

NEWS RELEASE

22 MAY, 2013

COMPLETION OF METALLURGICAL TEST PROGRAMME CONFIRMS SUITABILITY OF CONVENTIONAL RKEF TECHNOLOGY FOR THE ARAGUAIA NICKEL PROJECT

22 May 2013 – Horizonte Minerals Plc, (AIM: HZM, TSX: HZM) ('Horizonte' or 'the Company') the exploration and development company focussed in Brazil, is pleased to announce the completion of a comprehensive metallurgical test programme at the Company's 100% owned Araguaia Nickel Project ('Araguaia') located south of the Carajas mining district in northern Brazil.

Highlights

- Metallurgical testwork is now complete and has confirmed the suitability of the conventional Rotary Kiln Electric Furnace ('RKEF') process for the treatment of the Araguaia Nickel ore to produce ferronickel
- RKEF process is a proven 60 year old technology with 19 plants operational worldwide today
- Studies established operational conditions suitable for both the kiln and electric furnace in an RKEF operation - data will feed into a Pre-Feasibility Study ('PFS') to be undertaken in the second half of 2013
- A market study undertaken for Horizonte by CRU Strategies has confirmed that the targeted grade (15-17%) for Araguaia ferronickel product meets the requirements of stainless steel plants

Horizonte CEO Jeremy Martin said, "Our metallurgical test programme at Araguaia has returned excellent results and its completion is a major de-risking milestone for the Company. This work confirms the decision to proceed with the Pre-Feasibility Study based on conventional RKEF processing through the application of the tried and tested technology, currently used across some 19 plants around the world for nickel production.

"There are a number of nickel projects out there today that due to the chemical composition of the deposit or isolated locations with limited access to power, are not amenable to the RKEF or other proven processes and as such have to look at

new technologies many of which are not commercially proven. This is the major difference between Araguaia and many of its peer group.

“The next step is to award the PFS contract, for which we are in the final stages and commence the study with a view to completion in 2014.”

Further Details

The metallurgical test work undertaken over the last 18 months incorporated several different test programmes completed at a number of world-class metallurgical laboratories. The work included:

- A series of laboratory tests designed to establish the suitability of the ore for rotary kiln processing by FLSmidth at its Bethlehem, PA, USA laboratories;
- Supplemented by additional bench scale test work on briquette testing at K.R. Komarek of Wood Dale, Illinois, USA;
- Work on agglomeration by Feeco International Inc. of Green Bay, WI, USA; and
- Smelting testing was undertaken at the laboratories of Xstrata Process Support in Sudbury, Ontario, Canada, supplemented by additional work on the characteristics of the slag produced by smelting Araguaia laterite and the slag melting temperature at Kingston Process Metallurgy of Kingston, Ontario, Canada.

The overall objective of the programme was to determine the suitability of the RKEF process for the processing of Araguaia ore.

Testing for rotary kiln operation

These tests included the following:

- Chemical analysis
- Particle size distribution using wet and dry screening techniques
- Tumble testing (modified ASTM E279 test)
- Ore thermal analysis
- Ore sintering and reduction testing
- Agglomeration testing

- Production of briquettes

The testwork was completed on two blends of laterite, one a blend of limonite, transition and saprolite ore and a second of transition and saprolite only. The blends were made up in the same proportions that laterite types occur in the insitu mineral resource. A total of approximately 6,000 kg of laterite material was sent to FLSmidth.

The test work showed the following:

The material in each of the blends was found to be characterised by a fine particle size when tested under wet sieve conditions, but considerably less fine when tested in the dry state, corresponding more to conditions in a kiln operation. The dry particle size distribution was also found to be comparable to several laterite ores currently processed in commercial RKEF operations worldwide.

The Araguaia ore particles demonstrated a high degree of binding, producing robust agglomerates considerably resistant to degradation and dusting, and therefore suitable for the production process. Agglomeration testing of the as-received laterite ore showed that the natural properties of the material lent itself to good agglomeration behaviour, which is beneficial in reducing fines generation during processing.

Bench scale briquette testwork showed that briquettes with good resistance to attrition could be produced if this approach is required..

