



## NEWS RELEASE

May 28, 2019  
FOR IMMEDIATE RELEASE

TSX: JAG

### Jaguar Mining Provides Operational and Corporate Updates; Completes Turmalina and Pilar Gold Mine Technical Report Filings under NI-43-101

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**Toronto, Canada, May 28, 2019 - Jaguar Mining Inc. ("Jaguar" or the "Company") (TSX: JAG)** is pleased to report the Company has completed the filings of independent National Instrument 43-101 ("NI 43-101") "Technical Reports on the Turmalina and Pilar Gold Mines, respectively, (the "Technical Report)". The Technical Report supports the Company's updated Mineral Reserves and Mineral Resources announced in a news release dated March 1, 2019. All Company Technical Reports are available on SEDAR ([www.sedar.com](http://www.sedar.com)).

#### Turmalina Gold Mine Update

Management continues to advance a turnaround plan expected to return gold production to historical rates of approximately 15,000 ounces quarterly by the end of 2020. Importantly, Turmalina maintains a well-defined base of mineral reserves and mineral resources to support a sustainable, increasing gold grade and production profile. The Company continues to focus on operational execution and provided the following operational update on recent and upcoming critical milestones in process:

- Total Mineral Reserve gold ounces increased 95% as at December 31, 2018 to 1.4 Mt at 5.05 g/t containing 228 koz, representing over four years of mine life based on a 50,000-ounce annual production rate.
- Following exploration success at Orebody C-Central, the Company has prioritized and initiated development in this area to provide a third mining area and additional flexibility. Orebody C-Central is expected to contribute development ore in the second half of 2019 with first stoping ore expected in Q4 2019.
- Orebody B Measured Mineral Resources totaled 353 kt at 3.34 g/t containing 38,000 ounces and Indicated Mineral Resources totaled 192 kt at 4.26 g/t containing 26,000 ounces at December 31, 2018. Orebody B, which is outside the current mine plan and does not have Proven and Probable Reserves, has the potential to provide increased mine flexibility and production capability in 2019. A higher-grade pay shoot is currently being re-evaluated as a potential forth mining area. Orebody B has existing ventilation infrastructure and can be accessed from Orebody A. *(Refer to the Press Release dated March 1, 2019 for more information on Mineral Reserves and Mineral Resources.)*
- In Q1 2019, mine working hours increased to a 4 shift/day schedule. Hiring and training efforts ramped up during Q2 2019 to support increased development and production. The new management team is implementing work routines to improve employee communication, shift effectiveness, mine planning, adherence to plan and safety culture.
- Q2 2019 equipment purchases to support increased planned production: (1) development jumbo, (1) haul truck, (2) basket-lift, auxiliary vehicles, and (1) personnel-carrier to facilitate the hot shift changes.
- Expected ore production during Q2 and Q3 will be from remaining stopes in Orebody A and from one production panel in orebody C-SE. Increased development combined with two new production mining panels in Q4 2019, followed by one new panel in Q1 2020, is expected to support planned production ramp up.
- Total development rates continued to improve to over 400 meters/month from 300 meters/month prior. With increasing shift schedules, extra equipment, added employees, and added development faces, development rates are expected to increase to over 550 meters/month in the second half of 2019. The contractor developing the Orebody A ramp area has also changed shift schedule and added equipment and people. The contractor will be increasing from 150 to +200 meters/month while Jaguar crews increase from 250 to +350 meters/month.

- Mine designs and systematic sequencing developed for the new mining panels will prevent geotechnical delays, production delays, and re-work. Dilution and ore loss will be significantly improved when mining includes drill-and-blast quality control improvements and use of cemented paste fill in wide zones of the orebody.
- Mine infrastructure improvements are in progress including:
  1. A ventilation system to the ramp bottom has been upgraded and a ventilation raise is expected to be completed in Q2 2019;
  2. Underground pumping stations are planned for Q2 and Q3 2019;
  3. Electrical substation has been installed in the deepest zone in the mine (A-12);
  4. Paste fill distribution system will be extended to Orebody A level 12 in Q3 2019;
  5. A new mine infrastructure coordinator has been added combined with new infrastructure crews which has resulted in a significant reduction in production delays.

