# Meridian Mining Provides Espigão Exploration Update

13.06.2019 | CNW

Release of base metals assays give context to larger hydrothermal origin of manganese veins

LONDON, June 12, 2019 - Meridian Mining SE (TSXV: MNO) ("Meridian" or the "Company") today releases all multi-el
Diamond Drill Hole ("DDH") results from the Company's 2014-2015 drilling program on the Espigão project in Rondônia
("the Project") (Fig 1). Prior drilling releases were previously reported solely on the manganese content of the vein syst
Following the recent development of an intrusive-related mineralization model, the drilling database has been re-assess
composites re-calculated for the base metal components: copper ("Cu"), lead ("Pb") zinc ("Zn") and other pathfinder ele
The review highlights diverse, zoned metal assemblages coincident with geophysical anomalies, reflecting an underlyin
geological control.

To download the entire DDH results please refer to the link provided on the Company's web site "Espigão" project page
www.meridianmining.co/operations/espigao/

Northern Structural Trends

The northern manganese oxide vein systems carry a significant base metal content (Fig 1), with copper and lead assay
in excess of 0.1%. At several prospect areas, the results from the DDH* for base metal contents reach percent levels, w
examples including:

- DDH_EM_012 (Eduardo Mendes): 19.50m @ 19.9% $MnO_2$, 0.16% Cu & 1.05% Pb, from 47.65m;
- including 2.15m @ 28.4% $MnO_2$, 0.19% Cu & 2.20% Pb, from 53.4m (Fig2);
- DDH_SF_002 (São Felipe): 6.65m @ 53.5% $MnO_2$, 0.24% Cu & 2.91% Pb, from 38.75m (Fig 3); and
- DDH_ADE_002 (Califórnia): 4.45m @ 37.7% $MnO_2$, 0.19% Cu & 1.22% Pb, from 17.5m.

*All intersections for the inclined DDH-series holes are estimated to be at least 50 - 65% of the downhole thicknesses.

Peak base metal results for individual drill samples along this trend reach 0.62% Cu & 6.56% Pb. The north-east quadr
project area generally shows higher levels of Cu-Pb contents in the composite database. Peak zinc is also observed at
Mendes (DDH_EM_016; 0.14% Zn).

Central Structural Trends

Base metals remain moderately elevated throughout the structural trends in the more central part (Fig 1) of the Project.
Antônio Gomes area contains massive to brecciated vein and stockwork style vein zones. Half of the holes drilled in thi
area have returned lead in the >0.1% Pb range. Other metals are elevated but more variable. Vein textures suggest an
emplacement, transitional to epithermal conditions. Zinc locally forms part of the metal content. Examples of intersectio
illustrating the metal associations over broader or more discrete intervals include:

- DDH_AG_001: 12.25m @ 16.2% $MnO_2$, 0.04% Cu, 0.23% Pb from 3.00m
- DDH_AG_009: 0.17m @ 61.2% $MnO_2$, 0.44% Cu, 0.10% Pb, 0.11% Zn from 34.8m

The lead and copper association extends to neighbouring prospects such as Ademir Curral, Ambulancia, and areas wit
central mining lease (e.g. Edinei - Zenilda).

Southern Structural Trends

The manganese veins in the southern margin (Fig 1) of the project area are by comparison relatively depleted in their b content. Lead in composites is frequently <100 ppm Pb to a maximum of 464 ppm Pb. Copper in composites remain ar with an average content of 730ppm Cu, to a maximum 0.44% Cu. Zinc has an average of 151 ppm to a maximum of 69

In one area (Gracioso target), the hydrothermal alteration is marked by a wide package of ferruginous breccias (from su 114m), with a finely laminated package appearing at 82.60 - 83.50m. This suggests at least part of the sequence may b by high-level volcanic to sub-volcanic horizons with altered breccia pipes. The associated lithogeochemical anomalies a of the basement elsewhere:

- DDH_GR_001: 15.85m @ 0.9% $MnO_2$, 5.2% $Fe_2O_3$, 130ppm uraniam (U), 0.13ppm tellurium (Te), 3.4ppm Silver 4.55m

The base metal content of this interval is at background levels (60ppm Cu, 40ppm Pb, 156ppm Zn), but a bedrock conc present in the vicinity and requires further constraint to test the metal assemblage underpinning the breccia complex. A (W) anomaly is present from the collar of the hole, and the position needs to be stepped back to test the full cross-strike the breccia package.