Thermal tests on the samples suggested a kiln operation allowing for a calcine temperature in the range of 800⁰C to 825⁰C would be suitable for the Araguaia ore to avoid sintering (partial melting of the ore and adhering to the sides of the kiln). This is 50⁰C to 100⁰C lower than some other RKEF operations but still within the range of satisfactory operational parameters. Under these conditions, a good degree of solid-state iron reduction was obtained, reducing the amount of iron reduction required in the electric furnace. The nickel reduction in the kiln was lower than some other RKEF operations however the lower observed degree of solid-state nickel reduction would be compensated in electric furnace smelting to give the required grade of ferronickel (15 to 17% Ni).

Overall, the test results on Araguaia ore confirmed operating conditions for reduction treatment in the rotary kiln and that the Araguaia ore is suited for rotary

kiln processing in an RKEF system provided that proper agglomeration provisions are adapted and that a lower calcine temperature and pre-reduction levels are considered in the electric furnace design.

Laboratory smelting tests

As previously reported (6 March 2012), laboratory smelting tests carried out at the laboratories of Xstrata Process Support in Sudbury, Ontario, Canada showed that smelting Araguaia laterites can produce ferronickel alloy and a low nickel slag. The testwork was carried out on a blend of limonite, transition and saprolite and a transition/saprolite blend with equally acceptable results.

Horizonte ores have a high SiO₂/MgO ratio, in a similar range to that reported during the early years of operation at the BHB-Billiton Cerro Matoso ferronickel plant. Kingston Process Metallurgy of Kingston, Ontario, Canada, examined the characteristics of the slag produced by smelting Horizonte laterite in more detail. This work mapped a range of slag compositions using the FACT thermodynamic database and also determined the slag melting points using the TGA/DTA technique. Measured slag melting points were in the range of 1,400^oC, depending on the specific SiO₂/MgO ratio and the level of Al₂O₃ in the slag. The measured results were found to be generally consistent with those predicated by the FACT database.

These results confirmed the electric furnace smelting conditions when producing a 15-17% Ni grade of ferronickel, and confirmed the suitability of the RKEF process for the Araguaia ore. A market study undertaken for Horizonte by CRU Strategies has also confirmed the potential market for this grade of ferronickel to meet the requirements of stainless steel plants. As a precursor to the PFS a trade-off study will be completed to consider the optimum sizing of the RKEF plant to be used in the PFS. This is likely to recommend the standard configuration of twin line kiln and furnace as adopted at Anglo American's Barro Alto nickel mine in Brazil which allows for increased annual throughput and subsequent increase in ferronickel production.

Dr. Phillip Mackey P.Eng., Ph.D., FCIM, is the Qualified Person as defined by NI 43-101 for the metallurgical testing programme on the Araguaia Nickel Project. Dr. Mackey has reviewed and approved the contents of this news release as it relates to the results of the preliminary metallurgical testing programme.

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For further information visit www.horizonteminerals.com or contact:

| | | |
|---------------------|------------------------------------|---------------------------|
| Jeremy Martin | Horizonte Minerals plc | Tel: +44 (0) 20 7763 7157 |
| David Hall | Horizonte Minerals plc | Tel: +44 (0) 20 7763 7157 |
| Joanna Weaving | finnCap Ltd (Corporate Broking) | Tel: +44 (0) 20 7220 0500 |
| Matthew Robinson | finnCap Ltd (Corporate Finance) | Tel: +44 (0) 20 7220 0500 |
| Felicity Edwards | St Brides Media & Finance Ltd (PR) | Tel: +44 (0) 20 7236 1177 |
| Lottie Brocklehurst | St Brides Media & Finance Ltd | Tel: +44 (0) 20 7236 1177 |

About Horizonte Minerals:

Horizonte Minerals plc is an AIM and TSX listed exploration and development company focussed in Brazil which wholly owns the advanced Araguaia nickel project located to the south of the Carajas mineral district of northern Brazil. The project currently has an estimated mineral resource of 39.3Mt grading 1.39% Ni (Indicated) and 60.9Mt at 1.22% Ni (Inferred) at a 0.95% nickel cut-off.

The Company has completed a Preliminary Economic Assessment at Araguaia that illustrates robust economics based on low strip ratio with good infrastructure. It is Horizonte's intention to complete a Pre Feasibility at Araguaia to further prove the economics of the project.

In addition it has support from its major shareholder, Teck Resources. The company is well funded to accelerate the development of its core project.

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",

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“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.

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.