### **Pilar Gold Mine Update**

Management continues to make progress on operational execution and key initiatives to support a sustainable production profile including the following:

- Exploration success at Pilar increased Mineral Reserve contained gold ounces by 69% as at December 31, 2018, including Proven Mineral Reserves of 1.2 Mt at 3.79 g/t containing 143,000 ounces, and Probable Mineral Reserves of 0.6 Mt at 3.47 g/t containing 68,000 ounces. This represents more than four years of mine life at 50,000-ounce annual production. *(Refer to the Press Release dated March 1, 2019 for more information on Mineral Reserves and Mineral Resources.)*
- Development and exploration in 2019 include the BA, Torre, and SW orebodies and potential open pit sources, which are being targeted to increase mine flexibility and production capability.
- Operational issues experienced in early 2019, with excess dilution in a large stope, and fan drill production have been resolved. A new fan drill was delivered in February 2019 and drilled inventory has recovered to target levels.
- An underground maintenance shop will be completed in Q2 2019 to ensure improved equipment availability with faster maintenance response time and avoid tramping slow moving equipment to surface.
- Caeté metallurgical recovery has returned to 88% following the replacement of leach agitators in February 2019 combined with additional operational improvements. CIP agitators are planned to be replaced in early H2 2019 to further improve recovery levels.
- Production remains stable and with mine working hours increased following a 4 shift/day schedule that started in May 2019. Additional employees are being hired and trained which are expected to add work hours and drive increased ore production starting in Q3 2019.

### **Corporate Update**

- The Board of Directors (the "Board") initiated a strategic review process to explore opportunities and alternatives to enhance shareholder value. The Board has appointed Canaccord Genuity Corp. as its exclusive financial advisor in conjunction with its strategic review. The review will consider various alternatives for the Company, including reviewing merger opportunities, potential partnerships, joint venture agreements and any other options with the objective of maximizing value for the Company's shareholders.
- The Company has also retained an external executive recruitment firm to search for a permanent Chief Executive Officer. The hiring process is in an advance stage and the Company expects to finalize the position in Q2 2019.

## **Qualified Persons**

The scientific and technical information contained in the Turmalina and Pilar Gold Mines' Technical Reports has been reviewed and approved (i) in respect of the estimated Mineral Reserves and the Life of Mine Plan (LOM) by Jeff Sepp, P.Eng., of Roscoe Postle Associates Inc. ("RPA"), and (ii) in respect of the estimated Mineral Resources by Reno Pressacco, P.Geo., of RPA. RPA is an independent mining consultant and Mr. Sepp and Mr. Pressacco are each Qualified Persons within the definition of NI 43-101.

Scientific and technical information contained in this press release has been reviewed and approved by Jonathan Victor Hill, BSc (Hons) (Economic Geology - UCT), FAUSIMM, Senior Expert Advisor Geology and Exploration to the Jaguar Mining Management Committee, who is also an employee of Jaguar Mining Inc., and is a "qualified person" as defined by National Instrument 43-101 - Standards of Disclosure for Mineral Projects ("NI 43-101").

## **The Iron Quadrangle**

The Iron Quadrangle has been an area of mineral exploration dating back to the 16th century. The discovery in 1699–1701 of gold contaminated with iron and platinum-group metals in the southeastern corner of the Iron Quadrangle gave rise to the name of the town Ouro Preto (Black Gold). The Iron Quadrangle contains world-class multi-million-ounce gold deposits such as Morro Velho, Cuiabá, and São Bento. Jaguar holds the second largest gold land position in the Iron Quadrangle with just over 25,000 hectares.

## **About Jaguar Mining Inc.**

Jaguar Mining Inc. is a Canadian-listed junior gold mining, development, and exploration company operating in Brazil with three gold mining complexes and a large land package with significant upside exploration potential from mineral claims covering an area of approximately 64,000 hectares. The Company's principal operating assets are located in the Iron Quadrangle, a prolific greenstone belt in the state of Minas Gerais and include the Turmalina Gold Mine Complex and Caeté Mining Complex (Pilar and Roça Grande Mines, and Caeté Plant). The Company also owns the Paciência Gold Mine Complex, which has been on care and maintenance since 2012 and the Roça Grande Mine which has been on care and maintenance since April 2018. Additional information is available on the Company's website at [www.jaguarmining.com](http://www.jaguarmining.com).

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## Forward-Looking Statements

*Certain statements in this news release constitute "forward-looking information" within the meaning of applicable Canadian securities legislation. Forward-looking statements and information are provided for the purpose of providing information about management's expectations and plans relating to the future. All of the forward-looking information made in this news release is qualified by the cautionary statements below and those made in our other filings with the securities regulators in Canada. Forward-looking information contained in forward-looking statements can be identified by the use of words such as "are expected," "is forecast," "is targeted," "approximately," "plans," "anticipates," "projects," "anticipates," "continue," "estimate," "believe" 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. All statements, other than statements of historical fact, may be considered to be or include forward-looking information. This news release contains forward-looking information regarding, among other things, expected sales, production statistics, ore grades, tonnes milled, recovery rates, cash operating costs, definition/delineation drilling, the timing and amount of estimated future production, costs of production, capital expenditures, costs and timing of the development of projects and new deposits, success of exploration, development and mining activities, currency fluctuations, capital requirements, project studies, mine life extensions, restarting suspended or disrupted operations, continuous improvement initiatives, and resolution of pending litigation. The Company has made numerous assumptions with respect to forward-looking information contained herein, including, among other things, assumptions about the estimated timeline for the development of its mineral properties; the supply and demand for, and the level and volatility of the price of, gold; the accuracy of reserve and resource estimates and the assumptions on which the reserve and resource estimates are based; the receipt of necessary permits; market competition; ongoing relations with employees and impacted communities; political and legal developments in any jurisdiction in which the Company operates being consistent with its current expectations including, without limitation, the impact of any potential power rationing, tailings facility regulation, exploration and mine operating licenses and permits being obtained and renewed and/or there being adverse amendments to mining or other laws in Brazil and any changes to general business and economic conditions. Forward-looking information involves a number of known and unknown risks and uncertainties, including among others: the risk of Jaguar not meeting the forecast plans regarding its operations and financial performance; uncertainties with respect to the price of gold, labour disruptions, mechanical failures, increase in costs, environmental compliance and change in environmental legislation and regulation, weather delays and increased costs or production delays due to natural disasters, power disruptions, procurement and delivery of parts and supplies to the operations; uncertainties inherent to capital markets in general (including the sometimes volatile valuation of securities and an uncertain ability to raise new capital) and other risks inherent to the gold exploration, development and production industry, which, if incorrect, may cause actual results to differ materially from those anticipated by the Company and described herein. In addition, there are risks and hazards associated with the business of gold exploration, development, mining and production, including environmental hazards, tailings dam failures, industrial accidents and workplace safety problems, unusual or unexpected geological formations, pressures, cave-ins, flooding, chemical spills, procurement fraud and gold bullion thefts and losses (and the risk of inadequate insurance, or the inability to obtain insurance, to cover these risks). Accordingly, readers should not place undue reliance on forward-looking information.*

*For additional information with respect to these and other factors and assumptions underlying the forward-looking information made in this news release, see the Company's most recent Annual Information Form and Management's Discussion and Analysis, as well as other public disclosure documents that can be accessed under the issuer profile of "Jaguar Mining Inc." on SEDAR at [www.sedar.com](http://www.sedar.com). The forward-looking information set forth herein reflects the Company's reasonable expectations as at the date of this news release and is subject to change after such date. The Company disclaims any intention or obligation to update or revise any forward-looking information, whether as a result of new information, future events or otherwise, other than as required by law. The forward-looking information contained in this news release is expressly qualified by this cautionary statement.*