Potential for Zoned Mineralization

The overall footprint of the mineralization event is broad, and historical drilling in many areas remains at wide spacings (300-500m), and relatively shallow (average depth below surface of ~41m). The development of the intrusive-related m raises the need to test for partitioning of gold and base metals at depth and along strike, with the possibility that differen assemblages were concentrated in different areas (related to changes in pressure, temperatures or redox conditions in hydrothermal system).

It is already known that bedrock gold has been concentrated in at least one target area. At Coice de Cobra, trenching re 28.00m @ 0.8g/t Au in saprolite (including 0.50m @ 23.5g/t Au and 0.50m @ 9.1g/t Au). The peak results from a six-ho in 2017 was 4.35m @ 3.2g/t Au from 20.65m (DDH_CC_003)[1]. The host quartz-sulphide veins share the same orientat manganese vein system. Further analysis of the Company's core and pulp collection is warranted to better understand distribution in the manganese veins themselves (only 55% of holes drilled for manganese were analysed for gold, with a 331 ppb over 0.35m in hole DDH_CF_004).

Other related pathfinder elements (Figures 8 through to 11) are recognized. Rare earth element Lanthanum (La) is see anomalous to levels of several hundred ppm in the manganese veins, particularly in the northern vein systems. A peak was returned in the sparsely tested area on the eastern perimeter of the project:

---

[1] Meridian news release of Nov. 20, 2017

- DDH_MR_008A (Marafom): 7.8m @ 8.4% $MnO_2$, 0.1% Cu, 0.42% Pb, 0.10% La from 8.5m.

Tungsten (W) is generally a minor metal, typically at levels of <100ppm, and in the 100-400ppm range in the northern v peak assay returned in the database is

- DDH_MOI_002 (Moises) 1.00m @ 11.2% $MnO_2$, 0.1% Cu, 0.1% Pb, 0.12% W from 20.15m.

Molybdenum (Mo) values are generally low; peak values of 103 ppm Mo are seen in DDH_ACS_003 and 114 ppm Mo DDH_ADV_005, in the northern area:

- DDH_ACS_003 (14 de Abril): 0.73m @ 47.2% $MnO_2$, 400ppm Cu, 3.86% Pb, 103ppm Mo from 6.85m.

Peaks in these metals often appear at the margins of the known manganese zones. Rare earths such as lanthanum are have a possible spatial association to IOCG style deposits or intrusive related systems.

Next Steps

The Company is looking to initiate multi-element scanning on soil samples through portable XRF analysis. Soil XRF analysis is also being incorporated into the preproduction programs, to test for metal assemblages in the immediate halo to the manganese veins. Quartz veins and ferruginous breccia zones seen along strike from the veins have traditionally not been a past focus for analytical work.

Corridors defined by the recent modelling of the Company's magnetic data will be subject to reconnaissance field work, to extend the knowledge of the surface expression of the footprint to the hydrothermal centres. Follow-up work will be extending also to the tin greisen[2] recognized along strike from the Antonio Gomes prospect.

Mr Clark, Interim CEO & President, states, "The hydrothermal mineralisation of the Company's Espigão Project displays an impressive suite of related metals: manganese, copper, lead, zinc (Figures 4-7), tin and gold. By combining these metals with vectoring elements (Figures 8-11), the Company can draw analogies to other polymetallic systems that have manganese veins in proximity. While remaining focused on managing costs and producing high quality Mn concentrates, the Company's geologists are reviewing the historical and modern data sets to assess the full range of generative models, from IOCG potential given the recognition of wide ferruginous breccia zones and the diverse pathfinder element suite, to intrusive-related gold / base metal systems, which are the focus of aggressive exploration campaigns within the same geological terrains in neighbouring states to the east."

Qualified Person: The technical information about the Company's exploration activity has been prepared under the supervision of and verified by Dr. Adrian McArthur (B.Sc. Hons, PhD. FAusIMM), the Chief Geologist of Meridian Mining, who is a "qualified person" within the meaning of National Instrument 43-101.

_____

[2] Meridian news release of Nov. 22, 2018.

Notes:

Analysis have been conducted by an accredited SGS Laboratory in Belo Horizonte, Brazil. Gold in drill core has been analysed by methods FAA323 and FAA505 (fire assay of 30g / 50g charge), with samples containing visible gold analysed by screen fire assay (SGS method FAASCR). Manganese and multi-element results have been determined by XRF techniques (XRF79C) for major oxides in mineralized zones, supplemented by multi-acid digest and ICP-OES analysis (ICP40B) in areas of trace mineralization or wall-rock alteration. Multi-element work on the Gracioso breccia was conducted by a lithogeochemical package at ALS in Lima, Peru (methods ME-XRF26, ME-MS42, ME-MS81, ME-4ACD81, Au-AA26, C-IR07, S-IR08). Analytical quality is monitored by certified references and blanks. Until dispatch, samples are stored in the company's supervised stockpile yard or exploration office. The samples are couriered to the assay laboratory using a commercial contractor (Eucatur). Pulps are returned to the Company and archived.

On behalf of the Board of Directors of Meridian Mining SE

Gilbert Clark

Interim CEO, President and Director

ABOUT MERIDIAN

Meridian Mining SE is focused on the acquisition, exploration, development and mining activities in Brazil. The Company is currently focused on exploring and developing the Espigão manganese and gold projects,

the Bom Futuro tin JV area, and adjacent areas in the state of Rondônia. Meridian is currently producing high grade manganese at its project located at Espigão do Oeste.

Further information can be found at www.meridianmining.co.

FORWARD-LOOKING STATEMENTS

Some statements in this presentation contain forward-looking information or forward-looking statements for the purposes of applicable securities laws. These statements include, among others, statements with respect to the Company's plans for exploration, development and exploitation of its properties and potential mineralization. These statements address future events and conditions and, as such, involve known and unknown risks, uncertainties and other factors, which may cause the actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the statements. Such risk factors include, among others, failure to obtain regulatory approvals, failure to complete anticipated transactions, the timing and success of future exploration and development activities, exploration and development risks, title matters, inability to obtain any required third party consents, operating risks and hazards, metal prices, political and economic factors, competitive factors, general economic conditions, relationships with strategic partners, governmental regulation and supervision, seasonality, technological change, industry practices and one-time events. In making the forward-looking statements, the Company has applied several material assumptions including, but not limited to, the assumptions that: (1) the proposed exploration, development and exploitation of mineral projects will proceed as planned; (2) market fundamentals will result in sustained metals and minerals prices and (3) any additional financing needed will be available on reasonable terms. The Company expressly disclaims any intention or obligation to update or revise any forward-looking statements whether as a result of new information, future events or otherwise except as otherwise required by applicable securities legislation.

Contact
Jonathan Richards, +1 604-681-0405, info@meridianmining.com

The Company cautions that it has not completed any feasibility studies on any of its mineral properties, and no mineral reserve estimate or mineral resource estimate has been established. In particular, because the Company's production decision relating to Meridian Mineracao Jaburi S.A, manganese project is not based upon a feasibility study of mineral reserves, the economic and technical viability of the Espigão manganese project has not been established.



The TSX Venture Exchange has neither approved nor disapproved the contents of this news release. Neither TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.

Diagrams:



SOURCE Meridian Mining S.E.