



## NEWS RELEASE

October 10, 2018  
FOR IMMEDIATE RELEASE

TSX: JAG

### Jaguar Mining Reports Q3 2018 Operating Performance; Pilar Mine Continues to Deliver Record Results

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**Toronto, October 10, 2018 – Jaguar Mining Inc. ("Jaguar" or the "Company") (TSX: JAG)** today announced operating results for the third quarter ("Q3 2018") ended September 30, 2018. All figures are in US dollars, unless otherwise expressed. Detailed financial results for Q3 2018 will be reported and filed on or before November 15, 2018.

#### Q3 2018 Key Highlights

- Gold production of 20,320 ounces (175,566 tonnes milled), record production at Pilar Gold Mine ("Pilar")
- Consolidated average feed grade of 4.01 g/t, up 16% year-over-year
- Pilar record production of 11,068 ounces, up 13%; higher average grade of 4.40 g/t, up 14%, year-over-year
- Turmalina Gold Mine ("Turmalina") initiated an action plan to return to historical production levels
- Turmalina production of 9,251 ounces declined 4% year-over-year, up 18.2% over Q2 2018
- Average grade at Turmalina increased to 3.62 g/t, up 14% year-over-year
- Primary development increased 43% at Turmalina (780m) and 28% at Pilar (656m) improving mining flexibility
- Preliminary consolidated cash operating costs improved 22% to \$630 per ounce sold year-over-year and 12% from Q2 2018
- Pilar achieves record low cash costs \$560 per ounce sold, decreased 30%, driving higher margin per ounce and operating cash flow
- Preliminary cash balance of \$6.6 million at September 30, 2018, reflects approximately \$6 million in operating cash flow, \$7.2 million invested in growth activities and \$1.3 million paid in financing activities

Ben Guenther, Interim President and Chief Executive Officer commented, "We ended the third quarter with a marked improvement in production and average grade compared to the prior two quarters in 2018 while operating cash costs improved to below \$630 per ounce. This performance reflects a third consecutive quarter of increasing record production at Pilar and a solid improvement in production at Turmalina. Pilar continues to demonstrate its ability to deliver low cost, quality ounces and as a result, Pilar has transformed to a new lower cost producer. We are also pleased with the progress made at Turmalina during the quarter. Our new team is executing an action plan to increase mining flexibility and we expect to see production return to historical levels at Turmalina over the next 18 months. We look forward to continuing on our path to growth in the fourth quarter and beyond."

## 2018 Third Quarter Operating Results Summary

Quarterly Summary	Q3 2018				Q3 2017			
	Turmalina	Pilar	Roça Grande	Total	Turmalina	Pilar	Roça Grande	Total
Tonnes milled (t)	88,173	87,394	-	<b>175,566</b>	106,629	87,605	17,636	<b>211,870</b>
Average head grade (g/t)	3.62	4.40	-	<b>4.01</b>	3.10	3.77	2.89	<b>3.36</b>
Recovery %	90.1%	89.6%	-	<b>89.8%</b>	90.5%	90.4%	90.5%	<b>90.5%</b>
<b>Gold ounces</b>								
Produced (oz)	9,251	11,068	-	<b>20,320</b>	9,616	9,674	1,491	<b>20,781</b>
Sold (oz)	8,608	11,832	-	<b>20,441</b>	9,082	9,820	1,519	<b>20,422</b>
Cash Operating Costs	726	560	-	<b>630</b>	749	804	1,195	<b>809</b>
<b>Development</b>								
Primary (m)	780	656	-	<b>1,436</b>	443	471	18	<b>932</b>
Secondary (m)	558	169	-	<b>727</b>	337	518	67	<b>922</b>
Definition, infill, and exploration drilling (m)	8,203	3,513	-	<b>11,715</b>	8,355	3,237	-	<b>11,592</b>

1. Roça Grande mine was put under care & maintenance in the first quarter of 2018.
2. Cash Operating Cost is a non-IFRS reporting measure.

### Cash Position and Use of Funds

- Cash balance of approximately \$6.6 million as of September 30, 2018, compared to a cash balance of \$9.1 million at June 30, 2018
- Company generated approximately \$6 million in operating cash flow with approximately \$7.2 million spent in investing growth activities representing mainly in development expenditures. In addition \$1.3 million was paid in financing activities

### Third Quarter 2018 Operating Mine Update

#### Pilar

- Pilar continued to deliver strong performance as record production reflects improving average grade and strong plant recovery levels.
- Pilar's main ramp development is currently two levels below current mining. This gives the mine considerable flexibility in mine planning as well as additional time to complete infill drilling for grade determination.
- Operational Excellence continues to assist mining operators understand existing and potential bottlenecks, and how to address them. Operational Excellence initiatives have benefited Pilar as the mine is well developed and management can focus on operational improvements.

