of directors and officers of the Company, and various risks associated with the legal and regulatory framework within which the Company operates, together with the risks identified and disclosed in the Company's disclosure record available on the Company's profile on SEDAR at [www.sedar.com](http://www.sedar.com), including without limitation, the annual information form of the Company for the year ended December 31, 2022, and the Araguaia and Vermelho Technical Reports available on the Company's website <https://horizonteminerals.com/>. Although management of the Company has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking information, there may be other factors that cause results not to be as anticipated, estimated or intended. There can be no assurance that such statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements.