AMSTERDAM, Feb. 15, 2017 /CNW/ - Meridian Mining S.E. (TSX V: MNO) ("Meridian " or the "Company"), today provided an update on exploration activities on its Bom Futuro tin joint venture in the state of Rondônia, in northwest Brazil.

KEY HIGHLIGHTS

- Tailings program accelerates: 212 auger holes have been completed with peak composite grades of 0.11% Sn (tin). The Jacaré Leste tailings area has been prioritized for initial resource evaluation. The first percussion holes here indicate this tailings pile is 3 to 18 metres thick, providing a good target for appreciable tonnage over the 177 hectares area.
- Primary targets emerging: The core drilling program is on its 6th hole, with 741 m completed. Coarse cassiterite has been observed in pegmatites and quartz veins. Initial samples have been dispatched to ALS Global for independent, third party analysis. Structurally controlled vein mineralization is being mapped on the Bom Futuro Hill and the Palanqueta Hill, 1.2 kilometres to the northeast. Reconnaissance field inspection confirms that surficial cassiterite occurrences extend to the immediate north of Palanqueta into the 18,000ha Non-Explored Area. Geophysical orientation surveys are in progress to assis in under-cover target definition.

"We are thrilled with the rapid progress and early outcomes of our initial work program," said Anthony Julien, President and CEO of Meridian. "We have received excellent logistical support from Coopersanta, our joint venture partner. Together we believe there are excellent opportunities to apply modern technology to optimize recoveries and explore for new tin deposits in this important mining centre. Our goal is to finalize our technical audit ahead of the March 15, 2017 deadline to confirm our intention to exercise our option under the Investment Agreement."

PROJECT BACKGROUND

Over a 30-year operational history, 192,000 tonnes of tin have been produced and some millions of cubic metres of tailings have accumulated around the Bom Futuro Hill. Meridian's joint-venture partner, Coopersanta, has been operating the project since 2004. Coopersanta is currently sourcing production from tailings retreatment plants, and from mining operations on palaeochannels and primary vein / pegmatite mineralization.

Coopersanta's tailings reprocessing operations have contributed 6,742 t of tin production over seven years since commencing in 2010. There are four main plants with treatment capacities of ~20,000 m³ per month each. The plants use a combination of jigs, shaking tables, and magnetic separation techniques to produce a cassiterite concentrate. Opportunities exist to further optimize tin recoveries through developing a thorough understanding of the tailings resource, its metallurgical characteristics, and the optimal technologies for recovering tin in all size fractions.

Coopersanta's long-term geological consultancy – Avistar – estimates that, through the entire project area, there are 85 million cubic metres of rejects in active and inactive tailings ponds covering 3,548 ha. This represents 128 Mt of mineralized waste at an assumed a density of 1.5 t/m^3 on a dry basis. Avistar estimates the tailings have recoverable grades in the range of 350-800 g/m³ / 230 – 530 g/t based on processing trials. A qualified person (as defined in National Instrument 43-101) has not done sufficient work to classify this estimate as a mineral resource and Meridian is not treating the estimate as a current mineral resource. Meridian plans to complete further work based on the Avistar estimate to establish an NI 43-101 compliant mineral resource estimate.

MERIDIAN TAILINGS EVALUATION PROGRAM

The Company commenced a scout auger geochemical drilling program immediately following entry into the Investment Agreement referenced in the press release dated December 19, 2016. The purpose of this was to provide provisional information on the thickness and grade of the tailings pile, which has been deposited on an incised topography. Programs have been focussed in the main tailings prospect areas of Jacaré Leste, EBESA, and the Santa Cruz corridor (Santa Cruz "LC80", Santa Cruz Central, and Santa Cruz "LC75"; Figure 1).

Two hundred and twelve holes have been completed to date, with the program ongoing. Initial drilling was conducted on a broad 400 x 400 m grid due to the extensive area. This pattern is being progressively infilled on a 100 x 100 m grid. Assay results from the broad spaced program have been received with data from the infill program pending.

The mechanical augers are capable of returning a good sample to a depth of approximately two to nine metres below surface in the upper drier part of the tailings pile. Results will be used to prioritize more detailed resource definition drilling. Meridian has purchased and refurbished a Bucyrus percussion drill rig to provide a high quality sample through the full tailings profile. The rig has just commenced operations in the Jacaré Leste Area, and will continue in parallel with the ongoing auger program.

The Jacaré Leste area is dominated by reject material from primary mining operations. The area has been prioritized for the next phase of evaluation based on elevated grades and indications of an appreciable thickness. The tailings from Jacaré Leste accumulated during the same era of mining as those which have supplied Coopersanta's tailings production for the past seven years. The auger composites from the central and eastern sector are higher grade, returning values of 300 – 892 g/t Sn

(Figure 2). Eighty percent of the auger holes bottomed in tailings, indicating minimum depths of two to eight metres over wide areas. Three new percussion holes have been completed to date, encountering the base of the tailings pile at depths of three, ten and eighteen metres (assay results pending). Ground penetrating radar techniques will be used in conjunction with drilling data to interpret the position of the base of the tailings profile. The percussion holes are being continued into the underlying soil, alluvium and saprolite to test whether any residual mineralization exists in the original substrate.

The EBESA area also shows promise for good thickness of tailings. Auger holes have terminated within the reject pile at depths of three to nine metres. The full thickness of the profile will be confirmed by follow-up percussion drilling. These tailings are from the historical operations of the company EBESA, and were originally crushed by a hammer mill nominally screened at six millimetres before processing. The first phase of drilling encountered grades of 144 - 690 g/t Sn. The area allocated to BMC spans 51 ha and is bordered by an active tailings pond. The Company is maintaining a dialogue with the Coopersanta regarding integrating further tailings areas into the agreement when not required for operational purposes.

The Santa Cruz corridor along the western boundary of the project area has returned some of the highest composite grades to date (Santa Cruz LC80: 2.95m @ 1070 ppm, Santa Cruz Central: 1.5m @ 1080 ppm – both open at depth). The thicker and higher grade tailings in these areas are believed to be deposited in lower lying channels and will form the last stage of detailed evaluation.

Figure 1: Grade distribution from composites of initial auger results (holes positions with results available illustrated).

Figure 2: Top: Grade distribution in the Jacaré Leste Area. Composites in labelled in black are reported from ALS Canada; those in blue are from the local Bom Futuro laboratory with ALS checks pending.
Bottom: Overview of tailings area, and example of freely liberated cassiterite panned from the tailings (metallic grey gravel) and sand particles.

The Company has engaged metallurgical consultant Mr. Ian Gordon Hall Dun, who was involved with the Ariquemes tin district during its initial development in the 1980's with Cia Estanifera do Brasil. Mr Dun has since worked on tin-tantalum-niobium projects with Minsur SA, Mineração Taboca SA, and in a consulting capacity on various projects through South America and Africa. The Company will use SGS Brazil, Mineral Technologies and Laboratório de Caracterização Tecnológica to support its initial metallurgical testwork. Meridian's engineering consultancy Küttner Engineering will scope plant designs as data becomes progressively available. Metallurical testwork will determine the most appropriate flowsheet to produce a concentrate of at least 50% Sn. This flowsheet will include conventional gravity, magnetic and electrostatic separation equipment. Fine grinding and flotation will not be necessary thereby reducing operating costs substantially.

EXPLORATION PROGRAM

In parallel with the tailings activities, the Company has commenced an exploration program focussed on the 2,000ha Central Area of the project. The purpose of the program is to develop an early understanding of the structural controls on the vein and pegmatite mineralization, and characterize the response of palaeochannels and primary mineralization in various geophysical techniques.

AFC Geofisica has initiated ground geophysical surveys involving gravity surveys, ground magnetics, and induced polarization. Palaeochannel positions will also be tested with two-dimensional electrical imaging studies. The initial survey covers an area of ~2km2. The Company's geophysical consultancy, Core Geophysics, will assist in a review of the results with an objective to extending the most effective surveys to under-cover extensional exploration programs, involving aerial surveys augmented by further ground programs.

Four holes have been completed in the Company's core drilling program, and two are currently in progress. A total of 741m has been completed to date (Figure 3). Two holes have been designed for verification of historical results (DDH_BF_0001, DDH_BF_0003), where prior drill results were limited by maximum upper detection limits of 1%, and to compare results of an uncertified laboratory for historical sampling. Some holes have provided first tests below historical pits on the southern and western flanks of the hill (DDH_BF_0002, DDH_BF_0005). DDH_BF_0004 is testing along strike to the east of an historical hole which intersected a wider vein package (3.45 m @ 1.11% Sn).

Figure 3: Location of Meridian drill sites (DDH_BF series), in relation to vein systems and historical drill collars around the Bom Futuro Hill. The location of current vein mining by Coopersanta is shown on the eastern flank of the hill. Historical drill results are highlighted in yellow.

Drilling indicates that the veins can reach widths of several metres (Figure 4). However assay results for the drilling remain pending to confirm grades. First samples have been sent to ALS Global for analysis. Samples will be analyzed for tin and base metals, with sphalerite and chalcopyrite observed in drill core along with the cassiterite mineralization.

Additional drilling over the coming weeks is planned in the vicinity Coopersanta's current active mine area, where channel sampling of an exposed vein returned a result of 5.25m @ 0.56% Sn, including 2.45m @ 1.16% Sn. Some scout drilling will also be conducted on the Palanqueta Hill, a granite plug centred 1.2k north of the Bom Futuro Hill just within the northern limit of the Central

Area. Hand-workings on vein systems cutting the granite here have returned samples of coarse cassiterite (Figure 5).

Figure 4: Drill core from Meridian drill hole DDH_BF_0004, illustrating oxide-sulphide mineralization with a package of quartz veins, 103.9 - 115.9m (example arrowed to the right). Assay results pending.

Figure 5: Cassiterite samples from garimpeiro workings on the Palanqueta Hill.

Next Steps

- Auger drilling will continue on the tailings areas to mid-March. This will be supported by the deeper percussion drilling that will become the preferred technique for resource definition activities subject to satisfying due diligence outcomes.
- Provisional metallurgical testwork will be extended as samples become available in key areas through the full width of the tailings profile. Metallurgical testwork will examine concentration processes and recoveries using a variety of gravity-based mineral separation techniques, such as jigs, spirals, and centrifugal concentration.
- The diamond drilling evaluation will conclude in the first quarter and the focus will switch to evaluation of geophysical data. After preferred techniques are confirmed, the focus of primary and palaeochannel exploration would be on target definition through an expanded geophysical survey program.

QUALIFIED PERSON

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

On behalf of the Board of Directors of
Meridian Mining S.E.

"Anthony Julien"
Anthony Julien
President, CEO and Director

ABOUT MERIDIAN

Meridian Mining S.E. is focused on the acquisition, exploration, development and mining activities in Brazil. The Company is currently focused on exploring and developing the BMC manganese project, the Bom Futuro tin JV area, and adjacent areas in the state of Rondônia. The Company employs a two-pronged strategy with the objective of growing pilot production while advancing a parallel multi-commodity regional exploration program. Meridian is currently producing high grade manganese at its project located at Espigão de Oeste.

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

FORWARD-LOOKING STATEMENTS
Some statements in this news release 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 and development 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 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 and development 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.

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

The TSX Venture Exchange has in no way passed upon the merits of the proposed Arrangement and 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.

NOTES

Auger program are samples downhole by material type where some stratification is encountered or in regular 1m intervals in more massive domains. Material is dried a divided by riffle splitter to produce a 5kg sample. Samples are pulverized at the company's sample preparation facilities in Espigão do Oeste, with one pulp sent for analysis by pressed powder XRF at the Coopersanta laboratory at Bom Futuro using a Rigaku X-ray spectrometry (XRF). Checks are being conducted via ALS Global. Sample quality is monitored through the use of certified reference materials. Tin grades quoted are those reported by the certified ALS laboratory unless otherwise indicated.

The diamond drilling program is being conducted by Layne Do Brasil Sondagens Ltda, and by an internal Meridian team using a hand-portable drill rig subleased from Energold Perfurações Ltda. Sampling is conducted to geological boundaries with a maximum interval of 1m. Half HQ core has been submitted for analysis at ALS Global Vancouver. Sample preparation is being conducted at ALS Global's sample preparation facilities in Goi nia.

The estimated volume and tonnage of tailings were compiled in May 2016 for Meridian by Coopersanta's geological consultant Renato Muzzolon of Avistar Engenharia de Meio Ambiente e Segurança do Trabalho. Renato Muzzolon has worked on Bom Futuro project since 1988. The figures do not constitute a resource and a qualified person has not done sufficient work to classify this estimate as a mineral resources. Meridian is not treating the estimate as a current mineral resources.

The volume calculations are based on the known areal extent of the tailings coupled with estimated depths. Inspections of active Coopersanta mining areas where tailings are being reprocessed indicate the assigned thicknesses are not unreasonable. Grade estimates are based on processing trials, a limited number of analyses from localized historical auger drilling, and a 1996 report on reject grades from historical operations. Work required to define a formal mineral resource estimate on the tailings assigned to Meridian include:

- Regular grid drilling with techniques ensuring good sample recovery (sonic drilling or percussion casing advance techniques).
- Systematic analyses coupled with quality control and metallurgical testwork to determine grade distribution and recoveries
- Accurate topographic survey of the current relief on the tailings ponds coupled with a relief model of the substrate for volume calculations
- Data on the wet and dry density of the pile.

SOURCE Meridian Mining S.E.

Contact
Nick Hurst, 416-586-1942, nhurst@national.ca