## Turmalina

- Turmalina mine management has initiated an action plan to focus on the following key priorities at Turmalina including:
  - Modifying the mining approach to minimize the number of unfilled open stopes. Converting from blind back stopes to sublevel stoping and ensure minimal exposure from unfilled stope walls
  - Utilization of top down drilling to ensure better quality control on drilling, reduce dilution, improve mining recovery, and allow backfilling with waste rock
  - Strict adherence to backfilling in the stoping cycle to reduce unfilled open stopes
  - Use of better blasting techniques to reduce vibration into the rock mass
  - Improving ore control drilling, planning and execution to improve confidence in the ore production plan
  - Improving development planning and execution to give a high confidence in the mine production schedule
- Mining will now progress from the bottom sublevel to the top sublevel of every ore panel which does require more initial development. This approach allows backfilling in the stope cycle and provides better control of over-break, less dilution, and improved mining recovery while also minimizing geotechnical issues created through the blind back-stope method
- A focus on ramp development and diamond drilling will create operational flexibility and more confidence in mine production delivering to plan
- During Q3 mine operations started paste-filling upper levels of the mine for the first time since the paste-fill plant was commissioned. Paste-fill will continue to be used to fill stopes left open in upper areas of the mine as paste-fill is expected to improve rock stability and extraction ratio. This will provide an opportunity for added ore from pillar recovery

## Third Quarter 2018 Exploration Highlights

- Turmalina growth exploration drilling targeting orebody C down dip extensions below Level 3 continued during the quarter with one rig in operation. As previously reported this drilling has confirmed the continuity of the gold bearing structure beyond Level 8, approximately 300 m below current operations. The current drilling phase is being conducted in parallel with detailed geological and structural mapping of orebody C exposed in ongoing underground production development and is expected to be completed during Q4 2018
- Trenching and channel sampling of gold in soil anomalies at the Zona Basal Target at Turmalina commenced in Q3 and the initial phase of this work is planned to be completed by early November prior to the onset of the wet season. Preliminary results from this work are expected to be reported in December 2018
- A comprehensive revision of historical exploration work over the Pedra Branca Project in Ceará was completed during Q3. The Pedra Branca database has been re-formatted to better reflect the historical soil, stream, rock-chip, drilling and trenching data and updated geological mapping. Options for progressing this project are being evaluated by the Jaguar team

## Qualified Persons

Scientific and technical information contained in this press release has been reviewed and approved by Jonathan Victor Hill, BSc (Hons) (Economic Geology - UCT), 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. The Roça Grande Mine has been on temporary 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.*

## Non-IFRS Measures

This news release provides certain financial measures that do not have a standardized meaning prescribed by IFRS. Readers are cautioned to review the below stated footnotes where the Company expanded on its use of non-IFRS measures.

1. *Cash operating costs and cash operating cost per ounce are non-IFRS measures. In the gold mining industry, cash operating costs and cash operating costs per ounce are common performance measures but do not have any standardized meaning. Cash operating costs are derived from amounts included in the Consolidated Statements of Comprehensive Income (Loss) and include mine-site operating costs such as mining, processing and administration, as well as royalty expenses, but exclude depreciation, depletion, share-based payment expenses, and reclamation costs. Cash operating costs per ounce are based on ounces produced and are calculated by dividing cash operating costs by commercial gold ounces produced; US\$ cash operating costs per ounce produced are derived from the cash operating costs per ounce produced translated using the average Brazilian Central Bank R\$/US\$ exchange rate. The Company discloses cash operating costs and cash operating costs per ounce, as it believes those measures provide valuable assistance to investors and analysts in evaluating the Company's operational performance and ability to generate cash flow. The most directly comparable measure prepared in accordance with IFRS is total production costs. A reconciliation of cash operating costs per ounce to total production costs for the most recent reporting period, the quarter ended June 30, 2018, is set out in the Company's second quarter 2018 Management Discussion and Analysis (MD&A) filed on SEDAR at [www.sedar.com](http://www.sedar.com).*
2. *All-in sustaining cost is a non-IFRS measure. This measure is intended to assist readers in evaluating the total costs of producing gold from current operations. While there is no standardized meaning across the industry for this measure, except for non-cash items the Company's definition conforms to the all-in sustaining cost definition as set out by the World Gold Council in its guidance note dated June 27, 2013. The Company defines all-in sustaining cost as the sum of production costs, sustaining capital (capital required to maintain current operations at existing levels), corporate general and administrative expenses, and in-mine exploration expenses. All-in sustaining cost excludes growth capital, reclamation cost accretion related to current operations, interest and other financing costs, and taxes. A reconciliation of all-in sustaining cost to total production costs for the most recent reporting period, the quarter ended June 30, 2018, is set out in the Company's second quarter 2018 MD&A filed on SEDAR at [www.sedar.com](http://www.sedar.com).*