

NEWS RELEASE

9 March 2015

### **PROGRESS UPDATE ON PILOT PLANT WORK AT ARAGUAIA NICKEL PROJECT, BRAZIL**

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**9 March 2015 – Horizonte Minerals Plc, (AIM: HZM, TSX: HZM) ('Horizonte' or 'the Company')**, the nickel development company, is pleased to announce positive results following completion of first stage testing of the Rotary Kiln Electric Furnace Pilot Plant ('RKEF Pilot Plant') for its 100% owned Araguaia nickel project ('Araguaia') in Para State, north central Brazil.

#### **Highlights**

- Completed commissioning of the 'Dryer/Agglomerator' module ahead of full RKEF Pilot Plant launch targeted for April 2015
- Good drying and agglomeration performance achieved over three sets of test conditions
- Excellent product quality – well agglomerated material obtained with low dust generation while meeting target moisture level in the dryer product (18% H<sub>2</sub>O)
- Kiln pre-commissioning and testing showed excellent calcination with no evidence of sticking or sintering up to discharge temperatures of 1,000°C

Horizonte Minerals CEO Jeremy Martin said, "The dryer tests, which is the first stage of the process flow sheet for the full scale RKEF Pilot Plant campaign have been positive marking another successful milestone in Araguaia's development. It's important to create the right blend of ore feed at this first stage in the process flow sheet to negate problems occurring with the feed throughout the process once in commercial production. To this end, the Araguaia material tested formed excellent ore feed, low dust levels and optimum particle size to be fed into the kiln and subsequently into the electric arc furnace to produce ferronickel.

"We will be delivering a further 200 tonnes of bulk sample of Araguaia ore to the RKEF pilot facility in April 2015 to provide feed for the next stage of testing, the continuous 20 day RKEF pilot plant metallurgical campaign. The aim is to produce ferronickel to commercial specification on a continual basis. This will be another significant de-

risking step for the project and a principal part of the Feasibility Study. We look forward to providing regular updates as this work progresses.”

### **Further Information**

Araguaia has a current NI 43-101 compliant Mineral Resource of 71.98Mt grading 1.33% Ni (Indicated) and 25.4Mt at 1.21% Ni (Inferred) at a 0.95% nickel cut-off; included in the resource is a Probable Mineral Reserve of 21.2Mt at 1.66%Ni. Furthermore a Pre-Feasibility study ('PFS') has outlined robust economics for a 'base case' 15,000tpa nickel in ferro-nickel output with a 20% Fe-Ni product over a 25 year mine life.

As part of the on-going testwork for the Feasibility Study, Horizonte has successfully completed commissioning of the 'Dryer/Agglomerator' module during late January and February 2015 as part of first stage testing of the Pilot Plant, ahead of the full Pilot Plant launch targeted for April 2015.

**Ore Preparation.** A 20 tonne (wet) bulk sample of Araguaia ore for Drying/Agglomeration pre-testing was delivered to the IGEO testwork facility at the Morro Azul pilot plant in Minas Gerais, Brazil on 22 January 2015. The bulk sample had been selected for the purposes of drying/agglomeration commissioning/pre-testing from ore representative of a blend of 60% saprolite and 40% transition material i.e. the same proportions as the scheduled feed for the 'base case' life of mine used in the PFS. Crushing to <30mm and homogenization was carried out on this bulk sample prior to testing.

**Drying/Agglomeration.** Drying and agglomeration testing has been carried out over a range of test conditions in the 1 m diameter by 14 m long LPG-fired dryer at the Morro Azul pilot plant. At steady state conditions, drying and agglomeration performance was very good over the range of three test conditions, with well agglomerated material being obtained while meeting the target moisture level in the dryer product (18% H<sub>2</sub>O).

**Kiln Pre-testing.** Kiln pre-commissioning and testing has been carried out on the diesel fired long kiln (1.3 m diameter by 9.4 m) at the Morro Azul pilot plant. The dryer product from each of the three dryer runs was mixed with coal and processed in the kiln. The kiln temperature was allowed to slowly increase so that calcine discharge temperature increased from approximately 900°C to 1000°C. Observations of the movement of the calcine material inside the kiln showed that over the above

temperature range the feed showed no evidence of sticking or sintering. The calcine product had good granulometry and averaged reduction ( $\text{Fe}^{2+} / \text{Fe}_t$ ) = 54% and the calcine contained an average of 1.8% carbon.

**Full RKEF Pilot Plant Testwork.** Preparations are at an advanced stage with the collection of a 200 tonne bulk sample underway to provide feed for full Pilot Plant metallurgical testwork planned for April 2015. The 200 tonne (wet) bulk sample of Araguaia ore will be representative of the PFS 'base case' feed for the first nine years of operation.

**\*\* ENDS \*\***

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

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### **About Horizonte Minerals:**

Horizonte Minerals plc is an AIM and TSX-listed nickel development company focussed in Brazil, which wholly owns the advanced Araguaia nickel laterite project located to the south of the Carajas mineral district of northern Brazil.

The Company is developing Araguaia as the next major nickel mine in Brazil, with targeted production by late 2017 or early 2018.

The Project, which has excellent infrastructure in place including rail, road, water and power, has a current NI 43-101 compliant Mineral Resource of 71.98Mt grading 1.33% Ni (Indicated) and 25.4Mt at 1.21% Ni (Inferred) at a 0.95% nickel cut-off; included in Resources is a Probable Reserve base of 21.2Mt at 1.66%Ni.

A Pre-Feasibility Study has been completed which underpins the robust economics of developing a mine with a targeted 15,000tpa nickel in ferro-nickel output with a 20%

Fe-Ni product over a 25 year mine life utilising the proven pyrometallurgical process of Rotary Kiln Electric Furnace technology. At these production rates, the project has a post-tax NPV of US\$519m at a discount rate of 8% and an IRR of 20%, with a capital cost of US\$582m which puts this project in the lowest quartile of the cost curve.

Horizonte has a strong shareholder structure including Teck Resources Limited 38.5%, Henderson Global Investors 14%, Anglo Pacific Group 7%.

### **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, statements with respect to the potential of the Company's current or future property mineral projects; the success of exploration and mining activities; cost and timing of future exploration, production and development; the estimation of mineral resources and reserves and the ability of the Company to achieve its goals in respect of growing its mineral resources; and the realization of mineral resource and reserve estimates. 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: 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.*

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## MINERALS

*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.*